



Full wwPDB EM Validation Report ⓘ

Feb 13, 2024 – 04:44 AM EST

PDB ID : 3J6Y
EMDB ID : EMD-5943
Title : S. cerevisiae 80S ribosome bound with Taura syndrome virus (TSV) IRES, 2 degree rotation (Class I)
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 : 3U5D, 3U5E, 3U5B, 3U5C

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:

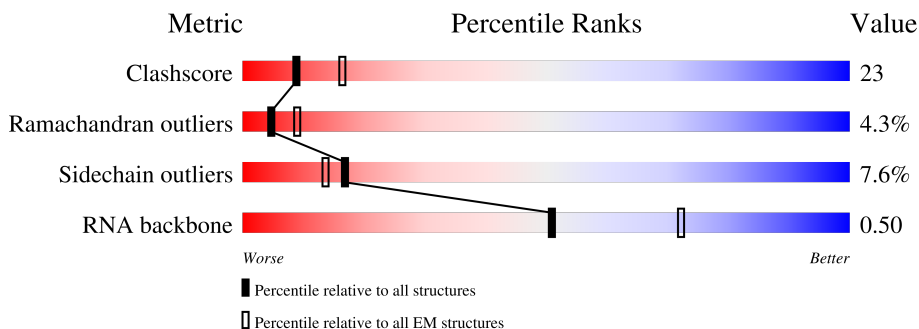
EMDB validation analysis : 0.0.1.dev70
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

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)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826
RNA backbone	4643	859

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	
2	8S	158	
3	5S	121	
4	L1	217	
5	L2	254	
6	L3	387	
7	L4	362	




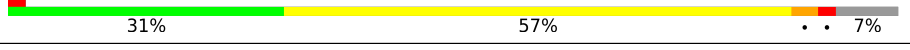
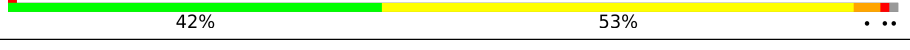


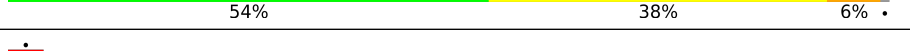
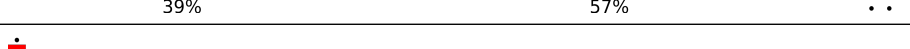
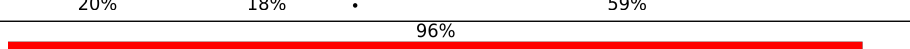

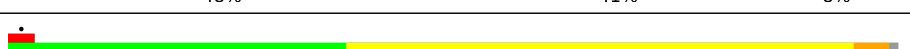
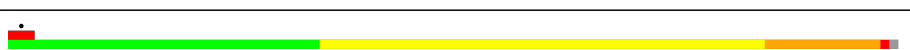
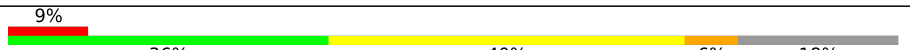
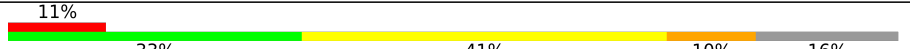
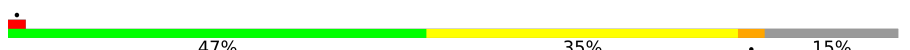




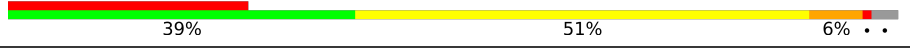

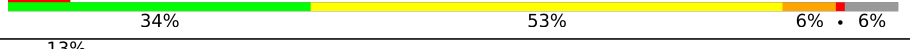


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Mol	Chain	Length	Quality of chain
8	L5	297	9% 54% 40% 6%
9	L6	176	45% 38% 5% 11%
10	L7	244	38% 46% 7% 9%
11	L8	256	46% 39% 5% 9%
12	L9	191	48% 46% 6%
13	50	221	45% 46% 5% 5%
14	51	174	49% 44% ...
15	53	199	7% 46% 43% 7% ...
16	54	138	55% 40% ...
17	55	204	43% 50% 6%
18	56	199	42% 50% 7% ..
19	57	184	7% 47% 48% ...
20	58	186	51% 44% 5% ..
21	59	189	8% 43% 53% ...
22	60	172	47% 48% 5% ..
23	61	160	46% 44% 9% ..
24	62	121	42% 38% 17%
25	63	137	40% 55% ...
26	64	155	20% 18% 61%
27	65	142	42% 38% 6% 15%
28	66	127	56% 41% ..
29	67	136	51% 46% ...
30	68	149	39% 53% 7% ..
31	69	59	5% 42% 47% 8% ..
32	70	105	5% 34% 54% 8%

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Mol	Chain	Length	Quality of chain
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	
54	S7	190	
55	S8	200	
56	S9	197	
57	10	105	

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Mol	Chain	Length	Quality of chain
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	
79	RA	319	
80	IR	201	

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
			Total	C	N	O	P		
1	2S	3308	70742	31596	12731	23107	3308	0	0

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- 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	0
			1446	930	267	245	4		

- 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	0
			1277	805	246	222	4		

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

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

- 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	0
			1004	628	189	180	7		

- 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	0
			509	328	100	80	1		

- 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	0
			969	623	170	174	2		

- 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
			Total	C	N	O	S		
35	73	106	851	540	165	145	1	0	0

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

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

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

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

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

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

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

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

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

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

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

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

- 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
			Total	C	N	O	S		
56	S9	185	1494	943	289	261	1	0	0

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

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

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

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

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

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

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

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

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

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

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

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

- 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
			Total	C	N	O	S		
70	23	144	1122	708	220	192	2	0	0

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

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

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

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

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

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

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

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

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

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

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

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

- 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.

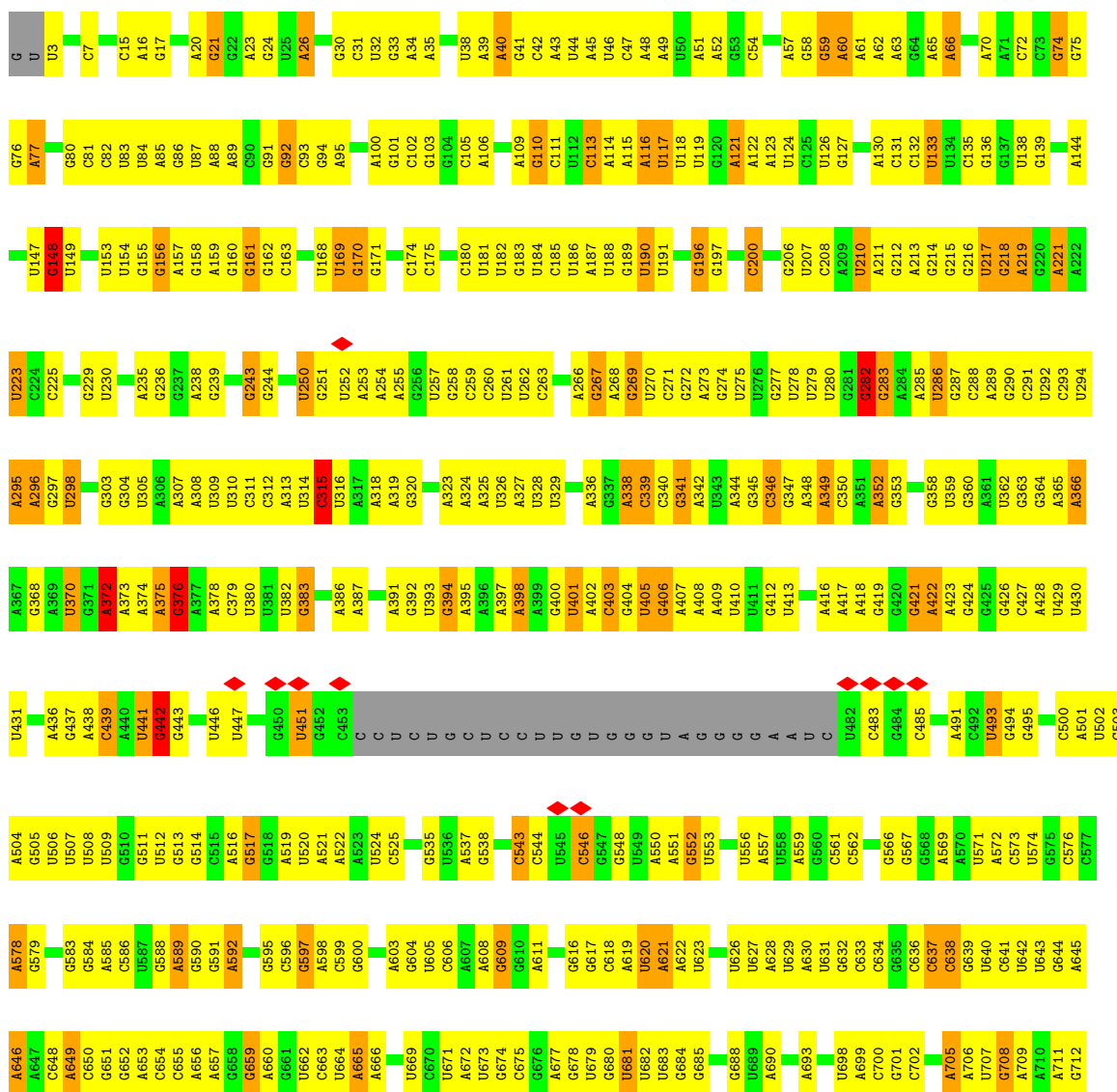
Mol	Chain	Residues	Atoms		AltConf	Trace
80	IR	198	Total	P	0	198
			198	198		

3 Residue-property plots

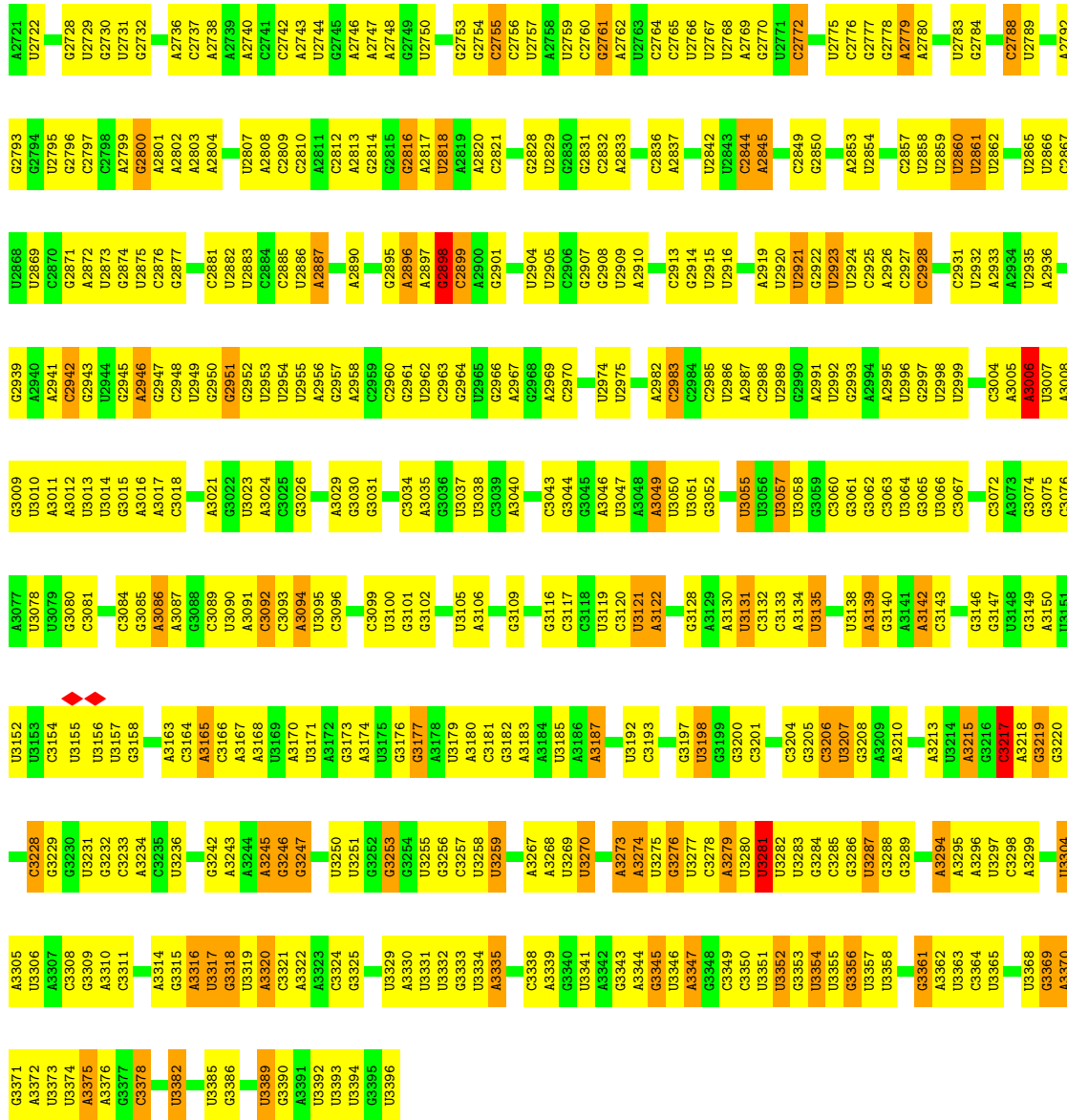
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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

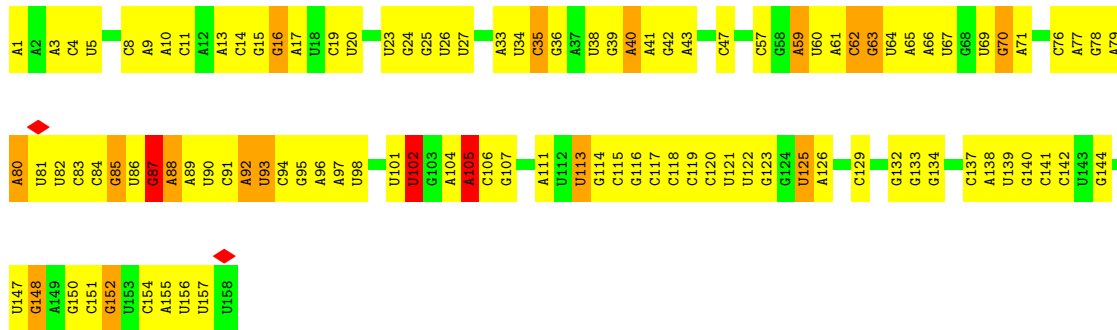
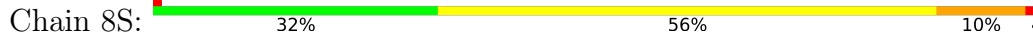
Chain 2S: 



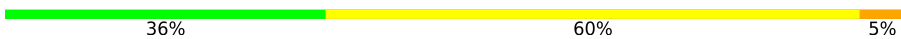
A1637	G1665	G1492	A1416	A1350	U1288	C1204	A1057	U985	U922	U850	G785	U713
A1641	A1566	G1493	G1417	U1351	G1289	A1205	A1064	U986	C923	C851	A786	G714
A1642	U1567	U1494	A1418	A1352	A1290	A1206	A1065	U987	G924	G852	G787	A715
A1643	U1568	U1495	A1419	U1353	A1291	G1207	A1066	U988	A925	U853	G788	G718
A1644	U1569	G1496	G1420	G1354	C1292	U1210	U1070	U989	A926	G854	A789	U719
A1645	U1570	G1497	G1421	A1355	U1293	U1211	U1071	G991	C927	U855	U790	A720
A1646	A1498	A1498	G1422	A1356	A1294	U1212	U1072	A992	G928	G856	A791	A720
A1647	G1500	G1500	G1423	G1357	G1295	A1213	G1073	A993	A929	G857	G792	G722
A1648	U1501	U1501	U1427	C1358	C1296	G1140	U1074	G994	U930	A888	G793	G722
A1649	A1504	A1504	U1430	C1359	C1297	U1214	U1075	G995	U931	G859	G794	U724
A1650	C1505	C1505	U1431	C1360	C1298	U1215	A1075	U995	G932	G860	G795	U724
A1651	A1506	U1512	U1432	U1361	U1299	C1216	U1079	A996	U932	C861	U796	G725
A1652	A1507	G1513	C1432	A1301	G1300	A1217	A1079	A997	U935	U862	G726	G727
A1653	G1508	G1514	A1433	A1302	U1220	U1220	A1081	C1000	A936	C873	G727	G728
A1654	C1509	G1515	G1434	A1303	A1221	U1221	U1082	G1001	G937	C874	G728	G729
A1655	A1509	U1516	A1435	A1304	G1222	G1222	G1083	A1002	C938	C875	C802	C730
A1656	G1510	U1517	C1437	U1305	A1223	U1151	A1084	A1003	U939	G876	C803	C730
A1657	U1511	U1438	U1438	A1306	C1224	G1152	A1085	A1004	G940	U879	C804	C730
A1658	U1512	U1439	U1439	G1307	A1225	A1153	G1086	U1008	U942	C880	G805	A736
A1659	G1513	U1440	U1440	G1308	G1226	A1154	C1087	U1008	U943	C881	A806	G737
A1660	U1517	G1441	U1442	U1309	C1227	U1158	U1088	U1009	U944	C882	A807	A738
A1661	G1520	U1442	G1443	G1310	U1234	A1159	A1083	A1011	U946	A883	G809	G743
A1662	G1521	U1443	G1444	C1312	U1235	U1167	U1094	A1012	G947	A884	A810	C743
A1663	U1522	U1444	G1445	G1313	G1236	U1168	U1095	A1013	U948	U885	U811	A744
A1664	U1523	A1446	U1446	C1314	G1237	U1169	U1096	A1014	C948	C886	U812	C745
A1665	U1524	G1447	U1447	U1315	G1238	A1169	U1097	U1015	C949	G887	G813	C745
A1666	U1525	G1448	U1448	C1316	C1239	G1170	G1097	C1016	G950	U888	G814	A746
A1667	U1526	U1449	U1449	A1317	C1240	A1171	A1098	C1017	G953	U889	G815	U748
A1668	C1527	U1452	U1452	A1318	U1241	G1172	A1099	G1018	U954	G891	A817	C749
A1669	C1532	A1456	U1457	G1321	G1242	U1173	A1100	G1019	U955	U892	C818	C753
A1670	U1533	U1457	U1457	U1322	G1243	G1174	G1101	U1019	U956	C893	C818	C753
A1671	A1534	U1458	U1458	G1323	C1244	C1175	A1102	G1029	G957	C894	U819	G754
A1672	G1536	C1459	C1459	U1324	A1245	G1176	A1103	C958	C958	A895	A820	A755
A1673	A1537	A1460	A1460	U1325	G1246	G1177	G1104	C959	U960	A896	A821	U759
A1674	G1538	A1461	A1461	U1326	G1246	G1178	A1105	C960	U961	U897	C823	C758
A1675	U1545	A1465	A1465	A1326	U1250	U1179	A1106	C961	C961	U898	C824	G760
A1676	G1546	U1477	U1477	C1327	G1251	A1180	C1107	A962	A962	U899	U825	G763
A1677	C1548	A1478	A1478	U1328	A1251	U1181	U1108	G963	G963	U900	G826	G764
A1678	U1549	U1479	U1479	A1329	A1252	A1182	U1109	G964	G964	G901	A827	U765
A1679	A1545	G1466	G1466	U1330	C1254	C1183	U1110	A965	A965	U902	A828	C765
A1680	G1547	A1475	A1475	U1331	C1257	G1186	U1111	U966	U966	U903	U829	U766
A1681	C1548	G1476	G1476	U1332	U1258	C1187	A1112	A967	A967	U904	U767	U767
A1682	U1549	A1477	A1477	C1333	A1259	C1187	A1036	G1034	G970	U905	G831	C768
A1683	G1550	U1478	U1478	U1334	A1259	C1187	A1036	G1035	A971	A906	G69	G769
A1684	C1550	U1479	U1479	C1335	A1260	A1190	U1039	G1027	G971	G907	G770	G770
A1685	U1553	U1480	U1480	U1336	G1261	U1191	U1039	U1028	A972	G908	A836	A771
A1686	G1554	A1481	A1481	A1337	G1262	U1192	G1116	G1029	A973	G908	A837	U772
A1687	U1555	U1482	U1482	U1338	G1263	U1193	G1117	A968	G974	C911	G838	G773
A1688	C1556	G1483	G1483	C1339	A1264	A1193	C1118	U969	C975	G912	C839	U776
A1689	U1557	U1484	U1484	U1340	G1265	G1194	U1119	A970	U976	G913	G840	C777
A1690	G1558	G1485	G1485	G1341	U1265	U1195	A1120	A971	C977	A914	C841	U777
A1691	U1559	G1486	G1486	U1342	U1269	A1196	U1048	A972	G978	A915	G842	U778
A1692	G1560	U1487	U1487	C1342	U1269	C1197	C1049	A973	U979	A916	G843	G779
A1693	U1561	G1488	G1488	U1409	C1272	C1199	U1122	A980	U980	U917	G844	A780
A1694	C1562	U1489	U1489	G1412	U1281	A1200	G1126	U881	U881	C918	G845	G781
A1695	U1564	G1413	G1413	U1347	G1281	A1201	G1127	C982	C982	U919	U848	U782
A1696	G1564	U1414	U1414	U1348	U1286	A1202	A1054	A983	A983	A920	A783	A784
A1697	U1564	U1415	U1415	G1349	A1287	A1203	G1131	U1056	G984	A921	C849	A784

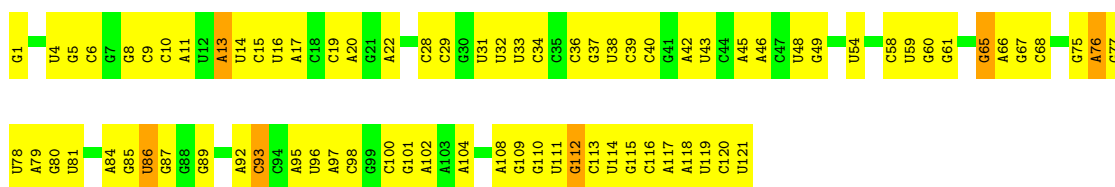


• Molecule 2: 5.8S ribosomal RNA




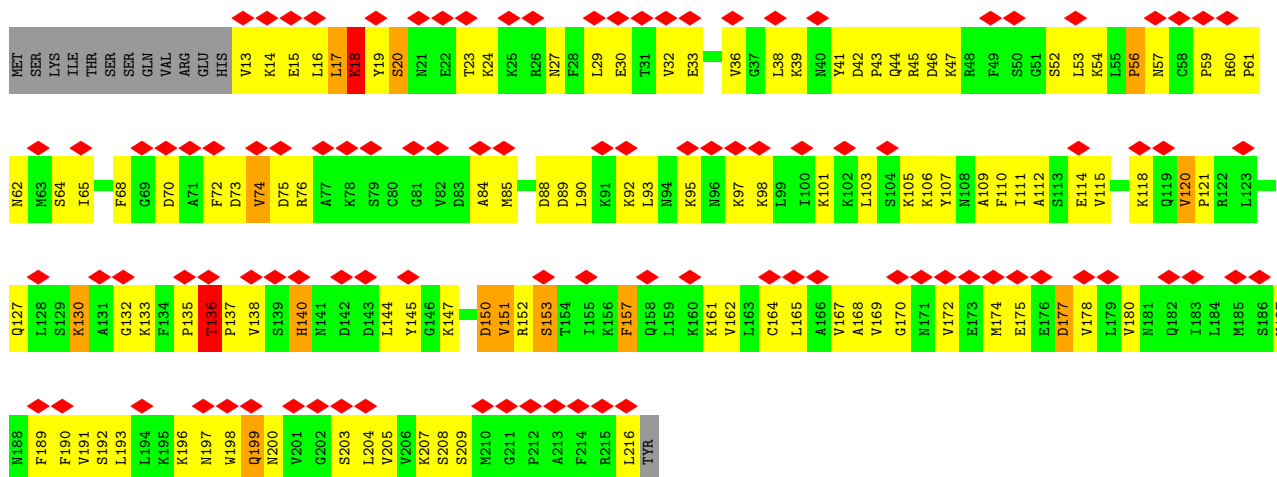
• Molecule 3: 5S ribosomal RNA

Chain 5S: 



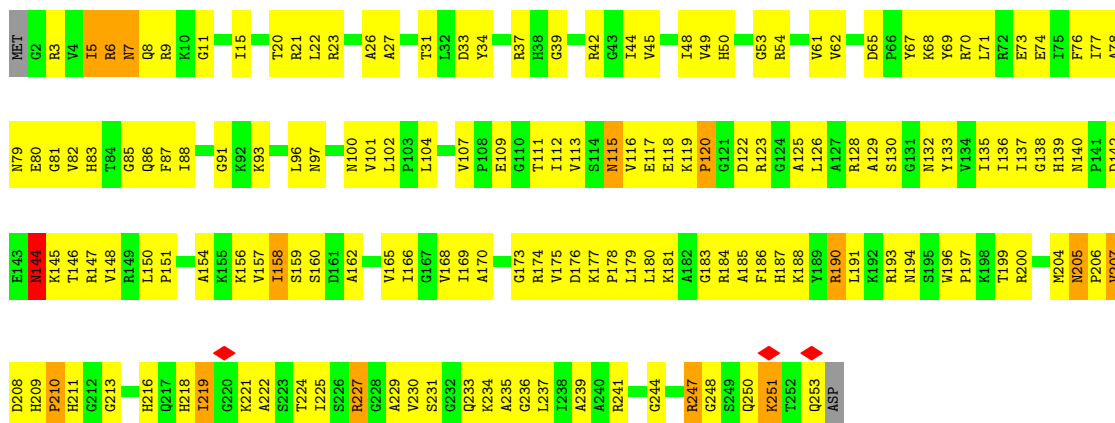
• Molecule 4: 60S ribosomal protein L1

Chain L1: 



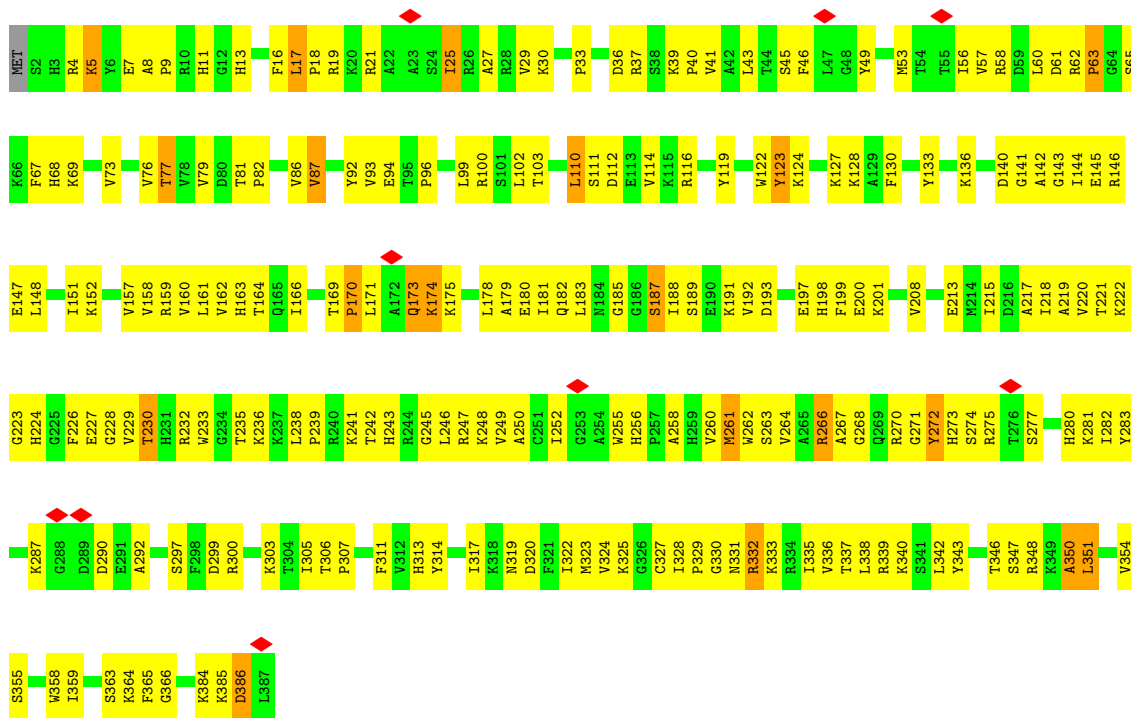
• Molecule 5: 60S ribosomal protein L2

Chain L2: 

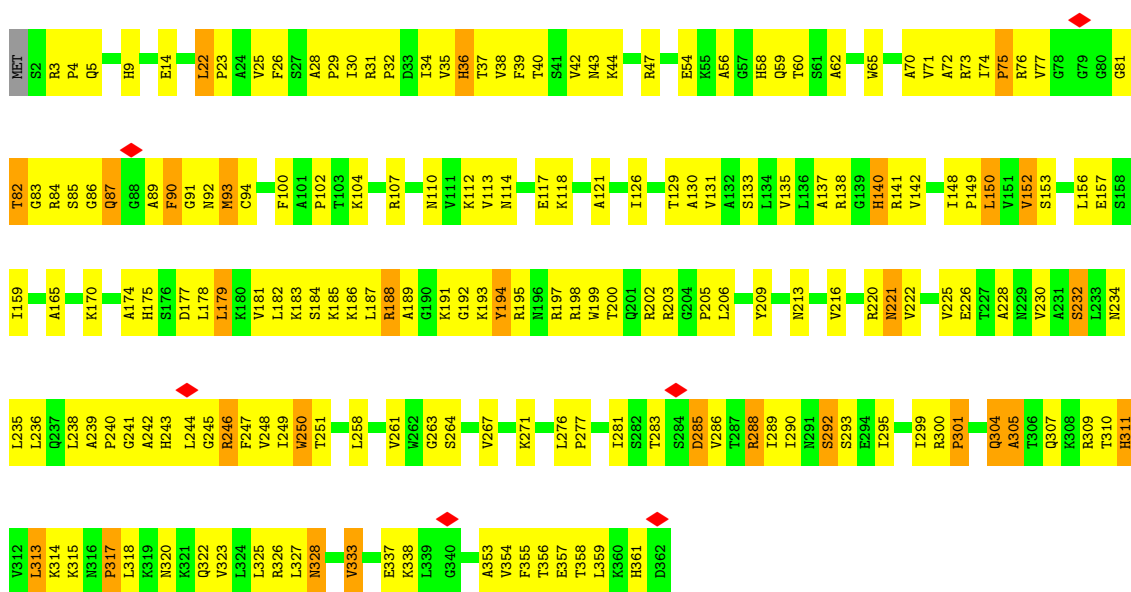


• Molecule 6: 60S ribosomal protein L3

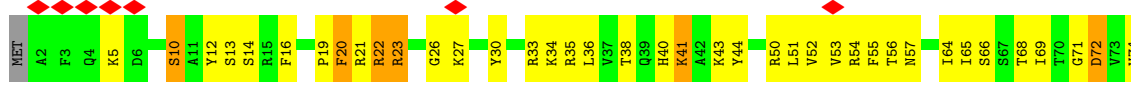
Chain L3: 

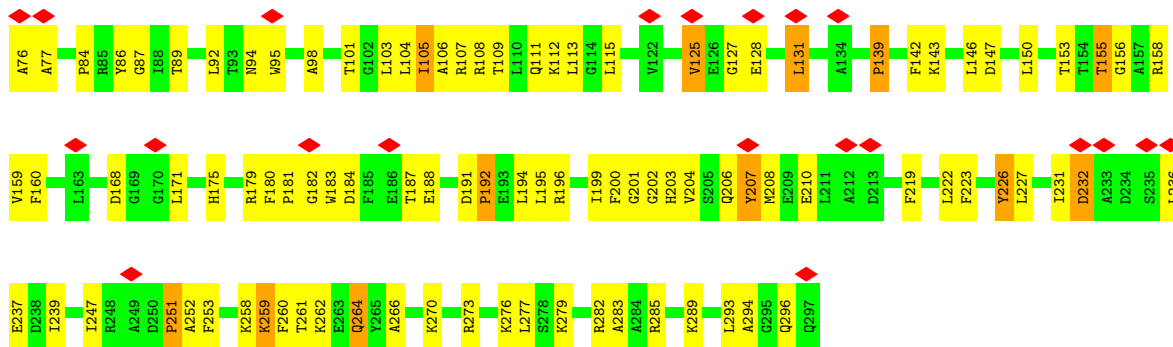


• Molecule 7: 60S ribosomal protein L4

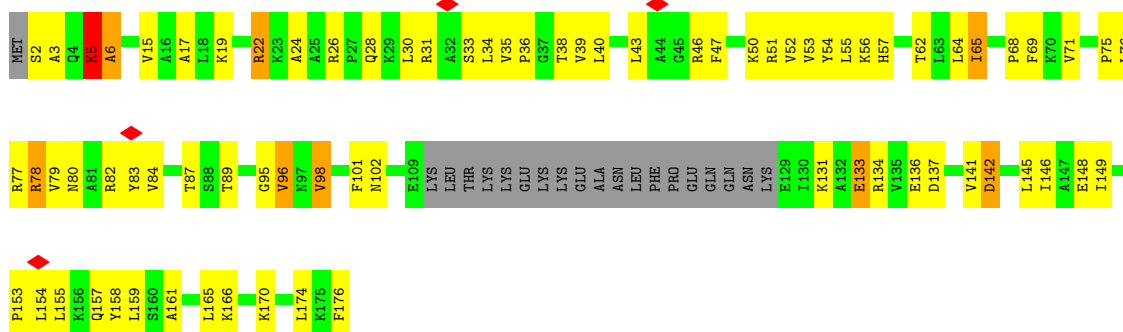


• Molecule 8: 60S ribosomal protein L5

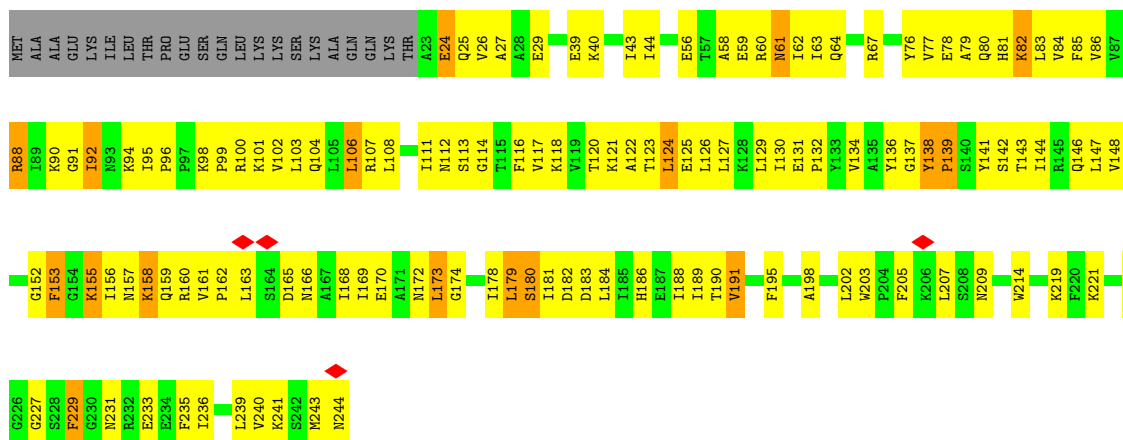




• Molecule 9: 60S ribosomal protein L6

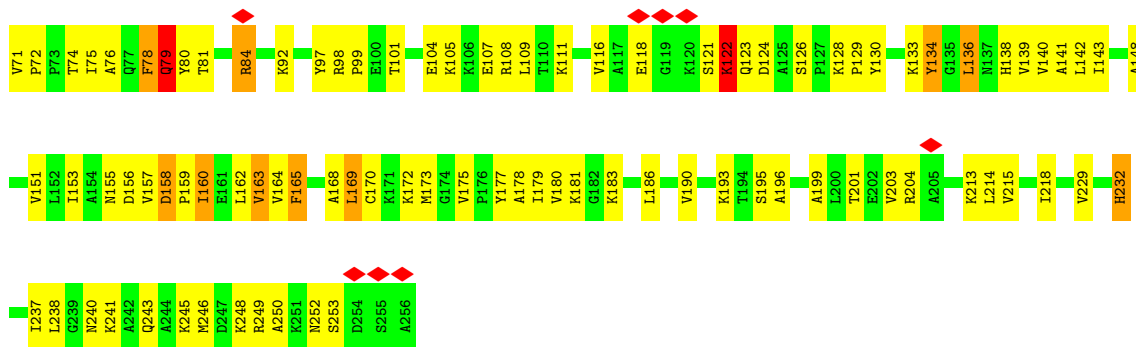


• Molecule 10: 60S ribosomal protein L7

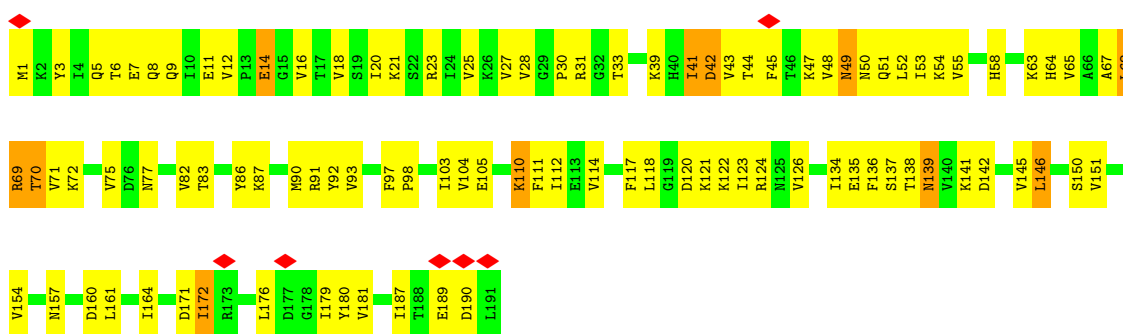


• Molecule 11: 60S ribosomal protein L8

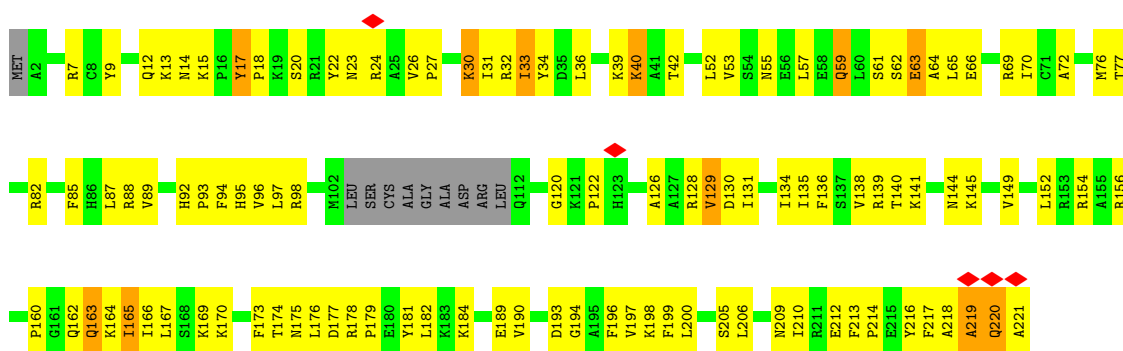




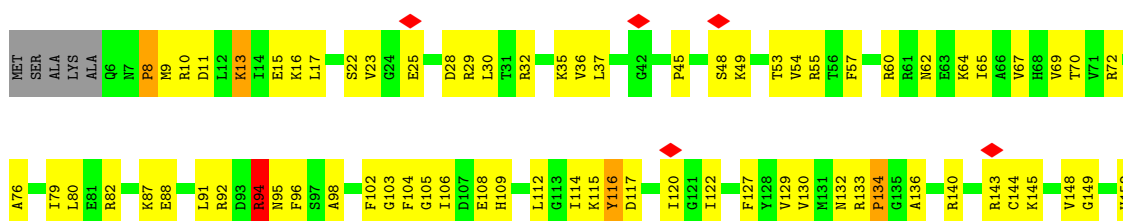
• Molecule 12: 60S ribosomal protein L9



• Molecule 13: 60S ribosomal protein L10

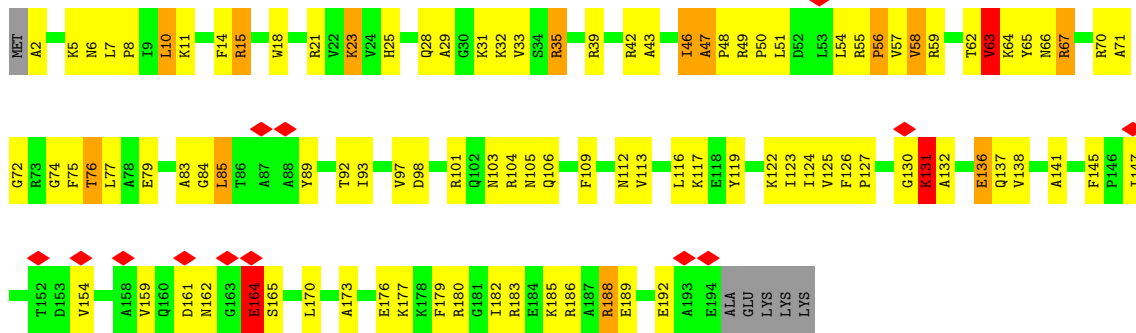


• Molecule 14: 60S ribosomal protein L11

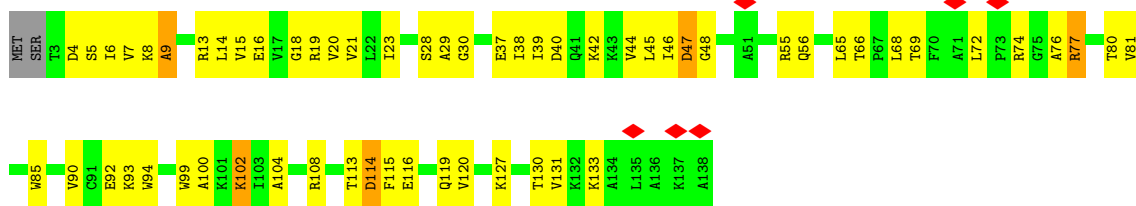




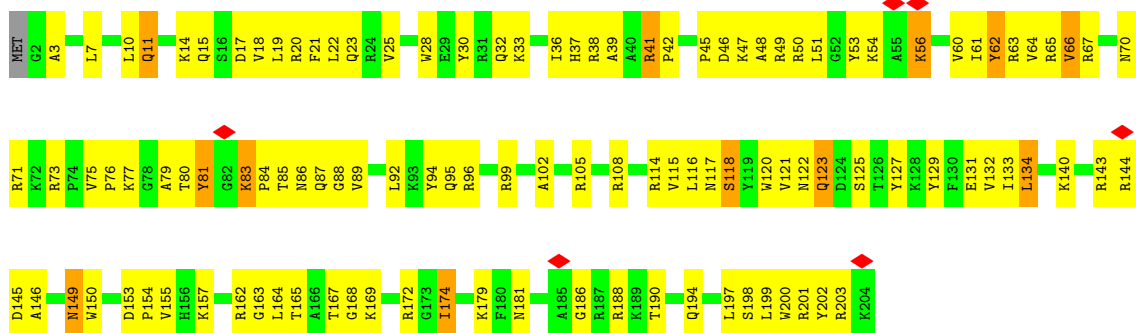
• Molecule 15: 60S ribosomal protein L13



• Molecule 16: 60S ribosomal protein L14

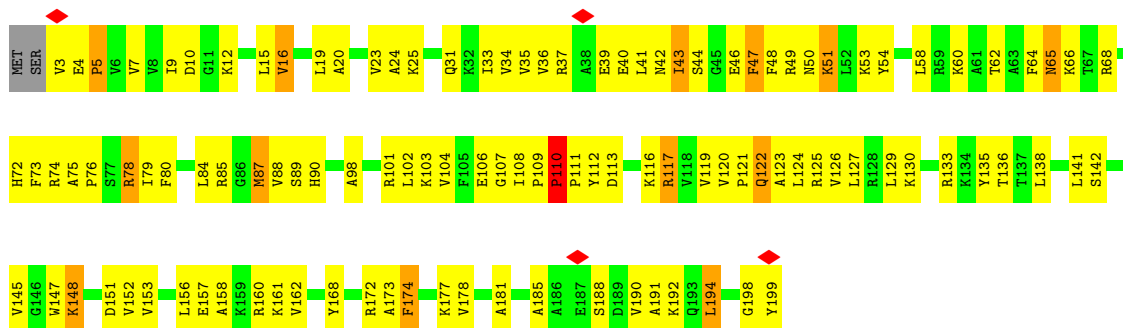


• Molecule 17: 60S ribosomal protein L15

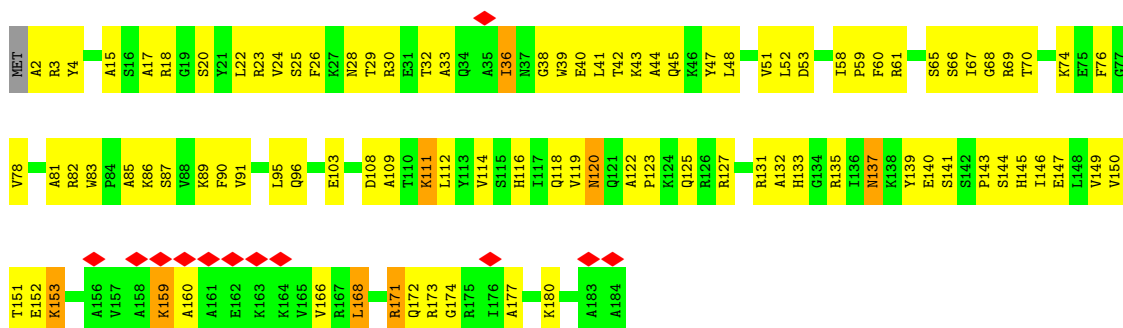


• Molecule 18: 60S ribosomal protein L16





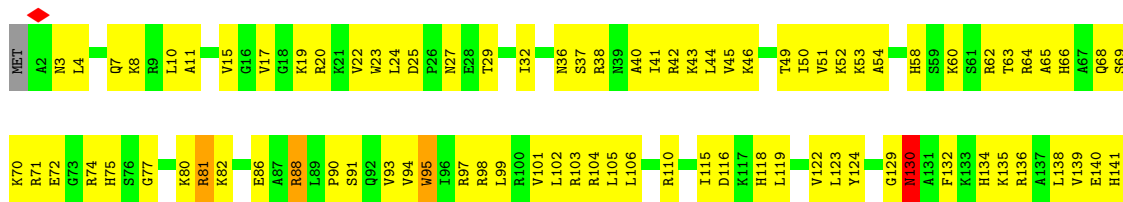
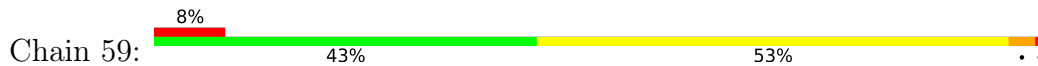
• Molecule 19: 60S ribosomal protein L17

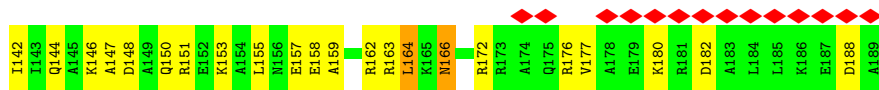


• Molecule 20: 60S ribosomal protein L18

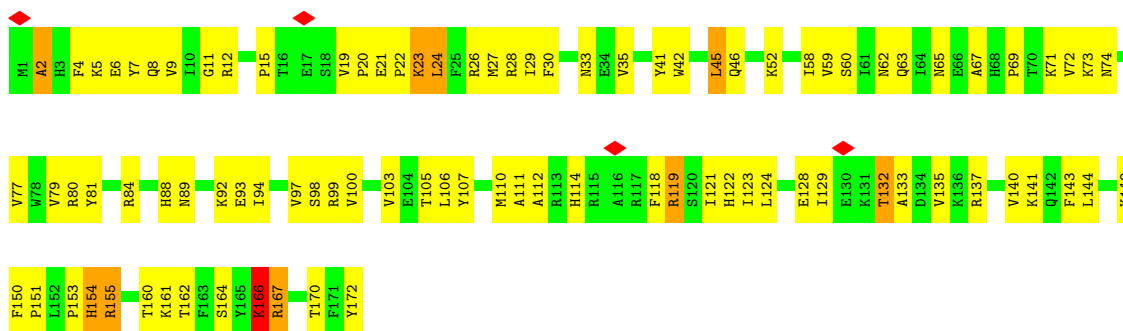


• Molecule 21: 60S ribosomal protein L19

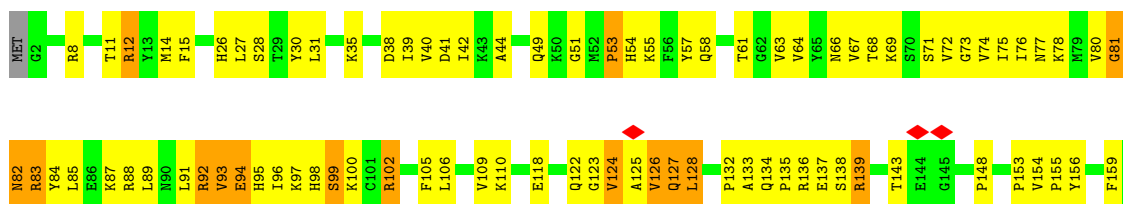




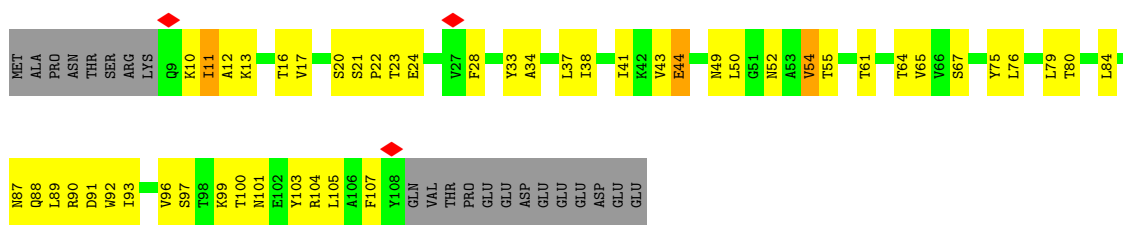
• Molecule 22: 60S ribosomal protein L20



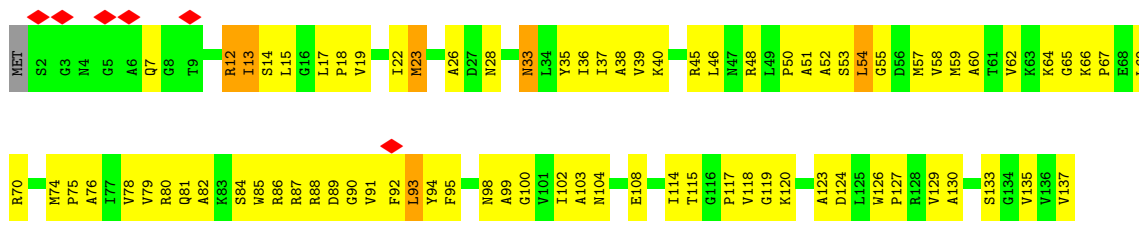
• Molecule 23: 60S ribosomal protein L21

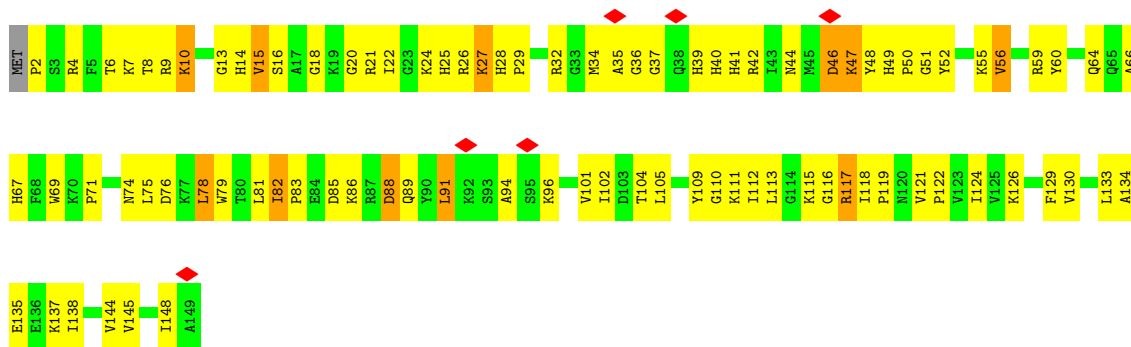


• Molecule 24: 60S ribosomal protein L22

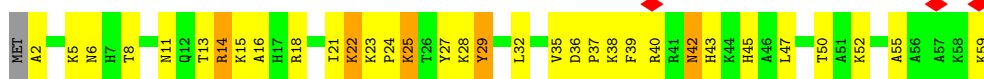
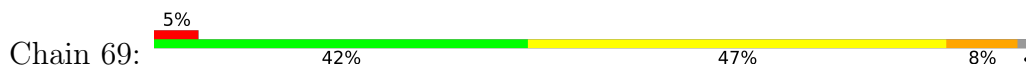


• Molecule 25: 60S ribosomal protein L23

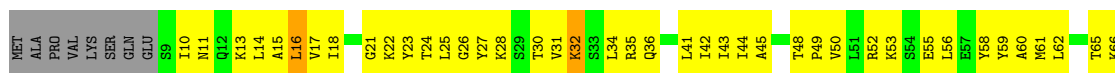




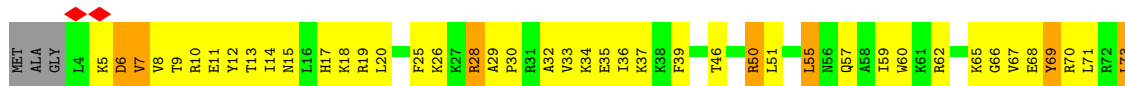
• Molecule 31: 60S ribosomal protein L29



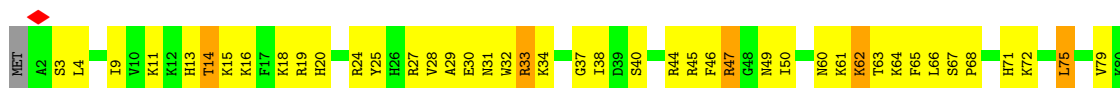
• Molecule 32: 60S ribosomal protein L30

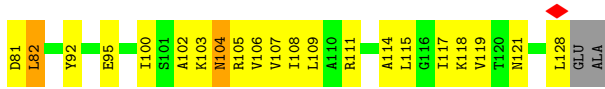


• Molecule 33: 60S ribosomal protein L31

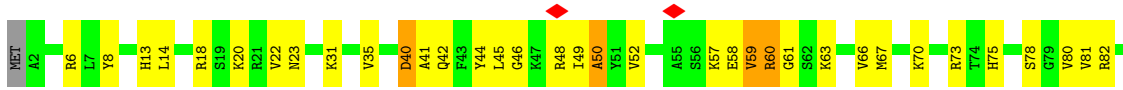


• Molecule 34: 60S ribosomal protein L32





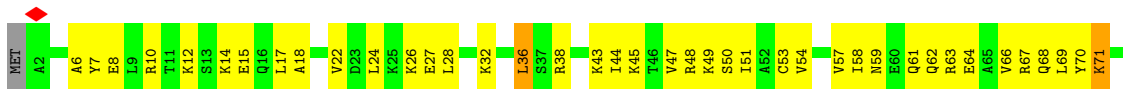
• Molecule 35: 60S ribosomal protein L33



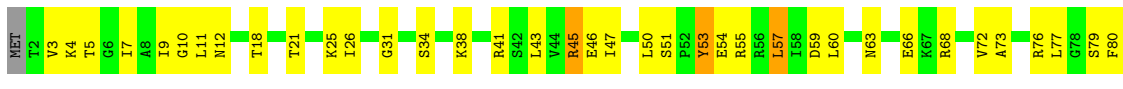
• Molecule 36: 60S ribosomal protein L34



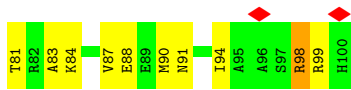
• Molecule 37: 60S ribosomal protein L35

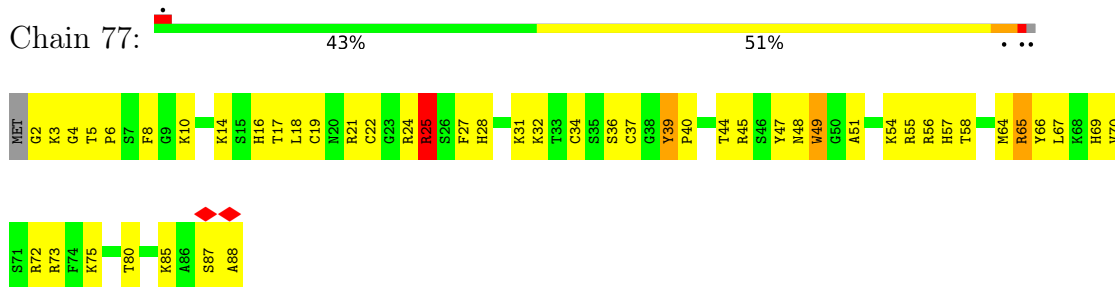


• Molecule 38: 60S ribosomal protein L36

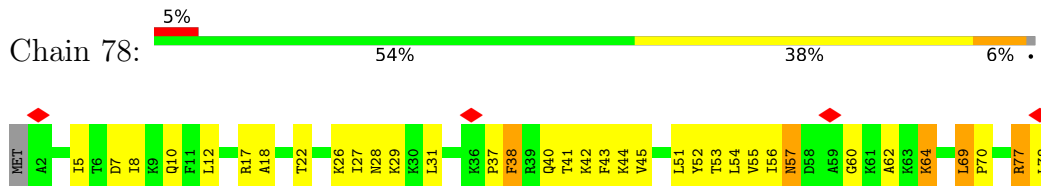


• Molecule 39: 60S ribosomal protein L37

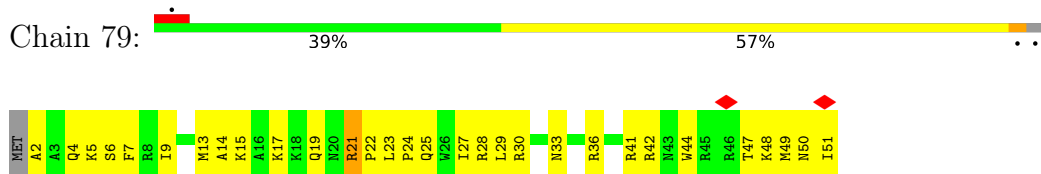




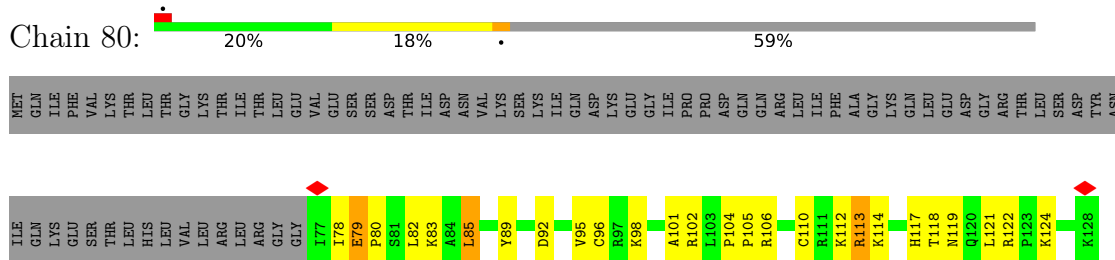
• Molecule 40: 60S ribosomal protein L38



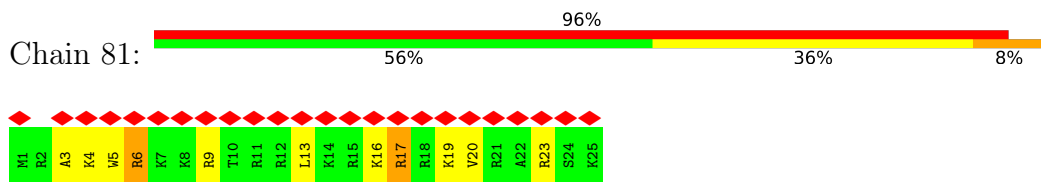
• Molecule 41: 60S ribosomal protein L39



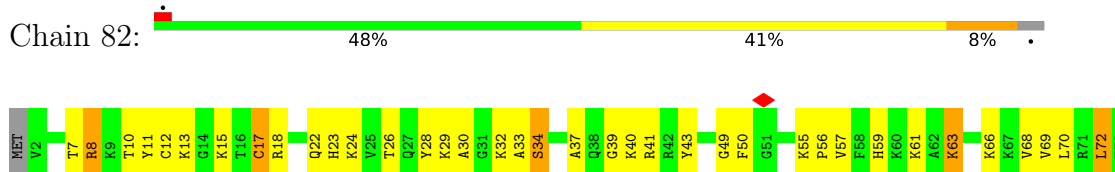
• Molecule 42: 60S ribosomal protein L40

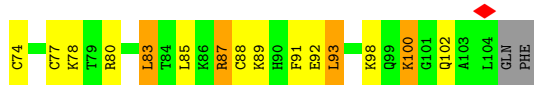


• Molecule 43: 60S ribosomal protein L41

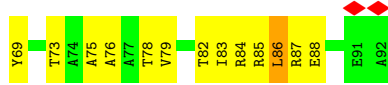


• Molecule 44: 60S ribosomal protein L42

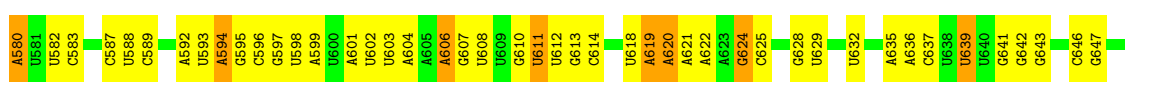
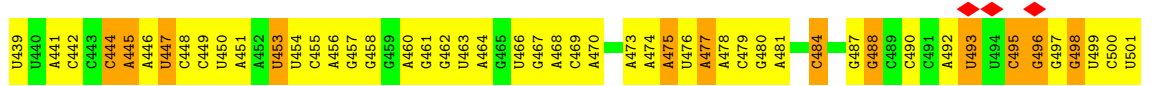
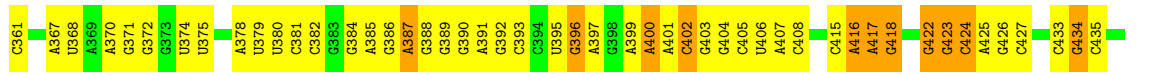
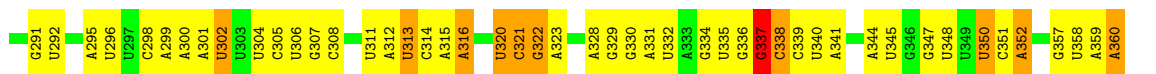
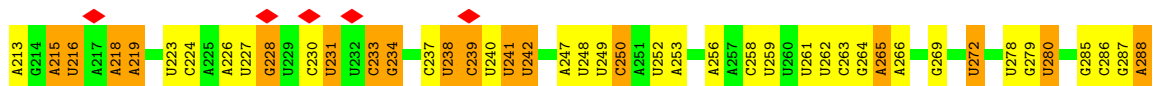
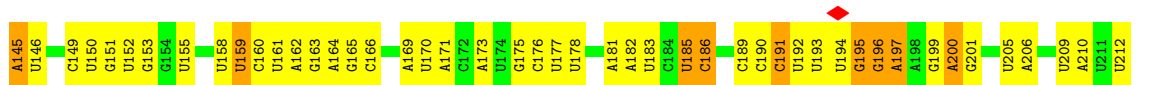
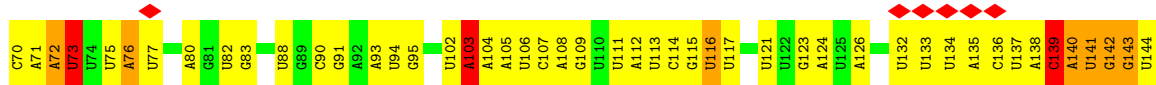
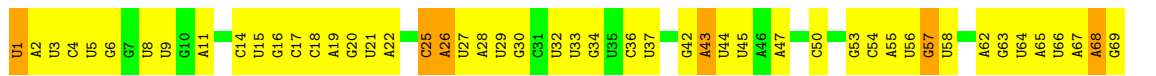


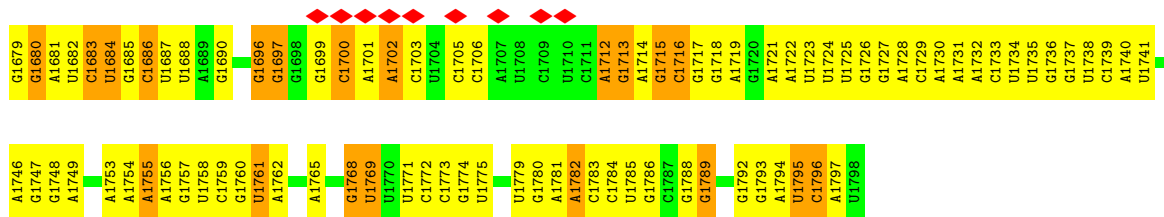


• Molecule 45: 60S ribosomal protein L43

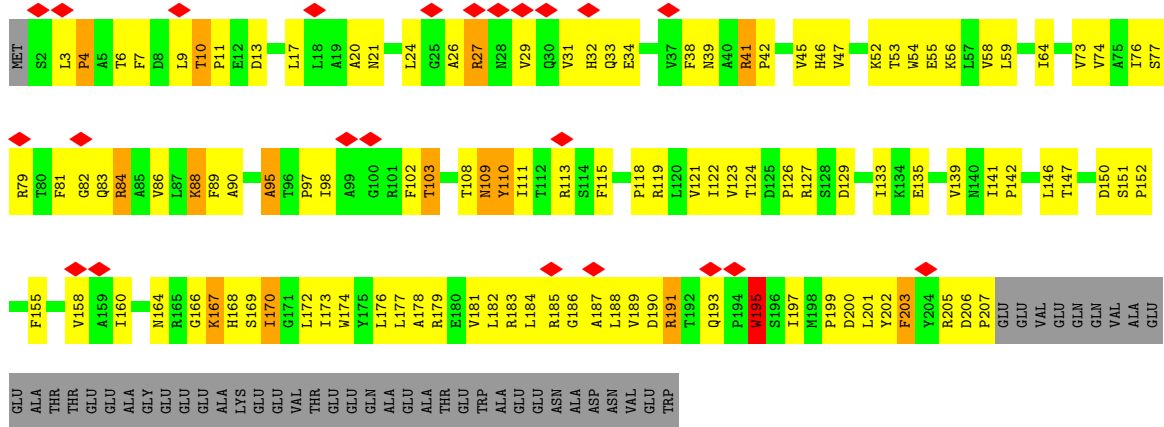


• Molecule 46: 18S ribosomal RNA

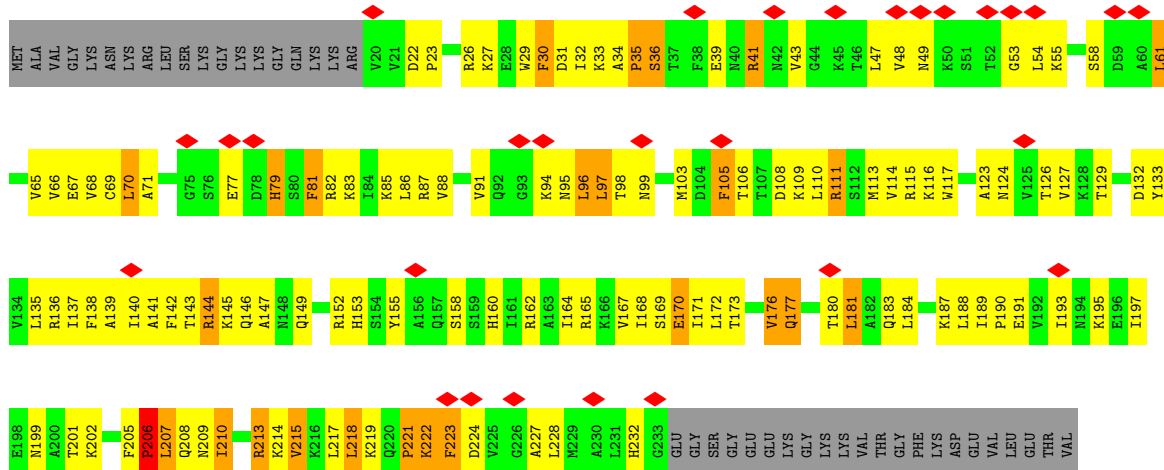




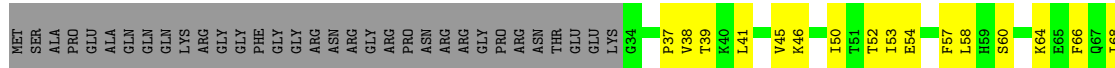
• Molecule 47: 40S ribosomal protein S0

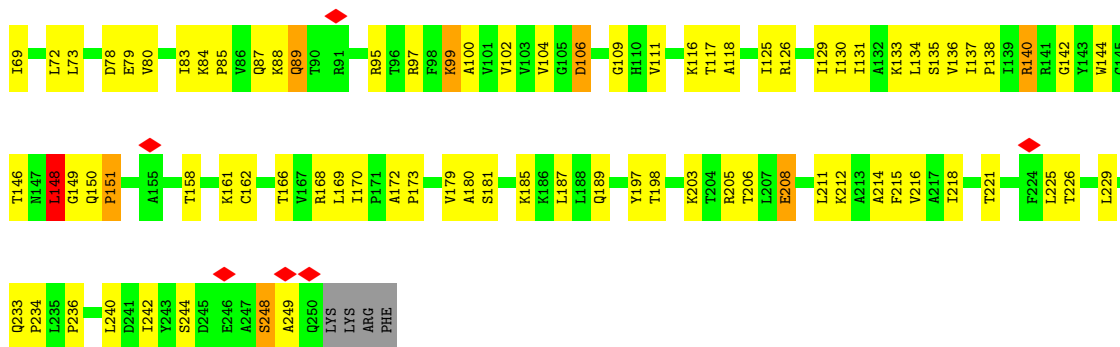


• Molecule 48: 40S ribosomal protein S1

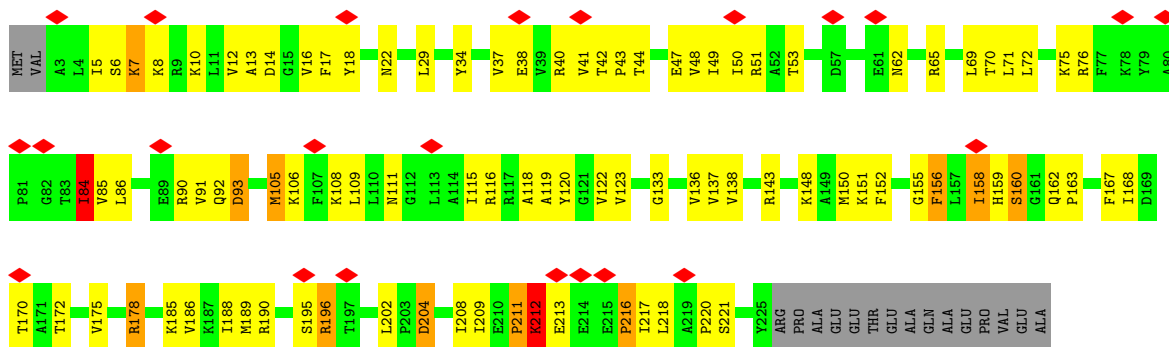


• Molecule 49: 40S ribosomal protein S2

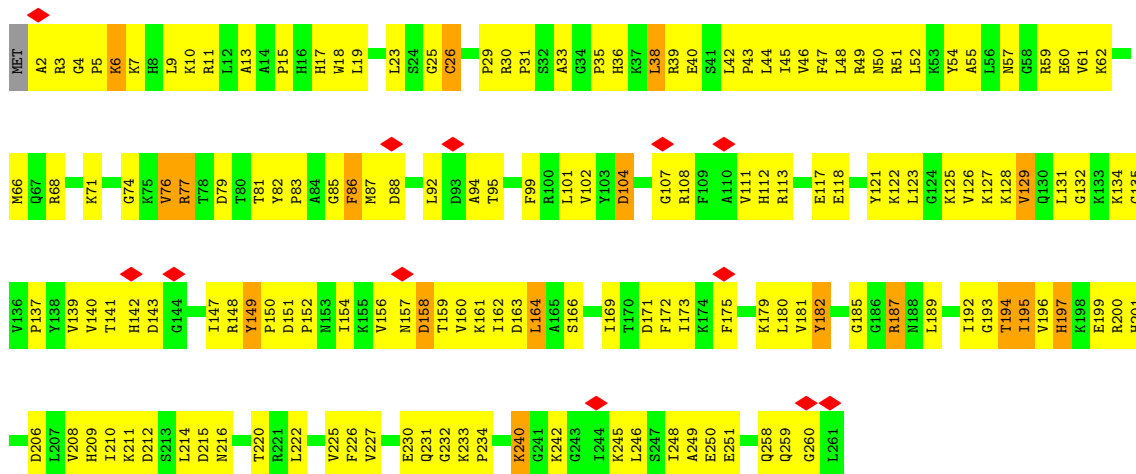




• Molecule 50: 40S ribosomal protein S3

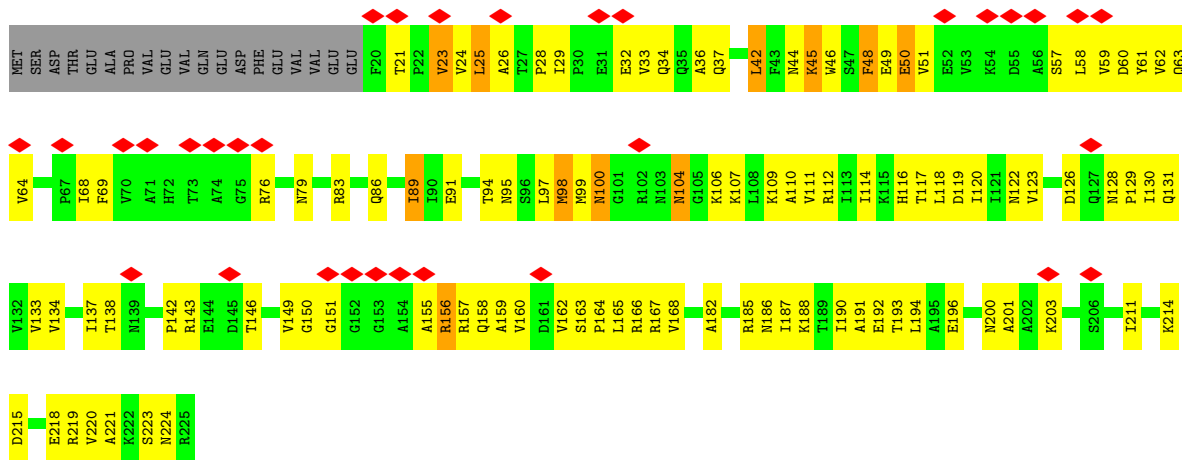


• Molecule 51: 40S ribosomal protein S4

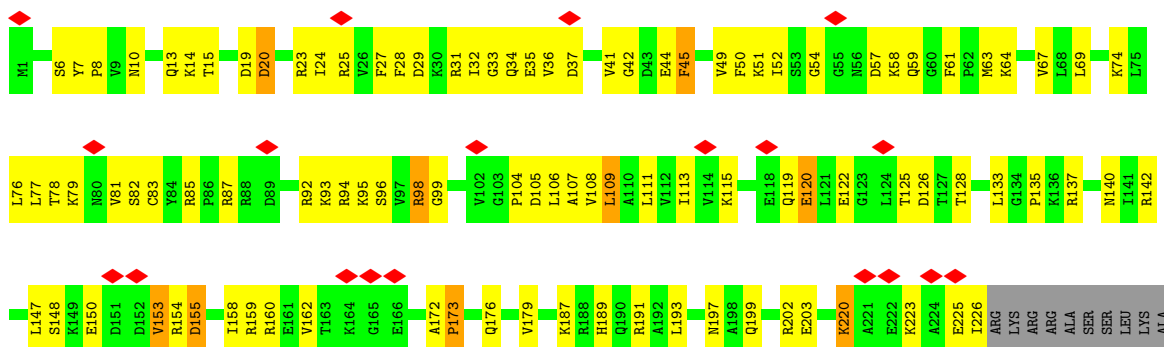


• Molecule 52: 40S ribosomal protein S5

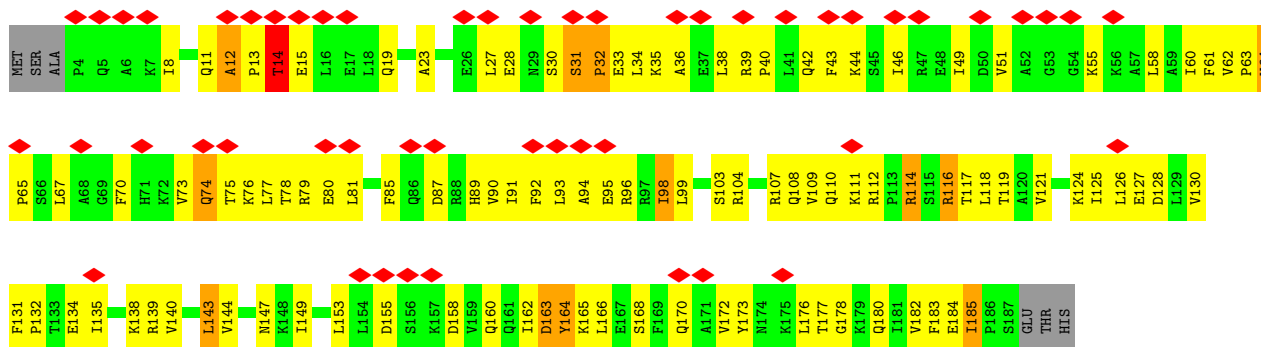




• Molecule 53: 40S ribosomal protein S6

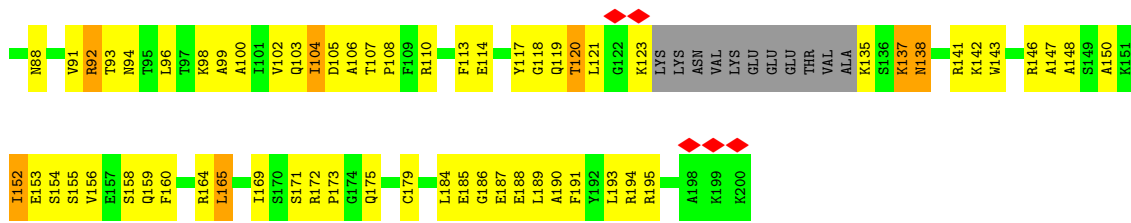


• Molecule 54: 40S ribosomal protein S7

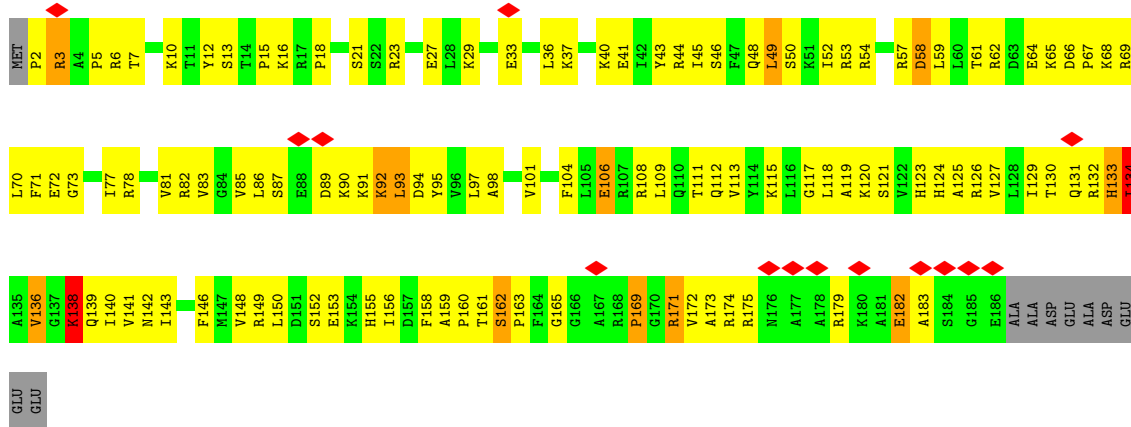


• Molecule 55: 40S ribosomal protein S8

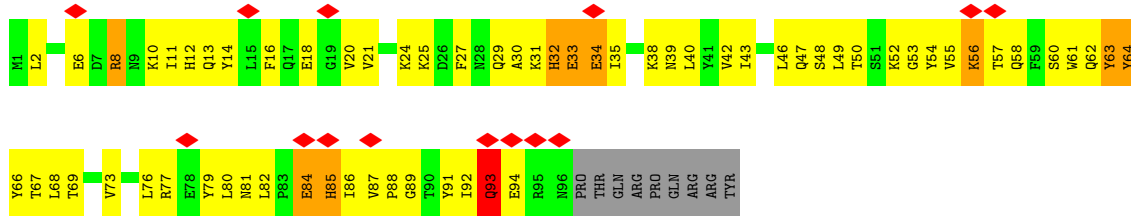




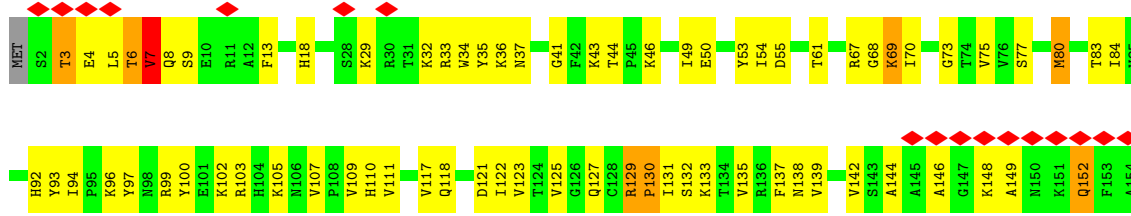
• Molecule 56: 40S ribosomal protein S9



• Molecule 57: 40S ribosomal protein S10



• Molecule 58: 40S ribosomal protein S11

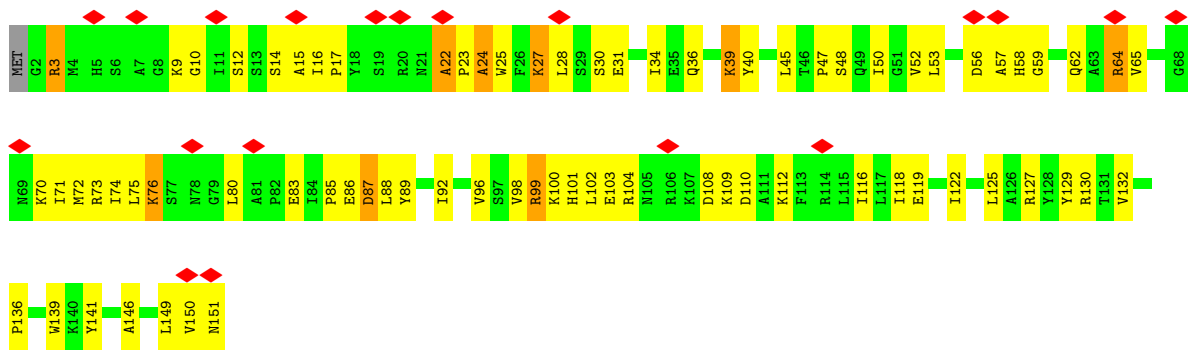


• Molecule 59: 40S ribosomal protein S12

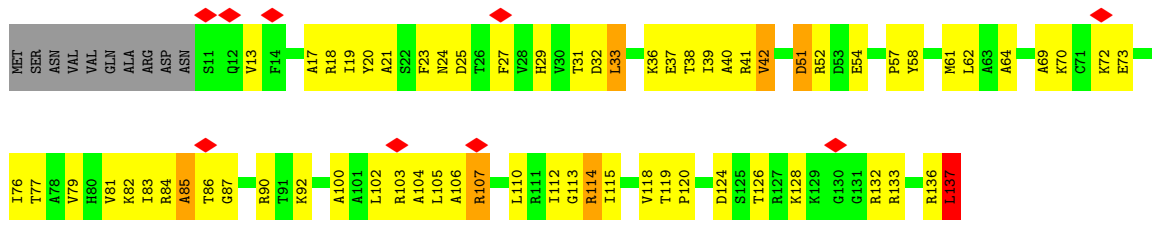
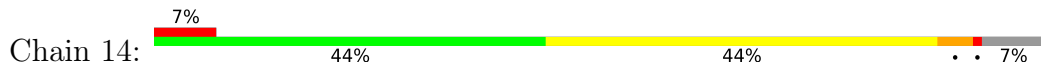




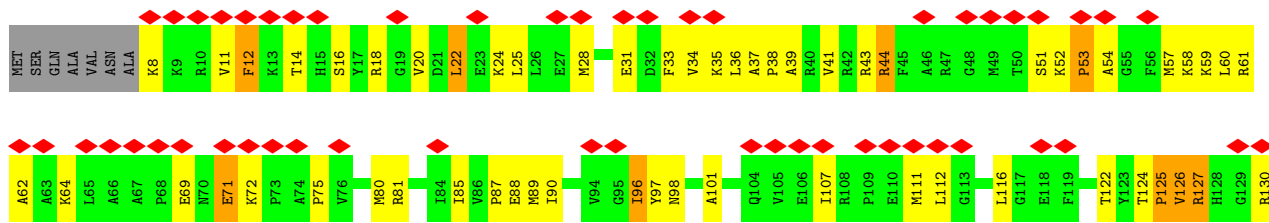
• Molecule 60: 40S ribosomal protein S13

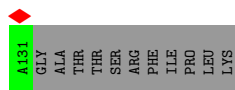


• Molecule 61: 40S ribosomal protein S14

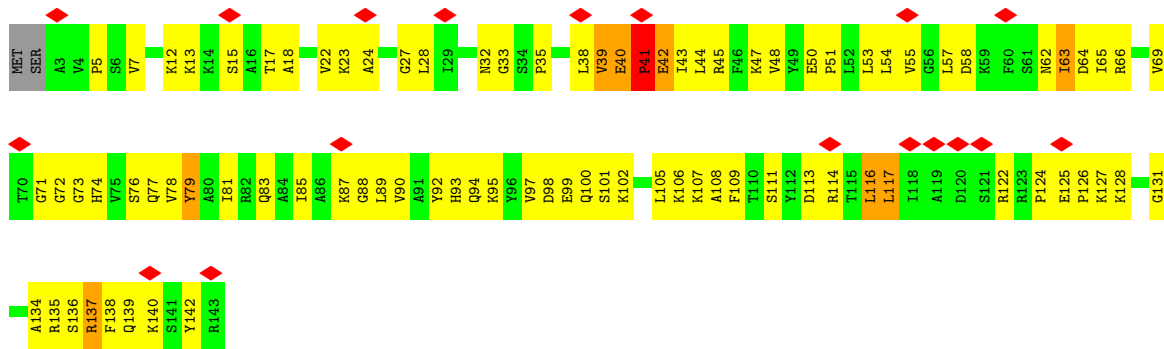
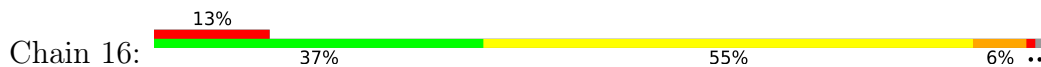


• Molecule 62: 40S ribosomal protein S15

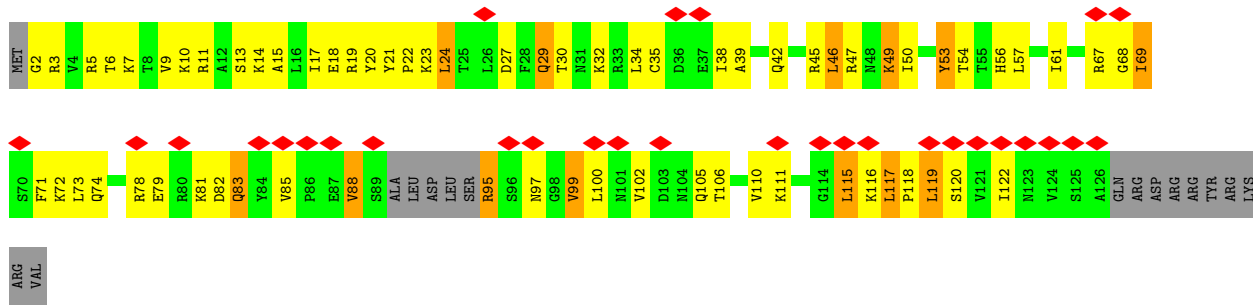




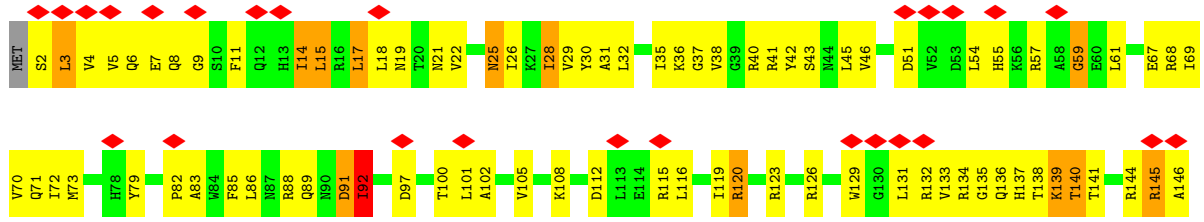
• Molecule 63: 40S ribosomal protein S16



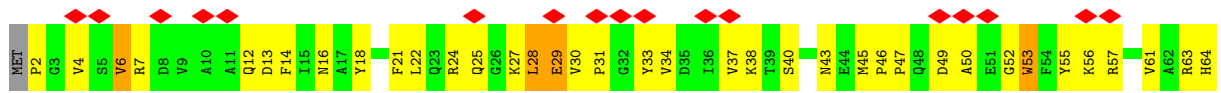
• Molecule 64: 40S ribosomal protein S17

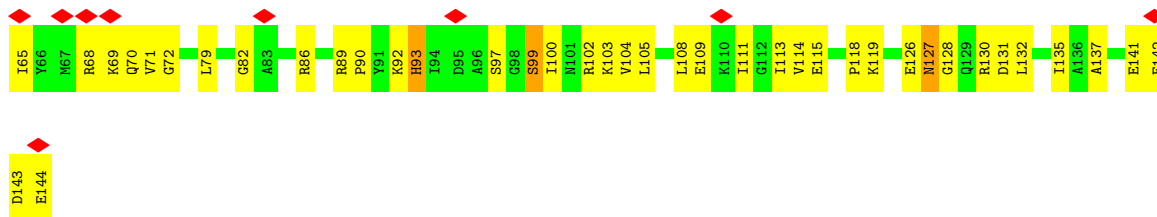


• Molecule 65: 40S ribosomal protein S18

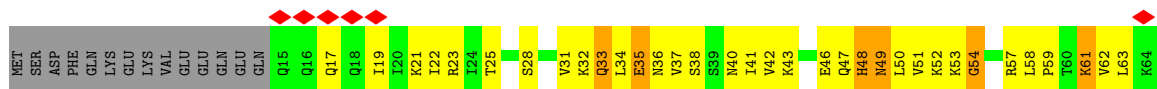


• Molecule 66: 40S ribosomal protein S19

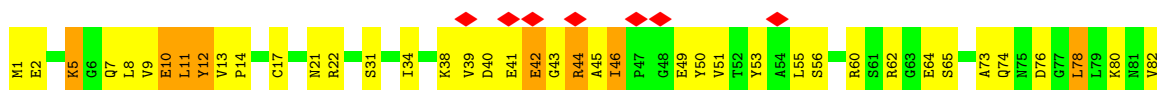




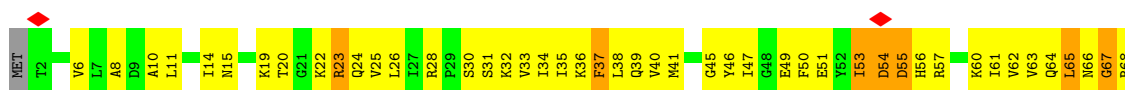
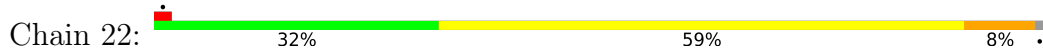
• Molecule 67: 40S ribosomal protein S20



• Molecule 68: 40S ribosomal protein S21



• Molecule 69: 40S ribosomal protein S22

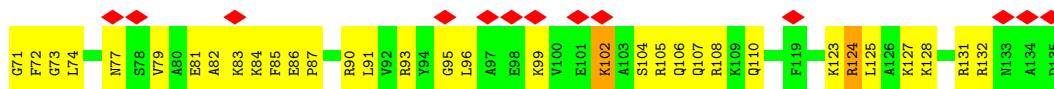
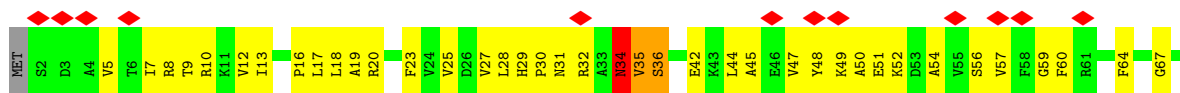


• Molecule 70: 40S ribosomal protein S23

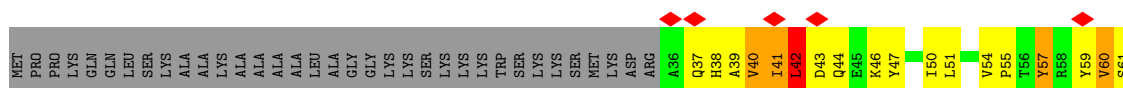
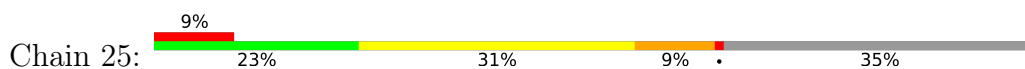




- Molecule 71: 40S ribosomal protein S24



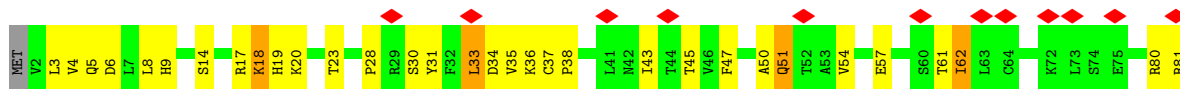
- Molecule 72: 40S ribosomal protein S25



- Molecule 73: 40S ribosomal protein S26

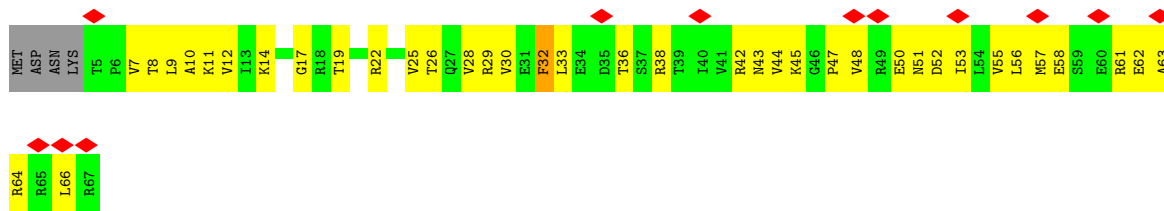


- Molecule 74: 40S ribosomal protein S27



- Molecule 75: 40S ribosomal protein S28

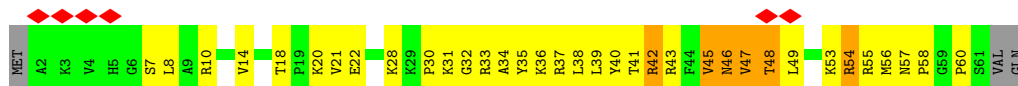




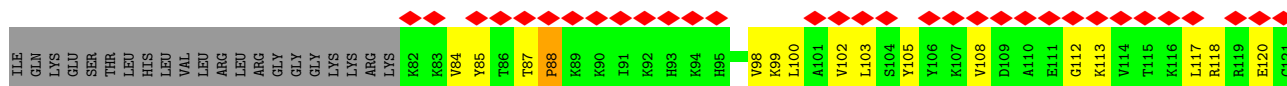
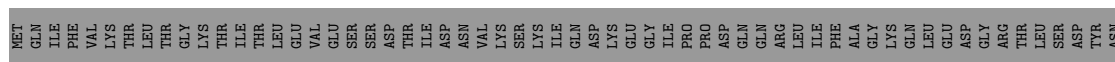
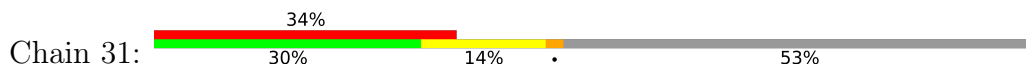
• Molecule 76: 40S ribosomal protein S29



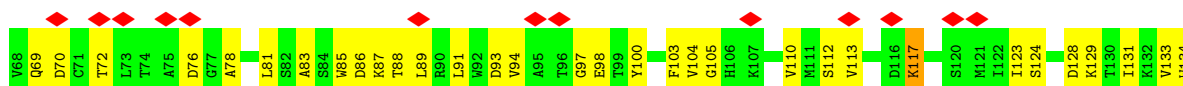
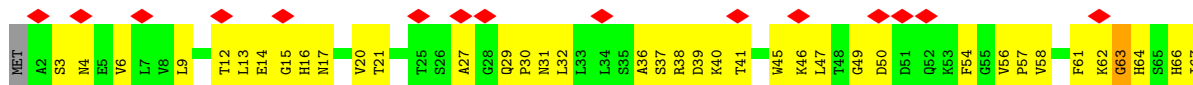
• Molecule 77: 40S ribosomal protein S30

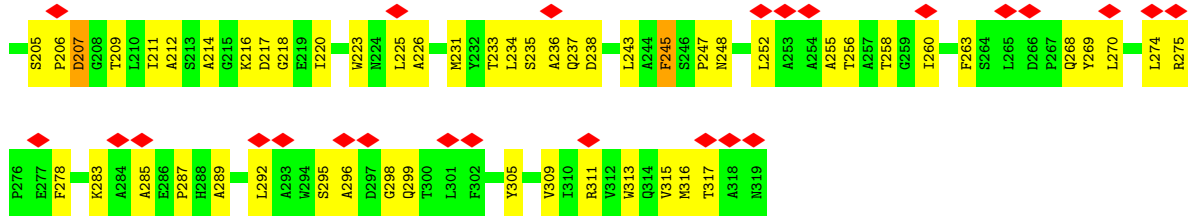


• Molecule 78: 40S ribosomal protein S31

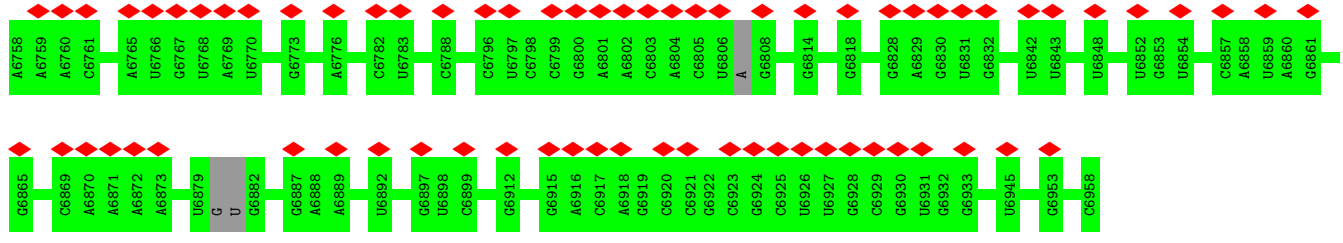


• Molecule 79: Guanine nucleotide-binding protein subunit beta-like protein





• Molecule 80: TSV IRES mRNA



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	51373	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	4.067	Depositor
Minimum map value	-1.662	Depositor
Average map value	0.028	Depositor
Map value standard deviation	0.283	Depositor
Recommended contour level	0.815	Depositor
Map size (\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 (\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	0.83	7/79178 (0.0%)	0.75	31/123444 (0.0%)
2	8S	0.80	1/3747 (0.0%)	0.73	2/5832 (0.0%)
3	5S	0.79	1/2884 (0.0%)	0.71	0/4491
4	L1	0.59	0/1634	0.71	0/2195
5	L2	0.50	0/1952	0.65	0/2622
6	L3	0.57	0/3153	0.64	1/4239 (0.0%)
7	L4	0.58	0/2802	0.67	0/3792
8	L5	0.58	0/2426	0.61	0/3271
9	L6	0.62	0/1261	0.68	0/1694
10	L7	0.59	0/1822	0.64	0/2451
11	L8	0.54	0/1850	0.63	0/2495
12	L9	0.57	0/1540	0.62	0/2073
13	50	0.56	0/1754	0.65	0/2350
14	51	0.53	0/1375	0.59	0/1842
15	53	0.56	0/1568	0.67	0/2106
16	54	0.60	0/1069	0.63	0/1438
17	55	0.55	0/1758	0.62	0/2354
18	56	0.56	0/1586	0.65	0/2128
19	57	0.57	0/1466	0.66	0/1968
20	58	0.57	0/1466	0.68	0/1965
21	59	0.46	0/1539	0.63	0/2050
22	60	0.62	0/1482	0.63	0/1990
23	61	0.58	0/1301	0.66	0/1743
24	62	0.54	0/812	0.60	0/1099
25	63	0.55	0/1019	0.64	0/1369
26	64	0.60	0/521	0.61	0/691
27	65	0.54	0/984	0.61	0/1325
28	66	0.54	0/1005	0.64	0/1341
29	67	0.52	0/1119	0.58	0/1497
30	68	0.57	0/1205	0.70	1/1612 (0.1%)
31	69	0.52	0/474	0.64	0/629
32	70	0.51	0/751	0.58	0/1008
33	71	0.53	0/904	0.64	0/1213
34	72	0.59	0/1041	0.67	1/1394 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
35	73	0.63	0/869	0.67	0/1168
36	74	0.50	0/891	0.65	0/1191
37	75	0.52	0/979	0.61	0/1301
38	76	0.52	0/779	0.66	0/1034
39	77	0.55	0/697	0.61	0/923
40	78	0.50	0/619	0.58	0/826
41	79	0.52	0/444	0.61	0/588
42	80	0.59	0/424	0.65	0/562
43	81	0.73	0/235	0.72	0/300
44	82	0.57	0/839	0.63	0/1108
45	83	0.48	0/702	0.63	0/934
46	1S	0.74	1/42445 (0.0%)	0.75	20/66138 (0.0%)
47	S0	0.50	0/1653	0.62	0/2261
48	S1	0.51	0/1735	0.61	0/2335
49	S2	0.46	0/1665	0.59	0/2263
50	S3	0.53	0/1759	0.60	0/2368
51	S4	0.49	0/2110	0.62	0/2839
52	S5	0.50	0/1630	0.60	0/2202
53	S6	0.51	0/1844	0.61	0/2464
54	S7	0.51	0/1506	0.62	0/2028
55	S8	0.51	0/1515	0.58	0/2021
56	S9	0.47	0/1519	0.63	0/2035
57	10	0.58	0/837	0.61	0/1131
58	11	0.54	0/1273	0.60	0/1712
59	12	0.61	0/943	0.70	1/1274 (0.1%)
60	13	0.51	0/1216	0.62	0/1638
61	14	0.48	0/953	0.63	1/1279 (0.1%)
62	15	0.60	0/1012	0.67	0/1356
63	16	0.53	0/1126	0.64	1/1510 (0.1%)
64	17	0.52	0/974	0.62	0/1304
65	18	0.53	0/1212	0.62	0/1628
66	19	0.54	0/1131	0.62	0/1517
67	20	0.55	0/866	0.61	0/1169
68	21	0.49	0/694	0.61	0/935
69	22	0.46	0/1039	0.58	0/1395
70	23	0.49	0/1140	0.65	1/1518 (0.1%)
71	24	0.52	0/1088	0.55	0/1449
72	25	0.53	0/571	0.65	0/768
73	26	0.47	0/782	0.59	0/1047
74	27	0.53	0/621	0.66	0/838
75	28	0.49	0/500	0.61	0/670
76	29	0.57	0/454	0.56	0/602
77	30	0.51	0/483	0.62	0/643

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
78	31	0.57	0/505	0.71	1/682 (0.1%)
79	RA	0.54	0/2498	0.61	0/3398
All	All	0.70	10/219225 (0.0%)	0.70	61/322063 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	2S	0	92
2	8S	0	10
46	1S	1	37
All	All	1	139

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	1S	1	U	OP3-P	-6.84	1.52	1.61
3	5S	1	G	OP3-P	-6.79	1.53	1.61
2	8S	1	A	OP3-P	-6.58	1.53	1.61
1	2S	485	C	N1-C2	6.43	1.46	1.40
1	2S	483	C	N1-C2	5.87	1.46	1.40
1	2S	493	U	N1-C2	5.43	1.43	1.38
1	2S	446	U	N1-C2	5.40	1.43	1.38
1	2S	447	U	N1-C2	5.22	1.43	1.38
1	2S	3217	C	N1-C2	5.10	1.45	1.40
1	2S	2094	C	C2-O2	-5.03	1.20	1.24

All (61) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2S	1103	A	C5'-C4'-O4'	9.19	120.13	109.10
46	1S	1573	A	C2'-C3'-O3'	8.81	128.88	109.50
46	1S	1761	U	C2'-C3'-O3'	8.18	127.50	109.50
1	2S	282	G	C2'-C3'-O3'	7.58	126.18	109.50
46	1S	704	C	N1-C1'-C2'	7.44	123.67	114.00
1	2S	2502	A	N9-C1'-C2'	6.56	122.52	114.00
34	72	82	LEU	CA-CB-CG	6.47	130.19	115.30
1	2S	1103	A	C5'-C4'-C3'	6.46	126.33	116.00
1	2S	2094	C	N1-C1'-C2'	6.41	122.34	114.00
2	8S	102	U	N1-C1'-C2'	6.40	122.32	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2S	1481	A	N9-C1'-C2'	6.35	122.26	114.00
46	1S	73	U	N1-C1'-C2'	6.25	122.13	114.00
1	2S	451	U	N1-C1'-C2'	6.20	122.06	114.00
46	1S	1657	U	N1-C1'-C2'	5.91	121.68	114.00
46	1S	453	U	N1-C1'-C2'	5.89	121.66	114.00
1	2S	483	C	N1-C1'-C2'	5.88	121.64	114.00
1	2S	372	A	N9-C1'-C2'	5.88	121.64	114.00
1	2S	2547	A	N9-C1'-C2'	5.83	121.58	114.00
46	1S	139	C	C2'-C3'-O3'	5.83	123.02	113.70
46	1S	1768	G	N9-C1'-C2'	5.75	121.48	114.00
46	1S	1524	A	N9-C1'-C2'	5.69	121.40	114.00
46	1S	1573	A	C4'-C3'-O3'	5.67	124.33	113.00
1	2S	1724	U	N1-C1'-C2'	5.66	121.36	114.00
46	1S	834	G	N9-C1'-C2'	5.66	121.36	114.00
1	2S	1241	U	C2'-C3'-O3'	5.65	122.74	113.70
1	2S	1307	G	C2'-C3'-O3'	5.65	122.74	113.70
78	31	88	PRO	N-CA-CB	5.65	110.08	103.30
46	1S	103	A	C2'-C3'-O3'	5.63	122.71	113.70
6	L3	350	ALA	N-CA-C	-5.60	95.89	111.00
1	2S	2772	C	N1-C1'-C2'	5.56	121.23	114.00
1	2S	1159	A	N9-C1'-C2'	5.53	121.19	114.00
46	1S	555	A	C2'-C3'-O3'	5.53	122.55	113.70
1	2S	2898	G	N9-C1'-C2'	5.53	121.19	114.00
1	2S	2249	G	C2'-C3'-O3'	5.45	122.41	113.70
1	2S	874	U	N1-C1'-C2'	5.42	121.05	114.00
46	1S	498	G	N9-C1'-C2'	5.37	120.98	114.00
46	1S	1535	U	N1-C1'-C2'	5.36	120.97	114.00
1	2S	764	U	N1-C1'-C2'	5.34	120.95	114.00
46	1S	1615	C	C2'-C3'-O3'	5.34	122.24	113.70
59	12	103	LEU	CA-CB-CG	5.32	127.53	115.30
1	2S	665	A	N9-C1'-C2'	5.29	120.87	114.00
46	1S	498	G	C2'-C3'-O3'	5.26	122.12	113.70
2	8S	1	A	OP1-P-OP2	-5.23	111.75	119.60
1	2S	3177	G	N9-C1'-C2'	5.23	120.80	114.00
46	1S	1344	A	C2'-C3'-O3'	5.21	122.04	113.70
1	2S	349	A	N9-C1'-C2'	5.21	120.78	114.00
1	2S	3228	C	C2'-C3'-O3'	5.21	122.04	113.70
1	2S	77	A	N9-C1'-C2'	-5.16	106.32	112.00
1	2S	1103	A	C1'-O4'-C4'	-5.16	105.77	109.90
61	14	137	LEU	CA-CB-CG	5.12	127.07	115.30
1	2S	1816	A	C2'-C3'-O3'	5.11	121.88	113.70
70	23	111	GLY	N-CA-C	-5.10	100.35	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	1S	503	G	C2'-C3'-O3'	5.09	121.85	113.70
30	68	116	GLY	N-CA-C	5.09	125.81	113.10
1	2S	2372	A	N9-C1'-C2'	5.08	120.60	114.00
1	2S	315	C	N1-C1'-C2'	5.06	120.58	114.00
46	1S	1390	U	N1-C1'-C2'	5.04	120.55	114.00
1	2S	1418	A	N9-C1'-C2'	5.03	120.54	114.00
1	2S	1815	U	C2'-C3'-O3'	5.02	121.73	113.70
63	16	41	PRO	N-CA-C	5.01	125.13	112.10
1	2S	446	U	N1-C1'-C2'	5.00	120.50	114.00

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
46	1S	1573	A	C3'

All (139) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
46	1S	1085	G	Sidechain
46	1S	1094	G	Sidechain
46	1S	1113	A	Sidechain
46	1S	1122	G	Sidechain
46	1S	1163	A	Sidechain
46	1S	1251	U	Sidechain
46	1S	1255	G	Sidechain
46	1S	1266	U	Sidechain
46	1S	1339	C	Sidechain
46	1S	1390	U	Sidechain
46	1S	143	G	Sidechain
46	1S	1485	C	Sidechain
46	1S	1524	A	Sidechain
46	1S	1542	G	Sidechain
46	1S	1553	G	Sidechain
46	1S	1589	C	Sidechain
46	1S	1592	A	Sidechain
46	1S	1594	G	Sidechain
46	1S	1680	G	Sidechain
46	1S	196	G	Sidechain
46	1S	199	G	Sidechain
46	1S	313	U	Sidechain
46	1S	322	G	Sidechain
46	1S	337	G	Sidechain

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Mol	Chain	Res	Type	Group
46	1S	389	G	Sidechain
46	1S	396	G	Sidechain
46	1S	422	G	Sidechain
46	1S	447	U	Sidechain
46	1S	518	A	Sidechain
46	1S	553	G	Sidechain
46	1S	704	C	Sidechain
46	1S	73	U	Sidechain
46	1S	772	G	Sidechain
46	1S	805	U	Sidechain
46	1S	82	U	Sidechain
46	1S	834	G	Sidechain
46	1S	840	U	Sidechain
1	2S	1000	C	Sidechain
1	2S	1014	U	Sidechain
1	2S	1036	A	Sidechain
1	2S	1082	U	Sidechain
1	2S	1154	A	Sidechain
1	2S	1173	U	Sidechain
1	2S	1190	A	Sidechain
1	2S	1222	G	Sidechain
1	2S	1238	C	Sidechain
1	2S	1315	U	Sidechain
1	2S	1384	U	Sidechain
1	2S	1392	G	Sidechain
1	2S	1393	A	Sidechain
1	2S	1417	G	Sidechain
1	2S	1432	C	Sidechain
1	2S	148	G	Sidechain
1	2S	1561	G	Sidechain
1	2S	1641	U	Sidechain
1	2S	1695	U	Sidechain
1	2S	1730	G	Sidechain
1	2S	1731	A	Sidechain
1	2S	1790	G	Sidechain
1	2S	1807	G	Sidechain
1	2S	1808	G	Sidechain
1	2S	1863	G	Sidechain
1	2S	1903	U	Sidechain
1	2S	1930	A	Sidechain
1	2S	196	G	Sidechain
1	2S	197	G	Sidechain

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Mol	Chain	Res	Type	Group
1	2S	2160	G	Sidechain
1	2S	217	U	Sidechain
1	2S	2180	G	Sidechain
1	2S	223	U	Sidechain
1	2S	2294	U	Sidechain
1	2S	2339	C	Sidechain
1	2S	2376	G	Sidechain
1	2S	2403	G	Sidechain
1	2S	2510	U	Sidechain
1	2S	2547	A	Sidechain
1	2S	26	A	Sidechain
1	2S	2626	A	Sidechain
1	2S	2635	A	Sidechain
1	2S	2642	A	Sidechain
1	2S	2656	A	Sidechain
1	2S	267	G	Sidechain
1	2S	2691	A	Sidechain
1	2S	2704	A	Sidechain
1	2S	2712	U	Sidechain
1	2S	2719	U	Sidechain
1	2S	2761	G	Sidechain
1	2S	2844	C	Sidechain
1	2S	2861	U	Sidechain
1	2S	2886	U	Sidechain
1	2S	2898	G	Sidechain
1	2S	2901	G	Sidechain
1	2S	2921	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	3177	G	Sidechain
1	2S	3281	U	Sidechain
1	2S	3333	G	Sidechain
1	2S	341	G	Sidechain
1	2S	352	A	Sidechain
1	2S	366	A	Sidechain
1	2S	368	G	Sidechain
1	2S	372	A	Sidechain
1	2S	376	G	Sidechain
1	2S	383	G	Sidechain

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Mol	Chain	Res	Type	Group
1	2S	394	G	Sidechain
1	2S	395	A	Sidechain
1	2S	40	A	Sidechain
1	2S	400	G	Sidechain
1	2S	405	U	Sidechain
1	2S	406	G	Sidechain
1	2S	442	G	Sidechain
1	2S	59	G	Sidechain
1	2S	600	G	Sidechain
1	2S	759	U	Sidechain
1	2S	760	G	Sidechain
1	2S	770	G	Sidechain
1	2S	813	G	Sidechain
1	2S	835	G	Sidechain
1	2S	845	G	Sidechain
1	2S	855	U	Sidechain
1	2S	857	G	Sidechain
1	2S	858	A	Sidechain
1	2S	907	G	Sidechain
1	2S	91	G	Sidechain
1	2S	918	C	Sidechain
2	8S	102	U	Sidechain
2	8S	105	A	Sidechain
2	8S	16	G	Sidechain
2	8S	39	G	Sidechain
2	8S	40	A	Sidechain
2	8S	70	G	Sidechain
2	8S	87	G	Sidechain
2	8S	88	A	Sidechain
2	8S	92	A	Sidechain
2	8S	93	U	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	2043	0
2	8S	3354	0	1695	102	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	5S	2580	0	1304	65	0
4	L1	1609	0	1701	103	0
5	L2	1918	0	1987	169	0
6	L3	3082	0	3165	234	0
7	L4	2750	0	2863	188	0
8	L5	2376	0	2325	114	0
9	L6	1240	0	1326	93	0
10	L7	1785	0	1862	134	0
11	L8	1818	0	1908	109	0
12	L9	1519	0	1587	105	0
13	50	1718	0	1754	90	0
14	51	1354	0	1383	73	0
15	53	1543	0	1608	100	0
16	54	1054	0	1149	58	0
17	55	1721	0	1779	129	0
18	56	1556	0	1659	119	0
19	57	1443	0	1485	104	0
20	58	1442	0	1543	92	0
21	59	1522	0	1617	96	0
22	60	1446	0	1487	97	0
23	61	1277	0	1323	94	0
24	62	796	0	812	41	0
25	63	1004	0	1048	91	0
26	64	509	0	537	20	0
27	65	969	0	1036	62	0
28	66	994	0	1081	57	0
29	67	1093	0	1155	67	0
30	68	1174	0	1215	96	0
31	69	463	0	491	37	0
32	70	743	0	797	56	0
33	71	890	0	938	68	0
34	72	1020	0	1090	57	0
35	73	851	0	880	47	0
36	74	881	0	949	98	0
37	75	970	0	1078	62	0
38	76	772	0	849	46	0
39	77	682	0	687	68	0
40	78	613	0	682	36	0
41	79	437	0	475	25	0
42	80	418	0	459	26	0
43	81	234	0	284	9	0
44	82	827	0	901	46	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
45	83	695	0	738	63	0
46	1S	37949	0	19093	1110	0
47	S0	1612	0	1623	120	0
48	S1	1709	0	1784	128	0
49	S2	1635	0	1723	80	0
50	S3	1734	0	1817	85	0
51	S4	2069	0	2154	160	0
52	S5	1610	0	1675	111	0
53	S6	1820	0	1918	84	0
54	S7	1481	0	1572	100	0
55	S8	1490	0	1525	112	0
56	S9	1494	0	1573	121	0
57	10	817	0	804	63	0
58	11	1245	0	1314	68	0
59	12	935	0	975	64	0
60	13	1193	0	1255	85	0
61	14	942	0	979	88	0
62	15	991	0	1035	49	0
63	16	1106	0	1166	102	0
64	17	965	0	1026	77	0
65	18	1193	0	1222	87	0
66	19	1113	0	1124	71	0
67	20	856	0	917	67	0
68	21	685	0	672	43	0
69	22	1022	0	1060	96	0
70	23	1122	0	1196	102	0
71	24	1074	0	1132	63	0
72	25	563	0	603	50	0
73	26	769	0	818	82	0
74	27	611	0	633	33	0
75	28	498	0	535	47	0
76	29	444	0	436	13	0
77	30	475	0	525	48	0
78	31	498	0	441	13	0
79	RA	2445	0	2401	121	0
80	IR	198	0	0	0	0
All	All	204247	0	150969	8302	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 23.

