



wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 02:53 PM BST

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 PDB ID : 3U5E, 3U5D, 3U5C, 3U5B

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.
For rigid body fitted models, validation errors reported here could stem from errors in the original structure(s) used in the fitting.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/EMValidationReportHelp>

MolProbity : 4.02b-467
Mogul : unknown
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : trunk27241

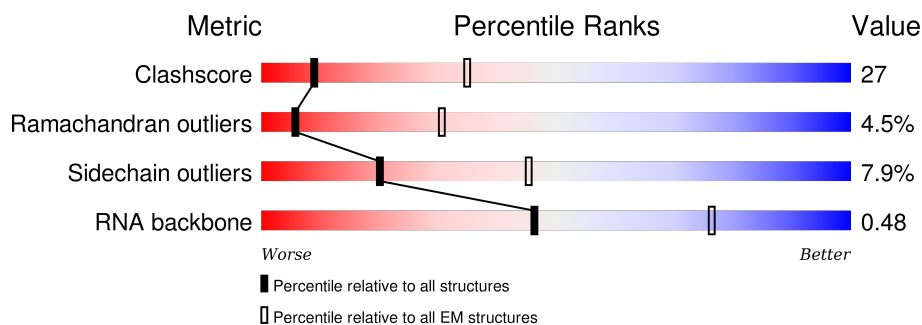
1 Overall quality at a glance

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.







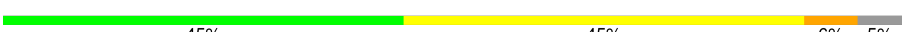
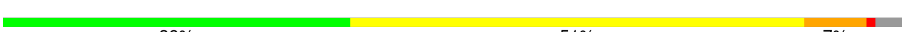
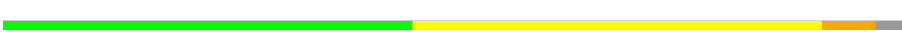





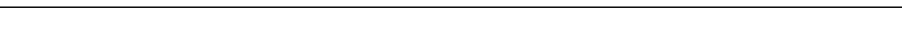

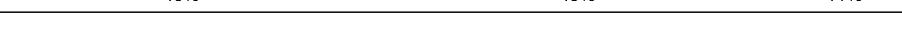

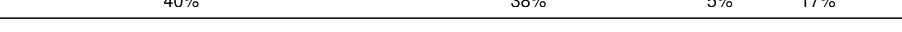







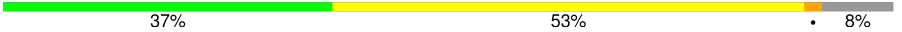
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686
RNA backbone	3027	244

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. 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 $\leq 5\%$.

Mol	Chain	Length	Quality of chain
1	2S	3395	32% 52% 12% . .
2	8S	158	32% 55% 12% .
3	5S	121	35% 59% 7%
4	L1	217	36% 48% 9% 6%
5	L2	254	37% 59% . .
6	L3	387	41% 51% 8%
7	L4	362	43% 46% 10%
8	L5	297	52% 43% 5%




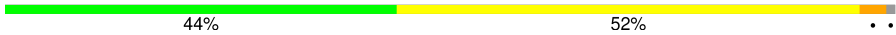
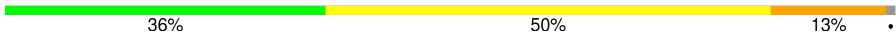
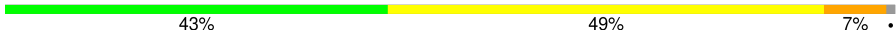
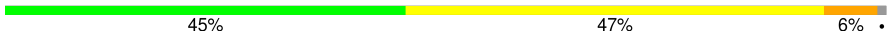


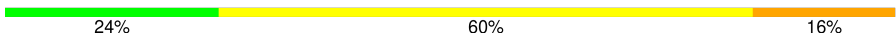
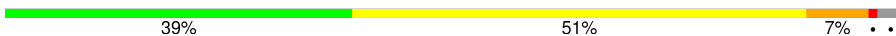
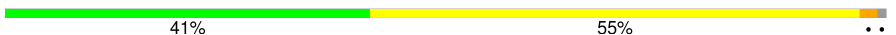
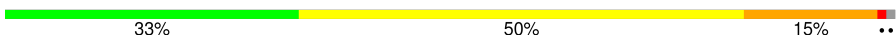
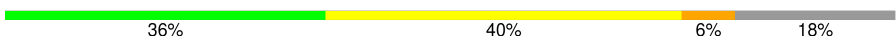
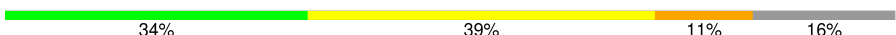










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Mol	Chain	Length	Quality of chain
9	L6	176	
10	L7	244	
11	L8	256	
12	L9	191	
13	50	221	
14	51	174	
15	53	199	
16	54	138	
17	55	204	
18	56	199	
19	57	184	
20	58	186	
21	59	189	
22	60	172	
23	61	160	
24	62	121	
25	63	137	
26	64	155	
27	65	142	
28	66	127	
29	67	136	
30	68	149	
31	69	59	
32	70	105	
33	71	113	


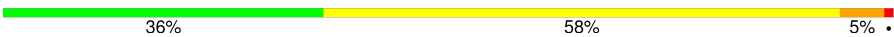




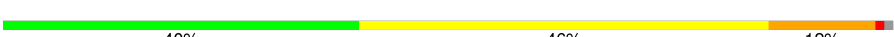
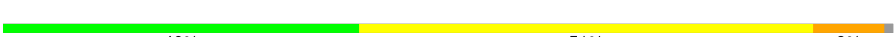
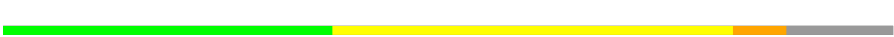

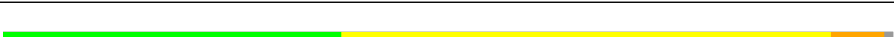
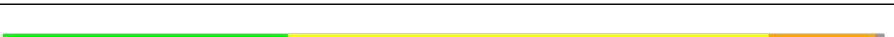

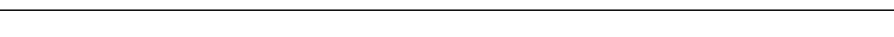
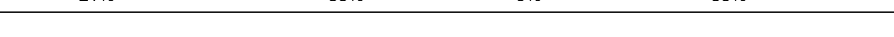
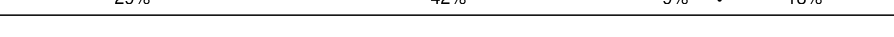






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Mol	Chain	Length	Quality of chain
34	72	130	
35	73	107	
36	74	121	
37	75	120	
38	76	100	
39	77	88	
40	78	78	
41	79	51	
42	80	128	
43	81	25	
44	82	106	
45	83	92	
46	1S	1798	
47	S0	252	
48	S1	255	
49	S2	254	
50	S3	240	
51	S4	261	
52	S5	225	
53	S6	236	
54	S7	190	
55	S8	200	
56	S9	197	
57	10	105	
58	11	156	

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Mol	Chain	Length	Quality of chain
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	0
			1446	930	267	245	4		

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
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		

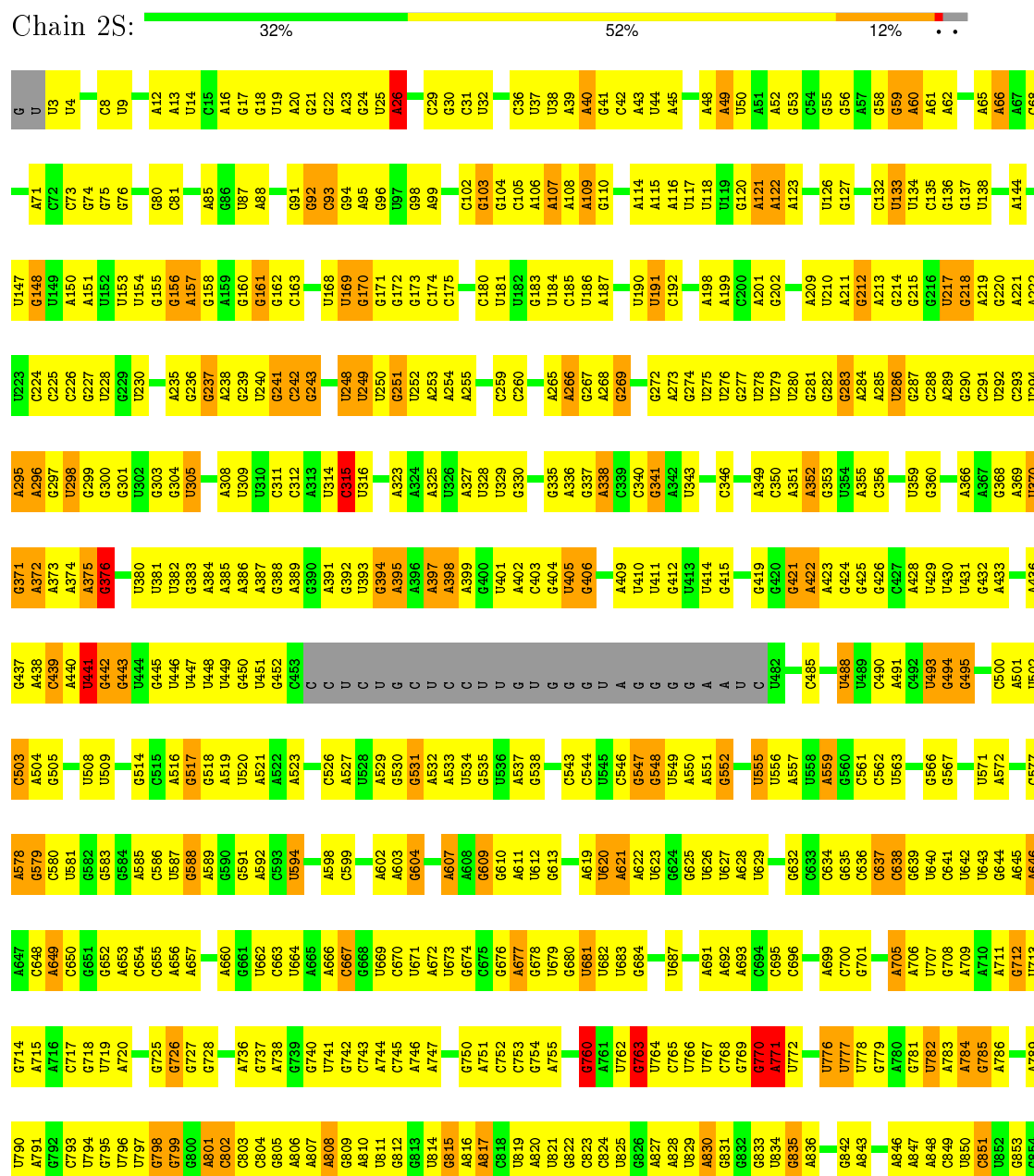
- Molecule 80 is a RNA chain called TSV IRES mRNA.

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 and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. 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. 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



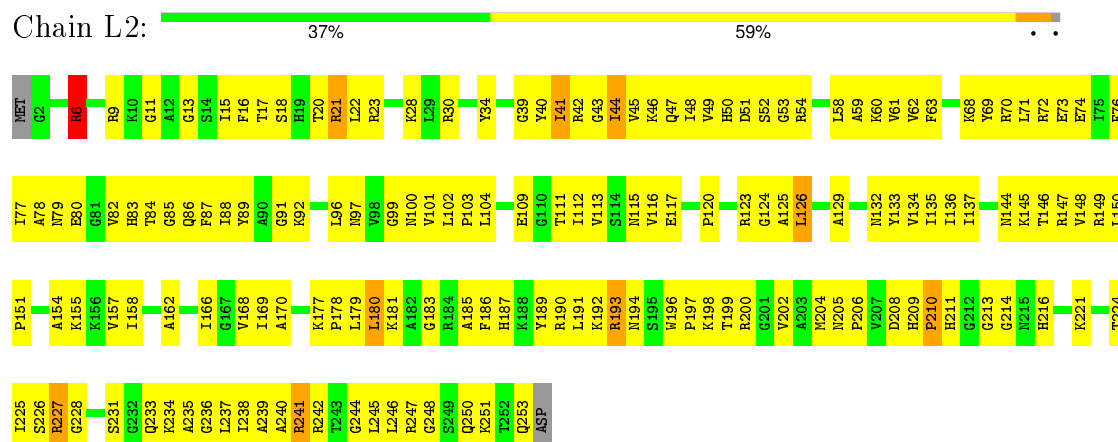




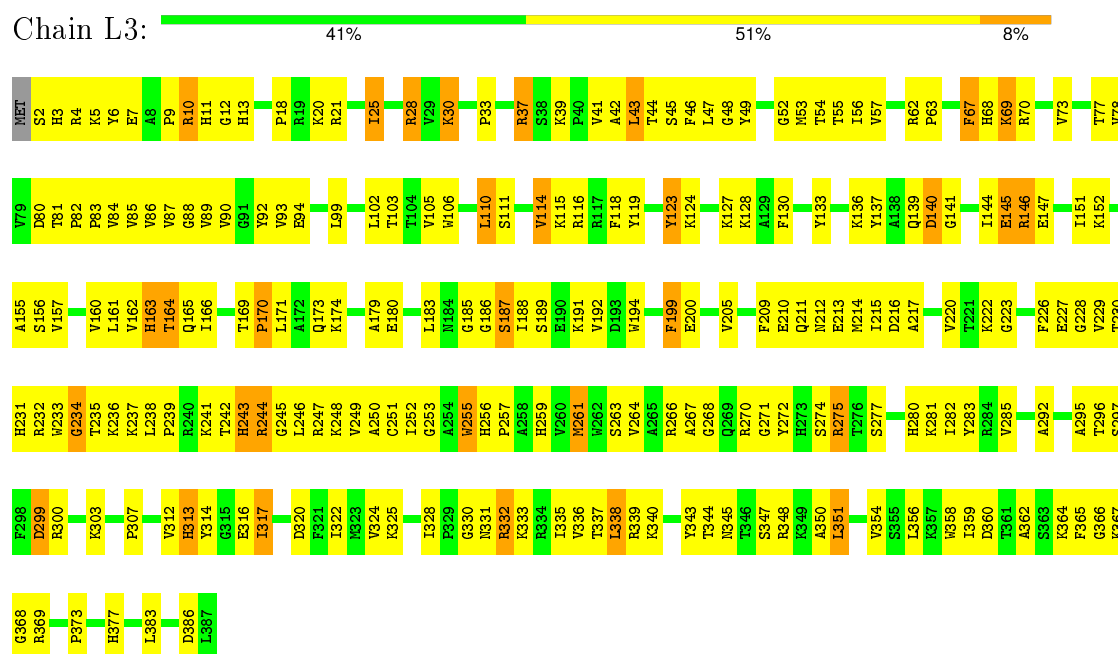
WORLDWIDE PDB
 PROTEIN DATA BANK

EMDataBank
 Unified Data Resource for 3DEM

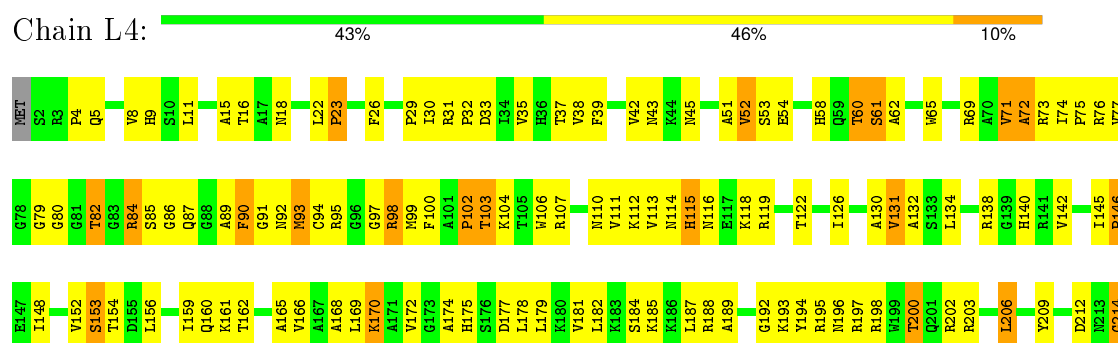
- Molecule 5: 60S ribosomal protein L2

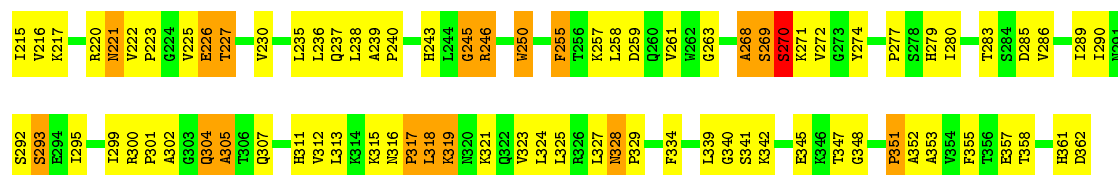


- Molecule 6: 60S ribosomal protein L3

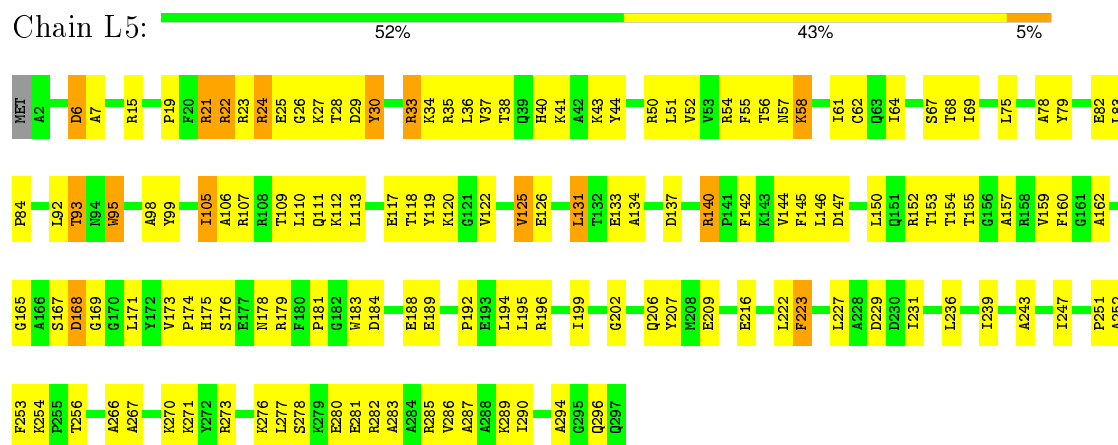


- Molecule 7: 60S ribosomal protein L4

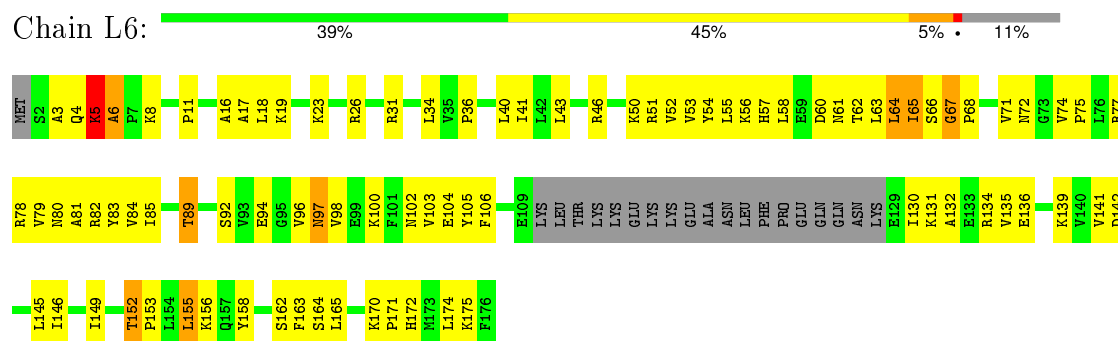




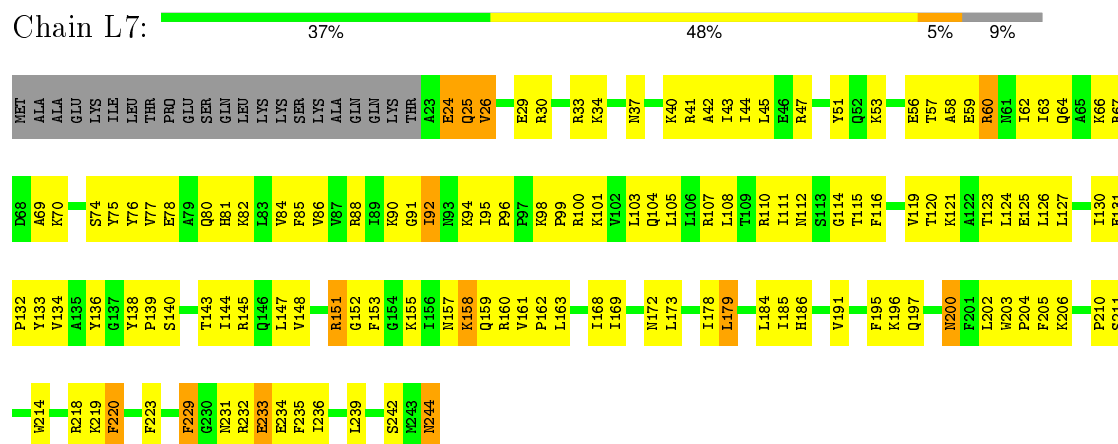
• Molecule 8: 60S ribosomal protein L5



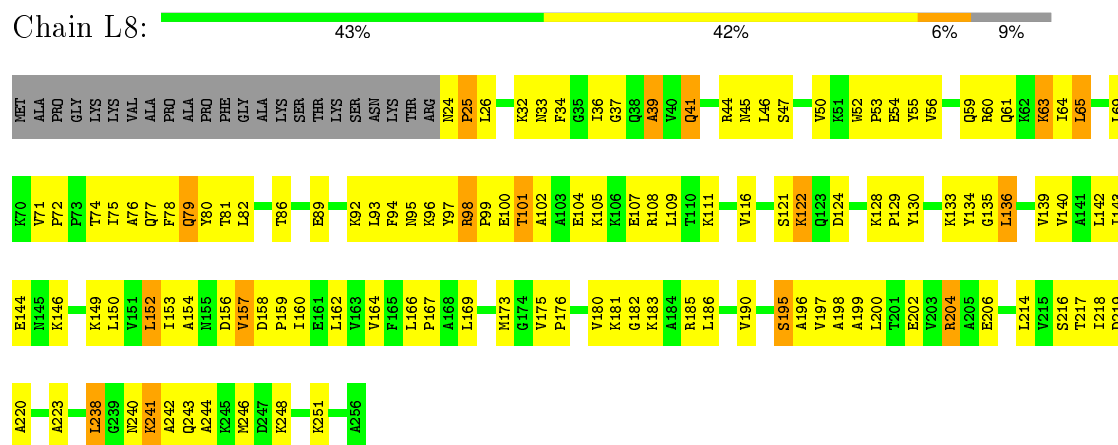
• Molecule 9: 60S ribosomal protein L6



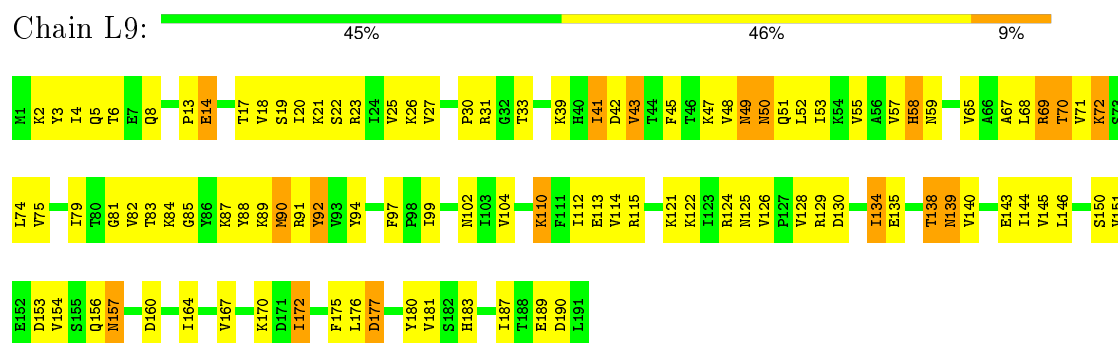
• Molecule 10: 60S ribosomal protein L7



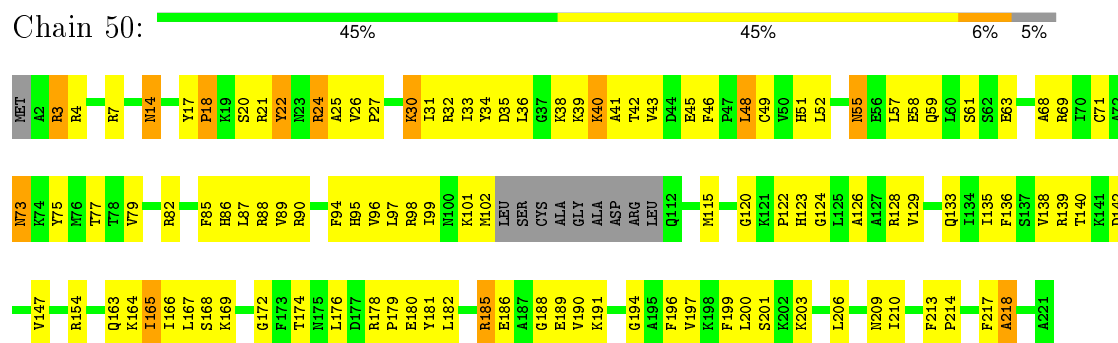
• Molecule 11: 60S ribosomal protein L8



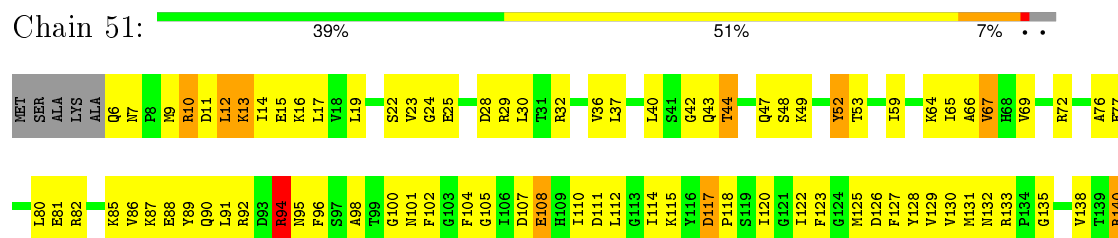
- Molecule 12: 60S ribosomal protein L9



- Molecule 13: 60S ribosomal protein L10



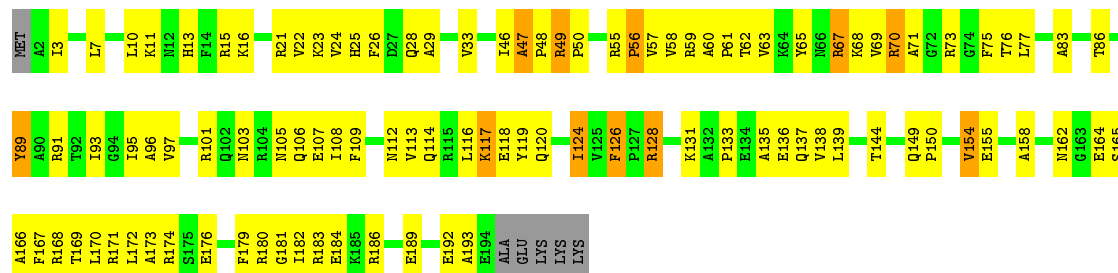
- Molecule 14: 60S ribosomal protein L11





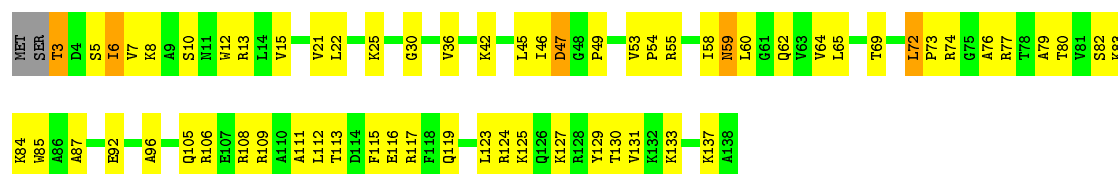
• Molecule 15: 60S ribosomal protein L13

Chain 53: 46% 46% 6% •



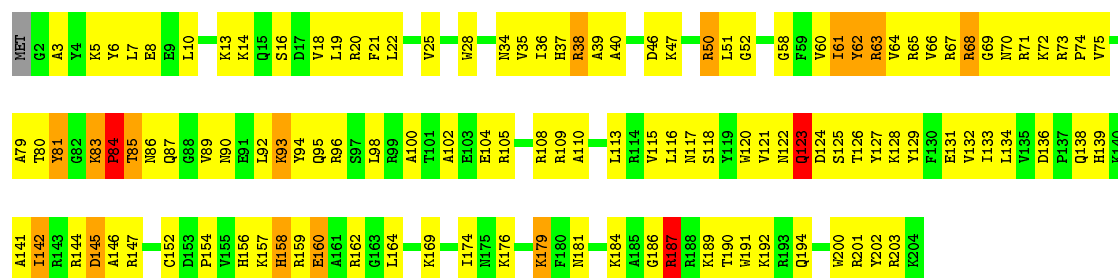
• Molecule 16: 60S ribosomal protein L14

Chain 54: 53% 42% • •



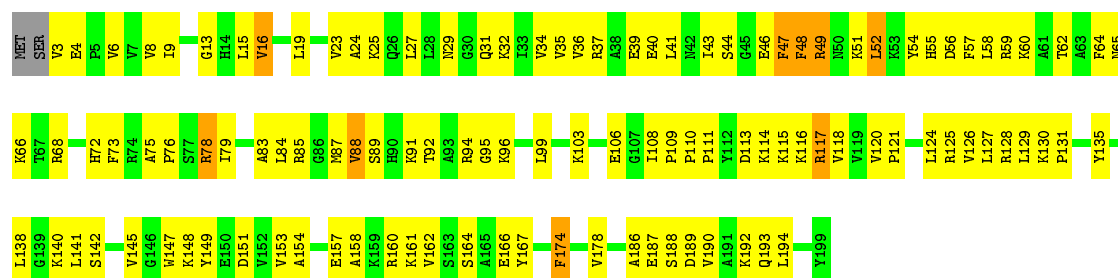
• Molecule 17: 60S ribosomal protein L15

Chain 55: 40% 51% 7% •

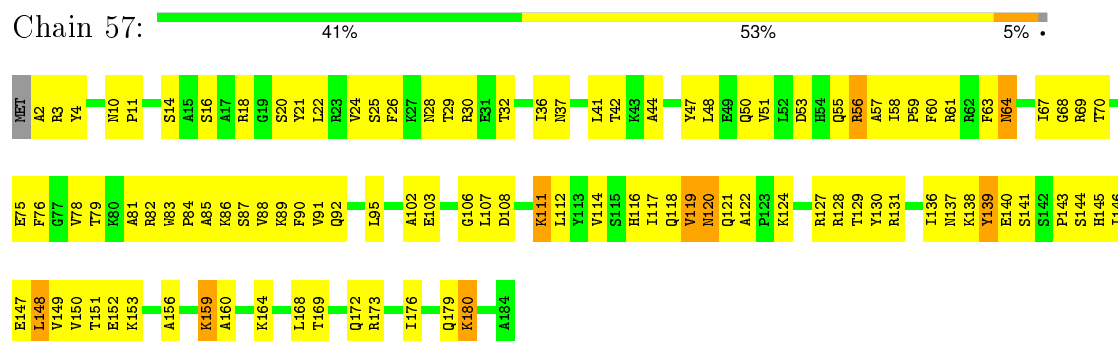


• Molecule 18: 60S ribosomal protein L16

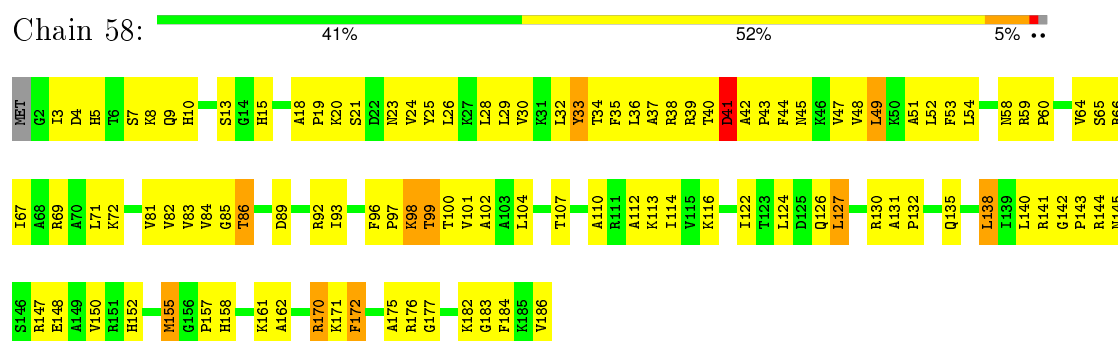
Chain 56: 42% 52% 5% •



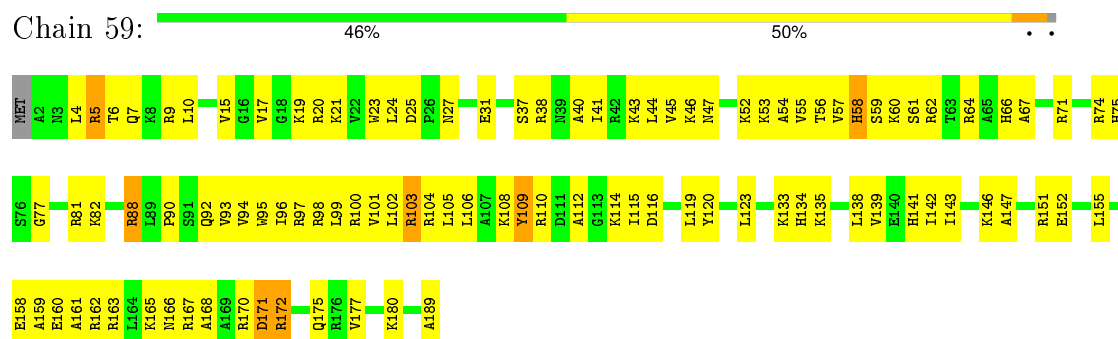
- Molecule 19: 60S ribosomal protein L17



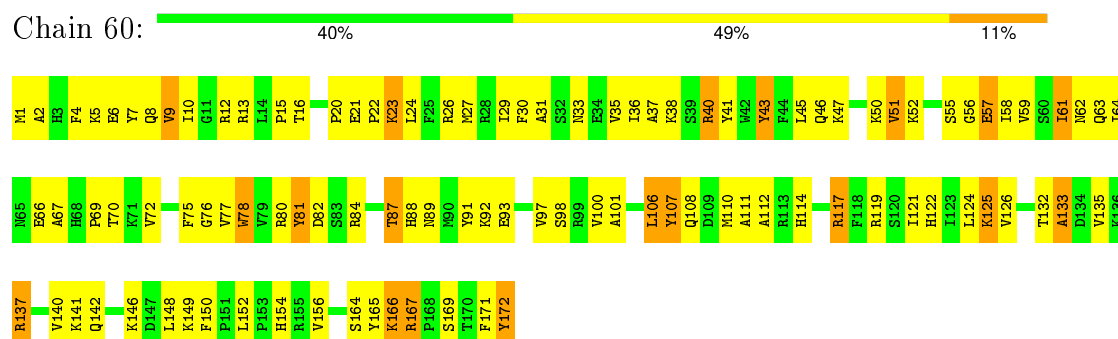
- Molecule 20: 60S ribosomal protein L18



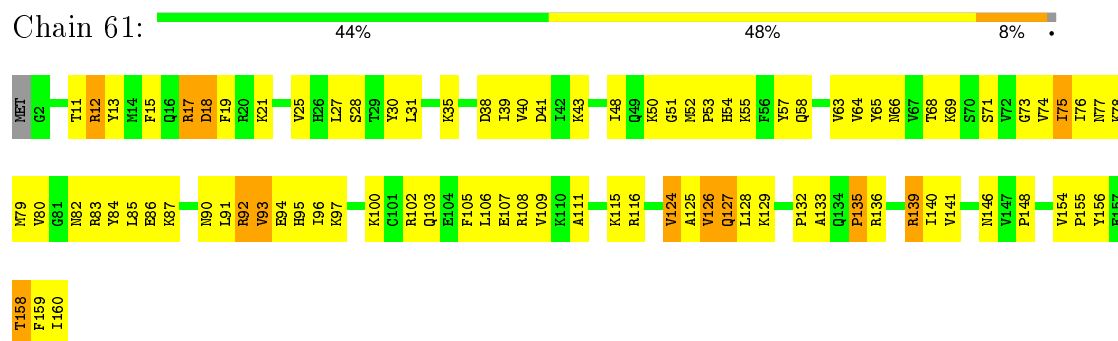
- Molecule 21: 60S ribosomal protein L19



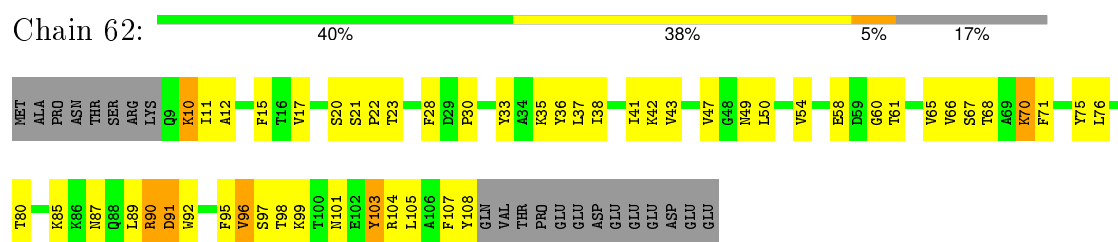
- Molecule 22: 60S ribosomal protein L20



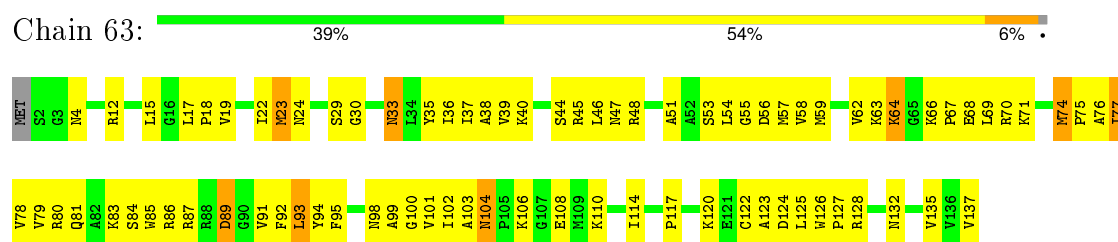
- Molecule 23: 60S ribosomal protein L21



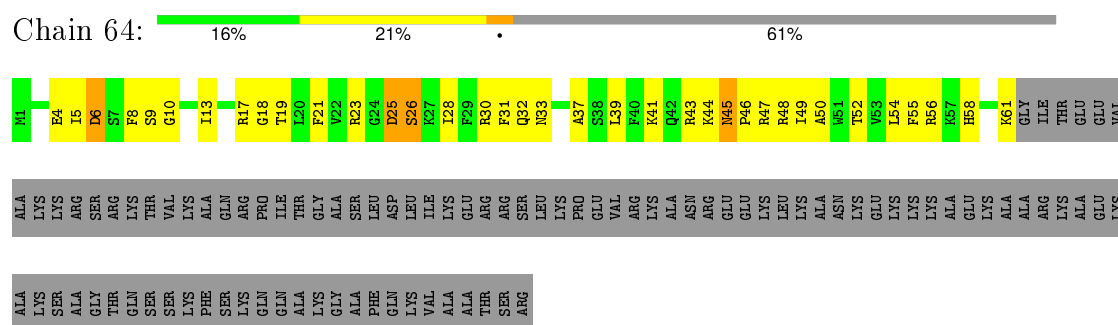
- Molecule 24: 60S ribosomal protein L22



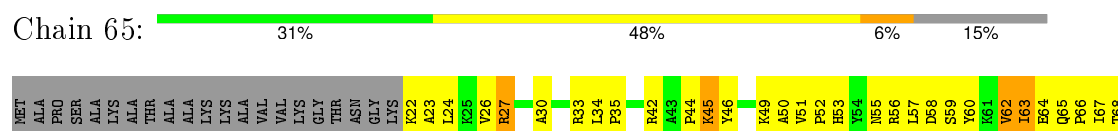
- Molecule 25: 60S ribosomal protein L23

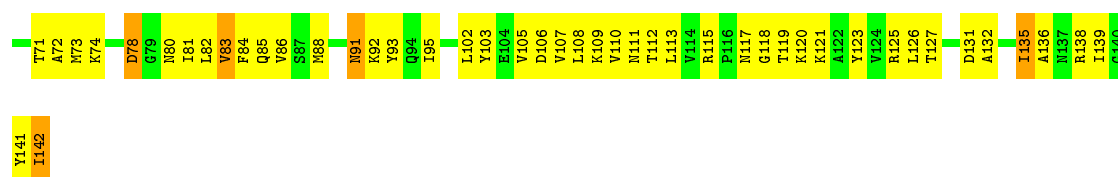


- Molecule 26: 60S ribosomal protein L24



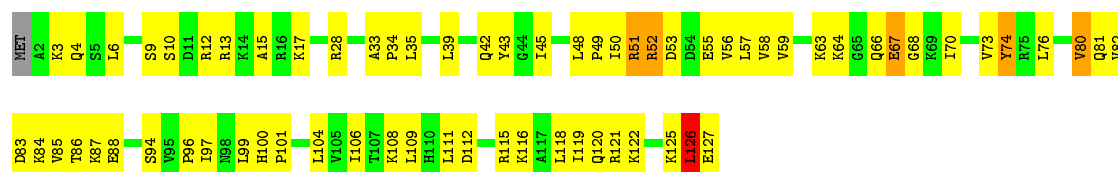
- Molecule 27: 60S ribosomal protein L25





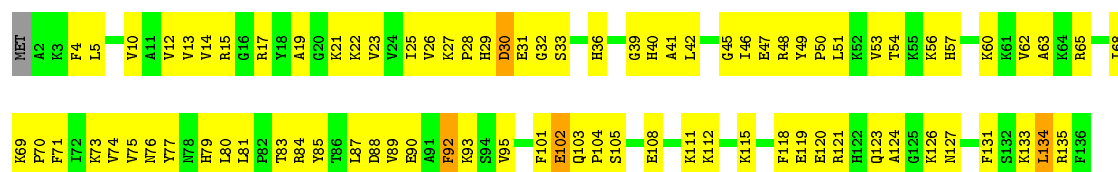
- Molecule 28: 60S ribosomal protein L26

Chain 66: 46% 49% . .



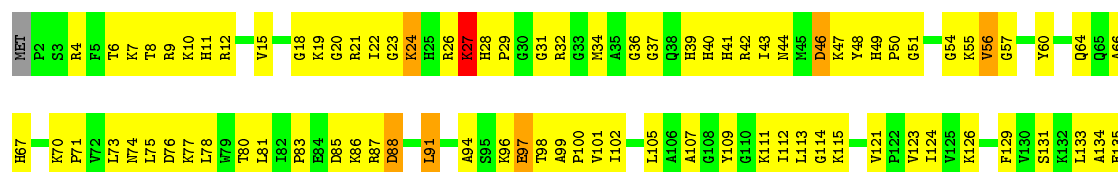
- Molecule 29: 60S ribosomal protein L27

Chain 67: 38% 59% . .



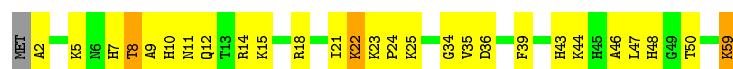
- Molecule 30: 60S ribosomal protein L28

Chain 68: 38% 57% . .



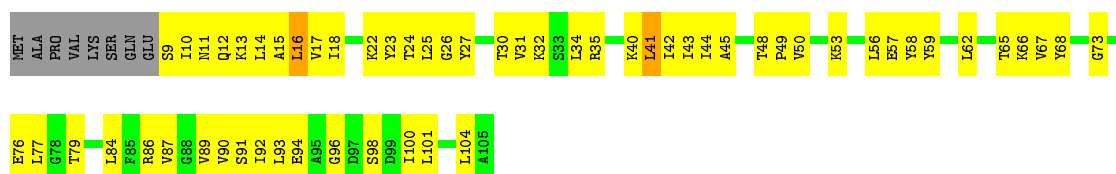
- Molecule 31: 60S ribosomal protein L29

Chain 69: 53% 41% 5% .



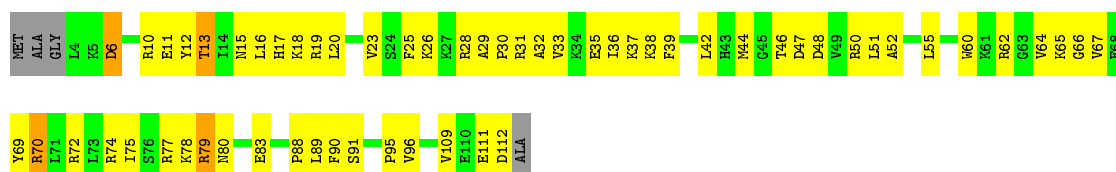
- Molecule 32: 60S ribosomal protein L30

Chain 70: 37% 53% 8% .



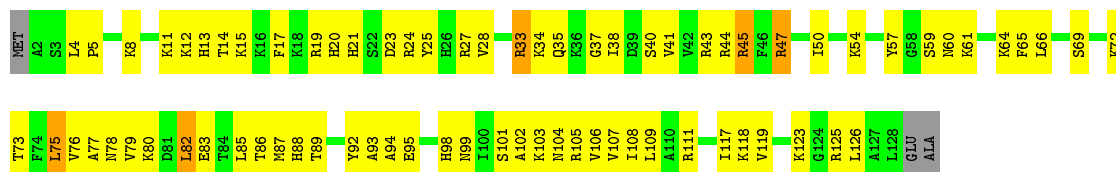
- Molecule 33: 60S ribosomal protein L31

Chain 71: 44% 49%



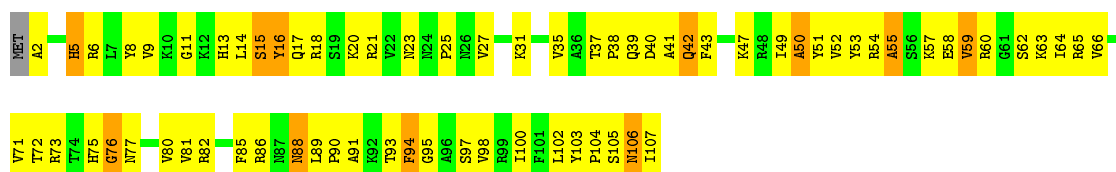
- Molecule 34: 60S ribosomal protein L32

Chain 72: 40% 54%



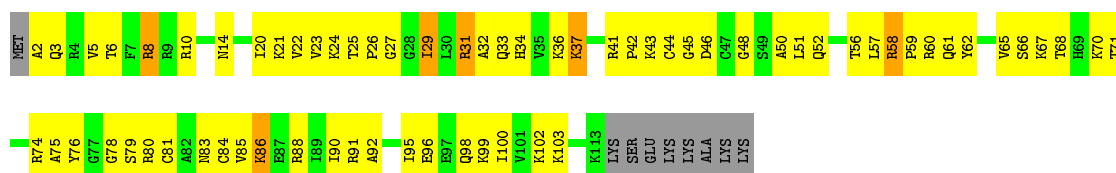
- Molecule 35: 60S ribosomal protein L33

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: 44% 52%

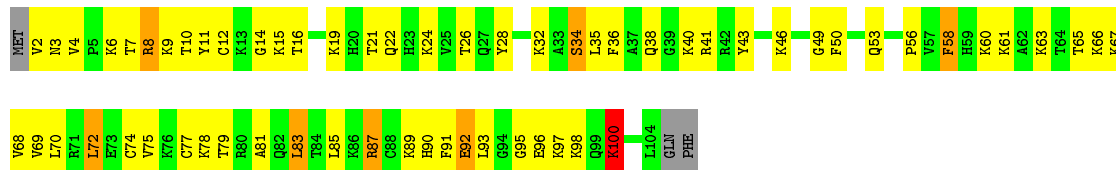
- Molecule 43: 60S ribosomal protein L41

Chain 81: 24% 60% 16%



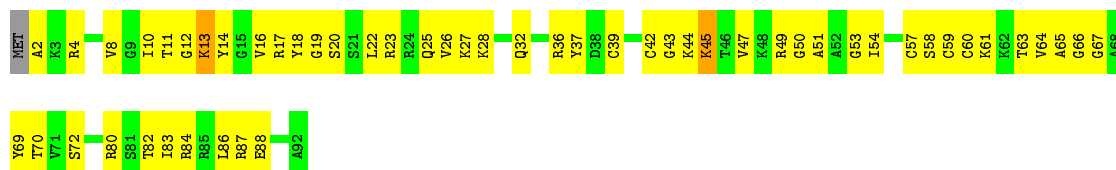
- Molecule 44: 60S ribosomal protein L42

Chain 82: 39% 51% 7% ..



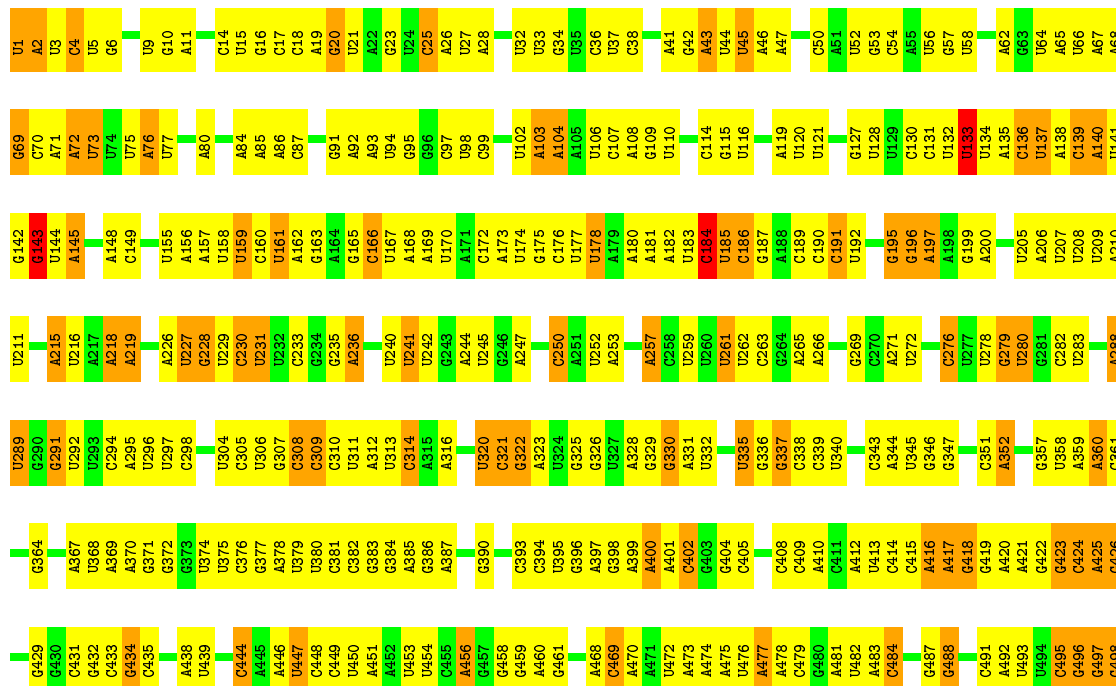
- Molecule 45: 60S ribosomal protein L43

Chain 83: 41% 55% ..

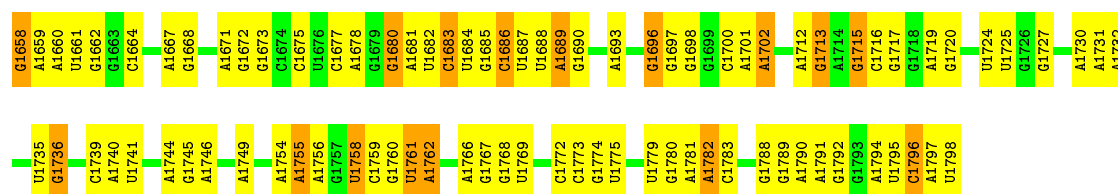


- Molecule 46: 18S ribosomal RNA

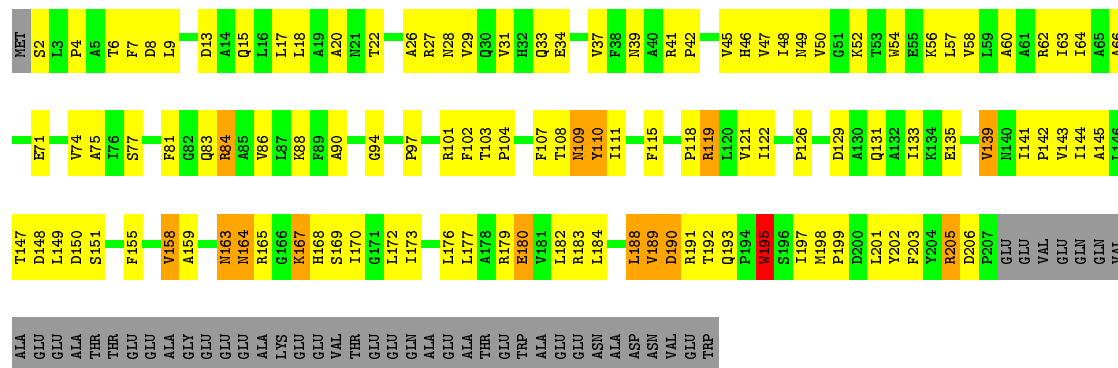
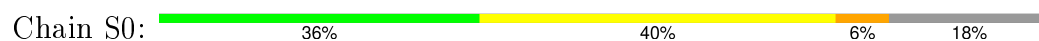
Chain 1S: 33% 50% 15% ..



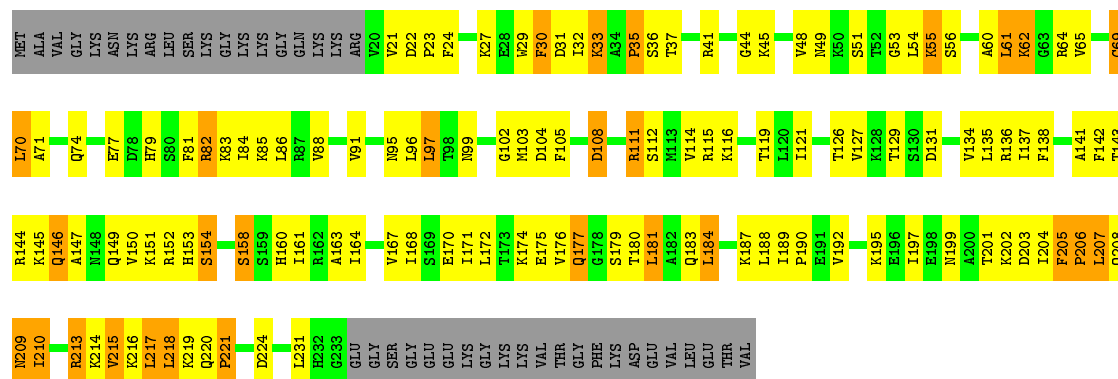
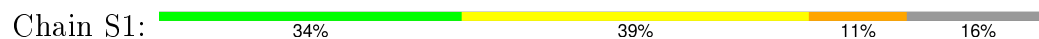
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A1586	U1522	G1449	U1369	C1284	G1199	G1126	U1060	U982	A907	U840	A770	C704	U639	G568	C500
A1587	G1523	U1450	U1370	U1285	G1200	G1127	A1061	U983	U912	U841	A771	U705	U640	C569	U501
G1588	A1524	C1451	U1286	U1287	G1201	C1128	A1062		G913	C842	G772	A706	U641	A570	U502
C1589	U1525	U1452	U1372	G1288	A1202	U1129	A1065	G986	G914	U843	C773	A707	G642	C571	G503
G1590	A1526	G1453	U1373	U1289	U1206	A1132	C1066	G987	A915	U844	A774	C708	G643	C572	U504
C1591	U1527	G1454	U1374	U1290	C1207	A1133	C1067	U988	A916	U845	G775	C709	G644	C573	A505
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C1593	C1529	U1456	U1376	U1292	U1209	A1135	C1069	G991	U917	U847	G777	U711	C646	G577	U507
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C1596	U1532	U1459	U1381	G1294	U1214	A1138	U1072	U993	A920	C852	U780	U714		A580	A512
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	G1534		G1383	A1296	C1216	A1140	G1074	A1005	A922	U854	U782	C717	C654	U582	U513
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	G1536			U1298	G1218	A1142	C1076	U1007	A929	U857	G784	G722	U657	C584	A515
	U1537			G1299	G1219	A1143	U1077	G1010	A930	U858	G785	G723	C658	A585	G516
	G1538			A1300	A1223	A1147	C1078	G1011	A931	U859	U788		C	U517	U517
	U1539			U1303	G1224	A1148	U1079	U1012	A932	U860	U789	U728	G	A591	A518
	G1540			G1304	U1225	C1147	U1080	A1013	C934	U861	U790	G729	A	A592	A519
	U1541			U1305	A1226	G1149	A1081	G1014	U935	A862	U791	G730	U	U593	A520
	G1542			G1306	G1227	G1150	C1082	U1015	G936	A863	U792	G731	U	A594	A521
	U1543			U1311	A1228		G1083	G1016	G937	U864	U793	G732	U	G595	U522
	A1544			A1312	G1229	C1156	A1084	U1017	G938	A865	U794	G733	U	C596	G523
	U1545			A1313	A1230	A1157	G1085	U1018	A939	G866	U795	G734	U		U524
	G1546			A1314	U1231	C1158	A1086	A1019	A940	G867	U796	G735	U	A599	A525
	U1547			U1315	U1232	C1159	A1087	A1020	A941	G868	U797	G736	U	U599	A526
	A1548			G1316	G1233	A1160	A1088	C1021	G942	U869	U798	G737	U	A601	A527
	C1549			U1317	A1234	A1161	U1089	C1022		G870	U799	G738	U	U602	U528
	U1550			U1320	G1235	C1162	C1090	G1023		G871	U800	G739	U	U603	A529
	G1551			A1321	U1240	A1163	A1091	A1025	G943	G872	U801	G740	U	A604	G530
	U1552			A1322	U1241	A1164	A1092	A1026	G944	U873	U802	G741	U	A605	C531
	G1553			G1323	A1244	A1165	A1093	C1027	C950	G874	U803	U742	U	A606	U532
	U1554			U1324	U1245	G1167	G1094	C1028	A951	G875	U804	U743	U	G607	U533
	C1555			G1327	G1246	U1168	U1095	U1029	A952	G876	U805	U744	U		
	U1556			U1328	U1247	G1169	C1096	A1030	G953	G877	U806	U745	U	U611	A538
	C1557			U1340	U1250	G1170	U1097	U1031	G954	G878	U807	U746	U	U612	G539
	U1558			A1341	U1251	A1171	U1098	G1032	A955	G879	U808	U747	U	G613	A541
	G1559			U1342	G1252	G1172	U1099	A1036	U958	U882	U809	U748	U	U614	A542
	U1560			U1343	U1253	C1173	G1100	C1037	U959	U883	U810	U749	U	U615	C543
	U1561			A1344	U1254	G1174	G1105	U1038	U960	A884	U811	U750	U	U616	A544
	G1562			A1345	G1255	G1179	U1106	A1039	U961	G885	U812	U751	U	A619	A545
	U1563			U1346	G1256	C1180	G1107	G1040	C962	U886	U813	U752	U	A620	
	C1564			G1347	U1257	U1181	G1108	U1041	U965	A887	U814	U753	U	A621	
	U1565			U1348	U1258	U1182	G1109	G1042	U966	U888	U815	U754	U	A622	
	G1566			U1353	U1259	A1183	G1110	A1043	U967	U889	U816	U755	U	A623	G551
	U1567			U1357	U1260	U1184	G1111	U1044	A967	G895	U817	U756	U	G624	G552
	A1568			G1358	G1270	U1185	G1112	G1047	U968	U896	U818	U757	U	C554	G553
	U1569			U1359	G1271	U1186	A1113	U1048	C969	C897	U819	U758	U	G627	A555
	G1570			C1360	U1272	U1187	U1117	G1049	U970	A898	U820	U759	U	G628	A556
	U1571			U1361	C1273	G1188	U1118	U1050	A971	G899	U821	U760	U	U629	G557
	G1572			U1362	U1274	G1189	U1119	G1051	G972	U900	U822	U761	U	A630	U558
	U1573			U1363	U1275	G1190	G1120	U1052	U973	G901	U823	U762	U	G631	C559
	A1574			U1364	U1276	A1192	G1121	U1053	A974	G902	U824	U763	U	U632	U560
	U1575			U1365	G1279	A1193	C1121	G1054	C975	U903	U825	U764	U	U633	G561
	C1576			G1280	U1281	C1195	G1122	U1057	A976	U904	U826	U765	U	G634	
	U1577			U1366	G1282	A1196	G1123	U1058	A977	G905	U827	U766	U	A635	G564
	G1578			U1367	U1283	C1197	A1124	U1059		A906	U828	U767	U	A636	C565
	U1579										U829	U768	U	C637	C566
	A1580										A929				
	C1581										U831				
	U1582										U832				
	G1583										U833				
	U1584										U834				
											U835				



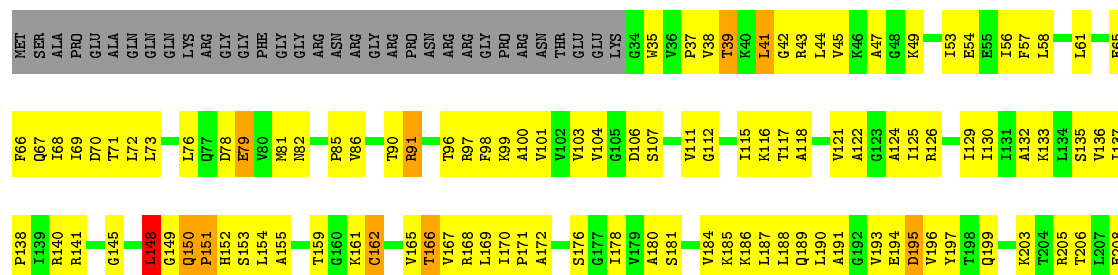
• Molecule 47: 40S ribosomal protein S0

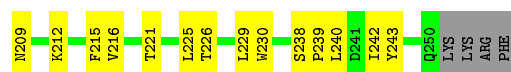


• Molecule 48: 40S ribosomal protein S1



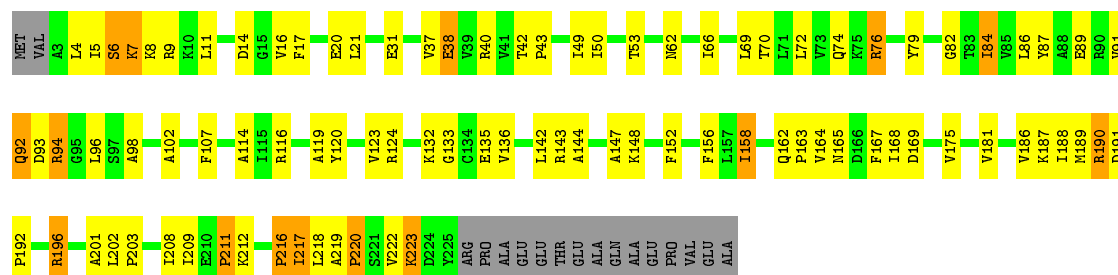
• Molecule 49: 40S ribosomal protein S2





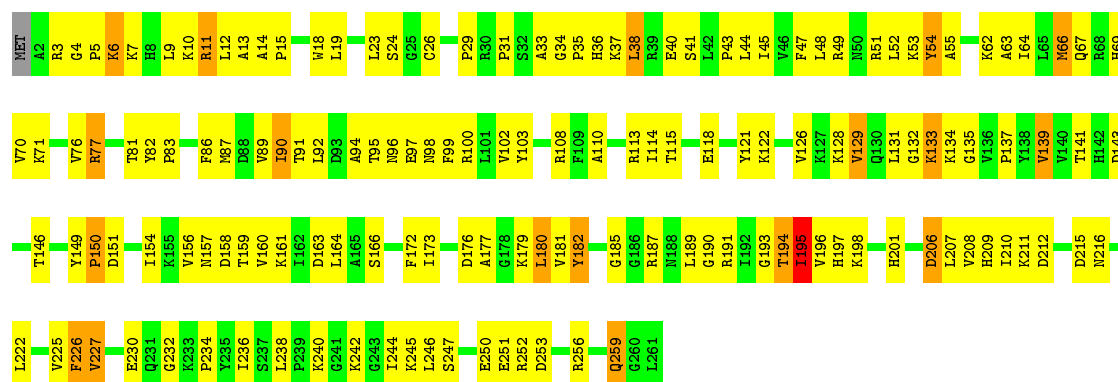
- Molecule 50: 40S ribosomal protein S3

Chain S3: 55% 32% 6% 7%



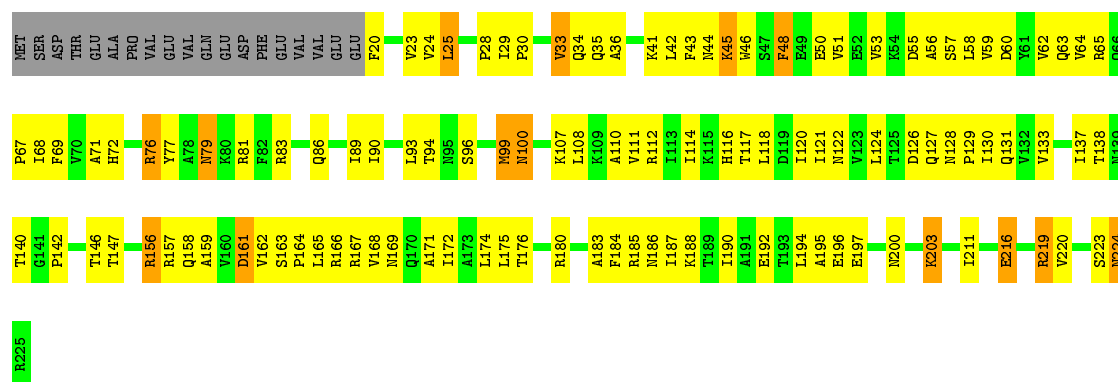
- Molecule 51: 40S ribosomal protein S4

Chain S4: 42% 50% 7%



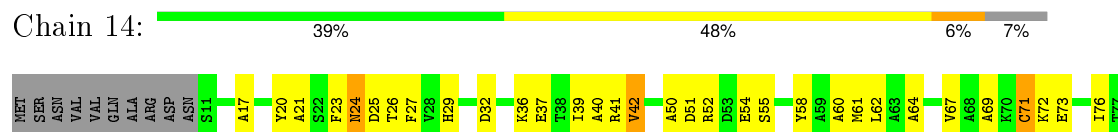
- Molecule 52: 40S ribosomal protein S5

Chain S5: 41% 44% 6% 8%



- Molecule 53: 40S ribosomal protein S6

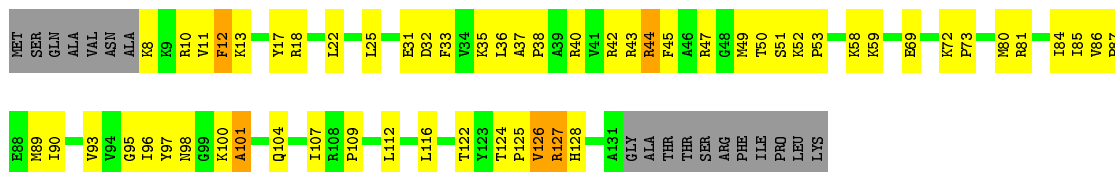
Chain S6: 45% 47% 2%





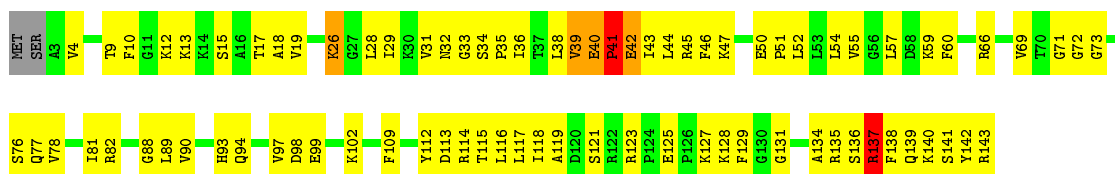
• Molecule 62: 40S ribosomal protein S15

Chain 15: 46% 37% 13%



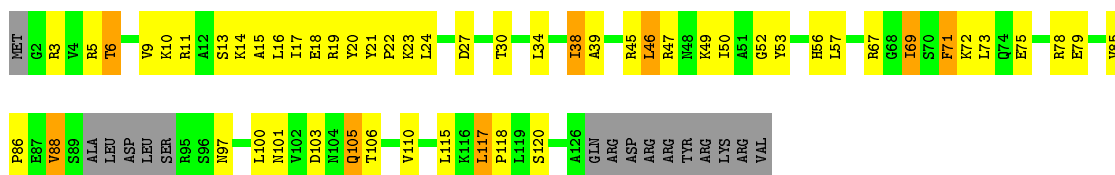
• Molecule 63: 40S ribosomal protein S16

Chain 16: 42% 52%



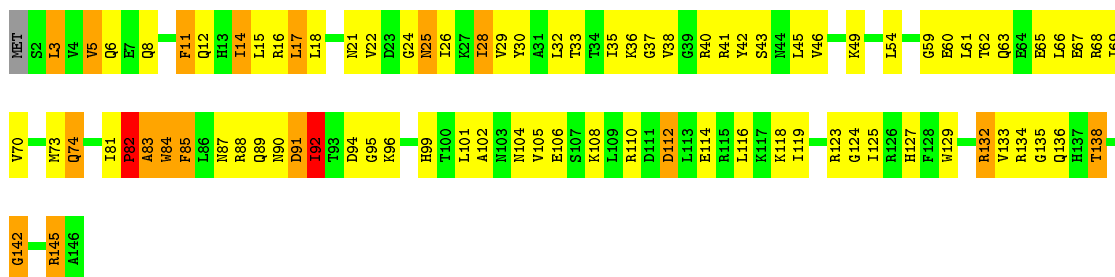
• Molecule 64: 40S ribosomal protein S17

Chain 17: 49% 34% 6% 12%



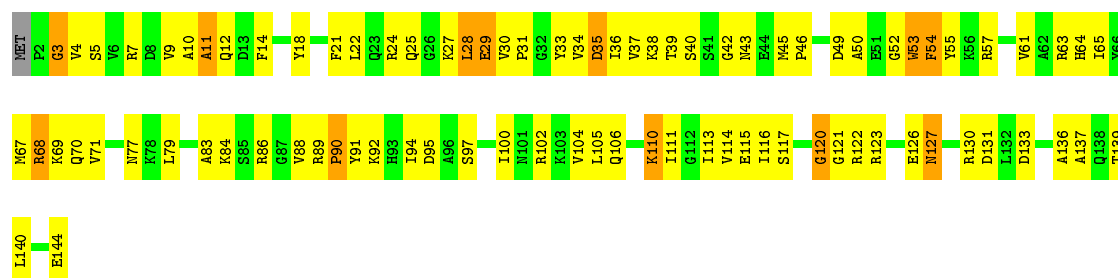
• Molecule 65: 40S ribosomal protein S18

Chain 18: 40% 46% 12%

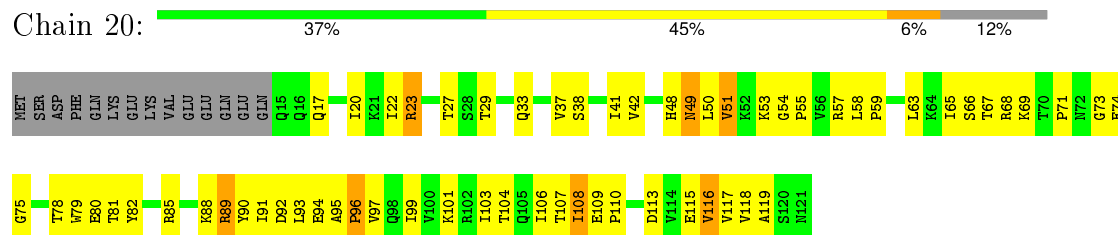


• Molecule 66: 40S ribosomal protein S19

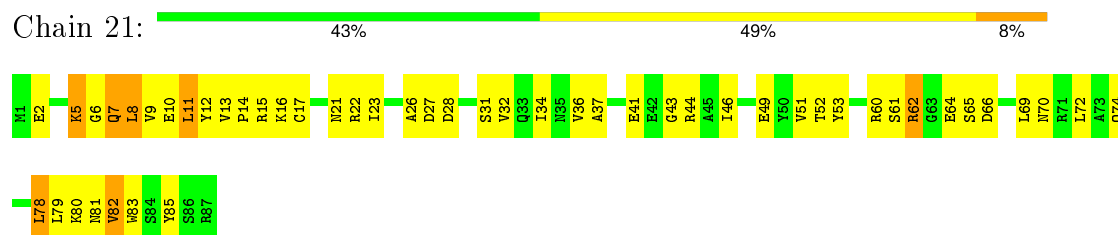
Chain 19: 40% 51% 8%



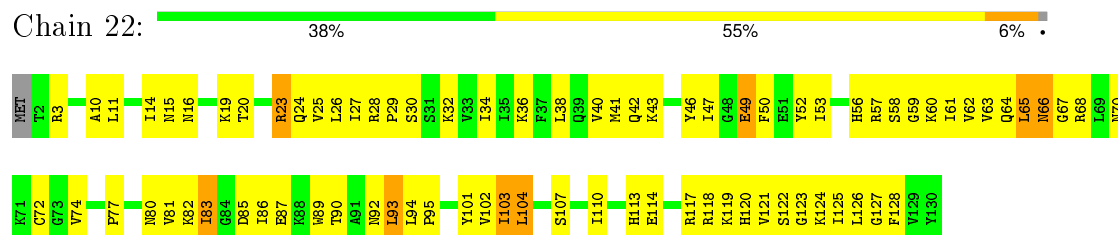
- Molecule 67: 40S ribosomal protein S20



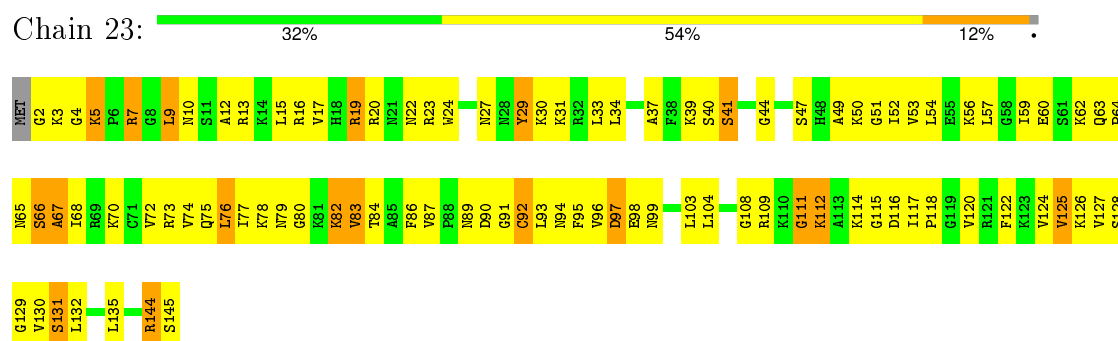
- Molecule 68: 40S ribosomal protein S21



- Molecule 69: 40S ribosomal protein S22

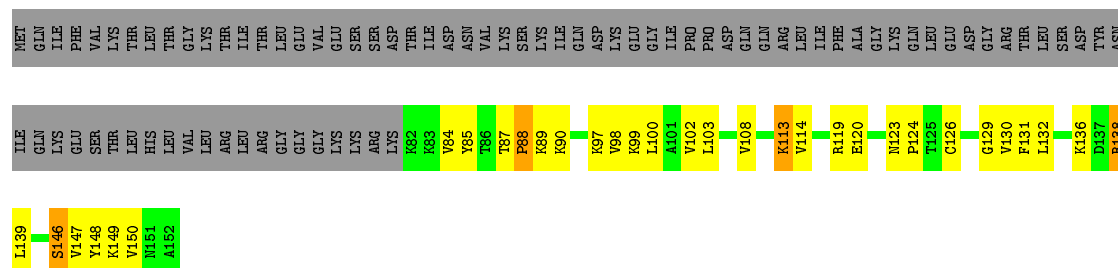


- Molecule 70: 40S ribosomal protein S23

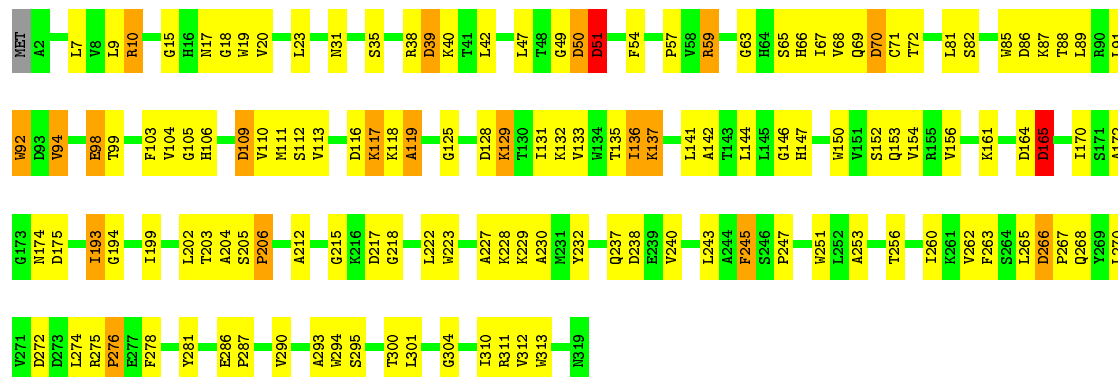




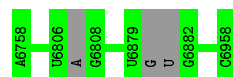
- Chain 31:  26% 18% . 53%



- Chain RA: 



- Chain IR: 99%



4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	52444	Depositor
Resolution determination method	FSC 0.143	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	133333	Depositor
Image detector	FEI FALCON I (4k x 4k)	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	$\# Z > 2$	RMSZ	$\# Z > 2$
1	2S	0.87	4/79178 (0.0%)	0.76	26/123444 (0.0%)
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
2	8S	0.84	2/3747 (0.1%)	0.75	3/5832 (0.1%)
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
3	5S	0.85	1/2884 (0.0%)	0.72	0/4491
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
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
4	L1	0.55	0/1634	0.69	0/2195

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
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
5	L2	0.51	0/1952	0.71	0/2622
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
6	L3	0.55	0/3153	0.68	0/4239
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
7	L4	0.58	0/2802	0.71	0/3792
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
78	31	0.56	0/505	0.68	1/682 (0.1%)
79	RA	0.53	0/2498	0.64	0/3398

