



Full wwPDB EM Validation Report ⓘ

Nov 19, 2022 – 05:19 PM EST

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

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.dev43
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) : 2.31.3

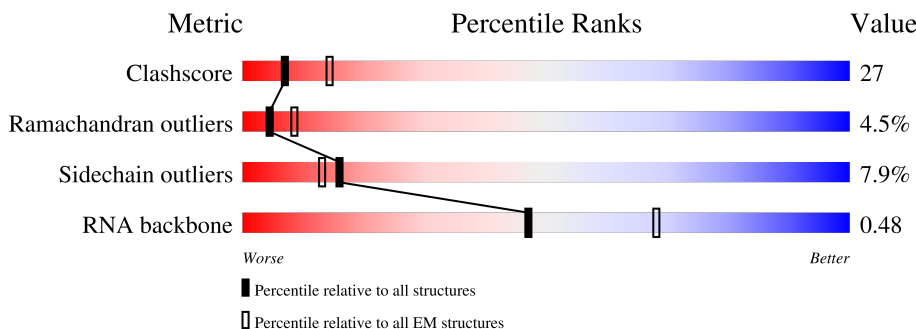
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 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	



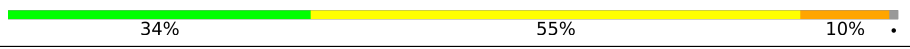
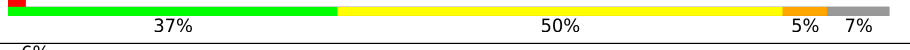
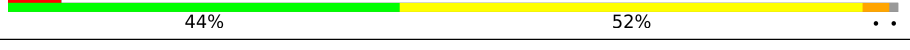
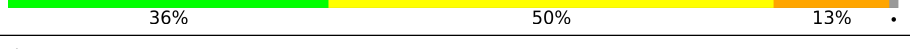

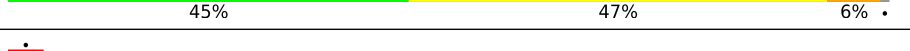
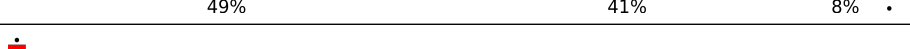
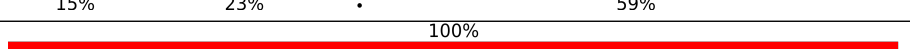
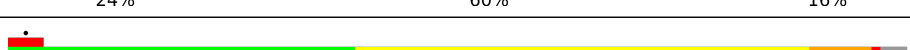
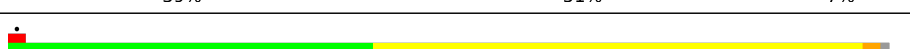
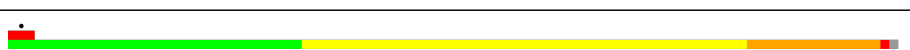
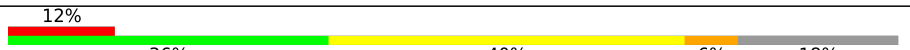
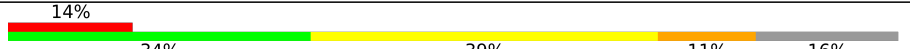
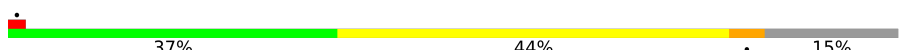




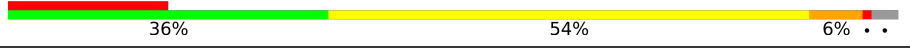

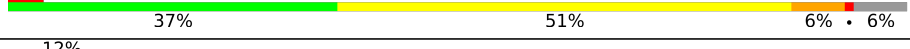


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Mol	Chain	Length	Quality of chain
8	L5	297	
9	L6	176	
10	L7	244	
11	L8	256	
12	L9	191	
13	50	221	
14	51	174	
15	53	199	
16	54	138	
17	55	204	
18	56	199	
19	57	184	
20	58	186	
21	59	189	
22	60	172	
23	61	160	
24	62	121	
25	63	137	
26	64	155	
27	65	142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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

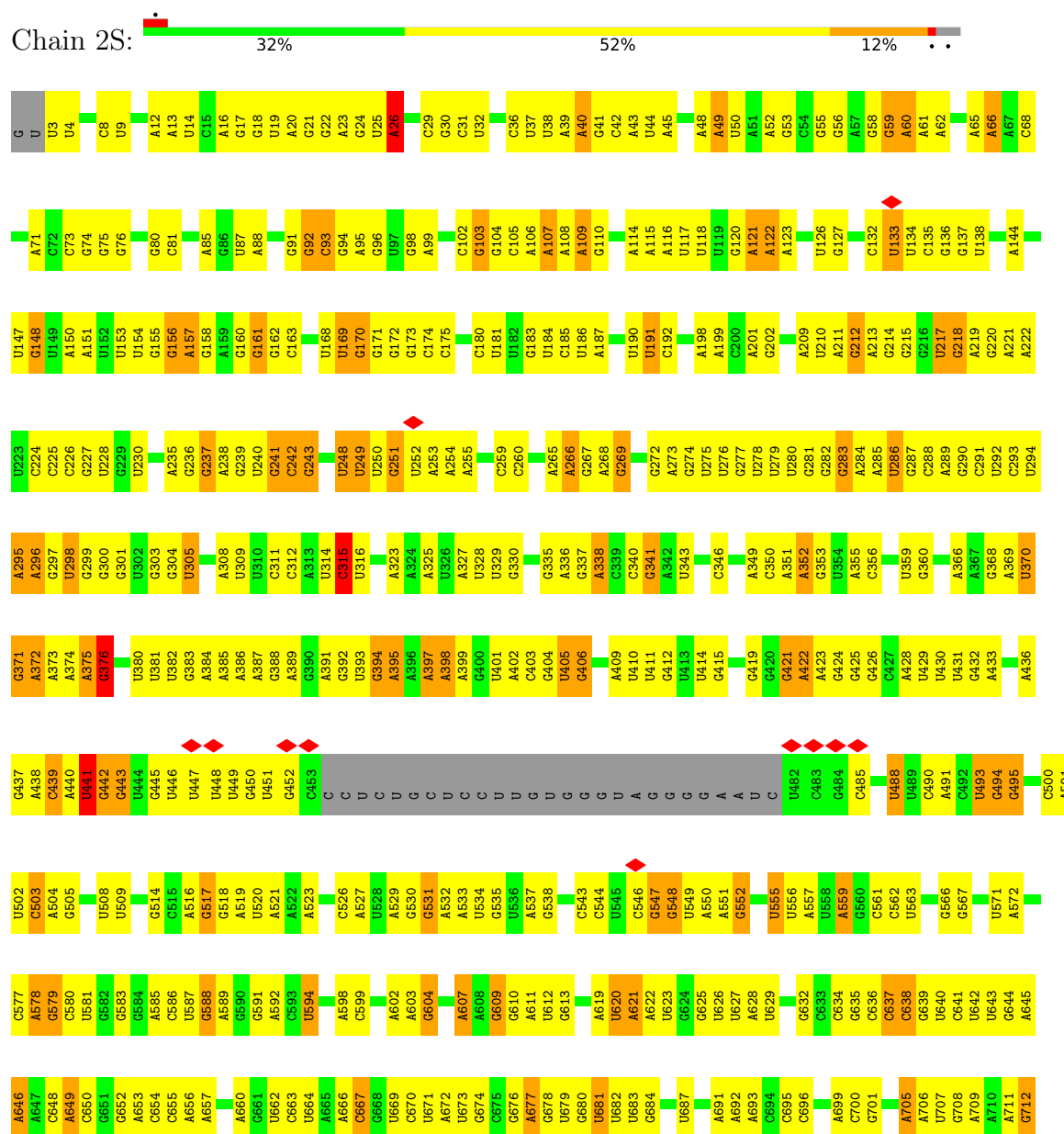
- Molecule 80 is a RNA chain called TSV IRES mRNA.

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

3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: 25S ribosomal RNA

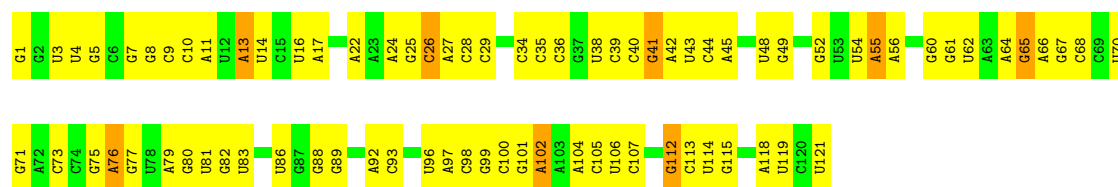


A1638	A1642	A1643	C1644	U1645	A1646	A1647	A1648	A1649	U1650	U1651	G1652	G1653	A1654	G1655	G1656	C1657	G1658	U1659	C1660	G1661	G1662	G1663	G1664	C1665	G1666	A1667	G1668	C1669	A1676	G1677	G1678	G1679	G1680	U1681	U1682	U1687	U1688	U1689	C1690	C1691	U1694	U1695	U1696	A1697	U1705	C1706	U1707	C1708	C1709	G1713	A1714	A1715	U1716																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
A1558	A1559	G1560	G1561	G1565	A1566	U1567	U1568	U1569	U1570	A1571	G1572	G1573	A1574	A1575	A1576	G1577	C1578	C1579	A1580	C1581	G1582	G1583	U1584	C1585	G1586	A1587	A1588	A1589	G1590	C1591	C1592	A1593	U1594	U1595	C1596	C1597	G1598	U1599	U1600	U1601	A1602	A1603	G1604	A1605	U1606	U1607	C1608	C1609	C1615	G1624	A1625	U1629	U1630	C1631	G1635																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
A1481	A1482	G1483	U1484	U1487	G1488	A1489	A1490	A1491	G1492	C1496	G1497	A1498	A1499	U1500	U1501	C1502	A1503	A1504	C1505	G1506	G1507	C1508	A1509	G1510	U1511	U1512	G1513	G1514	A1515	A1516	G1517	U1523	A1524	G1525	U1526	C1527	G1528	U1533	A1534	A1535	G1536	A1537	G1538	G1541	A1545	A1546	G1547	U1548	U1549	C1550	C1556	A1557																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
G1408	G1409	U1410	C1411	U1415	C1416	G1417	A1418	A1419	C1420	G1421	G1422	A1426	U1427	G1428	A1429	G1430	G1431	C1432	G1433	G1434	U1435	U1436	C1437	U1438	U1439	U1440	G1441	U1442	U1443	U1444	U1445	A1446	G1447	U1448	A1449	A1454	U1455	A1456	A1460	A1461	A1462	U1463	G1464	A1465	G1466	A1467	A1468	C1469	U1470	U1471	U1472	A1473	A1477	C1478	U1479	G1480																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
A1387	C1388	C1389	U1390	U1391	C1392	G1393	A1394	A1395	U1396	A1397	A1398	A1399	U1400	U1401	C1402	C1403	G1404	U1405	A1406	A1407	A1408	A1409	A1410	A1411	A1412	A1413	A1414	A1415	A1416	A1417	A1418	A1419	A1420	A1421	A1422	A1423	A1424	A1425	A1426	A1427	A1428	A1429	A1430	A1431	A1432	A1433	A1434	A1435	A1436	A1437	A1438	A1439	A1440	A1441	A1442	A1443	A1444	A1445	A1446	A1447	A1448	A1449	A1450	A1451	A1452	A1453	A1454	A1455	A1456	A1457	A1458	A1459	A1460	A1461	A1462	A1463	A1464	A1465	A1466	A1467	A1468	A1469	A1470	A1471	A1472	A1473	A1474	A1475	A1476	A1477	A1478	A1479	A1480	A1481	A1482	A1483	A1484	A1485	A1486	A1487	A1488	A1489	A1490	A1491	A1492	A1493	A1494	A1495	A1496	A1497	A1498	A1499	A1500	A1501	A1502	A1503	A1504	A1505	A1506	A1507	A1508	A1509	A1510	A1511	A1512	A1513	A1514	A1515	A1516	A1517	A1518	A1519	A1520	A1521	A1522	A1523	A1524	A1525	A1526	A1527	A1528	A1529	A1530	A1531	A1532	A1533	A1534	A1535	A1536	A1537	A1538	A1539	A1540	A1541	A1542	A1543	A1544	A1545	A1546	A1547	A1548	A1549	A1550	A1551	A1552	A1553	A1554	A1555	A1556	A1557	A1558	A1559	A1560	A1561	A1562	A1563	A1564	A1565	A1566	A1567	A1568	A1569	A1570	A1571	A1572	A1573	A1574	A1575	A1576	A1577	A1578	A1579	A1580	A1581	A1582	A1583	A1584	A1585	A1586	A1587	A1588	A1589	A1590	A1591	A1592	A1593	A1594	A1595	A1596	A1597	A1598	A1599	A1600	A1601	A1602	A1603	A1604	A1605	A1606	A1607	A1608	A1609	A1610	A1611	A1612	A1613	A1614	A1615	A1616	A1617	A1618	A1619	A1620	A1621	A1622	A1623	A1624	A1625	A1626	A1627	A1628	A1629	A1630	A1631	A1632	A1633	A1634	A1635	A1636	A1637	A1638	A1639	A1640	A1641	A1642	A1643	A1644	A1645	A1646	A1647	A1648	A1649	A1650	A1651	A1652	A1653	A1654	A1655	A1656	A1657	A1658	A1659	A1660	A1661	A1662	A1663	A1664	A1665	A1666	A1667	A1668	A1669	A1670	A1671	A1672	A1673	A1674	A1675	A1676	A1677	A1678	A1679	A1680	A1681	A1682	A1683	A1684	A1685	A1686	A1687	A1688	A1689	A1690	A1691	A1692	A1693	A1694	A1695	A1696	A1697	A1698	A1699	A1700	A1701	A1702	A1703	A1704	A1705	A1706	A1707	A1708	A1709	A1710	A1711	A1712	A1713	A1714	A1715	A1716	A1717	A1718	A1719	A1720	A1721	A1722	A1723	A1724	A1725	A1726	A1727	A1728	A1729	A1730	A1731	A1732	A1733	A1734	A1735	A1736	A1737	A1738	A1739	A1740	A1741	A1742	A1743	A1744	A1745	A1746	A1747	A1748	A1749	A1750	A1751	A1752	A1753	A1754	A1755	A1756	A1757	A1758	A1759	A1760	A1761	A1762	A1763	A1764	A1765	A1766	A1767	A1768	A1769	A1770	A1771	A1772	A1773	A1774	A1775	A1776	A1777	A1778	A1779	A1780	A1781	A1782	A1783	A1784	A1785	A1786	A1787	A1788	A1789	A1790	A1791	A1792	A1793	A1794	A1795	A1796	A1797	A1798	A1799	A1800	A1801	A1802	A1803	A1804	A1805	A1806	A1807	A1808	A1809	A1810	A1811	A1812	A1813	A1814	A1815	A1816	A1817	A1818	A1819	A1820	A1821	A1822	A1823	A1824	A1825	A1826	A1827	A1828	A1829	A1830	A1831	A1832	A1833	A1834	A1835	A1836	A1837	A1838	A1839	A1840	A1841	A1842	A1843	A1844	A1845	A1846	A1847	A1848	A1849	A1850	A1851	A1852	A1853	A1854	A1855	A1856	A1857	A1858	A1859	A1860	A1861	A1862	A1863	A1864	A1865	A1866	A1867	A1868	A1869	A1870	A1871	A1872	A1873	A1874	A1875	A1876	A1877	A1878	A1879	A1880	A1881	A1882	A1883	A1884	A1885	A1886	A1887	A1888	A1889	A1890	A1891	A1892	A1893	A1894	A1895	A1896	A1897	A1898	A1899	A1900	A1901	A1902	A1903	A1904	A1905	A1906	A1907	A1908	A1909	A1910	A1911	A1912	A1913	A1914	A1915	A1916	A1917	A1918	A1919	A1920	A1921	A1922	A1923	A1924	A1925	A1926	A1927	A1928	A1929	A1930	A1931	A1932	A1933	A1934	A1935	A1936	A1937	A1938	A1939	A1940	A1941	A1942	A1943	A1944	A1945	A1946	A1947	A1948	A1949	A1950	A1951	A1952	A1953	A1954	A1955	A1956	A1957	A1958	A1959	A1960	A1961	A1962	A1963	A1964	A1965	A1966	A1967	A1968	A1969	A1970	A1971	A1972	A1973	A1974	A1975	A1976	A1977	A1978	A1979	A1980	A1981	A1982	A1983	A1984	A1985	A1986	A1987	A1988	A1989	A1990	A1991	A1992	A1993	A1994	A1995	A1996	A1997	A1998	A1999	A2000	A2001	A2002	A2003	A2004	A2005	A2006	A2007	A2008	A2009	A2010	A2011	A2012	A2013	A2014	A2015	A2016	A2017	A2018	A2019	A2020	A2021	A2022	A2023	A2024	A2025	A2026	A2027	A2028	A2029	A2030	A2031	A2032	A2033	A2034	A2035	A2036	A2037	A2038	A2039	A2040	A2041	A2042	A2043	A2044	A2045	A2046	A2047	A2048	A2049	A2050	A2051	A2052	A2053	A2054	A2055	A2056	A2057	A2058	A2059	A2060	A2061	A2062	A2063	A2064	A2065	A2066	A2067	A2068	A2069	A2070	A2071	A2072	A2073	A2074	A2075	A2076	A2077	A2078	A2079	A2080	A2081	A2082	A2083	A2084	A2085	A2086	A2087	A2088	A2089	A2090	A2091	A2092	A2093	A2094	A2095	A2096	A2097	A2098	A2099	A2100	A2101	A2102	A2103	A2104	A2105	A2106	A2107	A2108	A2109	A2110	A2111	A2112	A2113	A2114	A2115	A2116	A2117	A2118	A2119	A2120	A2121	A2122	A2123	A2124	A2125	A2126	A2127	A2128	A2129	A2130	A2131	A2132	A2133	A2134	A2135	A2136	A2137	A2138	A2139	A2140	A2141	A2142	A2143	A2144	A2145	A2146	A2147	A2148	A2149	A2150	A2151	A2152	A2153	A2154	A2155	A2156	A2157	A2158	A2159	A2160	A2161	A2162	A2163	A2164	A2165	A2166	A2167	A2168	A2169	A2170	A2171	A2172	A2173	A2174	A2175	A2176	A2177	A2178	A2179	A2180	A2181	A2182	A2183	A2184	A2185	A2186	A2187	A2188	A2189	A2190	A2191	A2192	A2193	A2194	A2195	A2196	A2197	A2198	A2199	A2200	A2201	A2202	A2203	A2204	A2205	A2206	A2207	A2208	A2209	A2210	A2211	A2212	A2213	A2214	A2215	A2216	A2217	A2218	A2219	A2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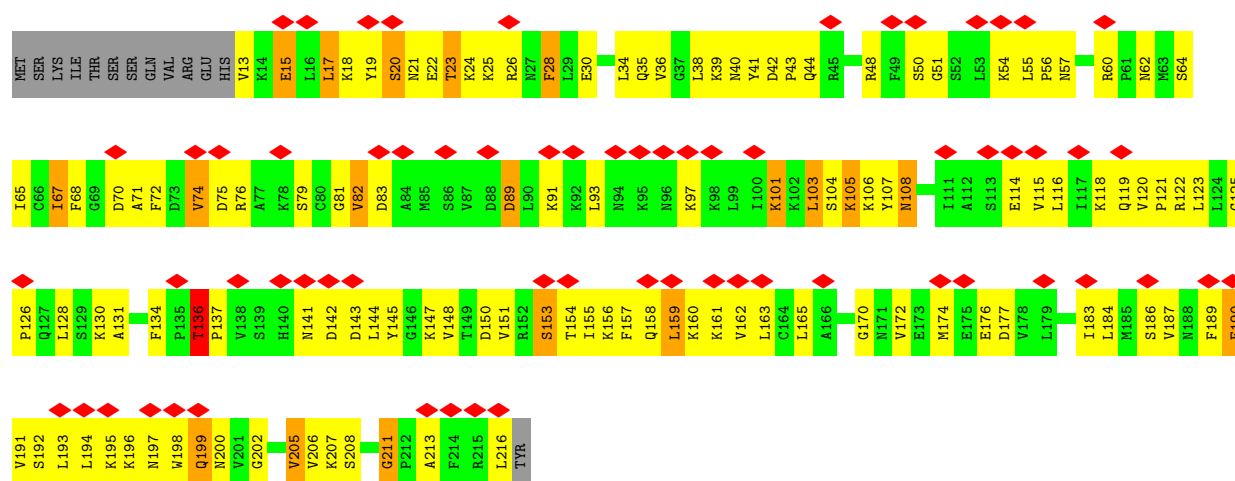


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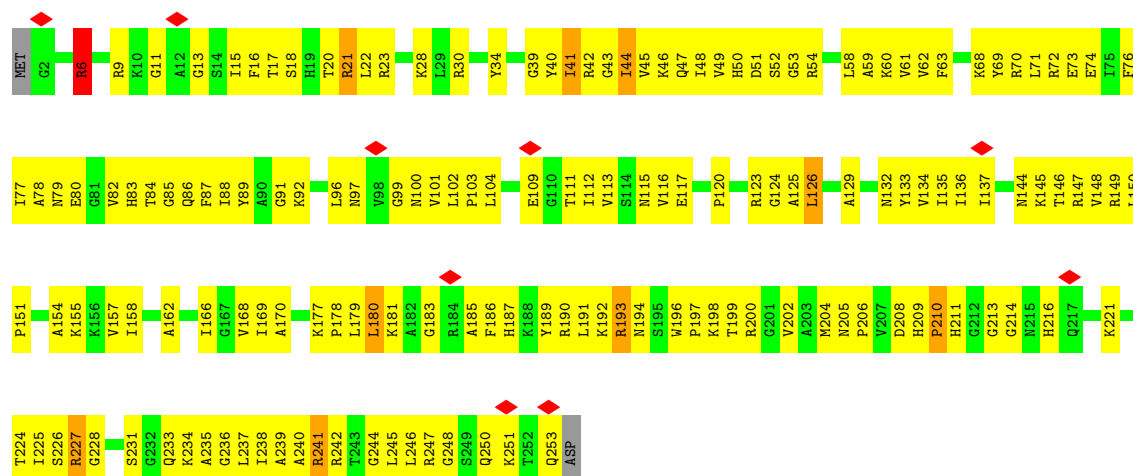
• Molecule 4: 60S ribosomal protein L1

Chain L1: 



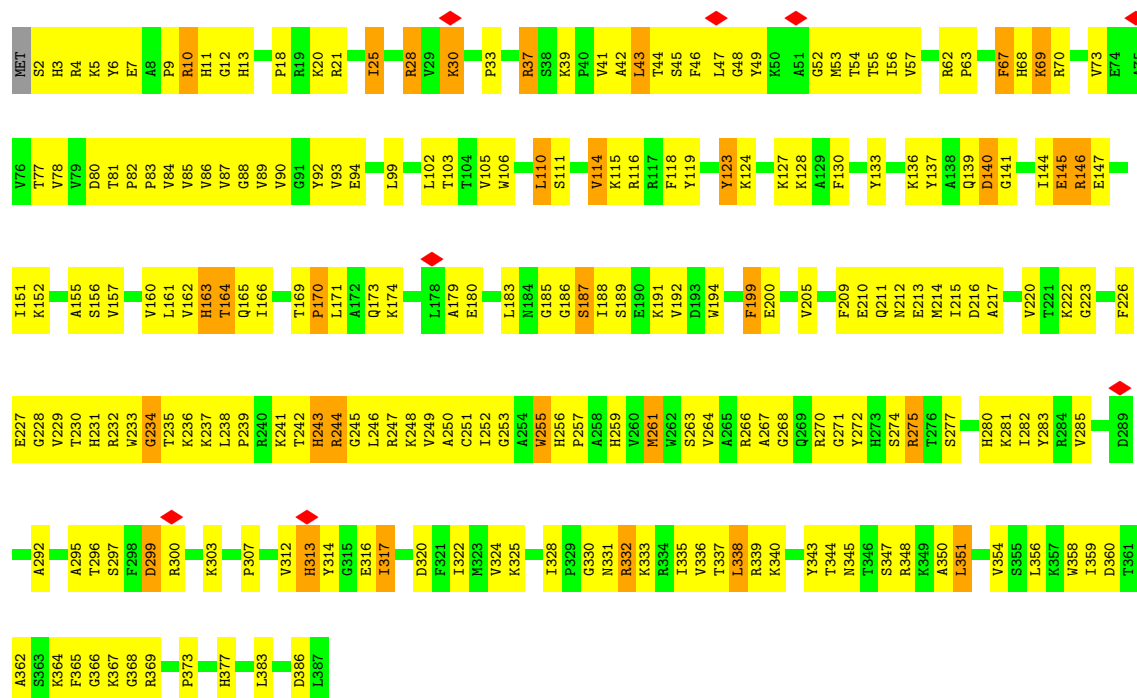
• Molecule 5: 60S ribosomal protein L2

Chain L2: 

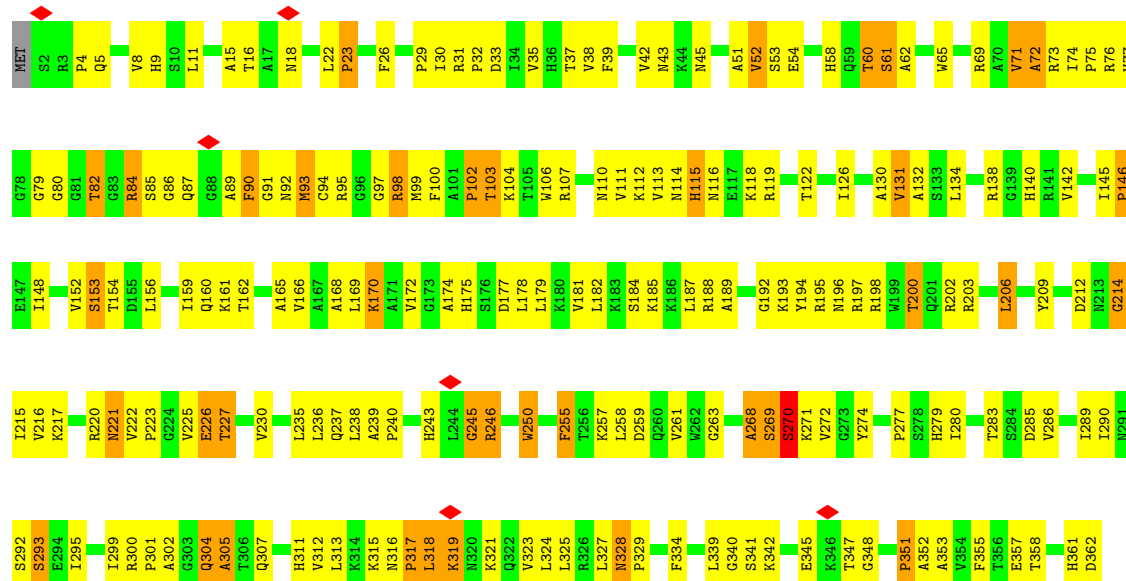


• Molecule 6: 60S ribosomal protein L3

Chain L3: 

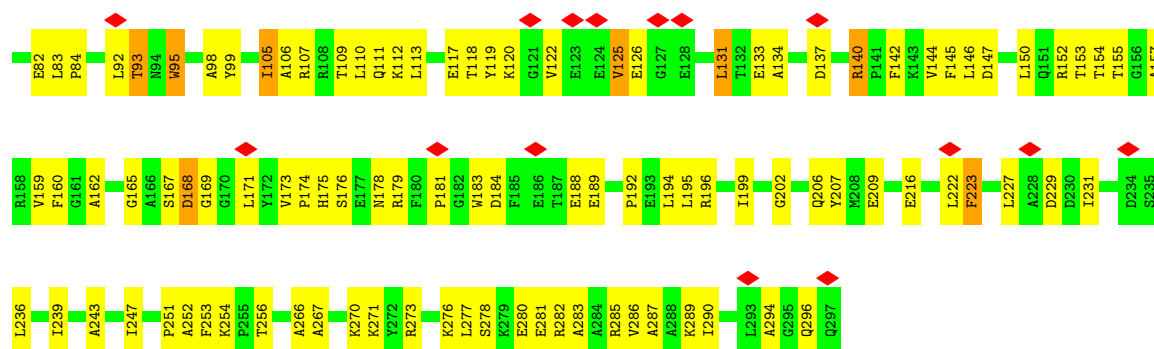


• Molecule 7: 60S ribosomal protein L4

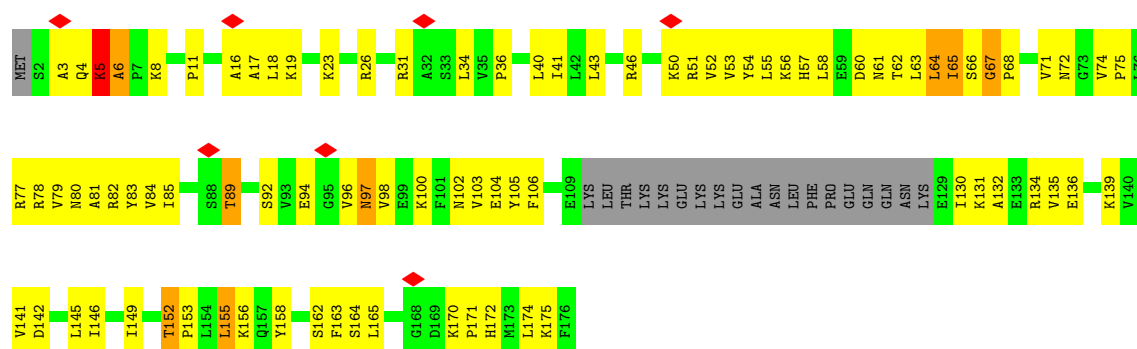


• Molecule 8: 60S ribosomal protein L5

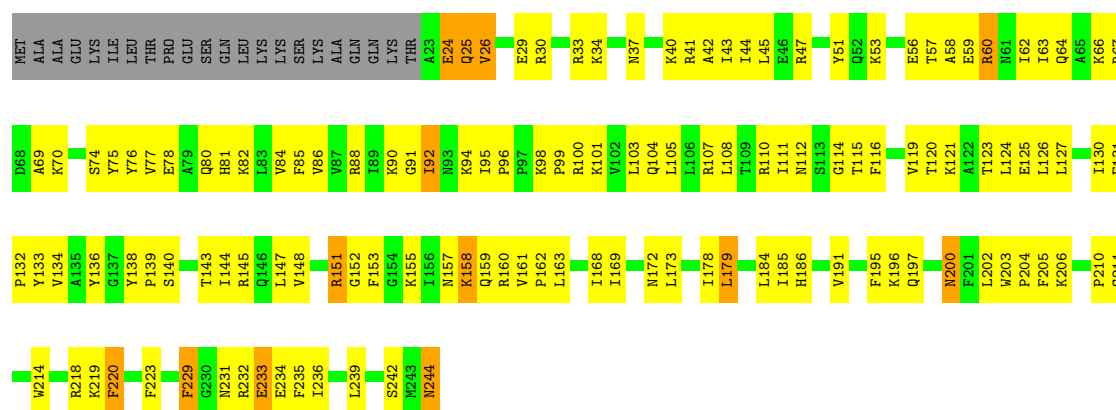
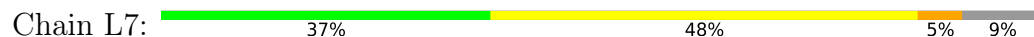




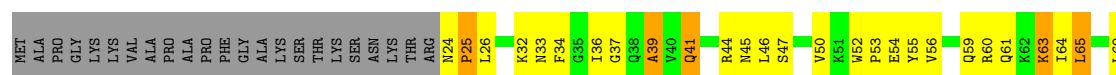
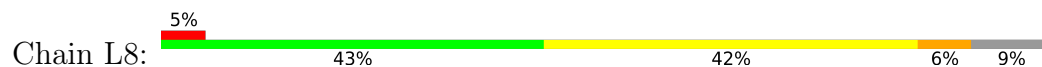
• Molecule 9: 60S ribosomal protein L6

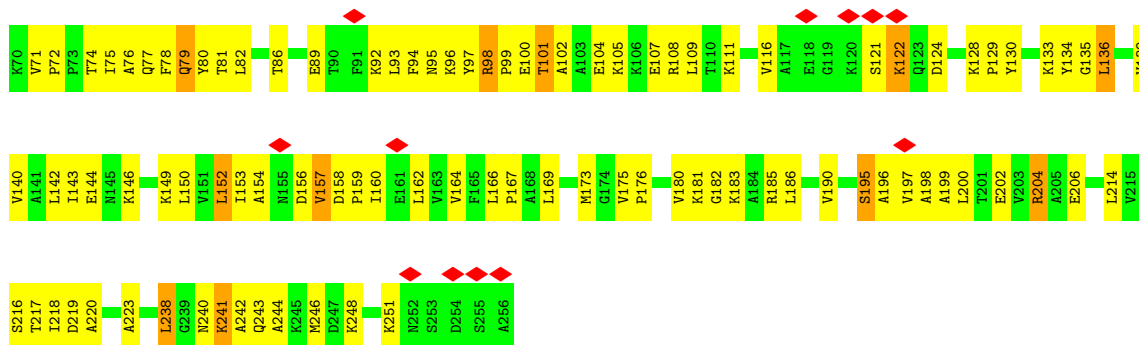


• Molecule 10: 60S ribosomal protein L7

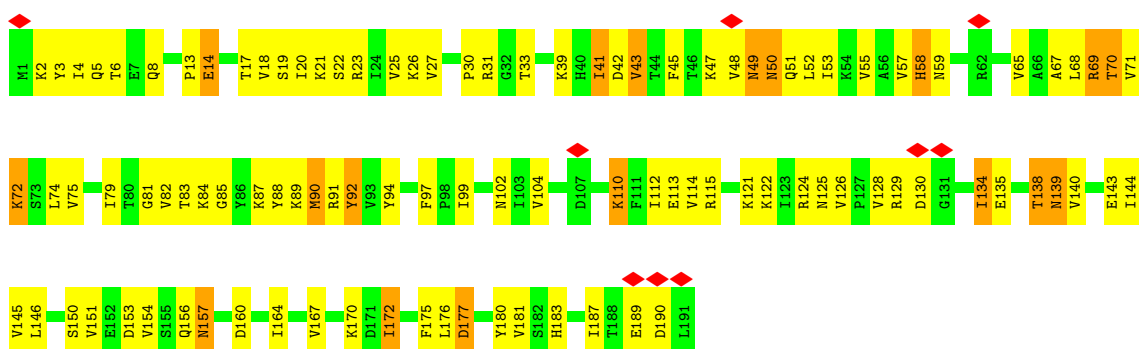


• Molecule 11: 60S ribosomal protein L8

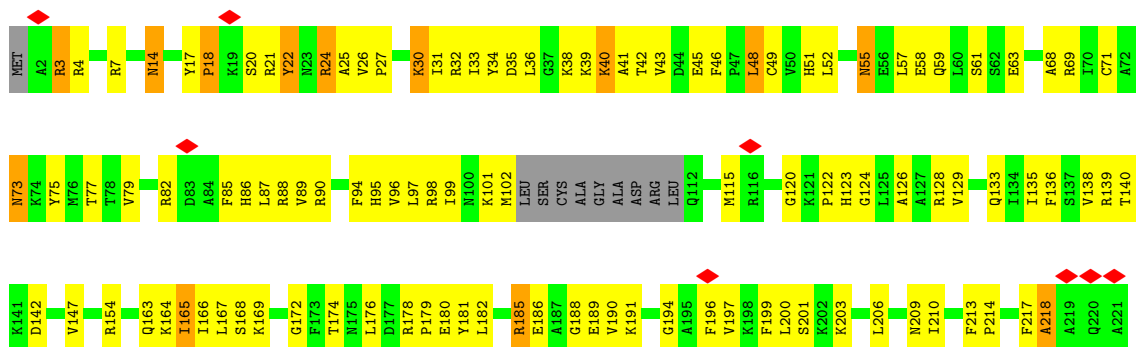




• Molecule 12: 60S ribosomal protein L9

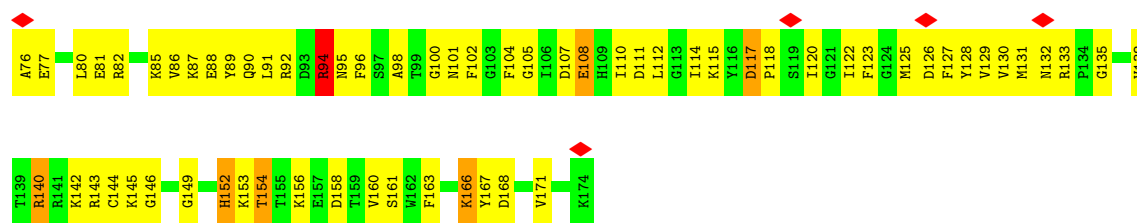


• Molecule 13: 60S ribosomal protein L10

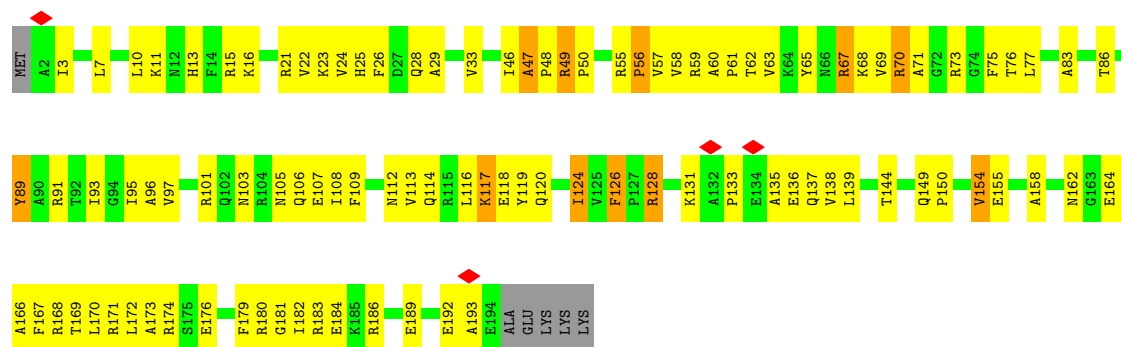


• Molecule 14: 60S ribosomal protein L11

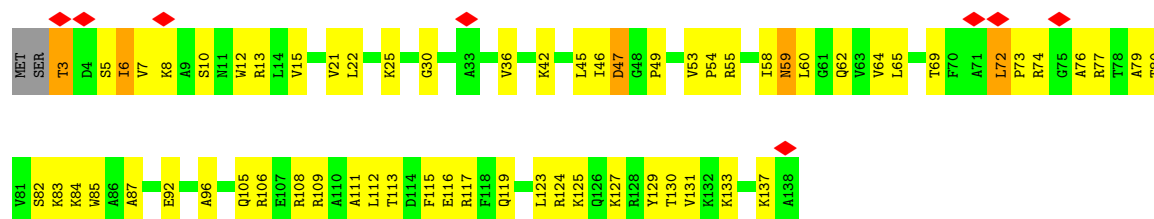




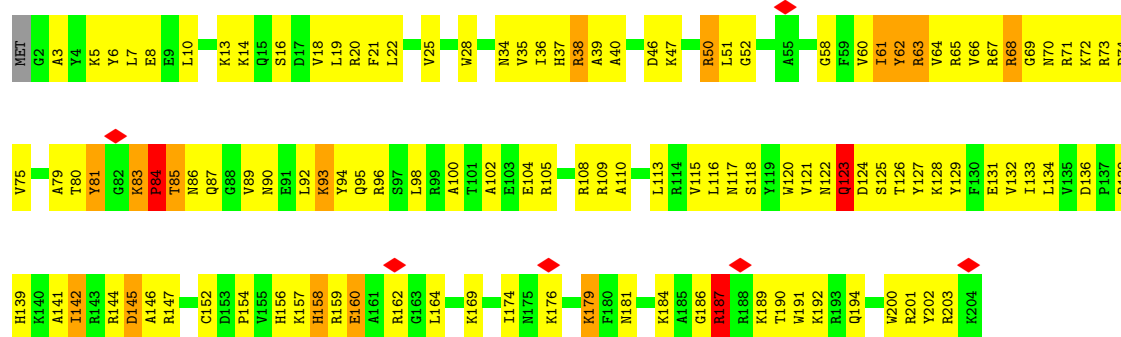
• Molecule 15: 60S ribosomal protein L13



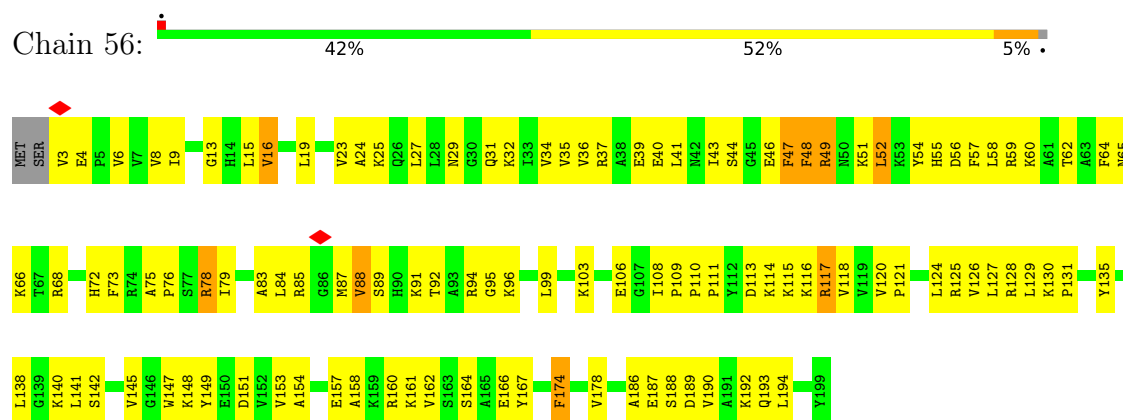
• Molecule 16: 60S ribosomal protein L14



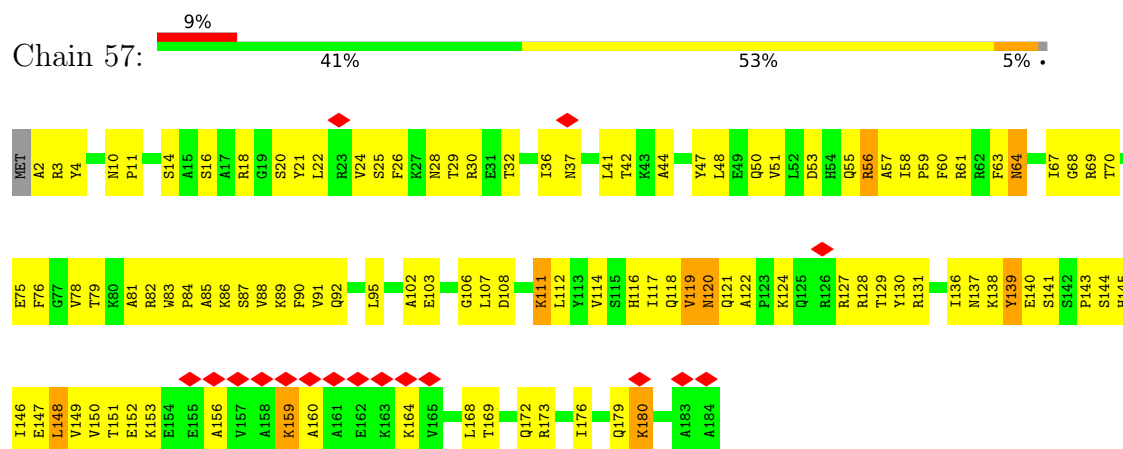
• Molecule 17: 60S ribosomal protein L15



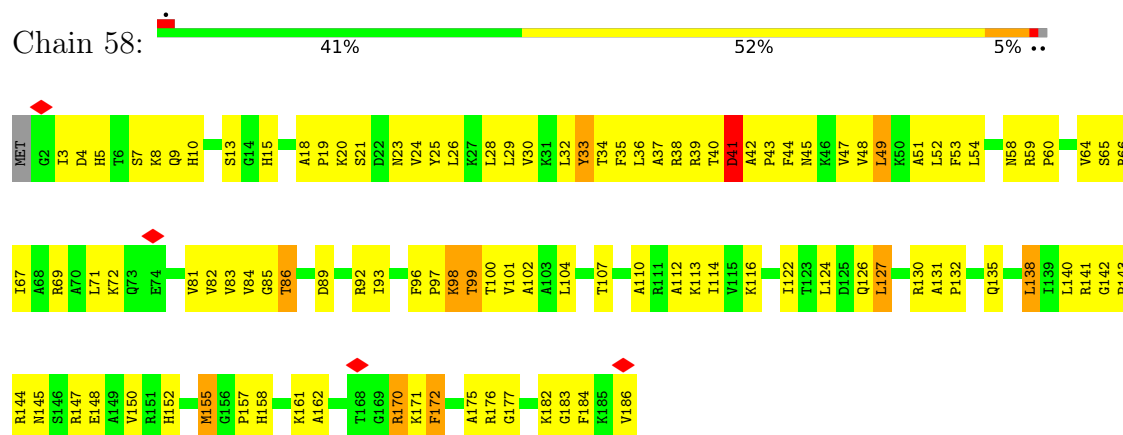
• Molecule 18: 60S ribosomal protein L16



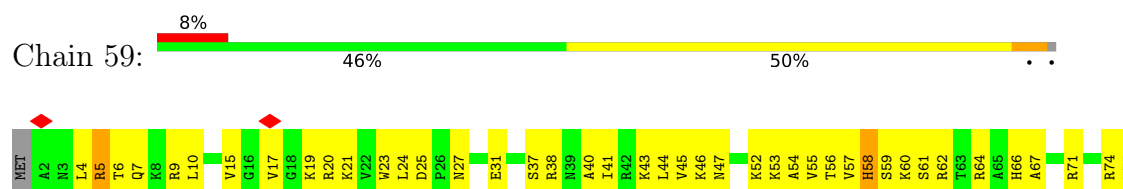
• Molecule 19: 60S ribosomal protein L17

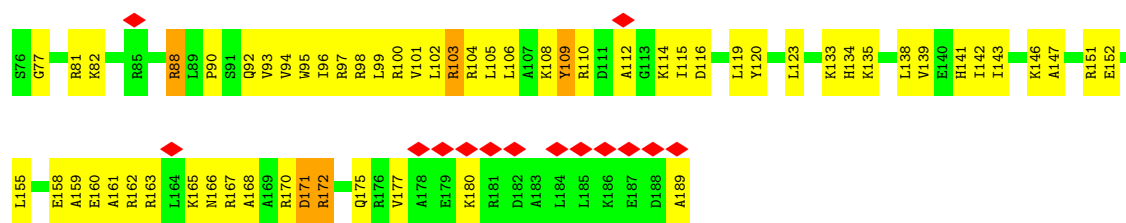


• Molecule 20: 60S ribosomal protein L18

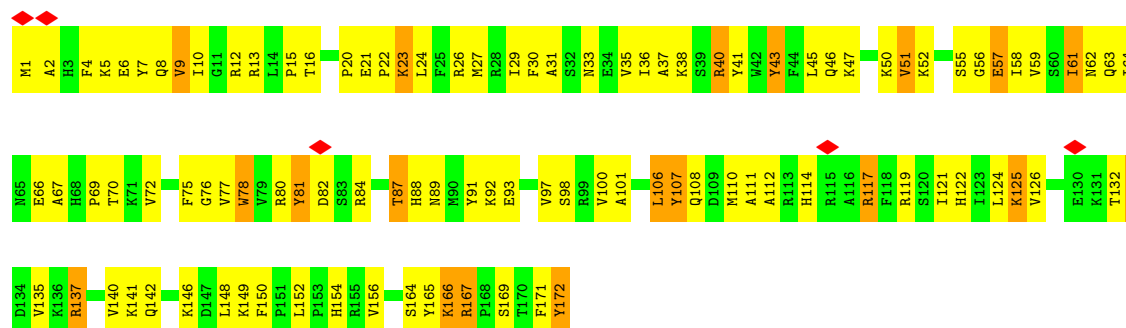


• Molecule 21: 60S ribosomal protein L19

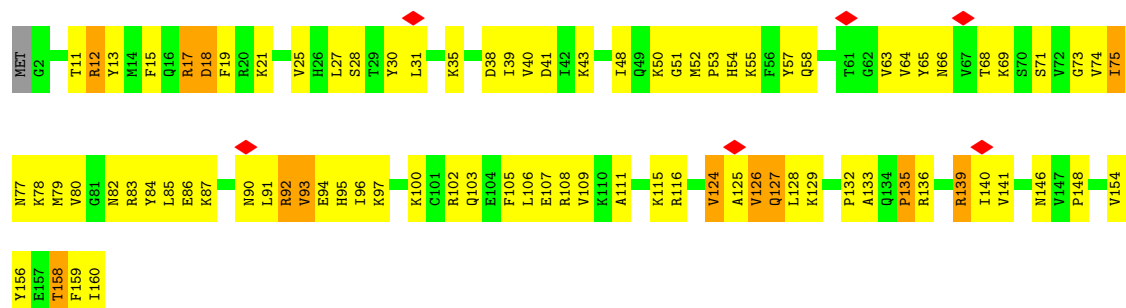




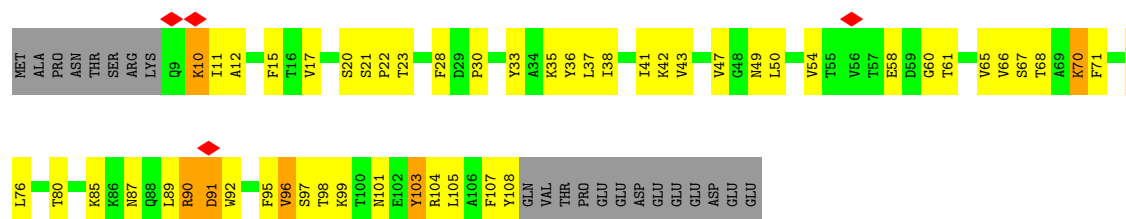
• Molecule 22: 60S ribosomal protein L20



• Molecule 23: 60S ribosomal protein L21

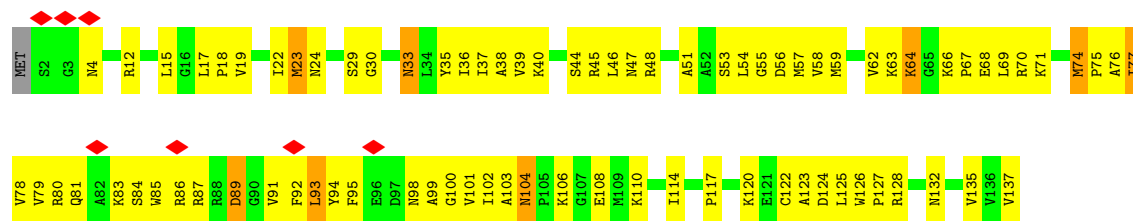


• Molecule 24: 60S ribosomal protein L22

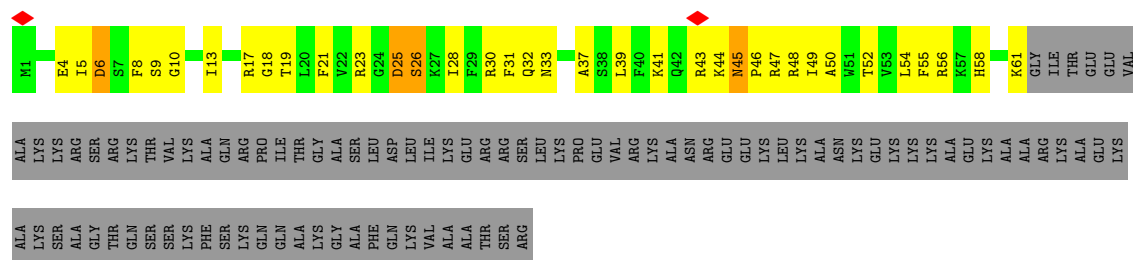


• Molecule 25: 60S ribosomal protein L23

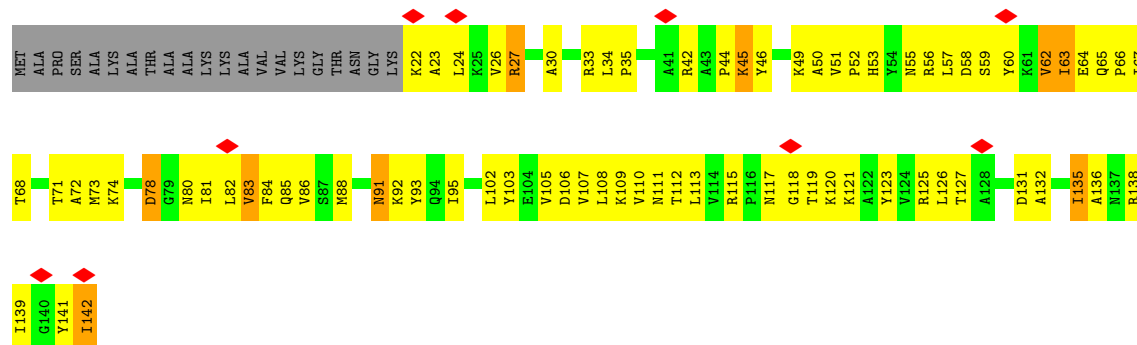




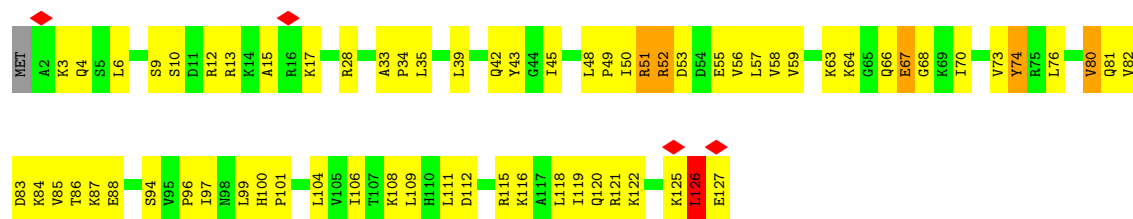
• Molecule 26: 60S ribosomal protein L24



• Molecule 27: 60S ribosomal protein L25

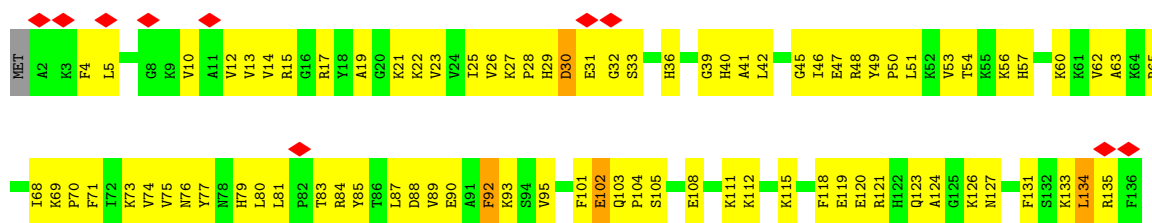


• Molecule 28: 60S ribosomal protein L26

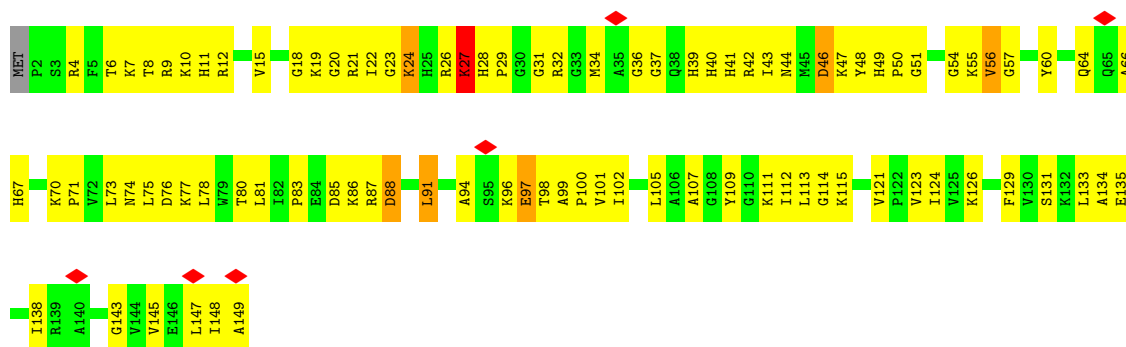


• Molecule 29: 60S ribosomal protein L27

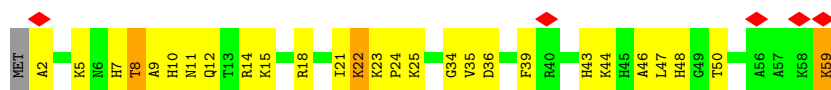




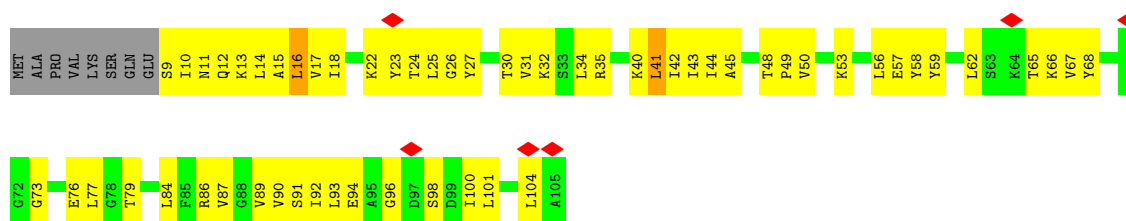
• Molecule 30: 60S ribosomal protein L28



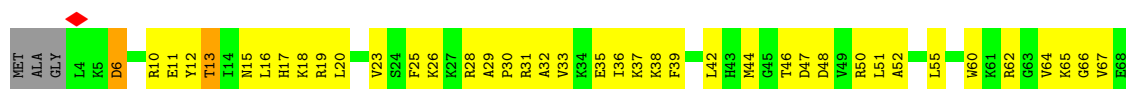
• Molecule 31: 60S ribosomal protein L29

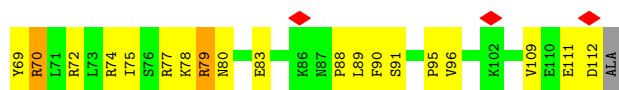


• Molecule 32: 60S ribosomal protein L30



• Molecule 33: 60S ribosomal protein L31





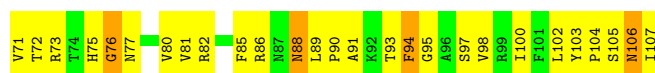
- Molecule 34: 60S ribosomal protein L32

Chain 72: 40% 54%



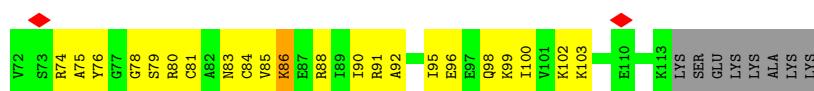
- Molecule 35: 60S ribosomal protein L33

Chain 73: 34% 55% 10%



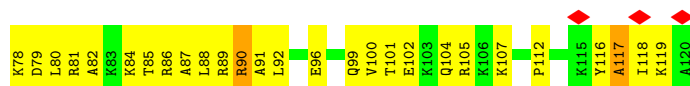
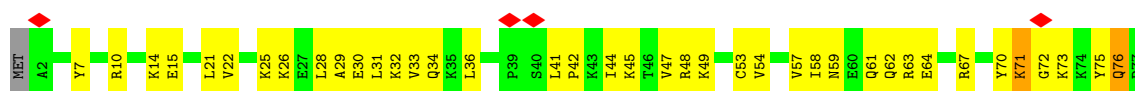
- Molecule 36: 60S ribosomal protein L34

Chain 74: 37% 50% 5% 7%



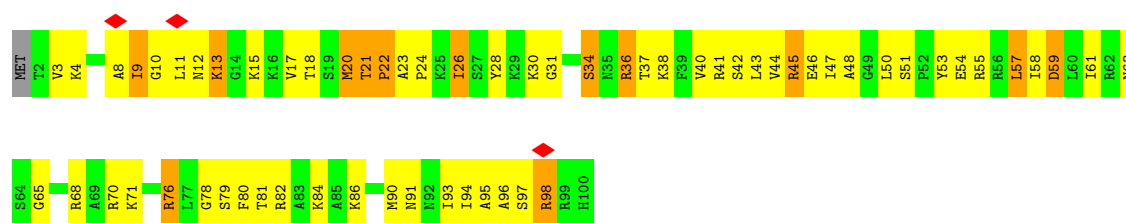
- Molecule 37: 60S ribosomal protein L35

Chain 75: 6% 44% 52%



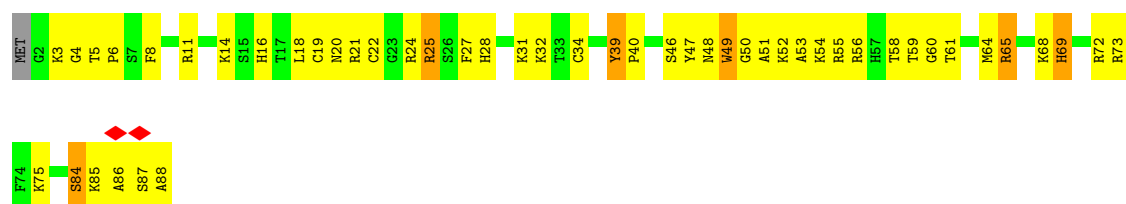
- Molecule 38: 60S ribosomal protein L36

Chain 76: 



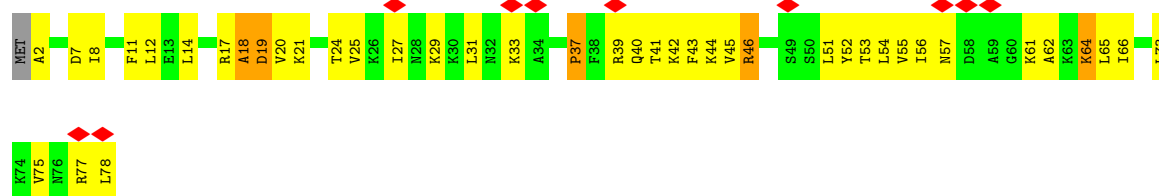
- Molecule 39: 60S ribosomal protein L37

Chain 77: 



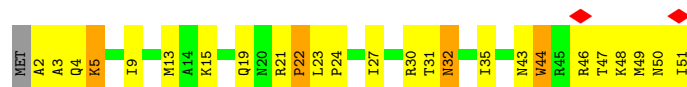
- Molecule 40: 60S ribosomal protein L38

Chain 78: 



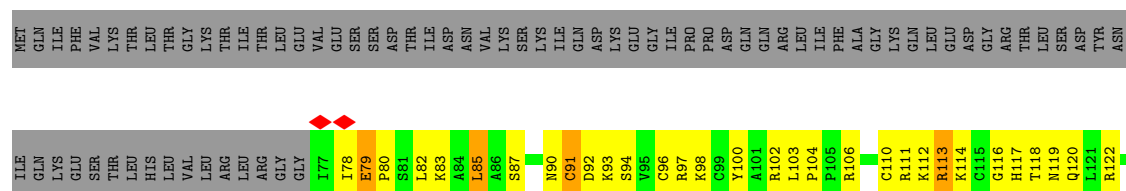
- Molecule 41: 60S ribosomal protein L39

Chain 79: 



- Molecule 42: 60S ribosomal protein L40

Chain 80: 

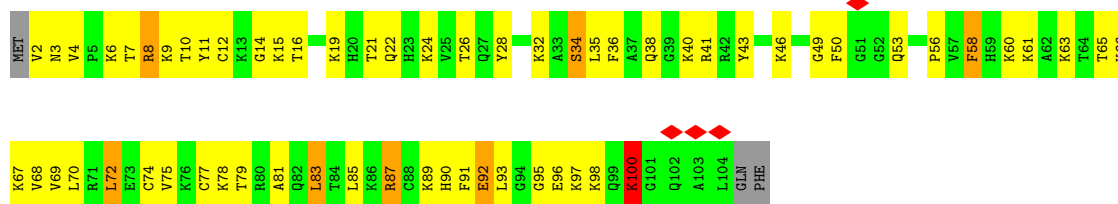




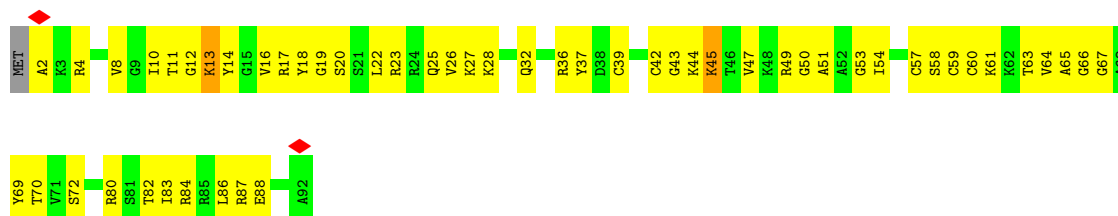
- Molecule 43: 60S ribosomal protein L41



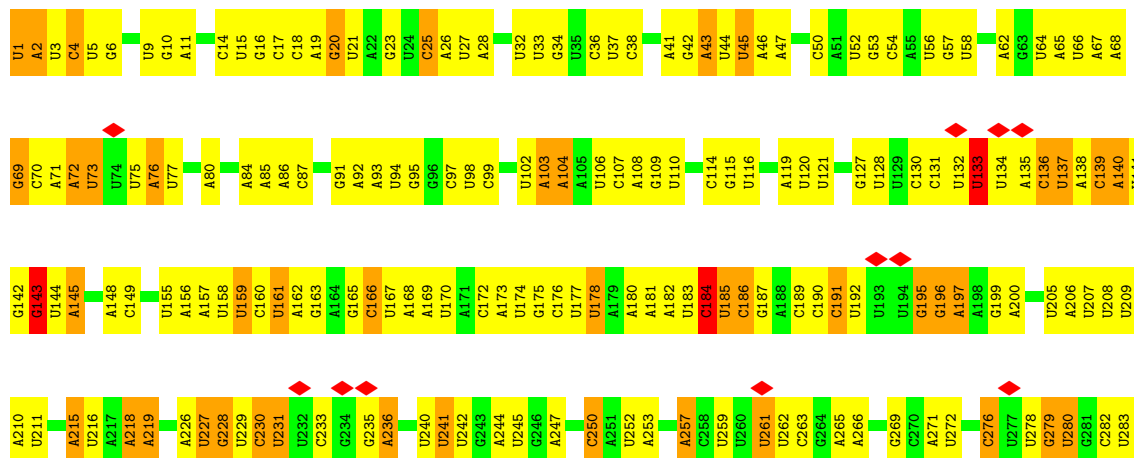
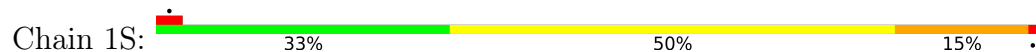
- Molecule 44: 60S ribosomal protein L42



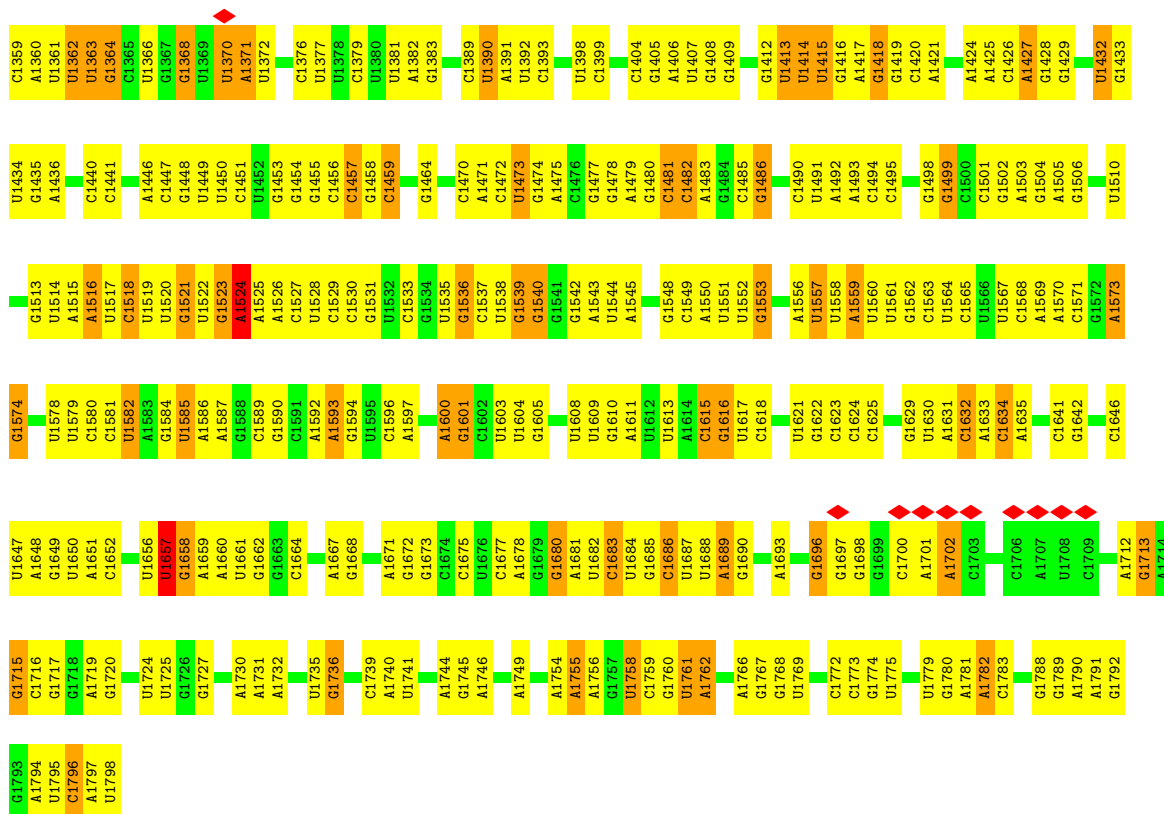
- Molecule 45: 60S ribosomal protein L43



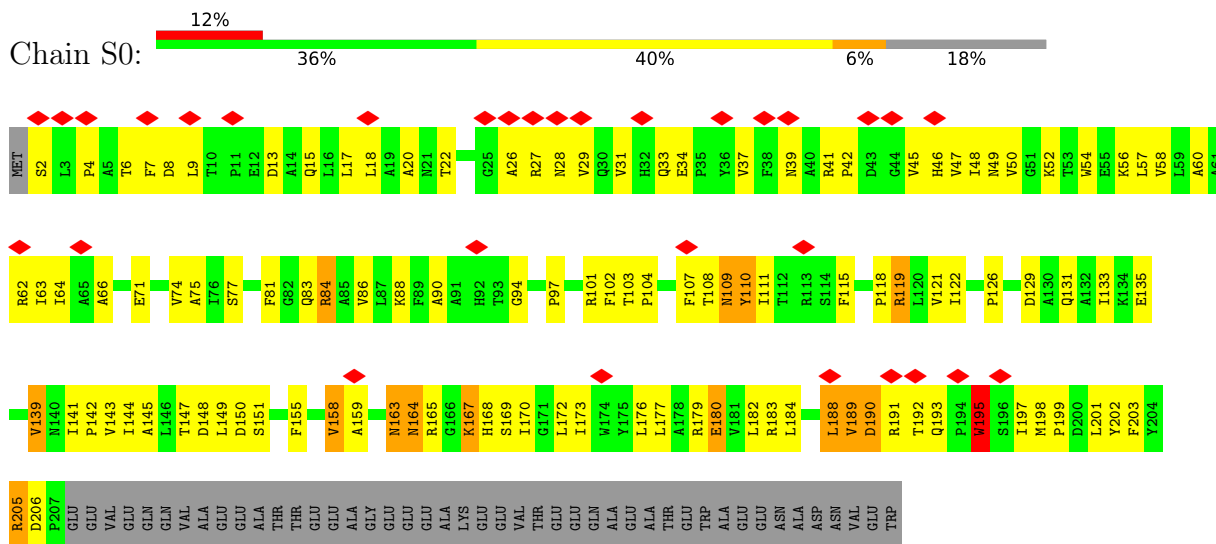
- Molecule 46: 18S ribosomal RNA



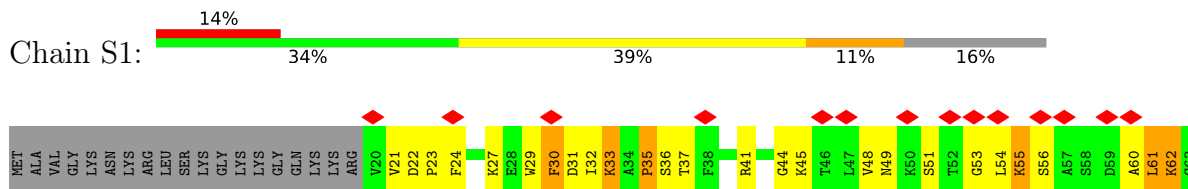


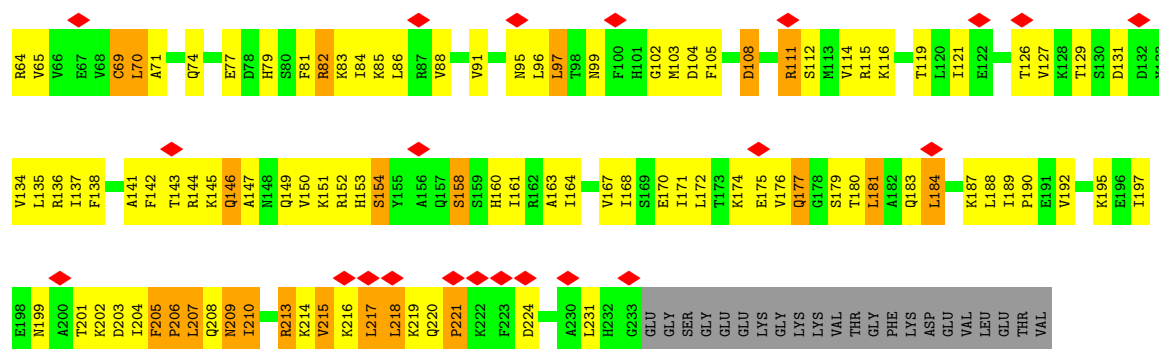


• Molecule 47: 40S ribosomal protein S0



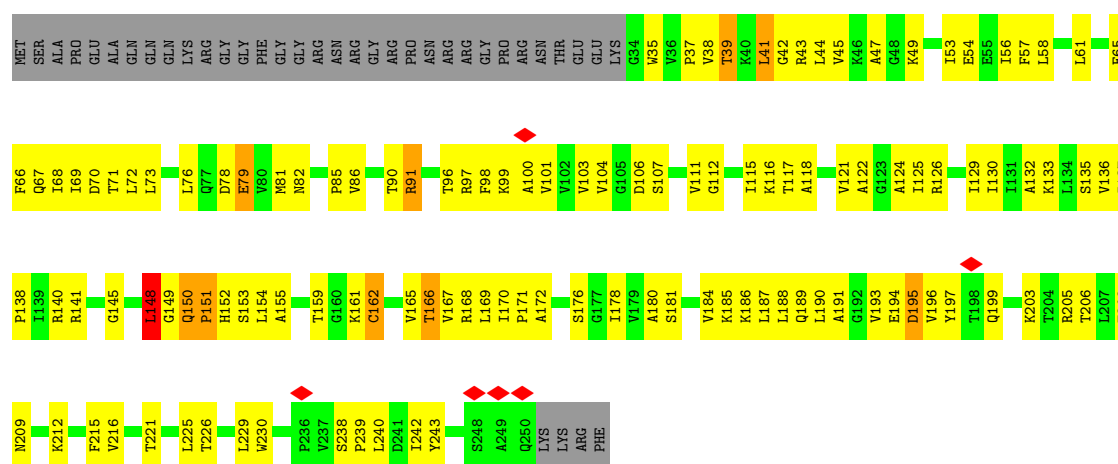
• Molecule 48: 40S ribosomal protein S1





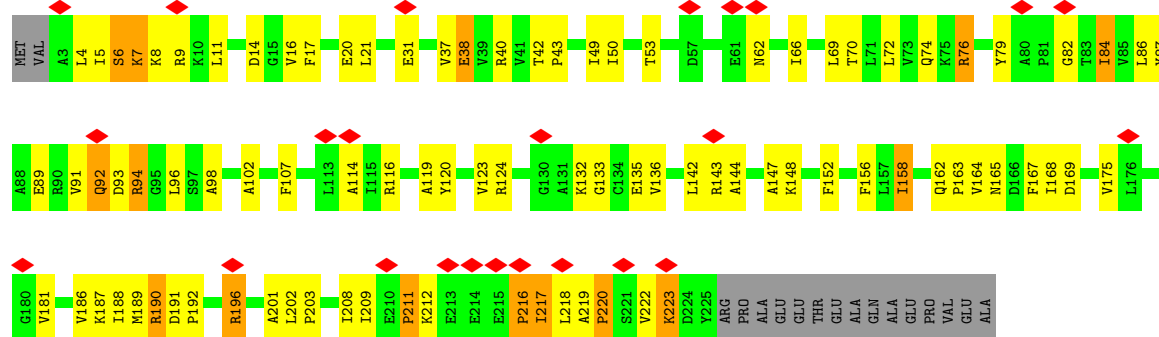
• Molecule 49: 40S ribosomal protein S2

Chain S2: 37% 44% 15%



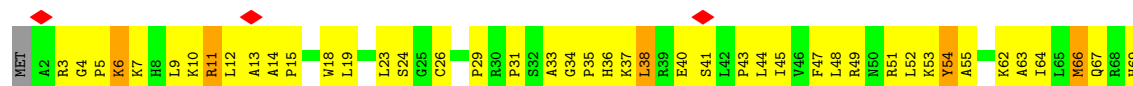
• Molecule 50: 40S ribosomal protein S3

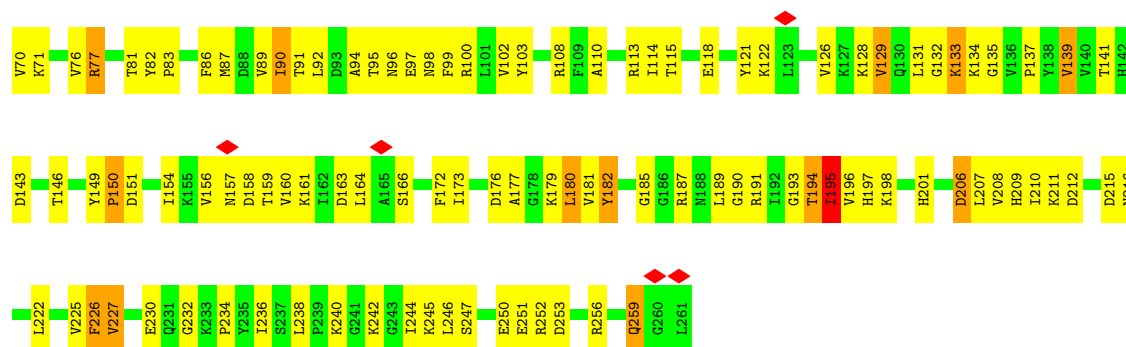
Chain S3: 10% 55% 32% 6% 7%



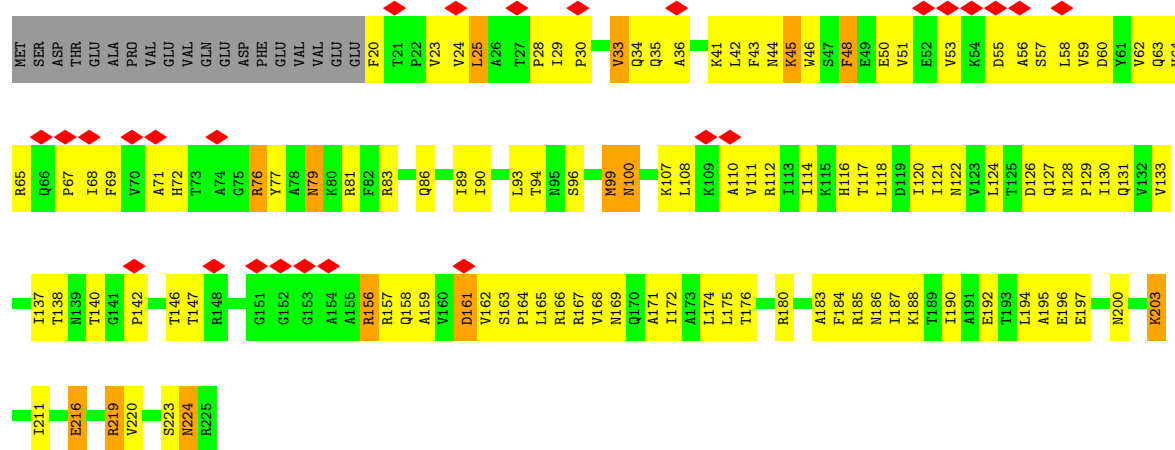
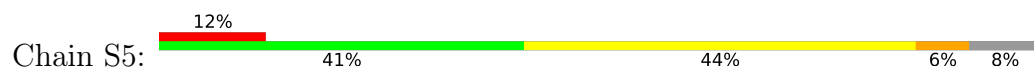
• Molecule 51: 40S ribosomal protein S4

Chain S4: 42% 50% 7%

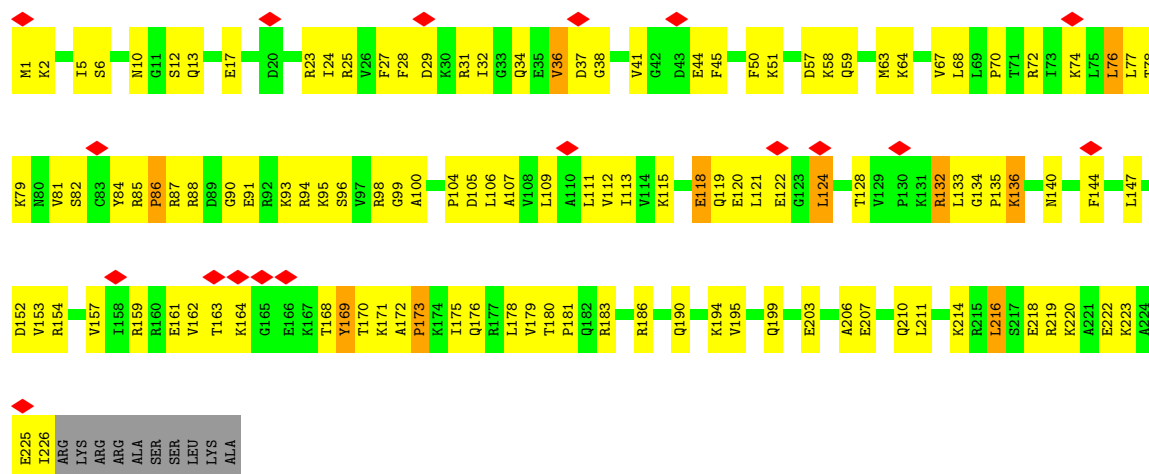




• Molecule 52: 40S ribosomal protein S5

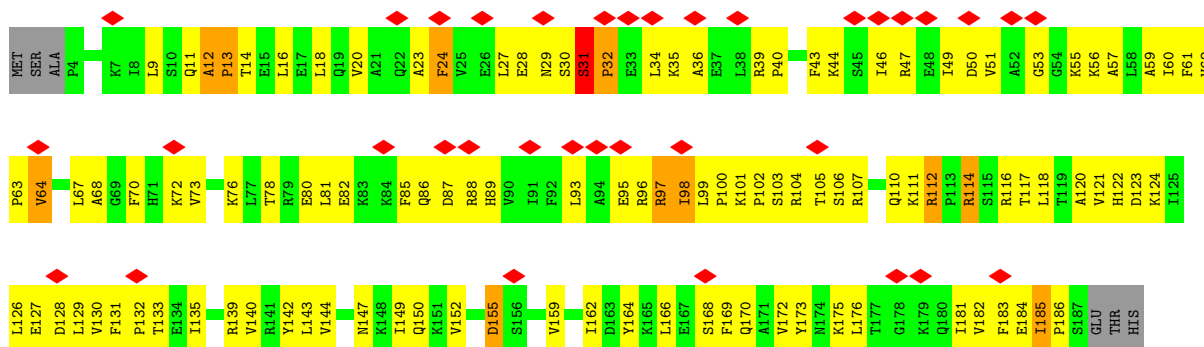


• Molecule 53: 40S ribosomal protein S6

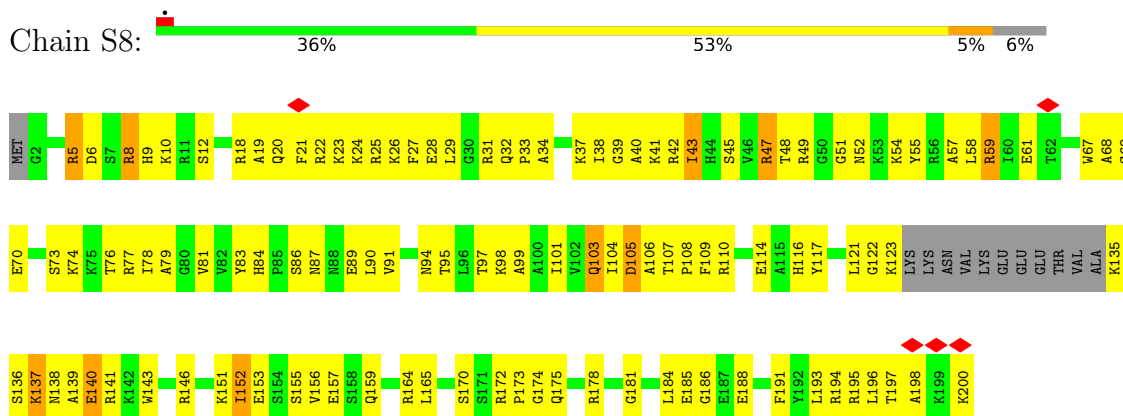


• Molecule 54: 40S ribosomal protein S7





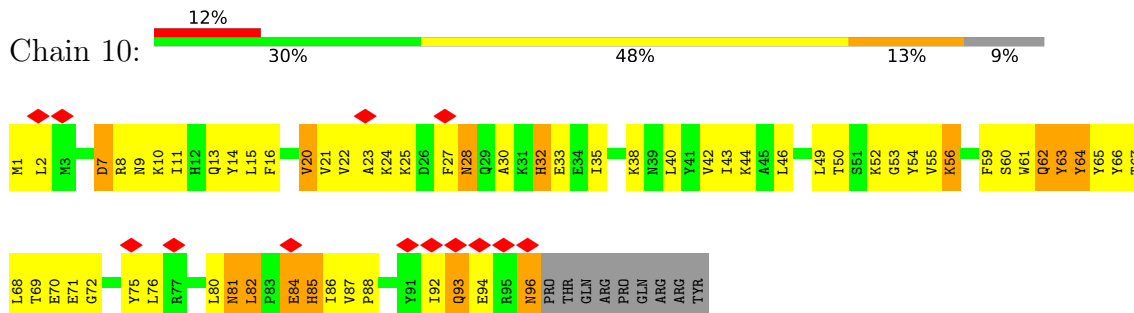
• Molecule 55: 40S ribosomal protein S8



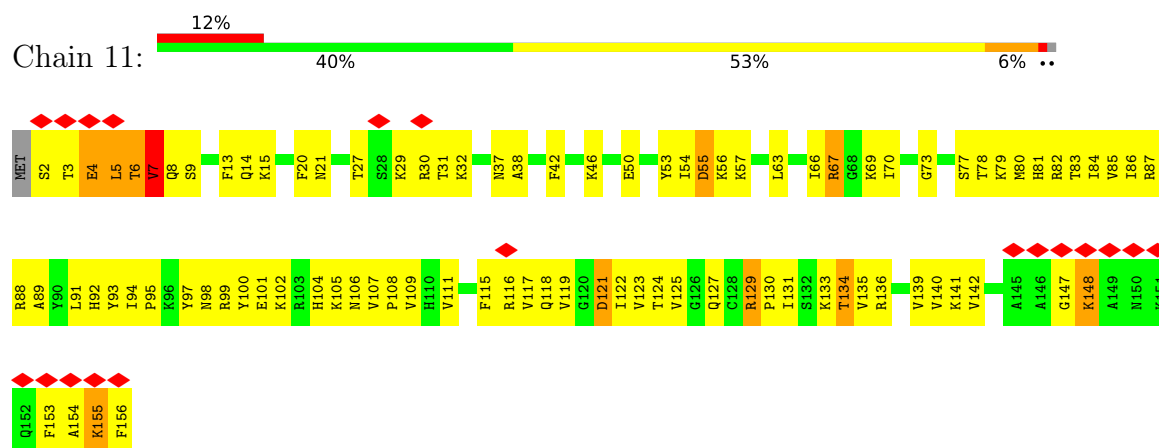
• Molecule 56: 40S ribosomal protein S9



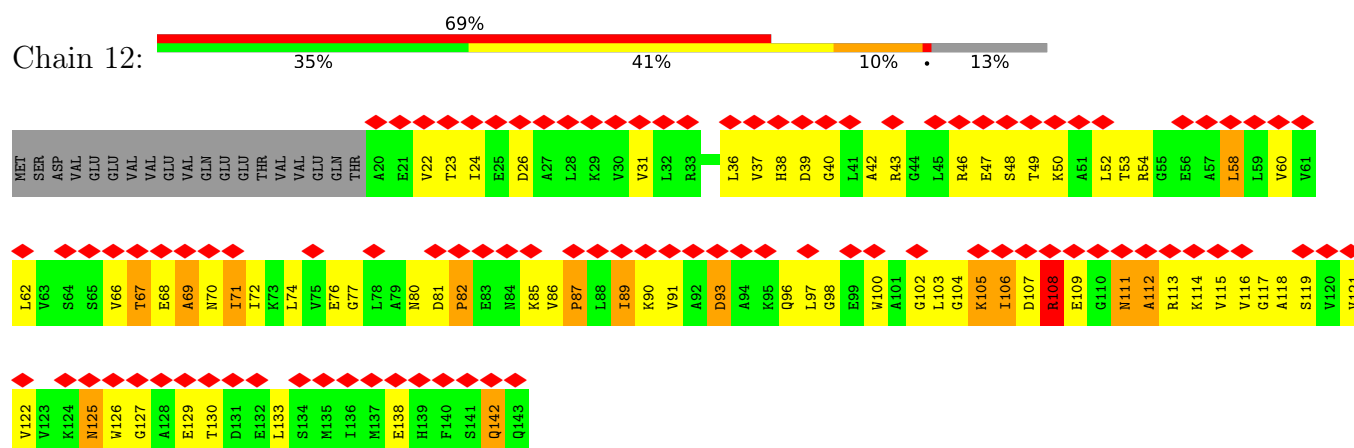
• Molecule 57: 40S ribosomal protein S10



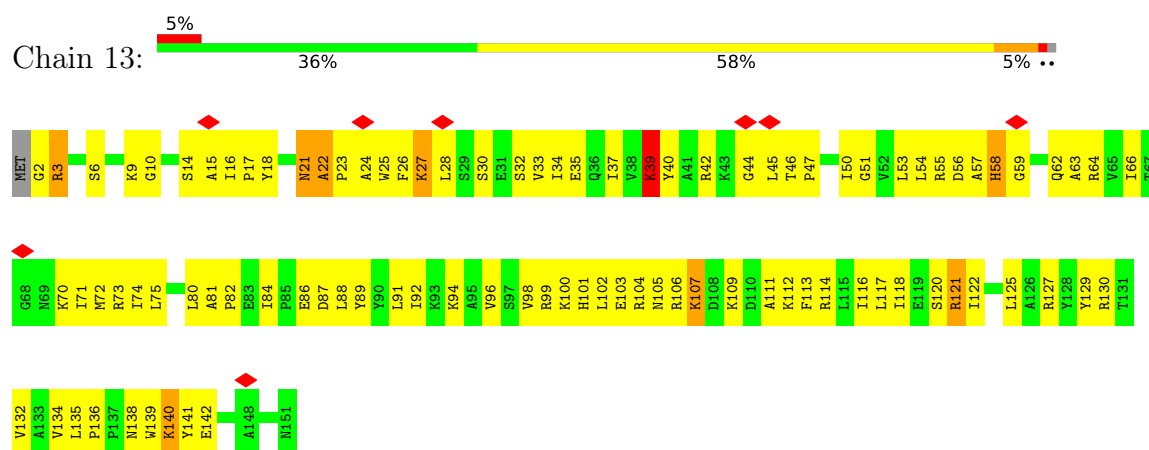
- Molecule 58: 40S ribosomal protein S11



- Molecule 59: 40S ribosomal protein S12

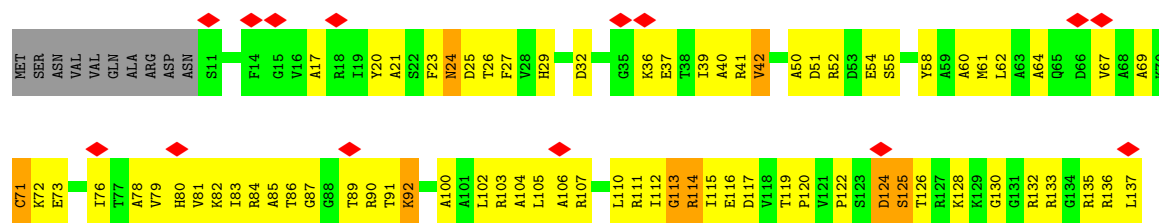


- Molecule 60: 40S ribosomal protein S13

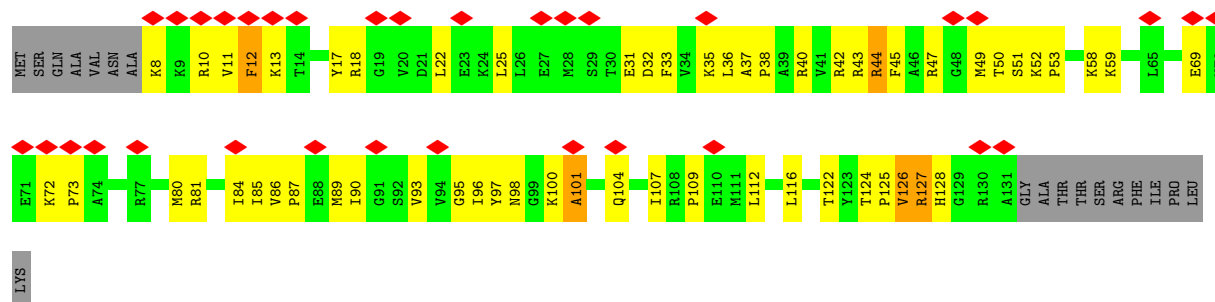


- Molecule 61: 40S ribosomal protein S14

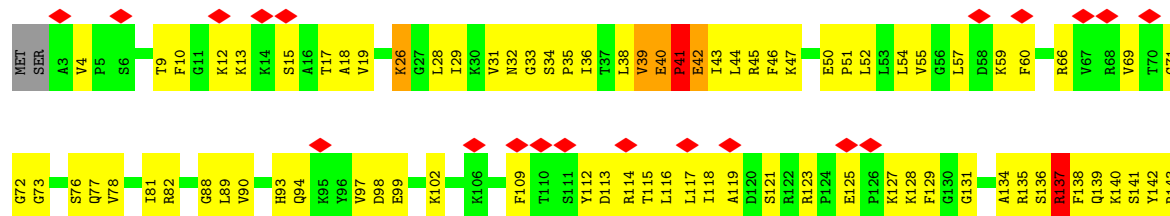
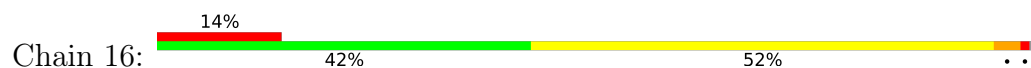




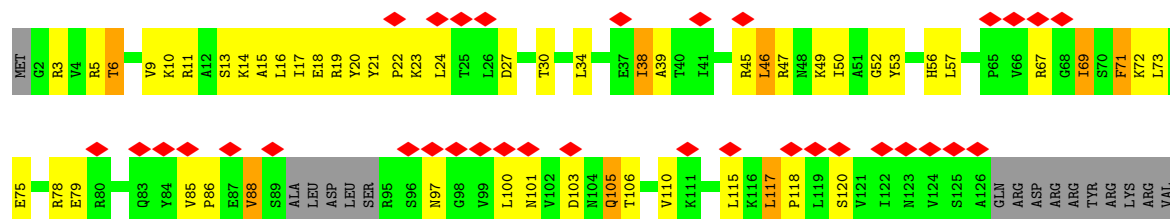
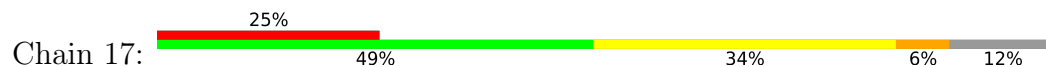
• Molecule 62: 40S ribosomal protein S15



• Molecule 63: 40S ribosomal protein S16

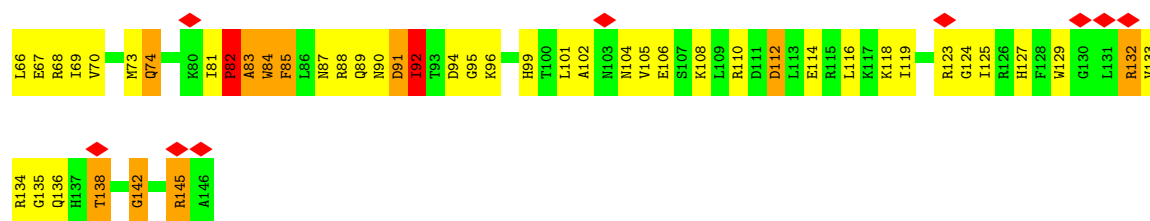


• Molecule 64: 40S ribosomal protein S17

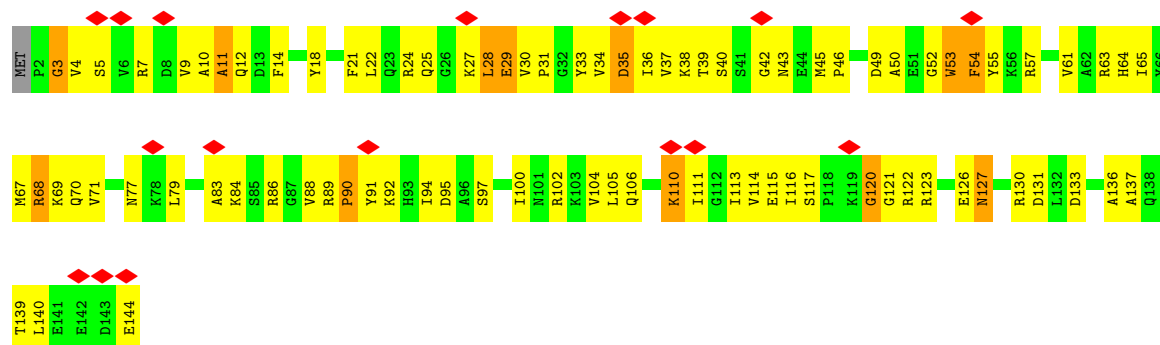


• Molecule 65: 40S ribosomal protein S18

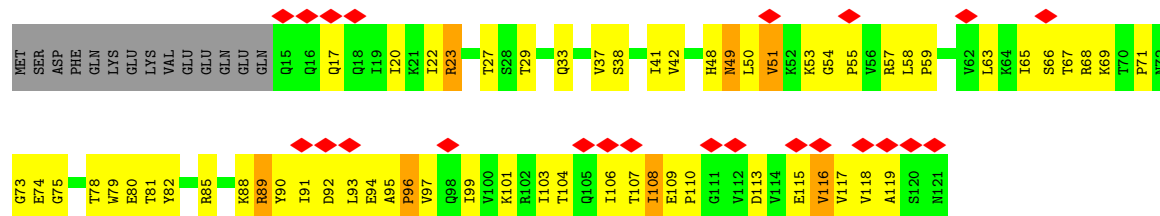




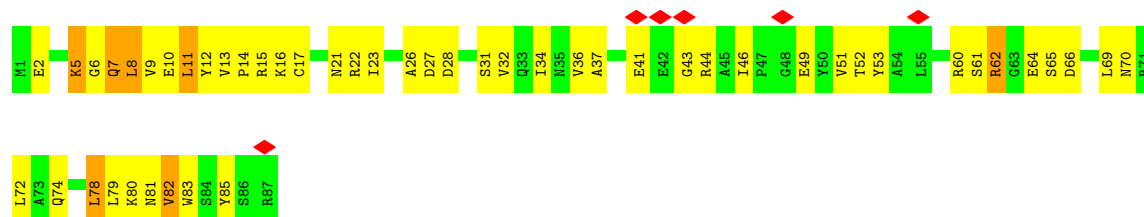
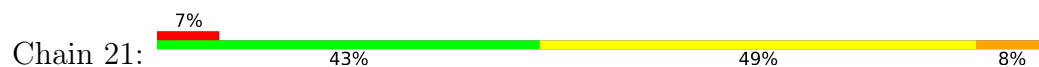
• Molecule 66: 40S ribosomal protein S19



• Molecule 67: 40S ribosomal protein S20



• Molecule 68: 40S ribosomal protein S21

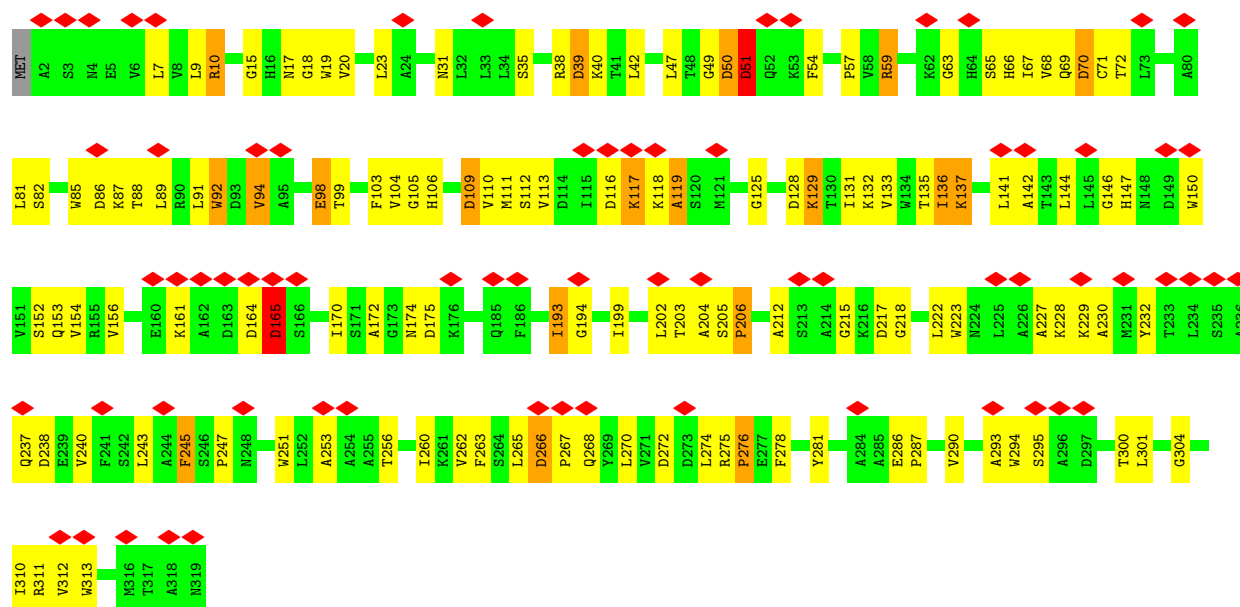


• Molecule 69: 40S ribosomal protein S22

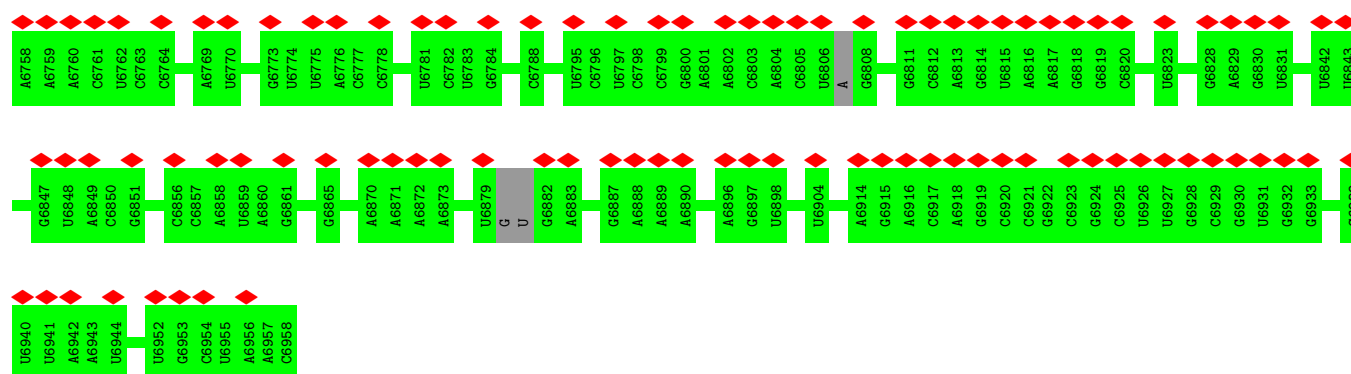




• Molecule 79: Guanine nucleotide-binding protein subunit beta-like protein



• 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	52444	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	CTFFIND3, FREALIGN per micrograph	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	30	Depositor
Minimum defocus (nm)	1150	Depositor
Maximum defocus (nm)	6530	Depositor
Magnification	132138	Depositor
Image detector	FEI FALCON I (4k x 4k)	Depositor
Maximum map value	4.026	Depositor
Minimum map value	-1.575	Depositor
Average map value	0.028	Depositor
Map value standard deviation	0.284	Depositor
Recommended contour level	0.815	Depositor
Map size (\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	0.87	4/79178 (0.0%)	0.76	26/123444 (0.0%)
2	8S	0.84	2/3747 (0.1%)	0.75	3/5832 (0.1%)
3	5S	0.85	1/2884 (0.0%)	0.72	0/4491
4	L1	0.55	0/1634	0.69	0/2195
5	L2	0.51	0/1952	0.71	0/2622
6	L3	0.55	0/3153	0.68	0/4239
7	L4	0.58	0/2802	0.71	0/3792
8	L5	0.55	0/2426	0.63	0/3271
9	L6	0.62	0/1261	0.72	1/1694 (0.1%)
10	L7	0.57	0/1822	0.70	0/2451
11	L8	0.53	0/1850	0.69	0/2495
12	L9	0.57	0/1540	0.71	0/2073
13	50	0.53	0/1754	0.67	0/2350
14	51	0.50	0/1375	0.66	0/1842
15	53	0.57	0/1568	0.72	0/2106
16	54	0.62	0/1069	0.68	0/1438
17	55	0.57	0/1758	0.67	0/2354
18	56	0.57	0/1586	0.70	0/2128
19	57	0.59	0/1466	0.72	0/1968
20	58	0.56	0/1466	0.73	1/1965 (0.1%)
21	59	0.48	0/1539	0.68	0/2050
22	60	0.59	0/1482	0.67	0/1990
23	61	0.57	0/1301	0.68	0/1743
24	62	0.52	0/812	0.63	0/1099
25	63	0.54	0/1019	0.70	0/1369
26	64	0.53	0/521	0.66	0/691
27	65	0.53	0/984	0.69	0/1325
28	66	0.54	0/1005	0.68	0/1341
29	67	0.47	0/1119	0.61	0/1497
30	68	0.56	0/1205	0.72	0/1612
31	69	0.53	0/474	0.71	0/629
32	70	0.49	0/751	0.64	0/1008
33	71	0.52	0/904	0.66	0/1213
34	72	0.58	0/1041	0.70	0/1394

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
35	73	0.64	0/869	0.70	0/1168
36	74	0.50	0/891	0.66	0/1191
37	75	0.52	0/979	0.68	0/1301
38	76	0.54	0/779	0.74	0/1034
39	77	0.56	0/697	0.70	0/923
40	78	0.49	0/619	0.62	0/826
41	79	0.54	0/444	0.70	0/588
42	80	0.53	0/424	0.66	0/562
43	81	0.74	0/235	0.76	0/300
44	82	0.57	0/839	0.71	0/1108
45	83	0.51	0/702	0.66	0/934
46	1S	0.78	1/42445 (0.0%)	0.75	12/66138 (0.0%)
47	S0	0.49	0/1653	0.64	0/2261
48	S1	0.47	0/1735	0.62	0/2335
49	S2	0.45	0/1665	0.65	0/2263
50	S3	0.49	0/1759	0.63	0/2368
51	S4	0.45	0/2110	0.64	0/2839
52	S5	0.48	0/1630	0.63	0/2202
53	S6	0.47	0/1844	0.67	0/2464
54	S7	0.49	0/1506	0.67	1/2028 (0.0%)
55	S8	0.49	0/1515	0.65	0/2021
56	S9	0.43	0/1519	0.67	0/2035
57	10	0.58	0/837	0.65	0/1131
58	11	0.52	0/1273	0.63	0/1712
59	12	0.63	0/943	0.74	0/1274
60	13	0.48	0/1216	0.61	0/1638
61	14	0.49	0/953	0.66	0/1279
62	15	0.52	0/1012	0.65	0/1356
63	16	0.50	0/1126	0.64	0/1510
64	17	0.52	0/974	0.67	0/1304
65	18	0.51	0/1212	0.67	0/1628
66	19	0.51	0/1131	0.64	0/1517
67	20	0.52	0/866	0.61	0/1169
68	21	0.50	0/694	0.63	0/935
69	22	0.46	0/1039	0.65	0/1395
70	23	0.46	0/1140	0.66	1/1518 (0.1%)
71	24	0.47	0/1088	0.59	0/1449
72	25	0.52	0/571	0.71	0/768
73	26	0.46	0/782	0.61	0/1047
74	27	0.50	0/621	0.67	0/838
75	28	0.47	0/500	0.65	0/670
76	29	0.51	0/454	0.59	0/602
77	30	0.48	0/483	0.62	0/643

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
78	31	0.56	0/505	0.68	1/682 (0.1%)
79	RA	0.53	0/2498	0.64	0/3398
All	All	0.73	8/219225 (0.0%)	0.73	46/322063 (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	108
2	8S	0	5
3	5S	0	1
6	L3	0	1
46	1S	0	45
All	All	0	160

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	1S	1	U	OP3-P	-7.30	1.52	1.61
2	8S	1	A	OP3-P	-6.88	1.52	1.61
3	5S	1	G	OP3-P	-6.71	1.53	1.61
1	2S	485	C	N1-C2	6.21	1.46	1.40
1	2S	2095	G	C5-C6	-5.33	1.37	1.42
1	2S	448	U	C3'-O3'	5.24	1.49	1.42
1	2S	447	U	N1-C2	5.01	1.43	1.38
2	8S	1	A	P-O5'	5.01	1.64	1.59

All (46) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	1S	1600	A	N9-C1'-C2'	7.24	123.41	114.00
46	1S	1524	A	O4'-C1'-N9	7.00	113.80	108.20
46	1S	143	G	N9-C1'-C2'	6.38	122.29	114.00
1	2S	315	C	N1-C1'-C2'	6.28	122.16	114.00
1	2S	1172	G	N9-C1'-C2'	6.16	122.00	114.00
1	2S	1284	C	N1-C1'-C2'	6.12	121.95	114.00
1	2S	1262	G	N9-C1'-C2'	6.09	121.92	114.00
1	2S	493	U	N1-C1'-C2'	6.02	121.83	114.00
1	2S	979	U	C2'-C3'-O3'	6.02	123.33	113.70
1	2S	452	G	N9-C1'-C2'	6.01	121.81	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	1S	1696	G	C2'-C3'-O3'	5.99	123.28	113.70
1	2S	2376	G	N9-C1'-C2'	5.94	121.73	114.00
46	1S	1524	A	N9-C1'-C2'	5.93	121.71	114.00
78	31	88	PRO	N-CA-CB	5.92	110.41	103.30
46	1S	654	C	N1-C1'-C2'	5.65	121.34	114.00
1	2S	144	A	N9-C1'-C2'	5.61	121.29	114.00
1	2S	1481	A	N9-C1'-C2'	5.57	121.24	114.00
1	2S	2651	G	N9-C1'-C2'	5.50	121.15	114.00
70	23	111	GLY	N-CA-C	-5.46	99.45	113.10
46	1S	829	A	C2'-C3'-O3'	5.44	122.41	113.70
2	8S	85	G	C2'-C3'-O3'	5.42	122.37	113.70
1	2S	2525	G	C2'-C3'-O3'	5.41	122.36	113.70
1	2S	1431	G	N9-C1'-C2'	5.39	121.01	114.00
46	1S	509	G	N9-C1'-C2'	5.37	120.97	114.00
1	2S	2403	G	O4'-C1'-N9	5.33	112.46	108.20
1	2S	1103	A	C2'-C3'-O3'	5.31	122.20	113.70
46	1S	656	G	OP2-P-O3'	5.30	116.86	105.20
1	2S	395	A	N9-C1'-C2'	5.28	120.86	114.00
1	2S	1513	G	N9-C1'-C2'	5.28	120.86	114.00
2	8S	88	A	N9-C1'-C2'	5.25	120.83	114.00
1	2S	441	U	N1-C1'-C2'	5.25	120.83	114.00
1	2S	2571	U	N1-C1'-C2'	5.24	120.82	114.00
1	2S	2310	U	N1-C1'-C2'	5.23	120.80	114.00
1	2S	763	G	N9-C1'-C2'	5.21	120.78	114.00
46	1S	184	C	N1-C1'-C2'	5.20	120.76	114.00
1	2S	488	U	N1-C1'-C2'	5.18	120.73	114.00
9	L6	64	LEU	CA-CB-CG	5.14	127.14	115.30
1	2S	3218	A	C2'-C3'-O3'	5.14	121.92	113.70
2	8S	1	A	OP1-P-OP2	-5.11	111.94	119.60
1	2S	3351	U	C2'-C3'-O3'	5.11	121.87	113.70
1	2S	874	U	N1-C1'-C2'	5.10	120.64	114.00
46	1S	1657	U	N1-C1'-C2'	5.10	120.63	114.00
54	S7	31	SER	N-CA-C	5.06	124.65	111.00
20	58	127	LEU	CA-CB-CG	5.04	126.88	115.30
46	1S	20	G	N9-C1'-C2'	5.03	120.54	114.00
1	2S	3021	A	N9-C1'-C2'	5.02	120.53	114.00

There are no chirality outliers.

All (160) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
46	1S	1081	A	Sidechain

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

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

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

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

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2S	70742	0	35551	2329	0
2	8S	3354	0	1695	110	0
3	5S	2580	0	1304	89	0
4	L1	1609	0	1701	132	0
5	L2	1918	0	1987	194	0
6	L3	3082	0	3165	270	0
7	L4	2750	0	2863	230	0
8	L5	2376	0	2325	135	0
9	L6	1240	0	1326	100	0
10	L7	1785	0	1862	137	0
11	L8	1818	0	1908	131	0
12	L9	1519	0	1587	117	0
13	50	1718	0	1754	106	0
14	51	1354	0	1383	100	0
15	53	1543	0	1608	131	0
16	54	1054	0	1149	69	0
17	55	1721	0	1779	162	0
18	56	1556	0	1659	122	0
19	57	1443	0	1485	119	0
20	58	1442	0	1543	133	0
21	59	1522	0	1617	104	0
22	60	1446	0	1487	124	0
23	61	1277	0	1323	107	0
24	62	796	0	812	46	0
25	63	1004	0	1048	94	0
26	64	509	0	537	36	0
27	65	969	0	1036	82	0
28	66	994	0	1081	74	0
29	67	1093	0	1155	81	0
30	68	1174	0	1215	109	0
31	69	463	0	491	31	0
32	70	743	0	797	52	0
33	71	890	0	938	66	0
34	72	1020	0	1090	76	0
35	73	851	0	880	76	0
36	74	881	0	949	77	0
37	75	970	0	1078	70	0
38	76	772	0	849	73	0
39	77	682	0	687	57	0
40	78	613	0	682	36	0
41	79	437	0	475	26	0
42	80	418	0	459	32	0
43	81	234	0	284	24	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	82	827	0	901	63	0
45	83	695	0	738	68	0
46	1S	37949	0	19093	1253	0
47	S0	1612	0	1623	101	0
48	S1	1709	0	1784	147	0
49	S2	1635	0	1723	130	0
50	S3	1734	0	1817	103	0
51	S4	2069	0	2154	156	0
52	S5	1610	0	1675	130	0
53	S6	1820	0	1918	125	0
54	S7	1481	0	1572	142	0
55	S8	1490	0	1525	124	0
56	S9	1494	0	1573	120	0
57	10	817	0	804	76	0
58	11	1245	0	1314	108	0
59	12	935	0	975	67	0
60	13	1193	0	1255	107	0
61	14	942	0	979	84	0
62	15	991	0	1035	60	0
63	16	1106	0	1166	79	0
64	17	965	0	1026	64	0
65	18	1193	0	1222	93	0
66	19	1113	0	1124	98	0
67	20	856	0	917	73	0
68	21	685	0	672	44	0
69	22	1022	0	1060	114	0
70	23	1122	0	1196	122	0
71	24	1074	0	1132	81	0
72	25	563	0	603	50	0
73	26	769	0	818	76	0
74	27	611	0	633	32	0
75	28	498	0	535	46	0
76	29	444	0	436	36	0
77	30	475	0	525	43	0
78	31	498	0	441	25	0
79	RA	2445	0	2401	111	0
80	IR	198	0	0	0	0
All	All	204247	0	150969	9608	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 27.