All (8302) 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)
1:2S:250:U:H5'	1:2S:251:G:H5''	1.25	1.16
46:1S:1712:A:H3'	46:1S:1713:G:H5''	1.26	1.15
60:13:22:ALA:HB1	60:13:23:PRO:HA	1.28	1.12
19:57:122:ALA:HB3	19:57:143:PRO:HB2	1.23	1.11
46:1S:845:G:H2'	46:1S:846:G:H5''	1.32	1.11
46:1S:1060:U:H2'	46:1S:1061:A:H4'	1.30	1.08
1:2S:2076:G:H2'	1:2S:2077:U:H5''	1.32	1.08
1:2S:1604:G:H4'	1:2S:1835:A:H4'	1.34	1.08
73:26:9:GLY:HA3	73:26:34:LYS:HE2	1.34	1.06
46:1S:1500:C:H5''	66:19:102:ARG:HD3	1.32	1.06
5:L2:224:THR:HA	5:L2:237:LEU:HB2	1.39	1.04
46:1S:397:A:H5''	55:S8:47:ARG:HH12	1.22	1.04
1:2S:502:U:H4'	9:L6:26:ARG:HB3	1.37	1.03
22:60:42:TRP:HB3	22:60:46:GLN:HE21	1.21	1.03
25:63:91:VAL:HG21	26:64:20:LEU:HD12	1.36	1.03
46:1S:712:G:H2'	46:1S:713:A:H5''	1.39	1.02
50:S3:48:VAL:HB	50:S3:86:LEU:HG	1.41	1.02
71:24:87:PRO:HD2	71:24:90:ARG:HD2	1.38	1.02
26:64:39:LEU:HD12	26:64:44:LYS:HG3	1.39	1.01
52:S5:94:THR:HG22	52:S5:114:ILE:HG13	1.41	1.01
70:23:109:ARG:HH21	70:23:112:LYS:HB3	1.24	1.01
79:RA:150:TRP:HB2	79:RA:174:ASN:HD22	1.23	1.01
12:L9:8:GLN:HG2	12:L9:68:LEU:HD12	1.43	1.00
1:2S:1347:U:H4'	7:L4:305:ALA:HA	1.41	1.00
46:1S:1073:G:H2'	46:1S:1074:G:H5''	1.43	1.00
60:13:22:ALA:CB	60:13:23:PRO:HA	1.91	1.00
1:2S:745:C:H5''	20:58:145:ASN:HD22	1.23	0.99
10:L7:153:PHE:HB2	10:L7:203:TRP:HB3	1.40	0.99
1:2S:2778:G:H2'	1:2S:2779:A:H5''	1.43	0.99
1:2S:1953:G:N1	1:2S:2094:C:H5	1.60	0.98
1:2S:2207:A:H3'	1:2S:2208:A:H5''	1.42	0.98
25:63:118:VAL:HG12	25:63:119:GLY:H	1.29	0.98
1:2S:2895:G:H2'	1:2S:2896:A:H5''	1.42	0.98
33:71:62:ARG:HB2	33:71:66:GLY:HA3	1.43	0.98
63:16:40:GLU:HA	63:16:42:GLU:N	1.77	0.98
48:S1:176:VAL:HG12	48:S1:177:GLN:H	1.29	0.97
20:58:165:ILE:HG12	20:58:166:LEU:H	1.27	0.97
46:1S:886:U:H2'	46:1S:887:A:C8	2.00	0.97
46:1S:1558:U:H4'	65:18:135:GLY:HA3	1.42	0.97
25:63:38:ALA:HB3	25:63:59:MET:HB2	1.47	0.96
1:2S:1953:G:N1	1:2S:2094:C:C5	2.33	0.96
46:1S:1066:C:H4'	48:S1:149:GLN:HE22	1.27	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2922:G:H2'	1:2S:2923:U:H4'	1.48	0.96
6:L3:385:LYS:HG3	6:L3:386:ASP:H	1.28	0.96
10:L7:90:LYS:HE2	10:L7:95:ILE:HD11	1.47	0.96
1:2S:942:U:H3'	30:68:15:VAL:HG13	1.45	0.95
46:1S:138:A:H61	46:1S:266:A:H61	1.13	0.95
46:1S:1646:C:H42	46:1S:1754:A:H61	1.03	0.95
1:2S:374:A:H4'	1:2S:375:A:H5'	1.47	0.95
52:S5:62:VAL:HG13	52:S5:89:ILE:HG12	1.48	0.95
52:S5:156:ARG:HB2	52:S5:156:ARG:HH11	1.31	0.95
3:5S:96:U:H4'	22:60:119:ARG:HB2	1.47	0.95
69:22:28:ARG:HD3	69:22:60:LYS:HE2	1.48	0.95
73:26:86:VAL:HG22	73:26:87:ARG:H	1.27	0.95
1:2S:58:G:H2'	1:2S:59:G:C8	2.01	0.95
1:2S:3187:A:H5''	16:54:8:LYS:HE2	1.46	0.95
53:S6:160:ARG:HH12	53:S6:162:VAL:HB	1.29	0.95
54:S7:109:VAL:HG22	54:S7:110:GLN:H	1.31	0.95
24:62:96:VAL:HB	24:62:104:ARG:HG3	1.49	0.95
15:53:47:ALA:HB1	15:53:48:PRO:HD2	1.48	0.94
1:2S:2356:A:H61	1:2S:2983:C:H41	1.11	0.94
49:S2:170:ILE:HB	49:S2:197:TYR:HB2	1.47	0.94
52:S5:165:LEU:HD23	75:28:47:PRO:HB2	1.45	0.94
1:2S:829:U:H3	1:2S:895:A:H62	0.99	0.94
1:2S:1951:C:H6	1:2S:2095:G:H22	1.15	0.94
33:71:55:LEU:HB2	33:71:95:PRO:HD3	1.47	0.94
16:54:18:GLY:HA2	16:54:72:LEU:HD12	1.49	0.94
70:23:56:LYS:HA	70:23:72:VAL:HG12	1.48	0.94
46:1S:829:A:H4'	46:1S:830:U:H5'	1.48	0.94
1:2S:1534:A:H2'	1:2S:1535:A:C8	2.02	0.93
46:1S:905:A:H5''	61:14:52:ARG:HD3	1.50	0.93
1:2S:2183:A:H5''	5:L2:7:ASN:HD22	1.33	0.93
50:S3:37:VAL:HG12	50:S3:50:ILE:HD12	1.48	0.93
69:22:81:VAL:HG12	69:22:83:ILE:H	1.30	0.93
1:2S:405:U:H2'	1:2S:406:G:H5'	1.50	0.93
1:2S:2821:C:H42	1:2S:2869:U:H3	1.01	0.93
19:57:135:ARG:NH1	19:57:135:ARG:HB2	1.82	0.93
44:82:8:ARG:HH12	44:82:10:THR:HB	1.31	0.93
46:1S:505:A:H3'	46:1S:506:A:H5''	1.48	0.93
46:1S:1058:U:H5	46:1S:1061:A:N1	1.66	0.93
1:2S:2882:U:H2'	1:2S:2883:U:C6	2.04	0.93
23:61:39:ILE:HG12	23:61:63:VAL:HG22	1.49	0.93
46:1S:1229:G:H21	46:1S:1256:A:H62	1.05	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:S0:206:ASP:HB2	47:S0:207:PRO:HA	1.49	0.93
60:13:22:ALA:HB1	60:13:23:PRO:CA	1.98	0.92
14:51:17:LEU:HD13	14:51:129:VAL:HG22	1.49	0.92
77:30:7:SER:HB3	77:30:10:ARG:HH22	1.34	0.92
1:2S:3057:U:H3	1:2S:3085:G:H21	1.13	0.92
9:L6:56:LYS:HB2	9:L6:98:VAL:HG11	1.52	0.92
10:L7:98:LYS:HB3	10:L7:99:PRO:HD3	1.52	0.92
52:S5:219:ARG:HH21	52:S5:220:VAL:HG22	1.32	0.92
56:S9:90:LYS:HD2	56:S9:95:TYR:HB2	1.52	0.92
60:13:101:HIS:HA	60:13:104:ARG:HH11	1.34	0.92
1:2S:1953:G:N2	1:2S:2094:C:H6	1.67	0.92
1:2S:2738:A:H5''	31:69:38:LYS:HE2	1.51	0.91
4:L1:13:VAL:HG22	4:L1:14:LYS:H	1.35	0.91
51:S4:79:ASP:HB3	51:S4:82:TYR:HB2	1.51	0.91
13:50:30:LYS:HA	13:50:30:LYS:HE3	1.53	0.91
1:2S:2476:C:H2'	1:2S:2477:G:H4'	1.50	0.91
20:58:23:ASN:HB3	20:58:26:LEU:HB3	1.52	0.91
46:1S:143:G:H2'	46:1S:144:U:H5''	1.52	0.91
47:S0:115:PHE:HZ	49:S2:39:THR:HG22	1.36	0.91
73:26:12:LYS:HZ1	73:26:15:ARG:HB2	1.36	0.91
1:2S:1238:C:H3'	1:2S:1239:C:H5''	1.51	0.91
48:S1:146:GLN:HG2	48:S1:147:ALA:H	1.34	0.91
1:2S:1064:A:H62	1:2S:1096:U:H3	1.08	0.91
5:L2:77:ILE:HG22	5:L2:78:ALA:H	1.36	0.90
7:L4:354:VAL:HG11	23:61:143:THR:HG21	1.52	0.90
46:1S:487:G:H2'	46:1S:488:G:H5''	1.51	0.90
1:2S:1845:G:H5'	1:2S:1846:C:H5''	1.53	0.90
46:1S:487:G:H1	46:1S:500:C:H42	1.15	0.90
1:2S:1813:A:H2'	1:2S:1814:A:H5''	1.53	0.90
18:56:16:VAL:HA	18:56:41:LEU:HD21	1.51	0.90
10:L7:25:GLN:HG3	10:L7:29:GLU:HG3	1.51	0.90
25:63:45:ARG:HB3	25:63:48:ARG:HE	1.34	0.90
17:55:30:TYR:HA	17:55:33:LYS:HD2	1.50	0.90
18:56:46:GLU:HG3	18:56:49:ARG:H	1.36	0.90
54:S7:30:SER:HB3	54:S7:34:LEU:HD13	1.54	0.90
71:24:35:VAL:HG13	71:24:36:SER:H	1.37	0.90
1:2S:2415:C:H5''	5:L2:207:VAL:HG13	1.50	0.89
73:26:12:LYS:HE3	73:26:16:GLY:H	1.37	0.89
59:12:59:LEU:HB3	59:12:123:VAL:HB	1.54	0.89
1:2S:2168:A:H4'	17:55:67:ARG:HH22	1.34	0.89
1:2S:1581:C:H2'	1:2S:1582:C:H5'	1.51	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L1:43:PRO:HA	4:L1:161:LYS:HB2	1.54	0.89
39:77:18:LEU:HD23	39:77:25:ARG:HB2	1.53	0.89
46:1S:1483:A:H4'	63:16:71:GLY:HA2	1.54	0.89
1:2S:2656:A:H4'	44:82:98:LYS:HD2	1.51	0.89
31:69:47:LEU:HA	31:69:50:THR:HG22	1.55	0.89
46:1S:777:C:H2'	46:1S:778:G:H5''	1.52	0.89
1:2S:954:U:H4'	31:69:8:THR:HG22	1.55	0.89
65:18:2:SER:HB3	65:18:55:HIS:HD2	1.38	0.89
1:2S:303:G:H5''	1:2S:304:G:H5''	1.53	0.88
1:2S:1646:G:H1'	1:2S:1809:A:H61	1.38	0.88
40:78:64:LYS:HE2	40:78:64:LYS:HA	1.54	0.88
74:27:61:THR:HG23	74:27:62:ILE:H	1.36	0.88
1:2S:2499:U:H2'	1:2S:2500:A:H8	1.37	0.88
51:S4:196:VAL:HB	51:S4:209:HIS:HB3	1.54	0.88
1:2S:1593:A:H4'	36:74:61:GLN:HE22	1.37	0.88
4:L1:17:LEU:HD23	4:L1:17:LEU:H	1.36	0.88
1:2S:2081:U:H2'	1:2S:2082:U:H4'	1.56	0.88
1:2S:212:G:H5'	7:L4:221:ASN:HD21	1.37	0.88
1:2S:1553:U:H4'	1:2S:1554:U:H5'	1.55	0.88
56:S9:109:LEU:HB2	56:S9:146:PHE:HB3	1.55	0.88
1:2S:824:C:H5''	5:L2:21:ARG:HD3	1.53	0.88
47:S0:155:PHE:HA	68:21:60:ARG:HB3	1.55	0.88
35:73:35:VAL:HG13	35:73:40:ASP:HB2	1.56	0.88
63:16:93:HIS:HA	63:16:97:VAL:HB	1.55	0.88
78:31:138:ARG:HB3	78:31:138:ARG:HH11	1.38	0.88
79:RA:131:ILE:HB	79:RA:144:LEU:HB2	1.55	0.88
13:50:189:GLU:HG2	13:50:200:LEU:HB3	1.55	0.88
9:L6:56:LYS:HG2	9:L6:57:HIS:H	1.39	0.87
1:2S:160:G:H2'	1:2S:161:G:H5''	1.54	0.87
36:74:29:ILE:H	36:74:29:ILE:HD13	1.38	0.87
46:1S:1266:U:H2'	46:1S:1267:G:C8	2.09	0.87
60:13:150:VAL:HG13	60:13:151:ASN:H	1.40	0.87
11:L8:183:LYS:HA	11:L8:186:LEU:HD12	1.56	0.87
23:61:76:ILE:HG22	23:61:77:ASN:H	1.39	0.87
1:2S:2389:C:H5''	19:57:66:SER:HA	1.56	0.87
1:2S:2674:A:H5''	14:51:105:GLY:HA3	1.56	0.87
6:L3:218:ILE:HB	6:L3:337:THR:HB	1.57	0.87
50:S3:7:LYS:HA	50:S3:7:LYS:HE3	1.56	0.87
4:L1:54:LYS:HB2	4:L1:191:VAL:HG21	1.57	0.87
1:2S:1305:U:H3	1:2S:2367:A:H5''	1.38	0.87
12:L9:31:ARG:H	12:L9:82:VAL:HG22	1.39	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:57:135:ARG:HB2	19:57:135:ARG:HH11	1.40	0.87
30:68:36:GLY:HA2	30:68:39:HIS:HD2	1.38	0.87
55:S8:106:ALA:HB2	55:S8:165:LEU:HB2	1.54	0.87
35:73:49:ILE:HG23	35:73:100:ILE:HA	1.54	0.87
46:1S:190:C:H41	55:S8:137:LYS:HG3	1.39	0.87
6:L3:56:ILE:HD13	6:L3:76:VAL:HG21	1.56	0.86
34:72:102:ALA:HA	34:72:105:ARG:HD3	1.57	0.86
47:S0:118:PRO:HG2	47:S0:141:ILE:HD13	1.57	0.86
1:2S:1612:A:H5''	40:78:51:LEU:HD22	1.57	0.86
12:L9:49:ASN:HD21	12:L9:52:LEU:HB3	1.38	0.86
51:S4:246:LEU:HB2	51:S4:251:GLU:HG3	1.56	0.86
63:16:40:GLU:HA	63:16:41:PRO:C	1.96	0.86
1:2S:2953:U:H2'	1:2S:2954:U:H2'	1.55	0.86
2:8S:154:C:H5''	11:L8:181:LYS:HE3	1.57	0.86
33:71:17:HIS:HB2	33:71:69:TYR:HB3	1.57	0.86
55:S8:110:ARG:HG3	55:S8:121:LEU:HB2	1.56	0.86
1:2S:2499:U:H2'	1:2S:2500:A:C8	2.11	0.86
46:1S:579:A:H61	50:S3:143:ARG:HA	1.38	0.86
1:2S:1369:A:H4'	30:68:21:ARG:HD2	1.58	0.86
1:2S:2778:G:H2'	1:2S:2779:A:C5'	2.05	0.86
16:54:113:THR:HB	16:54:116:GLU:HG3	1.58	0.86
51:S4:240:LYS:H	51:S4:240:LYS:HE2	1.40	0.86
5:L2:133:TYR:HB3	5:L2:168:VAL:HG12	1.57	0.86
46:1S:185:U:H2'	46:1S:186:C:H5''	1.56	0.86
77:30:47:VAL:HG22	77:30:48:THR:H	1.41	0.86
6:L3:4:ARG:HD3	6:L3:7:GLU:HA	1.57	0.86
70:23:144:ARG:HD2	70:23:145:SER:H	1.38	0.86
6:L3:25:ILE:HD13	6:L3:25:ILE:H	1.40	0.86
1:2S:1517:G:H5''	41:79:22:PRO:HG2	1.56	0.85
20:58:64:VAL:HA	20:58:67:ILE:HD12	1.58	0.85
47:S0:170:ILE:H	47:S0:170:ILE:HD12	1.39	0.85
28:66:97:ILE:HG22	28:66:99:LEU:HG	1.56	0.85
46:1S:1613:U:H2'	46:1S:1614:A:H5''	1.58	0.85
1:2S:1953:G:H22	1:2S:2094:C:H6	0.89	0.85
1:2S:3287:U:H2'	1:2S:3288:G:H5'	1.57	0.85
10:L7:92:ILE:HD11	20:58:4:ASP:HB2	1.58	0.85
46:1S:230:C:H3'	46:1S:231:U:H5''	1.59	0.85
52:S5:57:SER:HB3	75:28:53:ILE:HB	1.56	0.85
61:14:87:GLY:HA3	61:14:120:PRO:HG2	1.59	0.85
10:L7:82:LYS:H	10:L7:82:LYS:HD2	1.41	0.85
56:S9:179:ARG:HA	56:S9:182:GLU:HG2	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:10:50:THR:HG22	57:10:55:VAL:HG13	1.57	0.85
8:L5:40:HIS:HB3	8:L5:43:LYS:HG3	1.57	0.85
12:L9:18:VAL:HG12	12:L9:27:VAL:HG22	1.59	0.85
46:1S:1336:A:H2'	46:1S:1337:A:H5''	1.58	0.85
1:2S:1019:G:H2'	1:2S:1020:G:H5''	1.57	0.85
69:22:65:LEU:H	69:22:65:LEU:HD13	1.41	0.85
4:L1:130:LYS:H	4:L1:130:LYS:HD2	1.42	0.85
56:S9:81:VAL:HG21	56:S9:91:LYS:HE2	1.57	0.85
28:66:68:GLY:HA2	28:66:84:LYS:HD2	1.57	0.85
64:17:32:LYS:HG3	64:17:47:ARG:HD3	1.60	0.84
69:22:81:VAL:HG13	69:22:85:ASP:HB2	1.58	0.84
1:2S:1221:A:H3'	1:2S:1222:G:H5''	1.59	0.84
1:2S:1952:G:O6	1:2S:2095:G:H1'	1.75	0.84
18:56:37:ARG:HG2	18:56:107:GLY:HA2	1.58	0.84
46:1S:1058:U:C5	46:1S:1061:A:N1	2.45	0.84
53:S6:137:ARG:HB3	53:S6:140:ASN:HD22	1.42	0.84
25:63:55:GLY:H	25:63:78:VAL:HB	1.40	0.84
10:L7:146:GLN:HE22	10:L7:241:LYS:HE2	1.42	0.84
73:26:44:ILE:H	73:26:44:ILE:HD12	1.43	0.84
6:L3:86:VAL:HA	6:L3:162:VAL:HG12	1.58	0.84
66:19:21:PHE:HD1	66:19:24:ARG:HD2	1.43	0.84
46:1S:1587:A:H2'	46:1S:1588:G:H8	1.43	0.84
1:2S:1357:G:H2'	1:2S:1358:C:C6	2.13	0.84
51:S4:131:LEU:HD11	51:S4:135:GLY:HA2	1.57	0.84
1:2S:911:C:H3'	5:L2:9:ARG:HH12	1.43	0.84
2:8S:41:A:H5''	39:77:64:MET:HG2	1.59	0.84
12:L9:9:GLN:HG2	12:L9:54:LYS:HG2	1.59	0.84
16:54:14:LEU:HD23	22:60:151:PRO:HD3	1.60	0.84
46:1S:1679:G:H1'	46:1S:1722:A:H61	1.42	0.84
47:S0:200:ASP:HB3	64:17:85:VAL:HG21	1.60	0.84
7:L4:203:ARG:HG3	7:L4:246:ARG:HH21	1.42	0.83
14:51:94:ARG:H	14:51:94:ARG:HD3	1.41	0.83
15:53:74:GLY:HA3	15:53:98:ASP:HB2	1.59	0.83
22:60:42:TRP:HB3	22:60:46:GLN:NE2	1.92	0.83
39:77:67:LEU:HD23	39:77:70:VAL:HG21	1.58	0.83
1:2S:2670:G:H4'	8:L5:5:LYS:HG2	1.59	0.83
39:77:19:CYS:HB3	39:77:22:CYS:SG	2.18	0.83
12:L9:93:VAL:HG13	42:80:82:LEU:HB3	1.60	0.83
20:58:158:HIS:H	20:58:186:VAL:HG12	1.44	0.83
1:2S:2376:G:H2'	1:2S:2377:G:C8	2.13	0.83
1:2S:2924:U:H2'	1:2S:2925:C:H5'	1.59	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:740:A:H2'	46:1S:741:C:H5''	1.61	0.83
1:2S:1953:G:H1	1:2S:2094:C:H5	0.90	0.83
40:78:31:LEU:HA	40:78:37:PRO:HA	1.59	0.83
46:1S:1060:U:H2'	46:1S:1061:A:C4'	2.09	0.83
65:18:88:ARG:NH2	65:18:88:ARG:HB3	1.92	0.83
1:2S:153:U:H2'	1:2S:154:U:H5''	1.59	0.83
46:1S:385:A:H5''	55:S8:22:ARG:HB3	1.61	0.83
60:13:136:PRO:HG2	60:13:139:TRP:HB2	1.58	0.83
1:2S:2163:C:H4'	5:L2:8:GLN:HA	1.61	0.82
4:L1:138:VAL:HG12	4:L1:140:HIS:H	1.44	0.82
46:1S:1432:U:H4'	46:1S:1433:G:H5''	1.60	0.82
62:15:18:ARG:HB2	62:15:36:LEU:HD12	1.60	0.82
1:2S:2821:C:N4	1:2S:2869:U:H3	1.76	0.82
29:67:75:VAL:HG22	29:67:76:ASN:H	1.43	0.82
46:1S:1699:G:H2'	46:1S:1700:C:H5''	1.61	0.82
1:2S:2426:U:H2'	1:2S:2427:U:C6	2.14	0.82
6:L3:103:THR:HG21	6:L3:147:GLU:HB3	1.62	0.82
73:26:66:LYS:H	73:26:66:LYS:HD3	1.44	0.82
1:2S:2914:G:H5'	6:L3:9:PRO:HG3	1.60	0.82
58:11:73:GLY:HA3	58:11:86:ILE:HD12	1.60	0.82
79:RA:278:PHE:CE2	79:RA:287:PRO:HD2	2.15	0.82
1:2S:1352:A:H4'	1:2S:1353:U:OP1	1.80	0.82
5:L2:42:ARG:HD2	5:L2:87:PHE:HB3	1.61	0.82
27:65:107:VAL:HG12	27:65:108:LEU:H	1.44	0.82
35:73:58:GLU:HB2	35:73:63:LYS:HG2	1.61	0.82
36:74:82:ALA:H	36:74:85:VAL:HG23	1.44	0.82
46:1S:43:A:H1'	46:1S:378:A:H1'	1.59	0.82
46:1S:138:A:N6	46:1S:266:A:H61	1.75	0.82
1:2S:709:A:C8	1:2S:2788:C:H5'	2.15	0.82
24:62:43:VAL:HB	24:62:49:ASN:HB3	1.59	0.82
42:80:98:LYS:HG3	42:80:118:THR:HG21	1.62	0.82
45:83:33:GLN:HB3	45:83:69:TYR:HB3	1.60	0.82
46:1S:3:U:H5'	49:S2:179:VAL:HG12	1.61	0.82
46:1S:1156:C:H2'	46:1S:1157:A:H5''	1.62	0.82
1:2S:2356:A:H61	1:2S:2983:C:N4	1.77	0.82
1:2S:681:U:H2'	1:2S:682:U:H5'	1.62	0.82
1:2S:1764:U:H3'	1:2S:1765:U:H5''	1.60	0.82
11:L8:148:ALA:HA	11:L8:201:THR:HG22	1.61	0.82
17:55:118:SER:HB2	17:55:132:VAL:HA	1.61	0.82
1:2S:583:G:H21	35:73:45:LEU:HD13	1.45	0.81
1:2S:2778:G:C2'	1:2S:2779:A:H5''	2.10	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:5S:4:U:H2'	3:5S:5:G:C8	2.15	0.81
6:L3:311:PHE:HB3	6:L3:314:TYR:HB3	1.61	0.81
62:15:81:ARG:HA	62:15:116:LEU:HB2	1.62	0.81
1:2S:725:G:H3'	1:2S:726:G:H5''	1.61	0.81
1:2S:1117:G:H2'	1:2S:1118:C:C6	2.15	0.81
4:L1:56:PRO:HG2	4:L1:153:SER:HB3	1.62	0.81
5:L2:115:ASN:HA	5:L2:126:LEU:O	1.80	0.81
7:L4:283:THR:HB	7:L4:289:ILE:HD11	1.61	0.81
30:68:71:PRO:HB2	30:68:109:TYR:HA	1.62	0.81
79:RA:123:ILE:HD13	79:RA:169:ILE:HG21	1.63	0.81
46:1S:855:A:H3'	46:1S:856:A:H5''	1.63	0.81
46:1S:1527:C:H5''	52:S5:109:LYS:HZ1	1.46	0.81
19:57:146:ILE:HG22	19:57:147:GLU:H	1.46	0.81
36:74:24:LYS:HA	36:74:30:LEU:HD23	1.62	0.81
8:L5:30:TYR:HA	8:L5:33:ARG:HB3	1.63	0.81
10:L7:106:LEU:HB2	10:L7:108:LEU:HG	1.63	0.81
12:L9:23:ARG:HB2	12:L9:39:LYS:HG2	1.61	0.81
47:S0:182:LEU:HB3	47:S0:187:ALA:H	1.46	0.81
4:L1:53:LEU:HD12	4:L1:157:PHE:HE1	1.46	0.81
4:L1:73:ASP:HB2	4:L1:90:LEU:HG	1.61	0.81
11:L8:53:PRO:HD2	11:L8:56:VAL:HG21	1.63	0.81
58:11:99:ARG:HD2	70:23:9:LEU:HA	1.62	0.81
58:11:125:VAL:HG12	58:11:139:VAL:HA	1.61	0.81
6:L3:57:VAL:HB	6:L3:358:TRP:HB3	1.62	0.81
9:L6:31:ARG:HG2	9:L6:34:LEU:HG	1.62	0.81
17:55:144:ARG:HG2	37:75:96:GLU:HG2	1.62	0.81
54:S7:166:LEU:HD11	54:S7:183:PHE:HB2	1.63	0.81
5:L2:45:VAL:HG13	5:L2:85:GLY:H	1.46	0.81
50:S3:40:ARG:HG2	67:20:110:PRO:HB3	1.62	0.81
1:2S:2255:A:H5'	1:2S:2261:G:H22	1.46	0.81
54:S7:185:ILE:H	54:S7:185:ILE:HD13	1.46	0.81
1:2S:2638:C:H2'	1:2S:2639:G:O4'	1.82	0.80
1:2S:3040:A:H5''	25:63:12:ARG:HB2	1.63	0.80
1:2S:2251:G:H2'	1:2S:2252:A:H5''	1.64	0.80
10:L7:88:ARG:HG2	10:L7:111:ILE:HG13	1.62	0.80
37:75:119:LYS:HE2	37:75:119:LYS:HA	1.61	0.80
71:24:54:ALA:HB2	71:24:79:VAL:HG22	1.63	0.80
1:2S:2818:U:H5''	31:69:2:ALA:HB2	1.63	0.80
2:8S:40:A:H2'	2:8S:41:A:C8	2.16	0.80
46:1S:386:G:H2'	46:1S:387:A:C8	2.16	0.80
1:2S:438:A:H3'	1:2S:439:C:H5''	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:682:U:H5''	1:2S:683:U:H5	1.47	0.80
1:2S:1110:U:H2'	1:2S:1111:U:C6	2.16	0.80
19:57:24:VAL:HG22	19:57:86:LYS:HE2	1.63	0.80
46:1S:1258:U:H4'	57:10:2:LEU:HB2	1.63	0.80
46:1S:1370:U:H4'	46:1S:1371:A:H5'	1.63	0.80
51:S4:62:LYS:O	51:S4:66:MET:HG2	1.80	0.80
73:26:84:VAL:HG13	73:26:85:ARG:H	1.46	0.80
48:S1:129:THR:HA	48:S1:177:GLN:HA	1.62	0.80
61:14:84:ARG:HG3	61:14:119:THR:HA	1.63	0.80
1:2S:1169:A:H5''	10:L7:219:LYS:HD3	1.61	0.80
1:2S:1951:C:H6	1:2S:2095:G:N2	1.79	0.80
1:2S:2102:U:H2'	1:2S:2103:U:C6	2.16	0.80
65:18:88:ARG:HB3	65:18:88:ARG:HH21	1.42	0.80
67:20:53:LYS:HB2	67:20:92:ASP:HB2	1.61	0.80
1:2S:58:G:H2'	1:2S:59:G:H8	1.43	0.80
1:2S:2882:U:H2'	1:2S:2883:U:H6	1.46	0.80
14:51:49:LYS:HB3	14:51:62:ASN:HA	1.63	0.80
62:15:90:ILE:HD11	62:15:112:LEU:HD21	1.64	0.80
1:2S:501:A:H4'	9:L6:28:GLN:HE21	1.46	0.80
6:L3:280:HIS:HB3	6:L3:324:VAL:HG21	1.63	0.80
33:71:79:ARG:HA	33:71:89:LEU:HA	1.62	0.80
46:1S:113:U:H4'	46:1S:115:G:OP1	1.80	0.80
63:16:12:LYS:HG2	63:16:17:THR:HG22	1.62	0.80
79:RA:166:SER:HA	79:RA:182:ASN:HD21	1.46	0.80
1:2S:1654:A:H2'	1:2S:1655:G:H5'	1.64	0.80
1:2S:2160:G:H2'	1:2S:2161:G:C8	2.17	0.80
28:66:56:VAL:HG22	28:66:57:LEU:H	1.46	0.80
48:S1:71:ALA:HB3	61:14:114:ARG:HH12	1.46	0.80
51:S4:71:LYS:HD3	51:S4:74:GLY:HA2	1.63	0.80
1:2S:2675:C:H42	14:51:22:SER:HB2	1.46	0.79
19:57:120:ASN:ND2	19:57:145:HIS:HB2	1.96	0.79
46:1S:845:G:C2'	46:1S:846:G:H5''	2.11	0.79
1:2S:1845:G:H5'	1:2S:1846:C:C5'	2.13	0.79
24:62:84:LEU:HD22	24:62:89:LEU:HB2	1.64	0.79
1:2S:745:C:H5''	20:58:145:ASN:ND2	1.96	0.79
1:2S:2137:U:H5''	1:2S:2138:A:H5''	1.64	0.79
1:2S:3361:G:H2'	1:2S:3362:A:C2	2.18	0.79
46:1S:1061:A:H5'	46:1S:1062:A:C2	2.18	0.79
59:12:103:LEU:HD23	59:12:115:VAL:HG13	1.64	0.79
11:L8:71:VAL:HG21	11:L8:76:ALA:HB2	1.65	0.79
13:50:190:VAL:HG22	13:50:199:PHE:HE1	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:55:28:TRP:O	17:55:32:GLN:HG2	1.82	0.79
46:1S:1712:A:H3'	46:1S:1713:G:C5'	2.11	0.79
49:S2:53:ILE:HG12	49:S2:72:LEU:HG	1.62	0.79
61:14:133:ARG:HG2	61:14:136:ARG:HH21	1.45	0.79
65:18:15:LEU:HD23	65:18:15:LEU:H	1.48	0.79
1:2S:3354:U:OP1	1:2S:3356:G:H5'	1.83	0.79
46:1S:827:C:H2'	46:1S:828:U:C6	2.18	0.79
46:1S:1789:G:H8	61:14:132:ARG:HH21	1.30	0.79
1:2S:820:A:H2'	1:2S:821:U:C6	2.18	0.79
9:L6:31:ARG:H	9:L6:34:LEU:HD12	1.48	0.79
45:83:73:THR:HG23	45:83:76:ALA:H	1.48	0.79
46:1S:422:G:H2'	46:1S:423:G:C8	2.18	0.79
46:1S:632:U:H4'	70:23:11:SER:HB3	1.64	0.79
59:12:66:VAL:HG11	59:12:71:ILE:HG21	1.65	0.79
24:62:33:TYR:O	24:62:37:LEU:HD13	1.82	0.79
45:83:84:ARG:HD2	45:83:87:ARG:NH2	1.98	0.79
46:1S:1701:A:H3'	46:1S:1702:A:H5''	1.63	0.79
17:55:80:THR:O	17:55:81:TYR:HB2	1.79	0.79
21:59:98:ARG:O	21:59:102:LEU:HG	1.83	0.79
38:76:26:ILE:H	38:76:26:ILE:HD12	1.46	0.79
51:S4:15:PRO:HD3	51:S4:39:ARG:NH2	1.97	0.79
79:RA:136:ILE:HD13	79:RA:136:ILE:H	1.48	0.79
27:65:91:ASN:HD21	27:65:93:TYR:HD2	1.30	0.79
36:74:58:ARG:HG3	36:74:59:PRO:HD2	1.63	0.79
48:S1:126:THR:CG2	48:S1:136:ARG:HE	1.95	0.79
70:23:83:VAL:HG12	70:23:84:THR:H	1.48	0.79
1:2S:2160:G:H2'	1:2S:2161:G:H8	1.49	0.78
1:2S:2809:C:H5''	1:2S:2956:A:H4'	1.65	0.78
1:2S:2820:A:H2'	1:2S:2821:C:H5'	1.65	0.78
5:L2:199:THR:HG22	5:L2:200:ARG:H	1.49	0.78
21:59:23:TRP:HB3	21:59:51:VAL:HG22	1.66	0.78
39:77:27:PHE:HE1	39:77:39:TYR:HB3	1.48	0.78
57:10:11:ILE:HD13	57:10:35:ILE:HD13	1.63	0.78
1:2S:656:A:H2'	1:2S:657:A:C8	2.17	0.78
1:2S:1345:G:N2	7:L4:307:GLN:HE22	1.82	0.78
1:2S:1813:A:C2'	1:2S:1814:A:H5''	2.13	0.78
37:75:78:LYS:HA	37:75:81:ARG:HD2	1.63	0.78
44:82:7:THR:HB	44:82:22:GLN:HE22	1.46	0.78
60:13:59:GLY:HA2	74:27:45:THR:HB	1.65	0.78
1:2S:1203:A:H2'	1:2S:1204:A:C8	2.19	0.78
5:L2:83:HIS:HB3	45:83:64:VAL:HG22	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:63:120:LYS:HB2	25:63:137:VAL:HG21	1.65	0.78
46:1S:1429:G:H1'	67:20:74:GLU:HG2	1.64	0.78
6:L3:238:LEU:HB3	6:L3:242:THR:HG21	1.66	0.78
67:20:106:ILE:HG23	67:20:107:THR:HG23	1.64	0.78
1:2S:2076:G:C2'	1:2S:2077:U:H5''	2.12	0.78
1:2S:2756:C:H2'	1:2S:2757:U:C6	2.18	0.78
1:2S:3146:G:H2'	1:2S:3147:G:C8	2.18	0.78
20:58:165:ILE:HG12	20:58:166:LEU:N	1.99	0.78
46:1S:186:C:H6	46:1S:186:C:H5'	1.48	0.78
8:L5:142:PHE:HB3	8:L5:171:LEU:HD22	1.65	0.78
53:S6:31:ARG:HB2	53:S6:34:GLN:HG3	1.66	0.78
78:31:138:ARG:HB3	78:31:138:ARG:NH1	1.98	0.78
1:2S:1951:C:C6	1:2S:2095:G:N1	2.51	0.78
18:56:7:VAL:HB	18:56:33:ILE:HG12	1.63	0.78
28:66:31:LEU:HD11	28:66:75:ARG:HG2	1.63	0.78
35:73:59:VAL:HG23	35:73:60:ARG:H	1.47	0.78
72:25:70:LYS:HG3	72:25:71:ILE:H	1.47	0.78
1:2S:664:U:H2'	1:2S:665:A:C8	2.19	0.78
1:2S:3180:A:H4'	18:56:116:LYS:HB3	1.64	0.78
22:60:166:LYS:HE2	22:60:167:ARG:H	1.48	0.78
36:74:42:PRO:O	36:74:50:ALA:HA	1.84	0.78
51:S4:31:PRO:HG3	51:S4:43:PRO:HG3	1.65	0.78
58:11:117:VAL:HG12	58:11:118:GLN:H	1.49	0.78
68:21:39:VAL:HG12	68:21:45:ALA:HA	1.65	0.78
1:2S:339:C:H3'	7:L4:195:ARG:HH12	1.47	0.78
1:2S:2216:G:H22	1:2S:2229:A:H2	1.31	0.78
20:58:176:ARG:O	30:68:51:GLY:HA2	1.84	0.78
46:1S:1264:G:H2'	46:1S:1265:G:C8	2.19	0.78
72:25:50:ILE:O	72:25:54:VAL:HG23	1.81	0.78
1:2S:132:C:H2'	1:2S:133:U:H5''	1.63	0.77
1:2S:585:A:H2'	1:2S:586:C:C6	2.18	0.77
13:50:52:LEU:HD22	13:50:135:ILE:HD12	1.66	0.77
52:S5:128:ASN:HB2	52:S5:131:GLN:HB2	1.66	0.77
46:1S:1481:C:H5''	46:1S:1482:C:OP1	1.82	0.77
67:20:95:ALA:HB1	67:20:96:PRO:HD2	1.66	0.77
19:57:120:ASN:HD21	19:57:145:HIS:HB2	1.47	0.77
46:1S:304:U:H2'	46:1S:305:C:C6	2.20	0.77
51:S4:48:LEU:HD23	51:S4:61:VAL:HG13	1.67	0.77
1:2S:2466:G:H2'	1:2S:2467:G:H5'	1.66	0.77
39:77:51:ALA:HA	39:77:54:LYS:HE2	1.67	0.77
45:83:19:GLY:O	45:83:23:ARG:HG3	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:237:C:H5''	46:1S:238:U:C5'	2.15	0.77
62:15:53:PRO:HB2	62:15:57:MET:HG2	1.67	0.77
70:23:109:ARG:NH2	70:23:112:LYS:HB3	1.99	0.77
1:2S:1719:G:H4'	1:2S:1732:U:H4'	1.67	0.77
1:2S:3343:G:H1'	1:2S:3362:A:H61	1.50	0.77
46:1S:1684:U:H3	46:1S:1717:G:H1	1.33	0.77
1:2S:1294:A:HO2'	1:2S:1295:G:H8	1.31	0.77
37:75:24:LEU:HB3	37:75:51:ILE:HG12	1.67	0.77
62:15:90:ILE:HG12	62:15:107:ILE:HG22	1.65	0.77
1:2S:185:C:H5''	28:66:122:LYS:HG2	1.65	0.77
1:2S:2673:A:H5'	14:51:95:ASN:HA	1.67	0.77
4:L1:90:LEU:HD22	4:L1:115:VAL:HG21	1.67	0.77
30:68:36:GLY:HA2	30:68:39:HIS:CD2	2.20	0.77
39:77:34:CYS:HB3	39:77:39:TYR:H	1.50	0.77
53:S6:135:PRO:HB3	53:S6:140:ASN:HB3	1.67	0.77
1:2S:1460:A:H2'	1:2S:1461:A:C8	2.19	0.77
11:L8:107:GLU:HG2	11:L8:111:LYS:HE2	1.66	0.77
43:81:17:ARG:HH22	46:1S:1116:A:H5''	1.48	0.77
55:S8:98:LYS:HA	55:S8:169:ILE:HB	1.67	0.77
46:1S:56:U:H4'	46:1S:57:G:H5'	1.67	0.77
46:1S:477:A:H2'	46:1S:478:A:C8	2.19	0.77
66:19:28:LEU:HD21	66:19:30:VAL:HG13	1.66	0.77
13:50:98:ARG:HB3	13:50:120:GLY:HA3	1.67	0.76
25:63:62:VAL:HB	25:63:70:ARG:HG2	1.67	0.76
36:74:41:ARG:HB2	36:74:50:ALA:HB1	1.67	0.76
46:1S:466:U:H2'	46:1S:467:G:H5'	1.66	0.76
1:2S:2415:C:H5''	5:L2:207:VAL:CG1	2.15	0.76
1:2S:3146:G:H4'	6:L3:100:ARG:NH1	2.00	0.76
36:74:71:THR:HG22	36:74:72:VAL:H	1.48	0.76
9:L6:40:LEU:HB3	9:L6:84:VAL:HG13	1.66	0.76
46:1S:710:U:H2'	46:1S:711:U:H5'	1.67	0.76
61:14:84:ARG:HA	61:14:119:THR:HG22	1.66	0.76
8:L5:261:THR:H	8:L5:264:GLN:CG	1.98	0.76
46:1S:579:A:N6	50:S3:143:ARG:HA	2.01	0.76
63:16:41:PRO:O	63:16:42:GLU:HB3	1.83	0.76
70:23:63:GLN:HA	70:23:65:ASN:H	1.50	0.76
73:26:18:VAL:HG23	73:26:19:LYS:H	1.50	0.76
1:2S:2342:U:H5''	1:2S:3089:C:O2'	1.85	0.76
1:2S:2470:C:H5''	4:L1:30:GLU:HG2	1.67	0.76
1:2S:2530:G:H2'	1:2S:2531:C:H5''	1.66	0.76
22:60:23:LYS:O	22:60:24:LEU:HB2	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:63:45:ARG:HG2	25:63:48:ARG:HH21	1.51	0.76
46:1S:1685:G:H2'	46:1S:1686:C:H5''	1.66	0.76
55:S8:5:ARG:NH1	55:S8:28:GLU:HA	2.01	0.76
1:2S:829:U:H3	1:2S:895:A:N6	1.81	0.76
1:2S:2155:G:H2'	1:2S:2156:C:C6	2.21	0.76
12:L9:104:VAL:HG23	12:L9:111:PHE:HB2	1.66	0.76
14:51:112:LEU:HD23	14:51:112:LEU:H	1.50	0.76
35:73:14:LEU:HD11	35:73:31:LYS:HB2	1.67	0.76
1:2S:3034:C:H42	12:L9:121:LYS:HB2	1.49	0.76
21:59:162:ARG:NH1	21:59:162:ARG:HB2	2.00	0.76
48:S1:61:LEU:HD23	48:S1:62:LYS:H	1.51	0.76
79:RA:12:THR:HG22	79:RA:311:ARG:HG2	1.67	0.76
1:2S:254:A:H2'	1:2S:255:A:H8	1.51	0.76
8:L5:153:THR:HG23	8:L5:160:PHE:HZ	1.49	0.76
22:60:11:GLY:HA2	22:60:59:VAL:HG23	1.66	0.76
46:1S:771:A:H5'	56:S9:7:THR:HG23	1.68	0.76
58:11:123:VAL:HG23	58:11:142:VAL:HA	1.65	0.76
61:14:87:GLY:HA2	61:14:92:LYS:HB3	1.68	0.76
65:18:2:SER:HB3	65:18:55:HIS:CD2	2.21	0.76
1:2S:31:C:H5''	17:55:95:GLN:HB2	1.68	0.76
1:2S:3299:A:H61	1:2S:3315:G:H1	1.33	0.76
1:2S:3343:G:H2'	1:2S:3361:G:N2	2.01	0.76
6:L3:8:ALA:HB1	25:63:45:ARG:HH22	1.51	0.76
6:L3:223:GLY:HA2	6:L3:271:GLY:HA3	1.68	0.76
46:1S:1457:C:O2'	46:1S:1458:G:H5'	1.86	0.76
79:RA:112:SER:HB2	79:RA:153:GLN:HA	1.68	0.76
1:2S:653:A:H61	1:2S:1442:U:H3	1.33	0.75
1:2S:662:U:H2'	1:2S:663:C:C6	2.21	0.75
1:2S:2998:U:H2'	1:2S:2999:U:C6	2.20	0.75
1:2S:2521:U:H2'	1:2S:2522:G:H5'	1.67	0.75
69:22:81:VAL:HG12	69:22:83:ILE:N	2.02	0.75
73:26:41:ILE:HD13	73:26:41:ILE:H	1.50	0.75
1:2S:1971:C:H2'	1:2S:1972:A:O4'	1.87	0.75
7:L4:4:PRO:HD2	7:L4:22:LEU:HD11	1.68	0.75
10:L7:84:VAL:HA	10:L7:139:PRO:HD3	1.66	0.75
46:1S:712:G:C2'	46:1S:713:A:H5''	2.16	0.75
60:13:70:LYS:H	60:13:73:ARG:HD2	1.51	0.75
72:25:75:LEU:HA	72:25:78:ILE:HD13	1.67	0.75
1:2S:3131:U:H2'	1:2S:3132:C:C6	2.22	0.75
1:2S:31:C:H5	17:55:188:ARG:HH22	1.35	0.75
20:58:100:THR:HG23	20:58:122:ILE:HD13	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1173:C:H3'	65:18:141:THR:HG21	1.68	0.75
12:L9:172:ILE:HD13	12:L9:172:ILE:H	1.52	0.75
46:1S:185:U:C2'	46:1S:186:C:H5''	2.17	0.75
46:1S:1118:G:H2'	46:1S:1119:G:O4'	1.87	0.75
55:S8:42:ARG:NH2	55:S8:59:ARG:HD2	2.01	0.75
6:L3:33:PRO:HG3	6:L3:342:LEU:HD23	1.69	0.75
46:1S:749:U:H3	46:1S:800:U:H3	1.35	0.75
56:S9:59:LEU:HD22	56:S9:69:ARG:HA	1.68	0.75
59:12:108:ARG:HG2	59:12:110:GLY:H	1.51	0.75
76:29:30:LEU:HA	76:29:39:CYS:HA	1.68	0.75
4:L1:92:LYS:HB3	4:L1:95:LYS:HG3	1.69	0.75
46:1S:1202:A:N6	46:1S:1457:C:H5''	2.02	0.75
1:2S:2731:U:H2'	1:2S:2732:G:C8	2.21	0.75
63:16:89:LEU:HG	63:16:105:LEU:HD21	1.69	0.75
65:18:100:THR:HG21	65:18:108:LYS:HG2	1.68	0.75
1:2S:1951:C:C5	1:2S:2095:G:N1	2.53	0.74
38:76:73:ALA:HA	38:76:76:ARG:HB3	1.69	0.74
52:S5:201:ALA:HA	52:S5:211:ILE:HD11	1.68	0.74
4:L1:39:LYS:HG2	4:L1:164:CYS:SG	2.26	0.74
11:L8:65:LEU:O	11:L8:69:LEU:HD13	1.87	0.74
1:2S:2045:G:H2'	1:2S:2046:U:O4'	1.86	0.74
12:L9:189:GLU:HG3	12:L9:190:ASP:H	1.51	0.74
35:73:49:ILE:HG12	35:73:100:ILE:HG23	1.69	0.74
46:1S:822:U:H3'	46:1S:823:G:H5''	1.70	0.74
53:S6:6:SER:HB3	53:S6:13:GLN:HB3	1.67	0.74
7:L4:179:LEU:O	7:L4:183:LYS:HB2	1.86	0.74
17:55:49:ARG:HH12	17:55:54:LYS:NZ	1.84	0.74
25:63:118:VAL:HG12	25:63:119:GLY:N	2.00	0.74
30:68:7:LYS:HA	30:68:10:LYS:HD3	1.70	0.74
48:S1:123:ALA:HB3	48:S1:168:ILE:HG21	1.68	0.74
54:S7:30:SER:HB2	54:S7:34:LEU:HB3	1.69	0.74
54:S7:46:ILE:HD12	54:S7:60:ILE:HG12	1.69	0.74
55:S8:76:THR:HG22	55:S8:108:PRO:HG2	1.67	0.74
74:27:19:HIS:O	74:27:23:THR:HG23	1.86	0.74
6:L3:350:ALA:O	6:L3:351:LEU:HB2	1.88	0.74
7:L4:58:HIS:HD1	7:L4:90:PHE:HD1	1.35	0.74
46:1S:576:G:H4'	46:1S:580:A:C2	2.23	0.74
46:1S:1042:G:H2'	46:1S:1043:A:H5''	1.69	0.74
46:1S:1119:G:H2'	46:1S:1120:U:C6	2.21	0.74
46:1S:1729:C:O2'	55:S8:2:GLY:HA2	1.88	0.74
47:S0:188:LEU:CD1	47:S0:193:GLN:HG2	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:145:LYS:HD3	48:S1:149:GLN:HG2	1.68	0.74
70:23:106:GLY:O	70:23:123:LYS:HE2	1.87	0.74
1:2S:218:G:H1'	1:2S:372:A:H1'	1.68	0.74
28:66:112:ASP:H	28:66:115:ARG:HB2	1.50	0.74
33:71:28:ARG:HD3	33:71:65:LYS:HA	1.69	0.74
46:1S:769:A:H2'	46:1S:770:A:C8	2.22	0.74
46:1S:802:G:H21	69:22:107:SER:HB3	1.52	0.74
46:1S:924:A:H2'	46:1S:925:G:C8	2.23	0.74
46:1S:1042:G:C3'	46:1S:1043:A:H5''	2.17	0.74
46:1S:1079:U:H2'	46:1S:1080:U:C6	2.23	0.74
1:2S:630:A:H2'	1:2S:631:U:C6	2.23	0.74
8:L5:23:ARG:HH21	8:L5:26:GLY:HA2	1.52	0.74
15:53:113:VAL:HA	15:53:116:LEU:HD12	1.69	0.74
46:1S:1419:G:H5'	76:29:56:ARG:O	1.88	0.74
46:1S:1701:A:H3'	46:1S:1702:A:C5'	2.17	0.74
54:S7:131:PHE:N	54:S7:132:PRO:HD2	2.02	0.74
79:RA:164:ASP:O	79:RA:165:ASP:HB2	1.87	0.74
1:2S:200:C:H5'	1:2S:221:A:N3	2.03	0.74
1:2S:277:G:H5''	44:82:49:GLY:HA2	1.69	0.74
18:56:20:ALA:HB2	18:56:80:PHE:CZ	2.23	0.74
32:70:24:THR:HG22	32:70:91:SER:HB3	1.70	0.74
1:2S:2616:C:H2'	1:2S:2617:U:H5'	1.69	0.74
10:L7:25:GLN:HG3	10:L7:29:GLU:CG	2.18	0.74
13:50:57:LEU:HB2	13:50:131:ILE:HG13	1.69	0.74
27:65:111:ASN:HB2	27:65:123:TYR:HB2	1.68	0.74
46:1S:1646:C:H2'	46:1S:1647:U:C6	2.23	0.74
46:1S:94:U:H4'	51:S4:6:LYS:HA	1.69	0.74
46:1S:749:U:H2'	46:1S:750:U:C6	2.22	0.74
53:S6:36:VAL:HG12	53:S6:37:ASP:H	1.51	0.74
1:2S:3164:C:O2'	1:2S:3165:A:H5'	1.88	0.73
6:L3:4:ARG:HB3	6:L3:7:GLU:OE2	1.86	0.73
6:L3:217:ALA:HB3	6:L3:277:SER:HB3	1.69	0.73
6:L3:261:MET:HG2	6:L3:262:TRP:N	2.01	0.73
15:53:32:LYS:HA	15:53:35:ARG:HB2	1.70	0.73
46:1S:1779:U:H2'	46:1S:1781:A:OP2	1.87	0.73
68:21:74:GLN:NE2	68:21:83:TRP:HB3	2.03	0.73
1:2S:1936:A:H2'	1:2S:1937:U:C6	2.23	0.73
7:L4:23:PRO:HG2	7:L4:258:LEU:HD23	1.68	0.73
19:57:109:ALA:HA	19:57:112:LEU:HD13	1.70	0.73
27:65:31:THR:HG22	27:65:32:PHE:H	1.52	0.73
34:72:103:LYS:O	34:72:106:VAL:HG12	1.87	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:77:18:LEU:HA	39:77:25:ARG:H	1.53	0.73
47:S0:55:GLU:O	47:S0:59:LEU:HD13	1.87	0.73
51:S4:181:VAL:HG22	51:S4:227:VAL:HG12	1.69	0.73
1:2S:1523:U:H5'	27:65:113:LEU:HB3	1.69	0.73
1:2S:2857:C:H2'	1:2S:2858:U:C6	2.24	0.73
7:L4:89:ALA:O	7:L4:90:PHE:HB2	1.86	0.73
7:L4:113:VAL:HG13	7:L4:117:GLU:OE1	1.88	0.73
46:1S:71:A:H2'	46:1S:72:A:H4'	1.71	0.73
46:1S:142:G:H22	46:1S:173:A:H2	1.34	0.73
55:S8:135:LYS:O	55:S8:135:LYS:HD3	1.88	0.73
69:22:82:LYS:O	69:22:83:ILE:HG22	1.88	0.73
1:2S:3166:C:H2'	1:2S:3167:A:H8	1.53	0.73
3:5S:36:C:H5''	8:L5:155:THR:HG23	1.69	0.73
29:67:9:LYS:HB3	29:67:25:ILE:HD12	1.69	0.73
36:74:8:ARG:HB3	36:74:8:ARG:HH11	1.51	0.73
46:1S:861:U:C5'	60:13:64:ARG:HH22	2.00	0.73
46:1S:1311:U:H2'	46:1S:1313:A:OP2	1.89	0.73
79:RA:159:ASN:HB2	79:RA:163:ASP:H	1.52	0.73
1:2S:296:A:O2'	1:2S:297:G:H5'	1.88	0.73
29:67:121:ARG:HA	29:67:126:LYS:HD3	1.70	0.73
35:73:60:ARG:NH2	35:73:60:ARG:HB3	2.02	0.73
1:2S:2611:U:H2'	1:2S:2612:U:C6	2.23	0.73
2:8S:9:A:H2'	2:8S:10:A:C8	2.22	0.73
14:51:148:VAL:CG1	14:51:152:HIS:HB3	2.18	0.73
36:74:5:VAL:HG21	36:74:31:ARG:HA	1.70	0.73
67:20:21:LYS:HA	67:20:94:GLU:HG2	1.70	0.73
75:28:43:ASN:HD21	75:28:63:ALA:HB3	1.53	0.73
11:L8:240:ASN:HA	11:L8:243:GLN:HB2	1.70	0.73
36:74:85:VAL:O	36:74:89:ILE:HG13	1.88	0.73
70:23:76:LEU:HD13	70:23:79:ASN:HB2	1.69	0.73
1:2S:1859:A:H61	1:2S:1871:U:H3	1.36	0.73
1:2S:2356:A:N6	1:2S:2983:C:H41	1.85	0.73
5:L2:53:GLY:HA2	5:L2:191:LEU:HB3	1.70	0.73
22:60:124:LEU:HA	23:61:153:PRO:HG2	1.69	0.73
38:76:66:GLU:HG3	38:76:87:VAL:HG11	1.70	0.73
48:S1:193:ILE:O	48:S1:197:ILE:HG12	1.89	0.73
52:S5:158:GLN:HG2	75:28:66:LEU:HD22	1.70	0.73
1:2S:861:C:H2'	1:2S:862:U:H6	1.53	0.73
1:2S:1498:A:H2'	1:2S:1499:C:C6	2.23	0.73
1:2S:1604:G:C4'	1:2S:1835:A:H4'	2.16	0.73
5:L2:27:ALA:HB3	5:L2:128:ARG:NH2	2.04	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:226:PHE:CE1	6:L3:268:GLY:HA2	2.24	0.73
10:L7:96:PRO:HB2	10:L7:99:PRO:HD2	1.68	0.73
28:66:57:LEU:HD23	28:66:67:GLU:HB3	1.71	0.73
68:21:78:LEU:HD23	68:21:78:LEU:H	1.54	0.73
71:24:81:GLU:HA	71:24:84:LYS:HG2	1.69	0.73
1:2S:338:A:H4'	7:L4:197:ARG:HH21	1.53	0.73
1:2S:603:A:H2'	1:2S:604:G:O4'	1.89	0.73
1:2S:1976:G:H1	1:2S:2043:U:H3	1.36	0.73
12:L9:180:TYR:HB2	42:80:85:LEU:HD12	1.71	0.73
23:61:93:VAL:HA	23:61:96:ILE:HD13	1.71	0.73
32:70:41:LEU:HB3	32:70:92:ILE:HG13	1.69	0.73
46:1S:1158:C:H5	46:1S:1581:C:H2'	1.53	0.73
46:1S:1174:C:H42	46:1S:1465:C:H42	1.37	0.73
56:S9:112:GLN:HG3	56:S9:148:VAL:HG21	1.71	0.73
58:11:46:LYS:HD2	58:11:49:ILE:HD12	1.71	0.73
70:23:62:LYS:HB2	70:23:116:ASP:HB2	1.71	0.73
1:2S:1290:A:H2'	1:2S:1291:A:C8	2.24	0.72
7:L4:193:LYS:HG2	7:L4:198:ARG:HG3	1.70	0.72
12:L9:69:ARG:HD3	12:L9:72:LYS:HD3	1.69	0.72
46:1S:541:A:H5'	46:1S:541:A:N3	2.04	0.72
47:S0:74:VAL:HB	47:S0:121:VAL:HG22	1.71	0.72
1:2S:87:U:H5''	20:58:172:PHE:HZ	1.54	0.72
1:2S:1565:G:H1'	1:2S:1575:A:N1	2.04	0.72
5:L2:247:ARG:HB3	46:1S:1012:U:H4'	1.69	0.72
12:L9:180:TYR:HB3	42:80:89:TYR:HE2	1.53	0.72
32:70:24:THR:HG23	32:70:30:THR:HG22	1.70	0.72
36:74:54:ILE:HG23	36:74:70:LYS:HA	1.70	0.72
44:82:68:VAL:HB	44:82:85:LEU:HB2	1.72	0.72
54:S7:143:LEU:HD23	54:S7:147:ASN:HB2	1.72	0.72
1:2S:700:C:H2'	1:2S:701:G:H8	1.52	0.72
1:2S:1339:C:H2'	1:2S:1340:G:C8	2.25	0.72
1:2S:1750:A:H5'	40:78:28:ASN:HD21	1.54	0.72
18:56:34:VAL:HG12	18:56:103:LYS:HB2	1.71	0.72
29:67:75:VAL:HG22	29:67:76:ASN:N	2.04	0.72
46:1S:397:A:H5''	55:S8:47:ARG:NH1	2.01	0.72
46:1S:871:G:H2'	46:1S:872:G:C8	2.23	0.72
46:1S:1298:U:H2'	46:1S:1299:G:O4'	1.90	0.72
48:S1:189:ILE:HB	48:S1:190:PRO:HD3	1.71	0.72
48:S1:218:LEU:HD13	48:S1:218:LEU:H	1.54	0.72
1:2S:2969:A:H2'	1:2S:2970:C:C6	2.24	0.72
5:L2:129:ALA:CB	5:L2:132:ASN:HD22	2.03	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:227:ARG:HG2	5:L2:239:ALA:HB2	1.71	0.72
12:L9:90:MET:HG2	12:L9:181:VAL:HA	1.72	0.72
34:72:33:ARG:HA	34:72:33:ARG:HE	1.53	0.72
46:1S:1179:G:H21	46:1S:1460:A:H61	1.35	0.72
79:RA:29:GLN:HE21	79:RA:32:LEU:HD22	1.53	0.72
6:L3:94:GLU:HB3	18:56:152:VAL:HG13	1.71	0.72
14:51:45:PRO:HB3	14:51:69:VAL:HB	1.71	0.72
17:55:33:LYS:HE3	17:55:63:ARG:NH1	2.05	0.72
52:S5:187:ILE:H	52:S5:187:ILE:HD12	1.52	0.72
1:2S:861:C:H2'	1:2S:862:U:C6	2.25	0.72
1:2S:1646:G:H1'	1:2S:1809:A:N6	2.05	0.72
1:2S:1655:G:H1'	1:2S:1800:A:H61	1.55	0.72
5:L2:199:THR:HG22	5:L2:200:ARG:N	2.05	0.72
6:L3:222:LYS:HE3	6:L3:331:ASN:HB3	1.71	0.72
46:1S:1366:U:H5''	63:16:33:GLY:HA2	1.72	0.72
46:1S:1590:G:H2'	46:1S:1591:C:C6	2.25	0.72
53:S6:220:LYS:O	53:S6:220:LYS:HE3	1.88	0.72
75:28:8:THR:HB	75:28:56:LEU:HB2	1.71	0.72
77:30:28:LYS:HE3	77:30:31:LYS:HE2	1.70	0.72
1:2S:3165:A:H61	1:2S:3285:C:H42	1.37	0.72
4:L1:189:PHE:CD1	4:L1:200:ASN:HB2	2.23	0.72
30:68:82:ILE:HD11	30:68:102:ILE:HD11	1.71	0.72
31:69:14:ARG:O	31:69:18:ARG:HG2	1.89	0.72
46:1S:375:U:H5''	70:23:32:ARG:HH12	1.54	0.72
54:S7:58:LEU:HB2	54:S7:90:VAL:HG22	1.70	0.72
67:20:62:VAL:HG22	67:20:85:ARG:HG3	1.72	0.72
68:21:74:GLN:HE22	68:21:83:TRP:HB3	1.53	0.72
1:2S:1101:G:H2'	1:2S:1102:A:C8	2.24	0.72
1:2S:1175:C:H5''	18:56:25:LYS:HG2	1.70	0.72
1:2S:2468:A:H4'	1:2S:2469:G:O4'	1.90	0.72
1:2S:2931:C:H5''	25:63:40:LYS:HD2	1.72	0.72
5:L2:183:GLY:O	5:L2:186:PHE:HB3	1.89	0.72
15:53:170:LEU:HD21	38:76:7:ILE:HD12	1.72	0.72
25:63:45:ARG:CB	25:63:48:ARG:HE	2.02	0.72
35:73:18:ARG:HB3	35:73:23:ASN:CB	2.19	0.72
46:1S:1590:G:H2'	46:1S:1591:C:H6	1.54	0.72
47:S0:182:LEU:HD13	47:S0:187:ALA:HB3	1.69	0.72
54:S7:30:SER:O	54:S7:32:PRO:HD2	1.87	0.72
65:18:25:ASN:HD22	72:25:40:VAL:HG11	1.54	0.72
1:2S:616:G:H1'	1:2S:3273:A:N6	2.05	0.72
1:2S:827:A:H2'	1:2S:828:A:C8	2.25	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:50:33:ILE:HD11	13:50:36:LEU:HG	1.71	0.72
14:51:92:ARG:HD2	14:51:95:ASN:OD1	1.90	0.72
25:63:33:ASN:HD21	25:63:64:LYS:N	1.88	0.72
57:10:16:PHE:HD2	57:10:76:LEU:HB3	1.55	0.72
7:L4:133:SER:O	7:L4:137:ALA:HB2	1.89	0.72
21:59:68:GLN:HA	21:59:71:ARG:HD2	1.72	0.72
29:67:42:LEU:HG	29:67:74:VAL:HG22	1.72	0.72
36:74:39:ALA:HB1	36:74:57:LEU:O	1.90	0.72
70:23:144:ARG:CD	70:23:145:SER:H	2.03	0.72
73:26:4:LYS:HB2	73:26:89:ARG:HH12	1.54	0.72
6:L3:65:SER:HB3	6:L3:68:HIS:HB2	1.71	0.71
67:20:23:ARG:HB3	67:20:117:VAL:HG13	1.72	0.71
72:25:93:SER:HB2	72:25:100:ILE:H	1.53	0.71
1:2S:605:U:H2'	1:2S:606:C:C6	2.25	0.71
1:2S:803:C:H5'	7:L4:100:PHE:HE2	1.55	0.71
1:2S:2189:U:H4'	45:83:22:LEU:HD11	1.70	0.71
1:2S:2722:U:H4'	23:61:88:ARG:HB2	1.71	0.71
6:L3:229:VAL:HG23	6:L3:233:TRP:HD1	1.54	0.71
20:58:54:LEU:HB3	20:58:58:ASN:HB2	1.72	0.71
27:65:113:LEU:HG	27:65:121:LYS:HB3	1.70	0.71
46:1S:829:A:C4'	46:1S:830:U:H5'	2.18	0.71
51:S4:48:LEU:HA	51:S4:52:LEU:HD12	1.72	0.71
55:S8:113:PHE:HB3	55:S8:121:LEU:HD21	1.71	0.71
77:30:33:ARG:NH1	77:30:33:ARG:HB3	2.04	0.71
1:2S:147:U:H4'	11:L8:136:LEU:HD11	1.72	0.71
1:2S:1913:A:C2	1:2S:2120:A:H2'	2.24	0.71
4:L1:103:LEU:HD21	4:L1:106:LYS:HE2	1.72	0.71
50:S3:51:ARG:NH2	50:S3:91:VAL:HG23	2.05	0.71
1:2S:2946:A:H5''	1:2S:2947:G:H5'	1.72	0.71
1:2S:3166:C:H2'	1:2S:3167:A:C8	2.26	0.71
1:2S:3287:U:C2'	1:2S:3288:G:H5'	2.19	0.71
6:L3:266:ARG:HA	6:L3:266:ARG:HE	1.56	0.71
12:L9:124:ARG:HD3	12:L9:164:ILE:HG23	1.72	0.71
13:50:17:TYR:O	13:50:96:VAL:HG23	1.90	0.71
30:68:135:GLU:HG2	30:68:145:VAL:HG21	1.72	0.71
46:1S:237:C:H5''	46:1S:238:U:H5''	1.72	0.71
1:2S:544:C:H2'	1:2S:546:C:OP1	1.90	0.71
1:2S:1238:C:C3'	1:2S:1239:C:H5''	2.20	0.71
1:2S:1346:G:H2'	1:2S:1347:U:O4'	1.90	0.71
65:18:3:LEU:HD13	65:18:3:LEU:H	1.53	0.71
1:2S:1661:G:H2'	1:2S:1662:G:C8	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:77:VAL:HG23	7:L4:87:GLN:O	1.89	0.71
22:60:15:PRO:HG3	22:60:22:PRO:CD	2.20	0.71
36:74:86:LYS:O	36:74:90:ILE:HG12	1.90	0.71
46:1S:1307:U:O4	46:1S:1319:A:H1'	1.90	0.71
46:1S:1511:U:H2'	46:1S:1512:G:H8	1.54	0.71
55:S8:114:GLU:HG2	55:S8:120:THR:HA	1.72	0.71
10:L7:58:ALA:O	10:L7:62:ILE:HG13	1.89	0.71
45:83:22:LEU:O	45:83:26:VAL:HG23	1.90	0.71
45:83:55:TRP:CD1	45:83:66:GLY:HA3	2.25	0.71
47:S0:53:THR:HG23	47:S0:160:ILE:HG22	1.72	0.71
58:11:131:ILE:HB	58:11:135:VAL:HB	1.72	0.71
75:28:26:THR:HB	75:28:44:VAL:HG22	1.72	0.71
1:2S:1564:U:H2'	1:2S:1565:G:H8	1.56	0.71
1:2S:2341:A:H2'	1:2S:2342:U:C6	2.25	0.71
1:2S:2710:C:H2'	1:2S:2711:C:C6	2.26	0.71
5:L2:209:HIS:ND1	5:L2:210:PRO:HD2	2.05	0.71
7:L4:42:VAL:HB	7:L4:236:LEU:HD21	1.73	0.71
22:60:79:VAL:HG12	22:60:80:ARG:H	1.55	0.71
46:1S:635:A:H2'	46:1S:636:A:C8	2.26	0.71
67:20:31:VAL:O	67:20:35:GLU:HB2	1.89	0.71
1:2S:229:G:H5''	28:66:4:GLN:HB2	1.72	0.71
11:L8:122:LYS:O	11:L8:123:GLN:HB3	1.89	0.71
46:1S:698:U:H1'	54:S7:107:ARG:HD3	1.72	0.71
1:2S:1892:G:H2'	1:2S:1893:A:H5''	1.71	0.71
2:8S:40:A:H2'	2:8S:41:A:H8	1.56	0.71
7:L4:285:ASP:HB3	7:L4:288:ARG:HD3	1.73	0.71
11:L8:162:LEU:HD23	17:55:7:LEU:HD21	1.73	0.71
50:S3:34:TYR:HE2	50:S3:37:VAL:HG13	1.56	0.71
69:22:24:GLN:HA	69:22:63:VAL:O	1.91	0.71
79:RA:129:LYS:HG2	79:RA:149:ASP:O	1.90	0.71
1:2S:31:C:H4'	17:55:96:ARG:HD2	1.71	0.70
1:2S:637:C:H2'	1:2S:638:C:C6	2.26	0.70
1:2S:2523:A:H5'	11:L8:51:LYS:HD2	1.73	0.70
13:50:53:VAL:HA	13:50:134:ILE:HA	1.73	0.70
16:54:15:VAL:HG22	22:60:150:PHE:O	1.91	0.70
34:72:63:THR:HA	34:72:66:LEU:HD12	1.72	0.70
39:77:27:PHE:CE1	39:77:39:TYR:HB3	2.26	0.70
66:19:137:ALA:O	66:19:141:GLU:HG2	1.91	0.70
1:2S:72:C:H5'	15:53:63:VAL:HG22	1.71	0.70
1:2S:2941:A:N7	6:L3:256:HIS:HE1	1.89	0.70
9:L6:80:ASN:HB3	9:L6:83:TYR:HD2	1.57	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:380:U:O2'	56:S9:5:PRO:HD3	1.91	0.70
58:11:155:LYS:HD3	58:11:155:LYS:H	1.56	0.70
75:28:25:VAL:HG11	75:28:66:LEU:HD12	1.71	0.70
1:2S:1223:A:H2'	1:2S:1224:C:C6	2.24	0.70
1:2S:1315:U:H4'	1:2S:1317:A:O4'	1.91	0.70
1:2S:1928:G:H2'	1:2S:1929:G:O4'	1.91	0.70
25:63:126:TRP:HB2	25:63:129:VAL:HB	1.73	0.70
29:67:26:VAL:HG12	29:67:89:VAL:HG21	1.71	0.70
46:1S:961:U:H5''	60:13:71:ILE:HD13	1.71	0.70
5:L2:68:LYS:HG2	5:L2:69:TYR:H	1.56	0.70
6:L3:215:ILE:HG13	6:L3:280:HIS:HB2	1.72	0.70
14:51:79:ILE:HG12	14:51:82:ARG:HH21	1.55	0.70
35:73:49:ILE:HG22	35:73:50:ALA:H	1.56	0.70
46:1S:929:A:H3'	46:1S:930:A:C8	2.26	0.70
46:1S:959:U:H5''	60:13:14:SER:HB3	1.71	0.70
54:S7:96:ARG:HD2	54:S7:121:VAL:HG13	1.72	0.70
1:2S:2492:C:HO2'	1:2S:2494:A:H8	1.39	0.70
23:61:41:ASP:HB2	23:61:97:LYS:HG3	1.71	0.70
25:63:93:LEU:HD23	25:63:93:LEU:H	1.56	0.70
25:63:117:PRO:HA	25:63:135:VAL:HB	1.74	0.70
45:83:82:THR:O	45:83:86:LEU:HB2	1.91	0.70
46:1S:712:G:H2'	46:1S:713:A:C5'	2.20	0.70
59:12:49:THR:O	59:12:53:THR:HG23	1.91	0.70
62:15:80:MET:O	62:15:116:LEU:HD12	1.91	0.70
69:22:11:LEU:HD23	69:22:14:ILE:HD12	1.73	0.70
1:2S:669:U:H3	1:2S:793:C:H42	1.40	0.70
5:L2:78:ALA:O	5:L2:169:ILE:HA	1.92	0.70
6:L3:245:GLY:HA3	6:L3:248:LYS:HD2	1.72	0.70
8:L5:109:THR:HA	8:L5:112:LYS:HE3	1.72	0.70
27:65:135:ILE:HG12	27:65:138:ARG:HE	1.56	0.70
65:18:38:VAL:HG12	65:18:42:TYR:HD2	1.57	0.70
1:2S:1797:A:H4'	5:L2:22:LEU:HD21	1.72	0.70
1:2S:3294:A:H2'	1:2S:3295:A:O4'	1.92	0.70
7:L4:222:VAL:HG13	7:L4:225:VAL:HB	1.72	0.70
14:51:23:VAL:HG12	14:51:25:GLU:H	1.57	0.70
51:S4:187:ARG:HA	51:S4:187:ARG:HE	1.56	0.70
53:S6:98:ARG:HD3	53:S6:99:GLY:N	2.07	0.70
64:17:10:LYS:HG2	64:17:53:TYR:HE1	1.57	0.70
65:18:134:ARG:HB2	65:18:136:GLN:HE21	1.55	0.70
73:26:10:ARG:HB2	73:26:34:LYS:HA	1.72	0.70
73:26:86:VAL:HG22	73:26:87:ARG:N	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:109:A:H4'	1:2S:110:G:H5'	1.72	0.70
1:2S:437:G:H22	1:2S:622:A:H61	1.40	0.70
1:2S:2108:C:H1'	1:2S:3344:A:H8	1.57	0.70
1:2S:2552:C:O2'	32:70:50:VAL:HG11	1.92	0.70
3:5S:112:G:H2'	3:5S:113:C:C6	2.27	0.70
6:L3:13:HIS:HB3	6:L3:16:PHE:HB2	1.74	0.70
6:L3:219:ALA:HB2	6:L3:336:VAL:HG13	1.72	0.70
33:71:73:LEU:HB3	33:71:95:PRO:HA	1.73	0.70
46:1S:484:C:H42	46:1S:503:G:H1	1.39	0.70
46:1S:1795:U:H5''	73:26:86:VAL:HG23	1.72	0.70
47:S0:77:SER:HB2	47:S0:86:VAL:HG11	1.74	0.70
49:S2:111:VAL:O	49:S2:136:VAL:HA	1.91	0.70
67:20:25:THR:HG21	67:20:88:LYS:HE2	1.72	0.70
1:2S:2393:G:H4'	6:L3:252:ILE:HG12	1.72	0.70
11:L8:172:LYS:HD2	38:76:43:LEU:HD23	1.74	0.70
46:1S:514:G:H1	46:1S:543:C:H5	1.40	0.70
1:2S:153:U:C2'	1:2S:154:U:H5''	2.21	0.70
1:2S:215:G:H5''	28:66:12:ARG:HG3	1.74	0.70
5:L2:39:GLY:HA2	5:L2:93:LYS:HB2	1.73	0.70
5:L2:112:ILE:HG12	5:L2:135:ILE:HG12	1.73	0.70
25:63:38:ALA:O	25:63:58:VAL:HB	1.92	0.70
46:1S:155:U:H4'	53:S6:59:GLN:HA	1.73	0.70
46:1S:1489:U:H5'	46:1S:1494:C:H1'	1.73	0.70
1:2S:2964:G:N2	1:2S:2967:A:OP2	2.25	0.69
6:L3:160:VAL:O	6:L3:180:GLU:HA	1.92	0.69
19:57:59:PRO:HB2	19:57:61:ARG:HH12	1.56	0.69
20:58:120:GLU:HG2	20:58:121:CYS:H	1.56	0.69
29:67:3:LYS:HE3	32:70:36:GLN:HA	1.72	0.69
47:S0:115:PHE:CZ	49:S2:39:THR:HG22	2.24	0.69
65:18:126:ARG:HG2	65:18:133:VAL:HA	1.74	0.69
1:2S:1104:G:H2'	1:2S:1105:A:C8	2.27	0.69
1:2S:1967:U:OP1	1:2S:1968:G:H5''	1.92	0.69
1:2S:2927:C:H2'	1:2S:2928:C:C6	2.27	0.69
23:61:78:LYS:HB2	23:61:87:LYS:HE2	1.72	0.69
46:1S:656:G:O2'	46:1S:657:U:H5'	1.92	0.69
54:S7:75:THR:O	54:S7:79:ARG:HG3	1.91	0.69
55:S8:113:PHE:HE1	55:S8:119:GLN:HB2	1.56	0.69
67:20:50:LEU:HD21	67:20:95:ALA:HB2	1.73	0.69
70:23:141:GLU:HG2	70:23:142:LYS:H	1.56	0.69
1:2S:2369:G:H2'	1:2S:2370:G:C8	2.26	0.69
1:2S:2631:U:H4'	1:2S:2697:A:H2	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:44:ARG:HG3	11:L8:44:ARG:HH11	1.57	0.69
12:L9:138:THR:HG22	12:L9:139:ASN:H	1.57	0.69
46:1S:1326:A:H2'	46:1S:1327:C:C6	2.27	0.69
50:S3:106:LYS:HA	50:S3:109:LEU:HD12	1.73	0.69
1:2S:1019:G:C2'	1:2S:1020:G:H5''	2.22	0.69
1:2S:1114:U:OP1	30:68:22:ILE:HB	1.92	0.69
6:L3:17:LEU:HG	6:L3:18:PRO:HA	1.73	0.69
46:1S:200:A:H2'	46:1S:201:G:C8	2.28	0.69
1:2S:2192:C:H2'	1:2S:2193:U:C6	2.28	0.69
7:L4:188:ARG:HH21	7:L4:197:ARG:HB3	1.58	0.69
16:54:14:LEU:CD2	22:60:151:PRO:HD3	2.21	0.69
53:S6:74:LYS:HA	53:S6:96:SER:HA	1.74	0.69
65:18:18:LEU:HD21	65:18:70:VAL:HG13	1.75	0.69
2:8S:82:U:H4'	2:8S:87:G:H5'	1.74	0.69
6:L3:339:ARG:HG2	6:L3:340:LYS:H	1.57	0.69
22:60:80:ARG:HB3	22:60:122:HIS:HB2	1.73	0.69
36:74:80:ARG:HD3	36:74:84:CYS:HB3	1.73	0.69
38:76:5:THR:HG23	38:76:12:ASN:HB2	1.73	0.69
46:1S:143:G:C2'	46:1S:144:U:H5''	2.22	0.69
46:1S:1114:G:H1'	46:1S:1115:U:H5	1.58	0.69
53:S6:7:TYR:HD2	53:S6:8:PRO:HD2	1.58	0.69
61:14:18:ARG:HG2	61:14:82:LYS:HB2	1.73	0.69
65:18:29:VAL:HG21	65:18:54:LEU:HD12	1.75	0.69
66:19:113:ILE:HG23	66:19:128:GLY:HA2	1.74	0.69
70:23:141:GLU:HG2	70:23:142:LYS:N	2.07	0.69
1:2S:1649:U:H2'	1:2S:1650:G:C8	2.27	0.69
4:L1:44:GLN:H	4:L1:161:LYS:HB3	1.58	0.69
10:L7:59:GLU:HA	10:L7:62:ILE:HD12	1.75	0.69
11:L8:68:ARG:HD2	11:L8:238:LEU:HD13	1.74	0.69
32:70:17:VAL:HG21	32:70:100:ILE:HD13	1.73	0.69
45:83:59:CYS:O	45:83:60:CYS:HB3	1.91	0.69
46:1S:555:A:H5'	56:S9:21:SER:OG	1.93	0.69
46:1S:1381:U:H4'	67:20:59:PRO:HG3	1.74	0.69
63:16:97:VAL:HG12	63:16:98:ASP:H	1.57	0.69
69:22:38:LEU:HA	69:22:41:MET:HE3	1.74	0.69
79:RA:38:ARG:HD3	79:RA:67:ILE:HD13	1.75	0.69
1:2S:671:U:H4'	20:58:20:LYS:HG2	1.75	0.69
1:2S:725:G:C3'	1:2S:726:G:H5''	2.22	0.69
1:2S:2355:G:H4'	19:57:139:TYR:CE2	2.27	0.69
1:2S:2443:A:H61	1:2S:2504:U:H3	1.41	0.69
4:L1:60:ARG:HB3	4:L1:61:PRO:HD2	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L1:90:LEU:HD11	4:L1:111:ILE:HG12	1.75	0.69
17:55:80:THR:HG21	17:55:87:GLN:HG2	1.73	0.69
17:55:154:PRO:HA	17:55:157:LYS:HG3	1.74	0.69
37:75:6:ALA:O	37:75:10:ARG:HG3	1.93	0.69
46:1S:189:C:H2'	46:1S:190:C:H5''	1.75	0.69
46:1S:606:A:C8	46:1S:608:U:H2'	2.27	0.69
60:13:99:ARG:HA	60:13:99:ARG:NE	2.07	0.69
60:13:100:LYS:HA	60:13:103:GLU:HG2	1.73	0.69
61:14:72:LYS:NZ	61:14:110:LEU:HD23	2.07	0.69
46:1S:804:A:N3	69:22:105:THR:HG22	2.07	0.69
46:1S:1066:C:H4'	48:S1:149:GLN:NE2	2.04	0.69
46:1S:1552:U:H2'	46:1S:1553:G:O4'	1.93	0.69
48:S1:164:ILE:O	48:S1:168:ILE:HG13	1.93	0.69
11:L8:158:ASP:HB3	11:L8:159:PRO:HD3	1.74	0.69
15:53:92:THR:HG21	37:75:111:PHE:HB3	1.75	0.69
20:58:60:PRO:HB2	20:58:142:GLY:HA3	1.75	0.69
25:63:84:SER:HA	25:63:94:TYR:HB3	1.75	0.69
46:1S:108:A:H2'	46:1S:109:G:C8	2.28	0.69
46:1S:886:U:H2'	46:1S:887:A:H8	1.53	0.69
61:14:106:ALA:HB1	73:26:52:ASP:HB3	1.75	0.69
70:23:63:GLN:HA	70:23:65:ASN:N	2.07	0.69
1:2S:1422:G:H1'	9:L6:2:SER:O	1.93	0.68
1:2S:2922:G:H2'	1:2S:2923:U:C4'	2.21	0.68
2:8S:113:U:H5''	41:79:7:PHE:HB3	1.74	0.68
3:5S:87:G:H1'	22:60:119:ARG:HH22	1.58	0.68
7:L4:285:ASP:CB	7:L4:288:ARG:HD3	2.23	0.68
8:L5:277:LEU:HD23	8:L5:282:ARG:HG3	1.76	0.68
46:1S:1797:A:H5'	73:26:95:ARG:HG2	1.75	0.68
67:20:87:HIS:HB3	67:20:89:ARG:NH1	2.07	0.68
1:2S:132:C:C2'	1:2S:133:U:H5''	2.22	0.68
1:2S:298:U:H5'	38:76:31:GLY:O	1.92	0.68
10:L7:169:ILE:CG2	10:L7:184:LEU:HD11	2.23	0.68
46:1S:1660:A:H2'	46:1S:1661:U:C6	2.29	0.68
50:S3:158:ILE:H	50:S3:158:ILE:HD13	1.59	0.68
66:19:86:ARG:HH12	66:19:92:LYS:HB2	1.58	0.68
1:2S:2079:G:H2'	1:2S:2080:C:O4'	1.93	0.68
6:L3:266:ARG:HA	6:L3:266:ARG:NE	2.07	0.68
8:L5:38:THR:HG22	23:61:30:TYR:HB3	1.73	0.68
10:L7:86:VAL:HG22	10:L7:136:TYR:HB3	1.75	0.68
12:L9:8:GLN:HG2	12:L9:68:LEU:CD1	2.21	0.68
21:59:86:GLU:HG2	21:59:91:SER:H	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2394:G:H2'	1:2S:2395:G:O4'	1.92	0.68
1:2S:3146:G:H4'	6:L3:100:ARG:HH11	1.58	0.68
18:56:15:LEU:HG	18:56:125:ARG:HA	1.75	0.68
46:1S:139:C:H1'	46:1S:140:A:H5''	1.75	0.68
46:1S:1042:G:C2'	46:1S:1043:A:H5''	2.24	0.68
46:1S:1156:C:C2'	46:1S:1157:A:H5''	2.24	0.68
46:1S:1336:A:C2'	46:1S:1337:A:H5''	2.23	0.68
1:2S:2298:U:O2'	1:2S:2299:A:H5'	1.93	0.68
18:56:76:PRO:HD2	18:56:106:GLU:OE1	1.94	0.68
21:59:129:GLY:O	21:59:130:ASN:HB2	1.93	0.68
46:1S:1078:C:H2'	46:1S:1079:U:C6	2.29	0.68
46:1S:1740:A:H2'	46:1S:1741:U:C6	2.29	0.68
52:S5:112:ARG:HD2	63:16:43:ILE:HD12	1.75	0.68
56:S9:141:VAL:HG12	56:S9:143:ILE:H	1.58	0.68
63:16:101:SER:O	63:16:105:LEU:HB2	1.93	0.68
1:2S:200:C:H5'	1:2S:221:A:C2	2.28	0.68
1:2S:437:G:H22	1:2S:622:A:N6	1.92	0.68
9:L6:43:LEU:HD12	9:L6:83:TYR:HA	1.75	0.68
39:77:25:ARG:HG3	41:79:51:ILE:HD12	1.76	0.68
46:1S:1071:U:H5'	74:27:17:ARG:O	1.94	0.68
46:1S:1556:A:H1'	46:1S:1560:U:OP2	1.93	0.68
54:S7:30:SER:HB2	54:S7:34:LEU:CB	2.24	0.68
57:10:86:ILE:HG23	57:10:87:VAL:H	1.59	0.68
68:21:76:ASP:HB3	68:21:78:LEU:CD2	2.23	0.68
70:23:77:ILE:HD11	70:23:101:GLU:HG3	1.76	0.68
79:RA:112:SER:HB3	79:RA:154:VAL:HG22	1.76	0.68
13:50:213:PHE:N	13:50:214:PRO:HD3	2.09	0.68
15:53:127:PRO:HA	37:75:114:ARG:HH21	1.59	0.68
21:59:45:VAL:HG22	21:59:50:ILE:HB	1.74	0.68
50:S3:105:MET:O	50:S3:109:LEU:HG	1.93	0.68
69:22:24:GLN:HG3	74:27:4:VAL:HA	1.76	0.68
69:22:92:ASN:HB2	69:22:93:LEU:HD23	1.75	0.68
73:26:12:LYS:NZ	73:26:15:ARG:HB2	2.09	0.68
1:2S:1653:G:H2'	1:2S:1654:A:C8	2.28	0.68
1:2S:2168:A:H5'	17:55:67:ARG:HH12	1.59	0.68
11:L8:72:PRO:HD2	11:L8:75:ILE:HD12	1.76	0.68
17:55:49:ARG:HH12	17:55:54:LYS:HZ1	1.40	0.68
17:55:114:ARG:HD2	17:55:157:LYS:HA	1.76	0.68
18:56:48:PHE:HA	18:56:51:LYS:HD3	1.76	0.68
40:78:8:ILE:H	40:78:8:ILE:HD12	1.57	0.68
46:1S:1291:G:N2	46:1S:1324:G:H22	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1755:A:H5'	70:23:63:GLN:HG3	1.75	0.68
1:2S:72:C:C2	1:2S:74:G:H1'	2.29	0.68
1:2S:2854:U:O3'	13:50:160:PRO:HB3	1.94	0.68
5:L2:129:ALA:HB3	5:L2:132:ASN:HD22	1.59	0.68
32:70:49:PRO:HG2	32:70:52:ARG:HB3	1.76	0.68
46:1S:9:U:H2'	46:1S:11:A:OP2	1.93	0.68
46:1S:75:U:H3'	46:1S:76:A:H5''	1.76	0.68
46:1S:1699:G:C2'	46:1S:1700:C:H5''	2.24	0.68
59:12:73:LYS:HG2	78:31:108:VAL:HG11	1.76	0.68
69:22:22:LYS:HG3	74:27:3:LEU:HA	1.75	0.68
77:30:55:ARG:HB3	77:30:58:PRO:HG3	1.75	0.68
24:62:17:VAL:HG22	24:62:103:TYR:HD2	1.59	0.68
30:68:2:PRO:HG3	30:68:4:ARG:HH21	1.57	0.68
46:1S:374:U:H2'	46:1S:375:U:C6	2.29	0.68
46:1S:1519:U:H2'	46:1S:1520:U:C5	2.29	0.68
1:2S:632:G:H2'	1:2S:633:C:C6	2.29	0.67
1:2S:1215:U:H2'	1:2S:1216:C:C6	2.29	0.67
1:2S:1602:A:H4'	21:59:10:LEU:HD21	1.74	0.67
1:2S:1667:A:H2'	1:2S:1668:G:C8	2.28	0.67
1:2S:3146:G:H2'	1:2S:3147:G:H8	1.57	0.67
8:L5:196:ARG:HA	8:L5:199:ILE:HD12	1.76	0.67
16:54:120:VAL:HG13	18:56:194:LEU:HD21	1.75	0.67
25:63:79:VAL:HG22	25:63:99:ALA:O	1.94	0.67
36:74:58:ARG:HB3	36:74:61:GLN:HG2	1.76	0.67
46:1S:195:G:H2'	46:1S:196:G:H5''	1.76	0.67
52:S5:157:ARG:N	52:S5:157:ARG:HD2	2.09	0.67
62:15:37:ALA:HB1	62:15:38:PRO:HD2	1.75	0.67
66:19:28:LEU:CD2	66:19:30:VAL:HG13	2.24	0.67
71:24:83:LYS:HE2	71:24:96:LEU:HB3	1.76	0.67
1:2S:365:A:H4'	7:L4:84:ARG:HD3	1.76	0.67
1:2S:931:C:H3'	1:2S:932:U:H2'	1.75	0.67
1:2S:1951:C:H5	1:2S:2095:G:H1	1.40	0.67
6:L3:159:ARG:HB3	6:L3:180:GLU:HB3	1.74	0.67
25:63:57:MET:HA	25:63:76:ALA:O	1.94	0.67
46:1S:1527:C:H5''	52:S5:109:LYS:NZ	2.08	0.67
1:2S:2177:G:H2'	5:L2:128:ARG:HB2	1.76	0.67
4:L1:36:VAL:HG23	4:L1:208:SER:HA	1.77	0.67
6:L3:261:MET:HG2	6:L3:262:TRP:H	1.59	0.67
7:L4:44:LYS:HA	7:L4:47:ARG:HG3	1.75	0.67
46:1S:495:C:H5	46:1S:496:G:H21	1.40	0.67
46:1S:1073:G:C2'	46:1S:1074:G:H5''	2.23	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:S5:33:VAL:O	52:S5:37:GLN:HG3	1.94	0.67
52:S5:42:LEU:HA	52:S5:48:PHE:HB2	1.76	0.67
55:S8:185:GLU:HG2	55:S8:186:GLY:H	1.59	0.67
7:L4:206:LEU:HB2	7:L4:246:ARG:HH12	1.60	0.67
10:L7:90:LYS:HD2	10:L7:91:GLY:H	1.59	0.67
31:69:23:LYS:HE3	31:69:24:PRO:HD2	1.76	0.67
46:1S:190:C:O2'	46:1S:191:C:H5'	1.94	0.67
48:S1:96:LEU:HD23	48:S1:96:LEU:H	1.60	0.67
65:18:6:GLN:HA	72:25:42:LEU:HD11	1.77	0.67
1:2S:254:A:H2'	1:2S:255:A:C8	2.28	0.67
1:2S:1085:A:H2'	1:2S:1086:C:C6	2.28	0.67
13:50:87:LEU:HD23	13:50:88:ARG:N	2.10	0.67
15:53:183:ARG:HG2	15:53:186:ARG:NH1	2.10	0.67
27:65:135:ILE:O	27:65:135:ILE:HD13	1.94	0.67
29:67:84:ARG:HG2	32:70:58:TYR:OH	1.94	0.67
36:74:97:GLU:O	36:74:101:VAL:HG23	1.94	0.67
46:1S:1000:C:H2'	46:1S:1002:G:OP2	1.94	0.67
46:1S:1605:G:H5''	63:16:127:LYS:HD3	1.75	0.67
47:S0:201:LEU:HD13	64:17:83:GLN:HE21	1.58	0.67
48:S1:135:LEU:HB3	48:S1:217:LEU:HG	1.75	0.67
53:S6:142:ARG:HA	53:S6:147:LEU:HB2	1.75	0.67
62:15:58:LYS:HB3	62:15:58:LYS:NZ	2.10	0.67
66:19:40:SER:HB3	66:19:43:ASN:HD22	1.59	0.67
1:2S:1169:A:H2'	1:2S:1170:A:C8	2.30	0.67
1:2S:1480:G:H21	1:2S:1872:C:H5	1.41	0.67
1:2S:1621:A:H2'	1:2S:1622:U:C6	2.29	0.67
1:2S:1887:A:H2'	1:2S:1888:U:H5'	1.76	0.67
1:2S:2555:G:H5'	36:74:91:ARG:HH11	1.58	0.67
1:2S:3095:U:H2'	1:2S:3096:C:C6	2.29	0.67
5:L2:177:LYS:HD3	45:83:29:LEU:HD12	1.76	0.67
13:50:190:VAL:HG22	13:50:199:PHE:CE1	2.30	0.67
15:53:122:LYS:HG3	15:53:145:PHE:HZ	1.58	0.67
27:65:67:ILE:HD12	27:65:83:VAL:HG12	1.77	0.67
27:65:67:ILE:H	27:65:84:PHE:HA	1.60	0.67
29:67:6:LYS:HA	29:67:6:LYS:HE2	1.77	0.67
30:68:117:ARG:O	30:68:118:ILE:HG23	1.93	0.67
49:S2:99:LYS:HG2	49:S2:117:THR:HB	1.76	0.67
69:22:6:VAL:HG11	69:22:30:SER:H	1.59	0.67
70:23:37:ALA:HA	70:23:41:SER:HB3	1.75	0.67
1:2S:650:C:H2'	1:2S:651:G:H8	1.59	0.67
1:2S:900:G:H1'	1:2S:1589:A:N6	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2372:A:H5''	1:2S:2373:A:H5'	1.77	0.67
1:2S:2837:A:H2'	1:2S:2845:A:C6	2.30	0.67
2:8S:89:A:H2'	2:8S:91:C:C6	2.29	0.67
10:L7:198:ALA:O	10:L7:202:LEU:HG	1.94	0.67
12:L9:67:ALA:HA	12:L9:70:THR:CG2	2.25	0.67
14:51:60:ARG:NH1	14:51:60:ARG:HB2	2.09	0.67
16:54:76:ALA:HB1	16:54:80:THR:HB	1.76	0.67
46:1S:1158:C:C5	46:1S:1581:C:H2'	2.28	0.67
46:1S:1500:C:C5'	66:19:102:ARG:HD3	2.19	0.67
46:1S:1608:U:OP1	63:16:72:GLY:HA2	1.95	0.67
48:S1:65:VAL:HG12	48:S1:87:ARG:HG3	1.76	0.67
48:S1:180:THR:HG22	48:S1:181:LEU:H	1.59	0.67
55:S8:5:ARG:NH1	55:S8:5:ARG:HB2	2.10	0.67
1:2S:634:C:H4'	34:72:47:ARG:NH1	2.09	0.67
1:2S:3314:A:H5''	6:L3:174:LYS:HD2	1.76	0.67
9:L6:15:VAL:HG13	34:72:4:LEU:HD23	1.77	0.67
46:1S:395:U:H2'	46:1S:396:G:O4'	1.94	0.67
46:1S:767:U:H1'	56:S9:139:GLN:HG2	1.77	0.67
1:2S:1190:A:H4'	42:80:113:ARG:HH22	1.60	0.67
1:2S:2757:U:H1'	23:61:8:ARG:HB2	1.77	0.67
1:2S:2995:A:H2'	1:2S:2996:U:H5''	1.77	0.67
6:L3:68:HIS:O	6:L3:69:LYS:HB2	1.93	0.67
11:L8:128:LYS:HG3	11:L8:129:PRO:HD2	1.77	0.67
20:58:30:VAL:O	20:58:34:THR:HG23	1.94	0.67
21:59:163:ARG:HH11	21:59:164:LEU:CD2	2.07	0.67
22:60:12:ARG:HB3	22:60:24:LEU:HG	1.77	0.67
32:70:52:ARG:O	32:70:55:GLU:HG2	1.95	0.67
46:1S:1061:A:H5'	46:1S:1062:A:H2	1.58	0.67
46:1S:1163:A:H1'	46:1S:1613:U:O2'	1.95	0.67
46:1S:1758:U:H2'	46:1S:1759:C:C6	2.30	0.67
65:18:68:ARG:O	65:18:72:ILE:HG13	1.94	0.67
79:RA:156:VAL:O	79:RA:158:PRO:HD3	1.95	0.67
1:2S:1658:G:H2'	1:2S:1659:U:C6	2.29	0.67
15:53:112:ASN:O	15:53:116:LEU:HG	1.95	0.67
17:55:33:LYS:HD3	17:55:37:HIS:NE2	2.10	0.67
39:77:5:THR:HA	39:77:8:PHE:CD2	2.30	0.67
48:S1:124:ASN:HB3	48:S1:138:PHE:CD1	2.30	0.67
60:13:150:VAL:HG13	60:13:151:ASN:N	2.10	0.67
1:2S:992:A:H4'	23:61:58:GLN:HE21	1.59	0.66
1:2S:1142:G:H3'	1:2S:1143:A:H2'	1.77	0.66
1:2S:1731:A:H2'	1:2S:1732:U:C6	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2767:U:H5'	44:82:33:ALA:HA	1.77	0.66
1:2S:3105:U:H2'	1:2S:3106:A:C8	2.30	0.66
7:L4:23:PRO:HD2	7:L4:26:PHE:CE2	2.30	0.66
10:L7:155:LYS:HE3	10:L7:158:LYS:H	1.58	0.66
13:50:87:LEU:HA	13:50:138:VAL:HG22	1.76	0.66
20:58:8:LYS:HB3	20:58:11:LYS:HE3	1.77	0.66
21:59:51:VAL:HG23	21:59:53:LYS:H	1.60	0.66
23:61:40:VAL:HG12	23:61:98:HIS:HA	1.77	0.66
29:67:97:SER:HB2	29:67:99:GLU:HG2	1.76	0.66
30:68:2:PRO:HG2	30:68:4:ARG:HB3	1.77	0.66
30:68:36:GLY:HA3	30:68:40:HIS:CE1	2.30	0.66
32:70:25:LEU:HD23	32:70:90:VAL:HG13	1.77	0.66
39:77:64:MET:C	39:77:66:TYR:H	1.98	0.66
45:83:75:ALA:O	45:83:79:VAL:HG23	1.95	0.66
46:1S:1117:U:H2'	46:1S:1118:G:C8	2.29	0.66
8:L5:261:THR:H	8:L5:264:GLN:HG2	1.60	0.66
11:L8:74:THR:HG23	11:L8:75:ILE:HG13	1.77	0.66
21:59:163:ARG:HH11	21:59:164:LEU:HD23	1.61	0.66
30:68:6:THR:HG22	30:68:8:THR:HG23	1.78	0.66
34:72:13:HIS:NE2	34:72:15:LYS:HB3	2.10	0.66
46:1S:618:U:H5''	46:1S:1030:A:C6	2.29	0.66
52:S5:149:VAL:HG11	52:S5:158:GLN:HB2	1.77	0.66
55:S8:81:VAL:HB	55:S8:91:VAL:HA	1.77	0.66
60:13:119:GLU:HA	60:13:122:ILE:HD12	1.76	0.66
63:16:90:VAL:HB	63:16:102:LYS:HE3	1.77	0.66
65:18:14:ILE:HD11	65:18:21:ASN:HB3	1.76	0.66
79:RA:248:ASN:HD21	79:RA:298:GLY:HA3	1.60	0.66
1:2S:720:A:N3	1:2S:720:A:H5''	2.10	0.66
1:2S:2180:G:H2'	1:2S:2181:C:C6	2.30	0.66
1:2S:2904:U:H2'	1:2S:2905:U:C6	2.30	0.66
4:L1:132:GLY:C	4:L1:133:LYS:HD2	2.16	0.66
13:50:165:ILE:H	13:50:165:ILE:HD13	1.60	0.66
46:1S:463:U:H2'	46:1S:464:A:C8	2.31	0.66
47:S0:182:LEU:HB2	47:S0:188:LEU:HD23	1.75	0.66
63:16:99:GLU:HB3	79:RA:57:PRO:HB2	1.77	0.66
1:2S:116:A:H3'	1:2S:117:U:H5''	1.77	0.66
1:2S:627:U:H2'	1:2S:628:A:H8	1.60	0.66
1:2S:1804:A:O2'	36:74:78:GLY:HA3	1.94	0.66
1:2S:2895:G:H2'	1:2S:2896:A:C5'	2.20	0.66
1:2S:3060:C:H2'	1:2S:3061:G:C8	2.31	0.66
9:L6:96:VAL:HG21	9:L6:145:LEU:HD11	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:55:14:LYS:HA	17:55:19:LEU:HD22	1.77	0.66
49:S2:37:PRO:HD2	49:S2:46:LYS:HD2	1.76	0.66
1:2S:3329:U:H2'	1:2S:3330:A:O4'	1.95	0.66
10:L7:113:SER:HA	10:L7:205:PHE:O	1.95	0.66
14:51:76:ALA:O	14:51:80:LEU:HB2	1.95	0.66
21:59:162:ARG:HB2	21:59:162:ARG:HH11	1.60	0.66
40:78:40:GLN:HG3	40:78:57:ASN:HA	1.78	0.66
46:1S:298:C:H5'	51:S4:38:LEU:HD23	1.77	0.66
48:S1:127:VAL:HG12	48:S1:135:LEU:HD11	1.77	0.66
55:S8:39:GLY:O	55:S8:59:ARG:HB3	1.95	0.66
67:20:36:ASN:O	67:20:40:ASN:HB2	1.96	0.66
1:2S:705:A:H62	30:68:74:ASN:HD21	1.44	0.66
1:2S:2388:U:H2'	1:2S:2389:C:C6	2.30	0.66
1:2S:2493:U:H5''	4:L1:162:VAL:HG11	1.77	0.66
7:L4:110:ASN:HB2	17:55:201:ARG:O	1.94	0.66
13:50:13:LYS:C	13:50:14:ASN:HD22	1.98	0.66
18:56:19:LEU:O	18:56:23:VAL:HG23	1.95	0.66
22:60:41:TYR:O	22:60:45:LEU:HB2	1.94	0.66
23:61:82:ASN:O	31:69:21:ILE:HA	1.94	0.66
33:71:11:GLU:HG3	33:71:109:VAL:CG2	2.26	0.66
46:1S:241:U:H2'	46:1S:242:U:O4'	1.95	0.66
46:1S:542:A:H2'	46:1S:543:C:H3'	1.78	0.66
46:1S:826:U:H2'	46:1S:827:C:C6	2.30	0.66
46:1S:1753:A:H2'	46:1S:1754:A:C8	2.31	0.66
47:S0:126:PRO:HG3	47:S0:147:THR:HG22	1.78	0.66
53:S6:122:GLU:HA	53:S6:126:ASP:HB2	1.77	0.66
1:2S:1711:C:H2'	1:2S:1712:G:O4'	1.95	0.66
1:2S:2616:C:C2'	1:2S:2617:U:H5'	2.24	0.66
5:L2:136:ILE:HG13	5:L2:148:VAL:HG12	1.77	0.66
7:L4:320:ASN:HB3	7:L4:323:VAL:HG12	1.76	0.66
8:L5:101:THR:HA	8:L5:104:LEU:HB2	1.77	0.66
29:67:57:HIS:HB3	29:67:62:VAL:HG22	1.76	0.66
66:19:86:ARG:NH1	66:19:92:LYS:HB2	2.10	0.66
72:25:46:LYS:O	72:25:50:ILE:HG13	1.94	0.66
1:2S:898:U:H2'	1:2S:899:U:O4'	1.96	0.66
1:2S:2542:U:H1'	1:2S:2543:U:H5	1.61	0.66
13:50:92:HIS:HB2	13:50:94:PHE:CZ	2.31	0.66
51:S4:19:LEU:HD11	51:S4:108:ARG:HD2	1.78	0.66
73:26:44:ILE:HD13	73:26:64:LEU:HD22	1.78	0.66
1:2S:1441:G:H2'	1:2S:1442:U:C6	2.31	0.66
1:2S:1637:A:H5''	29:67:16:GLY:CA	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:27:ALA:HB1	6:L3:218:ILE:HG22	1.77	0.66
11:L8:78:PHE:O	11:L8:79:GLN:HG2	1.96	0.66
22:60:107:TYR:HE1	22:60:118:PHE:HA	1.61	0.66
24:62:76:LEU:O	24:62:80:THR:HG23	1.96	0.66
36:74:101:VAL:O	36:74:105:VAL:HG23	1.94	0.66
54:S7:64:VAL:HG22	54:S7:94:ALA:HB1	1.77	0.66
71:24:8:ARG:HH11	71:24:28:LEU:HD11	1.60	0.66
73:26:20:PRO:HA	73:26:31:PRO:HA	1.78	0.66
1:2S:1216:C:H2'	1:2S:1217:A:C8	2.31	0.66
13:50:30:LYS:HG2	13:50:63:GLU:HB3	1.78	0.66
46:1S:67:A:N6	46:1S:83:G:H1'	2.10	0.66
46:1S:102:U:H3'	46:1S:360:A:H61	1.61	0.66
46:1S:641:G:H21	54:S7:177:THR:HA	1.60	0.66
51:S4:71:LYS:HA	51:S4:76:VAL:HA	1.78	0.66
56:S9:92:LYS:O	56:S9:93:LEU:HB3	1.94	0.66
1:2S:1311:G:H2'	1:2S:1312:C:C6	2.31	0.65
1:2S:2536:A:H61	1:2S:2542:U:H3	1.45	0.65
2:8S:4:C:H5''	19:57:61:ARG:O	1.96	0.65
9:L6:165:LEU:HB2	35:73:6:ARG:HB3	1.77	0.65
10:L7:178:ILE:HG21	10:L7:184:LEU:HD23	1.78	0.65
10:L7:221:LYS:HE2	10:L7:225:GLN:HB3	1.78	0.65
13:50:61:SER:O	13:50:65:LEU:HG	1.96	0.65
19:57:38:GLY:H	19:57:114:VAL:HG13	1.60	0.65
46:1S:955:A:H5''	60:13:10:GLY:HA3	1.77	0.65
46:1S:1501:C:H5	66:19:102:ARG:HH12	1.44	0.65
46:1S:1511:U:H2'	46:1S:1512:G:C8	2.31	0.65
47:S0:200:ASP:CB	64:17:85:VAL:HG21	2.26	0.65
70:23:92:CYS:HA	70:23:95:PHE:CD2	2.31	0.65
1:2S:1695:U:H1'	36:74:26:PRO:HB3	1.78	0.65
1:2S:1913:A:N3	1:2S:2120:A:H2'	2.11	0.65
1:2S:2115:G:H22	1:2S:2120:A:H1'	1.61	0.65
1:2S:2186:U:H2'	1:2S:2187:G:C8	2.31	0.65
1:2S:2343:C:H2'	1:2S:2344:U:C6	2.30	0.65
5:L2:104:LEU:HD22	5:L2:160:SER:HA	1.77	0.65
23:61:80:VAL:HG13	23:61:83:ARG:HH21	1.61	0.65
46:1S:1201:G:N2	46:1S:1600:A:H5'	2.11	0.65
52:S5:58:LEU:HD12	52:S5:138:THR:HG22	1.77	0.65
55:S8:173:PRO:HG3	55:S8:179:CYS:SG	2.36	0.65
79:RA:180:ALA:HB3	79:RA:190:ALA:HB3	1.78	0.65
1:2S:268:A:H61	1:2S:295:A:H3'	1.61	0.65
4:L1:130:LYS:HD2	4:L1:130:LYS:N	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:77:51:ALA:HA	39:77:54:LYS:CE	2.26	0.65
48:S1:127:VAL:HG21	48:S1:176:VAL:HB	1.79	0.65
56:S9:129:ILE:HG22	56:S9:142:ASN:HA	1.77	0.65
1:2S:2343:C:H2'	1:2S:2344:U:H6	1.61	0.65
1:2S:2355:G:H4'	19:57:139:TYR:CZ	2.32	0.65
1:2S:2875:U:H5''	1:2S:2945:G:O6	1.97	0.65
6:L3:8:ALA:HB1	25:63:45:ARG:NH2	2.11	0.65
7:L4:156:LEU:HD13	7:L4:251:THR:HG22	1.78	0.65
11:L8:97:TYR:OH	11:L8:203:VAL:HG23	1.96	0.65
19:57:20:SER:HA	19:57:145:HIS:HA	1.78	0.65
25:63:86:ARG:HB2	25:63:92:PHE:CE1	2.31	0.65
46:1S:685:A:H5'	46:1S:685:A:H8	1.61	0.65
46:1S:926:A:H2'	46:1S:927:C:C6	2.32	0.65
60:13:112:LYS:O	60:13:116:ILE:HG13	1.96	0.65
1:2S:32:U:H2'	1:2S:33:G:O4'	1.96	0.65
1:2S:1892:G:C3'	1:2S:1893:A:H5''	2.27	0.65
1:2S:3234:A:H61	1:2S:3253:G:H1	1.44	0.65
6:L3:385:LYS:HG3	6:L3:386:ASP:N	2.07	0.65
8:L5:223:PHE:O	8:L5:227:LEU:HD13	1.96	0.65
11:L8:133:LYS:HE2	11:L8:133:LYS:HA	1.77	0.65
18:56:76:PRO:HA	18:56:79:ILE:HD12	1.78	0.65
20:58:173:GLU:HG2	30:68:52:TYR:HA	1.78	0.65
23:61:68:THR:HG22	23:61:71:SER:O	1.97	0.65
33:71:46:THR:HG21	33:71:91:SER:OG	1.96	0.65
46:1S:1025:A:H5''	46:1S:1027:A:N7	2.11	0.65
47:S0:89:PHE:HE2	47:S0:177:LEU:HB2	1.62	0.65
50:S3:53:THR:HG22	50:S3:91:VAL:HG11	1.77	0.65
52:S5:79:ASN:HB2	52:S5:83:ARG:NH2	2.12	0.65
54:S7:184:GLU:HG2	54:S7:185:ILE:N	2.11	0.65
1:2S:2492:C:H1'	1:2S:2493:U:H5	1.61	0.65
5:L2:225:ILE:HD13	5:L2:237:LEU:N	2.12	0.65
6:L3:222:LYS:HE3	6:L3:331:ASN:CB	2.27	0.65
29:67:13:VAL:HB	29:67:19:ALA:HA	1.78	0.65
46:1S:799:A:H4'	51:S4:201:HIS:CE1	2.32	0.65
46:1S:981:U:H2'	46:1S:982:U:H5'	1.79	0.65
46:1S:1679:G:H1'	46:1S:1722:A:N6	2.12	0.65
47:S0:76:ILE:HD13	47:S0:98:ILE:HB	1.79	0.65
51:S4:52:LEU:HB3	51:S4:54:TYR:CD2	2.31	0.65
61:14:51:ASP:O	61:14:54:GLU:HG3	1.96	0.65
62:15:52:LYS:HB2	62:15:53:PRO:HD3	1.77	0.65
69:22:10:ALA:O	69:22:14:ILE:HG13	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:796:U:H2'	1:2S:797:U:C6	2.31	0.65
1:2S:1696:A:H2'	1:2S:1697:A:C8	2.32	0.65
4:L1:133:LYS:HD2	4:L1:133:LYS:N	2.10	0.65
6:L3:229:VAL:HG23	6:L3:233:TRP:CD1	2.31	0.65
7:L4:206:LEU:HB2	7:L4:246:ARG:NH1	2.11	0.65
10:L7:84:VAL:HG12	10:L7:138:TYR:HD1	1.61	0.65
15:53:47:ALA:HB1	15:53:48:PRO:CD	2.22	0.65
21:59:4:LEU:HA	21:59:7:GLN:OE1	1.97	0.65
28:66:55:GLU:HB2	28:66:108:LYS:HB2	1.79	0.65
46:1S:637:C:OP1	69:22:32:LYS:HG3	1.96	0.65
46:1S:1435:G:H4'	46:1S:1436:A:H5'	1.79	0.65
48:S1:176:VAL:HG12	48:S1:177:GLN:N	2.08	0.65
48:S1:214:LYS:HG2	48:S1:215:VAL:H	1.61	0.65
53:S6:50:PHE:HB3	53:S6:111:LEU:HB3	1.79	0.65
1:2S:398:A:H1'	1:2S:1416:C:OP1	1.97	0.65
1:2S:2764:C:H5''	30:68:55:LYS:HG3	1.79	0.65
17:55:121:VAL:HG11	17:55:131:GLU:HB2	1.77	0.65
22:60:94:ILE:HD11	22:60:106:LEU:HD12	1.78	0.65
30:68:2:PRO:HG3	30:68:4:ARG:NH2	2.12	0.65
30:68:46:ASP:O	30:68:47:LYS:HB3	1.97	0.65
46:1S:552:G:H2'	46:1S:553:G:O4'	1.97	0.65
46:1S:777:C:C2'	46:1S:778:G:H5''	2.26	0.65
46:1S:780:A:H8	71:24:8:ARG:HB3	1.62	0.65
46:1S:1043:A:H3'	46:1S:1044:U:C6	2.32	0.65
48:S1:82:ARG:HG2	48:S1:105:PHE:HE2	1.61	0.65
51:S4:117:GLU:HG2	51:S4:121:TYR:HE1	1.62	0.65
55:S8:159:GLN:HE22	55:S8:189:LEU:HD11	1.62	0.65
59:12:106:ILE:HG22	59:12:107:ASP:H	1.62	0.65
79:RA:83:ALA:HA	79:RA:89:LEU:HD23	1.76	0.65
1:2S:386:A:H2'	1:2S:387:A:O4'	1.96	0.65
1:2S:616:G:H2'	1:2S:617:G:C8	2.32	0.65
1:2S:3064:U:H2'	1:2S:3065:G:C8	2.30	0.65
6:L3:221:THR:HB	6:L3:273:HIS:H	1.62	0.65
8:L5:200:PHE:HB3	8:L5:237:GLU:HG3	1.78	0.65
17:55:3:ALA:O	17:55:7:LEU:HD13	1.96	0.65
29:67:23:VAL:HG12	29:67:45:GLY:HA3	1.77	0.65
41:79:25:GLN:O	41:79:29:LEU:HD13	1.97	0.65
46:1S:279:G:H8	46:1S:280:U:H4'	1.62	0.65
46:1S:603:U:H2'	46:1S:604:A:C8	2.31	0.65
50:S3:6:SER:O	50:S3:10:LYS:HB2	1.97	0.65
54:S7:184:GLU:HG2	54:S7:185:ILE:H	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:17:21:TYR:C	64:17:23:LYS:H	2.01	0.65
1:2S:1096:U:H5'	23:61:128:LEU:HD11	1.78	0.65
1:2S:2102:U:H2'	1:2S:2103:U:H6	1.62	0.65
1:2S:2322:C:O2'	1:2S:2323:G:H5'	1.96	0.65
1:2S:3349:C:H2'	1:2S:3350:C:C6	2.32	0.65
17:55:42:PRO:HG3	17:55:61:ILE:HG13	1.79	0.65
22:60:93:GLU:HG3	22:60:137:ARG:HD3	1.78	0.65
29:67:60:LYS:HD2	29:67:60:LYS:N	2.10	0.65
46:1S:1201:G:H21	46:1S:1600:A:H5'	1.61	0.65
47:S0:76:ILE:HD11	47:S0:98:ILE:HD12	1.78	0.65
49:S2:137:ILE:HG13	49:S2:138:PRO:HD2	1.79	0.65
49:S2:208:GLU:O	49:S2:212:LYS:HG3	1.97	0.65
62:15:126:VAL:HG13	62:15:127:ARG:H	1.61	0.65
63:16:90:VAL:HG12	63:16:105:LEU:HD23	1.78	0.65
63:16:114:ARG:H	63:16:116:LEU:HD23	1.62	0.65
73:26:88:SER:O	73:26:92:ARG:HG3	1.96	0.65
5:L2:147:ARG:HA	5:L2:157:VAL:HA	1.77	0.64
6:L3:281:LYS:O	6:L3:324:VAL:HG23	1.96	0.64
18:56:49:ARG:HG2	18:56:53:LYS:HE3	1.79	0.64
19:57:85:ALA:O	19:57:89:LYS:HG3	1.98	0.64
25:63:19:VAL:HG21	25:63:50:PRO:HD2	1.80	0.64
33:71:55:LEU:O	33:71:59:ILE:HG13	1.97	0.64
36:74:31:ARG:HG3	36:74:32:ALA:H	1.62	0.64
46:1S:252:U:H2'	46:1S:253:A:C8	2.32	0.64
54:S7:13:PRO:O	54:S7:14:THR:HB	1.97	0.64
55:S8:152:ILE:HG22	55:S8:153:GLU:H	1.61	0.64
56:S9:3:ARG:HD3	56:S9:3:ARG:N	2.12	0.64
59:12:128:ALA:O	59:12:133:LEU:HD22	1.97	0.64
1:2S:196:G:H21	1:2S:219:A:H61	1.46	0.64
1:2S:3060:C:H2'	1:2S:3061:G:H8	1.61	0.64
2:8S:113:U:H5''	41:79:7:PHE:CB	2.27	0.64
5:L2:104:LEU:HB2	5:L2:160:SER:HA	1.79	0.64
26:64:34:SER:O	26:64:38:SER:HB2	1.97	0.64
45:83:48:LYS:HG2	45:83:49:ARG:H	1.62	0.64
46:1S:1643:U:H2'	46:1S:1644:C:C6	2.32	0.64
46:1S:1788:G:OP2	61:14:132:ARG:HD2	1.98	0.64
47:S0:182:LEU:HA	47:S0:186:GLY:HA3	1.80	0.64
51:S4:126:VAL:HA	51:S4:141:THR:HA	1.79	0.64
55:S8:185:GLU:HG2	55:S8:186:GLY:N	2.12	0.64
1:2S:727:G:H22	20:58:139:ILE:HB	1.61	0.64
1:2S:1083:G:H2'	1:2S:1084:A:C8	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1386:A:H5''	7:L4:141:ARG:HH12	1.62	0.64
6:L3:215:ILE:CG1	6:L3:280:HIS:HB2	2.27	0.64
39:77:28:HIS:O	39:77:32:LYS:HA	1.97	0.64
46:1S:929:A:H3'	46:1S:930:A:H8	1.63	0.64
46:1S:1586:A:H61	46:1S:1610:G:H1'	1.62	0.64
1:2S:1207:G:H5'	42:80:119:ASN:ND2	2.12	0.64
1:2S:1878:G:H3'	1:2S:1878:G:N3	2.12	0.64
1:2S:3316:A:H5''	6:L3:123:TYR:HB2	1.79	0.64
3:5S:108:A:H2'	3:5S:109:G:C8	2.32	0.64
14:51:15:GLU:HB2	14:51:132:ASN:OD1	1.96	0.64
19:57:135:ARG:HH11	19:57:135:ARG:CB	2.09	0.64
33:71:20:LEU:HD21	33:71:32:ALA:HB2	1.78	0.64
36:74:65:VAL:HG12	36:74:66:SER:H	1.61	0.64
46:1S:1570:A:H2'	46:1S:1571:C:O4'	1.97	0.64
62:15:38:PRO:HG2	62:15:41:VAL:HG23	1.77	0.64
79:RA:238:ASP:HB2	79:RA:256:THR:HB	1.80	0.64
1:2S:41:G:H3'	1:2S:42:C:C6	2.33	0.64
1:2S:303:G:H5''	1:2S:304:G:C5'	2.25	0.64
1:2S:596:C:H2'	1:2S:597:G:O4'	1.98	0.64
1:2S:827:A:H2'	1:2S:828:A:H8	1.61	0.64
1:2S:912:G:H2'	1:2S:914:A:N7	2.11	0.64
2:8S:70:G:H1'	2:8S:88:A:N6	2.13	0.64
3:5S:92:A:H2'	3:5S:93:C:O4'	1.98	0.64
7:L4:203:ARG:HG3	7:L4:246:ARG:NH2	2.11	0.64
12:L9:67:ALA:O	12:L9:71:VAL:HG23	1.95	0.64
18:56:119:VAL:HG23	22:60:164:SER:HB3	1.80	0.64
22:60:155:ARG:H	22:60:170:THR:HB	1.61	0.64
46:1S:433:C:H2'	46:1S:434:G:O4'	1.96	0.64
46:1S:463:U:H2'	46:1S:464:A:H8	1.61	0.64
70:23:96:VAL:HG23	70:23:97:ASP:H	1.62	0.64
1:2S:718:G:H3'	1:2S:719:U:C5'	2.27	0.64
1:2S:1953:G:C6	1:2S:2094:C:H5	2.15	0.64
1:2S:2039:C:H2'	1:2S:2040:U:O4'	1.98	0.64
1:2S:2474:G:H2'	1:2S:2475:G:N7	2.12	0.64
6:L3:142:ALA:O	6:L3:146:ARG:HB2	1.98	0.64
7:L4:181:VAL:O	7:L4:182:LEU:HB3	1.97	0.64
8:L5:108:ARG:HA	8:L5:251:PRO:HB2	1.80	0.64
10:L7:123:THR:O	10:L7:127:LEU:HG	1.97	0.64
12:L9:12:VAL:HB	12:L9:51:GLN:HA	1.80	0.64
19:57:17:ALA:O	19:57:147:GLU:HA	1.96	0.64
33:71:33:VAL:HG12	33:71:37:LYS:HE3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:76:87:VAL:HG12	38:76:91:ASN:HD21	1.63	0.64
51:S4:44:LEU:HD11	51:S4:82:TYR:HD2	1.63	0.64
54:S7:109:VAL:HG22	54:S7:110:GLN:N	2.11	0.64
56:S9:152:SER:O	56:S9:156:ILE:HG13	1.97	0.64
61:14:64:ALA:HB3	61:14:104:ALA:HB3	1.79	0.64
63:16:97:VAL:HG12	63:16:98:ASP:N	2.12	0.64
79:RA:214:ALA:HB2	79:RA:220:ILE:HG12	1.79	0.64
1:2S:681:U:C2'	1:2S:682:U:H5'	2.28	0.64
1:2S:1151:U:H3'	1:2S:1152:G:H21	1.63	0.64
1:2S:2357:A:H2'	1:2S:2358:A:C8	2.33	0.64
1:2S:2890:A:H61	1:2S:2913:C:H42	1.44	0.64
5:L2:229:ALA:HB3	5:L2:234:LYS:HG3	1.79	0.64
8:L5:76:ALA:CB	8:L5:105:ILE:HD11	2.27	0.64
13:50:55:ASN:HB2	13:50:163:GLN:HA	1.79	0.64
21:59:139:VAL:HA	21:59:142:ILE:HD12	1.80	0.64
21:59:147:ALA:O	21:59:150:GLN:HB3	1.97	0.64
22:60:89:ASN:HD21	23:61:156:TYR:HB3	1.63	0.64
38:76:83:ALA:O	38:76:87:VAL:HG23	1.98	0.64
46:1S:405:C:H5''	53:S6:93:LYS:HE2	1.80	0.64
46:1S:959:U:H5'	60:13:15:ALA:C	2.18	0.64
56:S9:162:SER:HB2	56:S9:163:PRO:HD2	1.79	0.64
1:2S:797:U:H5''	15:53:2:ALA:N	2.13	0.64
1:2S:1360:C:H4'	7:L4:309:ARG:HG2	1.78	0.64
1:2S:1545:A:H2'	1:2S:1547:G:OP2	1.97	0.64
1:2S:1618:G:H4'	2:8S:129:C:H1'	1.78	0.64
1:2S:2562:A:C2	11:L8:31:PRO:HG3	2.33	0.64
7:L4:300:ARG:HB2	7:L4:301:PRO:HD2	1.79	0.64
16:54:46:ILE:HG12	16:54:56:GLN:O	1.98	0.64
20:58:170:ARG:O	20:58:171:LYS:HB3	1.97	0.64
46:1S:1360:A:O2'	66:19:2:PRO:HA	1.98	0.64
57:10:50:THR:CG2	57:10:55:VAL:HG13	2.28	0.64
57:10:58:GLN:HB2	57:10:65:TYR:HB2	1.79	0.64
1:2S:307:A:H2'	1:2S:308:A:C8	2.32	0.64
1:2S:1226:G:H2'	1:2S:1227:C:C6	2.32	0.64
1:2S:1838:G:H5''	1:2S:1839:A:H5'	1.80	0.64
1:2S:2352:A:H5''	19:57:83:TRP:O	1.98	0.64
3:5S:77:G:N2	3:5S:101:G:H2'	2.12	0.64
7:L4:3:ARG:HB3	7:L4:22:LEU:HG	1.80	0.64
9:L6:89:THR:HG21	16:54:115:PHE:HB3	1.78	0.64
10:L7:103:LEU:HD23	10:L7:130:ILE:HD12	1.79	0.64
12:L9:77:ASN:HB3	12:L9:151:VAL:HG21	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:55:54:LYS:HB3	17:55:56:LYS:HE2	1.79	0.64
38:76:90:MET:O	38:76:94:ILE:HG13	1.98	0.64
46:1S:1438:G:H2'	46:1S:1439:C:C6	2.33	0.64
49:S2:130:ILE:O	49:S2:134:LEU:HD23	1.97	0.64
52:S5:110:ALA:O	52:S5:114:ILE:HG12	1.98	0.64
55:S8:113:PHE:CE1	55:S8:119:GLN:HB2	2.32	0.64
63:16:83:GLN:O	63:16:87:LYS:HG3	1.97	0.64
1:2S:277:G:H2'	1:2S:278:U:C6	2.33	0.64
1:2S:873:C:H5'	1:2S:1907:C:O2'	1.98	0.64
1:2S:994:G:H4'	1:2S:995:U:C5'	2.28	0.64
1:2S:1169:A:C5'	10:L7:219:LYS:HD3	2.28	0.64
1:2S:1604:G:H4'	1:2S:1835:A:C4'	2.19	0.64
5:L2:185:ALA:HA	5:L2:188:LYS:HB3	1.80	0.64
7:L4:89:ALA:HA	7:L4:94:CYS:HB3	1.78	0.64
21:59:151:ARG:O	21:59:155:LEU:HD13	1.98	0.64
39:77:18:LEU:HA	39:77:25:ARG:N	2.13	0.64
40:78:45:VAL:HG23	40:78:52:TYR:HD2	1.63	0.64
46:1S:237:C:H5''	46:1S:238:U:H5'	1.80	0.64
46:1S:1583:A:H5''	63:16:135:ARG:HH22	1.63	0.64
1:2S:100:A:H4'	17:55:181:ASN:HD21	1.63	0.63
1:2S:595:G:H1	1:2S:609:G:H5''	1.61	0.63
1:2S:619:A:H4'	1:2S:620:U:C5	2.32	0.63
1:2S:985:U:H2'	1:2S:986:U:C6	2.34	0.63
1:2S:1784:G:H2'	1:2S:1785:U:C6	2.34	0.63
1:2S:3014:U:H2'	1:2S:3015:G:O4'	1.98	0.63
6:L3:292:ALA:HA	6:L3:303:LYS:O	1.97	0.63
10:L7:82:LYS:HD2	10:L7:82:LYS:N	2.12	0.63
18:56:73:PHE:CG	18:56:78:ARG:HB3	2.33	0.63
25:63:45:ARG:HB3	25:63:48:ARG:NE	2.12	0.63
27:65:58:ASP:O	27:65:62:VAL:HG23	1.99	0.63
30:68:86:LYS:HD3	30:68:89:GLN:OE1	1.97	0.63
37:75:28:LEU:O	37:75:32:LYS:HG3	1.98	0.63
46:1S:311:U:H5''	70:23:24:TRP:HE1	1.63	0.63
46:1S:495:C:H3'	46:1S:496:G:O4'	1.98	0.63
49:S2:242:ILE:H	49:S2:242:ILE:HD12	1.64	0.63
51:S4:68:ARG:HG2	51:S4:76:VAL:HG11	1.80	0.63
52:S5:34:GLN:HG2	63:16:57:LEU:HD11	1.80	0.63
57:10:55:VAL:HB	57:10:68:LEU:HD12	1.81	0.63
60:13:30:SER:O	60:13:34:ILE:HG13	1.97	0.63
63:16:116:LEU:HB3	63:16:117:LEU:HD22	1.80	0.63
1:2S:160:G:C2'	1:2S:161:G:H5''	2.25	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:954:U:H4'	31:69:8:THR:CG2	2.27	0.63
2:8S:104:A:OP2	2:8S:105:A:H5''	1.98	0.63
6:L3:11:HIS:CD2	6:L3:235:THR:HG23	2.34	0.63
7:L4:9:HIS:HB2	7:L4:152:VAL:HG13	1.79	0.63
13:50:53:VAL:HG22	13:50:134:ILE:HG12	1.80	0.63
15:53:119:TYR:O	15:53:123:ILE:HG12	1.98	0.63
15:53:159:VAL:HG13	30:68:144:VAL:HG13	1.80	0.63
20:58:158:HIS:H	20:58:186:VAL:CG1	2.11	0.63
25:63:17:LEU:O	25:63:51:ALA:HA	1.98	0.63
25:63:80:ARG:HG3	25:63:80:ARG:HH11	1.64	0.63
46:1S:694:U:H3	54:S7:98:ILE:HD12	1.63	0.63
46:1S:1349:G:H2'	46:1S:1350:U:C6	2.34	0.63
66:19:100:ILE:O	66:19:104:VAL:HG23	1.99	0.63
1:2S:3029:A:H2'	1:2S:3030:G:O4'	1.97	0.63
5:L2:83:HIS:CB	45:83:64:VAL:HG22	2.28	0.63
7:L4:152:VAL:HG12	7:L4:153:SER:H	1.63	0.63
17:55:168:GLY:O	17:55:172:ARG:HB2	1.98	0.63
43:81:17:ARG:NH2	46:1S:1116:A:H5''	2.13	0.63
48:S1:88:VAL:HG11	48:S1:96:LEU:HB2	1.79	0.63
55:S8:81:VAL:HA	55:S8:102:VAL:HG12	1.80	0.63
69:22:23:ARG:HB3	74:27:4:VAL:HB	1.80	0.63
1:2S:639:G:OP1	34:72:37:GLY:HA3	1.99	0.63
1:2S:1566:A:H2'	1:2S:1567:U:H4'	1.79	0.63
1:2S:2510:U:HO2'	1:2S:2511:A:H8	1.47	0.63
5:L2:248:GLY:CA	46:1S:1012:U:H5''	2.29	0.63
37:75:77:PRO:HB2	37:75:80:LEU:HG	1.78	0.63
46:1S:17:C:H2'	46:1S:18:C:C6	2.33	0.63
47:S0:82:GLY:O	47:S0:86:VAL:HG13	1.99	0.63
55:S8:152:ILE:HG22	55:S8:153:GLU:N	2.13	0.63
60:13:86:GLU:HG3	60:13:87:ASP:H	1.62	0.63
69:22:79:PHE:H	69:22:125:ILE:HG22	1.63	0.63
73:26:19:LYS:HA	73:26:19:LYS:HE3	1.80	0.63
1:2S:2615:G:H2'	1:2S:2616:C:C6	2.34	0.63
1:2S:3243:A:H5'	6:L3:94:GLU:O	1.97	0.63
2:8S:66:A:H2'	2:8S:67:U:C6	2.33	0.63
10:L7:137:GLY:HA3	10:L7:233:GLU:HA	1.80	0.63
10:L7:189:ILE:HG23	10:L7:190:THR:HG23	1.81	0.63
46:1S:1058:U:H5	46:1S:1061:A:C6	2.15	0.63
46:1S:1667:A:H2'	46:1S:1668:G:C8	2.33	0.63
62:15:87:PRO:HA	62:15:90:ILE:HG13	1.80	0.63
63:16:81:ILE:O	63:16:85:ILE:HG13	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:23:19:ARG:O	70:23:23:ARG:HG2	1.98	0.63
75:28:33:LEU:HD22	75:28:33:LEU:H	1.62	0.63
1:2S:700:C:H2'	1:2S:701:G:C8	2.34	0.63
1:2S:2078:C:H2'	1:2S:2079:G:C8	2.34	0.63
1:2S:2268:U:H2'	1:2S:2269:U:C6	2.33	0.63
1:2S:2788:C:H2'	1:2S:2789:U:C6	2.33	0.63
1:2S:2933:A:C2	1:2S:3014:U:H4'	2.33	0.63
11:L8:160:ILE:O	11:L8:164:VAL:HG13	1.98	0.63
16:54:21:VAL:HG12	16:54:65:LEU:HD23	1.80	0.63
20:58:26:LEU:O	20:58:30:VAL:HG23	1.97	0.63
30:68:101:VAL:HG22	30:68:124:ILE:HD12	1.81	0.63
30:68:111:LYS:HB2	30:68:129:PHE:HB2	1.81	0.63
35:73:60:ARG:HB3	35:73:60:ARG:HH21	1.64	0.63
37:75:38:ARG:NH1	37:75:38:ARG:HB2	2.14	0.63
46:1S:1254:U:OP2	59:12:46:ARG:HD3	1.98	0.63
46:1S:1479:A:O2'	66:19:12:GLN:HG2	1.98	0.63
51:S4:18:TRP:CZ2	51:S4:43:PRO:HD3	2.33	0.63
72:25:47:TYR:HA	72:25:50:ILE:HD12	1.81	0.63
73:26:10:ARG:HB2	73:26:34:LYS:HG3	1.79	0.63
1:2S:2660:G:H5''	1:2S:2750:U:O2'	1.99	0.63
1:2S:3047:U:H5''	6:L3:330:GLY:O	1.99	0.63
3:5S:15:C:H2'	3:5S:16:U:C6	2.34	0.63
13:50:36:LEU:HD13	13:50:87:LEU:HD22	1.79	0.63
14:51:156:LYS:O	14:51:160:VAL:HG23	1.99	0.63
19:57:44:ALA:O	19:57:47:TYR:HB3	1.99	0.63
45:83:39:CYS:O	45:83:43:GLY:HA2	1.97	0.63
46:1S:1043:A:H2'	46:1S:1044:U:O4'	1.98	0.63
46:1S:1771:U:H2'	46:1S:1772:C:C6	2.34	0.63
51:S4:15:PRO:HD3	51:S4:39:ARG:HH22	1.63	0.63
51:S4:94:ALA:HB3	71:24:17:LEU:HG	1.81	0.63
51:S4:160:VAL:HG13	51:S4:171:ASP:O	1.99	0.63
52:S5:142:PRO:HB3	52:S5:218:GLU:HG3	1.81	0.63
53:S6:189:HIS:O	53:S6:193:LEU:HG	1.98	0.63
56:S9:120:LYS:NZ	56:S9:120:LYS:HB3	2.14	0.63
79:RA:124:SER:HA	79:RA:154:VAL:HG21	1.79	0.63
1:2S:1246:G:H1'	1:2S:1264:G:H5''	1.80	0.63
1:2S:1951:C:H6	1:2S:2095:G:H1	1.35	0.63
1:2S:2076:G:H2'	1:2S:2077:U:C5'	2.20	0.63
1:2S:2178:A:H2'	5:L2:151:PRO:HB2	1.81	0.63
1:2S:2183:A:H5''	5:L2:7:ASN:ND2	2.09	0.63
1:2S:2491:A:H4'	4:L1:207:LYS:HD3	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L1:169:VAL:HG12	4:L1:170:GLY:H	1.62	0.63
6:L3:261:MET:SD	6:L3:263:SER:HB3	2.38	0.63
11:L8:215:VAL:HA	11:L8:218:ILE:HD12	1.81	0.63
16:54:40:ASP:HA	22:60:143:PHE:CZ	2.34	0.63
19:57:172:GLN:HE22	35:73:61:GLY:HA3	1.64	0.63
23:61:11:THR:HB	23:61:15:PHE:HB2	1.81	0.63
30:68:47:LYS:O	30:68:48:TYR:HB2	1.99	0.63
46:1S:460:A:H3'	46:1S:461:G:H8	1.64	0.63
46:1S:1079:U:H2'	46:1S:1080:U:H6	1.62	0.63
46:1S:1661:U:H2'	46:1S:1662:G:C8	2.34	0.63
46:1S:1684:U:H2'	46:1S:1685:G:C8	2.34	0.63
48:S1:70:LEU:HD21	48:S1:79:HIS:CE1	2.34	0.63
53:S6:78:THR:HG22	53:S6:79:LYS:H	1.62	0.63
54:S7:127:GLU:HG3	54:S7:135:ILE:HD11	1.80	0.63
61:14:13:VAL:HG13	61:14:77:THR:H	1.63	0.63
69:22:24:GLN:CG	74:27:4:VAL:HA	2.29	0.63
73:26:36:ILE:HG23	73:26:73:TYR:H	1.64	0.63
73:26:51:ARG:O	73:26:55:GLU:HB2	1.98	0.63
1:2S:2213:A:H2'	1:2S:2214:A:C8	2.34	0.63
1:2S:2388:U:H2'	1:2S:2389:C:H6	1.64	0.63
1:2S:3086:A:H4'	6:L3:366:GLY:HA2	1.81	0.63
7:L4:77:VAL:HB	7:L4:86:GLY:H	1.64	0.63
8:L5:180:PHE:HB3	8:L5:195:LEU:HD11	1.79	0.63
8:L5:261:THR:H	8:L5:264:GLN:HG3	1.62	0.63
11:L8:84:ARG:HE	11:L8:84:ARG:H	1.46	0.63
17:55:83:LYS:O	17:55:87:GLN:HG3	1.99	0.63
37:75:54:VAL:O	37:75:58:ILE:HG13	1.98	0.63
46:1S:252:U:H2'	46:1S:253:A:H8	1.64	0.63
46:1S:704:C:H1'	46:1S:705:U:O4'	1.99	0.63
46:1S:774:A:H2'	46:1S:775:G:H5'	1.81	0.63
46:1S:1360:A:H2'	46:1S:1361:U:H4'	1.80	0.63
47:S0:4:PRO:HB2	47:S0:7:PHE:CE2	2.34	0.63
49:S2:38:VAL:HG13	49:S2:39:THR:HG23	1.81	0.63
51:S4:87:MET:HB3	51:S4:122:LYS:HE3	1.81	0.63
60:13:23:PRO:O	60:13:24:ALA:HB3	1.99	0.63
70:23:92:CYS:HA	70:23:95:PHE:HD2	1.63	0.63
1:2S:904:A:H2'	1:2S:905:U:C6	2.34	0.62
1:2S:1212:A:H2'	1:2S:1213:G:O4'	1.99	0.62
1:2S:1637:A:H5''	29:67:16:GLY:HA3	1.81	0.62
2:8S:120:C:H2'	2:8S:121:U:C6	2.33	0.62
8:L5:76:ALA:HB1	8:L5:105:ILE:HD11	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:50:36:LEU:HD21	13:50:69:ARG:HD3	1.79	0.62
19:57:146:ILE:HG22	19:57:147:GLU:N	2.13	0.62
36:74:20:ILE:HG21	36:74:32:ALA:HB1	1.79	0.62
43:81:4:LYS:HE2	46:1S:1774:G:OP2	1.98	0.62
46:1S:314:C:O2'	46:1S:315:A:H5'	1.99	0.62
46:1S:954:G:H2'	46:1S:955:A:C8	2.34	0.62
46:1S:1040:G:H2'	46:1S:1041:G:O4'	1.99	0.62
46:1S:1501:C:H5	66:19:102:ARG:NH1	1.97	0.62
55:S8:117:TYR:HE1	55:S8:146:ARG:O	1.82	0.62
59:12:103:LEU:CD2	59:12:115:VAL:HG13	2.29	0.62
65:18:86:LEU:CD2	65:18:97:ASP:HB3	2.29	0.62
65:18:115:ARG:O	65:18:119:ILE:HD13	1.99	0.62
1:2S:94:G:H2'	1:2S:95:A:C8	2.34	0.62
1:2S:994:G:H4'	1:2S:995:U:H5'	1.81	0.62
1:2S:2673:A:H4'	14:51:103:GLY:O	1.99	0.62
8:L5:41:LYS:HD2	23:61:69:LYS:O	1.99	0.62
10:L7:233:GLU:O	10:L7:236:ILE:HG22	1.99	0.62
11:L8:165:PHE:HD1	11:L8:165:PHE:H	1.47	0.62
20:58:157:PRO:O	20:58:158:HIS:HB2	1.98	0.62
34:72:119:VAL:HG12	34:72:121:ASN:H	1.64	0.62
46:1S:5:U:OP2	49:S2:205:ARG:HG2	1.98	0.62
47:S0:169:SER:O	47:S0:173:ILE:HG12	1.99	0.62
51:S4:175:PHE:CE1	51:S4:225:VAL:HG11	2.34	0.62
1:2S:442:G:H2'	1:2S:443:G:C8	2.34	0.62
1:2S:2097:U:H2'	1:2S:2098:C:C6	2.34	0.62
6:L3:235:THR:HG22	6:L3:236:LYS:N	2.13	0.62
8:L5:184:ASP:HB3	8:L5:187:THR:HG22	1.80	0.62
11:L8:71:VAL:CG2	11:L8:76:ALA:HB2	2.29	0.62
46:1S:44:U:H2'	46:1S:45:U:H6	1.63	0.62
46:1S:727:U:O2'	46:1S:728:U:H5''	1.98	0.62
46:1S:992:A:H2'	46:1S:993:A:H5'	1.79	0.62
47:S0:56:LYS:HB3	47:S0:160:ILE:HG12	1.81	0.62
59:12:62:LEU:HD13	59:12:75:VAL:HB	1.81	0.62
61:14:57:PRO:HB3	61:14:100:ALA:HB2	1.80	0.62
61:14:85:ALA:H	61:14:119:THR:HG22	1.65	0.62
70:23:24:TRP:CZ3	70:23:30:LYS:HG3	2.34	0.62
70:23:93:LEU:HD21	77:30:8:LEU:HD13	1.79	0.62
79:RA:41:THR:HG22	79:RA:62:LYS:HG2	1.80	0.62
1:2S:1584:U:H2'	1:2S:1585:C:C6	2.34	0.62
1:2S:1892:G:C2'	1:2S:1893:A:H5''	2.30	0.62
1:2S:2533:G:H5'	1:2S:2533:G:H8	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3281:U:H2'	1:2S:3282:U:C6	2.33	0.62
10:L7:96:PRO:HB2	10:L7:99:PRO:CD	2.29	0.62
17:55:47:LYS:O	17:55:51:LEU:HG	1.98	0.62
17:55:116:LEU:HB3	17:55:133:ILE:HG23	1.82	0.62
25:63:118:VAL:CG1	25:63:119:GLY:H	2.09	0.62
27:65:91:ASN:O	27:65:95:ILE:HG13	1.98	0.62
46:1S:30:G:H5'	70:23:126:LYS:HD2	1.81	0.62
46:1S:1589:C:H2'	46:1S:1590:G:C8	2.34	0.62
48:S1:214:LYS:HG2	48:S1:215:VAL:N	2.15	0.62
52:S5:133:VAL:O	52:S5:137:ILE:HG12	1.98	0.62
60:13:86:GLU:HG3	60:13:87:ASP:N	2.14	0.62
70:23:126:LYS:HA	70:23:131:SER:HA	1.81	0.62
1:2S:693:A:H4'	7:L4:234:ASN:OD1	2.00	0.62
1:2S:1220:U:H4'	1:2S:1222:G:O4'	1.98	0.62
5:L2:3:ARG:HB3	5:L2:207:VAL:O	1.99	0.62
12:L9:150:SER:O	12:L9:154:VAL:HG23	2.00	0.62
18:56:7:VAL:O	18:56:33:ILE:HG23	1.99	0.62
18:56:50:ASN:HA	18:56:53:LYS:HD2	1.81	0.62
45:83:13:LYS:HE3	45:83:14:TYR:CZ	2.34	0.62
46:1S:94:U:H2'	46:1S:95:G:O4'	2.00	0.62
46:1S:636:A:H5''	69:22:31:SER:HB3	1.82	0.62
49:S2:89:GLN:HE21	49:S2:89:GLN:H	1.47	0.62
60:13:71:ILE:N	60:13:71:ILE:HD12	2.14	0.62
69:22:26:LEU:HA	69:22:61:ILE:O	2.00	0.62
1:2S:650:C:H2'	1:2S:651:G:C8	2.34	0.62
1:2S:824:C:H5''	5:L2:21:ARG:CD	2.29	0.62
1:2S:2356:A:N6	1:2S:2983:C:H5	1.98	0.62
1:2S:2468:A:H4'	1:2S:2469:G:C4'	2.30	0.62
1:2S:2742:C:H2'	1:2S:2743:A:C8	2.35	0.62
1:2S:2904:U:H2'	1:2S:2905:U:H6	1.64	0.62
1:2S:3035:A:C2	12:L9:121:LYS:HG2	2.34	0.62
6:L3:49:TYR:CE1	6:L3:335:ILE:HB	2.34	0.62
6:L3:246:LEU:HD23	6:L3:246:LEU:H	1.64	0.62
19:57:171:ARG:HH11	19:57:171:ARG:HG3	1.64	0.62
23:61:40:VAL:HA	23:61:99:SER:HB2	1.82	0.62
30:68:105:LEU:HD22	30:68:148:ILE:HD12	1.81	0.62
33:71:9:THR:HB	33:71:109:VAL:HB	1.82	0.62
45:83:84:ARG:O	45:83:88:GLU:HG2	1.99	0.62
46:1S:1788:G:H2'	46:1S:1789:G:H5''	1.81	0.62
49:S2:87:GLN:HB3	49:S2:89:GLN:HE22	1.64	0.62
53:S6:220:LYS:HZ1	53:S6:223:LYS:HB3	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:22:89:TRP:HA	69:22:92:ASN:HD22	1.64	0.62
69:22:101:TYR:HA	69:22:113:HIS:CE1	2.34	0.62
5:L2:216:HIS:HB2	5:L2:218:HIS:NE2	2.15	0.62
19:57:116:HIS:HB3	19:57:149:VAL:HB	1.82	0.62
30:68:20:GLY:O	30:68:24:LYS:HG2	2.00	0.62
31:69:16:ALA:HB1	31:69:21:ILE:HD11	1.82	0.62
33:71:73:LEU:HA	33:71:96:VAL:HG22	1.80	0.62
50:S3:76:ARG:O	50:S3:76:ARG:HD3	1.99	0.62
51:S4:230:GLU:HB2	51:S4:233:LYS:HB2	1.81	0.62
54:S7:70:PHE:O	54:S7:74:GLN:HB2	1.99	0.62
60:13:53:LEU:O	60:13:57:ALA:HB3	1.99	0.62
64:17:119:LEU:H	64:17:119:LEU:HD12	1.63	0.62
68:21:1:MET:HB3	68:21:10:GLU:HB3	1.81	0.62
79:RA:21:THR:HG21	79:RA:38:ARG:HH21	1.65	0.62
79:RA:103:PHE:CE1	79:RA:138:GLY:HA2	2.33	0.62
1:2S:1226:G:C5'	1:2S:3117:C:H1'	2.30	0.62
1:2S:1357:G:H2'	1:2S:1358:C:H6	1.65	0.62
1:2S:2808:A:H1'	1:2S:2956:A:OP1	1.98	0.62
2:8S:57:C:H4'	2:8S:63:G:N7	2.14	0.62
10:L7:120:THR:HG22	23:61:134:GLN:HE22	1.64	0.62
16:54:38:ILE:HG13	16:54:44:VAL:HG12	1.80	0.62
32:70:22:LYS:HD3	32:70:94:GLU:HB2	1.80	0.62
32:70:27:TYR:O	32:70:31:VAL:HG23	2.00	0.62
34:72:67:SER:HB2	34:72:68:PRO:CD	2.30	0.62
46:1S:390:G:O2'	46:1S:1731:A:H5''	2.00	0.62
46:1S:542:A:O2'	46:1S:543:C:H5'	2.00	0.62
46:1S:1519:U:H2'	46:1S:1520:U:H5	1.64	0.62
49:S2:88:LYS:O	49:S2:95:ARG:HB3	1.99	0.62
57:10:61:TRP:CE3	76:29:23:VAL:HG22	2.35	0.62
1:2S:1330:A:H2'	1:2S:1332:A:C8	2.34	0.62
1:2S:1867:A:H2'	1:2S:1868:G:H8	1.63	0.62
1:2S:3257:C:H2'	1:2S:3258:U:O4'	2.00	0.62
2:8S:152:G:H5'	11:L8:60:ARG:HG2	1.81	0.62
6:L3:81:THR:O	6:L3:320:ASP:HB2	2.00	0.62
6:L3:146:ARG:NE	6:L3:146:ARG:HA	2.15	0.62
10:L7:40:LYS:O	10:L7:44:ILE:HG13	1.99	0.62
11:L8:45:ASN:OD1	27:65:26:VAL:HG23	1.99	0.62
16:54:108:ARG:HG2	18:56:198:GLY:HA3	1.81	0.62
25:63:36:ILE:HG23	25:63:60:ALA:HB2	1.81	0.62
36:74:29:ILE:HD13	36:74:29:ILE:N	2.13	0.62
40:78:31:LEU:HD23	40:78:31:LEU:H	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S4:175:PHE:HE1	51:S4:225:VAL:HG11	1.65	0.62
53:S6:64:LYS:O	53:S6:67:VAL:HG22	1.99	0.62
65:18:73:MET:HB3	65:18:101:LEU:HD11	1.82	0.62
1:2S:1110:U:H2'	1:2S:1111:U:C5	2.35	0.62
1:2S:1911:A:H2'	1:2S:1912:U:C6	2.35	0.62
1:2S:2650:U:O2'	1:2S:2651:G:H5'	2.00	0.62
1:2S:3006:A:H2'	1:2S:3007:U:O4'	2.00	0.62
1:2S:3278:C:H3'	1:2S:3279:A:C5'	2.30	0.62
2:8S:79:A:H2'	2:8S:80:A:C4'	2.29	0.62
4:L1:53:LEU:HD12	4:L1:157:PHE:CE1	2.31	0.62
7:L4:230:VAL:HG12	7:L4:261:VAL:HG21	1.82	0.62
16:54:45:LEU:HD21	16:54:55:ARG:HE	1.65	0.62
20:58:80:THR:HG22	20:58:100:THR:HB	1.82	0.62
20:58:82:VAL:HB	20:58:138:LEU:O	2.00	0.62
22:60:4:PHE:HB3	22:60:100:VAL:CG2	2.30	0.62
46:1S:19:A:H2'	46:1S:20:G:O4'	1.99	0.62
46:1S:181:A:H2'	46:1S:182:A:O4'	2.00	0.62
46:1S:707:A:H2'	46:1S:708:C:C4'	2.29	0.62
46:1S:1712:A:C3'	46:1S:1713:G:H5''	2.17	0.62
48:S1:71:ALA:HB3	61:14:114:ARG:NH1	2.14	0.62
48:S1:195:LYS:HA	48:S1:195:LYS:HE2	1.80	0.62
50:S3:70:THR:HG22	50:S3:86:LEU:HD13	1.81	0.62
67:20:106:ILE:HG13	67:20:107:THR:H	1.64	0.62
71:24:56:SER:HB3	71:24:74:LEU:HB2	1.81	0.62
71:24:57:VAL:HA	71:24:72:PHE:O	2.00	0.62
75:28:26:THR:HB	75:28:44:VAL:CG2	2.28	0.62
1:2S:87:U:H5''	20:58:172:PHE:CZ	2.33	0.61
1:2S:3255:U:H2'	1:2S:3256:G:C8	2.35	0.61
14:51:149:GLY:O	14:51:153:LYS:HG3	2.00	0.61
15:53:28:GLN:HE21	17:55:200:TRP:HE3	1.47	0.61
22:60:15:PRO:HG3	22:60:22:PRO:HD2	1.81	0.61
40:78:7:ASP:HB3	40:78:10:GLN:CB	2.30	0.61
46:1S:138:A:N6	46:1S:266:A:N6	2.48	0.61
46:1S:182:A:H2'	46:1S:183:U:C6	2.35	0.61
46:1S:320:U:H3'	46:1S:321:C:H5''	1.82	0.61
51:S4:104:ASP:HB2	51:S4:108:ARG:H	1.65	0.61
64:17:7:LYS:O	64:17:11:ARG:HB2	1.99	0.61
64:17:13:SER:HA	64:17:54:THR:HG22	1.81	0.61
69:22:81:VAL:HG11	69:22:86:ILE:HG23	1.82	0.61
1:2S:1126:G:H3'	1:2S:1127:G:H8	1.64	0.61
1:2S:2152:A:H2'	1:2S:2153:U:C6	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2792:A:H2'	1:2S:2793:G:C8	2.35	0.61
4:L1:189:PHE:CE1	4:L1:200:ASN:HB2	2.35	0.61
6:L3:27:ALA:CB	6:L3:218:ILE:HG22	2.30	0.61
12:L9:30:PRO:HD2	12:L9:82:VAL:HG13	1.82	0.61
46:1S:169:A:H4'	53:S6:176:GLN:HE21	1.66	0.61
46:1S:703:G:H2'	46:1S:704:C:H5'	1.81	0.61
46:1S:1613:U:C2'	46:1S:1614:A:H5''	2.28	0.61
49:S2:69:ILE:HD11	49:S2:133:LYS:HB3	1.82	0.61
59:12:106:ILE:HA	59:12:108:ARG:HH11	1.65	0.61
64:17:34:LEU:O	64:17:38:ILE:HG22	1.99	0.61
1:2S:1506:A:H1'	1:2S:1848:G:O6	2.01	0.61
1:2S:3138:U:H4'	6:L3:275:ARG:HH21	1.65	0.61
7:L4:157:GLU:O	7:L4:213:ASN:HB2	2.00	0.61
11:L8:42:PRO:HG2	11:L8:44:ARG:HH12	1.65	0.61
12:L9:77:ASN:HB3	12:L9:151:VAL:CG2	2.29	0.61
20:58:37:ALA:HB1	20:58:46:LYS:HG2	1.82	0.61
29:67:51:LEU:HB2	29:67:65:ARG:HD2	1.82	0.61
46:1S:21:U:H2'	46:1S:22:A:C8	2.35	0.61
46:1S:642:G:H2'	46:1S:643:G:C8	2.35	0.61
46:1S:1192:C:H4'	63:16:142:TYR:HD1	1.65	0.61
46:1S:1654:G:H1'	46:1S:1746:A:H61	1.64	0.61
48:S1:88:VAL:HG11	48:S1:96:LEU:HD12	1.82	0.61
51:S4:36:HIS:CD2	51:S4:85:GLY:H	2.18	0.61
73:26:18:VAL:HG23	73:26:19:LYS:N	2.15	0.61
1:2S:745:C:H2'	1:2S:746:A:C8	2.35	0.61
1:2S:971:G:H2'	1:2S:972:A:C8	2.35	0.61
1:2S:2407:C:H2'	1:2S:2408:U:C6	2.36	0.61
1:2S:3075:G:H5'	33:71:62:ARG:HB3	1.81	0.61
2:8S:83:C:H4'	2:8S:84:C:H5''	1.80	0.61
2:8S:134:G:H5''	27:65:53:HIS:O	2.00	0.61
4:L1:56:PRO:HA	4:L1:187:VAL:HG11	1.81	0.61
9:L6:71:VAL:HG11	9:L6:159:LEU:HB2	1.82	0.61
45:83:39:CYS:HB3	45:83:43:GLY:H	1.65	0.61
46:1S:743:U:OP1	54:S7:108:GLN:HB3	1.99	0.61
46:1S:1074:G:H2'	46:1S:1075:C:C6	2.35	0.61
55:S8:110:ARG:O	55:S8:114:GLU:HG3	2.00	0.61
60:13:71:ILE:O	60:13:75:LEU:HD13	2.00	0.61
79:RA:29:GLN:NE2	79:RA:32:LEU:HD22	2.15	0.61
79:RA:209:THR:HG22	79:RA:226:ALA:HB2	1.83	0.61
1:2S:763:G:C2	1:2S:764:U:H1'	2.35	0.61
1:2S:1019:G:C3'	1:2S:1020:G:H5''	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2424:A:H5'	17:55:89:VAL:HG21	1.82	0.61
1:2S:3163:A:H2'	1:2S:3164:C:H5''	1.83	0.61
8:L5:23:ARG:HA	8:L5:23:ARG:HE	1.64	0.61
9:L6:82:ARG:NH1	35:73:106:ASN:HB2	2.16	0.61
10:L7:91:GLY:O	10:L7:92:ILE:HB	1.99	0.61
10:L7:166:ASN:OD1	10:L7:181:ILE:HG22	1.99	0.61
20:58:147:ARG:O	20:58:150:VAL:HG22	2.00	0.61
32:70:41:LEU:HD11	32:70:68:TYR:HB3	1.82	0.61
32:70:42:ILE:HD11	32:70:60:ALA:HB2	1.82	0.61
33:71:19:ARG:HG3	33:71:19:ARG:HH11	1.65	0.61
36:74:75:ALA:O	36:74:76:TYR:HB2	1.98	0.61
36:74:80:ARG:HB2	36:74:85:VAL:HG22	1.80	0.61
46:1S:477:A:H2'	46:1S:478:A:H8	1.61	0.61
46:1S:900:A:H3'	46:1S:901:G:H21	1.65	0.61
73:26:24:VAL:HG12	73:26:72:HIS:O	1.99	0.61
73:26:78:ALA:HA	73:26:82:ARG:HB3	1.82	0.61
1:2S:3013:U:H2'	1:2S:3014:U:C6	2.35	0.61
12:L9:11:GLU:HA	12:L9:51:GLN:O	2.01	0.61
15:53:179:PHE:HA	15:53:182:ILE:HD12	1.82	0.61
27:65:66:PRO:HA	27:65:84:PHE:HB3	1.83	0.61
39:77:44:THR:HG22	39:77:45:ARG:N	2.14	0.61
46:1S:223:U:H2'	46:1S:224:C:C6	2.35	0.61
46:1S:1166:A:C2	46:1S:1167:G:H1'	2.35	0.61
47:S0:42:PRO:HD3	64:17:105:GLN:HG3	1.83	0.61
49:S2:125:ILE:O	49:S2:129:ILE:HG13	2.00	0.61
51:S4:248:ILE:HG13	51:S4:249:ALA:H	1.65	0.61
67:20:19:ILE:HG23	67:20:94:GLU:HB3	1.82	0.61
72:25:92:ILE:HG13	72:25:100:ILE:HG23	1.82	0.61
73:26:60:PRO:O	73:26:61:GLU:HG2	2.00	0.61
1:2S:271:C:H2'	1:2S:272:G:O4'	2.01	0.61
1:2S:1444:G:H2'	1:2S:1445:U:O4'	2.01	0.61
1:2S:2251:G:C2'	1:2S:2252:A:H5''	2.30	0.61
1:2S:3038:U:H5''	6:L3:62:ARG:HG2	1.83	0.61
1:2S:3287:U:H2'	1:2S:3288:G:C5'	2.30	0.61
4:L1:130:LYS:HB3	4:L1:136:THR:HB	1.82	0.61
7:L4:194:TYR:HB3	7:L4:198:ARG:HH12	1.65	0.61
12:L9:21:LYS:HA	16:54:8:LYS:HG3	1.82	0.61
12:L9:30:PRO:HG2	12:L9:83:THR:HG22	1.82	0.61
17:55:19:LEU:HA	17:55:22:LEU:HD12	1.80	0.61
33:71:88:PRO:HG2	33:71:89:LEU:HD12	1.83	0.61
39:77:27:PHE:HD1	39:77:34:CYS:HB2	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:78:7:ASP:HB3	40:78:10:GLN:HB2	1.82	0.61
46:1S:496:G:H2'	46:1S:497:G:O4'	2.00	0.61
46:1S:952:A:H2'	46:1S:953:G:C8	2.35	0.61
49:S2:168:ARG:O	49:S2:198:THR:HA	2.01	0.61
51:S4:57:ASN:HB2	51:S4:60:GLU:HG3	1.83	0.61
54:S7:32:PRO:HG2	54:S7:34:LEU:HD12	1.83	0.61
59:12:35:ALA:HA	59:12:126:TRP:HA	1.83	0.61
75:28:28:VAL:HG12	75:28:30:VAL:HG13	1.82	0.61
76:29:31:ILE:HB	76:29:36:LEU:HD11	1.83	0.61
1:2S:672:A:H5''	20:58:21:SER:HA	1.81	0.61
1:2S:1558:A:O2'	1:2S:1559:A:H5'	2.01	0.61
1:2S:1722:U:H5''	21:59:99:LEU:HD12	1.82	0.61
1:2S:1803:C:H2'	1:2S:1804:A:H8	1.66	0.61
1:2S:1870:C:H2'	1:2S:1871:U:C6	2.35	0.61
1:2S:2422:C:H2'	1:2S:2423:U:C6	2.36	0.61
1:2S:3317:U:H1'	1:2S:3318:G:OP2	2.01	0.61
5:L2:178:PRO:HD2	45:83:25:GLN:OE1	2.00	0.61
10:L7:86:VAL:HG22	10:L7:136:TYR:CB	2.31	0.61
18:56:98:ALA:HA	18:56:101:ARG:NH1	2.16	0.61
19:57:76:PHE:HB2	19:57:78:VAL:HG23	1.81	0.61
19:57:87:SER:O	19:57:91:VAL:HG23	2.00	0.61
37:75:66:VAL:HA	37:75:69:LEU:HG	1.83	0.61
46:1S:567:A:C5'	77:30:10:ARG:HB3	2.31	0.61
46:1S:1459:C:H5''	65:18:138:THR:OG1	2.01	0.61
46:1S:1477:G:H5'	66:19:45:MET:HB2	1.82	0.61
46:1S:1679:G:H2'	46:1S:1680:G:O4'	2.01	0.61
58:11:109:VAL:HG21	58:11:125:VAL:HG11	1.83	0.61
60:13:129:TYR:HA	60:13:132:VAL:HG22	1.83	0.61
71:24:20:ARG:NH2	71:24:74:LEU:HD22	2.16	0.61
77:30:38:LEU:O	77:30:38:LEU:HD23	2.01	0.61
79:RA:6:VAL:O	79:RA:316:MET:HB2	1.99	0.61
1:2S:288:C:H2'	1:2S:289:A:C8	2.36	0.61
1:2S:598:A:H2'	1:2S:599:C:C6	2.35	0.61
1:2S:1901:A:H5''	1:2S:2919:A:OP1	2.01	0.61
1:2S:2256:A:N7	46:1S:1757:G:H4'	2.15	0.61
1:2S:2284:C:H2'	1:2S:2285:C:O4'	2.01	0.61
1:2S:2874:G:H3'	1:2S:2945:G:H1	1.66	0.61
8:L5:51:LEU:O	8:L5:147:ASP:HB3	2.00	0.61
10:L7:26:VAL:HG23	10:L7:27:ALA:H	1.66	0.61
13:50:181:TYR:CE1	13:50:190:VAL:HG11	2.36	0.61
17:55:153:ASP:HB3	17:55:155:VAL:HG22	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:62:33:TYR:OH	24:62:80:THR:HG22	2.01	0.61
25:63:22:ILE:HG12	25:63:35:TYR:HD1	1.66	0.61
37:75:118:ILE:O	37:75:119:LYS:HB2	2.00	0.61
49:S2:226:THR:HG23	49:S2:229:LEU:HB2	1.82	0.61
57:10:82:LEU:HB3	57:10:86:ILE:HG21	1.83	0.61
68:21:40:ASP:OD2	68:21:46:ILE:HD11	2.00	0.61
71:24:132:ARG:O	71:24:132:ARG:HD3	2.01	0.61
1:2S:966:U:H2'	1:2S:967:A:C8	2.36	0.61
1:2S:1385:C:H2'	1:2S:1387:G:H5'	1.83	0.61
1:2S:1430:U:H2'	30:68:9:ARG:HH22	1.65	0.61
1:2S:1655:G:H1'	1:2S:1800:A:N6	2.15	0.61
1:2S:2119:A:H2	21:59:82:LYS:NZ	1.99	0.61
1:2S:3063:C:O2'	1:2S:3064:U:H5'	2.01	0.61
7:L4:184:SER:HB2	7:L4:202:ARG:HG2	1.83	0.61
12:L9:86:TYR:CE2	12:L9:151:VAL:HG22	2.36	0.61
16:54:127:LYS:HB2	18:56:190:VAL:HG21	1.83	0.61
22:60:8:GLN:HB3	22:60:62:ASN:HB2	1.83	0.61
46:1S:903:U:H2'	46:1S:905:A:OP2	2.01	0.61
71:24:60:PHE:H	71:24:71:GLY:HA2	1.66	0.61
1:2S:924:G:H3'	1:2S:925:A:H5'	1.83	0.60
1:2S:3165:A:H2'	1:2S:3166:C:O4'	2.01	0.60
1:2S:3192:U:H2'	1:2S:3193:C:C6	2.36	0.60
4:L1:13:VAL:HG22	4:L1:14:LYS:N	2.13	0.60
5:L2:225:ILE:CD1	5:L2:237:LEU:H	2.14	0.60
6:L3:152:LYS:HG2	6:L3:192:VAL:HG11	1.81	0.60
14:51:60:ARG:HB2	14:51:60:ARG:HH11	1.65	0.60
21:59:147:ALA:O	21:59:151:ARG:HG3	2.00	0.60
22:60:15:PRO:HG3	22:60:22:PRO:HD3	1.81	0.60
22:60:81:TYR:CE1	22:60:88:HIS:HB2	2.35	0.60
22:60:107:TYR:CE1	22:60:118:PHE:HA	2.36	0.60
28:66:38:GLU:O	28:66:42:GLN:HG2	2.01	0.60
41:79:41:ARG:HG3	41:79:42:ARG:H	1.65	0.60
52:S5:215:ASP:O	52:S5:219:ARG:HB2	2.01	0.60
53:S6:76:LEU:HA	53:S6:94:ARG:HA	1.82	0.60
57:10:16:PHE:O	57:10:88:PRO:HA	2.00	0.60
59:12:27:ALA:O	59:12:31:VAL:HG23	2.00	0.60
69:22:85:ASP:HB3	69:22:89:TRP:CD1	2.36	0.60
73:26:13:LYS:H	73:26:15:ARG:NH2	1.99	0.60
1:2S:338:A:H4'	7:L4:197:ARG:NH2	2.15	0.60
1:2S:2897:A:H2'	1:2S:2899:C:H5''	1.82	0.60
1:2S:3197:G:H2'	1:2S:3198:U:H3'	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:77:ILE:HG22	5:L2:78:ALA:N	2.13	0.60
12:L9:41:ILE:HG23	12:L9:42:ASP:N	2.15	0.60
19:57:22:LEU:HB3	19:57:24:VAL:HG23	1.83	0.60
22:60:15:PRO:HB3	22:60:21:GLU:H	1.65	0.60
29:67:13:VAL:HG12	29:67:14:VAL:H	1.65	0.60
29:67:136:PHE:HB3	36:74:92:ALA:HB2	1.83	0.60
47:S0:185:ARG:HG2	68:21:44:ARG:HA	1.82	0.60
50:S3:172:THR:HG22	50:S3:185:LYS:HG2	1.83	0.60
54:S7:99:LEU:HD13	54:S7:112:ARG:HG3	1.83	0.60
67:20:63:LEU:O	67:20:83:GLU:HA	2.01	0.60
68:21:34:ILE:HB	68:21:53:TYR:HB2	1.83	0.60
1:2S:592:A:H5''	9:L6:19:LYS:HG2	1.84	0.60
1:2S:2207:A:H3'	1:2S:2208:A:C5'	2.25	0.60
1:2S:2945:G:H5''	1:2S:2946:A:OP1	2.01	0.60
1:2S:2961:G:H2'	1:2S:2962:U:C6	2.37	0.60
3:5S:120:C:OP2	8:L5:258:LYS:HD3	2.00	0.60
5:L2:140:ASN:HB3	5:L2:145:LYS:HB2	1.83	0.60
6:L3:385:LYS:CG	6:L3:386:ASP:H	2.05	0.60
11:L8:153:ILE:HD11	11:L8:177:TYR:HB2	1.82	0.60
18:56:108:ILE:CG2	18:56:113:ASP:HB3	2.30	0.60
27:65:107:VAL:HG12	27:65:108:LEU:N	2.14	0.60
29:67:83:THR:HB	36:74:93:PHE:HZ	1.67	0.60
36:74:8:ARG:HB2	36:74:34:HIS:NE2	2.16	0.60
46:1S:962:C:OP2	60:13:70:LYS:HD3	2.02	0.60
46:1S:1347:U:H5	67:20:23:ARG:HH21	1.49	0.60
46:1S:1789:G:H5''	61:14:132:ARG:NH2	2.17	0.60
48:S1:35:PRO:HD3	48:S1:98:THR:HG23	1.83	0.60
50:S3:34:TYR:CE2	50:S3:37:VAL:HG13	2.36	0.60
50:S3:133:GLY:HA2	50:S3:156:PHE:H	1.66	0.60
51:S4:196:VAL:HB	51:S4:209:HIS:CB	2.30	0.60
55:S8:10:LYS:HG3	55:S8:11:ARG:N	2.16	0.60
60:13:62:GLN:HB2	60:13:65:VAL:HG23	1.83	0.60
79:RA:61:PHE:HE1	79:RA:97:GLY:HA2	1.66	0.60
1:2S:101:G:H2'	1:2S:102:C:O4'	2.02	0.60
1:2S:336:A:H61	2:8S:27:U:H3	1.49	0.60
1:2S:408:A:H2'	1:2S:409:A:O4'	2.02	0.60
1:2S:1538:G:H21	1:2S:1583:A:H62	1.49	0.60
1:2S:2131:A:H61	45:83:18:TYR:HA	1.66	0.60
1:2S:3185:U:H5''	12:L9:23:ARG:HH12	1.66	0.60
3:5S:89:G:H5''	22:60:84:ARG:NH2	2.16	0.60
9:L6:170:LYS:O	9:L6:174:LEU:HG	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:204:ARG:H	11:L8:204:ARG:HD3	1.67	0.60
21:59:37:SER:O	21:59:41:ILE:HG13	2.02	0.60
21:59:93:VAL:O	21:59:97:ARG:HG3	2.02	0.60
46:1S:416:A:H5'	46:1S:417:A:C8	2.35	0.60
46:1S:1685:G:C2'	46:1S:1686:C:H5''	2.31	0.60
46:1S:1789:G:C5'	61:14:132:ARG:HH22	2.13	0.60
49:S2:89:GLN:HE21	49:S2:89:GLN:N	2.00	0.60
54:S7:143:LEU:HD22	54:S7:143:LEU:N	2.16	0.60
55:S8:5:ARG:HH12	55:S8:28:GLU:HA	1.65	0.60
1:2S:31:C:H5'	17:55:96:ARG:HH11	1.66	0.60
1:2S:405:U:C2'	1:2S:406:G:H5'	2.29	0.60
1:2S:1065:A:C4	31:69:28:LYS:HG2	2.35	0.60
1:2S:1349:G:H3'	1:2S:1349:G:N3	2.17	0.60
1:2S:1421:G:H2'	1:2S:1422:G:H8	1.67	0.60
1:2S:1941:C:H2'	1:2S:1942:U:C6	2.36	0.60
1:2S:2985:C:H2'	1:2S:2986:U:C6	2.37	0.60
5:L2:179:LEU:O	5:L2:184:ARG:HD2	2.01	0.60
6:L3:92:TYR:HB2	6:L3:157:VAL:CG2	2.32	0.60
38:76:53:TYR:O	38:76:57:LEU:HB2	2.01	0.60
46:1S:1524:A:H2'	46:1S:1525:A:C8	2.37	0.60
55:S8:58:LEU:O	55:S8:59:ARG:HB2	2.01	0.60
56:S9:3:ARG:HB2	56:S9:3:ARG:HH21	1.67	0.60
60:13:17:PRO:HG3	74:27:28:PRO:HD3	1.83	0.60
70:23:109:ARG:HB2	70:23:112:LYS:HB2	1.83	0.60
1:2S:1334:U:H2'	1:2S:1335:C:C6	2.36	0.60
1:2S:2153:U:H5''	5:L2:244:GLY:O	2.01	0.60
1:2S:2322:C:C2'	1:2S:2323:G:H5'	2.31	0.60
6:L3:111:SER:HB3	6:L3:114:VAL:HG23	1.84	0.60
14:51:15:GLU:HG2	14:51:72:ARG:HH12	1.66	0.60
20:58:120:GLU:HG2	20:58:121:CYS:N	2.15	0.60
21:59:29:THR:HA	21:59:32:ILE:HD12	1.82	0.60
30:68:75:LEU:CD1	30:68:137:LYS:HD2	2.31	0.60
45:83:84:ARG:HD2	45:83:87:ARG:HH21	1.65	0.60
46:1S:144:U:O2'	46:1S:145:A:H5'	2.00	0.60
46:1S:646:C:H2'	46:1S:647:G:C8	2.37	0.60
47:S0:126:PRO:HG2	47:S0:151:SER:HB3	1.82	0.60
51:S4:107:GLY:HA2	51:S4:189:LEU:HG	1.84	0.60
56:S9:153:GLU:HG3	56:S9:156:ILE:HD12	1.84	0.60
57:10:84:GLU:O	57:10:85:HIS:HB3	2.02	0.60
63:16:106:LYS:HB2	63:16:106:LYS:NZ	2.17	0.60
1:2S:382:U:H2'	1:2S:383:G:O4'	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:964:G:H21	30:68:40:HIS:HB2	1.67	0.60
1:2S:1914:G:O2'	21:59:82:LYS:HE2	2.01	0.60
17:55:96:ARG:HH11	17:55:96:ARG:HG2	1.66	0.60
18:56:168:TYR:HE1	18:56:172:ARG:HD3	1.66	0.60
21:59:135:LYS:O	21:59:139:VAL:HG23	2.01	0.60
46:1S:105:A:H62	46:1S:308:C:N4	2.00	0.60
46:1S:407:A:H2'	46:1S:408:C:C6	2.36	0.60
46:1S:772:G:H5''	51:S4:23:LEU:HG	1.84	0.60
46:1S:1521:G:H2'	46:1S:1523:G:N2	2.15	0.60
48:S1:35:PRO:O	48:S1:36:SER:HB2	2.00	0.60
53:S6:57:ASP:HA	53:S6:107:ALA:N	2.16	0.60
64:17:32:LYS:HD2	64:17:47:ARG:HH11	1.66	0.60
65:18:116:LEU:HD23	65:18:123:ARG:HB3	1.83	0.60
1:2S:591:G:H1'	9:L6:19:LYS:HG3	1.84	0.60
1:2S:803:C:H5'	7:L4:100:PHE:CE2	2.36	0.60
1:2S:1190:A:H5'	1:2S:1191:U:OP1	2.02	0.60
1:2S:1456:A:H61	1:2S:1477:A:H4'	1.66	0.60
1:2S:2227:C:H2'	1:2S:2228:A:C8	2.36	0.60
1:2S:3046:A:O2'	6:L3:329:PRO:HA	2.01	0.60
7:L4:315:LYS:HB2	7:L4:323:VAL:HG21	1.84	0.60
9:L6:65:ILE:HD13	9:L6:65:ILE:H	1.67	0.60
12:L9:87:LYS:HB2	12:L9:187:ILE:HA	1.84	0.60
30:68:88:ASP:HA	30:68:91:LEU:HB2	1.83	0.60
33:71:32:ALA:O	33:71:36:ILE:HG13	2.02	0.60
45:83:37:TYR:O	45:83:45:LYS:HA	2.01	0.60
47:S0:183:ARG:HG3	47:S0:188:LEU:HG	1.82	0.60
65:18:30:TYR:CE2	65:18:40:ARG:HG2	2.37	0.60
1:2S:519:A:C5	1:2S:522:A:H4'	2.37	0.60
1:2S:1302:A:H2'	1:2S:1303:A:H5''	1.82	0.60
1:2S:1490:A:H2'	1:2S:1491:A:O4'	2.01	0.60
1:2S:1654:A:H2'	1:2S:1655:G:C5'	2.30	0.60
1:2S:2221:G:N2	1:2S:2223:A:H3'	2.16	0.60
1:2S:2941:A:H8	1:2S:2941:A:OP2	1.83	0.60
7:L4:40:THR:O	7:L4:44:LYS:HG3	2.01	0.60
9:L6:30:LEU:HD22	9:L6:34:LEU:HD13	1.82	0.60
10:L7:221:LYS:HB3	10:L7:227:GLY:HA3	1.81	0.60
14:51:94:ARG:C	14:51:96:PHE:H	2.03	0.60
15:53:67:ARG:HD3	15:53:67:ARG:H	1.67	0.60
15:53:70:ARG:HG2	15:53:71:ALA:H	1.67	0.60
19:57:111:LYS:NZ	19:57:111:LYS:HB3	2.16	0.60
26:64:45:ASN:HB3	26:64:48:ARG:HG3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:72:67:SER:HB2	34:72:68:PRO:HD2	1.83	0.60
36:74:82:ALA:N	36:74:85:VAL:HG23	2.15	0.60
48:S1:218:LEU:HD23	48:S1:219:LYS:HG3	1.83	0.60
49:S2:116:LYS:HD3	49:S2:131:ILE:HD11	1.84	0.60
65:18:15:LEU:HD23	65:18:15:LEU:N	2.17	0.60
75:28:43:ASN:ND2	75:28:63:ALA:HB3	2.16	0.60
79:RA:150:TRP:HB2	79:RA:174:ASN:ND2	2.06	0.60
1:2S:1877:U:H5''	1:2S:1878:G:O4'	2.02	0.60
16:54:23:ILE:HD12	16:54:28:SER:HB2	1.82	0.60
18:56:16:VAL:HG21	18:56:43:ILE:HG12	1.84	0.60
21:59:15:VAL:HG12	21:59:52:LYS:HZ2	1.66	0.60
30:68:64:GLN:HB2	30:68:67:HIS:CE1	2.37	0.60
32:70:21:GLY:HA3	32:70:95:ALA:HA	1.84	0.60
46:1S:698:U:H1'	54:S7:107:ARG:CD	2.32	0.60
47:S0:206:ASP:HB2	47:S0:207:PRO:CA	2.29	0.60
49:S2:45:VAL:HG22	49:S2:50:ILE:HD12	1.83	0.60
51:S4:154:ILE:HG12	51:S4:172:PHE:CD2	2.37	0.60
52:S5:25:LEU:HD22	52:S5:25:LEU:H	1.67	0.60
55:S8:189:LEU:O	55:S8:193:LEU:HG	2.02	0.60
1:2S:86:G:H1'	1:2S:87:U:H5	1.67	0.59
1:2S:671:U:H2'	1:2S:672:A:C8	2.37	0.59
1:2S:894:G:H4'	1:2S:895:A:O4'	2.02	0.59
1:2S:1867:A:H2'	1:2S:1868:G:C8	2.37	0.59
1:2S:2795:U:OP2	44:82:63:LYS:HB2	2.02	0.59
3:5S:43:U:H4'	14:51:140:ARG:O	2.02	0.59
8:L5:23:ARG:HH21	8:L5:26:GLY:CA	2.15	0.59
10:L7:56:GLU:O	10:L7:60:ARG:HG2	2.02	0.59
31:69:47:LEU:HA	31:69:50:THR:CG2	2.31	0.59
34:72:65:PHE:HB2	34:72:72:LYS:HE2	1.84	0.59
46:1S:70:C:H2'	46:1S:71:A:C8	2.37	0.59
46:1S:380:U:C2	56:S9:5:PRO:HG3	2.37	0.59
46:1S:999:U:H2'	46:1S:1000:C:O4'	2.01	0.59
46:1S:1458:G:N3	46:1S:1458:G:H2'	2.17	0.59
49:S2:214:ALA:O	49:S2:218:ILE:HG13	2.01	0.59
69:22:26:LEU:HG	69:22:62:VAL:HG22	1.83	0.59
70:23:127:VAL:O	70:23:130:VAL:HG22	2.02	0.59
71:24:17:LEU:H	71:24:17:LEU:HD12	1.66	0.59
77:30:21:VAL:HG22	77:30:22:GLU:H	1.67	0.59
79:RA:112:SER:CB	79:RA:154:VAL:H	2.16	0.59
1:2S:39:A:H5''	30:68:35:ALA:CB	2.32	0.59
1:2S:114:A:H2'	1:2S:115:A:O4'	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:436:A:H2'	1:2S:437:G:O4'	2.02	0.59
1:2S:830:A:H2'	1:2S:831:G:O4'	2.02	0.59
1:2S:949:C:H2'	1:2S:950:G:O4'	2.03	0.59
1:2S:1336:U:H2'	1:2S:1337:A:C8	2.37	0.59
1:2S:1896:A:H2'	1:2S:1897:G:C8	2.37	0.59
1:2S:3324:C:H2'	1:2S:3325:G:C8	2.36	0.59
3:5S:108:A:H2'	3:5S:109:G:H8	1.66	0.59
4:L1:54:LYS:CB	4:L1:191:VAL:HG21	2.31	0.59
7:L4:310:THR:O	7:L4:311:HIS:HB3	2.02	0.59
9:L6:55:LEU:HB2	9:L6:64:LEU:O	2.02	0.59
9:L6:56:LYS:HD2	9:L6:98:VAL:HG12	1.83	0.59
16:54:113:THR:HB	16:54:116:GLU:CG	2.30	0.59
18:56:142:SER:O	18:56:145:VAL:HG22	2.02	0.59
24:62:23:THR:HA	24:62:28:PHE:HB3	1.83	0.59
29:67:13:VAL:HG12	29:67:14:VAL:N	2.17	0.59
38:76:34:SER:O	38:76:38:LYS:HG3	2.02	0.59
45:83:64:VAL:HG12	45:83:65:ALA:N	2.17	0.59
46:1S:495:C:H5	46:1S:496:G:N2	2.00	0.59
46:1S:757:A:H2'	46:1S:758:U:O4'	2.02	0.59
46:1S:958:U:H2'	60:13:14:SER:OG	2.02	0.59
46:1S:1303:U:H3'	46:1S:1304:G:C8	2.37	0.59
55:S8:45:SER:HB3	55:S8:55:TYR:CD1	2.37	0.59
56:S9:81:VAL:HG22	56:S9:86:LEU:HD23	1.83	0.59
65:18:8:GLN:HG3	65:18:9:GLY:H	1.66	0.59
1:2S:116:A:N6	1:2S:153:U:H1'	2.17	0.59
1:2S:294:U:H4'	38:76:77:LEU:HD23	1.84	0.59
1:2S:1494:U:H5'	1:2S:1495:U:C2	2.37	0.59
1:2S:2254:U:H2'	1:2S:2261:G:N2	2.17	0.59
13:50:20:SER:H	13:50:23:ASN:HB2	1.67	0.59
14:51:11:ASP:O	14:51:134:PRO:HD3	2.01	0.59
18:56:108:ILE:HG22	18:56:113:ASP:HB3	1.84	0.59
37:75:85:THR:HB	37:75:88:LEU:HB2	1.83	0.59
39:77:5:THR:N	39:77:6:PRO:HD2	2.18	0.59
46:1S:1449:U:H2'	46:1S:1450:U:C6	2.36	0.59
64:17:57:LEU:O	64:17:61:ILE:HG13	2.03	0.59
69:22:86:ILE:HG13	69:22:87:GLU:N	2.16	0.59
70:23:96:VAL:O	70:23:97:ASP:HB2	2.01	0.59
1:2S:649:A:H4'	1:2S:2869:U:H5'	1.83	0.59
1:2S:679:U:H2'	1:2S:680:G:C8	2.38	0.59
1:2S:1096:U:H4'	1:2S:1097:G:O4'	2.02	0.59
1:2S:3255:U:H2'	1:2S:3256:G:H8	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:332:ARG:HD3	6:L3:332:ARG:H	1.67	0.59
13:50:98:ARG:HB3	13:50:120:GLY:CA	2.31	0.59
20:58:23:ASN:O	20:58:27:LYS:HG3	2.03	0.59
22:60:7:TYR:HA	22:60:63:GLN:HA	1.84	0.59
35:73:41:ALA:HA	35:73:44:TYR:HD2	1.67	0.59
38:76:79:SER:CB	38:76:81:THR:HG22	2.33	0.59
46:1S:163:G:H5'	53:S6:54:GLY:HA3	1.84	0.59
46:1S:1042:G:H3'	46:1S:1043:A:H5''	1.85	0.59
49:S2:129:ILE:O	49:S2:133:LYS:HG2	2.02	0.59
50:S3:118:ALA:O	50:S3:122:VAL:HG23	2.02	0.59
51:S4:46:VAL:HG13	51:S4:50:ASN:OD1	2.03	0.59
56:S9:29:LYS:HA	77:30:40:TYR:CE2	2.38	0.59
57:10:24:LYS:HG2	57:10:25:LYS:H	1.66	0.59
60:13:98:VAL:HA	60:13:101:HIS:HB2	1.83	0.59
76:29:19:ARG:HG3	76:29:19:ARG:HH11	1.67	0.59
1:2S:126:U:H2'	1:2S:127:G:C8	2.37	0.59
1:2S:738:A:H2'	1:2S:739:G:C8	2.37	0.59
1:2S:1195:A:H2'	1:2S:1309:U:O2	2.03	0.59
1:2S:1717:U:H2'	1:2S:1718:G:C8	2.37	0.59
1:2S:3346:U:H2'	1:2S:3347:A:C8	2.38	0.59
10:L7:169:ILE:HG21	10:L7:184:LEU:HD11	1.84	0.59
16:54:90:VAL:HA	16:54:93:LYS:HB3	1.83	0.59
16:54:127:LYS:O	16:54:131:VAL:HG23	2.02	0.59
22:60:80:ARG:HD2	23:61:155:PRO:HA	1.85	0.59
32:70:11:ASN:HA	32:70:14:LEU:HD12	1.84	0.59
33:71:67:VAL:HG12	33:71:68:GLU:H	1.67	0.59
33:71:74:ARG:HG2	33:71:109:VAL:HG21	1.82	0.59
46:1S:212:U:H2'	46:1S:213:A:C8	2.37	0.59
46:1S:300:A:H2'	46:1S:301:A:C8	2.37	0.59
46:1S:1408:G:H2'	46:1S:1409:G:O4'	2.03	0.59
51:S4:18:TRP:HE1	51:S4:42:LEU:HG	1.66	0.59
66:19:14:PHE:CE2	66:19:63:ARG:HD3	2.38	0.59
1:2S:674:G:H2'	1:2S:675:C:C6	2.38	0.59
1:2S:916:G:H5'	1:2S:917:A:OP1	2.02	0.59
1:2S:2949:U:H3'	1:2S:2950:G:H21	1.68	0.59
1:2S:3095:U:H2'	1:2S:3096:C:H6	1.66	0.59
7:L4:263:GLY:HA2	7:L4:267:VAL:HG23	1.83	0.59
11:L8:178:ALA:HB2	11:L8:218:ILE:HG23	1.83	0.59
12:L9:23:ARG:HD2	12:L9:39:LYS:HA	1.84	0.59
29:67:51:LEU:CB	29:67:65:ARG:HD2	2.32	0.59
44:82:74:CYS:O	44:82:78:LYS:HA	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:435:C:H5''	70:23:50:LYS:HE3	1.85	0.59
46:1S:1116:A:H2'	46:1S:1117:U:C6	2.38	0.59
51:S4:23:LEU:HD11	56:S9:6:ARG:HD3	1.83	0.59
54:S7:143:LEU:HD22	54:S7:143:LEU:H	1.67	0.59
54:S7:166:LEU:O	54:S7:170:GLN:HG3	2.03	0.59
59:12:79:ALA:HB1	59:12:87:PRO:O	2.02	0.59
60:13:127:ARG:HA	60:13:130:ARG:NH2	2.17	0.59
68:21:38:LYS:HE3	68:21:51:VAL:HG22	1.85	0.59
1:2S:157:A:H2'	1:2S:158:G:O4'	2.03	0.59
1:2S:341:G:H21	1:2S:349:A:H61	1.50	0.59
1:2S:543:C:H42	1:2S:548:G:H1	1.49	0.59
1:2S:2802:A:C4	44:82:56:PRO:HA	2.37	0.59
1:2S:3094:A:H2'	1:2S:3095:U:C6	2.37	0.59
1:2S:3343:G:H1'	1:2S:3362:A:N6	2.16	0.59
12:L9:44:THR:O	12:L9:55:VAL:HA	2.02	0.59
13:50:26:VAL:HB	13:50:27:PRO:HD2	1.84	0.59
20:58:81:VAL:HA	20:58:138:LEU:HB3	1.83	0.59
24:62:84:LEU:HB2	24:62:90:ARG:HD3	1.84	0.59
27:65:141:TYR:O	27:65:142:ILE:HG12	2.02	0.59
34:72:72:LYS:O	34:72:92:TYR:HA	2.02	0.59
39:77:18:LEU:HD23	39:77:25:ARG:CB	2.26	0.59
46:1S:63:G:H4'	46:1S:170:U:C5	2.37	0.59
46:1S:487:G:C2'	46:1S:488:G:H5''	2.28	0.59
46:1S:868:G:H1	46:1S:960:U:H3	1.50	0.59
46:1S:950:C:H2'	46:1S:951:A:O4'	2.01	0.59
51:S4:6:LYS:H	51:S4:6:LYS:HD2	1.68	0.59
51:S4:45:ILE:O	51:S4:49:ARG:HB3	2.02	0.59
65:18:4:VAL:HG22	72:25:78:ILE:CG2	2.32	0.59
70:23:71:CYS:O	70:23:72:VAL:HG13	2.03	0.59
72:25:41:ILE:HG23	72:25:42:LEU:H	1.67	0.59
1:2S:105:C:H2'	1:2S:106:A:H8	1.67	0.59
1:2S:1533:U:H4'	1:2S:1799:A:H1'	1.84	0.59
4:L1:93:LEU:HD22	4:L1:115:VAL:HG13	1.85	0.59
12:L9:49:ASN:HD22	12:L9:49:ASN:H	1.50	0.59
15:53:188:ARG:O	15:53:192:GLU:HG2	2.03	0.59
29:67:33:SER:HB2	29:67:40:HIS:NE2	2.18	0.59
34:72:79:VAL:O	34:72:82:LEU:HB3	2.03	0.59
38:76:87:VAL:HG12	38:76:91:ASN:ND2	2.18	0.59
44:82:61:LYS:HB3	44:82:61:LYS:NZ	2.18	0.59
46:1S:367:A:H2'	46:1S:368:U:O4'	2.03	0.59
46:1S:611:U:H1'	58:11:97:TYR:HA	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1087:A:H1'	46:1S:1142:A:O2'	2.03	0.59
47:S0:183:ARG:O	68:21:43:GLY:HA3	2.03	0.59
47:S0:184:LEU:HD23	68:21:43:GLY:C	2.23	0.59
48:S1:116:LYS:HG2	48:S1:117:TRP:H	1.67	0.59
50:S3:40:ARG:HB2	50:S3:47:GLU:HB2	1.84	0.59
60:13:31:GLU:HA	60:13:34:ILE:HD12	1.85	0.59
64:17:21:TYR:N	64:17:22:PRO:HD2	2.18	0.59
79:RA:206:PRO:HG2	79:RA:247:PRO:HA	1.85	0.59
1:2S:277:G:C5'	44:82:49:GLY:HA2	2.33	0.59
1:2S:618:C:H2'	1:2S:619:A:H5'	1.85	0.59
1:2S:1491:A:H2'	1:2S:1492:G:C8	2.37	0.59
1:2S:1797:A:H4'	5:L2:22:LEU:CD2	2.33	0.59
1:2S:1940:G:OP1	21:59:80:LYS:HE3	2.03	0.59
5:L2:199:THR:CG2	5:L2:200:ARG:H	2.16	0.59
6:L3:56:ILE:HD11	6:L3:359:ILE:HG23	1.85	0.59
6:L3:238:LEU:HD21	6:L3:248:LYS:O	2.03	0.59
30:68:82:ILE:HD11	30:68:102:ILE:CD1	2.32	0.59
33:71:73:LEU:HB2	33:71:94:GLU:O	2.02	0.59
37:75:53:CYS:O	37:75:57:VAL:HG23	2.02	0.59
46:1S:1587:A:H1'	52:S5:104:ASN:HD22	1.66	0.59
46:1S:1681:A:H2'	46:1S:1682:U:O4'	2.03	0.59
48:S1:82:ARG:HG2	48:S1:105:PHE:CE2	2.38	0.59
51:S4:233:LYS:N	51:S4:234:PRO:HD3	2.18	0.59
64:17:95:ARG:HH22	64:17:118:PRO:HB3	1.67	0.59
70:23:75:GLN:HG2	70:23:76:LEU:N	2.17	0.59
72:25:96:SER:C	72:25:97:LYS:HG2	2.23	0.59
77:30:56:MET:C	77:30:58:PRO:HD3	2.23	0.59
1:2S:41:G:H3'	1:2S:42:C:H6	1.66	0.59
1:2S:1492:G:O6	41:79:2:ALA:HB1	2.03	0.59
1:2S:1567:U:H3'	1:2S:1568:U:H5''	1.85	0.59
1:2S:3308:C:O2	19:57:69:ARG:HD2	2.03	0.59
11:L8:213:LYS:NZ	11:L8:213:LYS:HB3	2.18	0.59
14:51:148:VAL:HG11	14:51:152:HIS:HB3	1.84	0.59
16:54:37:GLU:HG3	16:54:38:ILE:H	1.68	0.59
19:57:91:VAL:O	19:57:95:LEU:HG	2.03	0.59
22:60:4:PHE:O	22:60:5:LYS:HG3	2.03	0.59
22:60:79:VAL:HG12	22:60:80:ARG:N	2.17	0.59
32:70:23:TYR:HA	32:70:93:LEU:HD13	1.85	0.59
35:73:100:ILE:H	35:73:100:ILE:HD12	1.68	0.59
46:1S:55:A:N6	46:1S:403:G:H1'	2.17	0.59
46:1S:121:U:H1'	51:S4:33:ALA:HB3	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:176:C:H3'	46:1S:177:U:C6	2.38	0.59
46:1S:1473:U:H5''	52:S5:190:ILE:HG12	1.84	0.59
48:S1:144:ARG:NH2	48:S1:206:PRO:HB3	2.18	0.59
48:S1:153:HIS:HB2	48:S1:155:TYR:CZ	2.38	0.59
52:S5:37:GLN:HB3	63:16:53:LEU:CD2	2.33	0.59
58:11:34:TRP:O	58:11:61:THR:HG22	2.02	0.59
59:12:106:ILE:HG22	59:12:107:ASP:N	2.17	0.59
72:25:54:VAL:HG11	72:25:88:ILE:HD13	1.84	0.59
73:26:87:ARG:HD3	73:26:92:ARG:HA	1.85	0.59
1:2S:158:G:H2'	1:2S:159:A:C8	2.37	0.58
1:2S:441:U:H5'	1:2S:442:G:N7	2.17	0.58
1:2S:1556:C:H3'	1:2S:2169:G:N2	2.18	0.58
1:2S:1626:U:H2'	1:2S:1627:U:C6	2.37	0.58
1:2S:2157:G:C8	5:L2:150:LEU:HD13	2.38	0.58
1:2S:2865:U:H2'	1:2S:2866:U:C6	2.38	0.58
14:51:98:ALA:HA	14:51:156:LYS:HB2	1.85	0.58
21:59:115:ILE:HG12	21:59:116:ASP:H	1.68	0.58
24:62:20:SER:O	24:62:24:GLU:HG2	2.03	0.58
25:63:17:LEU:HD11	25:63:78:VAL:HG11	1.85	0.58
27:65:33:ARG:N	27:65:33:ARG:HD2	2.18	0.58
34:72:15:LYS:HG2	34:72:16:LYS:H	1.68	0.58
36:74:8:ARG:HH11	36:74:8:ARG:CB	2.16	0.58
39:77:18:LEU:N	39:77:25:ARG:HA	2.17	0.58
40:78:64:LYS:HA	40:78:64:LYS:CE	2.32	0.58
46:1S:740:A:C2'	46:1S:741:C:H5''	2.32	0.58
46:1S:913:G:H3'	46:1S:914:G:H5''	1.83	0.58
46:1S:1672:G:H2'	46:1S:1673:G:C8	2.38	0.58
49:S2:161:LYS:HB2	49:S2:166:THR:HG22	1.84	0.58
1:2S:1238:C:H3'	1:2S:1239:C:C5'	2.29	0.58
1:2S:2755:C:O2'	23:61:49:GLN:HG2	2.02	0.58
1:2S:3338:C:H2'	1:2S:3339:A:C8	2.39	0.58
4:L1:120:VAL:H	4:L1:121:PRO:HD3	1.68	0.58
5:L2:130:SER:HA	5:L2:169:ILE:HB	1.84	0.58
6:L3:39:LYS:HE2	6:L3:40:PRO:HD3	1.85	0.58
8:L5:40:HIS:CE1	23:61:69:LYS:HA	2.38	0.58
13:50:206:LEU:O	13:50:210:ILE:HG13	2.02	0.58
18:56:120:VAL:HB	18:56:123:ALA:HB3	1.84	0.58
21:59:162:ARG:HH11	21:59:162:ARG:CB	2.17	0.58
46:1S:879:G:H2'	46:1S:880:C:C6	2.39	0.58
46:1S:1162:C:H4'	75:28:22:ARG:NH1	2.18	0.58
46:1S:1649:G:H2'	46:1S:1650:U:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S4:163:ASP:HB2	51:S4:166:SER:O	2.03	0.58
52:S5:79:ASN:HB2	52:S5:83:ARG:HH21	1.65	0.58
58:11:99:ARG:HA	70:23:9:LEU:HD13	1.85	0.58
61:14:87:GLY:HA3	61:14:120:PRO:CG	2.33	0.58
64:17:32:LYS:HD2	64:17:47:ARG:NH1	2.18	0.58
71:24:45:ALA:HB1	71:24:51:GLU:HA	1.85	0.58
1:2S:1662:G:H22	1:2S:1787:A:H2	1.48	0.58
1:2S:1724:U:H1'	1:2S:1725:C:C6	2.38	0.58
1:2S:2803:A:OP1	44:82:59:HIS:HB2	2.04	0.58
1:2S:3370:A:H5'	6:L3:384:LYS:HB2	1.84	0.58
2:8S:71:A:H61	2:8S:87:G:H1'	1.67	0.58
3:5S:60:G:H2'	3:5S:61:G:C8	2.37	0.58
3:5S:77:G:H22	3:5S:101:G:H2'	1.68	0.58
4:L1:157:PHE:HD1	4:L1:157:PHE:H	1.51	0.58
9:L6:52:VAL:HG22	9:L6:53:VAL:H	1.66	0.58
14:51:54:VAL:HG11	14:51:57:PHE:CD2	2.38	0.58
18:56:19:LEU:CD1	18:56:123:ALA:HB1	2.33	0.58
19:57:36:ILE:O	19:57:114:VAL:HG11	2.01	0.58
19:57:166:VAL:HG22	19:57:168:LEU:HD11	1.83	0.58
21:59:70:LYS:HD2	21:59:74:ARG:O	2.03	0.58
27:65:113:LEU:HD21	27:65:121:LYS:HD2	1.85	0.58
42:80:96:CYS:SG	42:80:98:LYS:HB2	2.43	0.58
46:1S:252:U:H4'	51:S4:131:LEU:HD12	1.86	0.58
46:1S:1505:A:H2'	46:1S:1506:G:O4'	2.03	0.58
46:1S:1789:G:H5''	61:14:132:ARG:HH22	1.67	0.58
47:S0:176:LEU:HD23	47:S0:179:ARG:NH2	2.18	0.58
49:S2:97:ARG:HB2	49:S2:118:ALA:O	2.03	0.58
51:S4:248:ILE:HG13	51:S4:249:ALA:N	2.17	0.58
57:10:27:PHE:CE1	57:10:40:LEU:HD23	2.38	0.58
69:22:89:TRP:HA	69:22:92:ASN:ND2	2.18	0.58
1:2S:1693:C:O2'	1:2S:1772:U:H4'	2.03	0.58
1:2S:3185:U:C5'	12:L9:23:ARG:HH12	2.16	0.58
4:L1:189:PHE:HD1	4:L1:200:ASN:HB2	1.69	0.58
12:L9:47:LYS:HE3	16:54:5:SER:HB2	1.84	0.58
32:70:41:LEU:HD13	32:70:42:ILE:N	2.18	0.58
46:1S:607:G:H5'	46:1S:613:G:N2	2.18	0.58
46:1S:900:A:O2'	46:1S:901:G:H5'	2.03	0.58
46:1S:1228:G:H22	59:12:67:THR:HB	1.68	0.58
46:1S:1429:G:C1'	67:20:74:GLU:HG2	2.33	0.58
52:S5:107:LYS:O	52:S5:111:VAL:HG23	2.03	0.58
63:16:74:HIS:O	63:16:78:VAL:HG23	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:442:G:H1	1:2S:493:U:H2'	1.68	0.58
1:2S:976:U:H5''	20:58:141:ARG:HH12	1.67	0.58
1:2S:3278:C:H3'	1:2S:3279:A:H5''	1.85	0.58
8:L5:131:LEU:HD12	8:L5:175:HIS:CE1	2.39	0.58
10:L7:179:LEU:N	10:L7:179:LEU:HD13	2.19	0.58
11:L8:153:ILE:HB	11:L8:179:ILE:HA	1.85	0.58
33:71:62:ARG:HH11	33:71:62:ARG:HG3	1.68	0.58
35:73:59:VAL:HG23	35:73:60:ARG:N	2.18	0.58
46:1S:330:G:H3'	55:S8:172:ARG:HH21	1.68	0.58
46:1S:601:A:H2'	46:1S:602:U:C6	2.39	0.58
46:1S:1274:C:O2	46:1S:1274:C:H2'	2.02	0.58
47:S0:122:ILE:HD12	47:S0:122:ILE:N	2.19	0.58
49:S2:83:ILE:HG23	49:S2:100:ALA:HB2	1.86	0.58
54:S7:130:VAL:HG11	54:S7:162:ILE:HD13	1.85	0.58
58:11:80:MET:HB2	58:11:83:THR:HG23	1.84	0.58
65:18:88:ARG:HH21	65:18:88:ARG:CB	2.14	0.58
1:2S:858:A:O2'	1:2S:859:G:H5'	2.03	0.58
1:2S:1618:G:H4'	2:8S:129:C:C1'	2.33	0.58
1:2S:1747:G:H4'	40:78:53:THR:HG21	1.86	0.58
1:2S:2176:U:H5''	5:L2:54:ARG:HH12	1.68	0.58
1:2S:2327:U:H2'	1:2S:2328:U:C6	2.39	0.58
7:L4:130:ALA:HA	7:L4:148:ILE:HG22	1.84	0.58
7:L4:357:GLU:O	7:L4:361:HIS:HB2	2.03	0.58
15:53:15:ARG:HG2	15:53:15:ARG:HH11	1.69	0.58
19:57:25:SER:O	19:57:29:THR:HG23	2.04	0.58
27:65:66:PRO:HB3	27:65:84:PHE:CD1	2.38	0.58
32:70:98:SER:OG	32:70:100:ILE:HG23	2.03	0.58
37:75:22:VAL:O	37:75:26:LYS:HG3	2.04	0.58
44:82:7:THR:HB	44:82:22:GLN:NE2	2.18	0.58
46:1S:444:C:H5	71:24:105:ARG:NH2	2.00	0.58
48:S1:105:PHE:HB3	48:S1:110:LEU:HD11	1.84	0.58
52:S5:76:ARG:HG3	63:16:122:ARG:HD3	1.85	0.58
63:16:100:GLN:HB2	79:RA:57:PRO:HG2	1.86	0.58
70:23:57:LEU:HD11	70:23:73:ARG:HG3	1.85	0.58
1:2S:840:C:H2'	1:2S:841:A:C8	2.39	0.58
1:2S:1506:A:H1'	1:2S:1848:G:C6	2.39	0.58
1:2S:2338:C:H2'	1:2S:2339:C:C5	2.39	0.58
1:2S:2941:A:H5''	1:2S:2943:G:H4'	1.85	0.58
4:L1:169:VAL:HG12	4:L1:170:GLY:N	2.17	0.58
7:L4:205:PRO:HB2	7:L4:249:ILE:HD11	1.85	0.58
12:L9:160:ASP:O	12:L9:164:ILE:HG12	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:53:170:LEU:HB3	38:76:9:ILE:HD11	1.86	0.58
17:55:18:VAL:HG13	17:55:19:LEU:HD12	1.86	0.58
18:56:46:GLU:HG3	18:56:49:ARG:N	2.14	0.58
32:70:44:ILE:HG21	32:70:53:LYS:HG3	1.86	0.58
35:73:67:MET:HE1	35:73:90:PRO:HG3	1.84	0.58
37:75:50:SER:O	37:75:54:VAL:HG23	2.03	0.58
60:13:57:ALA:HA	74:27:54:VAL:HG11	1.86	0.58
60:13:88:LEU:O	60:13:92:ILE:HG13	2.04	0.58
63:16:18:ALA:HB2	63:16:69:VAL:HG22	1.85	0.58
72:25:57:TYR:CD1	72:25:60:VAL:HG11	2.38	0.58
78:31:132:LEU:HB3	78:31:139:LEU:HB3	1.85	0.58
79:RA:193:ILE:HG22	79:RA:194:GLY:N	2.18	0.58
1:2S:105:C:H2'	1:2S:106:A:C8	2.39	0.58
1:2S:2456:A:H61	1:2S:2461:A:H62	1.52	0.58
1:2S:3009:G:H5'	18:56:66:LYS:HG2	1.86	0.58
3:5S:118:A:H2'	3:5S:119:U:C6	2.38	0.58
4:L1:56:PRO:CA	4:L1:187:VAL:HG11	2.33	0.58
11:L8:71:VAL:HB	11:L8:75:ILE:HB	1.86	0.58
11:L8:204:ARG:HD3	11:L8:204:ARG:N	2.19	0.58
13:50:135:ILE:HG22	13:50:136:PHE:CD1	2.39	0.58
23:61:76:ILE:HG22	23:61:77:ASN:N	2.14	0.58
46:1S:635:A:H2'	46:1S:636:A:H8	1.67	0.58
46:1S:1459:C:C5	65:18:139:LYS:HB2	2.38	0.58
46:1S:1732:A:H2'	46:1S:1733:C:C6	2.39	0.58
48:S1:96:LEU:HD23	48:S1:96:LEU:N	2.18	0.58
51:S4:59:ARG:O	51:S4:62:LYS:HB3	2.04	0.58
55:S8:123:LYS:HE2	55:S8:123:LYS:HA	1.84	0.58
56:S9:15:PRO:HD3	56:S9:43:TYR:CE1	2.39	0.58
56:S9:134:ILE:HA	56:S9:158:PHE:HA	1.86	0.58
67:20:67:THR:HG22	67:20:68:ARG:H	1.67	0.58
1:2S:185:C:H4'	28:66:122:LYS:HA	1.85	0.58
1:2S:516:A:H2'	1:2S:517:G:C8	2.39	0.58
1:2S:641:C:H2'	1:2S:642:U:O4'	2.04	0.58
1:2S:1316:C:O4'	18:56:130:LYS:HD3	2.04	0.58
1:2S:1404:G:H2'	1:2S:1406:A:OP2	2.04	0.58
1:2S:1803:C:H2'	1:2S:1804:A:C8	2.39	0.58
11:L8:92:LYS:HB3	11:L8:92:LYS:NZ	2.18	0.58
37:75:47:VAL:O	37:75:51:ILE:HG13	2.03	0.58
44:82:87:ARG:HB3	44:82:87:ARG:HH11	1.68	0.58
46:1S:1054:U:H2'	46:1S:1055:U:C6	2.39	0.58
46:1S:1091:A:H1'	46:1S:1092:A:C5	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1336:A:C3'	46:1S:1337:A:H5''	2.33	0.58
46:1S:1685:G:H2'	46:1S:1686:C:C5'	2.31	0.58
54:S7:166:LEU:HD11	54:S7:183:PHE:CB	2.33	0.58
56:S9:36:LEU:HD21	56:S9:108:ARG:HH12	1.69	0.58
69:22:68:ARG:HG2	69:22:68:ARG:HH11	1.69	0.58
1:2S:504:A:H2'	1:2S:505:G:C8	2.39	0.58
1:2S:1137:C:H2'	1:2S:1138:U:C6	2.39	0.58
1:2S:2356:A:N6	1:2S:2983:C:C5	2.71	0.58
1:2S:3213:A:H2	9:L6:166:LYS:HD2	1.69	0.58
4:L1:107:TYR:OH	4:L1:144:LEU:HB2	2.04	0.58
7:L4:56:ALA:HA	7:L4:59:GLN:HE21	1.69	0.58
14:51:94:ARG:O	14:51:95:ASN:HB2	2.02	0.58
15:53:18:TRP:HA	15:53:21:ARG:NH2	2.18	0.58
28:66:3:LYS:HG3	28:66:8:VAL:HG13	1.85	0.58
46:1S:16:G:H2'	46:1S:17:C:C6	2.38	0.58
46:1S:766:U:H3	46:1S:770:A:H62	1.51	0.58
46:1S:868:G:O2'	46:1S:869:A:H5'	2.04	0.58
46:1S:968:U:H2'	46:1S:969:C:O4'	2.04	0.58
46:1S:1266:U:H2'	46:1S:1267:G:H8	1.68	0.58
46:1S:1288:G:OP2	46:1S:1314:U:H2'	2.04	0.58
51:S4:10:LYS:H	51:S4:13:ALA:HB3	1.68	0.58
53:S6:6:SER:CB	53:S6:13:GLN:HB3	2.32	0.58
53:S6:98:ARG:HD3	53:S6:99:GLY:H	1.68	0.58
55:S8:159:GLN:OE1	55:S8:165:LEU:HD23	2.03	0.58
57:10:14:TYR:CE1	57:10:18:GLU:HG3	2.38	0.58
63:16:7:VAL:HG11	63:16:92:TYR:HA	1.84	0.58
67:20:38:SER:O	67:20:42:VAL:HG23	2.04	0.58
67:20:67:THR:HG21	76:29:40:ARG:HB2	1.84	0.58
79:RA:112:SER:HB3	79:RA:154:VAL:H	1.68	0.58
1:2S:1210:U:H2'	1:2S:1211:U:C6	2.39	0.57
1:2S:1289:G:H2'	1:2S:1290:A:O4'	2.04	0.57
1:2S:2147:A:H5''	5:L2:199:THR:HA	1.86	0.57
1:2S:3273:A:H2'	1:2S:3274:A:C8	2.39	0.57
2:8S:101:U:H2'	2:8S:102:U:H4'	1.86	0.57
8:L5:125:VAL:CG1	8:L5:199:ILE:HG21	2.34	0.57
12:L9:134:ILE:HG23	12:L9:146:LEU:HG	1.85	0.57
14:51:16:LYS:HG2	14:51:130:VAL:CG1	2.33	0.57
19:57:141:SER:O	19:57:143:PRO:HD3	2.04	0.57
32:70:41:LEU:O	32:70:92:ILE:HG12	2.04	0.57
32:70:58:TYR:O	32:70:62:LEU:HG	2.04	0.57
34:72:32:TRP:HZ2	34:72:34:LYS:HD2	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:74:96:GLU:O	36:74:100:ILE:HD13	2.04	0.57
37:75:64:GLU:HA	37:75:67:ARG:HG3	1.85	0.57
46:1S:329:G:H5'	55:S8:99:ALA:HB3	1.87	0.57
46:1S:505:A:H61	46:1S:507:U:H3	1.50	0.57
50:S3:13:ALA:O	50:S3:17:PHE:HB2	2.03	0.57
54:S7:55:LYS:HD2	54:S7:89:HIS:NE2	2.18	0.57
54:S7:67:LEU:HD11	54:S7:94:ALA:HB2	1.86	0.57
64:17:99:VAL:HB	64:17:118:PRO:HB2	1.85	0.57
64:17:102:VAL:O	64:17:122:ILE:HG22	2.04	0.57
65:18:18:LEU:HD23	65:18:70:VAL:HG22	1.86	0.57
66:19:105:LEU:O	66:19:109:GLU:HB2	2.04	0.57
68:21:38:LYS:HD2	68:21:49:GLU:HG3	1.86	0.57
69:22:73:GLY:HA3	69:22:128:PHE:CZ	2.38	0.57
1:2S:1764:U:C3'	1:2S:1765:U:H5''	2.32	0.57
1:2S:2221:G:H22	1:2S:2223:A:H3'	1.69	0.57
1:2S:2424:A:H2'	1:2S:2425:G:O4'	2.05	0.57
1:2S:2536:A:H2'	1:2S:2537:U:C5'	2.34	0.57
2:8S:96:A:H2'	2:8S:97:A:O4'	2.04	0.57
5:L2:21:ARG:H	5:L2:23:ARG:NH1	2.01	0.57
10:L7:156:ILE:O	10:L7:157:ASN:HB2	2.03	0.57
15:53:77:LEU:HD12	15:53:77:LEU:H	1.68	0.57
16:54:77:ARG:O	16:54:81:VAL:HG23	2.03	0.57
18:56:76:PRO:HG3	18:56:142:SER:OG	2.04	0.57
20:58:79:LYS:HG2	20:58:136:ASN:HB3	1.85	0.57
22:60:4:PHE:HB3	22:60:100:VAL:HG23	1.85	0.57
24:62:93:ILE:CG2	24:62:105:LEU:HD23	2.34	0.57
25:63:135:VAL:HG11	26:64:26:SER:OG	2.04	0.57
30:68:66:ALA:HA	30:68:69:TRP:HB2	1.86	0.57
32:70:26:GLY:O	32:70:30:THR:HG23	2.04	0.57
38:76:54:GLU:O	38:76:90:MET:HE1	2.03	0.57
46:1S:1432:U:H4'	46:1S:1433:G:C5'	2.31	0.57
46:1S:1714:A:H2'	46:1S:1715:G:C8	2.38	0.57
48:S1:67:GLU:HB2	48:S1:85:LYS:HD2	1.86	0.57
51:S4:46:VAL:O	51:S4:50:ASN:HB2	2.04	0.57
53:S6:10:ASN:ND2	53:S6:128:THR:HB	2.19	0.57
68:21:76:ASP:HB3	68:21:78:LEU:HD23	1.87	0.57
79:RA:166:SER:HA	79:RA:182:ASN:ND2	2.17	0.57
1:2S:61:A:H2'	1:2S:62:A:C8	2.39	0.57
1:2S:836:A:H2'	1:2S:837:A:C8	2.38	0.57
1:2S:1369:A:H4'	30:68:21:ARG:CD	2.33	0.57
1:2S:1731:A:H2'	1:2S:1732:U:H6	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2881:C:H2'	1:2S:2882:U:C6	2.38	0.57
5:L2:181:LYS:HB3	45:83:18:TYR:OH	2.04	0.57
5:L2:187:HIS:HA	5:L2:190:ARG:HH21	1.68	0.57
7:L4:235:LEU:HD12	7:L4:238:LEU:HD12	1.85	0.57
10:L7:153:PHE:HB2	10:L7:203:TRP:CB	2.25	0.57
15:53:83:ALA:HB2	15:53:116:LEU:HD13	1.86	0.57
19:57:127:ARG:HB2	19:57:127:ARG:NH1	2.19	0.57
37:75:68:GLN:HA	37:75:71:LYS:HB2	1.86	0.57
46:1S:392:G:H2'	46:1S:393:C:C6	2.39	0.57
46:1S:523:G:H5''	71:24:59:GLY:O	2.04	0.57
46:1S:1619:C:H2'	46:1S:1620:C:C6	2.38	0.57
51:S4:44:LEU:HD11	51:S4:82:TYR:CD2	2.38	0.57
54:S7:55:LYS:HB2	54:S7:87:ASP:O	2.05	0.57
56:S9:78:ARG:O	56:S9:82:ARG:HB2	2.04	0.57
62:15:96:ILE:HG21	62:15:116:LEU:HB3	1.87	0.57
1:2S:1892:G:H3'	1:2S:1893:A:H5''	1.87	0.57
1:2S:2430:A:H2'	1:2S:2431:C:C6	2.38	0.57
8:L5:153:THR:HG23	8:L5:160:PHE:CZ	2.35	0.57
10:L7:124:LEU:HD22	10:L7:127:LEU:HD12	1.87	0.57
15:53:122:LYS:HA	37:75:120:ALA:HA	1.86	0.57
39:77:70:VAL:HG22	39:77:73:ARG:HH21	1.69	0.57
46:1S:762:A:H2'	46:1S:763:G:O4'	2.04	0.57
46:1S:941:A:H2'	46:1S:942:G:H5'	1.86	0.57
46:1S:1179:G:H21	46:1S:1460:A:N6	2.01	0.57
47:S0:102:PHE:O	47:S0:103:THR:HG22	2.03	0.57
52:S5:99:MET:O	52:S5:100:ASN:HB2	2.04	0.57
52:S5:192:GLU:HG2	72:25:59:TYR:OH	2.05	0.57
59:12:50:LYS:HE2	78:31:103:LEU:HD11	1.86	0.57
63:16:128:LYS:HB2	63:16:137:ARG:NH2	2.20	0.57
66:19:108:LEU:O	66:19:111:ILE:HG22	2.04	0.57
69:22:57:ARG:N	69:22:57:ARG:HD2	2.20	0.57
1:2S:31:C:H5'	17:55:96:ARG:NH1	2.18	0.57
1:2S:188:U:H2'	1:2S:223:U:O2'	2.04	0.57
1:2S:727:G:H2'	1:2S:728:G:O4'	2.04	0.57
1:2S:1107:C:H2'	1:2S:1108:U:C6	2.40	0.57
1:2S:2361:A:H61	1:2S:2377:G:H1	1.52	0.57
1:2S:3024:A:H62	1:2S:3031:G:H21	1.53	0.57
1:2S:3165:A:N6	1:2S:3285:C:H42	2.03	0.57
3:5S:11:A:O2'	3:5S:13:A:H5''	2.03	0.57
14:51:35:LYS:HD2	14:51:120:ILE:HG12	1.86	0.57
18:56:117:ARG:HD3	18:56:117:ARG:N	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:72:13:HIS:CE1	34:72:15:LYS:HB3	2.39	0.57
46:1S:5:U:H2'	46:1S:6:G:H8	1.70	0.57
46:1S:1234:A:H1'	78:31:140:TYR:OH	2.03	0.57
50:S3:211:PRO:HG2	64:17:19:ARG:HB2	1.86	0.57
53:S6:44:GLU:O	53:S6:119:GLN:HB3	2.03	0.57
54:S7:63:PRO:C	54:S7:65:PRO:HD2	2.25	0.57
55:S8:10:LYS:HG3	55:S8:11:ARG:H	1.68	0.57
57:10:30:ALA:O	57:10:31:LYS:HG3	2.04	0.57
65:18:46:VAL:HG11	65:18:69:ILE:HG23	1.86	0.57
73:26:97:PRO:HB2	73:26:98:PRO:HD3	1.87	0.57
1:2S:619:A:H4'	1:2S:620:U:C6	2.40	0.57
1:2S:1844:C:H2'	1:2S:1845:G:O4'	2.03	0.57
1:2S:3051:U:H2'	1:2S:3052:G:H8	1.70	0.57
10:L7:180:SER:O	10:L7:184:LEU:HG	2.05	0.57
11:L8:130:TYR:CG	11:L8:204:ARG:HD2	2.40	0.57
13:50:57:LEU:HG	13:50:130:ASP:HA	1.86	0.57
15:53:138:VAL:HB	37:75:118:ILE:HD12	1.87	0.57
46:1S:812:A:H5'	46:1S:858:G:N2	2.20	0.57
46:1S:1504:G:OP1	66:19:99:SER:HB2	2.05	0.57
48:S1:160:HIS:O	48:S1:164:ILE:HG13	2.04	0.57
59:12:31:VAL:HG21	59:12:136:ILE:CD1	2.34	0.57
61:14:72:LYS:HZ3	61:14:110:LEU:HD23	1.69	0.57
67:20:37:VAL:O	67:20:41:ILE:HD13	2.05	0.57
1:2S:636:C:H42	1:2S:2375:G:H1	1.51	0.57
1:2S:664:U:H5'	7:L4:107:ARG:HA	1.87	0.57
1:2S:718:G:H3'	1:2S:719:U:H5'	1.86	0.57
1:2S:955:U:H2'	1:2S:956:U:C6	2.39	0.57
1:2S:1158:A:H2'	1:2S:1159:A:H4'	1.86	0.57
1:2S:1856:C:H2'	1:2S:1857:C:C6	2.40	0.57
1:2S:1951:C:H2'	1:2S:2095:G:N2	2.20	0.57
1:2S:3310:A:H2'	1:2S:3311:C:H5'	1.87	0.57
2:8S:79:A:H2'	2:8S:80:A:H4'	1.86	0.57
3:5S:97:A:H2'	3:5S:98:C:C6	2.40	0.57
9:L6:56:LYS:HG2	9:L6:57:HIS:N	2.15	0.57
13:50:166:ILE:HG22	13:50:167:LEU:H	1.68	0.57
32:70:45:ALA:O	32:70:48:THR:HG22	2.03	0.57
34:72:29:ALA:HB1	34:72:31:ASN:OD1	2.04	0.57
36:74:82:ALA:H	36:74:85:VAL:CG2	2.16	0.57
49:S2:45:VAL:HG11	49:S2:68:ILE:HG23	1.87	0.57
58:11:117:VAL:HG12	58:11:118:GLN:N	2.19	0.57
64:17:46:LEU:HA	64:17:49:LYS:HE2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:23:50:LYS:HB3	70:23:77:ILE:HD12	1.86	0.57
1:2S:2256:A:H61	46:1S:1756:A:H2'	1.70	0.57
1:2S:2982:A:O2'	1:2S:2983:C:H5''	2.04	0.57
1:2S:3204:C:H2'	1:2S:3205:G:C8	2.39	0.57
1:2S:3389:U:H6	1:2S:3389:U:H5'	1.70	0.57
12:L9:87:LYS:HE3	12:L9:145:VAL:HG11	1.85	0.57
15:53:170:LEU:CD2	38:76:7:ILE:HD12	2.34	0.57
19:57:20:SER:HB3	19:57:145:HIS:ND1	2.20	0.57
20:58:58:ASN:O	20:58:60:PRO:HD3	2.05	0.57
24:62:97:SER:HA	24:62:103:TYR:HA	1.87	0.57
46:1S:725:U:H2'	46:1S:726:C:O4'	2.04	0.57
47:S0:110:TYR:CD2	49:S2:64:LYS:HD3	2.40	0.57
50:S3:71:LEU:HB2	57:10:20:VAL:HG21	1.87	0.57
54:S7:130:VAL:HG12	54:S7:162:ILE:HG21	1.87	0.57
72:25:88:ILE:HD12	72:25:88:ILE:H	1.70	0.57
72:25:88:ILE:HD12	72:25:88:ILE:N	2.20	0.57
79:RA:160:GLU:HA	79:RA:160:GLU:OE2	2.03	0.57
1:2S:280:U:H2'	1:2S:282:G:OP2	2.04	0.57
1:2S:688:G:H2'	1:2S:690:A:N7	2.20	0.57
1:2S:1388:U:H4'	34:72:100:ILE:HD12	1.87	0.57
1:2S:1448:U:H2'	1:2S:1449:A:C8	2.40	0.57
1:2S:1753:G:H2'	1:2S:1754:G:C8	2.40	0.57
1:2S:1951:C:H6	1:2S:2095:G:C2	2.21	0.57
1:2S:2256:A:H62	46:1S:1757:G:H5'	1.70	0.57
3:5S:36:C:H2'	3:5S:37:G:C8	2.39	0.57
18:56:10:ASP:HA	18:56:36:VAL:HG23	1.87	0.57
19:57:2:ALA:HA	19:57:18:ARG:HH12	1.70	0.57
46:1S:378:A:H2'	46:1S:379:U:O4'	2.04	0.57
46:1S:1725:U:H2'	46:1S:1726:G:C8	2.39	0.57
53:S6:58:LYS:O	53:S6:59:GLN:HB2	2.03	0.57
55:S8:118:GLY:HA3	55:S8:143:TRP:CZ3	2.40	0.57
68:21:76:ASP:HB3	68:21:78:LEU:HD21	1.87	0.57
72:25:80:LEU:O	72:25:84:GLU:HB2	2.05	0.57
1:2S:412:G:H2'	1:2S:413:U:C6	2.39	0.57
1:2S:1547:G:H2'	1:2S:1548:C:C6	2.40	0.57
1:2S:3317:U:H4'	1:2S:3318:G:H5'	1.86	0.57
8:L5:131:LEU:HD13	8:L5:131:LEU:N	2.20	0.57
10:L7:60:ARG:NE	10:L7:60:ARG:HA	2.20	0.57
12:L9:90:MET:HB3	12:L9:179:ILE:HG22	1.87	0.57
12:L9:146:LEU:N	12:L9:146:LEU:HD12	2.19	0.57
56:S9:101:VAL:HA	56:S9:104:PHE:CD2	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:112:ASP:O	65:18:116:LEU:HD13	2.05	0.57
73:26:25:ASN:HB3	73:26:77:CYS:SG	2.44	0.57
73:26:36:ILE:HG21	73:26:73:TYR:HB2	1.87	0.57
79:RA:235:SER:HB3	79:RA:237:GLN:HE21	1.68	0.57
1:2S:44:U:H2'	1:2S:45:A:O4'	2.05	0.56
1:2S:749:C:H5''	31:69:32:LEU:HG	1.85	0.56
1:2S:1729:A:H5'	32:70:27:TYR:HB2	1.87	0.56
1:2S:1747:G:H5''	40:78:55:VAL:HG21	1.86	0.56
1:2S:2895:G:C2'	1:2S:2896:A:H5''	2.26	0.56
2:8S:139:U:H2'	2:8S:140:G:C8	2.40	0.56
9:L6:170:LYS:C	9:L6:174:LEU:HG	2.26	0.56
15:53:48:PRO:HB2	15:53:136:GLU:O	2.05	0.56
25:63:123:ALA:HB1	25:63:130:ALA:HB2	1.87	0.56
27:65:115:ARG:HD3	27:65:121:LYS:HB2	1.86	0.56
34:72:61:LYS:HA	34:72:64:LYS:HB2	1.86	0.56
36:74:57:LEU:H	36:74:62:TYR:HE1	1.53	0.56
46:1S:684:A:H2'	46:1S:685:A:H5'	1.87	0.56
46:1S:1082:C:H2'	46:1S:1083:G:H5'	1.86	0.56
46:1S:1317:C:H2'	46:1S:1318:G:O4'	2.04	0.56
47:S0:31:VAL:O	47:S0:34:GLU:HG2	2.04	0.56
48:S1:70:LEU:HD13	48:S1:71:ALA:N	2.20	0.56
57:10:38:LYS:O	57:10:42:VAL:HG23	2.05	0.56
1:2S:1481:A:H8	1:2S:1872:C:H42	1.53	0.56
1:2S:2155:G:H2'	1:2S:2156:C:H6	1.70	0.56
8:L5:195:LEU:O	8:L5:199:ILE:HG13	2.05	0.56
10:L7:39:GLU:O	10:L7:43:ILE:HG13	2.05	0.56
27:65:136:ALA:O	27:65:139:ILE:HG22	2.04	0.56
29:67:46:ILE:HD11	29:67:49:TYR:CD1	2.40	0.56
30:68:94:ALA:HA	30:68:121:VAL:HG13	1.87	0.56
46:1S:1474:G:H2'	46:1S:1475:A:C8	2.41	0.56
48:S1:61:LEU:CD2	48:S1:62:LYS:H	2.16	0.56
52:S5:162:VAL:HA	75:28:45:LYS:HB3	1.86	0.56
64:17:29:GLN:HG2	79:RA:67:ILE:CD1	2.34	0.56
67:20:62:VAL:CG1	67:20:83:GLU:HB2	2.34	0.56
67:20:100:VAL:O	67:20:104:THR:HG23	2.05	0.56
70:23:126:LYS:HG2	70:23:131:SER:HB2	1.88	0.56
73:26:37:LYS:N	73:26:37:LYS:HD2	2.20	0.56
1:2S:51:A:H2'	1:2S:52:A:O4'	2.04	0.56
1:2S:1795:U:H2'	5:L2:50:HIS:CD2	2.40	0.56
1:2S:2836:C:H2'	1:2S:2837:A:H5'	1.87	0.56
1:2S:3375:A:O2'	1:2S:3378:C:H5'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:158:VAL:O	6:L3:182:GLN:HA	2.06	0.56
13:50:141:LYS:HB2	13:50:144:ASN:HB2	1.87	0.56
18:56:47:PHE:O	18:56:51:LYS:HB3	2.06	0.56
21:59:17:VAL:HG22	21:59:52:LYS:NZ	2.21	0.56
21:59:62:ARG:HH21	21:59:62:ARG:HG3	1.70	0.56
27:65:82:LEU:HB3	27:65:84:PHE:CE2	2.41	0.56
33:71:11:GLU:HG3	33:71:109:VAL:HG22	1.87	0.56
35:73:49:ILE:HG23	35:73:100:ILE:CA	2.32	0.56
35:73:98:VAL:HG13	35:73:100:ILE:HD11	1.87	0.56
37:75:85:THR:HG22	37:75:87:ALA:H	1.71	0.56
46:1S:36:C:H2'	46:1S:37:U:C6	2.40	0.56
46:1S:44:U:H2'	46:1S:45:U:C6	2.39	0.56
46:1S:291:G:H2'	46:1S:292:U:C5	2.41	0.56
46:1S:298:C:C5'	51:S4:38:LEU:HD23	2.34	0.56
46:1S:607:G:H5'	46:1S:613:G:H22	1.70	0.56
46:1S:748:U:H4'	69:22:123:GLY:HA2	1.87	0.56
46:1S:760:A:H2'	46:1S:761:G:O4'	2.06	0.56
46:1S:1020:A:H3'	46:1S:1021:C:H5''	1.87	0.56
46:1S:1170:G:H2'	46:1S:1170:G:N3	2.21	0.56
46:1S:1370:U:H1'	46:1S:1371:A:OP2	2.04	0.56
46:1S:1542:G:N2	46:1S:1568:C:H1'	2.20	0.56
46:1S:1629:G:H2'	46:1S:1630:U:C6	2.40	0.56
46:1S:1643:U:H2'	46:1S:1644:C:H6	1.70	0.56
47:S0:52:LYS:HB3	68:21:82:VAL:HG22	1.88	0.56
47:S0:64:ILE:HG21	47:S0:181:VAL:HG11	1.87	0.56
48:S1:168:ILE:O	48:S1:172:LEU:HG	2.05	0.56
51:S4:2:ALA:O	51:S4:3:ARG:HB2	2.06	0.56
52:S5:58:LEU:CD1	52:S5:138:THR:HG22	2.34	0.56
53:S6:42:GLY:HA3	53:S6:45:PHE:CD2	2.40	0.56
63:16:131:GLY:HA3	63:16:137:ARG:HA	1.87	0.56
65:18:11:PHE:CE1	65:18:59:GLY:HA3	2.40	0.56
65:18:42:TYR:O	65:18:46:VAL:HG23	2.06	0.56
65:18:119:ILE:O	65:18:120:ARG:HB2	2.05	0.56
71:24:49:LYS:N	71:24:49:LYS:HD2	2.20	0.56
73:26:37:LYS:HD2	73:26:37:LYS:H	1.69	0.56
75:28:32:PHE:CZ	75:28:38:ARG:HB3	2.40	0.56
77:30:33:ARG:HB3	77:30:33:ARG:HH11	1.71	0.56
1:2S:551:A:O2'	1:2S:552:G:H5''	2.05	0.56
1:2S:701:G:H2'	1:2S:702:C:C6	2.40	0.56
1:2S:860:G:C5	5:L2:181:LYS:HB2	2.40	0.56
1:2S:1291:A:H2'	1:2S:1292:C:O4'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3037:U:H2'	1:2S:3038:U:C6	2.40	0.56
1:2S:3101:G:H2'	1:2S:3102:G:C8	2.40	0.56
1:2S:3357:U:H2'	1:2S:3358:U:H6	1.70	0.56
5:L2:68:LYS:HG2	5:L2:69:TYR:N	2.20	0.56
6:L3:229:VAL:HG11	6:L3:249:VAL:HG22	1.85	0.56
17:55:64:VAL:HG11	17:55:102:ALA:HB1	1.87	0.56