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
8	L5	0.55	0/2426	0.63	0/3271
9	L6	0.62	0/1261	0.72	1/1694 (0.1%)
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
46	1S	0	45
6	L3	0	1
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
34:72:73:THR:HA	34:72:93:ALA:HB3	1.33	1.09
13:50:52:LEU:HD22	13:50:135:ILE:HD12	1.17	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
20:58:29:LEU:HD13	20:58:124:LEU:HD12	1.32	1.07
17:55:120:TRP:HE1	17:55:123:GLN:HG2	1.16	1.07
53:S6:135:PRO:HB3	53:S6:140:ASN:HB3	1.37	1.07
46:1S:1712:A:H3'	46:1S:1713:G:H5''	1.34	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
55:S8:26:LYS:O	55:S8:29:LEU:HD22	1.52	1.06
44:82:8:ARG:HH12	44:82:10:THR:HB	1.17	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:HH11	69:22:118:ARG:HB2	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
16:54:76:ALA:HB1	16:54:80:THR:HB	1.41	1.02
6:L3:296:THR:HG22	6:L3:297:SER:H	1.20	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
73:26:84:VAL:HG13	73:26:85:ARG:H	1.20	1.01
60:13:22:ALA:HB1	60:13:23:PRO:HA	1.42	1.01
44:82:68:VAL:HB	44:82:85:LEU:HB2	1.41	1.01
15:53:50:PRO:HG3	37:75:118:ILE:HG13	1.37	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
6:L3:226:PHE:CZ	6:L3:268:GLY:HA2	1.97	1.00
1:2S:268:A:H61	1:2S:295:A:H3'	1.26	1.00
7:L4:77:VAL:HB	7:L4:86:GLY:H	1.27	1.00
7:L4:170:LYS:HE3	7:L4:178:LEU:HD12	1.42	0.99
5:L2:112:ILE:HG12	5:L2:135:ILE:HG12	1.44	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
66:19:25:GLN:HE21	66:19:27:LYS:HD3	1.28	0.99
61:14:112:ILE:HG22	61:14:113:GLY:H	1.25	0.99
32:70:44:ILE:HG21	32:70:53:LYS:HG3	1.43	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
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
1:2S:58:G:H2'	1:2S:59:G:C8	1.98	0.98
36:74:22:VAL:HG22	36:74:32:ALA:HB2	1.46	0.98
69:22:80:ASN:ND2	69:22:124:LYS:HG2	1.77	0.98
1:2S:1981:G:H2'	1:2S:1982:G:H5'	1.46	0.98
34:72:33:ARG:HE	34:72:33:ARG:HA	1.28	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
1:2S:1951:C:C5	1:2S:2095:G:N1	2.31	0.98
19:57:122:ALA:HB3	19:57:143:PRO:HB2	1.46	0.97
25:63:74:MET:HG3	25:63:102:ILE:HD11	1.45	0.97
1:2S:1804:A:H5''	36:74:67:LYS:HE3	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
13:50:27:PRO:HD3	13:50:122:PRO:HB3	1.44	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:28:ARG:HB2	6:L3:28:ARG:HH11	1.26	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
18:56:124:LEU:HG	18:56:126:VAL:HG12	1.47	0.96
1:2S:2735:U:H5''	23:61:50:LYS:HG2	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
22:60:81:TYR:HE1	22:60:88:HIS:HB2	1.30	0.96
14:51:94:ARG:H	14:51:94:ARG:HD3	1.28	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
69:22:30:SER:HA	69:22:34:ILE:HD12	1.45	0.96
12:L9:167:VAL:HG12	12:L9:170:LYS:HB2	1.47	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:NH1	79:RA:59:ARG:HB2	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
25:63:15:LEU:HD23	25:63:53:SER:HB3	1.46	0.95
1:2S:126:U:H5'	17:55:141:ALA:HB2	1.45	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
60:13:84:ILE:HB	60:13:88:LEU:HD12	1.46	0.95
57:10:86:ILE:HG23	57:10:87:VAL:H	1.28	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
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
1:2S:1123:U:H2'	1:2S:1124:U:H5'	1.47	0.94
46:1S:1036:A:H5'	69:22:3:ARG:HH22	1.31	0.94
29:67:23:VAL:HG12	29:67:45:GLY:HA3	1.49	0.94
58:11:88:ARG:HB2	58:11:105:LYS:O	1.67	0.94
1:2S:3178:A:H2'	18:56:115:LYS:HD3	1.49	0.94
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
1:2S:449:U:H2'	1:2S:450:G:C8	2.03	0.93
70:23:96:VAL:HG23	70:23:97:ASP:H	1.33	0.93
22:60:77:VAL:HG13	22:60:126:VAL:HG22	1.50	0.93
9:L6:78:ARG:HH21	9:L6:106:PHE:HB2	1.33	0.93
1:2S:858:A:O2'	1:2S:859:G:H5'	1.68	0.93
48:S1:180:THR:HG22	48:S1:181:LEU:HD13	1.50	0.93
63:16:73:GLY:O	63:16:77:GLN:HG3	1.68	0.93
6:L3:33:PRO:HD3	6:L3:339:ARG:HD2	1.50	0.93
40:78:46:ARG:HD2	40:78:51:LEU:HD13	1.50	0.93
14:51:98:ALA:HA	14:51:156:LYS:HB2	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
79:RA:59:ARG:HH11	79:RA:59:ARG:HB2	1.31	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
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
51:S4:63:ALA:O	51:S4:67:GLN:HG3	1.68	0.92
46:1S:169:A:H5''	53:S6:176:GLN:HG2	1.51	0.92
1:2S:2513:U:H2'	1:2S:2592:G:N2	1.83	0.92
57:10:72:GLY:O	57:10:76:LEU:HD13	1.68	0.92
7:L4:23:PRO:HG2	7:L4:258:LEU:HD23	1.51	0.92
21:59:115:ILE:HG13	21:59:119:LEU:HD23	1.51	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:824:C:H5''	5:L2:21:ARG:HD3	1.50	0.92
32:70:17:VAL:HG11	32:70:92:ILE:HD12	1.52	0.91
1:2S:1180:A:H5''	35:73:77:ASN:HB2	1.49	0.91
1:2S:352:A:H62	1:2S:366:A:H62	0.93	0.91
12:L9:89:LYS:HB2	12:L9:183:HIS:HB3	1.48	0.91
1:2S:2761:G:H1	1:2S:2795:U:H3'	1.35	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
65:18:112:ASP:O	65:18:116:LEU:HD13	1.69	0.91
46:1S:94:U:H5''	51:S4:6:LYS:HE2	1.52	0.91
46:1S:703:G:H2'	46:1S:704:C:H2'	1.51	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:805:U:H2'	46:1S:806:A:H5''	1.53	0.91
25:63:66:LYS:HB2	25:63:69:LEU:HD13	1.49	0.91
1:2S:1567:U:H3'	1:2S:1568:U:H5''	1.52	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
43:81:4:LYS:HZ3	46:1S:1775:U:H5	0.98	0.91
49:S2:178:ILE:HD13	49:S2:188:LEU:HB2	1.51	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
46:1S:1058:U:H5	46:1S:1061:A:H61	1.11	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
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
8:L5:29:ASP:HB2	8:L5:150:LEU:HD21	1.50	0.90
37:75:85:THR:HG22	37:75:87:ALA:H	1.35	0.90
2:8S:23:U:H4'	28:66:17:LYS:HG2	1.50	0.90
23:61:124:VAL:HG12	23:61:125:ALA:H	1.36	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:2521:U:H2'	1:2S:2522:G:H5'	1.54	0.90
1:2S:36:C:H2'	1:2S:37:U:H5'	1.51	0.90
34:72:79:VAL:HG22	34:72:108:ILE:HG12	1.53	0.90
48:S1:176:VAL:HG12	48:S1:177:GLN:H	1.37	0.90
46:1S:505:A:H3'	46:1S:506:A:H5''	1.52	0.90
25:63:38:ALA:HB3	25:63:59:MET:HB2	1.51	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:61:80:VAL:HG11	23:61:85:LEU:HD12	1.54	0.90
17:55:122:ASN:HB2	17:55:129:TYR:HB2	1.54	0.90
1:2S:1487:G:H1'	36:74:6:THR:HG21	1.53	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
69:22:65:LEU:H	69:22:65:LEU:HD13	1.37	0.89
54:S7:47:ARG:NH1	54:S7:176:LEU:HD23	1.88	0.89
46:1S:71:A:H2'	46:1S:72:A:H4'	1.54	0.89
17:55:3:ALA:O	17:55:7:LEU:HD13	1.73	0.89
46:1S:1156:C:H2'	46:1S:1157:A:H5''	1.52	0.89
1:2S:671:U:H4'	20:58:20:LYS:HD3	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
52:S5:36:ALA:HB3	52:S5:45:LYS:HE2	1.54	0.89
15:53:158:ALA:HA	30:68:97:GLU:HA	1.54	0.89
73:26:10:ARG:HB2	73:26:34:LYS:HG3	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
46:1S:1036:A:H2'	46:1S:1037:C:C6	2.07	0.89
79:RA:136:ILE:H	79:RA:136:ILE:HD13	1.34	0.89
46:1S:877:G:H1	46:1S:951:A:H61	0.94	0.89
10:L7:43:ILE:O	10:L7:47:ARG:HG3	1.73	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
46:1S:190:C:O2'	46:1S:191:C:H5'	1.73	0.88
7:L4:138:ARG:NH1	7:L4:240:PRO:HD2	1.89	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
46:1S:482:U:H2'	46:1S:483:A:H8	1.36	0.88
25:63:87:ARG:HH22	25:63:120:LYS:HB3	1.39	0.88
1:2S:3105:U:H2'	1:2S:3106:A:C8	2.08	0.88
55:S8:137:LYS:O	55:S8:141:ARG:HG3	1.74	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
18:56:110:PRO:HB2	18:56:111:PRO:HD3	1.54	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
22:60:81:TYR:CE1	22:60:88:HIS:HB2	2.08	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
1:2S:1844:C:H2'	1:2S:1845:G:H5''	1.54	0.87
61:14:20:TYR:HB3	61:14:27:PHE:HB2	1.56	0.87
70:23:127:VAL:HG13	70:23:132:LEU:HD21	1.53	0.87
22:60:78:TRP:HB3	22:60:124:LEU:HB2	1.56	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
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
1:2S:627:U:H4'	1:2S:1399:A:H1'	1.55	0.87
58:11:125:VAL:HG12	58:11:139:VAL:HA	1.57	0.87
58:11:73:GLY:HA3	58:11:86:ILE:HD12	1.55	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
46:1S:1712:A:H3'	46:1S:1713:G:C5'	2.05	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
56:S9:59:LEU:HD23	56:S9:62:ARG:HG3	1.54	0.87
52:S5:187:ILE:H	52:S5:187:ILE:HD12	1.37	0.87
1:2S:2343:C:H2'	1:2S:2344:U:C6	2.10	0.87
72:25:41:ILE:HG23	72:25:42:LEU:H	1.40	0.87
46:1S:384:G:H2'	46:1S:385:A:C8	2.10	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
46:1S:138:A:H61	46:1S:266:A:H61	1.18	0.86
43:81:11:ARG:HE	46:1S:1126:G:H5'	1.39	0.86
52:S5:203:LYS:HE3	52:S5:203:LYS:HA	1.55	0.86
4:L1:18:LYS:HD2	4:L1:24:LYS:HB2	1.57	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)
60:13:26:PHE:CD1	60:13:27:LYS:HE2	2.11	0.86
9:L6:51:ARG:HH12	9:L6:163:PHE:HB2	1.41	0.86
69:22:118:ARG:HB2	69:22:118:ARG:NH1	1.89	0.86
1:2S:1951:C:H5	1:2S:2095:G:N1	1.72	0.86
35:73:75:HIS:HB3	35:73:80:VAL:HB	1.57	0.86
17:55:105:ARG:HG2	17:55:108:ARG:HH22	1.41	0.86
1:2S:44:U:OP1	17:55:84:PRO:HG2	1.74	0.86
34:72:19:ARG:HG3	34:72:33:ARG:H	1.41	0.86
1:2S:502:U:H4'	9:L6:26:ARG:HB3	1.58	0.86
9:L6:146:ILE:HD13	9:L6:149:ILE:HD12	1.58	0.86
50:S3:69:LEU:HB3	50:S3:86:LEU:HD22	1.56	0.86
1:2S:2426:U:H2'	1:2S:2427:U:C6	2.10	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
29:67:87:LEU:HG	29:67:88:ASP:H	1.41	0.86
1:2S:1813:A:C2'	1:2S:1814:A:H5''	2.06	0.86
1:2S:39:A:H2'	1:2S:42:C:N4	1.91	0.86
71:24:104:SER:HB3	71:24:107:GLN:HB2	1.57	0.86
50:S3:40:ARG:HG2	67:20:110:PRO:HB3	1.57	0.86
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
40:78:64:LYS:HE2	40:78:64:LYS:HA	1.58	0.85
27:65:67:ILE:HD11	27:65:121:LYS:HG3	1.56	0.85
66:19:25:GLN:HE22	66:19:111:ILE:HD11	1.41	0.85
46:1S:1058:U:H5	46:1S:1061:A:N6	1.72	0.85
1:2S:3007:U:OP1	18:56:73:PHE:HA	1.75	0.85
1:2S:1696:A:H2'	1:2S:1697:A:C8	2.12	0.85
1:2S:649:A:H2'	1:2S:650:C:C6	2.12	0.85
53:S6:81:VAL:HG22	53:S6:82:SER:H	1.41	0.85
1:2S:715:A:H5'	1:2S:753:C:H4'	1.58	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
7:L4:52:VAL:HG22	7:L4:53:SER:H	1.40	0.85
17:55:110:ALA:HB1	17:55:113:LEU:HD23	1.58	0.85
59:12:89:ILE:HD13	59:12:90:LYS:H	1.42	0.85
3:5S:62:U:H4'	8:L5:285:ARG:HH12	1.42	0.85
49:S2:73:LEU:HD23	49:S2:76:LEU:HD13	1.59	0.85
1:2S:2882:U:H2'	1:2S:2883:U:C6	2.11	0.85
34:72:102:ALA:HA	34:72:105:ARG:HD3	1.56	0.85
46:1S:460:A:H3'	46:1S:461:G:H8	1.41	0.85
58:11:46:LYS:O	58:11:50:GLU:HG3	1.77	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1019:G:H2'	1:2S:1020:G:H5''	1.57	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
1:2S:398:A:OP2	19:57:2:ALA:HB3	1.76	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
51:S4:90:ILE:N	51:S4:90:ILE:HD12	1.92	0.85
3:5S:11:A:O2'	3:5S:13:A:H5''	1.75	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:3341:U:O2'	1:2S:3342:A:H5'	1.77	0.85
1:2S:3163:A:H3'	1:2S:3164:C:H5''	1.59	0.85
1:2S:1571:A:H2'	1:2S:1572:U:O4'	1.76	0.85
51:S4:94:ALA:HB1	71:24:17:LEU:HB3	1.59	0.85
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
16:54:49:PRO:HG2	16:54:82:SER:OG	1.76	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
52:S5:112:ARG:HA	52:S5:112:ARG:HE	1.40	0.84
1:2S:3074:G:H4'	33:71:62:ARG:HD2	1.57	0.84
44:82:70:LEU:HD12	44:82:83:LEU:HB3	1.59	0.84
19:57:176:ILE:HA	19:57:179:GLN:HG3	1.57	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
21:59:162:ARG:HD3	46:1S:815:G:H5''	1.59	0.84
16:54:123:LEU:HD22	18:56:190:VAL:HG23	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:3298:C:H2'	1:2S:3299:A:H8	1.40	0.84
1:2S:3040:A:H5''	25:63:12:ARG:HB2	1.58	0.84
51:S4:11:ARG:HH21	51:S4:11:ARG:HG3	1.42	0.84
22:60:80:ARG:O	22:60:122:HIS:HB2	1.76	0.84
9:L6:4:GLN:HB2	34:72:75:LEU:HB2	1.57	0.84
79:RA:69:GLN:HB2	79:RA:85:TRP:HE1	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
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
53:S6:163:THR:HG22	53:S6:168:THR:CG2	2.07	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:352:A:N6	1:2S:366:A:H62	1.76	0.84
50:S3:11:LEU:HD13	67:20:29:THR:HG23	1.58	0.84
55:S8:42:ARG:HB3	55:S8:58:LEU:O	1.78	0.84
55:S8:22:ARG:HB2	55:S8:25:ARG:NH2	1.93	0.84
20:58:132:PRO:HD2	20:58:135:GLN:HE22	1.42	0.84
1:2S:3314:A:H2'	1:2S:3315:G:C8	2.13	0.84
51:S4:122:LYS:HG2	51:S4:164:LEU:HD21	1.58	0.84
1:2S:2189:U:H4'	45:83:22:LEU:HD11	1.60	0.84
48:S1:205:PHE:HD1	48:S1:206:PRO:HD2	1.42	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
25:63:77:ILE:HD12	25:63:77:ILE:N	1.93	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
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
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
60:13:114:ARG:HD3	60:13:117:LEU:HD12	1.60	0.83
6:L3:81:THR:HG22	6:L3:205:VAL:HG21	1.59	0.83
65:18:65:GLU:HG2	65:18:68:ARG:NH2	1.94	0.83
6:L3:25:ILE:H	6:L3:25:ILE:HD13	1.42	0.83
46:1S:1610:G:H5''	52:S5:107:LYS:HB2	1.60	0.83
52:S5:165:LEU:HD23	75:28:47:PRO:HB2	1.61	0.83
51:S4:95:THR:HG22	71:24:16:PRO:HD2	1.59	0.83
18:56:19:LEU:O	18:56:23:VAL:HG23	1.78	0.83
60:13:132:VAL:HG23	60:13:134:VAL:HG13	1.58	0.83
60:13:16:ILE:HG13	60:13:62:GLN:HE22	1.44	0.83
33:71:60:TRP:HZ3	33:71:64:VAL:HG22	1.42	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
1:2S:876:A:H4'	1:2S:1890:U:H4'	1.61	0.83
14:51:23:VAL:HG12	14:51:24:GLY:H	1.43	0.83
1:2S:1283:C:H2'	1:2S:1284:C:H5'	1.61	0.83
19:57:127:ARG:HB2	19:57:127:ARG:HH11	1.43	0.83
39:77:47:TYR:HB3	39:77:49:TRP:NE1	1.94	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1381:U:H4'	67:20:59:PRO:HG3	1.60	0.83
24:62:15:PHE:HB2	24:62:65:VAL:HB	1.60	0.83
79:RA:89:LEU:HD21	79:RA:110:VAL:HG11	1.60	0.83
67:20:69:LYS:HD2	67:20:78:THR: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
9:L6:67:GLY:HA2	9:L6:74:VAL:HB	1.61	0.82
46:1S:818:C:H2'	46:1S:819:G:H5'	1.59	0.82
5:L2:129:ALA:HB3	5:L2:132:ASN:HB2	1.61	0.82
37:75:29:ALA:HA	37:75:32:LYS:HE2	1.60	0.82
12:L9:134:ILE:HD12	12:L9:134:ILE:H	1.44	0.82
46:1S:1531:G:H5'	72:25:81:ARG:HH22	1.44	0.82
42:80:93:LYS:HD2	42:80:104:PRO:HA	1.62	0.82
1:2S:1887:A:H2'	1:2S:1888:U:H5'	1.59	0.82
69:22:103:ILE:HD13	69:22:104:LEU:N	1.94	0.82
43:81:4:LYS:HE3	46:1S:1774:G:OP2	1.78	0.82
49:S2:176:SER:HA	56:S9:53:ARG:NH1	1.94	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
1:2S:374:A:H4'	1:2S:375:A:H5'	1.60	0.82
46:1S:868:G:H1	46:1S:960:U:H3	1.24	0.82
1:2S:1240:A:C3'	1:2S:1241:U:H5''	2.08	0.82
1:2S:2207:A:C2'	1:2S:2208:A:H5''	2.09	0.82
25:63:39:VAL:HA	25:63:58:VAL:HG12	1.61	0.82
63:16:129:PHE:HB2	67:20:79:TRP:HD1	1.43	0.82
59:12:108:ARG:HG3	59:12:112:ALA:HB3	1.61	0.82
53:S6:88:ARG:HB3	53:S6:91:GLU:HB2	1.60	0.82
46:1S:1217:A:H5''	57:10:1:MET:HG3	1.61	0.82
4:L1:79:SER:HB2	4:L1:141:ASN:HD21	1.44	0.82
56:S9:48:GLN:HA	56:S9:51:LYS:HE2	1.60	0.82
1:2S:1764:U:H3'	1:2S:1765:U:H5''	1.61	0.82
7:L4:152:VAL:HG12	7:L4:153:SER:N	1.95	0.82
46:1S:607:G:H5'	46:1S:613:G:N2	1.95	0.82
13:50:174:THR:HG22	13:50:176:LEU:H	1.42	0.82
1:2S:1235:U:H4'	1:2S:1236:G:H5'	1.61	0.82
1:2S:2736:A:H4'	23:61:71:SER:OG	1.80	0.82
1:2S:996:A:H2'	1:2S:997:A:O4'	1.78	0.82
20:58:58:ASN:HA	20:58:144:ARG:HD3	1.62	0.82
1:2S:1158:A:H2'	1:2S:1159:A:H4'	1.61	0.82
9:L6:68:PRO:HG2	9:L6:146:ILE:HD11	1.61	0.82
18:56:46:GLU:HG3	18:56:49:ARG:H	1.45	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:S0:31:VAL:HB	47:S0:34:GLU:HG2	1.62	0.82
13:50:85:PHE:HA	13:50:140:THR:HG22	1.62	0.82
46:1S:50:C:H2'	46:1S:424:C:H41	1.43	0.82
44:82:91:PHE:CE2	44:82:93:LEU:HD22	2.15	0.81
13:50:69:ARG:O	13:50:73:ASN:HB2	1.80	0.81
48:S1:37:THR:HG23	48:S1:231:LEU:HD21	1.62	0.81
17:55:58:GLY:HA3	17:55:142:ILE:HD11	1.60	0.81
38:76:79:SER:CB	38:76:81:THR:HG22	2.10	0.81
17:55:118:SER:CB	17:55:132:VAL:HG22	2.09	0.81
63:16:129:PHE:HB2	67:20:79:TRP:CD1	2.16	0.81
49:S2:137:ILE:HG12	49:S2:138:PRO:HD2	1.62	0.81
1:2S:2085:U:H2'	1:2S:2086:A:H5'	1.62	0.81
1:2S:636:C:N4	1:2S:2375:G:H1	1.78	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
38:76:50:LEU:HD22	38:76:54:GLU:HB3	1.60	0.81
1:2S:2102:U:H2'	1:2S:2103:U:C6	2.15	0.81
46:1S:748:U:O3'	69:22:122:SER:HB3	1.80	0.81
49:S2:86:VAL:HG11	49:S2:99:LYS:HD2	1.62	0.81
46:1S:954:G:H2'	46:1S:955:A:C8	2.15	0.81
1:2S:1114:U:H5''	30:68:22:ILE:HD12	1.61	0.81
34:72:98:HIS:CE1	34:72:99:ASN:HD22	1.98	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
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:1951:C:C6	1:2S:2095:G:N1	2.47	0.81
36:74:23:VAL:HG12	36:74:24:LYS:H	1.46	0.81
1:2S:1221:A:H3'	1:2S:1222:G:H5''	1.62	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
46:1S:802:G:H21	69:22:107:SER:HB3	1.43	0.81
37:75:64:GLU:HA	37:75:67:ARG:HG3	1.63	0.81
49:S2:203:LYS:NZ	49:S2:205:ARG:HB2	1.96	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
1:2S:2775:U:H2'	1:2S:2776:C:C6	2.16	0.81
64:17:20:TYR:HD2	64:17:23:LYS:HD2	1.45	0.81
6:L3:232:ARG:HA	6:L3:270:ARG:HD2	1.60	0.81
60:13:118:ILE:O	60:13:122:ILE:HG13	1.81	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3354:U:OP1	1:2S:3356:G:H5'	1.80	0.81
1:2S:3156:U:O2'	1:2S:3157:U:H5''	1.79	0.81
58:11:118:GLN:HG2	58:11:119:VAL:H	1.44	0.81
56:S9:112:GLN:HG3	56:S9:148:VAL:HG21	1.63	0.80
15:53:180:ARG:O	15:53:184:GLU:HG3	1.80	0.80
14:51:104:PHE:O	14:51:127:PHE:HB2	1.81	0.80
18:56:188:SER:O	18:56:192:LYS:HG2	1.81	0.80
6:L3:103:THR:HG21	6:L3:147:GLU:HB3	1.60	0.80
46:1S:144:U:O2'	46:1S:145:A:H5'	1.81	0.80
79:RA:116:ASP:HB3	79:RA:156:VAL:HG11	1.61	0.80
53:S6:31:ARG:HD2	53:S6:34:GLN:NE2	1.96	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
57:10:11:ILE:HD13	57:10:35:ILE:HG21	1.63	0.80
53:S6:23:ARG:HH21	53:S6:23:ARG:HG2	1.45	0.80
46:1S:654:C:C3'	46:1S:655:G:H5''	2.10	0.80
6:L3:226:PHE:CE1	6:L3:268:GLY:HA2	2.16	0.80
3:5S:26:C:H5'	8:L5:57:ASN:H	1.47	0.80
70:23:132:LEU:HD13	70:23:135:LEU:HD12	1.61	0.80
20:58:64:VAL:HG13	20:58:93:ILE:HD11	1.61	0.80
46:1S:730:G:H21	46:1S:731:C:H5''	1.46	0.80
72:25:60:VAL:HG23	72:25:101:TYR:HB2	1.62	0.80
11:L8:105:LYS:O	11:L8:109:LEU:HG	1.82	0.80
1:2S:2731:U:H2'	1:2S:2732:G:C8	2.16	0.80
13:50:129:VAL:HG13	13:50:133:GLN:OE1	1.82	0.80
10:L7:77:VAL:HG12	22:60:59:VAL:CG1	2.11	0.80
28:66:35:LEU:HD23	28:66:106:ILE:HD12	1.61	0.80
10:L7:232:ARG:HD3	10:L7:235:PHE:HB2	1.64	0.80
1:2S:1534:A:H2'	1:2S:1535:A:C8	2.16	0.80
23:61:82:ASN:O	31:69:21:ILE:HA	1.81	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
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
1:2S:836:A:H1'	45:83:13:LYS:HB3	1.63	0.80
1:2S:2174:G:H4'	1:2S:2175:U:H3'	1.63	0.80
1:2S:1603:A:OP1	21:59:38:ARG:HD2	1.81	0.80
30:68:81:LEU:HD22	30:68:107:ALA:HB1	1.62	0.80
66:19:57:ARG:NH1	66:19:57:ARG:HB2	1.96	0.80
72:25:59:TYR:CE2	72:25:100:ILE:HG12	2.17	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:55:105:ARG:HG2	17:55:108:ARG:NH2	1.96	0.80
1:2S:1218:U:H2'	1:2S:1219:C:H5'	1.64	0.80
1:2S:88:A:N1	1:2S:281:G:H1'	1.97	0.80
61:14:21:ALA:HA	61:14:26:THR:HG22	1.62	0.80
6:L3:189:SER:O	6:L3:192:VAL:HG12	1.81	0.80
22:60:35:VAL:HA	22:60:38:LYS:HE2	1.63	0.80
56:S9:132:ARG:HD2	56:S9:142:ASN:HB3	1.62	0.80
1:2S:2856:G:H2'	1:2S:2857:C:C6	2.17	0.80
4:L1:116:LEU:HD23	4:L1:116:LEU:O	1.82	0.80
34:72:65:PHE:HB2	34:72:72:LYS:HE3	1.62	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
49:S2:53:ILE:HD11	49:S2:73:LEU:HB2	1.64	0.80
59:12:108:ARG:HG2	59:12:109:GLU:N	1.97	0.80
38:76:9:ILE:HA	38:76:13:LYS:HG3	1.62	0.80
61:14:86:THR:HG21	61:14:90:ARG:HG3	1.64	0.80
1:2S:170:G:H2'	1:2S:171:G:H8	1.46	0.80
46:1S:370:A:H2'	46:1S:371:G:O4'	1.82	0.80
46:1S:102:U:H3'	46:1S:360:A:H61	1.47	0.80
58:11:87:ARG:HA	58:11:106:ASN:OD1	1.81	0.80
49:S2:140:ARG:HE	49:S2:155:ALA:HB2	1.46	0.80
10:L7:41:ARG:NH1	10:L7:41:ARG:HB3	1.97	0.80
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
1:2S:2995:A:H2'	1:2S:2996:U:H5''	1.63	0.79
1:2S:2280:A:H2'	1:2S:2281:A:H3'	1.64	0.79
72:25:96:SER:O	72:25:97:LYS:HG2	1.82	0.79
9:L6:43:LEU:HD11	35:73:105:SER:HB2	1.63	0.79
1:2S:636:C:H42	1:2S:2375:G:H1	1.26	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
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
69:22:118:ARG:HH11	69:22:118:ARG:CB	1.96	0.79
24:62:96:VAL:HG12	24:62:97:SER:H	1.48	0.79
54:S7:47:ARG:HH11	54:S7:176:LEU:HD23	1.46	0.79
49:S2:53:ILE:HG12	49:S2:72:LEU:HB3	1.65	0.79
1:2S:2435:G:H2'	1:2S:2436:U:C6	2.18	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)
46:1S:905:A:H5''	61:14:52:ARG:HD3	1.62	0.79
22:60:8:GLN:HB2	22:60:64:ILE:HD11	1.64	0.79
41:79:3:ALA:H	41:79:5:LYS:HE2	1.46	0.79
69:22:10:ALA:O	69:22:14:ILE:HG13	1.83	0.79
7:L4:159:ILE:HB	7:L4:215:ILE:HD13	1.62	0.79
47:S0:170:ILE:HD12	47:S0:170:ILE:H	1.48	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
8:L5:223:PHE:O	8:L5:227:LEU:HD13	1.82	0.79
1:2S:3094:A:H2'	1:2S:3095:U:C6	2.17	0.79
1:2S:2533:G:H5'	1:2S:2533:G:H8	1.47	0.79
48:S1:54:LEU:O	48:S1:55:LYS:HB3	1.82	0.79
45:83:19:GLY:O	45:83:23:ARG:HG3	1.82	0.79
17:55:8:GLU:HG3	17:55:50:ARG:HH22	1.46	0.79
79:RA:20:VAL:HG11	79:RA:310:ILE:HD11	1.65	0.79
29:67:54:THR:HG22	29:67:57:HIS:CD2	2.17	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
46:1S:127:G:H4'	53:S6:194:LYS:HE2	1.63	0.79
1:2S:2513:U:O2'	1:2S:2514:U:H2'	1.81	0.79
48:S1:84:ILE:HD13	48:S1:103:MET:HG3	1.64	0.79
20:58:58:ASN:O	20:58:60:PRO:HD3	1.81	0.79
70:23:63:GLN:HB3	70:23:64:PRO:HA	1.64	0.79
7:L4:300:ARG:HB2	7:L4:301:PRO:HD2	1.64	0.79
6:L3:5:LYS:HG2	6:L3:6:TYR:CD1	2.17	0.79
46:1S:1283:U:H2'	46:1S:1284:C:C5	2.18	0.79
1:2S:1215:U:H2'	1:2S:1216:C:C6	2.18	0.79
1:2S:268:A:N6	1:2S:295:A:H3'	1.98	0.79
69:22:50:PHE:HB3	69:22:63:VAL:HG13	1.64	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
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
1:2S:2251:G:C2'	1:2S:2252:A:H5''	2.12	0.79
1:2S:1523:U:H5'	27:65:113:LEU:HB3	1.65	0.79
1:2S:2714:G:H4'	1:2S:2715:A:H3'	1.64	0.79
1:2S:1654:A:H3'	1:2S:1655:G:H5''	1.65	0.79
1:2S:1321:G:O2'	22:60:111:ALA:HB1	1.83	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)
74:27:61:THR:HG23	74:27:62:ILE:H	1.47	0.78
67:20:51:VAL:CG1	67:20:94:GLU:HB2	2.12	0.78
64:17:45:ARG:O	64:17:49:LYS:HG3	1.83	0.78
25:63:39:VAL:HG12	25:63:40:LYS:H	1.48	0.78
52:S5:42:LEU:H	52:S5:42:LEU:HD23	1.48	0.78
48:S1:48:VAL:HG12	48:S1:49:ASN:H	1.48	0.78
27:65:115:ARG:HB3	27:65:117:ASN:OD1	1.83	0.78
50:S3:37:VAL:HG12	50:S3:50:ILE:HG23	1.64	0.78
58:11:91:LEU:HA	58:11:101:GLU:O	1.81	0.78
71:24:17:LEU:HD12	71:24:18:LEU:HG	1.64	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
43:81:11:ARG:HH21	46:1S:1126:G:H4'	1.48	0.78
17:55:75:VAL:HB	17:55:79:ALA:O	1.84	0.78
33:71:19:ARG:HH11	33:71:19:ARG:HG3	1.47	0.78
21:59:6:THR:HG23	21:59:9:ARG:NH2	1.97	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
46:1S:478:A:H5''	56:S9:123:HIS:HB3	1.64	0.78
44:82:100:LYS:N	44:82:100:LYS:HE3	1.96	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
22:60:89:ASN:ND2	23:61:156:TYR:HB3	1.98	0.78
16:54:123:LEU:HB2	18:56:194:LEU:HD21	1.63	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
8:L5:144:VAL:HG13	8:L5:173:VAL:HG22	1.66	0.78
1:2S:2873:U:O2'	1:2S:2874:G:H5'	1.84	0.78
1:2S:3205:G:H21	22:60:169:SER:HB2	1.49	0.78
12:L9:48:VAL:HG11	12:L9:52:LEU:HD22	1.66	0.78
1:2S:505:G:H4'	7:L4:313:LEU:HD11	1.66	0.78
46:1S:1432:U:H4'	46:1S:1433:G:H5''	1.65	0.78
19:57:78:VAL:HG12	19:57:79:THR:H	1.47	0.78
7:L4:113:VAL:HB	7:L4:118:LYS:HE2	1.66	0.78
1:2S:3295:A:H5'	6:L3:119:TYR:HE1	1.49	0.78
70:23:62:LYS:HD2	70:23:118:PRO:HB3	1.63	0.78
7:L4:29:PRO:HG3	7:L4:279:HIS:HA	1.66	0.78
46:1S:1677:C:H42	46:1S:1724:U:H3	1.30	0.78
10:L7:151:ARG:HH11	10:L7:244:ASN:ND2	1.82	0.78
49:S2:209:ASN:HA	49:S2:212:LYS:HB2	1.66	0.78
48:S1:85:LYS:HB3	48:S1:102:GLY:H	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:58:171:LYS:HA	30:68:56:VAL:HG11	1.65	0.78
1:2S:640:U:OP2	34:72:38:ILE:HG12	1.82	0.78
69:22:36:LYS:HG3	69:22:110:ILE:HD12	1.66	0.77
46:1S:805:U:C2'	46:1S:806:A:H5''	2.13	0.77
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
68:21:74:GLN:NE2	68:21:83:TRP:HB3	2.00	0.77
46:1S:1171:A:H2'	46:1S:1172:G:H8	1.48	0.77
30:68:8:THR:HA	30:68:11:HIS:HD2	1.49	0.77
46:1S:1505:A:H1'	46:1S:1562:G:H21	1.48	0.77
49:S2:141:ARG:HB2	49:S2:153:SER:O	1.82	0.77
46:1S:1797:A:H5'	73:26:95:ARG:HG2	1.66	0.77
25:63:62:VAL:HB	25:63:70:ARG:HG2	1.64	0.77
46:1S:1657:U:H4'	46:1S:1658:G:C5'	2.14	0.77
33:71:16:LEU:HA	33:71:19:ARG:HD2	1.66	0.77
56:S9:23:ARG:O	56:S9:27:GLU:HG3	1.85	0.77
1:2S:868:C:H2'	1:2S:869:G:H5'	1.65	0.77
54:S7:12:ALA:HB3	54:S7:13:PRO:HD3	1.66	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
66:19:111:ILE:HG23	66:19:113:ILE:HG13	1.67	0.77
1:2S:3346:U:H3	1:2S:3359:A:H62	1.32	0.77
53:S6:210:GLN:HB3	53:S6:214:LYS:HE3	1.67	0.77
67:20:95:ALA:HB1	67:20:96:PRO:HD2	1.66	0.77
1:2S:248:U:OP2	1:2S:248:U:H6	1.68	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
63:16:12:LYS:HG2	63:16:17:THR:HG22	1.66	0.77
66:19:25:GLN:NE2	66:19:111:ILE:HD11	1.99	0.77
49:S2:125:ILE:O	49:S2:129:ILE:HG13	1.83	0.77
47:S0:41:ARG:HG2	64:17:105:GLN:NE2	2.00	0.77
1:2S:340:C:H2'	1:2S:341:G:O4'	1.85	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
6:L3:21:ARG:HB3	6:L3:272:TYR:HD1	1.47	0.77
51:S4:131:LEU:HD11	51:S4:135:GLY:HA2	1.65	0.77
1:2S:2435:G:H5'	17:55:20:ARG:HH11	1.48	0.77
52:S5:53:VAL:HG13	52:S5:138:THR:HG21	1.67	0.77
1:2S:327:A:H2'	1:2S:328:U:C6	2.20	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:60:12:ARG:NH1	22:60:21:GLU:HG2	2.00	0.77
46:1S:367:A:H2'	46:1S:368:U:O4'	1.84	0.77
50:S3:92:GLN:NE2	50:S3:92:GLN:H	1.82	0.77
55:S8:22:ARG:HB2	55:S8:25:ARG:HH21	1.50	0.77
1:2S:52:A:H5''	39:77:48:ASN:HB3	1.67	0.77
46:1S:515:A:H2'	46:1S:516:G:O4'	1.84	0.77
1:2S:1718:G:H2'	1:2S:1719:G:H8	1.48	0.77
46:1S:1504:G:OP1	66:19:97:SER:HB2	1.84	0.77
46:1S:800:U:H2'	46:1S:801:G:C8	2.20	0.77
2:8S:41:A:H2'	2:8S:42:G:O4'	1.85	0.77
23:61:50:LYS:CB	23:61:92:ARG:HH21	1.98	0.77
22:60:166:LYS:HG2	22:60:167:ARG:H	1.50	0.77
5:L2:45:VAL:HG13	5:L2:85:GLY:H	1.49	0.77
46:1S:1479:A:O2'	66:19:12:GLN:HG2	1.84	0.77
35:73:73:ARG:HG3	35:73:82:ARG:HD2	1.67	0.77
18:56:85:ARG:HG3	18:56:99:LEU:HD21	1.66	0.77
61:14:85:ALA:H	61:14:119:THR:HG22	1.48	0.77
55:S8:153:GLU:HB3	55:S8:156:VAL:HG23	1.66	0.77
73:26:89:ARG:HD2	73:26:92:ARG:HH21	1.49	0.77
1:2S:1108:U:H2'	1:2S:1109:U:C6	2.19	0.77
17:55:118:SER:HB3	17:55:132:VAL:CG2	2.15	0.76
69:22:104:LEU:HB3	69:22:125:ILE:HG13	1.67	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
23:61:84:TYR:HB2	31:69:24:PRO:HG3	1.67	0.76
54:S7:67:LEU:HD23	54:S7:70:PHE:CD2	2.20	0.76
1:2S:679:U:H2'	1:2S:680:G:C8	2.20	0.76
6:L3:166:ILE:HD11	6:L3:171:LEU:HD12	1.67	0.76
36:74:91:ARG:O	36:74:95:ILE:HD13	1.85	0.76
34:72:11:LYS:HB2	34:72:14:THR:HG22	1.67	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
47:S0:17:LEU:HD13	47:S0:50:VAL:HG12	1.66	0.76
68:21:37:ALA:HA	68:21:49:GLU:O	1.84	0.76
29:67:14:VAL:HG12	29:67:79:HIS:O	1.84	0.76
13:50:52:LEU:HB3	13:50:135:ILE:HB	1.67	0.76
1:2S:2794:G:H1'	1:2S:2795:U:C6	2.20	0.76
36:74:86:LYS:O	36:74:90:ILE:HG12	1.86	0.76
1:2S:436:A:H2'	1:2S:437:G:O4'	1.85	0.76
55:S8:87:ASN:HB2	55:S8:90:LEU:CD1	2.14	0.76
33:71:20:LEU:HD12	33:71:67:VAL:HG11	1.65	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
70:23:76:LEU:CD1	70:23:79:ASN:HD22	1.97	0.76
33:71:62:ARG:HB2	33:71:66:GLY:HA3	1.67	0.76
1:2S:1764:U:H3'	1:2S:1765:U:C5'	2.16	0.76
9:L6:3:ALA:HB1	34:72:75:LEU:HD22	1.66	0.76
1:2S:151:A:H5''	37:75:102:GLU:HB2	1.67	0.76
19:57:67:ILE:CG2	19:57:68:GLY:H	1.98	0.76
46:1S:722:G:H3'	46:1S:723:G:H5''	1.68	0.76
22:60:67:ALA:O	22:60:69:PRO:HD3	1.85	0.76
6:L3:146:ARG:HA	6:L3:146:ARG:HE	1.51	0.76
34:72:33:ARG:NE	34:72:33:ARG:HA	2.01	0.76
1:2S:450:G:H2'	1:2S:451:U:O4'	1.86	0.76
30:68:28:HIS:HB3	30:68:31:GLY:O	1.85	0.76
10:L7:86:VAL:HG13	10:L7:136:TYR:HB3	1.65	0.76
29:67:5:LEU:HD11	32:70:35:ARG:HB3	1.66	0.76
11:L8:169:LEU:O	11:L8:173:MET:HG2	1.85	0.76
1:2S:1729:A:H3'	1:2S:1730:G:H5'	1.68	0.76
60:13:71:ILE:HD12	60:13:71:ILE:H	1.50	0.76
51:S4:163:ASP:HB3	51:S4:166:SER:O	1.84	0.76
1:2S:830:A:H2'	1:2S:831:G:O4'	1.84	0.76
1:2S:381:U:H2'	1:2S:382:U:C6	2.20	0.76
1:2S:3080:G:H2'	1:2S:3081:C:C6	2.21	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
58:11:117:VAL:HG12	58:11:118:GLN:H	1.49	0.76
29:67:14:VAL:HG13	29:67:15:ARG:HG3	1.67	0.76
1:2S:3192:U:H2'	1:2S:3193:C:C6	2.20	0.76
1:2S:987:U:H2'	1:2S:988:U:C6	2.21	0.76
33:71:52:ALA:HB3	33:71:55:LEU:HB2	1.68	0.76
67:20:106:ILE:HG13	67:20:107:THR:H	1.48	0.76
25:63:75:PRO:O	25:63:102:ILE:HD12	1.85	0.76
6:L3:81:THR:O	6:L3:320:ASP:HB2	1.84	0.76
17:55:38:ARG:HG2	17:55:61:ILE:O	1.85	0.76
8:L5:82:GLU:HG2	8:L5:254:LYS:HD2	1.66	0.76
33:71:11:GLU:HG3	33:71:109:VAL:HG21	1.67	0.76
60:13:140:LYS:HG3	60:13:141:TYR:H	1.49	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
3:5S:9:C:OP1	23:61:28:SER:HB3	1.86	0.76
1:2S:3326:G:H1	1:2S:3380:U:H3	1.34	0.76
46:1S:707:A:H2'	46:1S:708:C:H4'	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:22:89:TRP:HA	69:22:92:ASN:HD22	1.50	0.76
1:2S:820:A:H2'	1:2S:821:U:C6	2.20	0.76
14:51:133:ARG:HH12	14:51:154:THR:HG23	1.51	0.76
1:2S:405:U:C2'	1:2S:406:G:H5'	2.15	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
31:69:23:LYS:HE3	31:69:24:PRO:HD2	1.68	0.76
1:2S:1834:U:H5'	41:79:3:ALA:HA	1.67	0.76
39:77:34:CYS:HB3	39:77:39:TYR:HB2	1.66	0.76
1:2S:58:G:H2'	1:2S:59:G:H8	1.49	0.75
68:21:74:GLN:HE22	68:21:83:TRP:HB3	1.51	0.75
1:2S:3286:G:H2'	1:2S:3287:U:H5''	1.66	0.75
1:2S:442:G:H2'	1:2S:443:G:O4'	1.85	0.75
67:20:82:TYR:HB3	76:29:52:PHE:HB3	1.66	0.75
13:50:58:GLU:O	13:50:59:GLN:HG3	1.85	0.75
46:1S:1533:C:H4'	46:1S:1539:G:N1	2.00	0.75
46:1S:769:A:H2'	46:1S:770:A:H8	1.51	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
18:56:56:ASP:HA	18:56:59:ARG:HG2	1.69	0.75
1:2S:1019:G:C2'	1:2S:1020:G:H5''	2.16	0.75
52:S5:112:ARG:NE	52:S5:112:ARG:HA	2.01	0.75
79:RA:89:LEU:HD12	79:RA:103:PHE:HB2	1.66	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
7:L4:188:ARG:HB3	7:L4:193:LYS:HG3	1.67	0.75
46:1S:567:A:H62	46:1S:576:G:H21	1.33	0.75
79:RA:164:ASP:O	79:RA:165:ASP:HB3	1.86	0.75
51:S4:19:LEU:HD11	51:S4:108:ARG:HD2	1.69	0.75
73:26:84:VAL:HG13	73:26:85:ARG:N	2.01	0.75
3:5S:112:G:O6	8:L5:21:ARG:HD3	1.86	0.75
1:2S:2712:U:H2'	1:2S:2713:U:C6	2.21	0.75
76:29:10:HIS:ND1	76:29:11:PRO:HD2	2.00	0.75
52:S5:175:LEU:HD22	52:S5:197:GLU:HG3	1.68	0.75
1:2S:3041:U:H2'	1:2S:3042:U:C6	2.21	0.75
70:23:92:CYS:HA	70:23:95:PHE:HD2	1.50	0.75
6:L3:86:VAL:HA	6:L3:162:VAL:CG1	2.10	0.75
1:2S:1951:C:H6	1:2S:2095:G:N2	1.83	0.75
46:1S:1481:C:H5''	46:1S:1482:C:OP1	1.87	0.75
10:L7:41:ARG:HB3	10:L7:41:ARG:HH11	1.52	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
39:77:39:TYR:CD2	39:77:40:PRO:HA	2.22	0.75
28:66:39:LEU:HA	28:66:42:GLN:HB2	1.68	0.75
6:L3:227:GLU:HB3	6:L3:270:ARG:HD3	1.68	0.75
1:2S:2821:C:N4	1:2S:2869:U:H3	1.85	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:N	52:S5:79:ASN:HD22	1.85	0.75
1:2S:2356:A:H61	1:2S:2983:C:H41	1.34	0.75
1:2S:440:A:OP2	1:2S:441:U:H1'	1.87	0.75
5:L2:196:TRP:CG	5:L2:197:PRO:HA	2.22	0.75
5:L2:42:ARG:HA	5:L2:88:ILE:O	1.87	0.75
12:L9:71:VAL:O	12:L9:75:VAL:HG23	1.86	0.75
18:56:127:LEU:HD22	22:60:156:VAL:HG12	1.68	0.74
17:55:115:VAL:HA	17:55:134:LEU:HG	1.69	0.74
65:18:46:VAL:HG12	65:18:69:ILE:HG23	1.68	0.74
48:S1:195:LYS:HA	48:S1:195:LYS:HE2	1.67	0.74
46:1S:386:G:H2'	46:1S:387:A:C8	2.22	0.74
5:L2:42:ARG:HD2	5:L2:87:PHE:HB3	1.68	0.74
1:2S:3393:U:H2'	1:2S:3394:U:C6	2.22	0.74
24:62:35:LYS:O	24:62:38:ILE:HG22	1.88	0.74
57:10:49:LEU:HD13	57:10:52:LYS:HD3	1.68	0.74
29:67:12:VAL:HB	29:67:81:LEU:HB2	1.69	0.74
1:2S:2865:U:H2'	1:2S:2866:U:C6	2.22	0.74
46:1S:1701:A:H3'	46:1S:1702:A:C5'	2.11	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:H	38:76:98:ARG:HD2	1.49	0.74
1:2S:1329:U:H5''	35:73:17:GLN:HG2	1.70	0.74
73:26:41:ILE:HD13	73:26:41:ILE:H	1.52	0.74
43:81:13:LEU:HD13	43:81:16:LYS:HD3	1.69	0.74
57:10:86:ILE:HG23	57:10:87:VAL:N	2.01	0.74
70:23:127:VAL:O	70:23:130:VAL:HG22	1.88	0.74
69:22:101:TYR:HA	69:22:113:HIS:HE1	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
71:24:8:ARG:HH11	71:24:28:LEU:HD11	1.51	0.74
23:61:50:LYS:HB2	23:61:92:ARG:HH21	1.52	0.74
13:50:46:PHE:CD1	13:50:140:THR:HA	2.22	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
46:1S:1066:C:H4'	48:S1:149:GLN:HE22	1.52	0.74
1:2S:2083:G:H2'	1:2S:2083:G:N3	2.02	0.74
53:S6:1:MET:CE	53:S6:106:LEU:HB2	2.16	0.74
1:2S:198:A:H2'	1:2S:199:A:H5'	1.67	0.74
1:2S:797:U:H2'	1:2S:798:G:C8	2.23	0.74
1:2S:3094:A:H2'	1:2S:3095:U:H6	1.50	0.74
74:27:64:CYS:HB2	74:27:72:LYS:O	1.88	0.74
30:68:37:GLY:O	30:68:42:ARG:HB3	1.88	0.74
77:30:20:LYS:HA	77:30:20:LYS:HE2	1.70	0.74
1:2S:2403:G:H1'	1:2S:2872:A:C5	2.22	0.74
46:1S:685:A:H5'	46:1S:685:A:H8	1.53	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
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
1:2S:3243:A:H61	18:56:160:ARG:HD2	1.53	0.74
1:2S:1190:A:H61	1:2S:1315:U:H3	1.34	0.74
37:75:31:LEU:HG	37:75:41:LEU:HD21	1.68	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
22:60:9:VAL:HG12	22:60:58:ILE:HD13	1.69	0.74
15:53:124:ILE:HD13	15:53:124:ILE:H	1.53	0.74
16:54:21:VAL:HG12	16:54:65:LEU:HD23	1.70	0.74
46:1S:185:U:C2'	46:1S:186:C:H5''	2.16	0.74
12:L9:172:ILE:H	12:L9:172:ILE:HD13	1.53	0.74
71:24:27:VAL:HG11	71:24:35:VAL:HG11	1.69	0.74
45:83:67:GLY:HA3	45:83:70:THR:HG23	1.67	0.74
28:66:58:VAL:HG11	28:66:63:LYS:HB2	1.69	0.74
1:2S:254:A:H2'	1:2S:255:A:C8	2.22	0.74
13:50:75:TYR:O	13:50:79:VAL:HG23	1.88	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
46:1S:505:A:C3'	46:1S:506:A:H5''	2.18	0.74
15:53:70:ARG:HG2	15:53:71:ALA:H	1.51	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
9:L6:170:LYS:O	9:L6:174:LEU:HG	1.88	0.73
58:11:155:LYS:H	58:11:155:LYS:HD3	1.51	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3272:C:H5''	9:L6:77:ARG:HE	1.53	0.73
20:58:126:GLN:O	20:58:130:ARG:HD2	1.87	0.73
4:L1:18:LYS:HD2	4:L1:24:LYS:CB	2.17	0.73
46:1S:646:C:H2'	46:1S:647:G:O4'	1.88	0.73
6:L3:41:VAL:HA	6:L3:185:GLY:HA3	1.70	0.73
46:1S:552:G:H2'	46:1S:553:G:O4'	1.88	0.73
53:S6:175:ILE:HB	53:S6:178:LEU:HD22	1.68	0.73
37:75:7:TYR:HA	37:75:10:ARG:HD2	1.70	0.73
1:2S:1307:G:H5'	18:56:60:LYS:HD3	1.70	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:2248:C:H2'	1:2S:2273:G:C8	2.23	0.73
9:L6:82:ARG:HD2	35:73:104:PRO:HB3	1.71	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
1:2S:170:G:H2'	1:2S:171:G:C8	2.23	0.73
6:L3:43:LEU:HD11	6:L3:194:TRP:HH2	1.54	0.73
1:2S:2193:U:H5'	1:2S:2194:G:H5'	1.71	0.73
46:1S:1739:C:H2'	46:1S:1740:A:C8	2.23	0.73
46:1S:871:G:H2'	46:1S:872:G:C8	2.23	0.73
3:5S:27:A:OP2	8:L5:57:ASN:HB2	1.88	0.73
46:1S:828:U:C2'	46:1S:829:A:H5''	2.18	0.73
7:L4:42:VAL:HA	7:L4:45:ASN:HD22	1.52	0.73
2:8S:40:A:H2'	2:8S:41:A:C8	2.23	0.73
56:S9:39:LYS:HD3	56:S9:42:ILE:HD12	1.70	0.73
47:S0:15:GLN:HA	47:S0:18:LEU:HD12	1.71	0.73
19:57:176:ILE:O	19:57:179:GLN:HB2	1.89	0.73
1:2S:440:A:H5''	1:2S:441:U:H4'	1.69	0.73
16:54:64:VAL:HG22	16:54:65:LEU:H	1.54	0.73
1:2S:3370:A:H2'	1:2S:3371:G:C8	2.23	0.73
35:73:18:ARG:HB3	35:73:23:ASN:HB3	1.70	0.73
1:2S:750:G:H5'	31:69:44:LYS:HE2	1.70	0.73
2:8S:26:U:H2'	2:8S:27:U:C6	2.23	0.73
1:2S:933:A:H61	7:L4:102:PRO:HD3	1.53	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:2917:G:OP1	25:63:46:LEU:HD12	1.87	0.73
17:55:13:LYS:C	17:55:19:LEU:HD22	2.08	0.73
46:1S:435:C:C5'	70:23:50:LYS:HG3	2.19	0.73
52:S5:163:SER:O	52:S5:167:ARG:HG3	1.88	0.73
21:59:171:ASP:O	21:59:175:GLN:HB2	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:600:U:H1'	70:23:47:SER:HB3	1.68	0.73
35:73:52:VAL:HG13	35:73:66:VAL:HG22	1.70	0.73
1:2S:2812:C:H2'	1:2S:2813:A:C8	2.23	0.73
10:L7:178:ILE:HG21	10:L7:184:LEU:HD23	1.69	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
61:14:111:ARG:NH2	73:26:58:VAL:HG12	2.04	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
70:23:76:LEU:HD13	70:23:79:ASN:CB	2.17	0.73
20:58:33:TYR:HB3	20:58:49:LEU:HG	1.70	0.73
16:54:72:LEU:HD13	16:54:73:PRO:HD2	1.71	0.73
60:13:92:ILE:O	60:13:96:VAL:HG23	1.89	0.73
46:1S:1156:C:C2'	46:1S:1157:A:H5''	2.18	0.73
1:2S:1190:A:H4'	42:80:113:ARG:HH22	1.53	0.73
1:2S:2675:C:H42	14:51:22:SER:HB2	1.54	0.73
48:S1:29:TRP:CZ2	48:S1:45:LYS:HG3	2.24	0.73
75:28:14:LYS:HB3	75:28:29:ARG:HD2	1.69	0.73
1:2S:2199:G:H2'	1:2S:2200:U:C6	2.24	0.73
4:L1:28:PHE:HD1	4:L1:28:PHE:O	1.72	0.73
64:17:67:ARG:HG2	64:17:67:ARG:HH21	1.53	0.73
46:1S:400:A:C5'	55:S8:25:ARG:HA	2.17	0.72
1:2S:1223:A:C2	1:2S:1287:A:N3	2.57	0.72
49:S2:137:ILE:CG1	49:S2:138:PRO:HD2	2.19	0.72
33:71:32:ALA:O	33:71:36:ILE:HG13	1.89	0.72
8:L5:236:LEU:HD12	8:L5:239:ILE:HD12	1.70	0.72
1:2S:727:G:H4'	1:2S:977:C:H5'	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
65:18:132:ARG:HB3	65:18:136:GLN:HE21	1.54	0.72
1:2S:669:U:H2'	1:2S:670:C:C6	2.23	0.72
1:2S:3105:U:H2'	1:2S:3106:A:H8	1.54	0.72
25:63:125:LEU:HD23	25:63:126:TRP:NE1	2.04	0.72
19:57:127:ARG:NH1	19:57:127:ARG:HB2	2.03	0.72
1:2S:2278:C:H4'	1:2S:2280:A:C2	2.24	0.72
46:1S:127:G:C6	53:S6:195:VAL:HG13	2.24	0.72
1:2S:2192:C:H2'	1:2S:2193:U:C6	2.24	0.72
19:57:67:ILE:HG22	19:57:68:GLY:N	2.05	0.72
46:1S:942:G:C5'	46:1S:977:A:H4'	2.19	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:350:ALA:O	6:L3:351:LEU:HB2	1.89	0.72
45:83:8:VAL:O	45:83:11:THR:HG22	1.89	0.72
38:76:59:ASP:O	38:76:63:ASN:HB2	1.89	0.72
29:67:121:ARG:NH1	29:67:126:LYS:HE3	2.03	0.72
14:51:17:LEU:HD13	14:51:129:VAL:HG22	1.72	0.72
16:54:76:ALA:HB1	16:54:80:THR:CB	2.18	0.72
44:82:68:VAL:HG11	44:82:85:LEU:HD22	1.70	0.72
36:74:22:VAL:HA	36:74:32:ALA:HA	1.69	0.72
26:64:56:ARG:HH11	26:64:56:ARG:HB3	1.55	0.72
46:1S:1160:A:H2'	46:1S:1161:C:C6	2.24	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
72:25:75:LEU:HA	72:25:78:ILE:HD13	1.70	0.72
5:L2:248:GLY:HA3	46:1S:1012:U:H5''	1.70	0.72
9:L6:80:ASN:HB3	9:L6:83:TYR:HD2	1.54	0.72
49:S2:66:PHE:HB2	49:S2:133:LYS:HG3	1.71	0.72
65:18:14:ILE:CD1	65:18:21:ASN:HB3	2.20	0.72
58:11:118:GLN:HG2	58:11:119:VAL:N	2.04	0.72
50:S3:168:ILE:HG22	50:S3:189:MET:HB2	1.71	0.72
1:2S:2915:U:H5''	1:2S:2916:U:H5'	1.70	0.72
37:75:21:LEU:HG	37:75:25:LYS:HE3	1.71	0.72
15:53:138:VAL:HG21	37:75:118:ILE:HB	1.69	0.72
54:S7:30:SER:HB3	54:S7:34:LEU:HD13	1.71	0.72
1:2S:1307:G:C5'	18:56:60:LYS:HD3	2.19	0.72
46:1S:1603:U:H2'	46:1S:1604:U:C6	2.24	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
1:2S:967:A:H2'	1:2S:968:G:O4'	1.89	0.72
1:2S:654:C:H2'	1:2S:655:C:C6	2.23	0.72
33:71:70:ARG:HG3	33:71:70:ARG:HH21	1.53	0.72
2:8S:62:C:H4'	2:8S:63:G:H5''	1.70	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
56:S9:48:GLN:O	56:S9:52:ILE:HG13	1.90	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
50:S3:148:LYS:NZ	50:S3:148:LYS:HB3	2.04	0.72
45:83:37:TYR:O	45:83:45:LYS:HA	1.89	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:3198:U:O2	12:L9:21:LYS:HG3	1.89	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
4:L1:114:GLU:HG3	4:L1:115:VAL:HG23	1.69	0.72
1:2S:975:C:OP2	20:58:15:HIS:HA	1.89	0.72
46:1S:1202:A:N6	46:1S:1457:C:H5''	2.04	0.72
46:1S:138:A:N6	46:1S:266:A:H61	1.88	0.72
1:2S:2874:G:N7	1:2S:2945:G:H2'	2.05	0.72
1:2S:155:G:H21	38:76:26:ILE:HG21	1.55	0.72
8:L5:153:THR:HG23	8:L5:160:PHE:HZ	1.55	0.72
1:2S:592:A:OP2	9:L6:16:ALA:HB1	1.88	0.72
46:1S:1543:A:H1'	46:1S:1569:A:C2	2.25	0.72
1:2S:2355:G:H4'	19:57:139:TYR:CZ	2.25	0.72
7:L4:132:ALA:HA	7:L4:148:ILE:HD12	1.72	0.72
77:30:42:ARG:NH1	77:30:42:ARG:HB3	2.05	0.72
1:2S:1019:G:C3'	1:2S:1020:G:H5''	2.19	0.72
46:1S:1592:A:H2'	46:1S:1593:A:O4'	1.90	0.72
11:L8:122:LYS:C	11:L8:124:ASP:H	1.92	0.72
46:1S:1715:G:C3'	46:1S:1716:C:H5''	2.19	0.72
79:RA:31:ASN:HA	79:RA:47:LEU:HB2	1.71	0.72
56:S9:41:GLU:O	56:S9:45:ILE:HG12	1.90	0.71
15:53:57:VAL:HG12	15:53:69:VAL:CG2	2.19	0.71
11:L8:242:ALA:O	11:L8:246:MET:HB3	1.90	0.71
39:77:53:ALA:HA	39:77:56:ARG:HD2	1.72	0.71
70:23:76:LEU:HD11	70:23:79:ASN:HD22	1.54	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
46:1S:219:A:C2	46:1S:843:U:H1'	2.25	0.71
54:S7:47:ARG:NH1	54:S7:176:LEU:CD2	2.53	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:604:A:H2'	46:1S:605:A:O4'	1.89	0.71
6:L3:106:TRP:HB2	6:L3:133:TYR:HE2	1.55	0.71
1:2S:634:C:H4'	34:72:47:ARG:NH1	2.05	0.71
77:30:26:LYS:H	77:30:26:LYS:HE2	1.55	0.71
8:L5:140:ARG:HB2	8:L5:140:ARG:NH2	2.04	0.71
1:2S:681:U:H2'	1:2S:682:U:H5'	1.72	0.71
72:25:58:ARG:HH11	72:25:58:ARG:HG3	1.55	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
1:2S:2995:A:C2'	1:2S:2996:U:H5''	2.19	0.71
1:2S:2553:U:H3'	5:L2:87:PHE:HE2	1.54	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)
17:55:34:ASN:O	17:55:37:HIS:CD2	2.43	0.71
1:2S:2610:G:H2'	1:2S:2611:U:H6	1.53	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
47:S0:179:ARG:O	47:S0:183:ARG:HG3	1.89	0.71
6:L3:63:PRO:HD2	6:L3:348:ARG:NH2	2.04	0.71
32:70:50:VAL:HA	32:70:53:LYS:HB3	1.73	0.71
1:2S:1981:G:C2'	1:2S:1982:G:H5'	2.20	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
1:2S:3149:G:H4'	6:L3:130:PHE:CE1	2.24	0.71
28:66:50:ILE:HG12	28:66:51:ARG:N	2.06	0.71
66:19:63:ARG:HG2	66:19:67:MET:HE1	1.72	0.71
46:1S:771:A:H5'	56:S9:7:THR:HG23	1.73	0.71
46:1S:230:C:H3'	46:1S:231:U:H5''	1.72	0.71
6:L3:56:ILE:HD12	6:L3:57:VAL:H	1.56	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
1:2S:965:A:N3	30:68:43:ILE:HD12	2.06	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
1:2S:1508:C:H2'	1:2S:1509:A:C8	2.24	0.71
54:S7:56:LYS:HB2	54:S7:88:ARG:HD3	1.71	0.71
1:2S:2768:U:H2'	1:2S:2769:A:C8	2.25	0.71
6:L3:237:LYS:NZ	6:L3:246:LEU:HD13	2.05	0.71
49:S2:38:VAL:HG13	49:S2:39:THR:HG23	1.73	0.71
46:1S:487:G:C2'	46:1S:488:G:H5''	2.17	0.71
46:1S:143:G:H2'	46:1S:144:U:H5''	1.73	0.71
19:57:169:THR:O	19:57:173:ARG:HG3	1.90	0.71
1:2S:1456:A:N6	33:71:64:VAL:HG21	2.06	0.71
52:S5:118:LEU:O	52:S5:122:ASN:HB2	1.91	0.71
2:8S:104:A:OP2	2:8S:105:A:H2'	1.90	0.71
46:1S:647:G:H22	46:1S:687:G:H1	1.36	0.71
1:2S:2596:U:H2'	1:2S:2597:U:C6	2.26	0.71
56:S9:85:VAL:CG1	56:S9:103:ASP:HB3	2.20	0.71
46:1S:591:A:H2'	46:1S:592:A:C8	2.25	0.71
46:1S:1589:C:H2'	46:1S:1590:G:H8	1.54	0.71
1:2S:1741:A:H2'	1:2S:1742:U:H5'	1.71	0.71
56:S9:120:LYS:HB3	56:S9:120:LYS:NZ	2.06	0.71
55:S8:81:VAL:HG12	55:S8:91:VAL:HG13	1.71	0.71
1:2S:929:A:H2'	1:2S:930:U:C6	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
46:1S:749:U:H3	46:1S:800:U:H3	1.36	0.71
46:1S:749:U:H2'	46:1S:750:U:C6	2.25	0.71
6:L3:49:TYR:CE1	6:L3:335:ILE:HB	2.26	0.71
25:63:54:LEU:HD12	25:63:78:VAL:CG1	2.20	0.71
6:L3:223:GLY:HA2	6:L3:271:GLY:HA3	1.73	0.71
1:2S:1517:G:OP1	41:79:22:PRO:HG3	1.91	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
49:S2:178:ILE:HA	49:S2:196:VAL:HG12	1.71	0.71
1:2S:1238:C:C3'	1:2S:1239:C:H5''	2.21	0.71
46:1S:657:U:O2'	46:1S:658:C:H4'	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
2:8S:37:A:H5''	2:8S:39:G:O4'	1.91	0.71
1:2S:3217:C:O2	1:2S:3217:C:H2'	1.90	0.71
55:S8:8:ARG:NE	55:S8:8:ARG:HA	2.06	0.70
32:70:50:VAL:HG13	32:70:53:LYS:HE2	1.73	0.70
17:55:39:ALA:HA	17:55:63:ARG:HH21	1.55	0.70
1:2S:314:U:H2'	1:2S:315:C:C6	2.25	0.70
5:L2:226:SER:C	5:L2:228:GLY:H	1.93	0.70
1:2S:3180:A:H4'	18:56:116:LYS:HB3	1.73	0.70
39:77:5:THR:N	39:77:6:PRO:HD2	2.06	0.70
14:51:49:LYS:HE2	14:51:64:LYS:NZ	2.05	0.70
58:11:21:ASN:HB3	58:11:31:THR:HG23	1.73	0.70
46:1S:1105:C:H2'	46:1S:1106:U:C6	2.26	0.70
1:2S:2338:C:H3'	1:2S:2339:C:H2'	1.72	0.70
44:82:8:ARG:HH12	44:82:10:THR:CB	2.02	0.70
1:2S:2361:A:H61	1:2S:2377:G:H1	1.37	0.70
1:2S:1951:C:H5	1:2S:2095:G:O6	1.73	0.70
23:61:68:THR:HG23	23:61:69:LYS:H	1.56	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
57:10:32:HIS:CE1	57:10:42:VAL:HG21	2.25	0.70
28:66:112:ASP:O	28:66:116:LYS:HG3	1.91	0.70
7:L4:289:ILE:O	7:L4:295:ILE:HD12	1.89	0.70
5:L2:100:ASN:O	5:L2:166:ILE:HG12	1.91	0.70
1:2S:2158:A:H4'	1:2S:2159:U:H3'	1.73	0.70
7:L4:152:VAL:CG1	7:L4:153:SER:H	1.97	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:1430:U:H2'	30:68:9:ARG:HH22	1.56	0.70
16:54:10:SER:HB3	16:54:12:TRP:CZ3	2.27	0.70
8:L5:33:ARG:O	8:L5:37:VAL:HG23	1.90	0.70
46:1S:1294:G:H2'	46:1S:1295:G:H8	1.56	0.70
1:2S:911:C:H3'	5:L2:9:ARG:NH1	2.06	0.70
4:L1:158:GLN:O	4:L1:159:LEU:HG	1.91	0.70
25:63:108:GLU:HG2	25:63:128:ARG:NH1	2.00	0.70
22:60:89:ASN:HD21	23:61:156:TYR:HB3	1.56	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
46:1S:1715:G:H3'	46:1S:1716:C:H5''	1.74	0.70
64:17:53:TYR:O	64:17:57:LEU:HG	1.91	0.70
49:S2:151:PRO:HD3	68:21:9:VAL:HG21	1.72	0.70
26:64:4:GLU:HB2	26:64:13:ILE:HB	1.74	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
46:1S:165:G:C3'	46:1S:166:C:H5''	2.21	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
1:2S:1227:C:N4	1:2S:1282:G:O6	2.17	0.70
1:2S:425:G:H2'	1:2S:426:G:C8	2.27	0.70
27:65:66:PRO:HA	27:65:84:PHE:HA	1.74	0.70
46:1S:195:G:H2'	46:1S:196:G:H5''	1.73	0.70
19:57:120:ASN:O	19:57:144:SER:HA	1.91	0.70
46:1S:1292:G:H2'	46:1S:1293:U:C6	2.26	0.70
14:51:163:PHE:HE2	14:51:171:VAL:HB	1.56	0.70
16:54:25:LYS:HE3	16:54:62:GLN:CG	2.20	0.70
5:L2:133:TYR:CD2	5:L2:168:VAL:HG11	2.26	0.70
55:S8:137:LYS:HD3	55:S8:137:LYS:H	1.57	0.70
14:51:94:ARG:C	14:51:96:PHE:H	1.93	0.70
1:2S:2778:G:H2'	1:2S:2779:A:C5'	2.20	0.70
22:60:80:ARG:HG3	23:61:156:TYR:HB2	1.73	0.70
1:2S:628:A:H2'	1:2S:629:U:C6	2.25	0.70
1:2S:2865:U:H2'	1:2S:2866:U:H6	1.56	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)
79:RA:128:ASP:O	79:RA:129:LYS:HG2	1.92	0.70
22:60:72:VAL:HA	22:60:97:VAL:HA	1.73	0.70
50:S3:209:ILE:CG2	64:17:38:ILE:HG13	2.17	0.70
50:S3:209:ILE:HG22	64:17:38:ILE:CG1	2.17	0.70
1:2S:1492:G:H1	1:2S:1836:C:H42	1.39	0.70
1:2S:3152:U:H5'	1:2S:3294:A:H5''	1.74	0.70
1:2S:437:G:H1	1:2S:622:A:N6	1.89	0.70
46:1S:647:G:N2	46:1S:687:G:H1	1.89	0.70
38:76:26:ILE:HD12	38:76:26:ILE:H	1.57	0.70
29:67:71:PHE:HA	29:67:111:LYS:HE2	1.72	0.70
1:2S:2656:A:H4'	44:82:98:LYS:HD2	1.73	0.70
49:S2:56:ILE:HG23	49:S2:61:LEU:HB2	1.71	0.70
46:1S:654:C:H3'	46:1S:655:G:C5'	2.17	0.70
30:68:123:VAL:HG12	30:68:124:ILE:N	2.06	0.70
23:61:68:THR:HG23	23:61:69:LYS:N	2.07	0.70
48:S1:184:LEU:O	48:S1:188:LEU:HG	1.92	0.70
7:L4:138:ARG:CZ	7:L4:240:PRO:HD2	2.21	0.70
46:1S:898:A:H62	46:1S:914:G:N2	1.89	0.70
27:65:113:LEU:O	27:65:120:LYS:HG3	1.90	0.70
4:L1:48:ARG:HH22	4:L1:159:LEU:HA	1.55	0.70
60:13:70:LYS:O	60:13:74:ILE:HG13	1.91	0.70
1:2S:959:C:H41	1:2S:2801:A:H5''	1.55	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
1:2S:936:A:H2'	1:2S:938:C:C4	2.26	0.70
21:59:60:LYS:HB3	21:59:64:ARG:HG3	1.74	0.70
53:S6:186:ARG:O	53:S6:190:GLN:HG2	1.90	0.70
46:1S:119:A:H2'	46:1S:120:U:H5'	1.74	0.70
5:L2:58:LEU:HD23	5:L2:77:ILE:HA	1.74	0.70
66:19:57:ARG:HH11	66:19:57:ARG:HB2	1.56	0.70
1:2S:2356:A:N6	1:2S:2983:C:H5	1.89	0.70
52:S5:163:SER:HB2	52:S5:164:PRO:HD2	1.73	0.70
38:76:34:SER:O	38:76:38:LYS:HG3	1.92	0.70
37:75:78:LYS:HA	37:75:81:ARG:HD3	1.72	0.70
8:L5:107:ARG:HH22	8:L5:120:LYS:HA	1.57	0.70
1:2S:384:A:H1'	1:2S:1465:A:C8	2.26	0.70
55:S8:8:ARG:HD3	55:S8:21:PHE:HB3	1.74	0.69
1:2S:2995:A:C3'	1:2S:2996:U:H5''	2.22	0.69
46:1S:307:G:H5''	58:11:92:HIS:CE1	2.27	0.69
46:1S:942:G:H5'	46:1S:977:A:H4'	1.74	0.69
22:60:23:LYS:O	22:60:24:LEU:HB2	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:74:76:TYR:HD1	36:74:79:SER:HG	1.37	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
18:56:46:GLU:HG2	18:56:49:ARG:HG3	1.74	0.69
2:8S:41:A:H61	2:8S:103:G:H1'	1.58	0.69
11:L8:146:LYS:HE2	11:L8:173:MET:HA	1.74	0.69
46:1S:1316:G:H4'	64:17:10:LYS:HE3	1.74	0.69
1:2S:741:U:H2'	1:2S:742:G:O4'	1.92	0.69
63:16:90:VAL:HG21	63:16:117:LEU:HD11	1.74	0.69
46:1S:93:A:O2'	51:S4:4:GLY:HA3	1.91	0.69
7:L4:89:ALA:O	7:L4:90:PHE:HB2	1.92	0.69
5:L2:23:ARG:HG3	5:L2:23:ARG:HH11	1.55	0.69
15:53:47:ALA:HB1	15:53:48:PRO:CD	2.21	0.69
6:L3:238:LEU:HB3	6:L3:242:THR:HG21	1.74	0.69
46:1S:1061:A:H2'	46:1S:1062:A:H5'	1.71	0.69
48:S1:160:HIS:O	48:S1:164:ILE:HG13	1.92	0.69
3:5S:80:G:H2'	3:5S:81:U:O4'	1.91	0.69
74:27:61:THR:HG23	74:27:62:ILE:N	2.06	0.69
59:12:86:VAL:H	59:12:87:PRO:HD3	1.55	0.69
38:76:43:LEU:O	38:76:47:ILE:HG13	1.92	0.69
1:2S:20:A:H61	2:8S:139:U:H3	1.39	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
18:56:88:VAL:HG12	18:56:89:SER:H	1.57	0.69
49:S2:44:LEU:HD13	49:S2:243:TYR:HB2	1.74	0.69
61:14:128:LYS:H	73:26:22:ARG:HH12	1.40	0.69
54:S7:59:ALA:HB1	54:S7:93:LEU:HD12	1.73	0.69
76:29:31:ILE:HB	76:29:36:LEU:HD11	1.75	0.69
46:1S:805:U:C3'	46:1S:806:A:H5''	2.21	0.69
1:2S:2427:U:H2'	1:2S:2428:U:C6	2.27	0.69
3:5S:62:U:H4'	8:L5:285:ARG:NH1	2.06	0.69
51:S4:89:VAL:C	51:S4:90:ILE:HD12	2.13	0.69
8:L5:22:ARG:HG3	8:L5:27:LYS:HB2	1.74	0.69
1:2S:745:C:H5''	20:58:145:ASN:ND2	2.07	0.69
47:S0:155:PHE:CZ	68:21:61:SER:HA	2.27	0.69
30:68:36:GLY:HA3	30:68:40:HIS:CE1	2.28	0.69
46:1S:1761:U:H1'	46:1S:1762:A:OP2	1.92	0.69
1:2S:1948:G:OP1	21:59:135:LYS:HE3	1.92	0.69
1:2S:1350:A:C2'	1:2S:1351:U:H5'	2.22	0.69
40:78:62:ALA:O	40:78:66:ILE:HG13	1.92	0.69
2:8S:79:A:H2'	2:8S:80:A:H4'	1.73	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
57:10:15:LEU:HD13	57:10:21:VAL:CG2	2.16	0.69
1:2S:1803:C:H2'	1:2S:1804:A:H8	1.57	0.69
46:1S:484:C:H42	46:1S:503:G:H22	1.39	0.69
1:2S:3299:A:H61	1:2S:3315:G:H1	1.39	0.69
49:S2:165:VAL:HG21	49:S2:206:THR:HG21	1.74	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
1:2S:438:A:H2'	1:2S:439:C:H5''	1.74	0.69
1:2S:2922:G:H3'	1:2S:2923:U:H5''	1.75	0.69
21:59:139:VAL:HA	21:59:142:ILE:HD12	1.75	0.69
1:2S:900:G:H1'	1:2S:1589:A:H61	1.56	0.69
25:63:75:PRO:HB2	25:63:103:ALA:O	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:2101:C:O2'	1:2S:2102:U:H5''	1.93	0.69
25:63:54:LEU:HD12	25:63:78:VAL:HG12	1.73	0.69
46:1S:733:A:O2'	46:1S:734:A:H5''	1.92	0.69
7:L4:95:ARG:HH11	7:L4:95:ARG:HG2	1.57	0.69
65:18:6:GLN:O	72:25:42:LEU:HD11	1.92	0.69
5:L2:48:ILE:HG13	5:L2:48:ILE:O	1.91	0.69
30:68:81:LEU:HD22	30:68:107:ALA:CB	2.21	0.69
12:L9:48:VAL:CG1	12:L9:52:LEU:HD22	2.23	0.69
32:70:34:LEU:HD21	32:70:59:TYR:HB3	1.74	0.69
1:2S:2310:U:H2'	1:2S:2311:G:C8	2.27	0.69
6:L3:43:LEU:HD11	6:L3:194:TRP:CH2	2.27	0.69
41:79:15:LYS:O	41:79:19:GLN:HG3	1.92	0.69
29:67:104:PRO:O	29:67:108:GLU:HG3	1.93	0.69
19:57:124:LYS:HB3	19:57:140:GLU:HB3	1.75	0.69
46:1S:1097:U:H5''	46:1S:1099:U:O4'	1.93	0.69
25:63:39:VAL:HG12	25:63:40:LYS:N	2.08	0.69
1:2S:1844:C:C2'	1:2S:1845:G:H5''	2.22	0.69
1:2S:2174:G:OP1	1:2S:2174:G:H8	1.76	0.69
46:1S:358:U:H2'	46:1S:360:A:H5'	1.73	0.69
74:27:56:CYS:HB3	74:27:59:CYS:O	1.90	0.69
35:73:73:ARG:CG	35:73:82:ARG:HD2	2.23	0.69
19:57:67:ILE:HG22	19:57:68:GLY:H	1.57	0.69
77:30:14:VAL:O	77:30:18:THR:HG23	1.93	0.69
1:2S:68:C:H4'	17:55:176:LYS:HB3	1.74	0.69
39:77:4:GLY:C	39:77:6:PRO:HD2	2.13	0.69
35:73:9:VAL:HB	35:73:100:ILE:HB	1.73	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
1:2S:293:C:H2'	1:2S:294:U:O4'	1.92	0.69
43:81:8:LYS:HA	43:81:8:LYS:HE2	1.74	0.69
1:2S:607:A:H2'	1:2S:607:A:N3	2.07	0.69
1:2S:760:G:H1'	1:2S:771:A:H61	1.58	0.69
27:65:53:HIS:CE1	27:65:56:ARG:HG2	2.27	0.69
1:2S:1055:A:H5''	3:5S:100:C:O2'	1.92	0.69
47:S0:60:ALA:O	47:S0:64:ILE:HG13	1.93	0.69
1:2S:725:G:H3'	1:2S:726:G:H5''	1.74	0.69
1:2S:2328:U:H2'	1:2S:2329:C:C6	2.28	0.69
46:1S:1135:U:H2'	46:1S:1136:U:C6	2.28	0.69
1:2S:1813:A:C3'	1:2S:1814:A:H5''	2.22	0.69
69:22:65:LEU:N	69:22:65:LEU:HD13	2.07	0.69
51:S4:121:TYR:HA	51:S4:164:LEU:HD23	1.75	0.69
75:28:32:PHE:HZ	75:28:38:ARG:HD2	1.57	0.69
1:2S:1321:G:N2	22:60:112:ALA:HB2	2.08	0.69
53:S6:210:GLN:O	53:S6:214:LYS:HG3	1.92	0.69
46:1S:165:G:H2'	46:1S:166:C:H5''	1.73	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
17:55:203:ARG:HG3	17:55:203:ARG:HH11	1.58	0.69
11:L8:24:ASN:N	11:L8:25:PRO:HD2	2.08	0.69
1:2S:1682:U:H2'	24:62:85:LYS:HG2	1.75	0.69
25:63:74:MET:CG	25:63:102:ILE:HD11	2.20	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
42:80:97:ARG:HB2	42:80:120:GLN:O	1.92	0.69
11:L8:180:VAL:HG22	11:L8:185:ARG:NH2	2.08	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
27:65:141:TYR:HB3	37:75:33:VAL:HG13	1.75	0.69
43:81:23:ARG:HG2	43:81:23:ARG:HH21	1.58	0.69
1:2S:2342:U:H5''	1:2S:3089:C:O2'	1.93	0.69
46:1S:329:G:H5'	55:S8:99:ALA:HB3	1.74	0.69
1:2S:715:A:H5''	30:68:133:LEU:HD13	1.75	0.68
1:2S:3116:G:H5''	1:2S:3117:C:C5	2.28	0.68
49:S2:203:LYS:HZ3	49:S2:205:ARG:HB2	1.58	0.68
69:22:93:LEU:HD23	69:22:94:LEU:H	1.55	0.68
21:59:139:VAL:HA	21:59:142:ILE:CD1	2.23	0.68
22:60:29:ILE:HD12	22:60:40:ARG:HB3	1.74	0.68
1:2S:717:C:H41	1:2S:751:A:H4'	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2674:A:H5''	14:51:105:GLY:HA3	1.75	0.68
15:53:63:VAL:HG23	30:68:66:ALA:O	1.93	0.68
46:1S:1651:A:H2'	46:1S:1652:C:H6	1.56	0.68
64:17:69:ILE:HD13	64:17:69:ILE:H	1.58	0.68
15:53:109:PHE:O	15:53:113:VAL:HG23	1.93	0.68
52:S5:48:PHE:HE1	52:S5:64:VAL:HA	1.59	0.68
1:2S:1718:G:H2'	1:2S:1719:G:C8	2.26	0.68
22:60:166:LYS:CG	22:60:167:ARG:H	2.04	0.68
71:24:5:VAL:HA	71:24:28:LEU:O	1.93	0.68
46:1S:831:U:H2'	46:1S:832:U:C6	2.28	0.68
28:66:59:VAL:O	28:66:64:LYS:HD3	1.93	0.68
1:2S:2561:A:HO2'	1:2S:2562:A:H8	1.40	0.68
1:2S:1354:G:H4'	9:L6:8:LYS:HZ3	1.57	0.68
5:L2:72:ARG:NH1	5:L2:72:ARG:HB2	2.08	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
6:L3:296:THR:CG2	6:L3:297:SER:H	2.01	0.68
6:L3:232:ARG:NH1	6:L3:268:GLY:HA3	2.08	0.68
1:2S:3304:U:C5	6:L3:333:LYS:HE2	2.28	0.68
46:1S:992:A:H2'	46:1S:993:A:H5'	1.74	0.68
56:S9:85:VAL:HG13	56:S9:103:ASP:HB3	1.75	0.68
18:56:62:THR:HB	18:56:65:ASN:O	1.94	0.68
48:S1:179:SER:HB3	48:S1:183:GLN:HB2	1.75	0.68
46:1S:1018:U:H2'	46:1S:1019:A:C8	2.28	0.68
7:L4:115:HIS:O	7:L4:119:ARG:HG3	1.92	0.68
1:2S:941:G:H2'	1:2S:942:U:O4'	1.93	0.68
1:2S:2761:G:N1	1:2S:2795:U:H3'	2.08	0.68
46:1S:1089:U:H2'	46:1S:1090:C:H6	1.53	0.68
33:71:11:GLU:HG3	33:71:109:VAL:CG2	2.24	0.68
26:64:56:ARG:NH1	26:64:56:ARG:HB3	2.09	0.68
1:2S:1682:U:H3'	24:62:85:LYS:HE2	1.76	0.68
22:60:31:ALA:HB1	22:60:36:ILE:HB	1.73	0.68
3:5S:77:G:H22	3:5S:102:A:H5''	1.58	0.68
38:76:80:PHE:O	38:76:84:LYS:HG3	1.94	0.68
4:L1:144:LEU:O	4:L1:148:VAL:HG13	1.93	0.68
79:RA:10:ARG:HE	79:RA:10:ARG:HA	1.58	0.68
21:59:189:ALA:HB2	54:S7:39:ARG:HD3	1.76	0.68
13:50:135:ILE:HG22	13:50:136:PHE:CD1	2.27	0.68
46:1S:400:A:H2'	55:S8:24:LYS:O	1.94	0.68
1:2S:3163:A:C3'	1:2S:3164:C:H5''	2.23	0.68
17:55:136:ASP:OD1	17:55:139:HIS:HB2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2356:A:H61	1:2S:2983:C:N4	1.92	0.68
1:2S:3303:G:H3'	1:2S:3377:G:O4'	1.91	0.68
9:L6:171:PRO:HA	9:L6:174:LEU:HD12	1.76	0.68
36:74:42:PRO:O	36:74:50:ALA:HA	1.92	0.68
63:16:40:GLU:HA	63:16:41:PRO:C	2.14	0.68
46:1S:1020:A:H3'	46:1S:1021:C:H5''	1.74	0.68
1:2S:3382:U:H2'	1:2S:3382:U:O2	1.93	0.68
79:RA:88:THR:HG22	79:RA:104:VAL:HG22	1.76	0.68
1:2S:2990:G:H2'	1:2S:2991:A:H5'	1.76	0.68
48:S1:145:LYS:HD3	48:S1:149:GLN:HG2	1.74	0.68
8:L5:109:THR:O	8:L5:113:LEU:HB2	1.93	0.68
15:53:91:ARG:HH21	15:53:97:VAL:HB	1.57	0.68
5:L2:40:TYR:HA	5:L2:91:GLY:HA3	1.74	0.68
46:1S:252:U:H4'	51:S4:132:GLY:O	1.93	0.68
12:L9:114:VAL:HB	12:L9:124:ARG:HB2	1.75	0.68
1:2S:2117:A:H2'	1:2S:2118:C:O4'	1.94	0.68
47:S0:119:ARG:HB3	47:S0:119:ARG:NH1	2.03	0.68
72:25:41:ILE:O	72:25:42:LEU:HB3	1.94	0.68
1:2S:1523:U:H1'	27:65:111:ASN:HB3	1.74	0.68
13:50:36:LEU:HD12	13:50:87:LEU:HD22	1.75	0.68
1:2S:1110:U:H2'	1:2S:1111:U:C6	2.29	0.68
10:L7:169:ILE:HG21	10:L7:184:LEU:HD11	1.76	0.68
30:68:74:ASN:HD22	30:68:115:LYS:HB2	1.58	0.68
1:2S:1875:G:OP2	21:59:20:ARG:HD2	1.94	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
50:S3:98:ALA:HA	50:S3:188:ILE:HD12	1.76	0.68
72:25:54:VAL:HG12	72:25:88:ILE:HG21	1.74	0.68
46:1S:559:C:H4'	77:30:60:PRO:HG3	1.76	0.68
1:2S:834:U:C2'	1:2S:835:G:H5'	2.23	0.68
1:2S:2719:U:H2'	1:2S:2720:G:H8	1.58	0.68
1:2S:1927:G:H3'	1:2S:1927:G:N3	2.08	0.68
8:L5:277:LEU:HD23	8:L5:282:ARG:CG	2.18	0.68
1:2S:36:C:H2'	1:2S:37:U:C5'	2.23	0.68
5:L2:47:GLN:HE21	5:L2:49:VAL:HB	1.59	0.68
1:2S:2435:G:H5'	17:55:20:ARG:NH1	2.09	0.68
10:L7:203:TRP:CD1	10:L7:204:PRO:HD2	2.29	0.68
1:2S:1354:G:H4'	9:L6:8:LYS:NZ	2.09	0.68
39:77:28:HIS:CD2	39:77:31:LYS:HB2	2.29	0.68
1:2S:1939:G:H2'	1:2S:1940:G:C8	2.29	0.68
7:L4:72:ALA:HB3	7:L4:76:ARG:NH1	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1803:C:H2'	1:2S:1804:A:C8	2.29	0.68
51:S4:94:ALA:CB	71:24:17:LEU:HB3	2.23	0.68
1:2S:118:U:N3	1:2S:122:A:H5''	2.08	0.68
58:11:117:VAL:HG12	58:11:118:GLN:N	2.08	0.68
2:8S:101:U:H3'	2:8S:102:U:H5''	1.76	0.68
65:18:46:VAL:CG1	65:18:69:ILE:HG23	2.22	0.68
22:60:9:VAL:CG1	22:60:58:ILE:HD13	2.24	0.68
1:2S:283:G:N2	1:2S:285:A:H5''	2.09	0.68
61:14:32:ASP:OD2	61:14:37:GLU:HB3	1.93	0.68
73:26:23:CYS:HB3	73:26:28:LYS:H	1.58	0.68
21:59:37:SER:O	21:59:41:ILE:HG13	1.94	0.68
79:RA:18:GLY:HA3	79:RA:38:ARG:HB2	1.76	0.68
13:50:24:ARG:HB2	13:50:24:ARG:HH11	1.57	0.68
61:14:107:ARG:HG3	61:14:107:ARG:HH21	1.58	0.68
60:13:121:ARG:HH11	60:13:121:ARG:HB2	1.58	0.68
1:2S:609:G:O2'	7:L4:312:VAL:HG22	1.93	0.68
46:1S:682:C:O2'	46:1S:683:C:H5'	1.94	0.68
66:19:25:GLN:NE2	66:19:27:LYS:HD3	2.06	0.68
54:S7:168:SER:O	54:S7:172:VAL:HG23	1.94	0.68
6:L3:106:TRP:HB2	6:L3:133:TYR:CE2	2.29	0.68
1:2S:1927:G:C8	45:83:16:VAL:HG13	2.29	0.68
15:53:103:ASN:O	38:76:22:PRO:HD3	1.93	0.68
46:1S:705:U:H2'	46:1S:706:A:H8	1.59	0.68
23:61:111:ALA:O	23:61:115:LYS:HG3	1.93	0.68
15:53:112:ASN:O	15:53:116:LEU:HG	1.94	0.68
46:1S:860:U:H1'	54:S7:114:ARG:HG2	1.75	0.68
21:59:119:LEU:O	21:59:123:LEU:HG	1.95	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:1235:U:C4'	1:2S:1236:G:H5'	2.23	0.67
46:1S:1132:A:H2'	46:1S:1133:A:C8	2.28	0.67
8:L5:99:TYR:CE1	8:L5:165:GLY:HA2	2.29	0.67
1:2S:1877:U:H5''	1:2S:1878:G:O4'	1.93	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
32:70:41:LEU:HD13	32:70:42:ILE:N	2.08	0.67
6:L3:39:LYS:HA	6:L3:39:LYS:HE2	1.75	0.67
1:2S:3064:U:H2'	1:2S:3065:G:C8	2.29	0.67
7:L4:174:ALA:O	7:L4:178:LEU:HG	1.94	0.67
14:51:66:ALA:O	14:51:67:VAL:HG13	1.94	0.67
1:2S:53:G:H5''	39:77:47:TYR:HD1	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1366:A:H2'	1:2S:1367:G:O4'	1.94	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
32:70:25:LEU:HD23	32:70:90:VAL:HG13	1.77	0.67
62:15:33:PHE:CZ	62:15:112:LEU:HD13	2.29	0.67
51:S4:180:LEU:HG	51:S4:230:GLU:O	1.93	0.67
46:1S:1624:C:H2'	46:1S:1625:C:C6	2.29	0.67
1:2S:3109:G:H21	12:L9:156:GLN:HE22	1.41	0.67
46:1S:906:A:H2'	46:1S:907:A:C8	2.30	0.67
48:S1:115:ARG:HG3	48:S1:116:LYS:H	1.59	0.67
46:1S:1082:C:H2'	46:1S:1082:C:O2	1.93	0.67
16:54:113:THR:HB	16:54:116:GLU:HG3	1.74	0.67
17:55:18:VAL:HG13	17:55:19:LEU:HD12	1.74	0.67
47:S0:119:ARG:CB	47:S0:119:ARG:HH11	2.05	0.67
1:2S:1844:C:H2'	1:2S:1845:G:C5'	2.24	0.67
46:1S:435:C:H5''	70:23:50:LYS:HG3	1.77	0.67
1:2S:500:C:H2'	1:2S:501:A:C8	2.29	0.67
1:2S:2157:G:C8	5:L2:150:LEU:HD13	2.30	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
6:L3:88:GLY:O	6:L3:160:VAL:HG13	1.95	0.67
64:17:14:LYS:HG3	64:17:69:ILE:HG22	1.76	0.67
58:11:67:ARG:HD3	58:11:67:ARG:N	2.08	0.67
49:S2:111:VAL:O	49:S2:136:VAL:HA	1.95	0.67
46:1S:477:A:H2'	46:1S:478:A:H8	1.58	0.67
11:L8:72:PRO:HG2	11:L8:75:ILE:HG13	1.74	0.67
46:1S:1057:U:H1'	46:1S:1058:U:H2'	1.76	0.67
46:1S:912:U:H5'	46:1S:913:G:H2'	1.74	0.67
58:11:123:VAL:HG23	58:11:142:VAL:HA	1.75	0.67
13:50:59:GLN:HG2	13:50:128:ARG:HA	1.75	0.67
46:1S:538:A:N3	46:1S:542:A:N7	2.42	0.67
1:2S:834:U:H2'	1:2S:835:G:H5'	1.76	0.67
29:67:77:TYR:HA	29:67:80:LEU:HD12	1.75	0.67
10:L7:88:ARG:HG2	10:L7:110:ARG:O	1.95	0.67
1:2S:95:A:O5'	1:2S:95:A:H8	1.78	0.67
18:56:157:GLU:O	18:56:161:LYS:HG3	1.95	0.67
46:1S:108:A:H2'	46:1S:109:G:C8	2.29	0.67
1:2S:215:G:H5'	28:66:12:ARG:HA	1.76	0.67
1:2S:3025:C:H4'	12:L9:175:PHE:HE1	1.59	0.67
21:59:160:GLU:HG3	21:59:163:ARG:CZ	2.23	0.67
6:L3:239:PRO:HD2	6:L3:242:THR:CG2	2.23	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:80:GLY:HA2	7:L4:85:SER:OG	1.94	0.67
57:10:13:GLN:HA	57:10:80:LEU:HD11	1.75	0.67
31:69:35:VAL:HG12	31:69:36:ASP:N	2.08	0.67
1:2S:36:C:H4'	1:2S:808:A:N1	2.09	0.67
56:S9:179:ARG:HA	56:S9:182:GLU:CG	2.24	0.67
55:S8:104:ILE:O	55:S8:164:ARG:HG3	1.95	0.67
8:L5:222:LEU:O	8:L5:223:PHE:HB2	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
6:L3:89:VAL:HG23	6:L3:160:VAL:HG22	1.76	0.67
10:L7:123:THR:O	10:L7:127:LEU:HG	1.94	0.67
46:1S:1087:A:H5'	46:1S:1298:U:H5	1.60	0.67
7:L4:185:LYS:HA	7:L4:200:THR:O	1.94	0.67
1:2S:2743:A:H2'	1:2S:2744:U:C6	2.29	0.67
1:2S:296:A:H3'	1:2S:297:G:H21	1.60	0.67
57:10:11:ILE:HD12	57:10:42:VAL:HG22	1.76	0.67
52:S5:90:ILE:O	52:S5:94:THR:HG23	1.94	0.67
7:L4:302:ALA:HB2	20:58:39:ARG:HH12	1.59	0.67
46:1S:1112:G:H21	46:1S:1133:A:H62	1.41	0.67
1:2S:1354:G:H3'	1:2S:1355:A:H5''	1.77	0.67
46:1S:1327:C:H5''	50:S3:158:ILE:HG22	1.75	0.67
42:80:78:ILE:CG2	42:80:83:LYS:HD3	2.24	0.67
3:5S:38:U:H2'	3:5S:40:C:OP2	1.94	0.67
1:2S:1545:A:H2'	1:2S:1547:G:OP2	1.95	0.67
10:L7:42:ALA:HA	10:L7:45:LEU:HD12	1.77	0.67
17:55:152:CYS:HB2	37:75:92:LEU:HD11	1.76	0.67
10:L7:101:LYS:O	10:L7:105:LEU:HG	1.94	0.67
6:L3:222:LYS:HE3	6:L3:331:ASN:HB3	1.76	0.67
25:63:23:MET:CG	25:63:36:ILE:HD11	2.21	0.67
34:72:79:VAL:CG1	34:72:111:ARG:HG2	2.24	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
1:2S:2076:G:O2'	1:2S:2077:U:H5''	1.95	0.67
48:S1:33:LYS:HB2	48:S1:97:LEU:HD22	1.77	0.67
3:5S:60:G:H2'	3:5S:61:G:C8	2.29	0.67
29:67:50:PRO:HG3	29:67:131:PHE:HB3	1.75	0.67
53:S6:32:ILE:HG13	53:S6:100:ALA:O	1.94	0.67
4:L1:107:TYR:HA	4:L1:136:THR:HG22	1.76	0.67
1:2S:1150:A:H3'	1:2S:1151:U:C6	2.30	0.67
7:L4:52:VAL:HG22	7:L4:53:SER:N	2.10	0.67
1:2S:1284:C:H1'	1:2S:3116:G:O6	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:954:G:H2'	46:1S:955:A:H8	1.60	0.67
35:73:18:ARG:HB3	35:73:23:ASN:CB	2.25	0.67
46:1S:1543:A:H1'	46:1S:1569:A:N1	2.09	0.67
1:2S:778:U:H2'	1:2S:779:G:C8	2.29	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:454:U:H5'	51:S4:66:MET:CE	2.25	0.67
50:S3:136:VAL:HG12	50:S3:152:PHE:HD2	1.60	0.67
46:1S:869:A:H2'	46:1S:870:C:C6	2.29	0.67
1:2S:1305:U:C5	6:L3:256:HIS:HB3	2.29	0.67
15:53:50:PRO:HA	15:53:138:VAL:O	1.94	0.67
32:70:48:THR:OG1	32:70:49:PRO:HD2	1.95	0.67
48:S1:180:THR:HG22	48:S1:181:LEU:H	1.60	0.67
36:74:80:ARG:HB2	36:74:85:VAL:HG23	1.76	0.67
15:53:169:THR:HA	15:53:172:LEU:HD12	1.76	0.67
1:2S:2407:C:H2'	1:2S:2408:U:C6	2.30	0.67
1:2S:3389:U:H5'	1:2S:3389:U:H6	1.59	0.67
30:68:88:ASP:HA	30:68:91:LEU:HB2	1.75	0.67
1:2S:2949:U:O2'	1:2S:2950:G:H5'	1.94	0.67
46:1S:332:U:H5''	55:S8:31:ARG:HG3	1.76	0.67
1:2S:1252:A:C2'	1:2S:1253:U:H5'	2.19	0.67
27:65:67:ILE:HB	27:65:83:VAL:HB	1.77	0.67
75:28:30:VAL:CG2	75:28:40:ILE:HB	2.25	0.67
19:57:67:ILE:CG2	19:57:68:GLY:N	2.57	0.67
1:2S:441:U:H5'	1:2S:442:G:N7	2.10	0.67
74:27:64:CYS:HA	74:27:74:SER:HB2	1.75	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
79:RA:150:TRP:HB2	79:RA:174:ASN:HD22	1.58	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
25:63:128:ARG:HH11	25:63:128:ARG:HG3	1.60	0.66
25:63:38:ALA:O	25:63:58:VAL:HB	1.95	0.66
34:72:105:ARG:O	34:72:109:LEU:HG	1.95	0.66
5:L2:129:ALA:H	5:L2:169:ILE:HD12	1.60	0.66
48:S1:205:PHE:HB3	48:S1:207:LEU:HD13	1.77	0.66
46:1S:803:A:H4'	46:1S:804:A:H8	1.59	0.66
53:S6:76:LEU:HD12	53:S6:94:ARG:CZ	2.25	0.66
22:60:35:VAL:HG13	22:60:38:LYS:HE2	1.76	0.66
33:71:17:HIS:HB2	33:71:69:TYR:HB3	1.77	0.66
61:14:29:HIS:HB2	61:14:41:ARG:HA	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L9:102:ASN:HB2	12:L9:113:GLU:HB3	1.76	0.66
47:S0:62:ARG:O	47:S0:66:ALA:HB2	1.95	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
1:2S:3067:C:H3'	21:59:62:ARG:NH1	2.10	0.66
51:S4:34:GLY:HA3	51:S4:83:PRO:HG2	1.77	0.66
1:2S:185:C:H5''	28:66:122:LYS:HG2	1.75	0.66
79:RA:161:LYS:HA	79:RA:161:LYS:HE3	1.77	0.66
20:58:18:ALA:HB1	20:58:19:PRO:HD2	1.76	0.66
29:67:25:ILE:HG22	29:67:28:PRO:HD3	1.77	0.66
1:2S:1287:A:C2	1:2S:1288:U:H1'	2.30	0.66
46:1S:1609:U:H2'	46:1S:1610:G:H5'	1.76	0.66
10:L7:131:GLU:HB2	10:L7:132:PRO:HD3	1.76	0.66
1:2S:1445:U:H2'	1:2S:1446:A:C8	2.30	0.66
75:28:25:VAL:HG11	75:28:66:LEU:HD12	1.77	0.66
46:1S:1545:A:H4'	65:18:127:HIS:HE1	1.60	0.66
46:1S:1685:G:H2'	46:1S:1686:C:H5''	1.78	0.66
46:1S:320:U:O2'	46:1S:321:C:H5''	1.95	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
18:56:46:GLU:CG	18:56:49:ARG:H	2.08	0.66
1:2S:998:A:H2'	1:2S:999:G:H8	1.58	0.66
46:1S:600:U:OP2	70:23:108:GLY:HA2	1.94	0.66
1:2S:1659:U:H2'	1:2S:1660:C:C6	2.31	0.66
46:1S:1010:C:H2'	46:1S:1011:G:O4'	1.95	0.66
15:53:103:ASN:HB3	38:76:20:MET:SD	2.34	0.66
46:1S:639:U:H5''	54:S7:101:LYS:HD2	1.77	0.66
60:13:39:LYS:HA	60:13:39:LYS:HE2	1.76	0.66
61:14:24:ASN:O	61:14:54:GLU:HB2	1.95	0.66
53:S6:58:LYS:HG2	53:S6:105:ASP:O	1.95	0.66
12:L9:79:ILE:O	12:L9:82:VAL:HG12	1.95	0.66
32:70:53:LYS:O	32:70:57:GLU:HG3	1.96	0.66
49:S2:38:VAL:HG22	49:S2:39:THR:N	2.05	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
27:65:126:LEU:CD1	27:65:132:ALA:HB2	2.25	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
2:8S:88:A:H2'	2:8S:89:A:O4'	1.95	0.66
15:53:105:ASN:HB3	15:53:108:ILE:HG12	1.77	0.66
13:50:49:CYS:HB2	13:50:172:GLY:HA2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
23:61:39:ILE:HD12	23:61:102:ARG:HH11	1.59	0.66
1:2S:3317:U:H4'	1:2S:3318:G:H5'	1.78	0.66
30:68:75:LEU:HG	30:68:114:GLY:HA2	1.78	0.66
51:S4:126:VAL:HA	51:S4:141:THR:HA	1.77	0.66
69:22:80:ASN:HD22	69:22:124:LYS:HG2	1.61	0.66
46:1S:421:A:C2'	46:1S:422:G:H5'	2.26	0.66
25:63:19:VAL:CG1	25:63:37:ILE:HA	2.23	0.66
46:1S:1058:U:H5	46:1S:1061:A:C6	2.13	0.66
14:51:23:VAL:HG12	14:51:24:GLY:N	2.11	0.66
1:2S:2102:U:H5'	21:59:88:ARG:HH21	1.61	0.66
69:22:102:VAL:HG13	69:22:128:PHE:HB3	1.77	0.66
19:57:48:LEU:HD13	19:57:92:GLN:HB3	1.77	0.66
3:5S:97:A:H2'	3:5S:98:C:C6	2.31	0.66
2:8S:70:G:H1'	2:8S:88:A:N6	2.11	0.66
10:L7:140:SER:O	10:L7:144:ILE:HG13	1.96	0.66
19:57:4:TYR:OH	19:57:18:ARG:HG3	1.95	0.66
15:53:171:ARG:HH21	15:53:174:ARG:HG2	1.59	0.66
48:S1:203:ASP:O	48:S1:204:ILE:HD13	1.95	0.66
1:2S:1581:C:H2'	1:2S:1582:C:H5'	1.77	0.66
1:2S:683:U:H2'	1:2S:684:G:H5'	1.78	0.66
69:22:29:PRO:HB2	69:22:58:SER:CB	2.25	0.66
1:2S:2895:G:H2'	1:2S:2896:A:H5''	1.78	0.66
1:2S:2666:C:H1'	1:2S:2691:A:H2	1.57	0.66
1:2S:2611:U:H2'	1:2S:2612:U:C6	2.31	0.66
22:60:35:VAL:HG13	22:60:38:LYS:CE	2.25	0.66
1:2S:2280:A:N7	1:2S:2282:U:H2'	2.10	0.66
73:26:37:LYS:HA	73:26:71:LEU:O	1.95	0.66
50:S3:136:VAL:HB	50:S3:152:PHE:HB2	1.77	0.66
25:63:80:ARG:HD3	25:63:117:PRO:HG2	1.76	0.66
8:L5:243:ALA:O	8:L5:247:ILE:HG13	1.95	0.66
46:1S:1073:G:H2'	46:1S:1074:G:H5''	1.76	0.66
46:1S:1059:U:H2'	46:1S:1059:U:O2	1.96	0.66
1:2S:1221:A:H3'	1:2S:1222:G:C5'	2.25	0.66
11:L8:135:GLY:O	11:L8:139:VAL:HG23	1.96	0.66
46:1S:1604:U:H5''	63:16:129:PHE:HB3	1.78	0.66
4:L1:79:SER:HB2	4:L1:141:ASN:ND2	2.09	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

