



Full wwPDB EM Validation Report ⓘ

Dec 10, 2022 – 09:01 am GMT

PDB ID : 5ADY
EMDB ID : EMD-3133
Title : Cryo-EM structures of the 50S ribosome subunit bound with HflX
Authors : Zhang, Y.; Mandava, C.S.; Cao, W.; Li, X.; Zhang, D.; Li, N.; Zhang, Y.;
Zhang, X.; Qin, Y.; Mi, K.; Lei, J.; Sanyal, S.; Gao, N.
Deposited on : 2015-08-25
Resolution : 4.50 Å(reported)
Based on initial model : 3FIK

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev43
Mogul : 1.8.4, CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.3

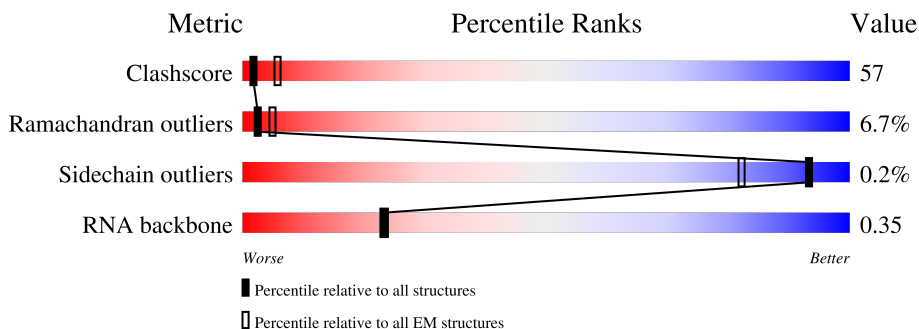
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.50 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.




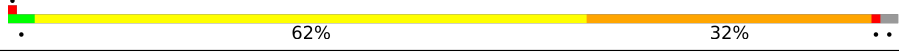
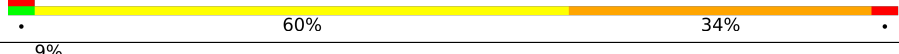
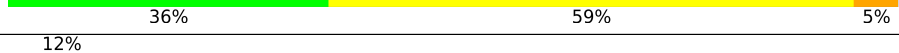
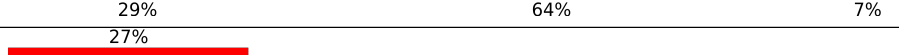
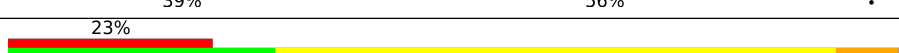
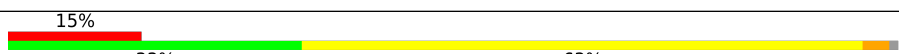




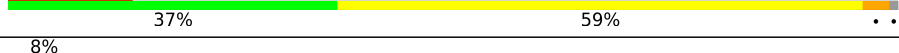

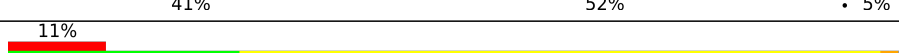
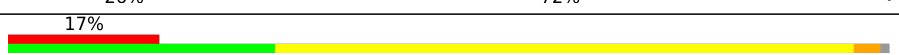
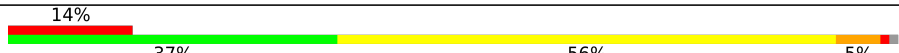


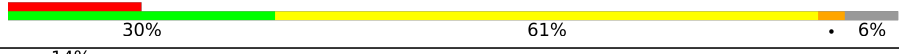



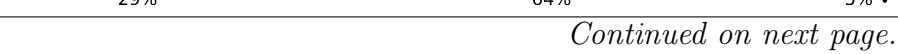


Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826
RNA backbone	4643	859

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

Mol	Chain	Length	Quality of chain
1	0	57	
2	1	55	
3	2	46	
4	3	65	
5	4	38	
6	5	234	
7	6	426	

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Mol	Chain	Length	Quality of chain
8	7	165	
9	A	120	
10	B	2903	
11	C	273	
12	D	209	
13	E	201	
14	F	179	
15	G	177	
16	H	149	
17	I	142	
18	J	142	
19	K	123	
20	L	144	
21	M	136	
22	N	127	
23	O	117	
24	P	115	
25	Q	118	
26	R	103	
27	S	110	
28	T	100	
29	U	104	
30	V	94	
31	W	85	
32	X	78	

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Mol	Chain	Length	Quality of chain
33	Y	63	
34	Z	59	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
35	GNP	6	527	-	-	X	-

2 Entry composition

There are 36 unique types of molecules in this entry. The entry contains 97364 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called 50S RIBOSOMAL PROTEIN L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	0	56	444	269	94	80	1	0	0

- Molecule 2 is a protein called 50S RIBOSOMAL PROTEIN L33.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
2	1	51	410	263	76	71	0	1

- Molecule 3 is a protein called 50S RIBOSOMAL PROTEIN L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	2	46	377	228	90	57	2	0	0

- Molecule 4 is a protein called 50S RIBOSOMAL PROTEIN L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	3	64	504	323	105	74	2	0	0

- Molecule 5 is a protein called 50S RIBOSOMAL PROTEIN L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	4	38	302	185	65	48	4	0	0

- Molecule 6 is a protein called 50S RIBOSOMAL PROTEIN L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	5	234	1733	1081	315	330	7	0	0

- Molecule 7 is a protein called GTPASE HFLX.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	6	426	3403	2129	624	641	9	0	0

- Molecule 8 is a protein called 50S RIBOSOMAL PROTEIN L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	7	164	1231	775	220	229	7	0	1

- Molecule 9 is a RNA chain called 5S RRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
9	A	117	2504	1116	459	813	116	0	0

- Molecule 10 is a RNA chain called 23S RRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
10	B	2903	62317	27801	11467	20147	2902	0	0

There are 18 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	264	C	G	conflict	GB 731469900
B	542	C	U	conflict	GB 731469900
B	846	U	C	conflict	GB 731469900
B	1211	C	U	conflict	GB 731469900
B	1220	G	A	conflict	GB 731469900
B	1229	C	U	conflict	GB 731469900
B	1723	G	A	conflict	GB 731469900
B	1725	U	C	conflict	GB 731469900
B	1726	C	G	conflict	GB 731469900
B	1727	C	A	conflict	GB 731469900
B	1730	C	U	conflict	GB 731469900
B	1733	G	U	conflict	GB 731469900
B	1734	G	C	conflict	GB 731469900
B	1735	A	G	conflict	GB 731469900
B	2794	C	U	conflict	GB 731469900
B	2796	U	C	conflict	GB 731469900
B	2799	A	G	conflict	GB 731469900

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Chain	Residue	Modelled	Actual	Comment	Reference
B	2802	G	A	conflict	GB 731469900

- Molecule 11 is a protein called 50S RIBOSOMAL PROTEIN L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
11	C	272	2083	1288	424	364	7	0	1

- Molecule 12 is a protein called 50S RIBOSOMAL PROTEIN L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	D	209	1565	979	288	294	4	0	0

- Molecule 13 is a protein called 50S RIBOSOMAL PROTEIN L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	E	201	1552	974	283	290	5	0	0

- Molecule 14 is a protein called 50S RIBOSOMAL PROTEIN L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	F	178	1420	905	251	258	6	0	0

- Molecule 15 is a protein called 50S RIBOSOMAL PROTEIN L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	G	176	1323	832	243	246	2	0	0

- Molecule 16 is a protein called 50S RIBOSOMAL PROTEIN L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	H	149	1111	699	197	214	1	0	0

- Molecule 17 is a protein called 50S RIBOSOMAL PROTEIN L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
17	I	141	1032	651	179	196	6	0	0

- Molecule 18 is a protein called 50S RIBOSOMAL PROTEIN L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
18	J	142	1129	714	212	199	4	0	0

- Molecule 19 is a protein called 50S RIBOSOMAL PROTEIN L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
19	K	122	931	582	180	164	5	0	1

- Molecule 20 is a protein called 50S RIBOSOMAL PROTEIN L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
20	L	143	1045	649	206	189	1	0	0

- Molecule 21 is a protein called 50S RIBOSOMAL PROTEIN L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
21	M	136	1074	686	205	177	6	0	0

- Molecule 22 is a protein called 50S RIBOSOMAL PROTEIN L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
22	N	121	961	593	197	166	5	0	1

- Molecule 23 is a protein called 50S RIBOSOMAL PROTEIN L18.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
23	O	116	892	552	178	162	0	0

- Molecule 24 is a protein called 50S RIBOSOMAL PROTEIN L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
24	P	114	917	574	179	163	1	0	0

- Molecule 25 is a protein called 50S RIBOSOMAL PROTEIN L20.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
25	Q	117	947	604	192	151		0	0

- Molecule 26 is a protein called 50S RIBOSOMAL PROTEIN L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
26	R	103	816	516	153	145	2	0	0

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
27	S	110	857	532	166	156	3	0	0

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
28	T	94	739	466	140	131	2	0	1

- Molecule 29 is a protein called 50S RIBOSOMAL PROTEIN L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
29	U	103	780	492	147	141		0	1

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
30	V	94	753	479	137	134	3	0	0

- Molecule 31 is a protein called 50S RIBOSOMAL PROTEIN L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
31	W	79	596	367	120	108	1	0	0

- Molecule 32 is a protein called 50S RIBOSOMAL PROTEIN L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
32	X	77	625	388	129	106	2	0	0

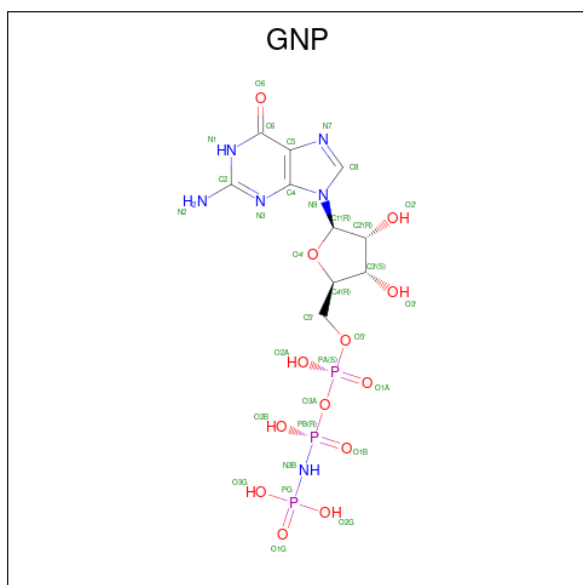
- Molecule 33 is a protein called 50S RIBOSOMAL PROTEIN L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
33	Y	63	509	313	99	95	2	0	0

- Molecule 34 is a protein called 50S RIBOSOMAL PROTEIN L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
34	Z	58	449	281	87	79	2	0	0

- Molecule 35 is PHOSPHOAMINOPHOSPHONIC ACID-GUANYLATE ESTER (three-letter code: GNP) (formula: C₁₀H₁₇N₆O₁₃P₃).



Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
35	6	1	32	10	6	13	3	0

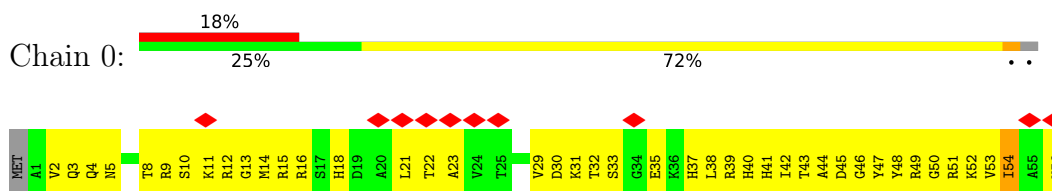
- Molecule 36 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
36	6	1	1	1	0

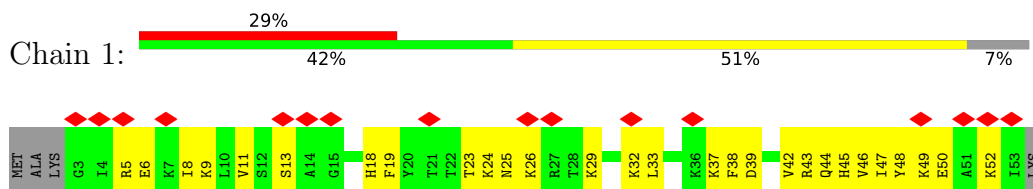
3 Residue-property plots [i](#)