19:57:172:GLN:NE2	35:73:61:GLY:HA3	2.19	0.56
20:58:151:ARG:O	20:58:161:LYS:HB3	2.05	0.56
24:62:90:ARG:O	24:62:91:ASP:HB2	2.05	0.56
35:73:58:GLU:HA	35:73:63:LYS:HA	1.86	0.56
44:82:28:TYR:HB3	44:82:69:VAL:HB	1.87	0.56
47:S0:176:LEU:HD23	47:S0:179:ARG:HH22	1.71	0.56
51:S4:29:PRO:HB3	51:S4:81:THR:HG22	1.87	0.56
54:S7:153:LEU:HD23	54:S7:184:GLU:HB3	1.86	0.56
65:18:89:GLN:HA	65:18:97:ASP:HA	1.87	0.56
69:22:78:ARG:HH11	69:22:78:ARG:HG3	1.70	0.56
73:26:44:ILE:HD12	73:26:44:ILE:N	2.17	0.56
1:2S:596:C:O2'	7:L4:326:ARG:HD3	2.06	0.56
1:2S:643:U:H2'	1:2S:644:G:O4'	2.04	0.56
1:2S:681:U:H3'	1:2S:681:U:H6	1.69	0.56
1:2S:793:C:H2'	1:2S:794:U:C6	2.41	0.56
1:2S:1176:C:H2'	1:2S:1177:G:C2	2.41	0.56
1:2S:2289:U:H2'	1:2S:2290:C:C6	2.41	0.56
1:2S:2633:U:H2'	1:2S:2634:U:H5'	1.87	0.56
1:2S:2703:A:H5''	1:2S:2704:A:H5'	1.87	0.56
4:L1:65:ILE:HG13	4:L1:85:MET:HE1	1.85	0.56
5:L2:173:GLY:HA2	5:L2:176:ASP:OD2	2.06	0.56
5:L2:221:LYS:HG2	5:L2:222:ALA:N	2.21	0.56
12:L9:48:VAL:HG13	12:L9:49:ASN:H	1.70	0.56
15:53:57:VAL:HG22	15:53:147:ILE:HD12	1.86	0.56
22:60:77:VAL:HB	22:60:92:LYS:H	1.71	0.56
25:63:91:VAL:CG2	26:64:20:LEU:HD12	2.24	0.56
37:75:57:VAL:O	37:75:61:GLN:HG3	2.06	0.56
42:80:98:LYS:HG3	42:80:118:THR:CG2	2.35	0.56
44:82:7:THR:O	44:82:8:ARG:HB2	2.04	0.56
46:1S:1472:C:H41	46:1S:1536:G:H1	1.53	0.56
46:1S:1482:C:H1'	63:16:73:GLY:HA2	1.88	0.56
69:22:49:GLU:O	69:22:64:GLN:HB2	2.05	0.56
1:2S:744:A:H4'	20:58:142:GLY:O	2.05	0.56
1:2S:1591:G:H3'	1:2S:1592:G:H8	1.70	0.56
1:2S:1611:G:H2'	1:2S:1612:A:C8	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2816:G:HO2'	1:2S:2869:U:H5	1.54	0.56
6:L3:45:SER:HA	6:L3:338:LEU:O	2.05	0.56
13:50:89:VAL:HG22	13:50:136:PHE:CE2	2.40	0.56
14:51:23:VAL:HG13	14:51:29:ARG:NH1	2.21	0.56
18:56:74:ARG:O	18:56:76:PRO:HD3	2.05	0.56
27:65:34:LEU:HD12	27:65:35:PRO:HD2	1.86	0.56
32:70:73:GLY:H	32:70:76:GLU:CG	2.19	0.56
46:1S:71:A:H2'	46:1S:72:A:C4'	2.36	0.56
46:1S:1613:U:H2'	46:1S:1614:A:C5'	2.31	0.56
57:10:39:ASN:O	57:10:43:ILE:HG13	2.05	0.56
70:23:16:ARG:HE	70:23:20:ARG:HH12	1.53	0.56
1:2S:785:G:H2'	1:2S:786:A:C8	2.41	0.56
1:2S:1114:U:H5''	30:68:22:ILE:HD12	1.88	0.56
1:2S:1151:U:H3'	1:2S:1152:G:N2	2.21	0.56
1:2S:2761:G:H1	1:2S:2795:U:H3'	1.71	0.56
1:2S:3393:U:H2'	1:2S:3394:U:C6	2.41	0.56
2:8S:81:U:H4'	2:8S:82:U:H5'	1.87	0.56
4:L1:44:GLN:H	4:L1:161:LYS:CB	2.18	0.56
10:L7:144:ILE:HA	10:L7:147:LEU:HD12	1.87	0.56
10:L7:160:ARG:HD2	10:L7:203:TRP:CE2	2.40	0.56
17:55:36:ILE:HG22	17:55:62:TYR:HE1	1.70	0.56
20:58:155:MET:CE	20:58:163:PRO:HA	2.36	0.56
46:1S:1273:G:N7	46:1S:1431:C:H5''	2.20	0.56
48:S1:127:VAL:HG11	48:S1:176:VAL:HG21	1.88	0.56
49:S2:218:ILE:HA	49:S2:221:THR:HG23	1.88	0.56
52:S5:42:LEU:HB2	52:S5:46:TRP:O	2.05	0.56
56:S9:109:LEU:HD22	56:S9:129:ILE:HD13	1.87	0.56
60:13:85:PRO:HB2	60:13:88:LEU:HB3	1.88	0.56
1:2S:566:G:H2'	1:2S:567:G:H8	1.70	0.56
1:2S:651:G:H2'	1:2S:652:G:C8	2.41	0.56
1:2S:858:A:H2'	1:2S:859:G:C8	2.41	0.56
1:2S:1191:U:H4'	1:2S:1192:C:H5''	1.87	0.56
1:2S:3180:A:C5'	18:56:116:LYS:HB3	2.36	0.56
4:L1:72:PHE:CD2	4:L1:76:ARG:HB3	2.40	0.56
6:L3:199:PHE:O	6:L3:200:GLU:HB2	2.05	0.56
10:L7:90:LYS:HE3	10:L7:92:ILE:H	1.70	0.56
10:L7:186:HIS:HA	10:L7:189:ILE:HG22	1.88	0.56
10:L7:236:ILE:O	10:L7:240:VAL:HG23	2.06	0.56
20:58:98:LYS:O	20:58:119:GLY:HA3	2.06	0.56
24:62:11:ILE:HG22	24:62:12:ALA:N	2.21	0.56
46:1S:247:A:C5'	58:11:37:ASN:HD21	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1025:A:H5''	46:1S:1027:A:C8	2.41	0.56
48:S1:67:GLU:HG2	48:S1:83:LYS:HE3	1.87	0.56
55:S8:37:LYS:HB2	55:S8:59:ARG:HG2	1.88	0.56
56:S9:133:HIS:C	56:S9:134:ILE:HD13	2.26	0.56
60:13:118:ILE:O	60:13:122:ILE:HG13	2.05	0.56
1:2S:902:G:H2'	1:2S:903:U:O4'	2.06	0.56
1:2S:2115:G:O2'	21:59:82:LYS:HD2	2.05	0.56
1:2S:2941:A:C5'	1:2S:2943:G:H4'	2.36	0.56
1:2S:3279:A:O2'	1:2S:3280:U:H5'	2.06	0.56
1:2S:3287:U:H6	1:2S:3287:U:H5'	1.71	0.56
7:L4:23:PRO:HD2	7:L4:26:PHE:HE2	1.71	0.56
9:L6:31:ARG:N	9:L6:34:LEU:HD12	2.20	0.56
14:51:80:LEU:HD22	14:51:167:TYR:HE1	1.71	0.56
23:61:12:ARG:HG2	23:61:12:ARG:HH11	1.71	0.56
32:70:13:LYS:HB3	32:70:100:ILE:HG22	1.87	0.56
32:70:30:THR:O	32:70:34:LEU:HB2	2.06	0.56
37:75:44:ILE:HA	37:75:47:VAL:HG12	1.88	0.56
45:83:28:LYS:O	45:83:32:GLN:HG3	2.05	0.56
46:1S:697:C:H3'	46:1S:698:U:H5''	1.88	0.56
46:1S:1594:G:H5''	76:29:33:LYS:HD2	1.88	0.56
46:1S:1666:U:H2'	46:1S:1667:A:O4'	2.06	0.56
51:S4:88:ASP:HB2	51:S4:101:LEU:HD12	1.87	0.56
54:S7:131:PHE:H	54:S7:132:PRO:HD2	1.71	0.56
58:11:122:ILE:H	58:11:144:ALA:HB2	1.71	0.56
64:17:38:ILE:HG23	64:17:39:ALA:N	2.20	0.56
66:19:82:GLY:O	66:19:93:HIS:HA	2.06	0.56
69:22:23:ARG:HD2	69:22:66:ASN:HA	1.88	0.56
1:2S:640:U:OP2	34:72:38:ILE:HG12	2.06	0.56
1:2S:979:U:H3	1:2S:1104:G:H1'	1.71	0.56
1:2S:1655:G:H5''	36:74:59:PRO:HG3	1.87	0.56
1:2S:1972:A:H5''	40:78:60:GLY:C	2.26	0.56
1:2S:2149:A:H4'	5:L2:179:LEU:HB3	1.85	0.56
2:8S:157:U:H3	27:65:22:LYS:HE2	1.71	0.56
7:L4:333:VAL:HG23	7:L4:337:GLU:OE2	2.06	0.56
26:64:23:ARG:HG2	26:64:24:GLY:H	1.71	0.56
46:1S:477:A:H5'	77:30:34:ALA:CB	2.36	0.56
46:1S:587:C:H2'	46:1S:588:U:C6	2.40	0.56
46:1S:803:A:C5	54:S7:104:ARG:HG3	2.41	0.56
46:1S:803:A:C4	54:S7:104:ARG:HG3	2.41	0.56
46:1S:1294:G:H4'	47:S0:108:THR:HB	1.88	0.56
48:S1:71:ALA:HB2	48:S1:79:HIS:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S4:35:PRO:HB3	51:S4:143:ASP:O	2.04	0.56
51:S4:44:LEU:CD1	51:S4:82:TYR:HB3	2.36	0.56
59:12:106:ILE:HA	59:12:108:ARG:NH1	2.20	0.56
63:16:93:HIS:HB3	63:16:102:LYS:HB2	1.87	0.56
67:20:65:ILE:O	67:20:81:THR:HA	2.06	0.56
69:22:38:LEU:O	69:22:47:ILE:HD11	2.06	0.56
69:22:96:ALA:HB3	69:22:99:PHE:CE1	2.41	0.56
75:28:44:VAL:HG11	75:28:48:VAL:HG21	1.87	0.56
1:2S:654:C:H2'	1:2S:655:C:C6	2.41	0.55
1:2S:1394:A:H2'	1:2S:1395:G:O4'	2.06	0.55
1:2S:1609:C:H2'	1:2S:1610:G:C8	2.40	0.55
1:2S:1841:A:O2'	1:2S:1842:A:H5''	2.06	0.55
1:2S:2186:U:H2'	1:2S:2187:G:O4'	2.06	0.55
5:L2:79:ASN:HA	5:L2:168:VAL:O	2.05	0.55
6:L3:29:VAL:CG2	6:L3:337:THR:HG21	2.37	0.55
10:L7:137:GLY:CA	10:L7:233:GLU:HA	2.36	0.55
10:L7:170:GLU:O	10:L7:174:GLY:HA3	2.05	0.55
22:60:72:VAL:HA	22:60:97:VAL:HA	1.88	0.55
26:64:20:LEU:HD21	26:64:30:ARG:HG2	1.87	0.55
29:67:14:VAL:HG13	29:67:15:ARG:HG3	1.88	0.55
30:68:135:GLU:CG	30:68:145:VAL:HG21	2.36	0.55
34:72:32:TRP:CZ2	34:72:34:LYS:HD2	2.41	0.55
46:1S:307:G:H5''	58:11:92:HIS:NE2	2.21	0.55
46:1S:877:G:H1	46:1S:951:A:H61	1.51	0.55
46:1S:951:A:H1'	60:13:101:HIS:CE1	2.41	0.55
46:1S:981:U:H2'	46:1S:982:U:C5'	2.34	0.55
46:1S:1151:A:H2'	46:1S:1152:A:H8	1.71	0.55
54:S7:117:THR:O	54:S7:121:VAL:HG23	2.05	0.55
79:RA:30:PRO:O	79:RA:47:LEU:HD12	2.06	0.55
79:RA:61:PHE:CE1	79:RA:97:GLY:HA2	2.41	0.55
1:2S:437:G:N2	1:2S:622:A:H61	2.04	0.55
1:2S:638:C:H2'	1:2S:639:G:C8	2.41	0.55
1:2S:1348:U:H5''	1:2S:1355:A:N1	2.22	0.55
1:2S:1508:C:H2'	1:2S:1509:A:C8	2.41	0.55
1:2S:1815:U:H4'	1:2S:1816:A:H4'	1.88	0.55
1:2S:2775:U:H2'	1:2S:2776:C:C6	2.40	0.55
1:2S:3295:A:H2'	1:2S:3296:A:C8	2.41	0.55
3:5S:113:C:H2'	3:5S:114:U:O4'	2.06	0.55
3:5S:116:C:H2'	3:5S:117:A:C8	2.40	0.55
4:L1:43:PRO:HB2	4:L1:197:ASN:HB2	1.87	0.55
4:L1:93:LEU:HD13	4:L1:115:VAL:HG12	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:250:GLN:HA	5:L2:250:GLN:NE2	2.21	0.55
11:L8:139:VAL:HA	11:L8:142:LEU:HD12	1.88	0.55
13:50:77:THR:HG22	13:50:82:ARG:HB3	1.88	0.55
13:50:174:THR:HG22	13:50:175:ASN:N	2.21	0.55
19:57:26:PHE:HE1	19:57:120:ASN:HA	1.70	0.55
33:71:34:LYS:HA	33:71:37:LYS:HD2	1.88	0.55
34:72:11:LYS:HB3	34:72:14:THR:HG23	1.88	0.55
35:73:48:ARG:HG2	35:73:70:LYS:HE3	1.88	0.55
44:82:7:THR:HG22	44:82:24:LYS:HA	1.89	0.55
46:1S:620:A:H2'	46:1S:621:A:C8	2.41	0.55
46:1S:746:A:H2'	46:1S:747:C:O4'	2.06	0.55
46:1S:830:U:H2'	46:1S:831:U:C6	2.41	0.55
46:1S:1370:U:H4'	46:1S:1371:A:C5'	2.34	0.55
46:1S:1471:A:H2	46:1S:1474:G:N3	2.04	0.55
57:10:56:LYS:HE2	57:10:67:THR:HB	1.87	0.55
60:13:119:GLU:HA	60:13:122:ILE:CD1	2.37	0.55
69:22:115:GLU:O	69:22:119:LYS:HG3	2.06	0.55
70:23:57:LEU:HD13	70:23:59:ILE:HD11	1.87	0.55
75:28:42:ARG:CD	75:28:62:GLU:HA	2.36	0.55
1:2S:409:A:H3'	1:2S:410:U:C6	2.41	0.55
1:2S:712:G:H2'	1:2S:713:U:C6	2.42	0.55
1:2S:2270:A:H2'	1:2S:2271:A:C8	2.41	0.55
1:2S:2361:A:H2'	1:2S:2362:C:C6	2.41	0.55
1:2S:2427:U:H3	1:2S:2602:G:H1	1.53	0.55
1:2S:2442:G:N2	1:2S:2505:U:N3	2.54	0.55
6:L3:166:ILE:HG12	6:L3:173:GLN:HG3	1.88	0.55
6:L3:188:ILE:HD12	6:L3:189:SER:N	2.22	0.55
8:L5:115:LEU:HD11	8:L5:139:PRO:HB2	1.87	0.55
11:L8:71:VAL:HG12	17:55:21:PHE:CE2	2.42	0.55
11:L8:107:GLU:O	11:L8:111:LYS:HG3	2.07	0.55
17:55:71:ARG:HH21	17:55:73:ARG:HA	1.72	0.55
21:59:101:VAL:CG1	21:59:135:LYS:HD3	2.36	0.55
25:63:91:VAL:HG23	25:63:93:LEU:HD22	1.89	0.55
30:68:7:LYS:O	30:68:10:LYS:HB2	2.05	0.55
37:75:14:LYS:HE2	37:75:62:GLN:HG2	1.88	0.55
37:75:22:VAL:HG12	37:75:26:LYS:HE3	1.87	0.55
46:1S:595:G:H2'	46:1S:596:C:C6	2.41	0.55
53:S6:159:ARG:HG2	53:S6:172:ALA:HB2	1.87	0.55
57:10:11:ILE:HD13	57:10:35:ILE:HG21	1.87	0.55
61:14:70:LYS:HD2	61:14:73:GLU:HG3	1.88	0.55
62:15:60:LEU:HD11	62:15:89:MET:HA	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:16:128:LYS:HB2	63:16:137:ARG:HH22	1.71	0.55
67:20:43:LYS:O	67:20:47:GLN:HB2	2.07	0.55
69:22:103:ILE:HD13	69:22:104:LEU:N	2.21	0.55
1:2S:391:A:H2'	1:2S:392:G:O4'	2.06	0.55
1:2S:960:U:H4'	1:2S:963:G:N2	2.21	0.55
1:2S:985:U:H2'	1:2S:986:U:H6	1.69	0.55
1:2S:1175:C:H5''	18:56:25:LYS:CG	2.35	0.55
1:2S:1715:A:N7	32:70:84:LEU:HD22	2.21	0.55
1:2S:1875:G:OP2	21:59:20:ARG:HD2	2.06	0.55
1:2S:2652:U:H4'	44:82:89:LYS:HE3	1.89	0.55
2:8S:125:U:O2	2:8S:125:U:H3'	2.07	0.55
3:5S:9:C:H2'	3:5S:10:C:H5'	1.88	0.55
7:L4:138:ARG:HH12	7:L4:240:PRO:HD2	1.70	0.55
10:L7:100:ARG:O	10:L7:104:GLN:HG3	2.06	0.55
10:L7:169:ILE:HG23	10:L7:184:LEU:HD11	1.89	0.55
11:L8:105:LYS:O	11:L8:109:LEU:HG	2.07	0.55
12:L9:172:ILE:H	12:L9:172:ILE:CD1	2.18	0.55
15:53:126:PHE:HB3	15:53:132:ALA:HA	1.89	0.55
18:56:129:LEU:CD1	18:56:133:ARG:HB2	2.36	0.55
20:58:165:ILE:CG1	20:58:166:LEU:H	2.12	0.55
21:59:66:HIS:O	21:59:70:LYS:HG2	2.06	0.55
26:64:56:ARG:O	26:64:61:LYS:HG2	2.07	0.55
45:83:73:THR:CG2	45:83:76:ALA:H	2.16	0.55
46:1S:1521:G:H2'	46:1S:1523:G:H21	1.70	0.55
51:S4:39:ARG:NE	51:S4:39:ARG:HA	2.21	0.55
52:S5:143:ARG:HH11	52:S5:143:ARG:HG3	1.71	0.55
55:S8:45:SER:HB3	55:S8:55:TYR:CE1	2.42	0.55
73:26:44:ILE:HD11	73:26:65:PRO:O	2.06	0.55
74:27:50:ALA:O	74:27:51:GLN:HB2	2.07	0.55
1:2S:913:A:H2	1:2S:2134:G:N3	2.04	0.55
1:2S:1033:U:H2'	1:2S:1034:U:C6	2.40	0.55
1:2S:1203:A:H2'	1:2S:1204:A:H8	1.70	0.55
1:2S:2152:A:H2'	1:2S:2153:U:H6	1.70	0.55
1:2S:2225:U:H2'	1:2S:2226:U:C6	2.42	0.55
1:2S:3295:A:H2'	1:2S:3296:A:H8	1.71	0.55
10:L7:173:LEU:HD12	10:L7:173:LEU:H	1.71	0.55
14:51:92:ARG:HD3	14:51:94:ARG:HG2	1.87	0.55
25:63:13:ILE:HD11	25:63:53:SER:HB2	1.88	0.55
28:66:115:ARG:O	28:66:119:ILE:HG13	2.06	0.55
46:1S:272:U:O2	46:1S:272:U:H2'	2.07	0.55
46:1S:1666:U:H2'	46:1S:1667:A:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:S3:49:ILE:HD12	50:S3:49:ILE:N	2.21	0.55
52:S5:142:PRO:HB3	52:S5:218:GLU:CG	2.37	0.55
60:13:108:ASP:OD2	60:13:110:ASP:HB3	2.07	0.55
65:18:29:VAL:CG2	65:18:54:LEU:HD12	2.36	0.55
79:RA:117:LYS:H	79:RA:117:LYS:HD2	1.70	0.55
1:2S:342:A:H5'	1:2S:344:A:C4	2.42	0.55
1:2S:1507:G:N3	1:2S:1507:G:H2'	2.21	0.55
1:2S:1782:U:H2'	1:2S:1783:U:C6	2.42	0.55
1:2S:2278:C:H4'	1:2S:2280:A:C2	2.42	0.55
1:2S:3149:G:H4'	6:L3:130:PHE:CE1	2.42	0.55
1:2S:3392:U:H2'	1:2S:3393:U:C6	2.42	0.55
4:L1:120:VAL:H	4:L1:121:PRO:CD	2.19	0.55
5:L2:100:ASN:O	5:L2:166:ILE:HG12	2.06	0.55
7:L4:353:ALA:O	7:L4:357:GLU:HG3	2.07	0.55
8:L5:44:TYR:CE1	23:61:35:LYS:HG2	2.42	0.55
10:L7:106:LEU:O	10:L7:107:ARG:HB2	2.06	0.55
12:L9:122:LYS:HG2	12:L9:123:ILE:N	2.22	0.55
15:53:189:GLU:HA	15:53:192:GLU:HG2	1.87	0.55
21:59:176:ARG:HD2	46:1S:852:C:H4'	1.87	0.55
24:62:87:ASN:HB3	24:62:89:LEU:HG	1.88	0.55
29:67:28:PRO:HB2	29:67:77:TYR:OH	2.05	0.55
33:71:14:ILE:HG22	33:71:71:LEU:HB2	1.88	0.55
35:73:20:LYS:NZ	35:73:20:LYS:HB3	2.22	0.55
39:77:67:LEU:HA	39:77:70:VAL:HG23	1.89	0.55
40:78:8:ILE:O	40:78:12:LEU:HG	2.06	0.55
46:1S:861:U:H5''	60:13:64:ARG:HH22	1.70	0.55
46:1S:1156:C:C3'	46:1S:1157:A:H5''	2.37	0.55
1:2S:254:A:H4'	37:75:106:LYS:NZ	2.22	0.55
1:2S:682:U:H5''	1:2S:683:U:C5	2.35	0.55
1:2S:2179:C:H2'	5:L2:132:ASN:HD21	1.70	0.55
1:2S:3057:U:O2	1:2S:3057:U:H2'	2.07	0.55
1:2S:3270:U:O4'	19:57:174:GLY:HA3	2.06	0.55
3:5S:38:U:HO2'	3:5S:40:C:H5	1.53	0.55
5:L2:170:ALA:HB2	45:83:65:ALA:HB1	1.88	0.55
6:L3:58:ARG:HD3	6:L3:354:VAL:HB	1.89	0.55
12:L9:137:SER:HB2	12:L9:145:VAL:HG23	1.89	0.55
13:50:59:GLN:OE1	13:50:128:ARG:HG2	2.07	0.55
39:77:21:ARG:NH2	39:77:39:TYR:HD2	2.05	0.55
42:80:96:CYS:C	42:80:98:LYS:H	2.10	0.55
46:1S:1011:G:H2'	46:1S:1012:U:H5	1.72	0.55
61:14:76:ILE:N	61:14:76:ILE:HD12	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:17:21:TYR:H	64:17:22:PRO:HD2	1.70	0.55
69:22:102:VAL:HB	69:22:113:HIS:HB3	1.88	0.55
72:25:61:SER:H	72:25:64:VAL:HB	1.71	0.55
1:2S:428:A:H2'	1:2S:429:U:C6	2.41	0.55
1:2S:3099:C:H42	1:2S:3135:U:H3	1.53	0.55
2:8S:101:U:H3'	2:8S:102:U:H5''	1.89	0.55
4:L1:62:ASN:HD22	4:L1:151:VAL:HG21	1.72	0.55
7:L4:150:LEU:O	7:L4:250:TRP:HD1	1.89	0.55
8:L5:64:ILE:HD12	8:L5:64:ILE:N	2.22	0.55
11:L8:78:PHE:C	11:L8:79:GLN:HG2	2.27	0.55
12:L9:71:VAL:O	12:L9:75:VAL:HG23	2.06	0.55
15:53:21:ARG:HH11	15:53:21:ARG:HG3	1.72	0.55
23:61:27:LEU:HD13	23:61:30:TYR:CD2	2.42	0.55
30:68:112:ILE:HB	30:68:130:VAL:HG12	1.88	0.55
33:71:74:ARG:O	33:71:93:VAL:HG13	2.07	0.55
37:75:12:LYS:HD2	37:75:17:LEU:HD21	1.89	0.55
39:77:39:TYR:CD2	39:77:40:PRO:HA	2.42	0.55
46:1S:285:G:H2'	46:1S:286:C:C6	2.42	0.55
46:1S:330:G:OP1	55:S8:98:LYS:HB3	2.07	0.55
46:1S:1112:G:H21	46:1S:1133:A:H62	1.55	0.55
46:1S:1755:A:C5'	70:23:63:GLN:HG3	2.36	0.55
46:1S:1796:C:C2	73:26:5:ARG:HG2	2.42	0.55
50:S3:178:ARG:HE	50:S3:178:ARG:H	1.55	0.55
52:S5:76:ARG:HD3	52:S5:76:ARG:N	2.22	0.55
57:10:18:GLU:O	57:10:89:GLY:HA3	2.07	0.55
58:11:99:ARG:HA	70:23:9:LEU:CD1	2.36	0.55
70:23:73:ARG:HE	70:23:84:THR:HG23	1.71	0.55
1:2S:519:A:N1	22:60:65:ASN:HB2	2.21	0.55
1:2S:1863:G:N1	1:2S:1865:A:H3'	2.21	0.55
1:2S:1956:A:H2	1:2S:2084:C:N4	2.05	0.55
1:2S:3268:A:H1'	9:L6:75:PRO:HG3	1.88	0.55
4:L1:68:PHE:CD2	4:L1:85:MET:HG2	2.42	0.55
6:L3:239:PRO:HD2	6:L3:242:THR:HG23	1.89	0.55
7:L4:261:VAL:HG12	7:L4:271:LYS:HE2	1.88	0.55
15:53:106:GLN:HB3	38:76:18:THR:HG23	1.89	0.55
18:56:10:ASP:OD1	18:56:12:LYS:HB3	2.06	0.55
18:56:109:PRO:HG2	18:56:112:TYR:HD2	1.71	0.55
24:62:99:LYS:HG2	24:62:100:THR:H	1.72	0.55
29:67:9:LYS:HG3	29:67:10:VAL:H	1.72	0.55
32:70:31:VAL:O	32:70:35:ARG:HG3	2.07	0.55
33:71:86:LYS:H	33:71:86:LYS:HD2	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:113:U:O2'	46:1S:115:G:H2'	2.06	0.55
46:1S:699:U:H2'	46:1S:700:C:C5	2.42	0.55
46:1S:805:U:H2'	46:1S:806:A:H5'	1.89	0.55
46:1S:1587:A:H2'	46:1S:1588:G:C8	2.32	0.55
46:1S:1669:U:H2'	46:1S:1670:G:O4'	2.07	0.55
50:S3:211:PRO:CG	64:17:19:ARG:HB2	2.37	0.55
51:S4:77:ARG:HA	51:S4:77:ARG:HE	1.72	0.55
52:S5:163:SER:HB2	52:S5:164:PRO:HD2	1.89	0.55
77:30:7:SER:HB3	77:30:10:ARG:NH2	2.15	0.55
1:2S:848:A:C5	1:2S:849:C:H1'	2.41	0.55
1:2S:1465:A:H2'	1:2S:1466:G:O4'	2.07	0.55
1:2S:2150:G:H5'	5:L2:178:PRO:HB3	1.89	0.55
1:2S:2536:A:H2'	1:2S:2537:U:H5'	1.89	0.55
6:L3:283:TYR:CZ	6:L3:325:LYS:HB2	2.42	0.55
7:L4:174:ALA:O	7:L4:178:LEU:HG	2.08	0.55
7:L4:281:ILE:HG21	20:58:25:TYR:HB3	1.88	0.55
8:L5:236:LEU:HD12	8:L5:239:ILE:HD12	1.89	0.55
8:L5:270:LYS:HE2	8:L5:273:ARG:NH1	2.21	0.55
8:L5:282:ARG:HG2	8:L5:285:ARG:HD3	1.89	0.55
17:55:80:THR:HB	17:55:87:GLN:HE21	1.72	0.55
21:59:138:LEU:O	21:59:142:ILE:HG13	2.06	0.55
33:71:62:ARG:HB2	33:71:66:GLY:CA	2.28	0.55
44:82:8:ARG:HH22	44:82:10:THR:HG21	1.72	0.55
46:1S:164:A:H1'	53:S6:13:GLN:HE22	1.71	0.55
46:1S:856:A:H62	54:S7:96:ARG:HD3	1.71	0.55
52:S5:219:ARG:NH2	52:S5:220:VAL:HG22	2.13	0.55
54:S7:140:VAL:O	69:22:51:GLU:HG3	2.07	0.55
55:S8:8:ARG:CG	55:S8:21:PHE:HB3	2.36	0.55
58:11:122:ILE:HD12	58:11:122:ILE:N	2.22	0.55
66:19:18:TYR:CE1	66:19:135:ILE:HG21	2.42	0.55
67:20:118:VAL:HG22	67:20:119:ALA:N	2.22	0.55
1:2S:297:G:H2'	38:76:41:ARG:HH12	1.72	0.54
1:2S:989:A:H2'	1:2S:990:U:C6	2.42	0.54
1:2S:1326:A:O2'	1:2S:1327:C:H5'	2.07	0.54
1:2S:2367:A:H2'	1:2S:2368:A:C8	2.42	0.54
1:2S:2974:U:H2'	1:2S:2975:U:C6	2.42	0.54
1:2S:3243:A:O4'	6:L3:96:PRO:HD3	2.06	0.54
8:L5:279:LYS:O	8:L5:283:ALA:HB2	2.06	0.54
10:L7:153:PHE:HA	10:L7:161:VAL:O	2.06	0.54
15:53:183:ARG:HA	15:53:186:ARG:HH11	1.71	0.54
18:56:174:PHE:O	18:56:178:VAL:HG23	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:58:179:ARG:NH1	20:58:179:ARG:HB3	2.22	0.54
29:67:75:VAL:CG2	29:67:76:ASN:H	2.15	0.54
46:1S:542:A:C2'	46:1S:543:C:H3'	2.37	0.54
46:1S:1727:G:H2'	46:1S:1728:A:C8	2.42	0.54
47:S0:32:HIS:HE1	68:21:87:ARG:HH12	1.55	0.54
47:S0:170:ILE:H	47:S0:170:ILE:CD1	2.16	0.54
54:S7:168:SER:O	54:S7:172:VAL:HG23	2.06	0.54
60:13:99:ARG:HA	60:13:99:ARG:CZ	2.37	0.54
64:17:29:GLN:HG2	79:RA:67:ILE:HD11	1.88	0.54
69:22:11:LEU:HA	69:22:14:ILE:HD12	1.88	0.54
78:31:138:ARG:HH11	78:31:138:ARG:CB	2.13	0.54
79:RA:211:ILE:HG22	79:RA:212:ALA:H	1.72	0.54
1:2S:217:U:H2'	28:66:103:LYS:HZ3	1.71	0.54
1:2S:277:G:H2'	1:2S:278:U:H6	1.73	0.54
1:2S:880:G:H8	1:2S:882:A:OP2	1.90	0.54
1:2S:1250:G:H2'	1:2S:1251:A:C8	2.42	0.54
1:2S:3086:A:H3'	1:2S:3087:A:H8	1.71	0.54
6:L3:230:THR:HB	6:L3:247:ARG:HH21	1.72	0.54
8:L5:74:VAL:HG11	8:L5:77:ALA:HB2	1.88	0.54
9:L6:39:VAL:HG11	9:L6:158:TYR:HE2	1.72	0.54
10:L7:84:VAL:HA	10:L7:138:TYR:HA	1.89	0.54
11:L8:68:ARG:HD3	11:L8:237:ILE:O	2.07	0.54
12:L9:112:ILE:HB	12:L9:126:VAL:HB	1.89	0.54
15:53:179:PHE:HD1	15:53:182:ILE:HD12	1.73	0.54
17:55:134:LEU:N	17:55:134:LEU:HD12	2.22	0.54
38:76:26:ILE:HD12	38:76:26:ILE:N	2.21	0.54
46:1S:5:U:H2'	46:1S:6:G:C8	2.41	0.54
46:1S:1166:A:H2'	46:1S:1167:G:H4'	1.88	0.54
51:S4:195:ILE:HA	51:S4:210:ILE:HA	1.89	0.54
52:S5:119:ASP:O	52:S5:123:VAL:HG23	2.07	0.54
56:S9:112:GLN:HA	56:S9:112:GLN:HE21	1.71	0.54
56:S9:129:ILE:HA	56:S9:134:ILE:HD11	1.89	0.54
63:16:22:VAL:HG13	63:16:65:ILE:HD13	1.89	0.54
64:17:18:GLU:HA	64:17:71:PHE:HB3	1.88	0.54
66:19:28:LEU:HG	66:19:55:TYR:HE1	1.71	0.54
1:2S:1920:U:H2'	1:2S:1930:A:H61	1.72	0.54
1:2S:2316:G:H2'	1:2S:2317:A:C8	2.41	0.54
1:2S:2748:A:H1'	8:L5:36:LEU:HD23	1.89	0.54
1:2S:3034:C:N4	12:L9:121:LYS:HB2	2.20	0.54
5:L2:120:PRO:HD3	5:L2:162:ALA:HB2	1.88	0.54
7:L4:142:VAL:HG11	7:L4:247:PHE:CD1	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:304:GLN:O	7:L4:305:ALA:HB3	2.08	0.54
12:L9:117:PHE:O	12:L9:118:LEU:HB2	2.06	0.54
23:61:68:THR:HG23	23:61:69:LYS:N	2.22	0.54
30:68:101:VAL:HG12	30:68:126:LYS:HE2	1.88	0.54
32:70:65:THR:HG22	32:70:66:LYS:N	2.22	0.54
36:74:3:GLN:HE22	36:74:29:ILE:HB	1.72	0.54
39:77:37:CYS:O	39:77:44:THR:HA	2.07	0.54
44:82:17:CYS:HG	44:82:77:CYS:HG	1.55	0.54
46:1S:808:U:H2'	46:1S:809:A:C8	2.41	0.54
46:1S:1226:A:H62	59:12:114:LYS:HG2	1.72	0.54
46:1S:1583:A:H5'	63:16:135:ARG:HH12	1.71	0.54
46:1S:1782:A:H5''	46:1S:1783:C:C6	2.42	0.54
59:12:62:LEU:HD11	59:12:76:GLU:HG3	1.89	0.54
64:17:38:ILE:HG23	64:17:39:ALA:H	1.72	0.54
73:26:84:VAL:HG22	73:26:85:ARG:N	2.22	0.54
1:2S:126:U:H2'	1:2S:127:G:H8	1.71	0.54
1:2S:359:U:H4'	1:2S:817:A:N6	2.23	0.54
1:2S:1108:U:H2'	1:2S:1109:U:C6	2.43	0.54
1:2S:1413:G:H2'	1:2S:1414:G:C8	2.42	0.54
1:2S:1811:G:H2'	1:2S:1812:G:O4'	2.07	0.54
1:2S:1951:C:H6	1:2S:2095:G:N1	1.95	0.54
9:L6:43:LEU:HD13	35:73:103:TYR:HD1	1.73	0.54
11:L8:170:CYS:HB3	11:L8:175:VAL:O	2.08	0.54
14:51:23:VAL:O	14:51:65:ILE:HG13	2.07	0.54
17:55:70:ASN:HB3	17:55:92:LEU:O	2.07	0.54
24:62:23:THR:OG1	24:62:28:PHE:HD2	1.90	0.54
24:62:84:LEU:HD22	24:62:89:LEU:CB	2.36	0.54
28:66:3:LYS:HG3	28:66:8:VAL:CG1	2.38	0.54
31:69:25:LYS:HG3	31:69:27:TYR:CZ	2.41	0.54
39:77:54:LYS:O	39:77:58:THR:HG23	2.06	0.54
46:1S:479:C:H5'	56:S9:124:HIS:CG	2.43	0.54
46:1S:816:G:H22	46:1S:855:A:H2	1.55	0.54
46:1S:878:G:H2'	46:1S:879:G:C8	2.42	0.54
48:S1:23:PRO:O	48:S1:27:LYS:HG2	2.07	0.54
48:S1:33:LYS:HB2	48:S1:97:LEU:HD22	1.89	0.54
57:10:86:ILE:HG13	57:10:87:VAL:HG12	1.88	0.54
59:12:66:VAL:CG1	59:12:71:ILE:HG21	2.37	0.54
64:17:116:LYS:HD3	64:17:117:LEU:H	1.72	0.54
75:28:10:ALA:HB2	75:28:56:LEU:HD11	1.88	0.54
1:2S:116:A:H61	1:2S:153:U:H1'	1.72	0.54
1:2S:286:U:H2'	1:2S:287:G:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:720:A:H3'	20:58:69:ARG:HH22	1.72	0.54
1:2S:1142:G:H2'	1:2S:1143:A:C8	2.43	0.54
1:2S:2914:G:C5'	6:L3:9:PRO:HG3	2.33	0.54
5:L2:117:GLU:HB2	5:L2:162:ALA:HB1	1.89	0.54
6:L3:37:ARG:HD3	6:L3:185:GLY:O	2.07	0.54
10:L7:138:TYR:CE2	10:L7:233:GLU:HG2	2.42	0.54
16:54:48:GLY:HA2	16:54:85:TRP:HZ3	1.72	0.54
20:58:66:ARG:NH1	20:58:143:PRO:HD3	2.22	0.54
21:59:17:VAL:HG21	21:59:52:LYS:HG3	1.89	0.54
30:68:28:HIS:CD2	30:68:32:ARG:HG2	2.43	0.54
35:73:18:ARG:HB3	35:73:23:ASN:HB3	1.90	0.54
46:1S:160:C:H5''	53:S6:87:ARG:NH2	2.22	0.54
46:1S:989:U:H2'	46:1S:990:C:O4'	2.07	0.54
46:1S:1073:G:H2'	46:1S:1074:G:C5'	2.30	0.54
46:1S:1087:A:H2'	46:1S:1088:A:C8	2.42	0.54
48:S1:65:VAL:HA	48:S1:87:ARG:HA	1.90	0.54
52:S5:156:ARG:HB2	52:S5:156:ARG:NH1	2.12	0.54
53:S6:199:GLN:O	53:S6:203:GLU:HG2	2.08	0.54
54:S7:131:PHE:N	54:S7:132:PRO:CD	2.69	0.54
56:S9:174:ARG:NE	56:S9:174:ARG:HA	2.22	0.54
1:2S:80:G:H2'	1:2S:81:C:C6	2.42	0.54
1:2S:309:U:H2'	1:2S:310:U:C6	2.42	0.54
6:L3:339:ARG:CZ	6:L3:342:LEU:HD21	2.38	0.54
13:50:31:ILE:HG22	13:50:62:SER:HB2	1.90	0.54
39:77:72:ARG:HG2	39:77:72:ARG:HH11	1.73	0.54
46:1S:323:A:OP2	55:S8:10:LYS:HD2	2.07	0.54
46:1S:328:A:H2'	46:1S:329:G:O4'	2.06	0.54
46:1S:460:A:H5''	46:1S:461:G:C8	2.43	0.54
46:1S:1201:G:H21	46:1S:1600:A:C5'	2.20	0.54
46:1S:1688:U:O5'	46:1S:1688:U:H6	1.91	0.54
63:16:18:ALA:CB	63:16:69:VAL:HG22	2.37	0.54
63:16:93:HIS:CE1	63:16:97:VAL:HG11	2.42	0.54
64:17:53:TYR:O	64:17:57:LEU:HG	2.07	0.54
1:2S:2163:C:O2'	1:2S:2164:A:H5'	2.07	0.54
1:2S:2530:G:C2'	1:2S:2531:C:H5''	2.35	0.54
1:2S:2611:U:H2'	1:2S:2612:U:H6	1.72	0.54
2:8S:62:C:H4'	2:8S:63:G:O5'	2.08	0.54
8:L5:183:TRP:CH2	8:L5:188:GLU:HA	2.42	0.54
9:L6:40:LEU:HD13	9:L6:84:VAL:HG11	1.89	0.54
10:L7:191:VAL:HA	10:L7:195:PHE:CD2	2.42	0.54
18:56:80:PHE:O	18:56:84:LEU:HB2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:57:159:LYS:HG2	19:57:160:ALA:H	1.73	0.54
20:58:179:ARG:HB3	20:58:179:ARG:HH11	1.72	0.54
21:59:23:TRP:HB3	21:59:51:VAL:CG2	2.37	0.54
21:59:60:LYS:O	21:59:64:ARG:HG3	2.08	0.54
28:66:27:ARG:O	28:66:31:LEU:HG	2.08	0.54
29:67:3:LYS:CE	32:70:36:GLN:HA	2.38	0.54
32:70:10:ILE:O	32:70:14:LEU:HG	2.08	0.54
35:73:103:TYR:HA	35:73:104:PRO:C	2.27	0.54
46:1S:140:A:H4'	46:1S:141:U:H5'	1.90	0.54
46:1S:248:U:H5'	58:11:36:LYS:HD2	1.89	0.54
46:1S:722:G:H2'	46:1S:723:G:H5''	1.88	0.54
46:1S:1784:C:H2'	46:1S:1785:U:C6	2.42	0.54
47:S0:9:LEU:HD13	47:S0:10:THR:N	2.22	0.54
48:S1:222:LYS:HG3	48:S1:223:PHE:H	1.73	0.54
51:S4:125:LYS:HE2	51:S4:157:ASN:OD1	2.08	0.54
71:24:132:ARG:HD3	71:24:132:ARG:C	2.28	0.54
79:RA:124:SER:CA	79:RA:154:VAL:HG21	2.37	0.54
1:2S:238:A:H2'	1:2S:239:G:O4'	2.08	0.54
1:2S:787:G:H2'	1:2S:788:C:C6	2.42	0.54
1:2S:2168:A:C4'	17:55:67:ARG:HH22	2.13	0.54
1:2S:2295:A:H2'	1:2S:2296:A:C8	2.43	0.54
1:2S:2662:G:H2'	1:2S:2663:G:C8	2.43	0.54
1:2S:2802:A:H4'	44:82:57:VAL:O	2.07	0.54
1:2S:3213:A:C2	9:L6:166:LYS:HD2	2.43	0.54
5:L2:44:ILE:HG13	5:L2:87:PHE:HD1	1.72	0.54
6:L3:116:ARG:HG2	6:L3:175:LYS:HB2	1.89	0.54
10:L7:125:GLU:O	10:L7:129:LEU:HG	2.08	0.54
15:53:138:VAL:HB	37:75:118:ILE:HB	1.90	0.54
23:61:53:PRO:HD3	23:61:91:LEU:HD13	1.90	0.54
23:61:106:LEU:HD12	23:61:110:LYS:NZ	2.23	0.54
36:74:3:GLN:NE2	36:74:29:ILE:HB	2.23	0.54
37:75:104:GLN:O	37:75:108:GLN:HG3	2.07	0.54
46:1S:566:C:O2'	77:30:10:ARG:HD2	2.08	0.54
46:1S:647:G:H1	46:1S:687:G:H22	1.56	0.54
46:1S:1504:G:O2'	46:1S:1563:C:H4'	2.08	0.54
49:S2:53:ILE:HD11	49:S2:73:LEU:HB2	1.90	0.54
49:S2:135:SER:O	49:S2:215:PHE:HZ	1.90	0.54
53:S6:78:THR:HG22	53:S6:79:LYS:N	2.23	0.54
53:S6:193:LEU:O	53:S6:197:ASN:HB2	2.08	0.54
55:S8:195:ARG:HG2	55:S8:195:ARG:HH11	1.72	0.54
57:10:32:HIS:CE1	57:10:42:VAL:HG21	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:19:34:VAL:HA	66:19:53:TRP:HZ2	1.71	0.54
72:25:41:ILE:HG13	72:25:42:LEU:N	2.23	0.54
73:26:61:GLU:O	73:26:62:TYR:HB3	2.07	0.54
1:2S:293:C:H2'	1:2S:294:U:O4'	2.07	0.54
1:2S:552:G:H2'	1:2S:553:U:O4'	2.08	0.54
1:2S:1653:G:H2'	1:2S:1654:A:H8	1.73	0.54
1:2S:2403:G:H4'	1:2S:2403:G:OP1	2.08	0.54
6:L3:122:TRP:CZ2	6:L3:127:LYS:HE3	2.43	0.54
6:L3:193:ASP:O	6:L3:197:GLU:HG3	2.08	0.54
7:L4:152:VAL:HG12	7:L4:153:SER:N	2.23	0.54
7:L4:157:GLU:HB2	7:L4:213:ASN:HD22	1.73	0.54
15:53:57:VAL:HB	15:53:112:ASN:HD21	1.73	0.54
16:54:15:VAL:HG23	16:54:15:VAL:O	2.07	0.54
17:55:41:ARG:NH1	17:55:41:ARG:HB3	2.23	0.54
22:60:15:PRO:HB3	22:60:20:PRO:HA	1.90	0.54
30:68:47:LYS:HE2	30:68:48:TYR:CE2	2.43	0.54
46:1S:320:U:C3'	46:1S:321:C:H5''	2.38	0.54
46:1S:639:U:OP1	54:S7:119:THR:HG23	2.08	0.54
46:1S:699:U:H2'	46:1S:700:C:C6	2.43	0.54
46:1S:1228:G:H4'	59:12:45:LEU:HD12	1.89	0.54
46:1S:1292:G:H2'	46:1S:1293:U:C6	2.42	0.54
47:S0:52:LYS:HD2	68:21:82:VAL:HA	1.89	0.54
48:S1:146:GLN:HG2	48:S1:147:ALA:N	2.14	0.54
52:S5:36:ALA:HB3	52:S5:45:LYS:HE2	1.89	0.54
56:S9:40:LYS:HA	56:S9:43:TYR:CD2	2.43	0.54
56:S9:127:VAL:HA	56:S9:130:THR:HG22	1.89	0.54
59:12:29:LYS:O	59:12:33:ARG:HG2	2.08	0.54
60:13:47:PRO:HA	60:13:71:ILE:HG21	1.90	0.54
61:14:20:TYR:HB3	61:14:27:PHE:HB2	1.89	0.54
61:14:85:ALA:H	61:14:119:THR:CG2	2.20	0.54
69:22:104:LEU:HB2	69:22:124:LYS:O	2.08	0.54
1:2S:566:G:H2'	1:2S:567:G:C8	2.42	0.54
1:2S:957:C:H4'	1:2S:2799:A:N7	2.22	0.54
1:2S:1951:C:H5	1:2S:2095:G:N1	2.02	0.54
1:2S:1951:C:H2'	1:2S:2095:G:H22	1.72	0.54
1:2S:3157:U:H4'	1:2S:3158:G:H8	1.73	0.54
1:2S:3269:U:H3	9:L6:134:ARG:NH2	2.05	0.54
1:2S:3370:A:H4'	6:L3:384:LYS:HD2	1.90	0.54
3:5S:67:G:H2'	3:5S:68:C:O4'	2.07	0.54
6:L3:87:VAL:HG22	6:L3:163:HIS:HD2	1.73	0.54
6:L3:114:VAL:HG22	6:L3:163:HIS:CE1	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:L5:277:LEU:HD23	8:L5:282:ARG:CG	2.38	0.54
10:L7:144:ILE:O	10:L7:148:VAL:HG23	2.08	0.54
12:L9:93:VAL:HG22	42:80:82:LEU:HD22	1.89	0.54
23:61:88:ARG:C	23:61:89:LEU:HD12	2.29	0.54
40:78:77:ARG:O	40:78:78:LEU:HB2	2.08	0.54
46:1S:14:C:H2'	46:1S:15:U:C6	2.42	0.54
46:1S:375:U:C5'	70:23:32:ARG:HH12	2.21	0.54
46:1S:720:G:N3	46:1S:720:G:H2'	2.23	0.54
48:S1:176:VAL:HA	48:S1:184:LEU:HD21	1.89	0.54
49:S2:161:LYS:CB	49:S2:166:THR:HG22	2.38	0.54
62:15:33:PHE:O	62:15:36:LEU:HD23	2.08	0.54
62:15:53:PRO:HB2	62:15:57:MET:CG	2.37	0.54
63:16:98:ASP:HA	79:RA:58:VAL:O	2.08	0.54
64:17:6:THR:HG22	64:17:9:VAL:HG23	1.89	0.54
79:RA:255:ALA:HB2	79:RA:292:LEU:HD22	1.90	0.54
1:2S:665:A:H5'	17:55:199:LEU:HD11	1.90	0.53
1:2S:1176:C:H2'	1:2S:1177:G:N2	2.24	0.53
1:2S:1658:G:H2'	1:2S:1659:U:H6	1.69	0.53
1:2S:3049:A:H5''	6:L3:53:MET:HB2	1.88	0.53
1:2S:3163:A:H2'	1:2S:3164:C:C5'	2.37	0.53
4:L1:103:LEU:HD12	4:L1:103:LEU:O	2.08	0.53
5:L2:81:GLY:H	45:83:65:ALA:HB3	1.73	0.53
6:L3:112:ASP:O	6:L3:116:ARG:HB2	2.08	0.53
8:L5:69:ILE:HG22	23:61:31:LEU:HB3	1.90	0.53
10:L7:172:ASN:HB2	10:L7:173:LEU:HD12	1.89	0.53
17:55:50:ARG:NH1	17:55:50:ARG:HB3	2.23	0.53
19:57:70:THR:HG21	19:57:81:ALA:HB3	1.89	0.53
21:59:115:ILE:HD11	21:59:119:LEU:HB3	1.90	0.53
26:64:54:LEU:O	26:64:58:HIS:HB2	2.08	0.53
30:68:21:ARG:HA	30:68:24:LYS:NZ	2.23	0.53
37:75:78:LYS:HA	37:75:81:ARG:CD	2.38	0.53
46:1S:102:U:H3'	46:1S:360:A:N6	2.23	0.53
46:1S:230:C:H3'	46:1S:231:U:C5'	2.34	0.53
46:1S:758:U:H2'	46:1S:758:U:O2	2.08	0.53
46:1S:929:A:O4'	61:14:124:ASP:HB2	2.07	0.53
46:1S:1426:C:H3'	46:1S:1427:A:C5'	2.38	0.53
46:1S:1795:U:H5''	73:26:86:VAL:CG2	2.38	0.53
54:S7:42:GLN:HG2	54:S7:43:PHE:N	2.24	0.53
60:13:36:GLN:O	60:13:39:LYS:HB3	2.08	0.53
65:18:26:ILE:HD11	65:18:31:ALA:HA	1.88	0.53
65:18:86:LEU:HD22	65:18:97:ASP:HB3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:20:57:ARG:HD3	67:20:89:ARG:HD3	1.90	0.53
77:30:14:VAL:O	77:30:18:THR:HG23	2.08	0.53
77:30:42:ARG:NH1	77:30:42:ARG:HB3	2.23	0.53
1:2S:778:U:H2'	1:2S:779:G:C8	2.43	0.53
1:2S:829:U:H2'	1:2S:894:G:N7	2.22	0.53
1:2S:1169:A:H5''	10:L7:219:LYS:CD	2.35	0.53
1:2S:2493:U:H5''	4:L1:162:VAL:CG1	2.38	0.53
4:L1:43:PRO:HA	4:L1:161:LYS:CB	2.34	0.53
19:57:47:TYR:O	19:57:51:VAL:HG23	2.08	0.53
44:82:91:PHE:CE2	44:82:93:LEU:HD22	2.42	0.53
49:S2:54:GLU:O	49:S2:58:LEU:HB2	2.08	0.53
52:S5:187:ILE:HD12	52:S5:187:ILE:N	2.22	0.53
54:S7:99:LEU:CD1	54:S7:112:ARG:HG3	2.38	0.53
55:S8:110:ARG:HG3	55:S8:121:LEU:CB	2.35	0.53
62:15:44:ARG:NH1	62:15:52:LYS:HD2	2.23	0.53
64:17:27:ASP:HB3	64:17:30:THR:HG22	1.90	0.53
1:2S:836:A:H2'	1:2S:837:A:H8	1.72	0.53
1:2S:1153:A:O2'	1:2S:1154:A:H5'	2.08	0.53
1:2S:1449:A:H1'	1:2S:2983:C:C4	2.44	0.53
1:2S:1648:A:H62	1:2S:1807:G:H21	1.56	0.53
1:2S:1666:G:H2'	1:2S:1667:A:C8	2.44	0.53
1:2S:2163:C:O2'	5:L2:11:GLY:HA3	2.09	0.53
1:2S:2168:A:H5'	17:55:67:ARG:NH1	2.23	0.53
1:2S:2993:G:H2'	1:2S:3142:A:N6	2.23	0.53
1:2S:3353:G:H2'	1:2S:3356:G:C4'	2.39	0.53
5:L2:113:VAL:HB	5:L2:165:VAL:O	2.07	0.53
5:L2:147:ARG:HG3	5:L2:157:VAL:N	2.23	0.53
6:L3:136:LYS:O	6:L3:144:ILE:HD11	2.08	0.53
6:L3:183:LEU:HD22	6:L3:191:LYS:HB3	1.91	0.53
17:55:83:LYS:HB2	17:55:86:ASN:HD22	1.73	0.53
18:56:158:ALA:O	18:56:162:VAL:HG23	2.07	0.53
19:57:168:LEU:HD13	19:57:173:ARG:HE	1.74	0.53
23:61:78:LYS:O	23:61:84:TYR:HA	2.08	0.53
26:64:4:GLU:O	26:64:12:LYS:HA	2.09	0.53
27:65:113:LEU:HD23	27:65:123:TYR:HE2	1.73	0.53
33:71:7:VAL:HG13	33:71:78:LYS:HA	1.91	0.53
46:1S:357:G:H2'	46:1S:358:U:C6	2.43	0.53
46:1S:469:C:H2'	46:1S:470:A:O4'	2.09	0.53
46:1S:1058:U:H5	46:1S:1061:A:N6	2.06	0.53
46:1S:1071:U:H2'	46:1S:1072:C:C6	2.43	0.53
46:1S:1474:G:H2'	46:1S:1475:A:H8	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:S5:25:LEU:HD22	52:S5:25:LEU:N	2.23	0.53
65:18:144:ARG:O	65:18:145:ARG:HB2	2.08	0.53
1:2S:225:C:OP1	28:66:47:ALA:HB2	2.08	0.53
1:2S:243:G:H2'	1:2S:244:G:O4'	2.09	0.53
1:2S:362:U:H3'	39:77:56:ARG:HH22	1.72	0.53
1:2S:748:U:H2'	1:2S:749:C:C6	2.43	0.53
1:2S:788:C:H2'	1:2S:789:A:C8	2.44	0.53
1:2S:1055:A:H1'	3:5S:81:U:O2'	2.08	0.53
1:2S:1500:G:H2'	1:2S:1501:U:O4'	2.08	0.53
1:2S:1549:U:H2'	1:2S:1550:C:C6	2.44	0.53
1:2S:2108:C:H1'	1:2S:3344:A:C8	2.39	0.53
1:2S:2816:G:N7	1:2S:2869:U:H2'	2.24	0.53
1:2S:3004:C:H4'	6:L3:99:LEU:HB2	1.89	0.53
1:2S:3138:U:H2'	1:2S:3139:A:O4'	2.08	0.53
1:2S:3259:U:H6	1:2S:3259:U:H5'	1.73	0.53
3:5S:16:U:H2'	3:5S:17:A:C8	2.44	0.53
4:L1:74:VAL:HG12	4:L1:75:ASP:N	2.23	0.53
6:L3:239:PRO:HD2	6:L3:242:THR:CG2	2.38	0.53
12:L9:20:ILE:HB	16:54:7:VAL:HG13	1.91	0.53
17:55:73:ARG:HG2	17:55:75:VAL:HG13	1.91	0.53
21:59:115:ILE:HG12	21:59:116:ASP:N	2.23	0.53
27:65:42:ARG:O	27:65:44:PRO:HD3	2.08	0.53
31:69:47:LEU:CA	31:69:50:THR:HG22	2.35	0.53
39:77:64:MET:SD	39:77:67:LEU:HB2	2.49	0.53
42:80:110:CYS:O	42:80:117:HIS:HA	2.09	0.53
46:1S:976:G:H2'	46:1S:1023:A:C2	2.44	0.53
46:1S:1020:A:C3'	46:1S:1021:C:H5''	2.38	0.53
46:1S:1181:U:H4'	62:15:127:ARG:O	2.09	0.53
46:1S:1202:A:H3'	46:1S:1202:A:N3	2.24	0.53
46:1S:1426:C:H3'	46:1S:1427:A:H5''	1.91	0.53
46:1S:1565:C:H4'	65:18:85:PHE:HA	1.91	0.53
46:1S:1735:U:H2'	46:1S:1736:G:O4'	2.09	0.53
48:S1:116:LYS:HG2	48:S1:117:TRP:N	2.24	0.53
53:S6:160:ARG:NH1	53:S6:162:VAL:HB	2.12	0.53
71:24:104:SER:O	71:24:108:ARG:HG3	2.08	0.53
75:28:64:ARG:HG2	75:28:64:ARG:HH11	1.73	0.53
1:2S:831:G:H8	1:2S:831:G:O5'	1.91	0.53
1:2S:2041:U:H2'	1:2S:2042:G:C8	2.44	0.53
1:2S:2949:U:H3'	1:2S:2950:G:N2	2.23	0.53
6:L3:223:GLY:HA2	6:L3:271:GLY:CA	2.38	0.53
7:L4:56:ALA:HA	7:L4:59:GLN:NE2	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:53:64:LYS:HB2	30:68:66:ALA:HB1	1.91	0.53
22:60:6:GLU:O	22:60:63:GLN:HG3	2.08	0.53
22:60:67:ALA:O	22:60:69:PRO:HD3	2.08	0.53
25:63:22:ILE:HG12	25:63:35:TYR:CD1	2.43	0.53
30:68:81:LEU:HB2	30:68:102:ILE:HG21	1.91	0.53
39:77:28:HIS:CD2	39:77:31:LYS:HB2	2.43	0.53
40:78:42:LYS:HB2	40:78:44:LYS:NZ	2.23	0.53
46:1S:3:U:H4'	49:S2:180:ALA:HA	1.91	0.53
46:1S:384:G:H2'	46:1S:385:A:C8	2.44	0.53
46:1S:707:A:H2'	46:1S:708:C:H4'	1.89	0.53
46:1S:1009:U:H2'	46:1S:1010:C:C6	2.43	0.53
46:1S:1788:G:H2'	46:1S:1789:G:O4'	2.09	0.53
48:S1:180:THR:HG22	48:S1:181:LEU:N	2.24	0.53
56:S9:29:LYS:O	56:S9:33:GLU:HG3	2.09	0.53
61:14:133:ARG:CG	61:14:136:ARG:HH21	2.17	0.53
64:17:5:ARG:HD2	64:17:5:ARG:N	2.24	0.53
64:17:95:ARG:NE	64:17:95:ARG:HA	2.24	0.53
67:20:52:LYS:HB3	67:20:93:LEU:CD2	2.37	0.53
69:22:80:ASN:HA	69:22:124:LYS:HA	1.90	0.53
71:24:106:GLN:NE2	71:24:107:GLN:HB2	2.23	0.53
1:2S:634:C:H4'	34:72:47:ARG:HH11	1.72	0.53
1:2S:1240:A:H3'	1:2S:1241:U:H5''	1.91	0.53
1:2S:1668:G:H2'	1:2S:1669:C:C6	2.44	0.53
1:2S:2149:A:N1	1:2S:2188:A:H4'	2.22	0.53
1:2S:2178:A:H1'	1:2S:2180:G:C5	2.44	0.53
1:2S:2513:U:O2'	1:2S:2514:U:H2'	2.08	0.53
1:2S:2667:A:H2'	1:2S:2668:U:O4'	2.08	0.53
1:2S:2667:A:H2'	1:2S:2668:U:H5'	1.89	0.53
1:2S:2696:A:H2'	1:2S:2697:A:C8	2.43	0.53
1:2S:3309:G:H1'	19:57:69:ARG:HD3	1.89	0.53
1:2S:3324:C:H2'	1:2S:3325:G:H8	1.73	0.53
1:2S:3364:C:H2'	1:2S:3365:U:H6	1.74	0.53
1:2S:3382:U:H2'	1:2S:3382:U:O2	2.07	0.53
2:8S:60:U:C4	2:8S:98:U:H4'	2.43	0.53
4:L1:136:THR:H	4:L1:137:PRO:HD2	1.73	0.53
11:L8:116:VAL:HA	11:L8:121:SER:HB2	1.90	0.53
14:51:16:LYS:HD3	14:51:72:ARG:NH2	2.22	0.53
16:54:108:ARG:CG	18:56:198:GLY:HA3	2.39	0.53
17:55:65:ARG:HG3	17:55:129:TYR:HE1	1.73	0.53
25:63:75:PRO:O	25:63:102:ILE:HD12	2.09	0.53
28:66:31:LEU:CD1	28:66:75:ARG:HG2	2.35	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:67:33:SER:HB2	29:67:40:HIS:HE2	1.73	0.53
29:67:104:PRO:HA	29:67:107:ARG:HD2	1.90	0.53
39:77:18:LEU:HA	39:77:25:ARG:HA	1.90	0.53
40:78:44:LYS:N	40:78:44:LYS:HD2	2.24	0.53
45:83:42:CYS:SG	45:83:60:CYS:HB2	2.49	0.53
46:1S:817:A:H1'	54:S7:110:GLN:CD	2.29	0.53
46:1S:975:C:H5''	60:13:109:LYS:HE3	1.91	0.53
46:1S:976:G:H2'	46:1S:1023:A:H2	1.72	0.53
50:S3:209:ILE:HG22	64:17:38:ILE:HG13	1.91	0.53
61:14:81:VAL:HG22	61:14:115:ILE:CG2	2.39	0.53
63:16:5:PRO:HG2	63:16:24:ALA:HB2	1.90	0.53
64:17:45:ARG:HH11	64:17:45:ARG:HG3	1.74	0.53
69:22:31:SER:O	69:22:35:ILE:HG12	2.08	0.53
70:23:102:VAL:HG12	70:23:127:VAL:HA	1.91	0.53
79:RA:88:THR:HG21	79:RA:104:VAL:HG22	1.91	0.53
1:2S:648:C:C5	1:2S:2397:A:H5''	2.44	0.53
1:2S:1827:C:H2'	1:2S:1828:A:C8	2.44	0.53
1:2S:2207:A:C3'	1:2S:2208:A:H5''	2.26	0.53
1:2S:3119:U:H5'	1:2S:3120:C:OP2	2.09	0.53
1:2S:3294:A:H5'	1:2S:3294:A:H8	1.74	0.53
1:2S:3305:A:H2'	1:2S:3306:U:O4'	2.09	0.53
4:L1:62:ASN:ND2	4:L1:151:VAL:HG21	2.23	0.53
9:L6:56:LYS:CB	9:L6:98:VAL:HG11	2.34	0.53
19:57:39:TRP:O	19:57:114:VAL:HG12	2.08	0.53
25:63:54:LEU:HD12	25:63:78:VAL:HG12	1.90	0.53
39:77:4:GLY:C	39:77:6:PRO:HD2	2.29	0.53
46:1S:64:U:H2'	46:1S:65:A:H5''	1.90	0.53
46:1S:766:U:H5''	46:1S:768:C:P	2.49	0.53
46:1S:941:A:H8	46:1S:941:A:O5'	1.92	0.53
46:1S:1043:A:H3'	46:1S:1044:U:H6	1.74	0.53
46:1S:1058:U:H5	46:1S:1061:A:H61	1.57	0.53
47:S0:110:TYR:CE2	49:S2:64:LYS:HD3	2.44	0.53
49:S2:38:VAL:HG22	49:S2:39:THR:H	1.74	0.53
51:S4:95:THR:CG2	71:24:16:PRO:HD2	2.39	0.53
51:S4:147:ILE:HG21	51:S4:169:ILE:HD11	1.91	0.53
65:18:14:ILE:HG23	65:18:14:ILE:O	2.08	0.53
68:21:73:ALA:HB1	68:21:78:LEU:HG	1.91	0.53
69:22:20:THR:OG1	69:22:22:LYS:HD3	2.09	0.53
69:22:30:SER:HA	69:22:34:ILE:HD12	1.90	0.53
70:23:75:GLN:HG3	70:23:82:LYS:HG3	1.90	0.53
79:RA:112:SER:CB	79:RA:153:GLN:HA	2.36	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:573:C:H2'	1:2S:574:U:C6	2.44	0.53
1:2S:1073:U:H2'	1:2S:1074:U:C6	2.43	0.53
1:2S:1204:A:H2'	1:2S:1205:A:O4'	2.09	0.53
1:2S:1321:G:O2'	22:60:111:ALA:HB1	2.08	0.53
1:2S:1354:G:H3'	1:2S:1355:A:H5''	1.90	0.53
1:2S:2154:U:H2'	1:2S:2155:G:C8	2.44	0.53
2:8S:93:U:H2'	2:8S:94:C:O4'	2.08	0.53
7:L4:295:ILE:O	7:L4:299:ILE:HG12	2.07	0.53
15:53:42:ARG:O	15:53:46:ILE:HG12	2.09	0.53
17:55:73:ARG:HB2	17:55:92:LEU:CD2	2.39	0.53
18:56:39:GLU:HG2	18:56:40:GLU:N	2.24	0.53
18:56:46:GLU:CD	18:56:48:PHE:HB3	2.28	0.53
24:62:17:VAL:HG22	24:62:103:TYR:CD2	2.42	0.53
27:65:115:ARG:NH1	27:65:117:ASN:HD21	2.07	0.53
33:71:28:ARG:HH11	33:71:28:ARG:HG3	1.73	0.53
35:73:100:ILE:HD12	35:73:100:ILE:N	2.23	0.53
46:1S:145:A:HO2'	46:1S:146:U:H6	1.57	0.53
46:1S:197:A:H61	55:S8:138:ASN:HD22	1.56	0.53
46:1S:291:G:H2'	46:1S:292:U:C6	2.44	0.53
46:1S:786:C:H2'	46:1S:787:G:O4'	2.09	0.53
46:1S:1639:C:H2'	46:1S:1640:C:O4'	2.08	0.53
47:S0:41:ARG:HB2	47:S0:47:VAL:HG23	1.90	0.53
49:S2:206:THR:HG23	49:S2:206:THR:O	2.09	0.53
49:S2:212:LYS:O	49:S2:216:VAL:HG23	2.09	0.53
53:S6:120:GLU:HG3	53:S6:125:THR:CG2	2.38	0.53
64:17:32:LYS:O	64:17:35:CYS:HB2	2.09	0.53
77:30:46:ASN:O	77:30:47:VAL:HG12	2.09	0.53
79:RA:178:VAL:HB	79:RA:192:PHE:HB2	1.90	0.53
1:2S:59:G:H4'	1:2S:60:A:OP1	2.08	0.53
1:2S:83:U:H2'	1:2S:84:U:O4'	2.08	0.53
1:2S:290:G:H2'	1:2S:291:C:C6	2.43	0.53
1:2S:303:G:H4'	1:2S:304:G:H21	1.73	0.53
1:2S:879:U:H2'	19:57:131:ARG:NH2	2.24	0.53
1:2S:1186:G:N3	22:60:112:ALA:HB1	2.24	0.53
1:2S:1509:A:H2'	1:2S:1510:G:O4'	2.09	0.53
1:2S:1523:U:H4'	27:65:112:THR:O	2.08	0.53
1:2S:1560:G:O2'	1:2S:1561:G:H5'	2.09	0.53
1:2S:1581:C:C2'	1:2S:1582:C:H5'	2.32	0.53
1:2S:1664:G:H2'	1:2S:1665:C:C6	2.44	0.53
1:2S:1858:A:N3	36:74:4:ARG:NH1	2.57	0.53
1:2S:2357:A:H2'	1:2S:2358:A:H8	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2497:U:H2'	1:2S:2499:U:C5	2.44	0.53
1:2S:3242:G:H5'	1:2S:3245:A:H1'	1.91	0.53
5:L2:247:ARG:HG2	5:L2:247:ARG:HH11	1.74	0.53
6:L3:93:VAL:HG22	6:L3:94:GLU:H	1.73	0.53
6:L3:336:VAL:HG12	6:L3:337:THR:N	2.23	0.53
13:50:177:ASP:HB3	13:50:179:PRO:HD2	1.91	0.53
15:53:6:ASN:HD21	20:58:164:ARG:HG3	1.74	0.53
17:55:199:LEU:HD22	17:55:203:ARG:CD	2.38	0.53
18:56:9:ILE:HD12	18:56:33:ILE:HG21	1.91	0.53
18:56:43:ILE:HG22	18:56:44:SER:H	1.73	0.53
19:57:36:ILE:O	19:57:39:TRP:HB2	2.08	0.53
31:69:36:ASP:HB3	31:69:39:PHE:HB3	1.89	0.53
45:83:39:CYS:HB3	45:83:43:GLY:N	2.23	0.53
50:S3:53:THR:HA	50:S3:91:VAL:CG1	2.39	0.53
53:S6:179:VAL:HG13	53:S6:179:VAL:O	2.08	0.53
54:S7:44:LYS:HD3	54:S7:95:GLU:HB3	1.90	0.53
69:22:38:LEU:HD23	69:22:41:MET:HE3	1.90	0.53
79:RA:66:HIS:HB3	79:RA:85:TRP:HB2	1.90	0.53
1:2S:161:G:H5'	1:2S:161:G:H8	1.74	0.53
1:2S:990:U:H4'	23:61:100:LYS:CE	2.38	0.53
1:2S:1126:G:H2'	1:2S:1127:G:O4'	2.09	0.53
1:2S:1795:U:H2'	5:L2:50:HIS:HD2	1.73	0.53
1:2S:1845:G:C5'	1:2S:1846:C:H5''	2.33	0.53
1:2S:2149:A:C2	1:2S:2188:A:H4'	2.44	0.53
1:2S:2265:C:H2'	1:2S:2266:U:C6	2.44	0.53
1:2S:3051:U:H2'	1:2S:3052:G:C8	2.43	0.53
1:2S:3075:G:H2'	1:2S:3076:C:C6	2.44	0.53
2:8S:67:U:H5''	39:77:85:LYS:HB2	1.91	0.53
4:L1:18:LYS:HG3	4:L1:24:LYS:HB3	1.90	0.53
6:L3:261:MET:O	6:L3:264:VAL:HG22	2.09	0.53
14:51:49:LYS:HA	14:51:64:LYS:HA	1.91	0.53
18:56:19:LEU:HD12	18:56:123:ALA:HB1	1.91	0.53
23:61:78:LYS:HG3	23:61:80:VAL:HB	1.91	0.53
46:1S:126:A:H61	46:1S:291:G:H1'	1.74	0.53
46:1S:765:G:O6	56:S9:149:ARG:HB3	2.09	0.53
46:1S:1112:G:H2'	46:1S:1113:A:C8	2.44	0.53
46:1S:1359:C:O2'	66:19:4:VAL:HG12	2.09	0.53
48:S1:86:LEU:HB3	48:S1:98:THR:OG1	2.09	0.53
48:S1:111:ARG:HB3	73:26:68:TYR:HD2	1.74	0.53
49:S2:242:ILE:HD12	49:S2:242:ILE:N	2.24	0.53
52:S5:122:ASN:O	52:S5:126:ASP:HA	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:73:GLY:O	56:S9:77:ILE:HG13	2.09	0.53
59:12:61:VAL:HG23	59:12:90:LYS:O	2.08	0.53
63:16:73:GLY:O	63:16:77:GLN:HG3	2.09	0.53
68:21:38:LYS:HD2	68:21:49:GLU:CG	2.39	0.53
69:22:65:LEU:H	69:22:65:LEU:CD1	2.18	0.53
70:23:103:LEU:HD13	70:23:104:LEU:N	2.23	0.53
73:26:84:VAL:HG13	73:26:85:ARG:N	2.19	0.53
73:26:84:VAL:O	73:26:85:ARG:HB2	2.09	0.53
3:5S:13:A:H5'	3:5S:14:U:H5	1.74	0.52
4:L1:18:LYS:HG3	4:L1:24:LYS:CB	2.39	0.52
5:L2:44:ILE:N	5:L2:44:ILE:HD12	2.24	0.52
10:L7:120:THR:HG22	23:61:134:GLN:NE2	2.24	0.52
12:L9:91:ARG:HA	12:L9:142:ASP:O	2.09	0.52
16:54:19:ARG:CG	16:54:65:LEU:HD22	2.39	0.52
19:57:127:ARG:HB3	19:57:139:TYR:O	2.08	0.52
22:60:80:ARG:O	22:60:122:HIS:HB2	2.10	0.52
39:77:18:LEU:HD11	41:79:51:ILE:HG22	1.91	0.52
44:82:93:LEU:N	44:82:93:LEU:HD23	2.23	0.52
46:1S:1202:A:H62	46:1S:1457:C:H5''	1.72	0.52
47:S0:113:ARG:C	47:S0:115:PHE:H	2.12	0.52
48:S1:111:ARG:HB3	73:26:68:TYR:CD2	2.44	0.52
52:S5:182:ALA:O	52:S5:193:THR:HG21	2.09	0.52
61:14:39:ILE:O	61:14:40:ALA:HB3	2.10	0.52
61:14:61:MET:HG2	61:14:104:ALA:HB2	1.92	0.52
63:16:44:LEU:HD12	63:16:47:LYS:HG2	1.91	0.52
1:2S:273:A:H2'	1:2S:274:G:C8	2.44	0.52
1:2S:858:A:H2'	1:2S:859:G:O4'	2.08	0.52
1:2S:1488:G:H5''	1:2S:1838:G:O6	2.09	0.52
1:2S:1851:G:H2'	1:2S:1852:G:C8	2.44	0.52
1:2S:1926:C:H4'	1:2S:1927:G:C4	2.43	0.52
1:2S:2115:G:N2	1:2S:2120:A:H1'	2.23	0.52
1:2S:2521:U:C2'	1:2S:2522:G:H5'	2.39	0.52
1:2S:2957:G:H2'	1:2S:2958:A:O4'	2.09	0.52
1:2S:3338:C:H2'	1:2S:3339:A:H8	1.74	0.52
13:50:15:LYS:O	13:50:95:HIS:HE1	1.91	0.52
17:55:165:THR:O	17:55:169:LYS:HG3	2.09	0.52
40:78:56:ILE:HB	40:78:62:ALA:HB2	1.91	0.52
44:82:32:LYS:HG2	44:82:34:SER:H	1.73	0.52
46:1S:370:A:H2'	46:1S:371:G:O4'	2.08	0.52
46:1S:513:U:H2'	46:1S:514:G:C8	2.44	0.52
46:1S:646:C:H2'	46:1S:647:G:H8	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:985:G:H2'	46:1S:986:G:O4'	2.09	0.52
46:1S:1746:A:H2'	46:1S:1747:G:O4'	2.09	0.52
54:S7:15:GLU:O	54:S7:19:GLN:HG2	2.09	0.52
61:14:41:ARG:O	61:14:42:VAL:HG22	2.08	0.52
61:14:58:TYR:O	61:14:62:LEU:HG	2.09	0.52
69:22:68:ARG:HG2	69:22:68:ARG:NH1	2.23	0.52
75:28:8:THR:HG22	75:28:9:LEU:N	2.24	0.52
1:2S:929:A:H2'	1:2S:930:U:C6	2.45	0.52
1:2S:2129:U:H2'	1:2S:2130:G:H8	1.74	0.52
1:2S:2258:U:H2'	1:2S:2259:A:C8	2.45	0.52
4:L1:198:TRP:O	4:L1:199:GLN:HG2	2.09	0.52
5:L2:199:THR:CG2	5:L2:200:ARG:N	2.73	0.52
6:L3:25:ILE:H	6:L3:25:ILE:CD1	2.17	0.52
10:L7:181:ILE:HG23	10:L7:182:ASP:OD1	2.10	0.52
14:51:171:VAL:HG13	14:51:172:LEU:N	2.24	0.52
17:55:65:ARG:HG3	17:55:129:TYR:CE1	2.44	0.52
18:56:36:VAL:HG11	18:56:108:ILE:HG23	1.91	0.52
27:65:135:ILE:HA	27:65:138:ARG:HB3	1.91	0.52
28:66:68:GLY:CA	28:66:84:LYS:HD2	2.35	0.52
33:71:25:PHE:HA	33:71:28:ARG:HD2	1.92	0.52
46:1S:25:C:H1'	46:1S:26:A:OP2	2.08	0.52
46:1S:195:G:C2'	46:1S:196:G:H5''	2.38	0.52
46:1S:401:A:O2'	46:1S:402:C:H4'	2.10	0.52
46:1S:1100:G:C4	69:22:75:ILE:HD12	2.44	0.52
49:S2:38:VAL:HG22	49:S2:39:THR:N	2.24	0.52
56:S9:81:VAL:HG22	56:S9:86:LEU:HB3	1.91	0.52
56:S9:126:ARG:O	56:S9:130:THR:HG22	2.09	0.52
58:11:94:ILE:HD12	58:11:94:ILE:N	2.25	0.52
1:2S:21:G:H22	2:8S:138:A:H2	1.58	0.52
1:2S:185:C:H5''	28:66:122:LYS:HE3	1.92	0.52
1:2S:186:U:H3	1:2S:230:U:H3	1.57	0.52
1:2S:352:A:H62	1:2S:366:A:H62	1.56	0.52
1:2S:1049:C:H2'	1:2S:1050:U:O4'	2.10	0.52
1:2S:2591:A:H2'	1:2S:2592:G:O4'	2.08	0.52
1:2S:2631:U:H4'	1:2S:2697:A:C2	2.40	0.52
1:2S:2647:A:H3'	1:2S:2648:G:H5''	1.92	0.52
1:2S:3220:G:H2'	1:2S:3221:C:C6	2.45	0.52
6:L3:299:ASP:O	6:L3:300:ARG:HB2	2.10	0.52
7:L4:32:PRO:HG3	7:L4:244:LEU:CD1	2.39	0.52
7:L4:77:VAL:CG1	7:L4:85:SER:HA	2.40	0.52
8:L5:202:GLY:O	8:L5:206:GLN:HB2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:54:23:ILE:HD12	16:54:28:SER:CB	2.39	0.52
25:63:65:GLY:O	25:63:67:PRO:HD3	2.09	0.52
28:66:70:ILE:N	28:66:70:ILE:HD12	2.24	0.52
40:78:5:ILE:HG23	40:78:10:GLN:NE2	2.25	0.52
46:1S:62:A:H4'	46:1S:269:G:H4'	1.91	0.52
46:1S:417:A:H1'	46:1S:418:G:OP2	2.09	0.52
46:1S:628:G:H2'	46:1S:629:U:C5	2.45	0.52
46:1S:1051:G:H4'	46:1S:1052:U:OP1	2.09	0.52
46:1S:1163:A:H2'	46:1S:1164:G:O4'	2.09	0.52
46:1S:1498:G:H2'	46:1S:1499:G:H5'	1.92	0.52
49:S2:95:ARG:NE	49:S2:95:ARG:HA	2.25	0.52
49:S2:225:LEU:N	49:S2:225:LEU:HD12	2.24	0.52
59:12:42:ALA:HB1	59:12:47:GLU:HB3	1.90	0.52
66:19:40:SER:HB3	66:19:43:ASN:ND2	2.23	0.52
68:21:86:SER:HA	74:27:6:ASP:HB2	1.91	0.52
70:23:60:GLU:HA	70:23:68:ILE:HA	1.92	0.52
71:24:12:VAL:HG22	71:24:23:PHE:HB3	1.91	0.52
71:24:35:VAL:HG13	71:24:36:SER:N	2.17	0.52
73:26:82:ARG:HG3	73:26:83:ILE:N	2.24	0.52
1:2S:860:G:H3'	1:2S:860:G:N3	2.25	0.52
1:2S:992:A:H4'	23:61:58:GLN:NE2	2.23	0.52
1:2S:1046:A:H2'	1:2S:1049:C:C5	2.45	0.52
1:2S:1856:C:H4'	36:74:14:ASN:OD1	2.08	0.52
4:L1:109:ALA:H	4:L1:112:ALA:HB3	1.74	0.52
4:L1:192:SER:HB2	4:L1:196:LYS:NZ	2.25	0.52
5:L2:230:VAL:HG12	5:L2:231:SER:N	2.25	0.52
8:L5:68:THR:HB	8:L5:71:GLY:O	2.08	0.52
14:51:115:LYS:O	14:51:116:TYR:HB2	2.10	0.52
21:59:81:ARG:HB3	21:59:88:ARG:HD2	1.89	0.52
25:63:45:ARG:HG3	25:63:46:LEU:N	2.24	0.52
30:68:47:LYS:HE2	30:68:48:TYR:CD2	2.45	0.52
36:74:45:GLY:H	36:74:80:ARG:HH21	1.58	0.52
37:75:85:THR:O	37:75:89:ARG:HB2	2.10	0.52
44:82:37:ALA:O	44:82:41:ARG:HG3	2.10	0.52
46:1S:315:A:O3'	46:1S:316:A:H4'	2.10	0.52
46:1S:344:A:O2'	46:1S:345:U:H5'	2.09	0.52
46:1S:1015:U:H6	46:1S:1015:U:O5'	1.93	0.52
46:1S:1032:G:O2'	46:1S:1033:C:H5'	2.10	0.52
46:1S:1419:G:H4'	76:29:54:LYS:HE3	1.90	0.52
48:S1:32:ILE:HD12	48:S1:32:ILE:N	2.24	0.52
49:S2:78:ASP:HA	49:S2:104:VAL:HA	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:106:GLU:C	56:S9:111:THR:HG21	2.30	0.52
1:2S:1933:A:H2'	1:2S:1934:G:H5'	1.90	0.52
1:2S:2407:C:H2'	1:2S:2408:U:H6	1.74	0.52
1:2S:2770:G:H5'	44:82:80:ARG:O	2.10	0.52
1:2S:3062:G:H2'	1:2S:3063:C:C6	2.45	0.52
2:8S:70:G:H5''	28:66:28:ARG:CZ	2.39	0.52
3:5S:33:U:H2'	3:5S:34:C:C6	2.45	0.52
9:L6:133:GLU:O	9:L6:136:GLU:HB2	2.09	0.52
10:L7:136:TYR:CZ	10:L7:231:ASN:HB2	2.44	0.52
15:53:6:ASN:O	15:53:7:LEU:HD23	2.10	0.52
18:56:188:SER:O	18:56:192:LYS:HG2	2.09	0.52
44:82:40:LYS:HA	44:82:43:TYR:CB	2.40	0.52
46:1S:189:C:C2'	46:1S:190:C:H5''	2.39	0.52
46:1S:194:U:O2'	46:1S:195:G:H4'	2.10	0.52
46:1S:1076:A:H5'	73:26:13:LYS:HD3	1.91	0.52
46:1S:1135:U:H2'	46:1S:1136:U:C6	2.44	0.52
46:1S:1738:U:H2'	46:1S:1739:C:C6	2.44	0.52
48:S1:142:PHE:HB2	48:S1:208:GLN:HG3	1.92	0.52
50:S3:108:LYS:HA	50:S3:111:ASN:HB2	1.91	0.52
57:10:50:THR:HG21	57:10:57:THR:OG1	2.10	0.52
61:14:105:LEU:HD12	61:14:106:ALA:N	2.25	0.52
66:19:142:GLU:C	66:19:144:GLU:H	2.12	0.52
1:2S:39:A:H5''	30:68:35:ALA:HB1	1.92	0.52
1:2S:274:G:H2'	1:2S:275:U:C6	2.44	0.52
1:2S:685:G:H5''	15:53:39:ARG:HH12	1.74	0.52
1:2S:818:C:H4'	39:77:10:LYS:HB2	1.91	0.52
1:2S:943:U:OP2	30:68:15:VAL:HA	2.10	0.52
1:2S:1714:A:H2	1:2S:1727:G:H21	1.56	0.52
1:2S:1953:G:N1	1:2S:2094:C:C6	2.69	0.52
1:2S:2476:C:H2'	1:2S:2477:G:C4'	2.29	0.52
1:2S:3208:G:H5''	1:2S:3210:A:C8	2.45	0.52
4:L1:62:ASN:HD22	4:L1:151:VAL:CG2	2.22	0.52
4:L1:93:LEU:HD11	4:L1:118:LYS:HB2	1.92	0.52
6:L3:62:ARG:HB3	6:L3:65:SER:HB2	1.90	0.52
6:L3:77:THR:CG2	6:L3:327:CYS:HA	2.40	0.52
7:L4:285:ASP:O	7:L4:288:ARG:HG2	2.09	0.52
10:L7:81:HIS:HB2	10:L7:138:TYR:CD1	2.45	0.52
15:53:103:ASN:ND2	15:53:109:PHE:HD2	2.07	0.52
18:56:157:GLU:O	18:56:161:LYS:HG3	2.09	0.52
24:62:93:ILE:HG21	24:62:105:LEU:HD23	1.90	0.52
28:66:68:GLY:HA3	28:66:82:VAL:HG11	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:71:12:TYR:CD2	33:71:75:ILE:HD12	2.44	0.52
33:71:29:ALA:O	33:71:33:VAL:HG23	2.10	0.52
37:75:86:ARG:O	37:75:90:ARG:HG2	2.10	0.52
38:76:50:LEU:HD22	38:76:54:GLU:HB3	1.91	0.52
39:77:16:HIS:O	39:77:25:ARG:HG2	2.09	0.52
40:78:40:GLN:HG2	40:78:41:THR:H	1.74	0.52
42:80:112:LYS:HB3	42:80:114:LYS:HG2	1.91	0.52
45:83:79:VAL:O	45:83:83:ILE:HG12	2.10	0.52
46:1S:62:A:C6	46:1S:288:A:H5'	2.45	0.52
46:1S:703:G:C2'	46:1S:704:C:H5'	2.40	0.52
46:1S:928:U:H2'	46:1S:945:U:OP2	2.10	0.52
47:S0:199:PRO:HG2	47:S0:200:ASP:OD1	2.09	0.52
54:S7:91:ILE:HG13	54:S7:92:PHE:N	2.25	0.52
54:S7:172:VAL:O	54:S7:176:LEU:HG	2.10	0.52
54:S7:182:VAL:HG12	54:S7:183:PHE:N	2.25	0.52
64:17:45:ARG:O	64:17:49:LYS:HD3	2.10	0.52
66:19:28:LEU:HD13	66:19:29:GLU:N	2.25	0.52
79:RA:211:ILE:HG22	79:RA:212:ALA:N	2.25	0.52
1:2S:30:G:H2'	1:2S:31:C:C6	2.45	0.52
1:2S:772:U:H2'	1:2S:773:G:C8	2.45	0.52
1:2S:1065:A:H1'	31:69:28:LYS:HE3	1.91	0.52
1:2S:1261:G:H3'	1:2S:1261:G:N3	2.25	0.52
1:2S:1323:G:O3'	22:60:2:ALA:HA	2.10	0.52
1:2S:1523:U:H5'	27:65:113:LEU:CB	2.38	0.52
1:2S:1615:C:H2'	1:2S:1616:U:C6	2.45	0.52
1:2S:1907:C:H2'	1:2S:1908:A:O4'	2.10	0.52
6:L3:111:SER:H	6:L3:114:VAL:CG2	2.23	0.52
7:L4:205:PRO:HB3	7:L4:247:PHE:CD2	2.44	0.52
9:L6:155:LEU:O	9:L6:159:LEU:HG	2.09	0.52
11:L8:195:SER:O	11:L8:196:ALA:HB3	2.10	0.52
14:51:53:THR:HG23	14:51:60:ARG:HA	1.92	0.52
18:56:34:VAL:HG12	18:56:103:LYS:CB	2.38	0.52
22:60:137:ARG:O	22:60:141:LYS:HD3	2.10	0.52
41:79:6:SER:OG	41:79:9:ILE:HG12	2.10	0.52
44:82:40:LYS:HA	44:82:43:TYR:HB2	1.92	0.52
46:1S:710:U:C2'	46:1S:711:U:H5'	2.39	0.52
46:1S:1504:G:OP1	66:19:97:SER:HB2	2.10	0.52
46:1S:1682:U:O2'	46:1S:1683:C:H5'	2.09	0.52
47:S0:20:ALA:CB	47:S0:172:LEU:HD22	2.40	0.52
47:S0:184:LEU:O	47:S0:185:ARG:HB2	2.09	0.52
53:S6:10:ASN:HD22	53:S6:128:THR:HB	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:15:111:MET:HG2	65:18:119:ILE:HG13	1.91	0.52
69:22:103:ILE:CG2	69:22:127:GLY:H	2.23	0.52
70:23:19:ARG:HA	70:23:22:ASN:HB2	1.91	0.52
71:24:91:LEU:HD22	71:24:96:LEU:HB2	1.91	0.52
79:RA:170:ILE:HB	79:RA:202:LEU:HD12	1.92	0.52
1:2S:46:U:H2'	1:2S:47:C:O4'	2.10	0.52
1:2S:1920:U:H2'	1:2S:1930:A:N6	2.25	0.52
1:2S:2192:C:H2'	1:2S:2193:U:H6	1.74	0.52
1:2S:3007:U:OP1	18:56:73:PHE:HA	2.08	0.52
1:2S:3370:A:C5'	6:L3:384:LYS:HB2	2.39	0.52
3:5S:115:G:H2'	3:5S:116:C:C6	2.45	0.52
5:L2:96:LEU:HD23	45:83:83:ILE:HG23	1.91	0.52
8:L5:64:ILE:HD11	8:L5:105:ILE:HG21	1.91	0.52
12:L9:5:GLN:HE22	12:L9:58:HIS:CD2	2.28	0.52
14:51:115:LYS:HB2	14:51:115:LYS:NZ	2.25	0.52
15:53:6:ASN:HB2	30:68:48:TYR:CD2	2.44	0.52
15:53:93:ILE:HG22	15:53:93:ILE:O	2.10	0.52
16:54:13:ARG:HB3	16:54:65:LEU:HD13	1.92	0.52
19:57:48:LEU:O	19:57:52:LEU:HD13	2.10	0.52
19:57:168:LEU:HD12	19:57:168:LEU:N	2.25	0.52
22:60:123:ILE:O	23:61:153:PRO:HG3	2.10	0.52
25:63:26:ALA:O	25:63:115:THR:HG22	2.10	0.52
42:80:95:VAL:O	42:80:122:ARG:HG2	2.10	0.52
46:1S:766:U:H5'	46:1S:767:U:H5''	1.92	0.52
46:1S:918:U:H2'	46:1S:919:A:C8	2.44	0.52
46:1S:1769:U:H4'	61:14:137:LEU:HA	1.92	0.52
47:S0:127:ARG:NH2	47:S0:152:PRO:HD3	2.24	0.52
50:S3:65:ARG:O	50:S3:69:LEU:HG	2.10	0.52
55:S8:184:LEU:HB3	55:S8:189:LEU:HD13	1.92	0.52
60:13:47:PRO:HG2	60:13:72:MET:SD	2.49	0.52
70:23:13:ARG:O	70:23:17:VAL:HG23	2.09	0.52
72:25:54:VAL:N	72:25:55:PRO:HD2	2.25	0.52
79:RA:13:LEU:HD22	79:RA:45:TRP:CE3	2.45	0.52
1:2S:309:U:H3	1:2S:2780:A:H61	1.56	0.52
1:2S:370:U:O2'	1:2S:404:G:H5'	2.10	0.52
1:2S:705:A:N6	30:68:74:ASN:HD21	2.08	0.52
1:2S:736:A:H2'	1:2S:737:G:O4'	2.10	0.52
1:2S:984:G:H22	31:69:13:THR:HB	1.74	0.52
1:2S:1015:U:H1'	1:2S:1017:C:OP2	2.10	0.52
1:2S:1345:G:H21	7:L4:307:GLN:HE22	1.56	0.52
1:2S:1915:A:H2'	1:2S:1916:U:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2660:G:H2'	1:2S:2661:G:C8	2.45	0.52
8:L5:294:ALA:HB1	13:50:217:PHE:HB3	1.91	0.52
13:50:36:LEU:CD1	13:50:87:LEU:HD22	2.39	0.52
13:50:59:GLN:HG3	13:50:128:ARG:HA	1.92	0.52
25:63:19:VAL:CG2	25:63:50:PRO:HD2	2.39	0.52
38:76:68:ARG:O	38:76:72:VAL:HG23	2.10	0.52
46:1S:175:G:N2	46:1S:176:C:C5	2.78	0.52
46:1S:730:G:H3'	46:1S:730:G:N3	2.24	0.52
46:1S:1715:G:H2'	46:1S:1716:C:C5'	2.39	0.52
46:1S:1773:C:H2'	46:1S:1774:G:C8	2.45	0.52
47:S0:109:ASN:OD1	47:S0:111:ILE:HB	2.10	0.52
49:S2:144:TRP:CE2	49:S2:173:PRO:HG3	2.45	0.52
60:13:150:VAL:CG1	60:13:151:ASN:H	2.18	0.52
64:17:17:ILE:O	64:17:21:TYR:HB2	2.10	0.52
64:17:85:VAL:HG12	64:17:88:VAL:HG22	1.91	0.52
70:23:76:LEU:HD13	70:23:79:ASN:CB	2.39	0.52
70:23:98:GLU:O	70:23:99:ASN:HB2	2.10	0.52
1:2S:155:G:HO2'	1:2S:266:A:H2	1.57	0.51
1:2S:158:G:H2'	1:2S:159:A:H8	1.74	0.51
1:2S:341:G:H4'	1:2S:344:A:H1'	1.90	0.51
1:2S:406:G:H1'	2:8S:16:G:N2	2.24	0.51
1:2S:759:U:H2'	1:2S:760:G:H5'	1.91	0.51
1:2S:802:C:H41	30:68:25:HIS:HB3	1.75	0.51
1:2S:1132:C:H2'	1:2S:1133:A:H8	1.74	0.51
1:2S:2434:U:H5	1:2S:2594:C:OP2	1.94	0.51
1:2S:2736:A:H2'	1:2S:2737:C:O4'	2.10	0.51
1:2S:2860:U:H5''	1:2S:2939:G:H5''	1.92	0.51
3:5S:16:U:H2'	3:5S:17:A:H8	1.75	0.51
4:L1:24:LYS:HG2	4:L1:27:ASN:HB2	1.92	0.51
7:L4:31:ARG:O	7:L4:35:VAL:HG23	2.10	0.51
7:L4:235:LEU:HA	7:L4:238:LEU:HG	1.91	0.51
7:L4:286:VAL:HA	7:L4:289:ILE:HD12	1.92	0.51
9:L6:3:ALA:CB	34:72:75:LEU:HB3	2.40	0.51
10:L7:143:THR:O	10:L7:147:LEU:HG	2.10	0.51
12:L9:11:GLU:HG2	12:L9:12:VAL:N	2.25	0.51
22:60:137:ARG:C	22:60:141:LYS:HD3	2.31	0.51
23:61:66:ASN:HB3	23:61:73:GLY:HA3	1.92	0.51
23:61:126:VAL:HG23	23:61:127:GLN:H	1.75	0.51
24:62:13:LYS:HB2	24:62:67:SER:HB3	1.92	0.51
46:1S:8:U:H3	46:1S:1139:A:H62	1.58	0.51
46:1S:567:A:H1'	77:30:14:VAL:HG23	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1036:A:H2'	46:1S:1037:C:C6	2.45	0.51
46:1S:1668:G:H2'	46:1S:1669:U:C6	2.45	0.51
47:S0:45:VAL:HG12	47:S0:46:HIS:N	2.25	0.51
61:14:64:ALA:CB	61:14:104:ALA:HB3	2.39	0.51
73:26:82:ARG:O	73:26:84:VAL:HG12	2.10	0.51
79:RA:78:ALA:O	79:RA:93:ASP:HA	2.10	0.51
1:2S:156:G:OP2	38:76:25:LYS:HB3	2.09	0.51
1:2S:169:U:H1'	1:2S:170:G:OP1	2.10	0.51
1:2S:584:G:H4'	35:73:46:GLY:HA3	1.91	0.51
1:2S:637:C:H2'	1:2S:638:C:H6	1.72	0.51
1:2S:788:C:H2'	1:2S:789:A:H8	1.75	0.51
1:2S:1130:A:H8	1:2S:1130:A:O5'	1.92	0.51
1:2S:1781:C:H6	1:2S:1781:C:O5'	1.93	0.51
1:2S:1870:C:H2'	1:2S:1871:U:H6	1.75	0.51
1:2S:2248:C:H2'	1:2S:2273:G:C8	2.45	0.51
1:2S:2553:U:H3'	5:L2:87:PHE:HE2	1.75	0.51
1:2S:2652:U:C5	1:2S:2759:U:H2'	2.46	0.51
1:2S:2738:A:H5''	31:69:38:LYS:CE	2.34	0.51
5:L2:225:ILE:HD13	5:L2:237:LEU:H	1.70	0.51
7:L4:30:ILE:H	20:58:25:TYR:HE2	1.58	0.51
7:L4:140:HIS:HB3	7:L4:142:VAL:HG22	1.92	0.51
7:L4:356:THR:HA	7:L4:359:LEU:HD12	1.92	0.51
10:L7:92:ILE:HD11	20:58:4:ASP:CB	2.35	0.51
18:56:85:ARG:HD3	18:56:90:HIS:CD2	2.45	0.51
23:61:11:THR:HB	23:61:15:PHE:CB	2.41	0.51
30:68:129:PHE:O	30:68:130:VAL:HG13	2.11	0.51
45:83:20:SER:HA	45:83:23:ARG:NE	2.24	0.51
46:1S:629:U:H5''	60:13:127:ARG:NH1	2.26	0.51
46:1S:888:U:H2'	46:1S:889:U:C6	2.46	0.51
46:1S:929:A:C4'	61:14:124:ASP:HB2	2.41	0.51
48:S1:199:ASN:O	48:S1:202:LYS:HG2	2.10	0.51
50:S3:211:PRO:O	50:S3:212:LYS:HB2	2.11	0.51
55:S8:24:LYS:O	55:S8:25:ARG:HD3	2.10	0.51
61:14:112:ILE:HB	73:26:57:SER:OG	2.11	0.51
1:2S:1112:A:O2'	1:2S:1370:G:H4'	2.10	0.51
1:2S:1798:A:H2'	1:2S:1799:A:C8	2.45	0.51
1:2S:2656:A:C4'	44:82:98:LYS:HD2	2.34	0.51
1:2S:3007:U:H5''	18:56:72:HIS:O	2.10	0.51
4:L1:147:LYS:O	4:L1:152:ARG:HB2	2.09	0.51
9:L6:54:TYR:CD2	9:L6:55:LEU:N	2.78	0.51
9:L6:68:PRO:HG2	9:L6:146:ILE:HD11	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:231:ASN:OD1	10:L7:233:GLU:HG3	2.10	0.51
11:L8:74:THR:HG23	11:L8:75:ILE:H	1.76	0.51
17:55:186:GLY:O	17:55:190:THR:HG22	2.10	0.51
22:60:110:MET:O	22:60:114:HIS:HB2	2.09	0.51
24:62:37:LEU:O	24:62:41:ILE:HG13	2.10	0.51
25:63:85:TRP:HE1	25:63:87:ARG:HE	1.58	0.51
33:71:73:LEU:CB	33:71:95:PRO:HA	2.38	0.51
46:1S:559:C:H4'	77:30:60:PRO:HG3	1.93	0.51
46:1S:1733:C:H2'	46:1S:1734:U:C6	2.45	0.51
48:S1:109:LYS:O	48:S1:113:MET:HG3	2.10	0.51
51:S4:71:LYS:HD3	51:S4:74:GLY:CA	2.35	0.51
51:S4:94:ALA:CB	71:24:17:LEU:HG	2.39	0.51
69:22:37:PHE:CZ	69:22:103:ILE:HG21	2.44	0.51
69:22:55:ASP:C	69:22:57:ARG:H	2.13	0.51
71:24:125:LEU:HD12	71:24:128:LYS:HG3	1.92	0.51
75:28:45:LYS:O	75:28:45:LYS:HG3	2.10	0.51
77:30:42:ARG:HB3	77:30:42:ARG:HH11	1.76	0.51
1:2S:156:G:O2'	1:2S:157:A:H4'	2.11	0.51
1:2S:180:C:H2'	1:2S:181:U:C6	2.45	0.51
1:2S:1717:U:H2'	1:2S:1718:G:H8	1.75	0.51
2:8S:35:C:H2'	2:8S:36:G:C8	2.45	0.51
6:L3:123:TYR:H	6:L3:123:TYR:HD2	1.58	0.51
7:L4:181:VAL:HG12	7:L4:182:LEU:H	1.75	0.51
8:L5:260:PHE:HB3	8:L5:264:GLN:HG3	1.92	0.51
10:L7:160:ARG:HD2	10:L7:203:TRP:NE1	2.25	0.51
11:L8:143:ILE:CG2	11:L8:169:LEU:HD22	2.40	0.51
12:L9:20:ILE:HG12	12:L9:25:VAL:HG13	1.91	0.51
15:53:59:ARG:HD3	15:53:66:ASN:O	2.11	0.51
16:54:16:GLU:HB3	22:60:149:LYS:HG2	1.92	0.51
22:60:99:ARG:O	22:60:103:VAL:HG23	2.10	0.51
28:66:79:ALA:HB1	28:66:98:ASN:HB3	1.92	0.51
29:67:134:LEU:HD12	29:67:136:PHE:CD1	2.46	0.51
30:68:36:GLY:O	30:68:41:HIS:HB2	2.10	0.51
39:77:47:TYR:HB3	39:77:49:TRP:CE2	2.46	0.51
43:81:16:LYS:O	43:81:20:VAL:HG23	2.10	0.51
47:S0:129:ASP:O	47:S0:133:ILE:HD13	2.09	0.51
49:S2:41:LEU:O	49:S2:45:VAL:HG23	2.11	0.51
51:S4:159:THR:CG2	51:S4:173:ILE:HB	2.41	0.51
56:S9:126:ARG:HG3	77:30:33:ARG:CD	2.41	0.51
60:13:39:LYS:HE2	60:13:39:LYS:O	2.11	0.51
79:RA:17:ASN:HB3	79:RA:39:ASP:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:327:A:H2'	1:2S:328:U:O4'	2.11	0.51
1:2S:346:C:OP1	2:8S:26:U:H4'	2.10	0.51
1:2S:374:A:H1'	1:2S:376:G:H5''	1.93	0.51
1:2S:724:U:H1'	31:69:29:TYR:HE1	1.75	0.51
1:2S:916:G:H2'	1:2S:924:G:C8	2.45	0.51
1:2S:1512:U:H2'	1:2S:1513:G:O4'	2.11	0.51
1:2S:1894:U:H2'	1:2S:1895:A:H5''	1.91	0.51
1:2S:2578:U:H2'	1:2S:2579:G:C8	2.44	0.51
1:2S:3343:G:H2'	1:2S:3361:G:H22	1.76	0.51
2:8S:133:G:H4'	27:65:55:ASN:ND2	2.25	0.51
3:5S:45:A:H2'	3:5S:46:A:O4'	2.11	0.51
6:L3:77:THR:HG23	6:L3:327:CYS:HA	1.93	0.51
6:L3:224:HIS:HB2	6:L3:270:ARG:NH2	2.25	0.51
11:L8:143:ILE:HG21	11:L8:169:LEU:HD22	1.92	0.51
12:L9:48:VAL:HG13	12:L9:49:ASN:N	2.26	0.51
15:53:76:THR:HG22	15:53:98:ASP:O	2.11	0.51
18:56:24:ALA:HB2	18:56:87:MET:HE1	1.92	0.51
19:57:65:SER:H	19:57:67:ILE:CD1	2.24	0.51
21:59:15:VAL:HG12	21:59:52:LYS:NZ	2.25	0.51
21:59:118:HIS:O	21:59:122:VAL:HG23	2.10	0.51
22:60:12:ARG:CZ	22:60:15:PRO:HG2	2.41	0.51
34:72:105:ARG:O	34:72:109:LEU:HG	2.11	0.51
36:74:41:ARG:HA	36:74:56:THR:HG21	1.91	0.51
37:75:95:PHE:O	37:75:99:GLN:HG2	2.10	0.51
45:83:28:LYS:HG2	45:83:32:GLN:HE21	1.76	0.51
46:1S:709:C:N4	46:1S:730:G:H2'	2.25	0.51
46:1S:856:A:N6	54:S7:96:ARG:HD3	2.25	0.51
52:S5:23:VAL:HG11	63:16:58:ASP:HB3	1.92	0.51
52:S5:156:ARG:HH11	52:S5:156:ARG:CB	2.14	0.51
53:S6:19:ASP:O	53:S6:23:ARG:HB2	2.11	0.51
53:S6:158:ILE:HG23	53:S6:158:ILE:O	2.10	0.51
56:S9:10:LYS:HE3	56:S9:12:TYR:O	2.10	0.51
58:11:69:LYS:N	58:11:69:LYS:HD2	2.26	0.51
59:12:24:ILE:O	59:12:25:GLU:HB2	2.10	0.51
59:12:58:LEU:HA	59:12:85:LYS:HE3	1.92	0.51
1:2S:688:G:H2'	1:2S:690:A:C8	2.45	0.51
1:2S:782:U:H2'	1:2S:783:A:O4'	2.11	0.51
1:2S:1114:U:H2'	1:2S:1115:G:C8	2.46	0.51
1:2S:1297:C:H2'	1:2S:1298:C:C6	2.45	0.51
1:2S:1386:A:H2	7:L4:141:ARG:HG3	1.73	0.51
1:2S:1430:U:H2'	30:68:9:ARG:NH2	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1626:U:H2'	1:2S:1627:U:H6	1.76	0.51
1:2S:2402:A:OP2	7:L4:70:ALA:HB2	2.10	0.51
1:2S:2474:G:H2'	1:2S:2475:G:C8	2.45	0.51
1:2S:2874:G:N7	1:2S:2945:G:H2'	2.25	0.51
4:L1:13:VAL:CG2	4:L1:14:LYS:H	2.17	0.51
11:L8:84:ARG:H	11:L8:84:ARG:NE	2.08	0.51
13:50:206:LEU:HD12	13:50:209:ASN:HB3	1.92	0.51
20:58:66:ARG:HH12	20:58:143:PRO:HD3	1.75	0.51
21:59:68:GLN:O	21:59:72:GLU:HG3	2.10	0.51
25:63:114:ILE:HD12	25:63:133:SER:HA	1.93	0.51
45:83:13:LYS:HE3	45:83:14:TYR:OH	2.10	0.51
46:1S:3:U:C5	56:S9:16:LYS:HD3	2.45	0.51
50:S3:119:ALA:O	50:S3:123:VAL:HG23	2.10	0.51
51:S4:139:VAL:CG2	51:S4:147:ILE:HB	2.40	0.51
56:S9:77:ILE:O	56:S9:81:VAL:HG23	2.10	0.51
59:12:66:VAL:HG12	59:12:67:THR:H	1.74	0.51
61:14:69:ALA:O	61:14:73:GLU:HG2	2.11	0.51
70:23:82:LYS:HD3	70:23:82:LYS:H	1.74	0.51
1:2S:1354:G:O6	1:2S:1358:C:H5'	2.10	0.51
1:2S:1421:G:H2'	1:2S:1422:G:C8	2.45	0.51
3:5S:6:C:H5	8:L5:22:ARG:HH12	1.57	0.51
6:L3:41:VAL:CG1	6:L3:183:LEU:HD23	2.41	0.51
18:56:7:VAL:HG23	18:56:31:GLN:NE2	2.25	0.51
18:56:12:LYS:HG2	18:56:40:GLU:HB3	1.92	0.51
20:58:130:ARG:C	20:58:132:PRO:HD3	2.31	0.51
22:60:26:ARG:HG2	22:60:27:MET:N	2.25	0.51
22:60:89:ASN:ND2	23:61:156:TYR:HB3	2.24	0.51
22:60:155:ARG:HG3	22:60:155:ARG:O	2.10	0.51
25:63:103:ALA:HA	25:63:108:GLU:O	2.10	0.51
29:67:101:PHE:O	29:67:102:GLU:HB3	2.10	0.51
38:76:79:SER:HB3	38:76:81:THR:HG22	1.92	0.51
46:1S:445:A:H1'	46:1S:525:A:H5'	1.92	0.51
46:1S:784:C:H2'	46:1S:785:U:C6	2.45	0.51
46:1S:1161:C:H2'	46:1S:1162:C:C6	2.46	0.51
46:1S:1293:U:H2'	46:1S:1294:G:C8	2.46	0.51
47:S0:170:ILE:HD12	47:S0:170:ILE:N	2.18	0.51
48:S1:169:SER:HA	48:S1:172:LEU:HD12	1.92	0.51
51:S4:6:LYS:HD2	51:S4:6:LYS:N	2.26	0.51
52:S5:37:GLN:HB3	63:16:53:LEU:HD22	1.92	0.51
54:S7:114:ARG:NH1	54:S7:114:ARG:HB2	2.26	0.51
60:13:99:ARG:NH2	60:13:102:LEU:HD12	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:15:31:GLU:O	62:15:35:LYS:HD3	2.09	0.51
79:RA:205:SER:HB3	79:RA:245:PHE:CZ	2.45	0.51
1:2S:353:G:N7	39:77:55:ARG:HD2	2.25	0.51
1:2S:715:A:OP2	30:68:113:LEU:HB3	2.10	0.51
1:2S:771:A:H2'	1:2S:772:U:O4'	2.11	0.51
1:2S:814:U:O5'	1:2S:814:U:H6	1.94	0.51
1:2S:1107:C:H2'	1:2S:1108:U:H6	1.76	0.51
1:2S:1141:C:H2'	1:2S:1142:G:O4'	2.10	0.51
1:2S:1564:U:H2'	1:2S:1565:G:C8	2.43	0.51
1:2S:2946:A:C5'	1:2S:2947:G:H5'	2.41	0.51
4:L1:72:PHE:HD2	4:L1:76:ARG:HB3	1.76	0.51
5:L2:65:ASP:OD1	5:L2:68:LYS:HB3	2.11	0.51
5:L2:96:LEU:CD2	45:83:83:ILE:HG23	2.41	0.51
6:L3:41:VAL:HG13	6:L3:183:LEU:HD23	1.91	0.51
6:L3:56:ILE:HD13	6:L3:76:VAL:CG2	2.36	0.51
6:L3:347:SER:O	6:L3:348:ARG:HB3	2.11	0.51
17:55:115:VAL:HG22	17:55:134:LEU:HD23	1.93	0.51
22:60:93:GLU:OE1	22:60:135:VAL:HG13	2.11	0.51
28:66:72:SER:O	28:66:80:VAL:HG23	2.11	0.51
46:1S:487:G:H1	46:1S:500:C:N4	1.96	0.51
46:1S:1262:U:H2'	46:1S:1263:G:C8	2.45	0.51
46:1S:1322:A:H2'	46:1S:1323:C:C6	2.46	0.51
46:1S:1532:U:H2'	46:1S:1533:C:C6	2.46	0.51
48:S1:218:LEU:HD13	48:S1:218:LEU:N	2.23	0.51
49:S2:116:LYS:HD3	49:S2:131:ILE:CD1	2.39	0.51
49:S2:137:ILE:CG1	49:S2:138:PRO:HD2	2.41	0.51
51:S4:49:ARG:HG2	51:S4:50:ASN:ND2	2.25	0.51
52:S5:59:VAL:O	52:S5:60:ASP:HB2	2.10	0.51
58:11:149:ALA:O	58:11:152:GLN:HG3	2.09	0.51
70:23:24:TRP:CH2	70:23:33:LEU:HD13	2.46	0.51
70:23:62:LYS:HD3	70:23:116:ASP:C	2.31	0.51
1:2S:15:C:O2'	1:2S:16:A:H5'	2.11	0.51
1:2S:155:G:H21	38:76:26:ILE:HG22	1.76	0.51
1:2S:374:A:HO2'	1:2S:376:G:H8	1.59	0.51
1:2S:973:A:H2'	1:2S:974:G:O4'	2.11	0.51
1:2S:1126:G:H3'	1:2S:1127:G:C8	2.44	0.51
1:2S:1422:G:H2'	1:2S:1423:C:C6	2.46	0.51
1:2S:1423:C:H4'	9:L6:5:LYS:HD2	1.93	0.51
1:2S:1634:G:N7	29:67:17:ARG:NH2	2.59	0.51
1:2S:1651:U:H5''	5:L2:71:LEU:HD22	1.92	0.51
1:2S:1814:A:H4'	1:2S:1815:U:H5'	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2466:G:C2'	1:2S:2467:G:H5'	2.37	0.51
1:2S:2768:U:H2'	1:2S:2769:A:C8	2.46	0.51
3:5S:65:G:H2'	3:5S:66:A:C8	2.46	0.51
7:L4:179:LEU:HD23	7:L4:183:LYS:HG3	1.93	0.51
12:L9:48:VAL:HG13	12:L9:49:ASN:ND2	2.26	0.51
13:50:206:LEU:HA	13:50:209:ASN:HB3	1.91	0.51
17:55:96:ARG:HG2	17:55:96:ARG:NH1	2.26	0.51
19:57:125:GLN:O	19:57:140:GLU:HA	2.10	0.51
22:60:74:ASN:HB2	22:60:129:ILE:HB	1.93	0.51
24:62:92:TRP:O	24:62:107:PHE:HA	2.11	0.51
32:70:24:THR:CG2	32:70:91:SER:HB3	2.38	0.51
33:71:25:PHE:HB3	33:71:65:LYS:HD3	1.93	0.51
46:1S:249:U:H3'	46:1S:250:C:C5'	2.40	0.51
46:1S:332:U:H2'	46:1S:334:G:OP2	2.10	0.51
46:1S:340:U:H2'	46:1S:341:A:C8	2.46	0.51
46:1S:1173:C:OP2	65:18:141:THR:HB	2.11	0.51
47:S0:74:VAL:HB	47:S0:121:VAL:CG2	2.41	0.51
52:S5:106:LYS:HD3	52:S5:109:LYS:HZ2	1.75	0.51
54:S7:149:ILE:HG23	54:S7:180:GLN:HB3	1.93	0.51
60:13:92:ILE:O	60:13:96:VAL:HG23	2.10	0.51
61:14:132:ARG:O	73:26:28:LYS:HG3	2.11	0.51
63:16:39:VAL:HG12	63:16:40:GLU:N	2.25	0.51
66:19:18:TYR:HB2	66:19:135:ILE:HD13	1.93	0.51
68:21:1:MET:O	68:21:8:LEU:HD22	2.11	0.51
69:22:103:ILE:HG23	69:22:126:LEU:HB2	1.92	0.51
73:26:36:ILE:O	73:26:72:HIS:HA	2.11	0.51
1:2S:138:U:H2'	1:2S:139:G:H8	1.76	0.51
1:2S:340:C:C6	7:L4:195:ARG:NH2	2.79	0.51
1:2S:340:C:H2'	1:2S:341:G:O4'	2.11	0.51
1:2S:823:C:H6	1:2S:823:C:O5'	1.94	0.51
1:2S:1075:A:N7	31:69:45:HIS:HB3	2.27	0.51
1:2S:1121:U:H2'	1:2S:1122:U:C6	2.46	0.51
1:2S:1478:C:O2'	1:2S:1479:U:H5'	2.11	0.51
1:2S:2743:A:H2'	1:2S:2744:U:C6	2.46	0.51
1:2S:3334:U:O4'	1:2S:3370:A:N1	2.44	0.51
7:L4:39:PHE:HE1	7:L4:236:LEU:HA	1.76	0.51
12:L9:41:ILE:CG2	12:L9:42:ASP:N	2.74	0.51
12:L9:189:GLU:HG3	12:L9:190:ASP:N	2.23	0.51
16:54:116:GLU:O	16:54:120:VAL:HG23	2.11	0.51
28:66:56:VAL:HG23	28:66:106:ILE:HA	1.93	0.51
36:74:80:ARG:HB3	36:74:84:CYS:HB2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:82:11:TYR:CE1	44:82:13:LYS:HB3	2.46	0.51
46:1S:20:G:H5'	46:1S:571:G:C8	2.46	0.51
46:1S:67:A:H61	46:1S:83:G:H1'	1.76	0.51
46:1S:88:U:H4'	46:1S:171:A:H4'	1.93	0.51
46:1S:332:U:H5	55:S8:175:GLN:HE22	1.59	0.51
46:1S:474:A:O2'	56:S9:37:LYS:HE2	2.10	0.51
46:1S:1151:A:H2'	46:1S:1152:A:C8	2.46	0.51
48:S1:145:LYS:CD	48:S1:149:GLN:HG2	2.40	0.51
49:S2:126:ARG:O	49:S2:130:ILE:HD13	2.10	0.51
52:S5:23:VAL:O	52:S5:23:VAL:HG13	2.11	0.51
56:S9:109:LEU:HD12	56:S9:146:PHE:CB	2.41	0.51
57:10:33:GLU:O	57:10:34:GLU:HB2	2.11	0.51
60:13:75:LEU:HG	60:13:80:LEU:HB2	1.93	0.51
65:18:28:ILE:O	65:18:28:ILE:HD13	2.11	0.51
66:19:18:TYR:CD1	66:19:135:ILE:HG21	2.46	0.51
66:19:28:LEU:HG	66:19:55:TYR:CE1	2.45	0.51
67:20:52:LYS:HB3	67:20:93:LEU:HD23	1.93	0.51
69:22:36:LYS:O	69:22:40:VAL:HG23	2.11	0.51
70:23:29:TYR:O	70:23:33:LEU:HB2	2.10	0.51
79:RA:91:LEU:HG	79:RA:100:TYR:HB2	1.94	0.51
1:2S:537:A:H2'	1:2S:538:G:O4'	2.11	0.50
1:2S:627:U:H2'	1:2S:628:A:C8	2.44	0.50
1:2S:1221:A:H3'	1:2S:1222:G:C5'	2.37	0.50
1:2S:1427:U:OP2	30:68:2:PRO:HB3	2.11	0.50
1:2S:2416:U:H2'	1:2S:2417:U:C6	2.46	0.50
1:2S:2807:U:H4'	1:2S:2809:C:OP1	2.12	0.50
2:8S:3:A:O3'	19:57:61:ARG:HD3	2.10	0.50
4:L1:62:ASN:ND2	4:L1:64:SER:HB2	2.27	0.50
5:L2:107:VAL:HG21	5:L2:111:THR:HG21	1.92	0.50
7:L4:32:PRO:HG3	7:L4:244:LEU:HD11	1.92	0.50
7:L4:35:VAL:HG13	7:L4:121:ALA:HB1	1.92	0.50
10:L7:77:VAL:HG23	23:61:139:ARG:H	1.75	0.50
21:59:65:ALA:O	21:59:69:SER:HB3	2.10	0.50
28:66:27:ARG:NH1	28:66:76:LEU:HA	2.26	0.50
46:1S:340:U:H2'	46:1S:341:A:H8	1.75	0.50
46:1S:1010:C:H2'	46:1S:1011:G:O4'	2.11	0.50
46:1S:1037:C:H2'	46:1S:1038:U:C6	2.46	0.50
46:1S:1609:U:H2'	46:1S:1610:G:O4'	2.11	0.50
48:S1:184:LEU:O	48:S1:188:LEU:HG	2.11	0.50
50:S3:42:THR:HB	50:S3:43:PRO:HD2	1.92	0.50
50:S3:168:ILE:HG22	50:S3:189:MET:HA	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:S5:187:ILE:H	52:S5:187:ILE:CD1	2.23	0.50
56:S9:49:LEU:HA	56:S9:52:ILE:HD12	1.92	0.50
61:14:87:GLY:CA	61:14:92:LYS:HB3	2.40	0.50
65:18:30:TYR:HE2	65:18:40:ARG:HG2	1.75	0.50
69:22:80:ASN:HA	69:22:123:GLY:O	2.11	0.50
73:26:36:ILE:CG2	73:26:73:TYR:HB2	2.40	0.50
79:RA:218:GLY:O	79:RA:236:ALA:HB3	2.11	0.50
1:2S:660:A:H4'	7:L4:100:PHE:CE2	2.46	0.50
1:2S:990:U:H4'	23:61:100:LYS:HE2	1.93	0.50
1:2S:1738:C:O2'	36:74:52:GLN:HB2	2.12	0.50
1:2S:2043:U:H2'	1:2S:2044:U:O4'	2.12	0.50
1:2S:2538:U:O2'	1:2S:2539:C:H5'	2.11	0.50
1:2S:2931:C:H5''	25:63:40:LYS:CD	2.40	0.50
1:2S:3321:C:H2'	1:2S:3322:A:C8	2.47	0.50
2:8S:19:C:H2'	2:8S:20:U:O4'	2.11	0.50
2:8S:77:A:H2'	2:8S:78:G:O4'	2.11	0.50
5:L2:230:VAL:HG12	5:L2:231:SER:H	1.75	0.50
6:L3:235:THR:HG22	6:L3:236:LYS:H	1.77	0.50
7:L4:354:VAL:O	7:L4:358:THR:HG23	2.11	0.50
8:L5:258:LYS:O	8:L5:259:LYS:HB3	2.12	0.50
11:L8:105:LYS:HE3	11:L8:108:ARG:HH22	1.76	0.50
12:L9:180:TYR:HB2	42:80:85:LEU:CD1	2.39	0.50
17:55:121:VAL:CG1	17:55:131:GLU:HB2	2.40	0.50
21:59:97:ARG:O	21:59:101:VAL:HG23	2.11	0.50
24:62:21:SER:HB2	24:62:22:PRO:HD3	1.92	0.50
24:62:84:LEU:CD2	24:62:89:LEU:HB2	2.38	0.50
25:63:104:ASN:OD1	25:63:108:GLU:HB2	2.10	0.50
33:71:50:ARG:HD2	33:71:50:ARG:N	2.27	0.50
36:74:44:CYS:C	36:74:46:ASP:H	2.15	0.50
46:1S:93:A:O2'	51:S4:4:GLY:HA3	2.11	0.50
46:1S:449:C:H2'	46:1S:450:U:C6	2.47	0.50
46:1S:705:U:H2'	46:1S:706:A:C8	2.46	0.50
46:1S:813:U:H5'	60:13:76:LYS:HD3	1.93	0.50
47:S0:188:LEU:HD21	47:S0:195:TRP:CZ2	2.46	0.50
50:S3:116:ARG:O	50:S3:120:TYR:HD2	1.93	0.50
51:S4:86:PHE:O	51:S4:87:MET:HB2	2.11	0.50
52:S5:116:HIS:O	52:S5:120:ILE:HG13	2.11	0.50
55:S8:107:THR:OG1	55:S8:108:PRO:HD3	2.11	0.50
56:S9:125:ALA:O	56:S9:129:ILE:HG13	2.10	0.50
63:16:40:GLU:CA	63:16:42:GLU:N	2.65	0.50
66:19:37:VAL:HG22	66:19:38:LYS:H	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:21:5:LYS:H	68:21:5:LYS:HD3	1.76	0.50
70:23:51:GLY:HA2	70:23:77:ILE:HG13	1.94	0.50
79:RA:123:ILE:O	79:RA:123:ILE:HG13	2.11	0.50
1:2S:1448:U:H2'	1:2S:1449:A:H8	1.77	0.50
1:2S:1630:U:H5''	29:67:67:LYS:HE3	1.93	0.50
1:2S:1915:A:H5'	21:59:82:LYS:O	2.11	0.50
1:2S:1951:C:H5	1:2S:2095:G:C6	2.30	0.50
1:2S:2251:G:C3'	1:2S:2252:A:H5''	2.41	0.50
1:2S:2793:G:H5''	44:82:66:LYS:HG2	1.94	0.50
1:2S:3269:U:OP2	9:L6:46:ARG:HG2	2.10	0.50
1:2S:3282:U:O5'	1:2S:3282:U:H6	1.94	0.50
1:2S:3362:A:H2'	1:2S:3363:U:O4'	2.12	0.50
2:8S:71:A:N6	2:8S:87:G:H1'	2.26	0.50
5:L2:136:ILE:HD12	5:L2:136:ILE:N	2.26	0.50
6:L3:39:LYS:HE2	6:L3:39:LYS:HA	1.93	0.50
6:L3:43:LEU:HD12	6:L3:43:LEU:N	2.27	0.50
6:L3:336:VAL:HG12	6:L3:337:THR:H	1.75	0.50
9:L6:54:TYR:HD2	9:L6:55:LEU:N	2.09	0.50
11:L8:158:ASP:CB	11:L8:159:PRO:HD3	2.40	0.50
12:L9:3:TYR:HD2	12:L9:65:VAL:HG21	1.76	0.50
23:61:80:VAL:HG11	23:61:85:LEU:HD11	1.92	0.50
35:73:52:VAL:HG13	35:73:66:VAL:HG22	1.94	0.50
46:1S:1473:U:H5''	52:S5:190:ILE:CG1	2.41	0.50
46:1S:1542:G:C2	46:1S:1568:C:H1'	2.47	0.50
50:S3:133:GLY:HA3	50:S3:156:PHE:O	2.11	0.50
57:10:13:GLN:HA	57:10:80:LEU:HD11	1.92	0.50
63:16:77:GLN:O	63:16:81:ILE:HG23	2.11	0.50
66:19:126:GLU:HG2	66:19:127:ASN:H	1.76	0.50
72:25:38:HIS:O	72:25:39:ALA:HB3	2.11	0.50
1:2S:31:C:OP2	17:55:188:ARG:NH2	2.45	0.50
1:2S:728:G:H5''	20:58:43:PRO:HB2	1.93	0.50
1:2S:911:C:H3'	5:L2:9:ARG:NH1	2.18	0.50
1:2S:1494:U:OP1	41:79:44:TRP:HB3	2.10	0.50
1:2S:1678:G:H2'	1:2S:1679:A:C8	2.47	0.50
1:2S:3353:G:H2'	1:2S:3356:G:H4'	1.92	0.50
2:8S:82:U:H4'	2:8S:87:G:C5'	2.40	0.50
4:L1:192:SER:HB2	4:L1:196:LYS:HD2	1.94	0.50
6:L3:86:VAL:HB	6:L3:198:HIS:O	2.11	0.50
7:L4:62:ALA:CB	7:L4:77:VAL:HA	2.41	0.50
7:L4:320:ASN:HB3	7:L4:323:VAL:CG1	2.39	0.50
8:L5:10:SER:O	8:L5:14:SER:HB2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:155:LYS:HG2	10:L7:158:LYS:O	2.11	0.50
11:L8:49:TYR:CD1	11:L8:49:TYR:N	2.79	0.50
13:50:61:SER:HB2	13:50:63:GLU:OE2	2.12	0.50
18:56:65:ASN:HB3	18:56:68:ARG:HG2	1.94	0.50
34:72:18:LYS:HA	34:72:30:GLU:O	2.11	0.50
39:77:18:LEU:HA	39:77:25:ARG:CA	2.41	0.50
45:83:27:LYS:O	45:83:31:ILE:HG13	2.12	0.50
46:1S:448:C:H2'	46:1S:449:C:C6	2.46	0.50
46:1S:925:G:H2'	46:1S:926:A:O4'	2.12	0.50
46:1S:1094:G:H2'	46:1S:1095:U:C6	2.46	0.50
51:S4:31:PRO:CG	51:S4:43:PRO:HG3	2.38	0.50
52:S5:150:GLY:HA2	52:S5:155:ALA:HB2	1.94	0.50
52:S5:162:VAL:HG21	52:S5:166:ARG:HH11	1.77	0.50
56:S9:29:LYS:HA	77:30:40:TYR:HE2	1.77	0.50
57:10:49:LEU:O	57:10:53:GLY:O	2.29	0.50
61:14:106:ALA:CB	73:26:52:ASP:HB3	2.40	0.50
75:28:10:ALA:HA	75:28:32:PHE:HA	1.93	0.50
1:2S:500:C:H2'	1:2S:501:A:C8	2.46	0.50
1:2S:606:C:H5''	9:L6:24:ALA:HB2	1.93	0.50
1:2S:684:G:H2'	1:2S:685:G:C8	2.47	0.50
1:2S:819:U:H2'	1:2S:820:A:H5'	1.93	0.50
1:2S:1072:G:H2'	1:2S:1073:U:C6	2.46	0.50
1:2S:1602:A:H5''	21:59:38:ARG:HG3	1.93	0.50
1:2S:1631:C:H3'	29:67:48:ARG:HH22	1.76	0.50
1:2S:2333:C:H2'	1:2S:2334:U:C6	2.47	0.50
1:2S:2635:A:H8	1:2S:2635:A:OP1	1.94	0.50
1:2S:3138:U:H3'	1:2S:3139:A:H5''	1.92	0.50
1:2S:3217:C:O2	1:2S:3217:C:H2'	2.12	0.50
2:8S:154:C:H5''	11:L8:181:LYS:CE	2.33	0.50
5:L2:138:GLY:O	5:L2:146:THR:HG23	2.11	0.50
7:L4:203:ARG:CG	7:L4:246:ARG:HH21	2.21	0.50
8:L5:38:THR:HG22	23:61:30:TYR:CB	2.42	0.50
19:57:15:ALA:O	19:57:149:VAL:HA	2.11	0.50
24:62:55:THR:O	24:62:65:VAL:HG13	2.10	0.50
25:63:126:TRP:HB2	25:63:129:VAL:CG2	2.41	0.50
30:68:74:ASN:C	30:68:76:ASP:H	2.15	0.50
36:74:100:ILE:HD12	36:74:100:ILE:N	2.26	0.50
46:1S:1131:A:H2'	46:1S:1132:A:O4'	2.11	0.50
50:S3:51:ARG:HH21	50:S3:91:VAL:HG23	1.75	0.50
51:S4:185:GLY:HA2	51:S4:189:LEU:HD22	1.93	0.50
59:12:52:LEU:HD21	59:12:60:VAL:HG21	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:12:113:ARG:NH1	59:12:114:LYS:HB3	2.27	0.50
61:14:31:THR:HB	61:14:37:GLU:O	2.11	0.50
63:16:73:GLY:H	63:16:76:SER:HB3	1.77	0.50
65:18:41:ARG:NE	66:19:46:PRO:HD3	2.27	0.50
65:18:102:ALA:O	65:18:105:VAL:HG12	2.11	0.50
74:27:61:THR:HG23	74:27:62:ILE:N	2.16	0.50
76:29:22:ARG:CG	76:29:38:ILE:HD11	2.42	0.50
79:RA:160:GLU:OE2	79:RA:207:ASP:HA	2.11	0.50
79:RA:162:ALA:O	79:RA:163:ASP:HB2	2.11	0.50
1:2S:406:G:H4'	2:8S:17:A:H61	1.76	0.50
1:2S:571:U:H2'	1:2S:572:A:H8	1.75	0.50
1:2S:683:U:H5''	17:55:200:TRP:CE2	2.46	0.50
1:2S:769:G:C2'	1:2S:770:G:H5'	2.41	0.50
1:2S:2448:G:H2'	1:2S:2449:A:O4'	2.12	0.50
1:2S:2836:C:C2'	1:2S:2837:A:H5'	2.42	0.50
1:2S:2963:C:H2'	1:2S:2964:G:C8	2.47	0.50
8:L5:52:VAL:HG13	8:L5:54:ARG:NH1	2.26	0.50
10:L7:239:LEU:O	10:L7:243:MET:HG3	2.11	0.50
12:L9:41:ILE:CG2	12:L9:42:ASP:H	2.25	0.50
13:50:197:VAL:HG22	13:50:198:LYS:N	2.26	0.50
15:53:31:LYS:HB3	15:53:35:ARG:HE	1.76	0.50
15:53:56:PRO:HG3	15:53:74:GLY:C	2.32	0.50
15:53:93:ILE:HD12	15:53:125:VAL:HG21	1.92	0.50
15:53:106:GLN:HB3	38:76:18:THR:CG2	2.42	0.50
15:53:173:ALA:HB1	38:76:10:GLY:HA2	1.93	0.50
18:56:141:LEU:O	18:56:145:VAL:HG13	2.12	0.50
22:60:71:LYS:HD3	22:60:73:LYS:HG2	1.92	0.50
23:61:38:ASP:O	23:61:64:VAL:HG23	2.12	0.50
29:67:26:VAL:HG12	29:67:89:VAL:CG2	2.41	0.50
38:76:51:SER:O	38:76:55:ARG:HG3	2.10	0.50
46:1S:1677:C:H2'	46:1S:1678:A:O4'	2.12	0.50
46:1S:1737:G:H2'	46:1S:1738:U:C6	2.47	0.50
51:S4:187:ARG:HA	51:S4:187:ARG:NE	2.25	0.50
51:S4:193:GLY:O	51:S4:210:ILE:HG22	2.10	0.50
52:S5:117:THR:HG21	52:S5:194:LEU:HD12	1.93	0.50
52:S5:122:ASN:HD22	52:S5:129:PRO:HD3	1.75	0.50
70:23:16:ARG:NE	70:23:20:ARG:HH12	2.08	0.50
70:23:29:TYR:CE1	70:23:33:LEU:HD12	2.47	0.50
72:25:41:ILE:HG23	72:25:42:LEU:N	2.26	0.50
73:26:10:ARG:CB	73:26:34:LYS:HA	2.39	0.50
1:2S:257:U:H2'	1:2S:258:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:801:A:H5'	1:2S:803:C:OP1	2.12	0.50
1:2S:1878:G:N2	1:2S:1879:A:H2'	2.27	0.50
1:2S:2617:U:H5	1:2S:2621:G:OP2	1.95	0.50
5:L2:174:ARG:NH1	5:L2:175:VAL:HG13	2.27	0.50
8:L5:226:TYR:HB3	8:L5:231:ILE:HB	1.93	0.50
16:54:19:ARG:HG2	16:54:65:LEU:HD22	1.94	0.50
18:56:88:VAL:HG12	18:56:90:HIS:N	2.27	0.50
20:58:173:GLU:HG2	30:68:52:TYR:CA	2.42	0.50
21:59:45:VAL:HG13	21:59:50:ILE:O	2.12	0.50
29:67:9:LYS:HG3	29:67:10:VAL:N	2.27	0.50
29:67:121:ARG:NH1	29:67:126:LYS:HE3	2.26	0.50
36:74:91:ARG:O	36:74:95:ILE:HD13	2.12	0.50
39:77:18:LEU:CD2	39:77:25:ARG:HB2	2.34	0.50
46:1S:155:U:H4'	53:S6:59:GLN:CA	2.40	0.50
46:1S:562:G:H2'	46:1S:563:U:C6	2.46	0.50
48:S1:66:VAL:CG1	61:14:33:LEU:HD13	2.42	0.50
51:S4:15:PRO:HD2	51:S4:18:TRP:CZ3	2.46	0.50
54:S7:73:VAL:HG12	54:S7:77:LEU:HB2	1.94	0.50
57:10:77:ARG:HD3	57:10:84:GLU:HA	1.93	0.50
58:11:122:ILE:H	58:11:122:ILE:HD12	1.76	0.50
63:16:78:VAL:O	63:16:81:ILE:HG12	2.11	0.50
71:24:7:ILE:HG12	71:24:27:VAL:HG22	1.93	0.50
75:28:11:LYS:HB2	75:28:33:LEU:HD21	1.94	0.50
1:2S:404:G:H2'	1:2S:405:U:C6	2.47	0.50
1:2S:855:U:H5''	21:59:95:TRP:CD2	2.47	0.50
1:2S:947:G:H2'	1:2S:948:C:C6	2.47	0.50
1:2S:1887:A:C2'	1:2S:1888:U:H5'	2.42	0.50
3:5S:79:A:H62	3:5S:101:G:H21	1.59	0.50
3:5S:93:C:OP2	3:5S:93:C:H6	1.95	0.50
4:L1:92:LYS:CB	4:L1:95:LYS:HG3	2.40	0.50
7:L4:191:LYS:HA	7:L4:194:TYR:HE1	1.77	0.50
11:L8:169:LEU:O	11:L8:173:MET:HG2	2.11	0.50
14:51:92:ARG:CD	14:51:94:ARG:HG2	2.41	0.50
15:53:15:ARG:HG2	15:53:15:ARG:NH1	2.27	0.50
15:53:50:PRO:HB3	37:75:118:ILE:HD11	1.94	0.50
18:56:129:LEU:HD11	18:56:133:ARG:HB2	1.94	0.50
21:59:74:ARG:O	21:59:75:HIS:HB2	2.09	0.50
25:63:126:TRP:HB2	25:63:129:VAL:CB	2.39	0.50
46:1S:642:G:H2'	46:1S:643:G:H8	1.75	0.50
46:1S:1373:C:H2'	46:1S:1374:C:C6	2.47	0.50
46:1S:1600:A:HO2'	46:1S:1602:C:H5	1.58	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1771:U:H2'	46:1S:1772:C:H6	1.77	0.50
47:S0:27:ARG:HB2	47:S0:27:ARG:HH11	1.77	0.50
47:S0:53:THR:HG23	47:S0:160:ILE:CG2	2.40	0.50
48:S1:140:ILE:HG23	48:S1:140:ILE:O	2.11	0.50
50:S3:40:ARG:HG2	67:20:110:PRO:CB	2.38	0.50
55:S8:22:ARG:HD2	55:S8:25:ARG:CZ	2.42	0.50
59:12:124:LYS:O	59:12:125:ASN:HB2	2.10	0.50
60:13:71:ILE:HD12	60:13:71:ILE:H	1.77	0.50
62:15:61:ARG:CB	62:15:61:ARG:NH1	2.75	0.50
62:15:61:ARG:NH1	62:15:61:ARG:HB2	2.27	0.50
64:17:6:THR:CG2	64:17:9:VAL:HG23	2.42	0.50
1:2S:70:A:H2	1:2S:72:C:H42	1.57	0.50
1:2S:215:G:C5'	28:66:12:ARG:HG3	2.40	0.50
1:2S:1114:U:H2'	1:2S:1115:G:N7	2.27	0.50
1:2S:1951:C:O2	1:2S:1951:C:O4'	2.28	0.50
1:2S:2554:A:H3'	36:74:91:ARG:NH1	2.27	0.50
1:2S:2616:C:H3'	1:2S:2617:U:O2	2.11	0.50
1:2S:2931:C:H4'	25:63:39:VAL:O	2.12	0.50
1:2S:3050:U:H6	1:2S:3050:U:O5'	1.94	0.50
1:2S:3086:A:H3'	1:2S:3087:A:C8	2.47	0.50
1:2S:3215:A:C2	9:L6:157:GLN:HB3	2.46	0.50
5:L2:33:ASP:O	5:L2:37:ARG:HG2	2.12	0.50
13:50:129:VAL:HG12	13:50:130:ASP:H	1.76	0.50
15:53:173:ALA:O	15:53:177:LYS:HB2	2.12	0.50
19:57:22:LEU:HD13	19:57:90:PHE:HD2	1.76	0.50
46:1S:1103:U:H2'	46:1S:1104:U:C6	2.47	0.50
46:1S:1184:A:H2'	46:1S:1185:U:H4'	1.93	0.50
46:1S:1363:U:C3'	46:1S:1364:G:H5'	2.42	0.50
46:1S:1530:C:OP1	72:25:95:HIS:HB3	2.12	0.50
61:14:31:THR:HG22	61:14:38:THR:HA	1.94	0.50
61:14:102:LEU:HD22	61:14:105:LEU:HD21	1.92	0.50
61:14:112:ILE:HG22	61:14:113:GLY:N	2.27	0.50
61:14:128:LYS:HB3	73:26:22:ARG:NH1	2.27	0.50
68:21:87:ARG:HB2	74:27:5:GLN:OE1	2.12	0.50
75:28:28:VAL:CG1	75:28:30:VAL:HG13	2.42	0.50
79:RA:159:ASN:CB	79:RA:163:ASP:H	2.23	0.50
1:2S:170:G:H2'	1:2S:171:G:C8	2.47	0.49
1:2S:313:A:H2'	1:2S:314:U:O4'	2.11	0.49
1:2S:374:A:C4'	1:2S:375:A:H5'	2.32	0.49
1:2S:1286:A:H1'	1:2S:1287:A:C8	2.47	0.49
1:2S:1405:U:H2'	1:2S:1406:A:O4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1446:A:H4'	1:2S:1447:G:H4'	1.94	0.49
1:2S:1792:C:O2'	1:2S:1794:G:H2'	2.12	0.49
1:2S:2585:G:H2'	1:2S:2585:G:N3	2.27	0.49
1:2S:3008:A:H2'	1:2S:3009:G:C8	2.47	0.49
4:L1:56:PRO:HB3	4:L1:187:VAL:HG11	1.94	0.49
6:L3:350:ALA:O	6:L3:351:LEU:CB	2.59	0.49
9:L6:3:ALA:HB3	34:72:75:LEU:HB3	1.94	0.49
10:L7:122:ALA:O	10:L7:126:LEU:HG	2.11	0.49
10:L7:178:ILE:HG23	10:L7:183:ASP:HB2	1.92	0.49
10:L7:235:PHE:HE2	22:60:35:VAL:HG23	1.76	0.49
12:L9:114:VAL:HB	12:L9:124:ARG:HB2	1.94	0.49
13:50:9:TYR:CE2	13:50:97:LEU:HB3	2.47	0.49
20:58:88:THR:HG22	20:58:107:THR:HG21	1.93	0.49
30:68:14:HIS:O	30:68:16:SER:N	2.45	0.49
46:1S:249:U:H3'	46:1S:250:C:H5'	1.92	0.49
46:1S:460:A:H5'	46:1S:461:G:OP2	2.11	0.49
46:1S:966:A:H2'	46:1S:967:A:C8	2.47	0.49
47:S0:174:TRP:HA	47:S0:177:LEU:HD12	1.94	0.49
48:S1:145:LYS:HB3	48:S1:149:GLN:HG2	1.92	0.49
51:S4:86:PHE:HE2	51:S4:102:VAL:HA	1.77	0.49
52:S5:61:TYR:HE1	52:S5:165:LEU:HD13	1.76	0.49
52:S5:163:SER:O	52:S5:167:ARG:HG3	2.11	0.49
55:S8:5:ARG:HB2	55:S8:5:ARG:HH11	1.76	0.49
55:S8:190:ALA:HA	55:S8:193:LEU:HD12	1.93	0.49
56:S9:71:PHE:HD1	56:S9:72:GLU:HG3	1.77	0.49
60:13:22:ALA:CB	60:13:23:PRO:CA	2.63	0.49
69:22:33:VAL:HG13	69:22:110:ILE:HD13	1.92	0.49
73:26:79:ILE:HG12	73:26:84:VAL:HG21	1.93	0.49
79:RA:14:GLU:HB3	79:RA:309:VAL:HG13	1.94	0.49
1:2S:278:U:H2'	1:2S:279:U:C6	2.47	0.49
1:2S:347:G:H2'	1:2S:348:A:C8	2.47	0.49
1:2S:651:G:H2'	1:2S:652:G:H8	1.76	0.49
1:2S:2181:C:H2'	1:2S:2182:A:C8	2.47	0.49
5:L2:250:GLN:HA	5:L2:250:GLN:HE21	1.78	0.49
6:L3:255:TRP:O	6:L3:258:ALA:HB2	2.12	0.49
8:L5:264:GLN:HA	8:L5:264:GLN:HE21	1.75	0.49
13:50:178:ARG:N	13:50:179:PRO:HD2	2.26	0.49
22:60:4:PHE:CE1	22:60:30:PHE:HB3	2.47	0.49
23:61:124:VAL:HG12	23:61:125:ALA:H	1.77	0.49
46:1S:396:G:H22	46:1S:399:A:H5'	1.75	0.49
46:1S:733:A:H2'	46:1S:735:C:OP2	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1603:U:H2'	46:1S:1604:U:C6	2.47	0.49
46:1S:1731:A:H2'	46:1S:1732:A:O4'	2.12	0.49
48:S1:105:PHE:CD1	48:S1:110:LEU:HD11	2.46	0.49
50:S3:72:LEU:CD2	57:10:20:VAL:HG13	2.42	0.49
52:S5:219:ARG:C	52:S5:219:ARG:HD3	2.33	0.49
64:17:5:ARG:O	64:17:10:LYS:HE2	2.12	0.49
69:22:35:ILE:O	69:22:39:GLN:HG3	2.11	0.49
73:26:86:VAL:CG2	73:26:87:ARG:H	2.11	0.49
77:30:53:LYS:O	77:30:54:ARG:HB3	2.12	0.49
1:2S:296:A:C2'	1:2S:297:G:H5'	2.41	0.49
1:2S:664:U:H2'	1:2S:665:A:H8	1.73	0.49
1:2S:996:A:H2'	1:2S:997:A:O4'	2.12	0.49
1:2S:1101:G:H2'	1:2S:1102:A:H8	1.73	0.49
1:2S:1194:G:H2'	1:2S:1195:A:C8	2.47	0.49
1:2S:1341:U:H2'	1:2S:1342:C:C6	2.47	0.49
1:2S:1603:A:H61	27:65:71:THR:HG21	1.75	0.49
1:2S:1750:A:H5'	40:78:28:ASN:ND2	2.22	0.49
10:L7:84:VAL:HG22	10:L7:117:VAL:HB	1.92	0.49
12:L9:58:HIS:CD2	22:60:151:PRO:HD2	2.47	0.49
14:51:32:ARG:O	14:51:36:VAL:HG23	2.13	0.49
15:53:49:ARG:HB3	15:53:50:PRO:HD2	1.93	0.49
15:53:65:TYR:HA	15:53:67:ARG:HH11	1.76	0.49
22:60:4:PHE:HE1	22:60:30:PHE:HB3	1.77	0.49
23:61:11:THR:O	23:61:15:PHE:HB2	2.12	0.49
29:67:54:THR:HG22	29:67:57:HIS:CD2	2.46	0.49
33:71:12:TYR:HD2	33:71:75:ILE:HD12	1.76	0.49
34:72:60:ASN:OD1	34:72:62:LYS:HB2	2.12	0.49
35:73:81:VAL:HG12	35:73:82:ARG:N	2.27	0.49
46:1S:150:U:H2'	46:1S:151:G:C8	2.47	0.49
46:1S:479:C:H5'	56:S9:124:HIS:HB2	1.94	0.49
46:1S:975:C:H2'	46:1S:976:G:O4'	2.12	0.49
46:1S:1039:A:O2'	46:1S:1040:G:H8	1.96	0.49
51:S4:31:PRO:HA	51:S4:81:THR:O	2.12	0.49
1:2S:524:U:O5'	1:2S:524:U:H6	1.94	0.49
1:2S:962:A:O2'	1:2S:963:G:H5'	2.12	0.49
1:2S:1309:U:H5''	1:2S:1311:G:OP2	2.11	0.49
1:2S:1621:A:H2'	1:2S:1622:U:H6	1.76	0.49
1:2S:2534:G:O2'	1:2S:2535:A:H5'	2.13	0.49
1:2S:2778:G:H2'	1:2S:2779:A:H5'	1.91	0.49
7:L4:82:THR:HG23	7:L4:84:ARG:H	1.77	0.49
7:L4:285:ASP:HB2	7:L4:288:ARG:HD3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:L5:65:ILE:HG22	8:L5:66:SER:N	2.27	0.49
10:L7:80:GLN:HB2	23:61:135:PRO:HB2	1.94	0.49
11:L8:180:VAL:HG22	11:L8:181:LYS:H	1.76	0.49
12:L9:124:ARG:HD3	12:L9:164:ILE:CG2	2.42	0.49
28:66:74:TYR:HB2	28:66:79:ALA:O	2.12	0.49
34:72:9:ILE:HG22	34:72:11:LYS:HE2	1.93	0.49
34:72:117:ILE:HG22	34:72:118:LYS:H	1.76	0.49
35:73:42:GLN:HE21	35:73:42:GLN:HA	1.77	0.49
41:79:14:ALA:O	41:79:17:LYS:HB3	2.12	0.49
45:83:64:VAL:HG12	45:83:65:ALA:H	1.77	0.49
46:1S:90:C:O2'	46:1S:451:A:H5''	2.11	0.49
46:1S:396:G:H22	46:1S:399:A:C5'	2.25	0.49
46:1S:1031:U:H3'	46:1S:1032:G:C5'	2.42	0.49
48:S1:126:THR:HG21	48:S1:136:ARG:HE	1.75	0.49
50:S3:72:LEU:HD23	57:10:20:VAL:HG13	1.93	0.49
53:S6:78:THR:CG2	53:S6:79:LYS:H	2.24	0.49
54:S7:35:LYS:HG2	54:S7:36:ALA:H	1.76	0.49
61:14:21:ALA:HB3	61:14:83:ILE:HD11	1.94	0.49
62:15:11:VAL:O	62:15:12:PHE:HB2	2.12	0.49
65:18:2:SER:HB2	65:18:3:LEU:HD13	1.95	0.49
68:21:8:LEU:HD13	68:21:9:VAL:O	2.13	0.49
70:23:27:ASN:O	70:23:31:LYS:HG2	2.12	0.49
72:25:57:TYR:HB3	72:25:60:VAL:CG2	2.43	0.49
73:26:23:CYS:O	73:26:27:SER:HA	2.13	0.49
74:27:81:ARG:O	74:27:82:LYS:HB2	2.13	0.49
1:2S:7:C:H5''	11:L8:193:LYS:HB3	1.94	0.49
1:2S:279:U:H3	1:2S:286:U:H3	1.60	0.49
1:2S:922:U:C5	1:2S:927:C:H5'	2.47	0.49
1:2S:924:G:C3'	1:2S:925:A:H5'	2.42	0.49
1:2S:993:G:H4'	23:61:14:MET:SD	2.52	0.49
1:2S:1624:G:H2'	1:2S:1625:A:H8	1.77	0.49
1:2S:1927:G:H3'	1:2S:1927:G:N3	2.27	0.49
1:2S:2184:U:H4'	5:L2:211:HIS:HE1	1.78	0.49
1:2S:2223:A:H2'	1:2S:2224:A:C8	2.47	0.49
6:L3:27:ALA:HB3	6:L3:218:ILE:O	2.13	0.49
6:L3:82:PRO:HB3	6:L3:319:ASN:ND2	2.27	0.49
7:L4:34:ILE:O	7:L4:38:VAL:HG23	2.11	0.49
14:51:28:ASP:O	14:51:32:ARG:HG3	2.11	0.49
15:53:31:LYS:O	15:53:35:ARG:HB2	2.13	0.49
16:54:76:ALA:HB1	16:54:80:THR:CB	2.41	0.49
17:55:50:ARG:HH11	17:55:50:ARG:CB	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:57:44:ALA:O	19:57:48:LEU:HG	2.11	0.49
25:63:40:LYS:HB2	25:63:57:MET:O	2.13	0.49
29:67:83:THR:HG21	29:67:129:TRP:CH2	2.47	0.49
33:71:7:VAL:HG13	33:71:77:ARG:O	2.11	0.49
34:72:117:ILE:HG22	34:72:118:LYS:N	2.27	0.49
39:77:70:VAL:HG22	39:77:73:ARG:NH2	2.27	0.49
44:82:72:LEU:HD11	44:82:83:LEU:HB2	1.94	0.49
46:1S:545:A:H61	46:1S:593:U:H2'	1.76	0.49
46:1S:1160:A:H2'	46:1S:1161:C:C6	2.48	0.49
50:S3:8:LYS:O	50:S3:12:VAL:HG23	2.12	0.49
51:S4:123:LEU:HA	51:S4:160:VAL:O	2.13	0.49
70:23:83:VAL:HG12	70:23:84:THR:N	2.23	0.49
70:23:96:VAL:HG23	70:23:97:ASP:N	2.26	0.49
71:24:19:ALA:HB1	71:24:77:ASN:HD22	1.76	0.49
79:RA:193:ILE:HG22	79:RA:194:GLY:H	1.76	0.49
1:2S:315:C:H2'	1:2S:316:U:C6	2.48	0.49
1:2S:805:G:H4'	7:L4:73:ARG:O	2.12	0.49
1:2S:1691:U:O5'	1:2S:1691:U:H6	1.96	0.49
1:2S:1828:A:H2'	1:2S:1829:G:C8	2.47	0.49
1:2S:1891:A:H2'	1:2S:1892:G:O4'	2.13	0.49
1:2S:2375:G:H4'	1:2S:2376:G:OP1	2.13	0.49
1:2S:2441:A:H2'	1:2S:2442:G:H5'	1.94	0.49
1:2S:2557:A:H5''	29:67:135:ARG:HH11	1.78	0.49
1:2S:3318:G:H1'	1:2S:3320:A:C8	2.46	0.49
5:L2:82:VAL:HG12	5:L2:86:GLN:HE22	1.76	0.49
8:L5:84:PRO:HB3	8:L5:89:THR:HG22	1.93	0.49
9:L6:65:ILE:HD11	9:L6:77:ARG:HB3	1.95	0.49
18:56:12:LYS:CG	18:56:40:GLU:HB3	2.43	0.49
22:60:166:LYS:CE	22:60:167:ARG:H	2.21	0.49
33:71:13:THR:HA	33:71:71:LEU:O	2.13	0.49
33:71:62:ARG:HG3	33:71:62:ARG:NH1	2.28	0.49
43:81:23:ARG:NH2	43:81:23:ARG:HB3	2.27	0.49
46:1S:64:U:H5''	53:S6:176:GLN:HE22	1.78	0.49
46:1S:808:U:H2'	46:1S:809:A:H8	1.78	0.49
46:1S:883:C:H2'	46:1S:884:A:H8	1.77	0.49
46:1S:982:U:H2'	46:1S:983:A:C8	2.48	0.49
46:1S:1290:U:H2'	46:1S:1291:G:C8	2.47	0.49
46:1S:1436:A:H2'	46:1S:1437:U:O4'	2.12	0.49
46:1S:1714:A:H2'	46:1S:1715:G:H8	1.75	0.49
46:1S:1781:A:H2'	46:1S:1782:A:C8	2.48	0.49
47:S0:103:THR:HG23	47:S0:103:THR:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:S0:184:LEU:HD23	68:21:43:GLY:O	2.12	0.49
48:S1:152:ARG:HG2	48:S1:152:ARG:O	2.12	0.49
49:S2:80:VAL:HA	49:S2:102:VAL:HG22	1.93	0.49
51:S4:122:LYS:O	51:S4:161:LYS:HA	2.13	0.49
55:S8:36:THR:HB	55:S8:57:ALA:O	2.12	0.49
56:S9:36:LEU:HD21	56:S9:108:ARG:NH1	2.27	0.49
59:12:113:ARG:CG	59:12:114:LYS:H	2.26	0.49
61:14:86:THR:HG21	61:14:90:ARG:HG3	1.94	0.49
63:16:7:VAL:HG21	63:16:88:GLY:O	2.12	0.49
67:20:21:LYS:HA	67:20:94:GLU:CG	2.41	0.49
67:20:67:THR:HG22	67:20:68:ARG:N	2.27	0.49
67:20:87:HIS:HB3	67:20:89:ARG:HH12	1.77	0.49
68:21:31:SER:HB2	68:21:55:LEU:O	2.13	0.49
70:23:75:GLN:HA	70:23:82:LYS:HA	1.94	0.49
1:2S:62:A:H2'	1:2S:63:A:O4'	2.12	0.49
1:2S:66:A:H61	1:2S:76:G:H1'	1.77	0.49
1:2S:274:G:H2'	1:2S:275:U:O4'	2.13	0.49
1:2S:663:C:H4'	7:L4:107:ARG:HE	1.77	0.49
1:2S:936:A:H2'	1:2S:938:C:C4	2.47	0.49
1:2S:1706:C:H2'	1:2S:1707:A:O4'	2.13	0.49
1:2S:2341:A:H2'	1:2S:2342:U:H6	1.76	0.49
1:2S:2586:G:C6	11:L8:241:LYS:HB2	2.48	0.49
1:2S:2743:A:H2'	1:2S:2744:U:O4'	2.12	0.49
2:8S:85:G:O6	28:66:112:ASP:HB3	2.12	0.49
6:L3:215:ILE:HG12	6:L3:280:HIS:O	2.13	0.49
7:L4:152:VAL:CG1	7:L4:153:SER:H	2.24	0.49
8:L5:113:LEU:HD23	8:L5:115:LEU:HD23	1.94	0.49
9:L6:47:PHE:HB3	9:L6:50:LYS:HB2	1.94	0.49
12:L9:20:ILE:HG23	12:L9:25:VAL:HG22	1.93	0.49
14:51:166:LYS:C	14:51:168:ASP:H	2.16	0.49
17:55:45:PRO:HA	17:55:48:ALA:HB3	1.94	0.49
18:56:153:VAL:O	18:56:157:GLU:HG2	2.11	0.49
19:57:48:LEU:HD11	19:57:95:LEU:CD1	2.43	0.49
23:61:11:THR:HB	23:61:15:PHE:CG	2.47	0.49
36:74:103:LYS:O	36:74:107:GLU:HG3	2.12	0.49
46:1S:460:A:H3'	46:1S:461:G:C8	2.47	0.49
46:1S:583:C:O2	46:1S:583:C:H2'	2.12	0.49
46:1S:878:G:H2'	46:1S:879:G:H8	1.77	0.49
46:1S:1360:A:H2'	46:1S:1361:U:C4'	2.43	0.49
46:1S:1705:C:H2'	46:1S:1706:C:O4'	2.13	0.49
48:S1:58:SER:O	48:S1:62:LYS:HG3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:139:LYS:HD2	65:18:140:THR:HG23	1.95	0.49
1:2S:34:A:H2'	1:2S:35:A:C8	2.48	0.49
1:2S:294:U:H4'	38:76:77:LEU:CD2	2.42	0.49
1:2S:1504:A:H5''	19:57:23:ARG:CZ	2.42	0.49
1:2S:1806:A:H2'	1:2S:1807:G:O4'	2.13	0.49
1:2S:1808:G:H4'	1:2S:2559:U:O4	2.12	0.49
1:2S:2492:C:O2'	1:2S:2494:A:H8	1.96	0.49
1:2S:2757:U:C1'	23:61:8:ARG:HB2	2.42	0.49
1:2S:2881:C:H6	1:2S:2881:C:O5'	1.95	0.49
1:2S:3182:G:H2'	1:2S:3183:A:C8	2.47	0.49
1:2S:3208:G:H5''	1:2S:3210:A:O4'	2.12	0.49
6:L3:111:SER:H	6:L3:114:VAL:HG21	1.77	0.49
17:55:23:GLN:HG2	17:55:122:ASN:OD1	2.13	0.49
25:63:67:PRO:HG2	46:1S:1659:A:H4'	1.94	0.49
25:63:86:ARG:HB2	25:63:92:PHE:CZ	2.47	0.49
27:65:68:THR:OG1	37:75:36:LEU:HD22	2.13	0.49
29:67:110:ALA:O	29:67:114:VAL:HG23	2.12	0.49
36:74:46:ASP:HB3	36:74:84:CYS:SG	2.53	0.49
40:78:8:ILE:HD12	40:78:8:ILE:N	2.27	0.49
42:80:78:ILE:O	42:80:82:LEU:HB2	2.12	0.49
44:82:70:LEU:HD12	44:82:83:LEU:HB3	1.94	0.49
46:1S:36:C:H2'	46:1S:37:U:H6	1.77	0.49
46:1S:1501:C:OP2	66:19:102:ARG:HD2	2.12	0.49
47:S0:119:ARG:O	47:S0:142:PRO:HD2	2.13	0.49
50:S3:162:GLN:N	50:S3:163:PRO:CD	2.76	0.49
55:S8:9:HIS:O	55:S8:10:LYS:HB3	2.13	0.49
56:S9:94:ASP:O	56:S9:97:LEU:HB2	2.12	0.49
57:10:48:SER:O	57:10:52:LYS:HG2	2.12	0.49
58:11:46:LYS:O	58:11:50:GLU:HG3	2.13	0.49
59:12:23:THR:HG23	59:12:23:THR:O	2.12	0.49
61:14:20:TYR:CB	61:14:27:PHE:HB2	2.42	0.49
63:16:57:LEU:O	63:16:57:LEU:HD23	2.13	0.49
65:18:35:ILE:HG22	65:18:36:LYS:N	2.28	0.49
69:22:64:GLN:HE22	74:27:4:VAL:HG23	1.76	0.49
70:23:104:LEU:HD23	70:23:124:VAL:HA	1.94	0.49
1:2S:30:G:OP2	17:55:188:ARG:HD2	2.12	0.49
1:2S:1019:G:H2'	1:2S:1020:G:C5'	2.37	0.49
1:2S:1408:G:H2'	1:2S:1409:G:C8	2.48	0.49
1:2S:1536:G:H2'	1:2S:1537:A:O4'	2.13	0.49
1:2S:1764:U:H3'	1:2S:1765:U:C5'	2.36	0.49
1:2S:1845:G:O6	1:2S:1849:C:H2'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1951:C:H5	1:2S:2095:G:O6	1.96	0.49
1:2S:2148:U:H5''	5:L2:196:TRP:HZ2	1.77	0.49
1:2S:2189:U:C4'	45:83:22:LEU:HD11	2.42	0.49
1:2S:2467:G:N2	1:2S:2489:C:H42	2.10	0.49
1:2S:2907:G:O2'	1:2S:2908:G:H5'	2.13	0.49
1:2S:3133:C:H2'	1:2S:3134:A:O4'	2.12	0.49
2:8S:122:U:H2'	2:8S:123:G:C8	2.47	0.49
8:L5:204:VAL:O	8:L5:208:MET:HG3	2.13	0.49
17:55:71:ARG:NH2	17:55:73:ARG:HA	2.28	0.49
29:67:136:PHE:HB3	36:74:92:ALA:CB	2.43	0.49
33:71:81:GLU:O	33:71:82:GLU:HB3	2.13	0.49
36:74:86:LYS:HA	36:74:89:ILE:HD12	1.94	0.49
37:75:59:ASN:ND2	37:75:63:ARG:HD2	2.28	0.49
46:1S:405:C:H5''	53:S6:93:LYS:CE	2.42	0.49
46:1S:492:A:H5'	46:1S:493:U:H5	1.78	0.49
47:S0:182:LEU:CB	47:S0:188:LEU:HD23	2.40	0.49
48:S1:172:LEU:O	48:S1:176:VAL:HG23	2.12	0.49
48:S1:205:PHE:CD1	48:S1:206:PRO:HD2	2.47	0.49
49:S2:97:ARG:NH1	49:S2:97:ARG:HB3	2.28	0.49
50:S3:167:PHE:HB3	50:S3:189:MET:SD	2.52	0.49
52:S5:162:VAL:CG2	52:S5:166:ARG:HB3	2.42	0.49
56:S9:65:LYS:HD3	56:S9:70:LEU:HD21	1.94	0.49
59:12:36:LEU:O	59:12:36:LEU:HD23	2.13	0.49
60:13:48:SER:O	60:13:52:VAL:HG23	2.12	0.49
62:15:61:ARG:HG3	62:15:64:LYS:HD3	1.95	0.49
64:17:5:ARG:HD2	64:17:5:ARG:H	1.77	0.49
64:17:24:LEU:CD2	64:17:34:LEU:HD13	2.42	0.49
65:18:6:GLN:O	65:18:7:GLU:HB2	2.13	0.49
65:18:25:ASN:HD22	72:25:40:VAL:CG1	2.24	0.49
66:19:65:ILE:HG12	66:19:71:VAL:HG22	1.94	0.49
68:21:62:ARG:HB3	68:21:64:GLU:HG2	1.94	0.49
1:2S:261:U:H2'	1:2S:262:U:C6	2.48	0.49
1:2S:393:U:H3'	1:2S:394:G:H8	1.78	0.49
1:2S:501:A:C4'	9:L6:28:GLN:HE21	2.22	0.49
1:2S:993:G:H3'	1:2S:994:G:C8	2.48	0.49
1:2S:1567:U:C3'	1:2S:1568:U:H5''	2.42	0.49
1:2S:1609:C:O5'	1:2S:1609:C:H6	1.95	0.49
1:2S:2372:A:H5''	1:2S:2373:A:C5'	2.40	0.49
1:2S:2422:C:H2'	1:2S:2423:U:H6	1.76	0.49
1:2S:2995:A:C2'	1:2S:2996:U:H5''	2.42	0.49
1:2S:3057:U:H5'	1:2S:3086:A:H61	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3099:C:O2'	1:2S:3100:U:H5'	2.13	0.49
1:2S:3283:U:H2'	1:2S:3284:G:C8	2.48	0.49
3:5S:4:U:H2'	3:5S:5:G:H8	1.72	0.49
5:L2:62:VAL:HB	5:L2:73:GLU:HG3	1.95	0.49
7:L4:129:THR:HG22	7:L4:248:VAL:HG21	1.94	0.49
7:L4:187:LEU:HD22	7:L4:198:ARG:HG2	1.95	0.49
7:L4:191:LYS:HA	7:L4:194:TYR:CE1	2.47	0.49
8:L5:201:GLY:HA2	8:L5:203:HIS:CE1	2.47	0.49
9:L6:5:LYS:O	9:L6:6:ALA:HB2	2.12	0.49
11:L8:229:VAL:HA	11:L8:232:HIS:HB2	1.95	0.49
13:50:18:PRO:O	13:50:23:ASN:ND2	2.46	0.49
33:71:35:GLU:O	33:71:39:PHE:HB2	2.12	0.49
33:71:70:ARG:HH21	33:71:70:ARG:HG3	1.76	0.49
45:83:11:THR:C	45:83:13:LYS:H	2.16	0.49
45:83:75:ALA:HA	45:83:78:THR:HG22	1.93	0.49
46:1S:17:C:H2'	46:1S:18:C:H6	1.78	0.49
46:1S:446:A:H5''	51:S4:57:ASN:OD1	2.13	0.49
46:1S:1026:A:H4'	46:1S:1028:C:C5	2.47	0.49
46:1S:1100:G:H2'	69:22:75:ILE:CD1	2.43	0.49
50:S3:170:THR:HA	50:S3:186:VAL:O	2.12	0.49
51:S4:9:LEU:HD23	51:S4:10:LYS:O	2.12	0.49
51:S4:92:LEU:HD23	71:24:17:LEU:HD21	1.94	0.49
51:S4:159:THR:HG22	51:S4:173:ILE:HB	1.95	0.49
52:S5:191:ALA:HB3	72:25:98:GLN:OE1	2.13	0.49
56:S9:109:LEU:O	56:S9:113:VAL:HG23	2.12	0.49
58:11:7:VAL:CG2	58:11:53:TYR:HA	2.43	0.49
62:15:59:LYS:HA	62:15:62:ALA:HB3	1.95	0.49
63:16:41:PRO:HB3	63:16:44:LEU:HD23	1.95	0.49
64:17:46:LEU:HA	64:17:49:LYS:CE	2.43	0.49
71:24:18:LEU:HD22	71:24:85:PHE:CE1	2.47	0.49
78:31:117:LEU:O	78:31:118:ARG:HB2	2.13	0.49
1:2S:269:G:H4'	1:2S:270:U:H6	1.78	0.48
1:2S:1443:G:H2'	1:2S:1444:G:C8	2.48	0.48
1:2S:2138:A:C4	39:77:3:LYS:HB3	2.48	0.48
1:2S:2253:G:H2'	1:2S:2254:U:O4'	2.13	0.48
1:2S:2310:U:H2'	1:2S:2311:G:O4'	2.12	0.48
1:2S:2861:U:H2'	1:2S:2862:U:O4'	2.12	0.48
1:2S:2942:C:OP1	1:2S:2943:G:H5''	2.12	0.48
1:2S:3335:A:C5	1:2S:3371:G:H4'	2.48	0.48
2:8S:69:U:H2'	2:8S:70:G:O4'	2.13	0.48
5:L2:80:GLU:HA	45:83:65:ALA:CB	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L6:54:TYR:HD2	9:L6:55:LEU:H	1.60	0.48
11:L8:128:LYS:HG3	11:L8:129:PRO:CD	2.41	0.48
13:50:55:ASN:OD1	13:50:164:LYS:HE2	2.12	0.48
17:55:140:LYS:HA	17:55:143:ARG:HB2	1.95	0.48
22:60:26:ARG:HH22	22:60:28:ARG:HG2	1.78	0.48
22:60:135:VAL:HG21	22:60:144:LEU:HD11	1.94	0.48
25:63:23:MET:HE1	25:63:100:GLY:HA3	1.95	0.48
35:73:8:TYR:HB2	35:73:100:ILE:O	2.13	0.48
37:75:44:ILE:O	37:75:48:ARG:HG2	2.12	0.48
46:1S:215:A:H1'	46:1S:242:U:C5	2.49	0.48
46:1S:532:U:H2'	46:1S:533:U:H5'	1.95	0.48
46:1S:844:A:H2'	46:1S:845:G:O4'	2.13	0.48
46:1S:986:G:H2'	46:1S:987:G:O4'	2.13	0.48
46:1S:1641:C:H2'	46:1S:1642:G:C8	2.48	0.48
46:1S:1661:U:H2'	46:1S:1662:G:H8	1.77	0.48
46:1S:1717:G:H2'	46:1S:1718:G:C8	2.48	0.48
47:S0:21:ASN:HB3	47:S0:24:LEU:HD13	1.94	0.48
51:S4:137:PRO:HG2	51:S4:150:PRO:HD2	1.94	0.48
52:S5:106:LYS:HD3	52:S5:109:LYS:NZ	2.28	0.48
53:S6:28:PHE:CE1	53:S6:104:PRO:HG3	2.48	0.48
54:S7:138:LYS:HB2	69:22:54:ASP:CB	2.42	0.48
59:12:62:LEU:HD23	59:12:62:LEU:H	1.78	0.48
60:13:96:VAL:HA	60:13:99:ARG:HB2	1.93	0.48
63:16:69:VAL:HG11	63:16:77:GLN:HA	1.94	0.48
66:19:111:ILE:HG23	66:19:113:ILE:HG13	1.95	0.48
66:19:114:VAL:HG22	66:19:115:GLU:H	1.78	0.48
69:22:104:LEU:N	69:22:104:LEU:HD13	2.27	0.48
74:27:20:LYS:HD2	74:27:20:LYS:O	2.13	0.48
74:27:36:LYS:HG2	74:27:43:ILE:CG2	2.43	0.48
1:2S:684:G:H2'	1:2S:685:G:H8	1.78	0.48
1:2S:984:G:H2'	10:L7:101:LYS:HG3	1.95	0.48
1:2S:987:U:H4'	10:L7:121:LYS:HD2	1.94	0.48
1:2S:1294:A:O2'	1:2S:1295:G:H8	1.92	0.48
1:2S:1304:A:H1'	1:2S:2885:C:H1'	1.95	0.48
1:2S:1498:A:H2'	1:2S:1499:C:H6	1.74	0.48
1:2S:1953:G:N2	1:2S:2094:C:C6	2.59	0.48
1:2S:2719:U:H2'	1:2S:2720:G:H8	1.78	0.48
1:2S:3067:C:H5''	21:59:58:HIS:NE2	2.27	0.48
7:L4:194:TYR:HD1	7:L4:194:TYR:H	1.60	0.48
9:L6:47:PHE:HB3	9:L6:50:LYS:CB	2.42	0.48
14:51:54:VAL:O	14:51:55:ARG:HB3	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:54:46:ILE:O	16:54:47:ASP:HB2	2.13	0.48
17:55:88:GLY:HA2	44:82:50:PHE:CZ	2.48	0.48
19:57:168:LEU:HD12	19:57:168:LEU:H	1.78	0.48
28:66:57:LEU:CD2	28:66:67:GLU:HB3	2.42	0.48
30:68:79:TRP:HE1	30:68:118:ILE:HG21	1.78	0.48
36:74:66:SER:HB3	36:74:69:HIS:CE1	2.48	0.48
36:74:76:TYR:HB3	36:74:79:SER:HB2	1.96	0.48
40:78:69:LEU:HG	40:78:70:PRO:HD2	1.95	0.48
46:1S:477:A:H5'	77:30:34:ALA:HB2	1.94	0.48
46:1S:694:U:O2	46:1S:694:U:H2'	2.12	0.48
46:1S:1348:A:H2'	46:1S:1349:G:O4'	2.13	0.48
46:1S:1573:A:P	52:S5:185:ARG:HH22	2.36	0.48
48:S1:183:GLN:HG2	48:S1:187:LYS:HE3	1.95	0.48
51:S4:95:THR:HG22	71:24:16:PRO:HD2	1.95	0.48
51:S4:194:THR:O	51:S4:195:ILE:HB	2.14	0.48
53:S6:57:ASP:HB2	53:S6:106:LEU:HA	1.95	0.48
54:S7:39:ARG:N	54:S7:40:PRO:HD2	2.28	0.48
56:S9:62:ARG:CZ	56:S9:68:LYS:HD3	2.43	0.48
56:S9:153:GLU:HA	56:S9:156:ILE:HG13	1.94	0.48
60:13:40:TYR:HB3	60:13:45:LEU:HG	1.95	0.48
62:15:16:SER:HA	62:15:20:VAL:O	2.12	0.48
63:16:109:PHE:HB3	63:16:117:LEU:HD21	1.95	0.48
73:26:44:ILE:H	73:26:44:ILE:CD1	2.19	0.48
1:2S:889:U:H2'	1:2S:890:C:O4'	2.12	0.48
1:2S:1378:U:H2'	1:2S:1379:G:H8	1.78	0.48
1:2S:1809:A:H2'	1:2S:1810:A:O4'	2.12	0.48
1:2S:1922:A:H2'	1:2S:1923:C:O4'	2.13	0.48
1:2S:2183:A:H2'	1:2S:2184:U:C6	2.49	0.48
1:2S:2691:A:N7	1:2S:2692:A:C5	2.81	0.48
1:2S:3268:A:N3	9:L6:75:PRO:HB3	2.28	0.48
1:2S:3297:U:H4'	19:57:74:LYS:CD	2.43	0.48
3:5S:120:C:H5	8:L5:258:LYS:HD2	1.78	0.48
4:L1:120:VAL:HG23	4:L1:121:PRO:HD3	1.95	0.48
7:L4:192:GLY:HA3	7:L4:197:ARG:NH1	2.28	0.48
12:L9:47:LYS:HA	12:L9:53:ILE:HG12	1.94	0.48
12:L9:55:VAL:HG23	12:L9:55:VAL:O	2.13	0.48
13:50:170:LYS:HA	13:50:177:ASP:HA	1.94	0.48
14:51:37:LEU:HD12	14:51:45:PRO:HG3	1.96	0.48
17:55:76:PRO:O	17:55:77:LYS:HB2	2.13	0.48
28:66:79:ALA:CB	28:66:98:ASN:HB3	2.43	0.48
46:1S:567:A:H62	46:1S:576:G:H21	1.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:840:U:O2'	46:1S:841:U:H5''	2.13	0.48
46:1S:1288:G:H2'	46:1S:1289:U:C6	2.47	0.48
46:1S:1486:G:H8	46:1S:1593:A:H5'	1.78	0.48
47:S0:13:ASP:O	47:S0:17:LEU:HG	2.12	0.48
55:S8:47:ARG:CZ	55:S8:51:GLY:HA2	2.44	0.48
56:S9:81:VAL:CG2	56:S9:86:LEU:HD23	2.43	0.48
59:12:113:ARG:HG2	59:12:113:ARG:HH11	1.79	0.48
62:15:127:ARG:HG2	62:15:127:ARG:HH21	1.78	0.48
64:17:81:LYS:O	64:17:81:LYS:HG2	2.13	0.48
75:28:32:PHE:CE2	75:28:38:ARG:HB3	2.48	0.48
79:RA:83:ALA:HB1	79:RA:110:VAL:HG12	1.96	0.48
1:2S:147:U:H3'	1:2S:148:G:H5'	1.95	0.48
1:2S:591:G:O4'	9:L6:19:LYS:HD2	2.12	0.48
1:2S:636:C:N4	1:2S:2375:G:H1	2.10	0.48
1:2S:649:A:H4'	1:2S:2869:U:C5'	2.43	0.48
1:2S:848:A:H8	1:2S:848:A:O5'	1.97	0.48
1:2S:1235:U:H4'	1:2S:1236:G:C5'	2.42	0.48
1:2S:1236:G:H3'	1:2S:1237:G:C5'	2.43	0.48
1:2S:1323:G:H2'	1:2S:1324:U:C6	2.48	0.48
1:2S:1593:A:H4'	36:74:61:GLN:NE2	2.18	0.48
1:2S:1654:A:C2'	1:2S:1655:G:H5'	2.38	0.48
1:2S:2161:G:H5''	5:L2:227:ARG:HH22	1.78	0.48
1:2S:2308:C:H2'	1:2S:2309:A:C8	2.48	0.48
1:2S:2667:A:C2'	1:2S:2668:U:H5'	2.43	0.48
1:2S:2849:C:H2'	1:2S:2850:G:O4'	2.12	0.48
1:2S:3138:U:C3'	1:2S:3139:A:H5''	2.43	0.48
1:2S:3295:A:H5'	6:L3:119:TYR:HE1	1.78	0.48
4:L1:65:ILE:O	4:L1:65:ILE:HG12	2.13	0.48
4:L1:120:VAL:N	4:L1:121:PRO:CD	2.77	0.48
5:L2:187:HIS:HA	5:L2:190:ARG:NH2	2.28	0.48
6:L3:235:THR:CG2	6:L3:236:LYS:N	2.77	0.48
7:L4:3:ARG:HE	7:L4:22:LEU:HB2	1.78	0.48
7:L4:283:THR:CB	7:L4:289:ILE:HD11	2.40	0.48
13:50:166:ILE:HG22	13:50:167:LEU:N	2.28	0.48
19:57:111:LYS:HB2	19:57:153:LYS:HB2	1.94	0.48
35:73:18:ARG:HB2	35:73:22:VAL:O	2.13	0.48
46:1S:279:G:C8	46:1S:280:U:H4'	2.45	0.48
46:1S:332:U:H5	55:S8:175:GLN:NE2	2.11	0.48
46:1S:567:A:H5''	77:30:10:ARG:HB3	1.95	0.48
46:1S:598:U:H2'	46:1S:599:A:C8	2.48	0.48
46:1S:603:U:H2'	46:1S:604:A:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1388:A:H4'	46:1S:1389:C:O4'	2.13	0.48
46:1S:1493:A:H4'	46:1S:1494:C:C6	2.48	0.48
46:1S:1543:A:H1'	46:1S:1569:A:C2	2.49	0.48
46:1S:1722:A:H2'	46:1S:1723:U:O4'	2.13	0.48
53:S6:189:HIS:CE1	53:S6:193:LEU:HD11	2.48	0.48
61:14:32:ASP:OD2	61:14:37:GLU:HB3	2.14	0.48
63:16:45:ARG:O	63:16:48:VAL:HG12	2.12	0.48
70:23:24:TRP:HA	70:23:24:TRP:CE3	2.47	0.48
79:RA:299:GLN:HE21	79:RA:315:VAL:HB	1.78	0.48
1:2S:147:U:H5'	11:L8:136:LEU:HG	1.96	0.48
1:2S:235:A:H2'	1:2S:236:G:O4'	2.14	0.48
1:2S:424:G:H21	34:72:24:ARG:HH21	1.60	0.48
1:2S:842:G:H2'	1:2S:843:A:H8	1.77	0.48
1:2S:1807:G:H2'	1:2S:1808:G:O4'	2.14	0.48
1:2S:1919:G:H21	1:2S:1933:A:H62	1.61	0.48
1:2S:1977:C:H2'	1:2S:1978:A:C8	2.49	0.48
1:2S:2038:C:H2'	1:2S:2039:C:O4'	2.13	0.48
1:2S:2129:U:H2'	1:2S:2130:G:C8	2.49	0.48
1:2S:2695:A:O2'	1:2S:2696:A:H5''	2.13	0.48
1:2S:3157:U:C4'	1:2S:3158:G:H8	2.26	0.48
5:L2:20:THR:OG1	5:L2:23:ARG:HD2	2.14	0.48
5:L2:74:GLU:HB3	5:L2:76:PHE:CE1	2.48	0.48
10:L7:82:LYS:HG2	10:L7:191:VAL:HG21	1.96	0.48
13:50:52:LEU:HB3	13:50:136:PHE:H	1.79	0.48
17:55:15:GLN:HG3	38:76:51:SER:HB2	1.96	0.48
21:59:101:VAL:HG11	21:59:135:LYS:HD3	1.94	0.48
25:63:80:ARG:NH1	25:63:117:PRO:O	2.47	0.48
34:72:25:TYR:HB2	34:72:28:VAL:HG23	1.95	0.48
39:77:24:ARG:HG2	39:77:24:ARG:HH11	1.78	0.48
46:1S:531:C:H2'	46:1S:532:U:H5''	1.96	0.48
46:1S:772:G:H5''	51:S4:23:LEU:CD2	2.43	0.48
46:1S:946:U:H2'	46:1S:947:U:C6	2.49	0.48
47:S0:32:HIS:CE1	68:21:87:ARG:HH12	2.31	0.48
47:S0:187:ALA:O	47:S0:188:LEU:HD22	2.14	0.48
53:S6:85:ARG:HH12	53:S6:87:ARG:HD3	1.77	0.48
53:S6:153:VAL:O	53:S6:155:ASP:N	2.47	0.48
54:S7:76:LYS:HA	54:S7:79:ARG:HD2	1.96	0.48
66:19:21:PHE:CD1	66:19:24:ARG:HD2	2.34	0.48
70:23:73:ARG:NE	70:23:84:THR:HG23	2.29	0.48
72:25:82:HIS:O	72:25:85:LYS:HE3	2.14	0.48
73:26:26:CYS:O	73:26:27:SER:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:288:C:H2'	1:2S:289:A:H8	1.75	0.48
1:2S:358:G:H2'	1:2S:360:G:OP2	2.13	0.48
1:2S:421:G:H3'	1:2S:421:G:N3	2.29	0.48
1:2S:648:C:C6	1:2S:2397:A:H5''	2.48	0.48
1:2S:1342:C:H5''	20:58:12:ARG:HG2	1.96	0.48
1:2S:1370:G:H5''	30:68:18:GLY:HA2	1.96	0.48
1:2S:1499:C:H2'	1:2S:1500:G:C8	2.48	0.48
1:2S:1813:A:C3'	1:2S:1814:A:H5''	2.43	0.48
1:2S:2271:A:H2'	1:2S:2272:G:H4'	1.95	0.48
1:2S:2427:U:H2'	1:2S:2428:U:C6	2.49	0.48
1:2S:2768:U:H2'	1:2S:2769:A:H8	1.77	0.48
1:2S:3345:G:C2'	1:2S:3346:U:H5'	2.44	0.48
4:L1:13:VAL:HG13	4:L1:15:GLU:H	1.77	0.48
4:L1:17:LEU:H	4:L1:17:LEU:CD2	2.13	0.48
4:L1:41:TYR:HB2	4:L1:203:SER:HB3	1.95	0.48
5:L2:196:TRP:CD1	5:L2:197:PRO:HA	2.48	0.48
6:L3:58:ARG:HB2	6:L3:355:SER:O	2.13	0.48
10:L7:152:GLY:O	10:L7:162:PRO:HA	2.14	0.48
11:L8:229:VAL:O	11:L8:229:VAL:HG12	2.14	0.48
17:55:10:LEU:HD12	17:55:11:GLN:OE1	2.14	0.48
17:55:75:VAL:HB	17:55:79:ALA:O	2.12	0.48
18:56:84:LEU:O	18:56:88:VAL:HG23	2.14	0.48
23:61:51:GLY:O	23:61:91:LEU:HB3	2.14	0.48
33:71:34:LYS:HA	33:71:37:LYS:CD	2.43	0.48
38:76:54:GLU:HB3	38:76:90:MET:HE3	1.96	0.48
41:79:21:ARG:HH22	41:79:24:PRO:HG3	1.79	0.48
45:83:36:ARG:HA	45:83:47:VAL:O	2.14	0.48
46:1S:279:G:H3'	46:1S:280:U:C5'	2.44	0.48
46:1S:801:G:H2'	46:1S:802:G:O4'	2.13	0.48
46:1S:822:U:C3'	46:1S:823:G:H5''	2.41	0.48
46:1S:1319:A:H2'	46:1S:1320:U:O4'	2.14	0.48
46:1S:1472:C:H2'	46:1S:1535:U:O4	2.12	0.48
46:1S:1525:A:H2'	46:1S:1526:A:O4'	2.13	0.48
47:S0:127:ARG:HG3	47:S0:127:ARG:HH11	1.78	0.48
50:S3:138:VAL:HB	50:S3:150:MET:HB2	1.95	0.48
52:S5:129:PRO:O	52:S5:133:VAL:HG23	2.14	0.48
60:13:23:PRO:O	60:13:24:ALA:CB	2.61	0.48
62:15:18:ARG:HB2	62:15:36:LEU:CD1	2.38	0.48
64:17:14:LYS:NZ	64:17:14:LYS:HB3	2.29	0.48
73:26:44:ILE:HG13	73:26:67:THR:HG23	1.95	0.48
74:27:31:TYR:HE2	74:27:33:LEU:HD23	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:977:C:O2'	1:2S:978:G:H5'	2.14	0.48
1:2S:1027:A:H2'	1:2S:1029:G:C8	2.48	0.48
1:2S:1051:U:H2'	1:2S:1052:U:O4'	2.13	0.48
1:2S:1345:G:N2	7:L4:307:GLN:NE2	2.58	0.48
1:2S:1718:G:H2'	1:2S:1719:G:C8	2.49	0.48
1:2S:1948:G:H2'	1:2S:1949:G:C8	2.48	0.48
1:2S:2137:U:C5'	1:2S:2138:A:H5''	2.39	0.48
1:2S:2189:U:C5'	45:83:22:LEU:HD11	2.44	0.48
5:L2:80:GLU:HA	45:83:65:ALA:HB3	1.95	0.48
6:L3:147:GLU:O	6:L3:151:ILE:HG13	2.13	0.48
6:L3:246:LEU:HG	6:L3:247:ARG:HG3	1.96	0.48
6:L3:332:ARG:O	6:L3:333:LYS:HB2	2.13	0.48
7:L4:3:ARG:HE	7:L4:22:LEU:CB	2.26	0.48
7:L4:216:VAL:O	7:L4:220:ARG:HB2	2.13	0.48
9:L6:80:ASN:HB3	9:L6:83:TYR:CD2	2.42	0.48
10:L7:157:ASN:O	10:L7:158:LYS:CB	2.62	0.48
11:L8:78:PHE:C	11:L8:80:TYR:H	2.16	0.48
20:58:158:HIS:N	20:58:186:VAL:HG12	2.21	0.48
22:60:6:GLU:HG3	22:60:29:ILE:O	2.14	0.48
25:63:84:SER:HB3	25:63:94:TYR:CD2	2.49	0.48
26:64:17:ARG:HB3	26:64:32:GLN:HE22	1.79	0.48
33:71:14:ILE:HG12	33:71:15:ASN:N	2.29	0.48
46:1S:836:U:H2'	46:1S:837:G:C8	2.48	0.48
46:1S:1459:C:H5'	65:18:131:LEU:CD2	2.43	0.48
47:S0:38:PHE:O	47:S0:39:ASN:HB2	2.13	0.48
49:S2:240:LEU:O	49:S2:244:SER:HB2	2.13	0.48
51:S4:246:LEU:HB3	51:S4:250:GLU:HB2	1.96	0.48
52:S5:146:THR:HG21	52:S5:221:ALA:HA	1.96	0.48
54:S7:51:VAL:HG22	54:S7:55:LYS:O	2.14	0.48
55:S8:147:ALA:O	55:S8:148:ALA:HB3	2.13	0.48
56:S9:58:ASP:O	56:S9:62:ARG:HG3	2.14	0.48
65:18:54:LEU:HD22	65:18:54:LEU:N	2.28	0.48
69:22:120:HIS:ND1	69:22:120:HIS:O	2.45	0.48
70:23:63:GLN:CA	70:23:65:ASN:H	2.22	0.48
73:26:66:LYS:H	73:26:66:LYS:CD	2.20	0.48
1:2S:1113:G:H2'	1:2S:1114:U:O4'	2.14	0.48
1:2S:1526:U:O2'	1:2S:1595:U:H5'	2.13	0.48
1:2S:1854:C:O2'	1:2S:1855:U:H5'	2.14	0.48
1:2S:1857:C:H3'	1:2S:1858:A:C8	2.49	0.48
1:2S:2584:G:H2'	1:2S:2585:G:H4'	1.94	0.48
3:5S:36:C:C5'	8:L5:155:THR:HG23	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L6:65:ILE:O	9:L6:76:LEU:HA	2.14	0.48
13:50:135:ILE:HG22	13:50:136:PHE:HD1	1.78	0.48
17:55:80:THR:O	17:55:81:TYR:CB	2.58	0.48
29:67:126:LYS:O	29:67:127:ASN:HB2	2.13	0.48
34:72:9:ILE:CG2	34:72:11:LYS:HE2	2.44	0.48
46:1S:1288:G:H1'	46:1S:1422:A:N1	2.28	0.48
46:1S:1563:C:H2'	46:1S:1564:U:C6	2.48	0.48
47:S0:202:TYR:O	47:S0:203:PHE:HB2	2.14	0.48
48:S1:81:PHE:CD2	48:S1:82:ARG:HG3	2.49	0.48
51:S4:47:PHE:CZ	51:S4:111:VAL:HG22	2.48	0.48
51:S4:94:ALA:O	51:S4:95:THR:OG1	2.28	0.48
54:S7:164:TYR:OH	54:S7:165:LYS:HE3	2.13	0.48
55:S8:38:ILE:HG12	55:S8:96:LEU:HD11	1.95	0.48
55:S8:104:ILE:O	55:S8:164:ARG:HG2	2.13	0.48
56:S9:86:LEU:HG	56:S9:87:SER:N	2.28	0.48
57:10:52:LYS:HE2	57:10:54:TYR:HE2	1.79	0.48
59:12:31:VAL:HG21	59:12:136:ILE:HD11	1.96	0.48
61:14:19:ILE:HG22	61:14:20:TYR:N	2.28	0.48
66:19:37:VAL:HG22	66:19:38:LYS:N	2.28	0.48
67:20:72:ASN:HD21	67:20:74:GLU:HB2	1.79	0.48
69:22:94:LEU:HD22	69:22:100:GLY:HA3	1.95	0.48
78:31:145:HIS:CD2	78:31:146:SER:H	2.32	0.48
1:2S:217:U:C2'	28:66:103:LYS:HZ3	2.26	0.48
1:2S:253:A:H2'	1:2S:254:A:C8	2.49	0.48
1:2S:291:C:H2'	1:2S:292:U:C6	2.48	0.48
1:2S:319:A:H2'	1:2S:320:G:O4'	2.13	0.48
1:2S:709:A:N9	1:2S:2788:C:H5'	2.28	0.48
1:2S:743:C:O2	20:58:141:ARG:HG3	2.13	0.48
1:2S:1538:G:N2	1:2S:1583:A:H62	2.11	0.48
1:2S:2760:C:N4	44:82:63:LYS:HE2	2.28	0.48
1:2S:2887:A:H2'	1:2S:2887:A:N3	2.29	0.48
1:2S:3316:A:C5'	6:L3:123:TYR:HB2	2.41	0.48
4:L1:192:SER:HB2	4:L1:196:LYS:HZ2	1.79	0.48
6:L3:29:VAL:HG21	6:L3:337:THR:HG21	1.94	0.48
10:L7:121:LYS:HB2	23:61:133:ALA:H	1.79	0.48
10:L7:136:TYR:CE2	10:L7:231:ASN:HB2	2.49	0.48
21:59:44:LEU:O	21:59:49:THR:HB	2.13	0.48
26:64:25:ASP:O	26:64:26:SER:HB2	2.14	0.48
32:70:58:TYR:O	32:70:61:MET:HG3	2.14	0.48
39:77:18:LEU:CA	39:77:25:ARG:HA	2.43	0.48
39:77:64:MET:C	39:77:66:TYR:N	2.66	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:79:41:ARG:HG3	41:79:42:ARG:N	2.28	0.48
44:82:78:LYS:HG3	44:82:78:LYS:O	2.13	0.48
46:1S:68:A:N6	53:S6:133:LEU:HD11	2.28	0.48
46:1S:1006:C:H1'	46:1S:1769:U:C5	2.49	0.48
46:1S:1084:A:H2'	46:1S:1085:G:O4'	2.14	0.48
46:1S:1524:A:C2	46:1S:1590:G:H1'	2.49	0.48
46:1S:1651:A:H2'	46:1S:1652:C:H6	1.79	0.48
47:S0:189:VAL:HG13	47:S0:190:ASP:N	2.28	0.48
54:S7:110:GLN:HG2	54:S7:110:GLN:O	2.14	0.48
56:S9:109:LEU:HD12	56:S9:146:PHE:CG	2.48	0.48
61:14:103:ARG:O	61:14:107:ARG:HB2	2.14	0.48
63:16:32:ASN:H	63:16:66:ARG:HE	1.61	0.48
65:18:4:VAL:HG22	72:25:78:ILE:HG23	1.96	0.48
1:2S:58:G:H5'	17:55:154:PRO:HB2	1.95	0.48
1:2S:949:C:O2'	1:2S:971:G:H5''	2.14	0.48
1:2S:1388:U:H4'	34:72:100:ILE:CD1	2.44	0.48
1:2S:1657:C:C4	1:2S:1797:A:H5''	2.49	0.48
1:2S:2096:A:H2'	1:2S:2097:U:O4'	2.14	0.48
1:2S:2456:A:N6	1:2S:2461:A:H62	2.10	0.48
1:2S:2832:C:O2'	1:2S:2833:A:H5'	2.14	0.48
1:2S:2987:A:C2	6:L3:260:VAL:HG21	2.49	0.48
1:2S:3017:A:H2'	1:2S:3018:C:C6	2.49	0.48
1:2S:3165:A:H61	1:2S:3285:C:N4	2.08	0.48
1:2S:3180:A:C4'	18:56:116:LYS:HB3	2.38	0.48
1:2S:3236:U:H3	1:2S:3251:U:H3	1.61	0.48
1:2S:3246:G:H4'	1:2S:3247:G:C8	2.49	0.48
6:L3:277:SER:HB2	6:L3:329:PRO:HG3	1.95	0.48
6:L3:324:VAL:CG2	6:L3:325:LYS:N	2.76	0.48
7:L4:192:GLY:HA2	7:L4:195:ARG:HB2	1.94	0.48
8:L5:150:LEU:HD12	14:51:143:ARG:HG3	1.96	0.48
12:L9:41:ILE:O	12:L9:42:ASP:HB2	2.13	0.48
19:57:23:ARG:HH21	19:57:125:GLN:HG3	1.78	0.48
20:58:155:MET:HE3	20:58:163:PRO:HA	1.94	0.48
21:59:141:HIS:HA	21:59:144:GLN:CG	2.44	0.48
28:66:50:ILE:HG12	28:66:51:ARG:N	2.29	0.48
29:67:136:PHE:CE2	36:74:89:ILE:HG12	2.49	0.48
46:1S:25:C:H4'	46:1S:26:A:H5'	1.95	0.48
46:1S:169:A:C5'	53:S6:176:GLN:HG2	2.44	0.48
46:1S:517:U:H2'	46:1S:518:A:O4'	2.14	0.48
47:S0:6:THR:O	47:S0:191:ARG:HD3	2.14	0.48
48:S1:158:SER:O	48:S1:162:ARG:HG3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:221:PRO:HG2	48:S1:222:LYS:H	1.79	0.48
49:S2:185:LYS:O	49:S2:189:GLN:HG3	2.14	0.48
50:S3:211:PRO:HG3	64:17:20:TYR:CE1	2.49	0.48
51:S4:49:ARG:HB2	51:S4:55:ALA:HB3	1.95	0.48
51:S4:185:GLY:N	51:S4:189:LEU:HD13	2.29	0.48
51:S4:194:THR:O	51:S4:195:ILE:CB	2.61	0.48
52:S5:149:VAL:CG1	52:S5:158:GLN:HB2	2.44	0.48
64:17:68:GLY:C	64:17:69:ILE:HD13	2.34	0.48
67:20:108:ILE:HD12	67:20:108:ILE:O	2.14	0.48
1:2S:964:G:N2	30:68:40:HIS:HB2	2.28	0.47
1:2S:1939:G:OP1	21:59:77:GLY:HA3	2.14	0.47
1:2S:2678:A:O2'	1:2S:2679:A:H5'	2.14	0.47
2:8S:133:G:H4'	27:65:55:ASN:CG	2.33	0.47
4:L1:38:LEU:HD12	4:L1:167:VAL:HG21	1.95	0.47
4:L1:65:ILE:HG13	4:L1:85:MET:CE	2.44	0.47
5:L2:129:ALA:HB1	5:L2:132:ASN:HD22	1.79	0.47
7:L4:38:VAL:O	7:L4:42:VAL:HG23	2.13	0.47
7:L4:205:PRO:HB3	7:L4:247:PHE:HD2	1.79	0.47
8:L5:208:MET:HA	8:L5:219:PHE:HE2	1.79	0.47
15:53:32:LYS:HA	15:53:35:ARG:CB	2.43	0.47
20:58:103:ALA:HB3	20:58:106:PHE:CE1	2.49	0.47
21:59:69:SER:O	21:59:74:ARG:HB2	2.13	0.47
21:59:119:LEU:O	21:59:123:LEU:HG	2.14	0.47
22:60:29:ILE:HG22	22:60:30:PHE:N	2.29	0.47
22:60:80:ARG:HE	23:61:156:TYR:N	2.11	0.47
24:62:87:ASN:CB	24:62:89:LEU:HG	2.44	0.47
29:67:89:VAL:HG13	29:67:93:LYS:HE2	1.95	0.47
46:1S:151:G:H2'	46:1S:152:U:C6	2.49	0.47
46:1S:1373:C:H2'	46:1S:1374:C:H6	1.79	0.47
48:S1:224:ASP:HB3	48:S1:227:ALA:HB3	1.96	0.47
59:12:31:VAL:HG21	59:12:136:ILE:HD13	1.95	0.47
59:12:97:LEU:HD13	59:12:97:LEU:O	2.13	0.47
65:18:72:ILE:HG12	65:18:79:TYR:CD1	2.49	0.47
67:20:22:ILE:HG13	67:20:23:ARG:N	2.28	0.47
69:22:28:ARG:CD	69:22:60:LYS:HE2	2.34	0.47
70:23:24:TRP:O	70:23:30:LYS:HD2	2.14	0.47
74:27:34:ASP:HB2	74:27:80:ARG:HB3	1.95	0.47
1:2S:1299:U:H2'	1:2S:1300:G:O4'	2.15	0.47
1:2S:1313:G:H2'	1:2S:1314:C:C6	2.49	0.47
1:2S:1458:U:H2'	1:2S:1459:C:C6	2.49	0.47
1:2S:1860:G:C2'	1:2S:1861:G:H5'	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2316:G:H2'	1:2S:2317:A:H8	1.78	0.47
1:2S:2754:G:H3'	1:2S:2755:C:H5''	1.96	0.47
1:2S:2948:C:H5''	6:L3:243:HIS:HB3	1.96	0.47
1:2S:3004:C:H2'	1:2S:3005:A:O4'	2.13	0.47
1:2S:3364:C:H2'	1:2S:3365:U:C6	2.49	0.47
2:8S:41:A:H5'	39:77:67:LEU:HD12	1.96	0.47
8:L5:127:GLY:O	8:L5:192:PRO:HA	2.14	0.47
10:L7:111:ILE:HG12	10:L7:112:ASN:N	2.29	0.47
11:L8:245:LYS:O	11:L8:249:ARG:HB2	2.14	0.47
21:59:162:ARG:O	21:59:166:ASN:HB2	2.14	0.47
22:60:30:PHE:CE1	22:60:100:VAL:HA	2.48	0.47
32:70:49:PRO:HG2	32:70:52:ARG:CB	2.43	0.47
36:74:102:LYS:N	36:74:102:LYS:HD2	2.29	0.47
38:76:43:LEU:O	38:76:46:GLU:HG2	2.13	0.47
46:1S:27:U:H2'	46:1S:28:A:C8	2.49	0.47
46:1S:212:U:H2'	46:1S:213:A:H8	1.78	0.47
46:1S:441:A:H2'	46:1S:442:C:C6	2.49	0.47
46:1S:607:G:H21	46:1S:614:C:H5''	1.78	0.47
46:1S:618:U:O5'	46:1S:618:U:H6	1.97	0.47
46:1S:733:A:HO2'	46:1S:735:C:H5	1.61	0.47
46:1S:1192:C:H5	46:1S:1193:A:HO2'	1.62	0.47
46:1S:1291:G:N2	46:1S:1324:G:N2	2.59	0.47
46:1S:1605:G:C5'	63:16:127:LYS:HB3	2.45	0.47
51:S4:68:ARG:HG2	51:S4:68:ARG:HH11	1.78	0.47
52:S5:162:VAL:HG22	52:S5:166:ARG:HB3	1.96	0.47
61:14:17:ALA:HB2	61:14:79:VAL:HG21	1.95	0.47
65:18:26:ILE:O	65:18:57:ARG:HA	2.14	0.47
67:20:61:LYS:HG3	67:20:86:ILE:HB	1.96	0.47
1:2S:604:G:H2'	1:2S:605:U:C6	2.49	0.47
1:2S:2571:U:O2	1:2S:2571:U:H2'	2.15	0.47
1:2S:2710:C:H2'	1:2S:2711:C:H6	1.72	0.47
3:5S:89:G:H5''	22:60:84:ARG:HH21	1.78	0.47
5:L2:8:GLN:NE2	5:L2:231:SER:HB3	2.28	0.47
12:L9:161:LEU:O	12:L9:161:LEU:HD23	2.14	0.47
12:L9:180:TYR:HB3	42:80:89:TYR:CE2	2.42	0.47
19:57:41:LEU:HD13	19:57:42:THR:N	2.29	0.47
25:63:36:ILE:HG22	25:63:37:ILE:N	2.29	0.47
28:66:64:LYS:HD2	28:66:65:GLY:N	2.29	0.47
33:71:74:ARG:HH21	33:71:96:VAL:HG12	1.80	0.47
33:71:98:VAL:HG22	33:71:99:ALA:N	2.29	0.47
34:72:104:ASN:O	34:72:108:ILE:HG13	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:74:106:LYS:O	36:74:110:GLU:HG3	2.14	0.47
38:76:79:SER:HB2	38:76:81:THR:HG22	1.94	0.47
46:1S:94:U:C2'	46:1S:95:G:H5'	2.44	0.47
46:1S:258:C:H2'	46:1S:259:U:C6	2.50	0.47
46:1S:372:G:H21	46:1S:612:U:H3	1.62	0.47
46:1S:874:C:H2'	46:1S:875:G:C8	2.49	0.47
46:1S:1773:C:H2'	46:1S:1774:G:H8	1.78	0.47
51:S4:44:LEU:HG	51:S4:82:TYR:HB3	1.96	0.47
54:S7:23:ALA:O	54:S7:27:LEU:HG	2.14	0.47
62:15:126:VAL:HG13	62:15:127:ARG:N	2.27	0.47
72:25:80:LEU:O	72:25:89:ILE:HD11	2.14	0.47
73:26:14:GLY:O	73:26:15:ARG:HG3	2.14	0.47
74:27:8:LEU:HB2	74:27:9:HIS:ND1	2.29	0.47
79:RA:38:ARG:C	79:RA:40:LYS:H	2.16	0.47
1:2S:92:G:H5'	1:2S:94:G:N7	2.29	0.47
1:2S:1617:G:H2'	1:2S:1618:G:O4'	2.14	0.47
2:8S:13:A:H2'	2:8S:14:C:C6	2.49	0.47
2:8S:118:C:H2'	2:8S:119:C:C6	2.50	0.47
5:L2:69:TYR:O	5:L2:70:ARG:HB3	2.13	0.47
5:L2:88:ILE:HD12	5:L2:88:ILE:N	2.29	0.47
6:L3:173:GLN:O	6:L3:175:LYS:N	2.45	0.47
6:L3:324:VAL:HG22	6:L3:325:LYS:N	2.29	0.47
12:L9:41:ILE:HG23	12:L9:42:ASP:H	1.79	0.47
12:L9:64:HIS:N	12:L9:64:HIS:CD2	2.82	0.47
13:50:93:PRO:HA	13:50:126:ALA:O	2.14	0.47
15:53:32:LYS:HG2	15:53:32:LYS:O	2.14	0.47
27:65:108:LEU:HD12	27:65:127:THR:HA	1.96	0.47
29:67:23:VAL:HG12	29:67:45:GLY:CA	2.41	0.47
31:69:35:VAL:HG12	31:69:36:ASP:N	2.28	0.47
33:71:10:ARG:O	33:71:74:ARG:HA	2.14	0.47
38:76:59:ASP:O	38:76:63:ASN:HB2	2.13	0.47
39:77:44:THR:CG2	39:77:45:ARG:N	2.77	0.47
46:1S:53:G:H2'	46:1S:54:C:C6	2.49	0.47
46:1S:56:U:H4'	46:1S:57:G:C5'	2.41	0.47
46:1S:160:C:H2'	46:1S:161:U:O4'	2.14	0.47
46:1S:1283:U:H2'	46:1S:1284:C:C5	2.49	0.47
47:S0:74:VAL:HG23	47:S0:118:PRO:HB3	1.96	0.47
49:S2:140:ARG:NH2	49:S2:226:THR:HG21	2.29	0.47
49:S2:240:LEU:HD12	49:S2:240:LEU:N	2.29	0.47
53:S6:120:GLU:HG3	53:S6:125:THR:HG21	1.96	0.47
54:S7:51:VAL:HG11	54:S7:168:SER:CB	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:16:117:LEU:HD22	63:16:117:LEU:N	2.28	0.47
1:2S:21:G:OP2	1:2S:21:G:H8	1.97	0.47
1:2S:54:C:H5''	1:2S:1548:C:H1'	1.97	0.47
1:2S:160:G:C3'	1:2S:161:G:H5''	2.45	0.47
1:2S:406:G:H1'	2:8S:16:G:H22	1.78	0.47
1:2S:500:C:H2'	1:2S:501:A:H8	1.79	0.47
1:2S:769:G:H2'	1:2S:770:G:H5'	1.97	0.47
1:2S:994:G:H4'	1:2S:995:U:H5''	1.95	0.47
1:2S:1430:U:C2'	30:68:9:ARG:HH22	2.26	0.47
1:2S:1563:C:H2'	1:2S:1564:U:O4'	2.14	0.47
1:2S:1565:G:H1	1:2S:1574:C:N4	2.12	0.47
1:2S:2330:C:H2'	1:2S:2331:C:C6	2.49	0.47
1:2S:2371:G:H2'	1:2S:2373:A:OP1	2.14	0.47
1:2S:2709:C:H2'	1:2S:2710:C:C6	2.49	0.47
1:2S:2746:A:C2	8:L5:146:LEU:HB3	2.49	0.47
1:2S:2898:G:OP2	1:2S:2899:C:H5'	2.14	0.47
1:2S:2991:A:H5''	6:L3:21:ARG:HH21	1.80	0.47
1:2S:3205:G:H5''	16:54:102:LYS:NZ	2.29	0.47
2:8S:42:G:O2'	2:8S:43:A:H5'	2.14	0.47
6:L3:57:VAL:HG23	6:L3:358:TRP:HE3	1.79	0.47
11:L8:75:ILE:O	11:L8:76:ALA:HB3	2.14	0.47
13:50:216:TYR:CG	13:50:217:PHE:N	2.82	0.47
14:51:23:VAL:HG13	14:51:29:ARG:HH11	1.78	0.47
15:53:8:PRO:HB3	20:58:165:ILE:HA	1.97	0.47
17:55:115:VAL:HG22	17:55:134:LEU:CD2	2.45	0.47
18:56:173:ALA:O	18:56:177:LYS:HG3	2.15	0.47
19:57:111:LYS:HB2	19:57:153:LYS:CB	2.45	0.47
24:62:34:ALA:O	24:62:38:ILE:HG13	2.14	0.47
24:62:104:ARG:C	24:62:105:LEU:HD12	2.35	0.47
27:65:53:HIS:CE1	27:65:56:ARG:HG2	2.49	0.47
28:66:77:LYS:O	28:66:78:PHE:HB2	2.14	0.47
28:66:87:LYS:C	28:66:87:LYS:HD3	2.35	0.47
29:67:50:PRO:HB3	29:67:68:ILE:HG12	1.96	0.47
46:1S:215:A:H5''	46:1S:216:U:C5	2.50	0.47
46:1S:247:A:H5'	58:11:37:ASN:HD21	1.78	0.47
46:1S:477:A:OP1	77:30:31:LYS:HG2	2.14	0.47
46:1S:567:A:H5'	77:30:10:ARG:HB3	1.97	0.47
46:1S:654:C:H2'	46:1S:655:G:H4'	1.96	0.47
46:1S:1162:C:H4'	75:28:22:ARG:HH11	1.80	0.47
48:S1:140:ILE:HG22	48:S1:213:ARG:HB2	1.96	0.47
51:S4:156:VAL:O	51:S4:157:ASN:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S4:180:LEU:HD12	51:S4:234:PRO:HG3	1.97	0.47
54:S7:91:ILE:HG13	54:S7:92:PHE:H	1.80	0.47
56:S9:44:ARG:O	56:S9:48:GLN:HG3	2.15	0.47
56:S9:163:PRO:C	56:S9:165:GLY:H	2.18	0.47
58:11:35:TYR:CE2	58:11:49:ILE:HG23	2.49	0.47
66:19:27:LYS:NZ	66:19:111:ILE:HG13	2.29	0.47
67:20:48:HIS:O	67:20:49:ASN:HB2	2.14	0.47
72:25:96:SER:O	72:25:98:GLN:N	2.47	0.47
75:28:17:GLY:O	75:28:26:THR:HG23	2.14	0.47
77:30:47:VAL:HG22	77:30:48:THR:N	2.20	0.47
1:2S:339:C:H3'	7:L4:195:ARG:NH1	2.24	0.47
1:2S:608:A:H3'	9:L6:22:ARG:HH12	1.79	0.47
1:2S:636:C:C2	1:2S:646:A:H1'	2.49	0.47
1:2S:850:U:H2'	1:2S:851:C:C6	2.50	0.47
1:2S:1132:C:H2'	1:2S:1133:A:C8	2.49	0.47
1:2S:1893:A:H2'	1:2S:1894:U:C6	2.50	0.47
1:2S:3219:G:H4'	1:2S:3220:G:H5'	1.96	0.47
7:L4:159:ILE:HG21	7:L4:165:ALA:HB2	1.97	0.47
11:L8:168:ALA:O	11:L8:172:LYS:HB2	2.15	0.47
18:56:73:PHE:CE1	18:56:78:ARG:HG2	2.50	0.47
19:57:25:SER:OG	19:57:28:ASN:ND2	2.47	0.47
19:57:76:PHE:CB	19:57:78:VAL:HG23	2.44	0.47
27:65:31:THR:HG22	27:65:32:PHE:N	2.25	0.47
46:1S:1582:U:H5''	63:16:135:ARG:NH1	2.30	0.47
47:S0:74:VAL:HB	47:S0:121:VAL:HG13	1.96	0.47
50:S3:5:ILE:HB	50:S3:10:LYS:CE	2.45	0.47
56:S9:169:PRO:HD2	56:S9:174:ARG:HD2	1.96	0.47
68:21:17:CYS:HB3	68:21:22:ARG:H	1.80	0.47
73:26:12:LYS:NZ	73:26:12:LYS:HA	2.29	0.47
79:RA:103:PHE:CD1	79:RA:138:GLY:HA2	2.50	0.47
1:2S:102:C:H2'	1:2S:103:G:H8	1.78	0.47
1:2S:114:A:H4'	17:55:49:ARG:HG2	1.97	0.47
1:2S:118:U:H2'	1:2S:119:U:H5'	1.97	0.47
1:2S:229:G:H5''	28:66:4:GLN:CB	2.40	0.47
1:2S:442:G:N1	1:2S:493:U:H2'	2.30	0.47
1:2S:578:A:H2	7:L4:328:ASN:ND2	2.13	0.47
1:2S:1339:C:H2'	1:2S:1340:G:H8	1.76	0.47
1:2S:1345:G:H21	7:L4:307:GLN:NE2	2.12	0.47
1:2S:1795:U:H4'	1:2S:1796:G:O5'	2.14	0.47
1:2S:2083:G:H2'	1:2S:2083:G:N3	2.29	0.47
1:2S:2274:U:O2	1:2S:2274:U:H2'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2396:G:OP1	1:2S:2397:A:H4'	2.13	0.47
1:2S:2405:C:C4	1:2S:2406:C:C5	3.03	0.47
1:2S:2541:U:H1'	1:2S:2542:U:O5'	2.14	0.47
1:2S:2837:A:H5''	13:50:154:ARG:HH12	1.79	0.47
1:2S:3150:A:H5''	6:L3:128:LYS:O	2.15	0.47
1:2S:3314:A:OP1	6:L3:174:LYS:HB2	2.13	0.47
2:8S:65:A:H2'	2:8S:66:A:O4'	2.15	0.47
2:8S:139:U:H2'	2:8S:140:G:H8	1.79	0.47
2:8S:147:U:C3'	2:8S:148:G:H5''	2.44	0.47
3:5S:80:G:H2'	3:5S:81:U:O4'	2.15	0.47
4:L1:72:PHE:O	4:L1:89:ASP:HA	2.15	0.47
5:L2:147:ARG:HG3	5:L2:156:LYS:C	2.35	0.47
6:L3:273:HIS:HB2	6:L3:275:ARG:NH1	2.29	0.47
6:L3:339:ARG:HG2	6:L3:340:LYS:N	2.26	0.47
7:L4:91:GLY:HA3	7:L4:93:MET:HE2	1.96	0.47
7:L4:170:LYS:HG3	7:L4:175:HIS:ND1	2.30	0.47
7:L4:205:PRO:HB2	7:L4:249:ILE:CD1	2.44	0.47
9:L6:5:LYS:HG3	9:L6:6:ALA:N	2.29	0.47
9:L6:40:LEU:HB2	9:L6:52:VAL:CG1	2.45	0.47
9:L6:51:ARG:HG2	9:L6:51:ARG:HH11	1.79	0.47
10:L7:76:TYR:CE2	10:L7:78:GLU:HG2	2.50	0.47
10:L7:118:LYS:O	10:L7:123:THR:HG21	2.14	0.47
12:L9:3:TYR:CD2	12:L9:65:VAL:HG21	2.49	0.47
14:51:80:LEU:HD22	14:51:167:TYR:CE1	2.48	0.47
16:54:66:THR:HG22	16:54:99:TRP:HZ3	1.79	0.47
16:54:113:THR:HG22	16:54:114:ASP:N	2.30	0.47
21:59:63:THR:HA	21:59:66:HIS:HB2	1.97	0.47
23:61:73:GLY:HA2	23:61:89:LEU:O	2.14	0.47
24:62:75:TYR:O	24:62:79:LEU:HG	2.15	0.47
27:65:32:PHE:C	27:65:33:ARG:HD2	2.35	0.47
30:68:94:ALA:CB	30:68:121:VAL:HG22	2.45	0.47
39:77:21:ARG:HD2	39:77:37:CYS:SG	2.55	0.47
44:82:70:LEU:CD1	44:82:85:LEU:HD11	2.44	0.47
44:82:70:LEU:HD11	44:82:85:LEU:HD11	1.95	0.47
46:1S:19:A:O3'	46:1S:571:G:H1'	2.14	0.47
46:1S:44:U:C2'	46:1S:45:U:H6	2.27	0.47
46:1S:76:A:H1'	46:1S:80:A:N7	2.30	0.47
46:1S:186:C:H6	46:1S:186:C:C5'	2.21	0.47
46:1S:400:A:H2'	55:S8:24:LYS:O	2.14	0.47
46:1S:684:A:H2'	46:1S:685:A:C5'	2.45	0.47
46:1S:816:G:H2'	46:1S:817:A:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1184:A:H2'	46:1S:1185:U:C4'	2.45	0.47
46:1S:1472:C:N4	46:1S:1536:G:H1	2.12	0.47
46:1S:1566:U:H4'	65:18:37:GLY:O	2.14	0.47
47:S0:110:TYR:HD1	47:S0:111:ILE:HD12	1.80	0.47
50:S3:195:SER:O	50:S3:196:ARG:HB3	2.15	0.47
51:S4:99:PHE:CE1	51:S4:113:ARG:HG2	2.49	0.47
52:S5:61:TYR:CE1	52:S5:165:LEU:HD13	2.50	0.47
52:S5:118:LEU:HD22	52:S5:129:PRO:HB2	1.96	0.47
52:S5:143:ARG:HB2	75:28:57:MET:CE	2.45	0.47
52:S5:186:ASN:ND2	52:S5:188:LYS:HB2	2.30	0.47
53:S6:225:GLU:HG3	53:S6:226:ILE:HG23	1.97	0.47
54:S7:126:LEU:HD21	54:S7:173:TYR:CZ	2.49	0.47
55:S8:21:PHE:C	55:S8:22:ARG:HG2	2.35	0.47
56:S9:49:LEU:O	56:S9:49:LEU:HD22	2.14	0.47
56:S9:126:ARG:HG3	77:30:33:ARG:HD3	1.96	0.47
56:S9:127:VAL:HA	56:S9:130:THR:CG2	2.44	0.47
56:S9:171:ARG:CZ	56:S9:171:ARG:HA	2.44	0.47
57:10:8:ARG:HB3	57:10:79:TYR:OH	2.15	0.47
57:10:81:ASN:HB3	59:12:37:VAL:CG1	2.44	0.47
58:11:7:VAL:HG21	58:11:53:TYR:HA	1.97	0.47
58:11:70:ILE:HG23	58:11:125:VAL:O	2.15	0.47
59:12:54:ARG:HG3	59:12:56:GLU:HG3	1.97	0.47
60:13:101:HIS:CA	60:13:104:ARG:HH11	2.18	0.47
61:14:24:ASN:O	61:14:54:GLU:HB2	2.15	0.47
62:15:71:GLU:HB3	62:15:72:LYS:H	1.60	0.47
64:17:13:SER:CA	64:17:54:THR:HG22	2.45	0.47
67:20:50:LEU:HD23	67:20:93:LEU:HD22	1.96	0.47
67:20:72:ASN:CG	67:20:73:GLY:H	2.17	0.47
67:20:85:ARG:N	67:20:85:ARG:HD2	2.29	0.47
67:20:118:VAL:O	67:20:119:ALA:HB3	2.14	0.47
70:23:54:LEU:HD11	70:23:75:GLN:HB2	1.97	0.47
70:23:144:ARG:HD2	70:23:145:SER:N	2.18	0.47
73:26:19:LYS:HE3	73:26:20:PRO:HD2	1.96	0.47
75:28:42:ARG:HD3	75:28:61:ARG:O	2.15	0.47
1:2S:250:U:C5'	1:2S:251:G:H5''	2.19	0.47
1:2S:426:G:H2'	1:2S:427:C:C6	2.49	0.47
1:2S:1009:A:H2'	1:2S:1010:G:C8	2.49	0.47
1:2S:1015:U:H3'	1:2S:1015:U:OP2	2.15	0.47
1:2S:1301:A:H4'	1:2S:1302:A:H5''	1.97	0.47
1:2S:1371:G:H2'	1:2S:1372:C:C6	2.50	0.47
1:2S:1557:A:H5''	11:L8:54:GLU:OE1	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2206:G:O2'	1:2S:2207:A:H5'	2.14	0.47
1:2S:2632:G:H2'	1:2S:2633:U:C6	2.49	0.47
1:2S:2960:C:H2'	1:2S:2961:G:C8	2.50	0.47
5:L2:45:VAL:CG1	5:L2:85:GLY:H	2.23	0.47
6:L3:56:ILE:HG23	6:L3:57:VAL:N	2.30	0.47
6:L3:96:PRO:HG3	18:56:156:LEU:CD1	2.44	0.47
6:L3:224:HIS:HB2	6:L3:270:ARG:HH22	1.79	0.47
9:L6:5:LYS:HA	9:L6:5:LYS:HE3	1.96	0.47
9:L6:137:ASP:O	9:L6:141:VAL:HG23	2.15	0.47
10:L7:79:ALA:N	23:61:138:SER:HB3	2.30	0.47
10:L7:90:LYS:HE3	10:L7:92:ILE:N	2.29	0.47
10:L7:179:LEU:HD13	10:L7:179:LEU:H	1.77	0.47
11:L8:52:TRP:HB3	11:L8:56:VAL:HG11	1.96	0.47
12:L9:172:ILE:HD13	12:L9:172:ILE:N	2.25	0.47
28:66:57:LEU:HD22	28:66:66:GLN:O	2.14	0.47
30:68:118:ILE:HB	30:68:119:PRO:HD2	1.96	0.47
46:1S:351:C:H3'	46:1S:352:A:C5'	2.44	0.47
46:1S:445:A:O2'	46:1S:446:A:H5'	2.14	0.47
46:1S:747:C:H2'	46:1S:748:U:C6	2.50	0.47
46:1S:1065:A:H2'	46:1S:1066:C:C6	2.50	0.47
46:1S:1186:U:H2'	46:1S:1187:U:O4'	2.14	0.47
46:1S:1529:C:H2'	46:1S:1530:C:C6	2.50	0.47
46:1S:1579:U:O2'	63:16:139:GLN:HG3	2.15	0.47
46:1S:1613:U:C3'	46:1S:1614:A:H5''	2.44	0.47
46:1S:1681:A:C2'	46:1S:1682:U:H5'	2.44	0.47
52:S5:29:ILE:HD12	52:S5:29:ILE:N	2.29	0.47
56:S9:64:GLU:HG2	56:S9:65:LYS:HG2	1.96	0.47
56:S9:136:VAL:O	56:S9:155:HIS:HB3	2.14	0.47
57:10:92:ILE:O	57:10:92:ILE:HG23	2.14	0.47
57:10:93:GLN:HG2	57:10:94:GLU:H	1.80	0.47
58:11:70:ILE:HD12	58:11:70:ILE:N	2.30	0.47
61:14:86:THR:CG2	61:14:90:ARG:HG3	2.45	0.47
65:18:72:ILE:HG23	65:18:79:TYR:CB	2.44	0.47
69:22:32:LYS:O	69:22:35:ILE:HB	2.15	0.47
72:25:42:LEU:O	72:25:46:LYS:HB2	2.14	0.47
1:2S:513:G:H2'	1:2S:514:G:O4'	2.13	0.47
1:2S:956:U:H2'	1:2S:957:C:C6	2.49	0.47
1:2S:1097:G:H8	23:61:128:LEU:HD22	1.79	0.47
1:2S:1109:U:H4'	20:58:153:PHE:CZ	2.50	0.47
1:2S:1119:C:H1'	1:2S:1154:A:C2	2.49	0.47
1:2S:1330:A:C2	1:2S:1332:A:H1'	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1486:G:H21	36:74:6:THR:CG2	2.28	0.47
1:2S:1645:U:H2'	1:2S:1646:G:H5'	1.95	0.47
1:2S:1743:G:H2'	1:2S:1744:G:C8	2.50	0.47
1:2S:2411:U:H2'	1:2S:2412:G:O4'	2.15	0.47
1:2S:2443:A:N6	1:2S:2504:U:H3	2.10	0.47
1:2S:2447:A:N1	1:2S:2500:A:C2	2.83	0.47
1:2S:2536:A:H2'	1:2S:2537:U:H5''	1.96	0.47
1:2S:3138:U:H2'	1:2S:3139:A:H5''	1.97	0.47
2:8S:150:G:H2'	2:8S:152:G:C8	2.50	0.47
6:L3:273:HIS:HB2	6:L3:275:ARG:HH12	1.79	0.47
8:L5:86:TYR:CE2	8:L5:247:ILE:HG12	2.49	0.47
9:L6:87:THR:HG22	9:L6:176:PHE:HB3	1.96	0.47
30:68:36:GLY:HA3	30:68:40:HIS:HE1	1.80	0.47
35:73:91:ALA:C	35:73:93:THR:N	2.68	0.47
46:1S:1584:G:H5'	63:16:122:ARG:HA	1.97	0.47
46:1S:1715:G:H2'	46:1S:1716:C:H5''	1.97	0.47
46:1S:1768:G:H5''	46:1S:1769:U:O5'	2.15	0.47
47:S0:166:GLY:HA2	47:S0:170:ILE:HD11	1.95	0.47
51:S4:127:LYS:HE3	51:S4:142:HIS:HB3	1.95	0.47
52:S5:97:LEU:HD11	52:S5:114:ILE:HD11	1.96	0.47
52:S5:158:GLN:CG	75:28:66:LEU:HD22	2.41	0.47
55:S8:93:THR:O	55:S8:94:ASN:HB2	2.15	0.47
57:10:27:PHE:CD1	57:10:40:LEU:HD23	2.50	0.47
61:14:23:PHE:O	61:14:24:ASN:HB2	2.14	0.47
61:14:57:PRO:O	61:14:100:ALA:HB1	2.15	0.47
70:23:75:GLN:HG2	70:23:76:LEU:H	1.80	0.47
73:26:82:ARG:HG3	73:26:83:ILE:H	1.78	0.47
77:30:49:LEU:HD21	77:30:58:PRO:HG2	1.96	0.47
1:2S:44:U:OP1	17:55:84:PRO:HG2	2.14	0.47
1:2S:196:G:H21	1:2S:219:A:N6	2.10	0.47
1:2S:359:U:H2'	1:2S:360:G:O4'	2.14	0.47
1:2S:576:C:H5''	10:L7:142:SER:HB2	1.95	0.47
1:2S:1386:A:N6	7:L4:179:LEU:HD13	2.30	0.47
1:2S:1422:G:H2'	1:2S:1423:C:H6	1.80	0.47
1:2S:1887:A:H2'	1:2S:1888:U:C5'	2.45	0.47
1:2S:2155:G:OP1	5:L2:241:ARG:HG2	2.15	0.47
1:2S:2166:A:H2'	1:2S:2167:A:C8	2.50	0.47
1:2S:2427:U:H2'	1:2S:2428:U:H6	1.80	0.47
1:2S:2444:C:H2'	1:2S:2445:A:C8	2.49	0.47
1:2S:2909:U:H2'	1:2S:2910:A:O4'	2.15	0.47
2:8S:107:G:C4'	2:8S:137:C:H2'	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:8S:147:U:H2'	2:8S:148:G:H5''	1.96	0.47
8:L5:206:GLN:O	8:L5:210:GLU:HG3	2.15	0.47
10:L7:137:GLY:HA3	10:L7:233:GLU:CA	2.45	0.47
10:L7:184:LEU:O	10:L7:188:ILE:HG12	2.14	0.47
15:53:131:LYS:NZ	15:53:131:LYS:HB3	2.30	0.47
17:55:30:TYR:CE1	17:55:63:ARG:HD3	2.50	0.47
21:59:8:LYS:HG3	21:59:19:LYS:HE3	1.97	0.47
21:59:23:TRP:C	21:59:24:LEU:HD12	2.36	0.47
25:63:57:MET:CE	25:63:75:PRO:HB3	2.45	0.47
25:63:93:LEU:HD23	25:63:93:LEU:N	2.25	0.47
27:65:131:ASP:HB3	27:65:134:ASP:HB2	1.96	0.47
28:66:45:ILE:HG21	28:66:48:LEU:HG	1.97	0.47
39:77:34:CYS:SG	39:77:36:SER:HB3	2.55	0.47
44:82:13:LYS:HA	44:82:18:ARG:HG2	1.98	0.47
46:1S:249:U:O2	58:11:18:HIS:HB2	2.15	0.47
46:1S:532:U:O2	71:24:34:ASN:HB2	2.14	0.47
46:1S:1029:U:O2'	46:1S:1030:A:H5'	2.15	0.47
47:S0:188:LEU:HD11	47:S0:193:GLN:HG2	1.96	0.47
49:S2:78:ASP:CB	49:S2:104:VAL:HG12	2.45	0.47
50:S3:85:VAL:C	50:S3:86:LEU:HD12	2.35	0.47
53:S6:35:GLU:HG2	53:S6:51:LYS:HB2	1.96	0.47
56:S9:161:THR:O	56:S9:162:SER:O	2.33	0.47
59:12:57:ALA:HA	59:12:124:LYS:HG2	1.97	0.47
62:15:14:THR:HB	62:15:22:LEU:HB2	1.96	0.47
68:21:31:SER:CB	68:21:56:SER:HA	2.44	0.47
69:22:25:VAL:O	69:22:62:VAL:HA	2.15	0.47
1:2S:210:U:C2	1:2S:230:U:H4'	2.50	0.46
1:2S:308:A:H5'	1:2S:2223:A:O2'	2.14	0.46
1:2S:386:A:H8	1:2S:386:A:O5'	1.97	0.46
1:2S:671:U:H2'	1:2S:672:A:H8	1.78	0.46
1:2S:804:C:H2'	1:2S:805:G:C8	2.50	0.46
1:2S:941:G:H2'	1:2S:942:U:O4'	2.15	0.46
1:2S:1012:G:H2'	1:2S:1013:G:O4'	2.15	0.46
1:2S:1649:U:H2'	1:2S:1650:G:H8	1.75	0.46
1:2S:2606:G:H4'	5:L2:233:GLN:NE2	2.30	0.46
1:2S:2766:U:H5''	44:82:37:ALA:HB1	1.97	0.46
1:2S:2816:G:C8	1:2S:2869:U:H3'	2.50	0.46
2:8S:70:G:H5''	28:66:28:ARG:NH2	2.30	0.46
3:5S:60:G:H2'	3:5S:61:G:H8	1.79	0.46
5:L2:116:VAL:HG22	5:L2:117:GLU:N	2.30	0.46
5:L2:221:LYS:HG2	5:L2:222:ALA:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:60:LEU:HD12	6:L3:61:ASP:H	1.80	0.46
6:L3:169:THR:HG23	6:L3:170:PRO:HD2	1.96	0.46
7:L4:74:ILE:HB	7:L4:75:PRO:HD2	1.96	0.46
8:L5:13:SER:HA	8:L5:16:PHE:HB2	1.96	0.46
8:L5:101:THR:HA	8:L5:104:LEU:CB	2.44	0.46
10:L7:80:GLN:HB2	23:61:135:PRO:CB	2.45	0.46
10:L7:173:LEU:HD12	10:L7:173:LEU:N	2.30	0.46
11:L8:107:GLU:HG2	11:L8:111:LYS:CE	2.41	0.46
18:56:126:VAL:HA	18:56:129:LEU:HB3	1.97	0.46
24:62:16:THR:HG22	24:62:64:THR:HG23	1.97	0.46
27:65:113:LEU:O	27:65:120:LYS:HG3	2.15	0.46
36:74:46:ASP:HB2	36:74:80:ARG:NE	2.29	0.46
42:80:98:LYS:HE2	42:80:98:LYS:HA	1.98	0.46
46:1S:253:A:H5''	51:S4:134:LYS:HA	1.97	0.46
46:1S:512:A:H5''	56:S9:163:PRO:CG	2.45	0.46
46:1S:941:A:C2'	46:1S:942:G:H5'	2.45	0.46
46:1S:1524:A:OP1	66:19:79:LEU:HA	2.16	0.46
46:1S:1757:G:N3	46:1S:1757:G:H2'	2.30	0.46
47:S0:20:ALA:HB2	47:S0:172:LEU:HD13	1.97	0.46
47:S0:126:PRO:CG	47:S0:151:SER:HB3	2.45	0.46
48:S1:35:PRO:O	48:S1:36:SER:CB	2.62	0.46
55:S8:66:SER:HB3	55:S8:73:SER:OG	2.15	0.46
55:S8:172:ARG:HD3	55:S8:175:GLN:HG3	1.97	0.46
55:S8:191:PHE:HA	55:S8:194:ARG:HH11	1.81	0.46
56:S9:123:HIS:NE2	77:30:37:ARG:HB2	2.29	0.46
57:10:11:ILE:HD13	57:10:35:ILE:CD1	2.38	0.46
58:11:132:SER:OG	58:11:135:VAL:HG23	2.15	0.46
58:11:156:PHE:HD1	58:11:156:PHE:H	1.63	0.46
60:13:22:ALA:HB1	60:13:23:PRO:C	2.35	0.46
61:14:64:ALA:HB3	61:14:104:ALA:CB	2.46	0.46
61:14:70:LYS:HA	61:14:73:GLU:CG	2.45	0.46
69:22:23:ARG:CB	74:27:4:VAL:HB	2.45	0.46
72:25:93:SER:CB	72:25:100:ILE:H	2.22	0.46
79:RA:88:THR:CG2	79:RA:104:VAL:HG22	2.45	0.46
1:2S:189:G:O2'	1:2S:190:U:H4'	2.15	0.46
1:2S:744:A:H2'	1:2S:745:C:O4'	2.14	0.46