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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
2:8S:93:U:H2'	2:8S:94:C:O4'	1.96	0.66
66:19:100:ILE:O	66:19:104:VAL:HG23	1.96	0.66
1:2S:1171:G:H2'	1:2S:1172:G:O4'	1.95	0.66
6:L3:111:SER:O	6:L3:114:VAL:HG23	1.96	0.66
78:31:113:LYS:H	78:31:113:LYS:HD2	1.61	0.66
1:2S:2493:U:H5''	4:L1:162:VAL:CG1	2.26	0.66
46:1S:1119:G:H2'	46:1S:1120:U:C6	2.31	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
50:S3:11:LEU:HD13	67:20:29:THR:CG2	2.26	0.66
67:20:50:LEU:CD2	67:20:95:ALA:HB2	2.26	0.66
46:1S:1521:G:H2'	46:1S:1523:G:N2	2.10	0.66
1:2S:2917:G:H2'	1:2S:2918:G:H5''	1.76	0.66
1:2S:871:U:H2'	1:2S:872:U:C6	2.30	0.66
71:24:2:SER:OG	71:24:32:ARG:HG2	1.96	0.66
56:S9:92:LYS:O	56:S9:93:LEU:HB3	1.94	0.66
46:1S:1348:A:H61	46:1S:1377:U:H3	1.43	0.66
46:1S:477:A:H5'	77:30:34:ALA:CB	2.26	0.66
7:L4:77:VAL:HB	7:L4:86:GLY:N	2.08	0.66
46:1S:1482:C:H1'	63:16:73:GLY:HA2	1.77	0.66
1:2S:2666:C:H1'	1:2S:2691:A:N3	2.09	0.66
51:S4:95:THR:HG23	71:24:17:LEU:HD23	1.78	0.66
1:2S:2189:U:H4'	45:83:22:LEU:CD1	2.25	0.66
48:S1:207:LEU:HB3	48:S1:210:ILE:HD11	1.77	0.66
46:1S:102:U:H3'	46:1S:360:A:N6	2.09	0.66
1:2S:2356:A:N6	1:2S:2983:C:H41	1.94	0.66
27:65:58:ASP:O	27:65:62:VAL:HG23	1.96	0.66
9:L6:31:ARG:HG2	9:L6:34:LEU:HG	1.78	0.66
46:1S:794:U:H2'	46:1S:794:U:O2	1.95	0.66
52:S5:156:ARG:HH11	52:S5:156:ARG:HB2	1.61	0.66
3:5S:16:U:H2'	3:5S:17:A:C8	2.31	0.66
1:2S:2419:A:H2'	1:2S:2420:C:C6	2.30	0.66
70:23:27:ASN:O	70:23:31:LYS:HG2	1.95	0.66
15:53:50:PRO:HB3	15:53:138:VAL:HB	1.77	0.66
14:51:94:ARG:O	14:51:95:ASN:HB2	1.96	0.66
17:55:35:VAL:HG22	17:55:65:ARG:NH2	2.06	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
46:1S:567:A:H1'	77:30:14:VAL:CG2	2.25	0.66
46:1S:165:G:H3'	46:1S:166:C:H5''	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:16:93:HIS:HA	63:16:97:VAL:HB	1.77	0.66
2:8S:69:U:C2'	2:8S:70:G:H5'	2.25	0.66
1:2S:1398:U:H5''	2:8S:9:A:H5''	1.78	0.66
1:2S:3322:A:H2'	1:2S:3323:A:C8	2.31	0.66
48:S1:151:LYS:HD2	48:S1:153:HIS:CE1	2.31	0.66
73:26:73:TYR:HB3	73:26:77:CYS:HB2	1.78	0.66
34:72:21:HIS:ND1	34:72:24:ARG:HD2	2.11	0.65
56:S9:59:LEU:HD22	56:S9:69:ARG:HA	1.78	0.65
38:76:57:LEU:O	38:76:61:ILE:HG13	1.96	0.65
1:2S:879:U:H2'	19:57:131:ARG:NH2	2.11	0.65
11:L8:146:LYS:HG2	11:L8:173:MET:HB3	1.78	0.65
46:1S:1162:C:H4'	75:28:22:ARG:HD2	1.77	0.65
8:L5:30:TYR:O	8:L5:34:LYS:HB2	1.95	0.65
1:2S:2647:A:H3'	1:2S:2648:G:H5''	1.78	0.65
30:68:105:LEU:HD13	30:68:148:ILE:HD11	1.78	0.65
13:50:213:PHE:N	13:50:214:PRO:HD3	2.10	0.65
1:2S:1721:U:C6	21:59:103:ARG:NH2	2.64	0.65
23:61:74:VAL:HG21	23:61:91:LEU:HD12	1.78	0.65
1:2S:1033:U:H2'	1:2S:1034:U:C6	2.30	0.65
13:50:52:LEU:CD2	13:50:135:ILE:HD12	2.11	0.65
35:73:6:ARG:HG3	35:73:8:TYR:CD1	2.31	0.65
50:S3:219:ALA:HB1	50:S3:220:PRO:HD2	1.79	0.65
19:57:108:ASP:HB3	19:57:111:LYS:HE2	1.78	0.65
46:1S:1470:C:H3'	46:1S:1573:A:H62	1.61	0.65
45:83:84:ARG:HD2	45:83:87:ARG:NH2	2.11	0.65
35:73:15:SER:HA	35:73:94:PHE:CE1	2.31	0.65
46:1S:1552:U:H2'	46:1S:1553:G:O4'	1.96	0.65
52:S5:140:THR:HG22	52:S5:211:ILE:HD13	1.78	0.65
56:S9:126:ARG:O	56:S9:130:THR:HG22	1.96	0.65
1:2S:828:A:H2'	1:2S:829:U:C6	2.32	0.65
60:13:71:ILE:HD12	60:13:71:ILE:N	2.10	0.65
46:1S:1458:G:N3	46:1S:1458:G:H2'	2.10	0.65
52:S5:187:ILE:CD1	52:S5:187:ILE:H	2.07	0.65
56:S9:129:ILE:O	56:S9:142:ASN:HA	1.95	0.65
1:2S:1717:U:H2'	1:2S:1718:G:C8	2.30	0.65
46:1S:780:A:H8	71:24:8:ARG:HB3	1.60	0.65
1:2S:960:U:H4'	1:2S:963:G:N1	2.11	0.65
5:L2:39:GLY:O	5:L2:91:GLY:HA3	1.97	0.65
47:S0:189:VAL:HG22	47:S0:190:ASP:H	1.61	0.65
53:S6:10:ASN:ND2	53:S6:128:THR:HB	2.10	0.65
67:20:53:LYS:HB2	67:20:92:ASP:HB2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1459:C:H5''	65:18:138:THR:OG1	1.97	0.65
1:2S:48:A:O3'	1:2S:49:A:H4'	1.97	0.65
1:2S:3132:C:H2'	1:2S:3133:C:O4'	1.96	0.65
1:2S:1624:G:H2'	1:2S:1625:A:H8	1.62	0.65
5:L2:247:ARG:HG2	5:L2:247:ARG:HH11	1.61	0.65
55:S8:172:ARG:HD3	55:S8:175:GLN:HG3	1.77	0.65
60:13:33:VAL:O	60:13:37:ILE:HG13	1.96	0.65
1:2S:673:U:H2'	1:2S:674:G:C8	2.31	0.65
1:2S:2197:C:N4	1:2S:2241:U:H2'	2.10	0.65
1:2S:300:G:H2'	1:2S:301:G:C8	2.31	0.65
34:72:19:ARG:HG2	34:72:20:HIS:H	1.62	0.65
53:S6:79:LYS:HE3	53:S6:90:GLY:HA2	1.77	0.65
1:2S:808:A:H2'	1:2S:809:G:C5'	2.26	0.65
34:72:82:LEU:O	34:72:82:LEU:HD22	1.95	0.65
9:L6:4:GLN:HB2	34:72:75:LEU:CB	2.26	0.65
75:28:30:VAL:HG23	75:28:40:ILE:HB	1.79	0.65
58:11:99:ARG:HB2	70:23:12:ALA:HB2	1.77	0.65
10:L7:121:LYS:HB3	23:61:133:ALA:HB3	1.79	0.65
51:S4:196:VAL:HB	51:S4:209:HIS:HB3	1.77	0.65
1:2S:74:G:H2'	1:2S:75:G:C8	2.31	0.65
1:2S:2604:U:H2'	1:2S:2605:G:C8	2.31	0.65
7:L4:286:VAL:O	7:L4:290:ILE:HG13	1.97	0.65
4:L1:20:SER:HB3	4:L1:177:ASP:HB3	1.79	0.65
30:68:28:HIS:CD2	30:68:32:ARG:HG2	2.32	0.65
1:2S:2179:C:H2'	5:L2:132:ASN:HD21	1.61	0.65
48:S1:37:THR:HG23	48:S1:231:LEU:CD2	2.27	0.65
1:2S:425:G:H2'	1:2S:426:G:H8	1.62	0.65
13:50:38:LYS:HD3	13:50:41:ALA:HB2	1.77	0.65
11:L8:82:LEU:HD21	11:L8:86:THR:CG2	2.27	0.65
1:2S:1340:G:H2'	1:2S:1341:U:C6	2.31	0.65
3:5S:88:G:H2'	3:5S:89:G:O4'	1.97	0.65
15:53:46:ILE:HG22	15:53:49:ARG:HD2	1.79	0.65
12:L9:176:LEU:HD23	42:80:90:ASN:OD1	1.97	0.65
34:72:4:LEU:HD12	34:72:5:PRO:HD2	1.77	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
64:17:5:ARG:O	64:17:10:LYS:HE2	1.97	0.65
1:2S:409:A:H3'	1:2S:410:U:C6	2.31	0.65
71:24:42:GLU:HB2	71:24:52:LYS:HD3	1.78	0.65
58:11:54:ILE:HD12	58:11:54:ILE:N	2.11	0.65
73:26:44:ILE:HG22	73:26:67:THR:HG23	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:812:A:H5'	46:1S:858:G:H22	1.61	0.65
46:1S:555:A:H4'	46:1S:556:A:OP1	1.97	0.65
71:24:99:LYS:HE3	71:24:99:LYS:HA	1.79	0.65
46:1S:43:A:H4'	46:1S:99:C:OP1	1.96	0.65
71:24:21:LYS:HB2	71:24:75:VAL:HG13	1.79	0.65
17:55:21:PHE:O	17:55:25:VAL:HG23	1.97	0.65
49:S2:126:ARG:O	49:S2:130:ILE:HD13	1.97	0.65
75:28:32:PHE:CE2	75:28:38:ARG:HB3	2.32	0.65
22:60:9:VAL:HB	22:60:41:TYR:CD2	2.32	0.65
46:1S:556:A:H5'	77:30:56:MET:SD	2.37	0.65
46:1S:798:C:H2'	46:1S:799:A:H8	1.62	0.65
60:13:102:LEU:HD23	60:13:105:ASN:O	1.97	0.65
22:60:110:MET:HE3	22:60:121:ILE:HG12	1.79	0.65
19:57:141:SER:O	19:57:143:PRO:HD3	1.96	0.65
53:S6:118:GLU:HG3	53:S6:119:GLN:H	1.62	0.65
7:L4:181:VAL:O	7:L4:182:LEU:HB3	1.97	0.65
67:20:48:HIS:CE1	67:20:50:LEU:HD11	2.32	0.65
2:8S:101:U:H2'	2:8S:102:U:H4'	1.78	0.65
16:54:13:ARG:HD3	16:54:65:LEU:HB3	1.78	0.65
1:2S:2941:A:OP2	1:2S:2941:A:H8	1.80	0.65
51:S4:242:LYS:N	51:S4:242:LYS:HD2	2.12	0.65
44:82:22:GLN:O	44:82:75:VAL:HG22	1.96	0.65
57:10:27:PHE:O	57:10:28:ASN:HB2	1.95	0.65
1:2S:3231:U:H3	1:2S:3256:G:H1	1.44	0.65
46:1S:959:U:H5'	60:13:15:ALA:O	1.96	0.65
50:S3:76:ARG:HD3	50:S3:76:ARG:O	1.97	0.65
8:L5:55:PHE:CE2	8:L5:159:VAL:HG22	2.21	0.65
18:56:76:PRO:HB3	18:56:138:LEU:CD2	2.26	0.65
11:L8:136:LEU:O	11:L8:140:VAL:HG23	1.97	0.65
1:2S:1238:C:H2'	1:2S:1239:C:C4'	2.27	0.65
9:L6:51:ARG:HH11	9:L6:51:ARG:HG2	1.62	0.65
1:2S:52:A:H5''	39:77:48:ASN:CB	2.26	0.65
12:L9:49:ASN:HD21	12:L9:52:LEU:HB3	1.60	0.65
54:S7:31:SER:O	54:S7:35:LYS:HB3	1.96	0.65
1:2S:2481:G:H2'	1:2S:2482:U:C5	2.32	0.65
16:54:124:ARG:HB3	16:54:124:ARG:NH1	2.12	0.65
4:L1:44:GLN:H	4:L1:161:LYS:CB	2.09	0.65
61:14:91:THR:C	61:14:92:LYS:HG2	2.17	0.65
1:2S:122:A:N6	1:2S:148:G:H1'	2.11	0.65
46:1S:1715:G:C2'	46:1S:1716:C:H5''	2.27	0.65
1:2S:2922:G:H2'	1:2S:2923:U:H4'	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:68:74:ASN:ND2	30:68:115:LYS:HB2	2.12	0.65
1:2S:846:A:H61	46:1S:972:G:N2	1.95	0.65
1:2S:157:A:H2'	1:2S:158:G:O4'	1.97	0.65
8:L5:131:LEU:HD12	8:L5:175:HIS:CE1	2.31	0.65
46:1S:926:A:H2'	46:1S:927:C:C6	2.32	0.65
54:S7:133:THR:HG22	54:S7:159:VAL:HG12	1.79	0.65
49:S2:67:GLN:O	49:S2:71:THR:HG23	1.97	0.65
35:73:39:GLN:HA	35:73:42:GLN:HG2	1.78	0.65
2:8S:135:G:H5''	27:65:49:LYS:HD2	1.77	0.65
11:L8:158:ASP:HB3	11:L8:159:PRO:CD	2.16	0.64
1:2S:1348:U:OP2	20:58:38:ARG:NH2	2.29	0.64
5:L2:133:TYR:HB3	5:L2:168:VAL:HG12	1.77	0.64
1:2S:1064:A:N6	1:2S:1096:U:H3	1.90	0.64
48:S1:214:LYS:HG2	48:S1:215:VAL:N	2.11	0.64
69:22:28:ARG:HD3	69:22:60:LYS:HE2	1.79	0.64
10:L7:178:ILE:HG21	10:L7:184:LEU:CD2	2.27	0.64
11:L8:238:LEU:HD22	11:L8:238:LEU:H	1.61	0.64
1:2S:1979:G:H22	1:2S:2040:U:H3	1.44	0.64
46:1S:1071:U:H2'	46:1S:1072:C:C6	2.32	0.64
46:1S:162:A:H3'	46:1S:163:G:H21	1.62	0.64
46:1S:20:G:H2'	46:1S:21:U:H6	1.62	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:875:G:OP1	48:S1:158:SER:HB2	1.97	0.64
60:13:42:ARG:HE	60:13:80:LEU:HD11	1.62	0.64
1:2S:121:A:C2	11:L8:129:PRO:HB3	2.32	0.64
52:S5:219:ARG:HD3	52:S5:220:VAL:HG23	1.79	0.64
1:2S:2513:U:H4'	1:2S:2514:U:OP1	1.97	0.64
36:74:99:LYS:O	36:74:103:LYS:HG2	1.98	0.64
13:50:98:ARG:HH11	13:50:98:ARG:HG3	1.63	0.64
4:L1:54:LYS:HB2	4:L1:191:VAL:HG11	1.80	0.64
46:1S:1166:A:H2'	46:1S:1167:G:H4'	1.79	0.64
39:77:85:LYS:HG2	39:77:86:ALA:N	2.13	0.64
1:2S:1537:A:H2'	1:2S:1538:G:O4'	1.97	0.64
8:L5:50:ARG:HB3	8:L5:147:ASP:OD2	1.97	0.64
46:1S:878:G:H2'	46:1S:879:G:C8	2.32	0.64
8:L5:95:TRP:NE1	8:L5:157:ALA:O	2.30	0.64
7:L4:165:ALA:O	7:L4:169:LEU:HG	1.97	0.64
69:22:103:ILE:HD13	69:22:104:LEU:H	1.63	0.64
46:1S:94:U:H2'	46:1S:95:G:H5'	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:46:PHE:CE2	6:L3:205:VAL:HG22	2.32	0.64
1:2S:868:C:C2'	1:2S:869:G:H5'	2.27	0.64
31:69:44:LYS:O	31:69:48:HIS:HB2	1.98	0.64
48:S1:88:VAL:HG13	48:S1:97:LEU:O	1.97	0.64
54:S7:130:VAL:HG23	54:S7:130:VAL:O	1.97	0.64
48:S1:30:PHE:HD1	48:S1:31:ASP:H	1.46	0.64
52:S5:96:SER:HB2	52:S5:176:THR:HG21	1.78	0.64
57:10:15:LEU:HG	57:10:68:LEU:HD22	1.80	0.64
17:55:122:ASN:HB2	17:55:129:TYR:CG	2.33	0.64
52:S5:36:ALA:CB	52:S5:45:LYS:HE2	2.25	0.64
1:2S:3008:A:H2'	1:2S:3009:G:C8	2.33	0.64
20:58:170:ARG:O	20:58:171:LYS:HB3	1.97	0.64
15:53:124:ILE:HD13	15:53:124:ILE:N	2.13	0.64
46:1S:927:C:H1'	61:14:125:SER:HB2	1.80	0.64
22:60:4:PHE:HB3	22:60:100:VAL:CG2	2.28	0.64
34:72:24:ARG:HG2	34:72:25:TYR:CE1	2.33	0.64
46:1S:1230:A:HO2'	46:1S:1258:U:H5	1.46	0.64
1:2S:2857:C:H2'	1:2S:2858:U:C6	2.32	0.64
46:1S:211:U:H5''	58:11:20:PHE:HB2	1.80	0.64
37:75:33:VAL:O	37:75:36:LEU:HG	1.98	0.64
56:S9:121:SER:HB3	56:S9:124:HIS:HB3	1.80	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
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
48:S1:164:ILE:O	48:S1:168:ILE:HG13	1.97	0.64
50:S3:92:GLN:HE21	50:S3:92:GLN:H	1.44	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
71:24:19:ALA:O	71:24:76:TYR:HA	1.97	0.64
14:51:81:GLU:O	14:51:85:LYS:HE2	1.97	0.64
65:18:28:ILE:O	65:18:32:LEU:HG	1.98	0.64
28:66:70:ILE:HD12	28:66:70:ILE:H	1.61	0.64
46:1S:1544:U:H3	46:1S:1567:U:H3	1.44	0.64
29:67:22:LYS:CE	29:67:134:LEU:HD23	2.27	0.64
23:61:63:VAL:HB	23:61:75:ILE:HG22	1.80	0.64
1:2S:1668:G:H2'	1:2S:1669:C:C6	2.33	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
48:S1:176:VAL:HG12	48:S1:177:GLN:N	2.12	0.64
48:S1:103:MET:HB3	48:S1:215:VAL:CG1	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:14:86:THR:CG2	61:14:90:ARG:HG3	2.27	0.64
21:59:6:THR:HG22	21:59:10:LEU:HD13	1.80	0.64
59:12:86:VAL:N	59:12:87:PRO:CD	2.60	0.64
1:2S:437:G:H1	1:2S:622:A:H61	1.45	0.64
25:63:79:VAL:HG22	25:63:99:ALA:O	1.98	0.64
61:14:81:VAL:O	61:14:115:ILE:HB	1.98	0.64
1:2S:700:C:H2'	1:2S:701:G:H8	1.62	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
53:S6:51:LYS:HB3	53:S6:112:VAL:HB	1.80	0.64
1:2S:2129:U:H2'	1:2S:2130:G:H8	1.63	0.64
34:72:73:THR:CA	34:72:93:ALA:HB3	2.20	0.64
4:L1:192:SER:HB2	4:L1:196:LYS:NZ	2.13	0.64
1:2S:720:A:H2'	20:58:69:ARG:HH22	1.63	0.64
46:1S:1059:U:O2'	46:1S:1061:A:H2	1.80	0.64
5:L2:117:GLU:HA	5:L2:125:ALA:CB	2.27	0.64
48:S1:135:LEU:HD13	48:S1:137:ILE:HG23	1.80	0.64
27:65:135:ILE:O	27:65:135:ILE:HD13	1.97	0.64
1:2S:692:A:H2'	1:2S:693:A:O4'	1.96	0.64
1:2S:1369:A:H4'	30:68:21:ARG:HD2	1.80	0.64
19:57:120:ASN:ND2	19:57:145:HIS:HB2	2.13	0.64
46:1S:1382:A:HO2'	46:1S:1383:G:H8	1.45	0.64
1:2S:3067:C:H5''	21:59:58:HIS:NE2	2.13	0.64
18:56:117:ARG:HD3	18:56:117:ARG:H	1.62	0.64
59:12:97:LEU:HD13	59:12:97:LEU:O	1.97	0.64
7:L4:214:GLY:HA2	7:L4:217:LYS:HE3	1.80	0.64
20:58:157:PRO:HD3	30:68:47:LYS:HE3	1.79	0.64
11:L8:63:LYS:HA	11:L8:63:LYS:NZ	2.13	0.64
1:2S:1212:A:H2'	1:2S:1213:G:O4'	1.97	0.64
1:2S:2251:G:H2'	1:2S:2252:A:C5'	2.22	0.64
69:22:29:PRO:HB2	69:22:58:SER:HB2	1.80	0.64
7:L4:52:VAL:HG13	7:L4:53:SER:N	2.13	0.64
1:2S:577:C:O2'	1:2S:579:G:H5''	1.97	0.64
7:L4:181:VAL:HG12	7:L4:182:LEU:H	1.62	0.64
6:L3:5:LYS:HE2	6:L3:6:TYR:HE1	1.63	0.64
70:23:116:ASP:O	70:23:118:PRO:HD3	1.97	0.64
5:L2:196:TRP:CD1	5:L2:197:PRO:HA	2.32	0.64
56:S9:93:LEU:O	56:S9:96:VAL:HG22	1.97	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
11:L8:166:LEU:HB2	11:L8:167:PRO:HD3	1.79	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
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
1:2S:2882:U:H2'	1:2S:2883:U:H6	1.60	0.64
12:L9:129:ARG:HH21	12:L9:156:GLN:HG2	1.62	0.64
1:2S:2076:G:H2'	1:2S:2077:U:H5''	1.78	0.64
45:83:42:CYS:HB3	45:83:60:CYS:HB2	1.80	0.64
24:62:50:LEU:HD22	24:62:54:VAL:CG2	2.27	0.64
46:1S:351:C:N3	58:11:102:LYS:HD2	2.13	0.64
7:L4:361:HIS:CD2	7:L4:362:ASP:H	2.16	0.64
46:1S:177:U:O2'	46:1S:178:U:H5''	1.98	0.64
60:13:25:TRP:HH2	74:27:45:THR:HG21	1.63	0.64
1:2S:1859:A:H8	1:2S:1859:A:O5'	1.80	0.64
79:RA:193:ILE:HG22	79:RA:194:GLY:H	1.63	0.64
9:L6:78:ARG:NH2	9:L6:106:PHE:HB2	2.09	0.63
46:1S:476:U:H2'	77:30:31:LYS:HG3	1.78	0.63
35:73:6:ARG:HG3	35:73:8:TYR:CE1	2.33	0.63
46:1S:71:A:H2'	46:1S:72:A:C4'	2.26	0.63
58:11:133:LYS:HZ2	58:11:134:THR:HG23	1.62	0.63
21:59:6:THR:HG22	21:59:10:LEU:CD1	2.28	0.63
46:1S:1646:C:H42	46:1S:1754:A:H61	1.45	0.63
6:L3:48:GLY:O	6:L3:335:ILE:HG13	1.98	0.63
20:58:92:ARG:HD3	30:68:76:ASP:OD2	1.97	0.63
36:74:74:ARG:NH1	36:74:85:VAL:HG11	2.13	0.63
28:66:3:LYS:HZ1	28:66:6:LEU:HD23	1.63	0.63
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
17:55:5:LYS:NZ	38:76:37:THR:HG22	2.14	0.63
8:L5:64:ILE:HD11	8:L5:105:ILE:HG23	1.80	0.63
71:24:102:LYS:H	71:24:102:LYS:HD2	1.63	0.63
46:1S:1477:G:H5''	66:19:45:MET:O	1.98	0.63
6:L3:261:MET:HB3	18:56:64:PHE:CA	2.25	0.63
23:61:48:ILE:HG21	23:61:95:HIS:CE1	2.33	0.63
46:1S:1097:U:H1'	49:S2:168:ARG:NH1	2.13	0.63
1:2S:3128:G:H8	1:2S:3128:G:OP2	1.80	0.63
28:66:106:ILE:HG21	28:66:109:LEU:HD21	1.80	0.63
1:2S:2144:A:H1'	1:2S:2281:A:N6	2.14	0.63
14:51:133:ARG:NH1	14:51:154:THR:HG23	2.12	0.63
53:S6:57:ASP:HA	53:S6:106:LEU:HA	1.80	0.63
6:L3:106:TRP:O	6:L3:199:PHE:HE2	1.81	0.63
46:1S:165:G:C2'	46:1S:166:C:H5''	2.27	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:5S:60:G:H2'	3:5S:61:G:H8	1.63	0.63
11:L8:65:LEU:HD13	11:L8:69:LEU:HD13	1.78	0.63
46:1S:247:A:H4'	58:11:37:ASN:HD21	1.62	0.63
1:2S:1892:G:H2'	1:2S:1893:A:H5''	1.81	0.63
1:2S:355:A:H2'	1:2S:356:C:O4'	1.98	0.63
47:S0:158:VAL:O	47:S0:158:VAL:HG13	1.97	0.63
62:15:58:LYS:NZ	62:15:58:LYS:HB3	2.13	0.63
46:1S:215:A:H62	46:1S:242:U:H5''	1.63	0.63
1:2S:1390:A:H5'	1:2S:1390:A:N3	2.13	0.63
46:1S:401:A:O2'	46:1S:402:C:H4'	1.97	0.63
73:26:82:ARG:O	73:26:84:VAL:HG12	1.99	0.63
64:17:6:THR:CG2	64:17:9:VAL:HG23	2.22	0.63
46:1S:487:G:H1	46:1S:500:C:H42	1.44	0.63
1:2S:2189:U:C5'	45:83:22:LEU:HD11	2.28	0.63
67:20:51:VAL:HG11	67:20:94:GLU:HB2	1.80	0.63
76:29:36:LEU:HD12	76:29:37:ASN:N	2.13	0.63
1:2S:1363:A:H2	20:58:10:HIS:HE2	1.46	0.63
1:2S:1426:C:H3'	30:68:4:ARG:NH2	2.12	0.63
74:27:34:ASP:O	74:27:79:PHE:HA	1.98	0.63
40:78:45:VAL:CG2	40:78:52:TYR:HB2	2.27	0.63
62:15:126:VAL:HG13	62:15:127:ARG:N	2.14	0.63
6:L3:116:ARG:NH2	6:L3:174:LYS:HB3	2.13	0.63
51:S4:37:LYS:O	51:S4:40:GLU:HG2	1.98	0.63
48:S1:111:ARG:HA	48:S1:114:VAL:HB	1.79	0.63
1:2S:1393:A:H2'	1:2S:1394:A:H8	1.63	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
26:64:39:LEU:CD1	26:64:44:LYS:HG3	2.27	0.63
70:23:127:VAL:HG23	70:23:130:VAL:CG2	2.27	0.63
42:80:79:GLU:HG2	42:80:82:LEU:CD1	2.28	0.63
6:L3:81:THR:CG2	6:L3:205:VAL:HG21	2.27	0.63
46:1S:103:A:HO2'	46:1S:104:A:P	2.20	0.63
22:60:166:LYS:HG2	22:60:167:ARG:N	2.12	0.63
7:L4:60:THR:HG21	7:L4:89:ALA:HB1	1.81	0.63
18:56:117:ARG:N	18:56:117:ARG:HD3	2.13	0.63
5:L2:185:ALA:O	5:L2:189:TYR:HD1	1.82	0.63
68:21:17:CYS:HB3	68:21:22:ARG:H	1.63	0.63
1:2S:3331:U:H2'	1:2S:3332:U:C6	2.34	0.63
46:1S:1186:U:H2'	46:1S:1187:U:O4'	1.99	0.63
5:L2:202:VAL:HG23	5:L2:211:HIS:HB3	1.78	0.63
4:L1:105:LYS:NZ	4:L1:105:LYS:HB2	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:51:138:VAL:O	14:51:145:LYS:HG3	1.99	0.63
46:1S:501:U:H2'	46:1S:502:U:H6	1.63	0.63
18:56:124:LEU:HD23	18:56:127:LEU:HG	1.80	0.63
48:S1:129:THR:HA	48:S1:177:GLN:HA	1.80	0.63
1:2S:374:A:H1'	1:2S:376:G:H5''	1.81	0.63
27:65:135:ILE:HG12	27:65:138:ARG:HH11	1.63	0.63
53:S6:214:LYS:O	53:S6:218:GLU:HG3	1.98	0.63
1:2S:115:A:N3	1:2S:266:A:H5'	2.13	0.63
19:57:36:ILE:HD11	19:57:44:ALA:CB	2.28	0.63
38:76:45:ARG:NH1	38:76:93:ILE:HG13	2.13	0.63
1:2S:2076:G:C2'	1:2S:2077:U:H5''	2.29	0.63
47:S0:189:VAL:HG11	47:S0:193:GLN:HB2	1.80	0.63
50:S3:76:ARG:C	50:S3:76:ARG:HD3	2.18	0.63
1:2S:1231:A:H4'	1:2S:1261:G:C8	2.34	0.63
17:55:80:THR:O	17:55:81:TYR:HB2	1.99	0.63
1:2S:238:A:H2'	1:2S:239:G:O4'	1.98	0.63
1:2S:422:A:H2'	1:2S:423:A:O4'	1.98	0.63
1:2S:2943:G:H2'	1:2S:2944:U:C6	2.33	0.63
1:2S:1463:U:H3	1:2S:1467:A:H62	1.46	0.63
64:17:21:TYR:N	64:17:22:PRO:HD2	2.13	0.63
46:1S:1390:U:O2	46:1S:1412:G:H1'	1.97	0.63
4:L1:55:LEU:HG	4:L1:154:THR:HA	1.81	0.63
49:S2:159:THR:HG23	49:S2:167:VAL:C	2.19	0.63
46:1S:144:U:O2'	46:1S:145:A:H2'	1.99	0.63
1:2S:36:C:C2'	1:2S:37:U:H5'	2.24	0.63
9:L6:146:ILE:HG23	9:L6:156:LYS:NZ	2.14	0.63
46:1S:599:A:H2'	46:1S:600:U:C6	2.32	0.63
36:74:75:ALA:O	36:74:76:TYR:HB2	1.98	0.63
46:1S:1074:G:H8	46:1S:1074:G:H5'	1.64	0.63
46:1S:160:C:H2'	46:1S:161:U:O4'	1.98	0.63
1:2S:3016:A:H2'	1:2S:3017:A:C8	2.33	0.63
33:71:25:PHE:HA	33:71:28:ARG:HG3	1.79	0.63
8:L5:290:ILE:HA	8:L5:294:ALA:HB3	1.81	0.63
68:21:34:ILE:O	68:21:52:THR:HA	1.99	0.63
47:S0:145:ALA:O	47:S0:159:ALA:HA	1.98	0.63
1:2S:2878:G:H2'	1:2S:2879:C:C6	2.34	0.63
46:1S:304:U:H2'	46:1S:305:C:C6	2.34	0.63
1:2S:3087:A:H5'	6:L3:365:PHE:HA	1.80	0.63
10:L7:196:LYS:O	10:L7:200:ASN:HB2	1.99	0.63
6:L3:227:GLU:HG2	6:L3:231:HIS:HD2	1.63	0.63
21:59:43:LYS:HA	21:59:46:LYS:CE	2.22	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1058:U:C5	46:1S:1061:A:N1	2.67	0.63
56:S9:112:GLN:HG3	56:S9:148:VAL:CG2	2.27	0.63
1:2S:2689:A:H2'	1:2S:2689:A:N3	2.12	0.63
1:2S:1214:U:H4'	22:60:89:ASN:O	1.99	0.63
1:2S:374:A:O2'	1:2S:376:G:H5'	1.99	0.63
2:8S:154:C:H2'	2:8S:155:A:C8	2.34	0.63
53:S6:58:LYS:O	53:S6:59:GLN:HB2	1.99	0.63
1:2S:411:U:H2'	1:2S:412:G:C8	2.34	0.63
51:S4:154:ILE:HD13	51:S4:160:VAL:CG2	2.29	0.63
22:60:46:GLN:NE2	22:60:52:LYS:HA	2.14	0.63
17:55:169:LYS:HG2	17:55:174:ILE:HD11	1.79	0.63
1:2S:790:U:H4'	7:L4:112:LYS:O	1.98	0.63
66:19:52:GLY:HA2	66:19:55:TYR:CD2	2.33	0.63
77:30:37:ARG:O	77:30:41:THR:HG23	1.99	0.63
67:20:67:THR:HG22	67:20:68:ARG:N	2.12	0.63
4:L1:130:LYS:HD2	4:L1:130:LYS:N	2.13	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
77:30:39:LEU:HD12	77:30:43:ARG:HH22	1.62	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
75:28:32:PHE:CZ	75:28:38:ARG:HD2	2.33	0.63
31:69:22:LYS:H	31:69:22:LYS:HD2	1.64	0.63
21:59:168:ALA:O	21:59:172:ARG:HD3	1.98	0.63
1:2S:2684:C:H2'	1:2S:2685:C:C6	2.33	0.63
9:L6:36:PRO:HG3	9:L6:54:TYR:CZ	2.33	0.63
27:65:92:LYS:HE2	27:65:112:THR:HG23	1.81	0.63
61:14:60:ALA:HB3	61:14:100:ALA:HB3	1.80	0.63
6:L3:211:GLN:NE2	6:L3:282:ILE:HG22	2.14	0.63
54:S7:131:PHE:N	54:S7:132:PRO:HD2	2.14	0.63
1:2S:3047:U:O2'	1:2S:3048:A:H5'	1.99	0.63
6:L3:229:VAL:HB	6:L3:267:ALA:HB2	1.80	0.63
15:53:89:TYR:O	15:53:93:ILE:HG12	1.99	0.63
49:S2:178:ILE:CD1	49:S2:188:LEU:HB2	2.27	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
15:53:107:GLU:HG2	38:76:18:THR:HG22	1.81	0.63
42:80:112:LYS:HB3	42:80:114:LYS:HG2	1.81	0.63
15:53:176:GLU:HB3	38:76:11:LEU:HD21	1.79	0.63
33:71:11:GLU:HA	33:71:74:ARG:HA	1.80	0.63
46:1S:1533:C:H41	72:25:77:ARG:HH22	1.45	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:68:39:HIS:O	30:68:42:ARG:HG2	1.98	0.63
8:L5:107:ARG:NH2	8:L5:120:LYS:HA	2.14	0.63
39:77:85:LYS:HG2	39:77:86:ALA:H	1.64	0.63
51:S4:151:ASP:HB3	51:S4:154:ILE:HG13	1.81	0.63
10:L7:211:SER:H	10:L7:242:SER:HB2	1.64	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
1:2S:1558:A:O2'	1:2S:1559:A:H5'	1.99	0.63
79:RA:7:LEU:HD22	79:RA:274:LEU:HD21	1.81	0.63
20:58:66:ARG:HH12	20:58:143:PRO:HD3	1.63	0.63
1:2S:1101:G:H2'	1:2S:1102:A:C8	2.33	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
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
47:S0:31:VAL:HB	47:S0:34:GLU:CG	2.28	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
51:S4:177:ALA:HA	51:S4:195:ILE:HG21	1.81	0.62
1:2S:3231:U:H2'	1:2S:3232:G:C8	2.33	0.62
30:68:47:LYS:O	30:68:48:TYR:HB2	1.97	0.62
5:L2:187:HIS:HA	5:L2:190:ARG:HB3	1.81	0.62
47:S0:90:ALA:CB	47:S0:97:PRO:HD3	2.29	0.62
70:23:144:ARG:HD2	70:23:145:SER:H	1.63	0.62
46:1S:1013:A:H2'	46:1S:1014:G:O4'	1.99	0.62
48:S1:126:THR:HG22	48:S1:136:ARG:HE	1.64	0.62
46:1S:1596:C:OP2	76:29:32:ARG:HD3	1.99	0.62
15:53:114:GLN:O	15:53:118:GLU:HG3	1.99	0.62
46:1S:512:A:OP2	56:S9:172:VAL:HG13	1.99	0.62
1:2S:585:A:H2'	1:2S:586:C:C6	2.34	0.62
46:1S:478:A:H5'	77:30:33:ARG:NH2	2.01	0.62
20:58:25:TYR:HA	20:58:28:LEU:HD12	1.81	0.62
46:1S:408:C:H2'	46:1S:409:C:C6	2.34	0.62
1:2S:2761:G:O6	1:2S:2795:U:H5''	1.99	0.62
49:S2:154:LEU:HB2	49:S2:171:PRO:HG3	1.81	0.62
1:2S:2085:U:H2'	1:2S:2086:A:C5'	2.29	0.62
53:S6:23:ARG:HG2	53:S6:23:ARG:NH2	2.13	0.62
27:65:132:ALA:HA	27:65:135:ILE:HG22	1.81	0.62
3:5S:112:G:H2'	3:5S:113:C:H6	1.63	0.62
67:20:51:VAL:O	67:20:51:VAL:HG13	1.98	0.62
1:2S:2553:U:O2	1:2S:2553:U:H2'	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L6:97:ASN:HD21	9:L6:100:LYS:HB2	1.64	0.62
1:2S:87:U:H5''	20:58:172:PHE:HZ	1.63	0.62
46:1S:1163:A:H4'	52:S5:166:ARG:HH21	1.62	0.62
6:L3:77:THR:HG21	6:L3:328:ILE:HG13	1.80	0.62
1:2S:2457:G:H22	1:2S:2461:A:N6	1.97	0.62
51:S4:52:LEU:HD22	51:S4:54:TYR:CE2	2.34	0.62
1:2S:1887:A:H2'	1:2S:1888:U:C5'	2.29	0.62
57:10:82:LEU:CB	57:10:86:ILE:HG21	2.30	0.62
1:2S:655:C:H2'	1:2S:656:A:H8	1.64	0.62
19:57:83:TRP:N	19:57:84:PRO:HD3	2.15	0.62
59:12:46:ARG:HG3	59:12:46:ARG:HH11	1.64	0.62
46:1S:752:A:H2	46:1S:797:G:H22	1.47	0.62
1:2S:598:A:H2'	1:2S:599:C:C6	2.34	0.62
54:S7:63:PRO:O	54:S7:64:VAL:HB	1.97	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
1:2S:1477:A:H2'	1:2S:1478:C:C6	2.33	0.62
4:L1:205:VAL:HG12	4:L1:213:ALA:HB1	1.81	0.62
54:S7:98:ILE:HG23	54:S7:118:LEU:HA	1.81	0.62
7:L4:104:LYS:HD2	7:L4:106:TRP:CZ2	2.33	0.62
1:2S:799:G:H2'	1:2S:801:A:N6	2.13	0.62
18:56:158:ALA:O	18:56:162:VAL:HG23	2.00	0.62
1:2S:392:G:O2'	1:2S:393:U:H5'	1.98	0.62
1:2S:2499:U:H2'	1:2S:2500:A:C8	2.34	0.62
1:2S:1947:G:H5''	21:59:134:HIS:HB2	1.80	0.62
11:L8:74:THR:HG21	17:55:18:VAL:HB	1.81	0.62
73:26:82:ARG:HA	73:26:82:ARG:HE	1.63	0.62
1:2S:359:U:H2'	1:2S:360:G:O4'	2.00	0.62
1:2S:816:A:C4'	1:2S:817:A:H5'	2.29	0.62
46:1S:482:U:H2'	46:1S:483:A:C8	2.27	0.62
9:L6:52:VAL:HG22	9:L6:53:VAL:N	2.12	0.62
55:S8:42:ARG:O	55:S8:43:ILE:HG13	1.98	0.62
1:2S:1714:A:H62	1:2S:1730:G:H21	1.47	0.62
6:L3:350:ALA:O	6:L3:351:LEU:CB	2.48	0.62
2:8S:154:C:H5''	11:L8:181:LYS:HG2	1.81	0.62
1:2S:2719:U:H2'	1:2S:2720:G:C8	2.33	0.62
1:2S:609:G:H3'	1:2S:609:G:N3	2.14	0.62
1:2S:2949:U:C2'	1:2S:2950:G:H5'	2.28	0.62
1:2S:2492:C:H5'	4:L1:39:LYS:HD2	1.81	0.62
24:62:92:TRP:O	24:62:107:PHE:HA	1.99	0.62
46:1S:631:G:H2'	46:1S:632:U:H6	1.64	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
12:L9:143:GLU:HG2	12:L9:144:ILE:H	1.63	0.62
1:2S:1901:A:H5''	1:2S:2919:A:OP1	1.99	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
13:50:52:LEU:HD22	13:50:135:ILE:CD1	2.11	0.62
48:S1:174:LYS:HZ2	48:S1:174:LYS:HB2	1.64	0.62
6:L3:232:ARG:HE	6:L3:233:TRP:HE1	1.46	0.62
37:75:85:THR:HG22	37:75:87:ALA:N	2.11	0.62
51:S4:90:ILE:CD1	51:S4:90:ILE:N	2.63	0.62
61:14:25:ASP:OD1	61:14:54:GLU:HB3	1.98	0.62
56:S9:90:LYS:HD2	56:S9:95:TYR:HB2	1.82	0.62
66:19:28:LEU:HD22	66:19:29:GLU:N	2.14	0.62
28:66:73:VAL:HA	28:66:80:VAL:HG23	1.81	0.62
1:2S:1490:A:H2'	1:2S:1491:A:O4'	1.99	0.62
46:1S:1501:C:H5	66:19:102:ARG:NH2	1.97	0.62
46:1S:1414:U:H3'	46:1S:1415:U:H5''	1.81	0.62
7:L4:84:ARG:O	7:L4:87:GLN:HG3	1.99	0.62
46:1S:1604:U:H5'	67:20:79:TRP:NE1	2.15	0.62
57:10:46:LEU:O	57:10:50:THR:HG23	2.00	0.62
38:76:8:ALA:O	38:76:13:LYS:HG3	2.00	0.62
1:2S:1216:C:H2'	1:2S:1217:A:C8	2.34	0.62
10:L7:86:VAL:HG22	10:L7:136:TYR:HB3	1.80	0.62
50:S3:167:PHE:HB3	50:S3:189:MET:SD	2.40	0.62
6:L3:49:TYR:HE2	6:L3:164:THR:HG21	1.63	0.62
1:2S:1361:U:H2'	1:2S:1362:G:C8	2.34	0.62
71:24:20:ARG:HD2	71:24:74:LEU:HD22	1.82	0.62
58:11:78:THR:HA	58:11:84:ILE:HG22	1.81	0.62
36:74:92:ALA:O	36:74:96:GLU:HG3	1.99	0.62
69:22:23:ARG:NH1	69:22:66:ASN:HA	2.15	0.62
1:2S:2638:C:H2'	1:2S:2639:G:O4'	2.00	0.62
17:55:144:ARG:HG2	37:75:96:GLU:HG2	1.82	0.62
62:15:81:ARG:HA	62:15:116:LEU:HB2	1.80	0.62
15:53:179:PHE:HD1	15:53:182:ILE:HD12	1.64	0.62
6:L3:141:GLY:O	6:L3:145:GLU:HG2	1.99	0.62
17:55:117:ASN:O	17:55:133:ILE:HG22	2.00	0.62
1:2S:2897:A:H2'	1:2S:2899:C:H5''	1.81	0.62
32:70:10:ILE:HD12	32:70:13:LYS:HD2	1.82	0.62
8:L5:281:GLU:O	8:L5:285:ARG:HG3	1.99	0.62
1:2S:2882:U:H5''	6:L3:10:ARG:NH2	2.14	0.62
53:S6:88:ARG:HB2	53:S6:91:GLU:OE2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:55:136:ASP:HB3	17:55:142:ILE:HD12	1.82	0.62
1:2S:2144:A:H1'	1:2S:2281:A:H61	1.62	0.62
58:11:130:PRO:HA	58:11:136:ARG:HG2	1.80	0.62
54:S7:62:VAL:HG11	54:S7:70:PHE:CE2	2.35	0.62
71:24:124:ARG:HD3	71:24:124:ARG:O	2.00	0.62
1:2S:3025:C:H4'	12:L9:175:PHE:CE1	2.34	0.62
15:53:28:GLN:HG3	17:55:200:TRP:CE3	2.33	0.62
46:1S:1498:G:H2'	46:1S:1499:G:C5'	2.30	0.62
68:21:64:GLU:HB3	74:27:3:LEU:HD11	1.81	0.62
60:13:100:LYS:HA	60:13:103:GLU:HG2	1.81	0.62
1:2S:2367:A:H2'	1:2S:2368:A:C8	2.34	0.62
7:L4:31:ARG:O	7:L4:35:VAL:HG23	1.98	0.62
1:2S:1443:G:H2'	1:2S:1444:G:C8	2.35	0.62
46:1S:380:U:O3'	56:S9:2:PRO:HA	2.00	0.62
1:2S:2677:G:H2'	1:2S:2677:G:N3	2.13	0.62
46:1S:133:U:H6	46:1S:133:U:H5'	1.64	0.62
1:2S:1951:C:H6	1:2S:2095:G:H1	1.40	0.62
46:1S:435:C:H5'	70:23:50:LYS:HG3	1.82	0.62
74:27:55:THR:HB	74:27:60:SER:HA	1.81	0.62
70:23:12:ALA:HA	70:23:15:LEU:CD1	2.30	0.62
19:57:92:GLN:HA	19:57:95:LEU:HD12	1.80	0.62
79:RA:133:VAL:HB	79:RA:142:ALA:CB	2.30	0.62
13:50:24:ARG:HB2	13:50:24:ARG:NH1	2.14	0.62
51:S4:232:GLY:O	51:S4:234:PRO:HD3	1.98	0.62
34:72:123:LYS:HA	34:72:126:LEU:HD11	1.82	0.62
79:RA:86:ASP:O	79:RA:87:LYS:HB2	1.99	0.62
1:2S:602:A:H2'	1:2S:603:A:C8	2.34	0.62
40:78:77:ARG:HG3	40:78:78:LEU:HD23	1.80	0.62
10:L7:25:GLN:HG2	10:L7:29:GLU:HB2	1.81	0.62
29:67:92:PHE:HA	29:67:95:VAL:HG23	1.82	0.62
1:2S:860:G:N3	1:2S:860:G:H3'	2.13	0.62
1:2S:763:G:C2	1:2S:764:U:H1'	2.34	0.62
58:11:70:ILE:HD12	58:11:70:ILE:N	2.15	0.62
46:1S:887:A:H1'	61:14:122:PRO:HB3	1.81	0.62
1:2S:2131:A:C2'	1:2S:2132:C:H5'	2.29	0.62
52:S5:30:PRO:HB2	52:S5:33:VAL:CG2	2.29	0.62
20:58:40:THR:O	20:58:41:ASP:HB3	1.98	0.62
8:L5:134:ALA:HB2	8:L5:140:ARG:HG2	1.80	0.62
2:8S:67:U:H2'	2:8S:68:G:C8	2.35	0.62
60:13:30:SER:O	60:13:34:ILE:HG13	2.00	0.62
55:S8:45:SER:HB3	55:S8:55:TYR:CD1	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:L5:19:PRO:HB2	8:L5:24:ARG:CG	2.29	0.62
1:2S:1073:U:H2'	1:2S:1074:U:C6	2.35	0.62
57:10:25:LYS:HG2	57:10:25:LYS:O	1.99	0.62
4:L1:71:ALA:HB1	4:L1:89:ASP:O	1.99	0.62
46:1S:746:A:H2'	46:1S:747:C:O4'	2.00	0.62
14:51:86:VAL:HG11	14:51:111:ASP:HB3	1.81	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:3275:U:H3'	1:2S:3276:G:C5'	2.30	0.62
48:S1:174:LYS:HB2	48:S1:174:LYS:NZ	2.15	0.62
73:26:84:VAL:CG1	73:26:85:ARG:H	2.03	0.62
1:2S:1405:U:H1'	34:72:54:LYS:O	2.00	0.62
1:2S:126:U:H2'	1:2S:127:G:O4'	2.00	0.62
70:23:96:VAL:O	70:23:97:ASP:HB2	1.99	0.62
1:2S:824:C:H2'	1:2S:825:U:C6	2.35	0.62
48:S1:168:ILE:O	48:S1:172:LEU:HG	1.99	0.62
27:65:65:GLN:H	27:65:85:GLN:HB3	1.65	0.62
46:1S:802:G:H21	69:22:107:SER:CB	2.11	0.62
1:2S:2173:U:H2'	1:2S:2174:G:C8	2.34	0.62
7:L4:113:VAL:HB	7:L4:118:LYS:CE	2.29	0.62
38:76:26:ILE:N	38:76:26:ILE:HD12	2.15	0.62
1:2S:2768:U:H2'	1:2S:2769:A:H8	1.63	0.62
22:60:29:ILE:HG21	22:60:37:ALA:HA	1.81	0.62
1:2S:986:U:H1'	10:L7:126:LEU:HD21	1.82	0.62
22:60:107:TYR:CE1	22:60:121:ILE:HD12	2.35	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
53:S6:74:LYS:HA	53:S6:96:SER:HA	1.80	0.62
46:1S:572:C:H2'	46:1S:573:C:C6	2.35	0.62
46:1S:1632:C:H2'	46:1S:1633:A:C8	2.35	0.62
46:1S:279:G:H8	46:1S:280:U:H4'	1.64	0.62
4:L1:131:ALA:HB3	4:L1:134:PHE:HB2	1.81	0.62
39:77:69:HIS:O	39:77:73:ARG:HG3	1.99	0.62
1:2S:912:G:H2'	1:2S:914:A:N7	2.14	0.62
20:58:113:LYS:O	20:58:113:LYS:HG2	1.99	0.62
1:2S:2152:A:H2'	1:2S:2153:U:C6	2.35	0.62
1:2S:1064:A:H4'	1:2S:1065:A:O5'	1.98	0.61
1:2S:2530:G:C2'	1:2S:2531:C:H5''	2.28	0.61
60:13:71:ILE:CD1	60:13:71:ILE:H	2.13	0.61
1:2S:2521:U:C2'	1:2S:2522:G:H5'	2.28	0.61
59:12:106:ILE:HA	59:12:108:ARG:NH1	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1420:C:C2'	46:1S:1421:A:H5'	2.30	0.61
27:65:135:ILE:CG1	27:65:138:ARG:HH11	2.13	0.61
25:63:67:PRO:HA	25:63:70:ARG:HB2	1.82	0.61
66:19:63:ARG:HG2	66:19:67:MET:CE	2.30	0.61
55:58:38:ILE:HD11	55:58:94:ASN:HB3	1.82	0.61
1:2S:705:A:N6	30:68:113:LEU:HD13	2.15	0.61
1:2S:75:G:C5'	15:53:58:VAL:HG13	2.30	0.61
1:2S:874:U:H5'	1:2S:875:G:C5'	2.30	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
67:20:108:ILE:H	67:20:108:ILE:HD12	1.65	0.61
1:2S:1357:G:H2'	1:2S:1358:C:C6	2.35	0.61
46:1S:1413:U:H5'	64:17:3:ARG:HH12	1.65	0.61
22:60:13:ARG:HG3	22:60:51:VAL:HG12	1.82	0.61
40:78:8:ILE:HG21	40:78:65:LEU:HD21	1.81	0.61
49:S2:118:ALA:HB3	49:S2:124:ALA:HB2	1.82	0.61
25:63:71:LYS:HB3	25:63:71:LYS:NZ	2.14	0.61
2:8S:107:G:H2'	2:8S:108:C:C6	2.35	0.61
46:1S:86:A:H2'	46:1S:87:C:C6	2.35	0.61
25:63:33:ASN:HD22	25:63:33:ASN:H	1.48	0.61
73:26:85:ARG:O	73:26:86:VAL:O	2.18	0.61
1:2S:2251:G:C3'	1:2S:2252:A:H5''	2.31	0.61
61:14:78:ALA:HB2	61:14:111:ARG:HB2	1.80	0.61
18:56:57:PHE:HA	18:56:60:LYS:NZ	2.15	0.61
79:RA:69:GLN:HB2	79:RA:85:TRP:NE1	2.13	0.61
1:2S:1764:U:C3'	1:2S:1765:U:H5''	2.29	0.61
1:2S:2714:G:N3	1:2S:2751:G:H2'	2.15	0.61
10:L7:108:LEU:HD22	10:L7:114:GLY:HA2	1.82	0.61
32:70:24:THR:CG2	32:70:91:SER:HB3	2.30	0.61
1:2S:3255:U:H2'	1:2S:3256:G:C8	2.36	0.61
61:14:81:VAL:HG22	61:14:115:ILE:HG21	1.80	0.61
51:S4:48:LEU:HA	51:S4:52:LEU:HD12	1.82	0.61
66:19:86:ARG:NH1	66:19:92:LYS:HB2	2.15	0.61
9:L6:141:VAL:O	9:L6:145:LEU:HG	1.99	0.61
1:2S:1608:C:H2'	1:2S:1609:C:C6	2.35	0.61
1:2S:2374:C:N4	1:2S:2823:G:H4'	2.15	0.61
69:22:81:VAL:HG13	69:22:85:ASP:HB2	1.81	0.61
14:51:112:LEU:H	14:51:112:LEU:HD23	1.63	0.61
6:L3:266:ARG:HA	6:L3:266:ARG:NE	2.15	0.61
25:63:135:VAL:HG12	25:63:135:VAL:O	1.99	0.61
11:L8:50:VAL:HG23	11:L8:52:TRP:NE1	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:17:15:ALA:O	64:17:19:ARG:HG2	2.00	0.61
20:58:34:THR:O	20:58:38:ARG:HB2	2.00	0.61
48:S1:171:ILE:HD12	48:S1:197:ILE:CD1	2.22	0.61
1:2S:2552:C:O2'	32:70:50:VAL:HG11	2.01	0.61
46:1S:1184:A:H2'	46:1S:1185:U:H4'	1.81	0.61
46:1S:818:C:O2'	46:1S:819:G:H5'	2.00	0.61
1:2S:3117:C:O2	42:80:106:ARG:NH2	2.31	0.61
1:2S:1190:A:H2	18:56:49:ARG:NH2	1.98	0.61
46:1S:1419:G:H4'	76:29:54:LYS:HE3	1.82	0.61
29:67:118:PHE:HA	29:67:121:ARG:HB2	1.82	0.61
8:L5:33:ARG:HG2	8:L5:33:ARG:O	2.01	0.61
15:53:75:PHE:O	15:53:97:VAL:HG13	2.00	0.61
1:2S:409:A:H3'	1:2S:410:U:C5	2.35	0.61
1:2S:2947:G:C2	6:L3:250:ALA:HB1	2.34	0.61
60:13:100:LYS:HA	60:13:103:GLU:CG	2.31	0.61
46:1S:1174:C:H4'	46:1S:1601:G:C6	2.35	0.61
46:1S:856:A:N6	54:S7:96:ARG:HB3	2.15	0.61
63:16:141:SER:O	63:16:142:TYR:HB2	1.98	0.61
49:S2:225:LEU:HD22	49:S2:230:TRP:CD1	2.35	0.61
46:1S:416:A:H5'	46:1S:417:A:N7	2.14	0.61
4:L1:130:LYS:HG3	4:L1:136:THR:HB	1.83	0.61
17:55:116:LEU:HB3	17:55:133:ILE:O	2.00	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
52:S5:79:ASN:ND2	52:S5:79:ASN:N	2.48	0.61
1:2S:56:G:H5''	17:55:158:HIS:CE1	2.35	0.61
1:2S:2288:G:H2'	1:2S:2289:U:H6	1.65	0.61
46:1S:1715:G:H3'	46:1S:1716:C:C5'	2.30	0.61
12:L9:13:PRO:HD2	12:L9:79:ILE:HG21	1.81	0.61
46:1S:244:A:H2'	46:1S:245:U:C2	2.36	0.61
1:2S:2285:C:H3'	1:2S:2286:U:H2'	1.81	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
12:L9:138:THR:HG22	12:L9:139:ASN:H	1.64	0.61
5:L2:193:ARG:HG2	5:L2:193:ARG:HH21	1.65	0.61
19:57:29:THR:O	19:57:32:THR:HG22	2.00	0.61
1:2S:769:G:O2'	1:2S:770:G:H5'	2.01	0.61
6:L3:231:HIS:HB2	6:L3:247:ARG:NH2	2.14	0.61
32:70:49:PRO:O	32:70:53:LYS:HB2	2.00	0.61
48:S1:176:VAL:O	48:S1:177:GLN:HG2	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:58:60:PRO:HB2	20:58:142:GLY:HA3	1.82	0.61
38:76:50:LEU:HD22	38:76:54:GLU:CB	2.30	0.61
33:71:19:ARG:NH1	33:71:19:ARG:HG3	2.15	0.61
46:1S:1171:A:H2'	46:1S:1172:G:C8	2.32	0.61
28:66:42:GLN:HB3	28:66:43:TYR:CE2	2.36	0.61
21:59:21:LYS:CE	21:59:55:VAL:HA	2.30	0.61
1:2S:2355:G:H4'	19:57:139:TYR:CE2	2.35	0.61
36:74:41:ARG:HB2	36:74:50:ALA:HB1	1.83	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
8:L5:62:CYS:HB3	8:L5:105:ILE:HG13	1.83	0.61
60:13:40:TYR:HE2	60:13:54:LEU:HD21	1.65	0.61
3:5S:41:G:H5''	3:5S:42:A:N7	2.16	0.61
36:74:65:VAL:HG12	36:74:66:SER:H	1.65	0.61
5:L2:41:ILE:O	5:L2:89:TYR:HA	2.00	0.61
1:2S:1169:A:H4'	10:L7:219:LYS:HZ3	1.64	0.61
46:1S:310:C:H2'	46:1S:311:U:O4'	2.01	0.61
47:S0:22:THR:HG22	47:S0:169:SER:HB3	1.83	0.61
1:2S:1887:A:C2'	1:2S:1888:U:H5'	2.30	0.61
23:61:50:LYS:HB2	23:61:92:ARG:NH2	2.15	0.61
46:1S:804:A:C5	69:22:107:SER:HA	2.36	0.61
70:23:63:GLN:HA	70:23:65:ASN:H	1.65	0.61
46:1S:1298:U:H2'	46:1S:1299:G:O4'	2.00	0.61
46:1S:215:A:H5''	46:1S:216:U:C5	2.36	0.61
12:L9:144:ILE:HG12	12:L9:145:VAL:N	2.15	0.61
57:10:25:LYS:HB2	57:10:64:TYR:HE2	1.66	0.61
22:60:13:ARG:HA	22:60:56:GLY:HA3	1.81	0.61
46:1S:167:U:H4'	53:S6:134:GLY:O	2.00	0.61
1:2S:561:C:H2'	1:2S:562:C:C6	2.34	0.61
1:2S:2271:A:C3'	1:2S:2272:G:H5''	2.31	0.61
49:S2:45:VAL:HG21	49:S2:68:ILE:HG23	1.83	0.61
40:78:29:LYS:C	40:78:29:LYS:HD3	2.21	0.61
4:L1:74:VAL:HG12	4:L1:75:ASP:H	1.64	0.61
46:1S:737:A:HO2'	46:1S:738:G:H8	1.49	0.61
55:S8:37:LYS:HE2	55:S8:95:THR:OG1	2.00	0.61
65:18:125:ILE:HG22	65:18:129:TRP:CZ3	2.36	0.61
9:L6:50:LYS:CE	9:L6:72:ASN:HB2	2.30	0.61
15:53:126:PHE:HB3	15:53:133:PRO:HD2	1.82	0.61
50:S3:211:PRO:HG2	64:17:19:ARG:HB2	1.82	0.61
61:14:113:GLY:O	61:14:114:ARG:HB3	2.00	0.61
7:L4:23:PRO:HD2	7:L4:26:PHE:HE2	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:68:96:LYS:O	30:68:97:GLU:HB2	2.01	0.61
27:65:86:VAL:HG13	27:65:120:LYS:CD	2.31	0.61
1:2S:1696:A:H2'	1:2S:1697:A:H8	1.63	0.61
5:L2:126:LEU:HD12	5:L2:126:LEU:H	1.64	0.61
79:RA:89:LEU:HD12	79:RA:103:PHE:CB	2.31	0.61
46:1S:1604:U:H5''	63:16:129:PHE:CB	2.31	0.61
58:11:133:LYS:NZ	58:11:134:THR:CG2	2.64	0.61
27:65:135:ILE:CD1	27:65:138:ARG:HH11	2.13	0.61
1:2S:3304:U:OP2	1:2S:3377:G:H1'	2.01	0.61
1:2S:440:A:H5''	1:2S:441:U:C4'	2.30	0.61
64:17:10:LYS:HG2	64:17:53:TYR:CE1	2.35	0.61
49:S2:44:LEU:CD1	49:S2:243:TYR:HB2	2.30	0.61
1:2S:760:G:H1'	1:2S:771:A:N6	2.15	0.61
4:L1:145:TYR:HA	4:L1:148:VAL:HG22	1.82	0.61
13:50:190:VAL:HG13	13:50:197:VAL:HG21	1.82	0.61
1:2S:666:A:H2'	1:2S:667:C:O4'	2.00	0.61
1:2S:3316:A:N1	6:L3:124:LYS:HD2	2.15	0.61
6:L3:123:TYR:CD2	6:L3:124:LYS:HG3	2.35	0.61
63:16:128:LYS:HB2	63:16:137:ARG:NH2	2.16	0.61
26:64:25:ASP:CG	26:64:26:SER:H	2.04	0.61
39:77:25:ARG:HD3	39:77:25:ARG:O	2.01	0.61
16:54:84:LYS:HA	16:54:87:ALA:HB3	1.82	0.61
12:L9:172:ILE:CD1	12:L9:172:ILE:H	2.13	0.61
1:2S:720:A:H2'	20:58:69:ARG:NH2	2.15	0.61
60:13:26:PHE:CE1	60:13:27:LYS:HE2	2.35	0.61
1:2S:118:U:H5'	1:2S:151:A:N1	2.15	0.61
56:S9:11:THR:O	56:S9:44:ARG:HA	2.01	0.61
58:11:134:THR:O	58:11:136:ARG:NH1	2.34	0.61
22:60:12:ARG:O	22:60:12:ARG:HG3	1.99	0.61
1:2S:2315:G:H2'	1:2S:2316:G:H8	1.65	0.61
10:L7:136:TYR:CE2	10:L7:231:ASN:HB2	2.34	0.61
57:10:52:LYS:HG3	57:10:54:TYR:CE2	2.35	0.61
10:L7:107:ARG:NH1	10:L7:202:LEU:O	2.33	0.61
11:L8:238:LEU:N	11:L8:238:LEU:HD22	2.15	0.61
1:2S:2916:U:O4'	25:63:44:SER:HB3	2.00	0.61
54:S7:39:ARG:N	54:S7:40:PRO:HD2	2.15	0.61
16:54:112:LEU:O	16:54:117:ARG:NH2	2.33	0.61
48:S1:151:LYS:HE3	48:S1:154:SER:HA	1.83	0.61
1:2S:1624:G:H1	1:2S:1819:U:H3	1.48	0.61
29:67:22:LYS:HE3	29:67:134:LEU:HD23	1.81	0.61
9:L6:141:VAL:HG12	9:L6:145:LEU:HD11	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:67:51:LEU:HB2	29:67:65:ARG:HD2	1.82	0.61
46:1S:1274:C:O2	46:1S:1274:C:H2'	1.99	0.61
11:L8:149:LYS:O	11:L8:176:PRO:HG2	1.99	0.61
24:62:37:LEU:O	24:62:41:ILE:HG13	2.00	0.61
1:2S:637:C:H2'	1:2S:638:C:C6	2.36	0.61
46:1S:1125:A:O5'	46:1S:1125:A:H8	1.84	0.61
1:2S:250:U:C5'	1:2S:251:G:H5''	2.13	0.61
6:L3:232:ARG:HH11	6:L3:268:GLY:HA3	1.64	0.61
1:2S:895:A:H2'	1:2S:897:U:O4'	2.00	0.61
46:1S:1097:U:H1'	49:S2:168:ARG:HH11	1.64	0.61
23:61:124:VAL:HG12	23:61:125:ALA:N	2.14	0.61
23:61:80:VAL:CG1	23:61:85:LEU:HD12	2.28	0.61
1:2S:1223:A:N1	1:2S:1287:A:H1'	2.16	0.61
6:L3:92:TYR:HB2	6:L3:157:VAL:CG2	2.31	0.61
54:S7:55:LYS:HD2	54:S7:89:HIS:CE1	2.36	0.61
11:L8:153:ILE:O	11:L8:180:VAL:HG12	2.00	0.61
46:1S:479:C:H5'	56:S9:124:HIS:HB2	1.82	0.61
1:2S:3275:U:H3'	1:2S:3276:G:H5''	1.82	0.61
1:2S:805:G:H4'	7:L4:73:ARG:O	2.01	0.61
29:67:31:GLU:HG3	29:67:32:GLY:N	2.15	0.61
47:S0:108:THR:O	47:S0:109:ASN:O	2.18	0.61
1:2S:2925:C:H2'	1:2S:2926:A:O4'	2.01	0.61
1:2S:291:C:H2'	1:2S:292:U:C6	2.36	0.61
71:24:132:ARG:HD3	71:24:132:ARG:O	2.00	0.61
46:1S:965:U:H3'	46:1S:966:A:H5'	1.83	0.61
1:2S:2515:A:H62	1:2S:2592:G:H21	1.47	0.61
1:2S:3204:C:H2'	1:2S:3205:G:C8	2.35	0.61
57:10:42:VAL:O	57:10:46:LEU:HD23	2.01	0.61
11:L8:108:ARG:HA	11:L8:111:LYS:HD2	1.81	0.61
53:S6:206:ALA:O	53:S6:210:GLN:HG3	2.01	0.61
46:1S:1740:A:H2'	46:1S:1741:U:C6	2.35	0.61
56:S9:37:LYS:HE2	56:S9:38:ASN:ND2	2.16	0.61
1:2S:2802:A:C4	44:82:56:PRO:HA	2.36	0.61
1:2S:1910:A:H2'	1:2S:1911:A:C8	2.36	0.61
1:2S:848:A:H8	1:2S:848:A:O5'	1.84	0.61
1:2S:2168:A:H5''	17:55:67:ARG:HH12	1.65	0.61
18:56:52:LEU:HA	18:56:55:HIS:HB2	1.82	0.61
6:L3:227:GLU:CB	6:L3:270:ARG:HD3	2.31	0.60
1:2S:1951:C:H2'	1:2S:2095:G:H22	1.65	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:50:176:LEU:HD22	13:50:180:GLU:HG2	1.82	0.60
1:2S:1535:A:H62	1:2S:1586:G:N2	1.99	0.60
1:2S:1346:G:H1'	7:L4:307:GLN:NE2	2.16	0.60
74:27:62:ILE:HG13	74:27:63:LEU:H	1.65	0.60
9:L6:65:ILE:HD13	9:L6:77:ARG:O	2.01	0.60
16:54:108:ARG:O	16:54:112:LEU:HG	2.01	0.60
2:8S:70:G:H1'	2:8S:88:A:H61	1.66	0.60
1:2S:75:G:H5''	15:53:58:VAL:HG13	1.83	0.60
22:60:46:GLN:CD	22:60:52:LYS:HA	2.22	0.60
53:S6:72:ARG:HG2	53:S6:98:ARG:HG2	1.82	0.60
46:1S:1558:U:H3'	46:1S:1559:A:H4'	1.82	0.60
58:11:27:THR:HG23	58:11:30:ARG:H	1.66	0.60
46:1S:495:C:H3'	46:1S:496:G:C4'	2.30	0.60
2:8S:116:G:H2'	2:8S:117:C:C6	2.35	0.60
1:2S:591:G:O4'	9:L6:19:LYS:HD2	2.01	0.60
5:L2:133:TYR:HE1	5:L2:135:ILE:HD11	1.67	0.60
30:68:101:VAL:HG22	30:68:124:ILE:HD12	1.83	0.60
46:1S:422:G:H2'	46:1S:423:G:N7	2.16	0.60
21:59:109:TYR:O	21:59:115:ILE:HG22	2.01	0.60
79:RA:20:VAL:O	79:RA:290:VAL:HG23	2.01	0.60
51:S4:11:ARG:NH2	51:S4:11:ARG:HG3	2.16	0.60
58:11:133:LYS:HZ3	58:11:134:THR:HG23	1.63	0.60
10:L7:107:ARG:O	10:L7:108:LEU:HD23	2.01	0.60
53:S6:70:PRO:HA	53:S6:98:ARG:NH2	2.15	0.60
1:2S:1046:A:H2'	1:2S:1049:C:C5	2.36	0.60
62:15:52:LYS:N	62:15:53:PRO:HD2	2.16	0.60
55:S8:67:TRP:CD1	55:S8:70:GLU:HB2	2.36	0.60
18:56:84:LEU:HD23	18:56:84:LEU:O	2.01	0.60
47:S0:110:TYR:HA	47:S0:115:PHE:CD2	2.36	0.60
30:68:111:LYS:HG3	30:68:129:PHE:HB2	1.82	0.60
48:S1:218:LEU:H	48:S1:218:LEU:HD13	1.65	0.60
1:2S:3072:C:H2'	1:2S:3073:A:O4'	2.00	0.60
22:60:152:LEU:O	22:60:172:TYR:HB3	2.00	0.60
12:L9:172:ILE:N	12:L9:172:ILE:HD13	2.16	0.60
65:18:14:ILE:HD11	65:18:21:ASN:HB3	1.83	0.60
33:71:11:GLU:HG2	33:71:74:ARG:HB2	1.83	0.60
3:5S:16:U:H2'	3:5S:17:A:H8	1.67	0.60
30:68:126:LYS:HB3	30:68:148:ILE:HG21	1.83	0.60
1:2S:1426:C:H2'	1:2S:1427:U:C6	2.36	0.60
55:S8:110:ARG:O	55:S8:114:GLU:HG3	2.02	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)
9:L6:5:LYS:O	9:L6:6:ALA:HB2	2.01	0.60
41:79:43:ASN:HB3	41:79:46:ARG:HB2	1.83	0.60
1:2S:1646:G:H1'	1:2S:1809:A:H61	1.66	0.60
13:50:30:LYS:HA	13:50:30:LYS:HE3	1.82	0.60
1:2S:2223:A:H2'	1:2S:2224:A:C8	2.36	0.60
57:10:86:ILE:CG2	57:10:87:VAL:H	2.09	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
1:2S:31:C:H5'	17:55:96:ARG:HD2	1.84	0.60
10:L7:232:ARG:HD3	10:L7:235:PHE:CB	2.31	0.60
1:2S:2875:U:H3	1:2S:2952:G:H1	1.48	0.60
21:59:21:LYS:O	21:59:53:LYS:HB3	2.01	0.60
62:15:126:VAL:HG13	62:15:127:ARG:H	1.66	0.60
1:2S:2492:C:C5'	4:L1:39:LYS:HD2	2.31	0.60
66:19:92:LYS:HE3	66:19:94:ILE:HD11	1.83	0.60
1:2S:2347:U:H3'	1:2S:2348:A:H8	1.67	0.60
14:51:59:ILE:HG21	14:51:65:ILE:HD12	1.84	0.60
48:S1:121:ILE:HG12	48:S1:161:ILE:HG23	1.83	0.60
46:1S:937:C:H2'	46:1S:938:G:C8	2.37	0.60
19:57:25:SER:CB	19:57:28:ASN:HD22	2.13	0.60
52:S5:187:ILE:N	52:S5:187:ILE:HD12	2.12	0.60
1:2S:3353:G:H2'	1:2S:3356:G:O4'	2.02	0.60
15:53:70:ARG:HG2	15:53:71:ALA:N	2.15	0.60
1:2S:2199:G:H2'	1:2S:2200:U:H6	1.66	0.60
23:61:25:VAL:HG21	23:61:30:TYR:OH	2.01	0.60
1:2S:2271:A:H2'	1:2S:2272:G:H5''	1.83	0.60
50:S3:133:GLY:HA3	50:S3:156:PHE:O	2.02	0.60
3:5S:114:U:H2'	3:5S:115:G:H8	1.66	0.60
66:19:42:GLY:HA2	66:19:84:LYS:HE2	1.84	0.60
6:L3:210:GLU:HG3	6:L3:213:GLU:HB2	1.82	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
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
1:2S:1330:A:C2	1:2S:1332:A:H1'	2.37	0.60
75:28:16:LEU:HD12	75:28:27:GLN:HB3	1.83	0.60
1:2S:3:U:H2'	1:2S:4:U:C6	2.37	0.60
1:2S:1598:G:OP1	36:74:27:GLY:HA3	2.02	0.60
64:17:23:LYS:HB3	64:17:34:LEU:HD11	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:77:VAL:CG1	22:60:59:VAL:HG13	2.26	0.60
12:L9:167:VAL:CG1	12:L9:170:LYS:HB2	2.28	0.60
6:L3:339:ARG:HG2	6:L3:340:LYS:N	2.16	0.60
46:1S:1060:U:H3'	46:1S:1061:A:C5'	2.27	0.60
7:L4:206:LEU:HB2	7:L4:246:ARG:NH1	2.17	0.60
6:L3:46:PHE:CZ	6:L3:205:VAL:HG22	2.37	0.60
38:76:51:SER:OG	38:76:54:GLU:HG3	2.02	0.60
1:2S:1654:A:C3'	1:2S:1655:G:H5''	2.32	0.60
10:L7:151:ARG:HH11	10:L7:244:ASN:HD21	1.47	0.60
66:19:136:ALA:O	66:19:140:LEU:HG	2.01	0.60
36:74:41:ARG:HA	36:74:56:THR:HG21	1.84	0.60
79:RA:38:ARG:HG2	79:RA:67:ILE:HG23	1.84	0.60
46:1S:1624:C:H2'	46:1S:1625:C:H6	1.64	0.60
1:2S:1211:U:H2'	1:2S:1212:A:C8	2.35	0.60
1:2S:2461:A:N6	1:2S:2483:G:H21	2.00	0.60
46:1S:1608:U:H5''	63:16:72:GLY:O	2.00	0.60
16:54:130:THR:HA	16:54:133:LYS:HE2	1.84	0.60
1:2S:160:G:H2'	1:2S:161:G:H5''	1.82	0.60
38:76:68:ARG:HA	38:76:71:LYS:HE2	1.84	0.60
51:S4:173:ILE:HD12	51:S4:173:ILE:N	2.16	0.60
46:1S:777:C:H2'	46:1S:778:G:H5''	1.83	0.60
7:L4:170:LYS:HE3	7:L4:178:LEU:CD1	2.25	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
46:1S:950:C:H2'	46:1S:951:A:O4'	2.01	0.60
69:22:11:LEU:HD22	69:22:72:CYS:HB2	1.83	0.60
42:80:92:ASP:O	42:80:93:LYS:HG2	2.02	0.60
46:1S:804:A:C8	69:22:107:SER:HA	2.36	0.60
55:S8:107:THR:OG1	55:S8:108:PRO:HD3	2.02	0.60
74:27:62:ILE:HG13	74:27:63:LEU:N	2.17	0.60
21:59:21:LYS:HE3	21:59:56:THR:H	1.67	0.60
46:1S:329:G:H5'	55:S8:99:ALA:CB	2.31	0.60
1:2S:215:G:H5''	28:66:12:ARG:HG3	1.84	0.60
46:1S:1044:U:H5''	48:S1:153:HIS:NE2	2.17	0.60
1:2S:1341:U:H2'	1:2S:1342:C:C6	2.37	0.60
28:66:56:VAL:CG2	28:66:104:LEU:HB3	2.32	0.60
54:S7:43:PHE:HA	54:S7:63:PRO:HD3	1.84	0.60
1:2S:226:C:H2'	1:2S:227:G:O4'	2.01	0.60
1:2S:2615:G:H2'	1:2S:2616:C:C6	2.37	0.60
1:2S:1966:U:H3'	1:2S:1967:U:C5'	2.32	0.60
1:2S:343:U:O2	1:2S:1439:U:H1'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:74:98:GLN:O	36:74:102:LYS:HD3	2.01	0.60
68:21:28:ASP:OD1	68:21:31:SER:HB3	2.01	0.60
1:2S:2213:A:H2'	1:2S:2214:A:C8	2.36	0.60
15:53:76:THR:HG23	15:53:101:ARG:HH11	1.65	0.60
1:2S:1123:U:H2'	1:2S:1124:U:C5'	2.28	0.60
24:62:104:ARG:O	24:62:105:LEU:HD12	2.02	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
46:1S:1480:G:H4'	66:19:11:ALA:HB1	1.83	0.60
63:16:39:VAL:HG12	63:16:40:GLU:N	2.16	0.60
1:2S:1721:U:C5	21:59:103:ARG:NH2	2.70	0.60
18:56:117:ARG:CD	18:56:117:ARG:H	2.13	0.60
49:S2:82:ASN:O	49:S2:100:ALA:HB1	2.02	0.60
19:57:30:ARG:HD2	19:57:63:PHE:CE2	2.37	0.60
3:5S:119:U:H5''	8:L5:256:THR:HG21	1.83	0.60
1:2S:1472:U:H2'	1:2S:1473:G:H8	1.66	0.60
47:S0:118:PRO:O	47:S0:141:ILE:HD13	2.02	0.60
1:2S:1370:G:H5''	30:68:18:GLY:HA2	1.84	0.60
6:L3:237:LYS:CE	6:L3:246:LEU:HD13	2.31	0.60
61:14:111:ARG:HH21	73:26:58:VAL:HG12	1.67	0.60
6:L3:261:MET:HE2	6:L3:263:SER:HB2	1.84	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:2820:A:H2'	1:2S:2821:C:H5'	1.83	0.60
1:2S:406:G:H1'	2:8S:16:G:N2	2.17	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
43:81:2:ARG:HG3	46:1S:1773:C:OP2	2.02	0.60
1:2S:2718:U:H2'	1:2S:2719:U:O4'	2.01	0.60
1:2S:2447:A:H61	1:2S:2500:A:H2	1.42	0.60
46:1S:631:G:H2'	46:1S:632:U:C6	2.37	0.60
12:L9:143:GLU:HG2	12:L9:144:ILE:N	2.16	0.60
1:2S:916:G:H2'	1:2S:924:G:C8	2.36	0.60
46:1S:276:C:O2	46:1S:279:G:N2	2.26	0.60
50:S3:162:GLN:N	50:S3:163:PRO:CD	2.64	0.60
75:28:11:LYS:HD2	75:28:51:ASN:ND2	2.16	0.60
5:L2:205:ASN:HB2	5:L2:208:ASP:OD2	2.02	0.60
1:2S:2108:C:O4'	1:2S:3344:A:H1'	2.02	0.60
46:1S:839:U:H2'	46:1S:840:U:H5''	1.84	0.60
1:2S:632:G:OP1	18:56:94:ARG:HB2	2.01	0.59
17:55:14:LYS:HE2	17:55:120:TRP:HZ3	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2476:C:C2'	1:2S:2477:G:H4'	2.28	0.59
53:S6:44:GLU:O	53:S6:119:GLN:HB3	2.02	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
1:2S:2276:G:H2'	1:2S:2277:C:C6	2.37	0.59
48:S1:24:PHE:HA	48:S1:27:LYS:HG2	1.84	0.59
65:18:82:PRO:HB2	65:18:85:PHE:HB2	1.83	0.59
1:2S:933:A:H61	7:L4:102:PRO:CD	2.13	0.59
64:17:67:ARG:HG2	64:17:67:ARG:NH2	2.15	0.59
1:2S:745:C:H5''	20:58:145:ASN:HD22	1.67	0.59
1:2S:725:G:C3'	1:2S:726:G:H5''	2.32	0.59
1:2S:184:U:H2'	1:2S:185:C:C6	2.37	0.59
46:1S:958:U:H2'	60:13:14:SER:OG	2.02	0.59
52:S5:96:SER:CB	52:S5:176:THR:HG21	2.31	0.59
1:2S:1472:U:H2'	1:2S:1473:G:C8	2.37	0.59
76:29:22:ARG:HG2	76:29:38:ILE:CD1	2.32	0.59
71:24:9:THR:HA	71:24:24:VAL:O	2.01	0.59
48:S1:144:ARG:HD3	48:S1:208:GLN:HB3	1.82	0.59
1:2S:815:G:H2'	1:2S:906:A:N6	2.17	0.59
1:2S:549:U:H2'	1:2S:550:A:C8	2.37	0.59
67:20:38:SER:O	67:20:42:VAL:HG23	2.01	0.59
26:64:46:PRO:HB2	26:64:54:LEU:CD2	2.32	0.59
39:77:18:LEU:HA	39:77:25:ARG:H	1.66	0.59
60:13:23:PRO:O	60:13:24:ALA:HB3	2.02	0.59
1:2S:1224:C:H4'	1:2S:1289:G:H5'	1.83	0.59
48:S1:205:PHE:CD1	48:S1:206:PRO:HD2	2.31	0.59
1:2S:1584:U:H2'	1:2S:1585:C:C6	2.36	0.59
54:S7:139:ARG:HH11	54:S7:139:ARG:HG3	1.66	0.59
46:1S:1170:G:H2'	46:1S:1170:G:N3	2.17	0.59
1:2S:283:G:H21	1:2S:285:A:H5''	1.65	0.59
62:15:33:PHE:HZ	62:15:112:LEU:HD13	1.64	0.59
46:1S:20:G:H2'	46:1S:21:U:C6	2.37	0.59
1:2S:422:A:C6	1:2S:2363:A:H4'	2.37	0.59
1:2S:2461:A:H61	1:2S:2483:G:H21	1.50	0.59
46:1S:156:A:H2	46:1S:419:G:H21	1.49	0.59
73:26:20:PRO:HA	73:26:31:PRO:HA	1.84	0.59
46:1S:635:A:H2'	46:1S:636:A:C8	2.37	0.59
67:20:55:PRO:HB3	67:20:91:ILE:HG12	1.84	0.59
27:65:22:LYS:HD2	27:65:22:LYS:N	2.17	0.59
59:12:60:VAL:HG22	59:12:122:VAL:HG22	1.83	0.59
1:2S:2207:A:C3'	1:2S:2208:A:H5''	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:39:PHE:CE1	7:L4:236:LEU:HA	2.36	0.59
1:2S:2426:U:H2'	1:2S:2427:U:H6	1.61	0.59
46:1S:657:U:H2'	46:1S:658:C:C5'	2.32	0.59
60:13:134:VAL:HG23	60:13:135:LEU:HG	1.83	0.59
59:12:108:ARG:HG2	59:12:109:GLU:H	1.66	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
1:2S:1721:U:H2'	1:2S:1723:A:OP2	2.02	0.59
71:24:20:ARG:HB3	71:24:76:TYR:CZ	2.38	0.59
1:2S:762:U:H2'	1:2S:763:G:O4'	2.03	0.59
46:1S:86:A:H2'	46:1S:87:C:H6	1.66	0.59
14:51:166:LYS:C	14:51:168:ASP:H	2.04	0.59
39:77:46:SER:HB2	39:77:54:LYS:CD	2.33	0.59
46:1S:182:A:H2'	46:1S:183:U:C6	2.37	0.59
18:56:147:TRP:CE2	18:56:149:TYR:HB2	2.37	0.59
63:16:54:LEU:HD11	63:16:112:TYR:CD2	2.37	0.59
53:S6:28:PHE:CE1	53:S6:104:PRO:HG3	2.37	0.59
52:S5:93:LEU:HD23	52:S5:93:LEU:O	2.02	0.59
69:22:68:ARG:HH11	69:22:68:ARG:HG2	1.67	0.59
1:2S:3182:G:H1	1:2S:3189:G:H5''	1.65	0.59
50:S3:222:VAL:HG22	50:S3:223:LYS:N	2.17	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
46:1S:1066:C:H4'	48:S1:149:GLN:NE2	2.16	0.59
8:L5:110:LEU:HD12	8:L5:113:LEU:HD23	1.83	0.59
21:59:160:GLU:HG3	21:59:163:ARG:NH1	2.17	0.59
46:1S:927:C:O2'	46:1S:928:U:H5'	2.03	0.59
46:1S:878:G:H2'	46:1S:879:G:H8	1.67	0.59
51:S4:10:LYS:H	51:S4:13:ALA:HB3	1.67	0.59
13:50:217:PHE:O	13:50:218:ALA:HB2	2.02	0.59
22:60:132:THR:O	22:60:133:ALA:HB3	2.02	0.59
50:S3:190:ARG:HG2	50:S3:191:ASP:N	2.17	0.59
7:L4:142:VAL:HB	7:L4:145:ILE:HD13	1.84	0.59
1:2S:816:A:H4'	1:2S:817:A:H5'	1.84	0.59
46:1S:1080:U:C2'	46:1S:1081:A:H5'	2.28	0.59
11:L8:78:PHE:C	11:L8:80:TYR:H	2.06	0.59
1:2S:500:C:H2'	1:2S:501:A:H8	1.66	0.59
27:65:67:ILE:CD1	27:65:121:LYS:HG3	2.31	0.59
55:S8:106:ALA:CB	55:S8:165:LEU:HG	2.32	0.59
52:S5:64:VAL:HG22	52:S5:89:ILE:HD11	1.84	0.59
1:2S:248:U:OP2	1:2S:248:U:C6	2.52	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:86:VAL:HG22	10:L7:136:TYR:CB	2.33	0.59
5:L2:42:ARG:CD	5:L2:87:PHE:HB3	2.33	0.59
1:2S:1658:G:H2'	1:2S:1659:U:H6	1.65	0.59
18:56:88:VAL:HG12	18:56:89:SER:N	2.17	0.59
46:1S:705:U:H2'	46:1S:706:A:C8	2.37	0.59
1:2S:2081:U:H2'	1:2S:2082:U:O4'	2.02	0.59
65:18:63:GLN:HA	65:18:66:LEU:HD12	1.83	0.59
63:16:38:LEU:HD22	66:19:10:ALA:HA	1.85	0.59
11:L8:71:VAL:HG21	11:L8:76:ALA:HB2	1.85	0.59
7:L4:82:THR:HG23	7:L4:85:SER:H	1.68	0.59
1:2S:858:A:N3	45:83:13:LYS:HB2	2.18	0.59
53:S6:81:VAL:HG22	53:S6:82:SER:N	2.14	0.59
65:18:65:GLU:HG2	65:18:68:ARG:HH22	1.64	0.59
52:S5:53:VAL:CG1	52:S5:138:THR:HG21	2.31	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
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
60:13:30:SER:O	60:13:33:VAL:HG22	2.02	0.59
3:5S:88:G:H2'	3:5S:89:G:C8	2.37	0.59
58:11:80:MET:HE2	58:11:84:ILE:HA	1.83	0.59
1:2S:603:A:H2'	1:2S:604:G:O4'	2.02	0.59
1:2S:1966:U:H3'	1:2S:1967:U:H5'	1.83	0.59
6:L3:37:ARG:HA	6:L3:186:GLY:HA2	1.83	0.59
61:14:67:VAL:O	61:14:71:CYS:HB2	2.03	0.59
2:8S:32:C:H2'	2:8S:33:A:H8	1.67	0.59
52:S5:162:VAL:HA	75:28:45:LYS:HB3	1.84	0.59
74:27:35:VAL:HA	74:27:78:SER:O	2.02	0.59
11:L8:159:PRO:HB2	11:L8:162:LEU:HD12	1.85	0.59
46:1S:387:A:H3'	46:1S:402:C:C5	2.37	0.59
1:2S:1064:A:H5''	1:2S:1066:G:C8	2.37	0.59
18:56:124:LEU:CG	18:56:126:VAL:HG12	2.28	0.59
46:1S:1526:A:H3'	46:1S:1527:C:H6	1.68	0.59
21:59:110:ARG:HD3	21:59:120:TYR:CD1	2.38	0.59
43:81:4:LYS:NZ	46:1S:1775:U:C5	2.59	0.59
49:S2:178:ILE:HG13	49:S2:194:GLU:O	2.01	0.59
1:2S:3011:A:N6	6:L3:13:HIS:HA	2.18	0.59
6:L3:10:ARG:HB2	6:L3:10:ARG:CZ	2.33	0.59
1:2S:655:C:H2'	1:2S:656:A:C8	2.38	0.59
15:53:183:ARG:HG3	15:53:186:ARG:HH11	1.66	0.59
12:L9:138:THR:C	12:L9:140:VAL:H	2.05	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:S0:74:VAL:HG23	47:S0:118:PRO:HB3	1.84	0.59
5:L2:205:ASN:HB3	5:L2:206:PRO:CD	2.32	0.59
1:2S:278:U:OP1	44:82:50:PHE:HD2	1.86	0.59
52:S5:77:TYR:HB3	52:S5:83:ARG:O	2.02	0.59
1:2S:695:C:H2'	1:2S:696:C:C6	2.37	0.59
29:67:49:TYR:HD2	29:67:133:LYS:HZ3	1.48	0.59
1:2S:353:G:N7	39:77:55:ARG:HD2	2.18	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:2699:G:H3'	1:2S:2700:G:H8	1.67	0.59
25:63:74:MET:HB2	25:63:75:PRO:CD	2.33	0.59
7:L4:286:VAL:HG21	20:58:28:LEU:HB3	1.85	0.59
44:82:91:PHE:CZ	44:82:93:LEU:HB3	2.38	0.59
53:S6:78:THR:HG22	53:S6:79:LYS:N	2.10	0.59
49:S2:159:THR:CG2	49:S2:166:THR:HG22	2.33	0.59
27:65:81:ILE:CG1	27:65:125:ARG:HG3	2.30	0.59
46:1S:139:C:H1'	46:1S:140:A:OP2	2.02	0.59
61:14:87:GLY:HA3	61:14:120:PRO:HG2	1.85	0.59
1:2S:687:U:H3	1:2S:693:A:N6	1.99	0.59
45:83:64:VAL:HG12	45:83:65:ALA:H	1.68	0.59
71:24:124:ARG:HA	71:24:127:LYS:HD3	1.83	0.59
51:S4:238:LEU:HD13	51:S4:242:LYS:HG3	1.84	0.59
18:56:8:VAL:HG12	18:56:117:ARG:HB3	1.83	0.59
1:2S:2347:U:H3'	1:2S:2348:A:C8	2.37	0.59
44:82:67:LYS:HG2	44:82:87:ARG:HG2	1.85	0.59
46:1S:205:U:H2'	46:1S:206:A:H8	1.66	0.59
63:16:99:GLU:HB3	79:RA:57:PRO:HB2	1.84	0.59
79:RA:278:PHE:HB3	79:RA:281:TYR:CE1	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
29:67:93:LYS:HD3	29:67:93:LYS:O	2.02	0.59
6:L3:280:HIS:HB3	6:L3:324:VAL:HG21	1.84	0.59
56:S9:123:HIS:O	56:S9:127:VAL:HG23	2.03	0.59
46:1S:412:A:H2'	46:1S:413:U:C6	2.38	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
2:8S:70:G:H5''	28:66:28:ARG:NE	2.17	0.59
45:83:84:ARG:O	45:83:88:GLU:HG2	2.03	0.59
71:24:21:LYS:HB2	71:24:75:VAL:CG1	2.31	0.59
8:L5:64:ILE:HD11	8:L5:105:ILE:CG2	2.33	0.59
5:L2:43:GLY:HA3	5:L2:63:PHE:CE1	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:495:C:H3'	46:1S:496:G:O4'	2.03	0.59
1:2S:308:A:H5'	1:2S:2223:A:O2'	2.03	0.59
65:18:25:ASN:O	72:25:40:VAL:HG11	2.02	0.59
79:RA:263:PHE:CE1	79:RA:270:LEU:HD13	2.38	0.59
46:1S:1279:C:H2'	46:1S:1280:C:C6	2.38	0.59
66:19:70:GLN:HB2	66:19:122:ARG:H	1.67	0.59
9:L6:80:ASN:HB3	9:L6:83:TYR:CD2	2.38	0.59
54:S7:11:GLN:HG3	54:S7:13:PRO:CD	2.21	0.59
10:L7:77:VAL:CG1	23:61:141:VAL:HG13	2.33	0.59
46:1S:189:C:C2'	46:1S:190:C:H5''	2.27	0.59
1:2S:1565:G:H2'	1:2S:1566:A:O4'	2.03	0.59
77:30:47:VAL:HG22	77:30:48:THR:H	1.68	0.59
25:63:123:ALA:O	25:63:125:LEU:N	2.36	0.59
1:2S:2205:U:H2'	1:2S:2206:G:C5'	2.33	0.59
1:2S:2189:U:C4'	45:83:22:LEU:HD11	2.30	0.59
48:S1:103:MET:HB3	48:S1:215:VAL:HG12	1.85	0.59
46:1S:941:A:H2'	46:1S:942:G:O4'	2.03	0.59
17:55:34:ASN:HB2	17:55:37:HIS:HB3	1.83	0.59
58:11:21:ASN:CB	58:11:31:THR:HG23	2.33	0.59
3:5S:96:U:H5''	22:60:43:TYR:OH	2.03	0.59
1:2S:215:G:H4'	28:66:15:ALA:CB	2.33	0.59
48:S1:88:VAL:HG11	48:S1:96:LEU:HD12	1.85	0.59
8:L5:131:LEU:H	8:L5:131:LEU:HD13	1.66	0.59
47:S0:144:ILE:HG23	47:S0:158:VAL:HG13	1.85	0.59
1:2S:422:A:N1	1:2S:2363:A:H4'	2.18	0.59
1:2S:1909:A:H2'	1:2S:1910:A:C8	2.37	0.59
22:60:137:ARG:HB3	22:60:140:VAL:HG23	1.83	0.59
10:L7:218:ARG:HH22	10:L7:220:PHE:HB2	1.68	0.59
47:S0:52:LYS:HB3	68:21:82:VAL:HG22	1.85	0.59
1:2S:19:U:H4'	17:55:138:GLN:OE1	2.02	0.59
1:2S:2298:U:O2'	1:2S:2299:A:H5'	2.03	0.59
16:54:58:ILE:HG12	16:54:59:ASN:N	2.18	0.59
56:S9:29:LYS:HA	77:30:40:TYR:HE2	1.68	0.59
74:27:81:ARG:O	74:27:82:LYS:HB2	2.01	0.59
1:2S:3096:C:H2'	1:2S:3097:C:C6	2.38	0.59
57:10:21:VAL:HB	57:10:66:TYR:HB2	1.86	0.58
36:74:20:ILE:HG23	36:74:32:ALA:HB1	1.85	0.58
14:51:94:ARG:H	14:51:94:ARG:CD	2.09	0.58
54:S7:34:LEU:HD12	54:S7:34:LEU:N	2.17	0.58
46:1S:1058:U:H5	46:1S:1061:A:N1	2.00	0.58
58:11:109:VAL:HG21	58:11:125:VAL:HG11	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:61:84:TYR:CB	31:69:24:PRO:HG3	2.34	0.58
52:S5:62:VAL:HG13	52:S5:89:ILE:HG21	1.85	0.58
1:2S:2990:G:C2'	1:2S:2991:A:H5'	2.32	0.58
21:59:142:ILE:HG22	21:59:146:LYS:HD3	1.85	0.58
1:2S:3231:U:H2'	1:2S:3232:G:H8	1.66	0.58
45:83:42:CYS:HB3	45:83:60:CYS:SG	2.43	0.58
1:2S:2500:A:O2'	1:2S:2501:U:H5'	2.03	0.58
12:L9:91:ARG:HD2	12:L9:143:GLU:HB2	1.85	0.58
58:11:122:ILE:N	58:11:122:ILE:HD12	2.17	0.58
51:S4:250:GLU:HA	51:S4:253:ASP:OD2	2.03	0.58
46:1S:1622:G:H2'	46:1S:1623:C:C6	2.38	0.58
7:L4:187:LEU:HD23	7:L4:198:ARG:O	2.03	0.58
46:1S:1232:U:H2'	46:1S:1233:G:C8	2.38	0.58
1:2S:2468:A:C6	1:2S:2478:C:H4'	2.38	0.58
57:10:82:LEU:HB2	57:10:86:ILE:HG21	1.85	0.58
69:22:11:LEU:HD12	69:22:74:VAL:HB	1.84	0.58
39:77:47:TYR:CB	39:77:49:TRP:NE1	2.66	0.58
56:S9:53:ARG:HG2	56:S9:53:ARG:HH21	1.68	0.58
6:L3:42:ALA:C	6:L3:43:LEU:HD12	2.24	0.58
19:57:36:ILE:CD1	19:57:44:ALA:HB1	2.34	0.58
1:2S:1939:G:H2'	1:2S:1940:G:H8	1.66	0.58
15:53:83:ALA:HB2	15:53:116:LEU:HD13	1.84	0.58
1:2S:3132:C:H2'	1:2S:3133:C:C6	2.38	0.58
1:2S:392:G:C2'	1:2S:393:U:H5'	2.33	0.58
22:60:50:LYS:O	22:60:51:VAL:HG13	2.03	0.58
1:2S:2168:A:C5'	17:55:67:ARG:HH12	2.16	0.58
59:12:76:GLU:O	59:12:80:ASN:HB2	2.04	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
65:18:17:LEU:HD21	65:18:22:VAL:HG21	1.84	0.58
46:1S:766:U:H5'	46:1S:767:U:H5''	1.86	0.58
72:25:76:ALA:O	72:25:80:LEU:HG	2.02	0.58
46:1S:1235:C:O4'	78:31:146:SER:HB2	2.03	0.58
29:67:135:ARG:HG2	29:67:135:ARG:HH21	1.69	0.58
2:8S:110:C:H4'	2:8S:112:U:H5	1.67	0.58
12:L9:25:VAL:HG12	12:L9:26:LYS:N	2.18	0.58
24:62:42:LYS:HG2	24:62:47:VAL:HG13	1.83	0.58
44:82:70:LEU:HD11	44:82:85:LEU:HD11	1.85	0.58
1:2S:300:G:H2'	1:2S:301:G:H8	1.68	0.58
46:1S:1036:A:C5'	69:22:3:ARG:HH22	2.11	0.58
46:1S:64:U:H4'	46:1S:169:A:H4'	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:4:PRO:HD2	7:L4:22:LEU:CD1	2.32	0.58
49:S2:69:ILE:CD1	49:S2:133:LYS:HD2	2.30	0.58
1:2S:38:U:H5'	30:68:32:ARG:NH1	2.18	0.58
27:65:111:ASN:HB2	27:65:123:TYR:HB2	1.84	0.58
5:L2:48:ILE:HD11	45:83:63:THR:HG22	1.84	0.58
1:2S:1283:C:C2'	1:2S:1284:C:H5'	2.33	0.58
46:1S:1533:C:OP2	72:25:74:SER:HB3	2.03	0.58
9:L6:172:HIS:CD2	35:73:40:ASP:HB3	2.38	0.58
19:57:36:ILE:HD11	19:57:44:ALA:HB1	1.84	0.58
8:L5:155:THR:N	8:L5:179:ARG:HH11	2.01	0.58
1:2S:75:G:H5''	15:53:58:VAL:CG1	2.32	0.58
28:66:56:VAL:HG22	28:66:57:LEU:H	1.68	0.58
61:14:17:ALA:HB2	61:14:79:VAL:HG21	1.84	0.58
1:2S:2457:G:H22	1:2S:2461:A:H61	1.49	0.58
75:28:50:GLU:O	75:28:51:ASN:HB2	2.03	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
46:1S:1617:U:H2'	46:1S:1618:C:C6	2.38	0.58
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
14:51:52:TYR:N	14:51:52:TYR:CD2	2.71	0.58
30:68:83:PRO:HD2	30:68:86:LYS:HB2	1.86	0.58
46:1S:618:U:H4'	46:1S:1030:A:N6	2.18	0.58
20:58:34:THR:HA	20:58:49:LEU:HD11	1.84	0.58
55:S8:29:LEU:H	55:S8:29:LEU:HD23	1.68	0.58
55:S8:8:ARG:HA	55:S8:8:ARG:CZ	2.34	0.58
1:2S:858:A:H2'	1:2S:859:G:C8	2.38	0.58
46:1S:607:G:C5'	46:1S:613:G:H22	2.11	0.58
7:L4:23:PRO:CG	7:L4:258:LEU:HD23	2.27	0.58
21:59:162:ARG:HD2	21:59:162:ARG:C	2.22	0.58
65:18:81:ILE:CG2	65:18:82:PRO:HD2	2.33	0.58
1:2S:381:U:H2'	1:2S:382:U:C5	2.38	0.58
35:73:35:VAL:HG13	35:73:40:ASP:HB2	1.84	0.58
50:S3:164:VAL:O	50:S3:168:ILE:HG13	2.03	0.58
46:1S:329:G:OP1	55:S8:98:LYS:HE2	2.04	0.58
54:S7:111:LYS:O	54:S7:112:ARG:HB2	2.02	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
46:1S:382:C:H2'	46:1S:383:G:C8	2.38	0.58
50:S3:72:LEU:HD23	57:10:20:VAL:CG1	2.33	0.58
62:15:8:LYS:HD3	62:15:11:VAL:HA	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3184:A:O2'	1:2S:3185:U:H5'	2.02	0.58
65:18:92:ILE:HD13	65:18:92:ILE:O	2.03	0.58
4:L1:155:ILE:HG23	4:L1:163:LEU:CD1	2.33	0.58
17:55:68:ARG:HH21	17:55:123:GLN:HB2	1.69	0.58
23:61:139:ARG:HD3	23:61:139:ARG:H	1.68	0.58
9:L6:165:LEU:HD12	35:73:6:ARG:HG2	1.86	0.58
1:2S:1601:U:H2'	1:2S:1603:A:OP2	2.04	0.58
48:S1:54:LEU:O	48:S1:55:LYS:CB	2.52	0.58
60:13:136:PRO:HG2	60:13:139:TRP:HB2	1.86	0.58
16:54:22:LEU:HB3	16:54:64:VAL:HG12	1.86	0.58
8:L5:154:THR:HA	8:L5:179:ARG:NH1	2.17	0.58
75:28:25:VAL:HG11	75:28:66:LEU:CD1	2.33	0.58
46:1S:1501:C:C5	66:19:102:ARG:NH2	2.71	0.58
66:19:89:ARG:HB3	66:19:90:PRO:HD2	1.86	0.58
14:51:76:ALA:O	14:51:80:LEU:HB2	2.03	0.58
37:75:100:VAL:HG13	37:75:105:ARG:HB2	1.85	0.58
1:2S:242:C:HO2'	1:2S:243:G:H8	1.52	0.58
1:2S:2586:G:C5	11:L8:241:LYS:HD3	2.39	0.58
49:S2:226:THR:HG23	49:S2:229:LEU:HB2	1.83	0.58
15:53:73:ARG:HG3	15:53:73:ARG:HH21	1.69	0.58
1:2S:1932:A:H2'	1:2S:1933:A:H5'	1.84	0.58
1:2S:2788:C:H2'	1:2S:2789:U:C6	2.38	0.58
60:13:44:GLY:C	60:13:45:LEU:HD22	2.24	0.58
14:51:149:GLY:O	14:51:153:LYS:HG3	2.04	0.58
1:2S:1830:G:H2'	1:2S:1831:U:C6	2.38	0.58
10:L7:77:VAL:HG22	23:61:139:ARG:C	2.24	0.58
1:2S:126:U:H2'	1:2S:127:G:C8	2.39	0.58
18:56:75:ALA:O	18:56:79:ILE:HG13	2.03	0.58
27:65:86:VAL:HG13	27:65:120:LYS:HD2	1.86	0.58
14:51:23:VAL:HB	14:51:25:GLU:O	2.03	0.58
21:59:90:PRO:O	21:59:94:VAL:HG23	2.02	0.58
1:2S:3358:U:H2'	1:2S:3359:A:O4'	2.04	0.58
28:66:112:ASP:H	28:66:115:ARG:HB2	1.69	0.58
46:1S:594:A:H4'	46:1S:595:G:H5'	1.86	0.58
46:1S:981:U:C2'	46:1S:982:U:H5''	2.33	0.58
1:2S:2941:A:C8	6:L3:256:HIS:HE1	2.20	0.58
51:S4:126:VAL:HG12	51:S4:141:THR:HG22	1.86	0.58
8:L5:131:LEU:N	8:L5:131:LEU:HD13	2.19	0.58
11:L8:128:LYS:HG3	11:L8:129:PRO:HD2	1.85	0.58
1:2S:1393:A:H2'	1:2S:1394:A:C8	2.39	0.58
1:2S:915:A:H2'	1:2S:916:G:H5'	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1054:A:H5''	1:2S:2637:A:H61	1.68	0.58
21:59:74:ARG:O	21:59:75:HIS:HB2	2.03	0.58
15:53:67:ARG:H	15:53:67:ARG:HD3	1.67	0.58
16:54:45:LEU:HD21	22:60:70:THR:O	2.03	0.58
46:1S:1323:C:H2'	46:1S:1324:G:C8	2.38	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
1:2S:501:A:H2'	1:2S:502:U:C6	2.37	0.58
34:72:101:SER:O	34:72:105:ARG:HG3	2.03	0.58
46:1S:460:A:H3'	46:1S:461:G:C8	2.30	0.58
53:S6:1:MET:HE1	53:S6:106:LEU:HB2	1.86	0.58
46:1S:148:A:H2'	46:1S:149:C:H5'	1.84	0.58
59:12:46:ARG:HH12	78:31:103:LEU:HD21	1.68	0.58
66:19:45:MET:SD	66:19:46:PRO:HD2	2.43	0.58
51:S4:52:LEU:HB3	51:S4:54:TYR:CD2	2.39	0.58
54:S7:43:PHE:HD1	54:S7:44:LYS:N	2.02	0.58
1:2S:2677:G:H3'	1:2S:2679:A:OP2	2.04	0.58
46:1S:417:A:H1'	46:1S:418:G:OP2	2.04	0.58
49:S2:42:GLY:O	49:S2:45:VAL:HB	2.04	0.58
1:2S:2437:G:H1	1:2S:2510:U:H3	1.52	0.58
79:RA:112:SER:HB2	79:RA:153:GLN:HA	1.84	0.58
1:2S:1480:G:H22	1:2S:1871:U:H3'	1.67	0.58
53:S6:12:SER:O	53:S6:124:LEU:CD1	2.52	0.58
63:16:31:VAL:O	63:16:32:ASN:HB2	2.02	0.58
1:2S:519:A:H4'	7:L4:355:PHE:HZ	1.66	0.58
1:2S:336:A:C2'	1:2S:337:G:H5'	2.34	0.58
75:28:7:VAL:HG13	75:28:56:LEU:O	2.03	0.58
49:S2:104:VAL:HG22	49:S2:132:ALA:HB1	1.84	0.58
79:RA:17:ASN:HB3	79:RA:39:ASP:HB3	1.86	0.58
62:15:87:PRO:HA	62:15:90:ILE:HG13	1.85	0.58
46:1S:1659:A:H2'	46:1S:1660:A:C8	2.38	0.58
9:L6:43:LEU:HD12	9:L6:83:TYR:CA	2.28	0.58
48:S1:171:ILE:O	48:S1:175:GLU:HG2	2.03	0.58
15:53:138:VAL:CG2	37:75:118:ILE:HB	2.33	0.58
16:54:106:ARG:HG3	16:54:106:ARG:HH11	1.69	0.58
1:2S:3197:G:H2'	1:2S:3198:U:H3'	1.85	0.58
5:L2:225:ILE:HB	5:L2:238:ILE:HG13	1.86	0.58
21:59:189:ALA:HB2	54:S7:39:ARG:CD	2.33	0.58
1:2S:3086:A:H3'	1:2S:3087:A:H8	1.68	0.58
1:2S:2464:U:H3	1:2S:2491:A:H61	1.50	0.58
26:64:46:PRO:HB2	26:64:54:LEU:HD22	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:S6:28:PHE:O	53:S6:29:ASP:HB2	2.03	0.58
1:2S:2908:G:H2'	1:2S:2909:U:C6	2.38	0.58
1:2S:153:U:H2'	1:2S:154:U:H5''	1.85	0.58
68:21:11:LEU:O	68:21:12:TYR:HB3	2.03	0.58
1:2S:1263:A:N3	1:2S:1263:A:H2'	2.19	0.58
58:11:3:THR:HA	58:11:81:HIS:NE2	2.18	0.58
6:L3:338:LEU:HD13	6:L3:338:LEU:N	2.18	0.58
61:14:39:ILE:O	61:14:40:ALA:HB3	2.04	0.58
3:5S:28:C:H2'	3:5S:29:C:O4'	2.04	0.58
25:63:57:MET:SD	25:63:75:PRO:HB3	2.44	0.58
1:2S:58:G:H5''	17:55:154:PRO:HB2	1.84	0.58
49:S2:121:VAL:O	49:S2:125:ILE:HG13	2.03	0.58
33:71:62:ARG:HH11	33:71:62:ARG:HG3	1.69	0.58
1:2S:1235:U:H4'	1:2S:1236:G:C5'	2.32	0.58
52:S5:94:THR:HG22	52:S5:114:ILE:CD1	2.34	0.58
52:S5:71:ALA:HB1	52:S5:94:THR:HG21	1.86	0.58
8:L5:144:VAL:CG1	8:L5:173:VAL:HG22	2.33	0.58
45:83:64:VAL:HG12	45:83:65:ALA:N	2.19	0.58
76:29:33:LYS:HE2	76:29:34:TYR:CZ	2.39	0.58
1:2S:819:U:H2'	1:2S:820:A:H5'	1.85	0.58
32:70:22:LYS:HB2	32:70:94:GLU:HB2	1.84	0.58
5:L2:42:ARG:HD2	5:L2:87:PHE:CD1	2.39	0.58
1:2S:745:C:H5''	20:58:145:ASN:HB2	1.86	0.58
46:1S:1166:A:H2'	46:1S:1167:G:C4'	2.33	0.58
46:1S:175:G:N2	46:1S:176:C:C5	2.72	0.58
1:2S:2421:U:H4'	44:82:53:GLN:HB2	1.85	0.58
1:2S:1138:U:H2'	1:2S:1139:G:O4'	2.04	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
46:1S:1440:C:H2'	46:1S:1441:C:O4'	2.03	0.58
3:5S:104:A:H2'	3:5S:105:C:H5'	1.86	0.58
46:1S:915:A:H3'	46:1S:916:U:C6	2.39	0.58
1:2S:2138:A:C5	39:77:3:LYS:HB3	2.39	0.58
1:2S:1106:G:H2'	1:2S:1107:C:C6	2.39	0.58
1:2S:3267:A:H3'	1:2S:3268:A:H8	1.68	0.58
34:72:24:ARG:HH11	34:72:24:ARG:HG3	1.69	0.58
46:1S:503:G:H2'	46:1S:504:U:C5	2.39	0.58
25:63:125:LEU:O	25:63:127:PRO:HD3	2.04	0.58
45:83:49:ARG:HG2	45:83:54:ILE:O	2.04	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)
75:28:29:ARG:HH11	75:28:29:ARG:HB2	1.69	0.58
33:71:70:ARG:HH21	33:71:70:ARG:CG	2.17	0.58
2:8S:69:U:H2'	2:8S:70:G:H5'	1.86	0.58
1:2S:1427:U:H2'	1:2S:1428:A:C8	2.39	0.58
8:L5:19:PRO:HB2	8:L5:24:ARG:HG2	1.86	0.58
1:2S:926:A:H2'	1:2S:927:C:C6	2.39	0.58
1:2S:1782:U:O2'	1:2S:1783:U:H5'	2.04	0.58
1:2S:973:A:H2'	1:2S:974:G:O4'	2.04	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
50:S3:6:SER:HB3	50:S3:9:ARG:HB2	1.86	0.58
1:2S:1117:G:H2'	1:2S:1118:C:C6	2.38	0.58
18:56:9:ILE:HB	18:56:35:VAL:HG13	1.85	0.58
64:17:24:LEU:HD23	64:17:34:LEU:HD13	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
1:2S:92:G:OP2	1:2S:93:C:H5''	2.03	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
46:1S:885:G:OP1	48:S1:216:LYS:HD3	2.03	0.57
11:L8:133:LYS:HE2	11:L8:133:LYS:HA	1.86	0.57
46:1S:1673:G:H5'	53:S6:94:ARG:HH22	1.67	0.57
1:2S:1449:A:H1'	1:2S:2983:C:C5	2.38	0.57
7:L4:299:ILE:HD12	20:58:39:ARG:HG3	1.84	0.57
58:11:94:ILE:HD12	58:11:94:ILE:N	2.19	0.57
1:2S:3159:C:H4'	1:2S:3395:G:C6	2.39	0.57
48:S1:44:GLY:O	48:S1:45:LYS:HD3	2.04	0.57
10:L7:124:LEU:HD22	10:L7:127:LEU:HD12	1.86	0.57
46:1S:1376:C:O2'	46:1S:1377:U:H5'	2.04	0.57
16:54:124:ARG:HB3	16:54:124:ARG:HH11	1.68	0.57
1:2S:924:G:N2	1:2S:2414:G:O2'	2.36	0.57
57:10:25:LYS:HB2	57:10:64:TYR:CE2	2.39	0.57
70:23:109:ARG:HB2	70:23:111:GLY:O	2.04	0.57
61:14:72:LYS:HD3	61:14:110:LEU:HD21	1.86	0.57
1:2S:1650:G:H4'	5:L2:70:ARG:HA	1.85	0.57
2:8S:97:A:H2'	2:8S:98:U:O4'	2.03	0.57
1:2S:1503:A:H2'	1:2S:1504:A:O4'	2.04	0.57
79:RA:212:ALA:O	79:RA:243:LEU:HD13	2.04	0.57
1:2S:1141:C:H2'	1:2S:1142:G:O4'	2.04	0.57
62:15:22:LEU:HD13	62:15:109:PRO:HB3	1.86	0.57
1:2S:3029:A:H2'	1:2S:3030:G:O4'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1371:A:O5'	46:1S:1371:A:H8	1.87	0.57
35:73:14:LEU:HD11	35:73:31:LYS:HB2	1.85	0.57
18:56:27:LEU:HD23	18:56:31:GLN:O	2.03	0.57
1:2S:2238:G:H2'	1:2S:2239:G:C8	2.39	0.57
1:2S:1689:U:O3'	21:59:59:SER:HB3	2.04	0.57
25:63:77:ILE:HD11	25:63:103:ALA:CB	2.31	0.57
30:68:123:VAL:CG1	30:68:124:ILE:H	2.09	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
46:1S:1609:U:C2'	46:1S:1610:G:H5'	2.34	0.57
29:67:53:VAL:CG2	29:67:62:VAL:HG13	2.33	0.57
1:2S:98:G:H4'	1:2S:281:G:H5'	1.86	0.57
46:1S:127:G:C4'	53:S6:194:LYS:HE2	2.32	0.57
58:11:93:TYR:HB2	58:11:100:TYR:HE1	1.69	0.57
46:1S:1170:G:N2	46:1S:1571:C:H4'	2.19	0.57
11:L8:153:ILE:HG22	11:L8:154:ALA:H	1.69	0.57
1:2S:1668:G:H2'	1:2S:1669:C:H6	1.68	0.57
30:68:47:LYS:C	30:68:50:PRO:HD3	2.24	0.57
1:2S:1794:G:O2'	1:2S:1796:G:N2	2.37	0.57
1:2S:2684:C:H2'	1:2S:2685:C:H6	1.67	0.57
14:51:53:THR:HG23	14:51:59:ILE:O	2.04	0.57
1:2S:696:C:H5"	7:L4:272:VAL:HG23	1.86	0.57
65:18:90:ASN:O	65:18:95:GLY:HA2	2.04	0.57
36:74:58:ARG:HB3	36:74:61:GLN:HG2	1.86	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
66:19:21:PHE:HA	66:19:24:ARG:HB2	1.86	0.57
46:1S:551:G:H5'	46:1S:581:U:H2'	1.86	0.57
30:68:73:LEU:HD11	30:68:77:LYS:HB2	1.86	0.57
48:S1:69:CYS:HA	48:S1:83:LYS:HA	1.85	0.57
1:2S:1826:C:H2'	1:2S:1827:C:C6	2.39	0.57
71:24:94:TYR:HB2	71:24:96:LEU:HD11	1.86	0.57
71:24:91:LEU:HA	71:24:96:LEU:HD13	1.85	0.57
66:19:117:SER:HB2	66:19:123:ARG:HB2	1.86	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
10:L7:77:VAL:HG22	23:61:139:ARG:O	2.03	0.57
6:L3:227:GLU:HG3	6:L3:228:GLY:H	1.69	0.57
46:1S:190:C:N4	55:S8:141:ARG:NH2	2.52	0.57
48:S1:127:VAL:HG11	48:S1:176:VAL:HG21	1.87	0.57
5:L2:47:GLN:O	5:L2:59:ALA:HA	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3359:A:H3'	1:2S:3360:C:C6	2.38	0.57
17:55:61:ILE:HG22	17:55:131:GLU:HG2	1.86	0.57
46:1S:1594:G:C5'	76:29:33:LYS:HD2	2.35	0.57
6:L3:43:LEU:N	6:L3:43:LEU:HD12	2.18	0.57
7:L4:132:ALA:CA	7:L4:148:ILE:HD12	2.33	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
28:66:80:VAL:HG12	28:66:99:LEU:HB2	1.85	0.57
1:2S:2271:A:H3'	1:2S:2272:G:H5''	1.85	0.57
48:S1:142:PHE:HD2	48:S1:209:ASN:HB2	1.69	0.57
47:S0:198:MET:HA	47:S0:198:MET:HE2	1.87	0.57
46:1S:715:U:C5	46:1S:717:C:N4	2.72	0.57
40:78:73:LEU:HD23	40:78:75:VAL:HG22	1.86	0.57
46:1S:1560:U:H2'	46:1S:1561:U:O4'	2.04	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
46:1S:1473:U:H2'	46:1S:1473:U:O2	2.03	0.57
1:2S:1750:A:H4'	1:2S:1751:G:H5'	1.85	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
60:13:84:ILE:HD12	60:13:89:TYR:HA	1.87	0.57
7:L4:23:PRO:HA	7:L4:259:ASP:OD2	2.05	0.57
1:2S:3187:A:H2	22:60:169:SER:HB3	1.70	0.57
46:1S:14:C:OP1	49:S2:165:VAL:HG23	2.04	0.57
11:L8:105:LYS:HE3	11:L8:108:ARG:HH22	1.69	0.57
1:2S:2277:C:C2'	1:2S:2278:C:H5'	2.35	0.57
59:12:104:GLY:HA2	59:12:113:ARG:HD2	1.86	0.57
1:2S:2403:G:H1'	1:2S:2872:A:C6	2.39	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
50:S3:186:VAL:HG12	50:S3:188:ILE:HG13	1.86	0.57
79:RA:161:LYS:HG3	79:RA:161:LYS:O	2.04	0.57
39:77:84:SER:O	39:77:85:LYS:HB2	2.04	0.57
46:1S:930:A:H1'	48:S1:111:ARG:HH11	1.68	0.57
9:L6:18:LEU:H	9:L6:18:LEU:HD22	1.68	0.57
19:57:25:SER:OG	19:57:28:ASN:ND2	2.38	0.57
57:10:61:TRP:HZ3	76:29:22:ARG:HD2	1.69	0.57
1:2S:2078:C:H2'	1:2S:2079:G:C8	2.39	0.57
71:24:3:ASP:HB2	71:24:30:PRO:O	2.04	0.57
39:77:16:HIS:HA	39:77:27:PHE:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:212:ASP:OD1	7:L4:216:VAL:HG13	2.04	0.57
26:64:5:ILE:HD12	26:64:5:ILE:C	2.25	0.57
1:2S:2088:A:H2'	1:2S:2088:A:N3	2.20	0.57
73:26:42:ARG:HB3	73:26:42:ARG:HH11	1.69	0.57
53:S6:6:SER:O	53:S6:113:ILE:HG13	2.04	0.57
1:2S:71:A:H61	1:2S:303:G:H1'	1.69	0.57
3:5S:26:C:H5'	8:L5:56:THR:HB	1.86	0.57
1:2S:816:A:C3'	1:2S:817:A:H5'	2.35	0.57
54:S7:51:VAL:HG23	54:S7:53:GLY:H	1.70	0.57
29:67:87:LEU:HG	29:67:88:ASP:N	2.16	0.57
1:2S:39:A:H2'	1:2S:42:C:H41	1.68	0.57
48:S1:135:LEU:HB3	48:S1:217:LEU:HD12	1.86	0.57
11:L8:107:GLU:O	11:L8:111:LYS:HG3	2.04	0.57
69:22:77:PRO:HG2	70:23:9:LEU:HD23	1.86	0.57
52:S5:57:SER:HB3	75:28:53:ILE:CG2	2.35	0.57
33:71:55:LEU:HD23	33:71:95:PRO:HB3	1.86	0.57
1:2S:2914:G:H3'	1:2S:2915:U:C6	2.39	0.57
1:2S:634:C:H5'	35:73:21:ARG:O	2.05	0.57
35:73:15:SER:HA	35:73:94:PHE:HE1	1.67	0.57
73:26:45:VAL:HG22	73:26:64:LEU:HD11	1.87	0.57
46:1S:798:C:H2'	46:1S:799:A:C8	2.40	0.57
23:61:76:ILE:HB	23:61:87:LYS:HB2	1.87	0.57
1:2S:799:G:H2'	1:2S:801:A:H62	1.68	0.57
1:2S:2414:G:H2'	1:2S:2415:C:C6	2.39	0.57
8:L5:24:ARG:HB2	8:L5:24:ARG:CZ	2.34	0.57
9:L6:50:LYS:HE2	9:L6:72:ASN:HB2	1.86	0.57
19:57:22:LEU:HB3	19:57:24:VAL:HG23	1.86	0.57
44:82:67:LYS:HG2	44:82:87:ARG:CG	2.34	0.57
5:L2:70:ARG:C	5:L2:71:LEU:HD12	2.24	0.57
14:51:14:ILE:HD12	14:51:77:GLU:HG2	1.85	0.57
51:S4:159:THR:HB	51:S4:227:VAL:HG23	1.86	0.57
27:65:106:ASP:HB3	27:65:127:THR:HG21	1.87	0.57
46:1S:1735:U:H2'	46:1S:1736:G:C8	2.40	0.57
58:11:4:GLU:O	58:11:5:LEU:HB2	2.05	0.57
4:L1:21:ASN:OD1	4:L1:174:MET:HB2	2.04	0.57
1:2S:1302:A:H2'	1:2S:1303:A:H5''	1.86	0.57
46:1S:607:G:C5'	46:1S:613:G:N2	2.66	0.57
46:1S:446:A:N6	46:1S:461:G:H21	2.03	0.57
7:L4:316:ASN:ND2	7:L4:319:LYS:HE2	2.20	0.57
1:2S:1715:A:N6	32:70:84:LEU:HB2	2.19	0.57
1:2S:1108:U:H2'	1:2S:1109:U:H6	1.66	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:576:G:H4'	46:1S:580:A:N3	2.19	0.57
52:S5:164:PRO:O	52:S5:168:VAL:HG23	2.05	0.57
19:57:47:TYR:O	19:57:51:VAL:HG23	2.05	0.57
46:1S:981:U:H2'	46:1S:982:U:C5'	2.34	0.57
50:S3:220:PRO:HB2	79:RA:230:ALA:HB1	1.86	0.57
40:78:45:VAL:HG23	40:78:52:TYR:HB2	1.86	0.57
10:L7:218:ARG:HA	10:L7:218:ARG:HH11	1.69	0.57
49:S2:58:LEU:HD23	68:21:15:ARG:HG3	1.87	0.57
32:70:26:GLY:O	32:70:30:THR:HG23	2.04	0.57
55:S8:139:ALA:HB1	55:S8:143:TRP:CE2	2.40	0.57
54:S7:16:LEU:O	54:S7:20:VAL:HG23	2.05	0.57
58:11:66:ILE:HG23	58:11:127:GLN:O	2.03	0.57
50:S3:222:VAL:HG22	50:S3:223:LYS:H	1.69	0.57
44:82:100:LYS:H	44:82:100:LYS:CE	2.04	0.57
1:2S:858:A:C2'	1:2S:859:G:H5'	2.35	0.57
6:L3:339:ARG:CG	6:L3:340:LYS:H	2.17	0.57
1:2S:807:A:C3'	1:2S:808:A:H5''	2.35	0.57
1:2S:2205:U:C2'	1:2S:2206:G:H5'	2.32	0.57
10:L7:63:ILE:HG22	10:L7:67:ARG:CZ	2.35	0.57
63:16:129:PHE:O	63:16:129:PHE:CD1	2.57	0.57
15:53:180:ARG:HD3	38:76:11:LEU:CD1	2.34	0.57
55:S8:106:ALA:HB2	55:S8:165:LEU:HG	1.86	0.57
1:2S:436:A:H2'	1:2S:437:G:C8	2.40	0.57
1:2S:3024:A:H4'	12:L9:97:PHE:CZ	2.40	0.57
29:67:25:ILE:CG2	29:67:28:PRO:HD3	2.35	0.57
13:50:189:GLU:HG2	13:50:200:LEU:HB3	1.84	0.57
19:57:30:ARG:HD2	19:57:63:PHE:HE2	1.69	0.57
46:1S:205:U:H2'	46:1S:206:A:C8	2.40	0.57
6:L3:324:VAL:HG22	6:L3:325:LYS:H	1.69	0.57
1:2S:1137:C:H2'	1:2S:1138:U:C6	2.40	0.57
1:2S:2258:U:H2'	1:2S:2259:A:O4'	2.04	0.57
24:62:12:ALA:HA	24:62:68:THR:HA	1.85	0.57
1:2S:3019:U:H3	1:2S:3035:A:N6	2.03	0.57
1:2S:1816:A:H2'	1:2S:1817:G:O5'	2.04	0.57
5:L2:80:GLU:OE1	45:83:72:SER:HA	2.05	0.57
1:2S:2135:U:H6	1:2S:2135:U:O5'	1.87	0.57
1:2S:947:G:H2'	1:2S:948:C:H6	1.69	0.57
1:2S:117:U:C4	11:L8:142:LEU:HD23	2.39	0.57
18:56:43:ILE:HG22	18:56:44:SER:H	1.69	0.57
46:1S:395:U:H2'	46:1S:396:G:O4'	2.05	0.57
4:L1:194:LEU:C	4:L1:196:LYS:H	2.07	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:424:G:H1'	34:72:24:ARG:NH2	2.20	0.57
2:8S:23:U:C4'	28:66:17:LYS:HG2	2.28	0.57
18:56:78:ARG:HG3	18:56:78:ARG:O	2.04	0.57
1:2S:118:U:H1'	1:2S:150:A:N6	2.19	0.57
65:18:49:LYS:NZ	65:18:81:ILE:HG12	2.20	0.57
1:2S:426:G:H5'	34:72:50:ILE:HG22	1.86	0.57
61:14:17:ALA:H	61:14:79:VAL:HG22	1.70	0.57
1:2S:1427:U:H5	30:68:4:ARG:NH2	2.03	0.57
1:2S:2363:A:O2'	1:2S:2364:G:H5'	2.05	0.57
9:L6:97:ASN:O	9:L6:98:VAL:HB	2.04	0.57
1:2S:587:U:C2'	1:2S:588:G:H5'	2.35	0.57
65:18:89:GLN:C	65:18:91:ASP:H	2.08	0.57
1:2S:1593:A:H4'	36:74:61:GLN:HE22	1.69	0.57
60:13:53:LEU:O	60:13:57:ALA:HB3	2.05	0.57
21:59:25:ASP:OD2	21:59:27:ASN:HB2	2.04	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:1044:U:H2'	1:2S:1045:C:O4'	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
1:2S:1873:U:O5'	1:2S:1873:U:H6	1.87	0.57
44:82:6:LYS:O	44:82:7:THR:HG23	2.05	0.57
30:68:101:VAL:HG13	30:68:124:ILE:CG2	2.35	0.57
23:61:48:ILE:HD12	23:61:94:GLU:HG2	1.87	0.57
60:13:46:THR:O	60:13:50:ILE:HG13	2.05	0.57
5:L2:129:ALA:O	5:L2:169:ILE:HB	2.05	0.57
3:5S:112:G:O6	8:L5:21:ARG:CD	2.53	0.57
18:56:15:LEU:HD11	18:56:128:ARG:HB2	1.85	0.57
46:1S:1505:A:H2'	46:1S:1506:G:O4'	2.05	0.57
46:1S:685:A:H5'	46:1S:685:A:C8	2.38	0.57
15:53:70:ARG:CG	15:53:71:ALA:N	2.67	0.57
21:59:41:ILE:O	21:59:45:VAL:HG23	2.05	0.57
1:2S:3065:G:H2'	1:2S:3066:U:O4'	2.05	0.57
71:24:55:VAL:HG13	71:24:74:LEU:O	2.04	0.57
1:2S:3017:A:H2'	1:2S:3018:C:C6	2.40	0.57
1:2S:1816:A:C2'	1:2S:1817:G:O5'	2.53	0.57
1:2S:370:U:H4'	1:2S:404:G:H5'	1.87	0.57
12:L9:4:ILE:HG23	12:L9:5:GLN:N	2.20	0.57
63:16:127:LYS:HA	63:16:134:ALA:HA	1.87	0.57
61:14:69:ALA:O	61:14:73:GLU:HG2	2.05	0.57
64:17:46:LEU:O	64:17:50:ILE:HG13	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:14:103:ARG:HD3	73:26:49:ALA:HB2	1.86	0.57
18:56:36:VAL:HG11	18:56:108:ILE:HG23	1.85	0.57
4:L1:50:SER:CA	4:L1:193:LEU:HD22	2.24	0.57
8:L5:40:HIS:CD2	23:61:69:LYS:HA	2.39	0.57
46:1S:158:U:O2	46:1S:421:A:H5'	2.05	0.57
1:2S:895:A:H5'	1:2S:896:A:OP1	2.05	0.57
4:L1:42:ASP:O	4:L1:44:GLN:HG2	2.05	0.57
65:18:11:PHE:CE2	65:18:59:GLY:HA3	2.39	0.57
10:L7:63:ILE:HG22	10:L7:67:ARG:NH2	2.20	0.57
57:10:14:TYR:CD2	57:10:35:ILE:HD11	2.39	0.57
69:22:89:TRP:O	69:22:93:LEU:HD22	2.05	0.57
11:L8:122:LYS:C	11:L8:124:ASP:N	2.58	0.57
6:L3:105:VAL:HG12	6:L3:106:TRP:N	2.20	0.57
39:77:46:SER:HB2	39:77:54:LYS:HD2	1.85	0.57
1:2S:153:U:C2'	1:2S:154:U:H5''	2.35	0.57
1:2S:1312:C:H2'	1:2S:1313:G:O4'	2.04	0.57
47:S0:191:ARG:HG3	47:S0:192:THR:H	1.70	0.57
4:L1:62:ASN:HD22	4:L1:64:SER:HB2	1.69	0.57
1:2S:537:A:H2'	1:2S:538:G:O4'	2.04	0.57
78:31:147:VAL:O	78:31:148:TYR:HB2	2.04	0.57
1:2S:3075:G:H2'	1:2S:3076:C:C6	2.40	0.57
1:2S:662:U:H2'	1:2S:663:C:C6	2.40	0.57
1:2S:2326:A:H2'	1:2S:2327:U:C6	2.40	0.57
35:73:49:ILE:HG22	35:73:50:ALA:H	1.69	0.57
1:2S:1348:U:H5'	20:58:35:PHE:CE1	2.40	0.56
7:L4:169:LEU:O	7:L4:174:ALA:HB3	2.05	0.56
46:1S:1788:G:C8	61:14:132:ARG:NE	2.73	0.56
17:55:121:VAL:HG23	17:55:122:ASN:H	1.70	0.56
46:1S:218:A:N7	46:1S:830:U:C6	2.73	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
46:1S:804:A:N7	69:22:107:SER:HA	2.20	0.56
37:75:64:GLU:HA	37:75:67:ARG:CG	2.34	0.56
1:2S:3294:A:H2'	1:2S:3295:A:O4'	2.05	0.56
1:2S:115:A:H2'	1:2S:265:A:N3	2.20	0.56
1:2S:3198:U:H1'	12:L9:21:LYS:HD2	1.87	0.56
64:17:14:LYS:HG3	64:17:69:ILE:CG2	2.34	0.56
20:58:18:ALA:HA	20:58:53:PHE:CE1	2.40	0.56
46:1S:1573:A:H4'	46:1S:1574:G:O5'	2.04	0.56
6:L3:53:MET:HG2	6:L3:77:THR:HG22	1.87	0.56
22:60:133:ALA:C	22:60:135:VAL:H	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:82:66:LYS:C	44:82:87:ARG:HB3	2.25	0.56
59:12:129:GLU:HG2	59:12:130:THR:H	1.70	0.56
25:63:114:ILE:HB	25:63:132:ASN:O	2.04	0.56
52:S5:146:THR:HB	52:S5:157:ARG:HB3	1.86	0.56
29:67:60:LYS:HA	29:67:63:ALA:HB3	1.87	0.56
43:81:22:ALA:C	43:81:24:SER:H	2.08	0.56
61:14:76:ILE:HD12	61:14:76:ILE:N	2.20	0.56
1:2S:2880:U:H2'	1:2S:2881:C:C6	2.40	0.56
46:1S:145:A:H2	46:1S:169:A:H62	1.54	0.56
1:2S:1523:U:H5'	27:65:113:LEU:CB	2.35	0.56
1:2S:649:A:H2'	1:2S:650:C:C5	2.40	0.56
43:81:2:ARG:NH1	46:1S:1772:C:H3'	2.17	0.56
36:74:95:ILE:HD12	36:74:95:ILE:N	2.20	0.56
29:67:12:VAL:HG13	29:67:21:LYS:O	2.04	0.56
51:S4:194:THR:O	51:S4:195:ILE:HG13	2.04	0.56
28:66:56:VAL:HG21	28:66:104:LEU:HB3	1.86	0.56
1:2S:3331:U:OP1	6:L3:367:LYS:HB2	2.04	0.56
51:S4:191:ARG:HD3	51:S4:245:LYS:HD3	1.87	0.56
1:2S:855:U:H5''	21:59:95:TRP:CD2	2.40	0.56
55:S8:116:HIS:CE1	55:S8:146:ARG:HD3	2.40	0.56
55:S8:6:ASP:O	55:S8:9:HIS:HE1	1.87	0.56
2:8S:57:C:H2'	2:8S:58:G:C8	2.39	0.56
78:31:132:LEU:HD13	78:31:139:LEU:HD23	1.87	0.56
1:2S:1277:C:H2'	1:2S:1278:A:C8	2.41	0.56
1:2S:1162:U:H6	1:2S:1162:U:O5'	1.87	0.56
56:S9:13:SER:H	56:S9:43:TYR:HB3	1.70	0.56
25:63:104:ASN:OD1	25:63:108:GLU:HB2	2.05	0.56
10:L7:75:TYR:O	23:61:141:VAL:HG22	2.05	0.56
13:50:26:VAL:HB	13:50:27:PRO:HD2	1.86	0.56
70:23:96:VAL:HG23	70:23:97:ASP:N	2.13	0.56
46:1S:1184:A:H2'	46:1S:1185:U:C4'	2.36	0.56
1:2S:2371:G:H2'	1:2S:2373:A:OP1	2.05	0.56
11:L8:140:VAL:O	11:L8:144:GLU:HG3	2.05	0.56
70:23:126:LYS:HE2	70:23:129:GLY:HA2	1.85	0.56
56:S9:63:ASP:O	56:S9:66:ASP:HB2	2.05	0.56
43:81:7:LYS:O	43:81:11:ARG:HB2	2.05	0.56
1:2S:1219:C:H2'	1:2S:1220:U:H5''	1.86	0.56
46:1S:1216:C:O2'	46:1S:1218:G:H5''	2.05	0.56
1:2S:1158:A:C2'	1:2S:1159:A:H4'	2.35	0.56
46:1S:952:A:H2'	46:1S:953:G:C8	2.40	0.56
20:58:152:HIS:HA	20:58:161:LYS:O	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:903:U:H2'	46:1S:905:A:OP2	2.06	0.56
46:1S:1433:G:O2'	46:1S:1434:U:H5'	2.05	0.56
56:S9:24:LEU:HD23	56:S9:27:GLU:OE1	2.06	0.56
6:L3:20:LYS:HG3	6:L3:21:ARG:N	2.20	0.56
1:2S:952:A:C8	1:2S:1143:A:N6	2.73	0.56
46:1S:722:G:C3'	46:1S:723:G:H5''	2.35	0.56
33:71:52:ALA:HB3	33:71:55:LEU:CB	2.34	0.56
46:1S:567:A:N3	77:30:14:VAL:HG21	2.20	0.56
46:1S:974:A:H2'	46:1S:975:C:H6	1.70	0.56
53:S6:2:LYS:HB3	53:S6:107:ALA:O	2.05	0.56
1:2S:3243:A:N6	18:56:160:ARG:HD2	2.19	0.56
6:L3:89:VAL:CG2	6:L3:160:VAL:HG22	2.36	0.56
8:L5:155:THR:H	8:L5:179:ARG:NH1	2.03	0.56
54:S7:55:LYS:HB2	54:S7:87:ASP:O	2.05	0.56
1:2S:1465:A:H2'	1:2S:1466:G:O4'	2.05	0.56
1:2S:1350:A:H2'	1:2S:1351:U:H5'	1.86	0.56
21:59:189:ALA:HB1	54:S7:35:LYS:NZ	2.21	0.56
1:2S:1305:U:C2	6:L3:257:PRO:HG3	2.40	0.56
60:13:33:VAL:HG11	60:13:66:ILE:HG12	1.87	0.56
8:L5:131:LEU:HD12	8:L5:175:HIS:HE1	1.68	0.56
54:S7:162:ILE:HB	54:S7:169:PHE:CE2	2.41	0.56
51:S4:44:LEU:O	51:S4:48:LEU:HD13	2.05	0.56
1:2S:2497:U:H2'	1:2S:2499:U:C5	2.40	0.56
15:53:183:ARG:HA	15:53:186:ARG:HG3	1.87	0.56
13:50:185:ARG:CZ	13:50:186:GLU:HG3	2.35	0.56
48:S1:144:ARG:HB3	48:S1:208:GLN:HG2	1.88	0.56
46:1S:618:U:H5'	46:1S:1030:A:C5	2.40	0.56
6:L3:337:THR:C	6:L3:338:LEU:HD13	2.25	0.56
10:L7:81:HIS:HB2	10:L7:138:TYR:CE1	2.41	0.56
58:11:2:SER:HB2	58:11:82:ARG:H	1.70	0.56
21:59:4:LEU:HA	21:59:7:GLN:OE1	2.05	0.56
26:64:18:GLY:HA2	26:64:32:GLN:HA	1.87	0.56
46:1S:106:U:H2'	46:1S:107:C:C6	2.40	0.56
57:10:92:ILE:O	57:10:92:ILE:HG23	2.05	0.56
8:L5:83:LEU:N	8:L5:84:PRO:CD	2.69	0.56
6:L3:243:HIS:O	6:L3:244:ARG:HG2	2.05	0.56
1:2S:1113:G:H5''	30:68:19:LYS:O	2.05	0.56
1:2S:3288:G:HO2'	1:2S:3289:G:H8	1.53	0.56
37:75:44:ILE:O	37:75:48:ARG:HG2	2.05	0.56
1:2S:1500:G:H2'	1:2S:1501:U:C6	2.41	0.56
70:23:5:LYS:O	70:23:7:ARG:HD2	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:92:ILE:HD11	20:58:4:ASP:HB2	1.86	0.56
15:53:166:ALA:O	15:53:170:LEU:HG	2.04	0.56
46:1S:1269:U:H4'	46:1S:1270:G:C5'	2.36	0.56
67:20:37:VAL:HG12	67:20:41:ILE:HD13	1.87	0.56
1:2S:3147:G:H2'	1:2S:3148:U:C6	2.41	0.56
2:8S:49:G:H2'	2:8S:50:C:C6	2.39	0.56
64:17:75:GLU:O	64:17:79:GLU:HG2	2.04	0.56
2:8S:47:C:H1'	2:8S:61:A:H2'	1.88	0.56
1:2S:1867:A:H2'	1:2S:1868:G:C8	2.40	0.56
6:L3:56:ILE:HG12	6:L3:356:LEU:HD22	1.87	0.56
69:22:52:TYR:HE1	69:22:59:GLY:HA3	1.70	0.56
46:1S:819:G:C2	46:1S:853:G:N1	2.65	0.56
18:56:46:GLU:OE1	18:56:48:PHE:HB2	2.06	0.56
1:2S:2378:C:H2'	1:2S:2379:U:C6	2.40	0.56
55:S8:155:SER:O	55:S8:159:GLN:HB2	2.05	0.56
29:67:121:ARG:HH12	29:67:126:LYS:HB3	1.71	0.56
2:8S:155:A:H2'	2:8S:156:U:H5'	1.87	0.56
1:2S:74:G:H2'	1:2S:75:G:H8	1.70	0.56
1:2S:700:C:H2'	1:2S:701:G:C8	2.39	0.56
1:2S:587:U:O2'	1:2S:588:G:H5'	2.06	0.56
72:25:62:VAL:HG13	72:25:76:ALA:HB3	1.86	0.56
50:S3:72:LEU:HD23	57:10:20:VAL:HG13	1.87	0.56
70:23:75:GLN:HG3	70:23:82:LYS:HG3	1.86	0.56
46:1S:343:C:H2'	46:1S:344:A:C8	2.40	0.56
1:2S:1140:G:H4'	10:L7:94:LYS:NZ	2.20	0.56
46:1S:450:U:H2'	46:1S:451:A:C8	2.40	0.56
48:S1:61:LEU:O	48:S1:62:LYS:HB2	2.06	0.56
1:2S:3260:G:H1'	16:54:129:TYR:CD2	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
44:82:93:LEU:H	44:82:93:LEU:HD23	1.71	0.56
60:13:22:ALA:CB	60:13:23:PRO:HA	2.26	0.56
1:2S:1406:A:O2'	1:2S:1407:A:H5'	2.06	0.56
46:1S:1083:G:H2'	46:1S:1084:A:O4'	2.06	0.56
1:2S:1151:U:H3'	1:2S:1152:G:H21	1.70	0.56
34:72:104:ASN:O	34:72:108:ILE:HG13	2.06	0.56
17:55:89:VAL:C	17:55:92:LEU:HD13	2.26	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
52:S5:46:TRP:CE3	52:S5:118:LEU:HD13	2.40	0.56
1:2S:2533:G:H2'	1:2S:2534:G:C4'	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:312:VAL:C	6:L3:314:TYR:H	2.09	0.56
46:1S:707:A:H2'	46:1S:708:C:C4'	2.34	0.56
69:22:101:TYR:HA	69:22:113:HIS:CE1	2.37	0.56
1:2S:2917:G:OP1	25:63:46:LEU:HA	2.06	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
1:2S:2351:U:H4'	19:57:83:TRP:CE3	2.41	0.56
63:16:34:SER:OG	66:19:7:ARG:HB3	2.04	0.56
14:51:49:LYS:HE2	14:51:64:LYS:CE	2.35	0.56
1:2S:900:G:H1'	1:2S:1589:A:N6	2.20	0.56
1:2S:833:G:H2'	1:2S:834:U:O4'	2.06	0.56
10:L7:124:LEU:HA	10:L7:127:LEU:HD12	1.86	0.56
1:2S:985:U:H5''	10:L7:98:LYS:HE3	1.88	0.56
1:2S:2948:C:O2'	1:2S:2949:U:H5'	2.05	0.56
47:S0:54:TRP:O	47:S0:58:VAL:HG23	2.05	0.56
1:2S:874:U:H5'	1:2S:875:G:H5'	1.86	0.56
13:50:190:VAL:HG22	13:50:199:PHE:CE1	2.41	0.56
1:2S:907:G:C6	1:2S:926:A:C8	2.93	0.56
46:1S:159:U:H1'	53:S6:87:ARG:NH2	2.20	0.56
1:2S:1060:U:H2'	1:2S:1061:A:C8	2.39	0.56
1:2S:2297:U:H1'	1:2S:2920:U:H4'	1.88	0.56
1:2S:810:A:H2'	1:2S:811:U:C6	2.41	0.56
1:2S:1184:A:H2'	1:2S:1185:C:C6	2.40	0.56
46:1S:1667:A:H2'	46:1S:1668:G:C8	2.40	0.56
9:L6:134:ARG:HH11	9:L6:134:ARG:HG2	1.71	0.56
46:1S:1223:A:O2'	46:1S:1224:A:H5'	2.06	0.56
6:L3:56:ILE:CD1	6:L3:57:VAL:H	2.19	0.56
46:1S:143:G:C2'	46:1S:144:U:H5''	2.35	0.56
1:2S:2372:A:H5''	1:2S:2373:A:C5'	2.29	0.56
17:55:94:TYR:CE2	17:55:96:ARG:HB2	2.41	0.56
1:2S:1695:U:O2	36:74:26:PRO:HB3	2.05	0.56
37:75:29:ALA:HA	37:75:32:LYS:CE	2.34	0.56
46:1S:1573:A:H5'	46:1S:1574:G:C2	2.41	0.56
5:L2:96:LEU:O	5:L2:96:LEU:HD23	2.06	0.56
79:RA:87:LYS:HE3	79:RA:106:HIS:O	2.05	0.56
10:L7:24:GLU:C	10:L7:26:VAL:H	2.09	0.56
1:2S:3182:G:H2'	1:2S:3183:A:C8	2.40	0.56
50:S3:72:LEU:HD22	57:10:65:TYR:HD1	1.70	0.56
1:2S:2957:G:H2'	1:2S:2958:A:H5'	1.88	0.56
79:RA:105:GLY:O	79:RA:132:LYS:HE3	2.05	0.56
1:2S:3113:A:H2'	1:2S:3114:A:O4'	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:5S:67:G:H2'	3:5S:68:C:C6	2.41	0.56
31:69:47:LEU:HA	31:69:50:THR:HG22	1.86	0.56
1:2S:2292:U:H2'	1:2S:2293:C:C6	2.41	0.56
75:28:15:VAL:HG23	75:28:28:VAL:HG22	1.87	0.56
11:L8:156:ASP:O	11:L8:157:VAL:HB	2.06	0.56
37:75:76:GLN:OE1	37:75:80:LEU:HB2	2.06	0.56
46:1S:1108:G:H4'	46:1S:1109:G:H5''	1.86	0.56
66:19:61:VAL:O	66:19:65:ILE:HG13	2.05	0.56
1:2S:1661:G:H2'	1:2S:1662:G:C8	2.40	0.56
46:1S:1360:A:H2'	46:1S:1361:U:H4'	1.87	0.56
1:2S:2777:G:H4'	1:2S:2779:A:OP2	2.06	0.56
24:62:17:VAL:HG22	24:62:103:TYR:HB2	1.86	0.56
70:23:93:LEU:O	70:23:96:VAL:HG22	2.06	0.56
27:65:108:LEU:HD23	27:65:109:LYS:HG2	1.88	0.56
79:RA:304:GLY:HA2	79:RA:310:ILE:HG12	1.88	0.56
25:63:87:ARG:HH12	25:63:120:LYS:HD3	1.70	0.56
1:2S:1190:A:H4'	42:80:113:ARG:NH2	2.20	0.56
58:11:133:LYS:HZ2	58:11:134:THR:CG2	2.19	0.56
1:2S:1655:G:H5'	1:2S:1656:A:H2'	1.86	0.56
58:11:93:TYR:HB2	58:11:100:TYR:CE1	2.40	0.56
54:S7:62:VAL:HG11	54:S7:70:PHE:HE2	1.68	0.56
26:64:47:ARG:HH21	46:1S:1724:U:H4'	1.71	0.56
52:S5:55:ASP:HB2	52:S5:138:THR:HB	1.88	0.56
73:26:41:ILE:O	73:26:41:ILE:HG12	2.06	0.56
5:L2:113:VAL:HG12	5:L2:166:ILE:HA	1.88	0.56
68:21:9:VAL:O	68:21:10:GLU:HB3	2.04	0.56
46:1S:895:G:H4'	61:14:37:GLU:OE2	2.06	0.56
46:1S:1087:A:H5'	46:1S:1298:U:C5	2.38	0.56
58:11:53:TYR:C	58:11:54:ILE:HD12	2.26	0.56
54:S7:43:PHE:CD1	54:S7:44:LYS:N	2.74	0.56
18:56:162:VAL:O	18:56:166:GLU:HG3	2.05	0.56
66:19:86:ARG:HE	66:19:89:ARG:HE	1.54	0.56
10:L7:218:ARG:HA	10:L7:218:ARG:NH1	2.21	0.56
46:1S:916:U:O5'	46:1S:916:U:H6	1.88	0.56
19:57:41:LEU:HD13	19:57:42:THR:N	2.21	0.56
62:15:37:ALA:HB1	62:15:38:PRO:HD2	1.87	0.56
57:10:93:GLN:HG2	57:10:94:GLU:H	1.69	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
18:56:92:THR:O	18:56:96:LYS:HG3	2.06	0.56
29:67:123:GLN:O	29:67:124:ALA:HB3	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:469:C:H2'	46:1S:470:A:O4'	2.06	0.56
55:S8:122:GLY:HA2	55:S8:157:GLU:CD	2.26	0.56
49:S2:135:SER:O	49:S2:215:PHE:HZ	1.89	0.56
76:29:14:TYR:CD1	76:29:14:TYR:N	2.74	0.56
38:76:76:ARG:HE	38:76:76:ARG:HA	1.71	0.56
11:L8:136:LEU:HD23	11:L8:197:VAL:HG11	1.87	0.56
25:63:120:LYS:HB2	25:63:137:VAL:HG22	1.87	0.56
50:S3:84:ILE:HD13	50:S3:84:ILE:C	2.26	0.56
1:2S:1079:A:C5'	8:L5:142:PHE:HA	2.33	0.56
51:S4:113:ARG:HH11	51:S4:113:ARG:HG3	1.70	0.56
23:61:84:TYR:HD1	31:69:22:LYS:O	1.89	0.56
5:L2:226:SER:C	5:L2:228:GLY:N	2.58	0.56
21:59:139:VAL:O	21:59:143:ILE:HG13	2.06	0.56
1:2S:2984:C:H2'	1:2S:2985:C:H6	1.70	0.56
51:S4:34:GLY:HA3	51:S4:83:PRO:CG	2.36	0.56
2:8S:68:G:H2'	2:8S:69:U:O4'	2.05	0.56
1:2S:712:G:H5''	15:53:174:ARG:NH2	2.21	0.56
1:2S:1536:G:H2'	1:2S:1537:A:C8	2.40	0.56
56:S9:121:SER:HB3	56:S9:124:HIS:CB	2.34	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
41:79:43:ASN:HB2	41:79:46:ARG:NH2	2.21	0.56
1:2S:3101:G:H2'	1:2S:3102:G:C8	2.41	0.56
20:58:147:ARG:HB3	20:58:147:ARG:NH1	2.21	0.56
25:63:102:ILE:HG23	25:63:110:LYS:HB3	1.87	0.56
1:2S:653:A:H5''	1:2S:2361:A:H5''	1.88	0.56
8:L5:58:LYS:NZ	8:L5:93:THR:HG21	2.21	0.56
23:61:92:ARG:HB3	23:61:94:GLU:OE2	2.06	0.56
66:19:34:VAL:O	66:19:36:ILE:HG23	2.05	0.56
72:25:59:TYR:CD2	72:25:100:ILE:HG12	2.41	0.56
5:L2:77:ILE:HD12	5:L2:115:ASN:HB2	1.88	0.56
13:50:176:LEU:HD22	13:50:180:GLU:CG	2.36	0.56
53:S6:31:ARG:HD2	53:S6:34:GLN:HE21	1.69	0.56
7:L4:329:PRO:HB3	10:L7:41:ARG:HH12	1.69	0.56
30:68:21:ARG:O	30:68:24:LYS:HE2	2.06	0.56
19:57:58:ILE:HG13	19:57:84:PRO:HD2	1.87	0.56
6:L3:222:LYS:CE	6:L3:331:ASN:HB3	2.35	0.56
46:1S:1767:G:H5'	46:1S:1768:G:N2	2.20	0.56
47:S0:168:HIS:HB3	47:S0:203:PHE:CE2	2.40	0.56
73:26:25:ASN:HB3	73:26:77:CYS:SG	2.46	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)
70:23:144:ARG:CD	70:23:145:SER:H	2.19	0.56
54:S7:97:ARG:O	54:S7:98:ILE:HB	2.06	0.56
62:15:96:ILE:HG21	62:15:116:LEU:HB3	1.88	0.56
5:L2:41:ILE:HG23	5:L2:63:PHE:HE2	1.70	0.56
18:56:108:ILE:HG22	18:56:113:ASP:HB3	1.88	0.56
47:S0:197:ILE:HD12	47:S0:197:ILE:N	2.20	0.56
58:11:131:ILE:HB	58:11:135:VAL:HB	1.87	0.56
5:L2:74:GLU:HB3	5:L2:76:PHE:CE1	2.41	0.56
24:62:30:PRO:HG2	24:62:60:GLY:O	2.06	0.56
19:57:180:LYS:NZ	19:57:180:LYS:HB3	2.20	0.56
1:2S:103:G:H4'	15:53:65:TYR:CE2	2.40	0.56
9:L6:43:LEU:CD1	35:73:103:TYR:HB3	2.20	0.56
55:S8:27:PHE:HB3	55:S8:49:ARG:NH2	2.20	0.56
4:L1:193:LEU:O	4:L1:196:LYS:HG3	2.05	0.56
25:63:15:LEU:HD23	25:63:53:SER:CB	2.29	0.56
1:2S:2816:G:C8	1:2S:2869:U:H3'	2.40	0.56
77:30:42:ARG:CZ	77:30:42:ARG:HB3	2.34	0.56
4:L1:44:GLN:HG3	4:L1:160:LYS:O	2.06	0.56
46:1S:1092:A:O2'	46:1S:1093:A:H3'	2.06	0.56
1:2S:1223:A:C6	1:2S:1286:A:C2	2.93	0.56
6:L3:4:ARG:O	6:L3:5:LYS:HB3	2.06	0.56
1:2S:3198:U:H1'	12:L9:21:LYS:CD	2.35	0.56
1:2S:930:U:P	7:L4:61:SER:HB3	2.46	0.56
1:2S:746:A:H2'	1:2S:747:A:C8	2.40	0.56
22:60:33:ASN:H	22:60:36:ILE:HD12	1.72	0.56
1:2S:776:U:H3'	1:2S:777:U:C5'	2.36	0.56
1:2S:215:G:H4'	28:66:15:ALA:HB3	1.86	0.56
28:66:56:VAL:HG22	28:66:57:LEU:N	2.20	0.56
46:1S:694:U:H1'	54:S7:97:ARG:HH21	1.71	0.56
25:63:33:ASN:HD21	25:63:63:LYS:HB3	1.71	0.56
63:16:46:PHE:O	63:16:50:GLU:HG3	2.06	0.56
70:23:7:ARG:HH11	70:23:7:ARG:HG2	1.71	0.56
70:23:82:LYS:H	70:23:82:LYS:HD3	1.71	0.56
78:31:123:ASN:HB3	78:31:124:PRO:HD2	1.87	0.56
40:78:42:LYS:HG2	40:78:55:VAL:HG22	1.87	0.56
7:L4:250:TRP:N	7:L4:250:TRP:CD1	2.73	0.56
50:S3:119:ALA:O	50:S3:123:VAL:HG23	2.06	0.56
2:8S:76:C:H2'	2:8S:77:A:O4'	2.06	0.56
1:2S:3362:A:H2'	1:2S:3363:U:O4'	2.06	0.56
42:80:98:LYS:HB2	42:80:118:THR:HG21	1.88	0.56
1:2S:213:A:H2'	1:2S:214:G:H5'	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:45:LEU:HD11	66:19:36:ILE:HG22	1.87	0.55
46:1S:484:C:H42	46:1S:503:G:N2	2.03	0.55
67:20:69:LYS:HG2	67:20:80:GLU:HB2	1.87	0.55
48:S1:138:PHE:HB3	48:S1:213:ARG:HE	1.71	0.55
1:2S:639:G:OP1	34:72:37:GLY:HA3	2.06	0.55
75:28:9:LEU:HB3	75:28:33:LEU:HD23	1.87	0.55
1:2S:3041:U:H6	1:2S:3041:U:O5'	1.89	0.55
46:1S:684:A:H2'	46:1S:685:A:H5'	1.89	0.55
1:2S:3370:A:OP2	6:L3:383:LEU:HB3	2.06	0.55
11:L8:238:LEU:HB3	11:L8:242:ALA:HB3	1.88	0.55
73:26:26:CYS:O	73:26:27:SER:HB2	2.06	0.55
51:S4:238:LEU:HD22	51:S4:242:LYS:HA	1.88	0.55
15:53:28:GLN:HG3	17:55:200:TRP:HE3	1.71	0.55
74:27:2:VAL:O	74:27:3:LEU:HB2	2.06	0.55
55:S8:110:ARG:HG3	55:S8:121:LEU:CD2	2.36	0.55
39:77:50:GLY:O	39:77:54:LYS:HG3	2.06	0.55
11:L8:60:ARG:O	11:L8:64:ILE:HG13	2.07	0.55
1:2S:1434:G:H5'	1:2S:1437:C:C5	2.40	0.55
41:79:24:PRO:HB2	41:79:27:ILE:HD12	1.88	0.55
46:1S:740:A:H2'	46:1S:741:C:H5''	1.88	0.55
6:L3:300:ARG:HG3	53:S6:25:ARG:NH2	2.20	0.55
46:1S:1127:G:H2'	46:1S:1128:C:C6	2.41	0.55
64:17:34:LEU:O	64:17:38:ILE:HG22	2.05	0.55
4:L1:123:LEU:HD22	4:L1:128:LEU:CB	2.23	0.55
1:2S:876:A:H2'	1:2S:877:C:H5'	1.87	0.55
6:L3:237:LYS:HE3	6:L3:246:LEU:HD13	1.87	0.55
7:L4:170:LYS:CE	7:L4:178:LEU:HD12	2.28	0.55
1:2S:671:U:H2'	1:2S:672:A:C8	2.41	0.55
1:2S:628:A:H5'	1:2S:1399:A:C2	2.41	0.55
46:1S:138:A:H2'	46:1S:139:C:H5'	1.88	0.55
1:2S:1456:A:OP2	1:2S:1456:A:H3'	2.05	0.55
28:66:116:LYS:O	28:66:120:GLN:HG2	2.05	0.55
1:2S:1300:G:H3'	1:2S:1301:A:H2'	1.88	0.55
46:1S:784:C:H41	71:24:11:LYS:HG2	1.71	0.55
6:L3:300:ARG:HG3	53:S6:25:ARG:HH22	1.69	0.55
1:2S:2160:G:H2'	1:2S:2161:G:C8	2.42	0.55
42:80:96:CYS:O	42:80:100:TYR:HA	2.06	0.55
10:L7:155:LYS:HE2	10:L7:158:LYS:H	1.71	0.55
46:1S:374:U:H2'	46:1S:375:U:C6	2.40	0.55
51:S4:182:TYR:HE2	51:S4:190:GLY:HA2	1.71	0.55
18:56:127:LEU:CD2	22:60:156:VAL:HG12	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1150:A:H3'	1:2S:1151:U:H6	1.69	0.55
17:55:104:GLU:O	17:55:108:ARG:HG3	2.07	0.55
1:2S:2232:A:H2'	1:2S:2233:A:O4'	2.07	0.55
29:67:87:LEU:CG	29:67:88:ASP:H	2.15	0.55
1:2S:1223:A:H62	1:2S:1285:G:H21	1.53	0.55
46:1S:1609:U:H2'	46:1S:1610:G:C5'	2.37	0.55
38:76:9:ILE:HA	38:76:13:LYS:CG	2.35	0.55
1:2S:441:U:C4	1:2S:494:G:H4'	2.41	0.55
46:1S:1316:G:H4'	64:17:10:LYS:CE	2.37	0.55
19:57:26:PHE:HE1	19:57:120:ASN:HA	1.71	0.55
46:1S:454:U:H5'	51:S4:66:MET:HE2	1.89	0.55
14:51:85:LYS:HG2	14:51:89:TYR:CE2	2.41	0.55
1:2S:1815:U:H1'	1:2S:1816:A:O5'	2.07	0.55
1:2S:811:U:H2'	1:2S:812:G:C8	2.41	0.55
64:17:27:ASP:HB3	64:17:30:THR:HG22	1.86	0.55
15:53:29:ALA:CB	17:55:201:ARG:HH12	2.19	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:1006:C:H4'	61:14:136:ARG:HD2	1.89	0.55
48:S1:134:VAL:HB	48:S1:219:LYS:HB2	1.86	0.55
23:61:103:GLN:O	23:61:107:GLU:HG3	2.06	0.55
79:RA:117:LYS:HD2	79:RA:117:LYS:H	1.71	0.55
33:71:88:PRO:HG2	33:71:89:LEU:HD12	1.88	0.55
7:L4:263:GLY:CA	7:L4:269:SER:HA	2.32	0.55
49:S2:129:ILE:HG22	49:S2:133:LYS:HE3	1.88	0.55
1:2S:1492:G:O6	41:79:2:ALA:HB1	2.07	0.55
7:L4:42:VAL:HA	7:L4:45:ASN:ND2	2.22	0.55
1:2S:2340:U:OP1	6:L3:236:LYS:HD2	2.07	0.55
33:71:52:ALA:O	33:71:55:LEU:HB3	2.06	0.55
7:L4:188:ARG:HB3	7:L4:193:LYS:CG	2.36	0.55
1:2S:2146:C:H2'	1:2S:2147:A:C8	2.42	0.55
1:2S:2354:C:H2'	1:2S:2355:G:O4'	2.07	0.55
3:5S:40:C:H4'	14:51:43:GLN:NE2	2.21	0.55
52:S5:216:GLU:HA	52:S5:219:ARG:HB3	1.88	0.55
51:S4:52:LEU:O	51:S4:53:LYS:HB2	2.07	0.55
15:53:183:ARG:HG3	15:53:186:ARG:NH1	2.21	0.55
19:57:22:LEU:HD12	19:57:146:ILE:HD12	1.87	0.55
1:2S:2699:G:H3'	1:2S:2700:G:C8	2.41	0.55
10:L7:84:VAL:HG12	10:L7:138:TYR:CD1	2.42	0.55
1:2S:1182:A:H2'	1:2S:1183:C:C6	2.42	0.55
18:56:118:VAL:HG11	22:60:165:TYR:CD1	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:75:53:CYS:O	37:75:57:VAL:HG23	2.06	0.55
1:2S:1166:G:H1	1:2S:1333:C:H42	1.54	0.55
51:S4:14:ALA:HB1	51:S4:18:TRP:CE3	2.41	0.55
4:L1:189:PHE:CD1	4:L1:200:ASN:HB2	2.41	0.55
8:L5:125:VAL:HG11	8:L5:199:ILE:HG21	1.89	0.55
29:67:73:LYS:CD	29:67:74:VAL:H	2.19	0.55
46:1S:1586:A:H5''	63:16:136:SER:HB2	1.88	0.55
1:2S:547:G:H2'	1:2S:548:G:O5'	2.05	0.55
29:67:27:LYS:HB3	29:67:42:LEU:HD22	1.88	0.55
11:L8:71:VAL:CG2	11:L8:76:ALA:HB2	2.37	0.55
54:S7:9:LEU:HD22	54:S7:11:GLN:HB3	1.89	0.55
60:13:72:MET:HE1	60:13:81:ALA:HB2	1.88	0.55
11:L8:140:VAL:HG21	17:55:3:ALA:HB2	1.86	0.55
25:63:123:ALA:C	25:63:125:LEU:H	2.08	0.55
17:55:73:ARG:HB2	17:55:92:LEU:HD21	1.88	0.55
35:73:59:VAL:HG23	35:73:60:ARG:N	2.15	0.55
1:2S:578:A:OP2	1:2S:579:G:H5'	2.06	0.55
5:L2:129:ALA:CB	5:L2:132:ASN:HB2	2.34	0.55
1:2S:1367:G:O2'	1:2S:1368:U:H5	1.90	0.55
7:L4:181:VAL:HG12	7:L4:182:LEU:N	2.21	0.55
16:54:105:GLN:O	16:54:109:ARG:HG3	2.07	0.55
1:2S:2356:A:N6	1:2S:2983:C:C5	2.65	0.55
46:1S:800:U:H2'	46:1S:801:G:H8	1.68	0.55
1:2S:2147:A:H5''	5:L2:199:THR:HA	1.89	0.55
47:S0:202:TYR:O	47:S0:203:PHE:HB2	2.07	0.55
15:53:46:ILE:O	15:53:46:ILE:HG22	2.05	0.55
46:1S:501:U:H4'	46:1S:502:U:OP1	2.07	0.55
51:S4:154:ILE:HD13	51:S4:160:VAL:HG21	1.89	0.55
20:58:107:THR:OG1	20:58:110:ALA:HB2	2.07	0.55
36:74:65:VAL:HB	36:74:70:LYS:HD3	1.88	0.55
47:S0:52:LYS:HD2	68:21:82:VAL:HA	1.89	0.55
46:1S:1661:U:H2'	46:1S:1662:G:C8	2.40	0.55
10:L7:81:HIS:HB2	10:L7:138:TYR:CD1	2.42	0.55
1:2S:1785:U:H2'	1:2S:1786:G:C8	2.42	0.55
46:1S:522:U:H5''	71:24:37:LYS:HG3	1.88	0.55
53:S6:222:GLU:O	53:S6:225:GLU:HG2	2.07	0.55
56:S9:54:ARG:HA	56:S9:57:ARG:HE	1.71	0.55
48:S1:108:ASP:O	48:S1:112:SER:HB2	2.07	0.55
1:2S:2753:G:H2'	1:2S:2754:G:C8	2.41	0.55
55:S8:195:ARG:HG2	55:S8:195:ARG:HH11	1.70	0.55
1:2S:2988:C:OP1	18:56:68:ARG:HD3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:425:A:N3	46:1S:425:A:H2'	2.21	0.55
6:L3:239:PRO:HD2	6:L3:242:THR:HG23	1.87	0.55
1:2S:1124:U:H2'	1:2S:1125:U:C5	2.41	0.55
49:S2:170:ILE:HD12	49:S2:170:ILE:N	2.21	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
46:1S:138:A:N6	46:1S:266:A:N6	2.54	0.55
17:55:104:GLU:HA	17:55:160:GLU:HG3	1.88	0.55
9:L6:146:ILE:HG23	9:L6:156:LYS:HZ3	1.69	0.55
51:S4:64:ILE:HD11	71:24:18:LEU:HD11	1.87	0.55
12:L9:71:VAL:HA	12:L9:74:LEU:HG	1.89	0.55
69:22:113:HIS:O	69:22:117:ARG:HB2	2.06	0.55
30:68:138:ILE:HG22	30:68:143:GLY:O	2.07	0.55
1:2S:1361:U:H2'	1:2S:1362:G:H8	1.72	0.55
22:60:110:MET:CE	22:60:121:ILE:HG12	2.36	0.55
1:2S:85:A:OP1	1:2S:87:U:H1'	2.06	0.55
46:1S:778:G:H2'	46:1S:779:U:H2'	1.87	0.55
20:58:5:HIS:C	20:58:7:SER:H	2.10	0.55
8:L5:98:ALA:HB1	8:L5:162:ALA:HB2	1.89	0.55
46:1S:1474:G:H2'	46:1S:1475:A:C8	2.41	0.55
79:RA:94:VAL:O	79:RA:94:VAL:HG12	2.06	0.55
46:1S:1123:C:H2'	46:1S:1124:A:C8	2.41	0.55
64:17:6:THR:HG22	64:17:9:VAL:CG2	2.27	0.55
1:2S:784:A:H8	20:58:69:ARG:NE	2.05	0.55
1:2S:2425:G:H2'	1:2S:2426:U:O4'	2.06	0.55
53:S6:207:GLU:HA	53:S6:210:GLN:NE2	2.21	0.55
55:S8:87:ASN:HB2	55:S8:90:LEU:HD11	1.86	0.55
59:12:113:ARG:CG	59:12:114:LYS:H	2.16	0.55
1:2S:2914:G:H5'	6:L3:9:PRO:HG3	1.87	0.55
1:2S:183:G:H2'	1:2S:184:U:O4'	2.06	0.55
47:S0:84:ARG:NH1	47:S0:203:PHE:O	2.39	0.55
1:2S:846:A:H61	46:1S:972:G:H21	1.52	0.55
15:53:189:GLU:C	15:53:192:GLU:HG2	2.27	0.55
1:2S:1426:C:H3'	30:68:4:ARG:HH22	1.71	0.55
1:2S:696:C:H5''	7:L4:272:VAL:CG2	2.37	0.55
30:68:73:LEU:O	30:68:112:ILE:HG23	2.07	0.55
46:1S:1147:A:H2'	46:1S:1148:C:C6	2.42	0.55
54:S7:46:ILE:HD12	54:S7:60:ILE:HG12	1.88	0.55
47:S0:107:PHE:CD1	47:S0:135:GLU:HB3	2.42	0.55
47:S0:75:ALA:HA	47:S0:122:ILE:HB	1.89	0.55
1:2S:2780:A:O2'	15:53:181:GLY:HA3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:S3:31:GLU:HG2	50:S3:107:PHE:CZ	2.42	0.55
46:1S:939:A:H2'	46:1S:940:A:C8	2.42	0.55
46:1S:1303:U:H3'	46:1S:1304:G:C8	2.41	0.55
18:56:76:PRO:HB3	18:56:138:LEU:HD23	1.88	0.55
46:1S:1042:G:H22	46:1S:1076:A:H2	1.54	0.55
56:S9:108:ARG:HA	56:S9:147:MET:HE2	1.88	0.55
54:S7:47:ARG:HH11	54:S7:176:LEU:CD2	2.17	0.55
53:S6:31:ARG:H	53:S6:34:GLN:NE2	2.04	0.55
7:L4:318:LEU:HB2	7:L4:319:LYS:HD3	1.88	0.55
7:L4:38:VAL:HG13	7:L4:113:VAL:HG11	1.89	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
14:51:49:LYS:HE2	14:51:64:LYS:HZ2	1.71	0.55
46:1S:1291:G:H2'	46:1S:1292:G:H8	1.71	0.55
46:1S:796:A:H2'	46:1S:797:G:H8	1.70	0.55
10:L7:144:ILE:O	10:L7:148:VAL:HG23	2.07	0.55
61:14:17:ALA:N	61:14:79:VAL:CG2	2.70	0.55
45:83:57:CYS:SG	45:83:60:CYS:HB3	2.46	0.55
66:19:28:LEU:HG	66:19:55:TYR:CE1	2.42	0.55
1:2S:2152:A:H2'	1:2S:2153:U:H6	1.70	0.55
69:22:86:ILE:HG13	69:22:87:GLU:N	2.22	0.55
46:1S:1518:C:O2'	46:1S:1519:U:H5'	2.07	0.55
13:50:3:ARG:HD2	13:50:4:ARG:O	2.07	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
44:82:91:PHE:HE2	44:82:93:LEU:HD22	1.70	0.55
1:2S:1951:C:H2'	1:2S:2095:G:N2	2.20	0.55
37:75:85:THR:HB	37:75:88:LEU:CB	2.32	0.55
59:12:106:ILE:HG22	59:12:107:ASP:H	1.72	0.55
48:S1:35:PRO:HB3	48:S1:231:LEU:HD13	1.87	0.55
30:68:8:THR:HA	30:68:11:HIS:CD2	2.36	0.55
8:L5:140:ARG:CZ	8:L5:140:ARG:HB2	2.37	0.55
28:66:51:ARG:HB3	28:66:115:ARG:NH2	2.22	0.55
54:S7:93:LEU:HD21	54:S7:129:LEU:HD21	1.88	0.55
40:78:31:LEU:HA	40:78:37:PRO:HA	1.88	0.55
2:8S:4:C:H5''	19:57:61:ARG:O	2.07	0.55
54:S7:73:VAL:HG13	54:S7:76:LYS:HD3	1.88	0.55
11:L8:94:PHE:CZ	11:L8:200:LEU:HD12	2.42	0.55
1:2S:2748:A:H4'	8:L5:145:PHE:CD1	2.42	0.55
33:71:35:GLU:OE2	33:71:38:LYS:HD3	2.07	0.55
74:27:50:ALA:O	74:27:51:GLN:HB2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2042:G:H2'	1:2S:2043:U:O4'	2.06	0.55
36:74:3:GLN:HE22	36:74:29:ILE:HG22	1.72	0.55
49:S2:238:SER:O	49:S2:242:ILE:HD12	2.06	0.55
70:23:24:TRP:HZ3	70:23:30:LYS:HG3	1.72	0.55
21:59:167:ARG:HG2	21:59:170:ARG:NH1	2.21	0.55
4:L1:104:SER:O	4:L1:128:LEU:HD22	2.06	0.55
34:72:24:ARG:HG2	34:72:25:TYR:CD1	2.42	0.55
6:L3:261:MET:O	6:L3:264:VAL:HG22	2.07	0.55
18:56:76:PRO:CA	18:56:79:ILE:HD12	2.30	0.55
1:2S:151:A:H5''	37:75:102:GLU:CB	2.35	0.55
10:L7:152:GLY:HA3	10:L7:163:LEU:CD1	2.34	0.55
46:1S:952:A:H2'	46:1S:953:G:H8	1.72	0.55
67:20:50:LEU:HD23	67:20:95:ALA:HB2	1.89	0.55
46:1S:772:G:H5''	51:S4:23:LEU:CD2	2.37	0.55
5:L2:225:ILE:HD13	5:L2:238:ILE:CD1	2.36	0.55
1:2S:95:A:H5''	30:68:34:MET:O	2.07	0.55
46:1S:155:U:H4'	53:S6:59:GLN:HA	1.88	0.55
1:2S:3322:A:H2'	1:2S:3323:A:H8	1.72	0.55
40:78:45:VAL:HG23	40:78:52:TYR:HD2	1.72	0.55
46:1S:1454:G:H4'	62:15:122:THR:HG21	1.89	0.55
3:5S:118:A:H5''	8:L5:253:PHE:CZ	2.42	0.55
71:24:57:VAL:CG2	71:24:60:PHE:HE2	2.20	0.55
11:L8:93:LEU:HA	11:L8:96:LYS:NZ	2.21	0.55
1:2S:430:U:H2'	1:2S:431:U:C6	2.42	0.55
70:23:53:VAL:HG11	70:23:98:GLU:HA	1.89	0.55
54:S7:166:LEU:HD11	54:S7:183:PHE:HB2	1.88	0.55
57:10:16:PHE:HB2	57:10:76:LEU:HD23	1.88	0.54
6:L3:296:THR:H	6:L3:299:ASP:HB2	1.72	0.54
21:59:102:LEU:O	21:59:106:LEU:HD13	2.07	0.54
46:1S:1156:C:C3'	46:1S:1157:A:H5''	2.37	0.54
34:72:98:HIS:CE1	34:72:99:ASN:ND2	2.72	0.54
57:10:7:ASP:O	57:10:11:ILE:HG12	2.07	0.54
52:S5:114:ILE:O	52:S5:118:LEU:HG	2.06	0.54
1:2S:2875:U:H5''	1:2S:2945:G:O6	2.07	0.54
7:L4:113:VAL:O	7:L4:118:LYS:HE3	2.07	0.54
26:64:47:ARG:HG2	26:64:47:ARG:HH11	1.72	0.54
2:8S:41:A:N6	2:8S:103:G:H1'	2.21	0.54
61:14:85:ALA:H	61:14:119:THR:CG2	2.16	0.54
1:2S:2553:U:H3'	5:L2:87:PHE:CE2	2.40	0.54
1:2S:3159:C:H4'	1:2S:3395:G:C5	2.42	0.54
50:S3:192:PRO:HB2	50:S3:201:ALA:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:180:VAL:CG2	11:L8:185:ARG:NH2	2.70	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:947:G:H2'	1:2S:948:C:C6	2.43	0.54
18:56:43:ILE:O	18:56:135:TYR:HB2	2.08	0.54
5:L2:51:ASP:OD2	5:L2:54:ARG:HB2	2.06	0.54
35:73:13:HIS:HB3	35:73:95:GLY:H	1.70	0.54
58:11:29:LYS:HE2	58:11:32:LYS:HA	1.89	0.54
46:1S:1032:G:OP1	46:1S:1032:G:H3'	2.08	0.54
17:55:181:ASN:OD1	17:55:184:LYS:HE3	2.07	0.54
77:30:30:PRO:HB2	77:30:34:ALA:HB3	1.88	0.54
17:55:132:VAL:HG12	17:55:133:ILE:N	2.21	0.54
54:S7:30:SER:CB	54:S7:34:LEU:HD22	2.38	0.54
46:1S:898:A:N6	46:1S:914:G:H21	1.98	0.54
75:28:32:PHE:CD2	75:28:32:PHE:N	2.75	0.54
20:58:58:ASN:C	20:58:60:PRO:HD3	2.28	0.54
22:60:16:THR:N	22:60:20:PRO:HA	2.20	0.54
46:1S:14:C:H2'	46:1S:15:U:C6	2.41	0.54
1:2S:3157:U:H4'	1:2S:3158:G:C5'	2.38	0.54
14:51:115:LYS:HZ3	14:51:115:LYS:HB2	1.68	0.54
14:51:49:LYS:CE	14:51:64:LYS:HE3	2.37	0.54
46:1S:454:U:H5'	51:S4:66:MET:HE3	1.89	0.54
46:1S:1573:A:H5'	46:1S:1574:G:N3	2.22	0.54
45:83:39:CYS:O	45:83:43:GLY:HA2	2.07	0.54
49:S2:65:GLU:HB2	49:S2:68:ILE:HD12	1.89	0.54
1:2S:117:U:O4	11:L8:142:LEU:HD23	2.07	0.54
54:S7:135:ILE:HG22	60:13:18:TYR:HE2	1.71	0.54
20:58:112:ALA:O	20:58:116:LYS:HB2	2.07	0.54
6:L3:292:ALA:HA	6:L3:303:LYS:O	2.08	0.54
57:10:24:LYS:O	57:10:43:ILE:HD11	2.06	0.54
4:L1:125:GLY:N	4:L1:126:PRO:HD2	2.22	0.54
64:17:85:VAL:N	64:17:86:PRO:HD3	2.21	0.54
18:56:151:ASP:HA	18:56:154:ALA:HB3	1.87	0.54
46:1S:560:U:H2'	46:1S:561:G:C8	2.42	0.54
52:S5:186:ASN:ND2	52:S5:188:LYS:HB2	2.21	0.54
41:79:47:THR:HG22	41:79:48:LYS:N	2.22	0.54
10:L7:100:ARG:O	10:L7:104:GLN:HG3	2.07	0.54
36:74:36:LYS:O	36:74:37:LYS:O	2.26	0.54
11:L8:75:ILE:O	11:L8:76:ALA:HB3	2.08	0.54
46:1S:387:A:H3'	46:1S:402:C:H5	1.71	0.54
1:2S:2837:A:H5''	13:50:154:ARG:NH1	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:56:58:LEU:HA	18:56:72:HIS:CD2	2.42	0.54
1:2S:1288:U:H2'	1:2S:1289:G:C8	2.42	0.54
8:L5:25:GLU:O	14:51:144:CYS:HA	2.08	0.54
43:81:16:LYS:O	43:81:20:VAL:HG23	2.07	0.54
1:2S:266:A:N6	38:76:30:LYS:HA	2.22	0.54
1:2S:3217:C:O2	1:2S:3217:C:C2'	2.55	0.54
5:L2:225:ILE:HD12	5:L2:237:LEU:N	2.23	0.54
73:26:12:LYS:HZ3	73:26:16:GLY:HA2	1.73	0.54
54:S7:100:PRO:O	54:S7:102:PRO:HD3	2.08	0.54
46:1S:970:A:H3'	46:1S:971:A:H8	1.72	0.54
46:1S:176:C:O2'	46:1S:177:U:H5'	2.07	0.54
38:76:91:ASN:HA	38:76:94:ILE:HB	1.88	0.54
3:5S:76:A:H2	22:60:50:LYS:HZ1	1.54	0.54
46:1S:856:A:C6	54:S7:96:ARG:HD3	2.42	0.54
75:28:16:LEU:HB2	75:28:27:GLN:HB2	1.89	0.54
50:S3:16:VAL:HG11	76:29:22:ARG:NH1	2.23	0.54
66:19:70:GLN:HB2	66:19:122:ARG:N	2.22	0.54
1:2S:241:G:O2'	1:2S:242:C:H5'	2.07	0.54
16:54:36:VAL:HG11	16:54:55:ARG:CZ	2.37	0.54
70:23:24:TRP:CZ3	70:23:30:LYS:HG3	2.41	0.54
15:53:24:VAL:HB	15:53:26:PHE:CE2	2.42	0.54
1:2S:2471:U:O2	1:2S:2475:G:O6	2.26	0.54
74:27:46:VAL:HG12	74:27:47:PHE:N	2.22	0.54
9:L6:104:GLU:HG2	9:L6:104:GLU:O	2.07	0.54
1:2S:2393:G:H4'	6:L3:252:ILE:HG12	1.89	0.54
6:L3:296:THR:HG21	6:L3:356:LEU:O	2.07	0.54
48:S1:70:LEU:HD11	48:S1:79:HIS:HB3	1.88	0.54
46:1S:397:A:H5''	55:S8:47:ARG:HH12	1.72	0.54
6:L3:63:PRO:HD2	6:L3:348:ARG:HH21	1.73	0.54
46:1S:595:G:H2'	46:1S:596:C:C6	2.42	0.54
1:2S:910:G:H2'	1:2S:911:C:C6	2.43	0.54
3:5S:77:G:N2	3:5S:101:G:H2'	2.22	0.54
15:53:116:LEU:O	15:53:120:GLN:HG3	2.07	0.54
51:S4:62:LYS:O	51:S4:66:MET:HG2	2.07	0.54
46:1S:501:U:H2'	46:1S:502:U:C6	2.43	0.54
1:2S:1230:G:H2'	1:2S:1231:A:O4'	2.07	0.54
1:2S:1101:G:H2'	1:2S:1102:A:H8	1.71	0.54
4:L1:36:VAL:HA	4:L1:208:SER:HA	1.88	0.54
55:S8:67:TRP:CZ2	55:S8:152:ILE:HD13	2.42	0.54
46:1S:777:C:H41	71:24:10:ARG:HD3	1.73	0.54
47:S0:56:LYS:HE3	68:21:82:VAL:HG11	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:84:VAL:HG12	10:L7:138:TYR:HD1	1.72	0.54
41:79:48:LYS:N	41:79:48:LYS:HD2	2.22	0.54
1:2S:1779:C:H3'	1:2S:1780:G:C5'	2.38	0.54
3:5S:48:U:H2'	3:5S:49:G:H5'	1.88	0.54
47:S0:6:THR:C	47:S0:8:ASP:H	2.11	0.54
1:2S:1808:G:H4'	1:2S:2559:U:O4	2.08	0.54
44:82:11:TYR:HA	44:82:19:LYS:O	2.07	0.54
1:2S:201:A:H4'	1:2S:220:G:C5	2.41	0.54
65:18:123:ARG:HA	65:18:133:VAL:HG21	1.89	0.54
4:L1:156:LYS:HG3	4:L1:157:PHE:N	2.22	0.54
6:L3:56:ILE:HD12	6:L3:358:TRP:O	2.07	0.54
69:22:103:ILE:HD12	69:22:126:LEU:HD12	1.89	0.54
46:1S:1057:U:H1'	46:1S:1058:U:C2'	2.37	0.54
77:30:47:VAL:HG13	77:30:48:THR:N	2.23	0.54
17:55:71:ARG:O	17:55:92:LEU:HB3	2.07	0.54
16:54:123:LEU:CB	18:56:194:LEU:HD21	2.37	0.54
57:10:1:MET:SD	57:10:44:LYS:HB2	2.48	0.54
1:2S:2534:G:H2'	1:2S:2535:A:C8	2.42	0.54
20:58:171:LYS:HA	30:68:56:VAL:CG1	2.36	0.54
67:20:48:HIS:CE1	67:20:99:ILE:HG12	2.42	0.54
46:1S:142:G:H22	46:1S:173:A:H2	1.55	0.54
8:L5:134:ALA:CB	8:L5:140:ARG:HG2	2.38	0.54
21:59:139:VAL:HA	21:59:142:ILE:CG1	2.37	0.54
46:1S:894:U:H2'	46:1S:895:G:C8	2.42	0.54
16:54:116:GLU:HA	16:54:119:GLN:HE21	1.72	0.54
30:68:49:HIS:N	30:68:50:PRO:CD	2.70	0.54
1:2S:587:U:H2'	1:2S:588:G:H5'	1.90	0.54
62:15:98:ASN:O	62:15:122:THR:HG22	2.07	0.54
22:60:13:ARG:C	22:60:56:GLY:HA2	2.28	0.54
1:2S:2108:C:H2'	1:2S:2109:U:C6	2.43	0.54
33:71:72:ARG:HG3	33:71:96:VAL:HG21	1.90	0.54
46:1S:1110:G:C2	46:1S:1111:G:H1'	2.42	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
47:S0:71:GLU:HA	47:S0:94:GLY:O	2.07	0.54
1:2S:3055:U:H1'	1:2S:3057:U:OP2	2.07	0.54
46:1S:1417:A:H2'	46:1S:1418:G:O4'	2.07	0.54
64:17:20:TYR:CD2	64:17:23:LYS:HD2	2.35	0.54
4:L1:103:LEU:CD2	4:L1:106:LYS:HE2	2.37	0.54
17:55:132:VAL:HG12	17:55:133:ILE:H	1.73	0.54
65:18:11:PHE:HE2	65:18:59:GLY:HA3	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:886:U:H2'	46:1S:887:A:O4'	2.08	0.54
1:2S:2101:C:HO2'	1:2S:2102:U:H6	1.54	0.54
27:65:135:ILE:HD11	27:65:138:ARG:HH11	1.72	0.54
46:1S:1503:A:O2'	66:19:37:VAL:HG23	2.08	0.54
54:S7:170:GLN:HA	54:S7:181:ILE:CG2	2.38	0.54
73:26:12:LYS:HZ1	73:26:16:GLY:HA2	1.72	0.54
1:2S:936:A:OP2	30:68:27:LYS:HG3	2.07	0.54
15:53:183:ARG:CG	15:53:186:ARG:HH11	2.20	0.54
24:62:36:TYR:HD2	24:62:37:LEU:HD12	1.73	0.54
1:2S:1330:A:H2'	1:2S:1332:A:N7	2.23	0.54
1:2S:2541:U:H1'	1:2S:2542:U:OP2	2.08	0.54
1:2S:1334:U:H2'	1:2S:1335:C:C6	2.42	0.54
73:26:36:ILE:HD13	73:26:36:ILE:C	2.28	0.54
21:59:151:ARG:O	21:59:155:LEU:HB2	2.07	0.54
29:67:10:VAL:O	29:67:83:THR:HG22	2.07	0.54
51:S4:43:PRO:HA	51:S4:82:TYR:O	2.07	0.54
73:26:75:VAL:O	73:26:79:ILE:HG13	2.07	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
23:61:41:ASP:HB2	23:61:97:LYS:CG	2.29	0.54
7:L4:268:ALA:O	7:L4:269:SER:HB2	2.07	0.54
32:70:13:LYS:HB3	32:70:100:ILE:HG23	1.89	0.54
22:60:78:TRP:HB2	22:60:125:LYS:H	1.73	0.54
1:2S:2427:U:H2'	1:2S:2428:U:H6	1.70	0.54
68:21:70:ASN:HB3	68:21:83:TRP:HB2	1.90	0.54
46:1S:974:A:H2'	46:1S:975:C:C6	2.42	0.54
64:17:13:SER:HB3	64:17:57:LEU:CD1	2.37	0.54
2:8S:155:A:C2'	2:8S:156:U:H5'	2.38	0.54
18:56:62:THR:O	18:56:66:LYS:HD2	2.08	0.54
46:1S:982:U:H2'	46:1S:983:A:C8	2.43	0.54
46:1S:1685:G:C3'	46:1S:1686:C:H5''	2.38	0.54
40:78:73:LEU:CD2	40:78:75:VAL:HG22	2.38	0.54
20:58:3:ILE:HG22	20:58:4:ASP:N	2.23	0.54
46:1S:1474:G:H2'	46:1S:1475:A:H8	1.72	0.54
70:23:56:LYS:HA	70:23:72:VAL:HG12	1.89	0.54
46:1S:947:U:H2'	46:1S:948:G:C8	2.42	0.54
39:77:60:GLY:HA2	39:77:64:MET:SD	2.48	0.54
46:1S:1758:U:H2'	46:1S:1759:C:C6	2.42	0.54
70:23:19:ARG:HH21	70:23:19:ARG:HB2	1.73	0.54
7:L4:91:GLY:O	7:L4:97:GLY:HA3	2.08	0.54
45:83:32:GLN:HB3	45:83:69:TYR:O	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L1:30:GLU:CD	4:L1:34:LEU:HD21	2.28	0.54
57:10:82:LEU:HD22	57:10:86:ILE:HG21	1.88	0.54
34:72:79:VAL:O	34:72:83:GLU:HG3	2.07	0.54
1:2S:2931:C:H5''	25:63:40:LYS:CD	2.33	0.54
57:10:30:ALA:C	57:10:38:LYS:HA	2.28	0.54
77:30:14:VAL:HA	77:30:17:GLN:HG2	1.89	0.54
1:2S:656:A:H2'	1:2S:657:A:C8	2.43	0.54
8:L5:109:THR:HA	8:L5:112:LYS:HG2	1.89	0.54
1:2S:2167:A:C6	1:2S:2168:A:C2	2.96	0.54
2:8S:32:C:H2'	2:8S:33:A:C8	2.43	0.54
55:S8:139:ALA:HB1	55:S8:143:TRP:CZ2	2.43	0.54
20:58:3:ILE:H	20:58:3:ILE:HD12	1.73	0.54
1:2S:2160:G:H2'	1:2S:2161:G:H8	1.73	0.54
53:S6:77:LEU:CD1	53:S6:95:LYS:HB2	2.38	0.54
1:2S:3385:U:H2'	1:2S:3386:G:O4'	2.08	0.54
10:L7:145:ARG:HA	10:L7:185:ILE:HD13	1.89	0.54
1:2S:3126:C:H2'	1:2S:3127:A:C8	2.43	0.54
6:L3:54:THR:OG1	6:L3:55:THR:N	2.41	0.54
54:S7:143:LEU:HB2	54:S7:147:ASN:HB2	1.90	0.54
20:58:83:VAL:HG22	20:58:140:LEU:HB2	1.90	0.54
79:RA:232:TYR:OH	79:RA:265:LEU:HD12	2.08	0.54
3:5S:3:U:H2'	3:5S:4:U:C6	2.42	0.54
13:50:34:TYR:HD2	13:50:89:VAL:HB	1.72	0.54
49:S2:168:ARG:HG2	49:S2:170:ILE:HD11	1.88	0.54
19:57:169:THR:HG23	35:73:60:ARG:HH12	1.72	0.54
71:24:112:LYS:O	71:24:116:LYS:HG3	2.08	0.54
1:2S:2131:A:H2'	1:2S:2132:C:C5'	2.38	0.54
10:L7:82:LYS:CA	10:L7:119:VAL:HB	2.34	0.54
46:1S:804:A:N3	46:1S:804:A:H2'	2.23	0.54
48:S1:179:SER:HB3	48:S1:183:GLN:CB	2.37	0.54
63:16:39:VAL:HG12	63:16:41:PRO:HB2	1.90	0.54
1:2S:985:U:H2'	1:2S:986:U:H6	1.72	0.54
46:1S:332:U:C5'	55:S8:31:ARG:HG3	2.38	0.54
20:58:59:ARG:HH11	20:58:59:ARG:CB	2.21	0.54
14:51:85:LYS:HG2	14:51:89:TYR:HE2	1.73	0.54
1:2S:1428:A:H5''	7:L4:107:ARG:HH22	1.73	0.54
8:L5:294:ALA:C	8:L5:296:GLN:H	2.10	0.54
50:S3:16:VAL:O	50:S3:20:GLU:HB2	2.07	0.54
26:64:45:ASN:HB3	26:64:48:ARG:HG3	1.89	0.54
5:L2:68:LYS:HG2	5:L2:69:TYR:N	2.22	0.54
64:17:18:GLU:HA	64:17:71:PHE:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:11:147:GLY:O	58:11:148:LYS:HG2	2.07	0.54
37:75:59:ASN:O	37:75:63:ARG:HG3	2.07	0.54
28:66:111:LEU:CD2	28:66:119:ILE:HD11	2.38	0.54
21:59:105:LEU:O	21:59:108:LYS:HG3	2.08	0.54
12:L9:92:TYR:CB	12:L9:99:ILE:HD12	2.38	0.54
52:S5:196:GLU:O	52:S5:200:ASN:ND2	2.40	0.54
1:2S:269:G:C5	17:55:14:LYS:HD2	2.43	0.54
17:55:16:SER:OG	17:55:19:LEU:HD13	2.07	0.54
5:L2:21:ARG:HG2	5:L2:21:ARG:HH11	1.73	0.54
53:S6:50:PHE:CD1	53:S6:111:LEU:HB3	2.43	0.54
50:S3:84:ILE:O	50:S3:84:ILE:HG23	2.08	0.54
46:1S:1100:G:H2'	69:22:74:VAL:O	2.08	0.54
55:S8:39:GLY:O	55:S8:59:ARG:HB3	2.08	0.54
79:RA:89:LEU:HB2	79:RA:103:PHE:HB2	1.89	0.54
8:L5:21:ARG:O	8:L5:25:GLU:HG3	2.08	0.54
5:L2:45:VAL:HG11	5:L2:83:HIS:O	2.08	0.54
54:S7:50:ASP:HB3	54:S7:56:LYS:HG2	1.89	0.54
1:2S:760:G:C1'	1:2S:771:A:H61	2.21	0.54
32:70:41:LEU:HD13	32:70:42:ILE:H	1.73	0.54
68:21:78:LEU:HD23	68:21:78:LEU:H	1.72	0.54
61:14:25:ASP:N	61:14:55:SER:HB3	2.23	0.54
5:L2:209:HIS:ND1	5:L2:210:PRO:HD2	2.23	0.54
70:23:144:ARG:HD2	70:23:144:ARG:N	2.22	0.54
50:S3:5:ILE:HG22	50:S3:6:SER:H	1.73	0.54
41:79:24:PRO:HB2	41:79:27:ILE:CD1	2.38	0.54
60:13:86:GLU:HG3	60:13:87:ASP:N	2.23	0.54
40:78:25:VAL:HG13	40:78:43:PHE:CE1	2.43	0.54
1:2S:1135:A:OP2	31:69:5:LYS:HG3	2.08	0.54
14:51:110:ILE:HD13	14:51:122:ILE:HD11	1.89	0.54
37:75:54:VAL:O	37:75:58:ILE:HG13	2.08	0.54
26:64:55:PHE:HA	26:64:58:HIS:HB3	1.90	0.54
1:2S:956:U:H6	1:2S:956:U:O5'	1.91	0.54
55:S8:48:THR:HG21	55:S8:54:LYS:HB2	1.91	0.54
7:L4:11:LEU:HD21	7:L4:153:SER:HB3	1.89	0.53
1:2S:2095:G:O5'	1:2S:2095:G:H8	1.92	0.53
34:72:79:VAL:HG13	34:72:111:ARG:HG2	1.90	0.53
1:2S:3298:C:C2	1:2S:3299:A:C8	2.96	0.53
46:1S:1283:U:H2'	46:1S:1284:C:H5	1.72	0.53
46:1S:722:G:H3'	46:1S:723:G:C5'	2.35	0.53
1:2S:3080:G:H2'	1:2S:3081:C:H6	1.69	0.53
39:77:20:ASN:HB2	39:77:39:TYR:HE1	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:S3:167:PHE:CE1	50:S3:192:PRO:HA	2.43	0.53
6:L3:199:PHE:O	6:L3:200:GLU:HB2	2.08	0.53
1:2S:20:A:H2'	1:2S:21:G:C8	2.42	0.53
14:51:49:LYS:HE2	14:51:64:LYS:HE3	1.89	0.53
1:2S:835:G:N2	1:2S:857:G:O2'	2.40	0.53
56:S9:95:TYR:CE1	56:S9:99:LEU:HA	2.43	0.53
9:L6:56:LYS:HB2	9:L6:98:VAL:HG13	1.90	0.53
46:1S:855:A:H3'	46:1S:856:A:H5''	1.90	0.53
60:13:44:GLY:O	60:13:45:LEU:HD22	2.08	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
1:2S:2474:G:H2'	1:2S:2475:G:N7	2.23	0.53
53:S6:77:LEU:HD11	53:S6:95:LYS:HB2	1.90	0.53
14:51:108:GLU:HG2	14:51:122:ILE:HG23	1.90	0.53
1:2S:2723:U:H2'	1:2S:2724:U:O4'	2.07	0.53
1:2S:1724:U:H1'	1:2S:1725:C:C6	2.42	0.53
33:71:39:PHE:O	33:71:42:LEU:HB3	2.07	0.53
12:L9:150:SER:O	12:L9:154:VAL:HG23	2.08	0.53
11:L8:92:LYS:NZ	11:L8:92:LYS:HB3	2.23	0.53
72:25:93:SER:HB2	72:25:100:ILE:HG22	1.90	0.53
34:72:103:LYS:O	34:72:106:VAL:HG12	2.08	0.53
1:2S:3297:U:H2'	1:2S:3298:C:C6	2.43	0.53
5:L2:50:HIS:ND1	45:83:51:ALA:HB1	2.23	0.53
46:1S:960:U:O2'	60:13:51:GLY:HA3	2.07	0.53
1:2S:2369:G:H2'	1:2S:2370:G:C8	2.44	0.53
46:1S:306:U:H2'	46:1S:307:G:C8	2.43	0.53
17:55:38:ARG:HA	17:55:62:TYR:HA	1.90	0.53
56:S9:119:ALA:O	56:S9:120:LYS:HB2	2.07	0.53
46:1S:542:A:O2'	46:1S:543:C:H2'	2.08	0.53
22:60:24:LEU:HD12	23:61:146:ASN:CB	2.39	0.53
63:16:42:GLU:HG3	63:16:45:ARG:HH21	1.74	0.53
47:S0:189:VAL:HG13	47:S0:190:ASP:N	2.21	0.53
46:1S:1167:G:H2'	46:1S:1168:U:C6	2.44	0.53
46:1S:1477:G:H2'	46:1S:1478:G:C8	2.43	0.53
1:2S:3016:A:H2'	1:2S:3017:A:H8	1.72	0.53
54:S7:63:PRO:O	54:S7:64:VAL:CB	2.56	0.53
26:64:5:ILE:HD12	26:64:5:ILE:O	2.07	0.53
4:L1:30:GLU:OE1	4:L1:34:LEU:HD21	2.08	0.53
46:1S:1246:C:H2'	46:1S:1247:U:H6	1.71	0.53
54:S7:68:ALA:O	54:S7:72:LYS:HG3	2.07	0.53
1:2S:2186:U:H2'	1:2S:2187:G:C8	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:S7:140:VAL:HG13	54:S7:149:ILE:O	2.08	0.53
1:2S:2295:A:C5	1:2S:2296:A:C6	2.96	0.53
1:2S:3310:A:H2'	1:2S:3311:C:H5'	1.90	0.53
64:17:103:ASP:H	64:17:106:THR:HB	1.73	0.53
1:2S:2692:A:O2'	1:2S:2693:C:H5'	2.07	0.53
1:2S:1526:U:H4'	1:2S:1594:A:C5	2.44	0.53
1:2S:1307:G:H5''	18:56:60:LYS:HD3	1.88	0.53
1:2S:1222:G:H8	1:2S:1222:G:H5'	1.72	0.53
56:S9:146:PHE:CZ	56:S9:149:ARG:NH1	2.75	0.53
2:8S:40:A:H2'	2:8S:41:A:H8	1.73	0.53
1:2S:951:A:H2'	1:2S:952:A:H8	1.74	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
65:18:42:TYR:O	65:18:46:VAL:HG23	2.08	0.53
1:2S:266:A:C6	38:76:30:LYS:HA	2.44	0.53
54:S7:56:LYS:HD2	54:S7:88:ARG:CZ	2.38	0.53
5:L2:225:ILE:HG22	5:L2:226:SER:N	2.23	0.53
46:1S:1112:G:N2	46:1S:1133:A:H62	2.05	0.53
5:L2:30:ARG:NH1	5:L2:72:ARG:HH22	2.06	0.53
46:1S:1228:G:H5'	46:1S:1229:G:C8	2.43	0.53
62:15:58:LYS:HZ2	62:15:58:LYS:HB3	1.73	0.53
1:2S:1046:A:H2'	1:2S:1049:C:H5	1.73	0.53
6:L3:244:ARG:HB2	6:L3:244:ARG:HH11	1.72	0.53
1:2S:1798:A:H2'	1:2S:1799:A:C8	2.44	0.53
69:22:82:LYS:O	69:22:83:ILE:HG22	2.07	0.53
46:1S:1629:G:H2'	46:1S:1630:U:C6	2.42	0.53
1:2S:386:A:H2'	1:2S:387:A:O4'	2.08	0.53
1:2S:305:U:H3'	1:2S:305:U:OP1	2.09	0.53
47:S0:20:ALA:HB2	47:S0:172:LEU:HD22	1.89	0.53
55:S8:8:ARG:CD	55:S8:21:PHE:HB3	2.38	0.53
1:2S:299:G:H2'	1:2S:300:G:O4'	2.08	0.53
61:14:112:ILE:CG2	61:14:113:GLY:H	2.08	0.53
18:56:138:LEU:O	18:56:142:SER:HB2	2.09	0.53
53:S6:118:GLU:HG3	53:S6:119:GLN:N	2.23	0.53
51:S4:99:PHE:CE1	51:S4:113:ARG:HG2	2.44	0.53
46:1S:1754:A:H5'	70:23:62:LYS:HG2	1.89	0.53
32:70:27:TYR:O	32:70:31:VAL:HG23	2.08	0.53
1:2S:717:C:H2'	1:2S:718:G:H5'	1.90	0.53
79:RA:7:LEU:HD11	79:RA:251:TRP:HZ3	1.73	0.53
3:5S:114:U:H2'	3:5S:115:G:C8	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:8S:142:C:H2'	2:8S:143:U:C6	2.43	0.53
10:L7:96:PRO:HB2	10:L7:99:PRO:HD2	1.91	0.53
14:51:108:GLU:HG2	14:51:122:ILE:CG2	2.38	0.53
1:2S:1175:C:H5''	18:56:25:LYS:HG2	1.89	0.53
39:77:87:SER:O	39:77:88:ALA:HB3	2.09	0.53
1:2S:3112:G:O6	1:2S:3119:U:H3'	2.09	0.53
8:L5:266:ALA:O	8:L5:270:LYS:HG3	2.08	0.53
1:2S:625:G:O2'	1:2S:626:U:H5'	2.07	0.53
59:12:23:THR:HG23	59:12:23:THR:O	2.09	0.53
1:2S:3173:G:H2'	1:2S:3173:G:N3	2.23	0.53
6:L3:93:VAL:HG22	6:L3:94:GLU:H	1.73	0.53
50:S3:53:THR:HG22	50:S3:91:VAL:HG11	1.89	0.53
17:55:18:VAL:HG13	17:55:19:LEU:CD1	2.38	0.53
1:2S:2820:A:C2'	1:2S:2821:C:H5'	2.38	0.53
1:2S:1151:U:H3'	1:2S:1152:G:N2	2.23	0.53
1:2S:398:A:H1'	1:2S:1416:C:OP1	2.09	0.53
56:S9:109:LEU:HB2	56:S9:146:PHE:HB3	1.91	0.53
52:S5:48:PHE:CE1	52:S5:64:VAL:HA	2.43	0.53
17:55:134:LEU:N	17:55:134:LEU:HD12	2.24	0.53
74:27:64:CYS:HB3	74:27:73:LEU:HA	1.90	0.53
46:1S:329:G:H2'	46:1S:330:G:C8	2.43	0.53
79:RA:150:TRP:HB2	79:RA:174:ASN:ND2	2.22	0.53
46:1S:694:U:H1'	54:S7:97:ARG:NH2	2.24	0.53
50:S3:42:THR:HG22	67:20:108:ILE:HB	1.90	0.53
46:1S:856:A:N6	54:S7:121:VAL:HG22	2.23	0.53
1:2S:804:C:H2'	1:2S:805:G:C8	2.44	0.53
15:53:76:THR:HG23	15:53:101:ARG:NH1	2.23	0.53
68:21:11:LEU:HD12	68:21:11:LEU:O	2.08	0.53
70:23:54:LEU:HD12	70:23:73:ARG:HB3	1.91	0.53
1:2S:2542:U:H1'	1:2S:2543:U:H5	1.73	0.53
46:1S:1426:C:H3'	46:1S:1427:A:H5''	1.90	0.53
46:1S:1208:A:H2	46:1S:1209:C:C6	2.26	0.53
79:RA:227:ALA:O	79:RA:228:LYS:HB2	2.09	0.53
72:25:50:ILE:HD11	72:25:70:LYS:HD2	1.90	0.53
61:14:78:ALA:HA	61:14:111:ARG:O	2.08	0.53
1:2S:946:U:H4'	1:2S:1405:U:O2	2.08	0.53
1:2S:359:U:H4'	1:2S:817:A:N6	2.23	0.53
24:62:96:VAL:HG12	24:62:97:SER:N	2.21	0.53
46:1S:226:A:C2'	46:1S:227:U:H5'	2.33	0.53
7:L4:206:LEU:HG	7:L4:226:GLU:HG3	1.91	0.53
46:1S:46:A:N6	46:1S:433:C:H4'	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:S8:42:ARG:HB3	55:S8:58:LEU:HB2	1.91	0.53
1:2S:2714:G:C8	1:2S:2716:U:C5	2.96	0.53
1:2S:3304:U:C6	6:L3:333:LYS:HE2	2.43	0.53
11:L8:146:LYS:HE2	11:L8:173:MET:CA	2.39	0.53
9:L6:172:HIS:HD2	35:73:40:ASP:HB3	1.73	0.53
19:57:88:VAL:O	19:57:92:GLN:HG2	2.07	0.53
64:17:13:SER:O	64:17:17:ILE:HG13	2.09	0.53
63:16:41:PRO:O	63:16:42:GLU:CB	2.55	0.53
63:16:9:THR:HG21	63:16:88:GLY:HA2	1.91	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
24:62:76:LEU:O	24:62:80:THR:HG23	2.08	0.53
67:20:118:VAL:HG22	67:20:119:ALA:N	2.24	0.53
1:2S:71:A:N6	1:2S:303:G:H1'	2.23	0.53
56:S9:57:ARG:O	56:S9:61:THR:HG23	2.08	0.53
20:58:177:GLY:HA2	20:58:184:PHE:O	2.07	0.53
1:2S:2255:A:H5'	1:2S:2261:G:H22	1.74	0.53
48:S1:189:ILE:HB	48:S1:190:PRO:HD3	1.90	0.53
20:58:81:VAL:HG12	20:58:138:LEU:HD12	1.89	0.53
70:23:60:GLU:HG2	77:30:3:LYS:H	1.72	0.53
46:1S:744:U:H2'	46:1S:745:U:O4'	2.08	0.53
1:2S:186:U:H3	1:2S:230:U:H3	1.56	0.53
46:1S:564:G:H4'	46:1S:566:C:N3	2.24	0.53
1:2S:2154:U:H4'	5:L2:240:ALA:HB1	1.91	0.53
70:23:37:ALA:O	70:23:44:GLY:HA2	2.08	0.53
47:S0:182:LEU:HB3	47:S0:188:LEU:HD23	1.91	0.53
46:1S:396:G:H22	46:1S:399:A:H5'	1.73	0.53
6:L3:227:GLU:HG2	6:L3:231:HIS:CD2	2.43	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
10:L7:236:ILE:CD1	10:L7:239:LEU:HD13	2.38	0.53
32:70:34:LEU:CD2	32:70:59:TYR:HB3	2.37	0.53
61:14:128:LYS:H	73:26:22:ARG:NH1	2.04	0.53
46:1S:570:A:C5	70:23:114:LYS:HE3	2.43	0.53
56:S9:99:LEU:HG	56:S9:100:LYS:H	1.73	0.53
19:57:111:LYS:HB2	19:57:153:LYS:HB3	1.91	0.53
65:18:28:ILE:HD13	65:18:28:ILE:O	2.08	0.53
66:19:89:ARG:HH11	66:19:89:ARG:HG3	1.73	0.53
1:2S:2221:G:N2	1:2S:2223:A:H3'	2.24	0.53
4:L1:155:ILE:HD13	4:L1:163:LEU:HD21	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:53:166:ALA:HB1	30:68:147:LEU:HD21	1.91	0.53
47:S0:71:GLU:HA	47:S0:94:GLY:C	2.28	0.53
46:1S:882:U:O2'	46:1S:883:C:H5'	2.09	0.53
79:RA:118:LYS:O	79:RA:119:ALA:HB3	2.07	0.53
1:2S:3138:U:H4'	6:L3:275:ARG:HH21	1.74	0.53
1:2S:282:G:H22	17:55:179:LYS:HA	1.74	0.53
1:2S:218:G:C1'	1:2S:372:A:H1'	2.38	0.53
24:62:70:LYS:C	24:62:70:LYS:HD3	2.29	0.53
1:2S:2468:A:H4'	1:2S:2469:G:O5'	2.09	0.53
1:2S:2131:A:C6	1:2S:2188:A:H1'	2.44	0.53
1:2S:3116:G:H3'	1:2S:3117:C:H6	1.74	0.53
49:S2:57:PHE:CE1	49:S2:138:PRO:HD3	2.44	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
35:73:52:VAL:HG13	35:73:66:VAL:CG2	2.38	0.53
19:57:119:VAL:HA	19:57:145:HIS:O	2.08	0.53
15:53:91:ARG:HH11	15:53:91:ARG:HG3	1.73	0.53
46:1S:115:G:C8	58:11:129:ARG:HD2	2.44	0.53
51:S4:52:LEU:HD13	51:S4:54:TYR:CD2	2.44	0.53
46:1S:767:U:H5'	71:24:63:GLN:NE2	2.23	0.53
1:2S:3035:A:H1'	12:L9:122:LYS:HB2	1.91	0.53
1:2S:2747:A:O2'	1:2S:2748:A:H5'	2.08	0.53
65:18:123:ARG:HD3	65:18:133:VAL:HG21	1.91	0.53
1:2S:279:U:H2'	1:2S:280:U:O4'	2.08	0.53
78:31:108:VAL:HG23	78:31:114:VAL:HG22	1.91	0.53
59:12:24:ILE:C	59:12:26:ASP:H	2.12	0.53
46:1S:754:A:H3'	46:1S:755:A:H5'	1.91	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
1:2S:1121:U:H2'	1:2S:1122:U:C6	2.44	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:406:G:H1'	2:8S:16:G:H22	1.73	0.53
46:1S:1482:C:N4	46:1S:1524:A:H2'	2.24	0.53
46:1S:1311:U:H2'	46:1S:1313:A:OP2	2.09	0.53
70:23:103:LEU:HD13	70:23:104:LEU:N	2.24	0.53
17:55:70:ASN:OD1	17:55:93:LYS:HA	2.08	0.53
47:S0:41:ARG:HG2	64:17:105:GLN:CD	2.30	0.53
46:1S:1479:A:HO2'	66:19:12:GLN:HG2	1.74	0.53
1:2S:55:G:O2'	1:2S:56:G:H5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1681:U:H2'	1:2S:1682:U:O4'	2.08	0.53
15:53:168:ARG:O	15:53:172:LEU:HG	2.08	0.53
23:61:39:ILE:CD1	23:61:102:ARG:HH11	2.21	0.53
1:2S:1427:U:H2'	1:2S:1428:A:H8	1.73	0.53
4:L1:15:GLU:HG3	4:L1:21:ASN:HD21	1.74	0.53
52:S5:157:ARG:O	52:S5:224:ASN:HB3	2.08	0.53
11:L8:93:LEU:O	11:L8:96:LYS:HD2	2.09	0.53
54:S7:78:THR:O	54:S7:82:GLU:HB2	2.09	0.53
51:S4:36:HIS:HB2	51:S4:41:SER:HB3	1.91	0.53
1:2S:2256:A:H61	46:1S:1756:A:H3'	1.74	0.53
1:2S:50:U:O5'	1:2S:50:U:C6	2.62	0.53
1:2S:2324:A:O5'	1:2S:2324:A:H8	1.92	0.53
59:12:62:LEU:H	59:12:62:LEU:HD23	1.74	0.53
46:1S:250:C:H6	46:1S:250:C:H5'	1.74	0.53
22:60:61:ILE:O	22:60:61:ILE:HG23	2.08	0.53
17:55:46:ASP:OD1	17:55:47:LYS:N	2.42	0.53
7:L4:235:LEU:HA	7:L4:238:LEU:HD12	1.91	0.53
3:5S:11:A:HO2'	3:5S:13:A:H5''	1.70	0.53
1:2S:2206:G:OP2	1:2S:2206:G:H8	1.91	0.53
37:75:61:GLN:O	37:75:64:GLU:HG2	2.09	0.53
46:1S:1570:A:H3'	46:1S:1571:C:H6	1.74	0.53
67:20:106:ILE:HG13	67:20:107:THR:N	2.22	0.53
5:L2:196:TRP:CD2	5:L2:197:PRO:HA	2.44	0.53
12:L9:70:THR:O	12:L9:74:LEU:HG	2.08	0.53
26:64:56:ARG:HH11	26:64:56:ARG:CB	2.22	0.53
1:2S:1742:U:H5''	36:74:21:LYS:NZ	2.24	0.53
1:2S:914:A:OP1	1:2S:914:A:H8	1.92	0.53
16:54:55:ARG:HD3	22:60:70:THR:HB	1.91	0.53
46:1S:915:A:H3'	46:1S:916:U:C5	2.44	0.53
59:12:22:VAL:HG12	59:12:23:THR:HG22	1.90	0.53
34:72:86:THR:HG22	34:72:87:MET:SD	2.49	0.53
27:65:136:ALA:O	27:65:139:ILE:HG22	2.08	0.53
40:78:24:THR:HG23	40:78:44:LYS:HD3	1.90	0.53
69:22:49:GLU:HG3	69:22:49:GLU:O	2.08	0.53
1:2S:8:C:H2'	1:2S:9:U:O4'	2.09	0.53
1:2S:944:C:H2'	1:2S:945:C:H6	1.74	0.53
1:2S:490:C:H2'	1:2S:491:A:C8	2.44	0.53
70:23:76:LEU:HD13	70:23:79:ASN:HD22	1.73	0.52
55:S8:25:ARG:CB	55:S8:27:PHE:CE1	2.92	0.52
4:L1:44:GLN:CG	4:L1:161:LYS:HA	2.39	0.52
31:69:59:LYS:H	31:69:59:LYS:CD	2.17	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:30:G:H2'	1:2S:31:C:C6	2.44	0.52
1:2S:2424:A:H5''	17:55:89:VAL:HB	1.90	0.52
1:2S:1019:G:H3'	1:2S:1020:G:H5''	1.90	0.52
49:S2:115:ILE:HD13	49:S2:208:GLU:HG3	1.90	0.52
46:1S:803:A:O2'	54:S7:104:ARG:HG2	2.08	0.52
1:2S:2277:C:H2'	1:2S:2278:C:H5'	1.91	0.52
46:1S:1389:C:O2	46:1S:1389:C:H3'	2.10	0.52
12:L9:67:ALA:O	12:L9:70:THR:HG22	2.08	0.52
63:16:41:PRO:O	63:16:42:GLU:HB3	2.08	0.52
1:2S:3065:G:H2'	1:2S:3066:U:C6	2.44	0.52
1:2S:1445:U:H3'	1:2S:1446:A:H2'	1.91	0.52
51:S4:238:LEU:HD13	51:S4:242:LYS:CG	2.39	0.52
20:58:59:ARG:HH11	20:58:59:ARG:HB2	1.75	0.52
5:L2:202:VAL:CG2	5:L2:211:HIS:HB3	2.39	0.52
57:10:63:TYR:O	57:10:64:TYR:O	2.27	0.52
1:2S:2285:C:H2'	1:2S:2286:U:C6	2.44	0.52
1:2S:1480:G:H1	1:2S:1871:U:H5''	1.74	0.52
1:2S:3268:A:C2	9:L6:130:ILE:HG21	2.44	0.52
1:2S:1783:U:H2'	1:2S:1784:G:C8	2.45	0.52
55:S8:9:HIS:O	55:S8:18:ARG:NH2	2.40	0.52
46:1S:1364:G:H21	66:19:3:GLY:HA2	1.74	0.52
79:RA:131:ILE:HB	79:RA:144:LEU:HB2	1.91	0.52
46:1S:1117:U:H2'	46:1S:1118:G:C8	2.44	0.52
53:S6:157:VAL:HG21	53:S6:173:PRO:HD2	1.91	0.52
28:66:82:VAL:HB	28:66:85:VAL:HB	1.89	0.52
70:23:90:ASP:OD2	77:30:12:GLY:HA2	2.08	0.52
1:2S:990:U:H4'	23:61:100:LYS:HE3	1.90	0.52
1:2S:1228:C:H6	1:2S:1228:C:O5'	1.91	0.52
44:82:61:LYS:HB3	44:82:61:LYS:NZ	2.24	0.52
17:55:162:ARG:NH2	17:55:164:LEU:HD11	2.24	0.52
1:2S:942:U:C3'	30:68:15:VAL:HG13	2.26	0.52
6:L3:261:MET:CG	18:56:64:PHE:HA	2.40	0.52
48:S1:180:THR:HG22	48:S1:181:LEU:N	2.24	0.52
53:S6:44:GLU:HB3	53:S6:121:LEU:HD21	1.92	0.52
13:50:36:LEU:HD13	13:50:73:ASN:ND2	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
46:1S:1521:G:H2'	46:1S:1523:G:H21	1.74	0.52
5:L2:42:ARG:HD2	5:L2:87:PHE:CB	2.39	0.52
33:71:37:LYS:HE2	33:71:51:LEU:HD11	1.92	0.52
46:1S:1105:C:H2'	46:1S:1106:U:H6	1.72	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:S6:98:ARG:HD3	53:S6:99:GLY:H	1.74	0.52
1:2S:1965:C:H2'	1:2S:1966:U:O4'	2.09	0.52
6:L3:324:VAL:HG22	6:L3:325:LYS:N	2.24	0.52
1:2S:2788:C:H2'	1:2S:2789:U:H6	1.73	0.52
1:2S:811:U:H2'	1:2S:812:G:H8	1.74	0.52
1:2S:385:A:O2'	1:2S:386:A:H5'	2.09	0.52
21:59:177:VAL:HA	21:59:180:LYS:HE2	1.91	0.52
1:2S:235:A:H2'	1:2S:236:G:C8	2.44	0.52
46:1S:17:C:H2'	46:1S:18:C:C6	2.45	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
52:S5:194:LEU:O	52:S5:194:LEU:HD13	2.09	0.52
76:29:29:GLY:HA3	76:29:40:ARG:HD3	1.90	0.52
15:53:117:LYS:HD3	15:53:117:LYS:N	2.24	0.52
1:2S:209:A:C2	7:L4:221:ASN:HB3	2.43	0.52
10:L7:111:ILE:O	10:L7:112:ASN:HB2	2.08	0.52
17:55:10:LEU:O	17:55:19:LEU:HD21	2.09	0.52
23:61:128:LEU:HD12	23:61:129:LYS:N	2.24	0.52
1:2S:627:U:H2'	1:2S:628:A:H8	1.69	0.52
46:1S:730:G:N3	46:1S:730:G:H2'	2.23	0.52
46:1S:1739:C:H2'	46:1S:1740:A:H8	1.72	0.52
6:L3:164:THR:HG22	6:L3:165:GLN:H	1.74	0.52
22:60:98:SER:OG	22:60:101:ALA:HB2	2.09	0.52
21:59:139:VAL:HA	21:59:142:ILE:HG13	1.91	0.52
1:2S:2407:C:H2'	1:2S:2408:U:H6	1.74	0.52
46:1S:1685:G:C2'	46:1S:1686:C:H5''	2.38	0.52
56:S9:93:LEU:O	56:S9:93:LEU:HD23	2.09	0.52
42:80:90:ASN:N	42:80:90:ASN:HD22	2.05	0.52
46:1S:1632:C:H2'	46:1S:1633:A:H8	1.72	0.52
1:2S:2680:A:C2	14:51:65:ILE:HD11	2.45	0.52
1:2S:1330:A:H2'	1:2S:1332:A:C8	2.44	0.52
67:20:22:ILE:HD12	67:20:118:VAL:HA	1.91	0.52
1:2S:3185:U:H5''	12:L9:23:ARG:HH12	1.73	0.52
46:1S:1206:U:H5	46:1S:1207:C:HO2'	1.58	0.52
1:2S:2825:C:H2'	1:2S:2826:U:C6	2.44	0.52
1:2S:1726:C:H2'	1:2S:1727:G:C8	2.44	0.52
56:S9:134:ILE:HA	56:S9:158:PHE:HA	1.91	0.52
69:22:24:GLN:HB3	69:22:64:GLN:NE2	2.23	0.52
20:58:30:VAL:HG22	20:58:52:LEU:HD13	1.92	0.52
61:14:112:ILE:O	73:26:58:VAL:HG22	2.09	0.52
73:26:59:TYR:HB3	73:26:60:PRO:HD2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1081:A:H2'	46:1S:1083:G:C5	2.45	0.52
5:L2:78:ALA:O	5:L2:169:ILE:HG23	2.08	0.52
1:2S:1225:A:N1	1:2S:3116:G:C8	2.78	0.52
46:1S:1381:U:H1'	46:1S:1516:A:N6	2.24	0.52
20:58:54:LEU:HD22	20:58:58:ASN:HB3	1.91	0.52
48:S1:23:PRO:O	48:S1:27:LYS:HG2	2.09	0.52
8:L5:51:LEU:HB3	8:L5:146:LEU:HA	1.90	0.52
64:17:53:TYR:O	64:17:56:HIS:HB3	2.09	0.52
18:56:157:GLU:HB3	18:56:161:LYS:HE2	1.91	0.52
1:2S:2076:G:H2'	1:2S:2077:U:C5'	2.38	0.52
45:83:83:ILE:HD13	45:83:86:LEU:HD12	1.90	0.52
22:60:110:MET:O	22:60:114:HIS:HB2	2.09	0.52
1:2S:860:G:C5	5:L2:181:LYS:HB2	2.44	0.52
1:2S:2108:C:H1'	1:2S:3344:A:H8	1.74	0.52
70:23:75:GLN:HA	70:23:82:LYS:HA	1.91	0.52
2:8S:152:G:H5'	11:L8:60:ARG:HG2	1.90	0.52
29:67:26:VAL:HG23	29:67:27:LYS:N	2.25	0.52
70:23:19:ARG:NH1	70:23:22:ASN:HD22	2.07	0.52
1:2S:2266:U:H2'	1:2S:2267:C:H6	1.74	0.52
1:2S:335:G:OP1	28:66:9:SER:HB2	2.09	0.52
1:2S:2384:A:H8	1:2S:2384:A:O5'	1.93	0.52
1:2S:2119:A:H2	21:59:82:LYS:NZ	2.08	0.52
52:S5:59:VAL:O	52:S5:60:ASP:HB2	2.09	0.52
13:50:14:ASN:HD22	13:50:14:ASN:N	2.07	0.52
1:2S:1912:U:O5'	1:2S:1912:U:H6	1.93	0.52
52:S5:121:ILE:HD11	52:S5:195:ALA:HA	1.91	0.52
57:10:87:VAL:N	57:10:88:PRO:HD3	2.25	0.52
70:23:127:VAL:CG1	70:23:132:LEU:HD21	2.33	0.52
1:2S:31:C:H2'	1:2S:32:U:C6	2.45	0.52
59:12:89:ILE:HD13	59:12:90:LYS:N	2.17	0.52
16:54:82:SER:HA	16:54:85:TRP:HB2	1.90	0.52
1:2S:2189:U:H5''	45:83:22:LEU:HD11	1.91	0.52
1:2S:3359:A:H2'	1:2S:3359:A:N3	2.25	0.52
61:14:21:ALA:HB3	61:14:83:ILE:HD11	1.91	0.52
1:2S:440:A:C5'	1:2S:441:U:H4'	2.40	0.52
7:L4:98:ARG:HD2	7:L4:98:ARG:O	2.09	0.52
61:14:107:ARG:NH2	61:14:107:ARG:HG3	2.24	0.52
44:82:24:LYS:HG3	44:82:75:VAL:HG12	1.91	0.52
36:74:65:VAL:HG12	36:74:66:SER:N	2.23	0.52
4:L1:74:VAL:HG12	4:L1:75:ASP:N	2.23	0.52
65:18:89:GLN:O	65:18:90:ASN:HB2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:53:59:ARG:HH12	15:53:67:ARG:C	2.12	0.52
70:23:75:GLN:CG	70:23:82:LYS:HG3	2.39	0.52
46:1S:344:A:O2'	46:1S:345:U:H5'	2.09	0.52
1:2S:957:C:H2'	1:2S:958:C:C6	2.45	0.52
1:2S:2295:A:H2'	1:2S:2296:A:C8	2.44	0.52
62:15:31:GLU:HG3	62:15:32:ASP:N	2.24	0.52
4:L1:57:ASN:OD1	4:L1:147:LYS:HE2	2.08	0.52
5:L2:180:LEU:HD22	45:83:18:TYR:CD1	2.45	0.52
1:2S:397:A:H4'	1:2S:399:A:OP1	2.09	0.52
6:L3:57:VAL:CG2	6:L3:358:TRP:HE3	2.22	0.52
46:1S:421:A:H2'	46:1S:422:G:H5'	1.91	0.52
1:2S:1844:C:C3'	1:2S:1845:G:H5''	2.39	0.52
58:11:85:VAL:HG22	58:11:108:PRO:HB3	1.91	0.52
1:2S:3044:G:H5''	6:L3:12:GLY:HA2	1.91	0.52
38:76:98:ARG:N	38:76:98:ARG:CD	2.69	0.52
51:S4:121:TYR:HA	51:S4:164:LEU:CD2	2.38	0.52
27:65:63:ILE:HD13	27:65:64:GLU:N	2.23	0.52
1:2S:1158:A:H2'	1:2S:1159:A:C4'	2.37	0.52
7:L4:38:VAL:O	7:L4:42:VAL:HG23	2.09	0.52
5:L2:79:ASN:O	5:L2:82:VAL:HG22	2.09	0.52
1:2S:441:U:N3	1:2S:494:G:H4'	2.24	0.52
7:L4:195:ARG:O	7:L4:196:ASN:HB2	2.09	0.52
71:24:123:LYS:O	71:24:127:LYS:HG2	2.10	0.52
22:60:43:TYR:O	22:60:47:LYS:HG3	2.09	0.52
46:1S:115:G:H8	58:11:129:ARG:HD2	1.75	0.52
1:2S:1362:G:H2'	1:2S:1363:A:C8	2.44	0.52
52:S5:216:GLU:HG3	52:S5:219:ARG:HD2	1.91	0.52
38:76:40:VAL:O	38:76:44:VAL:HG23	2.08	0.52
5:L2:209:HIS:CE1	5:L2:210:PRO:HD2	2.44	0.52
23:61:27:LEU:HA	23:61:30:TYR:CD2	2.45	0.52
76:29:38:ILE:HG22	76:29:39:CYS:N	2.25	0.52
1:2S:213:A:H2'	1:2S:214:G:C5'	2.39	0.52
1:2S:50:U:O5'	1:2S:50:U:H6	1.93	0.52
46:1S:1528:U:O5'	46:1S:1528:U:H6	1.91	0.52
1:2S:3012:A:H2'	1:2S:3013:U:C6	2.45	0.52
52:S5:147:THR:CG2	52:S5:158:GLN:HB3	2.40	0.52
34:72:17:PHE:HZ	34:72:57:TYR:CE2	2.27	0.52
72:25:57:TYR:OH	72:25:68:ARG:NH1	2.43	0.52
46:1S:834:G:H2'	46:1S:835:U:C6	2.45	0.52
66:19:49:ASP:O	66:19:50:ALA:HB3	2.10	0.52
11:L8:32:LYS:HB3	11:L8:34:PHE:CZ	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:16:36:ILE:HG12	63:16:36:ILE:O	2.10	0.52
46:1S:701:U:H6	46:1S:701:U:O5'	1.93	0.52
50:S3:196:ARG:HH11	50:S3:196:ARG:HG3	1.73	0.52
1:2S:2960:C:H2'	1:2S:2961:G:C8	2.44	0.52
1:2S:2771:U:H5	1:2S:2772:C:C4	2.27	0.52
10:L7:77:VAL:CG2	23:61:139:ARG:H	2.23	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
17:55:90:ASN:C	17:55:92:LEU:H	2.13	0.52
1:2S:2729:U:H2'	1:2S:2730:G:O4'	2.10	0.52
12:L9:153:ASP:O	12:L9:157:ASN:HB2	2.10	0.52
79:RA:129:LYS:HB2	79:RA:147:HIS:HB2	1.92	0.52
46:1S:1199:G:H1	76:29:31:ILE:HD11	1.74	0.52
7:L4:271:LYS:HB2	7:L4:274:TYR:HB3	1.92	0.52
10:L7:123:THR:HA	10:L7:126:LEU:HD12	1.90	0.52
4:L1:40:ASN:O	4:L1:162:VAL:HG13	2.10	0.52
20:58:157:PRO:O	20:58:158:HIS:HB2	2.09	0.52
66:19:52:GLY:HA2	66:19:55:TYR:HD2	1.72	0.52
1:2S:924:G:H21	1:2S:2414:G:C1'	2.23	0.52
63:16:128:LYS:HB2	63:16:137:ARG:HH22	1.74	0.52
6:L3:336:VAL:HG12	6:L3:337:THR:N	2.25	0.52
55:S8:10:LYS:HB3	55:S8:18:ARG:NH2	2.24	0.52
70:23:19:ARG:NH1	70:23:22:ASN:ND2	2.57	0.52
54:S7:27:LEU:HD22	54:S7:80:GLU:HG2	1.91	0.52
79:RA:294:TRP:CD2	79:RA:301:LEU:HD13	2.45	0.52
19:57:159:LYS:HG2	19:57:160:ALA:H	1.74	0.52
10:L7:153:PHE:HA	10:L7:161:VAL:O	2.09	0.52
1:2S:191:U:H2'	1:2S:192:C:C6	2.45	0.52
9:L6:58:LEU:HD21	9:L6:102:ASN:HA	1.92	0.52
6:L3:285:VAL:HA	6:L3:322:ILE:HD13	1.91	0.52
7:L4:290:ILE:HG12	20:58:32:LEU:HG	1.90	0.52
17:55:14:LYS:HE2	17:55:120:TRP:CZ3	2.44	0.52
61:14:111:ARG:CZ	73:26:58:VAL:HG12	2.39	0.52
20:58:176:ARG:HA	20:58:182:LYS:O	2.10	0.52
25:63:93:LEU:HD23	25:63:93:LEU:N	2.21	0.52
1:2S:2424:A:H2'	1:2S:2425:G:O4'	2.10	0.52
52:S5:107:LYS:O	52:S5:111:VAL:HG23	2.09	0.52
7:L4:114:ASN:O	7:L4:118:LYS:HG3	2.10	0.52
67:20:20:ILE:HD13	67:20:96:PRO:O	2.10	0.52
22:60:67:ALA:C	22:60:69:PRO:HD3	2.29	0.52
7:L4:188:ARG:O	7:L4:193:LYS:HE3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:971:G:H2'	1:2S:972:A:H8	1.72	0.52
21:59:53:LYS:HG2	21:59:54:ALA:H	1.75	0.52
38:76:20:MET:O	38:76:21:THR:HG22	2.09	0.52
15:53:179:PHE:CD1	15:53:182:ILE:HD12	2.44	0.52
46:1S:181:A:H2'	46:1S:182:A:C8	2.45	0.52
1:2S:3029:A:O5'	1:2S:3029:A:H8	1.92	0.52
1:2S:1276:U:O2'	1:2S:1277:C:H5'	2.09	0.52
1:2S:2185:G:H2'	1:2S:2186:U:C6	2.45	0.52
1:2S:386:A:H8	1:2S:386:A:O5'	1.93	0.52
54:S7:27:LEU:HD11	54:S7:81:LEU:HD11	1.92	0.52
40:78:14:LEU:O	40:78:20:VAL:HG21	2.10	0.52
1:2S:2940:A:H62	6:L3:3:HIS:HA	1.75	0.52
1:2S:1460:A:H2'	1:2S:1461:A:C8	2.45	0.52
48:S1:180:THR:CG2	48:S1:181:LEU:HD13	2.33	0.52
17:55:121:VAL:HG23	17:55:122:ASN:N	2.25	0.52
9:L6:68:PRO:CG	9:L6:146:ILE:HD11	2.38	0.52
59:12:108:ARG:CG	59:12:112:ALA:HB3	2.35	0.52
1:2S:868:C:H2'	1:2S:869:G:C5'	2.36	0.52
1:2S:3286:G:C2'	1:2S:3287:U:H5''	2.37	0.52
11:L8:122:LYS:HE3	11:L8:124:ASP:HB2	1.92	0.52
6:L3:347:SER:O	6:L3:348:ARG:HB3	2.09	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
1:2S:986:U:C1'	10:L7:126:LEU:HD21	2.39	0.52
5:L2:210:PRO:O	5:L2:211:HIS:HD2	1.93	0.52
17:55:67:ARG:HG2	17:55:127:TYR:CE1	2.45	0.52
62:15:52:LYS:HB2	62:15:53:PRO:HD3	1.92	0.52
46:1S:183:U:H2'	46:1S:184:C:C1'	2.40	0.52
12:L9:23:ARG:HB2	12:L9:39:LYS:HG2	1.91	0.52
1:2S:1193:A:N7	1:2S:1194:G:C6	2.78	0.52
4:L1:62:ASN:ND2	4:L1:64:SER:HB2	2.24	0.52
1:2S:957:C:H2'	1:2S:958:C:H6	1.75	0.52
1:2S:2938:G:H3'	6:L3:3:HIS:HD2	1.75	0.52
70:23:2:GLY:O	70:23:3:LYS:HB3	2.10	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
1:2S:543:C:H2'	1:2S:544:C:O4'	2.09	0.52
19:57:116:HIS:HD2	19:57:148:LEU:HA	1.75	0.52
75:28:36:THR:OG1	75:28:37:SER:N	2.42	0.52
52:S5:51:VAL:HG21	52:S5:130:ILE:HG23	1.92	0.52
1:2S:1468:A:H2'	1:2S:1469:C:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:12:105:LYS:HB2	59:12:105:LYS:NZ	2.25	0.52
8:L5:57:ASN:O	8:L5:58:LYS:HB2	2.09	0.52
6:L3:28:ARG:HH12	6:L3:30:LYS:HE2	1.75	0.52
63:16:77:GLN:O	63:16:81:ILE:HG12	2.09	0.52
1:2S:41:G:H2'	1:2S:42:C:O4'	2.09	0.52
75:28:10:ALA:HB1	75:28:30:VAL:HB	1.91	0.52
37:75:61:GLN:HA	37:75:64:GLU:CD	2.30	0.52
58:11:117:VAL:CG1	58:11:118:GLN:H	2.21	0.52
7:L4:159:ILE:HB	7:L4:215:ILE:CD1	2.36	0.52
6:L3:332:ARG:CD	6:L3:332:ARG:H	2.21	0.52
46:1S:1677:C:H2'	46:1S:1678:A:O4'	2.10	0.52
8:L5:236:LEU:CD1	8:L5:239:ILE:HD12	2.40	0.52
1:2S:1517:G:H5''	41:79:22:PRO:HG2	1.92	0.52
1:2S:438:A:C2'	1:2S:439:C:H5''	2.40	0.52
2:8S:155:A:H4'	11:L8:185:ARG:HH11	1.74	0.52
11:L8:153:ILE:HG22	11:L8:154:ALA:N	2.25	0.52
55:S8:67:TRP:HB3	55:S8:70:GLU:HB3	1.91	0.52
73:26:31:PRO:O	73:26:35:ALA:HB2	2.10	0.52
46:1S:618:U:H6	46:1S:618:U:O5'	1.92	0.52
12:L9:4:ILE:O	12:L9:58:HIS:HA	2.10	0.52
1:2S:1195:A:H2	1:2S:1313:G:H22	1.58	0.52
61:14:133:ARG:HG2	61:14:136:ARG:HH21	1.73	0.52
1:2S:3111:U:H2'	1:2S:3112:G:O4'	2.10	0.52
58:11:89:ALA:HB2	58:11:104:HIS:HB3	1.90	0.52
47:S0:45:VAL:HG12	47:S0:46:HIS:H	1.74	0.52
62:15:50:THR:O	62:15:51:SER:HB2	2.10	0.52
1:2S:1420:C:O2'	1:2S:1421:G:H5'	2.09	0.52
1:2S:3293:U:H5'	6:L3:128:LYS:NZ	2.25	0.52
46:1S:1485:C:H2'	46:1S:1486:G:H4'	1.92	0.52
70:23:16:ARG:HB3	70:23:20:ARG:NH1	2.25	0.52
4:L1:130:LYS:HA	4:L1:136:THR:OG1	2.10	0.51
20:58:36:LEU:C	20:58:38:ARG:H	2.13	0.51
22:60:76:GLY:O	22:60:126:VAL:HG13	2.09	0.51
21:59:98:ARG:O	21:59:102:LEU:HG	2.10	0.51
77:30:42:ARG:HA	77:30:46:ASN:HD21	1.75	0.51
72:25:58:ARG:NH1	72:25:58:ARG:HG3	2.24	0.51
25:63:86:ARG:HG2	25:63:87:ARG:H	1.75	0.51
1:2S:3104:U:O2'	1:2S:3105:U:H5'	2.11	0.51
17:55:72:LYS:HA	17:55:89:VAL:O	2.09	0.51
48:S1:141:ALA:HB1	48:S1:210:ILE:HG12	1.91	0.51
60:13:114:ARG:O	60:13:118:ILE:HG13	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:77:47:TYR:HB3	39:77:49:TRP:HE1	1.72	0.51
7:L4:299:ILE:HG23	20:58:39:ARG:HE	1.75	0.51
46:1S:1646:C:H2'	46:1S:1647:U:C6	2.45	0.51
1:2S:2991:A:OP2	6:L3:20:LYS:HE2	2.10	0.51
1:2S:494:G:H1'	1:2S:495:G:N7	2.25	0.51
52:S5:175:LEU:HD23	52:S5:197:GLU:OE1	2.10	0.51
11:L8:122:LYS:H	11:L8:122:LYS:CD	2.22	0.51
1:2S:3272:C:H5''	9:L6:77:ARG:NE	2.24	0.51
35:73:16:TYR:HD1	35:73:27:VAL:O	1.93	0.51
1:2S:2352:A:H5''	19:57:83:TRP:O	2.10	0.51
19:57:70:THR:HG21	19:57:81:ALA:HB3	1.90	0.51
11:L8:128:LYS:CG	11:L8:129:PRO:HD2	2.39	0.51
5:L2:202:VAL:HG12	5:L2:202:VAL:O	2.10	0.51
7:L4:351:PRO:HB2	7:L4:355:PHE:CD2	2.44	0.51
46:1S:581:U:H3'	46:1S:581:U:O2	2.10	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
1:2S:286:U:H2'	1:2S:287:G:C8	2.46	0.51
52:S5:128:ASN:HB2	52:S5:131:GLN:HB2	1.92	0.51
1:2S:1604:G:H3'	1:2S:1604:G:N3	2.25	0.51
25:63:81:GLN:HE21	25:63:83:LYS:HB3	1.75	0.51
1:2S:1528:G:H21	1:2S:1588:A:H2	1.58	0.51
6:L3:67:PHE:HA	6:L3:70:ARG:HH21	1.75	0.51
28:66:88:GLU:HA	28:66:94:SER:HA	1.92	0.51
44:82:28:TYR:CD2	44:82:69:VAL:HG11	2.45	0.51
7:L4:69:ARG:O	7:L4:71:VAL:HG12	2.10	0.51
46:1S:1139:A:H2'	46:1S:1140:G:H5'	1.91	0.51
1:2S:1126:G:H2'	1:2S:1127:G:O4'	2.10	0.51
13:50:52:LEU:HG	13:50:165:ILE:HG22	1.92	0.51
31:69:35:VAL:CG1	31:69:36:ASP:H	2.13	0.51
46:1S:1419:G:H5'	76:29:56:ARG:O	2.10	0.51
17:55:36:ILE:HG22	17:55:62:TYR:HE1	1.75	0.51
46:1S:576:G:H4'	46:1S:580:A:C2	2.45	0.51
55:S8:81:VAL:CG1	55:S8:91:VAL:HG13	2.40	0.51
32:70:93:LEU:HD12	32:70:93:LEU:N	2.26	0.51
46:1S:639:U:H3	54:S7:100:PRO:HA	1.75	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
55:S8:37:LYS:HD3	55:S8:95:THR:HA	1.92	0.51
53:S6:98:ARG:HD3	53:S6:99:GLY:N	2.25	0.51
1:2S:1141:C:H2'	1:2S:1142:G:C8	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:S8:117:TYR:CE1	55:S8:146:ARG:HB3	2.45	0.51
20:58:3:ILE:N	20:58:3:ILE:HD12	2.25	0.51
1:2S:3260:G:H5''	16:54:125:LYS:HB3	1.92	0.51
47:S0:172:LEU:O	47:S0:176:LEU:HG	2.09	0.51
1:2S:2772:C:H4'	1:2S:2773:C:O5'	2.11	0.51
31:69:9:ALA:O	31:69:12:GLN:HG2	2.10	0.51
46:1S:10:G:H2'	46:1S:11:A:C8	2.46	0.51
21:59:40:ALA:O	21:59:44:LEU:HD23	2.09	0.51
8:L5:68:THR:HG22	8:L5:69:ILE:N	2.26	0.51
35:73:89:LEU:HD23	35:73:90:PRO:HD2	1.92	0.51
1:2S:619:A:H4'	1:2S:620:U:C5	2.45	0.51
63:16:26:LYS:HB2	63:16:26:LYS:NZ	2.25	0.51
7:L4:51:ALA:HA	7:L4:103:THR:HB	1.92	0.51
1:2S:228:U:H6	1:2S:228:U:O5'	1.93	0.51
67:20:33:GLN:HG3	67:20:109:GLU:HG2	1.91	0.51
10:L7:66:LYS:O	10:L7:69:ALA:HB3	2.10	0.51
1:2S:1035:G:C5	1:2S:1036:A:N7	2.79	0.51
24:62:87:ASN:HB2	24:62:89:LEU:HG	1.92	0.51
10:L7:77:VAL:HG11	23:61:141:VAL:HG13	1.92	0.51
46:1S:1041:G:H2'	46:1S:1042:G:C8	2.46	0.51
7:L4:239:ALA:N	7:L4:240:PRO:HD3	2.25	0.51
5:L2:48:ILE:HA	5:L2:58:LEU:O	2.10	0.51
55:S8:42:ARG:CG	55:S8:58:LEU:HB2	2.41	0.51
1:2S:3376:A:H5'	1:2S:3377:G:H5''	1.91	0.51
1:2S:1714:A:H62	1:2S:1730:G:N2	2.08	0.51
19:57:84:PRO:O	19:57:88:VAL:HG23	2.10	0.51
21:59:138:LEU:O	21:59:141:HIS:HB3	2.10	0.51
36:74:80:ARG:HD3	36:74:84:CYS:HB3	1.91	0.51
71:24:20:ARG:HB3	71:24:76:TYR:CE1	2.45	0.51
15:53:189:GLU:CA	15:53:192:GLU:HG2	2.39	0.51
54:S7:44:LYS:HD3	54:S7:95:GLU:HG2	1.93	0.51
1:2S:2491:A:H1'	4:L1:207:LYS:NZ	2.25	0.51
46:1S:1453:G:H2'	46:1S:1454:G:O4'	2.11	0.51
29:67:92:PHE:HA	29:67:95:VAL:CG2	2.41	0.51
50:S3:42:THR:HB	50:S3:43:PRO:HD2	1.90	0.51
46:1S:753:A:H2'	46:1S:754:A:H1'	1.93	0.51
72:25:95:HIS:CE1	72:25:98:GLN:HB2	2.44	0.51
1:2S:2686:A:H2'	1:2S:2687:G:O4'	2.11	0.51
18:56:174:PHE:O	18:56:174:PHE:HD1	1.94	0.51
21:59:92:GLN:O	21:59:96:ILE:HG13	2.10	0.51
5:L2:136:ILE:HA	5:L2:148:VAL:HG12	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:33:ASP:O	7:L4:37:THR:HG23	2.10	0.51
70:23:120:VAL:HG12	70:23:122:PHE:H	1.75	0.51
1:2S:288:C:H2'	1:2S:289:A:C8	2.45	0.51
7:L4:134:LEU:O	7:L4:245:GLY:HA3	2.11	0.51
69:22:41:MET:HB3	69:22:46:TYR:HB2	1.93	0.51
55:S8:191:PHE:O	55:S8:194:ARG:HB3	2.11	0.51
27:65:107:VAL:HG12	27:65:108:LEU:N	2.25	0.51
51:S4:102:VAL:HG22	51:S4:103:TYR:N	2.25	0.51
22:60:124:LEU:HD13	23:61:155:PRO:HG3	1.92	0.51
4:L1:22:GLU:O	4:L1:24:LYS:N	2.43	0.51
5:L2:129:ALA:HB1	5:L2:132:ASN:HD22	1.74	0.51
1:2S:2358:A:H2'	1:2S:2359:C:C6	2.46	0.51
58:11:92:HIS:O	58:11:100:TYR:HA	2.10	0.51
6:L3:21:ARG:CB	6:L3:272:TYR:HD1	2.21	0.51
66:19:38:LYS:O	66:19:39:THR:OG1	2.26	0.51
5:L2:45:VAL:HG12	5:L2:86:GLN:H	1.76	0.51
26:64:56:ARG:O	26:64:61:LYS:HG2	2.11	0.51
54:S7:55:LYS:HD2	54:S7:89:HIS:NE2	2.25	0.51
46:1S:826:U:H2'	46:1S:827:C:C6	2.45	0.51
28:66:70:ILE:CD1	28:66:70:ILE:H	2.23	0.51
19:57:22:LEU:CD1	19:57:146:ILE:HD12	2.40	0.51
57:10:93:GLN:CD	57:10:93:GLN:H	2.13	0.51
29:67:10:VAL:HG23	29:67:85:TYR:O	2.10	0.51
12:L9:92:TYR:HB3	12:L9:99:ILE:HD12	1.92	0.51
72:25:50:ILE:HD11	72:25:70:LYS:CG	2.40	0.51
62:15:31:GLU:O	62:15:35:LYS:HD3	2.10	0.51
35:73:43:PHE:HZ	35:73:107:ILE:HD11	1.75	0.51
1:2S:2710:C:H2'	1:2S:2711:C:C6	2.45	0.51
11:L8:99:PRO:HG2	11:L8:190:VAL:HG23	1.92	0.51
1:2S:432:G:H2'	1:2S:433:A:C8	2.45	0.51
7:L4:283:THR:C	7:L4:285:ASP:H	2.14	0.51
46:1S:1067:C:H5''	48:S1:150:VAL:HG23	1.92	0.51
22:60:142:GLN:O	22:60:148:LEU:HD11	2.09	0.51
54:S7:24:PHE:O	54:S7:28:GLU:HG3	2.10	0.51
46:1S:477:A:H62	46:1S:539:G:N2	2.07	0.51
4:L1:123:LEU:CD2	4:L1:128:LEU:HD12	2.41	0.51
46:1S:401:A:H4'	51:S4:3:ARG:CD	2.38	0.51
55:S8:27:PHE:CB	55:S8:49:ARG:HH22	2.24	0.51
1:2S:2734:A:H2'	1:2S:2735:U:C6	2.45	0.51
47:S0:147:THR:HB	47:S0:151:SER:HB2	1.92	0.51
49:S2:188:LEU:HB3	49:S2:193:VAL:HB	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:829:A:H4'	46:1S:830:U:H5'	1.92	0.51
1:2S:808:A:O2'	1:2S:809:G:H5'	2.10	0.51
46:1S:503:G:H2'	46:1S:504:U:C6	2.45	0.51
47:S0:31:VAL:HG23	47:S0:150:ASP:HA	1.91	0.51
46:1S:6:G:OP2	49:S2:205:ARG:HD2	2.11	0.51
29:67:53:VAL:O	29:67:53:VAL:HG13	2.10	0.51
20:58:64:VAL:HA	20:58:67:ILE:HD12	1.93	0.51
1:2S:2995:A:H5'	2:8S:1:A:C2	2.45	0.51
27:65:115:ARG:HB2	27:65:119:THR:H	1.75	0.51
1:2S:3151:U:HO2'	1:2S:3152:U:H5	1.58	0.51
65:18:49:LYS:HG3	65:18:81:ILE:HD11	1.93	0.51
1:2S:2315:G:H2'	1:2S:2316:G:C8	2.45	0.51
17:55:61:ILE:HD13	17:55:61:ILE:N	2.26	0.51
1:2S:2147:A:C5'	5:L2:199:THR:HA	2.40	0.51
1:2S:634:C:H2'	1:2S:635:G:O4'	2.10	0.51
7:L4:62:ALA:HB2	7:L4:89:ALA:HB3	1.93	0.51
5:L2:23:ARG:NH1	5:L2:23:ARG:HG3	2.25	0.51
73:26:22:ARG:HH11	73:26:22:ARG:HG3	1.75	0.51
51:S4:154:ILE:HD13	51:S4:160:VAL:HG22	1.92	0.51
6:L3:249:VAL:HG12	6:L3:250:ALA:N	2.25	0.51
47:S0:169:SER:O	47:S0:173:ILE:HG12	2.09	0.51
5:L2:68:LYS:HG2	5:L2:69:TYR:H	1.75	0.51
7:L4:216:VAL:HG12	7:L4:227:THR:HG21	1.93	0.51
53:S6:87:ARG:HG3	53:S6:87:ARG:HH11	1.75	0.51
1:2S:2392:C:O2'	1:2S:2393:G:H5'	2.11	0.51
1:2S:1132:C:H2'	1:2S:1133:A:H8	1.76	0.51
15:53:3:ILE:HB	30:68:41:HIS:ND1	2.26	0.51
46:1S:41:A:H2'	46:1S:438:A:N7	2.26	0.51
1:2S:1245:A:H3'	1:2S:1246:G:C5'	2.40	0.51
12:L9:81:GLY:O	12:L9:85:GLY:HA2	2.11	0.51
1:2S:16:A:H4'	27:65:45:LYS:HE3	1.91	0.51
27:65:24:LEU:N	27:65:24:LEU:HD12	2.25	0.51
36:74:60:ARG:O	36:74:60:ARG:HG2	2.10	0.51
21:59:15:VAL:HG11	21:59:52:LYS:HG3	1.92	0.51
23:61:68:THR:CG2	23:61:69:LYS:H	2.19	0.51
1:2S:824:C:H5''	5:L2:21:ARG:CD	2.33	0.51
46:1S:94:U:C2'	46:1S:95:G:H5'	2.40	0.51
1:2S:3151:U:O2'	1:2S:3152:U:H5	1.93	0.51
52:S5:167:ARG:HH12	75:28:55:VAL:CG2	2.24	0.51
48:S1:81:PHE:O	48:S1:82:ARG:HB2	2.10	0.51
46:1S:1543:A:C1'	46:1S:1569:A:N1	2.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:54:113:THR:HG22	16:54:115:PHE:H	1.74	0.51
3:5S:38:U:HO2'	3:5S:40:C:H5	1.55	0.51
13:50:43:VAL:HA	13:50:139:ARG:HH22	1.74	0.51
46:1S:794:U:C2'	46:1S:794:U:O2	2.58	0.51
52:S5:140:THR:O	52:S5:142:PRO:HD3	2.10	0.51
1:2S:1341:U:H2'	1:2S:1342:C:H6	1.73	0.51
28:66:56:VAL:HG12	28:66:70:ILE:HD11	1.93	0.51
1:2S:1668:G:H2'	1:2S:1669:C:O4'	2.09	0.51
45:83:57:CYS:SG	45:83:59:CYS:O	2.64	0.51
66:19:28:LEU:O	66:19:29:GLU:HB2	2.11	0.51
58:11:77:SER:O	58:11:84:ILE:HB	2.11	0.51
1:2S:2269:U:H2'	1:2S:2270:A:H3'	1.93	0.51
39:77:51:ALA:HA	39:77:54:LYS:HB2	1.93	0.51
24:62:98:THR:CG2	24:62:99:LYS:HE2	2.39	0.51
46:1S:618:U:C5'	46:1S:1030:A:C5	2.93	0.51
6:L3:52:GLY:O	6:L3:78:VAL:HB	2.10	0.51
1:2S:619:A:H5'	1:2S:620:U:C2	2.46	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
73:26:18:VAL:HG21	73:26:33:ASP:OD1	2.10	0.51
8:L5:267:ALA:O	8:L5:271:LYS:HG3	2.10	0.51
1:2S:532:A:O2'	1:2S:533:A:H5'	2.11	0.51
49:S2:106:ASP:OD1	49:S2:107:SER:N	2.43	0.51
14:51:12:LEU:HD12	14:51:131:MET:HE2	1.92	0.51
47:S0:63:ILE:HG22	47:S0:63:ILE:O	2.10	0.51
1:2S:2126:A:H2'	1:2S:2127:U:C6	2.46	0.51
20:58:32:LEU:O	20:58:36:LEU:HG	2.11	0.51
1:2S:44:U:H2'	1:2S:45:A:H5'	1.93	0.51
69:22:36:LYS:CG	69:22:110:ILE:HD12	2.38	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
56:S9:59:LEU:HA	56:S9:62:ARG:CG	2.41	0.51
1:2S:1287:A:C2	1:2S:1288:U:C1'	2.93	0.51
51:S4:163:ASP:O	51:S4:164:LEU:HB2	2.11	0.51
46:1S:1217:A:O4'	57:10:44:LYS:HE3	2.11	0.51
1:2S:1764:U:H3'	1:2S:1765:U:C4'	2.40	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
46:1S:1797:A:H5'	73:26:95:ARG:CG	2.37	0.51
67:20:96:PRO:HG2	67:20:99:ILE:HG22	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:S8:153:GLU:HB3	55:S8:156:VAL:CG2	2.38	0.51
33:71:10:ARG:HA	33:71:109:VAL:HG23	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
11:L8:238:LEU:CD2	11:L8:238:LEU:H	2.24	0.51
1:2S:1009:A:H2'	1:2S:1010:G:C8	2.46	0.51
2:8S:155:A:H2'	2:8S:156:U:C5'	2.41	0.51
59:12:46:ARG:NH1	78:31:103:LEU:HD11	2.26	0.51
73:26:23:CYS:O	73:26:27:SER:HA	2.10	0.51
6:L3:111:SER:O	6:L3:115:LYS:HG3	2.10	0.51
12:L9:90:MET:O	12:L9:143:GLU:HG3	2.11	0.51
3:5S:34:C:H2'	3:5S:35:C:C6	2.46	0.51
13:50:17:TYR:O	13:50:96:VAL:HG23	2.10	0.51
56:S9:12:TYR:CE2	56:S9:40:LYS:HD3	2.46	0.51
1:2S:2936:A:H2'	1:2S:2937:G:C8	2.46	0.51
30:68:94:ALA:HA	30:68:121:VAL:HG13	1.93	0.51
48:S1:201:THR:O	48:S1:201:THR:HG22	2.10	0.51
59:12:42:ALA:HB1	59:12:47:GLU:HB3	1.92	0.51
1:2S:2861:U:H2'	1:2S:2862:U:C6	2.46	0.51
11:L8:53:PRO:HB2	11:L8:56:VAL:HG23	1.93	0.51
51:S4:181:VAL:HG13	51:S4:226:PHE:H	1.74	0.51
1:2S:2890:A:H61	1:2S:2913:C:H42	1.59	0.51
73:26:84:VAL:HG22	73:26:86:VAL:H	1.74	0.51
46:1S:1525:A:H2'	46:1S:1526:A:O4'	2.11	0.51
21:59:112:ALA:HB3	21:59:114:LYS:HG3	1.93	0.51
1:2S:3205:G:N2	22:60:169:SER:HB2	2.23	0.51
61:14:87:GLY:HA3	61:14:120:PRO:CG	2.40	0.51
46:1S:446:A:O2'	46:1S:447:U:H5'	2.11	0.51
5:L2:134:VAL:HG12	5:L2:150:LEU:HA	1.92	0.51
28:66:45:ILE:HG21	28:66:48:LEU:HG	1.93	0.51
55:S8:78:ILE:HG22	55:S8:79:ALA:N	2.26	0.51
48:S1:53:GLY:O	48:S1:54:LEU:HB2	2.11	0.51
3:5S:7:G:H2'	3:5S:8:G:C8	2.45	0.51
46:1S:942:G:H5''	46:1S:977:A:H4'	1.93	0.51
32:70:24:THR:HG22	32:70:93:LEU:HD11	1.92	0.51
46:1S:109:G:HO2'	46:1S:796:A:H2	1.57	0.51
1:2S:1794:G:H4'	5:L2:191:LEU:HD12	1.91	0.51
54:S7:131:PHE:H	54:S7:132:PRO:HD2	1.76	0.51
22:60:135:VAL:HG12	22:60:141:LYS:HE2	1.93	0.51
6:L3:292:ALA:HB1	6:L3:295:ALA:HB3	1.92	0.51
35:73:43:PHE:CZ	35:73:107:ILE:HD11	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:190:VAL:HG22	11:L8:190:VAL:O	2.11	0.51
7:L4:161:LYS:H	7:L4:161:LYS:HD2	1.76	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
79:RA:9:LEU:HD12	79:RA:312:VAL:O	2.09	0.51
46:1S:583:C:O2	46:1S:583:C:H2'	2.10	0.51
1:2S:2765:C:O5'	1:2S:2765:C:H6	1.94	0.51
34:72:40:SER:HB3	34:72:43:ARG:HB3	1.93	0.51
76:29:5:ASN:HB3	76:29:8:PHE:HB3	1.93	0.51
46:1S:1049:U:H2'	46:1S:1050:G:C8	2.45	0.51
54:S7:126:LEU:HD21	54:S7:173:TYR:CE1	2.46	0.51
79:RA:50:ASP:O	79:RA:51:ASP:HB2	2.10	0.51
1:2S:1209:G:H2'	1:2S:1210:U:C6	2.46	0.51
1:2S:61:A:H2'	1:2S:62:A:O4'	2.11	0.51
66:19:33:TYR:O	66:19:36:ILE:HG12	2.11	0.51
65:18:116:LEU:HB3	65:18:124:GLY:HA3	1.93	0.51
36:74:5:VAL:HG21	36:74:31:ARG:HG3	1.93	0.51
46:1S:481:A:C2	46:1S:507:U:O4	2.63	0.51
1:2S:1225:A:C2	1:2S:3116:G:C8	2.99	0.51
1:2S:3117:C:H2'	1:2S:3118:C:O4'	2.11	0.51
67:20:69:LYS:CG	67:20:80:GLU:HB2	2.41	0.51
42:80:111:ARG:HG3	42:80:112:LYS:HD2	1.92	0.51
67:20:17:GLN:OE1	67:20:96:PRO:HG3	2.11	0.51
2:8S:104:A:H3'	2:8S:105:A:C5'	2.40	0.51
46:1S:444:C:H41	46:1S:458:G:H2'	1.76	0.51
1:2S:2812:C:H2'	1:2S:2813:A:H8	1.73	0.51
39:77:5:THR:HA	39:77:8:PHE:CD2	2.45	0.51
36:74:80:ARG:HB3	36:74:84:CYS:CB	2.39	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
46:1S:694:U:O2	46:1S:694:U:H2'	2.09	0.51
1:2S:2500:A:C2'	1:2S:2501:U:H5'	2.41	0.51
9:L6:18:LEU:N	9:L6:18:LEU:HD22	2.26	0.51
79:RA:112:SER:HB3	79:RA:154:VAL:HG22	1.93	0.51
78:31:132:LEU:HD13	78:31:150:VAL:HB	1.92	0.51
46:1S:1246:C:H2'	46:1S:1247:U:C6	2.46	0.51
4:L1:198:TRP:O	4:L1:199:GLN:O	2.29	0.51
1:2S:2434:U:H5'	1:2S:2593:A:H2	1.75	0.51
54:S7:123:ASP:O	54:S7:127:GLU:HB2	2.10	0.51
29:67:101:PHE:O	29:67:102:GLU:CB	2.58	0.51
29:67:101:PHE:O	29:67:102:GLU:HB3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2385:G:N7	1:2S:3143:C:H2'	2.26	0.51
1:2S:1635:G:N2	1:2S:1638:A:OP2	2.40	0.51
26:64:21:PHE:HE2	26:64:23:ARG:HD3	1.76	0.51
1:2S:2606:G:H5'	5:L2:233:GLN:HE22	1.75	0.51
1:2S:2336:U:H2'	1:2S:2337:C:O4'	2.11	0.51
6:L3:85:VAL:O	6:L3:162:VAL:HB	2.10	0.51
70:23:76:LEU:CD2	70:23:78:LYS:HG2	2.41	0.51
16:54:25:LYS:CE	16:54:62:GLN:HG2	2.26	0.51
73:26:62:TYR:O	73:26:63:ALA:HB2	2.11	0.51
46:1S:144:U:C2'	46:1S:145:A:H5'	2.40	0.51
1:2S:2688:U:H4'	1:2S:2689:A:O5'	2.10	0.51
70:23:103:LEU:O	70:23:125:VAL:HB	2.11	0.51
1:2S:3006:A:H2'	1:2S:3007:U:O4'	2.11	0.51
48:S1:143:THR:HA	48:S1:207:LEU:HA	1.93	0.51
5:L2:150:LEU:HD12	5:L2:154:ALA:CB	2.39	0.51
46:1S:803:A:N3	54:S7:104:ARG:HG3	2.26	0.51
18:56:15:LEU:HG	18:56:125:ARG:HA	1.93	0.51
7:L4:29:PRO:HD2	7:L4:277:PRO:HB2	1.93	0.51
53:S6:57:ASP:HA	53:S6:107:ALA:H	1.74	0.51
37:75:7:TYR:HA	37:75:10:ARG:CD	2.38	0.51
56:S9:141:VAL:HG13	56:S9:143:ILE:HG13	1.92	0.51
1:2S:2310:U:H2'	1:2S:2311:G:H8	1.73	0.51
46:1S:148:A:N6	46:1S:166:C:N3	2.59	0.51
72:25:54:VAL:N	72:25:55:PRO:HD2	2.26	0.51
46:1S:860:U:C1'	54:S7:114:ARG:HG2	2.41	0.51
1:2S:2493:U:H5''	4:L1:162:VAL:HB	1.92	0.51
40:78:8:ILE:H	40:78:8:ILE:HD12	1.76	0.51
66:19:86:ARG:HH22	66:19:90:PRO:HG2	1.75	0.51
55:S8:10:LYS:HB3	55:S8:18:ARG:HH21	1.76	0.51
70:23:4:GLY:O	70:23:5:LYS:C	2.49	0.51
51:S4:14:ALA:HB1	51:S4:18:TRP:CZ3	2.46	0.51
21:59:155:LEU:HA	21:59:158:GLU:HG2	1.93	0.51
1:2S:958:C:H5''	1:2S:2800:G:OP1	2.11	0.51
1:2S:1725:C:H5''	45:83:36:ARG:HH12	1.74	0.51
46:1S:1530:C:OP2	72:25:95:HIS:HB3	2.11	0.51
1:2S:1154:A:H3'	1:2S:1155:C:C5	2.46	0.51
65:18:29:VAL:HG21	65:18:54:LEU:HD12	1.93	0.51
79:RA:92:TRP:HA	79:RA:98:GLU:O	2.11	0.51
1:2S:1496:C:O2	1:2S:1496:C:H2'	2.09	0.51
7:L4:156:LEU:HD23	7:L4:156:LEU:C	2.31	0.51
50:S3:38:GLU:O	50:S3:38:GLU:HG3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2051:G:H2'	1:2S:2052:G:C8	2.46	0.51
6:L3:56:ILE:HG13	6:L3:57:VAL:N	2.26	0.50
1:2S:1951:C:H6	1:2S:2095:G:C2	2.28	0.50
14:51:94:ARG:C	14:51:96:PHE:N	2.63	0.50
21:59:109:TYR:C	21:59:115:ILE:HG22	2.31	0.50
1:2S:38:U:H2'	1:2S:39:A:O4'	2.10	0.50
1:2S:2714:G:H5'	1:2S:2716:U:C5'	2.42	0.50
46:1S:1533:C:H41	72:25:77:ARG:NH2	2.09	0.50
50:S3:148:LYS:HZ2	50:S3:148:LYS:HB3	1.73	0.50
46:1S:1480:G:H5''	66:19:63:ARG:NH2	2.25	0.50
46:1S:846:G:H2'	46:1S:847:A:O4'	2.11	0.50
1:2S:3064:U:H2'	1:2S:3065:G:H8	1.75	0.50
16:54:108:ARG:HH21	16:54:108:ARG:HG2	1.76	0.50
30:68:105:LEU:HD22	30:68:148:ILE:HD12	1.93	0.50
12:L9:176:LEU:CD2	42:80:90:ASN:OD1	2.59	0.50
46:1S:176:C:C2'	46:1S:177:U:H5'	2.40	0.50
1:2S:2877:G:H2'	1:2S:2878:G:O4'	2.11	0.50
65:18:17:LEU:O	65:18:18:LEU:HB2	2.12	0.50
62:15:18:ARG:O	65:18:95:GLY:HA3	2.10	0.50
49:S2:226:THR:CG2	49:S2:229:LEU:HB2	2.41	0.50
1:2S:1434:G:H5'	1:2S:1437:C:H5	1.76	0.50
1:2S:428:A:H2'	1:2S:429:U:C6	2.46	0.50
13:50:97:LEU:HG	13:50:124:GLY:O	2.11	0.50
1:2S:880:G:H8	1:2S:882:A:OP2	1.94	0.50
44:82:65:THR:HG22	44:82:89:LYS:HG2	1.93	0.50
19:57:114:VAL:HG13	19:57:114:VAL:O	2.11	0.50
1:2S:1920:U:H2'	1:2S:1930:A:N6	2.27	0.50
1:2S:61:A:H2'	1:2S:62:A:C8	2.47	0.50
30:68:101:VAL:HG13	30:68:124:ILE:HG22	1.93	0.50
46:1S:1079:U:H2'	46:1S:1080:U:C6	2.46	0.50
4:L1:216:LEU:HG	4:L1:216:LEU:O	2.11	0.50
49:S2:66:PHE:O	49:S2:69:ILE:HG13	2.11	0.50
1:2S:1220:U:H4'	1:2S:1222:G:O4'	2.11	0.50
60:13:114:ARG:HD3	60:13:117:LEU:CD1	2.37	0.50
1:2S:371:G:N2	1:2S:373:A:H3'	2.26	0.50
7:L4:317:PRO:C	7:L4:319:LYS:H	2.14	0.50
1:2S:680:G:H5''	7:L4:114:ASN:OD1	2.11	0.50
1:2S:2147:A:H2'	1:2S:2148:U:O4'	2.12	0.50
1:2S:198:A:C2'	1:2S:199:A:H5'	2.39	0.50
67:20:58:LEU:HD21	67:20:90:TYR:CE2	2.40	0.50
1:2S:2921:U:H2'	1:2S:2923:U:H5''	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:331:A:H2'	46:1S:332:U:C6	2.46	0.50
2:8S:13:A:H2'	2:8S:14:C:C6	2.47	0.50
3:5S:64:A:H62	13:50:209:ASN:ND2	2.09	0.50
1:2S:2447:A:N6	1:2S:2500:A:C2	2.73	0.50
8:L5:24:ARG:HB2	8:L5:24:ARG:NH1	2.26	0.50
1:2S:1608:C:H2'	1:2S:1609:C:H6	1.76	0.50
11:L8:50:VAL:HG12	27:65:30:ALA:HA	1.93	0.50
46:1S:417:A:H5'	46:1S:418:G:C8	2.46	0.50
6:L3:214:MET:HA	6:L3:280:HIS:O	2.10	0.50
16:54:46:ILE:O	16:54:55:ARG:HA	2.10	0.50
1:2S:1302:A:C2'	1:2S:1303:A:H5''	2.41	0.50
46:1S:1586:A:H2'	46:1S:1587:A:O4'	2.11	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
46:1S:1139:A:H2'	46:1S:1140:G:C5'	2.42	0.50
60:13:101:HIS:HA	60:13:104:ARG:HH11	1.75	0.50
57:10:81:ASN:CB	59:12:37:VAL:HG13	2.41	0.50
1:2S:2721:A:H2'	1:2S:2722:U:O4'	2.11	0.50
4:L1:120:VAL:N	4:L1:121:PRO:CD	2.73	0.50
46:1S:36:C:H2'	46:1S:37:U:C6	2.46	0.50
2:8S:19:C:H2'	2:8S:20:U:O4'	2.11	0.50
1:2S:3225:C:H2'	1:2S:3226:A:O4'	2.12	0.50
1:2S:3050:U:H5''	26:64:17:ARG:HE	1.76	0.50
66:19:144:GLU:OXT	66:19:144:GLU:HG3	2.11	0.50
1:2S:2116:G:H2'	1:2S:2116:G:N3	2.25	0.50
50:S3:49:ILE:HG13	50:S3:87:TYR:HB2	1.93	0.50
59:12:67:THR:O	59:12:68:GLU:HB2	2.11	0.50
77:30:33:ARG:HB3	77:30:33:ARG:CZ	2.41	0.50
3:5S:55:A:H2'	3:5S:56:A:C8	2.47	0.50
1:2S:359:U:H4'	1:2S:817:A:H62	1.76	0.50
46:1S:420:A:H2'	46:1S:421:A:C8	2.46	0.50
46:1S:45:U:O2'	46:1S:46:A:H2'	2.11	0.50
60:13:129:TYR:HB3	60:13:134:VAL:CG2	2.41	0.50
54:S7:139:ARG:HG3	54:S7:139:ARG:NH1	2.26	0.50
46:1S:1724:U:H2'	46:1S:1725:U:C6	2.46	0.50
46:1S:920:U:H5''	48:S1:65:VAL:HG22	1.92	0.50
55:S8:81:VAL:CG2	55:S8:94:ASN:HA	2.42	0.50
1:2S:963:G:H8	1:2S:963:G:O5'	1.95	0.50
38:76:70:ARG:NH2	38:76:84:LYS:HA	2.26	0.50
79:RA:161:LYS:HA	79:RA:161:LYS:CE	2.41	0.50
5:L2:242:ARG:HH11	5:L2:246:LEU:HD23	1.74	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:27:32:PHE:CD1	74:27:45:THR:HG22	2.46	0.50
9:L6:50:LYS:HE3	9:L6:72:ASN:HB2	1.93	0.50
76:29:26:SER:HB3	76:29:39:CYS:HB3	1.94	0.50
28:66:82:VAL:HG12	28:66:83:ASP:N	2.26	0.50
9:L6:132:ALA:O	9:L6:136:GLU:HG2	2.12	0.50
77:30:22:GLU:HG3	77:30:23:LYS:N	2.26	0.50
46:1S:1077:C:H2'	46:1S:1078:C:C6	2.46	0.50
44:82:14:GLY:HA3	44:82:77:CYS:SG	2.51	0.50
37:75:71:LYS:HE3	37:75:72:GLY:N	2.26	0.50
65:18:16:ARG:HH11	65:18:16:ARG:HG3	1.75	0.50
52:S5:100:ASN:OD1	52:S5:180:ARG:NH1	2.44	0.50
46:1S:477:A:OP1	77:30:31:LYS:HG2	2.10	0.50
77:30:33:ARG:HB3	77:30:33:ARG:NH1	2.26	0.50
53:S6:78:THR:CG2	53:S6:79:LYS:H	2.09	0.50
14:51:156:LYS:O	14:51:160:VAL:HG23	2.11	0.50
1:2S:517:G:H8	1:2S:517:G:H5'	1.77	0.50
58:11:123:VAL:HG21	58:11:139:VAL:HG13	1.94	0.50
1:2S:31:C:H2'	1:2S:32:U:H6	1.76	0.50
1:2S:1287:A:H2	1:2S:1288:U:H1'	1.75	0.50
11:L8:130:TYR:HB3	11:L8:204:ARG:NH2	2.18	0.50
1:2S:3356:G:H2'	1:2S:3357:U:C6	2.47	0.50
55:S8:76:THR:HB	55:S8:105:ASP:HB2	1.93	0.50
53:S6:199:GLN:O	53:S6:203:GLU:HG2	2.12	0.50
46:1S:1565:C:H4'	65:18:85:PHE:CD1	2.46	0.50
32:70:23:TYR:CA	32:70:93:LEU:HD13	2.39	0.50
1:2S:1226:G:H2'	1:2S:1227:C:C5	2.45	0.50
15:53:56:PRO:HB3	15:53:75:PHE:CE1	2.46	0.50
12:L9:13:PRO:CD	12:L9:79:ILE:HG21	2.42	0.50
30:68:75:LEU:HA	30:68:78:LEU:CD1	2.41	0.50
36:74:96:GLU:O	36:74:100:ILE:HD13	2.10	0.50
3:5S:75:G:H2'	3:5S:76:A:H2'	1.93	0.50
40:78:29:LYS:O	40:78:29:LYS:HD3	2.10	0.50
1:2S:847:A:H2'	1:2S:848:A:C8	2.46	0.50
30:68:70:LYS:HD3	30:68:111:LYS:HB2	1.92	0.50
9:L6:89:THR:HG21	9:L6:155:LEU:HD21	1.93	0.50
13:50:179:PRO:HA	13:50:182:LEU:HD12	1.94	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
47:S0:9:LEU:C	47:S0:9:LEU:HD13	2.32	0.50
29:67:89:VAL:HG22	29:67:89:VAL:O	2.11	0.50
11:L8:47:SER:OG	27:65:27:ARG:HD3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:55:118:SER:HB3	17:55:132:VAL:HA	1.94	0.50
46:1S:1036:A:H5'	69:22:3:ARG:NH2	2.13	0.50
51:S4:67:GLN:HB2	51:S4:69:HIS:CD2	2.47	0.50
37:75:88:LEU:HA	37:75:91:ALA:HB2	1.94	0.50
52:S5:116:HIS:O	52:S5:120:ILE:HG13	2.11	0.50
50:S3:66:ILE:HD13	50:S3:69:LEU:HD11	1.94	0.50
61:14:122:PRO:C	61:14:124:ASP:H	2.15	0.50
49:S2:53:ILE:HA	49:S2:72:LEU:HD23	1.93	0.50
55:S8:105:ASP:O	55:S8:106:ALA:HB3	2.12	0.50
6:L3:332:ARG:O	6:L3:333:LYS:HB2	2.11	0.50
39:77:21:ARG:HB2	39:77:39:TYR:CE1	2.47	0.50
65:18:46:VAL:HG21	65:18:73:MET:SD	2.51	0.50
2:8S:139:U:H2'	2:8S:140:G:C8	2.46	0.50
72:25:88:ILE:HA	72:25:104:ALA:HA	1.94	0.50
15:53:164:GLU:HB3	15:53:169:THR:OG1	2.12	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
15:53:7:LEU:O	30:68:49:HIS:NE2	2.45	0.50
4:L1:105:LYS:HZ3	4:L1:105:LYS:HB2	1.77	0.50
36:74:62:TYR:HA	36:74:65:VAL:HG23	1.94	0.50
1:2S:666:A:O2'	15:53:10:LEU:HD13	2.11	0.50
46:1S:634:G:H1'	46:1S:966:A:C2	2.46	0.50
46:1S:1559:A:H5''	65:18:135:GLY:HA3	1.94	0.50
1:2S:3020:U:O2'	12:L9:121:LYS:HD3	2.12	0.50
1:2S:1194:G:H2'	1:2S:1195:A:O4'	2.12	0.50
56:S9:133:HIS:O	56:S9:134:ILE:HG12	2.12	0.50
1:2S:2938:G:H3'	6:L3:3:HIS:CD2	2.46	0.50
28:66:88:GLU:HG3	28:66:94:SER:HB2	1.92	0.50
1:2S:3165:A:H61	1:2S:3285:C:H42	1.58	0.50
53:S6:216:LEU:HG	53:S6:219:ARG:HH11	1.76	0.50
51:S4:247:SER:O	51:S4:251:GLU:HG3	2.11	0.50
53:S6:223:LYS:NZ	53:S6:226:ILE:HD13	2.26	0.50
19:57:112:LEU:HD23	19:57:150:VAL:HG23	1.94	0.50
32:70:15:ALA:O	32:70:18:ILE:HG22	2.12	0.50
1:2S:706:A:O2'	1:2S:707:U:H5'	2.12	0.50
46:1S:378:A:H3'	46:1S:379:U:C6	2.47	0.50
1:2S:2394:G:H2'	1:2S:2395:G:O4'	2.12	0.50
40:78:54:LEU:HG	40:78:56:ILE:HD11	1.94	0.50
1:2S:368:G:O2'	1:2S:369:A:H5'	2.12	0.50
65:18:104:ASN:O	65:18:108:LYS:HB2	2.12	0.50
46:1S:781:U:O2	46:1S:781:U:H3'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2516:U:H6	1:2S:2516:U:O5'	1.93	0.50
1:2S:1481:A:H61	36:74:2:ALA:HA	1.75	0.50
11:L8:41:GLN:HB3	11:L8:44:ARG:HH12	1.77	0.50
30:68:149:ALA:HB3	38:76:15:LYS:CD	2.41	0.50
57:10:16:PHE:HD2	57:10:76:LEU:HB2	1.76	0.50
23:61:50:LYS:HB3	23:61:92:ARG:HH21	1.71	0.50
46:1S:168:A:H4'	53:S6:136:LYS:HD2	1.94	0.50
1:2S:641:C:H2'	1:2S:642:U:O4'	2.11	0.50
53:S6:50:PHE:CE1	53:S6:111:LEU:HB3	2.47	0.50
51:S4:102:VAL:HG13	51:S4:110:ALA:HB3	1.93	0.50
56:S9:62:ARG:O	56:S9:69:ARG:NH1	2.45	0.50
1:2S:3004:C:H4'	6:L3:99:LEU:HB2	1.92	0.50
46:1S:1503:A:H2'	46:1S:1504:G:O4'	2.10	0.50
2:8S:103:G:H2'	2:8S:105:A:C8	2.46	0.50
1:2S:745:C:C5'	20:58:145:ASN:HD22	2.24	0.50
30:68:113:LEU:HD23	30:68:131:SER:HB3	1.93	0.50
59:12:46:ARG:HG3	59:12:46:ARG:NH1	2.27	0.50
1:2S:2493:U:H5''	4:L1:162:VAL:HG12	1.93	0.50
14:51:88:GLU:O	14:51:89:TYR:HB2	2.11	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
46:1S:1274:C:O2	46:1S:1274:C:C2'	2.60	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
46:1S:560:U:H2'	46:1S:561:G:H8	1.77	0.50
1:2S:3121:U:H1'	1:2S:3122:A:H5''	1.92	0.50
1:2S:944:C:H2'	1:2S:945:C:C6	2.46	0.50
1:2S:2430:A:H2'	1:2S:2431:C:C6	2.45	0.50
1:2S:1791:C:H2'	1:2S:1792:C:C6	2.46	0.50
50:S3:202:LEU:HD22	50:S3:202:LEU:N	2.27	0.50
46:1S:820:U:H2'	46:1S:821:U:H4'	1.93	0.50
51:S4:31:PRO:HD2	51:S4:38:LEU:HD11	1.93	0.50
52:S5:20:PHE:CE2	52:S5:35:GLN:HB2	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
20:58:33:TYR:O	20:58:36:LEU:HB2	2.11	0.50
6:L3:232:ARG:HD3	6:L3:268:GLY:N	2.26	0.50
1:2S:1407:A:H4'	34:72:33:ARG:HH22	1.75	0.50
20:58:100:THR:CG2	20:58:122:ILE:HD13	2.40	0.50
54:S7:30:SER:OG	54:S7:34:LEU:HD22	2.12	0.50
72:25:60:VAL:CG2	72:25:101:TYR:HB2	2.37	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:10:10:LYS:HB3	57:10:35:ILE:HG23	1.93	0.50
1:2S:3313:U:H4'	6:L3:173:GLN:HG3	1.94	0.50
46:1S:686:C:H2'	46:1S:687:G:C8	2.47	0.50
13:50:147:VAL:O	13:50:147:VAL:HG12	2.12	0.50
35:73:35:VAL:HG11	35:73:41:ALA:HB2	1.93	0.50
73:26:22:ARG:NH1	73:26:22:ARG:HG3	2.27	0.50
46:1S:559:C:H4'	77:30:60:PRO:CG	2.42	0.50
70:23:115:GLY:C	70:23:117:ILE:H	2.15	0.50
60:13:102:LEU:HD21	60:13:111:ALA:HB3	1.93	0.50
1:2S:1978:A:C2'	1:2S:1979:G:H5'	2.41	0.50
46:1S:856:A:H61	54:S7:121:VAL:HG22	1.76	0.50
54:S7:96:ARG:HB2	54:S7:121:VAL:HG13	1.93	0.50
26:64:25:ASP:OD2	26:64:26:SER:N	2.45	0.50
47:S0:198:MET:HE1	47:S0:199:PRO:HD2	1.93	0.50
2:8S:60:U:O2'	2:8S:61:A:H5'	2.11	0.50
10:L7:94:LYS:O	10:L7:95:ILE:HD13	2.12	0.50
78:31:123:ASN:CB	78:31:124:PRO:HD2	2.40	0.50
8:L5:181:PRO:HG2	8:L5:195:LEU:CD1	2.42	0.50
11:L8:219:ASP:OD1	11:L8:223:ALA:HB2	2.11	0.50
46:1S:1796:C:C2	73:26:5:ARG:HG2	2.46	0.50
75:28:61:ARG:HG2	75:28:62:GLU:N	2.26	0.50
51:S4:76:VAL:O	51:S4:77:ARG:HB2	2.12	0.50
7:L4:72:ALA:HB3	7:L4:76:ARG:HH12	1.76	0.50
69:22:125:ILE:HG12	69:22:126:LEU:N	2.27	0.50
34:72:19:ARG:HG3	34:72:33:ARG:N	2.19	0.50
34:72:20:HIS:O	34:72:21:HIS:HB2	2.12	0.50
69:22:29:PRO:HA	69:22:59:GLY:O	2.11	0.50
60:13:63:ALA:HB3	60:13:71:ILE:CD1	2.42	0.50
1:2S:1328:C:H5''	35:73:75:HIS:CE1	2.47	0.50
60:13:113:PHE:O	60:13:117:LEU:HG	2.10	0.50
1:2S:98:G:N7	15:53:13:HIS:NE2	2.58	0.50
46:1S:1201:G:H21	46:1S:1600:A:C5'	2.19	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
1:2S:1741:A:H2'	1:2S:1742:U:C5'	2.39	0.50
5:L2:224:THR:HA	5:L2:237:LEU:HB2	1.94	0.50
46:1S:1624:C:O2'	46:1S:1625:C:H5'	2.11	0.50
15:53:105:ASN:HB3	15:53:108:ILE:CG1	2.41	0.50
1:2S:924:G:N2	1:2S:2414:G:H1'	2.27	0.50
1:2S:1932:A:H3'	1:2S:1933:A:H8	1.77	0.50
1:2S:1323:G:H5''	22:60:1:MET:C	2.32	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
70:23:24:TRP:CH2	70:23:33:LEU:HB3	2.47	0.50
26:64:55:PHE:HA	26:64:58:HIS:CB	2.42	0.50
69:22:83:ILE:HG23	69:22:83:ILE:O	2.12	0.50
62:15:32:ASP:O	62:15:35:LYS:HB2	2.12	0.50
52:S5:25:LEU:HB3	63:16:26:LYS:O	2.12	0.50
36:74:81:CYS:SG	36:74:83:ASN:HB2	2.51	0.50
10:L7:40:LYS:O	10:L7:44:ILE:HG13	2.12	0.50
51:S4:259:GLN:HE21	51:S4:259:GLN:H	1.60	0.50
12:L9:18:VAL:HG12	12:L9:27:VAL:HA	1.94	0.50
1:2S:1752:A:H2'	1:2S:1753:G:O4'	2.12	0.50
1:2S:2978:U:O2'	1:2S:2979:U:H5'	2.11	0.50
55:S8:184:LEU:O	55:S8:185:GLU:HG3	2.11	0.50
55:S8:8:ARG:HH21	55:S8:21:PHE:H	1.60	0.50
5:L2:133:TYR:HB3	5:L2:168:VAL:CG1	2.42	0.50
3:5S:26:C:H5''	8:L5:57:ASN:HB3	1.93	0.50
56:S9:174:ARG:HE	56:S9:174:ARG:N	2.10	0.50
6:L3:261:MET:HG3	18:56:64:PHE:CB	2.41	0.50
1:2S:1180:A:C5'	35:73:77:ASN:HB2	2.33	0.50
54:S7:51:VAL:HG11	54:S7:168:SER:CB	2.42	0.50
27:65:110:VAL:HA	27:65:123:TYR:O	2.11	0.50
5:L2:115:ASN:HA	5:L2:126:LEU:O	2.11	0.50
61:14:83:ILE:HG23	61:14:117:ASP:OD1	2.11	0.50
7:L4:317:PRO:HG3	7:L4:323:VAL:HG13	1.93	0.50
19:57:129:THR:HG22	19:57:131:ARG:HG2	1.93	0.50
75:28:13:ILE:HG13	75:28:14:LYS:H	1.77	0.50
15:53:165:SER:O	30:68:135:GLU:HG3	2.12	0.50
2:8S:70:G:N2	2:8S:87:G:O2'	2.41	0.50
63:16:10:PHE:HA	63:16:18:ALA:O	2.12	0.50
10:L7:121:LYS:CB	23:61:133:ALA:HB3	2.42	0.50
54:S7:133:THR:CG2	54:S7:159:VAL:HG12	2.42	0.50
40:78:31:LEU:HD23	40:78:31:LEU:N	2.27	0.50
1:2S:1439:U:O5'	1:2S:1439:U:H6	1.95	0.50
46:1S:156:A:H2'	46:1S:157:A:O4'	2.11	0.50
46:1S:1616:G:H2'	46:1S:1617:U:C6	2.47	0.50
1:2S:2632:G:O3'	23:61:12:ARG:HD2	2.12	0.50
61:14:76:ILE:HD12	61:14:76:ILE:H	1.76	0.50
79:RA:293:ALA:O	79:RA:301:LEU:HD12	2.12	0.50
76:29:5:ASN:HB3	76:29:8:PHE:CB	2.42	0.50
1:2S:1908:A:H2	1:2S:2336:U:H5'	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3186:A:N1	12:L9:57:VAL:HA	2.26	0.50
46:1S:1366:U:H5''	63:16:33:GLY:HA3	1.94	0.50
29:67:47:GLU:OE2	29:67:69:LYS:HD3	2.12	0.50
49:S2:184:VAL:O	49:S2:187:LEU:HB3	2.11	0.50
1:2S:180:C:H2'	1:2S:181:U:C6	2.47	0.50
22:60:6:GLU:O	22:60:63:GLN:HG3	2.12	0.50
29:67:84:ARG:HG3	29:67:84:ARG:HH21	1.76	0.50
46:1S:1039:A:HO2'	46:1S:1040:G:H8	1.58	0.50
1:2S:1925:U:H3'	1:2S:1926:C:C6	2.46	0.50
46:1S:408:C:H2'	46:1S:409:C:H6	1.74	0.49
46:1S:1526:A:H2'	46:1S:1527:C:O4'	2.12	0.49
52:S5:42:LEU:N	52:S5:42:LEU:HD23	2.23	0.49
70:23:51:GLY:HA2	70:23:77:ILE:HG13	1.94	0.49
48:S1:215:VAL:O	48:S1:215:VAL:HG13	2.11	0.49
18:56:46:GLU:CD	18:56:48:PHE:HB3	2.33	0.49
46:1S:730:G:H21	46:1S:731:C:C5'	2.22	0.49
33:71:15:ASN:HA	33:71:69:TYR:O	2.12	0.49
56:S9:120:LYS:HB3	56:S9:120:LYS:HZ3	1.74	0.49
1:2S:959:C:N4	1:2S:2801:A:H2'	2.27	0.49
1:2S:2922:G:H3'	1:2S:2923:U:C5'	2.42	0.49
7:L4:119:ARG:NH1	7:L4:274:TYR:HB2	2.26	0.49
32:70:42:ILE:HG12	32:70:65:THR:HG21	1.93	0.49
1:2S:1359:C:H2'	1:2S:1360:C:C6	2.47	0.49
1:2S:3255:U:H2'	1:2S:3256:G:H8	1.76	0.49
20:58:158:HIS:H	20:58:186:VAL:CG1	2.25	0.49
45:83:39:CYS:HB3	45:83:43:GLY:H	1.77	0.49
5:L2:185:ALA:O	5:L2:189:TYR:CD1	2.62	0.49
46:1S:856:A:H62	54:S7:96:ARG:HB3	1.76	0.49
76:29:22:ARG:HG2	76:29:38:ILE:HD11	1.94	0.49
49:S2:54:GLU:OE1	68:21:11:LEU:HD13	2.12	0.49
18:56:29:ASN:OD1	35:73:14:LEU:CD2	2.60	0.49
35:73:49:ILE:O	35:73:50:ALA:HB2	2.12	0.49
1:2S:1183:C:C2'	1:2S:1184:A:H5'	2.42	0.49
47:S0:6:THR:O	47:S0:6:THR:HG22	2.12	0.49
46:1S:1047:G:H2'	46:1S:1048:G:O4'	2.11	0.49
46:1S:900:A:O2'	46:1S:901:G:H5'	2.12	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
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
11:L8:150:LEU:C	11:L8:150:LEU:HD13	2.32	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:80:110:CYS:HB3	42:80:117:HIS:HA	1.94	0.49
10:L7:85:PHE:HD2	10:L7:116:PHE:CE1	2.30	0.49
5:L2:177:LYS:HG3	45:83:25:GLN:HE22	1.76	0.49
69:22:103:ILE:HG23	69:22:126:LEU:HB2	1.94	0.49
1:2S:2095:G:C8	1:2S:2095:G:O5'	2.65	0.49
46:1S:828:U:C3'	46:1S:829:A:H5''	2.41	0.49
1:2S:502:U:C4'	9:L6:26:ARG:HB3	2.37	0.49
1:2S:1307:G:H1'	1:2S:1308:A:OP2	2.12	0.49
51:S4:64:ILE:HG12	71:24:18:LEU:HD21	1.94	0.49
49:S2:140:ARG:HB3	49:S2:221:THR:HB	1.94	0.49
61:14:50:ALA:C	61:14:52:ARG:H	2.16	0.49
3:5S:9:C:N4	8:L5:21:ARG:HE	2.10	0.49
1:2S:2714:G:H5'	1:2S:2716:U:O5'	2.13	0.49
1:2S:3376:A:H1'	33:71:18:LYS:HB2	1.94	0.49
1:2S:750:G:C5'	31:69:44:LYS:HE2	2.41	0.49
46:1S:592:A:H2'	46:1S:593:U:O4'	2.12	0.49
73:26:23:CYS:HB3	73:26:28:LYS:N	2.24	0.49
46:1S:1073:G:C2'	46:1S:1074:G:H5''	2.42	0.49
42:80:87:SER:HA	42:80:90:ASN:HB2	1.93	0.49
52:S5:219:ARG:HD3	52:S5:220:VAL:CG2	2.41	0.49
1:2S:874:U:H5'	1:2S:875:G:O5'	2.12	0.49
1:2S:336:A:O2'	1:2S:337:G:H5'	2.11	0.49
13:50:51:HIS:NE2	13:50:168:SER:HB2	2.27	0.49
6:L3:359:ILE:HG22	6:L3:360:ASP:N	2.27	0.49
1:2S:218:G:H1'	1:2S:372:A:H1'	1.94	0.49
1:2S:2960:C:H2'	1:2S:2961:G:H8	1.77	0.49
27:65:27:ARG:H	27:65:27:ARG:HD2	1.76	0.49
46:1S:900:A:C2'	46:1S:901:G:H5'	2.42	0.49
1:2S:1747:G:HO2'	40:78:2:ALA:N	2.11	0.49
56:S9:117:GLY:O	56:S9:118:LEU:HB3	2.13	0.49
55:S8:188:GLU:HG2	58:11:13:PHE:CG	2.47	0.49
1:2S:1484:U:O5'	1:2S:1484:U:H6	1.94	0.49
1:2S:3369:G:H3'	1:2S:3369:G:N3	2.27	0.49
24:62:10:LYS:N	24:62:10:LYS:HD2	2.27	0.49
53:S6:36:VAL:HG12	53:S6:37:ASP:H	1.77	0.49
16:54:15:VAL:O	16:54:15:VAL:HG23	2.13	0.49
37:75:22:VAL:HG12	37:75:26:LYS:HE3	1.93	0.49
69:22:103:ILE:HD11	69:22:110:ILE:HG23	1.93	0.49
1:2S:1951:C:H6	1:2S:2095:G:N1	2.03	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:23:132:LEU:N	70:23:132:LEU:HD22	2.27	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
59:12:108:ARG:HD2	59:12:111:ASN:O	2.13	0.49
71:24:124:ARG:HH11	71:24:124:ARG:HG3	1.76	0.49
54:S7:35:LYS:HG2	54:S7:36:ALA:H	1.77	0.49
51:S4:196:VAL:HB	51:S4:209:HIS:CB	2.40	0.49
1:2S:2040:U:O5'	1:2S:2040:U:H6	1.95	0.49
15:53:189:GLU:HA	15:53:192:GLU:CG	2.42	0.49
1:2S:1667:A:H2'	1:2S:1668:G:C8	2.46	0.49
1:2S:2924:U:H2'	1:2S:2925:C:H5'	1.94	0.49
58:11:2:SER:CB	58:11:82:ARG:H	2.25	0.49
70:23:7:ARG:HG2	70:23:7:ARG:NH1	2.27	0.49
20:58:3:ILE:HB	20:58:5:HIS:CE1	2.47	0.49
46:1S:1223:A:C2'	46:1S:1224:A:H5'	2.42	0.49
1:2S:2747:A:H2'	1:2S:2748:A:O4'	2.12	0.49
70:23:98:GLU:O	70:23:99:ASN:HB2	2.11	0.49
6:L3:54:THR:HG22	6:L3:78:VAL:CG2	2.43	0.49
5:L2:111:THR:HB	5:L2:136:ILE:HD13	1.95	0.49
59:12:93:ASP:OD2	59:12:96:GLN:HG3	2.11	0.49
46:1S:1357:A:H2'	46:1S:1358:G:O4'	2.12	0.49
1:2S:2550:U:C6	11:L8:37:GLY:HA3	2.46	0.49
1:2S:3328:G:H2'	1:2S:3329:U:O4'	2.12	0.49
14:51:142:LYS:HD3	14:51:142:LYS:C	2.33	0.49
7:L4:154:THR:O	7:L4:154:THR:HG22	2.11	0.49
4:L1:104:SER:C	4:L1:128:LEU:HD22	2.33	0.49
20:58:49:LEU:HD23	20:58:52:LEU:HD12	1.95	0.49
60:13:63:ALA:HB3	60:13:71:ILE:HD11	1.94	0.49
46:1S:953:G:H2'	46:1S:954:G:H8	1.78	0.49
22:60:35:VAL:CA	22:60:38:LYS:HE2	2.38	0.49
1:2S:879:U:H2'	19:57:131:ARG:HH21	1.75	0.49
46:1S:974:A:H4'	60:13:112:LYS:HE2	1.93	0.49
33:71:29:ALA:O	33:71:32:ALA:HB3	2.13	0.49
1:2S:727:G:H3'	1:2S:728:G:H8	1.77	0.49
46:1S:1011:G:H2'	46:1S:1012:U:H5	1.77	0.49
50:S3:168:ILE:CG2	50:S3:189:MET:HB2	2.40	0.49
7:L4:132:ALA:HA	7:L4:148:ILE:CD1	2.40	0.49
46:1S:209:U:H2'	46:1S:210:A:C8	2.47	0.49
16:54:10:SER:HB3	16:54:12:TRP:HZ3	1.74	0.49
1:2S:1350:A:O2'	1:2S:1351:U:H5'	2.11	0.49
48:S1:183:GLN:HE21	48:S1:187:LYS:NZ	2.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:53:56:PRO:HB3	15:53:75:PHE:CZ	2.47	0.49
58:11:67:ARG:HG2	58:11:67:ARG:O	2.13	0.49
34:72:123:LYS:HA	34:72:126:LEU:CD1	2.42	0.49
25:63:33:ASN:HD21	25:63:64:LYS:H	1.60	0.49
6:L3:123:TYR:CE2	6:L3:124:LYS:HG3	2.48	0.49
62:15:52:LYS:N	62:15:53:PRO:CD	2.75	0.49
33:71:79:ARG:HA	33:71:89:LEU:HA	1.93	0.49
1:2S:3153:U:H3	1:2S:3293:U:H3	1.61	0.49
22:60:7:TYR:HA	22:60:63:GLN:HA	1.94	0.49
46:1S:986:G:H2'	46:1S:987:G:O4'	2.12	0.49
46:1S:1435:G:H4'	46:1S:1436:A:H5'	1.94	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
46:1S:1353:U:H3	46:1S:1372:U:H3	1.61	0.49
1:2S:2932:U:H2'	1:2S:2934:A:OP2	2.12	0.49
46:1S:1088:A:O5'	46:1S:1088:A:H8	1.95	0.49
46:1S:508:U:O2'	46:1S:509:G:H5'	2.12	0.49
48:S1:171:ILE:CD1	48:S1:197:ILE:HD13	2.25	0.49
1:2S:298:U:H5'	38:76:31:GLY:O	2.13	0.49
69:22:80:ASN:N	69:22:80:ASN:HD22	2.09	0.49
1:2S:2095:G:P	1:2S:2095:G:H8	2.35	0.49
46:1S:409:C:H2'	46:1S:410:A:H5'	1.93	0.49
1:2S:896:A:H1'	5:L2:186:PHE:CE1	2.48	0.49
36:74:5:VAL:HG22	36:74:6:THR:N	2.28	0.49
1:2S:671:U:H2'	1:2S:672:A:H8	1.77	0.49
1:2S:1238:C:H2'	1:2S:1239:C:C5'	2.43	0.49
46:1S:138:A:N6	46:1S:266:A:C6	2.80	0.49
1:2S:1043:C:H5'	13:50:88:ARG:NH1	2.28	0.49
59:12:108:ARG:CG	59:12:109:GLU:N	2.68	0.49
46:1S:5:U:H2'	46:1S:6:G:H8	1.77	0.49
27:65:135:ILE:HG12	27:65:138:ARG:HE	1.77	0.49
2:8S:101:U:H2'	2:8S:102:U:C4'	2.43	0.49
1:2S:951:A:H2'	1:2S:952:A:C8	2.46	0.49
1:2S:3159:C:H2'	1:2S:3160:U:C6	2.47	0.49
1:2S:155:G:H5''	1:2S:156:G:H2'	1.95	0.49
1:2S:681:U:H2'	1:2S:682:U:C5'	2.40	0.49
1:2S:965:A:H8	1:2S:965:A:O5'	1.95	0.49
46:1S:1294:G:H2'	46:1S:1295:G:C8	2.43	0.49
46:1S:927:C:H1'	61:14:125:SER:CB	2.41	0.49
1:2S:1667:A:H2'	1:2S:1668:G:H8	1.77	0.49
27:65:46:TYR:HA	37:75:70:TYR:OH	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:51:138:VAL:HG12	14:51:146:GLY:O	2.13	0.49
1:2S:411:U:H2'	1:2S:412:G:H8	1.77	0.49
20:58:66:ARG:NH1	20:58:143:PRO:HD3	2.28	0.49
65:18:88:ARG:HH21	65:18:88:ARG:CB	2.26	0.49
15:53:76:THR:CG2	15:53:101:ARG:HH11	2.26	0.49
62:15:17:TYR:HB2	62:15:25:LEU:HD11	1.93	0.49
12:L9:4:ILE:HG23	12:L9:5:GLN:H	1.76	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
44:82:77:CYS:C	44:82:78:LYS:HG2	2.32	0.49
1:2S:2345:A:H2'	1:2S:2346:C:C6	2.47	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
48:S1:199:ASN:O	48:S1:202:LYS:HG2	2.13	0.49
1:2S:1515:A:H2'	1:2S:1516:C:H6	1.77	0.49
46:1S:288:A:H2'	46:1S:289:U:C6	2.48	0.49
7:L4:8:VAL:HB	7:L4:16:THR:HB	1.94	0.49
1:2S:1514:G:H1'	41:79:44:TRP:HH2	1.78	0.49
1:2S:1854:C:H6	1:2S:1854:C:O5'	1.95	0.49
79:RA:311:ARG:HH11	79:RA:311:ARG:HG3	1.77	0.49
46:1S:782:U:H4'	71:24:12:VAL:HG11	1.93	0.49
64:17:38:ILE:HG23	64:17:39:ALA:N	2.28	0.49
11:L8:74:THR:HG23	11:L8:75:ILE:HG13	1.94	0.49
34:72:21:HIS:CE1	34:72:24:ARG:HD2	2.48	0.49
1:2S:954:U:H4'	31:69:8:THR:CG2	2.31	0.49
1:2S:3205:G:H2'	1:2S:3206:C:C4	2.47	0.49
1:2S:2423:U:H2'	1:2S:2424:A:C8	2.48	0.49
1:2S:1223:A:C2	1:2S:1287:A:H1'	2.46	0.49
48:S1:70:LEU:HD13	48:S1:71:ALA:N	2.27	0.49
26:64:19:THR:OG1	26:64:31:PHE:HB2	2.12	0.49
58:11:93:TYR:CZ	58:11:95:PRO:HA	2.47	0.49
65:18:82:PRO:HB3	65:18:84:TRP:CE2	2.47	0.49
8:L5:155:THR:H	8:L5:179:ARG:HH11	1.59	0.49
46:1S:1133:A:H2'	46:1S:1134:C:O4'	2.12	0.49
59:12:50:LYS:HE2	78:31:103:LEU:CD2	2.41	0.49
1:2S:3389:U:H5'	1:2S:3389:U:C6	2.46	0.49
54:S7:99:LEU:HG	54:S7:116:ARG:O	2.12	0.49
22:60:106:LEU:HD23	22:60:107:TYR:N	2.27	0.49
1:2S:1169:A:H2'	1:2S:1170:A:C8	2.47	0.49
40:78:31:LEU:HD23	40:78:31:LEU:H	1.76	0.49
51:S4:246:LEU:HD23	51:S4:250:GLU:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1479:U:H5	1:2S:1480:G:C6	2.31	0.49
2:8S:141:C:H2'	2:8S:142:C:C6	2.48	0.49
65:18:123:ARG:HD3	65:18:133:VAL:CG2	2.43	0.49
1:2S:2686:A:H2'	1:2S:2687:G:C8	2.47	0.49
1:2S:133:U:O2'	1:2S:134:U:H5'	2.12	0.49
52:S5:99:MET:O	52:S5:100:ASN:CB	2.60	0.49
1:2S:1928:G:H2'	1:2S:1929:G:O4'	2.12	0.49
1:2S:939:U:OP2	30:68:26:ARG:NH2	2.45	0.49
1:2S:2349:U:H2'	1:2S:2350:C:C6	2.47	0.49
1:2S:1011:A:H5'	13:50:194:GLY:HA2	1.93	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
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
52:S5:23:VAL:HG13	52:S5:23:VAL:O	2.12	0.49
1:2S:2694:A:H2'	1:2S:2695:A:O4'	2.11	0.49
4:L1:25:LYS:HG2	4:L1:170:GLY:O	2.12	0.49
47:S0:57:LEU:HG	47:S0:177:LEU:HG	1.93	0.49
12:L9:17:THR:HG21	16:54:3:THR:O	2.13	0.49
22:60:80:ARG:HB2	22:60:124:LEU:HD21	1.94	0.49
35:73:75:HIS:CG	35:73:76:GLY:N	2.80	0.49
1:2S:2180:G:H2'	1:2S:2181:C:H6	1.68	0.49
12:L9:134:ILE:N	12:L9:134:ILE:HD12	2.22	0.49
46:1S:307:G:H5''	58:11:92:HIS:NE2	2.26	0.49
54:S7:67:LEU:HD23	54:S7:70:PHE:HD2	1.77	0.49
69:22:89:TRP:HA	69:22:92:ASN:ND2	2.25	0.49
1:2S:949:C:H2'	1:2S:950:G:O4'	2.13	0.49
35:73:18:ARG:HA	35:73:23:ASN:HA	1.94	0.49
1:2S:727:G:H3'	1:2S:728:G:C8	2.48	0.49
19:57:44:ALA:HA	19:57:47:TYR:HB3	1.95	0.49
24:62:43:VAL:HG21	24:62:49:ASN:O	2.13	0.49
1:2S:1742:U:H5''	36:74:21:LYS:HZ3	1.78	0.49
1:2S:717:C:C2'	1:2S:718:G:H5'	2.42	0.49
47:S0:2:SER:HB3	68:21:78:LEU:HB3	1.94	0.49
46:1S:1470:C:H3'	46:1S:1573:A:N6	2.28	0.49
20:58:158:HIS:HA	20:58:186:VAL:HG11	1.95	0.49
45:83:42:CYS:HB3	45:83:60:CYS:CB	2.43	0.49
46:1S:323:A:H2'	46:1S:323:A:N3	2.26	0.49
1:2S:1867:A:H2'	1:2S:1868:G:H8	1.78	0.49
52:S5:186:ASN:HD21	52:S5:188:LYS:HB2	1.78	0.49
1:2S:619:A:H4'	1:2S:620:U:C4	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:58:ALA:O	10:L7:62:ILE:HG13	2.13	0.49
7:L4:74:ILE:HB	7:L4:75:PRO:HD2	1.94	0.49
1:2S:503:C:H2'	1:2S:504:A:H8	1.78	0.49
1:2S:414:U:H2'	1:2S:415:G:C8	2.48	0.49
61:14:64:ALA:HB3	61:14:104:ALA:HB3	1.94	0.49
49:S2:186:LYS:HD2	49:S2:189:GLN:OE1	2.13	0.49
30:68:7:LYS:O	30:68:10:LYS:HB2	2.13	0.49
1:2S:3033:A:H2'	1:2S:3034:C:C6	2.47	0.49
18:56:51:LYS:HG3	18:56:141:LEU:HD11	1.94	0.49
1:2S:2565:U:H2'	1:2S:2566:C:C6	2.47	0.49
11:L8:182:GLY:O	11:L8:186:LEU:HG	2.12	0.49
1:2S:2585:G:N3	1:2S:2585:G:H2'	2.28	0.49
58:11:6:THR:O	58:11:7:VAL:HG12	2.13	0.49
23:61:126:VAL:HG23	23:61:127:GLN:H	1.78	0.49
65:18:87:ASN:ND2	65:18:99:HIS:CE1	2.81	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
17:55:123:GLN:HB3	17:55:128:LYS:HG2	1.93	0.49
60:13:88:LEU:HD23	60:13:125:LEU:HD12	1.94	0.49
70:23:49:ALA:O	70:23:103:LEU:HD22	2.13	0.49
72:25:41:ILE:HG23	72:25:42:LEU:N	2.20	0.49
1:2S:3044:G:H4'	6:L3:13:HIS:HB2	1.93	0.49
13:50:85:PHE:CA	13:50:140:THR:HG22	2.39	0.49
46:1S:955:A:H5''	60:13:10:GLY:HA3	1.95	0.49
28:66:35:LEU:HA	28:66:106:ILE:HB	1.95	0.49
23:61:84:TYR:CE1	31:69:21:ILE:HG22	2.47	0.49
1:2S:2875:U:O4	1:2S:2952:G:O6	2.30	0.49
30:68:56:VAL:HG23	30:68:57:GLY:N	2.28	0.49
6:L3:18:PRO:HG2	6:L3:20:LYS:HG2	1.95	0.49
2:8S:104:A:H8	2:8S:106:C:H41	1.60	0.49
71:24:35:VAL:HG23	71:24:39:GLU:OE2	2.12	0.49
65:18:134:ARG:HB2	65:18:136:GLN:HE22	1.78	0.49
21:59:101:VAL:CG1	21:59:135:LYS:HD3	2.43	0.49
2:8S:134:G:OP1	27:65:56:ARG:HG3	2.12	0.49
17:55:203:ARG:NH1	17:55:203:ARG:HG3	2.27	0.49
46:1S:894:U:O2'	61:14:36:LYS:HG2	2.13	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
1:2S:120:G:N7	11:L8:128:LYS:HE3	2.28	0.49
46:1S:215:A:N6	46:1S:242:U:H5''	2.28	0.49
9:L6:40:LEU:HD11	9:L6:54:TYR:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:60:13:ARG:O	22:60:56:GLY:HA2	2.13	0.49
13:50:185:ARG:HA	13:50:190:VAL:CG2	2.43	0.49
66:19:70:GLN:HG3	66:19:121:GLY:HA3	1.94	0.49
1:2S:1649:U:H2'	1:2S:1650:G:C8	2.47	0.49
1:2S:3147:G:H2'	1:2S:3148:U:H6	1.78	0.49
30:68:94:ALA:CB	30:68:121:VAL:HG13	2.43	0.49
7:L4:161:LYS:N	7:L4:161:LYS:HD2	2.28	0.49
46:1S:1069:A:H2'	46:1S:1070:C:C6	2.47	0.49
46:1S:364:G:H21	46:1S:756:A:H61	1.61	0.49
50:S3:74:GLN:HG3	50:S3:79:TYR:HB2	1.94	0.49
46:1S:1449:U:H2'	46:1S:1450:U:C6	2.47	0.49
1:2S:1847:A:C6	19:57:130:TYR:HB3	2.48	0.49
49:S2:81:MET:HB2	49:S2:101:VAL:HB	1.93	0.49
1:2S:168:U:H6	1:2S:168:U:O5'	1.96	0.49
26:64:41:LYS:C	26:64:43:ARG:H	2.16	0.49
1:2S:2245:C:H4'	5:L2:221:LYS:O	2.13	0.49
48:S1:174:LYS:CB	48:S1:174:LYS:NZ	2.76	0.49
1:2S:2515:A:H62	1:2S:2592:G:N2	2.11	0.49
34:72:35:GLN:HA	34:72:35:GLN:HE21	1.78	0.49
1:2S:2883:U:H2'	1:2S:2884:C:C6	2.47	0.49
46:1S:1065:A:H4'	48:S1:206:PRO:HD3	1.95	0.49
20:58:54:LEU:HB3	20:58:58:ASN:HB2	1.94	0.49
46:1S:687:G:H5'	69:22:119:LYS:HD3	1.95	0.49
1:2S:654:C:H2'	1:2S:655:C:H6	1.72	0.49
6:L3:105:VAL:CG1	6:L3:106:TRP:N	2.75	0.49
1:2S:681:U:C2'	1:2S:682:U:H5'	2.41	0.49
22:60:97:VAL:HG13	22:60:98:SER:N	2.28	0.49
1:2S:745:C:H2'	1:2S:746:A:C8	2.48	0.49
15:53:63:VAL:HG21	30:68:67:HIS:HA	1.95	0.49
72:25:54:VAL:H	72:25:55:PRO:HD2	1.78	0.49
58:11:67:ARG:HH21	58:11:129:ARG:HA	1.77	0.49
1:2S:95:A:H2'	1:2S:96:G:O4'	2.12	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
22:60:137:ARG:HB3	22:60:140:VAL:CG2	2.43	0.49