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

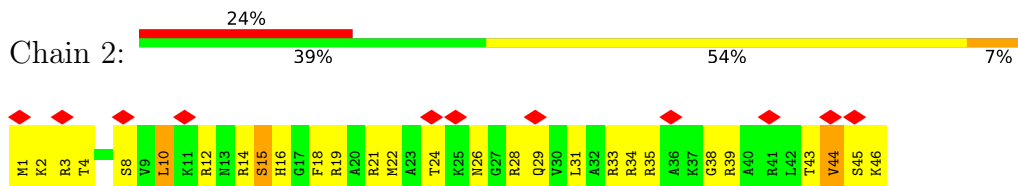
- Molecule 1: 50S RIBOSOMAL PROTEIN L32



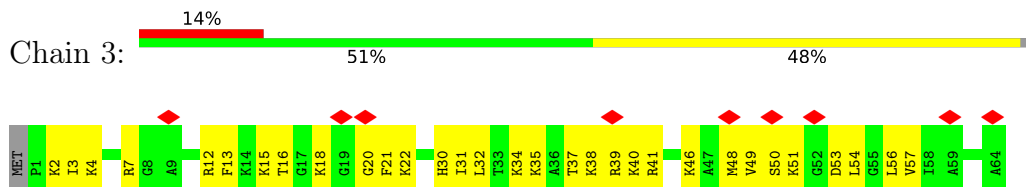
- Molecule 2: 50S RIBOSOMAL PROTEIN L33



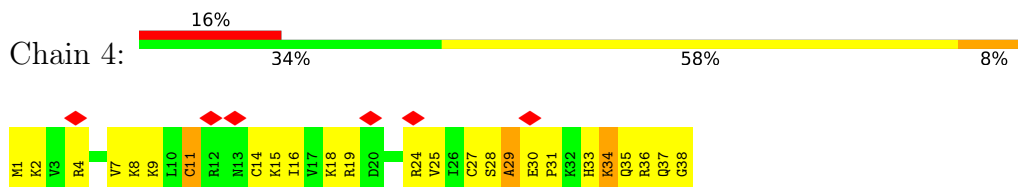
- Molecule 3: 50S RIBOSOMAL PROTEIN L34



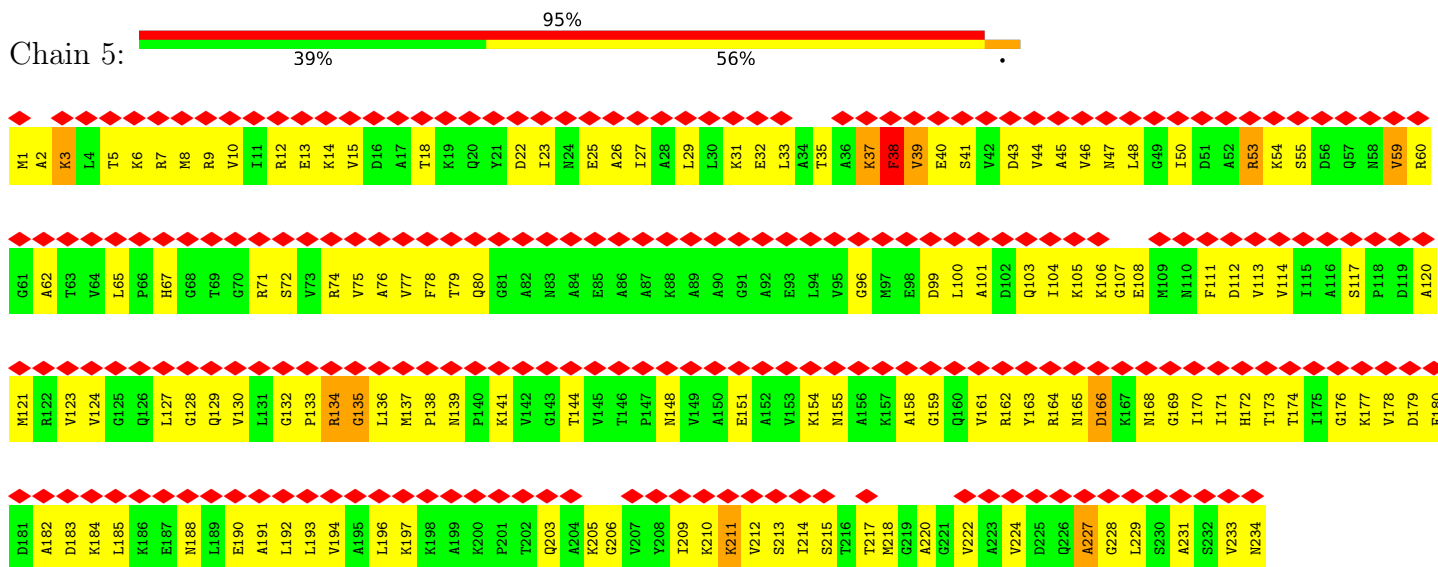
- Molecule 4: 50S RIBOSOMAL PROTEIN L35



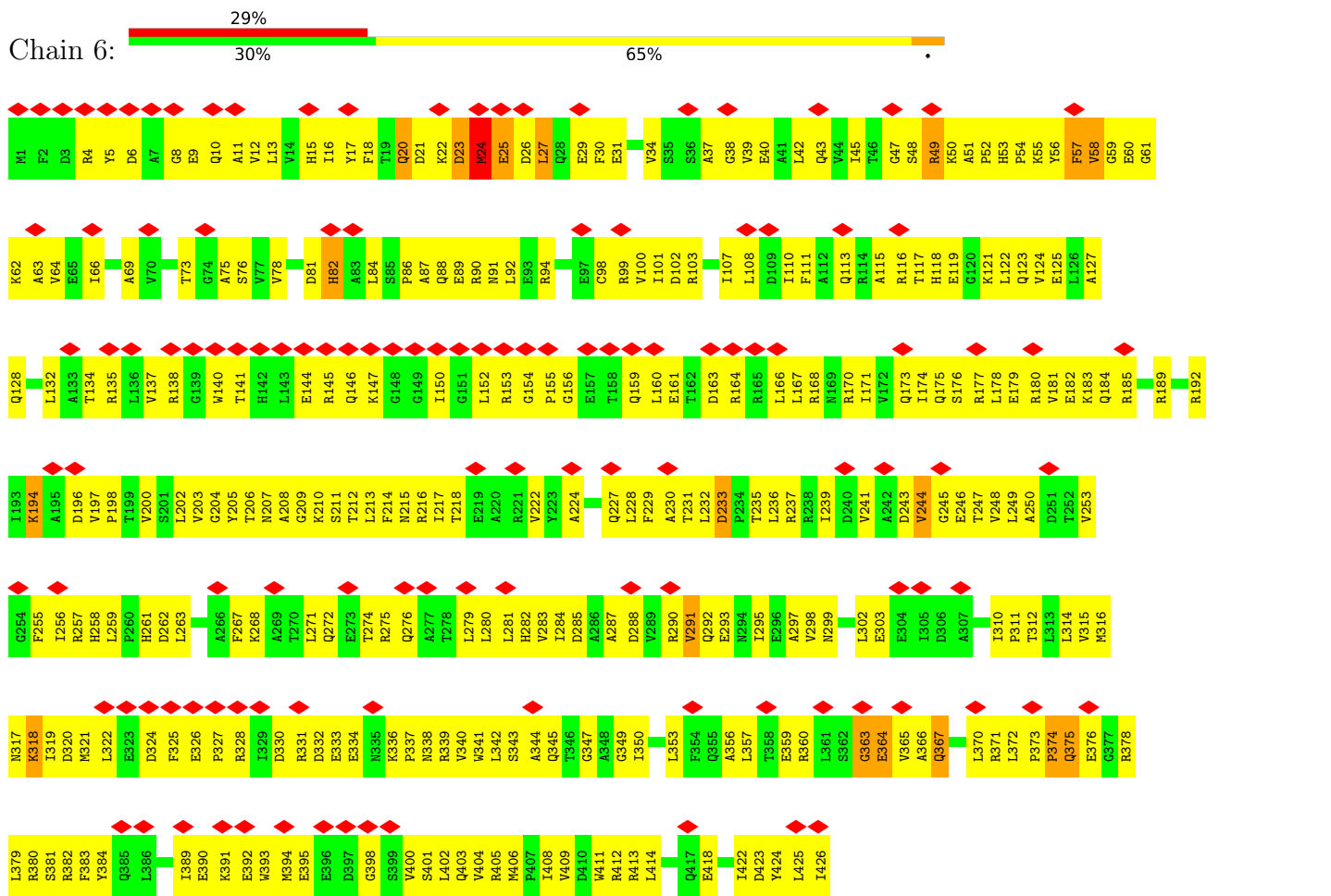
- Molecule 5: 50S RIBOSOMAL PROTEIN L36



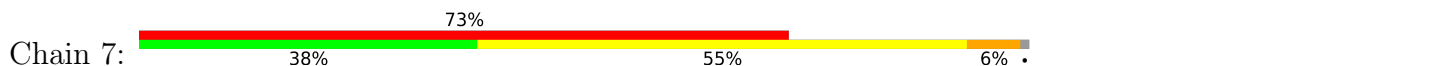
- Molecule 6: 50S RIBOSOMAL PROTEIN L1

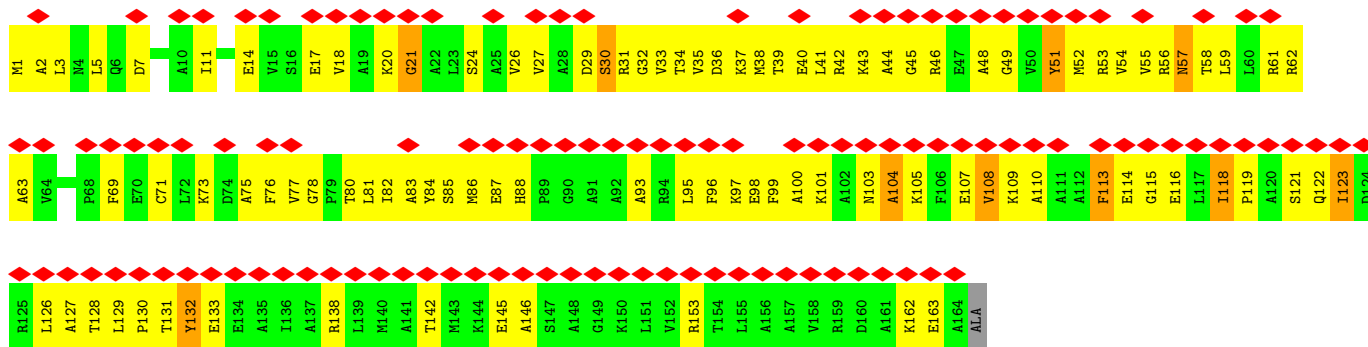


• Molecule 7: GTPASE HFLX

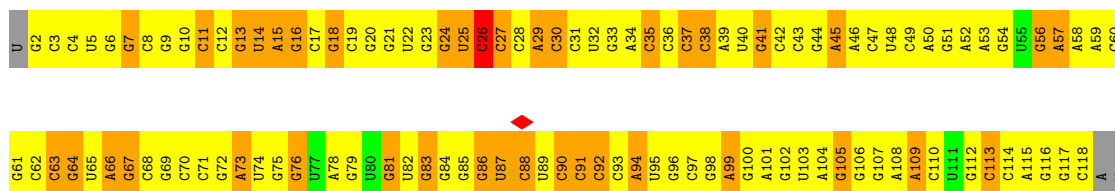


• Molecule 8: 50S RIBOSOMAL PROTEIN L10

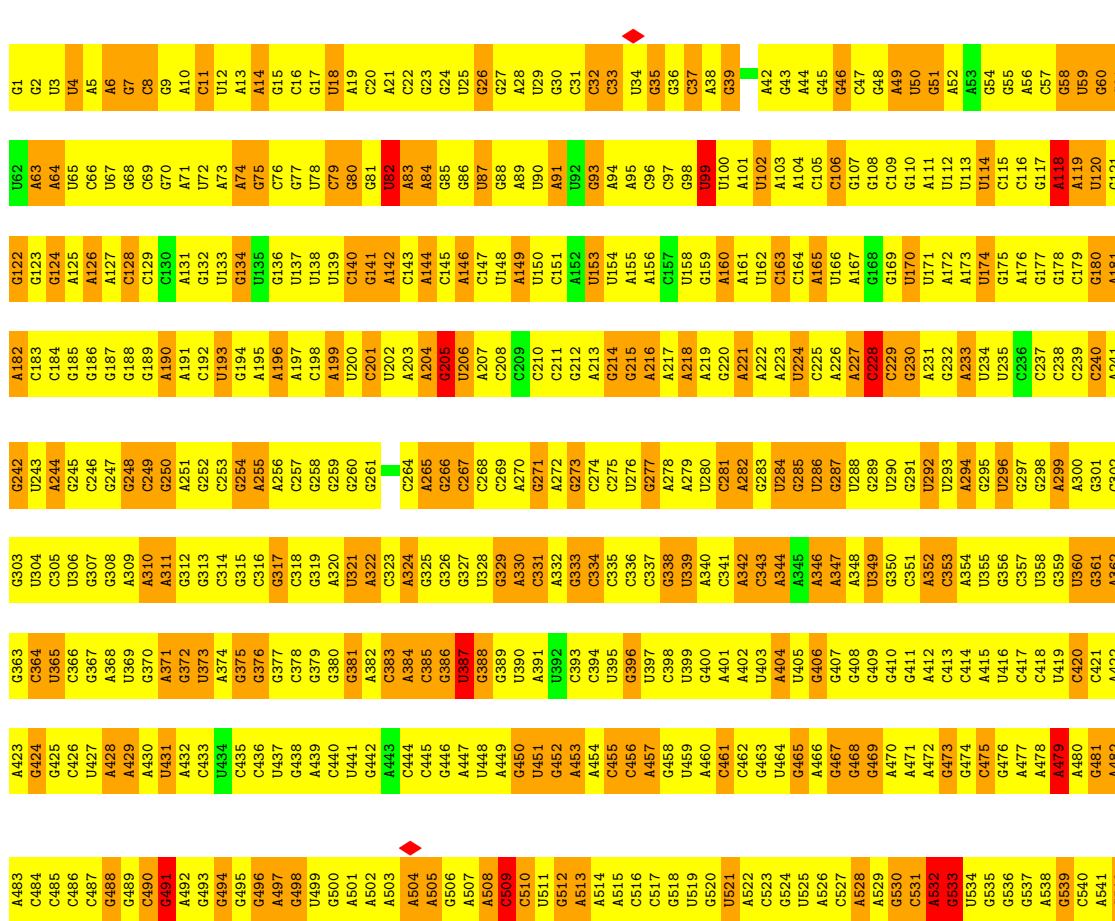




• Molecule 9: 5S RRNA



• Molecule 10: 23S RRNA



C1446	C1447	A1385	U1325	A1264	A1204	A1144	A1084	U1023	U963	C903	G843	G723	G663	A603	G543
G1386	G1387	C1386	U1326	A1265	A1205	G1145	A1085	G1024	C964	G904	A844	U724	G664	G604	C544
A1387	A1327	A1327	G1266	U1267	G1207	C1146	A1086	G1025	G965	U905	A845	G725	A665	U605	U545
G1388	A1328	A1328	U1267	U1267	G1207	A1147	A1087	G1026	G966	U906	A846	G726	A666	U606	U546
G1389	U1329	A1268	A1268	U1268	C1208	G1148	A1088	A1027	U967	G907	A847	G727	A667	U607	U547
U1390	C1330	A1269	G1149	U1149	U1209	G1149	A1089	A1028	C968	C908	C848	G728	A668	A609	G548
U1391	G1331	C1270	C1210	C1150	G1210	C1150	A1090	A1029	G969	A909	A849	G729	G669	A610	G549
A1392	G1332	G1271	C1211	A1151	C1211	A1151	G1091	G1030	U970	A910	U850	A730	A670	C610	C550
A1393	G1333	A1272	C1212	C1152	G1212	A1152	C1092	G1031	G971	A911	C851	G731	A671	C611	G551
A1394	G1334	A1213	A1213	G1153	A1213	G1153	G1093	U1033	A972	C912	U852	G732	A672	G612	U552
G1455	C1335	A1274	A1214	G1154	A1214	G1154	U1094	U1033	A973	C913	C853	G733	C673	A613	G553
G1456	A1395	A1274	A1214	G1154	A1214	G1154	U1094	U1033	A973	C913	C853	G733	C673	A613	U554
U1457	A1396	A1275	G1215	A1155	A1215	A1155	A1095	G1034	G974	C914	C854	A734	A674	A614	G555
U1458	G1337	A1276	G1216	A1156	G1216	A1156	A1096	U1035	A975	C915	G855	A735	A675	U615	A556
G1459	G1338	G1277	U1217	G1157	U1217	G1157	U1097	G1036	G976	G916	G856	C736	A676	A616	A557
U1460	G1339	C1278	C1218	C1158	G1218	C1158	A1098	G1037	G977	A917	G857	G737	A677	G617	U558
C1461	U1400	G1279	U1219	U1159	U1219	U1159	G1099	U1038	G978	A918	G858	G738	A678	G618	U559
C1462	G1401	G1280	G1280	G1160	A1280	G1160	C1100	A1039	A979	U919	G859	A739	C679	G619	C560
C1463	U1402	G1281	C1221	G1161	C1221	G1161	U1101	A1040	A980	A920	U860	G740	C680	G620	G561
A1403	G1343	U1282	U1222	G1162	U1222	G1162	C1102	G1041	A981	C921	A861	U741	G681	A621	U562
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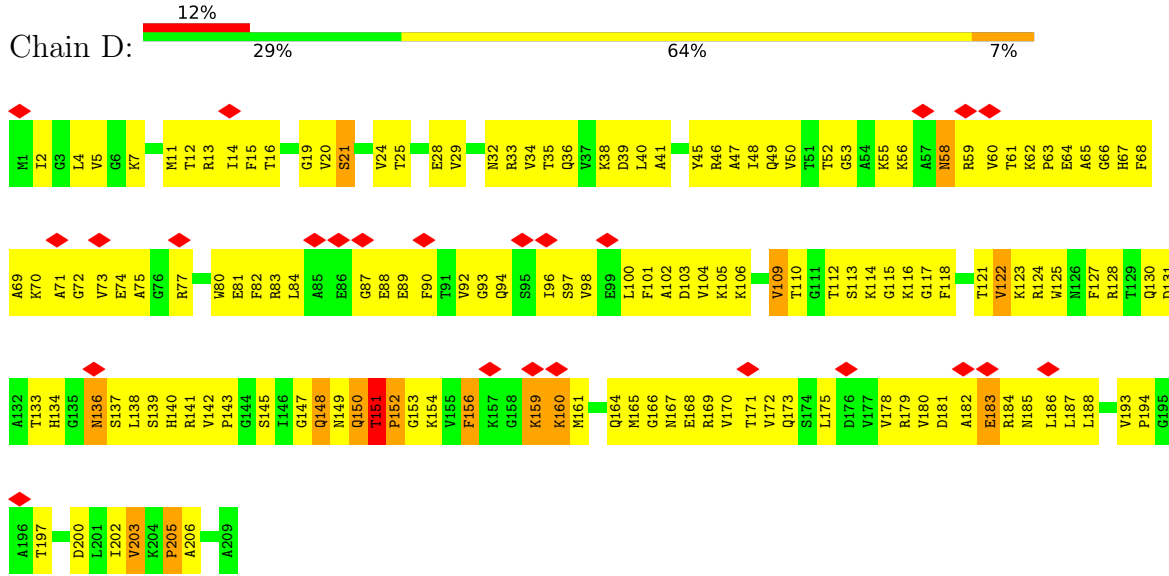
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G2458	C2517	A2577	G2638	U2698	U2758	U2818	U2878		U2457
U2459	U2518	G2578	A2639	C2699	G2759	G2819	A2879		G2458
U2460	C2519	C2579	G2640	U2700	C2760	A2820	C2880		A2459
A2461	U2520	U2580	G2641	U2701	A2761	A2821	U2881		U2460
C2462	C2521	G2581	G2642	G2702	C2762	G2822	A2882		A2461
C2463	U2522	G2582	C2643	C2703	G2763	A2823	U2883		C2462
G2464	G2523	C2583	G2644	C2704	A2764	G2824	A2884		C2463
C2465	G2524	U2584	G2645	A2705	A2765	C2825	G2885		G2464
G2466	G2525	U2585	C2646	U2706	A2766	A2826	A2886		C2465
C2467	U2526	U2586	U2647	C2707	C2767	C2827	U2887		G2466
	C2527	U2587	G2648	G2708	U2768	C2828	C2888		C2467

• Molecule 11: 50S RIBOSOMAL PROTEIN L2

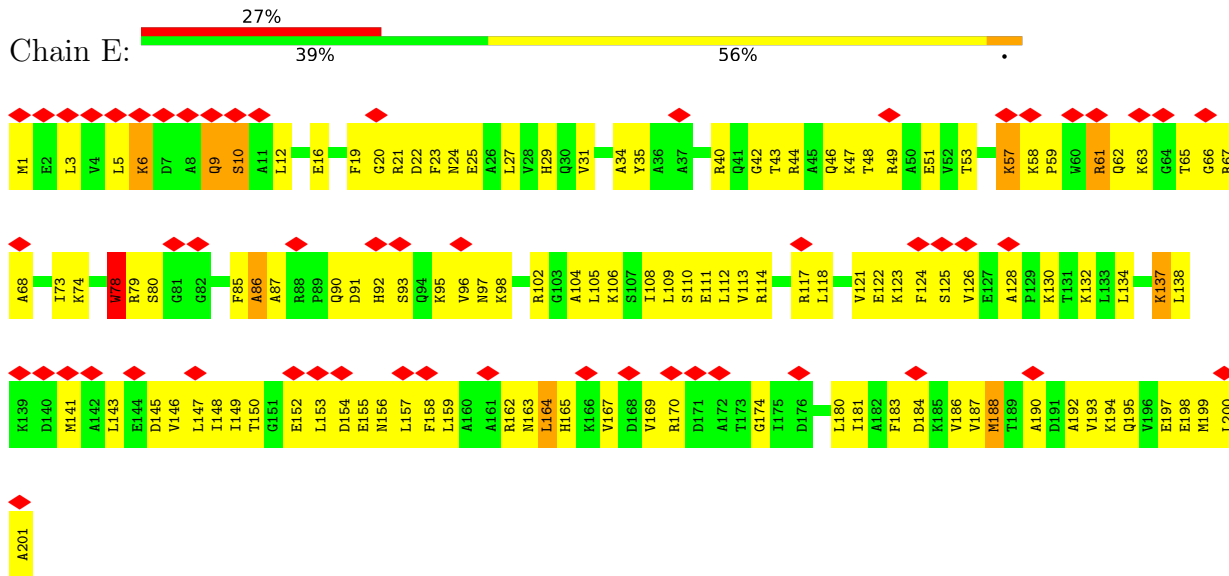


MET	A1	V2	V3	K4	C5	T8	S9	P10	G11	R12	H13	V15	V16	K17	V18	V19	N20	L23	H24	K25	P28	F29	A30	L32	L33	E34	K35	N36	S37	K38	S39	G40	C41	R42	N43	N44	N45	G46	I46	R51	H52	I53	G54	H57	K58	H59	R62	I63	V64	D65	F66						
K67	R68	M69	K70	D71	G72	I73	F74	V76	V77	E78	L80	E81	Y82	D83	P84	M85	R86	S87	A88	M89	I90	A91	L92	V93	L94	D97	G98	E99	R100	R101	I102	I103	L104	A105	P106	K107	D113	Q114	I115	I116	S117	G118	V119	A122	I123	K124	P125	G126	N127	M128	L129	P130	M131	R132			
M133	G137	S138	T139	V140	H141	N142	A143	V144	M145	K146	P147	G148	K149	G150	G151	Q152	V153	A154	S155	S156	T159	V160	V161	Q162	I163	R166	D167	A168	Y170	V171	T172	K241	H242	L173	R174	L175	R176	E179	M180	R181	K182	V183	E184	A185	D186	C187	R188	L191	G192	E193	N196	K260	R261	T262	D263	K264	V267
R202	V203	L204	G205	K206	A207	G208	A209	A210	R211	H212	R213	G214	V215	R216	P217	T218	V219	R220	L221	T222	A223	M224	N225	P226	H229	P230	H231	G232	R237	N238	F239	G240	K241	H242	P243	V244	P245	P246	V247	G248	V249	Q250	T251	K252	G253	K254	R257	S258	N259	K260	R261	T262	D263	K264	V267		

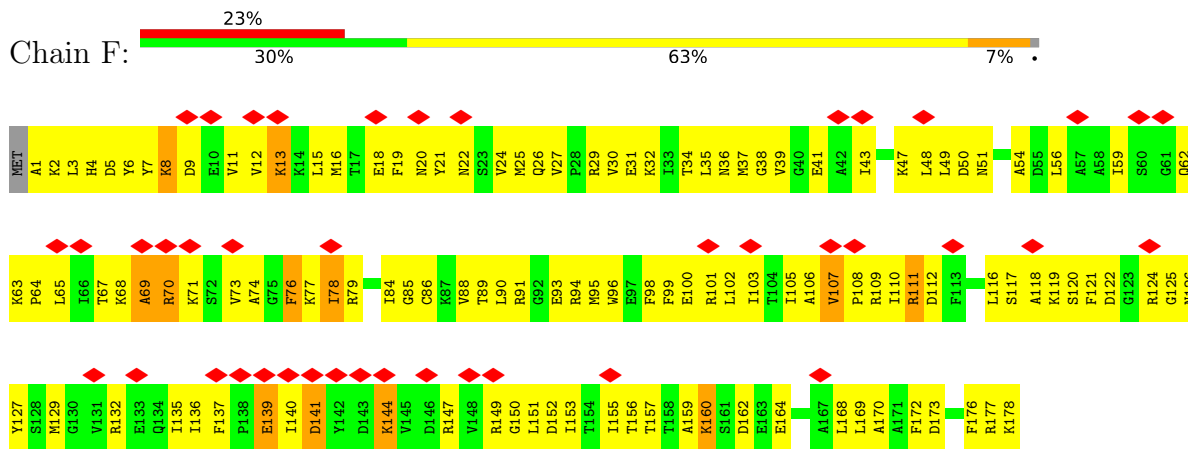
• Molecule 12: 50S RIBOSOMAL PROTEIN L3



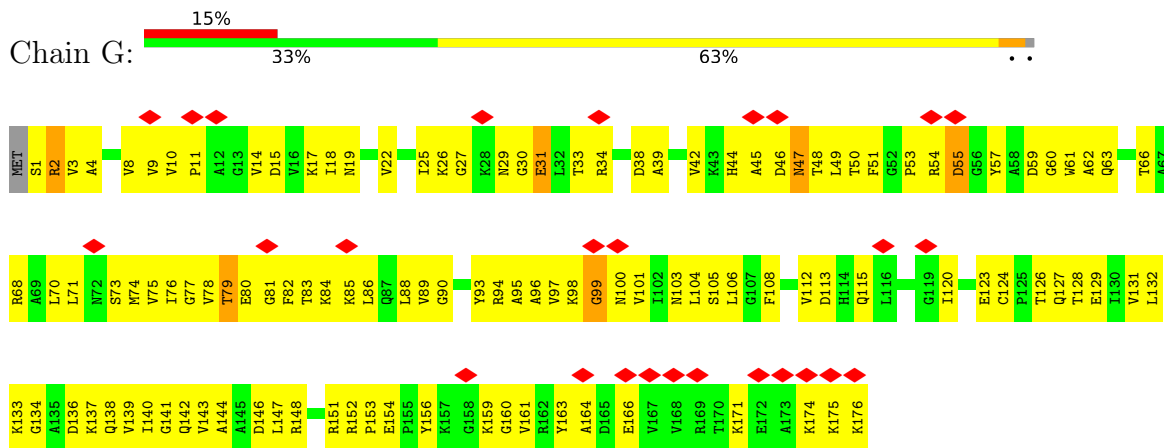
• Molecule 13: 50S RIBOSOMAL PROTEIN L4



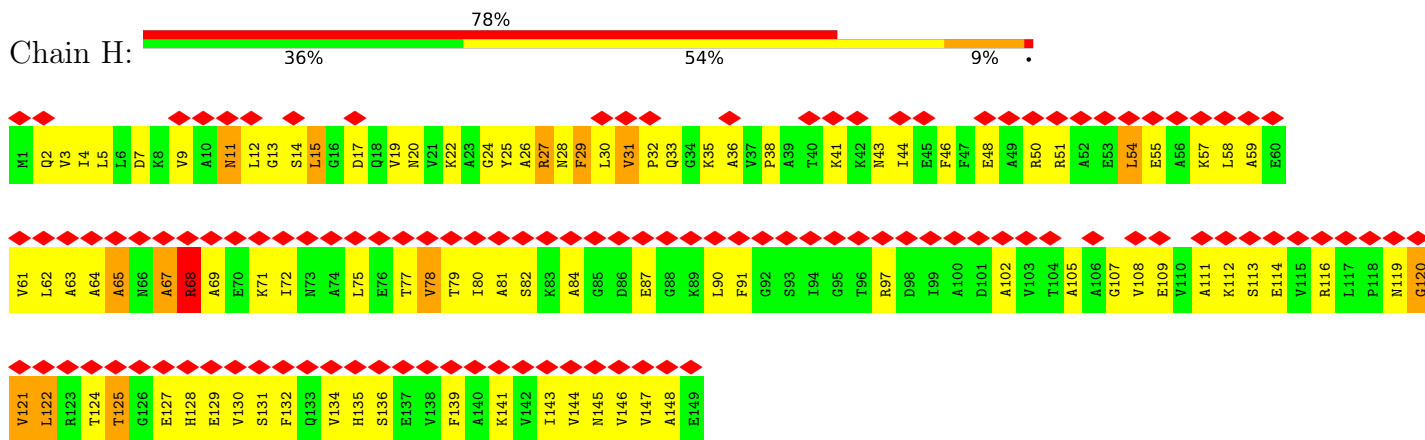
• Molecule 14: 50S RIBOSOMAL PROTEIN L5



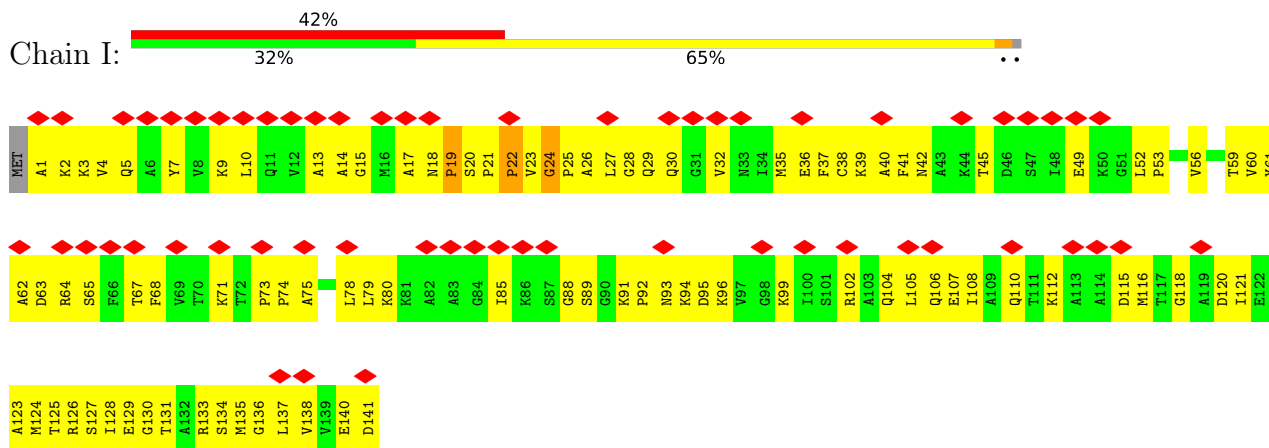
• Molecule 15: 50S RIBOSOMAL PROTEIN L6



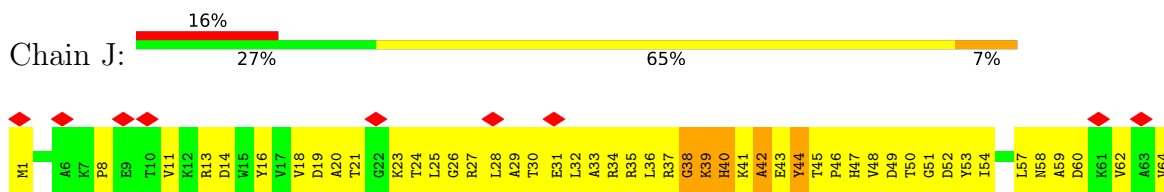
• Molecule 16: 50S RIBOSOMAL PROTEIN L9

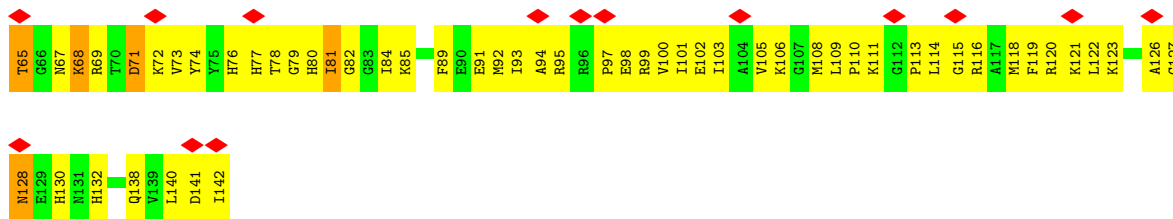


• Molecule 17: 50S RIBOSOMAL PROTEIN L11

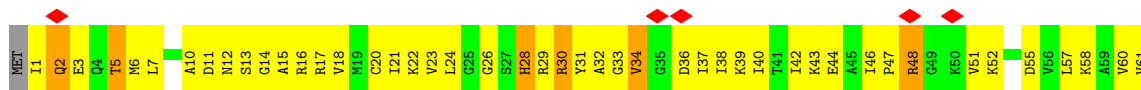
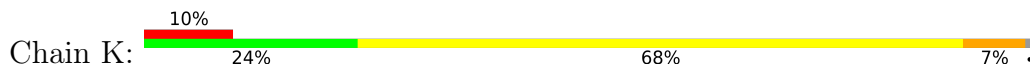


• Molecule 18: 50S RIBOSOMAL PROTEIN L13

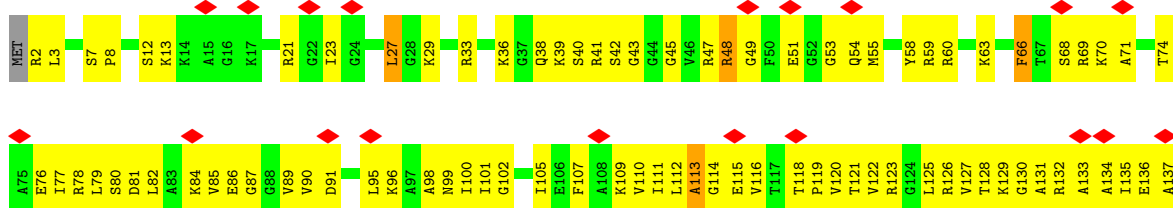




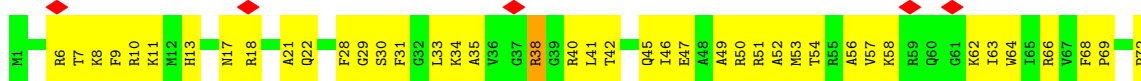
• Molecule 19: 50S RIBOSOMAL PROTEIN L14



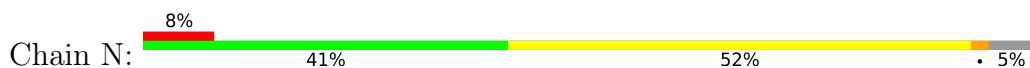
• Molecule 20: 50S RIBOSOMAL PROTEIN L15

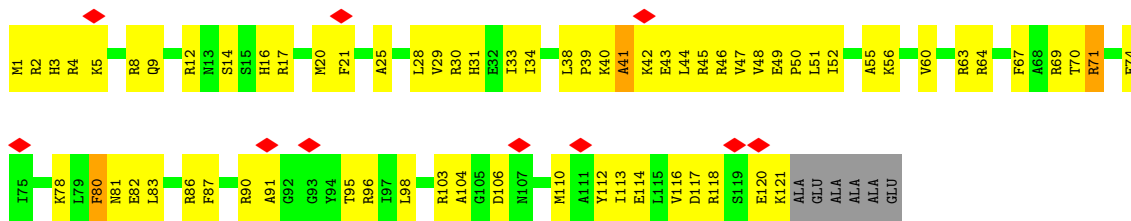


• Molecule 21: 50S RIBOSOMAL PROTEIN L16

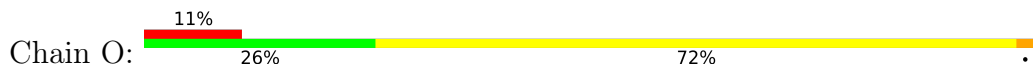


• Molecule 22: 50S RIBOSOMAL PROTEIN L17

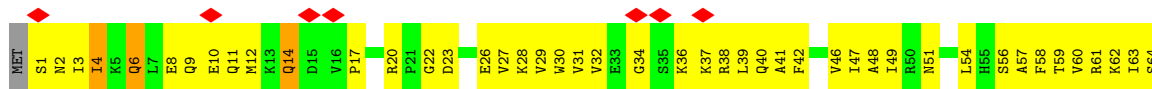




• Molecule 23: 50S RIBOSOMAL PROTEIN L18



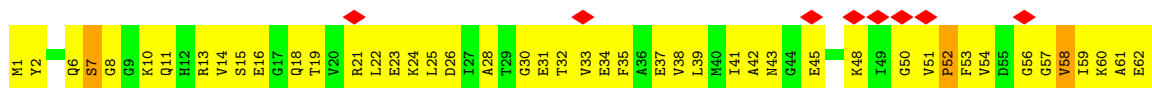
• Molecule 24: 50S RIBOSOMAL PROTEIN L19

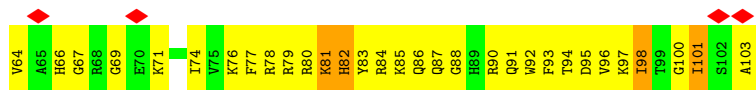


• Molecule 25: 50S RIBOSOMAL PROTEIN L20

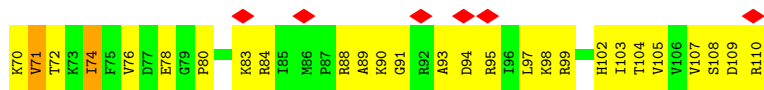
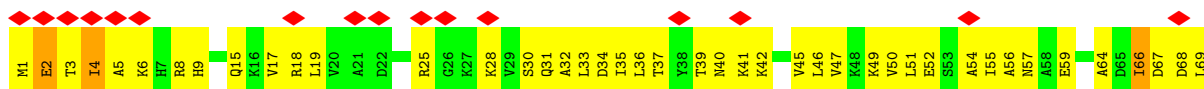


• Molecule 26: 50S RIBOSOMAL PROTEIN L21

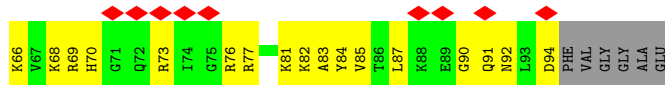
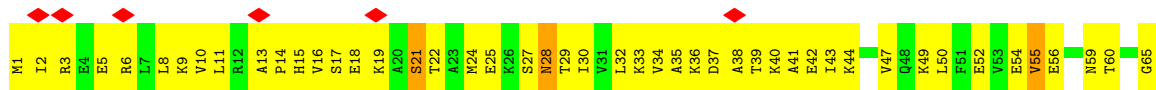




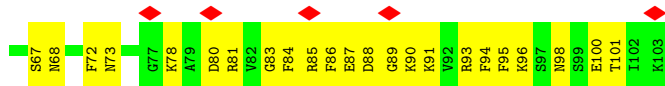
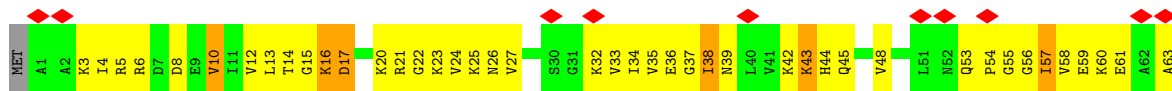
• Molecule 27: 50S RIBOSOMAL PROTEIN L22



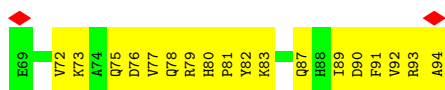
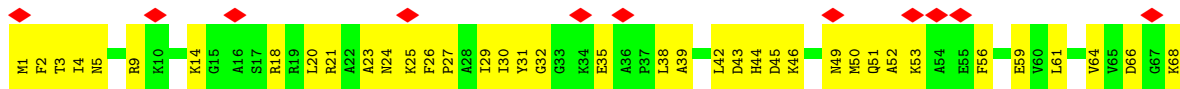
• Molecule 28: 50S RIBOSOMAL PROTEIN L23