All (9608) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2376:G:H2'	1:2S:2377:G:C8	1.93	1.02
1:2S:943:U:OP1	30:68:15:VAL:HG22	1.59	1.02
1:2S:2207:A:H2'	1:2S:2208:A:H5''	1.40	1.01
60:13:22:ALA:HB1	60:13:23:PRO:HA	1.42	1.01
73:26:84:VAL:HG13	73:26:85:ARG:H	1.20	1.01
15:53:50:PRO:HG3	37:75:118:ILE:HG13	1.37	1.01
44:82:68:VAL:HB	44:82:85:LEU:HB2	1.41	1.01
15:53:47:ALA:HB1	15:53:48:PRO:HD2	1.41	1.01
44:82:100:LYS:HE3	44:82:100:LYS:H	1.16	1.01
1:2S:268:A:H61	1:2S:295:A:H3'	1.26	1.00
6:L3:226:PHE:CZ	6:L3:268:GLY:HA2	1.97	1.00
7:L4:77:VAL:HB	7:L4:86:GLY:H	1.27	1.00
5:L2:112:ILE:HG12	5:L2:135:ILE:HG12	1.44	0.99
7:L4:170:LYS:HE3	7:L4:178:LEU:HD12	1.42	0.99
1:2S:1252:A:H2'	1:2S:1253:U:H5'	1.39	0.99
1:2S:2764:C:H5''	30:68:55:LYS:HG3	1.44	0.99
1:2S:2251:G:H2'	1:2S:2252:A:H5''	1.44	0.99
4:L1:108:ASN:HB2	4:L1:130:LYS:HG2	1.45	0.99
32:70:44:ILE:HG21	32:70:53:LYS:HG3	1.43	0.99
61:14:112:ILE:HG22	61:14:113:GLY:H	1.25	0.99
66:19:25:GLN:HE21	66:19:27:LYS:HD3	1.28	0.99
46:1S:189:C:H2'	46:1S:190:C:H5''	1.44	0.98
47:S0:119:ARG:HB3	47:S0:119:ARG:HH11	1.21	0.98
73:26:60:PRO:O	73:26:61:GLU:HG2	1.64	0.98
1:2S:58:G:H2'	1:2S:59:G:C8	1.98	0.98
3:5S:55:A:H1'	14:51:10:ARG:HG2	1.44	0.98
56:S9:170:GLY:O	56:S9:174:ARG:HG2	1.63	0.98
36:74:22:VAL:HG22	36:74:32:ALA:HB2	1.46	0.98
1:2S:1981:G:H2'	1:2S:1982:G:H5'	1.46	0.98
69:22:80:ASN:ND2	69:22:124:LYS:HG2	1.77	0.98
34:72:33:ARG:HA	34:72:33:ARG:HE	1.28	0.98
1:2S:1951:C:C5	1:2S:2095:G:N1	2.31	0.98
49:S2:38:VAL:HG22	49:S2:39:THR:H	1.24	0.98
64:17:6:THR:HG22	64:17:9:VAL:HG23	1.44	0.98
19:57:122:ALA:HB3	19:57:143:PRO:HB2	1.46	0.97
1:2S:1804:A:H5''	36:74:67:LYS:HE3	1.45	0.97
25:63:74:MET:HG3	25:63:102:ILE:HD11	1.45	0.97
6:L3:261:MET:HB3	18:56:64:PHE:HA	1.45	0.97
1:2S:2405:C:H2'	1:2S:2406:C:C6	1.97	0.97
1:2S:2476:C:H2'	1:2S:2477:G:H4'	1.45	0.97
6:L3:28:ARG:HH11	6:L3:28:ARG:HB2	1.26	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:50:27:PRO:HD3	13:50:122:PRO:HB3	1.44	0.97
21:59:43:LYS:HA	21:59:46:LYS:HE3	1.44	0.97
46:1S:487:G:H2'	46:1S:488:G:H5''	1.44	0.97
1:2S:1064:A:H62	1:2S:1096:U:H3	1.11	0.97
30:68:123:VAL:HG12	30:68:124:ILE:H	1.28	0.97
8:L5:55:PHE:HE2	8:L5:159:VAL:HG22	1.29	0.97
46:1S:56:U:H4'	46:1S:57:G:H5'	1.45	0.97
53:S6:78:THR:HG22	53:S6:79:LYS:H	1.28	0.97
1:2S:2735:U:H5''	23:61:50:LYS:HG2	1.47	0.96
18:56:124:LEU:HG	18:56:126:VAL:HG12	1.47	0.96
47:S0:184:LEU:HD23	68:21:43:GLY:HA2	1.46	0.96
1:2S:954:U:H4'	31:69:8:THR:HG22	1.44	0.96
1:2S:1813:A:H2'	1:2S:1814:A:H5''	1.45	0.96
14:51:94:ARG:H	14:51:94:ARG:HD3	1.28	0.96
22:60:81:TYR:HE1	22:60:88:HIS:HB2	1.30	0.96
1:2S:2778:G:H2'	1:2S:2779:A:H5''	1.46	0.96
39:77:14:LYS:HD2	41:79:51:ILE:HD11	1.46	0.96
12:L9:167:VAL:HG12	12:L9:170:LYS:HB2	1.47	0.96
69:22:30:SER:HA	69:22:34:ILE:HD12	1.45	0.96
1:2S:1240:A:H3'	1:2S:1241:U:C5'	1.95	0.95
50:S3:7:LYS:HA	50:S3:7:LYS:HE3	1.48	0.95
46:1S:422:G:H2'	46:1S:423:G:C8	2.00	0.95
79:RA:59:ARG:HB2	79:RA:59:ARG:NH1	1.80	0.95
25:63:23:MET:HG3	25:63:36:ILE:HD11	1.47	0.95
46:1S:185:U:H2'	46:1S:186:C:H5''	1.47	0.95
47:S0:142:PRO:HG3	68:21:32:VAL:HG13	1.47	0.95
1:2S:126:U:H5'	17:55:141:ALA:HB2	1.45	0.95
25:63:15:LEU:HD23	25:63:53:SER:HB3	1.46	0.95
1:2S:829:U:H3	1:2S:895:A:H62	1.08	0.95
1:2S:2897:A:H5''	42:80:125:LYS:HD2	1.49	0.95
1:2S:2898:G:OP2	1:2S:2899:C:H5'	1.67	0.95
18:56:16:VAL:HA	18:56:41:LEU:HD21	1.47	0.95
57:10:86:ILE:HG23	57:10:87:VAL:H	1.28	0.95
60:13:84:ILE:HB	60:13:88:LEU:HD12	1.46	0.95
18:56:76:PRO:HD2	18:56:106:GLU:OE2	1.67	0.95
1:2S:2821:C:H42	1:2S:2869:U:H3	1.15	0.95
46:1S:1789:G:H8	61:14:132:ARG:HH21	0.95	0.94
46:1S:1080:U:H2'	46:1S:1081:A:H5'	1.47	0.94
6:L3:28:ARG:HB2	6:L3:28:ARG:NH1	1.81	0.94
18:56:76:PRO:HA	18:56:79:ILE:HD12	1.49	0.94
23:61:41:ASP:HB2	23:61:97:LYS:HG3	1.48	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:58:122:ILE:HG23	20:58:126:GLN:HB2	1.49	0.94
1:2S:405:U:H2'	1:2S:406:G:H5'	1.44	0.94
1:2S:1123:U:H2'	1:2S:1124:U:H5'	1.47	0.94
20:58:176:ARG:O	30:68:51:GLY:HA2	1.68	0.94
47:S0:126:PRO:HG3	47:S0:147:THR:HG22	1.47	0.94
29:67:23:VAL:HG12	29:67:45:GLY:HA3	1.49	0.94
46:1S:1036:A:H5'	69:22:3:ARG:HH22	1.31	0.94
1:2S:3178:A:H2'	18:56:115:LYS:HD3	1.49	0.94
58:11:88:ARG:HB2	58:11:105:LYS:O	1.67	0.94
1:2S:449:U:H2'	1:2S:450:G:C8	2.03	0.93
24:62:97:SER:HA	24:62:103:TYR:HA	1.50	0.93
63:16:115:THR:HA	63:16:118:ILE:HG22	1.48	0.93
22:60:77:VAL:HG13	22:60:126:VAL:HG22	1.50	0.93
70:23:96:VAL:HG23	70:23:97:ASP:H	1.33	0.93
1:2S:858:A:O2'	1:2S:859:G:H5'	1.68	0.93
9:L6:78:ARG:HH21	9:L6:106:PHE:HB2	1.33	0.93
48:S1:180:THR:HG22	48:S1:181:LEU:HD13	1.50	0.93
6:L3:33:PRO:HD3	6:L3:339:ARG:HD2	1.50	0.93
63:16:73:GLY:O	63:16:77:GLN:HG3	1.68	0.93
14:51:98:ALA:HA	14:51:156:LYS:HB2	1.50	0.93
40:78:46:ARG:HD2	40:78:51:LEU:HD13	1.50	0.93
46:1S:1076:A:H4'	73:26:13:LYS:HD3	1.50	0.93
66:19:35:ASP:H	66:19:53:TRP:HZ2	1.16	0.93
46:1S:607:G:H5'	46:1S:613:G:H22	1.34	0.93
14:51:48:SER:HB2	14:51:66:ALA:HB3	1.50	0.93
1:2S:2530:G:H2'	1:2S:2531:C:H5''	1.50	0.93
1:2S:1951:C:H6	1:2S:2095:G:H22	1.17	0.92
79:RA:137:LYS:HA	79:RA:137:LYS:HE3	1.50	0.92
46:1S:1657:U:H4'	46:1S:1658:G:H5''	1.51	0.92
9:L6:165:LEU:HB2	35:73:6:ARG:HB3	1.50	0.92
20:58:69:ARG:HA	20:58:72:LYS:HD3	1.50	0.92
46:1S:226:A:H2'	46:1S:227:U:H5'	1.52	0.92
79:RA:59:ARG:HB2	79:RA:59:ARG:HH11	1.31	0.92
46:1S:961:U:H5''	60:13:71:ILE:HG12	1.51	0.92
46:1S:1457:C:O2'	46:1S:1458:G:H5'	1.68	0.92
46:1S:169:A:H5''	53:S6:176:GLN:HG2	1.51	0.92
51:S4:63:ALA:O	51:S4:67:GLN:HG3	1.68	0.92
1:2S:2513:U:H2'	1:2S:2592:G:N2	1.83	0.92
7:L4:23:PRO:HG2	7:L4:258:LEU:HD23	1.51	0.92
57:10:72:GLY:O	57:10:76:LEU:HD13	1.68	0.92
1:2S:824:C:H5''	5:L2:21:ARG:HD3	1.50	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:59:115:ILE:HG13	21:59:119:LEU:HD23	1.51	0.92
1:2S:352:A:H62	1:2S:366:A:H62	0.93	0.91
1:2S:1180:A:H5''	35:73:77:ASN:HB2	1.49	0.91
1:2S:2761:G:H1	1:2S:2795:U:H3'	1.35	0.91
12:L9:89:LYS:HB2	12:L9:183:HIS:HB3	1.48	0.91
32:70:17:VAL:HG11	32:70:92:ILE:HD12	1.52	0.91
17:55:35:VAL:HG22	17:55:65:ARG:HH21	1.33	0.91
54:S7:30:SER:HB2	54:S7:34:LEU:HB2	1.51	0.91
25:63:19:VAL:HG13	25:63:37:ILE:HA	1.50	0.91
46:1S:94:U:H5''	51:S4:6:LYS:HE2	1.52	0.91
65:18:112:ASP:O	65:18:116:LEU:HD13	1.69	0.91
1:2S:2953:U:H2'	1:2S:2954:U:H2'	1.50	0.91
46:1S:136:C:H4'	46:1S:137:U:H5'	1.51	0.91
46:1S:703:G:H2'	46:1S:704:C:H2'	1.51	0.91
25:63:66:LYS:HB2	25:63:69:LEU:HD13	1.49	0.91
46:1S:805:U:H2'	46:1S:806:A:H5''	1.53	0.91
1:2S:1567:U:H3'	1:2S:1568:U:H5''	1.52	0.91
43:81:4:LYS:HZ3	46:1S:1775:U:H5	0.98	0.91
46:1S:818:C:C2'	46:1S:819:G:H5'	2.00	0.91
53:S6:44:GLU:HA	53:S6:119:GLN:HG2	1.52	0.91
27:65:81:ILE:HG12	27:65:125:ARG:HG3	1.50	0.91
31:69:35:VAL:HG12	31:69:36:ASP:H	1.33	0.91
49:S2:178:ILE:HD13	49:S2:188:LEU:HB2	1.51	0.91
11:L8:78:PHE:O	11:L8:79:GLN:HG2	1.69	0.91
46:1S:828:U:H2'	46:1S:829:A:H5''	1.50	0.91
46:1S:1058:U:H5	46:1S:1061:A:H61	1.11	0.91
1:2S:516:A:H2'	1:2S:517:G:H5''	1.52	0.91
1:2S:2372:A:H5''	1:2S:2373:A:H5'	1.50	0.91
2:8S:23:U:H4'	28:66:17:LYS:HG2	1.50	0.90
8:L5:29:ASP:HB2	8:L5:150:LEU:HD21	1.50	0.90
23:61:124:VAL:HG12	23:61:125:ALA:H	1.36	0.90
37:75:85:THR:HG22	37:75:87:ALA:H	1.35	0.90
4:L1:17:LEU:HD23	4:L1:17:LEU:H	1.34	0.90
32:70:10:ILE:O	32:70:14:LEU:HG	1.70	0.90
77:30:39:LEU:HD12	77:30:43:ARG:NH2	1.85	0.90
1:2S:36:C:H2'	1:2S:37:U:H5'	1.51	0.90
1:2S:2521:U:H2'	1:2S:2522:G:H5'	1.54	0.90
34:72:79:VAL:HG22	34:72:108:ILE:HG12	1.53	0.90
23:61:80:VAL:HG11	23:61:85:LEU:HD12	1.54	0.90
25:63:38:ALA:HB3	25:63:59:MET:HB2	1.51	0.90
46:1S:505:A:H3'	46:1S:506:A:H5''	1.52	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:176:VAL:HG12	48:S1:177:GLN:H	1.37	0.90
1:2S:1487:G:H1'	36:74:6:THR:HG21	1.53	0.90
17:55:122:ASN:HB2	17:55:129:TYR:HB2	1.54	0.90
46:1S:1789:G:H8	61:14:132:ARG:NH2	1.69	0.90
64:17:110:VAL:HG11	64:17:117:LEU:HG	1.53	0.90
4:L1:44:GLN:H	4:L1:161:LYS:HB3	1.37	0.90
56:S9:108:ARG:O	56:S9:112:GLN:HG2	1.72	0.90
49:S2:39:THR:O	49:S2:43:ARG:HG3	1.71	0.89
79:RA:23:LEU:HD21	79:RA:310:ILE:HD13	1.54	0.89
49:S2:69:ILE:HD11	49:S2:133:LYS:HD2	1.53	0.89
54:S7:47:ARG:NH1	54:S7:176:LEU:HD23	1.88	0.89
69:22:65:LEU:H	69:22:65:LEU:HD13	1.37	0.89
1:2S:671:U:H4'	20:58:20:LYS:HD3	1.52	0.89
17:55:3:ALA:O	17:55:7:LEU:HD13	1.73	0.89
46:1S:71:A:H2'	46:1S:72:A:H4'	1.54	0.89
46:1S:1156:C:H2'	46:1S:1157:A:H5''	1.52	0.89
9:L6:43:LEU:HD12	9:L6:83:TYR:HA	1.51	0.89
46:1S:504:U:H2'	46:1S:505:A:H4'	1.55	0.89
7:L4:269:SER:O	7:L4:270:SER:HB3	1.70	0.89
15:53:158:ALA:HA	30:68:97:GLU:HA	1.54	0.89
52:S5:36:ALA:HB3	52:S5:45:LYS:HE2	1.54	0.89
46:1S:1258:U:H4'	57:10:2:LEU:HD13	1.53	0.89
53:S6:5:ILE:HG12	53:S6:111:LEU:HD12	1.53	0.89
73:26:10:ARG:HB2	73:26:34:LYS:HG3	1.54	0.89
10:L7:43:ILE:O	10:L7:47:ARG:HG3	1.73	0.89
46:1S:877:G:H1	46:1S:951:A:H61	0.94	0.89
46:1S:1036:A:H2'	46:1S:1037:C:C6	2.07	0.89
79:RA:136:ILE:HD13	79:RA:136:ILE:H	1.34	0.89
46:1S:1089:U:H2'	46:1S:1090:C:C6	2.06	0.89
25:63:45:ARG:HG2	25:63:48:ARG:NE	1.87	0.89
52:S5:124:LEU:HD11	72:25:59:TYR:HB2	1.54	0.89
20:58:132:PRO:HD2	20:58:135:GLN:NE2	1.88	0.88
31:69:59:LYS:H	31:69:59:LYS:HD3	1.38	0.88
7:L4:138:ARG:NH1	7:L4:240:PRO:HD2	1.89	0.88
46:1S:190:C:O2'	46:1S:191:C:H5'	1.73	0.88
46:1S:482:U:H2'	46:1S:483:A:H8	1.36	0.88
46:1S:898:A:H62	46:1S:914:G:H21	1.20	0.88
51:S4:185:GLY:N	51:S4:189:LEU:HD13	1.88	0.88
1:2S:3105:U:H2'	1:2S:3106:A:C8	2.08	0.88
25:63:87:ARG:HH22	25:63:120:LYS:HB3	1.39	0.88
18:56:110:PRO:HB2	18:56:111:PRO:HD3	1.54	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:75:85:THR:HB	37:75:88:LEU:HB2	1.54	0.88
55:S8:137:LYS:O	55:S8:141:ARG:HG3	1.74	0.88
17:55:13:LYS:O	17:55:19:LEU:HD22	1.73	0.88
20:58:176:ARG:HG3	20:58:183:GLY:HA3	1.55	0.88
1:2S:352:A:H62	1:2S:366:A:N6	1.69	0.88
26:64:39:LEU:HD12	26:64:44:LYS:HG3	1.54	0.88
1:2S:1844:C:H2'	1:2S:1845:G:H5''	1.54	0.87
1:2S:2666:C:H1'	1:2S:2691:A:C2	2.10	0.87
1:2S:3349:C:H2'	1:2S:3350:C:C6	2.08	0.87
22:60:81:TYR:CE1	22:60:88:HIS:HB2	2.08	0.87
61:14:20:TYR:HB3	61:14:27:PHE:HB2	1.56	0.87
22:60:78:TRP:HB3	22:60:124:LEU:HB2	1.56	0.87
70:23:127:VAL:HG13	70:23:132:LEU:HD21	1.53	0.87
1:2S:627:U:H4'	1:2S:1399:A:H1'	1.55	0.87
1:2S:1238:C:H3'	1:2S:1239:C:H5''	1.56	0.87
9:L6:52:VAL:HG22	9:L6:53:VAL:H	1.35	0.87
43:81:4:LYS:NZ	46:1S:1775:U:H5	1.71	0.87
46:1S:1060:U:H3'	46:1S:1061:A:H5''	1.56	0.87
46:1S:44:U:H2'	46:1S:45:U:H5	1.37	0.87
46:1S:44:U:H2'	46:1S:45:U:C5	2.09	0.87
58:11:73:GLY:HA3	58:11:86:ILE:HD12	1.55	0.87
58:11:125:VAL:HG12	58:11:139:VAL:HA	1.57	0.87
46:1S:1712:A:H3'	46:1S:1713:G:C5'	2.05	0.87
52:S5:187:ILE:H	52:S5:187:ILE:HD12	1.37	0.87
56:S9:59:LEU:HD23	56:S9:62:ARG:HG3	1.54	0.87
60:13:71:ILE:O	60:13:75:LEU:HD13	1.74	0.87
70:23:125:VAL:HG12	70:23:126:LYS:HG3	1.54	0.87
1:2S:2343:C:H2'	1:2S:2344:U:C6	2.10	0.87
46:1S:384:G:H2'	46:1S:385:A:C8	2.10	0.87
72:25:41:ILE:HG23	72:25:42:LEU:H	1.40	0.87
1:2S:2610:G:H2'	1:2S:2611:U:C6	2.09	0.87
25:63:22:ILE:HG23	25:63:35:TYR:HA	1.54	0.86
1:2S:3007:U:H5''	18:56:72:HIS:O	1.75	0.86
38:76:79:SER:HB3	38:76:81:THR:HG22	1.56	0.86
1:2S:2405:C:H2'	1:2S:2406:C:H6	1.35	0.86
25:63:125:LEU:HD23	25:63:126:TRP:HE1	1.40	0.86
4:L1:18:LYS:HD2	4:L1:24:LYS:HB2	1.57	0.86
43:81:11:ARG:HE	46:1S:1126:G:H5'	1.39	0.86
46:1S:138:A:H61	46:1S:266:A:H61	1.18	0.86
52:S5:203:LYS:HA	52:S5:203:LYS:HE3	1.55	0.86
1:2S:3187:A:H5''	16:54:8:LYS:HE2	1.54	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L6:51:ARG:HH12	9:L6:163:PHE:HB2	1.41	0.86
60:13:26:PHE:CD1	60:13:27:LYS:HE2	2.11	0.86
1:2S:1951:C:H5	1:2S:2095:G:N1	1.72	0.86
17:55:105:ARG:HG2	17:55:108:ARG:HH22	1.41	0.86
35:73:75:HIS:HB3	35:73:80:VAL:HB	1.57	0.86
69:22:118:ARG:HB2	69:22:118:ARG:NH1	1.89	0.86
1:2S:44:U:OP1	17:55:84:PRO:HG2	1.74	0.86
1:2S:502:U:H4'	9:L6:26:ARG:HB3	1.58	0.86
1:2S:2426:U:H2'	1:2S:2427:U:C6	2.10	0.86
9:L6:146:ILE:HD13	9:L6:149:ILE:HD12	1.58	0.86
29:67:87:LEU:HG	29:67:88:ASP:H	1.41	0.86
34:72:19:ARG:HG3	34:72:33:ARG:H	1.41	0.86
35:73:59:VAL:HG23	35:73:60:ARG:H	1.40	0.86
46:1S:657:U:H2'	46:1S:658:C:H5''	1.57	0.86
50:S3:69:LEU:HB3	50:S3:86:LEU:HD22	1.56	0.86
1:2S:39:A:H2'	1:2S:42:C:N4	1.91	0.86
1:2S:1813:A:C2'	1:2S:1814:A:H5''	2.06	0.86
50:S3:40:ARG:HG2	67:20:110:PRO:HB3	1.57	0.86
71:24:104:SER:HB3	71:24:107:GLN:HB2	1.57	0.86
40:78:64:LYS:HE2	40:78:64:LYS:HA	1.58	0.85
46:1S:877:G:H1	46:1S:951:A:N6	1.74	0.85
46:1S:924:A:H2'	46:1S:925:G:C8	2.10	0.85
27:65:67:ILE:HD11	27:65:121:LYS:HG3	1.56	0.85
1:2S:1696:A:H2'	1:2S:1697:A:C8	2.12	0.85
1:2S:3007:U:OP1	18:56:73:PHE:HA	1.75	0.85
46:1S:1058:U:H5	46:1S:1061:A:N6	1.72	0.85
66:19:25:GLN:HE22	66:19:111:ILE:HD11	1.41	0.85
1:2S:649:A:H2'	1:2S:650:C:C6	2.12	0.85
1:2S:715:A:H5'	1:2S:753:C:H4'	1.58	0.85
53:S6:81:VAL:HG22	53:S6:82:SER:H	1.41	0.85
7:L4:52:VAL:HG22	7:L4:53:SER:H	1.40	0.85
25:63:66:LYS:HB3	25:63:68:GLU:OE2	1.76	0.85
71:24:113:ASN:HA	71:24:116:LYS:HD3	1.58	0.85
1:2S:2882:U:H2'	1:2S:2883:U:C6	2.11	0.85
3:5S:62:U:H4'	8:L5:285:ARG:HH12	1.42	0.85
17:55:110:ALA:HB1	17:55:113:LEU:HD23	1.58	0.85
34:72:102:ALA:HA	34:72:105:ARG:HD3	1.56	0.85
49:S2:73:LEU:HD23	49:S2:76:LEU:HD13	1.59	0.85
59:12:89:ILE:HD13	59:12:90:LYS:H	1.42	0.85
1:2S:1019:G:H2'	1:2S:1020:G:H5''	1.57	0.85
46:1S:460:A:H3'	46:1S:461:G:H8	1.41	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:11:46:LYS:O	58:11:50:GLU:HG3	1.77	0.85
1:2S:398:A:OP2	19:57:2:ALA:HB3	1.76	0.85
1:2S:798:G:H5''	15:53:15:ARG:HH21	1.39	0.85
1:2S:1290:A:H2'	1:2S:1291:A:C8	2.12	0.85
56:S9:179:ARG:HA	56:S9:182:GLU:HG2	1.57	0.85
1:2S:1079:A:H5'	8:L5:142:PHE:HA	1.57	0.85
3:5S:11:A:O2'	3:5S:13:A:H5''	1.75	0.85
51:S4:90:ILE:HD12	51:S4:90:ILE:N	1.92	0.85
1:2S:1571:A:H2'	1:2S:1572:U:O4'	1.76	0.85
1:2S:1951:C:H5	1:2S:2095:G:H1	1.19	0.85
1:2S:2180:G:H2'	1:2S:2181:C:C6	2.12	0.85
1:2S:3163:A:H3'	1:2S:3164:C:H5''	1.59	0.85
1:2S:3341:U:O2'	1:2S:3342:A:H5'	1.77	0.85
51:S4:94:ALA:HB1	71:24:17:LEU:HB3	1.59	0.85
1:2S:3074:G:H4'	33:71:62:ARG:HD2	1.57	0.84
7:L4:263:GLY:HA3	7:L4:269:SER:HA	1.58	0.84
7:L4:334:PHE:HA	7:L4:339:LEU:HD12	1.57	0.84
11:L8:133:LYS:HB2	11:L8:199:ALA:HB3	1.59	0.84
13:50:87:LEU:HA	13:50:138:VAL:HG22	1.59	0.84
16:54:49:PRO:HG2	16:54:82:SER:OG	1.76	0.84
52:S5:112:ARG:HA	52:S5:112:ARG:HE	1.40	0.84
1:2S:2205:U:H2'	1:2S:2206:G:H5'	1.59	0.84
6:L3:156:SER:O	6:L3:188:ILE:HG21	1.76	0.84
16:54:123:LEU:HD22	18:56:190:VAL:HG23	1.59	0.84
19:57:176:ILE:HA	19:57:179:GLN:HG3	1.57	0.84
21:59:162:ARG:HD3	46:1S:815:G:H5''	1.59	0.84
44:82:70:LEU:HD12	44:82:83:LEU:HB3	1.59	0.84
69:22:11:LEU:HA	69:22:14:ILE:HD12	1.56	0.84
1:2S:1951:C:H5	1:2S:2095:G:C6	1.95	0.84
38:76:98:ARG:N	38:76:98:ARG:HD2	1.90	0.84
1:2S:3040:A:H5''	25:63:12:ARG:HB2	1.58	0.84
1:2S:3298:C:H2'	1:2S:3299:A:H8	1.40	0.84
51:S4:11:ARG:HH21	51:S4:11:ARG:HG3	1.42	0.84
1:2S:1902:G:H2'	1:2S:1903:U:O4'	1.77	0.84
5:L2:104:LEU:HD13	5:L2:162:ALA:O	1.77	0.84
9:L6:4:GLN:HB2	34:72:75:LEU:HB2	1.57	0.84
22:60:80:ARG:O	22:60:122:HIS:HB2	1.76	0.84
79:RA:69:GLN:HB2	79:RA:85:TRP:HE1	1.42	0.84
34:72:94:ALA:HB3	34:72:119:VAL:HA	1.58	0.84
46:1S:448:C:H5'	51:S4:29:PRO:HG3	1.59	0.84
1:2S:352:A:N6	1:2S:366:A:H62	1.76	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:S3:11:LEU:HD13	67:20:29:THR:HG23	1.58	0.84
53:S6:163:THR:HG22	53:S6:168:THR:CG2	2.07	0.84
55:S8:42:ARG:HB3	55:S8:58:LEU:O	1.78	0.84
1:2S:2189:U:H4'	45:83:22:LEU:HD11	1.60	0.84
1:2S:3314:A:H2'	1:2S:3315:G:C8	2.13	0.84
20:58:132:PRO:HD2	20:58:135:GLN:HE22	1.42	0.84
48:S1:205:PHE:HD1	48:S1:206:PRO:HD2	1.42	0.84
51:S4:122:LYS:HG2	51:S4:164:LEU:HD21	1.58	0.84
55:S8:22:ARG:HB2	55:S8:25:ARG:NH2	1.93	0.84
28:66:87:LYS:HB2	28:66:97:ILE:HD11	1.60	0.84
75:28:10:ALA:HA	75:28:32:PHE:HA	1.58	0.84
1:2S:2778:G:C2'	1:2S:2779:A:H5''	2.07	0.83
1:2S:2931:C:H5''	25:63:40:LYS:HD2	1.57	0.83
15:53:106:GLN:HB3	38:76:18:THR:HG23	1.60	0.83
46:1S:1579:U:H2'	46:1S:1580:C:C6	2.13	0.83
3:5S:39:C:H4'	14:51:44:THR:O	1.78	0.83
11:L8:130:TYR:HB3	11:L8:204:ARG:HH21	1.41	0.83
18:56:3:VAL:HG13	18:56:4:GLU:HG3	1.59	0.83
25:63:77:ILE:HD12	25:63:77:ILE:N	1.93	0.83
10:L7:59:GLU:O	10:L7:63:ILE:HG13	1.77	0.83
34:72:60:ASN:O	34:72:64:LYS:HG3	1.78	0.83
42:80:79:GLU:HG2	42:80:82:LEU:HD12	1.58	0.83
57:10:30:ALA:HA	57:10:38:LYS:HG2	1.58	0.83
6:L3:25:ILE:HD13	6:L3:25:ILE:H	1.42	0.83
6:L3:81:THR:HG22	6:L3:205:VAL:HG21	1.59	0.83
46:1S:1610:G:H5''	52:S5:107:LYS:HB2	1.60	0.83
60:13:114:ARG:HD3	60:13:117:LEU:HD12	1.60	0.83
65:18:65:GLU:HG2	65:18:68:ARG:NH2	1.94	0.83
52:S5:165:LEU:HD23	75:28:47:PRO:HB2	1.61	0.83
18:56:19:LEU:O	18:56:23:VAL:HG23	1.78	0.83
51:S4:95:THR:HG22	71:24:16:PRO:HD2	1.59	0.83
1:2S:118:U:H3	1:2S:122:A:H5''	1.40	0.83
10:L7:82:LYS:HA	10:L7:119:VAL:HB	1.59	0.83
33:71:60:TRP:HZ3	33:71:64:VAL:HG22	1.42	0.83
60:13:16:ILE:HG13	60:13:62:GLN:HE22	1.44	0.83
60:13:132:VAL:HG23	60:13:134:VAL:HG13	1.58	0.83
1:2S:876:A:H4'	1:2S:1890:U:H4'	1.61	0.83
1:2S:1283:C:H2'	1:2S:1284:C:H5'	1.61	0.83
14:51:23:VAL:HG12	14:51:24:GLY:H	1.43	0.83
19:57:127:ARG:HB2	19:57:127:ARG:HH11	1.43	0.83
24:62:15:PHE:HB2	24:62:65:VAL:HB	1.60	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:77:47:TYR:HB3	39:77:49:TRP:NE1	1.94	0.83
46:1S:1381:U:H4'	67:20:59:PRO:HG3	1.60	0.83
79:RA:89:LEU:HD21	79:RA:110:VAL:HG11	1.60	0.83
9:L6:67:GLY:HA2	9:L6:74:VAL:HB	1.61	0.82
10:L7:152:GLY:HA3	10:L7:163:LEU:HD12	1.61	0.82
46:1S:4:C:H4'	49:S2:181:SER:HB3	1.60	0.82
67:20:69:LYS:HD2	67:20:78:THR:HB	1.61	0.82
5:L2:129:ALA:HB3	5:L2:132:ASN:HB2	1.61	0.82
12:L9:134:ILE:H	12:L9:134:ILE:HD12	1.44	0.82
37:75:29:ALA:HA	37:75:32:LYS:HE2	1.60	0.82
42:80:93:LYS:HD2	42:80:104:PRO:HA	1.62	0.82
46:1S:818:C:H2'	46:1S:819:G:H5'	1.59	0.82
46:1S:1531:G:H5'	72:25:81:ARG:HH22	1.44	0.82
1:2S:374:A:H4'	1:2S:375:A:H5'	1.60	0.82
1:2S:1887:A:H2'	1:2S:1888:U:H5'	1.59	0.82
43:81:4:LYS:HE3	46:1S:1774:G:OP2	1.78	0.82
46:1S:868:G:H1	46:1S:960:U:H3	1.24	0.82
48:S1:214:LYS:HG2	48:S1:215:VAL:H	1.43	0.82
49:S2:137:ILE:HD11	68:21:26:ALA:HB3	1.59	0.82
49:S2:176:SER:HA	56:S9:53:ARG:NH1	1.94	0.82
69:22:103:ILE:HD13	69:22:104:LEU:N	1.94	0.82
1:2S:1240:A:C3'	1:2S:1241:U:H5''	2.08	0.82
1:2S:1764:U:H3'	1:2S:1765:U:H5''	1.61	0.82
1:2S:2207:A:C2'	1:2S:2208:A:H5''	2.09	0.82
4:L1:79:SER:HB2	4:L1:141:ASN:HD21	1.44	0.82
25:63:39:VAL:HA	25:63:58:VAL:HG12	1.61	0.82
46:1S:1217:A:H5''	57:10:1:MET:HG3	1.61	0.82
53:S6:88:ARG:HB3	53:S6:91:GLU:HB2	1.60	0.82
56:S9:48:GLN:HA	56:S9:51:LYS:HE2	1.60	0.82
59:12:108:ARG:HG3	59:12:112:ALA:HB3	1.61	0.82
63:16:129:PHE:HB2	67:20:79:TRP:HD1	1.43	0.82
7:L4:152:VAL:HG12	7:L4:153:SER:N	1.95	0.82
13:50:174:THR:HG22	13:50:176:LEU:H	1.42	0.82
46:1S:607:G:H5'	46:1S:613:G:N2	1.95	0.82
1:2S:1235:U:H4'	1:2S:1236:G:H5'	1.61	0.82
1:2S:996:A:H2'	1:2S:997:A:O4'	1.78	0.82
1:2S:2736:A:H4'	23:61:71:SER:OG	1.80	0.82
1:2S:1158:A:H2'	1:2S:1159:A:H4'	1.61	0.82
20:58:58:ASN:HA	20:58:144:ARG:HD3	1.62	0.82
9:L6:68:PRO:HG2	9:L6:146:ILE:HD11	1.61	0.82
13:50:85:PHE:HA	13:50:140:THR:HG22	1.62	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:56:46:GLU:HG3	18:56:49:ARG:H	1.45	0.82
46:1S:50:C:H2'	46:1S:424:C:H41	1.43	0.82
47:S0:31:VAL:HB	47:S0:34:GLU:HG2	1.62	0.82
13:50:69:ARG:O	13:50:73:ASN:HB2	1.80	0.81
17:55:58:GLY:HA3	17:55:142:ILE:HD11	1.60	0.81
44:82:91:PHE:CE2	44:82:93:LEU:HD22	2.15	0.81
48:S1:37:THR:HG23	48:S1:231:LEU:HD21	1.62	0.81
38:76:79:SER:CB	38:76:81:THR:HG22	2.10	0.81
1:2S:636:C:N4	1:2S:2375:G:H1	1.78	0.81
1:2S:2085:U:H2'	1:2S:2086:A:H5'	1.62	0.81
17:55:118:SER:CB	17:55:132:VAL:HG22	2.09	0.81
49:S2:137:ILE:HG12	49:S2:138:PRO:HD2	1.62	0.81
63:16:129:PHE:HB2	67:20:79:TRP:CD1	2.16	0.81
1:2S:2357:A:H2'	1:2S:2358:A:C8	2.16	0.81
1:2S:3208:G:H5''	1:2S:3210:A:O4'	1.80	0.81
5:L2:150:LEU:HD12	5:L2:154:ALA:HB3	1.62	0.81
1:2S:1114:U:H5''	30:68:22:ILE:HD12	1.61	0.81
1:2S:2102:U:H2'	1:2S:2103:U:C6	2.15	0.81
38:76:50:LEU:HD22	38:76:54:GLU:HB3	1.60	0.81
46:1S:748:U:O3'	69:22:122:SER:HB3	1.80	0.81
46:1S:954:G:H2'	46:1S:955:A:C8	2.15	0.81
49:S2:86:VAL:HG11	49:S2:99:LYS:HD2	1.62	0.81
7:L4:222:VAL:HG13	7:L4:225:VAL:HB	1.61	0.81
20:58:155:MET:HA	20:58:161:LYS:HB2	1.62	0.81
34:72:98:HIS:CE1	34:72:99:ASN:HD22	1.98	0.81
6:L3:261:MET:CE	6:L3:263:SER:HB2	2.09	0.81
46:1S:405:C:H5''	53:S6:93:LYS:HE2	1.63	0.81
1:2S:1221:A:H3'	1:2S:1222:G:H5''	1.62	0.81
1:2S:1951:C:C6	1:2S:2095:G:N1	2.47	0.81
5:L2:116:VAL:O	5:L2:126:LEU:HD12	1.80	0.81
22:60:16:THR:H	22:60:20:PRO:HA	1.45	0.81
36:74:23:VAL:HG12	36:74:24:LYS:H	1.46	0.81
37:75:64:GLU:HA	37:75:67:ARG:HG3	1.63	0.81
46:1S:802:G:H21	69:22:107:SER:HB3	1.43	0.81
1:2S:2775:U:H2'	1:2S:2776:C:C6	2.16	0.81
16:54:106:ARG:HA	16:54:109:ARG:HD2	1.61	0.81
26:64:8:PHE:HB2	26:64:31:PHE:HE1	1.46	0.81
49:S2:203:LYS:NZ	49:S2:205:ARG:HB2	1.96	0.81
1:2S:3156:U:O2'	1:2S:3157:U:H5''	1.79	0.81
1:2S:3354:U:OP1	1:2S:3356:G:H5'	1.80	0.81
6:L3:232:ARG:HA	6:L3:270:ARG:HD2	1.60	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:11:118:GLN:HG2	58:11:119:VAL:H	1.44	0.81
60:13:118:ILE:O	60:13:122:ILE:HG13	1.81	0.81
64:17:20:TYR:HD2	64:17:23:LYS:HD2	1.45	0.81
6:L3:103:THR:HG21	6:L3:147:GLU:HB3	1.60	0.80
14:51:104:PHE:O	14:51:127:PHE:HB2	1.81	0.80
15:53:180:ARG:O	15:53:184:GLU:HG3	1.80	0.80
18:56:188:SER:O	18:56:192:LYS:HG2	1.81	0.80
56:S9:112:GLN:HG3	56:S9:148:VAL:HG21	1.63	0.80
46:1S:144:U:O2'	46:1S:145:A:H5'	1.81	0.80
53:S6:31:ARG:HD2	53:S6:34:GLN:NE2	1.96	0.80
79:RA:116:ASP:HB3	79:RA:156:VAL:HG11	1.61	0.80
6:L3:84:VAL:HG13	6:L3:163:HIS:O	1.80	0.80
29:67:53:VAL:HG23	29:67:62:VAL:HG13	1.63	0.80
46:1S:1672:G:H2'	46:1S:1673:G:C8	2.16	0.80
53:S6:23:ARG:HG2	53:S6:23:ARG:HH21	1.45	0.80
57:10:11:ILE:HD13	57:10:35:ILE:HG21	1.63	0.80
3:5S:26:C:H5'	8:L5:57:ASN:H	1.47	0.80
6:L3:226:PHE:CE1	6:L3:268:GLY:HA2	2.16	0.80
20:58:64:VAL:HG13	20:58:93:ILE:HD11	1.61	0.80
46:1S:654:C:C3'	46:1S:655:G:H5''	2.10	0.80
46:1S:730:G:H21	46:1S:731:C:H5''	1.46	0.80
70:23:132:LEU:HD13	70:23:135:LEU:HD12	1.61	0.80
1:2S:2731:U:H2'	1:2S:2732:G:C8	2.16	0.80
11:L8:105:LYS:O	11:L8:109:LEU:HG	1.82	0.80
13:50:129:VAL:HG13	13:50:133:GLN:OE1	1.82	0.80
72:25:60:VAL:HG23	72:25:101:TYR:HB2	1.62	0.80
1:2S:1534:A:H2'	1:2S:1535:A:C8	2.16	0.80
10:L7:77:VAL:HG12	22:60:59:VAL:CG1	2.11	0.80
10:L7:232:ARG:HD3	10:L7:235:PHE:HB2	1.64	0.80
23:61:82:ASN:O	31:69:21:ILE:HA	1.81	0.80
28:66:35:LEU:HD23	28:66:106:ILE:HD12	1.61	0.80
46:1S:401:A:H4'	51:S4:3:ARG:HD3	1.62	0.80
52:S5:30:PRO:HB2	52:S5:33:VAL:HG23	1.61	0.80
1:2S:836:A:H1'	45:83:13:LYS:HB3	1.63	0.80
1:2S:1603:A:OP1	21:59:38:ARG:HD2	1.81	0.80
1:2S:2174:G:H4'	1:2S:2175:U:H3'	1.63	0.80
6:L3:296:THR:HG22	6:L3:297:SER:N	1.96	0.80
20:58:100:THR:HG23	20:58:122:ILE:HD13	1.64	0.80
30:68:81:LEU:HD22	30:68:107:ALA:HB1	1.62	0.80
66:19:57:ARG:HB2	66:19:57:ARG:NH1	1.96	0.80
1:2S:88:A:N1	1:2S:281:G:H1'	1.97	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1218:U:H2'	1:2S:1219:C:H5'	1.64	0.80
1:2S:2856:G:H2'	1:2S:2857:C:C6	2.17	0.80
4:L1:116:LEU:O	4:L1:116:LEU:HD23	1.82	0.80
6:L3:189:SER:O	6:L3:192:VAL:HG12	1.81	0.80
17:55:105:ARG:HG2	17:55:108:ARG:NH2	1.96	0.80
22:60:35:VAL:HA	22:60:38:LYS:HE2	1.63	0.80
34:72:65:PHE:HB2	34:72:72:LYS:HE3	1.62	0.80
56:S9:132:ARG:HD2	56:S9:142:ASN:HB3	1.62	0.80
61:14:21:ALA:HA	61:14:26:THR:HG22	1.62	0.80
72:25:59:TYR:CE2	72:25:100:ILE:HG12	2.17	0.80
1:2S:170:G:H2'	1:2S:171:G:H8	1.46	0.80
10:L7:41:ARG:NH1	10:L7:41:ARG:HB3	1.97	0.80
25:63:77:ILE:HD11	25:63:103:ALA:HB2	1.63	0.80
25:63:93:LEU:HD23	25:63:93:LEU:H	1.47	0.80
38:76:9:ILE:HA	38:76:13:LYS:HG3	1.62	0.80
46:1S:102:U:H3'	46:1S:360:A:H61	1.47	0.80
46:1S:370:A:H2'	46:1S:371:G:O4'	1.82	0.80
49:S2:53:ILE:HD11	49:S2:73:LEU:HB2	1.64	0.80
49:S2:140:ARG:HE	49:S2:155:ALA:HB2	1.46	0.80
58:11:87:ARG:HA	58:11:106:ASN:OD1	1.81	0.80
59:12:108:ARG:HG2	59:12:109:GLU:N	1.97	0.80
61:14:86:THR:HG21	61:14:90:ARG:HG3	1.64	0.80
1:2S:2280:A:H2'	1:2S:2281:A:H3'	1.64	0.79
1:2S:2995:A:H2'	1:2S:2996:U:H5''	1.63	0.79
6:L3:339:ARG:HG2	6:L3:340:LYS:H	1.45	0.79
21:59:90:PRO:HB2	21:59:93:VAL:HG23	1.64	0.79
54:S7:139:ARG:HD2	69:22:53:ILE:HG22	1.63	0.79
72:25:96:SER:O	72:25:97:LYS:HG2	1.82	0.79
1:2S:636:C:H42	1:2S:2375:G:H1	1.26	0.79
9:L6:43:LEU:HD11	35:73:105:SER:HB2	1.63	0.79
12:L9:112:ILE:HB	12:L9:126:VAL:HB	1.65	0.79
15:53:57:VAL:HG12	15:53:69:VAL:HG22	1.64	0.79
52:S5:94:THR:HG22	52:S5:114:ILE:HD11	1.65	0.79
55:S8:103:GLN:HG2	55:S8:164:ARG:HG2	1.62	0.79
58:11:133:LYS:NZ	58:11:134:THR:HG23	1.96	0.79
1:2S:2435:G:H2'	1:2S:2436:U:C6	2.18	0.79
22:60:8:GLN:HB2	22:60:64:ILE:HD11	1.64	0.79
24:62:96:VAL:HG12	24:62:97:SER:H	1.48	0.79
41:79:3:ALA:H	41:79:5:LYS:HE2	1.46	0.79
46:1S:905:A:H5''	61:14:52:ARG:HD3	1.62	0.79
46:1S:1420:C:H2'	46:1S:1421:A:H5'	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:53:ILE:HG12	49:S2:72:LEU:HB3	1.65	0.79
54:S7:47:ARG:HH11	54:S7:176:LEU:HD23	1.46	0.79
69:22:118:ARG:HH11	69:22:118:ARG:CB	1.96	0.79
7:L4:159:ILE:HB	7:L4:215:ILE:HD13	1.62	0.79
47:S0:170:ILE:H	47:S0:170:ILE:HD12	1.48	0.79
69:22:10:ALA:O	69:22:14:ILE:HG13	1.83	0.79
1:2S:3094:A:H2'	1:2S:3095:U:C6	2.17	0.79
8:L5:223:PHE:O	8:L5:227:LEU:HD13	1.82	0.79
20:58:30:VAL:O	20:58:34:THR:HG23	1.83	0.79
27:65:126:LEU:HD12	27:65:132:ALA:HB2	1.65	0.79
1:2S:2533:G:H5'	1:2S:2533:G:H8	1.47	0.79
17:55:8:GLU:HG3	17:55:50:ARG:HH22	1.46	0.79
45:83:19:GLY:O	45:83:23:ARG:HG3	1.82	0.79
48:S1:54:LEU:O	48:S1:55:LYS:HB3	1.82	0.79
3:5S:112:G:H2'	3:5S:113:C:C6	2.17	0.79
19:57:129:THR:HB	19:57:137:ASN:HB2	1.63	0.79
29:67:54:THR:HG22	29:67:57:HIS:CD2	2.17	0.79
46:1S:127:G:H4'	53:S6:194:LYS:HE2	1.63	0.79
79:RA:20:VAL:HG11	79:RA:310:ILE:HD11	1.65	0.79
1:2S:1215:U:H2'	1:2S:1216:C:C6	2.18	0.79
1:2S:2513:U:O2'	1:2S:2514:U:H2'	1.81	0.79
6:L3:5:LYS:HG2	6:L3:6:TYR:CD1	2.17	0.79
7:L4:300:ARG:HB2	7:L4:301:PRO:HD2	1.64	0.79
20:58:58:ASN:O	20:58:60:PRO:HD3	1.81	0.79
46:1S:1283:U:H2'	46:1S:1284:C:C5	2.18	0.79
48:S1:84:ILE:HD13	48:S1:103:MET:HG3	1.64	0.79
70:23:63:GLN:HB3	70:23:64:PRO:HA	1.64	0.79
1:2S:268:A:N6	1:2S:295:A:H3'	1.98	0.79
1:2S:687:U:H3	1:2S:693:A:H61	1.27	0.79
14:51:115:LYS:HB2	14:51:115:LYS:NZ	1.97	0.79
53:S6:23:ARG:HB3	53:S6:41:VAL:HA	1.63	0.79
58:11:83:THR:HA	58:11:111:VAL:HG12	1.65	0.79
69:22:50:PHE:HB3	69:22:63:VAL:HG13	1.64	0.79
1:2S:1321:G:O2'	22:60:111:ALA:HB1	1.83	0.79
1:2S:1523:U:H5'	27:65:113:LEU:HB3	1.65	0.79
1:2S:1654:A:H3'	1:2S:1655:G:H5''	1.65	0.79
1:2S:2251:G:C2'	1:2S:2252:A:H5''	2.12	0.79
1:2S:2714:G:H4'	1:2S:2715:A:H3'	1.64	0.79
18:56:125:ARG:O	18:56:129:LEU:HD13	1.83	0.79
6:L3:57:VAL:HB	6:L3:358:TRP:HB3	1.63	0.78
32:70:45:ALA:O	32:70:48:THR:HG22	1.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:17:45:ARG:O	64:17:49:LYS:HG3	1.83	0.78
67:20:51:VAL:CG1	67:20:94:GLU:HB2	2.12	0.78
74:27:61:THR:HG23	74:27:62:ILE:H	1.47	0.78
25:63:39:VAL:HG12	25:63:40:LYS:H	1.48	0.78
27:65:115:ARG:HB3	27:65:117:ASN:OD1	1.83	0.78
48:S1:48:VAL:HG12	48:S1:49:ASN:H	1.48	0.78
50:S3:37:VAL:HG12	50:S3:50:ILE:HG23	1.64	0.78
52:S5:42:LEU:HD23	52:S5:42:LEU:H	1.48	0.78
58:11:91:LEU:HA	58:11:101:GLU:O	1.81	0.78
1:2S:3116:G:H5''	1:2S:3117:C:H5	1.48	0.78
46:1S:1201:G:N2	46:1S:1600:A:H5'	1.97	0.78
71:24:17:LEU:HD12	71:24:18:LEU:HG	1.64	0.78
17:55:75:VAL:HB	17:55:79:ALA:O	1.84	0.78
21:59:6:THR:HG23	21:59:9:ARG:NH2	1.97	0.78
33:71:19:ARG:HG3	33:71:19:ARG:HH11	1.47	0.78
43:81:11:ARG:HH21	46:1S:1126:G:H4'	1.48	0.78
9:L6:68:PRO:HB2	9:L6:71:VAL:HG23	1.65	0.78
46:1S:1201:G:H21	46:1S:1600:A:H5'	1.47	0.78
44:82:100:LYS:HE3	44:82:100:LYS:N	1.96	0.78
46:1S:478:A:H5''	56:S9:123:HIS:HB3	1.64	0.78
70:23:12:ALA:HA	70:23:15:LEU:HD12	1.63	0.78
1:2S:126:U:C5'	17:55:141:ALA:HB2	2.14	0.78
1:2S:2873:U:O2'	1:2S:2874:G:H5'	1.84	0.78
8:L5:144:VAL:HG13	8:L5:173:VAL:HG22	1.66	0.78
16:54:123:LEU:HB2	18:56:194:LEU:HD21	1.63	0.78
22:60:89:ASN:ND2	23:61:156:TYR:HB3	1.98	0.78
54:S7:67:LEU:HA	54:S7:70:PHE:HD2	1.48	0.78
59:12:86:VAL:N	59:12:87:PRO:HD3	1.99	0.78
1:2S:505:G:H4'	7:L4:313:LEU:HD11	1.66	0.78
1:2S:3205:G:H21	22:60:169:SER:HB2	1.49	0.78
1:2S:3295:A:H5'	6:L3:119:TYR:HE1	1.49	0.78
7:L4:113:VAL:HB	7:L4:118:LYS:HE2	1.66	0.78
12:L9:48:VAL:HG11	12:L9:52:LEU:HD22	1.66	0.78
19:57:78:VAL:HG12	19:57:79:THR:H	1.47	0.78
46:1S:1432:U:H4'	46:1S:1433:G:H5''	1.65	0.78
7:L4:29:PRO:HG3	7:L4:279:HIS:HA	1.66	0.78
10:L7:151:ARG:HH11	10:L7:244:ASN:ND2	1.82	0.78
46:1S:1677:C:H42	46:1S:1724:U:H3	1.30	0.78
70:23:62:LYS:HD2	70:23:118:PRO:HB3	1.63	0.78
1:2S:640:U:OP2	34:72:38:ILE:HG12	1.82	0.78
20:58:171:LYS:HA	30:68:56:VAL:HG11	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:85:LYS:HB3	48:S1:102:GLY:H	1.48	0.78
49:S2:209:ASN:HA	49:S2:212:LYS:HB2	1.66	0.78
1:2S:807:A:H3'	1:2S:808:A:H5''	1.64	0.77
1:2S:2131:A:H2'	1:2S:2132:C:H5'	1.66	0.77
23:61:17:ARG:O	23:61:18:ASP:HB2	1.84	0.77
25:63:62:VAL:HB	25:63:70:ARG:HG2	1.64	0.77
30:68:8:THR:HA	30:68:11:HIS:HD2	1.49	0.77
46:1S:805:U:C2'	46:1S:806:A:H5''	2.13	0.77
46:1S:1171:A:H2'	46:1S:1172:G:H8	1.48	0.77
46:1S:1505:A:H1'	46:1S:1562:G:H21	1.48	0.77
46:1S:1797:A:H5'	73:26:95:ARG:HG2	1.66	0.77
49:S2:141:ARG:HB2	49:S2:153:SER:O	1.82	0.77
68:21:74:GLN:NE2	68:21:83:TRP:HB3	2.00	0.77
69:22:36:LYS:HG3	69:22:110:ILE:HD12	1.66	0.77
1:2S:868:C:H2'	1:2S:869:G:H5'	1.65	0.77
33:71:16:LEU:HA	33:71:19:ARG:HD2	1.66	0.77
46:1S:1657:U:H4'	46:1S:1658:G:C5'	2.14	0.77
56:S9:23:ARG:O	56:S9:27:GLU:HG3	1.85	0.77
1:2S:627:U:H2'	1:2S:628:A:C8	2.19	0.77
23:61:82:ASN:HA	31:69:21:ILE:HG12	1.65	0.77
54:S7:12:ALA:HB3	54:S7:13:PRO:HD3	1.66	0.77
1:2S:248:U:OP2	1:2S:248:U:H6	1.68	0.77
1:2S:3346:U:H3	1:2S:3359:A:H62	1.32	0.77
6:L3:92:TYR:HB2	6:L3:157:VAL:HG22	1.67	0.77
43:81:2:ARG:HH11	46:1S:1772:C:H3'	1.50	0.77
53:S6:210:GLN:HB3	53:S6:214:LYS:HE3	1.67	0.77
63:16:12:LYS:HG2	63:16:17:THR:HG22	1.66	0.77
66:19:111:ILE:HG23	66:19:113:ILE:HG13	1.67	0.77
67:20:95:ALA:HB1	67:20:96:PRO:HD2	1.66	0.77
1:2S:340:C:H2'	1:2S:341:G:O4'	1.85	0.77
47:S0:41:ARG:HG2	64:17:105:GLN:NE2	2.00	0.77
49:S2:125:ILE:O	49:S2:129:ILE:HG13	1.83	0.77
66:19:25:GLN:NE2	66:19:111:ILE:HD11	1.99	0.77
6:L3:21:ARG:HB3	6:L3:272:TYR:HD1	1.47	0.77
13:50:135:ILE:HG22	13:50:136:PHE:HD1	1.49	0.77
17:55:120:TRP:NE1	17:55:123:GLN:HG2	1.98	0.77
46:1S:1589:C:H2'	46:1S:1590:G:C8	2.19	0.77
51:S4:131:LEU:HD11	51:S4:135:GLY:HA2	1.65	0.77
1:2S:327:A:H2'	1:2S:328:U:C6	2.20	0.77
1:2S:2435:G:H5'	17:55:20:ARG:HH11	1.48	0.77
22:60:12:ARG:NH1	22:60:21:GLU:HG2	2.00	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:367:A:H2'	46:1S:368:U:O4'	1.84	0.77
50:S3:92:GLN:NE2	50:S3:92:GLN:H	1.82	0.77
52:S5:53:VAL:HG13	52:S5:138:THR:HG21	1.67	0.77
1:2S:52:A:H5''	39:77:48:ASN:HB3	1.67	0.77
1:2S:1718:G:H2'	1:2S:1719:G:H8	1.48	0.77
2:8S:41:A:H2'	2:8S:42:G:O4'	1.85	0.77
46:1S:515:A:H2'	46:1S:516:G:O4'	1.84	0.77
46:1S:800:U:H2'	46:1S:801:G:C8	2.20	0.77
46:1S:1504:G:OP1	66:19:97:SER:HB2	1.84	0.77
55:S8:22:ARG:HB2	55:S8:25:ARG:HH21	1.50	0.77
5:L2:45:VAL:HG13	5:L2:85:GLY:H	1.49	0.77
22:60:166:LYS:HG2	22:60:167:ARG:H	1.50	0.77
23:61:50:LYS:CB	23:61:92:ARG:HH21	1.98	0.77
46:1S:1479:A:O2'	66:19:12:GLN:HG2	1.84	0.77
1:2S:1108:U:H2'	1:2S:1109:U:C6	2.19	0.77
18:56:85:ARG:HG3	18:56:99:LEU:HD21	1.66	0.77
35:73:73:ARG:HG3	35:73:82:ARG:HD2	1.67	0.77
55:S8:153:GLU:HB3	55:S8:156:VAL:HG23	1.66	0.77
61:14:85:ALA:H	61:14:119:THR:HG22	1.48	0.77
73:26:89:ARG:HD2	73:26:92:ARG:HH21	1.49	0.77
1:2S:679:U:H2'	1:2S:680:G:C8	2.20	0.76
1:2S:796:U:H2'	1:2S:797:U:C6	2.20	0.76
1:2S:1535:A:H62	1:2S:1586:G:H21	1.29	0.76
1:2S:2191:U:H3	1:2S:2316:G:H1	1.33	0.76
6:L3:11:HIS:CD2	6:L3:235:THR:HG23	2.20	0.76
6:L3:166:ILE:HD11	6:L3:171:LEU:HD12	1.67	0.76
17:55:118:SER:HB3	17:55:132:VAL:CG2	2.15	0.76
23:61:84:TYR:HB2	31:69:24:PRO:HG3	1.67	0.76
29:67:14:VAL:HG12	29:67:79:HIS:O	1.84	0.76
34:72:11:LYS:HB2	34:72:14:THR:HG22	1.67	0.76
36:74:91:ARG:O	36:74:95:ILE:HD13	1.85	0.76
47:S0:17:LEU:HD13	47:S0:50:VAL:HG12	1.66	0.76
54:S7:67:LEU:HD23	54:S7:70:PHE:CD2	2.20	0.76
68:21:37:ALA:HA	68:21:49:GLU:O	1.84	0.76
69:22:104:LEU:HB3	69:22:125:ILE:HG13	1.67	0.76
1:2S:436:A:H2'	1:2S:437:G:O4'	1.85	0.76
1:2S:2794:G:H1'	1:2S:2795:U:C6	2.20	0.76
13:50:52:LEU:HB3	13:50:135:ILE:HB	1.67	0.76
33:71:20:LEU:HD12	33:71:67:VAL:HG11	1.65	0.76
36:74:86:LYS:O	36:74:90:ILE:HG12	1.86	0.76
55:S8:87:ASN:HB2	55:S8:90:LEU:CD1	2.14	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:12:113:ARG:HG2	59:12:114:LYS:H	1.49	0.76
1:2S:1764:U:H3'	1:2S:1765:U:C5'	2.16	0.76
33:71:62:ARG:HB2	33:71:66:GLY:HA3	1.67	0.76
70:23:76:LEU:CD1	70:23:79:ASN:HD22	1.97	0.76
1:2S:151:A:H5''	37:75:102:GLU:HB2	1.67	0.76
6:L3:146:ARG:HA	6:L3:146:ARG:HE	1.51	0.76
9:L6:3:ALA:HB1	34:72:75:LEU:HD22	1.66	0.76
19:57:67:ILE:CG2	19:57:68:GLY:H	1.98	0.76
22:60:67:ALA:O	22:60:69:PRO:HD3	1.85	0.76
46:1S:722:G:H3'	46:1S:723:G:H5''	1.68	0.76
1:2S:450:G:H2'	1:2S:451:U:O4'	1.86	0.76
1:2S:1729:A:H3'	1:2S:1730:G:H5'	1.68	0.76
10:L7:86:VAL:HG13	10:L7:136:TYR:HB3	1.65	0.76
11:L8:169:LEU:O	11:L8:173:MET:HG2	1.85	0.76
29:67:5:LEU:HD11	32:70:35:ARG:HB3	1.66	0.76
30:68:28:HIS:HB3	30:68:31:GLY:O	1.85	0.76
34:72:33:ARG:HA	34:72:33:ARG:NE	2.01	0.76
1:2S:381:U:H2'	1:2S:382:U:C6	2.20	0.76
1:2S:830:A:H2'	1:2S:831:G:O4'	1.84	0.76
1:2S:3080:G:H2'	1:2S:3081:C:C6	2.21	0.76
51:S4:163:ASP:HB3	51:S4:166:SER:O	1.84	0.76
60:13:71:ILE:H	60:13:71:ILE:HD12	1.50	0.76
1:2S:987:U:H2'	1:2S:988:U:C6	2.21	0.76
1:2S:3192:U:H2'	1:2S:3193:C:C6	2.20	0.76
29:67:14:VAL:HG13	29:67:15:ARG:HG3	1.67	0.76
33:71:52:ALA:HB3	33:71:55:LEU:HB2	1.68	0.76
58:11:117:VAL:HG12	58:11:118:GLN:H	1.49	0.76
60:13:22:ALA:HB1	60:13:23:PRO:CA	2.16	0.76
61:14:87:GLY:HA2	61:14:92:LYS:HB3	1.67	0.76
67:20:106:ILE:HG13	67:20:107:THR:H	1.48	0.76
6:L3:81:THR:O	6:L3:320:ASP:HB2	1.84	0.76
8:L5:82:GLU:HG2	8:L5:254:LYS:HD2	1.66	0.76
17:55:38:ARG:HG2	17:55:61:ILE:O	1.85	0.76
25:63:75:PRO:O	25:63:102:ILE:HD12	1.85	0.76
33:71:11:GLU:HG3	33:71:109:VAL:HG21	1.67	0.76
46:1S:1594:G:H5''	76:29:33:LYS:HD2	1.68	0.76
55:S8:47:ARG:NH2	55:S8:51:GLY:HA2	2.01	0.76
60:13:140:LYS:HG3	60:13:141:TYR:H	1.49	0.76
1:2S:820:A:H2'	1:2S:821:U:C6	2.20	0.76
1:2S:3326:G:H1	1:2S:3380:U:H3	1.34	0.76
3:5S:9:C:OP1	23:61:28:SER:HB3	1.86	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:51:133:ARG:HH12	14:51:154:THR:HG23	1.51	0.76
46:1S:707:A:H2'	46:1S:708:C:H4'	1.67	0.76
69:22:89:TRP:HA	69:22:92:ASN:HD22	1.50	0.76
1:2S:405:U:C2'	1:2S:406:G:H5'	2.15	0.76
1:2S:1834:U:H5'	41:79:3:ALA:HA	1.67	0.76
31:69:23:LYS:HE3	31:69:24:PRO:HD2	1.68	0.76
39:77:34:CYS:HB3	39:77:39:TYR:HB2	1.66	0.76
46:1S:94:U:H4'	51:S4:6:LYS:HA	1.66	0.76
60:13:129:TYR:O	60:13:134:VAL:HG22	1.85	0.76
1:2S:58:G:H2'	1:2S:59:G:H8	1.49	0.75
1:2S:442:G:H2'	1:2S:443:G:O4'	1.85	0.75
1:2S:3286:G:H2'	1:2S:3287:U:H5''	1.66	0.75
68:21:74:GLN:HE22	68:21:83:TRP:HB3	1.51	0.75
13:50:58:GLU:O	13:50:59:GLN:HG3	1.85	0.75
46:1S:769:A:H2'	46:1S:770:A:H8	1.51	0.75
46:1S:1533:C:H4'	46:1S:1539:G:N1	2.00	0.75
67:20:82:TYR:HB3	76:29:52:PHE:HB3	1.66	0.75
18:56:56:ASP:HA	18:56:59:ARG:HG2	1.69	0.75
46:1S:172:C:H2'	46:1S:173:A:C8	2.22	0.75
54:S7:150:GLN:O	54:S7:181:ILE:HD12	1.85	0.75
1:2S:1019:G:C2'	1:2S:1020:G:H5''	2.16	0.75
7:L4:188:ARG:HB3	7:L4:193:LYS:HG3	1.67	0.75
32:70:22:LYS:H	32:70:94:GLU:HB2	1.50	0.75
46:1S:444:C:N4	46:1S:458:G:H2'	2.00	0.75
46:1S:567:A:H62	46:1S:576:G:H21	1.33	0.75
51:S4:19:LEU:HD11	51:S4:108:ARG:HD2	1.69	0.75
52:S5:112:ARG:HA	52:S5:112:ARG:NE	2.01	0.75
79:RA:89:LEU:HD12	79:RA:103:PHE:HB2	1.66	0.75
79:RA:164:ASP:O	79:RA:165:ASP:HB3	1.86	0.75
1:2S:2712:U:H2'	1:2S:2713:U:C6	2.21	0.75
1:2S:3041:U:H2'	1:2S:3042:U:C6	2.21	0.75
3:5S:112:G:O6	8:L5:21:ARG:HD3	1.86	0.75
52:S5:175:LEU:HD22	52:S5:197:GLU:HG3	1.68	0.75
70:23:92:CYS:HA	70:23:95:PHE:HD2	1.50	0.75
73:26:84:VAL:HG13	73:26:85:ARG:N	2.01	0.75
76:29:10:HIS:ND1	76:29:11:PRO:HD2	2.00	0.75
1:2S:1951:C:H6	1:2S:2095:G:N2	1.83	0.75
6:L3:86:VAL:HA	6:L3:162:VAL:CG1	2.10	0.75
10:L7:41:ARG:HB3	10:L7:41:ARG:HH11	1.52	0.75
46:1S:1481:C:H5''	46:1S:1482:C:OP1	1.87	0.75
60:13:112:LYS:O	60:13:116:ILE:HG13	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2533:G:H2'	1:2S:2534:G:O4'	1.87	0.75
28:66:39:LEU:HA	28:66:42:GLN:HB2	1.68	0.75
39:77:39:TYR:CD2	39:77:40:PRO:HA	2.22	0.75
1:2S:2821:C:N4	1:2S:2869:U:H3	1.85	0.75
6:L3:227:GLU:HB3	6:L3:270:ARG:HD3	1.68	0.75
46:1S:788:A:H2'	51:S4:19:LEU:HD22	1.69	0.75
46:1S:1253:U:H5''	78:31:130:VAL:HG12	1.69	0.75
52:S5:79:ASN:HD22	52:S5:79:ASN:N	1.85	0.75
1:2S:440:A:OP2	1:2S:441:U:H1'	1.87	0.75
1:2S:2356:A:H61	1:2S:2983:C:H41	1.34	0.75
5:L2:42:ARG:HA	5:L2:88:ILE:O	1.87	0.75
5:L2:196:TRP:CG	5:L2:197:PRO:HA	2.22	0.75
12:L9:71:VAL:O	12:L9:75:VAL:HG23	1.86	0.75
17:55:115:VAL:HA	17:55:134:LEU:HG	1.69	0.74
18:56:127:LEU:HD22	22:60:156:VAL:HG12	1.68	0.74
48:S1:195:LYS:HA	48:S1:195:LYS:HE2	1.67	0.74
65:18:46:VAL:HG12	65:18:69:ILE:HG23	1.68	0.74
1:2S:2865:U:H2'	1:2S:2866:U:C6	2.22	0.74
1:2S:3393:U:H2'	1:2S:3394:U:C6	2.22	0.74
5:L2:42:ARG:HD2	5:L2:87:PHE:HB3	1.68	0.74
24:62:35:LYS:O	24:62:38:ILE:HG22	1.88	0.74
29:67:12:VAL:HB	29:67:81:LEU:HB2	1.69	0.74
46:1S:386:G:H2'	46:1S:387:A:C8	2.22	0.74
57:10:49:LEU:HD13	57:10:52:LYS:HD3	1.68	0.74
1:2S:1329:U:H5''	35:73:17:GLN:HG2	1.70	0.74
7:L4:4:PRO:HD2	7:L4:22:LEU:HD12	1.69	0.74
7:L4:39:PHE:HE1	7:L4:236:LEU:HA	1.52	0.74
38:76:98:ARG:HD2	38:76:98:ARG:H	1.49	0.74
43:81:13:LEU:HD13	43:81:16:LYS:HD3	1.69	0.74
46:1S:1701:A:H3'	46:1S:1702:A:C5'	2.11	0.74
73:26:41:ILE:HD13	73:26:41:ILE:H	1.52	0.74
1:2S:114:A:N1	1:2S:266:A:H4'	2.02	0.74
1:2S:2838:A:H2'	1:2S:2839:G:O4'	1.87	0.74
33:71:29:ALA:O	33:71:33:VAL:HG23	1.87	0.74
57:10:86:ILE:HG23	57:10:87:VAL:N	2.01	0.74
69:22:101:TYR:HA	69:22:113:HIS:HE1	1.52	0.74
70:23:127:VAL:O	70:23:130:VAL:HG22	1.88	0.74
71:24:8:ARG:HH11	71:24:28:LEU:HD11	1.51	0.74
1:2S:198:A:H2'	1:2S:199:A:H5'	1.67	0.74
1:2S:2083:G:H2'	1:2S:2083:G:N3	2.02	0.74
1:2S:2085:U:C2'	1:2S:2086:A:H5'	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:236:ILE:HD12	10:L7:239:LEU:HD13	1.69	0.74
13:50:46:PHE:CD1	13:50:140:THR:HA	2.22	0.74
23:61:50:LYS:HB2	23:61:92:ARG:HH21	1.52	0.74
46:1S:1066:C:H4'	48:S1:149:GLN:HE22	1.52	0.74
53:S6:1:MET:CE	53:S6:106:LEU:HB2	2.16	0.74
1:2S:797:U:H2'	1:2S:798:G:C8	2.23	0.74
1:2S:2403:G:H1'	1:2S:2872:A:C5	2.22	0.74
1:2S:3094:A:H2'	1:2S:3095:U:H6	1.50	0.74
30:68:37:GLY:O	30:68:42:ARG:HB3	1.88	0.74
46:1S:685:A:H5'	46:1S:685:A:H8	1.53	0.74
74:27:64:CYS:HB2	74:27:72:LYS:O	1.88	0.74
77:30:20:LYS:HE2	77:30:20:LYS:HA	1.70	0.74
1:2S:3243:A:H61	18:56:160:ARG:HD2	1.53	0.74
6:L3:21:ARG:HB3	6:L3:272:TYR:CD1	2.21	0.74
17:55:157:LYS:O	17:55:158:HIS:HB2	1.86	0.74
32:70:31:VAL:HG22	32:70:56:LEU:HD21	1.70	0.74
44:82:8:ARG:NH1	44:82:10:THR:HB	2.00	0.74
73:26:78:ALA:HA	73:26:82:ARG:HB3	1.68	0.74
1:2S:1190:A:H61	1:2S:1315:U:H3	1.34	0.74
11:L8:122:LYS:H	11:L8:122:LYS:HD3	1.51	0.74
13:50:101:LYS:HG2	13:50:102:MET:N	2.02	0.74
15:53:124:ILE:H	15:53:124:ILE:HD13	1.53	0.74
16:54:21:VAL:HG12	16:54:65:LEU:HD23	1.70	0.74
22:60:9:VAL:HG12	22:60:58:ILE:HD13	1.69	0.74
37:75:31:LEU:HG	37:75:41:LEU:HD21	1.68	0.74
1:2S:254:A:H2'	1:2S:255:A:C8	2.22	0.74
1:2S:284:A:H5''	1:2S:285:A:O4'	1.87	0.74
1:2S:971:G:H2'	1:2S:972:A:C8	2.22	0.74
12:L9:172:ILE:HD13	12:L9:172:ILE:H	1.53	0.74
13:50:75:TYR:O	13:50:79:VAL:HG23	1.88	0.74
28:66:58:VAL:HG11	28:66:63:LYS:HB2	1.69	0.74
45:83:67:GLY:HA3	45:83:70:THR:HG23	1.67	0.74
46:1S:185:U:C2'	46:1S:186:C:H5''	2.16	0.74
71:24:27:VAL:HG11	71:24:35:VAL:HG11	1.69	0.74
15:53:70:ARG:HG2	15:53:71:ALA:H	1.51	0.74
46:1S:505:A:C3'	46:1S:506:A:H5''	2.18	0.74
60:13:3:ARG:HG2	60:13:6:SER:OG	1.87	0.74
1:2S:80:G:H2'	1:2S:81:C:C6	2.23	0.73
1:2S:998:A:H2'	1:2S:999:G:C8	2.23	0.73
1:2S:3272:C:H5''	9:L6:77:ARG:HE	1.53	0.73
9:L6:170:LYS:O	9:L6:174:LEU:HG	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:11:155:LYS:HD3	58:11:155:LYS:H	1.51	0.73
4:L1:18:LYS:HD2	4:L1:24:LYS:CB	2.17	0.73
6:L3:41:VAL:HA	6:L3:185:GLY:HA3	1.70	0.73
20:58:126:GLN:O	20:58:130:ARG:HD2	1.87	0.73
37:75:7:TYR:HA	37:75:10:ARG:HD2	1.70	0.73
46:1S:552:G:H2'	46:1S:553:G:O4'	1.88	0.73
46:1S:646:C:H2'	46:1S:647:G:O4'	1.88	0.73
53:S6:175:ILE:HB	53:S6:178:LEU:HD22	1.68	0.73
1:2S:1307:G:H5'	18:56:60:LYS:HD3	1.70	0.73
1:2S:2248:C:H2'	1:2S:2273:G:C8	2.23	0.73
52:S5:164:PRO:HA	52:S5:167:ARG:HE	1.53	0.73
56:S9:141:VAL:HG12	56:S9:143:ILE:H	1.54	0.73
1:2S:170:G:H2'	1:2S:171:G:C8	2.23	0.73
1:2S:2193:U:H5'	1:2S:2194:G:H5'	1.71	0.73
6:L3:43:LEU:HD11	6:L3:194:TRP:HH2	1.54	0.73
6:L3:261:MET:CB	18:56:64:PHE:HA	2.18	0.73
6:L3:261:MET:HE3	6:L3:263:SER:HB2	1.70	0.73
9:L6:82:ARG:HD2	35:73:104:PRO:HB3	1.71	0.73
46:1S:871:G:H2'	46:1S:872:G:C8	2.23	0.73
46:1S:1739:C:H2'	46:1S:1740:A:C8	2.23	0.73
2:8S:40:A:H2'	2:8S:41:A:C8	2.23	0.73
3:5S:27:A:OP2	8:L5:57:ASN:HB2	1.88	0.73
7:L4:42:VAL:HA	7:L4:45:ASN:HD22	1.52	0.73
46:1S:828:U:C2'	46:1S:829:A:H5''	2.18	0.73
47:S0:15:GLN:HA	47:S0:18:LEU:HD12	1.71	0.73
56:S9:39:LYS:HD3	56:S9:42:ILE:HD12	1.70	0.73
1:2S:440:A:H5''	1:2S:441:U:H4'	1.69	0.73
1:2S:750:G:H5'	31:69:44:LYS:HE2	1.70	0.73
1:2S:933:A:H61	7:L4:102:PRO:HD3	1.53	0.73
1:2S:3370:A:H2'	1:2S:3371:G:C8	2.23	0.73
2:8S:26:U:H2'	2:8S:27:U:C6	2.23	0.73
16:54:64:VAL:HG22	16:54:65:LEU:H	1.54	0.73
19:57:176:ILE:O	19:57:179:GLN:HB2	1.89	0.73
35:73:18:ARG:HB3	35:73:23:ASN:HB3	1.70	0.73
1:2S:2917:G:OP1	25:63:46:LEU:HD12	1.87	0.73
38:76:79:SER:HB2	38:76:82:ARG:HG3	1.70	0.73
66:19:137:ALA:HA	66:19:140:LEU:HD12	1.69	0.73
1:2S:2812:C:H2'	1:2S:2813:A:C8	2.23	0.73
1:2S:3160:U:H2'	1:2S:3161:C:C6	2.23	0.73
10:L7:107:ARG:HH21	10:L7:115:THR:HG21	1.54	0.73
10:L7:178:ILE:HG21	10:L7:184:LEU:HD23	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:55:13:LYS:C	17:55:19:LEU:HD22	2.08	0.73
21:59:171:ASP:O	21:59:175:GLN:HB2	1.88	0.73
35:73:52:VAL:HG13	35:73:66:VAL:HG22	1.70	0.73
46:1S:435:C:C5'	70:23:50:LYS:HG3	2.19	0.73
46:1S:600:U:H1'	70:23:47:SER:HB3	1.68	0.73
52:S5:163:SER:O	52:S5:167:ARG:HG3	1.88	0.73
1:2S:808:A:H2'	1:2S:809:G:H5'	1.71	0.73
12:L9:49:ASN:ND2	12:L9:52:LEU:HB3	2.04	0.73
46:1S:831:U:H2'	46:1S:832:U:H6	1.54	0.73
48:S1:82:ARG:HA	48:S1:104:ASP:O	1.89	0.73
61:14:111:ARG:NH2	73:26:58:VAL:HG12	2.04	0.73
1:2S:1190:A:H4'	42:80:113:ARG:HH22	1.53	0.73
1:2S:2199:G:H2'	1:2S:2200:U:C6	2.24	0.73
1:2S:2675:C:H42	14:51:22:SER:HB2	1.54	0.73
4:L1:28:PHE:O	4:L1:28:PHE:HD1	1.72	0.73
16:54:72:LEU:HD13	16:54:73:PRO:HD2	1.71	0.73
20:58:33:TYR:HB3	20:58:49:LEU:HG	1.70	0.73
46:1S:1156:C:C2'	46:1S:1157:A:H5''	2.18	0.73
48:S1:29:TRP:CZ2	48:S1:45:LYS:HG3	2.24	0.73
60:13:92:ILE:O	60:13:96:VAL:HG23	1.89	0.73
64:17:67:ARG:HH21	64:17:67:ARG:HG2	1.53	0.73
70:23:76:LEU:HD13	70:23:79:ASN:CB	2.17	0.73
75:28:14:LYS:HB3	75:28:29:ARG:HD2	1.69	0.73
1:2S:669:U:H2'	1:2S:670:C:C6	2.23	0.72
1:2S:727:G:H4'	1:2S:977:C:H5'	1.70	0.72
1:2S:1223:A:C2	1:2S:1287:A:N3	2.57	0.72
8:L5:236:LEU:HD12	8:L5:239:ILE:HD12	1.70	0.72
11:L8:238:LEU:HB2	11:L8:243:GLN:HE21	1.54	0.72
13:50:68:ALA:HA	13:50:71:CYS:SG	2.28	0.72
33:71:32:ALA:O	33:71:36:ILE:HG13	1.89	0.72
46:1S:400:A:C5'	55:S8:25:ARG:HA	2.17	0.72
49:S2:137:ILE:CG1	49:S2:138:PRO:HD2	2.19	0.72
65:18:132:ARG:HB3	65:18:136:GLN:HE21	1.54	0.72
1:2S:2192:C:H2'	1:2S:2193:U:C6	2.24	0.72
1:2S:2278:C:H4'	1:2S:2280:A:C2	2.24	0.72
1:2S:3105:U:H2'	1:2S:3106:A:H8	1.54	0.72
19:57:127:ARG:HB2	19:57:127:ARG:NH1	2.03	0.72
25:63:125:LEU:HD23	25:63:126:TRP:NE1	2.04	0.72
46:1S:127:G:C6	53:S6:195:VAL:HG13	2.24	0.72
6:L3:350:ALA:O	6:L3:351:LEU:HB2	1.89	0.72
14:51:17:LEU:HD13	14:51:129:VAL:HG22	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:57:67:ILE:HG22	19:57:68:GLY:N	2.05	0.72
29:67:121:ARG:NH1	29:67:126:LYS:HE3	2.03	0.72
38:76:59:ASP:O	38:76:63:ASN:HB2	1.89	0.72
45:83:8:VAL:O	45:83:11:THR:HG22	1.89	0.72
46:1S:942:G:C5'	46:1S:977:A:H4'	2.19	0.72
1:2S:1658:G:H2'	1:2S:1659:U:C6	2.25	0.72
1:2S:2288:G:H2'	1:2S:2289:U:C6	2.24	0.72
5:L2:248:GLY:HA3	46:1S:1012:U:H5''	1.70	0.72
16:54:76:ALA:HB1	16:54:80:THR:CB	2.18	0.72
26:64:56:ARG:HB3	26:64:56:ARG:HH11	1.55	0.72
36:74:22:VAL:HA	36:74:32:ALA:HA	1.69	0.72
44:82:68:VAL:HG11	44:82:85:LEU:HD22	1.70	0.72
46:1S:1160:A:H2'	46:1S:1161:C:C6	2.24	0.72
72:25:75:LEU:HA	72:25:78:ILE:HD13	1.70	0.72
1:2S:2915:U:H5''	1:2S:2916:U:H5'	1.70	0.72
9:L6:80:ASN:HB3	9:L6:83:TYR:HD2	1.54	0.72
37:75:21:LEU:HG	37:75:25:LYS:HE3	1.71	0.72
49:S2:66:PHE:HB2	49:S2:133:LYS:HG3	1.71	0.72
50:S3:168:ILE:HG22	50:S3:189:MET:HB2	1.71	0.72
58:11:118:GLN:HG2	58:11:119:VAL:N	2.04	0.72
65:18:14:ILE:CD1	65:18:21:ASN:HB3	2.20	0.72
1:2S:654:C:H2'	1:2S:655:C:C6	2.23	0.72
1:2S:967:A:H2'	1:2S:968:G:O4'	1.89	0.72
1:2S:1307:G:C5'	18:56:60:LYS:HD3	2.19	0.72
2:8S:62:C:H4'	2:8S:63:G:H5''	1.70	0.72
15:53:138:VAL:HG21	37:75:118:ILE:HB	1.69	0.72
33:71:70:ARG:HH21	33:71:70:ARG:HG3	1.53	0.72
46:1S:50:C:H2'	46:1S:424:C:N4	2.05	0.72
46:1S:769:A:H2'	46:1S:770:A:C8	2.24	0.72
46:1S:1603:U:H2'	46:1S:1604:U:C6	2.24	0.72
54:S7:30:SER:HB3	54:S7:34:LEU:HD13	1.71	0.72
55:S8:197:THR:HA	55:S8:200:LYS:HB2	1.70	0.72
1:2S:516:A:C2'	1:2S:517:G:H5''	2.20	0.72
7:L4:257:LYS:O	7:L4:261:VAL:HG23	1.89	0.72
19:57:51:VAL:HG22	19:57:56:ARG:HG3	1.72	0.72
45:83:37:TYR:O	45:83:45:LYS:HA	1.89	0.72
50:S3:148:LYS:NZ	50:S3:148:LYS:HB3	2.04	0.72
56:S9:48:GLN:O	56:S9:52:ILE:HG13	1.90	0.72
1:2S:975:C:OP2	20:58:15:HIS:HA	1.89	0.72
1:2S:3198:U:O2	12:L9:21:LYS:HG3	1.89	0.72
4:L1:114:GLU:HG3	4:L1:115:VAL:HG23	1.69	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:59:21:LYS:HE3	21:59:55:VAL:HA	1.70	0.72
46:1S:1712:A:C3'	46:1S:1713:G:H5''	2.18	0.72
48:S1:65:VAL:HB	48:S1:85:LYS:HE2	1.72	0.72
1:2S:155:G:H21	38:76:26:ILE:HG21	1.55	0.72
1:2S:592:A:OP2	9:L6:16:ALA:HB1	1.88	0.72
1:2S:2355:G:H4'	19:57:139:TYR:CZ	2.25	0.72
1:2S:2874:G:N7	1:2S:2945:G:H2'	2.05	0.72
7:L4:132:ALA:HA	7:L4:148:ILE:HD12	1.72	0.72
8:L5:153:THR:HG23	8:L5:160:PHE:HZ	1.55	0.72
46:1S:138:A:N6	46:1S:266:A:H61	1.88	0.72
46:1S:1202:A:N6	46:1S:1457:C:H5''	2.04	0.72
46:1S:1543:A:H1'	46:1S:1569:A:C2	2.25	0.72
1:2S:1019:G:C3'	1:2S:1020:G:H5''	2.19	0.72
11:L8:122:LYS:C	11:L8:124:ASP:H	1.92	0.72
46:1S:1592:A:H2'	46:1S:1593:A:O4'	1.90	0.72
46:1S:1715:G:C3'	46:1S:1716:C:H5''	2.19	0.72
77:30:42:ARG:NH1	77:30:42:ARG:HB3	2.05	0.72
79:RA:31:ASN:HA	79:RA:47:LEU:HB2	1.71	0.72
11:L8:242:ALA:O	11:L8:246:MET:HB3	1.90	0.71
15:53:57:VAL:HG12	15:53:69:VAL:CG2	2.19	0.71
39:77:53:ALA:HA	39:77:56:ARG:HD2	1.72	0.71
56:S9:41:GLU:O	56:S9:45:ILE:HG12	1.90	0.71
1:2S:634:C:H4'	34:72:47:ARG:NH1	2.05	0.71
1:2S:681:U:H2'	1:2S:682:U:H5'	1.72	0.71
6:L3:106:TRP:HB2	6:L3:133:TYR:HE2	1.55	0.71
8:L5:140:ARG:HB2	8:L5:140:ARG:NH2	2.04	0.71
26:64:8:PHE:HB2	26:64:31:PHE:CE1	2.25	0.71
30:68:23:GLY:C	30:68:24:LYS:HD2	2.10	0.71
46:1S:219:A:C2	46:1S:843:U:H1'	2.25	0.71
46:1S:604:A:H2'	46:1S:605:A:O4'	1.89	0.71
54:S7:47:ARG:NH1	54:S7:176:LEU:CD2	2.53	0.71
55:S8:27:PHE:HB3	55:S8:49:ARG:HH22	1.54	0.71
61:14:112:ILE:HG22	61:14:113:GLY:N	2.04	0.71
70:23:76:LEU:HD11	70:23:79:ASN:HD22	1.54	0.71
77:30:26:LYS:H	77:30:26:LYS:HE2	1.55	0.71
1:2S:2553:U:H3'	5:L2:87:PHE:HE2	1.54	0.71
1:2S:2995:A:C2'	1:2S:2996:U:H5''	2.19	0.71
5:L2:77:ILE:HG21	5:L2:169:ILE:HD13	1.72	0.71
15:53:180:ARG:HD3	38:76:11:LEU:HD11	1.71	0.71
17:55:34:ASN:O	17:55:37:HIS:CD2	2.43	0.71
24:62:43:VAL:HB	24:62:49:ASN:HB3	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:25:58:ARG:HH11	72:25:58:ARG:HG3	1.55	0.71
1:2S:2610:G:H2'	1:2S:2611:U:H6	1.53	0.71
6:L3:63:PRO:HD2	6:L3:348:ARG:NH2	2.04	0.71
47:S0:179:ARG:O	47:S0:183:ARG:HG3	1.89	0.71
61:14:41:ARG:O	61:14:42:VAL:HG22	1.90	0.71
67:20:58:LEU:HD21	67:20:90:TYR:HE2	1.54	0.71
1:2S:1981:G:C2'	1:2S:1982:G:H5'	2.20	0.71
1:2S:3149:G:H4'	6:L3:130:PHE:CE1	2.24	0.71
24:62:17:VAL:HG13	24:62:104:ARG:HA	1.72	0.71
27:65:113:LEU:HD11	27:65:121:LYS:HB3	1.71	0.71
28:66:50:ILE:HG12	28:66:51:ARG:N	2.06	0.71
32:70:50:VAL:HA	32:70:53:LYS:HB3	1.73	0.71
46:1S:230:C:H3'	46:1S:231:U:H5''	1.72	0.71
46:1S:771:A:H5'	56:S9:7:THR:HG23	1.73	0.71
66:19:63:ARG:HG2	66:19:67:MET:HE1	1.72	0.71
1:2S:965:A:N3	30:68:43:ILE:HD12	2.06	0.71
1:2S:1508:C:H2'	1:2S:1509:A:C8	2.24	0.71
1:2S:2768:U:H2'	1:2S:2769:A:C8	2.25	0.71
6:L3:56:ILE:HD12	6:L3:57:VAL:H	1.56	0.71
8:L5:154:THR:HA	8:L5:179:ARG:HH11	1.56	0.71
13:50:40:LYS:HD2	13:50:40:LYS:N	2.06	0.71
45:83:67:GLY:HA3	45:83:70:THR:CG2	2.20	0.71
46:1S:1715:G:H2'	46:1S:1716:C:H5''	1.71	0.71
54:S7:56:LYS:HB2	54:S7:88:ARG:HD3	1.71	0.71
1:2S:1456:A:N6	33:71:64:VAL:HG21	2.06	0.71
1:2S:2596:U:H2'	1:2S:2597:U:C6	2.26	0.71
2:8S:104:A:OP2	2:8S:105:A:H2'	1.90	0.71
6:L3:237:LYS:NZ	6:L3:246:LEU:HD13	2.05	0.71
19:57:169:THR:O	19:57:173:ARG:HG3	1.90	0.71
46:1S:143:G:H2'	46:1S:144:U:H5''	1.73	0.71
46:1S:487:G:C2'	46:1S:488:G:H5''	2.17	0.71
46:1S:591:A:H2'	46:1S:592:A:C8	2.25	0.71
46:1S:647:G:H22	46:1S:687:G:H1	1.36	0.71
49:S2:38:VAL:HG13	49:S2:39:THR:HG23	1.73	0.71
52:S5:118:LEU:O	52:S5:122:ASN:HB2	1.91	0.71
56:S9:85:VAL:CG1	56:S9:103:ASP:HB3	2.20	0.71
1:2S:929:A:H2'	1:2S:930:U:C6	2.25	0.71
1:2S:1741:A:H2'	1:2S:1742:U:H5'	1.71	0.71
46:1S:1589:C:H2'	46:1S:1590:G:H8	1.54	0.71
48:S1:163:ALA:O	48:S1:167:VAL:HG23	1.90	0.71
51:S4:86:PHE:O	51:S4:87:MET:HB2	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:S8:81:VAL:HG12	55:S8:91:VAL:HG13	1.71	0.71
56:S9:120:LYS:NZ	56:S9:120:LYS:HB3	2.06	0.71
1:2S:1517:G:OP1	41:79:22:PRO:HG3	1.91	0.71
6:L3:49:TYR:CE1	6:L3:335:ILE:HB	2.26	0.71
6:L3:223:GLY:HA2	6:L3:271:GLY:HA3	1.73	0.71
25:63:54:LEU:HD12	25:63:78:VAL:CG1	2.20	0.71
46:1S:749:U:H2'	46:1S:750:U:C6	2.25	0.71
46:1S:749:U:H3	46:1S:800:U:H3	1.36	0.71
46:1S:845:G:H2'	46:1S:846:G:H5''	1.72	0.71
56:S9:162:SER:HB2	56:S9:163:PRO:HD2	1.71	0.71
1:2S:1238:C:C3'	1:2S:1239:C:H5''	2.21	0.71
1:2S:3217:C:O2	1:2S:3217:C:H2'	1.90	0.71
2:8S:37:A:H5''	2:8S:39:G:O4'	1.91	0.71
15:53:106:GLN:HB3	38:76:18:THR:CG2	2.21	0.71
38:76:43:LEU:O	38:76:46:GLU:HG2	1.91	0.71
46:1S:541:A:O2'	46:1S:542:A:H4'	1.91	0.71
46:1S:657:U:O2'	46:1S:658:C:H4'	1.91	0.71
49:S2:178:ILE:HA	49:S2:196:VAL:HG12	1.71	0.71
1:2S:314:U:H2'	1:2S:315:C:C6	2.25	0.70
1:2S:2338:C:H3'	1:2S:2339:C:H2'	1.72	0.70
1:2S:3180:A:H4'	18:56:116:LYS:HB3	1.73	0.70
5:L2:226:SER:C	5:L2:228:GLY:H	1.93	0.70
14:51:49:LYS:HE2	14:51:64:LYS:NZ	2.05	0.70
17:55:39:ALA:HA	17:55:63:ARG:HH21	1.55	0.70
32:70:50:VAL:HG13	32:70:53:LYS:HE2	1.73	0.70
39:77:5:THR:N	39:77:6:PRO:HD2	2.06	0.70
46:1S:1105:C:H2'	46:1S:1106:U:C6	2.26	0.70
55:S8:8:ARG:NE	55:S8:8:ARG:HA	2.06	0.70
58:11:21:ASN:HB3	58:11:31:THR:HG23	1.73	0.70
1:2S:897:U:H2'	1:2S:898:U:C6	2.26	0.70
1:2S:1123:U:C2'	1:2S:1124:U:H5'	2.21	0.70
1:2S:1951:C:H5	1:2S:2095:G:O6	1.73	0.70
1:2S:2158:A:H4'	1:2S:2159:U:H3'	1.73	0.70
1:2S:2361:A:H61	1:2S:2377:G:H1	1.37	0.70
5:L2:100:ASN:O	5:L2:166:ILE:HG12	1.91	0.70
7:L4:289:ILE:O	7:L4:295:ILE:HD12	1.89	0.70
23:61:68:THR:HG23	23:61:69:LYS:H	1.56	0.70
28:66:112:ASP:O	28:66:116:LYS:HG3	1.91	0.70
44:82:8:ARG:HH12	44:82:10:THR:CB	2.02	0.70
57:10:32:HIS:CE1	57:10:42:VAL:HG21	2.25	0.70
1:2S:911:C:H3'	5:L2:9:ARG:NH1	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1430:U:H2'	30:68:9:ARG:HH22	1.56	0.70
4:L1:158:GLN:O	4:L1:159:LEU:HG	1.91	0.70
7:L4:152:VAL:CG1	7:L4:153:SER:H	1.97	0.70
8:L5:33:ARG:O	8:L5:37:VAL:HG23	1.90	0.70
16:54:10:SER:HB3	16:54:12:TRP:CZ3	2.27	0.70
17:55:122:ASN:HB2	17:55:129:TYR:CB	2.21	0.70
46:1S:103:A:H62	46:1S:358:U:H3	1.36	0.70
46:1S:992:A:H2	46:1S:1012:U:H3	1.36	0.70
46:1S:1294:G:H2'	46:1S:1295:G:H8	1.56	0.70
71:24:124:ARG:O	71:24:127:LYS:HG3	1.90	0.70
73:26:12:LYS:NZ	73:26:16:GLY:HA2	2.05	0.70
79:RA:133:VAL:HB	79:RA:142:ALA:HB3	1.70	0.70
1:2S:2343:C:H2'	1:2S:2344:U:H6	1.54	0.70
13:50:101:LYS:HG2	13:50:102:MET:H	1.55	0.70
22:60:89:ASN:HD21	23:61:156:TYR:HB3	1.56	0.70
25:63:108:GLU:HG2	25:63:128:ARG:NH1	2.00	0.70
26:64:4:GLU:HB2	26:64:13:ILE:HB	1.74	0.70
46:1S:1715:G:H3'	46:1S:1716:C:H5''	1.74	0.70
49:S2:151:PRO:HD3	68:21:9:VAL:HG21	1.72	0.70
64:17:53:TYR:O	64:17:57:LEU:HG	1.91	0.70
1:2S:425:G:H2'	1:2S:426:G:C8	2.27	0.70
1:2S:1227:C:N4	1:2S:1282:G:O6	2.17	0.70
14:51:163:PHE:HE2	14:51:171:VAL:HB	1.56	0.70
19:57:120:ASN:O	19:57:144:SER:HA	1.91	0.70
27:65:66:PRO:HA	27:65:84:PHE:HA	1.74	0.70
32:70:23:TYR:HA	32:70:93:LEU:HD13	1.73	0.70
38:76:45:ARG:HH12	38:76:93:ILE:HG13	1.56	0.70
46:1S:165:G:C3'	46:1S:166:C:H5''	2.21	0.70
46:1S:195:G:H2'	46:1S:196:G:H5''	1.73	0.70
46:1S:1292:G:H2'	46:1S:1293:U:C6	2.26	0.70
47:S0:126:PRO:HG2	47:S0:151:SER:HB3	1.73	0.70
52:S5:62:VAL:HG13	52:S5:89:ILE:HG12	1.73	0.70
1:2S:628:A:H2'	1:2S:629:U:C6	2.25	0.70
1:2S:2778:G:H2'	1:2S:2779:A:C5'	2.20	0.70
1:2S:2865:U:H2'	1:2S:2866:U:H6	1.56	0.70
5:L2:133:TYR:CD2	5:L2:168:VAL:HG11	2.26	0.70
14:51:94:ARG:C	14:51:96:PHE:H	1.93	0.70
16:54:25:LYS:HE3	16:54:62:GLN:CG	2.20	0.70
22:60:72:VAL:HA	22:60:97:VAL:HA	1.73	0.70
22:60:80:ARG:HG3	23:61:156:TYR:HB2	1.73	0.70
46:1S:228:G:H2'	46:1S:229:U:O4'	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:S8:137:LYS:H	55:S8:137:LYS:HD3	1.57	0.70
79:RA:128:ASP:O	79:RA:129:LYS:HG2	1.92	0.70
1:2S:437:G:H1	1:2S:622:A:N6	1.89	0.70
1:2S:1492:G:H1	1:2S:1836:C:H42	1.39	0.70
1:2S:2656:A:H4'	44:82:98:LYS:HD2	1.73	0.70
1:2S:3152:U:H5'	1:2S:3294:A:H5''	1.74	0.70
29:67:71:PHE:HA	29:67:111:LYS:HE2	1.72	0.70
38:76:26:ILE:H	38:76:26:ILE:HD12	1.57	0.70
46:1S:647:G:N2	46:1S:687:G:H1	1.89	0.70
49:S2:56:ILE:HG23	49:S2:61:LEU:HB2	1.71	0.70
50:S3:209:ILE:HG22	64:17:38:ILE:CG1	2.17	0.70
50:S3:209:ILE:CG2	64:17:38:ILE:HG13	2.17	0.70
1:2S:959:C:H41	1:2S:2801:A:H5''	1.55	0.70
4:L1:48:ARG:HH22	4:L1:159:LEU:HA	1.55	0.70
7:L4:138:ARG:CZ	7:L4:240:PRO:HD2	2.21	0.70
23:61:68:THR:HG23	23:61:69:LYS:N	2.07	0.70
27:65:113:LEU:O	27:65:120:LYS:HG3	1.90	0.70
30:68:123:VAL:HG12	30:68:124:ILE:N	2.06	0.70
46:1S:654:C:H3'	46:1S:655:G:C5'	2.17	0.70
46:1S:898:A:H62	46:1S:914:G:N2	1.89	0.70
48:S1:184:LEU:O	48:S1:188:LEU:HG	1.92	0.70
60:13:70:LYS:O	60:13:74:ILE:HG13	1.91	0.70
1:2S:936:A:H2'	1:2S:938:C:C4	2.26	0.70
4:L1:17:LEU:HD21	4:L1:216:LEU:HD13	1.73	0.70
6:L3:332:ARG:HD3	6:L3:332:ARG:H	1.55	0.70
21:59:60:LYS:HB3	21:59:64:ARG:HG3	1.74	0.70
46:1S:119:A:H2'	46:1S:120:U:H5'	1.74	0.70
53:S6:186:ARG:O	53:S6:190:GLN:HG2	1.90	0.70
1:2S:384:A:H1'	1:2S:1465:A:C8	2.26	0.70
1:2S:2356:A:N6	1:2S:2983:C:H5	1.89	0.70
5:L2:58:LEU:HD23	5:L2:77:ILE:HA	1.74	0.70
8:L5:107:ARG:HH22	8:L5:120:LYS:HA	1.57	0.70
37:75:78:LYS:HA	37:75:81:ARG:HD3	1.72	0.70
38:76:34:SER:O	38:76:38:LYS:HG3	1.92	0.70
52:S5:163:SER:HB2	52:S5:164:PRO:HD2	1.73	0.70
66:19:57:ARG:HB2	66:19:57:ARG:HH11	1.56	0.70
1:2S:2995:A:C3'	1:2S:2996:U:H5''	2.22	0.69
3:5S:92:A:H2'	3:5S:93:C:O4'	1.92	0.69
10:L7:53:LYS:O	10:L7:57:THR:HG23	1.92	0.69
22:60:23:LYS:O	22:60:24:LEU:HB2	1.91	0.69
36:74:76:TYR:HD1	36:74:79:SER:HG	1.37	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:307:G:H5''	58:11:92:HIS:CE1	2.27	0.69
46:1S:942:G:H5'	46:1S:977:A:H4'	1.74	0.69
55:S8:8:ARG:HD3	55:S8:21:PHE:HB3	1.74	0.69
1:2S:741:U:H2'	1:2S:742:G:O4'	1.92	0.69
2:8S:41:A:H61	2:8S:103:G:H1'	1.58	0.69
5:L2:23:ARG:HH11	5:L2:23:ARG:HG3	1.55	0.69
7:L4:89:ALA:O	7:L4:90:PHE:HB2	1.92	0.69
11:L8:146:LYS:HE2	11:L8:173:MET:HA	1.74	0.69
18:56:46:GLU:HG2	18:56:49:ARG:HG3	1.74	0.69
46:1S:93:A:O2'	51:S4:4:GLY:HA3	1.91	0.69
46:1S:1316:G:H4'	64:17:10:LYS:HE3	1.74	0.69
63:16:90:VAL:HG21	63:16:117:LEU:HD11	1.74	0.69
1:2S:20:A:H61	2:8S:139:U:H3	1.39	0.69
3:5S:80:G:H2'	3:5S:81:U:O4'	1.91	0.69
6:L3:238:LEU:HB3	6:L3:242:THR:HG21	1.74	0.69
15:53:47:ALA:HB1	15:53:48:PRO:CD	2.21	0.69
18:56:88:VAL:HG12	18:56:89:SER:H	1.57	0.69
38:76:43:LEU:O	38:76:47:ILE:HG13	1.92	0.69
46:1S:1061:A:H2'	46:1S:1062:A:H5'	1.71	0.69
46:1S:1382:A:H1'	67:20:57:ARG:HG2	1.74	0.69
46:1S:1483:A:H4'	63:16:71:GLY:HA2	1.73	0.69
48:S1:160:HIS:O	48:S1:164:ILE:HG13	1.92	0.69
49:S2:44:LEU:HD13	49:S2:243:TYR:HB2	1.74	0.69
54:S7:59:ALA:HB1	54:S7:93:LEU:HD12	1.73	0.69
59:12:86:VAL:H	59:12:87:PRO:HD3	1.55	0.69
61:14:128:LYS:H	73:26:22:ARG:HH12	1.40	0.69
74:27:61:THR:HG23	74:27:62:ILE:N	2.06	0.69
76:29:31:ILE:HB	76:29:36:LEU:HD11	1.75	0.69
1:2S:745:C:H5''	20:58:145:ASN:ND2	2.07	0.69
1:2S:1350:A:C2'	1:2S:1351:U:H5'	2.22	0.69
1:2S:1948:G:OP1	21:59:135:LYS:HE3	1.92	0.69
1:2S:2427:U:H2'	1:2S:2428:U:C6	2.27	0.69
2:8S:79:A:H2'	2:8S:80:A:H4'	1.73	0.69
3:5S:62:U:H4'	8:L5:285:ARG:NH1	2.06	0.69
8:L5:22:ARG:HG3	8:L5:27:LYS:HB2	1.74	0.69
30:68:36:GLY:HA3	30:68:40:HIS:CE1	2.28	0.69
40:78:62:ALA:O	40:78:66:ILE:HG13	1.92	0.69
46:1S:805:U:C3'	46:1S:806:A:H5''	2.21	0.69
46:1S:1761:U:H1'	46:1S:1762:A:OP2	1.92	0.69
47:S0:155:PHE:CZ	68:21:61:SER:HA	2.27	0.69
51:S4:89:VAL:C	51:S4:90:ILE:HD12	2.13	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:26:24:VAL:HG12	73:26:72:HIS:O	1.91	0.69
1:2S:438:A:H2'	1:2S:439:C:H5''	1.74	0.69
1:2S:900:G:H1'	1:2S:1589:A:H61	1.56	0.69
1:2S:1803:C:H2'	1:2S:1804:A:H8	1.57	0.69
1:2S:2922:G:H3'	1:2S:2923:U:H5''	1.75	0.69
1:2S:3299:A:H61	1:2S:3315:G:H1	1.39	0.69
8:L5:30:TYR:HA	8:L5:33:ARG:HB3	1.73	0.69
19:57:119:VAL:HG22	19:57:144:SER:HB3	1.73	0.69
21:59:139:VAL:HA	21:59:142:ILE:HD12	1.75	0.69
46:1S:484:C:H42	46:1S:503:G:H22	1.39	0.69
49:S2:165:VAL:HG21	49:S2:206:THR:HG21	1.74	0.69
57:10:15:LEU:HD13	57:10:21:VAL:CG2	2.16	0.69
1:2S:2101:C:O2'	1:2S:2102:U:H5''	1.93	0.69
7:L4:95:ARG:HG2	7:L4:95:ARG:HH11	1.57	0.69
25:63:54:LEU:HD12	25:63:78:VAL:HG12	1.73	0.69
25:63:75:PRO:HB2	25:63:103:ALA:O	1.92	0.69
46:1S:733:A:O2'	46:1S:734:A:H5''	1.92	0.69
54:S7:11:GLN:CG	54:S7:13:PRO:HD2	2.18	0.69
72:25:100:ILE:HD13	72:25:101:TYR:N	2.08	0.69
1:2S:2310:U:H2'	1:2S:2311:G:C8	2.27	0.69
5:L2:48:ILE:HG13	5:L2:48:ILE:O	1.91	0.69
6:L3:43:LEU:HD11	6:L3:194:TRP:CH2	2.27	0.69
12:L9:48:VAL:CG1	12:L9:52:LEU:HD22	2.23	0.69
29:67:104:PRO:O	29:67:108:GLU:HG3	1.93	0.69
30:68:81:LEU:HD22	30:68:107:ALA:CB	2.21	0.69
32:70:34:LEU:HD21	32:70:59:TYR:HB3	1.74	0.69
41:79:15:LYS:O	41:79:19:GLN:HG3	1.92	0.69
65:18:6:GLN:O	72:25:42:LEU:HD11	1.92	0.69
1:2S:68:C:H4'	17:55:176:LYS:HB3	1.74	0.69
1:2S:293:C:H2'	1:2S:294:U:O4'	1.92	0.69
1:2S:607:A:H2'	1:2S:607:A:N3	2.07	0.69
1:2S:725:G:H3'	1:2S:726:G:H5''	1.74	0.69
1:2S:760:G:H1'	1:2S:771:A:H61	1.58	0.69
1:2S:1055:A:H5''	3:5S:100:C:O2'	1.92	0.69
1:2S:1844:C:C2'	1:2S:1845:G:H5''	2.22	0.69
1:2S:2174:G:H8	1:2S:2174:G:OP1	1.76	0.69
1:2S:2328:U:H2'	1:2S:2329:C:C6	2.28	0.69
19:57:67:ILE:HG22	19:57:68:GLY:H	1.57	0.69
19:57:124:LYS:HB3	19:57:140:GLU:HB3	1.75	0.69
25:63:39:VAL:HG12	25:63:40:LYS:N	2.08	0.69
27:65:53:HIS:CE1	27:65:56:ARG:HG2	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:68:134:ALA:O	30:68:138:ILE:HG13	1.93	0.69
35:73:9:VAL:HB	35:73:100:ILE:HB	1.73	0.69
35:73:73:ARG:CG	35:73:82:ARG:HD2	2.23	0.69
39:77:4:GLY:C	39:77:6:PRO:HD2	2.13	0.69
43:81:8:LYS:HE2	43:81:8:LYS:HA	1.74	0.69
46:1S:358:U:H2'	46:1S:360:A:H5'	1.73	0.69
46:1S:1097:U:H5''	46:1S:1099:U:O4'	1.93	0.69
46:1S:1135:U:H2'	46:1S:1136:U:C6	2.28	0.69
47:S0:60:ALA:O	47:S0:64:ILE:HG13	1.93	0.69
74:27:56:CYS:HB3	74:27:59:CYS:O	1.90	0.69
77:30:14:VAL:O	77:30:18:THR:HG23	1.93	0.69
1:2S:1321:G:N2	22:60:112:ALA:HB2	2.08	0.69
1:2S:1682:U:H2'	24:62:85:LYS:HG2	1.75	0.69
1:2S:1813:A:C3'	1:2S:1814:A:H5''	2.22	0.69
11:L8:24:ASN:N	11:L8:25:PRO:HD2	2.08	0.69
17:55:203:ARG:HH11	17:55:203:ARG:HG3	1.58	0.69
30:68:74:ASN:HA	30:68:113:LEU:O	1.93	0.69
39:77:72:ARG:O	39:77:75:LYS:HB3	1.92	0.69
46:1S:165:G:H2'	46:1S:166:C:H5''	1.73	0.69
51:S4:121:TYR:HA	51:S4:164:LEU:HD23	1.75	0.69
53:S6:210:GLN:O	53:S6:214:LYS:HG3	1.92	0.69
69:22:65:LEU:HD13	69:22:65:LEU:N	2.07	0.69
75:28:32:PHE:HZ	75:28:38:ARG:HD2	1.57	0.69
1:2S:2342:U:H5''	1:2S:3089:C:O2'	1.93	0.69
6:L3:230:THR:HG21	6:L3:237:LYS:HG3	1.75	0.69
7:L4:302:ALA:HB2	20:58:39:ARG:NH1	2.07	0.69
11:L8:180:VAL:HG22	11:L8:185:ARG:NH2	2.08	0.69
25:63:74:MET:CG	25:63:102:ILE:HD11	2.20	0.69
27:65:141:TYR:HB3	37:75:33:VAL:HG13	1.75	0.69
42:80:97:ARG:HB2	42:80:120:GLN:O	1.92	0.69
43:81:23:ARG:HG2	43:81:23:ARG:HH21	1.58	0.69
46:1S:329:G:H5'	55:S8:99:ALA:HB3	1.74	0.69
46:1S:822:U:H3'	46:1S:823:G:H5''	1.74	0.69
51:S4:35:PRO:HB3	51:S4:143:ASP:HB2	1.75	0.69
1:2S:715:A:H5''	30:68:133:LEU:HD13	1.75	0.68
1:2S:717:C:H41	1:2S:751:A:H4'	1.58	0.68
1:2S:2674:A:H5''	14:51:105:GLY:HA3	1.75	0.68
1:2S:3116:G:H5''	1:2S:3117:C:C5	2.28	0.68
15:53:63:VAL:HG23	30:68:66:ALA:O	1.93	0.68
15:53:109:PHE:O	15:53:113:VAL:HG23	1.93	0.68
21:59:139:VAL:HA	21:59:142:ILE:CD1	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:60:29:ILE:HD12	22:60:40:ARG:HB3	1.74	0.68
46:1S:1651:A:H2'	46:1S:1652:C:H6	1.56	0.68
49:S2:203:LYS:HZ3	49:S2:205:ARG:HB2	1.58	0.68
64:17:69:ILE:HD13	64:17:69:ILE:H	1.58	0.68
69:22:93:LEU:HD23	69:22:94:LEU:H	1.55	0.68
1:2S:1354:G:H4'	9:L6:8:LYS:HZ3	1.57	0.68
1:2S:1718:G:H2'	1:2S:1719:G:C8	2.26	0.68
1:2S:2561:A:HO2'	1:2S:2562:A:H8	1.40	0.68
5:L2:72:ARG:NH1	5:L2:72:ARG:HB2	2.08	0.68
22:60:166:LYS:CG	22:60:167:ARG:H	2.04	0.68
28:66:59:VAL:O	28:66:64:LYS:HD3	1.93	0.68
34:72:13:HIS:CE1	34:72:15:LYS:HB3	2.28	0.68
36:74:80:ARG:HB3	36:74:84:CYS:HB2	1.75	0.68
46:1S:831:U:H2'	46:1S:832:U:C6	2.28	0.68
52:S5:48:PHE:HE1	52:S5:64:VAL:HA	1.59	0.68
71:24:5:VAL:HA	71:24:28:LEU:O	1.93	0.68
1:2S:3304:U:C5	6:L3:333:LYS:HE2	2.28	0.68
6:L3:232:ARG:NH1	6:L3:268:GLY:HA3	2.08	0.68
6:L3:296:THR:CG2	6:L3:297:SER:H	2.01	0.68
7:L4:115:HIS:O	7:L4:119:ARG:HG3	1.92	0.68
18:56:62:THR:HB	18:56:65:ASN:O	1.94	0.68
46:1S:992:A:H2'	46:1S:993:A:H5'	1.74	0.68
46:1S:1018:U:H2'	46:1S:1019:A:C8	2.28	0.68
48:S1:179:SER:HB3	48:S1:183:GLN:HB2	1.75	0.68
56:S9:85:VAL:HG13	56:S9:103:ASP:HB3	1.75	0.68
1:2S:941:G:H2'	1:2S:942:U:O4'	1.93	0.68
1:2S:1682:U:H3'	24:62:85:LYS:HE2	1.76	0.68
1:2S:2761:G:N1	1:2S:2795:U:H3'	2.08	0.68
3:5S:77:G:H22	3:5S:102:A:H5''	1.58	0.68
4:L1:144:LEU:O	4:L1:148:VAL:HG13	1.93	0.68
21:59:189:ALA:HB2	54:S7:39:ARG:HD3	1.76	0.68
22:60:31:ALA:HB1	22:60:36:ILE:HB	1.73	0.68
26:64:56:ARG:HB3	26:64:56:ARG:NH1	2.09	0.68
33:71:11:GLU:HG3	33:71:109:VAL:CG2	2.24	0.68
38:76:80:PHE:O	38:76:84:LYS:HG3	1.94	0.68
46:1S:1089:U:H2'	46:1S:1090:C:H6	1.53	0.68
79:RA:10:ARG:HA	79:RA:10:ARG:HE	1.58	0.68
1:2S:2356:A:H61	1:2S:2983:C:N4	1.92	0.68
1:2S:3163:A:C3'	1:2S:3164:C:H5''	2.23	0.68
1:2S:3303:G:H3'	1:2S:3377:G:O4'	1.91	0.68
1:2S:3382:U:H2'	1:2S:3382:U:O2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L6:171:PRO:HA	9:L6:174:LEU:HD12	1.76	0.68
13:50:135:ILE:HG22	13:50:136:PHE:CD1	2.27	0.68
17:55:136:ASP:OD1	17:55:139:HIS:HB2	1.93	0.68
36:74:42:PRO:O	36:74:50:ALA:HA	1.92	0.68
46:1S:400:A:H2'	55:S8:24:LYS:O	1.94	0.68
46:1S:1020:A:H3'	46:1S:1021:C:H5''	1.74	0.68
63:16:40:GLU:HA	63:16:41:PRO:C	2.14	0.68
79:RA:88:THR:HG22	79:RA:104:VAL:HG22	1.76	0.68
1:2S:2117:A:H2'	1:2S:2118:C:O4'	1.94	0.68
1:2S:2990:G:H2'	1:2S:2991:A:H5'	1.76	0.68
5:L2:40:TYR:HA	5:L2:91:GLY:HA3	1.74	0.68
8:L5:109:THR:O	8:L5:113:LEU:HB2	1.93	0.68
12:L9:114:VAL:HB	12:L9:124:ARG:HB2	1.75	0.68
15:53:91:ARG:HH21	15:53:97:VAL:HB	1.57	0.68
46:1S:252:U:H4'	51:S4:132:GLY:O	1.93	0.68
48:S1:145:LYS:HD3	48:S1:149:GLN:HG2	1.74	0.68
1:2S:834:U:C2'	1:2S:835:G:H5'	2.23	0.68
1:2S:1110:U:H2'	1:2S:1111:U:C6	2.29	0.68
1:2S:1523:U:H1'	27:65:111:ASN:HB3	1.74	0.68
1:2S:1875:G:OP2	21:59:20:ARG:HD2	1.94	0.68
1:2S:1927:G:H3'	1:2S:1927:G:N3	2.08	0.68
1:2S:2719:U:H2'	1:2S:2720:G:H8	1.58	0.68
10:L7:169:ILE:HG21	10:L7:184:LEU:HD11	1.76	0.68
13:50:36:LEU:HD12	13:50:87:LEU:HD22	1.75	0.68
30:68:74:ASN:HD22	30:68:115:LYS:HB2	1.58	0.68
46:1S:559:C:H4'	77:30:60:PRO:HG3	1.76	0.68
46:1S:981:U:H2'	46:1S:982:U:H5''	1.75	0.68
46:1S:1254:U:OP2	59:12:46:ARG:HD3	1.94	0.68
47:S0:119:ARG:HB3	47:S0:119:ARG:NH1	2.03	0.68
50:S3:98:ALA:HA	50:S3:188:ILE:HD12	1.76	0.68
72:25:41:ILE:O	72:25:42:LEU:HB3	1.94	0.68
72:25:54:VAL:HG12	72:25:88:ILE:HG21	1.74	0.68
1:2S:36:C:H2'	1:2S:37:U:C5'	2.23	0.68
1:2S:1354:G:H4'	9:L6:8:LYS:NZ	2.09	0.68
1:2S:1939:G:H2'	1:2S:1940:G:C8	2.29	0.68
1:2S:2435:G:H5'	17:55:20:ARG:NH1	2.09	0.68
5:L2:47:GLN:HE21	5:L2:49:VAL:HB	1.59	0.68
8:L5:277:LEU:HD23	8:L5:282:ARG:CG	2.18	0.68
10:L7:203:TRP:CD1	10:L7:204:PRO:HD2	2.29	0.68
39:77:28:HIS:CD2	39:77:31:LYS:HB2	2.29	0.68
1:2S:118:U:N3	1:2S:122:A:H5''	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:283:G:N2	1:2S:285:A:H5''	2.09	0.68
1:2S:609:G:O2'	7:L4:312:VAL:HG22	1.93	0.68
1:2S:1803:C:H2'	1:2S:1804:A:C8	2.29	0.68
2:8S:101:U:H3'	2:8S:102:U:H5''	1.76	0.68
7:L4:72:ALA:HB3	7:L4:76:ARG:NH1	2.08	0.68
13:50:24:ARG:HH11	13:50:24:ARG:HB2	1.57	0.68
21:59:37:SER:O	21:59:41:ILE:HG13	1.94	0.68
22:60:9:VAL:CG1	22:60:58:ILE:HD13	2.24	0.68
46:1S:682:C:O2'	46:1S:683:C:H5'	1.94	0.68
51:S4:94:ALA:CB	71:24:17:LEU:HB3	2.23	0.68
58:11:117:VAL:HG12	58:11:118:GLN:N	2.08	0.68
60:13:121:ARG:HB2	60:13:121:ARG:HH11	1.58	0.68
61:14:32:ASP:OD2	61:14:37:GLU:HB3	1.93	0.68
61:14:107:ARG:HG3	61:14:107:ARG:HH21	1.58	0.68
65:18:46:VAL:CG1	65:18:69:ILE:HG23	2.22	0.68
73:26:23:CYS:HB3	73:26:28:LYS:H	1.58	0.68
79:RA:18:GLY:HA3	79:RA:38:ARG:HB2	1.76	0.68
1:2S:1927:G:C8	45:83:16:VAL:HG13	2.29	0.68
6:L3:106:TRP:HB2	6:L3:133:TYR:CE2	2.29	0.68
15:53:103:ASN:O	38:76:22:PRO:HD3	1.93	0.68
15:53:112:ASN:O	15:53:116:LEU:HG	1.94	0.68
23:61:111:ALA:O	23:61:115:LYS:HG3	1.93	0.68
46:1S:705:U:H2'	46:1S:706:A:H8	1.59	0.68
46:1S:860:U:H1'	54:S7:114:ARG:HG2	1.75	0.68
54:S7:168:SER:O	54:S7:172:VAL:HG23	1.94	0.68
66:19:25:GLN:NE2	66:19:27:LYS:HD3	2.06	0.68
1:2S:1235:U:C4'	1:2S:1236:G:H5'	2.23	0.67
1:2S:1877:U:H5''	1:2S:1878:G:O4'	1.93	0.67
1:2S:3064:U:H2'	1:2S:3065:G:C8	2.29	0.67
6:L3:39:LYS:HE2	6:L3:39:LYS:HA	1.75	0.67
8:L5:99:TYR:CE1	8:L5:165:GLY:HA2	2.29	0.67
21:59:119:LEU:O	21:59:123:LEU:HG	1.95	0.67
32:70:41:LEU:HD13	32:70:42:ILE:N	2.08	0.67
46:1S:1132:A:H2'	46:1S:1133:A:C8	2.28	0.67
46:1S:1229:G:H21	46:1S:1256:A:H62	1.41	0.67
50:S3:219:ALA:HB1	50:S3:220:PRO:CD	2.24	0.67
51:S4:49:ARG:HA	51:S4:55:ALA:HB3	1.75	0.67
60:13:17:PRO:HG3	74:27:28:PRO:HG3	1.77	0.67
1:2S:53:G:H5''	39:77:47:TYR:HD1	1.60	0.67
1:2S:1366:A:H2'	1:2S:1367:G:O4'	1.94	0.67
1:2S:3109:G:H21	12:L9:156:GLN:HE22	1.41	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:174:ALA:O	7:L4:178:LEU:HG	1.94	0.67
14:51:66:ALA:O	14:51:67:VAL:HG13	1.94	0.67
16:54:113:THR:HB	16:54:116:GLU:HG3	1.74	0.67
32:70:25:LEU:HD23	32:70:90:VAL:HG13	1.77	0.67
46:1S:906:A:H2'	46:1S:907:A:C8	2.30	0.67
46:1S:1082:C:H2'	46:1S:1082:C:O2	1.93	0.67
46:1S:1624:C:H2'	46:1S:1625:C:C6	2.29	0.67
48:S1:115:ARG:HG3	48:S1:116:LYS:H	1.59	0.67
49:S2:140:ARG:HE	49:S2:155:ALA:CB	2.06	0.67
49:S2:140:ARG:NE	49:S2:155:ALA:HB2	2.09	0.67
51:S4:180:LEU:HG	51:S4:230:GLU:O	1.93	0.67
62:15:33:PHE:CZ	62:15:112:LEU:HD13	2.29	0.67
1:2S:500:C:H2'	1:2S:501:A:C8	2.29	0.67
1:2S:1844:C:H2'	1:2S:1845:G:C5'	2.24	0.67
1:2S:2157:G:C8	5:L2:150:LEU:HD13	2.30	0.67
6:L3:88:GLY:O	6:L3:160:VAL:HG13	1.95	0.67
6:L3:147:GLU:O	6:L3:151:ILE:HG13	1.95	0.67
6:L3:152:LYS:HE2	6:L3:192:VAL:HG11	1.76	0.67
17:55:18:VAL:HG13	17:55:19:LEU:HD12	1.74	0.67
46:1S:435:C:H5''	70:23:50:LYS:HG3	1.77	0.67
47:S0:119:ARG:HH11	47:S0:119:ARG:CB	2.05	0.67
49:S2:111:VAL:O	49:S2:136:VAL:HA	1.95	0.67
58:11:67:ARG:HD3	58:11:67:ARG:N	2.08	0.67
64:17:14:LYS:HG3	64:17:69:ILE:HG22	1.76	0.67
1:2S:95:A:H8	1:2S:95:A:O5'	1.78	0.67
1:2S:215:G:H5'	28:66:12:ARG:HA	1.76	0.67
1:2S:834:U:H2'	1:2S:835:G:H5'	1.76	0.67
1:2S:3025:C:H4'	12:L9:175:PHE:HE1	1.59	0.67
10:L7:88:ARG:HG2	10:L7:110:ARG:O	1.95	0.67
11:L8:72:PRO:HG2	11:L8:75:ILE:HG13	1.74	0.67
13:50:59:GLN:HG2	13:50:128:ARG:HA	1.75	0.67
18:56:157:GLU:O	18:56:161:LYS:HG3	1.95	0.67
21:59:160:GLU:HG3	21:59:163:ARG:CZ	2.23	0.67
29:67:77:TYR:HA	29:67:80:LEU:HD12	1.75	0.67
46:1S:108:A:H2'	46:1S:109:G:C8	2.29	0.67
46:1S:477:A:H2'	46:1S:478:A:H8	1.58	0.67
46:1S:538:A:N3	46:1S:542:A:N7	2.42	0.67
46:1S:912:U:H5'	46:1S:913:G:H2'	1.74	0.67
46:1S:1057:U:H1'	46:1S:1058:U:H2'	1.76	0.67
58:11:123:VAL:HG23	58:11:142:VAL:HA	1.75	0.67
1:2S:36:C:H4'	1:2S:808:A:N1	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2743:A:H2'	1:2S:2744:U:C6	2.29	0.67
6:L3:89:VAL:HG23	6:L3:160:VAL:HG22	1.76	0.67
6:L3:239:PRO:HD2	6:L3:242:THR:CG2	2.23	0.67
7:L4:80:GLY:HA2	7:L4:85:SER:OG	1.94	0.67
7:L4:185:LYS:HA	7:L4:200:THR:O	1.94	0.67
8:L5:222:LEU:O	8:L5:223:PHE:HB2	1.94	0.67
10:L7:123:THR:O	10:L7:127:LEU:HG	1.94	0.67
14:51:101:ASN:OD1	14:51:130:VAL:HG23	1.95	0.67
19:57:44:ALA:O	19:57:48:LEU:HG	1.93	0.67
31:69:35:VAL:HG12	31:69:36:ASP:N	2.08	0.67
46:1S:1087:A:H5'	46:1S:1298:U:H5	1.60	0.67
55:S8:104:ILE:O	55:S8:164:ARG:HG3	1.95	0.67
56:S9:179:ARG:HA	56:S9:182:GLU:CG	2.24	0.67
57:10:13:GLN:HA	57:10:80:LEU:HD11	1.75	0.67
1:2S:296:A:H3'	1:2S:297:G:H21	1.60	0.67
1:2S:1354:G:H3'	1:2S:1355:A:H5''	1.77	0.67
1:2S:1545:A:H2'	1:2S:1547:G:OP2	1.95	0.67
3:5S:38:U:H2'	3:5S:40:C:OP2	1.94	0.67
6:L3:222:LYS:HE3	6:L3:331:ASN:HB3	1.76	0.67
7:L4:302:ALA:HB2	20:58:39:ARG:HH12	1.59	0.67
10:L7:42:ALA:HA	10:L7:45:LEU:HD12	1.77	0.67
10:L7:101:LYS:O	10:L7:105:LEU:HG	1.94	0.67
17:55:152:CYS:HB2	37:75:92:LEU:HD11	1.76	0.67
42:80:78:ILE:CG2	42:80:83:LYS:HD3	2.24	0.67
46:1S:1112:G:H21	46:1S:1133:A:H62	1.41	0.67
46:1S:1327:C:H5''	50:S3:158:ILE:HG22	1.75	0.67
52:S5:90:ILE:O	52:S5:94:THR:HG23	1.94	0.67
57:10:11:ILE:HD12	57:10:42:VAL:HG22	1.76	0.67
1:2S:2076:G:O2'	1:2S:2077:U:H5''	1.95	0.67
3:5S:60:G:H2'	3:5S:61:G:C8	2.29	0.67
6:L3:103:THR:HB	6:L3:151:ILE:HD11	1.76	0.67
14:51:163:PHE:CE2	14:51:171:VAL:HB	2.29	0.67
25:63:23:MET:CG	25:63:36:ILE:HD11	2.21	0.67
29:67:50:PRO:HG3	29:67:131:PHE:HB3	1.75	0.67
34:72:79:VAL:CG1	34:72:111:ARG:HG2	2.24	0.67
48:S1:33:LYS:HB2	48:S1:97:LEU:HD22	1.77	0.67
53:S6:32:ILE:HG13	53:S6:100:ALA:O	1.94	0.67
1:2S:778:U:H2'	1:2S:779:G:C8	2.29	0.67
1:2S:1150:A:H3'	1:2S:1151:U:C6	2.30	0.67
1:2S:1284:C:H1'	1:2S:3116:G:O6	1.95	0.67
1:2S:1305:U:C5	6:L3:256:HIS:HB3	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L1:107:TYR:HA	4:L1:136:THR:HG22	1.76	0.67
7:L4:52:VAL:HG22	7:L4:53:SER:N	2.10	0.67
35:73:18:ARG:HB3	35:73:23:ASN:CB	2.25	0.67
46:1S:454:U:H5'	51:S4:66:MET:CE	2.25	0.67
46:1S:531:C:H2'	46:1S:532:U:H5''	1.76	0.67
46:1S:570:A:N1	70:23:115:GLY:HA3	2.09	0.67
46:1S:869:A:H2'	46:1S:870:C:C6	2.29	0.67
46:1S:954:G:H2'	46:1S:955:A:H8	1.60	0.67
46:1S:1543:A:H1'	46:1S:1569:A:N1	2.09	0.67
50:S3:136:VAL:HG12	50:S3:152:PHE:HD2	1.60	0.67
1:2S:2407:C:H2'	1:2S:2408:U:C6	2.30	0.67
1:2S:2949:U:O2'	1:2S:2950:G:H5'	1.94	0.67
1:2S:3389:U:H6	1:2S:3389:U:H5'	1.59	0.67
15:53:50:PRO:HA	15:53:138:VAL:O	1.94	0.67
15:53:169:THR:HA	15:53:172:LEU:HD12	1.76	0.67
30:68:88:ASP:HA	30:68:91:LEU:HB2	1.75	0.67
32:70:48:THR:OG1	32:70:49:PRO:HD2	1.95	0.67
36:74:80:ARG:HB2	36:74:85:VAL:HG23	1.76	0.67
46:1S:332:U:H5''	55:S8:31:ARG:HG3	1.76	0.67
48:S1:180:THR:HG22	48:S1:181:LEU:H	1.60	0.67
1:2S:441:U:H5'	1:2S:442:G:N7	2.10	0.67
1:2S:1252:A:C2'	1:2S:1253:U:H5'	2.19	0.67
1:2S:2163:C:H5''	5:L2:231:SER:HB3	1.77	0.67
1:2S:2984:C:H2'	1:2S:2985:C:C6	2.30	0.67
19:57:67:ILE:CG2	19:57:68:GLY:N	2.57	0.67
27:65:67:ILE:HB	27:65:83:VAL:HB	1.77	0.67
46:1S:1472:C:N4	46:1S:1536:G:H1	1.93	0.67
70:23:83:VAL:HG12	70:23:84:THR:H	1.60	0.67
74:27:64:CYS:HA	74:27:74:SER:HB2	1.75	0.67
75:28:30:VAL:CG2	75:28:40:ILE:HB	2.25	0.67
79:RA:150:TRP:HB2	79:RA:174:ASN:HD22	1.58	0.67
1:2S:185:C:H5''	28:66:122:LYS:HG2	1.75	0.66
1:2S:3067:C:H3'	21:59:62:ARG:NH1	2.10	0.66
5:L2:129:ALA:H	5:L2:169:ILE:HD12	1.60	0.66
12:L9:102:ASN:HB2	12:L9:113:GLU:HB3	1.76	0.66
20:58:18:ALA:HB1	20:58:19:PRO:HD2	1.76	0.66
22:60:35:VAL:HG13	22:60:38:LYS:HE2	1.76	0.66
25:63:38:ALA:O	25:63:58:VAL:HB	1.95	0.66
25:63:128:ARG:HH11	25:63:128:ARG:HG3	1.60	0.66
29:67:25:ILE:HG22	29:67:28:PRO:HD3	1.77	0.66
33:71:17:HIS:HB2	33:71:69:TYR:HB3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:72:105:ARG:O	34:72:109:LEU:HG	1.95	0.66
46:1S:803:A:H4'	46:1S:804:A:H8	1.59	0.66
46:1S:1634:C:O2'	46:1S:1635:A:H5'	1.96	0.66
46:1S:1767:G:H5'	46:1S:1768:G:H21	1.60	0.66
47:S0:62:ARG:O	47:S0:66:ALA:HB2	1.95	0.66
48:S1:205:PHE:HB3	48:S1:207:LEU:HD13	1.77	0.66
51:S4:34:GLY:HA3	51:S4:83:PRO:HG2	1.77	0.66
53:S6:76:LEU:HD12	53:S6:94:ARG:CZ	2.25	0.66
61:14:29:HIS:HB2	61:14:41:ARG:HA	1.76	0.66
79:RA:161:LYS:HA	79:RA:161:LYS:HE3	1.77	0.66
1:2S:1287:A:C2	1:2S:1288:U:H1'	2.30	0.66
1:2S:1445:U:H2'	1:2S:1446:A:C8	2.30	0.66
10:L7:131:GLU:HB2	10:L7:132:PRO:HD3	1.76	0.66
46:1S:320:U:O2'	46:1S:321:C:H5''	1.95	0.66
46:1S:1545:A:H4'	65:18:127:HIS:HE1	1.60	0.66
46:1S:1609:U:H2'	46:1S:1610:G:H5'	1.76	0.66
46:1S:1685:G:H2'	46:1S:1686:C:H5''	1.78	0.66
75:28:25:VAL:HG11	75:28:66:LEU:HD12	1.77	0.66
1:2S:998:A:H2'	1:2S:999:G:H8	1.58	0.66
1:2S:1659:U:H2'	1:2S:1660:C:C6	2.31	0.66
1:2S:2896:A:H5'	1:2S:2896:A:H8	1.60	0.66
4:L1:18:LYS:HB2	4:L1:23:THR:HB	1.76	0.66
12:L9:79:ILE:O	12:L9:82:VAL:HG12	1.95	0.66
15:53:103:ASN:HB3	38:76:20:MET:SD	2.34	0.66
18:56:46:GLU:CG	18:56:49:ARG:H	2.08	0.66
46:1S:600:U:OP2	70:23:108:GLY:HA2	1.94	0.66
46:1S:639:U:H5''	54:S7:101:LYS:HD2	1.77	0.66
46:1S:1010:C:H2'	46:1S:1011:G:O4'	1.95	0.66
53:S6:58:LYS:HG2	53:S6:105:ASP:O	1.95	0.66
60:13:39:LYS:HE2	60:13:39:LYS:HA	1.76	0.66
61:14:24:ASN:O	61:14:54:GLU:HB2	1.95	0.66
1:2S:283:G:H3'	1:2S:283:G:N3	2.09	0.66
1:2S:1927:G:H8	45:83:16:VAL:HG13	1.60	0.66
1:2S:3317:U:H4'	1:2S:3318:G:H5'	1.78	0.66
2:8S:88:A:H2'	2:8S:89:A:O4'	1.95	0.66
5:L2:117:GLU:HA	5:L2:125:ALA:HB3	1.77	0.66
10:L7:64:GLN:HA	10:L7:67:ARG:HD2	1.76	0.66
13:50:49:CYS:HB2	13:50:172:GLY:HA2	1.78	0.66
15:53:105:ASN:HB3	15:53:108:ILE:HG12	1.77	0.66
23:61:39:ILE:HD12	23:61:102:ARG:HH11	1.59	0.66
27:65:126:LEU:CD1	27:65:132:ALA:HB2	2.25	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:68:75:LEU:HG	30:68:114:GLY:HA2	1.78	0.66
32:70:53:LYS:O	32:70:57:GLU:HG3	1.96	0.66
37:75:101:THR:HG23	37:75:104:GLN:H	1.60	0.66
46:1S:257:A:H1'	55:S8:73:SER:HB2	1.76	0.66
47:S0:168:HIS:HB3	47:S0:203:PHE:CZ	2.30	0.66
49:S2:38:VAL:HG22	49:S2:39:THR:N	2.05	0.66
51:S4:126:VAL:HA	51:S4:141:THR:HA	1.77	0.66
1:2S:683:U:H2'	1:2S:684:G:H5'	1.78	0.66
1:2S:1581:C:H2'	1:2S:1582:C:H5'	1.77	0.66
1:2S:2102:U:H5'	21:59:88:ARG:HH21	1.61	0.66
2:8S:70:G:H1'	2:8S:88:A:N6	2.11	0.66
3:5S:97:A:H2'	3:5S:98:C:C6	2.31	0.66
10:L7:140:SER:O	10:L7:144:ILE:HG13	1.96	0.66
14:51:23:VAL:HG12	14:51:24:GLY:N	2.11	0.66
15:53:171:ARG:HH21	15:53:174:ARG:HG2	1.59	0.66
19:57:4:TYR:OH	19:57:18:ARG:HG3	1.95	0.66
19:57:48:LEU:HD13	19:57:92:GLN:HB3	1.77	0.66
25:63:19:VAL:CG1	25:63:37:ILE:HA	2.23	0.66
46:1S:421:A:C2'	46:1S:422:G:H5'	2.26	0.66
46:1S:1058:U:H5	46:1S:1061:A:C6	2.13	0.66
48:S1:203:ASP:O	48:S1:204:ILE:HD13	1.95	0.66
69:22:80:ASN:HD22	69:22:124:LYS:HG2	1.61	0.66
69:22:102:VAL:HG13	69:22:128:PHE:HB3	1.77	0.66
1:2S:2280:A:N7	1:2S:2282:U:H2'	2.10	0.66
1:2S:2611:U:H2'	1:2S:2612:U:C6	2.31	0.66
1:2S:2666:C:H1'	1:2S:2691:A:H2	1.57	0.66
1:2S:2895:G:H2'	1:2S:2896:A:H5''	1.78	0.66
8:L5:243:ALA:O	8:L5:247:ILE:HG13	1.95	0.66
22:60:35:VAL:HG13	22:60:38:LYS:CE	2.25	0.66
25:63:80:ARG:HD3	25:63:117:PRO:HG2	1.76	0.66
46:1S:1073:G:H2'	46:1S:1074:G:H5''	1.76	0.66
50:S3:136:VAL:HB	50:S3:152:PHE:HB2	1.77	0.66
69:22:29:PRO:HB2	69:22:58:SER:CB	2.25	0.66
73:26:37:LYS:HA	73:26:71:LEU:O	1.95	0.66
1:2S:1171:G:H2'	1:2S:1172:G:O4'	1.95	0.66
1:2S:1221:A:H3'	1:2S:1222:G:C5'	2.25	0.66
1:2S:2493:U:H5''	4:L1:162:VAL:CG1	2.26	0.66
2:8S:93:U:H2'	2:8S:94:C:O4'	1.96	0.66
4:L1:79:SER:HB2	4:L1:141:ASN:ND2	2.09	0.66
6:L3:111:SER:O	6:L3:114:VAL:HG23	1.96	0.66
11:L8:135:GLY:O	11:L8:139:VAL:HG23	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L9:45:PHE:HD1	12:L9:55:VAL:HG12	1.61	0.66
27:65:68:THR:HG21	37:75:36:LEU:HD22	1.77	0.66
30:68:75:LEU:HA	30:68:78:LEU:HD11	1.78	0.66
46:1S:1059:U:O2	46:1S:1059:U:H2'	1.96	0.66
46:1S:1119:G:H2'	46:1S:1120:U:C6	2.31	0.66
46:1S:1604:U:H5''	63:16:129:PHE:HB3	1.78	0.66
66:19:100:ILE:O	66:19:104:VAL:HG23	1.96	0.66
78:31:113:LYS:H	78:31:113:LYS:HD2	1.61	0.66
1:2S:871:U:H2'	1:2S:872:U:C6	2.30	0.66
1:2S:2917:G:H2'	1:2S:2918:G:H5''	1.76	0.66
4:L1:44:GLN:HG3	4:L1:161:LYS:HA	1.76	0.66
46:1S:384:G:H2'	46:1S:385:A:H8	1.60	0.66
46:1S:1348:A:H61	46:1S:1377:U:H3	1.43	0.66
46:1S:1521:G:H2'	46:1S:1523:G:N2	2.10	0.66
50:S3:11:LEU:HD13	67:20:29:THR:CG2	2.26	0.66
56:S9:92:LYS:O	56:S9:93:LEU:HB3	1.94	0.66
67:20:50:LEU:CD2	67:20:95:ALA:HB2	2.26	0.66
71:24:2:SER:OG	71:24:32:ARG:HG2	1.96	0.66
1:2S:2189:U:H4'	45:83:22:LEU:CD1	2.25	0.66
1:2S:2356:A:N6	1:2S:2983:C:H41	1.94	0.66
1:2S:2419:A:H2'	1:2S:2420:C:C6	2.30	0.66
1:2S:2666:C:H1'	1:2S:2691:A:N3	2.09	0.66
3:5S:16:U:H2'	3:5S:17:A:C8	2.31	0.66
7:L4:77:VAL:HB	7:L4:86:GLY:N	2.08	0.66
9:L6:31:ARG:HG2	9:L6:34:LEU:HG	1.78	0.66
27:65:58:ASP:O	27:65:62:VAL:HG23	1.96	0.66
46:1S:102:U:H3'	46:1S:360:A:N6	2.09	0.66
46:1S:477:A:H5'	77:30:34:ALA:CB	2.26	0.66
46:1S:794:U:O2	46:1S:794:U:H2'	1.95	0.66
46:1S:1482:C:H1'	63:16:73:GLY:HA2	1.77	0.66
48:S1:207:LEU:HB3	48:S1:210:ILE:HD11	1.77	0.66
51:S4:95:THR:HG23	71:24:17:LEU:HD23	1.78	0.66
52:S5:156:ARG:HB2	52:S5:156:ARG:HH11	1.61	0.66
70:23:27:ASN:O	70:23:31:LYS:HG2	1.95	0.66
1:2S:1398:U:H5''	2:8S:9:A:H5''	1.78	0.66
1:2S:1567:U:H3'	1:2S:1568:U:C5'	2.24	0.66
1:2S:2611:U:H2'	1:2S:2612:U:H6	1.61	0.66
1:2S:3322:A:H2'	1:2S:3323:A:C8	2.31	0.66
2:8S:69:U:C2'	2:8S:70:G:H5'	2.25	0.66
14:51:94:ARG:O	14:51:95:ASN:HB2	1.96	0.66
15:53:50:PRO:HB3	15:53:138:VAL:HB	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:55:35:VAL:HG22	17:55:65:ARG:NH2	2.06	0.66
46:1S:165:G:H3'	46:1S:166:C:H5''	1.78	0.66
46:1S:567:A:H1'	77:30:14:VAL:CG2	2.25	0.66
48:S1:151:LYS:HD2	48:S1:153:HIS:CE1	2.31	0.66
63:16:93:HIS:HA	63:16:97:VAL:HB	1.77	0.66
73:26:73:TYR:HB3	73:26:77:CYS:HB2	1.78	0.66
1:2S:879:U:H2'	19:57:131:ARG:NH2	2.11	0.65
1:2S:1033:U:H2'	1:2S:1034:U:C6	2.30	0.65
1:2S:1721:U:C6	21:59:103:ARG:NH2	2.64	0.65
1:2S:2647:A:H3'	1:2S:2648:G:H5''	1.78	0.65
8:L5:30:TYR:O	8:L5:34:LYS:HB2	1.95	0.65
11:L8:146:LYS:HG2	11:L8:173:MET:HB3	1.78	0.65
13:50:213:PHE:N	13:50:214:PRO:HD3	2.10	0.65
23:61:74:VAL:HG21	23:61:91:LEU:HD12	1.78	0.65
30:68:105:LEU:HD13	30:68:148:ILE:HD11	1.78	0.65
34:72:21:HIS:ND1	34:72:24:ARG:HD2	2.11	0.65
38:76:57:LEU:O	38:76:61:ILE:HG13	1.96	0.65
46:1S:1162:C:H4'	75:28:22:ARG:HD2	1.77	0.65
56:S9:59:LEU:HD22	56:S9:69:ARG:HA	1.78	0.65
13:50:52:LEU:CD2	13:50:135:ILE:HD12	2.11	0.65
19:57:108:ASP:HB3	19:57:111:LYS:HE2	1.78	0.65
35:73:6:ARG:HG3	35:73:8:TYR:CD1	2.31	0.65
35:73:15:SER:HA	35:73:94:PHE:CE1	2.31	0.65
45:83:84:ARG:HD2	45:83:87:ARG:NH2	2.11	0.65
46:1S:1470:C:H3'	46:1S:1573:A:H62	1.61	0.65
46:1S:1552:U:H2'	46:1S:1553:G:O4'	1.96	0.65
50:S3:219:ALA:HB1	50:S3:220:PRO:HD2	1.79	0.65
52:S5:140:THR:HG22	52:S5:211:ILE:HD13	1.78	0.65
1:2S:48:A:O3'	1:2S:49:A:H4'	1.97	0.65
1:2S:673:U:H2'	1:2S:674:G:C8	2.31	0.65
1:2S:828:A:H2'	1:2S:829:U:C6	2.32	0.65
1:2S:960:U:H4'	1:2S:963:G:N1	2.11	0.65
1:2S:1624:G:H2'	1:2S:1625:A:H8	1.62	0.65
1:2S:1717:U:H2'	1:2S:1718:G:C8	2.30	0.65
1:2S:2197:C:N4	1:2S:2241:U:H2'	2.10	0.65
1:2S:3132:C:H2'	1:2S:3133:C:O4'	1.96	0.65
5:L2:39:GLY:O	5:L2:91:GLY:HA3	1.97	0.65
5:L2:247:ARG:HG2	5:L2:247:ARG:HH11	1.61	0.65
46:1S:780:A:H8	71:24:8:ARG:HB3	1.60	0.65
46:1S:1458:G:N3	46:1S:1458:G:H2'	2.10	0.65
46:1S:1459:C:H5''	65:18:138:THR:OG1	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:S0:189:VAL:HG22	47:S0:190:ASP:H	1.61	0.65
52:S5:187:ILE:H	52:S5:187:ILE:CD1	2.07	0.65
53:S6:10:ASN:ND2	53:S6:128:THR:HB	2.10	0.65
55:S8:172:ARG:HD3	55:S8:175:GLN:HG3	1.77	0.65
56:S9:126:ARG:O	56:S9:130:THR:HG22	1.96	0.65
56:S9:129:ILE:O	56:S9:142:ASN:HA	1.95	0.65
60:13:33:VAL:O	60:13:37:ILE:HG13	1.96	0.65
60:13:71:ILE:HD12	60:13:71:ILE:N	2.10	0.65
67:20:53:LYS:HB2	67:20:92:ASP:HB2	1.78	0.65
1:2S:74:G:H2'	1:2S:75:G:C8	2.31	0.65
1:2S:300:G:H2'	1:2S:301:G:C8	2.31	0.65
1:2S:808:A:H2'	1:2S:809:G:C5'	2.26	0.65
1:2S:2604:U:H2'	1:2S:2605:G:C8	2.31	0.65
9:L6:4:GLN:HB2	34:72:75:LEU:CB	2.26	0.65
10:L7:121:LYS:HB3	23:61:133:ALA:HB3	1.79	0.65
34:72:19:ARG:HG2	34:72:20:HIS:H	1.62	0.65
34:72:82:LEU:O	34:72:82:LEU:HD22	1.95	0.65
51:S4:196:VAL:HB	51:S4:209:HIS:HB3	1.77	0.65
53:S6:79:LYS:HE3	53:S6:90:GLY:HA2	1.77	0.65
58:11:99:ARG:HB2	70:23:12:ALA:HB2	1.77	0.65
75:28:30:VAL:HG23	75:28:40:ILE:HB	1.79	0.65
1:2S:425:G:H2'	1:2S:426:G:H8	1.62	0.65
1:2S:1340:G:H2'	1:2S:1341:U:C6	2.31	0.65
1:2S:2179:C:H2'	5:L2:132:ASN:HD21	1.61	0.65
3:5S:88:G:H2'	3:5S:89:G:O4'	1.97	0.65
4:L1:20:SER:HB3	4:L1:177:ASP:HB3	1.79	0.65
7:L4:286:VAL:O	7:L4:290:ILE:HG13	1.97	0.65
11:L8:82:LEU:HD21	11:L8:86:THR:CG2	2.27	0.65
12:L9:176:LEU:HD23	42:80:90:ASN:OD1	1.97	0.65
13:50:38:LYS:HD3	13:50:41:ALA:HB2	1.77	0.65
15:53:46:ILE:HG22	15:53:49:ARG:HD2	1.79	0.65
30:68:28:HIS:CD2	30:68:32:ARG:HG2	2.32	0.65
34:72:4:LEU:HD12	34:72:5:PRO:HD2	1.77	0.65
48:S1:37:THR:HG23	48:S1:231:LEU:CD2	2.27	0.65
1:2S:409:A:H3'	1:2S:410:U:C6	2.31	0.65
5:L2:82:VAL:C	45:83:64:VAL:HG13	2.17	0.65
16:54:21:VAL:HB	16:54:64:VAL:O	1.95	0.65
46:1S:43:A:H4'	46:1S:99:C:OP1	1.96	0.65
46:1S:555:A:H4'	46:1S:556:A:OP1	1.97	0.65
46:1S:812:A:H5'	46:1S:858:G:H22	1.61	0.65
58:11:54:ILE:N	58:11:54:ILE:HD12	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:17:5:ARG:O	64:17:10:LYS:HE2	1.97	0.65
71:24:21:LYS:HB2	71:24:75:VAL:HG13	1.79	0.65
71:24:42:GLU:HB2	71:24:52:LYS:HD3	1.78	0.65
71:24:99:LYS:HA	71:24:99:LYS:HE3	1.79	0.65
73:26:44:ILE:HG22	73:26:67:THR:HG23	1.79	0.65
17:55:21:PHE:O	17:55:25:VAL:HG23	1.97	0.65
22:60:9:VAL:HB	22:60:41:TYR:CD2	2.32	0.65
22:60:110:MET:HE3	22:60:121:ILE:HG12	1.79	0.65
46:1S:556:A:H5'	77:30:56:MET:SD	2.37	0.65
46:1S:798:C:H2'	46:1S:799:A:H8	1.62	0.65
49:S2:126:ARG:O	49:S2:130:ILE:HD13	1.97	0.65
60:13:102:LEU:HD23	60:13:105:ASN:O	1.97	0.65
75:28:32:PHE:CE2	75:28:38:ARG:HB3	2.32	0.65
1:2S:2941:A:H8	1:2S:2941:A:OP2	1.80	0.65
1:2S:3231:U:H3	1:2S:3256:G:H1	1.44	0.65
2:8S:101:U:H2'	2:8S:102:U:H4'	1.78	0.65
7:L4:181:VAL:O	7:L4:182:LEU:HB3	1.97	0.65
16:54:13:ARG:HD3	16:54:65:LEU:HB3	1.78	0.65
19:57:141:SER:O	19:57:143:PRO:HD3	1.96	0.65
44:82:22:GLN:O	44:82:75:VAL:HG22	1.96	0.65
46:1S:959:U:H5'	60:13:15:ALA:O	1.96	0.65
50:S3:76:ARG:O	50:S3:76:ARG:HD3	1.97	0.65
51:S4:242:LYS:HD2	51:S4:242:LYS:N	2.12	0.65
53:S6:118:GLU:HG3	53:S6:119:GLN:H	1.62	0.65
57:10:27:PHE:O	57:10:28:ASN:HB2	1.95	0.65
67:20:48:HIS:CE1	67:20:50:LEU:HD11	2.32	0.65
1:2S:52:A:H5''	39:77:48:ASN:CB	2.26	0.65
1:2S:1238:C:H2'	1:2S:1239:C:C4'	2.27	0.65
1:2S:2481:G:H2'	1:2S:2482:U:C5	2.32	0.65
8:L5:55:PHE:CE2	8:L5:159:VAL:HG22	2.21	0.65
9:L6:51:ARG:HG2	9:L6:51:ARG:HH11	1.62	0.65
11:L8:136:LEU:O	11:L8:140:VAL:HG23	1.97	0.65
12:L9:49:ASN:HD21	12:L9:52:LEU:HB3	1.60	0.65
16:54:124:ARG:HB3	16:54:124:ARG:NH1	2.12	0.65
18:56:76:PRO:HB3	18:56:138:LEU:CD2	2.26	0.65
54:S7:31:SER:O	54:S7:35:LYS:HB3	1.96	0.65
1:2S:122:A:N6	1:2S:148:G:H1'	2.11	0.65
1:2S:157:A:H2'	1:2S:158:G:O4'	1.97	0.65
1:2S:846:A:H61	46:1S:972:G:N2	1.95	0.65
1:2S:2922:G:H2'	1:2S:2923:U:H4'	1.79	0.65
2:8S:135:G:H5''	27:65:49:LYS:HD2	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L1:44:GLN:H	4:L1:161:LYS:CB	2.09	0.65
8:L5:131:LEU:HD12	8:L5:175:HIS:CE1	2.31	0.65
30:68:74:ASN:ND2	30:68:115:LYS:HB2	2.12	0.65
35:73:39:GLN:HA	35:73:42:GLN:HG2	1.78	0.65
46:1S:926:A:H2'	46:1S:927:C:C6	2.32	0.65
46:1S:1715:G:C2'	46:1S:1716:C:H5''	2.27	0.65
49:S2:67:GLN:O	49:S2:71:THR:HG23	1.97	0.65
54:S7:133:THR:HG22	54:S7:159:VAL:HG12	1.79	0.65
61:14:91:THR:C	61:14:92:LYS:HG2	2.17	0.65
1:2S:121:A:C2	11:L8:129:PRO:HB3	2.32	0.64
1:2S:1064:A:N6	1:2S:1096:U:H3	1.90	0.64
1:2S:1348:U:OP2	20:58:38:ARG:NH2	2.29	0.64
1:2S:1979:G:H22	1:2S:2040:U:H3	1.44	0.64
5:L2:133:TYR:HB3	5:L2:168:VAL:HG12	1.77	0.64
10:L7:178:ILE:HG21	10:L7:184:LEU:CD2	2.27	0.64
11:L8:158:ASP:HB3	11:L8:159:PRO:CD	2.16	0.64
11:L8:238:LEU:HD22	11:L8:238:LEU:H	1.61	0.64
15:53:25:HIS:HB2	17:55:200:TRP:HA	1.79	0.64
15:53:189:GLU:HA	15:53:192:GLU:HG2	1.80	0.64
20:58:59:ARG:HB2	20:58:59:ARG:NH1	2.12	0.64
46:1S:20:G:H2'	46:1S:21:U:H6	1.62	0.64
46:1S:162:A:H3'	46:1S:163:G:H21	1.62	0.64
46:1S:875:G:OP1	48:S1:158:SER:HB2	1.97	0.64
46:1S:1071:U:H2'	46:1S:1072:C:C6	2.32	0.64
48:S1:214:LYS:HG2	48:S1:215:VAL:N	2.11	0.64
52:S5:219:ARG:HD3	52:S5:220:VAL:HG23	1.79	0.64
60:13:42:ARG:HE	60:13:80:LEU:HD11	1.62	0.64
69:22:28:ARG:HD3	69:22:60:LYS:HE2	1.79	0.64
1:2S:1537:A:H2'	1:2S:1538:G:O4'	1.97	0.64
1:2S:2513:U:H4'	1:2S:2514:U:OP1	1.97	0.64
4:L1:54:LYS:HB2	4:L1:191:VAL:HG11	1.80	0.64
8:L5:50:ARG:HB3	8:L5:147:ASP:OD2	1.97	0.64
8:L5:95:TRP:NE1	8:L5:157:ALA:O	2.30	0.64
13:50:98:ARG:HG3	13:50:98:ARG:HH11	1.63	0.64
36:74:99:LYS:O	36:74:103:LYS:HG2	1.98	0.64
39:77:85:LYS:HG2	39:77:86:ALA:N	2.13	0.64
46:1S:878:G:H2'	46:1S:879:G:C8	2.32	0.64
46:1S:1166:A:H2'	46:1S:1167:G:H4'	1.79	0.64
1:2S:868:C:C2'	1:2S:869:G:H5'	2.27	0.64
6:L3:46:PHE:CE2	6:L3:205:VAL:HG22	2.32	0.64
7:L4:165:ALA:O	7:L4:169:LEU:HG	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:69:44:LYS:O	31:69:48:HIS:HB2	1.98	0.64
46:1S:94:U:H2'	46:1S:95:G:H5'	1.78	0.64
48:S1:30:PHE:HD1	48:S1:31:ASP:H	1.46	0.64
48:S1:88:VAL:HG13	48:S1:97:LEU:O	1.97	0.64
52:S5:96:SER:HB2	52:S5:176:THR:HG21	1.78	0.64
54:S7:130:VAL:O	54:S7:130:VAL:HG23	1.97	0.64
69:22:103:ILE:HD13	69:22:104:LEU:H	1.63	0.64
1:2S:3008:A:H2'	1:2S:3009:G:C8	2.33	0.64
15:53:124:ILE:HD13	15:53:124:ILE:N	2.13	0.64
17:55:122:ASN:HB2	17:55:129:TYR:CG	2.33	0.64
20:58:170:ARG:O	20:58:171:LYS:HB3	1.97	0.64
22:60:4:PHE:HB3	22:60:100:VAL:CG2	2.28	0.64
46:1S:927:C:H1'	61:14:125:SER:HB2	1.80	0.64
52:S5:36:ALA:CB	52:S5:45:LYS:HE2	2.25	0.64
57:10:15:LEU:HG	57:10:68:LEU:HD22	1.80	0.64
1:2S:2857:C:H2'	1:2S:2858:U:C6	2.32	0.64
3:5S:64:A:C5	13:50:206:LEU:HD13	2.32	0.64
5:L2:242:ARG:NH1	5:L2:246:LEU:HD23	2.12	0.64
34:72:24:ARG:HG2	34:72:25:TYR:CE1	2.33	0.64
37:75:33:VAL:O	37:75:36:LEU:HG	1.98	0.64
46:1S:211:U:H5''	58:11:20:PHE:HB2	1.80	0.64
46:1S:1230:A:HO2'	46:1S:1258:U:H5	1.46	0.64
56:S9:121:SER:HB3	56:S9:124:HIS:HB3	1.80	0.64
1:2S:1109:U:H2'	1:2S:1110:U:C6	2.33	0.64
1:2S:1447:G:H3'	19:57:67:ILE:HD11	1.80	0.64
1:2S:1668:G:H2'	1:2S:1669:C:C6	2.33	0.64
14:51:81:GLU:O	14:51:85:LYS:HE2	1.97	0.64
23:61:63:VAL:HB	23:61:75:ILE:HG22	1.80	0.64
27:65:72:ALA:HB1	27:65:83:VAL:HG21	1.79	0.64
27:65:86:VAL:O	27:65:120:LYS:HB3	1.96	0.64
28:66:70:ILE:H	28:66:70:ILE:HD12	1.61	0.64
29:67:22:LYS:CE	29:67:134:LEU:HD23	2.27	0.64
44:82:32:LYS:HG2	44:82:34:SER:H	1.61	0.64
46:1S:699:U:H2'	46:1S:700:C:C6	2.32	0.64
46:1S:1544:U:H3	46:1S:1567:U:H3	1.44	0.64
48:S1:164:ILE:O	48:S1:168:ILE:HG13	1.97	0.64
50:S3:92:GLN:H	50:S3:92:GLN:HE21	1.44	0.64
65:18:28:ILE:O	65:18:32:LEU:HG	1.98	0.64
71:24:19:ALA:O	71:24:76:TYR:HA	1.97	0.64
1:2S:437:G:H1	1:2S:622:A:H61	1.45	0.64
1:2S:700:C:H2'	1:2S:701:G:H8	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2129:U:H2'	1:2S:2130:G:H8	1.63	0.64
21:59:6:THR:HG22	21:59:10:LEU:HD13	1.80	0.64
25:63:79:VAL:HG22	25:63:99:ALA:O	1.98	0.64
37:75:70:TYR:CD1	37:75:73:LYS:HD2	2.33	0.64
46:1S:1498:G:H2'	46:1S:1499:G:H5'	1.80	0.64
48:S1:103:MET:HB3	48:S1:215:VAL:CG1	2.27	0.64
48:S1:176:VAL:HG12	48:S1:177:GLN:N	2.12	0.64
53:S6:51:LYS:HB3	53:S6:112:VAL:HB	1.80	0.64
59:12:86:VAL:N	59:12:87:PRO:CD	2.60	0.64
61:14:81:VAL:O	61:14:115:ILE:HB	1.98	0.64
61:14:86:THR:CG2	61:14:90:ARG:HG3	2.27	0.64
1:2S:692:A:H2'	1:2S:693:A:O4'	1.96	0.64
1:2S:720:A:H2'	20:58:69:ARG:HH22	1.63	0.64
1:2S:1212:A:H2'	1:2S:1213:G:O4'	1.97	0.64
1:2S:1369:A:H4'	30:68:21:ARG:HD2	1.80	0.64
1:2S:3067:C:H5''	21:59:58:HIS:NE2	2.13	0.64
4:L1:192:SER:HB2	4:L1:196:LYS:NZ	2.13	0.64
5:L2:117:GLU:HA	5:L2:125:ALA:CB	2.27	0.64
7:L4:214:GLY:HA2	7:L4:217:LYS:HE3	1.80	0.64
11:L8:63:LYS:HA	11:L8:63:LYS:NZ	2.13	0.64
18:56:117:ARG:HD3	18:56:117:ARG:H	1.62	0.64
19:57:120:ASN:ND2	19:57:145:HIS:HB2	2.13	0.64
20:58:157:PRO:HD3	30:68:47:LYS:HE3	1.79	0.64
27:65:135:ILE:O	27:65:135:ILE:HD13	1.97	0.64
34:72:73:THR:CA	34:72:93:ALA:HB3	2.20	0.64
46:1S:1059:U:O2'	46:1S:1061:A:H2	1.80	0.64
46:1S:1382:A:HO2'	46:1S:1383:G:H8	1.45	0.64
48:S1:135:LEU:HD13	48:S1:137:ILE:HG23	1.80	0.64
59:12:97:LEU:HD13	59:12:97:LEU:O	1.97	0.64
1:2S:577:C:O2'	1:2S:579:G:H5''	1.97	0.64
1:2S:2251:G:H2'	1:2S:2252:A:C5'	2.22	0.64
5:L2:196:TRP:CD1	5:L2:197:PRO:HA	2.32	0.64
6:L3:5:LYS:HE2	6:L3:6:TYR:HE1	1.63	0.64
7:L4:52:VAL:HG13	7:L4:53:SER:N	2.13	0.64
7:L4:181:VAL:HG12	7:L4:182:LEU:H	1.62	0.64
11:L8:166:LEU:HB2	11:L8:167:PRO:HD3	1.79	0.64
28:66:70:ILE:HD12	28:66:70:ILE:N	2.13	0.64
30:68:47:LYS:HG3	30:68:48:TYR:CD2	2.33	0.64
56:S9:93:LEU:O	56:S9:96:VAL:HG22	1.97	0.64
69:22:29:PRO:HB2	69:22:58:SER:HB2	1.80	0.64
70:23:116:ASP:O	70:23:118:PRO:HD3	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:808:A:C2'	1:2S:809:G:H5'	2.27	0.64
1:2S:1859:A:H8	1:2S:1859:A:O5'	1.80	0.64
1:2S:2076:G:H2'	1:2S:2077:U:H5''	1.78	0.64
1:2S:2882:U:H2'	1:2S:2883:U:H6	1.60	0.64
7:L4:361:HIS:CD2	7:L4:362:ASP:H	2.16	0.64
12:L9:129:ARG:HH21	12:L9:156:GLN:HG2	1.62	0.64
24:62:50:LEU:HD22	24:62:54:VAL:CG2	2.27	0.64
45:83:42:CYS:HB3	45:83:60:CYS:HB2	1.80	0.64
46:1S:177:U:O2'	46:1S:178:U:H5''	1.98	0.64
46:1S:351:C:N3	58:11:102:LYS:HD2	2.13	0.64
46:1S:481:A:H2'	46:1S:482:U:O4'	1.96	0.64
56:S9:59:LEU:HA	56:S9:62:ARG:HG3	1.79	0.64
60:13:25:TRP:HH2	74:27:45:THR:HG21	1.63	0.64
79:RA:193:ILE:HG22	79:RA:194:GLY:H	1.63	0.64
1:2S:884:A:H4'	1:2S:885:U:H6	1.62	0.63
1:2S:1795:U:H5'	1:2S:1796:G:N3	2.13	0.63
6:L3:48:GLY:O	6:L3:335:ILE:HG13	1.98	0.63
8:L5:64:ILE:HD11	8:L5:105:ILE:HG23	1.80	0.63
9:L6:78:ARG:NH2	9:L6:106:PHE:HB2	2.09	0.63
17:55:5:LYS:NZ	38:76:37:THR:HG22	2.14	0.63
20:58:92:ARG:HD3	30:68:76:ASP:OD2	1.97	0.63
21:59:6:THR:HG22	21:59:10:LEU:CD1	2.28	0.63
28:66:3:LYS:HZ1	28:66:6:LEU:HD23	1.63	0.63
35:73:6:ARG:HG3	35:73:8:TYR:CE1	2.33	0.63
36:74:74:ARG:NH1	36:74:85:VAL:HG11	2.13	0.63
46:1S:71:A:H2'	46:1S:72:A:C4'	2.26	0.63
46:1S:476:U:H2'	77:30:31:LYS:HG3	1.78	0.63
46:1S:1477:G:H5''	66:19:45:MET:O	1.98	0.63
46:1S:1646:C:H42	46:1S:1754:A:H61	1.45	0.63
58:11:133:LYS:HZ2	58:11:134:THR:HG23	1.62	0.63
71:24:102:LYS:H	71:24:102:LYS:HD2	1.63	0.63
1:2S:355:A:H2'	1:2S:356:C:O4'	1.98	0.63
1:2S:1390:A:H5'	1:2S:1390:A:N3	2.13	0.63
1:2S:1892:G:H2'	1:2S:1893:A:H5''	1.81	0.63
1:2S:2144:A:H1'	1:2S:2281:A:N6	2.14	0.63
1:2S:3128:G:OP2	1:2S:3128:G:H8	1.80	0.63
3:5S:60:G:H2'	3:5S:61:G:H8	1.63	0.63
6:L3:106:TRP:O	6:L3:199:PHE:HE2	1.81	0.63
6:L3:261:MET:HB3	18:56:64:PHE:CA	2.25	0.63
11:L8:65:LEU:HD13	11:L8:69:LEU:HD13	1.78	0.63
14:51:133:ARG:NH1	14:51:154:THR:HG23	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:61:48:ILE:HG21	23:61:95:HIS:CE1	2.33	0.63
28:66:106:ILE:HG21	28:66:109:LEU:HD21	1.80	0.63
46:1S:165:G:C2'	46:1S:166:C:H5''	2.27	0.63
46:1S:215:A:H62	46:1S:242:U:H5''	1.63	0.63
46:1S:247:A:H4'	58:11:37:ASN:HD21	1.62	0.63
46:1S:1097:U:H1'	49:S2:168:ARG:NH1	2.13	0.63
47:S0:158:VAL:O	47:S0:158:VAL:HG13	1.97	0.63
53:S6:57:ASP:HA	53:S6:106:LEU:HA	1.80	0.63
62:15:58:LYS:HB3	62:15:58:LYS:NZ	2.13	0.63
1:2S:1363:A:H2	20:58:10:HIS:HE2	1.46	0.63
1:2S:1393:A:H2'	1:2S:1394:A:H8	1.63	0.63
1:2S:1426:C:H3'	30:68:4:ARG:NH2	2.12	0.63
1:2S:2189:U:C5'	45:83:22:LEU:HD11	2.28	0.63
6:L3:116:ARG:NH2	6:L3:174:LYS:HB3	2.13	0.63
40:78:45:VAL:CG2	40:78:52:TYR:HB2	2.27	0.63
46:1S:401:A:O2'	46:1S:402:C:H4'	1.97	0.63
46:1S:487:G:H1	46:1S:500:C:H42	1.44	0.63
48:S1:111:ARG:HA	48:S1:114:VAL:HB	1.79	0.63
51:S4:37:LYS:O	51:S4:40:GLU:HG2	1.98	0.63
62:15:126:VAL:HG13	62:15:127:ARG:N	2.14	0.63
64:17:6:THR:CG2	64:17:9:VAL:HG23	2.22	0.63
67:20:51:VAL:HG11	67:20:94:GLU:HB2	1.80	0.63
73:26:82:ARG:O	73:26:84:VAL:HG12	1.99	0.63
74:27:34:ASP:O	74:27:79:PHE:HA	1.98	0.63
76:29:36:LEU:HD12	76:29:37:ASN:N	2.13	0.63
1:2S:3331:U:H2'	1:2S:3332:U:C6	2.34	0.63
4:L1:105:LYS:NZ	4:L1:105:LYS:HB2	2.12	0.63
5:L2:185:ALA:O	5:L2:189:TYR:HD1	1.82	0.63
5:L2:202:VAL:HG23	5:L2:211:HIS:HB3	1.78	0.63
6:L3:81:THR:CG2	6:L3:205:VAL:HG21	2.27	0.63
7:L4:60:THR:HG21	7:L4:89:ALA:HB1	1.81	0.63
14:51:138:VAL:O	14:51:145:LYS:HG3	1.99	0.63
18:56:117:ARG:HD3	18:56:117:ARG:N	2.13	0.63
22:60:166:LYS:HG2	22:60:167:ARG:N	2.12	0.63
26:64:39:LEU:CD1	26:64:44:LYS:HG3	2.27	0.63
42:80:79:GLU:HG2	42:80:82:LEU:CD1	2.28	0.63
46:1S:103:A:HO2'	46:1S:104:A:P	2.20	0.63
46:1S:501:U:H2'	46:1S:502:U:H6	1.63	0.63
46:1S:1186:U:H2'	46:1S:1187:U:O4'	1.99	0.63
50:S3:7:LYS:HA	50:S3:7:LYS:CE	2.27	0.63
63:16:118:ILE:HG13	63:16:119:ALA:H	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:21:17:CYS:HB3	68:21:22:ARG:H	1.63	0.63
70:23:127:VAL:HG23	70:23:130:VAL:CG2	2.27	0.63
1:2S:115:A:N3	1:2S:266:A:H5'	2.13	0.63
1:2S:238:A:H2'	1:2S:239:G:O4'	1.98	0.63
1:2S:374:A:H1'	1:2S:376:G:H5''	1.81	0.63
1:2S:422:A:H2'	1:2S:423:A:O4'	1.98	0.63
1:2S:1231:A:H4'	1:2S:1261:G:C8	2.34	0.63
1:2S:1463:U:H3	1:2S:1467:A:H62	1.46	0.63
1:2S:2076:G:C2'	1:2S:2077:U:H5''	2.29	0.63
1:2S:2943:G:H2'	1:2S:2944:U:C6	2.33	0.63
4:L1:55:LEU:HG	4:L1:154:THR:HA	1.81	0.63
17:55:80:THR:O	17:55:81:TYR:HB2	1.99	0.63
18:56:124:LEU:HD23	18:56:127:LEU:HG	1.80	0.63
19:57:36:ILE:HD11	19:57:44:ALA:CB	2.28	0.63
27:65:135:ILE:HG12	27:65:138:ARG:HH11	1.63	0.63
38:76:45:ARG:NH1	38:76:93:ILE:HG13	2.13	0.63
46:1S:1390:U:O2	46:1S:1412:G:H1'	1.97	0.63
47:S0:189:VAL:HG11	47:S0:193:GLN:HB2	1.80	0.63
48:S1:129:THR:HA	48:S1:177:GLN:HA	1.80	0.63
50:S3:76:ARG:HD3	50:S3:76:ARG:C	2.18	0.63
53:S6:214:LYS:O	53:S6:218:GLU:HG3	1.98	0.63
64:17:21:TYR:N	64:17:22:PRO:HD2	2.13	0.63
1:2S:36:C:C2'	1:2S:37:U:H5'	2.24	0.63
1:2S:2878:G:H2'	1:2S:2879:C:C6	2.34	0.63
1:2S:3016:A:H2'	1:2S:3017:A:C8	2.33	0.63
1:2S:3087:A:H5'	6:L3:365:PHE:HA	1.80	0.63
8:L5:290:ILE:HA	8:L5:294:ALA:HB3	1.81	0.63
9:L6:146:ILE:HG23	9:L6:156:LYS:NZ	2.14	0.63
10:L7:196:LYS:O	10:L7:200:ASN:HB2	1.99	0.63
33:71:25:PHE:HA	33:71:28:ARG:HG3	1.79	0.63
36:74:75:ALA:O	36:74:76:TYR:HB2	1.98	0.63
46:1S:144:U:O2'	46:1S:145:A:H2'	1.99	0.63
46:1S:160:C:H2'	46:1S:161:U:O4'	1.98	0.63
46:1S:304:U:H2'	46:1S:305:C:C6	2.34	0.63
46:1S:599:A:H2'	46:1S:600:U:C6	2.32	0.63
46:1S:1074:G:H5'	46:1S:1074:G:H8	1.64	0.63
47:S0:145:ALA:O	47:S0:159:ALA:HA	1.98	0.63
49:S2:159:THR:HG23	49:S2:167:VAL:C	2.19	0.63
68:21:34:ILE:O	68:21:52:THR:HA	1.99	0.63
1:2S:374:A:O2'	1:2S:376:G:H5'	1.99	0.63
1:2S:411:U:H2'	1:2S:412:G:C8	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:790:U:H4'	7:L4:112:LYS:O	1.98	0.63
1:2S:1214:U:H4'	22:60:89:ASN:O	1.99	0.63
1:2S:2689:A:H2'	1:2S:2689:A:N3	2.12	0.63
2:8S:154:C:H2'	2:8S:155:A:C8	2.34	0.63
6:L3:227:GLU:HG2	6:L3:231:HIS:HD2	1.63	0.63
17:55:169:LYS:HG2	17:55:174:ILE:HD11	1.79	0.63
21:59:43:LYS:HA	21:59:46:LYS:CE	2.22	0.63
22:60:46:GLN:NE2	22:60:52:LYS:HA	2.14	0.63
46:1S:1058:U:C5	46:1S:1061:A:N1	2.67	0.63
51:S4:154:ILE:HD13	51:S4:160:VAL:CG2	2.29	0.63
53:S6:58:LYS:O	53:S6:59:GLN:HB2	1.99	0.63
56:S9:112:GLN:HG3	56:S9:148:VAL:CG2	2.27	0.63
66:19:52:GLY:HA2	66:19:55:TYR:CD2	2.33	0.63
67:20:67:THR:HG22	67:20:68:ARG:N	2.12	0.63
77:30:37:ARG:O	77:30:41:THR:HG23	1.99	0.63
1:2S:2684:C:H2'	1:2S:2685:C:C6	2.33	0.63
1:2S:3047:U:O2'	1:2S:3048:A:H5'	1.99	0.63
4:L1:130:LYS:N	4:L1:130:LYS:HD2	2.13	0.63
6:L3:211:GLN:NE2	6:L3:282:ILE:HG22	2.14	0.63
6:L3:229:VAL:HB	6:L3:267:ALA:HB2	1.80	0.63
9:L6:36:PRO:HG3	9:L6:54:TYR:CZ	2.33	0.63
15:53:89:TYR:O	15:53:93:ILE:HG12	1.99	0.63
21:59:168:ALA:O	21:59:172:ARG:HD3	1.98	0.63
27:65:92:LYS:HE2	27:65:112:THR:HG23	1.81	0.63
31:69:22:LYS:H	31:69:22:LYS:HD2	1.64	0.63
45:83:50:GLY:O	45:83:54:ILE:HB	1.99	0.63
46:1S:448:C:H2'	46:1S:449:C:C6	2.34	0.63
46:1S:1036:A:H2'	46:1S:1037:C:H6	1.60	0.63
49:S2:159:THR:HG22	49:S2:166:THR:HG22	1.81	0.63
54:S7:131:PHE:N	54:S7:132:PRO:HD2	2.14	0.63
61:14:60:ALA:HB3	61:14:100:ALA:HB3	1.80	0.63
75:28:32:PHE:CZ	75:28:38:ARG:HD2	2.33	0.63
77:30:39:LEU:HD12	77:30:43:ARG:HH22	1.62	0.63
1:2S:641:C:H42	1:2S:645:A:H8	1.46	0.63
1:2S:664:U:H3	1:2S:798:G:H1	1.46	0.63
1:2S:1101:G:H2'	1:2S:1102:A:C8	2.33	0.63
1:2S:1558:A:O2'	1:2S:1559:A:H5'	1.99	0.63
8:L5:107:ARG:NH2	8:L5:120:LYS:HA	2.14	0.63
10:L7:211:SER:H	10:L7:242:SER:HB2	1.64	0.63
15:53:107:GLU:HG2	38:76:18:THR:HG22	1.81	0.63
15:53:176:GLU:HB3	38:76:11:LEU:HD21	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:58:66:ARG:HH12	20:58:143:PRO:HD3	1.63	0.63
30:68:39:HIS:O	30:68:42:ARG:HG2	1.98	0.63
33:71:11:GLU:HA	33:71:74:ARG:HA	1.80	0.63
39:77:85:LYS:HG2	39:77:86:ALA:H	1.64	0.63
42:80:112:LYS:HB3	42:80:114:LYS:HG2	1.81	0.63
46:1S:1533:C:H41	72:25:77:ARG:HH22	1.45	0.63
49:S2:178:ILE:CD1	49:S2:188:LEU:HB2	2.27	0.63
51:S4:151:ASP:HB3	51:S4:154:ILE:HG13	1.81	0.63
55:S8:34:ALA:HB2	55:S8:174:GLY:HA3	1.81	0.63
58:11:80:MET:CE	58:11:84:ILE:HA	2.29	0.63
70:23:57:LEU:HD13	70:23:59:ILE:HD11	1.78	0.63
71:24:87:PRO:HD2	71:24:90:ARG:HD2	1.81	0.63
79:RA:7:LEU:HD22	79:RA:274:LEU:HD21	1.81	0.63
1:2S:585:A:H2'	1:2S:586:C:C6	2.34	0.62
1:2S:1407:A:H4'	34:72:33:ARG:NH2	2.14	0.62
1:2S:3203:U:H2'	1:2S:3204:C:C6	2.34	0.62
1:2S:3231:U:H2'	1:2S:3232:G:C8	2.33	0.62
5:L2:187:HIS:HA	5:L2:190:ARG:HB3	1.81	0.62
15:53:114:GLN:O	15:53:118:GLU:HG3	1.99	0.62
30:68:47:LYS:O	30:68:48:TYR:HB2	1.97	0.62
46:1S:512:A:OP2	56:S9:172:VAL:HG13	1.99	0.62
46:1S:1013:A:H2'	46:1S:1014:G:O4'	1.99	0.62
46:1S:1596:C:OP2	76:29:32:ARG:HD3	1.99	0.62
47:S0:31:VAL:HB	47:S0:34:GLU:CG	2.28	0.62
47:S0:90:ALA:CB	47:S0:97:PRO:HD3	2.29	0.62
48:S1:126:THR:HG22	48:S1:136:ARG:HE	1.64	0.62
51:S4:177:ALA:HA	51:S4:195:ILE:HG21	1.81	0.62
56:S9:109:LEU:O	56:S9:113:VAL:HG23	1.99	0.62
69:22:93:LEU:HD23	69:22:94:LEU:N	2.14	0.62
70:23:144:ARG:HD2	70:23:145:SER:H	1.63	0.62
1:2S:87:U:H5''	20:58:172:PHE:HZ	1.63	0.62
1:2S:2085:U:H2'	1:2S:2086:A:C5'	2.29	0.62
1:2S:2457:G:H22	1:2S:2461:A:N6	1.97	0.62
1:2S:2553:U:O2	1:2S:2553:U:H2'	1.98	0.62
1:2S:2761:G:O6	1:2S:2795:U:H5''	1.99	0.62
3:5S:112:G:H2'	3:5S:113:C:H6	1.63	0.62
6:L3:77:THR:HG21	6:L3:328:ILE:HG13	1.80	0.62
9:L6:97:ASN:HD21	9:L6:100:LYS:HB2	1.64	0.62
20:58:25:TYR:HA	20:58:28:LEU:HD12	1.81	0.62
27:65:132:ALA:HA	27:65:135:ILE:HG22	1.81	0.62
46:1S:408:C:H2'	46:1S:409:C:C6	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:478:A:H5'	77:30:33:ARG:NH2	2.01	0.62
46:1S:1163:A:H4'	52:S5:166:ARG:HH21	1.62	0.62
49:S2:154:LEU:HB2	49:S2:171:PRO:HG3	1.81	0.62
51:S4:52:LEU:HD22	51:S4:54:TYR:CE2	2.34	0.62
53:S6:23:ARG:HG2	53:S6:23:ARG:NH2	2.13	0.62
67:20:51:VAL:HG13	67:20:51:VAL:O	1.98	0.62
1:2S:392:G:O2'	1:2S:393:U:H5'	1.98	0.62
1:2S:598:A:H2'	1:2S:599:C:C6	2.34	0.62
1:2S:655:C:H2'	1:2S:656:A:H8	1.64	0.62
1:2S:799:G:H2'	1:2S:801:A:N6	2.13	0.62
1:2S:1477:A:H2'	1:2S:1478:C:C6	2.33	0.62
1:2S:1887:A:H2'	1:2S:1888:U:C5'	2.29	0.62
1:2S:1947:G:H5''	21:59:134:HIS:HB2	1.80	0.62
1:2S:2499:U:H2'	1:2S:2500:A:C8	2.34	0.62
4:L1:205:VAL:HG12	4:L1:213:ALA:HB1	1.81	0.62
7:L4:104:LYS:HD2	7:L4:106:TRP:CZ2	2.33	0.62
18:56:158:ALA:O	18:56:162:VAL:HG23	2.00	0.62
19:57:83:TRP:N	19:57:84:PRO:HD3	2.15	0.62
20:58:44:PHE:O	20:58:48:VAL:HG23	1.97	0.62
35:73:47:LYS:O	35:73:71:VAL:HG23	2.00	0.62
46:1S:752:A:H2	46:1S:797:G:H22	1.47	0.62
54:S7:63:PRO:O	54:S7:64:VAL:HB	1.97	0.62
54:S7:98:ILE:HG23	54:S7:118:LEU:HA	1.81	0.62
57:10:82:LEU:CB	57:10:86:ILE:HG21	2.30	0.62
59:12:46:ARG:HH11	59:12:46:ARG:HG3	1.64	0.62
1:2S:359:U:H2'	1:2S:360:G:O4'	2.00	0.62
1:2S:609:G:H3'	1:2S:609:G:N3	2.14	0.62
1:2S:816:A:C4'	1:2S:817:A:H5'	2.29	0.62
1:2S:924:G:H21	1:2S:2414:G:H1'	1.63	0.62
1:2S:1596:C:H2'	1:2S:1597:C:C6	2.33	0.62
1:2S:1714:A:H62	1:2S:1730:G:H21	1.47	0.62
1:2S:1901:A:H5''	1:2S:2919:A:OP1	1.99	0.62
1:2S:2492:C:H5'	4:L1:39:LYS:HD2	1.81	0.62
1:2S:2719:U:H2'	1:2S:2720:G:C8	2.33	0.62
1:2S:2949:U:C2'	1:2S:2950:G:H5'	2.28	0.62
2:8S:154:C:H5''	11:L8:181:LYS:HG2	1.81	0.62
6:L3:350:ALA:O	6:L3:351:LEU:CB	2.48	0.62
9:L6:52:VAL:HG22	9:L6:53:VAL:N	2.12	0.62
11:L8:74:THR:HG21	17:55:18:VAL:HB	1.81	0.62
12:L9:143:GLU:HG2	12:L9:144:ILE:H	1.63	0.62
24:62:92:TRP:O	24:62:107:PHE:HA	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:66:80:VAL:CG1	28:66:99:LEU:HB2	2.29	0.62
46:1S:482:U:H2'	46:1S:483:A:C8	2.27	0.62
46:1S:631:G:H2'	46:1S:632:U:H6	1.64	0.62
55:S8:42:ARG:O	55:S8:43:ILE:HG13	1.98	0.62
73:26:82:ARG:HA	73:26:82:ARG:HE	1.63	0.62
1:2S:1490:A:H2'	1:2S:1491:A:O4'	1.99	0.62
6:L3:232:ARG:HE	6:L3:233:TRP:HE1	1.46	0.62
13:50:52:LEU:HD22	13:50:135:ILE:CD1	2.11	0.62
28:66:73:VAL:HA	28:66:80:VAL:HG23	1.81	0.62
37:75:85:THR:HG22	37:75:87:ALA:N	2.11	0.62
46:1S:1414:U:H3'	46:1S:1415:U:H5''	1.81	0.62
46:1S:1501:C:H5	66:19:102:ARG:NH2	1.97	0.62
48:S1:174:LYS:HZ2	48:S1:174:LYS:HB2	1.64	0.62
51:S4:90:ILE:N	51:S4:90:ILE:CD1	2.63	0.62
56:S9:90:LYS:HD2	56:S9:95:TYR:HB2	1.82	0.62
61:14:25:ASP:OD1	61:14:54:GLU:HB3	1.98	0.62
66:19:28:LEU:HD22	66:19:29:GLU:N	2.14	0.62
1:2S:1216:C:H2'	1:2S:1217:A:C8	2.34	0.62
1:2S:1361:U:H2'	1:2S:1362:G:C8	2.34	0.62
1:2S:2638:C:H2'	1:2S:2639:G:O4'	2.00	0.62
6:L3:49:TYR:HE2	6:L3:164:THR:HG21	1.63	0.62
6:L3:141:GLY:O	6:L3:145:GLU:HG2	1.99	0.62
7:L4:84:ARG:O	7:L4:87:GLN:HG3	1.99	0.62
10:L7:86:VAL:HG22	10:L7:136:TYR:HB3	1.80	0.62
15:53:179:PHE:HD1	15:53:182:ILE:HD12	1.64	0.62
17:55:144:ARG:HG2	37:75:96:GLU:HG2	1.82	0.62
36:74:92:ALA:O	36:74:96:GLU:HG3	1.99	0.62
38:76:8:ALA:O	38:76:13:LYS:HG3	2.00	0.62
46:1S:1604:U:H5'	67:20:79:TRP:NE1	2.15	0.62
50:S3:167:PHE:HB3	50:S3:189:MET:SD	2.40	0.62
57:10:46:LEU:O	57:10:50:THR:HG23	2.00	0.62
58:11:78:THR:HA	58:11:84:ILE:HG22	1.81	0.62
62:15:81:ARG:HA	62:15:116:LEU:HB2	1.80	0.62
69:22:23:ARG:NH1	69:22:66:ASN:HA	2.15	0.62
71:24:20:ARG:HD2	71:24:74:LEU:HD22	1.82	0.62
1:2S:1443:G:H2'	1:2S:1444:G:C8	2.35	0.62
1:2S:2144:A:H1'	1:2S:2281:A:H61	1.62	0.62
1:2S:2367:A:H2'	1:2S:2368:A:C8	2.34	0.62
1:2S:2677:G:H2'	1:2S:2677:G:N3	2.13	0.62
1:2S:2882:U:H5''	6:L3:10:ARG:NH2	2.14	0.62
1:2S:2897:A:H2'	1:2S:2899:C:H5''	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3025:C:H4'	12:L9:175:PHE:CE1	2.34	0.62
7:L4:31:ARG:O	7:L4:35:VAL:HG23	1.98	0.62
8:L5:281:GLU:O	8:L5:285:ARG:HG3	1.99	0.62
15:53:28:GLN:HG3	17:55:200:TRP:CE3	2.33	0.62
17:55:117:ASN:O	17:55:133:ILE:HG22	2.00	0.62
17:55:136:ASP:HB3	17:55:142:ILE:HD12	1.82	0.62
32:70:10:ILE:HD12	32:70:13:LYS:HD2	1.82	0.62
46:1S:133:U:H5'	46:1S:133:U:H6	1.64	0.62
46:1S:380:U:O3'	56:S9:2:PRO:HA	2.00	0.62
46:1S:1498:G:H2'	46:1S:1499:G:C5'	2.30	0.62
53:S6:88:ARG:HB2	53:S6:91:GLU:OE2	2.00	0.62
54:S7:62:VAL:HG11	54:S7:70:PHE:CE2	2.35	0.62
58:11:130:PRO:HA	58:11:136:ARG:HG2	1.80	0.62
60:13:100:LYS:HA	60:13:103:GLU:HG2	1.81	0.62
68:21:64:GLU:HB3	74:27:3:LEU:HD11	1.81	0.62
71:24:124:ARG:O	71:24:124:ARG:HD3	2.00	0.62
1:2S:602:A:H2'	1:2S:603:A:C8	2.34	0.62
1:2S:763:G:C2	1:2S:764:U:H1'	2.34	0.62
1:2S:860:G:H3'	1:2S:860:G:N3	2.13	0.62
1:2S:1951:C:H6	1:2S:2095:G:H1	1.40	0.62
10:L7:25:GLN:HG2	10:L7:29:GLU:HB2	1.81	0.62
13:50:24:ARG:HB2	13:50:24:ARG:NH1	2.14	0.62
19:57:92:GLN:HA	19:57:95:LEU:HD12	1.80	0.62
29:67:92:PHE:HA	29:67:95:VAL:HG23	1.82	0.62
34:72:123:LYS:HA	34:72:126:LEU:HD11	1.82	0.62
40:78:77:ARG:HG3	40:78:78:LEU:HD23	1.80	0.62
46:1S:435:C:H5'	70:23:50:LYS:HG3	1.82	0.62
51:S4:232:GLY:O	51:S4:234:PRO:HD3	1.98	0.62
70:23:12:ALA:HA	70:23:15:LEU:CD1	2.30	0.62
74:27:55:THR:HB	74:27:60:SER:HA	1.81	0.62
79:RA:86:ASP:O	79:RA:87:LYS:HB2	1.99	0.62
79:RA:133:VAL:HB	79:RA:142:ALA:CB	2.30	0.62
1:2S:1073:U:H2'	1:2S:1074:U:C6	2.35	0.62
1:2S:2131:A:C2'	1:2S:2132:C:H5'	2.29	0.62
1:2S:3275:U:H3'	1:2S:3276:G:C5'	2.30	0.62
2:8S:67:U:H2'	2:8S:68:G:C8	2.35	0.62
4:L1:71:ALA:HB1	4:L1:89:ASP:O	1.99	0.62
8:L5:19:PRO:HB2	8:L5:24:ARG:CG	2.29	0.62
8:L5:134:ALA:HB2	8:L5:140:ARG:HG2	1.80	0.62
14:51:86:VAL:HG11	14:51:111:ASP:HB3	1.81	0.62
20:58:40:THR:O	20:58:41:ASP:HB3	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:746:A:H2'	46:1S:747:C:O4'	2.00	0.62
46:1S:887:A:H1'	61:14:122:PRO:HB3	1.81	0.62
52:S5:30:PRO:HB2	52:S5:33:VAL:CG2	2.29	0.62
55:S8:45:SER:HB3	55:S8:55:TYR:CD1	2.33	0.62
57:10:25:LYS:O	57:10:25:LYS:HG2	1.99	0.62
58:11:70:ILE:HD12	58:11:70:ILE:N	2.15	0.62
60:13:30:SER:O	60:13:34:ILE:HG13	2.00	0.62
65:18:88:ARG:NH2	65:18:88:ARG:HB3	2.14	0.62
72:25:90:LYS:HB2	72:25:102:THR:OG1	2.00	0.62
1:2S:126:U:H2'	1:2S:127:G:O4'	2.00	0.62
1:2S:225:C:H2'	1:2S:226:C:C6	2.35	0.62
1:2S:793:C:H2'	1:2S:794:U:C6	2.34	0.62
1:2S:824:C:H2'	1:2S:825:U:C6	2.35	0.62
1:2S:912:G:H2'	1:2S:914:A:N7	2.14	0.62
1:2S:986:U:H1'	10:L7:126:LEU:HD21	1.82	0.62
1:2S:1405:U:H1'	34:72:54:LYS:O	2.00	0.62
1:2S:2152:A:H2'	1:2S:2153:U:C6	2.35	0.62
1:2S:2173:U:H2'	1:2S:2174:G:C8	2.34	0.62
1:2S:2768:U:H2'	1:2S:2769:A:H8	1.63	0.62
4:L1:131:ALA:HB3	4:L1:134:PHE:HB2	1.81	0.62
7:L4:113:VAL:HB	7:L4:118:LYS:CE	2.29	0.62
20:58:113:LYS:HG2	20:58:113:LYS:O	1.99	0.62
22:60:29:ILE:HG21	22:60:37:ALA:HA	1.81	0.62
22:60:107:TYR:CE1	22:60:121:ILE:HD12	2.35	0.62
27:65:65:GLN:H	27:65:85:GLN:HB3	1.65	0.62
38:76:26:ILE:HD12	38:76:26:ILE:N	2.15	0.62
39:77:69:HIS:O	39:77:73:ARG:HG3	1.99	0.62
46:1S:279:G:H8	46:1S:280:U:H4'	1.64	0.62
46:1S:572:C:H2'	46:1S:573:C:C6	2.35	0.62
46:1S:802:G:H21	69:22:107:SER:CB	2.11	0.62
46:1S:1632:C:H2'	46:1S:1633:A:C8	2.35	0.62
48:S1:168:ILE:O	48:S1:172:LEU:HG	1.99	0.62
48:S1:174:LYS:HB2	48:S1:174:LYS:NZ	2.15	0.62
53:S6:74:LYS:HA	53:S6:96:SER:HA	1.80	0.62
70:23:96:VAL:O	70:23:97:ASP:HB2	1.99	0.62
73:26:84:VAL:CG1	73:26:85:ARG:H	2.03	0.62
1:2S:75:G:C5'	15:53:58:VAL:HG13	2.30	0.61
1:2S:705:A:N6	30:68:113:LEU:HD13	2.15	0.61
1:2S:874:U:H5'	1:2S:875:G:C5'	2.30	0.61
1:2S:1064:A:H4'	1:2S:1065:A:O5'	1.98	0.61
1:2S:1357:G:H2'	1:2S:1358:C:C6	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2521:U:C2'	1:2S:2522:G:H5'	2.28	0.61
1:2S:2530:G:C2'	1:2S:2531:C:H5''	2.28	0.61
2:8S:107:G:H2'	2:8S:108:C:C6	2.35	0.61
22:60:13:ARG:HG3	22:60:51:VAL:HG12	1.82	0.61
25:63:33:ASN:HD22	25:63:33:ASN:H	1.48	0.61
25:63:67:PRO:HA	25:63:70:ARG:HB2	1.82	0.61
25:63:71:LYS:NZ	25:63:71:LYS:HB3	2.14	0.61
27:65:135:ILE:CG1	27:65:138:ARG:HH11	2.13	0.61
31:69:39:PHE:O	31:69:43:HIS:HB2	2.00	0.61
38:76:55:ARG:O	38:76:58:ILE:HG13	1.99	0.61
40:78:8:ILE:HG21	40:78:65:LEU:HD21	1.81	0.61
46:1S:86:A:H2'	46:1S:87:C:C6	2.35	0.61
46:1S:1413:U:H5'	64:17:3:ARG:HH12	1.65	0.61
46:1S:1420:C:C2'	46:1S:1421:A:H5'	2.30	0.61
49:S2:118:ALA:HB3	49:S2:124:ALA:HB2	1.82	0.61
55:S8:38:ILE:HD11	55:S8:94:ASN:HB3	1.82	0.61
59:12:106:ILE:HA	59:12:108:ARG:NH1	2.15	0.61
60:13:71:ILE:H	60:13:71:ILE:CD1	2.13	0.61
66:19:63:ARG:HG2	66:19:67:MET:CE	2.30	0.61
67:20:108:ILE:H	67:20:108:ILE:HD12	1.65	0.61
1:2S:1608:C:H2'	1:2S:1609:C:C6	2.35	0.61
1:2S:1764:U:C3'	1:2S:1765:U:H5''	2.29	0.61
1:2S:2251:G:C3'	1:2S:2252:A:H5''	2.31	0.61
1:2S:2374:C:N4	1:2S:2823:G:H4'	2.15	0.61
1:2S:2714:G:N3	1:2S:2751:G:H2'	2.15	0.61
1:2S:3255:U:H2'	1:2S:3256:G:C8	2.36	0.61
6:L3:266:ARG:NE	6:L3:266:ARG:HA	2.15	0.61
9:L6:141:VAL:O	9:L6:145:LEU:HG	1.99	0.61
10:L7:108:LEU:HD22	10:L7:114:GLY:HA2	1.82	0.61
11:L8:50:VAL:HG23	11:L8:52:TRP:NE1	2.15	0.61
14:51:112:LEU:HD23	14:51:112:LEU:H	1.63	0.61
18:56:57:PHE:HA	18:56:60:LYS:NZ	2.15	0.61
25:63:135:VAL:HG12	25:63:135:VAL:O	1.99	0.61
32:70:24:THR:CG2	32:70:91:SER:HB3	2.30	0.61
51:S4:48:LEU:HA	51:S4:52:LEU:HD12	1.82	0.61
61:14:78:ALA:HB2	61:14:111:ARG:HB2	1.80	0.61
61:14:81:VAL:HG22	61:14:115:ILE:HG21	1.80	0.61
66:19:86:ARG:NH1	66:19:92:LYS:HB2	2.15	0.61
69:22:81:VAL:HG13	69:22:85:ASP:HB2	1.81	0.61
73:26:85:ARG:O	73:26:86:VAL:O	2.18	0.61
79:RA:69:GLN:HB2	79:RA:85:TRP:NE1	2.13	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:409:A:H3'	1:2S:410:U:C5	2.35	0.61
1:2S:1190:A:H2	18:56:49:ARG:NH2	1.98	0.61
1:2S:2552:C:O2'	32:70:50:VAL:HG11	2.01	0.61
1:2S:2947:G:C2	6:L3:250:ALA:HB1	2.34	0.61
1:2S:3117:C:O2	42:80:106:ARG:NH2	2.31	0.61
8:L5:33:ARG:O	8:L5:33:ARG:HG2	2.01	0.61
15:53:75:PHE:O	15:53:97:VAL:HG13	2.00	0.61
20:58:34:THR:O	20:58:38:ARG:HB2	2.00	0.61
29:67:118:PHE:HA	29:67:121:ARG:HB2	1.82	0.61
46:1S:416:A:H5'	46:1S:417:A:N7	2.14	0.61
46:1S:818:C:O2'	46:1S:819:G:H5'	2.00	0.61
46:1S:856:A:N6	54:S7:96:ARG:HB3	2.15	0.61
46:1S:1174:C:H4'	46:1S:1601:G:C6	2.35	0.61
46:1S:1184:A:H2'	46:1S:1185:U:H4'	1.81	0.61
46:1S:1419:G:H4'	76:29:54:LYS:HE3	1.82	0.61
48:S1:171:ILE:HD12	48:S1:197:ILE:CD1	2.22	0.61
49:S2:225:LEU:HD22	49:S2:230:TRP:CD1	2.35	0.61
60:13:100:LYS:HA	60:13:103:GLU:CG	2.31	0.61
63:16:141:SER:O	63:16:142:TYR:HB2	1.98	0.61
64:17:15:ALA:O	64:17:19:ARG:HG2	2.00	0.61
1:2S:56:G:H5''	17:55:158:HIS:CE1	2.35	0.61
1:2S:769:G:O2'	1:2S:770:G:H5'	2.01	0.61
1:2S:2285:C:H3'	1:2S:2286:U:H2'	1.81	0.61
1:2S:2288:G:H2'	1:2S:2289:U:H6	1.65	0.61
1:2S:3357:U:H2'	1:2S:3358:U:C6	2.36	0.61
1:2S:3380:U:H2'	1:2S:3381:U:O4'	2.01	0.61
4:L1:130:LYS:HG3	4:L1:136:THR:HB	1.83	0.61
5:L2:193:ARG:HG2	5:L2:193:ARG:HH21	1.65	0.61
12:L9:13:PRO:HD2	12:L9:79:ILE:HG21	1.81	0.61
12:L9:138:THR:HG22	12:L9:139:ASN:H	1.64	0.61
17:55:116:LEU:HB3	17:55:133:ILE:O	2.00	0.61
19:57:29:THR:O	19:57:32:THR:HG22	2.00	0.61
20:58:110:ALA:O	20:58:114:ILE:HG13	2.00	0.61
20:58:175:ALA:HB1	30:68:54:GLY:HA3	1.81	0.61
23:61:27:LEU:HA	23:61:30:TYR:HD2	1.66	0.61
46:1S:244:A:H2'	46:1S:245:U:C2	2.36	0.61
46:1S:1715:G:H3'	46:1S:1716:C:C5'	2.30	0.61
52:S5:79:ASN:N	52:S5:79:ASN:ND2	2.48	0.61
1:2S:1169:A:H4'	10:L7:219:LYS:HZ3	1.64	0.61
1:2S:2355:G:H4'	19:57:139:TYR:CE2	2.35	0.61
3:5S:41:G:H5''	3:5S:42:A:N7	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:41:ILE:O	5:L2:89:TYR:HA	2.00	0.61
6:L3:231:HIS:HB2	6:L3:247:ARG:NH2	2.14	0.61
8:L5:62:CYS:HB3	8:L5:105:ILE:HG13	1.83	0.61
20:58:60:PRO:HB2	20:58:142:GLY:HA3	1.82	0.61
21:59:21:LYS:CE	21:59:55:VAL:HA	2.30	0.61
28:66:42:GLN:HB3	28:66:43:TYR:CE2	2.36	0.61
32:70:49:PRO:O	32:70:53:LYS:HB2	2.00	0.61
33:71:19:ARG:HG3	33:71:19:ARG:NH1	2.15	0.61
36:74:41:ARG:HB2	36:74:50:ALA:HB1	1.83	0.61
36:74:65:VAL:HG12	36:74:66:SER:H	1.65	0.61
38:76:50:LEU:HD22	38:76:54:GLU:CB	2.30	0.61
46:1S:310:C:H2'	46:1S:311:U:O4'	2.01	0.61
46:1S:1171:A:H2'	46:1S:1172:G:C8	2.32	0.61
47:S0:22:THR:HG22	47:S0:169:SER:HB3	1.83	0.61
48:S1:176:VAL:O	48:S1:177:GLN:HG2	2.01	0.61
50:S3:102:ALA:HB2	50:S3:186:VAL:HG21	1.83	0.61
53:S6:10:ASN:HD22	53:S6:128:THR:HB	1.66	0.61
60:13:40:TYR:HE2	60:13:54:LEU:HD21	1.65	0.61
1:2S:561:C:H2'	1:2S:562:C:C6	2.34	0.61
1:2S:1887:A:C2'	1:2S:1888:U:H5'	2.30	0.61
1:2S:2271:A:C3'	1:2S:2272:G:H5''	2.31	0.61
4:L1:74:VAL:HG12	4:L1:75:ASP:H	1.64	0.61
9:L6:50:LYS:CE	9:L6:72:ASN:HB2	2.30	0.61
12:L9:144:ILE:HG12	12:L9:145:VAL:N	2.15	0.61
15:53:126:PHE:HB3	15:53:133:PRO:HD2	1.82	0.61
22:60:13:ARG:HA	22:60:56:GLY:HA3	1.81	0.61
23:61:50:LYS:HB2	23:61:92:ARG:NH2	2.15	0.61
40:78:29:LYS:HD3	40:78:29:LYS:C	2.21	0.61
46:1S:167:U:H4'	53:S6:134:GLY:O	2.00	0.61
46:1S:215:A:H5''	46:1S:216:U:C5	2.36	0.61
46:1S:737:A:HO2'	46:1S:738:G:H8	1.49	0.61
46:1S:804:A:C5	69:22:107:SER:HA	2.36	0.61
46:1S:1298:U:H2'	46:1S:1299:G:O4'	2.00	0.61
49:S2:45:VAL:HG21	49:S2:68:ILE:HG23	1.83	0.61
55:S8:37:LYS:HE2	55:S8:95:THR:OG1	2.00	0.61
57:10:25:LYS:HB2	57:10:64:TYR:HE2	1.66	0.61
65:18:125:ILE:HG22	65:18:129:TRP:CZ3	2.36	0.61
70:23:63:GLN:HA	70:23:65:ASN:H	1.65	0.61
1:2S:440:A:H5''	1:2S:441:U:C4'	2.30	0.61
1:2S:666:A:H2'	1:2S:667:C:O4'	2.00	0.61
1:2S:760:G:H1'	1:2S:771:A:N6	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1696:A:H2'	1:2S:1697:A:H8	1.63	0.61
1:2S:3304:U:OP2	1:2S:3377:G:H1'	2.01	0.61
1:2S:3316:A:N1	6:L3:124:LYS:HD2	2.15	0.61
4:L1:145:TYR:HA	4:L1:148:VAL:HG22	1.82	0.61
5:L2:126:LEU:HD12	5:L2:126:LEU:H	1.64	0.61
6:L3:123:TYR:CD2	6:L3:124:LYS:HG3	2.35	0.61
7:L4:23:PRO:HD2	7:L4:26:PHE:HE2	1.65	0.61
13:50:190:VAL:HG13	13:50:197:VAL:HG21	1.82	0.61
26:64:25:ASP:CG	26:64:26:SER:H	2.04	0.61
27:65:86:VAL:HG13	27:65:120:LYS:CD	2.31	0.61
27:65:135:ILE:CD1	27:65:138:ARG:HH11	2.13	0.61
30:68:96:LYS:O	30:68:97:GLU:HB2	2.01	0.61
46:1S:1604:U:H5''	63:16:129:PHE:CB	2.31	0.61
49:S2:44:LEU:CD1	49:S2:243:TYR:HB2	2.30	0.61
50:S3:211:PRO:HG2	64:17:19:ARG:HB2	1.82	0.61
58:11:133:LYS:NZ	58:11:134:THR:CG2	2.64	0.61
61:14:113:GLY:O	61:14:114:ARG:HB3	2.00	0.61
63:16:128:LYS:HB2	63:16:137:ARG:NH2	2.16	0.61
64:17:10:LYS:HG2	64:17:53:TYR:CE1	2.35	0.61
79:RA:89:LEU:HD12	79:RA:103:PHE:CB	2.31	0.61
1:2S:118:U:H5'	1:2S:151:A:N1	2.15	0.61
1:2S:637:C:H2'	1:2S:638:C:C6	2.36	0.61
1:2S:720:A:H2'	20:58:69:ARG:NH2	2.15	0.61
1:2S:1624:G:H1	1:2S:1819:U:H3	1.48	0.61
1:2S:2315:G:H2'	1:2S:2316:G:H8	1.65	0.61
1:2S:2916:U:O4'	25:63:44:SER:HB3	2.00	0.61
9:L6:141:VAL:HG12	9:L6:145:LEU:HD11	1.83	0.61
10:L7:107:ARG:NH1	10:L7:202:LEU:O	2.33	0.61
10:L7:136:TYR:CE2	10:L7:231:ASN:HB2	2.34	0.61
11:L8:149:LYS:O	11:L8:176:PRO:HG2	1.99	0.61
11:L8:238:LEU:HD22	11:L8:238:LEU:N	2.15	0.61
12:L9:172:ILE:H	12:L9:172:ILE:CD1	2.13	0.61
16:54:84:LYS:HA	16:54:87:ALA:HB3	1.82	0.61
16:54:112:LEU:O	16:54:117:ARG:NH2	2.33	0.61
22:60:12:ARG:O	22:60:12:ARG:HG3	1.99	0.61
24:62:37:LEU:O	24:62:41:ILE:HG13	2.00	0.61
29:67:22:LYS:HE3	29:67:134:LEU:HD23	1.81	0.61
29:67:51:LEU:HB2	29:67:65:ARG:HD2	1.82	0.61
39:77:25:ARG:O	39:77:25:ARG:HD3	2.01	0.61
46:1S:1125:A:O5'	46:1S:1125:A:H8	1.84	0.61
46:1S:1274:C:O2	46:1S:1274:C:H2'	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:151:LYS:HE3	48:S1:154:SER:HA	1.83	0.61
54:S7:39:ARG:N	54:S7:40:PRO:HD2	2.15	0.61
56:S9:11:THR:O	56:S9:44:ARG:HA	2.01	0.61
57:10:52:LYS:HG3	57:10:54:TYR:CE2	2.35	0.61
58:11:134:THR:O	58:11:136:ARG:NH1	2.34	0.61
60:13:26:PHE:CE1	60:13:27:LYS:HE2	2.35	0.61
1:2S:250:U:C5'	1:2S:251:G:H5''	2.13	0.61
1:2S:291:C:H2'	1:2S:292:U:C6	2.36	0.61
1:2S:805:G:H4'	7:L4:73:ARG:O	2.01	0.61
1:2S:895:A:H2'	1:2S:897:U:O4'	2.00	0.61
1:2S:1223:A:N1	1:2S:1287:A:H1'	2.16	0.61
1:2S:2925:C:H2'	1:2S:2926:A:O4'	2.01	0.61
1:2S:3275:U:H3'	1:2S:3276:G:H5''	1.82	0.61
6:L3:92:TYR:HB2	6:L3:157:VAL:CG2	2.31	0.61
6:L3:232:ARG:HH11	6:L3:268:GLY:HA3	1.64	0.61
11:L8:153:ILE:O	11:L8:180:VAL:HG12	2.00	0.61
23:61:80:VAL:CG1	23:61:85:LEU:HD12	2.28	0.61
23:61:124:VAL:HG12	23:61:125:ALA:N	2.14	0.61
29:67:31:GLU:HG3	29:67:32:GLY:N	2.15	0.61
46:1S:479:C:H5'	56:S9:124:HIS:HB2	1.82	0.61
46:1S:965:U:H3'	46:1S:966:A:H5'	1.83	0.61
46:1S:1097:U:H1'	49:S2:168:ARG:HH11	1.64	0.61
47:S0:108:THR:O	47:S0:109:ASN:O	2.18	0.61
54:S7:55:LYS:HD2	54:S7:89:HIS:CE1	2.36	0.61
71:24:132:ARG:O	71:24:132:ARG:HD3	2.00	0.61
1:2S:848:A:H8	1:2S:848:A:O5'	1.84	0.61
1:2S:1910:A:H2'	1:2S:1911:A:C8	2.36	0.61
1:2S:2168:A:H5''	17:55:67:ARG:HH12	1.65	0.61
1:2S:2515:A:H62	1:2S:2592:G:H21	1.47	0.61
1:2S:2802:A:C4	44:82:56:PRO:HA	2.36	0.61
1:2S:3204:C:H2'	1:2S:3205:G:C8	2.35	0.61
11:L8:108:ARG:HA	11:L8:111:LYS:HD2	1.81	0.61
18:56:52:LEU:HA	18:56:55:HIS:HB2	1.82	0.61
46:1S:1740:A:H2'	46:1S:1741:U:C6	2.35	0.61
53:S6:206:ALA:O	53:S6:210:GLN:HG3	2.01	0.61
56:S9:37:LYS:HE2	56:S9:38:ASN:ND2	2.16	0.61
57:10:42:VAL:O	57:10:46:LEU:HD23	2.01	0.61
1:2S:75:G:H5''	15:53:58:VAL:HG13	1.83	0.60
1:2S:591:G:O4'	9:L6:19:LYS:HD2	2.01	0.60
1:2S:1346:G:H1'	7:L4:307:GLN:NE2	2.16	0.60
1:2S:1535:A:H62	1:2S:1586:G:N2	1.99	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1951:C:H2'	1:2S:2095:G:H22	1.65	0.60
2:8S:70:G:H1'	2:8S:88:A:H61	1.66	0.60
2:8S:116:G:H2'	2:8S:117:C:C6	2.35	0.60
6:L3:227:GLU:CB	6:L3:270:ARG:HD3	2.31	0.60
9:L6:65:ILE:HD13	9:L6:77:ARG:O	2.01	0.60
13:50:176:LEU:HD22	13:50:180:GLU:HG2	1.82	0.60
16:54:108:ARG:O	16:54:112:LEU:HG	2.01	0.60
22:60:46:GLN:CD	22:60:52:LYS:HA	2.22	0.60
25:63:22:ILE:HG23	25:63:35:TYR:CA	2.29	0.60
27:65:113:LEU:CD1	27:65:121:LYS:HB3	2.31	0.60
46:1S:495:C:H3'	46:1S:496:G:C4'	2.30	0.60
46:1S:1558:U:H3'	46:1S:1559:A:H4'	1.82	0.60
53:S6:72:ARG:HG2	53:S6:98:ARG:HG2	1.82	0.60
58:11:27:THR:HG23	58:11:30:ARG:H	1.66	0.60
74:27:62:ILE:HG13	74:27:63:LEU:H	1.65	0.60
1:2S:1046:A:H2'	1:2S:1049:C:C5	2.36	0.60
1:2S:3072:C:H2'	1:2S:3073:A:O4'	2.00	0.60
5:L2:133:TYR:HE1	5:L2:135:ILE:HD11	1.67	0.60
10:L7:107:ARG:O	10:L7:108:LEU:HD23	2.01	0.60
18:56:84:LEU:O	18:56:84:LEU:HD23	2.01	0.60
21:59:109:TYR:O	21:59:115:ILE:HG22	2.01	0.60
22:60:152:LEU:O	22:60:172:TYR:HB3	2.00	0.60
30:68:101:VAL:HG22	30:68:124:ILE:HD12	1.83	0.60
30:68:111:LYS:HG3	30:68:129:PHE:HB2	1.82	0.60
46:1S:422:G:H2'	46:1S:423:G:N7	2.16	0.60
47:S0:110:TYR:HA	47:S0:115:PHE:CD2	2.36	0.60
48:S1:218:LEU:HD13	48:S1:218:LEU:H	1.65	0.60
51:S4:11:ARG:HG3	51:S4:11:ARG:NH2	2.16	0.60
53:S6:70:PRO:HA	53:S6:98:ARG:NH2	2.15	0.60
55:S8:67:TRP:CD1	55:S8:70:GLU:HB2	2.36	0.60
58:11:133:LYS:HZ3	58:11:134:THR:HG23	1.63	0.60
62:15:52:LYS:N	62:15:53:PRO:HD2	2.16	0.60
79:RA:20:VAL:O	79:RA:290:VAL:HG23	2.01	0.60
1:2S:1426:C:H2'	1:2S:1427:U:C6	2.36	0.60
1:2S:1646:G:H1'	1:2S:1809:A:H61	1.66	0.60
1:2S:2223:A:H2'	1:2S:2224:A:C8	2.36	0.60
3:5S:16:U:H2'	3:5S:17:A:H8	1.67	0.60
9:L6:5:LYS:O	9:L6:6:ALA:HB2	2.01	0.60
12:L9:172:ILE:HD13	12:L9:172:ILE:N	2.16	0.60
13:50:30:LYS:HA	13:50:30:LYS:HE3	1.82	0.60
15:53:155:GLU:O	30:68:100:PRO:HA	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:68:126:LYS:HB3	30:68:148:ILE:HG21	1.83	0.60
33:71:11:GLU:HG2	33:71:74:ARG:HB2	1.83	0.60
41:79:43:ASN:HB3	41:79:46:ARG:HB2	1.83	0.60
55:S8:110:ARG:O	55:S8:114:GLU:HG3	2.02	0.60
65:18:14:ILE:HD11	65:18:21:ASN:HB3	1.83	0.60
1:2S:31:C:H5'	17:55:96:ARG:HD2	1.84	0.60
1:2S:2347:U:H3'	1:2S:2348:A:H8	1.67	0.60
1:2S:2492:C:C5'	4:L1:39:LYS:HD2	2.31	0.60
1:2S:2875:U:H3	1:2S:2952:G:H1	1.48	0.60
10:L7:232:ARG:HD3	10:L7:235:PHE:CB	2.31	0.60
14:51:59:ILE:HG21	14:51:65:ILE:HD12	1.84	0.60
19:57:25:SER:CB	19:57:28:ASN:HD22	2.13	0.60
21:59:21:LYS:O	21:59:53:LYS:HB3	2.01	0.60
25:63:19:VAL:HG13	25:63:37:ILE:CA	2.27	0.60
46:1S:70:C:H2'	46:1S:71:A:C8	2.36	0.60
46:1S:937:C:H2'	46:1S:938:G:C8	2.37	0.60
48:S1:121:ILE:HG12	48:S1:161:ILE:HG23	1.83	0.60
57:10:86:ILE:CG2	57:10:87:VAL:H	2.09	0.60
62:15:126:VAL:HG13	62:15:127:ARG:H	1.66	0.60
66:19:92:LYS:HE3	66:19:94:ILE:HD11	1.83	0.60
1:2S:2199:G:H2'	1:2S:2200:U:H6	1.66	0.60
1:2S:2271:A:H2'	1:2S:2272:G:H5''	1.83	0.60
1:2S:3353:G:H2'	1:2S:3356:G:O4'	2.02	0.60
3:5S:114:U:H2'	3:5S:115:G:H8	1.66	0.60
6:L3:210:GLU:HG3	6:L3:213:GLU:HB2	1.82	0.60
15:53:70:ARG:HG2	15:53:71:ALA:N	2.15	0.60
23:61:25:VAL:HG21	23:61:30:TYR:OH	2.01	0.60
50:S3:133:GLY:HA3	50:S3:156:PHE:O	2.02	0.60
52:S5:187:ILE:HD12	52:S5:187:ILE:N	2.12	0.60
66:19:42:GLY:HA2	66:19:84:LYS:HE2	1.84	0.60
1:2S:3:U:H2'	1:2S:4:U:C6	2.37	0.60
1:2S:1330:A:C2	1:2S:1332:A:H1'	2.37	0.60
1:2S:1598:G:OP1	36:74:27:GLY:HA3	2.02	0.60
1:2S:1729:A:H3'	1:2S:1730:G:C5'	2.32	0.60
19:57:119:VAL:CG2	19:57:144:SER:HB3	2.31	0.60
46:1S:351:C:C2	58:11:102:LYS:HD2	2.36	0.60
46:1S:885:G:H2'	46:1S:886:U:C6	2.35	0.60
49:S2:212:LYS:O	49:S2:216:VAL:HG23	2.01	0.60
53:S6:195:VAL:O	53:S6:199:GLN:HG3	2.01	0.60
75:28:16:LEU:HD12	75:28:27:GLN:HB3	1.83	0.60
1:2S:160:G:H2'	1:2S:161:G:H5''	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1211:U:H2'	1:2S:1212:A:C8	2.35	0.60
1:2S:1654:A:C3'	1:2S:1655:G:H5''	2.32	0.60
1:2S:2461:A:N6	1:2S:2483:G:H21	2.00	0.60
6:L3:46:PHE:CZ	6:L3:205:VAL:HG22	2.37	0.60
6:L3:339:ARG:HG2	6:L3:340:LYS:N	2.16	0.60
7:L4:206:LEU:HB2	7:L4:246:ARG:NH1	2.17	0.60
10:L7:77:VAL:CG1	22:60:59:VAL:HG13	2.26	0.60
10:L7:151:ARG:HH11	10:L7:244:ASN:HD21	1.47	0.60
12:L9:167:VAL:CG1	12:L9:170:LYS:HB2	2.28	0.60
16:54:130:THR:HA	16:54:133:LYS:HE2	1.84	0.60
36:74:41:ARG:HA	36:74:56:THR:HG21	1.84	0.60
38:76:51:SER:OG	38:76:54:GLU:HG3	2.02	0.60
38:76:68:ARG:HA	38:76:71:LYS:HE2	1.84	0.60
46:1S:777:C:H2'	46:1S:778:G:H5''	1.83	0.60
46:1S:1060:U:H3'	46:1S:1061:A:C5'	2.27	0.60
46:1S:1608:U:H5''	63:16:72:GLY:O	2.00	0.60
46:1S:1624:C:H2'	46:1S:1625:C:H6	1.64	0.60
51:S4:173:ILE:HD12	51:S4:173:ILE:N	2.16	0.60
64:17:23:LYS:HB3	64:17:34:LEU:HD11	1.83	0.60
66:19:136:ALA:O	66:19:140:LEU:HG	2.01	0.60
79:RA:38:ARG:HG2	79:RA:67:ILE:HG23	1.84	0.60
1:2S:215:G:H5''	28:66:12:ARG:HG3	1.84	0.60
1:2S:226:C:H2'	1:2S:227:G:O4'	2.01	0.60
1:2S:343:U:O2	1:2S:1439:U:H1'	2.01	0.60
1:2S:1341:U:H2'	1:2S:1342:C:C6	2.37	0.60
1:2S:1966:U:H3'	1:2S:1967:U:C5'	2.32	0.60
1:2S:2213:A:H2'	1:2S:2214:A:C8	2.36	0.60
1:2S:2615:G:H2'	1:2S:2616:C:C6	2.37	0.60
7:L4:170:LYS:HE3	7:L4:178:LEU:CD1	2.25	0.60
15:53:76:THR:HG23	15:53:101:ARG:HH11	1.65	0.60
21:59:21:LYS:HE3	21:59:56:THR:H	1.67	0.60
28:66:56:VAL:CG2	28:66:104:LEU:HB3	2.32	0.60
36:74:98:GLN:O	36:74:102:LYS:HD3	2.01	0.60
42:80:92:ASP:O	42:80:93:LYS:HG2	2.02	0.60
46:1S:329:G:H5'	55:S8:99:ALA:CB	2.31	0.60
46:1S:804:A:C8	69:22:107:SER:HA	2.36	0.60
46:1S:950:C:H2'	46:1S:951:A:O4'	2.01	0.60
46:1S:1044:U:H5''	48:S1:153:HIS:NE2	2.17	0.60
49:S2:38:VAL:CG2	49:S2:39:THR:H	2.07	0.60
49:S2:122:ALA:HA	49:S2:125:ILE:HD12	1.83	0.60
54:S7:43:PHE:HA	54:S7:63:PRO:HD3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:S8:107:THR:OG1	55:S8:108:PRO:HD3	2.02	0.60
68:21:28:ASP:OD1	68:21:31:SER:HB3	2.01	0.60
69:22:11:LEU:HD22	69:22:72:CYS:HB2	1.83	0.60
74:27:62:ILE:HG13	74:27:63:LEU:N	2.17	0.60
1:2S:1123:U:H2'	1:2S:1124:U:C5'	2.28	0.60
1:2S:1370:G:H5''	30:68:18:GLY:HA2	1.84	0.60
1:2S:1472:U:H2'	1:2S:1473:G:H8	1.66	0.60
1:2S:1721:U:C5	21:59:103:ARG:NH2	2.70	0.60
1:2S:3151:U:H4'	1:2S:3294:A:O4'	2.02	0.60
1:2S:3198:U:H1'	12:L9:21:LYS:HG3	1.84	0.60
3:5S:119:U:H5''	8:L5:256:THR:HG21	1.83	0.60
18:56:117:ARG:H	18:56:117:ARG:CD	2.13	0.60
19:57:30:ARG:HD2	19:57:63:PHE:CE2	2.37	0.60
24:62:104:ARG:O	24:62:105:LEU:HD12	2.02	0.60
46:1S:1480:G:H4'	66:19:11:ALA:HB1	1.83	0.60
47:S0:118:PRO:O	47:S0:141:ILE:HD13	2.02	0.60
49:S2:82:ASN:O	49:S2:100:ALA:HB1	2.02	0.60
63:16:39:VAL:HG12	63:16:40:GLU:N	2.16	0.60
1:2S:406:G:H1'	2:8S:16:G:N2	2.17	0.60
1:2S:827:A:H2'	1:2S:828:A:C8	2.36	0.60
1:2S:894:G:H4'	1:2S:895:A:O4'	2.02	0.60
1:2S:916:G:H2'	1:2S:924:G:C8	2.36	0.60
1:2S:2108:C:O4'	1:2S:3344:A:H1'	2.02	0.60
1:2S:2447:A:H61	1:2S:2500:A:H2	1.42	0.60
1:2S:2718:U:H2'	1:2S:2719:U:O4'	2.01	0.60
1:2S:2820:A:H2'	1:2S:2821:C:H5'	1.83	0.60
5:L2:205:ASN:HB2	5:L2:208:ASP:OD2	2.02	0.60
6:L3:237:LYS:CE	6:L3:246:LEU:HD13	2.31	0.60
6:L3:261:MET:HE2	6:L3:263:SER:HB2	1.84	0.60
12:L9:143:GLU:HG2	12:L9:144:ILE:N	2.16	0.60
43:81:2:ARG:HG3	46:1S:1773:C:OP2	2.02	0.60
46:1S:276:C:O2	46:1S:279:G:N2	2.26	0.60
46:1S:631:G:H2'	46:1S:632:U:C6	2.37	0.60
46:1S:839:U:H2'	46:1S:840:U:H5''	1.84	0.60
46:1S:1526:A:H3'	46:1S:1527:C:C6	2.37	0.60
48:S1:70:LEU:HD21	48:S1:79:HIS:CD2	2.37	0.60
50:S3:162:GLN:N	50:S3:163:PRO:CD	2.64	0.60
61:14:111:ARG:HH21	73:26:58:VAL:HG12	1.67	0.60
75:28:11:LYS:HD2	75:28:51:ASN:ND2	2.16	0.60
1:2S:184:U:H2'	1:2S:185:C:C6	2.37	0.59
1:2S:549:U:H2'	1:2S:550:A:C8	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:632:G:OP1	18:56:94:ARG:HB2	2.01	0.59
1:2S:725:G:C3'	1:2S:726:G:H5''	2.32	0.59
1:2S:745:C:H5''	20:58:145:ASN:HD22	1.67	0.59
1:2S:815:G:H2'	1:2S:906:A:N6	2.17	0.59
1:2S:933:A:H61	7:L4:102:PRO:CD	2.13	0.59
1:2S:1472:U:H2'	1:2S:1473:G:C8	2.37	0.59
1:2S:2276:G:H2'	1:2S:2277:C:C6	2.37	0.59
1:2S:2476:C:C2'	1:2S:2477:G:H4'	2.28	0.59
17:55:14:LYS:HE2	17:55:120:TRP:HZ3	1.67	0.59
26:64:46:PRO:HB2	26:64:54:LEU:CD2	2.32	0.59
43:81:11:ARG:NE	46:1S:1126:G:H5'	2.13	0.59
46:1S:357:G:H2'	46:1S:358:U:C6	2.37	0.59
46:1S:958:U:H2'	60:13:14:SER:OG	2.02	0.59
48:S1:24:PHE:HA	48:S1:27:LYS:HG2	1.84	0.59
48:S1:144:ARG:HD3	48:S1:208:GLN:HB3	1.82	0.59
52:S5:96:SER:CB	52:S5:176:THR:HG21	2.31	0.59
53:S6:44:GLU:O	53:S6:119:GLN:HB3	2.02	0.59
64:17:67:ARG:HG2	64:17:67:ARG:NH2	2.15	0.59
65:18:82:PRO:HB2	65:18:85:PHE:HB2	1.83	0.59
67:20:38:SER:O	67:20:42:VAL:HG23	2.01	0.59
71:24:9:THR:HA	71:24:24:VAL:O	2.01	0.59
76:29:22:ARG:HG2	76:29:38:ILE:CD1	2.32	0.59
1:2S:283:G:H21	1:2S:285:A:H5''	1.65	0.59
1:2S:422:A:C6	1:2S:2363:A:H4'	2.37	0.59
1:2S:1224:C:H4'	1:2S:1289:G:H5'	1.83	0.59
1:2S:1584:U:H2'	1:2S:1585:C:C6	2.36	0.59
1:2S:2461:A:H61	1:2S:2483:G:H21	1.50	0.59
27:65:22:LYS:HD2	27:65:22:LYS:N	2.17	0.59
39:77:18:LEU:HA	39:77:25:ARG:H	1.66	0.59
46:1S:20:G:H2'	46:1S:21:U:C6	2.37	0.59
46:1S:156:A:H2	46:1S:419:G:H21	1.49	0.59
46:1S:635:A:H2'	46:1S:636:A:C8	2.37	0.59
46:1S:1170:G:H2'	46:1S:1170:G:N3	2.17	0.59
48:S1:205:PHE:CD1	48:S1:206:PRO:HD2	2.31	0.59
54:S7:139:ARG:HH11	54:S7:139:ARG:HG3	1.66	0.59
59:12:60:VAL:HG22	59:12:122:VAL:HG22	1.83	0.59
60:13:23:PRO:O	60:13:24:ALA:HB3	2.02	0.59
62:15:33:PHE:HZ	62:15:112:LEU:HD13	1.64	0.59
67:20:55:PRO:HB3	67:20:91:ILE:HG12	1.84	0.59
73:26:20:PRO:HA	73:26:31:PRO:HA	1.84	0.59
1:2S:762:U:H2'	1:2S:763:G:O4'	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1721:U:H2'	1:2S:1723:A:OP2	2.02	0.59
1:2S:2207:A:C3'	1:2S:2208:A:H5''	2.31	0.59
1:2S:2426:U:H2'	1:2S:2427:U:H6	1.61	0.59
1:2S:3182:G:H1	1:2S:3189:G:H5''	1.65	0.59
7:L4:39:PHE:CE1	7:L4:236:LEU:HA	2.36	0.59
14:51:166:LYS:C	14:51:168:ASP:H	2.04	0.59
18:56:147:TRP:CE2	18:56:149:TYR:HB2	2.37	0.59
21:59:88:ARG:O	21:59:90:PRO:HD3	2.01	0.59
33:71:55:LEU:HB2	33:71:95:PRO:HD3	1.84	0.59
39:77:46:SER:HB2	39:77:54:LYS:CD	2.33	0.59
46:1S:86:A:H2'	46:1S:87:C:H6	1.66	0.59
46:1S:182:A:H2'	46:1S:183:U:C6	2.37	0.59
46:1S:657:U:H2'	46:1S:658:C:C5'	2.32	0.59
52:S5:93:LEU:HD23	52:S5:93:LEU:O	2.02	0.59
53:S6:28:PHE:CE1	53:S6:104:PRO:HG3	2.37	0.59
59:12:108:ARG:HG2	59:12:109:GLU:H	1.66	0.59
60:13:134:VAL:HG23	60:13:135:LEU:HG	1.83	0.59
63:16:54:LEU:HD11	63:16:112:TYR:CD2	2.37	0.59
69:22:68:ARG:HG2	69:22:68:ARG:HH11	1.67	0.59
71:24:20:ARG:HB3	71:24:76:TYR:CZ	2.38	0.59
7:L4:142:VAL:HB	7:L4:145:ILE:HD13	1.84	0.59
8:L5:110:LEU:HD12	8:L5:113:LEU:HD23	1.83	0.59
13:50:217:PHE:O	13:50:218:ALA:HB2	2.02	0.59
21:59:160:GLU:HG3	21:59:163:ARG:NH1	2.17	0.59
22:60:132:THR:O	22:60:133:ALA:HB3	2.02	0.59
46:1S:878:G:H2'	46:1S:879:G:H8	1.67	0.59
46:1S:927:C:O2'	46:1S:928:U:H5'	2.03	0.59
46:1S:1066:C:H4'	48:S1:149:GLN:NE2	2.16	0.59
50:S3:190:ARG:HG2	50:S3:191:ASP:N	2.17	0.59
50:S3:222:VAL:HG22	50:S3:223:LYS:N	2.17	0.59
51:S4:10:LYS:H	51:S4:13:ALA:HB3	1.67	0.59
51:S4:89:VAL:HG21	51:S4:100:ARG:HH21	1.67	0.59
56:S9:132:ARG:NE	56:S9:142:ASN:HD22	2.01	0.59
1:2S:248:U:OP2	1:2S:248:U:C6	2.52	0.59
1:2S:500:C:H2'	1:2S:501:A:H8	1.66	0.59
1:2S:816:A:H4'	1:2S:817:A:H5'	1.84	0.59
1:2S:1658:G:H2'	1:2S:1659:U:H6	1.65	0.59
1:2S:2081:U:H2'	1:2S:2082:U:O4'	2.02	0.59
5:L2:42:ARG:CD	5:L2:87:PHE:HB3	2.33	0.59
10:L7:86:VAL:HG22	10:L7:136:TYR:CB	2.33	0.59
11:L8:78:PHE:C	11:L8:80:TYR:H	2.06	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:56:88:VAL:HG12	18:56:89:SER:N	2.17	0.59
27:65:67:ILE:CD1	27:65:121:LYS:HG3	2.31	0.59
46:1S:705:U:H2'	46:1S:706:A:C8	2.37	0.59
46:1S:1080:U:C2'	46:1S:1081:A:H5'	2.28	0.59
52:S5:64:VAL:HG22	52:S5:89:ILE:HD11	1.84	0.59
55:S8:106:ALA:CB	55:S8:165:LEU:HG	2.32	0.59
63:16:38:LEU:HD22	66:19:10:ALA:HA	1.85	0.59
65:18:63:GLN:HA	65:18:66:LEU:HD12	1.83	0.59
1:2S:603:A:H2'	1:2S:604:G:O4'	2.02	0.59
1:2S:858:A:N3	45:83:13:LYS:HB2	2.18	0.59
1:2S:1966:U:H3'	1:2S:1967:U:H5'	1.83	0.59
1:2S:2192:C:H2'	1:2S:2193:U:H6	1.68	0.59
1:2S:2289:U:H2'	1:2S:2290:C:C6	2.38	0.59
2:8S:32:C:H2'	2:8S:33:A:H8	1.67	0.59
3:5S:88:G:H2'	3:5S:89:G:C8	2.37	0.59
6:L3:37:ARG:HA	6:L3:186:GLY:HA2	1.83	0.59
7:L4:82:THR:HG23	7:L4:85:SER:H	1.68	0.59
11:L8:71:VAL:HG21	11:L8:76:ALA:HB2	1.85	0.59
15:53:103:ASN:HB3	38:76:20:MET:CE	2.33	0.59
46:1S:1120:U:H2'	46:1S:1121:C:C6	2.37	0.59
52:S5:53:VAL:CG1	52:S5:138:THR:HG21	2.31	0.59
52:S5:162:VAL:HA	75:28:45:LYS:HB3	1.84	0.59
53:S6:81:VAL:HG22	53:S6:82:SER:N	2.14	0.59
58:11:80:MET:HE2	58:11:84:ILE:HA	1.83	0.59
60:13:30:SER:O	60:13:33:VAL:HG22	2.02	0.59
61:14:67:VAL:O	61:14:71:CYS:HB2	2.03	0.59
65:18:65:GLU:HG2	65:18:68:ARG:HH22	1.64	0.59
74:27:35:VAL:HA	74:27:78:SER:O	2.02	0.59
1:2S:278:U:OP1	44:82:50:PHE:HD2	1.86	0.59
1:2S:353:G:N7	39:77:55:ARG:HD2	2.18	0.59
1:2S:655:C:H2'	1:2S:656:A:C8	2.38	0.59
1:2S:695:C:H2'	1:2S:696:C:C6	2.37	0.59
1:2S:1064:A:H5''	1:2S:1066:G:C8	2.37	0.59
1:2S:2699:G:H3'	1:2S:2700:G:H8	1.67	0.59
1:2S:3011:A:N6	6:L3:13:HIS:HA	2.18	0.59
5:L2:205:ASN:HB3	5:L2:206:PRO:CD	2.32	0.59
6:L3:10:ARG:HB2	6:L3:10:ARG:CZ	2.33	0.59
11:L8:159:PRO:HB2	11:L8:162:LEU:HD12	1.85	0.59
12:L9:138:THR:C	12:L9:140:VAL:H	2.05	0.59
15:53:183:ARG:HG3	15:53:186:ARG:HH11	1.66	0.59
18:56:124:LEU:CG	18:56:126:VAL:HG12	2.28	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:59:110:ARG:HD3	21:59:120:TYR:CD1	2.38	0.59
29:67:49:TYR:HD2	29:67:133:LYS:HZ3	1.48	0.59
43:81:4:LYS:NZ	46:1S:1775:U:C5	2.59	0.59
46:1S:387:A:H3'	46:1S:402:C:C5	2.37	0.59
46:1S:1526:A:H3'	46:1S:1527:C:H6	1.68	0.59
47:S0:74:VAL:HG23	47:S0:118:PRO:HB3	1.84	0.59
49:S2:178:ILE:HG13	49:S2:194:GLU:O	2.01	0.59
52:S5:77:TYR:HB3	52:S5:83:ARG:O	2.02	0.59
53:S6:179:VAL:HA	53:S6:183:ARG:HD3	1.84	0.59
55:S8:135:LYS:O	55:S8:135:LYS:HD3	2.02	0.59
1:2S:687:U:H3	1:2S:693:A:N6	1.99	0.59
1:2S:2347:U:H3'	1:2S:2348:A:C8	2.37	0.59
1:2S:2766:U:H2'	1:2S:2767:U:O4'	2.03	0.59
5:L2:227:ARG:HG2	5:L2:239:ALA:HB2	1.84	0.59
6:L3:280:HIS:HB3	6:L3:324:VAL:HG21	1.84	0.59
7:L4:286:VAL:HG21	20:58:28:LEU:HB3	1.85	0.59
18:56:8:VAL:HG12	18:56:117:ARG:HB3	1.83	0.59
25:63:74:MET:HB2	25:63:75:PRO:CD	2.33	0.59
27:65:81:ILE:CG1	27:65:125:ARG:HG3	2.30	0.59
29:67:93:LYS:O	29:67:93:LYS:HD3	2.02	0.59
44:82:67:LYS:HG2	44:82:87:ARG:HG2	1.85	0.59
44:82:91:PHE:CZ	44:82:93:LEU:HB3	2.38	0.59
45:83:64:VAL:HG12	45:83:65:ALA:H	1.68	0.59
46:1S:139:C:H1'	46:1S:140:A:OP2	2.02	0.59
46:1S:205:U:H2'	46:1S:206:A:H8	1.66	0.59
49:S2:159:THR:CG2	49:S2:166:THR:HG22	2.33	0.59
51:S4:238:LEU:HD13	51:S4:242:LYS:HG3	1.84	0.59
53:S6:78:THR:HG22	53:S6:79:LYS:N	2.10	0.59
61:14:87:GLY:HA3	61:14:120:PRO:HG2	1.85	0.59
63:16:99:GLU:HB3	79:RA:57:PRO:HB2	1.84	0.59
71:24:124:ARG:HA	71:24:127:LYS:HD3	1.83	0.59
79:RA:278:PHE:HB3	79:RA:281:TYR:CE1	2.37	0.59
1:2S:308:A:H5'	1:2S:2223:A:O2'	2.03	0.59
2:8S:70:G:H5''	28:66:28:ARG:NE	2.17	0.59
5:L2:43:GLY:HA3	5:L2:63:PHE:CE1	2.38	0.59
8:L5:64:ILE:HD11	8:L5:105:ILE:CG2	2.33	0.59
32:70:100:ILE:HG13	32:70:101:LEU:HD22	1.84	0.59
43:81:3:ALA:HB3	46:1S:1773:C:OP1	2.03	0.59
45:83:84:ARG:O	45:83:88:GLU:HG2	2.03	0.59
46:1S:412:A:H2'	46:1S:413:U:C6	2.38	0.59
46:1S:495:C:H3'	46:1S:496:G:O4'	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1279:C:H2'	46:1S:1280:C:C6	2.38	0.59
56:S9:123:HIS:O	56:S9:127:VAL:HG23	2.03	0.59
65:18:25:ASN:O	72:25:40:VAL:HG11	2.02	0.59
66:19:70:GLN:HB2	66:19:122:ARG:H	1.67	0.59
71:24:21:LYS:HB2	71:24:75:VAL:CG1	2.31	0.59
79:RA:263:PHE:CE1	79:RA:270:LEU:HD13	2.38	0.59
1:2S:19:U:H4'	17:55:138:GLN:OE1	2.02	0.59
1:2S:215:G:H4'	28:66:15:ALA:CB	2.33	0.59
1:2S:422:A:N1	1:2S:2363:A:H4'	2.18	0.59
1:2S:1565:G:H2'	1:2S:1566:A:O4'	2.03	0.59
1:2S:1909:A:H2'	1:2S:1910:A:C8	2.37	0.59
1:2S:2189:U:C4'	45:83:22:LEU:HD11	2.30	0.59