16:54:36:VAL:HG11	16:54:55:ARG:NH2	2.28	0.49
1:2S:3035:A:C1'	12:L9:122:LYS:HB2	2.42	0.49
18:56:37:ARG:HG3	18:56:108:ILE:HG13	1.95	0.49
48:S1:61:LEU:HG	48:S1:64:ARG:HH21	1.78	0.49
1:2S:213:A:C2'	1:2S:214:G:H5'	2.42	0.49
15:53:29:ALA:HB2	17:55:201:ARG:NH1	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:547:G:C2'	1:2S:548:G:O5'	2.61	0.49
46:1S:1303:U:H2'	46:1S:1304:G:O4'	2.12	0.49
46:1S:1214:U:OP1	46:1S:1246:C:H1'	2.13	0.49
19:57:116:HIS:CD2	19:57:148:LEU:HA	2.47	0.49
67:20:33:GLN:HG3	67:20:109:GLU:CG	2.42	0.49
51:S4:225:VAL:HG12	51:S4:226:PHE:N	2.28	0.49
65:18:16:ARG:HG3	65:18:16:ARG:NH1	2.28	0.49
7:L4:8:VAL:HG12	7:L4:9:HIS:N	2.28	0.49
58:11:6:THR:HB	58:11:9:SER:HB3	1.94	0.49
46:1S:38:C:H4'	56:S9:6:ARG:NH2	2.27	0.49
1:2S:3228:C:H5''	16:54:137:LYS:CE	2.43	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
1:2S:2228:A:H2'	1:2S:2229:A:O4'	2.13	0.49
33:71:48:ASP:O	33:71:91:SER:HB2	2.12	0.49
1:2S:2322:C:O2'	1:2S:2323:G:H5'	2.13	0.49
46:1S:421:A:O2'	46:1S:422:G:H5'	2.12	0.49
46:1S:1524:A:C2	46:1S:1590:G:H1'	2.47	0.49
4:L1:17:LEU:CD2	4:L1:17:LEU:H	2.12	0.49
53:S6:5:ILE:CG1	53:S6:111:LEU:HD12	2.36	0.49
1:2S:2423:U:H2'	1:2S:2424:A:H8	1.78	0.49
1:2S:2232:A:HO2'	1:2S:2428:U:HO2'	1.61	0.49
63:16:44:LEU:HD12	63:16:47:LYS:HG2	1.95	0.49
27:65:65:GLN:O	27:65:85:GLN:HB2	2.13	0.49
34:72:66:LEU:HD23	34:72:72:LYS:HB2	1.95	0.49
10:L7:107:ARG:HB3	10:L7:204:PRO:HG3	1.94	0.49
11:L8:238:LEU:HD23	11:L8:243:GLN:NE2	2.27	0.49
46:1S:1160:A:H2'	46:1S:1161:C:H6	1.73	0.49
33:71:70:ARG:NH2	33:71:70:ARG:CG	2.76	0.49
14:51:91:LEU:HB3	14:51:92:ARG:H	1.47	0.49
55:S8:73:SER:C	55:S8:74:LYS:HD2	2.32	0.49
19:57:4:TYR:CZ	19:57:18:ARG:HG3	2.48	0.49
45:83:82:THR:O	45:83:86:LEU:HG	2.12	0.49
9:L6:96:VAL:HG13	9:L6:141:VAL:HG13	1.94	0.49
46:1S:183:U:H2'	46:1S:184:C:C6	2.48	0.49
54:S7:111:LYS:HG3	54:S7:112:ARG:H	1.77	0.49
1:2S:3035:A:C2	12:L9:121:LYS:HB3	2.48	0.49
44:82:97:LYS:N	44:82:97:LYS:HD3	2.28	0.49
3:5S:5:G:H5''	14:51:143:ARG:HH22	1.77	0.49
20:58:177:GLY:CA	20:58:184:PHE:O	2.61	0.49
1:2S:544:C:O5'	1:2S:544:C:H6	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:619:A:H4'	1:2S:620:U:C6	2.48	0.49
1:2S:2433:U:O2'	17:55:125:SER:HB2	2.13	0.49
11:L8:216:SER:O	11:L8:220:ALA:HB2	2.13	0.49
4:L1:172:VAL:HG12	4:L1:176:GLU:HB2	1.94	0.49
1:2S:1384:U:H2'	1:2S:1385:C:C6	2.48	0.49
48:S1:146:GLN:HG3	48:S1:147:ALA:H	1.78	0.49
64:17:88:VAL:O	64:17:88:VAL:HG13	2.13	0.49
47:S0:27:ARG:HG2	47:S0:28:ASN:H	1.78	0.49
26:64:9:SER:HA	26:64:52:THR:HB	1.95	0.49
1:2S:66:A:H61	1:2S:76:G:H1'	1.77	0.49
1:2S:2608:G:O2'	1:2S:2609:A:H5'	2.12	0.49
54:S7:144:VAL:HA	69:22:42:GLN:CD	2.33	0.49
65:18:142:GLY:O	65:18:145:ARG:HG2	2.12	0.49
50:S3:211:PRO:HG3	64:17:20:TYR:CE1	2.47	0.48
9:L6:79:VAL:HG12	9:L6:80:ASN:N	2.28	0.48
1:2S:2179:C:H2'	5:L2:132:ASN:ND2	2.28	0.48
75:28:32:PHE:CZ	75:28:38:ARG:HB3	2.48	0.48
6:L3:46:PHE:C	6:L3:47:LEU:HD22	2.34	0.48
57:10:32:HIS:NE2	57:10:42:VAL:HG21	2.27	0.48
4:L1:116:LEU:CD2	4:L1:116:LEU:O	2.57	0.48
29:67:54:THR:HG23	29:67:56:LYS:H	1.77	0.48
8:L5:22:ARG:CG	8:L5:27:LYS:HB2	2.43	0.48
52:S5:57:SER:HB3	75:28:53:ILE:HG22	1.95	0.48
69:22:114:GLU:O	69:22:117:ARG:HB3	2.13	0.48
46:1S:600:U:C1'	70:23:47:SER:HB3	2.41	0.48
1:2S:2351:U:H4'	19:57:83:TRP:HE3	1.77	0.48
39:77:5:THR:N	39:77:6:PRO:CD	2.75	0.48
2:8S:38:U:C5	37:75:78:LYS:HD3	2.47	0.48
36:74:76:TYR:HD1	36:74:79:SER:OG	1.94	0.48
46:1S:874:C:H2'	46:1S:875:G:C8	2.47	0.48
1:2S:85:A:OP1	1:2S:85:A:H8	1.94	0.48
49:S2:118:ALA:CB	49:S2:124:ALA:HB2	2.43	0.48
22:60:132:THR:O	22:60:133:ALA:CB	2.61	0.48
1:2S:907:G:C5	1:2S:926:A:C8	3.01	0.48
1:2S:3054:U:H2'	1:2S:3055:U:C6	2.47	0.48
1:2S:3057:U:H2'	1:2S:3057:U:O2	2.12	0.48
3:5S:5:G:H5''	14:51:143:ARG:NH2	2.27	0.48
46:1S:900:A:H3'	46:1S:901:G:H21	1.78	0.48
1:2S:2526:C:H2'	1:2S:2527:G:C8	2.48	0.48
1:2S:12:A:H2	2:8S:146:U:H3	1.60	0.48
46:1S:431:C:H2'	46:1S:432:G:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:51:30:LEU:HD11	14:51:47:GLN:HG2	1.95	0.48
55:S8:84:HIS:CE1	55:S8:86:SER:HB2	2.48	0.48
1:2S:1176:C:H2'	1:2S:1177:G:C2	2.48	0.48
1:2S:1082:U:H2'	1:2S:1083:G:C8	2.48	0.48
6:L3:212:ASN:OD1	6:L3:354:VAL:HG22	2.13	0.48
1:2S:1348:U:H5'	20:58:35:PHE:HE1	1.76	0.48
1:2S:2896:A:C8	1:2S:2896:A:H5'	2.45	0.48
1:2S:784:A:H1'	20:58:65:SER:HB2	1.95	0.48
46:1S:1202:A:H62	46:1S:1457:C:H5''	1.76	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
46:1S:887:A:H61	46:1S:925:G:H1	1.60	0.48
1:2S:1694:U:O2'	1:2S:1695:U:H5'	2.13	0.48
1:2S:1224:C:O2'	1:2S:1289:G:OP1	2.29	0.48
75:28:32:PHE:HE2	75:28:38:ARG:HB3	1.75	0.48
52:S5:122:ASN:O	52:S5:126:ASP:HA	2.13	0.48
58:11:83:THR:CA	58:11:111:VAL:HG12	2.41	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
1:2S:2149:A:H8	1:2S:2149:A:P	2.35	0.48
54:S7:50:ASP:HA	54:S7:56:LYS:HA	1.94	0.48
21:59:57:VAL:O	21:59:58:HIS:HB2	2.13	0.48
1:2S:2129:U:H2'	1:2S:2130:G:C8	2.44	0.48
1:2S:422:A:H3'	1:2S:423:A:H8	1.78	0.48
1:2S:1463:U:H2'	1:2S:1464:G:O4'	2.13	0.48
1:2S:1831:U:O5'	1:2S:1831:U:H6	1.96	0.48
1:2S:337:G:H3'	1:2S:338:A:H5''	1.95	0.48
36:74:3:GLN:NE2	36:74:29:ILE:HG22	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
46:1S:339:C:H2'	46:1S:340:U:C6	2.48	0.48
65:18:30:TYR:HA	65:18:33:THR:HG23	1.93	0.48
48:S1:152:ARG:HG2	48:S1:152:ARG:O	2.14	0.48
14:51:19:LEU:HB3	14:51:125:MET:SD	2.53	0.48
57:10:22:VAL:O	57:10:22:VAL:HG23	2.13	0.48
6:L3:110:LEU:N	6:L3:110:LEU:HD12	2.28	0.48
74:27:4:VAL:O	74:27:4:VAL:HG13	2.13	0.48
1:2S:2155:G:H2'	1:2S:2156:C:C6	2.48	0.48
11:L8:71:VAL:HG12	17:55:21:PHE:CZ	2.48	0.48
46:1S:1788:G:N7	61:14:132:ARG:NE	2.61	0.48
70:23:124:VAL:HG12	70:23:125:VAL:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
51:S4:89:VAL:HG13	51:S4:99:PHE:O	2.12	0.48
52:S5:112:ARG:HE	52:S5:112:ARG:CA	2.18	0.48
1:2S:1145:G:O6	1:2S:1158:A:H2	1.95	0.48
7:L4:222:VAL:CG1	7:L4:225:VAL:HB	2.38	0.48
10:L7:232:ARG:CD	10:L7:235:PHE:HB2	2.40	0.48
52:S5:62:VAL:CG1	52:S5:89:ILE:HG12	2.41	0.48
1:2S:1346:G:H2'	1:2S:1347:U:O4'	2.13	0.48
1:2S:1215:U:H2'	1:2S:1216:C:C5	2.49	0.48
1:2S:639:G:H2'	1:2S:640:U:O4'	2.13	0.48
59:12:104:GLY:HA2	59:12:113:ARG:CD	2.42	0.48
50:S3:132:LYS:HB3	50:S3:189:MET:CG	2.43	0.48
6:L3:89:VAL:HG12	6:L3:105:VAL:HB	1.96	0.48
54:S7:86:GLN:C	54:S7:88:ARG:H	2.16	0.48
64:17:10:LYS:HG2	64:17:53:TYR:HE1	1.78	0.48
3:5S:79:A:H1'	3:5S:102:A:N6	2.28	0.48
1:2S:3382:U:C2'	1:2S:3382:U:O2	2.58	0.48
1:2S:2985:C:H2'	1:2S:2986:U:O4'	2.13	0.48
15:53:105:ASN:CB	15:53:108:ILE:HG12	2.44	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
33:71:25:PHE:HA	33:71:28:ARG:HD2	1.94	0.48
8:L5:19:PRO:HB2	8:L5:24:ARG:HG3	1.94	0.48
66:19:116:ILE:HG12	66:19:122:ARG:CZ	2.43	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
1:2S:1605:A:H2'	1:2S:1607:U:OP2	2.13	0.48
8:L5:167:SER:C	8:L5:169:GLY:H	2.16	0.48
1:2S:2740:A:H2'	1:2S:2741:C:H5'	1.95	0.48
4:L1:197:ASN:HD21	38:76:65:GLY:HA2	1.78	0.48
1:2S:1913:A:H4'	1:2S:2121:G:N7	2.29	0.48
2:8S:43:A:H2'	2:8S:44:A:C8	2.48	0.48
1:2S:2971:A:H2'	1:2S:2971:A:N3	2.28	0.48
6:L3:80:ASP:OD1	6:L3:82:PRO:HD3	2.12	0.48
52:S5:41:LYS:CE	52:S5:67:PRO:HB2	2.44	0.48
23:61:64:VAL:HA	23:61:73:GLY:O	2.12	0.48
51:S4:49:ARG:CA	51:S4:55:ALA:HB3	2.42	0.48
14:51:23:VAL:CG1	14:51:24:GLY:H	2.22	0.48
1:2S:2951:G:H2'	1:2S:2952:G:H8	1.78	0.48
68:21:66:ASP:O	68:21:70:ASN:OD1	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L3:235:THR:HG22	6:L3:236:LYS:H	1.79	0.48
39:77:72:ARG:HG2	39:77:72:ARG:HH11	1.78	0.48
54:S7:31:SER:O	54:S7:35:LYS:CB	2.60	0.48
51:S4:176:ASP:HB2	51:S4:179:LYS:CE	2.43	0.48
46:1S:812:A:H5'	46:1S:858:G:N2	2.26	0.48
46:1S:632:U:H2'	46:1S:633:U:C6	2.48	0.48
1:2S:917:A:H2'	1:2S:918:C:C6	2.48	0.48
55:S8:110:ARG:HG3	55:S8:121:LEU:HD23	1.94	0.48
50:S3:162:GLN:HA	50:S3:165:ASN:ND2	2.29	0.48
17:55:85:THR:HA	44:82:50:PHE:HB3	1.95	0.48
59:12:71:ILE:C	59:12:71:ILE:HD13	2.33	0.48
23:61:12:ARG:HD3	23:61:13:TYR:CZ	2.48	0.48
46:1S:740:A:H2'	46:1S:741:C:C4'	2.43	0.48
1:2S:430:U:H2'	1:2S:431:U:O4'	2.14	0.48
1:2S:2186:U:H2'	1:2S:2187:G:O4'	2.14	0.48
19:57:112:LEU:HA	19:57:151:THR:O	2.13	0.48
16:54:15:VAL:HG21	22:60:150:PHE:CE2	2.48	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
3:5S:65:G:H2'	3:5S:66:A:C8	2.48	0.48
61:14:82:LYS:HA	61:14:116:GLU:O	2.13	0.48
1:2S:2650:U:O2'	1:2S:2651:G:H5'	2.13	0.48
1:2S:1454:A:OP1	1:2S:1455:U:H5'	2.13	0.48
2:8S:59:A:N3	2:8S:59:A:H2'	2.29	0.48
50:S3:120:TYR:O	50:S3:124:ARG:HG3	2.12	0.48
54:S7:184:GLU:HG2	54:S7:185:ILE:N	2.29	0.48
1:2S:2627:C:C2	1:2S:2797:C:H5'	2.49	0.48
5:L2:133:TYR:CB	5:L2:168:VAL:HG12	2.44	0.48
6:L3:259:HIS:HB2	18:56:64:PHE:CD2	2.48	0.48
9:L6:52:VAL:HG23	9:L6:66:SER:O	2.13	0.48
63:16:129:PHE:HD1	63:16:129:PHE:O	1.96	0.48
27:65:65:GLN:HG2	37:75:32:LYS:HD2	1.95	0.48
49:S2:176:SER:HB2	49:S2:195:ASP:HB3	1.95	0.48
1:2S:374:A:C4'	1:2S:375:A:H5'	2.40	0.48
49:S2:203:LYS:O	49:S2:206:THR:HG22	2.12	0.48
7:L4:299:ILE:HD13	20:58:40:THR:CG2	2.44	0.48
2:8S:41:A:OP2	39:77:65:ARG:NH1	2.47	0.48
1:2S:2811:A:O2'	1:2S:2812:C:H5'	2.13	0.48
6:L3:89:VAL:HG22	6:L3:90:VAL:N	2.28	0.48
30:68:43:ILE:O	30:68:43:ILE:HG22	2.14	0.48
35:73:39:GLN:HA	35:73:42:GLN:CG	2.41	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:24:102:LYS:HD3	71:24:108:ARG:HD3	1.96	0.48
46:1S:180:A:H2'	46:1S:181:A:O4'	2.13	0.48
6:L3:216:ASP:HA	6:L3:280:HIS:HD2	1.78	0.48
1:2S:2957:G:C2'	1:2S:2958:A:H5'	2.43	0.48
46:1S:1735:U:H2'	46:1S:1736:G:H8	1.79	0.48
1:2S:956:U:H2'	1:2S:957:C:C6	2.49	0.48
20:58:81:VAL:HG23	20:58:101:VAL:HA	1.95	0.48
46:1S:1139:A:C2'	46:1S:1140:G:H5'	2.44	0.48
36:74:81:CYS:C	36:74:83:ASN:H	2.17	0.48
58:11:13:PHE:CE2	58:11:15:LYS:HB3	2.49	0.48
13:50:18:PRO:HB3	13:50:94:PHE:HB3	1.96	0.48
6:L3:169:THR:HG23	6:L3:170:PRO:HD2	1.95	0.48
1:2S:1326:A:H2'	1:2S:1327:C:O4'	2.13	0.48
7:L4:304:GLN:O	7:L4:305:ALA:HB3	2.13	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
41:79:31:THR:O	41:79:32:ASN:HB2	2.12	0.48
1:2S:2817:A:O2'	31:69:2:ALA:HB2	2.14	0.48
1:2S:2097:U:O5'	1:2S:2097:U:H6	1.96	0.48
46:1S:75:U:H3'	46:1S:76:A:H5''	1.96	0.48
1:2S:1506:A:H1'	1:2S:1848:G:O6	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
1:2S:807:A:H3'	1:2S:808:A:C5'	2.39	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
46:1S:904:G:C2'	46:1S:905:A:H5'	2.43	0.48
47:S0:170:ILE:HD12	47:S0:170:ILE:N	2.24	0.48
46:1S:1562:G:H2'	46:1S:1563:C:O4'	2.13	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
54:S7:116:ARG:HG2	54:S7:116:ARG:O	2.14	0.48
2:8S:70:G:H5''	28:66:28:ARG:CZ	2.43	0.48
62:15:98:ASN:HB2	62:15:122:THR:HA	1.94	0.48
49:S2:41:LEU:O	49:S2:45:VAL:HG23	2.13	0.48
46:1S:3:U:O4'	49:S2:180:ALA:HA	2.14	0.48
47:S0:101:ARG:HG3	47:S0:103:THR:H	1.78	0.48
46:1S:262:U:H2'	46:1S:263:C:C6	2.48	0.48
1:2S:713:U:H2'	1:2S:714:G:O4'	2.12	0.48
8:L5:202:GLY:O	8:L5:206:GLN:HB2	2.14	0.48
53:S6:132:ARG:HH11	53:S6:132:ARG:HG2	1.79	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
25:63:102:ILE:O	25:63:102:ILE:HG23	2.12	0.48
20:58:35:PHE:CE1	20:58:38:ARG:NH2	2.82	0.48
17:55:21:PHE:HD2	17:55:22:LEU:HD12	1.77	0.48
7:L4:82:THR:CG2	7:L4:85:SER:H	2.26	0.48
1:2S:1951:C:C5	1:2S:2095:G:O6	2.61	0.48
20:58:122:ILE:HG23	20:58:126:GLN:CB	2.32	0.48
79:RA:137:LYS:HA	79:RA:137:LYS:CE	2.30	0.48
7:L4:259:ASP:O	7:L4:263:GLY:HA2	2.13	0.48
12:L9:89:LYS:HD3	12:L9:183:HIS:HB3	1.94	0.48
46:1S:818:C:N3	46:1S:819:G:N2	2.61	0.48
11:L8:77:GLN:HG3	11:L8:78:PHE:CD1	2.49	0.48
38:76:79:SER:H	38:76:82:ARG:HD2	1.78	0.48
5:L2:129:ALA:N	5:L2:169:ILE:HD12	2.28	0.48
56:S9:44:ARG:O	56:S9:48:GLN:HG3	2.14	0.48
14:51:115:LYS:HB2	14:51:115:LYS:HZ2	1.76	0.48
74:27:56:CYS:HB2	74:27:61:THR:HG22	1.95	0.48
1:2S:3088:G:H5'	6:L3:313:HIS:CE1	2.49	0.48
67:20:20:ILE:HG12	67:20:95:ALA:O	2.14	0.48
19:57:67:ILE:HG23	19:57:68:GLY:H	1.77	0.48
22:60:66:GLU:O	22:60:69:PRO:HG3	2.13	0.48
46:1S:975:C:H5''	60:13:109:LYS:HE3	1.96	0.48
27:65:60:TYR:CD2	37:75:25:LYS:HB3	2.49	0.48
1:2S:1741:A:C2'	1:2S:1742:U:H5'	2.40	0.48
22:60:24:LEU:HD12	23:61:146:ASN:HB3	1.95	0.48
21:59:20:ARG:HH11	21:59:20:ARG:HG3	1.77	0.48
48:S1:96:LEU:HD23	48:S1:96:LEU:H	1.79	0.48
73:26:44:ILE:HD11	73:26:64:LEU:HD22	1.95	0.48
1:2S:1536:G:H2'	1:2S:1537:A:H8	1.79	0.48
46:1S:699:U:H2'	46:1S:700:C:C5	2.48	0.48
1:2S:519:A:H4'	7:L4:355:PHE:CZ	2.46	0.48
48:S1:61:LEU:N	48:S1:61:LEU:HD13	2.29	0.48
29:67:73:LYS:HD3	29:67:74:VAL:H	1.78	0.48
54:S7:126:LEU:HD21	54:S7:173:TYR:CZ	2.48	0.48
5:L2:147:ARG:HB2	5:L2:157:VAL:HB	1.94	0.48
46:1S:207:U:H2'	46:1S:208:U:C6	2.49	0.48
2:8S:54:A:N7	2:8S:55:U:C5	2.82	0.48
1:2S:3051:U:H1'	25:63:92:PHE:CE1	2.48	0.48
35:73:20:LYS:HB3	35:73:20:LYS:NZ	2.29	0.48
32:70:73:GLY:O	32:70:77:LEU:HB2	2.14	0.48
46:1S:1675:C:H1'	55:S8:32:GLN:OE1	2.14	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
14:51:94:ARG:N	14:51:94:ARG:HD3	2.11	0.48
57:10:80:LEU:HB2	57:10:82:LEU:HD11	1.96	0.48
17:55:122:ASN:CB	17:55:129:TYR:HB2	2.33	0.48
58:11:123:VAL:HG22	58:11:124:THR:N	2.29	0.48
1:2S:1289:G:H2'	1:2S:1290:A:O4'	2.14	0.48
48:S1:138:PHE:HB3	48:S1:213:ARG:NE	2.28	0.48
66:19:57:ARG:CB	66:19:57:ARG:HH11	2.24	0.48
1:2S:2144:A:C4	1:2S:2281:A:C6	3.02	0.48
52:S5:62:VAL:HG12	52:S5:64:VAL:HG23	1.95	0.48
58:11:94:ILE:HG21	58:11:97:TYR:HD2	1.79	0.48
1:2S:2951:G:H2'	1:2S:2952:G:C8	2.48	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
46:1S:600:U:P	70:23:108:GLY:HA2	2.53	0.48
53:S6:64:LYS:O	53:S6:100:ALA:HB2	2.13	0.48
19:57:4:TYR:CZ	19:57:16:SER:HB2	2.48	0.48
1:2S:2603:G:H2'	1:2S:2604:U:O4'	2.12	0.48
35:73:42:GLN:HA	35:73:42:GLN:HE21	1.78	0.48
67:20:67:THR:CG2	67:20:68:ARG:N	2.76	0.48
1:2S:3047:U:C2'	1:2S:3048:A:H5'	2.43	0.48
59:12:72:ILE:O	59:12:76:GLU:HG3	2.12	0.48
67:20:113:ASP:OD1	67:20:115:GLU:HG3	2.14	0.48
1:2S:2956:A:H2'	1:2S:2957:G:H5'	1.96	0.48
1:2S:3147:G:H2'	1:2S:3148:U:O4'	2.13	0.48
1:2S:503:C:O2'	9:L6:23:LYS:HE2	2.14	0.48
4:L1:60:ARG:HD2	4:L1:176:GLU:O	2.14	0.48
46:1S:262:U:H2'	46:1S:263:C:H6	1.78	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
46:1S:1341:A:H2'	46:1S:1342:C:H6	1.79	0.48
41:79:9:ILE:HG22	41:79:13:MET:HE2	1.96	0.48
5:L2:214:GLY:C	5:L2:216:HIS:H	2.17	0.48
1:2S:2063:U:H2'	1:2S:2064:C:O4'	2.14	0.48
4:L1:103:LEU:HD21	4:L1:106:LYS:HE2	1.96	0.48
11:L8:72:PRO:HD2	11:L8:75:ILE:HD12	1.96	0.48
17:55:118:SER:HB3	17:55:132:VAL:CA	2.43	0.48
6:L3:56:ILE:CG1	6:L3:57:VAL:N	2.77	0.48
73:26:78:ALA:CA	73:26:82:ARG:HB3	2.41	0.48
34:72:24:ARG:HG3	34:72:24:ARG:NH1	2.28	0.48
46:1S:613:G:H5'	46:1S:1099:U:C2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:78:PHE:C	11:L8:79:GLN:HG2	2.31	0.48
17:55:3:ALA:HA	17:55:6:TYR:HD1	1.77	0.48
1:2S:2666:C:N4	1:2S:2689:A:H8	2.12	0.48
60:13:27:LYS:O	60:13:28:LEU:HB2	2.14	0.48
19:57:172:GLN:O	19:57:176:ILE:HG13	2.13	0.48
1:2S:1222:G:H5'	1:2S:1222:G:C8	2.48	0.48
46:1S:1578:U:O2'	46:1S:1579:U:H5'	2.14	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
10:L7:232:ARG:HD3	10:L7:235:PHE:C	2.34	0.48
55:S8:76:THR:HG22	55:S8:108:PRO:HG2	1.96	0.48
67:20:51:VAL:HG12	67:20:94:GLU:HB2	1.94	0.48
46:1S:1451:C:OP1	76:29:10:HIS:HB3	2.14	0.48
43:81:9:ARG:O	43:81:13:LEU:HD23	2.14	0.48
6:L3:53:MET:O	6:L3:364:LYS:HE2	2.14	0.48
14:51:112:LEU:HD23	14:51:112:LEU:N	2.28	0.48
8:L5:83:LEU:N	8:L5:84:PRO:HD3	2.28	0.48
1:2S:201:A:H2'	1:2S:202:G:O4'	2.14	0.48
1:2S:2694:A:O2'	1:2S:2695:A:H5'	2.14	0.48
46:1S:1051:G:O2'	46:1S:1052:U:OP1	2.27	0.48
79:RA:70:ASP:HB3	79:RA:113:VAL:HG12	1.94	0.48
59:12:70:ASN:O	59:12:74:LEU:HB2	2.14	0.48
46:1S:896:U:O2'	46:1S:897:C:H5'	2.14	0.48
19:57:106:GLY:C	19:57:107:LEU:HD12	2.34	0.48
46:1S:1359:C:H4'	66:19:133:ASP:HB3	1.95	0.48
53:S6:24:ILE:HG22	53:S6:24:ILE:O	2.14	0.48
51:S4:222:LEU:N	51:S4:222:LEU:HD23	2.28	0.48
11:L8:45:ASN:OD1	27:65:26:VAL:HG23	2.14	0.48
2:8S:72:A:P	28:66:52:ARG:HB2	2.54	0.48
60:13:21:ASN:O	60:13:22:ALA:HB3	2.14	0.48
1:2S:1403:C:H2'	1:2S:1404:G:C8	2.49	0.48
46:1S:1184:A:H3'	46:1S:1185:U:H5''	1.95	0.48
11:L8:79:GLN:HG3	11:L8:80:TYR:CE2	2.49	0.48
22:60:15:PRO:HB3	22:60:20:PRO:HB2	1.95	0.48
7:L4:316:ASN:HD21	7:L4:319:LYS:NZ	2.12	0.48
58:11:100:TYR:O	70:23:10:ASN:HA	2.14	0.48
13:50:79:VAL:HG11	13:50:147:VAL:HG22	1.94	0.48
46:1S:826:U:H2'	46:1S:827:C:H6	1.79	0.48
56:S9:161:THR:O	56:S9:162:SER:O	2.31	0.48
19:57:20:SER:HA	19:57:145:HIS:HA	1.95	0.48
55:S8:172:ARG:CB	55:S8:175:GLN:HB2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2039:C:H2'	1:2S:2040:U:O4'	2.14	0.48
24:62:54:VAL:HG12	24:62:67:SER:OG	2.13	0.48
1:2S:1795:U:H4'	1:2S:1796:G:C4	2.49	0.48
1:2S:2184:U:H4'	5:L2:211:HIS:CE1	2.49	0.48
5:L2:193:ARG:HG2	5:L2:193:ARG:NH2	2.28	0.48
2:8S:116:G:H2'	2:8S:117:C:H6	1.76	0.48
62:15:45:PHE:CD1	62:15:52:LYS:HE3	2.49	0.48
46:1S:1659:A:H2'	46:1S:1660:A:H8	1.79	0.48
23:61:11:THR:O	23:61:13:TYR:N	2.47	0.48
51:S4:159:THR:CG2	51:S4:227:VAL:HG23	2.43	0.48
72:25:50:ILE:HD11	72:25:70:LYS:CD	2.43	0.48
1:2S:2433:U:H3'	1:2S:2434:U:H2'	1.95	0.48
1:2S:1082:U:H2'	1:2S:1083:G:O4'	2.13	0.48
14:51:125:MET:HG2	14:51:126:ASP:H	1.79	0.48
55:S8:41:LYS:HB2	55:S8:61:GLU:HG2	1.96	0.48
23:61:105:PHE:O	23:61:109:VAL:HG23	2.13	0.48
63:16:116:LEU:HD22	63:16:116:LEU:H	1.78	0.48
1:2S:3134:A:H5'	18:56:148:LYS:HE3	1.96	0.48
69:22:52:TYR:CE1	69:22:59:GLY:HA3	2.49	0.47
21:59:106:LEU:HB3	21:59:120:TYR:CE1	2.49	0.47
46:1S:1060:U:H2'	46:1S:1061:A:H4'	1.96	0.47
4:L1:18:LYS:O	4:L1:19:TYR:CB	2.62	0.47
61:14:120:PRO:O	61:14:122:PRO:HD3	2.13	0.47
48:S1:205:PHE:HB3	48:S1:207:LEU:CD1	2.42	0.47
27:65:64:GLU:HB2	27:65:85:GLN:HB3	1.95	0.47
1:2S:1144:U:H1'	1:2S:1145:G:C8	2.48	0.47
34:72:66:LEU:CD2	34:72:72:LYS:HB2	2.44	0.47
22:60:8:GLN:HB2	22:60:64:ILE:CD1	2.39	0.47
46:1S:1755:A:H5'	70:23:63:GLN:HG3	1.95	0.47
1:2S:505:G:H5"	7:L4:315:LYS:HA	1.96	0.47
53:S6:57:ASP:HB3	53:S6:106:LEU:HD23	1.95	0.47
10:L7:114:GLY:O	10:L7:115:THR:HG23	2.13	0.47
6:L3:89:VAL:CG1	6:L3:105:VAL:HB	2.44	0.47
66:19:67:MET:O	66:19:68:ARG:HB3	2.14	0.47
66:19:7:ARG:HG3	66:19:7:ARG:HH11	1.78	0.47
8:L5:154:THR:CA	8:L5:179:ARG:HH11	2.24	0.47
3:5S:96:U:H2'	3:5S:97:A:H8	1.78	0.47
30:68:46:ASP:O	30:68:47:LYS:HG2	2.14	0.47
17:55:5:LYS:HG2	38:76:40:VAL:HG21	1.95	0.47
1:2S:1231:A:O2'	1:2S:1261:G:H1'	2.13	0.47
33:71:25:PHE:HA	33:71:28:ARG:CG	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:60:13:ARG:HA	22:60:56:GLY:CA	2.44	0.47
2:8S:108:C:H6	2:8S:108:C:O5'	1.97	0.47
69:22:86:ILE:O	69:22:90:THR:HG23	2.14	0.47
53:S6:63:MET:HA	53:S6:98:ARG:O	2.14	0.47
13:50:30:LYS:HA	13:50:30:LYS:CE	2.44	0.47
47:S0:197:ILE:H	47:S0:197:ILE:HD12	1.76	0.47
1:2S:2392:C:H3'	1:2S:2393:G:C8	2.49	0.47
1:2S:2254:U:H2'	1:2S:2261:G:N2	2.28	0.47
69:22:38:LEU:HA	69:22:41:MET:CE	2.43	0.47
4:L1:199:GLN:NE2	4:L1:202:GLY:HA3	2.29	0.47
4:L1:101:LYS:NZ	4:L1:101:LYS:HB3	2.29	0.47
1:2S:2538:U:O2'	1:2S:2539:C:H5'	2.14	0.47
18:56:130:LYS:HG3	18:56:131:PRO:HD2	1.95	0.47
1:2S:992:A:H4'	23:61:58:GLN:NE2	2.29	0.47
48:S1:41:ARG:HH11	48:S1:41:ARG:HB3	1.79	0.47
1:2S:814:U:H6	1:2S:814:U:O5'	1.97	0.47
67:20:65:ILE:O	67:20:81:THR:HA	2.14	0.47
12:L9:189:GLU:O	12:L9:190:ASP:HB3	2.14	0.47
50:S3:211:PRO:HG3	64:17:20:TYR:HE1	1.79	0.47
24:62:104:ARG:C	24:62:105:LEU:HD12	2.34	0.47
69:22:65:LEU:H	69:22:65:LEU:CD1	2.19	0.47
1:2S:1902:G:O5'	1:2S:1902:G:H8	1.97	0.47
46:1S:1580:C:H2'	46:1S:1581:C:C6	2.50	0.47
1:2S:1764:U:H3'	1:2S:1765:U:H4'	1.96	0.47
1:2S:2856:G:H2'	1:2S:2857:C:H6	1.75	0.47
12:L9:104:VAL:HG21	12:L9:125:ASN:HD21	1.80	0.47
58:11:91:LEU:HD22	70:23:10:ASN:OD1	2.14	0.47
5:L2:83:HIS:HB3	45:83:64:VAL:HG22	1.94	0.47
53:S6:1:MET:HE2	53:S6:106:LEU:HB2	1.94	0.47
52:S5:168:VAL:O	52:S5:172:ILE:HG13	2.14	0.47
46:1S:844:A:H2'	46:1S:845:G:C8	2.50	0.47
67:20:57:ARG:HD2	67:20:89:ARG:NH2	2.29	0.47
58:11:67:ARG:NH2	58:11:129:ARG:HA	2.29	0.47
71:24:41:ARG:HD2	71:24:55:VAL:O	2.14	0.47
27:65:92:LYS:HE2	27:65:112:THR:CG2	2.43	0.47
62:15:96:ILE:CG2	62:15:116:LEU:HB3	2.43	0.47
55:S8:121:LEU:N	55:S8:121:LEU:HD22	2.29	0.47
1:2S:2600:C:H2'	1:2S:2601:A:H8	1.80	0.47
18:56:149:TYR:O	18:56:153:VAL:HG23	2.14	0.47
1:2S:695:C:H2'	1:2S:696:C:H6	1.76	0.47
1:2S:2796:G:N7	44:82:63:LYS:NZ	2.60	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1687:U:OP1	24:62:42:LYS:HD2	2.12	0.47
52:S5:157:ARG:HD2	52:S5:157:ARG:N	2.29	0.47
20:58:147:ARG:HH11	20:58:147:ARG:CB	2.27	0.47
1:2S:1176:C:H2'	1:2S:1177:G:N2	2.28	0.47
51:S4:222:LEU:CD2	51:S4:222:LEU:H	2.28	0.47
11:L8:248:LYS:HA	11:L8:251:LYS:HB3	1.95	0.47
37:75:86:ARG:O	37:75:90:ARG:HG2	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
46:1S:94:U:O3'	51:S4:6:LYS:HG3	2.14	0.47
1:2S:1306:G:OP2	1:2S:2884:C:H4'	2.14	0.47
46:1S:103:A:N6	46:1S:358:U:H3	2.10	0.47
61:14:50:ALA:O	61:14:51:ASP:HB2	2.13	0.47
65:18:46:VAL:HG11	65:18:73:MET:HG3	1.96	0.47
53:S6:175:ILE:HG21	53:S6:178:LEU:HD13	1.96	0.47
75:28:13:ILE:HD13	75:28:31:GLU:HB2	1.96	0.47
72:25:78:ILE:N	72:25:78:ILE:HD12	2.29	0.47
12:L9:21:LYS:O	12:L9:22:SER:HB3	2.14	0.47
1:2S:3180:A:C6	18:56:114:LYS:HD3	2.49	0.47
5:L2:20:THR:HA	5:L2:23:ARG:NH1	2.29	0.47
1:2S:2561:A:O2'	1:2S:2562:A:H8	1.97	0.47
1:2S:3318:G:H1'	1:2S:3320:A:C8	2.49	0.47
46:1S:1379:C:H5'	63:16:10:PHE:CD2	2.50	0.47
1:2S:410:U:O5'	1:2S:410:U:H6	1.98	0.47
59:12:97:LEU:HD22	59:12:100:TRP:HE3	1.80	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
54:S7:120:ALA:O	54:S7:124:LYS:HG2	2.13	0.47
1:2S:2269:U:O2	1:2S:2271:A:N7	2.48	0.47
46:1S:839:U:H6	46:1S:839:U:O5'	1.97	0.47
79:RA:278:PHE:HB3	79:RA:281:TYR:HE1	1.80	0.47
4:L1:155:ILE:HG23	4:L1:163:LEU:HD13	1.97	0.47
1:2S:709:A:C8	1:2S:2788:C:H5'	2.49	0.47
1:2S:1799:A:H2'	1:2S:1800:A:C8	2.50	0.47
46:1S:1139:A:H2'	46:1S:1140:G:O4'	2.15	0.47
59:12:68:GLU:O	59:12:69:ALA:HB3	2.13	0.47
44:82:16:THR:OG1	44:82:77:CYS:HB3	2.14	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
46:1S:1368:G:H5''	66:19:69:LYS:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L7:168:ILE:O	10:L7:172:ASN:ND2	2.47	0.47
1:2S:563:U:H6	1:2S:563:U:O5'	1.97	0.47
62:15:44:ARG:HD3	62:15:44:ARG:O	2.15	0.47
62:15:47:ARG:HG2	62:15:47:ARG:HH21	1.79	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
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
50:S3:211:PRO:CG	64:17:19:ARG:HB2	2.43	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:HD23	20:58:32:LEU:O	2.13	0.47
23:61:68:THR:CG2	23:61:71:SER:H	2.27	0.47
46:1S:422:G:C2'	46:1S:423:G:C8	2.88	0.47
46:1S:484:C:N4	46:1S:503:G:H22	2.09	0.47
1:2S:41:G:H3'	1:2S:42:C:H6	1.79	0.47
49:S2:137:ILE:HG12	49:S2:138:PRO:CD	2.39	0.47
1:2S:636:C:N4	1:2S:2375:G:N1	2.47	0.47
5:L2:134:VAL:HG12	5:L2:149:ARG:O	2.14	0.47
56:S9:83:VAL:HG12	56:S9:149:ARG:HA	1.96	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
46:1S:1169:G:H2'	46:1S:1170:G:H5'	1.95	0.47
52:S5:56:ALA:O	52:S5:57:SER:OG	2.29	0.47
1:2S:1110:U:H2'	1:2S:1111:U:H6	1.77	0.47
46:1S:1533:C:H4'	46:1S:1539:G:C6	2.49	0.47
79:RA:164:ASP:O	79:RA:165:ASP:CB	2.59	0.47
10:L7:108:LEU:CD2	10:L7:114:GLY:HA2	2.44	0.47
54:S7:86:GLN:HG2	54:S7:87:ASP:H	1.78	0.47
46:1S:468:A:C2	46:1S:595:G:OP2	2.68	0.47
25:63:54:LEU:CD1	25:63:78:VAL:HG12	2.42	0.47
1:2S:985:U:H2'	1:2S:986:U:C6	2.48	0.47
51:S4:210:ILE:HG22	51:S4:211:LYS:N	2.29	0.47
24:62:54:VAL:HA	24:62:66:VAL:O	2.14	0.47
7:L4:358:THR:HA	7:L4:361:HIS:HB2	1.96	0.47
1:2S:884:A:H4'	1:2S:885:U:C6	2.47	0.47
25:63:33:ASN:ND2	25:63:64:LYS:H	2.13	0.47
54:S7:96:ARG:HB2	54:S7:121:VAL:CG1	2.45	0.47
11:L8:149:LYS:O	11:L8:176:PRO:CG	2.62	0.47
1:2S:2299:A:C5	1:2S:2300:G:C8	3.02	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)
30:68:77:LYS:HB3	30:68:80:THR:CG2	2.45	0.47
79:RA:206:PRO:HG2	79:RA:247:PRO:HA	1.97	0.47
1:2S:1194:G:O5'	1:2S:1194:G:H8	1.96	0.47
5:L2:61:VAL:HB	5:L2:76:PHE:CD1	2.49	0.47
1:2S:1335:C:H2'	1:2S:1336:U:C6	2.50	0.47
44:82:77:CYS:SG	44:82:79:THR:HG22	2.54	0.47
79:RA:72:THR:CG2	79:RA:81:LEU:HD12	2.44	0.47
75:28:20:GLY:HA2	75:28:67:ARG:OXT	2.14	0.47
52:S5:171:ALA:HA	52:S5:174:LEU:HD12	1.96	0.47
46:1S:1286:U:O2'	46:1S:1287:A:H5'	2.14	0.47
61:14:84:ARG:HH11	61:14:84:ARG:HG2	1.78	0.47
46:1S:863:A:H2'	46:1S:865:A:C8	2.49	0.47
1:2S:1889:G:H2'	1:2S:1890:U:C6	2.50	0.47
8:L5:58:LYS:HZ2	8:L5:93:THR:HG21	1.78	0.47
46:1S:136:C:C4'	46:1S:137:U:H5'	2.35	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
7:L4:317:PRO:O	7:L4:319:LYS:HD3	2.14	0.47
37:75:31:LEU:HG	37:75:41:LEU:CD2	2.42	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
11:L8:82:LEU:HD21	11:L8:86:THR:HG22	1.95	0.47
1:2S:1230:G:C2'	1:2S:1231:A:H5'	2.44	0.47
8:L5:286:VAL:HA	8:L5:289:LYS:HD2	1.95	0.47
60:13:99:ARG:O	60:13:103:GLU:HG2	2.15	0.47
1:2S:1294:A:O2'	1:2S:1295:G:H8	1.97	0.47
15:53:73:ARG:HG3	15:53:73:ARG:NH2	2.29	0.47
6:L3:54:THR:OG1	6:L3:360:ASP:HB3	2.14	0.47
72:25:39:ALA:HB3	72:25:70:LYS:O	2.15	0.47
1:2S:2584:G:H2'	1:2S:2585:G:H4'	1.97	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
1:2S:2967:A:H5''	5:L2:213:GLY:C	2.35	0.47
1:2S:1174:G:H1'	1:2S:1181:U:N3	2.30	0.47
1:2S:2588:U:H2'	1:2S:2589:G:C8	2.49	0.47
49:S2:78:ASP:O	49:S2:79:GLU:HB2	2.14	0.47
75:28:44:VAL:HG21	75:28:48:VAL:HG21	1.96	0.47
51:S4:133:LYS:C	51:S4:134:LYS:HG3	2.35	0.47
11:L8:100:GLU:HA	11:L8:104:GLU:OE1	2.14	0.47
20:58:25:TYR:O	20:58:29:LEU:HG	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:55:156:HIS:HA	17:55:162:ARG:HH22	1.80	0.47
1:2S:943:U:O2'	30:68:12:ARG:HB3	2.15	0.47
15:53:138:VAL:HG12	15:53:139:LEU:N	2.30	0.47
57:10:82:LEU:HD12	57:10:82:LEU:H	1.80	0.47
24:62:17:VAL:HA	24:62:103:TYR:O	2.14	0.47
70:23:104:LEU:HD23	70:23:124:VAL:HA	1.97	0.47
1:2S:31:C:C5'	17:55:96:ARG:HD2	2.44	0.47
1:2S:3357:U:H2'	1:2S:3358:U:H6	1.77	0.47
58:11:93:TYR:OH	58:11:95:PRO:HA	2.14	0.47
60:13:136:PRO:HB2	60:13:138:ASN:OD1	2.14	0.47
1:2S:3160:U:H2'	1:2S:3161:C:H6	1.76	0.47
46:1S:772:G:H5''	51:S4:23:LEU:HD23	1.96	0.47
5:L2:225:ILE:HD11	5:L2:236:GLY:CA	2.45	0.47
63:16:93:HIS:O	63:16:102:LYS:HB2	2.14	0.47
35:73:100:ILE:N	35:73:100:ILE:HD12	2.30	0.47
3:5S:96:U:H2'	3:5S:97:A:C8	2.49	0.47
59:12:50:LYS:HE2	78:31:103:LEU:HD21	1.96	0.47
5:L2:209:HIS:CG	5:L2:210:PRO:HD2	2.49	0.47
1:2S:561:C:H2'	1:2S:562:C:H6	1.77	0.47
9:L6:5:LYS:HE3	9:L6:5:LYS:HA	1.96	0.47
76:29:22:ARG:HG2	76:29:38:ILE:HD13	1.96	0.47
65:18:62:THR:O	65:18:66:LEU:HG	2.14	0.47
1:2S:1392:G:H3'	34:72:125:ARG:HH12	1.79	0.47
1:2S:1056:U:H2'	1:2S:1057:A:O4'	2.15	0.47
3:5S:52:G:H21	14:51:9:MET:CE	2.27	0.47
13:50:201:SER:C	13:50:203:LYS:H	2.17	0.47
63:16:78:VAL:O	63:16:82:ARG:HG2	2.15	0.47
13:50:61:SER:HA	13:50:126:ALA:HA	1.95	0.47
1:2S:1936:A:H2'	1:2S:1937:U:C6	2.48	0.47
8:L5:61:ILE:HG23	8:L5:79:TYR:HE1	1.79	0.47
4:L1:106:LYS:HD2	4:L1:123:LEU:HD11	1.97	0.47
17:55:16:SER:CB	38:76:48:ALA:HB1	2.44	0.47
57:10:68:LEU:HD11	57:10:72:GLY:HA3	1.96	0.47
48:S1:171:ILE:HA	48:S1:174:LYS:HE3	1.97	0.47
17:55:118:SER:HB3	17:55:132:VAL:CB	2.45	0.47
46:1S:387:A:H1'	46:1S:425:A:C2	2.50	0.47
6:L3:232:ARG:HD3	6:L3:268:GLY:H	1.79	0.47
66:19:113:ILE:HG22	66:19:113:ILE:O	2.15	0.47
14:51:10:ARG:HH21	14:51:152:HIS:HA	1.79	0.47
1:2S:1373:A:H2'	1:2S:1374:G:C8	2.50	0.47
1:2S:2897:A:H2'	1:2S:2899:C:C5'	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:58:82:VAL:HA	20:58:102:ALA:O	2.15	0.47
52:S5:124:LEU:HA	72:25:58:ARG:HD2	1.95	0.47
58:11:123:VAL:CG2	58:11:139:VAL:HG13	2.45	0.47
79:RA:85:TRP:HA	79:RA:109:ASP:HB3	1.97	0.47
1:2S:1190:A:N3	1:2S:1190:A:H2'	2.30	0.47
1:2S:3303:G:H5''	1:2S:3377:G:H4'	1.95	0.47
33:71:17:HIS:HB2	33:71:69:TYR:CB	2.43	0.47
8:L5:51:LEU:HB2	8:L5:144:VAL:HG22	1.97	0.47
7:L4:122:THR:O	7:L4:126:ILE:HG13	2.15	0.47
26:64:47:ARG:HG2	26:64:47:ARG:NH1	2.30	0.47
65:18:81:ILE:HG23	65:18:82:PRO:HD2	1.95	0.47
7:L4:188:ARG:HH21	7:L4:197:ARG:HB3	1.78	0.47
10:L7:169:ILE:CG2	10:L7:184:LEU:HD11	2.42	0.47
4:L1:93:LEU:HD21	4:L1:118:LYS:HB2	1.97	0.47
1:2S:3149:G:H4'	6:L3:130:PHE:CZ	2.49	0.47
24:62:43:VAL:CB	24:62:49:ASN:HB3	2.43	0.47
13:50:39:LYS:C	13:50:40:LYS:HD2	2.34	0.47
63:16:90:VAL:HA	63:16:93:HIS:HB2	1.95	0.47
22:60:40:ARG:HA	22:60:43:TYR:HB2	1.96	0.47
36:74:44:CYS:C	36:74:46:ASP:H	2.17	0.47
12:L9:114:VAL:CB	12:L9:124:ARG:HB2	2.44	0.47
1:2S:776:U:C5	1:2S:2719:U:O2	2.68	0.47
1:2S:2365:C:H5''	1:2S:2986:U:O2'	2.14	0.47
21:59:100:ARG:HA	21:59:103:ARG:HB2	1.94	0.47
51:S4:195:ILE:CG2	51:S4:196:VAL:N	2.76	0.47
71:24:20:ARG:C	71:24:21:LYS:HD2	2.35	0.47
46:1S:959:U:H2'	46:1S:959:U:O2	2.14	0.47
1:2S:1537:A:H2'	1:2S:1538:G:C8	2.50	0.47
46:1S:1498:G:C2'	46:1S:1499:G:H5''	2.45	0.47
65:18:40:ARG:NH2	66:19:45:MET:HG2	2.30	0.47
46:1S:245:U:H2'	46:1S:247:A:OP2	2.14	0.47
17:55:80:THR:HB	17:55:87:GLN:HE21	1.79	0.47
10:L7:196:LYS:HD3	10:L7:197:GLN:HE21	1.80	0.47
51:S4:154:ILE:HG12	51:S4:172:PHE:CD2	2.50	0.47
20:58:44:PHE:CE1	20:58:48:VAL:HG21	2.49	0.47
4:L1:207:LYS:HG3	4:L1:211:GLY:O	2.14	0.47
12:L9:90:MET:HG2	12:L9:181:VAL:HA	1.96	0.47
1:2S:918:C:O2'	1:2S:919:U:H5'	2.13	0.47
1:2S:1489:A:H2'	1:2S:1490:A:C8	2.50	0.47
6:L3:139:GLN:O	6:L3:141:GLY:N	2.48	0.47
62:15:80:MET:O	62:15:116:LEU:HD12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:21:62:ARG:CB	68:21:64:GLU:HG2	2.44	0.47
46:1S:279:G:H3'	46:1S:280:U:H4'	1.97	0.47
1:2S:874:U:OP2	6:L3:241:LYS:HE3	2.14	0.47
46:1S:856:A:N7	54:S7:96:ARG:HA	2.29	0.47
63:16:131:GLY:HA3	63:16:137:ARG:HA	1.97	0.47
29:67:135:ARG:NH2	29:67:135:ARG:HG2	2.29	0.47
46:1S:618:U:H2'	46:1S:619:A:H5''	1.96	0.47
4:L1:155:ILE:HG23	4:L1:163:LEU:HD11	1.94	0.47
46:1S:1667:A:H2'	46:1S:1668:G:H8	1.78	0.47
6:L3:300:ARG:CG	53:S6:25:ARG:HH22	2.28	0.47
46:1S:121:U:H1'	51:S4:33:ALA:O	2.14	0.47
46:1S:1769:U:O2	61:14:136:ARG:HD3	2.14	0.47
54:S7:182:VAL:HG12	54:S7:183:PHE:N	2.29	0.47
53:S6:77:LEU:HD12	53:S6:95:LYS:HD3	1.96	0.47
1:2S:2724:U:H4'	23:61:54:HIS:CE1	2.50	0.47
46:1S:882:U:H2'	46:1S:883:C:C6	2.49	0.47
1:2S:9:U:OP1	17:55:40:ALA:HB3	2.14	0.47
52:S5:24:VAL:C	52:S5:25:LEU:HD13	2.34	0.47
1:2S:1372:C:OP2	30:68:7:LYS:HG2	2.15	0.47
26:64:37:ALA:O	26:64:41:LYS:HG3	2.14	0.47
32:70:77:LEU:HD23	32:70:87:VAL:O	2.14	0.47
62:15:47:ARG:HG2	62:15:47:ARG:NH2	2.29	0.47
60:13:2:GLY:HA3	60:13:9:LYS:HA	1.96	0.47
79:RA:172:ALA:HB3	79:RA:202:LEU:HD22	1.95	0.47
1:2S:782:U:H2'	1:2S:783:A:O4'	2.14	0.47
1:2S:2635:A:H4'	1:2S:2636:A:N3	2.30	0.47
12:L9:115:ARG:HH11	12:L9:115:ARG:HG2	1.79	0.47
16:54:42:LYS:O	16:54:60:LEU:HG	2.15	0.47
10:L7:210:PRO:HG3	10:L7:214:TRP:CE2	2.49	0.47
46:1S:1321:A:H8	47:S0:131:GLN:OE1	1.98	0.47
53:S6:147:LEU:HD13	53:S6:152:ASP:O	2.15	0.47
3:5S:82:G:H2'	3:5S:83:U:O4'	2.14	0.47
46:1S:499:U:C6	46:1S:499:U:H3'	2.49	0.47
44:82:70:LEU:CD1	44:82:85:LEU:HD11	2.45	0.47
18:56:76:PRO:HA	18:56:138:LEU:HD21	1.96	0.47
49:S2:66:PHE:CB	49:S2:133:LYS:HG3	2.42	0.47
70:23:125:VAL:HG12	70:23:126:LYS:N	2.30	0.47
1:2S:1238:C:H2'	1:2S:1239:C:H5''	1.96	0.47
27:65:113:LEU:HD11	27:65:121:LYS:CB	2.44	0.47
5:L2:49:VAL:HG22	5:L2:50:HIS:N	2.30	0.47
39:77:47:TYR:CB	39:77:49:TRP:CE2	2.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:72:65:PHE:CB	34:72:72:LYS:HE3	2.39	0.47
1:2S:1449:A:H1'	1:2S:2983:C:C4	2.49	0.47
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
46:1S:1112:G:H2'	46:1S:1113:A:C8	2.50	0.47
58:11:14:GLN:HB3	58:11:54:ILE:CD1	2.45	0.47
33:71:25:PHE:HB3	33:71:65:LYS:HD3	1.96	0.47
8:L5:286:VAL:O	8:L5:290:ILE:HG12	2.14	0.47
7:L4:111:VAL:HG12	7:L4:112:LYS:N	2.30	0.47
54:S7:131:PHE:N	54:S7:132:PRO:CD	2.78	0.47
1:2S:1900:A:H5'	1:2S:1901:A:C5	2.49	0.47
25:63:33:ASN:ND2	25:63:63:LYS:HB3	2.28	0.47
46:1S:965:U:H3'	46:1S:966:A:C5'	2.44	0.47
18:56:24:ALA:HB2	18:56:87:MET:CE	2.45	0.47
71:24:57:VAL:HG22	71:24:60:PHE:HE2	1.79	0.47
39:77:64:MET:HB3	39:77:68:LYS:HG3	1.97	0.47
51:S4:225:VAL:O	51:S4:226:PHE:HB2	2.15	0.47
46:1S:821:U:O4	46:1S:851:U:O2	2.33	0.47
5:L2:177:LYS:HA	5:L2:178:PRO:HD3	1.73	0.47
46:1S:1026:A:H2	46:1S:1791:A:O4'	1.97	0.47
2:8S:149:A:H2'	2:8S:150:G:C8	2.49	0.47
46:1S:1681:A:N6	46:1S:1720:G:O2'	2.48	0.47
46:1S:640:U:H2'	46:1S:641:G:O4'	2.15	0.47
14:51:37:LEU:HD22	14:51:69:VAL:HG12	1.97	0.47
76:29:19:ARG:HG3	76:29:19:ARG:HH11	1.79	0.47
68:21:2:GLU:HG2	68:21:8:LEU:HA	1.95	0.47
1:2S:276:U:H2'	1:2S:277:G:O4'	2.14	0.47
1:2S:1771:C:H2'	1:2S:1772:U:O4'	2.15	0.47
16:54:127:LYS:O	16:54:131:VAL:HG23	2.14	0.47
13:50:165:ILE:O	13:50:165:ILE:HG12	2.14	0.47
17:55:16:SER:HG	17:55:19:LEU:HD13	1.80	0.47
1:2S:652:G:N2	1:2S:2361:A:H1'	2.29	0.47
36:74:22:VAL:HA	36:74:32:ALA:CA	2.41	0.47
46:1S:818:C:H2'	46:1S:819:G:C5'	2.39	0.47
1:2S:672:A:H5''	20:58:21:SER:HB2	1.97	0.47
7:L4:39:PHE:O	7:L4:43:ASN:OD1	2.32	0.47
20:58:51:ALA:HB3	20:58:84:VAL:HG11	1.96	0.47
16:54:106:ARG:HG3	16:54:106:ARG:NH1	2.29	0.47
67:20:48:HIS:NE2	67:20:99:ILE:HG12	2.30	0.47
1:2S:744:A:H2'	1:2S:745:C: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)
23:61:102:ARG:O	23:61:106:LEU:HD23	2.15	0.47
63:16:10:PHE:HA	63:16:19:VAL:HA	1.97	0.47
58:11:14:GLN:HB3	58:11:54:ILE:HD13	1.96	0.47
25:63:71:LYS:HB3	25:63:71:LYS:HZ3	1.79	0.47
46:1S:1274:C:H4'	46:1S:1276:U:OP2	2.15	0.47
46:1S:618:U:H4'	46:1S:1030:A:C6	2.49	0.47
79:RA:152:SER:O	79:RA:153:GLN:HG3	2.15	0.47
36:74:58:ARG:HG3	36:74:59:PRO:HD2	1.96	0.47
47:S0:197:ILE:H	47:S0:197:ILE:CD1	2.28	0.47
1:2S:1435:A:H5''	1:2S:1436:U:C5'	2.44	0.47
41:79:27:ILE:HA	41:79:30:ARG:HG3	1.97	0.47
71:24:22:GLN:HB2	71:24:72:PHE:HZ	1.79	0.47
1:2S:619:A:C5'	1:2S:620:U:C2	2.98	0.47
27:65:51:VAL:HA	27:65:52:PRO:HD3	1.68	0.47
69:22:56:HIS:C	69:22:57:ARG:HD2	2.35	0.47
1:2S:1744:G:H2'	1:2S:1745:C:C6	2.50	0.47
9:L6:152:THR:HA	9:L6:153:PRO:HD3	1.70	0.47
1:2S:2655:U:C5	44:82:4:VAL:HG12	2.49	0.47
1:2S:2749:G:O2'	8:L5:35:ARG:HD3	2.14	0.47
30:68:71:PRO:HB2	30:68:109:TYR:HA	1.95	0.47
1:2S:2485:A:H2'	1:2S:2486:A:H5'	1.97	0.47
1:2S:1732:U:H2'	1:2S:1733:G:H5'	1.97	0.47
12:L9:31:ARG:HH11	12:L9:31:ARG:HG3	1.80	0.47
1:2S:1349:G:N3	1:2S:1349:G:H3'	2.30	0.47
4:L1:97:LYS:O	4:L1:97:LYS:HG2	2.14	0.47
1:2S:2137:U:H2'	1:2S:2141:U:O4	2.15	0.47
1:2S:1203:A:C2	1:2S:2855:U:O2'	2.62	0.47
5:L2:15:ILE:O	5:L2:194:ASN:HB3	2.14	0.47
46:1S:1392:U:H2'	46:1S:1393:C:C6	2.50	0.47
16:54:72:LEU:CD2	16:54:84:LYS:HB2	2.45	0.47
6:L3:232:ARG:CA	6:L3:270:ARG:HD2	2.38	0.47
61:14:114:ARG:HA	73:26:62:TYR:CE1	2.50	0.47
49:S2:38:VAL:O	49:S2:39:THR:OG1	2.30	0.47
46:1S:185:U:C3'	46:1S:186:C:H5''	2.44	0.47
46:1S:1789:G:H2'	46:1S:1790:A:C8	2.50	0.47
46:1S:607:G:O4'	46:1S:613:G:N2	2.47	0.47
7:L4:22:LEU:HA	7:L4:23:PRO:HD3	1.78	0.47
22:60:80:ARG:HD2	23:61:156:TYR:N	2.30	0.47
65:18:5:VAL:O	72:25:42:LEU:HD13	2.14	0.47
1:2S:2131:A:C5	1:2S:2188:A:H1'	2.49	0.47
1:2S:1144:U:C4	1:2S:1366:A:C2	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:6:G:H3'	49:S2:205:ARG:HH12	1.80	0.47
1:2S:987:U:C5'	10:L7:125:GLU:HG3	2.45	0.47
50:S3:168:ILE:HG22	50:S3:189:MET:CB	2.41	0.47
73:26:12:LYS:HA	73:26:15:ARG:HE	1.80	0.47
1:2S:740:G:O2'	1:2S:741:U:H5'	2.15	0.47
73:26:71:LEU:N	73:26:71:LEU:HD22	2.29	0.47
21:59:138:LEU:O	21:59:142:ILE:HG13	2.15	0.47
1:2S:771:A:H2'	1:2S:772:U:C6	2.50	0.47
54:S7:39:ARG:N	54:S7:40:PRO:CD	2.78	0.47
36:74:41:ARG:NH2	36:74:52:GLN:HA	2.30	0.47
46:1S:1472:C:H42	46:1S:1536:G:H1	1.60	0.47
14:51:87:LYS:O	14:51:88:GLU:HB2	2.15	0.47
50:S3:5:ILE:HG22	50:S3:6:SER:N	2.30	0.47
7:L4:130:ALA:O	7:L4:131:VAL:HB	2.14	0.47
1:2S:2708:C:H2'	1:2S:2709:C:C6	2.50	0.47
3:5S:43:U:H4'	14:51:140:ARG:O	2.14	0.47
8:L5:122:VAL:HG22	8:L5:168:ASP:HB3	1.96	0.47
1:2S:2828:G:H3'	1:2S:2829:U:C6	2.50	0.47
46:1S:1025:A:H5''	46:1S:1027:A:N7	2.30	0.47
70:23:52:ILE:C	70:23:74:VAL:HG13	2.35	0.47
46:1S:473:A:H2'	46:1S:474:A:O4'	2.14	0.47
53:S6:220:LYS:O	53:S6:220:LYS:HD2	2.14	0.47
59:12:43:ARG:HA	59:12:121:VAL:HG12	1.97	0.47
79:RA:42:LEU:HD21	79:RA:82:SER:HB3	1.96	0.47
57:10:69:THR:HB	57:10:70:GLU:H	1.56	0.47
24:62:71:PHE:CE2	24:62:75:TYR:CD2	3.03	0.47
25:63:76:ALA:C	25:63:77:ILE:HD12	2.36	0.46
46:1S:97:C:H2'	46:1S:98:U:C6	2.50	0.46
69:22:80:ASN:N	69:22:80:ASN:ND2	2.62	0.46
23:61:51:GLY:HA3	23:61:92:ARG:HB2	1.97	0.46
77:30:48:THR:HB	77:30:49:LEU:H	1.49	0.46
60:13:113:PHE:CE1	60:13:114:ARG:NH1	2.83	0.46
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
48:S1:27:LYS:HD2	48:S1:48:VAL:O	2.15	0.46
46:1S:1564:U:H2'	46:1S:1565:C:C6	2.49	0.46
5:L2:45:VAL:CG1	5:L2:84:THR:HA	2.45	0.46
10:L7:136:TYR:CD1	10:L7:136:TYR:N	2.83	0.46
14:51:16:LYS:HG2	14:51:130:VAL:HG12	1.96	0.46
46:1S:992:A:H2	46:1S:1012:U:N3	2.09	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1133:A:H2'	46:1S:1134:C:C6	2.50	0.46
70:23:57:LEU:HB3	70:23:59:ILE:HD11	1.96	0.46
79:RA:260:ILE:HB	79:RA:274:LEU:HD12	1.95	0.46
24:62:92:TRP:HB3	24:62:107:PHE:CZ	2.50	0.46
63:16:50:GLU:O	63:16:54:LEU:HD23	2.15	0.46
14:51:80:LEU:C	14:51:80:LEU:HD23	2.36	0.46
46:1S:1109:G:H2'	46:1S:1110:G:C8	2.50	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
5:L2:146:THR:C	5:L2:157:VAL:HG23	2.35	0.46
10:L7:210:PRO:HG3	10:L7:214:TRP:NE1	2.30	0.46
79:RA:40:LYS:HA	79:RA:66:HIS:O	2.15	0.46
1:2S:2598:G:H4'	17:55:69:GLY:HA2	1.98	0.46
21:59:5:ARG:HG2	21:59:5:ARG:NH1	2.29	0.46
12:L9:110:LYS:O	12:L9:128:VAL:HG23	2.15	0.46
46:1S:1548:G:H2'	46:1S:1549:C:C6	2.49	0.46
29:67:75:VAL:HG22	29:67:76:ASN:N	2.30	0.46
1:2S:3144:G:H2'	1:2S:3145:C:O4'	2.14	0.46
63:16:66:ARG:HH11	63:16:66:ARG:HG2	1.80	0.46
46:1S:1028:C:H5'	46:1S:1031:U:OP2	2.15	0.46
44:82:35:LEU:HB3	44:82:36:PHE:H	1.52	0.46
46:1S:1137:A:H1'	46:1S:1138:A:H1'	1.97	0.46
67:20:104:THR:HG22	67:20:116:VAL:HG21	1.97	0.46
23:61:40:VAL:HB	23:61:96:ILE:HG23	1.97	0.46
1:2S:269:G:O6	17:55:14:LYS:HB2	2.15	0.46
55:S8:26:LYS:NZ	55:S8:29:LEU:HD13	2.30	0.46
6:L3:238:LEU:HB2	6:L3:246:LEU:HA	1.96	0.46
66:19:25:GLN:HG2	66:19:27:LYS:HD3	1.97	0.46
1:2S:1096:U:H5''	23:61:129:LYS:HE2	1.97	0.46
1:2S:1813:A:H3'	1:2S:1813:A:N3	2.29	0.46
14:51:48:SER:HB2	14:51:66:ALA:CB	2.35	0.46
54:S7:51:VAL:HG11	54:S7:168:SER:HB3	1.97	0.46
58:11:70:ILE:HD12	58:11:70:ILE:H	1.79	0.46
53:S6:81:VAL:CG2	53:S6:82:SER:H	2.21	0.46
48:S1:103:MET:HE3	48:S1:105:PHE:HE2	1.80	0.46
1:2S:997:A:H4'	3:5S:80:G:H5'	1.98	0.46
57:10:50:THR:HG22	57:10:55:VAL:HG13	1.97	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
48:S1:145:LYS:HB3	48:S1:149:GLN:HG2	1.97	0.46
46:1S:1740:A:H2'	46:1S:1741:U:H6	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L1:91:LYS:C	4:L1:93:LEU:H	2.18	0.46
66:19:7:ARG:NH2	66:19:67:MET:HA	2.30	0.46
7:L4:90:PHE:O	7:L4:98:ARG:HB3	2.15	0.46
15:53:164:GLU:O	15:53:165:SER:HB3	2.15	0.46
1:2S:2493:U:H5''	4:L1:162:VAL:CB	2.45	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
46:1S:767:U:H3'	46:1S:767:U:O2	2.15	0.46
1:2S:3268:A:H3'	1:2S:3269:U:H3'	1.97	0.46
3:5S:67:G:H2'	3:5S:68:C:H6	1.80	0.46
46:1S:1128:C:H2'	46:1S:1129:U:O4'	2.14	0.46
18:56:118:VAL:HB	22:60:164:SER:O	2.16	0.46
8:L5:126:GLU:O	8:L5:196:ARG:HB2	2.15	0.46
46:1S:1517:U:H2'	46:1S:1518:C:H5	1.80	0.46
46:1S:1208:A:C2	46:1S:1209:C:C6	3.03	0.46
1:2S:1908:A:C2	1:2S:2336:U:H5'	2.50	0.46
19:57:112:LEU:HD23	19:57:150:VAL:CG2	2.45	0.46
1:2S:1481:A:H3'	1:2S:1858:A:O2'	2.16	0.46
5:L2:46:LYS:HB3	5:L2:60:LYS:HB2	1.97	0.46
1:2S:2322:C:C2'	1:2S:2323:G:H5'	2.45	0.46
46:1S:1281:G:H4'	67:20:75:GLY:HA3	1.96	0.46
1:2S:1677:G:H1	1:2S:1691:U:H3	1.62	0.46
46:1S:990:C:H2'	46:1S:991:G:O4'	2.16	0.46
13:50:55:ASN:OD1	13:50:164:LYS:HE2	2.15	0.46
47:S0:77:SER:HB2	47:S0:86:VAL:HG11	1.97	0.46
20:58:71:LEU:HD13	20:58:97:PRO:HG3	1.97	0.46
21:59:133:LYS:HG2	21:59:133:LYS:O	2.15	0.46
46:1S:261:U:H6	46:1S:261:U:H5'	1.80	0.46
1:2S:3337:G:H2'	1:2S:3338:C:C6	2.49	0.46
44:82:40:LYS:O	44:82:43:TYR:HB3	2.15	0.46
50:S3:208:ILE:HD13	64:17:39:ALA:HB2	1.98	0.46
16:54:72:LEU:HD13	16:54:73:PRO:CD	2.44	0.46
19:57:124:LYS:HA	19:57:141:SER:O	2.15	0.46
70:23:91:GLY:C	70:23:93:LEU:H	2.18	0.46
48:S1:181:LEU:HD22	48:S1:181:LEU:H	1.79	0.46
46:1S:144:U:HO2'	46:1S:145:A:H2'	1.80	0.46
49:S2:69:ILE:HG12	49:S2:133:LYS:HB3	1.96	0.46
52:S5:120:ILE:O	52:S5:124:LEU:HD13	2.15	0.46
70:23:87:VAL:HA	70:23:124:VAL:CG2	2.45	0.46
25:63:125:LEU:CD2	25:63:126:TRP:HE1	2.18	0.46
33:71:62:ARG:HG3	33:71:62:ARG:NH1	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:13:113:PHE:HE1	60:13:114:ARG:NH1	2.12	0.46
1:2S:3157:U:H4'	1:2S:3158:G:O5'	2.15	0.46
22:60:12:ARG:HH11	22:60:21:GLU:HG2	1.80	0.46
5:L2:45:VAL:HG13	5:L2:85:GLY:N	2.24	0.46
1:2S:951:A:N6	1:2S:1369:A:H1'	2.30	0.46
14:51:100:GLY:HA3	14:51:154:THR:HB	1.96	0.46
33:71:29:ALA:HB3	33:71:30:PRO:HD3	1.96	0.46
46:1S:942:G:H5'	46:1S:977:A:C4'	2.43	0.46
55:S8:81:VAL:HG23	55:S8:94:ASN:HA	1.98	0.46
27:65:82:LEU:HB3	27:65:84:PHE:CZ	2.51	0.46
18:56:89:SER:O	18:56:95:GLY:HA3	2.15	0.46
1:2S:3067:C:H3'	21:59:62:ARG:HH12	1.77	0.46
54:S7:162:ILE:HB	54:S7:169:PHE:CZ	2.51	0.46
1:2S:120:G:H5'	11:L8:129:PRO:HG3	1.96	0.46
46:1S:1477:G:H2'	46:1S:1478:G:H8	1.80	0.46
66:19:92:LYS:CE	66:19:94:ILE:HD11	2.45	0.46
49:S2:65:GLU:HB2	49:S2:68:ILE:CD1	2.45	0.46
1:2S:1831:U:H5'	27:65:91:ASN:HB2	1.98	0.46
1:2S:1663:C:H2'	1:2S:1664:G:H8	1.81	0.46
70:23:19:ARG:O	70:23:23:ARG:HG2	2.15	0.46
1:2S:2723:U:O2'	1:2S:2724:U:H5'	2.15	0.46
1:2S:279:U:H3	1:2S:286:U:H3	1.61	0.46
46:1S:66:U:O2'	46:1S:67:A:H5'	2.15	0.46
1:2S:17:G:C2	1:2S:18:G:H1'	2.49	0.46
47:S0:27:ARG:HG2	47:S0:28:ASN:N	2.31	0.46
1:2S:2659:G:H2'	1:2S:2660:G:O4'	2.15	0.46
1:2S:91:G:H5''	44:82:46:LYS:HE3	1.98	0.46
53:S6:85:ARG:HH11	53:S6:85:ARG:HG2	1.79	0.46
1:2S:1146:C:H4'	1:2S:1331:U:C5	2.50	0.46
74:27:11:THR:O	74:27:15:GLU:HB2	2.16	0.46
1:2S:892:U:H2'	1:2S:893:C:O4'	2.15	0.46
56:S9:159:ALA:O	56:S9:165:GLY:HA3	2.15	0.46
1:2S:445:G:H2'	1:2S:446:U:O4'	2.15	0.46
1:2S:908:G:H4'	1:2S:909:G:O5'	2.16	0.46
46:1S:491:C:H2'	46:1S:492:A:H5'	1.98	0.46
43:81:6:ARG:HG3	43:81:6:ARG:HH11	1.81	0.46
10:L7:179:LEU:H	10:L7:179:LEU:HD13	1.79	0.46
18:56:189:ASP:O	18:56:193:GLN:HG3	2.16	0.46
35:73:58:GLU:HB2	35:73:63:LYS:HG2	1.97	0.46
25:63:102:ILE:CG2	25:63:110:LYS:HB3	2.45	0.46
39:77:25:ARG:CD	39:77:25:ARG:O	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1887:A:H4'	6:L3:227:GLU:HA	1.97	0.46
6:L3:233:TRP:O	6:L3:234:GLY:C	2.53	0.46
69:22:80:ASN:HD21	69:22:124:LYS:HG2	1.73	0.46
1:2S:1844:C:H2'	1:2S:1845:G:C4'	2.45	0.46
1:2S:3010:U:O2'	1:2S:3011:A:H2'	2.16	0.46
34:72:106:VAL:HA	34:72:109:LEU:HD12	1.97	0.46
56:S9:179:ARG:CA	56:S9:182:GLU:HG2	2.37	0.46
55:S8:42:ARG:HG2	55:S8:58:LEU:HB2	1.98	0.46
48:S1:137:ILE:HD12	48:S1:172:LEU:HD22	1.98	0.46
46:1S:1216:C:O3'	46:1S:1217:A:H3'	2.15	0.46
53:S6:27:PHE:HZ	53:S6:41:VAL:HG21	1.80	0.46
1:2S:2730:G:H2'	1:2S:2731:U:H5'	1.98	0.46
75:28:14:LYS:HB3	75:28:29:ARG:CD	2.43	0.46
29:67:121:ARG:NH1	29:67:126:LYS:HB3	2.30	0.46
14:51:92:ARG:HA	14:51:171:VAL:O	2.16	0.46
5:L2:72:ARG:HB2	5:L2:72:ARG:CZ	2.46	0.46
46:1S:682:C:C2'	46:1S:683:C:H5'	2.44	0.46
61:14:17:ALA:N	61:14:79:VAL:HG22	2.28	0.46
66:19:52:GLY:C	66:19:54:PHE:H	2.19	0.46
54:S7:117:THR:HG22	54:S7:120:ALA:HB2	1.96	0.46
23:61:27:LEU:HD13	23:61:30:TYR:CD2	2.50	0.46
14:51:59:ILE:CG2	14:51:65:ILE:HD12	2.45	0.46
1:2S:905:U:H2'	1:2S:906:A:H5'	1.97	0.46
74:27:81:ARG:O	74:27:82:LYS:CB	2.64	0.46
62:15:87:PRO:HA	62:15:90:ILE:CD1	2.45	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:1363:U:H3'	46:1S:1364:G:C5'	2.45	0.46
1:2S:1526:U:H5'	1:2S:1594:A:C6	2.51	0.46
1:2S:2607:G:O5'	5:L2:233:GLN:HG2	2.15	0.46
1:2S:91:G:H5''	44:82:46:LYS:NZ	2.29	0.46
48:S1:86:LEU:HD22	48:S1:86:LEU:N	2.30	0.46
1:2S:137:G:H2'	1:2S:138:U:C6	2.50	0.46
68:21:53:TYR:CD1	68:21:72:LEU:HD13	2.50	0.46
46:1S:629:U:H2'	46:1S:630:A:O4'	2.15	0.46
46:1S:1416:G:O2'	63:16:125:GLU:OE2	2.31	0.46
10:L7:229:PHE:CD1	10:L7:229:PHE:C	2.89	0.46
46:1S:775:G:H8	46:1S:775:G:O5'	1.98	0.46
79:RA:49:GLY:HA2	79:RA:54:PHE:HA	1.96	0.46
70:23:76:LEU:CD1	70:23:79:ASN:HB2	2.24	0.46
46:1S:386:G:H5''	55:S8:23:LYS:HE2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:299:G:C4	38:76:31:GLY:HA3	2.50	0.46
56:S9:169:PRO:HD2	56:S9:174:ARG:CZ	2.46	0.46
6:L3:261:MET:HG3	18:56:64:PHE:HB3	1.98	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
64:17:110:VAL:HG11	64:17:117:LEU:CG	2.35	0.46
69:22:15:ASN:O	69:22:19:LYS:HG3	2.15	0.46
1:2S:3116:G:H3'	1:2S:3117:C:C6	2.51	0.46
58:11:117:VAL:CG1	58:11:118:GLN:N	2.78	0.46
53:S6:76:LEU:HA	53:S6:94:ARG:HA	1.98	0.46
46:1S:1570:A:H2'	46:1S:1571:C:O4'	2.16	0.46
52:S5:57:SER:HB3	75:28:53:ILE:HB	1.96	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
7:L4:132:ALA:CB	7:L4:148:ILE:HD12	2.46	0.46
7:L4:58:HIS:HA	7:L4:90:PHE:HD1	1.80	0.46
1:2S:717:C:H41	1:2S:751:A:C4'	2.25	0.46
3:5S:77:G:H22	3:5S:101:G:H2'	1.79	0.46
1:2S:1927:G:C3'	1:2S:1927:G:N3	2.77	0.46
42:80:80:PRO:HA	42:80:83:LYS:NZ	2.31	0.46
15:53:46:ILE:HG23	15:53:49:ARG:HH21	1.79	0.46
46:1S:555:A:H2'	46:1S:556:A:N7	2.31	0.46
1:2S:2638:C:H3'	1:2S:2639:G:H8	1.80	0.46
69:22:81:VAL:HG11	69:22:86:ILE:CG2	2.45	0.46
44:82:63:LYS:HE2	44:82:87:ARG:HH12	1.79	0.46
33:71:13:THR:HG23	33:71:72:ARG:HD3	1.96	0.46
53:S6:13:GLN:HA	53:S6:124:LEU:HD13	1.97	0.46
1:2S:1662:G:H2'	1:2S:1663:C:C6	2.51	0.46
10:L7:100:ARG:HA	10:L7:103:LEU:HD12	1.98	0.46
65:18:133:VAL:O	65:18:133:VAL:HG22	2.16	0.46
19:57:159:LYS:CG	19:57:160:ALA:H	2.29	0.46
46:1S:1615:C:H5''	75:28:18:ARG:NH2	2.31	0.46
78:31:120:GLU:HB3	78:31:131:PHE:HD1	1.80	0.46
39:77:24:ARG:O	39:77:24:ARG:HG2	2.16	0.46
65:18:3:LEU:N	65:18:3:LEU:HD13	2.31	0.46
55:S8:5:ARG:HG3	55:S8:5:ARG:HH11	1.81	0.46
1:2S:2331:C:H2'	1:2S:2332:A:C8	2.50	0.46
3:5S:24:A:O2'	3:5S:25:G:H5'	2.15	0.46
1:2S:2060:A:C2'	1:2S:2061:G:H5'	2.45	0.46
1:2S:2478:C:H2'	1:2S:2479:C:C6	2.51	0.46
77:30:46:ASN:O	77:30:47:VAL:HG12	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:122:ALA:HA	49:S2:125:ILE:CD1	2.44	0.46
1:2S:1238:C:C2'	1:2S:1239:C:H5''	2.46	0.46
49:S2:206:THR:HG23	49:S2:206:THR:O	2.15	0.46
56:S9:132:ARG:HD2	56:S9:142:ASN:CB	2.41	0.46
69:22:53:ILE:HG12	69:22:60:LYS:HB2	1.97	0.46
1:2S:3301:U:H3	1:2S:3313:U:H3	1.62	0.46
60:13:141:TYR:CD1	60:13:142:GLU:N	2.84	0.46
69:22:93:LEU:HD12	69:22:128:PHE:CD1	2.51	0.46
9:L6:171:PRO:HA	9:L6:174:LEU:CD1	2.44	0.46
47:S0:180:GLU:OE2	47:S0:183:ARG:HD3	2.15	0.46
46:1S:229:U:H2'	46:1S:230:C:C6	2.50	0.46
1:2S:911:C:H3'	5:L2:9:ARG:HH11	1.75	0.46
7:L4:95:ARG:NH1	7:L4:95:ARG:HG2	2.28	0.46
19:57:4:TYR:CE1	19:57:147:GLU:HB2	2.50	0.46
46:1S:1567:U:H2'	46:1S:1568:C:H5'	1.97	0.46
4:L1:207:LYS:HB3	4:L1:207:LYS:NZ	2.30	0.46
76:29:23:VAL:HG23	76:29:38:ILE:HD12	1.97	0.46
7:L4:352:ALA:O	7:L4:355:PHE:HB3	2.15	0.46
10:L7:138:TYR:H	10:L7:233:GLU:HA	1.80	0.46
1:2S:927:C:O2'	1:2S:928:C:H5'	2.16	0.46
62:15:22:LEU:CD1	62:15:109:PRO:HB3	2.45	0.46
37:75:44:ILE:O	37:75:47:VAL:HG12	2.16	0.46
52:S5:184:PHE:O	52:S5:185:ARG:HB2	2.15	0.46
46:1S:1519:U:H2'	46:1S:1520:U:C5	2.50	0.46
25:63:81:GLN:H	25:63:95:PHE:HD2	1.63	0.46
49:S2:106:ASP:O	49:S2:190:LEU:HD23	2.15	0.46
7:L4:8:VAL:HG21	7:L4:18:ASN:HD22	1.80	0.46
46:1S:510:G:C2	46:1S:511:A:H1'	2.50	0.46
40:78:19:ASP:O	40:78:21:LYS:HE2	2.16	0.46
1:2S:1338:C:O2'	34:72:59:SER:HA	2.16	0.46
37:75:99:GLN:HA	37:75:99:GLN:OE1	2.15	0.46
68:21:36:VAL:HB	68:21:51:VAL:HB	1.98	0.46
78:31:119:ARG:HG3	78:31:119:ARG:HH21	1.78	0.46
46:1S:478:A:C5'	56:S9:123:HIS:HB3	2.41	0.46
57:10:21:VAL:HG12	57:10:66:TYR:HD2	1.81	0.46
34:72:25:TYR:HB2	34:72:28:VAL:HG23	1.97	0.46
1:2S:858:A:C2	45:83:13:LYS:HB2	2.51	0.46
27:65:108:LEU:HD22	27:65:125:ARG:HD3	1.98	0.46
52:S5:42:LEU:HD12	52:S5:45:LYS:C	2.36	0.46
73:26:9:GLY:HA3	73:26:34:LYS:HE2	1.97	0.46
1:2S:3044:G:H5''	6:L3:12:GLY:CA	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L8:139:VAL:O	11:L8:143:ILE:HG13	2.15	0.46
38:76:17:VAL:HG12	38:76:18:THR:N	2.31	0.46
7:L4:300:ARG:HG2	20:58:39:ARG:O	2.15	0.46
1:2S:1717:U:H2'	1:2S:1718:G:H8	1.76	0.46
1:2S:987:U:H5'	10:L7:125:GLU:HG3	1.98	0.46
33:71:29:ALA:N	33:71:30:PRO:CD	2.79	0.46
11:L8:122:LYS:N	11:L8:122:LYS:HD3	2.25	0.46
2:8S:139:U:H2'	2:8S:140:G:H8	1.80	0.46
1:2S:1682:U:H3'	24:62:85:LYS:CE	2.43	0.46
21:59:189:ALA:HB1	54:S7:35:LYS:HZ2	1.79	0.46
59:12:46:ARG:HG3	78:31:103:LEU:HD11	1.96	0.46
46:1S:320:U:H3'	46:1S:320:U:OP2	2.16	0.46
46:1S:1414:U:H3'	46:1S:1415:U:C5'	2.46	0.46
65:18:88:ARG:NH2	65:18:88:ARG:CB	2.78	0.46
49:S2:225:LEU:HB2	69:22:70:ASN:HD21	1.81	0.46
62:15:49:MET:HA	62:15:52:LYS:HZ2	1.81	0.46
46:1S:767:U:H5'	71:24:63:GLN:HE21	1.80	0.46
37:75:14:LYS:HE2	37:75:62:GLN:HG2	1.97	0.46
13:50:178:ARG:O	13:50:182:LEU:HG	2.15	0.46
27:65:27:ARG:N	27:65:27:ARG:HD2	2.30	0.46
46:1S:1196:A:H4'	46:1S:1197:C:O5'	2.15	0.46
48:S1:21:VAL:HG23	48:S1:22:ASP:H	1.81	0.46
12:L9:50:ASN:HB3	12:L9:51:GLN:NE2	2.31	0.46
1:2S:2525:G:H2'	5:L2:34:TYR:CD1	2.50	0.46
59:12:125:ASN:C	59:12:127:GLY:H	2.18	0.46
55:S8:83:TYR:O	55:S8:101:ILE:HB	2.15	0.46
24:62:21:SER:HB2	24:62:22:PRO:HD3	1.97	0.46
1:2S:737:G:H2'	1:2S:738:A:C8	2.51	0.46
45:83:12:GLY:C	45:83:14:TYR:H	2.19	0.46
68:21:5:LYS:H	68:21:5:LYS:HD3	1.81	0.46
1:2S:309:U:O5'	1:2S:309:U:H6	1.97	0.46
55:S8:170:SER:OG	55:S8:181:GLY:HA2	2.16	0.46
1:2S:3246:G:H4'	1:2S:3247:G:C8	2.51	0.46
1:2S:1482:A:H4'	1:2S:1483:G:OP2	2.16	0.46
1:2S:3176:G:O2'	1:2S:3177:G:H5'	2.16	0.46
1:2S:296:A:O2'	1:2S:297:G:H5'	2.16	0.46
46:1S:1590:G:OP1	66:19:91:TYR:HB2	2.16	0.46
46:1S:435:C:H5''	70:23:50:LYS:HE2	1.98	0.46
65:18:14:ILE:HD12	65:18:21:ASN:HB3	1.94	0.46
43:81:11:ARG:HH21	46:1S:1126:G:C4'	2.24	0.46
1:2S:578:A:H2'	7:L4:334:PHE:HD2	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:S1:70:LEU:HB3	48:S1:84:ILE:HG12	1.98	0.46
1:2S:636:C:N4	1:2S:2375:G:C6	2.81	0.46
38:76:53:TYR:O	38:76:57:LEU:HD23	2.15	0.46
45:83:20:SER:HA	45:83:23:ARG:CD	2.45	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
1:2S:819:U:C2'	1:2S:820:A:H5'	2.46	0.46
54:S7:152:VAL:HG23	54:S7:181:ILE:HD11	1.98	0.46
29:67:118:PHE:HA	29:67:121:ARG:CB	2.46	0.46
15:53:169:THR:HA	15:53:172:LEU:CD1	2.44	0.46
56:S9:90:LYS:C	56:S9:92:LYS:H	2.18	0.46
1:2S:2604:U:H2'	1:2S:2605:G:O4'	2.16	0.46
2:8S:14:C:O5'	2:8S:14:C:H6	1.99	0.46
54:S7:130:VAL:HB	54:S7:133:THR:OG1	2.16	0.46
45:83:59:CYS:O	45:83:60:CYS:CB	2.62	0.46
60:13:25:TRP:CH2	74:27:45:THR:HG21	2.48	0.46
46:1S:1163:A:C2	46:1S:1613:U:H1'	2.51	0.46
1:2S:2492:C:H5''	4:L1:39:LYS:HD2	1.98	0.46
1:2S:915:A:H3'	1:2S:915:A:N3	2.31	0.46
17:55:145:ASP:OD1	17:55:147:ARG:HB2	2.16	0.46
1:2S:914:A:C8	1:2S:914:A:OP1	2.69	0.46
1:2S:2153:U:H4'	5:L2:244:GLY:O	2.16	0.46
1:2S:591:G:H21	9:L6:18:LEU:HB3	1.81	0.46
1:2S:1473:G:H5'	21:59:24:LEU:O	2.16	0.46
5:L2:205:ASN:HB3	5:L2:206:PRO:HD2	1.97	0.46
49:S2:54:GLU:HB3	68:21:12:TYR:HB2	1.97	0.46
19:57:60:PHE:CD1	19:57:64:ASN:HB3	2.50	0.46
11:L8:33:ASN:O	11:L8:39:ALA:HB3	2.16	0.46
44:82:2:VAL:O	44:82:92:GLU:HG3	2.16	0.46
27:65:103:TYR:C	27:65:105:VAL:H	2.19	0.46
20:58:42:ALA:HA	20:58:43:PRO:HD3	1.68	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
8:L5:283:ALA:O	8:L5:287:ALA:HB2	2.15	0.46
46:1S:295:A:H2'	46:1S:296:U:C6	2.51	0.46
1:2S:3251:U:H2'	1:2S:3252:G:C8	2.51	0.46
42:80:119:ASN:ND2	42:80:119:ASN:H	2.14	0.46
50:S3:135:GLU:HB3	50:S3:187:LYS:HB3	1.98	0.46
67:20:97:VAL:O	67:20:101:LYS:HB2	2.16	0.46
15:53:128:ARG:CZ	37:75:112:PRO:HD2	2.46	0.46
1:2S:1862:U:H2'	1:2S:1863:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:26:61:GLU:O	73:26:62:TYR:HB3	2.15	0.46
36:74:20:ILE:HD11	36:74:34:HIS:CE1	2.51	0.46
24:62:95:PHE:HD1	24:62:105:LEU:HD11	1.81	0.46
48:S1:176:VAL:CG1	48:S1:177:GLN:H	2.18	0.46
25:63:39:VAL:CG1	25:63:40:LYS:N	2.79	0.46
7:L4:138:ARG:NH1	7:L4:246:ARG:HG2	2.31	0.46
65:18:15:LEU:O	65:18:21:ASN:HA	2.16	0.46
1:2S:1523:U:C5'	27:65:113:LEU:HB3	2.38	0.46
1:2S:1218:U:H3	1:2S:1287:A:H61	1.62	0.46
69:22:15:ASN:HD21	69:22:72:CYS:H	1.63	0.46
1:2S:3298:C:H2'	1:2S:3299:A:C8	2.33	0.46
1:2S:2102:U:H2'	1:2S:2103:U:H6	1.72	0.46
7:L4:316:ASN:ND2	7:L4:319:LYS:NZ	2.64	0.46
41:79:3:ALA:O	41:79:4:GLN:HG3	2.16	0.46
8:L5:27:LYS:HG2	14:51:144:CYS:SG	2.56	0.46
21:59:21:LYS:HE3	21:59:56:THR:N	2.29	0.46
46:1S:593:U:H4'	46:1S:595:G:H4'	1.97	0.46
25:63:54:LEU:HD12	25:63:78:VAL:HG11	1.95	0.46
1:2S:725:G:H2'	1:2S:726:G:O4'	2.16	0.46
30:68:74:ASN:C	30:68:76:ASP:H	2.19	0.46
46:1S:1021:C:H2'	46:1S:1022:C:O4'	2.15	0.46
14:51:82:ARG:HG2	14:51:112:LEU:HB2	1.98	0.46
65:18:66:LEU:O	65:18:70:VAL:HG23	2.16	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
6:L3:244:ARG:HB2	6:L3:244:ARG:NH1	2.31	0.46
1:2S:3229:G:H2'	1:2S:3230:G:C8	2.51	0.46
73:26:87:ARG:HB3	73:26:91:ASP:CB	2.45	0.46
46:1S:510:G:N2	46:1S:511:A:H1'	2.31	0.46
60:13:58:HIS:HB3	60:13:59:GLY:H	1.61	0.46
13:50:21:ARG:HG2	13:50:22:TYR:CE1	2.50	0.46
76:29:46:LYS:HA	76:29:49:ASP:OD2	2.15	0.46
1:2S:1119:C:O5'	1:2S:1119:C:H6	1.98	0.46
57:10:96:ASN:HA	57:10:96:ASN:HD22	1.56	0.46
18:56:140:LYS:N	18:56:140:LYS:CD	2.79	0.46
66:19:114:VAL:HG22	66:19:115:GLU:H	1.80	0.46
1:2S:1676:A:H5''	24:62:101:ASN:ND2	2.31	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
1:2S:1590:G:H2'	1:2S:1591:G:O4'	2.16	0.46
64:17:16:LEU:HD21	64:17:38:ILE:HD13	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1064:A:N6	1:2S:1096:U:C4	2.76	0.46
1:2S:858:A:H1'	45:83:13:LYS:HD2	1.98	0.46
49:S2:188:LEU:HA	49:S2:191:ALA:HB3	1.97	0.46
58:11:85:VAL:HG12	58:11:86:ILE:N	2.31	0.46
65:18:5:VAL:HG23	72:25:42:LEU:HD22	1.98	0.46
1:2S:3009:G:O2'	1:2S:3010:U:H5'	2.15	0.46
35:73:55:ALA:HB3	35:73:65:ARG:NH2	2.31	0.46
17:55:113:LEU:HD22	17:55:113:LEU:N	2.31	0.46
16:54:82:SER:HA	16:54:85:TRP:CB	2.46	0.46
13:50:87:LEU:HD23	13:50:87:LEU:C	2.36	0.46
34:72:41:VAL:HG12	34:72:44:ARG:HH21	1.81	0.46
37:75:64:GLU:HA	37:75:67:ARG:CD	2.46	0.46
15:53:173:ALA:HB1	38:76:10:GLY:HA2	1.98	0.46
58:11:93:TYR:C	58:11:94:ILE:HD12	2.36	0.46
12:L9:49:ASN:HD22	12:L9:49:ASN:N	2.13	0.46
46:1S:1432:U:H5''	46:1S:1434:U:OP2	2.15	0.46
46:1S:1565:C:H5''	65:18:85:PHE:CE1	2.51	0.46
76:29:43:PHE:HZ	76:29:52:PHE:CD2	2.34	0.46
46:1S:788:A:C5	51:S4:19:LEU:HD13	2.51	0.46
28:66:39:LEU:HD23	28:66:42:GLN:HG3	1.97	0.46
71:24:5:VAL:O	71:24:6:THR:HB	2.17	0.46
46:1S:780:A:C8	71:24:8:ARG:HB3	2.47	0.46
46:1S:867:G:OP1	60:13:3:ARG:HD3	2.16	0.46
46:1S:1480:G:H5''	66:19:63:ARG:HH21	1.81	0.46
1:2S:2597:U:H6	1:2S:2597:U:O5'	1.98	0.46
3:5S:93:C:H5'	13:50:57:LEU:HD13	1.98	0.46
36:74:41:ARG:HB2	36:74:50:ALA:CB	2.44	0.46
5:L2:96:LEU:HD23	45:83:83:ILE:HG23	1.98	0.46
51:S4:195:ILE:HG23	51:S4:196:VAL:N	2.31	0.46
52:S5:219:ARG:O	52:S5:223:SER:HB2	2.16	0.46
13:50:206:LEU:O	13:50:210:ILE:HG13	2.16	0.46
1:2S:790:U:H2'	1:2S:791:A:C8	2.51	0.46
70:23:109:ARG:HB3	70:23:112:LYS:HB2	1.98	0.46
24:62:33:TYR:OH	24:62:80:THR:HG22	2.15	0.46
79:RA:278:PHE:CD2	79:RA:287:PRO:HD2	2.51	0.46
27:65:106:ASP:HB3	27:65:127:THR:CG2	2.45	0.46
1:2S:1277:C:H2'	1:2S:1278:A:H8	1.80	0.46
52:S5:121:ILE:HG13	52:S5:195:ALA:HB1	1.98	0.46
35:73:85:PHE:CE2	35:73:89:LEU:HG	2.51	0.46
79:RA:40:LYS:HD2	79:RA:65:SER:HA	1.98	0.46
7:L4:30:ILE:O	7:L4:32:PRO:HD3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:526:C:H2'	1:2S:527:A:H8	1.81	0.46
79:RA:238:ASP:HB2	79:RA:256:THR:HB	1.97	0.46
8:L5:67:SER:HB3	23:61:31:LEU:HD21	1.98	0.46
15:53:77:LEU:H	15:53:77:LEU:HD12	1.79	0.46
2:8S:99:C:O5'	2:8S:99:C:H6	2.00	0.46
4:L1:65:ILE:O	4:L1:65:ILE:HG23	2.15	0.46
58:11:56:LYS:HE3	58:11:57:LYS:HE3	1.98	0.46
79:RA:199:ILE:HA	79:RA:215:GLY:HA3	1.98	0.46
57:10:84:GLU:O	57:10:85:HIS:HB3	2.16	0.46
1:2S:2150:G:H2'	1:2S:2151:C:C6	2.51	0.46
57:10:21:VAL:CG1	57:10:66:TYR:HD2	2.29	0.45
1:2S:2897:A:H4'	42:80:125:LYS:HZ2	1.81	0.45
60:13:46:THR:HB	60:13:47:PRO:CD	2.46	0.45
30:68:96:LYS:C	30:68:98:THR:H	2.20	0.45
1:2S:346:C:OP1	7:L4:52:VAL:HG23	2.15	0.45
42:80:103:LEU:HD21	42:80:112:LYS:NZ	2.31	0.45
42:80:93:LYS:HB3	42:80:103:LEU:O	2.16	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
10:L7:147:LEU:O	10:L7:205:PHE:HE1	1.98	0.45
59:12:113:ARG:HG2	59:12:114:LYS:N	2.24	0.45
5:L2:42:ARG:HD2	5:L2:87:PHE:CG	2.51	0.45
1:2S:778:U:H2'	1:2S:779:G:H8	1.78	0.45
16:54:113:THR:O	16:54:117:ARG:HB2	2.15	0.45
34:72:4:LEU:HA	34:72:5:PRO:HD3	1.85	0.45
46:1S:351:C:H3'	46:1S:352:A:C5'	2.46	0.45
1:2S:3332:U:H2'	1:2S:3333:G:O4'	2.16	0.45
1:2S:2363:A:H3'	1:2S:2364:G:C8	2.51	0.45
6:L3:211:GLN:HE22	6:L3:282:ILE:HG22	1.82	0.45
17:55:144:ARG:O	17:55:145:ASP:HB3	2.17	0.45
1:2S:2271:A:H2'	1:2S:2272:G:C5'	2.47	0.45
55:S8:67:TRP:CG	55:S8:70:GLU:HB2	2.51	0.45
1:2S:1117:G:H2'	1:2S:1118:C:H6	1.79	0.45
40:78:73:LEU:HD23	40:78:75:VAL:CG2	2.46	0.45
56:S9:54:ARG:HA	56:S9:57:ARG:HH21	1.81	0.45
79:RA:265:LEU:O	79:RA:268:GLN:HG2	2.16	0.45
46:1S:1209:C:H2'	46:1S:1210:C:C6	2.51	0.45
46:1S:756:A:H2	51:S4:12:LEU:HD13	1.80	0.45
47:S0:102:PHE:CE1	47:S0:104:PRO:HA	2.51	0.45
1:2S:1471:U:H5''	21:59:5:ARG:HD3	1.98	0.45
69:22:120:HIS:O	69:22:121:VAL:HG13	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:57:85:ALA:O	19:57:89:LYS:HG3	2.16	0.45
6:L3:68:HIS:O	6:L3:69:LYS:HB2	2.16	0.45
1:2S:2756:C:H2'	1:2S:2757:U:C6	2.51	0.45
46:1S:1494:C:H2'	46:1S:1495:C:C6	2.51	0.45
1:2S:1549:U:H2'	1:2S:1550:C:C6	2.51	0.45
23:61:116:ARG:HG3	23:61:116:ARG:HH11	1.81	0.45
69:22:26:LEU:C	69:22:26:LEU:HD23	2.37	0.45
4:L1:165:LEU:HD23	4:L1:165:LEU:N	2.31	0.45
16:54:74:ARG:CZ	16:54:74:ARG:HB3	2.46	0.45
9:L6:78:ARG:O	9:L6:79:VAL:HG23	2.16	0.45
6:L3:57:VAL:HG23	6:L3:358:TRP:HE3	1.81	0.45
21:59:43:LYS:O	21:59:47:ASN:ND2	2.49	0.45
1:2S:953:G:H5'	1:2S:954:U:H6	1.81	0.45
1:2S:2844:C:C2'	1:2S:2845:A:H5'	2.46	0.45
29:67:23:VAL:HG12	29:67:45:GLY:CA	2.34	0.45
49:S2:154:LEU:HD11	49:S2:196:VAL:HG23	1.98	0.45
1:2S:649:A:H2'	1:2S:650:C:H6	1.71	0.45
8:L5:222:LEU:O	8:L5:223:PHE:CB	2.62	0.45
29:67:126:LYS:O	29:67:127:ASN:HB2	2.16	0.45
19:57:118:GLN:O	19:57:119:VAL:HB	2.16	0.45
59:12:49:THR:O	59:12:53:THR:HG23	2.16	0.45
1:2S:674:G:O2'	7:L4:116:ASN:ND2	2.50	0.45
3:5S:64:A:H62	13:50:209:ASN:HD21	1.63	0.45
1:2S:699:A:H2'	1:2S:700:C:O4'	2.16	0.45
76:29:30:LEU:HD21	76:29:32:ARG:HG3	1.98	0.45
70:23:109:ARG:CB	70:23:112:LYS:HB2	2.46	0.45
6:L3:283:TYR:CE1	6:L3:325:LYS:HB2	2.51	0.45
14:51:14:ILE:CD1	14:51:77:GLU:HG2	2.46	0.45
70:23:54:LEU:HD11	70:23:82:LYS:HB3	1.99	0.45
28:66:125:LYS:O	28:66:126:LEU:HD12	2.16	0.45
35:73:85:PHE:CB	35:73:88:ASN:HA	2.46	0.45
1:2S:132:C:O2'	1:2S:133:U:H6	1.99	0.45
57:10:81:ASN:HB3	59:12:37:VAL:HG13	1.98	0.45
53:S6:223:LYS:HZ1	53:S6:226:ILE:HD13	1.80	0.45
1:2S:2538:U:H5''	1:2S:2539:C:H5	1.82	0.45
9:L6:81:ALA:HA	9:L6:84:VAL:CG2	2.46	0.45
25:63:84:SER:HA	25:63:94:TYR:HB3	1.97	0.45
47:S0:129:ASP:O	47:S0:133:ILE:HD13	2.17	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
46:1S:1297:G:N2	46:1S:1300:A:OP2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:140:ILE:HD12	71:24:65:GLY:HA2	1.98	0.45
52:S5:50:GLU:OE1	52:S5:50:GLU:HA	2.16	0.45
1:2S:2333:C:H2'	1:2S:2334:U:C6	2.51	0.45
4:L1:184:LEU:HD23	4:L1:184:LEU:O	2.16	0.45
4:L1:123:LEU:HD13	4:L1:128:LEU:O	2.16	0.45
1:2S:877:C:H2'	1:2S:878:G:O4'	2.16	0.45
1:2S:59:G:C4'	1:2S:60:A:H4'	2.47	0.45
1:2S:1951:C:O4'	1:2S:1951:C:O2	2.34	0.45
30:68:101:VAL:HG22	30:68:124:ILE:CD1	2.46	0.45
1:2S:645:A:H5'	1:2S:2372:A:N7	2.31	0.45
20:58:131:ALA:N	20:58:132:PRO:HD3	2.31	0.45
58:11:70:ILE:HG22	58:11:124:THR:HG22	1.98	0.45
17:55:73:ARG:H	17:55:92:LEU:HD22	1.80	0.45
1:2S:650:C:O2'	1:2S:2871:G:C6	2.70	0.45
1:2S:1186:G:N3	22:60:112:ALA:HB1	2.30	0.45
1:2S:3301:U:O2'	1:2S:3302:U:H5'	2.17	0.45
46:1S:1522:U:O4	46:1S:1592:A:H5''	2.16	0.45
7:L4:192:GLY:HA2	7:L4:195:ARG:HD2	1.98	0.45
56:S9:141:VAL:CG1	56:S9:143:ILE:HG13	2.46	0.45
1:2S:933:A:N6	7:L4:102:PRO:CD	2.80	0.45
6:L3:130:PHE:HD1	6:L3:133:TYR:CG	2.34	0.45
5:L2:225:ILE:HD13	5:L2:238:ILE:HD12	1.97	0.45
46:1S:328:A:H2'	46:1S:329:G:O4'	2.16	0.45
21:59:189:ALA:CB	54:S7:39:ARG:HD3	2.45	0.45
23:61:63:VAL:HB	23:61:75:ILE:CG2	2.47	0.45
6:L3:116:ARG:HH22	6:L3:174:LYS:HB3	1.78	0.45
1:2S:1230:G:O2'	1:2S:1231:A:H5'	2.17	0.45
1:2S:794:U:H2'	1:2S:795:G:H8	1.81	0.45
46:1S:1559:A:H5''	65:18:135:GLY:CA	2.46	0.45
72:25:62:VAL:O	72:25:66:VAL:HG23	2.16	0.45
59:12:129:GLU:HG2	59:12:130:THR:N	2.31	0.45
1:2S:1183:C:O2'	1:2S:1184:A:H5'	2.16	0.45
1:2S:1435:A:H5''	1:2S:1436:U:H5'	1.98	0.45
7:L4:110:ASN:HB2	17:55:201:ARG:O	2.17	0.45
1:2S:2393:G:O2'	1:2S:2982:A:N6	2.50	0.45
1:2S:2127:U:H5''	1:2S:2302:G:OP1	2.17	0.45
50:S3:49:ILE:N	50:S3:49:ILE:HD12	2.30	0.45
1:2S:1925:U:H3'	1:2S:1926:C:H6	1.80	0.45
46:1S:338:C:H2'	46:1S:339:C:C6	2.52	0.45
56:S9:140:ILE:HD12	71:24:65:GLY:CA	2.46	0.45
2:8S:91:C:H2'	2:8S:92:A:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:72:78:ASN:OD1	34:72:80:LYS:HB3	2.16	0.45
51:S4:198:LYS:HG3	51:S4:208:VAL:HG22	1.97	0.45
23:61:52:MET:CG	23:61:53:PRO:HD2	2.46	0.45
32:70:66:LYS:HD3	32:70:66:LYS:N	2.31	0.45
38:76:36:ARG:HA	38:76:36:ARG:HE	1.82	0.45
28:66:108:LYS:HA	28:66:108:LYS:HD3	1.72	0.45
1:2S:1525:G:H2'	1:2S:1525:G:N3	2.31	0.45
33:71:44:MET:HB3	33:71:46:THR:HG22	1.97	0.45
49:S2:148:LEU:HD21	56:S9:94:ASP:OD2	2.16	0.45
46:1S:1408:G:H2'	46:1S:1409:G:O4'	2.15	0.45
25:63:77:ILE:CD1	25:63:77:ILE:N	2.64	0.45
20:58:24:VAL:O	20:58:28:LEU:HG	2.16	0.45
39:77:18:LEU:HD23	39:77:25:ARG:HB2	1.98	0.45
6:L3:230:THR:O	6:L3:234:GLY:HA2	2.16	0.45
7:L4:82:THR:HG23	7:L4:84:ARG:N	2.32	0.45
46:1S:410:A:H2	46:1S:423:G:H22	1.63	0.45
1:2S:2896:A:H2'	1:2S:2897:A:C8	2.52	0.45
53:S6:136:LYS:C	53:S6:136:LYS:HD3	2.37	0.45
46:1S:819:G:N2	46:1S:853:G:O6	2.49	0.45
46:1S:219:A:C8	46:1S:830:U:C5	3.05	0.45
69:22:25:VAL:HG22	69:22:65:LEU:HD11	1.98	0.45
13:50:36:LEU:HD13	13:50:73:ASN:HD21	1.81	0.45
1:2S:52:A:H2'	1:2S:53:G:H5'	1.97	0.45
46:1S:1603:U:H2'	46:1S:1604:U:C5	2.51	0.45
1:2S:636:C:C2	1:2S:646:A:H1'	2.52	0.45
53:S6:23:ARG:CG	53:S6:23:ARG:NH2	2.79	0.45
7:L4:327:LEU:N	7:L4:327:LEU:HD22	2.32	0.45
46:1S:920:U:H5''	48:S1:65:VAL:CG2	2.46	0.45
2:8S:102:U:H2'	2:8S:103:G:C8	2.51	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
7:L4:192:GLY:HA2	7:L4:195:ARG:HB2	1.99	0.45
22:60:97:VAL:HG13	22:60:98:SER:H	1.82	0.45
79:RA:88:THR:CG2	79:RA:104:VAL:HG22	2.46	0.45
6:L3:39:LYS:CA	6:L3:39:LYS:HE2	2.44	0.45
42:80:78:ILE:HG22	42:80:83:LYS:HD3	1.96	0.45
1:2S:2949:U:H3'	1:2S:2950:G:H21	1.81	0.45
46:1S:1470:C:H4'	46:1S:1540:G:N2	2.31	0.45
57:10:23:ALA:O	57:10:64:TYR:HB2	2.16	0.45
1:2S:794:U:H2'	1:2S:795:G:C8	2.51	0.45
6:L3:266:ARG:HA	6:L3:266:ARG:CZ	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:S6:63:MET:HG2	53:S6:98:ARG:HD2	1.98	0.45
1:2S:2221:G:H22	1:2S:2223:A:H3'	1.80	0.45
79:RA:112:SER:CB	79:RA:153:GLN:HA	2.46	0.45
78:31:132:LEU:CD1	78:31:150:VAL:HB	2.46	0.45
10:L7:96:PRO:HB2	10:L7:99:PRO:CD	2.45	0.45
52:S5:117:THR:HG21	52:S5:194:LEU:HD12	1.97	0.45
79:RA:9:LEU:HD22	79:RA:276:PRO:HB3	1.98	0.45
65:18:29:VAL:CG2	65:18:54:LEU:HD12	2.47	0.45
1:2S:3186:A:C2	12:L9:57:VAL:HA	2.51	0.45
1:2S:2565:U:H2'	1:2S:2566:C:H6	1.81	0.45
46:1S:336:G:C4	46:1S:338:C:C5	3.05	0.45
5:L2:147:ARG:NE	5:L2:155:LYS:HB3	2.31	0.45
46:1S:863:A:H2'	46:1S:865:A:H8	1.82	0.45
46:1S:295:A:H5''	51:S4:128:LYS:HZ1	1.81	0.45
51:S4:252:ARG:HD3	51:S4:256:ARG:HD2	1.97	0.45
12:L9:8:GLN:HB3	12:L9:72:LYS:HG3	1.99	0.45
40:78:27:ILE:HG21	40:78:39:ARG:HE	1.80	0.45
9:L6:57:HIS:HD2	9:L6:62:THR:O	1.99	0.45
46:1S:297:U:H2'	46:1S:298:C:O4'	2.16	0.45
6:L3:217:ALA:HB3	6:L3:277:SER:HB2	1.98	0.45
1:2S:2225:U:H6	1:2S:2225:U:O5'	1.99	0.45
23:61:93:VAL:CA	23:61:96:ILE:HD13	2.25	0.45
54:S7:12:ALA:N	54:S7:13:PRO:CD	2.80	0.45
46:1S:395:U:O5'	46:1S:395:U:H6	1.98	0.45
1:2S:2477:G:H3'	1:2S:2478:C:C6	2.52	0.45
46:1S:1526:A:C3'	46:1S:1527:C:H6	2.30	0.45
66:19:34:VAL:HG13	66:19:35:ASP:OD1	2.16	0.45
1:2S:516:A:H2'	1:2S:517:G:C5'	2.37	0.45
7:L4:118:LYS:O	7:L4:122:THR:HG23	2.17	0.45
46:1S:1724:U:H2'	46:1S:1725:U:H6	1.81	0.45
73:26:41:ILE:H	73:26:41:ILE:CD1	2.25	0.45
37:75:21:LEU:O	37:75:25:LYS:HG3	2.17	0.45
1:2S:3324:C:H5'	33:71:70:ARG:HH11	1.80	0.45
21:59:53:LYS:HG2	21:59:54:ALA:N	2.30	0.45
46:1S:1715:G:C3'	46:1S:1716:C:C5'	2.89	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
50:S3:136:VAL:CG1	50:S3:152:PHE:HD2	2.25	0.45
13:50:200:LEU:HD13	13:50:213:PHE:CD1	2.52	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:19:28:LEU:HD13	66:19:28:LEU:H	1.81	0.45
12:L9:87:LYS:HB2	12:L9:187:ILE:HA	1.98	0.45
1:2S:1480:G:H21	1:2S:1872:C:H5	1.65	0.45
20:58:147:ARG:O	20:58:150:VAL:HG22	2.16	0.45
8:L5:196:ARG:HA	8:L5:199:ILE:HD12	1.98	0.45
13:50:178:ARG:N	13:50:179:PRO:HD2	2.31	0.45
4:L1:72:PHE:HD2	4:L1:76:ARG:HB3	1.80	0.45
46:1S:76:A:H1'	46:1S:80:A:C6	2.51	0.45
3:5S:24:A:C2'	3:5S:25:G:H5'	2.47	0.45
47:S0:37:VAL:HG13	47:S0:47:VAL:O	2.17	0.45
6:L3:362:ALA:HB1	6:L3:368:GLY:HA3	1.98	0.45
18:56:34:VAL:HG12	18:56:103:LYS:HB2	1.97	0.45
12:L9:41:ILE:HG23	12:L9:43:VAL:HG22	1.98	0.45
4:L1:123:LEU:HD22	4:L1:128:LEU:HD12	1.99	0.45
1:2S:295:A:H2'	1:2S:296:A:O4'	2.17	0.45
7:L4:77:VAL:CG1	7:L4:85:SER:HA	2.47	0.45
37:75:85:THR:O	37:75:89:ARG:HB2	2.17	0.45
48:S1:127:VAL:HG21	48:S1:176:VAL:HB	1.98	0.45
13:50:87:LEU:HD23	13:50:88:ARG:N	2.32	0.45
63:16:129:PHE:CB	67:20:79:TRP:CD1	2.96	0.45
9:L6:67:GLY:HA3	9:L6:74:VAL:O	2.16	0.45
53:S6:76:LEU:HD12	53:S6:94:ARG:NH2	2.31	0.45
1:2S:1369:A:H4'	30:68:21:ARG:CD	2.45	0.45
4:L1:28:PHE:HD1	4:L1:28:PHE:C	2.19	0.45
14:51:16:LYS:O	14:51:129:VAL:HG13	2.17	0.45
1:2S:3198:U:H1'	12:L9:21:LYS:CG	2.45	0.45
28:66:51:ARG:HB3	28:66:115:ARG:HH22	1.82	0.45
1:2S:607:A:N3	1:2S:607:A:C2'	2.77	0.45
27:65:68:THR:CG2	37:75:36:LEU:HD22	2.45	0.45
54:S7:114:ARG:NH1	54:S7:114:ARG:HB2	2.32	0.45
46:1S:1082:C:C2'	46:1S:1082:C:O2	2.61	0.45
29:67:30:ASP:HA	29:67:77:TYR:HE2	1.81	0.45
46:1S:532:U:O2	71:24:34:ASN:HB2	2.15	0.45
1:2S:2949:U:H2'	1:2S:2950:G:C5'	2.47	0.45
13:50:86:HIS:HB3	13:50:139:ARG:HG2	1.99	0.45
55:S8:74:LYS:HD3	55:S8:109:PHE:CZ	2.52	0.45
51:S4:209:HIS:O	51:S4:210:ILE:HD13	2.16	0.45
13:50:98:ARG:HB3	13:50:120:GLY:HA3	1.99	0.45
1:2S:1427:U:H5	30:68:4:ARG:CZ	2.28	0.45
66:19:52:GLY:O	66:19:54:PHE:N	2.49	0.45
9:L6:54:TYR:HE2	9:L6:56:LYS:O	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:915:A:C6	1:2S:917:A:H1'	2.51	0.45
1:2S:308:A:O2'	1:2S:2222:A:H1'	2.15	0.45
36:74:25:THR:C	36:74:27:GLY:H	2.19	0.45
13:50:217:PHE:O	13:50:218:ALA:CB	2.65	0.45
56:S9:135:ALA:HA	56:S9:139:GLN:O	2.17	0.45
1:2S:1313:G:H5'	18:56:83:ALA:HB1	1.99	0.45
1:2S:212:G:H5'	7:L4:221:ASN:ND2	2.31	0.45
1:2S:544:C:C6	1:2S:544:C:H3'	2.52	0.45
7:L4:131:VAL:HB	7:L4:134:LEU:HD12	1.97	0.45
12:L9:27:VAL:O	12:L9:33:THR:HA	2.16	0.45
46:1S:336:G:H2'	46:1S:338:C:H5	1.82	0.45
23:61:38:ASP:H	23:61:64:VAL:HB	1.82	0.45
5:L2:137:ILE:CD1	5:L2:155:LYS:HG2	2.47	0.45
16:54:74:ARG:NH1	16:54:74:ARG:HB3	2.31	0.45
71:24:47:VAL:HG23	71:24:48:TYR:CD2	2.51	0.45
56:S9:76:LEU:O	56:S9:80:LEU:HG	2.16	0.45
12:L9:94:TYR:HA	12:L9:177:ASP:OD1	2.17	0.45
51:S4:47:PHE:CD1	51:S4:51:ARG:HB2	2.52	0.45
46:1S:291:G:H2'	46:1S:292:U:H5	1.82	0.45
32:70:86:ARG:HG2	32:70:86:ARG:HH11	1.81	0.45
1:2S:2304:C:C5	1:2S:2305:G:C6	3.05	0.45
30:68:12:ARG:HH11	30:68:12:ARG:HG3	1.82	0.45
15:53:138:VAL:HG21	37:75:118:ILE:CB	2.44	0.45
69:22:80:ASN:HD21	69:22:124:LYS:HE3	1.81	0.45
18:56:120:VAL:HA	18:56:121:PRO:HD3	1.70	0.45
7:L4:238:LEU:O	7:L4:246:ARG:HB2	2.16	0.45
25:63:87:ARG:HG3	25:63:93:LEU:HD21	1.99	0.45
1:2S:3349:C:H2'	1:2S:3350:C:C5	2.49	0.45
19:57:128:ARG:HD2	19:57:136:ILE:CG2	2.47	0.45
46:1S:5:U:H2'	46:1S:6:G:C8	2.51	0.45
52:S5:46:TRP:CD1	52:S5:129:PRO:HG3	2.52	0.45
1:2S:3300:U:H2'	1:2S:3301:U:C6	2.51	0.45
46:1S:1522:U:O4	46:1S:1592:A:C5'	2.65	0.45
75:28:14:LYS:O	75:28:29:ARG:HB3	2.17	0.45
4:L1:28:PHE:C	4:L1:28:PHE:CD1	2.90	0.45
1:2S:727:G:H2'	1:2S:728:G:O4'	2.16	0.45
8:L5:52:VAL:HA	8:L5:147:ASP:HB2	1.98	0.45
62:15:81:ARG:HH12	62:15:122:THR:HG23	1.81	0.45
15:53:182:ILE:O	15:53:186:ARG:HG3	2.16	0.45
22:60:50:LYS:O	22:60:51:VAL:CG1	2.65	0.45
1:2S:768:C:H2'	1:2S:769:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:37:LYS:HG3	56:S9:38:ASN:N	2.32	0.45
46:1S:1557:U:H3'	46:1S:1559:A:O2'	2.17	0.45
29:67:93:LYS:HD3	29:67:93:LYS:C	2.37	0.45
11:L8:241:LYS:HD2	11:L8:241:LYS:H	1.80	0.45
46:1S:1660:A:H2'	46:1S:1661:U:C6	2.52	0.45
19:57:60:PHE:HZ	19:57:82:ARG:HB2	1.81	0.45
1:2S:2138:A:C8	39:77:3:LYS:HE3	2.51	0.45
1:2S:1784:G:H2'	1:2S:1785:U:O4'	2.16	0.45
70:23:75:GLN:CD	70:23:82:LYS:HG3	2.37	0.45
8:L5:125:VAL:HG12	8:L5:199:ILE:HD13	1.98	0.45
1:2S:1725:C:H5''	45:83:36:ARG:HH22	1.82	0.45
52:S5:51:VAL:HG13	52:S5:131:GLN:HA	1.98	0.45
2:8S:151:C:H5'	27:65:24:LEU:HD21	1.98	0.45
65:18:145:ARG:HB3	65:18:145:ARG:NH2	2.32	0.45
46:1S:1368:G:H5''	66:19:69:LYS:HB3	1.97	0.45
1:2S:1204:A:H1'	1:2S:2855:U:O2'	2.16	0.45
1:2S:1549:U:H6	1:2S:1549:U:OP2	2.00	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
6:L3:316:GLU:O	6:L3:317:ILE:HB	2.16	0.45
78:31:136:LYS:C	78:31:138:ARG:H	2.18	0.45
1:2S:29:C:OP1	17:55:189:LYS:HB2	2.16	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
8:L5:280:GLU:H	8:L5:280:GLU:CD	2.19	0.45
10:L7:74:SER:HB3	23:61:141:VAL:O	2.17	0.45
18:56:124:LEU:HG	18:56:126:VAL:CG1	2.33	0.45
1:2S:2735:U:H2'	1:2S:2736:A:C8	2.51	0.45
18:56:142:SER:O	18:56:145:VAL:HG22	2.17	0.45
1:2S:449:U:H3'	1:2S:449:U:C6	2.52	0.45
17:55:65:ARG:HB2	17:55:129:TYR:CE1	2.52	0.45
1:2S:2930:A:H2'	1:2S:2931:C:C6	2.52	0.45
64:17:110:VAL:CG1	64:17:117:LEU:HG	2.37	0.45
70:23:127:VAL:HG23	70:23:130:VAL:HG22	1.99	0.45
51:S4:89:VAL:CA	51:S4:90:ILE:HD12	2.47	0.45
19:57:128:ARG:HD2	19:57:136:ILE:HG23	1.99	0.45
1:2S:371:G:H1'	1:2S:375:A:N6	2.32	0.45
1:2S:1145:G:OP1	34:72:44:ARG:HD2	2.17	0.45
6:L3:147:GLU:OE2	6:L3:147:GLU:HA	2.17	0.45
22:60:35:VAL:HA	22:60:38:LYS:CE	2.42	0.45
22:60:8:GLN:HE21	22:60:10:ILE:HD11	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:23:63:GLN:HA	70:23:65:ASN:N	2.32	0.45
5:L2:45:VAL:HG13	5:L2:84:THR:HA	1.98	0.45
54:S7:152:VAL:CG2	54:S7:181:ILE:HD11	2.46	0.45
14:51:101:ASN:O	14:51:102:PHE:HB3	2.16	0.45
1:2S:68:C:C5	1:2S:315:C:H4'	2.52	0.45
5:L2:225:ILE:HD11	5:L2:236:GLY:N	2.32	0.45
39:77:8:PHE:HD1	39:77:11:ARG:HD3	1.82	0.45
7:L4:89:ALA:O	7:L4:90:PHE:CB	2.61	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
30:68:135:GLU:HG2	30:68:145:VAL:HG21	1.98	0.45
61:14:23:PHE:O	61:14:24:ASN:HB2	2.17	0.45
1:2S:389:A:H4'	19:57:16:SER:O	2.16	0.45
46:1S:1553:G:H1'	46:1S:1597:A:H2	1.81	0.45
60:13:30:SER:HA	60:13:33:VAL:HG22	1.99	0.45
30:68:47:LYS:H	30:68:50:PRO:HB3	1.82	0.45
46:1S:215:A:H5''	46:1S:216:U:H5	1.79	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
79:RA:7:LEU:HD11	79:RA:251:TRP:CZ3	2.50	0.45
1:2S:2457:G:N2	1:2S:2461:A:N6	2.63	0.45
12:L9:138:THR:O	12:L9:140:VAL:N	2.32	0.45
67:20:37:VAL:CG1	67:20:41:ILE:HD13	2.46	0.45
10:L7:95:ILE:HA	10:L7:96:PRO:HD3	1.78	0.45
46:1S:453:U:H2'	46:1S:453:U:O2	2.16	0.45
19:57:180:LYS:NZ	19:57:180:LYS:CB	2.80	0.45
46:1S:1471:A:H5'	52:S5:184:PHE:HE2	1.82	0.45
1:2S:421:G:C6	1:2S:2384:A:H4'	2.52	0.45
55:S8:194:ARG:O	55:S8:198:ALA:HB2	2.16	0.45
54:S7:185:ILE:H	54:S7:185:ILE:HD13	1.82	0.45
46:1S:1320:U:N3	47:S0:101:ARG:NH1	2.65	0.45
5:L2:145:LYS:HB3	5:L2:157:VAL:HG21	1.99	0.45
11:L8:244:ALA:O	11:L8:248:LYS:HB2	2.17	0.45
46:1S:1250:U:C2'	46:1S:1251:U:H5'	2.47	0.45
4:L1:81:GLY:O	4:L1:82:VAL:HG23	2.16	0.45
1:2S:351:A:C6	41:79:35:ILE:HG23	2.52	0.45
29:67:48:ARG:O	29:67:68:ILE:HG23	2.17	0.45
62:15:84:ILE:HG22	62:15:85:ILE:N	2.32	0.45
8:L5:118:THR:O	8:L5:119:TYR:HB2	2.17	0.45
79:RA:275:ARG:HH11	79:RA:275:ARG:HG3	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:12:48:SER:O	59:12:52:LEU:HD23	2.16	0.45
11:L8:195:SER:O	11:L8:196:ALA:HB3	2.16	0.45
7:L4:170:LYS:N	7:L4:170:LYS:HD2	2.32	0.45
1:2S:1606:U:C4	36:74:8:ARG:HB3	2.52	0.45
49:S2:159:THR:OG1	49:S2:168:ARG:HG3	2.17	0.45
1:2S:3104:U:H3'	1:2S:3128:G:H1	1.81	0.45
63:16:129:PHE:CE1	67:20:78:THR:HA	2.52	0.45
49:S2:99:LYS:HE3	49:S2:115:ILE:CG2	2.46	0.45
46:1S:1389:C:O2'	64:17:52:GLY:HA3	2.17	0.45
75:28:8:THR:HG23	75:28:34:GLU:HB2	1.97	0.45
1:2S:1715:A:C1'	1:2S:1717:U:H4'	2.47	0.45
46:1S:1593:A:H2'	46:1S:1594:G:C8	2.52	0.45
7:L4:192:GLY:O	7:L4:197:ARG:HB2	2.17	0.45
1:2S:2148:U:H5''	5:L2:196:TRP:HZ2	1.82	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:1650:U:H2'	46:1S:1651:A:C8	2.52	0.45
65:18:28:ILE:HD11	65:18:32:LEU:HD11	1.98	0.45
46:1S:1498:G:H2'	46:1S:1499:G:H5''	1.99	0.45
68:21:17:CYS:HB2	68:21:22:ARG:O	2.17	0.45
1:2S:3331:U:OP2	1:2S:3331:U:H6	1.99	0.45
12:L9:84:LYS:O	12:L9:187:ILE:HB	2.17	0.45
13:50:181:TYR:O	13:50:185:ARG:HB3	2.16	0.45
46:1S:1622:G:H2'	46:1S:1623:C:H6	1.82	0.45
68:21:16:LYS:HA	68:21:23:ILE:HA	1.99	0.45
27:65:91:ASN:O	27:65:95:ILE:HG13	2.17	0.45
7:L4:216:VAL:HA	7:L4:227:THR:HG21	1.99	0.45
48:S1:60:ALA:HB3	48:S1:61:LEU:HD13	1.99	0.45
51:S4:15:PRO:HD2	51:S4:18:TRP:CZ3	2.52	0.45
1:2S:2747:A:H4'	8:L5:174:PRO:HB2	1.99	0.45
45:83:36:ARG:HA	45:83:47:VAL:O	2.17	0.45
21:59:15:VAL:CG1	21:59:52:LYS:HG3	2.47	0.45
11:L8:55:TYR:O	11:L8:59:GLN:HG2	2.16	0.45
17:55:124:ASP:CG	17:55:125:SER:H	2.20	0.45
1:2S:1062:A:H5''	23:61:105:PHE:CZ	2.51	0.45
12:L9:189:GLU:O	12:L9:190:ASP:CB	2.65	0.45
46:1S:1368:G:C5'	66:19:69:LYS:HA	2.47	0.45
1:2S:91:G:H5''	44:82:46:LYS:CE	2.46	0.45
53:S6:84:TYR:HE1	53:S6:86:PRO:HG3	1.82	0.45
46:1S:1240:U:O4	62:15:59:LYS:HE2	2.16	0.45
23:61:19:PHE:O	23:61:21:LYS:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:13:94:LYS:O	60:13:98:VAL:HG23	2.16	0.45
65:18:37:GLY:HA3	65:18:101:LEU:HD23	1.99	0.45
62:15:72:LYS:HB3	62:15:93:VAL:HG23	1.99	0.45
74:27:80:ARG:HG3	74:27:80:ARG:HH11	1.82	0.45
1:2S:3271:G:H8	1:2S:3271:G:O5'	2.00	0.45
1:2S:2318:U:H2'	1:2S:2319:U:O4'	2.17	0.45
64:17:19:ARG:HG3	64:17:20:TYR:HD1	1.82	0.45
1:2S:2764:C:OP1	30:68:55:LYS:HB2	2.17	0.45
1:2S:2252:A:H61	1:2S:2264:U:H3	1.65	0.45
3:5S:27:A:H2	3:5S:56:A:H61	1.65	0.45
69:22:29:PRO:O	69:22:30:SER:HB3	2.17	0.45
46:1S:187:G:H3'	55:S8:138:ASN:ND2	2.31	0.45
1:2S:126:U:H2'	1:2S:127:G:H8	1.82	0.45
57:10:82:LEU:HD22	57:10:86:ILE:CG2	2.47	0.45
48:S1:131:ASP:HB2	48:S1:180:THR:OG1	2.16	0.45
60:13:72:MET:CE	60:13:81:ALA:HB2	2.47	0.45
46:1S:1058:U:C6	46:1S:1061:A:N1	2.85	0.45
77:30:42:ARG:O	77:30:42:ARG:HG2	2.16	0.45
73:26:10:ARG:HB2	73:26:34:LYS:CG	2.36	0.45
12:L9:104:VAL:HG21	12:L9:125:ASN:ND2	2.31	0.45
65:18:82:PRO:HG2	65:18:85:PHE:HD2	1.81	0.45
67:20:49:ASN:C	67:20:50:LEU:HD12	2.38	0.45
6:L3:166:ILE:O	6:L3:166:ILE:HG13	2.17	0.45
1:2S:3042:U:H2'	1:2S:3043:C:O4'	2.17	0.45
1:2S:1508:C:H2'	1:2S:1509:A:H8	1.80	0.45
1:2S:2596:U:H2'	1:2S:2597:U:H6	1.79	0.45
1:2S:959:C:O5'	1:2S:960:U:C5	2.70	0.45
1:2S:777:U:H2'	1:2S:778:U:C6	2.52	0.45
48:S1:115:ARG:HG3	48:S1:116:LYS:N	2.30	0.45
8:L5:52:VAL:HG13	8:L5:54:ARG:NH1	2.31	0.45
47:S0:90:ALA:HB1	47:S0:97:PRO:HD3	1.99	0.45
24:62:33:TYR:O	24:62:37:LEU:HD13	2.17	0.45
9:L6:5:LYS:O	9:L6:6:ALA:CB	2.63	0.45
79:RA:278:PHE:CE2	79:RA:287:PRO:HB2	2.52	0.45
58:11:121:ASP:C	58:11:122:ILE:HD12	2.37	0.45
67:20:27:THR:O	67:20:113:ASP:HB3	2.16	0.45
46:1S:1551:U:OP2	62:15:43:ARG:HD2	2.17	0.45
18:56:108:ILE:CG2	18:56:113:ASP:HB3	2.46	0.45
59:12:129:GLU:O	59:12:130:THR:OG1	2.30	0.45
31:69:47:LEU:O	31:69:50:THR:HG22	2.16	0.45
21:59:147:ALA:O	21:59:151:ARG:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:L5:270:LYS:HG2	8:L5:273:ARG:HH11	1.82	0.45
46:1S:17:C:H2'	46:1S:18:C:H6	1.82	0.45
1:2S:1920:U:H2'	1:2S:1930:A:H61	1.82	0.45
37:75:22:VAL:O	37:75:26:LYS:HG3	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
46:1S:1321:A:C8	47:S0:104:PRO:HB3	2.52	0.45
1:2S:2655:U:H2'	44:82:3:ASN:O	2.17	0.45
30:68:71:PRO:O	30:68:109:TYR:HD2	2.00	0.45
21:59:5:ARG:HG2	21:59:5:ARG:HH11	1.82	0.45
1:2S:1899:G:O2'	1:2S:2334:U:O4	2.30	0.45
25:63:17:LEU:HD11	25:63:98:ASN:HD22	1.82	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
21:59:99:LEU:HD13	21:59:99:LEU:C	2.37	0.45
51:S4:129:VAL:HG13	51:S4:129:VAL:O	2.17	0.45
1:2S:2511:A:H2'	1:2S:2512:C:O4'	2.16	0.45
6:L3:84:VAL:HG13	6:L3:163:HIS:C	2.37	0.44
55:S8:21:PHE:CD2	55:S8:22:ARG:N	2.85	0.44
6:L3:232:ARG:HH21	6:L3:233:TRP:HE1	1.66	0.44
69:22:103:ILE:C	69:22:104:LEU:HD13	2.38	0.44
4:L1:18:LYS:C	4:L1:20:SER:H	2.20	0.44
1:2S:1219:C:C2'	1:2S:1220:U:H5''	2.48	0.44
14:51:23:VAL:HG11	14:51:29:ARG:HD3	2.00	0.44
37:75:64:GLU:CA	37:75:67:ARG:HG3	2.42	0.44
1:2S:2276:G:H2'	1:2S:2277:C:H6	1.81	0.44
1:2S:1492:G:O6	41:79:2:ALA:CB	2.65	0.44
1:2S:2534:G:H2'	1:2S:2535:A:H8	1.82	0.44
1:2S:436:A:H61	1:2S:623:U:H3	1.64	0.44
1:2S:3370:A:H2'	1:2S:3371:G:H8	1.77	0.44
46:1S:210:A:H2'	46:1S:211:U:C6	2.53	0.44
71:24:124:ARG:C	71:24:124:ARG:HD3	2.38	0.44
11:L8:180:VAL:HG22	11:L8:185:ARG:HH21	1.78	0.44
1:2S:2163:C:O2'	5:L2:11:GLY:HA3	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
1:2S:355:A:H3'	1:2S:356:C:C6	2.52	0.44
1:2S:1390:A:C5'	1:2S:1390:A:N3	2.78	0.44
30:68:83:PRO:O	30:68:87:ARG:HB2	2.17	0.44
27:65:91:ASN:HD21	27:65:93:TYR:HD2	1.63	0.44
1:2S:1689:U:H2'	1:2S:1690:C:C6	2.52	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
6:L3:251:CYS:C	6:L3:252:ILE:HD12	2.37	0.44
1:2S:2265:C:H2'	1:2S:2266:U:C6	2.52	0.44
1:2S:1908:A:H8	1:2S:1908:A:O5'	2.01	0.44
1:2S:1515:A:H2'	1:2S:1516:C:C6	2.52	0.44
79:RA:91:LEU:O	79:RA:99:THR:HA	2.17	0.44
1:2S:736:A:H2'	1:2S:737:G:O4'	2.16	0.44
1:2S:1549:U:H2'	1:2S:1550:C:H6	1.82	0.44
1:2S:3282:U:H6	1:2S:3282:U:O5'	2.00	0.44
69:22:27:ILE:HD11	69:22:61:ILE:HB	1.98	0.44
28:66:66:GLN:O	28:66:67:GLU:HB3	2.17	0.44
37:75:116:TYR:O	37:75:117:ALA:HB2	2.17	0.44
64:17:100:LEU:HB3	64:17:118:PRO:HG2	1.99	0.44
1:2S:2841:G:H1'	1:2S:2847:A:H61	1.83	0.44
1:2S:1012:G:H2'	1:2S:1013:G:C8	2.52	0.44
46:1S:1682:U:O2'	46:1S:1683:C:H5'	2.17	0.44
46:1S:325:G:O2'	46:1S:326:G:H5'	2.17	0.44
46:1S:235:G:H2'	46:1S:236:A:C8	2.53	0.44
1:2S:295:A:H2'	1:2S:296:A:C8	2.52	0.44
46:1S:197:A:H61	55:S8:138:ASN:ND2	2.15	0.44
60:13:84:ILE:CD1	60:13:89:TYR:HA	2.46	0.44
57:10:87:VAL:HG13	57:10:87:VAL:O	2.17	0.44
7:L4:23:PRO:HG2	7:L4:255:PHE:CE2	2.52	0.44
46:1S:1058:U:C5	46:1S:1061:A:N6	2.58	0.44
32:70:13:LYS:HB3	32:70:100:ILE:CG2	2.46	0.44
52:S5:203:LYS:CA	52:S5:203:LYS:HE3	2.38	0.44
1:2S:798:G:H5''	15:53:15:ARG:NH2	2.20	0.44
56:S9:178:ALA:O	56:S9:182:GLU:HG2	2.18	0.44
5:L2:47:GLN:HE21	5:L2:49:VAL:CB	2.28	0.44
48:S1:70:LEU:O	48:S1:74:GLN:HB2	2.16	0.44
58:11:97:TYR:O	58:11:98:ASN:HB3	2.17	0.44
1:2S:3300:U:H2'	1:2S:3301:U:H6	1.82	0.44
36:74:95:ILE:O	36:74:99:LYS:HB2	2.17	0.44
46:1S:1226:A:H62	59:12:114:LYS:HG2	1.83	0.44
1:2S:949:C:O2'	1:2S:971:G:H5''	2.16	0.44
10:L7:107:ARG:C	10:L7:108:LEU:HD23	2.38	0.44
38:76:26:ILE:C	38:76:28:TYR:H	2.19	0.44
5:L2:97:ASN:HB2	5:L2:100:ASN:ND2	2.32	0.44
7:L4:58:HIS:HA	7:L4:90:PHE:CD1	2.52	0.44
46:1S:556:A:H5''	77:30:56:MET:HB2	1.98	0.44
23:61:75:ILE:HD13	23:61:76:ILE:N	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1454:G:H2'	46:1S:1455:G:O4'	2.17	0.44
46:1S:1454:G:H5''	62:15:81:ARG:NH2	2.31	0.44
1:2S:2366:C:H2'	1:2S:2367:A:C8	2.52	0.44
40:78:8:ILE:N	40:78:8:ILE:HD12	2.32	0.44
49:S2:225:LEU:HD22	49:S2:230:TRP:HD1	1.82	0.44
1:2S:1169:A:H5''	10:L7:219:LYS:CD	2.47	0.44
7:L4:142:VAL:O	7:L4:145:ILE:HG12	2.16	0.44
46:1S:382:C:H2'	46:1S:383:G:H8	1.81	0.44
1:2S:1784:G:H2'	1:2S:1785:U:C6	2.52	0.44
2:8S:141:C:H5'	17:55:109:ARG:CD	2.47	0.44
78:31:139:LEU:HD22	78:31:150:VAL:O	2.16	0.44
46:1S:1107:G:O2'	46:1S:1108:G:H5'	2.17	0.44
62:15:37:ALA:O	62:15:42:ARG:HD2	2.17	0.44
15:53:29:ALA:CB	17:55:201:ARG:NH1	2.79	0.44
46:1S:1:U:O4	56:S9:54:ARG:HD3	2.18	0.44
55:S8:195:ARG:HG2	55:S8:195:ARG:NH1	2.33	0.44
37:75:58:ILE:O	37:75:62:GLN:HG3	2.18	0.44
65:18:35:ILE:HG22	65:18:36:LYS:N	2.31	0.44
1:2S:3153:U:H2'	1:2S:3154:C:C5	2.53	0.44
48:S1:41:ARG:NH1	48:S1:41:ARG:HB3	2.32	0.44
29:67:33:SER:HB2	29:67:40:HIS:CE1	2.53	0.44
27:65:103:TYR:O	27:65:105:VAL:HG23	2.16	0.44
49:S2:148:LEU:HB3	49:S2:149:GLY:H	1.37	0.44
6:L3:136:LYS:O	6:L3:144:ILE:HD11	2.16	0.44
21:59:152:GLU:OE1	21:59:152:GLU:HA	2.16	0.44
1:2S:1187:C:H6	1:2S:1187:C:O5'	2.00	0.44
1:2S:580:C:H2'	1:2S:581:U:O4'	2.18	0.44
7:L4:209:TYR:O	7:L4:230:VAL:HG23	2.16	0.44
46:1S:545:A:C8	77:30:31:LYS:HD2	2.52	0.44
17:55:116:LEU:HB3	17:55:133:ILE:HG23	1.97	0.44
25:63:45:ARG:HH11	25:63:45:ARG:HG3	1.82	0.44
1:2S:93:C:OP2	1:2S:2764:C:H1'	2.16	0.44
69:22:104:LEU:HB2	69:22:124:LYS:O	2.17	0.44
54:S7:30:SER:O	54:S7:32:PRO:HD2	2.17	0.44
46:1S:94:U:H2'	46:1S:95:G:C5'	2.45	0.44
46:1S:1059:U:C2'	46:1S:1059:U:O2	2.65	0.44
65:18:11:PHE:HD2	65:18:12:GLN:N	2.16	0.44
38:76:82:ARG:O	38:76:86:LYS:CB	2.65	0.44
7:L4:52:VAL:CG2	7:L4:53:SER:H	2.11	0.44
48:S1:205:PHE:CD1	48:S1:206:PRO:CD	2.98	0.44
59:12:106:ILE:HG22	59:12:107:ASP:N	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:316:ASN:HD22	7:L4:319:LYS:HE2	1.80	0.44
58:11:94:ILE:HG21	58:11:97:TYR:CD2	2.53	0.44
46:1S:1797:A:C5'	73:26:95:ARG:HG2	2.43	0.44
10:L7:86:VAL:CG1	10:L7:136:TYR:HB3	2.41	0.44
69:22:93:LEU:CD2	69:22:93:LEU:N	2.80	0.44
5:L2:88:ILE:CG2	5:L2:99:GLY:O	2.65	0.44
1:2S:55:G:H2'	1:2S:56:G:H5'	1.99	0.44
1:2S:745:C:C5'	20:58:145:ASN:ND2	2.78	0.44
22:60:43:TYR:CD2	22:60:47:LYS:NZ	2.81	0.44
34:72:13:HIS:HE1	34:72:15:LYS:HB3	1.78	0.44
59:12:50:LYS:HA	59:12:53:THR:HG23	1.98	0.44
48:S1:153:HIS:ND1	48:S1:154:SER:N	2.64	0.44
1:2S:2647:A:C3'	1:2S:2648:G:H5''	2.46	0.44
57:10:27:PHE:HD1	57:10:40:LEU:HD23	1.82	0.44
7:L4:361:HIS:HD2	7:L4:362:ASP:H	1.64	0.44
9:L6:56:LYS:HB3	9:L6:64:LEU:CB	2.47	0.44
4:L1:205:VAL:HG12	4:L1:213:ALA:CB	2.45	0.44
62:15:96:ILE:HD13	62:15:116:LEU:O	2.18	0.44
38:76:58:ILE:HG22	38:76:94:ILE:HD11	1.98	0.44
52:S5:77:TYR:HA	52:S5:83:ARG:HG2	1.99	0.44
79:RA:212:ALA:O	79:RA:243:LEU:CD1	2.64	0.44
1:2S:1689:U:O3'	21:59:59:SER:CB	2.65	0.44
5:L2:74:GLU:HB3	5:L2:76:PHE:HE1	1.80	0.44
4:L1:189:PHE:HD1	4:L1:200:ASN:HB2	1.82	0.44
4:L1:120:VAL:HG23	4:L1:121:PRO:HD3	1.99	0.44
8:L5:44:TYR:CE1	23:61:35:LYS:HG2	2.52	0.44
79:RA:42:LEU:HD12	79:RA:42:LEU:N	2.32	0.44
12:L9:47:LYS:HD2	16:54:5:SER:HB2	1.99	0.44
33:71:44:MET:SD	33:71:77:ARG:HB2	2.57	0.44
50:S3:17:PHE:CE1	50:S3:21:LEU:HD11	2.52	0.44
15:53:149:GLN:HA	15:53:150:PRO:HD3	1.75	0.44
40:78:17:ARG:O	40:78:18:ALA:HB3	2.16	0.44
1:2S:1147:G:H2'	1:2S:1148:G:O4'	2.17	0.44
27:65:74:LYS:O	27:65:78:ASP:HB2	2.17	0.44
19:57:75:GLU:HB3	19:57:76:PHE:CD1	2.52	0.44
19:57:76:PHE:N	19:57:76:PHE:CD1	2.85	0.44
46:1S:472:U:OP1	56:S9:10:LYS:HA	2.18	0.44
20:58:98:LYS:HB3	20:58:99:THR:H	1.50	0.44
4:L1:103:LEU:HD22	4:L1:106:LYS:HE2	2.00	0.44
17:55:10:LEU:C	17:55:10:LEU:HD13	2.38	0.44
8:L5:278:SER:O	8:L5:282:ARG:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:98:U:H1'	46:1S:425:A:O2'	2.18	0.44
23:61:48:ILE:CD1	23:61:94:GLU:HG2	2.47	0.44
1:2S:1125:U:H6	1:2S:1125:U:O5'	2.00	0.44
40:78:46:ARG:HA	40:78:51:LEU:HD12	1.98	0.44
46:1S:1061:A:C2'	46:1S:1062:A:H5'	2.45	0.44
1:2S:1115:G:H5''	1:2S:1116:G:H5''	1.98	0.44
46:1S:1156:C:H4'	46:1S:1313:A:OP1	2.18	0.44
72:25:91:PRO:HA	72:25:101:TYR:CD1	2.53	0.44
70:23:127:VAL:HG22	70:23:132:LEU:HD22	2.00	0.44
1:2S:1695:U:H1'	36:74:26:PRO:HG3	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
45:83:22:LEU:O	45:83:26:VAL:HG23	2.17	0.44
34:72:61:LYS:HG2	34:72:64:LYS:NZ	2.32	0.44
60:13:117:LEU:O	60:13:120:SER:HB2	2.17	0.44
33:71:60:TRP:CZ3	33:71:64:VAL:HG22	2.34	0.44
7:L4:316:ASN:ND2	7:L4:319:LYS:CE	2.81	0.44
1:2S:3302:U:H2'	1:2S:3303:G:C8	2.53	0.44
33:71:19:ARG:NH1	33:71:19:ARG:CG	2.81	0.44
52:S5:57:SER:O	52:S5:58:LEU:HB2	2.17	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
5:L2:199:THR:HG22	5:L2:200:ARG:N	2.32	0.44
46:1S:871:G:H2'	46:1S:872:G:H8	1.76	0.44
38:76:45:ARG:HD3	38:76:45:ARG:O	2.17	0.44
79:RA:128:ASP:C	79:RA:129:LYS:HG2	2.38	0.44
2:8S:79:A:H3'	2:8S:80:A:H5''	1.99	0.44
1:2S:438:A:C3'	1:2S:439:C:H5''	2.47	0.44
1:2S:1354:G:H3'	1:2S:1355:A:C5'	2.46	0.44
10:L7:133:TYR:O	10:L7:134:VAL:HG13	2.18	0.44
1:2S:2481:G:H2'	1:2S:2482:U:C6	2.53	0.44
28:66:56:VAL:CG1	28:66:70:ILE:HD11	2.47	0.44
64:17:21:TYR:N	64:17:22:PRO:CD	2.78	0.44
1:2S:873:C:H2'	1:2S:875:G:O4'	2.18	0.44
11:L8:50:VAL:HG23	11:L8:52:TRP:HE1	1.81	0.44
1:2S:769:G:C2'	1:2S:770:G:H5'	2.48	0.44
46:1S:309:C:H2'	46:1S:310:C:C6	2.52	0.44
63:16:138:PHE:HB3	63:16:139:GLN:H	1.65	0.44
74:27:35:VAL:CG1	74:27:77:THR:HB	2.47	0.44
15:53:67:ARG:CZ	15:53:68:LYS:HG3	2.48	0.44
20:58:147:ARG:NH2	20:58:150:VAL:HG13	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:71:79:ARG:NE	33:71:79:ARG:O	2.49	0.44
2:8S:28:C:H4'	15:53:26:PHE:CD2	2.52	0.44
75:28:36:THR:HG23	75:28:37:SER:H	1.83	0.44
1:2S:892:U:O2'	1:2S:893:C:H5'	2.18	0.44
1:2S:526:C:H2'	1:2S:527:A:C8	2.52	0.44
49:S2:85:PRO:HG3	49:S2:98:PHE:CE1	2.51	0.44
59:12:81:ASP:HA	59:12:82:PRO:HD3	1.87	0.44
7:L4:353:ALA:O	7:L4:357:GLU:HG3	2.17	0.44
46:1S:680:U:H3'	46:1S:680:U:H6	1.82	0.44
1:2S:529:A:O5'	1:2S:529:A:H8	2.01	0.44
17:55:191:TRP:CE3	17:55:192:LYS:HA	2.53	0.44
1:2S:2133:U:H2'	1:2S:2134:G:H5'	1.98	0.44
46:1S:312:A:C2	46:1S:314:C:H2'	2.52	0.44
38:76:4:LYS:HA	38:76:12:ASN:HB3	1.99	0.44
28:66:100:HIS:CG	28:66:101:PRO:HD2	2.52	0.44
25:63:128:ARG:HH11	25:63:128:ARG:CG	2.30	0.44
1:2S:269:G:H5'	17:55:14:LYS:HE2	2.00	0.44
44:82:70:LEU:HD12	44:82:83:LEU:HD22	1.98	0.44
36:74:8:ARG:HB2	36:74:34:HIS:HD2	1.83	0.44
1:2S:1404:G:N2	1:2S:1407:A:OP2	2.44	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
1:2S:38:U:H5''	30:68:32:ARG:HD2	2.00	0.44
1:2S:398:A:C4	19:57:3:ARG:NH2	2.85	0.44
7:L4:181:VAL:HG11	7:L4:223:PRO:O	2.17	0.44
53:S6:31:ARG:HD2	53:S6:34:GLN:HE22	1.81	0.44
1:2S:2994:A:N6	1:2S:2995:A:C2	2.86	0.44
6:L3:5:LYS:HE2	6:L3:6:TYR:CE1	2.48	0.44
1:2S:2316:G:H2'	1:2S:2317:A:C8	2.52	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
5:L2:248:GLY:CA	46:1S:1012:U:H5''	2.43	0.44
8:L5:153:THR:HG23	8:L5:160:PHE:CZ	2.45	0.44
46:1S:85:A:H2	46:1S:148:A:H1'	1.83	0.44
13:50:48:LEU:HB2	13:50:142:ASP:OD1	2.17	0.44
7:L4:112:LYS:HD3	17:55:202:TYR:HB3	1.99	0.44
1:2S:586:C:O2'	1:2S:587:U:H5'	2.18	0.44
60:13:40:TYR:CE2	60:13:54:LEU:HD21	2.50	0.44
75:28:11:LYS:HB3	75:28:11:LYS:HE2	1.86	0.44
19:57:180:LYS:HB3	19:57:180:LYS:HZ3	1.83	0.44
3:5S:118:A:H5''	8:L5:253:PHE:HZ	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3386:G:O2'	1:2S:3387:U:H5'	2.17	0.44
1:2S:990:U:O5'	1:2S:990:U:H6	2.00	0.44
1:2S:2337:C:H6	1:2S:2337:C:O5'	2.00	0.44
46:1S:378:A:H3'	46:1S:379:U:C5	2.53	0.44
1:2S:2394:G:H5'	6:L3:253:GLY:N	2.32	0.44
11:L8:41:GLN:H	11:L8:41:GLN:HE21	1.65	0.44
7:L4:9:HIS:HA	7:L4:15:ALA:HA	1.99	0.44
46:1S:338:C:H6	46:1S:338:C:O5'	2.00	0.44
66:19:114:VAL:HG22	66:19:115:GLU:N	2.32	0.44
74:27:37:CYS:HA	74:27:38:PRO:HD3	1.76	0.44
32:70:43:ILE:O	32:70:89:VAL:HG23	2.18	0.44
46:1S:52:U:H2'	46:1S:53:G:O4'	2.17	0.44
31:69:15:LYS:HE3	31:69:15:LYS:HB2	1.68	0.44
12:L9:69:ARG:O	12:L9:69:ARG:HD3	2.16	0.44
71:24:114:ARG:HG3	71:24:114:ARG:HH11	1.82	0.44
46:1S:1779:U:H2'	46:1S:1781:A:OP2	2.17	0.44
32:70:76:GLU:HA	32:70:79:THR:HB	1.99	0.44
5:L2:133:TYR:CE1	5:L2:135:ILE:HD11	2.50	0.44
20:58:176:ARG:HG3	20:58:183:GLY:CA	2.37	0.44
66:19:35:ASP:N	66:19:53:TRP:HZ2	1.98	0.44
25:63:89:ASP:OD1	25:63:91:VAL:HG22	2.18	0.44
1:2S:1223:A:C5	1:2S:1286:A:C2	3.06	0.44
48:S1:119:THR:HB	48:S1:143:THR:CG2	2.47	0.44
46:1S:1580:C:H2'	46:1S:1581:C:H6	1.82	0.44
1:2S:1585:C:H2'	1:2S:1586:G:O4'	2.18	0.44
30:68:56:VAL:HG23	30:68:57:GLY:H	1.82	0.44
2:8S:41:A:H3'	2:8S:42:G:H8	1.83	0.44
69:22:89:TRP:O	69:22:92:ASN:HB2	2.18	0.44
57:10:49:LEU:O	57:10:53:GLY:O	2.35	0.44
1:2S:104:G:H2'	1:2S:105:C:O4'	2.18	0.44
29:67:118:PHE:C	29:67:120:GLU:H	2.20	0.44
21:59:142:ILE:HG22	21:59:146:LYS:CD	2.48	0.44
43:81:23:ARG:NH2	43:81:23:ARG:HG2	2.30	0.44
7:L4:119:ARG:HH12	7:L4:274:TYR:HB2	1.82	0.44
46:1S:639:U:C5'	54:S7:101:LYS:HD2	2.46	0.44
37:75:101:THR:HG22	37:75:104:GLN:HB2	1.98	0.44
1:2S:711:A:C5	1:2S:712:G:H1'	2.52	0.44
46:1S:1459:C:OP2	46:1S:1459:C:H6	2.01	0.44
1:2S:2482:U:O5'	1:2S:2482:U:H6	2.00	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3086:A:H3'	1:2S:3087:A:C8	2.51	0.44
53:S6:70:PRO:HA	53:S6:98:ARG:HH22	1.82	0.44
39:77:54:LYS:O	39:77:58:THR:HG23	2.18	0.44
63:16:54:LEU:HD21	63:16:112:TYR:CE2	2.53	0.44
59:12:77:GLY:HA3	78:31:114:VAL:HG21	1.98	0.44
46:1S:66:U:C5	53:S6:173:PRO:HG3	2.52	0.44
53:S6:159:ARG:HG2	53:S6:172:ALA:HB2	1.99	0.44
13:50:31:ILE:HD11	13:50:33:ILE:O	2.17	0.44
55:S8:5:ARG:HH12	55:S8:28:GLU:C	2.21	0.44
7:L4:340:GLY:C	7:L4:342:LYS:H	2.21	0.44
1:2S:2443:A:H5'	1:2S:2444:C:OP2	2.17	0.44
46:1S:569:C:OP1	70:23:89:ASN:HA	2.18	0.44
66:19:30:VAL:HA	66:19:31:PRO:HD3	1.74	0.44
2:8S:35:C:H2'	2:8S:36:G:C8	2.52	0.44
46:1S:1405:G:H2'	46:1S:1406:A:H8	1.81	0.44
46:1S:1314:U:H4'	46:1S:1315:U:H5	1.81	0.44
16:54:80:THR:HA	16:54:83:LYS:HB3	2.00	0.44
36:74:67:LYS:O	36:74:71:THR:OG1	2.34	0.44
1:2S:2837:A:H5''	13:50:154:ARG:HH11	1.83	0.44
57:10:82:LEU:CD2	57:10:86:ILE:HG21	2.48	0.44
1:2S:720:A:H5''	20:58:69:ARG:HH22	1.83	0.44
46:1S:504:U:C2	46:1S:505:A:H1'	2.52	0.44
56:S9:108:ARG:HG2	56:S9:147:MET:HE1	1.99	0.44
1:2S:1695:U:H4'	36:74:24:LYS:O	2.18	0.44
5:L2:169:ILE:HG22	5:L2:170:ALA:N	2.32	0.44
55:S8:42:ARG:HG2	55:S8:58:LEU:HD12	1.99	0.44
63:16:129:PHE:CD1	67:20:78:THR:HA	2.53	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
28:66:106:ILE:CG2	28:66:109:LEU:HD21	2.47	0.44
27:65:135:ILE:HD11	27:65:138:ARG:NH1	2.33	0.44
52:S5:56:ALA:HB1	75:28:9:LEU:HD11	1.99	0.44
15:53:70:ARG:HD2	15:53:71:ALA:N	2.31	0.44
10:L7:202:LEU:H	10:L7:202:LEU:HG	1.62	0.44
71:24:124:ARG:NH1	71:24:124:ARG:HG3	2.32	0.44
46:1S:335:U:O5'	46:1S:335:U:H6	2.01	0.44
53:S6:64:LYS:O	53:S6:67:VAL:HG22	2.18	0.44
12:L9:45:PHE:CD1	12:L9:55:VAL:HG12	2.48	0.44
51:S4:211:LYS:HA	51:S4:216:ASN:O	2.18	0.44
46:1S:1498:G:C2'	46:1S:1499:G:C5'	2.95	0.44
64:17:21:TYR:CE1	64:17:73:LEU:HD13	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:71:23:VAL:O	33:71:28:ARG:NH1	2.51	0.44
1:2S:3086:A:H4'	6:L3:366:GLY:HA2	2.00	0.44
5:L2:183:GLY:O	5:L2:187:HIS:HD2	2.00	0.44
9:L6:96:VAL:HG21	9:L6:145:LEU:HD21	2.00	0.44
33:71:72:ARG:HG3	33:71:96:VAL:HG22	1.99	0.44
3:5S:104:A:C2'	3:5S:105:C:H5'	2.47	0.44
1:2S:990:U:H4'	23:61:100:LYS:HB2	1.99	0.44
7:L4:65:TRP:CE3	7:L4:69:ARG:HD2	2.52	0.44
11:L8:53:PRO:O	11:L8:56:VAL:N	2.47	0.44
61:14:61:MET:HG2	61:14:104:ALA:HB2	2.00	0.44
65:18:145:ARG:HB3	65:18:145:ARG:HH21	1.82	0.44
51:S4:222:LEU:HD23	51:S4:222:LEU:H	1.81	0.44
17:55:191:TRP:CE3	17:55:192:LYS:N	2.86	0.44
34:72:69:SER:CB	34:72:118:LYS:HE2	2.47	0.44
70:23:40:SER:O	70:23:41:SER:O	2.36	0.44
1:2S:1705:U:H2'	1:2S:1706:C:O4'	2.17	0.44
19:57:87:SER:O	19:57:91:VAL:HG23	2.17	0.44
11:L8:160:ILE:O	11:L8:164:VAL:HG13	2.17	0.44
1:2S:1651:U:H6	1:2S:1651:U:O5'	2.01	0.44
20:58:8:LYS:HB2	20:58:8:LYS:HE3	1.77	0.44
73:26:97:PRO:N	73:26:98:PRO:CD	2.81	0.44
50:S3:142:LEU:C	50:S3:144:ALA:H	2.21	0.44
12:L9:19:SER:C	12:L9:20:ILE:HG13	2.38	0.44
55:S8:25:ARG:HB2	55:S8:27:PHE:CE1	2.53	0.44
4:L1:193:LEU:HB3	4:L1:195:LYS:H	1.83	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
49:S2:168:ARG:HG2	49:S2:170:ILE:CD1	2.47	0.44
46:1S:2:A:H2'	49:S2:197:TYR:CD1	2.52	0.44
70:23:127:VAL:O	70:23:128:SER:HB2	2.18	0.44
22:60:78:TRP:HB2	22:60:125:LYS:O	2.18	0.44
28:66:87:LYS:CB	28:66:97:ILE:HD11	2.42	0.44
1:2S:1145:G:O2'	34:72:45:ARG:O	2.35	0.44
28:66:35:LEU:HD21	28:66:48:LEU:HB2	2.00	0.44
1:2S:2174:G:OP1	1:2S:2174:G:C8	2.63	0.44
55:S8:153:GLU:HG2	55:S8:155:SER:H	1.82	0.44
24:62:35:LYS:C	24:62:38:ILE:HG22	2.37	0.44
28:66:58:VAL:HG11	28:66:63:LYS:CB	2.42	0.44
53:S6:175:ILE:CB	53:S6:178:LEU:HD22	2.44	0.44
1:2S:968:G:H2'	1:2S:969:C:C6	2.52	0.44
6:L3:106:TRP:HD1	6:L3:133:TYR:OH	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:S0:155:PHE:HA	68:21:60:ARG:HB3	2.00	0.44
10:L7:88:ARG:HA	10:L7:134:VAL:HG12	2.00	0.44
1:2S:1722:U:H2'	1:2S:1723:A:O4'	2.17	0.44
22:60:107:TYR:CD1	22:60:121:ILE:HD12	2.53	0.44
1:2S:1978:A:O2'	1:2S:1979:G:H5'	2.17	0.44
23:61:86:GLU:HG2	23:61:87:LYS:N	2.32	0.44
30:68:44:ASN:O	30:68:48:TYR:HB2	2.17	0.44
8:L5:64:ILE:HD12	8:L5:64:ILE:N	2.32	0.44
1:2S:917:A:H2'	1:2S:917:A:N3	2.32	0.44
63:16:142:TYR:O	63:16:143:ARG:HB3	2.18	0.44
22:60:137:ARG:O	22:60:141:LYS:HG3	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
46:1S:1269:U:H4'	46:1S:1270:G:H5'	2.00	0.44
10:L7:96:PRO:O	10:L7:99:PRO:HD2	2.17	0.44
46:1S:740:A:H2'	46:1S:741:C:C5'	2.47	0.44
46:1S:121:U:H1'	51:S4:33:ALA:CB	2.48	0.44
3:5S:34:C:N4	3:5S:45:A:H2	2.16	0.44
1:2S:2932:U:O5'	1:2S:2932:U:H6	2.01	0.44
48:S1:86:LEU:HA	48:S1:99:ASN:O	2.18	0.44
13:50:20:SER:HB2	13:50:22:TYR:HD1	1.82	0.44
19:57:86:LYS:HA	19:57:89:LYS:HD3	2.00	0.44
1:2S:979:U:H4'	1:2S:980:A:H5'	2.00	0.44
71:24:56:SER:HG	71:24:58:PHE:HE1	1.66	0.44
29:67:115:LYS:O	29:67:119:GLU:HG3	2.18	0.44
79:RA:253:ALA:HA	79:RA:262:VAL:HA	2.00	0.44
58:11:38:ALA:HB3	58:11:42:PHE:O	2.18	0.44
1:2S:555:U:H1'	1:2S:556:U:H5	1.83	0.44
52:S5:76:ARG:HH21	52:S5:76:ARG:HG2	1.83	0.44
62:15:100:LYS:HB2	62:15:100:LYS:HE3	1.71	0.44
1:2S:2910:A:OP2	1:2S:2910:A:H8	2.01	0.44
45:83:80:ARG:HH11	45:83:80:ARG:HG3	1.82	0.44
46:1S:1656:U:H6	46:1S:1656:U:O5'	2.00	0.44
64:17:72:LYS:NZ	64:17:72:LYS:HB2	2.33	0.44
68:21:6:GLY:O	68:21:7:GLN:O	2.36	0.44
20:58:36:LEU:HD13	20:58:45:ASN:OD1	2.18	0.44
1:2S:297:G:H4'	1:2S:299:G:H4'	1.99	0.44
1:2S:2476:C:H2'	1:2S:2477:G:C4'	2.32	0.44
1:2S:2897:A:H4'	42:80:125:LYS:NZ	2.33	0.44
24:62:96:VAL:HB	24:62:104:ARG:HG3	1.98	0.44
1:2S:449:U:H6	1:2S:449:U:H3'	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:19:34:VAL:HG22	66:19:35:ASP:N	2.32	0.44
25:63:85:TRP:CE2	25:63:93:LEU:HG	2.53	0.44
11:L8:130:TYR:CG	11:L8:204:ARG:HD2	2.53	0.44
34:72:61:LYS:HA	34:72:64:LYS:HD2	2.00	0.44
56:S9:149:ARG:O	56:S9:150:LEU:HB3	2.18	0.44
46:1S:1755:A:C5'	70:23:63:GLN:HG3	2.48	0.44
46:1S:1570:A:H3'	46:1S:1571:C:C6	2.53	0.44
46:1S:1563:C:O2'	46:1S:1564:U:H5'	2.18	0.44
65:18:41:ARG:NH1	66:19:38:LYS:HG3	2.32	0.44
1:2S:2866:U:H4'	1:2S:2867:C:H5'	1.99	0.44
35:73:18:ARG:HB3	35:73:23:ASN:CA	2.48	0.44
46:1S:845:G:C2'	46:1S:846:G:H5''	2.47	0.44
19:57:26:PHE:CE2	19:57:121:GLN:HG3	2.52	0.44
60:13:70:LYS:H	60:13:73:ARG:HB2	1.82	0.44
2:8S:79:A:H2'	2:8S:80:A:C4'	2.43	0.44
56:S9:93:LEU:O	56:S9:97:LEU:HG	2.18	0.44
46:1S:698:U:H1'	54:S7:107:ARG:HD3	1.99	0.44
45:83:42:CYS:HB2	45:83:44:LYS:HD2	2.00	0.44
6:L3:229:VAL:HG11	6:L3:249:VAL:HG23	2.00	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
46:1S:1276:U:H4'	50:S3:147:ALA:HB2	2.00	0.44
54:S7:111:LYS:HG3	54:S7:112:ARG:N	2.33	0.44
49:S2:229:LEU:HD21	68:21:23:ILE:CD1	2.48	0.44
46:1S:1362:U:H1'	46:1S:1363:U:O2	2.18	0.44
54:S7:46:ILE:HD11	54:S7:60:ILE:HG23	2.00	0.44
3:5S:4:U:H2'	3:5S:5:G:H8	1.82	0.44
1:2S:2266:U:H2'	1:2S:2267:C:C6	2.51	0.44
54:S7:23:ALA:HB1	54:S7:81:LEU:CD2	2.48	0.44
25:63:81:GLN:NE2	25:63:83:LYS:HB3	2.33	0.44
30:68:94:ALA:CA	30:68:121:VAL:HG13	2.47	0.44
19:57:112:LEU:HD11	19:57:152:GLU:HG2	2.00	0.44
79:RA:311:ARG:NH1	79:RA:311:ARG:HG3	2.33	0.44
5:L2:147:ARG:HA	5:L2:157:VAL:HA	2.00	0.44
6:L3:307:PRO:HB3	6:L3:362:ALA:O	2.18	0.44
62:15:72:LYS:HD3	62:15:93:VAL:CG2	2.48	0.44
1:2S:2966:G:O5'	1:2S:2966:G:H8	2.00	0.44
62:15:40:ARG:HA	62:15:40:ARG:HE	1.83	0.44
1:2S:2810:C:H4'	1:2S:2810:C:OP1	2.17	0.44
8:L5:194:LEU:HD23	8:L5:194:LEU:O	2.18	0.44
46:1S:91:G:H2'	46:1S:92:A:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:28:LYS:HD2	5:L2:123:ARG:NH2	2.33	0.44
56:S9:123:HIS:HA	77:30:33:ARG:HD2	2.00	0.43
25:63:45:ARG:HG2	25:63:48:ARG:CD	2.47	0.43
60:13:23:PRO:O	60:13:24:ALA:CB	2.65	0.43
25:63:18:PRO:HA	25:63:51:ALA:HA	2.00	0.43
1:2S:895:A:H3'	1:2S:895:A:N3	2.33	0.43
48:S1:176:VAL:HA	48:S1:184:LEU:HD21	1.99	0.43
70:23:104:LEU:HD22	70:23:124:VAL:HA	1.99	0.43
50:S3:66:ILE:HD13	50:S3:69:LEU:CD1	2.48	0.43
35:73:59:VAL:CG2	35:73:60:ARG:H	2.22	0.43
7:L4:52:VAL:HG13	7:L4:53:SER:H	1.81	0.43
55:S8:43:ILE:HG13	55:S8:57:ALA:HA	1.99	0.43
60:13:16:ILE:HA	60:13:17:PRO:HD3	1.88	0.43
1:2S:1114:U:OP1	30:68:22:ILE:HB	2.18	0.43
69:22:89:TRP:CE3	69:22:92:ASN:ND2	2.86	0.43
46:1S:684:A:C2'	46:1S:685:A:H5'	2.48	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
67:20:57:ARG:HG3	67:20:89:ARG:CZ	2.47	0.43
1:2S:900:G:H2'	1:2S:901:G:O4'	2.18	0.43
46:1S:1020:A:C3'	46:1S:1021:C:H5''	2.42	0.43
61:14:135:ARG:HB3	73:26:26:CYS:HB2	2.00	0.43
48:S1:33:LYS:HE3	48:S1:95:ASN:OD1	2.18	0.43
21:59:62:ARG:O	21:59:66:HIS:HB2	2.18	0.43
49:S2:35:TRP:CZ2	49:S2:67:GLN:HB2	2.52	0.43
46:1S:698:U:H2'	46:1S:699:U:C6	2.52	0.43
64:17:21:TYR:CD1	64:17:73:LEU:HD13	2.53	0.43
1:2S:2272:G:N3	1:2S:2272:G:H5'	2.33	0.43
63:16:137:ARG:HB3	63:16:138:PHE:H	1.42	0.43
47:S0:74:VAL:HG23	47:S0:118:PRO:CB	2.47	0.43
15:53:67:ARG:CZ	15:53:68:LYS:CG	2.95	0.43
62:15:86:VAL:HG23	62:15:87:PRO:HD2	2.00	0.43
2:8S:141:C:H5'	17:55:109:ARG:HD2	1.99	0.43
79:RA:205:SER:HB3	79:RA:245:PHE:CD1	2.53	0.43
9:L6:105:TYR:CE1	9:L6:134:ARG:HD3	2.53	0.43
52:S5:34:GLN:HG2	63:16:57:LEU:CD1	2.48	0.43
1:2S:230:U:OP1	28:66:4:GLN:HG2	2.18	0.43
1:2S:1969:G:H22	1:2S:2051:G:H1'	1.83	0.43
46:1S:934:C:N4	46:1S:1077:C:H4'	2.33	0.43
11:L8:44:ARG:HB2	11:L8:46:LEU:HD21	2.00	0.43
50:S3:116:ARG:O	50:S3:120:TYR:CD2	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2750:U:H4'	8:L5:35:ARG:NH2	2.33	0.43
1:2S:2060:A:H2'	1:2S:2061:G:H5'	2.00	0.43
1:2S:3281:U:H2'	1:2S:3282:U:O4'	2.17	0.43
1:2S:1705:U:C2'	1:2S:1706:C:H5'	2.48	0.43
46:1S:1513:G:H2'	46:1S:1514:U:H5''	2.00	0.43
70:23:66:SER:O	70:23:67:ALA:HB2	2.18	0.43
7:L4:184:SER:HB2	7:L4:202:ARG:HG2	2.00	0.43
9:L6:164:SER:HB3	35:73:5:HIS:HA	2.00	0.43
1:2S:3239:G:H2'	1:2S:3240:C:O4'	2.18	0.43
14:51:117:ASP:HA	14:51:118:PRO:HD2	1.92	0.43
62:15:97:TYR:HA	62:15:101:ALA:O	2.18	0.43
59:12:58:LEU:HD23	59:12:58:LEU:N	2.33	0.43
55:S8:123:LYS:HD3	55:S8:123:LYS:HA	1.83	0.43
1:2S:2107:A:H2'	1:2S:2107:A:N3	2.33	0.43
1:2S:1556:C:O2	1:2S:1556:C:O4'	2.35	0.43
79:RA:295:SER:HB2	79:RA:300:THR:O	2.18	0.43
11:L8:101:THR:OG1	11:L8:102:ALA:N	2.50	0.43
4:L1:104:SER:O	4:L1:128:LEU:CD2	2.66	0.43
73:26:79:ILE:HA	73:26:84:VAL:HG11	2.00	0.43
69:22:125:ILE:HG12	69:22:126:LEU:H	1.83	0.43
30:68:101:VAL:HA	30:68:124:ILE:HB	2.00	0.43
1:2S:2844:C:H42	1:2S:2898:G:N2	2.16	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:30:G:OP2	17:55:187:ARG:HB2	2.18	0.43
51:S4:122:LYS:HE3	51:S4:122:LYS:HB2	1.84	0.43
46:1S:1604:U:H5'	67:20:79:TRP:CD1	2.53	0.43
12:L9:157:ASN:O	12:L9:160:ASP:HB3	2.18	0.43
1:2S:2356:A:H5'	19:57:138:LYS:NZ	2.33	0.43
46:1S:307:G:C5'	58:11:92:HIS:NE2	2.81	0.43
39:77:39:TYR:HD2	39:77:39:TYR:HA	1.69	0.43
50:S3:168:ILE:HG22	50:S3:189:MET:CA	2.47	0.43
25:63:55:GLY:H	25:63:78:VAL:HB	1.83	0.43
46:1S:1291:G:H2'	46:1S:1292:G:C8	2.52	0.43
53:S6:67:VAL:O	53:S6:68:LEU:HB2	2.18	0.43
46:1S:215:A:H1'	46:1S:242:U:C4	2.54	0.43
5:L2:202:VAL:O	5:L2:202:VAL:CG1	2.66	0.43
17:55:67:ARG:HA	17:55:126:THR:O	2.18	0.43
67:20:22:ILE:HG22	67:20:93:LEU:O	2.18	0.43
56:S9:43:TYR:O	56:S9:47:PHE:HB2	2.18	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
66:19:65:ILE:HG12	66:19:71:VAL:CG2	2.48	0.43
1:2S:1790:G:O2'	1:2S:1791:C:H5'	2.18	0.43
1:2S:1498:A:H2'	1:2S:1499:C:H6	1.82	0.43
46:1S:1196:A:H4'	46:1S:1197:C:H5''	2.00	0.43
1:2S:1506:A:H1'	1:2S:1848:G:C6	2.53	0.43
1:2S:2998:U:H2'	1:2S:2999:U:C6	2.52	0.43
46:1S:426:G:N2	46:1S:459:G:O2'	2.50	0.43
46:1S:1585:U:H3	46:1S:1611:A:H2	1.66	0.43
50:S3:175:VAL:O	50:S3:181:VAL:HA	2.18	0.43
20:58:85:GLY:HA2	20:58:104:LEU:HD12	2.01	0.43
3:5S:106:U:H2'	3:5S:107:C:C6	2.52	0.43
1:2S:2853:A:H5'	13:50:63:GLU:HB2	1.99	0.43
11:L8:152:LEU:HB3	11:L8:198:ALA:HB3	2.00	0.43
1:2S:3307:A:OP1	1:2S:3307:A:H8	2.01	0.43
22:60:92:LYS:O	22:60:93:GLU:HG3	2.19	0.43
6:L3:161:LEU:HA	6:L3:179:ALA:O	2.18	0.43
77:30:30:PRO:HB2	77:30:34:ALA:CB	2.48	0.43
46:1S:393:C:H2'	46:1S:394:C:C6	2.53	0.43
1:2S:942:U:C6	30:68:15:VAL:CG1	3.01	0.43
46:1S:487:G:C3'	46:1S:488:G:H5''	2.48	0.43
51:S4:63:ALA:C	51:S4:67:GLN:HE21	2.20	0.43
1:2S:671:U:H4'	20:58:20:LYS:CD	2.35	0.43
7:L4:239:ALA:HB1	7:L4:243:HIS:O	2.18	0.43
46:1S:886:U:O2'	61:14:122:PRO:HA	2.18	0.43
72:25:96:SER:O	72:25:97:LYS:CG	2.62	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
48:S1:48:VAL:HG12	48:S1:49:ASN:N	2.25	0.43
33:71:18:LYS:HG3	33:71:19:ARG:NH1	2.34	0.43
6:L3:92:TYR:HD2	6:L3:99:LEU:HB3	1.82	0.43
1:2S:621:A:H8	1:2S:623:U:O4	2.01	0.43
52:S5:175:LEU:HD22	52:S5:197:GLU:CG	2.43	0.43
4:L1:93:LEU:CD1	4:L1:119:GLN:HE21	2.31	0.43
28:66:112:ASP:H	28:66:115:ARG:CB	2.32	0.43
1:2S:1010:G:H4'	13:50:40:LYS:HE2	2.00	0.43
1:2S:937:G:H4'	1:2S:963:G:H4'	2.01	0.43
46:1S:1762:A:H1'	46:1S:1783:C:H5'	2.00	0.43
46:1S:533:U:H4'	71:24:33:ALA:HB2	1.99	0.43
13:50:48:LEU:HD22	13:50:49:CYS:N	2.34	0.43
60:13:102:LEU:HD21	60:13:111:ALA:CB	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:15:126:VAL:CG1	62:15:127:ARG:N	2.81	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
46:1S:967:A:H2'	46:1S:968:U:C6	2.53	0.43
61:14:39:ILE:O	61:14:40:ALA:CB	2.66	0.43
37:75:75:TYR:O	37:75:76:GLN:HB3	2.18	0.43
28:66:111:LEU:HD23	28:66:119:ILE:HD11	1.98	0.43
3:5S:35:C:H2'	3:5S:36:C:O4'	2.19	0.43
50:S3:202:LEU:HA	50:S3:203:PRO:HD3	1.79	0.43
4:L1:67:ILE:CG1	4:L1:68:PHE:N	2.81	0.43
13:50:18:PRO:HA	13:50:94:PHE:O	2.18	0.43
17:55:146:ALA:HB2	37:75:99:GLN:O	2.17	0.43
1:2S:1705:U:H2'	1:2S:1706:C:H5'	2.00	0.43
22:60:75:PHE:O	22:60:93:GLU:HA	2.17	0.43
46:1S:32:U:O2'	46:1S:33:U:H5'	2.18	0.43
1:2S:551:A:HO2'	1:2S:552:G:H8	1.66	0.43
2:8S:118:C:H2'	2:8S:119:C:C6	2.53	0.43
1:2S:1922:A:H2'	1:2S:1923:C:O4'	2.19	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
46:1S:1524:A:C2	46:1S:1525:A:C5	3.07	0.43
17:55:35:VAL:CG2	17:55:65:ARG:HH21	2.17	0.43
46:1S:433:C:H2'	46:1S:434:G:O4'	2.18	0.43
1:2S:1523:U:O2'	1:2S:1524:A:H5'	2.19	0.43
46:1S:449:C:OP1	51:S4:81:THR:HG21	2.18	0.43
60:13:16:ILE:HG13	60:13:17:PRO:HD2	1.98	0.43
1:2S:98:G:C4'	1:2S:281:G:H5'	2.48	0.43
22:60:38:LYS:HB2	22:60:38:LYS:HE3	1.81	0.43
75:28:33:LEU:H	75:28:33:LEU:HD22	1.83	0.43
60:13:140:LYS:CG	60:13:141:TYR:H	2.24	0.43
1:2S:284:A:H4'	1:2S:285:A:N3	2.33	0.43
1:2S:2273:G:N2	1:2S:2311:G:H2'	2.32	0.43
73:26:12:LYS:HA	73:26:15:ARG:HH21	1.83	0.43
1:2S:1430:U:H2'	30:68:9:ARG:NH2	2.31	0.43
63:16:89:LEU:HG	63:16:93:HIS:CD2	2.53	0.43
19:57:108:ASP:CB	19:57:111:LYS:HE2	2.47	0.43
1:2S:1340:G:H2'	1:2S:1341:U:H6	1.78	0.43
47:S0:143:VAL:HG12	47:S0:144:ILE:N	2.33	0.43
13:50:185:ARG:HA	13:50:190:VAL:HG21	2.00	0.43
26:64:45:ASN:CB	26:64:48:ARG:HG3	2.47	0.43
1:2S:1479:U:C5	1:2S:1480:G:C6	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2291:A:H2'	1:2S:2292:U:O4'	2.18	0.43
40:78:43:PHE:O	40:78:53:THR:HA	2.19	0.43
1:2S:2939:G:H2'	1:2S:2940:A:O4'	2.18	0.43
23:61:43:LYS:HG3	23:61:58:GLN:HE22	1.82	0.43
1:2S:2660:G:H5'	1:2S:2750:U:O2'	2.18	0.43
46:1S:291:G:H2'	46:1S:292:U:C5	2.52	0.43
46:1S:790:U:H2'	46:1S:791:A:C8	2.54	0.43
44:82:9:LYS:HA	44:82:21:THR:O	2.19	0.43
4:L1:186:SER:O	4:L1:190:PHE:HB2	2.19	0.43
19:57:10:ASN:HA	19:57:11:PRO:HD2	1.85	0.43
66:19:106:GLN:O	66:19:110:LYS:HE3	2.19	0.43
74:27:36:LYS:HG2	74:27:43:ILE:HG22	2.00	0.43
50:S3:94:ARG:HG2	50:S3:94:ARG:HH11	1.83	0.43
1:2S:109:A:H4'	1:2S:110:G:H5'	1.99	0.43
47:S0:163:ASN:C	47:S0:165:ARG:H	2.21	0.43
1:2S:863:C:H2'	1:2S:864:G:O4'	2.18	0.43
1:2S:827:A:H5'	36:74:14:ASN:O	2.18	0.43
49:S2:154:LEU:N	49:S2:154:LEU:HD12	2.33	0.43
11:L8:78:PHE:C	11:L8:80:TYR:N	2.72	0.43
64:17:117:LEU:O	64:17:117:LEU:HD13	2.17	0.43
56:S9:108:ARG:HG2	56:S9:147:MET:CE	2.49	0.43
22:60:87:THR:HB	23:61:156:TYR:CD1	2.53	0.43
65:18:11:PHE:HE1	72:25:41:ILE:HB	1.83	0.43
27:65:120:LYS:HG2	27:65:121:LYS:N	2.33	0.43
46:1S:460:A:H5'	46:1S:461:G:OP2	2.19	0.43
46:1S:460:A:N3	46:1S:460:A:H2'	2.34	0.43
17:55:58:GLY:HA3	17:55:142:ILE:CD1	2.42	0.43
15:53:57:VAL:CG1	15:53:69:VAL:HG22	2.43	0.43
32:70:84:LEU:N	32:70:84:LEU:HD12	2.33	0.43
1:2S:523:A:H4'	22:60:67:ALA:O	2.18	0.43
39:77:21:ARG:HB2	39:77:39:TYR:CZ	2.53	0.43
51:S4:19:LEU:HD11	51:S4:108:ARG:CD	2.45	0.43
1:2S:2148:U:O3'	1:2S:2149:A:H8	2.00	0.43
12:L9:67:ALA:HA	12:L9:70:THR:HG22	2.00	0.43
46:1S:1760:G:O2'	46:1S:1761:U:H5'	2.19	0.43
46:1S:1113:A:H8	46:1S:1113:A:OP1	2.01	0.43
5:L2:189:TYR:HA	5:L2:192:LYS:HD2	2.00	0.43
1:2S:3017:A:H2'	1:2S:3018:C:H6	1.81	0.43
58:11:80:MET:HE1	58:11:84:ILE:HA	2.01	0.43
46:1S:380:U:C4	56:S9:5:PRO:HA	2.53	0.43
1:2S:2243:A:C2'	5:L2:244:GLY:HA2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:76:91:ASN:OD1	38:76:94:ILE:HD12	2.18	0.43
76:29:21:CYS:HB3	76:29:26:SER:H	1.83	0.43
65:18:63:GLN:O	65:18:67:GLU:HG3	2.18	0.43
59:12:71:ILE:HG23	59:12:72:ILE:H	1.83	0.43
58:11:2:SER:HB2	58:11:82:ARG:N	2.34	0.43
10:L7:157:ASN:O	10:L7:158:LYS:HB3	2.18	0.43
1:2S:2471:U:H2'	1:2S:2472:U:H5'	2.01	0.43
12:L9:92:TYR:CD1	12:L9:92:TYR:N	2.86	0.43
60:13:87:ASP:O	60:13:91:LEU:HG	2.18	0.43
1:2S:286:U:H2'	1:2S:287:G:H8	1.83	0.43
1:2S:2665:U:O4	1:2S:2703:A:H4'	2.19	0.43
2:8S:145:U:H2'	2:8S:146:U:C6	2.53	0.43
46:1S:1286:U:H6	46:1S:1286:U:O5'	2.00	0.43
1:2S:2587:U:H2'	1:2S:2588:U:C6	2.54	0.43
46:1S:499:U:H6	46:1S:499:U:H3'	1.83	0.43
29:67:33:SER:HB3	29:67:36:HIS:O	2.18	0.43
50:S3:94:ARG:HG2	50:S3:94:ARG:NH1	2.34	0.43
38:76:95:ALA:C	38:76:97:SER:H	2.22	0.43
1:2S:1788:C:H2'	1:2S:1789:G:C8	2.53	0.43
1:2S:2451:G:H1	1:2S:2495:C:H42	1.66	0.43
79:RA:135:THR:CG2	79:RA:141:LEU:HD21	2.47	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
12:L9:88:TYR:OH	12:L9:151:VAL:HG13	2.18	0.43
40:78:40:GLN:HG2	40:78:41:THR:N	2.33	0.43
53:S6:162:VAL:HG12	53:S6:169:TYR:O	2.19	0.43
16:54:53:VAL:HA	16:54:54:PRO:HD3	1.85	0.43
24:62:20:SER:HB3	24:62:61:THR:HB	2.00	0.43
9:L6:60:ASP:O	9:L6:61:ASN:HB2	2.18	0.43
66:19:4:VAL:HG22	66:19:5:SER:N	2.33	0.43
4:L1:136:THR:H	4:L1:137:PRO:HD2	1.83	0.43
46:1S:398:G:H2'	46:1S:399:A:H5''	2.01	0.43
1:2S:2376:G:H2'	1:2S:2377:G:N7	2.28	0.43
8:L5:58:LYS:HA	8:L5:58:LYS:HD3	1.71	0.43
34:72:21:HIS:HB3	34:72:24:ARG:HB3	2.01	0.43
40:78:46:ARG:CD	40:78:51:LEU:HD13	2.35	0.43
49:S2:159:THR:HG23	49:S2:167:VAL:O	2.18	0.43
52:S5:124:LEU:N	52:S5:124:LEU:HD12	2.34	0.43
1:2S:2378:C:C2	1:2S:2379:U:C5	3.07	0.43
1:2S:2378:C:H2'	1:2S:2379:U:H6	1.82	0.43
28:66:45:ILE:CD1	28:66:48:LEU:HD11	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:20:GLU:OE2	56:S9:23:ARG:HB2	2.19	0.43
1:2S:1709:C:H5''	29:67:15:ARG:HH22	1.83	0.43
46:1S:707:A:H3'	46:1S:708:C:H5''	2.00	0.43
67:20:63:LEU:O	76:29:52:PHE:HE1	2.02	0.43
58:11:155:LYS:H	58:11:155:LYS:CD	2.24	0.43
10:L7:203:TRP:CG	10:L7:204:PRO:HD2	2.53	0.43
6:L3:164:THR:HG22	6:L3:165:GLN:N	2.34	0.43
68:21:9:VAL:HG22	68:21:10:GLU:N	2.34	0.43
1:2S:741:U:C2	1:2S:742:G:H1'	2.53	0.43
63:16:97:VAL:HG12	63:16:98:ASP:N	2.33	0.43
61:14:128:LYS:HB2	73:26:22:ARG:CZ	2.49	0.43
11:L8:24:ASN:HB3	11:L8:25:PRO:CD	2.49	0.43
51:S4:179:LYS:HG2	51:S4:230:GLU:OE2	2.18	0.43
2:8S:66:A:H2'	2:8S:67:U:C6	2.54	0.43
1:2S:1359:C:O2'	1:2S:1360:C:H5'	2.18	0.43
50:S3:76:ARG:C	50:S3:76:ARG:CD	2.87	0.43
1:2S:2491:A:O2'	4:L1:39:LYS:HD3	2.17	0.43
1:2S:917:A:H3'	1:2S:918:C:C6	2.54	0.43
1:2S:603:A:H2'	1:2S:604:G:C4'	2.49	0.43
50:S3:162:GLN:HA	50:S3:165:ASN:HD22	1.84	0.43
1:2S:3185:U:C5'	12:L9:23:ARG:HH12	2.31	0.43
1:2S:1593:A:H4'	36:74:61:GLN:NE2	2.32	0.43
36:74:58:ARG:HB3	36:74:61:GLN:CG	2.47	0.43
48:S1:61:LEU:HB2	48:S1:62:LYS:H	1.63	0.43
29:67:123:GLN:O	29:67:124:ALA:CB	2.67	0.43
20:58:147:ARG:HG2	20:58:148:GLU:N	2.34	0.43
1:2S:103:G:H4'	15:53:65:TYR:CD2	2.54	0.43
1:2S:214:G:H4'	28:66:10:SER:O	2.19	0.43
3:5S:4:U:H2'	3:5S:5:G:C8	2.53	0.43
6:L3:93:VAL:HG22	6:L3:94:GLU:N	2.33	0.43
35:73:91:ALA:C	35:73:93:THR:H	2.20	0.43
1:2S:530:G:O2'	1:2S:531:G:H5'	2.19	0.43
1:2S:2584:G:H1'	11:L8:240:ASN:HD21	1.83	0.43
48:S1:146:GLN:HE21	48:S1:146:GLN:HB2	1.58	0.43
48:S1:146:GLN:HG3	48:S1:147:ALA:N	2.33	0.43
52:S5:41:LYS:HE3	52:S5:67:PRO:HB2	2.00	0.43
1:2S:2538:U:H3'	1:2S:2539:C:H6	1.83	0.43
1:2S:2140:U:C2'	1:2S:2141:U:H5'	2.48	0.43
56:S9:159:ALA:HA	56:S9:160:PRO:HD3	1.85	0.43
46:1S:528:U:H2'	46:1S:529:A:O4'	2.18	0.43
1:2S:2383:C:N4	18:56:91:LYS:HG2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1192:C:H2'	46:1S:1193:A:N7	2.34	0.43
8:L5:6:ASP:HB3	8:L5:7:ALA:H	1.59	0.43
50:S3:216:PRO:C	50:S3:217:ILE:HD12	2.39	0.43
22:60:146:LYS:HD2	22:60:146:LYS:HA	1.83	0.43
47:S0:111:ILE:HG13	47:S0:111:ILE:O	2.18	0.43
1:2S:169:U:H5''	1:2S:169:U:H6	1.83	0.43
46:1S:1095:U:H6	46:1S:1095:U:O5'	2.02	0.43
23:61:108:ARG:HG2	23:61:108:ARG:HH21	1.84	0.43
1:2S:107:A:O2'	1:2S:325:A:N3	2.51	0.43
7:L4:321:LYS:O	7:L4:325:LEU:HG	2.18	0.43
46:1S:387:A:H1'	46:1S:425:A:H2	1.84	0.43
1:2S:59:G:H4'	1:2S:60:A:OP1	2.18	0.43
51:S4:102:VAL:HG22	51:S4:103:TYR:H	1.84	0.43
17:55:73:ARG:HB2	17:55:92:LEU:CD2	2.48	0.43
35:73:59:VAL:HG21	35:73:65:ARG:HD3	2.00	0.43
1:2S:1306:G:O3'	18:56:60:LYS:HG2	2.18	0.43
51:S4:95:THR:O	51:S4:96:ASN:HB2	2.18	0.43
46:1S:448:C:H5'	51:S4:29:PRO:CG	2.40	0.43
56:S9:53:ARG:HG2	56:S9:53:ARG:NH2	2.33	0.43
10:L7:37:ASN:O	10:L7:41:ARG:HG3	2.18	0.43
3:5S:9:C:H2'	3:5S:10:C:H5'	2.01	0.43
46:1S:1389:C:H4'	64:17:49:LYS:HA	2.01	0.43
2:8S:42:G:H5''	39:77:61:THR:OG1	2.19	0.43
46:1S:645:C:H2'	46:1S:646:C:C6	2.54	0.43
55:S8:193:LEU:O	55:S8:197:THR:HG23	2.19	0.43
46:1S:1316:G:C4'	64:17:10:LYS:HE3	2.47	0.43
2:8S:155:A:H5'	11:L8:185:ARG:NH1	2.34	0.43
52:S5:156:ARG:C	52:S5:156:ARG:HD3	2.39	0.43
45:83:84:ARG:HD2	45:83:87:ARG:HH21	1.83	0.43
60:13:33:VAL:HG21	60:13:66:ILE:HG12	2.00	0.43
46:1S:971:A:H3'	46:1S:972:G:H8	1.83	0.43
62:15:126:VAL:CG1	62:15:127:ARG:H	2.31	0.43
7:L4:106:TRP:CZ3	15:53:22:VAL:HG21	2.53	0.43
62:15:98:ASN:HB2	62:15:122:THR:HG22	2.01	0.43
25:63:33:ASN:ND2	25:63:33:ASN:H	2.14	0.43
1:2S:1312:C:O2'	18:56:83:ALA:O	2.37	0.43
8:L5:181:PRO:HG2	8:L5:195:LEU:HD12	2.00	0.43
64:17:85:VAL:HG12	64:17:85:VAL:O	2.19	0.43
12:L9:92:TYR:HB3	12:L9:99:ILE:CD1	2.48	0.43
46:1S:1529:C:H2'	46:1S:1530:C:C6	2.54	0.43
1:2S:1132:C:H2'	1:2S:1133:A:C8	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2649:A:O2'	1:2S:2650:U:H5'	2.18	0.43
1:2S:1841:A:O2'	1:2S:1842:A:H5''	2.19	0.43
1:2S:2538:U:H5''	1:2S:2539:C:C5	2.54	0.43
20:58:43:PRO:O	20:58:47:VAL:HG23	2.18	0.43
15:53:128:ARG:NH2	37:75:112:PRO:HD2	2.33	0.43
1:2S:1863:G:H8	1:2S:1863:G:O5'	2.02	0.43
46:1S:53:G:H2'	46:1S:54:C:C6	2.54	0.43
63:16:52:LEU:HD22	63:16:60:PHE:CE2	2.53	0.43
1:2S:174:C:O5'	1:2S:174:C:H6	2.01	0.43
54:S7:155:ASP:O	54:S7:186:PRO:HD2	2.19	0.43
1:2S:660:A:H4'	7:L4:100:PHE:CD2	2.54	0.43
65:18:94:ASP:HB2	65:18:96:LYS:HE2	2.00	0.43
6:L3:87:VAL:HG22	6:L3:162:VAL:HA	2.01	0.43
9:L6:78:ARG:O	9:L6:79:VAL:CG2	2.67	0.43
48:S1:171:ILE:O	48:S1:171:ILE:HG22	2.18	0.43
46:1S:398:G:H21	51:S4:5:PRO:HD2	1.84	0.43
73:26:78:ALA:HA	73:26:82:ARG:CB	2.44	0.43
1:2S:2736:A:H4'	23:61:71:SER:HG	1.81	0.43
46:1S:1657:U:H4'	46:1S:1658:G:O5'	2.18	0.43
46:1S:1185:U:C4	46:1S:1458:G:H1'	2.53	0.43
15:53:158:ALA:CA	30:68:97:GLU:HA	2.37	0.43
7:L4:237:GLN:HA	7:L4:240:PRO:HG3	2.00	0.43
19:57:50:GLN:O	19:57:55:GLN:HB2	2.19	0.43
15:53:180:ARG:HG2	15:53:180:ARG:HH11	1.83	0.43
28:66:48:LEU:HA	28:66:49:PRO:HD3	1.81	0.43
1:2S:3088:G:H5'	6:L3:313:HIS:HE1	1.81	0.43
1:2S:867:G:H2'	1:2S:868:C:C6	2.53	0.43
73:26:41:ILE:HG22	73:26:68:TYR:HD1	1.84	0.43
46:1S:1161:C:O2'	46:1S:1162:C:H5'	2.18	0.43
50:S3:167:PHE:HE1	50:S3:192:PRO:HA	1.80	0.43
19:57:57:ALA:CB	19:57:81:ALA:HB1	2.48	0.43
4:L1:93:LEU:HD21	4:L1:118:LYS:HG3	1.99	0.43
28:66:51:ARG:HH21	28:66:53:ASP:H	1.66	0.43
15:53:91:ARG:HG3	15:53:91:ARG:NH1	2.34	0.43
1:2S:215:G:C4'	28:66:15:ALA:CB	2.97	0.43
71:24:19:ALA:HB1	71:24:77:ASN:HD22	1.82	0.43
46:1S:628:G:H22	46:1S:970:A:H5''	1.84	0.43
1:2S:1231:A:HO2'	1:2S:1261:G:H1'	1.83	0.43
1:2S:1932:A:C2'	1:2S:1933:A:H5'	2.48	0.43
58:11:66:ILE:HG23	58:11:127:GLN:C	2.39	0.43
78:31:123:ASN:H	78:31:126:CYS:HB2	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:79:47:THR:CG2	41:79:48:LYS:N	2.82	0.43
1:2S:2154:U:H4'	5:L2:240:ALA:CB	2.48	0.43
46:1S:67:A:H2'	46:1S:69:G:O4'	2.19	0.43
46:1S:1528:U:H2'	46:1S:1529:C:C6	2.53	0.43
19:57:14:SER:HB3	19:57:149:VAL:HG11	2.00	0.43
1:2S:882:A:N3	1:2S:882:A:H2'	2.34	0.43
1:2S:1676:A:H5''	24:62:101:ASN:HD21	1.84	0.43
1:2S:174:C:H2'	1:2S:175:C:C6	2.54	0.43
1:2S:583:G:H4'	35:73:106:ASN:OD1	2.18	0.43
38:76:23:ALA:HB1	38:76:24:PRO:HD2	1.99	0.43
6:L3:220:VAL:HG22	6:L3:274:SER:OG	2.19	0.43
56:S9:34:PHE:CD2	56:S9:105:LEU:HD23	2.54	0.43
1:2S:612:U:H2'	1:2S:613:G:C8	2.53	0.43
9:L6:175:LYS:HD3	16:54:111:ALA:HA	2.00	0.43
46:1S:376:C:C2'	46:1S:377:G:H5'	2.49	0.43
1:2S:272:G:H2'	1:2S:273:A:H8	1.84	0.43
1:2S:1063:G:H2'	1:2S:1097:G:C2	2.54	0.43
65:18:74:GLN:HE21	65:18:74:GLN:HB3	1.52	0.43
1:2S:2411:U:H2'	1:2S:2412:G:O4'	2.19	0.43
1:2S:850:U:H2'	1:2S:851:C:C6	2.54	0.43
53:S6:163:THR:CG2	53:S6:168:THR:HG22	2.22	0.43
56:S9:126:ARG:HG3	77:30:33:ARG:HD3	2.00	0.43
17:55:162:ARG:HH21	17:55:164:LEU:HD11	1.84	0.43
6:L3:232:ARG:HH11	6:L3:268:GLY:CA	2.30	0.43
73:26:60:PRO:O	73:26:61:GLU:CG	2.51	0.43
46:1S:1524:A:OP1	66:19:79:LEU:HA	2.18	0.43
1:2S:3128:G:C8	1:2S:3128:G:OP2	2.67	0.43
72:25:41:ILE:HG13	72:25:42:LEU:N	2.34	0.43
36:74:24:LYS:HA	36:74:24:LYS:HD2	1.91	0.43
38:76:9:ILE:HB	38:76:10:GLY:H	1.62	0.43
36:74:95:ILE:N	36:74:95:ILE:CD1	2.81	0.43
33:71:12:TYR:HD2	33:71:75:ILE:HD12	1.83	0.43
60:13:139:TRP:O	60:13:140:LYS:HE2	2.19	0.43
69:22:94:LEU:HA	69:22:95:PRO:HD3	1.63	0.43
32:70:22:LYS:CB	32:70:94:GLU:HB2	2.49	0.43
13:50:79:VAL:HG12	13:50:147:VAL:HG21	2.00	0.43
50:S3:132:LYS:HA	50:S3:132:LYS:HD2	1.67	0.43
54:S7:56:LYS:HB2	54:S7:88:ARG:CD	2.44	0.43
46:1S:514:G:H1	46:1S:543:C:H41	1.67	0.43
2:8S:37:A:H2'	2:8S:37:A:N3	2.33	0.43
63:16:89:LEU:O	63:16:93:HIS:CD2	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L2:96:LEU:HD22	45:83:87:ARG:HB2	2.00	0.43
1:2S:1977:C:H2'	1:2S:1978:A:C8	2.53	0.43
67:20:67:THR:HG22	67:20:68:ARG:H	1.82	0.43
1:2S:915:A:C5	1:2S:917:A:H1'	2.53	0.43
1:2S:860:G:H5'	45:83:17:ARG:HH12	1.84	0.43
66:19:83:ALA:HA	66:19:92:LYS:O	2.19	0.43
40:78:29:LYS:HE2	40:78:37:PRO:CB	2.49	0.43
1:2S:2957:G:H2'	1:2S:2958:A:C5'	2.49	0.43
1:2S:1301:A:H4'	1:2S:1302:A:H5''	2.01	0.43
54:S7:46:ILE:HD13	54:S7:60:ILE:HA	2.00	0.43
53:S6:77:LEU:CD1	53:S6:95:LYS:HD3	2.49	0.43
46:1S:882:U:H2'	46:1S:883:C:H6	1.82	0.43
1:2S:211:A:H3'	7:L4:221:ASN:HD21	1.83	0.43
1:2S:1421:G:H2'	1:2S:1422:G:C8	2.53	0.43
69:22:41:MET:HA	69:22:46:TYR:HD2	1.83	0.43
1:2S:706:A:C2'	1:2S:707:U:H5'	2.49	0.43
44:82:38:GLN:HA	44:82:41:ARG:HE	1.83	0.43
79:RA:71:CYS:HA	79:RA:81:LEU:O	2.18	0.43
1:2S:2634:U:H2'	1:2S:2635:A:C8	2.54	0.43
50:S3:217:ILE:HG22	50:S3:218:LEU:H	1.83	0.43
44:82:58:PHE:HE1	44:82:60:LYS:O	2.01	0.43
61:14:105:LEU:HD12	61:14:106:ALA:N	2.34	0.43
1:2S:1880:U:H2'	1:2S:1881:A:C8	2.54	0.43
22:60:26:ARG:HG2	22:60:27:MET:N	2.34	0.43
66:19:18:TYR:O	66:19:22:LEU:HD23	2.19	0.43
5:L2:101:VAL:C	5:L2:102:LEU:HD12	2.39	0.43
21:59:67:ALA:O	21:59:71:ARG:HG3	2.19	0.43
1:2S:571:U:H2'	1:2S:572:A:H8	1.83	0.43
7:L4:92:ASN:C	7:L4:94:CYS:H	2.22	0.43
4:L1:183:ILE:O	4:L1:183:ILE:HG12	2.19	0.43
6:L3:84:VAL:HG11	6:L3:162:VAL:HG23	2.00	0.43
9:L6:82:ARG:HD3	9:L6:82:ARG:HA	1.82	0.43
1:2S:1889:G:OP1	6:L3:245:GLY:HA2	2.19	0.43
69:22:80:ASN:HA	69:22:123:GLY:O	2.18	0.43
20:58:122:ILE:N	20:58:122:ILE:HD12	2.34	0.43
6:L3:209:PHE:HE1	6:L3:340:LYS:HG3	1.84	0.43
1:2S:517:G:O2'	1:2S:518:G:H5'	2.19	0.43
37:75:88:LEU:HA	37:75:91:ALA:CB	2.49	0.43
50:S3:70:THR:HA	50:S3:84:ILE:HD12	2.01	0.43
19:57:168:LEU:HD22	19:57:173:ARG:HG2	2.00	0.43
40:78:64:LYS:CE	40:78:64:LYS:HA	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:72:103:LYS:O	34:72:107:VAL:HG23	2.18	0.43
10:L7:63:ILE:CG2	10:L7:67:ARG:NH2	2.82	0.43
7:L4:222:VAL:HA	7:L4:223:PRO:HD3	1.73	0.43
46:1S:104:A:OP2	46:1S:308:C:N4	2.52	0.43
1:2S:2143:A:O2'	1:2S:2144:A:H2'	2.18	0.43
19:57:137:ASN:HB3	19:57:138:LYS:H	1.67	0.43
58:11:91:LEU:HB3	58:11:100:TYR:HB3	2.00	0.43
1:2S:2991:A:H5''	6:L3:21:ARG:NH2	2.34	0.43
29:67:4:PHE:CZ	32:70:35:ARG:HG2	2.54	0.43
10:L7:236:ILE:HD12	10:L7:239:LEU:CD1	2.44	0.43
46:1S:252:U:H2'	46:1S:253:A:C8	2.52	0.43
54:S7:102:PRO:HB3	54:S7:106:SER:OG	2.19	0.43
13:50:139:ARG:HE	13:50:172:GLY:HA3	1.84	0.43
22:60:5:LYS:CA	22:60:100:VAL:HG21	2.49	0.43
1:2S:2491:A:O4'	4:L1:207:LYS:HE3	2.18	0.43
1:2S:392:G:H2'	1:2S:393:U:H5'	2.01	0.43
46:1S:380:U:H1'	56:S9:3:ARG:H	1.83	0.43
17:55:66:VAL:O	17:55:127:TYR:HA	2.18	0.43
18:56:84:LEU:O	18:56:87:MET:HG3	2.18	0.43
50:S3:16:VAL:HG11	76:29:22:ARG:HH11	1.83	0.43
51:S4:9:LEU:HD23	51:S4:10:LYS:O	2.18	0.43
68:21:81:ASN:O	68:21:82:VAL:HB	2.19	0.43
1:2S:242:C:O2'	1:2S:243:G:H8	2.02	0.43
62:15:86:VAL:O	62:15:89:MET:HG2	2.18	0.43
1:2S:956:U:H2'	1:2S:957:C:H6	1.83	0.43
46:1S:753:A:H2'	46:1S:754:A:C1'	2.49	0.43
30:68:149:ALA:HB3	38:76:15:LYS:HD3	2.01	0.43
1:2S:3228:C:H4'	1:2S:3229:G:O5'	2.19	0.43
1:2S:1841:A:C3'	1:2S:1842:A:H5''	2.48	0.43
1:2S:1935:G:H2'	1:2S:1936:A:H8	1.83	0.43
67:20:71:PRO:HB3	76:29:41:GLN:HG2	2.00	0.43
1:2S:677:A:C8	1:2S:785:G:C6	3.07	0.43
46:1S:611:U:H2'	46:1S:612:U:O4'	2.19	0.43
53:S6:161:GLU:HG2	53:S6:170:THR:HB	2.01	0.43
1:2S:1541:G:H1'	1:2S:1557:A:C5	2.54	0.43
27:65:142:ILE:C	27:65:142:ILE:HD13	2.39	0.43
35:73:37:THR:HB	35:73:38:PRO:HD2	2.00	0.43
18:56:6:VAL:HG22	18:56:32:LYS:HB2	2.01	0.43
23:61:40:VAL:CB	23:61:96:ILE:HG23	2.48	0.42
32:70:50:VAL:HA	32:70:53:LYS:CB	2.44	0.42
1:2S:1606:U:C5	36:74:8:ARG:HB3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:L5:40:HIS:HB3	8:L5:43:LYS:HG3	2.01	0.42
46:1S:218:A:N7	46:1S:830:U:H6	2.14	0.42
46:1S:72:A:H8	53:S6:164:LYS:HE2	1.83	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
27:65:65:GLN:CG	37:75:32:LYS:HD2	2.49	0.42
7:L4:328:ASN:HA	7:L4:329:PRO:HD2	1.87	0.42
10:L7:34:LYS:HA	10:L7:37:ASN:HD22	1.84	0.42
46:1S:1432:U:H4'	46:1S:1433:G:C5'	2.43	0.42
20:58:170:ARG:O	20:58:171:LYS:CB	2.67	0.42
65:18:49:LYS:HZ2	65:18:81:ILE:HG12	1.84	0.42
2:8S:104:A:C8	2:8S:106:C:N4	2.86	0.42
43:81:16:LYS:NZ	46:1S:1749:A:H4'	2.34	0.42
71:24:35:VAL:HG22	71:24:36:SER:N	2.34	0.42
4:L1:28:PHE:CD1	4:L1:28:PHE:O	2.62	0.42
66:19:63:ARG:O	66:19:67:MET:HB2	2.18	0.42
10:L7:53:LYS:O	10:L7:56:GLU:HG2	2.19	0.42
36:74:42:PRO:HD3	36:74:56:THR:HG22	1.99	0.42
79:RA:88:THR:HG22	79:RA:104:VAL:CG2	2.47	0.42
50:S3:219:ALA:CB	50:S3:220:PRO:CD	2.95	0.42
46:1S:115:G:H5'	58:11:129:ARG:HH11	1.83	0.42
46:1S:1074:G:C8	46:1S:1074:G:H5'	2.48	0.42
51:S4:194:THR:O	51:S4:195:ILE:CB	2.66	0.42
1:2S:1362:G:H2'	1:2S:1363:A:H8	1.83	0.42
1:2S:1666:G:H2'	1:2S:1667:A:H8	1.84	0.42
17:55:80:THR:HG21	17:55:87:GLN:HG2	2.02	0.42
1:2S:422:A:H3'	1:2S:423:A:C8	2.52	0.42
76:29:30:LEU:CD2	76:29:32:ARG:HG3	2.49	0.42
4:L1:206:VAL:O	4:L1:213:ALA:HA	2.19	0.42
55:S8:151:LYS:C	55:S8:152:ILE:HG13	2.39	0.42
7:L4:145:ILE:HB	7:L4:146:PRO:HD2	2.01	0.42
39:77:52:LYS:O	39:77:55:ARG:HB3	2.19	0.42
51:S4:244:ILE:O	51:S4:245:LYS:HB3	2.19	0.42
8:L5:192:PRO:O	8:L5:196:ARG:HB2	2.18	0.42
8:L5:270:LYS:HA	8:L5:273:ARG:HB2	2.01	0.42
48:S1:190:PRO:HG2	48:S1:192:VAL:HG23	2.01	0.42
35:73:90:PRO:O	35:73:91:ALA:HB3	2.19	0.42
1:2S:533:A:H61	1:2S:559:A:H61	1.67	0.42
8:L5:229:ASP:CB	8:L5:231:ILE:HG13	2.49	0.42
46:1S:862:A:H4'	46:1S:863:A:O5'	2.18	0.42
35:73:37:THR:HB	35:73:38:PRO:CD	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:13:127:ARG:HA	60:13:130:ARG:NH2	2.34	0.42
12:L9:30:PRO:HG2	12:L9:83:THR:HG22	2.00	0.42
71:24:89:TYR:O	71:24:93:ARG:HG3	2.18	0.42
54:S7:105:THR:HG22	54:S7:105:THR:O	2.19	0.42
20:58:9:GLN:HA	20:58:9:GLN:OE1	2.19	0.42
18:56:186:ALA:O	18:56:187:GLU:HB3	2.18	0.42
9:L6:43:LEU:HD22	35:73:102:LEU:HB2	2.01	0.42
46:1S:394:C:H2'	46:1S:395:U:C6	2.54	0.42
1:2S:44:U:H2'	1:2S:45:A:C5'	2.50	0.42
69:22:36:LYS:CB	69:22:110:ILE:HD12	2.49	0.42
46:1S:1059:U:H3'	46:1S:1059:U:OP2	2.19	0.42
69:22:65:LEU:N	69:22:65:LEU:CD1	2.77	0.42
46:1S:46:A:C6	46:1S:433:C:H4'	2.53	0.42
1:2S:2610:G:C5	1:2S:2611:U:C4	3.07	0.42
1:2S:3008:A:OP1	18:56:72:HIS:ND1	2.52	0.42
17:55:190:THR:O	17:55:194:GLN:HG2	2.19	0.42
1:2S:1019:G:H2'	1:2S:1020:G:C5'	2.39	0.42
5:L2:117:GLU:HB2	5:L2:162:ALA:HB1	2.00	0.42
48:S1:103:MET:HE3	48:S1:105:PHE:CE2	2.54	0.42
10:L7:223:PHE:HE2	10:L7:235:PHE:CD2	2.37	0.42
7:L4:324:LEU:O	7:L4:327:LEU:O	2.37	0.42
3:5S:8:G:H2'	3:5S:9:C:C6	2.54	0.42
47:S0:17:LEU:HD13	47:S0:50:VAL:CG1	2.42	0.42
60:13:140:LYS:HG3	60:13:141:TYR:N	2.25	0.42
46:1S:1533:C:H4'	46:1S:1539:G:C2	2.54	0.42
45:83:53:GLY:HA2	45:83:67:GLY:O	2.18	0.42
64:17:13:SER:HB3	64:17:57:LEU:HD12	2.00	0.42
8:L5:107:ARG:O	8:L5:111:GLN:HB2	2.18	0.42
27:65:53:HIS:CE1	27:65:56:ARG:CG	3.01	0.42
46:1S:1018:U:H2'	46:1S:1019:A:H8	1.80	0.42
22:60:31:ALA:HB1	22:60:36:ILE:CB	2.45	0.42
21:59:159:ALA:O	21:59:163:ARG:HB2	2.20	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
15:53:189:GLU:HA	15:53:192:GLU:OE1	2.19	0.42
59:12:97:LEU:HD22	59:12:100:TRP:CE3	2.54	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
49:S2:58:LEU:HA	68:21:12:TYR:HE1	1.84	0.42
60:13:53:LEU:O	60:13:57:ALA:CB	2.67	0.42
8:L5:252:ALA:O	8:L5:253:PHE:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1179:G:H2'	46:1S:1180:C:H6	1.84	0.42
29:67:83:THR:HG23	29:67:85:TYR:H	1.84	0.42
1:2S:945:C:H5''	34:72:34:LYS:HB2	2.01	0.42
1:2S:1460:A:H2'	1:2S:1461:A:H8	1.83	0.42
10:L7:69:ALA:CB	10:L7:76:TYR:H	2.32	0.42
1:2S:531:G:H2'	1:2S:532:A:C8	2.54	0.42
54:S7:122:HIS:O	54:S7:126:LEU:HD23	2.19	0.42
46:1S:1796:C:C6	73:26:7:SER:HB3	2.54	0.42
1:2S:2663:G:H2'	1:2S:2664:C:O4'	2.19	0.42
23:61:35:LYS:O	23:61:64:VAL:HG11	2.19	0.42
79:RA:42:LEU:HD21	79:RA:68:VAL:HG11	1.99	0.42
46:1S:622:A:H2'	46:1S:1031:U:H5''	2.01	0.42
46:1S:294:C:H2'	46:1S:295:A:C8	2.55	0.42
46:1S:1404:C:H2'	46:1S:1405:G:H8	1.84	0.42
1:2S:274:G:H2'	1:2S:275:U:O4'	2.19	0.42
37:75:30:GLU:O	37:75:34:GLN:HG3	2.19	0.42
1:2S:1408:G:H2'	1:2S:1409:G:O4'	2.17	0.42
48:S1:51:SER:HA	48:S1:56:SER:HA	2.00	0.42
1:2S:290:G:OP1	17:55:98:LEU:HD23	2.19	0.42
1:2S:743:C:O2	20:58:141:ARG:HG3	2.20	0.42
45:83:10:ILE:CG2	45:83:27:LYS:HG3	2.49	0.42
60:13:106:ARG:HH21	60:13:106:ARG:HG2	1.84	0.42
22:60:117:ARG:HD3	22:60:117:ARG:HA	1.85	0.42
1:2S:754:G:H2'	1:2S:755:A:O4'	2.19	0.42
67:20:23:ARG:HB3	67:20:117:VAL:HG13	2.02	0.42
35:73:53:TYR:N	35:73:53:TYR:CD1	2.87	0.42
70:23:76:LEU:HD13	70:23:79:ASN:ND2	2.35	0.42
4:L1:195:LYS:O	4:L1:195:LYS:HG3	2.19	0.42
69:22:103:ILE:O	69:22:125:ILE:HG13	2.19	0.42
49:S2:196:VAL:HG22	49:S2:197:TYR:N	2.35	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
46:1S:884:A:H2'	46:1S:885:G:C8	2.54	0.42
1:2S:1696:A:C8	36:74:26:PRO:HG2	2.54	0.42
1:2S:1223:A:N3	1:2S:1287:A:N3	2.66	0.42
5:L2:116:VAL:O	5:L2:125:ALA:HB3	2.19	0.42
23:61:78:LYS:HG3	23:61:79:MET:N	2.34	0.42
46:1S:904:G:H2'	46:1S:905:A:H5'	2.00	0.42
29:67:54:THR:H	29:67:57:HIS:HD2	1.66	0.42
58:11:99:ARG:HB3	70:23:9:LEU:O	2.19	0.42
1:2S:869:G:H2'	1:2S:870:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:67:13:VAL:HG12	29:67:14:VAL:N	2.33	0.42
32:70:31:VAL:O	32:70:34:LEU:HB3	2.19	0.42
46:1S:941:A:O5'	46:1S:941:A:H8	2.02	0.42
46:1S:149:C:H5''	71:24:123:LYS:NZ	2.34	0.42
76:29:31:ILE:O	76:29:36:LEU:CD1	2.67	0.42
46:1S:1553:G:N1	46:1S:1556:A:OP2	2.52	0.42
4:L1:207:LYS:HG2	4:L1:208:SER:N	2.34	0.42
68:21:62:ARG:HB2	68:21:64:GLU:HG2	2.01	0.42
1:2S:2366:C:H2'	1:2S:2367:A:H8	1.85	0.42
53:S6:74:LYS:HG2	53:S6:96:SER:HB2	2.02	0.42
1:2S:2271:A:O5'	1:2S:2271:A:H8	2.02	0.42
1:2S:3072:C:C5	1:2S:3073:A:C5	3.07	0.42
62:15:25:LEU:O	62:15:87:PRO:HB2	2.19	0.42
46:1S:1370:U:O2'	46:1S:1371:A:P	2.77	0.42
46:1S:453:U:C2'	46:1S:453:U:O2	2.68	0.42
33:71:78:LYS:O	33:71:89:LEU:HB3	2.19	0.42
46:1S:1471:A:C2	46:1S:1474:G:N3	2.88	0.42
6:L3:252:ILE:HD12	6:L3:252:ILE:N	2.33	0.42
1:2S:2265:C:H2'	1:2S:2266:U:O4'	2.19	0.42
5:L2:136:ILE:H	5:L2:136:ILE:HD12	1.85	0.42
1:2S:2434:U:O4	1:2S:2595:A:C2	2.72	0.42
47:S0:57:LEU:C	47:S0:57:LEU:HD23	2.40	0.42
1:2S:1605:A:O2'	1:2S:1607:U:C6	2.68	0.42
1:2S:277:G:H5''	44:82:49:GLY:HA2	2.01	0.42
6:L3:62:ARG:O	6:L3:68:HIS:HB2	2.19	0.42
46:1S:1514:U:H2'	46:1S:1514:U:O2	2.17	0.42
1:2S:106:A:H2'	1:2S:107:A:O4'	2.19	0.42
9:L6:92:SER:C	9:L6:94:GLU:H	2.23	0.42
51:S4:156:VAL:O	51:S4:157:ASN:HB2	2.19	0.42
46:1S:1648:A:H2'	46:1S:1649:G:C8	2.55	0.42
1:2S:2849:C:OP1	1:2S:2906:C:H4'	2.18	0.42
63:16:13:LYS:HD3	63:16:13:LYS:C	2.39	0.42
46:1S:732:G:H2'	46:1S:732:G:N3	2.35	0.42
1:2S:3061:G:H2'	1:2S:3062:G:C8	2.55	0.42
1:2S:1128:U:H2'	1:2S:1129:A:O4'	2.19	0.42
46:1S:1142:A:H2'	46:1S:1143:A:O4'	2.19	0.42
50:S3:208:ILE:CD1	64:17:39:ALA:HB2	2.49	0.42
17:55:19:LEU:HD12	17:55:19:LEU:N	2.34	0.42
23:61:139:ARG:N	23:61:139:ARG:HD3	2.33	0.42
50:S3:222:VAL:CG1	79:RA:229:LYS:HA	2.31	0.42
69:22:103:ILE:HG22	69:22:127:GLY:C	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:S2:165:VAL:HG21	49:S2:206:THR:CG2	2.47	0.42
5:L2:88:ILE:HG23	5:L2:99:GLY:O	2.20	0.42
1:2S:2917:G:C2'	1:2S:2918:G:H5''	2.47	0.42
4:L1:93:LEU:HD13	4:L1:115:VAL:HG12	2.00	0.42
1:2S:2656:A:H2'	1:2S:2656:A:N3	2.34	0.42
1:2S:2922:G:H2'	1:2S:2923:U:C4'	2.48	0.42
21:59:139:VAL:O	21:59:142:ILE:HB	2.19	0.42
36:74:44:CYS:HB3	36:74:48:GLY:H	1.84	0.42
47:S0:58:VAL:O	47:S0:62:ARG:HG2	2.20	0.42
1:2S:3317:U:H4'	1:2S:3318:G:C5'	2.48	0.42
1:2S:1794:G:H4'	5:L2:191:LEU:CD1	2.49	0.42
33:71:25:PHE:CD2	33:71:28:ARG:HD2	2.54	0.42
1:2S:790:U:H5''	7:L4:112:LYS:HB2	2.01	0.42
28:66:80:VAL:HG22	28:66:81:GLN:N	2.33	0.42
69:22:23:ARG:HH11	69:22:23:ARG:HG3	1.83	0.42
1:2S:2284:C:H3'	1:2S:2285:C:C6	2.54	0.42
1:2S:1169:A:H4'	10:L7:219:LYS:NZ	2.31	0.42
14:51:166:LYS:HD3	14:51:167:TYR:CG	2.55	0.42
1:2S:993:G:N3	1:2S:2637:A:H2'	2.34	0.42
1:2S:336:A:H2'	1:2S:337:G:H5'	2.01	0.42
6:L3:45:SER:HA	6:L3:338:LEU:O	2.19	0.42
1:2S:1166:G:H1	1:2S:1333:C:N4	2.17	0.42
46:1S:1528:U:H2'	46:1S:1529:C:H6	1.84	0.42
59:12:68:GLU:O	59:12:69:ALA:CB	2.67	0.42
13:50:22:TYR:N	13:50:22:TYR:CD1	2.87	0.42
68:21:65:SER:O	68:21:69:LEU:HB2	2.19	0.42
1:2S:2582:C:H2'	1:2S:2583:C:C6	2.54	0.42
56:S9:79:ARG:HG3	56:S9:79:ARG:HH11	1.85	0.42
51:S4:7:LYS:N	51:S4:7:LYS:HD2	2.35	0.42
1:2S:1438:U:H1'	7:L4:93:MET:O	2.18	0.42
1:2S:1953:G:HO2'	1:2S:1954:G:P	2.42	0.42
23:61:65:TYR:CD1	23:61:66:ASN:N	2.87	0.42
35:73:103:TYR:HA	35:73:104:PRO:C	2.40	0.42
1:2S:147:U:N3	11:L8:159:PRO:HD2	2.35	0.42
20:58:34:THR:HG22	20:58:49:LEU:HD11	2.02	0.42
1:2S:92:G:N7	1:2S:94:G:H1'	2.34	0.42
63:16:73:GLY:H	63:16:76:SER:HB3	1.84	0.42
46:1S:961:U:H5''	60:13:71:ILE:CG1	2.36	0.42
21:59:110:ARG:HA	21:59:115:ILE:HG23	2.01	0.42
77:30:49:LEU:HD23	77:30:49:LEU:H	1.84	0.42
1:2S:2426:U:H2'	1:2S:2427:U:C5	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1571:A:H2'	1:2S:1572:U:C4'	2.50	0.42
1:2S:1145:G:O6	1:2S:1158:A:C2	2.73	0.42
1:2S:1585:C:H2'	1:2S:1586:G:C8	2.54	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
69:22:28:ARG:HB2	69:22:60:LYS:HG2	2.01	0.42
74:27:55:THR:OG1	74:27:56:CYS:N	2.51	0.42
1:2S:380:U:H2'	1:2S:381:U:O4'	2.19	0.42
33:71:33:VAL:O	33:71:37:LYS:HG3	2.19	0.42
9:L6:46:ARG:HB3	9:L6:77:ARG:HH12	1.84	0.42
1:2S:20:A:N6	2:8S:139:U:H3	2.11	0.42
1:2S:2562:A:H2'	1:2S:2563:G:C8	2.54	0.42
10:L7:120:THR:OG1	10:L7:123:THR:HG23	2.20	0.42
78:31:113:LYS:N	78:31:113:LYS:HD2	2.30	0.42
46:1S:958:U:H5''	46:1S:959:U:OP1	2.20	0.42
54:S7:162:ILE:HB	54:S7:169:PHE:HE2	1.83	0.42
1:2S:3047:U:H5''	6:L3:330:GLY:O	2.20	0.42
1:2S:391:A:H2'	1:2S:392:G:O4'	2.19	0.42
12:L9:145:VAL:HG12	12:L9:146:LEU:N	2.34	0.42
40:78:8:ILE:O	40:78:12:LEU:HG	2.18	0.42
66:19:86:ARG:HG3	66:19:86:ARG:HH11	1.83	0.42
54:S7:117:THR:O	54:S7:121:VAL:HG23	2.20	0.42
46:1S:1464:G:H4'	63:16:141:SER:CB	2.50	0.42
1:2S:3316:A:C6	6:L3:124:LYS:HD2	2.54	0.42
1:2S:1598:G:H2'	1:2S:1599:G:C8	2.55	0.42
56:S9:139:GLN:HE22	71:24:63:GLN:HG3	1.84	0.42
68:21:13:VAL:HA	68:21:14:PRO:HD3	1.84	0.42
61:14:72:LYS:HD3	61:14:110:LEU:HD23	2.02	0.42
78:31:132:LEU:HD22	78:31:139:LEU:O	2.19	0.42
46:1S:451:A:C2	46:1S:456:A:C2	3.07	0.42
1:2S:236:G:H2'	1:2S:237:G:O4'	2.18	0.42
56:S9:133:HIS:O	56:S9:134:ILE:O	2.37	0.42
7:L4:130:ALA:O	7:L4:131:VAL:CB	2.68	0.42
51:S4:181:VAL:HG11	51:S4:225:VAL:HG13	2.02	0.42
26:64:17:ARG:HG3	26:64:17:ARG:HH11	1.85	0.42
1:2S:503:C:H2'	1:2S:504:A:C8	2.54	0.42
79:RA:172:ALA:CB	79:RA:202:LEU:HD22	2.49	0.42
1:2S:1548:C:H3'	1:2S:1549:U:O4'	2.20	0.42
1:2S:24:G:C2'	1:2S:25:U:H5'	2.49	0.42
6:L3:161:LEU:CD2	6:L3:180:GLU:HG2	2.50	0.42
68:21:69:LEU:O	68:21:69:LEU:HD23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:2583:C:H6	1:2S:2583:C:O5'	2.02	0.42
1:2S:419:G:N2	2:8S:5:U:C2	2.87	0.42
1:2S:172:G:C2	1:2S:173:G:C8	3.08	0.42
71:24:125:LEU:O	71:24:129:VAL:HG23	2.18	0.42
10:L7:195:PHE:C	10:L7:195:PHE:CD1	2.93	0.42
79:RA:19:TRP:CD1	79:RA:19:TRP:N	2.87	0.42
1:2S:1579:C:C5	1:2S:1580:A:N7	2.88	0.42
21:59:161:ALA:O	21:59:165:LYS:HB2	2.20	0.42
1:2S:1653:G:H4'	36:74:43:LYS:H	1.84	0.42
13:50:165:ILE:H	13:50:165:ILE:HD13	1.85	0.42
55:S8:8:ARG:NH2	55:S8:19:ALA:O	2.52	0.42
69:22:103:ILE:O	69:22:125:ILE:CG1	2.68	0.42
46:1S:412:A:H2'	46:1S:413:U:H6	1.85	0.42
57:10:82:LEU:HB2	57:10:86:ILE:CG2	2.49	0.42
18:56:76:PRO:O	18:56:79:ILE:HB	2.20	0.42
1:2S:858:A:H2'	1:2S:859:G:O4'	2.20	0.42
46:1S:1524:A:H2	46:1S:1590:G:H1'	1.84	0.42
9:L6:52:VAL:CG2	9:L6:53:VAL:H	2.18	0.42
1:2S:752:C:H2'	1:2S:753:C:H6	1.84	0.42
1:2S:2882:U:H2'	1:2S:2883:U:O4'	2.19	0.42
3:5S:11:A:H4'	3:5S:13:A:H2'	2.00	0.42
1:2S:3355:U:O2'	1:2S:3356:G:H5''	2.20	0.42
56:S9:146:PHE:CZ	56:S9:149:ARG:CZ	3.03	0.42
10:L7:151:ARG:HB2	10:L7:205:PHE:CD1	2.54	0.42
47:S0:41:ARG:HG3	47:S0:41:ARG:HH21	1.85	0.42
55:S8:172:ARG:HB2	55:S8:175:GLN:HB2	2.01	0.42
3:5S:88:G:H2'	3:5S:89:G:H8	1.82	0.42
1:2S:2457:G:N2	1:2S:2461:A:H61	2.17	0.42
1:2S:1947:G:H5''	21:59:134:HIS:CB	2.47	0.42
29:67:51:LEU:CB	29:67:65:ARG:HD2	2.49	0.42
3:5S:119:U:OP1	8:L5:256:THR:HG23	2.20	0.42
14:51:52:TYR:HD2	14:51:52:TYR:N	2.17	0.42
71:24:91:LEU:HB3	71:24:96:LEU:HB2	2.02	0.42
66:19:117:SER:HB2	66:19:123:ARG:H	1.85	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
1:2S:2748:A:H1'	8:L5:36:LEU:HD23	2.01	0.42
1:2S:3111:U:O4	1:2S:3121:U:C5	2.71	0.42
9:L6:58:LEU:HD22	9:L6:103:VAL:HG22	2.00	0.42
7:L4:160:GLN:HB2	7:L4:161:LYS:HD2	2.00	0.42
19:57:102:ALA:O	19:57:107:LEU:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:5S:52:G:H21	14:51:9:MET:HE3	1.84	0.42
53:S6:85:ARG:HA	53:S6:86:PRO:HD3	1.84	0.42
46:1S:1615:C:C5	52:S5:81:ARG:HA	2.55	0.42
23:61:52:MET:HG2	23:61:53:PRO:HD2	2.01	0.42
46:1S:236:A:H8	46:1S:236:A:OP2	2.03	0.42
1:2S:677:A:H8	1:2S:785:G:C6	2.37	0.42
46:1S:602:U:H2'	46:1S:603:U:C6	2.55	0.42
17:55:83:LYS:O	17:55:86:ASN:N	2.53	0.42
46:1S:346:G:H2'	46:1S:347:G:H5'	2.01	0.42
1:2S:1042:U:H5'	13:50:196:PHE:CE1	2.55	0.42
71:24:105:ARG:O	71:24:109:LYS:HG3	2.20	0.42
56:S9:155:HIS:N	56:S9:155:HIS:ND1	2.66	0.42
13:50:191:LYS:HG3	13:50:191:LYS:O	2.19	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
55:S8:26:LYS:NZ	55:S8:29:LEU:CD1	2.83	0.42
46:1S:399:A:H1'	46:1S:401:A:O4'	2.20	0.42
15:53:48:PRO:HA	15:53:137:GLN:HB3	2.01	0.42
1:2S:2837:A:H2'	1:2S:2845:A:N1	2.35	0.42
46:1S:1524:A:H2'	46:1S:1525:A:C8	2.54	0.42
46:1S:962:C:OP1	60:13:71:ILE:HB	2.20	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
1:2S:3299:A:H4'	19:57:55:GLN:HE21	1.85	0.42
51:S4:11:ARG:NH2	51:S4:11:ARG:CG	2.79	0.42
48:S1:205:PHE:HD1	48:S1:206:PRO:CD	2.21	0.42
63:16:44:LEU:HB3	63:16:47:LYS:HB3	2.00	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
12:L9:157:ASN:HA	12:L9:157:ASN:HD22	1.52	0.42
6:L3:312:VAL:HG12	6:L3:313:HIS:CD2	2.55	0.42
5:L2:45:VAL:CG1	5:L2:85:GLY:H	2.27	0.42
35:73:18:ARG:CA	35:73:23:ASN:HA	2.49	0.42
6:L3:130:PHE:HD1	6:L3:133:TYR:CB	2.32	0.42
19:57:119:VAL:HG23	19:57:145:HIS:C	2.39	0.42
39:77:72:ARG:NH1	39:77:72:ARG:HG2	2.35	0.42
36:74:46:ASP:HB2	36:74:80:ARG:CD	2.48	0.42
46:1S:1348:A:H2	46:1S:1379:C:N4	2.18	0.42
5:L2:247:ARG:NH1	5:L2:247:ARG:HG2	2.31	0.42
46:1S:555:A:H2'	46:1S:556:A:C8	2.55	0.42
61:14:17:ALA:N	61:14:79:VAL:HG21	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1464:G:H21	1:2S:1511:U:H3	1.67	0.42
46:1S:133:U:C6	46:1S:133:U:H5'	2.50	0.42
1:2S:1357:G:H2'	1:2S:1358:C:H6	1.81	0.42
1:2S:1330:A:N1	1:2S:1332:A:H1'	2.35	0.42
1:2S:549:U:H2'	1:2S:550:A:H8	1.82	0.42
67:20:118:VAL:O	67:20:119:ALA:HB3	2.19	0.42
65:18:91:ASP:HB3	65:18:92:ILE:H	1.58	0.42
7:L4:351:PRO:CB	7:L4:355:PHE:CD2	3.03	0.42
6:L3:338:LEU:H	6:L3:338:LEU:HD22	1.85	0.42
1:2S:1436:U:H5''	1:2S:1437:C:H5''	2.01	0.42
1:2S:2161:G:H2'	1:2S:2162:U:C6	2.55	0.42
46:1S:1303:U:H3'	46:1S:1304:G:H8	1.82	0.42
13:50:3:ARG:HB3	13:50:3:ARG:HE	1.56	0.42
73:26:36:ILE:O	73:26:36:ILE:HG23	2.19	0.42
39:77:87:SER:O	39:77:88:ALA:CB	2.68	0.42
65:18:102:ALA:O	65:18:105:VAL:HG12	2.19	0.42
11:L8:44:ARG:O	11:L8:46:LEU:HG	2.19	0.42
18:56:47:PHE:O	18:56:51:LYS:HB2	2.20	0.42
29:67:40:HIS:HA	29:67:75:VAL:O	2.20	0.42
46:1S:295:A:H5''	51:S4:128:LYS:NZ	2.35	0.42
32:70:86:ARG:HG2	32:70:86:ARG:NH1	2.34	0.42
37:75:116:TYR:CD1	37:75:117:ALA:N	2.88	0.42
46:1S:1405:G:H2'	46:1S:1406:A:C8	2.55	0.42
31:69:10:HIS:O	31:69:11:ASN:CB	2.66	0.42
7:L4:175:HIS:O	7:L4:179:LEU:HG	2.19	0.42
55:S8:178:ARG:HG3	55:S8:178:ARG:HH21	1.83	0.42
60:13:32:SER:O	60:13:35:GLU:HB3	2.19	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
56:S9:127:VAL:O	56:S9:131:GLN:HG3	2.20	0.42
1:2S:2530:G:H2'	1:2S:2531:C:C5'	2.35	0.42
1:2S:720:A:H5'	20:58:69:ARG:HH12	1.84	0.42
21:59:116:ASP:O	21:59:120:TYR:HB2	2.20	0.42
77:30:42:ARG:HH11	77:30:42:ARG:HB3	1.84	0.42
70:23:86:PHE:O	70:23:124:VAL:HG23	2.20	0.42
17:55:100:ALA:O	17:55:104:GLU:HG3	2.20	0.42
35:73:55:ALA:HB3	35:73:65:ARG:HH22	1.83	0.42
1:2S:373:A:H2'	1:2S:375:A:C8	2.55	0.42
1:2S:2728:G:O6	23:61:78:LYS:HE3	2.20	0.42
7:L4:327:LEU:O	7:L4:328:ASN:HB3	2.20	0.42
55:S8:104:ILE:HB	55:S8:105:ASP:H	1.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:S5:62:VAL:HG12	52:S5:64:VAL:CG2	2.50	0.42
65:18:41:ARG:HD3	66:19:38:LYS:HD3	2.01	0.42
57:10:54:TYR:HA	57:10:71:GLU:HG3	2.01	0.42
35:73:16:TYR:HB3	35:73:23:ASN:HB2	2.01	0.42
46:1S:771:A:C2	46:1S:772:G:H1'	2.55	0.42
11:L8:25:PRO:HG2	11:L8:26:LEU:H	1.84	0.42
1:2S:184:U:H2'	1:2S:185:C:H6	1.82	0.42
3:5S:89:G:H5'	22:60:84:ARG:NH2	2.34	0.42
46:1S:627:C:H2'	46:1S:628:G:O4'	2.20	0.42
61:14:79:VAL:HG22	61:14:80:HIS:N	2.35	0.42
22:60:52:LYS:HG3	22:60:55:SER:H	1.85	0.42
1:2S:2683:U:H2'	1:2S:2684:C:C6	2.54	0.42
22:60:133:ALA:C	22:60:135:VAL:N	2.72	0.42
5:L2:71:LEU:N	5:L2:71:LEU:HD12	2.35	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
1:2S:2041:U:H2'	1:2S:2042:G:C8	2.55	0.42
46:1S:564:G:H4'	46:1S:566:C:C2	2.54	0.42
17:55:47:LYS:HE3	17:55:51:LEU:HD11	2.02	0.42
1:2S:3165:A:N1	1:2S:3285:C:N3	2.67	0.42
1:2S:1316:C:C4	18:56:130:LYS:HA	2.55	0.42
47:S0:83:GLN:O	47:S0:86:VAL:HG22	2.19	0.42
35:73:51:TYR:CE2	35:73:53:TYR:HB3	2.54	0.42
1:2S:1560:G:C2'	1:2S:1561:G:H5'	2.50	0.42
10:L7:90:LYS:HG3	10:L7:91:GLY:N	2.34	0.42
5:L2:22:LEU:HB3	5:L2:52:SER:HB2	2.01	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:N	49:S2:240:LEU:HD12	2.34	0.42
67:20:85:ARG:N	67:20:85:ARG:HD2	2.35	0.42
71:24:49:LYS:N	71:24:49:LYS:HD2	2.35	0.42
26:64:6:ASP:HB3	26:64:10:GLY:H	1.84	0.42
51:S4:149:TYR:N	51:S4:150:PRO:CD	2.82	0.42
70:23:76:LEU:HB3	70:23:80:GLY:H	1.84	0.42
20:58:30:VAL:CG2	20:58:52:LEU:HD13	2.50	0.42
41:79:49:MET:O	41:79:50:ASN:HB2	2.20	0.42
16:54:73:PRO:HB2	16:54:76:ALA:HB2	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
60:13:88:LEU:O	60:13:92:ILE:HG13	2.20	0.42
57:10:87:VAL:O	57:10:87:VAL:HG22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L9:89:LYS:HB2	12:L9:183:HIS:CB	2.35	0.42
55:S8:58:LEU:O	55:S8:59:ARG:HB2	2.20	0.42
14:51:23:VAL:CG1	14:51:24:GLY:N	2.81	0.42
46:1S:1671:A:H2'	46:1S:1672:G:O4'	2.20	0.42
2:8S:103:G:H2'	2:8S:105:A:N7	2.35	0.42
33:71:74:ARG:HG2	33:71:75:ILE:N	2.34	0.42
1:2S:440:A:H3'	1:2S:441:U:H4'	2.02	0.42
46:1S:772:G:H5''	51:S4:23:LEU:HD21	2.01	0.42
56:S9:161:THR:HA	56:S9:167:ALA:HB3	2.02	0.42
71:24:124:ARG:HA	71:24:127:LYS:CD	2.49	0.42
1:2S:937:G:OP2	1:2S:938:C:H5	2.02	0.42
27:65:68:THR:HG21	37:75:36:LEU:HD13	2.01	0.42
36:74:41:ARG:HA	36:74:56:THR:CG2	2.50	0.42
39:77:31:LYS:O	39:77:32:LYS:HB2	2.19	0.42
63:16:9:THR:O	63:16:19:VAL:HG13	2.19	0.42
46:1S:162:A:H3'	46:1S:163:G:N2	2.31	0.42
8:L5:105:ILE:HA	8:L5:105:ILE:HD13	1.75	0.42
65:18:40:ARG:HH21	66:19:45:MET:HG2	1.84	0.42
1:2S:1891:A:O2'	1:2S:1892:G:H5'	2.20	0.42
60:13:100:LYS:HA	60:13:103:GLU:HG3	2.00	0.42
52:S5:93:LEU:HD23	52:S5:93:LEU:C	2.39	0.42
66:19:105:LEU:HD22	66:19:122:ARG:HG2	2.01	0.42
65:18:89:GLN:C	65:18:91:ASP:N	2.73	0.42
66:19:117:SER:HB2	66:19:123:ARG:CB	2.49	0.42
79:RA:205:SER:HA	79:RA:206:PRO:HD3	1.85	0.42
1:2S:3114:A:H2'	1:2S:3115:C:C5	2.55	0.42
46:1S:1517:U:H2'	46:1S:1518:C:C5	2.54	0.42
3:5S:48:U:C2'	3:5S:49:G:H5'	2.50	0.42
54:S7:143:LEU:H	54:S7:143:LEU:HD22	1.85	0.42
7:L4:65:TRP:HE3	7:L4:69:ARG:HD2	1.83	0.42
1:2S:530:G:H2'	1:2S:531:G:C8	2.55	0.42
1:2S:3225:C:C2'	1:2S:3226:A:H5'	2.50	0.42
1:2S:1841:A:C5	1:2S:1848:G:C2	3.07	0.42
79:RA:81:LEU:HD23	79:RA:91:LEU:HD13	2.00	0.42
46:1S:1719:A:H2'	46:1S:1720:G:O4'	2.20	0.42
1:2S:3061:G:H2'	1:2S:3062:G:H8	1.85	0.42
32:70:9:SER:O	32:70:12:GLN:HB3	2.19	0.42
52:S5:133:VAL:O	52:S5:137:ILE:HG12	2.20	0.42
37:75:45:LYS:O	37:75:49:LYS:HB2	2.19	0.42
29:67:46:ILE:HA	29:67:70:PRO:HA	2.01	0.42
61:14:58:TYR:O	61:14:62:LEU:HG	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:51:36:VAL:O	14:51:40:LEU:HB2	2.20	0.42
46:1S:760:A:H2'	46:1S:761:G:O4'	2.20	0.42
1:2S:162:G:O2'	1:2S:163:C:H5'	2.20	0.42
46:1S:497:G:HO2'	46:1S:498:G:P	2.43	0.42
48:S1:220:GLN:HB2	48:S1:221:PRO:HD2	2.00	0.42
46:1S:689:G:O2'	46:1S:690:G:H5'	2.20	0.42
47:S0:26:ALA:HB2	47:S0:149:LEU:HB2	2.02	0.42
54:S7:49:ILE:CG2	54:S7:175:LYS:HG2	2.49	0.42
1:2S:269:G:C6	17:55:14:LYS:HB2	2.55	0.42
54:S7:9:LEU:HD12	54:S7:18:LEU:HD23	2.01	0.42
1:2S:942:U:C6	30:68:15:VAL:HG12	2.55	0.42
15:53:50:PRO:HG3	37:75:118:ILE:CG1	2.27	0.42
1:2S:1888:U:OP1	6:L3:247:ARG:HB3	2.20	0.42
1:2S:896:A:H4'	5:L2:186:PHE:CD2	2.55	0.42
48:S1:180:THR:CG2	48:S1:181:LEU:H	2.25	0.42
51:S4:63:ALA:O	51:S4:67:GLN:CG	2.55	0.42
54:S7:30:SER:CB	54:S7:34:LEU:HD13	2.43	0.42
72:25:92:ILE:HG13	72:25:100:ILE:HG23	2.02	0.42
58:11:85:VAL:HG13	58:11:107:VAL:C	2.41	0.42
19:57:2:ALA:O	19:57:3:ARG:HB2	2.20	0.42
11:L8:97:TYR:CE1	11:L8:204:ARG:NH2	2.88	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
7:L4:316:ASN:HD21	7:L4:318:LEU:HD12	1.84	0.42
1:2S:2435:G:H2'	1:2S:2436:U:H6	1.80	0.42
9:L6:170:LYS:HB3	9:L6:172:HIS:CE1	2.55	0.42
14:51:49:LYS:HG2	14:51:64:LYS:HG2	2.02	0.42
73:26:12:LYS:O	73:26:12:LYS:HG2	2.20	0.42
47:S0:189:VAL:CG1	47:S0:193:GLN:HB2	2.49	0.42
18:56:117:ARG:CD	18:56:117:ARG:N	2.78	0.42
4:L1:55:LEU:N	4:L1:55:LEU:HD12	2.35	0.42
58:11:78:THR:C	58:11:80:MET:H	2.23	0.42
51:S4:52:LEU:HD13	51:S4:54:TYR:HD2	1.84	0.42
56:S9:3:ARG:N	56:S9:3:ARG:HD3	2.35	0.42
1:2S:860:G:H5'	45:83:17:ARG:NH1	2.34	0.42
1:2S:2257:C:H2'	1:2S:2258:U:O4'	2.19	0.42
33:71:78:LYS:HD2	33:71:90:PHE:CZ	2.55	0.42
56:S9:54:ARG:CA	56:S9:57:ARG:HH21	2.33	0.42
1:2S:287:G:OP1	17:55:179:LYS:HE3	2.20	0.42
10:L7:69:ALA:HB2	10:L7:76:TYR:H	1.85	0.42
27:65:23:ALA:C	27:65:24:LEU:HD12	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:1340:U:H3'	46:1S:1341:A:C5'	2.50	0.42
45:83:10:ILE:HG22	45:83:27:LYS:HE3	2.01	0.42
11:L8:61:GLN:HB3	17:55:28:TRP:HH2	1.84	0.42
1:2S:1324:U:H2'	1:2S:1325:U:O4'	2.19	0.42
5:L2:6:ARG:HH12	5:L2:198:LYS:HA	1.85	0.42
1:2S:514:G:H21	7:L4:341:SER:HA	1.84	0.42
65:18:24:GLY:O	65:18:26:ILE:N	2.53	0.42
35:73:11:GLY:O	35:73:97:SER:HA	2.20	0.42
57:10:62:GLN:HE21	57:10:62:GLN:HB3	1.56	0.42
43:81:1:MET:SD	46:1S:1642:G:H5'	2.60	0.42
2:8S:78:G:O2'	37:75:42:PRO:HG2	2.20	0.42
25:63:103:ALA:HA	25:63:108:GLU:O	2.20	0.41
1:2S:45:A:H1'	1:2S:94:G:O6	2.19	0.41
46:1S:186:C:H2'	46:1S:187:G:O4'	2.20	0.41
46:1S:1481:C:C5'	46:1S:1482:C:OP1	2.64	0.41
34:72:82:LEU:HD11	34:72:111:ARG:HG3	2.02	0.41
1:2S:2930:A:H2'	1:2S:2931:C:H6	1.84	0.41
69:22:25:VAL:O	69:22:62:VAL:HA	2.20	0.41
10:L7:47:ARG:O	10:L7:51:TYR:CD2	2.73	0.41
58:11:123:VAL:HG23	58:11:141:LYS:O	2.20	0.41
58:11:85:VAL:HG22	58:11:108:PRO:HA	2.01	0.41
3:5S:13:A:H5'	3:5S:14:U:C5	2.54	0.41
11:L8:204:ARG:C	11:L8:206:GLU:H	2.23	0.41
39:77:47:TYR:HB2	39:77:49:TRP:CE2	2.55	0.41
1:2S:2375:G:C6	1:2S:2378:C:C4	3.08	0.41
49:S2:208:GLU:O	49:S2:212:LYS:HG3	2.19	0.41
56:S9:125:ALA:O	56:S9:129:ILE:HG13	2.19	0.41
22:60:12:ARG:HD2	22:60:21:GLU:HA	2.02	0.41
61:14:85:ALA:N	61:14:119:THR:HG22	2.27	0.41
8:L5:133:GLU:HB3	8:L5:134:ALA:H	1.70	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
7:L4:119:ARG:HH12	7:L4:271:LYS:HB3	1.84	0.41
46:1S:335:U:H4'	58:11:129:ARG:NH2	2.35	0.41
46:1S:1685:G:H3'	46:1S:1686:C:H5''	2.01	0.41
14:51:88:GLU:HB3	14:51:90:GLN:NE2	2.35	0.41
5:L2:209:HIS:C	5:L2:211:HIS:H	2.23	0.41
1:2S:2446:U:H2'	1:2S:2447:A:C8	2.55	0.41
46:1S:1632:C:O2'	46:1S:1633:A:H5'	2.20	0.41
22:60:13:ARG:O	22:60:57:GLU:HG3	2.20	0.41
9:L6:96:VAL:CG1	9:L6:141:VAL:HG13	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1S:415:C:H2'	46:1S:417:A:N7	2.35	0.41
67:20:91:ILE:HG22	67:20:93:LEU:HG	2.01	0.41
1:2S:2080:C:H2'	1:2S:2081:U:O4'	2.20	0.41
65:18:91:ASP:O	65:18:92:ILE:HB	2.20	0.41
46:1S:1370:U:H1'	46:1S:1371:A:OP2	2.20	0.41
51:S4:191:ARG:HD3	51:S4:245:LYS:CD	2.49	0.41
15:53:117:LYS:H	15:53:117:LYS:HD3	1.83	0.41
13:50:17:TYR:H	13:50:95:HIS:CE1	2.37	0.41
79:RA:276:PRO:HD3	79:RA:313:TRP:HZ2	1.85	0.41
7:L4:74:ILE:C	7:L4:74:ILE:HD12	2.40	0.41
1:2S:12:A:N1	2:8S:145:U:O4	2.53	0.41
5:L2:147:ARG:CB	5:L2:157:VAL:HB	2.49	0.41
79:RA:81:LEU:CD2	79:RA:91:LEU:HD13	2.50	0.41
46:1S:584:C:H2'	46:1S:585:A:O4'	2.20	0.41
11:L8:214:LEU:O	11:L8:218:ILE:HG13	2.20	0.41
21:59:77:GLY:O	21:59:81:ARG:HD3	2.20	0.41
52:S5:183:ALA:CB	52:S5:190:ILE:HD13	2.50	0.41
51:S4:201:HIS:CD2	51:S4:207:LEU:HD12	2.55	0.41
56:S9:49:LEU:O	56:S9:49:LEU:HD13	2.20	0.41
31:69:18:ARG:HD2	31:69:18:ARG:HA	1.69	0.41
47:S0:81:PHE:HD1	47:S0:81:PHE:H	1.69	0.41
27:65:34:LEU:HA	27:65:35:PRO:HD3	1.90	0.41
46:1S:130:C:H2'	46:1S:131:C:O4'	2.20	0.41
23:61:69:LYS:HE3	23:61:69:LYS:HB2	1.89	0.41
46:1S:1526:A:C8	46:1S:1527:C:C5	3.07	0.41
27:65:109:LYS:HB2	27:65:109:LYS:HE3	1.88	0.41
4:L1:44:GLN:N	4:L1:161:LYS:HB3	2.19	0.41
46:1S:1090:C:H1'	46:1S:1093:A:C2	2.55	0.41
50:S3:84:ILE:HD11	50:S3:86:LEU:HD11	2.02	0.41
1:2S:1043:C:H4'	13:50:90:ARG:HD2	2.02	0.41
20:58:51:ALA:HA	20:58:54:LEU:HG	2.02	0.41
18:56:46:GLU:CD	18:56:48:PHE:CB	2.89	0.41
11:L8:108:ARG:HA	11:L8:111:LYS:CD	2.50	0.41
55:S8:79:ALA:HB3	55:S8:103:GLN:O	2.20	0.41
52:S5:110:ALA:O	52:S5:114:ILE:HG12	2.20	0.41
46:1S:1419:G:O2'	46:1S:1420:C:H5'	2.20	0.41
48:S1:145:LYS:HB3	48:S1:149:GLN:CG	2.50	0.41
46:1S:1011:G:H2'	46:1S:1012:U:C5	2.54	0.41
19:57:57:ALA:HB1	19:57:81:ALA:HB1	2.02	0.41
67:20:58:LEU:HD12	67:20:88:LYS:HG2	2.02	0.41
1:2S:2338:C:H2'	1:2S:2339:C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:13:70:LYS:N	60:13:73:ARG:HB2	2.34	0.41
8:L5:111:GLN:C	8:L5:113:LEU:H	2.23	0.41
22:60:24:LEU:HD12	23:61:146:ASN:HB2	2.02	0.41
3:5S:99:G:H2'	3:5S:100:C:C6	2.55	0.41
22:60:31:ALA:HB1	22:60:36:ILE:CG2	2.51	0.41
46:1S:570:A:N7	70:23:114:LYS:HE3	2.35	0.41
20:58:18:ALA:HB1	20:58:19:PRO:CD	2.47	0.41
1:2S:1342:C:O4'	20:58:10:HIS:HB3	2.20	0.41
60:13:105:ASN:C	60:13:107:LYS:H	2.24	0.41
13:50:98:ARG:NH1	13:50:98:ARG:HG3	2.32	0.41
1:2S:1261:G:N3	1:2S:1261:G:H3'	2.35	0.41
33:71:25:PHE:CA	33:71:28:ARG:HG3	2.48	0.41
1:2S:2447:A:C4	1:2S:2502:A:N6	2.88	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
51:S4:159:THR:CB	51:S4:227:VAL:HG23	2.50	0.41
15:53:29:ALA:HB2	17:55:201:ARG:HH12	1.85	0.41
1:2S:2940:A:N7	6:L3:2:SER:O	2.53	0.41
4:L1:199:GLN:NE2	4:L1:202:GLY:CA	2.83	0.41
1:2S:3051:U:H2'	1:2S:3052:G:O4'	2.20	0.41
41:79:9:ILE:HG22	41:79:13:MET:CE	2.50	0.41
46:1S:1641:C:H2'	46:1S:1642:G:C8	2.55	0.41
39:77:19:CYS:HB3	39:77:22:CYS:SG	2.61	0.41
1:2S:1644:C:H41	36:74:68:THR:CG2	2.33	0.41
1:2S:566:G:H2'	1:2S:567:G:C8	2.54	0.41
5:L2:44:ILE:HD12	5:L2:62:VAL:HG13	2.01	0.41
52:S5:192:GLU:OE1	72:25:63:SER:HB2	2.21	0.41
1:2S:822:G:H2'	1:2S:823:C:H6	1.85	0.41
62:15:95:GLY:CA	62:15:104:GLN:HG2	2.50	0.41
79:RA:266:ASP:HA	79:RA:267:PRO:C	2.41	0.41
1:2S:1104:G:H2'	1:2S:1105:A:C8	2.55	0.41
46:1S:1582:U:H5''	63:16:135:ARG:HH11	1.85	0.41
62:15:10:ARG:HH11	62:15:13:LYS:HB2	1.84	0.41
25:63:77:ILE:H	25:63:77:ILE:HD12	1.79	0.41
17:55:14:LYS:HA	17:55:19:LEU:HD22	2.03	0.41
16:54:76:ALA:HB1	16:54:80:THR:CG2	2.50	0.41
1:2S:1405:U:H2'	1:2S:1406:A:O4'	2.21	0.41
1:2S:2405:C:H2'	1:2S:2406:C:C5	2.50	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
17:55:95:GLN:C	17:55:96:ARG:HG3	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1695:U:H5''	36:74:24:LYS:HB3	2.01	0.41
18:56:57:PHE:HA	18:56:60:LYS:HZ2	1.82	0.41
1:2S:578:A:H2'	7:L4:334:PHE:CD2	2.55	0.41
45:83:50:GLY:O	45:83:51:ALA:HB3	2.19	0.41
5:L2:48:ILE:HA	5:L2:59:ALA:HA	2.02	0.41
48:S1:143:THR:HG22	48:S1:207:LEU:CD1	2.51	0.41
47:S0:29:VAL:HG13	47:S0:150:ASP:HB3	2.01	0.41
46:1S:729:G:C5	46:1S:730:G:H8	2.38	0.41
10:L7:143:THR:O	10:L7:147:LEU:HG	2.20	0.41
67:20:95:ALA:HB1	67:20:99:ILE:CG2	2.50	0.41
7:L4:188:ARG:HB3	7:L4:193:LYS:CB	2.51	0.41
11:L8:122:LYS:O	11:L8:124:ASP:N	2.53	0.41
71:24:36:SER:O	71:24:40:LEU:HG	2.20	0.41
46:1S:942:G:H3'	73:26:17:HIS:CE1	2.55	0.41
19:57:58:ILE:O	19:57:81:ALA:HA	2.20	0.41
1:2S:21:G:C6	2:8S:37:A:N7	2.88	0.41
14:51:49:LYS:HE3	14:51:64:LYS:HE3	2.02	0.41
36:74:41:ARG:CA	36:74:56:THR:HG21	2.50	0.41
46:1S:115:G:N7	58:11:129:ARG:CB	2.84	0.41
5:L2:202:VAL:HG22	5:L2:211:HIS:O	2.20	0.41
33:71:28:ARG:HD3	33:71:65:LYS:HA	2.01	0.41
2:8S:108:C:C6	2:8S:108:C:O5'	2.73	0.41
1:2S:160:G:C2'	1:2S:161:G:H5''	2.50	0.41
49:S2:104:VAL:HG22	49:S2:112:GLY:HA3	2.02	0.41
46:1S:374:U:H6	46:1S:374:U:O5'	2.04	0.41
70:23:53:VAL:CG1	70:23:98:GLU:HA	2.50	0.41
1:2S:209:A:H2	7:L4:221:ASN:HB3	1.82	0.41
1:2S:429:U:H4'	35:73:88:ASN:O	2.19	0.41
46:1S:934:C:O2	46:1S:934:C:H3'	2.20	0.41
49:S2:184:VAL:HG13	49:S2:187:LEU:HD23	2.02	0.41
1:2S:3021:A:C8	1:2S:3033:A:N6	2.86	0.41
55:S8:32:GLN:HA	55:S8:33:PRO:HD3	1.90	0.41
1:2S:2828:G:H3'	1:2S:2829:U:C5	2.55	0.41
46:1S:1192:C:H4'	63:16:140:LYS:NZ	2.34	0.41
1:2S:272:G:H2'	1:2S:273:A:C8	2.55	0.41
54:S7:49:ILE:O	54:S7:57:ALA:HB3	2.20	0.41
1:2S:2070:U:H2'	1:2S:2071:A:H5'	2.02	0.41
1:2S:853:G:N7	45:83:2:ALA:HB2	2.35	0.41
28:66:68:GLY:HA2	28:66:84:LYS:HD2	2.02	0.41
1:2S:3215:A:OP1	35:73:2:ALA:HB3	2.20	0.41
71:24:88:THR:O	71:24:92:VAL:HG23	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:11:115:PHE:N	58:11:115:PHE:CD1	2.88	0.41
1:2S:304:G:N3	1:2S:304:G:H2'	2.35	0.41
18:56:39:GLU:HG2	18:56:40:GLU:HG2	2.01	0.41
34:72:19:ARG:HG2	34:72:20:HIS:N	2.32	0.41
69:22:29:PRO:HB2	69:22:58:SER:HB3	1.99	0.41
46:1S:1789:G:C8	61:14:132:ARG:NH2	2.61	0.41
46:1S:1202:A:N3	46:1S:1202:A:H3'	2.34	0.41
42:80:82:LEU:HA	42:80:85:LEU:HB2	2.03	0.41
10:L7:67:ARG:HA	10:L7:70:LYS:HE2	2.02	0.41
18:56:46:GLU:HG3	18:56:49:ARG:N	2.26	0.41
37:75:61:GLN:C	37:75:64:GLU:HG2	2.40	0.41
12:L9:112:ILE:O	12:L9:125:ASN:HA	2.20	0.41
17:55:8:GLU:HG3	17:55:50:ARG:NH2	2.25	0.41
12:L9:48:VAL:HG13	12:L9:49:ASN:ND2	2.35	0.41
46:1S:1170:G:C2	46:1S:1171:A:C8	3.08	0.41
45:83:67:GLY:HA3	45:83:70:THR:HG22	2.01	0.41
1:2S:283:G:H21	1:2S:285:A:C5'	2.31	0.41
14:51:16:LYS:HB3	14:51:72:ARG:HG2	2.01	0.41
46:1S:1134:C:O2'	46:1S:1135:U:H5'	2.20	0.41
50:S3:220:PRO:HB3	79:RA:223:TRP:CZ3	2.54	0.41
46:1S:454:U:C5	51:S4:66:MET:HB2	2.55	0.41
39:77:85:LYS:CG	39:77:86:ALA:H	2.33	0.41
46:1S:1498:G:H4'	66:19:120:GLY:C	2.41	0.41
1:2S:2822:U:H2'	1:2S:2823:G:C8	2.55	0.41
1:2S:805:G:C4'	7:L4:73:ARG:O	2.67	0.41
52:S5:162:VAL:CA	75:28:45:LYS:HB3	2.49	0.41
52:S5:83:ARG:CG	52:S5:83:ARG:O	2.68	0.41
2:8S:110:C:H4'	2:8S:112:U:C5	2.52	0.41
1:2S:1312:C:H3'	1:2S:1313:G:C8	2.54	0.41
42:80:96:CYS:HB3	42:80:100:TYR:N	2.35	0.41
16:54:15:VAL:O	22:60:149:LYS:HA	2.20	0.41
46:1S:862:A:H4'	46:1S:863:A:C5'	2.51	0.41
46:1S:1296:A:H2'	46:1S:1297:G:O4'	2.20	0.41
1:2S:217:U:O4	1:2S:221:A:H8	2.03	0.41
1:2S:2443:A:N6	1:2S:2504:U:N3	2.68	0.41
60:13:106:ARG:NH2	60:13:106:ARG:HG2	2.35	0.41
42:80:94:SER:HB2	42:80:122:ARG:O	2.20	0.41
46:1S:525:A:H3'	46:1S:526:A:H8	1.86	0.41
59:12:31:VAL:HG22	59:12:133:LEU:HD12	2.02	0.41
5:L2:92:LYS:HG3	5:L2:103:PRO:HG2	2.02	0.41
15:53:60:ALA:HA	15:53:61:PRO:HD3	1.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:18:118:LYS:HB2	65:18:118:LYS:HE3	1.82	0.41
53:S6:180:THR:HB	53:S6:181:PRO:HD2	2.03	0.41
21:59:19:LYS:HG3	21:59:19:LYS:H	1.71	0.41
1:2S:1037:C:H2'	1:2S:1038:C:C6	2.55	0.41
46:1S:477:A:H5'	77:30:34:ALA:HB2	2.01	0.41
4:L1:106:LYS:O	4:L1:136:THR:HG22	2.21	0.41
57:10:21:VAL:HG12	57:10:66:TYR:CD2	2.55	0.41
1:2S:2513:U:C4'	1:2S:2514:U:OP1	2.66	0.41
16:54:79:ALA:O	16:54:83:LYS:HB2	2.20	0.41
7:L4:170:LYS:N	7:L4:170:LYS:CD	2.83	0.41
36:74:33:GLN:HG2	36:74:34:HIS:N	2.35	0.41
1:2S:1566:A:H3'	1:2S:1567:U:H5''	2.03	0.41
46:1S:818:C:H6	46:1S:818:C:OP2	2.03	0.41
1:2S:122:A:H62	1:2S:148:G:H1'	1.80	0.41
52:S5:89:ILE:HD12	52:S5:90:ILE:N	2.35	0.41
1:2S:1834:U:C5'	41:79:3:ALA:HA	2.45	0.41
56:S9:24:LEU:HA	56:S9:27:GLU:OE1	2.19	0.41
67:20:49:ASN:O	67:20:50:LEU:HD12	2.20	0.41
66:19:37:VAL:HG22	66:19:39:THR:H	1.84	0.41
7:L4:188:ARG:HD3	7:L4:189:ALA:H	1.85	0.41
28:66:39:LEU:HD22	28:66:43:TYR:HE2	1.85	0.41
1:2S:3393:U:H2'	1:2S:3394:U:H6	1.80	0.41
73:26:41:ILE:N	73:26:41:ILE:HD13	2.28	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
28:66:112:ASP:H	28:66:115:ARG:CG	2.34	0.41
38:76:43:LEU:HD13	38:76:47:ILE:HD11	2.01	0.41
1:2S:1878:G:H3'	1:2S:1878:G:N3	2.35	0.41
1:2S:3318:G:H1'	1:2S:3320:A:N7	2.36	0.41
54:S7:130:VAL:HG12	54:S7:162:ILE:HD12	2.02	0.41
4:L1:207:LYS:HB2	4:L1:213:ALA:HB2	2.01	0.41
1:2S:2286:U:H4'	1:2S:2287:C:H2'	2.02	0.41
62:15:86:VAL:CG2	62:15:87:PRO:HD2	2.50	0.41
1:2S:3267:A:H3'	1:2S:3268:A:C8	2.51	0.41
47:S0:197:ILE:CD1	47:S0:197:ILE:N	2.83	0.41
49:S2:238:SER:HA	49:S2:239:PRO:HD3	1.84	0.41
4:L1:125:GLY:N	4:L1:126:PRO:CD	2.83	0.41
39:77:64:MET:CB	39:77:68:LYS:HG3	2.50	0.41
60:13:87:ASP:N	60:13:87:ASP:OD2	2.54	0.41
46:1S:1425:A:O2'	46:1S:1426:C:H5'	2.20	0.41
70:23:60:GLU:HA	70:23:68:ILE:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:S9:133:HIS:HB3	56:S9:134:ILE:H	1.58	0.41
52:S5:158:GLN:HG3	52:S5:159:ALA:N	2.36	0.41
55:S8:191:PHE:CE2	58:11:8:GLN:HG3	2.55	0.41
7:L4:283:THR:C	7:L4:285:ASP:N	2.74	0.41
12:L9:57:VAL:HG23	12:L9:68:LEU:HD23	2.01	0.41
14:51:125:MET:HG2	14:51:126:ASP:N	2.35	0.41
51:S4:206:ASP:N	51:S4:222:LEU:HD22	2.35	0.41
1:2S:2495:C:C5	1:2S:2496:C:C2	3.09	0.41
51:S4:137:PRO:HG2	51:S4:150:PRO:HD2	2.02	0.41
1:2S:1078:U:H2'	1:2S:1080:A:OP2	2.20	0.41
72:25:103:ARG:O	72:25:105:THR:N	2.54	0.41
14:51:120:ILE:CG2	14:51:123:PHE:HE2	2.33	0.41
55:S8:136:SER:O	55:S8:140:GLU:HB2	2.19	0.41
13:50:99:ILE:CG2	13:50:123:HIS:HB2	2.50	0.41
1:2S:1938:U:C2	1:2S:2115:G:H5'	2.56	0.41
50:S3:212:LYS:NZ	50:S3:212:LYS:HB3	2.36	0.41
8:L5:209:GLU:OE2	8:L5:209:GLU:HA	2.20	0.41
67:20:103:ILE:O	67:20:103:ILE:CG2	2.68	0.41
53:S6:38:GLY:O	53:S6:45:PHE:HB2	2.20	0.41
27:65:42:ARG:C	27:65:44:PRO:HD3	2.41	0.41
6:L3:245:GLY:HA3	6:L3:248:LYS:HD3	2.03	0.41
1:2S:58:G:C5'	17:55:154:PRO:HB2	2.50	0.41
36:74:20:ILE:CG2	36:74:32:ALA:HB1	2.50	0.41
69:22:40:VAL:O	69:22:43:LYS:HB3	2.20	0.41
49:S2:169:LEU:C	49:S2:170:ILE:HD12	2.40	0.41
60:13:47:PRO:HB3	60:13:71:ILE:HG21	2.03	0.41
53:S6:136:LYS:O	53:S6:136:LYS:HD3	2.20	0.41
17:55:122:ASN:HB2	17:55:129:TYR:CD2	2.56	0.41
7:L4:236:LEU:O	7:L4:240:PRO:HG3	2.20	0.41
70:23:131:SER:O	70:23:135:LEU:HG	2.20	0.41
35:73:54:ARG:HB3	35:73:55:ALA:H	1.65	0.41
1:2S:650:C:O5'	1:2S:650:C:H6	2.04	0.41
48:S1:37:THR:CG2	48:S1:231:LEU:HD21	2.43	0.41
12:L9:71:VAL:HG12	12:L9:71:VAL:O	2.20	0.41
56:S9:120:LYS:HB3	56:S9:120:LYS:HZ2	1.84	0.41
14:51:49:LYS:HA	14:51:64:LYS:HA	2.02	0.41
58:11:20:PHE:CD2	58:11:21:ASN:N	2.88	0.41
21:59:101:VAL:HG12	21:59:135:LYS:HD3	2.02	0.41
15:53:91:ARG:HD3	15:53:91:ARG:HA	1.86	0.41
54:S7:114:ARG:HB2	54:S7:114:ARG:HH11	1.85	0.41
51:S4:176:ASP:HB2	51:S4:179:LYS:HE2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:67:30:ASP:O	29:67:39:GLY:HA2	2.21	0.41
58:11:54:ILE:HG22	58:11:55:ASP:N	2.35	0.41
45:83:58:SER:O	45:83:61:LYS:HD3	2.21	0.41
8:L5:78:ALA:CB	8:L5:105:ILE:HD11	2.50	0.41
71:24:102:LYS:N	71:24:102:LYS:HD2	2.31	0.41
6:L3:116:ARG:HH12	6:L3:174:LYS:HD3	1.85	0.41
33:71:25:PHE:HA	33:71:28:ARG:CD	2.51	0.41
48:S1:208:GLN:O	48:S1:209:ASN:HB2	2.21	0.41
26:64:45:ASN:HA	26:64:46:PRO:HD3	1.79	0.41
2:8S:33:A:O3'	2:8S:34:U:H2'	2.21	0.41
44:82:67:LYS:N	44:82:87:ARG:HB3	2.35	0.41
79:RA:286:GLU:HA	79:RA:287:PRO:HD3	1.94	0.41
46:1S:1621:U:H2'	46:1S:1622:G:O4'	2.20	0.41
49:S2:58:LEU:HG	68:21:13:VAL:O	2.20	0.41
5:L2:69:TYR:O	5:L2:70:ARG:HB3	2.21	0.41
1:2S:2955:U:H2'	1:2S:2956:A:C8	2.55	0.41
10:L7:96:PRO:C	10:L7:99:PRO:HD2	2.41	0.41
46:1S:1006:C:H6	46:1S:1006:C:O5'	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
1:2S:2541:U:C1'	1:2S:2542:U:H4'	2.51	0.41
1:2S:1594:A:H1'	1:2S:1615:C:H1'	2.02	0.41
54:S7:27:LEU:HD11	54:S7:81:LEU:CD1	2.51	0.41
58:11:89:ALA:HA	58:11:104:HIS:HA	2.02	0.41
70:23:17:VAL:HA	70:23:20:ARG:NH2	2.36	0.41
11:L8:98:ARG:HD3	11:L8:99:PRO:HD2	2.02	0.41
1:2S:2593:A:H4'	1:2S:2594:C:C6	2.56	0.41
1:2S:2155:G:OP1	5:L2:241:ARG:HG2	2.21	0.41
2:8S:54:A:C8	2:8S:55:U:C5	3.08	0.41
1:2S:1470:U:H2'	1:2S:1471:U:H6	1.86	0.41
71:24:44:LEU:HA	71:24:47:VAL:HG22	2.02	0.41
1:2S:217:U:H4'	28:66:100:HIS:NE2	2.35	0.41
4:L1:183:ILE:O	4:L1:187:VAL:HG23	2.20	0.41
1:2S:1855:U:O2'	1:2S:1856:C:H5'	2.20	0.41
47:S0:148:ASP:HB3	47:S0:149:LEU:H	1.63	0.41
63:16:29:ILE:O	63:16:35:PRO:HA	2.20	0.41
34:72:85:LEU:HA	34:72:88:HIS:HD2	1.85	0.41
13:50:42:THR:HG22	13:50:45:GLU:HB2	2.03	0.41
1:2S:3099:C:O2	1:2S:3135:U:O2	2.39	0.41
1:2S:1090:G:O2'	1:2S:1091:A:H5'	2.20	0.41
13:50:77:THR:HG22	13:50:82:ARG:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L9:53:ILE:HD13	16:54:7:VAL:HG21	2.03	0.41
49:S2:90:THR:OG1	49:S2:91:ARG:N	2.54	0.41
1:2S:2219:A:H2'	1:2S:2220:A:C8	2.56	0.41
51:S4:139:VAL:O	51:S4:146:THR:HA	2.20	0.41
48:S1:170:GLU:O	48:S1:174:LYS:HG3	2.20	0.41
1:2S:1888:U:H2'	1:2S:1889:G:O4'	2.20	0.41
70:23:96:VAL:O	70:23:97:ASP:CB	2.68	0.41
49:S2:172:ALA:HB2	49:S2:197:TYR:CD2	2.56	0.41
1:2S:641:C:O2'	1:2S:642:U:H5'	2.20	0.41
2:8S:23:U:H5''	28:66:13:ARG:HG2	2.02	0.41
70:23:50:LYS:HB3	70:23:77:ILE:HD12	2.03	0.41
17:55:71:ARG:HH22	17:55:74:PRO:HD3	1.86	0.41
11:L8:139:VAL:HG13	11:L8:199:ALA:HB2	2.02	0.41
49:S2:162:CYS:HB3	49:S2:209:ASN:HB3	2.02	0.41
12:L9:126:VAL:HG13	12:L9:160:ASP:OD1	2.21	0.41
1:2S:3379:C:H5''	6:L3:314:TYR:O	2.21	0.41
65:18:82:PRO:O	65:18:83:ALA:HB2	2.20	0.41
1:2S:2148:U:C5'	5:L2:196:TRP:HZ2	2.33	0.41
1:2S:316:U:O2	38:76:30:LYS:HD3	2.20	0.41
8:L5:140:ARG:CZ	8:L5:140:ARG:CB	2.98	0.41
29:67:71:PHE:CD1	29:67:71:PHE:C	2.94	0.41
1:2S:856:G:H2'	1:2S:857:G:O4'	2.20	0.41
1:2S:3024:A:H4'	12:L9:97:PHE:CE2	2.56	0.41
47:S0:62:ARG:HH12	68:21:78:LEU:HB2	1.85	0.41
46:1S:1186:U:C2'	46:1S:1187:U:H5'	2.50	0.41
52:S5:69:PHE:HD2	63:16:50:GLU:HG2	1.85	0.41
6:L3:186:GLY:O	6:L3:187:SER:O	2.38	0.41
46:1S:1029:U:O2'	46:1S:1030:A:H5'	2.21	0.41
1:2S:2908:G:H2'	1:2S:2909:U:H6	1.82	0.41
1:2S:3102:G:H2'	1:2S:3103:A:C8	2.56	0.41
36:74:29:ILE:N	36:74:29:ILE:HD13	2.36	0.41
46:1S:1426:C:H3'	46:1S:1427:A:C5'	2.50	0.41
46:1S:564:G:H2'	46:1S:578:U:C5	2.56	0.41
26:64:30:ARG:HG2	26:64:30:ARG:HH11	1.85	0.41
63:16:51:PRO:O	63:16:55:VAL:HG12	2.21	0.41
47:S0:26:ALA:H	47:S0:149:LEU:HD12	1.86	0.41
46:1S:1429:G:H1'	67:20:74:GLU:CD	2.41	0.41
1:2S:1401:A:O2'	1:2S:1402:C:H5'	2.21	0.41
46:1S:762:A:H2'	46:1S:763:G:O4'	2.20	0.41
46:1S:642:G:H2'	46:1S:643:G:C8	2.56	0.41
1:2S:1364:C:H2'	1:2S:1365:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3237:U:H2'	1:2S:3238:G:O4'	2.20	0.41
2:8S:83:C:O4'	2:8S:83:C:O2	2.37	0.41
50:S3:8:LYS:H	50:S3:8:LYS:HG3	1.60	0.41
1:2S:2969:A:H2'	1:2S:2970:C:C6	2.55	0.41
70:23:34:LEU:HB3	70:23:39:LYS:NZ	2.36	0.41
29:67:29:HIS:H	29:67:41:ALA:HA	1.84	0.41
17:55:14:LYS:HA	17:55:19:LEU:CD2	2.50	0.41
57:10:76:LEU:N	57:10:76:LEU:HD12	2.35	0.41
55:S8:23:LYS:HB3	55:S8:24:LYS:H	1.53	0.41
44:82:68:VAL:HG12	44:82:85:LEU:HD13	2.01	0.41
1:2S:298:U:C5'	38:76:31:GLY:O	2.69	0.41
69:22:36:LYS:HB2	69:22:110:ILE:HD12	2.02	0.41
20:58:102:ALA:HA	20:58:122:ILE:O	2.21	0.41
46:1S:829:A:H4'	46:1S:830:U:C5'	2.51	0.41
54:S7:142:TYR:HD2	69:22:50:PHE:O	2.04	0.41
1:2S:2883:U:H2'	1:2S:2884:C:H6	1.84	0.41
1:2S:1415:U:H2'	1:2S:1416:C:O4'	2.21	0.41
56:S9:41:GLU:HB3	56:S9:44:ARG:NH2	2.36	0.41
52:S5:126:ASP:O	52:S5:127:GLN:HB2	2.21	0.41
12:L9:49:ASN:HD21	12:L9:52:LEU:CB	2.30	0.41
1:2S:3380:U:C2'	1:2S:3381:U:H5'	2.51	0.41
1:2S:3334:U:O4'	1:2S:3370:A:C2	2.74	0.41
1:2S:2407:C:H1'	1:2S:2818:U:O2	2.21	0.41
60:13:100:LYS:CA	60:13:103:GLU:HG2	2.49	0.41
46:1S:1601:G:N2	66:19:88:VAL:HG22	2.35	0.41
3:5S:41:G:H5''	3:5S:42:A:C8	2.55	0.41
53:S6:63:MET:HB3	53:S6:99:GLY:O	2.21	0.41
53:S6:28:PHE:CZ	53:S6:104:PRO:HA	2.55	0.41
59:12:71:ILE:HG23	59:12:72:ILE:N	2.35	0.41
21:59:23:TRP:CH2	21:59:25:ASP:HB3	2.56	0.41
10:L7:94:LYS:N	10:L7:94:LYS:CD	2.84	0.41
1:2S:2754:G:H3'	1:2S:2755:C:H5''	2.02	0.41
46:1S:1471:A:H2	46:1S:1474:G:N3	2.19	0.41
45:83:28:LYS:HG2	45:83:32:GLN:NE2	2.36	0.41
1:2S:2253:G:H2'	1:2S:2254:U:O4'	2.21	0.41
1:2S:209:A:O2'	1:2S:211:A:OP2	2.25	0.41
1:2S:1130:A:H2'	1:2S:1132:C:C6	2.56	0.41
46:1S:1366:U:H5''	63:16:33:GLY:CA	2.51	0.41
6:L3:82:PRO:HA	6:L3:83:PRO:HD3	2.00	0.41
46:1S:774:A:H2'	46:1S:775:G:H5'	2.03	0.41
46:1S:372:G:H21	46:1S:612:U:H3	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:53:95:ILE:HG12	15:53:119:TYR:CE2	2.56	0.41
27:65:59:SER:HB3	27:65:102:LEU:HD11	2.02	0.41
23:61:158:THR:O	23:61:160:ILE:N	2.54	0.41
46:1S:1687:U:H2'	46:1S:1688:U:O4'	2.21	0.41
1:2S:1679:A:O2'	1:2S:1680:G:H5'	2.20	0.41
1:2S:249:U:O2	1:2S:250:U:C4	2.74	0.41
20:58:124:LEU:HD23	20:58:124:LEU:HA	1.84	0.41
73:26:82:ARG:HA	73:26:82:ARG:NE	2.32	0.41
36:74:8:ARG:HH11	36:74:8:ARG:CG	2.34	0.41
34:72:20:HIS:HB2	34:72:35:GLN:OE1	2.21	0.41
1:2S:2468:A:C5	1:2S:2478:C:H4'	2.55	0.41
1:2S:2819:A:O2'	1:2S:2820:A:H5'	2.21	0.41
60:13:47:PRO:HB3	60:13:71:ILE:CG2	2.51	0.41
1:2S:1152:G:H1'	1:2S:2371:G:H5'	2.01	0.41
49:S2:130:ILE:HA	49:S2:133:LYS:HG2	2.03	0.41
1:2S:628:A:H2'	1:2S:629:U:H6	1.79	0.41
51:S4:113:ARG:NH1	51:S4:113:ARG:HG3	2.36	0.41
52:S5:72:HIS:CG	63:16:44:LEU:HD11	2.56	0.41
47:S0:29:VAL:CG1	47:S0:150:ASP:HB3	2.51	0.41
1:2S:2102:U:H5'	21:59:88:ARG:NH2	2.32	0.41
1:2S:2101:C:H1'	1:2S:2102:U:O5'	2.21	0.41
16:54:106:ARG:HA	16:54:109:ARG:CD	2.42	0.41
45:83:20:SER:HA	45:83:23:ARG:NE	2.36	0.41
74:27:61:THR:CG2	74:27:62:ILE:N	2.76	0.41
1:2S:2396:G:OP1	1:2S:2397:A:H4'	2.21	0.41
67:20:95:ALA:HB1	67:20:96:PRO:CD	2.44	0.41
2:8S:103:G:O5'	2:8S:103:G:H8	2.03	0.41
29:67:4:PHE:CE1	32:70:35:ARG:HG2	2.55	0.41
17:55:39:ALA:CB	17:55:131:GLU:OE2	2.68	0.41
17:55:63:ARG:HB2	17:55:63:ARG:HE	1.62	0.41
1:2S:2403:G:N7	1:2S:2870:C:H4'	2.36	0.41
46:1S:831:U:O2'	46:1S:832:U:H5'	2.20	0.41
19:57:58:ILE:HA	19:57:59:PRO:HD3	1.78	0.41
46:1S:1716:C:O2'	46:1S:1717:G:H5''	2.20	0.41
64:17:13:SER:HB3	64:17:57:LEU:HD11	2.01	0.41
29:67:105:SER:O	29:67:108:GLU:HB2	2.21	0.41
2:8S:154:C:H2'	2:8S:155:A:H8	1.84	0.41
1:2S:95:A:H8	1:2S:95:A:P	2.44	0.41
1:2S:2604:U:C4	1:2S:2605:G:C6	3.09	0.41
1:2S:1212:A:N3	1:2S:1213:G:H1'	2.35	0.41
45:83:39:CYS:CB	45:83:42:CYS:SG	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:L4:361:HIS:CD2	7:L4:362:ASP:N	2.86	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:585:A:C5'	35:73:72:THR:HA	2.51	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
10:L7:24:GLU:HB2	10:L7:25:GLN:H	1.57	0.41
1:2S:912:G:H2'	1:2S:914:A:C5	2.55	0.41
1:2S:2279:A:H62	1:2S:2286:U:H3	1.69	0.41
49:S2:37:PRO:HB2	49:S2:65:GLU:OE1	2.20	0.41
58:11:27:THR:HG23	58:11:30:ARG:N	2.33	0.41
14:51:166:LYS:O	14:51:167:TYR:HB2	2.21	0.41
2:8S:109:A:H2'	2:8S:110:C:O4'	2.20	0.41
12:L9:25:VAL:CG1	12:L9:26:LYS:N	2.83	0.41
1:2S:2788:C:O2'	1:2S:2789:U:H5'	2.21	0.41
46:1S:1361:U:H2'	46:1S:1362:U:H5''	2.03	0.41
1:2S:2393:G:H5''	6:L3:252:ILE:HD11	2.02	0.41
1:2S:201:A:H4'	1:2S:220:G:C6	2.56	0.41
1:2S:2470:C:H5''	4:L1:30:GLU:HG2	2.02	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
1:2S:625:G:C2'	1:2S:626:U:H5'	2.51	0.41
72:25:50:ILE:HD11	72:25:70:LYS:HG2	2.01	0.41
46:1S:744:U:C4	46:1S:745:U:C5	3.09	0.41
53:S6:157:VAL:HG13	53:S6:159:ARG:HG3	2.03	0.41
19:57:148:LEU:O	19:57:149:VAL:CG2	2.68	0.41
52:S5:24:VAL:HG21	52:S5:28:PRO:HA	2.02	0.41
46:1S:9:U:H2'	46:1S:11:A:OP2	2.21	0.41
35:73:91:ALA:C	35:73:93:THR:N	2.74	0.41
69:22:38:LEU:O	69:22:47:ILE:HD11	2.21	0.41
40:78:11:PHE:CG	40:78:54:LEU:HD22	2.56	0.41
46:1S:1435:G:C2	57:10:59:PHE:HB2	2.56	0.41
46:1S:1744:A:C5	46:1S:1745:G:C6	3.09	0.41
63:16:114:ARG:H	63:16:116:LEU:CD2	2.34	0.41
51:S4:252:ARG:CD	51:S4:256:ARG:HD2	2.50	0.41
12:L9:41:ILE:O	12:L9:41:ILE:HD13	2.21	0.41
62:15:72:LYS:HA	62:15:73:PRO:HD3	1.86	0.41
69:22:27:ILE:HG12	69:22:61:ILE:O	2.21	0.41
46:1S:680:U:C6	46:1S:680:U:C3'	3.04	0.41
1:2S:273:A:H2'	1:2S:274:G:C8	2.56	0.41
51:S4:92:LEU:HB2	51:S4:97:GLU:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
7:L4:162:THR:O	7:L4:166:VAL:HG23	2.21	0.41
34:72:89:THR:HG22	34:72:117:ILE:HG12	2.03	0.41
74:27:17:ARG:HG3	74:27:18:LYS:N	2.35	0.41
28:66:74:TYR:HD1	28:66:76:LEU:HB3	1.86	0.41
1:2S:259:C:H2'	1:2S:260:C:C6	2.56	0.41
1:2S:2850:G:HO2'	1:2S:2851:A:H8	1.67	0.41
79:RA:170:ILE:HD11	79:RA:204:ALA:HB2	2.02	0.41
65:18:110:ARG:HH11	65:18:110:ARG:HG2	1.86	0.41
70:23:13:ARG:NH1	70:23:13:ARG:HB2	2.35	0.41
20:58:23:ASN:ND2	20:58:26:LEU:HB2	2.35	0.41
66:19:9:VAL:HG11	66:19:14:PHE:CD1	2.55	0.41
8:L5:183:TRP:HA	8:L5:189:GLU:O	2.21	0.41
46:1S:1731:A:H2'	46:1S:1732:A:O4'	2.20	0.41
32:70:58:TYR:CE2	32:70:62:LEU:HD11	2.55	0.41
66:19:40:SER:HB3	66:19:43:ASN:ND2	2.36	0.41
1:2S:643:U:H2'	1:2S:644:G:C8	2.56	0.41
66:19:139:THR:HG22	66:19:139:THR:O	2.21	0.41
14:51:13:LYS:NZ	14:51:13:LYS:HB3	2.36	0.41
1:2S:1320:C:O5'	1:2S:1320:C:H6	2.04	0.41
51:S4:115:THR:OG1	51:S4:118:GLU:HB2	2.21	0.41
46:1S:1689:A:H2'	46:1S:1690:G:O4'	2.21	0.41
69:22:16:ASN:O	69:22:20:THR:HG23	2.20	0.41
16:54:83:LYS:HE3	16:54:83:LYS:HB2	1.96	0.41
46:1S:606:A:H4'	46:1S:607:G:H3'	2.02	0.41
1:2S:1565:G:N2	1:2S:1566:A:H1'	2.35	0.41
1:2S:642:U:H5''	1:2S:1116:G:O6	2.21	0.41
28:66:13:ARG:O	28:66:17:LYS:HB2	2.21	0.41
70:23:126:LYS:HA	70:23:131:SER:HA	2.01	0.41
70:23:86:PHE:CD1	70:23:86:PHE:C	2.93	0.41
18:56:54:TYR:O	18:56:58:LEU:HB2	2.20	0.41
38:76:82:ARG:O	38:76:86:LYS:HB3	2.21	0.41
19:57:127:ARG:CG	19:57:128:ARG:H	2.34	0.41
6:L3:151:ILE:HG22	6:L3:155:ALA:HB3	2.02	0.41
46:1S:1671:A:N6	46:1S:1730:A:O2'	2.51	0.41
1:2S:2172:A:H2'	1:2S:2173:U:C6	2.56	0.41
22:60:8:GLN:CB	22:60:64:ILE:HD11	2.45	0.41
67:20:95:ALA:HB1	67:20:99:ILE:HG21	2.03	0.41
33:71:11:GLU:HG2	33:71:74:ARG:CB	2.51	0.41
72:25:72:GLY:C	72:25:74:SER:H	2.25	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:S7:39:ARG:HH21	54:S7:39:ARG:HG3	1.86	0.41
46:1S:532:U:C5	46:1S:533:U:C5	3.09	0.41
61:14:24:ASN:C	61:14:55:SER:HB3	2.41	0.41
48:S1:153:HIS:CG	48:S1:154:SER:H	2.39	0.41
1:2S:1818:U:H2'	1:2S:1819:U:H5''	2.03	0.41
1:2S:75:G:C5'	15:53:58:VAL:CG1	2.95	0.41
1:2S:2604:U:O2'	1:2S:2605:G:H5'	2.21	0.41
62:15:126:VAL:CG2	62:15:128:HIS:CD2	3.04	0.41
17:55:67:ARG:CG	17:55:127:TYR:CE1	3.03	0.41
1:2S:2109:U:H6	1:2S:2109:U:O5'	2.03	0.41
50:S3:72:LEU:HD23	57:10:20:VAL:HG11	2.02	0.41
16:54:36:VAL:CG1	16:54:55:ARG:NH2	2.84	0.41
47:S0:198:MET:HA	47:S0:198:MET:CE	2.51	0.41
55:S8:122:GLY:HA2	55:S8:157:GLU:OE1	2.21	0.41
1:2S:1604:G:H4'	1:2S:1835:A:H4'	2.02	0.41
18:56:174:PHE:O	18:56:178:VAL:HG23	2.20	0.41
1:2S:3229:G:H2'	1:2S:3230:G:H8	1.86	0.41
46:1S:1719:A:N7	46:1S:1720:G:C5	2.89	0.41
46:1S:1719:A:N6	46:1S:1720:G:C2	2.89	0.41
48:S1:21:VAL:HG23	48:S1:22:ASP:N	2.36	0.41
78:31:136:LYS:HA	78:31:136:LYS:HD2	1.95	0.41
46:1S:680:U:C6	46:1S:680:U:H3'	2.56	0.41
1:2S:1852:G:H2'	1:2S:1853:U:C6	2.56	0.41
15:53:95:ILE:HG12	15:53:119:TYR:HE2	1.86	0.41
7:L4:168:ALA:O	7:L4:172:VAL:HG23	2.21	0.41
3:5S:70:U:H2'	3:5S:71:G:O4'	2.21	0.41
28:66:86:THR:HG22	28:66:96:PRO:HA	2.02	0.41
25:63:4:ASN:HB3	25:63:106:LYS:HA	2.03	0.41
17:55:64:VAL:HG11	17:55:102:ALA:HB1	2.02	0.41
15:53:135:ALA:O	15:53:136:GLU:HG2	2.20	0.41
46:1S:477:A:H2'	46:1S:478:A:C8	2.46	0.40
7:L4:76:ARG:HA	7:L4:87:GLN:O	2.21	0.40
18:56:121:PRO:HA	18:56:127:LEU:HD12	2.03	0.40
25:63:23:MET:HE3	25:63:100:GLY:N	2.36	0.40
1:2S:449:U:C3'	1:2S:449:U:C6	3.04	0.40
1:2S:836:A:OP2	45:83:4:ARG:HD3	2.20	0.40
1:2S:517:G:C2'	1:2S:518:G:H5'	2.51	0.40
25:63:39:VAL:CG1	25:63:40:LYS:H	2.23	0.40
70:23:51:GLY:CA	70:23:77:ILE:HG13	2.50	0.40
23:61:154:VAL:HA	23:61:155:PRO:HD3	1.89	0.40
58:11:124:THR:O	58:11:140:VAL:HG12	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L6:51:ARG:HD2	9:L6:158:TYR:O	2.21	0.40
17:55:187:ARG:O	17:55:190:THR:HG22	2.20	0.40
1:2S:3296:A:O2'	1:2S:3297:U:H5'	2.21	0.40
1:2S:2188:A:H2'	1:2S:2189:U:O4'	2.22	0.40
48:S1:138:PHE:CD2	48:S1:214:LYS:HB3	2.55	0.40
1:2S:2085:U:H3'	1:2S:2085:U:H6	1.87	0.40
46:1S:803:A:H5'	69:22:107:SER:O	2.21	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
7:L4:329:PRO:HB3	10:L7:41:ARG:NH1	2.36	0.40
46:1S:685:A:C2'	46:1S:686:C:H5'	2.52	0.40
13:50:79:VAL:HG11	13:50:147:VAL:CG2	2.52	0.40
55:S8:196:LEU:O	55:S8:200:LYS:HD2	2.22	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
60:13:55:ARG:O	74:27:32:PHE:HZ	2.03	0.40
47:S0:121:VAL:HB	47:S0:143:VAL:HG13	2.02	0.40
1:2S:2490:C:H1'	1:2S:2491:A:C8	2.56	0.40
1:2S:1074:U:H1'	31:69:46:ALA:HB2	2.03	0.40
19:57:24:VAL:HG12	19:57:25:SER:N	2.36	0.40
26:64:45:ASN:O	26:64:49:ILE:HG12	2.21	0.40
50:S3:96:LEU:HD13	50:S3:190:ARG:HB2	2.03	0.40
46:1S:716:C:H2'	46:1S:717:C:O4'	2.21	0.40
1:2S:1313:G:H5'	18:56:83:ALA:CB	2.51	0.40
46:1S:450:U:H2'	46:1S:451:A:H8	1.83	0.40
1:2S:201:A:O5'	1:2S:201:A:H8	2.03	0.40
3:5S:3:U:H2'	3:5S:4:U:H6	1.87	0.40
48:S1:189:ILE:HB	48:S1:190:PRO:CD	2.51	0.40
1:2S:544:C:C3'	1:2S:544:C:C6	3.04	0.40
5:L2:109:GLU:HA	5:L2:136:ILE:HB	2.03	0.40
49:S2:185:LYS:O	49:S2:189:GLN:HG3	2.20	0.40
1:2S:2140:U:H2'	1:2S:2141:U:H5'	2.03	0.40
19:57:86:LYS:O	19:57:90:PHE:HD1	2.04	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
6:L3:183:LEU:CB	6:L3:191:LYS:HD2	2.50	0.40
1:2S:1433:A:O4'	34:72:27:ARG:HD2	2.21	0.40
10:L7:160:ARG:NH2	10:L7:206:LYS:HD3	2.36	0.40
1:2S:1088:U:H2'	1:2S:1089:G:O4'	2.20	0.40
64:17:11:ARG:HG3	64:17:11:ARG:HH11	1.85	0.40
46:1S:523:G:O5'	46:1S:523:G:H8	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:26:51:ARG:HH21	73:26:51:ARG:HG2	1.86	0.40
5:L2:17:THR:HB	5:L2:18:SER:H	1.58	0.40
1:2S:269:G:H5'	17:55:120:TRP:CE3	2.56	0.40
6:L3:238:LEU:N	6:L3:238:LEU:HD22	2.36	0.40
46:1S:412:A:H2	46:1S:421:A:H61	1.68	0.40
69:22:25:VAL:CG2	69:22:63:VAL:HB	2.51	0.40
46:1S:657:U:C2'	46:1S:658:C:H5''	2.41	0.40
27:65:111:ASN:HB2	27:65:123:TYR:CB	2.50	0.40
3:5S:11:A:H5''	3:5S:13:A:C6	2.55	0.40
46:1S:1604:U:H5'	67:20:79:TRP:CE2	2.55	0.40
48:S1:36:SER:HB3	48:S1:231:LEU:CD2	2.51	0.40
46:1S:1562:G:H2'	46:1S:1563:C:C6	2.56	0.40
46:1S:367:A:C2'	46:1S:368:U:H5'	2.51	0.40
1:2S:3272:C:C5'	9:L6:77:ARG:HE	2.27	0.40
48:S1:33:LYS:HB2	48:S1:97:LEU:CD2	2.48	0.40
47:S0:167:LYS:HB3	47:S0:168:HIS:H	1.47	0.40
39:77:85:LYS:CG	39:77:86:ALA:N	2.82	0.40
61:14:17:ALA:HB3	61:14:81:VAL:HG12	2.03	0.40
45:83:59:CYS:C	45:83:61:LYS:N	2.74	0.40
1:2S:884:A:H2'	1:2S:2139:A:C8	2.56	0.40
1:2S:1230:G:H1'	1:2S:1260:A:C2	2.57	0.40
71:24:86:GLU:HA	71:24:87:PRO:HD3	1.90	0.40
69:22:86:ILE:HG13	69:22:87:GLU:H	1.86	0.40
15:53:126:PHE:CD1	15:53:126:PHE:N	2.89	0.40
11:L8:175:VAL:CG1	11:L8:176:PRO:HD2	2.51	0.40
46:1S:966:A:H2'	46:1S:967:A:C8	2.56	0.40
53:S6:72:ARG:HG3	53:S6:72:ARG:HH11	1.86	0.40
1:2S:1140:G:H4'	10:L7:94:LYS:HZ1	1.85	0.40
46:1S:1364:G:H21	66:19:3:GLY:CA	2.34	0.40
1:2S:2542:U:H1'	1:2S:2543:U:C5	2.53	0.40
29:67:83:THR:OG1	29:67:85:TYR:HD2	2.04	0.40
1:2S:286:U:H2'	1:2S:287:G:O4'	2.21	0.40
46:1S:18:C:H2'	46:1S:19:A:O4'	2.21	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
50:S3:49:ILE:HG23	50:S3:89:GLU:HG3	2.03	0.40
52:S5:161:ASP:O	75:28:44:VAL:HA	2.21	0.40
12:L9:50:ASN:HA	12:L9:50:ASN:HD22	1.68	0.40
4:L1:56:PRO:HB2	4:L1:184:LEU:HA	2.03	0.40
46:1S:1391:A:H61	46:1S:1407:U:H3	1.68	0.40
71:24:7:ILE:HD13	71:24:44:LEU:HD21	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1631:C:OP2	29:67:48:ARG:NH2	2.54	0.40
79:RA:135:THR:HG23	79:RA:141:LEU:HD21	2.02	0.40
21:59:161:ALA:O	21:59:165:LYS:N	2.50	0.40
48:S1:32:ILE:HD12	48:S1:32:ILE:H	1.86	0.40
7:L4:280:ILE:H	7:L4:280:ILE:HG12	1.62	0.40
52:S5:29:ILE:HD12	52:S5:29:ILE:N	2.36	0.40
28:66:33:ALA:HA	28:66:34:PRO:HD2	1.89	0.40
9:L6:79:VAL:CG1	9:L6:80:ASN:N	2.85	0.40
70:23:76:LEU:HD22	70:23:78:LYS:HG2	2.03	0.40
4:L1:51:GLY:H	4:L1:193:LEU:HD13	1.85	0.40
6:L3:57:VAL:HG21	6:L3:358:TRP:CE3	2.56	0.40
69:22:104:LEU:HD13	69:22:104:LEU:N	2.37	0.40
18:56:13:GLY:O	18:56:124:LEU:HD12	2.21	0.40
46:1S:1456:C:H3'	46:1S:1457:C:H5'	2.04	0.40
53:S6:136:LYS:CE	53:S6:176:GLN:HB2	2.51	0.40
21:59:106:LEU:N	21:59:106:LEU:HD12	2.37	0.40
1:2S:1565:G:C2	1:2S:1566:A:H1'	2.56	0.40
54:S7:51:VAL:C	54:S7:53:GLY:H	2.25	0.40
46:1S:912:U:H5'	46:1S:913:G:C2'	2.46	0.40
51:S4:103:TYR:CZ	51:S4:189:LEU:HD11	2.56	0.40
18:56:109:PRO:HA	18:56:110:PRO:HD3	1.92	0.40
17:55:93:LYS:O	17:55:94:TYR:HB2	2.21	0.40
46:1S:1065:A:OP1	48:S1:160:HIS:HE1	2.04	0.40
49:S2:57:PHE:CD1	49:S2:138:PRO:HD3	2.56	0.40
1:2S:2085:U:O2'	1:2S:2086:A:H5'	2.21	0.40
55:S8:106:ALA:HB1	55:S8:165:LEU:HG	2.02	0.40
52:S5:68:ILE:HD11	52:S5:90:ILE:HG13	2.03	0.40
41:79:2:ALA:CA	41:79:5:LYS:HG3	2.52	0.40
8:L5:51:LEU:HB2	8:L5:144:VAL:CG2	2.51	0.40
1:2S:2397:A:N7	1:2S:2873:U:C6	2.90	0.40
1:2S:3151:U:H4'	1:2S:3294:A:C4'	2.51	0.40
75:28:8:THR:HG22	75:28:9:LEU:N	2.36	0.40
46:1S:1521:G:O2'	46:1S:1522:U:H5'	2.21	0.40
54:S7:170:GLN:HA	54:S7:181:ILE:HG23	2.03	0.40
46:1S:567:A:O2'	77:30:14:VAL:HG23	2.21	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
19:57:20:SER:O	19:57:21:TYR:HB2	2.21	0.40
21:59:60:LYS:HB3	21:59:64:ARG:CG	2.48	0.40
46:1S:531:C:C2'	46:1S:532:U:H5''	2.48	0.40
15:53:171:ARG:HA	15:53:171:ARG:HD3	1.88	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:3132:C:H6	1:2S:3132:C:O5'	2.03	0.40
1:2S:1360:C:O2'	1:2S:1361:U:H5'	2.21	0.40
62:15:127:ARG:HG2	62:15:127:ARG:HH21	1.87	0.40
1:2S:789:A:H2'	1:2S:790:U:C6	2.55	0.40
9:L6:54:TYR:CD2	9:L6:55:LEU:N	2.89	0.40
2:8S:107:G:H4'	2:8S:138:A:H5'	2.03	0.40
53:S6:98:ARG:CD	53:S6:99:GLY:N	2.85	0.40
1:2S:2213:A:H2	1:2S:2601:A:N3	2.19	0.40
5:L2:205:ASN:CB	5:L2:206:PRO:CD	2.94	0.40
44:82:63:LYS:HD3	44:82:63:LYS:HA	1.80	0.40
66:19:116:ILE:HG12	66:19:122:ARG:NH1	2.37	0.40
1:2S:1479:U:C5	1:2S:1480:G:C5	3.09	0.40
2:8S:4:C:C5'	19:57:61:ARG:O	2.69	0.40
20:58:5:HIS:C	20:58:7:SER:N	2.73	0.40
1:2S:1435:A:OP2	1:2S:1437:C:H6	2.04	0.40
29:67:10:VAL:HB	29:67:83:THR:CG2	2.51	0.40
50:S3:196:ARG:HG3	50:S3:196:ARG:NH1	2.35	0.40
31:69:9:ALA:C	31:69:12:GLN:HG2	2.41	0.40
1:2S:16:A:O2'	1:2S:17:G:H5'	2.22	0.40
42:80:116:GLY:O	42:80:117:HIS:HB2	2.22	0.40
2:8S:146:U:O2'	2:8S:147:U:H5'	2.21	0.40
1:2S:1056:U:H2'	1:2S:1057:A:C8	2.57	0.40
3:5S:43:U:H2'	3:5S:44:C:O4'	2.21	0.40
13:50:55:ASN:CG	13:50:164:LYS:HE2	2.42	0.40
1:2S:1706:C:H3'	1:2S:1707:A:H8	1.87	0.40
7:L4:184:SER:CB	7:L4:202:ARG:HG2	2.51	0.40
61:14:102:LEU:HD22	61:14:105:LEU:HD11	2.04	0.40
6:L3:183:LEU:N	6:L3:183:LEU:HD12	2.36	0.40
46:1S:519:C:H3'	46:1S:520:A:H8	1.86	0.40
59:12:54:ARG:HH21	78:31:129:GLY:HA3	1.86	0.40
46:1S:1182:U:H4'	62:15:124:THR:OG1	2.20	0.40
1:2S:102:C:O5'	1:2S:102:C:H6	2.05	0.40
20:58:127:LEU:C	20:58:127:LEU:HD13	2.42	0.40
1:2S:842:G:H2'	1:2S:843:A:H8	1.87	0.40
51:S4:70:VAL:HG22	51:S4:71:LYS:N	2.37	0.40
1:2S:676:G:O6	20:58:86:THR:HG21	2.21	0.40
6:L3:261:MET:HE2	6:L3:264:VAL:HG13	2.03	0.40
60:13:72:MET:CE	60:13:75:LEU:HB2	2.52	0.40
54:S7:172:VAL:O	54:S7:176:LEU:HG	2.21	0.40
51:S4:49:ARG:CB	51:S4:55:ALA:HB3	2.51	0.40
46:1S:1215:C:O2'	46:1S:1216:C:H5'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2S:1189:C:O4'	1:2S:1190:A:N7	2.54	0.40
1:2S:3359:A:H3'	1:2S:3360:C:H6	1.83	0.40
46:1S:730:G:C2'	46:1S:730:G:N3	2.85	0.40
1:2S:1535:A:N6	1:2S:1586:G:H21	2.08	0.40
1:2S:2175:U:H4'	1:2S:2176:U:OP2	2.21	0.40
1:2S:1347:U:H5''	7:L4:302:ALA:HB1	2.04	0.40
6:L3:312:VAL:O	6:L3:314:TYR:N	2.54	0.40
1:2S:678:G:O2'	1:2S:679:U:H5'	2.20	0.40
57:10:53:GLY:O	57:10:54:TYR:HB2	2.21	0.40
14:51:15:GLU:OE2	14:51:130:VAL:HG13	2.21	0.40
7:L4:60:THR:HB	7:L4:90:PHE:CZ	2.56	0.40
73:26:37:LYS:HG2	73:26:72:HIS:CE1	2.56	0.40
19:57:111:LYS:HB3	19:57:111:LYS:NZ	2.36	0.40
1:2S:2197:C:H5'	1:2S:2198:A:N7	2.37	0.40
46:1S:628:G:O6	46:1S:969:C:H3'	2.21	0.40
1:2S:393:U:H2'	1:2S:394:G:O4'	2.22	0.40
69:22:23:ARG:HH11	69:22:66:ASN:HA	1.83	0.40
46:1S:746:A:C2'	46:1S:747:C:H5'	2.51	0.40
53:S6:133:LEU:HB3	53:S6:134:GLY:H	1.70	0.40
1:2S:2271:A:H2'	1:2S:2272:G:C4'	2.51	0.40
46:1S:617:U:H2'	46:1S:618:U:C6	2.57	0.40
72:25:43:ASP:O	72:25:45:GLU:N	2.55	0.40
57:10:92:ILE:O	57:10:92:ILE:CG2	2.69	0.40
1:2S:1500:G:H2'	1:2S:1501:U:H6	1.83	0.40
48:S1:62:LYS:HE3	48:S1:91:VAL:HG12	2.04	0.40
9:L6:105:TYR:CE1	9:L6:134:ARG:CD	3.04	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
54:S7:143:LEU:HD23	54:S7:147:ASN:HB2	2.02	0.40
59:12:62:LEU:N	59:12:62:LEU:HD23	2.36	0.40
69:22:38:LEU:HA	69:22:41:MET:HE2	2.03	0.40
1:2S:3186:A:H2'	12:L9:42:ASP:OD2	2.20	0.40
1:2S:2971:A:C2'	1:2S:2971:A:N3	2.85	0.40
9:L6:41:ILE:HB	9:L6:85:ILE:HB	2.03	0.40
46:1S:862:A:H4'	46:1S:863:A:H5''	2.03	0.40
46:1S:499:U:C6	46:1S:499:U:C3'	3.04	0.40
46:1S:1407:U:H2'	46:1S:1408:G:O4'	2.22	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
34:72:76:VAL:HG12	34:72:77:ALA:N	2.35	0.40
1:2S:2178:A:OP2	5:L2:151:PRO:HG2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:12:98:GLY:HA2	59:12:118:ALA:HB2	2.04	0.40
1:2S:3216:G:O2'	1:2S:3219:G:H1'	2.21	0.40
23:61:55:LYS:C	23:61:57:TYR:H	2.25	0.40
1:2S:2832:C:O5'	1:2S:2832:C:H6	2.05	0.40
47:S0:139:VAL:O	47:S0:139:VAL:HG22	2.21	0.40
46:1S:23:G:OP1	56:S9:14:THR:HG21	2.22	0.40
1:2S:2234:G:H2'	1:2S:2235:C:O4'	2.22	0.40
46:1S:1712:A:H5'	46:1S:1713:G:OP2	2.22	0.40
23:61:139:ARG:C	23:61:140:ILE:HG13	2.41	0.40
6:L3:245:GLY:HA3	6:L3:248:LYS:CD	2.51	0.40
79:RA:59:ARG:HB2	79:RA:59:ARG:CZ	2.47	0.40
1:2S:2819:A:C2'	1:2S:2820:A:H5'	2.51	0.40
51:S4:63:ALA:O	51:S4:67:GLN:NE2	2.51	0.40
38:76:54:GLU:HA	38:76:57:LEU:HB2	2.02	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
29:67:54:THR:HG22	29:67:57:HIS:NE2	2.37	0.40
33:71:17:HIS:C	33:71:19:ARG:H	2.24	0.40
65:18:49:LYS:HZ3	65:18:81:ILE:HG12	1.86	0.40
1:2S:3380:U:O2'	1:2S:3381:U:H5'	2.21	0.40
29:67:12:VAL:CG1	29:67:81:LEU:HD12	2.52	0.40
29:67:12:VAL:HB	29:67:81:LEU:HD12	2.04	0.40
16:54:13:ARG:HB2	16:54:65:LEU:HD13	2.03	0.40
1:2S:104:G:OP1	15:53:70:ARG:HG3	2.21	0.40
29:67:121:ARG:HH12	29:67:126:LYS:HE3	1.85	0.40
5:L2:226:SER:O	5:L2:228:GLY:N	2.54	0.40
46:1S:1760:G:C2'	46:1S:1761:U:H5'	2.52	0.40
5:L2:72:ARG:HH11	5:L2:72:ARG:HB2	1.83	0.40
1:2S:2949:U:H2'	1:2S:2950:G:O4'	2.22	0.40
54:S7:99:LEU:HA	54:S7:100:PRO:HD2	1.91	0.40
13:50:38:LYS:CD	13:50:41:ALA:HB2	2.48	0.40
1:2S:1363:A:H2	20:58:10:HIS:NE2	2.15	0.40
46:1S:279:G:H5''	46:1S:279:G:C8	2.57	0.40
1:2S:2680:A:H2	14:51:65:ILE:HD11	1.84	0.40
36:74:57:LEU:HB3	36:74:58:ARG:H	1.68	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
11:L8:56:VAL:HA	11:L8:59:GLN:CD	2.41	0.40
26:64:17:ARG:HG3	26:64:17:ARG:NH1	2.37	0.40
51:S4:133:LYS:O	51:S4:134:LYS:CB	2.70	0.40
1:2S:1935:G:H2'	1:2S:1936:A:C8	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
52:S5:29:ILE:H	52:S5:29:ILE:HD12	1.87	0.40
46:1S:710:U:H2'	46:1S:711:U:H5'	2.02	0.40
1:2S:982:C:H2'	1:2S:983:A:C8	2.57	0.40
15:53:16:LYS:HB3	15:53:21:ARG:HH22	1.86	0.40
28:66:118:LEU:HD12	28:66:121:ARG:HD2	2.02	0.40
1:2S:3309:G:H1'	19:57:69:ARG:HB3	2.04	0.40
46:1S:1289:U:O2'	46:1S:1290:U:H5'	2.22	0.40
46:1S:65:A:N1	46:1S:84:A:N7	2.69	0.40
13:50:166:ILE:HG22	13:50:167:LEU:N	2.36	0.40
1:2S:3366:G:H2'	1:2S:3367:C:C6	2.56	0.40
1:2S:861:C:H2'	1:2S:862:U:C6	2.57	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	L1	202/217 (93%)	137 (68%)	50 (25%)	15 (7%)	1	21
5	L2	250/254 (98%)	196 (78%)	44 (18%)	10 (4%)	4	35
6	L3	384/387 (99%)	322 (84%)	51 (13%)	11 (3%)	6	42
7	L4	359/362 (99%)	284 (79%)	48 (13%)	27 (8%)	1	20
8	L5	294/297 (99%)	244 (83%)	40 (14%)	10 (3%)	5	39
9	L6	152/176 (86%)	131 (86%)	16 (10%)	5 (3%)	5	40
10	L7	220/244 (90%)	192 (87%)	19 (9%)	9 (4%)	3	34
11	L8	231/256 (90%)	184 (80%)	38 (16%)	9 (4%)	4	36
12	L9	189/191 (99%)	153 (81%)	30 (16%)	6 (3%)	5	40
13	50	207/221 (94%)	166 (80%)	36 (17%)	5 (2%)	7	47