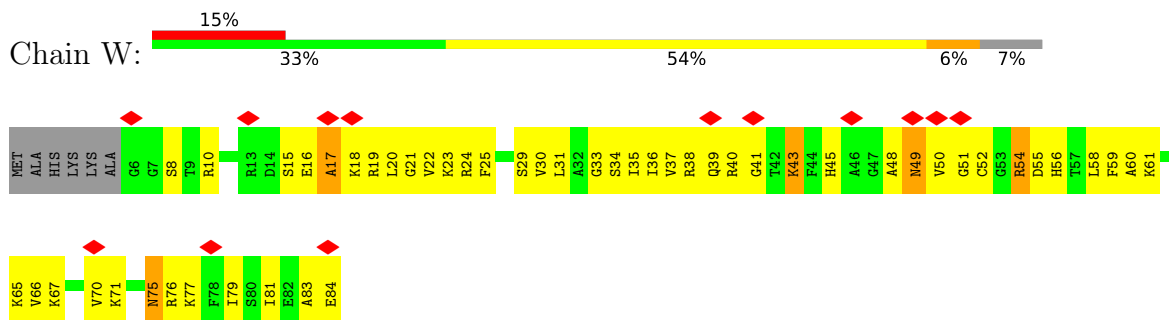
• Molecule 29: 50S RIBOSOMAL PROTEIN L24



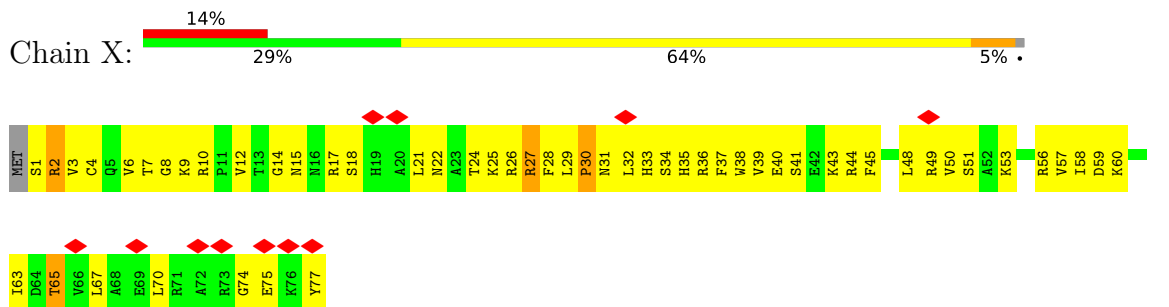
• Molecule 30: 50S RIBOSOMAL PROTEIN L25



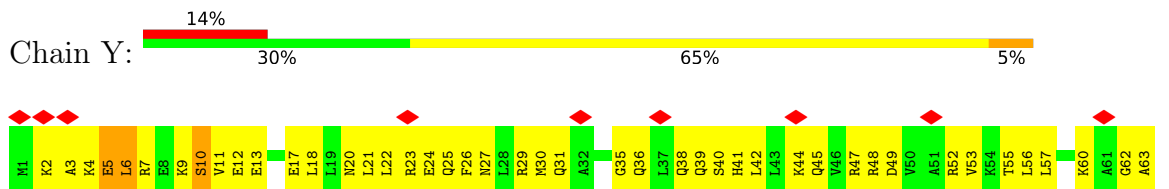
• Molecule 31: 50S RIBOSOMAL PROTEIN L27



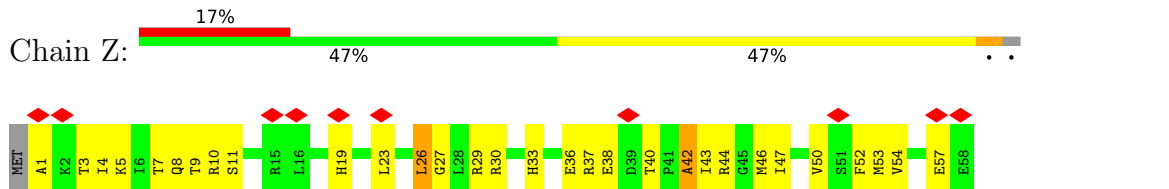
• Molecule 32: 50S RIBOSOMAL PROTEIN L28



• Molecule 33: 50S RIBOSOMAL PROTEIN L29



• Molecule 34: 50S RIBOSOMAL PROTEIN L30



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	384206	Depositor
Resolution determination method	Not provided	
CTF correction method	Not provided	
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	20	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	75000	Depositor
Image detector	FEI EAGLE (4k x 4k)	Depositor
Maximum map value	5.850	Depositor
Minimum map value	-2.336	Depositor
Average map value	0.040	Depositor
Map value standard deviation	0.416	Depositor
Recommended contour level	1.4	Depositor
Map size (\AA)	349.77, 349.77, 349.77	wwPDB
Map dimensions	300, 300, 300	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	1.1659, 1.1659, 1.1659	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: GNP, MG

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	0	0.65	0/450	0.77	0/599
2	1	0.57	0/417	0.68	0/556
3	2	0.69	0/380	0.78	0/498
4	3	0.64	0/513	0.76	0/676
5	4	0.65	0/303	0.77	0/397
6	5	0.35	0/1748	0.64	1/2355 (0.0%)
7	6	0.55	0/3456	0.76	1/4675 (0.0%)
8	7	0.39	0/1245	0.63	0/1677
9	A	1.01	0/2800	1.16	6/4367 (0.1%)
10	B	1.18	47/69796 (0.1%)	1.22	227/108888 (0.2%)
11	C	0.63	0/2122	0.72	0/2854
12	D	0.66	0/1586	0.75	0/2134
13	E	0.58	0/1571	0.73	0/2113
14	F	0.46	0/1444	0.69	0/1937
15	G	0.57	0/1343	0.71	0/1816
16	H	0.46	0/1122	0.64	0/1515
17	I	0.41	0/1046	0.64	0/1410
18	J	0.64	0/1152	0.75	0/1551
19	K	0.60	0/940	0.75	0/1260
20	L	0.58	0/1054	0.79	1/1403 (0.1%)
21	M	0.68	0/1093	0.71	0/1460
22	N	0.66	0/974	0.74	0/1303
23	O	0.54	0/902	0.70	0/1209
24	P	0.61	0/929	0.71	0/1242
25	Q	0.78	0/960	0.77	0/1278
26	R	0.64	0/829	0.71	0/1107
27	S	0.66	0/864	0.84	0/1156
28	T	0.61	0/745	0.77	0/996
29	U	0.53	0/788	0.72	0/1053
30	V	0.60	0/766	0.72	0/1025
31	W	0.64	0/603	0.80	0/797
32	X	0.62	0/635	0.71	0/848

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
33	Y	0.53	0/510	0.68	0/677
34	Z	0.60	0/453	0.77	1/605 (0.2%)
All	All	1.03	47/105539 (0.0%)	1.10	237/157437 (0.2%)

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
6	5	0	1
13	E	0	1
14	F	0	1
24	P	0	1
25	Q	0	1
All	All	0	5

All (47) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	B	788	A	N9-C4	-8.84	1.32	1.37
10	B	118	A	N9-C4	-7.60	1.33	1.37
10	B	677	A	N9-C4	-6.86	1.33	1.37
10	B	1142	A	N9-C4	-6.60	1.33	1.37
10	B	1254	A	N9-C4	-6.54	1.33	1.37
10	B	1780	A	N9-C4	-6.47	1.33	1.37
10	B	1553	A	N9-C4	-6.44	1.33	1.37
10	B	2060	A	N9-C4	-6.16	1.34	1.37
10	B	1021	A	N9-C4	-6.12	1.34	1.37
10	B	603	A	N9-C4	-5.98	1.34	1.37
10	B	1301	A	N9-C4	-5.86	1.34	1.37
10	B	1143	A	N9-C4	-5.79	1.34	1.37
10	B	980	A	N7-C5	-5.76	1.35	1.39
10	B	981	A	N9-C4	-5.74	1.34	1.37
10	B	575	A	N9-C4	-5.72	1.34	1.37
10	B	1204	A	N9-C4	-5.72	1.34	1.37
10	B	800	A	N9-C4	-5.70	1.34	1.37
10	B	532	A	N9-C4	-5.63	1.34	1.37
10	B	1342	A	N9-C4	-5.55	1.34	1.37
10	B	2346	A	N9-C4	-5.51	1.34	1.37
10	B	1634	A	N9-C4	-5.49	1.34	1.37
10	B	1666	G	N9-C4	-5.48	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	B	1936	A	N9-C4	-5.45	1.34	1.37
10	B	973	A	N9-C4	-5.39	1.34	1.37
10	B	788	A	N3-C4	-5.38	1.31	1.34
10	B	675	A	N9-C4	-5.37	1.34	1.37
10	B	1569	A	N9-C4	-5.36	1.34	1.37
10	B	788	A	C5-C4	-5.32	1.35	1.38
10	B	2019	A	N9-C4	-5.29	1.34	1.37
10	B	575	A	N3-C4	-5.28	1.31	1.34
10	B	1356	G	N7-C5	-5.24	1.36	1.39
10	B	469	G	N3-C4	-5.21	1.31	1.35
10	B	468	G	N7-C5	-5.19	1.36	1.39
10	B	2031	A	N9-C4	-5.19	1.34	1.37
10	B	1254	A	N3-C4	-5.17	1.31	1.34
10	B	990	A	N9-C4	-5.15	1.34	1.37
10	B	575	A	C5-C4	-5.14	1.35	1.38
10	B	2327	A	N9-C4	-5.12	1.34	1.37
10	B	2635	A	N9-C4	-5.11	1.34	1.37
10	B	1665	A	N9-C4	-5.10	1.34	1.37
10	B	582	A	N9-C4	-5.08	1.34	1.37
10	B	2706	A	N9-C4	-5.06	1.34	1.37
10	B	453	A	N9-C4	-5.04	1.34	1.37
10	B	2386	A	N9-C4	-5.03	1.34	1.37
10	B	465	G	C6-N1	-5.03	1.36	1.39
10	B	190	A	N9-C4	-5.01	1.34	1.37
10	B	2547	A	N9-C4	-5.01	1.34	1.37

All (237) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	828	U	C2-N1-C1'	8.23	127.58	117.70
10	B	205	G	C2-N3-C4	-8.04	107.88	111.90
10	B	1816	C	C2-N1-C1'	8.01	127.61	118.80
10	B	544	C	C2-N1-C1'	7.58	127.14	118.80
10	B	1238	G	N3-C4-C5	7.58	132.39	128.60
10	B	1070	A	O4'-C1'-N9	7.54	114.23	108.20
10	B	509	C	C2-N1-C1'	-7.34	110.73	118.80
10	B	1140	C	C2-N1-C1'	7.25	126.78	118.80
10	B	1830	C	N1-C2-O2	7.25	123.25	118.90
10	B	2767	C	N1-C2-O2	7.24	123.24	118.90
10	B	1356	G	C6-C5-N7	-7.15	126.11	130.40
10	B	1816	C	N1-C2-O2	7.09	123.16	118.90
10	B	544	C	N1-C2-O2	7.03	123.11	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	974	G	C6-C5-N7	-6.88	126.27	130.40
10	B	1140	C	C6-N1-C1'	-6.81	112.63	120.80
10	B	1140	C	N1-C2-O2	6.79	122.97	118.90
10	B	2458	G	C4-N9-C1'	6.79	135.32	126.50
10	B	1331	G	C6-C5-N7	-6.77	126.33	130.40
10	B	1779	U	C5-C6-N1	-6.74	119.33	122.70
10	B	1313	U	C2-N1-C1'	6.71	125.76	117.70
10	B	2767	C	C2-N1-C1'	6.70	126.17	118.80
10	B	544	C	N3-C2-O2	-6.69	117.22	121.90
10	B	533	G	C4-N9-C1'	6.66	135.15	126.50
10	B	2212	A	N1-C2-N3	6.65	132.62	129.30
10	B	1956	U	N3-C2-O2	-6.63	117.56	122.20
10	B	974	G	O4'-C1'-N9	6.63	113.50	108.20
10	B	2443	C	C2-N1-C1'	6.59	126.05	118.80
10	B	2705	A	N1-C6-N6	6.55	122.53	118.60
10	B	533	G	C6-C5-N7	-6.54	126.47	130.40
10	B	914	G	N3-C4-N9	-6.54	122.08	126.00
10	B	455	C	C2-N1-C1'	6.53	125.98	118.80
10	B	1816	C	C6-N1-C1'	-6.50	112.99	120.80
10	B	970	U	C2-N1-C1'	6.49	125.49	117.70
9	A	26	C	C2-N1-C1'	6.47	125.92	118.80
10	B	2251	G	N3-C4-C5	-6.43	125.39	128.60
20	L	87	GLY	N-CA-C	-6.38	97.15	113.10
10	B	2160	C	C2-N1-C1'	6.34	125.78	118.80
10	B	1255	U	C5-C6-N1	-6.32	119.54	122.70
10	B	828	U	N3-C2-O2	-6.31	117.78	122.20
10	B	1153	C	C2-N1-C1'	6.29	125.72	118.80
10	B	383	C	C2-N1-C1'	6.28	125.71	118.80
10	B	509	C	O4'-C1'-N1	6.27	113.22	108.20
10	B	509	C	C6-N1-C1'	6.26	128.31	120.80
10	B	1888	G	C4-N9-C1'	6.24	134.61	126.50
10	B	533	G	N3-C4-N9	6.24	129.74	126.00
10	B	561	G	C4-C5-N7	6.23	113.29	110.80
9	A	92	C	C6-N1-C2	6.21	122.78	120.30
10	B	1395	A	O4'-C1'-N9	6.21	113.17	108.20
10	B	1004	U	C2-N1-C1'	-6.18	110.28	117.70
10	B	2251	G	N3-C4-N9	6.18	129.71	126.00
10	B	2443	C	N1-C2-O2	6.17	122.60	118.90
10	B	1830	C	C2-N1-C1'	6.17	125.58	118.80
10	B	2076	U	N3-C2-O2	-6.17	117.89	122.20
10	B	2286	G	C8-N9-C1'	-6.16	118.99	127.00
10	B	1666	G	N3-C4-C5	6.13	131.66	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	2380	C	N3-C2-O2	-6.11	117.62	121.90
10	B	1611	C	C2-N3-C4	-6.10	116.85	119.90
10	B	1905	C	N1-C2-O2	6.10	122.56	118.90
10	B	2443	C	N3-C2-O2	-6.09	117.64	121.90
10	B	2251	G	C4-N9-C1'	6.07	134.39	126.50
10	B	1313	U	C6-N1-C1'	-6.07	112.71	121.20
10	B	387	U	N3-C2-O2	-6.03	117.98	122.20
10	B	509	C	C5-C6-N1	-6.03	117.98	121.00
10	B	1994	C	C5-C4-N4	-6.01	116.00	120.20
10	B	555	G	C4-N9-C1'	6.00	134.30	126.50
10	B	2214	C	C6-N1-C2	6.00	122.70	120.30
10	B	2380	C	N1-C2-O2	5.99	122.49	118.90
10	B	1210	G	N3-C4-C5	5.97	131.58	128.60
10	B	2510	C	C2-N3-C4	-5.96	116.92	119.90
10	B	1553	A	C8-N9-C4	5.95	108.18	105.80
10	B	2286	G	C4-N9-C1'	5.95	134.23	126.50
10	B	2767	C	C6-N1-C1'	-5.95	113.66	120.80
10	B	974	G	C4-C5-N7	5.94	113.17	110.80
10	B	1238	G	C4-N9-C1'	-5.94	118.78	126.50
10	B	1238	G	N3-C4-N9	-5.92	122.45	126.00
10	B	2165	C	C2-N1-C1'	5.91	125.30	118.80
10	B	1780	A	C2-N3-C4	-5.90	107.65	110.60
10	B	242	G	N9-C4-C5	-5.88	103.05	105.40
10	B	1295	C	N1-C2-O2	5.86	122.41	118.90
10	B	383	C	C6-N1-C1'	-5.83	113.81	120.80
10	B	1289	C	C6-N1-C2	-5.81	117.98	120.30
10	B	1993	U	N1-C2-O2	-5.81	118.73	122.80
10	B	1044	C	C6-N1-C2	5.80	122.62	120.30
10	B	1569	A	O4'-C1'-N9	5.80	112.84	108.20
10	B	1888	G	O4'-C1'-N9	5.79	112.83	108.20
34	Z	26	LEU	CA-CB-CG	-5.79	101.98	115.30
10	B	1328	A	N1-C6-N6	5.79	122.07	118.60
10	B	1009	A	C8-N9-C4	-5.78	103.49	105.80
10	B	1565	C	C6-N1-C2	5.78	122.61	120.30
10	B	2213	U	N3-C2-O2	-5.77	118.16	122.20
10	B	2458	G	O4'-C1'-N9	5.76	112.81	108.20
10	B	383	C	N1-C2-O2	5.75	122.35	118.90
10	B	533	G	C8-N9-C1'	-5.74	119.53	127.00
10	B	2031	A	C8-N9-C4	5.74	108.10	105.80
10	B	686	U	C5-C6-N1	-5.73	119.83	122.70
10	B	2060	A	C8-N9-C4	5.72	108.09	105.80
10	B	914	G	N3-C4-C5	5.71	131.45	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	1830	C	C6-N1-C1'	-5.71	113.95	120.80
10	B	788	A	C8-N9-C4	5.70	108.08	105.80
10	B	1565	C	C5-C6-N1	-5.67	118.17	121.00
10	B	242	G	C4-C5-N7	5.66	113.06	110.80
10	B	1632	A	O4'-C1'-N9	5.66	112.73	108.20
10	B	897	C	C5-C6-N1	5.65	123.83	121.00
10	B	2056	G	C4-N9-C1'	5.64	133.83	126.50
10	B	99	U	N1-C2-O2	5.63	126.74	122.80
10	B	533	G	N3-C4-C5	-5.63	125.79	128.60
10	B	2427	C	C6-N1-C2	5.62	122.55	120.30
9	A	26	C	C6-N1-C1'	-5.61	114.07	120.80
10	B	2256	G	N3-C4-N9	5.60	129.36	126.00
10	B	830	G	N3-C4-C5	5.60	131.40	128.60
10	B	2601	C	C2-N1-C1'	-5.58	112.66	118.80
10	B	2384	U	C5-C6-N1	-5.55	119.92	122.70
10	B	653	U	C6-N1-C2	-5.55	117.67	121.00
10	B	1225	G	N3-C4-N9	-5.54	122.67	126.00
10	B	1009	A	C6-C5-N7	-5.54	128.42	132.30
10	B	544	C	C6-N1-C2	-5.54	118.08	120.30
10	B	468	G	C8-N9-C4	-5.53	104.19	106.40
10	B	2751	G	C4-N9-C1'	5.53	133.69	126.50
10	B	2010	G	C8-N9-C4	5.53	108.61	106.40
10	B	1776	G	C8-N9-C1'	-5.53	119.81	127.00
10	B	2286	G	N9-C4-C5	-5.53	103.19	105.40
10	B	984	A	O4'-C1'-N9	5.53	112.62	108.20
10	B	2436	G	N3-C4-C5	5.53	131.36	128.60
10	B	1556	C	C6-N1-C2	5.52	122.51	120.30
10	B	1380	G	C4-C5-N7	5.52	113.01	110.80
10	B	1830	C	N3-C2-O2	-5.51	118.04	121.90
10	B	2658	C	N1-C2-O2	5.51	122.21	118.90
10	B	509	C	C2-N3-C4	-5.50	117.15	119.90
10	B	2510	C	C5-C6-N1	-5.50	118.25	121.00
10	B	828	U	N1-C2-O2	5.50	126.65	122.80
10	B	479	A	O5'-P-OP2	-5.49	100.75	105.70
10	B	828	U	C6-N1-C1'	-5.48	113.53	121.20
10	B	1735	A	C8-N9-C4	5.48	107.99	105.80
10	B	2454	G	N9-C4-C5	5.48	107.59	105.40
10	B	2286	G	C4-C5-N7	5.48	112.99	110.80
10	B	2443	C	C6-N1-C1'	-5.47	114.24	120.80
10	B	1356	G	C4-C5-N7	5.46	112.98	110.80
10	B	450	G	C2-N3-C4	-5.46	109.17	111.90
10	B	1189	A	N1-C6-N6	5.45	121.87	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	1887	C	N1-C2-O2	5.45	122.17	118.90
10	B	2658	C	N3-C2-O2	-5.45	118.09	121.90
10	B	1565	C	C2-N1-C1'	-5.44	112.82	118.80
10	B	2337	G	N3-C4-N9	5.44	129.26	126.00
10	B	1186	G	N9-C4-C5	-5.44	103.23	105.40
10	B	206	U	C5-C6-N1	-5.43	119.99	122.70
10	B	578	G	C6-C5-N7	-5.42	127.15	130.40
10	B	1328	A	C4-C5-N7	5.42	113.41	110.70
10	B	914	G	C4-N9-C1'	-5.41	119.46	126.50
10	B	544	C	C5-C6-N1	5.41	123.70	121.00
10	B	2454	G	O4'-C1'-N9	5.41	112.53	108.20
10	B	2755	C	C6-N1-C2	5.41	122.46	120.30
9	A	113	C	C6-N1-C2	5.38	122.45	120.30
10	B	1005	C	N3-C2-O2	-5.38	118.14	121.90
10	B	1210	G	N3-C4-N9	-5.37	122.78	126.00
10	B	82	U	N3-C2-O2	-5.37	118.44	122.20
10	B	141	G	C2-N3-C4	5.37	114.58	111.90
10	B	970	U	C6-N1-C1'	-5.37	113.69	121.20
10	B	921	C	C2-N1-C1'	5.36	124.69	118.80
10	B	638	G	C8-N9-C1'	-5.35	120.04	127.00
10	B	14	A	N1-C6-N6	5.34	121.81	118.60
10	B	678	C	N3-C2-O2	-5.33	118.17	121.90
10	B	2345	G	N3-C4-C5	-5.33	125.93	128.60
10	B	1914	C	C2-N1-C1'	5.33	124.67	118.80
10	B	2251	G	C8-N9-C1'	-5.33	120.07	127.00
10	B	2382	G	C4-N9-C1'	5.33	133.43	126.50
10	B	491	G	C8-N9-C4	5.33	108.53	106.40
10	B	1009	A	N7-C8-N9	5.32	116.46	113.80
10	B	1313	U	N1-C2-O2	5.32	126.52	122.80
10	B	1509	A	O4'-C1'-N9	5.31	112.45	108.20
10	B	1888	G	C8-N9-C1'	-5.29	120.12	127.00
10	B	2767	C	N3-C2-O2	-5.29	118.19	121.90
10	B	451	U	C5-C6-N1	-5.29	120.05	122.70
10	B	1095	A	O4'-C1'-N9	5.29	112.43	108.20
10	B	2253	G	C2-N3-C4	5.28	114.54	111.90
10	B	2350	C	N3-C2-O2	-5.28	118.20	121.90
10	B	1493	C	N1-C2-O2	5.25	122.05	118.90
10	B	1818	U	C5-C6-N1	-5.25	120.07	122.70
10	B	1816	C	N3-C2-O2	-5.25	118.22	121.90
10	B	2382	G	C8-N9-C1'	-5.25	120.17	127.00
10	B	1004	U	N3-C2-O2	5.24	125.87	122.20
10	B	2713	U	C2-N1-C1'	-5.24	111.41	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	864	G	N3-C4-N9	5.24	129.14	126.00
10	B	2032	G	C8-N9-C4	5.23	108.49	106.40
10	B	2420	C	C6-N1-C2	5.23	122.39	120.30
10	B	2332	C	C2-N3-C4	-5.23	117.29	119.90
10	B	2732	G	C4-C5-N7	5.23	112.89	110.80
10	B	2458	G	C8-N9-C1'	-5.22	120.21	127.00
10	B	2574	G	O4'-C1'-N9	-5.22	104.02	108.20
10	B	10	A	O4'-C1'-N9	5.21	112.37	108.20
10	B	1288	G	C4-C5-N7	5.21	112.89	110.80
10	B	99	U	N3-C2-O2	-5.21	118.55	122.20
10	B	1776	G	C4-N9-C1'	5.20	133.26	126.50
10	B	964	C	N1-C2-O2	5.20	122.02	118.90
10	B	1888	G	C6-C5-N7	-5.18	127.29	130.40
10	B	2427	C	C5-C6-N1	-5.18	118.41	121.00
10	B	762	U	C5-C6-N1	-5.18	120.11	122.70
10	B	940	G	C4-C5-N7	5.18	112.87	110.80
10	B	1905	C	N3-C2-O2	-5.18	118.28	121.90
9	A	26	C	N1-C2-O2	5.17	122.00	118.90
10	B	2384	U	C2-N3-C4	-5.17	123.90	127.00
10	B	468	G	C6-C5-N7	-5.16	127.30	130.40
10	B	2751	G	O4'-C1'-N9	5.16	112.33	108.20
10	B	1666	G	C8-N9-C4	5.15	108.46	106.40
10	B	2286	G	C6-C5-N7	-5.15	127.31	130.40
10	B	824	U	C6-N1-C2	5.14	124.09	121.00
10	B	228	C	C6-N1-C2	5.14	122.36	120.30
10	B	1361	G	N3-C4-N9	5.14	129.08	126.00
10	B	2050	C	C2-N1-C1'	5.14	124.45	118.80
10	B	769	U	C5-C6-N1	-5.13	120.13	122.70
10	B	2521	C	N1-C2-O2	5.13	121.98	118.90
10	B	2129	C	C5-C6-N1	5.12	123.56	121.00
10	B	881	G	N1-C6-O6	5.12	122.97	119.90
10	B	118	A	N3-C4-C5	5.12	130.38	126.80
10	B	1217	U	C6-N1-C2	5.11	124.07	121.00
10	B	2076	U	N1-C2-O2	5.11	126.38	122.80
10	B	2044	C	C6-N1-C2	5.11	122.34	120.30
10	B	2054	A	C6-N1-C2	-5.10	115.54	118.60
10	B	206	U	C2-N1-C1'	-5.10	111.58	117.70
10	B	644	A	C8-N9-C4	5.10	107.84	105.80
10	B	2601	C	C6-N1-C2	5.10	122.34	120.30
10	B	1142	A	O4'-C1'-N9	-5.10	104.12	108.20
10	B	2498	C	N1-C2-O2	-5.09	115.85	118.90
10	B	561	G	C6-C5-N7	-5.08	127.35	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	1153	C	C6-N1-C2	-5.07	118.27	120.30
10	B	2501	C	C5-C6-N1	-5.06	118.47	121.00
6	5	132	GLY	C-N-CD	5.06	139.03	128.40
10	B	64	A	C8-N9-C4	5.06	107.82	105.80
10	B	544	C	C6-N1-C1'	-5.05	114.74	120.80
10	B	2582	G	C2-N3-C4	-5.04	109.38	111.90
10	B	1380	G	C6-C5-N7	-5.04	127.37	130.40
10	B	2817	U	C2-N1-C1'	5.04	123.75	117.70
10	B	2286	G	N3-C4-N9	5.02	129.01	126.00
10	B	1238	G	C8-N9-C4	5.01	108.41	106.40
7	6	20	GLN	C-N-CA	-5.01	109.17	121.70
10	B	1360	G	N9-C4-C5	-5.01	103.40	105.40
10	B	1309	G	C8-N9-C1'	-5.01	120.49	127.00
9	A	81	G	C5-C6-O6	-5.00	125.60	128.60

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
6	5	59	VAL	Peptide
13	E	59	PRO	Peptide
14	F	76	PHE	Peptide
24	P	14	GLN	Peptide
25	Q	101	ASP	Peptide

5.2 Too-close contacts [\(i\)](#)

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	0	444	0	461	53	0
2	1	410	0	440	42	0
3	2	377	0	418	42	0
4	3	504	0	574	60	0
5	4	302	0	343	35	0
6	5	1733	0	1823	197	0
7	6	3403	0	3433	388	0
8	7	1231	0	1282	124	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	A	2504	0	1271	246	0
10	B	62317	0	31345	6165	0
11	C	2083	0	2157	244	0
12	D	1565	0	1616	238	0
13	E	1552	0	1619	130	0
14	F	1420	0	1460	169	0
15	G	1323	0	1374	136	0
16	H	1111	0	1148	191	0
17	I	1032	0	1088	142	0
18	J	1129	0	1162	144	0
19	K	931	0	1003	116	0
20	L	1045	0	1117	121	0
21	M	1074	0	1157	105	0
22	N	961	0	1000	107	0
23	O	892	0	923	130	0
24	P	917	0	965	101	0
25	Q	947	0	1022	143	0
26	R	816	0	839	106	0
27	S	857	0	922	100	0
28	T	739	0	807	74	0
29	U	780	0	834	89	0
30	V	753	0	780	60	0
31	W	596	0	610	94	0
32	X	625	0	655	93	0
33	Y	509	0	543	52	0
34	Z	449	0	491	26	0
35	6	32	0	13	23	0
36	6	1	0	0	0	0
All	All	97364	0	66695	9065	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 57.