1:2S:2205:U:H2'	1:2S:2206:G:C5'	2.33	0.59
1:2S:2298:U:O2'	1:2S:2299:A:H5'	2.03	0.59
1:2S:3096:C:H2'	1:2S:3097:C:C6	2.38	0.59
3:5S:96:U:H5''	22:60:43:TYR:OH	2.03	0.59
8:L5:131:LEU:HD13	8:L5:131:LEU:H	1.66	0.59
9:L6:80:ASN:HB3	9:L6:83:TYR:CD2	2.38	0.59
10:L7:77:VAL:CG1	23:61:141:VAL:HG13	2.33	0.59
10:L7:218:ARG:HH22	10:L7:220:PHE:HB2	1.68	0.59
16:54:58:ILE:HG12	16:54:59:ASN:N	2.18	0.59
17:55:34:ASN:HB2	17:55:37:HIS:HB3	1.83	0.59
22:60:137:ARG:HB3	22:60:140:VAL:HG23	1.83	0.59
25:63:123:ALA:O	25:63:125:LEU:N	2.36	0.59
46:1S:189:C:C2'	46:1S:190:C:H5''	2.27	0.59
46:1S:941:A:H2'	46:1S:942:G:O4'	2.03	0.59
47:S0:52:LYS:HB3	68:21:82:VAL:HG22	1.85	0.59
47:S0:144:ILE:HG23	47:S0:158:VAL:HG13	1.85	0.59
48:S1:88:VAL:HG11	48:S1:96:LEU:HD12	1.85	0.59
48:S1:103:MET:HB3	48:S1:215:VAL:HG12	1.85	0.59
54:S7:11:GLN:HG3	54:S7:13:PRO:CD	2.21	0.59
56:S9:29:LYS:HA	77:30:40:TYR:HE2	1.68	0.59
58:11:21:ASN:CB	58:11:31:THR:HG23	2.33	0.59
74:27:81:ARG:O	74:27:82:LYS:HB2	2.01	0.59
77:30:47:VAL:HG22	77:30:48:THR:H	1.68	0.59
1:2S:2500:A:O2'	1:2S:2501:U:H5'	2.03	0.58
1:2S:2990:G:C2'	1:2S:2991:A:H5'	2.32	0.58
1:2S:3231:U:H2'	1:2S:3232:G:H8	1.66	0.58
7:L4:187:LEU:HD23	7:L4:198:ARG:O	2.03	0.58
12:L9:91:ARG:HD2	12:L9:143:GLU:HB2	1.85	0.58
14:51:94:ARG:H	14:51:94:ARG:CD	2.09	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:59:142:ILE:HG22	21:59:146:LYS:HD3	1.85	0.58
23:61:84:TYR:CB	31:69:24:PRO:HG3	2.34	0.58
36:74:20:ILE:HG23	36:74:32:ALA:HB1	1.85	0.58
45:83:42:CYS:HB3	45:83:60:CYS:SG	2.43	0.58
46:1S:1058:U:H5	46:1S:1061:A:N1	2.00	0.58
46:1S:1232:U:H2'	46:1S:1233:G:C8	2.38	0.58
46:1S:1622:G:H2'	46:1S:1623:C:C6	2.38	0.58
51:S4:250:GLU:HA	51:S4:253:ASP:OD2	2.03	0.58
52:S5:62:VAL:HG13	52:S5:89:ILE:HG21	1.85	0.58
54:S7:34:LEU:N	54:S7:34:LEU:HD12	2.17	0.58
57:10:21:VAL:HB	57:10:66:TYR:HB2	1.86	0.58
58:11:109:VAL:HG21	58:11:125:VAL:HG11	1.84	0.58
58:11:122:ILE:HD12	58:11:122:ILE:N	2.17	0.58
1:2S:392:G:C2'	1:2S:393:U:H5'	2.33	0.58
1:2S:1939:G:H2'	1:2S:1940:G:H8	1.66	0.58
1:2S:2168:A:C5'	17:55:67:ARG:HH12	2.16	0.58
1:2S:2468:A:C6	1:2S:2478:C:H4'	2.38	0.58
1:2S:3132:C:H2'	1:2S:3133:C:C6	2.38	0.58
2:8S:110:C:H4'	2:8S:112:U:H5	1.67	0.58
6:L3:42:ALA:C	6:L3:43:LEU:HD12	2.24	0.58
12:L9:25:VAL:HG12	12:L9:26:LYS:N	2.18	0.58
15:53:83:ALA:HB2	15:53:116:LEU:HD13	1.84	0.58
19:57:36:ILE:CD1	19:57:44:ALA:HB1	2.34	0.58
22:60:50:LYS:O	22:60:51:VAL:HG13	2.03	0.58
24:62:42:LYS:HG2	24:62:47:VAL:HG13	1.83	0.58
24:62:90:ARG:O	24:62:91:ASP:HB2	2.03	0.58
24:62:98:THR:HG22	24:62:99:LYS:HE2	1.85	0.58
29:67:135:ARG:HG2	29:67:135:ARG:HH21	1.69	0.58
39:77:47:TYR:CB	39:77:49:TRP:NE1	2.66	0.58
46:1S:766:U:H5'	46:1S:767:U:H5''	1.86	0.58
46:1S:1235:C:O4'	78:31:146:SER:HB2	2.03	0.58
56:S9:53:ARG:HG2	56:S9:53:ARG:HH21	1.68	0.58
57:10:82:LEU:HB2	57:10:86:ILE:HG21	1.85	0.58
59:12:76:GLU:O	59:12:80:ASN:HB2	2.04	0.58
65:18:17:LEU:HD21	65:18:22:VAL:HG21	1.84	0.58
69:22:11:LEU:HD12	69:22:74:VAL:HB	1.84	0.58
72:25:76:ALA:O	72:25:80:LEU:HG	2.02	0.58
1:2S:38:U:H5'	30:68:32:ARG:NH1	2.18	0.58
1:2S:75:G:H5''	15:53:58:VAL:CG1	2.32	0.58
1:2S:300:G:H2'	1:2S:301:G:H8	1.68	0.58
1:2S:1283:C:C2'	1:2S:1284:C:H5'	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1294:A:HO2'	1:2S:1295:G:H8	1.49	0.58
1:2S:1915:A:H2'	1:2S:1916:U:C6	2.38	0.58
1:2S:2457:G:H22	1:2S:2461:A:H61	1.49	0.58
5:L2:48:ILE:HD11	45:83:63:THR:HG22	1.84	0.58
7:L4:4:PRO:HD2	7:L4:22:LEU:CD1	2.32	0.58
8:L5:155:THR:N	8:L5:179:ARG:HH11	2.01	0.58
9:L6:172:HIS:CD2	35:73:40:ASP:HB3	2.38	0.58
14:51:52:TYR:N	14:51:52:TYR:CD2	2.71	0.58
19:57:36:ILE:HD11	19:57:44:ALA:HB1	1.84	0.58
27:65:111:ASN:HB2	27:65:123:TYR:HB2	1.84	0.58
28:66:56:VAL:HG22	28:66:57:LEU:H	1.68	0.58
30:68:83:PRO:HD2	30:68:86:LYS:HB2	1.86	0.58
32:70:16:LEU:HB3	32:70:98:SER:HB2	1.84	0.58
33:71:72:ARG:HG3	33:71:96:VAL:CG2	2.33	0.58
44:82:70:LEU:HD11	44:82:85:LEU:HD11	1.85	0.58
46:1S:64:U:H4'	46:1S:169:A:H4'	1.85	0.58
46:1S:618:U:H4'	46:1S:1030:A:N6	2.18	0.58
46:1S:1036:A:C5'	69:22:3:ARG:HH22	2.11	0.58
46:1S:1533:C:OP2	72:25:74:SER:HB3	2.03	0.58
46:1S:1617:U:H2'	46:1S:1618:C:C6	2.38	0.58
49:S2:69:ILE:CD1	49:S2:133:LYS:HD2	2.30	0.58
61:14:17:ALA:HB2	61:14:79:VAL:HG21	1.84	0.58
75:28:50:GLU:O	75:28:51:ASN:HB2	2.03	0.58
1:2S:381:U:H2'	1:2S:382:U:C5	2.38	0.58
1:2S:858:A:H2'	1:2S:859:G:C8	2.38	0.58
1:2S:3184:A:O2'	1:2S:3185:U:H5'	2.02	0.58
4:L1:155:ILE:HG23	4:L1:163:LEU:CD1	2.33	0.58
7:L4:23:PRO:CG	7:L4:258:LEU:HD23	2.27	0.58
20:58:34:THR:HA	20:58:49:LEU:HD11	1.84	0.58
21:59:162:ARG:HD2	21:59:162:ARG:C	2.22	0.58
35:73:35:VAL:HG13	35:73:40:ASP:HB2	1.84	0.58
46:1S:329:G:OP1	55:S8:98:LYS:HE2	2.04	0.58
46:1S:382:C:H2'	46:1S:383:G:C8	2.38	0.58
46:1S:607:G:C5'	46:1S:613:G:H22	2.11	0.58
50:S3:72:LEU:HD23	57:10:20:VAL:CG1	2.33	0.58
50:S3:164:VAL:O	50:S3:168:ILE:HG13	2.03	0.58
54:S7:111:LYS:O	54:S7:112:ARG:HB2	2.02	0.58
55:S8:8:ARG:HA	55:S8:8:ARG:CZ	2.34	0.58
55:S8:29:LEU:HD23	55:S8:29:LEU:H	1.68	0.58
62:15:8:LYS:HD3	62:15:11:VAL:HA	1.85	0.58
65:18:81:ILE:CG2	65:18:82:PRO:HD2	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:92:ILE:O	65:18:92:ILE:HD13	2.03	0.58
67:20:27:THR:HG23	67:20:113:ASP:HB3	1.84	0.58
71:24:79:VAL:O	71:24:83:LYS:HG3	2.03	0.58
1:2S:242:C:HO2'	1:2S:243:G:H8	1.52	0.58
1:2S:1601:U:H2'	1:2S:1603:A:OP2	2.04	0.58
1:2S:1830:G:H2'	1:2S:1831:U:C6	2.38	0.58
1:2S:1932:A:H2'	1:2S:1933:A:H5'	1.84	0.58
1:2S:2586:G:C5	11:L8:241:LYS:HD3	2.39	0.58
1:2S:2788:C:H2'	1:2S:2789:U:C6	2.38	0.58
8:L5:154:THR:HA	8:L5:179:ARG:NH1	2.17	0.58
9:L6:165:LEU:HD12	35:73:6:ARG:HG2	1.86	0.58
14:51:76:ALA:O	14:51:80:LEU:HB2	2.03	0.58
14:51:149:GLY:O	14:51:153:LYS:HG3	2.04	0.58
15:53:73:ARG:HH21	15:53:73:ARG:HG3	1.69	0.58
16:54:22:LEU:HB3	16:54:64:VAL:HG12	1.86	0.58
17:55:68:ARG:HH21	17:55:123:GLN:HB2	1.69	0.58
23:61:139:ARG:H	23:61:139:ARG:HD3	1.68	0.58
37:75:100:VAL:HG13	37:75:105:ARG:HB2	1.85	0.58
46:1S:1501:C:C5	66:19:102:ARG:NH2	2.71	0.58
48:S1:54:LEU:O	48:S1:55:LYS:CB	2.52	0.58
49:S2:226:THR:HG23	49:S2:229:LEU:HB2	1.83	0.58
60:13:44:GLY:C	60:13:45:LEU:HD22	2.24	0.58
60:13:136:PRO:HG2	60:13:139:TRP:HB2	1.86	0.58
66:19:89:ARG:HB3	66:19:90:PRO:HD2	1.86	0.58
75:28:25:VAL:HG11	75:28:66:LEU:CD1	2.33	0.58
1:2S:126:U:H2'	1:2S:127:G:C8	2.39	0.58
1:2S:915:A:H2'	1:2S:916:G:H5'	1.84	0.58
1:2S:1054:A:H5''	1:2S:2637:A:H61	1.68	0.58
1:2S:1393:A:H2'	1:2S:1394:A:C8	2.39	0.58
1:2S:2941:A:C8	6:L3:256:HIS:HE1	2.20	0.58
1:2S:3358:U:H2'	1:2S:3359:A:O4'	2.04	0.58
8:L5:131:LEU:HD13	8:L5:131:LEU:N	2.19	0.58
10:L7:77:VAL:HG22	23:61:139:ARG:C	2.24	0.58
11:L8:128:LYS:HG3	11:L8:129:PRO:HD2	1.85	0.58
14:51:23:VAL:HB	14:51:25:GLU:O	2.03	0.58
15:53:67:ARG:HD3	15:53:67:ARG:H	1.67	0.58
16:54:45:LEU:HD21	22:60:70:THR:O	2.03	0.58
18:56:75:ALA:O	18:56:79:ILE:HG13	2.03	0.58
21:59:74:ARG:O	21:59:75:HIS:HB2	2.03	0.58
21:59:90:PRO:O	21:59:94:VAL:HG23	2.02	0.58
27:65:86:VAL:HG13	27:65:120:LYS:HD2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:66:112:ASP:H	28:66:115:ARG:HB2	1.69	0.58
46:1S:594:A:H4'	46:1S:595:G:H5'	1.86	0.58
46:1S:981:U:C2'	46:1S:982:U:H5''	2.33	0.58
46:1S:1323:C:H2'	46:1S:1324:G:C8	2.38	0.58
51:S4:126:VAL:HG12	51:S4:141:THR:HG22	1.86	0.58
1:2S:336:A:C2'	1:2S:337:G:H5'	2.34	0.58
1:2S:501:A:H2'	1:2S:502:U:C6	2.37	0.58
1:2S:519:A:H4'	7:L4:355:PHE:HZ	1.66	0.58
1:2S:1480:G:H22	1:2S:1871:U:H3'	1.67	0.58
1:2S:2437:G:H1	1:2S:2510:U:H3	1.52	0.58
1:2S:2677:G:H3'	1:2S:2679:A:OP2	2.04	0.58
6:L3:232:ARG:HG3	6:L3:270:ARG:HG3	1.85	0.58
25:63:91:VAL:HG23	25:63:93:LEU:HD22	1.85	0.58
34:72:101:SER:O	34:72:105:ARG:HG3	2.03	0.58
46:1S:148:A:H2'	46:1S:149:C:H5'	1.84	0.58
46:1S:417:A:H1'	46:1S:418:G:OP2	2.04	0.58
46:1S:460:A:H3'	46:1S:461:G:C8	2.30	0.58
46:1S:1659:A:H2'	46:1S:1660:A:C8	2.38	0.58
49:S2:42:GLY:O	49:S2:45:VAL:HB	2.04	0.58
49:S2:104:VAL:HG22	49:S2:132:ALA:HB1	1.84	0.58
51:S4:52:LEU:HB3	51:S4:54:TYR:CD2	2.39	0.58
53:S6:1:MET:HE1	53:S6:106:LEU:HB2	1.86	0.58
53:S6:12:SER:O	53:S6:124:LEU:CD1	2.52	0.58
54:S7:43:PHE:HD1	54:S7:44:LYS:N	2.02	0.58
59:12:46:ARG:HH12	78:31:103:LEU:HD21	1.68	0.58
62:15:87:PRO:HA	62:15:90:ILE:HG13	1.85	0.58
63:16:31:VAL:O	63:16:32:ASN:HB2	2.02	0.58
66:19:45:MET:SD	66:19:46:PRO:HD2	2.43	0.58
75:28:7:VAL:HG13	75:28:56:LEU:O	2.03	0.58
79:RA:17:ASN:HB3	79:RA:39:ASP:HB3	1.86	0.58
79:RA:112:SER:HB2	79:RA:153:GLN:HA	1.84	0.58
1:2S:153:U:H2'	1:2S:154:U:H5''	1.85	0.58
1:2S:1263:A:H2'	1:2S:1263:A:N3	2.19	0.58
1:2S:2464:U:H3	1:2S:2491:A:H61	1.50	0.58
1:2S:2908:G:H2'	1:2S:2909:U:C6	2.38	0.58
1:2S:3086:A:H3'	1:2S:3087:A:H8	1.68	0.58
1:2S:3197:G:H2'	1:2S:3198:U:H3'	1.85	0.58
3:5S:28:C:H2'	3:5S:29:C:O4'	2.04	0.58
5:L2:225:ILE:HB	5:L2:238:ILE:HG13	1.86	0.58
6:L3:338:LEU:HD13	6:L3:338:LEU:N	2.18	0.58
9:L6:43:LEU:HD12	9:L6:83:TYR:CA	2.28	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:53:138:VAL:CG2	37:75:118:ILE:HB	2.33	0.58
16:54:106:ARG:HG3	16:54:106:ARG:HH11	1.69	0.58
21:59:189:ALA:HB2	54:S7:39:ARG:CD	2.33	0.58
26:64:46:PRO:HB2	26:64:54:LEU:HD22	1.85	0.58
48:S1:171:ILE:O	48:S1:175:GLU:HG2	2.03	0.58
53:S6:28:PHE:O	53:S6:29:ASP:HB2	2.03	0.58
58:11:3:THR:HA	58:11:81:HIS:NE2	2.18	0.58
61:14:39:ILE:O	61:14:40:ALA:HB3	2.04	0.58
68:21:11:LEU:O	68:21:12:TYR:HB3	2.03	0.58
1:2S:58:G:H5''	17:55:154:PRO:HB2	1.84	0.58
1:2S:745:C:H5''	20:58:145:ASN:HB2	1.86	0.58
1:2S:819:U:H2'	1:2S:820:A:H5'	1.85	0.58
1:2S:1106:G:H2'	1:2S:1107:C:C6	2.39	0.58
1:2S:1138:U:H2'	1:2S:1139:G:O4'	2.04	0.58
1:2S:1235:U:H4'	1:2S:1236:G:C5'	2.32	0.58
1:2S:2138:A:C5	39:77:3:LYS:HB3	2.39	0.58
1:2S:2421:U:H4'	44:82:53:GLN:HB2	1.85	0.58
1:2S:3267:A:H3'	1:2S:3268:A:H8	1.68	0.58
3:5S:104:A:H2'	3:5S:105:C:H5'	1.86	0.58
5:L2:42:ARG:HD2	5:L2:87:PHE:CD1	2.39	0.58
8:L5:144:VAL:CG1	8:L5:173:VAL:HG22	2.33	0.58
10:L7:84:VAL:HA	10:L7:139:PRO:HD3	1.85	0.58
19:57:61:ARG:HH11	19:57:61:ARG:HG3	1.69	0.58
23:61:11:THR:HB	23:61:15:PHE:HB2	1.85	0.58
25:63:57:MET:SD	25:63:75:PRO:HB3	2.44	0.58
32:70:22:LYS:HB2	32:70:94:GLU:HB2	1.84	0.58
33:71:62:ARG:HH11	33:71:62:ARG:HG3	1.69	0.58
45:83:64:VAL:HG12	45:83:65:ALA:N	2.19	0.58
46:1S:175:G:N2	46:1S:176:C:C5	2.72	0.58
46:1S:915:A:H3'	46:1S:916:U:C6	2.39	0.58
46:1S:1166:A:H2'	46:1S:1167:G:C4'	2.33	0.58
46:1S:1440:C:H2'	46:1S:1441:C:O4'	2.03	0.58
49:S2:121:VAL:O	49:S2:125:ILE:HG13	2.03	0.58
52:S5:71:ALA:HB1	52:S5:94:THR:HG21	1.86	0.58
52:S5:94:THR:HG22	52:S5:114:ILE:CD1	2.34	0.58
76:29:33:LYS:HE2	76:29:34:TYR:CZ	2.39	0.58
1:2S:926:A:H2'	1:2S:927:C:C6	2.39	0.58
1:2S:973:A:H2'	1:2S:974:G:O4'	2.04	0.58
1:2S:1117:G:H2'	1:2S:1118:C:C6	2.38	0.58
1:2S:1427:U:H2'	1:2S:1428:A:C8	2.39	0.58
1:2S:1456:A:C6	33:71:64:VAL:HG21	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1782:U:O2'	1:2S:1783:U:H5'	2.04	0.58
2:8S:69:U:H2'	2:8S:70:G:H5'	1.86	0.58
8:L5:19:PRO:HB2	8:L5:24:ARG:HG2	1.86	0.58
18:56:9:ILE:HB	18:56:35:VAL:HG13	1.85	0.58
25:63:125:LEU:O	25:63:127:PRO:HD3	2.04	0.58
33:71:70:ARG:HH21	33:71:70:ARG:CG	2.17	0.58
34:72:24:ARG:HG3	34:72:24:ARG:HH11	1.69	0.58
45:83:49:ARG:HG2	45:83:54:ILE:O	2.04	0.58
46:1S:503:G:H2'	46:1S:504:U:C5	2.39	0.58
50:S3:6:SER:HB3	50:S3:9:ARG:HB2	1.86	0.58
61:14:72:LYS:HD3	61:14:110:LEU:CD2	2.33	0.58
72:25:45:GLU:O	72:25:49:ARG:HG3	2.03	0.58
75:28:29:ARG:HB2	75:28:29:ARG:HH11	1.69	0.58
1:2S:92:G:OP2	1:2S:93:C:H5''	2.03	0.57
1:2S:924:G:N2	1:2S:2414:G:O2'	2.36	0.57
1:2S:1141:C:H2'	1:2S:1142:G:O4'	2.04	0.57
1:2S:1449:A:H1'	1:2S:2983:C:C5	2.38	0.57
1:2S:1503:A:H2'	1:2S:1504:A:O4'	2.04	0.57
1:2S:1650:G:H4'	5:L2:70:ARG:HA	1.85	0.57
1:2S:1689:U:O3'	21:59:59:SER:HB3	2.04	0.57
1:2S:2238:G:H2'	1:2S:2239:G:C8	2.39	0.57
1:2S:3029:A:H2'	1:2S:3030:G:O4'	2.04	0.57
1:2S:3159:C:H4'	1:2S:3395:G:C6	2.39	0.57
2:8S:97:A:H2'	2:8S:98:U:O4'	2.03	0.57
7:L4:299:ILE:HD12	20:58:39:ARG:HG3	1.84	0.57
10:L7:124:LEU:HD22	10:L7:127:LEU:HD12	1.86	0.57
11:L8:133:LYS:HE2	11:L8:133:LYS:HA	1.86	0.57
16:54:124:ARG:HB3	16:54:124:ARG:HH11	1.68	0.57
18:56:27:LEU:HD23	18:56:31:GLN:O	2.03	0.57
35:73:14:LEU:HD11	35:73:31:LYS:HB2	1.85	0.57
44:82:6:LYS:HG3	44:82:93:LEU:O	2.04	0.57
44:82:7:THR:O	44:82:8:ARG:HB2	2.04	0.57
46:1S:885:G:OP1	48:S1:216:LYS:HD3	2.03	0.57
46:1S:1371:A:H8	46:1S:1371:A:O5'	1.87	0.57
46:1S:1376:C:O2'	46:1S:1377:U:H5'	2.04	0.57
46:1S:1673:G:H5'	53:S6:94:ARG:HH22	1.67	0.57
48:S1:44:GLY:O	48:S1:45:LYS:HD3	2.04	0.57
57:10:25:LYS:HB2	57:10:64:TYR:CE2	2.39	0.57
58:11:94:ILE:HD12	58:11:94:ILE:N	2.19	0.57
61:14:72:LYS:HD3	61:14:110:LEU:HD21	1.86	0.57
62:15:22:LEU:HD13	62:15:109:PRO:HB3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:17:24:LEU:HD23	64:17:34:LEU:HD13	1.85	0.57
69:22:36:LYS:O	69:22:40:VAL:HG23	2.04	0.57
70:23:104:LEU:CD2	70:23:124:VAL:HA	2.33	0.57
70:23:109:ARG:HB2	70:23:111:GLY:O	2.04	0.57
79:RA:212:ALA:O	79:RA:243:LEU:HD13	2.04	0.57
1:2S:98:G:H4'	1:2S:281:G:H5'	1.86	0.57
1:2S:696:C:H5''	7:L4:272:VAL:HG23	1.86	0.57
1:2S:1668:G:H2'	1:2S:1669:C:H6	1.68	0.57
1:2S:1794:G:O2'	1:2S:1796:G:N2	2.37	0.57
1:2S:1826:C:H2'	1:2S:1827:C:C6	2.39	0.57
1:2S:2684:C:H2'	1:2S:2685:C:H6	1.67	0.57
1:2S:2809:C:H5''	1:2S:2956:A:H4'	1.86	0.57
2:8S:121:U:H2'	2:8S:122:U:C6	2.40	0.57
2:8S:142:C:H4'	17:55:60:VAL:HG21	1.86	0.57
8:L5:106:ALA:HA	8:L5:171:LEU:HD11	1.87	0.57
11:L8:153:ILE:HG22	11:L8:154:ALA:H	1.69	0.57
14:51:53:THR:HG23	14:51:59:ILE:O	2.04	0.57
25:63:77:ILE:HD11	25:63:103:ALA:CB	2.31	0.57
29:67:53:VAL:CG2	29:67:62:VAL:HG13	2.33	0.57
30:68:47:LYS:C	30:68:50:PRO:HD3	2.24	0.57
30:68:73:LEU:HD11	30:68:77:LYS:HB2	1.86	0.57
30:68:123:VAL:CG1	30:68:124:ILE:H	2.09	0.57
36:74:58:ARG:HB3	36:74:61:GLN:HG2	1.86	0.57
46:1S:127:G:C4'	53:S6:194:LYS:HE2	2.32	0.57
46:1S:551:G:H5'	46:1S:581:U:H2'	1.86	0.57
46:1S:1170:G:N2	46:1S:1571:C:H4'	2.19	0.57
46:1S:1609:U:C2'	46:1S:1610:G:H5'	2.34	0.57
48:S1:69:CYS:HA	48:S1:83:LYS:HA	1.85	0.57
49:S2:126:ARG:HH11	49:S2:126:ARG:HB2	1.68	0.57
51:S4:29:PRO:HG2	51:S4:45:ILE:HD13	1.86	0.57
58:11:93:TYR:HB2	58:11:100:TYR:HE1	1.69	0.57
65:18:90:ASN:O	65:18:95:GLY:HA2	2.04	0.57
66:19:21:PHE:HA	66:19:24:ARG:HB2	1.86	0.57
66:19:117:SER:HB2	66:19:123:ARG:HB2	1.86	0.57
71:24:91:LEU:HA	71:24:96:LEU:HD13	1.85	0.57
71:24:94:TYR:HB2	71:24:96:LEU:HD11	1.86	0.57
1:2S:26:A:C2	1:2S:330:G:C6	2.92	0.57
1:2S:1323:G:O3'	22:60:2:ALA:HA	2.05	0.57
1:2S:1750:A:H4'	1:2S:1751:G:H5'	1.85	0.57
1:2S:2271:A:H3'	1:2S:2272:G:H5''	1.85	0.57
1:2S:3359:A:H3'	1:2S:3360:C:C6	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:47:GLN:O	5:L2:59:ALA:HA	2.03	0.57
6:L3:43:LEU:HD12	6:L3:43:LEU:N	2.18	0.57
6:L3:227:GLU:HG3	6:L3:228:GLY:H	1.69	0.57
7:L4:132:ALA:CA	7:L4:148:ILE:HD12	2.33	0.57
10:L7:77:VAL:HG22	23:61:139:ARG:O	2.03	0.57
15:53:171:ARG:NH2	15:53:174:ARG:HG2	2.19	0.57
15:53:189:GLU:O	15:53:192:GLU:HG2	2.05	0.57
17:55:61:ILE:HG22	17:55:131:GLU:HG2	1.86	0.57
28:66:80:VAL:HG12	28:66:99:LEU:HB2	1.85	0.57
40:78:73:LEU:HD23	40:78:75:VAL:HG22	1.86	0.57
46:1S:190:C:N4	55:S8:141:ARG:NH2	2.52	0.57
46:1S:715:U:C5	46:1S:717:C:N4	2.72	0.57
46:1S:1473:U:O2	46:1S:1473:U:H2'	2.03	0.57
46:1S:1560:U:H2'	46:1S:1561:U:O4'	2.04	0.57
46:1S:1594:G:C5'	76:29:33:LYS:HD2	2.35	0.57
47:S0:198:MET:HE2	47:S0:198:MET:HA	1.87	0.57
48:S1:127:VAL:HG11	48:S1:176:VAL:HG21	1.87	0.57
48:S1:142:PHE:HD2	48:S1:209:ASN:HB2	1.69	0.57
52:S5:108:LEU:HB3	63:16:43:ILE:HG13	1.86	0.57
76:29:53:ASN:HB2	76:29:55:PHE:CZ	2.39	0.57
1:2S:60:A:H2'	1:2S:61:A:O4'	2.05	0.57
1:2S:71:A:H61	1:2S:303:G:H1'	1.69	0.57
1:2S:2078:C:H2'	1:2S:2079:G:C8	2.39	0.57
1:2S:2088:A:H2'	1:2S:2088:A:N3	2.20	0.57
1:2S:2277:C:C2'	1:2S:2278:C:H5'	2.35	0.57
1:2S:2403:G:H1'	1:2S:2872:A:C6	2.39	0.57
1:2S:3187:A:H2	22:60:169:SER:HB3	1.70	0.57
7:L4:23:PRO:HA	7:L4:259:ASP:OD2	2.05	0.57
7:L4:212:ASP:OD1	7:L4:216:VAL:HG13	2.04	0.57
9:L6:18:LEU:HD22	9:L6:18:LEU:H	1.68	0.57
11:L8:105:LYS:HE3	11:L8:108:ARG:HH22	1.69	0.57
14:51:15:GLU:HB2	14:51:132:ASN:OD1	2.05	0.57
18:56:62:THR:HG22	18:56:65:ASN:H	1.68	0.57
19:57:25:SER:OG	19:57:28:ASN:ND2	2.38	0.57
26:64:5:ILE:C	26:64:5:ILE:HD12	2.25	0.57
39:77:16:HIS:HA	39:77:27:PHE:O	2.04	0.57
39:77:84:SER:O	39:77:85:LYS:HB2	2.04	0.57
46:1S:14:C:OP1	49:S2:165:VAL:HG23	2.04	0.57
46:1S:930:A:H1'	48:S1:111:ARG:HH11	1.68	0.57
50:S3:186:VAL:HG12	50:S3:188:ILE:HG13	1.86	0.57
53:S6:6:SER:O	53:S6:113:ILE:HG13	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:10:61:TRP:HZ3	76:29:22:ARG:HD2	1.69	0.57
59:12:104:GLY:HA2	59:12:113:ARG:HD2	1.86	0.57
60:13:84:ILE:HD12	60:13:89:TYR:HA	1.87	0.57
71:24:3:ASP:HB2	71:24:30:PRO:O	2.04	0.57
73:26:42:ARG:HB3	73:26:42:ARG:HH11	1.69	0.57
79:RA:161:LYS:HG3	79:RA:161:LYS:O	2.04	0.57
1:2S:39:A:H2'	1:2S:42:C:H41	1.68	0.57
1:2S:634:C:H5'	35:73:21:ARG:O	2.05	0.57
1:2S:799:G:H2'	1:2S:801:A:H62	1.68	0.57
1:2S:816:A:C3'	1:2S:817:A:H5'	2.35	0.57
1:2S:1302:A:H2'	1:2S:1303:A:H5''	1.86	0.57
1:2S:2414:G:H2'	1:2S:2415:C:C6	2.39	0.57
1:2S:2914:G:H3'	1:2S:2915:U:C6	2.39	0.57
3:5S:26:C:H5'	8:L5:56:THR:HB	1.86	0.57
4:L1:21:ASN:OD1	4:L1:174:MET:HB2	2.04	0.57
5:L2:70:ARG:C	5:L2:71:LEU:HD12	2.24	0.57
8:L5:24:ARG:CZ	8:L5:24:ARG:HB2	2.34	0.57
9:L6:50:LYS:HE2	9:L6:72:ASN:HB2	1.86	0.57
11:L8:107:GLU:O	11:L8:111:LYS:HG3	2.04	0.57
14:51:14:ILE:HD12	14:51:77:GLU:HG2	1.85	0.57
19:57:22:LEU:HB3	19:57:24:VAL:HG23	1.86	0.57
23:61:76:ILE:HB	23:61:87:LYS:HB2	1.87	0.57
27:65:106:ASP:HB3	27:65:127:THR:HG21	1.87	0.57
29:67:87:LEU:HG	29:67:88:ASP:N	2.16	0.57
33:71:55:LEU:HD23	33:71:95:PRO:HB3	1.86	0.57
35:73:15:SER:HA	35:73:94:PHE:HE1	1.67	0.57
44:82:67:LYS:HG2	44:82:87:ARG:CG	2.34	0.57
46:1S:798:C:H2'	46:1S:799:A:C8	2.40	0.57
46:1S:1735:U:H2'	46:1S:1736:G:C8	2.40	0.57
48:S1:135:LEU:HB3	48:S1:217:LEU:HD12	1.86	0.57
51:S4:159:THR:HB	51:S4:227:VAL:HG23	1.86	0.57
52:S5:57:SER:HB3	75:28:53:ILE:CG2	2.35	0.57
54:S7:51:VAL:HG23	54:S7:53:GLY:H	1.70	0.57
58:11:4:GLU:O	58:11:5:LEU:HB2	2.05	0.57
69:22:77:PRO:HG2	70:23:9:LEU:HD23	1.86	0.57
73:26:45:VAL:HG22	73:26:64:LEU:HD11	1.87	0.57
1:2S:1108:U:H2'	1:2S:1109:U:H6	1.66	0.57
1:2S:1715:A:N6	32:70:84:LEU:HB2	2.19	0.57
7:L4:316:ASN:ND2	7:L4:319:LYS:HE2	2.20	0.57
10:L7:218:ARG:HH11	10:L7:218:ARG:HA	1.69	0.57
19:57:47:TYR:O	19:57:51:VAL:HG23	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:70:26:GLY:O	32:70:30:THR:HG23	2.04	0.57
40:78:45:VAL:HG23	40:78:52:TYR:HB2	1.86	0.57
46:1S:446:A:N6	46:1S:461:G:H21	2.03	0.57
46:1S:576:G:H4'	46:1S:580:A:N3	2.19	0.57
46:1S:607:G:C5'	46:1S:613:G:N2	2.66	0.57
46:1S:981:U:H2'	46:1S:982:U:C5'	2.34	0.57
49:S2:58:LEU:HD23	68:21:15:ARG:HG3	1.87	0.57
50:S3:220:PRO:HB2	79:RA:230:ALA:HB1	1.86	0.57
52:S5:164:PRO:O	52:S5:168:VAL:HG23	2.05	0.57
54:S7:16:LEU:O	54:S7:20:VAL:HG23	2.05	0.57
55:S8:139:ALA:HB1	55:S8:143:TRP:CE2	2.40	0.57
58:11:66:ILE:HG23	58:11:127:GLN:O	2.03	0.57
1:2S:117:U:C4	11:L8:142:LEU:HD23	2.39	0.57
1:2S:436:A:H2'	1:2S:437:G:C8	2.40	0.57
1:2S:807:A:C3'	1:2S:808:A:H5''	2.35	0.57
1:2S:858:A:C2'	1:2S:859:G:H5'	2.35	0.57
1:2S:947:G:H2'	1:2S:948:C:H6	1.69	0.57
1:2S:1137:C:H2'	1:2S:1138:U:C6	2.40	0.57
1:2S:1816:A:H2'	1:2S:1817:G:O5'	2.04	0.57
1:2S:2135:U:O5'	1:2S:2135:U:H6	1.87	0.57
1:2S:2205:U:C2'	1:2S:2206:G:H5'	2.32	0.57
1:2S:2258:U:H2'	1:2S:2259:A:O4'	2.04	0.57
1:2S:3019:U:H3	1:2S:3035:A:N6	2.03	0.57
1:2S:3024:A:H4'	12:L9:97:PHE:CZ	2.40	0.57
5:L2:80:GLU:OE1	45:83:72:SER:HA	2.05	0.57
6:L3:324:VAL:HG22	6:L3:325:LYS:H	1.69	0.57
6:L3:339:ARG:CG	6:L3:340:LYS:H	2.17	0.57
10:L7:63:ILE:HG22	10:L7:67:ARG:CZ	2.35	0.57
13:50:189:GLU:HG2	13:50:200:LEU:HB3	1.84	0.57
15:53:180:ARG:HD3	38:76:11:LEU:CD1	2.34	0.57
18:56:43:ILE:HG22	18:56:44:SER:H	1.69	0.57
19:57:30:ARG:HD2	19:57:63:PHE:HE2	1.69	0.57
24:62:12:ALA:HA	24:62:68:THR:HA	1.85	0.57
29:67:25:ILE:CG2	29:67:28:PRO:HD3	2.35	0.57
44:82:100:LYS:H	44:82:100:LYS:CE	2.04	0.57
46:1S:205:U:H2'	46:1S:206:A:C8	2.40	0.57
50:S3:222:VAL:HG22	50:S3:223:LYS:H	1.69	0.57
55:S8:106:ALA:HB2	55:S8:165:LEU:HG	1.86	0.57
63:16:129:PHE:O	63:16:129:PHE:CD1	2.57	0.57
1:2S:118:U:H1'	1:2S:150:A:N6	2.19	0.57
1:2S:424:G:H1'	34:72:24:ARG:NH2	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:426:G:H5'	34:72:50:ILE:HG22	1.86	0.57
1:2S:587:U:C2'	1:2S:588:G:H5'	2.35	0.57
1:2S:1044:U:H2'	1:2S:1045:C:O4'	2.04	0.57
1:2S:1427:U:H5	30:68:4:ARG:NH2	2.03	0.57
1:2S:1593:A:H4'	36:74:61:GLN:HE22	1.69	0.57
1:2S:1873:U:O5'	1:2S:1873:U:H6	1.87	0.57
1:2S:2363:A:O2'	1:2S:2364:G:H5'	2.05	0.57
2:8S:23:U:C4'	28:66:17:LYS:HG2	2.28	0.57
4:L1:194:LEU:C	4:L1:196:LYS:H	2.07	0.57
9:L6:97:ASN:O	9:L6:98:VAL:HB	2.04	0.57
13:50:51:HIS:CD2	13:50:168:SER:HB2	2.39	0.57
14:51:6:GLN:HG3	14:51:7:ASN:H	1.68	0.57
18:56:78:ARG:O	18:56:78:ARG:HG3	2.04	0.57
21:59:25:ASP:OD2	21:59:27:ASN:HB2	2.04	0.57
46:1S:395:U:H2'	46:1S:396:G:O4'	2.05	0.57
60:13:53:LEU:O	60:13:57:ALA:HB3	2.05	0.57
61:14:17:ALA:H	61:14:79:VAL:HG22	1.70	0.57
65:18:49:LYS:NZ	65:18:81:ILE:HG12	2.20	0.57
65:18:89:GLN:C	65:18:91:ASP:H	2.08	0.57
66:19:77:ASN:HB3	66:19:95:ASP:HB3	1.87	0.57
79:RA:203:THR:HG23	79:RA:245:PHE:CD2	2.39	0.57
1:2S:370:U:H4'	1:2S:404:G:H5'	1.87	0.57
1:2S:1816:A:C2'	1:2S:1817:G:O5'	2.53	0.57
1:2S:3017:A:H2'	1:2S:3018:C:C6	2.40	0.57
1:2S:3065:G:H2'	1:2S:3066:U:O4'	2.05	0.57
3:5S:112:G:O6	8:L5:21:ARG:CD	2.53	0.57
5:L2:129:ALA:O	5:L2:169:ILE:HB	2.05	0.57
12:L9:4:ILE:HG23	12:L9:5:GLN:N	2.20	0.57
15:53:70:ARG:CG	15:53:71:ALA:N	2.67	0.57
18:56:15:LEU:HD11	18:56:128:ARG:HB2	1.85	0.57
18:56:36:VAL:HG11	18:56:108:ILE:HG23	1.85	0.57
21:59:41:ILE:O	21:59:45:VAL:HG23	2.05	0.57
23:61:48:ILE:HD12	23:61:94:GLU:HG2	1.87	0.57
30:68:101:VAL:HG13	30:68:124:ILE:CG2	2.35	0.57
44:82:6:LYS:O	44:82:7:THR:HG23	2.05	0.57
46:1S:685:A:H5'	46:1S:685:A:C8	2.38	0.57
46:1S:1505:A:H2'	46:1S:1506:G:O4'	2.05	0.57
60:13:46:THR:O	60:13:50:ILE:HG13	2.05	0.57
61:14:69:ALA:O	61:14:73:GLU:HG2	2.05	0.57
61:14:103:ARG:HD3	73:26:49:ALA:HB2	1.86	0.57
63:16:127:LYS:HA	63:16:134:ALA:HA	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:17:46:LEU:O	64:17:50:ILE:HG13	2.05	0.57
71:24:55:VAL:HG13	71:24:74:LEU:O	2.04	0.57
1:2S:153:U:C2'	1:2S:154:U:H5''	2.35	0.57
1:2S:537:A:H2'	1:2S:538:G:O4'	2.04	0.57
1:2S:662:U:H2'	1:2S:663:C:C6	2.40	0.57
1:2S:895:A:H5'	1:2S:896:A:OP1	2.05	0.57
1:2S:1312:C:H2'	1:2S:1313:G:O4'	2.04	0.57
1:2S:2326:A:H2'	1:2S:2327:U:C6	2.40	0.57
1:2S:3075:G:H2'	1:2S:3076:C:C6	2.40	0.57
4:L1:42:ASP:O	4:L1:44:GLN:HG2	2.05	0.57
4:L1:50:SER:CA	4:L1:193:LEU:HD22	2.24	0.57
4:L1:62:ASN:HD22	4:L1:64:SER:HB2	1.69	0.57
6:L3:105:VAL:HG12	6:L3:106:TRP:N	2.20	0.57
8:L5:40:HIS:CD2	23:61:69:LYS:HA	2.39	0.57
10:L7:63:ILE:HG22	10:L7:67:ARG:NH2	2.20	0.57
11:L8:122:LYS:C	11:L8:124:ASP:N	2.58	0.57
35:73:49:ILE:HG22	35:73:50:ALA:H	1.69	0.57
39:77:46:SER:HB2	39:77:54:LYS:HD2	1.85	0.57
46:1S:158:U:O2	46:1S:421:A:H5'	2.05	0.57
47:S0:191:ARG:HG3	47:S0:192:THR:H	1.70	0.57
57:10:14:TYR:CD2	57:10:35:ILE:HD11	2.39	0.57
65:18:11:PHE:CE2	65:18:59:GLY:HA3	2.39	0.57
69:22:89:TRP:O	69:22:93:LEU:HD22	2.05	0.57
78:31:147:VAL:O	78:31:148:TYR:HB2	2.04	0.57
1:2S:115:A:H2'	1:2S:265:A:N3	2.20	0.56
1:2S:1348:U:H5'	20:58:35:PHE:CE1	2.40	0.56
1:2S:2880:U:H2'	1:2S:2881:C:C6	2.40	0.56
1:2S:3198:U:H1'	12:L9:21:LYS:HD2	1.87	0.56
1:2S:3294:A:H2'	1:2S:3295:A:O4'	2.05	0.56
6:L3:53:MET:HG2	6:L3:77:THR:HG22	1.87	0.56
7:L4:169:LEU:O	7:L4:174:ALA:HB3	2.05	0.56
17:55:121:VAL:HG23	17:55:122:ASN:H	1.70	0.56
20:58:18:ALA:HA	20:58:53:PHE:CE1	2.40	0.56
22:60:133:ALA:C	22:60:135:VAL:H	2.06	0.56
25:63:114:ILE:HB	25:63:132:ASN:O	2.04	0.56
29:67:60:LYS:HA	29:67:63:ALA:HB3	1.87	0.56
37:75:64:GLU:HA	37:75:67:ARG:CG	2.34	0.56
43:81:22:ALA:C	43:81:24:SER:H	2.08	0.56
44:82:66:LYS:C	44:82:87:ARG:HB3	2.25	0.56
46:1S:218:A:N7	46:1S:830:U:C6	2.73	0.56
46:1S:804:A:N7	69:22:107:SER:HA	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1573:A:H4'	46:1S:1574:G:O5'	2.04	0.56
46:1S:1788:G:C8	61:14:132:ARG:NE	2.73	0.56
52:S5:146:THR:HB	52:S5:157:ARG:HB3	1.86	0.56
54:S7:47:ARG:HG3	54:S7:61:PHE:HE2	1.70	0.56
59:12:106:ILE:O	59:12:107:ASP:HB2	2.04	0.56
59:12:129:GLU:HG2	59:12:130:THR:H	1.70	0.56
61:14:76:ILE:N	61:14:76:ILE:HD12	2.20	0.56
64:17:14:LYS:HG3	64:17:69:ILE:CG2	2.34	0.56
1:2S:649:A:H2'	1:2S:650:C:C5	2.40	0.56
1:2S:855:U:H5''	21:59:95:TRP:CD2	2.40	0.56
1:2S:1162:U:O5'	1:2S:1162:U:H6	1.87	0.56
1:2S:1277:C:H2'	1:2S:1278:A:C8	2.41	0.56
1:2S:1523:U:H5'	27:65:113:LEU:CB	2.35	0.56
1:2S:3331:U:OP1	6:L3:367:LYS:HB2	2.04	0.56
2:8S:57:C:H2'	2:8S:58:G:C8	2.39	0.56
28:66:56:VAL:HG21	28:66:104:LEU:HB3	1.86	0.56
29:67:12:VAL:HG13	29:67:21:LYS:O	2.04	0.56
36:74:95:ILE:HD12	36:74:95:ILE:N	2.20	0.56
43:81:2:ARG:NH1	46:1S:1772:C:H3'	2.17	0.56
46:1S:145:A:H2	46:1S:169:A:H62	1.54	0.56
51:S4:191:ARG:HD3	51:S4:245:LYS:HD3	1.87	0.56
51:S4:194:THR:O	51:S4:195:ILE:HG13	2.04	0.56
55:S8:6:ASP:O	55:S8:9:HIS:HE1	1.87	0.56
55:S8:116:HIS:CE1	55:S8:146:ARG:HD3	2.40	0.56
56:S9:13:SER:H	56:S9:43:TYR:HB3	1.70	0.56
78:31:132:LEU:HD13	78:31:139:LEU:HD23	1.87	0.56
1:2S:952:A:C8	1:2S:1143:A:N6	2.73	0.56
1:2S:1113:G:H5''	30:68:19:LYS:O	2.05	0.56
1:2S:1158:A:C2'	1:2S:1159:A:H4'	2.35	0.56
1:2S:1219:C:H2'	1:2S:1220:U:H5''	1.86	0.56
1:2S:1305:U:C2	6:L3:257:PRO:HG3	2.40	0.56
1:2S:1350:A:H2'	1:2S:1351:U:H5'	1.86	0.56
1:2S:1465:A:H2'	1:2S:1466:G:O4'	2.05	0.56
1:2S:1500:G:H2'	1:2S:1501:U:C6	2.41	0.56
1:2S:1867:A:H2'	1:2S:1868:G:C8	2.40	0.56
1:2S:2371:G:H2'	1:2S:2373:A:OP1	2.05	0.56
1:2S:2497:U:H2'	1:2S:2499:U:C5	2.40	0.56
1:2S:3147:G:H2'	1:2S:3148:U:C6	2.41	0.56
1:2S:3243:A:N6	18:56:160:ARG:HD2	2.19	0.56
1:2S:3288:G:HO2'	1:2S:3289:G:H8	1.53	0.56
2:8S:47:C:H1'	2:8S:61:A:H2'	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:8S:49:G:H2'	2:8S:50:C:C6	2.39	0.56
6:L3:20:LYS:HG3	6:L3:21:ARG:N	2.20	0.56
6:L3:89:VAL:CG2	6:L3:160:VAL:HG22	2.36	0.56
6:L3:243:HIS:O	6:L3:244:ARG:HG2	2.05	0.56
6:L3:337:THR:C	6:L3:338:LEU:HD13	2.25	0.56
8:L5:83:LEU:N	8:L5:84:PRO:CD	2.69	0.56
8:L5:131:LEU:HD12	8:L5:175:HIS:HE1	1.68	0.56
8:L5:155:THR:H	8:L5:179:ARG:NH1	2.03	0.56
10:L7:75:TYR:O	23:61:141:VAL:HG22	2.05	0.56
10:L7:81:HIS:HB2	10:L7:138:TYR:CE1	2.41	0.56
10:L7:92:ILE:HD11	20:58:4:ASP:HB2	1.86	0.56
11:L8:140:VAL:O	11:L8:144:GLU:HG3	2.05	0.56
13:50:26:VAL:HB	13:50:27:PRO:HD2	1.86	0.56
13:50:185:ARG:CZ	13:50:186:GLU:HG3	2.35	0.56
15:53:166:ALA:O	15:53:170:LEU:HG	2.04	0.56
15:53:183:ARG:HA	15:53:186:ARG:HG3	1.87	0.56
20:58:152:HIS:HA	20:58:161:LYS:O	2.04	0.56
21:59:4:LEU:HA	21:59:7:GLN:OE1	2.05	0.56
21:59:189:ALA:HB1	54:S7:35:LYS:NZ	2.21	0.56
25:63:104:ASN:OD1	25:63:108:GLU:HB2	2.05	0.56
26:64:18:GLY:HA2	26:64:32:GLN:HA	1.87	0.56
33:71:52:ALA:HB3	33:71:55:LEU:CB	2.34	0.56
37:75:44:ILE:O	37:75:48:ARG:HG2	2.05	0.56
43:81:7:LYS:O	43:81:11:ARG:HB2	2.05	0.56
46:1S:106:U:H2'	46:1S:107:C:C6	2.40	0.56
46:1S:567:A:N3	77:30:14:VAL:HG21	2.20	0.56
46:1S:618:U:H5'	46:1S:1030:A:C5	2.40	0.56
46:1S:722:G:C3'	46:1S:723:G:H5''	2.35	0.56
46:1S:903:U:H2'	46:1S:905:A:OP2	2.06	0.56
46:1S:952:A:H2'	46:1S:953:G:C8	2.40	0.56
46:1S:974:A:H2'	46:1S:975:C:H6	1.70	0.56
46:1S:1184:A:H2'	46:1S:1185:U:C4'	2.36	0.56
46:1S:1216:C:O2'	46:1S:1218:G:H5''	2.05	0.56
46:1S:1269:U:H4'	46:1S:1270:G:C5'	2.36	0.56
46:1S:1433:G:O2'	46:1S:1434:U:H5'	2.05	0.56
48:S1:144:ARG:HB3	48:S1:208:GLN:HG2	1.88	0.56
51:S4:44:LEU:O	51:S4:48:LEU:HD13	2.05	0.56
53:S6:2:LYS:HB3	53:S6:107:ALA:O	2.05	0.56
54:S7:55:LYS:HB2	54:S7:87:ASP:O	2.05	0.56
54:S7:162:ILE:HB	54:S7:169:PHE:CE2	2.41	0.56
56:S9:24:LEU:HD23	56:S9:27:GLU:OE1	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:63:ASP:O	56:S9:66:ASP:HB2	2.05	0.56
57:10:92:ILE:O	57:10:92:ILE:HG23	2.05	0.56
58:11:2:SER:HB2	58:11:82:ARG:H	1.70	0.56
60:13:33:VAL:HG11	60:13:66:ILE:HG12	1.87	0.56
64:17:75:GLU:O	64:17:79:GLU:HG2	2.04	0.56
67:20:37:VAL:HG12	67:20:41:ILE:HD13	1.87	0.56
70:23:5:LYS:O	70:23:7:ARG:HD2	2.04	0.56
70:23:96:VAL:HG23	70:23:97:ASP:N	2.13	0.56
70:23:126:LYS:HE2	70:23:129:GLY:HA2	1.85	0.56
1:2S:74:G:H2'	1:2S:75:G:H8	1.70	0.56
1:2S:587:U:O2'	1:2S:588:G:H5'	2.06	0.56
1:2S:700:C:H2'	1:2S:701:G:C8	2.39	0.56
1:2S:1140:G:H4'	10:L7:94:LYS:NZ	2.20	0.56
1:2S:2378:C:H2'	1:2S:2379:U:C6	2.40	0.56
1:2S:3260:G:H1'	16:54:129:TYR:CD2	2.40	0.56
2:8S:155:A:H2'	2:8S:156:U:H5'	1.87	0.56
6:L3:56:ILE:HG12	6:L3:356:LEU:HD22	1.87	0.56
18:56:46:GLU:OE1	18:56:48:PHE:HB2	2.06	0.56
29:67:121:ARG:HH12	29:67:126:LYS:HB3	1.71	0.56
46:1S:343:C:H2'	46:1S:344:A:C8	2.40	0.56
46:1S:450:U:H2'	46:1S:451:A:C8	2.40	0.56
46:1S:637:C:OP1	69:22:32:LYS:HG3	2.05	0.56
46:1S:784:C:N4	71:24:11:LYS:HG2	2.21	0.56
46:1S:819:G:C2	46:1S:853:G:N1	2.65	0.56
48:S1:61:LEU:O	48:S1:62:LYS:HB2	2.06	0.56
50:S3:72:LEU:HD23	57:10:20:VAL:HG13	1.87	0.56
55:S8:155:SER:O	55:S8:159:GLN:HB2	2.05	0.56
69:22:52:TYR:HE1	69:22:59:GLY:HA3	1.70	0.56
70:23:75:GLN:HG3	70:23:82:LYS:HG3	1.86	0.56
72:25:62:VAL:HG13	72:25:76:ALA:HB3	1.86	0.56
1:2S:810:A:H2'	1:2S:811:U:C6	2.41	0.56
1:2S:833:G:H2'	1:2S:834:U:O4'	2.06	0.56
1:2S:874:U:H5'	1:2S:875:G:H5'	1.86	0.56
1:2S:900:G:H1'	1:2S:1589:A:N6	2.20	0.56
1:2S:907:G:C6	1:2S:926:A:C8	2.93	0.56
1:2S:985:U:H5''	10:L7:98:LYS:HE3	1.88	0.56
1:2S:1060:U:H2'	1:2S:1061:A:C8	2.39	0.56
1:2S:1151:U:H3'	1:2S:1152:G:H21	1.70	0.56
1:2S:1184:A:H2'	1:2S:1185:C:C6	2.40	0.56
1:2S:1406:A:O2'	1:2S:1407:A:H5'	2.06	0.56
1:2S:2297:U:H1'	1:2S:2920:U:H4'	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2351:U:H4'	19:57:83:TRP:CE3	2.41	0.56
1:2S:2533:G:H2'	1:2S:2534:G:C4'	2.35	0.56
1:2S:2917:G:OP1	25:63:46:LEU:HA	2.06	0.56
1:2S:2948:C:O2'	1:2S:2949:U:H5'	2.05	0.56
6:L3:312:VAL:C	6:L3:314:TYR:H	2.09	0.56
9:L6:134:ARG:HH11	9:L6:134:ARG:HG2	1.71	0.56
10:L7:124:LEU:HA	10:L7:127:LEU:HD12	1.86	0.56
13:50:190:VAL:HG22	13:50:199:PHE:CE1	2.41	0.56
14:51:49:LYS:HE2	14:51:64:LYS:CE	2.35	0.56
17:55:89:VAL:C	17:55:92:LEU:HD13	2.26	0.56
34:72:104:ASN:O	34:72:108:ILE:HG13	2.06	0.56
36:74:23:VAL:HG12	36:74:24:LYS:N	2.18	0.56
37:75:64:GLU:HA	37:75:67:ARG:NE	2.19	0.56
44:82:93:LEU:HD23	44:82:93:LEU:H	1.71	0.56
46:1S:159:U:H1'	53:S6:87:ARG:NH2	2.20	0.56
46:1S:707:A:H2'	46:1S:708:C:C4'	2.34	0.56
46:1S:1083:G:H2'	46:1S:1084:A:O4'	2.06	0.56
46:1S:1223:A:O2'	46:1S:1224:A:H5'	2.06	0.56
46:1S:1667:A:H2'	46:1S:1668:G:C8	2.40	0.56
47:S0:54:TRP:O	47:S0:58:VAL:HG23	2.05	0.56
48:S1:29:TRP:HZ2	48:S1:45:LYS:HG3	1.69	0.56
50:S3:132:LYS:HB3	50:S3:189:MET:HG3	1.88	0.56
52:S5:46:TRP:CE3	52:S5:118:LEU:HD13	2.40	0.56
60:13:22:ALA:CB	60:13:23:PRO:HA	2.26	0.56
63:16:34:SER:OG	66:19:7:ARG:HB3	2.04	0.56
69:22:101:TYR:HA	69:22:113:HIS:CE1	2.37	0.56
1:2S:1661:G:H2'	1:2S:1662:G:C8	2.40	0.56
1:2S:1695:U:O2	36:74:26:PRO:HB3	2.05	0.56
1:2S:2292:U:H2'	1:2S:2293:C:C6	2.41	0.56
1:2S:2372:A:H5''	1:2S:2373:A:C5'	2.29	0.56
1:2S:2957:G:H2'	1:2S:2958:A:H5'	1.88	0.56
1:2S:3113:A:H2'	1:2S:3114:A:O4'	2.04	0.56
1:2S:3182:G:H2'	1:2S:3183:A:C8	2.40	0.56
3:5S:67:G:H2'	3:5S:68:C:C6	2.41	0.56
5:L2:96:LEU:O	5:L2:96:LEU:HD23	2.06	0.56
6:L3:56:ILE:CD1	6:L3:57:VAL:H	2.19	0.56
10:L7:24:GLU:C	10:L7:26:VAL:H	2.09	0.56
11:L8:156:ASP:O	11:L8:157:VAL:HB	2.06	0.56
17:55:94:TYR:CE2	17:55:96:ARG:HB2	2.41	0.56
31:69:47:LEU:HA	31:69:50:THR:HG22	1.86	0.56
37:75:29:ALA:HA	37:75:32:LYS:CE	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:75:76:GLN:OE1	37:75:80:LEU:HB2	2.06	0.56
46:1S:143:G:C2'	46:1S:144:U:H5''	2.35	0.56
46:1S:1108:G:H4'	46:1S:1109:G:H5''	1.86	0.56
46:1S:1360:A:H2'	46:1S:1361:U:H4'	1.87	0.56
46:1S:1573:A:H5'	46:1S:1574:G:C2	2.41	0.56
50:S3:72:LEU:HD22	57:10:65:TYR:HD1	1.70	0.56
66:19:61:VAL:O	66:19:65:ILE:HG13	2.05	0.56
75:28:15:VAL:HG23	75:28:28:VAL:HG22	1.87	0.56
79:RA:87:LYS:HE3	79:RA:106:HIS:O	2.05	0.56
79:RA:105:GLY:O	79:RA:132:LYS:HE3	2.05	0.56
1:2S:1190:A:H4'	42:80:113:ARG:NH2	2.20	0.56
1:2S:1655:G:H5'	1:2S:1656:A:H2'	1.86	0.56
1:2S:2777:G:H4'	1:2S:2779:A:OP2	2.06	0.56
5:L2:113:VAL:HG12	5:L2:166:ILE:HA	1.88	0.56
10:L7:218:ARG:HA	10:L7:218:ARG:NH1	2.21	0.56
18:56:92:THR:O	18:56:96:LYS:HG3	2.06	0.56
18:56:162:VAL:O	18:56:166:GLU:HG3	2.05	0.56
19:57:41:LEU:HD13	19:57:42:THR:N	2.21	0.56
24:62:17:VAL:HG22	24:62:103:TYR:HB2	1.86	0.56
25:63:87:ARG:HH12	25:63:120:LYS:HD3	1.70	0.56
26:64:47:ARG:HH21	46:1S:1724:U:H4'	1.71	0.56
27:65:108:LEU:HD23	27:65:109:LYS:HG2	1.88	0.56
29:67:123:GLN:O	29:67:124:ALA:HB3	2.06	0.56
38:76:76:ARG:HA	38:76:76:ARG:HE	1.71	0.56
46:1S:469:C:H2'	46:1S:470:A:O4'	2.06	0.56
46:1S:895:G:H4'	61:14:37:GLU:OE2	2.06	0.56
46:1S:916:U:H6	46:1S:916:U:O5'	1.88	0.56
46:1S:1087:A:H5'	46:1S:1298:U:C5	2.38	0.56
49:S2:135:SER:O	49:S2:215:PHE:HZ	1.89	0.56
52:S5:55:ASP:HB2	52:S5:138:THR:HB	1.88	0.56
54:S7:43:PHE:CD1	54:S7:44:LYS:N	2.74	0.56
54:S7:62:VAL:HG11	54:S7:70:PHE:HE2	1.68	0.56
55:S8:122:GLY:HA2	55:S8:157:GLU:CD	2.26	0.56
57:10:93:GLN:HG2	57:10:94:GLU:H	1.69	0.56
58:11:53:TYR:C	58:11:54:ILE:HD12	2.26	0.56
58:11:93:TYR:HB2	58:11:100:TYR:CE1	2.40	0.56
58:11:133:LYS:HZ2	58:11:134:THR:CG2	2.19	0.56
62:15:37:ALA:HB1	62:15:38:PRO:HD2	1.87	0.56
66:19:86:ARG:HE	66:19:89:ARG:HE	1.54	0.56
68:21:9:VAL:O	68:21:10:GLU:HB3	2.04	0.56
70:23:93:LEU:O	70:23:96:VAL:HG22	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:26:41:ILE:O	73:26:41:ILE:HG12	2.06	0.56
76:29:14:TYR:N	76:29:14:TYR:CD1	2.74	0.56
79:RA:111:MET:HB2	79:RA:125:GLY:O	2.06	0.56
79:RA:218:GLY:HA2	79:RA:240:VAL:HG23	1.88	0.56
79:RA:304:GLY:HA2	79:RA:310:ILE:HG12	1.88	0.56
1:2S:712:G:H5''	15:53:174:ARG:NH2	2.21	0.56
1:2S:1079:A:C5'	8:L5:142:PHE:HA	2.33	0.56
1:2S:1536:G:H2'	1:2S:1537:A:C8	2.40	0.56
1:2S:2984:C:H2'	1:2S:2985:C:H6	1.70	0.56
1:2S:3101:G:H2'	1:2S:3102:G:C8	2.41	0.56
2:8S:68:G:H2'	2:8S:69:U:O4'	2.05	0.56
5:L2:226:SER:C	5:L2:228:GLY:N	2.58	0.56
11:L8:136:LEU:HD23	11:L8:197:VAL:HG11	1.87	0.56
20:58:147:ARG:NH1	20:58:147:ARG:HB3	2.21	0.56
21:59:139:VAL:O	21:59:143:ILE:HG13	2.06	0.56
23:61:84:TYR:HD1	31:69:22:LYS:O	1.89	0.56
25:63:120:LYS:HB2	25:63:137:VAL:HG22	1.87	0.56
41:79:43:ASN:HB2	41:79:46:ARG:NH2	2.21	0.56
45:83:59:CYS:O	45:83:60:CYS:HB3	2.06	0.56
46:1S:241:U:H2'	46:1S:242:U:O4'	2.05	0.56
50:S3:84:ILE:C	50:S3:84:ILE:HD13	2.26	0.56
51:S4:34:GLY:HA3	51:S4:83:PRO:CG	2.36	0.56
51:S4:113:ARG:HH11	51:S4:113:ARG:HG3	1.70	0.56
56:S9:121:SER:HB3	56:S9:124:HIS:CB	2.34	0.56
1:2S:103:G:H4'	15:53:65:TYR:CE2	2.40	0.56
1:2S:653:A:H5''	1:2S:2361:A:H5''	1.88	0.56
5:L2:41:ILE:HG23	5:L2:63:PHE:HE2	1.70	0.56
5:L2:74:GLU:HB3	5:L2:76:PHE:CE1	2.41	0.56
5:L2:77:ILE:HD12	5:L2:115:ASN:HB2	1.88	0.56
6:L3:222:LYS:CE	6:L3:331:ASN:HB3	2.35	0.56
7:L4:329:PRO:HB3	10:L7:41:ARG:HH12	1.69	0.56
8:L5:58:LYS:NZ	8:L5:93:THR:HG21	2.21	0.56
13:50:176:LEU:HD22	13:50:180:GLU:CG	2.36	0.56
18:56:108:ILE:HG22	18:56:113:ASP:HB3	1.88	0.56
19:57:58:ILE:HG13	19:57:84:PRO:HD2	1.87	0.56
19:57:180:LYS:NZ	19:57:180:LYS:HB3	2.20	0.56
23:61:92:ARG:HB3	23:61:94:GLU:OE2	2.06	0.56
24:62:30:PRO:HG2	24:62:60:GLY:O	2.06	0.56
25:63:102:ILE:HG23	25:63:110:LYS:HB3	1.87	0.56
30:68:21:ARG:O	30:68:24:LYS:HE2	2.06	0.56
45:83:59:CYS:C	45:83:61:LYS:H	2.08	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1767:G:H5'	46:1S:1768:G:N2	2.20	0.56
47:S0:168:HIS:HB3	47:S0:203:PHE:CE2	2.40	0.56
47:S0:197:ILE:N	47:S0:197:ILE:HD12	2.20	0.56
53:S6:31:ARG:HD2	53:S6:34:GLN:HE21	1.69	0.56
54:S7:97:ARG:O	54:S7:98:ILE:HB	2.06	0.56
58:11:131:ILE:HB	58:11:135:VAL:HB	1.87	0.56
62:15:96:ILE:HG21	62:15:116:LEU:HB3	1.88	0.56
66:19:34:VAL:O	66:19:36:ILE:HG23	2.05	0.56
70:23:144:ARG:CD	70:23:145:SER:H	2.19	0.56
72:25:59:TYR:CD2	72:25:100:ILE:HG12	2.41	0.56
73:26:25:ASN:HB3	73:26:77:CYS:SG	2.46	0.56
1:2S:213:A:H2'	1:2S:214:G:H5'	1.88	0.56
1:2S:215:G:H4'	28:66:15:ALA:HB3	1.86	0.56
1:2S:746:A:H2'	1:2S:747:A:C8	2.40	0.56
1:2S:776:U:H3'	1:2S:777:U:C5'	2.36	0.56
1:2S:930:U:P	7:L4:61:SER:HB3	2.46	0.56
1:2S:1223:A:C6	1:2S:1286:A:C2	2.93	0.56
1:2S:2816:G:C8	1:2S:2869:U:H3'	2.40	0.56
1:2S:3198:U:H1'	12:L9:21:LYS:CD	2.35	0.56
1:2S:3362:A:H2'	1:2S:3363:U:O4'	2.06	0.56
2:8S:76:C:H2'	2:8S:77:A:O4'	2.06	0.56
4:L1:44:GLN:HG3	4:L1:160:LYS:O	2.06	0.56
4:L1:193:LEU:O	4:L1:196:LYS:HG3	2.05	0.56
6:L3:4:ARG:O	6:L3:5:LYS:HB3	2.06	0.56
7:L4:250:TRP:N	7:L4:250:TRP:CD1	2.73	0.56
9:L6:43:LEU:CD1	35:73:103:TYR:HB3	2.20	0.56
22:60:33:ASN:H	22:60:36:ILE:HD12	1.72	0.56
25:63:15:LEU:HD23	25:63:53:SER:CB	2.29	0.56
25:63:33:ASN:HD21	25:63:63:LYS:HB3	1.71	0.56
28:66:56:VAL:HG22	28:66:57:LEU:N	2.20	0.56
40:78:42:LYS:HG2	40:78:55:VAL:HG22	1.87	0.56
42:80:98:LYS:HB2	42:80:118:THR:HG21	1.88	0.56
46:1S:694:U:H1'	54:S7:97:ARG:HH21	1.71	0.56
46:1S:1092:A:O2'	46:1S:1093:A:H3'	2.06	0.56
50:S3:119:ALA:O	50:S3:123:VAL:HG23	2.06	0.56
55:S8:27:PHE:HB3	55:S8:49:ARG:NH2	2.20	0.56
63:16:46:PHE:O	63:16:50:GLU:HG3	2.06	0.56
70:23:7:ARG:HG2	70:23:7:ARG:HH11	1.71	0.56
70:23:82:LYS:HD3	70:23:82:LYS:H	1.71	0.56
77:30:42:ARG:HB3	77:30:42:ARG:CZ	2.34	0.56
78:31:123:ASN:HB3	78:31:124:PRO:HD2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:639:G:OP1	34:72:37:GLY:HA3	2.06	0.55
1:2S:1434:G:H5'	1:2S:1437:C:C5	2.40	0.55
1:2S:3041:U:O5'	1:2S:3041:U:H6	1.89	0.55
1:2S:3370:A:OP2	6:L3:383:LEU:HB3	2.06	0.55
6:L3:300:ARG:HG3	53:S6:25:ARG:NH2	2.20	0.55
11:L8:60:ARG:O	11:L8:64:ILE:HG13	2.07	0.55
11:L8:238:LEU:HB3	11:L8:242:ALA:HB3	1.88	0.55
15:53:28:GLN:HG3	17:55:200:TRP:HE3	1.71	0.55
39:77:50:GLY:O	39:77:54:LYS:HG3	2.06	0.55
41:79:24:PRO:HB2	41:79:27:ILE:HD12	1.88	0.55
46:1S:484:C:H42	46:1S:503:G:N2	2.03	0.55
46:1S:684:A:H2'	46:1S:685:A:H5'	1.89	0.55
46:1S:740:A:H2'	46:1S:741:C:H5''	1.88	0.55
46:1S:1127:G:H2'	46:1S:1128:C:C6	2.41	0.55
48:S1:138:PHE:HB3	48:S1:213:ARG:HE	1.71	0.55
51:S4:238:LEU:HD22	51:S4:242:LYS:HA	1.88	0.55
55:S8:110:ARG:HG3	55:S8:121:LEU:CD2	2.36	0.55
65:18:45:LEU:HD11	66:19:36:ILE:HG22	1.87	0.55
67:20:69:LYS:HG2	67:20:80:GLU:HB2	1.87	0.55
73:26:26:CYS:O	73:26:27:SER:HB2	2.06	0.55
74:27:2:VAL:O	74:27:3:LEU:HB2	2.06	0.55
75:28:9:LEU:HB3	75:28:33:LEU:HD23	1.87	0.55
1:2S:628:A:H5'	1:2S:1399:A:C2	2.41	0.55
1:2S:671:U:H2'	1:2S:672:A:C8	2.41	0.55
1:2S:876:A:H2'	1:2S:877:C:H5'	1.87	0.55
1:2S:1300:G:H3'	1:2S:1301:A:H2'	1.88	0.55
1:2S:1456:A:H3'	1:2S:1456:A:OP2	2.05	0.55
1:2S:2160:G:H2'	1:2S:2161:G:C8	2.42	0.55
4:L1:123:LEU:HD22	4:L1:128:LEU:CB	2.23	0.55
6:L3:237:LYS:HE3	6:L3:246:LEU:HD13	1.87	0.55
6:L3:300:ARG:HG3	53:S6:25:ARG:HH22	1.69	0.55
7:L4:170:LYS:CE	7:L4:178:LEU:HD12	2.28	0.55
10:L7:155:LYS:HE2	10:L7:158:LYS:H	1.71	0.55
28:66:116:LYS:O	28:66:120:GLN:HG2	2.05	0.55
42:80:96:CYS:O	42:80:100:TYR:HA	2.06	0.55
46:1S:138:A:H2'	46:1S:139:C:H5'	1.88	0.55
46:1S:374:U:H2'	46:1S:375:U:C6	2.40	0.55
46:1S:784:C:H41	71:24:11:LYS:HG2	1.71	0.55
51:S4:182:TYR:HE2	51:S4:190:GLY:HA2	1.71	0.55
64:17:34:LEU:O	64:17:38:ILE:HG22	2.05	0.55
1:2S:441:U:C4	1:2S:494:G:H4'	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:811:U:H2'	1:2S:812:G:C8	2.41	0.55
1:2S:1150:A:H3'	1:2S:1151:U:H6	1.69	0.55
1:2S:1223:A:H62	1:2S:1285:G:H21	1.53	0.55
1:2S:1815:U:H1'	1:2S:1816:A:O5'	2.07	0.55
1:2S:2232:A:H2'	1:2S:2233:A:O4'	2.07	0.55
14:51:85:LYS:HG2	14:51:89:TYR:CE2	2.41	0.55
15:53:29:ALA:CB	17:55:201:ARG:HH12	2.19	0.55
17:55:104:GLU:O	17:55:108:ARG:HG3	2.07	0.55
18:56:127:LEU:CD2	22:60:156:VAL:HG12	2.36	0.55
19:57:26:PHE:HE1	19:57:120:ASN:HA	1.71	0.55
23:61:103:GLN:O	23:61:107:GLU:HG3	2.06	0.55
29:67:87:LEU:CG	29:67:88:ASP:H	2.15	0.55
33:71:88:PRO:HG2	33:71:89:LEU:HD12	1.88	0.55
38:76:9:ILE:HA	38:76:13:LYS:CG	2.35	0.55
44:82:96:GLU:C	44:82:97:LYS:HD3	2.27	0.55
46:1S:121:U:H1'	51:S4:33:ALA:HB3	1.88	0.55
46:1S:454:U:H5'	51:S4:66:MET:HE2	1.89	0.55
46:1S:1006:C:H4'	61:14:136:ARG:HD2	1.89	0.55
46:1S:1316:G:H4'	64:17:10:LYS:CE	2.37	0.55
46:1S:1609:U:H2'	46:1S:1610:G:C5'	2.37	0.55
48:S1:134:VAL:HB	48:S1:219:LYS:HB2	1.86	0.55
64:17:27:ASP:HB3	64:17:30:THR:HG22	1.86	0.55
79:RA:117:LYS:H	79:RA:117:LYS:HD2	1.71	0.55
1:2S:547:G:H2'	1:2S:548:G:O5'	2.05	0.55
1:2S:1166:G:H1	1:2S:1333:C:H42	1.54	0.55
1:2S:1182:A:H2'	1:2S:1183:C:C6	2.42	0.55
1:2S:1492:G:O6	41:79:2:ALA:HB1	2.07	0.55
1:2S:2146:C:H2'	1:2S:2147:A:C8	2.42	0.55
1:2S:2340:U:OP1	6:L3:236:LYS:HD2	2.07	0.55
1:2S:2354:C:H2'	1:2S:2355:G:O4'	2.07	0.55
1:2S:2699:G:H3'	1:2S:2700:G:C8	2.41	0.55
3:5S:40:C:H4'	14:51:43:GLN:NE2	2.21	0.55
4:L1:189:PHE:CD1	4:L1:200:ASN:HB2	2.41	0.55
7:L4:42:VAL:HA	7:L4:45:ASN:ND2	2.22	0.55
7:L4:188:ARG:HB3	7:L4:193:LYS:CG	2.36	0.55
7:L4:263:GLY:CA	7:L4:269:SER:HA	2.32	0.55
8:L5:125:VAL:HG11	8:L5:199:ILE:HG21	1.89	0.55
10:L7:84:VAL:HG12	10:L7:138:TYR:CD1	2.42	0.55
15:53:183:ARG:HG3	15:53:186:ARG:NH1	2.21	0.55
18:56:118:VAL:HG11	22:60:165:TYR:CD1	2.41	0.55
19:57:22:LEU:HD12	19:57:146:ILE:HD12	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:67:27:LYS:HB3	29:67:42:LEU:HD22	1.88	0.55
29:67:73:LYS:CD	29:67:74:VAL:H	2.19	0.55
33:71:52:ALA:O	33:71:55:LEU:HB3	2.06	0.55
37:75:53:CYS:O	37:75:57:VAL:HG23	2.06	0.55
46:1S:1586:A:H5''	63:16:136:SER:HB2	1.88	0.55
49:S2:129:ILE:HG22	49:S2:133:LYS:HE3	1.88	0.55
51:S4:14:ALA:HB1	51:S4:18:TRP:CE3	2.41	0.55
51:S4:52:LEU:O	51:S4:53:LYS:HB2	2.07	0.55
52:S5:216:GLU:HA	52:S5:219:ARG:HB3	1.88	0.55
1:2S:578:A:OP2	1:2S:579:G:H5'	2.06	0.55
1:2S:1367:G:O2'	1:2S:1368:U:H5	1.90	0.55
1:2S:1785:U:H2'	1:2S:1786:G:C8	2.42	0.55
1:2S:2147:A:H5''	5:L2:199:THR:HA	1.89	0.55
1:2S:2356:A:N6	1:2S:2983:C:C5	2.65	0.55
1:2S:2753:G:H2'	1:2S:2754:G:C8	2.41	0.55
1:2S:2988:C:OP1	18:56:68:ARG:HD3	2.06	0.55
5:L2:129:ALA:CB	5:L2:132:ASN:HB2	2.34	0.55
7:L4:181:VAL:HG12	7:L4:182:LEU:N	2.21	0.55
10:L7:81:HIS:HB2	10:L7:138:TYR:CD1	2.42	0.55
11:L8:71:VAL:CG2	11:L8:76:ALA:HB2	2.37	0.55
11:L8:140:VAL:HG21	17:55:3:ALA:HB2	1.86	0.55
15:53:46:ILE:HG22	15:53:46:ILE:O	2.05	0.55
16:54:105:GLN:O	16:54:109:ARG:HG3	2.07	0.55
17:55:73:ARG:HB2	17:55:92:LEU:HD21	1.88	0.55
20:58:107:THR:OG1	20:58:110:ALA:HB2	2.07	0.55
25:63:123:ALA:C	25:63:125:LEU:H	2.08	0.55
35:73:59:VAL:HG23	35:73:60:ARG:N	2.15	0.55
36:74:65:VAL:HB	36:74:70:LYS:HD3	1.88	0.55
46:1S:501:U:H4'	46:1S:502:U:OP1	2.07	0.55
46:1S:522:U:H5''	71:24:37:LYS:HG3	1.88	0.55
46:1S:800:U:H2'	46:1S:801:G:H8	1.68	0.55
46:1S:1661:U:H2'	46:1S:1662:G:C8	2.40	0.55
47:S0:52:LYS:HD2	68:21:82:VAL:HA	1.89	0.55
47:S0:202:TYR:O	47:S0:203:PHE:HB2	2.07	0.55
48:S1:108:ASP:O	48:S1:112:SER:HB2	2.07	0.55
51:S4:154:ILE:HD13	51:S4:160:VAL:HG21	1.89	0.55
53:S6:222:GLU:O	53:S6:225:GLU:HG2	2.07	0.55
54:S7:9:LEU:HD22	54:S7:11:GLN:HB3	1.89	0.55
55:S8:195:ARG:HG2	55:S8:195:ARG:HH11	1.70	0.55
56:S9:54:ARG:HA	56:S9:57:ARG:HE	1.71	0.55
60:13:72:MET:HE1	60:13:81:ALA:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:85:A:OP1	1:2S:87:U:H1'	2.06	0.55
1:2S:1124:U:H2'	1:2S:1125:U:C5	2.41	0.55
1:2S:1361:U:H2'	1:2S:1362:G:H8	1.72	0.55
6:L3:239:PRO:HD2	6:L3:242:THR:HG23	1.87	0.55
8:L5:98:ALA:HB1	8:L5:162:ALA:HB2	1.89	0.55
9:L6:146:ILE:HG23	9:L6:156:LYS:HZ3	1.69	0.55
12:L9:71:VAL:HA	12:L9:74:LEU:HG	1.89	0.55
17:55:104:GLU:HA	17:55:160:GLU:HG3	1.88	0.55
20:58:5:HIS:C	20:58:7:SER:H	2.10	0.55
22:60:110:MET:CE	22:60:121:ILE:HG12	2.36	0.55
30:68:138:ILE:HG22	30:68:143:GLY:O	2.07	0.55
46:1S:138:A:N6	46:1S:266:A:N6	2.54	0.55
46:1S:425:A:H2'	46:1S:425:A:N3	2.21	0.55
46:1S:778:G:H2'	46:1S:779:U:H2'	1.87	0.55
46:1S:1123:C:H2'	46:1S:1124:A:C8	2.41	0.55
46:1S:1474:G:H2'	46:1S:1475:A:C8	2.41	0.55
49:S2:170:ILE:N	49:S2:170:ILE:HD12	2.21	0.55
51:S4:64:ILE:HD11	71:24:18:LEU:HD11	1.87	0.55
52:S5:44:ASN:O	52:S5:45:LYS:HG2	2.06	0.55
65:18:12:GLN:HG3	65:18:15:LEU:HD21	1.88	0.55
69:22:113:HIS:O	69:22:117:ARG:HB2	2.06	0.55
79:RA:94:VAL:O	79:RA:94:VAL:HG12	2.06	0.55
1:2S:183:G:H2'	1:2S:184:U:O4'	2.06	0.55
1:2S:696:C:H5''	7:L4:272:VAL:CG2	2.37	0.55
1:2S:784:A:H8	20:58:69:ARG:NE	2.05	0.55
1:2S:846:A:H61	46:1S:972:G:H21	1.52	0.55
1:2S:1426:C:H3'	30:68:4:ARG:HH22	1.71	0.55
1:2S:2425:G:H2'	1:2S:2426:U:O4'	2.06	0.55
1:2S:2780:A:O2'	15:53:181:GLY:HA3	2.07	0.55
1:2S:2914:G:H5'	6:L3:9:PRO:HG3	1.87	0.55
15:53:189:GLU:C	15:53:192:GLU:HG2	2.27	0.55
30:68:73:LEU:O	30:68:112:ILE:HG23	2.07	0.55
46:1S:939:A:H2'	46:1S:940:A:C8	2.42	0.55
46:1S:1147:A:H2'	46:1S:1148:C:C6	2.42	0.55
46:1S:1303:U:H3'	46:1S:1304:G:C8	2.41	0.55
47:S0:75:ALA:HA	47:S0:122:ILE:HB	1.89	0.55
47:S0:84:ARG:NH1	47:S0:203:PHE:O	2.39	0.55
47:S0:107:PHE:CD1	47:S0:135:GLU:HB3	2.42	0.55
50:S3:31:GLU:HG2	50:S3:107:PHE:CZ	2.42	0.55
53:S6:207:GLU:HA	53:S6:210:GLN:NE2	2.21	0.55
54:S7:46:ILE:HD12	54:S7:60:ILE:HG12	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:S8:87:ASN:HB2	55:S8:90:LEU:HD11	1.86	0.55
59:12:113:ARG:CG	59:12:114:LYS:H	2.16	0.55
64:17:6:THR:HG22	64:17:9:VAL:CG2	2.27	0.55
1:2S:802:C:H2'	1:2S:803:C:C6	2.42	0.55
1:2S:1533:U:H5'	1:2S:1799:A:O2'	2.07	0.55
1:2S:2152:A:H2'	1:2S:2153:U:H6	1.70	0.55
7:L4:38:VAL:HG13	7:L4:113:VAL:HG11	1.89	0.55
7:L4:318:LEU:HB2	7:L4:319:LYS:HD3	1.88	0.55
10:L7:144:ILE:O	10:L7:148:VAL:HG23	2.07	0.55
13:50:3:ARG:HD2	13:50:4:ARG:O	2.07	0.55
14:51:49:LYS:HE2	14:51:64:LYS:HZ2	1.71	0.55
18:56:76:PRO:HB3	18:56:138:LEU:HD23	1.88	0.55
22:60:12:ARG:O	22:60:22:PRO:HD2	2.07	0.55
29:67:13:VAL:HG12	29:67:19:ALA:HA	1.89	0.55
45:83:57:CYS:SG	45:83:60:CYS:HB3	2.46	0.55
46:1S:796:A:H2'	46:1S:797:G:H8	1.70	0.55
46:1S:1042:G:H22	46:1S:1076:A:H2	1.54	0.55
46:1S:1291:G:H2'	46:1S:1292:G:H8	1.71	0.55
46:1S:1518:C:O2'	46:1S:1519:U:H5'	2.07	0.55
53:S6:31:ARG:H	53:S6:34:GLN:NE2	2.04	0.55
54:S7:47:ARG:HH11	54:S7:176:LEU:CD2	2.17	0.55
56:S9:108:ARG:HA	56:S9:147:MET:HE2	1.88	0.55
61:14:17:ALA:N	61:14:79:VAL:CG2	2.70	0.55
66:19:28:LEU:HG	66:19:55:TYR:CE1	2.42	0.55
69:22:86:ILE:HG13	69:22:87:GLU:N	2.22	0.55
1:2S:1951:C:H2'	1:2S:2095:G:N2	2.20	0.55
1:2S:2042:G:H2'	1:2S:2043:U:O4'	2.06	0.55
1:2S:2748:A:H4'	8:L5:145:PHE:CD1	2.42	0.55
2:8S:4:C:H5''	19:57:61:ARG:O	2.07	0.55
8:L5:140:ARG:HB2	8:L5:140:ARG:CZ	2.37	0.55
11:L8:94:PHE:CZ	11:L8:200:LEU:HD12	2.42	0.55
21:59:167:ARG:HG2	21:59:170:ARG:NH1	2.21	0.55
28:66:51:ARG:HB3	28:66:115:ARG:NH2	2.22	0.55
30:68:8:THR:HA	30:68:11:HIS:CD2	2.36	0.55
33:71:35:GLU:OE2	33:71:38:LYS:HD3	2.07	0.55
36:74:3:GLN:HE22	36:74:29:ILE:HG22	1.72	0.55
37:75:85:THR:HB	37:75:88:LEU:CB	2.32	0.55
40:78:31:LEU:HA	40:78:37:PRO:HA	1.88	0.55
44:82:91:PHE:HE2	44:82:93:LEU:HD22	1.70	0.55
48:S1:35:PRO:HB3	48:S1:231:LEU:HD13	1.87	0.55
49:S2:238:SER:O	49:S2:242:ILE:HD12	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:S7:73:VAL:HG13	54:S7:76:LYS:HD3	1.88	0.55
54:S7:93:LEU:HD21	54:S7:129:LEU:HD21	1.88	0.55
59:12:106:ILE:HG22	59:12:107:ASP:H	1.72	0.55
70:23:24:TRP:HZ3	70:23:30:LYS:HG3	1.72	0.55
74:27:50:ALA:O	74:27:51:GLN:HB2	2.07	0.55
1:2S:95:A:H5''	30:68:34:MET:O	2.07	0.55
1:2S:151:A:H5''	37:75:102:GLU:CB	2.35	0.55
1:2S:430:U:H2'	1:2S:431:U:C6	2.42	0.55
1:2S:3322:A:H2'	1:2S:3323:A:H8	1.72	0.55
3:5S:118:A:H5''	8:L5:253:PHE:CZ	2.42	0.55
4:L1:104:SER:O	4:L1:128:LEU:HD22	2.06	0.55
5:L2:225:ILE:HD13	5:L2:238:ILE:CD1	2.36	0.55
6:L3:261:MET:O	6:L3:264:VAL:HG22	2.07	0.55
10:L7:152:GLY:HA3	10:L7:163:LEU:CD1	2.34	0.55
11:L8:93:LEU:HA	11:L8:96:LYS:NZ	2.21	0.55
18:56:76:PRO:CA	18:56:79:ILE:HD12	2.30	0.55
34:72:24:ARG:HG2	34:72:25:TYR:CD1	2.42	0.55
40:78:45:VAL:HG23	40:78:52:TYR:HD2	1.72	0.55
46:1S:155:U:H4'	53:S6:59:GLN:HA	1.88	0.55
46:1S:772:G:H5''	51:S4:23:LEU:CD2	2.37	0.55
46:1S:952:A:H2'	46:1S:953:G:H8	1.72	0.55
46:1S:1454:G:H4'	62:15:122:THR:HG21	1.89	0.55
54:S7:166:LEU:HD11	54:S7:183:PHE:HB2	1.88	0.55
67:20:50:LEU:HD23	67:20:95:ALA:HB2	1.89	0.55
70:23:53:VAL:HG11	70:23:98:GLU:HA	1.89	0.55
71:24:57:VAL:CG2	71:24:60:PHE:HE2	2.20	0.55
1:2S:947:G:H2'	1:2S:948:C:C6	2.43	0.54
1:2S:1650:G:H5'	5:L2:69:TYR:O	2.07	0.54
1:2S:2238:G:H2'	1:2S:2239:G:H8	1.72	0.54
1:2S:2553:U:H3'	5:L2:87:PHE:CE2	2.40	0.54
1:2S:2875:U:H5''	1:2S:2945:G:O6	2.07	0.54
1:2S:3159:C:H4'	1:2S:3395:G:C5	2.42	0.54
2:8S:41:A:N6	2:8S:103:G:H1'	2.21	0.54
5:L2:51:ASP:OD2	5:L2:54:ARG:HB2	2.06	0.54
6:L3:296:THR:H	6:L3:299:ASP:HB2	1.72	0.54
7:L4:113:VAL:O	7:L4:118:LYS:HE3	2.07	0.54
11:L8:180:VAL:CG2	11:L8:185:ARG:NH2	2.70	0.54
17:55:181:ASN:OD1	17:55:184:LYS:HE3	2.07	0.54
18:56:43:ILE:O	18:56:135:TYR:HB2	2.08	0.54
21:59:102:LEU:O	21:59:106:LEU:HD13	2.07	0.54
26:64:47:ARG:HG2	26:64:47:ARG:HH11	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:72:98:HIS:CE1	34:72:99:ASN:ND2	2.72	0.54
35:73:13:HIS:HB3	35:73:95:GLY:H	1.70	0.54
46:1S:1032:G:OP1	46:1S:1032:G:H3'	2.08	0.54
46:1S:1156:C:C3'	46:1S:1157:A:H5''	2.37	0.54
50:S3:192:PRO:HB2	50:S3:201:ALA:HA	1.89	0.54
52:S5:114:ILE:O	52:S5:118:LEU:HG	2.06	0.54
57:10:7:ASP:O	57:10:11:ILE:HG12	2.07	0.54
57:10:16:PHE:HB2	57:10:76:LEU:HD23	1.88	0.54
58:11:29:LYS:HE2	58:11:32:LYS:HA	1.89	0.54
61:14:85:ALA:H	61:14:119:THR:CG2	2.16	0.54
1:2S:117:U:O4	11:L8:142:LEU:HD23	2.07	0.54
1:2S:3157:U:H4'	1:2S:3158:G:C5'	2.38	0.54
4:L1:125:GLY:N	4:L1:126:PRO:HD2	2.22	0.54
6:L3:292:ALA:HA	6:L3:303:LYS:O	2.08	0.54
10:L7:100:ARG:O	10:L7:104:GLN:HG3	2.07	0.54
14:51:49:LYS:CE	14:51:64:LYS:HE3	2.37	0.54
14:51:115:LYS:HB2	14:51:115:LYS:HZ3	1.68	0.54
17:55:132:VAL:HG12	17:55:133:ILE:N	2.21	0.54
18:56:151:ASP:HA	18:56:154:ALA:HB3	1.87	0.54
20:58:58:ASN:C	20:58:60:PRO:HD3	2.28	0.54
20:58:112:ALA:O	20:58:116:LYS:HB2	2.07	0.54
22:60:16:THR:N	22:60:20:PRO:HA	2.20	0.54
36:74:36:LYS:O	36:74:37:LYS:O	2.26	0.54
41:79:47:THR:HG22	41:79:48:LYS:N	2.22	0.54
45:83:39:CYS:O	45:83:43:GLY:HA2	2.07	0.54
46:1S:14:C:H2'	46:1S:15:U:C6	2.41	0.54
46:1S:454:U:H5'	51:S4:66:MET:HE3	1.89	0.54
46:1S:560:U:H2'	46:1S:561:G:C8	2.42	0.54
46:1S:898:A:N6	46:1S:914:G:H21	1.98	0.54
46:1S:1573:A:H5'	46:1S:1574:G:N3	2.22	0.54
49:S2:65:GLU:HB2	49:S2:68:ILE:HD12	1.89	0.54
52:S5:186:ASN:ND2	52:S5:188:LYS:HB2	2.21	0.54
54:S7:30:SER:CB	54:S7:34:LEU:HD22	2.38	0.54
54:S7:135:ILE:HG22	60:13:18:TYR:HE2	1.71	0.54
57:10:24:LYS:O	57:10:43:ILE:HD11	2.06	0.54
64:17:85:VAL:N	64:17:86:PRO:HD3	2.21	0.54
75:28:32:PHE:CD2	75:28:32:PHE:N	2.75	0.54
77:30:30:PRO:HB2	77:30:34:ALA:HB3	1.88	0.54
1:2S:241:G:O2'	1:2S:242:C:H5'	2.07	0.54
1:2S:266:A:N6	38:76:30:LYS:HA	2.22	0.54
1:2S:1288:U:H2'	1:2S:1289:G:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2393:G:H4'	6:L3:252:ILE:HG12	1.89	0.54
1:2S:2471:U:O2	1:2S:2475:G:O6	2.26	0.54
1:2S:2837:A:H5''	13:50:154:ARG:NH1	2.21	0.54
1:2S:3217:C:O2	1:2S:3217:C:C2'	2.55	0.54
3:5S:76:A:H2	22:60:50:LYS:HZ1	1.54	0.54
5:L2:225:ILE:HD12	5:L2:237:LEU:N	2.23	0.54
8:L5:25:GLU:O	14:51:144:CYS:HA	2.08	0.54
9:L6:104:GLU:O	9:L6:104:GLU:HG2	2.07	0.54
11:L8:75:ILE:O	11:L8:76:ALA:HB3	2.08	0.54
15:53:24:VAL:HB	15:53:26:PHE:CE2	2.42	0.54
16:54:36:VAL:HG11	16:54:55:ARG:CZ	2.37	0.54
18:56:58:LEU:HA	18:56:72:HIS:CD2	2.42	0.54
38:76:91:ASN:HA	38:76:94:ILE:HB	1.88	0.54
43:81:16:LYS:O	43:81:20:VAL:HG23	2.07	0.54
46:1S:176:C:O2'	46:1S:177:U:H5'	2.07	0.54
46:1S:387:A:H3'	46:1S:402:C:H5	1.71	0.54
46:1S:856:A:C6	54:S7:96:ARG:HD3	2.42	0.54
46:1S:970:A:H3'	46:1S:971:A:H8	1.72	0.54
50:S3:16:VAL:HG11	76:29:22:ARG:NH1	2.23	0.54
54:S7:100:PRO:O	54:S7:102:PRO:HD3	2.08	0.54
66:19:70:GLN:HB2	66:19:122:ARG:N	2.22	0.54
70:23:24:TRP:CZ3	70:23:30:LYS:HG3	2.41	0.54
73:26:12:LYS:HZ3	73:26:16:GLY:HA2	1.73	0.54
74:27:46:VAL:HG12	74:27:47:PHE:N	2.22	0.54
75:28:16:LEU:HB2	75:28:27:GLN:HB2	1.89	0.54
1:2S:201:A:H4'	1:2S:220:G:C5	2.41	0.54
1:2S:910:G:H2'	1:2S:911:C:C6	2.43	0.54
1:2S:1101:G:H2'	1:2S:1102:A:H8	1.71	0.54
1:2S:1230:G:H2'	1:2S:1231:A:O4'	2.07	0.54
1:2S:1779:C:H3'	1:2S:1780:G:C5'	2.38	0.54
1:2S:1808:G:H4'	1:2S:2559:U:O4	2.08	0.54
3:5S:48:U:H2'	3:5S:49:G:H5'	1.88	0.54
3:5S:77:G:N2	3:5S:101:G:H2'	2.22	0.54
4:L1:36:VAL:HA	4:L1:208:SER:HA	1.88	0.54
4:L1:156:LYS:HG3	4:L1:157:PHE:N	2.22	0.54
6:L3:63:PRO:HD2	6:L3:348:ARG:HH21	1.73	0.54
6:L3:296:THR:HG21	6:L3:356:LEU:O	2.07	0.54
10:L7:84:VAL:HG12	10:L7:138:TYR:HD1	1.72	0.54
15:53:116:LEU:O	15:53:120:GLN:HG3	2.07	0.54
41:79:48:LYS:N	41:79:48:LYS:HD2	2.22	0.54
44:82:11:TYR:HA	44:82:19:LYS:O	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:397:A:H5''	55:S8:47:ARG:HH12	1.72	0.54
46:1S:501:U:H2'	46:1S:502:U:C6	2.43	0.54
46:1S:595:G:H2'	46:1S:596:C:C6	2.42	0.54
46:1S:777:C:H41	71:24:10:ARG:HD3	1.73	0.54
47:S0:6:THR:C	47:S0:8:ASP:H	2.11	0.54
47:S0:56:LYS:HE3	68:21:82:VAL:HG11	1.88	0.54
48:S1:70:LEU:HD11	48:S1:79:HIS:HB3	1.88	0.54
51:S4:62:LYS:O	51:S4:66:MET:HG2	2.07	0.54
55:S8:67:TRP:CZ2	55:S8:152:ILE:HD13	2.42	0.54
65:18:123:ARG:HA	65:18:133:VAL:HG21	1.89	0.54
1:2S:587:U:H2'	1:2S:588:G:H5'	1.90	0.54
1:2S:2108:C:H2'	1:2S:2109:U:C6	2.43	0.54
1:2S:2534:G:H2'	1:2S:2535:A:C8	2.42	0.54
1:2S:3055:U:H1'	1:2S:3057:U:OP2	2.07	0.54
6:L3:56:ILE:HD12	6:L3:358:TRP:O	2.07	0.54
8:L5:134:ALA:CB	8:L5:140:ARG:HG2	2.38	0.54
16:54:116:GLU:HA	16:54:119:GLN:HE21	1.72	0.54
16:54:123:LEU:CB	18:56:194:LEU:HD21	2.37	0.54
17:55:71:ARG:O	17:55:92:LEU:HB3	2.07	0.54
20:58:171:LYS:HA	30:68:56:VAL:CG1	2.36	0.54
21:59:139:VAL:HA	21:59:142:ILE:CG1	2.37	0.54
22:60:13:ARG:C	22:60:56:GLY:HA2	2.28	0.54
30:68:49:HIS:N	30:68:50:PRO:CD	2.70	0.54
33:71:72:ARG:HG3	33:71:96:VAL:HG21	1.90	0.54
46:1S:142:G:H22	46:1S:173:A:H2	1.55	0.54
46:1S:894:U:H2'	46:1S:895:G:C8	2.42	0.54
46:1S:1057:U:H1'	46:1S:1058:U:C2'	2.37	0.54
46:1S:1110:G:C2	46:1S:1111:G:H1'	2.42	0.54
46:1S:1417:A:H2'	46:1S:1418:G:O4'	2.07	0.54
47:S0:71:GLU:HA	47:S0:94:GLY:O	2.07	0.54
47:S0:195:TRP:CE2	47:S0:197:ILE:HD13	2.42	0.54
52:S5:34:GLN:HG2	63:16:57:LEU:HD13	1.89	0.54
57:10:1:MET:SD	57:10:44:LYS:HB2	2.48	0.54
62:15:98:ASN:O	62:15:122:THR:HG22	2.07	0.54
67:20:48:HIS:CE1	67:20:99:ILE:HG12	2.42	0.54
69:22:103:ILE:HD12	69:22:126:LEU:HD12	1.89	0.54
77:30:47:VAL:HG13	77:30:48:THR:N	2.23	0.54
1:2S:936:A:OP2	30:68:27:LYS:HG3	2.07	0.54
1:2S:1330:A:H2'	1:2S:1332:A:N7	2.23	0.54
1:2S:1334:U:H2'	1:2S:1335:C:C6	2.42	0.54
1:2S:2101:C:HO2'	1:2S:2102:U:H6	1.54	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2541:U:H1'	1:2S:2542:U:OP2	2.08	0.54
4:L1:103:LEU:CD2	4:L1:106:LYS:HE2	2.37	0.54
15:53:183:ARG:CG	15:53:186:ARG:HH11	2.20	0.54
17:55:132:VAL:HG12	17:55:133:ILE:H	1.73	0.54
21:59:151:ARG:O	21:59:155:LEU:HB2	2.07	0.54
24:62:36:TYR:HD2	24:62:37:LEU:HD12	1.73	0.54
27:65:135:ILE:HD11	27:65:138:ARG:HH11	1.72	0.54
29:67:10:VAL:O	29:67:83:THR:HG22	2.07	0.54
46:1S:886:U:H2'	46:1S:887:A:O4'	2.08	0.54
46:1S:1503:A:O2'	66:19:37:VAL:HG23	2.08	0.54
51:S4:43:PRO:HA	51:S4:82:TYR:O	2.07	0.54
54:S7:170:GLN:HA	54:S7:181:ILE:CG2	2.38	0.54
64:17:20:TYR:CD2	64:17:23:LYS:HD2	2.35	0.54
65:18:11:PHE:HE2	65:18:59:GLY:HA3	1.72	0.54
73:26:12:LYS:HZ1	73:26:16:GLY:HA2	1.72	0.54
73:26:36:ILE:C	73:26:36:ILE:HD13	2.28	0.54
1:2S:2427:U:H2'	1:2S:2428:U:H6	1.70	0.54
2:8S:155:A:C2'	2:8S:156:U:H5'	2.38	0.54
4:L1:30:GLU:CD	4:L1:34:LEU:HD21	2.28	0.54
6:L3:239:PRO:HD2	6:L3:242:THR:HG21	1.88	0.54
7:L4:82:THR:HG23	7:L4:84:ARG:H	1.73	0.54
7:L4:91:GLY:O	7:L4:97:GLY:HA3	2.08	0.54
7:L4:268:ALA:O	7:L4:269:SER:HB2	2.07	0.54
18:56:62:THR:O	18:56:66:LYS:HD2	2.08	0.54
20:58:3:ILE:HG22	20:58:4:ASP:N	2.23	0.54
22:60:78:TRP:HB2	22:60:125:LYS:H	1.73	0.54
23:61:41:ASP:HB2	23:61:97:LYS:CG	2.29	0.54
32:70:13:LYS:HB3	32:70:100:ILE:HG23	1.89	0.54
39:77:60:GLY:HA2	39:77:64:MET:SD	2.48	0.54
40:78:73:LEU:CD2	40:78:75:VAL:HG22	2.38	0.54
45:83:32:GLN:HB3	45:83:69:TYR:O	2.07	0.54
46:1S:947:U:H2'	46:1S:948:G:C8	2.42	0.54
46:1S:974:A:H2'	46:1S:975:C:C6	2.42	0.54
46:1S:982:U:H2'	46:1S:983:A:C8	2.43	0.54
46:1S:1474:G:H2'	46:1S:1475:A:H8	1.72	0.54
46:1S:1685:G:C3'	46:1S:1686:C:H5''	2.38	0.54
46:1S:1758:U:H2'	46:1S:1759:C:C6	2.42	0.54
64:17:13:SER:HB3	64:17:57:LEU:CD1	2.37	0.54
68:21:70:ASN:HB3	68:21:83:TRP:HB2	1.90	0.54
70:23:19:ARG:HB2	70:23:19:ARG:HH21	1.73	0.54
70:23:56:LYS:HA	70:23:72:VAL:HG12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:26:75:VAL:O	73:26:79:ILE:HG13	2.07	0.54
1:2S:656:A:H2'	1:2S:657:A:C8	2.43	0.54
1:2S:2160:G:H2'	1:2S:2161:G:H8	1.73	0.54
1:2S:2167:A:C6	1:2S:2168:A:C2	2.96	0.54
1:2S:2931:C:H5''	25:63:40:LYS:CD	2.33	0.54
1:2S:3126:C:H2'	1:2S:3127:A:C8	2.43	0.54
1:2S:3385:U:H2'	1:2S:3386:G:O4'	2.08	0.54
2:8S:32:C:H2'	2:8S:33:A:C8	2.43	0.54
3:5S:3:U:H2'	3:5S:4:U:C6	2.42	0.54
6:L3:54:THR:OG1	6:L3:55:THR:N	2.41	0.54
8:L5:109:THR:HA	8:L5:112:LYS:HG2	1.89	0.54
10:L7:145:ARG:HA	10:L7:185:ILE:HD13	1.89	0.54
20:58:3:ILE:HD12	20:58:3:ILE:H	1.73	0.54
20:58:83:VAL:HG22	20:58:140:LEU:HB2	1.90	0.54
34:72:79:VAL:O	34:72:83:GLU:HG3	2.07	0.54
53:S6:77:LEU:CD1	53:S6:95:LYS:HB2	2.38	0.54
54:S7:143:LEU:HB2	54:S7:147:ASN:HB2	1.90	0.54
55:S8:139:ALA:HB1	55:S8:143:TRP:CZ2	2.43	0.54
57:10:30:ALA:C	57:10:38:LYS:HA	2.28	0.54
57:10:82:LEU:HD22	57:10:86:ILE:HG21	1.88	0.54
77:30:14:VAL:HA	77:30:17:GLN:HG2	1.89	0.54
79:RA:232:TYR:OH	79:RA:265:LEU:HD12	2.08	0.54
1:2S:985:U:H2'	1:2S:986:U:H6	1.72	0.54
1:2S:1428:A:H5''	7:L4:107:ARG:HH22	1.73	0.54
1:2S:2131:A:H2'	1:2S:2132:C:C5'	2.38	0.54
5:L2:68:LYS:HG2	5:L2:69:TYR:N	2.22	0.54
8:L5:294:ALA:C	8:L5:296:GLN:H	2.10	0.54
10:L7:82:LYS:CA	10:L7:119:VAL:HB	2.34	0.54
12:L9:92:TYR:CB	12:L9:99:ILE:HD12	2.38	0.54
13:50:34:TYR:HD2	13:50:89:VAL:HB	1.72	0.54
14:51:85:LYS:HG2	14:51:89:TYR:HE2	1.73	0.54
19:57:169:THR:HG23	35:73:60:ARG:HH12	1.72	0.54
20:58:59:ARG:CB	20:58:59:ARG:HH11	2.21	0.54
21:59:105:LEU:O	21:59:108:LYS:HG3	2.08	0.54
26:64:45:ASN:HB3	26:64:48:ARG:HG3	1.89	0.54
28:66:111:LEU:CD2	28:66:119:ILE:HD11	2.38	0.54
37:75:59:ASN:O	37:75:63:ARG:HG3	2.07	0.54
46:1S:332:U:C5'	55:S8:31:ARG:HG3	2.38	0.54
46:1S:804:A:H2'	46:1S:804:A:N3	2.23	0.54
48:S1:179:SER:HB3	48:S1:183:GLN:CB	2.37	0.54
49:S2:168:ARG:HG2	49:S2:170:ILE:HD11	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:S3:16:VAL:O	50:S3:20:GLU:HB2	2.07	0.54
52:S5:196:GLU:O	52:S5:200:ASN:ND2	2.40	0.54
58:11:147:GLY:O	58:11:148:LYS:HG2	2.07	0.54
63:16:39:VAL:HG12	63:16:41:PRO:HB2	1.90	0.54
64:17:18:GLU:HA	64:17:71:PHE:HB3	1.90	0.54
71:24:112:LYS:O	71:24:116:LYS:HG3	2.08	0.54
1:2S:269:G:C5	17:55:14:LYS:HD2	2.43	0.54
1:2S:760:G:C1'	1:2S:771:A:H61	2.21	0.54
1:2S:956:U:O5'	1:2S:956:U:H6	1.91	0.54
1:2S:1135:A:OP2	31:69:5:LYS:HG3	2.08	0.54
5:L2:21:ARG:HG2	5:L2:21:ARG:HH11	1.73	0.54
5:L2:45:VAL:HG11	5:L2:83:HIS:O	2.08	0.54
5:L2:209:HIS:ND1	5:L2:210:PRO:HD2	2.23	0.54
8:L5:21:ARG:O	8:L5:25:GLU:HG3	2.08	0.54
14:51:110:ILE:HD13	14:51:122:ILE:HD11	1.89	0.54
17:55:16:SER:OG	17:55:19:LEU:HD13	2.07	0.54
26:64:55:PHE:HA	26:64:58:HIS:HB3	1.90	0.54
32:70:41:LEU:HD13	32:70:42:ILE:H	1.73	0.54
37:75:54:VAL:O	37:75:58:ILE:HG13	2.08	0.54
40:78:25:VAL:HG13	40:78:43:PHE:CE1	2.43	0.54
41:79:24:PRO:HB2	41:79:27:ILE:CD1	2.38	0.54
46:1S:1100:G:H2'	69:22:74:VAL:O	2.08	0.54
50:S3:5:ILE:HG22	50:S3:6:SER:H	1.73	0.54
50:S3:84:ILE:HG23	50:S3:84:ILE:O	2.08	0.54
53:S6:50:PHE:CD1	53:S6:111:LEU:HB3	2.43	0.54
54:S7:50:ASP:HB3	54:S7:56:LYS:HG2	1.89	0.54
55:S8:39:GLY:O	55:S8:59:ARG:HB3	2.08	0.54
55:S8:48:THR:HG21	55:S8:54:LYS:HB2	1.91	0.54
60:13:86:GLU:HG3	60:13:87:ASP:N	2.23	0.54
61:14:25:ASP:N	61:14:55:SER:HB3	2.23	0.54
68:21:78:LEU:HD23	68:21:78:LEU:H	1.72	0.54
70:23:144:ARG:HD2	70:23:144:ARG:N	2.22	0.54
79:RA:89:LEU:HB2	79:RA:103:PHE:HB2	1.89	0.54
1:2S:20:A:H2'	1:2S:21:G:C8	2.42	0.53
1:2S:835:G:N2	1:2S:857:G:O2'	2.40	0.53
1:2S:1724:U:H1'	1:2S:1725:C:C6	2.42	0.53
1:2S:2095:G:H8	1:2S:2095:G:O5'	1.92	0.53
1:2S:2474:G:H2'	1:2S:2475:G:N7	2.23	0.53
1:2S:2723:U:H2'	1:2S:2724:U:O4'	2.07	0.53
1:2S:3080:G:H2'	1:2S:3081:C:H6	1.69	0.53
1:2S:3298:C:C2	1:2S:3299:A:C8	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:199:PHE:O	6:L3:200:GLU:HB2	2.08	0.53
7:L4:11:LEU:HD21	7:L4:153:SER:HB3	1.89	0.53
9:L6:56:LYS:HB2	9:L6:98:VAL:HG13	1.90	0.53
11:L8:92:LYS:HB3	11:L8:92:LYS:NZ	2.23	0.53
12:L9:150:SER:O	12:L9:154:VAL:HG23	2.08	0.53
14:51:49:LYS:HE2	14:51:64:LYS:HE3	1.89	0.53
14:51:108:GLU:HG2	14:51:122:ILE:HG23	1.90	0.53
16:54:46:ILE:O	16:54:47:ASP:HB2	2.08	0.53
19:57:60:PHE:O	19:57:61:ARG:HG3	2.08	0.53
33:71:39:PHE:O	33:71:42:LEU:HB3	2.07	0.53
34:72:79:VAL:HG13	34:72:111:ARG:HG2	1.90	0.53
39:77:20:ASN:HB2	39:77:39:TYR:HE1	1.73	0.53
46:1S:722:G:H3'	46:1S:723:G:C5'	2.35	0.53
46:1S:855:A:H3'	46:1S:856:A:H5''	1.90	0.53
46:1S:1283:U:H2'	46:1S:1284:C:H5	1.72	0.53
50:S3:167:PHE:CE1	50:S3:192:PRO:HA	2.43	0.53
53:S6:77:LEU:HD11	53:S6:95:LYS:HB2	1.90	0.53
56:S9:95:TYR:CE1	56:S9:99:LEU:HA	2.43	0.53
60:13:44:GLY:O	60:13:45:LEU:HD22	2.08	0.53
1:2S:1526:U:H4'	1:2S:1594:A:C5	2.44	0.53
1:2S:2186:U:H2'	1:2S:2187:G:C8	2.43	0.53
1:2S:2295:A:C5	1:2S:2296:A:C6	2.96	0.53
1:2S:2369:G:H2'	1:2S:2370:G:C8	2.44	0.53
1:2S:2692:A:O2'	1:2S:2693:C:H5'	2.07	0.53
1:2S:3016:A:H2'	1:2S:3017:A:H8	1.72	0.53
1:2S:3297:U:H2'	1:2S:3298:C:C6	2.43	0.53
1:2S:3310:A:H2'	1:2S:3311:C:H5'	1.90	0.53
4:L1:30:GLU:OE1	4:L1:34:LEU:HD21	2.08	0.53
5:L2:50:HIS:ND1	45:83:51:ALA:HB1	2.23	0.53
17:55:38:ARG:HA	17:55:62:TYR:HA	1.90	0.53
22:60:24:LEU:HD12	23:61:146:ASN:CB	2.39	0.53
26:64:5:ILE:HD12	26:64:5:ILE:O	2.07	0.53
34:72:103:LYS:O	34:72:106:VAL:HG12	2.08	0.53
46:1S:306:U:H2'	46:1S:307:G:C8	2.43	0.53
46:1S:542:A:O2'	46:1S:543:C:H2'	2.08	0.53
46:1S:960:U:O2'	60:13:51:GLY:HA3	2.07	0.53
46:1S:1167:G:H2'	46:1S:1168:U:C6	2.44	0.53
46:1S:1246:C:H2'	46:1S:1247:U:H6	1.71	0.53
46:1S:1477:G:H2'	46:1S:1478:G:C8	2.43	0.53
47:S0:189:VAL:HG13	47:S0:190:ASP:N	2.21	0.53
54:S7:63:PRO:O	54:S7:64:VAL:CB	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:S7:68:ALA:O	54:S7:72:LYS:HG3	2.07	0.53
54:S7:140:VAL:HG13	54:S7:149:ILE:O	2.08	0.53
56:S9:119:ALA:O	56:S9:120:LYS:HB2	2.07	0.53
63:16:42:GLU:HG3	63:16:45:ARG:HH21	1.74	0.53
64:17:103:ASP:H	64:17:106:THR:HB	1.73	0.53
72:25:93:SER:HB2	72:25:100:ILE:HG22	1.90	0.53
1:2S:266:A:C6	38:76:30:LYS:HA	2.44	0.53
1:2S:305:U:OP1	1:2S:305:U:H3'	2.09	0.53
1:2S:386:A:H2'	1:2S:387:A:O4'	2.08	0.53
1:2S:951:A:H2'	1:2S:952:A:H8	1.74	0.53
1:2S:1046:A:H2'	1:2S:1049:C:H5	1.73	0.53
1:2S:1222:G:H5'	1:2S:1222:G:H8	1.72	0.53
1:2S:1307:G:H5''	18:56:60:LYS:HD3	1.88	0.53
1:2S:1798:A:H2'	1:2S:1799:A:C8	2.44	0.53
2:8S:40:A:H2'	2:8S:41:A:H8	1.73	0.53
5:L2:30:ARG:NH1	5:L2:72:ARG:HH22	2.06	0.53
5:L2:225:ILE:HG22	5:L2:226:SER:N	2.23	0.53
6:L3:244:ARG:HB2	6:L3:244:ARG:HH11	1.72	0.53
30:68:20:GLY:O	30:68:24:LYS:HG3	2.08	0.53
32:70:22:LYS:N	32:70:94:GLU:HB2	2.22	0.53
46:1S:567:A:H1'	77:30:14:VAL:HG23	1.89	0.53
46:1S:1112:G:N2	46:1S:1133:A:H62	2.05	0.53
46:1S:1228:G:H5'	46:1S:1229:G:C8	2.43	0.53
46:1S:1629:G:H2'	46:1S:1630:U:C6	2.42	0.53
47:S0:20:ALA:HB2	47:S0:172:LEU:HD22	1.89	0.53
54:S7:56:LYS:HD2	54:S7:88:ARG:CZ	2.38	0.53
56:S9:146:PHE:CZ	56:S9:149:ARG:NH1	2.75	0.53
62:15:58:LYS:HB3	62:15:58:LYS:HZ2	1.73	0.53
65:18:42:TYR:O	65:18:46:VAL:HG23	2.08	0.53
69:22:82:LYS:O	69:22:83:ILE:HG22	2.07	0.53
1:2S:299:G:H2'	1:2S:300:G:O4'	2.08	0.53
1:2S:625:G:O2'	1:2S:626:U:H5'	2.07	0.53
1:2S:717:C:H2'	1:2S:718:G:H5'	1.90	0.53
1:2S:1175:C:H5''	18:56:25:LYS:HG2	1.89	0.53
1:2S:3112:G:O6	1:2S:3119:U:H3'	2.09	0.53
1:2S:3173:G:H2'	1:2S:3173:G:N3	2.23	0.53
2:8S:142:C:H2'	2:8S:143:U:C6	2.43	0.53
3:5S:114:U:H2'	3:5S:115:G:C8	2.43	0.53
6:L3:93:VAL:HG22	6:L3:94:GLU:H	1.73	0.53
8:L5:266:ALA:O	8:L5:270:LYS:HG3	2.08	0.53
10:L7:96:PRO:HB2	10:L7:99:PRO:HD2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:51:108:GLU:HG2	14:51:122:ILE:CG2	2.38	0.53
18:56:138:LEU:O	18:56:142:SER:HB2	2.09	0.53
32:70:27:TYR:O	32:70:31:VAL:HG23	2.08	0.53
39:77:87:SER:O	39:77:88:ALA:HB3	2.09	0.53
46:1S:1754:A:H5'	70:23:62:LYS:HG2	1.89	0.53
50:S3:53:THR:HG22	50:S3:91:VAL:HG11	1.89	0.53
51:S4:99:PHE:CE1	51:S4:113:ARG:HG2	2.44	0.53
53:S6:118:GLU:HG3	53:S6:119:GLN:N	2.23	0.53
55:S8:8:ARG:CD	55:S8:21:PHE:HB3	2.38	0.53
59:12:23:THR:HG23	59:12:23:THR:O	2.09	0.53
61:14:112:ILE:CG2	61:14:113:GLY:H	2.08	0.53
79:RA:7:LEU:HD11	79:RA:251:TRP:HZ3	1.73	0.53
1:2S:398:A:H1'	1:2S:1416:C:OP1	2.09	0.53
1:2S:804:C:H2'	1:2S:805:G:C8	2.44	0.53
1:2S:1151:U:H3'	1:2S:1152:G:N2	2.23	0.53
1:2S:2542:U:H1'	1:2S:2543:U:H5	1.73	0.53
1:2S:2820:A:C2'	1:2S:2821:C:H5'	2.38	0.53
15:53:76:THR:HG23	15:53:101:ARG:NH1	2.23	0.53
17:55:18:VAL:HG13	17:55:19:LEU:CD1	2.38	0.53
17:55:134:LEU:N	17:55:134:LEU:HD12	2.24	0.53
46:1S:329:G:H2'	46:1S:330:G:C8	2.43	0.53
46:1S:694:U:H1'	54:S7:97:ARG:NH2	2.24	0.53
46:1S:856:A:N6	54:S7:121:VAL:HG22	2.23	0.53
46:1S:1208:A:H2	46:1S:1209:C:C6	2.26	0.53
46:1S:1426:C:H3'	46:1S:1427:A:H5''	1.90	0.53
50:S3:42:THR:HG22	67:20:108:ILE:HB	1.90	0.53
52:S5:48:PHE:CE1	52:S5:64:VAL:HA	2.43	0.53
56:S9:109:LEU:HB2	56:S9:146:PHE:HB3	1.91	0.53
68:21:11:LEU:O	68:21:11:LEU:HD12	2.08	0.53
70:23:54:LEU:HD12	70:23:73:ARG:HB3	1.91	0.53
72:25:50:ILE:HD11	72:25:70:LYS:HD2	1.90	0.53
74:27:64:CYS:HB3	74:27:73:LEU:HA	1.90	0.53
79:RA:150:TRP:HB2	79:RA:174:ASN:ND2	2.22	0.53
79:RA:227:ALA:O	79:RA:228:LYS:HB2	2.09	0.53
1:2S:71:A:N6	1:2S:303:G:H1'	2.23	0.53
1:2S:186:U:H3	1:2S:230:U:H3	1.56	0.53
1:2S:359:U:H4'	1:2S:817:A:N6	2.23	0.53
1:2S:946:U:H4'	1:2S:1405:U:O2	2.08	0.53
1:2S:2154:U:H4'	5:L2:240:ALA:HB1	1.91	0.53
1:2S:2255:A:H5'	1:2S:2261:G:H22	1.74	0.53
1:2S:2714:G:C8	1:2S:2716:U:C5	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3304:U:C6	6:L3:333:LYS:HE2	2.43	0.53
7:L4:206:LEU:HG	7:L4:226:GLU:HG3	1.91	0.53
9:L6:172:HIS:HD2	35:73:40:ASP:HB3	1.73	0.53
11:L8:146:LYS:HE2	11:L8:173:MET:CA	2.39	0.53
13:50:206:LEU:HD12	13:50:209:ASN:HB3	1.89	0.53
17:55:5:LYS:HZ1	38:76:37:THR:HG22	1.74	0.53
19:57:88:VAL:O	19:57:92:GLN:HG2	2.07	0.53
20:58:81:VAL:HG12	20:58:138:LEU:HD12	1.89	0.53
20:58:177:GLY:HA2	20:58:184:PHE:O	2.07	0.53
24:62:76:LEU:O	24:62:80:THR:HG23	2.08	0.53
24:62:96:VAL:HG12	24:62:97:SER:N	2.21	0.53
46:1S:46:A:N6	46:1S:433:C:H4'	2.23	0.53
46:1S:226:A:C2'	46:1S:227:U:H5'	2.33	0.53
46:1S:564:G:H4'	46:1S:566:C:N3	2.24	0.53
46:1S:744:U:H2'	46:1S:745:U:O4'	2.08	0.53
47:S0:182:LEU:HB3	47:S0:188:LEU:HD23	1.91	0.53
48:S1:189:ILE:HB	48:S1:190:PRO:HD3	1.90	0.53
55:S8:42:ARG:HB3	55:S8:58:LEU:HB2	1.91	0.53
56:S9:57:ARG:O	56:S9:61:THR:HG23	2.08	0.53
61:14:78:ALA:HA	61:14:111:ARG:O	2.08	0.53
63:16:9:THR:HG21	63:16:88:GLY:HA2	1.91	0.53
63:16:41:PRO:O	63:16:42:GLU:CB	2.55	0.53
64:17:13:SER:O	64:17:17:ILE:HG13	2.09	0.53
67:20:118:VAL:HG22	67:20:119:ALA:N	2.24	0.53
70:23:37:ALA:O	70:23:44:GLY:HA2	2.08	0.53
70:23:60:GLU:HG2	77:30:3:LYS:H	1.72	0.53
1:2S:218:G:C1'	1:2S:372:A:H1'	2.38	0.53
1:2S:282:G:H22	17:55:179:LYS:HA	1.74	0.53
1:2S:2221:G:N2	1:2S:2223:A:H3'	2.24	0.53
1:2S:3138:U:H4'	6:L3:275:ARG:HH21	1.74	0.53
4:L1:155:ILE:HD13	4:L1:163:LEU:HD21	1.91	0.53
6:L3:227:GLU:HG2	6:L3:231:HIS:CD2	2.43	0.53
10:L7:236:ILE:CD1	10:L7:239:LEU:HD13	2.38	0.53
15:53:166:ALA:HB1	30:68:147:LEU:HD21	1.91	0.53
19:57:111:LYS:HB2	19:57:153:LYS:HB3	1.91	0.53
24:62:70:LYS:C	24:62:70:LYS:HD3	2.29	0.53
32:70:34:LEU:CD2	32:70:59:TYR:HB3	2.37	0.53
35:73:54:ARG:HG2	35:73:64:ILE:HG12	1.90	0.53
38:76:98:ARG:H	38:76:98:ARG:CD	2.20	0.53
46:1S:103:A:HO2'	46:1S:308:C:H41	1.55	0.53
46:1S:396:G:H22	46:1S:399:A:H5'	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:570:A:C5	70:23:114:LYS:HE3	2.43	0.53
46:1S:882:U:O2'	46:1S:883:C:H5'	2.09	0.53
47:S0:71:GLU:HA	47:S0:94:GLY:C	2.28	0.53
56:S9:99:LEU:HG	56:S9:100:LYS:H	1.73	0.53
61:14:128:LYS:H	73:26:22:ARG:NH1	2.04	0.53
65:18:28:ILE:O	65:18:28:ILE:HD13	2.08	0.53
66:19:89:ARG:HH11	66:19:89:ARG:HG3	1.73	0.53
79:RA:118:LYS:O	79:RA:119:ALA:HB3	2.07	0.53
1:2S:279:U:H2'	1:2S:280:U:O4'	2.08	0.53
1:2S:1121:U:H2'	1:2S:1122:U:C6	2.44	0.53
1:2S:2131:A:C6	1:2S:2188:A:H1'	2.44	0.53
1:2S:2468:A:H4'	1:2S:2469:G:O5'	2.09	0.53
1:2S:2747:A:O2'	1:2S:2748:A:H5'	2.08	0.53
1:2S:3035:A:H1'	12:L9:122:LYS:HB2	1.91	0.53
1:2S:3116:G:H3'	1:2S:3117:C:H6	1.74	0.53
1:2S:3152:U:H5'	1:2S:3294:A:C5'	2.38	0.53
1:2S:3334:U:O4'	1:2S:3370:A:N1	2.42	0.53
15:53:91:ARG:HH11	15:53:91:ARG:HG3	1.73	0.53
19:57:119:VAL:HA	19:57:145:HIS:O	2.08	0.53
35:73:52:VAL:HG13	35:73:66:VAL:CG2	2.38	0.53
46:1S:115:G:C8	58:11:129:ARG:HD2	2.44	0.53
46:1S:754:A:H3'	46:1S:755:A:H5'	1.91	0.53
46:1S:767:U:H5'	71:24:63:GLN:NE2	2.23	0.53
49:S2:57:PHE:CE1	49:S2:138:PRO:HD3	2.44	0.53
51:S4:52:LEU:HD13	51:S4:54:TYR:CD2	2.44	0.53
53:S6:211:LEU:O	53:S6:211:LEU:HD13	2.09	0.53
55:S8:97:THR:HA	55:S8:173:PRO:HG2	1.91	0.53
57:10:56:LYS:HE2	57:10:67:THR:HB	1.90	0.53
59:12:24:ILE:C	59:12:26:ASP:H	2.12	0.53
65:18:123:ARG:HD3	65:18:133:VAL:HG21	1.91	0.53
78:31:108:VAL:HG23	78:31:114:VAL:HG22	1.91	0.53
1:2S:50:U:C6	1:2S:50:U:O5'	2.62	0.53
1:2S:55:G:O2'	1:2S:56:G:H5'	2.08	0.53
1:2S:406:G:H1'	2:8S:16:G:H22	1.73	0.53
1:2S:827:A:H2'	1:2S:828:A:H8	1.74	0.53
1:2S:828:A:H2'	1:2S:829:U:H6	1.72	0.53
1:2S:1427:U:H2'	1:2S:1428:A:H8	1.73	0.53
1:2S:1681:U:H2'	1:2S:1682:U:O4'	2.08	0.53
1:2S:2256:A:H61	46:1S:1756:A:H3'	1.74	0.53
1:2S:2324:A:H8	1:2S:2324:A:O5'	1.92	0.53
4:L1:15:GLU:HG3	4:L1:21:ASN:HD21	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:93:LEU:O	11:L8:96:LYS:HD2	2.09	0.53
15:53:168:ARG:O	15:53:172:LEU:HG	2.08	0.53
17:55:46:ASP:OD1	17:55:47:LYS:N	2.42	0.53
17:55:70:ASN:OD1	17:55:93:LYS:HA	2.08	0.53
22:60:61:ILE:HG23	22:60:61:ILE:O	2.08	0.53
23:61:39:ILE:CD1	23:61:102:ARG:HH11	2.21	0.53
46:1S:250:C:H6	46:1S:250:C:H5'	1.74	0.53
46:1S:1311:U:H2'	46:1S:1313:A:OP2	2.09	0.53
46:1S:1479:A:HO2'	66:19:12:GLN:HG2	1.74	0.53
46:1S:1482:C:N4	46:1S:1524:A:H2'	2.24	0.53
47:S0:41:ARG:HG2	64:17:105:GLN:CD	2.30	0.53
51:S4:36:HIS:HB2	51:S4:41:SER:HB3	1.91	0.53
52:S5:157:ARG:O	52:S5:224:ASN:HB3	2.08	0.53
54:S7:78:THR:O	54:S7:82:GLU:HB2	2.09	0.53
59:12:62:LEU:HD23	59:12:62:LEU:H	1.74	0.53
70:23:103:LEU:HD13	70:23:104:LEU:N	2.24	0.53
1:2S:8:C:H2'	1:2S:9:U:O4'	2.09	0.53
1:2S:490:C:H2'	1:2S:491:A:C8	2.44	0.53
1:2S:914:A:H8	1:2S:914:A:OP1	1.92	0.53
1:2S:944:C:H2'	1:2S:945:C:H6	1.74	0.53
1:2S:1742:U:H5''	36:74:21:LYS:NZ	2.24	0.53
1:2S:2206:G:H8	1:2S:2206:G:OP2	1.91	0.53
3:5S:11:A:HO2'	3:5S:13:A:H5''	1.70	0.53
5:L2:196:TRP:CD2	5:L2:197:PRO:HA	2.44	0.53
7:L4:235:LEU:HA	7:L4:238:LEU:HD12	1.91	0.53
12:L9:70:THR:O	12:L9:74:LEU:HG	2.08	0.53
16:54:55:ARG:HD3	22:60:70:THR:HB	1.91	0.53
26:64:56:ARG:HH11	26:64:56:ARG:CB	2.22	0.53
27:65:136:ALA:O	27:65:139:ILE:HG22	2.08	0.53
34:72:86:THR:HG22	34:72:87:MET:SD	2.49	0.53
37:75:61:GLN:O	37:75:64:GLU:HG2	2.09	0.53
40:78:24:THR:HG23	40:78:44:LYS:HD3	1.90	0.53
46:1S:915:A:H3'	46:1S:916:U:C5	2.44	0.53
46:1S:1570:A:H3'	46:1S:1571:C:H6	1.74	0.53
59:12:22:VAL:HG12	59:12:23:THR:HG22	1.90	0.53
67:20:106:ILE:HG13	67:20:107:THR:N	2.22	0.53
69:22:49:GLU:HG3	69:22:49:GLU:O	2.08	0.53
1:2S:30:G:H2'	1:2S:31:C:C6	2.44	0.52
1:2S:990:U:H4'	23:61:100:LYS:HE3	1.90	0.52
1:2S:1019:G:H3'	1:2S:1020:G:H5''	1.90	0.52
1:2S:1228:C:O5'	1:2S:1228:C:H6	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1445:U:H3'	1:2S:1446:A:H2'	1.91	0.52
1:2S:1480:G:H1	1:2S:1871:U:H5''	1.74	0.52
1:2S:1783:U:H2'	1:2S:1784:G:C8	2.45	0.52
1:2S:2277:C:H2'	1:2S:2278:C:H5'	1.91	0.52
1:2S:2285:C:H2'	1:2S:2286:U:C6	2.44	0.52
1:2S:2424:A:H5''	17:55:89:VAL:HB	1.90	0.52
1:2S:3065:G:H2'	1:2S:3066:U:C6	2.44	0.52
1:2S:3268:A:C2	9:L6:130:ILE:HG21	2.44	0.52
4:L1:44:GLN:CG	4:L1:161:LYS:HA	2.39	0.52
5:L2:202:VAL:CG2	5:L2:211:HIS:HB3	2.39	0.52
12:L9:67:ALA:O	12:L9:70:THR:HG22	2.08	0.52
20:58:59:ARG:HB2	20:58:59:ARG:HH11	1.75	0.52
28:66:82:VAL:HB	28:66:85:VAL:HB	1.89	0.52
31:69:59:LYS:H	31:69:59:LYS:CD	2.17	0.52
44:82:61:LYS:HB3	44:82:61:LYS:NZ	2.24	0.52
46:1S:803:A:O2'	54:S7:104:ARG:HG2	2.08	0.52
46:1S:1117:U:H2'	46:1S:1118:G:C8	2.44	0.52
46:1S:1364:G:H21	66:19:3:GLY:HA2	1.74	0.52
46:1S:1389:C:H3'	46:1S:1389:C:O2	2.10	0.52
49:S2:115:ILE:HD13	49:S2:208:GLU:HG3	1.90	0.52
51:S4:238:LEU:HD13	51:S4:242:LYS:CG	2.39	0.52
53:S6:157:VAL:HG21	53:S6:173:PRO:HD2	1.91	0.52
55:S8:9:HIS:O	55:S8:18:ARG:NH2	2.40	0.52
55:S8:25:ARG:CB	55:S8:27:PHE:CE1	2.92	0.52
57:10:63:TYR:O	57:10:64:TYR:O	2.27	0.52
63:16:41:PRO:O	63:16:42:GLU:HB3	2.08	0.52
70:23:76:LEU:HD13	70:23:79:ASN:HD22	1.73	0.52
70:23:90:ASP:OD2	77:30:12:GLY:HA2	2.08	0.52
79:RA:131:ILE:HB	79:RA:144:LEU:HB2	1.91	0.52
1:2S:209:A:C2	7:L4:221:ASN:HB3	2.43	0.52
1:2S:235:A:H2'	1:2S:236:G:C8	2.44	0.52
1:2S:385:A:O2'	1:2S:386:A:H5'	2.09	0.52
1:2S:811:U:H2'	1:2S:812:G:H8	1.74	0.52
1:2S:942:U:C3'	30:68:15:VAL:HG13	2.26	0.52
1:2S:1965:C:H2'	1:2S:1966:U:O4'	2.09	0.52
1:2S:2788:C:H2'	1:2S:2789:U:H6	1.73	0.52
5:L2:42:ARG:HD2	5:L2:87:PHE:CB	2.39	0.52
6:L3:261:MET:CG	18:56:64:PHE:HA	2.40	0.52
6:L3:324:VAL:HG22	6:L3:325:LYS:N	2.24	0.52
10:L7:111:ILE:O	10:L7:112:ASN:HB2	2.08	0.52
13:50:36:LEU:HD13	13:50:73:ASN:ND2	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:53:117:LYS:HD3	15:53:117:LYS:N	2.24	0.52
17:55:162:ARG:NH2	17:55:164:LEU:HD11	2.24	0.52
21:59:177:VAL:HA	21:59:180:LYS:HE2	1.91	0.52
33:71:37:LYS:HE2	33:71:51:LEU:HD11	1.92	0.52
46:1S:17:C:H2'	46:1S:18:C:C6	2.45	0.52
46:1S:1105:C:H2'	46:1S:1106:U:H6	1.72	0.52
46:1S:1521:G:H2'	46:1S:1523:G:H21	1.74	0.52
48:S1:180:THR:HG22	48:S1:181:LEU:N	2.24	0.52
51:S4:45:ILE:O	51:S4:49:ARG:HB3	2.09	0.52
51:S4:121:TYR:CD2	51:S4:161:LYS:HE3	2.45	0.52
52:S5:194:LEU:O	52:S5:194:LEU:HD13	2.09	0.52
53:S6:44:GLU:HB3	53:S6:121:LEU:HD21	1.92	0.52
53:S6:98:ARG:HD3	53:S6:99:GLY:H	1.74	0.52
59:12:138:GLU:O	59:12:142:GLN:HB3	2.09	0.52
65:18:105:VAL:HG13	65:18:106:GLU:N	2.24	0.52
76:29:29:GLY:HA3	76:29:40:ARG:HD3	1.90	0.52
1:2S:627:U:H2'	1:2S:628:A:H8	1.69	0.52
1:2S:1330:A:H2'	1:2S:1332:A:C8	2.44	0.52
1:2S:1726:C:H2'	1:2S:1727:G:C8	2.44	0.52
1:2S:2407:C:H2'	1:2S:2408:U:H6	1.74	0.52
1:2S:2680:A:C2	14:51:65:ILE:HD11	2.45	0.52
1:2S:2825:C:H2'	1:2S:2826:U:C6	2.44	0.52
1:2S:3185:U:H5''	12:L9:23:ARG:HH12	1.73	0.52
6:L3:164:THR:HG22	6:L3:165:GLN:H	1.74	0.52
17:55:10:LEU:O	17:55:19:LEU:HD21	2.09	0.52
21:59:139:VAL:HA	21:59:142:ILE:HG13	1.91	0.52
22:60:98:SER:OG	22:60:101:ALA:HB2	2.09	0.52
23:61:128:LEU:HD12	23:61:129:LYS:N	2.24	0.52
42:80:90:ASN:HD22	42:80:90:ASN:N	2.05	0.52
46:1S:730:G:N3	46:1S:730:G:H2'	2.23	0.52
46:1S:1206:U:H5	46:1S:1207:C:HO2'	1.58	0.52
46:1S:1632:C:H2'	46:1S:1633:A:H8	1.72	0.52
46:1S:1685:G:C2'	46:1S:1686:C:H5''	2.38	0.52
46:1S:1739:C:H2'	46:1S:1740:A:H8	1.72	0.52
56:S9:93:LEU:O	56:S9:93:LEU:HD23	2.09	0.52
56:S9:134:ILE:HA	56:S9:158:PHE:HA	1.91	0.52
67:20:22:ILE:HD12	67:20:118:VAL:HA	1.91	0.52
69:22:24:GLN:HB3	69:22:64:GLN:NE2	2.23	0.52
1:2S:335:G:OP1	28:66:9:SER:HB2	2.09	0.52
1:2S:860:G:C5	5:L2:181:LYS:HB2	2.44	0.52
1:2S:1225:A:N1	1:2S:3116:G:C8	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1912:U:H6	1:2S:1912:U:O5'	1.93	0.52
1:2S:2076:G:H2'	1:2S:2077:U:C5'	2.38	0.52
1:2S:2108:C:H1'	1:2S:3344:A:H8	1.74	0.52
1:2S:2119:A:H2	21:59:82:LYS:NZ	2.08	0.52
1:2S:2266:U:H2'	1:2S:2267:C:H6	1.74	0.52
1:2S:2384:A:O5'	1:2S:2384:A:H8	1.93	0.52
2:8S:152:G:H5'	11:L8:60:ARG:HG2	1.90	0.52
5:L2:78:ALA:O	5:L2:169:ILE:HG23	2.08	0.52
8:L5:51:LEU:HB3	8:L5:146:LEU:HA	1.90	0.52
13:50:14:ASN:N	13:50:14:ASN:HD22	2.07	0.52
18:56:157:GLU:HB3	18:56:161:LYS:HE2	1.91	0.52
20:58:30:VAL:HG22	20:58:52:LEU:HD13	1.92	0.52
20:58:54:LEU:HD22	20:58:58:ASN:HB3	1.91	0.52
22:60:110:MET:O	22:60:114:HIS:HB2	2.09	0.52
29:67:26:VAL:HG23	29:67:27:LYS:N	2.25	0.52
45:83:83:ILE:HD13	45:83:86:LEU:HD12	1.90	0.52
46:1S:1081:A:H2'	46:1S:1083:G:C5	2.45	0.52
46:1S:1381:U:H1'	46:1S:1516:A:N6	2.24	0.52
48:S1:23:PRO:O	48:S1:27:LYS:HG2	2.09	0.52
52:S5:59:VAL:O	52:S5:60:ASP:HB2	2.09	0.52
52:S5:121:ILE:HD11	52:S5:195:ALA:HA	1.91	0.52
61:14:112:ILE:O	73:26:58:VAL:HG22	2.09	0.52
64:17:53:TYR:O	64:17:56:HIS:HB3	2.09	0.52
70:23:19:ARG:NH1	70:23:22:ASN:HD22	2.07	0.52
70:23:75:GLN:HA	70:23:82:LYS:HA	1.91	0.52
73:26:59:TYR:HB3	73:26:60:PRO:HD2	1.91	0.52
1:2S:31:C:H2'	1:2S:32:U:C6	2.45	0.52
1:2S:397:A:H4'	1:2S:399:A:OP1	2.09	0.52
1:2S:440:A:C5'	1:2S:441:U:H4'	2.40	0.52
1:2S:957:C:H2'	1:2S:958:C:C6	2.45	0.52
1:2S:2189:U:H5''	45:83:22:LEU:HD11	1.91	0.52
1:2S:2295:A:H2'	1:2S:2296:A:C8	2.44	0.52
1:2S:3359:A:N3	1:2S:3359:A:H2'	2.25	0.52
4:L1:57:ASN:OD1	4:L1:147:LYS:HE2	2.08	0.52
4:L1:74:VAL:HG12	4:L1:75:ASP:N	2.23	0.52
5:L2:180:LEU:HD22	45:83:18:TYR:CD1	2.45	0.52
7:L4:98:ARG:O	7:L4:98:ARG:HD2	2.09	0.52
15:53:59:ARG:HH12	15:53:67:ARG:C	2.12	0.52
16:54:82:SER:HA	16:54:85:TRP:HB2	1.90	0.52
36:74:65:VAL:HG12	36:74:66:SER:N	2.23	0.52
44:82:24:LYS:HG3	44:82:75:VAL:HG12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:344:A:O2'	46:1S:345:U:H5'	2.09	0.52
57:10:87:VAL:N	57:10:88:PRO:HD3	2.25	0.52
59:12:89:ILE:HD13	59:12:90:LYS:N	2.17	0.52
61:14:21:ALA:HB3	61:14:83:ILE:HD11	1.91	0.52
61:14:107:ARG:HG3	61:14:107:ARG:NH2	2.24	0.52
62:15:31:GLU:HG3	62:15:32:ASP:N	2.24	0.52
65:18:89:GLN:O	65:18:90:ASN:HB2	2.10	0.52
70:23:75:GLN:CG	70:23:82:LYS:HG3	2.39	0.52
70:23:127:VAL:CG1	70:23:132:LEU:HD21	2.33	0.52
1:2S:50:U:O5'	1:2S:50:U:H6	1.93	0.52
1:2S:213:A:H2'	1:2S:214:G:C5'	2.39	0.52
1:2S:441:U:N3	1:2S:494:G:H4'	2.24	0.52
1:2S:1158:A:H2'	1:2S:1159:A:C4'	2.37	0.52
1:2S:1362:G:H2'	1:2S:1363:A:C8	2.44	0.52
1:2S:1844:C:C3'	1:2S:1845:G:H5''	2.39	0.52
1:2S:2771:U:H5	1:2S:2772:C:C4	2.27	0.52
1:2S:2960:C:H2'	1:2S:2961:G:C8	2.44	0.52
1:2S:3012:A:H2'	1:2S:3013:U:C6	2.45	0.52
1:2S:3044:G:H5''	6:L3:12:GLY:HA2	1.91	0.52
5:L2:79:ASN:O	5:L2:82:VAL:HG22	2.09	0.52
5:L2:209:HIS:CE1	5:L2:210:PRO:HD2	2.44	0.52
6:L3:57:VAL:CG2	6:L3:358:TRP:HE3	2.22	0.52
7:L4:38:VAL:O	7:L4:42:VAL:HG23	2.09	0.52
7:L4:195:ARG:O	7:L4:196:ASN:HB2	2.09	0.52
11:L8:32:LYS:HB3	11:L8:34:PHE:CZ	2.44	0.52
22:60:43:TYR:O	22:60:47:LYS:HG3	2.09	0.52
23:61:27:LEU:HA	23:61:30:TYR:CD2	2.45	0.52
27:65:63:ILE:HD13	27:65:64:GLU:N	2.23	0.52
34:72:17:PHE:HZ	34:72:57:TYR:CE2	2.27	0.52
38:76:40:VAL:O	38:76:44:VAL:HG23	2.08	0.52
38:76:98:ARG:N	38:76:98:ARG:CD	2.69	0.52
46:1S:115:G:H8	58:11:129:ARG:HD2	1.75	0.52
46:1S:421:A:H2'	46:1S:422:G:H5'	1.91	0.52
46:1S:701:U:O5'	46:1S:701:U:H6	1.93	0.52
46:1S:834:G:H2'	46:1S:835:U:C6	2.45	0.52
46:1S:1528:U:O5'	46:1S:1528:U:H6	1.91	0.52
50:S3:196:ARG:HH11	50:S3:196:ARG:HG3	1.73	0.52
51:S4:121:TYR:HA	51:S4:164:LEU:CD2	2.38	0.52
52:S5:147:THR:CG2	52:S5:158:GLN:HB3	2.40	0.52
52:S5:216:GLU:HG3	52:S5:219:ARG:HD2	1.91	0.52
58:11:85:VAL:HG22	58:11:108:PRO:HB3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:16:36:ILE:O	63:16:36:ILE:HG12	2.10	0.52
66:19:49:ASP:O	66:19:50:ALA:HB3	2.10	0.52
71:24:123:LYS:O	71:24:127:LYS:HG2	2.10	0.52
72:25:57:TYR:OH	72:25:68:ARG:NH1	2.43	0.52
76:29:38:ILE:HG22	76:29:39:CYS:N	2.25	0.52
1:2S:191:U:H2'	1:2S:192:C:C6	2.45	0.52
1:2S:924:G:H21	1:2S:2414:G:C1'	2.23	0.52
1:2S:2729:U:H2'	1:2S:2730:G:O4'	2.10	0.52
4:L1:40:ASN:O	4:L1:162:VAL:HG13	2.10	0.52
6:L3:285:VAL:HA	6:L3:322:ILE:HD13	1.91	0.52
6:L3:336:VAL:HG12	6:L3:337:THR:N	2.25	0.52
7:L4:271:LYS:HB2	7:L4:274:TYR:HB3	1.92	0.52
9:L6:58:LEU:HD21	9:L6:102:ASN:HA	1.92	0.52
10:L7:77:VAL:CG2	23:61:139:ARG:H	2.23	0.52
10:L7:123:THR:HA	10:L7:126:LEU:HD12	1.90	0.52
10:L7:153:PHE:HA	10:L7:161:VAL:O	2.09	0.52
12:L9:153:ASP:O	12:L9:157:ASN:HB2	2.10	0.52
17:55:90:ASN:C	17:55:92:LEU:H	2.13	0.52
19:57:159:LYS:HG2	19:57:160:ALA:H	1.74	0.52
20:58:157:PRO:O	20:58:158:HIS:HB2	2.09	0.52
46:1S:144:U:H1'	46:1S:145:A:H5'	1.92	0.52
46:1S:169:A:C5'	53:S6:176:GLN:HG2	2.33	0.52
46:1S:1199:G:H1	76:29:31:ILE:HD11	1.74	0.52
54:S7:27:LEU:HD22	54:S7:80:GLU:HG2	1.91	0.52
55:S8:10:LYS:HB3	55:S8:18:ARG:NH2	2.24	0.52
63:16:128:LYS:HB2	63:16:137:ARG:HH22	1.74	0.52
66:19:52:GLY:HA2	66:19:55:TYR:HD2	1.72	0.52
70:23:19:ARG:NH1	70:23:22:ASN:ND2	2.57	0.52
79:RA:129:LYS:HB2	79:RA:147:HIS:HB2	1.92	0.52
79:RA:294:TRP:CD2	79:RA:301:LEU:HD13	2.45	0.52
1:2S:386:A:H8	1:2S:386:A:O5'	1.93	0.52
1:2S:971:G:H2'	1:2S:972:A:H8	1.72	0.52
1:2S:1276:U:O2'	1:2S:1277:C:H5'	2.09	0.52
1:2S:1460:A:H2'	1:2S:1461:A:C8	2.45	0.52
1:2S:2185:G:H2'	1:2S:2186:U:C6	2.45	0.52
1:2S:2424:A:H2'	1:2S:2425:G:O4'	2.10	0.52
1:2S:2940:A:H62	6:L3:3:HIS:HA	1.75	0.52
1:2S:3029:A:H8	1:2S:3029:A:O5'	1.92	0.52
7:L4:114:ASN:O	7:L4:118:LYS:HG3	2.10	0.52
7:L4:188:ARG:O	7:L4:193:LYS:HE3	2.10	0.52
7:L4:290:ILE:HG12	20:58:32:LEU:HG	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:53:179:PHE:CD1	15:53:182:ILE:HD12	2.44	0.52
17:55:14:LYS:HE2	17:55:120:TRP:CZ3	2.44	0.52
20:58:176:ARG:HA	20:58:182:LYS:O	2.10	0.52
21:59:53:LYS:HG2	21:59:54:ALA:H	1.75	0.52
22:60:67:ALA:C	22:60:69:PRO:HD3	2.29	0.52
25:63:93:LEU:HD23	25:63:93:LEU:N	2.21	0.52
38:76:20:MET:O	38:76:21:THR:HG22	2.09	0.52
40:78:14:LEU:O	40:78:20:VAL:HG21	2.10	0.52
46:1S:181:A:H2'	46:1S:182:A:C8	2.45	0.52
52:S5:107:LYS:O	52:S5:111:VAL:HG23	2.09	0.52
54:S7:27:LEU:HD11	54:S7:81:LEU:HD11	1.92	0.52
61:14:111:ARG:CZ	73:26:58:VAL:HG12	2.39	0.52
67:20:20:ILE:HD13	67:20:96:PRO:O	2.10	0.52
1:2S:543:C:H2'	1:2S:544:C:O4'	2.09	0.52
1:2S:868:C:H2'	1:2S:869:G:C5'	2.36	0.52
1:2S:957:C:H2'	1:2S:958:C:H6	1.75	0.52
1:2S:986:U:C1'	10:L7:126:LEU:HD21	2.39	0.52
1:2S:1193:A:N7	1:2S:1194:G:C6	2.78	0.52
1:2S:1468:A:H2'	1:2S:1469:C:C6	2.45	0.52
1:2S:2938:G:H3'	6:L3:3:HIS:HD2	1.75	0.52
1:2S:3286:G:C2'	1:2S:3287:U:H5''	2.37	0.52
4:L1:62:ASN:ND2	4:L1:64:SER:HB2	2.24	0.52
5:L2:210:PRO:O	5:L2:211:HIS:HD2	1.93	0.52
6:L3:347:SER:O	6:L3:348:ARG:HB3	2.09	0.52
9:L6:68:PRO:CG	9:L6:146:ILE:HD11	2.38	0.52
11:L8:122:LYS:HE3	11:L8:124:ASP:HB2	1.92	0.52
12:L9:23:ARG:HB2	12:L9:39:LYS:HG2	1.91	0.52
17:55:67:ARG:HG2	17:55:127:TYR:CE1	2.45	0.52
17:55:121:VAL:HG23	17:55:122:ASN:N	2.25	0.52
19:57:116:HIS:HD2	19:57:148:LEU:HA	1.75	0.52
19:57:120:ASN:HD21	19:57:145:HIS:HB2	1.73	0.52
22:60:29:ILE:HG22	22:60:30:PHE:N	2.25	0.52
26:64:28:ILE:HG22	26:64:30:ARG:HG3	1.92	0.52
32:70:67:VAL:HG12	32:70:68:TYR:N	2.25	0.52
46:1S:183:U:H2'	46:1S:184:C:C1'	2.40	0.52
48:S1:180:THR:CG2	48:S1:181:LEU:HD13	2.33	0.52
52:S5:51:VAL:HG21	52:S5:130:ILE:HG23	1.92	0.52
59:12:105:LYS:HB2	59:12:105:LYS:NZ	2.25	0.52
59:12:108:ARG:CG	59:12:112:ALA:HB3	2.35	0.52
62:15:52:LYS:HB2	62:15:53:PRO:HD3	1.92	0.52
70:23:2:GLY:O	70:23:3:LYS:HB3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:28:36:THR:OG1	75:28:37:SER:N	2.42	0.52
1:2S:41:G:H2'	1:2S:42:C:O4'	2.09	0.52
1:2S:438:A:C2'	1:2S:439:C:H5''	2.40	0.52
1:2S:1195:A:H2	1:2S:1313:G:H22	1.58	0.52
1:2S:1420:C:O2'	1:2S:1421:G:H5'	2.09	0.52
1:2S:1517:G:H5''	41:79:22:PRO:HG2	1.92	0.52
1:2S:3111:U:H2'	1:2S:3112:G:O4'	2.10	0.52
1:2S:3293:U:H5'	6:L3:128:LYS:NZ	2.25	0.52
2:8S:155:A:H4'	11:L8:185:ARG:HH11	1.74	0.52
6:L3:28:ARG:HH12	6:L3:30:LYS:HE2	1.75	0.52
6:L3:332:ARG:H	6:L3:332:ARG:CD	2.21	0.52
7:L4:159:ILE:HB	7:L4:215:ILE:CD1	2.36	0.52
8:L5:57:ASN:O	8:L5:58:LYS:HB2	2.09	0.52
8:L5:236:LEU:CD1	8:L5:239:ILE:HD12	2.40	0.52
11:L8:153:ILE:HG22	11:L8:154:ALA:N	2.25	0.52
12:L9:4:ILE:O	12:L9:58:HIS:HA	2.10	0.52
37:75:61:GLN:HA	37:75:64:GLU:CD	2.30	0.52
46:1S:618:U:O5'	46:1S:618:U:H6	1.92	0.52
46:1S:1485:C:H2'	46:1S:1486:G:H4'	1.92	0.52
46:1S:1677:C:H2'	46:1S:1678:A:O4'	2.10	0.52
47:S0:45:VAL:HG12	47:S0:46:HIS:H	1.74	0.52
55:S8:67:TRP:HB3	55:S8:70:GLU:HB3	1.91	0.52
58:11:89:ALA:HB2	58:11:104:HIS:HB3	1.90	0.52
58:11:117:VAL:CG1	58:11:118:GLN:H	2.21	0.52
61:14:133:ARG:HG2	61:14:136:ARG:HH21	1.73	0.52
62:15:50:THR:O	62:15:51:SER:HB2	2.10	0.52
63:16:77:GLN:O	63:16:81:ILE:HG12	2.09	0.52
70:23:16:ARG:HB3	70:23:20:ARG:NH1	2.25	0.52
73:26:31:PRO:O	73:26:35:ALA:HB2	2.10	0.52
75:28:10:ALA:HB1	75:28:30:VAL:HB	1.91	0.52
1:2S:286:U:H2'	1:2S:287:G:C8	2.46	0.51
1:2S:494:G:H1'	1:2S:495:G:N7	2.25	0.51
1:2S:1126:G:H2'	1:2S:1127:G:O4'	2.10	0.51
1:2S:1528:G:H21	1:2S:1588:A:H2	1.58	0.51
1:2S:1604:G:H3'	1:2S:1604:G:N3	2.25	0.51
1:2S:2352:A:H5''	19:57:83:TRP:O	2.10	0.51
1:2S:2991:A:OP2	6:L3:20:LYS:HE2	2.10	0.51
1:2S:3104:U:O2'	1:2S:3105:U:H5'	2.11	0.51
1:2S:3272:C:H5''	9:L6:77:ARG:NE	2.24	0.51
4:L1:130:LYS:HA	4:L1:136:THR:OG1	2.10	0.51
5:L2:202:VAL:O	5:L2:202:VAL:HG12	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:67:PHE:HA	6:L3:70:ARG:HH21	1.75	0.51
7:L4:69:ARG:O	7:L4:71:VAL:HG12	2.10	0.51
7:L4:299:ILE:HG23	20:58:39:ARG:HE	1.75	0.51
7:L4:351:PRO:HB2	7:L4:355:PHE:CD2	2.44	0.51
11:L8:122:LYS:H	11:L8:122:LYS:CD	2.22	0.51
11:L8:128:LYS:CG	11:L8:129:PRO:HD2	2.39	0.51
17:55:72:LYS:HA	17:55:89:VAL:O	2.09	0.51
19:57:70:THR:HG21	19:57:81:ALA:HB3	1.90	0.51
20:58:36:LEU:C	20:58:38:ARG:H	2.13	0.51
21:59:98:ARG:O	21:59:102:LEU:HG	2.10	0.51
22:60:76:GLY:O	22:60:126:VAL:HG13	2.09	0.51
25:63:81:GLN:HE21	25:63:83:LYS:HB3	1.75	0.51
25:63:86:ARG:HG2	25:63:87:ARG:H	1.75	0.51
28:66:88:GLU:HA	28:66:94:SER:HA	1.92	0.51
35:73:16:TYR:HD1	35:73:27:VAL:O	1.93	0.51
39:77:47:TYR:HB3	39:77:49:TRP:HE1	1.72	0.51
44:82:28:TYR:CD2	44:82:69:VAL:HG11	2.45	0.51
46:1S:581:U:H3'	46:1S:581:U:O2	2.10	0.51
46:1S:1139:A:H2'	46:1S:1140:G:H5'	1.91	0.51
46:1S:1179:G:H2'	46:1S:1180:C:C6	2.45	0.51
46:1S:1424:A:H2'	46:1S:1425:A:O4'	2.09	0.51
46:1S:1646:C:H2'	46:1S:1647:U:C6	2.45	0.51
48:S1:141:ALA:HB1	48:S1:210:ILE:HG12	1.91	0.51
52:S5:128:ASN:HB2	52:S5:131:GLN:HB2	1.92	0.51
52:S5:175:LEU:HD23	52:S5:197:GLU:OE1	2.10	0.51
60:13:114:ARG:O	60:13:118:ILE:HG13	2.10	0.51
72:25:58:ARG:HG3	72:25:58:ARG:NH1	2.24	0.51
77:30:42:ARG:HA	77:30:46:ASN:HD21	1.75	0.51
1:2S:228:U:O5'	1:2S:228:U:H6	1.93	0.51
1:2S:619:A:H4'	1:2S:620:U:C5	2.45	0.51
1:2S:1035:G:C5	1:2S:1036:A:N7	2.79	0.51
1:2S:1141:C:H2'	1:2S:1142:G:C8	2.43	0.51
1:2S:2152:A:O3'	5:L2:245:LEU:HD12	2.11	0.51
1:2S:2271:A:C2'	1:2S:2272:G:H5''	2.40	0.51
1:2S:2772:C:H4'	1:2S:2773:C:O5'	2.11	0.51
1:2S:3260:G:H5''	16:54:125:LYS:HB3	1.92	0.51
7:L4:51:ALA:HA	7:L4:103:THR:HB	1.92	0.51
8:L5:68:THR:HG22	8:L5:69:ILE:N	2.26	0.51
10:L7:66:LYS:O	10:L7:69:ALA:HB3	2.10	0.51
13:50:52:LEU:HG	13:50:165:ILE:HG22	1.92	0.51
17:55:36:ILE:HG22	17:55:62:TYR:HE1	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:58:3:ILE:HD12	20:58:3:ILE:N	2.25	0.51
21:59:40:ALA:O	21:59:44:LEU:HD23	2.09	0.51
24:62:87:ASN:HB2	24:62:89:LEU:HG	1.92	0.51
31:69:9:ALA:O	31:69:12:GLN:HG2	2.10	0.51
31:69:35:VAL:CG1	31:69:36:ASP:H	2.13	0.51
32:70:93:LEU:N	32:70:93:LEU:HD12	2.26	0.51
35:73:89:LEU:HD23	35:73:90:PRO:HD2	1.92	0.51
46:1S:10:G:H2'	46:1S:11:A:C8	2.46	0.51
46:1S:576:G:H4'	46:1S:580:A:C2	2.45	0.51
46:1S:639:U:H3	54:S7:100:PRO:HA	1.75	0.51
46:1S:1419:G:H5'	76:29:56:ARG:O	2.10	0.51
47:S0:172:LEU:O	47:S0:176:LEU:HG	2.09	0.51
53:S6:98:ARG:HD3	53:S6:99:GLY:N	2.25	0.51
55:S8:37:LYS:HD3	55:S8:95:THR:HA	1.92	0.51
55:S8:81:VAL:CG1	55:S8:91:VAL:HG13	2.40	0.51
55:S8:117:TYR:CE1	55:S8:146:ARG:HB3	2.45	0.51
63:16:26:LYS:HB2	63:16:26:LYS:NZ	2.25	0.51
67:20:33:GLN:HG3	67:20:109:GLU:HG2	1.91	0.51
1:2S:288:C:H2'	1:2S:289:A:C8	2.45	0.51
1:2S:1714:A:H62	1:2S:1730:G:N2	2.08	0.51
1:2S:2491:A:H1'	4:L1:207:LYS:NZ	2.25	0.51
1:2S:2686:A:H2'	1:2S:2687:G:O4'	2.11	0.51
1:2S:3376:A:H5'	1:2S:3377:G:H5''	1.91	0.51
5:L2:48:ILE:HA	5:L2:58:LEU:O	2.10	0.51
5:L2:136:ILE:HA	5:L2:148:VAL:HG12	1.93	0.51
7:L4:33:ASP:O	7:L4:37:THR:HG23	2.10	0.51
7:L4:134:LEU:O	7:L4:245:GLY:HA3	2.11	0.51
7:L4:239:ALA:N	7:L4:240:PRO:HD3	2.25	0.51
10:L7:77:VAL:HG11	23:61:141:VAL:HG13	1.92	0.51
15:53:189:GLU:CA	15:53:192:GLU:HG2	2.39	0.51
18:56:174:PHE:O	18:56:174:PHE:HD1	1.94	0.51
19:57:84:PRO:O	19:57:88:VAL:HG23	2.10	0.51
21:59:92:GLN:O	21:59:96:ILE:HG13	2.10	0.51
21:59:138:LEU:O	21:59:141:HIS:HB3	2.10	0.51
29:67:92:PHE:HA	29:67:95:VAL:CG2	2.41	0.51
36:74:80:ARG:HD3	36:74:84:CYS:HB3	1.91	0.51
46:1S:753:A:H2'	46:1S:754:A:H1'	1.93	0.51
46:1S:1041:G:H2'	46:1S:1042:G:C8	2.46	0.51
46:1S:1453:G:H2'	46:1S:1454:G:O4'	2.11	0.51
50:S3:42:THR:HB	50:S3:43:PRO:HD2	1.90	0.51
54:S7:44:LYS:HD3	54:S7:95:GLU:HG2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:S8:42:ARG:CG	55:S8:58:LEU:HB2	2.41	0.51
55:S8:191:PHE:O	55:S8:194:ARG:HB3	2.11	0.51
69:22:41:MET:HB3	69:22:46:TYR:HB2	1.93	0.51
70:23:120:VAL:HG12	70:23:122:PHE:H	1.75	0.51
71:24:20:ARG:HB3	71:24:76:TYR:CE1	2.45	0.51
72:25:95:HIS:CE1	72:25:98:GLN:HB2	2.44	0.51
1:2S:432:G:H2'	1:2S:433:A:C8	2.45	0.51
1:2S:2358:A:H2'	1:2S:2359:C:C6	2.46	0.51
1:2S:2710:C:H2'	1:2S:2711:C:C6	2.45	0.51
4:L1:22:GLU:O	4:L1:24:LYS:N	2.43	0.51
5:L2:45:VAL:HG12	5:L2:86:GLN:H	1.76	0.51
5:L2:129:ALA:HB1	5:L2:132:ASN:HD22	1.74	0.51
6:L3:21:ARG:CB	6:L3:272:TYR:HD1	2.21	0.51
7:L4:283:THR:C	7:L4:285:ASP:H	2.14	0.51
11:L8:99:PRO:HG2	11:L8:190:VAL:HG23	1.92	0.51
12:L9:92:TYR:HB3	12:L9:99:ILE:HD12	1.92	0.51
19:57:22:LEU:CD1	19:57:146:ILE:HD12	2.40	0.51
22:60:124:LEU:HD13	23:61:155:PRO:HG3	1.92	0.51
22:60:142:GLN:O	22:60:148:LEU:HD11	2.09	0.51
26:64:56:ARG:O	26:64:61:LYS:HG2	2.11	0.51
27:65:107:VAL:HG12	27:65:108:LEU:N	2.25	0.51
28:66:70:ILE:H	28:66:70:ILE:CD1	2.23	0.51
29:67:10:VAL:HG23	29:67:85:TYR:O	2.10	0.51
35:73:43:PHE:HZ	35:73:107:ILE:HD11	1.75	0.51
46:1S:826:U:H2'	46:1S:827:C:C6	2.45	0.51
46:1S:1067:C:H5''	48:S1:150:VAL:HG23	1.92	0.51
51:S4:102:VAL:HG22	51:S4:103:TYR:N	2.25	0.51
54:S7:24:PHE:O	54:S7:28:GLU:HG3	2.10	0.51
54:S7:55:LYS:HD2	54:S7:89:HIS:NE2	2.25	0.51
57:10:93:GLN:H	57:10:93:GLN:CD	2.13	0.51
58:11:92:HIS:O	58:11:100:TYR:HA	2.10	0.51
62:15:31:GLU:O	62:15:35:LYS:HD3	2.10	0.51
66:19:38:LYS:O	66:19:39:THR:OG1	2.26	0.51
72:25:50:ILE:HD11	72:25:70:LYS:CG	2.40	0.51
1:2S:16:A:H4'	27:65:45:LYS:HE3	1.91	0.51
1:2S:634:C:H2'	1:2S:635:G:O4'	2.10	0.51
1:2S:808:A:O2'	1:2S:809:G:H5'	2.10	0.51
1:2S:1132:C:H2'	1:2S:1133:A:H8	1.76	0.51
1:2S:1245:A:H3'	1:2S:1246:G:C5'	2.40	0.51
1:2S:2147:A:C5'	5:L2:199:THR:HA	2.40	0.51
1:2S:2315:G:H2'	1:2S:2316:G:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2392:C:O2'	1:2S:2393:G:H5'	2.11	0.51
1:2S:2734:A:H2'	1:2S:2735:U:C6	2.45	0.51
1:2S:2995:A:H5'	2:8S:1:A:C2	2.45	0.51
1:2S:3151:U:HO2'	1:2S:3152:U:H5	1.58	0.51
4:L1:123:LEU:CD2	4:L1:128:LEU:HD12	2.41	0.51
5:L2:23:ARG:HG3	5:L2:23:ARG:NH1	2.25	0.51
5:L2:68:LYS:HG2	5:L2:69:TYR:H	1.75	0.51
6:L3:249:VAL:HG12	6:L3:250:ALA:N	2.25	0.51
7:L4:62:ALA:HB2	7:L4:89:ALA:HB3	1.93	0.51
7:L4:216:VAL:HG12	7:L4:227:THR:HG21	1.93	0.51
12:L9:81:GLY:O	12:L9:85:GLY:HA2	2.11	0.51
15:53:3:ILE:HB	30:68:41:HIS:ND1	2.26	0.51
17:55:61:ILE:HD13	17:55:61:ILE:N	2.26	0.51
20:58:64:VAL:HA	20:58:67:ILE:HD12	1.93	0.51
21:59:15:VAL:HG11	21:59:52:LYS:HG3	1.92	0.51
27:65:24:LEU:HD12	27:65:24:LEU:N	2.25	0.51
27:65:115:ARG:HB2	27:65:119:THR:H	1.75	0.51
29:67:53:VAL:HG13	29:67:53:VAL:O	2.10	0.51
36:74:60:ARG:O	36:74:60:ARG:HG2	2.10	0.51
46:1S:6:G:OP2	49:S2:205:ARG:HD2	2.11	0.51
46:1S:41:A:H2'	46:1S:438:A:N7	2.26	0.51
46:1S:401:A:H4'	51:S4:3:ARG:CD	2.38	0.51
46:1S:477:A:H62	46:1S:539:G:N2	2.07	0.51
46:1S:503:G:H2'	46:1S:504:U:C6	2.45	0.51
46:1S:829:A:H4'	46:1S:830:U:H5'	1.92	0.51
47:S0:31:VAL:HG23	47:S0:150:ASP:HA	1.91	0.51
47:S0:147:THR:HB	47:S0:151:SER:HB2	1.92	0.51
47:S0:169:SER:O	47:S0:173:ILE:HG12	2.09	0.51
49:S2:188:LEU:HB3	49:S2:193:VAL:HB	1.92	0.51
51:S4:154:ILE:HD13	51:S4:160:VAL:HG22	1.92	0.51
53:S6:87:ARG:HH11	53:S6:87:ARG:HG3	1.75	0.51
55:S8:27:PHE:CB	55:S8:49:ARG:HH22	2.24	0.51
65:18:49:LYS:HG3	65:18:81:ILE:HD11	1.93	0.51
73:26:22:ARG:HH11	73:26:22:ARG:HG3	1.75	0.51
1:2S:132:C:H2'	1:2S:133:U:H5''	1.92	0.51
1:2S:508:U:H2'	1:2S:509:U:C6	2.46	0.51
1:2S:532:A:O2'	1:2S:533:A:H5'	2.11	0.51
1:2S:619:A:H5'	1:2S:620:U:C2	2.46	0.51
1:2S:824:C:H5''	5:L2:21:ARG:CD	2.33	0.51
1:2S:1341:U:H2'	1:2S:1342:C:H6	1.73	0.51
1:2S:1668:G:H2'	1:2S:1669:C:O4'	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2126:A:H2'	1:2S:2127:U:C6	2.46	0.51
1:2S:2269:U:H2'	1:2S:2270:A:H3'	1.93	0.51
1:2S:3151:U:O2'	1:2S:3152:U:H5	1.93	0.51
3:5S:38:U:HO2'	3:5S:40:C:H5	1.55	0.51
6:L3:52:GLY:O	6:L3:78:VAL:HB	2.10	0.51
8:L5:267:ALA:O	8:L5:271:LYS:HG3	2.10	0.51
13:50:43:VAL:HA	13:50:139:ARG:HH22	1.74	0.51
14:51:12:LEU:HD12	14:51:131:MET:HE2	1.92	0.51
16:54:113:THR:HG22	16:54:115:PHE:H	1.74	0.51
23:61:68:THR:CG2	23:61:69:LYS:H	2.19	0.51
24:62:98:THR:CG2	24:62:99:LYS:HE2	2.39	0.51
28:66:56:VAL:HG12	28:66:70:ILE:HD11	1.93	0.51
39:77:51:ALA:HA	39:77:54:LYS:HB2	1.93	0.51
45:83:57:CYS:SG	45:83:59:CYS:O	2.64	0.51
46:1S:94:U:C2'	46:1S:95:G:H5'	2.40	0.51
46:1S:618:U:C5'	46:1S:1030:A:C5	2.93	0.51
46:1S:794:U:O2	46:1S:794:U:C2'	2.58	0.51
46:1S:1543:A:C1'	46:1S:1569:A:N1	2.73	0.51
47:S0:63:ILE:HG22	47:S0:63:ILE:O	2.10	0.51
48:S1:81:PHE:O	48:S1:82:ARG:HB2	2.10	0.51
49:S2:106:ASP:OD1	49:S2:107:SER:N	2.43	0.51
52:S5:140:THR:O	52:S5:142:PRO:HD3	2.10	0.51
52:S5:167:ARG:HH12	75:28:55:VAL:CG2	2.24	0.51
58:11:77:SER:O	58:11:84:ILE:HB	2.11	0.51
66:19:28:LEU:O	66:19:29:GLU:HB2	2.11	0.51
73:26:18:VAL:HG21	73:26:33:ASP:OD1	2.10	0.51
1:2S:44:U:H2'	1:2S:45:A:H5'	1.93	0.51
1:2S:55:G:C2'	1:2S:56:G:H5'	2.41	0.51
1:2S:977:C:O2'	1:2S:978:G:H5'	2.11	0.51
1:2S:1009:A:H2'	1:2S:1010:G:C8	2.46	0.51
1:2S:1287:A:C2	1:2S:1288:U:C1'	2.93	0.51
1:2S:1764:U:H3'	1:2S:1765:U:C4'	2.40	0.51
1:2S:2861:U:H2'	1:2S:2862:U:C6	2.46	0.51
1:2S:2890:A:H61	1:2S:2913:C:H42	1.59	0.51
1:2S:2936:A:H2'	1:2S:2937:G:C8	2.46	0.51
2:8S:155:A:H2'	2:8S:156:U:C5'	2.41	0.51
3:5S:34:C:H2'	3:5S:35:C:C6	2.46	0.51
6:L3:111:SER:O	6:L3:115:LYS:HG3	2.10	0.51
11:L8:53:PRO:HB2	11:L8:56:VAL:HG23	1.93	0.51
11:L8:238:LEU:H	11:L8:238:LEU:CD2	2.24	0.51
12:L9:90:MET:O	12:L9:143:GLU:HG3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:50:17:TYR:O	13:50:96:VAL:HG23	2.10	0.51
20:58:32:LEU:O	20:58:36:LEU:HG	2.11	0.51
30:68:94:ALA:HA	30:68:121:VAL:HG13	1.93	0.51
33:71:10:ARG:HA	33:71:109:VAL:HG23	1.93	0.51
46:1S:57:G:H2'	46:1S:58:U:O4'	2.11	0.51
46:1S:413:U:H2'	46:1S:414:C:C6	2.45	0.51
46:1S:912:U:H4'	46:1S:914:G:H5''	1.93	0.51
46:1S:1217:A:O4'	57:10:44:LYS:HE3	2.11	0.51
46:1S:1797:A:H5'	73:26:95:ARG:CG	2.37	0.51
48:S1:201:THR:HG22	48:S1:201:THR:O	2.10	0.51
49:S2:99:LYS:HE3	49:S2:115:ILE:HG21	1.93	0.51
50:S3:37:VAL:CG1	50:S3:50:ILE:HG23	2.37	0.51
51:S4:163:ASP:O	51:S4:164:LEU:HB2	2.11	0.51
51:S4:181:VAL:HG13	51:S4:226:PHE:H	1.74	0.51
55:S8:153:GLU:HB3	55:S8:156:VAL:CG2	2.38	0.51
56:S9:12:TYR:CE2	56:S9:40:LYS:HD3	2.46	0.51
56:S9:59:LEU:HA	56:S9:62:ARG:CG	2.41	0.51
59:12:42:ALA:HB1	59:12:47:GLU:HB3	1.92	0.51
59:12:46:ARG:NH1	78:31:103:LEU:HD11	2.26	0.51
67:20:96:PRO:HG2	67:20:99:ILE:HG22	1.92	0.51
69:22:36:LYS:CG	69:22:110:ILE:HD12	2.38	0.51
73:26:23:CYS:O	73:26:27:SER:HA	2.10	0.51
1:2S:1209:G:H2'	1:2S:1210:U:C6	2.46	0.51
1:2S:1794:G:H4'	5:L2:191:LEU:HD12	1.91	0.51
1:2S:2765:C:O5'	1:2S:2765:C:H6	1.94	0.51
1:2S:3205:G:N2	22:60:169:SER:HB2	2.23	0.51
3:5S:7:G:H2'	3:5S:8:G:C8	2.45	0.51
5:L2:134:VAL:HG12	5:L2:150:LEU:HA	1.92	0.51
6:L3:292:ALA:HB1	6:L3:295:ALA:HB3	1.92	0.51
7:L4:161:LYS:H	7:L4:161:LYS:HD2	1.76	0.51
11:L8:190:VAL:O	11:L8:190:VAL:HG22	2.11	0.51
21:59:112:ALA:HB3	21:59:114:LYS:HG3	1.93	0.51
22:60:135:VAL:HG12	22:60:141:LYS:HE2	1.93	0.51
28:66:45:ILE:HG21	28:66:48:LEU:HG	1.93	0.51
32:70:24:THR:HG22	32:70:93:LEU:HD11	1.92	0.51
34:72:40:SER:HB3	34:72:43:ARG:HB3	1.93	0.51
35:73:43:PHE:CZ	35:73:107:ILE:HD11	2.45	0.51
44:82:72:LEU:HB2	44:82:81:ALA:HB3	1.92	0.51
46:1S:27:U:O2'	46:1S:28:A:H5'	2.10	0.51
46:1S:109:G:HO2'	46:1S:796:A:H2	1.57	0.51
46:1S:446:A:O2'	46:1S:447:U:H5'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:583:C:O2	46:1S:583:C:H2'	2.10	0.51
46:1S:942:G:H5''	46:1S:977:A:H4'	1.93	0.51
46:1S:1049:U:H2'	46:1S:1050:G:C8	2.45	0.51
46:1S:1525:A:H2'	46:1S:1526:A:O4'	2.11	0.51
48:S1:53:GLY:O	48:S1:54:LEU:HB2	2.11	0.51
54:S7:126:LEU:HD21	54:S7:173:TYR:CE1	2.46	0.51
54:S7:131:PHE:H	54:S7:132:PRO:HD2	1.76	0.51
55:S8:78:ILE:HG22	55:S8:79:ALA:N	2.26	0.51
61:14:87:GLY:HA3	61:14:120:PRO:CG	2.40	0.51
73:26:84:VAL:HG22	73:26:86:VAL:H	1.74	0.51
76:29:5:ASN:HB3	76:29:8:PHE:HB3	1.93	0.51
79:RA:9:LEU:HD12	79:RA:312:VAL:O	2.09	0.51
79:RA:50:ASP:O	79:RA:51:ASP:HB2	2.10	0.51
1:2S:61:A:H2'	1:2S:62:A:O4'	2.11	0.51
1:2S:1225:A:C2	1:2S:3116:G:C8	2.99	0.51
1:2S:1635:G:N2	1:2S:1638:A:OP2	2.40	0.51
1:2S:2336:U:H2'	1:2S:2337:C:O4'	2.11	0.51
1:2S:2385:G:N7	1:2S:3143:C:H2'	2.26	0.51
1:2S:2434:U:H5'	1:2S:2593:A:H2	1.75	0.51
1:2S:2500:A:C2'	1:2S:2501:U:H5'	2.41	0.51
1:2S:2606:G:H5'	5:L2:233:GLN:HE22	1.75	0.51
1:2S:2812:C:H2'	1:2S:2813:A:H8	1.73	0.51
1:2S:3117:C:H2'	1:2S:3118:C:O4'	2.11	0.51
2:8S:104:A:H3'	2:8S:105:A:C5'	2.40	0.51
4:L1:198:TRP:O	4:L1:199:GLN:O	2.29	0.51
9:L6:18:LEU:HD22	9:L6:18:LEU:N	2.26	0.51
12:L9:129:ARG:NH2	12:L9:156:GLN:HG2	2.23	0.51
15:53:165:SER:C	15:53:167:PHE:H	2.13	0.51
26:64:21:PHE:HE2	26:64:23:ARG:HD3	1.76	0.51
29:67:101:PHE:O	29:67:102:GLU:CB	2.58	0.51
29:67:101:PHE:O	29:67:102:GLU:HB3	2.11	0.51
36:74:5:VAL:HG21	36:74:31:ARG:HG3	1.93	0.51
36:74:80:ARG:HB3	36:74:84:CYS:CB	2.39	0.51
39:77:5:THR:HA	39:77:8:PHE:CD2	2.45	0.51
42:80:111:ARG:HG3	42:80:112:LYS:HD2	1.92	0.51
46:1S:444:C:H41	46:1S:458:G:H2'	1.76	0.51
46:1S:481:A:C2	46:1S:507:U:O4	2.63	0.51
46:1S:694:U:O2	46:1S:694:U:H2'	2.09	0.51
46:1S:1246:C:H2'	46:1S:1247:U:C6	2.46	0.51
54:S7:123:ASP:O	54:S7:127:GLU:HB2	2.10	0.51
65:18:116:LEU:HB3	65:18:124:GLY:HA3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:19:33:TYR:O	66:19:36:ILE:HG12	2.11	0.51
67:20:17:GLN:OE1	67:20:96:PRO:HG3	2.11	0.51
67:20:69:LYS:CG	67:20:80:GLU:HB2	2.41	0.51
78:31:132:LEU:HD13	78:31:150:VAL:HB	1.92	0.51
79:RA:112:SER:HB3	79:RA:154:VAL:HG22	1.93	0.51
1:2S:958:C:H5''	1:2S:2800:G:OP1	2.11	0.51
1:2S:1154:A:H3'	1:2S:1155:C:C5	2.46	0.51
1:2S:1496:C:O2	1:2S:1496:C:H2'	2.09	0.51
1:2S:1725:C:H5''	45:83:36:ARG:HH12	1.74	0.51
1:2S:2051:G:H2'	1:2S:2052:G:C8	2.46	0.51
1:2S:2310:U:H2'	1:2S:2311:G:H8	1.73	0.51
1:2S:2493:U:H5''	4:L1:162:VAL:HB	1.92	0.51
1:2S:2688:U:H4'	1:2S:2689:A:O5'	2.10	0.51
1:2S:3006:A:H2'	1:2S:3007:U:O4'	2.11	0.51
5:L2:150:LEU:HD12	5:L2:154:ALA:CB	2.39	0.51
6:L3:85:VAL:O	6:L3:162:VAL:HB	2.10	0.51
7:L4:29:PRO:HD2	7:L4:277:PRO:HB2	1.93	0.51
7:L4:156:LEU:HD23	7:L4:156:LEU:C	2.31	0.51
16:54:25:LYS:CE	16:54:62:GLN:HG2	2.26	0.51
18:56:15:LEU:HG	18:56:125:ARG:HA	1.93	0.51
21:59:155:LEU:HA	21:59:158:GLU:HG2	1.93	0.51
37:75:7:TYR:HA	37:75:10:ARG:CD	2.38	0.51
40:78:8:ILE:H	40:78:8:ILE:HD12	1.76	0.51
46:1S:144:U:C2'	46:1S:145:A:H5'	2.40	0.51
46:1S:148:A:N6	46:1S:166:C:N3	2.59	0.51
46:1S:803:A:N3	54:S7:104:ARG:HG3	2.26	0.51
46:1S:860:U:C1'	54:S7:114:ARG:HG2	2.41	0.51
46:1S:1530:C:OP2	72:25:95:HIS:HB3	2.11	0.51
48:S1:143:THR:HA	48:S1:207:LEU:HA	1.93	0.51
50:S3:38:GLU:HG3	50:S3:38:GLU:O	2.11	0.51
51:S4:14:ALA:HB1	51:S4:18:TRP:CZ3	2.46	0.51
53:S6:57:ASP:HA	53:S6:107:ALA:H	1.74	0.51
55:S8:10:LYS:HB3	55:S8:18:ARG:HH21	1.76	0.51
56:S9:141:VAL:HG13	56:S9:143:ILE:HG13	1.92	0.51
65:18:29:VAL:HG21	65:18:54:LEU:HD12	1.93	0.51
66:19:86:ARG:HH22	66:19:90:PRO:HG2	1.75	0.51
70:23:4:GLY:O	70:23:5:LYS:C	2.49	0.51
70:23:76:LEU:CD2	70:23:78:LYS:HG2	2.41	0.51
70:23:103:LEU:O	70:23:125:VAL:HB	2.11	0.51
72:25:54:VAL:N	72:25:55:PRO:HD2	2.26	0.51
73:26:62:TYR:O	73:26:63:ALA:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:RA:92:TRP:HA	79:RA:98:GLU:O	2.11	0.51
1:2S:38:U:H2'	1:2S:39:A:O4'	2.10	0.50
1:2S:428:A:H2'	1:2S:429:U:C6	2.46	0.50
1:2S:880:G:H8	1:2S:882:A:OP2	1.94	0.50
1:2S:1434:G:H5'	1:2S:1437:C:H5	1.76	0.50
1:2S:1920:U:H2'	1:2S:1930:A:N6	2.27	0.50
1:2S:1951:C:H6	1:2S:2095:G:C2	2.28	0.50
1:2S:2714:G:H5'	1:2S:2716:U:C5'	2.42	0.50
1:2S:2877:G:H2'	1:2S:2878:G:O4'	2.11	0.50
1:2S:3064:U:H2'	1:2S:3065:G:H8	1.75	0.50
6:L3:56:ILE:HG13	6:L3:57:VAL:N	2.26	0.50
12:L9:176:LEU:CD2	42:80:90:ASN:OD1	2.59	0.50
13:50:97:LEU:HG	13:50:124:GLY:O	2.11	0.50
14:51:94:ARG:C	14:51:96:PHE:N	2.63	0.50
16:54:108:ARG:HG2	16:54:108:ARG:HH21	1.76	0.50
19:57:114:VAL:O	19:57:114:VAL:HG13	2.11	0.50
21:59:109:TYR:C	21:59:115:ILE:HG22	2.31	0.50
30:68:105:LEU:HD22	30:68:148:ILE:HD12	1.93	0.50
44:82:65:THR:HG22	44:82:89:LYS:HG2	1.93	0.50
46:1S:176:C:C2'	46:1S:177:U:H5'	2.40	0.50
46:1S:846:G:H2'	46:1S:847:A:O4'	2.11	0.50
46:1S:1480:G:H5''	66:19:63:ARG:NH2	2.25	0.50
46:1S:1533:C:H41	72:25:77:ARG:NH2	2.09	0.50
49:S2:226:THR:CG2	49:S2:229:LEU:HB2	2.41	0.50
50:S3:148:LYS:HB3	50:S3:148:LYS:HZ2	1.73	0.50
62:15:18:ARG:O	65:18:95:GLY:HA3	2.10	0.50
65:18:17:LEU:O	65:18:18:LEU:HB2	2.12	0.50
1:2S:61:A:H2'	1:2S:62:A:C8	2.47	0.50
1:2S:198:A:C2'	1:2S:199:A:H5'	2.39	0.50
1:2S:371:G:N2	1:2S:373:A:H3'	2.26	0.50
1:2S:680:G:H5''	7:L4:114:ASN:OD1	2.11	0.50
1:2S:1220:U:H4'	1:2S:1222:G:O4'	2.11	0.50
1:2S:1302:A:C2'	1:2S:1303:A:H5''	2.41	0.50
1:2S:1608:C:H2'	1:2S:1609:C:H6	1.76	0.50
1:2S:2116:G:H2'	1:2S:2116:G:N3	2.25	0.50
1:2S:2147:A:H2'	1:2S:2148:U:O4'	2.12	0.50
1:2S:2447:A:N6	1:2S:2500:A:C2	2.73	0.50
1:2S:2721:A:H2'	1:2S:2722:U:O4'	2.11	0.50
1:2S:2921:U:H2'	1:2S:2923:U:H5''	1.93	0.50
1:2S:3050:U:H5''	26:64:17:ARG:HE	1.76	0.50
1:2S:3225:C:H2'	1:2S:3226:A:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:8S:13:A:H2'	2:8S:14:C:C6	2.47	0.50
2:8S:19:C:H2'	2:8S:20:U:O4'	2.11	0.50
3:5S:64:A:H62	13:50:209:ASN:ND2	2.09	0.50
4:L1:120:VAL:N	4:L1:121:PRO:CD	2.73	0.50
4:L1:216:LEU:HG	4:L1:216:LEU:O	2.11	0.50
6:L3:214:MET:HA	6:L3:280:HIS:O	2.10	0.50
7:L4:317:PRO:C	7:L4:319:LYS:H	2.14	0.50
8:L5:24:ARG:HB2	8:L5:24:ARG:NH1	2.26	0.50
11:L8:50:VAL:HG12	27:65:30:ALA:HA	1.93	0.50
16:54:46:ILE:O	16:54:55:ARG:HA	2.10	0.50
30:68:101:VAL:HG13	30:68:124:ILE:HG22	1.93	0.50
46:1S:36:C:H2'	46:1S:37:U:C6	2.46	0.50
46:1S:331:A:H2'	46:1S:332:U:C6	2.46	0.50
46:1S:417:A:H5'	46:1S:418:G:C8	2.46	0.50
46:1S:1079:U:H2'	46:1S:1080:U:C6	2.46	0.50
46:1S:1139:A:H2'	46:1S:1140:G:C5'	2.42	0.50
46:1S:1586:A:H2'	46:1S:1587:A:O4'	2.11	0.50
49:S2:66:PHE:O	49:S2:69:ILE:HG13	2.11	0.50
50:S3:49:ILE:HG13	50:S3:87:TYR:HB2	1.93	0.50
57:10:81:ASN:CB	59:12:37:VAL:HG13	2.41	0.50
59:12:67:THR:O	59:12:68:GLU:HB2	2.11	0.50
60:13:101:HIS:HA	60:13:104:ARG:HH11	1.75	0.50
60:13:114:ARG:HD3	60:13:117:LEU:CD1	2.37	0.50
66:19:144:GLU:HG3	66:19:144:GLU:OXT	2.11	0.50
67:20:58:LEU:HD21	67:20:90:TYR:CE2	2.40	0.50
70:23:29:TYR:O	70:23:33:LEU:N	2.42	0.50
71:24:60:PHE:CE2	71:24:71:GLY:HA3	2.47	0.50
1:2S:359:U:H4'	1:2S:817:A:H62	1.76	0.50
1:2S:963:G:H8	1:2S:963:G:O5'	1.95	0.50
3:5S:55:A:H2'	3:5S:56:A:C8	2.47	0.50
5:L2:242:ARG:HH11	5:L2:246:LEU:HD23	1.74	0.50
9:L6:50:LYS:HE3	9:L6:72:ASN:HB2	1.93	0.50
9:L6:132:ALA:O	9:L6:136:GLU:HG2	2.12	0.50
28:66:82:VAL:HG12	28:66:83:ASP:N	2.26	0.50
37:75:71:LYS:HE3	37:75:72:GLY:N	2.26	0.50
38:76:70:ARG:NH2	38:76:84:LYS:HA	2.26	0.50
44:82:14:GLY:HA3	44:82:77:CYS:SG	2.51	0.50
46:1S:45:U:O2'	46:1S:46:A:H2'	2.11	0.50
46:1S:420:A:H2'	46:1S:421:A:C8	2.46	0.50
46:1S:920:U:H5''	48:S1:65:VAL:HG22	1.92	0.50
46:1S:1077:C:H2'	46:1S:1078:C:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1724:U:H2'	46:1S:1725:U:C6	2.46	0.50
52:S5:100:ASN:OD1	52:S5:180:ARG:NH1	2.44	0.50
54:S7:139:ARG:HG3	54:S7:139:ARG:NH1	2.26	0.50
55:S8:81:VAL:CG2	55:S8:94:ASN:HA	2.42	0.50
60:13:129:TYR:HB3	60:13:134:VAL:CG2	2.41	0.50
65:18:16:ARG:HH11	65:18:16:ARG:HG3	1.75	0.50
74:27:32:PHE:CD1	74:27:45:THR:HG22	2.46	0.50
76:29:26:SER:HB3	76:29:39:CYS:HB3	1.94	0.50
77:30:22:GLU:HG3	77:30:23:LYS:N	2.26	0.50
77:30:33:ARG:CZ	77:30:33:ARG:HB3	2.41	0.50
79:RA:161:LYS:HA	79:RA:161:LYS:CE	2.41	0.50
1:2S:31:C:H2'	1:2S:32:U:H6	1.76	0.50
1:2S:517:G:H8	1:2S:517:G:H5'	1.77	0.50
1:2S:847:A:H2'	1:2S:848:A:C8	2.46	0.50
1:2S:1226:G:H2'	1:2S:1227:C:C5	2.45	0.50
1:2S:1287:A:H2	1:2S:1288:U:H1'	1.75	0.50
1:2S:3356:G:H2'	1:2S:3357:U:C6	2.47	0.50
3:5S:75:G:H2'	3:5S:76:A:H2'	1.93	0.50
9:L6:89:THR:HG21	9:L6:155:LEU:HD21	1.93	0.50
11:L8:47:SER:OG	27:65:27:ARG:HD3	2.12	0.50
11:L8:130:TYR:HB3	11:L8:204:ARG:NH2	2.18	0.50
12:L9:13:PRO:CD	12:L9:79:ILE:HG21	2.42	0.50
13:50:179:PRO:HA	13:50:182:LEU:HD12	1.94	0.50
14:51:156:LYS:O	14:51:160:VAL:HG23	2.11	0.50
15:53:56:PRO:HB3	15:53:75:PHE:CE1	2.46	0.50
16:54:92:GLU:O	16:54:96:ALA:HB2	2.12	0.50
24:62:23:THR:HA	24:62:28:PHE:HB3	1.92	0.50
29:67:89:VAL:O	29:67:89:VAL:HG22	2.11	0.50
30:68:70:LYS:HD3	30:68:111:LYS:HB2	1.92	0.50
30:68:75:LEU:HA	30:68:78:LEU:CD1	2.41	0.50
32:70:23:TYR:CA	32:70:93:LEU:HD13	2.39	0.50
36:74:96:GLU:O	36:74:100:ILE:HD13	2.10	0.50
40:78:29:LYS:HD3	40:78:29:LYS:O	2.10	0.50
46:1S:477:A:OP1	77:30:31:LYS:HG2	2.10	0.50
46:1S:1565:C:H4'	65:18:85:PHE:CD1	2.46	0.50
47:S0:9:LEU:HD13	47:S0:9:LEU:C	2.32	0.50
53:S6:78:THR:CG2	53:S6:79:LYS:H	2.09	0.50
53:S6:199:GLN:O	53:S6:203:GLU:HG2	2.12	0.50
55:S8:76:THR:HB	55:S8:105:ASP:HB2	1.93	0.50
58:11:123:VAL:HG21	58:11:139:VAL:HG13	1.94	0.50
77:30:33:ARG:HB3	77:30:33:ARG:NH1	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:368:G:O2'	1:2S:369:A:H5'	2.12	0.50
1:2S:666:A:O2'	15:53:10:LEU:HD13	2.11	0.50
1:2S:706:A:O2'	1:2S:707:U:H5'	2.12	0.50
1:2S:1194:G:H2'	1:2S:1195:A:O4'	2.12	0.50
1:2S:1481:A:H61	36:74:2:ALA:HA	1.75	0.50
1:2S:2394:G:H2'	1:2S:2395:G:O4'	2.12	0.50
1:2S:2516:U:O5'	1:2S:2516:U:H6	1.93	0.50
1:2S:2938:G:H3'	6:L3:3:HIS:CD2	2.46	0.50
1:2S:3020:U:O2'	12:L9:121:LYS:HD3	2.12	0.50
1:2S:3165:A:H61	1:2S:3285:C:H42	1.58	0.50
2:8S:139:U:H2'	2:8S:140:G:C8	2.46	0.50
4:L1:105:LYS:HB2	4:L1:105:LYS:HZ3	1.77	0.50
6:L3:332:ARG:O	6:L3:333:LYS:HB2	2.11	0.50
11:L8:41:GLN:HB3	11:L8:44:ARG:HH12	1.77	0.50
15:53:7:LEU:O	30:68:49:HIS:NE2	2.45	0.50
15:53:164:GLU:HB3	15:53:169:THR:OG1	2.12	0.50
17:55:118:SER:HB3	17:55:132:VAL:HA	1.94	0.50
19:57:112:LEU:HD23	19:57:150:VAL:HG23	1.94	0.50
28:66:88:GLU:HG3	28:66:94:SER:HB2	1.92	0.50
30:68:149:ALA:HB3	38:76:15:LYS:CD	2.41	0.50
32:70:15:ALA:O	32:70:18:ILE:HG22	2.12	0.50
36:74:62:TYR:HA	36:74:65:VAL:HG23	1.94	0.50
37:75:88:LEU:HA	37:75:91:ALA:HB2	1.94	0.50
39:77:21:ARG:HB2	39:77:39:TYR:CE1	2.47	0.50
40:78:54:LEU:HG	40:78:56:ILE:HD11	1.94	0.50
46:1S:20:G:C5'	46:1S:571:G:C8	2.95	0.50
46:1S:20:G:H5'	46:1S:571:G:C8	2.47	0.50
46:1S:378:A:H3'	46:1S:379:U:C6	2.47	0.50
46:1S:634:G:H1'	46:1S:966:A:C2	2.46	0.50
46:1S:781:U:H3'	46:1S:781:U:O2	2.12	0.50
46:1S:1036:A:H5'	69:22:3:ARG:NH2	2.13	0.50
46:1S:1559:A:H5''	65:18:135:GLY:HA3	1.94	0.50
49:S2:53:ILE:HA	49:S2:72:LEU:HD23	1.93	0.50
50:S3:66:ILE:HD13	50:S3:69:LEU:HD11	1.94	0.50
51:S4:67:GLN:HB2	51:S4:69:HIS:CD2	2.47	0.50
51:S4:247:SER:O	51:S4:251:GLU:HG3	2.11	0.50
52:S5:116:HIS:O	52:S5:120:ILE:HG13	2.11	0.50
53:S6:216:LEU:HG	53:S6:219:ARG:HH11	1.76	0.50
53:S6:223:LYS:NZ	53:S6:226:ILE:HD13	2.26	0.50
55:S8:105:ASP:O	55:S8:106:ALA:HB3	2.12	0.50
56:S9:133:HIS:O	56:S9:134:ILE:HG12	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:14:122:PRO:C	61:14:124:ASP:H	2.15	0.50
65:18:46:VAL:HG21	65:18:73:MET:SD	2.51	0.50
65:18:104:ASN:O	65:18:108:LYS:HB2	2.12	0.50
72:25:88:ILE:HA	72:25:104:ALA:HA	1.94	0.50
1:2S:641:C:H2'	1:2S:642:U:O4'	2.11	0.50
1:2S:745:C:C5'	20:58:145:ASN:HD22	2.24	0.50
1:2S:944:C:H2'	1:2S:945:C:C6	2.46	0.50
1:2S:1014:U:H2'	1:2S:1015:U:H5'	1.93	0.50
1:2S:1498:A:H2'	1:2S:1499:C:C6	2.46	0.50
1:2S:1791:C:H2'	1:2S:1792:C:C6	2.46	0.50
1:2S:2430:A:H2'	1:2S:2431:C:C6	2.45	0.50
1:2S:2493:U:H5''	4:L1:162:VAL:HG12	1.93	0.50
1:2S:3004:C:H4'	6:L3:99:LEU:HB2	1.92	0.50
1:2S:3121:U:H1'	1:2S:3122:A:H5''	1.92	0.50
2:8S:103:G:H2'	2:8S:105:A:C8	2.46	0.50
9:L6:142:ASP:HA	9:L6:145:LEU:HD12	1.94	0.50
12:L9:138:THR:O	12:L9:139:ASN:OD1	2.30	0.50
14:51:88:GLU:O	14:51:89:TYR:HB2	2.11	0.50
23:61:50:LYS:HB3	23:61:92:ARG:HH21	1.71	0.50
30:68:113:LEU:HD23	30:68:131:SER:HB3	1.93	0.50
46:1S:168:A:H4'	53:S6:136:LYS:HD2	1.94	0.50
46:1S:560:U:H2'	46:1S:561:G:H8	1.77	0.50
46:1S:820:U:H2'	46:1S:821:U:H4'	1.93	0.50
46:1S:1274:C:O2	46:1S:1274:C:C2'	2.60	0.50
46:1S:1503:A:H2'	46:1S:1504:G:O4'	2.10	0.50
49:S2:103:VAL:HG13	49:S2:112:GLY:O	2.11	0.50
50:S3:31:GLU:HG2	50:S3:107:PHE:HZ	1.76	0.50
50:S3:202:LEU:HD22	50:S3:202:LEU:N	2.27	0.50
51:S4:31:PRO:HD2	51:S4:38:LEU:HD11	1.93	0.50
51:S4:102:VAL:HG13	51:S4:110:ALA:HB3	1.93	0.50
52:S5:20:PHE:CE2	52:S5:35:GLN:HB2	2.46	0.50
53:S6:50:PHE:CE1	53:S6:111:LEU:HB3	2.47	0.50
56:S9:62:ARG:O	56:S9:69:ARG:NH1	2.45	0.50
57:10:16:PHE:HD2	57:10:76:LEU:HB2	1.76	0.50
59:12:46:ARG:HG3	59:12:46:ARG:NH1	2.27	0.50
1:2S:1407:A:H4'	34:72:33:ARG:HH22	1.75	0.50
1:2S:1978:A:C2'	1:2S:1979:G:H5'	2.41	0.50
1:2S:3313:U:H4'	6:L3:173:GLN:HG3	1.94	0.50
2:8S:60:U:O2'	2:8S:61:A:H5'	2.11	0.50
6:L3:232:ARG:HD3	6:L3:268:GLY:N	2.26	0.50
8:L5:181:PRO:HG2	8:L5:195:LEU:CD1	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:94:LYS:O	10:L7:95:ILE:HD13	2.12	0.50
11:L8:219:ASP:OD1	11:L8:223:ALA:HB2	2.11	0.50
13:50:147:VAL:O	13:50:147:VAL:HG12	2.12	0.50
20:58:33:TYR:O	20:58:36:LEU:HB2	2.11	0.50
20:58:100:THR:CG2	20:58:122:ILE:HD13	2.40	0.50
26:64:25:ASP:OD2	26:64:26:SER:N	2.45	0.50
35:73:35:VAL:HG11	35:73:41:ALA:HB2	1.93	0.50
46:1S:559:C:H4'	77:30:60:PRO:CG	2.42	0.50
46:1S:686:C:H2'	46:1S:687:G:C8	2.47	0.50
46:1S:856:A:H61	54:S7:121:VAL:HG22	1.76	0.50
46:1S:1796:C:C2	73:26:5:ARG:HG2	2.46	0.50
47:S0:198:MET:HE1	47:S0:199:PRO:HD2	1.93	0.50
51:S4:76:VAL:O	51:S4:77:ARG:HB2	2.12	0.50
54:S7:30:SER:OG	54:S7:34:LEU:HD22	2.12	0.50
54:S7:96:ARG:HB2	54:S7:121:VAL:HG13	1.93	0.50
57:10:10:LYS:HB3	57:10:35:ILE:HG23	1.93	0.50
60:13:102:LEU:HD21	60:13:111:ALA:HB3	1.93	0.50
70:23:115:GLY:C	70:23:117:ILE:H	2.15	0.50
72:25:60:VAL:CG2	72:25:101:TYR:HB2	2.37	0.50
73:26:22:ARG:NH1	73:26:22:ARG:HG3	2.27	0.50
75:28:61:ARG:HG2	75:28:62:GLU:N	2.26	0.50
78:31:123:ASN:CB	78:31:124:PRO:HD2	2.40	0.50
1:2S:98:G:N7	15:53:13:HIS:NE2	2.58	0.50
1:2S:924:G:N2	1:2S:2414:G:HI'	2.27	0.50
1:2S:1323:G:H5''	22:60:1:MET:C	2.32	0.50
1:2S:1328:C:H5''	35:73:75:HIS:CE1	2.47	0.50
1:2S:1741:A:H2'	1:2S:1742:U:C5'	2.39	0.50
1:2S:1752:A:H2'	1:2S:1753:G:O4'	2.12	0.50
1:2S:1932:A:H3'	1:2S:1933:A:H8	1.77	0.50
1:2S:2978:U:O2'	1:2S:2979:U:H5'	2.11	0.50
1:2S:3088:G:H5''	6:L3:332:ARG:NH2	2.27	0.50
1:2S:3160:U:H2'	1:2S:3161:C:C5	2.47	0.50
5:L2:224:THR:HA	5:L2:237:LEU:HB2	1.94	0.50
7:L4:72:ALA:HB3	7:L4:76:ARG:HH12	1.76	0.50
8:L5:125:VAL:CG1	8:L5:199:ILE:HG21	2.41	0.50
8:L5:195:LEU:O	8:L5:199:ILE:HG13	2.12	0.50
10:L7:40:LYS:O	10:L7:44:ILE:HG13	2.12	0.50
12:L9:18:VAL:HG12	12:L9:27:VAL:HA	1.94	0.50
15:53:105:ASN:HB3	15:53:108:ILE:CG1	2.41	0.50
26:64:55:PHE:HA	26:64:58:HIS:CB	2.42	0.50
34:72:19:ARG:HG3	34:72:33:ARG:N	2.19	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:72:20:HIS:O	34:72:21:HIS:HB2	2.12	0.50
36:74:81:CYS:SG	36:74:83:ASN:HB2	2.51	0.50
46:1S:1201:G:H21	46:1S:1600:A:C5'	2.19	0.50
46:1S:1624:C:O2'	46:1S:1625:C:H5'	2.11	0.50
51:S4:259:GLN:HE21	51:S4:259:GLN:H	1.60	0.50
52:S5:25:LEU:HB3	63:16:26:LYS:O	2.12	0.50
55:S8:184:LEU:O	55:S8:185:GLU:HG3	2.11	0.50
60:13:63:ALA:HB3	60:13:71:ILE:CD1	2.42	0.50
60:13:113:PHE:O	60:13:117:LEU:HG	2.10	0.50
62:15:32:ASP:O	62:15:35:LYS:HB2	2.12	0.50
69:22:29:PRO:HA	69:22:59:GLY:O	2.11	0.50
69:22:83:ILE:O	69:22:83:ILE:HG23	2.12	0.50
69:22:125:ILE:HG12	69:22:126:LEU:N	2.27	0.50
70:23:24:TRP:CH2	70:23:33:LEU:HB3	2.47	0.50
1:2S:180:C:H2'	1:2S:181:U:C6	2.47	0.50
1:2S:1180:A:C5'	35:73:77:ASN:HB2	2.33	0.50
1:2S:1439:U:O5'	1:2S:1439:U:H6	1.95	0.50
1:2S:1908:A:H2	1:2S:2336:U:H5'	1.77	0.50
1:2S:1925:U:H3'	1:2S:1926:C:C6	2.46	0.50
1:2S:2632:G:O3'	23:61:12:ARG:HD2	2.12	0.50
1:2S:3186:A:N1	12:L9:57:VAL:HA	2.26	0.50
2:8S:70:G:N2	2:8S:87:G:O2'	2.41	0.50
3:5S:26:C:H5''	8:L5:57:ASN:HB3	1.93	0.50
5:L2:115:ASN:HA	5:L2:126:LEU:O	2.11	0.50
5:L2:133:TYR:HB3	5:L2:168:VAL:CG1	2.42	0.50
6:L3:261:MET:HG3	18:56:64:PHE:CB	2.41	0.50
7:L4:317:PRO:HG3	7:L4:323:VAL:HG13	1.93	0.50
10:L7:121:LYS:CB	23:61:133:ALA:HB3	2.42	0.50
15:53:165:SER:O	30:68:135:GLU:HG3	2.12	0.50
19:57:129:THR:HG22	19:57:131:ARG:HG2	1.93	0.50
22:60:6:GLU:O	22:60:63:GLN:HG3	2.12	0.50
27:65:110:VAL:HA	27:65:123:TYR:O	2.11	0.50
29:67:47:GLU:OE2	29:67:69:LYS:HD3	2.12	0.50
29:67:84:ARG:HG3	29:67:84:ARG:HH21	1.76	0.50
40:78:31:LEU:N	40:78:31:LEU:HD23	2.27	0.50
46:1S:156:A:H2'	46:1S:157:A:O4'	2.11	0.50
46:1S:1039:A:HO2'	46:1S:1040:G:H8	1.58	0.50
46:1S:1366:U:H5''	63:16:33:GLY:HA3	1.94	0.50
46:1S:1616:G:H2'	46:1S:1617:U:C6	2.47	0.50
49:S2:184:VAL:O	49:S2:187:LEU:HB3	2.11	0.50
54:S7:51:VAL:HG11	54:S7:168:SER:CB	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:S7:133:THR:CG2	54:S7:159:VAL:HG12	2.42	0.50
55:S8:8:ARG:HH21	55:S8:21:PHE:H	1.60	0.50
56:S9:174:ARG:HE	56:S9:174:ARG:N	2.10	0.50
61:14:76:ILE:HD12	61:14:76:ILE:H	1.76	0.50
61:14:83:ILE:HG23	61:14:117:ASP:OD1	2.11	0.50
63:16:10:PHE:HA	63:16:18:ALA:O	2.12	0.50
75:28:13:ILE:HG13	75:28:14:LYS:H	1.77	0.50
76:29:5:ASN:HB3	76:29:8:PHE:CB	2.42	0.50
79:RA:293:ALA:O	79:RA:301:LEU:HD12	2.12	0.50
1:2S:959:C:N4	1:2S:2801:A:H2'	2.27	0.49
1:2S:1183:C:C2'	1:2S:1184:A:H5'	2.42	0.49
1:2S:1359:C:H2'	1:2S:1360:C:C6	2.47	0.49
1:2S:2922:G:H3'	1:2S:2923:U:C5'	2.42	0.49
1:2S:3255:U:H2'	1:2S:3256:G:H8	1.76	0.49
4:L1:101:LYS:HG3	4:L1:122:ARG:HH21	1.77	0.49
5:L2:60:LYS:HD2	5:L2:73:GLU:OE1	2.11	0.49
5:L2:177:LYS:HG3	45:83:25:GLN:HE22	1.76	0.49
5:L2:185:ALA:O	5:L2:189:TYR:CD1	2.62	0.49
7:L4:119:ARG:NH1	7:L4:274:TYR:HB2	2.26	0.49
10:L7:30:ARG:HA	10:L7:33:ARG:NH2	2.26	0.49
10:L7:60:ARG:HA	10:L7:60:ARG:HE	1.77	0.49
10:L7:85:PHE:HD2	10:L7:116:PHE:CE1	2.30	0.49
11:L8:150:LEU:HD13	11:L8:150:LEU:C	2.32	0.49
18:56:29:ASN:OD1	35:73:14:LEU:CD2	2.60	0.49
18:56:46:GLU:CD	18:56:48:PHE:HB3	2.33	0.49
20:58:158:HIS:H	20:58:186:VAL:CG1	2.25	0.49
32:70:42:ILE:HG12	32:70:65:THR:HG21	1.93	0.49
33:71:15:ASN:HA	33:71:69:TYR:O	2.12	0.49
35:73:49:ILE:O	35:73:50:ALA:HB2	2.12	0.49
42:80:110:CYS:HB3	42:80:117:HIS:HA	1.94	0.49
45:83:39:CYS:HB3	45:83:43:GLY:H	1.77	0.49
46:1S:408:C:H2'	46:1S:409:C:H6	1.74	0.49
46:1S:730:G:H21	46:1S:731:C:C5'	2.22	0.49
46:1S:856:A:H62	54:S7:96:ARG:HB3	1.76	0.49
46:1S:900:A:O2'	46:1S:901:G:H5'	2.12	0.49
46:1S:1047:G:H2'	46:1S:1048:G:O4'	2.11	0.49
46:1S:1526:A:H2'	46:1S:1527:C:O4'	2.12	0.49
47:S0:6:THR:HG22	47:S0:6:THR:O	2.12	0.49
48:S1:215:VAL:O	48:S1:215:VAL:HG13	2.11	0.49
49:S2:54:GLU:OE1	68:21:11:LEU:HD13	2.12	0.49
52:S5:42:LEU:HD23	52:S5:42:LEU:N	2.23	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:120:LYS:HB3	56:S9:120:LYS:HZ3	1.74	0.49
70:23:51:GLY:HA2	70:23:77:ILE:HG13	1.94	0.49
76:29:22:ARG:HG2	76:29:38:ILE:HD11	1.94	0.49
1:2S:218:G:H1'	1:2S:372:A:H1'	1.94	0.49
1:2S:336:A:O2'	1:2S:337:G:H5'	2.11	0.49
1:2S:502:U:C4'	9:L6:26:ARG:HB3	2.37	0.49
1:2S:750:G:C5'	31:69:44:LYS:HE2	2.41	0.49
1:2S:874:U:H5'	1:2S:875:G:O5'	2.12	0.49
1:2S:1307:G:H1'	1:2S:1308:A:OP2	2.12	0.49
1:2S:1484:U:O5'	1:2S:1484:U:H6	1.94	0.49
1:2S:1747:G:HO2'	40:78:2:ALA:N	2.11	0.49
1:2S:2095:G:O5'	1:2S:2095:G:C8	2.65	0.49
1:2S:2714:G:H5'	1:2S:2716:U:O5'	2.13	0.49
1:2S:2960:C:H2'	1:2S:2961:G:H8	1.77	0.49
1:2S:3369:G:H3'	1:2S:3369:G:N3	2.27	0.49
1:2S:3376:A:H1'	33:71:18:LYS:HB2	1.94	0.49
3:5S:9:C:N4	8:L5:21:ARG:HE	2.10	0.49
6:L3:359:ILE:HG22	6:L3:360:ASP:N	2.27	0.49
13:50:51:HIS:NE2	13:50:168:SER:HB2	2.27	0.49
16:54:15:VAL:HG23	16:54:15:VAL:O	2.13	0.49
24:62:10:LYS:HD2	24:62:10:LYS:N	2.27	0.49
27:65:27:ARG:H	27:65:27:ARG:HD2	1.76	0.49
37:75:22:VAL:HG12	37:75:26:LYS:HE3	1.93	0.49
42:80:87:SER:HA	42:80:90:ASN:HB2	1.93	0.49
46:1S:592:A:H2'	46:1S:593:U:O4'	2.12	0.49
46:1S:828:U:C3'	46:1S:829:A:H5''	2.41	0.49
46:1S:900:A:C2'	46:1S:901:G:H5'	2.42	0.49
46:1S:1073:G:C2'	46:1S:1074:G:H5''	2.42	0.49
49:S2:140:ARG:HB3	49:S2:221:THR:HB	1.94	0.49
51:S4:64:ILE:HG12	71:24:18:LEU:HD21	1.94	0.49
52:S5:219:ARG:HD3	52:S5:220:VAL:CG2	2.41	0.49
53:S6:36:VAL:HG12	53:S6:37:ASP:H	1.77	0.49
55:S8:188:GLU:HG2	58:11:13:PHE:CG	2.47	0.49
56:S9:117:GLY:O	56:S9:118:LEU:HB3	2.13	0.49
61:14:50:ALA:C	61:14:52:ARG:H	2.16	0.49
69:22:103:ILE:HG23	69:22:126:LEU:HB2	1.94	0.49
73:26:23:CYS:HB3	73:26:28:LYS:N	2.24	0.49
1:2S:1667:A:H2'	1:2S:1668:G:C8	2.46	0.49
1:2S:1951:C:H6	1:2S:2095:G:N1	2.03	0.49
1:2S:2040:U:H6	1:2S:2040:U:O5'	1.95	0.49
1:2S:2550:U:C6	11:L8:37:GLY:HA3	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2747:A:H2'	1:2S:2748:A:O4'	2.12	0.49
1:2S:2924:U:H2'	1:2S:2925:C:H5'	1.94	0.49
1:2S:3328:G:H2'	1:2S:3329:U:O4'	2.12	0.49
5:L2:111:THR:HB	5:L2:136:ILE:HD13	1.95	0.49
6:L3:54:THR:HG22	6:L3:78:VAL:CG2	2.43	0.49
7:L4:154:THR:HG22	7:L4:154:THR:O	2.11	0.49
14:51:142:LYS:HD3	14:51:142:LYS:C	2.33	0.49
15:53:189:GLU:HA	15:53:192:GLU:CG	2.42	0.49
20:58:3:ILE:HB	20:58:5:HIS:CE1	2.47	0.49
35:73:75:HIS:CG	35:73:76:GLY:H	2.30	0.49
46:1S:448:C:H2'	46:1S:449:C:H6	1.75	0.49
46:1S:1223:A:C2'	46:1S:1224:A:H5'	2.42	0.49
46:1S:1357:A:H2'	46:1S:1358:G:O4'	2.12	0.49
49:S2:161:LYS:HB2	49:S2:166:THR:HG23	1.93	0.49
51:S4:185:GLY:H	51:S4:189:LEU:HD13	1.70	0.49
51:S4:196:VAL:HB	51:S4:209:HIS:CB	2.40	0.49
54:S7:35:LYS:HG2	54:S7:36:ALA:H	1.77	0.49
58:11:2:SER:CB	58:11:82:ARG:H	2.25	0.49
59:12:93:ASP:OD2	59:12:96:GLN:HG3	2.11	0.49
59:12:108:ARG:HD2	59:12:111:ASN:O	2.13	0.49
69:22:103:ILE:HD11	69:22:110:ILE:HG23	1.93	0.49
70:23:7:ARG:HG2	70:23:7:ARG:NH1	2.27	0.49
70:23:98:GLU:O	70:23:99:ASN:HB2	2.11	0.49
70:23:132:LEU:HD22	70:23:132:LEU:N	2.27	0.49
71:24:124:ARG:HH11	71:24:124:ARG:HG3	1.76	0.49
1:2S:727:G:H3'	1:2S:728:G:H8	1.77	0.49
1:2S:879:U:H2'	19:57:131:ARG:HH21	1.75	0.49
1:2S:1350:A:O2'	1:2S:1351:U:H5'	2.11	0.49
1:2S:2664:C:O2'	1:2S:2665:U:H5'	2.12	0.49
1:2S:2703:A:N6	8:L5:28:THR:O	2.45	0.49
1:2S:2932:U:H2'	1:2S:2934:A:OP2	2.12	0.49
1:2S:3153:U:H3	1:2S:3293:U:H3	1.61	0.49
4:L1:104:SER:C	4:L1:128:LEU:HD22	2.33	0.49
6:L3:123:TYR:CE2	6:L3:124:LYS:HG3	2.48	0.49
7:L4:132:ALA:HA	7:L4:148:ILE:CD1	2.40	0.49
15:53:56:PRO:HB3	15:53:75:PHE:CZ	2.47	0.49
16:54:10:SER:HB3	16:54:12:TRP:HZ3	1.74	0.49
20:58:49:LEU:HD23	20:58:52:LEU:HD12	1.95	0.49
22:60:7:TYR:HA	22:60:63:GLN:HA	1.94	0.49
22:60:35:VAL:CA	22:60:38:LYS:HE2	2.38	0.49
25:63:33:ASN:HD21	25:63:64:LYS:H	1.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:71:29:ALA:O	33:71:32:ALA:HB3	2.13	0.49
33:71:79:ARG:HA	33:71:89:LEU:HA	1.93	0.49
34:72:123:LYS:HA	34:72:126:LEU:CD1	2.42	0.49
46:1S:209:U:H2'	46:1S:210:A:C8	2.47	0.49
46:1S:508:U:O2'	46:1S:509:G:H5'	2.12	0.49
46:1S:953:G:H2'	46:1S:954:G:H8	1.78	0.49
46:1S:974:A:H4'	60:13:112:LYS:HE2	1.93	0.49
46:1S:986:G:H2'	46:1S:987:G:O4'	2.12	0.49
46:1S:1011:G:H2'	46:1S:1012:U:H5	1.77	0.49
46:1S:1088:A:H8	46:1S:1088:A:O5'	1.95	0.49
46:1S:1353:U:H3	46:1S:1372:U:H3	1.61	0.49
46:1S:1435:G:H4'	46:1S:1436:A:H5'	1.94	0.49
48:S1:183:GLN:HE21	48:S1:187:LYS:NZ	2.10	0.49
50:S3:168:ILE:CG2	50:S3:189:MET:HB2	2.40	0.49
58:11:67:ARG:O	58:11:67:ARG:HG2	2.13	0.49
60:13:63:ALA:HB3	60:13:71:ILE:HD11	1.94	0.49
62:15:52:LYS:N	62:15:53:PRO:CD	2.75	0.49
1:2S:155:G:H5''	1:2S:156:G:H2'	1.95	0.49
1:2S:298:U:H5'	38:76:31:GLY:O	2.13	0.49
1:2S:411:U:H2'	1:2S:412:G:H8	1.77	0.49
1:2S:671:U:H2'	1:2S:672:A:H8	1.77	0.49
1:2S:681:U:H2'	1:2S:682:U:C5'	2.40	0.49
1:2S:896:A:H1'	5:L2:186:PHE:CE1	2.48	0.49
1:2S:951:A:H2'	1:2S:952:A:C8	2.46	0.49
1:2S:965:A:H8	1:2S:965:A:O5'	1.95	0.49
1:2S:1043:C:H5'	13:50:88:ARG:NH1	2.28	0.49
1:2S:1238:C:H2'	1:2S:1239:C:C5'	2.43	0.49
1:2S:1317:A:O2'	1:2S:1318:A:H3'	2.13	0.49
1:2S:1410:U:H2'	1:2S:1411:C:C6	2.48	0.49
1:2S:1514:G:H1'	41:79:44:TRP:HH2	1.78	0.49
1:2S:1515:A:H2'	1:2S:1516:C:H6	1.77	0.49
1:2S:1667:A:H2'	1:2S:1668:G:H8	1.77	0.49
1:2S:1854:C:O5'	1:2S:1854:C:H6	1.95	0.49
1:2S:2095:G:H8	1:2S:2095:G:P	2.35	0.49
1:2S:2345:A:H2'	1:2S:2346:C:C6	2.47	0.49
1:2S:3159:C:H2'	1:2S:3160:U:C6	2.47	0.49
2:8S:101:U:H2'	2:8S:102:U:C4'	2.43	0.49
7:L4:8:VAL:HB	7:L4:16:THR:HB	1.94	0.49
12:L9:4:ILE:HG23	12:L9:5:GLN:H	1.76	0.49
14:51:138:VAL:HG12	14:51:146:GLY:O	2.13	0.49
15:53:76:THR:CG2	15:53:101:ARG:HH11	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:58:66:ARG:NH1	20:58:143:PRO:HD3	2.28	0.49
27:65:46:TYR:HA	37:75:70:TYR:OH	2.12	0.49
27:65:135:ILE:HG12	27:65:138:ARG:HE	1.77	0.49
36:74:5:VAL:HG22	36:74:6:THR:N	2.28	0.49
44:82:77:CYS:C	44:82:78:LYS:HG2	2.32	0.49
46:1S:5:U:H2'	46:1S:6:G:H8	1.77	0.49
46:1S:138:A:N6	46:1S:266:A:C6	2.80	0.49
46:1S:288:A:H2'	46:1S:289:U:C6	2.48	0.49
46:1S:409:C:H2'	46:1S:410:A:H5'	1.93	0.49
46:1S:782:U:H4'	71:24:12:VAL:HG11	1.93	0.49
46:1S:927:C:H1'	61:14:125:SER:CB	2.41	0.49
46:1S:1294:G:H2'	46:1S:1295:G:C8	2.43	0.49
48:S1:171:ILE:CD1	48:S1:197:ILE:HD13	2.25	0.49
48:S1:199:ASN:O	48:S1:202:LYS:HG2	2.13	0.49
59:12:108:ARG:CG	59:12:109:GLU:N	2.68	0.49
62:15:17:TYR:HB2	62:15:25:LEU:HD11	1.93	0.49
65:18:36:LYS:CB	65:18:105:VAL:HG11	2.43	0.49
65:18:36:LYS:HB3	65:18:105:VAL:HG11	1.93	0.49
65:18:88:ARG:CB	65:18:88:ARG:HH21	2.26	0.49
69:22:80:ASN:HD22	69:22:80:ASN:N	2.09	0.49
79:RA:311:ARG:HG3	79:RA:311:ARG:HH11	1.77	0.49
1:2S:133:U:O2'	1:2S:134:U:H5'	2.12	0.49
1:2S:939:U:OP2	30:68:26:ARG:NH2	2.45	0.49
1:2S:954:U:H4'	31:69:8:THR:CG2	2.31	0.49
1:2S:1011:A:H5'	13:50:194:GLY:HA2	1.93	0.49
1:2S:1169:A:H2'	1:2S:1170:A:C8	2.47	0.49
1:2S:1223:A:C2	1:2S:1287:A:H1'	2.46	0.49
1:2S:1479:U:H5	1:2S:1480:G:C6	2.31	0.49
1:2S:1928:G:H2'	1:2S:1929:G:O4'	2.12	0.49
1:2S:2349:U:H2'	1:2S:2350:C:C6	2.47	0.49
1:2S:2423:U:H2'	1:2S:2424:A:C8	2.48	0.49
1:2S:2686:A:H2'	1:2S:2687:G:C8	2.47	0.49
1:2S:2694:A:H2'	1:2S:2695:A:O4'	2.11	0.49
1:2S:3205:G:H2'	1:2S:3206:C:C4	2.47	0.49
1:2S:3389:U:H5'	1:2S:3389:U:C6	2.46	0.49
2:8S:141:C:H2'	2:8S:142:C:C6	2.48	0.49
4:L1:25:LYS:HG2	4:L1:170:GLY:O	2.12	0.49
4:L1:67:ILE:HG12	4:L1:68:PHE:N	2.27	0.49
4:L1:72:PHE:CD2	4:L1:76:ARG:HB3	2.47	0.49
8:L5:155:THR:H	8:L5:179:ARG:HH11	1.59	0.49
11:L8:74:THR:HG23	11:L8:75:ILE:HG13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L9:17:THR:HG21	16:54:3:THR:O	2.13	0.49
22:60:106:LEU:HD23	22:60:107:TYR:N	2.27	0.49
26:64:19:THR:OG1	26:64:31:PHE:HB2	2.12	0.49
34:72:21:HIS:CE1	34:72:24:ARG:HD2	2.48	0.49
40:78:31:LEU:HD23	40:78:31:LEU:H	1.76	0.49
46:1S:1133:A:H2'	46:1S:1134:C:O4'	2.12	0.49
46:1S:1196:A:H4'	46:1S:1197:C:C5'	2.43	0.49
46:1S:1745:G:O2'	46:1S:1746:A:C8	2.60	0.49
47:S0:57:LEU:HG	47:S0:177:LEU:HG	1.93	0.49
48:S1:70:LEU:HD13	48:S1:71:ALA:N	2.27	0.49
51:S4:246:LEU:HD23	51:S4:250:GLU:HB3	1.95	0.49
52:S5:23:VAL:O	52:S5:23:VAL:HG13	2.12	0.49
52:S5:99:MET:O	52:S5:100:ASN:CB	2.60	0.49
54:S7:99:LEU:HG	54:S7:116:ARG:O	2.12	0.49
58:11:93:TYR:CZ	58:11:95:PRO:HA	2.47	0.49
59:12:50:LYS:HE2	78:31:103:LEU:CD2	2.41	0.49
64:17:38:ILE:HG23	64:17:39:ALA:N	2.28	0.49
65:18:82:PRO:HB3	65:18:84:TRP:CE2	2.47	0.49
65:18:123:ARG:HD3	65:18:133:VAL:CG2	2.43	0.49
1:2S:414:U:H2'	1:2S:415:G:C8	2.48	0.49
1:2S:503:C:H2'	1:2S:504:A:H8	1.78	0.49
1:2S:619:A:H4'	1:2S:620:U:C4	2.47	0.49
1:2S:717:C:C2'	1:2S:718:G:H5'	2.42	0.49
1:2S:727:G:H3'	1:2S:728:G:C8	2.48	0.49
1:2S:949:C:H2'	1:2S:950:G:O4'	2.13	0.49
1:2S:1742:U:H5''	36:74:21:LYS:HZ3	1.78	0.49
1:2S:1867:A:H2'	1:2S:1868:G:H8	1.78	0.49
1:2S:2180:G:H2'	1:2S:2181:C:H6	1.68	0.49
1:2S:2565:U:H2'	1:2S:2566:C:C6	2.47	0.49
1:2S:2585:G:H2'	1:2S:2585:G:N3	2.28	0.49
1:2S:3033:A:H2'	1:2S:3034:C:C6	2.47	0.49
1:2S:3169:U:H2'	1:2S:3170:A:O4'	2.12	0.49
5:L2:13:GLY:HA2	5:L2:16:PHE:HB2	1.95	0.49
7:L4:74:ILE:HB	7:L4:75:PRO:HD2	1.94	0.49
10:L7:58:ALA:O	10:L7:62:ILE:HG13	2.13	0.49
11:L8:182:GLY:O	11:L8:186:LEU:HG	2.12	0.49
12:L9:134:ILE:HD12	12:L9:134:ILE:N	2.22	0.49
18:56:51:LYS:HG3	18:56:141:LEU:HD11	1.94	0.49
19:57:44:ALA:HA	19:57:47:TYR:HB3	1.95	0.49
20:58:158:HIS:HA	20:58:186:VAL:HG11	1.95	0.49
22:60:80:ARG:HB2	22:60:124:LEU:HD21	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:61:126:VAL:HG23	23:61:127:GLN:H	1.78	0.49
24:62:43:VAL:HG21	24:62:49:ASN:O	2.13	0.49
30:68:7:LYS:O	30:68:10:LYS:HB2	2.13	0.49
35:73:18:ARG:HA	35:73:23:ASN:HA	1.94	0.49
35:73:75:HIS:CG	35:73:76:GLY:N	2.80	0.49
45:83:42:CYS:HB3	45:83:60:CYS:CB	2.43	0.49
46:1S:307:G:H5''	58:11:92:HIS:NE2	2.26	0.49
46:1S:323:A:H2'	46:1S:323:A:N3	2.26	0.49
46:1S:1470:C:H3'	46:1S:1573:A:N6	2.28	0.49
47:S0:2:SER:HB3	68:21:78:LEU:HB3	1.94	0.49
49:S2:186:LYS:HD2	49:S2:189:GLN:OE1	2.13	0.49
52:S5:186:ASN:HD21	52:S5:188:LYS:HB2	1.78	0.49
54:S7:67:LEU:HD23	54:S7:70:PHE:HD2	1.77	0.49
58:11:6:THR:O	58:11:7:VAL:HG12	2.13	0.49
61:14:64:ALA:HB3	61:14:104:ALA:HB3	1.94	0.49
65:18:87:ASN:ND2	65:18:99:HIS:CE1	2.81	0.49
69:22:89:TRP:HA	69:22:92:ASN:ND2	2.25	0.49
1:2S:120:G:N7	11:L8:128:LYS:HE3	2.28	0.49
1:2S:168:U:O5'	1:2S:168:U:H6	1.96	0.49
1:2S:1649:U:H2'	1:2S:1650:G:C8	2.47	0.49
1:2S:1847:A:C6	19:57:130:TYR:HB3	2.48	0.49
1:2S:2245:C:H4'	5:L2:221:LYS:O	2.13	0.49
1:2S:2875:U:O4	1:2S:2952:G:O6	2.30	0.49
1:2S:3044:G:H4'	6:L3:13:HIS:HB2	1.93	0.49
1:2S:3147:G:H2'	1:2S:3148:U:H6	1.78	0.49
2:8S:104:A:H8	2:8S:106:C:H41	1.60	0.49
2:8S:134:G:OP1	27:65:56:ARG:HG3	2.12	0.49
6:L3:18:PRO:HG2	6:L3:20:LYS:HG2	1.95	0.49
7:L4:161:LYS:HD2	7:L4:161:LYS:N	2.28	0.49
9:L6:40:LEU:HD11	9:L6:54:TYR:HB2	1.94	0.49
13:50:85:PHE:CA	13:50:140:THR:HG22	2.39	0.49
13:50:185:ARG:HA	13:50:190:VAL:CG2	2.43	0.49
17:55:123:GLN:HB3	17:55:128:LYS:HG2	1.93	0.49
17:55:203:ARG:HG3	17:55:203:ARG:NH1	2.27	0.49
21:59:101:VAL:CG1	21:59:135:LYS:HD3	2.43	0.49
22:60:13:ARG:O	22:60:56:GLY:HA2	2.13	0.49
23:61:84:TYR:CE1	31:69:21:ILE:HG22	2.47	0.49
26:64:41:LYS:C	26:64:43:ARG:H	2.16	0.49
28:66:35:LEU:HA	28:66:106:ILE:HB	1.95	0.49
30:68:56:VAL:HG23	30:68:57:GLY:N	2.28	0.49
30:68:94:ALA:CB	30:68:121:VAL:HG13	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:215:A:N6	46:1S:242:U:H5''	2.28	0.49
46:1S:364:G:H21	46:1S:756:A:H61	1.61	0.49
46:1S:894:U:O2'	61:14:36:LYS:HG2	2.13	0.49
46:1S:955:A:H5''	60:13:10:GLY:HA3	1.95	0.49
46:1S:1069:A:H2'	46:1S:1070:C:C6	2.47	0.49
46:1S:1449:U:H2'	46:1S:1450:U:C6	2.47	0.49
49:S2:81:MET:HB2	49:S2:101:VAL:HB	1.93	0.49
50:S3:74:GLN:HG3	50:S3:79:TYR:HB2	1.94	0.49
58:11:54:ILE:N	58:11:54:ILE:CD1	2.76	0.49
60:13:42:ARG:HH21	60:13:80:LEU:HD21	1.78	0.49
60:13:88:LEU:HD23	60:13:125:LEU:HD12	1.94	0.49
65:18:134:ARG:HB2	65:18:136:GLN:HE22	1.78	0.49
66:19:70:GLN:HG3	66:19:121:GLY:HA3	1.94	0.49
70:23:49:ALA:O	70:23:103:LEU:HD22	2.13	0.49
71:24:35:VAL:HG23	71:24:39:GLU:OE2	2.12	0.49
72:25:41:ILE:HG23	72:25:42:LEU:N	2.20	0.49
1:2S:95:A:H2'	1:2S:96:G:O4'	2.12	0.49
1:2S:213:A:C2'	1:2S:214:G:H5'	2.42	0.49
1:2S:547:G:C2'	1:2S:548:G:O5'	2.61	0.49
1:2S:654:C:H2'	1:2S:655:C:H6	1.72	0.49
1:2S:681:U:C2'	1:2S:682:U:H5'	2.41	0.49
1:2S:745:C:H2'	1:2S:746:A:C8	2.48	0.49
1:2S:1359:C:H2'	1:2S:1360:C:H6	1.78	0.49
1:2S:1892:G:H2'	1:2S:1893:A:O4'	2.13	0.49
1:2S:2228:A:H2'	1:2S:2229:A:O4'	2.13	0.49
1:2S:2322:C:O2'	1:2S:2323:G:H5'	2.13	0.49
1:2S:2515:A:H62	1:2S:2592:G:N2	2.11	0.49
1:2S:2883:U:H2'	1:2S:2884:C:C6	2.47	0.49
1:2S:3035:A:C1'	12:L9:122:LYS:HB2	2.42	0.49
1:2S:3228:C:H5''	16:54:137:LYS:CE	2.43	0.49
6:L3:105:VAL:CG1	6:L3:106:TRP:N	2.75	0.49
7:L4:8:VAL:HG12	7:L4:9:HIS:N	2.28	0.49
15:53:29:ALA:HB2	17:55:201:ARG:NH1	2.28	0.49
15:53:63:VAL:HG21	30:68:67:HIS:HA	1.95	0.49
16:54:36:VAL:HG11	16:54:55:ARG:NH2	2.28	0.49
18:56:37:ARG:HG3	18:56:108:ILE:HG13	1.95	0.49
19:57:116:HIS:CD2	19:57:148:LEU:HA	2.47	0.49
20:58:54:LEU:HB3	20:58:58:ASN:HB2	1.94	0.49
22:60:97:VAL:HG13	22:60:98:SER:N	2.28	0.49
22:60:137:ARG:HB3	22:60:140:VAL:CG2	2.43	0.49
33:71:48:ASP:O	33:71:91:SER:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:72:35:GLN:HA	34:72:35:GLN:HE21	1.78	0.49
43:81:14:LYS:O	43:81:18:ARG:HB2	2.13	0.49
44:82:12:CYS:SG	44:82:74:CYS:HB2	2.52	0.49
46:1S:38:C:H4'	56:S9:6:ARG:NH2	2.27	0.49
46:1S:687:G:H5'	69:22:119:LYS:HD3	1.95	0.49
46:1S:1065:A:H4'	48:S1:206:PRO:HD3	1.95	0.49
46:1S:1214:U:OP1	46:1S:1246:C:H1'	2.13	0.49
46:1S:1303:U:H2'	46:1S:1304:G:O4'	2.12	0.49
48:S1:61:LEU:HG	48:S1:64:ARG:HH21	1.78	0.49
48:S1:174:LYS:NZ	48:S1:174:LYS:CB	2.76	0.49
51:S4:225:VAL:HG12	51:S4:226:PHE:N	2.28	0.49
58:11:6:THR:HB	58:11:9:SER:HB3	1.94	0.49
58:11:67:ARG:HH21	58:11:129:ARG:HA	1.77	0.49
65:18:16:ARG:HG3	65:18:16:ARG:NH1	2.28	0.49
67:20:33:GLN:HG3	67:20:109:GLU:CG	2.42	0.49
72:25:54:VAL:H	72:25:55:PRO:HD2	1.78	0.49
1:2S:66:A:H61	1:2S:76:G:H1'	1.77	0.49
1:2S:544:C:H6	1:2S:544:C:O5'	1.95	0.49
1:2S:619:A:H4'	1:2S:620:U:C6	2.48	0.49
1:2S:1384:U:H2'	1:2S:1385:C:C6	2.48	0.49
1:2S:2232:A:HO2'	1:2S:2428:U:HO2'	1.61	0.49
1:2S:2423:U:H2'	1:2S:2424:A:H8	1.78	0.49
1:2S:2433:U:O2'	17:55:125:SER:HB2	2.13	0.49
1:2S:2608:G:O2'	1:2S:2609:A:H5'	2.12	0.49
1:2S:3035:A:C2	12:L9:121:LYS:HB3	2.48	0.49
3:5S:5:G:H5''	14:51:143:ARG:HH22	1.77	0.49
4:L1:17:LEU:H	4:L1:17:LEU:CD2	2.12	0.49
4:L1:172:VAL:HG12	4:L1:176:GLU:HB2	1.94	0.49
9:L6:96:VAL:HG13	9:L6:141:VAL:HG13	1.94	0.49
10:L7:107:ARG:HB3	10:L7:204:PRO:HG3	1.94	0.49
11:L8:216:SER:O	11:L8:220:ALA:HB2	2.13	0.49
11:L8:238:LEU:HD23	11:L8:243:GLN:NE2	2.27	0.49
14:51:91:LEU:HB3	14:51:92:ARG:H	1.47	0.49
19:57:4:TYR:CZ	19:57:18:ARG:HG3	2.48	0.49
20:58:177:GLY:CA	20:58:184:PHE:O	2.61	0.49
26:64:9:SER:HA	26:64:52:THR:HB	1.95	0.49
27:65:65:GLN:O	27:65:85:GLN:HB2	2.13	0.49
33:71:70:ARG:CG	33:71:70:ARG:NH2	2.76	0.49
34:72:66:LEU:HD23	34:72:72:LYS:HB2	1.95	0.49
44:82:97:LYS:HD3	44:82:97:LYS:N	2.28	0.49
45:83:82:THR:O	45:83:86:LEU:HG	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:183:U:H2'	46:1S:184:C:C6	2.48	0.49
46:1S:421:A:O2'	46:1S:422:G:H5'	2.12	0.49
46:1S:1160:A:H2'	46:1S:1161:C:H6	1.73	0.49
46:1S:1524:A:C2	46:1S:1590:G:H1'	2.47	0.49
47:S0:27:ARG:HG2	47:S0:28:ASN:H	1.78	0.49
48:S1:146:GLN:HG3	48:S1:147:ALA:H	1.78	0.49
53:S6:5:ILE:CG1	53:S6:111:LEU:HD12	2.36	0.49
54:S7:111:LYS:HG3	54:S7:112:ARG:H	1.77	0.49
54:S7:144:VAL:HA	69:22:42:GLN:CD	2.33	0.49
55:S8:73:SER:C	55:S8:74:LYS:HD2	2.32	0.49
63:16:44:LEU:HD12	63:16:47:LYS:HG2	1.95	0.49
64:17:88:VAL:HG13	64:17:88:VAL:O	2.13	0.49
65:18:142:GLY:O	65:18:145:ARG:HG2	2.12	0.49
1:2S:12:A:H2	2:8S:146:U:H3	1.60	0.48
1:2S:85:A:OP1	1:2S:85:A:H8	1.94	0.48
1:2S:907:G:C5	1:2S:926:A:C8	3.01	0.48
1:2S:1082:U:H2'	1:2S:1083:G:C8	2.48	0.48
1:2S:1176:C:H2'	1:2S:1177:G:C2	2.48	0.48
1:2S:2179:C:H2'	5:L2:132:ASN:ND2	2.28	0.48
1:2S:2351:U:H4'	19:57:83:TRP:HE3	1.77	0.48
1:2S:2526:C:H2'	1:2S:2527:G:C8	2.48	0.48
1:2S:3054:U:H2'	1:2S:3055:U:C6	2.47	0.48
1:2S:3057:U:O2	1:2S:3057:U:H2'	2.12	0.48
2:8S:38:U:C5	37:75:78:LYS:HD3	2.47	0.48
3:5S:5:G:H5''	14:51:143:ARG:NH2	2.27	0.48
4:L1:116:LEU:O	4:L1:116:LEU:CD2	2.57	0.48
6:L3:46:PHE:C	6:L3:47:LEU:HD22	2.34	0.48
6:L3:212:ASN:OD1	6:L3:354:VAL:HG22	2.13	0.48
8:L5:22:ARG:CG	8:L5:27:LYS:HB2	2.43	0.48
9:L6:79:VAL:HG12	9:L6:80:ASN:N	2.28	0.48
14:51:30:LEU:HD11	14:51:47:GLN:HG2	1.95	0.48
22:60:132:THR:O	22:60:133:ALA:CB	2.61	0.48
29:67:54:THR:HG23	29:67:56:LYS:H	1.77	0.48
36:74:76:TYR:HD1	36:74:79:SER:OG	1.94	0.48
39:77:5:THR:N	39:77:6:PRO:CD	2.75	0.48
46:1S:431:C:H2'	46:1S:432:G:O4'	2.13	0.48
46:1S:600:U:C1'	70:23:47:SER:HB3	2.41	0.48
46:1S:874:C:H2'	46:1S:875:G:C8	2.47	0.48
46:1S:900:A:H3'	46:1S:901:G:H21	1.78	0.48
49:S2:118:ALA:CB	49:S2:124:ALA:HB2	2.43	0.48
50:S3:211:PRO:HG3	64:17:20:TYR:CE1	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:S5:57:SER:HB3	75:28:53:ILE:HG22	1.95	0.48
55:S8:84:HIS:CE1	55:S8:86:SER:HB2	2.48	0.48
57:10:32:HIS:NE2	57:10:42:VAL:HG21	2.27	0.48