1:2S:1350:A:C2'	1:2S:1351:U:H5'	2.45	0.46
1:2S:2240:G:H2'	1:2S:2241:U:C6	2.50	0.46
1:2S:2444:C:H2'	1:2S:2445:A:H8	1.80	0.46
1:2S:2531:C:H3'	1:2S:2532:U:H6	1.80	0.46
1:2S:2595:A:H2'	1:2S:2596:U:H5'	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3121:U:H1'	1:2S:3122:A:H5''	1.97	0.46
1:2S:3215:A:H1'	9:L6:161:ALA:HB2	1.98	0.46
1:2S:3376:A:H1'	33:71:18:LYS:HB2	1.98	0.46
5:L2:27:ALA:HB3	5:L2:128:ARG:HH22	1.76	0.46
6:L3:221:THR:O	6:L3:272:TYR:HA	2.15	0.46
10:L7:63:ILE:O	10:L7:67:ARG:HG3	2.15	0.46
12:L9:86:TYR:CZ	12:L9:151:VAL:HG22	2.51	0.46
17:55:94:TYR:CZ	17:55:96:ARG:HD3	2.51	0.46
17:55:99:ARG:HD3	17:55:167:THR:HB	1.96	0.46
17:55:116:LEU:HD23	17:55:133:ILE:HG21	1.96	0.46
19:57:33:ALA:O	19:57:36:ILE:HG22	2.15	0.46
20:58:54:LEU:HB2	20:58:59:ARG:HG3	1.97	0.46
20:58:184:PHE:CD1	20:58:184:PHE:N	2.83	0.46
25:63:13:ILE:HB	25:63:85:TRP:HB2	1.98	0.46
25:63:54:LEU:HD23	25:63:119:GLY:HA3	1.98	0.46
27:65:83:VAL:HA	27:65:122:ALA:O	2.15	0.46
28:66:56:VAL:HG22	28:66:57:LEU:N	2.23	0.46
29:67:51:LEU:HB3	29:67:65:ARG:HH11	1.80	0.46
36:74:66:SER:HB3	36:74:69:HIS:ND1	2.30	0.46
46:1S:27:U:H2'	46:1S:28:A:H8	1.80	0.46
46:1S:392:G:H2'	46:1S:393:C:H6	1.79	0.46
46:1S:444:C:C5	71:24:105:ARG:NH2	2.82	0.46
46:1S:512:A:N7	56:S9:172:VAL:HG11	2.30	0.46
46:1S:1315:U:H2'	46:1S:1316:G:O4'	2.15	0.46
46:1S:1522:U:O4	46:1S:1592:A:H5''	2.15	0.46
47:S0:84:ARG:O	47:S0:88:LYS:HD2	2.15	0.46
48:S1:123:ALA:H	48:S1:139:ALA:HB3	1.80	0.46
50:S3:48:VAL:HG12	50:S3:50:ILE:HD11	1.96	0.46
50:S3:150:MET:HB3	50:S3:152:PHE:CZ	2.50	0.46
55:S8:84:HIS:HD2	55:S8:100:ALA:HB2	1.80	0.46
57:10:89:GLY:HA2	57:10:91:TYR:CE1	2.49	0.46
60:13:86:GLU:O	60:13:89:TYR:HB3	2.15	0.46
69:22:71:LYS:HD3	69:22:130:TYR:OH	2.15	0.46
1:2S:23:A:H2'	1:2S:24:G:O4'	2.15	0.46
1:2S:412:G:O2'	19:57:118:GLN:HG3	2.14	0.46
1:2S:423:A:H2'	1:2S:424:G:O4'	2.16	0.46
1:2S:745:C:H2'	1:2S:746:A:H8	1.79	0.46
1:2S:1682:U:H4'	1:2S:1684:U:O4	2.16	0.46
1:2S:1826:C:H2'	1:2S:1827:C:C6	2.50	0.46
1:2S:2357:A:H4'	19:57:137:ASN:OD1	2.16	0.46
2:8S:147:U:H3'	2:8S:148:G:H5''	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:8S:155:A:H2'	2:8S:156:U:O4'	2.15	0.46
7:L4:327:LEU:O	7:L4:328:ASN:CB	2.63	0.46
12:L9:45:PHE:HB3	16:54:7:VAL:HG11	1.96	0.46
13:50:72:ALA:O	13:50:76:MET:HG3	2.16	0.46
13:50:139:ARG:HG2	13:50:173:PHE:CZ	2.50	0.46
15:53:14:PHE:HE2	17:55:197:LEU:HD22	1.80	0.46
25:63:79:VAL:HB	25:63:118:VAL:HG13	1.96	0.46
35:73:58:GLU:CB	35:73:63:LYS:HG2	2.40	0.46
37:75:101:THR:CG2	37:75:104:GLN:HB2	2.44	0.46
40:78:29:LYS:O	40:78:29:LYS:HD3	2.14	0.46
46:1S:456:A:H2'	46:1S:457:G:O4'	2.16	0.46
46:1S:841:U:H2'	46:1S:842:C:O4'	2.15	0.46
46:1S:1171:A:H2'	46:1S:1172:G:H8	1.80	0.46
51:S4:18:TRP:NE1	51:S4:42:LEU:HG	2.31	0.46
54:S7:185:ILE:HD13	54:S7:185:ILE:N	2.24	0.46
55:S8:67:TRP:HB3	55:S8:70:GLU:HB3	1.98	0.46
56:S9:111:THR:O	56:S9:115:LYS:HB2	2.15	0.46
1:2S:363:G:H2'	1:2S:364:G:O4'	2.15	0.46
1:2S:550:A:H2'	1:2S:551:A:O4'	2.14	0.46
1:2S:1186:G:H2'	1:2S:1187:C:C6	2.51	0.46
1:2S:1225:A:H2'	1:2S:1226:G:O4'	2.16	0.46
1:2S:1441:G:H2'	1:2S:1442:U:H6	1.78	0.46
1:2S:2471:U:H2'	1:2S:2472:U:H5'	1.96	0.46
1:2S:2765:C:H2'	1:2S:2766:U:C6	2.51	0.46
1:2S:2897:A:H2'	1:2S:2899:C:C5'	2.45	0.46
1:2S:3038:U:H5''	6:L3:62:ARG:CD	2.46	0.46
2:8S:66:A:OP1	37:75:6:ALA:HB3	2.14	0.46
3:5S:28:C:H41	8:L5:57:ASN:HD21	1.64	0.46
3:5S:95:A:H2	22:60:119:ARG:NH1	2.13	0.46
4:L1:204:LEU:HD12	4:L1:216:LEU:HB3	1.97	0.46
6:L3:363:SER:C	6:L3:365:PHE:H	2.18	0.46
7:L4:170:LYS:HE2	7:L4:175:HIS:ND1	2.31	0.46
17:55:21:PHE:O	17:55:25:VAL:HG23	2.15	0.46
21:59:19:LYS:O	21:59:22:VAL:HG22	2.16	0.46
25:63:19:VAL:HG23	25:63:50:PRO:O	2.15	0.46
28:66:68:GLY:HA2	28:66:84:LYS:CD	2.39	0.46
41:79:41:ARG:CG	41:79:42:ARG:H	2.28	0.46
45:83:33:GLN:HG3	45:83:34:HIS:CD2	2.50	0.46
46:1S:186:C:H5'	46:1S:186:C:C6	2.39	0.46
46:1S:241:U:H3'	46:1S:241:U:H6	1.79	0.46
46:1S:351:C:C4	58:11:102:LYS:HD2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:778:G:O6	71:24:9:THR:O	2.34	0.46
46:1S:952:A:H2'	46:1S:953:G:H8	1.78	0.46
46:1S:1291:G:H1	46:1S:1324:G:H1	1.63	0.46
46:1S:1429:G:H2'	46:1S:1430:U:C6	2.50	0.46
46:1S:1525:A:OP1	66:19:82:GLY:HA2	2.15	0.46
52:S5:98:MET:HG3	52:S5:98:MET:O	2.15	0.46
53:S6:24:ILE:O	53:S6:24:ILE:HG22	2.15	0.46
54:S7:12:ALA:H	54:S7:13:PRO:CD	2.28	0.46
54:S7:114:ARG:O	54:S7:117:THR:HG22	2.15	0.46
54:S7:139:ARG:HD3	69:22:53:ILE:HA	1.98	0.46
56:S9:48:GLN:O	56:S9:52:ILE:HG13	2.16	0.46
56:S9:117:GLY:O	56:S9:118:LEU:HB3	2.16	0.46
56:S9:133:HIS:O	56:S9:134:ILE:O	2.34	0.46
61:14:31:THR:HA	61:14:39:ILE:HG12	1.97	0.46
63:16:114:ARG:H	63:16:116:LEU:CD2	2.28	0.46
71:24:8:ARG:HH21	71:24:10:ARG:NH2	2.14	0.46
1:2S:92:G:OP2	1:2S:93:C:H5'	2.16	0.46
1:2S:892:U:H2'	1:2S:893:C:O4'	2.15	0.46
1:2S:1257:C:H6	1:2S:1257:C:O5'	1.98	0.46
1:2S:1610:G:H2'	1:2S:1611:G:O4'	2.15	0.46
1:2S:1804:A:H5''	36:74:67:LYS:HE3	1.96	0.46
1:2S:2175:U:O4'	5:L2:26:ALA:HB2	2.15	0.46
1:2S:2338:C:H2'	1:2S:2339:C:C6	2.51	0.46
1:2S:2583:C:H2'	1:2S:2584:G:C8	2.50	0.46
1:2S:2748:A:C2	8:L5:35:ARG:HB2	2.51	0.46
2:8S:132:G:H2'	2:8S:133:G:C8	2.50	0.46
3:5S:13:A:H5'	3:5S:14:U:C5	2.50	0.46
3:5S:110:G:O2'	3:5S:111:U:H5'	2.16	0.46
6:L3:143:GLY:O	6:L3:147:GLU:HG2	2.14	0.46
7:L4:36:HIS:CE1	7:L4:37:THR:HG23	2.51	0.46
7:L4:286:VAL:O	7:L4:290:ILE:HG13	2.16	0.46
9:L6:149:ILE:HG12	9:L6:155:LEU:HD12	1.98	0.46
10:L7:141:TYR:HD2	10:L7:189:ILE:HD12	1.79	0.46
16:54:23:ILE:CD1	16:54:28:SER:HB2	2.45	0.46
17:55:199:LEU:HD22	17:55:203:ARG:HD3	1.97	0.46
25:63:80:ARG:HG3	25:63:80:ARG:NH1	2.29	0.46
38:76:45:ARG:O	38:76:45:ARG:HD3	2.16	0.46
39:77:67:LEU:HA	39:77:70:VAL:CG2	2.45	0.46
46:1S:64:U:C3'	46:1S:65:A:H5''	2.46	0.46
46:1S:572:C:H2'	46:1S:573:C:C6	2.51	0.46
46:1S:864:U:OP2	69:22:57:ARG:HG2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:906:A:H2'	46:1S:907:A:C8	2.51	0.46
46:1S:1428:G:H8	46:1S:1428:G:H5'	1.80	0.46
50:S3:38:GLU:HG2	50:S3:49:ILE:O	2.15	0.46
50:S3:53:THR:HA	50:S3:91:VAL:HG12	1.97	0.46
52:S5:146:THR:CG2	52:S5:221:ALA:HA	2.45	0.46
58:11:4:GLU:O	58:11:5:LEU:HB2	2.15	0.46
58:11:33:ARG:HH21	58:11:33:ARG:HG3	1.81	0.46
64:17:71:PHE:CE1	64:17:74:GLN:HG3	2.50	0.46
68:21:41:GLU:O	68:21:42:GLU:HB3	2.16	0.46
73:26:13:LYS:H	73:26:15:ARG:HH21	1.63	0.46
1:2S:20:A:H2'	1:2S:21:G:C8	2.50	0.46
1:2S:74:G:H5''	15:53:104:ARG:NH2	2.30	0.46
1:2S:88:A:H2'	1:2S:89:A:O4'	2.16	0.46
1:2S:114:A:H61	1:2S:266:A:H4'	1.81	0.46
1:2S:626:U:H2'	1:2S:627:U:C6	2.51	0.46
1:2S:1070:U:H2'	1:2S:1071:U:O4'	2.16	0.46
1:2S:1103:A:H1'	1:2S:1104:G:P	2.56	0.46
1:2S:1360:C:H5''	7:L4:309:ARG:HD2	1.97	0.46
1:2S:2363:A:H2'	1:2S:2364:G:O4'	2.15	0.46
1:2S:2533:G:H2'	1:2S:2534:G:O4'	2.15	0.46
1:2S:3008:A:H2'	1:2S:3009:G:H8	1.80	0.46
5:L2:77:ILE:CG2	5:L2:78:ALA:H	2.18	0.46
7:L4:184:SER:CB	7:L4:202:ARG:HG2	2.45	0.46
7:L4:209:TYR:O	7:L4:230:VAL:HG23	2.16	0.46
18:56:37:ARG:HG2	18:56:107:GLY:CA	2.40	0.46
20:58:54:LEU:HD22	20:58:58:ASN:HB3	1.97	0.46
24:62:89:LEU:HB3	24:62:93:ILE:HD12	1.97	0.46
35:73:91:ALA:C	35:73:93:THR:H	2.18	0.46
36:74:100:ILE:O	36:74:104:VAL:HG23	2.15	0.46
46:1S:123:G:H2'	46:1S:124:A:O4'	2.16	0.46
46:1S:189:C:C3'	46:1S:190:C:H5''	2.46	0.46
46:1S:215:A:H5''	46:1S:216:U:H5	1.80	0.46
46:1S:454:U:H2'	46:1S:455:C:C5	2.51	0.46
46:1S:782:U:H3'	46:1S:783:G:C5'	2.45	0.46
46:1S:1363:U:H3'	46:1S:1364:G:C5'	2.46	0.46
50:S3:148:LYS:NZ	50:S3:148:LYS:HB3	2.30	0.46
51:S4:23:LEU:HD22	51:S4:23:LEU:N	2.30	0.46
52:S5:57:SER:HB3	75:28:53:ILE:CB	2.38	0.46
53:S6:36:VAL:HG12	53:S6:37:ASP:N	2.24	0.46
56:S9:54:ARG:HA	56:S9:57:ARG:HE	1.81	0.46
56:S9:57:ARG:O	56:S9:61:THR:HG23	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:130:THR:HG23	56:S9:131:GLN:HG3	1.97	0.46
61:14:133:ARG:HG2	61:14:136:ARG:NH2	2.22	0.46
63:16:69:VAL:HG21	63:16:81:ILE:CG2	2.45	0.46
65:18:145:ARG:HB3	65:18:146:ALA:H	1.49	0.46
75:28:42:ARG:HD2	75:28:62:GLU:HA	1.97	0.46
79:RA:61:PHE:HZ	79:RA:94:VAL:HA	1.81	0.46
79:RA:134:TRP:CZ3	79:RA:140:CYS:HB2	2.51	0.46
1:2S:149:U:H5'	17:55:54:LYS:HG3	1.97	0.46
1:2S:424:G:H21	34:72:24:ARG:NH2	2.14	0.46
1:2S:943:U:OP1	30:68:15:VAL:HG22	2.16	0.46
1:2S:1311:G:H21	18:56:87:MET:HA	1.80	0.46
1:2S:2642:A:H4'	31:69:6:ASN:HB2	1.97	0.46
1:2S:3294:A:H5'	1:2S:3294:A:C8	2.51	0.46
2:8S:77:A:O2'	2:8S:78:G:H5'	2.15	0.46
6:L3:93:VAL:HG22	6:L3:94:GLU:N	2.31	0.46
7:L4:138:ARG:NH1	7:L4:240:PRO:HD2	2.30	0.46
8:L5:22:ARG:HG3	8:L5:27:LYS:HB2	1.98	0.46
12:L9:28:VAL:HG22	12:L9:33:THR:HG22	1.98	0.46
18:56:16:VAL:HG23	18:56:42:ASN:O	2.15	0.46
22:60:77:VAL:HB	22:60:92:LYS:N	2.30	0.46
30:68:111:LYS:CB	30:68:129:PHE:HB2	2.46	0.46
31:69:22:LYS:H	31:69:22:LYS:HD2	1.80	0.46
32:70:27:TYR:HE1	32:70:56:LEU:HD21	1.81	0.46
32:70:73:GLY:O	32:70:77:LEU:HB2	2.15	0.46
46:1S:750:U:H2'	46:1S:751:G:C8	2.51	0.46
46:1S:771:A:C2	46:1S:772:G:H1'	2.51	0.46
46:1S:774:A:C2'	46:1S:775:G:H5'	2.45	0.46
46:1S:1226:A:H5'	46:1S:1230:A:H5'	1.97	0.46
46:1S:1504:G:H5'	66:19:97:SER:CB	2.46	0.46
46:1S:1729:C:H2'	46:1S:1730:A:H5'	1.96	0.46
51:S4:195:ILE:HG12	51:S4:210:ILE:HD13	1.97	0.46
56:S9:87:SER:OG	56:S9:90:LYS:HB2	2.15	0.46
58:11:83:THR:N	58:11:111:VAL:HG12	2.31	0.46
59:12:62:LEU:HB3	59:12:75:VAL:HG11	1.97	0.46
61:14:114:ARG:HA	73:26:62:TYR:CE1	2.50	0.46
65:18:54:LEU:HD22	65:18:54:LEU:H	1.81	0.46
73:26:85:ARG:N	73:26:85:ARG:HD3	2.31	0.46
75:28:50:GLU:O	75:28:51:ASN:HB2	2.16	0.46
1:2S:269:G:H4'	1:2S:270:U:C6	2.51	0.46
1:2S:443:G:H1	1:2S:493:U:H1'	1.81	0.46
1:2S:502:U:O3'	9:L6:26:ARG:HD2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:550:A:O2'	1:2S:551:A:H5'	2.15	0.46
1:2S:665:A:H2'	1:2S:666:A:C8	2.51	0.46
1:2S:939:U:H5	30:68:26:ARG:NH1	2.13	0.46
1:2S:1011:A:H2'	1:2S:1012:G:C8	2.51	0.46
1:2S:1364:C:H2'	1:2S:1365:G:C8	2.51	0.46
1:2S:1694:U:O2'	1:2S:1695:U:H5'	2.16	0.46
1:2S:1927:G:OP1	45:83:8:VAL:HG22	2.15	0.46
1:2S:2408:U:O2'	1:2S:2409:G:H5'	2.16	0.46
1:2S:2783:U:H2'	1:2S:2784:G:O4'	2.16	0.46
1:2S:2949:U:O2'	1:2S:2950:G:H5'	2.15	0.46
1:2S:3030:G:H2'	1:2S:3031:G:O4'	2.16	0.46
1:2S:3352:U:H4'	1:2S:3353:G:O5'	2.15	0.46
7:L4:58:HIS:ND1	7:L4:90:PHE:HD1	2.09	0.46
8:L5:200:PHE:CB	8:L5:237:GLU:HG3	2.44	0.46
13:50:33:ILE:HD11	13:50:36:LEU:CG	2.44	0.46
14:51:92:ARG:HD3	14:51:94:ARG:NE	2.31	0.46
15:53:10:LEU:HD23	15:53:11:LYS:H	1.80	0.46
17:55:199:LEU:HD22	17:55:203:ARG:HD2	1.98	0.46
18:56:19:LEU:HD13	18:56:123:ALA:HB1	1.98	0.46
23:61:106:LEU:HD12	23:61:110:LYS:HZ1	1.81	0.46
27:65:63:ILE:HD13	27:65:64:GLU:N	2.31	0.46
27:65:81:ILE:HG22	27:65:82:LEU:N	2.31	0.46
31:69:15:LYS:HA	31:69:18:ARG:HG3	1.97	0.46
33:71:29:ALA:HB3	33:71:30:PRO:HD3	1.97	0.46
45:83:73:THR:HG22	45:83:76:ALA:CB	2.46	0.46
46:1S:1345:A:OP1	67:20:54:GLY:HA3	2.16	0.46
47:S0:89:PHE:HD2	47:S0:174:TRP:HB3	1.81	0.46
47:S0:90:ALA:CB	47:S0:97:PRO:HD3	2.45	0.46
51:S4:29:PRO:HB3	51:S4:81:THR:CG2	2.46	0.46
52:S5:25:LEU:HB3	63:16:27:GLY:HA3	1.98	0.46
53:S6:142:ARG:HB3	53:S6:148:SER:H	1.79	0.46
54:S7:134:GLU:H	54:S7:155:ASP:HB2	1.80	0.46
60:13:40:TYR:O	60:13:45:LEU:HB2	2.16	0.46
64:17:102:VAL:HG23	64:17:120:SER:O	2.16	0.46
69:22:85:ASP:HB3	69:22:89:TRP:HD1	1.80	0.46
72:25:42:LEU:HA	72:25:46:LYS:HD2	1.96	0.46
1:2S:117:U:C6	11:L8:141:ALA:HB1	2.51	0.46
1:2S:214:G:H4'	28:66:10:SER:O	2.16	0.46
1:2S:283:G:H21	1:2S:285:A:H5''	1.81	0.46
1:2S:311:C:H2'	1:2S:312:C:C6	2.51	0.46
1:2S:519:A:H5''	7:L4:355:PHE:HZ	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:589:A:C2'	1:2S:590:G:H5'	2.45	0.46
1:2S:605:U:H2'	1:2S:606:C:H6	1.79	0.46
1:2S:806:A:H2'	1:2S:807:A:N3	2.31	0.46
1:2S:1347:U:C5	20:58:38:ARG:HD2	2.51	0.46
1:2S:1445:U:H2'	1:2S:1446:A:C8	2.51	0.46
1:2S:1459:C:H5''	33:71:51:LEU:HD12	1.96	0.46
1:2S:2626:A:H2'	1:2S:2644:C:OP2	2.15	0.46
1:2S:2667:A:H2'	1:2S:2668:U:C5'	2.46	0.46
1:2S:2685:C:H2'	1:2S:2686:A:C8	2.51	0.46
1:2S:2747:A:C2	8:L5:36:LEU:HD21	2.51	0.46
1:2S:2828:G:H3'	1:2S:2829:U:C6	2.51	0.46
1:2S:3297:U:H2'	1:2S:3298:C:O4'	2.16	0.46
5:L2:150:LEU:HD12	5:L2:154:ALA:HB3	1.97	0.46
6:L3:238:LEU:HD22	6:L3:238:LEU:N	2.31	0.46
7:L4:112:LYS:CE	17:55:202:TYR:HB3	2.46	0.46
9:L6:77:ARG:HG2	9:L6:78:ARG:H	1.80	0.46
10:L7:81:HIS:HB2	10:L7:138:TYR:CE1	2.51	0.46
10:L7:88:ARG:HE	10:L7:111:ILE:HA	1.81	0.46
11:L8:101:THR:HG22	11:L8:104:GLU:HG3	1.97	0.46
17:55:30:TYR:HE2	17:55:122:ASN:HD22	1.61	0.46
21:59:155:LEU:HA	21:59:158:GLU:HG2	1.97	0.46
22:60:58:ILE:N	22:60:58:ILE:HD12	2.30	0.46
23:61:102:ARG:HA	23:61:105:PHE:CB	2.46	0.46
31:69:11:ASN:O	31:69:15:LYS:HG3	2.15	0.46
32:70:34:LEU:HD21	32:70:59:TYR:HB3	1.97	0.46
39:77:69:HIS:O	39:77:73:ARG:HG3	2.16	0.46
41:79:15:LYS:O	41:79:19:GLN:HG3	2.15	0.46
43:81:3:ALA:HB3	46:1S:1773:C:OP1	2.16	0.46
46:1S:636:A:C2'	46:1S:637:C:H5'	2.46	0.46
46:1S:751:G:H2'	46:1S:752:A:O4'	2.15	0.46
46:1S:1273:G:HO2'	46:1S:1430:U:H5	1.63	0.46
46:1S:1424:A:OP2	50:S3:151:LYS:HE3	2.16	0.46
46:1S:1486:G:H2'	46:1S:1487:A:O4'	2.16	0.46
46:1S:1625:C:H2'	46:1S:1626:U:C6	2.51	0.46
47:S0:83:GLN:O	47:S0:86:VAL:HG22	2.16	0.46
51:S4:18:TRP:NE1	51:S4:42:LEU:HA	2.30	0.46
54:S7:13:PRO:O	54:S7:14:THR:CB	2.62	0.46
55:S8:152:ILE:CG2	55:S8:153:GLU:H	2.23	0.46
72:25:41:ILE:HG13	72:25:42:LEU:H	1.80	0.46
75:28:14:LYS:O	75:28:29:ARG:HB3	2.16	0.46
1:2S:826:G:H2'	1:2S:827:A:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:837:A:H3'	1:2S:838:G:H8	1.81	0.46
1:2S:1216:C:H2'	1:2S:1217:A:H8	1.76	0.46
1:2S:1553:U:C4'	1:2S:1554:U:H5'	2.37	0.46
1:2S:1565:G:H1	1:2S:1574:C:H42	1.64	0.46
1:2S:2130:G:H21	1:2S:2132:C:H5''	1.81	0.46
1:2S:2185:G:H2'	1:2S:2186:U:C6	2.50	0.46
3:5S:75:G:H1'	3:5S:104:A:H61	1.81	0.46
3:5S:86:U:H4'	3:5S:87:G:C5'	2.46	0.46
3:5S:96:U:H4'	22:60:119:ARG:CB	2.33	0.46
4:L1:101:LYS:HA	4:L1:101:LYS:HZ3	1.82	0.46
5:L2:104:LEU:HB2	5:L2:160:SER:CA	2.46	0.46
11:L8:71:VAL:HG12	17:55:21:PHE:CZ	2.50	0.46
28:66:50:ILE:CG1	28:66:51:ARG:N	2.79	0.46
40:78:7:ASP:HB3	40:78:10:GLN:HB3	1.98	0.46
41:79:24:PRO:HB2	41:79:27:ILE:HG13	1.98	0.46
46:1S:205:U:H2'	46:1S:206:A:H8	1.81	0.46
46:1S:381:C:H2'	46:1S:382:C:C6	2.50	0.46
46:1S:946:U:H5''	48:S1:165:ARG:NH1	2.31	0.46
46:1S:1133:A:H2'	46:1S:1134:C:O4'	2.16	0.46
46:1S:1675:C:H2'	46:1S:1676:U:O4'	2.16	0.46
47:S0:191:ARG:HA	47:S0:191:ARG:HE	1.81	0.46
49:S2:233:GLN:NE2	49:S2:234:PRO:HD2	2.31	0.46
55:S8:117:TYR:CE1	55:S8:150:ALA:HB2	2.51	0.46
57:10:12:HIS:O	57:10:80:LEU:HD11	2.16	0.46
58:11:6:THR:O	58:11:7:VAL:HG12	2.16	0.46
62:15:39:ALA:O	62:15:43:ARG:HB2	2.16	0.46
63:16:125:GLU:OE1	63:16:134:ALA:HB1	2.16	0.46
67:20:28:SER:HB2	67:20:112:VAL:HG13	1.98	0.46
1:2S:253:A:H2'	1:2S:254:A:O4'	2.16	0.45
1:2S:727:G:H3'	1:2S:728:G:H8	1.81	0.45
1:2S:781:G:N3	1:2S:781:G:H2'	2.30	0.45
1:2S:897:U:H2'	1:2S:898:U:C6	2.51	0.45
1:2S:1052:U:H2'	1:2S:1053:A:O4'	2.15	0.45
1:2S:1334:U:H5'	10:L7:207:LEU:O	2.16	0.45
1:2S:1523:U:H1'	27:65:111:ASN:HB3	1.97	0.45
1:2S:2048:G:H2'	1:2S:2049:A:C8	2.51	0.45
2:8S:91:C:H2'	2:8S:92:A:C8	2.51	0.45
2:8S:154:C:H2'	2:8S:155:A:C8	2.51	0.45
8:L5:226:TYR:N	8:L5:226:TYR:CD1	2.84	0.45
9:L6:131:LYS:HG2	9:L6:133:GLU:HB3	1.98	0.45
10:L7:85:PHE:HD2	10:L7:116:PHE:CE1	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:74:THR:HG23	11:L8:75:ILE:N	2.31	0.45
12:L9:141:LYS:O	12:L9:142:ASP:HB2	2.17	0.45
13:50:98:ARG:HG3	13:50:98:ARG:HH11	1.81	0.45
13:50:220:GLN:HG3	13:50:221:ALA:H	1.81	0.45
18:56:35:VAL:HB	18:56:104:VAL:HA	1.98	0.45
19:57:2:ALA:O	19:57:3:ARG:HB2	2.15	0.45
20:58:33:TYR:CD1	20:58:36:LEU:HD12	2.51	0.45
22:60:110:MET:HG3	22:60:121:ILE:HD13	1.99	0.45
22:60:153:PRO:O	22:60:154:HIS:CB	2.64	0.45
23:61:124:VAL:HG12	23:61:125:ALA:N	2.31	0.45
36:74:3:GLN:HE22	36:74:29:ILE:CG2	2.29	0.45
36:74:45:GLY:N	36:74:80:ARG:HH21	2.13	0.45
37:75:44:ILE:O	37:75:47:VAL:HG12	2.16	0.45
45:83:16:VAL:O	45:83:17:ARG:HG3	2.16	0.45
46:1S:149:C:H5''	71:24:123:LYS:NZ	2.31	0.45
46:1S:447:U:O5'	46:1S:447:U:H6	1.99	0.45
46:1S:937:C:H2'	46:1S:938:G:C8	2.51	0.45
47:S0:139:VAL:HG13	47:S0:141:ILE:HG13	1.98	0.45
48:S1:88:VAL:CG1	48:S1:96:LEU:HB2	2.43	0.45
50:S3:18:TYR:HE1	50:S3:38:GLU:HA	1.81	0.45
51:S4:87:MET:HE2	51:S4:87:MET:HA	1.98	0.45
55:S8:25:ARG:HB3	55:S8:27:PHE:CE1	2.51	0.45
55:S8:172:ARG:HB2	55:S8:175:GLN:HB2	1.97	0.45
56:S9:140:ILE:HG12	56:S9:159:ALA:HB2	1.97	0.45
56:S9:182:GLU:HG3	56:S9:183:ALA:N	2.30	0.45
70:23:68:ILE:HG22	70:23:70:LYS:HG2	1.97	0.45
71:24:125:LEU:HA	71:24:128:LYS:HB2	1.98	0.45
73:26:36:ILE:HG22	73:26:73:TYR:O	2.15	0.45
79:RA:49:GLY:HA2	79:RA:54:PHE:HD1	1.80	0.45
1:2S:59:G:H2'	2:8S:33:A:O2'	2.16	0.45
1:2S:76:G:C6	15:53:101:ARG:HA	2.52	0.45
1:2S:407:A:H4'	1:2S:1396:C:O2'	2.17	0.45
1:2S:543:C:H6	1:2S:543:C:H5''	1.81	0.45
1:2S:729:C:O2'	1:2S:730:C:H5'	2.16	0.45
1:2S:2101:C:HO2'	1:2S:2102:U:H6	1.63	0.45
1:2S:2176:U:H5''	5:L2:54:ARG:NH1	2.31	0.45
1:2S:2310:U:H2'	1:2S:2311:G:C8	2.51	0.45
1:2S:2492:C:C1'	1:2S:2493:U:H5	2.27	0.45
1:2S:2635:A:N6	1:2S:2641:U:H2'	2.31	0.45
1:2S:2647:A:C3'	1:2S:2648:G:H5''	2.47	0.45
1:2S:3277:U:H3'	1:2S:3278:C:O2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L1:39:LYS:NZ	4:L1:205:VAL:HB	2.31	0.45
4:L1:70:ASP:O	4:L1:88:ASP:HB2	2.15	0.45
5:L2:118:GLU:HG3	5:L2:125:ALA:HB1	1.98	0.45
7:L4:276:LEU:HD23	7:L4:277:PRO:HD2	1.97	0.45
8:L5:34:LYS:O	8:L5:38:THR:HG23	2.16	0.45
8:L5:65:ILE:HG21	8:L5:72:ASP:HB3	1.99	0.45
10:L7:83:LEU:HD23	10:L7:195:PHE:HZ	1.81	0.45
15:53:131:LYS:HG3	15:53:132:ALA:H	1.82	0.45
17:55:83:LYS:HD2	17:55:83:LYS:N	2.31	0.45
21:59:136:ARG:O	21:59:140:GLU:HG3	2.15	0.45
22:60:106:LEU:O	22:60:110:MET:HG2	2.16	0.45
25:63:23:MET:CE	25:63:100:GLY:HA3	2.47	0.45
29:67:16:GLY:O	29:67:18:TYR:N	2.50	0.45
31:69:36:ASP:O	31:69:40:ARG:HG3	2.16	0.45
34:72:3:SER:HB3	34:72:71:HIS:NE2	2.30	0.45
34:72:46:PHE:O	34:72:49:ASN:HB2	2.16	0.45
35:73:13:HIS:HB3	35:73:93:THR:O	2.16	0.45
36:74:19:LYS:O	36:74:20:ILE:HD13	2.16	0.45
36:74:74:ARG:NH1	36:74:85:VAL:HG21	2.30	0.45
41:79:36:ARG:HG2	41:79:36:ARG:HH11	1.80	0.45
46:1S:446:A:N6	46:1S:461:G:H21	2.13	0.45
46:1S:466:U:C2'	46:1S:467:G:H5'	2.43	0.45
46:1S:1086:A:H2'	46:1S:1087:A:C8	2.51	0.45
50:S3:116:ARG:O	50:S3:120:TYR:CD2	2.69	0.45
51:S4:18:TRP:CZ2	51:S4:42:LEU:HA	2.51	0.45
51:S4:197:HIS:ND1	51:S4:209:HIS:HD2	2.15	0.45
52:S5:160:VAL:HG23	52:S5:160:VAL:O	2.16	0.45
55:S8:40:ALA:CB	55:S8:42:ARG:HH21	2.29	0.45
55:S8:72:ILE:HB	55:S8:74:LYS:HE2	1.98	0.45
57:10:43:ILE:O	57:10:47:GLN:HB2	2.16	0.45
58:11:6:THR:C	58:11:8:GLN:H	2.19	0.45
61:14:107:ARG:HG3	61:14:107:ARG:HH21	1.81	0.45
65:18:86:LEU:HD21	65:18:97:ASP:HB3	1.96	0.45
69:22:45:GLY:O	69:22:68:ARG:HD2	2.16	0.45
71:24:29:HIS:N	71:24:30:PRO:HD3	2.31	0.45
73:26:61:GLU:HG3	73:26:62:TYR:N	2.31	0.45
1:2S:508:U:H2'	1:2S:509:U:C6	2.50	0.45
1:2S:675:C:O2'	1:2S:679:U:H5''	2.17	0.45
1:2S:1167:U:H3	1:2S:1332:A:H61	1.65	0.45
1:2S:1845:G:H5'	1:2S:1846:C:H5'	1.95	0.45
1:2S:2271:A:H2'	1:2S:2272:G:C4'	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2322:C:H2'	1:2S:2323:G:H5'	1.99	0.45
1:2S:2412:G:H2'	1:2S:2413:A:O4'	2.16	0.45
1:2S:2461:A:H2	1:2S:2486:A:O4'	1.98	0.45
1:2S:2730:G:H4'	20:58:184:PHE:CD2	2.52	0.45
1:2S:2925:C:H2'	1:2S:2926:A:O4'	2.17	0.45
1:2S:3065:G:H2'	1:2S:3066:U:C6	2.52	0.45
3:5S:39:C:O2	14:51:69:VAL:HA	2.16	0.45
9:L6:82:ARG:HD2	35:73:104:PRO:HB3	1.98	0.45
10:L7:90:LYS:HD2	10:L7:91:GLY:N	2.30	0.45
11:L8:248:LYS:O	11:L8:252:ASN:HB2	2.16	0.45
14:51:92:ARG:HD3	14:51:94:ARG:HE	1.81	0.45
16:54:94:TRP:O	16:54:100:ALA:HB2	2.17	0.45
17:55:41:ARG:CB	17:55:41:ARG:HH11	2.29	0.45
27:65:92:LYS:HA	27:65:95:ILE:HD12	1.98	0.45
28:66:51:ARG:HG3	28:66:54:ASP:OD2	2.16	0.45
36:74:25:THR:HA	36:74:26:PRO:HD3	1.75	0.45
39:77:17:THR:C	39:77:25:ARG:HA	2.35	0.45
46:1S:1271:G:H2'	46:1S:1272:U:C6	2.52	0.45
46:1S:1321:A:H4'	46:1S:1322:A:O5'	2.15	0.45
50:S3:43:PRO:O	50:S3:44:THR:HB	2.17	0.45
52:S5:29:ILE:HD12	52:S5:29:ILE:H	1.81	0.45
52:S5:94:THR:HA	52:S5:97:LEU:HD12	1.98	0.45
54:S7:30:SER:O	54:S7:31:SER:HB2	2.16	0.45
54:S7:121:VAL:O	54:S7:125:ILE:HG13	2.16	0.45
62:15:98:ASN:HB2	62:15:122:THR:HA	1.98	0.45
63:16:32:ASN:HA	63:16:66:ARG:HH21	1.81	0.45
70:23:27:ASN:O	70:23:31:LYS:HE3	2.16	0.45
70:23:69:ARG:HA	70:23:69:ARG:NE	2.31	0.45
71:24:47:VAL:HG23	71:24:48:TYR:CD2	2.50	0.45
79:RA:89:LEU:HB2	79:RA:103:PHE:HB2	1.98	0.45
1:2S:422:A:H2'	1:2S:423:A:O4'	2.16	0.45
1:2S:1086:C:H2'	1:2S:1087:G:O4'	2.16	0.45
1:2S:1836:C:H2'	1:2S:1837:U:C6	2.52	0.45
1:2S:2271:A:H3'	1:2S:2272:G:H5''	1.97	0.45
1:2S:2289:U:H2'	1:2S:2290:C:H6	1.80	0.45
1:2S:2631:U:H2'	1:2S:2632:G:C8	2.51	0.45
1:2S:3038:U:H5''	6:L3:62:ARG:CG	2.47	0.45
2:8S:104:A:OP2	2:8S:105:A:H2'	2.16	0.45
4:L1:150:ASP:O	4:L1:151:VAL:HB	2.17	0.45
5:L2:247:ARG:HH11	5:L2:247:ARG:CG	2.30	0.45
6:L3:56:ILE:HG13	6:L3:359:ILE:HG12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:287:LYS:HB2	6:L3:290:ASP:HB2	1.98	0.45
7:L4:74:ILE:HD11	7:L4:76:ARG:NH1	2.31	0.45
7:L4:114:ASN:O	7:L4:118:LYS:HB2	2.16	0.45
9:L6:46:ARG:HB3	9:L6:77:ARG:HH22	1.81	0.45
9:L6:79:VAL:HG22	9:L6:80:ASN:N	2.32	0.45
9:L6:98:VAL:HG12	9:L6:98:VAL:O	2.17	0.45
11:L8:33:ASN:O	11:L8:38:GLN:HG3	2.17	0.45
13:50:213:PHE:H	13:50:214:PRO:HD3	1.77	0.45
15:53:57:VAL:HG22	15:53:147:ILE:CD1	2.45	0.45
21:59:43:LYS:HA	21:59:46:LYS:HE3	1.98	0.45
24:62:100:THR:O	24:62:101:ASN:HB2	2.17	0.45
24:62:104:ARG:O	24:62:105:LEU:HD12	2.16	0.45
29:67:121:ARG:HH11	29:67:121:ARG:HG3	1.81	0.45
35:73:80:VAL:HG12	35:73:81:VAL:N	2.32	0.45
45:83:60:CYS:O	45:83:61:LYS:HB2	2.15	0.45
46:1S:329:G:H2'	46:1S:330:G:C8	2.51	0.45
46:1S:335:U:O2'	58:11:130:PRO:HB2	2.16	0.45
46:1S:532:U:C2'	46:1S:533:U:H5'	2.45	0.45
46:1S:1117:U:H2'	46:1S:1118:G:H8	1.79	0.45
46:1S:1360:A:C2'	46:1S:1361:U:H4'	2.47	0.45
46:1S:1785:U:H2'	46:1S:1786:G:H8	1.81	0.45
50:S3:84:ILE:HG23	50:S3:84:ILE:O	2.17	0.45
54:S7:96:ARG:NH2	54:S7:124:LYS:HB3	2.31	0.45
71:24:35:VAL:HG22	71:24:36:SER:N	2.32	0.45
1:2S:230:U:P	28:66:4:GLN:HG2	2.57	0.45
1:2S:418:A:H2'	1:2S:419:G:C8	2.51	0.45
1:2S:662:U:O4	1:2S:801:A:H1'	2.16	0.45
1:2S:827:A:H5''	36:74:14:ASN:O	2.17	0.45
1:2S:828:A:H2'	1:2S:829:U:C6	2.52	0.45
1:2S:1039:U:H2'	1:2S:1040:A:C8	2.52	0.45
1:2S:1108:U:H2'	1:2S:1109:U:H6	1.82	0.45
1:2S:2513:U:H4'	1:2S:2514:U:OP1	2.16	0.45
12:L9:9:GLN:OE1	12:L9:52:LEU:HD21	2.17	0.45
14:51:136:ALA:O	14:51:140:ARG:HB2	2.16	0.45
16:54:131:VAL:HG13	18:56:181:ALA:HB1	1.97	0.45
17:55:50:ARG:NH1	17:55:50:ARG:CB	2.79	0.45
19:57:146:ILE:CG2	19:57:147:GLU:H	2.23	0.45
20:58:44:PHE:O	20:58:48:VAL:HG23	2.16	0.45
23:61:63:VAL:O	23:61:74:VAL:HA	2.16	0.45
37:75:101:THR:HG23	37:75:104:GLN:H	1.82	0.45
39:77:25:ARG:HH12	41:79:50:ASN:HB3	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:80:92:ASP:O	42:80:105:PRO:HD3	2.17	0.45
46:1S:190:C:N4	55:S8:137:LYS:HG3	2.19	0.45
46:1S:982:U:H2'	46:1S:983:A:H8	1.81	0.45
46:1S:1341:A:OP1	79:RA:63:GLY:HA2	2.17	0.45
47:S0:76:ILE:O	47:S0:124:THR:HG23	2.17	0.45
47:S0:167:LYS:HB3	47:S0:168:HIS:H	1.56	0.45
48:S1:70:LEU:HD12	48:S1:82:ARG:O	2.17	0.45
49:S2:203:LYS:O	49:S2:206:THR:HG22	2.16	0.45
51:S4:159:THR:O	51:S4:172:PHE:HA	2.17	0.45
53:S6:108:VAL:HG12	53:S6:109:LEU:N	2.32	0.45
57:10:14:TYR:CD2	57:10:35:ILE:HD11	2.52	0.45
61:14:24:ASN:O	61:14:25:ASP:HB2	2.17	0.45
64:17:14:LYS:HG3	64:17:69:ILE:HG23	1.99	0.45
79:RA:146:GLY:HA3	79:RA:181:TRP:HH2	1.81	0.45
1:2S:76:G:O6	15:53:101:ARG:HA	2.15	0.45
1:2S:659:G:H4'	7:L4:92:ASN:HD22	1.82	0.45
1:2S:953:G:O2'	1:2S:1115:G:H4'	2.15	0.45
1:2S:987:U:H2'	1:2S:988:U:C6	2.51	0.45
1:2S:1003:A:H2'	1:2S:1004:U:H5'	1.99	0.45
1:2S:1003:A:N6	1:2S:1050:U:H1'	2.32	0.45
1:2S:1116:G:H3'	1:2S:1117:G:H5''	1.97	0.45
1:2S:1197:A:H2'	1:2S:1198:C:O4'	2.16	0.45
1:2S:1305:U:N3	1:2S:2367:A:H5''	2.20	0.45
1:2S:1678:G:H2'	1:2S:1679:A:H8	1.81	0.45
1:2S:1729:A:H5'	32:70:27:TYR:CB	2.46	0.45
1:2S:2747:A:H2	8:L5:36:LEU:HD21	1.82	0.45
5:L2:91:GLY:O	5:L2:102:LEU:HG	2.16	0.45
6:L3:60:LEU:HD11	6:L3:62:ARG:HB2	1.97	0.45
6:L3:76:VAL:HB	6:L3:323:MET:CG	2.47	0.45
11:L8:133:LYS:HB3	11:L8:138:HIS:CE1	2.51	0.45
15:53:185:LYS:O	15:53:189:GLU:HG3	2.16	0.45
17:55:39:ALA:HB1	17:55:63:ARG:HH21	1.81	0.45
20:58:147:ARG:HG2	20:58:148:GLU:N	2.31	0.45
31:69:36:ASP:HB3	31:69:39:PHE:CB	2.47	0.45
32:70:101:LEU:N	32:70:101:LEU:HD22	2.32	0.45
40:78:17:ARG:O	40:78:18:ALA:HB3	2.16	0.45
44:82:63:LYS:HA	44:82:63:LYS:HZ2	1.82	0.45
46:1S:4:C:H4'	49:S2:181:SER:HB3	1.98	0.45
46:1S:209:U:H5'	55:S8:171:SER:HB3	1.99	0.45
46:1S:530:C:O5'	46:1S:530:C:H6	1.98	0.45
46:1S:680:U:H2'	46:1S:681:U:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:963:A:OP2	46:1S:963:A:H8	1.99	0.45
46:1S:1404:C:H2'	46:1S:1405:G:C8	2.52	0.45
48:S1:167:VAL:O	48:S1:170:GLU:HB3	2.17	0.45
52:S5:166:ARG:HD3	75:28:45:LYS:O	2.16	0.45
53:S6:50:PHE:HE1	53:S6:113:ILE:HG12	1.80	0.45
56:S9:83:VAL:HG23	56:S9:85:VAL:HG23	1.99	0.45
59:12:79:ALA:HA	59:12:87:PRO:HG2	1.97	0.45
59:12:101:ALA:HB2	59:12:121:VAL:HG11	1.99	0.45
65:18:145:ARG:HA	65:18:145:ARG:HE	1.82	0.45
66:19:16:ASN:OD1	66:19:56:LYS:HD2	2.17	0.45
66:19:27:LYS:HZ2	66:19:111:ILE:HG13	1.82	0.45
71:24:102:LYS:HB2	71:24:108:ARG:HD3	1.98	0.45
72:25:37:GLN:O	72:25:38:HIS:HB3	2.17	0.45
79:RA:124:SER:C	79:RA:154:VAL:HG21	2.37	0.45
1:2S:656:A:H2'	1:2S:657:A:H8	1.76	0.45
1:2S:818:C:H2'	1:2S:819:U:O4'	2.17	0.45
1:2S:915:A:C6	1:2S:917:A:H1'	2.52	0.45
1:2S:975:C:OP2	20:58:15:HIS:HA	2.17	0.45
1:2S:1056:U:H2'	1:2S:1057:A:O4'	2.17	0.45
1:2S:1117:G:H2'	1:2S:1118:C:H6	1.74	0.45
1:2S:1234:G:OP2	1:2S:1235:U:H3'	2.17	0.45
1:2S:2046:U:H2'	1:2S:2047:A:H5'	1.99	0.45
1:2S:2144:A:H1'	1:2S:2281:A:H61	1.82	0.45
1:2S:2359:C:H4'	1:2S:2399:A:H4'	1.98	0.45
1:2S:2369:G:H3'	1:2S:2370:G:C8	2.52	0.45
1:2S:2461:A:H61	1:2S:2483:G:H21	1.64	0.45
1:2S:3243:A:C4'	6:L3:96:PRO:HD3	2.47	0.45
1:2S:3335:A:H5'	1:2S:3368:U:H3	1.81	0.45
2:8S:107:G:H4'	2:8S:137:C:H2'	1.99	0.45
8:L5:184:ASP:HB3	8:L5:187:THR:CG2	2.46	0.45
10:L7:130:ILE:O	10:L7:134:VAL:HG22	2.17	0.45
11:L8:246:MET:O	11:L8:246:MET:HG2	2.16	0.45
18:56:102:LEU:C	18:56:103:LYS:HG3	2.37	0.45
27:65:95:ILE:O	27:65:99:VAL:HG23	2.17	0.45
36:74:92:ALA:O	36:74:96:GLU:HG3	2.17	0.45
37:75:59:ASN:O	37:75:63:ARG:HG3	2.16	0.45
46:1S:576:G:H4'	46:1S:580:A:N3	2.31	0.45
46:1S:594:A:H4'	46:1S:595:G:H5'	1.99	0.45
46:1S:683:C:H2'	46:1S:684:A:C8	2.52	0.45
46:1S:1280:C:H2'	46:1S:1281:G:C8	2.51	0.45
47:S0:20:ALA:HB3	47:S0:172:LEU:HD22	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:158:THR:OG1	49:S2:169:LEU:HD12	2.16	0.45
50:S3:212:LYS:HG3	50:S3:213:GLU:H	1.80	0.45
53:S6:187:LYS:O	53:S6:191:ARG:HG3	2.17	0.45
54:S7:35:LYS:HA	54:S7:38:LEU:HB3	1.99	0.45
55:S8:88:ASN:O	55:S8:92:ARG:HG3	2.15	0.45
57:10:56:LYS:HE2	57:10:67:THR:CB	2.46	0.45
62:15:90:ILE:HG12	62:15:107:ILE:CG2	2.41	0.45
66:19:37:VAL:HG11	66:19:100:ILE:HD11	1.99	0.45
67:20:21:LYS:HG2	67:20:94:GLU:CD	2.36	0.45
67:20:58:LEU:HD12	67:20:88:LYS:HB3	1.99	0.45
67:20:58:LEU:HB2	67:20:88:LYS:O	2.15	0.45
70:23:76:LEU:HB3	70:23:80:GLY:H	1.81	0.45
70:23:137:LYS:HD2	70:23:139:LYS:HE2	1.97	0.45
74:27:14:SER:HA	74:27:17:ARG:HG2	1.97	0.45
79:RA:72:THR:HG22	79:RA:81:LEU:HB2	1.99	0.45
1:2S:621:A:H8	1:2S:623:U:O4	2.00	0.45
1:2S:855:U:C2'	1:2S:856:G:H5'	2.47	0.45
1:2S:915:A:C5	1:2S:917:A:H1'	2.52	0.45
1:2S:1383:G:N3	7:L4:243:HIS:HE1	2.15	0.45
1:2S:1535:A:H62	1:2S:1586:G:H21	1.64	0.45
1:2S:1863:G:H1	1:2S:1865:A:H3'	1.82	0.45
1:2S:1972:A:H5''	40:78:60:GLY:CA	2.47	0.45
1:2S:2604:U:H2'	1:2S:2605:G:O4'	2.16	0.45
1:2S:3015:G:H2'	1:2S:3016:A:C8	2.51	0.45
1:2S:3090:U:H2'	1:2S:3091:A:C8	2.51	0.45
1:2S:3200:G:H2'	1:2S:3201:C:C6	2.51	0.45
1:2S:3345:G:O2'	1:2S:3346:U:H5'	2.16	0.45
1:2S:3354:U:C4'	55:S8:164:ARG:HH22	2.30	0.45
3:5S:75:G:H2'	3:5S:76:A:H2'	1.99	0.45
4:L1:16:LEU:HB2	4:L1:17:LEU:HD23	1.99	0.45
4:L1:19:TYR:HE1	4:L1:204:LEU:HD13	1.81	0.45
6:L3:160:VAL:H	6:L3:181:ILE:H	1.63	0.45
8:L5:270:LYS:HE2	8:L5:273:ARG:HH11	1.82	0.45
13:50:42:THR:O	13:50:139:ARG:NH2	2.49	0.45
13:50:85:PHE:CB	13:50:140:THR:HG22	2.47	0.45
14:51:48:SER:O	14:51:64:LYS:HA	2.17	0.45
14:51:104:PHE:O	14:51:127:PHE:HB2	2.16	0.45
17:55:66:VAL:O	17:55:127:TYR:HA	2.17	0.45
17:55:121:VAL:HG23	17:55:122:ASN:N	2.32	0.45
20:58:64:VAL:HG13	20:58:93:ILE:HD11	1.99	0.45
24:62:43:VAL:O	24:62:44:GLU:C	2.55	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:63:54:LEU:HD21	25:63:79:VAL:O	2.17	0.45
27:65:86:VAL:HG22	27:65:87:SER:N	2.31	0.45
32:70:16:LEU:HB3	32:70:98:SER:HB2	1.98	0.45
36:74:53:GLY:O	36:74:54:ILE:HD13	2.17	0.45
40:78:38:PHE:HE1	40:78:40:GLN:HB2	1.81	0.45
42:80:96:CYS:HA	42:80:121:LEU:HD23	1.99	0.45
45:83:22:LEU:N	45:83:22:LEU:HD23	2.31	0.45
46:1S:391:A:O4'	46:1S:1731:A:H5'	2.16	0.45
46:1S:427:C:O5'	46:1S:427:C:H6	2.00	0.45
46:1S:467:G:H2'	46:1S:468:A:H5''	1.97	0.45
46:1S:883:C:H2'	46:1S:884:A:C8	2.50	0.45
46:1S:922:G:H2'	46:1S:923:A:H8	1.82	0.45
46:1S:925:G:O2'	46:1S:926:A:H5'	2.16	0.45
46:1S:1074:G:H5'	46:1S:1074:G:H8	1.82	0.45
46:1S:1470:C:H4'	46:1S:1540:G:N2	2.31	0.45
46:1S:1667:A:H2'	46:1S:1668:G:H8	1.81	0.45
49:S2:233:GLN:HA	49:S2:234:PRO:HD3	1.86	0.45
53:S6:57:ASP:OD2	53:S6:61:PHE:HB2	2.17	0.45
55:S8:142:LYS:HB3	55:S8:146:ARG:NH1	2.32	0.45
63:16:116:LEU:CB	63:16:117:LEU:HD22	2.46	0.45
71:24:12:VAL:C	71:24:13:ILE:HG13	2.37	0.45
77:30:39:LEU:CD1	77:30:42:ARG:HH12	2.30	0.45
1:2S:52:A:H5''	39:77:48:ASN:CB	2.47	0.45
1:2S:155:G:H4'	1:2S:156:G:H2'	1.98	0.45
1:2S:922:U:C6	1:2S:927:C:H5'	2.51	0.45
1:2S:932:U:H3'	1:2S:932:U:OP2	2.17	0.45
1:2S:1379:G:H2'	1:2S:1380:G:O4'	2.17	0.45
3:5S:31:U:O2'	3:5S:32:U:H5'	2.16	0.45
8:L5:103:LEU:HA	8:L5:106:ALA:HB3	1.99	0.45
10:L7:209:ASN:OD1	10:L7:214:TRP:HZ2	2.00	0.45
11:L8:134:TYR:H	11:L8:134:TYR:HD2	1.65	0.45
11:L8:136:LEU:O	11:L8:140:VAL:HG23	2.17	0.45
13:50:189:GLU:HG2	13:50:200:LEU:HD23	1.98	0.45
16:54:66:THR:HG22	16:54:99:TRP:CZ3	2.52	0.45
19:57:59:PRO:HG2	19:57:76:PHE:CE2	2.52	0.45
20:58:138:LEU:HD13	20:58:139:ILE:N	2.31	0.45
21:59:51:VAL:HG23	21:59:53:LYS:N	2.31	0.45
21:59:115:ILE:HD11	21:59:119:LEU:CB	2.47	0.45
25:63:15:LEU:HB3	25:63:52:ALA:HA	1.99	0.45
31:69:15:LYS:HA	31:69:18:ARG:CG	2.47	0.45
32:70:28:LYS:O	32:70:32:LYS:HE3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:70:84:LEU:N	32:70:84:LEU:HD12	2.32	0.45
33:71:55:LEU:O	33:71:55:LEU:HD22	2.17	0.45
37:75:38:ARG:CB	37:75:38:ARG:HH11	2.30	0.45
46:1S:143:G:C3'	46:1S:144:U:H5''	2.46	0.45
46:1S:233:C:H4'	46:1S:234:G:C2	2.52	0.45
46:1S:262:U:H2'	46:1S:263:C:C6	2.52	0.45
46:1S:347:G:H2'	46:1S:348:U:C6	2.52	0.45
46:1S:444:C:N4	46:1S:458:G:H2'	2.31	0.45
46:1S:780:A:C8	71:24:8:ARG:HB3	2.47	0.45
46:1S:1330:G:N1	50:S3:204:ASP:OD2	2.46	0.45
46:1S:1454:G:H4'	62:15:122:THR:HG21	1.98	0.45
46:1S:1500:C:H5''	66:19:102:ARG:CD	2.24	0.45
47:S0:82:GLY:HA3	47:S0:170:ILE:HG21	1.99	0.45
51:S4:15:PRO:HB2	51:S4:17:HIS:CD2	2.52	0.45
51:S4:194:THR:HG21	51:S4:231:GLN:NE2	2.32	0.45
53:S6:77:LEU:HD12	53:S6:95:LYS:CD	2.47	0.45
56:S9:46:SER:O	56:S9:50:SER:HB2	2.17	0.45
59:12:118:ALA:O	59:12:120:VAL:N	2.50	0.45
62:15:61:ARG:CB	62:15:61:ARG:HH11	2.30	0.45
66:19:52:GLY:HA2	66:19:55:TYR:HD2	1.82	0.45
67:20:72:ASN:ND2	67:20:73:GLY:H	2.15	0.45
75:28:25:VAL:HG11	75:28:66:LEU:CD1	2.44	0.45
75:28:61:ARG:HG2	75:28:61:ARG:HH11	1.82	0.45
79:RA:88:THR:HG22	79:RA:104:VAL:HG13	1.98	0.45
79:RA:197:SER:OG	79:RA:216:LYS:HB3	2.16	0.45
1:2S:267:G:H2'	1:2S:318:A:N7	2.32	0.45
1:2S:632:G:H2'	1:2S:633:C:H6	1.77	0.45
1:2S:1008:U:O2'	1:2S:1009:A:H5'	2.17	0.45
1:2S:1433:A:N3	34:72:27:ARG:NH2	2.65	0.45
1:2S:1655:G:OP2	1:2S:1656:A:H2'	2.17	0.45
1:2S:2095:G:H2'	1:2S:2096:A:C8	2.52	0.45
1:2S:2183:A:O2'	5:L2:236:GLY:HA2	2.17	0.45
1:2S:2922:G:H3'	1:2S:2923:U:H5''	1.98	0.45
3:5S:8:G:H2'	3:5S:9:C:C6	2.51	0.45
6:L3:305:ILE:HD12	6:L3:306:THR:N	2.31	0.45
7:L4:170:LYS:HE3	7:L4:178:LEU:CD1	2.47	0.45
7:L4:263:GLY:CA	7:L4:267:VAL:HG23	2.48	0.45
12:L9:161:LEU:HA	12:L9:164:ILE:CG1	2.47	0.45
23:61:106:LEU:HA	23:61:109:VAL:HB	1.98	0.45
27:65:62:VAL:HG12	27:65:63:ILE:N	2.31	0.45
27:65:72:ALA:O	27:65:76:VAL:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:72:32:TRP:CZ2	34:72:34:LYS:HA	2.52	0.45
35:73:49:ILE:O	35:73:50:ALA:HB2	2.17	0.45
46:1S:90:C:H2'	46:1S:91:G:C8	2.52	0.45
46:1S:778:G:N3	46:1S:778:G:H5'	2.31	0.45
46:1S:831:U:C2'	46:1S:832:U:H5'	2.47	0.45
46:1S:1438:G:H2'	46:1S:1439:C:H6	1.78	0.45
48:S1:110:LEU:O	48:S1:114:VAL:HG23	2.17	0.45
50:S3:202:LEU:O	64:17:42:GLN:HG3	2.18	0.45
51:S4:181:VAL:HG12	51:S4:182:TYR:N	2.32	0.45
54:S7:63:PRO:O	54:S7:64:VAL:HB	2.17	0.45
57:10:11:ILE:HD11	57:10:42:VAL:HG22	1.98	0.45
57:10:89:GLY:HA2	57:10:91:TYR:HE1	1.83	0.45
59:12:90:LYS:O	59:12:91:VAL:HB	2.17	0.45
64:17:67:ARG:HH21	64:17:67:ARG:HG2	1.82	0.45
75:28:58:GLU:OE2	75:28:61:ARG:HD3	2.17	0.45
1:2S:816:A:O5'	1:2S:906:A:N6	2.50	0.44
1:2S:1264:G:O2'	1:2S:1265:U:H5	2.00	0.44
1:2S:1590:G:H1'	1:2S:1797:A:N6	2.33	0.44
1:2S:2137:U:OP2	1:2S:2142:A:N6	2.47	0.44
1:2S:2366:C:H2'	1:2S:2367:A:C8	2.52	0.44
1:2S:2470:C:H2'	1:2S:2471:U:H5'	1.98	0.44
1:2S:2754:G:H3'	1:2S:2755:C:C5'	2.47	0.44
1:2S:2890:A:N6	1:2S:2913:C:H42	2.12	0.44
1:2S:2915:U:H5''	1:2S:2916:U:H5'	1.99	0.44
1:2S:3304:U:C5	6:L3:333:LYS:HE2	2.52	0.44
3:5S:65:G:H2'	3:5S:66:A:H8	1.81	0.44
4:L1:32:VAL:HG22	4:L1:33:GLU:N	2.32	0.44
6:L3:145:GLU:HA	6:L3:148:LEU:CB	2.47	0.44
6:L3:226:PHE:CD2	6:L3:227:GLU:N	2.85	0.44
7:L4:77:VAL:HB	7:L4:86:GLY:N	2.31	0.44
7:L4:84:ARG:O	7:L4:87:GLN:HG3	2.16	0.44
17:55:143:ARG:NH2	37:75:92:LEU:HD23	2.32	0.44
18:56:117:ARG:HD3	18:56:117:ARG:H	1.81	0.44
19:57:114:VAL:HA	19:57:150:VAL:HG12	1.99	0.44
20:58:170:ARG:O	20:58:171:LYS:CB	2.66	0.44
22:60:21:GLU:N	22:60:22:PRO:HD3	2.32	0.44
23:61:14:MET:HG2	23:61:58:GLN:HG2	1.99	0.44
23:61:96:ILE:HG22	23:61:97:LYS:N	2.32	0.44
25:63:80:ARG:HG2	25:63:95:PHE:CD2	2.52	0.44
26:64:29:PHE:HB3	26:64:31:PHE:CZ	2.52	0.44
33:71:98:VAL:HG22	33:71:99:ALA:H	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:83:55:TRP:HD1	45:83:66:GLY:HA3	1.80	0.44
46:1S:1:U:O4	56:S9:54:ARG:HD3	2.17	0.44
46:1S:28:A:H2'	46:1S:29:U:O4'	2.17	0.44
46:1S:767:U:O2	46:1S:767:U:H3'	2.17	0.44
46:1S:956:C:OP2	60:13:12:SER:HB2	2.17	0.44
48:S1:105:PHE:HD1	48:S1:110:LEU:HD11	1.82	0.44
50:S3:136:VAL:HG12	50:S3:137:VAL:N	2.32	0.44
51:S4:192:ILE:HD12	51:S4:242:LYS:O	2.17	0.44
51:S4:197:HIS:CE1	51:S4:199:GLU:HG2	2.52	0.44
51:S4:240:LYS:O	51:S4:240:LYS:HG2	2.17	0.44
53:S6:125:THR:O	53:S6:125:THR:HG22	2.17	0.44
54:S7:61:PHE:HE1	54:S7:93:LEU:HD12	1.82	0.44
58:11:99:ARG:HH11	70:23:9:LEU:HD22	1.82	0.44
60:13:141:TYR:HE1	60:13:146:ALA:HB2	1.81	0.44
64:17:102:VAL:HB	64:17:106:THR:HB	1.99	0.44
69:22:103:ILE:HG22	69:22:127:GLY:H	1.82	0.44
79:RA:238:ASP:CB	79:RA:256:THR:HB	2.47	0.44
79:RA:278:PHE:HE2	79:RA:287:PRO:HD2	1.79	0.44
1:2S:259:C:H2'	1:2S:260:C:C6	2.52	0.44
1:2S:811:U:H2'	1:2S:812:G:C8	2.53	0.44
1:2S:1909:A:H2'	1:2S:1910:A:O4'	2.18	0.44
1:2S:2150:G:H2'	1:2S:2151:C:C6	2.52	0.44
1:2S:2245:C:H6	1:2S:2245:C:O5'	1.99	0.44
1:2S:2548:C:O5'	1:2S:2548:C:H6	2.00	0.44
1:2S:3138:U:H4'	6:L3:275:ARG:NH2	2.33	0.44
1:2S:3369:G:H5''	26:64:56:ARG:HH21	1.82	0.44
2:8S:79:A:H2'	2:8S:80:A:O4'	2.17	0.44
2:8S:116:G:H2'	2:8S:117:C:C6	2.52	0.44
4:L1:56:PRO:CB	4:L1:187:VAL:HG11	2.48	0.44
7:L4:184:SER:HA	7:L4:186:LYS:HE2	1.99	0.44
8:L5:76:ALA:HB3	8:L5:105:ILE:HD11	1.97	0.44
9:L6:39:VAL:HG11	9:L6:158:TYR:CE2	2.50	0.44
15:53:176:GLU:O	15:53:176:GLU:HG2	2.18	0.44
20:58:44:PHE:CE1	20:58:139:ILE:HD11	2.52	0.44
39:77:67:LEU:CD2	39:77:70:VAL:HG21	2.39	0.44
46:1S:300:A:H2'	46:1S:301:A:H8	1.79	0.44
46:1S:705:U:H2'	46:1S:706:A:H8	1.80	0.44
46:1S:889:U:H2'	46:1S:890:C:O4'	2.17	0.44
46:1S:1316:G:H4'	64:17:10:LYS:HE3	1.99	0.44
46:1S:1769:U:H4'	61:14:137:LEU:O	2.17	0.44
48:S1:201:THR:HG22	48:S1:201:THR:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:53:ILE:HG12	49:S2:72:LEU:CG	2.42	0.44
52:S5:130:ILE:O	52:S5:134:VAL:HG23	2.17	0.44
56:S9:53:ARG:HG2	56:S9:53:ARG:HH21	1.82	0.44
64:17:119:LEU:HD12	64:17:119:LEU:N	2.31	0.44
65:18:18:LEU:CD2	65:18:70:VAL:HG13	2.45	0.44
67:20:49:ASN:O	67:20:50:LEU:HD12	2.17	0.44
70:23:57:LEU:HD11	70:23:73:ARG:CG	2.46	0.44
79:RA:16:HIS:CE1	79:RA:37:SER:HB2	2.53	0.44
1:2S:31:C:H5''	17:55:95:GLN:CB	2.43	0.44
1:2S:101:G:C2'	1:2S:102:C:H5'	2.47	0.44
1:2S:344:A:H2'	1:2S:345:G:O4'	2.17	0.44
1:2S:503:C:H2'	1:2S:504:A:H8	1.83	0.44
1:2S:1520:G:H2'	1:2S:1521:G:O4'	2.17	0.44
1:2S:1751:G:H5'	40:78:26:LYS:NZ	2.31	0.44
1:2S:1933:A:C2'	1:2S:1934:G:H5'	2.48	0.44
1:2S:2309:A:H1'	1:2S:2962:U:H5'	1.98	0.44
1:2S:2393:G:H4'	6:L3:252:ILE:CG1	2.43	0.44
1:2S:2492:C:H4'	1:2S:2493:U:C6	2.53	0.44
1:2S:2828:G:H3'	1:2S:2829:U:C5	2.52	0.44
1:2S:3180:A:H4'	18:56:116:LYS:CB	2.41	0.44
1:2S:3331:U:H2'	1:2S:3332:U:C6	2.53	0.44
6:L3:63:PRO:HB2	6:L3:348:ARG:NH2	2.32	0.44
7:L4:186:LYS:HB2	7:L4:200:THR:CG2	2.47	0.44
9:L6:40:LEU:HD11	9:L6:54:TYR:HB2	1.99	0.44
9:L6:65:ILE:HD13	9:L6:65:ILE:N	2.30	0.44
10:L7:229:PHE:CD1	10:L7:229:PHE:C	2.91	0.44
13:50:40:LYS:HD2	13:50:40:LYS:N	2.32	0.44
14:51:148:VAL:HG12	14:51:149:GLY:N	2.32	0.44
16:54:68:LEU:HD13	16:54:90:VAL:CG2	2.47	0.44
18:56:37:ARG:H	18:56:107:GLY:H	1.66	0.44
18:56:46:GLU:HG2	18:56:49:ARG:HB2	2.00	0.44
18:56:75:ALA:O	18:56:79:ILE:HG13	2.17	0.44
18:56:122:GLN:HE21	18:56:122:GLN:HB3	1.58	0.44
19:57:120:ASN:HD22	19:57:120:ASN:N	2.14	0.44
21:59:166:ASN:HD22	21:59:166:ASN:HA	1.67	0.44
23:61:27:LEU:HA	23:61:30:TYR:CD2	2.52	0.44
25:63:55:GLY:N	25:63:78:VAL:HB	2.21	0.44
27:65:113:LEU:CG	27:65:121:LYS:HB3	2.42	0.44
28:66:82:VAL:HB	28:66:85:VAL:HB	1.99	0.44
30:68:47:LYS:C	30:68:49:HIS:H	2.20	0.44
33:71:80:ASN:H	33:71:89:LEU:HA	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:80:104:PRO:C	42:80:106:ARG:H	2.20	0.44
46:1S:453:U:O2	46:1S:453:U:H2'	2.18	0.44
46:1S:1480:G:H2'	46:1S:1481:C:H5'	1.99	0.44
48:S1:33:LYS:HB2	48:S1:97:LEU:CD2	2.47	0.44
48:S1:144:ARG:HB3	48:S1:208:GLN:HB3	2.00	0.44
51:S4:92:LEU:HB3	51:S4:94:ALA:O	2.17	0.44
53:S6:122:GLU:HA	53:S6:126:ASP:CB	2.47	0.44
56:S9:153:GLU:HA	56:S9:156:ILE:CD1	2.47	0.44
57:10:25:LYS:HD3	57:10:62:GLN:HG2	1.98	0.44
58:11:3:THR:HG22	58:11:4:GLU:N	2.33	0.44
61:14:21:ALA:H	61:14:83:ILE:HD11	1.82	0.44
65:18:67:GLU:O	65:18:71:GLN:HG2	2.18	0.44
66:19:34:VAL:HA	66:19:53:TRP:CZ2	2.52	0.44
73:26:44:ILE:HD11	73:26:65:PRO:C	2.37	0.44
75:28:32:PHE:CD2	75:28:32:PHE:N	2.83	0.44
77:30:21:VAL:HG22	77:30:22:GLU:N	2.31	0.44
1:2S:519:A:C6	1:2S:522:A:H4'	2.52	0.44
1:2S:749:C:H5''	31:69:32:LEU:CD1	2.47	0.44
1:2S:791:A:H2'	1:2S:792:G:H8	1.83	0.44
1:2S:1360:C:H4'	7:L4:309:ARG:CG	2.47	0.44
1:2S:2115:G:H1'	21:59:82:LYS:HE3	1.99	0.44
1:2S:2125:A:O3'	46:1S:1657:U:H5	2.01	0.44
1:2S:3092:C:O3'	1:2S:3093:C:H3'	2.17	0.44
1:2S:3205:G:H5''	16:54:102:LYS:HZ3	1.83	0.44
4:L1:120:VAL:CG2	4:L1:121:PRO:HD3	2.48	0.44
7:L4:184:SER:O	7:L4:186:LYS:HG2	2.17	0.44
7:L4:185:LYS:HG2	7:L4:199:TRP:CE3	2.51	0.44
9:L6:52:VAL:HG22	9:L6:53:VAL:N	2.31	0.44
10:L7:98:LYS:HB3	10:L7:99:PRO:CD	2.34	0.44
10:L7:131:GLU:N	10:L7:132:PRO:CD	2.79	0.44
10:L7:168:ILE:O	10:L7:172:ASN:ND2	2.50	0.44
11:L8:69:LEU:N	11:L8:69:LEU:HD12	2.33	0.44
13:50:59:GLN:HE21	13:50:59:GLN:HB2	1.55	0.44
15:53:25:HIS:HD2	17:55:200:TRP:HA	1.83	0.44
15:53:29:ALA:O	15:53:33:VAL:HG23	2.18	0.44
15:53:46:ILE:HB	15:53:51:LEU:HD23	1.99	0.44
18:56:125:ARG:HD2	18:56:135:TYR:CD2	2.52	0.44
26:64:56:ARG:HB3	26:64:61:LYS:HG3	1.99	0.44
27:65:66:PRO:HA	27:65:84:PHE:CB	2.46	0.44
36:74:41:ARG:CB	36:74:50:ALA:HB1	2.44	0.44
39:77:21:ARG:CZ	39:77:39:TYR:HD2	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:78:56:ILE:CB	40:78:62:ALA:HB2	2.48	0.44
45:83:19:GLY:HA3	45:83:22:LEU:CD1	2.48	0.44
46:1S:94:U:H2'	46:1S:95:G:C5'	2.47	0.44
46:1S:1515:A:OP2	50:S3:7:LYS:HB2	2.18	0.44
46:1S:1544:U:H5''	65:18:132:ARG:HD2	1.99	0.44
47:S0:29:VAL:HG13	47:S0:150:ASP:HB3	1.99	0.44
47:S0:189:VAL:HG13	47:S0:190:ASP:H	1.83	0.44
48:S1:70:LEU:HD21	48:S1:79:HIS:ND1	2.33	0.44
48:S1:106:THR:O	48:S1:110:LEU:HD13	2.17	0.44
50:S3:29:LEU:HB2	50:S3:34:TYR:CB	2.47	0.44
51:S4:5:PRO:O	51:S4:7:LYS:HD2	2.17	0.44
51:S4:162:ILE:HG22	51:S4:163:ASP:H	1.82	0.44
55:S8:22:ARG:HG3	55:S8:23:LYS:H	1.81	0.44
56:S9:101:VAL:HA	56:S9:104:PHE:HD2	1.81	0.44
62:15:61:ARG:HH11	62:15:61:ARG:HB3	1.83	0.44
62:15:90:ILE:HA	62:15:107:ILE:HB	2.00	0.44
63:16:90:VAL:HG11	63:16:106:LYS:HG2	1.99	0.44
69:22:77:PRO:CG	70:23:9:LEU:HD23	2.47	0.44
75:28:8:THR:CG2	75:28:56:LEU:HD12	2.47	0.44
79:RA:46:LYS:HB2	79:RA:46:LYS:NZ	2.33	0.44
79:RA:212:ALA:HB1	79:RA:252:LEU:HD21	1.99	0.44
1:2S:93:C:O2'	30:68:55:LYS:HE2	2.17	0.44
1:2S:1404:G:H5'	34:72:65:PHE:CD1	2.53	0.44
1:2S:2097:U:H2'	1:2S:2098:C:H6	1.79	0.44
1:2S:2555:G:H5'	36:74:91:ARG:NH1	2.29	0.44
1:2S:3101:G:H2'	1:2S:3102:G:H8	1.82	0.44
6:L3:76:VAL:HA	6:L3:324:VAL:O	2.18	0.44
6:L3:110:LEU:N	6:L3:110:LEU:HD12	2.32	0.44
7:L4:239:ALA:N	7:L4:240:PRO:HD3	2.33	0.44
10:L7:124:LEU:HA	10:L7:127:LEU:HD12	1.99	0.44
15:53:159:VAL:HB	30:68:96:LYS:HD3	1.99	0.44
22:60:153:PRO:O	22:60:154:HIS:HB3	2.18	0.44
29:67:72:ILE:HG12	29:67:111:LYS:CE	2.47	0.44
32:70:15:ALA:O	32:70:18:ILE:HG22	2.17	0.44
46:1S:66:U:C5	53:S6:173:PRO:HG3	2.53	0.44
46:1S:473:A:H2'	46:1S:474:A:H5'	1.99	0.44
46:1S:1382:A:HO2'	46:1S:1383:G:H8	1.66	0.44
49:S2:99:LYS:HG2	49:S2:117:THR:CB	2.47	0.44
51:S4:196:VAL:HG22	51:S4:211:LYS:HD3	2.00	0.44
52:S5:26:ALA:HB3	63:16:28:LEU:HB3	1.99	0.44
54:S7:42:GLN:HG2	54:S7:43:PHE:H	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:S8:103:GLN:HG2	55:S8:164:ARG:HB3	1.98	0.44
55:S8:185:GLU:HA	55:S8:189:LEU:HD22	1.99	0.44
56:S9:13:SER:H	56:S9:43:TYR:HB3	1.82	0.44
58:11:54:ILE:N	58:11:54:ILE:HD12	2.32	0.44
59:12:93:ASP:O	59:12:97:LEU:HB2	2.18	0.44
63:16:102:LYS:HG2	63:16:106:LYS:HE3	2.00	0.44
63:16:137:ARG:HB3	63:16:138:PHE:H	1.58	0.44
71:24:127:LYS:O	71:24:131:ARG:HG2	2.17	0.44
74:27:30:SER:HG	74:27:47:PHE:HZ	1.64	0.44
79:RA:154:VAL:HG23	79:RA:154:VAL:O	2.17	0.44
79:RA:211:ILE:HD11	79:RA:225:LEU:HB2	1.99	0.44
1:2S:1135:A:OP2	31:69:5:LYS:HG3	2.18	0.44
1:2S:1237:G:H22	1:2S:1251:A:H2	1.64	0.44
1:2S:1718:G:H2'	1:2S:1719:G:H8	1.82	0.44
1:2S:1943:C:H2'	1:2S:1944:U:C6	2.52	0.44
1:2S:1947:G:H5''	21:59:134:HIS:HB2	2.00	0.44
1:2S:2192:C:H2'	1:2S:2193:U:O4'	2.17	0.44
1:2S:2393:G:O2'	1:2S:2982:A:N6	2.51	0.44
1:2S:2778:G:C2'	1:2S:2779:A:C5'	2.82	0.44
1:2S:3021:A:O4'	1:2S:3023:U:H1'	2.17	0.44
1:2S:3072:C:O5'	1:2S:3072:C:H6	2.01	0.44
1:2S:3250:U:H2'	1:2S:3251:U:C6	2.52	0.44
1:2S:3316:A:C2	6:L3:124:LYS:HG2	2.53	0.44
4:L1:144:LEU:HD13	4:L1:147:LYS:HD2	2.00	0.44
6:L3:79:VAL:CG1	6:L3:322:ILE:HB	2.48	0.44
8:L5:103:LEU:HD11	8:L5:107:ARG:HG3	2.00	0.44
22:60:97:VAL:HG13	22:60:98:SER:H	1.82	0.44
46:1S:176:C:O2	46:1S:176:C:H2'	2.18	0.44
46:1S:1100:G:H2'	69:22:75:ILE:HD13	2.00	0.44
46:1S:1506:G:O3'	46:1S:1551:U:H5''	2.18	0.44
46:1S:1748:G:O2'	46:1S:1749:A:H5'	2.18	0.44
47:S0:197:ILE:N	47:S0:197:ILE:HD12	2.33	0.44
49:S2:66:PHE:HD1	49:S2:66:PHE:H	1.64	0.44
49:S2:131:ILE:C	49:S2:133:LYS:H	2.21	0.44
50:S3:41:VAL:O	50:S3:41:VAL:HG13	2.17	0.44
55:S8:105:ASP:O	55:S8:106:ALA:HB3	2.17	0.44
57:10:16:PHE:HE1	57:10:86:ILE:HG23	1.83	0.44
58:11:109:VAL:HG23	58:11:137:PHE:C	2.37	0.44
59:12:97:LEU:HD11	59:12:121:VAL:HG22	2.00	0.44
60:13:71:ILE:N	60:13:71:ILE:CD1	2.80	0.44
60:13:76:LYS:C	60:13:76:LYS:HD2	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:15:85:ILE:HD13	62:15:107:ILE:HD12	2.00	0.44
69:22:83:ILE:O	69:22:86:ILE:HG12	2.18	0.44
74:27:61:THR:O	74:27:62:ILE:HB	2.18	0.44
79:RA:233:THR:C	79:RA:234:LEU:HD12	2.38	0.44
1:2S:759:U:C2'	1:2S:760:G:H5'	2.46	0.44
1:2S:836:A:H2'	1:2S:837:A:O4'	2.18	0.44
1:2S:970:A:H5'	31:69:18:ARG:NH2	2.31	0.44
1:2S:981:U:H2'	1:2S:982:C:O4'	2.18	0.44
1:2S:1212:A:OP1	12:L9:1:MET:HB3	2.18	0.44
1:2S:1604:G:H3'	1:2S:1604:G:N3	2.33	0.44
1:2S:1854:C:H2'	1:2S:1855:U:H6	1.83	0.44
1:2S:2765:C:O5'	1:2S:2765:C:H6	2.01	0.44
1:2S:2982:A:C2'	1:2S:2983:C:H5''	2.47	0.44
2:8S:8:C:H2'	2:8S:9:A:O4'	2.18	0.44
7:L4:289:ILE:O	7:L4:295:ILE:HD12	2.18	0.44
9:L6:98:VAL:HA	9:L6:101:PHE:CD2	2.53	0.44
11:L8:186:LEU:HB3	11:L8:195:SER:HB3	1.99	0.44
14:51:17:LEU:HD13	14:51:129:VAL:CG2	2.35	0.44
15:53:56:PRO:HG3	15:53:74:GLY:O	2.18	0.44
17:55:115:VAL:HA	17:55:134:LEU:HA	1.99	0.44
17:55:146:ALA:HA	17:55:149:ASN:ND2	2.32	0.44
19:57:58:ILE:HA	19:57:59:PRO:HD3	1.82	0.44
23:61:95:HIS:C	23:61:96:ILE:HD12	2.38	0.44
33:71:5:LYS:HA	33:71:89:LEU:HD21	1.99	0.44
36:74:20:ILE:HD12	36:74:34:HIS:HA	1.99	0.44
46:1S:44:U:HO2'	46:1S:45:U:H6	1.60	0.44
46:1S:480:G:H2'	46:1S:481:A:O4'	2.17	0.44
46:1S:1663:G:H2'	46:1S:1664:C:C6	2.53	0.44
48:S1:66:VAL:HG13	61:14:33:LEU:HD13	2.00	0.44
50:S3:71:LEU:O	50:S3:75:LYS:HG2	2.17	0.44
51:S4:99:PHE:HD1	51:S4:112:HIS:O	2.00	0.44
58:11:92:HIS:O	58:11:100:TYR:HA	2.17	0.44
63:16:13:LYS:C	63:16:13:LYS:HD3	2.38	0.44
65:18:32:LEU:HB2	65:18:43:SER:OG	2.17	0.44
79:RA:38:ARG:HG2	79:RA:67:ILE:HG23	1.99	0.44
1:2S:183:G:H2'	1:2S:184:U:C6	2.53	0.44
1:2S:511:G:H2'	1:2S:512:U:O4'	2.18	0.44
1:2S:810:A:H2'	1:2S:811:U:C6	2.52	0.44
1:2S:816:A:C3'	1:2S:817:A:H5'	2.47	0.44
1:2S:1259:A:C2	1:2S:1281:G:H1'	2.52	0.44
1:2S:1269:U:H1'	1:2S:1272:C:C5	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1380:G:H2'	1:2S:1381:A:H8	1.82	0.44
1:2S:1479:U:H3'	1:2S:1480:G:H8	1.83	0.44
1:2S:1481:A:H61	36:74:2:ALA:HA	1.82	0.44
1:2S:1660:C:H2'	1:2S:1661:G:C8	2.53	0.44
1:2S:2417:U:H1'	1:2S:2966:G:H21	1.83	0.44
4:L1:168:ALA:HB3	4:L1:177:ASP:OD2	2.17	0.44
5:L2:209:HIS:HD1	5:L2:210:PRO:HD2	1.80	0.44
6:L3:187:SER:O	6:L3:191:LYS:HG3	2.18	0.44
6:L3:198:HIS:HA	6:L3:201:LYS:HB3	2.00	0.44
10:L7:24:GLU:O	10:L7:25:GLN:HB3	2.18	0.44
12:L9:103:ILE:HG13	12:L9:136:PHE:CZ	2.53	0.44
13:50:66:GLU:O	13:50:70:ILE:HG13	2.17	0.44
15:53:25:HIS:CD2	17:55:200:TRP:HA	2.52	0.44
19:57:123:PRO:O	19:57:143:PRO:HG2	2.18	0.44
20:58:173:GLU:O	20:58:174:ARG:HG3	2.18	0.44
21:59:153:LYS:O	21:59:157:GLU:HG3	2.18	0.44
28:66:3:LYS:HE2	28:66:8:VAL:O	2.18	0.44
33:71:19:ARG:HG3	33:71:19:ARG:NH1	2.30	0.44
37:75:64:GLU:HA	37:75:67:ARG:CG	2.48	0.44
38:76:98:ARG:N	38:76:98:ARG:HD2	2.32	0.44
44:82:12:CYS:HB2	44:82:23:HIS:CE1	2.53	0.44
46:1S:238:U:C4	46:1S:239:C:H5	2.35	0.44
46:1S:777:C:N4	71:24:10:ARG:HG2	2.33	0.44
46:1S:1103:U:H2'	46:1S:1104:U:H6	1.83	0.44
47:S0:205:ARG:HG3	47:S0:206:ASP:H	1.83	0.44
48:S1:81:PHE:N	48:S1:81:PHE:CD1	2.86	0.44
48:S1:141:ALA:HB1	48:S1:210:ILE:HG12	1.99	0.44
51:S4:148:ARG:O	51:S4:149:TYR:HB2	2.17	0.44
52:S5:162:VAL:CA	75:28:45:LYS:HB3	2.48	0.44
54:S7:32:PRO:C	54:S7:34:LEU:H	2.21	0.44
59:12:52:LEU:HD21	59:12:60:VAL:CG2	2.48	0.44
60:13:101:HIS:HA	60:13:104:ARG:NH1	2.17	0.44
61:14:85:ALA:N	61:14:119:THR:HG22	2.31	0.44
63:16:62:ASN:O	63:16:63:ILE:HG23	2.18	0.44
64:17:21:TYR:C	64:17:23:LYS:N	2.68	0.44
67:20:33:GLN:HA	67:20:33:GLN:OE1	2.18	0.44
77:30:33:ARG:O	77:30:33:ARG:HG2	2.18	0.44
79:RA:56:VAL:HG23	79:RA:56:VAL:O	2.17	0.44
1:2S:144:A:H4'	2:8S:144:G:OP1	2.18	0.44
1:2S:267:G:H2'	1:2S:318:A:C5	2.53	0.44
1:2S:681:U:H3'	1:2S:681:U:C6	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1238:C:C2'	1:2S:1239:C:H5''	2.48	0.44
1:2S:1306:G:H1'	18:56:60:LYS:HA	2.00	0.44
1:2S:2150:G:OP1	5:L2:178:PRO:HA	2.17	0.44
1:2S:2567:C:H3'	1:2S:2568:C:H5''	1.99	0.44
1:2S:2603:G:H2'	1:2S:2604:U:O4'	2.18	0.44
1:2S:2652:U:H5	1:2S:2759:U:H2'	1.82	0.44
1:2S:2931:C:C2'	1:2S:2932:U:H5''	2.47	0.44
1:2S:3354:U:H5'	1:2S:3356:G:OP2	2.17	0.44
2:8S:60:U:O4	2:8S:98:U:H4'	2.18	0.44
2:8S:77:A:C2'	2:8S:78:G:H5''	2.48	0.44
6:L3:67:PHE:CD1	25:63:88:ARG:HB2	2.52	0.44
8:L5:232:ASP:OD2	8:L5:232:ASP:N	2.43	0.44
9:L6:142:ASP:O	9:L6:146:ILE:HG12	2.16	0.44
18:56:46:GLU:OE1	18:56:48:PHE:HB3	2.18	0.44
18:56:126:VAL:HG22	22:60:154:HIS:HE1	1.83	0.44
23:61:27:LEU:HD13	23:61:30:TYR:HD2	1.81	0.44
23:61:92:ARG:HB3	23:61:94:GLU:OE2	2.18	0.44
25:63:120:LYS:CB	25:63:137:VAL:HG21	2.40	0.44
28:66:33:ALA:HB3	28:66:106:ILE:HD11	2.00	0.44
37:75:89:ARG:HG2	37:75:89:ARG:HH11	1.83	0.44
41:79:24:PRO:HB2	41:79:27:ILE:CD1	2.48	0.44
46:1S:415:C:O2'	46:1S:416:A:H5''	2.18	0.44
46:1S:417:A:H5'	46:1S:418:G:C5	2.53	0.44
46:1S:478:A:H5''	56:S9:123:HIS:HB3	1.99	0.44
46:1S:587:C:H2'	46:1S:588:U:H6	1.82	0.44
46:1S:618:U:H5''	46:1S:1030:A:C5	2.53	0.44
46:1S:981:U:C2'	46:1S:982:U:C5'	2.96	0.44
48:S1:189:ILE:HB	48:S1:190:PRO:CD	2.45	0.44
48:S1:228:LEU:HG	48:S1:232:HIS:CE1	2.53	0.44
51:S4:195:ILE:HG12	51:S4:210:ILE:CD1	2.48	0.44
53:S6:78:THR:HG23	53:S6:92:ARG:HD2	2.00	0.44
53:S6:79:LYS:C	53:S6:81:VAL:H	2.21	0.44
54:S7:149:ILE:HG22	54:S7:182:VAL:HG23	1.99	0.44
56:S9:119:ALA:HA	56:S9:124:HIS:HD2	1.83	0.44
57:10:21:VAL:HB	57:10:66:TYR:HD2	1.81	0.44
62:15:125:PRO:HG3	65:18:129:TRP:CZ2	2.53	0.44
63:16:79:TYR:OH	63:16:114:ARG:HD2	2.18	0.44
64:17:115:LEU:HB3	64:17:116:LYS:H	1.48	0.44
65:18:38:VAL:HG13	65:18:101:LEU:CD2	2.47	0.44
71:24:124:ARG:C	71:24:124:ARG:HD3	2.38	0.44
1:2S:95:A:H8	1:2S:95:A:O5''	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:561:C:H2'	1:2S:562:C:O4'	2.18	0.43
1:2S:589:A:H8	1:2S:590:G:C8	2.36	0.43
1:2S:595:G:N1	1:2S:609:G:H5''	2.30	0.43
1:2S:711:A:H61	1:2S:755:A:H5''	1.83	0.43
1:2S:1556:C:O2	1:2S:1556:C:O4'	2.36	0.43
1:2S:2294:U:H2'	1:2S:2296:A:OP2	2.18	0.43
1:2S:2352:A:OP1	19:57:82:ARG:HB3	2.18	0.43
1:2S:2442:G:N2	1:2S:2443:A:N6	2.66	0.43
1:2S:2444:C:O2'	38:76:63:ASN:ND2	2.51	0.43
1:2S:3267:A:OP2	9:L6:69:PHE:HZ	2.00	0.43
1:2S:3378:C:H4'	6:L3:313:HIS:CD2	2.53	0.43
5:L2:5:ILE:HD13	5:L2:209:HIS:HD1	1.83	0.43
5:L2:113:VAL:HG12	5:L2:166:ILE:HD13	1.99	0.43
6:L3:87:VAL:HG23	6:L3:162:VAL:HA	2.00	0.43
6:L3:166:ILE:HD11	6:L3:171:LEU:HB2	2.00	0.43
9:L6:155:LEU:O	9:L6:155:LEU:HD13	2.18	0.43
11:L8:151:VAL:HG22	11:L8:199:ALA:HB2	1.99	0.43
12:L9:53:ILE:HG22	12:L9:54:LYS:N	2.32	0.43
12:L9:77:ASN:CB	12:L9:151:VAL:HG21	2.48	0.43
18:56:37:ARG:HA	18:56:39:GLU:OE1	2.18	0.43
19:57:67:ILE:CG2	19:57:68:GLY:N	2.80	0.43
20:58:43:PRO:O	20:58:47:VAL:HG23	2.18	0.43
22:60:4:PHE:C	22:60:5:LYS:HG3	2.38	0.43
26:64:49:ILE:CG2	26:64:52:THR:HG23	2.48	0.43
38:76:43:LEU:O	38:76:47:ILE:HG13	2.18	0.43
39:77:21:ARG:NE	39:77:39:TYR:CD2	2.86	0.43
40:78:40:GLN:HG2	40:78:41:THR:N	2.33	0.43
44:82:28:TYR:CZ	44:82:30:ALA:HA	2.52	0.43
45:83:83:ILE:O	45:83:87:ARG:HB2	2.18	0.43
46:1S:226:A:H2'	46:1S:227:U:C6	2.53	0.43
46:1S:416:A:H5'	46:1S:417:A:N7	2.33	0.43
46:1S:831:U:H2'	46:1S:832:U:O4'	2.18	0.43
46:1S:1196:A:H4'	46:1S:1197:C:H5''	1.98	0.43
46:1S:1347:U:C5	67:20:23:ARG:NH2	2.86	0.43
46:1S:1589:C:H2'	46:1S:1590:G:H8	1.80	0.43
46:1S:1680:G:H1'	46:1S:1721:A:N6	2.32	0.43
46:1S:1686:C:H5'	46:1S:1686:C:H6	1.83	0.43
46:1S:1788:G:C2'	46:1S:1789:G:H5''	2.48	0.43
52:S5:203:LYS:HA	52:S5:203:LYS:HE3	1.98	0.43
55:S8:103:GLN:CG	55:S8:164:ARG:HB3	2.47	0.43
57:10:87:VAL:O	57:10:87:VAL:HG13	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:10:87:VAL:N	57:10:88:PRO:HD3	2.33	0.43
59:12:79:ALA:O	59:12:87:PRO:HD2	2.18	0.43
63:16:100:GLN:CB	79:RA:57:PRO:HG2	2.48	0.43
65:18:133:VAL:O	65:18:133:VAL:HG22	2.18	0.43
66:19:6:VAL:HG21	66:19:63:ARG:HG3	2.00	0.43
67:20:118:VAL:HG22	67:20:119:ALA:H	1.83	0.43
73:26:18:VAL:CG2	73:26:19:LYS:H	2.18	0.43
73:26:82:ARG:HA	73:26:82:ARG:HE	1.82	0.43
1:2S:511:G:H2'	1:2S:512:U:C6	2.53	0.43
1:2S:672:A:H5'	20:58:20:LYS:O	2.18	0.43
1:2S:1115:G:H5''	1:2S:1116:G:H5''	1.99	0.43
1:2S:1500:G:C2	1:2S:1501:U:H1'	2.53	0.43
1:2S:1760:A:H5'	1:2S:1761:C:OP2	2.18	0.43
1:2S:2510:U:O2'	1:2S:2511:A:H8	1.99	0.43
1:2S:2561:A:O2'	1:2S:2562:A:H8	2.01	0.43
3:5S:78:U:O5'	3:5S:78:U:H6	2.01	0.43
4:L1:97:LYS:O	4:L1:97:LYS:HD3	2.18	0.43
6:L3:343:TYR:CD1	6:L3:343:TYR:N	2.85	0.43
7:L4:44:LYS:HA	7:L4:47:ARG:CG	2.46	0.43
8:L5:111:GLN:HE22	8:L5:252:ALA:HA	1.83	0.43
9:L6:15:VAL:CG1	34:72:4:LEU:HD23	2.45	0.43
10:L7:147:LEU:HB3	10:L7:205:PHE:CE1	2.53	0.43
13:50:165:ILE:H	13:50:165:ILE:CD1	2.30	0.43
17:55:38:ARG:HH12	17:55:60:VAL:HA	1.82	0.43
18:56:109:PRO:HA	18:56:110:PRO:HD3	1.86	0.43
24:62:96:VAL:HG12	24:62:97:SER:N	2.33	0.43
36:74:6:THR:HB	36:74:7:PHE:H	1.67	0.43
36:74:29:ILE:N	36:74:29:ILE:CD1	2.80	0.43
37:75:45:LYS:HA	37:75:48:ARG:HG2	1.99	0.43
46:1S:103:A:HO2'	46:1S:308:C:H41	1.65	0.43
46:1S:1382:A:C1'	67:20:57:ARG:HG2	2.49	0.43
46:1S:1605:G:H5''	63:16:127:LYS:HB3	1.98	0.43
46:1S:1625:C:H2'	46:1S:1626:U:H6	1.83	0.43
47:S0:41:ARG:HD2	47:S0:42:PRO:HD2	2.00	0.43
47:S0:110:TYR:CD1	47:S0:111:ILE:HD12	2.53	0.43
48:S1:27:LYS:HB3	48:S1:47:LEU:HB3	1.99	0.43
48:S1:53:GLY:O	48:S1:54:LEU:HB2	2.18	0.43
49:S2:225:LEU:HD22	69:22:67:GLY:O	2.18	0.43
51:S4:49:ARG:HA	51:S4:55:ALA:HB3	2.01	0.43
52:S5:49:GLU:O	52:S5:50:GLU:HB2	2.18	0.43
52:S5:142:PRO:HG3	52:S5:214:LYS:CG	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:S5:220:VAL:O	52:S5:224:ASN:HB2	2.18	0.43
56:S9:120:LYS:HB3	56:S9:120:LYS:HZ3	1.82	0.43
57:10:16:PHE:CE1	57:10:86:ILE:HG23	2.53	0.43
58:11:129:ARG:HB2	58:11:130:PRO:HD2	2.00	0.43
60:13:27:LYS:HB2	60:13:28:LEU:H	1.66	0.43
63:16:107:LYS:O	63:16:111:SER:HB2	2.17	0.43
63:16:109:PHE:CB	63:16:117:LEU:HD21	2.48	0.43
64:17:15:ALA:O	64:17:19:ARG:HG2	2.17	0.43
64:17:117:LEU:HB2	64:17:118:PRO:HD2	2.00	0.43
69:22:78:ARG:HG3	69:22:78:ARG:NH1	2.34	0.43
79:RA:66:HIS:CD2	79:RA:86:ASP:HA	2.53	0.43
79:RA:136:ILE:H	79:RA:136:ILE:CD1	2.23	0.43
79:RA:211:ILE:HD12	79:RA:223:TRP:HB2	2.00	0.43
1:2S:117:U:O4	11:L8:142:LEU:HD23	2.18	0.43
1:2S:725:G:H3'	1:2S:726:G:C5'	2.42	0.43
1:2S:1328:C:H2'	1:2S:1329:U:C6	2.54	0.43
1:2S:1402:C:H2'	1:2S:1403:C:C6	2.53	0.43
1:2S:2181:C:H2'	1:2S:2182:A:H8	1.82	0.43
1:2S:2190:U:H2'	1:2S:2191:U:C6	2.53	0.43
1:2S:2720:G:H2'	1:2S:2720:G:N3	2.33	0.43
1:2S:3231:U:H2'	1:2S:3232:G:C8	2.54	0.43
2:8S:83:C:H4'	2:8S:84:C:C5'	2.47	0.43
4:L1:52:SER:OG	4:L1:191:VAL:HB	2.17	0.43
5:L2:122:ASP:OD2	5:L2:122:ASP:N	2.49	0.43
5:L2:145:LYS:HB3	5:L2:157:VAL:HG21	2.00	0.43
6:L3:58:ARG:HG3	6:L3:58:ARG:HH11	1.82	0.43
6:L3:235:THR:CG2	6:L3:236:LYS:H	2.31	0.43
10:L7:221:LYS:HG2	10:L7:225:GLN:HB2	2.01	0.43
11:L8:24:ASN:HB3	11:L8:25:PRO:HD3	2.01	0.43
14:51:8:PRO:HG2	14:51:9:MET:H	1.84	0.43
15:53:54:LEU:HD23	15:53:141:ALA:HB1	2.00	0.43
17:55:33:LYS:HD3	17:55:37:HIS:CE1	2.53	0.43
17:55:49:ARG:HG3	17:55:49:ARG:HH11	1.82	0.43
17:55:132:VAL:HG12	17:55:133:ILE:N	2.32	0.43
20:58:58:ASN:C	20:58:60:PRO:HD3	2.39	0.43
20:58:104:LEU:HG	20:58:124:LEU:HD12	2.00	0.43
33:71:79:ARG:HB3	33:71:89:LEU:HG	2.00	0.43
43:81:4:LYS:NZ	46:1S:1775:U:H5	2.15	0.43
46:1S:190:C:H41	55:S8:137:LYS:CG	2.18	0.43
46:1S:449:C:H4'	51:S4:7:LYS:O	2.18	0.43
46:1S:620:A:H2'	46:1S:621:A:N9	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1797:A:C5'	73:26:95:ARG:HG2	2.47	0.43
51:S4:179:LYS:O	51:S4:181:VAL:HG23	2.19	0.43
52:S5:196:GLU:HG2	52:S5:200:ASN:HD21	1.83	0.43
61:14:81:VAL:HG22	61:14:115:ILE:HG21	2.00	0.43
71:24:56:SER:O	71:24:73:GLY:HA2	2.18	0.43
75:28:33:LEU:HD22	75:28:33:LEU:N	2.29	0.43
1:2S:118:U:O2	1:2S:121:A:H5'	2.19	0.43
1:2S:147:U:H3'	1:2S:148:G:C5'	2.48	0.43
1:2S:438:A:H3'	1:2S:439:C:C5'	2.41	0.43
1:2S:506:U:H2'	1:2S:507:U:O4'	2.19	0.43
1:2S:1797:A:H2'	1:2S:1798:A:C8	2.53	0.43
1:2S:1864:A:H5'	21:59:88:ARG:HG2	2.00	0.43
1:2S:2149:A:P	1:2S:2149:A:H8	2.41	0.43
1:2S:2354:C:H2'	1:2S:2355:G:O4'	2.18	0.43
1:2S:2376:G:H2'	1:2S:2377:G:N7	2.32	0.43
1:2S:2528:G:H2'	1:2S:2529:A:O4'	2.18	0.43
1:2S:2592:G:H4'	1:2S:2594:C:C2	2.53	0.43
1:2S:2632:G:H2'	1:2S:2633:U:O4'	2.18	0.43
1:2S:2675:C:H42	14:51:22:SER:CB	2.24	0.43
1:2S:2895:G:H5''	42:80:102:ARG:NH2	2.33	0.43
1:2S:3049:A:H3'	1:2S:3050:U:C5	2.53	0.43
1:2S:3234:A:N6	1:2S:3253:G:H1	2.10	0.43
3:5S:19:C:H2'	3:5S:20:A:C8	2.53	0.43
3:5S:48:U:O2'	3:5S:49:G:H5'	2.18	0.43
5:L2:31:THR:HA	5:L2:123:ARG:HD2	2.00	0.43
5:L2:196:TRP:CG	5:L2:197:PRO:HA	2.52	0.43
15:53:43:ALA:HA	15:53:51:LEU:HD21	2.01	0.43
25:63:80:ARG:HG2	25:63:95:PHE:CG	2.53	0.43
25:63:126:TRP:HA	25:63:127:PRO:HD3	1.87	0.43
29:67:117:ALA:O	29:67:121:ARG:HB2	2.19	0.43
33:71:8:VAL:HG12	33:71:9:THR:N	2.33	0.43
36:74:81:CYS:O	36:74:82:ALA:HB3	2.18	0.43
37:75:12:LYS:HD2	37:75:17:LEU:CD2	2.48	0.43
42:80:79:GLU:O	42:80:83:LYS:HB2	2.17	0.43
46:1S:106:U:H2'	46:1S:107:C:O4'	2.19	0.43
46:1S:218:A:N1	46:1S:844:A:O2'	2.51	0.43
46:1S:460:A:H2'	46:1S:460:A:N3	2.34	0.43
46:1S:912:U:H5'	46:1S:913:G:H2'	1.99	0.43
46:1S:1006:C:H4'	61:14:136:ARG:HD2	2.00	0.43
48:S1:33:LYS:HG2	48:S1:95:ASN:OD1	2.18	0.43
51:S4:18:TRP:HE1	51:S4:42:LEU:HA	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:148:VAL:HG12	56:S9:150:LEU:H	1.83	0.43
58:11:110:HIS:O	58:11:139:VAL:HG23	2.17	0.43
60:13:62:GLN:HB2	60:13:65:VAL:CG2	2.47	0.43
60:13:88:LEU:HD13	60:13:92:ILE:HD11	2.01	0.43
60:13:125:LEU:C	60:13:125:LEU:HD13	2.38	0.43
63:16:97:VAL:CG1	63:16:98:ASP:H	2.27	0.43
70:23:116:ASP:O	70:23:118:PRO:HD3	2.19	0.43
72:25:57:TYR:HB3	72:25:60:VAL:HG21	2.01	0.43
1:2S:41:G:H2'	1:2S:42:C:O4'	2.18	0.43
1:2S:174:C:H2'	1:2S:175:C:C6	2.54	0.43
1:2S:429:U:H5'	35:73:88:ASN:HB2	2.01	0.43
1:2S:618:C:C2'	1:2S:619:A:H5'	2.49	0.43
1:2S:619:A:H5'	1:2S:620:U:C2	2.53	0.43
1:2S:852:U:H2'	1:2S:853:G:C8	2.54	0.43
1:2S:901:G:H2'	1:2S:902:G:C8	2.53	0.43
1:2S:2144:A:H3'	1:2S:2144:A:OP2	2.18	0.43
1:2S:2664:C:O2'	1:2S:2665:U:H5'	2.19	0.43
1:2S:3163:A:C2'	1:2S:3164:C:H5''	2.48	0.43
2:8S:47:C:H1'	2:8S:61:A:H2'	2.00	0.43
4:L1:68:PHE:CE2	4:L1:85:MET:HG2	2.53	0.43
5:L2:61:VAL:HB	5:L2:76:PHE:CD1	2.53	0.43
6:L3:161:LEU:HA	6:L3:179:ALA:O	2.19	0.43
6:L3:161:LEU:HB3	6:L3:178:LEU:HD11	1.99	0.43
7:L4:188:ARG:HG3	7:L4:189:ALA:N	2.33	0.43
9:L6:153:PRO:O	9:L6:154:LEU:HB2	2.18	0.43
10:L7:235:PHE:CZ	22:60:33:ASN:HB2	2.52	0.43
15:53:56:PRO:HB3	15:53:75:PHE:CD1	2.54	0.43
17:55:169:LYS:CE	17:55:174:ILE:HD12	2.48	0.43
18:56:4:GLU:HB3	18:56:5:PRO:CD	2.49	0.43
18:56:76:PRO:HD2	18:56:106:GLU:CD	2.38	0.43
19:57:120:ASN:HD22	19:57:120:ASN:H	1.67	0.43
20:58:54:LEU:HB3	20:58:58:ASN:CB	2.44	0.43
20:58:54:LEU:CB	20:58:59:ARG:HG3	2.49	0.43
30:68:134:ALA:O	30:68:138:ILE:HG13	2.19	0.43
32:70:41:LEU:HB3	32:70:92:ILE:CG1	2.43	0.43
33:71:30:PRO:O	33:71:33:VAL:HB	2.17	0.43
46:1S:399:A:P	55:S8:26:LYS:HG2	2.59	0.43
46:1S:512:A:H5''	56:S9:163:PRO:HG3	1.99	0.43
46:1S:542:A:H2'	46:1S:543:C:C3'	2.47	0.43
46:1S:781:U:H3'	46:1S:781:U:O2	2.19	0.43
46:1S:1024:U:H3'	46:1S:1027:A:H62	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1338:C:H1'	46:1S:1410:A:C4	2.53	0.43
48:S1:30:PHE:CE1	48:S1:94:LYS:HA	2.53	0.43
50:S3:29:LEU:HB2	50:S3:34:TYR:HB2	2.00	0.43
56:S9:23:ARG:O	56:S9:27:GLU:HG3	2.18	0.43
59:12:130:THR:HB	59:12:131:ASP:H	1.59	0.43
61:14:133:ARG:HB3	61:14:136:ARG:HH21	1.84	0.43
62:15:124:THR:HB	62:15:125:PRO:HD2	2.01	0.43
69:22:69:LEU:HD23	69:22:70:ASN:N	2.32	0.43
72:25:93:SER:HB2	72:25:100:ILE:N	2.27	0.43
1:2S:806:A:H3'	1:2S:807:A:H2	1.83	0.43
1:2S:812:G:H2'	1:2S:813:G:O4'	2.18	0.43
1:2S:1191:U:C4'	1:2S:1192:C:H5''	2.49	0.43
1:2S:1407:A:H4'	34:72:33:ARG:NH2	2.33	0.43
1:2S:1534:A:C2'	1:2S:1535:A:C8	2.89	0.43
1:2S:1887:A:HO2'	6:L3:226:PHE:HE2	1.65	0.43
1:2S:2226:U:H2'	1:2S:2227:C:C6	2.54	0.43
1:2S:2457:G:O2'	1:2S:2486:A:N6	2.50	0.43
1:2S:2756:C:O2'	23:61:8:ARG:HD3	2.18	0.43
1:2S:2949:U:H4'	6:L3:241:LYS:HG2	2.00	0.43
2:8S:70:G:H1'	2:8S:88:A:H62	1.82	0.43
2:8S:141:C:H2'	2:8S:142:C:C6	2.54	0.43
5:L2:190:ARG:NH2	5:L2:190:ARG:HB3	2.34	0.43
6:L3:228:GLY:HA2	6:L3:267:ALA:HB1	2.00	0.43
6:L3:332:ARG:HD3	6:L3:332:ARG:N	2.33	0.43
7:L4:192:GLY:CA	7:L4:197:ARG:NH1	2.81	0.43
11:L8:245:LYS:O	11:L8:249:ARG:CB	2.67	0.43
12:L9:49:ASN:O	12:L9:51:GLN:N	2.52	0.43
18:56:87:MET:H	18:56:87:MET:HG3	1.62	0.43
19:57:60:PHE:HZ	19:57:82:ARG:HB2	1.84	0.43
22:60:19:VAL:O	22:60:19:VAL:HG12	2.19	0.43
23:61:154:VAL:HA	23:61:155:PRO:HD3	1.77	0.43
24:62:20:SER:HB3	24:62:61:THR:HB	2.00	0.43
34:72:103:LYS:O	34:72:107:VAL:HG23	2.19	0.43
42:80:79:GLU:HA	42:80:80:PRO:HD3	1.86	0.43
46:1S:1268:G:H1'	46:1S:1448:G:H4'	2.00	0.43
46:1S:1308:G:H2'	46:1S:1309:C:C6	2.54	0.43
46:1S:1459:C:H5'	65:18:131:LEU:HD21	2.01	0.43
46:1S:1584:G:H5'	63:16:122:ARG:CA	2.49	0.43
46:1S:1605:G:O2'	46:1S:1606:C:H5'	2.18	0.43
47:S0:73:VAL:O	47:S0:95:ALA:HB1	2.18	0.43
48:S1:31:ASP:C	48:S1:32:ILE:HD12	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:10:40:LEU:O	57:10:40:LEU:HD22	2.18	0.43
58:11:122:ILE:N	58:11:144:ALA:HB2	2.34	0.43
60:13:71:ILE:H	60:13:71:ILE:CD1	2.31	0.43
62:15:24:LYS:O	62:15:28:MET:HB2	2.18	0.43
62:15:34:VAL:HB	62:15:41:VAL:HG12	2.00	0.43
65:18:2:SER:HB2	65:18:3:LEU:H	1.68	0.43
65:18:45:LEU:HD22	65:18:85:PHE:CD2	2.54	0.43
67:20:33:GLN:O	67:20:37:VAL:HG23	2.18	0.43
75:28:12:VAL:HA	75:28:30:VAL:HG12	1.98	0.43
76:29:19:ARG:HG3	76:29:19:ARG:NH1	2.32	0.43
1:2S:95:A:H5''	30:68:34:MET:O	2.18	0.43
1:2S:182:U:H2'	1:2S:183:G:H8	1.83	0.43
1:2S:326:U:C6	1:2S:326:U:O5'	2.72	0.43
1:2S:401:U:H4'	1:2S:403:C:C2	2.54	0.43
1:2S:749:C:H5''	31:69:32:LEU:CG	2.49	0.43
1:2S:1134:G:O2'	1:2S:2642:A:N3	2.46	0.43
1:2S:1307:G:H1'	1:2S:1308:A:C8	2.53	0.43
1:2S:1492:G:H1	1:2S:1836:C:H42	1.66	0.43
1:2S:2245:C:H2'	1:2S:2246:G:O4'	2.19	0.43
1:2S:2812:C:H2'	1:2S:2813:A:C8	2.53	0.43
1:2S:2831:G:H2'	1:2S:2832:C:C6	2.54	0.43
1:2S:2947:G:O2'	1:2S:2948:C:H5'	2.19	0.43
1:2S:3009:G:C5'	18:56:66:LYS:HG2	2.48	0.43
1:2S:3132:C:H2'	1:2S:3133:C:C6	2.52	0.43
1:2S:3368:U:H4'	1:2S:3369:G:H5'	2.00	0.43
6:L3:73:VAL:HG11	25:63:90:GLY:HA2	2.01	0.43
6:L3:249:VAL:HG12	6:L3:250:ALA:N	2.33	0.43
9:L6:62:THR:HG21	9:L6:78:ARG:HD2	2.01	0.43
13:50:7:ARG:HH11	13:50:7:ARG:HG3	1.83	0.43
14:51:91:LEU:HB3	14:51:92:ARG:H	1.55	0.43
15:53:28:GLN:HG3	17:55:200:TRP:CE3	2.54	0.43
15:53:79:GLU:HG2	15:53:109:PHE:CE2	2.53	0.43
17:55:117:ASN:HB3	17:55:118:SER:H	1.67	0.43
18:56:185:ALA:O	18:56:191:ALA:HB2	2.19	0.43
21:59:43:LYS:HD3	21:59:46:LYS:HE3	1.99	0.43
25:63:79:VAL:HG22	25:63:99:ALA:C	2.38	0.43
32:70:24:THR:HG22	32:70:93:LEU:HD11	2.00	0.43
34:72:65:PHE:HB2	34:72:72:LYS:CE	2.48	0.43
36:74:24:LYS:HD2	36:74:30:LEU:HG	2.00	0.43
36:74:80:ARG:HD3	36:74:84:CYS:CB	2.44	0.43
39:77:5:THR:N	39:77:6:PRO:CD	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:79:48:LYS:N	41:79:48:LYS:HD2	2.33	0.43
45:83:59:CYS:O	45:83:60:CYS:CB	2.62	0.43
46:1S:189:C:H3'	46:1S:190:C:H5''	2.00	0.43
46:1S:602:U:O2'	46:1S:603:U:H5'	2.18	0.43
46:1S:613:G:H5'	46:1S:1099:U:C2	2.54	0.43
46:1S:1382:A:O4'	67:20:57:ARG:HG2	2.18	0.43
46:1S:1528:U:OP1	52:S5:109:LYS:HG2	2.18	0.43
46:1S:1746:A:H3'	46:1S:1747:G:C8	2.54	0.43
47:S0:79:ARG:O	47:S0:83:GLN:HG3	2.18	0.43
51:S4:163:ASP:O	51:S4:164:LEU:HB2	2.18	0.43
51:S4:197:HIS:H	51:S4:209:HIS:HB2	1.82	0.43
52:S5:143:ARG:HG2	75:28:55:VAL:HG11	2.00	0.43
54:S7:62:VAL:HG12	54:S7:64:VAL:H	1.84	0.43
57:10:55:VAL:HG23	57:10:68:LEU:HA	1.99	0.43
64:17:50:ILE:O	64:17:54:THR:HG23	2.19	0.43
67:20:62:VAL:HG12	67:20:83:GLU:HB2	2.01	0.43
72:25:60:VAL:HA	72:25:64:VAL:HG11	2.01	0.43
74:27:14:SER:O	74:27:18:LYS:HG3	2.18	0.43
79:RA:289:ALA:HB2	79:RA:305:TYR:CE2	2.54	0.43
1:2S:3:U:H6	1:2S:3:U:O5'	2.02	0.43
1:2S:48:A:H8	1:2S:48:A:OP1	2.02	0.43
1:2S:418:A:H61	2:8S:4:C:H42	1.67	0.43
1:2S:629:U:H2'	1:2S:630:A:C8	2.54	0.43
1:2S:698:U:H2'	1:2S:699:A:O4'	2.19	0.43
1:2S:721:G:H2'	1:2S:722:G:O4'	2.19	0.43
1:2S:978:G:H1'	1:2S:1104:G:N2	2.34	0.43
1:2S:993:G:H5'	23:61:14:MET:HG3	1.99	0.43
1:2S:1009:A:H2'	1:2S:1010:G:O4'	2.18	0.43
1:2S:1447:G:H3'	19:57:67:ILE:HD11	2.01	0.43
1:2S:1460:A:H2'	1:2S:1461:A:H8	1.77	0.43
1:2S:1873:U:O5'	1:2S:1873:U:H6	2.02	0.43
1:2S:2685:C:H2'	1:2S:2686:A:H8	1.84	0.43
1:2S:2941:A:OP2	6:L3:255:TRP:HB3	2.19	0.43
5:L2:181:LYS:HG3	5:L2:184:ARG:HG3	2.00	0.43
7:L4:314:LYS:HD2	10:L7:162:PRO:HB2	2.01	0.43
13:50:34:TYR:O	13:50:89:VAL:HG23	2.18	0.43
14:51:133:ARG:HD3	14:51:152:HIS:CE1	2.53	0.43
14:51:143:ARG:O	14:51:144:CYS:HB2	2.19	0.43
21:59:132:PHE:CE1	21:59:138:LEU:HG	2.54	0.43
30:68:74:ASN:HB3	30:68:115:LYS:HB2	1.99	0.43
32:70:41:LEU:H	32:70:92:ILE:HB	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:77:72:ARG:HG2	39:77:72:ARG:NH1	2.33	0.43
46:1S:209:U:H2'	46:1S:210:A:C8	2.53	0.43
46:1S:228:G:C6	46:1S:834:G:N2	2.87	0.43
46:1S:1477:G:O2'	66:19:47:PRO:HA	2.19	0.43
48:S1:68:VAL:HG22	48:S1:69:CYS:N	2.34	0.43
49:S2:52:THR:HB	49:S2:54:GLU:HG2	2.00	0.43
51:S4:44:LEU:HD12	51:S4:82:TYR:HB3	1.99	0.43
51:S4:232:GLY:C	51:S4:233:LYS:HD2	2.38	0.43
51:S4:248:ILE:HD12	56:S9:71:PHE:HB2	2.01	0.43
53:S6:57:ASP:HA	53:S6:107:ALA:H	1.83	0.43
60:13:146:ALA:O	60:13:150:VAL:HG12	2.19	0.43
64:17:82:ASP:O	64:17:83:GLN:CB	2.67	0.43
67:20:28:SER:HB3	67:20:34:LEU:HB2	2.00	0.43
69:22:92:ASN:CB	69:22:93:LEU:HD23	2.47	0.43
70:23:104:LEU:CD2	70:23:124:VAL:HG22	2.49	0.43
79:RA:9:LEU:HD11	79:RA:311:ARG:HB3	2.00	0.43
1:2S:39:A:H2'	1:2S:42:C:N4	2.34	0.43
1:2S:81:C:H2'	1:2S:82:C:C6	2.53	0.43
1:2S:430:U:H2'	1:2S:431:U:C6	2.54	0.43
1:2S:592:A:H5'	9:L6:17:ALA:O	2.19	0.43
1:2S:609:G:H5'	9:L6:22:ARG:HH22	1.84	0.43
1:2S:820:A:H2'	1:2S:821:U:C5	2.54	0.43
1:2S:1088:U:H2'	1:2S:1089:G:C8	2.54	0.43
1:2S:1637:A:H5''	29:67:16:GLY:HA2	1.99	0.43
1:2S:2327:U:H2'	1:2S:2328:U:H6	1.83	0.43
1:2S:2677:G:H2'	1:2S:2677:G:N3	2.34	0.43
1:2S:2914:G:H5'	6:L3:9:PRO:CG	2.40	0.43
1:2S:2951:G:O2'	1:2S:2952:G:H5'	2.18	0.43
5:L2:248:GLY:HA3	46:1S:1012:U:H5''	1.99	0.43
8:L5:258:LYS:O	8:L5:259:LYS:CB	2.67	0.43
10:L7:160:ARG:HD2	10:L7:203:TRP:CD1	2.54	0.43
11:L8:44:ARG:HG3	11:L8:44:ARG:NH1	2.29	0.43
11:L8:215:VAL:HA	11:L8:218:ILE:HB	2.00	0.43
13:50:152:LEU:O	13:50:156:ARG:HG3	2.19	0.43
15:53:46:ILE:HB	15:53:51:LEU:CD2	2.49	0.43
15:53:180:ARG:HD3	38:76:11:LEU:HD11	2.01	0.43
18:56:129:LEU:HD12	18:56:133:ARG:HB2	2.00	0.43
21:59:11:ALA:O	21:59:15:VAL:HG23	2.18	0.43
25:63:18:PRO:HA	25:63:51:ALA:HB2	2.00	0.43
30:68:121:VAL:HA	30:68:122:PRO:HD3	1.84	0.43
46:1S:306:U:H2'	46:1S:307:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:579:A:H3'	46:1S:580:A:C5'	2.49	0.43
46:1S:811:A:H2	46:1S:857:U:O2	2.02	0.43
46:1S:885:G:H2'	46:1S:886:U:C6	2.54	0.43
46:1S:1095:U:H4'	69:22:19:LYS:NZ	2.33	0.43
46:1S:1611:A:O2'	52:S5:95:ASN:HB3	2.18	0.43
51:S4:47:PHE:CD1	51:S4:51:ARG:HG3	2.53	0.43
51:S4:57:ASN:O	51:S4:61:VAL:HG23	2.19	0.43
51:S4:126:VAL:HG22	51:S4:158:ASP:H	1.83	0.43
53:S6:82:SER:O	53:S6:83:CYS:HB2	2.19	0.43
57:10:21:VAL:HB	57:10:66:TYR:HB2	2.00	0.43
61:14:82:LYS:HB3	61:14:118:VAL:CG2	2.49	0.43
63:16:51:PRO:O	63:16:55:VAL:HG12	2.18	0.43
65:18:18:LEU:O	65:18:19:ASN:HB2	2.19	0.43
66:19:25:GLN:HE21	66:19:27:LYS:HD3	1.83	0.43
68:21:2:GLU:HG2	68:21:8:LEU:HA	2.00	0.43
71:24:29:HIS:CE1	71:24:67:GLY:H	2.36	0.43
79:RA:103:PHE:HE1	79:RA:138:GLY:HA2	1.79	0.43
1:2S:211:A:O4'	1:2S:229:G:H1'	2.18	0.43
1:2S:379:C:H2'	1:2S:380:U:C6	2.54	0.43
1:2S:543:C:H5'	1:2S:544:C:OP2	2.19	0.43
1:2S:650:C:O5'	1:2S:650:C:H6	2.02	0.43
1:2S:715:A:H5'	1:2S:753:C:H4'	2.01	0.43
1:2S:780:A:H5'	20:58:160:GLY:O	2.19	0.43
1:2S:837:A:H4'	45:83:10:ILE:HA	2.01	0.43
1:2S:1200:A:C2	1:2S:2370:G:H5''	2.54	0.43
1:2S:2105:G:O2'	1:2S:2106:A:H5'	2.19	0.43
1:2S:3206:C:H5''	1:2S:3207:U:O4'	2.19	0.43
1:2S:3297:U:H4'	19:57:74:LYS:HD2	2.00	0.43
4:L1:115:VAL:HG12	4:L1:115:VAL:O	2.19	0.43
6:L3:166:ILE:O	6:L3:166:ILE:HG13	2.19	0.43
8:L5:184:ASP:O	8:L5:187:THR:O	2.36	0.43
9:L6:46:ARG:CB	9:L6:77:ARG:HH22	2.32	0.43
11:L8:98:ARG:HA	11:L8:99:PRO:HD3	1.90	0.43
16:54:16:GLU:CB	22:60:149:LYS:HG2	2.49	0.43
17:55:115:VAL:HG13	17:55:134:LEU:HG	2.00	0.43
19:57:122:ALA:HB1	19:57:123:PRO:CD	2.49	0.43
25:63:84:SER:CA	25:63:94:TYR:HB3	2.48	0.43
29:67:13:VAL:CB	29:67:19:ALA:HA	2.48	0.43
30:68:36:GLY:C	30:68:41:HIS:HB2	2.40	0.43
32:70:10:ILE:HD13	32:70:104:LEU:HD11	2.00	0.43
36:74:24:LYS:CA	36:74:30:LEU:HD23	2.40	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:367:A:C2'	46:1S:368:U:H5'	2.48	0.43
46:1S:1344:A:H2'	46:1S:1345:A:C8	2.54	0.43
47:S0:121:VAL:C	47:S0:122:ILE:HD12	2.39	0.43
48:S1:110:LEU:HD12	48:S1:110:LEU:N	2.34	0.43
48:S1:171:ILE:HD12	48:S1:197:ILE:CD1	2.49	0.43
52:S5:32:GLU:HG3	52:S5:33:VAL:HG23	2.00	0.43
53:S6:28:PHE:O	53:S6:29:ASP:HB2	2.19	0.43
54:S7:160:GLN:HA	54:S7:163:ASP:HB2	2.01	0.43
66:19:126:GLU:HG2	66:19:127:ASN:N	2.34	0.43
67:20:50:LEU:HB3	67:20:51:VAL:H	1.54	0.43
67:20:68:ARG:HB2	76:29:40:ARG:HH12	1.84	0.43
71:24:35:VAL:O	71:24:36:SER:HB3	2.19	0.43
73:26:18:VAL:CG2	73:26:19:LYS:N	2.81	0.43
79:RA:27:ALA:HA	79:RA:296:ALA:HB2	2.01	0.43
1:2S:75:G:C2'	1:2S:76:G:H5'	2.49	0.42
1:2S:162:G:H2'	1:2S:163:C:O4'	2.18	0.42
1:2S:372:A:H2'	1:2S:373:A:C8	2.54	0.42
1:2S:896:A:H4'	5:L2:186:PHE:CE2	2.54	0.42
1:2S:942:U:C6	30:68:15:VAL:HG12	2.54	0.42
1:2S:1223:A:H2'	1:2S:1224:C:H6	1.80	0.42
1:2S:1532:C:H2'	1:2S:1533:U:C6	2.54	0.42
1:2S:2265:C:H2'	1:2S:2266:U:O4'	2.19	0.42
1:2S:2989:U:C4'	6:L3:266:ARG:HG3	2.49	0.42
1:2S:3122:A:O2'	12:L9:63:LYS:HD2	2.19	0.42
1:2S:3335:A:H5''	1:2S:3370:A:H2	1.83	0.42
2:8S:15:G:C6	2:8S:16:G:C6	3.07	0.42
4:L1:18:LYS:C	4:L1:20:SER:H	2.21	0.42
4:L1:174:MET:HG3	4:L1:175:GLU:N	2.34	0.42
6:L3:148:LEU:HG	6:L3:152:LYS:HE3	2.01	0.42
7:L4:138:ARG:HD2	7:L4:243:HIS:CB	2.49	0.42
7:L4:317:PRO:O	7:L4:318:LEU:HB2	2.20	0.42
8:L5:222:LEU:HB3	8:L5:223:PHE:CD1	2.54	0.42
9:L6:68:PRO:CG	9:L6:146:ILE:HD11	2.49	0.42
9:L6:145:LEU:O	9:L6:148:GLU:HB3	2.19	0.42
10:L7:61:ASN:HA	10:L7:64:GLN:HB3	2.01	0.42
15:53:105:ASN:O	15:53:109:PHE:HB2	2.19	0.42
19:57:177:ALA:HA	19:57:180:LYS:HG2	2.01	0.42
21:59:62:ARG:HG3	21:59:62:ARG:NH2	2.34	0.42
22:60:46:GLN:NE2	22:60:52:LYS:HA	2.34	0.42
23:61:12:ARG:HG2	23:61:12:ARG:NH1	2.34	0.42
23:61:42:ILE:HG21	23:61:57:TYR:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:63:45:ARG:HG3	25:63:46:LEU:H	1.82	0.42
31:69:36:ASP:HA	31:69:37:PRO:HD3	1.90	0.42
32:70:73:GLY:H	32:70:76:GLU:CD	2.23	0.42
37:75:7:TYR:CD1	37:75:8:GLU:HG3	2.54	0.42
37:75:38:ARG:NH1	37:75:38:ARG:CB	2.82	0.42
38:76:80:PHE:O	38:76:84:LYS:HG3	2.20	0.42
42:80:119:ASN:ND2	42:80:119:ASN:H	2.17	0.42
45:83:42:CYS:HB3	45:83:60:CYS:HB2	2.00	0.42
46:1S:111:U:H2'	46:1S:112:A:C8	2.54	0.42
46:1S:406:U:O2'	53:S6:94:ARG:NH2	2.50	0.42
46:1S:861:U:H5'	60:13:64:ARG:HH22	1.80	0.42
46:1S:1023:A:H1'	46:1S:1024:U:C5	2.54	0.42
46:1S:1024:U:H3'	46:1S:1027:A:N6	2.34	0.42
46:1S:1417:A:H5'	63:16:125:GLU:OE2	2.18	0.42
46:1S:1469:A:H2'	46:1S:1470:C:O4'	2.18	0.42
46:1S:1469:A:H4'	46:1S:1541:G:H4'	2.01	0.42
48:S1:222:LYS:HG3	48:S1:223:PHE:N	2.32	0.42
50:S3:133:GLY:CA	50:S3:156:PHE:H	2.32	0.42
54:S7:109:VAL:CG2	54:S7:110:GLN:H	2.15	0.42
60:13:100:LYS:HA	60:13:103:GLU:CG	2.44	0.42
66:19:28:LEU:HD13	66:19:29:GLU:H	1.83	0.42
70:23:107:PHE:CD1	70:23:123:LYS:HD3	2.53	0.42
73:26:78:ALA:CA	73:26:82:ARG:HB3	2.49	0.42
79:RA:20:VAL:HA	79:RA:36:ALA:O	2.19	0.42
79:RA:41:THR:HG21	79:RA:62:LYS:HE2	2.01	0.42
1:2S:38:U:H2'	1:2S:39:A:O4'	2.18	0.42
1:2S:185:C:C5'	28:66:122:LYS:HG2	2.42	0.42
1:2S:207:U:H2'	1:2S:208:C:C6	2.54	0.42
1:2S:524:U:H2'	1:2S:525:C:H6	1.84	0.42
1:2S:804:C:H2'	1:2S:805:G:O4'	2.19	0.42
1:2S:2071:A:O5'	1:2S:2071:A:H8	2.02	0.42
1:2S:2095:G:O4'	1:2S:2095:G:P	2.77	0.42
1:2S:2457:G:N2	1:2S:2486:A:C2	2.87	0.42
1:2S:2524:A:N6	5:L2:67:TYR:HB3	2.34	0.42
1:2S:2874:G:H3'	1:2S:2945:G:N1	2.33	0.42
1:2S:2922:G:C2'	1:2S:2923:U:H4'	2.34	0.42
1:2S:3295:A:H5'	6:L3:119:TYR:CE1	2.53	0.42
6:L3:199:PHE:O	6:L3:200:GLU:CB	2.67	0.42
6:L3:260:VAL:O	18:56:64:PHE:HB2	2.20	0.42
7:L4:25:VAL:HG11	7:L4:126:ILE:HD12	1.99	0.42
7:L4:181:VAL:C	7:L4:183:LYS:H	2.23	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:292:SER:HB3	7:L4:293:SER:H	1.75	0.42
8:L5:33:ARG:HG3	8:L5:33:ARG:HH11	1.84	0.42
17:55:162:ARG:CZ	17:55:164:LEU:HD11	2.49	0.42
18:56:121:PRO:HA	18:56:127:LEU:HD12	2.00	0.42
20:58:68:ALA:HA	20:58:71:LEU:HD12	2.01	0.42
21:59:90:PRO:HB2	21:59:93:VAL:HB	2.01	0.42
22:60:6:GLU:HB2	22:60:30:PHE:CE1	2.53	0.42
23:61:67:VAL:HA	23:61:72:VAL:HG12	2.00	0.42
24:62:17:VAL:HG13	24:62:103:TYR:HB2	2.01	0.42
25:63:15:LEU:HB3	25:63:51:ALA:O	2.19	0.42
27:65:68:THR:HG22	27:65:141:TYR:CD1	2.55	0.42
27:65:91:ASN:ND2	27:65:93:TYR:CD2	2.84	0.42
30:68:74:ASN:C	30:68:76:ASP:N	2.72	0.42
39:77:17:THR:HG22	39:77:18:LEU:N	2.34	0.42
46:1S:162:A:OP1	53:S6:82:SER:HB3	2.18	0.42
46:1S:226:A:O2'	46:1S:227:U:H5'	2.18	0.42
46:1S:312:A:C2	46:1S:314:C:H2'	2.54	0.42
46:1S:350:U:O5'	46:1S:352:A:H5''	2.19	0.42
46:1S:755:A:H2'	46:1S:756:A:H8	1.83	0.42
46:1S:835:U:H2'	46:1S:836:U:C6	2.54	0.42
46:1S:1413:U:H5'	64:17:3:ARG:NH1	2.33	0.42
46:1S:1755:A:OP1	70:23:63:GLN:HB2	2.19	0.42
47:S0:11:PRO:HB3	64:17:115:LEU:HG	2.01	0.42
47:S0:54:TRP:O	47:S0:58:VAL:HG23	2.19	0.42
51:S4:29:PRO:O	51:S4:31:PRO:HD3	2.19	0.42
51:S4:194:THR:O	51:S4:195:ILE:HG13	2.19	0.42
52:S5:118:LEU:CD2	52:S5:129:PRO:HB2	2.48	0.42
52:S5:160:VAL:HG21	75:28:45:LYS:HD3	2.01	0.42
53:S6:57:ASP:CB	53:S6:106:LEU:HA	2.49	0.42
55:S8:106:ALA:CB	55:S8:165:LEU:HD12	2.49	0.42
70:23:71:CYS:HB3	70:23:72:VAL:H	1.65	0.42
70:23:86:PHE:O	70:23:88:PRO:HD3	2.20	0.42
70:23:117:ILE:CG2	70:23:120:VAL:HB	2.49	0.42
79:RA:128:ASP:C	79:RA:129:LYS:HG3	2.40	0.42
1:2S:17:G:H4'	37:75:75:TYR:CE1	2.54	0.42
1:2S:44:U:H3'	1:2S:45:A:H8	1.83	0.42
1:2S:1190:A:N6	1:2S:1193:A:C2	2.87	0.42
1:2S:1799:A:H2'	1:2S:1800:A:C8	2.54	0.42
1:2S:2131:A:C5	1:2S:2188:A:H1'	2.55	0.42
1:2S:3275:U:H3'	1:2S:3276:G:C5'	2.49	0.42
1:2S:3320:A:H2'	1:2S:3321:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:48:ILE:HD12	5:L2:48:ILE:O	2.19	0.42
6:L3:73:VAL:HG21	25:63:90:GLY:HA2	2.01	0.42
10:L7:152:GLY:HA3	10:L7:163:LEU:HD12	2.00	0.42
11:L8:163:VAL:O	11:L8:163:VAL:HG22	2.20	0.42
12:L9:103:ILE:HG13	12:L9:136:PHE:HZ	1.85	0.42
13:50:30:LYS:HA	13:50:30:LYS:CE	2.37	0.42
13:50:145:LYS:O	13:50:149:VAL:HG23	2.19	0.42
15:53:75:PHE:H	15:53:97:VAL:HA	1.83	0.42
16:54:38:ILE:HG13	16:54:44:VAL:CG1	2.47	0.42
20:58:174:ARG:HG2	20:58:174:ARG:HH11	1.83	0.42
22:60:74:ASN:O	22:60:128:GLU:HA	2.18	0.42
23:61:27:LEU:HD22	23:61:27:LEU:N	2.34	0.42
26:64:14:TYR:HA	26:64:15:PRO:HD3	1.90	0.42
30:68:7:LYS:CA	30:68:10:LYS:HD3	2.45	0.42
31:69:38:LYS:O	31:69:42:ASN:HB3	2.20	0.42
33:71:75:ILE:HG23	33:71:93:VAL:HG22	2.01	0.42
34:72:40:SER:O	34:72:44:ARG:HG3	2.18	0.42
37:75:105:ARG:O	37:75:109:ILE:HG13	2.19	0.42
46:1S:592:A:H2'	46:1S:593:U:O4'	2.19	0.42
46:1S:1113:A:H8	46:1S:1113:A:OP1	2.02	0.42
46:1S:1349:G:H2'	46:1S:1350:U:H6	1.83	0.42
46:1S:1399:C:O2	46:1S:1399:C:O4'	2.37	0.42
46:1S:1498:G:H5''	66:19:72:GLY:HA3	2.01	0.42
46:1S:1504:G:H5''	66:19:97:SER:HB2	2.02	0.42
46:1S:1599:C:H2'	46:1S:1600:A:H5''	2.00	0.42
46:1S:1712:A:C2	46:1S:1713:G:C8	3.07	0.42
46:1S:1789:G:H5'	61:14:132:ARG:HH22	1.83	0.42
47:S0:77:SER:CB	47:S0:86:VAL:HG11	2.43	0.42
48:S1:127:VAL:HB	48:S1:173:THR:HG22	2.00	0.42
54:S7:138:LYS:HB2	69:22:54:ASP:HB3	2.02	0.42
54:S7:153:LEU:HD21	54:S7:184:GLU:OE1	2.19	0.42
54:S7:164:TYR:CZ	54:S7:165:LYS:HE3	2.54	0.42
56:S9:37:LYS:HB3	77:30:33:ARG:HB2	2.01	0.42
58:11:33:ARG:HG3	58:11:33:ARG:NH2	2.35	0.42
58:11:34:TRP:HH2	58:11:36:LYS:HD3	1.84	0.42
60:13:27:LYS:HE2	60:13:27:LYS:H	1.84	0.42
61:14:21:ALA:H	61:14:83:ILE:CD1	2.32	0.42
66:19:31:PRO:HB3	66:19:103:LYS:CD	2.49	0.42
68:21:62:ARG:CB	68:21:64:GLU:HG2	2.49	0.42
69:22:8:ALA:HA	69:22:74:VAL:HG11	2.00	0.42
69:22:79:PHE:N	69:22:125:ILE:HG22	2.31	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:23:70:LYS:HD2	77:30:8:LEU:HD23	2.00	0.42
71:24:44:LEU:HA	71:24:47:VAL:HG22	2.01	0.42
79:RA:86:ASP:O	79:RA:87:LYS:HB2	2.19	0.42
79:RA:137:LYS:HA	79:RA:137:LYS:HE3	2.02	0.42
1:2S:348:A:H1'	1:2S:352:A:C2	2.54	0.42
1:2S:806:A:H5'	1:2S:806:A:H8	1.84	0.42
1:2S:885:U:H2'	1:2S:886:C:C6	2.54	0.42
1:2S:1182:A:H2'	1:2S:1183:C:C6	2.54	0.42
1:2S:1324:U:O5'	1:2S:1324:U:H6	2.02	0.42
1:2S:1391:C:H5''	1:2S:1392:G:C8	2.54	0.42
1:2S:1696:A:H2'	1:2S:1697:A:H8	1.80	0.42
1:2S:1845:G:H3'	1:2S:1849:C:N4	2.34	0.42
1:2S:1894:U:H2'	1:2S:1895:A:O4'	2.20	0.42
1:2S:2255:A:H5'	1:2S:2261:G:N2	2.23	0.42
1:2S:2258:U:H2'	1:2S:2259:A:H8	1.83	0.42
1:2S:2462:A:C5	1:2S:2463:G:H1'	2.54	0.42
1:2S:3080:G:H2'	1:2S:3081:C:C6	2.54	0.42
3:5S:28:C:H2'	3:5S:29:C:O4'	2.19	0.42
4:L1:32:VAL:HG22	4:L1:33:GLU:H	1.85	0.42
6:L3:39:LYS:HE2	6:L3:40:PRO:CD	2.49	0.42
8:L5:41:LYS:HB2	23:61:68:THR:O	2.19	0.42
12:L9:90:MET:HB3	12:L9:179:ILE:CG2	2.48	0.42
14:51:104:PHE:HD1	14:51:106:ILE:HG23	1.83	0.42
15:53:125:VAL:HG22	37:75:116:TYR:HB3	1.99	0.42
17:55:17:ASP:HA	17:55:20:ARG:CD	2.49	0.42
17:55:153:ASP:CG	17:55:154:PRO:HD2	2.40	0.42
19:57:67:ILE:HG22	19:57:68:GLY:N	2.34	0.42
19:57:159:LYS:CG	19:57:160:ALA:H	2.33	0.42
19:57:166:VAL:HG22	19:57:168:LEU:CD1	2.48	0.42
25:63:33:ASN:HD21	25:63:64:LYS:H	1.66	0.42
26:64:9:SER:O	26:64:53:VAL:HB	2.18	0.42
39:77:19:CYS:SG	39:77:39:TYR:CD1	3.11	0.42
39:77:44:THR:HG22	39:77:45:ARG:H	1.80	0.42
41:79:50:ASN:O	41:79:51:ILE:HB	2.19	0.42
46:1S:15:U:H2'	46:1S:16:G:O4'	2.19	0.42
46:1S:30:G:O2'	70:23:133:LEU:HG	2.19	0.42
46:1S:312:A:H4'	46:1S:313:U:H3'	2.01	0.42
46:1S:375:U:H5''	70:23:32:ARG:NH1	2.30	0.42
46:1S:945:U:O2'	46:1S:946:U:H5'	2.20	0.42
46:1S:953:G:O2'	46:1S:954:G:H5'	2.20	0.42
46:1S:1594:G:C5'	76:29:33:LYS:HD2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:29:TRP:CH2	48:S1:47:LEU:HD11	2.54	0.42
49:S2:187:LEU:HD22	49:S2:211:LEU:HD22	2.01	0.42
53:S6:25:ARG:HA	53:S6:28:PHE:CD1	2.54	0.42
57:10:63:TYR:O	57:10:64:TYR:C	2.58	0.42
58:11:43:LYS:HD3	58:11:44:THR:N	2.34	0.42
59:12:36:LEU:HB2	59:12:41:LEU:HD12	2.01	0.42
63:16:23:LYS:HG3	63:16:64:ASP:HB2	2.01	0.42
68:21:43:GLY:O	68:21:44:ARG:O	2.36	0.42
73:26:78:ALA:O	73:26:82:ARG:HB3	2.19	0.42
1:2S:884:A:HO2'	39:77:2:GLY:N	2.18	0.42
1:2S:926:A:H2'	1:2S:927:C:C6	2.55	0.42
1:2S:1359:C:H2'	1:2S:1360:C:C6	2.55	0.42
1:2S:1892:G:H2'	1:2S:1893:A:C5'	2.44	0.42
1:2S:2853:A:O3'	13:50:64:ALA:HB2	2.19	0.42
1:2S:2960:C:H2'	1:2S:2961:G:H8	1.84	0.42
1:2S:3285:C:H2'	1:2S:3286:G:H8	1.84	0.42
2:8S:41:A:H5''	39:77:64:MET:CG	2.40	0.42
2:8S:140:G:H2'	2:8S:141:C:C6	2.54	0.42
3:5S:58:C:H2'	3:5S:59:U:C6	2.54	0.42
7:L4:322:GLN:HA	7:L4:325:LEU:HB2	2.01	0.42
8:L5:53:VAL:HG11	8:L5:159:VAL:HG13	2.01	0.42
8:L5:179:ARG:HD3	8:L5:179:ARG:HA	1.84	0.42
19:57:30:ARG:C	19:57:30:ARG:HD3	2.40	0.42
19:57:151:THR:HG22	19:57:152:GLU:N	2.34	0.42
19:57:171:ARG:HG3	19:57:171:ARG:NH1	2.30	0.42
29:67:51:LEU:HB3	29:67:65:ARG:HD2	2.01	0.42
30:68:47:LYS:C	30:68:50:PRO:HD3	2.40	0.42
34:72:19:ARG:HG2	34:72:20:HIS:H	1.84	0.42
34:72:19:ARG:HG2	34:72:20:HIS:N	2.35	0.42
41:79:24:PRO:HB2	41:79:27:ILE:HD12	2.00	0.42
45:83:64:VAL:CG1	45:83:65:ALA:N	2.82	0.42
46:1S:337:G:H3'	58:11:133:LYS:HB2	2.02	0.42
46:1S:596:C:H2'	46:1S:597:G:H8	1.85	0.42
46:1S:1546:G:H2'	46:1S:1547:A:C8	2.55	0.42
46:1S:1673:G:H2'	46:1S:1674:C:C6	2.54	0.42
46:1S:1718:G:C2'	46:1S:1719:A:H5'	2.49	0.42
48:S1:218:LEU:HD23	48:S1:219:LYS:CG	2.49	0.42
49:S2:53:ILE:HB	49:S2:57:PHE:CE2	2.55	0.42
50:S3:12:VAL:O	50:S3:16:VAL:HG23	2.19	0.42
50:S3:115:ILE:HG23	50:S3:116:ARG:N	2.33	0.42
50:S3:133:GLY:HA2	50:S3:156:PHE:N	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:S3:216:PRO:O	50:S3:218:LEU:HG	2.19	0.42
52:S5:26:ALA:CB	63:16:28:LEU:HB3	2.49	0.42
52:S5:44:ASN:O	52:S5:45:LYS:HB2	2.20	0.42
53:S6:32:ILE:HG23	53:S6:52:ILE:HG22	2.00	0.42
54:S7:46:ILE:CD1	54:S7:60:ILE:HG23	2.49	0.42
54:S7:78:THR:HG22	54:S7:81:LEU:HD12	2.01	0.42
55:S8:21:PHE:O	55:S8:22:ARG:HG2	2.18	0.42
55:S8:43:ILE:HA	55:S8:57:ALA:HA	2.02	0.42
55:S8:67:TRP:CE3	55:S8:70:GLU:HB2	2.54	0.42
57:10:69:THR:O	57:10:73:VAL:HG23	2.20	0.42
65:18:37:GLY:HA3	65:18:101:LEU:HD23	2.01	0.42
70:23:24:TRP:HZ3	70:23:30:LYS:HG3	1.83	0.42
70:23:70:LYS:HE3	77:30:8:LEU:HA	2.02	0.42
74:27:33:LEU:HD13	74:27:35:VAL:CG2	2.49	0.42
79:RA:263:PHE:CE1	79:RA:270:LEU:HD13	2.55	0.42
1:2S:505:G:H4'	7:L4:313:LEU:HD11	2.02	0.42
1:2S:571:U:H2'	1:2S:572:A:C8	2.54	0.42
1:2S:879:U:O2'	19:57:131:ARG:HB3	2.19	0.42
1:2S:939:U:H2'	1:2S:940:G:C8	2.54	0.42
1:2S:1190:A:H61	1:2S:1315:U:H3	1.67	0.42
1:2S:1317:A:H3'	1:2S:1317:A:OP2	2.20	0.42
1:2S:2068:U:OP2	55:S8:158:SER:HA	2.19	0.42
1:2S:2280:A:H2'	1:2S:2281:A:H3'	2.01	0.42
1:2S:2610:G:H2'	1:2S:2611:U:C6	2.54	0.42
5:L2:205:ASN:O	5:L2:208:ASP:HB2	2.19	0.42
6:L3:4:ARG:O	6:L3:5:LYS:HB3	2.20	0.42
6:L3:220:VAL:HG22	6:L3:274:SER:OG	2.18	0.42
6:L3:232:ARG:HD3	6:L3:268:GLY:H	1.85	0.42
6:L3:272:TYR:O	6:L3:272:TYR:CD1	2.73	0.42
7:L4:28:ALA:HB1	7:L4:29:PRO:HD2	2.02	0.42
7:L4:74:ILE:CB	7:L4:75:PRO:HD2	2.49	0.42
7:L4:191:LYS:O	7:L4:195:ARG:HG3	2.18	0.42
7:L4:304:GLN:O	7:L4:305:ALA:CB	2.68	0.42
10:L7:85:PHE:CE1	10:L7:114:GLY:HA3	2.55	0.42
10:L7:165:ASP:HB3	10:L7:168:ILE:CD1	2.50	0.42
11:L8:214:LEU:O	11:L8:218:ILE:HG13	2.19	0.42
11:L8:246:MET:O	11:L8:250:ALA:HB3	2.20	0.42
13:50:174:THR:HG22	13:50:175:ASN:H	1.83	0.42
14:51:163:PHE:C	14:51:165:GLN:H	2.23	0.42
18:56:138:LEU:HA	18:56:141:LEU:HD23	2.01	0.42
22:60:132:THR:O	22:60:133:ALA:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:63:33:ASN:C	25:63:33:ASN:HD22	2.22	0.42
29:67:4:PHE:CZ	32:70:35:ARG:HA	2.55	0.42
31:69:22:LYS:HE3	31:69:22:LYS:HB3	1.87	0.42
34:72:111:ARG:HD2	34:72:114:ALA:HB3	2.01	0.42
36:74:80:ARG:HB2	36:74:85:VAL:CG2	2.49	0.42
37:75:66:VAL:O	37:75:70:TYR:HB2	2.20	0.42
39:77:56:ARG:HB2	39:77:57:HIS:CE1	2.54	0.42
46:1S:351:C:O2	58:11:103:ARG:HA	2.20	0.42
46:1S:788:A:C6	51:S4:19:LEU:HD13	2.54	0.42
46:1S:1606:C:H2'	46:1S:1607:G:O4'	2.19	0.42
46:1S:1727:G:N2	55:S8:32:GLN:HE22	2.17	0.42
47:S0:31:VAL:HG23	47:S0:150:ASP:HA	2.01	0.42
49:S2:97:ARG:HB3	49:S2:97:ARG:HH11	1.83	0.42
49:S2:226:THR:CG2	49:S2:229:LEU:HB2	2.48	0.42
60:13:70:LYS:O	60:13:74:ILE:HG13	2.20	0.42
64:17:99:VAL:HB	64:17:118:PRO:CB	2.49	0.42
69:22:93:LEU:HD23	69:22:93:LEU:N	2.34	0.42
72:25:85:LYS:HD2	72:25:86:GLU:N	2.34	0.42
79:RA:64:HIS:HB3	79:RA:86:ASP:OD2	2.19	0.42
79:RA:157:VAL:HB	79:RA:168:THR:O	2.20	0.42
1:2S:1118:C:H2'	1:2S:1119:C:C6	2.55	0.42
1:2S:1329:U:H1'	1:2S:1330:A:OP1	2.19	0.42
1:2S:1479:U:C5	1:2S:1480:G:C5	3.07	0.42
1:2S:1647:A:O2'	1:2S:1648:A:H5'	2.19	0.42
1:2S:1859:A:H2'	1:2S:1860:G:C8	2.54	0.42
1:2S:1910:A:H2'	1:2S:1911:A:C8	2.55	0.42
1:2S:1965:C:O2'	1:2S:1966:U:H5'	2.20	0.42
1:2S:2148:U:H2'	1:2S:2149:A:C8	2.54	0.42
1:2S:2596:U:H2'	1:2S:2597:U:C6	2.55	0.42
1:2S:2626:A:H1'	1:2S:2644:C:H5'	2.01	0.42
1:2S:3010:U:O3'	1:2S:3011:A:H8	2.02	0.42
1:2S:3385:U:H2'	1:2S:3386:G:C8	2.54	0.42
5:L2:129:ALA:C	5:L2:169:ILE:HD12	2.40	0.42
9:L6:31:ARG:HG3	9:L6:33:SER:H	1.85	0.42
9:L6:35:VAL:HA	9:L6:36:PRO:HD3	1.92	0.42
11:L8:215:VAL:O	11:L8:215:VAL:HG12	2.19	0.42
14:51:16:LYS:HG2	14:51:130:VAL:HG11	2.02	0.42
15:53:25:HIS:NE2	17:55:198:SER:OG	2.53	0.42
18:56:142:SER:O	18:56:147:TRP:HB3	2.20	0.42
24:62:87:ASN:O	24:62:88:GLN:HB2	2.20	0.42
34:72:82:LEU:CD1	34:72:115:LEU:HD12	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:74:42:PRO:HD3	36:74:56:THR:HG21	2.01	0.42
41:79:30:ARG:O	41:79:33:ASN:HB2	2.20	0.42
44:82:55:LYS:HE3	44:82:56:PRO:HD2	2.01	0.42
46:1S:576:G:C4'	46:1S:580:A:C2	3.01	0.42
46:1S:688:G:H2'	46:1S:689:G:H8	1.85	0.42
46:1S:1215:C:C2'	46:1S:1216:C:H5'	2.50	0.42
46:1S:1435:G:C4'	46:1S:1436:A:H5'	2.48	0.42
46:1S:1668:G:H2'	46:1S:1669:U:O4'	2.20	0.42
46:1S:1727:G:H21	55:S8:32:GLN:NE2	2.18	0.42
47:S0:139:VAL:O	47:S0:139:VAL:HG22	2.19	0.42
48:S1:77:GLU:C	48:S1:79:HIS:H	2.23	0.42
50:S3:175:VAL:HG13	50:S3:175:VAL:O	2.20	0.42
51:S4:246:LEU:HD12	51:S4:246:LEU:N	2.34	0.42
52:S5:24:VAL:CG2	52:S5:28:PRO:HA	2.50	0.42
55:S8:137:LYS:O	55:S8:141:ARG:HG3	2.19	0.42
59:12:113:ARG:HG2	59:12:114:LYS:H	1.85	0.42
63:16:135:ARG:HH11	63:16:135:ARG:HG3	1.84	0.42
69:22:41:MET:HB3	69:22:46:TYR:HB2	2.01	0.42
69:22:86:ILE:O	69:22:90:THR:HG23	2.20	0.42
71:24:82:ALA:O	71:24:86:GLU:HB2	2.20	0.42
79:RA:258:THR:HB	79:RA:275:ARG:HH22	1.83	0.42
1:2S:57:A:H2'	1:2S:58:G:C8	2.55	0.42
1:2S:130:A:H2'	1:2S:131:C:C6	2.55	0.42
1:2S:627:U:H4'	1:2S:1399:A:H1'	2.01	0.42
1:2S:881:C:O2	1:2S:1850:A:H2'	2.20	0.42
1:2S:887:G:H2'	1:2S:888:A:O4'	2.19	0.42
1:2S:1722:U:O2'	1:2S:1723:A:H5'	2.20	0.42
1:2S:2137:U:H5''	1:2S:2138:A:C5'	2.42	0.42
1:2S:2342:U:H5''	1:2S:3089:C:HO2'	1.84	0.42
1:2S:2633:U:C2'	1:2S:2634:U:H5'	2.49	0.42
1:2S:2722:U:C4'	23:61:88:ARG:HB2	2.46	0.42
1:2S:3170:A:H2'	1:2S:3171:U:C6	2.55	0.42
1:2S:3310:A:C2'	1:2S:3311:C:H5'	2.48	0.42
5:L2:158:ILE:HB	5:L2:159:SER:H	1.68	0.42
6:L3:56:ILE:CD1	6:L3:359:ILE:HG23	2.49	0.42
7:L4:36:HIS:O	7:L4:40:THR:HG23	2.20	0.42
7:L4:58:HIS:HA	7:L4:90:PHE:CD1	2.55	0.42
7:L4:81:GLY:O	7:L4:82:THR:HB	2.20	0.42
7:L4:135:VAL:HA	7:L4:245:GLY:CA	2.50	0.42
8:L5:20:PHE:HD2	8:L5:20:PHE:HA	1.78	0.42
8:L5:259:LYS:O	8:L5:260:PHE:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L9:16:VAL:HG12	12:L9:30:PRO:HD3	2.01	0.42
12:L9:145:VAL:HG12	12:L9:146:LEU:N	2.35	0.42
15:53:23:LYS:HB2	15:53:23:LYS:NZ	2.34	0.42
21:59:90:PRO:O	21:59:94:VAL:HG23	2.19	0.42
22:60:46:GLN:CD	22:60:52:LYS:HA	2.40	0.42
23:61:26:HIS:CE1	23:61:28:SER:HB2	2.55	0.42
25:63:85:TRP:O	25:63:92:PHE:HA	2.20	0.42
30:68:39:HIS:O	30:68:42:ARG:HG2	2.18	0.42
30:68:47:LYS:HE3	30:68:47:LYS:HB2	1.90	0.42
33:71:5:LYS:O	33:71:6:ASP:HB2	2.20	0.42
46:1S:182:A:H2'	46:1S:183:U:H6	1.81	0.42
46:1S:385:A:C5'	55:S8:22:ARG:HB3	2.43	0.42
46:1S:709:C:H42	46:1S:730:G:H2'	1.85	0.42
46:1S:751:G:O2'	46:1S:752:A:H5'	2.18	0.42
46:1S:1380:U:O5'	46:1S:1380:U:H6	2.03	0.42
46:1S:1457:C:H1'	65:18:137:HIS:NE2	2.35	0.42
46:1S:1542:G:H1'	46:1S:1569:A:H62	1.83	0.42
47:S0:188:LEU:HD12	47:S0:193:GLN:HG2	1.96	0.42
48:S1:129:THR:OG1	48:S1:180:THR:HG23	2.20	0.42
48:S1:133:TYR:CE1	48:S1:221:PRO:HD2	2.55	0.42
51:S4:232:GLY:C	51:S4:234:PRO:HD3	2.40	0.42
53:S6:49:VAL:HB	53:S6:115:LYS:HB3	2.02	0.42
53:S6:63:MET:HG2	53:S6:98:ARG:HB3	2.01	0.42
59:12:50:LYS:HE2	78:31:103:LEU:CD1	2.49	0.42
61:14:114:ARG:HA	73:26:62:TYR:CZ	2.55	0.42
64:17:21:TYR:N	64:17:22:PRO:CD	2.83	0.42
69:22:15:ASN:O	69:22:19:LYS:HG3	2.19	0.42
71:24:23:PHE:CE1	71:24:73:GLY:HA3	2.54	0.42
72:25:59:TYR:O	72:25:64:VAL:HG11	2.19	0.42
1:2S:74:G:H8	15:53:104:ARG:HH12	1.66	0.42
1:2S:844:G:H2'	1:2S:845:G:O4'	2.19	0.42
1:2S:1147:G:H8	1:2S:1147:G:O5'	2.02	0.42
1:2S:1449:A:H1'	1:2S:2983:C:C5	2.54	0.42
1:2S:1556:C:H3'	1:2S:2169:G:H22	1.82	0.42
1:2S:1636:U:O2	1:2S:1710:C:H4'	2.20	0.42
1:2S:1647:A:H2'	1:2S:1648:A:C8	2.54	0.42
1:2S:1807:G:H5''	29:67:135:ARG:HH22	1.84	0.42
1:2S:1947:G:H5''	21:59:134:HIS:CB	2.49	0.42
1:2S:2514:U:O2'	1:2S:2515:A:H8	2.03	0.42
1:2S:2660:G:H2'	1:2S:2661:G:H8	1.84	0.42
1:2S:2722:U:H5''	23:61:88:ARG:HG3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2875:U:O2	1:2S:2875:U:H2'	2.19	0.42
10:L7:60:ARG:NH2	10:L7:63:ILE:HD12	2.35	0.42
11:L8:151:VAL:HG22	11:L8:199:ALA:CB	2.50	0.42
18:56:124:LEU:HG	18:56:126:VAL:HG12	2.01	0.42
23:61:54:HIS:CD2	23:61:55:LYS:H	2.38	0.42
24:62:50:LEU:HD22	24:62:54:VAL:CG2	2.50	0.42
24:62:96:VAL:O	24:62:103:TYR:HB3	2.20	0.42
30:68:94:ALA:HB1	30:68:121:VAL:HG22	2.01	0.42
34:72:44:ARG:O	34:72:45:ARG:HB2	2.20	0.42
36:74:3:GLN:HE22	36:74:29:ILE:CB	2.32	0.42
38:76:45:ARG:HH11	38:76:45:ARG:HG3	1.85	0.42
41:79:13:MET:HG2	41:79:49:MET:CE	2.49	0.42
42:80:95:VAL:HG23	42:80:124:LYS:HA	2.02	0.42
42:80:96:CYS:HB3	42:80:101:ALA:H	1.85	0.42
45:83:44:LYS:HD2	45:83:59:CYS:SG	2.59	0.42
46:1S:329:G:C5'	55:S8:99:ALA:HB3	2.50	0.42
46:1S:381:C:OP1	56:S9:2:PRO:HA	2.20	0.42
46:1S:479:C:H5'	56:S9:124:HIS:ND1	2.34	0.42
46:1S:588:U:H2'	46:1S:589:C:H6	1.85	0.42
46:1S:1142:A:H2'	46:1S:1143:A:C8	2.55	0.42
46:1S:1364:G:H2'	46:1S:1365:C:C6	2.54	0.42
46:1S:1374:C:H2'	46:1S:1375:A:C8	2.55	0.42
46:1S:1587:A:H1'	52:S5:104:ASN:ND2	2.35	0.42
47:S0:3:LEU:HA	47:S0:4:PRO:HD3	1.82	0.42
50:S3:7:LYS:HA	50:S3:7:LYS:CE	2.37	0.42
51:S4:39:ARG:HA	51:S4:39:ARG:HE	1.82	0.42
51:S4:181:VAL:HG13	51:S4:226:PHE:C	2.40	0.42
55:S8:121:LEU:HD22	55:S8:121:LEU:N	2.35	0.42
56:S9:10:LYS:HD2	56:S9:12:TYR:CE1	2.54	0.42
58:11:127:GLN:HA	58:11:137:PHE:CD1	2.55	0.42
63:16:125:GLU:HA	63:16:126:PRO:HD3	1.94	0.42
64:17:82:ASP:O	64:17:83:GLN:HB2	2.19	0.42
66:19:49:ASP:O	66:19:50:ALA:HB3	2.19	0.42
70:23:109:ARG:HE	70:23:112:LYS:CB	2.33	0.42
70:23:109:ARG:HE	70:23:112:LYS:HB2	1.85	0.42
70:23:114:LYS:HB3	70:23:115:GLY:H	1.55	0.42
71:24:19:ALA:HB1	71:24:81:GLU:OE1	2.18	0.42
79:RA:260:ILE:HB	79:RA:274:LEU:HB2	2.02	0.42
1:2S:44:U:C2'	1:2S:45:A:H5'	2.50	0.42
1:2S:673:U:H2'	1:2S:674:G:O4'	2.19	0.42
1:2S:706:A:O2'	1:2S:707:U:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:811:U:H2'	1:2S:812:G:H8	1.85	0.42
1:2S:815:G:H2'	1:2S:906:A:N6	2.35	0.42
1:2S:1313:G:H2'	1:2S:1314:C:H6	1.84	0.42
1:2S:2393:G:H4'	6:L3:252:ILE:CD1	2.50	0.42
1:2S:2426:U:H2'	1:2S:2427:U:H6	1.78	0.42
1:2S:2468:A:C6	1:2S:2478:C:H4'	2.55	0.42
1:2S:2517:U:H2'	1:2S:2518:C:C6	2.54	0.42
1:2S:2531:C:H3'	1:2S:2532:U:C6	2.54	0.42
1:2S:2545:C:H2'	1:2S:2546:C:C6	2.55	0.42
1:2S:2647:A:H2'	1:2S:2648:G:O4'	2.20	0.42
1:2S:3043:C:O2'	1:2S:3044:G:H5'	2.20	0.42
1:2S:3217:C:O2	1:2S:3217:C:C2'	2.67	0.42
2:8S:91:C:H2'	2:8S:92:A:H8	1.85	0.42
5:L2:62:VAL:HA	5:L2:73:GLU:HA	2.01	0.42
5:L2:129:ALA:O	5:L2:169:ILE:HD12	2.19	0.42
6:L3:227:GLU:HG2	6:L3:270:ARG:HE	1.85	0.42
7:L4:102:PRO:HB2	7:L4:104:LYS:HE2	2.02	0.42
7:L4:138:ARG:HD2	7:L4:243:HIS:HB2	2.02	0.42
7:L4:203:ARG:HD2	7:L4:226:GLU:OE2	2.19	0.42
7:L4:206:LEU:HD21	7:L4:228:ALA:HB2	2.01	0.42
7:L4:222:VAL:HG13	7:L4:225:VAL:CB	2.46	0.42
11:L8:63:LYS:HZ3	11:L8:63:LYS:HA	1.85	0.42
11:L8:92:LYS:HB3	11:L8:92:LYS:HZ3	1.83	0.42
11:L8:124:ASP:C	11:L8:126:SER:H	2.23	0.42
11:L8:249:ARG:O	11:L8:253:SER:HB2	2.20	0.42
14:51:106:ILE:HD11	14:51:127:PHE:CE1	2.55	0.42
17:55:50:ARG:HH11	17:55:50:ARG:HB2	1.85	0.42
19:57:2:ALA:CA	19:57:18:ARG:HH12	2.33	0.42
19:57:127:ARG:HB2	19:57:127:ARG:CZ	2.50	0.42
21:59:134:HIS:CE1	21:59:136:ARG:HB3	2.55	0.42
25:63:54:LEU:HA	25:63:78:VAL:HB	2.01	0.42
30:68:133:LEU:C	30:68:133:LEU:HD23	2.40	0.42
36:74:54:ILE:HD12	36:74:70:LYS:O	2.20	0.42
39:77:87:SER:O	39:77:88:ALA:HB3	2.19	0.42
46:1S:336:G:H2'	46:1S:338:C:H5	1.84	0.42
46:1S:475:A:H2'	46:1S:476:U:O4'	2.19	0.42
46:1S:556:A:H5'	77:30:56:MET:SD	2.60	0.42
46:1S:624:G:H2'	46:1S:625:C:C6	2.54	0.42
46:1S:937:C:H2'	46:1S:938:G:H8	1.85	0.42
46:1S:1586:A:N6	46:1S:1610:G:H1'	2.33	0.42
47:S0:39:ASN:O	47:S0:47:VAL:HB	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:113:MET:HB3	48:S1:142:PHE:CE2	2.55	0.42
49:S2:172:ALA:HA	49:S2:173:PRO:HD3	1.88	0.42
50:S3:159:HIS:O	50:S3:160:SER:HB3	2.19	0.42
51:S4:25:GLY:O	51:S4:26:CYS:HB2	2.20	0.42
56:S9:139:GLN:NE2	71:24:64:PHE:HB3	2.35	0.42
58:11:77:SER:O	58:11:84:ILE:HB	2.20	0.42
58:11:109:VAL:HG21	58:11:125:VAL:CG1	2.49	0.42
66:19:118:PRO:O	66:19:119:LYS:HB2	2.20	0.42
68:21:39:VAL:CG1	68:21:45:ALA:HA	2.41	0.42
71:24:42:GLU:HB2	71:24:52:LYS:HD3	2.02	0.42
78:31:136:LYS:O	78:31:137:ASP:HB2	2.20	0.42
79:RA:192:PHE:HB3	79:RA:223:TRP:CE2	2.55	0.42
1:2S:70:A:H2	1:2S:72:C:N4	2.18	0.41
1:2S:196:G:N2	1:2S:219:A:H61	2.14	0.41
1:2S:758:C:H2'	1:2S:759:U:H5'	2.02	0.41
1:2S:1306:G:C6	18:56:62:THR:HA	2.55	0.41
1:2S:1336:U:H2'	1:2S:1337:A:H8	1.82	0.41
1:2S:1396:C:H2'	1:2S:1397:C:C6	2.55	0.41
1:2S:2067:U:O5'	55:S8:154:SER:HA	2.20	0.41
1:2S:2525:G:H2'	5:L2:34:TYR:CD1	2.54	0.41
1:2S:2908:G:H2'	1:2S:2909:U:C6	2.55	0.41
1:2S:2988:C:H1'	6:L3:260:VAL:HG11	2.02	0.41
3:5S:92:A:H8	3:5S:92:A:O5'	2.03	0.41
7:L4:23:PRO:HG2	7:L4:258:LEU:HB3	2.02	0.41
7:L4:186:LYS:O	7:L4:200:THR:HG22	2.19	0.41
8:L5:55:PHE:HZ	8:L5:98:ALA:HB2	1.85	0.41
11:L8:155:ASN:OD1	11:L8:181:LYS:HA	2.19	0.41
12:L9:49:ASN:HD22	12:L9:49:ASN:N	2.11	0.41
12:L9:49:ASN:ND2	12:L9:52:LEU:HB3	2.20	0.41
12:L9:97:PHE:HA	12:L9:98:PRO:HD3	1.74	0.41
13:50:9:TYR:CD2	13:50:97:LEU:HD22	2.55	0.41
13:50:12:GLN:HB3	13:50:128:ARG:NH2	2.34	0.41
13:50:52:LEU:O	13:50:135:ILE:HG13	2.20	0.41
16:54:94:TRP:O	16:54:100:ALA:CB	2.67	0.41
18:56:24:ALA:HB2	18:56:87:MET:CE	2.50	0.41
27:65:107:VAL:CG1	27:65:108:LEU:H	2.23	0.41
27:65:111:ASN:HB2	27:65:123:TYR:CB	2.45	0.41
27:65:142:ILE:HD13	27:65:142:ILE:HA	1.97	0.41
31:69:52:LYS:HA	31:69:55:ALA:HB3	2.01	0.41
45:83:48:LYS:HG2	45:83:49:ARG:N	2.31	0.41
46:1S:256:A:H1'	55:S8:71:GLY:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:565:C:C6	46:1S:576:G:H2'	2.55	0.41
46:1S:679:U:H2'	46:1S:680:U:C5	2.55	0.41
46:1S:1226:A:H62	59:12:114:LYS:CG	2.33	0.41
46:1S:1702:A:H2'	46:1S:1703:C:H5'	2.01	0.41
46:1S:1746:A:H3'	46:1S:1747:G:H8	1.84	0.41
47:S0:76:ILE:CD1	47:S0:98:ILE:HD12	2.48	0.41
48:S1:39:GLU:HA	48:S1:39:GLU:OE1	2.20	0.41
48:S1:103:MET:HB3	48:S1:215:VAL:CG1	2.50	0.41
49:S2:142:GLY:O	49:S2:151:PRO:HA	2.19	0.41
51:S4:210:ILE:HG22	51:S4:211:LYS:H	1.85	0.41
52:S5:150:GLY:HA2	52:S5:155:ALA:CB	2.50	0.41
56:S9:66:ASP:CG	56:S9:67:PRO:HD2	2.40	0.41
56:S9:108:ARG:N	56:S9:111:THR:HG22	2.35	0.41
56:S9:112:GLN:HA	56:S9:112:GLN:NE2	2.34	0.41
56:S9:138:LYS:HB2	56:S9:138:LYS:NZ	2.35	0.41
62:15:28:MET:CE	62:15:33:PHE:HA	2.50	0.41
62:15:58:LYS:HB3	62:15:58:LYS:HZ2	1.80	0.41
65:18:17:LEU:HG	65:18:22:VAL:HG21	2.02	0.41
65:18:91:ASP:HB3	65:18:92:ILE:H	1.62	0.41
66:19:31:PRO:HB3	66:19:103:LYS:HD2	2.01	0.41
68:21:17:CYS:O	68:21:21:ASN:HA	2.20	0.41
74:27:17:ARG:HG3	74:27:18:LYS:N	2.35	0.41
75:28:8:THR:HG22	75:28:56:LEU:HD12	2.02	0.41
77:30:57:ASN:N	77:30:58:PRO:HD3	2.35	0.41
79:RA:133:VAL:HG12	79:RA:141:LEU:HD11	2.02	0.41
79:RA:212:ALA:O	79:RA:243:LEU:HD13	2.19	0.41
1:2S:181:U:H2'	1:2S:182:U:O4'	2.20	0.41
1:2S:705:A:H62	30:68:74:ASN:ND2	2.13	0.41
1:2S:892:U:O2'	1:2S:893:C:H5'	2.20	0.41
1:2S:1079:A:H1'	8:L5:113:LEU:HD21	2.02	0.41
1:2S:1527:C:H4'	36:74:9:ARG:NE	2.35	0.41
1:2S:1690:C:H2'	1:2S:1691:U:C6	2.55	0.41
1:2S:1728:G:O2'	32:70:87:VAL:HG23	2.20	0.41
1:2S:1794:G:H4'	5:L2:191:LEU:HD11	2.02	0.41
1:2S:1902:G:H2'	1:2S:1903:U:O4'	2.20	0.41
1:2S:1965:C:H42	1:2S:2050:C:H42	1.68	0.41
1:2S:2067:U:H5''	55:S8:154:SER:O	2.20	0.41
1:2S:2174:G:H8	1:2S:2174:G:OP1	2.03	0.41
1:2S:2232:A:H2'	1:2S:2233:A:O4'	2.20	0.41
1:2S:2535:A:H2'	1:2S:2536:A:O4'	2.19	0.41
1:2S:2924:U:H2'	1:2S:2925:C:C5'	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3134:A:H5'	18:56:148:LYS:HE3	2.02	0.41
1:2S:3205:G:H2'	1:2S:3206:C:C5	2.56	0.41
1:2S:3374:U:H2'	1:2S:3378:C:H41	1.86	0.41
2:8S:64:U:H5'	37:75:49:LYS:HG3	2.02	0.41
2:8S:152:G:C5'	11:L8:60:ARG:HG2	2.49	0.41
3:5S:100:C:H2'	3:5S:101:G:O4'	2.19	0.41
4:L1:84:ALA:HB2	4:L1:145:TYR:CD2	2.56	0.41
5:L2:119:LYS:HA	5:L2:120:PRO:HD2	1.82	0.41
15:53:180:ARG:HD3	38:76:11:LEU:CD1	2.49	0.41
18:56:3:VAL:HG13	18:56:4:GLU:N	2.35	0.41
18:56:168:TYR:CE1	18:56:172:ARG:HD3	2.52	0.41
19:57:108:ASP:O	19:57:112:LEU:HD13	2.20	0.41
23:61:136:ARG:HH11	23:61:136:ARG:HG3	1.85	0.41
28:66:68:GLY:CA	28:66:84:LYS:HB2	2.50	0.41
35:73:75:HIS:HB3	35:73:80:VAL:HB	2.02	0.41
46:1S:68:A:H61	53:S6:133:LEU:CD1	2.33	0.41
46:1S:151:G:H2'	46:1S:152:U:H6	1.85	0.41
46:1S:321:C:O2	46:1S:321:C:O4'	2.39	0.41
46:1S:331:A:C8	55:S8:172:ARG:NH2	2.83	0.41
46:1S:406:U:H2'	46:1S:407:A:H8	1.86	0.41
46:1S:567:A:H4'	77:30:10:ARG:O	2.20	0.41
46:1S:879:G:H2'	46:1S:880:C:H6	1.82	0.41
46:1S:1097:U:C5'	46:1S:1099:U:H5'	2.51	0.41
46:1S:1109:G:H2'	46:1S:1110:G:O4'	2.20	0.41
46:1S:1552:U:H5	62:15:43:ARG:NH2	2.18	0.41
48:S1:91:VAL:HG13	48:S1:91:VAL:O	2.20	0.41
48:S1:143:THR:HA	48:S1:207:LEU:HA	2.02	0.41
50:S3:86:LEU:HD12	50:S3:86:LEU:N	2.34	0.41
51:S4:151:ASP:HA	51:S4:152:PRO:HD3	1.86	0.41
52:S5:146:THR:HG22	52:S5:159:ALA:HA	2.02	0.41
56:S9:41:GLU:O	56:S9:45:ILE:HG12	2.19	0.41
58:11:29:LYS:HE2	58:11:32:LYS:HA	2.01	0.41
58:11:68:GLY:O	58:11:70:ILE:HD12	2.20	0.41
58:11:83:THR:CA	58:11:111:VAL:HG12	2.50	0.41
58:11:99:ARG:HB3	70:23:9:LEU:O	2.20	0.41
58:11:105:LYS:O	58:11:107:VAL:HG23	2.20	0.41
68:21:38:LYS:NZ	68:21:50:TYR:O	2.53	0.41
73:26:12:LYS:CE	73:26:15:ARG:HB2	2.50	0.41
77:30:49:LEU:HD23	77:30:49:LEU:H	1.85	0.41
79:RA:31:ASN:HA	79:RA:47:LEU:HB2	2.02	0.41
1:2S:75:G:H5''	15:53:58:VAL:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:213:A:O4'	28:66:2:ALA:HA	2.21	0.41
1:2S:217:U:H2'	28:66:103:LYS:NZ	2.34	0.41
1:2S:393:U:H3'	1:2S:394:G:C8	2.56	0.41
1:2S:438:A:C3'	1:2S:439:C:H5''	2.43	0.41
1:2S:1226:G:H5''	1:2S:3117:C:H1'	2.00	0.41
1:2S:1364:C:O2'	20:58:9:GLN:NE2	2.53	0.41
1:2S:1387:G:H2'	1:2S:1388:U:C6	2.55	0.41
1:2S:1475:A:H2'	1:2S:1476:G:O4'	2.21	0.41
1:2S:1894:U:C3'	1:2S:1895:A:H5''	2.50	0.41
1:2S:2746:A:H2	8:L5:146:LEU:HB3	1.84	0.41
1:2S:2992:U:H3'	1:2S:2993:G:H8	1.84	0.41
4:L1:72:PHE:CE2	4:L1:109:ALA:HB2	2.55	0.41
4:L1:167:VAL:HG12	4:L1:180:VAL:HG12	2.02	0.41
5:L2:49:VAL:HG22	5:L2:50:HIS:N	2.35	0.41
5:L2:206:PRO:HG3	5:L2:213:GLY:HA3	2.02	0.41
6:L3:220:VAL:HA	6:L3:274:SER:HA	2.01	0.41
7:L4:82:THR:HG23	7:L4:83:GLY:N	2.36	0.41
7:L4:235:LEU:HA	7:L4:238:LEU:CG	2.50	0.41
8:L5:128:GLU:OE1	8:L5:192:PRO:HB3	2.20	0.41
8:L5:158:ARG:H	8:L5:158:ARG:HG2	1.68	0.41
10:L7:98:LYS:O	10:L7:102:VAL:HG23	2.20	0.41
13:50:212:GLU:O	13:50:213:PHE:HB2	2.20	0.41
13:50:213:PHE:N	13:50:214:PRO:CD	2.81	0.41
14:51:87:LYS:O	14:51:88:GLU:HB2	2.19	0.41
14:51:96:PHE:CD1	14:51:102:PHE:HB3	2.55	0.41
16:54:39:ILE:HG13	16:54:44:VAL:HA	2.02	0.41
18:56:9:ILE:CD1	18:56:33:ILE:HG21	2.50	0.41
20:58:33:TYR:CG	20:58:36:LEU:HD12	2.55	0.41
20:58:171:LYS:HB3	20:58:171:LYS:HE3	1.91	0.41
21:59:74:ARG:HD2	21:59:74:ARG:N	2.35	0.41
21:59:141:HIS:HA	21:59:144:GLN:HG2	2.02	0.41
23:61:118:GLU:O	23:61:122:GLN:HB2	2.20	0.41
36:74:54:ILE:HD12	36:74:70:LYS:C	2.40	0.41
46:1S:68:A:H61	53:S6:133:LEU:HD11	1.84	0.41
46:1S:305:C:H2'	46:1S:306:U:C6	2.55	0.41
46:1S:639:U:O4'	54:S7:118:LEU:HG	2.20	0.41
46:1S:1366:U:H5''	63:16:33:GLY:CA	2.46	0.41
46:1S:1471:A:C2	46:1S:1474:G:N3	2.85	0.41
46:1S:1533:C:H4'	46:1S:1539:G:N1	2.35	0.41
46:1S:1727:G:H21	55:S8:32:GLN:HE22	1.68	0.41
47:S0:81:PHE:HD2	47:S0:167:LYS:H	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:115:ARG:HG3	48:S1:116:LYS:N	2.35	0.41
50:S3:168:ILE:HA	50:S3:188:ILE:O	2.20	0.41
51:S4:9:LEU:HD12	51:S4:30:ARG:HG3	2.02	0.41
53:S6:199:GLN:HG2	53:S6:202:ARG:HH12	1.85	0.41
55:S8:155:SER:HB2	55:S8:189:LEU:HD21	2.02	0.41
56:S9:108:ARG:O	56:S9:112:GLN:HG2	2.20	0.41
57:10:13:GLN:HA	57:10:80:LEU:CD1	2.49	0.41
59:12:108:ARG:HG3	59:12:111:ASN:O	2.20	0.41
60:13:119:GLU:HA	60:13:122:ILE:CG1	2.50	0.41
61:14:17:ALA:H	61:14:79:VAL:HG22	1.86	0.41
63:16:35:PRO:HD2	66:19:7:ARG:O	2.20	0.41
63:16:100:GLN:CA	79:RA:57:PRO:HG2	2.49	0.41
68:21:11:LEU:O	68:21:12:TYR:HB3	2.19	0.41
71:24:90:ARG:HA	71:24:93:ARG:HD2	2.02	0.41
1:2S:589:A:C8	1:2S:590:G:C8	3.09	0.41
1:2S:900:G:H1'	1:2S:1589:A:H61	1.82	0.41
1:2S:912:G:N7	5:L2:9:ARG:NH2	2.68	0.41
1:2S:946:U:OP1	34:72:34:LYS:HD3	2.20	0.41
1:2S:953:G:H5'	1:2S:954:U:O5'	2.20	0.41
1:2S:1658:G:H1'	1:2S:1796:G:H1'	2.03	0.41
1:2S:3164:C:O2'	1:2S:3165:A:H8	2.04	0.41
2:8S:116:G:H2'	2:8S:117:C:H6	1.86	0.41
3:5S:9:C:C2'	3:5S:10:C:H5'	2.49	0.41
4:L1:47:LYS:N	4:L1:47:LYS:HD2	2.35	0.41
5:L2:5:ILE:HG13	5:L2:6:ARG:N	2.33	0.41
6:L3:63:PRO:HB2	6:L3:348:ARG:HH22	1.85	0.41
8:L5:156:GLY:HA2	8:L5:181:PRO:HB3	2.02	0.41
10:L7:90:LYS:O	10:L7:111:ILE:HD12	2.20	0.41
11:L8:53:PRO:HB2	11:L8:56:VAL:HG23	2.01	0.41
13:50:36:LEU:HD12	13:50:36:LEU:N	2.35	0.41
15:53:70:ARG:HE	15:53:70:ARG:HB3	1.68	0.41
15:53:179:PHE:CD1	15:53:182:ILE:HD12	2.53	0.41
19:57:29:THR:OG1	19:57:119:VAL:HG21	2.19	0.41
23:61:76:ILE:CG2	23:61:77:ASN:H	2.20	0.41
27:65:34:LEU:HD12	27:65:35:PRO:CD	2.49	0.41
32:70:83:LYS:HD2	32:70:83:LYS:N	2.35	0.41
36:74:104:VAL:O	36:74:108:GLN:HG3	2.20	0.41
37:75:14:LYS:O	37:75:18:ALA:HB2	2.20	0.41
38:76:50:LEU:HB3	38:76:51:SER:H	1.67	0.41
44:82:39:GLY:O	44:82:43:TYR:HB2	2.20	0.41
46:1S:219:A:H4'	46:1S:219:A:OP1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:864:U:OP1	69:22:28:ARG:HD2	2.21	0.41
46:1S:922:G:H2'	46:1S:923:A:C8	2.55	0.41
46:1S:1393:C:H5''	79:RA:285:ALA:HB1	2.01	0.41
46:1S:1601:G:OP1	66:19:89:ARG:HD2	2.21	0.41
47:S0:178:ALA:O	47:S0:182:LEU:HG	2.21	0.41
50:S3:5:ILE:HB	50:S3:10:LYS:HE2	2.02	0.41
51:S4:99:PHE:HE1	51:S4:113:ARG:HG2	1.84	0.41
51:S4:131:LEU:HD13	51:S4:132:GLY:N	2.35	0.41
52:S5:164:PRO:O	52:S5:168:VAL:HG23	2.19	0.41
54:S7:99:LEU:HG	54:S7:116:ARG:O	2.21	0.41
56:S9:123:HIS:CD2	77:30:37:ARG:HD2	2.55	0.41
57:10:29:GLN:O	57:10:29:GLN:HG2	2.20	0.41
58:11:93:TYR:HA	58:11:99:ARG:O	2.20	0.41
61:14:102:LEU:O	61:14:102:LEU:HD13	2.20	0.41
64:17:10:LYS:HG2	64:17:53:TYR:CE1	2.46	0.41
65:18:38:VAL:HG12	65:18:42:TYR:CD2	2.46	0.41
65:18:134:ARG:HH11	65:18:134:ARG:HG3	1.85	0.41
65:18:145:ARG:HA	65:18:145:ARG:NE	2.34	0.41
70:23:12:ALA:HA	70:23:15:LEU:HD12	2.01	0.41
72:25:88:ILE:H	72:25:88:ILE:CD1	2.33	0.41
75:28:7:VAL:CG1	75:28:55:VAL:HG13	2.50	0.41
1:2S:683:U:H5''	17:55:200:TRP:CZ2	2.56	0.41
1:2S:984:G:N2	31:69:13:THR:HB	2.36	0.41
1:2S:2394:G:N3	6:L3:258:ALA:O	2.53	0.41
1:2S:2626:A:N9	1:2S:2644:C:H5'	2.36	0.41
1:2S:2687:G:H5''	8:L5:12:TYR:OH	2.19	0.41
1:2S:2807:U:O5'	1:2S:2807:U:H6	2.02	0.41
1:2S:3074:G:O2'	33:71:62:ARG:HD2	2.20	0.41
5:L2:140:ASN:ND2	5:L2:142:ASP:O	2.53	0.41
6:L3:67:PHE:CE1	25:63:88:ARG:HB2	2.56	0.41
7:L4:241:GLY:O	7:L4:242:ALA:HB3	2.20	0.41
10:L7:148:VAL:HG12	10:L7:181:ILE:HD11	2.03	0.41
16:54:116:GLU:HA	16:54:119:GLN:HE21	1.86	0.41
20:58:124:LEU:HA	20:58:127:LEU:HB3	2.02	0.41
22:60:58:ILE:HD12	22:60:58:ILE:H	1.85	0.41
27:65:54:TYR:O	27:65:55:ASN:C	2.59	0.41
29:67:84:ARG:HH21	29:67:84:ARG:HG3	1.85	0.41
29:67:89:VAL:O	29:67:89:VAL:HG22	2.21	0.41
33:71:67:VAL:HG12	33:71:68:GLU:N	2.32	0.41
38:76:84:LYS:O	38:76:88:GLU:HG3	2.21	0.41
39:77:72:ARG:O	39:77:75:LYS:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:79:28:ARG:HA	41:79:33:ASN:ND2	2.35	0.41
45:83:51:ALA:HB3	45:83:54:ILE:HD12	2.02	0.41
46:1S:58:U:H4'	46:1S:456:A:N3	2.35	0.41
46:1S:307:G:H5''	58:11:92:HIS:CE1	2.55	0.41
46:1S:337:G:H1'	46:1S:339:C:OP2	2.19	0.41
46:1S:473:A:C2'	46:1S:474:A:H5'	2.50	0.41
46:1S:492:A:C5'	46:1S:493:U:H5	2.34	0.41
46:1S:765:G:C6	56:S9:149:ARG:HB3	2.55	0.41
46:1S:906:A:H2	46:1S:998:A:HO2'	1.63	0.41
46:1S:1139:A:H2'	46:1S:1140:G:O4'	2.20	0.41
46:1S:1582:U:H5''	63:16:135:ARG:HH11	1.85	0.41
46:1S:1647:U:O5'	46:1S:1647:U:H6	2.03	0.41
48:S1:142:PHE:HD2	48:S1:209:ASN:HB2	1.84	0.41
50:S3:155:GLY:O	50:S3:156:PHE:HB2	2.19	0.41
51:S4:129:VAL:HG12	51:S4:156:VAL:HG22	2.01	0.41
55:S8:107:THR:O	55:S8:110:ARG:HB3	2.20	0.41
56:S9:119:ALA:O	56:S9:120:LYS:HB2	2.21	0.41
59:12:24:ILE:O	59:12:24:ILE:HG13	2.21	0.41
60:13:85:PRO:HB2	60:13:88:LEU:CB	2.50	0.41
61:14:137:LEU:OXT	61:14:137:LEU:HD22	2.20	0.41
66:19:57:ARG:O	66:19:61:VAL:HG23	2.20	0.41
66:19:128:GLY:O	66:19:132:LEU:HD13	2.19	0.41
69:22:77:PRO:HG2	70:23:9:LEU:HD23	2.02	0.41
1:2S:23:A:C2	1:2S:24:G:H1'	2.56	0.41
1:2S:72:C:H5''	15:53:63:VAL:HG13	2.03	0.41
1:2S:153:U:O5'	1:2S:153:U:H6	2.03	0.41
1:2S:985:U:O2	1:2S:1099:A:H2	2.04	0.41
1:2S:990:U:H4'	23:61:100:LYS:HE3	2.03	0.41
1:2S:1008:U:C2'	1:2S:1009:A:H5'	2.51	0.41
1:2S:1695:U:O3'	36:74:26:PRO:HG3	2.20	0.41
1:2S:2245:C:H5''	5:L2:219:ILE:CD1	2.51	0.41
1:2S:2329:C:H2'	1:2S:2330:C:C6	2.55	0.41
1:2S:2530:G:C3'	1:2S:2531:C:H5''	2.51	0.41
2:8S:42:G:C2'	2:8S:43:A:H5'	2.50	0.41
5:L2:5:ILE:C	5:L2:9:ARG:HG3	2.41	0.41
7:L4:206:LEU:CB	7:L4:246:ARG:NH1	2.83	0.41
8:L5:109:THR:O	8:L5:112:LYS:HG2	2.20	0.41
12:L9:112:ILE:HD12	12:L9:126:VAL:HB	2.02	0.41
12:L9:172:ILE:O	12:L9:176:LEU:HD23	2.21	0.41
13:50:39:LYS:C	13:50:40:LYS:HD2	2.41	0.41
13:50:218:ALA:O	13:50:219:ALA:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:54:130:THR:HA	16:54:133:LYS:CE	2.51	0.41
17:55:14:LYS:HE2	17:55:120:TRP:HZ3	1.85	0.41
19:57:166:VAL:HG13	19:57:166:VAL:O	2.21	0.41
21:59:40:ALA:O	21:59:44:LEU:HD23	2.20	0.41
22:60:137:ARG:HB3	22:60:140:VAL:HG23	2.02	0.41
23:61:27:LEU:HA	23:61:30:TYR:HD2	1.85	0.41
27:65:114:VAL:HG22	27:65:120:LYS:HE2	2.03	0.41
29:67:123:GLN:O	29:67:124:ALA:HB3	2.20	0.41
35:73:73:ARG:HG3	35:73:82:ARG:HD2	2.01	0.41
45:83:28:LYS:HG2	45:83:32:GLN:NE2	2.35	0.41
46:1S:64:U:C2'	46:1S:65:A:H5''	2.51	0.41
46:1S:451:A:C2	46:1S:453:U:H1'	2.55	0.41
46:1S:1132:A:H2'	46:1S:1133:A:C8	2.55	0.41
46:1S:1583:A:C5'	63:16:135:ARG:HH22	2.32	0.41
46:1S:1586:A:H5''	63:16:136:SER:HB2	2.02	0.41
47:S0:10:THR:HB	47:S0:11:PRO:HD2	2.02	0.41
49:S2:205:ARG:HB3	49:S2:205:ARG:NH1	2.35	0.41
51:S4:82:TYR:CD1	51:S4:83:PRO:HD2	2.56	0.41
51:S4:214:LEU:HD23	51:S4:216:ASN:HD21	1.85	0.41
52:S5:143:ARG:HB2	75:28:57:MET:HE3	2.03	0.41
54:S7:28:GLU:HG2	54:S7:38:LEU:CD2	2.51	0.41
60:13:25:TRP:HH2	74:27:45:THR:HG21	1.85	0.41
63:16:50:GLU:O	63:16:54:LEU:HD23	2.20	0.41
64:17:13:SER:CB	64:17:54:THR:HG22	2.50	0.41
65:18:89:GLN:HB2	65:18:97:ASP:OD2	2.21	0.41
67:20:21:LYS:CA	67:20:94:GLU:HG2	2.47	0.41
68:21:31:SER:HB3	68:21:56:SER:HA	2.02	0.41
1:2S:85:A:N6	1:2S:100:A:C8	2.88	0.41
1:2S:938:C:O2'	1:2S:2814:G:H4'	2.21	0.41
1:2S:1412:G:H2'	1:2S:1413:G:O4'	2.21	0.41
1:2S:1494:U:H1'	1:2S:1496:C:H41	1.85	0.41
1:2S:1635:G:H2'	1:2S:1637:A:OP2	2.21	0.41
1:2S:1874:A:N7	21:59:20:ARG:CZ	2.84	0.41
1:2S:1937:U:H2'	1:2S:1938:U:C6	2.55	0.41
1:2S:2107:A:H1'	55:S8:92:ARG:HH22	1.84	0.41
1:2S:2615:G:H2'	1:2S:2616:C:O4'	2.20	0.41
1:2S:2673:A:C5'	14:51:95:ASN:HA	2.43	0.41
1:2S:2949:U:P	6:L3:243:HIS:HB2	2.61	0.41
1:2S:3370:A:H2'	1:2S:3371:G:O4'	2.21	0.41
3:5S:15:C:H2'	3:5S:16:U:H6	1.85	0.41
6:L3:332:ARG:O	6:L3:333:LYS:CB	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:188:ARG:O	7:L4:193:LYS:HE3	2.20	0.41
7:L4:281:ILE:CG2	20:58:25:TYR:HB3	2.50	0.41
10:L7:111:ILE:O	10:L7:112:ASN:HB2	2.21	0.41
11:L8:63:LYS:HA	11:L8:63:LYS:NZ	2.35	0.41
12:L9:120:ASP:HB3	12:L9:122:LYS:O	2.20	0.41
13:50:176:LEU:HD13	13:50:184:LYS:HD2	2.03	0.41
16:54:90:VAL:O	16:54:90:VAL:HG22	2.20	0.41
18:56:37:ARG:HA	18:56:107:GLY:H	1.85	0.41
19:57:40:GLU:HB3	19:57:43:LYS:HB2	2.03	0.41
19:57:41:LEU:O	19:57:45:GLN:HG3	2.21	0.41
21:59:159:ALA:O	21:59:163:ARG:HB2	2.20	0.41
23:61:102:ARG:HA	23:61:105:PHE:HB2	2.01	0.41
25:63:45:ARG:NH1	25:63:46:LEU:H	2.19	0.41
25:63:66:LYS:CB	25:63:69:LEU:HD13	2.51	0.41
28:66:57:LEU:HD13	28:66:58:VAL:N	2.36	0.41
30:68:74:ASN:HD22	30:68:115:LYS:HB2	1.85	0.41
34:72:15:LYS:HG2	34:72:16:LYS:N	2.34	0.41
40:78:27:ILE:HD13	40:78:41:THR:HB	2.02	0.41
43:81:4:LYS:NZ	46:1S:1774:G:H3'	2.36	0.41
44:82:100:LYS:HE3	44:82:100:LYS:HA	2.02	0.41
46:1S:20:G:H2'	46:1S:21:U:H6	1.86	0.41
46:1S:433:C:H2'	46:1S:434:G:C1'	2.51	0.41
46:1S:1028:C:O4'	46:1S:1030:A:H4'	2.20	0.41
46:1S:1088:A:H8	46:1S:1088:A:O5'	2.03	0.41
46:1S:1490:C:O3'	46:1S:1491:U:H4'	2.21	0.41
46:1S:1600:A:N3	46:1S:1600:A:H2'	2.35	0.41
46:1S:1651:A:N1	46:1S:1749:A:N1	2.69	0.41
46:1S:1671:A:H2'	46:1S:1672:G:O4'	2.20	0.41
46:1S:1759:C:H2'	46:1S:1760:G:O4'	2.20	0.41
46:1S:1782:A:H3'	46:1S:1783:C:O4'	2.20	0.41
51:S4:175:PHE:HE1	51:S4:225:VAL:CG1	2.33	0.41
59:12:134:SER:HA	59:12:137:MET:HB3	2.02	0.41
59:12:135:MET:O	59:12:139:HIS:HB2	2.20	0.41
65:18:18:LEU:CD2	65:18:70:VAL:HG22	2.50	0.41
66:19:7:ARG:HG3	66:19:7:ARG:HH11	1.85	0.41
67:20:67:THR:O	67:20:79:TRP:HA	2.20	0.41
71:24:106:GLN:O	71:24:110:GLN:HG3	2.21	0.41
72:25:76:ALA:O	72:25:80:LEU:HG	2.20	0.41
72:25:88:ILE:HA	72:25:104:ALA:HB2	2.03	0.41
1:2S:791:A:H2'	1:2S:792:G:C8	2.56	0.41
1:2S:935:U:O5'	1:2S:935:U:H6	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1150:A:H3'	1:2S:1151:U:C6	2.55	0.41
1:2S:1334:U:H2'	1:2S:1335:C:H6	1.85	0.41
1:2S:1439:U:O5'	1:2S:1439:U:H6	2.04	0.41
1:2S:1753:G:H2'	1:2S:1754:G:H8	1.82	0.41
1:2S:1932:A:H2'	1:2S:1933:A:H5'	2.02	0.41
1:2S:2876:C:H2'	1:2S:2877:G:O4'	2.20	0.41
2:8S:4:C:H2'	2:8S:5:U:C6	2.55	0.41
2:8S:76:C:H2'	2:8S:77:A:C8	2.55	0.41
3:5S:19:C:H2'	3:5S:20:A:H8	1.85	0.41
4:L1:114:GLU:H	4:L1:114:GLU:HG2	1.68	0.41
5:L2:37:ARG:HH21	5:L2:37:ARG:HG3	1.85	0.41
6:L3:19:ARG:HH21	6:L3:270:ARG:HG3	1.85	0.41
6:L3:270:ARG:HG2	6:L3:270:ARG:HH11	1.86	0.41
6:L3:271:GLY:O	6:L3:272:TYR:HB3	2.21	0.41
6:L3:273:HIS:CB	6:L3:275:ARG:HH12	2.34	0.41
7:L4:104:LYS:HA	7:L4:104:LYS:HD3	1.88	0.41
11:L8:105:LYS:HE3	11:L8:108:ARG:NH2	2.36	0.41
11:L8:153:ILE:HG21	11:L8:179:ILE:HG12	2.03	0.41
13:50:216:TYR:C	13:50:218:ALA:H	2.24	0.41
19:57:119:VAL:HA	19:57:145:HIS:O	2.20	0.41
19:57:120:ASN:O	19:57:144:SER:HA	2.21	0.41
20:58:72:LYS:NZ	20:58:72:LYS:HB3	2.35	0.41
21:59:22:VAL:N	21:59:53:LYS:HD2	2.35	0.41
21:59:53:LYS:HG2	21:59:54:ALA:H	1.86	0.41
27:65:100:LYS:HB2	27:65:100:LYS:NZ	2.36	0.41
32:70:43:ILE:HG12	32:70:68:TYR:HD2	1.85	0.41
37:75:101:THR:HG23	37:75:104:GLN:HB2	2.03	0.41
46:1S:50:C:H2'	46:1S:424:C:N4	2.35	0.41
46:1S:88:U:O2'	46:1S:171:A:H5'	2.20	0.41
46:1S:164:A:H2'	46:1S:165:G:C8	2.56	0.41
46:1S:619:A:H5''	46:1S:1141:G:H4'	2.03	0.41
46:1S:766:U:H5''	46:1S:768:C:OP2	2.20	0.41
46:1S:1087:A:C2	46:1S:1142:A:H4'	2.56	0.41
46:1S:1312:A:H8	64:17:2:GLY:N	2.18	0.41
46:1S:1563:C:H2'	46:1S:1564:U:H6	1.86	0.41
46:1S:1736:G:H2'	46:1S:1737:G:O4'	2.21	0.41
48:S1:34:ALA:HB3	48:S1:41:ARG:HA	2.03	0.41
48:S1:98:THR:OG1	48:S1:99:ASN:N	2.54	0.41
48:S1:180:THR:CG2	48:S1:181:LEU:H	2.25	0.41
50:S3:53:THR:HA	50:S3:91:VAL:HG11	2.03	0.41
51:S4:214:LEU:HB3	51:S4:216:ASN:ND2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:S5:42:LEU:O	52:S5:68:ILE:O	2.38	0.41
52:S5:142:PRO:HG3	52:S5:214:LYS:HG3	2.02	0.41
53:S6:14:LYS:HG2	53:S6:15:THR:N	2.36	0.41
53:S6:31:ARG:O	53:S6:52:ILE:HD12	2.21	0.41
55:S8:29:LEU:HD23	55:S8:29:LEU:C	2.41	0.41
57:10:29:GLN:O	57:10:30:ALA:HB3	2.20	0.41
64:17:29:GLN:HG2	79:RA:67:ILE:HD12	2.03	0.41
68:21:13:VAL:HA	68:21:14:PRO:HD3	1.89	0.41
68:21:60:ARG:HG2	68:21:65:SER:HB2	2.02	0.41
72:25:50:ILE:HG22	72:25:51:LEU:HD12	2.02	0.41
72:25:96:SER:O	72:25:97:LYS:CG	2.69	0.41
1:2S:324:A:H2'	1:2S:325:A:C8	2.55	0.41
1:2S:416:A:H2'	1:2S:417:A:O4'	2.20	0.41
1:2S:707:U:H2'	1:2S:708:G:O4'	2.21	0.41
1:2S:725:G:C2'	1:2S:726:G:H5''	2.50	0.41
1:2S:803:C:O5'	1:2S:803:C:H6	2.03	0.41
1:2S:1099:A:H2'	1:2S:1100:U:C6	2.55	0.41
1:2S:1307:G:H5'	18:56:60:LYS:HD3	2.02	0.41
1:2S:1459:C:O3'	33:71:51:LEU:HB2	2.21	0.41
1:2S:1475:A:H4'	33:71:57:GLN:HG2	2.02	0.41
1:2S:1475:A:O2'	33:71:60:TRP:HB2	2.21	0.41
1:2S:1527:C:H4'	36:74:9:ARG:NH2	2.36	0.41
1:2S:1709:C:H5''	29:67:15:ARG:NH2	2.36	0.41
1:2S:1788:C:H2'	1:2S:1789:G:O4'	2.20	0.41
1:2S:2117:A:H3'	1:2S:2118:C:C6	2.55	0.41
1:2S:2489:C:H41	1:2S:2490:C:N4	2.19	0.41
1:2S:2636:A:H5''	1:2S:2637:A:H5'	2.03	0.41
1:2S:2662:G:H2'	1:2S:2663:G:H8	1.82	0.41
1:2S:3034:C:O2	12:L9:122:LYS:HB3	2.21	0.41
1:2S:3131:U:H2'	1:2S:3132:C:C5	2.55	0.41
1:2S:3321:C:H2'	1:2S:3322:A:H8	1.84	0.41
2:8S:79:A:H5''	37:75:43:LYS:NZ	2.35	0.41
4:L1:73:ASP:HB3	4:L1:111:ILE:HD13	2.03	0.41
5:L2:15:ILE:HD12	5:L2:194:ASN:ND2	2.36	0.41
5:L2:97:ASN:O	5:L2:166:ILE:HG13	2.20	0.41
5:L2:109:GLU:OE1	5:L2:139:HIS:HB2	2.21	0.41
5:L2:116:VAL:O	5:L2:125:ALA:HB3	2.21	0.41
5:L2:144:ASN:HB2	5:L2:160:SER:HB2	2.03	0.41
6:L3:56:ILE:CG2	6:L3:57:VAL:N	2.84	0.41
6:L3:77:THR:O	6:L3:323:MET:HA	2.20	0.41
7:L4:3:ARG:HA	7:L4:4:PRO:HD3	1.91	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:L5:262:LYS:O	8:L5:266:ALA:HB2	2.21	0.41
8:L5:296:GLN:O	8:L5:296:GLN:HG2	2.21	0.41
9:L6:38:THR:HG22	9:L6:39:VAL:N	2.36	0.41
11:L8:151:VAL:HG13	11:L8:199:ALA:HB2	2.03	0.41
12:L9:41:ILE:HD12	12:L9:43:VAL:HG13	2.02	0.41
16:54:8:LYS:HB3	16:54:9:ALA:H	1.65	0.41
16:54:20:VAL:HG13	16:54:66:THR:OG1	2.20	0.41
17:55:122:ASN:O	17:55:123:GLN:HB3	2.20	0.41
18:56:15:LEU:O	18:56:19:LEU:HB2	2.20	0.41
18:56:73:PHE:CD2	18:56:78:ARG:HB3	2.56	0.41
18:56:136:THR:HG22	18:56:141:LEU:HD22	2.03	0.41
19:57:26:PHE:HE1	19:57:120:ASN:CA	2.33	0.41
20:58:172:PHE:O	20:58:173:GLU:HB2	2.20	0.41
21:59:17:VAL:HG22	21:59:52:LYS:HZ2	1.86	0.41
21:59:177:VAL:HG13	21:59:180:LYS:HE2	2.02	0.41
23:61:40:VAL:CA	23:61:99:SER:HB2	2.49	0.41
30:68:13:GLY:C	30:68:15:VAL:H	2.23	0.41
30:68:21:ARG:HA	30:68:24:LYS:HZ3	1.84	0.41
30:68:104:THR:HG21	30:68:112:ILE:HD11	2.03	0.41
32:70:27:TYR:HA	32:70:89:VAL:HG11	2.02	0.41
39:77:44:THR:CG2	39:77:45:ARG:H	2.33	0.41
43:81:6:ARG:HD2	43:81:9:ARG:HD2	2.01	0.41
45:83:85:ARG:HG2	45:83:85:ARG:HH11	1.86	0.41
46:1S:32:U:O2'	46:1S:33:U:H5'	2.21	0.41
46:1S:143:G:H2'	46:1S:144:U:C5'	2.38	0.41
46:1S:197:A:H61	55:S8:138:ASN:ND2	2.17	0.41
46:1S:286:C:O2'	46:1S:287:G:H5'	2.20	0.41
46:1S:435:C:C5'	70:23:50:LYS:HE3	2.50	0.41
46:1S:490:C:H41	46:1S:497:G:H21	1.69	0.41
46:1S:688:G:H2'	46:1S:689:G:C8	2.55	0.41
46:1S:712:G:C3'	46:1S:713:A:H5''	2.51	0.41
46:1S:755:A:H2'	46:1S:756:A:C8	2.56	0.41
46:1S:772:G:H5''	51:S4:23:LEU:CG	2.49	0.41
46:1S:1104:U:H2'	46:1S:1105:C:H6	1.86	0.41
46:1S:1285:U:H5''	46:1S:1286:U:H5	1.86	0.41
46:1S:1338:C:H1'	46:1S:1410:A:C5	2.56	0.41
46:1S:1363:U:H3'	46:1S:1364:G:H5'	2.02	0.41
46:1S:1501:C:C5	66:19:102:ARG:NH1	2.84	0.41
46:1S:1586:A:H1'	46:1S:1611:A:N6	2.35	0.41
46:1S:1789:G:C5'	61:14:132:ARG:NH2	2.79	0.41
47:S0:41:ARG:HB2	47:S0:47:VAL:CG2	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:S0:41:ARG:HA	64:17:105:GLN:HG3	2.03	0.41
47:S0:124:THR:HA	47:S0:146:LEU:HD12	2.02	0.41
47:S0:170:ILE:O	47:S0:174:TRP:HD1	2.04	0.41
48:S1:124:ASN:HB3	48:S1:138:PHE:HD1	1.81	0.41
48:S1:176:VAL:CG1	48:S1:177:GLN:N	2.78	0.41
50:S3:105:MET:SD	50:S3:122:VAL:HG21	2.60	0.41
50:S3:115:ILE:CG2	50:S3:116:ARG:N	2.84	0.41
51:S4:128:LYS:CG	51:S4:140:VAL:HB	2.51	0.41
54:S7:28:GLU:HG2	54:S7:38:LEU:HD22	2.02	0.41
54:S7:63:PRO:O	54:S7:64:VAL:CB	2.69	0.41
55:S8:42:ARG:HB2	55:S8:58:LEU:O	2.21	0.41
55:S8:188:GLU:HG2	58:11:13:PHE:CE2	2.56	0.41
55:S8:195:ARG:HG2	55:S8:195:ARG:NH1	2.34	0.41
56:S9:153:GLU:HA	56:S9:156:ILE:CG1	2.51	0.41
56:S9:175:ARG:HG3	56:S9:175:ARG:HH11	1.86	0.41
57:10:6:GLU:O	57:10:10:LYS:HG3	2.20	0.41
59:12:71:ILE:O	59:12:75:VAL:HG23	2.21	0.41
62:15:25:LEU:HB3	62:15:87:PRO:HG2	2.02	0.41
64:17:71:PHE:CE1	64:17:73:LEU:HB3	2.56	0.41
66:19:68:ARG:HB2	66:19:69:LYS:H	1.72	0.41
67:20:19:ILE:CG2	67:20:94:GLU:HB3	2.48	0.41
67:20:95:ALA:HB1	67:20:96:PRO:CD	2.45	0.41
69:22:115:GLU:O	69:22:119:LYS:CG	2.69	0.41
70:23:13:ARG:HB2	70:23:13:ARG:NH1	2.36	0.41
71:24:8:ARG:HE	71:24:10:ARG:HH21	1.69	0.41
72:25:86:GLU:HA	72:25:86:GLU:OE2	2.19	0.41
73:26:18:VAL:HG21	73:26:33:ASP:OD1	2.20	0.41
77:30:30:PRO:HB2	77:30:34:ALA:CB	2.50	0.41
77:30:30:PRO:HG3	77:30:38:LEU:HD12	2.03	0.41
77:30:32:GLY:O	77:30:36:LYS:HD3	2.21	0.41
78:31:135:HIS:HB2	78:31:138:ARG:O	2.21	0.41
79:RA:88:THR:CG2	79:RA:104:VAL:HG13	2.51	0.41
1:2S:115:A:N3	1:2S:266:A:H5'	2.36	0.41
1:2S:608:A:H3'	9:L6:22:ARG:NH1	2.36	0.41
1:2S:665:A:C5'	17:55:199:LEU:HD11	2.51	0.41
1:2S:678:G:H2'	1:2S:679:U:C6	2.56	0.41
1:2S:745:C:OP1	20:58:145:ASN:HB2	2.21	0.41
1:2S:797:U:H5''	15:53:2:ALA:CA	2.51	0.41
1:2S:958:C:H5''	1:2S:2800:G:OP1	2.20	0.41
1:2S:1376:C:H2'	1:2S:1377:G:C8	2.56	0.41
1:2S:1486:G:H21	36:74:6:THR:HG22	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1527:C:H4'	36:74:9:ARG:CZ	2.51	0.41
1:2S:1695:U:H4'	36:74:26:PRO:HG3	2.03	0.41
1:2S:2040:U:H2'	1:2S:2041:U:C6	2.55	0.41
1:2S:2104:A:H2'	1:2S:2105:G:C8	2.56	0.41
1:2S:2196:C:O2'	1:2S:2270:A:H1'	2.21	0.41
1:2S:2555:G:N3	36:74:92:ALA:HA	2.36	0.41
1:2S:2688:U:OP1	8:L5:16:PHE:HE2	2.04	0.41
1:2S:2896:A:H2'	1:2S:2897:A:O4'	2.20	0.41
1:2S:3233:C:H2'	1:2S:3234:A:C8	2.56	0.41
2:8S:63:G:N3	2:8S:63:G:H2'	2.35	0.41
6:L3:13:HIS:CG	6:L3:16:PHE:HD1	2.38	0.41
6:L3:77:THR:HG21	6:L3:328:ILE:HG13	2.02	0.41
6:L3:145:GLU:HA	6:L3:148:LEU:HB2	2.03	0.41
12:L9:6:THR:O	12:L9:7:GLU:HB3	2.21	0.41
12:L9:105:GLU:HB2	12:L9:110:LYS:HD2	2.03	0.41
14:51:109:HIS:CE1	14:51:122:ILE:HD13	2.56	0.41
16:54:104:ALA:O	16:54:108:ARG:HB2	2.20	0.41
19:57:29:THR:O	19:57:32:THR:HG22	2.22	0.41
21:59:142:ILE:HG22	21:59:146:LYS:HD3	2.02	0.41
22:60:67:ALA:C	22:60:69:PRO:HD3	2.41	0.41
29:67:23:VAL:HG12	29:67:45:GLY:N	2.36	0.41
29:67:136:PHE:O	36:74:88:ARG:HD3	2.21	0.41
35:73:86:ARG:C	35:73:86:ARG:HD3	2.41	0.41
40:78:43:PHE:HB2	40:78:54:LEU:HB3	2.02	0.41
46:1S:116:U:H2'	46:1S:117:U:C6	2.55	0.41
46:1S:264:G:H5''	46:1S:265:A:H5'	2.02	0.41
46:1S:1513:G:H2'	46:1S:1514:U:H5''	2.03	0.41
46:1S:1614:A:H3'	46:1S:1615:C:C6	2.56	0.41
48:S1:136:ARG:O	48:S1:215:VAL:HA	2.21	0.41
49:S2:148:LEU:HB3	49:S2:149:GLY:H	1.69	0.41
50:S3:22:ASN:HA	50:S3:34:TYR:OH	2.21	0.41
51:S4:45:ILE:HA	51:S4:61:VAL:HG11	2.02	0.41
51:S4:194:THR:HG21	51:S4:231:GLN:OE1	2.20	0.41
60:13:16:ILE:HG13	60:13:17:PRO:HD2	2.03	0.41
60:13:89:TYR:HA	60:13:92:ILE:HD12	2.02	0.41
61:14:29:HIS:CB	61:14:41:ARG:HA	2.51	0.41
61:14:31:THR:CG2	61:14:38:THR:HA	2.50	0.41
61:14:112:ILE:O	73:26:58:VAL:HG22	2.21	0.41
64:17:106:THR:O	64:17:110:VAL:HG23	2.21	0.41
65:18:3:LEU:HD23	65:18:5:VAL:HG13	2.02	0.41
67:20:32:LYS:HD2	67:20:32:LYS:HA	1.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:25:100:ILE:HD13	72:25:101:TYR:N	2.36	0.41
77:30:38:LEU:HD22	77:30:39:LEU:HD22	2.02	0.41
79:RA:175:ASP:O	79:RA:176:LYS:HB2	2.20	0.41
1:2S:174:C:H2'	1:2S:175:C:H6	1.85	0.40
1:2S:215:G:H2'	1:2S:216:G:H8	1.86	0.40
1:2S:426:G:H5'	34:72:50:ILE:HG22	2.02	0.40
1:2S:1103:A:H1'	1:2S:1104:G:OP1	2.21	0.40
1:2S:1669:C:C2'	1:2S:1670:C:H5'	2.51	0.40
1:2S:1943:C:O2'	1:2S:1944:U:H5'	2.21	0.40
1:2S:2561:A:HO2'	1:2S:2562:A:H8	1.68	0.40
1:2S:2941:A:N7	6:L3:256:HIS:CE1	2.80	0.40
1:2S:2985:C:H2'	1:2S:2986:U:H6	1.85	0.40
1:2S:3084:C:H2'	1:2S:3085:G:O4'	2.21	0.40
1:2S:3152:U:H5'	1:2S:3294:A:H5''	2.02	0.40
2:8S:59:A:H3'	2:8S:59:A:OP2	2.21	0.40
3:5S:84:A:H2'	3:5S:85:G:C8	2.56	0.40
5:L2:122:ASP:O	5:L2:123:ARG:HB2	2.21	0.40
8:L5:125:VAL:HG11	8:L5:200:PHE:CZ	2.55	0.40
10:L7:174:GLY:HA2	10:L7:178:ILE:O	2.22	0.40
12:L9:161:LEU:HD23	12:L9:161:LEU:C	2.41	0.40
14:51:13:LYS:HE2	14:51:134:PRO:HG3	2.02	0.40
15:53:29:ALA:HB3	17:55:201:ARG:NH1	2.36	0.40
17:55:42:PRO:HG3	17:55:61:ILE:CG1	2.51	0.40
17:55:73:ARG:HB2	17:55:92:LEU:HD21	2.02	0.40
18:56:121:PRO:HA	18:56:127:LEU:CD1	2.50	0.40
18:56:124:LEU:HD23	18:56:127:LEU:HG	2.03	0.40
19:57:59:PRO:HG2	19:57:76:PHE:CD2	2.57	0.40
21:59:110:ARG:HA	21:59:115:ILE:HG22	2.02	0.40
22:60:154:HIS:CE1	22:60:170:THR:HG21	2.56	0.40
33:71:29:ALA:N	33:71:30:PRO:CD	2.84	0.40
36:74:80:ARG:NE	36:74:80:ARG:HA	2.36	0.40
46:1S:391:A:O2'	46:1S:1730:A:H4'	2.21	0.40
46:1S:611:U:C1'	58:11:97:TYR:HA	2.51	0.40
46:1S:891:A:H2'	46:1S:892:A:C8	2.56	0.40
46:1S:1202:A:H61	46:1S:1457:C:H5''	1.81	0.40
46:1S:1219:A:C6	46:1S:1265:G:H1'	2.56	0.40
47:S0:179:ARG:HG2	47:S0:183:ARG:HD2	2.03	0.40
47:S0:202:TYR:O	47:S0:203:PHE:CB	2.68	0.40
48:S1:115:ARG:HG3	48:S1:116:LYS:H	1.86	0.40
56:S9:86:LEU:HD21	56:S9:91:LYS:HA	2.03	0.40
56:S9:172:VAL:HG13	56:S9:173:ALA:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:10:16:PHE:CD2	57:10:76:LEU:HB3	2.45	0.40
63:16:94:GLN:HG3	63:16:95:LYS:N	2.35	0.40
63:16:97:VAL:CG1	63:16:98:ASP:N	2.81	0.40
63:16:117:LEU:HD22	63:16:117:LEU:H	1.86	0.40
63:16:140:LYS:HE3	63:16:140:LYS:HB2	1.92	0.40
65:18:72:ILE:HG12	65:18:79:TYR:CG	2.57	0.40
65:18:72:ILE:HG23	65:18:79:TYR:HB2	2.03	0.40
79:RA:66:HIS:HB2	79:RA:86:ASP:HB3	2.03	0.40
1:2S:379:C:H2'	1:2S:380:U:H6	1.86	0.40
1:2S:641:C:H42	1:2S:645:A:H8	1.62	0.40
1:2S:728:G:H2'	1:2S:729:C:C6	2.56	0.40
1:2S:1324:U:H5'	22:60:2:ALA:HA	2.02	0.40
1:2S:1476:G:H2'	1:2S:1477:A:O4'	2.21	0.40
1:2S:1694:U:H5	1:2S:1772:U:HO2'	1.68	0.40
5:L2:250:GLN:O	5:L2:251:LYS:C	2.58	0.40
6:L3:53:MET:O	6:L3:364:LYS:HE3	2.22	0.40
13:50:193:ASP:CG	13:50:194:GLY:H	2.24	0.40
15:53:164:GLU:O	15:53:165:SER:HB3	2.21	0.40
17:55:48:ALA:O	17:55:53:TYR:HB2	2.21	0.40
18:56:54:TYR:O	18:56:58:LEU:HB2	2.21	0.40
18:56:65:ASN:HD22	18:56:65:ASN:HA	1.69	0.40
20:58:170:ARG:HD2	30:68:56:VAL:HG11	2.04	0.40
21:59:25:ASP:C	21:59:27:ASN:H	2.25	0.40
21:59:106:LEU:HD21	21:59:123:LEU:HD12	2.03	0.40
26:64:39:LEU:HB3	26:64:44:LYS:HB2	2.03	0.40
32:70:65:THR:CG2	32:70:66:LYS:N	2.84	0.40
35:73:41:ALA:HA	35:73:44:TYR:CD2	2.51	0.40
40:78:42:LYS:HB2	40:78:44:LYS:HZ1	1.86	0.40
40:78:42:LYS:HG2	40:78:55:VAL:HG13	2.03	0.40
46:1S:709:C:C4	46:1S:730:G:H2'	2.55	0.40
46:1S:836:U:H2'	46:1S:837:G:H8	1.85	0.40
46:1S:1165:G:H2'	46:1S:1166:A:C8	2.56	0.40
49:S2:248:SER:HB3	49:S2:249:ALA:H	1.72	0.40
54:S7:134:GLU:HG2	54:S7:135:ILE:N	2.36	0.40
58:11:6:THR:HB	58:11:9:SER:HB3	2.02	0.40
60:13:17:PRO:HG3	74:27:28:PRO:CD	2.49	0.40
61:14:84:ARG:CA	61:14:119:THR:HG22	2.45	0.40
62:15:18:ARG:HG2	62:15:18:ARG:HH11	1.86	0.40
63:16:54:LEU:HD12	63:16:108:ALA:O	2.21	0.40
64:17:119:LEU:O	64:17:120:SER:HB2	2.21	0.40
70:23:12:ALA:HA	70:23:15:LEU:CD1	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:24:25:VAL:HG23	71:24:73:GLY:N	2.35	0.40
71:24:30:PRO:O	71:24:31:ASN:HB2	2.22	0.40
71:24:104:SER:HB3	71:24:107:GLN:HB2	2.03	0.40
77:30:41:THR:HA	77:30:45:VAL:HB	2.03	0.40
79:RA:157:VAL:HG11	79:RA:225:LEU:CD2	2.52	0.40
1:2S:215:G:H2'	1:2S:216:G:C8	2.57	0.40
1:2S:287:G:H5'	17:55:179:LYS:HB3	2.04	0.40
1:2S:443:G:H8	1:2S:443:G:O5'	2.03	0.40
1:2S:681:U:C6	1:2S:681:U:C3'	3.04	0.40
1:2S:795:G:C2'	1:2S:796:U:H5'	2.51	0.40
1:2S:982:C:O2'	1:2S:983:A:H5'	2.20	0.40
1:2S:1795:U:H5''	1:2S:1796:G:H5'	2.03	0.40
1:2S:2477:G:N3	1:2S:2477:G:H2'	2.37	0.40
1:2S:2700:G:H2'	1:2S:2701:U:C6	2.56	0.40
1:2S:2707:C:H2'	1:2S:2708:C:C6	2.55	0.40
1:2S:3043:C:C2'	1:2S:3044:G:H5'	2.52	0.40
1:2S:3344:A:H61	1:2S:3361:G:H1'	1.86	0.40
2:8S:10:A:H2'	2:8S:11:C:C6	2.57	0.40
2:8S:24:G:H2'	2:8S:25:G:O4'	2.21	0.40
2:8S:114:G:H2'	2:8S:115:C:C6	2.55	0.40
5:L2:20:THR:HA	5:L2:23:ARG:NE	2.36	0.40
5:L2:138:GLY:HA3	5:L2:147:ARG:HB3	2.02	0.40
6:L3:213:GLU:HB3	6:L3:282:ILE:HD12	2.03	0.40
8:L5:40:HIS:HB3	8:L5:43:LYS:HE2	2.02	0.40
8:L5:207:TYR:HD2	8:L5:210:GLU:HB2	1.85	0.40
11:L8:59:GLN:HG3	11:L8:60:ARG:N	2.36	0.40
12:L9:31:ARG:HH11	12:L9:31:ARG:HG3	1.86	0.40
17:55:105:ARG:HG2	17:55:108:ARG:HH22	1.86	0.40
28:66:27:ARG:HD3	28:66:75:ARG:O	2.22	0.40
29:67:113:VAL:O	29:67:116:LYS:HB3	2.22	0.40
34:72:66:LEU:HD23	34:72:72:LYS:HG3	2.03	0.40
36:74:20:ILE:HG23	36:74:33:GLN:C	2.42	0.40
38:76:4:LYS:HA	38:76:12:ASN:HB3	2.03	0.40
46:1S:158:U:O2'	46:1S:159:U:H3'	2.21	0.40
46:1S:461:G:H2'	46:1S:462:G:C8	2.56	0.40
46:1S:474:A:N1	46:1S:594:A:H5'	2.36	0.40
46:1S:610:G:H21	70:23:19:ARG:HH12	1.69	0.40
46:1S:629:U:H5''	60:13:127:ARG:HH12	1.85	0.40
46:1S:1294:G:H1	46:1S:1303:U:H3	1.68	0.40
46:1S:1596:C:H5'	76:29:16:LYS:NZ	2.36	0.40
49:S2:146:THR:HG23	49:S2:148:LEU:HB2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S4:137:PRO:HD2	51:S4:149:TYR:CD1	2.56	0.40
57:10:93:GLN:CG	57:10:94:GLU:H	2.34	0.40
59:12:52:LEU:HD11	59:12:87:PRO:HG3	2.04	0.40
66:19:30:VAL:HA	66:19:31:PRO:HD3	1.87	0.40
66:19:135:ILE:HD12	66:19:135:ILE:C	2.41	0.40
69:22:71:LYS:HB3	69:22:130:TYR:CZ	2.56	0.40
70:23:50:LYS:HA	70:23:103:LEU:HA	2.04	0.40
71:24:90:ARG:O	71:24:93:ARG:HB2	2.22	0.40
78:31:145:HIS:CD2	78:31:145:HIS:N	2.89	0.40
79:RA:81:LEU:HD13	79:RA:113:VAL:HG22	2.02	0.40
1:2S:113:C:O2'	1:2S:114:A:H5'	2.21	0.40
1:2S:168:U:H2'	1:2S:169:U:C6	2.56	0.40
1:2S:1140:G:H4'	10:L7:94:LYS:HE2	2.02	0.40
1:2S:1585:C:H2'	1:2S:1586:G:O4'	2.21	0.40
1:2S:2197:C:N4	1:2S:2241:U:H2'	2.36	0.40
1:2S:2673:A:H5''	14:51:95:ASN:OD1	2.21	0.40
1:2S:2756:C:H2'	1:2S:2757:U:H6	1.77	0.40
1:2S:2799:A:H5''	1:2S:2800:G:O5'	2.22	0.40
1:2S:3284:G:H2'	1:2S:3285:C:C6	2.57	0.40
1:2S:3372:A:H2'	1:2S:3373:U:C6	2.56	0.40
2:8S:141:C:H6	2:8S:141:C:O5'	2.05	0.40
3:5S:40:C:H2'	3:5S:42:A:N7	2.36	0.40
4:L1:45:ARG:HB3	4:L1:46:ASP:H	1.68	0.40
7:L4:62:ALA:HB1	7:L4:76:ARG:O	2.21	0.40
8:L5:289:LYS:O	8:L5:293:LEU:HB3	2.22	0.40
10:L7:78:GLU:HA	23:61:138:SER:HB3	2.02	0.40
13:50:178:ARG:O	13:50:182:LEU:HG	2.21	0.40
15:53:84:GLY:O	15:53:85:LEU:HB3	2.20	0.40
17:55:18:VAL:O	17:55:22:LEU:HG	2.21	0.40
17:55:163:GLY:C	17:55:165:THR:H	2.23	0.40
23:61:78:LYS:CG	23:61:80:VAL:HB	2.52	0.40
23:61:80:VAL:HG22	23:61:81:GLY:N	2.36	0.40
25:63:81:GLN:HA	25:63:98:ASN:ND2	2.37	0.40
25:63:81:GLN:HG2	25:63:82:ALA:H	1.87	0.40
27:65:47:ALA:HB3	37:75:77:PRO:HG3	2.04	0.40
30:68:37:GLY:O	30:68:42:ARG:HB3	2.21	0.40
30:68:67:HIS:CD2	30:68:67:HIS:N	2.89	0.40
30:68:81:LEU:HB2	30:68:102:ILE:CG2	2.51	0.40
33:71:70:ARG:HH21	33:71:70:ARG:CG	2.34	0.40
36:74:71:THR:HG22	36:74:72:VAL:N	2.25	0.40
37:75:7:TYR:CE1	37:75:8:GLU:HG3	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:17:C:H5'	46:1S:1109:G:H5'	2.04	0.40
46:1S:295:A:H2'	46:1S:296:U:O4'	2.22	0.40
46:1S:301:A:H2'	46:1S:302:U:C6	2.57	0.40
46:1S:1616:G:H2'	46:1S:1617:U:C6	2.56	0.40
46:1S:1718:G:O2'	46:1S:1719:A:H5'	2.20	0.40
50:S3:29:LEU:O	50:S3:34:TYR:HB3	2.21	0.40
54:S7:46:ILE:HD11	54:S7:60:ILE:HG23	2.03	0.40
56:S9:36:LEU:CD2	56:S9:108:ARG:HH12	2.34	0.40
56:S9:121:SER:HB3	56:S9:124:HIS:HB3	2.03	0.40
63:16:35:PRO:HG2	63:16:38:LEU:HG	2.04	0.40
67:20:109:GLU:OE1	67:20:110:PRO:HD2	2.21	0.40
69:22:50:PHE:N	69:22:50:PHE:CD1	2.90	0.40
72:25:83:LEU:HA	72:25:87:GLY:HA3	2.02	0.40
72:25:96:SER:O	72:25:97:LYS:HG2	2.20	0.40
74:27:37:CYS:HA	74:27:38:PRO:HD3	1.88	0.40
74:27:81:ARG:O	74:27:82:LYS:CB	2.69	0.40
79:RA:157:VAL:HG23	79:RA:169:ILE:HA	2.02	0.40
1:2S:855:U:H2'	1:2S:856:G:O4'	2.22	0.40
1:2S:1571:A:H2'	1:2S:1572:U:C4'	2.52	0.40
1:2S:2338:C:H3'	1:2S:2339:C:H2'	2.02	0.40
1:2S:2470:C:C2'	1:2S:2471:U:H5'	2.52	0.40
1:2S:2525:G:H3'	5:L2:37:ARG:HH12	1.86	0.40
1:2S:2920:U:H2'	1:2S:2921:U:C6	2.57	0.40
1:2S:3004:C:H6	1:2S:3004:C:O5'	2.04	0.40
1:2S:3018:C:C5'	25:63:7:GLN:HG2	2.51	0.40
1:2S:3058:U:H5''	33:71:28:ARG:NH2	2.36	0.40
8:L5:143:LYS:HE2	8:L5:143:LYS:HB3	1.93	0.40
8:L5:208:MET:HA	8:L5:219:PHE:CE2	2.56	0.40
9:L6:153:PRO:O	16:54:115:PHE:HZ	2.05	0.40
11:L8:130:TYR:CD1	11:L8:204:ARG:HD2	2.57	0.40
14:51:23:VAL:CG1	14:51:29:ARG:HD3	2.52	0.40
14:51:166:LYS:HG3	14:51:166:LYS:O	2.20	0.40
16:54:76:ALA:HB1	16:54:80:THR:CG2	2.51	0.40
17:55:30:TYR:CD1	17:55:63:ARG:HD3	2.56	0.40
17:55:169:LYS:HE2	17:55:174:ILE:HD12	2.03	0.40
22:60:161:LYS:HB3	22:60:162:THR:H	1.67	0.40
29:67:9:LYS:CG	29:67:10:VAL:H	2.34	0.40
35:73:6:ARG:HG3	35:73:8:TYR:CE1	2.56	0.40
46:1S:193:U:C2	46:1S:195:G:H1'	2.57	0.40
46:1S:380:U:C4	56:S9:5:PRO:HA	2.57	0.40
46:1S:390:G:H8	46:1S:1731:A:H4'	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:992:A:H2	46:1S:1012:U:O4	2.05	0.40
46:1S:1058:U:C6	46:1S:1061:A:N1	2.87	0.40
46:1S:1404:C:H2'	46:1S:1405:G:H8	1.86	0.40
46:1S:1591:C:H2'	46:1S:1592:A:C8	2.57	0.40
46:1S:1593:A:H2'	46:1S:1594:G:C8	2.56	0.40
46:1S:1677:C:H42	46:1S:1724:U:H3	1.69	0.40
46:1S:1696:G:H4'	46:1S:1697:G:OP1	2.22	0.40
46:1S:1789:G:H8	61:14:132:ARG:NH2	2.08	0.40
47:S0:123:VAL:O	47:S0:146:LEU:HG	2.22	0.40
49:S2:84:LYS:HA	49:S2:85:PRO:HD3	1.81	0.40
53:S6:27:PHE:CZ	53:S6:41:VAL:HG21	2.56	0.40
55:S8:156:VAL:CG2	55:S8:185:GLU:HG3	2.52	0.40
58:11:75:VAL:HG13	58:11:84:ILE:HD12	2.03	0.40
61:14:76:ILE:HD12	61:14:76:ILE:H	1.85	0.40
62:15:60:LEU:HD21	62:15:89:MET:HB2	2.02	0.40
63:16:32:ASN:HA	63:16:66:ARG:NH2	2.37	0.40
64:17:100:LEU:HB3	64:17:118:PRO:HG2	2.04	0.40
73:26:88:SER:H	73:26:91:ASP:HB2	1.87	0.40
74:27:36:LYS:HG2	74:27:43:ILE:HG21	2.03	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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%)	133 (66%)	52 (26%)	17 (8%)	1	11
5	L2	250/254 (98%)	199 (80%)	41 (16%)	10 (4%)	3	23
6	L3	384/387 (99%)	321 (84%)	52 (14%)	11 (3%)	4	29
7	L4	359/362 (99%)	290 (81%)	47 (13%)	22 (6%)	1	16
8	L5	294/297 (99%)	240 (82%)	41 (14%)	13 (4%)	2	22