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	51	167/174 (96%)	130 (78%)	29 (17%)	8 (5%)	3	31
15	53	191/199 (96%)	150 (78%)	35 (18%)	6 (3%)	5	41
16	54	134/138 (97%)	114 (85%)	17 (13%)	3 (2%)	8	49
17	55	201/204 (98%)	156 (78%)	36 (18%)	9 (4%)	3	33
18	56	195/199 (98%)	177 (91%)	14 (7%)	4 (2%)	9	50
19	57	181/184 (98%)	143 (79%)	34 (19%)	4 (2%)	8	49
20	58	183/186 (98%)	153 (84%)	23 (13%)	7 (4%)	4	36
21	59	186/189 (98%)	168 (90%)	14 (8%)	4 (2%)	8	49
22	60	170/172 (99%)	140 (82%)	25 (15%)	5 (3%)	6	42
23	61	157/160 (98%)	128 (82%)	19 (12%)	10 (6%)	2	25
24	62	98/121 (81%)	76 (78%)	18 (18%)	4 (4%)	3	34
25	63	134/137 (98%)	105 (78%)	24 (18%)	5 (4%)	4	37
26	64	59/155 (38%)	43 (73%)	13 (22%)	3 (5%)	2	30
27	65	119/142 (84%)	97 (82%)	17 (14%)	5 (4%)	3	34
28	66	124/127 (98%)	104 (84%)	16 (13%)	4 (3%)	5	40
29	67	133/136 (98%)	110 (83%)	20 (15%)	3 (2%)	8	48
30	68	146/149 (98%)	117 (80%)	26 (18%)	3 (2%)	9	50
31	69	56/59 (95%)	43 (77%)	11 (20%)	2 (4%)	4	38
32	70	95/105 (90%)	89 (94%)	4 (4%)	2 (2%)	9	50
33	71	107/113 (95%)	91 (85%)	14 (13%)	2 (2%)	10	51
34	72	125/130 (96%)	109 (87%)	15 (12%)	1 (1%)	24	69
35	73	104/107 (97%)	79 (76%)	17 (16%)	8 (8%)	1	20
36	74	110/121 (91%)	88 (80%)	18 (16%)	4 (4%)	4	38
37	75	117/120 (98%)	107 (92%)	6 (5%)	4 (3%)	5	39
38	76	97/100 (97%)	76 (78%)	13 (13%)	8 (8%)	1	18
39	77	85/88 (97%)	67 (79%)	16 (19%)	2 (2%)	7	47
40	78	75/78 (96%)	64 (85%)	7 (9%)	4 (5%)	2	29
41	79	48/51 (94%)	39 (81%)	8 (17%)	1 (2%)	9	50
42	80	50/128 (39%)	42 (84%)	6 (12%)	2 (4%)	4	35
43	81	23/25 (92%)	21 (91%)	1 (4%)	1 (4%)	3	34
44	82	101/106 (95%)	79 (78%)	18 (18%)	4 (4%)	4	35