69:22:114:GLU:O	69:22:117:ARG:HB3	2.13	0.48
75:28:32:PHE:CZ	75:28:38:ARG:HB3	2.48	0.48
1:2S:337:G:H3'	1:2S:338:A:H5''	1.95	0.48
1:2S:422:A:H3'	1:2S:423:A:H8	1.78	0.48
1:2S:784:A:H1'	20:58:65:SER:HB2	1.95	0.48
1:2S:1224:C:O2'	1:2S:1289:G:OP1	2.29	0.48
1:2S:1348:U:H5'	20:58:35:PHE:HE1	1.76	0.48
1:2S:1463:U:H2'	1:2S:1464:G:O4'	2.13	0.48
1:2S:1694:U:O2'	1:2S:1695:U:H5'	2.13	0.48
1:2S:1831:U:O5'	1:2S:1831:U:H6	1.96	0.48
1:2S:2129:U:H2'	1:2S:2130:G:C8	2.44	0.48
1:2S:2149:A:P	1:2S:2149:A:H8	2.35	0.48
1:2S:2155:G:H2'	1:2S:2156:C:C6	2.48	0.48
1:2S:2896:A:H5'	1:2S:2896:A:C8	2.45	0.48
6:L3:110:LEU:N	6:L3:110:LEU:HD12	2.28	0.48
10:L7:62:ILE:O	10:L7:66:LYS:HG3	2.13	0.48
11:L8:116:VAL:HA	11:L8:121:SER:H	1.78	0.48
14:51:19:LEU:HB3	14:51:125:MET:SD	2.53	0.48
21:59:57:VAL:O	21:59:58:HIS:HB2	2.13	0.48
21:59:109:TYR:CD2	21:59:114:LYS:HB2	2.48	0.48
22:60:80:ARG:HE	23:61:156:TYR:HA	1.79	0.48
36:74:3:GLN:NE2	36:74:29:ILE:HG22	2.28	0.48
46:1S:339:C:H2'	46:1S:340:U:C6	2.48	0.48
46:1S:887:A:H61	46:1S:925:G:H1	1.60	0.48
46:1S:1202:A:H62	46:1S:1457:C:H5''	1.76	0.48
48:S1:152:ARG:HG2	48:S1:152:ARG:O	2.14	0.48
52:S5:55:ASP:CB	52:S5:138:THR:HB	2.42	0.48
52:S5:58:LEU:HD13	52:S5:138:THR:HG22	1.95	0.48
52:S5:122:ASN:O	52:S5:126:ASP:HA	2.13	0.48
54:S7:50:ASP:HA	54:S7:56:LYS:HA	1.94	0.48
57:10:22:VAL:HG23	57:10:22:VAL:O	2.13	0.48
58:11:83:THR:CA	58:11:111:VAL:HG12	2.41	0.48
65:18:30:TYR:HA	65:18:33:THR:HG23	1.93	0.48
74:27:4:VAL:HG13	74:27:4:VAL:O	2.13	0.48
75:28:32:PHE:HE2	75:28:38:ARG:HB3	1.75	0.48
1:2S:639:G:H2'	1:2S:640:U:O4'	2.13	0.48
1:2S:1145:G:O6	1:2S:1158:A:H2	1.95	0.48
1:2S:1215:U:H2'	1:2S:1216:C:C5	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1346:G:H2'	1:2S:1347:U:O4'	2.13	0.48
1:2S:1605:A:H2'	1:2S:1607:U:OP2	2.13	0.48
1:2S:1913:A:H4'	1:2S:2121:G:N7	2.29	0.48
1:2S:2740:A:H2'	1:2S:2741:C:H5'	1.95	0.48
1:2S:2971:A:H2'	1:2S:2971:A:N3	2.28	0.48
1:2S:2985:C:H2'	1:2S:2986:U:O4'	2.13	0.48
1:2S:3382:U:O2	1:2S:3382:U:C2'	2.58	0.48
2:8S:43:A:H2'	2:8S:44:A:C8	2.48	0.48
3:5S:79:A:H1'	3:5S:102:A:N6	2.28	0.48
4:L1:197:ASN:HD21	38:76:65:GLY:HA2	1.78	0.48
6:L3:80:ASP:OD1	6:L3:82:PRO:HD3	2.12	0.48
6:L3:89:VAL:HG12	6:L3:105:VAL:HB	1.96	0.48
7:L4:222:VAL:CG1	7:L4:225:VAL:HB	2.38	0.48
8:L5:19:PRO:HB2	8:L5:24:ARG:HG3	1.94	0.48
8:L5:167:SER:C	8:L5:169:GLY:H	2.16	0.48
10:L7:232:ARG:CD	10:L7:235:PHE:HB2	2.40	0.48
11:L8:71:VAL:HG12	17:55:21:PHE:CZ	2.48	0.48
15:53:29:ALA:HB3	17:55:201:ARG:HH12	1.78	0.48
15:53:55:ARG:HA	15:53:96:ALA:HB3	1.95	0.48
15:53:105:ASN:CB	15:53:108:ILE:HG12	2.44	0.48
23:61:64:VAL:HA	23:61:73:GLY:O	2.12	0.48
33:71:25:PHE:HA	33:71:28:ARG:HD2	1.94	0.48
44:82:32:LYS:HE2	44:82:34:SER:HA	1.94	0.48
46:1S:174:U:H2'	46:1S:175:G:O4'	2.14	0.48
46:1S:886:U:H2'	46:1S:887:A:C8	2.48	0.48
46:1S:923:A:H2'	46:1S:924:A:C8	2.48	0.48
46:1S:1788:G:N7	61:14:132:ARG:NE	2.61	0.48
50:S3:132:LYS:HB3	50:S3:189:MET:CG	2.43	0.48
51:S4:89:VAL:HG13	51:S4:99:PHE:O	2.12	0.48
52:S5:41:LYS:CE	52:S5:67:PRO:HB2	2.44	0.48
52:S5:62:VAL:CG1	52:S5:89:ILE:HG12	2.41	0.48
52:S5:112:ARG:HE	52:S5:112:ARG:CA	2.18	0.48
54:S7:86:GLN:C	54:S7:88:ARG:H	2.16	0.48
59:12:104:GLY:HA2	59:12:113:ARG:CD	2.42	0.48
64:17:10:LYS:HG2	64:17:53:TYR:HE1	1.78	0.48
66:19:116:ILE:HG12	66:19:122:ARG:CZ	2.43	0.48
70:23:124:VAL:HG12	70:23:125:VAL:N	2.28	0.48
1:2S:430:U:H2'	1:2S:431:U:O4'	2.14	0.48
1:2S:917:A:H2'	1:2S:918:C:C6	2.48	0.48
1:2S:1454:A:OP1	1:2S:1455:U:H5'	2.13	0.48
1:2S:2186:U:H2'	1:2S:2187:G:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2627:C:C2	1:2S:2797:C:H5'	2.49	0.48
1:2S:2650:U:O2'	1:2S:2651:G:H5'	2.13	0.48
1:2S:2951:G:H2'	1:2S:2952:G:H8	1.78	0.48
2:8S:59:A:H2'	2:8S:59:A:N3	2.29	0.48
3:5S:65:G:H2'	3:5S:66:A:C8	2.48	0.48
6:L3:235:THR:HG22	6:L3:236:LYS:H	1.79	0.48
14:51:23:VAL:CG1	14:51:24:GLY:H	2.22	0.48
16:54:15:VAL:HG21	22:60:150:PHE:CE2	2.48	0.48
17:55:85:THR:HA	44:82:50:PHE:HB3	1.95	0.48
19:57:112:LEU:HA	19:57:151:THR:O	2.13	0.48
23:61:12:ARG:HD3	23:61:13:TYR:CZ	2.48	0.48
39:77:72:ARG:HG2	39:77:72:ARG:HH11	1.78	0.48
46:1S:632:U:H2'	46:1S:633:U:C6	2.48	0.48
46:1S:740:A:H2'	46:1S:741:C:C4'	2.43	0.48
46:1S:812:A:H5'	46:1S:858:G:N2	2.26	0.48
47:S0:48:ILE:HG22	47:S0:49:ASN:N	2.28	0.48
47:S0:88:LYS:NZ	47:S0:201:LEU:HG	2.29	0.48
50:S3:120:TYR:O	50:S3:124:ARG:HG3	2.12	0.48
50:S3:162:GLN:HA	50:S3:165:ASN:ND2	2.29	0.48
51:S4:49:ARG:CA	51:S4:55:ALA:HB3	2.42	0.48
51:S4:176:ASP:HB2	51:S4:179:LYS:CE	2.43	0.48
54:S7:31:SER:O	54:S7:35:LYS:CB	2.60	0.48
54:S7:184:GLU:HG2	54:S7:185:ILE:N	2.29	0.48
55:S8:110:ARG:HG3	55:S8:121:LEU:HD23	1.94	0.48
59:12:71:ILE:C	59:12:71:ILE:HD13	2.33	0.48
61:14:82:LYS:HA	61:14:116:GLU:O	2.13	0.48
68:21:66:ASP:O	68:21:70:ASN:OD1	2.31	0.48
1:2S:374:A:C4'	1:2S:375:A:H5'	2.40	0.48
1:2S:956:U:H2'	1:2S:957:C:C6	2.49	0.48
1:2S:1326:A:H2'	1:2S:1327:C:O4'	2.13	0.48
1:2S:1506:A:H1'	1:2S:1848:G:O6	2.14	0.48
1:2S:2097:U:H6	1:2S:2097:U:O5'	1.96	0.48
1:2S:2462:A:C6	1:2S:2463:G:H1'	2.49	0.48
1:2S:2467:G:H1'	1:2S:2489:C:H42	1.79	0.48
1:2S:2811:A:O2'	1:2S:2812:C:H5'	2.13	0.48
1:2S:2817:A:O2'	31:69:2:ALA:HB2	2.14	0.48
1:2S:2957:G:C2'	1:2S:2958:A:H5'	2.43	0.48
2:8S:41:A:OP2	39:77:65:ARG:NH1	2.47	0.48
5:L2:133:TYR:CB	5:L2:168:VAL:HG12	2.44	0.48
6:L3:89:VAL:HG22	6:L3:90:VAL:N	2.28	0.48
6:L3:169:THR:HG23	6:L3:170:PRO:HD2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:216:ASP:HA	6:L3:280:HIS:HD2	1.78	0.48
6:L3:259:HIS:HB2	18:56:64:PHE:CD2	2.48	0.48
7:L4:299:ILE:HD13	20:58:40:THR:CG2	2.44	0.48
7:L4:304:GLN:O	7:L4:305:ALA:HB3	2.13	0.48
9:L6:52:VAL:HG23	9:L6:66:SER:O	2.13	0.48
13:50:18:PRO:HB3	13:50:94:PHE:HB3	1.96	0.48
20:58:81:VAL:HG23	20:58:101:VAL:HA	1.95	0.48
27:65:65:GLN:HG2	37:75:32:LYS:HD2	1.95	0.48
30:68:43:ILE:HG22	30:68:43:ILE:O	2.14	0.48
35:73:39:GLN:HA	35:73:42:GLN:CG	2.41	0.48
36:74:81:CYS:C	36:74:83:ASN:H	2.17	0.48
41:79:31:THR:O	41:79:32:ASN:HB2	2.12	0.48
46:1S:75:U:H3'	46:1S:76:A:H5''	1.96	0.48
46:1S:180:A:H2'	46:1S:181:A:O4'	2.13	0.48
46:1S:1139:A:C2'	46:1S:1140:G:H5'	2.44	0.48
46:1S:1735:U:H2'	46:1S:1736:G:H8	1.79	0.48
49:S2:176:SER:HB2	49:S2:195:ASP:HB3	1.95	0.48
49:S2:203:LYS:O	49:S2:206:THR:HG22	2.12	0.48
58:11:13:PHE:CE2	58:11:15:LYS:HB3	2.49	0.48
63:16:129:PHE:O	63:16:129:PHE:HD1	1.96	0.48
71:24:102:LYS:HD3	71:24:108:ARG:HD3	1.96	0.48
1:2S:713:U:H2'	1:2S:714:G:O4'	2.12	0.48
1:2S:807:A:H3'	1:2S:808:A:C5'	2.39	0.48
2:8S:70:G:H5''	28:66:28:ARG:CZ	2.43	0.48
8:L5:202:GLY:O	8:L5:206:GLN:HB2	2.14	0.48
11:L8:72:PRO:O	11:L8:75:ILE:O	2.31	0.48
18:56:16:VAL:HA	18:56:41:LEU:CD2	2.32	0.48
21:59:97:ARG:O	21:59:101:VAL:HG23	2.14	0.48
29:67:108:GLU:O	29:67:112:LYS:HG3	2.14	0.48
46:1S:3:U:O4'	49:S2:180:ALA:HA	2.14	0.48
46:1S:262:U:H2'	46:1S:263:C:C6	2.48	0.48
46:1S:904:G:C2'	46:1S:905:A:H5'	2.43	0.48
46:1S:1562:G:H2'	46:1S:1563:C:O4'	2.13	0.48
47:S0:101:ARG:HG3	47:S0:103:THR:H	1.78	0.48
47:S0:170:ILE:HD12	47:S0:170:ILE:N	2.24	0.48
49:S2:41:LEU:O	49:S2:45:VAL:HG23	2.13	0.48
53:S6:132:ARG:HG2	53:S6:132:ARG:HH11	1.79	0.48
54:S7:116:ARG:O	54:S7:116:ARG:HG2	2.14	0.48
56:S9:63:ASP:O	56:S9:69:ARG:HD3	2.14	0.48
56:S9:132:ARG:HE	56:S9:142:ASN:HD22	1.60	0.48
62:15:98:ASN:HB2	62:15:122:THR:HA	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:19:126:GLU:HG2	66:19:127:ASN:N	2.29	0.48
1:2S:519:A:H4'	7:L4:355:PHE:CZ	2.46	0.48
1:2S:1536:G:H2'	1:2S:1537:A:H8	1.79	0.48
1:2S:1741:A:C2'	1:2S:1742:U:H5'	2.40	0.48
1:2S:1951:C:C5	1:2S:2095:G:O6	2.61	0.48
1:2S:3051:U:H1'	25:63:92:PHE:CE1	2.48	0.48
1:2S:3088:G:H5'	6:L3:313:HIS:CE1	2.49	0.48
2:8S:54:A:N7	2:8S:55:U:C5	2.82	0.48
5:L2:129:ALA:N	5:L2:169:ILE:HD12	2.28	0.48
5:L2:147:ARG:HB2	5:L2:157:VAL:HB	1.94	0.48
7:L4:82:THR:CG2	7:L4:85:SER:H	2.26	0.48
7:L4:259:ASP:O	7:L4:263:GLY:HA2	2.13	0.48
11:L8:77:GLN:HG3	11:L8:78:PHE:CD1	2.49	0.48
12:L9:89:LYS:HD3	12:L9:183:HIS:HB3	1.94	0.48
14:51:115:LYS:HB2	14:51:115:LYS:HZ2	1.76	0.48
17:55:21:PHE:HD2	17:55:22:LEU:HD12	1.77	0.48
19:57:67:ILE:HG23	19:57:68:GLY:H	1.77	0.48
20:58:35:PHE:CE1	20:58:38:ARG:NH2	2.82	0.48
20:58:122:ILE:HG23	20:58:126:GLN:CB	2.32	0.48
21:59:20:ARG:HG3	21:59:20:ARG:HH11	1.77	0.48
22:60:24:LEU:HD12	23:61:146:ASN:HB3	1.95	0.48
22:60:66:GLU:O	22:60:69:PRO:HG3	2.13	0.48
25:63:102:ILE:HG23	25:63:102:ILE:O	2.12	0.48
27:65:60:TYR:CD2	37:75:25:LYS:HB3	2.49	0.48
29:67:73:LYS:HD3	29:67:74:VAL:H	1.78	0.48
32:70:73:GLY:O	32:70:77:LEU:HB2	2.14	0.48
35:73:20:LYS:NZ	35:73:20:LYS:HB3	2.29	0.48
38:76:79:SER:H	38:76:82:ARG:HD2	1.78	0.48
46:1S:207:U:H2'	46:1S:208:U:C6	2.49	0.48
46:1S:699:U:H2'	46:1S:700:C:C5	2.48	0.48
46:1S:818:C:N3	46:1S:819:G:N2	2.61	0.48
46:1S:975:C:H5''	60:13:109:LYS:HE3	1.96	0.48
46:1S:1675:C:H1'	55:S8:32:GLN:OE1	2.14	0.48
48:S1:61:LEU:HD13	48:S1:61:LEU:N	2.29	0.48
48:S1:96:LEU:HD23	48:S1:96:LEU:H	1.79	0.48
54:S7:126:LEU:HD21	54:S7:173:TYR:CZ	2.48	0.48
56:S9:44:ARG:O	56:S9:48:GLN:HG3	2.14	0.48
67:20:20:ILE:HG12	67:20:95:ALA:O	2.14	0.48
73:26:44:ILE:HD11	73:26:64:LEU:HD22	1.95	0.48
74:27:56:CYS:HB2	74:27:61:THR:HG22	1.95	0.48
79:RA:137:LYS:HA	79:RA:137:LYS:CE	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:268:A:N6	1:2S:296:A:C8	2.79	0.48
1:2S:503:C:O2'	9:L6:23:LYS:HE2	2.14	0.48
1:2S:1289:G:H2'	1:2S:1290:A:O4'	2.14	0.48
1:2S:2063:U:H2'	1:2S:2064:C:O4'	2.14	0.48
1:2S:2144:A:C4	1:2S:2281:A:C6	3.02	0.48
1:2S:2603:G:H2'	1:2S:2604:U:O4'	2.12	0.48
1:2S:2951:G:H2'	1:2S:2952:G:C8	2.48	0.48
1:2S:2956:A:H2'	1:2S:2957:G:H5'	1.96	0.48
1:2S:3047:U:C2'	1:2S:3048:A:H5'	2.43	0.48
1:2S:3147:G:H2'	1:2S:3148:U:O4'	2.13	0.48
4:L1:60:ARG:HD2	4:L1:176:GLU:O	2.14	0.48
5:L2:214:GLY:C	5:L2:216:HIS:H	2.17	0.48
9:L6:41:ILE:HB	9:L6:85:ILE:HD12	1.95	0.48
13:50:33:ILE:HG23	13:50:33:ILE:O	2.14	0.48
14:51:94:ARG:HD3	14:51:94:ARG:N	2.11	0.48
17:55:122:ASN:CB	17:55:129:TYR:HB2	2.33	0.48
19:57:4:TYR:CZ	19:57:16:SER:HB2	2.48	0.48
35:73:42:GLN:HE21	35:73:42:GLN:HA	1.78	0.48
41:79:9:ILE:HG22	41:79:13:MET:HE2	1.96	0.48
46:1S:262:U:H2'	46:1S:263:C:H6	1.78	0.48
46:1S:600:U:P	70:23:108:GLY:HA2	2.53	0.48
46:1S:1341:A:H2'	46:1S:1342:C:H6	1.79	0.48
46:1S:1434:U:H4'	76:29:24:CYS:HB2	1.96	0.48
47:S0:13:ASP:O	47:S0:17:LEU:HG	2.14	0.48
48:S1:138:PHE:HB3	48:S1:213:ARG:NE	2.28	0.48
52:S5:62:VAL:HG12	52:S5:64:VAL:HG23	1.95	0.48
53:S6:64:LYS:O	53:S6:100:ALA:HB2	2.13	0.48
57:10:80:LEU:HB2	57:10:82:LEU:HD11	1.96	0.48
58:11:94:ILE:HG21	58:11:97:TYR:HD2	1.79	0.48
58:11:123:VAL:HG22	58:11:124:THR:N	2.29	0.48
59:12:72:ILE:O	59:12:76:GLU:HG3	2.12	0.48
66:19:57:ARG:HH11	66:19:57:ARG:CB	2.24	0.48
67:20:67:THR:CG2	67:20:68:ARG:N	2.76	0.48
67:20:113:ASP:OD1	67:20:115:GLU:HG3	2.14	0.48
1:2S:201:A:H2'	1:2S:202:G:O4'	2.14	0.48
1:2S:1222:G:H5'	1:2S:1222:G:C8	2.48	0.48
1:2S:2666:C:N4	1:2S:2689:A:H8	2.12	0.48
1:2S:2694:A:O2'	1:2S:2695:A:H5'	2.14	0.48
2:8S:72:A:P	28:66:52:ARG:HB2	2.54	0.48
4:L1:103:LEU:HD21	4:L1:106:LYS:HE2	1.96	0.48
6:L3:53:MET:O	6:L3:364:LYS:HE2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:56:ILE:CG1	6:L3:57:VAL:N	2.77	0.48
8:L5:83:LEU:N	8:L5:84:PRO:HD3	2.28	0.48
10:L7:232:ARG:HD3	10:L7:235:PHE:C	2.34	0.48
11:L8:45:ASN:OD1	27:65:26:VAL:HG23	2.14	0.48
11:L8:72:PRO:HD2	11:L8:75:ILE:HD12	1.96	0.48
11:L8:78:PHE:C	11:L8:79:GLN:HG2	2.31	0.48
14:51:112:LEU:HD23	14:51:112:LEU:N	2.28	0.48
17:55:3:ALA:HA	17:55:6:TYR:HD1	1.77	0.48
17:55:118:SER:HB3	17:55:132:VAL:CA	2.43	0.48
19:57:106:GLY:C	19:57:107:LEU:HD12	2.34	0.48
19:57:172:GLN:O	19:57:176:ILE:HG13	2.13	0.48
34:72:24:ARG:HG3	34:72:24:ARG:NH1	2.28	0.48
43:81:9:ARG:O	43:81:13:LEU:HD23	2.14	0.48
46:1S:613:G:H5'	46:1S:1099:U:C2	2.49	0.48
46:1S:896:U:O2'	46:1S:897:C:H5'	2.14	0.48
46:1S:1051:G:O2'	46:1S:1052:U:OP1	2.27	0.48
46:1S:1359:C:H4'	66:19:133:ASP:HB3	1.95	0.48
46:1S:1451:C:OP1	76:29:10:HIS:HB3	2.14	0.48
46:1S:1578:U:O2'	46:1S:1579:U:H5'	2.14	0.48
51:S4:222:LEU:N	51:S4:222:LEU:HD23	2.28	0.48
52:S5:72:HIS:HA	52:S5:107:LYS:HE2	1.96	0.48
52:S5:165:LEU:O	52:S5:169:ASN:OD1	2.32	0.48
53:S6:24:ILE:O	53:S6:24:ILE:HG22	2.14	0.48
55:S8:76:THR:HG22	55:S8:108:PRO:HG2	1.96	0.48
59:12:70:ASN:O	59:12:74:LEU:HB2	2.14	0.48
60:13:27:LYS:O	60:13:28:LEU:HB2	2.14	0.48
67:20:51:VAL:HG12	67:20:94:GLU:HB2	1.94	0.48
73:26:78:ALA:CA	73:26:82:ARG:HB3	2.41	0.48
79:RA:70:ASP:HB3	79:RA:113:VAL:HG12	1.94	0.48
1:2S:1082:U:H2'	1:2S:1083:G:O4'	2.13	0.48
1:2S:1403:C:H2'	1:2S:1404:G:C8	2.49	0.48
1:2S:1795:U:H4'	1:2S:1796:G:C4	2.49	0.48
1:2S:2039:C:H2'	1:2S:2040:U:O4'	2.14	0.48
1:2S:2184:U:H4'	5:L2:211:HIS:CE1	2.49	0.48
1:2S:2433:U:H3'	1:2S:2434:U:H2'	1.95	0.48
1:2S:3134:A:H5'	18:56:148:LYS:HE3	1.96	0.48
2:8S:116:G:H2'	2:8S:117:C:H6	1.76	0.48
5:L2:193:ARG:HG2	5:L2:193:ARG:NH2	2.28	0.48
7:L4:316:ASN:HD21	7:L4:319:LYS:NZ	2.12	0.48
11:L8:79:GLN:HG3	11:L8:80:TYR:CE2	2.49	0.48
13:50:79:VAL:HG11	13:50:147:VAL:HG22	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:51:125:MET:HG2	14:51:126:ASP:H	1.79	0.48
19:57:20:SER:HA	19:57:145:HIS:HA	1.95	0.48
22:60:15:PRO:HB3	22:60:20:PRO:HB2	1.95	0.48
23:61:11:THR:O	23:61:13:TYR:N	2.47	0.48
23:61:105:PHE:O	23:61:109:VAL:HG23	2.13	0.48
24:62:54:VAL:HG12	24:62:67:SER:OG	2.13	0.48
46:1S:826:U:H2'	46:1S:827:C:H6	1.79	0.48
46:1S:1184:A:H3'	46:1S:1185:U:H5''	1.95	0.48
46:1S:1659:A:H2'	46:1S:1660:A:H8	1.79	0.48
51:S4:159:THR:CG2	51:S4:227:VAL:HG23	2.43	0.48
55:S8:41:LYS:HB2	55:S8:61:GLU:HG2	1.96	0.48
55:S8:172:ARG:CB	55:S8:175:GLN:HB2	2.44	0.48
56:S9:161:THR:O	56:S9:162:SER:O	2.31	0.48
58:11:100:TYR:O	70:23:10:ASN:HA	2.14	0.48
60:13:21:ASN:O	60:13:22:ALA:HB3	2.14	0.48
62:15:45:PHE:CD1	62:15:52:LYS:HE3	2.49	0.48
63:16:116:LEU:HD22	63:16:116:LEU:H	1.78	0.48
72:25:50:ILE:HD11	72:25:70:LYS:CD	2.43	0.48
1:2S:505:G:H5''	7:L4:315:LYS:HA	1.96	0.47
1:2S:814:U:O5'	1:2S:814:U:H6	1.97	0.47
1:2S:992:A:H4'	23:61:58:GLN:NE2	2.29	0.47
1:2S:1144:U:H1'	1:2S:1145:G:C8	2.48	0.47
1:2S:1231:A:O2'	1:2S:1261:G:H1'	2.13	0.47
1:2S:2254:U:H2'	1:2S:2261:G:N2	2.28	0.47
1:2S:2392:C:H3'	1:2S:2393:G:C8	2.49	0.47
1:2S:2538:U:O2'	1:2S:2539:C:H5'	2.14	0.47
2:8S:108:C:O5'	2:8S:108:C:H6	1.97	0.47
3:5S:96:U:H2'	3:5S:97:A:H8	1.78	0.47
4:L1:18:LYS:O	4:L1:19:TYR:CB	2.62	0.47
4:L1:101:LYS:HB3	4:L1:101:LYS:NZ	2.29	0.47
4:L1:199:GLN:NE2	4:L1:202:GLY:HA3	2.29	0.47
6:L3:89:VAL:CG1	6:L3:105:VAL:HB	2.44	0.47
8:L5:154:THR:CA	8:L5:179:ARG:HH11	2.24	0.47
10:L7:114:GLY:O	10:L7:115:THR:HG23	2.13	0.47
12:L9:189:GLU:O	12:L9:190:ASP:HB3	2.14	0.47
13:50:30:LYS:HA	13:50:30:LYS:CE	2.44	0.47
17:55:5:LYS:HG2	38:76:40:VAL:HG21	1.95	0.47
18:56:130:LYS:HG3	18:56:131:PRO:HD2	1.95	0.47
21:59:106:LEU:HB3	21:59:120:TYR:CE1	2.49	0.47
22:60:8:GLN:HB2	22:60:64:ILE:CD1	2.39	0.47
22:60:13:ARG:HA	22:60:56:GLY:CA	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:65:64:GLU:HB2	27:65:85:GLN:HB3	1.95	0.47
30:68:46:ASP:O	30:68:47:LYS:HG2	2.14	0.47
33:71:25:PHE:HA	33:71:28:ARG:CG	2.44	0.47
34:72:66:LEU:CD2	34:72:72:LYS:HB2	2.44	0.47
46:1S:1060:U:H2'	46:1S:1061:A:H4'	1.96	0.47
46:1S:1755:A:H5'	70:23:63:GLN:HG3	1.95	0.47
47:S0:197:ILE:HD12	47:S0:197:ILE:H	1.76	0.47
48:S1:41:ARG:HB3	48:S1:41:ARG:HH11	1.79	0.47
48:S1:205:PHE:HB3	48:S1:207:LEU:CD1	2.42	0.47
53:S6:57:ASP:HB3	53:S6:106:LEU:HD23	1.95	0.47
53:S6:63:MET:HA	53:S6:98:ARG:O	2.14	0.47
61:14:120:PRO:O	61:14:122:PRO:HD3	2.13	0.47
66:19:7:ARG:HG3	66:19:7:ARG:HH11	1.78	0.47
66:19:67:MET:O	66:19:68:ARG:HB3	2.14	0.47
67:20:65:ILE:O	67:20:81:THR:HA	2.14	0.47
69:22:38:LEU:HA	69:22:41:MET:CE	2.43	0.47
69:22:52:TYR:CE1	69:22:59:GLY:HA3	2.49	0.47
69:22:86:ILE:O	69:22:90:THR:HG23	2.14	0.47
1:2S:695:C:H2'	1:2S:696:C:H6	1.76	0.47
1:2S:1176:C:H2'	1:2S:1177:G:N2	2.28	0.47
1:2S:1687:U:OP1	24:62:42:LYS:HD2	2.12	0.47
1:2S:1764:U:H3'	1:2S:1765:U:H4'	1.96	0.47
1:2S:1902:G:H8	1:2S:1902:G:O5'	1.97	0.47
1:2S:2600:C:H2'	1:2S:2601:A:H8	1.80	0.47
1:2S:2796:G:N7	44:82:63:LYS:NZ	2.60	0.47
1:2S:2856:G:H2'	1:2S:2857:C:H6	1.75	0.47
5:L2:83:HIS:HB3	45:83:64:VAL:HG22	1.94	0.47
11:L8:248:LYS:HA	11:L8:251:LYS:HB3	1.95	0.47
12:L9:104:VAL:HG21	12:L9:125:ASN:HD21	1.80	0.47
18:56:149:TYR:O	18:56:153:VAL:HG23	2.14	0.47
20:58:147:ARG:CB	20:58:147:ARG:HH11	2.27	0.47
24:62:104:ARG:C	24:62:105:LEU:HD12	2.34	0.47
27:65:92:LYS:HE2	27:65:112:THR:CG2	2.43	0.47
37:75:86:ARG:O	37:75:90:ARG:HG2	2.14	0.47
46:1S:844:A:H2'	46:1S:845:G:C8	2.50	0.47
46:1S:1580:C:H2'	46:1S:1581:C:C6	2.50	0.47
50:S3:211:PRO:HG3	64:17:20:TYR:HE1	1.79	0.47
51:S4:222:LEU:H	51:S4:222:LEU:CD2	2.28	0.47
52:S5:157:ARG:N	52:S5:157:ARG:HD2	2.29	0.47
52:S5:168:VAL:O	52:S5:172:ILE:HG13	2.14	0.47
53:S6:1:MET:HE2	53:S6:106:LEU:HB2	1.94	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:S8:121:LEU:HD22	55:S8:121:LEU:N	2.29	0.47
58:11:67:ARG:NH2	58:11:129:ARG:HA	2.29	0.47
58:11:91:LEU:HD22	70:23:10:ASN:OD1	2.14	0.47
62:15:96:ILE:CG2	62:15:116:LEU:HB3	2.43	0.47
67:20:57:ARG:HD2	67:20:89:ARG:NH2	2.29	0.47
69:22:65:LEU:H	69:22:65:LEU:CD1	2.19	0.47
71:24:41:ARG:HD2	71:24:55:VAL:O	2.14	0.47
1:2S:410:U:O5'	1:2S:410:U:H6	1.98	0.47
1:2S:563:U:H6	1:2S:563:U:O5'	1.97	0.47
1:2S:709:A:C8	1:2S:2788:C:H5'	2.49	0.47
1:2S:1306:G:OP2	1:2S:2884:C:H4'	2.14	0.47
1:2S:1799:A:H2'	1:2S:1800:A:C8	2.50	0.47
1:2S:2269:U:O2	1:2S:2271:A:N7	2.48	0.47
1:2S:2561:A:O2'	1:2S:2562:A:H8	1.97	0.47
1:2S:3180:A:C6	18:56:114:LYS:HD3	2.49	0.47
1:2S:3318:G:H1'	1:2S:3320:A:C8	2.49	0.47
4:L1:155:ILE:HG23	4:L1:163:LEU:HD13	1.97	0.47
5:L2:20:THR:HA	5:L2:23:ARG:NH1	2.29	0.47
8:L5:229:ASP:HB2	8:L5:231:ILE:HG13	1.96	0.47
9:L6:131:LYS:O	9:L6:135:VAL:HG23	2.14	0.47
10:L7:168:ILE:O	10:L7:172:ASN:ND2	2.47	0.47
12:L9:21:LYS:O	12:L9:22:SER:HB3	2.14	0.47
13:50:89:VAL:HG22	13:50:136:PHE:CE2	2.48	0.47
20:58:122:ILE:CG2	20:58:126:GLN:HB2	2.34	0.47
22:60:77:VAL:HG13	22:60:126:VAL:CG2	2.32	0.47
44:82:16:THR:OG1	44:82:77:CYS:HB3	2.14	0.47
44:82:38:GLN:HB2	44:82:41:ARG:HH21	1.78	0.47
46:1S:62:A:H4'	46:1S:269:G:H4'	1.97	0.47
46:1S:94:U:O3'	51:S4:6:LYS:HG3	2.14	0.47
46:1S:103:A:N6	46:1S:358:U:H3	2.10	0.47
46:1S:381:C:P	56:S9:2:PRO:HA	2.53	0.47
46:1S:572:C:OP1	70:23:109:ARG:NH1	2.47	0.47
46:1S:839:U:H6	46:1S:839:U:O5'	1.97	0.47
46:1S:1139:A:H2'	46:1S:1140:G:O4'	2.15	0.47
46:1S:1368:G:H5''	66:19:69:LYS:HA	1.96	0.47
46:1S:1379:C:H5'	63:16:10:PHE:CD2	2.50	0.47
53:S6:175:ILE:HG21	53:S6:178:LEU:HD13	1.96	0.47
54:S7:120:ALA:O	54:S7:124:LYS:HG2	2.13	0.47
59:12:68:GLU:O	59:12:69:ALA:HB3	2.13	0.47
59:12:97:LEU:HD22	59:12:100:TRP:HE3	1.80	0.47
61:14:50:ALA:O	61:14:51:ASP:HB2	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:15:44:ARG:O	62:15:44:ARG:HD3	2.15	0.47
62:15:47:ARG:HG2	62:15:47:ARG:HH21	1.79	0.47
65:18:46:VAL:HG11	65:18:73:MET:HG3	1.96	0.47
72:25:78:ILE:HD12	72:25:78:ILE:N	2.29	0.47
73:26:87:ARG:HB3	73:26:91:ASP:HB2	1.96	0.47
73:26:87:ARG:HD3	73:26:91:ASP:O	2.14	0.47
75:28:13:ILE:HD13	75:28:31:GLU:HB2	1.96	0.47
79:RA:278:PHE:HB3	79:RA:281:TYR:HE1	1.80	0.47
1:2S:41:G:H3'	1:2S:42:C:H6	1.79	0.47
1:2S:636:C:N4	1:2S:2375:G:N1	2.47	0.47
1:2S:884:A:H4'	1:2S:885:U:C6	2.47	0.47
1:2S:985:U:H2'	1:2S:986:U:C6	2.48	0.47
1:2S:1110:U:H2'	1:2S:1111:U:H6	1.77	0.47
1:2S:1194:G:O5'	1:2S:1194:G:H8	1.96	0.47
1:2S:1335:C:H2'	1:2S:1336:U:C6	2.50	0.47
1:2S:2299:A:C5	1:2S:2300:G:C8	3.02	0.47
5:L2:61:VAL:HB	5:L2:76:PHE:CD1	2.49	0.47
5:L2:134:VAL:HG12	5:L2:149:ARG:O	2.14	0.47
7:L4:316:ASN:HA	7:L4:317:PRO:HD3	1.74	0.47
7:L4:323:VAL:O	7:L4:327:LEU:HD23	2.14	0.47
7:L4:358:THR:HA	7:L4:361:HIS:HB2	1.96	0.47
10:L7:108:LEU:CD2	10:L7:114:GLY:HA2	2.44	0.47
11:L8:149:LYS:O	11:L8:176:PRO:CG	2.62	0.47
11:L8:158:ASP:CB	11:L8:159:PRO:HD3	2.20	0.47
20:58:29:LEU:O	20:58:33:TYR:HB2	2.15	0.47
20:58:32:LEU:O	20:58:32:LEU:HD23	2.13	0.47
23:61:68:THR:CG2	23:61:71:SER:H	2.27	0.47
24:62:54:VAL:HA	24:62:66:VAL:O	2.14	0.47
25:63:33:ASN:ND2	25:63:64:LYS:H	2.13	0.47
25:63:54:LEU:CD1	25:63:78:VAL:HG12	2.42	0.47
30:68:77:LYS:HB3	30:68:80:THR:CG2	2.45	0.47
44:82:77:CYS:SG	44:82:79:THR:HG22	2.54	0.47
46:1S:422:G:C2'	46:1S:423:G:C8	2.88	0.47
46:1S:468:A:C2	46:1S:595:G:OP2	2.68	0.47
46:1S:484:C:N4	46:1S:503:G:H22	2.09	0.47
46:1S:863:A:H2'	46:1S:865:A:C8	2.49	0.47
46:1S:1169:G:H2'	46:1S:1170:G:H5'	1.95	0.47
46:1S:1286:U:O2'	46:1S:1287:A:H5'	2.14	0.47
46:1S:1533:C:H4'	46:1S:1539:G:C6	2.49	0.47
49:S2:137:ILE:HG12	49:S2:138:PRO:CD	2.39	0.47
50:S3:72:LEU:HG	57:10:20:VAL:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:S3:211:PRO:CG	64:17:19:ARG:HB2	2.43	0.47
51:S4:210:ILE:HG22	51:S4:211:LYS:N	2.29	0.47
52:S5:56:ALA:O	52:S5:57:SER:OG	2.29	0.47
52:S5:171:ALA:HA	52:S5:174:LEU:HD12	1.96	0.47
54:S7:86:GLN:HG2	54:S7:87:ASP:H	1.78	0.47
54:S7:96:ARG:HB2	54:S7:121:VAL:CG1	2.45	0.47
56:S9:83:VAL:HG12	56:S9:149:ARG:HA	1.96	0.47
61:14:84:ARG:HG2	61:14:84:ARG:HH11	1.78	0.47
75:28:20:GLY:HA2	75:28:67:ARG:OXT	2.14	0.47
79:RA:72:THR:CG2	79:RA:81:LEU:HD12	2.44	0.47
79:RA:164:ASP:O	79:RA:165:ASP:CB	2.59	0.47
79:RA:206:PRO:HG2	79:RA:247:PRO:HA	1.97	0.47
1:2S:592:A:H5'	9:L6:17:ALA:O	2.15	0.47
1:2S:960:U:H4'	1:2S:963:G:C2	2.49	0.47
1:2S:1174:G:H1'	1:2S:1181:U:N3	2.30	0.47
1:2S:1230:G:C2'	1:2S:1231:A:H5'	2.44	0.47
1:2S:1294:A:O2'	1:2S:1295:G:H8	1.97	0.47
1:2S:1889:G:H2'	1:2S:1890:U:C6	2.50	0.47
1:2S:2584:G:H2'	1:2S:2585:G:H4'	1.97	0.47
1:2S:2588:U:H2'	1:2S:2589:G:C8	2.49	0.47
1:2S:2967:A:H5''	5:L2:213:GLY:C	2.35	0.47
6:L3:54:THR:OG1	6:L3:360:ASP:HB3	2.14	0.47
7:L4:317:PRO:O	7:L4:319:LYS:HD3	2.14	0.47
8:L5:58:LYS:HZ2	8:L5:93:THR:HG21	1.78	0.47
8:L5:286:VAL:HA	8:L5:289:LYS:HD2	1.95	0.47
11:L8:82:LEU:HD21	11:L8:86:THR:HG22	1.95	0.47
11:L8:100:GLU:HA	11:L8:104:GLU:OE1	2.14	0.47
11:L8:217:THR:O	11:L8:220:ALA:HB3	2.15	0.47
14:51:28:ASP:O	14:51:32:ARG:HG3	2.15	0.47
15:53:73:ARG:HG3	15:53:73:ARG:NH2	2.29	0.47
18:56:73:PHE:CD2	18:56:78:ARG:HG2	2.50	0.47
20:58:51:ALA:CB	20:58:84:VAL:HG11	2.44	0.47
23:61:79:MET:CE	31:69:21:ILE:HD13	2.43	0.47
37:75:31:LEU:HG	37:75:41:LEU:CD2	2.42	0.47
46:1S:136:C:C4'	46:1S:137:U:H5'	2.35	0.47
49:S2:78:ASP:O	49:S2:79:GLU:HB2	2.14	0.47
51:S4:133:LYS:C	51:S4:134:LYS:HG3	2.35	0.47
60:13:99:ARG:O	60:13:103:GLU:HG2	2.15	0.47
72:25:39:ALA:HB3	72:25:70:LYS:O	2.15	0.47
75:28:44:VAL:HG21	75:28:48:VAL:HG21	1.96	0.47
1:2S:31:C:C5'	17:55:96:ARG:HD2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:561:C:H2'	1:2S:562:C:H6	1.77	0.47
1:2S:943:U:O2'	30:68:12:ARG:HB3	2.15	0.47
1:2S:1056:U:H2'	1:2S:1057:A:O4'	2.15	0.47
1:2S:1392:G:H3'	34:72:125:ARG:HH12	1.79	0.47
1:2S:1936:A:H2'	1:2S:1937:U:C6	2.48	0.47
1:2S:3160:U:H2'	1:2S:3161:C:H6	1.76	0.47
1:2S:3357:U:H2'	1:2S:3358:U:H6	1.77	0.47
3:5S:52:G:H21	14:51:9:MET:CE	2.27	0.47
3:5S:96:U:H2'	3:5S:97:A:C8	2.49	0.47
5:L2:209:HIS:CG	5:L2:210:PRO:HD2	2.49	0.47
5:L2:225:ILE:HD11	5:L2:236:GLY:CA	2.45	0.47
8:L5:61:ILE:HG23	8:L5:79:TYR:HE1	1.79	0.47
9:L6:5:LYS:HA	9:L6:5:LYS:HE3	1.96	0.47
13:50:61:SER:HA	13:50:126:ALA:HA	1.95	0.47
13:50:201:SER:C	13:50:203:LYS:H	2.17	0.47
15:53:138:VAL:HG12	15:53:139:LEU:N	2.30	0.47
17:55:156:HIS:HA	17:55:162:ARG:HH22	1.80	0.47
20:58:25:TYR:O	20:58:29:LEU:HG	2.14	0.47
24:62:17:VAL:HA	24:62:103:TYR:O	2.14	0.47
35:73:100:ILE:N	35:73:100:ILE:HD12	2.30	0.47
46:1S:772:G:H5''	51:S4:23:LEU:HD23	1.96	0.47
57:10:82:LEU:HD12	57:10:82:LEU:H	1.80	0.47
58:11:93:TYR:OH	58:11:95:PRO:HA	2.14	0.47
59:12:50:LYS:HE2	78:31:103:LEU:HD21	1.96	0.47
60:13:136:PRO:HB2	60:13:138:ASN:OD1	2.14	0.47
63:16:78:VAL:O	63:16:82:ARG:HG2	2.15	0.47
63:16:93:HIS:O	63:16:102:LYS:HB2	2.14	0.47
65:18:62:THR:O	65:18:66:LEU:HG	2.14	0.47
70:23:104:LEU:HD23	70:23:124:VAL:HA	1.97	0.47
76:29:22:ARG:HG2	76:29:38:ILE:HD13	1.96	0.47
1:2S:9:U:OP1	17:55:40:ALA:HB3	2.14	0.47
1:2S:776:U:C5	1:2S:2719:U:O2	2.68	0.47
1:2S:782:U:H2'	1:2S:783:A:O4'	2.14	0.47
1:2S:874:U:OP2	6:L3:241:LYS:HE3	2.14	0.47
1:2S:918:C:O2'	1:2S:919:U:H5'	2.13	0.47
1:2S:1190:A:H2'	1:2S:1190:A:N3	2.30	0.47
1:2S:1372:C:OP2	30:68:7:LYS:HG2	2.15	0.47
1:2S:1373:A:H2'	1:2S:1374:G:C8	2.50	0.47
1:2S:1489:A:H2'	1:2S:1490:A:C8	2.50	0.47
1:2S:1537:A:H2'	1:2S:1538:G:C8	2.50	0.47
1:2S:2365:C:H5''	1:2S:2986:U:O2'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2635:A:H4'	1:2S:2636:A:N3	2.30	0.47
1:2S:2724:U:H4'	23:61:54:HIS:CE1	2.50	0.47
1:2S:2897:A:H2'	1:2S:2899:C:C5'	2.44	0.47
1:2S:3149:G:H4'	6:L3:130:PHE:CZ	2.49	0.47
1:2S:3303:G:H5''	1:2S:3377:G:H4'	1.95	0.47
3:5S:82:G:H2'	3:5S:83:U:O4'	2.14	0.47
4:L1:93:LEU:HD21	4:L1:118:LYS:HB2	1.97	0.47
4:L1:106:LYS:HD2	4:L1:123:LEU:HD11	1.97	0.47
4:L1:155:ILE:HG23	4:L1:163:LEU:HD11	1.94	0.47
4:L1:207:LYS:HG3	4:L1:211:GLY:O	2.14	0.47
6:L3:139:GLN:O	6:L3:141:GLY:N	2.48	0.47
6:L3:232:ARG:HD3	6:L3:268:GLY:H	1.79	0.47
6:L3:300:ARG:CG	53:S6:25:ARG:HH22	2.28	0.47
7:L4:122:THR:O	7:L4:126:ILE:HG13	2.15	0.47
7:L4:188:ARG:HH21	7:L4:197:ARG:HB3	1.78	0.47
8:L5:51:LEU:HB2	8:L5:144:VAL:HG22	1.97	0.47
10:L7:169:ILE:CG2	10:L7:184:LEU:HD11	2.42	0.47
10:L7:196:LYS:HD3	10:L7:197:GLN:HE21	1.80	0.47
10:L7:210:PRO:HG3	10:L7:214:TRP:CE2	2.49	0.47
12:L9:90:MET:HG2	12:L9:181:VAL:HA	1.96	0.47
12:L9:114:VAL:CB	12:L9:124:ARG:HB2	2.44	0.47
12:L9:115:ARG:HG2	12:L9:115:ARG:HH11	1.79	0.47
13:50:39:LYS:C	13:50:40:LYS:HD2	2.34	0.47
14:51:10:ARG:HH21	14:51:152:HIS:HA	1.79	0.47
16:54:42:LYS:O	16:54:60:LEU:HG	2.15	0.47
17:55:16:SER:CB	38:76:48:ALA:HB1	2.44	0.47
17:55:80:THR:HB	17:55:87:GLN:HE21	1.79	0.47
17:55:118:SER:HB3	17:55:132:VAL:CB	2.45	0.47
20:58:44:PHE:CE1	20:58:48:VAL:HG21	2.49	0.47
20:58:82:VAL:HA	20:58:102:ALA:O	2.15	0.47
21:59:100:ARG:HA	21:59:103:ARG:HB2	1.94	0.47
22:60:40:ARG:HA	22:60:43:TYR:HB2	1.96	0.47
24:62:43:VAL:CB	24:62:49:ASN:HB3	2.43	0.47
26:64:37:ALA:O	26:64:41:LYS:HG3	2.14	0.47
26:64:47:ARG:HG2	26:64:47:ARG:NH1	2.30	0.47
29:67:135:ARG:HG2	29:67:135:ARG:NH2	2.29	0.47
32:70:77:LEU:HD23	32:70:87:VAL:O	2.14	0.47
33:71:17:HIS:HB2	33:71:69:TYR:CB	2.43	0.47
36:74:44:CYS:C	36:74:46:ASP:H	2.17	0.47
46:1S:121:U:H1'	51:S4:33:ALA:O	2.14	0.47
46:1S:245:U:H2'	46:1S:247:A:OP2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:279:G:H3'	46:1S:280:U:H4'	1.97	0.47
46:1S:387:A:H1'	46:1S:425:A:C2	2.50	0.47
46:1S:499:U:H3'	46:1S:499:U:C6	2.49	0.47
46:1S:618:U:H2'	46:1S:619:A:H5''	1.96	0.47
46:1S:856:A:N7	54:S7:96:ARG:HA	2.29	0.47
46:1S:882:U:H2'	46:1S:883:C:C6	2.49	0.47
46:1S:959:U:O2	46:1S:959:U:H2'	2.14	0.47
46:1S:1321:A:H8	47:S0:131:GLN:OE1	1.98	0.47
46:1S:1498:G:C2'	46:1S:1499:G:H5''	2.45	0.47
46:1S:1667:A:H2'	46:1S:1668:G:H8	1.78	0.47
46:1S:1769:U:O2	61:14:136:ARG:HD3	2.14	0.47
48:S1:171:ILE:HA	48:S1:174:LYS:HE3	1.97	0.47
51:S4:154:ILE:HG12	51:S4:172:PHE:CD2	2.50	0.47
51:S4:195:ILE:CG2	51:S4:196:VAL:N	2.76	0.47
52:S5:24:VAL:C	52:S5:25:LEU:HD13	2.34	0.47
52:S5:124:LEU:HA	72:25:58:ARG:HD2	1.95	0.47
53:S6:77:LEU:HD12	53:S6:95:LYS:HD3	1.96	0.47
53:S6:147:LEU:HD13	53:S6:152:ASP:O	2.15	0.47
54:S7:182:VAL:HG12	54:S7:183:PHE:N	2.29	0.47
57:10:68:LEU:HD11	57:10:72:GLY:HA3	1.96	0.47
58:11:123:VAL:CG2	58:11:139:VAL:HG13	2.45	0.47
60:13:2:GLY:HA3	60:13:9:LYS:HA	1.96	0.47
62:15:47:ARG:HG2	62:15:47:ARG:NH2	2.29	0.47
62:15:80:MET:O	62:15:116:LEU:HD12	2.14	0.47
63:16:90:VAL:HA	63:16:93:HIS:HB2	1.95	0.47
63:16:131:GLY:HA3	63:16:137:ARG:HA	1.97	0.47
65:18:40:ARG:NH2	66:19:45:MET:HG2	2.30	0.47
65:18:81:ILE:HG23	65:18:82:PRO:HD2	1.95	0.47
66:19:113:ILE:O	66:19:113:ILE:HG22	2.15	0.47
68:21:62:ARG:CB	68:21:64:GLU:HG2	2.44	0.47
71:24:20:ARG:C	71:24:21:LYS:HD2	2.35	0.47
79:RA:85:TRP:HA	79:RA:109:ASP:HB3	1.97	0.47
79:RA:172:ALA:HB3	79:RA:202:LEU:HD22	1.95	0.47
1:2S:276:U:H2'	1:2S:277:G:O4'	2.14	0.47
1:2S:1238:C:H2'	1:2S:1239:C:H5''	1.96	0.47
1:2S:1449:A:H1'	1:2S:2983:C:C4	2.49	0.47
1:2S:1771:C:H2'	1:2S:1772:U:O4'	2.15	0.47
1:2S:1900:A:H5'	1:2S:1901:A:C5	2.49	0.47
2:8S:149:A:H2'	2:8S:150:G:C8	2.49	0.47
5:L2:49:VAL:HG22	5:L2:50:HIS:N	2.30	0.47
5:L2:177:LYS:HA	5:L2:178:PRO:HD3	1.73	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:234:LYS:HD3	5:L2:238:ILE:HG12	1.97	0.47
7:L4:98:ARG:HD2	7:L4:98:ARG:C	2.35	0.47
7:L4:111:VAL:HG12	7:L4:112:LYS:N	2.30	0.47
8:L5:286:VAL:O	8:L5:290:ILE:HG12	2.14	0.47
14:51:37:LEU:HD22	14:51:69:VAL:HG12	1.97	0.47
16:54:127:LYS:O	16:54:131:VAL:HG23	2.14	0.47
18:56:24:ALA:HB2	18:56:87:MET:CE	2.45	0.47
18:56:76:PRO:HA	18:56:138:LEU:HD21	1.96	0.47
25:63:33:ASN:ND2	25:63:63:LYS:HB3	2.28	0.47
27:65:113:LEU:HD11	27:65:121:LYS:CB	2.44	0.47
33:71:25:PHE:HB3	33:71:65:LYS:HD3	1.96	0.47
34:72:65:PHE:CB	34:72:72:LYS:HE3	2.39	0.47
39:77:47:TYR:CB	39:77:49:TRP:CE2	2.98	0.47
39:77:64:MET:HB3	39:77:68:LYS:HG3	1.97	0.47
44:82:70:LEU:CD1	44:82:85:LEU:HD11	2.45	0.47
46:1S:640:U:H2'	46:1S:641:G:O4'	2.15	0.47
46:1S:821:U:O4	46:1S:851:U:O2	2.33	0.47
46:1S:965:U:H3'	46:1S:966:A:C5'	2.44	0.47
46:1S:1026:A:H2	46:1S:1791:A:O4'	1.97	0.47
46:1S:1112:G:H2'	46:1S:1113:A:C8	2.50	0.47
46:1S:1681:A:N6	46:1S:1720:G:O2'	2.48	0.47
49:S2:66:PHE:CB	49:S2:133:LYS:HG3	2.42	0.47
51:S4:225:VAL:O	51:S4:226:PHE:HB2	2.15	0.47
54:S7:131:PHE:N	54:S7:132:PRO:CD	2.78	0.47
58:11:14:GLN:HB3	58:11:54:ILE:CD1	2.45	0.47
68:21:2:GLU:HG2	68:21:8:LEU:HA	1.95	0.47
70:23:125:VAL:HG12	70:23:126:LYS:N	2.30	0.47
71:24:57:VAL:HG22	71:24:60:PHE:HE2	1.79	0.47
76:29:19:ARG:HG3	76:29:19:ARG:HH11	1.79	0.47
1:2S:619:A:C5'	1:2S:620:U:C2	2.98	0.47
1:2S:652:G:N2	1:2S:2361:A:H1'	2.29	0.47
1:2S:672:A:H5''	20:58:21:SER:HB2	1.97	0.47
1:2S:744:A:H2'	1:2S:745:C:H5'	1.97	0.47
1:2S:1203:A:C2	1:2S:2855:U:O2'	2.62	0.47
1:2S:1349:G:H3'	1:2S:1349:G:N3	2.30	0.47
1:2S:1435:A:H5''	1:2S:1436:U:C5'	2.44	0.47
1:2S:1732:U:H2'	1:2S:1733:G:H5'	1.97	0.47
1:2S:1744:G:H2'	1:2S:1745:C:C6	2.50	0.47
1:2S:2137:U:H2'	1:2S:2141:U:O4	2.15	0.47
1:2S:2485:A:H2'	1:2S:2486:A:H5'	1.97	0.47
1:2S:2562:A:H2'	1:2S:2563:G:H8	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2655:U:C5	44:82:4:VAL:HG12	2.49	0.47
1:2S:2749:G:O2'	8:L5:35:ARG:HD3	2.14	0.47
4:L1:97:LYS:O	4:L1:97:LYS:HG2	2.14	0.47
5:L2:15:ILE:O	5:L2:194:ASN:HB3	2.14	0.47
7:L4:39:PHE:O	7:L4:43:ASN:OD1	2.32	0.47
9:L6:152:THR:HA	9:L6:153:PRO:HD3	1.70	0.47
12:L9:31:ARG:HH11	12:L9:31:ARG:HG3	1.80	0.47
13:50:165:ILE:HG12	13:50:165:ILE:O	2.14	0.47
16:54:106:ARG:HG3	16:54:106:ARG:NH1	2.29	0.47
17:55:16:SER:HG	17:55:19:LEU:HD13	1.80	0.47
20:58:51:ALA:HB3	20:58:84:VAL:HG11	1.96	0.47
23:61:102:ARG:O	23:61:106:LEU:HD23	2.15	0.47
25:63:71:LYS:HB3	25:63:71:LYS:HZ3	1.79	0.47
27:65:51:VAL:HA	27:65:52:PRO:HD3	1.68	0.47
30:68:71:PRO:HB2	30:68:109:TYR:HA	1.95	0.47
36:74:22:VAL:HA	36:74:32:ALA:CA	2.41	0.47
36:74:58:ARG:HG3	36:74:59:PRO:HD2	1.96	0.47
41:79:27:ILE:HA	41:79:30:ARG:HG3	1.97	0.47
46:1S:618:U:H4'	46:1S:1030:A:C6	2.49	0.47
46:1S:818:C:H2'	46:1S:819:G:C5'	2.39	0.47
46:1S:1274:C:H4'	46:1S:1276:U:OP2	2.15	0.47
46:1S:1392:U:H2'	46:1S:1393:C:C6	2.50	0.47
47:S0:197:ILE:H	47:S0:197:ILE:CD1	2.28	0.47
58:11:14:GLN:HB3	58:11:54:ILE:HD13	1.96	0.47
63:16:10:PHE:HA	63:16:19:VAL:HA	1.97	0.47
67:20:48:HIS:NE2	67:20:99:ILE:HG12	2.30	0.47
69:22:56:HIS:C	69:22:57:ARG:HD2	2.35	0.47
71:24:22:GLN:HB2	71:24:72:PHE:HZ	1.79	0.47
79:RA:152:SER:O	79:RA:153:GLN:HG3	2.15	0.47
1:2S:740:G:O2'	1:2S:741:U:H5'	2.15	0.47
1:2S:771:A:H2'	1:2S:772:U:C6	2.50	0.47
1:2S:987:U:C5'	10:L7:125:GLU:HG3	2.45	0.47
1:2S:1144:U:C4	1:2S:1366:A:C2	3.03	0.47
1:2S:2131:A:C5	1:2S:2188:A:H1'	2.49	0.47
1:2S:2708:C:H2'	1:2S:2709:C:C6	2.50	0.47
1:2S:2828:G:H3'	1:2S:2829:U:C6	2.50	0.47
3:5S:43:U:H4'	14:51:140:ARG:O	2.14	0.47
6:L3:232:ARG:CA	6:L3:270:ARG:HD2	2.38	0.47
7:L4:22:LEU:HA	7:L4:23:PRO:HD3	1.78	0.47
7:L4:130:ALA:O	7:L4:131:VAL:HB	2.14	0.47
8:L5:122:VAL:HG22	8:L5:168:ASP:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:51:87:LYS:O	14:51:88:GLU:HB2	2.15	0.47
16:54:72:LEU:CD2	16:54:84:LYS:HB2	2.45	0.47
21:59:138:LEU:O	21:59:142:ILE:HG13	2.15	0.47
22:60:80:ARG:HD2	23:61:156:TYR:N	2.30	0.47
24:62:71:PHE:CE2	24:62:75:TYR:CD2	3.03	0.47
36:74:41:ARG:NH2	36:74:52:GLN:HA	2.30	0.47
46:1S:6:G:H3'	49:S2:205:ARG:HH12	1.80	0.47
46:1S:185:U:C3'	46:1S:186:C:H5''	2.44	0.47
46:1S:473:A:H2'	46:1S:474:A:O4'	2.14	0.47
46:1S:607:G:O4'	46:1S:613:G:N2	2.47	0.47
46:1S:1025:A:H5''	46:1S:1027:A:N7	2.30	0.47
46:1S:1472:C:H42	46:1S:1536:G:H1	1.60	0.47
46:1S:1789:G:H2'	46:1S:1790:A:C8	2.50	0.47
49:S2:38:VAL:O	49:S2:39:THR:OG1	2.30	0.47
50:S3:5:ILE:HG22	50:S3:6:SER:N	2.30	0.47
50:S3:168:ILE:HG22	50:S3:189:MET:CB	2.41	0.47
53:S6:220:LYS:HD2	53:S6:220:LYS:O	2.14	0.47
54:S7:39:ARG:N	54:S7:40:PRO:CD	2.78	0.47
57:10:69:THR:HB	57:10:70:GLU:H	1.56	0.47
59:12:43:ARG:HA	59:12:121:VAL:HG12	1.97	0.47
61:14:114:ARG:HA	73:26:62:TYR:CE1	2.50	0.47
65:18:5:VAL:O	72:25:42:LEU:HD13	2.14	0.47
70:23:52:ILE:C	70:23:74:VAL:HG13	2.35	0.47
73:26:12:LYS:HA	73:26:15:ARG:HE	1.80	0.47
73:26:71:LEU:HD22	73:26:71:LEU:N	2.29	0.47
79:RA:42:LEU:HD21	79:RA:82:SER:HB3	1.96	0.47
1:2S:52:A:C2'	1:2S:53:G:H5'	2.45	0.46
1:2S:99:A:H1'	1:2S:281:G:C8	2.50	0.46
1:2S:1448:U:H2'	1:2S:1449:A:C8	2.49	0.46
1:2S:2598:G:H4'	17:55:69:GLY:HA2	1.98	0.46
1:2S:3144:G:H2'	1:2S:3145:C:O4'	2.14	0.46
5:L2:45:VAL:CG1	5:L2:84:THR:HA	2.45	0.46
5:L2:146:THR:C	5:L2:157:VAL:HG23	2.35	0.46
10:L7:136:TYR:N	10:L7:136:TYR:CD1	2.83	0.46
10:L7:210:PRO:HG3	10:L7:214:TRP:NE1	2.30	0.46
12:L9:110:LYS:O	12:L9:128:VAL:HG23	2.15	0.46
14:51:16:LYS:HG2	14:51:130:VAL:HG12	1.96	0.46
14:51:80:LEU:HD23	14:51:80:LEU:C	2.36	0.46
21:59:5:ARG:NH1	21:59:5:ARG:HG2	2.29	0.46
23:61:51:GLY:HA3	23:61:92:ARG:HB2	1.97	0.46
24:62:92:TRP:HB3	24:62:107:PHE:CZ	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:63:76:ALA:C	25:63:77:ILE:HD12	2.36	0.46
29:67:75:VAL:HG22	29:67:76:ASN:N	2.30	0.46
44:82:35:LEU:HB3	44:82:36:PHE:H	1.52	0.46
46:1S:97:C:H2'	46:1S:98:U:C6	2.50	0.46
46:1S:992:A:H2	46:1S:1012:U:N3	2.09	0.46
46:1S:1028:C:H5'	46:1S:1031:U:OP2	2.15	0.46
46:1S:1047:G:O2'	46:1S:1048:G:H5'	2.14	0.46
46:1S:1048:G:H2'	46:1S:1049:U:C6	2.50	0.46
46:1S:1109:G:H2'	46:1S:1110:G:C8	2.50	0.46
46:1S:1133:A:H2'	46:1S:1134:C:C6	2.50	0.46
46:1S:1137:A:H1'	46:1S:1138:A:H1'	1.97	0.46
46:1S:1548:G:H2'	46:1S:1549:C:C6	2.49	0.46
46:1S:1564:U:H2'	46:1S:1565:C:C6	2.49	0.46
48:S1:27:LYS:HD2	48:S1:48:VAL:O	2.15	0.46
60:13:113:PHE:CE1	60:13:114:ARG:NH1	2.83	0.46
63:16:50:GLU:O	63:16:54:LEU:HD23	2.15	0.46
63:16:66:ARG:HG2	63:16:66:ARG:HH11	1.80	0.46
67:20:104:THR:HG22	67:20:116:VAL:HG21	1.97	0.46
69:22:80:ASN:ND2	69:22:80:ASN:N	2.62	0.46
70:23:57:LEU:HB3	70:23:59:ILE:HD11	1.96	0.46
77:30:48:THR:HB	77:30:49:LEU:H	1.49	0.46
79:RA:40:LYS:HA	79:RA:66:HIS:O	2.15	0.46
79:RA:260:ILE:HB	79:RA:274:LEU:HD12	1.95	0.46
1:2S:269:G:O6	17:55:14:LYS:HB2	2.15	0.46
1:2S:997:A:H4'	3:5S:80:G:H5'	1.98	0.46
1:2S:1096:U:H5''	23:61:129:LYS:HE2	1.97	0.46
1:2S:1481:A:H3'	1:2S:1858:A:O2'	2.16	0.46
1:2S:1677:G:H1	1:2S:1691:U:H3	1.62	0.46
1:2S:1813:A:H3'	1:2S:1813:A:N3	2.29	0.46
1:2S:1908:A:C2	1:2S:2336:U:H5'	2.50	0.46
1:2S:2322:C:C2'	1:2S:2323:G:H5'	2.45	0.46
1:2S:2493:U:H5''	4:L1:162:VAL:CB	2.45	0.46
1:2S:3268:A:H3'	1:2S:3269:U:H3'	1.97	0.46
1:2S:3337:G:H2'	1:2S:3338:C:C6	2.49	0.46
3:5S:67:G:H2'	3:5S:68:C:H6	1.80	0.46
4:L1:91:LYS:C	4:L1:93:LEU:H	2.18	0.46
5:L2:46:LYS:HB3	5:L2:60:LYS:HB2	1.97	0.46
6:L3:238:LEU:HB2	6:L3:246:LEU:HA	1.96	0.46
7:L4:90:PHE:O	7:L4:98:ARG:HB3	2.15	0.46
8:L5:126:GLU:O	8:L5:196:ARG:HB2	2.15	0.46
13:50:55:ASN:OD1	13:50:164:LYS:HE2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:51:48:SER:HB2	14:51:66:ALA:CB	2.35	0.46
15:53:164:GLU:O	15:53:165:SER:HB3	2.15	0.46
18:56:118:VAL:HB	22:60:164:SER:O	2.16	0.46
19:57:112:LEU:HD23	19:57:150:VAL:CG2	2.45	0.46
20:58:71:LEU:HD13	20:58:97:PRO:HG3	1.97	0.46
21:59:133:LYS:O	21:59:133:LYS:HG2	2.15	0.46
23:61:40:VAL:HB	23:61:96:ILE:HG23	1.97	0.46
38:76:37:THR:HB	38:76:41:ARG:CZ	2.45	0.46
40:78:29:LYS:HE2	40:78:37:PRO:HB2	1.97	0.46
44:82:40:LYS:O	44:82:43:TYR:HB3	2.15	0.46
46:1S:261:U:H6	46:1S:261:U:H5'	1.80	0.46
46:1S:767:U:O2	46:1S:767:U:H3'	2.15	0.46
46:1S:990:C:H2'	46:1S:991:G:O4'	2.16	0.46
46:1S:1128:C:H2'	46:1S:1129:U:O4'	2.14	0.46
46:1S:1208:A:C2	46:1S:1209:C:C6	3.03	0.46
46:1S:1281:G:H4'	67:20:75:GLY:HA3	1.96	0.46
46:1S:1517:U:H2'	46:1S:1518:C:H5	1.80	0.46
46:1S:1740:A:H2'	46:1S:1741:U:H6	1.81	0.46
47:S0:77:SER:HB2	47:S0:86:VAL:HG11	1.97	0.46
48:S1:103:MET:HE3	48:S1:105:PHE:HE2	1.80	0.46
48:S1:145:LYS:HB3	48:S1:149:GLN:HG2	1.97	0.46
53:S6:81:VAL:CG2	53:S6:82:SER:H	2.21	0.46
54:S7:51:VAL:HG11	54:S7:168:SER:HB3	1.97	0.46
55:S8:26:LYS:NZ	55:S8:29:LEU:HD13	2.30	0.46
56:S9:109:LEU:HD22	56:S9:129:ILE:HD13	1.97	0.46
57:10:49:LEU:HD11	57:10:75:TYR:CE2	2.50	0.46
57:10:50:THR:HG22	57:10:55:VAL:HG13	1.97	0.46
58:11:70:ILE:HD12	58:11:70:ILE:H	1.79	0.46
66:19:7:ARG:NH2	66:19:67:MET:HA	2.30	0.46
66:19:25:GLN:HG2	66:19:27:LYS:HD3	1.97	0.46
1:2S:17:G:C2	1:2S:18:G:H1'	2.49	0.46
1:2S:91:G:H5''	44:82:46:LYS:HE3	1.98	0.46
1:2S:120:G:H5'	11:L8:129:PRO:HG3	1.96	0.46
1:2S:279:U:H3	1:2S:286:U:H3	1.61	0.46
1:2S:445:G:H2'	1:2S:446:U:O4'	2.15	0.46
1:2S:892:U:H2'	1:2S:893:C:O4'	2.15	0.46
1:2S:908:G:H4'	1:2S:909:G:O5'	2.16	0.46
1:2S:951:A:N6	1:2S:1369:A:H1'	2.30	0.46
1:2S:1146:C:H4'	1:2S:1331:U:C5	2.50	0.46
1:2S:1663:C:H2'	1:2S:1664:G:H8	1.81	0.46
1:2S:1831:U:H5'	27:65:91:ASN:HB2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2659:G:H2'	1:2S:2660:G:O4'	2.15	0.46
1:2S:2723:U:O2'	1:2S:2724:U:H5'	2.15	0.46
1:2S:3067:C:H3'	21:59:62:ARG:HH12	1.77	0.46
1:2S:3157:U:H4'	1:2S:3158:G:O5'	2.15	0.46
5:L2:45:VAL:HG13	5:L2:85:GLY:N	2.24	0.46
10:L7:179:LEU:HD13	10:L7:179:LEU:H	1.79	0.46
14:51:100:GLY:HA3	14:51:154:THR:HB	1.96	0.46
16:54:72:LEU:HD13	16:54:73:PRO:CD	2.44	0.46
18:56:89:SER:O	18:56:95:GLY:HA3	2.15	0.46
18:56:189:ASP:O	18:56:193:GLN:HG3	2.16	0.46
19:57:124:LYS:HA	19:57:141:SER:O	2.15	0.46
22:60:12:ARG:HH11	22:60:21:GLU:HG2	1.80	0.46
25:63:125:LEU:CD2	25:63:126:TRP:HE1	2.18	0.46
27:65:82:LEU:HB3	27:65:84:PHE:CZ	2.51	0.46
33:71:29:ALA:HB3	33:71:30:PRO:HD3	1.96	0.46
33:71:62:ARG:HG3	33:71:62:ARG:NH1	2.30	0.46
35:73:58:GLU:HB2	35:73:63:LYS:HG2	1.97	0.46
43:81:6:ARG:HH11	43:81:6:ARG:HG3	1.81	0.46
46:1S:66:U:O2'	46:1S:67:A:H5'	2.15	0.46
46:1S:144:U:HO2'	46:1S:145:A:H2'	1.80	0.46
46:1S:491:C:H2'	46:1S:492:A:H5'	1.98	0.46
46:1S:942:G:H5'	46:1S:977:A:C4'	2.43	0.46
46:1S:1477:G:H2'	46:1S:1478:G:H8	1.80	0.46
47:S0:27:ARG:HG2	47:S0:28:ASN:N	2.31	0.46
48:S1:181:LEU:H	48:S1:181:LEU:HD22	1.79	0.46
49:S2:65:GLU:HB2	49:S2:68:ILE:CD1	2.45	0.46
49:S2:69:ILE:HG12	49:S2:133:LYS:HB3	1.96	0.46
50:S3:208:ILE:HD13	64:17:39:ALA:HB2	1.98	0.46
52:S5:120:ILE:O	52:S5:124:LEU:HD13	2.15	0.46
53:S6:85:ARG:HG2	53:S6:85:ARG:HH11	1.79	0.46
54:S7:162:ILE:HB	54:S7:169:PHE:CZ	2.51	0.46
55:S8:81:VAL:HG23	55:S8:94:ASN:HA	1.98	0.46
56:S9:159:ALA:O	56:S9:165:GLY:HA3	2.15	0.46
60:13:113:PHE:HE1	60:13:114:ARG:NH1	2.12	0.46
66:19:92:LYS:CE	66:19:94:ILE:HD11	2.45	0.46
70:23:19:ARG:O	70:23:23:ARG:HG2	2.15	0.46
70:23:87:VAL:HA	70:23:124:VAL:CG2	2.45	0.46
70:23:91:GLY:C	70:23:93:LEU:H	2.18	0.46
74:27:11:THR:O	74:27:15:GLU:HB2	2.16	0.46
1:2S:91:G:H5''	44:82:46:LYS:NZ	2.29	0.46
1:2S:137:G:H2'	1:2S:138:U:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:905:U:H2'	1:2S:906:A:H5'	1.97	0.46
1:2S:1526:U:H5'	1:2S:1594:A:C6	2.51	0.46
1:2S:1844:C:H2'	1:2S:1845:G:C4'	2.45	0.46
1:2S:1887:A:H4'	6:L3:227:GLU:HA	1.97	0.46
1:2S:2607:G:O5'	5:L2:233:GLN:HG2	2.15	0.46
1:2S:2730:G:H2'	1:2S:2731:U:H5'	1.98	0.46
1:2S:3010:U:O2'	1:2S:3011:A:H2'	2.16	0.46
5:L2:72:ARG:HB2	5:L2:72:ARG:CZ	2.46	0.46
6:L3:233:TRP:O	6:L3:234:GLY:C	2.53	0.46
10:L7:229:PHE:CD1	10:L7:229:PHE:C	2.89	0.46
14:51:59:ILE:CG2	14:51:65:ILE:HD12	2.45	0.46
14:51:92:ARG:HA	14:51:171:VAL:O	2.16	0.46
23:61:27:LEU:HD13	23:61:30:TYR:CD2	2.50	0.46
25:63:102:ILE:CG2	25:63:110:LYS:HB3	2.45	0.46
29:67:121:ARG:NH1	29:67:126:LYS:HB3	2.30	0.46
34:72:106:VAL:HA	34:72:109:LEU:HD12	1.97	0.46
39:77:25:ARG:O	39:77:25:ARG:CD	2.63	0.46
46:1S:323:A:OP2	55:S8:10:LYS:HG3	2.15	0.46
46:1S:344:A:C2'	46:1S:345:U:H5'	2.46	0.46
46:1S:629:U:H2'	46:1S:630:A:O4'	2.15	0.46
46:1S:682:C:C2'	46:1S:683:C:H5'	2.44	0.46
46:1S:775:G:H8	46:1S:775:G:O5'	1.98	0.46
46:1S:1216:C:O3'	46:1S:1217:A:H3'	2.15	0.46
46:1S:1363:U:H3'	46:1S:1364:G:C5'	2.45	0.46
46:1S:1416:G:O2'	63:16:125:GLU:OE2	2.31	0.46
48:S1:86:LEU:HD22	48:S1:86:LEU:N	2.30	0.46
48:S1:137:ILE:HD12	48:S1:172:LEU:HD22	1.98	0.46
53:S6:27:PHE:HZ	53:S6:41:VAL:HG21	1.80	0.46
54:S7:117:THR:HG22	54:S7:120:ALA:HB2	1.96	0.46
55:S8:42:ARG:HG2	55:S8:58:LEU:HB2	1.98	0.46
56:S9:179:ARG:CA	56:S9:182:GLU:HG2	2.37	0.46
61:14:17:ALA:N	61:14:79:VAL:HG22	2.28	0.46
62:15:87:PRO:HA	62:15:90:ILE:CD1	2.45	0.46
66:19:52:GLY:C	66:19:54:PHE:H	2.19	0.46
68:21:53:TYR:CD1	68:21:72:LEU:HD13	2.50	0.46
69:22:80:ASN:HD21	69:22:124:LYS:HG2	1.73	0.46
74:27:81:ARG:O	74:27:82:LYS:CB	2.64	0.46
75:28:14:LYS:HB3	75:28:29:ARG:CD	2.43	0.46
79:RA:49:GLY:HA2	79:RA:54:PHE:HA	1.96	0.46
1:2S:299:G:C4	38:76:31:GLY:HA3	2.50	0.46
1:2S:717:C:H41	1:2S:751:A:C4'	2.25	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1662:G:H2'	1:2S:1663:C:C6	2.51	0.46
1:2S:1927:G:N3	1:2S:1927:G:C3'	2.77	0.46
1:2S:2060:A:C2'	1:2S:2061:G:H5'	2.45	0.46
1:2S:2331:C:H2'	1:2S:2332:A:C8	2.50	0.46
1:2S:2638:C:H3'	1:2S:2639:G:H8	1.80	0.46
1:2S:3116:G:H3'	1:2S:3117:C:C6	2.51	0.46
3:5S:24:A:O2'	3:5S:25:G:H5'	2.15	0.46
3:5S:77:G:H22	3:5S:101:G:H2'	1.79	0.46
6:L3:261:MET:HG3	18:56:64:PHE:HB3	1.98	0.46
7:L4:58:HIS:HA	7:L4:90:PHE:HD1	1.80	0.46
7:L4:132:ALA:CB	7:L4:148:ILE:HD12	2.46	0.46
10:L7:100:ARG:HA	10:L7:103:LEU:HD12	1.98	0.46
15:53:46:ILE:HG23	15:53:49:ARG:HH21	1.79	0.46
19:57:159:LYS:CG	19:57:160:ALA:H	2.29	0.46
24:62:96:VAL:CG1	24:62:97:SER:H	2.18	0.46
32:70:11:ASN:HA	32:70:14:LEU:HD12	1.98	0.46
33:71:13:THR:HG23	33:71:72:ARG:HD3	1.96	0.46
39:77:24:ARG:O	39:77:24:ARG:HG2	2.16	0.46
42:80:80:PRO:HA	42:80:83:LYS:NZ	2.31	0.46
44:82:63:LYS:HE2	44:82:87:ARG:HH12	1.79	0.46
46:1S:386:G:H5''	55:S8:23:LYS:HE2	1.98	0.46
46:1S:555:A:H2'	46:1S:556:A:N7	2.31	0.46
46:1S:579:A:H3'	46:1S:580:A:C5'	2.45	0.46
46:1S:867:G:OP2	60:13:3:ARG:NH1	2.49	0.46
46:1S:1570:A:H2'	46:1S:1571:C:O4'	2.16	0.46
46:1S:1615:C:H5''	75:28:18:ARG:NH2	2.31	0.46
52:S5:57:SER:HB3	75:28:53:ILE:HB	1.96	0.46
53:S6:13:GLN:HA	53:S6:124:LEU:HD13	1.97	0.46
53:S6:76:LEU:HA	53:S6:94:ARG:HA	1.98	0.46
55:S8:5:ARG:HH11	55:S8:5:ARG:HG3	1.81	0.46
56:S9:169:PRO:HD2	56:S9:174:ARG:CZ	2.46	0.46
58:11:117:VAL:CG1	58:11:118:GLN:N	2.78	0.46
64:17:110:VAL:HG11	64:17:117:LEU:CG	2.35	0.46
65:18:3:LEU:HD13	65:18:3:LEU:N	2.31	0.46
65:18:133:VAL:O	65:18:133:VAL:HG22	2.16	0.46
69:22:15:ASN:O	69:22:19:LYS:HG3	2.15	0.46
69:22:81:VAL:HG11	69:22:86:ILE:CG2	2.45	0.46
70:23:76:LEU:CD1	70:23:79:ASN:HB2	2.24	0.46
78:31:120:GLU:HB3	78:31:131:PHE:HD1	1.80	0.46
1:2S:911:C:H3'	5:L2:9:ARG:HH11	1.75	0.46
1:2S:927:C:O2'	1:2S:928:C:H5'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1238:C:C2'	1:2S:1239:C:H5''	2.46	0.46
1:2S:1338:C:O2'	34:72:59:SER:HA	2.16	0.46
1:2S:2478:C:H2'	1:2S:2479:C:C6	2.51	0.46
1:2S:3301:U:H3	1:2S:3313:U:H3	1.62	0.46
4:L1:207:LYS:NZ	4:L1:207:LYS:HB3	2.30	0.46
7:L4:8:VAL:HG21	7:L4:18:ASN:HD22	1.80	0.46
7:L4:95:ARG:HG2	7:L4:95:ARG:NH1	2.28	0.46
7:L4:352:ALA:O	7:L4:355:PHE:HB3	2.15	0.46
9:L6:171:PRO:HA	9:L6:174:LEU:CD1	2.44	0.46
10:L7:138:TYR:H	10:L7:233:GLU:HA	1.80	0.46
19:57:4:TYR:CE1	19:57:147:GLU:HB2	2.50	0.46
25:63:81:GLN:H	25:63:95:PHE:HD2	1.63	0.46
37:75:44:ILE:O	37:75:47:VAL:HG12	2.16	0.46
37:75:99:GLN:HA	37:75:99:GLN:OE1	2.15	0.46
40:78:19:ASP:O	40:78:21:LYS:HE2	2.16	0.46
46:1S:229:U:H2'	46:1S:230:C:C6	2.50	0.46
46:1S:510:G:C2	46:1S:511:A:H1'	2.50	0.46
46:1S:1519:U:H2'	46:1S:1520:U:C5	2.50	0.46
46:1S:1567:U:H2'	46:1S:1568:C:H5'	1.97	0.46
47:S0:180:GLU:OE2	47:S0:183:ARG:HD3	2.15	0.46
49:S2:106:ASP:O	49:S2:190:LEU:HD23	2.15	0.46
49:S2:122:ALA:HA	49:S2:125:ILE:CD1	2.44	0.46
49:S2:206:THR:HG23	49:S2:206:THR:O	2.15	0.46
52:S5:184:PHE:O	52:S5:185:ARG:HB2	2.15	0.46
56:S9:132:ARG:HD2	56:S9:142:ASN:CB	2.41	0.46
60:13:141:TYR:CD1	60:13:142:GLU:N	2.84	0.46
62:15:22:LEU:CD1	62:15:109:PRO:HB3	2.45	0.46
68:21:36:VAL:HB	68:21:51:VAL:HB	1.98	0.46
69:22:53:ILE:HG12	69:22:60:LYS:HB2	1.97	0.46
69:22:93:LEU:HD12	69:22:128:PHE:CD1	2.51	0.46
76:29:23:VAL:HG23	76:29:38:ILE:HD12	1.97	0.46
77:30:46:ASN:O	77:30:47:VAL:HG12	2.15	0.46
78:31:119:ARG:HH21	78:31:119:ARG:HG3	1.78	0.46
1:2S:309:U:O5'	1:2S:309:U:H6	1.97	0.46
1:2S:737:G:H2'	1:2S:738:A:C8	2.51	0.46
1:2S:858:A:C2	45:83:13:LYS:HB2	2.51	0.46
1:2S:987:U:H5'	10:L7:125:GLU:HG3	1.98	0.46
1:2S:1482:A:H4'	1:2S:1483:G:OP2	2.16	0.46
1:2S:1682:U:H3'	24:62:85:LYS:CE	2.43	0.46
1:2S:1717:U:H2'	1:2S:1718:G:H8	1.76	0.46
1:2S:2525:G:H2'	5:L2:34:TYR:CD1	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3044:G:H5''	6:L3:12:GLY:CA	2.46	0.46
1:2S:3176:G:O2'	1:2S:3177:G:H5'	2.16	0.46
1:2S:3246:G:H4'	1:2S:3247:G:C8	2.51	0.46
2:8S:139:U:H2'	2:8S:140:G:H8	1.80	0.46
7:L4:300:ARG:HG2	20:58:39:ARG:O	2.15	0.46
11:L8:122:LYS:HD3	11:L8:122:LYS:N	2.25	0.46
11:L8:139:VAL:O	11:L8:143:ILE:HG13	2.15	0.46
12:L9:50:ASN:HB3	12:L9:51:GLN:NE2	2.31	0.46
13:50:178:ARG:O	13:50:182:LEU:HG	2.15	0.46
21:59:189:ALA:HB1	54:S7:35:LYS:HZ2	1.79	0.46
24:62:21:SER:HB2	24:62:22:PRO:HD3	1.97	0.46
27:65:27:ARG:HD2	27:65:27:ARG:N	2.30	0.46
27:65:108:LEU:HD22	27:65:125:ARG:HD3	1.98	0.46
33:71:29:ALA:N	33:71:30:PRO:CD	2.79	0.46
34:72:25:TYR:HB2	34:72:28:VAL:HG23	1.97	0.46
37:75:14:LYS:HE2	37:75:62:GLN:HG2	1.97	0.46
38:76:17:VAL:HG12	38:76:18:THR:N	2.31	0.46
45:83:12:GLY:C	45:83:14:TYR:H	2.19	0.46
46:1S:320:U:H3'	46:1S:320:U:OP2	2.16	0.46
46:1S:478:A:C5'	56:S9:123:HIS:HB3	2.41	0.46
46:1S:767:U:H5'	71:24:63:GLN:HE21	1.80	0.46
46:1S:1196:A:H4'	46:1S:1197:C:O5'	2.15	0.46
46:1S:1414:U:H3'	46:1S:1415:U:C5'	2.46	0.46
48:S1:21:VAL:HG23	48:S1:22:ASP:H	1.81	0.46
49:S2:225:LEU:HB2	69:22:70:ASN:HD21	1.81	0.46
52:S5:42:LEU:HD12	52:S5:45:LYS:C	2.36	0.46
55:S8:83:TYR:O	55:S8:101:ILE:HB	2.15	0.46
55:S8:170:SER:OG	55:S8:181:GLY:HA2	2.16	0.46
57:10:21:VAL:HG12	57:10:66:TYR:HD2	1.81	0.46
59:12:46:ARG:HG3	78:31:103:LEU:HD11	1.96	0.46
59:12:125:ASN:C	59:12:127:GLY:H	2.18	0.46
62:15:49:MET:HA	62:15:52:LYS:HZ2	1.81	0.46
65:18:88:ARG:NH2	65:18:88:ARG:CB	2.78	0.46
68:21:5:LYS:H	68:21:5:LYS:HD3	1.81	0.46
73:26:9:GLY:HA3	73:26:34:LYS:HE2	1.97	0.46
1:2S:296:A:O2'	1:2S:297:G:H5'	2.16	0.46
1:2S:578:A:H2'	7:L4:334:PHE:HD2	1.80	0.46
1:2S:591:G:H21	9:L6:18:LEU:HB3	1.81	0.46
1:2S:636:C:N4	1:2S:2375:G:C6	2.81	0.46
1:2S:819:U:C2'	1:2S:820:A:H5'	2.46	0.46
1:2S:914:A:OP1	1:2S:914:A:C8	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:915:A:H3'	1:2S:915:A:N3	2.31	0.46
1:2S:1473:G:H5'	21:59:24:LEU:O	2.16	0.46
1:2S:1862:U:H2'	1:2S:1863:G:O4'	2.16	0.46
1:2S:2153:U:H4'	5:L2:244:GLY:O	2.16	0.46
1:2S:2492:C:H5''	4:L1:39:LYS:HD2	1.98	0.46
1:2S:2604:U:H2'	1:2S:2605:G:O4'	2.16	0.46
1:2S:3251:U:H2'	1:2S:3252:G:C8	2.51	0.46
2:8S:14:C:O5'	2:8S:14:C:H6	1.99	0.46
5:L2:205:ASN:HB3	5:L2:206:PRO:HD2	1.97	0.46
6:L3:4:ARG:HD2	6:L3:7:GLU:HA	1.97	0.46
6:L3:332:ARG:O	6:L3:333:LYS:CB	2.64	0.46
8:L5:283:ALA:O	8:L5:287:ALA:HB2	2.15	0.46
11:L8:33:ASN:O	11:L8:39:ALA:HB3	2.16	0.46
15:53:128:ARG:CZ	37:75:112:PRO:HD2	2.46	0.46
15:53:169:THR:HA	15:53:172:LEU:CD1	2.44	0.46
17:55:145:ASP:OD1	17:55:147:ARG:HB2	2.16	0.46
19:57:60:PHE:CD1	19:57:64:ASN:HB3	2.50	0.46
20:58:42:ALA:HA	20:58:43:PRO:HD3	1.68	0.46
27:65:103:TYR:C	27:65:105:VAL:H	2.19	0.46
29:67:118:PHE:HA	29:67:121:ARG:CB	2.46	0.46
38:76:53:TYR:O	38:76:57:LEU:HD23	2.15	0.46
42:80:119:ASN:ND2	42:80:119:ASN:H	2.14	0.46
43:81:11:ARG:HH21	46:1S:1126:G:C4'	2.24	0.46
44:82:2:VAL:O	44:82:92:GLU:HG3	2.16	0.46
45:83:20:SER:HA	45:83:23:ARG:CD	2.45	0.46
45:83:59:CYS:O	45:83:60:CYS:CB	2.62	0.46
46:1S:295:A:H2'	46:1S:296:U:C6	2.51	0.46
46:1S:435:C:H5''	70:23:50:LYS:HE2	1.98	0.46
46:1S:1163:A:C2	46:1S:1613:U:H1'	2.51	0.46
46:1S:1590:G:OP1	66:19:91:TYR:HB2	2.16	0.46
48:S1:70:LEU:HB3	48:S1:84:ILE:HG12	1.98	0.46
49:S2:54:GLU:HB3	68:21:12:TYR:HB2	1.97	0.46
50:S3:135:GLU:HB3	50:S3:187:LYS:HB3	1.98	0.46
54:S7:130:VAL:HB	54:S7:133:THR:OG1	2.16	0.46
54:S7:152:VAL:HG23	54:S7:181:ILE:HD11	1.98	0.46
56:S9:90:LYS:C	56:S9:92:LYS:H	2.18	0.46
60:13:25:TRP:CH2	74:27:45:THR:HG21	2.48	0.46
63:16:55:VAL:HB	63:16:109:PHE:CZ	2.51	0.46
64:17:101:ASN:HA	64:17:120:SER:HB3	1.98	0.46
65:18:14:ILE:HD12	65:18:21:ASN:HB3	1.94	0.46
67:20:97:VAL:O	67:20:101:LYS:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:725:G:H2'	1:2S:726:G:O4'	2.16	0.46
1:2S:1119:C:O5'	1:2S:1119:C:H6	1.98	0.46
1:2S:1218:U:H3	1:2S:1287:A:H61	1.62	0.46
1:2S:1523:U:C5'	27:65:113:LEU:HB3	2.38	0.46
1:2S:1590:G:H2'	1:2S:1591:G:O4'	2.16	0.46
1:2S:1676:A:H5''	24:62:101:ASN:ND2	2.31	0.46
1:2S:2102:U:H2'	1:2S:2103:U:H6	1.72	0.46
1:2S:3229:G:H2'	1:2S:3230:G:C8	2.51	0.46
1:2S:3298:C:H2'	1:2S:3299:A:C8	2.33	0.46
6:L3:244:ARG:HB2	6:L3:244:ARG:NH1	2.31	0.46
6:L3:281:LYS:O	6:L3:324:VAL:HG23	2.16	0.46
6:L3:336:VAL:HG12	6:L3:337:THR:H	1.81	0.46
7:L4:138:ARG:NH1	7:L4:246:ARG:HG2	2.31	0.46
7:L4:316:ASN:ND2	7:L4:319:LYS:NZ	2.64	0.46
8:L5:27:LYS:HG2	14:51:144:CYS:SG	2.56	0.46
10:L7:80:GLN:O	23:61:135:PRO:HB2	2.15	0.46
12:L9:47:LYS:HD2	16:54:6:ILE:H	1.79	0.46
13:50:21:ARG:HG2	13:50:22:TYR:CE1	2.50	0.46
14:51:82:ARG:HG2	14:51:112:LEU:HB2	1.98	0.46
18:56:140:LYS:N	18:56:140:LYS:CD	2.79	0.46
21:59:21:LYS:HE3	21:59:56:THR:N	2.29	0.46
24:62:95:PHE:HD1	24:62:105:LEU:HD11	1.81	0.46
25:63:39:VAL:CG1	25:63:40:LYS:N	2.79	0.46
25:63:54:LEU:HD12	25:63:78:VAL:HG11	1.95	0.46
30:68:74:ASN:C	30:68:76:ASP:H	2.19	0.46
36:74:20:ILE:HD11	36:74:34:HIS:CE1	2.51	0.46
41:79:3:ALA:O	41:79:4:GLN:HG3	2.16	0.46
46:1S:510:G:N2	46:1S:511:A:H1'	2.31	0.46
46:1S:593:U:H4'	46:1S:595:G:H4'	1.97	0.46
46:1S:1021:C:H2'	46:1S:1022:C:O4'	2.15	0.46
48:S1:176:VAL:CG1	48:S1:177:GLN:H	2.18	0.46
57:10:96:ASN:HD22	57:10:96:ASN:HA	1.56	0.46
60:13:58:HIS:HB3	60:13:59:GLY:H	1.61	0.46
65:18:15:LEU:O	65:18:21:ASN:HA	2.16	0.46
65:18:66:LEU:O	65:18:70:VAL:HG23	2.16	0.46
66:19:114:VAL:HG22	66:19:115:GLU:H	1.80	0.46
69:22:15:ASN:HD21	69:22:72:CYS:H	1.63	0.46
73:26:61:GLU:O	73:26:62:TYR:HB3	2.15	0.46
73:26:87:ARG:HB3	73:26:91:ASP:CB	2.45	0.46
76:29:46:LYS:HA	76:29:49:ASP:OD2	2.15	0.46
1:2S:526:C:H2'	1:2S:527:A:H8	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:790:U:H2'	1:2S:791:A:C8	2.51	0.46
1:2S:858:A:H1'	45:83:13:LYS:HD2	1.98	0.46
1:2S:1064:A:N6	1:2S:1096:U:C4	2.76	0.46
1:2S:1277:C:H2'	1:2S:1278:A:H8	1.80	0.46
1:2S:2150:G:H2'	1:2S:2151:C:C6	2.51	0.46
1:2S:2597:U:O5'	1:2S:2597:U:H6	1.98	0.46
1:2S:3009:G:O2'	1:2S:3010:U:H5'	2.15	0.46
2:8S:99:C:O5'	2:8S:99:C:H6	2.00	0.46
3:5S:93:C:H5'	13:50:57:LEU:HD13	1.98	0.46
4:L1:65:ILE:HG23	4:L1:65:ILE:O	2.15	0.46
5:L2:96:LEU:HD23	45:83:83:ILE:HG23	1.98	0.46
7:L4:30:ILE:O	7:L4:32:PRO:HD3	2.15	0.46
8:L5:67:SER:HB3	23:61:31:LEU:HD21	1.98	0.46
12:L9:49:ASN:HD22	12:L9:49:ASN:N	2.13	0.46
13:50:87:LEU:HD23	13:50:87:LEU:C	2.36	0.46
13:50:206:LEU:O	13:50:210:ILE:HG13	2.16	0.46
15:53:77:LEU:HD12	15:53:77:LEU:H	1.79	0.46
15:53:173:ALA:HB1	38:76:10:GLY:HA2	1.98	0.46
16:54:82:SER:HA	16:54:85:TRP:CB	2.46	0.46
17:55:113:LEU:N	17:55:113:LEU:HD22	2.31	0.46
24:62:33:TYR:OH	24:62:80:THR:HG22	2.15	0.46
27:65:106:ASP:HB3	27:65:127:THR:CG2	2.45	0.46
28:66:39:LEU:HD23	28:66:42:GLN:HG3	1.97	0.46
34:72:41:VAL:HG12	34:72:44:ARG:HH21	1.81	0.46
35:73:55:ALA:HB3	35:73:65:ARG:NH2	2.31	0.46
35:73:85:PHE:CE2	35:73:89:LEU:HG	2.51	0.46
36:74:41:ARG:HB2	36:74:50:ALA:CB	2.44	0.46
37:75:64:GLU:HA	37:75:67:ARG:CD	2.46	0.46
46:1S:780:A:C8	71:24:8:ARG:HB3	2.47	0.46
46:1S:788:A:C5	51:S4:19:LEU:HD13	2.51	0.46
46:1S:867:G:OP1	60:13:3:ARG:HD3	2.16	0.46
46:1S:1432:U:H5''	46:1S:1434:U:OP2	2.15	0.46
46:1S:1480:G:H5''	66:19:63:ARG:HH21	1.81	0.46
46:1S:1565:C:H5''	65:18:85:PHE:CE1	2.51	0.46
49:S2:188:LEU:HA	49:S2:191:ALA:HB3	1.97	0.46
51:S4:195:ILE:HG23	51:S4:196:VAL:N	2.31	0.46
52:S5:121:ILE:HG13	52:S5:195:ALA:HB1	1.98	0.46
52:S5:219:ARG:O	52:S5:223:SER:HB2	2.16	0.46
57:10:84:GLU:O	57:10:85:HIS:HB3	2.16	0.46
58:11:56:LYS:HE3	58:11:57:LYS:HE3	1.98	0.46
58:11:85:VAL:HG12	58:11:86:ILE:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:11:93:TYR:C	58:11:94:ILE:HD12	2.36	0.46
64:17:16:LEU:HD21	64:17:38:ILE:HD13	1.98	0.46
65:18:5:VAL:HG23	72:25:42:LEU:HD22	1.98	0.46
70:23:109:ARG:HB3	70:23:112:LYS:HB2	1.98	0.46
71:24:5:VAL:O	71:24:6:THR:HB	2.17	0.46
76:29:43:PHE:HZ	76:29:52:PHE:CD2	2.34	0.46
79:RA:40:LYS:HD2	79:RA:65:SER:HA	1.98	0.46
79:RA:199:ILE:HA	79:RA:215:GLY:HA3	1.98	0.46
79:RA:238:ASP:HB2	79:RA:256:THR:HB	1.97	0.46
79:RA:278:PHE:CD2	79:RA:287:PRO:HD2	2.51	0.46
1:2S:346:C:OP1	7:L4:52:VAL:HG23	2.15	0.45
1:2S:778:U:H2'	1:2S:779:G:H8	1.78	0.45
1:2S:1117:G:H2'	1:2S:1118:C:H6	1.79	0.45
1:2S:1471:U:H5''	21:59:5:ARG:HD3	1.98	0.45
1:2S:1549:U:H2'	1:2S:1550:C:C6	2.51	0.45
1:2S:2271:A:H2'	1:2S:2272:G:C5'	2.47	0.45
1:2S:2363:A:H3'	1:2S:2364:G:C8	2.51	0.45
1:2S:2756:C:H2'	1:2S:2757:U:C6	2.51	0.45
1:2S:2897:A:H4'	42:80:125:LYS:HZ2	1.81	0.45
1:2S:3088:G:H5''	6:L3:332:ARG:HH22	1.80	0.45
1:2S:3151:U:C5'	1:2S:3294:A:H4'	2.45	0.45
1:2S:3332:U:H2'	1:2S:3333:G:O4'	2.16	0.45
4:L1:165:LEU:N	4:L1:165:LEU:HD23	2.31	0.45
5:L2:42:ARG:HD2	5:L2:87:PHE:CG	2.51	0.45
6:L3:68:HIS:O	6:L3:69:LYS:HB2	2.16	0.45
6:L3:211:GLN:HE22	6:L3:282:ILE:HG22	1.82	0.45
10:L7:147:LEU:O	10:L7:205:PHE:HE1	1.98	0.45
16:54:74:ARG:HB3	16:54:74:ARG:CZ	2.46	0.45
16:54:113:THR:O	16:54:117:ARG:HB2	2.15	0.45
17:55:144:ARG:O	17:55:145:ASP:HB3	2.17	0.45
19:57:85:ALA:O	19:57:89:LYS:HG3	2.16	0.45
23:61:116:ARG:HH11	23:61:116:ARG:HG3	1.81	0.45
30:68:96:LYS:C	30:68:98:THR:H	2.20	0.45
34:72:4:LEU:HA	34:72:5:PRO:HD3	1.85	0.45
40:78:73:LEU:HD23	40:78:75:VAL:CG2	2.46	0.45
42:80:93:LYS:HB3	42:80:103:LEU:O	2.16	0.45
42:80:103:LEU:HD21	42:80:112:LYS:NZ	2.31	0.45
46:1S:351:C:H3'	46:1S:352:A:C5'	2.46	0.45
46:1S:756:A:H2	51:S4:12:LEU:HD13	1.80	0.45
46:1S:1209:C:H2'	46:1S:1210:C:C6	2.51	0.45
46:1S:1494:C:H2'	46:1S:1495:C:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:S0:102:PHE:CE1	47:S0:104:PRO:HA	2.51	0.45
55:S8:67:TRP:CG	55:S8:70:GLU:HB2	2.51	0.45
56:S9:54:ARG:HA	56:S9:57:ARG:HH21	1.81	0.45
57:10:21:VAL:CG1	57:10:66:TYR:HD2	2.29	0.45
59:12:113:ARG:HG2	59:12:114:LYS:N	2.24	0.45
60:13:46:THR:HB	60:13:47:PRO:CD	2.46	0.45
69:22:26:LEU:HD23	69:22:26:LEU:C	2.37	0.45
69:22:120:HIS:O	69:22:121:VAL:HG13	2.16	0.45
79:RA:265:LEU:O	79:RA:268:GLN:HG2	2.16	0.45
1:2S:22:G:H2'	1:2S:23:A:O4'	2.16	0.45
1:2S:24:G:H2'	1:2S:25:U:H5'	1.97	0.45
1:2S:132:C:O2'	1:2S:133:U:H6	1.99	0.45
1:2S:649:A:H2'	1:2S:650:C:H6	1.71	0.45
1:2S:674:G:O2'	7:L4:116:ASN:ND2	2.50	0.45
1:2S:699:A:H2'	1:2S:700:C:O4'	2.16	0.45
1:2S:953:G:H5'	1:2S:954:U:H6	1.81	0.45
1:2S:2333:C:H2'	1:2S:2334:U:C6	2.51	0.45
1:2S:2538:U:H5''	1:2S:2539:C:H5	1.82	0.45
1:2S:2844:C:C2'	1:2S:2845:A:H5'	2.46	0.45
3:5S:64:A:H62	13:50:209:ASN:HD21	1.63	0.45
4:L1:184:LEU:O	4:L1:184:LEU:HD23	2.16	0.45
6:L3:57:VAL:HG23	6:L3:358:TRP:HE3	1.81	0.45
6:L3:283:TYR:CE1	6:L3:325:LYS:HB2	2.51	0.45
8:L5:222:LEU:O	8:L5:223:PHE:CB	2.62	0.45
9:L6:78:ARG:O	9:L6:79:VAL:HG23	2.16	0.45
9:L6:81:ALA:HA	9:L6:84:VAL:CG2	2.46	0.45
14:51:14:ILE:CD1	14:51:77:GLU:HG2	2.46	0.45
19:57:118:GLN:O	19:57:119:VAL:HB	2.16	0.45
21:59:43:LYS:O	21:59:47:ASN:ND2	2.49	0.45
25:63:84:SER:HA	25:63:94:TYR:HB3	1.97	0.45
28:66:125:LYS:O	28:66:126:LEU:HD12	2.16	0.45
29:67:23:VAL:HG12	29:67:45:GLY:CA	2.34	0.45
29:67:126:LYS:O	29:67:127:ASN:HB2	2.16	0.45
35:73:85:PHE:CB	35:73:88:ASN:HA	2.46	0.45
46:1S:1297:G:N2	46:1S:1300:A:OP2	2.49	0.45
47:S0:129:ASP:O	47:S0:133:ILE:HD13	2.17	0.45
49:S2:154:LEU:HD11	49:S2:196:VAL:HG23	1.98	0.45
52:S5:50:GLU:OE1	52:S5:50:GLU:HA	2.16	0.45
53:S6:223:LYS:HZ1	53:S6:226:ILE:HD13	1.80	0.45
56:S9:140:ILE:HD12	71:24:65:GLY:HA2	1.98	0.45
57:10:81:ASN:HB3	59:12:37:VAL:HG13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:12:49:THR:O	59:12:53:THR:HG23	2.16	0.45
70:23:54:LEU:HD11	70:23:82:LYS:HB3	1.99	0.45
70:23:109:ARG:CB	70:23:112:LYS:HB2	2.46	0.45
76:29:30:LEU:HD21	76:29:32:ARG:HG3	1.98	0.45
1:2S:59:G:C4'	1:2S:60:A:H4'	2.47	0.45
1:2S:645:A:H5'	1:2S:2372:A:N7	2.31	0.45
1:2S:650:C:O2'	1:2S:2871:G:C6	2.70	0.45
1:2S:794:U:H2'	1:2S:795:G:H8	1.81	0.45
1:2S:877:C:H2'	1:2S:878:G:O4'	2.16	0.45
1:2S:933:A:N6	7:L4:102:PRO:CD	2.80	0.45
1:2S:1183:C:O2'	1:2S:1184:A:H5'	2.16	0.45
1:2S:1186:G:N3	22:60:112:ALA:HB1	2.30	0.45
1:2S:1230:G:O2'	1:2S:1231:A:H5'	2.17	0.45
1:2S:1435:A:H5''	1:2S:1436:U:H5'	1.98	0.45
1:2S:1525:G:H2'	1:2S:1525:G:N3	2.31	0.45
1:2S:1925:U:H3'	1:2S:1926:C:H6	1.80	0.45
1:2S:1951:C:O2	1:2S:1951:C:O4'	2.34	0.45
1:2S:2127:U:H5''	1:2S:2302:G:OP1	2.17	0.45
1:2S:2393:G:O2'	1:2S:2982:A:N6	2.50	0.45
1:2S:3301:U:O2'	1:2S:3302:U:H5'	2.17	0.45
2:8S:91:C:H2'	2:8S:92:A:C8	2.52	0.45
4:L1:123:LEU:HD13	4:L1:128:LEU:O	2.16	0.45
5:L2:225:ILE:HD13	5:L2:238:ILE:HD12	1.97	0.45
6:L3:116:ARG:HH22	6:L3:174:LYS:HB3	1.78	0.45
6:L3:130:PHE:HD1	6:L3:133:TYR:CG	2.34	0.45
7:L4:110:ASN:HB2	17:55:201:ARG:O	2.17	0.45
7:L4:192:GLY:HA2	7:L4:195:ARG:HD2	1.98	0.45
17:55:73:ARG:H	17:55:92:LEU:HD22	1.80	0.45
20:58:131:ALA:N	20:58:132:PRO:HD3	2.31	0.45
21:59:189:ALA:CB	54:S7:39:ARG:HD3	2.45	0.45
23:61:52:MET:CG	23:61:53:PRO:HD2	2.46	0.45
23:61:63:VAL:HB	23:61:75:ILE:CG2	2.47	0.45
28:66:108:LYS:HD3	28:66:108:LYS:HA	1.72	0.45
30:68:101:VAL:HG22	30:68:124:ILE:CD1	2.46	0.45
32:70:66:LYS:HD3	32:70:66:LYS:N	2.31	0.45
33:71:44:MET:HB3	33:71:46:THR:HG22	1.97	0.45
34:72:78:ASN:OD1	34:72:80:LYS:HB3	2.16	0.45
38:76:36:ARG:HA	38:76:36:ARG:HE	1.82	0.45
46:1S:328:A:H2'	46:1S:329:G:O4'	2.16	0.45
46:1S:338:C:H2'	46:1S:339:C:C6	2.52	0.45
46:1S:1408:G:H2'	46:1S:1409:G:O4'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1522:U:O4	46:1S:1592:A:H5''	2.16	0.45
46:1S:1559:A:H5''	65:18:135:GLY:CA	2.46	0.45
49:S2:148:LEU:HD21	56:S9:94:ASP:OD2	2.16	0.45
50:S3:49:ILE:HD12	50:S3:49:ILE:N	2.30	0.45
51:S4:198:LYS:HG3	51:S4:208:VAL:HG22	1.97	0.45
56:S9:140:ILE:HD12	71:24:65:GLY:CA	2.46	0.45
56:S9:141:VAL:CG1	56:S9:143:ILE:HG13	2.46	0.45
58:11:70:ILE:HG22	58:11:124:THR:HG22	1.98	0.45
59:12:129:GLU:HG2	59:12:130:THR:N	2.31	0.45
72:25:62:VAL:O	72:25:66:VAL:HG23	2.16	0.45
1:2S:52:A:H2'	1:2S:53:G:H5'	1.97	0.45
1:2S:636:C:C2	1:2S:646:A:H1'	2.52	0.45
1:2S:794:U:H2'	1:2S:795:G:C8	2.51	0.45
1:2S:2221:G:H22	1:2S:2223:A:H3'	1.80	0.45
1:2S:2225:U:O5'	1:2S:2225:U:H6	1.99	0.45
1:2S:2565:U:H2'	1:2S:2566:C:H6	1.81	0.45
1:2S:2896:A:H2'	1:2S:2897:A:C8	2.52	0.45
1:2S:2949:U:H3'	1:2S:2950:G:H21	1.81	0.45
1:2S:3186:A:C2	12:L9:57:VAL:HA	2.51	0.45
2:8S:102:U:H2'	2:8S:103:G:C8	2.51	0.45
5:L2:147:ARG:NE	5:L2:155:LYS:HB3	2.31	0.45
6:L3:39:LYS:HE2	6:L3:39:LYS:CA	2.44	0.45
6:L3:217:ALA:HB3	6:L3:277:SER:HB2	1.98	0.45
6:L3:230:THR:O	6:L3:234:GLY:HA2	2.16	0.45
6:L3:266:ARG:HA	6:L3:266:ARG:CZ	2.45	0.45
7:L4:82:THR:HG23	7:L4:84:ARG:N	2.32	0.45
7:L4:192:GLY:HA2	7:L4:195:ARG:HB2	1.99	0.45
7:L4:327:LEU:N	7:L4:327:LEU:HD22	2.32	0.45
9:L6:57:HIS:HD2	9:L6:62:THR:O	1.99	0.45
10:L7:96:PRO:HB2	10:L7:99:PRO:CD	2.45	0.45
12:L9:8:GLN:HB3	12:L9:72:LYS:HG3	1.99	0.45
13:50:36:LEU:HD13	13:50:73:ASN:HD21	1.81	0.45
20:58:24:VAL:O	20:58:28:LEU:HG	2.16	0.45
22:60:97:VAL:HG13	22:60:98:SER:H	1.82	0.45
25:63:77:ILE:N	25:63:77:ILE:CD1	2.64	0.45
39:77:18:LEU:HD23	39:77:25:ARG:HB2	1.98	0.45
40:78:27:ILE:HG21	40:78:39:ARG:HE	1.80	0.45
42:80:78:ILE:HG22	42:80:83:LYS:HD3	1.96	0.45
46:1S:219:A:C8	46:1S:830:U:C5	3.05	0.45
46:1S:295:A:H5''	51:S4:128:LYS:HZ1	1.81	0.45
46:1S:297:U:H2'	46:1S:298:C:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:336:G:C4	46:1S:338:C:C5	3.05	0.45
46:1S:410:A:H2	46:1S:423:G:H22	1.63	0.45
46:1S:819:G:N2	46:1S:853:G:O6	2.49	0.45
46:1S:863:A:H2'	46:1S:865:A:H8	1.82	0.45
46:1S:920:U:H5''	48:S1:65:VAL:CG2	2.46	0.45
46:1S:1470:C:H4'	46:1S:1540:G:N2	2.31	0.45
46:1S:1603:U:H2'	46:1S:1604:U:C5	2.51	0.45
51:S4:252:ARG:HD3	51:S4:256:ARG:HD2	1.97	0.45
52:S5:117:THR:HG21	52:S5:194:LEU:HD12	1.97	0.45
53:S6:23:ARG:NH2	53:S6:23:ARG:CG	2.79	0.45
53:S6:63:MET:HG2	53:S6:98:ARG:HD2	1.98	0.45
53:S6:136:LYS:C	53:S6:136:LYS:HD3	2.37	0.45
55:S8:87:ASN:HB2	55:S8:90:LEU:HD12	1.97	0.45
55:S8:87:ASN:CB	55:S8:90:LEU:HG	2.47	0.45
57:10:23:ALA:O	57:10:64:TYR:HB2	2.16	0.45
65:18:29:VAL:CG2	65:18:54:LEU:HD12	2.47	0.45
69:22:25:VAL:HG22	69:22:65:LEU:HD11	1.98	0.45
78:31:132:LEU:CD1	78:31:150:VAL:HB	2.46	0.45
79:RA:9:LEU:HD22	79:RA:276:PRO:HB3	1.98	0.45
79:RA:88:THR:CG2	79:RA:104:VAL:HG22	2.46	0.45
79:RA:112:SER:CB	79:RA:153:GLN:HA	2.46	0.45
1:2S:516:A:H2'	1:2S:517:G:C5'	2.37	0.45
1:2S:1480:G:H21	1:2S:1872:C:H5	1.65	0.45
1:2S:2477:G:H3'	1:2S:2478:C:C6	2.52	0.45
1:2S:3324:C:H5'	33:71:70:ARG:HH11	1.80	0.45
3:5S:24:A:C2'	3:5S:25:G:H5'	2.47	0.45
4:L1:72:PHE:HD2	4:L1:76:ARG:HB3	1.80	0.45
6:L3:362:ALA:HB1	6:L3:368:GLY:HA3	1.98	0.45
7:L4:118:LYS:O	7:L4:122:THR:HG23	2.17	0.45
8:L5:196:ARG:HA	8:L5:199:ILE:HD12	1.98	0.45
12:L9:41:ILE:HG23	12:L9:43:VAL:HG22	1.98	0.45
12:L9:87:LYS:HB2	12:L9:187:ILE:HA	1.98	0.45
13:50:178:ARG:N	13:50:179:PRO:HD2	2.31	0.45
13:50:200:LEU:HD13	13:50:213:PHE:CD1	2.52	0.45
18:56:34:VAL:HG12	18:56:103:LYS:HB2	1.97	0.45
20:58:147:ARG:O	20:58:150:VAL:HG22	2.16	0.45
21:59:53:LYS:HG2	21:59:54:ALA:N	2.30	0.45
23:61:93:VAL:CA	23:61:96:ILE:HD13	2.25	0.45
37:75:21:LEU:O	37:75:25:LYS:HG3	2.17	0.45
46:1S:76:A:H1'	46:1S:80:A:C6	2.51	0.45
46:1S:395:U:O5'	46:1S:395:U:H6	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1526:A:C3'	46:1S:1527:C:H6	2.30	0.45
46:1S:1715:G:C3'	46:1S:1716:C:C5'	2.89	0.45
46:1S:1724:U:H2'	46:1S:1725:U:H6	1.81	0.45
46:1S:1782:A:H3'	46:1S:1783:C:C5'	2.47	0.45
46:1S:1782:A:H3'	46:1S:1783:C:O4'	2.16	0.45
47:S0:37:VAL:HG13	47:S0:47:VAL:O	2.17	0.45
50:S3:136:VAL:CG1	50:S3:152:PHE:HD2	2.25	0.45
54:S7:12:ALA:N	54:S7:13:PRO:CD	2.80	0.45
58:11:14:GLN:HB3	58:11:54:ILE:HG12	1.99	0.45
65:18:32:LEU:HB2	65:18:43:SER:OG	2.17	0.45
66:19:28:LEU:HD13	66:19:28:LEU:H	1.81	0.45
66:19:34:VAL:HG13	66:19:35:ASP:OD1	2.16	0.45
73:26:41:ILE:H	73:26:41:ILE:CD1	2.25	0.45
1:2S:212:G:H5'	7:L4:221:ASN:ND2	2.31	0.45
1:2S:295:A:H2'	1:2S:296:A:O4'	2.17	0.45
1:2S:308:A:O2'	1:2S:2222:A:H1'	2.15	0.45
1:2S:544:C:C6	1:2S:544:C:H3'	2.52	0.45
1:2S:607:A:N3	1:2S:607:A:C2'	2.77	0.45
1:2S:915:A:C6	1:2S:917:A:H1'	2.51	0.45
1:2S:1313:G:H5'	18:56:83:ALA:HB1	1.99	0.45
1:2S:1369:A:H4'	30:68:21:ARG:CD	2.45	0.45
1:2S:1427:U:H5	30:68:4:ARG:CZ	2.28	0.45
1:2S:2304:C:C5	1:2S:2305:G:C6	3.05	0.45
1:2S:2949:U:H2'	1:2S:2950:G:C5'	2.47	0.45
1:2S:3198:U:H1'	12:L9:21:LYS:CG	2.45	0.45
4:L1:28:PHE:HD1	4:L1:28:PHE:C	2.19	0.45
4:L1:123:LEU:HD22	4:L1:128:LEU:HD12	1.99	0.45
5:L2:137:ILE:CD1	5:L2:155:LYS:HG2	2.47	0.45
7:L4:77:VAL:CG1	7:L4:85:SER:HA	2.47	0.45
7:L4:131:VAL:HB	7:L4:134:LEU:HD12	1.97	0.45
9:L6:54:TYR:HE2	9:L6:56:LYS:O	2.00	0.45
9:L6:67:GLY:HA3	9:L6:74:VAL:O	2.16	0.45
12:L9:27:VAL:O	12:L9:33:THR:HA	2.16	0.45
12:L9:94:TYR:HA	12:L9:177:ASP:OD1	2.17	0.45
13:50:86:HIS:HB3	13:50:139:ARG:HG2	1.99	0.45
13:50:87:LEU:HD23	13:50:88:ARG:N	2.32	0.45
13:50:98:ARG:HB3	13:50:120:GLY:HA3	1.99	0.45
13:50:217:PHE:O	13:50:218:ALA:CB	2.65	0.45
14:51:16:LYS:O	14:51:129:VAL:HG13	2.17	0.45
16:54:74:ARG:HB3	16:54:74:ARG:NH1	2.31	0.45
23:61:38:ASP:H	23:61:64:VAL:HB	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:65:68:THR:CG2	37:75:36:LEU:HD22	2.45	0.45
28:66:51:ARG:HB3	28:66:115:ARG:HH22	1.82	0.45
29:67:30:ASP:HA	29:67:77:TYR:HE2	1.81	0.45
32:70:86:ARG:HG2	32:70:86:ARG:HH11	1.81	0.45
36:74:25:THR:C	36:74:27:GLY:H	2.19	0.45
37:75:85:THR:O	37:75:89:ARG:HB2	2.17	0.45
46:1S:291:G:H2'	46:1S:292:U:H5	1.82	0.45
46:1S:336:G:H2'	46:1S:338:C:H5	1.82	0.45
46:1S:532:U:O2	71:24:34:ASN:HB2	2.15	0.45
46:1S:1082:C:O2	46:1S:1082:C:C2'	2.61	0.45
48:S1:127:VAL:HG21	48:S1:176:VAL:HB	1.98	0.45
51:S4:47:PHE:CD1	51:S4:51:ARG:HB2	2.52	0.45
51:S4:209:HIS:O	51:S4:210:ILE:HD13	2.16	0.45
53:S6:76:LEU:HD12	53:S6:94:ARG:NH2	2.31	0.45
54:S7:114:ARG:NH1	54:S7:114:ARG:HB2	2.32	0.45
55:S8:74:LYS:HD3	55:S8:109:PHE:CZ	2.52	0.45
56:S9:76:LEU:O	56:S9:80:LEU:HG	2.16	0.45
56:S9:135:ALA:HA	56:S9:139:GLN:O	2.17	0.45
63:16:129:PHE:CB	67:20:79:TRP:CD1	2.96	0.45
66:19:52:GLY:O	66:19:54:PHE:N	2.49	0.45
71:24:47:VAL:HG23	71:24:48:TYR:CD2	2.51	0.45
1:2S:29:C:OP1	17:55:189:LYS:HB2	2.16	0.45
1:2S:727:G:H2'	1:2S:728:G:O4'	2.16	0.45
1:2S:768:C:H2'	1:2S:769:G:O4'	2.17	0.45
1:2S:1204:A:H1'	1:2S:2855:U:O2'	2.16	0.45
1:2S:1549:U:OP2	1:2S:1549:U:H6	2.00	0.45
1:2S:1725:C:H5''	45:83:36:ARG:HH22	1.82	0.45
1:2S:1784:G:H2'	1:2S:1785:U:O4'	2.16	0.45
1:2S:2138:A:C8	39:77:3:LYS:HE3	2.51	0.45
1:2S:3300:U:H2'	1:2S:3301:U:C6	2.51	0.45
1:2S:3349:C:H2'	1:2S:3350:C:C5	2.49	0.45
2:8S:151:C:H5'	27:65:24:LEU:HD21	1.98	0.45
4:L1:28:PHE:C	4:L1:28:PHE:CD1	2.90	0.45
6:L3:316:GLU:O	6:L3:317:ILE:HB	2.16	0.45
7:L4:238:LEU:O	7:L4:246:ARG:HB2	2.16	0.45
8:L5:52:VAL:HA	8:L5:147:ASP:HB2	1.98	0.45
8:L5:125:VAL:HG12	8:L5:199:ILE:HD13	1.98	0.45
8:L5:280:GLU:H	8:L5:280:GLU:CD	2.19	0.45
11:L8:241:LYS:H	11:L8:241:LYS:HD2	1.80	0.45
15:53:138:VAL:HG21	37:75:118:ILE:CB	2.44	0.45
15:53:182:ILE:O	15:53:186:ARG:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:56:120:VAL:HA	18:56:121:PRO:HD3	1.70	0.45
19:57:60:PHE:HZ	19:57:82:ARG:HB2	1.81	0.45
19:57:128:ARG:HD2	19:57:136:ILE:CG2	2.47	0.45
22:60:50:LYS:O	22:60:51:VAL:CG1	2.65	0.45
25:63:87:ARG:HG3	25:63:93:LEU:HD21	1.99	0.45
29:67:93:LYS:HD3	29:67:93:LYS:C	2.37	0.45
30:68:12:ARG:HH11	30:68:12:ARG:HG3	1.82	0.45
46:1S:5:U:H2'	46:1S:6:G:C8	2.51	0.45
46:1S:282:C:H2'	46:1S:283:U:O4'	2.17	0.45
46:1S:584:C:H6	46:1S:584:C:O5'	1.99	0.45
46:1S:1368:G:H5''	66:19:69:LYS:HB3	1.97	0.45
46:1S:1522:U:O4	46:1S:1592:A:C5'	2.65	0.45
46:1S:1557:U:H3'	46:1S:1559:A:O2'	2.17	0.45
46:1S:1660:A:H2'	46:1S:1661:U:C6	2.52	0.45
49:S2:149:GLY:O	49:S2:150:GLN:O	2.34	0.45
51:S4:91:THR:HG23	51:S4:98:ASN:ND2	2.32	0.45
52:S5:46:TRP:CD1	52:S5:129:PRO:HG3	2.52	0.45
52:S5:51:VAL:HG13	52:S5:131:GLN:HA	1.98	0.45
56:S9:37:LYS:HG3	56:S9:38:ASN:N	2.32	0.45
62:15:81:ARG:HH12	62:15:122:THR:HG23	1.81	0.45
65:18:145:ARG:HB3	65:18:145:ARG:NH2	2.32	0.45
69:22:80:ASN:HD21	69:22:124:LYS:HE3	1.81	0.45
70:23:75:GLN:CD	70:23:82:LYS:HG3	2.37	0.45
75:28:14:LYS:O	75:28:29:ARG:HB3	2.17	0.45
78:31:136:LYS:C	78:31:138:ARG:H	2.18	0.45
1:2S:68:C:C5	1:2S:315:C:H4'	2.52	0.45
1:2S:351:A:C6	41:79:35:ILE:HG23	2.52	0.45
1:2S:371:G:H1'	1:2S:375:A:N6	2.32	0.45
1:2S:389:A:H4'	19:57:16:SER:O	2.16	0.45
1:2S:421:G:C6	1:2S:2384:A:H4'	2.52	0.45
1:2S:449:U:H3'	1:2S:449:U:C6	2.52	0.45
1:2S:1145:G:OP1	34:72:44:ARG:HD2	2.17	0.45
1:2S:2183:A:H2'	1:2S:2184:U:C6	2.51	0.45
1:2S:2184:U:H4'	5:L2:211:HIS:HE1	1.82	0.45
1:2S:2457:G:N2	1:2S:2461:A:N6	2.63	0.45
1:2S:2735:U:H2'	1:2S:2736:A:C8	2.51	0.45
1:2S:2930:A:H2'	1:2S:2931:C:C6	2.52	0.45
1:2S:3024:A:H2'	1:2S:3025:C:O4'	2.17	0.45
1:2S:3025:C:H2'	1:2S:3026:G:O4'	2.17	0.45
3:5S:38:U:H1'	3:5S:40:C:H5	1.82	0.45
4:L1:81:GLY:O	4:L1:82:VAL:HG23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:45:VAL:HG13	5:L2:84:THR:HA	1.98	0.45
5:L2:145:LYS:HB3	5:L2:157:VAL:HG21	1.99	0.45
5:L2:225:ILE:HD11	5:L2:236:GLY:N	2.32	0.45
6:L3:147:GLU:HA	6:L3:147:GLU:OE2	2.17	0.45
7:L4:89:ALA:O	7:L4:90:PHE:CB	2.61	0.45
8:L5:118:THR:O	8:L5:119:TYR:HB2	2.17	0.45
10:L7:74:SER:HB3	23:61:141:VAL:O	2.17	0.45
10:L7:95:ILE:HA	10:L7:96:PRO:HD3	1.78	0.45
11:L8:195:SER:O	11:L8:196:ALA:HB3	2.16	0.45
11:L8:244:ALA:O	11:L8:248:LYS:HB2	2.17	0.45
12:L9:138:THR:O	12:L9:140:VAL:N	2.32	0.45
14:51:101:ASN:O	14:51:102:PHE:HB3	2.16	0.45
17:55:65:ARG:HB2	17:55:129:TYR:CE1	2.52	0.45
18:56:124:LEU:HG	18:56:126:VAL:CG1	2.33	0.45
18:56:142:SER:O	18:56:145:VAL:HG22	2.17	0.45
19:57:128:ARG:HD2	19:57:136:ILE:HG23	1.99	0.45
19:57:180:LYS:NZ	19:57:180:LYS:CB	2.80	0.45
22:60:8:GLN:HE21	22:60:10:ILE:HD11	1.82	0.45
22:60:35:VAL:HA	22:60:38:LYS:CE	2.42	0.45
29:67:48:ARG:O	29:67:68:ILE:HG23	2.17	0.45
30:68:47:LYS:H	30:68:50:PRO:HB3	1.82	0.45
30:68:135:GLU:HG2	30:68:145:VAL:HG21	1.98	0.45
39:77:8:PHE:HD1	39:77:11:ARG:HD3	1.82	0.45
46:1S:215:A:H5''	46:1S:216:U:H5	1.79	0.45
46:1S:453:U:O2	46:1S:453:U:H2'	2.16	0.45
46:1S:1250:U:C2'	46:1S:1251:U:H5'	2.47	0.45
46:1S:1320:U:N3	47:S0:101:ARG:NH1	2.65	0.45
46:1S:1471:A:H5'	52:S5:184:PHE:HE2	1.82	0.45
46:1S:1553:G:H1'	46:1S:1597:A:H2	1.81	0.45
51:S4:89:VAL:CA	51:S4:90:ILE:HD12	2.47	0.45
54:S7:152:VAL:CG2	54:S7:181:ILE:HD11	2.46	0.45
54:S7:185:ILE:H	54:S7:185:ILE:HD13	1.82	0.45
55:S8:194:ARG:O	55:S8:198:ALA:HB2	2.16	0.45
59:12:48:SER:O	59:12:52:LEU:HD23	2.16	0.45
60:13:30:SER:HA	60:13:33:VAL:HG22	1.99	0.45
61:14:23:PHE:O	61:14:24:ASN:HB2	2.17	0.45
62:15:84:ILE:HG22	62:15:85:ILE:N	2.32	0.45
64:17:110:VAL:CG1	64:17:117:LEU:HG	2.37	0.45
67:20:37:VAL:CG1	67:20:41:ILE:HD13	2.46	0.45
70:23:63:GLN:HA	70:23:65:ASN:N	2.32	0.45
70:23:127:VAL:HG23	70:23:130:VAL:HG22	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:RA:7:LEU:HD11	79:RA:251:TRP:CZ3	2.50	0.45
79:RA:275:ARG:HH11	79:RA:275:ARG:HG3	1.82	0.45
1:2S:91:G:H5''	44:82:46:LYS:CE	2.46	0.45
1:2S:1062:A:H5''	23:61:105:PHE:CZ	2.51	0.45
1:2S:1606:U:C4	36:74:8:ARG:HB3	2.52	0.45
1:2S:1715:A:C1'	1:2S:1717:U:H4'	2.47	0.45
1:2S:2148:U:H5''	5:L2:196:TRP:HZ2	1.82	0.45
1:2S:2318:U:H2'	1:2S:2319:U:O4'	2.17	0.45
1:2S:2747:A:H4'	8:L5:174:PRO:HB2	1.99	0.45
1:2S:3104:U:H3'	1:2S:3128:G:H1	1.81	0.45
1:2S:3271:G:H8	1:2S:3271:G:O5'	2.00	0.45
1:2S:3331:U:OP2	1:2S:3331:U:H6	1.99	0.45
7:L4:170:LYS:HD2	7:L4:170:LYS:N	2.32	0.45
7:L4:192:GLY:O	7:L4:197:ARG:HB2	2.17	0.45
7:L4:216:VAL:HA	7:L4:227:THR:HG21	1.99	0.45
11:L8:55:TYR:O	11:L8:59:GLN:HG2	2.16	0.45
12:L9:84:LYS:O	12:L9:187:ILE:HB	2.17	0.45
12:L9:189:GLU:O	12:L9:190:ASP:CB	2.65	0.45
13:50:181:TYR:O	13:50:185:ARG:HB3	2.16	0.45
17:55:124:ASP:CG	17:55:125:SER:H	2.20	0.45
21:59:15:VAL:CG1	21:59:52:LYS:HG3	2.47	0.45
23:61:19:PHE:O	23:61:21:LYS:HG3	2.17	0.45
27:65:91:ASN:O	27:65:95:ILE:HG13	2.17	0.45
45:83:36:ARG:HA	45:83:47:VAL:O	2.17	0.45
46:1S:468:A:N1	46:1S:594:A:O2'	2.42	0.45
46:1S:513:U:H2'	46:1S:514:G:C8	2.52	0.45
46:1S:1240:U:O4	62:15:59:LYS:HE2	2.16	0.45
46:1S:1368:G:C5'	66:19:69:LYS:HA	2.47	0.45
46:1S:1389:C:O2'	64:17:52:GLY:HA3	2.17	0.45
46:1S:1498:G:H2'	46:1S:1499:G:H5''	1.99	0.45
46:1S:1593:A:H2'	46:1S:1594:G:C8	2.52	0.45
46:1S:1622:G:H2'	46:1S:1623:C:H6	1.82	0.45
46:1S:1650:U:H2'	46:1S:1651:A:C8	2.52	0.45
48:S1:60:ALA:HB3	48:S1:61:LEU:HD13	1.99	0.45
49:S2:99:LYS:HE3	49:S2:115:ILE:CG2	2.46	0.45
49:S2:159:THR:OG1	49:S2:168:ARG:HG3	2.17	0.45
51:S4:15:PRO:HD2	51:S4:18:TRP:CZ3	2.52	0.45
53:S6:84:TYR:HE1	53:S6:86:PRO:HG3	1.82	0.45
60:13:94:LYS:O	60:13:98:VAL:HG23	2.16	0.45
62:15:72:LYS:HB3	62:15:93:VAL:HG23	1.99	0.45
63:16:129:PHE:CE1	67:20:78:THR:HA	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:28:ILE:HD11	65:18:32:LEU:HD11	1.98	0.45
65:18:37:GLY:HA3	65:18:101:LEU:HD23	1.99	0.45
68:21:16:LYS:HA	68:21:23:ILE:HA	1.99	0.45
68:21:17:CYS:HB2	68:21:22:ARG:O	2.17	0.45
74:27:80:ARG:HH11	74:27:80:ARG:HG3	1.82	0.45
75:28:8:THR:HG23	75:28:34:GLU:HB2	1.97	0.45
1:2S:126:U:H2'	1:2S:127:G:H8	1.82	0.45
1:2S:777:U:H2'	1:2S:778:U:C6	2.52	0.45
1:2S:959:C:O5'	1:2S:960:U:C5	2.70	0.45
1:2S:1508:C:H2'	1:2S:1509:A:H8	1.80	0.45
1:2S:1899:G:O2'	1:2S:2334:U:O4	2.30	0.45
1:2S:1920:U:H2'	1:2S:1930:A:H61	1.82	0.45
1:2S:2252:A:H61	1:2S:2264:U:H3	1.65	0.45
1:2S:2511:A:H2'	1:2S:2512:C:O4'	2.16	0.45
1:2S:2596:U:H2'	1:2S:2597:U:H6	1.79	0.45
1:2S:2655:U:H2'	44:82:3:ASN:O	2.17	0.45
1:2S:2703:A:O5'	1:2S:2704:A:H5''	2.17	0.45
1:2S:2703:A:N1	8:L5:26:GLY:HA2	2.32	0.45
1:2S:2764:C:OP1	30:68:55:LYS:HB2	2.17	0.45
1:2S:3042:U:H2'	1:2S:3043:C:O4'	2.17	0.45
3:5S:27:A:H2	3:5S:56:A:H61	1.65	0.45
6:L3:166:ILE:O	6:L3:166:ILE:HG13	2.17	0.45
8:L5:52:VAL:HG13	8:L5:54:ARG:NH1	2.31	0.45
8:L5:270:LYS:HG2	8:L5:273:ARG:HH11	1.82	0.45
9:L6:5:LYS:O	9:L6:6:ALA:CB	2.63	0.45
12:L9:104:VAL:HG21	12:L9:125:ASN:ND2	2.31	0.45
18:56:108:ILE:CG2	18:56:113:ASP:HB3	2.46	0.45
21:59:5:ARG:HG2	21:59:5:ARG:HH11	1.82	0.45
21:59:99:LEU:HD13	21:59:99:LEU:C	2.37	0.45
21:59:147:ALA:O	21:59:151:ARG:HG3	2.17	0.45
24:62:33:TYR:O	24:62:37:LEU:HD13	2.17	0.45
25:63:17:LEU:HD11	25:63:98:ASN:HD22	1.82	0.45
30:68:71:PRO:O	30:68:109:TYR:HD2	2.00	0.45
31:69:47:LEU:O	31:69:50:THR:HG22	2.16	0.45
37:75:22:VAL:O	37:75:26:LYS:HG3	2.17	0.45
46:1S:17:C:H2'	46:1S:18:C:H6	1.82	0.45
46:1S:187:G:H3'	55:S8:138:ASN:ND2	2.31	0.45
46:1S:620:A:H2'	46:1S:621:A:C8	2.52	0.45
46:1S:757:A:H2'	46:1S:758:U:H6	1.82	0.45
46:1S:1058:U:C6	46:1S:1061:A:N1	2.85	0.45
46:1S:1321:A:C8	47:S0:104:PRO:HB3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1551:U:OP2	62:15:43:ARG:HD2	2.17	0.45
47:S0:90:ALA:HB1	47:S0:97:PRO:HD3	1.99	0.45
48:S1:115:ARG:HG3	48:S1:116:LYS:N	2.30	0.45
48:S1:131:ASP:HB2	48:S1:180:THR:OG1	2.16	0.45
51:S4:129:VAL:O	51:S4:129:VAL:HG13	2.17	0.45
57:10:82:LEU:HD22	57:10:86:ILE:CG2	2.47	0.45
58:11:121:ASP:C	58:11:122:ILE:HD12	2.37	0.45
59:12:129:GLU:O	59:12:130:THR:OG1	2.30	0.45
60:13:72:MET:CE	60:13:81:ALA:HB2	2.47	0.45
64:17:19:ARG:HG3	64:17:20:TYR:HD1	1.82	0.45
65:18:82:PRO:HG2	65:18:85:PHE:HD2	1.81	0.45
67:20:27:THR:O	67:20:113:ASP:HB3	2.16	0.45
67:20:49:ASN:C	67:20:50:LEU:HD12	2.38	0.45
69:22:29:PRO:O	69:22:30:SER:HB3	2.17	0.45
73:26:10:ARG:HB2	73:26:34:LYS:CG	2.36	0.45
77:30:42:ARG:HG2	77:30:42:ARG:O	2.16	0.45
79:RA:278:PHE:CE2	79:RA:287:PRO:HB2	2.52	0.45
1:2S:355:A:H3'	1:2S:356:C:C6	2.52	0.44
1:2S:436:A:H61	1:2S:623:U:H3	1.64	0.44
1:2S:736:A:H2'	1:2S:737:G:O4'	2.16	0.44
1:2S:1012:G:H2'	1:2S:1013:G:C8	2.52	0.44
1:2S:1219:C:C2'	1:2S:1220:U:H5''	2.48	0.44
1:2S:1390:A:N3	1:2S:1390:A:C5'	2.78	0.44
1:2S:1492:G:O6	41:79:2:ALA:CB	2.65	0.44
1:2S:1515:A:H2'	1:2S:1516:C:C6	2.52	0.44
1:2S:1549:U:H2'	1:2S:1550:C:H6	1.82	0.44
1:2S:1689:U:H2'	1:2S:1690:C:C6	2.52	0.44
1:2S:1908:A:O5'	1:2S:1908:A:H8	2.01	0.44
1:2S:2163:C:O2'	5:L2:11:GLY:HA3	2.16	0.44
1:2S:2265:C:H2'	1:2S:2266:U:C6	2.52	0.44
1:2S:2276:G:H2'	1:2S:2277:C:H6	1.81	0.44
1:2S:2534:G:H2'	1:2S:2535:A:H8	1.82	0.44
1:2S:2841:G:H1'	1:2S:2847:A:H61	1.83	0.44
1:2S:3282:U:O5'	1:2S:3282:U:H6	2.00	0.44
1:2S:3370:A:H2'	1:2S:3371:G:H8	1.77	0.44
4:L1:18:LYS:C	4:L1:20:SER:H	2.20	0.44
6:L3:84:VAL:HG13	6:L3:163:HIS:C	2.37	0.44
6:L3:232:ARG:HH21	6:L3:233:TRP:HE1	1.66	0.44
6:L3:251:CYS:C	6:L3:252:ILE:HD12	2.37	0.44
11:L8:180:VAL:HG22	11:L8:185:ARG:HH21	1.78	0.44
14:51:23:VAL:HG11	14:51:29:ARG:HD3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:53:29:ALA:O	15:53:33:VAL:HG23	2.16	0.44
22:60:4:PHE:HB3	22:60:100:VAL:HG23	2.00	0.44
23:61:76:ILE:HG22	23:61:77:ASN:N	2.32	0.44
27:65:91:ASN:HD21	27:65:93:TYR:HD2	1.63	0.44
28:66:66:GLN:O	28:66:67:GLU:HB3	2.17	0.44
30:68:83:PRO:O	30:68:87:ARG:HB2	2.17	0.44
37:75:64:GLU:CA	37:75:67:ARG:HG3	2.42	0.44
37:75:116:TYR:O	37:75:117:ALA:HB2	2.17	0.44
46:1S:210:A:H2'	46:1S:211:U:C6	2.53	0.44
46:1S:235:G:H2'	46:1S:236:A:C8	2.53	0.44
46:1S:325:G:O2'	46:1S:326:G:H5'	2.17	0.44
46:1S:1682:U:O2'	46:1S:1683:C:H5'	2.17	0.44
55:S8:21:PHE:CD2	55:S8:22:ARG:N	2.85	0.44
64:17:100:LEU:HB3	64:17:118:PRO:HG2	1.99	0.44
69:22:27:ILE:HD11	69:22:61:ILE:HB	1.98	0.44
69:22:103:ILE:C	69:22:104:LEU:HD13	2.38	0.44
71:24:124:ARG:HD3	71:24:124:ARG:C	2.38	0.44
79:RA:91:LEU:O	79:RA:99:THR:HA	2.17	0.44
1:2S:295:A:H2'	1:2S:296:A:C8	2.52	0.44
1:2S:580:C:H2'	1:2S:581:U:O4'	2.18	0.44
1:2S:798:G:H5''	15:53:15:ARG:NH2	2.20	0.44
1:2S:949:C:O2'	1:2S:971:G:H5''	2.16	0.44
1:2S:1169:A:H5''	10:L7:219:LYS:CD	2.47	0.44
1:2S:1187:C:O5'	1:2S:1187:C:H6	2.00	0.44
1:2S:1784:G:H2'	1:2S:1785:U:C6	2.52	0.44
1:2S:2366:C:H2'	1:2S:2367:A:C8	2.52	0.44
1:2S:3153:U:H2'	1:2S:3154:C:C5	2.53	0.44
1:2S:3300:U:H2'	1:2S:3301:U:H6	1.82	0.44
2:8S:141:C:H5'	17:55:109:ARG:CD	2.47	0.44
5:L2:47:GLN:HE21	5:L2:49:VAL:CB	2.28	0.44
5:L2:97:ASN:HB2	5:L2:100:ASN:ND2	2.32	0.44
6:L3:136:LYS:O	6:L3:144:ILE:HD11	2.16	0.44
7:L4:23:PRO:HG2	7:L4:255:PHE:CE2	2.52	0.44
7:L4:58:HIS:HA	7:L4:90:PHE:CD1	2.52	0.44
7:L4:142:VAL:O	7:L4:145:ILE:HG12	2.16	0.44
7:L4:209:TYR:O	7:L4:230:VAL:HG23	2.16	0.44
10:L7:107:ARG:C	10:L7:108:LEU:HD23	2.38	0.44
15:53:29:ALA:CB	17:55:201:ARG:NH1	2.79	0.44
21:59:152:GLU:HA	21:59:152:GLU:OE1	2.16	0.44
23:61:75:ILE:HD13	23:61:76:ILE:N	2.33	0.44
27:65:103:TYR:O	27:65:105:VAL:HG23	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:67:33:SER:HB2	29:67:40:HIS:CE1	2.53	0.44
32:70:13:LYS:HB3	32:70:100:ILE:CG2	2.46	0.44
36:74:95:ILE:O	36:74:99:LYS:HB2	2.17	0.44
37:75:58:ILE:O	37:75:62:GLN:HG3	2.18	0.44
38:76:26:ILE:C	38:76:28:TYR:H	2.19	0.44
40:78:8:ILE:HD12	40:78:8:ILE:N	2.32	0.44
46:1S:1:U:O4	56:S9:54:ARG:HD3	2.18	0.44
46:1S:197:A:H61	55:S8:138:ASN:ND2	2.15	0.44
46:1S:382:C:H2'	46:1S:383:G:H8	1.81	0.44
46:1S:556:A:H5''	77:30:56:MET:HB2	1.98	0.44
46:1S:1058:U:C5	46:1S:1061:A:N6	2.58	0.44
46:1S:1107:G:O2'	46:1S:1108:G:H5'	2.17	0.44
46:1S:1226:A:H62	59:12:114:LYS:HG2	1.83	0.44
46:1S:1454:G:H5''	62:15:81:ARG:NH2	2.31	0.44
46:1S:1454:G:H2'	46:1S:1455:G:O4'	2.17	0.44
48:S1:41:ARG:HB3	48:S1:41:ARG:NH1	2.32	0.44
48:S1:70:LEU:O	48:S1:74:GLN:HB2	2.16	0.44
49:S2:148:LEU:HB3	49:S2:149:GLY:H	1.37	0.44
49:S2:225:LEU:HD22	49:S2:230:TRP:HD1	1.82	0.44
52:S5:203:LYS:HE3	52:S5:203:LYS:CA	2.38	0.44
55:S8:195:ARG:HG2	55:S8:195:ARG:NH1	2.33	0.44
56:S9:178:ALA:O	56:S9:182:GLU:HG2	2.18	0.44
57:10:87:VAL:O	57:10:87:VAL:HG13	2.17	0.44
58:11:97:TYR:O	58:11:98:ASN:HB3	2.17	0.44
60:13:84:ILE:CD1	60:13:89:TYR:HA	2.46	0.44
62:15:37:ALA:O	62:15:42:ARG:HD2	2.17	0.44
65:18:35:ILE:HG22	65:18:36:LYS:N	2.31	0.44
78:31:139:LEU:HD22	78:31:150:VAL:O	2.16	0.44
1:2S:55:G:H2'	1:2S:56:G:H5'	1.99	0.44
1:2S:93:C:OP2	1:2S:2764:C:H1'	2.16	0.44
1:2S:745:C:C5'	20:58:145:ASN:ND2	2.78	0.44
1:2S:1147:G:H2'	1:2S:1148:G:O4'	2.17	0.44
1:2S:1689:U:O3'	21:59:59:SER:CB	2.65	0.44
1:2S:2647:A:C3'	1:2S:2648:G:H5''	2.46	0.44
4:L1:120:VAL:HG23	4:L1:121:PRO:HD3	1.99	0.44
4:L1:189:PHE:HD1	4:L1:200:ASN:HB2	1.82	0.44
4:L1:205:VAL:HG12	4:L1:213:ALA:CB	2.45	0.44
5:L2:74:GLU:HB3	5:L2:76:PHE:HE1	1.80	0.44
5:L2:88:ILE:CG2	5:L2:99:GLY:O	2.65	0.44
7:L4:52:VAL:CG2	7:L4:53:SER:H	2.11	0.44
7:L4:316:ASN:HD22	7:L4:319:LYS:HE2	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:361:HIS:HD2	7:L4:362:ASP:H	1.64	0.44
8:L5:44:TYR:CE1	23:61:35:LYS:HG2	2.52	0.44
9:L6:56:LYS:HB3	9:L6:64:LEU:CB	2.47	0.44
10:L7:86:VAL:CG1	10:L7:136:TYR:HB3	2.41	0.44
12:L9:47:LYS:HD2	16:54:5:SER:HB2	1.99	0.44
15:53:149:GLN:HA	15:53:150:PRO:HD3	1.75	0.44
17:55:116:LEU:HB3	17:55:133:ILE:HG23	1.97	0.44
19:57:75:GLU:HB3	19:57:76:PHE:CD1	2.52	0.44
19:57:76:PHE:CD1	19:57:76:PHE:N	2.85	0.44
20:58:98:LYS:HB3	20:58:99:THR:H	1.50	0.44
22:60:43:TYR:CD2	22:60:47:LYS:NZ	2.81	0.44
25:63:45:ARG:HG3	25:63:45:ARG:HH11	1.82	0.44
27:65:74:LYS:O	27:65:78:ASP:HB2	2.17	0.44
33:71:44:MET:SD	33:71:77:ARG:HB2	2.57	0.44
34:72:13:HIS:HE1	34:72:15:LYS:HB3	1.78	0.44
38:76:58:ILE:HG22	38:76:94:ILE:HD11	1.98	0.44
38:76:82:ARG:O	38:76:86:LYS:CB	2.65	0.44
40:78:17:ARG:O	40:78:18:ALA:HB3	2.16	0.44
46:1S:94:U:H2'	46:1S:95:G:C5'	2.45	0.44
46:1S:472:U:OP1	56:S9:10:LYS:HA	2.18	0.44
46:1S:545:A:C8	77:30:31:LYS:HD2	2.52	0.44
46:1S:1059:U:O2	46:1S:1059:U:C2'	2.65	0.44
46:1S:1797:A:C5'	73:26:95:ARG:HG2	2.43	0.44
48:S1:153:HIS:ND1	48:S1:154:SER:N	2.64	0.44
48:S1:205:PHE:CD1	48:S1:206:PRO:CD	2.98	0.44
50:S3:17:PHE:CE1	50:S3:21:LEU:HD11	2.52	0.44
52:S5:77:TYR:HA	52:S5:83:ARG:HG2	1.99	0.44
54:S7:30:SER:O	54:S7:32:PRO:HD2	2.17	0.44
57:10:27:PHE:HD1	57:10:40:LEU:HD23	1.82	0.44
58:11:94:ILE:HG21	58:11:97:TYR:CD2	2.53	0.44
59:12:50:LYS:HA	59:12:53:THR:HG23	1.98	0.44
59:12:106:ILE:HG22	59:12:107:ASP:N	2.31	0.44
62:15:96:ILE:HD13	62:15:116:LEU:O	2.18	0.44
65:18:11:PHE:HD2	65:18:12:GLN:N	2.16	0.44
69:22:93:LEU:CD2	69:22:93:LEU:N	2.80	0.44
69:22:104:LEU:HB2	69:22:124:LYS:O	2.17	0.44
79:RA:42:LEU:HD12	79:RA:42:LEU:N	2.32	0.44
79:RA:212:ALA:O	79:RA:243:LEU:CD1	2.64	0.44
1:2S:438:A:C3'	1:2S:439:C:H5''	2.47	0.44
1:2S:526:C:H2'	1:2S:527:A:C8	2.52	0.44
1:2S:529:A:H8	1:2S:529:A:O5'	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:769:G:C2'	1:2S:770:G:H5'	2.48	0.44
1:2S:873:C:H2'	1:2S:875:G:O4'	2.18	0.44
1:2S:892:U:O2'	1:2S:893:C:H5'	2.18	0.44
1:2S:1115:G:H5''	1:2S:1116:G:H5''	1.98	0.44
1:2S:1125:U:O5'	1:2S:1125:U:H6	2.00	0.44
1:2S:1354:G:H3'	1:2S:1355:A:C5'	2.46	0.44
1:2S:1695:U:H1'	36:74:26:PRO:HG3	2.00	0.44
1:2S:2133:U:H2'	1:2S:2134:G:H5'	1.98	0.44
1:2S:2481:G:H2'	1:2S:2482:U:C6	2.53	0.44
1:2S:3302:U:H2'	1:2S:3303:G:C8	2.53	0.44
2:8S:28:C:H4'	15:53:26:PHE:CD2	2.52	0.44
2:8S:79:A:H3'	2:8S:80:A:H5''	1.99	0.44
4:L1:103:LEU:HD22	4:L1:106:LYS:HE2	2.00	0.44
5:L2:117:GLU:HG2	5:L2:124:GLY:H	1.82	0.44
5:L2:170:ALA:HB1	45:83:66:GLY:O	2.18	0.44
5:L2:199:THR:HG22	5:L2:200:ARG:N	2.32	0.44
7:L4:188:ARG:HB2	7:L4:197:ARG:O	2.18	0.44
7:L4:192:GLY:HA2	7:L4:195:ARG:CD	2.47	0.44
7:L4:316:ASN:ND2	7:L4:319:LYS:CE	2.81	0.44
7:L4:353:ALA:O	7:L4:357:GLU:HG3	2.17	0.44
8:L5:278:SER:O	8:L5:282:ARG:HG3	2.17	0.44
10:L7:133:TYR:O	10:L7:134:VAL:HG13	2.18	0.44
11:L8:50:VAL:HG23	11:L8:52:TRP:HE1	1.81	0.44
15:53:67:ARG:CZ	15:53:68:LYS:HG3	2.48	0.44
17:55:10:LEU:HD13	17:55:10:LEU:C	2.38	0.44
17:55:191:TRP:CE3	17:55:192:LYS:HA	2.53	0.44
20:58:147:ARG:NH2	20:58:150:VAL:HG13	2.32	0.44
23:61:48:ILE:CD1	23:61:94:GLU:HG2	2.47	0.44
28:66:56:VAL:CG1	28:66:70:ILE:HD11	2.47	0.44
28:66:100:HIS:CG	28:66:101:PRO:HD2	2.52	0.44
33:71:19:ARG:NH1	33:71:19:ARG:CG	2.81	0.44
33:71:60:TRP:CZ3	33:71:64:VAL:HG22	2.34	0.44
33:71:79:ARG:NE	33:71:79:ARG:O	2.49	0.44
34:72:61:LYS:HG2	34:72:64:LYS:NZ	2.32	0.44
38:76:4:LYS:HA	38:76:12:ASN:HB3	1.99	0.44
38:76:45:ARG:O	38:76:45:ARG:HD3	2.17	0.44
40:78:46:ARG:HA	40:78:51:LEU:HD12	1.98	0.44
45:83:22:LEU:O	45:83:26:VAL:HG23	2.17	0.44
46:1S:98:U:H1'	46:1S:425:A:O2'	2.18	0.44
46:1S:309:C:H2'	46:1S:310:C:C6	2.52	0.44
46:1S:312:A:C2	46:1S:314:C:H2'	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:680:U:H3'	46:1S:680:U:H6	1.82	0.44
46:1S:871:G:H2'	46:1S:872:G:H8	1.76	0.44
46:1S:1061:A:C2'	46:1S:1062:A:H5'	2.45	0.44
46:1S:1156:C:H4'	46:1S:1313:A:OP1	2.18	0.44
49:S2:85:PRO:HG3	49:S2:98:PHE:CE1	2.51	0.44
52:S5:57:SER:O	52:S5:58:LEU:HB2	2.17	0.44
59:12:81:ASP:HA	59:12:82:PRO:HD3	1.87	0.44
60:13:117:LEU:O	60:13:120:SER:HB2	2.17	0.44
63:16:138:PHE:HB3	63:16:139:GLN:H	1.65	0.44
64:17:21:TYR:N	64:17:22:PRO:CD	2.78	0.44
70:23:127:VAL:HG22	70:23:132:LEU:HD22	2.00	0.44
72:25:91:PRO:HA	72:25:101:TYR:CD1	2.53	0.44
74:27:35:VAL:CG1	74:27:77:THR:HB	2.47	0.44
75:28:36:THR:HG23	75:28:37:SER:H	1.83	0.44
79:RA:128:ASP:C	79:RA:129:LYS:HG2	2.38	0.44
1:2S:38:U:H5''	30:68:32:ARG:HD2	2.00	0.44
1:2S:269:G:H5'	17:55:14:LYS:HE2	2.00	0.44
1:2S:398:A:C4	19:57:3:ARG:NH2	2.85	0.44
1:2S:586:C:O2'	1:2S:587:U:H5'	2.18	0.44
1:2S:819:U:H2'	1:2S:820:A:C5'	2.47	0.44
1:2S:820:A:H2'	1:2S:821:U:C5	2.51	0.44
1:2S:990:U:O5'	1:2S:990:U:H6	2.00	0.44
1:2S:1404:G:N2	1:2S:1407:A:OP2	2.44	0.44
1:2S:2316:G:H2'	1:2S:2317:A:C8	2.52	0.44
1:2S:2337:C:O5'	1:2S:2337:C:H6	2.00	0.44
1:2S:2394:G:H5'	6:L3:253:GLY:N	2.32	0.44
1:2S:2994:A:N6	1:2S:2995:A:C2	2.86	0.44
1:2S:3386:G:O2'	1:2S:3387:U:H5'	2.17	0.44
3:5S:118:A:H5''	8:L5:253:PHE:HZ	1.81	0.44
5:L2:248:GLY:CA	46:1S:1012:U:H5''	2.43	0.44
6:L3:5:LYS:HE2	6:L3:6:TYR:CE1	2.48	0.44
7:L4:9:HIS:HA	7:L4:15:ALA:HA	1.99	0.44
7:L4:112:LYS:HD3	17:55:202:TYR:HB3	1.99	0.44
7:L4:181:VAL:HG11	7:L4:223:PRO:O	2.17	0.44
8:L5:153:THR:HG23	8:L5:160:PHE:CZ	2.45	0.44
11:L8:41:GLN:HE21	11:L8:41:GLN:H	1.65	0.44
12:L9:69:ARG:O	12:L9:69:ARG:HD3	2.16	0.44
13:50:48:LEU:HB2	13:50:142:ASP:OD1	2.17	0.44
19:57:180:LYS:HB3	19:57:180:LYS:HZ3	1.83	0.44
25:63:128:ARG:HH11	25:63:128:ARG:CG	2.30	0.44
31:69:15:LYS:HB2	31:69:15:LYS:HE3	1.68	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:70:43:ILE:O	32:70:89:VAL:HG23	2.18	0.44
32:70:76:GLU:HA	32:70:79:THR:HB	1.99	0.44
36:74:8:ARG:HB2	36:74:34:HIS:HD2	1.83	0.44
44:82:70:LEU:HD12	44:82:83:LEU:HD22	1.98	0.44
46:1S:52:U:H2'	46:1S:53:G:O4'	2.17	0.44
46:1S:85:A:H2	46:1S:148:A:H1'	1.83	0.44
46:1S:338:C:O5'	46:1S:338:C:H6	2.00	0.44
46:1S:378:A:H3'	46:1S:379:U:C5	2.53	0.44
46:1S:1779:U:H2'	46:1S:1781:A:OP2	2.17	0.44
53:S6:31:ARG:HD2	53:S6:34:GLN:HE22	1.81	0.44
60:13:40:TYR:CE2	60:13:54:LEU:HD21	2.50	0.44
66:19:114:VAL:HG22	66:19:115:GLU:N	2.32	0.44
69:22:30:SER:HA	69:22:34:ILE:CD1	2.32	0.44
70:23:87:VAL:HA	70:23:124:VAL:HG23	2.00	0.44
71:24:114:ARG:HH11	71:24:114:ARG:HG3	1.82	0.44
74:27:37:CYS:HA	74:27:38:PRO:HD3	1.76	0.44
75:28:11:LYS:HE2	75:28:11:LYS:HB3	1.86	0.44
1:2S:104:G:H2'	1:2S:105:C:O4'	2.18	0.44
1:2S:711:A:C5	1:2S:712:G:H1'	2.52	0.44
1:2S:1223:A:C5	1:2S:1286:A:C2	3.06	0.44
1:2S:1585:C:H2'	1:2S:1586:G:O4'	2.18	0.44
1:2S:1795:U:O5'	1:2S:1795:U:H6	2.01	0.44
1:2S:2363:A:H2'	1:2S:2364:G:C8	2.52	0.44
1:2S:2443:A:H5'	1:2S:2444:C:OP2	2.17	0.44
1:2S:2482:U:O5'	1:2S:2482:U:H6	2.00	0.44
1:2S:3086:A:H3'	1:2S:3087:A:C8	2.51	0.44
2:8S:35:C:H2'	2:8S:36:G:C8	2.52	0.44
2:8S:41:A:H3'	2:8S:42:G:H8	1.83	0.44
5:L2:133:TYR:CE1	5:L2:135:ILE:HD11	2.50	0.44
7:L4:119:ARG:HH12	7:L4:274:TYR:HB2	1.82	0.44
7:L4:340:GLY:C	7:L4:342:LYS:H	2.21	0.44
13:50:31:ILE:HD11	13:50:33:ILE:O	2.17	0.44
20:58:176:ARG:HG3	20:58:183:GLY:CA	2.37	0.44
21:59:142:ILE:HG22	21:59:146:LYS:CD	2.48	0.44
25:63:89:ASP:OD1	25:63:91:VAL:HG22	2.18	0.44
29:67:118:PHE:C	29:67:120:GLU:H	2.20	0.44
30:68:56:VAL:HG23	30:68:57:GLY:H	1.82	0.44
37:75:101:THR:HG22	37:75:104:GLN:HB2	1.98	0.44
39:77:54:LYS:O	39:77:58:THR:HG23	2.18	0.44
43:81:23:ARG:HG2	43:81:23:ARG:NH2	2.30	0.44
46:1S:66:U:C5	53:S6:173:PRO:HG3	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:569:C:OP1	70:23:89:ASN:HA	2.18	0.44
46:1S:639:U:C5'	54:S7:101:LYS:HD2	2.46	0.44
46:1S:1314:U:H4'	46:1S:1315:U:H5	1.81	0.44
46:1S:1405:G:H2'	46:1S:1406:A:H8	1.81	0.44
46:1S:1459:C:OP2	46:1S:1459:C:H6	2.01	0.44
46:1S:1580:C:H2'	46:1S:1581:C:H6	1.82	0.44
48:S1:119:THR:HB	48:S1:143:THR:CG2	2.47	0.44
53:S6:70:PRO:HA	53:S6:98:ARG:HH22	1.82	0.44
53:S6:159:ARG:HG2	53:S6:172:ALA:HB2	1.99	0.44
55:S8:5:ARG:HH12	55:S8:28:GLU:C	2.21	0.44
57:10:49:LEU:O	57:10:53:GLY:O	2.35	0.44
59:12:77:GLY:HA3	78:31:114:VAL:HG21	1.98	0.44
63:16:54:LEU:HD21	63:16:112:TYR:CE2	2.53	0.44
66:19:30:VAL:HA	66:19:31:PRO:HD3	1.74	0.44
66:19:35:ASP:N	66:19:53:TRP:HZ2	1.98	0.44
69:22:89:TRP:O	69:22:92:ASN:HB2	2.18	0.44
1:2S:720:A:H5''	20:58:69:ARG:HH22	1.83	0.44
1:2S:990:U:H4'	23:61:100:LYS:HB2	1.99	0.44
1:2S:1651:U:O5'	1:2S:1651:U:H6	2.01	0.44
1:2S:1695:U:H4'	36:74:24:LYS:O	2.18	0.44
1:2S:1705:U:H2'	1:2S:1706:C:O4'	2.17	0.44
1:2S:2837:A:H5''	13:50:154:ARG:HH11	1.83	0.44
1:2S:3086:A:H4'	6:L3:366:GLY:HA2	2.00	0.44
1:2S:3346:U:H2'	1:2S:3347:A:O4'	2.18	0.44
1:2S:3359:A:H3'	1:2S:3360:C:C5	2.53	0.44
3:5S:104:A:C2'	3:5S:105:C:H5'	2.47	0.44
5:L2:169:ILE:HG22	5:L2:170:ALA:N	2.32	0.44
5:L2:183:GLY:O	5:L2:187:HIS:HD2	2.00	0.44
7:L4:65:TRP:CE3	7:L4:69:ARG:HD2	2.52	0.44
9:L6:96:VAL:HG21	9:L6:145:LEU:HD21	2.00	0.44
10:L7:202:LEU:H	10:L7:202:LEU:HG	1.62	0.44
11:L8:53:PRO:O	11:L8:56:VAL:N	2.47	0.44
11:L8:160:ILE:O	11:L8:164:VAL:HG13	2.17	0.44
12:L9:19:SER:C	12:L9:20:ILE:HG13	2.38	0.44
12:L9:45:PHE:CD1	12:L9:55:VAL:HG12	2.48	0.44
15:53:70:ARG:HD2	15:53:71:ALA:N	2.31	0.44
16:54:80:THR:HA	16:54:83:LYS:HB3	2.00	0.44
17:55:191:TRP:CE3	17:55:192:LYS:N	2.86	0.44
19:57:87:SER:O	19:57:91:VAL:HG23	2.17	0.44
20:58:8:LYS:HB2	20:58:8:LYS:HE3	1.77	0.44
27:65:135:ILE:HD11	27:65:138:ARG:NH1	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:66:106:ILE:CG2	28:66:109:LEU:HD21	2.47	0.44
33:71:23:VAL:O	33:71:28:ARG:NH1	2.51	0.44
33:71:72:ARG:HG3	33:71:96:VAL:HG22	1.99	0.44
34:72:69:SER:CB	34:72:118:LYS:HE2	2.47	0.44
36:74:67:LYS:O	36:74:71:THR:OG1	2.34	0.44
46:1S:335:U:O5'	46:1S:335:U:H6	2.01	0.44
46:1S:504:U:C2	46:1S:505:A:H1'	2.52	0.44
46:1S:1498:G:C2'	46:1S:1499:G:C5'	2.95	0.44
50:S3:142:LEU:C	50:S3:144:ALA:H	2.21	0.44
51:S4:211:LYS:HA	51:S4:216:ASN:O	2.18	0.44
51:S4:222:LEU:HD23	51:S4:222:LEU:H	1.81	0.44
52:S5:56:ALA:HB1	75:28:9:LEU:HD11	1.99	0.44
53:S6:64:LYS:O	53:S6:67:VAL:HG22	2.18	0.44
55:S8:42:ARG:HG2	55:S8:58:LEU:HD12	1.99	0.44
56:S9:108:ARG:HG2	56:S9:147:MET:HE1	1.99	0.44
57:10:82:LEU:CD2	57:10:86:ILE:HG21	2.48	0.44
61:14:61:MET:HG2	61:14:104:ALA:HB2	2.00	0.44
63:16:129:PHE:CD1	67:20:78:THR:HA	2.53	0.44
64:17:21:TYR:CE1	64:17:73:LEU:HD13	2.53	0.44
65:18:145:ARG:HB3	65:18:145:ARG:HH21	1.82	0.44
70:23:40:SER:O	70:23:41:SER:O	2.36	0.44
71:24:124:ARG:HG3	71:24:124:ARG:NH1	2.32	0.44
73:26:97:PRO:N	73:26:98:PRO:CD	2.81	0.44
1:2S:555:U:H1'	1:2S:556:U:H5	1.83	0.44
1:2S:917:A:H2'	1:2S:917:A:N3	2.32	0.44
1:2S:968:G:H2'	1:2S:969:C:C6	2.52	0.44
1:2S:979:U:H4'	1:2S:980:A:H5'	2.00	0.44
1:2S:1145:G:O2'	34:72:45:ARG:O	2.35	0.44
1:2S:1722:U:H2'	1:2S:1723:A:O4'	2.17	0.44
1:2S:1978:A:O2'	1:2S:1979:G:H5'	2.17	0.44
1:2S:2174:G:OP1	1:2S:2174:G:C8	2.63	0.44
1:2S:2895:G:H5''	42:80:102:ARG:HH21	1.81	0.44
1:2S:2899:C:N4	12:L9:172:ILE:HD11	2.33	0.44
1:2S:2910:A:OP2	1:2S:2910:A:H8	2.01	0.44
1:2S:2932:U:O5'	1:2S:2932:U:H6	2.01	0.44
3:5S:34:C:N4	3:5S:45:A:H2	2.16	0.44
4:L1:193:LEU:HB3	4:L1:195:LYS:H	1.83	0.44
6:L3:106:TRP:HD1	6:L3:133:TYR:OH	2.01	0.44
8:L5:64:ILE:HD12	8:L5:64:ILE:N	2.32	0.44
10:L7:88:ARG:HA	10:L7:134:VAL:HG12	2.00	0.44
10:L7:96:PRO:O	10:L7:99:PRO:HD2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:50:20:SER:HB2	13:50:22:TYR:HD1	1.82	0.44
19:57:86:LYS:HA	19:57:89:LYS:HD3	2.00	0.44
22:60:78:TRP:HB2	22:60:125:LYS:O	2.18	0.44
22:60:107:TYR:CD1	22:60:121:ILE:HD12	2.53	0.44
22:60:137:ARG:O	22:60:141:LYS:HG3	2.18	0.44
23:61:86:GLU:HG2	23:61:87:LYS:N	2.32	0.44
24:62:35:LYS:C	24:62:38:ILE:HG22	2.37	0.44
28:66:35:LEU:HD21	28:66:48:LEU:HB2	2.00	0.44
28:66:58:VAL:HG11	28:66:63:LYS:CB	2.42	0.44
28:66:87:LYS:CB	28:66:97:ILE:HD11	2.42	0.44
29:67:115:LYS:O	29:67:119:GLU:HG3	2.18	0.44
30:68:44:ASN:O	30:68:48:TYR:HB2	2.17	0.44
45:83:80:ARG:HH11	45:83:80:ARG:HG3	1.82	0.44
46:1S:2:A:H2'	49:S2:197:TYR:CD1	2.52	0.44
46:1S:121:U:H1'	51:S4:33:ALA:CB	2.48	0.44
46:1S:740:A:H2'	46:1S:741:C:C5'	2.47	0.44
46:1S:1269:U:H4'	46:1S:1270:G:H5'	2.00	0.44
46:1S:1656:U:O5'	46:1S:1656:U:H6	2.00	0.44
47:S0:155:PHE:HA	68:21:60:ARG:HB3	2.00	0.44
48:S1:86:LEU:HA	48:S1:99:ASN:O	2.18	0.44
49:S2:168:ARG:HG2	49:S2:170:ILE:CD1	2.47	0.44
52:S5:76:ARG:HG2	52:S5:76:ARG:HH21	1.83	0.44
53:S6:175:ILE:CB	53:S6:178:LEU:HD22	2.44	0.44
55:S8:25:ARG:HB2	55:S8:27:PHE:CE1	2.53	0.44
55:S8:153:GLU:HG2	55:S8:155:SER:H	1.82	0.44
58:11:38:ALA:HB3	58:11:42:PHE:O	2.18	0.44
62:15:87:PRO:HA	62:15:90:ILE:CG1	2.48	0.44
62:15:90:ILE:HA	62:15:107:ILE:HB	1.99	0.44
62:15:100:LYS:HB2	62:15:100:LYS:HE3	1.71	0.44
63:16:142:TYR:O	63:16:143:ARG:HB3	2.18	0.44
64:17:72:LYS:HB2	64:17:72:LYS:NZ	2.33	0.44
68:21:6:GLY:O	68:21:7:GLN:O	2.36	0.44
70:23:127:VAL:O	70:23:128:SER:HB2	2.18	0.44
71:24:56:SER:HG	71:24:58:PHE:HE1	1.66	0.44
79:RA:253:ALA:HA	79:RA:262:VAL:HA	2.00	0.44
1:2S:297:G:H4'	1:2S:299:G:H4'	1.99	0.44
1:2S:449:U:H3'	1:2S:449:U:H6	1.83	0.44
1:2S:915:A:C2'	1:2S:916:G:H5'	2.46	0.44
1:2S:1489:A:H2'	1:2S:1490:A:H8	1.83	0.44
1:2S:2266:U:H2'	1:2S:2267:C:C6	2.51	0.44
1:2S:2476:C:H2'	1:2S:2477:G:C4'	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2810:C:H4'	1:2S:2810:C:OP1	2.17	0.44
1:2S:2866:U:H4'	1:2S:2867:C:H5'	1.99	0.44
1:2S:2897:A:H4'	42:80:125:LYS:NZ	2.33	0.44
1:2S:2966:G:H8	1:2S:2966:G:O5'	2.00	0.44
2:8S:79:A:H2'	2:8S:80:A:C4'	2.43	0.44
3:5S:4:U:H2'	3:5S:5:G:H8	1.82	0.44
5:L2:28:LYS:HD2	5:L2:123:ARG:NH2	2.33	0.44
5:L2:147:ARG:HA	5:L2:157:VAL:HA	2.00	0.44
6:L3:229:VAL:HG11	6:L3:249:VAL:HG23	2.00	0.44
6:L3:307:PRO:HB3	6:L3:362:ALA:O	2.18	0.44
8:L5:194:LEU:HD23	8:L5:194:LEU:O	2.18	0.44
11:L8:130:TYR:CG	11:L8:204:ARG:HD2	2.53	0.44
19:57:26:PHE:CE2	19:57:121:GLN:HG3	2.52	0.44
19:57:112:LEU:HD11	19:57:152:GLU:HG2	2.00	0.44
20:58:36:LEU:HD13	20:58:45:ASN:OD1	2.18	0.44
24:62:96:VAL:HB	24:62:104:ARG:HG3	1.98	0.44
25:63:81:GLN:NE2	25:63:83:LYS:HB3	2.33	0.44
25:63:85:TRP:CE2	25:63:93:LEU:HG	2.53	0.44
30:68:94:ALA:CA	30:68:121:VAL:HG13	2.47	0.44
34:72:61:LYS:HA	34:72:64:LYS:HD2	2.00	0.44
35:73:18:ARG:HB3	35:73:23:ASN:CA	2.48	0.44
45:83:42:CYS:HB2	45:83:44:LYS:HD2	2.00	0.44
46:1S:91:G:H2'	46:1S:92:A:O4'	2.18	0.44
46:1S:698:U:H1'	54:S7:107:ARG:HD3	1.99	0.44
46:1S:845:G:C2'	46:1S:846:G:H5'	2.47	0.44
46:1S:1276:U:H4'	50:S3:147:ALA:HB2	2.00	0.44
46:1S:1362:U:H1'	46:1S:1363:U:O2	2.18	0.44
46:1S:1563:C:O2'	46:1S:1564:U:H5'	2.18	0.44
46:1S:1570:A:H3'	46:1S:1571:C:C6	2.53	0.44
46:1S:1755:A:C5'	70:23:63:GLN:HG3	2.48	0.44
49:S2:229:LEU:HD21	68:21:23:ILE:CD1	2.48	0.44
54:S7:23:ALA:HB1	54:S7:81:LEU:CD2	2.48	0.44
54:S7:46:ILE:HD11	54:S7:60:ILE:HG23	2.00	0.44
54:S7:111:LYS:HG3	54:S7:112:ARG:N	2.33	0.44
56:S9:93:LEU:O	56:S9:97:LEU:HG	2.18	0.44
56:S9:149:ARG:O	56:S9:150:LEU:HB3	2.18	0.44
60:13:70:LYS:H	60:13:73:ARG:HB2	1.82	0.44
62:15:40:ARG:HA	62:15:40:ARG:HE	1.83	0.44
62:15:72:LYS:HD3	62:15:93:VAL:CG2	2.48	0.44
65:18:41:ARG:NH1	66:19:38:LYS:HG3	2.32	0.44
66:19:34:VAL:HG22	66:19:35:ASP:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:RA:311:ARG:HG3	79:RA:311:ARG:NH1	2.33	0.44
1:2S:230:U:OP1	28:66:4:GLN:HG2	2.18	0.43
1:2S:895:A:H3'	1:2S:895:A:N3	2.33	0.43
1:2S:900:G:H2'	1:2S:901:G:O4'	2.18	0.43
1:2S:1114:U:OP1	30:68:22:ILE:HB	2.18	0.43
1:2S:1556:C:O2	1:2S:1556:C:O4'	2.35	0.43
1:2S:1705:U:C2'	1:2S:1706:C:H5'	2.48	0.43
1:2S:1969:G:H22	1:2S:2051:G:H1'	1.83	0.43
1:2S:2060:A:H2'	1:2S:2061:G:H5'	2.00	0.43
1:2S:2107:A:H2'	1:2S:2107:A:N3	2.33	0.43
1:2S:2272:G:N3	1:2S:2272:G:H5'	2.33	0.43
1:2S:2750:U:H4'	8:L5:35:ARG:NH2	2.33	0.43
1:2S:3239:G:H2'	1:2S:3240:C:O4'	2.18	0.43
1:2S:3281:U:H2'	1:2S:3282:U:O4'	2.17	0.43
2:8S:141:C:H5'	17:55:109:ARG:HD2	1.99	0.43
7:L4:52:VAL:HG13	7:L4:53:SER:H	1.81	0.43
7:L4:184:SER:HB2	7:L4:202:ARG:HG2	2.00	0.43
9:L6:105:TYR:CE1	9:L6:134:ARG:HD3	2.53	0.43
9:L6:164:SER:HB3	35:73:5:HIS:HA	2.00	0.43
11:L8:44:ARG:HB2	11:L8:46:LEU:HD21	2.00	0.43
11:L8:101:THR:OG1	11:L8:102:ALA:N	2.50	0.43
14:51:117:ASP:HA	14:51:118:PRO:HD2	1.92	0.43
15:53:67:ARG:CZ	15:53:68:LYS:CG	2.95	0.43
21:59:62:ARG:O	21:59:66:HIS:HB2	2.18	0.43
25:63:18:PRO:HA	25:63:51:ALA:HA	2.00	0.43
25:63:45:ARG:HG2	25:63:48:ARG:CD	2.47	0.43
35:73:59:VAL:CG2	35:73:60:ARG:H	2.22	0.43
46:1S:684:A:C2'	46:1S:685:A:H5'	2.48	0.43
46:1S:698:U:H2'	46:1S:699:U:C6	2.52	0.43
46:1S:934:C:N4	46:1S:1077:C:H4'	2.33	0.43
46:1S:1020:A:C3'	46:1S:1021:C:H5''	2.42	0.43
46:1S:1513:G:H2'	46:1S:1514:U:H5''	2.00	0.43
47:S0:74:VAL:HG23	47:S0:118:PRO:CB	2.47	0.43
48:S1:33:LYS:HE3	48:S1:95:ASN:OD1	2.18	0.43
48:S1:176:VAL:HA	48:S1:184:LEU:HD21	1.99	0.43
49:S2:35:TRP:CZ2	49:S2:67:GLN:HB2	2.52	0.43
50:S3:66:ILE:HD13	50:S3:69:LEU:CD1	2.48	0.43
50:S3:116:ARG:O	50:S3:120:TYR:CD2	2.71	0.43
52:S5:34:GLN:HG2	63:16:57:LEU:CD1	2.48	0.43
55:S8:43:ILE:HG13	55:S8:57:ALA:HA	1.99	0.43
55:S8:123:LYS:HA	55:S8:123:LYS:HD3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:123:HIS:HA	77:30:33:ARG:HD2	2.00	0.43
59:12:58:LEU:N	59:12:58:LEU:HD23	2.33	0.43
60:13:16:ILE:HA	60:13:17:PRO:HD3	1.88	0.43
60:13:23:PRO:O	60:13:24:ALA:CB	2.65	0.43
61:14:135:ARG:HB3	73:26:26:CYS:HB2	2.00	0.43
62:15:86:VAL:HG23	62:15:87:PRO:HD2	2.00	0.43
62:15:97:TYR:HA	62:15:101:ALA:O	2.18	0.43
63:16:137:ARG:HB3	63:16:138:PHE:H	1.42	0.43
64:17:21:TYR:CD1	64:17:73:LEU:HD13	2.53	0.43
67:20:57:ARG:HG3	67:20:89:ARG:CZ	2.47	0.43
69:22:89:TRP:CE3	69:22:92:ASN:ND2	2.86	0.43
70:23:66:SER:O	70:23:67:ALA:HB2	2.18	0.43
70:23:104:LEU:HD22	70:23:124:VAL:HA	1.99	0.43
71:24:39:GLU:HG2	71:24:43:LYS:HE2	1.99	0.43
75:28:13:ILE:HG13	75:28:14:LYS:N	2.32	0.43
79:RA:205:SER:HB3	79:RA:245:PHE:CD1	2.53	0.43
79:RA:295:SER:HB2	79:RA:300:THR:O	2.18	0.43
1:2S:30:G:OP2	17:55:187:ARG:HB2	2.18	0.43
1:2S:1498:A:H2'	1:2S:1499:C:H6	1.82	0.43
1:2S:1506:A:H1'	1:2S:1848:G:C6	2.53	0.43
1:2S:1790:G:O2'	1:2S:1791:C:H5'	2.18	0.43
1:2S:2356:A:H5'	19:57:138:LYS:NZ	2.33	0.43
1:2S:2844:C:H42	1:2S:2898:G:N2	2.16	0.43
1:2S:2853:A:H5'	13:50:63:GLU:HB2	1.99	0.43
1:2S:2998:U:H2'	1:2S:2999:U:C6	2.52	0.43
1:2S:3307:A:H8	1:2S:3307:A:OP1	2.01	0.43
3:5S:106:U:H2'	3:5S:107:C:C6	2.52	0.43
4:L1:104:SER:O	4:L1:128:LEU:CD2	2.66	0.43
5:L2:202:VAL:O	5:L2:202:VAL:CG1	2.66	0.43
6:L3:161:LEU:HA	6:L3:179:ALA:O	2.18	0.43
11:L8:152:LEU:HB3	11:L8:198:ALA:HB3	2.00	0.43
12:L9:157:ASN:O	12:L9:160:ASP:HB3	2.18	0.43
17:55:67:ARG:HA	17:55:126:THR:O	2.18	0.43
20:58:85:GLY:HA2	20:58:104:LEU:HD12	2.01	0.43
22:60:92:LYS:O	22:60:93:GLU:HG3	2.19	0.43
25:63:55:GLY:H	25:63:78:VAL:HB	1.83	0.43
30:68:101:VAL:HA	30:68:124:ILE:HB	2.00	0.43
39:77:39:TYR:HD2	39:77:39:TYR:HA	1.69	0.43
46:1S:215:A:H1'	46:1S:242:U:C4	2.54	0.43
46:1S:307:G:C5'	58:11:92:HIS:NE2	2.81	0.43
46:1S:426:G:N2	46:1S:459:G:O2'	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:451:A:H3'	46:1S:453:U:H5	1.83	0.43
46:1S:1196:A:H4'	46:1S:1197:C:H5''	2.00	0.43
46:1S:1291:G:H2'	46:1S:1292:G:C8	2.52	0.43
46:1S:1585:U:H3	46:1S:1611:A:H2	1.66	0.43
46:1S:1604:U:H5'	67:20:79:TRP:CD1	2.53	0.43
50:S3:168:ILE:HG22	50:S3:189:MET:CA	2.47	0.43
50:S3:175:VAL:O	50:S3:181:VAL:HA	2.18	0.43
51:S4:122:LYS:HE3	51:S4:122:LYS:HB2	1.84	0.43
53:S6:67:VAL:O	53:S6:68:LEU:HB2	2.18	0.43
56:S9:43:TYR:O	56:S9:47:PHE:HB2	2.18	0.43
66:19:65:ILE:HG12	66:19:71:VAL:CG2	2.48	0.43
67:20:22:ILE:HG22	67:20:93:LEU:O	2.18	0.43
69:22:125:ILE:HG12	69:22:126:LEU:H	1.83	0.43
73:26:79:ILE:HA	73:26:84:VAL:HG11	2.00	0.43
77:30:39:LEU:HA	77:30:42:ARG:HH12	1.82	0.43
79:RA:23:LEU:HD23	79:RA:35:SER:HB3	2.00	0.43
79:RA:136:ILE:H	79:RA:136:ILE:CD1	2.11	0.43
1:2S:551:A:HO2'	1:2S:552:G:H8	1.66	0.43
1:2S:621:A:H8	1:2S:623:U:O4	2.01	0.43
1:2S:671:U:H4'	20:58:20:LYS:CD	2.35	0.43
1:2S:937:G:H4'	1:2S:963:G:H4'	2.01	0.43
1:2S:942:U:C6	30:68:15:VAL:CG1	3.01	0.43
1:2S:1010:G:H4'	13:50:40:LYS:HE2	2.00	0.43
1:2S:1448:U:H2'	1:2S:1449:A:H8	1.83	0.43
1:2S:1654:A:H2'	1:2S:1655:G:O4'	2.18	0.43
1:2S:1705:U:H2'	1:2S:1706:C:H5'	2.00	0.43
1:2S:1922:A:H2'	1:2S:1923:C:O4'	2.19	0.43
2:8S:118:C:H2'	2:8S:119:C:C6	2.53	0.43
3:5S:35:C:H2'	3:5S:36:C:O4'	2.19	0.43
4:L1:67:ILE:CG1	4:L1:68:PHE:N	2.81	0.43
4:L1:93:LEU:CD1	4:L1:119:GLN:HE21	2.31	0.43
6:L3:92:TYR:HD2	6:L3:99:LEU:HB3	1.82	0.43
7:L4:239:ALA:HB1	7:L4:243:HIS:O	2.18	0.43
9:L6:54:TYR:CE2	9:L6:63:LEU:HB3	2.54	0.43
12:L9:87:LYS:HG3	12:L9:145:VAL:CG1	2.48	0.43
13:50:18:PRO:HA	13:50:94:PHE:O	2.18	0.43
13:50:48:LEU:HD22	13:50:49:CYS:N	2.34	0.43
17:55:146:ALA:HB2	37:75:99:GLN:O	2.17	0.43
22:60:75:PHE:O	22:60:93:GLU:HA	2.17	0.43
28:66:111:LEU:HD23	28:66:119:ILE:HD11	1.98	0.43
28:66:112:ASP:H	28:66:115:ARG:CB	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:71:18:LYS:HG3	33:71:19:ARG:NH1	2.34	0.43
37:75:75:TYR:O	37:75:76:GLN:HB3	2.18	0.43
46:1S:32:U:O2'	46:1S:33:U:H5'	2.18	0.43
46:1S:393:C:H2'	46:1S:394:C:C6	2.53	0.43
46:1S:487:G:C3'	46:1S:488:G:H5''	2.48	0.43
46:1S:533:U:H4'	71:24:33:ALA:HB2	1.99	0.43
46:1S:886:U:O2'	61:14:122:PRO:HA	2.18	0.43
46:1S:967:A:H2'	46:1S:968:U:C6	2.53	0.43
46:1S:1762:A:H1'	46:1S:1783:C:H5'	2.00	0.43
48:S1:48:VAL:HG12	48:S1:49:ASN:N	2.25	0.43
50:S3:202:LEU:HA	50:S3:203:PRO:HD3	1.79	0.43
51:S4:63:ALA:C	51:S4:67:GLN:HE21	2.20	0.43
52:S5:175:LEU:HD22	52:S5:197:GLU:CG	2.43	0.43
60:13:102:LEU:HD21	60:13:111:ALA:CB	2.47	0.43
61:14:39:ILE:O	61:14:40:ALA:CB	2.66	0.43
62:15:126:VAL:CG1	62:15:127:ARG:N	2.81	0.43
72:25:96:SER:O	72:25:97:LYS:CG	2.62	0.43
77:30:30:PRO:HB2	77:30:34:ALA:CB	2.48	0.43
1:2S:98:G:C4'	1:2S:281:G:H5'	2.48	0.43
1:2S:109:A:H4'	1:2S:110:G:H5'	1.99	0.43
1:2S:284:A:H4'	1:2S:285:A:N3	2.33	0.43
1:2S:296:A:H3'	1:2S:297:G:N2	2.28	0.43
1:2S:817:A:C6	39:77:14:LYS:HA	2.54	0.43
1:2S:863:C:H2'	1:2S:864:G:O4'	2.18	0.43
1:2S:1340:G:H2'	1:2S:1341:U:H6	1.78	0.43
1:2S:1430:U:H2'	30:68:9:ARG:NH2	2.31	0.43
1:2S:1479:U:C5	1:2S:1480:G:C6	3.06	0.43
1:2S:1523:U:O2'	1:2S:1524:A:H5'	2.19	0.43
1:2S:2273:G:N2	1:2S:2311:G:H2'	2.32	0.43
1:2S:2291:A:H2'	1:2S:2292:U:O4'	2.18	0.43
1:2S:2660:G:H5'	1:2S:2750:U:O2'	2.18	0.43
1:2S:2939:G:H2'	1:2S:2940:A:O4'	2.18	0.43
4:L1:186:SER:O	4:L1:190:PHE:HB2	2.19	0.43
13:50:185:ARG:HA	13:50:190:VAL:HG21	2.00	0.43
17:55:35:VAL:CG2	17:55:65:ARG:HH21	2.17	0.43
19:57:10:ASN:HA	19:57:11:PRO:HD2	1.85	0.43
19:57:108:ASP:CB	19:57:111:LYS:HE2	2.47	0.43
22:60:38:LYS:HB2	22:60:38:LYS:HE3	1.81	0.43
23:61:43:LYS:HG3	23:61:58:GLN:HE22	1.82	0.43
26:64:45:ASN:CB	26:64:48:ARG:HG3	2.47	0.43
40:78:43:PHE:O	40:78:53:THR:HA	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:82:9:LYS:HA	44:82:21:THR:O	2.19	0.43
46:1S:291:G:H2'	46:1S:292:U:C5	2.52	0.43
46:1S:433:C:H2'	46:1S:434:G:O4'	2.18	0.43
46:1S:449:C:OP1	51:S4:81:THR:HG21	2.18	0.43
46:1S:790:U:H2'	46:1S:791:A:C8	2.54	0.43
46:1S:1524:A:C2	46:1S:1525:A:C5	3.07	0.43
47:S0:143:VAL:HG12	47:S0:144:ILE:N	2.33	0.43
47:S0:163:ASN:C	47:S0:165:ARG:H	2.21	0.43
50:S3:94:ARG:HG2	50:S3:94:ARG:HH11	1.83	0.43
60:13:16:ILE:HG13	60:13:17:PRO:HD2	1.98	0.43
60:13:140:LYS:CG	60:13:141:TYR:H	2.24	0.43
63:16:89:LEU:HG	63:16:93:HIS:CD2	2.53	0.43
66:19:106:GLN:O	66:19:110:LYS:HE3	2.19	0.43
73:26:12:LYS:HA	73:26:15:ARG:HH21	1.83	0.43
74:27:36:LYS:HG2	74:27:43:ILE:HG22	2.00	0.43
75:28:33:LEU:HD22	75:28:33:LEU:H	1.83	0.43
1:2S:286:U:H2'	1:2S:287:G:H8	1.83	0.43
1:2S:523:A:H4'	22:60:67:ALA:O	2.18	0.43
1:2S:827:A:H5''	36:74:14:ASN:O	2.18	0.43
1:2S:1788:C:H2'	1:2S:1789:G:C8	2.53	0.43
1:2S:2148:U:O3'	1:2S:2149:A:H8	2.00	0.43
1:2S:2243:A:C2'	5:L2:244:GLY:HA2	2.48	0.43
1:2S:2451:G:H1	1:2S:2495:C:H42	1.66	0.43
1:2S:2471:U:H2'	1:2S:2472:U:H5'	2.01	0.43
1:2S:2587:U:H2'	1:2S:2588:U:C6	2.54	0.43
1:2S:2665:U:O4	1:2S:2703:A:H4'	2.19	0.43
1:2S:3017:A:H2'	1:2S:3018:C:H6	1.81	0.43
2:8S:145:U:H2'	2:8S:146:U:C6	2.53	0.43
5:L2:189:TYR:HA	5:L2:192:LYS:HD2	2.00	0.43
6:L3:373:PRO:O	6:L3:377:HIS:HB2	2.19	0.43
9:L6:11:PRO:HD2	34:72:92:TYR:OH	2.19	0.43
9:L6:60:ASP:O	9:L6:61:ASN:HB2	2.18	0.43
10:L7:157:ASN:O	10:L7:158:LYS:HB3	2.18	0.43
11:L8:78:PHE:C	11:L8:80:TYR:N	2.72	0.43
12:L9:67:ALA:HA	12:L9:70:THR:HG22	2.00	0.43
12:L9:88:TYR:OH	12:L9:151:VAL:HG13	2.18	0.43
12:L9:92:TYR:N	12:L9:92:TYR:CD1	2.86	0.43
15:53:57:VAL:CG1	15:53:69:VAL:HG22	2.43	0.43
16:54:53:VAL:HA	16:54:54:PRO:HD3	1.85	0.43
17:55:58:GLY:HA3	17:55:142:ILE:CD1	2.42	0.43
22:60:87:THR:HB	23:61:156:TYR:CD1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:62:20:SER:HB3	24:62:61:THR:HB	2.00	0.43
27:65:120:LYS:HG2	27:65:121:LYS:N	2.33	0.43
29:67:33:SER:HB3	29:67:36:HIS:O	2.18	0.43
32:70:84:LEU:N	32:70:84:LEU:HD12	2.33	0.43
38:76:91:ASN:OD1	38:76:94:ILE:HD12	2.18	0.43
38:76:95:ALA:C	38:76:97:SER:H	2.22	0.43
39:77:21:ARG:HB2	39:77:39:TYR:CZ	2.53	0.43
40:78:40:GLN:HG2	40:78:41:THR:N	2.33	0.43
46:1S:380:U:C4	56:S9:5:PRO:HA	2.53	0.43
46:1S:460:A:H2'	46:1S:460:A:N3	2.34	0.43
46:1S:460:A:H5'	46:1S:461:G:OP2	2.19	0.43
46:1S:499:U:H3'	46:1S:499:U:H6	1.83	0.43
46:1S:1113:A:H8	46:1S:1113:A:OP1	2.01	0.43
46:1S:1286:U:O5'	46:1S:1286:U:H6	2.00	0.43
46:1S:1760:G:O2'	46:1S:1761:U:H5'	2.19	0.43
49:S2:154:LEU:N	49:S2:154:LEU:HD12	2.33	0.43
50:S3:94:ARG:HG2	50:S3:94:ARG:NH1	2.34	0.43
51:S4:19:LEU:HD11	51:S4:108:ARG:CD	2.45	0.43
53:S6:162:VAL:HG12	53:S6:169:TYR:O	2.19	0.43
56:S9:108:ARG:HG2	56:S9:147:MET:CE	2.49	0.43
58:11:2:SER:HB2	58:11:82:ARG:N	2.34	0.43
58:11:80:MET:HE1	58:11:84:ILE:HA	2.01	0.43
59:12:71:ILE:HG23	59:12:72:ILE:H	1.83	0.43
60:13:87:ASP:O	60:13:91:LEU:HG	2.18	0.43
64:17:117:LEU:O	64:17:117:LEU:HD13	2.17	0.43
65:18:11:PHE:HE1	72:25:41:ILE:HB	1.83	0.43
65:18:63:GLN:O	65:18:67:GLU:HG3	2.18	0.43
66:19:4:VAL:HG22	66:19:5:SER:N	2.33	0.43
76:29:21:CYS:HB3	76:29:26:SER:H	1.83	0.43
79:RA:135:THR:CG2	79:RA:141:LEU:HD21	2.47	0.43
1:2S:103:G:H4'	15:53:65:TYR:CD2	2.54	0.43
1:2S:107:A:O2'	1:2S:325:A:N3	2.51	0.43
1:2S:169:U:H6	1:2S:169:U:H5''	1.83	0.43
1:2S:214:G:H4'	28:66:10:SER:O	2.19	0.43
1:2S:530:G:O2'	1:2S:531:G:H5'	2.19	0.43
1:2S:603:A:H2'	1:2S:604:G:C4'	2.49	0.43
1:2S:741:U:C2	1:2S:742:G:H1'	2.53	0.43
1:2S:917:A:H3'	1:2S:918:C:C6	2.54	0.43
1:2S:1359:C:O2'	1:2S:1360:C:H5'	2.18	0.43
1:2S:1593:A:H4'	36:74:61:GLN:NE2	2.32	0.43
1:2S:1709:C:H5''	29:67:15:ARG:HH22	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2140:U:C2'	1:2S:2141:U:H5'	2.48	0.43
1:2S:2376:G:H2'	1:2S:2377:G:N7	2.28	0.43
1:2S:2378:C:H2'	1:2S:2379:U:H6	1.82	0.43
1:2S:2378:C:C2	1:2S:2379:U:C5	3.07	0.43
1:2S:2383:C:N4	18:56:91:LYS:HG2	2.33	0.43
1:2S:2491:A:O2'	4:L1:39:LYS:HD3	2.17	0.43
1:2S:2538:U:H3'	1:2S:2539:C:H6	1.83	0.43
1:2S:2584:G:H1'	11:L8:240:ASN:HD21	1.83	0.43
1:2S:3185:U:C5'	12:L9:23:ARG:HH12	2.31	0.43
2:8S:66:A:H2'	2:8S:67:U:C6	2.54	0.43
3:5S:4:U:H2'	3:5S:5:G:C8	2.53	0.43
4:L1:136:THR:H	4:L1:137:PRO:HD2	1.83	0.43
6:L3:93:VAL:HG22	6:L3:94:GLU:N	2.33	0.43
6:L3:164:THR:HG22	6:L3:165:GLN:N	2.34	0.43
7:L4:321:LYS:O	7:L4:325:LEU:HG	2.18	0.43
8:L5:6:ASP:HB3	8:L5:7:ALA:H	1.59	0.43
8:L5:58:LYS:HA	8:L5:58:LYS:HD3	1.71	0.43
10:L7:203:TRP:CG	10:L7:204:PRO:HD2	2.53	0.43
11:L8:24:ASN:HB3	11:L8:25:PRO:CD	2.49	0.43
20:58:147:ARG:HG2	20:58:148:GLU:N	2.34	0.43
22:60:146:LYS:HA	22:60:146:LYS:HD2	1.83	0.43
23:61:108:ARG:HG2	23:61:108:ARG:HH21	1.84	0.43
28:66:45:ILE:CD1	28:66:48:LEU:HD11	2.48	0.43
29:67:123:GLN:O	29:67:124:ALA:CB	2.67	0.43
34:72:21:HIS:HB3	34:72:24:ARG:HB3	2.01	0.43
35:73:91:ALA:C	35:73:93:THR:H	2.20	0.43
36:74:58:ARG:HB3	36:74:61:GLN:CG	2.47	0.43
40:78:46:ARG:CD	40:78:51:LEU:HD13	2.35	0.43
46:1S:398:G:H2'	46:1S:399:A:H5''	2.01	0.43
46:1S:528:U:H2'	46:1S:529:A:O4'	2.18	0.43
46:1S:707:A:H3'	46:1S:708:C:H5''	2.00	0.43
46:1S:1095:U:H6	46:1S:1095:U:O5'	2.02	0.43
46:1S:1192:C:H2'	46:1S:1193:A:N7	2.34	0.43
47:S0:111:ILE:O	47:S0:111:ILE:HG13	2.18	0.43
48:S1:61:LEU:HB2	48:S1:62:LYS:H	1.63	0.43
48:S1:146:GLN:HG3	48:S1:147:ALA:N	2.33	0.43
48:S1:146:GLN:HE21	48:S1:146:GLN:HB2	1.58	0.43
49:S2:159:THR:HG23	49:S2:167:VAL:O	2.18	0.43
50:S3:76:ARG:C	50:S3:76:ARG:CD	2.87	0.43
50:S3:162:GLN:HA	50:S3:165:ASN:HD22	1.84	0.43
50:S3:216:PRO:C	50:S3:217:ILE:HD12	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S4:179:LYS:HG2	51:S4:230:GLU:OE2	2.18	0.43
52:S5:41:LYS:HE3	52:S5:67:PRO:HB2	2.00	0.43
52:S5:124:LEU:N	52:S5:124:LEU:HD12	2.34	0.43
56:S9:20:GLU:OE2	56:S9:23:ARG:HB2	2.19	0.43
56:S9:159:ALA:HA	56:S9:160:PRO:HD3	1.85	0.43
58:11:155:LYS:H	58:11:155:LYS:CD	2.24	0.43
61:14:128:LYS:HB2	73:26:22:ARG:CZ	2.49	0.43
63:16:97:VAL:HG12	63:16:98:ASP:N	2.33	0.43
67:20:63:LEU:O	76:29:52:PHE:HE1	2.02	0.43
68:21:9:VAL:HG22	68:21:10:GLU:N	2.34	0.43
1:2S:59:G:H4'	1:2S:60:A:OP1	2.18	0.43
1:2S:174:C:O5'	1:2S:174:C:H6	2.01	0.43
1:2S:660:A:H4'	7:L4:100:PHE:CD2	2.54	0.43
1:2S:1132:C:H2'	1:2S:1133:A:C8	2.52	0.43
1:2S:1306:G:O3'	18:56:60:LYS:HG2	2.18	0.43
1:2S:1312:C:O2'	18:56:83:ALA:O	2.37	0.43
1:2S:1841:A:O2'	1:2S:1842:A:H5''	2.19	0.43
1:2S:1863:G:O5'	1:2S:1863:G:H8	2.02	0.43
1:2S:2538:U:H5''	1:2S:2539:C:C5	2.54	0.43
1:2S:2649:A:O2'	1:2S:2650:U:H5'	2.18	0.43
2:8S:42:G:H5''	39:77:61:THR:OG1	2.19	0.43
2:8S:155:A:H5'	11:L8:185:ARG:NH1	2.34	0.43
3:5S:9:C:H2'	3:5S:10:C:H5'	2.01	0.43
7:L4:106:TRP:CZ3	15:53:22:VAL:HG21	2.53	0.43
8:L5:181:PRO:HG2	8:L5:195:LEU:HD12	2.00	0.43
10:L7:37:ASN:O	10:L7:41:ARG:HG3	2.18	0.43
12:L9:92:TYR:HB3	12:L9:99:ILE:CD1	2.48	0.43
15:53:128:ARG:NH2	37:75:112:PRO:HD2	2.33	0.43
17:55:73:ARG:HB2	17:55:92:LEU:CD2	2.48	0.43
20:58:43:PRO:O	20:58:47:VAL:HG23	2.18	0.43
25:63:33:ASN:H	25:63:33:ASN:ND2	2.14	0.43
35:73:59:VAL:HG21	35:73:65:ARG:HD3	2.00	0.43
45:83:84:ARG:HD2	45:83:87:ARG:HH21	1.83	0.43
46:1S:53:G:H2'	46:1S:54:C:C6	2.54	0.43
46:1S:387:A:H1'	46:1S:425:A:H2	1.84	0.43
46:1S:448:C:H5'	51:S4:29:PRO:CG	2.40	0.43
46:1S:645:C:H2'	46:1S:646:C:C6	2.54	0.43
46:1S:971:A:H3'	46:1S:972:G:H8	1.83	0.43
46:1S:1316:G:C4'	64:17:10:LYS:HE3	2.47	0.43
46:1S:1389:C:H4'	64:17:49:LYS:HA	2.01	0.43
46:1S:1529:C:H2'	46:1S:1530:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S4:95:THR:O	51:S4:96:ASN:HB2	2.18	0.43
51:S4:102:VAL:HG22	51:S4:103:TYR:H	1.84	0.43
52:S5:156:ARG:HD3	52:S5:156:ARG:C	2.39	0.43
54:S7:155:ASP:O	54:S7:186:PRO:HD2	2.19	0.43
55:S8:193:LEU:O	55:S8:197:THR:HG23	2.19	0.43
56:S9:53:ARG:HG2	56:S9:53:ARG:NH2	2.33	0.43
60:13:33:VAL:HG21	60:13:66:ILE:HG12	2.00	0.43
62:15:98:ASN:HB2	62:15:122:THR:HG22	2.01	0.43
62:15:126:VAL:CG1	62:15:127:ARG:H	2.31	0.43
63:16:52:LEU:HD22	63:16:60:PHE:CE2	2.53	0.43
64:17:85:VAL:O	64:17:85:VAL:HG12	2.19	0.43
65:18:94:ASP:HB2	65:18:96:LYS:HE2	2.00	0.43
1:2S:174:C:H2'	1:2S:175:C:C6	2.54	0.43
1:2S:215:G:C4'	28:66:15:ALA:CB	2.97	0.43
1:2S:272:G:H2'	1:2S:273:A:H8	1.84	0.43
1:2S:583:G:H4'	35:73:106:ASN:OD1	2.18	0.43
1:2S:612:U:H2'	1:2S:613:G:C8	2.53	0.43
1:2S:850:U:H2'	1:2S:851:C:C6	2.54	0.43
1:2S:867:G:H2'	1:2S:868:C:C6	2.53	0.43
1:2S:882:A:N3	1:2S:882:A:H2'	2.34	0.43
1:2S:1063:G:H2'	1:2S:1097:G:C2	2.54	0.43
1:2S:1231:A:HO2'	1:2S:1261:G:H1'	1.83	0.43
1:2S:1676:A:H5''	24:62:101:ASN:HD21	1.84	0.43
1:2S:1932:A:C2'	1:2S:1933:A:H5'	2.48	0.43
1:2S:2154:U:H4'	5:L2:240:ALA:CB	2.48	0.43
1:2S:2411:U:H2'	1:2S:2412:G:O4'	2.19	0.43
1:2S:2736:A:H4'	23:61:71:SER:HG	1.81	0.43
1:2S:3088:G:H5'	6:L3:313:HIS:HE1	1.81	0.43
4:L1:93:LEU:HD21	4:L1:118:LYS:HG3	1.99	0.43
6:L3:87:VAL:HG22	6:L3:162:VAL:HA	2.01	0.43
6:L3:220:VAL:HG22	6:L3:274:SER:OG	2.19	0.43
7:L4:237:GLN:HA	7:L4:240:PRO:HG3	2.00	0.43
9:L6:78:ARG:O	9:L6:79:VAL:CG2	2.67	0.43
9:L6:175:LYS:HD3	16:54:111:ALA:HA	2.00	0.43
15:53:91:ARG:HG3	15:53:91:ARG:NH1	2.34	0.43
15:53:158:ALA:CA	30:68:97:GLU:HA	2.37	0.43
15:53:180:ARG:HG2	15:53:180:ARG:HH11	1.83	0.43
19:57:14:SER:HB3	19:57:149:VAL:HG11	2.00	0.43
19:57:50:GLN:O	19:57:55:GLN:HB2	2.19	0.43
19:57:57:ALA:CB	19:57:81:ALA:HB1	2.48	0.43
28:66:48:LEU:HA	28:66:49:PRO:HD3	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:66:51:ARG:HH21	28:66:53:ASP:H	1.66	0.43
38:76:23:ALA:HB1	38:76:24:PRO:HD2	1.99	0.43
41:79:47:THR:CG2	41:79:48:LYS:N	2.82	0.43
46:1S:67:A:H2'	46:1S:69:G:O4'	2.19	0.43
46:1S:376:C:C2'	46:1S:377:G:H5'	2.49	0.43
46:1S:398:G:H21	51:S4:5:PRO:HD2	1.84	0.43
46:1S:628:G:H22	46:1S:970:A:H5''	1.84	0.43
46:1S:1161:C:O2'	46:1S:1162:C:H5'	2.18	0.43
46:1S:1185:U:C4	46:1S:1458:G:H1'	2.53	0.43
46:1S:1528:U:H2'	46:1S:1529:C:C6	2.53	0.43
46:1S:1657:U:H4'	46:1S:1658:G:O5'	2.18	0.43
48:S1:171:ILE:O	48:S1:171:ILE:HG22	2.18	0.43
50:S3:167:PHE:HE1	50:S3:192:PRO:HA	1.80	0.43
56:S9:34:PHE:CD2	56:S9:105:LEU:HD23	2.54	0.43
58:11:66:ILE:HG23	58:11:127:GLN:C	2.39	0.43
65:18:74:GLN:HE21	65:18:74:GLN:HB3	1.52	0.43
71:24:19:ALA:HB1	71:24:77:ASN:HD22	1.82	0.43
73:26:41:ILE:HG22	73:26:68:TYR:HD1	1.84	0.43
73:26:78:ALA:HA	73:26:82:ARG:CB	2.44	0.43
78:31:123:ASN:H	78:31:126:CYS:HB2	1.84	0.43
1:2S:211:A:H3'	7:L4:221:ASN:HD21	1.83	0.43
1:2S:571:U:H2'	1:2S:572:A:H8	1.83	0.43
1:2S:706:A:C2'	1:2S:707:U:H5'	2.49	0.43
1:2S:860:G:H5'	45:83:17:ARG:HH12	1.84	0.43
1:2S:915:A:C5	1:2S:917:A:H1'	2.53	0.43
1:2S:1301:A:H4'	1:2S:1302:A:H5''	2.01	0.43
1:2S:1421:G:H2'	1:2S:1422:G:C8	2.53	0.43
1:2S:1880:U:H2'	1:2S:1881:A:C8	2.54	0.43
1:2S:1977:C:H2'	1:2S:1978:A:C8	2.53	0.43
1:2S:2634:U:H2'	1:2S:2635:A:C8	2.54	0.43
1:2S:2957:G:H2'	1:2S:2958:A:C5'	2.49	0.43
1:2S:3128:G:OP2	1:2S:3128:G:C8	2.67	0.43
2:8S:37:A:H2'	2:8S:37:A:N3	2.33	0.43
4:L1:183:ILE:O	4:L1:183:ILE:HG12	2.19	0.43
5:L2:96:LEU:HD22	45:83:87:ARG:HB2	2.00	0.43
5:L2:101:VAL:C	5:L2:102:LEU:HD12	2.39	0.43
6:L3:232:ARG:HH11	6:L3:268:GLY:CA	2.30	0.43
7:L4:92:ASN:C	7:L4:94:CYS:H	2.22	0.43
13:50:79:VAL:HG12	13:50:147:VAL:HG21	2.00	0.43
17:55:162:ARG:HH21	17:55:164:LEU:HD11	1.84	0.43
21:59:67:ALA:O	21:59:71:ARG:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:60:26:ARG:HG2	22:60:27:MET:N	2.34	0.43
32:70:22:LYS:CB	32:70:94:GLU:HB2	2.49	0.43
33:71:12:TYR:HD2	33:71:75:ILE:HD12	1.83	0.43
36:74:24:LYS:HD2	36:74:24:LYS:HA	1.91	0.43
36:74:95:ILE:N	36:74:95:ILE:CD1	2.81	0.43
38:76:9:ILE:HB	38:76:10:GLY:H	1.62	0.43
40:78:29:LYS:HE2	40:78:37:PRO:CB	2.49	0.43
44:82:38:GLN:HA	44:82:41:ARG:HE	1.83	0.43
44:82:58:PHE:HE1	44:82:60:LYS:O	2.01	0.43
46:1S:514:G:H1	46:1S:543:C:H41	1.67	0.43
46:1S:882:U:H2'	46:1S:883:C:H6	1.82	0.43
46:1S:1524:A:OP1	66:19:79:LEU:HA	2.18	0.43
50:S3:132:LYS:HA	50:S3:132:LYS:HD2	1.67	0.43
50:S3:217:ILE:HG22	50:S3:218:LEU:H	1.83	0.43
53:S6:77:LEU:CD1	53:S6:95:LYS:HD3	2.49	0.43
53:S6:163:THR:CG2	53:S6:168:THR:HG22	2.22	0.43
54:S7:46:ILE:HD13	54:S7:60:ILE:HA	2.00	0.43
54:S7:56:LYS:HB2	54:S7:88:ARG:CD	2.44	0.43
56:S9:126:ARG:HG3	77:30:33:ARG:HD3	2.00	0.43
60:13:139:TRP:O	60:13:140:LYS:HE2	2.19	0.43
61:14:105:LEU:HD12	61:14:106:ALA:N	2.34	0.43
63:16:89:LEU:O	63:16:93:HIS:CD2	2.72	0.43
66:19:18:TYR:O	66:19:22:LEU:HD23	2.19	0.43
66:19:83:ALA:HA	66:19:92:LYS:O	2.19	0.43
67:20:67:THR:HG22	67:20:68:ARG:H	1.82	0.43
69:22:41:MET:HA	69:22:46:TYR:HD2	1.83	0.43
69:22:94:LEU:HA	69:22:95:PRO:HD3	1.63	0.43
72:25:41:ILE:HG13	72:25:42:LEU:N	2.34	0.43
73:26:60:PRO:O	73:26:61:GLU:CG	2.51	0.43
79:RA:71:CYS:HA	79:RA:81:LEU:O	2.18	0.43
1:2S:242:C:O2'	1:2S:243:G:H8	2.02	0.43
1:2S:392:G:H2'	1:2S:393:U:H5'	2.01	0.43
1:2S:517:G:O2'	1:2S:518:G:H5'	2.19	0.43
1:2S:677:A:C8	1:2S:785:G:C6	3.07	0.43
1:2S:956:U:H2'	1:2S:957:C:H6	1.83	0.43
1:2S:1541:G:H1'	1:2S:1557:A:C5	2.54	0.43
1:2S:1841:A:C3'	1:2S:1842:A:H5''	2.48	0.43
1:2S:1889:G:OP1	6:L3:245:GLY:HA2	2.19	0.43
1:2S:1935:G:H2'	1:2S:1936:A:H8	1.83	0.43
1:2S:2143:A:O2'	1:2S:2144:A:H2'	2.18	0.43
1:2S:2491:A:O4'	4:L1:207:LYS:HE3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2991:A:H5''	6:L3:21:ARG:NH2	2.34	0.43
1:2S:3228:C:H4'	1:2S:3229:G:O5'	2.19	0.43
6:L3:84:VAL:HG11	6:L3:162:VAL:HG23	2.00	0.43
6:L3:209:PHE:HE1	6:L3:340:LYS:HG3	1.84	0.43
7:L4:222:VAL:HA	7:L4:223:PRO:HD3	1.73	0.43
9:L6:82:ARG:HD3	9:L6:82:ARG:HA	1.82	0.43
10:L7:63:ILE:CG2	10:L7:67:ARG:NH2	2.82	0.43
10:L7:236:ILE:HD12	10:L7:239:LEU:CD1	2.44	0.43
13:50:139:ARG:HE	13:50:172:GLY:HA3	1.84	0.43
17:55:66:VAL:O	17:55:127:TYR:HA	2.18	0.43
18:56:6:VAL:HG22	18:56:32:LYS:HB2	2.01	0.43
18:56:84:LEU:O	18:56:87:MET:HG3	2.18	0.43
19:57:137:ASN:HB3	19:57:138:LYS:H	1.67	0.43
19:57:168:LEU:HD22	19:57:173:ARG:HG2	2.00	0.43
20:58:122:ILE:HD12	20:58:122:ILE:N	2.34	0.43
22:60:5:LYS:CA	22:60:100:VAL:HG21	2.49	0.43
27:65:142:ILE:C	27:65:142:ILE:HD13	2.39	0.43
29:67:4:PHE:CZ	32:70:35:ARG:HG2	2.54	0.43
30:68:149:ALA:HB3	38:76:15:LYS:HD3	2.01	0.43
34:72:103:LYS:O	34:72:107:VAL:HG23	2.18	0.43
35:73:37:THR:HB	35:73:38:PRO:HD2	2.00	0.43
37:75:88:LEU:HA	37:75:91:ALA:CB	2.49	0.43
40:78:64:LYS:HA	40:78:64:LYS:CE	2.39	0.43
46:1S:104:A:OP2	46:1S:308:C:N4	2.52	0.43
46:1S:252:U:H2'	46:1S:253:A:C8	2.52	0.43
46:1S:380:U:H1'	56:S9:3:ARG:H	1.83	0.43
46:1S:611:U:H2'	46:1S:612:U:O4'	2.19	0.43
46:1S:753:A:H2'	46:1S:754:A:C1'	2.49	0.43
50:S3:16:VAL:HG11	76:29:22:ARG:HH11	1.83	0.43
50:S3:70:THR:HA	50:S3:84:ILE:HD12	2.01	0.43
51:S4:9:LEU:HD23	51:S4:10:LYS:O	2.18	0.43
53:S6:161:GLU:HG2	53:S6:170:THR:HB	2.01	0.43
54:S7:102:PRO:HB3	54:S7:106:SER:OG	2.19	0.43
58:11:91:LEU:HB3	58:11:100:TYR:HB3	2.00	0.43
62:15:86:VAL:O	62:15:89:MET:HG2	2.18	0.43
67:20:71:PRO:HB3	76:29:41:GLN:HG2	2.00	0.43
68:21:81:ASN:O	68:21:82:VAL:HB	2.19	0.43
69:22:80:ASN:HA	69:22:123:GLY:O	2.18	0.43
1:2S:422:A:H3'	1:2S:423:A:C8	2.52	0.42
1:2S:533:A:H61	1:2S:559:A:H61	1.67	0.42
1:2S:1362:G:H2'	1:2S:1363:A:H8	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1606:U:C5	36:74:8:ARG:HB3	2.54	0.42
1:2S:1666:G:H2'	1:2S:1667:A:H8	1.84	0.42
1:2S:2612:U:H2'	1:2S:2613:U:O4'	2.19	0.42
1:2S:3297:U:H2'	1:2S:3298:C:H6	1.84	0.42
2:8S:104:A:C8	2:8S:106:C:N4	2.86	0.42
4:L1:28:PHE:O	4:L1:28:PHE:CD1	2.62	0.42
4:L1:206:VAL:O	4:L1:213:ALA:HA	2.19	0.42
7:L4:145:ILE:HB	7:L4:146:PRO:HD2	2.01	0.42
7:L4:328:ASN:HA	7:L4:329:PRO:HD2	1.87	0.42
8:L5:40:HIS:HB3	8:L5:43:LYS:HG3	2.01	0.42
8:L5:192:PRO:O	8:L5:196:ARG:HB2	2.18	0.42
8:L5:229:ASP:CB	8:L5:231:ILE:HG13	2.49	0.42
8:L5:270:LYS:HA	8:L5:273:ARG:HB2	2.01	0.42
10:L7:34:LYS:HA	10:L7:37:ASN:HD22	1.84	0.42
10:L7:53:LYS:O	10:L7:56:GLU:HG2	2.19	0.42
12:L9:30:PRO:HG2	12:L9:83:THR:HG22	2.00	0.42
17:55:80:THR:HG21	17:55:87:GLN:HG2	2.02	0.42
18:56:186:ALA:O	18:56:187:GLU:HB3	2.18	0.42
20:58:9:GLN:OE1	20:58:9:GLN:HA	2.19	0.42
20:58:170:ARG:O	20:58:171:LYS:CB	2.67	0.42
23:61:40:VAL:CB	23:61:96:ILE:HG23	2.48	0.42
27:65:65:GLN:CG	37:75:32:LYS:HD2	2.49	0.42
32:70:50:VAL:HA	32:70:53:LYS:CB	2.44	0.42
35:73:37:THR:HB	35:73:38:PRO:CD	2.49	0.42
35:73:90:PRO:O	35:73:91:ALA:HB3	2.19	0.42
36:74:42:PRO:HD3	36:74:56:THR:HG22	1.99	0.42
39:77:52:LYS:O	39:77:55:ARG:HB3	2.19	0.42
43:81:16:LYS:NZ	46:1S:1749:A:H4'	2.34	0.42
46:1S:72:A:H8	53:S6:164:LYS:HE2	1.83	0.42
46:1S:115:G:H5'	58:11:129:ARG:HH11	1.83	0.42
46:1S:218:A:N7	46:1S:830:U:H6	2.14	0.42
46:1S:862:A:H4'	46:1S:863:A:O5'	2.18	0.42
46:1S:1074:G:H5'	46:1S:1074:G:C8	2.48	0.42
46:1S:1432:U:H4'	46:1S:1433:G:C5'	2.43	0.42
48:S1:190:PRO:HG2	48:S1:192:VAL:HG23	2.01	0.42
50:S3:219:ALA:CB	50:S3:220:PRO:CD	2.95	0.42
51:S4:194:THR:O	51:S4:195:ILE:CB	2.66	0.42
51:S4:244:ILE:O	51:S4:245:LYS:HB3	2.19	0.42
54:S7:105:THR:HG22	54:S7:105:THR:O	2.19	0.42
55:S8:151:LYS:C	55:S8:152:ILE:HG13	2.39	0.42
60:13:127:ARG:HA	60:13:130:ARG:NH2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:49:LYS:HZ2	65:18:81:ILE:HG12	1.84	0.42
66:19:63:ARG:O	66:19:67:MET:HB2	2.18	0.42
71:24:35:VAL:HG22	71:24:36:SER:N	2.34	0.42
71:24:89:TYR:O	71:24:93:ARG:HG3	2.18	0.42
76:29:30:LEU:CD2	76:29:32:ARG:HG3	2.49	0.42
79:RA:88:THR:HG22	79:RA:104:VAL:CG2	2.47	0.42
1:2S:44:U:H2'	1:2S:45:A:C5'	2.50	0.42
1:2S:274:G:H2'	1:2S:275:U:O4'	2.19	0.42
1:2S:290:G:OP1	17:55:98:LEU:HD23	2.19	0.42
1:2S:531:G:H2'	1:2S:532:A:C8	2.54	0.42
1:2S:743:C:O2	20:58:141:ARG:HG3	2.20	0.42
1:2S:754:G:H2'	1:2S:755:A:O4'	2.19	0.42
1:2S:945:C:H5''	34:72:34:LYS:HB2	2.01	0.42
1:2S:1019:G:H2'	1:2S:1020:G:C5'	2.39	0.42
1:2S:1408:G:H2'	1:2S:1409:G:O4'	2.17	0.42
1:2S:1460:A:H2'	1:2S:1461:A:H8	1.83	0.42
1:2S:2610:G:C5	1:2S:2611:U:C4	3.07	0.42
1:2S:2663:G:H2'	1:2S:2664:C:O4'	2.19	0.42
1:2S:2941:A:C8	6:L3:255:TRP:CE3	3.07	0.42
1:2S:2949:U:H2'	1:2S:2950:G:H5'	1.99	0.42
1:2S:3008:A:OP1	18:56:72:HIS:ND1	2.52	0.42
3:5S:8:G:H2'	3:5S:9:C:C6	2.54	0.42
5:L2:117:GLU:HB2	5:L2:162:ALA:HB1	2.00	0.42
7:L4:324:LEU:O	7:L4:327:LEU:O	2.37	0.42
8:L5:107:ARG:O	8:L5:111:GLN:HB2	2.18	0.42
8:L5:252:ALA:O	8:L5:253:PHE:HB3	2.19	0.42
9:L6:43:LEU:HD22	35:73:102:LEU:HB2	2.01	0.42
10:L7:69:ALA:CB	10:L7:76:TYR:H	2.32	0.42
10:L7:223:PHE:HE2	10:L7:235:PHE:CD2	2.37	0.42
12:L9:91:ARG:CD	12:L9:143:GLU:HB2	2.48	0.42
12:L9:139:ASN:ND2	12:L9:140:VAL:HG23	2.34	0.42
15:53:189:GLU:HA	15:53:192:GLU:OE1	2.19	0.42
17:55:190:THR:O	17:55:194:GLN:HG2	2.19	0.42
21:59:159:ALA:O	21:59:163:ARG:HB2	2.20	0.42
22:60:31:ALA:HB1	22:60:36:ILE:CB	2.45	0.42
22:60:117:ARG:HA	22:60:117:ARG:HD3	1.85	0.42
23:61:35:LYS:O	23:61:64:VAL:HG11	2.19	0.42
27:65:53:HIS:CE1	27:65:56:ARG:CG	3.01	0.42
29:67:83:THR:HG23	29:67:85:TYR:H	1.84	0.42
35:73:53:TYR:CD1	35:73:53:TYR:N	2.87	0.42
37:75:30:GLU:O	37:75:34:GLN:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:83:10:ILE:CG2	45:83:27:LYS:HG3	2.49	0.42
45:83:53:GLY:HA2	45:83:67:GLY:O	2.18	0.42
46:1S:46:A:C6	46:1S:433:C:H4'	2.53	0.42
46:1S:294:C:H2'	46:1S:295:A:C8	2.55	0.42
46:1S:394:C:H2'	46:1S:395:U:C6	2.54	0.42
46:1S:622:A:H2'	46:1S:1031:U:H5''	2.01	0.42
46:1S:1018:U:H2'	46:1S:1019:A:H8	1.80	0.42
46:1S:1059:U:H3'	46:1S:1059:U:OP2	2.19	0.42
46:1S:1179:G:H2'	46:1S:1180:C:H6	1.84	0.42
46:1S:1404:C:H2'	46:1S:1405:G:H8	1.84	0.42
46:1S:1533:C:H4'	46:1S:1539:G:C2	2.54	0.42
46:1S:1796:C:C6	73:26:7:SER:HB3	2.54	0.42
47:S0:17:LEU:HD13	47:S0:50:VAL:CG1	2.42	0.42
48:S1:51:SER:HA	48:S1:56:SER:HA	2.00	0.42
48:S1:103:MET:HE3	48:S1:105:PHE:CE2	2.54	0.42
49:S2:58:LEU:HA	68:21:12:TYR:HE1	1.84	0.42
54:S7:122:HIS:O	54:S7:126:LEU:HD23	2.19	0.42
59:12:97:LEU:HD22	59:12:100:TRP:CE3	2.54	0.42
60:13:53:LEU:O	60:13:57:ALA:CB	2.67	0.42
60:13:106:ARG:HG2	60:13:106:ARG:HH21	1.84	0.42
60:13:140:LYS:HG3	60:13:141:TYR:N	2.25	0.42
64:17:13:SER:HB3	64:17:57:LEU:HD12	2.00	0.42
67:20:23:ARG:HB3	67:20:117:VAL:HG13	2.02	0.42
69:22:36:LYS:CB	69:22:110:ILE:HD12	2.49	0.42
69:22:65:LEU:N	69:22:65:LEU:CD1	2.77	0.42
79:RA:42:LEU:HD21	79:RA:68:VAL:HG11	1.99	0.42
1:2S:106:A:H2'	1:2S:107:A:O4'	2.19	0.42
1:2S:277:G:H5''	44:82:49:GLY:HA2	2.01	0.42
1:2S:869:G:H2'	1:2S:870:G:O4'	2.19	0.42
1:2S:1128:U:H2'	1:2S:1129:A:O4'	2.19	0.42
1:2S:1223:A:N3	1:2S:1287:A:N3	2.66	0.42
1:2S:1605:A:O2'	1:2S:1607:U:C6	2.68	0.42
1:2S:1696:A:C8	36:74:26:PRO:HG2	2.54	0.42
1:2S:2265:C:H2'	1:2S:2266:U:O4'	2.19	0.42
1:2S:2271:A:O5'	1:2S:2271:A:H8	2.02	0.42
1:2S:2366:C:H2'	1:2S:2367:A:H8	1.85	0.42
1:2S:2434:U:O4	1:2S:2595:A:C2	2.72	0.42
1:2S:2849:C:OP1	1:2S:2906:C:H4'	2.18	0.42
1:2S:3061:G:H2'	1:2S:3062:G:C8	2.55	0.42
1:2S:3072:C:C5	1:2S:3073:A:C5	3.07	0.42
4:L1:195:LYS:HG3	4:L1:195:LYS:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L1:207:LYS:HG2	4:L1:208:SER:N	2.34	0.42
5:L2:116:VAL:O	5:L2:125:ALA:HB3	2.19	0.42
5:L2:136:ILE:H	5:L2:136:ILE:HD12	1.85	0.42
6:L3:62:ARG:O	6:L3:68:HIS:HB2	2.19	0.42
6:L3:252:ILE:HD12	6:L3:252:ILE:N	2.33	0.42
9:L6:92:SER:C	9:L6:94:GLU:H	2.23	0.42
17:55:70:ASN:HB3	17:55:92:LEU:O	2.19	0.42
19:57:168:LEU:HD23	19:57:172:GLN:HG2	2.01	0.42
23:61:78:LYS:HG3	23:61:79:MET:N	2.34	0.42
29:67:13:VAL:HG12	29:67:14:VAL:N	2.33	0.42
29:67:54:THR:H	29:67:57:HIS:HD2	1.66	0.42
32:70:31:VAL:O	32:70:34:LEU:HB3	2.19	0.42
33:71:78:LYS:O	33:71:89:LEU:HB3	2.19	0.42
46:1S:149:C:H5''	71:24:123:LYS:NZ	2.34	0.42
46:1S:453:U:O2	46:1S:453:U:C2'	2.68	0.42
46:1S:732:G:N3	46:1S:732:G:H2'	2.35	0.42
46:1S:884:A:H2'	46:1S:885:G:C8	2.54	0.42
46:1S:904:G:H2'	46:1S:905:A:H5'	2.00	0.42
46:1S:941:A:H8	46:1S:941:A:O5'	2.02	0.42
46:1S:1142:A:H2'	46:1S:1143:A:O4'	2.19	0.42
46:1S:1370:U:O2'	46:1S:1371:A:P	2.77	0.42
46:1S:1471:A:C2	46:1S:1474:G:N3	2.88	0.42
46:1S:1514:U:O2	46:1S:1514:U:H2'	2.17	0.42
46:1S:1553:G:N1	46:1S:1556:A:OP2	2.52	0.42
46:1S:1648:A:H2'	46:1S:1649:G:C8	2.55	0.42
47:S0:57:LEU:HD23	47:S0:57:LEU:C	2.40	0.42
49:S2:196:VAL:HG22	49:S2:197:TYR:N	2.35	0.42
51:S4:156:VAL:O	51:S4:157:ASN:HB2	2.19	0.42
53:S6:74:LYS:HG2	53:S6:96:SER:HB2	2.02	0.42
58:11:99:ARG:HB3	70:23:9:LEU:O	2.19	0.42
62:15:25:LEU:O	62:15:87:PRO:HB2	2.19	0.42
63:16:13:LYS:C	63:16:13:LYS:HD3	2.39	0.42
68:21:62:ARG:HB2	68:21:64:GLU:HG2	2.01	0.42
69:22:103:ILE:O	69:22:125:ILE:HG13	2.19	0.42
70:23:76:LEU:HD13	70:23:79:ASN:ND2	2.35	0.42
76:29:31:ILE:O	76:29:36:LEU:CD1	2.67	0.42
1:2S:336:A:H2'	1:2S:337:G:H5'	2.01	0.42
1:2S:790:U:H5''	7:L4:112:LYS:HB2	2.01	0.42
1:2S:993:G:N3	1:2S:2637:A:H2'	2.34	0.42
1:2S:1166:G:H1	1:2S:1333:C:N4	2.17	0.42
1:2S:1169:A:H4'	10:L7:219:LYS:NZ	2.31	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1438:U:H1'	7:L4:93:MET:O	2.18	0.42
1:2S:1794:G:H4'	5:L2:191:LEU:CD1	2.49	0.42
1:2S:1953:G:HO2'	1:2S:1954:G:P	2.42	0.42
1:2S:2284:C:H3'	1:2S:2285:C:C6	2.54	0.42
1:2S:2582:C:H2'	1:2S:2583:C:C6	2.54	0.42
1:2S:2656:A:H2'	1:2S:2656:A:N3	2.34	0.42
1:2S:2917:G:C2'	1:2S:2918:G:H5''	2.47	0.42
1:2S:2922:G:H2'	1:2S:2923:U:C4'	2.48	0.42
1:2S:3317:U:H4'	1:2S:3318:G:C5'	2.48	0.42
4:L1:93:LEU:HD13	4:L1:115:VAL:HG12	2.00	0.42
5:L2:88:ILE:HG23	5:L2:99:GLY:O	2.20	0.42
6:L3:45:SER:HA	6:L3:338:LEU:O	2.19	0.42
13:50:22:TYR:CD1	13:50:22:TYR:N	2.87	0.42
14:51:166:LYS:HD3	14:51:167:TYR:CG	2.55	0.42
17:55:19:LEU:HD12	17:55:19:LEU:N	2.34	0.42
21:59:139:VAL:O	21:59:142:ILE:HB	2.19	0.42
23:61:65:TYR:CD1	23:61:66:ASN:N	2.87	0.42
23:61:139:ARG:HD3	23:61:139:ARG:N	2.33	0.42
28:66:80:VAL:HG22	28:66:81:GLN:N	2.33	0.42
33:71:25:PHE:CD2	33:71:28:ARG:HD2	2.54	0.42
36:74:44:CYS:HB3	36:74:48:GLY:H	1.84	0.42
46:1S:1528:U:H2'	46:1S:1529:C:H6	1.84	0.42
47:S0:58:VAL:O	47:S0:62:ARG:HG2	2.20	0.42
49:S2:165:VAL:HG21	49:S2:206:THR:CG2	2.47	0.42
50:S3:208:ILE:CD1	64:17:39:ALA:HB2	2.49	0.42
50:S3:222:VAL:CG1	79:RA:229:LYS:HA	2.31	0.42
51:S4:7:LYS:HD2	51:S4:7:LYS:N	2.35	0.42
56:S9:79:ARG:HG3	56:S9:79:ARG:HH11	1.85	0.42
59:12:68:GLU:O	59:12:69:ALA:CB	2.67	0.42
68:21:65:SER:O	68:21:69:LEU:HB2	2.19	0.42
69:22:23:ARG:HH11	69:22:23:ARG:HG3	1.83	0.42
69:22:103:ILE:HG22	69:22:127:GLY:C	2.40	0.42
1:2S:20:A:N6	2:8S:139:U:H3	2.11	0.42
1:2S:24:G:C2'	1:2S:25:U:H5'	2.49	0.42
1:2S:92:G:N7	1:2S:94:G:H1'	2.34	0.42
1:2S:147:U:N3	11:L8:159:PRO:HD2	2.35	0.42
1:2S:172:G:C2	1:2S:173:G:C8	3.08	0.42
1:2S:236:G:H2'	1:2S:237:G:O4'	2.18	0.42
1:2S:380:U:H2'	1:2S:381:U:O4'	2.19	0.42
1:2S:391:A:H2'	1:2S:392:G:O4'	2.19	0.42
1:2S:419:G:N2	2:8S:5:U:C2	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:503:C:H2'	1:2S:504:A:C8	2.54	0.42
1:2S:1145:G:O6	1:2S:1158:A:C2	2.73	0.42
1:2S:1548:C:H3'	1:2S:1549:U:O4'	2.20	0.42
1:2S:1571:A:H2'	1:2S:1572:U:C4'	2.50	0.42
1:2S:1579:C:C5	1:2S:1580:A:N7	2.88	0.42
1:2S:1585:C:H2'	1:2S:1586:G:C8	2.54	0.42
1:2S:1598:G:H2'	1:2S:1599:G:C8	2.55	0.42
1:2S:1653:G:H4'	36:74:43:LYS:H	1.84	0.42
1:2S:2426:U:H2'	1:2S:2427:U:C5	2.52	0.42
1:2S:2562:A:H2'	1:2S:2563:G:C8	2.54	0.42
1:2S:2583:C:O5'	1:2S:2583:C:H6	2.02	0.42
1:2S:3047:U:H5''	6:L3:330:GLY:O	2.20	0.42
1:2S:3316:A:C6	6:L3:124:LYS:HD2	2.54	0.42
6:L3:161:LEU:CD2	6:L3:180:GLU:HG2	2.50	0.42
7:L4:130:ALA:O	7:L4:131:VAL:CB	2.68	0.42
9:L6:46:ARG:HB3	9:L6:77:ARG:HH12	1.84	0.42
10:L7:120:THR:OG1	10:L7:123:THR:HG23	2.20	0.42
10:L7:195:PHE:CD1	10:L7:195:PHE:C	2.93	0.42
12:L9:145:VAL:HG12	12:L9:146:LEU:N	2.34	0.42
20:58:34:THR:HG22	20:58:49:LEU:HD11	2.02	0.42
21:59:110:ARG:HA	21:59:115:ILE:HG23	2.01	0.42
21:59:161:ALA:O	21:59:165:LYS:HB2	2.20	0.42
26:64:17:ARG:HG3	26:64:17:ARG:HH11	1.85	0.42
33:71:33:VAL:O	33:71:37:LYS:HG3	2.19	0.42
35:73:103:TYR:HA	35:73:104:PRO:C	2.40	0.42
40:78:8:ILE:O	40:78:12:LEU:HG	2.18	0.42
46:1S:451:A:C2	46:1S:456:A:C2	3.07	0.42
46:1S:958:U:H5''	46:1S:959:U:OP1	2.20	0.42
46:1S:961:U:H5''	60:13:71:ILE:CG1	2.36	0.42
46:1S:1464:G:H4'	63:16:141:SER:CB	2.50	0.42
51:S4:181:VAL:HG11	51:S4:225:VAL:HG13	2.02	0.42
54:S7:117:THR:O	54:S7:121:VAL:HG23	2.20	0.42
54:S7:162:ILE:HB	54:S7:169:PHE:HE2	1.83	0.42
56:S9:109:LEU:HD23	56:S9:109:LEU:C	2.40	0.42
56:S9:132:ARG:CD	56:S9:142:ASN:ND2	2.83	0.42
56:S9:133:HIS:O	56:S9:134:ILE:O	2.37	0.42
56:S9:139:GLN:HE22	71:24:63:GLN:HG3	1.84	0.42
61:14:72:LYS:HD3	61:14:110:LEU:HD23	2.02	0.42
63:16:73:GLY:H	63:16:76:SER:HB3	1.84	0.42
66:19:86:ARG:HH11	66:19:86:ARG:HG3	1.83	0.42
68:21:13:VAL:HA	68:21:14:PRO:HD3	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:21:69:LEU:O	68:21:69:LEU:HD23	2.20	0.42
69:22:28:ARG:HB2	69:22:60:LYS:HG2	2.01	0.42
71:24:125:LEU:O	71:24:129:VAL:HG23	2.18	0.42
74:27:55:THR:OG1	74:27:56:CYS:N	2.51	0.42
77:30:49:LEU:H	77:30:49:LEU:HD23	1.84	0.42
78:31:113:LYS:HD2	78:31:113:LYS:N	2.30	0.42
78:31:132:LEU:HD22	78:31:139:LEU:O	2.19	0.42
79:RA:19:TRP:N	79:RA:19:TRP:CD1	2.87	0.42
79:RA:172:ALA:CB	79:RA:202:LEU:HD22	2.49	0.42
1:2S:677:A:H8	1:2S:785:G:C6	2.37	0.42
1:2S:752:C:H2'	1:2S:753:C:H6	1.84	0.42
1:2S:858:A:H2'	1:2S:859:G:O4'	2.20	0.42
1:2S:1042:U:H5'	13:50:196:PHE:CE1	2.55	0.42
1:2S:1851:G:H2'	1:2S:1852:G:C8	2.54	0.42
1:2S:1856:C:H2'	1:2S:1857:C:C6	2.54	0.42
1:2S:1947:G:H5''	21:59:134:HIS:CB	2.47	0.42
1:2S:2457:G:N2	1:2S:2461:A:H61	2.17	0.42
1:2S:2748:A:H1'	8:L5:36:LEU:HD23	2.01	0.42
1:2S:2882:U:H2'	1:2S:2883:U:O4'	2.19	0.42
1:2S:3111:U:O4	1:2S:3121:U:C5	2.71	0.42
1:2S:3355:U:O2'	1:2S:3356:G:H5''	2.20	0.42
3:5S:11:A:H4'	3:5S:13:A:H2'	2.00	0.42
3:5S:52:G:H21	14:51:9:MET:HE3	1.84	0.42
3:5S:88:G:H2'	3:5S:89:G:H8	1.82	0.42
3:5S:119:U:OP1	8:L5:256:THR:HG23	2.20	0.42
7:L4:160:GLN:HB2	7:L4:161:LYS:HD2	2.00	0.42
9:L6:52:VAL:CG2	9:L6:53:VAL:H	2.18	0.42
9:L6:58:LEU:HD22	9:L6:103:VAL:HG22	2.00	0.42
10:L7:151:ARG:HB2	10:L7:205:PHE:CD1	2.54	0.42
13:50:165:ILE:H	13:50:165:ILE:HD13	1.85	0.42
13:50:191:LYS:HG3	13:50:191:LYS:O	2.19	0.42
14:51:52:TYR:N	14:51:52:TYR:HD2	2.17	0.42
17:55:83:LYS:O	17:55:86:ASN:N	2.53	0.42
18:56:76:PRO:O	18:56:79:ILE:HB	2.20	0.42
19:57:102:ALA:O	19:57:107:LEU:HB2	2.19	0.42
23:61:52:MET:HG2	23:61:53:PRO:HD2	2.01	0.42
29:67:51:LEU:CB	29:67:65:ARG:HD2	2.49	0.42
35:73:49:ILE:HG22	35:73:98:VAL:HG22	2.01	0.42
37:75:44:ILE:HA	37:75:47:VAL:HG12	2.02	0.42
46:1S:236:A:OP2	46:1S:236:A:H8	2.03	0.42
46:1S:346:G:H2'	46:1S:347:G:H5'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:412:A:H2'	46:1S:413:U:H6	1.85	0.42
46:1S:602:U:H2'	46:1S:603:U:C6	2.55	0.42
46:1S:1524:A:H2	46:1S:1590:G:H1'	1.84	0.42
46:1S:1615:C:C5	52:S5:81:ARG:HA	2.55	0.42
47:S0:41:ARG:HH21	47:S0:41:ARG:HG3	1.85	0.42
53:S6:85:ARG:HA	53:S6:86:PRO:HD3	1.84	0.42
55:S8:8:ARG:NH2	55:S8:19:ALA:O	2.52	0.42
55:S8:172:ARG:HB2	55:S8:175:GLN:HB2	2.01	0.42
56:S9:146:PHE:CZ	56:S9:149:ARG:CZ	3.03	0.42
56:S9:155:HIS:ND1	56:S9:155:HIS:N	2.66	0.42
57:10:82:LEU:HB2	57:10:86:ILE:CG2	2.49	0.42
66:19:117:SER:HB2	66:19:123:ARG:H	1.85	0.42
69:22:103:ILE:O	69:22:125:ILE:CG1	2.68	0.42
71:24:91:LEU:HB3	71:24:96:LEU:HB2	2.02	0.42
71:24:105:ARG:O	71:24:109:LYS:HG3	2.20	0.42
1:2S:549:U:H2'	1:2S:550:A:H8	1.82	0.42
1:2S:1330:A:N1	1:2S:1332:A:H1'	2.35	0.42
1:2S:1357:G:H2'	1:2S:1358:C:H6	1.81	0.42
1:2S:1436:U:H5''	1:2S:1437:C:H5''	2.01	0.42
1:2S:1464:G:H21	1:2S:1511:U:H3	1.67	0.42
1:2S:2161:G:H2'	1:2S:2162:U:C6	2.55	0.42
1:2S:2409:G:H3'	1:2S:2410:U:H4'	2.01	0.42
1:2S:2505:U:H2'	1:2S:2506:U:C6	2.54	0.42
1:2S:2837:A:H2'	1:2S:2845:A:N1	2.35	0.42
1:2S:3299:A:H4'	19:57:55:GLN:HE21	1.85	0.42
5:L2:45:VAL:CG1	5:L2:85:GLY:H	2.27	0.42
5:L2:247:ARG:HG2	5:L2:247:ARG:NH1	2.31	0.42
6:L3:130:PHE:HD1	6:L3:133:TYR:CB	2.32	0.42
6:L3:312:VAL:HG12	6:L3:313:HIS:CD2	2.55	0.42
6:L3:338:LEU:HD22	6:L3:338:LEU:H	1.85	0.42
7:L4:175:HIS:O	7:L4:179:LEU:HG	2.19	0.42
7:L4:351:PRO:CB	7:L4:355:PHE:CD2	3.03	0.42
11:L8:44:ARG:O	11:L8:46:LEU:HG	2.19	0.42
12:L9:157:ASN:HD22	12:L9:157:ASN:HA	1.52	0.42
13:50:3:ARG:HE	13:50:3:ARG:HB3	1.56	0.42
15:53:48:PRO:HA	15:53:137:GLN:HB3	2.01	0.42
18:56:47:PHE:O	18:56:51:LYS:HB2	2.20	0.42
19:57:119:VAL:HG23	19:57:145:HIS:C	2.39	0.42
29:67:40:HIS:HA	29:67:75:VAL:O	2.20	0.42
31:69:10:HIS:O	31:69:11:ASN:CB	2.66	0.42
32:70:86:ARG:HG2	32:70:86:ARG:NH1	2.34	0.42