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	L6	152/176 (86%)	132 (87%)	16 (10%)	4 (3%)	5	31
10	L7	220/244 (90%)	196 (89%)	19 (9%)	5 (2%)	6	34
11	L8	231/256 (90%)	190 (82%)	31 (13%)	10 (4%)	2	22
12	L9	189/191 (99%)	157 (83%)	27 (14%)	5 (3%)	5	31
13	50	207/221 (94%)	173 (84%)	30 (14%)	4 (2%)	8	38
14	51	167/174 (96%)	131 (78%)	27 (16%)	9 (5%)	2	19
15	53	191/199 (96%)	152 (80%)	25 (13%)	14 (7%)	1	13
16	54	134/138 (97%)	114 (85%)	14 (10%)	6 (4%)	2	22
17	55	201/204 (98%)	168 (84%)	28 (14%)	5 (2%)	5	32
18	56	195/199 (98%)	175 (90%)	15 (8%)	5 (3%)	5	31
19	57	181/184 (98%)	150 (83%)	26 (14%)	5 (3%)	5	30
20	58	183/186 (98%)	154 (84%)	25 (14%)	4 (2%)	6	35
21	59	186/189 (98%)	166 (89%)	16 (9%)	4 (2%)	6	35
22	60	170/172 (99%)	139 (82%)	26 (15%)	5 (3%)	4	29
23	61	157/160 (98%)	126 (80%)	19 (12%)	12 (8%)	1	13
24	62	98/121 (81%)	83 (85%)	12 (12%)	3 (3%)	4	27
25	63	134/137 (98%)	113 (84%)	20 (15%)	1 (1%)	22	62
26	64	59/155 (38%)	44 (75%)	14 (24%)	1 (2%)	9	42
27	65	119/142 (84%)	100 (84%)	16 (13%)	3 (2%)	5	32
28	66	124/127 (98%)	110 (89%)	13 (10%)	1 (1%)	19	60
29	67	133/136 (98%)	106 (80%)	23 (17%)	4 (3%)	4	28
30	68	146/149 (98%)	110 (75%)	27 (18%)	9 (6%)	1	16
31	69	56/59 (95%)	52 (93%)	3 (5%)	1 (2%)	8	40
32	70	95/105 (90%)	89 (94%)	5 (5%)	1 (1%)	14	52
33	71	107/113 (95%)	84 (78%)	20 (19%)	3 (3%)	5	30
34	72	125/130 (96%)	113 (90%)	12 (10%)	0	100	100
35	73	104/107 (97%)	80 (77%)	21 (20%)	3 (3%)	4	29
36	74	110/121 (91%)	92 (84%)	14 (13%)	4 (4%)	3	25
37	75	117/120 (98%)	108 (92%)	8 (7%)	1 (1%)	17	56
38	76	97/100 (97%)	81 (84%)	14 (14%)	2 (2%)	7	36
39	77	85/88 (97%)	70 (82%)	13 (15%)	2 (2%)	6	33