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
45	83	89/92 (97%)	75 (84%)	13 (15%)	1 (1%)	17	63
47	S0	204/252 (81%)	163 (80%)	29 (14%)	12 (6%)	2	26
48	S1	212/255 (83%)	154 (73%)	45 (21%)	13 (6%)	2	25
49	S2	215/254 (85%)	177 (82%)	30 (14%)	8 (4%)	4	37
50	S3	221/240 (92%)	184 (83%)	24 (11%)	13 (6%)	2	26
51	S4	258/261 (99%)	203 (79%)	45 (17%)	10 (4%)	4	36
52	S5	204/225 (91%)	165 (81%)	32 (16%)	7 (3%)	5	39
53	S6	224/236 (95%)	192 (86%)	26 (12%)	6 (3%)	6	44
54	S7	182/190 (96%)	137 (75%)	34 (19%)	11 (6%)	2	26
55	S8	184/200 (92%)	147 (80%)	28 (15%)	9 (5%)	3	31
56	S9	183/197 (93%)	153 (84%)	21 (12%)	9 (5%)	3	31
57	10	94/105 (90%)	74 (79%)	13 (14%)	7 (7%)	1	21
58	11	153/156 (98%)	107 (70%)	37 (24%)	9 (6%)	2	26
59	12	122/143 (85%)	76 (62%)	29 (24%)	17 (14%)	0	6
60	13	148/151 (98%)	125 (84%)	20 (14%)	3 (2%)	9	51
61	14	125/137 (91%)	96 (77%)	22 (18%)	7 (6%)	2	28
62	15	122/142 (86%)	101 (83%)	16 (13%)	5 (4%)	3	34
63	16	139/143 (97%)	112 (81%)	20 (14%)	7 (5%)	3	30
64	17	116/136 (85%)	92 (79%)	20 (17%)	4 (3%)	5	39
65	18	143/146 (98%)	120 (84%)	16 (11%)	7 (5%)	3	31
66	19	141/144 (98%)	118 (84%)	15 (11%)	8 (6%)	2	27
67	20	105/121 (87%)	85 (81%)	14 (13%)	6 (6%)	2	27
68	21	85/87 (98%)	68 (80%)	13 (15%)	4 (5%)	3	32
69	22	127/130 (98%)	106 (84%)	19 (15%)	2 (2%)	12	56
70	23	142/145 (98%)	108 (76%)	24 (17%)	10 (7%)	1	22
71	24	132/135 (98%)	106 (80%)	20 (15%)	6 (4%)	3	33
72	25	68/108 (63%)	45 (66%)	14 (21%)	9 (13%)	0	7
73	26	95/119 (80%)	64 (67%)	19 (20%)	12 (13%)	0	8
74	27	79/82 (96%)	58 (73%)	15 (19%)	6 (8%)	1	20
75	28	61/67 (91%)	50 (82%)	9 (15%)	2 (3%)	5	40
76	29	51/56 (91%)	44 (86%)	5 (10%)	2 (4%)	4	36