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:71:LEU:HD12	5:L2:71:LEU:N	2.35	0.42
7:L4:327:LEU:O	7:L4:328:ASN:HB3	2.20	0.42
10:L7:90:LYS:HG3	10:L7:91:GLY:N	2.34	0.42
11:L8:25:PRO:HG2	11:L8:26:LEU:H	1.84	0.42
17:55:47:LYS:HE3	17:55:51:LEU:HD11	2.02	0.42
17:55:100:ALA:O	17:55:104:GLU:HG3	2.20	0.42
21:59:116:ASP:O	21:59:120:TYR:HB2	2.20	0.42
22:60:52:LYS:HG3	22:60:55:SER:H	1.85	0.42
22:60:133:ALA:C	22:60:135:VAL:N	2.72	0.42
26:64:6:ASP:HB3	26:64:10:GLY:H	1.84	0.42
35:73:16:TYR:HB3	35:73:23:ASN:HB2	2.01	0.42
35:73:51:TYR:CE2	35:73:53:TYR:HB3	2.54	0.42
35:73:55:ALA:HB3	35:73:65:ARG:HH22	1.83	0.42
38:76:76:ARG:HA	38:76:76:ARG:NE	2.35	0.42
44:82:95:GLY:O	44:82:96:GLU:HB2	2.19	0.42
46:1S:564:G:H4'	46:1S:566:C:C2	2.54	0.42
46:1S:627:C:H2'	46:1S:628:G:O4'	2.20	0.42
46:1S:771:A:C2	46:1S:772:G:H1'	2.55	0.42
47:S0:83:GLN:O	47:S0:86:VAL:HG22	2.19	0.42
49:S2:47:ALA:HB1	49:S2:49:LYS:HE2	2.01	0.42
49:S2:116:LYS:HD2	49:S2:117:THR:H	1.84	0.42
49:S2:240:LEU:HD12	49:S2:240:LEU:N	2.34	0.42
51:S4:149:TYR:N	51:S4:150:PRO:CD	2.82	0.42
52:S5:62:VAL:HG12	52:S5:64:VAL:CG2	2.50	0.42
55:S8:104:ILE:HB	55:S8:105:ASP:H	1.73	0.42
56:S9:127:VAL:O	56:S9:131:GLN:HG3	2.20	0.42
57:10:54:TYR:HA	57:10:71:GLU:HG3	2.01	0.42
61:14:79:VAL:HG22	61:14:80:HIS:N	2.35	0.42
65:18:41:ARG:HD3	66:19:38:LYS:HD3	2.01	0.42
67:20:85:ARG:N	67:20:85:ARG:HD2	2.35	0.42
70:23:86:PHE:O	70:23:124:VAL:HG23	2.20	0.42
71:24:49:LYS:N	71:24:49:LYS:HD2	2.35	0.42
77:30:42:ARG:HB3	77:30:42:ARG:HH11	1.84	0.42
1:2S:162:G:O2'	1:2S:163:C:H5'	2.20	0.42
1:2S:440:A:H3'	1:2S:441:U:H4'	2.02	0.42
1:2S:530:G:H2'	1:2S:531:G:C8	2.55	0.42
1:2S:937:G:OP2	1:2S:938:C:H5	2.02	0.42
1:2S:1841:A:C5	1:2S:1848:G:C2	3.07	0.42
1:2S:1891:A:O2'	1:2S:1892:G:H5'	2.20	0.42
1:2S:3061:G:H2'	1:2S:3062:G:H8	1.85	0.42
1:2S:3114:A:H2'	1:2S:3115:C:C5	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3225:C:C2'	1:2S:3226:A:H5'	2.50	0.42
2:8S:103:G:H2'	2:8S:105:A:N7	2.35	0.42
3:5S:48:U:C2'	3:5S:49:G:H5'	2.50	0.42
7:L4:65:TRP:HE3	7:L4:69:ARG:HD2	1.83	0.42
8:L5:105:ILE:HD13	8:L5:105:ILE:HA	1.75	0.42
12:L9:89:LYS:HB2	12:L9:183:HIS:CB	2.35	0.42
14:51:23:VAL:CG1	14:51:24:GLY:N	2.81	0.42
14:51:36:VAL:O	14:51:40:LEU:HB2	2.20	0.42
16:54:73:PRO:HB2	16:54:76:ALA:HB2	2.01	0.42
20:58:30:VAL:CG2	20:58:52:LEU:HD13	2.50	0.42
27:65:68:THR:HG21	37:75:36:LEU:HD13	2.01	0.42
29:67:46:ILE:HA	29:67:70:PRO:HA	2.01	0.42
30:68:99:ALA:O	30:68:124:ILE:HD12	2.20	0.42
31:69:7:HIS:CG	31:69:8:THR:N	2.88	0.42
32:70:9:SER:O	32:70:12:GLN:HB3	2.19	0.42
33:71:74:ARG:HG2	33:71:75:ILE:N	2.34	0.42
36:74:41:ARG:HA	36:74:56:THR:CG2	2.50	0.42
37:75:45:LYS:O	37:75:49:LYS:HB2	2.19	0.42
39:77:31:LYS:O	39:77:32:LYS:HB2	2.19	0.42
41:79:49:MET:O	41:79:50:ASN:HB2	2.20	0.42
46:1S:162:A:H3'	46:1S:163:G:N2	2.31	0.42
46:1S:497:G:HO2'	46:1S:498:G:P	2.43	0.42
46:1S:689:G:O2'	46:1S:690:G:H5'	2.20	0.42
46:1S:760:A:H2'	46:1S:761:G:O4'	2.20	0.42
46:1S:772:G:H5''	51:S4:23:LEU:HD21	2.01	0.42
46:1S:1517:U:H2'	46:1S:1518:C:C5	2.54	0.42
46:1S:1671:A:H2'	46:1S:1672:G:O4'	2.20	0.42
46:1S:1719:A:H2'	46:1S:1720:G:O4'	2.20	0.42
47:S0:26:ALA:HB2	47:S0:149:LEU:HB2	2.02	0.42
48:S1:220:GLN:HB2	48:S1:221:PRO:HD2	2.00	0.42
52:S5:93:LEU:HD23	52:S5:93:LEU:C	2.39	0.42
52:S5:133:VAL:O	52:S5:137:ILE:HG12	2.20	0.42
54:S7:49:ILE:CG2	54:S7:175:LYS:HG2	2.49	0.42
54:S7:143:LEU:H	54:S7:143:LEU:HD22	1.85	0.42
55:S8:58:LEU:O	55:S8:59:ARG:HB2	2.20	0.42
56:S9:161:THR:HA	56:S9:167:ALA:HB3	2.02	0.42
57:10:87:VAL:O	57:10:87:VAL:HG22	2.19	0.42
60:13:88:LEU:O	60:13:92:ILE:HG13	2.20	0.42
60:13:100:LYS:HA	60:13:103:GLU:HG3	2.00	0.42
61:14:58:TYR:O	61:14:62:LEU:HG	2.20	0.42
63:16:9:THR:O	63:16:19:VAL:HG13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:40:ARG:HH21	66:19:45:MET:HG2	1.84	0.42
65:18:89:GLN:C	65:18:91:ASP:N	2.73	0.42
66:19:105:LEU:HD22	66:19:122:ARG:HG2	2.01	0.42
66:19:117:SER:HB2	66:19:123:ARG:CB	2.49	0.42
70:23:76:LEU:HB3	70:23:80:GLY:H	1.84	0.42
71:24:124:ARG:HA	71:24:127:LYS:CD	2.49	0.42
79:RA:81:LEU:HD23	79:RA:91:LEU:HD13	2.00	0.42
79:RA:205:SER:HA	79:RA:206:PRO:HD3	1.85	0.42
1:2S:269:G:C6	17:55:14:LYS:HB2	2.55	0.42
1:2S:287:G:OP1	17:55:179:LYS:HE3	2.20	0.42
1:2S:514:G:H21	7:L4:341:SER:HA	1.84	0.42
1:2S:860:G:H5'	45:83:17:ARG:NH1	2.34	0.42
1:2S:896:A:H4'	5:L2:186:PHE:CD2	2.55	0.42
1:2S:942:U:C6	30:68:15:VAL:HG12	2.55	0.42
1:2S:1324:U:H2'	1:2S:1325:U:O4'	2.19	0.42
1:2S:1888:U:OP1	6:L3:247:ARG:HB3	2.20	0.42
1:2S:2257:C:H2'	1:2S:2258:U:O4'	2.19	0.42
1:2S:2435:G:H2'	1:2S:2436:U:H6	1.80	0.42
1:2S:3210:A:H8	1:2S:3210:A:O5'	2.02	0.42
1:2S:3346:U:H3	1:2S:3359:A:N6	2.06	0.42
2:8S:78:G:O2'	37:75:42:PRO:HG2	2.20	0.42
4:L1:55:LEU:HD12	4:L1:55:LEU:N	2.35	0.42
5:L2:6:ARG:HH12	5:L2:198:LYS:HA	1.85	0.42
7:L4:316:ASN:HD21	7:L4:318:LEU:HD12	1.84	0.42
9:L6:170:LYS:HB3	9:L6:172:HIS:CE1	2.55	0.42
10:L7:69:ALA:HB2	10:L7:76:TYR:H	1.85	0.42
11:L8:61:GLN:HB3	17:55:28:TRP:HH2	1.84	0.42
11:L8:97:TYR:CE1	11:L8:204:ARG:NH2	2.88	0.42
14:51:49:LYS:HG2	14:51:64:LYS:HG2	2.02	0.42
15:53:50:PRO:HG3	37:75:118:ILE:CG1	2.27	0.42
18:56:117:ARG:N	18:56:117:ARG:CD	2.78	0.42
19:57:2:ALA:O	19:57:3:ARG:HB2	2.20	0.42
27:65:23:ALA:C	27:65:24:LEU:HD12	2.40	0.42
33:71:78:LYS:HD2	33:71:90:PHE:CZ	2.55	0.42
35:73:11:GLY:O	35:73:97:SER:HA	2.20	0.42
43:81:1:MET:SD	46:1S:1642:G:H5'	2.60	0.42
45:83:10:ILE:HG22	45:83:27:LYS:HE3	2.01	0.42
46:1S:1340:U:H3'	46:1S:1341:A:C5'	2.50	0.42
47:S0:189:VAL:CG1	47:S0:193:GLN:HB2	2.49	0.42
48:S1:180:THR:CG2	48:S1:181:LEU:H	2.25	0.42
51:S4:52:LEU:HD13	51:S4:54:TYR:HD2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S4:63:ALA:O	51:S4:67:GLN:CG	2.55	0.42
54:S7:9:LEU:HD12	54:S7:18:LEU:HD23	2.01	0.42
54:S7:30:SER:CB	54:S7:34:LEU:HD13	2.43	0.42
56:S9:3:ARG:HD3	56:S9:3:ARG:N	2.35	0.42
56:S9:54:ARG:CA	56:S9:57:ARG:HH21	2.33	0.42
57:10:62:GLN:HE21	57:10:62:GLN:HB3	1.56	0.42
58:11:78:THR:C	58:11:80:MET:H	2.23	0.42
58:11:85:VAL:HG13	58:11:107:VAL:C	2.41	0.42
65:18:24:GLY:O	65:18:26:ILE:N	2.53	0.42
72:25:92:ILE:HG13	72:25:100:ILE:HG23	2.02	0.42
73:26:12:LYS:HG2	73:26:12:LYS:O	2.20	0.42
1:2S:12:A:N1	2:8S:145:U:O4	2.53	0.41
1:2S:45:A:H1'	1:2S:94:G:O6	2.19	0.41
1:2S:929:A:H2'	1:2S:930:U:H6	1.78	0.41
1:2S:1354:G:H5''	1:2S:1355:A:OP2	2.19	0.41
1:2S:2080:C:H2'	1:2S:2081:U:O4'	2.20	0.41
1:2S:2375:G:C6	1:2S:2378:C:C4	3.08	0.41
1:2S:2446:U:H2'	1:2S:2447:A:C8	2.55	0.41
1:2S:2930:A:H2'	1:2S:2931:C:H6	1.84	0.41
3:5S:13:A:H5'	3:5S:14:U:C5	2.54	0.41
5:L2:147:ARG:CB	5:L2:157:VAL:HB	2.49	0.41
5:L2:209:HIS:C	5:L2:211:HIS:H	2.23	0.41
7:L4:74:ILE:C	7:L4:74:ILE:HD12	2.40	0.41
7:L4:119:ARG:HH12	7:L4:271:LYS:HB3	1.84	0.41
8:L5:133:GLU:HB3	8:L5:134:ALA:H	1.70	0.41
9:L6:96:VAL:CG1	9:L6:141:VAL:HG13	2.50	0.41
10:L7:47:ARG:O	10:L7:51:TYR:CD2	2.73	0.41
11:L8:204:ARG:C	11:L8:206:GLU:H	2.23	0.41
11:L8:214:LEU:O	11:L8:218:ILE:HG13	2.20	0.41
13:50:17:TYR:H	13:50:95:HIS:CE1	2.37	0.41
14:51:88:GLU:HB3	14:51:90:GLN:NE2	2.35	0.41
15:53:117:LYS:HD3	15:53:117:LYS:H	1.83	0.41
21:59:77:GLY:O	21:59:81:ARG:HD3	2.20	0.41
22:60:12:ARG:HD2	22:60:21:GLU:HA	2.02	0.41
22:60:13:ARG:O	22:60:57:GLU:HG3	2.20	0.41
25:63:103:ALA:HA	25:63:108:GLU:O	2.20	0.41
27:65:34:LEU:HA	27:65:35:PRO:HD3	1.90	0.41
31:69:18:ARG:HD2	31:69:18:ARG:HA	1.69	0.41
34:72:82:LEU:HD11	34:72:111:ARG:HG3	2.02	0.41
39:77:47:TYR:HB2	39:77:49:TRP:CE2	2.55	0.41
46:1S:130:C:H2'	46:1S:131:C:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:186:C:H2'	46:1S:187:G:O4'	2.20	0.41
46:1S:335:U:H4'	58:11:129:ARG:NH2	2.35	0.41
46:1S:415:C:H2'	46:1S:417:A:N7	2.35	0.41
46:1S:584:C:H2'	46:1S:585:A:O4'	2.20	0.41
46:1S:1370:U:H1'	46:1S:1371:A:OP2	2.20	0.41
46:1S:1481:C:C5'	46:1S:1482:C:OP1	2.64	0.41
46:1S:1632:C:O2'	46:1S:1633:A:H5'	2.20	0.41
46:1S:1685:G:H3'	46:1S:1686:C:H5''	2.01	0.41
47:S0:81:PHE:H	47:S0:81:PHE:HD1	1.69	0.41
49:S2:208:GLU:O	49:S2:212:LYS:HG3	2.19	0.41
51:S4:191:ARG:HD3	51:S4:245:LYS:CD	2.49	0.41
51:S4:201:HIS:CD2	51:S4:207:LEU:HD12	2.55	0.41
52:S5:183:ALA:CB	52:S5:190:ILE:HD13	2.50	0.41
56:S9:49:LEU:O	56:S9:49:LEU:HD13	2.20	0.41
56:S9:125:ALA:O	56:S9:129:ILE:HG13	2.19	0.41
58:11:85:VAL:HG22	58:11:108:PRO:HA	2.01	0.41
58:11:123:VAL:HG23	58:11:141:LYS:O	2.20	0.41
61:14:85:ALA:N	61:14:119:THR:HG22	2.27	0.41
65:18:91:ASP:O	65:18:92:ILE:HB	2.20	0.41
67:20:91:ILE:HG22	67:20:93:LEU:HG	2.01	0.41
69:22:25:VAL:O	69:22:62:VAL:HA	2.20	0.41
79:RA:81:LEU:CD2	79:RA:91:LEU:HD13	2.50	0.41
79:RA:276:PRO:HD3	79:RA:313:TRP:HZ2	1.85	0.41
1:2S:224:C:O2'	1:2S:225:C:H5'	2.20	0.41
1:2S:338:A:C2	1:2S:1381:A:H1'	2.54	0.41
1:2S:566:G:H2'	1:2S:567:G:C8	2.54	0.41
1:2S:822:G:H2'	1:2S:823:C:H6	1.85	0.41
1:2S:1043:C:H4'	13:50:90:ARG:HD2	2.02	0.41
1:2S:1104:G:H2'	1:2S:1105:A:C8	2.55	0.41
1:2S:1261:G:H3'	1:2S:1261:G:N3	2.35	0.41
1:2S:1342:C:O4'	20:58:10:HIS:HB3	2.20	0.41
1:2S:1644:C:H41	36:74:68:THR:CG2	2.33	0.41
1:2S:2338:C:H2'	1:2S:2339:C:C6	2.55	0.41
1:2S:2447:A:C4	1:2S:2502:A:N6	2.88	0.41
1:2S:2940:A:N7	6:L3:2:SER:O	2.53	0.41
1:2S:3051:U:H2'	1:2S:3052:G:O4'	2.20	0.41
3:5S:99:G:H2'	3:5S:100:C:C6	2.55	0.41
4:L1:44:GLN:N	4:L1:161:LYS:HB3	2.19	0.41
4:L1:199:GLN:NE2	4:L1:202:GLY:CA	2.83	0.41
5:L2:44:ILE:HD12	5:L2:62:VAL:HG13	2.01	0.41
8:L5:111:GLN:C	8:L5:113:LEU:H	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:108:ARG:HA	11:L8:111:LYS:CD	2.50	0.41
13:50:98:ARG:HG3	13:50:98:ARG:NH1	2.32	0.41
15:53:29:ALA:HB2	17:55:201:ARG:HH12	1.85	0.41
18:56:46:GLU:CD	18:56:48:PHE:CB	2.89	0.41
19:57:57:ALA:HB1	19:57:81:ALA:HB1	2.02	0.41
20:58:18:ALA:HB1	20:58:19:PRO:CD	2.47	0.41
20:58:51:ALA:HA	20:58:54:LEU:HG	2.02	0.41
22:60:24:LEU:HD12	23:61:146:ASN:HB2	2.02	0.41
22:60:31:ALA:HB1	22:60:36:ILE:CG2	2.51	0.41
23:61:69:LYS:HE3	23:61:69:LYS:HB2	1.89	0.41
27:65:109:LYS:HB2	27:65:109:LYS:HE3	1.88	0.41
33:71:25:PHE:CA	33:71:28:ARG:HG3	2.48	0.41
39:77:19:CYS:HB3	39:77:22:CYS:SG	2.61	0.41
41:79:9:ILE:HG22	41:79:13:MET:CE	2.50	0.41
46:1S:570:A:N7	70:23:114:LYS:HE3	2.35	0.41
46:1S:1011:G:H2'	46:1S:1012:U:C5	2.54	0.41
46:1S:1090:C:H1'	46:1S:1093:A:C2	2.55	0.41
46:1S:1419:G:O2'	46:1S:1420:C:H5'	2.20	0.41
46:1S:1526:A:C8	46:1S:1527:C:C5	3.07	0.41
46:1S:1582:U:H5''	63:16:135:ARG:HH11	1.85	0.41
46:1S:1641:C:H2'	46:1S:1642:G:C8	2.55	0.41
48:S1:145:LYS:HB3	48:S1:149:GLN:CG	2.50	0.41
50:S3:84:ILE:HD11	50:S3:86:LEU:HD11	2.02	0.41
51:S4:159:THR:CB	51:S4:227:VAL:HG23	2.50	0.41
52:S5:110:ALA:O	52:S5:114:ILE:HG12	2.20	0.41
52:S5:192:GLU:OE1	72:25:63:SER:HB2	2.21	0.41
55:S8:79:ALA:HB3	55:S8:103:GLN:O	2.20	0.41
60:13:70:LYS:N	60:13:73:ARG:HB2	2.34	0.41
60:13:105:ASN:C	60:13:107:LYS:H	2.24	0.41
62:15:10:ARG:HH11	62:15:13:LYS:HB2	1.84	0.41
62:15:95:GLY:CA	62:15:104:GLN:HG2	2.50	0.41
67:20:58:LEU:HD12	67:20:88:LYS:HG2	2.02	0.41
79:RA:266:ASP:HA	79:RA:267:PRO:C	2.41	0.41
1:2S:21:G:C6	2:8S:37:A:N7	2.88	0.41
1:2S:160:G:C2'	1:2S:161:G:H5''	2.50	0.41
1:2S:209:A:H2	7:L4:221:ASN:HB3	1.82	0.41
1:2S:272:G:H2'	1:2S:273:A:C8	2.55	0.41
1:2S:304:G:H2'	1:2S:304:G:N3	2.35	0.41
1:2S:429:U:H4'	35:73:88:ASN:O	2.19	0.41
1:2S:578:A:H2'	7:L4:334:PHE:CD2	2.55	0.41
1:2S:853:G:N7	45:83:2:ALA:HB2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1405:U:H2'	1:2S:1406:A:O4'	2.21	0.41
1:2S:1695:U:H5''	36:74:24:LYS:HB3	2.01	0.41
1:2S:2070:U:H2'	1:2S:2071:A:H5'	2.02	0.41
1:2S:2405:C:H2'	1:2S:2406:C:C5	2.50	0.41
1:2S:2828:G:H3'	1:2S:2829:U:C5	2.55	0.41
1:2S:3021:A:C8	1:2S:3033:A:N6	2.86	0.41
1:2S:3215:A:OP1	35:73:2:ALA:HB3	2.20	0.41
2:8S:108:C:C6	2:8S:108:C:O5'	2.73	0.41
5:L2:48:ILE:HA	5:L2:59:ALA:HA	2.02	0.41
5:L2:202:VAL:HG22	5:L2:211:HIS:O	2.20	0.41
7:L4:188:ARG:HB3	7:L4:193:LYS:CB	2.51	0.41
10:L7:143:THR:O	10:L7:147:LEU:HG	2.20	0.41
11:L8:122:LYS:O	11:L8:124:ASP:N	2.53	0.41
14:51:49:LYS:HE3	14:51:64:LYS:HE3	2.02	0.41
16:54:76:ALA:HB1	16:54:80:THR:CG2	2.50	0.41
17:55:14:LYS:HA	17:55:19:LEU:HD22	2.03	0.41
17:55:95:GLN:C	17:55:96:ARG:HG3	2.41	0.41
18:56:39:GLU:HG2	18:56:40:GLU:HG2	2.01	0.41
18:56:57:PHE:HA	18:56:60:LYS:HZ2	1.82	0.41
19:57:58:ILE:O	19:57:81:ALA:HA	2.20	0.41
23:61:48:ILE:HG13	23:61:94:GLU:HB3	2.02	0.41
25:63:15:LEU:O	25:63:51:ALA:HB1	2.21	0.41
25:63:77:ILE:HD12	25:63:77:ILE:H	1.79	0.41
28:66:68:GLY:HA2	28:66:84:LYS:HD2	2.02	0.41
33:71:28:ARG:HD3	33:71:65:LYS:HA	2.01	0.41
36:74:41:ARG:CA	36:74:56:THR:HG21	2.50	0.41
45:83:50:GLY:O	45:83:51:ALA:HB3	2.19	0.41
46:1S:115:G:N7	58:11:129:ARG:CB	2.84	0.41
46:1S:374:U:H6	46:1S:374:U:O5'	2.04	0.41
46:1S:729:G:C5	46:1S:730:G:H8	2.38	0.41
46:1S:934:C:H3'	46:1S:934:C:O2	2.20	0.41
46:1S:942:G:H3'	73:26:17:HIS:CE1	2.55	0.41
46:1S:1192:C:H4'	63:16:140:LYS:NZ	2.34	0.41
47:S0:29:VAL:HG13	47:S0:150:ASP:HB3	2.01	0.41
48:S1:143:THR:HG22	48:S1:207:LEU:CD1	2.51	0.41
49:S2:104:VAL:HG22	49:S2:112:GLY:HA3	2.02	0.41
49:S2:184:VAL:HG13	49:S2:187:LEU:HD23	2.02	0.41
54:S7:49:ILE:O	54:S7:57:ALA:HB3	2.20	0.41
55:S8:32:GLN:HA	55:S8:33:PRO:HD3	1.90	0.41
58:11:115:PHE:CD1	58:11:115:PHE:N	2.88	0.41
67:20:95:ALA:HB1	67:20:99:ILE:CG2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:23:53:VAL:CG1	70:23:98:GLU:HA	2.50	0.41
71:24:36:SER:O	71:24:40:LEU:HG	2.20	0.41
71:24:88:THR:O	71:24:92:VAL:HG23	2.19	0.41
1:2S:217:U:O4	1:2S:221:A:H8	2.03	0.41
1:2S:283:G:H21	1:2S:285:A:C5'	2.31	0.41
1:2S:805:G:C4'	7:L4:73:ARG:O	2.67	0.41
1:2S:1037:C:H2'	1:2S:1038:C:C6	2.55	0.41
1:2S:1312:C:H3'	1:2S:1313:G:C8	2.54	0.41
1:2S:2443:A:N6	1:2S:2504:U:N3	2.68	0.41
1:2S:2822:U:H2'	1:2S:2823:G:C8	2.55	0.41
2:8S:110:C:H4'	2:8S:112:U:C5	2.52	0.41
5:L2:92:LYS:HG3	5:L2:103:PRO:HG2	2.02	0.41
10:L7:67:ARG:HA	10:L7:70:LYS:HE2	2.02	0.41
12:L9:48:VAL:HG13	12:L9:49:ASN:ND2	2.35	0.41
12:L9:112:ILE:O	12:L9:125:ASN:HA	2.20	0.41
14:51:16:LYS:HB3	14:51:72:ARG:HG2	2.01	0.41
15:53:60:ALA:HA	15:53:61:PRO:HD3	1.72	0.41
16:54:15:VAL:O	22:60:149:LYS:HA	2.20	0.41
17:55:8:GLU:HG3	17:55:50:ARG:NH2	2.25	0.41
18:56:46:GLU:HG3	18:56:49:ARG:N	2.26	0.41
21:59:19:LYS:H	21:59:19:LYS:HG3	1.71	0.41
34:72:19:ARG:HG2	34:72:20:HIS:N	2.32	0.41
37:75:61:GLN:C	37:75:64:GLU:HG2	2.40	0.41
39:77:85:LYS:CG	39:77:86:ALA:H	2.33	0.41
42:80:82:LEU:HA	42:80:85:LEU:HB2	2.03	0.41
42:80:94:SER:HB2	42:80:122:ARG:O	2.20	0.41
42:80:96:CYS:HB3	42:80:100:TYR:N	2.35	0.41
45:83:67:GLY:HA3	45:83:70:THR:HG22	2.01	0.41
46:1S:454:U:C5	51:S4:66:MET:HB2	2.55	0.41
46:1S:525:A:H3'	46:1S:526:A:H8	1.86	0.41
46:1S:862:A:H4'	46:1S:863:A:C5'	2.51	0.41
46:1S:1134:C:O2'	46:1S:1135:U:H5'	2.20	0.41
46:1S:1170:G:C2	46:1S:1171:A:C8	3.08	0.41
46:1S:1202:A:H3'	46:1S:1202:A:N3	2.34	0.41
46:1S:1296:A:H2'	46:1S:1297:G:O4'	2.20	0.41
46:1S:1498:G:H4'	66:19:120:GLY:C	2.41	0.41
46:1S:1789:G:C8	61:14:132:ARG:NH2	2.61	0.41
50:S3:220:PRO:HB3	79:RA:223:TRP:CZ3	2.54	0.41
52:S5:83:ARG:O	52:S5:83:ARG:CG	2.68	0.41
52:S5:162:VAL:CA	75:28:45:LYS:HB3	2.49	0.41
53:S6:180:THR:HB	53:S6:181:PRO:HD2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:12:31:VAL:HG22	59:12:133:LEU:HD12	2.02	0.41
60:13:106:ARG:HG2	60:13:106:ARG:NH2	2.35	0.41
65:18:118:LYS:HE3	65:18:118:LYS:HB2	1.82	0.41
69:22:29:PRO:HB2	69:22:58:SER:HB3	1.99	0.41
1:2S:122:A:H62	1:2S:148:G:H1'	1.80	0.41
1:2S:1078:U:H2'	1:2S:1080:A:OP2	2.20	0.41
1:2S:1566:A:H3'	1:2S:1567:U:H5''	2.03	0.41
1:2S:1834:U:C5'	41:79:3:ALA:HA	2.45	0.41
1:2S:1878:G:H3'	1:2S:1878:G:N3	2.35	0.41
1:2S:1938:U:C2	1:2S:2115:G:H5'	2.56	0.41
1:2S:2286:U:H4'	1:2S:2287:C:H2'	2.02	0.41
1:2S:2495:C:C5	1:2S:2496:C:C2	3.09	0.41
1:2S:2513:U:C4'	1:2S:2514:U:OP1	2.66	0.41
1:2S:3267:A:H3'	1:2S:3268:A:C8	2.51	0.41
1:2S:3318:G:H1'	1:2S:3320:A:N7	2.36	0.41
1:2S:3393:U:H2'	1:2S:3394:U:H6	1.80	0.41
4:L1:106:LYS:O	4:L1:136:THR:HG22	2.21	0.41
4:L1:125:GLY:N	4:L1:126:PRO:CD	2.83	0.41
4:L1:207:LYS:HB2	4:L1:213:ALA:HB2	2.01	0.41
6:L3:43:LEU:N	6:L3:43:LEU:CD1	2.82	0.41
6:L3:106:TRP:O	6:L3:199:PHE:CE2	2.69	0.41
7:L4:170:LYS:N	7:L4:170:LYS:CD	2.83	0.41
7:L4:188:ARG:HD3	7:L4:189:ALA:H	1.85	0.41
7:L4:283:THR:C	7:L4:285:ASP:N	2.74	0.41
8:L5:209:GLU:HA	8:L5:209:GLU:OE2	2.20	0.41
12:L9:57:VAL:HG23	12:L9:68:LEU:HD23	2.01	0.41
13:50:99:ILE:CG2	13:50:123:HIS:HB2	2.50	0.41
14:51:120:ILE:CG2	14:51:123:PHE:HE2	2.33	0.41
14:51:125:MET:HG2	14:51:126:ASP:N	2.35	0.41
16:54:79:ALA:O	16:54:83:LYS:HB2	2.20	0.41
27:65:42:ARG:C	27:65:44:PRO:HD3	2.41	0.41
28:66:39:LEU:HD22	28:66:43:TYR:HE2	1.85	0.41
28:66:112:ASP:H	28:66:115:ARG:CG	2.34	0.41
36:74:33:GLN:HG2	36:74:34:HIS:N	2.35	0.41
38:76:43:LEU:HD13	38:76:47:ILE:HD11	2.01	0.41
39:77:64:MET:CB	39:77:68:LYS:HG3	2.50	0.41
46:1S:477:A:H5'	77:30:34:ALA:HB2	2.01	0.41
46:1S:818:C:H6	46:1S:818:C:OP2	2.03	0.41
46:1S:1425:A:O2'	46:1S:1426:C:H5'	2.20	0.41
47:S0:197:ILE:N	47:S0:197:ILE:CD1	2.83	0.41
49:S2:238:SER:HA	49:S2:239:PRO:HD3	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:S3:212:LYS:NZ	50:S3:212:LYS:HB3	2.36	0.41
51:S4:137:PRO:HG2	51:S4:150:PRO:HD2	2.02	0.41
51:S4:206:ASP:N	51:S4:222:LEU:HD22	2.35	0.41
52:S5:89:ILE:HD12	52:S5:90:ILE:N	2.35	0.41
52:S5:158:GLN:HG3	52:S5:159:ALA:N	2.36	0.41
53:S6:38:GLY:O	53:S6:45:PHE:HB2	2.20	0.41
54:S7:130:VAL:HG12	54:S7:162:ILE:HD12	2.02	0.41
55:S8:136:SER:O	55:S8:140:GLU:HB2	2.19	0.41
55:S8:191:PHE:CE2	58:11:8:GLN:HG3	2.55	0.41
56:S9:24:LEU:HA	56:S9:27:GLU:OE1	2.19	0.41
56:S9:133:HIS:HB3	56:S9:134:ILE:H	1.58	0.41
57:10:21:VAL:HG12	57:10:66:TYR:CD2	2.55	0.41
60:13:87:ASP:N	60:13:87:ASP:OD2	2.54	0.41
62:15:86:VAL:CG2	62:15:87:PRO:HD2	2.50	0.41
66:19:37:VAL:HG22	66:19:39:THR:H	1.84	0.41
67:20:49:ASN:O	67:20:50:LEU:HD12	2.20	0.41
67:20:103:ILE:O	67:20:103:ILE:CG2	2.68	0.41
70:23:60:GLU:HA	70:23:68:ILE:HA	2.02	0.41
72:25:103:ARG:O	72:25:105:THR:N	2.54	0.41
73:26:41:ILE:HD13	73:26:41:ILE:N	2.28	0.41
1:2S:58:G:C5'	17:55:154:PRO:HB2	2.50	0.41
1:2S:217:U:H4'	28:66:100:HIS:NE2	2.35	0.41
1:2S:650:C:H6	1:2S:650:C:O5'	2.04	0.41
1:2S:1090:G:O2'	1:2S:1091:A:H5'	2.20	0.41
1:2S:1470:U:H2'	1:2S:1471:U:H6	1.86	0.41
1:2S:1594:A:H1'	1:2S:1615:C:H1'	2.02	0.41
1:2S:1855:U:O2'	1:2S:1856:C:H5'	2.20	0.41
1:2S:2155:G:OP1	5:L2:241:ARG:HG2	2.21	0.41
1:2S:2219:A:H2'	1:2S:2220:A:C8	2.56	0.41
1:2S:2541:U:C1'	1:2S:2542:U:H4'	2.51	0.41
1:2S:2593:A:H4'	1:2S:2594:C:C6	2.56	0.41
1:2S:2955:U:H2'	1:2S:2956:A:C8	2.55	0.41
1:2S:3099:C:O2	1:2S:3135:U:O2	2.39	0.41
2:8S:33:A:O3'	2:8S:34:U:H2'	2.21	0.41
2:8S:54:A:C8	2:8S:55:U:C5	3.08	0.41
4:L1:183:ILE:O	4:L1:187:VAL:HG23	2.20	0.41
5:L2:69:TYR:O	5:L2:70:ARG:HB3	2.21	0.41
6:L3:116:ARG:HH12	6:L3:174:LYS:HD3	1.85	0.41
6:L3:245:GLY:HA3	6:L3:248:LYS:HD3	2.03	0.41
7:L4:236:LEU:O	7:L4:240:PRO:HG3	2.20	0.41
8:L5:78:ALA:CB	8:L5:105:ILE:HD11	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:96:PRO:C	10:L7:99:PRO:HD2	2.41	0.41
11:L8:98:ARG:HD3	11:L8:99:PRO:HD2	2.02	0.41
12:L9:53:ILE:HD13	16:54:7:VAL:HG21	2.03	0.41
12:L9:71:VAL:O	12:L9:71:VAL:HG12	2.20	0.41
13:50:42:THR:HG22	13:50:45:GLU:HB2	2.03	0.41
13:50:77:THR:HG22	13:50:82:ARG:HA	2.02	0.41
14:51:49:LYS:HA	14:51:64:LYS:HA	2.02	0.41
15:53:91:ARG:HD3	15:53:91:ARG:HA	1.86	0.41
17:55:122:ASN:HB2	17:55:129:TYR:CD2	2.56	0.41
21:59:101:VAL:HG12	21:59:135:LYS:HD3	2.02	0.41
26:64:45:ASN:HA	26:64:46:PRO:HD3	1.79	0.41
29:67:30:ASP:O	29:67:39:GLY:HA2	2.21	0.41
33:71:25:PHE:HA	33:71:28:ARG:CD	2.51	0.41
34:72:85:LEU:HA	34:72:88:HIS:HD2	1.85	0.41
35:73:54:ARG:HB3	35:73:55:ALA:H	1.65	0.41
36:74:20:ILE:CG2	36:74:32:ALA:HB1	2.50	0.41
44:82:67:LYS:N	44:82:87:ARG:HB3	2.35	0.41
45:83:58:SER:O	45:83:61:LYS:HD3	2.21	0.41
46:1S:1006:C:O5'	46:1S:1006:C:H6	2.03	0.41
46:1S:1123:C:N4	46:1S:1124:A:N6	2.68	0.41
46:1S:1418:G:H2'	46:1S:1418:G:N3	2.36	0.41
46:1S:1621:U:H2'	46:1S:1622:G:O4'	2.20	0.41
47:S0:148:ASP:HB3	47:S0:149:LEU:H	1.63	0.41
48:S1:37:THR:CG2	48:S1:231:LEU:HD21	2.43	0.41
48:S1:208:GLN:O	48:S1:209:ASN:HB2	2.21	0.41
49:S2:58:LEU:HG	68:21:13:VAL:O	2.20	0.41
49:S2:90:THR:OG1	49:S2:91:ARG:N	2.54	0.41
49:S2:169:LEU:C	49:S2:170:ILE:HD12	2.40	0.41
51:S4:139:VAL:O	51:S4:146:THR:HA	2.20	0.41
51:S4:176:ASP:HB2	51:S4:179:LYS:HE2	2.03	0.41
53:S6:136:LYS:HD3	53:S6:136:LYS:O	2.20	0.41
54:S7:27:LEU:HD11	54:S7:81:LEU:CD1	2.51	0.41
54:S7:114:ARG:HB2	54:S7:114:ARG:HH11	1.85	0.41
56:S9:120:LYS:HB3	56:S9:120:LYS:HZ2	1.84	0.41
58:11:20:PHE:CD2	58:11:21:ASN:N	2.88	0.41
58:11:54:ILE:HG22	58:11:55:ASP:N	2.35	0.41
58:11:89:ALA:HA	58:11:104:HIS:HA	2.02	0.41
60:13:47:PRO:HB3	60:13:71:ILE:HG21	2.03	0.41
63:16:29:ILE:O	63:16:35:PRO:HA	2.20	0.41
69:22:40:VAL:O	69:22:43:LYS:HB3	2.20	0.41
70:23:17:VAL:HA	70:23:20:ARG:NH2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:23:131:SER:O	70:23:135:LEU:HG	2.20	0.41
71:24:44:LEU:HA	71:24:47:VAL:HG22	2.02	0.41
71:24:102:LYS:HD2	71:24:102:LYS:N	2.31	0.41
79:RA:286:GLU:HA	79:RA:287:PRO:HD3	1.94	0.41
1:2S:316:U:O2	38:76:30:LYS:HD3	2.20	0.41
1:2S:641:C:O2'	1:2S:642:U:H5'	2.20	0.41
1:2S:856:G:H2'	1:2S:857:G:O4'	2.20	0.41
1:2S:1364:C:H2'	1:2S:1365:G:C8	2.56	0.41
1:2S:1401:A:O2'	1:2S:1402:C:H5'	2.21	0.41
1:2S:1888:U:H2'	1:2S:1889:G:O4'	2.20	0.41
1:2S:2148:U:C5'	5:L2:196:TRP:HZ2	2.33	0.41
1:2S:2908:G:H2'	1:2S:2909:U:H6	1.82	0.41
1:2S:2969:A:H2'	1:2S:2970:C:C6	2.55	0.41
1:2S:3024:A:H4'	12:L9:97:PHE:CE2	2.56	0.41
1:2S:3102:G:H2'	1:2S:3103:A:C8	2.56	0.41
1:2S:3237:U:H2'	1:2S:3238:G:O4'	2.20	0.41
1:2S:3379:C:H5''	6:L3:314:TYR:O	2.21	0.41
2:8S:23:U:H5''	28:66:13:ARG:HG2	2.02	0.41
2:8S:83:C:O2	2:8S:83:C:O4'	2.37	0.41
6:L3:186:GLY:O	6:L3:187:SER:O	2.38	0.41
8:L5:140:ARG:CZ	8:L5:140:ARG:CB	2.98	0.41
11:L8:139:VAL:HG13	11:L8:199:ALA:HB2	2.02	0.41
12:L9:126:VAL:HG13	12:L9:160:ASP:OD1	2.21	0.41
17:55:71:ARG:HH22	17:55:74:PRO:HD3	1.86	0.41
26:64:30:ARG:HG2	26:64:30:ARG:HH11	1.85	0.41
29:67:29:HIS:H	29:67:41:ALA:HA	1.84	0.41
29:67:71:PHE:CD1	29:67:71:PHE:C	2.94	0.41
36:74:29:ILE:HD13	36:74:29:ILE:N	2.36	0.41
46:1S:564:G:H2'	46:1S:578:U:C5	2.56	0.41
46:1S:642:G:H2'	46:1S:643:G:C8	2.56	0.41
46:1S:762:A:H2'	46:1S:763:G:O4'	2.20	0.41
46:1S:1029:U:O2'	46:1S:1030:A:H5'	2.21	0.41
46:1S:1186:U:C2'	46:1S:1187:U:H5'	2.50	0.41
46:1S:1426:C:H3'	46:1S:1427:A:C5'	2.50	0.41
46:1S:1429:G:H1'	67:20:74:GLU:CD	2.41	0.41
47:S0:26:ALA:H	47:S0:149:LEU:HD12	1.86	0.41
47:S0:62:ARG:HH12	68:21:78:LEU:HB2	1.85	0.41
48:S1:170:GLU:O	48:S1:174:LYS:HG3	2.20	0.41
49:S2:162:CYS:HB3	49:S2:209:ASN:HB3	2.02	0.41
49:S2:172:ALA:HB2	49:S2:197:TYR:CD2	2.56	0.41
50:S3:8:LYS:H	50:S3:8:LYS:HG3	1.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:S5:69:PHE:HD2	63:16:50:GLU:HG2	1.85	0.41
63:16:51:PRO:O	63:16:55:VAL:HG12	2.21	0.41
65:18:82:PRO:O	65:18:83:ALA:HB2	2.20	0.41
70:23:34:LEU:HB3	70:23:39:LYS:NZ	2.36	0.41
70:23:50:LYS:HB3	70:23:77:ILE:HD12	2.03	0.41
70:23:96:VAL:O	70:23:97:ASP:CB	2.68	0.41
1:2S:209:A:O2'	1:2S:211:A:OP2	2.25	0.41
1:2S:298:U:C5'	38:76:31:GLY:O	2.69	0.41
1:2S:1130:A:H2'	1:2S:1132:C:C6	2.56	0.41
1:2S:1415:U:H2'	1:2S:1416:C:O4'	2.21	0.41
1:2S:1679:A:O2'	1:2S:1680:G:H5'	2.20	0.41
1:2S:2253:G:H2'	1:2S:2254:U:O4'	2.21	0.41
1:2S:2407:C:H1'	1:2S:2818:U:O2	2.21	0.41
1:2S:2754:G:H3'	1:2S:2755:C:H5''	2.02	0.41
1:2S:2883:U:H2'	1:2S:2884:C:H6	1.84	0.41
1:2S:3334:U:O4'	1:2S:3370:A:C2	2.74	0.41
1:2S:3380:U:C2'	1:2S:3381:U:H5'	2.51	0.41
3:5S:41:G:H5''	3:5S:42:A:C8	2.55	0.41
6:L3:82:PRO:HA	6:L3:83:PRO:HD3	2.00	0.41
10:L7:94:LYS:N	10:L7:94:LYS:CD	2.84	0.41
12:L9:49:ASN:HD21	12:L9:52:LEU:CB	2.30	0.41
15:53:95:ILE:HG12	15:53:119:TYR:CE2	2.56	0.41
17:55:14:LYS:HA	17:55:19:LEU:CD2	2.50	0.41
20:58:102:ALA:HA	20:58:122:ILE:O	2.21	0.41
21:59:23:TRP:CH2	21:59:25:ASP:HB3	2.56	0.41
23:61:158:THR:O	23:61:160:ILE:N	2.54	0.41
27:65:59:SER:HB3	27:65:102:LEU:HD11	2.02	0.41
44:82:68:VAL:HG12	44:82:85:LEU:HD13	2.01	0.41
45:83:28:LYS:HG2	45:83:32:GLN:NE2	2.36	0.41
46:1S:372:G:H21	46:1S:612:U:H3	1.69	0.41
46:1S:774:A:H2'	46:1S:775:G:H5'	2.03	0.41
46:1S:829:A:H4'	46:1S:830:U:C5'	2.51	0.41
46:1S:1366:U:H5''	63:16:33:GLY:CA	2.51	0.41
46:1S:1471:A:H2	46:1S:1474:G:N3	2.19	0.41
46:1S:1601:G:N2	66:19:88:VAL:HG22	2.35	0.41
46:1S:1687:U:H2'	46:1S:1688:U:O4'	2.21	0.41
52:S5:126:ASP:O	52:S5:127:GLN:HB2	2.21	0.41
53:S6:28:PHE:CZ	53:S6:104:PRO:HA	2.55	0.41
53:S6:63:MET:HB3	53:S6:99:GLY:O	2.21	0.41
54:S7:142:TYR:HD2	69:22:50:PHE:O	2.04	0.41
55:S8:23:LYS:HB3	55:S8:24:LYS:H	1.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:41:GLU:HB3	56:S9:44:ARG:NH2	2.36	0.41
57:10:76:LEU:HD12	57:10:76:LEU:N	2.35	0.41
59:12:71:ILE:HG23	59:12:72:ILE:N	2.35	0.41
60:13:100:LYS:CA	60:13:103:GLU:HG2	2.49	0.41
69:22:36:LYS:HB2	69:22:110:ILE:HD12	2.02	0.41
1:2S:95:A:H8	1:2S:95:A:P	2.44	0.41
1:2S:201:A:H4'	1:2S:220:G:C6	2.56	0.41
1:2S:249:U:O2	1:2S:250:U:C4	2.74	0.41
1:2S:259:C:H2'	1:2S:260:C:C6	2.56	0.41
1:2S:273:A:H2'	1:2S:274:G:C8	2.56	0.41
1:2S:311:C:H2'	1:2S:312:C:H6	1.84	0.41
1:2S:311:C:H2'	1:2S:312:C:C6	2.56	0.41
1:2S:585:A:C5'	35:73:72:THR:HA	2.51	0.41
1:2S:625:G:C2'	1:2S:626:U:H5'	2.51	0.41
1:2S:628:A:H2'	1:2S:629:U:H6	1.79	0.41
1:2S:643:U:H2'	1:2S:644:G:C8	2.56	0.41
1:2S:912:G:H2'	1:2S:914:A:C5	2.55	0.41
1:2S:1152:G:H1'	1:2S:2371:G:H5'	2.01	0.41
1:2S:1212:A:N3	1:2S:1213:G:H1'	2.35	0.41
1:2S:1320:C:H6	1:2S:1320:C:O5'	2.04	0.41
1:2S:1389:G:H2'	1:2S:1390:A:H2	1.86	0.41
1:2S:1892:G:C2'	1:2S:1893:A:H5''	2.49	0.41
1:2S:2101:C:H1'	1:2S:2102:U:O5'	2.21	0.41
1:2S:2102:U:H5'	21:59:88:ARG:NH2	2.32	0.41
1:2S:2279:A:H62	1:2S:2286:U:H3	1.69	0.41
1:2S:2393:G:H5''	6:L3:252:ILE:HD11	2.02	0.41
1:2S:2396:G:OP1	1:2S:2397:A:H4'	2.21	0.41
1:2S:2403:G:N7	1:2S:2870:C:H4'	2.36	0.41
1:2S:2468:A:C5	1:2S:2478:C:H4'	2.55	0.41
1:2S:2470:C:H5''	4:L1:30:GLU:HG2	2.02	0.41
1:2S:2604:U:C4	1:2S:2605:G:C6	3.09	0.41
1:2S:2788:C:O2'	1:2S:2789:U:H5'	2.21	0.41
1:2S:2819:A:O2'	1:2S:2820:A:H5'	2.21	0.41
1:2S:2850:G:HO2'	1:2S:2851:A:H8	1.67	0.41
2:8S:103:G:O5'	2:8S:103:G:H8	2.03	0.41
2:8S:109:A:H2'	2:8S:110:C:O4'	2.20	0.41
2:8S:154:C:H2'	2:8S:155:A:H8	1.84	0.41
7:L4:162:THR:O	7:L4:166:VAL:HG23	2.21	0.41
7:L4:361:HIS:CD2	7:L4:362:ASP:N	2.86	0.41
8:L5:183:TRP:HA	8:L5:189:GLU:O	2.21	0.41
10:L7:24:GLU:HB2	10:L7:25:GLN:H	1.57	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L9:25:VAL:CG1	12:L9:26:LYS:N	2.83	0.41
12:L9:41:ILE:O	12:L9:41:ILE:HD13	2.21	0.41
12:L9:90:MET:HG2	12:L9:180:TYR:O	2.20	0.41
12:L9:135:GLU:O	12:L9:144:ILE:HG13	2.20	0.41
14:51:13:LYS:HB3	14:51:13:LYS:NZ	2.36	0.41
14:51:166:LYS:O	14:51:167:TYR:HB2	2.21	0.41
16:54:106:ARG:HA	16:54:109:ARG:CD	2.42	0.41
17:55:39:ALA:CB	17:55:131:GLU:OE2	2.68	0.41
17:55:63:ARG:HE	17:55:63:ARG:HB2	1.62	0.41
19:57:58:ILE:HA	19:57:59:PRO:HD3	1.78	0.41
19:57:148:LEU:O	19:57:149:VAL:CG2	2.68	0.41
20:58:23:ASN:ND2	20:58:26:LEU:HB2	2.35	0.41
20:58:124:LEU:HA	20:58:124:LEU:HD23	1.84	0.41
28:66:74:TYR:HD1	28:66:76:LEU:HB3	1.86	0.41
28:66:119:ILE:HD12	28:66:126:LEU:HD23	2.02	0.41
28:66:126:LEU:HD13	28:66:127:GLU:OXT	2.20	0.41
29:67:4:PHE:CE1	32:70:35:ARG:HG2	2.55	0.41
29:67:105:SER:O	29:67:108:GLU:HB2	2.21	0.41
32:70:58:TYR:CE2	32:70:62:LEU:HD11	2.55	0.41
34:72:20:HIS:HB2	34:72:35:GLN:OE1	2.21	0.41
34:72:89:THR:HG22	34:72:117:ILE:HG12	2.03	0.41
35:73:91:ALA:C	35:73:93:THR:N	2.74	0.41
36:74:8:ARG:HH11	36:74:8:ARG:CG	2.34	0.41
40:78:11:PHE:CG	40:78:54:LEU:HD22	2.56	0.41
45:83:20:SER:HA	45:83:23:ARG:NE	2.36	0.41
45:83:39:CYS:CB	45:83:42:CYS:SG	3.09	0.41
46:1S:9:U:H2'	46:1S:11:A:OP2	2.21	0.41
46:1S:680:U:C3'	46:1S:680:U:C6	3.04	0.41
46:1S:744:U:C4	46:1S:745:U:C5	3.09	0.41
46:1S:831:U:O2'	46:1S:832:U:H5'	2.20	0.41
46:1S:1361:U:H2'	46:1S:1362:U:H5''	2.03	0.41
46:1S:1435:G:C2	57:10:59:PHE:HB2	2.56	0.41
46:1S:1689:A:H2'	46:1S:1690:G:O4'	2.21	0.41
46:1S:1716:C:O2'	46:1S:1717:G:H5''	2.20	0.41
46:1S:1731:A:H2'	46:1S:1732:A:O4'	2.20	0.41
46:1S:1744:A:C5	46:1S:1745:G:C6	3.09	0.41
47:S0:29:VAL:CG1	47:S0:150:ASP:HB3	2.51	0.41
49:S2:37:PRO:HB2	49:S2:65:GLU:OE1	2.20	0.41
49:S2:130:ILE:HA	49:S2:133:LYS:HG2	2.03	0.41
51:S4:92:LEU:HB2	51:S4:97:GLU:O	2.21	0.41
51:S4:113:ARG:HG3	51:S4:113:ARG:NH1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S4:115:THR:OG1	51:S4:118:GLU:HB2	2.21	0.41
51:S4:252:ARG:CD	51:S4:256:ARG:HD2	2.50	0.41
52:S5:24:VAL:HG21	52:S5:28:PRO:HA	2.02	0.41
52:S5:72:HIS:CG	63:16:44:LEU:HD11	2.56	0.41
53:S6:157:VAL:HG13	53:S6:159:ARG:HG3	2.03	0.41
58:11:27:THR:HG23	58:11:30:ARG:N	2.33	0.41
60:13:47:PRO:HB3	60:13:71:ILE:CG2	2.51	0.41
62:15:72:LYS:HA	62:15:73:PRO:HD3	1.86	0.41
63:16:114:ARG:H	63:16:116:LEU:CD2	2.34	0.41
64:17:13:SER:HB3	64:17:57:LEU:HD11	2.01	0.41
65:18:110:ARG:HG2	65:18:110:ARG:HH11	1.86	0.41
66:19:9:VAL:HG11	66:19:14:PHE:CD1	2.55	0.41
66:19:40:SER:HB3	66:19:43:ASN:ND2	2.36	0.41
66:19:139:THR:O	66:19:139:THR:HG22	2.21	0.41
67:20:95:ALA:HB1	67:20:96:PRO:CD	2.44	0.41
69:22:16:ASN:O	69:22:20:THR:HG23	2.20	0.41
69:22:27:ILE:HG12	69:22:61:ILE:O	2.21	0.41
69:22:38:LEU:O	69:22:47:ILE:HD11	2.21	0.41
70:23:13:ARG:NH1	70:23:13:ARG:HB2	2.35	0.41
72:25:50:ILE:HD11	72:25:70:LYS:HG2	2.01	0.41
73:26:82:ARG:HA	73:26:82:ARG:NE	2.32	0.41
74:27:17:ARG:HG3	74:27:18:LYS:N	2.35	0.41
74:27:61:THR:CG2	74:27:62:ILE:N	2.76	0.41
79:RA:170:ILE:HD11	79:RA:204:ALA:HB2	2.02	0.41
1:2S:75:G:C5'	15:53:58:VAL:CG1	2.95	0.41
1:2S:642:U:H5''	1:2S:1116:G:O6	2.21	0.41
1:2S:1565:G:N2	1:2S:1566:A:H1'	2.35	0.41
1:2S:1604:G:H4'	1:2S:1835:A:H4'	2.02	0.41
1:2S:1818:U:H2'	1:2S:1819:U:H5''	2.03	0.41
1:2S:1852:G:H2'	1:2S:1853:U:C6	2.56	0.41
1:2S:2109:U:H6	1:2S:2109:U:O5'	2.03	0.41
1:2S:2172:A:H2'	1:2S:2173:U:C6	2.56	0.41
1:2S:2604:U:O2'	1:2S:2605:G:H5'	2.21	0.41
1:2S:3229:G:H2'	1:2S:3230:G:H8	1.86	0.41
3:5S:70:U:H2'	3:5S:71:G:O4'	2.21	0.41
6:L3:151:ILE:HG22	6:L3:155:ALA:HB3	2.02	0.41
7:L4:168:ALA:O	7:L4:172:VAL:HG23	2.21	0.41
15:53:95:ILE:HG12	15:53:119:TYR:HE2	1.86	0.41
15:53:135:ALA:O	15:53:136:GLU:HG2	2.20	0.41
16:54:36:VAL:CG1	16:54:55:ARG:NH2	2.84	0.41
16:54:83:LYS:HB2	16:54:83:LYS:HE3	1.96	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:55:64:VAL:HG11	17:55:102:ALA:HB1	2.02	0.41
17:55:67:ARG:CG	17:55:127:TYR:CE1	3.03	0.41
18:56:54:TYR:O	18:56:58:LEU:HB2	2.20	0.41
18:56:174:PHE:O	18:56:178:VAL:HG23	2.20	0.41
19:57:127:ARG:CG	19:57:128:ARG:H	2.34	0.41
22:60:8:GLN:CB	22:60:64:ILE:HD11	2.45	0.41
25:63:4:ASN:HB3	25:63:106:LYS:HA	2.03	0.41
28:66:13:ARG:O	28:66:17:LYS:HB2	2.21	0.41
28:66:86:THR:HG22	28:66:96:PRO:HA	2.02	0.41
33:71:11:GLU:HG2	33:71:74:ARG:CB	2.51	0.41
38:76:82:ARG:O	38:76:86:LYS:HB3	2.21	0.41
46:1S:532:U:C5	46:1S:533:U:C5	3.09	0.41
46:1S:606:A:H4'	46:1S:607:G:H3'	2.02	0.41
46:1S:680:U:H3'	46:1S:680:U:C6	2.56	0.41
46:1S:1671:A:N6	46:1S:1730:A:O2'	2.51	0.41
46:1S:1719:A:N6	46:1S:1720:G:C2	2.89	0.41
46:1S:1719:A:N7	46:1S:1720:G:C5	2.89	0.41
47:S0:198:MET:HA	47:S0:198:MET:CE	2.51	0.41
48:S1:21:VAL:HG23	48:S1:22:ASP:N	2.36	0.41
48:S1:153:HIS:CG	48:S1:154:SER:H	2.39	0.41
50:S3:72:LEU:HD23	57:10:20:VAL:HG11	2.02	0.41
54:S7:39:ARG:HG3	54:S7:39:ARG:HH21	1.86	0.41
55:S8:122:GLY:HA2	55:S8:157:GLU:OE1	2.21	0.41
61:14:24:ASN:C	61:14:55:SER:HB3	2.41	0.41
62:15:126:VAL:CG2	62:15:128:HIS:CD2	3.04	0.41
67:20:95:ALA:HB1	67:20:99:ILE:HG21	2.03	0.41
70:23:86:PHE:CD1	70:23:86:PHE:C	2.93	0.41
70:23:126:LYS:HA	70:23:131:SER:HA	2.01	0.41
72:25:72:GLY:C	72:25:74:SER:H	2.25	0.41
78:31:136:LYS:HD2	78:31:136:LYS:HA	1.95	0.41
1:2S:201:A:O5'	1:2S:201:A:H8	2.03	0.40
1:2S:449:U:C6	1:2S:449:U:C3'	3.04	0.40
1:2S:517:G:C2'	1:2S:518:G:H5'	2.51	0.40
1:2S:544:C:C6	1:2S:544:C:C3'	3.04	0.40
1:2S:836:A:OP2	45:83:4:ARG:HD3	2.20	0.40
1:2S:1074:U:H1'	31:69:46:ALA:HB2	2.03	0.40
1:2S:1088:U:H2'	1:2S:1089:G:O4'	2.20	0.40
1:2S:1313:G:H5'	18:56:83:ALA:CB	2.51	0.40
1:2S:1433:A:O4'	34:72:27:ARG:HD2	2.21	0.40
1:2S:2085:U:H3'	1:2S:2085:U:H6	1.87	0.40
1:2S:2140:U:H2'	1:2S:2141:U:H5'	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2188:A:H2'	1:2S:2189:U:O4'	2.22	0.40
1:2S:2490:C:H1'	1:2S:2491:A:C8	2.56	0.40
1:2S:3296:A:O2'	1:2S:3297:U:H5'	2.21	0.40
3:5S:3:U:H2'	3:5S:4:U:H6	1.87	0.40
5:L2:17:THR:HB	5:L2:18:SER:H	1.58	0.40
5:L2:109:GLU:HA	5:L2:136:ILE:HB	2.03	0.40
6:L3:183:LEU:CB	6:L3:191:LYS:HD2	2.50	0.40
7:L4:76:ARG:HA	7:L4:87:GLN:O	2.21	0.40
7:L4:329:PRO:HB3	10:L7:41:ARG:NH1	2.36	0.40
9:L6:51:ARG:HD2	9:L6:158:TYR:O	2.21	0.40
10:L7:160:ARG:NH2	10:L7:206:LYS:HD3	2.36	0.40
11:L8:183:LYS:HB2	11:L8:196:ALA:HB2	2.02	0.40
12:L9:3:TYR:HB2	12:L9:65:VAL:HG21	2.02	0.40
13:50:79:VAL:HG11	13:50:147:VAL:CG2	2.52	0.40
17:55:187:ARG:O	17:55:190:THR:HG22	2.20	0.40
18:56:121:PRO:HA	18:56:127:LEU:HD12	2.03	0.40
19:57:24:VAL:HG12	19:57:25:SER:N	2.36	0.40
19:57:86:LYS:O	19:57:90:PHE:HD1	2.04	0.40
23:61:154:VAL:HA	23:61:155:PRO:HD3	1.89	0.40
25:63:23:MET:HE3	25:63:100:GLY:N	2.36	0.40
25:63:39:VAL:CG1	25:63:40:LYS:H	2.23	0.40
26:64:45:ASN:O	26:64:49:ILE:HG12	2.21	0.40
30:68:64:GLN:HB2	30:68:67:HIS:CE1	2.56	0.40
42:80:90:ASN:N	42:80:90:ASN:ND2	2.69	0.40
46:1S:15:U:H2'	46:1S:16:G:O4'	2.21	0.40
46:1S:370:A:N6	49:S2:199:GLN:HE22	2.19	0.40
46:1S:450:U:H2'	46:1S:451:A:H8	1.83	0.40
46:1S:477:A:H2'	46:1S:478:A:C8	2.46	0.40
46:1S:523:G:H8	46:1S:523:G:O5'	2.03	0.40
46:1S:685:A:C2'	46:1S:686:C:H5'	2.52	0.40
46:1S:716:C:H2'	46:1S:717:C:O4'	2.21	0.40
46:1S:803:A:H5'	69:22:107:SER:O	2.21	0.40
47:S0:121:VAL:HB	47:S0:143:VAL:HG13	2.02	0.40
48:S1:138:PHE:CD2	48:S1:214:LYS:HB3	2.55	0.40
48:S1:189:ILE:HB	48:S1:190:PRO:CD	2.51	0.40
49:S2:185:LYS:O	49:S2:189:GLN:HG3	2.20	0.40
50:S3:96:LEU:HD13	50:S3:190:ARG:HB2	2.03	0.40
55:S8:196:LEU:O	55:S8:200:LYS:HD2	2.22	0.40
58:11:124:THR:O	58:11:140:VAL:HG12	2.21	0.40
60:13:55:ARG:O	74:27:32:PHE:HZ	2.03	0.40
64:17:11:ARG:HH11	64:17:11:ARG:HG3	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:23:51:GLY:CA	70:23:77:ILE:HG13	2.50	0.40
73:26:51:ARG:HG2	73:26:51:ARG:HH21	1.86	0.40
1:2S:269:G:H5'	17:55:120:TRP:CE3	2.56	0.40
1:2S:286:U:H2'	1:2S:287:G:O4'	2.21	0.40
1:2S:884:A:H2'	1:2S:2139:A:C8	2.56	0.40
1:2S:1140:G:H4'	10:L7:94:LYS:HZ1	1.85	0.40
1:2S:1230:G:H1'	1:2S:1260:A:C2	2.57	0.40
1:2S:1631:C:OP2	29:67:48:ARG:NH2	2.54	0.40
1:2S:2542:U:H1'	1:2S:2543:U:C5	2.53	0.40
1:2S:3272:C:C5'	9:L6:77:ARG:HE	2.27	0.40
3:5S:11:A:H5''	3:5S:13:A:C6	2.55	0.40
4:L1:56:PRO:HB2	4:L1:184:LEU:HA	2.03	0.40
6:L3:238:LEU:HD22	6:L3:238:LEU:N	2.36	0.40
7:L4:280:ILE:H	7:L4:280:ILE:HG12	1.62	0.40
11:L8:32:LYS:HE2	11:L8:39:ALA:HB1	2.03	0.40
11:L8:59:GLN:HG2	11:L8:59:GLN:H	1.62	0.40
11:L8:175:VAL:CG1	11:L8:176:PRO:HD2	2.51	0.40
12:L9:50:ASN:HD22	12:L9:50:ASN:HA	1.68	0.40
15:53:126:PHE:CD1	15:53:126:PHE:N	2.89	0.40
21:59:161:ALA:O	21:59:165:LYS:N	2.50	0.40
27:65:111:ASN:HB2	27:65:123:TYR:CB	2.50	0.40
28:66:33:ALA:HA	28:66:34:PRO:HD2	1.89	0.40
29:67:83:THR:OG1	29:67:85:TYR:HD2	2.04	0.40
39:77:85:LYS:CG	39:77:86:ALA:N	2.82	0.40
45:83:59:CYS:C	45:83:61:LYS:N	2.74	0.40
46:1S:18:C:H2'	46:1S:19:A:O4'	2.21	0.40
46:1S:367:A:C2'	46:1S:368:U:H5'	2.51	0.40
46:1S:412:A:H2	46:1S:421:A:H61	1.68	0.40
46:1S:657:U:C2'	46:1S:658:C:H5''	2.41	0.40
46:1S:966:A:H2'	46:1S:967:A:C8	2.56	0.40
46:1S:1364:G:H21	66:19:3:GLY:CA	2.34	0.40
46:1S:1391:A:H61	46:1S:1407:U:H3	1.68	0.40
46:1S:1562:G:H2'	46:1S:1563:C:C6	2.56	0.40
46:1S:1604:U:H5'	67:20:79:TRP:CE2	2.55	0.40
47:S0:167:LYS:HB3	47:S0:168:HIS:H	1.47	0.40
48:S1:32:ILE:H	48:S1:32:ILE:HD12	1.86	0.40
48:S1:33:LYS:HB2	48:S1:97:LEU:CD2	2.48	0.40
48:S1:36:SER:HB3	48:S1:231:LEU:CD2	2.51	0.40
50:S3:49:ILE:HG23	50:S3:89:GLU:HG3	2.03	0.40
52:S5:29:ILE:N	52:S5:29:ILE:HD12	2.36	0.40
52:S5:161:ASP:O	75:28:44:VAL:HA	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:S6:72:ARG:HG3	53:S6:72:ARG:HH11	1.86	0.40
61:14:17:ALA:HB3	61:14:81:VAL:HG12	2.03	0.40
69:22:25:VAL:CG2	69:22:63:VAL:HB	2.51	0.40
69:22:86:ILE:HG13	69:22:87:GLU:H	1.86	0.40
71:24:7:ILE:HD13	71:24:44:LEU:HD21	2.02	0.40
71:24:86:GLU:HA	71:24:87:PRO:HD3	1.90	0.40
79:RA:135:THR:HG23	79:RA:141:LEU:HD21	2.02	0.40
1:2S:16:A:O2'	1:2S:17:G:H5'	2.22	0.40
1:2S:102:C:H6	1:2S:102:C:O5'	2.05	0.40
1:2S:676:G:O6	20:58:86:THR:HG21	2.21	0.40
1:2S:789:A:H2'	1:2S:790:U:C6	2.55	0.40
1:2S:842:G:H2'	1:2S:843:A:H8	1.87	0.40
1:2S:1056:U:H2'	1:2S:1057:A:C8	2.57	0.40
1:2S:1360:C:O2'	1:2S:1361:U:H5'	2.21	0.40
1:2S:1435:A:OP2	1:2S:1437:C:H6	2.04	0.40
1:2S:1479:U:C5	1:2S:1480:G:C5	3.09	0.40
1:2S:1565:G:C2	1:2S:1566:A:H1'	2.56	0.40
1:2S:1706:C:H3'	1:2S:1707:A:H8	1.87	0.40
1:2S:2085:U:O2'	1:2S:2086:A:H5'	2.21	0.40
1:2S:2213:A:H2	1:2S:2601:A:N3	2.19	0.40
1:2S:2397:A:N7	1:2S:2873:U:C6	2.90	0.40
1:2S:3132:C:H6	1:2S:3132:C:O5'	2.03	0.40
1:2S:3151:U:H4'	1:2S:3294:A:C4'	2.51	0.40
2:8S:4:C:C5'	19:57:61:ARG:O	2.69	0.40
2:8S:107:G:H4'	2:8S:138:A:H5'	2.03	0.40
2:8S:146:U:O2'	2:8S:147:U:H5'	2.21	0.40
3:5S:43:U:H2'	3:5S:44:C:O4'	2.21	0.40
4:L1:51:GLY:H	4:L1:193:LEU:HD13	1.85	0.40
5:L2:205:ASN:CB	5:L2:206:PRO:CD	2.94	0.40
6:L3:57:VAL:HG21	6:L3:358:TRP:CE3	2.56	0.40
6:L3:183:LEU:HD12	6:L3:183:LEU:N	2.36	0.40
7:L4:184:SER:CB	7:L4:202:ARG:HG2	2.51	0.40
8:L5:51:LEU:HB2	8:L5:144:VAL:CG2	2.51	0.40
9:L6:54:TYR:CD2	9:L6:55:LEU:N	2.89	0.40
9:L6:79:VAL:CG1	9:L6:80:ASN:N	2.85	0.40
13:50:55:ASN:CG	13:50:164:LYS:HE2	2.42	0.40
15:53:171:ARG:HA	15:53:171:ARG:HD3	1.88	0.40
17:55:93:LYS:O	17:55:94:TYR:HB2	2.21	0.40
18:56:13:GLY:O	18:56:124:LEU:HD12	2.21	0.40
18:56:109:PRO:HA	18:56:110:PRO:HD3	1.92	0.40
19:57:20:SER:O	19:57:21:TYR:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:58:5:HIS:C	20:58:7:SER:N	2.73	0.40
20:58:127:LEU:HD13	20:58:127:LEU:C	2.42	0.40
21:59:60:LYS:HB3	21:59:64:ARG:CG	2.48	0.40
21:59:106:LEU:N	21:59:106:LEU:HD12	2.37	0.40
29:67:10:VAL:HB	29:67:83:THR:CG2	2.51	0.40
31:69:9:ALA:C	31:69:12:GLN:HG2	2.41	0.40
41:79:2:ALA:CA	41:79:5:LYS:HG3	2.52	0.40
42:80:116:GLY:O	42:80:117:HIS:HB2	2.22	0.40
44:82:63:LYS:HD3	44:82:63:LYS:HA	1.80	0.40
46:1S:519:C:H3'	46:1S:520:A:H8	1.86	0.40
46:1S:531:C:C2'	46:1S:532:U:H5''	2.48	0.40
46:1S:567:A:O2'	77:30:14:VAL:HG23	2.21	0.40
46:1S:912:U:H5'	46:1S:913:G:C2'	2.46	0.40
46:1S:1065:A:OP1	48:S1:160:HIS:HE1	2.04	0.40
46:1S:1182:U:H4'	62:15:124:THR:OG1	2.20	0.40
46:1S:1456:C:H3'	46:1S:1457:C:H5'	2.04	0.40
46:1S:1521:G:O2'	46:1S:1522:U:H5'	2.21	0.40
49:S2:57:PHE:CD1	49:S2:138:PRO:HD3	2.56	0.40
50:S3:196:ARG:HG3	50:S3:196:ARG:NH1	2.35	0.40
51:S4:70:VAL:HG22	51:S4:71:LYS:N	2.37	0.40
51:S4:103:TYR:CZ	51:S4:189:LEU:HD11	2.56	0.40
52:S5:68:ILE:HD11	52:S5:90:ILE:HG13	2.03	0.40
53:S6:98:ARG:CD	53:S6:99:GLY:N	2.85	0.40
53:S6:136:LYS:CE	53:S6:176:GLN:HB2	2.51	0.40
54:S7:51:VAL:C	54:S7:53:GLY:H	2.25	0.40
54:S7:170:GLN:HA	54:S7:181:ILE:HG23	2.03	0.40
55:S8:106:ALA:HB1	55:S8:165:LEU:HG	2.02	0.40
55:S8:193:LEU:HD23	55:S8:193:LEU:HA	1.74	0.40
56:S9:85:VAL:HG12	56:S9:103:ASP:HB3	1.99	0.40
59:12:54:ARG:HH21	78:31:129:GLY:HA3	1.86	0.40
61:14:102:LEU:HD22	61:14:105:LEU:HD11	2.04	0.40
62:15:127:ARG:HG2	62:15:127:ARG:HH21	1.87	0.40
66:19:116:ILE:HG12	66:19:122:ARG:NH1	2.37	0.40
69:22:104:LEU:N	69:22:104:LEU:HD13	2.37	0.40
70:23:76:LEU:HD22	70:23:78:LYS:HG2	2.03	0.40
75:28:8:THR:HG22	75:28:9:LEU:N	2.36	0.40
1:2S:393:U:H2'	1:2S:394:G:O4'	2.22	0.40
1:2S:678:G:O2'	1:2S:679:U:H5'	2.20	0.40
1:2S:1189:C:O4'	1:2S:1190:A:N7	2.54	0.40
1:2S:1347:U:H5''	7:L4:302:ALA:HB1	2.04	0.40
1:2S:1500:G:H2'	1:2S:1501:U:H6	1.83	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1535:A:N6	1:2S:1586:G:H21	2.08	0.40
1:2S:2175:U:H4'	1:2S:2176:U:OP2	2.21	0.40
1:2S:2178:A:OP2	5:L2:151:PRO:HG2	2.22	0.40
1:2S:2197:C:H5'	1:2S:2198:A:N7	2.37	0.40
1:2S:2234:G:H2'	1:2S:2235:C:O4'	2.22	0.40
1:2S:2271:A:H2'	1:2S:2272:G:C4'	2.51	0.40
1:2S:2832:C:O5'	1:2S:2832:C:H6	2.05	0.40
1:2S:2971:A:N3	1:2S:2971:A:C2'	2.85	0.40
1:2S:3186:A:H2'	12:L9:42:ASP:OD2	2.20	0.40
1:2S:3216:G:O2'	1:2S:3219:G:H1'	2.21	0.40
1:2S:3359:A:H3'	1:2S:3360:C:H6	1.83	0.40
6:L3:261:MET:HE2	6:L3:264:VAL:HG13	2.03	0.40
6:L3:312:VAL:O	6:L3:314:TYR:N	2.54	0.40
7:L4:60:THR:HB	7:L4:90:PHE:CZ	2.56	0.40
9:L6:41:ILE:HB	9:L6:85:ILE:HB	2.03	0.40
9:L6:105:TYR:CE1	9:L6:134:ARG:CD	3.04	0.40
14:51:15:GLU:OE2	14:51:130:VAL:HG13	2.21	0.40
19:57:111:LYS:HB3	19:57:111:LYS:NZ	2.36	0.40
23:61:55:LYS:C	23:61:57:TYR:H	2.25	0.40
34:72:76:VAL:HG12	34:72:77:ALA:N	2.35	0.40
38:76:95:ALA:O	38:76:97:SER:N	2.54	0.40
44:82:58:PHE:HE1	44:82:60:LYS:C	2.25	0.40
46:1S:23:G:OP1	56:S9:14:THR:HG21	2.22	0.40
46:1S:499:U:C6	46:1S:499:U:C3'	3.04	0.40
46:1S:617:U:H2'	46:1S:618:U:C6	2.57	0.40
46:1S:628:G:O6	46:1S:969:C:H3'	2.21	0.40
46:1S:730:G:N3	46:1S:730:G:C2'	2.85	0.40
46:1S:746:A:C2'	46:1S:747:C:H5'	2.51	0.40
46:1S:862:A:H4'	46:1S:863:A:H5''	2.03	0.40
46:1S:1215:C:O2'	46:1S:1216:C:H5'	2.22	0.40
46:1S:1407:U:H2'	46:1S:1408:G:O4'	2.22	0.40
47:S0:139:VAL:O	47:S0:139:VAL:HG22	2.21	0.40
48:S1:62:LYS:HE3	48:S1:91:VAL:HG12	2.04	0.40
51:S4:49:ARG:CB	51:S4:55:ALA:HB3	2.51	0.40
53:S6:133:LEU:HB3	53:S6:134:GLY:H	1.70	0.40
54:S7:143:LEU:HD23	54:S7:147:ASN:HB2	2.02	0.40
54:S7:172:VAL:O	54:S7:176:LEU:HG	2.21	0.40
57:10:53:GLY:O	57:10:54:TYR:HB2	2.21	0.40
57:10:92:ILE:O	57:10:92:ILE:CG2	2.69	0.40
59:12:62:LEU:HD23	59:12:62:LEU:N	2.36	0.40
59:12:98:GLY:HA2	59:12:118:ALA:HB2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:13:72:MET:CE	60:13:75:LEU:HB2	2.52	0.40
69:22:23:ARG:HH11	69:22:66:ASN:HA	1.83	0.40
69:22:38:LEU:HA	69:22:41:MET:HE2	2.03	0.40
70:23:29:TYR:CE1	70:23:33:LEU:HG	2.56	0.40
71:24:57:VAL:HA	71:24:72:PHE:O	2.20	0.40
72:25:43:ASP:O	72:25:45:GLU:N	2.55	0.40
73:26:37:LYS:HG2	73:26:72:HIS:CE1	2.56	0.40
1:2S:104:G:OP1	15:53:70:ARG:HG3	2.21	0.40
1:2S:861:C:H2'	1:2S:862:U:C6	2.57	0.40
1:2S:982:C:H2'	1:2S:983:A:C8	2.57	0.40
1:2S:1363:A:H2	20:58:10:HIS:NE2	2.15	0.40
1:2S:1591:G:C2'	1:2S:1592:G:H5'	2.51	0.40
1:2S:1921:A:H2'	1:2S:1922:A:C8	2.56	0.40
1:2S:1935:G:H2'	1:2S:1936:A:C8	2.57	0.40
1:2S:2101:C:O2'	1:2S:2102:U:C5'	2.67	0.40
1:2S:2277:C:O2'	1:2S:2278:C:H5'	2.21	0.40
1:2S:2680:A:H2	14:51:65:ILE:HD11	1.84	0.40
1:2S:2819:A:C2'	1:2S:2820:A:H5'	2.51	0.40
1:2S:2949:U:H2'	1:2S:2950:G:O4'	2.22	0.40
1:2S:3309:G:H1'	19:57:69:ARG:HB3	2.04	0.40
1:2S:3366:G:H2'	1:2S:3367:C:C6	2.56	0.40
1:2S:3380:U:O2'	1:2S:3381:U:H5'	2.21	0.40
5:L2:72:ARG:HB2	5:L2:72:ARG:HH11	1.83	0.40
5:L2:226:SER:O	5:L2:228:GLY:N	2.54	0.40
6:L3:245:GLY:HA3	6:L3:248:LYS:CD	2.51	0.40
11:L8:56:VAL:HA	11:L8:59:GLN:CD	2.41	0.40
13:50:38:LYS:CD	13:50:41:ALA:HB2	2.48	0.40
13:50:166:ILE:HG22	13:50:167:LEU:N	2.36	0.40
15:53:16:LYS:HB3	15:53:21:ARG:HH22	1.86	0.40
16:54:13:ARG:HB2	16:54:65:LEU:HD13	2.03	0.40
23:61:139:ARG:C	23:61:140:ILE:HG13	2.41	0.40
26:64:17:ARG:HG3	26:64:17:ARG:NH1	2.37	0.40
28:66:118:LEU:HD12	28:66:121:ARG:HD2	2.02	0.40
29:67:12:VAL:HB	29:67:81:LEU:HD12	2.04	0.40
29:67:12:VAL:CG1	29:67:81:LEU:HD12	2.52	0.40
29:67:54:THR:HG22	29:67:57:HIS:NE2	2.37	0.40
29:67:121:ARG:HH12	29:67:126:LYS:HE3	1.85	0.40
33:71:17:HIS:C	33:71:19:ARG:H	2.24	0.40
36:74:57:LEU:HB3	36:74:58:ARG:H	1.68	0.40
38:76:54:GLU:HA	38:76:57:LEU:HB2	2.02	0.40
46:1S:65:A:N1	46:1S:84:A:N7	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:279:G:C8	46:1S:279:G:H5'	2.57	0.40
46:1S:710:U:H2'	46:1S:711:U:H5'	2.02	0.40
46:1S:1289:U:O2'	46:1S:1290:U:H5'	2.22	0.40
46:1S:1550:A:O2'	46:1S:1551:U:H5'	2.22	0.40
46:1S:1605:G:OP2	63:16:127:LYS:HG2	2.21	0.40
46:1S:1712:A:H5'	46:1S:1713:G:OP2	2.22	0.40
46:1S:1760:G:C2'	46:1S:1761:U:H5'	2.52	0.40
51:S4:63:ALA:O	51:S4:67:GLN:NE2	2.51	0.40
51:S4:133:LYS:O	51:S4:134:LYS:CB	2.70	0.40
52:S5:29:ILE:HD12	52:S5:29:ILE:H	1.87	0.40
54:S7:99:LEU:HA	54:S7:100:PRO:HD2	1.91	0.40
65:18:49:LYS:HZ3	65:18:81:ILE:HG12	1.86	0.40
79:RA:59:ARG:HB2	79:RA:59:ARG:CZ	2.47	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [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%)	137 (68%)	50 (25%)	15 (7%)	1	13
5	L2	250/254 (98%)	196 (78%)	44 (18%)	10 (4%)	3	23
6	L3	384/387 (99%)	322 (84%)	51 (13%)	11 (3%)	4	29
7	L4	359/362 (99%)	284 (79%)	48 (13%)	27 (8%)	1	13
8	L5	294/297 (99%)	244 (83%)	40 (14%)	10 (3%)	3	26
9	L6	152/176 (86%)	131 (86%)	16 (10%)	5 (3%)	4	26
10	L7	220/244 (90%)	192 (87%)	19 (9%)	9 (4%)	3	22
11	L8	231/256 (90%)	184 (80%)	38 (16%)	9 (4%)	3	23
12	L9	189/191 (99%)	153 (81%)	30 (16%)	6 (3%)	4	26
13	50	207/221 (94%)	166 (80%)	36 (17%)	5 (2%)	6	33