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
40	78	75/78 (96%)	69 (92%)	6 (8%)	0	100	100
41	79	48/51 (94%)	42 (88%)	5 (10%)	1 (2%)	7	36
42	80	50/128 (39%)	40 (80%)	9 (18%)	1 (2%)	7	38
43	81	23/25 (92%)	22 (96%)	1 (4%)	0	100	100
44	82	101/106 (95%)	88 (87%)	9 (9%)	4 (4%)	3	23
45	83	89/92 (97%)	74 (83%)	11 (12%)	4 (4%)	2	22
47	S0	204/252 (81%)	163 (80%)	30 (15%)	11 (5%)	2	19
48	S1	212/255 (83%)	152 (72%)	41 (19%)	19 (9%)	1	11
49	S2	215/254 (85%)	178 (83%)	27 (13%)	10 (5%)	2	21
50	S3	221/240 (92%)	181 (82%)	29 (13%)	11 (5%)	2	20
51	S4	258/261 (99%)	214 (83%)	35 (14%)	9 (4%)	3	25
52	S5	204/225 (91%)	164 (80%)	30 (15%)	10 (5%)	2	20
53	S6	224/236 (95%)	193 (86%)	25 (11%)	6 (3%)	5	31
54	S7	182/190 (96%)	138 (76%)	29 (16%)	15 (8%)	1	12
55	S8	184/200 (92%)	151 (82%)	29 (16%)	4 (2%)	6	35
56	S9	183/197 (93%)	153 (84%)	21 (12%)	9 (5%)	2	20
57	10	94/105 (90%)	75 (80%)	13 (14%)	6 (6%)	1	16
58	11	153/156 (98%)	108 (71%)	36 (24%)	9 (6%)	1	17
59	12	122/143 (85%)	85 (70%)	23 (19%)	14 (12%)	0	6
60	13	148/151 (98%)	123 (83%)	22 (15%)	3 (2%)	7	38
61	14	125/137 (91%)	95 (76%)	24 (19%)	6 (5%)	2	20
62	15	122/142 (86%)	90 (74%)	22 (18%)	10 (8%)	1	12
63	16	139/143 (97%)	114 (82%)	18 (13%)	7 (5%)	2	20
64	17	116/136 (85%)	98 (84%)	14 (12%)	4 (3%)	3	26
65	18	143/146 (98%)	115 (80%)	19 (13%)	9 (6%)	1	16
66	19	141/144 (98%)	117 (83%)	20 (14%)	4 (3%)	5	30
67	20	105/121 (87%)	88 (84%)	13 (12%)	4 (4%)	3	24
68	21	85/87 (98%)	69 (81%)	10 (12%)	6 (7%)	1	14
69	22	127/130 (98%)	108 (85%)	16 (13%)	3 (2%)	6	33
70	23	142/145 (98%)	102 (72%)	32 (22%)	8 (6%)	2	18
71	24	132/135 (98%)	103 (78%)	23 (17%)	6 (4%)	2	22