All (9065) 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)
16:H:68:ARG:CD	16:H:132:PHE:CE1	1.84	1.55
16:H:68:ARG:HG3	16:H:132:PHE:CD2	1.40	1.55
16:H:68:ARG:HG3	16:H:132:PHE:CE2	1.37	1.53
16:H:68:ARG:HD2	16:H:132:PHE:CE1	1.43	1.52
7:6:365:VAL:CG2	7:6:405:ARG:NH2	1.69	1.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:H:68:ARG:CG	16:H:132:PHE:CZ	2.00	1.43
7:6:24:MET:HE3	7:6:257:ARG:NH2	1.28	1.43
10:B:1130:U:N3	12:D:152:PRO:HB3	1.28	1.42
16:H:68:ARG:HG3	16:H:132:PHE:CZ	1.55	1.42
16:H:68:ARG:CG	16:H:132:PHE:CE2	2.03	1.37
16:H:68:ARG:HD2	16:H:132:PHE:CZ	1.60	1.34
16:H:68:ARG:HG3	16:H:132:PHE:CG	1.62	1.34
16:H:29:PHE:CD1	16:H:33:GLN:OE1	1.78	1.33
16:H:31:VAL:CG1	32:X:40:GLU:CG	2.06	1.31
16:H:31:VAL:CG1	32:X:40:GLU:HG2	1.57	1.31
7:6:24:MET:CE	7:6:257:ARG:HH22	1.44	1.30
16:H:29:PHE:HD1	16:H:33:GLN:OE1	1.00	1.29
16:H:31:VAL:CG2	32:X:40:GLU:OE2	1.80	1.28
16:H:68:ARG:CD	16:H:132:PHE:CZ	2.13	1.28
6:5:37:LYS:NZ	10:B:2127:G:O2'	1.65	1.28
10:B:1130:U:C4	12:D:152:PRO:HB3	1.68	1.27
16:H:68:ARG:CG	16:H:132:PHE:CE1	2.15	1.25
7:6:24:MET:CE	7:6:257:ARG:NH2	1.98	1.25
7:6:363:GLY:O	7:6:364:GLU:HG2	1.25	1.24
16:H:68:ARG:CG	16:H:132:PHE:CD2	2.21	1.23
10:B:2032:G:H21	12:D:150:GLN:CG	1.52	1.23
16:H:68:ARG:HG3	16:H:132:PHE:CE1	1.74	1.22
10:B:2032:G:N2	12:D:150:GLN:HG2	1.55	1.22
7:6:366:ALA:O	7:6:367:GLN:O	1.58	1.21
6:5:133:PRO:HB3	10:B:2121:G:N7	1.55	1.20
16:H:31:VAL:CG1	32:X:40:GLU:OE2	1.89	1.20
16:H:68:ARG:HG3	16:H:132:PHE:CD1	1.76	1.19
16:H:31:VAL:HG11	32:X:40:GLU:CG	1.68	1.18
16:H:3:VAL:HG11	16:H:30:LEU:HD11	1.25	1.17
28:T:5:GLU:OE2	28:T:49:LYS:NZ	1.76	1.16
6:5:53:ARG:HH12	10:B:1859:U:H5''	1.00	1.13
16:H:68:ARG:CG	16:H:132:PHE:CD1	2.31	1.13
7:6:365:VAL:HG22	7:6:405:ARG:NH2	1.60	1.13
12:D:56:LYS:HZ2	12:D:59:ARG:NH2	1.48	1.11
10:B:1130:U:N3	12:D:152:PRO:CB	2.13	1.11
31:W:65:LYS:NZ	31:W:83:ALA:O	1.84	1.10
22:N:118:ARG:HE	22:N:121:LYS:N	1.49	1.10
10:B:2032:G:N2	12:D:150:GLN:CG	2.13	1.10
16:H:68:ARG:CG	16:H:132:PHE:CG	2.35	1.09
10:B:2251:G:OP1	21:M:81:ARG:NH1	1.87	1.06
10:B:2025:C:OP1	12:D:154:LYS:NZ	1.88	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1754:A:N7	24:P:93:LYS:NZ	2.02	1.06
24:P:48:ALA:O	24:P:95:LYS:NZ	1.87	1.05
16:H:68:ARG:HB2	16:H:132:PHE:CG	1.91	1.05
11:C:18:VAL:O	11:C:202:ARG:NH2	1.90	1.04
7:6:365:VAL:HG21	7:6:405:ARG:NH2	1.39	1.04
10:B:2571:U:O2'	12:D:151:THR:HG23	1.57	1.04
7:6:364:GLU:HG3	7:6:408:ILE:HG13	1.38	1.04
16:H:29:PHE:O	16:H:33:GLN:CB	2.04	1.04
16:H:31:VAL:CG1	32:X:40:GLU:CD	2.25	1.04
10:B:796:C:OP1	13:E:57:LYS:NZ	1.91	1.04
19:K:97:ARG:NH1	19:K:117:LEU:O	1.88	1.04
6:5:133:PRO:CB	10:B:2121:G:N7	2.20	1.02
19:K:39:LYS:NZ	19:K:88:ASN:OD1	1.92	1.02
7:6:29:GLU:OE1	7:6:290:ARG:NH1	1.90	1.02
16:H:27:ARG:HH21	32:X:59:ASP:HA	1.21	1.02
16:H:29:PHE:O	16:H:33:GLN:HB2	1.59	1.01
7:6:363:GLY:O	7:6:364:GLU:CG	2.07	1.01
16:H:68:ARG:HD3	16:H:132:PHE:CE1	1.95	1.01
17:I:61:TYR:O	17:I:64:ARG:NH1	1.94	1.01
10:B:2312:U:OP2	14:F:71:LYS:NZ	1.93	1.01
16:H:31:VAL:HG13	32:X:40:GLU:CG	1.88	1.01
7:6:24:MET:SD	7:6:257:ARG:NH2	2.34	1.00
18:J:118:MET:HG2	18:J:121:LYS:HZ3	1.26	1.00
17:I:74:PRO:HA	17:I:112:LYS:HZ3	1.26	1.00
3:2:14:ARG:NH2	10:B:770:G:O3'	1.94	0.99
7:6:279:LEU:HD11	7:6:360:ARG:HH12	1.21	0.99
16:H:29:PHE:CE1	16:H:33:GLN:HG2	1.96	0.99
16:H:97:ARG:HH12	16:H:113:SER:HA	1.27	0.99
10:B:2032:G:H21	12:D:150:GLN:HG2	0.84	0.99
16:H:31:VAL:HG13	32:X:40:GLU:HG2	1.37	0.99
16:H:3:VAL:HG11	16:H:30:LEU:CD1	1.92	0.99
10:B:2305:U:O3'	14:F:132:ARG:NH2	1.94	0.99
13:E:22:ASP:HA	13:E:114:ARG:HH22	1.27	0.99
6:5:134:ARG:HB3	10:B:2125:G:O6	1.63	0.99
10:B:8:C:O5'	18:J:120:ARG:NH2	1.95	0.99
15:G:15:ASP:O	15:G:17:LYS:NZ	1.96	0.99
16:H:30:LEU:HD21	16:H:36:ALA:HB3	1.45	0.99
11:C:83:ASP:OD2	11:C:86:ARG:N	1.96	0.99
21:M:76:LYS:NZ	21:M:85:GLY:O	1.96	0.99
24:P:87:ARG:NH1	24:P:88:ARG:O	1.95	0.99
16:H:68:ARG:HG2	16:H:132:PHE:CE2	1.97	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:815:C:OP1	26:R:85:LYS:NZ	1.95	0.98
10:B:880:G:N2	10:B:897:C:N3	2.12	0.98
13:E:25:GLU:OE2	20:L:7:SER:N	1.94	0.98
9:A:75:G:H2'	9:A:76:G:H8	1.29	0.98
10:B:1252:G:N3	25:Q:32:ARG:NH1	2.11	0.98
10:B:190:A:OP1	32:X:25:LYS:NZ	1.94	0.98
10:B:1666:G:H1	10:B:1994:C:H42	1.07	0.98
16:H:31:VAL:HG22	32:X:40:GLU:OE2	1.64	0.97
10:B:1130:U:H3	12:D:152:PRO:HB3	1.25	0.97
16:H:31:VAL:HG13	32:X:40:GLU:CD	1.84	0.97
7:6:84:LEU:N	7:6:102:ASP:OD2	1.97	0.97
10:B:374:A:N7	10:B:400:G:N2	2.12	0.97
24:P:88:ARG:HH21	24:P:114:ASN:HD22	1.05	0.97
6:5:134:ARG:HA	10:B:2124:G:O6	1.65	0.97
25:Q:18:LYS:HA	25:Q:21:LYS:HZ3	1.30	0.97
12:D:183:GLU:HG2	12:D:184:ARG:HG3	1.46	0.96
30:V:66:ASP:O	30:V:68:LYS:NZ	1.96	0.96
10:B:2294:G:OP2	23:O:94:ARG:NH2	1.97	0.96
10:B:636:G:N1	20:L:76:GLU:OE2	1.99	0.96
9:A:116:G:O3'	23:O:56:LYS:NZ	1.98	0.96
10:B:1060:U:OP2	17:I:112:LYS:NZ	1.98	0.96
10:B:2275:C:O2	21:M:84:LYS:NZ	1.99	0.96
10:B:2129:C:N3	10:B:2159:G:N2	2.13	0.96
10:B:2114:A:N6	10:B:2119:A:N7	2.14	0.95
10:B:1723:G:H1	10:B:1737:G:HO2'	1.14	0.95
19:K:91:GLU:HB2	19:K:110:LYS:HZ2	1.29	0.95
10:B:2724:U:OP1	12:D:116:LYS:NZ	2.00	0.95
7:6:365:VAL:HG21	7:6:405:ARG:HH22	1.28	0.95
10:B:1913:A:N7	10:B:1917:U:N3	2.14	0.95
10:B:2547:A:N1	10:B:2561:U:N3	2.15	0.95
10:B:531:C:O3'	25:Q:40:LYS:NZ	1.99	0.94
22:N:14:SER:HA	22:N:17:ARG:HH21	1.31	0.94
16:H:68:ARG:O	16:H:132:PHE:CD2	2.20	0.94
16:H:31:VAL:HG21	32:X:40:GLU:OE2	1.64	0.94
16:H:68:ARG:CB	16:H:132:PHE:CG	2.51	0.94
10:B:18:U:H2'	10:B:19:A:H8	1.32	0.94
24:P:47:ILE:O	24:P:95:LYS:NZ	2.01	0.93
10:B:908:C:OP1	21:M:18:ARG:NH2	2.02	0.93
21:M:34:LYS:NZ	30:V:81:PRO:O	2.01	0.93
10:B:413:C:H42	10:B:2410:G:H1	1.15	0.93
6:5:133:PRO:O	10:B:2122:U:C5	2.20	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:331:ARG:NH1	7:6:359:GLU:OE1	2.02	0.93
6:5:47:ASN:HD22	6:5:211:LYS:HB3	1.30	0.93
10:B:451:U:H5'	13:E:47:LYS:HZ1	1.30	0.93
10:B:856:G:OP1	31:W:23:LYS:NZ	2.03	0.92
10:B:1007:C:O3'	18:J:111:LYS:NZ	2.02	0.92
10:B:1651:G:H1	10:B:2006:C:H42	1.13	0.92
10:B:807:U:OP1	20:L:36:LYS:NZ	2.02	0.92
10:B:2223:G:O3'	11:C:264:LYS:NZ	2.02	0.92
10:B:1076:C:H2'	10:B:1077:A:H8	1.32	0.92
16:H:127:GLU:HG3	16:H:141:LYS:HD2	1.51	0.92
10:B:2659:G:N2	10:B:2662:A:N7	2.18	0.92
10:B:251:A:O3'	20:L:47:ARG:NE	2.02	0.92
4:3:34:LYS:NZ	10:B:2390:U:OP2	2.03	0.91
10:B:1825:U:H2'	10:B:1826:G:H8	1.36	0.91
16:H:30:LEU:HG	16:H:35:LYS:CE	2.00	0.91
7:6:24:MET:SD	7:6:257:ARG:CZ	2.58	0.91
8:7:37:LYS:NZ	8:7:54:VAL:HB	1.86	0.91
7:6:189:ARG:NH1	7:6:272:GLN:HG3	1.84	0.91
10:B:226:A:N3	10:B:229:C:N4	2.17	0.91
7:6:53:HIS:HB3	7:6:55:LYS:HD3	1.52	0.91
10:B:1327:A:N6	10:B:1328:A:N3	2.18	0.91
18:J:35:ARG:HH11	18:J:40:HIS:CD2	1.90	0.90
26:R:79:ARG:HG2	26:R:80:ARG:HG2	1.53	0.90
7:6:364:GLU:HG3	7:6:408:ILE:CG1	2.00	0.90
10:B:337:C:OP2	29:U:3:LYS:NZ	2.05	0.90
10:B:396:G:H5''	32:X:9:LYS:HD3	1.53	0.90
6:5:53:ARG:NH1	10:B:1859:U:H5''	1.85	0.90
9:A:90:C:O2'	21:M:38:ARG:NH1	2.05	0.90
10:B:2471:A:HO2'	10:B:2472:G:H8	0.92	0.90
11:C:68:ARG:O	11:C:188:ARG:NH2	2.04	0.90
16:H:31:VAL:HG11	32:X:40:GLU:HG3	1.52	0.90
5:4:30:GLU:OE2	15:G:171:LYS:NZ	2.04	0.90
10:B:52:A:OP2	10:B:117:G:N1	2.05	0.90
18:J:98:GLU:OE2	18:J:126:ALA:N	2.04	0.90
28:T:38:ALA:HB2	28:T:81:LYS:HZ3	1.33	0.90
10:B:1952:A:OP1	19:K:43:LYS:NZ	2.04	0.89
7:6:24:MET:HE3	7:6:257:ARG:CZ	2.02	0.89
16:H:29:PHE:CD1	16:H:33:GLN:CD	2.45	0.89
10:B:1093:G:H21	10:B:1098:A:H62	1.21	0.89
10:B:2204:G:OP2	11:C:149:LYS:NZ	2.05	0.89
10:B:1801:A:H62	11:C:261:ARG:HH12	1.18	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:18:LYS:NZ	10:B:1034:G:H5'	1.87	0.89
10:B:605:G:N3	10:B:657:U:O2'	2.06	0.89
7:6:48:SER:O	7:6:50:LYS:NZ	2.06	0.88
24:P:88:ARG:HH21	24:P:114:ASN:ND2	1.70	0.88
3:2:3:ARG:HH21	10:B:464:U:P	1.95	0.88
6:5:37:LYS:NZ	6:5:218:MET:HE1	1.88	0.88
7:6:86:PRO:HG3	7:6:135:ARG:HH11	1.38	0.88
7:6:161:GLU:HA	7:6:164:ARG:HD3	1.56	0.88
14:F:147:ARG:HH12	14:F:150:GLY:H	1.17	0.88
10:B:372:G:O4'	32:X:60:LYS:NZ	2.06	0.88
10:B:956:G:OP2	21:M:86:LYS:NZ	2.05	0.88
10:B:1268:A:H62	10:B:2012:G:H21	1.21	0.88
10:B:2032:G:N2	12:D:150:GLN:CB	2.37	0.88
25:Q:89:ILE:HG22	25:Q:91:ARG:H	1.36	0.88
10:B:1130:U:H3	12:D:152:PRO:CB	1.80	0.88
10:B:2811:G:H1	10:B:2889:C:H42	1.20	0.88
16:H:32:PRO:HB3	32:X:38:TRP:CE3	1.92	0.88
10:B:397:U:OP2	32:X:9:LYS:NZ	2.07	0.87
12:D:56:LYS:HZ2	12:D:59:ARG:HH21	1.12	0.87
6:5:9:ARG:HH12	10:B:2151:U:H5''	1.39	0.87
9:A:13:G:H1'	9:A:14:U:H5''	1.54	0.87
10:B:329:G:H1	29:U:16:LYS:NZ	1.72	0.87
9:A:116:G:H2'	9:A:117:G:H8	1.38	0.87
10:B:1533:C:O2	10:B:1538:G:N2	2.06	0.87
10:B:2824:C:H3'	10:B:2825:G:H21	1.38	0.87
10:B:2872:A:H4'	22:N:46:ARG:NH2	1.88	0.87
4:3:46:LYS:NZ	10:B:630:G:OP1	2.05	0.87
9:A:85:G:H2'	9:A:86:G:H8	1.38	0.87
10:B:1099:G:N7	17:I:3:LYS:N	2.21	0.87
10:B:2364:C:OP1	31:W:54:ARG:NH1	2.07	0.87
10:B:219:A:N6	10:B:428:A:OP2	2.08	0.87
12:D:46:ARG:HH22	12:D:88:GLU:HG2	1.39	0.87
12:D:56:LYS:NZ	12:D:59:ARG:HH21	1.73	0.87
16:H:30:LEU:HG	16:H:35:LYS:NZ	1.90	0.87
10:B:1355:G:H2'	10:B:1356:G:H8	1.38	0.87
16:H:68:ARG:CD	16:H:132:PHE:CD1	2.56	0.87
7:6:411:TRP:HA	7:6:425:LEU:HD21	1.57	0.87
10:B:711:G:H2'	10:B:712:G:H8	1.36	0.87
10:B:1861:G:N1	10:B:1881:C:N3	2.22	0.87
16:H:31:VAL:CB	32:X:40:GLU:OE2	2.22	0.87
17:I:93:ASN:H	17:I:136:GLY:HA2	1.38	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:305:C:N3	10:B:312:G:N1	2.22	0.86
10:B:1801:A:N6	11:C:261:ARG:HH12	1.72	0.86
19:K:12:ASN:HD21	19:K:96:THR:HB	1.38	0.86
24:P:70:GLU:OE2	24:P:100:ARG:NH1	2.08	0.86
10:B:172:A:H2'	10:B:173:A:H8	1.38	0.86
7:6:189:ARG:HH12	7:6:272:GLN:HG3	1.38	0.86
10:B:2292:U:H2'	10:B:2293:G:H8	1.38	0.86
10:B:1744:A:H3'	10:B:1745:A:H8	1.40	0.86
10:B:2642:G:H2'	10:B:2643:G:H8	1.40	0.86
10:B:2701:U:O2	22:N:71:ARG:NH2	2.09	0.86
16:H:31:VAL:HG11	32:X:40:GLU:CD	1.92	0.86
28:T:39:THR:HB	28:T:42:GLU:HB2	1.58	0.86
28:T:54:GLU:HB2	28:T:56:GLU:OE2	1.76	0.86
10:B:2360:G:N3	20:L:60:ARG:NH1	2.23	0.86
10:B:2631:G:N2	10:B:2787:C:O2	2.08	0.86
16:H:30:LEU:HG	16:H:35:LYS:HE2	1.56	0.86
10:B:692:C:HO2'	10:B:1354:A:HO2'	1.13	0.86
10:B:827:U:O2	10:B:2246:G:O2'	1.94	0.86
19:K:6:MET:HB3	19:K:17:ARG:HD2	1.57	0.86
3:2:34:ARG:NH1	10:B:467:G:OP2	2.08	0.86
10:B:238:C:H42	10:B:259:G:H1	1.24	0.86
7:6:179:GLU:HB3	7:6:183:LYS:HZ1	1.41	0.85
10:B:160:A:H2'	10:B:161:A:C8	2.12	0.85
10:B:2036:C:H2'	10:B:2037:A:H8	1.39	0.85
10:B:2406:A:N3	20:L:69:ARG:NH1	2.24	0.85
12:D:94:GLN:NE2	12:D:96:ILE:O	2.09	0.85
16:H:31:VAL:HG11	32:X:40:GLU:OE2	1.73	0.85
25:Q:91:ARG:HD2	26:R:11:GLN:HG3	1.59	0.85
10:B:2470:G:N7	10:B:2481:G:N2	2.25	0.85
10:B:1365:A:H2'	10:B:1366:A:H8	1.42	0.85
12:D:94:GLN:HB2	12:D:96:ILE:HG12	1.56	0.85
14:F:1:ALA:N	14:F:93:GLU:OE2	2.09	0.85
10:B:2278:A:H5'	21:M:10:ARG:NH2	1.91	0.85
28:T:13:ALA:HB3	28:T:33:LYS:HB2	1.58	0.85
6:5:134:ARG:O	6:5:137:MET:N	1.99	0.85
9:A:42:C:N3	14:F:89:THR:OG1	2.10	0.85
10:B:1612:C:N3	10:B:1619:G:N1	2.25	0.85
33:Y:38:GLN:HB3	33:Y:42:LEU:HD12	1.57	0.85
10:B:2606:C:H2'	10:B:2607:G:C8	2.11	0.85
11:C:5:CYS:SG	11:C:12:ARG:NH2	2.49	0.85
10:B:2696:U:H2'	10:B:2697:G:H8	1.41	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2872:A:H4'	22:N:46:ARG:HH22	1.41	0.84
16:H:30:LEU:CD2	16:H:36:ALA:HB3	2.07	0.84
10:B:1508:A:H4'	10:B:1509:A:H5'	1.58	0.84
23:O:93:ASP:OD2	23:O:95:SER:OG	1.94	0.84
10:B:711:G:N1	10:B:720:U:O2	2.09	0.84
10:B:1283:G:N2	10:B:1286:A:OP2	2.10	0.84
10:B:1665:A:OP1	19:K:65:LYS:NZ	2.08	0.84
10:B:1779:U:O2	10:B:1783:A:N6	2.10	0.84
21:M:11:LYS:NZ	21:M:86:LYS:O	2.11	0.84
10:B:1791:A:N6	10:B:1828:G:O2'	2.09	0.84
10:B:2443:C:OP2	13:E:63:LYS:NZ	2.11	0.84
10:B:2572:A:H2'	12:D:149:ASN:HD21	1.41	0.84
10:B:55:G:N1	10:B:115:C:N3	2.25	0.84
10:B:787:C:H5''	10:B:788:A:H5'	1.59	0.84
10:B:2513:A:H4'	12:D:159:LYS:HD3	1.60	0.84
18:J:110:PRO:HB2	18:J:111:LYS:HG2	1.58	0.84
10:B:302:C:OP1	29:U:78:LYS:NZ	2.09	0.84
10:B:708:G:N2	10:B:723:C:O2	2.10	0.84
10:B:738:G:N2	10:B:759:G:N7	2.26	0.84
10:B:1392:A:OP1	28:T:19:LYS:NZ	2.09	0.84
10:B:1518:C:H2'	10:B:1519:G:H8	1.40	0.84
10:B:1656:C:H42	10:B:2004:G:H1	1.24	0.84
16:H:31:VAL:HG13	32:X:40:GLU:OE2	1.74	0.84
16:H:130:VAL:H	16:H:144:VAL:HG11	1.42	0.84
10:B:1568:G:OP2	11:C:62:ARG:NH2	2.11	0.84
10:B:2892:G:OP1	10:B:2894:G:N2	2.10	0.84
6:5:37:LYS:HA	10:B:2128:G:OP1	1.77	0.84
10:B:2257:U:H2'	10:B:2258:C:H6	1.42	0.84
10:B:1:G:N1	10:B:2902:C:N3	2.25	0.84
7:6:364:GLU:HG3	7:6:408:ILE:CD1	2.07	0.83
10:B:329:G:H1	29:U:16:LYS:HZ3	0.86	0.83
10:B:2531:A:H5''	15:G:175:LYS:HZ3	1.40	0.83
7:6:24:MET:CE	7:6:257:ARG:CZ	2.53	0.83
10:B:535:G:O3'	25:Q:52:ARG:NH2	2.10	0.83
10:B:826:U:O2'	20:L:53:GLY:N	2.10	0.83
18:J:118:MET:HA	18:J:121:LYS:HZ2	1.43	0.83
21:M:35:ALA:HB2	21:M:102:LEU:HD11	1.58	0.83
10:B:638:G:N7	10:B:651:G:N2	2.25	0.83
10:B:2009:A:H2'	10:B:2010:G:H8	1.43	0.83
10:B:2304:G:N1	10:B:2312:U:O4	2.11	0.83
6:5:134:ARG:HD2	10:B:2172:U:H5''	1.59	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2:G:N2	10:B:2901:C:O2	2.11	0.83
10:B:45:G:N2	10:B:433:C:O2	2.12	0.83
10:B:1062:G:H2'	10:B:1063:G:C8	2.12	0.83
10:B:1987:A:H2'	10:B:1988:G:H8	1.44	0.83
16:H:29:PHE:CE1	16:H:33:GLN:CG	2.61	0.83
18:J:140:LEU:HD23	18:J:142:ILE:H	1.44	0.83
14:F:147:ARG:NH1	14:F:150:GLY:H	1.76	0.83
18:J:118:MET:HG2	18:J:121:LYS:NZ	1.93	0.83
31:W:23:LYS:HZ1	31:W:67:LYS:HE3	1.43	0.83
10:B:1278:C:H2'	10:B:1279:G:H8	1.44	0.83
10:B:2830:C:O3'	12:D:56:LYS:NZ	2.11	0.83
10:B:225:C:H2'	10:B:226:A:H8	1.42	0.83
23:O:18:LEU:O	23:O:22:GLY:N	2.11	0.83
10:B:493:G:O2'	27:S:6:LYS:O	1.96	0.83
10:B:1276:A:O2'	22:N:20:MET:SD	2.35	0.83
10:B:1291:C:H2'	10:B:1292:G:H8	1.44	0.83
10:B:1453:A:N6	22:N:74:GLU:OE1	2.12	0.83
10:B:2809:A:H2'	10:B:2810:A:C8	2.14	0.83
6:5:168:ASN:ND2	10:B:2179:C:OP1	2.12	0.83
26:R:74:ILE:HB	26:R:87:GLN:HB3	1.61	0.83
7:6:84:LEU:O	7:6:135:ARG:NH2	2.11	0.82
10:B:1568:G:P	11:C:62:ARG:HH22	2.02	0.82
17:I:121:ILE:HA	17:I:124:MET:HE2	1.61	0.82
7:6:320:ASP:OD2	35:6:527:GNP:N2	2.11	0.82
9:A:43:C:H4'	14:F:91:ARG:HB3	1.60	0.82
10:B:413:C:N3	10:B:2410:G:N2	2.27	0.82
10:B:1788:C:OP1	11:C:220:ARG:NH2	2.12	0.82
16:H:31:VAL:HB	16:H:32:PRO:HD3	1.61	0.82
27:S:3:THR:HG21	27:S:8:ARG:NH1	1.92	0.82
8:7:93:ALA:HB2	8:7:129:LEU:HG	1.60	0.82
8:7:97:LYS:HD2	8:7:101:LYS:NZ	1.94	0.82
10:B:895:U:H5''	10:B:896:A:H5'	1.59	0.82
10:B:1346:G:N2	10:B:1600:C:O2	2.13	0.82
10:B:2010:G:H5''	27:S:42:LYS:HB2	1.59	0.82
31:W:19:ARG:NH1	31:W:21:GLY:O	2.11	0.82
7:6:393:TRP:HH2	7:6:403:GLN:HG3	1.44	0.82