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	51	167/174 (96%)	130 (78%)	29 (17%)	8 (5%)	2	20
15	53	191/199 (96%)	150 (78%)	35 (18%)	6 (3%)	4	27
16	54	134/138 (97%)	114 (85%)	17 (13%)	3 (2%)	6	35
17	55	201/204 (98%)	156 (78%)	36 (18%)	9 (4%)	2	22
18	56	195/199 (98%)	177 (91%)	14 (7%)	4 (2%)	7	36
19	57	181/184 (98%)	143 (79%)	34 (19%)	4 (2%)	6	35
20	58	183/186 (98%)	153 (84%)	23 (13%)	7 (4%)	3	24
21	59	186/189 (98%)	168 (90%)	14 (8%)	4 (2%)	6	35
22	60	170/172 (99%)	140 (82%)	25 (15%)	5 (3%)	4	29
23	61	157/160 (98%)	128 (82%)	19 (12%)	10 (6%)	1	16
24	62	98/121 (81%)	76 (78%)	18 (18%)	4 (4%)	3	22
25	63	134/137 (98%)	105 (78%)	24 (18%)	5 (4%)	3	24
26	64	59/155 (38%)	43 (73%)	13 (22%)	3 (5%)	2	19
27	65	119/142 (84%)	97 (82%)	17 (14%)	5 (4%)	3	22
28	66	124/127 (98%)	104 (84%)	16 (13%)	4 (3%)	4	26
29	67	133/136 (98%)	110 (83%)	20 (15%)	3 (2%)	6	34
30	68	146/149 (98%)	117 (80%)	26 (18%)	3 (2%)	7	36
31	69	56/59 (95%)	43 (77%)	11 (20%)	2 (4%)	3	25
32	70	95/105 (90%)	89 (94%)	4 (4%)	2 (2%)	7	36
33	71	107/113 (95%)	91 (85%)	14 (13%)	2 (2%)	8	38
34	72	125/130 (96%)	109 (87%)	15 (12%)	1 (1%)	19	60
35	73	104/107 (97%)	79 (76%)	17 (16%)	8 (8%)	1	13
36	74	110/121 (91%)	88 (80%)	18 (16%)	4 (4%)	3	25
37	75	117/120 (98%)	107 (92%)	6 (5%)	4 (3%)	3	26
38	76	97/100 (97%)	76 (78%)	13 (13%)	8 (8%)	1	12
39	77	85/88 (97%)	67 (79%)	16 (19%)	2 (2%)	6	33
40	78	75/78 (96%)	64 (85%)	7 (9%)	4 (5%)	2	19
41	79	48/51 (94%)	39 (81%)	8 (17%)	1 (2%)	7	36
42	80	50/128 (39%)	42 (84%)	6 (12%)	2 (4%)	3	23
43	81	23/25 (92%)	21 (91%)	1 (4%)	1 (4%)	2	22
44	82	101/106 (95%)	79 (78%)	18 (18%)	4 (4%)	3	23