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
72	25	68/108 (63%)	46 (68%)	16 (24%)	6 (9%)	1	11
73	26	95/119 (80%)	62 (65%)	21 (22%)	12 (13%)	0	5
74	27	79/82 (96%)	59 (75%)	16 (20%)	4 (5%)	2	19
75	28	61/67 (91%)	50 (82%)	10 (16%)	1 (2%)	9	43
76	29	51/56 (91%)	44 (86%)	5 (10%)	2 (4%)	3	23
77	30	58/63 (92%)	42 (72%)	11 (19%)	5 (9%)	1	11
78	31	69/152 (45%)	42 (61%)	18 (26%)	9 (13%)	0	5
79	RA	316/319 (99%)	250 (79%)	53 (17%)	13 (4%)	3	22
All	All	11126/12097 (92%)	9048 (81%)	1604 (14%)	474 (4%)	5	22

All (474) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	L1	20	SER
4	L1	153	SER
4	L1	193	LEU
4	L1	199	GLN
4	L1	209	SER
5	L2	6	ARG
5	L2	251	LYS
6	L3	63	PRO
6	L3	174	LYS
6	L3	386	ASP
7	L4	72	ALA
7	L4	188	ARG
7	L4	328	ASN
8	L5	10	SER
8	L5	19	PRO
8	L5	276	LYS
9	L6	5	LYS
9	L6	6	ALA
9	L6	98	VAL
10	L7	92	ILE
10	L7	158	LYS
11	L8	50	VAL
11	L8	136	LEU
12	L9	14	GLU
14	51	116	TYR
15	53	5	LYS