10:B:1340:U:OP2	28:T:82:LYS:NZ	2.13	0.82
10:B:856:G:H21	31:W:19:ARG:HH22	1.26	0.82
10:B:2212:A:N7	10:B:2214:C:N4	2.27	0.82
10:B:2387:U:O2	31:W:38:ARG:NH2	2.11	0.82
10:B:2799:A:H3'	10:B:2800:A:H5'	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:23:ASP:O	7:6:24:MET:HB2	1.77	0.82
16:H:67:ALA:O	16:H:68:ARG:HG2	1.79	0.82
6:5:54:LYS:NZ	10:B:1860:G:H5''	1.95	0.82
7:6:53:HIS:ND1	7:6:57:PHE:O	2.11	0.82
9:A:8:C:O3'	23:O:25:ARG:NH2	2.12	0.82
11:C:29:PHE:HB3	11:C:31:PRO:HD2	1.61	0.82
3:2:39:ARG:NH1	10:B:459:U:OP2	2.11	0.82
10:B:695:G:OP1	10:B:1380:G:O2'	1.97	0.82
10:B:1223:G:O5'	26:R:71:LYS:NZ	2.12	0.82
14:F:64:PRO:HB3	14:F:88:VAL:HG22	1.59	0.82
7:6:375:GLN:HG3	7:6:378:ARG:HH22	1.45	0.81
8:7:37:LYS:HZ2	8:7:54:VAL:HB	1.41	0.81
9:A:16:G:N2	9:A:68:C:O2	2.13	0.81
10:B:974:G:H8	10:B:990:A:H62	1.27	0.81
10:B:2637:U:O2	10:B:2782:G:N2	2.13	0.81
10:B:571:U:N3	10:B:575:A:N7	2.28	0.81
10:B:2315:G:O3'	14:F:124:ARG:NH1	2.12	0.81
7:6:103:ARG:NH2	7:6:257:ARG:O	2.14	0.81
10:B:1661:G:H1	10:B:1999:C:H42	1.24	0.81
18:J:23:LYS:NZ	18:J:141:ASP:O	2.13	0.81
10:B:1072:C:H41	17:I:3:LYS:HD3	1.45	0.81
10:B:1346:G:H2'	10:B:1347:A:C8	2.16	0.81
12:D:77:ARG:NH2	12:D:200:ASP:OD1	2.13	0.81
10:B:1315:C:N4	10:B:1337:G:O6	2.12	0.81
10:B:1492:G:H1	10:B:1498:C:H42	1.28	0.81
10:B:1548:A:H2'	10:B:1549:A:H8	1.46	0.81
10:B:2087:G:H2'	10:B:2088:A:H8	1.45	0.81
10:B:2227:A:H3'	10:B:2228:G:H8	1.44	0.81
13:E:6:LYS:HG2	13:E:122:GLU:H	1.46	0.81
10:B:621:A:OP2	20:L:99:ASN:ND2	2.13	0.81
10:B:1059:G:N1	10:B:1079:C:N3	2.26	0.81
10:B:2220:U:H2'	10:B:2221:G:H8	1.46	0.81
16:H:30:LEU:HG	16:H:35:LYS:HZ1	1.44	0.81
10:B:276:U:O2'	10:B:278:A:N7	2.13	0.81
10:B:1018:U:H3	10:B:1144:A:H61	1.26	0.81
10:B:2740:A:OP2	10:B:2763:G:N1	2.14	0.81
11:C:43:ASN:OD1	11:C:44:ASN:N	2.14	0.81
7:6:318:LYS:HG2	35:6:527:GNP:C6	2.11	0.80
15:G:45:ALA:HB3	15:G:48:THR:HB	1.61	0.80
8:7:71:CYS:HB3	8:7:75:ALA:HB2	1.63	0.80
10:B:1861:G:N2	10:B:1881:C:O2	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2508:G:HO2'	10:B:2554:U:HO2'	1.20	0.80
10:B:2841:C:O2	10:B:2876:G:N2	2.12	0.80
10:B:252:G:OP1	20:L:47:ARG:NH2	2.14	0.80
10:B:1487:U:N3	10:B:1502:A:N1	2.27	0.80
16:H:128:HIS:HA	16:H:141:LYS:HZ3	1.46	0.80
21:M:66:ARG:NH2	21:M:104:GLU:OE2	2.14	0.80
25:Q:49:ARG:O	25:Q:53:LYS:NZ	2.14	0.80
6:5:41:SER:HA	6:5:177:LYS:HA	1.62	0.80
28:T:37:ASP:C	28:T:81:LYS:HZ2	1.84	0.80
7:6:119:GLU:OE1	7:6:185:ARG:NH2	2.13	0.80
10:B:2089:C:H2'	10:B:2090:A:H8	1.45	0.80
19:K:57:LEU:HA	19:K:88:ASN:HD21	1.46	0.80
9:A:85:G:H2'	9:A:86:G:C8	2.16	0.80
10:B:36:G:N2	10:B:444:C:O2	2.14	0.80
10:B:244:A:H62	10:B:254:G:H21	1.29	0.80
10:B:2634:A:H2'	10:B:2635:A:H8	1.46	0.80
10:B:55:G:N2	10:B:115:C:O2	2.13	0.80
10:B:133:U:H2'	10:B:134:G:H8	1.46	0.80
10:B:541:A:H2'	10:B:542:C:C6	2.17	0.80
10:B:188:G:H2'	10:B:189:G:C8	2.17	0.79
10:B:1055:G:H3'	10:B:1056:G:H8	1.47	0.79
10:B:2794:C:O2	10:B:2802:G:N2	2.15	0.79
10:B:532:A:C5'	25:Q:27:ARG:HH12	1.95	0.79
10:B:948:C:N4	10:B:969:G:O6	2.11	0.79
10:B:2674:G:H4'	19:K:29:ARG:HG2	1.64	0.79
19:K:70:ARG:HB3	19:K:74:SER:HB2	1.63	0.79
10:B:160:A:H2'	10:B:161:A:H8	1.46	0.79
10:B:1449:G:N1	10:B:1462:C:N3	2.30	0.79
10:B:1801:A:N7	11:C:261:ARG:NH1	2.30	0.79
10:B:2391:G:H22	10:B:2424:C:H2'	1.46	0.79
12:D:28:GLU:OE2	12:D:185:ASN:HB2	1.82	0.79
10:B:279:A:H61	10:B:361:G:H1'	1.46	0.79
10:B:829:A:C8	10:B:2248:C:H5'	2.17	0.79
10:B:910:A:N3	10:B:2264:C:O2'	2.15	0.79
10:B:1501:G:OP1	11:C:100:ARG:NH2	2.14	0.79
12:D:46:ARG:NH1	12:D:87:GLY:O	2.15	0.79
18:J:103:ILE:HD12	18:J:106:LYS:HB3	1.62	0.79
10:B:783:A:C2	10:B:785:G:H1'	2.18	0.79
31:W:31:LEU:HG	31:W:33:GLY:H	1.46	0.79
6:5:53:ARG:HH12	10:B:1859:U:C5'	1.91	0.79
10:B:626:A:H2'	20:L:78:ARG:HE	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1807:G:OP1	11:C:47:ARG:NH1	2.16	0.79
14:F:106:ALA:HA	14:F:112:ASP:OD2	1.83	0.79
20:L:89:VAL:HA	20:L:121:THR:HB	1.63	0.79
28:T:28:ASN:O	28:T:91:GLN:NE2	2.15	0.79
10:B:27:G:HO2'	10:B:28:A:H8	1.29	0.79
10:B:1450:G:N2	10:B:1461:C:O2	2.16	0.79
10:B:2278:A:H5'	21:M:10:ARG:HH21	1.46	0.79
10:B:2818:U:H2'	10:B:2819:G:H8	1.44	0.79
19:K:15:ALA:HA	19:K:48:ARG:HD2	1.65	0.79
30:V:30:ILE:HG12	30:V:91:PHE:HB2	1.62	0.79
10:B:1172:C:O2	10:B:1177:G:N1	2.15	0.79
10:B:2722:G:H4'	22:N:4:ARG:HB2	1.63	0.79
7:6:48:SER:HB3	7:6:49:ARG:HG2	1.64	0.79
10:B:2417:C:H2'	10:B:2418:A:H8	1.48	0.79
7:6:236:LEU:O	7:6:237:ARG:NH1	2.15	0.79
10:B:1059:G:N2	10:B:1079:C:O2	2.14	0.79
10:B:1430:G:H2'	10:B:1431:A:H8	1.48	0.79
10:B:441:U:H2'	10:B:442:G:C8	2.17	0.78
10:B:2511:U:OP1	12:D:128:ARG:NH1	2.16	0.78
10:B:1250:G:OP2	20:L:21:ARG:NE	2.16	0.78
10:B:1287:A:H3'	10:B:1288:G:H21	1.46	0.78
10:B:1853:A:H2'	10:B:1854:A:C8	2.18	0.78
10:B:2843:G:H2'	10:B:2844:G:C8	2.18	0.78
7:6:364:GLU:CD	7:6:408:ILE:HD11	2.03	0.78
10:B:18:U:H2'	10:B:19:A:C8	2.17	0.78
10:B:947:A:H2'	10:B:948:C:H6	1.48	0.78
10:B:27:G:N2	10:B:513:A:OP2	2.17	0.78
10:B:543:G:N2	10:B:550:C:O2	2.15	0.78
10:B:708:G:N1	10:B:723:C:N3	2.31	0.78
10:B:1152:C:H2'	10:B:1153:C:H6	1.47	0.78
10:B:1853:A:H2'	10:B:1854:A:H8	1.49	0.78
10:B:2269:G:N2	10:B:2270:A:N3	2.32	0.78
10:B:2524:G:N2	10:B:2539:C:O2	2.16	0.78
7:6:45:ILE:HG21	7:6:66:ILE:HG22	1.65	0.78
7:6:412:ARG:NH2	10:B:2660:A:N3	2.32	0.78
10:B:1351:C:N3	10:B:1381:G:N1	2.32	0.78
10:B:1355:G:H2'	10:B:1356:G:C8	2.19	0.78
10:B:2336:A:C6	31:W:40:ARG:NH1	2.51	0.78
8:7:32:GLY:O	10:B:1055:G:O2'	2.01	0.78
10:B:517:C:O2'	27:S:18:ARG:NH2	2.16	0.78
10:B:688:U:H2'	10:B:689:A:H8	1.47	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:E:149:ILE:HG22	13:E:188:MET:HA	1.65	0.78
18:J:31:GLU:OE2	18:J:34:ARG:NH2	2.16	0.78
3:2:12:ARG:NH1	10:B:686:U:O4	2.17	0.78
10:B:729:G:N2	11:C:10:PRO:O	2.17	0.78
10:B:1064:C:OP1	17:I:80:LYS:NZ	2.17	0.78
10:B:1170:C:H2'	10:B:1171:G:H8	1.48	0.78
16:H:31:VAL:HG12	32:X:40:GLU:HG2	1.62	0.78
10:B:635:C:H2'	10:B:636:G:C8	2.19	0.78
10:B:1078:U:OP1	17:I:133:ARG:NH2	2.17	0.78
10:B:1170:C:H2'	10:B:1171:G:C8	2.19	0.78
10:B:2251:G:N7	10:B:2450:A:O2'	2.16	0.78
10:B:2323:G:N2	10:B:2332:C:O2	2.17	0.78
11:C:107:LYS:NZ	11:C:193:GLU:OE2	2.17	0.78
11:C:132:ARG:NH1	16:H:125:THR:O	2.17	0.78
7:6:20:GLN:O	10:B:1916:A:OP1	2.02	0.77
10:B:1745:A:H2'	10:B:1746:A:H8	1.49	0.77
10:B:1799:G:O3'	11:C:181:ARG:NH1	2.17	0.77
10:B:2125:G:O2'	10:B:2173:A:N6	2.17	0.77
10:B:2588:G:N7	10:B:2607:G:N2	2.31	0.77
10:B:2589:A:H2'	10:B:2590:A:C8	2.19	0.77
33:Y:7:ARG:O	33:Y:9:LYS:NZ	2.15	0.77
5:4:18:LYS:HZ1	10:B:1034:G:H5'	1.45	0.77
10:B:448:U:N3	10:B:1258:U:O2	2.17	0.77
10:B:1457:U:N3	10:B:1458:U:O4	2.16	0.77
27:S:6:LYS:HZ1	27:S:102:HIS:HB3	1.49	0.77
29:U:23:LYS:NZ	29:U:24:VAL:O	2.17	0.77
10:B:240:C:O2	10:B:257:C:N4	2.17	0.77
10:B:635:C:H2'	10:B:636:G:H8	1.49	0.77
10:B:1449:G:O6	10:B:1462:C:N4	2.16	0.77
10:B:1983:G:H2'	10:B:1984:G:H8	1.49	0.77
14:F:31:GLU:HB3	14:F:156:THR:HG22	1.64	0.77
9:A:49:C:OP2	23:O:30:ARG:NH1	2.17	0.77
9:A:116:G:H2'	9:A:117:G:C8	2.19	0.77
10:B:1660:G:H2'	10:B:1661:G:H8	1.50	0.77
10:B:995:C:O2'	18:J:1:MET:SD	2.43	0.77
10:B:1597:A:H5''	10:B:1598:A:H5'	1.66	0.77
10:B:1710:G:H2'	10:B:1711:A:C8	2.19	0.77
10:B:2330:G:H21	31:W:39:GLN:HA	1.50	0.77
9:A:70:C:O2	9:A:106:G:N2	2.17	0.77
14:F:96:TRP:HA	14:F:99:PHE:HB3	1.67	0.77
1:0:47:TYR:HE1	1:0:52:LYS:HD3	1.49	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:367:GLN:HG2	7:6:405:ARG:HB2	1.67	0.77
9:A:75:G:H2'	9:A:76:G:C8	2.18	0.77
10:B:85:G:OP2	29:U:6:ARG:NH2	2.18	0.77
10:B:870:U:H3'	10:B:871:U:H5''	1.67	0.77
10:B:2260:C:H41	31:W:10:ARG:HH21	1.33	0.77
10:B:391:A:O2'	10:B:410:G:OP1	2.03	0.77
10:B:1061:U:H1'	10:B:1070:A:H1'	1.67	0.77
10:B:2746:U:N3	10:B:2756:U:O4	2.18	0.77
11:C:257:ARG:HH21	11:C:259:ASN:HB2	1.49	0.77
8:7:1:MET:N	10:B:1046:A:O2'	2.16	0.77
10:B:195:A:H61	10:B:198:C:H3'	1.50	0.77
10:B:1383:A:H2'	10:B:1384:A:C8	2.19	0.77
10:B:1487:U:O4	10:B:1502:A:N6	2.14	0.77
10:B:2656:U:OP2	10:B:2664:G:N1	2.13	0.77
12:D:151:THR:HB	12:D:152:PRO:HD2	1.66	0.77
10:B:16:C:H2'	10:B:17:G:H8	1.49	0.77
10:B:769:U:H2'	10:B:770:G:H8	1.50	0.77
10:B:1971:U:O2'	11:C:238:ASN:OD1	2.03	0.77
10:B:2330:G:N2	31:W:38:ARG:O	2.18	0.77
14:F:125:GLY:HA3	14:F:159:ALA:HB3	1.65	0.77
10:B:580:U:H2'	10:B:581:C:H6	1.50	0.76
10:B:1040:A:N6	10:B:1115:G:O6	2.15	0.76
10:B:1340:U:H4'	10:B:1394:U:H1'	1.67	0.76
10:B:1403:A:O3'	10:B:1471:G:O2'	2.02	0.76
10:B:1450:G:N1	10:B:1461:C:N3	2.33	0.76
10:B:1639:C:H2'	10:B:1640:A:H5''	1.65	0.76
10:B:1666:G:N2	10:B:1994:C:N3	2.28	0.76
10:B:2489:U:O2'	10:B:2518:A:N6	2.18	0.76
13:E:3:LEU:O	13:E:12:LEU:N	2.18	0.76
19:K:29:ARG:NH2	19:K:36:ASP:OD2	2.18	0.76
31:W:48:ALA:HB3	31:W:81:ILE:HD11	1.66	0.76
10:B:494:G:H4'	27:S:6:LYS:H	1.51	0.76
10:B:1181:U:H2'	10:B:1182:G:H8	1.50	0.76
10:B:1515:A:H2'	10:B:1516:G:O4'	1.84	0.76
10:B:1722:A:H2'	10:B:1723:G:H8	1.50	0.76
10:B:2032:G:H21	12:D:150:GLN:CB	1.95	0.76
10:B:2102:G:N1	10:B:2187:U:O2	2.15	0.76
10:B:2553:G:C2	10:B:2583:G:H1'	2.19	0.76
10:B:2692:G:N3	10:B:2847:U:O2'	2.19	0.76
13:E:19:PHE:HB3	13:E:113:VAL:HG11	1.65	0.76
6:5:103:GLN:HB3	6:5:108:GLU:HB2	1.65	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1392:A:N6	10:B:1393:A:N1	2.32	0.76
10:B:1619:G:H2'	10:B:1620:G:H8	1.51	0.76
10:B:2079:U:O2	10:B:2242:G:N2	2.17	0.76
10:B:2541:A:O2'	10:B:2765:A:N1	2.18	0.76
17:I:20:SER:HA	17:I:24:GLY:HA3	1.68	0.76
19:K:91:GLU:HB2	19:K:110:LYS:NZ	1.99	0.76
24:P:88:ARG:NH2	24:P:114:ASN:HD22	1.82	0.76
10:B:122:G:H1	10:B:129:C:H42	1.33	0.76
19:K:92:GLN:HG3	19:K:110:LYS:HZ3	1.50	0.76
26:R:6:GLN:HG3	26:R:11:GLN:HE22	1.50	0.76
10:B:855:G:N2	10:B:922:C:O2	2.15	0.76
10:B:1721:G:N2	10:B:1738:G:O2'	2.18	0.76
10:B:1927:A:H2'	10:B:1928:A:C8	2.20	0.76
25:Q:101:ASP:O	25:Q:104:ALA:N	2.15	0.76
31:W:19:ARG:HH12	31:W:22:VAL:HG12	1.51	0.76
6:5:38:PHE:O	6:5:39:VAL:HB	1.85	0.76
8:7:61:ARG:NH2	10:B:1047:G:O2'	2.19	0.76
10:B:652:U:H3'	10:B:653:U:O2	1.85	0.76
10:B:863:A:OP2	21:M:18:ARG:NH1	2.19	0.76
10:B:2230:G:N3	32:X:31:ASN:ND2	2.34	0.76
10:B:2282:G:N2	10:B:2390:U:O2	2.13	0.76
10:B:2647:U:O2	10:B:2673:G:N1	2.16	0.76
30:V:80:HIS:CD2	30:V:82:TYR:H	2.03	0.76
5:4:34:LYS:HD3	5:4:36:ARG:HH22	1.51	0.76
6:5:44:VAL:HA	6:5:214:ILE:HA	1.67	0.76
10:B:617:G:OP1	13:E:102:ARG:NH1	2.18	0.76
10:B:1215:G:H2'	10:B:1216:G:H8	1.49	0.76
10:B:1499:C:H2'	10:B:1500:G:H8	1.50	0.76
11:C:209:ALA:HA	11:C:212:TRP:HD1	1.51	0.76
10:B:2897:U:H2'	10:B:2898:U:H6	1.51	0.76
17:I:91:LYS:O	17:I:95:ASP:N	2.18	0.76
7:6:84:LEU:HD11	7:6:89:GLU:HB2	1.67	0.76
10:B:821:A:H2'	10:B:946:C:H6	1.51	0.76
6:5:212:VAL:HG11	6:5:227:ALA:HB3	1.68	0.76
7:6:24:MET:CE	7:6:24:MET:HA	2.16	0.76
8:7:34:THR:HG21	10:B:1057:A:H1'	1.67	0.76
9:A:112:G:N2	23:O:45:SER:O	2.19	0.76
10:B:280:U:O4	10:B:360:U:N3	2.17	0.76
10:B:706:A:N6	10:B:725:G:O2'	2.18	0.76
10:B:1869:G:N2	10:B:1872:A:OP2	2.19	0.76
16:H:29:PHE:CE1	16:H:33:GLN:CD	2.60	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:573:U:OP2	26:R:80:ARG:NH2	2.19	0.75
10:B:1952:A:N6	10:B:1953:A:N1	2.33	0.75
10:B:2510:C:O2	10:B:2578:G:N2	2.19	0.75
16:H:26:ALA:O	16:H:28:ASN:N	2.19	0.75
23:O:67:ASN:OD1	23:O:68:LYS:N	2.20	0.75
6:5:134:ARG:HH21	6:5:136:LEU:HD23	1.50	0.75
9:A:43:C:O2'	14:F:90:LEU:O	2.03	0.75
10:B:17:G:N2	10:B:555:G:OP1	2.18	0.75
10:B:644:A:H61	10:B:2349:G:H21	1.32	0.75
10:B:658:U:O3'	13:E:95:LYS:NZ	2.20	0.75
10:B:1439:A:H62	10:B:1552:A:H8	1.30	0.75
10:B:2139:U:H2'	10:B:2152:G:H1	1.51	0.75
10:B:2809:A:H2'	10:B:2810:A:H8	1.51	0.75
7:6:4:ARG:NH1	7:6:113:GLN:HE21	1.84	0.75
10:B:1050:A:H2'	10:B:1051:G:H8	1.51	0.75
10:B:1477:A:N1	10:B:1557:C:O2'	2.19	0.75
10:B:1667:G:O2'	10:B:1991:U:O4	2.04	0.75
10:B:1688:U:H2'	10:B:1698:A:N1	2.02	0.75
10:B:2328:A:H2'	10:B:2329:U:C6	2.21	0.75
1:0:4:GLN:NE2	10:B:2056:G:O2'	2.19	0.75
8:7:56:ARG:NH1	10:B:1084:A:N7	2.34	0.75
10:B:305:C:N4	10:B:312:G:O6	2.18	0.75
10:B:451:U:O2	10:B:453:A:N6	2.20	0.75
10:B:1492:G:N2	10:B:1498:C:N3	2.30	0.75
10:B:1902:C:O2'	11:C:240:GLY:O	2.03	0.75
16:H:68:ARG:HD2	16:H:132:PHE:HE1	1.40	0.75
24:P:90:ALA:HB3	24:P:110:LYS:H	1.50	0.75
10:B:11:C:N4	10:B:2629:U:H3	1.84	0.75
10:B:155:A:N6	10:B:171:U:O4	2.18	0.75
10:B:978:G:H2'	10:B:979:A:H8	1.49	0.75
10:B:1822:C:H2'	10:B:1823:G:H8	1.51	0.75
10:B:2636:C:H4'	12:D:81:GLU:OE2	1.86	0.75
7:6:291:VAL:HG23	7:6:292:GLN:H	1.51	0.75
16:H:62:LEU:HD12	16:H:108:VAL:HG23	1.68	0.75
7:6:23:ASP:O	7:6:24:MET:CB	2.34	0.75
7:6:375:GLN:O	7:6:378:ARG:NH2	2.20	0.75
8:7:122:GLN:HG2	8:7:123:ILE:HG13	1.68	0.75
10:B:774:G:N2	10:B:787:C:O2'	2.19	0.75
10:B:998:C:OP2	25:Q:92:LYS:NZ	2.19	0.75
10:B:1308:A:N6	10:B:1606:C:O2	2.20	0.75
10:B:2100:G:N1	10:B:2189:U:O2	2.18	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2134:A:O2'	10:B:2160:C:O2	2.03	0.75
10:B:2332:C:O4'	31:W:40:ARG:NH2	2.20	0.75
10:B:2472:G:H2'	10:B:2475:C:H42	1.52	0.75
11:C:36:ASN:OD1	11:C:37:SER:N	2.17	0.75
4:3:2:LYS:NZ	10:B:242:G:OP2	2.19	0.75
10:B:820:A:H2'	10:B:821:A:H8	1.50	0.75
10:B:1314:C:N4	10:B:1338:G:H1	1.84	0.75
10:B:1650:A:N6	10:B:2007:U:O4	2.13	0.75
10:B:2127:G:N2	10:B:2162:G:O2'	2.20	0.75
9:A:56:G:H4'	9:A:57:A:H5'	1.69	0.74
10:B:29:U:H2'	10:B:30:G:C8	2.20	0.74
11:C:18:VAL:H	11:C:202:ARG:NH2	1.85	0.74
16:H:127:GLU:O	16:H:141:LYS:NZ	2.15	0.74
8:7:39:THR:HG22	8:7:43:LYS:HE3	1.70	0.74
9:A:75:G:H1'	30:V:29:ILE:HD13	1.67	0.74
10:B:1077:A:H5''	17:I:94:LYS:HZ2	1.52	0.74
10:B:1437:C:O2'	10:B:1516:G:O2'	2.03	0.74
10:B:2126:A:H2	10:B:2163:A:H5'	1.52	0.74
10:B:2323:G:N1	10:B:2332:C:N3	2.33	0.74
10:B:2811:G:N2	10:B:2890:G:N3	2.36	0.74
12:D:148:GLN:NE2	12:D:151:THR:HG21	2.01	0.74
16:H:29:PHE:CD1	16:H:33:GLN:HG2	2.23	0.74
16:H:29:PHE:O	16:H:33:GLN:HB3	1.84	0.74
16:H:31:VAL:HG12	32:X:38:TRP:CD1	2.21	0.74
20:L:122:VAL:HG13	20:L:125:LEU:HD12	1.70	0.74
9:A:76:G:OP1	30:V:9:ARG:NH2	2.20	0.74
10:B:1663:G:O6	10:B:1997:C:N4	2.20	0.74
10:B:2530:A:H5'	15:G:174:LYS:NZ	2.00	0.74
10:B:2632:A:H2'	10:B:2633:G:H8	1.52	0.74
14:F:32:LYS:HB2	14:F:90:LEU:HB2	1.69	0.74
10:B:49:A:H4'	10:B:50:U:H5''	1.70	0.74
10:B:240:C:H3'	10:B:241:A:H8	1.52	0.74
10:B:805:G:N2	10:B:2068:U:OP2	2.20	0.74
10:B:1159:U:H2'	10:B:1160:G:H8	1.52	0.74
10:B:2265:U:H3'	10:B:2266:A:H8	1.52	0.74
10:B:2399:G:H2'	10:B:2400:G:H8	1.52	0.74
11:C:250:GLN:H	11:C:254:LYS:NZ	1.85	0.74
21:M:11:LYS:HZ3	21:M:86:LYS:HB3	1.51	0.74
31:W:30:VAL:HA	31:W:60:ALA:O	1.86	0.74
10:B:653:U:OP2	10:B:654:A:N6	2.20	0.74
10:B:875:G:O6	10:B:902:C:N4	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1015:U:H2'	10:B:1016:G:H8	1.50	0.74