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
45	83	89/92 (97%)	75 (84%)	13 (15%)	1 (1%)	14	52
47	S0	204/252 (81%)	163 (80%)	29 (14%)	12 (6%)	1	17
48	S1	212/255 (83%)	154 (73%)	45 (21%)	13 (6%)	1	16
49	S2	215/254 (85%)	177 (82%)	30 (14%)	8 (4%)	3	24
50	S3	221/240 (92%)	184 (83%)	24 (11%)	13 (6%)	1	17
51	S4	258/261 (99%)	203 (79%)	45 (17%)	10 (4%)	3	23
52	S5	204/225 (91%)	165 (81%)	32 (16%)	7 (3%)	3	26
53	S6	224/236 (95%)	192 (86%)	26 (12%)	6 (3%)	5	31
54	S7	182/190 (96%)	137 (75%)	34 (19%)	11 (6%)	1	16
55	S8	184/200 (92%)	147 (80%)	28 (15%)	9 (5%)	2	20
56	S9	183/197 (93%)	153 (84%)	21 (12%)	9 (5%)	2	20
57	10	94/105 (90%)	74 (79%)	13 (14%)	7 (7%)	1	13
58	11	153/156 (98%)	107 (70%)	37 (24%)	9 (6%)	1	17
59	12	122/143 (85%)	76 (62%)	29 (24%)	17 (14%)	0	4
60	13	148/151 (98%)	125 (84%)	20 (14%)	3 (2%)	7	38
61	14	125/137 (91%)	96 (77%)	22 (18%)	7 (6%)	2	18
62	15	122/142 (86%)	101 (83%)	16 (13%)	5 (4%)	3	22
63	16	139/143 (97%)	112 (81%)	20 (14%)	7 (5%)	2	20
64	17	116/136 (85%)	92 (79%)	20 (17%)	4 (3%)	3	26
65	18	143/146 (98%)	120 (84%)	16 (11%)	7 (5%)	2	20
66	19	141/144 (98%)	118 (84%)	15 (11%)	8 (6%)	1	18
67	20	105/121 (87%)	85 (81%)	14 (13%)	6 (6%)	1	18
68	21	85/87 (98%)	68 (80%)	13 (15%)	4 (5%)	2	21
69	22	127/130 (98%)	106 (84%)	19 (15%)	2 (2%)	9	43
70	23	142/145 (98%)	108 (76%)	24 (17%)	10 (7%)	1	14
71	24	132/135 (98%)	106 (80%)	20 (15%)	6 (4%)	2	22
72	25	68/108 (63%)	45 (66%)	14 (21%)	9 (13%)	0	4
73	26	95/119 (80%)	64 (67%)	19 (20%)	12 (13%)	0	5
74	27	79/82 (96%)	58 (73%)	15 (19%)	6 (8%)	1	13
75	28	61/67 (91%)	50 (82%)	9 (15%)	2 (3%)	4	26
76	29	51/56 (91%)	44 (86%)	5 (10%)	2 (4%)	3	23