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Mol	Chain	Res	Type
15	53	47	ALA
15	53	62	THR
16	54	74	ARG
17	55	81	TYR
18	56	16	VAL
19	57	132	ALA
20	58	99	THR
21	59	88	ARG
21	59	130	ASN
22	60	23	LYS
23	61	93	VAL
23	61	126	VAL
23	61	159	PHE
24	62	11	ILE
26	64	26	SER
27	65	50	ALA
29	67	17	ARG
30	68	15	VAL
30	68	47	LYS
37	75	119	LYS
44	82	34	SER
45	83	15	GLY
47	S0	158	VAL
48	S1	36	SER
48	S1	222	LYS
49	S2	148	LEU
49	S2	248	SER
50	S3	93	ASP
50	S3	211	PRO
50	S3	216	PRO
50	S3	221	SER
51	S4	194	THR
51	S4	195	ILE
51	S4	245	LYS
52	S5	63	GLN
52	S5	100	ASN
53	S6	154	ARG
53	S6	173	PRO
54	S7	12	ALA
54	S7	14	THR
54	S7	31	SER
54	S7	32	PRO

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Mol	Chain	Res	Type
54	S7	64	VAL
54	S7	74	GLN
54	S7	98	ILE
54	S7	116	ARG
56	S9	98	ALA
56	S9	134	ILE
56	S9	138	LYS
57	10	60	SER
57	10	93	GLN
58	11	6	THR
58	11	7	VAL
58	11	146	ALA
61	14	42	VAL
62	15	54	ALA
63	16	41	PRO
64	17	83	GLN
65	18	14	ILE
65	18	82	PRO
65	18	92	ILE
66	19	53	TRP
68	21	44	ARG
69	22	83	ILE
70	23	27	ASN
70	23	144	ARG
71	24	34	ASN
71	24	36	SER
72	25	41	ILE
72	25	44	GLN
72	25	71	ILE
73	26	62	TYR
73	26	86	VAL
74	27	18	LYS
74	27	57	GLU
75	28	36	THR
77	30	20	LYS
77	30	47	VAL
78	31	88	PRO
79	RA	165	ASP
79	RA	295	SER
4	L1	74	VAL
4	L1	98	LYS
5	L2	115	ASN

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Mol	Chain	Res	Type
6	L3	187	SER
6	L3	272	TYR
6	L3	307	PRO
6	L3	317	ILE
6	L3	351	LEU
7	L4	82	THR
7	L4	90	PHE
7	L4	232	SER
7	L4	292	SER
7	L4	301	PRO
7	L4	305	ALA
8	L5	94	ASN
8	L5	251	PRO
10	L7	159	GLN
11	L8	36	ILE
11	L8	39	ALA
11	L8	79	GLN
11	L8	81	THR
11	L8	157	VAL
12	L9	50	ASN
12	L9	139	ASN
14	51	94	ARG
15	53	76	THR
15	53	136	GLU
16	54	47	ASP
17	55	125	SER
19	57	36	ILE
20	58	97	PRO
22	60	154	HIS
22	60	166	LYS
23	61	12	ARG
23	61	81	GLY
23	61	137	GLU
24	62	44	GLU
28	66	52	ARG
30	68	27	LYS
30	68	29	PRO
30	68	117	ARG
32	70	97	ASP
33	71	28	ARG
35	73	88	ASN
38	76	3	VAL

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Mol	Chain	Res	Type
45	83	6	LYS
45	83	18	TYR
47	S0	4	PRO
47	S0	203	PHE
48	S1	48	VAL
48	S1	191	GLU
49	S2	60	SER
49	S2	106	ASP
50	S3	217	ILE
50	S3	220	PRO
51	S4	26	CYS
51	S4	76	VAL
52	S5	51	VAL
52	S5	98	MET
54	S7	111	LYS
54	S7	164	TYR
55	S8	52	ASN
56	S9	132	ARG
56	S9	162	SER
57	10	64	TYR
59	12	83	GLU
59	12	91	VAL
59	12	119	SER
60	13	22	ALA
61	14	36	LYS
62	15	51	SER
62	15	69	GLU
62	15	125	PRO
62	15	126	VAL
64	17	88	VAL
65	18	91	ASP
65	18	145	ARG
66	19	93	HIS
67	20	54	GLY
68	21	7	GLN
68	21	42	GLU
70	23	67	ALA
70	23	96	VAL
72	25	43	ASP
72	25	97	LYS
73	26	81	ALA
74	27	62	ILE

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Mol	Chain	Res	Type
78	31	84	VAL
78	31	99	LYS
78	31	100	LEU
79	RA	231	MET
4	L1	59	PRO
4	L1	135	PRO
4	L1	172	VAL
5	L2	120	PRO
5	L2	210	PRO
5	L2	235	ALA
7	L4	5	GLN
7	L4	14	GLU
7	L4	131	VAL
7	L4	140	HIS
7	L4	264	SER
7	L4	317	PRO
8	L5	21	ARG
8	L5	253	PHE
12	L9	110	LYS
13	50	24	ARG
14	51	8	PRO
14	51	108	GLU
14	51	114	ILE
14	51	117	ASP
14	51	145	LYS
14	51	168	ASP
15	53	56	PRO
16	54	30	GLY
17	55	123	GLN
17	55	145	ASP
19	57	153	LYS
21	59	103	ARG
22	60	2	ALA
23	61	44	ALA
23	61	148	PRO
24	62	52	ASN
27	65	54	TYR
33	71	83	GLU
39	77	65	ARG
47	S0	109	ASN
47	S0	167	LYS
48	S1	26	ARG

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Mol	Chain	Res	Type
48	S1	35	PRO
48	S1	55	LYS
48	S1	177	GLN
48	S1	213	ARG
49	S2	208	GLU
49	S2	236	PRO
50	S3	84	ILE
50	S3	196	ARG
50	S3	212	LYS
51	S4	200	ARG
54	S7	8	ILE
54	S7	103	SER
54	S7	178	GLY
56	S9	18	PRO
56	S9	169	PRO
57	10	34	GLU
58	11	3	THR
58	11	55	ASP
59	12	82	PRO
59	12	87	PRO
59	12	106	ILE
59	12	110	GLY
60	13	24	ALA
61	14	51	ASP
61	14	85	ALA
61	14	114	ARG
62	15	53	PRO
62	15	101	ALA
62	15	127	ARG
63	16	42	GLU
63	16	116	LEU
64	17	99	VAL
65	18	51	ASP
65	18	59	GLY
65	18	83	ALA
67	20	17	GLN
71	24	5	VAL
71	24	50	ALA
71	24	95	GLY
73	26	11	ASN
73	26	63	ALA
73	26	66	LYS

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Mol	Chain	Res	Type
77	30	43	ARG
78	31	98	VAL
79	RA	146	GLY
4	L1	18	LYS
5	L2	144	ASN
5	L2	180	LEU
6	L3	5	LYS
7	L4	152	VAL
7	L4	304	GLN
7	L4	311	HIS
7	L4	338	LYS
8	L5	182	GLY
9	L6	95	GLY
11	L8	156	ASP
12	L9	42	ASP
13	50	220	GLN
15	53	72	GLY
15	53	85	LEU
15	53	131	LYS
16	54	9	ALA
16	54	29	ALA
17	55	56	LYS
19	57	4	TYR
19	57	133	HIS
21	59	105	LEU
22	60	24	LEU
23	61	124	VAL
23	61	132	PRO
29	67	8	GLY
29	67	31	GLU
29	67	103	GLN
30	68	56	VAL
30	68	78	LEU
35	73	50	ALA
36	74	59	PRO
41	79	4	GLN
44	82	15	LYS
47	S0	26	ALA
47	S0	95	ALA
47	S0	103	THR
48	S1	22	ASP
48	S1	132	ASP

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Mol	Chain	Res	Type
48	S1	170	GLU
48	S1	207	LEU
50	S3	156	PHE
52	S5	64	VAL
53	S6	20	ASP
53	S6	33	GLY
55	S8	104	ILE
55	S8	120	THR
55	S8	152	ILE
57	10	85	HIS
59	12	111	ASN
59	12	125	ASN
59	12	131	ASP
60	13	3	ARG
63	16	39	VAL
63	16	40	GLU
64	17	24	LEU
65	18	120	ARG
66	19	29	GLU
66	19	90	PRO
68	21	12	TYR
68	21	46	ILE
69	22	67	GLY
70	23	41	SER
73	26	8	ASN
73	26	83	ILE
74	27	51	GLN
77	30	54	ARG
78	31	102	VAL
79	RA	4	ASN
79	RA	15	GLY
79	RA	69	GLN
79	RA	98	GLU
79	RA	268	GLN
79	RA	283	LYS
4	L1	23	THR
4	L1	136	THR
4	L1	151	VAL
6	L3	170	PRO
8	L5	259	LYS
10	L7	139	PRO
11	L8	122	LYS

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Mol	Chain	Res	Type
15	53	164	GLU
16	54	6	ILE
18	56	5	PRO
20	58	37	ALA
36	74	29	ILE
36	74	37	LYS
36	74	76	TYR
38	76	21	THR
39	77	25	ARG
44	82	8	ARG
44	82	17	CYS
47	S0	33	GLN
47	S0	195	TRP
49	S2	79	GLU
49	S2	150	GLN
49	S2	151	PRO
50	S3	90	ARG
52	S5	23	VAL
52	S5	45	LYS
58	11	96	LYS
58	11	148	LYS
59	12	101	ALA
59	12	115	VAL
62	15	130	ARG
63	16	15	SER
67	20	49	ASN
67	20	111	GLY
70	23	3	LYS
70	23	70	LYS
72	25	42	LEU
73	26	18	VAL
73	26	84	VAL
4	L1	127	GLN
5	L2	137	ILE
8	L5	125	VAL
8	L5	139	PRO
10	L7	191	VAL
11	L8	163	VAL
13	50	219	ALA
18	56	110	PRO
20	58	162	ALA
27	65	62	VAL

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Mol	Chain	Res	Type
48	S1	206	PRO
52	S5	50	GLU
53	S6	153	VAL
54	S7	144	VAL
56	S9	136	VAL
56	S9	160	PRO
57	10	84	GLU
58	11	41	GLY
59	12	126	TRP
61	14	126	THR
63	16	124	PRO
68	21	10	GLU
69	22	56	HIS
70	23	108	GLY
71	24	35	VAL
76	29	11	PRO
76	29	51	GLY
78	31	85	TYR
78	31	87	THR
79	RA	3	SER
79	RA	105	GLY
4	L1	56	PRO
4	L1	120	VAL
13	50	122	PRO
15	53	154	VAL
33	71	7	VAL
45	83	12	GLY
48	S1	176	VAL
53	S6	69	LEU
62	15	75	PRO
73	26	45	VAL
79	RA	63	GLY
15	53	46	ILE
15	53	130	GLY
18	56	43	ILE
18	56	111	PRO
23	61	53	PRO
30	68	83	PRO
31	69	29	TYR
35	73	59	VAL
48	S1	210	ILE
48	S1	221	PRO

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Mol	Chain	Res	Type
51	S4	260	GLY
52	S5	21	THR
59	12	102	GLY
73	26	75	VAL
77	30	45	VAL
7	L4	75	PRO
8	L5	87	GLY
15	53	63	VAL
25	63	13	ILE
42	80	79	GLU
48	S1	215	VAL
51	S4	149	TYR
58	11	130	PRO
78	31	112	GLY
6	L3	141	GLY
7	L4	71	VAL
14	51	134	PRO
23	61	123	GLY
30	68	110	GLY
47	S0	170	ILE
48	S1	43	VAL
49	S2	109	GLY
51	S4	129	VAL
52	S5	151	GLY
54	S7	49	ILE
5	L2	158	ILE
8	L5	192	PRO
7	L4	149	PRO

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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%)	169 (91%)	16 (9%)	10	32
5	L2	194/196 (99%)	181 (93%)	13 (7%)	16	41
6	L3	322/323 (100%)	301 (94%)	21 (6%)	17	42

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
7	L4	288/289 (100%)	268 (93%)	20 (7%)	15	40
8	L5	244/245 (100%)	225 (92%)	19 (8%)	12	36
9	L6	134/153 (88%)	126 (94%)	8 (6%)	19	44
10	L7	186/205 (91%)	172 (92%)	14 (8%)	13	38
11	L8	191/208 (92%)	174 (91%)	17 (9%)	9	31
12	L9	171/171 (100%)	159 (93%)	12 (7%)	15	40
13	50	180/187 (96%)	165 (92%)	15 (8%)	11	34
14	51	147/150 (98%)	139 (95%)	8 (5%)	22	47
15	53	154/159 (97%)	137 (89%)	17 (11%)	6	23
16	54	107/109 (98%)	100 (94%)	7 (6%)	17	42
17	55	175/176 (99%)	162 (93%)	13 (7%)	13	38
18	56	160/162 (99%)	145 (91%)	15 (9%)	8	28
19	57	145/146 (99%)	136 (94%)	9 (6%)	18	43
20	58	150/151 (99%)	138 (92%)	12 (8%)	12	35
21	59	153/154 (99%)	139 (91%)	14 (9%)	9	29
22	60	156/156 (100%)	145 (93%)	11 (7%)	14	39
23	61	136/137 (99%)	125 (92%)	11 (8%)	11	35
24	62	87/107 (81%)	85 (98%)	2 (2%)	50	70
25	63	104/105 (99%)	94 (90%)	10 (10%)	8	27
26	64	54/129 (42%)	50 (93%)	4 (7%)	13	38
27	65	105/118 (89%)	95 (90%)	10 (10%)	8	28
28	66	109/110 (99%)	102 (94%)	7 (6%)	17	42
29	67	115/116 (99%)	111 (96%)	4 (4%)	36	59
30	68	118/119 (99%)	107 (91%)	11 (9%)	9	29
31	69	46/47 (98%)	40 (87%)	6 (13%)	4	18
32	70	81/88 (92%)	76 (94%)	5 (6%)	18	43
33	71	96/97 (99%)	88 (92%)	8 (8%)	11	34
34	72	109/111 (98%)	100 (92%)	9 (8%)	11	34
35	73	90/91 (99%)	83 (92%)	7 (8%)	12	36
36	74	95/103 (92%)	89 (94%)	6 (6%)	18	43
37	75	104/105 (99%)	95 (91%)	9 (9%)	10	31

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
38	76	81/82 (99%)	75 (93%)	6 (7%)	13	38
39	77	70/71 (99%)	64 (91%)	6 (9%)	10	32
40	78	68/69 (99%)	62 (91%)	6 (9%)	10	31
41	79	45/46 (98%)	41 (91%)	4 (9%)	9	31
42	80	47/116 (40%)	45 (96%)	2 (4%)	29	53
43	81	23/23 (100%)	18 (78%)	5 (22%)	1	6
44	82	88/91 (97%)	77 (88%)	11 (12%)	4	19
45	83	71/72 (99%)	68 (96%)	3 (4%)	30	54
47	S0	173/210 (82%)	163 (94%)	10 (6%)	20	45
48	S1	191/224 (85%)	173 (91%)	18 (9%)	8	28
49	S2	176/205 (86%)	170 (97%)	6 (3%)	37	60
50	S3	182/195 (93%)	168 (92%)	14 (8%)	13	37
51	S4	221/222 (100%)	199 (90%)	22 (10%)	7	26
52	S5	173/191 (91%)	163 (94%)	10 (6%)	20	45
53	S6	193/201 (96%)	184 (95%)	9 (5%)	26	51
54	S7	165/170 (97%)	154 (93%)	11 (7%)	16	41
55	S8	150/161 (93%)	142 (95%)	8 (5%)	22	47
56	S9	158/166 (95%)	146 (92%)	12 (8%)	13	37
57	10	89/98 (91%)	82 (92%)	7 (8%)	12	36
58	11	136/137 (99%)	127 (93%)	9 (7%)	16	41
59	12	100/119 (84%)	88 (88%)	12 (12%)	5	20
60	13	127/128 (99%)	114 (90%)	13 (10%)	7	25
61	14	96/105 (91%)	93 (97%)	3 (3%)	40	62
62	15	104/118 (88%)	96 (92%)	8 (8%)	13	37
63	16	117/119 (98%)	111 (95%)	6 (5%)	24	49
64	17	109/124 (88%)	94 (86%)	15 (14%)	3	17
65	18	128/129 (99%)	119 (93%)	9 (7%)	15	40
66	19	115/116 (99%)	103 (90%)	12 (10%)	7	25
67	20	100/114 (88%)	91 (91%)	9 (9%)	9	30
68	21	74/74 (100%)	70 (95%)	4 (5%)	22	47
69	22	110/111 (99%)	101 (92%)	9 (8%)	11	34

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
70	23	119/120 (99%)	106 (89%)	13 (11%)	6	23
71	24	112/113 (99%)	107 (96%)	5 (4%)	27	52
72	25	61/89 (68%)	50 (82%)	11 (18%)	1	10
73	26	83/101 (82%)	75 (90%)	8 (10%)	8	27
74	27	70/71 (99%)	69 (99%)	1 (1%)	67	80
75	28	56/60 (93%)	53 (95%)	3 (5%)	22	47
76	29	47/49 (96%)	46 (98%)	1 (2%)	53	72
77	30	51/54 (94%)	47 (92%)	4 (8%)	12	36
78	31	43/135 (32%)	38 (88%)	5 (12%)	5	21
79	RA	261/262 (100%)	241 (92%)	20 (8%)	13	37
All	All	9474/10182 (93%)	8754 (92%)	720 (8%)	17	37

All (720) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	L1	17	LEU
4	L1	18	LYS
4	L1	29	LEU
4	L1	42	ASP
4	L1	57	ASN
4	L1	105	LYS
4	L1	110	PHE
4	L1	130	LYS
4	L1	136	THR
4	L1	140	HIS
4	L1	150	ASP
4	L1	157	PHE
4	L1	165	LEU
4	L1	177	ASP
4	L1	178	VAL
4	L1	190	PHE
5	L2	5	ILE
5	L2	7	ASN
5	L2	101	VAL
5	L2	144	ASN
5	L2	190	ARG
5	L2	193	ARG
5	L2	204	MET

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Mol	Chain	Res	Type
5	L2	205	ASN
5	L2	207	VAL
5	L2	219	ILE
5	L2	227	ARG
5	L2	247	ARG
5	L2	253	GLN
6	L3	17	LEU
6	L3	25	ILE
6	L3	30	LYS
6	L3	36	ASP
6	L3	46	PHE
6	L3	77	THR
6	L3	87	VAL
6	L3	102	LEU
6	L3	110	LEU
6	L3	123	TYR
6	L3	133	TYR
6	L3	140	ASP
6	L3	164	THR
6	L3	173	GLN
6	L3	208	VAL
6	L3	230	THR
6	L3	261	MET
6	L3	266	ARG
6	L3	297	SER
6	L3	332	ARG
6	L3	346	THR
7	L4	22	LEU
7	L4	36	HIS
7	L4	43	ASN
7	L4	54	GLU
7	L4	60	THR
7	L4	65	TRP
7	L4	87	GLN
7	L4	93	MET
7	L4	150	LEU
7	L4	177	ASP
7	L4	179	LEU
7	L4	194	TYR
7	L4	221	ASN
7	L4	232	SER
7	L4	246	ARG

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Mol	Chain	Res	Type
7	L4	250	TRP
7	L4	285	ASP
7	L4	288	ARG
7	L4	313	LEU
7	L4	333	VAL
8	L5	20	PHE
8	L5	22	ARG
8	L5	23	ARG
8	L5	41	LYS
8	L5	50	ARG
8	L5	56	THR
8	L5	72	ASP
8	L5	92	LEU
8	L5	95	TRP
8	L5	105	ILE
8	L5	131	LEU
8	L5	155	THR
8	L5	168	ASP
8	L5	191	ASP
8	L5	194	LEU
8	L5	207	TYR
8	L5	226	TYR
8	L5	232	ASP
8	L5	264	GLN
9	L6	5	LYS
9	L6	22	ARG
9	L6	65	ILE
9	L6	78	ARG
9	L6	96	VAL
9	L6	102	ASN
9	L6	133	GLU
9	L6	142	ASP
10	L7	24	GLU
10	L7	61	ASN
10	L7	82	LYS
10	L7	88	ARG
10	L7	106	LEU
10	L7	124	LEU
10	L7	138	TYR
10	L7	153	PHE
10	L7	155	LYS
10	L7	173	LEU

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Mol	Chain	Res	Type
10	L7	179	LEU
10	L7	180	SER
10	L7	229	PHE
10	L7	244	ASN
11	L8	41	GLN
11	L8	49	TYR
11	L8	50	VAL
11	L8	63	LYS
11	L8	65	LEU
11	L8	78	PHE
11	L8	79	GLN
11	L8	84	ARG
11	L8	118	GLU
11	L8	122	LYS
11	L8	134	TYR
11	L8	158	ASP
11	L8	160	ILE
11	L8	165	PHE
11	L8	169	LEU
11	L8	190	VAL
11	L8	232	HIS
12	L9	14	GLU
12	L9	41	ILE
12	L9	49	ASN
12	L9	68	LEU
12	L9	69	ARG
12	L9	70	THR
12	L9	92	TYR
12	L9	135	GLU
12	L9	146	LEU
12	L9	157	ASN
12	L9	171	ASP
12	L9	172	ILE
13	50	17	TYR
13	50	22	TYR
13	50	30	LYS
13	50	32	ARG
13	50	33	ILE
13	50	40	LYS
13	50	59	GLN
13	50	63	GLU
13	50	129	VAL

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Mol	Chain	Res	Type
13	50	162	GLN
13	50	163	GLN
13	50	165	ILE
13	50	169	LYS
13	50	196	PHE
13	50	205	SER
14	51	10	ARG
14	51	13	LYS
14	51	30	LEU
14	51	67	VAL
14	51	70	THR
14	51	94	ARG
14	51	163	PHE
14	51	168	ASP
15	53	10	LEU
15	53	15	ARG
15	53	23	LYS
15	53	35	ARG
15	53	55	ARG
15	53	58	VAL
15	53	63	VAL
15	53	67	ARG
15	53	89	TYR
15	53	117	LYS
15	53	124	ILE
15	53	131	LYS
15	53	137	GLN
15	53	161	ASP
15	53	162	ASN
15	53	164	GLU
15	53	188	ARG
16	54	4	ASP
16	54	42	LYS
16	54	69	THR
16	54	77	ARG
16	54	92	GLU
16	54	102	LYS
16	54	114	ASP
17	55	11	GLN
17	55	41	ARG
17	55	46	ASP
17	55	62	TYR

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Mol	Chain	Res	Type
17	55	66	VAL
17	55	83	LYS
17	55	85	THR
17	55	118	SER
17	55	134	LEU
17	55	149	ASN
17	55	150	TRP
17	55	174	ILE
17	55	194	GLN
18	56	47	PHE
18	56	51	LYS
18	56	65	ASN
18	56	78	ARG
18	56	87	MET
18	56	89	SER
18	56	110	PRO
18	56	117	ARG
18	56	122	GLN
18	56	148	LYS
18	56	151	ASP
18	56	160	ARG
18	56	174	PHE
18	56	194	LEU
18	56	199	TYR
19	57	53	ASP
19	57	96	GLN
19	57	103	GLU
19	57	111	LYS
19	57	120	ASN
19	57	137	ASN
19	57	159	LYS
19	57	168	LEU
19	57	171	ARG
20	58	26	LEU
20	58	33	TYR
20	58	41	ASP
20	58	99	THR
20	58	104	LEU
20	58	111	ARG
20	58	123	THR
20	58	127	LEU
20	58	170	ARG

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Mol	Chain	Res	Type
20	58	174	ARG
20	58	179	ARG
20	58	180	ARG
21	59	3	ASN
21	59	36	ASN
21	59	42	ARG
21	59	81	ARG
21	59	95	TRP
21	59	104	ARG
21	59	124	TYR
21	59	130	ASN
21	59	148	ASP
21	59	164	LEU
21	59	166	ASN
21	59	172	ARG
21	59	182	ASP
21	59	188	ASP
22	60	9	VAL
22	60	45	LEU
22	60	60	SER
22	60	105	THR
22	60	119	ARG
22	60	132	THR
22	60	155	ARG
22	60	160	THR
22	60	166	LYS
22	60	167	ARG
22	60	172	TYR
23	61	61	THR
23	61	75	ILE
23	61	82	ASN
23	61	83	ARG
23	61	92	ARG
23	61	94	GLU
23	61	99	SER
23	61	102	ARG
23	61	127	GLN
23	61	128	LEU
23	61	139	ARG
24	62	10	LYS
24	62	54	VAL
25	63	12	ARG

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Mol	Chain	Res	Type
25	63	14	SER
25	63	23	MET
25	63	28	ASN
25	63	33	ASN
25	63	54	LEU
25	63	74	MET
25	63	89	ASP
25	63	93	LEU
25	63	124	ASP
26	64	19	THR
26	64	26	SER
26	64	32	GLN
26	64	33	ASN
27	65	27	ARG
27	65	63	ILE
27	65	65	GLN
27	65	71	THR
27	65	115	ARG
27	65	119	THR
27	65	133	LEU
27	65	134	ASP
27	65	135	ILE
27	65	141	TYR
28	66	37	LYS
28	66	64	LYS
28	66	74	TYR
28	66	86	THR
28	66	87	LYS
28	66	100	HIS
28	66	126	LEU
29	67	17	ARG
29	67	48	ARG
29	67	81	LEU
29	67	134	LEU
30	68	10	LYS
30	68	27	LYS
30	68	44	ASN
30	68	46	ASP
30	68	59	ARG
30	68	60	TYR
30	68	78	LEU
30	68	82	ILE

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Mol	Chain	Res	Type
30	68	85	ASP
30	68	88	ASP
30	68	91	LEU
31	69	14	ARG
31	69	22	LYS
31	69	25	LYS
31	69	42	ASN
31	69	43	HIS
31	69	59	LYS
32	70	16	LEU
32	70	32	LYS
32	70	74	ASN
32	70	76	GLU
32	70	83	LYS
33	71	6	ASP
33	71	26	LYS
33	71	50	ARG
33	71	55	LEU
33	71	69	TYR
33	71	73	LEU
33	71	79	ARG
33	71	84	ASP
34	72	14	THR
34	72	33	ARG
34	72	47	ARG
34	72	62	LYS
34	72	75	LEU
34	72	81	ASP
34	72	95	GLU
34	72	104	ASN
34	72	128	LEU
35	73	40	ASP
35	73	57	LYS
35	73	60	ARG
35	73	78	SER
35	73	86	ARG
35	73	87	ASN
35	73	106	ASN
36	74	8	ARG
36	74	29	ILE
36	74	46	ASP
36	74	51	LEU

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Mol	Chain	Res	Type
36	74	58	ARG
36	74	59	PRO
37	75	15	GLU
37	75	27	GLU
37	75	36	LEU
37	75	71	LYS
37	75	79	ASP
37	75	81	ARG
37	75	86	ARG
37	75	107	LYS
37	75	119	LYS
38	76	45	ARG
38	76	53	TYR
38	76	57	LEU
38	76	60	LEU
38	76	98	ARG
38	76	99	ARG
39	77	14	LYS
39	77	25	ARG
39	77	39	TYR
39	77	49	TRP
39	77	65	ARG
39	77	80	THR
40	78	22	THR
40	78	38	PHE
40	78	57	ASN
40	78	64	LYS
40	78	69	LEU
40	78	77	ARG
41	79	5	LYS
41	79	21	ARG
41	79	23	LEU
41	79	47	THR
42	80	85	LEU
42	80	113	ARG
43	81	5	TRP
43	81	6	ARG
43	81	13	LEU
43	81	17	ARG
43	81	19	LYS
44	82	26	THR
44	82	29	LYS

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Mol	Chain	Res	Type
44	82	63	LYS
44	82	72	LEU
44	82	83	LEU
44	82	87	ARG
44	82	88	CYS
44	82	92	GLU
44	82	93	LEU
44	82	100	LYS
44	82	102	GLN
45	83	22	LEU
45	83	45	LYS
45	83	86	LEU
47	S0	10	THR
47	S0	27	ARG
47	S0	41	ARG
47	S0	84	ARG
47	S0	88	LYS
47	S0	110	TYR
47	S0	135	GLU
47	S0	164	ASN
47	S0	191	ARG
47	S0	195	TRP
48	S1	30	PHE
48	S1	41	ARG
48	S1	49	ASN
48	S1	61	LEU
48	S1	70	LEU
48	S1	79	HIS
48	S1	81	PHE
48	S1	96	LEU
48	S1	97	LEU
48	S1	105	PHE
48	S1	108	ASP
48	S1	111	ARG
48	S1	137	ILE
48	S1	144	ARG
48	S1	181	LEU
48	S1	206	PRO
48	S1	218	LEU
48	S1	223	PHE
49	S2	89	GLN
49	S2	99	LYS

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Mol	Chain	Res	Type
49	S2	106	ASP
49	S2	140	ARG
49	S2	148	LEU
49	S2	162	CYS
50	S3	7	LYS
50	S3	14	ASP
50	S3	62	ASN
50	S3	84	ILE
50	S3	92	GLN
50	S3	93	ASP
50	S3	105	MET
50	S3	158	ILE
50	S3	160	SER
50	S3	178	ARG
50	S3	190	ARG
50	S3	204	ASP
50	S3	208	ILE
50	S3	212	LYS
51	S4	6	LYS
51	S4	11	ARG
51	S4	38	LEU
51	S4	40	GLU
51	S4	77	ARG
51	S4	86	PHE
51	S4	104	ASP
51	S4	118	GLU
51	S4	158	ASP
51	S4	164	LEU
51	S4	182	TYR
51	S4	187	ARG
51	S4	197	HIS
51	S4	206	ASP
51	S4	208	VAL
51	S4	212	ASP
51	S4	215	ASP
51	S4	220	THR
51	S4	222	LEU
51	S4	240	LYS
51	S4	258	GLN
51	S4	259	GLN
52	S5	25	LEU
52	S5	42	LEU

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Mol	Chain	Res	Type
52	S5	48	PHE
52	S5	69	PHE
52	S5	86	GLN
52	S5	89	ILE
52	S5	91	GLU
52	S5	104	ASN
52	S5	156	ARG
52	S5	223	SER
53	S6	20	ASP
53	S6	45	PHE
53	S6	98	ARG
53	S6	105	ASP
53	S6	109	LEU
53	S6	120	GLU
53	S6	150	GLU
53	S6	155	ASP
53	S6	220	LYS
54	S7	11	GLN
54	S7	14	THR
54	S7	33	GLU
54	S7	80	GLU
54	S7	85	PHE
54	S7	114	ARG
54	S7	128	ASP
54	S7	143	LEU
54	S7	158	ASP
54	S7	163	ASP
54	S7	185	ILE
55	S8	8	ARG
55	S8	47	ARG
55	S8	92	ARG
55	S8	137	LYS
55	S8	138	ASN
55	S8	160	PHE
55	S8	165	LEU
55	S8	187	GLU
56	S9	3	ARG
56	S9	49	LEU
56	S9	58	ASP
56	S9	89	ASP
56	S9	92	LYS
56	S9	93	LEU

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Mol	Chain	Res	Type
56	S9	106	GLU
56	S9	133	HIS
56	S9	134	ILE
56	S9	138	LYS
56	S9	171	ARG
56	S9	182	GLU
57	10	8	ARG
57	10	32	HIS
57	10	33	GLU
57	10	46	LEU
57	10	56	LYS
57	10	63	TYR
57	10	93	GLN
58	11	7	VAL
58	11	67	ARG
58	11	69	LYS
58	11	80	MET
58	11	121	ASP
58	11	129	ARG
58	11	138	ASN
58	11	152	GLN
58	11	155	LYS
59	12	28	LEU
59	12	38	HIS
59	12	59	LEU
59	12	71	ILE
59	12	89	ILE
59	12	93	ASP
59	12	103	LEU
59	12	105	LYS
59	12	108	ARG
59	12	113	ARG
59	12	132	GLU
59	12	143	GLN
60	13	3	ARG
60	13	9	LYS
60	13	27	LYS
60	13	39	LYS
60	13	50	ILE
60	13	56	ASP
60	13	58	HIS
60	13	64	ARG

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Mol	Chain	Res	Type
60	13	76	LYS
60	13	83	GLU
60	13	87	ASP
60	13	99	ARG
60	13	149	LEU
61	14	33	LEU
61	14	107	ARG
61	14	137	LEU
62	15	8	LYS
62	15	12	PHE
62	15	22	LEU
62	15	44	ARG
62	15	71	GLU
62	15	88	GLU
62	15	96	ILE
62	15	97	TYR
63	16	41	PRO
63	16	63	ILE
63	16	79	TYR
63	16	113	ASP
63	16	117	LEU
63	16	137	ARG
64	17	29	GLN
64	17	46	LEU
64	17	49	LYS
64	17	53	TYR
64	17	56	HIS
64	17	69	ILE
64	17	72	LYS
64	17	78	ARG
64	17	79	GLU
64	17	95	ARG
64	17	97	ASN
64	17	111	LYS
64	17	115	LEU
64	17	117	LEU
64	17	119	LEU
65	18	3	LEU
65	18	15	LEU
65	18	17	LEU
65	18	25	ASN
65	18	28	ILE

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Mol	Chain	Res	Type
65	18	61	LEU
65	18	92	ILE
65	18	139	LYS
65	18	140	THR
66	19	6	VAL
66	19	13	ASP
66	19	22	LEU
66	19	28	LEU
66	19	33	TYR
66	19	64	HIS
66	19	70	GLN
66	19	99	SER
66	19	127	ASN
66	19	130	ARG
66	19	131	ASP
66	19	143	ASP
67	20	33	GLN
67	20	35	GLU
67	20	46	GLU
67	20	48	HIS
67	20	61	LYS
67	20	83	GLU
67	20	89	ARG
67	20	90	TYR
67	20	113	ASP
68	21	5	LYS
68	21	11	LEU
68	21	78	LEU
68	21	80	LYS
69	22	23	ARG
69	22	37	PHE
69	22	53	ILE
69	22	54	ASP
69	22	55	ASP
69	22	65	LEU
69	22	93	LEU
69	22	103	ILE
69	22	104	LEU
70	23	7	ARG
70	23	9	LEU
70	23	19	ARG
70	23	24	TRP

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Mol	Chain	Res	Type
70	23	28	ASN
70	23	33	LEU
70	23	55	GLU
70	23	75	GLN
70	23	76	LEU
70	23	82	LYS
70	23	94	ASN
70	23	114	LYS
70	23	144	ARG
71	24	32	ARG
71	24	34	ASN
71	24	99	LYS
71	24	102	LYS
71	24	124	ARG
72	25	40	VAL
72	25	42	LEU
72	25	57	TYR
72	25	60	VAL
72	25	67	ASP
72	25	68	ARG
72	25	69	LEU
72	25	85	LYS
72	25	96	SER
72	25	98	GLN
72	25	100	ILE
73	26	12	LYS
73	26	19	LYS
73	26	41	ILE
73	26	52	ASP
73	26	53	LEU
73	26	64	LEU
73	26	85	ARG
73	26	90	GLU
74	27	33	LEU
75	28	19	THR
75	28	32	PHE
75	28	52	ASP
76	29	30	LEU
77	30	35	TYR
77	30	42	ARG
77	30	46	ASN
77	30	48	THR

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Mol	Chain	Res	Type
78	31	105	TYR
78	31	113	LYS
78	31	120	GLU
78	31	138	ARG
78	31	145	HIS
79	RA	50	ASP
79	RA	70	ASP
79	RA	76	ASP
79	RA	117	LYS
79	RA	136	ILE
79	RA	141	LEU
79	RA	161	LYS
79	RA	163	ASP
79	RA	164	ASP
79	RA	165	ASP
79	RA	175	ASP
79	RA	182	ASN
79	RA	187	GLN
79	RA	191	ASP
79	RA	207	ASP
79	RA	217	ASP
79	RA	245	PHE
79	RA	269	TYR
79	RA	313	TRP
79	RA	317	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (263) such sidechains are listed below:

Mol	Chain	Res	Type
4	L1	44	GLN
4	L1	57	ASN
4	L1	62	ASN
4	L1	94	ASN
4	L1	108	ASN
4	L1	127	GLN
4	L1	181	ASN
4	L1	182	GLN
4	L1	197	ASN
5	L2	8	GLN
5	L2	38	HIS
5	L2	47	GLN
5	L2	50	HIS

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Mol	Chain	Res	Type
5	L2	86	GLN
5	L2	132	ASN
5	L2	140	ASN
5	L2	194	ASN
5	L2	205	ASN
5	L2	211	HIS
5	L2	233	GLN
5	L2	250	GLN
5	L2	253	GLN
6	L3	11	HIS
6	L3	163	HIS
6	L3	173	GLN
6	L3	184	ASN
6	L3	211	GLN
6	L3	243	HIS
6	L3	256	HIS
6	L3	269	GLN
6	L3	313	HIS
7	L4	45	ASN
7	L4	59	GLN
7	L4	110	ASN
7	L4	114	ASN
7	L4	116	ASN
7	L4	213	ASN
7	L4	221	ASN
7	L4	260	GLN
7	L4	291	ASN
7	L4	307	GLN
7	L4	316	ASN
7	L4	328	ASN
8	L5	40	HIS
8	L5	57	ASN
8	L5	63	GLN
8	L5	111	GLN
8	L5	264	GLN
9	L6	28	GLN
9	L6	167	ASN
10	L7	25	GLN
10	L7	112	ASN
10	L7	146	GLN
10	L7	172	ASN
10	L7	186	HIS

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Mol	Chain	Res	Type
10	L7	244	ASN
11	L8	38	GLN
11	L8	95	ASN
11	L8	138	HIS
12	L9	49	ASN
12	L9	50	ASN
12	L9	58	HIS
12	L9	64	HIS
12	L9	77	ASN
12	L9	157	ASN
12	L9	163	GLN
13	50	12	GLN
13	50	14	ASN
13	50	23	ASN
13	50	86	HIS
13	50	220	GLN
14	51	43	GLN
14	51	101	ASN
14	51	152	HIS
15	53	6	ASN
15	53	28	GLN
15	53	37	ASN
15	53	102	GLN
15	53	103	ASN
15	53	112	ASN
16	54	119	GLN
17	55	57	GLN
17	55	86	ASN
17	55	87	GLN
17	55	139	HIS
17	55	158	HIS
17	55	181	ASN
18	56	31	GLN
18	56	50	ASN
18	56	55	HIS
18	56	72	HIS
18	56	122	GLN
18	56	193	GLN
19	57	28	ASN
19	57	120	ASN
20	58	45	ASN
20	58	58	ASN

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Mol	Chain	Res	Type
20	58	145	ASN
21	59	34	GLN
21	59	66	HIS
21	59	130	ASN
21	59	166	ASN
21	59	175	GLN
22	60	46	GLN
22	60	63	GLN
22	60	108	GLN
22	60	114	HIS
22	60	142	GLN
22	60	154	HIS
23	61	22	HIS
23	61	54	HIS
23	61	58	GLN
23	61	66	ASN
23	61	112	ASN
23	61	134	GLN
25	63	28	ASN
25	63	33	ASN
25	63	81	GLN
25	63	132	ASN
26	64	32	GLN
27	65	91	ASN
27	65	117	ASN
28	66	26	GLN
29	67	57	HIS
29	67	122	HIS
30	68	11	HIS
30	68	28	HIS
30	68	39	HIS
30	68	44	ASN
30	68	74	ASN
31	69	42	ASN
31	69	43	HIS
33	71	15	ASN
34	72	35	GLN
34	72	104	ASN
35	73	24	ASN
35	73	42	GLN
35	73	77	ASN
35	73	87	ASN

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Mol	Chain	Res	Type
35	73	88	ASN
36	74	3	GLN
36	74	61	GLN
37	75	62	GLN
37	75	68	GLN
38	76	63	ASN
38	76	91	ASN
38	76	100	HIS
40	78	10	GLN
40	78	28	ASN
41	79	4	GLN
41	79	11	GLN
41	79	32	ASN
41	79	33	ASN
41	79	50	ASN
42	80	90	ASN
42	80	109	ASN
42	80	119	ASN
44	82	22	GLN
44	82	23	HIS
44	82	47	GLN
44	82	82	GLN
44	82	99	GLN
45	83	32	GLN
45	83	34	HIS
47	S0	32	HIS
47	S0	83	GLN
47	S0	163	ASN
48	S1	146	GLN
48	S1	149	GLN
48	S1	160	HIS
48	S1	177	GLN
48	S1	183	GLN
48	S1	194	ASN
49	S2	89	GLN
49	S2	199	GLN
49	S2	220	ASN
50	S3	92	GLN
51	S4	50	ASN
51	S4	201	HIS
51	S4	209	HIS
51	S4	216	ASN

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Mol	Chain	Res	Type
51	S4	223	ASN
51	S4	259	GLN
52	S5	79	ASN
52	S5	95	ASN
52	S5	103	ASN
52	S5	104	ASN
52	S5	122	ASN
52	S5	200	ASN
52	S5	224	ASN
53	S6	10	ASN
53	S6	13	GLN
53	S6	56	ASN
53	S6	59	GLN
53	S6	140	ASN
53	S6	176	GLN
54	S7	22	GLN
54	S7	110	GLN
54	S7	147	ASN
54	S7	180	GLN
55	S8	20	GLN
55	S8	32	GLN
55	S8	64	ASN
55	S8	175	GLN
56	S9	112	GLN
56	S9	139	GLN
57	10	85	HIS
57	10	96	ASN
58	11	37	ASN
59	12	125	ASN
60	13	62	GLN
61	14	80	HIS
62	15	79	HIS
62	15	104	GLN
63	16	93	HIS
64	17	29	GLN
64	17	56	HIS
64	17	62	GLN
64	17	83	GLN
65	18	25	ASN
65	18	55	HIS
65	18	74	GLN
65	18	75	ASN

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Mol	Chain	Res	Type
65	18	99	HIS
65	18	104	ASN
65	18	127	HIS
65	18	136	GLN
66	19	12	GLN
66	19	25	GLN
66	19	43	ASN
66	19	77	ASN
66	19	138	GLN
67	20	18	GLN
67	20	98	GLN
68	21	7	GLN
68	21	21	ASN
68	21	74	GLN
69	22	15	ASN
69	22	16	ASN
69	22	42	GLN
69	22	64	GLN
69	22	80	ASN
69	22	92	ASN
70	23	21	ASN
70	23	22	ASN
70	23	75	GLN
70	23	89	ASN
71	24	77	ASN
71	24	106	GLN
71	24	113	ASN
73	26	8	ASN
74	27	19	HIS
75	28	43	ASN
77	30	5	HIS
78	31	145	HIS
79	RA	17	ASN
79	RA	29	GLN
79	RA	159	ASN
79	RA	174	ASN
79	RA	182	ASN
79	RA	195	HIS
79	RA	237	GLN
79	RA	299	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2S	3304/3395 (97%)	521 (15%)	26 (0%)
2	8S	157/158 (99%)	22 (14%)	1 (0%)
3	5S	120/121 (99%)	10 (8%)	0
46	1S	1779/1798 (98%)	332 (18%)	21 (1%)
80	IR	0/201	-	-
All	All	5360/5673 (94%)	885 (16%)	48 (0%)

All (885) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2S	21	G
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	74	G
1	2S	77	A
1	2S	92	G
1	2S	110	G
1	2S	111	C
1	2S	113	C
1	2S	116	A
1	2S	117	U
1	2S	121	A
1	2S	122	A
1	2S	123	A
1	2S	124	U
1	2S	133	U
1	2S	135	C
1	2S	136	G
1	2S	148	G
1	2S	156	G
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	200	C
1	2S	206	G

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Mol	Chain	Res	Type
1	2S	210	U
1	2S	218	G
1	2S	219	A
1	2S	221	A
1	2S	243	G
1	2S	250	U
1	2S	252	U
1	2S	263	C
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	339	C
1	2S	346	C
1	2S	350	C
1	2S	370	U
1	2S	375	A
1	2S	376	G
1	2S	378	A
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	451	U
1	2S	491	A
1	2S	494	G
1	2S	495	G
1	2S	517	G
1	2S	520	U
1	2S	521	A

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Mol	Chain	Res	Type
1	2S	535	G
1	2S	543	C
1	2S	546	C
1	2S	552	G
1	2S	556	U
1	2S	557	A
1	2S	559	A
1	2S	569	A
1	2S	578	A
1	2S	579	G
1	2S	588	G
1	2S	589	A
1	2S	592	A
1	2S	597	G
1	2S	609	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
1	2S	649	A
1	2S	659	G
1	2S	677	A
1	2S	681	U
1	2S	705	A
1	2S	708	G
1	2S	719	U
1	2S	726	G
1	2S	765	C
1	2S	766	U
1	2S	767	U
1	2S	776	U
1	2S	777	U
1	2S	781	G
1	2S	785	G
1	2S	786	A
1	2S	806	A
1	2S	808	A
1	2S	817	A
1	2S	830	A
1	2S	849	C

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Mol	Chain	Res	Type
1	2S	857	G
1	2S	861	C
1	2S	874	U
1	2S	875	G
1	2S	879	U
1	2S	880	G
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	920	A
1	2S	921	A
1	2S	923	C
1	2S	924	G
1	2S	932	U
1	2S	937	G
1	2S	938	C
1	2S	944	C
1	2S	959	C
1	2S	979	U
1	2S	981	U
1	2S	984	G
1	2S	993	G
1	2S	995	U
1	2S	1000	C
1	2S	1002	A
1	2S	1010	G
1	2S	1013	G
1	2S	1015	U
1	2S	1020	G
1	2S	1024	G
1	2S	1047	A
1	2S	1049	C
1	2S	1064	A
1	2S	1075	A
1	2S	1081	U
1	2S	1093	A
1	2S	1094	U
1	2S	1095	U
1	2S	1096	U

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Mol	Chain	Res	Type
1	2S	1097	G
1	2S	1098	A
1	2S	1103	A
1	2S	1104	G
1	2S	1117	G
1	2S	1131	G
1	2S	1143	A
1	2S	1144	U
1	2S	1159	A
1	2S	1172	G
1	2S	1177	G
1	2S	1178	G
1	2S	1180	A
1	2S	1181	U
1	2S	1186	G
1	2S	1192	C
1	2S	1201	C
1	2S	1221	A
1	2S	1222	G
1	2S	1235	U
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	1254	C
1	2S	1263	A
1	2S	1264	G
1	2S	1301	A
1	2S	1308	A
1	2S	1309	U
1	2S	1318	A
1	2S	1330	A
1	2S	1348	U
1	2S	1349	G
1	2S	1350	A
1	2S	1351	U
1	2S	1352	A
1	2S	1353	U

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Mol	Chain	Res	Type
1	2S	1355	A
1	2S	1357	G
1	2S	1367	G
1	2S	1386	A
1	2S	1387	G
1	2S	1391	C
1	2S	1392	G
1	2S	1399	A
1	2S	1400	G
1	2S	1419	A
1	2S	1431	G
1	2S	1434	G
1	2S	1437	C
1	2S	1446	A
1	2S	1452	A
1	2S	1477	A
1	2S	1481	A
1	2S	1482	A
1	2S	1484	U
1	2S	1496	C
1	2S	1505	C
1	2S	1508	C
1	2S	1527	C
1	2S	1539	A
1	2S	1556	C
1	2S	1557	A
1	2S	1563	C
1	2S	1567	U
1	2S	1569	U
1	2S	1572	U
1	2S	1576	G
1	2S	1582	C
1	2S	1583	A
1	2S	1587	A
1	2S	1589	A
1	2S	1607	U
1	2S	1629	U
1	2S	1642	A
1	2S	1643	A
1	2S	1645	U
1	2S	1655	G
1	2S	1658	G

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Mol	Chain	Res	Type
1	2S	1688	U
1	2S	1717	U
1	2S	1724	U
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	1780	G
1	2S	1797	A
1	2S	1816	A
1	2S	1817	G
1	2S	1821	U
1	2S	1835	A
1	2S	1839	A
1	2S	1841	A
1	2S	1842	A
1	2S	1845	G
1	2S	1847	A
1	2S	1848	G
1	2S	1849	C
1	2S	1850	A
1	2S	1854	C
1	2S	1866	C
1	2S	1879	A
1	2S	1886	A
1	2S	1893	A
1	2S	1895	A
1	2S	1904	C
1	2S	1906	G
1	2S	1910	A
1	2S	1927	G
1	2S	1931	U
1	2S	1952	G
1	2S	1953	G
1	2S	1954	G
1	2S	1965	C
1	2S	1967	U
1	2S	1980	C
1	2S	2045	G

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Mol	Chain	Res	Type
1	2S	2059	U
1	2S	2067	U
1	2S	2085	U
1	2S	2095	G
1	2S	2101	C
1	2S	2102	U
1	2S	2107	A
1	2S	2111	G
1	2S	2112	U
1	2S	2113	A
1	2S	2121	G
1	2S	2122	G
1	2S	2131	A
1	2S	2140	U
1	2S	2142	A
1	2S	2144	A
1	2S	2158	A
1	2S	2169	G
1	2S	2178	A
1	2S	2188	A
1	2S	2205	U
1	2S	2209	U
1	2S	2244	A
1	2S	2249	G
1	2S	2250	G
1	2S	2252	A
1	2S	2255	A
1	2S	2256	A
1	2S	2273	G
1	2S	2281	A
1	2S	2282	U
1	2S	2288	G
1	2S	2298	U
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	2325	G
1	2S	2335	G

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Mol	Chain	Res	Type
1	2S	2336	U
1	2S	2339	C
1	2S	2361	A
1	2S	2365	C
1	2S	2373	A
1	2S	2374	C
1	2S	2375	G
1	2S	2377	G
1	2S	2385	G
1	2S	2397	A
1	2S	2398	A
1	2S	2402	A
1	2S	2403	G
1	2S	2411	U
1	2S	2412	G
1	2S	2418	G
1	2S	2434	U
1	2S	2443	A
1	2S	2458	A
1	2S	2459	A
1	2S	2461	A
1	2S	2463	G
1	2S	2468	A
1	2S	2472	U
1	2S	2474	G
1	2S	2475	G
1	2S	2484	A
1	2S	2486	A
1	2S	2488	A
1	2S	2490	C
1	2S	2493	U
1	2S	2494	A
1	2S	2502	A
1	2S	2503	G
1	2S	2511	A
1	2S	2514	U
1	2S	2522	G
1	2S	2523	A
1	2S	2524	A
1	2S	2526	C
1	2S	2531	C
1	2S	2533	G

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Mol	Chain	Res	Type
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	2554	A
1	2S	2558	U
1	2S	2559	U
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	2580	A
1	2S	2585	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	2638	C
1	2S	2648	G
1	2S	2652	U
1	2S	2656	A
1	2S	2674	A
1	2S	2677	G
1	2S	2681	U
1	2S	2689	A
1	2S	2691	A
1	2S	2694	A
1	2S	2696	A
1	2S	2714	G
1	2S	2728	G
1	2S	2729	U
1	2S	2740	A
1	2S	2753	G
1	2S	2755	C
1	2S	2762	A

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Mol	Chain	Res	Type
1	2S	2772	C
1	2S	2777	G
1	2S	2779	A
1	2S	2788	C
1	2S	2796	G
1	2S	2797	C
1	2S	2800	G
1	2S	2801	A
1	2S	2804	A
1	2S	2810	C
1	2S	2816	G
1	2S	2817	A
1	2S	2818	U
1	2S	2842	U
1	2S	2844	C
1	2S	2845	A
1	2S	2859	U
1	2S	2860	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	2899	C
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	2951	G
1	2S	2955	U
1	2S	2983	C
1	2S	2997	G
1	2S	3006	A
1	2S	3012	A
1	2S	3049	A
1	2S	3055	U
1	2S	3057	U
1	2S	3078	U
1	2S	3086	A

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Mol	Chain	Res	Type
1	2S	3092	C
1	2S	3094	A
1	2S	3109	G
1	2S	3116	G
1	2S	3122	A
1	2S	3128	G
1	2S	3130	A
1	2S	3131	U
1	2S	3135	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	3165	A
1	2S	3168	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	3206	C
1	2S	3207	U
1	2S	3215	A
1	2S	3217	C
1	2S	3218	A
1	2S	3219	G
1	2S	3229	G
1	2S	3245	A
1	2S	3246	G
1	2S	3247	G
1	2S	3253	G
1	2S	3259	U
1	2S	3270	U
1	2S	3273	A
1	2S	3274	A
1	2S	3276	G
1	2S	3279	A
1	2S	3281	U

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Mol	Chain	Res	Type
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	3335	A
1	2S	3341	U
1	2S	3345	G
1	2S	3347	A
1	2S	3351	U
1	2S	3352	U
1	2S	3354	U
1	2S	3355	U
1	2S	3356	G
1	2S	3361	G
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
1	2S	3396	U
2	8S	23	U
2	8S	34	U
2	8S	35	C
2	8S	38	U
2	8S	59	A
2	8S	62	C
2	8S	63	G
2	8S	80	A
2	8S	86	U
2	8S	87	G
2	8S	90	U
2	8S	95	G
2	8S	102	U
2	8S	105	A
2	8S	106	C
2	8S	111	A

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Mol	Chain	Res	Type
2	8S	113	U
2	8S	125	U
2	8S	126	A
2	8S	148	G
2	8S	151	C
2	8S	152	G
3	5S	13	A
3	5S	22	A
3	5S	54	U
3	5S	65	G
3	5S	76	A
3	5S	86	U
3	5S	93	C
3	5S	102	A
3	5S	112	G
3	5S	121	U
46	1S	2	A
46	1S	25	C
46	1S	26	A
46	1S	34	G
46	1S	42	G
46	1S	43	A
46	1S	47	A
46	1S	57	G
46	1S	68	A
46	1S	69	G
46	1S	72	A
46	1S	73	U
46	1S	76	A
46	1S	77	U
46	1S	104	A
46	1S	114	C
46	1S	116	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	142	G

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Mol	Chain	Res	Type
46	1S	145	A
46	1S	153	G
46	1S	159	U
46	1S	166	C
46	1S	178	U
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	216	U
46	1S	218	A
46	1S	219	A
46	1S	228	G
46	1S	231	U
46	1S	233	C
46	1S	234	G
46	1S	238	U
46	1S	239	C
46	1S	240	U
46	1S	241	U
46	1S	242	U
46	1S	250	C
46	1S	261	U
46	1S	265	A
46	1S	272	U
46	1S	278	U
46	1S	280	U
46	1S	288	A
46	1S	299	A
46	1S	302	U
46	1S	316	A
46	1S	320	U
46	1S	321	C
46	1S	322	G
46	1S	337	G
46	1S	338	C
46	1S	350	U
46	1S	352	A

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Mol	Chain	Res	Type
46	1S	359	A
46	1S	360	A
46	1S	361	C
46	1S	387	A
46	1S	388	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	445	A
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
46	1S	499	U
46	1S	502	U
46	1S	503	G
46	1S	504	U
46	1S	505	A
46	1S	506	A
46	1S	510	G
46	1S	515	A
46	1S	532	U
46	1S	536	C
46	1S	539	G
46	1S	541	A
46	1S	542	A
46	1S	545	A
46	1S	555	A
46	1S	556	A

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Mol	Chain	Res	Type
46	1S	557	G
46	1S	558	U
46	1S	559	C
46	1S	565	C
46	1S	577	G
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	619	A
46	1S	620	A
46	1S	622	A
46	1S	624	G
46	1S	639	U
46	1S	650	U
46	1S	655	G
46	1S	656	G
46	1S	677	G
46	1S	684	A
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	702	G
46	1S	703	G
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	713	A
46	1S	718	U
46	1S	719	U
46	1S	723	G
46	1S	725	U
46	1S	728	U
46	1S	731	C

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Mol	Chain	Res	Type
46	1S	734	A
46	1S	735	C
46	1S	737	A
46	1S	738	G
46	1S	742	U
46	1S	755	A
46	1S	758	U
46	1S	759	U
46	1S	765	G
46	1S	766	U
46	1S	774	A
46	1S	778	G
46	1S	781	U
46	1S	782	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	813	U
46	1S	815	G
46	1S	820	U
46	1S	821	U
46	1S	823	G
46	1S	830	U
46	1S	831	U
46	1S	846	G
46	1S	856	A
46	1S	863	A
46	1S	876	G
46	1S	898	A
46	1S	904	G
46	1S	912	U
46	1S	913	G
46	1S	914	G
46	1S	915	A
46	1S	926	A
46	1S	933	A
46	1S	935	U
46	1S	944	A
46	1S	966	A

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Mol	Chain	Res	Type
46	1S	982	U
46	1S	992	A
46	1S	993	A
46	1S	996	U
46	1S	1004	U
46	1S	1005	A
46	1S	1007	C
46	1S	1021	C
46	1S	1026	A
46	1S	1028	C
46	1S	1029	U
46	1S	1032	G
46	1S	1043	A
46	1S	1052	U
46	1S	1053	G
46	1S	1058	U
46	1S	1059	U
46	1S	1060	U
46	1S	1061	A
46	1S	1072	C
46	1S	1074	G
46	1S	1082	C
46	1S	1091	A
46	1S	1092	A
46	1S	1093	A
46	1S	1096	C
46	1S	1097	U
46	1S	1098	U
46	1S	1100	G
46	1S	1138	A
46	1S	1150	G
46	1S	1151	A
46	1S	1157	A
46	1S	1158	C
46	1S	1160	A
46	1S	1163	A
46	1S	1167	G
46	1S	1185	U
46	1S	1194	A
46	1S	1196	A
46	1S	1199	G
46	1S	1200	G

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Mol	Chain	Res	Type
46	1S	1202	A
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	1243	G
46	1S	1244	A
46	1S	1245	G
46	1S	1246	C
46	1S	1265	G
46	1S	1274	C
46	1S	1275	A
46	1S	1284	C
46	1S	1314	U
46	1S	1321	A
46	1S	1337	A
46	1S	1340	U
46	1S	1344	A
46	1S	1345	A
46	1S	1347	U
46	1S	1361	U
46	1S	1362	U
46	1S	1363	U
46	1S	1370	U
46	1S	1371	A
46	1S	1390	U
46	1S	1395	G
46	1S	1398	U
46	1S	1399	C
46	1S	1413	U
46	1S	1415	U
46	1S	1418	G
46	1S	1426	C
46	1S	1427	A
46	1S	1428	G
46	1S	1446	A
46	1S	1448	G
46	1S	1457	C
46	1S	1459	C
46	1S	1471	A

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Mol	Chain	Res	Type
46	1S	1473	U
46	1S	1474	G
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	1515	A
46	1S	1516	A
46	1S	1523	G
46	1S	1524	A
46	1S	1535	U
46	1S	1536	G
46	1S	1537	C
46	1S	1538	U
46	1S	1540	G
46	1S	1557	U
46	1S	1559	A
46	1S	1573	A
46	1S	1574	G
46	1S	1584	G
46	1S	1601	G
46	1S	1614	A
46	1S	1616	G
46	1S	1631	A
46	1S	1634	C
46	1S	1657	U
46	1S	1658	G
46	1S	1683	C
46	1S	1684	U
46	1S	1686	C
46	1S	1687	U
46	1S	1690	G
46	1S	1697	G
46	1S	1700	C
46	1S	1702	A
46	1S	1712	A
46	1S	1713	G
46	1S	1715	G
46	1S	1716	C

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Mol	Chain	Res	Type
46	1S	1755	A
46	1S	1762	A
46	1S	1765	A
46	1S	1769	U
46	1S	1780	G
46	1S	1782	A
46	1S	1789	G
46	1S	1792	G
46	1S	1793	G
46	1S	1794	A
46	1S	1795	U
46	1S	1796	C

All (48) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2S	169	U
1	2S	282	G
1	2S	588	G
1	2S	637	C
1	2S	896	A
1	2S	1103	A
1	2S	1144	U
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	2249	G
1	2S	2492	C
1	2S	2501	U
1	2S	2513	U
1	2S	2525	G
1	2S	2541	U
1	2S	3121	U
1	2S	3218	A
1	2S	3228	C
1	2S	3317	U
1	2S	3351	U

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Mol	Chain	Res	Type
2	8S	85	G
46	1S	25	C
46	1S	103	A
46	1S	139	C
46	1S	240	U
46	1S	417	A
46	1S	498	G
46	1S	501	U
46	1S	503	G
46	1S	555	A
46	1S	704	C
46	1S	794	U
46	1S	829	A
46	1S	830	U
46	1S	1051	G
46	1S	1344	A
46	1S	1370	U
46	1S	1481	C
46	1S	1573	A
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 monosaccharides 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

There are no chain breaks in this entry.

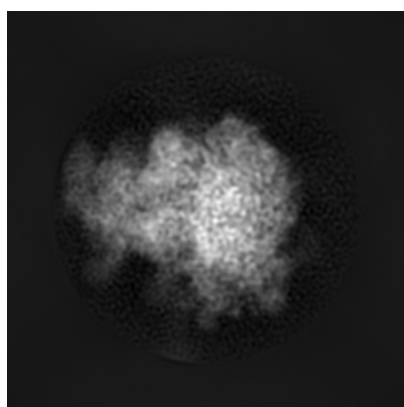
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-5943. These allow visual inspection of the internal detail of the map and identification of artifacts.

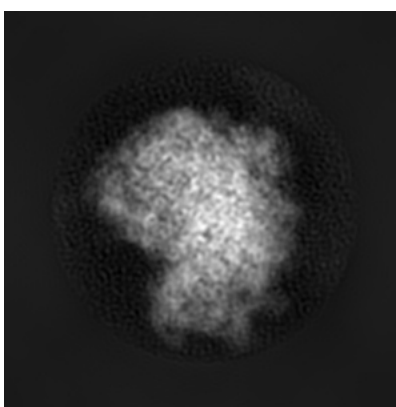
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

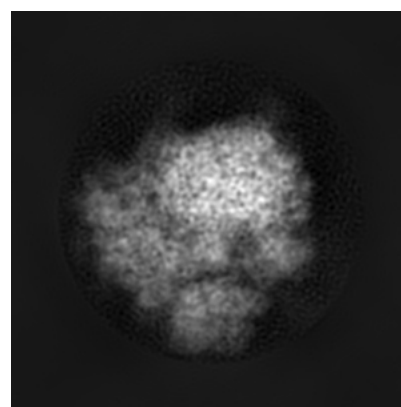
6.1.1 Primary map



X



Y

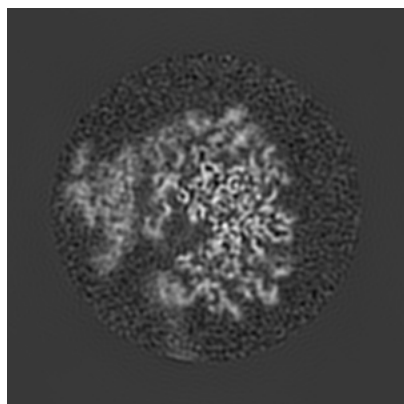


Z

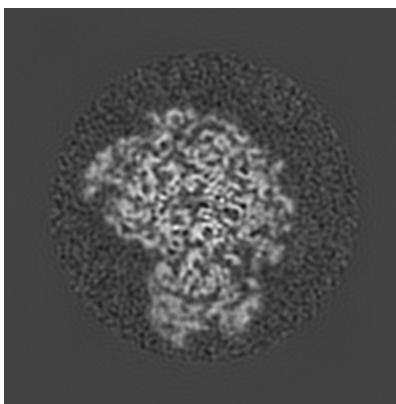
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

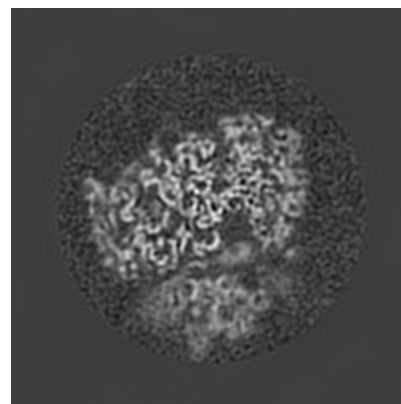
6.2.1 Primary map



X Index: 210



Y Index: 210

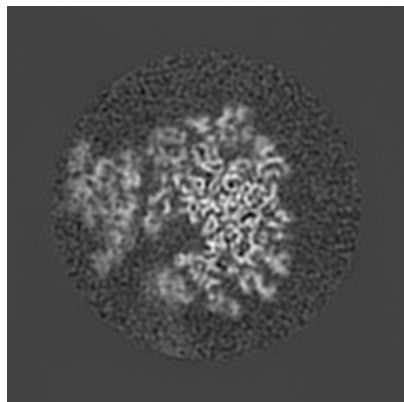


Z Index: 210

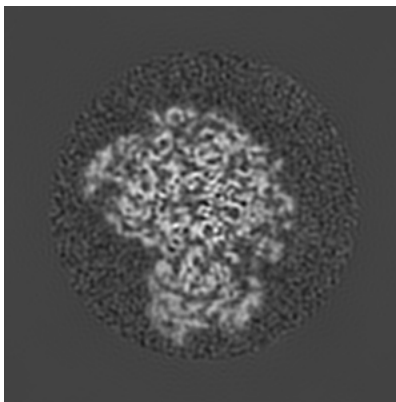
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

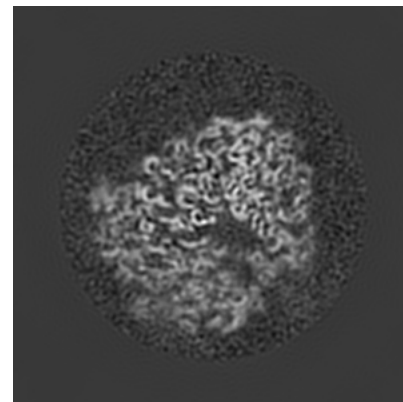
6.3.1 Primary map



X Index: 206



Y Index: 209

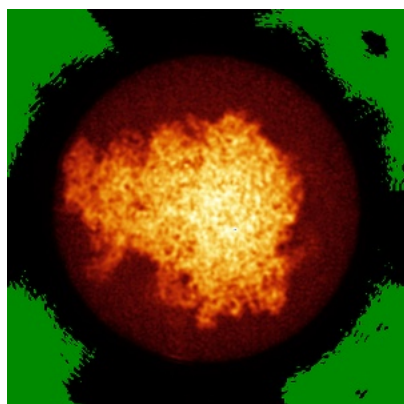


Z Index: 199

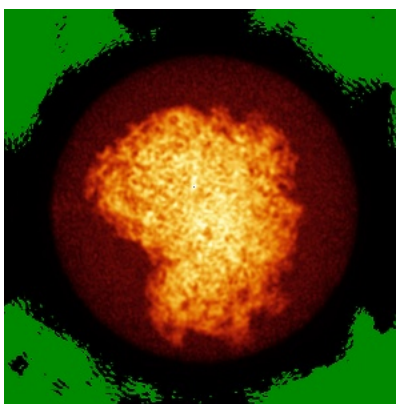
The images above show the largest variance slices of the map in three orthogonal directions.

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

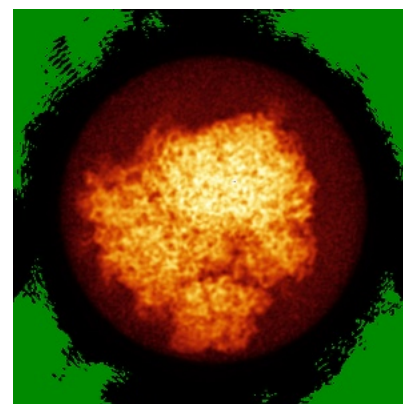
6.4.1 Primary map



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.

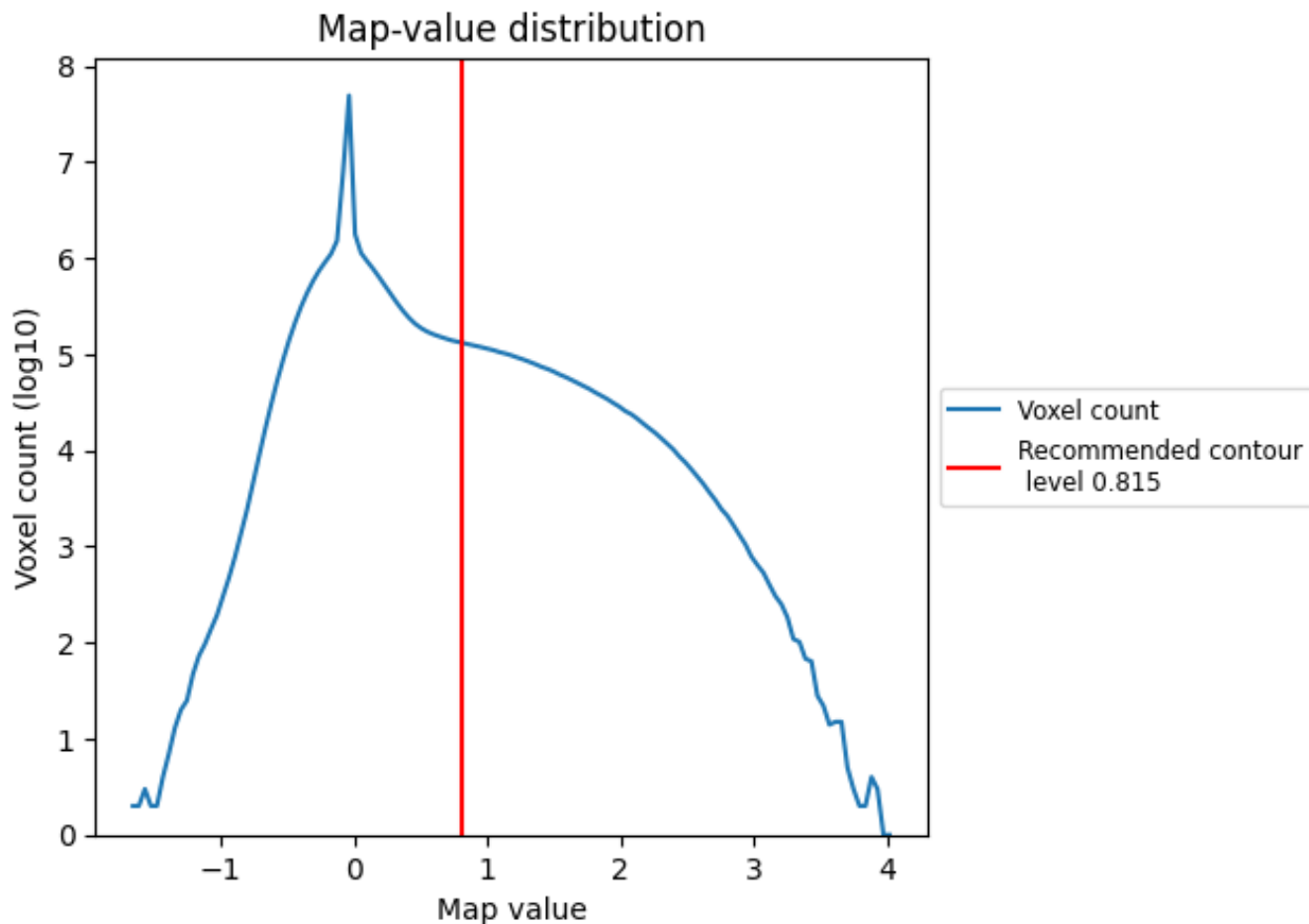
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

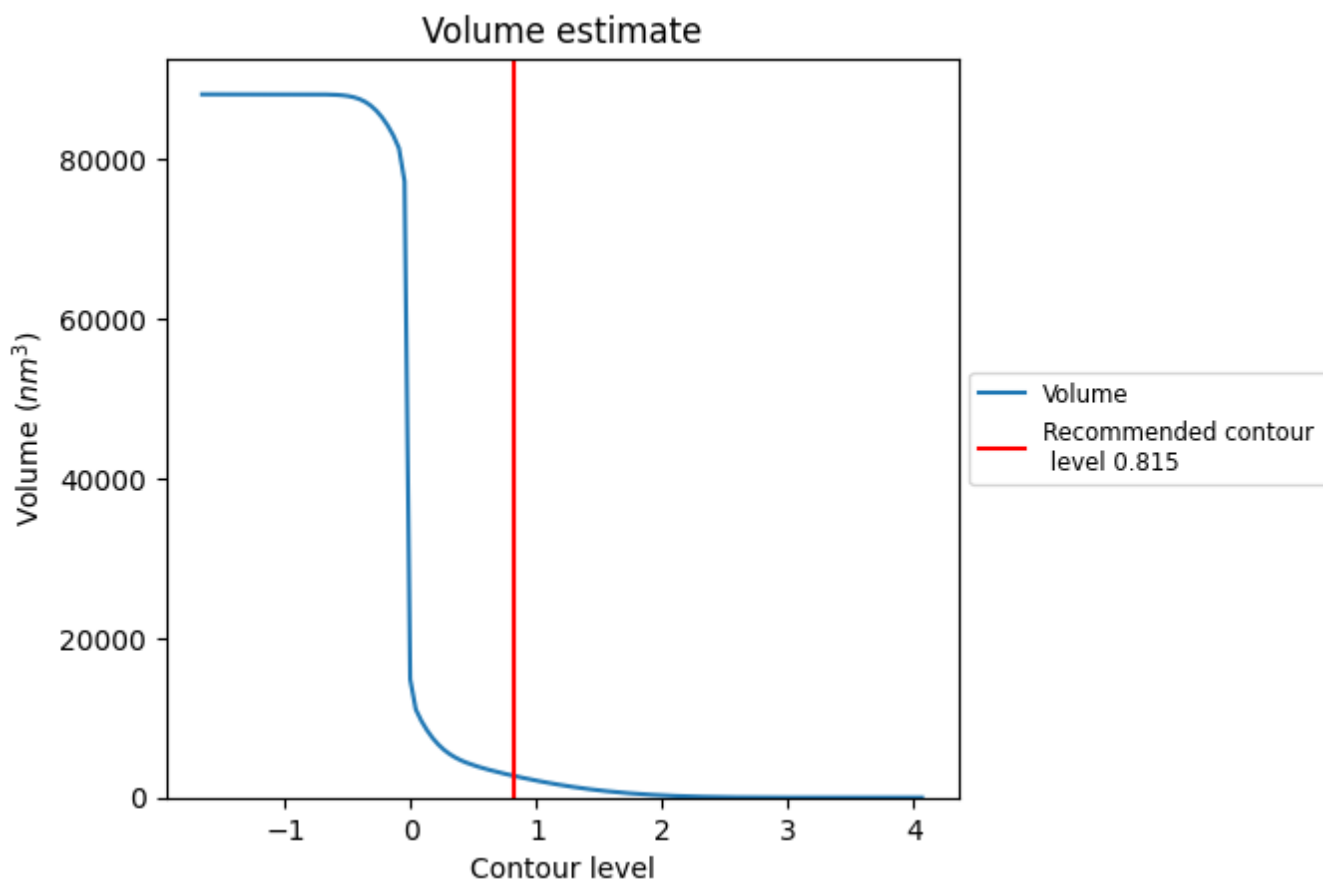
This section contains the results of statistical analysis of the map.

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.

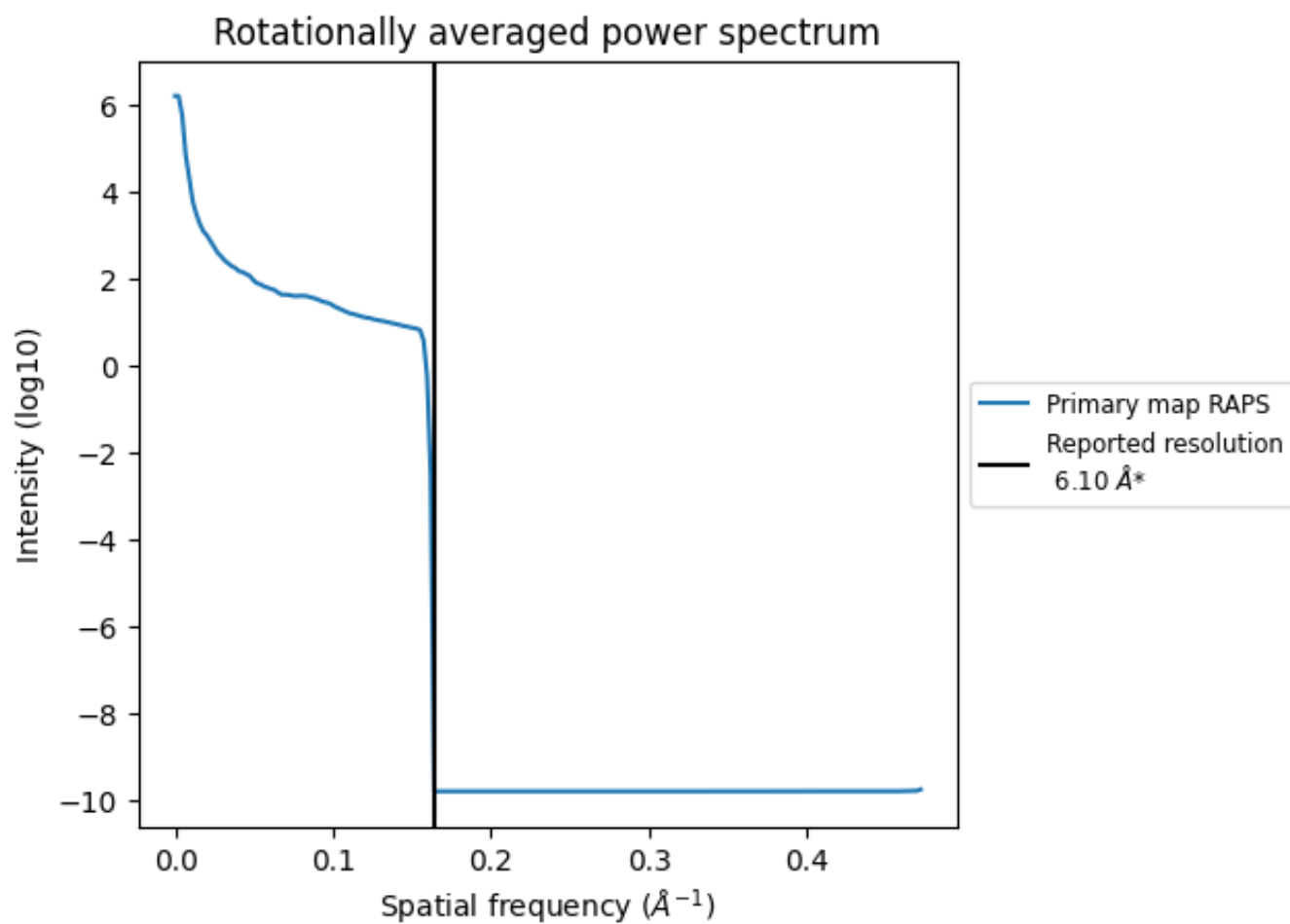
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 2733 nm³; this corresponds to an approximate mass of 2468 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 i



*Reported resolution corresponds to spatial frequency of 0.164 Å⁻¹

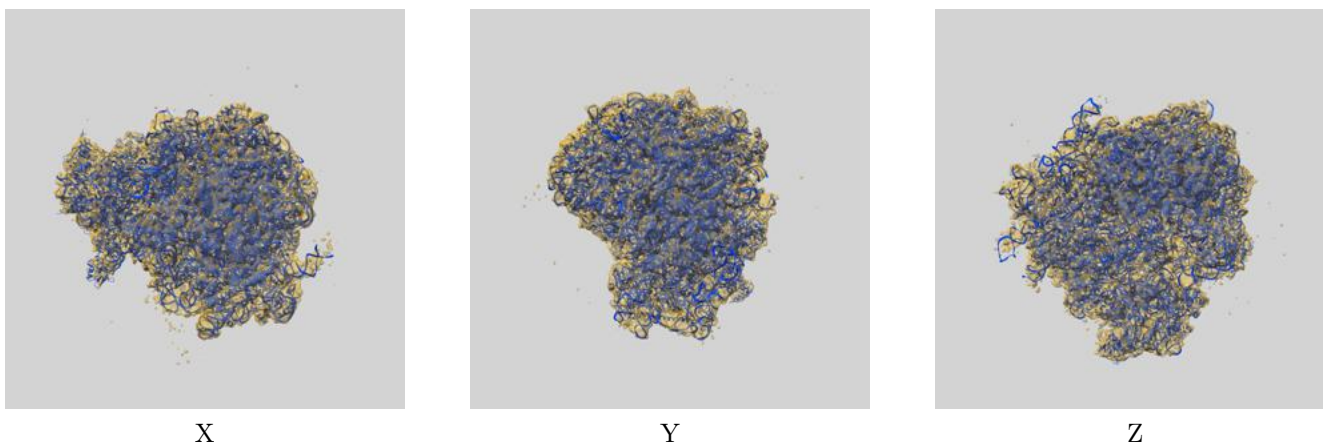
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

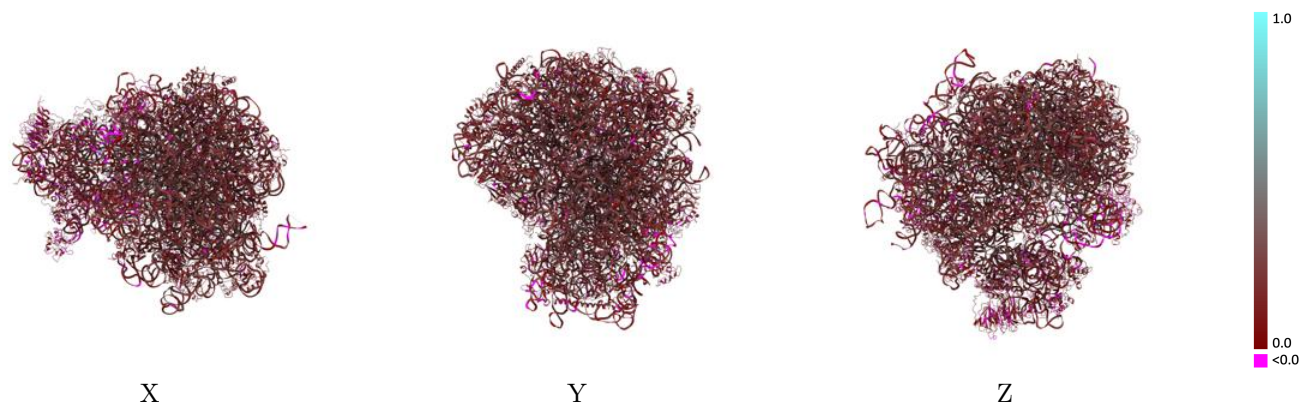
This section contains information regarding the fit between EMDB map EMD-5943 and PDB model 3J6Y. Per-residue inclusion information can be found in section 3 on page 18.

9.1 Map-model overlay [i](#)



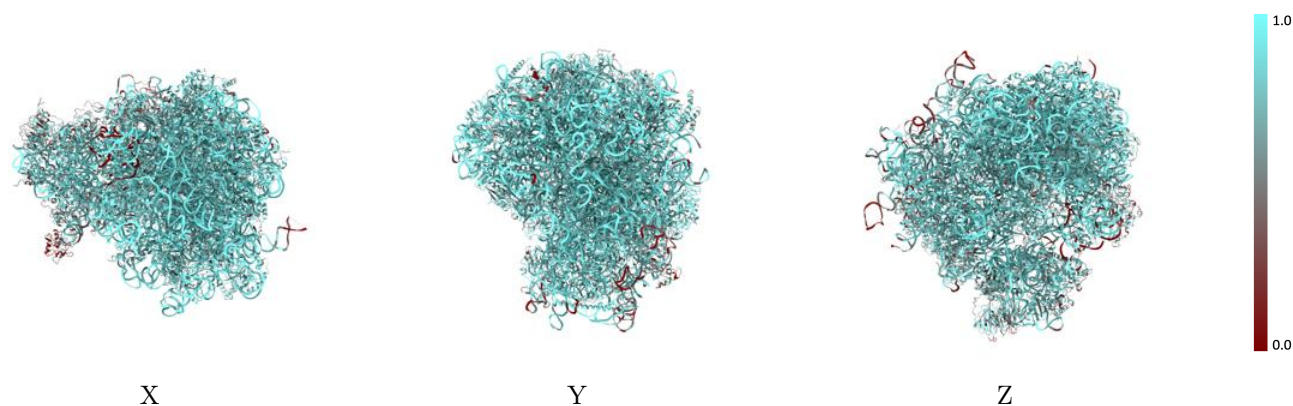
The images above show the 3D surface view of the map at the recommended contour level 0.815 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



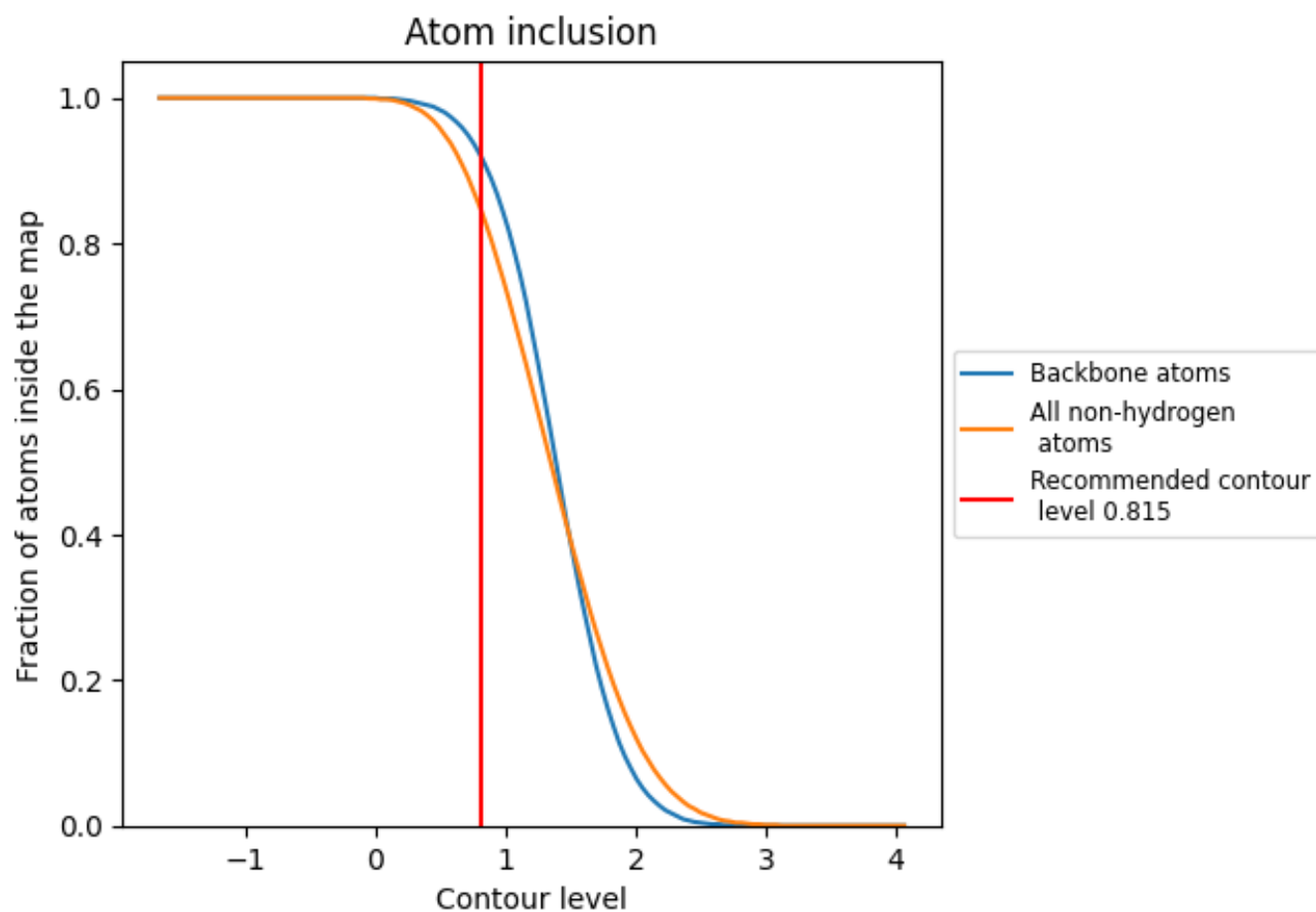
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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	 0.8440	 0.2020
10	 0.6900	 0.1580
11	 0.7270	 0.1970
12	 0.1660	 0.1130
13	 0.6980	 0.1670
14	 0.7520	 0.1680
15	 0.5220	 0.1310
16	 0.6880	 0.1380
17	 0.5910	 0.1590
18	 0.6440	 0.1380
19	 0.6520	 0.1110
1S	 0.9160	 0.2110
20	 0.6120	 0.1440
21	 0.7070	 0.1910
22	 0.7540	 0.1790
23	 0.7750	 0.1890
24	 0.6710	 0.1500
25	 0.6560	 0.1670
26	 0.7380	 0.1850
27	 0.6730	 0.1710
28	 0.6510	 0.1470
29	 0.6990	 0.1240
2S	 0.9440	 0.2330
30	 0.7450	 0.2020
31	 0.2810	 0.1520
50	 0.7770	 0.1990
51	 0.7460	 0.1640
53	 0.7630	 0.1880
54	 0.7540	 0.1740
55	 0.7670	 0.1580
56	 0.7850	 0.1730
57	 0.7690	 0.1840
58	 0.7760	 0.1800
59	 0.7490	 0.1840
5S	 0.9710	 0.2270






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Chain	Atom inclusion	Q-score
60	 0.7610	 0.1720
61	 0.7940	 0.1990
62	 0.7420	 0.1890
63	 0.7860	 0.1940
64	 0.8010	 0.1850
65	 0.7740	 0.1930
66	 0.7770	 0.1750
67	 0.7500	 0.1800
68	 0.7790	 0.1840
69	 0.7770	 0.2060
70	 0.7520	 0.1950
71	 0.7800	 0.1930
72	 0.8040	 0.1970
73	 0.7930	 0.1680
74	 0.7720	 0.1700
75	 0.7610	 0.1750
76	 0.7450	 0.1760
77	 0.8160	 0.1630
78	 0.7120	 0.1760
79	 0.7740	 0.1920
80	 0.7330	 0.1660
81	 0.0470	 0.0400
82	 0.7720	 0.1930
83	 0.8100	 0.1920
8S	 0.9710	 0.2410
IR	 0.6460	 0.1160
L1	 0.4280	 0.0990
L2	 0.8020	 0.1960
L3	 0.7860	 0.1840
L4	 0.8050	 0.1940
L5	 0.7070	 0.1560
L6	 0.7820	 0.1880
L7	 0.7840	 0.1790
L8	 0.7500	 0.1840
L9	 0.7540	 0.1760
RA	 0.6500	 0.1330
S0	 0.6920	 0.1850
S1	 0.6750	 0.1730
S2	 0.7680	 0.1920
S3	 0.7040	 0.1830
S4	 0.7660	 0.1680
S5	 0.6510	 0.1450

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Chain	Atom inclusion	Q-score
S6	 0.7290	 0.1530
S7	 0.5870	 0.1690
S8	 0.7820	 0.1770
S9	 0.7450	 0.1600