10:B:1653:G:O2'	22:N:9:GLN:NE2	2.21	0.74
33:Y:31:GLN:OE1	33:Y:36:GLN:NE2	2.14	0.74
33:Y:56:LEU:O	33:Y:60:LYS:N	2.20	0.74
10:B:652:U:P	10:B:653:U:H3	2.10	0.74
10:B:713:G:N2	10:B:717:C:OP2	2.21	0.74
10:B:971:G:OP2	10:B:974:G:N2	2.21	0.74
10:B:2127:G:N1	10:B:2159:G:N7	2.35	0.74
22:N:14:SER:CA	22:N:17:ARG:HH21	1.99	0.74
6:5:46:VAL:N	6:5:171:ILE:O	2.20	0.74
6:5:71:ARG:NH1	6:5:112:ASP:OD1	2.21	0.74
6:5:133:PRO:O	10:B:2122:U:H5	1.68	0.74
7:6:331:ARG:HH21	7:6:334:GLU:HA	1.51	0.74
10:B:116:C:OP1	10:B:128:C:N4	2.18	0.74
10:B:633:A:O2'	10:B:2404:U:OP1	2.05	0.74
10:B:1131:G:H1	10:B:2024:G:H21	1.35	0.74
10:B:1207:C:H2'	10:B:1208:C:H6	1.52	0.74
10:B:1355:G:OP1	11:C:42:ARG:NH1	2.21	0.74
10:B:1964:G:O2'	10:B:1967:C:OP1	2.04	0.74
11:C:67:LYS:O	11:C:69:ASN:ND2	2.20	0.74
7:6:319:ILE:HG13	7:6:324:ASP:HB3	1.67	0.74
10:B:395:U:O2'	10:B:396:G:N7	2.20	0.74
10:B:1299:G:H21	10:B:1641:A:H62	1.35	0.74
10:B:1472:C:O2	10:B:1519:G:N2	2.21	0.74
10:B:2093:G:H1	10:B:2196:C:H42	1.32	0.74
18:J:77:HIS:HA	18:J:84:ILE:HG13	1.69	0.74
10:B:281:C:H42	10:B:359:G:H1	1.35	0.74
10:B:1352:U:O2	10:B:1380:G:N2	2.20	0.74
10:B:1365:A:H2'	10:B:1366:A:C8	2.23	0.74
10:B:2032:G:C2	12:D:150:GLN:HG2	2.23	0.74
10:B:2041:U:H2'	10:B:2042:A:C8	2.23	0.74
10:B:2128:G:HO2'	10:B:2159:G:H1	1.33	0.74
10:B:2406:A:OP2	10:B:2411:A:N6	2.20	0.74
10:B:141:G:H3'	10:B:141:G:N3	2.03	0.74
10:B:2591:C:H2'	10:B:2592:G:C8	2.23	0.74
13:E:6:LYS:HA	13:E:121:VAL:HA	1.68	0.74
14:F:127:TYR:H	14:F:155:ILE:HG12	1.53	0.74
19:K:92:GLN:N	19:K:110:LYS:HZ3	1.85	0.74
24:P:49:ILE:HG22	24:P:57:ALA:HB3	1.69	0.74
6:5:54:LYS:NZ	6:5:203:GLN:HE22	1.86	0.73
10:B:2885:G:O2'	10:B:2886:A:O4'	2.06	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:K:46:ILE:HG23	19:K:48:ARG:HG3	1.68	0.73
21:M:7:THR:OG1	21:M:9:PHE:O	2.05	0.73
9:A:90:C:O3'	21:M:38:ARG:NH2	2.20	0.73
10:B:571:U:O2'	26:R:80:ARG:NH2	2.21	0.73
10:B:627:A:N6	20:L:112:LEU:O	2.21	0.73
10:B:1660:G:H2'	10:B:1661:G:C8	2.22	0.73
6:5:113:VAL:HA	6:5:162:ARG:HH22	1.52	0.73
10:B:325:G:H1	10:B:337:C:H42	1.36	0.73
10:B:838:C:H2'	10:B:839:U:H6	1.52	0.73
10:B:1824:G:C5'	11:C:51:ARG:HH21	2.01	0.73
10:B:2714:G:H2'	10:B:2715:C:C6	2.23	0.73
11:C:89:ASN:ND2	11:C:196:ASN:OD1	2.21	0.73
31:W:23:LYS:HE3	31:W:67:LYS:HG3	1.69	0.73
6:5:46:VAL:HB	6:5:171:ILE:HB	1.70	0.73
6:5:54:LYS:HZ2	10:B:1860:G:H5''	1.53	0.73
10:B:1804:C:H42	10:B:1813:G:H1	1.35	0.73
10:B:2708:G:H1'	22:N:71:ARG:HH11	1.51	0.73
13:E:145:ASP:HB3	13:E:184:ASP:H	1.53	0.73
17:I:99:LYS:HB3	17:I:138:VAL:HB	1.70	0.73
6:5:9:ARG:NH1	10:B:2151:U:H5''	2.02	0.73
10:B:57:C:H2'	10:B:58:G:C8	2.24	0.73
10:B:1346:G:H2'	10:B:1347:A:H8	1.53	0.73
10:B:2631:G:H2'	10:B:2632:A:H8	1.52	0.73
11:C:2:VAL:HA	11:C:18:VAL:HG22	1.70	0.73
1:0:3:GLN:HG3	10:B:2615:U:H1'	1.70	0.73
10:B:952:G:H1	10:B:965:C:H42	1.35	0.73
10:B:1099:G:H1'	17:I:4:VAL:HB	1.70	0.73
10:B:1629:U:H2'	10:B:1630:A:H8	1.53	0.73
28:T:14:PRO:HA	28:T:32:LEU:HB2	1.71	0.73
7:6:10:GLN:HB3	7:6:42:LEU:HD11	1.69	0.73
10:B:491:G:H2'	10:B:492:A:C8	2.24	0.73
10:B:1250:G:P	20:L:21:ARG:HE	2.11	0.73
10:B:1258:U:O2'	13:E:79:ARG:NH1	2.21	0.73
10:B:2142:A:O2'	10:B:2145:C:N4	2.21	0.73
10:B:2336:A:C5	31:W:40:ARG:NH1	2.57	0.73
18:J:24:THR:HB	18:J:27:ARG:HB2	1.69	0.73
19:K:62:VAL:HB	19:K:102:VAL:HG11	1.69	0.73
24:P:64:SER:HB2	24:P:67:GLU:OE2	1.89	0.73
10:B:188:G:H2'	10:B:189:G:H8	1.53	0.73
10:B:2857:G:N2	10:B:2860:A:OP2	2.22	0.73
14:F:11:VAL:HG12	14:F:12:VAL:HG12	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2265:U:H3'	10:B:2266:A:C8	2.23	0.73
10:B:2273:A:H2'	10:B:2274:A:H8	1.54	0.73
10:B:2308:G:H2'	10:B:2310:C:H41	1.51	0.73
15:G:14:VAL:HG11	15:G:75:VAL:HG13	1.70	0.73
16:H:43:ASN:O	16:H:50:ARG:NH2	2.22	0.73
6:5:40:GLU:HA	6:5:217:THR:HG23	1.71	0.73
10:B:1130:U:C4	12:D:152:PRO:CB	2.63	0.73
10:B:1138:G:C5	10:B:1139:G:H1'	2.24	0.73
25:Q:18:LYS:HA	25:Q:21:LYS:NZ	2.04	0.73
33:Y:11:VAL:HA	33:Y:63:ALA:HA	1.69	0.73
7:6:24:MET:SD	7:6:258:HIS:HE1	2.11	0.72
10:B:131:A:H2'	10:B:132:G:H8	1.54	0.72
10:B:133:U:H2'	10:B:134:G:C8	2.22	0.72
10:B:583:G:H2'	10:B:584:C:C6	2.23	0.72
10:B:851:C:H2'	10:B:852:U:C6	2.23	0.72
10:B:2562:U:H1'	19:K:22:LYS:HZ2	1.54	0.72
26:R:69:GLY:O	26:R:90:ARG:NH1	2.22	0.72
10:B:218:A:N6	10:B:219:A:N1	2.37	0.72
10:B:401:A:H2'	10:B:402:A:C8	2.23	0.72
10:B:572:A:OP2	26:R:80:ARG:NH2	2.22	0.72
10:B:573:U:O2'	10:B:575:A:OP1	2.07	0.72
10:B:2547:A:N6	10:B:2561:U:O4	2.17	0.72
13:E:27:LEU:HD21	13:E:104:ALA:HA	1.70	0.72
15:G:10:VAL:H	15:G:47:ASN:HB2	1.53	0.72
22:N:1:MET:SD	22:N:3:HIS:NE2	2.62	0.72
23:O:7:ARG:HA	23:O:10:ARG:HH21	1.52	0.72
23:O:16:ARG:O	23:O:20:GLU:N	2.18	0.72
7:6:395:GLU:OE2	7:6:401:SER:OG	2.04	0.72
10:B:27:G:H22	10:B:512:G:H2'	1.55	0.72
10:B:76:C:O2	10:B:110:G:N2	2.16	0.72
10:B:748:G:OP1	27:S:88:ARG:NH2	2.21	0.72
11:C:12:ARG:HE	11:C:15:VAL:HG11	1.53	0.72
10:B:652:U:OP2	10:B:654:A:N6	2.22	0.72
10:B:972:A:H3'	10:B:973:A:H2'	1.70	0.72
10:B:2242:G:O6	10:B:2243:U:N3	2.22	0.72
6:5:37:LYS:HZ3	6:5:218:MET:CE	2.03	0.72
10:B:186:G:H2'	10:B:187:G:H8	1.53	0.72
10:B:807:U:OP1	10:B:830:G:N2	2.22	0.72
10:B:1677:A:H2'	10:B:1678:A:C8	2.24	0.72
29:U:89:GLY:HA2	29:U:91:LYS:NZ	2.03	0.72
5:4:1:MET:SD	5:4:36:ARG:NH1	2.63	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:660:C:H2'	10:B:661:A:C8	2.24	0.72
10:B:857:G:N2	10:B:920:A:N1	2.35	0.72
10:B:1999:C:O2	10:B:2687:U:O2'	2.06	0.72
10:B:2292:U:H2'	10:B:2293:G:C8	2.25	0.72
10:B:2569:G:H2'	10:B:2570:G:H8	1.55	0.72
10:B:2573:C:O2'	10:B:2574:G:OP2	2.08	0.72
10:B:2653:U:H3'	10:B:2654:A:C8	2.25	0.72
1:0:37:HIS:ND1	1:0:38:LEU:O	2.22	0.72
7:6:320:ASP:OD1	7:6:321:MET:N	2.23	0.72
10:B:431:U:H2'	10:B:432:A:H8	1.53	0.72
10:B:976:G:H5'	10:B:1156:A:H62	1.54	0.72
10:B:978:G:H2'	10:B:979:A:C8	2.24	0.72
10:B:1276:A:OP2	10:B:1645:G:O2'	2.05	0.72
10:B:1745:A:H2'	10:B:1746:A:C8	2.25	0.72
10:B:2713:U:O2'	10:B:2715:C:OP2	2.06	0.72
12:D:56:LYS:NZ	12:D:59:ARG:NH2	2.29	0.72
29:U:37:GLY:N	29:U:61:GLU:OE2	2.22	0.72
10:B:19:A:H2'	10:B:20:C:H6	1.54	0.72
10:B:401:A:H2'	10:B:402:A:H8	1.54	0.72
10:B:577:G:H2'	10:B:578:G:H8	1.52	0.72
10:B:1971:U:H4'	11:C:238:ASN:HD21	1.54	0.72
10:B:2758:A:H1'	15:G:63:GLN:HE22	1.54	0.72
21:M:34:LYS:NZ	30:V:82:TYR:HA	2.05	0.72
7:6:194:LYS:HZ3	7:6:197:VAL:HG22	1.55	0.72
20:L:78:ARG:N	20:L:81:ASP:OD2	2.23	0.72
7:6:261:HIS:CG	7:6:262:ASP:H	2.08	0.72
10:B:1:G:O6	10:B:2902:C:N4	2.23	0.72
10:B:166:U:O2'	32:X:44:ARG:NH2	2.22	0.72
10:B:514:A:H2'	10:B:515:A:H8	1.55	0.72
10:B:1615:C:O2'	10:B:1616:A:H5'	1.90	0.72
10:B:2291:U:H2'	10:B:2292:U:C6	2.25	0.72
12:D:56:LYS:CE	12:D:59:ARG:HH21	2.02	0.72
17:I:59:THR:HB	17:I:67:THR:HB	1.70	0.72
30:V:9:ARG:HH11	30:V:27:PRO:HB3	1.55	0.72
6:5:172:HIS:NE2	10:B:2177:C:O2'	2.22	0.71
10:B:2453:A:H61	10:B:2500:U:H3	1.38	0.71
10:B:2471:A:O2'	10:B:2472:G:O5'	2.08	0.71
10:B:2631:G:N1	10:B:2787:C:N3	2.37	0.71
14:F:41:GLU:O	14:F:77:LYS:NZ	2.23	0.71
19:K:16:ARG:H	19:K:48:ARG:NH1	1.87	0.71
10:B:252:G:P	20:L:47:ARG:HH21	2.14	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:297:G:O2'	29:U:85:ARG:NE	2.22	0.71
10:B:947:A:H2'	10:B:948:C:C6	2.25	0.71
10:B:1069:A:N6	10:B:1096:A:OP1	2.23	0.71
10:B:1420:A:H62	10:B:2211:A:H3'	1.53	0.71
10:B:2562:U:H1'	19:K:22:LYS:NZ	2.05	0.71
10:B:2794:C:N3	10:B:2802:G:N1	2.34	0.71
13:E:147:LEU:HD13	13:E:183:PHE:HE2	1.54	0.71
7:6:331:ARG:HH12	7:6:359:GLU:CD	1.92	0.71
9:A:16:G:N1	9:A:68:C:N3	2.36	0.71
10:B:1181:U:H2'	10:B:1182:G:C8	2.26	0.71
10:B:1656:C:OP1	12:D:141:ARG:NE	2.24	0.71
10:B:2633:G:H2'	10:B:2634:A:C8	2.26	0.71
26:R:15:SER:N	26:R:18:GLN:OE1	2.24	0.71
27:S:8:ARG:HE	27:S:102:HIS:CE1	2.09	0.71
4:3:53:ASP:OD2	10:B:2359:C:O2'	2.01	0.71
9:A:9:G:P	23:O:25:ARG:HH22	2.13	0.71
10:B:27:G:N2	10:B:512:G:H2'	2.06	0.71
10:B:143:C:H2'	10:B:144:A:H8	1.55	0.71
23:O:7:ARG:HG3	23:O:10:ARG:NH2	2.05	0.71
1:0:15:ARG:HG2	10:B:2046:G:H5'	1.72	0.71
6:5:128:GLY:HA3	10:B:2170:A:H2	1.56	0.71
6:5:133:PRO:O	10:B:2122:U:C4	2.43	0.71
10:B:200:U:H4'	32:X:21:LEU:HB2	1.72	0.71
10:B:1519:G:H2'	10:B:1520:U:H6	1.54	0.71
10:B:1792:G:O6	10:B:1828:G:N2	2.22	0.71
10:B:2531:A:H5''	15:G:175:LYS:NZ	2.04	0.71
10:B:2642:G:H2'	10:B:2643:G:C8	2.25	0.71
12:D:151:THR:C	12:D:153:GLY:H	1.93	0.71
28:T:36:LYS:O	28:T:81:LYS:NZ	2.24	0.71
28:T:38:ALA:HB2	28:T:81:LYS:NZ	2.04	0.71
9:A:15:A:H3'	9:A:16:G:H8	1.56	0.71
10:B:582:A:O3'	25:Q:10:ARG:NH2	2.24	0.71
10:B:1710:G:H2'	10:B:1711:A:H8	1.53	0.71
10:B:2246:G:H2'	10:B:2247:A:C8	2.25	0.71
11:C:162:GLN:H	11:C:174:ARG:HB3	1.54	0.71
21:M:11:LYS:HD3	21:M:86:LYS:HD2	1.73	0.71
10:B:857:G:H2'	10:B:858:G:C8	2.25	0.71
10:B:2333:A:OP2	31:W:76:ARG:NH1	2.23	0.71
15:G:126:THR:HG1	15:G:128:THR:HG1	1.24	0.71
31:W:49:ASN:HB2	31:W:61:LYS:HG2	1.73	0.71
7:6:179:GLU:HB3	7:6:183:LYS:NZ	2.05	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:189:ARG:NH2	7:6:276:GLN:OE1	2.19	0.71
10:B:184:C:O2'	10:B:217:A:N3	2.24	0.71
10:B:445:C:O3'	25:Q:2:ARG:NH1	2.24	0.71
10:B:582:A:H2'	10:B:583:G:C8	2.26	0.71
10:B:1370:C:H2'	10:B:1371:G:C8	2.26	0.71
10:B:1935:G:H2'	10:B:1962:C:H42	1.55	0.71
12:D:7:LYS:NZ	12:D:77:ARG:HH12	1.89	0.71
14:F:2:LYS:HA	14:F:5:ASP:HB2	1.71	0.71
16:H:129:GLU:HB3	16:H:139:PHE:HE2	1.55	0.71
28:T:18:GLU:O	28:T:21:SER:HB2	1.90	0.71
10:B:987:C:H2'	10:B:988:A:H8	1.56	0.71
10:B:1049:C:H1'	10:B:1113:U:H4'	1.73	0.71
10:B:1059:G:H3'	10:B:1060:U:H2'	1.71	0.71
10:B:2320:U:O2'	10:B:2322:A:N7	2.24	0.71
16:H:29:PHE:CD1	16:H:33:GLN:CG	2.74	0.71
25:Q:16:ILE:HG21	25:Q:35:PHE:HD1	1.55	0.71
7:6:10:GLN:HG3	7:6:40:GLU:HG2	1.73	0.71
7:6:390:GLU:N	7:6:403:GLN:O	2.20	0.71
9:A:95:U:H2'	9:A:96:G:H8	1.55	0.71
10:B:1320:C:N4	10:B:1331:G:O6	2.18	0.71
10:B:2723:C:OP1	22:N:3:HIS:ND1	2.23	0.71
15:G:104:LEU:HB2	15:G:112:VAL:HB	1.71	0.71
19:K:60:VAL:HG11	19:K:111:PHE:HE2	1.56	0.71
3:2:33:ARG:HH21	10:B:467:G:P	2.14	0.70
7:6:26:ASP:O	7:6:27:LEU:CB	2.39	0.70
10:B:409:G:H2'	10:B:410:G:C8	2.26	0.70
10:B:2572:A:H2'	12:D:149:ASN:ND2	2.06	0.70
10:B:2589:A:H2'	10:B:2590:A:H8	1.53	0.70
14:F:47:LYS:O	14:F:51:ASN:ND2	2.24	0.70
19:K:92:GLN:HG3	19:K:110:LYS:NZ	2.06	0.70
27:S:69:LEU:HA	27:S:110:ARG:HB2	1.71	0.70
31:W:59:PHE:CE2	31:W:61:LYS:HE3	2.26	0.70
2:1:44:GLN:NE2	2:1:45:HIS:O	2.18	0.70
7:6:331:ARG:NH2	7:6:359:GLU:OE2	2.22	0.70
8:7:38:MET:HA	8:7:41:LEU:HB2	1.73	0.70
8:7:59:LEU:H	8:7:62:ARG:HB2	1.54	0.70
10:B:414:C:H2'	10:B:415:A:H8	1.55	0.70
10:B:1038:G:H2'	10:B:1039:A:C8	2.25	0.70
10:B:1164:C:H2'	10:B:1165:A:H8	1.56	0.70
10:B:1527:G:N3	10:B:1546:G:N2	2.39	0.70
10:B:2701:U:H3	10:B:2707:U:H3	1.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2820:A:N6	12:D:197:THR:O	2.24	0.70
11:C:122:ALA:O	11:C:127:ASN:ND2	2.24	0.70
21:M:132:THR:OG1	21:M:133:LYS:N	2.24	0.70
10:B:296:U:H3	10:B:342:A:H61	1.39	0.70
10:B:451:U:H5'	13:E:47:LYS:NZ	2.05	0.70
10:B:2032:G:N7	10:B:2454:G:O2'	2.25	0.70
11:C:250:GLN:HE21	11:C:252:LYS:H	1.38	0.70
7:6:203:VAL:O	7:6:282:HIS:ND1	2.24	0.70
10:B:19:A:H2'	10:B:20:C:C6	2.27	0.70
10:B:309:A:N6	10:B:330:A:N7	2.39	0.70
10:B:1836:C:N3	10:B:1904:G:N2	2.37	0.70
10:B:1151:A:H4'	25:Q:80:ASN:ND2	2.06	0.70
10:B:1642:G:N2	10:B:1643:G:N3	2.39	0.70
10:B:2207:C:O2	10:B:2217:G:N1	2.19	0.70
10:B:2387:U:O2'	31:W:38:ARG:NE	2.23	0.70
25:Q:50:ARG:HA	25:Q:53:LYS:NZ	2.06	0.70
10:B:238:C:N3	10:B:259:G:N2	2.34	0.70
10:B:629:G:H2'	10:B:630:G:C8	2.26	0.70
10:B:1060:U:OP1	17:I:75:ALA:N	2.25	0.70
10:B:1482:G:O6	10:B:1508:A:N6	2.23	0.70
10:B:1783:A:HO2'	10:B:2607:G:HO2'	1.23	0.70
10:B:2070:A:H2'	10:B:2071:A:H8	1.56	0.70
10:B:2316:G:P	14:F:124:ARG:HH12	2.15	0.70
10:B:2336:A:N7	31:W:40:ARG:NH2	2.39	0.70
27:S:88:ARG:HG3	27:S:94:ASP:OD2	1.91	0.70
8:7:81:LEU:HD11	10:B:1106:G:H21	1.57	0.70
10:B:365:U:H2'	10:B:366:C:C6	2.27	0.70
10:B:371:A:H2	10:B:372:G:H21	1.37	0.70
10:B:487:C:H2'	10:B:488:G:H8	1.55	0.70
10:B:536:G:H21	18:J:47:HIS:CD2	2.10	0.70
10:B:1812:U:H2'	10:B:1813:G:C8	2.27	0.70
10:B:1817:G:OP1	11:C:86:ARG:NH2	2.25	0.70
10:B:2020:A:O3'	25:Q:24:TYR:OH	2.10	0.70
10:B:2283:C:OP2	10:B:2389:G:O2'	2.10	0.70
10:B:2743:U:H4'	15:G:152:ARG:HH22	1.56	0.70
10:B:2811:G:H1	10:B:2889:C:N4	1.88	0.70
23:O:30:ARG:HB2	23:O:102:ARG:HH21	1.56	0.70
2:1:9:LYS:NZ	2:1:52:LYS:HD3	2.07	0.70
8:7:114:GLU:HG2	8:7:122:GLN:HG3	1.72	0.70
10:B:281:C:N3	10:B:359:G:N2	2.39	0.70
10:B:2071:A:H2'	10:B:2072:C:H6	1.57	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2796:U:O2	10:B:2797:U:N3	2.25	0.70
10:B:480:A:OP2	29:U:43:LYS:NZ	2.25	0.70
10:B:669:G:O2'	10:B:670:A:OP1	2.08	0.70
10:B:1742:U:H2'	10:B:1743:G:O4'	1.92	0.70
10:B:2081:U:OP1	32:X:18:SER:OG	2.09	0.70
10:B:2559:C:H2'	10:B:2560:A:C8	2.26	0.70
10:B:307:G:N2	10:B:309:A:H3'	2.06	0.70
10:B:602:A:O2'	10:B:655:A:N6	2.24	0.70
10:B:1387:A:H2'	10:B:1388:G:H8	1.57	0.70
10:B:2355:G:O2'	31:W:16:GLU:OE1	2.09	0.70
11:C:260:LYS:HA	11:C:263:ASP:OD2	1.92	0.70
14:F:105:ILE:HB	14:F:111:ARG:HH21	1.56	0.70
16:H:27:ARG:NH2	32:X:58:ILE:O	2.25	0.70
19:K:89:ASN:OD1	19:K:90:SER:N	2.24	0.70
31:W:17:ALA:HA	31:W:37:VAL:HG11	1.71	0.70
9:A:24:G:O4'	9:A:26:C:N4	2.23	0.69
10:B:61:C:O4'	33:Y:44:LYS:NZ	2.25	0.69
10:B:277:G:H1'	10:B:361:G:N1	2.07	0.69
7:6:364:GLU:OE1	7:6:408:ILE:HD11	1.90	0.69
9:A:24:G:N3	9:A:27:C:N4	2.39	0.69
10:B:649:G:H2'	10:B:650:C:C6	2.27	0.69
10:B:1652:A:O2'	10:B:1653:G:OP1	2.09	0.69
10:B:2818:U:H2'	10:B:2819:G:C8	2.27	0.69
16:H:30:LEU:HA	16:H:35:LYS:HZ3	1.57	0.69
17:I:13:ALA:HA	17:I:53:PRO:HA	1.72	0.69
18:J:110:PRO:HB2	18:J:111:LYS:HZ3	1.57	0.69
25:Q:101:ASP:HB3	25:Q:104:ALA:HB3	1.72	0.69
1:0:51:ARG:HB3	1:0:53:VAL:HG13	1.75	0.69
10:B:579:G:H2'	10:B:580:U:C6	2.28	0.69
10:B:807:U:H2'	10:B:808:G:H8	1.57	0.69
10:B:1767:G:N2	10:B:1985:C:O2	2.24	0.69
10:B:2641:G:H2'	10:B:2642:G:C8	2.27	0.69
10:B:2811:G:H2'	10:B:2812:G:H8	1.57	0.69
14:F:118:ALA:N	14:F:173:ASP:OD2	2.24	0.69
23:O:7:ARG:HA	23:O:10:ARG:HE	1.55	0.69
27:S:66:ILE:O	27:S:68:ASP:N	2.26	0.69
30:V:35:GLU:OE2	30:V:93:ARG:NE	2.25	0.69
7:6:24:MET:SD	7:6:258:HIS:CE1	2.85	0.69
10:B:247:G:H4'	10:B:386:G:C2	2.27	0.69
10:B:2047:C:H2'	10:B:2048:G:C8	2.27	0.69
10:B:2852:G:H5'	22:N:64:ARG:NH2	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:H:31:VAL:HB	16:H:32:PRO:CD	2.21	0.69
20:L:77:ILE:HD11	20:L:110:VAL:HG22	1.74	0.69
22:N:38:LEU:HD11	22:N:42:LYS:HE3	1.73	0.69
7:6:241:VAL:HG12	7:6:243:ASP:H	1.58	0.69
10:B:545:U:O2'	10:B:549:G:OP1	2.10	0.69
10:B:857:G:H1'	31:W:19:ARG:NH2	2.06	0.69