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
77	30	58/63 (92%)	47 (81%)	8 (14%)	3 (5%)	2	29
78	31	69/152 (45%)	37 (54%)	20 (29%)	12 (17%)	0	4
79	RA	316/319 (99%)	252 (80%)	53 (17%)	11 (4%)	4	39
All	All	11126/12097 (92%)	8955 (80%)	1674 (15%)	497 (4%)	6	33

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%)	9	37
5	L2	194/196 (99%)	183 (94%)	11 (6%)	25	62
6	L3	322/323 (100%)	290 (90%)	32 (10%)	10	39
7	L4	288/289 (100%)	260 (90%)	28 (10%)	10	40
8	L5	244/245 (100%)	222 (91%)	22 (9%)	12	44
9	L6	134/153 (88%)	127 (95%)	7 (5%)	29	65
10	L7	186/205 (91%)	174 (94%)	12 (6%)	21	58
11	L8	191/208 (92%)	177 (93%)	14 (7%)	17	55
12	L9	171/171 (100%)	153 (90%)	18 (10%)	8	36
13	50	180/187 (96%)	164 (91%)	16 (9%)	12	44
14	51	147/150 (98%)	133 (90%)	14 (10%)	11	41
15	53	154/159 (97%)	140 (91%)	14 (9%)	12	44
16	54	107/109 (98%)	102 (95%)	5 (5%)	32	68
17	55	175/176 (99%)	161 (92%)	14 (8%)	15	51
18	56	160/162 (99%)	153 (96%)	7 (4%)	35	69
19	57	145/146 (99%)	134 (92%)	11 (8%)	16	53
20	58	150/151 (99%)	141 (94%)	9 (6%)	24	61
21	59	153/154 (99%)	145 (95%)	8 (5%)	29	65
22	60	156/156 (100%)	134 (86%)	22 (14%)	4	26
23	61	136/137 (99%)	128 (94%)	8 (6%)	24	61
24	62	87/107 (81%)	82 (94%)	5 (6%)	25	62
25	63	104/105 (99%)	93 (89%)	11 (11%)	8	36