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
77	30	58/63 (92%)	47 (81%)	8 (14%)	3 (5%)	2	19
78	31	69/152 (45%)	37 (54%)	20 (29%)	12 (17%)	0	2
79	RA	316/319 (99%)	252 (80%)	53 (17%)	11 (4%)	3	25
All	All	11126/12097 (92%)	8955 (80%)	1674 (15%)	497 (4%)	4	22

All (497) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	L1	15	GLU
4	L1	20	SER
4	L1	23	THR
4	L1	136	THR
4	L1	199	GLN
5	L2	6	ARG
5	L2	235	ALA
5	L2	251	LYS
6	L3	140	ASP
6	L3	187	SER
7	L4	72	ALA
7	L4	140	HIS
7	L4	268	ALA
7	L4	317	PRO
7	L4	347	THR
9	L6	5	LYS
9	L6	6	ALA
10	L7	92	ILE
11	L8	36	ILE
11	L8	39	ALA
12	L9	14	GLU
13	50	218	ALA
14	51	114	ILE
15	53	154	VAL
17	55	123	GLN
17	55	158	HIS
17	55	187	ARG
18	56	16	VAL
19	57	119	VAL
20	58	98	LYS
21	59	88	ARG
23	61	12	ARG
23	61	124	VAL

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Mol	Chain	Res	Type
23	61	132	PRO
23	61	159	PHE
24	62	90	ARG
25	63	24	ASN
25	63	124	ASP
28	66	52	ARG
28	66	126	LEU
30	68	27	LYS
31	69	25	LYS
35	73	55	ALA
36	74	37	LYS
37	75	82	ALA
37	75	84	LYS
38	76	34	SER
38	76	96	ALA
39	77	84	SER
44	82	100	LYS
47	S0	4	PRO
47	S0	109	ASN
47	S0	158	VAL
49	S2	79	GLU
49	S2	150	GLN
49	S2	151	PRO
50	S3	93	ASP
50	S3	220	PRO
51	S4	194	THR
51	S4	195	ILE
52	S5	100	ASN
54	S7	12	ALA
54	S7	14	THR
54	S7	31	SER
54	S7	64	VAL
54	S7	112	ARG
55	S8	52	ASN
55	S8	186	GLY
56	S9	98	ALA
56	S9	134	ILE
56	S9	138	LYS
56	S9	162	SER
57	10	64	TYR
57	10	81	ASN
58	11	4	GLU

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Mol	Chain	Res	Type
58	11	6	THR
58	11	154	ALA
59	12	39	ASP
59	12	91	VAL
60	13	22	ALA
61	14	42	VAL
62	15	125	PRO
62	15	126	VAL
63	16	41	PRO
65	18	25	ASN
65	18	82	PRO
65	18	83	ALA
65	18	92	ILE
66	19	35	ASP
66	19	53	TRP
67	20	51	VAL
67	20	54	GLY
68	21	7	GLN
70	23	41	SER
71	24	60	PHE
72	25	42	LEU
72	25	43	ASP
72	25	44	GLN
72	25	88	ILE
73	26	63	ALA
73	26	81	ALA
73	26	84	VAL
73	26	86	VAL
74	27	18	LYS
74	27	55	THR
75	28	36	THR
77	30	47	VAL
78	31	85	TYR
78	31	88	PRO
4	L1	74	VAL
4	L1	153	SER
4	L1	159	LEU
4	L1	211	GLY
6	L3	234	GLY
6	L3	351	LEU
7	L4	52	VAL
7	L4	90	PHE

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Mol	Chain	Res	Type
7	L4	245	GLY
7	L4	269	SER
7	L4	270	SER
7	L4	292	SER
7	L4	293	SER
8	L5	21	ARG
8	L5	58	LYS
8	L5	93	THR
8	L5	276	LYS
9	L6	97	ASN
10	L7	159	GLN
11	L8	81	THR
11	L8	101	THR
12	L9	50	ASN
12	L9	59	ASN
14	51	67	VAL
14	51	152	HIS
15	53	47	ALA
15	53	56	PRO
15	53	193	ALA
16	54	47	ASP
19	57	156	ALA
19	57	164	LYS
20	58	99	THR
20	58	162	ALA
21	59	58	HIS
21	59	61	SER
22	60	51	VAL
23	61	17	ARG
23	61	18	ASP
23	61	93	VAL
23	61	136	ARG
25	63	29	SER
27	65	50	ALA
29	67	17	ARG
30	68	29	PRO
32	70	96	GLY
35	73	50	ALA
35	73	76	GLY
35	73	88	ASN
38	76	21	THR
39	77	65	ARG

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Mol	Chain	Res	Type
40	78	33	LYS
47	S0	139	VAL
48	S1	206	PRO
48	S1	221	PRO
49	S2	91	ARG
50	S3	94	ARG
50	S3	114	ALA
50	S3	211	PRO
50	S3	216	PRO
51	S4	150	PRO
52	S5	63	GLN
53	S6	124	LEU
55	S8	152	ILE
57	10	28	ASN
57	10	60	SER
57	10	84	GLU
57	10	93	GLN
58	11	7	VAL
59	12	93	ASP
59	12	106	ILE
59	12	119	SER
59	12	126	TRP
60	13	82	PRO
61	14	125	SER
63	16	15	SER
63	16	113	ASP
64	17	88	VAL
64	17	97	ASN
65	18	14	ILE
66	19	68	ARG
68	21	82	VAL
70	23	112	LYS
71	24	5	VAL
71	24	11	LYS
78	31	84	VAL
78	31	99	LYS
78	31	146	SER
79	RA	119	ALA
79	RA	276	PRO
4	L1	26	ARG
4	L1	142	ASP
5	L2	21	ARG

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Mol	Chain	Res	Type
7	L4	5	GLN
7	L4	131	VAL
7	L4	304	GLN
7	L4	305	ALA
8	L5	38	THR
8	L5	188	GLU
10	L7	26	VAL
10	L7	158	LYS
10	L7	220	PHE
11	L8	54	GLU
11	L8	79	GLN
11	L8	157	VAL
12	L9	139	ASN
14	51	117	ASP
15	53	128	ARG
17	55	186	GLY
18	56	49	ARG
18	56	52	LEU
20	58	13	SER
22	60	133	ALA
22	60	166	LYS
23	61	135	PRO
24	62	91	ASP
25	63	47	ASN
28	66	67	GLU
30	68	56	VAL
33	71	6	ASP
33	71	83	GLU
35	73	94	PHE
38	76	13	LYS
38	76	22	PRO
40	78	18	ALA
40	78	19	ASP
41	79	22	PRO
42	80	91	CYS
44	82	15	LYS
45	83	13	LYS
47	S0	42	PRO
47	S0	164	ASN
48	S1	55	LYS
48	S1	213	ARG
49	S2	39	THR

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Mol	Chain	Res	Type
49	S2	152	HIS
50	S3	6	SER
50	S3	62	ASN
50	S3	143	ARG
50	S3	217	ILE
51	S4	129	VAL
51	S4	226	PHE
52	S5	45	LYS
52	S5	65	ARG
52	S5	161	ASP
53	S6	122	GLU
54	S7	32	PRO
54	S7	103	SER
54	S7	155	ASP
55	S8	12	SER
55	S8	40	ALA
55	S8	43	ILE
55	S8	59	ARG
55	S8	68	ALA
55	S8	69	SER
56	S9	21	SER
56	S9	137	GLY
56	S9	169	PRO
57	10	85	HIS
58	11	79	LYS
59	12	40	GLY
59	12	69	ALA
59	12	85	LYS
59	12	108	ARG
59	12	112	ALA
59	12	115	VAL
61	14	24	ASN
61	14	113	GLY
62	15	12	PHE
62	15	101	ALA
63	16	39	VAL
63	16	42	GLU
65	18	142	GLY
66	19	11	ALA
70	23	67	ALA
70	23	70	LYS
71	24	19	ALA

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Mol	Chain	Res	Type
72	25	104	ALA
73	26	8	ASN
74	27	3	LEU
74	27	26	GLN
78	31	100	LEU
79	RA	98	GLU
4	L1	82	VAL
6	L3	69	LYS
6	L3	313	HIS
6	L3	386	ASP
7	L4	82	THR
7	L4	311	HIS
7	L4	328	ASN
9	L6	75	PRO
10	L7	162	PRO
12	L9	110	LYS
13	50	24	ARG
16	54	30	GLY
17	55	52	GLY
17	55	81	TYR
17	55	93	LYS
17	55	145	ASP
19	57	117	ILE
21	59	17	VAL
22	60	154	HIS
27	65	57	LEU
27	65	80	ASN
29	67	102	GLU
29	67	103	GLN
32	70	32	LYS
35	73	15	SER
36	74	10	ARG
37	75	76	GLN
43	81	23	ARG
44	82	8	ARG
44	82	34	SER
47	S0	167	LYS
47	S0	205	ARG
48	S1	82	ARG
48	S1	207	LEU
48	S1	209	ASN
48	S1	215	VAL

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Mol	Chain	Res	Type
49	S2	148	LEU
50	S3	38	GLU
50	S3	82	GLY
51	S4	54	TYR
52	S5	43	PHE
53	S6	153	VAL
53	S6	154	ARG
56	S9	35	GLY
56	S9	147	MET
58	11	5	LEU
59	12	102	GLY
61	14	124	ASP
61	14	130	GLY
62	15	127	ARG
68	21	44	ARG
68	21	46	ILE
70	23	5	LYS
70	23	29	TYR
70	23	92	CYS
70	23	97	ASP
72	25	85	LYS
72	25	86	GLU
73	26	11	ASN
73	26	12	LYS
73	26	62	TYR
74	27	73	LEU
74	27	75	GLU
75	28	51	ASN
76	29	11	PRO
78	31	87	THR
78	31	89	LYS
78	31	97	LYS
78	31	98	VAL
79	RA	15	GLY
79	RA	51	ASP
79	RA	63	GLY
79	RA	165	ASP
79	RA	237	GLN
4	L1	151	VAL
6	L3	37	ARG
6	L3	127	LYS
6	L3	317	ILE

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Mol	Chain	Res	Type
7	L4	79	GLY
7	L4	348	GLY
9	L6	67	GLY
10	L7	233	GLU
11	L8	136	LEU
12	L9	2	LYS
13	50	25	ALA
14	51	94	ARG
14	51	135	GLY
15	53	62	THR
17	55	84	PRO
20	58	41	ASP
22	60	61	ILE
24	62	11	ILE
26	64	26	SER
26	64	50	ALA
34	72	12	LYS
37	75	117	ALA
38	76	3	VAL
38	76	9	ILE
47	S0	7	PHE
47	S0	39	ASN
47	S0	195	TRP
48	S1	62	LYS
48	S1	154	SER
48	S1	158	SER
48	S1	210	ILE
50	S3	196	ARG
51	S4	180	LEU
54	S7	98	ILE
54	S7	110	GLN
58	11	63	LEU
59	12	87	PRO
59	12	111	ASN
61	14	114	ARG
63	16	137	ARG
64	17	6	THR
64	17	38	ILE
65	18	8	GLN
66	19	3	GLY
67	20	49	ASN
67	20	96	PRO

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Mol	Chain	Res	Type
71	24	6	THR
71	24	50	ALA
72	25	72	GLY
78	31	90	LYS
78	31	102	VAL
79	RA	94	VAL
5	L2	180	LEU
7	L4	23	PRO
7	L4	318	LEU
7	L4	351	PRO
8	L5	125	VAL
8	L5	137	ASP
8	L5	223	PHE
14	51	108	GLU
16	54	6	ILE
20	58	37	ALA
20	58	172	PHE
26	64	25	ASP
27	65	62	VAL
31	69	34	GLY
47	S0	33	GLN
49	S2	145	GLY
51	S4	236	ILE
53	S6	86	PRO
58	11	55	ASP
58	11	148	LYS
60	13	39	LYS
66	19	29	GLU
70	23	131	SER
72	25	38	HIS
73	26	10	ARG
73	26	59	TYR
73	26	83	ILE
76	29	51	GLY
77	30	53	LYS
5	L2	41	ILE
5	L2	53	GLY
7	L4	102	PRO
7	L4	214	GLY
10	L7	191	VAL
13	50	18	PRO
14	51	42	GLY

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Mol	Chain	Res	Type
28	66	80	VAL
36	74	78	GLY
51	S4	114	ILE
53	S6	173	PRO
54	S7	13	PRO
59	12	117	GLY
66	19	90	PRO
67	20	116	VAL
4	L1	43	PRO
4	L1	67	ILE
5	L2	158	ILE
5	L2	210	PRO
7	L4	146	PRO
23	61	148	PRO
25	63	30	GLY
35	73	25	PRO
36	74	45	GLY
51	S4	193	GLY
52	S5	33	VAL
63	16	40	GLU
66	19	120	GLY
70	23	125	VAL
6	L3	170	PRO
10	L7	130	ILE
11	L8	25	PRO
13	50	188	GLY
24	62	96	VAL
27	65	118	GLY
38	76	78	GLY
40	78	37	PRO
42	80	79	GLU
67	20	73	GLY
77	30	50	VAL
5	L2	120	PRO
8	L5	251	PRO
35	73	59	VAL
48	S1	35	PRO
69	22	67	GLY
79	RA	206	PRO
18	56	88	VAL
59	12	82	PRO
69	22	83	ILE

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Mol	Chain	Res	Type
73	26	41	ILE
79	RA	146	GLY

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	L1	185/198 (93%)	166 (90%)	19 (10%)	7	25
5	L2	194/196 (99%)	183 (94%)	11 (6%)	20	46
6	L3	322/323 (100%)	290 (90%)	32 (10%)	8	26
7	L4	288/289 (100%)	260 (90%)	28 (10%)	8	27
8	L5	244/245 (100%)	222 (91%)	22 (9%)	9	30
9	L6	134/153 (88%)	127 (95%)	7 (5%)	23	48
10	L7	186/205 (91%)	174 (94%)	12 (6%)	17	42
11	L8	191/208 (92%)	177 (93%)	14 (7%)	14	39
12	L9	171/171 (100%)	153 (90%)	18 (10%)	7	24
13	50	180/187 (96%)	164 (91%)	16 (9%)	9	31
14	51	147/150 (98%)	133 (90%)	14 (10%)	8	28
15	53	154/159 (97%)	140 (91%)	14 (9%)	9	30
16	54	107/109 (98%)	102 (95%)	5 (5%)	26	51
17	55	175/176 (99%)	161 (92%)	14 (8%)	12	35
18	56	160/162 (99%)	153 (96%)	7 (4%)	28	53
19	57	145/146 (99%)	134 (92%)	11 (8%)	13	37
20	58	150/151 (99%)	141 (94%)	9 (6%)	19	44
21	59	153/154 (99%)	145 (95%)	8 (5%)	23	48
22	60	156/156 (100%)	134 (86%)	22 (14%)	3	17
23	61	136/137 (99%)	128 (94%)	8 (6%)	19	45
24	62	87/107 (81%)	82 (94%)	5 (6%)	20	46
25	63	104/105 (99%)	93 (89%)	11 (11%)	6	24

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
26	64	54/129 (42%)	51 (94%)	3 (6%)	21	46
27	65	105/118 (89%)	91 (87%)	14 (13%)	4	18
28	66	109/110 (99%)	105 (96%)	4 (4%)	34	58
29	67	115/116 (99%)	111 (96%)	4 (4%)	36	59
30	68	118/119 (99%)	108 (92%)	10 (8%)	10	33
31	69	46/47 (98%)	42 (91%)	4 (9%)	10	31
32	70	81/88 (92%)	77 (95%)	4 (5%)	25	50
33	71	96/97 (99%)	85 (88%)	11 (12%)	5	21
34	72	109/111 (98%)	101 (93%)	8 (7%)	14	39
35	73	90/91 (99%)	82 (91%)	8 (9%)	9	31
36	74	95/103 (92%)	88 (93%)	7 (7%)	13	38
37	75	104/105 (99%)	97 (93%)	7 (7%)	16	41
38	76	81/82 (99%)	71 (88%)	10 (12%)	4	20
39	77	70/71 (99%)	65 (93%)	5 (7%)	14	39
40	78	68/69 (99%)	63 (93%)	5 (7%)	13	38
41	79	45/46 (98%)	40 (89%)	5 (11%)	6	22
42	80	47/116 (40%)	43 (92%)	4 (8%)	10	33
43	81	23/23 (100%)	18 (78%)	5 (22%)	1	6
44	82	88/91 (97%)	80 (91%)	8 (9%)	9	30
45	83	71/72 (99%)	70 (99%)	1 (1%)	67	80
47	S0	173/210 (82%)	161 (93%)	12 (7%)	15	40
48	S1	191/224 (85%)	174 (91%)	17 (9%)	9	31
49	S2	176/205 (86%)	168 (96%)	8 (4%)	27	52
50	S3	182/195 (93%)	172 (94%)	10 (6%)	21	47
51	S4	221/222 (100%)	200 (90%)	21 (10%)	8	28
52	S5	173/191 (91%)	162 (94%)	11 (6%)	17	42
53	S6	193/201 (96%)	180 (93%)	13 (7%)	16	41
54	S7	165/170 (97%)	157 (95%)	8 (5%)	25	51
55	S8	150/161 (93%)	140 (93%)	10 (7%)	16	41
56	S9	158/166 (95%)	143 (90%)	15 (10%)	8	28
57	10	89/98 (91%)	78 (88%)	11 (12%)	4	19

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
58	11	136/137 (99%)	126 (93%)	10 (7%)	13	38
59	12	100/119 (84%)	87 (87%)	13 (13%)	4	18
60	13	127/128 (99%)	117 (92%)	10 (8%)	12	36
61	14	96/105 (91%)	91 (95%)	5 (5%)	23	48
62	15	104/118 (88%)	100 (96%)	4 (4%)	33	57
63	16	117/119 (98%)	107 (92%)	10 (8%)	10	33
64	17	109/124 (88%)	101 (93%)	8 (7%)	14	39
65	18	128/129 (99%)	108 (84%)	20 (16%)	2	14
66	19	115/116 (99%)	108 (94%)	7 (6%)	18	44
67	20	100/114 (88%)	96 (96%)	4 (4%)	31	55
68	21	74/74 (100%)	63 (85%)	11 (15%)	3	15
69	22	110/111 (99%)	103 (94%)	7 (6%)	17	42
70	23	119/120 (99%)	110 (92%)	9 (8%)	13	37
71	24	112/113 (99%)	101 (90%)	11 (10%)	8	27
72	25	61/89 (68%)	54 (88%)	7 (12%)	5	21
73	26	83/101 (82%)	77 (93%)	6 (7%)	14	39
74	27	70/71 (99%)	67 (96%)	3 (4%)	29	53
75	28	56/60 (93%)	50 (89%)	6 (11%)	6	24
76	29	47/49 (96%)	44 (94%)	3 (6%)	17	42
77	30	51/54 (94%)	45 (88%)	6 (12%)	5	21
78	31	43/135 (32%)	40 (93%)	3 (7%)	15	40
79	RA	261/262 (100%)	241 (92%)	20 (8%)	13	37
All	All	9474/10182 (93%)	8721 (92%)	753 (8%)	16	36

All (753) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	L1	13	VAL
4	L1	17	LEU
4	L1	28	PHE
4	L1	35	GLN
4	L1	38	LEU
4	L1	41	TYR
4	L1	70	ASP

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Mol	Chain	Res	Type
4	L1	83	ASP
4	L1	89	ASP
4	L1	101	LYS
4	L1	103	LEU
4	L1	105	LYS
4	L1	108	ASN
4	L1	136	THR
4	L1	143	ASP
4	L1	150	ASP
4	L1	153	SER
4	L1	190	PHE
4	L1	205	VAL
5	L2	6	ARG
5	L2	44	ILE
5	L2	126	LEU
5	L2	144	ASN
5	L2	179	LEU
5	L2	193	ARG
5	L2	204	MET
5	L2	227	ARG
5	L2	241	ARG
5	L2	250	GLN
5	L2	253	GLN
6	L3	10	ARG
6	L3	25	ILE
6	L3	28	ARG
6	L3	30	LYS
6	L3	43	LEU
6	L3	44	THR
6	L3	67	PHE
6	L3	73	VAL
6	L3	102	LEU
6	L3	110	LEU
6	L3	114	VAL
6	L3	118	PHE
6	L3	123	TYR
6	L3	140	ASP
6	L3	145	GLU
6	L3	146	ARG
6	L3	163	HIS
6	L3	164	THR
6	L3	199	PHE

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Mol	Chain	Res	Type
6	L3	215	ILE
6	L3	243	HIS
6	L3	244	ARG
6	L3	255	TRP
6	L3	261	MET
6	L3	275	ARG
6	L3	299	ASP
6	L3	332	ARG
6	L3	338	LEU
6	L3	343	TYR
6	L3	344	THR
6	L3	345	ASN
6	L3	369	ARG
7	L4	54	GLU
7	L4	60	THR
7	L4	61	SER
7	L4	71	VAL
7	L4	84	ARG
7	L4	93	MET
7	L4	98	ARG
7	L4	99	MET
7	L4	103	THR
7	L4	115	HIS
7	L4	153	SER
7	L4	170	LYS
7	L4	177	ASP
7	L4	194	TYR
7	L4	200	THR
7	L4	203	ARG
7	L4	206	LEU
7	L4	220	ARG
7	L4	221	ASN
7	L4	226	GLU
7	L4	227	THR
7	L4	246	ARG
7	L4	250	TRP
7	L4	255	PHE
7	L4	270	SER
7	L4	293	SER
7	L4	319	LYS
7	L4	345	GLU
8	L5	6	ASP

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Mol	Chain	Res	Type
8	L5	15	ARG
8	L5	22	ARG
8	L5	23	ARG
8	L5	24	ARG
8	L5	30	TYR
8	L5	33	ARG
8	L5	41	LYS
8	L5	75	LEU
8	L5	92	LEU
8	L5	95	TRP
8	L5	105	ILE
8	L5	117	GLU
8	L5	131	LEU
8	L5	140	ARG
8	L5	152	ARG
8	L5	168	ASP
8	L5	176	SER
8	L5	178	ASN
8	L5	184	ASP
8	L5	207	TYR
8	L5	216	GLU
9	L6	5	LYS
9	L6	65	ILE
9	L6	89	THR
9	L6	139	LYS
9	L6	152	THR
9	L6	155	LEU
9	L6	162	SER
10	L7	24	GLU
10	L7	25	GLN
10	L7	60	ARG
10	L7	78	GLU
10	L7	151	ARG
10	L7	173	LEU
10	L7	179	LEU
10	L7	186	HIS
10	L7	200	ASN
10	L7	229	PHE
10	L7	234	GLU
10	L7	244	ASN
11	L8	41	GLN
11	L8	63	LYS

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Mol	Chain	Res	Type
11	L8	65	LEU
11	L8	89	GLU
11	L8	95	ASN
11	L8	98	ARG
11	L8	122	LYS
11	L8	134	TYR
11	L8	152	LEU
11	L8	195	SER
11	L8	202	GLU
11	L8	204	ARG
11	L8	238	LEU
11	L8	241	LYS
12	L9	6	THR
12	L9	14	GLU
12	L9	41	ILE
12	L9	43	VAL
12	L9	49	ASN
12	L9	58	HIS
12	L9	69	ARG
12	L9	70	THR
12	L9	72	LYS
12	L9	90	MET
12	L9	92	TYR
12	L9	130	ASP
12	L9	134	ILE
12	L9	138	THR
12	L9	157	ASN
12	L9	164	ILE
12	L9	172	ILE
12	L9	177	ASP
13	50	3	ARG
13	50	7	ARG
13	50	14	ASN
13	50	22	TYR
13	50	30	LYS
13	50	32	ARG
13	50	35	ASP
13	50	40	LYS
13	50	48	LEU
13	50	55	ASN
13	50	73	ASN
13	50	115	MET

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Mol	Chain	Res	Type
13	50	163	GLN
13	50	165	ILE
13	50	169	LYS
13	50	185	ARG
14	51	10	ARG
14	51	11	ASP
14	51	12	LEU
14	51	13	LYS
14	51	44	THR
14	51	52	TYR
14	51	94	ARG
14	51	107	ASP
14	51	128	TYR
14	51	140	ARG
14	51	154	THR
14	51	158	ASP
14	51	161	SER
14	51	166	LYS
15	53	11	LYS
15	53	23	LYS
15	53	49	ARG
15	53	67	ARG
15	53	70	ARG
15	53	86	THR
15	53	89	TYR
15	53	117	LYS
15	53	124	ILE
15	53	126	PHE
15	53	131	LYS
15	53	144	THR
15	53	154	VAL
15	53	162	ASN
16	54	3	THR
16	54	59	ASN
16	54	69	THR
16	54	72	LEU
16	54	77	ARG
17	55	38	ARG
17	55	50	ARG
17	55	61	ILE
17	55	62	TYR
17	55	63	ARG

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Mol	Chain	Res	Type
17	55	68	ARG
17	55	83	LYS
17	55	84	PRO
17	55	85	THR
17	55	123	GLN
17	55	142	ILE
17	55	160	GLU
17	55	179	LYS
17	55	187	ARG
18	56	47	PHE
18	56	48	PHE
18	56	78	ARG
18	56	117	ARG
18	56	164	SER
18	56	167	TYR
18	56	174	PHE
19	57	37	ASN
19	57	53	ASP
19	57	56	ARG
19	57	64	ASN
19	57	103	GLU
19	57	111	LYS
19	57	120	ASN
19	57	139	TYR
19	57	148	LEU
19	57	159	LYS
19	57	180	LYS
20	58	33	TYR
20	58	41	ASP
20	58	49	LEU
20	58	86	THR
20	58	89	ASP
20	58	96	PHE
20	58	138	LEU
20	58	155	MET
20	58	170	ARG
21	59	5	ARG
21	59	31	GLU
21	59	103	ARG
21	59	104	ARG
21	59	109	TYR
21	59	166	ASN

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Mol	Chain	Res	Type
21	59	171	ASP
21	59	172	ARG
22	60	9	VAL
22	60	23	LYS
22	60	40	ARG
22	60	43	TYR
22	60	45	LEU
22	60	57	GLU
22	60	62	ASN
22	60	78	TRP
22	60	81	TYR
22	60	82	ASP
22	60	87	THR
22	60	91	TYR
22	60	106	LEU
22	60	107	TYR
22	60	108	GLN
22	60	117	ARG
22	60	119	ARG
22	60	125	LYS
22	60	137	ARG
22	60	167	ARG
22	60	171	PHE
22	60	172	TYR
23	61	75	ILE
23	61	83	ARG
23	61	90	ASN
23	61	92	ARG
23	61	126	VAL
23	61	127	GLN
23	61	139	ARG
23	61	158	THR
24	62	10	LYS
24	62	58	GLU
24	62	70	LYS
24	62	103	TYR
24	62	108	TYR
25	63	23	MET
25	63	33	ASN
25	63	56	ASP
25	63	64	LYS
25	63	74	MET

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Mol	Chain	Res	Type
25	63	77	ILE
25	63	89	ASP
25	63	93	LEU
25	63	101	VAL
25	63	104	ASN
25	63	122	CYS
26	64	6	ASP
26	64	33	ASN
26	64	45	ASN
27	65	27	ARG
27	65	33	ARG
27	65	45	LYS
27	65	55	ASN
27	65	63	ILE
27	65	71	THR
27	65	73	MET
27	65	78	ASP
27	65	83	VAL
27	65	88	MET
27	65	91	ASN
27	65	131	ASP
27	65	135	ILE
27	65	142	ILE
28	66	51	ARG
28	66	55	GLU
28	66	74	TYR
28	66	126	LEU
29	67	30	ASP
29	67	90	GLU
29	67	92	PHE
29	67	134	LEU
30	68	6	THR
30	68	24	LYS
30	68	27	LYS
30	68	46	ASP
30	68	60	TYR
30	68	85	ASP
30	68	88	ASP
30	68	91	LEU
30	68	97	GLU
30	68	102	ILE
31	69	8	THR

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Mol	Chain	Res	Type
31	69	14	ARG
31	69	22	LYS
31	69	59	LYS
32	70	16	LEU
32	70	40	LYS
32	70	41	LEU
32	70	104	LEU
33	71	6	ASP
33	71	13	THR
33	71	26	LYS
33	71	31	ARG
33	71	47	ASP
33	71	50	ARG
33	71	70	ARG
33	71	79	ARG
33	71	80	ASN
33	71	111	GLU
33	71	112	ASP
34	72	8	LYS
34	72	23	ASP
34	72	33	ARG
34	72	45	ARG
34	72	47	ARG
34	72	75	LEU
34	72	82	LEU
34	72	95	GLU
35	73	5	HIS
35	73	16	TYR
35	73	42	GLN
35	73	57	LYS
35	73	62	SER
35	73	81	VAL
35	73	86	ARG
35	73	106	ASN
36	74	8	ARG
36	74	29	ILE
36	74	31	ARG
36	74	51	LEU
36	74	58	ARG
36	74	86	LYS
36	74	88	ARG
37	75	15	GLU

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Mol	Chain	Res	Type
37	75	28	LEU
37	75	71	LYS
37	75	79	ASP
37	75	90	ARG
37	75	107	LYS
37	75	119	LYS
38	76	20	MET
38	76	26	ILE
38	76	36	ARG
38	76	42	SER
38	76	45	ARG
38	76	57	LEU
38	76	59	ASP
38	76	76	ARG
38	76	90	MET
38	76	98	ARG
39	77	25	ARG
39	77	39	TYR
39	77	49	TRP
39	77	59	THR
39	77	69	HIS
40	78	7	ASP
40	78	46	ARG
40	78	57	ASN
40	78	61	LYS
40	78	64	LYS
41	79	5	LYS
41	79	21	ARG
41	79	23	LEU
41	79	32	ASN
41	79	44	TRP
42	80	85	LEU
42	80	91	CYS
42	80	113	ARG
42	80	127	LEU
43	81	2	ARG
43	81	4	LYS
43	81	5	TRP
43	81	8	LYS
43	81	19	LYS
44	82	26	THR
44	82	58	PHE

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Mol	Chain	Res	Type
44	82	72	LEU
44	82	83	LEU
44	82	87	ARG
44	82	90	HIS
44	82	92	GLU
44	82	100	LYS
45	83	45	LYS
47	S0	84	ARG
47	S0	110	TYR
47	S0	119	ARG
47	S0	163	ASN
47	S0	164	ASN
47	S0	180	GLU
47	S0	188	LEU
47	S0	189	VAL
47	S0	190	ASP
47	S0	195	TRP
47	S0	205	ARG
47	S0	206	ASP
48	S1	30	PHE
48	S1	33	LYS
48	S1	61	LEU
48	S1	69	CYS
48	S1	70	LEU
48	S1	77	GLU
48	S1	97	LEU
48	S1	108	ASP
48	S1	111	ARG
48	S1	146	GLN
48	S1	177	GLN
48	S1	181	LEU
48	S1	184	LEU
48	S1	205	PHE
48	S1	217	LEU
48	S1	218	LEU
48	S1	224	ASP
49	S2	41	LEU
49	S2	70	ASP
49	S2	96	THR
49	S2	97	ARG
49	S2	148	LEU
49	S2	162	CYS

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Mol	Chain	Res	Type
49	S2	166	THR
49	S2	195	ASP
50	S3	4	LEU
50	S3	7	LYS
50	S3	14	ASP
50	S3	76	ARG
50	S3	84	ILE
50	S3	92	GLN
50	S3	158	ILE
50	S3	169	ASP
50	S3	190	ARG
50	S3	223	LYS
51	S4	6	LYS
51	S4	11	ARG
51	S4	24	SER
51	S4	26	CYS
51	S4	38	LEU
51	S4	66	MET
51	S4	77	ARG
51	S4	90	ILE
51	S4	133	LYS
51	S4	139	VAL
51	S4	158	ASP
51	S4	182	TYR
51	S4	187	ARG
51	S4	195	ILE
51	S4	197	HIS
51	S4	206	ASP
51	S4	212	ASP
51	S4	215	ASP
51	S4	227	VAL
51	S4	240	LYS
51	S4	259	GLN
52	S5	25	LEU
52	S5	48	PHE
52	S5	76	ARG
52	S5	79	ASN
52	S5	86	GLN
52	S5	99	MET
52	S5	156	ARG
52	S5	203	LYS
52	S5	216	GLU

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Mol	Chain	Res	Type
52	S5	219	ARG
52	S5	224	ASN
53	S6	17	GLU
53	S6	36	VAL
53	S6	76	LEU
53	S6	109	LEU
53	S6	115	LYS
53	S6	118	GLU
53	S6	120	GLU
53	S6	132	ARG
53	S6	136	LYS
53	S6	144	PHE
53	S6	169	TYR
53	S6	171	LYS
53	S6	216	LEU
54	S7	24	PHE
54	S7	29	ASN
54	S7	85	PHE
54	S7	97	ARG
54	S7	114	ARG
54	S7	128	ASP
54	S7	164	TYR
54	S7	185	ILE
55	S8	5	ARG
55	S8	8	ARG
55	S8	20	GLN
55	S8	47	ARG
55	S8	77	ARG
55	S8	89	GLU
55	S8	103	GLN
55	S8	105	ASP
55	S8	137	LYS
55	S8	140	GLU
56	S9	3	ARG
56	S9	58	ASP
56	S9	60	LEU
56	S9	78	ARG
56	S9	79	ARG
56	S9	89	ASP
56	S9	92	LYS
56	S9	122	VAL
56	S9	134	ILE

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Mol	Chain	Res	Type
56	S9	138	LYS
56	S9	149	ARG
56	S9	151	ASP
56	S9	155	HIS
56	S9	172	VAL
56	S9	174	ARG
57	10	7	ASP
57	10	8	ARG
57	10	9	ASN
57	10	20	VAL
57	10	32	HIS
57	10	33	GLU
57	10	56	LYS
57	10	62	GLN
57	10	63	TYR
57	10	82	LEU
57	10	96	ASN
58	11	7	VAL
58	11	67	ARG
58	11	69	LYS
58	11	116	ARG
58	11	121	ASP
58	11	129	ARG
58	11	134	THR
58	11	153	PHE
58	11	155	LYS
58	11	156	PHE
59	12	36	LEU
59	12	38	HIS
59	12	58	LEU
59	12	66	VAL
59	12	67	THR
59	12	71	ILE
59	12	89	ILE
59	12	103	LEU
59	12	105	LYS
59	12	108	ARG
59	12	116	VAL
59	12	125	ASN
59	12	142	GLN
60	13	3	ARG
60	13	21	ASN

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Mol	Chain	Res	Type
60	13	27	LYS
60	13	39	LYS
60	13	56	ASP
60	13	58	HIS
60	13	64	ARG
60	13	107	LYS
60	13	121	ARG
60	13	140	LYS
61	14	71	CYS
61	14	89	THR
61	14	92	LYS
61	14	126	THR
61	14	137	LEU
62	15	12	PHE
62	15	36	LEU
62	15	44	ARG
62	15	69	GLU
63	16	4	VAL
63	16	26	LYS
63	16	28	LEU
63	16	41	PRO
63	16	59	LYS
63	16	69	VAL
63	16	94	GLN
63	16	121	SER
63	16	123	ARG
63	16	137	ARG
64	17	46	LEU
64	17	47	ARG
64	17	69	ILE
64	17	71	PHE
64	17	78	ARG
64	17	105	GLN
64	17	115	LEU
64	17	117	LEU
65	18	3	LEU
65	18	5	VAL
65	18	11	PHE
65	18	17	LEU
65	18	28	ILE
65	18	38	VAL
65	18	60	GLU

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Mol	Chain	Res	Type
65	18	61	LEU
65	18	74	GLN
65	18	82	PRO
65	18	84	TRP
65	18	85	PHE
65	18	91	ASP
65	18	92	ILE
65	18	112	ASP
65	18	114	GLU
65	18	119	ILE
65	18	132	ARG
65	18	138	THR
65	18	145	ARG
66	19	28	LEU
66	19	54	PHE
66	19	64	HIS
66	19	110	LYS
66	19	127	ASN
66	19	130	ARG
66	19	131	ASP
67	20	23	ARG
67	20	66	SER
67	20	89	ARG
67	20	108	ILE
68	21	5	LYS
68	21	8	LEU
68	21	11	LEU
68	21	21	ASN
68	21	27	ASP
68	21	41	GLU
68	21	62	ARG
68	21	78	LEU
68	21	79	LEU
68	21	80	LYS
68	21	85	TYR
69	22	23	ARG
69	22	49	GLU
69	22	65	LEU
69	22	66	ASN
69	22	93	LEU
69	22	103	ILE
69	22	104	LEU

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Mol	Chain	Res	Type
70	23	7	ARG
70	23	9	LEU
70	23	19	ARG
70	23	66	SER
70	23	76	LEU
70	23	82	LYS
70	23	83	VAL
70	23	94	ASN
70	23	144	ARG
71	24	32	ARG
71	24	46	GLU
71	24	58	PHE
71	24	64	PHE
71	24	99	LYS
71	24	102	LYS
71	24	123	LYS
71	24	124	ARG
71	24	127	LYS
71	24	128	LYS
71	24	132	ARG
72	25	42	LEU
72	25	43	ASP
72	25	57	TYR
72	25	60	VAL
72	25	82	HIS
72	25	85	LYS
72	25	100	ILE
73	26	25	ASN
73	26	36	ILE
73	26	37	LYS
73	26	41	ILE
73	26	64	LEU
73	26	90	GLU
74	27	32	PHE
74	27	37	CYS
74	27	78	SER
75	28	19	THR
75	28	29	ARG
75	28	32	PHE
75	28	34	GLU
75	28	35	ASP
75	28	52	ASP

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Mol	Chain	Res	Type
76	29	12	ARG
76	29	14	TYR
76	29	45	GLU
77	30	20	LYS
77	30	26	LYS
77	30	42	ARG
77	30	47	VAL
77	30	48	THR
77	30	51	ASN
78	31	113	LYS
78	31	138	ARG
78	31	149	LYS
79	RA	10	ARG
79	RA	39	ASP
79	RA	50	ASP
79	RA	51	ASP
79	RA	59	ARG
79	RA	70	ASP
79	RA	92	TRP
79	RA	109	ASP
79	RA	117	LYS
79	RA	129	LYS
79	RA	136	ILE
79	RA	137	LYS
79	RA	165	ASP
79	RA	175	ASP
79	RA	193	ILE
79	RA	217	ASP
79	RA	222	LEU
79	RA	245	PHE
79	RA	266	ASP
79	RA	272	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (249) such sidechains are listed below:

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

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Mol	Chain	Res	Type
4	L1	200	ASN
5	L2	7	ASN
5	L2	38	HIS
5	L2	47	GLN
5	L2	132	ASN
5	L2	140	ASN
5	L2	211	HIS
5	L2	233	GLN
5	L2	250	GLN
6	L3	3	HIS
6	L3	139	GLN
6	L3	165	GLN
6	L3	173	GLN
6	L3	211	GLN
6	L3	231	HIS
6	L3	256	HIS
6	L3	280	HIS
6	L3	313	HIS
6	L3	345	ASN
7	L4	18	ASN
7	L4	45	ASN
7	L4	48	GLN
7	L4	110	ASN
7	L4	116	ASN
7	L4	221	ASN
7	L4	260	GLN
7	L4	307	GLN
7	L4	316	ASN
7	L4	361	HIS
8	L5	40	HIS
8	L5	57	ASN
8	L5	81	HIS
8	L5	175	HIS
8	L5	178	ASN
8	L5	264	GLN
9	L6	57	HIS
9	L6	97	ASN
9	L6	167	ASN
10	L7	25	GLN
10	L7	37	ASN
10	L7	172	ASN
10	L7	197	GLN

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Mol	Chain	Res	Type
10	L7	200	ASN
10	L7	244	ASN
11	L8	41	GLN
11	L8	243	GLN
12	L9	49	ASN
12	L9	50	ASN
12	L9	51	GLN
12	L9	64	HIS
12	L9	100	ASN
12	L9	125	ASN
12	L9	156	GLN
12	L9	157	ASN
13	50	12	GLN
13	50	14	ASN
13	50	73	ASN
13	50	163	GLN
13	50	209	ASN
13	50	220	GLN
14	51	43	GLN
14	51	90	GLN
14	51	95	ASN
15	53	28	GLN
15	53	37	ASN
15	53	103	ASN
15	53	137	GLN
16	54	56	GLN
16	54	119	GLN
17	55	37	HIS
17	55	87	GLN
17	55	139	HIS
17	55	194	GLN
18	56	31	GLN
18	56	50	ASN
18	56	55	HIS
18	56	122	GLN
19	57	28	ASN
19	57	55	GLN
19	57	96	GLN
19	57	116	HIS
19	57	120	ASN
20	58	5	HIS
20	58	73	GLN

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Mol	Chain	Res	Type
20	58	145	ASN
21	59	34	GLN
21	59	166	ASN
21	59	175	GLN
22	60	8	GLN
22	60	46	GLN
22	60	88	HIS
22	60	89	ASN
22	60	108	GLN
23	61	54	HIS
23	61	58	GLN
23	61	95	HIS
23	61	112	ASN
23	61	131	GLN
23	61	146	ASN
24	62	49	ASN
24	62	52	ASN
25	63	33	ASN
25	63	81	GLN
25	63	98	ASN
25	63	132	ASN
29	67	29	HIS
29	67	36	HIS
29	67	57	HIS
30	68	11	HIS
30	68	28	HIS
30	68	39	HIS
30	68	67	HIS
30	68	74	ASN
32	70	74	ASN
33	71	80	ASN
34	72	35	GLN
34	72	88	HIS
34	72	99	ASN
34	72	104	ASN
35	73	24	ASN
35	73	26	ASN
35	73	42	GLN
36	74	3	GLN
36	74	18	ASN
36	74	34	HIS
36	74	61	GLN

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Mol	Chain	Res	Type
37	75	59	ASN
37	75	62	GLN
37	75	68	GLN
39	77	28	HIS
40	78	28	ASN
40	78	40	GLN
41	79	4	GLN
41	79	32	ASN
41	79	50	ASN
42	80	119	ASN
44	82	47	GLN
44	82	99	GLN
47	S0	15	GLN
47	S0	30	GLN
47	S0	163	ASN
48	S1	79	HIS
48	S1	146	GLN
48	S1	149	GLN
48	S1	177	GLN
48	S1	183	GLN
48	S1	209	ASN
49	S2	59	HIS
49	S2	89	GLN
49	S2	147	ASN
49	S2	199	GLN
50	S3	92	GLN
50	S3	165	ASN
51	S4	36	HIS
51	S4	67	GLN
51	S4	98	ASN
51	S4	209	HIS
51	S4	258	GLN
51	S4	259	GLN
52	S5	79	ASN
52	S5	95	ASN
52	S5	103	ASN
52	S5	122	ASN
52	S5	128	ASN
52	S5	200	ASN
52	S5	224	ASN
53	S6	4	ASN
53	S6	10	ASN

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Mol	Chain	Res	Type
53	S6	34	GLN
53	S6	201	GLN
53	S6	210	GLN
54	S7	22	GLN
54	S7	108	GLN
54	S7	110	GLN
54	S7	150	GLN
54	S7	160	GLN
54	S7	180	GLN
55	S8	9	HIS
55	S8	87	ASN
55	S8	159	GLN
56	S9	38	ASN
56	S9	112	GLN
56	S9	123	HIS
56	S9	124	HIS
56	S9	131	GLN
56	S9	139	GLN
56	S9	142	ASN
57	10	62	GLN
57	10	96	ASN
58	11	37	ASN
59	12	125	ASN
60	13	62	GLN
62	15	15	HIS
62	15	79	HIS
62	15	98	ASN
62	15	103	ASN
62	15	104	GLN
64	17	29	GLN
64	17	83	GLN
64	17	105	GLN
65	18	74	GLN
65	18	75	ASN
65	18	127	HIS
65	18	136	GLN
65	18	137	HIS
66	19	25	GLN
66	19	129	GLN
66	19	138	GLN
67	20	18	GLN
67	20	40	ASN

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Mol	Chain	Res	Type
67	20	48	HIS
67	20	87	HIS
67	20	98	GLN
68	21	7	GLN
68	21	21	ASN
68	21	70	ASN
68	21	74	GLN
68	21	81	ASN
69	22	15	ASN
69	22	16	ASN
69	22	64	GLN
69	22	70	ASN
69	22	80	ASN
69	22	92	ASN
69	22	98	GLN
69	22	113	HIS
70	23	18	HIS
70	23	22	ASN
70	23	75	GLN
70	23	79	ASN
71	24	15	ASN
71	24	22	GLN
71	24	63	GLN
71	24	77	ASN
71	24	107	GLN
73	26	72	HIS
74	27	51	GLN
75	28	51	ASN
79	RA	31	ASN
79	RA	174	ASN
79	RA	182	ASN
79	RA	187	GLN
79	RA	308	ASN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2S	3304/3395 (97%)	553 (16%)	30 (0%)
2	8S	157/158 (99%)	27 (17%)	1 (0%)
3	5S	120/121 (99%)	12 (10%)	0
46	1S	1779/1798 (98%)	346 (19%)	19 (1%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
80	IR	0/201	-	-
All	All	5360/5673 (94%)	938 (17%)	50 (0%)

All (938) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2S	13	A
1	2S	14	U
1	2S	26	A
1	2S	40	A
1	2S	43	A
1	2S	49	A
1	2S	60	A
1	2S	65	A
1	2S	66	A
1	2S	73	C
1	2S	92	G
1	2S	103	G
1	2S	108	A
1	2S	109	A
1	2S	116	A
1	2S	121	A
1	2S	122	A
1	2S	123	A
1	2S	133	U
1	2S	135	C
1	2S	136	G
1	2S	156	G
1	2S	157	A
1	2S	161	G
1	2S	169	U
1	2S	170	G
1	2S	187	A
1	2S	190	U
1	2S	191	U
1	2S	210	U
1	2S	212	G
1	2S	218	G
1	2S	219	A
1	2S	222	A
1	2S	237	G
1	2S	240	U

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Mol	Chain	Res	Type
1	2S	241	G
1	2S	243	G
1	2S	248	U
1	2S	249	U
1	2S	251	G
1	2S	252	U
1	2S	253	A
1	2S	266	A
1	2S	269	G
1	2S	283	G
1	2S	286	U
1	2S	295	A
1	2S	298	U
1	2S	305	U
1	2S	315	C
1	2S	323	A
1	2S	329	U
1	2S	338	A
1	2S	350	C
1	2S	352	A
1	2S	370	U
1	2S	375	A
1	2S	376	G
1	2S	388	G
1	2S	397	A
1	2S	398	A
1	2S	401	U
1	2S	402	A
1	2S	403	C
1	2S	421	G
1	2S	422	A
1	2S	439	C
1	2S	441	U
1	2S	442	G
1	2S	443	G
1	2S	488	U
1	2S	494	G
1	2S	495	G
1	2S	503	C
1	2S	517	G
1	2S	520	U
1	2S	521	A

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Mol	Chain	Res	Type
1	2S	534	U
1	2S	535	G
1	2S	546	C
1	2S	547	G
1	2S	548	G
1	2S	552	G
1	2S	555	U
1	2S	557	A
1	2S	559	A
1	2S	578	A
1	2S	579	G
1	2S	588	G
1	2S	589	A
1	2S	594	U
1	2S	604	G
1	2S	607	A
1	2S	609	G
1	2S	610	G
1	2S	611	A
1	2S	620	U
1	2S	621	A
1	2S	637	C
1	2S	638	C
1	2S	646	A
1	2S	648	C
1	2S	649	A
1	2S	667	C
1	2S	677	A
1	2S	681	U
1	2S	691	A
1	2S	705	A
1	2S	708	G
1	2S	712	G
1	2S	719	U
1	2S	726	G
1	2S	760	G
1	2S	763	G
1	2S	765	C
1	2S	766	U
1	2S	767	U
1	2S	770	G
1	2S	771	A

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Mol	Chain	Res	Type
1	2S	776	U
1	2S	777	U
1	2S	781	G
1	2S	784	A
1	2S	785	G
1	2S	786	A
1	2S	798	G
1	2S	799	G
1	2S	801	A
1	2S	802	C
1	2S	806	A
1	2S	808	A
1	2S	817	A
1	2S	830	A
1	2S	849	C
1	2S	851	C
1	2S	858	A
1	2S	861	C
1	2S	874	U
1	2S	875	G
1	2S	879	U
1	2S	880	G
1	2S	884	A
1	2S	885	U
1	2S	896	A
1	2S	897	U
1	2S	907	G
1	2S	908	G
1	2S	914	A
1	2S	916	G
1	2S	921	A
1	2S	924	G
1	2S	932	U
1	2S	933	A
1	2S	937	G
1	2S	938	C
1	2S	944	C
1	2S	959	C
1	2S	960	U
1	2S	980	A
1	2S	981	U
1	2S	982	C

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Mol	Chain	Res	Type
1	2S	984	G
1	2S	991	G
1	2S	1000	C
1	2S	1001	G
1	2S	1002	A
1	2S	1010	G
1	2S	1018	G
1	2S	1020	G
1	2S	1024	G
1	2S	1029	G
1	2S	1047	A
1	2S	1049	C
1	2S	1063	G
1	2S	1064	A
1	2S	1065	A
1	2S	1081	U
1	2S	1093	A
1	2S	1095	U
1	2S	1096	U
1	2S	1097	G
1	2S	1098	A
1	2S	1103	A
1	2S	1104	G
1	2S	1117	G
1	2S	1130	A
1	2S	1131	G
1	2S	1153	A
1	2S	1155	C
1	2S	1159	A
1	2S	1177	G
1	2S	1178	G
1	2S	1179	A
1	2S	1180	A
1	2S	1181	U
1	2S	1186	G
1	2S	1191	U
1	2S	1200	A
1	2S	1201	C
1	2S	1206	G
1	2S	1209	G
1	2S	1213	G
1	2S	1220	U

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Mol	Chain	Res	Type
1	2S	1221	A
1	2S	1222	G
1	2S	1223	A
1	2S	1226	G
1	2S	1236	G
1	2S	1237	G
1	2S	1239	C
1	2S	1241	U
1	2S	1242	G
1	2S	1244	A
1	2S	1245	A
1	2S	1246	G
1	2S	1263	A
1	2S	1264	G
1	2S	1265	U
1	2S	1292	C
1	2S	1294	A
1	2S	1301	A
1	2S	1308	A
1	2S	1309	U
1	2S	1318	A
1	2S	1325	U
1	2S	1330	A
1	2S	1332	A
1	2S	1348	U
1	2S	1349	G
1	2S	1350	A
1	2S	1351	U
1	2S	1352	A
1	2S	1353	U
1	2S	1386	A
1	2S	1391	C
1	2S	1392	G
1	2S	1399	A
1	2S	1400	G
1	2S	1417	G
1	2S	1419	A
1	2S	1434	G
1	2S	1437	C
1	2S	1446	A
1	2S	1454	A
1	2S	1455	U

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Mol	Chain	Res	Type
1	2S	1456	A
1	2S	1470	U
1	2S	1481	A
1	2S	1508	C
1	2S	1511	U
1	2S	1527	C
1	2S	1556	C
1	2S	1557	A
1	2S	1558	A
1	2S	1567	U
1	2S	1568	U
1	2S	1569	U
1	2S	1570	U
1	2S	1576	G
1	2S	1578	C
1	2S	1583	A
1	2S	1587	A
1	2S	1589	A
1	2S	1593	A
1	2S	1607	U
1	2S	1629	U
1	2S	1642	A
1	2S	1643	A
1	2S	1645	U
1	2S	1647	A
1	2S	1655	G
1	2S	1656	A
1	2S	1687	U
1	2S	1688	U
1	2S	1694	U
1	2S	1713	G
1	2S	1715	A
1	2S	1717	U
1	2S	1724	U
1	2S	1725	C
1	2S	1730	G
1	2S	1750	A
1	2S	1751	G
1	2S	1765	U
1	2S	1766	G
1	2S	1773	C
1	2S	1775	G

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Mol	Chain	Res	Type
1	2S	1778	G
1	2S	1780	G
1	2S	1793	C
1	2S	1796	G
1	2S	1797	A
1	2S	1814	A
1	2S	1816	A
1	2S	1817	G
1	2S	1819	U
1	2S	1820	U
1	2S	1821	U
1	2S	1835	A
1	2S	1839	A
1	2S	1841	A
1	2S	1842	A
1	2S	1843	C
1	2S	1845	G
1	2S	1848	G
1	2S	1849	C
1	2S	1850	A
1	2S	1866	C
1	2S	1871	U
1	2S	1886	A
1	2S	1893	A
1	2S	1906	G
1	2S	1926	C
1	2S	1948	G
1	2S	1952	G
1	2S	1953	G
1	2S	1954	G
1	2S	1967	U
1	2S	1980	C
1	2S	2047	A
1	2S	2058	G
1	2S	2059	U
1	2S	2067	U
1	2S	2079	G
1	2S	2085	U
1	2S	2094	C
1	2S	2095	G
1	2S	2101	C
1	2S	2102	U

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Mol	Chain	Res	Type
1	2S	2107	A
1	2S	2111	G
1	2S	2121	G
1	2S	2122	G
1	2S	2131	A
1	2S	2144	A
1	2S	2158	A
1	2S	2169	G
1	2S	2188	A
1	2S	2201	G
1	2S	2205	U
1	2S	2209	U
1	2S	2242	A
1	2S	2244	A
1	2S	2252	A
1	2S	2255	A
1	2S	2256	A
1	2S	2270	A
1	2S	2273	G
1	2S	2281	A
1	2S	2282	U
1	2S	2288	G
1	2S	2294	U
1	2S	2298	U
1	2S	2307	G
1	2S	2308	C
1	2S	2310	U
1	2S	2313	A
1	2S	2314	U
1	2S	2315	G
1	2S	2319	U
1	2S	2335	G
1	2S	2336	U
1	2S	2373	A
1	2S	2374	C
1	2S	2375	G
1	2S	2376	G
1	2S	2383	C
1	2S	2397	A
1	2S	2402	A
1	2S	2403	G
1	2S	2404	A

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Mol	Chain	Res	Type
1	2S	2411	U
1	2S	2412	G
1	2S	2418	G
1	2S	2434	U
1	2S	2435	G
1	2S	2441	A
1	2S	2443	A
1	2S	2452	G
1	2S	2458	A
1	2S	2459	A
1	2S	2461	A
1	2S	2463	G
1	2S	2472	U
1	2S	2474	G
1	2S	2475	G
1	2S	2490	C
1	2S	2494	A
1	2S	2499	U
1	2S	2502	A
1	2S	2503	G
1	2S	2511	A
1	2S	2514	U
1	2S	2515	A
1	2S	2522	G
1	2S	2523	A
1	2S	2524	A
1	2S	2525	G
1	2S	2526	C
1	2S	2531	C
1	2S	2533	G
1	2S	2538	U
1	2S	2540	A
1	2S	2541	U
1	2S	2542	U
1	2S	2543	U
1	2S	2549	G
1	2S	2561	A
1	2S	2562	A
1	2S	2569	A
1	2S	2570	U
1	2S	2571	U
1	2S	2572	C

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Mol	Chain	Res	Type
1	2S	2573	G
1	2S	2585	G
1	2S	2589	G
1	2S	2593	A
1	2S	2606	G
1	2S	2607	G
1	2S	2613	U
1	2S	2614	G
1	2S	2626	A
1	2S	2637	A
1	2S	2645	G
1	2S	2648	G
1	2S	2652	U
1	2S	2655	U
1	2S	2656	A
1	2S	2674	A
1	2S	2677	G
1	2S	2689	A
1	2S	2691	A
1	2S	2694	A
1	2S	2696	A
1	2S	2702	A
1	2S	2720	G
1	2S	2728	G
1	2S	2729	U
1	2S	2737	C
1	2S	2753	G
1	2S	2755	C
1	2S	2758	A
1	2S	2762	A
1	2S	2777	G
1	2S	2779	A
1	2S	2788	C
1	2S	2796	G
1	2S	2800	G
1	2S	2801	A
1	2S	2810	C
1	2S	2816	G
1	2S	2817	A
1	2S	2842	U
1	2S	2844	C
1	2S	2845	A

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Mol	Chain	Res	Type
1	2S	2859	U
1	2S	2867	C
1	2S	2871	G
1	2S	2872	A
1	2S	2873	U
1	2S	2887	A
1	2S	2896	A
1	2S	2898	G
1	2S	2899	C
1	2S	2910	A
1	2S	2918	G
1	2S	2923	U
1	2S	2928	C
1	2S	2935	U
1	2S	2936	A
1	2S	2942	C
1	2S	2946	A
1	2S	2947	G
1	2S	2951	G
1	2S	2954	U
1	2S	2983	C
1	2S	2990	G
1	2S	2996	U
1	2S	2997	G
1	2S	3011	A
1	2S	3012	A
1	2S	3049	A
1	2S	3059	G
1	2S	3078	U
1	2S	3080	G
1	2S	3086	A
1	2S	3092	C
1	2S	3094	A
1	2S	3115	C
1	2S	3116	G
1	2S	3122	A
1	2S	3130	A
1	2S	3131	U
1	2S	3139	A
1	2S	3142	A
1	2S	3143	C
1	2S	3154	C

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Mol	Chain	Res	Type
1	2S	3155	U
1	2S	3156	U
1	2S	3157	U
1	2S	3164	C
1	2S	3165	A
1	2S	3170	A
1	2S	3173	G
1	2S	3174	A
1	2S	3176	G
1	2S	3179	U
1	2S	3181	C
1	2S	3187	A
1	2S	3198	U
1	2S	3207	U
1	2S	3217	C
1	2S	3218	A
1	2S	3219	G
1	2S	3229	G
1	2S	3243	A
1	2S	3245	A
1	2S	3246	G
1	2S	3253	G
1	2S	3259	U
1	2S	3270	U
1	2S	3273	A
1	2S	3276	G
1	2S	3279	A
1	2S	3281	U
1	2S	3287	U
1	2S	3289	G
1	2S	3294	A
1	2S	3304	U
1	2S	3316	A
1	2S	3318	G
1	2S	3319	U
1	2S	3320	A
1	2S	3331	U
1	2S	3335	A
1	2S	3341	U
1	2S	3342	A
1	2S	3345	G
1	2S	3351	U

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Mol	Chain	Res	Type
1	2S	3352	U
1	2S	3353	G
1	2S	3354	U
1	2S	3355	U
1	2S	3356	G
1	2S	3360	C
1	2S	3369	G
1	2S	3370	A
1	2S	3375	A
1	2S	3378	C
1	2S	3382	U
1	2S	3389	U
1	2S	3390	G
2	8S	17	A
2	8S	22	U
2	8S	23	U
2	8S	34	U
2	8S	35	C
2	8S	59	A
2	8S	62	C
2	8S	63	G
2	8S	70	G
2	8S	72	A
2	8S	80	A
2	8S	82	U
2	8S	86	U
2	8S	87	G
2	8S	90	U
2	8S	94	C
2	8S	95	G
2	8S	102	U
2	8S	105	A
2	8S	106	C
2	8S	111	A
2	8S	113	U
2	8S	125	U
2	8S	126	A
2	8S	129	C
2	8S	151	C
2	8S	152	G
3	5S	13	A
3	5S	22	A

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Mol	Chain	Res	Type
3	5S	26	C
3	5S	41	G
3	5S	54	U
3	5S	55	A
3	5S	65	G
3	5S	73	C
3	5S	76	A
3	5S	102	A
3	5S	112	G
3	5S	121	U
46	1S	2	A
46	1S	4	C
46	1S	25	C
46	1S	26	A
46	1S	34	G
46	1S	42	G
46	1S	43	A
46	1S	45	U
46	1S	47	A
46	1S	68	A
46	1S	69	G
46	1S	72	A
46	1S	73	U
46	1S	76	A
46	1S	77	U
46	1S	104	A
46	1S	114	C
46	1S	116	U
46	1S	128	U
46	1S	132	U
46	1S	133	U
46	1S	134	U
46	1S	135	A
46	1S	136	C
46	1S	137	U
46	1S	140	A
46	1S	141	U
46	1S	145	A
46	1S	159	U
46	1S	161	U
46	1S	166	C
46	1S	170	U

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Mol	Chain	Res	Type
46	1S	178	U
46	1S	184	C
46	1S	185	U
46	1S	186	C
46	1S	191	C
46	1S	192	U
46	1S	195	G
46	1S	197	A
46	1S	200	A
46	1S	215	A
46	1S	218	A
46	1S	219	A
46	1S	228	G
46	1S	231	U
46	1S	233	C
46	1S	236	A
46	1S	240	U
46	1S	241	U
46	1S	250	C
46	1S	257	A
46	1S	259	U
46	1S	261	U
46	1S	265	A
46	1S	271	A
46	1S	272	U
46	1S	278	U
46	1S	279	G
46	1S	280	U
46	1S	288	A
46	1S	308	C
46	1S	309	C
46	1S	314	C
46	1S	316	A
46	1S	320	U
46	1S	321	C
46	1S	322	G
46	1S	337	G
46	1S	352	A
46	1S	359	A
46	1S	360	A
46	1S	361	C
46	1S	369	A

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Mol	Chain	Res	Type
46	1S	390	G
46	1S	400	A
46	1S	402	C
46	1S	404	G
46	1S	416	A
46	1S	417	A
46	1S	418	G
46	1S	423	G
46	1S	424	C
46	1S	425	A
46	1S	426	G
46	1S	434	G
46	1S	439	U
46	1S	444	C
46	1S	456	A
46	1S	469	C
46	1S	475	A
46	1S	477	A
46	1S	484	C
46	1S	488	G
46	1S	493	U
46	1S	495	C
46	1S	496	G
46	1S	498	G
46	1S	499	U
46	1S	502	U
46	1S	504	U
46	1S	505	A
46	1S	506	A
46	1S	513	U
46	1S	515	A
46	1S	532	U
46	1S	538	A
46	1S	539	G
46	1S	541	A
46	1S	542	A
46	1S	545	A
46	1S	555	A
46	1S	556	A
46	1S	557	G
46	1S	558	U
46	1S	559	C

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Mol	Chain	Res	Type
46	1S	565	C
46	1S	579	A
46	1S	580	A
46	1S	582	U
46	1S	594	A
46	1S	606	A
46	1S	611	U
46	1S	612	U
46	1S	619	A
46	1S	620	A
46	1S	622	A
46	1S	623	A
46	1S	624	G
46	1S	639	U
46	1S	650	U
46	1S	655	G
46	1S	656	G
46	1S	657	U
46	1S	658	C
46	1S	678	A
46	1S	679	U
46	1S	680	U
46	1S	683	C
46	1S	685	A
46	1S	687	G
46	1S	694	U
46	1S	696	C
46	1S	697	C
46	1S	700	C
46	1S	703	G
46	1S	704	C
46	1S	705	U
46	1S	707	A
46	1S	709	C
46	1S	710	U
46	1S	711	U
46	1S	712	G
46	1S	716	C
46	1S	718	U
46	1S	723	G
46	1S	728	U
46	1S	731	C

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Mol	Chain	Res	Type
46	1S	733	A
46	1S	734	A
46	1S	736	C
46	1S	737	A
46	1S	738	G
46	1S	742	U
46	1S	745	U
46	1S	755	A
46	1S	765	G
46	1S	766	U
46	1S	774	A
46	1S	778	G
46	1S	781	U
46	1S	783	G
46	1S	784	C
46	1S	789	A
46	1S	794	U
46	1S	795	U
46	1S	806	A
46	1S	811	A
46	1S	812	A
46	1S	813	U
46	1S	815	G
46	1S	818	C
46	1S	820	U
46	1S	821	U
46	1S	823	G
46	1S	830	U
46	1S	831	U
46	1S	840	U
46	1S	841	U
46	1S	846	G
46	1S	852	C
46	1S	855	A
46	1S	856	A
46	1S	860	U
46	1S	863	A
46	1S	876	G
46	1S	898	A
46	1S	912	U
46	1S	913	G
46	1S	914	G

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Mol	Chain	Res	Type
46	1S	915	A
46	1S	933	A
46	1S	935	U
46	1S	966	A
46	1S	982	U
46	1S	988	A
46	1S	992	A
46	1S	993	A
46	1S	1004	U
46	1S	1005	A
46	1S	1016	C
46	1S	1021	C
46	1S	1026	A
46	1S	1028	C
46	1S	1029	U
46	1S	1032	G
46	1S	1052	U
46	1S	1053	G
46	1S	1058	U
46	1S	1059	U
46	1S	1061	A
46	1S	1072	C
46	1S	1074	G
46	1S	1080	U
46	1S	1082	C
46	1S	1091	A
46	1S	1092	A
46	1S	1096	C
46	1S	1097	U
46	1S	1100	G
46	1S	1138	A
46	1S	1150	G
46	1S	1157	A
46	1S	1158	C
46	1S	1159	C
46	1S	1160	A
46	1S	1163	A
46	1S	1167	G
46	1S	1185	U
46	1S	1188	G
46	1S	1194	A
46	1S	1196	A

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Mol	Chain	Res	Type
46	1S	1199	G
46	1S	1200	G
46	1S	1202	A
46	1S	1209	C
46	1S	1217	A
46	1S	1218	G
46	1S	1227	A
46	1S	1228	G
46	1S	1229	G
46	1S	1230	A
46	1S	1244	A
46	1S	1245	G
46	1S	1246	C
46	1S	1274	C
46	1S	1275	A
46	1S	1286	U
46	1S	1305	U
46	1S	1314	U
46	1S	1315	U
46	1S	1316	G
46	1S	1321	A
46	1S	1340	U
46	1S	1344	A
46	1S	1345	A
46	1S	1362	U
46	1S	1363	U
46	1S	1364	G
46	1S	1370	U
46	1S	1371	A
46	1S	1390	U
46	1S	1398	U
46	1S	1399	C
46	1S	1413	U
46	1S	1414	U
46	1S	1415	U
46	1S	1418	G
46	1S	1427	A
46	1S	1428	G
46	1S	1432	U
46	1S	1446	A
46	1S	1447	C
46	1S	1448	G

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Mol	Chain	Res	Type
46	1S	1457	C
46	1S	1459	C
46	1S	1473	U
46	1S	1482	C
46	1S	1486	G
46	1S	1490	C
46	1S	1491	U
46	1S	1492	A
46	1S	1493	A
46	1S	1499	G
46	1S	1510	U
46	1S	1515	A
46	1S	1516	A
46	1S	1518	C
46	1S	1521	G
46	1S	1523	G
46	1S	1535	U
46	1S	1536	G
46	1S	1537	C
46	1S	1538	U
46	1S	1539	G
46	1S	1540	G
46	1S	1557	U
46	1S	1559	A
46	1S	1573	A
46	1S	1574	G
46	1S	1582	U
46	1S	1584	G
46	1S	1585	U
46	1S	1601	G
46	1S	1616	G
46	1S	1631	A
46	1S	1632	C
46	1S	1634	C
46	1S	1657	U
46	1S	1658	G
46	1S	1664	C
46	1S	1680	G
46	1S	1683	C
46	1S	1684	U
46	1S	1686	C
46	1S	1689	A

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Mol	Chain	Res	Type
46	1S	1693	A
46	1S	1696	G
46	1S	1697	G
46	1S	1698	G
46	1S	1700	C
46	1S	1702	A
46	1S	1713	G
46	1S	1715	G
46	1S	1736	G
46	1S	1755	A
46	1S	1758	U
46	1S	1762	A
46	1S	1766	A
46	1S	1780	G
46	1S	1782	A
46	1S	1792	G
46	1S	1794	A
46	1S	1795	U
46	1S	1796	C
46	1S	1798	U

All (50) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2S	169	U
1	2S	547	G
1	2S	588	G
1	2S	637	C
1	2S	770	G
1	2S	896	A
1	2S	979	U
1	2S	1064	A
1	2S	1103	A
1	2S	1241	U
1	2S	1307	G
1	2S	1329	U
1	2S	1352	A
1	2S	1556	C
1	2S	1815	U
1	2S	1816	A
1	2S	2101	C
1	2S	2501	U

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Mol	Chain	Res	Type
1	2S	2513	U
1	2S	2525	G
1	2S	2541	U
1	2S	2818	U
1	2S	2896	A
1	2S	3121	U
1	2S	3218	A
1	2S	3228	C
1	2S	3269	U
1	2S	3317	U
1	2S	3351	U
1	2S	3353	G
2	8S	85	G
46	1S	103	A
46	1S	139	C
46	1S	240	U
46	1S	417	A
46	1S	497	G
46	1S	498	G
46	1S	501	U
46	1S	503	G
46	1S	512	A
46	1S	555	A
46	1S	704	C
46	1S	829	A
46	1S	1051	G
46	1S	1344	A
46	1S	1370	U
46	1S	1481	C
46	1S	1615	C
46	1S	1696	G
46	1S	1761	U

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

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

5.5 Carbohydrates [i](#)

There are no 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 [i](#)

There are no chain breaks in this entry.

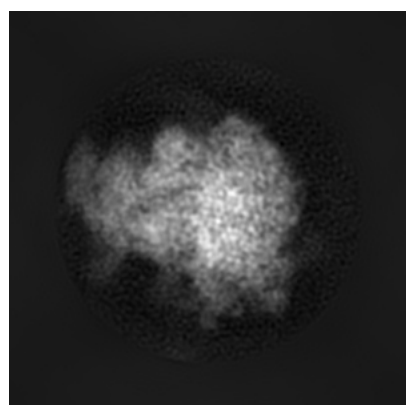
6 Map visualisation [i](#)

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

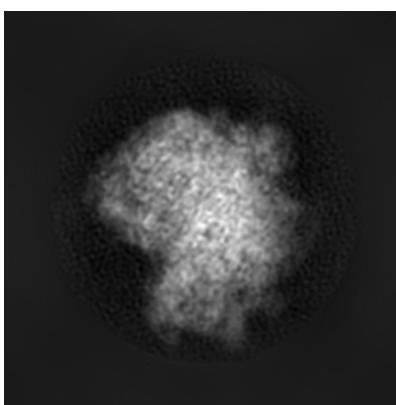
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

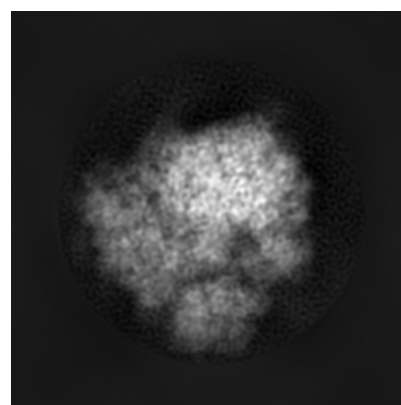
6.1.1 Primary map



X



Y

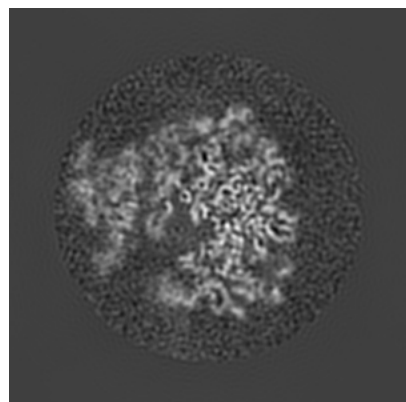


Z

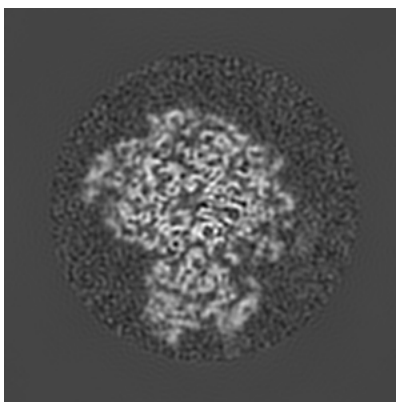
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

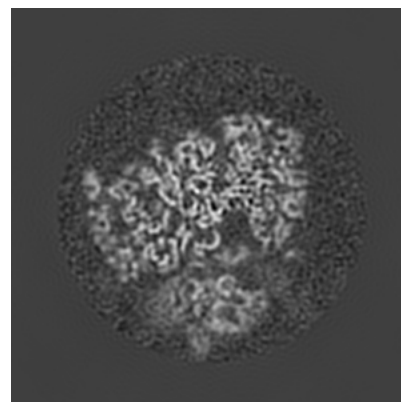
6.2.1 Primary map



X Index: 210



Y Index: 210

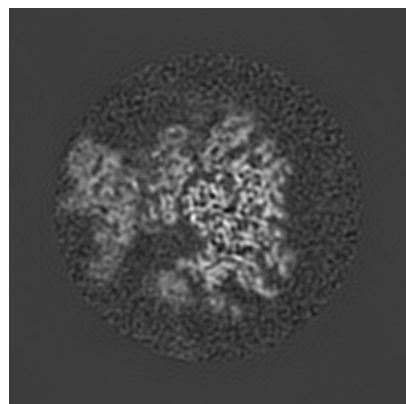


Z Index: 210

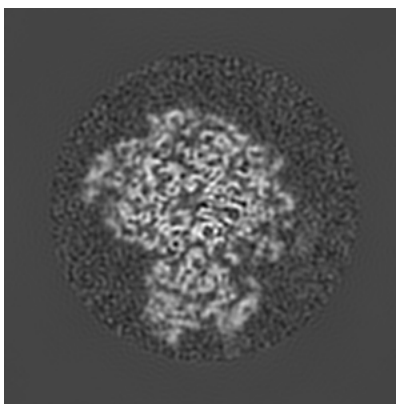
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

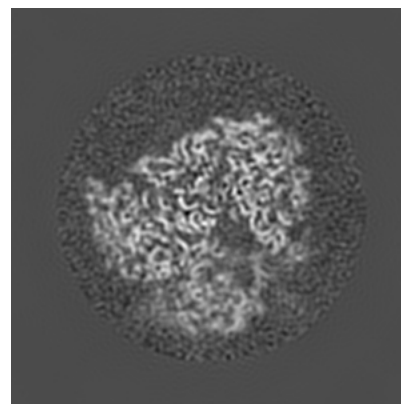
6.3.1 Primary map



X Index: 200



Y Index: 210



Z Index: 203

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

6.4 Orthogonal surface views [i](#)

6.4.1 Primary map



X



Y



Z

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.

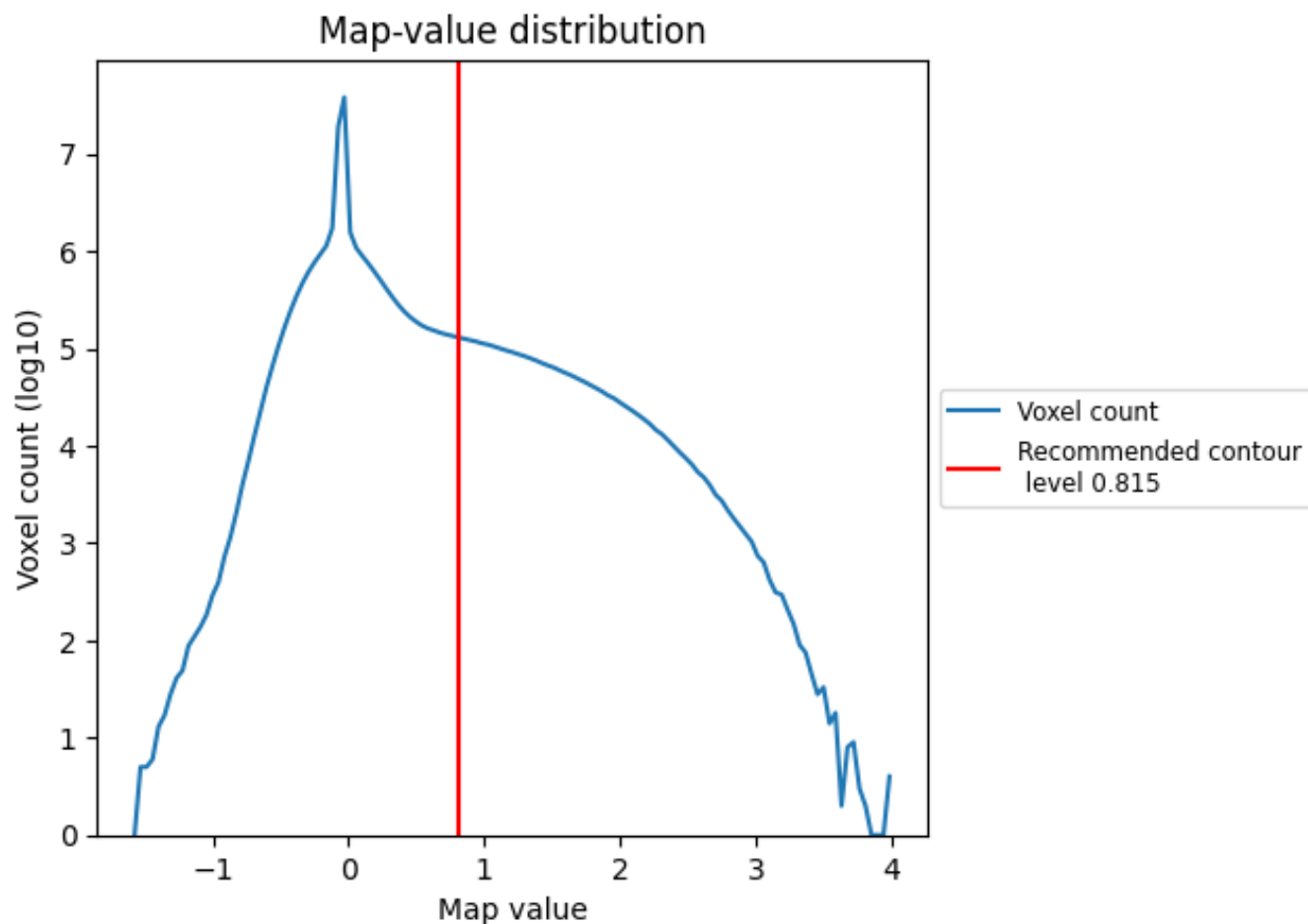
6.5 Mask visualisation

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

7 Map analysis [i](#)

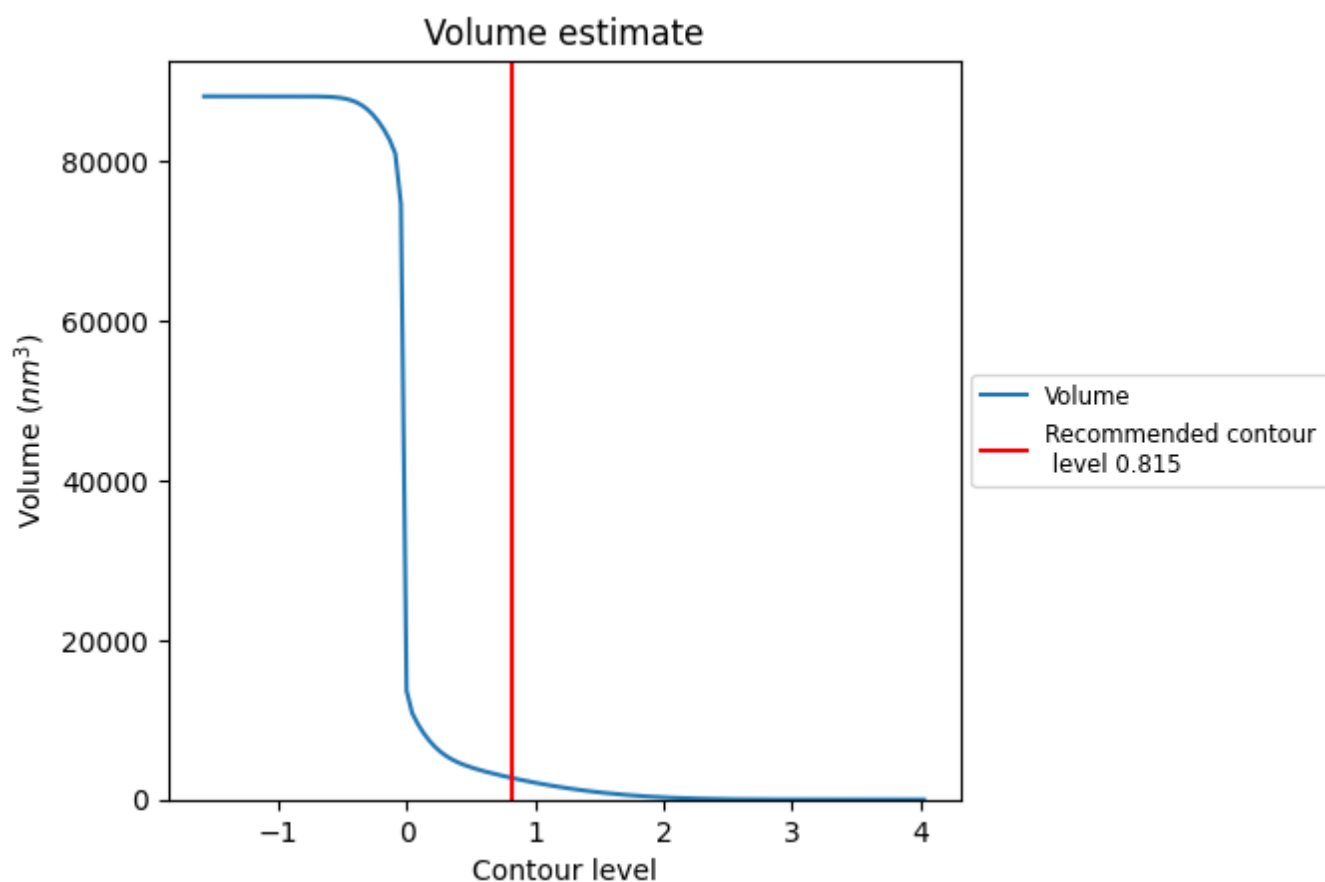
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

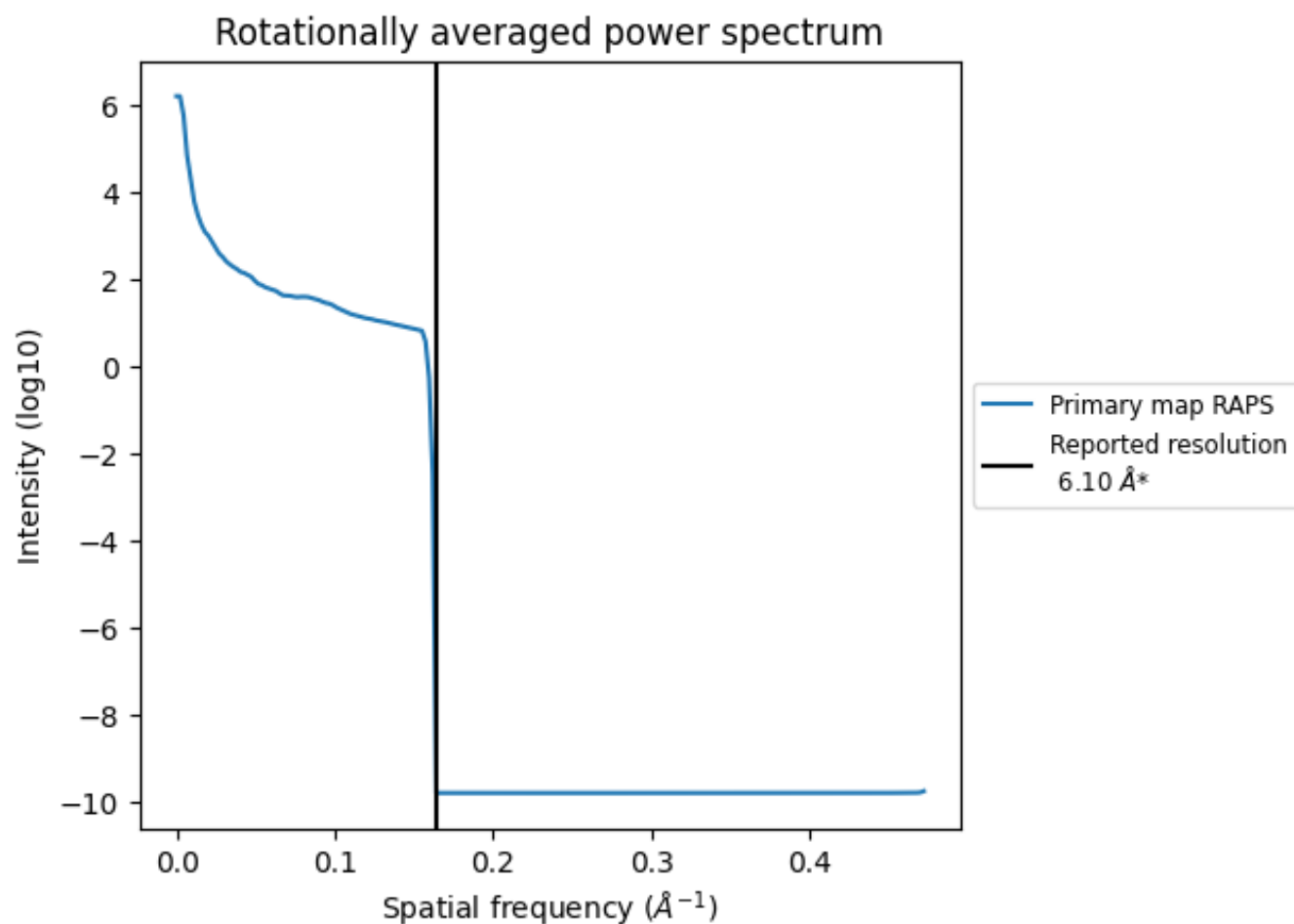
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 2726 nm³; this corresponds to an approximate mass of 2462 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ



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

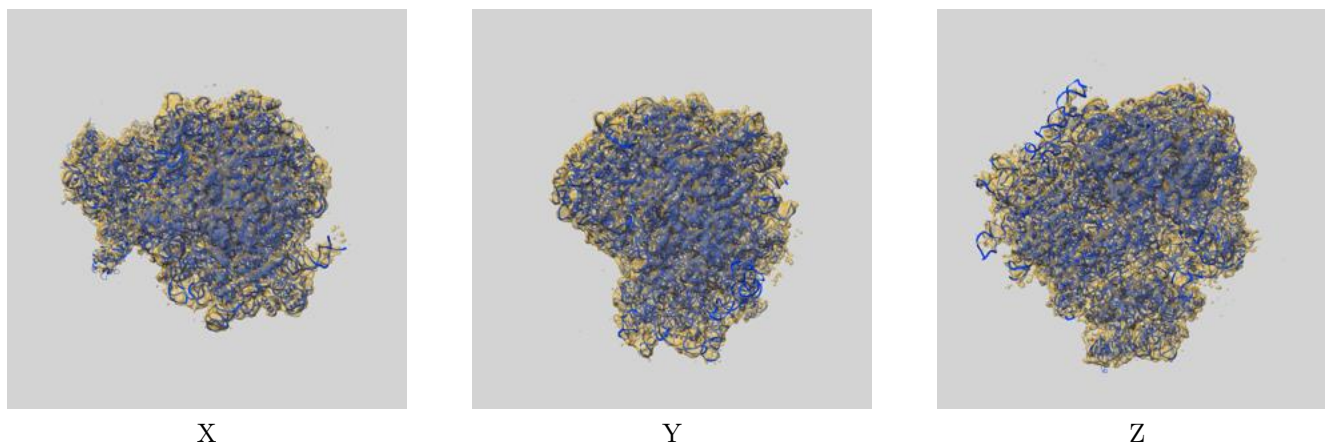
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

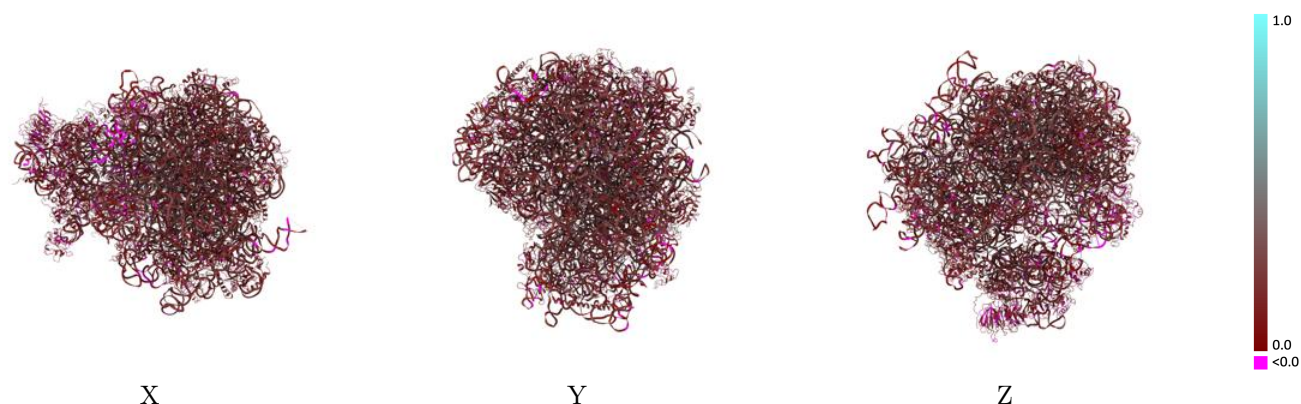
This section contains information regarding the fit between EMDB map EMD-5942 and PDB model 3J6X. Per-residue inclusion information can be found in [section 3](#) on [page 18](#).

9.1 Map-model overlay [i](#)



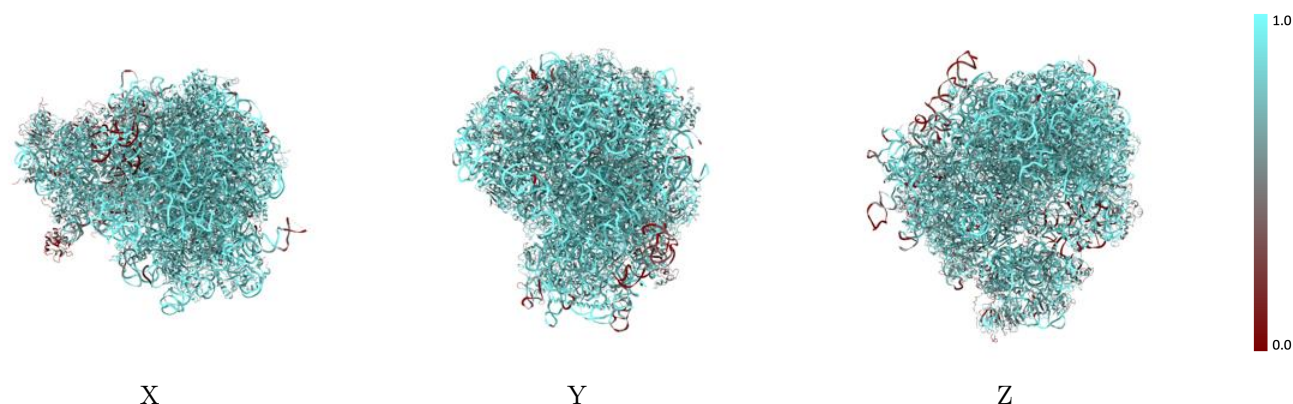
The images above show the 3D surface view of the map at the recommended contour level 0.815 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



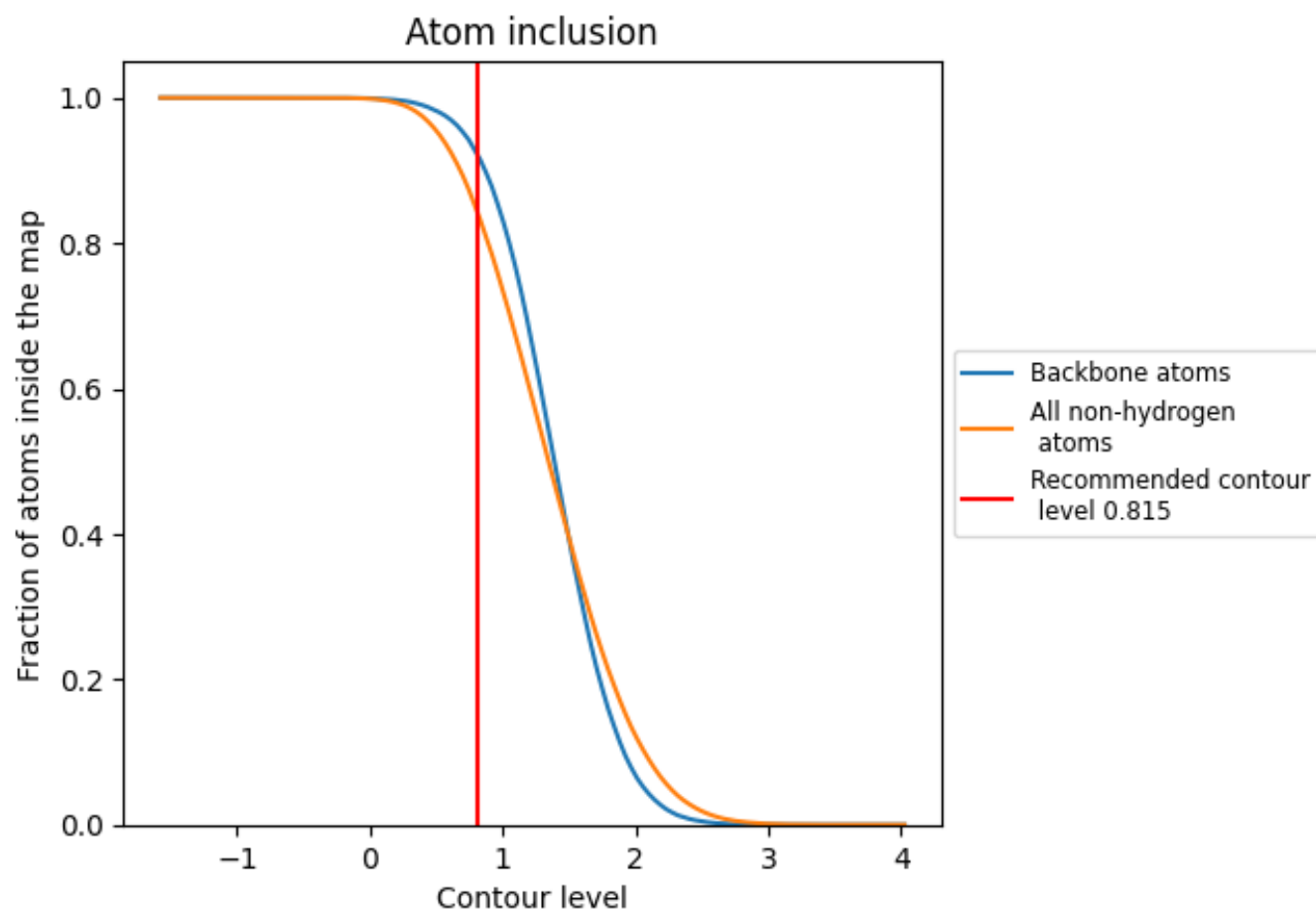
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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	 0.8406	 0.2030
10	 0.6850	 0.1560
11	 0.7109	 0.1900
12	 0.1716	 0.1050
13	 0.7292	 0.1890
14	 0.6897	 0.1560
15	 0.5994	 0.1550
16	 0.6796	 0.1420
17	 0.5646	 0.1670
18	 0.6390	 0.1410
19	 0.7190	 0.1420
1S	 0.9173	 0.2170
20	 0.6005	 0.1460
21	 0.6902	 0.1880
22	 0.7487	 0.1760
23	 0.7845	 0.1960
24	 0.7342	 0.1600
25	 0.6910	 0.1490
26	 0.6806	 0.1960
27	 0.6811	 0.1870
28	 0.6527	 0.1710
29	 0.7412	 0.1490
2S	 0.9367	 0.2340
30	 0.7320	 0.1820
31	 0.2357	 0.1600
50	 0.7934	 0.1840
51	 0.7492	 0.1620
53	 0.7740	 0.1760
54	 0.7546	 0.1750
55	 0.7717	 0.1580
56	 0.7815	 0.1680
57	 0.7538	 0.1820
58	 0.7679	 0.1800
59	 0.7281	 0.1860
5S	 0.9818	 0.2240











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Chain	Atom inclusion	Q-score
60	 0.7648	 0.1710
61	 0.7720	 0.1890
62	 0.7558	 0.1790
63	 0.7796	 0.2000
64	 0.7647	 0.1770
65	 0.7328	 0.1950
66	 0.7963	 0.1830
67	 0.7174	 0.1840
68	 0.7918	 0.1820
69	 0.7704	 0.1990
70	 0.7319	 0.1960
71	 0.7708	 0.1830
72	 0.7918	 0.2050
73	 0.8163	 0.1700
74	 0.7406	 0.1700
75	 0.7394	 0.1720
76	 0.7721	 0.1660
77	 0.8186	 0.1610
78	 0.6200	 0.1860
79	 0.7644	 0.2040
80	 0.7302	 0.1800
81	 0.0376	 0.0070
82	 0.7970	 0.1930
83	 0.7791	 0.1850
8S	 0.9672	 0.2440
IR	 0.5202	 0.1120
L1	 0.5573	 0.1210
L2	 0.8003	 0.1880
L3	 0.7925	 0.1880
L4	 0.7902	 0.1810
L5	 0.7177	 0.1590
L6	 0.7628	 0.1810
L7	 0.7871	 0.1770
L8	 0.7363	 0.1740
L9	 0.7311	 0.1850
RA	 0.6278	 0.1270
S0	 0.6605	 0.1790
S1	 0.6158	 0.1720
S2	 0.7749	 0.1930
S3	 0.7046	 0.1740
S4	 0.7648	 0.1820
S5	 0.6724	 0.1530

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Chain	Atom inclusion	Q-score
S6	 0.7484	 0.1610
S7	 0.5992	 0.1640
S8	 0.7815	 0.1670
S9	 0.7427	 0.1740