8:7:56:ARG:HD2	10:B:1084:A:C4	2.28	0.69
10:B:456:C:N3	28:T:73:ARG:NH1	2.40	0.69
10:B:658:U:O2	13:E:97:ASN:ND2	2.26	0.69
10:B:690:G:H2'	10:B:691:C:C6	2.28	0.69
10:B:880:G:H1	10:B:897:C:H42	1.41	0.69
10:B:927:A:H2'	10:B:928:A:C8	2.27	0.69
10:B:973:A:O5'	26:R:81:LYS:NZ	2.24	0.69
10:B:1016:G:H1	10:B:1146:C:H42	1.41	0.69
10:B:1608:A:O2'	10:B:1610:A:OP2	2.10	0.69
10:B:2325:G:H22	10:B:2389:G:H1	1.38	0.69
10:B:2454:G:H22	10:B:2499:C:H1'	1.56	0.69
10:B:2735:G:H1	10:B:2769:U:H3	1.41	0.69
10:B:2817:U:O2'	10:B:2836:U:O2	2.08	0.69
13:E:155:GLU:HA	13:E:158:PHE:HD2	1.56	0.69
14:F:96:TRP:O	14:F:100:GLU:N	2.23	0.69
17:I:60:VAL:HA	17:I:65:SER:H	1.57	0.69
23:O:7:ARG:HG3	23:O:10:ARG:HH21	1.57	0.69
31:W:45:HIS:NE2	31:W:48:ALA:O	2.25	0.69
10:B:26:G:N1	10:B:513:A:OP2	2.26	0.69
10:B:1802:A:OP2	10:B:1814:G:N2	2.24	0.69
10:B:2007:U:H2'	10:B:2008:C:H6	1.57	0.69
10:B:2032:G:N2	12:D:150:GLN:HB3	2.07	0.69
10:B:2576:G:O2'	10:B:2579:C:OP2	2.11	0.69
11:C:250:GLN:HE21	11:C:252:LYS:N	1.91	0.69
12:D:55:LYS:HD2	12:D:60:VAL:HG22	1.74	0.69
16:H:30:LEU:CG	16:H:35:LYS:HE2	2.22	0.69
18:J:130:HIS:HB2	18:J:132:HIS:HD2	1.57	0.69
4:3:22:LYS:NZ	10:B:650:C:H4'	2.08	0.69
6:5:104:ILE:HD11	10:B:2170:A:H5''	1.74	0.69
10:B:154:U:H2'	10:B:155:A:H8	1.57	0.69
10:B:783:A:H2'	10:B:784:G:H4'	1.74	0.69
10:B:967:U:H2'	10:B:968:C:C6	2.27	0.69
10:B:1140:C:H1'	10:B:1143:A:C2	2.28	0.69
10:B:1204:A:O2'	10:B:1205:A:OP2	2.10	0.69
10:B:1666:G:H1	10:B:1994:C:N4	1.84	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1753:G:OP2	24:P:108:ARG:NH2	2.24	0.69
10:B:1857:G:H4'	10:B:1858:A:H5'	1.74	0.69
10:B:2047:C:H2'	10:B:2048:G:H8	1.58	0.69
12:D:151:THR:CB	12:D:152:PRO:HD2	2.23	0.69
14:F:126:ASN:HA	14:F:155:ILE:HD11	1.75	0.69
16:H:5:LEU:HD23	16:H:36:ALA:HB2	1.73	0.69
20:L:51:GLU:HG3	20:L:54:GLN:HB3	1.74	0.69
20:L:110:VAL:HB	20:L:127:VAL:HG13	1.73	0.69
20:L:135:ILE:HG23	20:L:136:GLU:HG2	1.73	0.69
34:Z:9:THR:N	34:Z:53:MET:O	2.25	0.69
6:5:37:LYS:HZ3	6:5:218:MET:HE1	1.56	0.69
6:5:166:ASP:HB3	10:B:2120:G:H22	1.57	0.69
10:B:252:G:H5'	20:L:47:ARG:HH21	1.56	0.69
10:B:1176:U:H3'	10:B:1177:G:C8	2.28	0.69
10:B:1724:G:H1	10:B:1737:G:H1'	1.57	0.69
10:B:1729:U:O4	10:B:1731:G:N2	2.26	0.69
12:D:62:LYS:O	12:D:66:GLY:N	2.24	0.69
12:D:151:THR:CG2	12:D:152:PRO:HD2	2.23	0.69
15:G:22:VAL:HB	15:G:33:THR:HG21	1.75	0.69
8:7:40:GLU:HA	8:7:43:LYS:HB2	1.76	0.69
9:A:7:G:O2'	23:O:29:HIS:NE2	2.25	0.69
10:B:543:G:N1	10:B:550:C:N3	2.37	0.69
10:B:564:C:OP2	26:R:79:ARG:NH2	2.26	0.69
10:B:1011:G:OP2	25:Q:69:ARG:NH2	2.26	0.69
10:B:1080:A:H1'	17:I:127:SER:HA	1.74	0.69
10:B:1492:G:H1	10:B:1498:C:N4	1.91	0.69
11:C:24:HIS:ND1	11:C:25:LYS:O	2.25	0.69
14:F:36:ASN:HB3	14:F:152:ASP:HB2	1.75	0.69
18:J:43:GLU:O	18:J:45:THR:N	2.26	0.69
23:O:35:ILE:HG22	23:O:53:THR:HG23	1.74	0.69
7:6:208:ALA:N	35:6:527:GNP:O1B	2.26	0.68
7:6:332:ASP:HB2	7:6:337:PRO:HD2	1.73	0.68
10:B:1:G:N2	10:B:2902:C:O2	2.19	0.68
10:B:1173:U:H2'	10:B:1174:U:C2	2.28	0.68
10:B:1210:G:O2'	10:B:1211:C:N4	2.25	0.68
10:B:1422:G:H2'	10:B:1423:G:H8	1.57	0.68
10:B:2237:G:O2'	10:B:2239:G:N7	2.27	0.68
16:H:68:ARG:HB2	16:H:132:PHE:CB	2.23	0.68
27:S:35:ILE:O	27:S:39:THR:OG1	2.09	0.68
3:2:8:SER:OG	10:B:770:G:OP1	2.12	0.68
9:A:30:C:H1'	9:A:57:A:H61	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:570:G:OP1	10:B:972:A:O2'	2.06	0.68
10:B:693:A:H2'	10:B:694:U:O4'	1.93	0.68
10:B:957:C:C2	10:B:959:A:C8	2.82	0.68
10:B:1612:C:O2	10:B:1619:G:N2	2.15	0.68
10:B:1704:C:H2'	10:B:1705:A:C8	2.28	0.68
15:G:8:VAL:HB	15:G:49:LEU:HD12	1.76	0.68
18:J:37:ARG:O	18:J:51:GLY:N	2.25	0.68
1:O:49:ARG:HB3	10:B:2884:U:H5	1.58	0.68
7:6:153:ARG:HH11	7:6:154:GLY:H	1.42	0.68
10:B:1837:C:H2'	10:B:1899:A:H61	1.59	0.68
10:B:2197:U:H1'	10:B:2198:A:H8	1.58	0.68
10:B:2204:G:O2'	11:C:147:PRO:O	2.10	0.68
22:N:2:ARG:HG3	22:N:5:LYS:HD2	1.75	0.68
33:Y:5:GLU:HA	33:Y:7:ARG:HH21	1.56	0.68
6:5:65:LEU:HD12	6:5:161:VAL:HG21	1.75	0.68
7:6:212:THR:HG21	35:6:527:GNP:H2'	1.76	0.68
7:6:393:TRP:CH2	7:6:403:GLN:HG3	2.28	0.68
10:B:321:U:O2'	10:B:322:A:OP1	2.11	0.68
10:B:1661:G:H1	10:B:1999:C:N4	1.92	0.68
10:B:1730:C:O2'	10:B:1731:G:O5'	2.11	0.68
10:B:2898:U:H2'	10:B:2899:A:C8	2.28	0.68
24:P:61:ARG:NH2	24:P:63:ILE:HD11	2.09	0.68
29:U:5:ARG:HB2	29:U:8:ASP:OD2	1.93	0.68
3:2:3:ARG:NH2	10:B:464:U:P	2.64	0.68
10:B:304:U:O2	10:B:313:G:N1	2.20	0.68
10:B:993:G:OP2	25:Q:50:ARG:NH2	2.27	0.68
24:P:75:THR:HG23	24:P:80:VAL:HG11	1.75	0.68
25:Q:93:ILE:HG23	25:Q:94:LEU:HG	1.75	0.68
6:5:168:ASN:ND2	10:B:2178:C:OP1	2.25	0.68
10:B:1825:U:H2'	10:B:1826:G:C8	2.25	0.68
13:E:1:MET:H1	13:E:19:PHE:HB2	1.57	0.68
25:Q:18:LYS:CA	25:Q:21:LYS:HZ3	2.05	0.68
29:U:85:ARG:HA	29:U:91:LYS:HG2	1.74	0.68
10:B:355:U:HO2'	10:B:356:G:H8	1.40	0.68
10:B:532:A:P	25:Q:40:LYS:HZ1	2.17	0.68
10:B:709:U:H2'	10:B:710:U:C6	2.29	0.68
10:B:1590:A:H2'	10:B:1591:A:C8	2.28	0.68
10:B:2838:G:H1'	22:N:45:ARG:NH1	2.09	0.68
16:H:127:GLU:OE2	16:H:141:LYS:HB3	1.93	0.68
10:B:1417:C:H42	10:B:1581:G:H1	1.41	0.68
10:B:2305:U:C3'	14:F:132:ARG:HH21	2.05	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2314:A:H2'	10:B:2315:G:H8	1.58	0.68
10:B:2824:C:H3'	10:B:2825:G:N2	2.08	0.68
13:E:138:LEU:HD21	13:E:146:VAL:HG11	1.76	0.68
21:M:17:ASN:HD21	21:M:95:LEU:HD11	1.58	0.68
7:6:203:VAL:O	7:6:210:LYS:NZ	2.26	0.68
9:A:52:A:H3'	9:A:53:A:H8	1.57	0.68
10:B:88:G:H2'	10:B:89:A:H8	1.58	0.68
10:B:520:G:OP1	27:S:25:ARG:NH1	2.27	0.68
10:B:674:G:H1	10:B:806:C:H42	1.42	0.68
10:B:1088:A:H61	17:I:134:SER:HB3	1.57	0.68
10:B:1208:C:O2	10:B:1238:G:N1	2.25	0.68
10:B:1252:G:O2'	10:B:1253:A:O5'	2.11	0.68
10:B:1297:C:H2'	10:B:1298:C:H6	1.59	0.68
10:B:2693:G:H2'	10:B:2694:G:H8	1.57	0.68
14:F:98:PHE:HE1	14:F:101:ARG:HH21	1.42	0.68
1:0:10:SER:OG	10:B:17:G:H5'	1.94	0.68
4:3:35:LYS:NZ	4:3:39:ARG:NH2	2.42	0.68
6:5:76:ALA:HB3	6:5:114:VAL:HA	1.75	0.68
7:6:192:ARG:HA	7:6:194:LYS:NZ	2.09	0.68
10:B:178:G:H2'	10:B:179:C:H6	1.57	0.68
10:B:578:G:N2	25:Q:32:ARG:HH21	1.90	0.68
10:B:1047:G:N2	10:B:1110:G:O2'	2.26	0.68
10:B:1229:C:H2'	10:B:1230:A:H8	1.59	0.68
10:B:2075:U:H1'	10:B:2597:G:H21	1.59	0.68
11:C:239:PHE:CE2	11:C:241:LYS:HB2	2.29	0.68
6:5:37:LYS:NZ	6:5:218:MET:CE	2.56	0.67
8:7:153:ARG:NE	8:7:163:GLU:OE2	2.27	0.67
10:B:922:C:H2'	10:B:923:G:C8	2.29	0.67
10:B:1019:U:H3	10:B:1142:A:H62	1.42	0.67
10:B:2258:C:P	31:W:10:ARG:HH12	2.17	0.67
10:B:2634:A:H2'	10:B:2635:A:C8	2.28	0.67
12:D:125:TRP:HE1	12:D:160:LYS:HB2	1.58	0.67
10:B:413:C:N4	10:B:2410:G:H1	1.92	0.67
10:B:526:A:O2'	10:B:2043:C:O2'	2.08	0.67
10:B:1518:C:H2'	10:B:1519:G:C8	2.28	0.67
10:B:1651:G:H1	10:B:2006:C:N4	1.90	0.67
10:B:1736:U:H2'	10:B:1737:G:O4'	1.93	0.67
10:B:2515:C:H2'	10:B:2516:A:H8	1.58	0.67
10:B:2547:A:O2'	10:B:2548:U:O4'	2.11	0.67
13:E:1:MET:N	13:E:19:PHE:HB2	2.09	0.67
15:G:154:GLU:OE2	15:G:159:LYS:HB2	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:I:129:GLU:O	17:I:133:ARG:HG2	1.94	0.67
7:6:370:LEU:HD22	7:6:383:PHE:HZ	1.58	0.67
9:A:28:C:OP2	23:O:34:HIS:ND1	2.27	0.67
10:B:1050:A:H2'	10:B:1051:G:C8	2.28	0.67
10:B:2180:U:H2'	10:B:2181:U:C6	2.29	0.67
10:B:2511:U:H1'	12:D:130:GLN:HE21	1.59	0.67
10:B:2745:C:H4'	15:G:142:GLN:HA	1.75	0.67
10:B:2852:G:OP1	22:N:64:ARG:NH2	2.24	0.67
7:6:24:MET:HE3	7:6:257:ARG:HH22	0.57	0.67
7:6:184:GLN:HE22	10:B:2479:U:H2'	1.59	0.67
7:6:311:PRO:HB2	7:6:360:ARG:HH22	1.60	0.67
10:B:6:A:H2'	10:B:7:G:H8	1.59	0.67
10:B:185:G:N1	10:B:211:C:N3	2.33	0.67
10:B:988:A:OP1	34:Z:11:SER:N	2.27	0.67
10:B:1450:G:H2'	10:B:1451:C:O2	1.95	0.67
17:I:99:LYS:HZ3	17:I:140:GLU:HG3	1.60	0.67
20:L:109:LYS:HZ2	20:L:126:ARG:HB3	1.58	0.67
33:Y:5:GLU:HG2	33:Y:52:ARG:HD3	1.76	0.67
1:O:21:LEU:HD13	27:S:19:LEU:HB3	1.76	0.67
9:A:19:C:H2'	9:A:20:G:C8	2.29	0.67
10:B:449:A:OP1	13:E:80:SER:N	2.27	0.67
10:B:548:G:H4'	10:B:549:G:C4	2.30	0.67
10:B:927:A:H2'	10:B:928:A:H8	1.59	0.67
10:B:1722:A:OP2	10:B:1738:G:N2	2.28	0.67
10:B:1794:A:N6	10:B:1826:G:O6	2.27	0.67
10:B:2401:U:O2'	10:B:2403:C:N4	2.27	0.67
10:B:2871:U:OP1	22:N:69:ARG:NH2	2.26	0.67
14:F:39:VAL:HG22	14:F:84:ILE:HA	1.77	0.67
16:H:55:GLU:HA	16:H:59:ALA:HB2	1.75	0.67
21:M:64:TRP:HB2	21:M:104:GLU:HB2	1.77	0.67
25:Q:96:ASP:O	25:Q:98:ALA:N	2.26	0.67
4:3:46:LYS:HZ3	10:B:630:G:P	2.17	0.67
7:6:236:LEU:HA	7:6:249:LEU:O	1.94	0.67
7:6:336:LYS:O	7:6:360:ARG:NE	2.28	0.67
9:A:8:C:H4'	23:O:25:ARG:HH21	1.59	0.67
10:B:972:A:C6	10:B:973:A:C6	2.83	0.67
10:B:1097:U:H3	17:I:29:GLN:NE2	1.92	0.67
10:B:1569:A:H2'	10:B:1570:A:H8	1.59	0.67
10:B:1911:U:H2'	10:B:1912:A:H5'	1.77	0.67
10:B:2221:G:O3'	16:H:116:ARG:NH1	2.28	0.67
10:B:2456:C:H2'	10:B:2457:U:H6	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2638:G:N7	10:B:2775:G:N1	2.42	0.67
14:F:147:ARG:HH12	14:F:150:GLY:N	1.91	0.67
8:7:37:LYS:O	8:7:41:LEU:N	2.26	0.67
8:7:37:LYS:HE3	10:B:1084:A:N1	2.10	0.67
8:7:40:GLU:O	8:7:44:ALA:N	2.24	0.67
10:B:46:G:O6	10:B:47:C:N4	2.28	0.67
10:B:959:A:H2'	10:B:960:A:C8	2.29	0.67
10:B:1677:A:H2'	10:B:1678:A:H8	1.59	0.67
13:E:126:VAL:HG22	13:E:128:ALA:H	1.59	0.67
23:O:30:ARG:HA	23:O:35:ILE:HG13	1.74	0.67
1:0:43:THR:OG1	1:0:47:TYR:O	2.10	0.67
6:5:164:ARG:NH1	10:B:2122:U:H5'	2.09	0.67
7:6:413:ARG:NH1	15:G:176:LYS:OXT	2.27	0.67
9:A:48:U:C3'	23:O:30:ARG:HH12	2.07	0.67
10:B:238:C:N4	10:B:259:G:H1	1.93	0.67
10:B:311:A:N7	10:B:328:U:N3	2.43	0.67
10:B:669:G:C4	10:B:801:G:C6	2.83	0.67
10:B:1099:G:C1'	17:I:4:VAL:HB	2.25	0.67
10:B:1159:U:H2'	10:B:1160:G:C8	2.29	0.67
10:B:1519:G:H2'	10:B:1520:U:C6	2.29	0.67
10:B:1619:G:H2'	10:B:1620:G:C8	2.30	0.67
10:B:1689:A:OP2	10:B:1698:A:N6	2.25	0.67
10:B:1721:G:O2'	10:B:1722:A:OP2	2.13	0.67
10:B:2294:G:P	23:O:94:ARG:HH21	2.18	0.67
21:M:33:LEU:HG	21:M:117:PHE:CD2	2.30	0.67
1:0:30:ASP:OD2	1:0:43:THR:OG1	2.13	0.67
7:6:137:VAL:HG11	10:B:1942:C:H4'	1.76	0.67
10:B:794:A:H2'	10:B:795:C:H6	1.60	0.67
10:B:1333:G:H2'	10:B:1334:G:H8	1.59	0.67
10:B:1812:U:H2'	10:B:1813:G:H8	1.57	0.67
10:B:2004:G:N2	10:B:2005:A:N3	2.42	0.67
11:C:34:GLU:OE2	11:C:63:ILE:HD12	1.93	0.67
6:5:168:ASN:HB3	6:5:170:ILE:HG22	1.77	0.67
7:6:15:HIS:HD2	7:6:81:ASP:OD2	1.78	0.67
10:B:1077:A:H5''	17:I:94:LYS:NZ	2.10	0.67
10:B:1771:C:H2'	10:B:1772:A:C8	2.30	0.67
10:B:2631:G:H2'	10:B:2632:A:C8	2.30	0.67
10:B:2659:G:N2	10:B:2662:A:OP2	2.28	0.67
10:B:2812:G:N3	10:B:2813:A:H1'	2.10	0.67
15:G:153:PRO:HA	15:G:160:GLY:HA3	1.76	0.67
17:I:24:GLY:O	17:I:28:GLY:N	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:279:LEU:HD11	7:6:360:ARG:NH1	2.04	0.66
10:B:1212:G:O2'	10:B:1235:G:N1	2.28	0.66
10:B:1613:G:N1	10:B:1619:G:N7	2.43	0.66
10:B:2221:G:O2'	16:H:116:ARG:NH2	2.28	0.66
10:B:2787:C:H2'	10:B:2788:C:H6	1.59	0.66
33:Y:25:GLN:HG2	33:Y:29:ARG:HH22	1.60	0.66
4:3:30:HIS:CD2	4:3:31:ILE:H	2.13	0.66
10:B:309:A:H5''	29:U:15:GLY:HA3	1.77	0.66
10:B:1927:A:H2'	10:B:1928:A:H8	1.60	0.66
25:Q:18:LYS:HG3	25:Q:21:LYS:NZ	2.10	0.66
28:T:39:THR:O	28:T:41:ALA:N	2.27	0.66
32:X:35:HIS:ND1	32:X:36:ARG:O	2.29	0.66
5:4:19:ARG:HH21	10:B:2755:C:H3'	1.59	0.66
7:6:49:ARG:NH2	10:B:1910:G:O6	2.27	0.66
7:6:128:GLN:HE21	7:6:132:LEU:HD11	1.60	0.66
10:B:161:A:O2'	10:B:2207:C:O2'	2.14	0.66
10:B:227:A:C2	10:B:2407:A:H1'	2.30	0.66
10:B:672:C:H2'	10:B:673:C:H6	1.61	0.66
10:B:864:G:H2'	10:B:865:C:H6	1.60	0.66
10:B:2118:U:H5''	10:B:2119:A:H3'	1.76	0.66
10:B:2452:C:H2'	10:B:2453:A:C8	2.30	0.66
16:H:68:ARG:CB	16:H:132:PHE:CD1	2.76	0.66
6:5:96:GLY:HA2	6:5:99:ASP:OD2	1.95	0.66
10:B:61:C:OP1	33:Y:44:LYS:NZ	2.27	0.66
10:B:212:G:H2'	10:B:213:A:H8	1.59	0.66
10:B:743:A:H2'	10:B:744:U:H6	1.61	0.66
10:B:1746:A:H2'	10:B:1747:U:C6	2.31	0.66
10:B:1795:C:H42	10:B:1824:G:H1	1.43	0.66
10:B:2107:G:O2'	10:B:2108:A:O4'	2.12	0.66
10:B:2327:A:H2'	10:B:2328:A:C8	2.30	0.66
10:B:2812:G:N2	10:B:2813:A:N3	2.43	0.66
16:H:78:VAL:HB	16:H:112:LYS:HE3	1.78	0.66
29:U:23:LYS:NZ	29:U:25:LYS:HA	2.09	0.66
8:7:57:ASN:O	8:7:62:ARG:NE	2.29	0.66
10:B:704:G:HO2'	10:B:705:A:H8	1.43	0.66
10:B:912:C:P	21:M:8:LYS:HZ3	2.18	0.66
10:B:2071:A:H2'	10:B:2072:C:C6	2.31	0.66
10:B:2316:G:H5'	14:F:124:ARG:NH1	2.10	0.66
10:B:2513:A:O3'	12:D:159:LYS:NZ	2.28	0.66
12:D:151:THR:O	12:D:153:GLY:N	2.29	0.66
22:N:90:ARG:NE	22:N:117:ASP:OD2	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:4:ARG:NH1	7:6:6:ASP:HA	2.10	0.66
10:B:185:G:N2	10:B:211:C:O2	2.20	0.66
10:B:578:G:H21	25:Q:32:ARG:HE	1.44	0.66
10:B:1949:G:H2'	10:B:1950:G:C8	2.30	0.66
10:B:2180:U:H2'	10:B:2181:U:H6	1.59	0.66
22:N:31:HIS:O	22:N:33:ILE:N	2.26	0.66
10:B:954:G:H5''	21:M:13:HIS:HB3	1.76	0.66
10:B:2206:C:H2'	10:B:2207:C:H6	1.59	0.66
10:B:2560:A:H2'	10:B:2561:U:H6	1.60	0.66
14:F:13:LYS:H	14:F:15:LEU:H	1.42	0.66
19:K:60:VAL:HG13	19:K:86:LEU:HD11	1.78	0.66
27:S:59:GLU:HA	27:S:64:ALA:HA	1.78	0.66
10:B:305:C:O2	10:B:312:G:N2	2.29	0.66
10:B:673:C:OP1	13:E:49:ARG:NH1	2.28	0.66
10:B:1162:G:H2'	10:B:1163:G:H8	1.60	0.66
10:B:1501:G:P	11:C:100:ARG:HH22	2.18	0.66
1:0:21:LEU:HD11	27:S:41:LYS:HZ2	1.61	0.66
6:5:25:GLU:HG3	6:5:29:LEU:HD12	1.78	0.66
10:B:1199:U:H2'	10:B:1200:C:C6	2.31	0.66
10:B:1461:C:H2'	10:B:1462:C:H6	1.59	0.66
10:B:1836:C:H42	10:B:1904:G:H1	1.43	0.66
18:J:11:VAL:HG21	18:J:13:ARG:HH21	1.61	0.66
18:J:60:ASP:N	18:J:60:ASP:OD1	2.26	0.66
25:Q:108:LEU:HD13	26:R:48:LYS:HD2	1.76	0.66
4:3:51:LYS:HG2	4:3:54:LEU:HD13	1.77	0.66
7:6:231:THR:OG1	35:6:527:GNP:O3G	2.09	0.66
7:6:280:LEU:HB2	7:6:312:THR:HG22	1.78	0.66
10:B:242:G:N2	10:B:255:A:OP2	2.29	0.66
10:B:536:G:H4'	25:Q:56:PHE:CZ	2.31	0.66
10:B:735:A:H2'	10:B:736:C:O4'	1.96	0.66
10:B:864:G:H2'	10:B:865:C:C6	2.31	0.66
10:B:1006:C:OP1	18:J:39:LYS:NZ	2.24	0.66
10:B:2653:U:O5'	10:B:2654:A:H2'	1.96	0.66
10:B:2676:C:H2'	10:B:2677:G:H8	1.61	0.66
12:D:32:ASN:OD1	12:D:52:THR:OG1	2.13	0.66
14:F:160:LYS:N	14:F:164:GLU:OE1	2.28	0.66
18:J:113:PRO:HA	18:J:116:ARG:NH1	2.11	0.66
27:S:83:LYS:HD3	27:S:95:ARG:HD2	1.78	0.66
2:1:9:LYS:HZ2	2:1:52:LYS:HD3	1.60	0.65
10:B:977:G:H2'	10:B:978:G:H8	1.61	0.65
10:B:1140:C:P	18:J:68:LYS:HZ3	2.20	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1684:G:H2'	10:B:1685:C:C6	2.31	0.65
10:B:1889:A:N3	10:B:2086:U:O2'	2.26	0.65
10:B:1904:G:O2'	10:B:1927:A:N1	2.26	0.65
10:B:2201:G:N2	10:B:2223:G:H1'	2.11	0.65
10:B:2317:A:H3'	10:B:2318:G:H8	1.61	0.65
10:B:2330:G:H1'	31:W:39:GLN:HE21	1.61	0.65
10:B:2575:C:H5'	12:D:149:ASN:HB2	1.76	0.65
15:G:123:GLU:HG2	15:G:131:VAL:HB	1.78	0.65
18:J:105:VAL:HG12	18:J:109:LEU:HG	1.78	0.65
6:5:177:LYS:HE3	6:5:179:ASP:HB2	1.78	0.65