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
26	64	54/129 (42%)	51 (94%)	3 (6%)	26	62
27	65	105/118 (89%)	91 (87%)	14 (13%)	5	28
28	66	109/110 (99%)	105 (96%)	4 (4%)	41	73
29	67	115/116 (99%)	111 (96%)	4 (4%)	43	74
30	68	118/119 (99%)	108 (92%)	10 (8%)	13	48
31	69	46/47 (98%)	42 (91%)	4 (9%)	13	45
32	70	81/88 (92%)	77 (95%)	4 (5%)	31	67
33	71	96/97 (99%)	85 (88%)	11 (12%)	7	32
34	72	109/111 (98%)	101 (93%)	8 (7%)	17	55
35	73	90/91 (99%)	82 (91%)	8 (9%)	12	44
36	74	95/103 (92%)	88 (93%)	7 (7%)	17	54
37	75	104/105 (99%)	97 (93%)	7 (7%)	20	57
38	76	81/82 (99%)	71 (88%)	10 (12%)	6	30
39	77	70/71 (99%)	65 (93%)	5 (7%)	18	55
40	78	68/69 (99%)	63 (93%)	5 (7%)	17	54
41	79	45/46 (98%)	40 (89%)	5 (11%)	8	34
42	80	47/116 (40%)	43 (92%)	4 (8%)	13	48
43	81	23/23 (100%)	18 (78%)	5 (22%)	1	9
44	82	88/91 (97%)	80 (91%)	8 (9%)	12	44
45	83	71/72 (99%)	70 (99%)	1 (1%)	74	89
47	S0	173/210 (82%)	161 (93%)	12 (7%)	19	56
48	S1	191/224 (85%)	174 (91%)	17 (9%)	12	44
49	S2	176/205 (86%)	168 (96%)	8 (4%)	34	69
50	S3	182/195 (93%)	172 (94%)	10 (6%)	27	64
51	S4	221/222 (100%)	200 (90%)	21 (10%)	11	41
52	S5	173/191 (91%)	162 (94%)	11 (6%)	22	58
53	S6	193/201 (96%)	180 (93%)	13 (7%)	20	57
54	S7	165/170 (97%)	157 (95%)	8 (5%)	31	67
55	S8	150/161 (93%)	140 (93%)	10 (7%)	20	57
56	S9	158/166 (95%)	143 (90%)	15 (10%)	11	41
57	10	89/98 (91%)	78 (88%)	11 (12%)	6	30

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
58	11	136/137 (99%)	126 (93%)	10 (7%)	17	54
59	12	100/119 (84%)	87 (87%)	13 (13%)	5	28
60	13	127/128 (99%)	117 (92%)	10 (8%)	15	51
61	14	96/105 (91%)	91 (95%)	5 (5%)	29	65
62	15	104/118 (88%)	100 (96%)	4 (4%)	40	73
63	16	117/119 (98%)	107 (92%)	10 (8%)	13	48
64	17	109/124 (88%)	101 (93%)	8 (7%)	17	55
65	18	128/129 (99%)	108 (84%)	20 (16%)	3	22
66	19	115/116 (99%)	108 (94%)	7 (6%)	23	60
67	20	100/114 (88%)	96 (96%)	4 (4%)	38	71
68	21	74/74 (100%)	63 (85%)	11 (15%)	4	24
69	22	110/111 (99%)	103 (94%)	7 (6%)	22	58
70	23	119/120 (99%)	110 (92%)	9 (8%)	16	53
71	24	112/113 (99%)	101 (90%)	11 (10%)	10	39
72	25	61/89 (68%)	54 (88%)	7 (12%)	7	32
73	26	83/101 (82%)	77 (93%)	6 (7%)	18	55
74	27	70/71 (99%)	67 (96%)	3 (4%)	35	70
75	28	56/60 (93%)	50 (89%)	6 (11%)	8	36
76	29	47/49 (96%)	44 (94%)	3 (6%)	22	58
77	30	51/54 (94%)	45 (88%)	6 (12%)	6	32
78	31	43/135 (32%)	40 (93%)	3 (7%)	19	56
79	RA	261/262 (100%)	241 (92%)	20 (8%)	16	52
All	All	9474/10182 (93%)	8721 (92%)	753 (8%)	20	51

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

Some 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 ⓘ

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

5.5 Carbohydrates ⓘ

There are no carbohydrates 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.