10:B:518:G:P	27:S:18:ARG:HH12	2.18	0.65
10:B:809:G:H2'	10:B:810:U:C6	2.31	0.65
10:B:2284:A:N6	10:B:2383:G:O6	2.28	0.65
10:B:2602:A:H4'	10:B:2603:G:H5''	1.79	0.65
10:B:2706:A:O2'	22:N:64:ARG:NH1	2.28	0.65
10:B:2840:C:H2'	10:B:2841:C:C6	2.31	0.65
11:C:87:SER:O	11:C:196:ASN:ND2	2.27	0.65
30:V:50:MET:HA	30:V:53:LYS:HE2	1.78	0.65
33:Y:13:GLU:HB3	33:Y:63:ALA:HB2	1.79	0.65
4:3:7:ARG:NH1	10:B:243:U:OP1	2.30	0.65
4:3:7:ARG:NH2	10:B:244:A:OP2	2.28	0.65
5:4:4:ARG:HH12	10:B:2477:U:H6	1.44	0.65
7:6:227:GLN:N	7:6:227:GLN:OE1	2.30	0.65
10:B:297:G:H2'	29:U:85:ARG:HH21	1.61	0.65
10:B:577:G:H2'	10:B:578:G:C8	2.30	0.65
10:B:582:A:H5'	25:Q:10:ARG:HH12	1.62	0.65
10:B:1097:U:H3	17:I:29:GLN:HE22	1.44	0.65
10:B:1245:G:H2'	10:B:1246:A:H8	1.62	0.65
10:B:1954:G:H21	10:B:2551:C:H5''	1.59	0.65
10:B:1983:G:H2'	10:B:1984:G:C8	2.31	0.65
10:B:2278:A:C2	10:B:2279:G:H1'	2.32	0.65
11:C:174:ARG:HE	11:C:180:MET:HG2	1.62	0.65
7:6:322:LEU:HD23	7:6:324:ASP:HB2	1.77	0.65
7:6:375:GLN:HG3	7:6:378:ARG:NH2	2.11	0.65
10:B:147:C:H2'	10:B:148:U:C6	2.30	0.65
10:B:281:C:N4	10:B:359:G:H1	1.94	0.65
10:B:796:C:H2'	10:B:797:G:H8	1.60	0.65
10:B:880:G:O2'	10:B:881:G:OP1	2.11	0.65
10:B:1402:U:O2'	10:B:1470:A:N1	2.25	0.65
16:H:51:ARG:HA	16:H:54:LEU:HB3	1.77	0.65
22:N:14:SER:HA	22:N:17:ARG:NH2	2.09	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Y:5:GLU:HA	33:Y:7:ARG:NH2	2.12	0.65
4:3:51:LYS:HZ3	4:3:54:LEU:CD1	2.10	0.65
6:5:114:VAL:HG21	6:5:136:LEU:O	1.95	0.65
7:6:43:GLN:HE22	7:6:69:ALA:HB1	1.62	0.65
10:B:228:C:N4	10:B:2407:A:N3	2.44	0.65
10:B:1287:A:O4'	22:N:103:ARG:NH2	2.30	0.65
10:B:1310:G:H2'	10:B:1311:G:C4	2.31	0.65
10:B:1765:U:H2'	10:B:1766:G:C8	2.32	0.65
10:B:1851:U:H2'	10:B:1852:U:C6	2.31	0.65
10:B:2722:G:O2'	22:N:3:HIS:O	2.08	0.65
10:B:2843:G:H2'	10:B:2844:G:H8	1.61	0.65
11:C:153:LEU:HD13	11:C:175:LEU:HD21	1.78	0.65
33:Y:44:LYS:HA	33:Y:47:ARG:HD3	1.77	0.65
10:B:29:U:H2'	10:B:30:G:H8	1.59	0.65
10:B:406:G:H2'	10:B:407:G:H8	1.60	0.65
10:B:941:A:H3'	10:B:942:G:H8	1.62	0.65
10:B:1373:A:HO2'	10:B:2212:A:H2	1.40	0.65
10:B:1405:U:H2'	10:B:1406:U:C6	2.31	0.65
10:B:2719:G:H21	10:B:2872:A:H61	1.45	0.65
11:C:125:PRO:HA	11:C:191:LEU:HB2	1.79	0.65
11:C:211:ARG:HH21	11:C:217:PRO:HG3	1.60	0.65
12:D:33:ARG:NH1	12:D:71:ALA:O	2.29	0.65
16:H:68:ARG:CB	16:H:132:PHE:CD2	2.79	0.65
17:I:74:PRO:HA	17:I:112:LYS:NZ	2.06	0.65
19:K:63:ARG:HH12	19:K:100:GLY:C	2.00	0.65
23:O:35:ILE:N	23:O:53:THR:OG1	2.22	0.65
32:X:39:VAL:HG23	32:X:43:LYS:H	1.62	0.65
3:2:39:ARG:NH2	10:B:468:G:N7	2.45	0.65
10:B:32:C:N4	10:B:33:C:H41	1.95	0.65
10:B:672:C:H2'	10:B:673:C:C6	2.31	0.65
10:B:932:U:H4'	10:B:933:A:C5	2.31	0.65
10:B:1977:A:H2'	10:B:1978:A:O4'	1.96	0.65
10:B:2271:G:C5	10:B:2272:U:H5	2.13	0.65
10:B:2788:C:H2'	10:B:2789:C:C5	2.31	0.65
11:C:173:LEU:HD12	11:C:183:VAL:HG11	1.79	0.65
12:D:55:LYS:HB3	12:D:59:ARG:HB3	1.77	0.65
15:G:148:ARG:NH1	15:G:152:ARG:HA	2.12	0.65
19:K:18:VAL:HG12	19:K:42:ILE:HA	1.77	0.65
7:6:275:ARG:HG2	7:6:275:ARG:HH11	1.61	0.65
7:6:393:TRP:NE1	7:6:401:SER:HB2	2.11	0.65
9:A:95:U:H2'	9:A:96:G:C8	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:732:C:H2'	10:B:733:G:C8	2.31	0.65
10:B:738:G:H2'	10:B:739:A:C8	2.31	0.65
10:B:823:C:N4	10:B:824:U:O4	2.30	0.65
10:B:952:G:N2	10:B:965:C:N3	2.40	0.65
10:B:1386:C:O2'	10:B:1469:A:N3	2.27	0.65
10:B:1667:G:OP1	19:K:6:MET:N	2.22	0.65
10:B:1763:G:H21	10:B:1765:U:H5''	1.61	0.65
10:B:2041:U:H2'	10:B:2042:A:H8	1.59	0.65
10:B:2231:U:H2'	10:B:2232:C:H6	1.62	0.65
10:B:2699:C:H2'	10:B:2700:A:C8	2.32	0.65
11:C:34:GLU:O	11:C:36:ASN:N	2.29	0.65
24:P:102:ARG:HB2	24:P:105:LYS:HD3	1.78	0.65
32:X:4:CYS:HA	32:X:32:LEU:HD21	1.77	0.65
1:0:8:THR:HG23	1:0:11:LYS:H	1.60	0.65
6:5:103:GLN:O	6:5:108:GLU:N	2.25	0.65
8:7:97:LYS:HD2	8:7:101:LYS:HZ1	1.62	0.65
9:A:5:U:OP1	9:A:61:G:O2'	2.14	0.65
10:B:626:A:C4	20:L:78:ARG:NH2	2.65	0.65
10:B:1047:G:O2'	10:B:1110:G:N1	2.21	0.65
10:B:1772:A:H2'	10:B:1773:A:H4'	1.79	0.65
10:B:1839:G:C4	10:B:1840:G:C8	2.84	0.65
11:C:147:PRO:HB3	11:C:186:ASP:HB3	1.79	0.65
13:E:102:ARG:NH2	13:E:199:MET:O	2.30	0.65
17:I:60:VAL:HB	17:I:64:ARG:HA	1.78	0.65
6:5:65:LEU:O	6:5:159:GLY:HA3	1.97	0.65
9:A:115:A:H2'	9:A:116:G:C8	2.31	0.65
10:B:207:A:H2'	10:B:208:C:O4'	1.97	0.65
10:B:558:U:OP1	18:J:113:PRO:HG2	1.96	0.65
10:B:705:A:C6	10:B:727:A:H1'	2.32	0.65
10:B:980:A:N7	10:B:981:A:C5	2.65	0.65
10:B:1581:G:H2'	10:B:1582:C:C6	2.32	0.65
10:B:1590:A:H2'	10:B:1591:A:H8	1.60	0.65
10:B:2088:A:H61	10:B:2231:U:H3	1.44	0.65
10:B:2094:A:H5'	16:H:25:TYR:CD1	2.31	0.65
10:B:2586:U:H2'	10:B:2587:A:H8	1.62	0.65
12:D:7:LYS:HD3	12:D:77:ARG:HH22	1.62	0.65
12:D:33:ARG:HH22	12:D:72:GLY:C	2.00	0.65
13:E:21:ARG:O	13:E:114:ARG:NH2	2.30	0.65
9:A:115:A:H2'	9:A:116:G:H8	1.61	0.64
10:B:712:G:H22	10:B:719:C:H2'	1.61	0.64
10:B:829:A:N7	10:B:2247:A:O2'	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2085:U:O2	10:B:2235:G:N1	2.30	0.64
10:B:2205:A:H2'	10:B:2206:C:C6	2.31	0.64
10:B:2324:U:O2	10:B:2385:C:N4	2.31	0.64
10:B:2357:G:OP1	31:W:15:SER:OG	2.13	0.64
10:B:2520:C:O2'	10:B:2565:A:O2'	2.16	0.64
10:B:2639:A:C2	10:B:2640:G:H1'	2.33	0.64
11:C:156:SER:H	11:C:159:THR:HG21	1.63	0.64
13:E:121:VAL:O	13:E:190:ALA:N	2.29	0.64
20:L:29:LYS:HZ1	26:R:82:HIS:HB2	1.61	0.64
7:6:24:MET:CE	7:6:257:ARG:NH1	2.60	0.64
8:7:61:ARG:NH2	10:B:1110:G:O6	2.29	0.64
10:B:630:G:N2	10:B:633:A:OP2	2.29	0.64
10:B:1462:C:H2'	10:B:1463:C:H6	1.62	0.64
10:B:1728:C:O2'	10:B:1729:U:N3	2.30	0.64
10:B:2749:A:H5'	15:G:62:ALA:HA	1.80	0.64
10:B:2884:U:N3	10:B:2885:G:N7	2.45	0.64
23:O:24:THR:HG22	23:O:41:ALA:HA	1.77	0.64
23:O:30:ARG:HB2	23:O:102:ARG:NH2	2.11	0.64
33:Y:45:GLN:O	33:Y:49:ASP:N	2.30	0.64
10:B:178:G:H2'	10:B:179:C:C6	2.31	0.64
10:B:1268:A:H2'	10:B:1269:A:O4'	1.97	0.64
10:B:1936:A:OP2	10:B:1961:C:N4	2.28	0.64
10:B:1995:U:O2	19:K:2:GLN:NE2	2.29	0.64
10:B:2571:U:HO2'	12:D:151:THR:HG23	1.62	0.64
11:C:250:GLN:H	11:C:254:LYS:HZ2	1.45	0.64
13:E:108:ILE:O	13:E:111:GLU:HB3	1.97	0.64
15:G:34:ARG:NH2	15:G:138:GLN:OE1	2.30	0.64
17:I:105:LEU:HA	17:I:108:ILE:HD12	1.79	0.64
24:P:91:VAL:HG11	24:P:96:LEU:HD21	1.79	0.64
8:7:100:ALA:HA	8:7:103:ASN:HB2	1.79	0.64
10:B:252:G:C5'	20:L:47:ARG:HH21	2.09	0.64
10:B:629:G:N3	10:B:639:U:O2'	2.29	0.64
10:B:685:A:N3	10:B:689:A:N6	2.46	0.64
10:B:715:A:H2'	10:B:716:A:O4'	1.98	0.64
10:B:886:A:O2'	10:B:888:C:OP2	2.15	0.64
10:B:1869:G:N2	10:B:1873:G:N7	2.45	0.64
10:B:1895:C:H2'	10:B:1896:G:H8	1.62	0.64
10:B:1931:U:OP2	10:B:1968:G:N1	2.16	0.64
10:B:2415:G:H2'	10:B:2416:C:C6	2.33	0.64
20:L:77:ILE:HB	20:L:81:ASP:OD2	1.98	0.64
22:N:95:THR:OG1	22:N:96:ARG:N	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:104:GLN:O	23:O:108:ASP:N	2.30	0.64
3:2:33:ARG:NH2	10:B:467:G:OP1	2.29	0.64
9:A:36:C:N4	9:A:49:C:O2	2.31	0.64
10:B:1796:U:H2'	10:B:1797:G:H8	1.63	0.64
10:B:2148:G:H4'	10:B:2164:C:N3	2.12	0.64
10:B:2848:G:O2'	10:B:2867:G:N2	2.29	0.64
11:C:39:SER:HB3	11:C:42:ARG:HB3	1.80	0.64
11:C:130:PRO:HA	11:C:188:ARG:HA	1.80	0.64
21:M:34:LYS:HZ1	30:V:82:TYR:HA	1.62	0.64
25:Q:78:PHE:CE2	25:Q:82:LEU:HD11	2.33	0.64
29:U:32:LYS:HB3	29:U:63:ALA:HB1	1.79	0.64
4:3:12:ARG:NH2	10:B:250:G:OP2	2.29	0.64
6:5:35:THR:HG21	6:5:218:MET:HE3	1.79	0.64
7:6:378:ARG:O	7:6:381:SER:HB3	1.98	0.64
8:7:30:SER:N	8:7:107:GLU:OE2	2.30	0.64
10:B:521:U:O4	10:B:522:A:N6	2.31	0.64
10:B:2036:C:H2'	10:B:2037:A:C8	2.29	0.64
20:L:133:ALA:O	20:L:137:ALA:N	2.23	0.64
7:6:411:TRP:CD1	7:6:425:LEU:HD11	2.33	0.64
9:A:92:C:H2'	9:A:93:C:C6	2.32	0.64
10:B:335:C:OP2	29:U:81:ARG:NH1	2.31	0.64
10:B:390:U:O2'	10:B:391:A:OP2	2.16	0.64
10:B:1094:U:N3	10:B:1097:U:OP2	2.30	0.64
10:B:1459:G:OP1	10:B:1459:G:N2	2.31	0.64
10:B:1701:A:OP1	10:B:1763:G:N1	2.26	0.64
10:B:2072:C:H2'	10:B:2073:C:C6	2.33	0.64
10:B:2682:A:C8	12:D:11:MET:HG2	2.33	0.64
10:B:2748:A:N7	10:B:2753:A:N6	2.46	0.64
11:C:86:ARG:HD3	11:C:88:ALA:HB3	1.79	0.64
12:D:109:VAL:HG11	12:D:193:VAL:HG12	1.79	0.64
14:F:105:ILE:O	14:F:111:ARG:NE	2.31	0.64
15:G:154:GLU:N	15:G:159:LYS:O	2.28	0.64
7:6:411:TRP:CG	7:6:425:LEU:HD11	2.33	0.64
9:A:78:A:N6	9:A:98:G:O2'	2.31	0.64
10:B:83:A:H61	10:B:102:U:P	2.20	0.64
10:B:536:G:H4'	25:Q:56:PHE:HZ	1.62	0.64
10:B:651:G:O2'	10:B:652:U:OP1	2.16	0.64
10:B:1058:U:O2'	17:I:115:ASP:O	2.16	0.64
10:B:2083:G:C2	10:B:2084:C:H1'	2.32	0.64
10:B:2571:U:O2'	12:D:151:THR:CG2	2.41	0.64
10:B:2646:C:N4	10:B:2732:G:O6	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2649:C:H2'	10:B:2650:U:H6	1.62	0.64
17:I:15:GLY:H	17:I:45:THR:HG21	1.62	0.64
9:A:94:A:H2'	9:A:95:U:O4'	1.98	0.64
10:B:201:C:P	32:X:17:ARG:HH12	2.20	0.64
10:B:620:G:N2	10:B:620:G:OP2	2.30	0.64
10:B:1699:G:O2'	10:B:1701:A:OP2	2.15	0.64
10:B:1860:G:N2	10:B:1882:U:O2	2.31	0.64
10:B:2079:U:H2'	10:B:2080:A:H8	1.61	0.64
19:K:70:ARG:NH1	19:K:76:ILE:HD11	2.12	0.64
19:K:92:GLN:HA	19:K:110:LYS:HD3	1.79	0.64
21:M:64:TRP:HZ3	21:M:106:ASP:HB3	1.63	0.64
7:6:177:ARG:HH22	10:B:2462:C:P	2.21	0.64
7:6:330:ASP:OD2	7:6:339:ARG:HB3	1.98	0.64
8:7:71:CYS:O	8:7:75:ALA:N	2.32	0.64
9:A:40:U:N3	9:A:44:G:OP2	2.22	0.64
10:B:36:G:H4'	10:B:451:U:C5	2.33	0.64
10:B:1128:G:O2'	10:B:1129:A:H5''	1.98	0.64
10:B:2087:G:H2'	10:B:2088:A:C8	2.30	0.64
27:S:6:LYS:NZ	27:S:102:HIS:CG	2.66	0.64
9:A:97:C:H2'	9:A:98:G:O4'	1.99	0.63
10:B:346:A:H3'	10:B:347:A:H8	1.63	0.63
10:B:649:G:H2'	10:B:650:C:H6	1.63	0.63
10:B:726:G:O2'	10:B:727:A:O5'	2.15	0.63
10:B:960:A:H61	21:M:82:MET:HE3	1.63	0.63
10:B:1058:U:H2'	10:B:1059:G:C8	2.33	0.63
10:B:1115:G:O2'	10:B:1116:G:OP1	2.17	0.63
10:B:2210:U:N3	10:B:2212:A:N7	2.46	0.63
10:B:2247:A:OP2	10:B:2253:G:N1	2.30	0.63
10:B:2696:U:H2'	10:B:2697:G:C8	2.29	0.63
10:B:2831:G:OP2	12:D:59:ARG:NH2	2.30	0.63
10:B:2839:G:N2	22:N:91:ALA:O	2.25	0.63
26:R:21:ARG:HD3	26:R:93:PHE:CD2	2.33	0.63
7:6:184:GLN:NE2	10:B:2479:U:H2'	2.13	0.63
10:B:1038:G:H2'	10:B:1039:A:H8	1.62	0.63
10:B:1062:G:H1'	10:B:1088:A:H62	1.63	0.63
10:B:2238:G:H8	10:B:2241:A:H61	1.45	0.63
10:B:2256:G:H2'	10:B:2257:U:C6	2.32	0.63
13:E:148:ILE:HA	13:E:187:VAL:HB	1.79	0.63
21:M:42:THR:HG1	21:M:45:GLN:H	1.42	0.63
7:6:177:ARG:NH2	10:B:2462:C:OP1	2.30	0.63
10:B:532:A:H3'	25:Q:27:ARG:NH1	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1599:U:H2'	10:B:1600:C:H6	1.63	0.63
10:B:2119:A:N1	10:B:2168:G:N2	2.46	0.63
10:B:2197:U:O3'	10:B:2198:A:H2'	1.98	0.63
10:B:2389:G:O2'	10:B:2390:U:OP2	2.16	0.63
24:P:75:THR:HA	24:P:80:VAL:HG21	1.79	0.63
25:Q:78:PHE:HE1	25:Q:109:VAL:HG22	1.62	0.63
27:S:6:LYS:HZ1	27:S:102:HIS:CG	2.14	0.63
30:V:51:GLN:HE22	30:V:77:VAL:HG11	1.63	0.63
6:5:48:LEU:HG	6:5:209:ILE:HD12	1.81	0.63
10:B:225:C:N3	10:B:231:A:N6	2.45	0.63
10:B:279:A:N6	10:B:361:G:H1'	2.14	0.63
10:B:374:A:H3'	10:B:375:G:H8	1.64	0.63
10:B:814:C:H42	10:B:1193:G:H1	1.46	0.63
10:B:912:C:H2'	10:B:913:U:C6	2.33	0.63
10:B:993:G:OP1	25:Q:50:ARG:NH1	2.22	0.63
10:B:1115:G:H2'	10:B:1116:G:H8	1.63	0.63
10:B:2641:G:H2'	10:B:2642:G:H8	1.63	0.63
11:C:66:PHE:CE2	11:C:155:ARG:NH1	2.65	0.63
6:5:113:VAL:CB	6:5:162:ARG:HH12	2.11	0.63
7:6:198:PRO:HG2	7:6:247:THR:HA	1.78	0.63
10:B:108:G:H2'	10:B:109:C:C6	2.34	0.63
10:B:230:G:H2'	10:B:231:A:H8	1.63	0.63
10:B:487:C:H2'	10:B:488:G:C8	2.33	0.63
10:B:854:C:H42	10:B:923:G:H1	1.47	0.63
10:B:1071:G:C8	17:I:3:LYS:NZ	2.66	0.63
10:B:1668:A:O2'	10:B:1674:G:N7	2.27	0.63
10:B:1669:A:O2'	10:B:2549:G:OP1	2.16	0.63
10:B:1858:A:H2'	10:B:1859:U:O4'	1.99	0.63
10:B:1996:C:H5'	19:K:30:ARG:NH1	2.13	0.63
10:B:2273:A:H2'	10:B:2274:A:C8	2.33	0.63
10:B:2458:G:O2'	10:B:2460:U:O4	2.16	0.63
10:B:2514:U:H4'	12:D:156:PHE:HE2	1.63	0.63
10:B:2636:C:N3	10:B:2782:G:N2	2.46	0.63
10:B:2662:A:H3'	10:B:2663:G:H8	1.63	0.63
10:B:2725:A:N6	10:B:2727:A:N3	2.47	0.63
12:D:96:ILE:HD12	12:D:100:LEU:HD21	1.79	0.63
12:D:101:PHE:HA	12:D:104:VAL:HG13	1.79	0.63
23:O:7:ARG:CB	23:O:10:ARG:HH21	2.12	0.63
25:Q:89:ILE:HG22	25:Q:91:ARG:N	2.11	0.63
32:X:4:CYS:O	32:X:6:VAL:N	2.30	0.63
8:7:31:ARG:N	8:7:107:GLU:OE2	2.30	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:107:G:H21	10:B:346:A:N6	1.96	0.63
10:B:154:U:H2'	10:B:155:A:C8	2.32	0.63
10:B:659:G:P	13:E:95:LYS:NZ	2.72	0.63
10:B:1098:A:H2'	17:I:5:GLN:HA	1.81	0.63
10:B:1341:G:C4	28:T:84:TYR:HD2	2.16	0.63
10:B:1387:A:H2'	10:B:1388:G:C8	2.33	0.63
10:B:2018:G:H2'	10:B:2019:A:C8	2.33	0.63
17:I:27:LEU:HG	17:I:32:VAL:HB	1.79	0.63
23:O:68:LYS:HA	23:O:102:ARG:HG2	1.79	0.63
27:S:6:LYS:HZ1	27:S:102:HIS:CB	2.11	0.63
3:2:21:ARG:NH2	10:B:684:G:OP1	2.31	0.63
7:6:56:TYR:CE1	7:6:91:ASN:HB3	2.33	0.63
10:B:547:A:H8	10:B:548:G:H5'	1.64	0.63
10:B:1796:U:O2'	11:C:253:GLY:N	2.31	0.63
10:B:2249:U:H3	10:B:2253:G:H5'	1.64	0.63
10:B:2495:G:H5''	21:M:81:ARG:HG2	1.78	0.63
10:B:2539:C:H2'	10:B:2540:C:H6	1.64	0.63
11:C:77:VAL:HG22	11:C:93:VAL:HG12	1.80	0.63
11:C:167:ASP:OD2	11:C:172:THR:N	2.32	0.63
14:F:132:ARG:H	14:F:150:GLY:HA2	1.64	0.63
16:H:31:VAL:CB	16:H:32:PRO:HD3	2.28	0.63
23:O:7:ARG:CA	23:O:10:ARG:HH21	2.12	0.63
5:4:11:CYS:SG	5:4:14:CYS:N	2.71	0.63
6:5:37:LYS:HZ1	6:5:218:MET:HE1	1.64	0.63
6:5:50:ILE:HD11	6:5:168:ASN:HA	1.79	0.63
10:B:220:G:H1	10:B:427:U:H2'	1.64	0.63
10:B:519:U:H2'	10:B:520:G:H8	1.63	0.63
10:B:532:A:H5''	25:Q:27:ARG:HH12	1.62	0.63
10:B:1548:A:H2'	10:B:1549:A:C8	2.32	0.63
10:B:1716:U:H2'	10:B:1717:A:H8	1.63	0.63
10:B:2641:G:P	18:J:85:LYS:HZ3	2.21	0.63
10:B:2642:G:H1	10:B:2772:C:H42	1.45	0.63
10:B:2830:C:H3'	12:D:59:ARG:HH22	1.64	0.63
11:C:28:PRO:HB3	11:C:81:GLU:OE2	1.99	0.63
12:D:148:GLN:HE21	12:D:151:THR:HG21	1.63	0.63
7:6:318:LYS:N	7:6:342:LEU:O	2.32	0.63
9:A:28:C:H2'	9:A:29:A:C8	2.34	0.63
10:B:389:G:C8	10:B:2413:G:H4'	2.34	0.63
10:B:588:U:H2'	10:B:589:U:H6	1.63	0.63
10:B:912:C:P	21:M:8:LYS:NZ	2.72	0.63
10:B:1039:A:H2'	10:B:1040:A:O4'	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1070:A:O2'	10:B:1071:G:OP1	2.16	0.63
10:B:1521:G:OP2	10:B:1522:A:O2'	2.16	0.63
13:E:145:ASP:HB3	13:E:183:PHE:HB3	1.81	0.63
25:Q:105:PHE:O	25:Q:109:VAL:HG23	1.99	0.63
28:T:90:GLY:O	28:T:92:ASN:ND2	2.32	0.63
5:4:19:ARG:HE	10:B:2755:C:H2'	1.64	0.62
6:5:215:SER:HG	10:B:2175:C:HO2'	1.42	0.62
8:7:113:PHE:HB3	8:7:126:LEU:HB2	1.80	0.62
9:A:5:U:H2'	9:A:6:G:H8	1.63	0.62
10:B:5:A:H2'	10:B:6:A:H8	1.65	0.62
10:B:172:A:H2'	10:B:173:A:C8	2.27	0.62
10:B:237:C:H2'	10:B:238:C:H6	1.64	0.62
10:B:1009:A:C5'	25:Q:58:GLN:HE21	2.12	0.62
10:B:1019:U:H2'	10:B:1020:A:C8	2.34	0.62
10:B:1149:G:H2'	10:B:1150:C:C6	2.34	0.62
10:B:1889:A:H2'	10:B:1890:A:C8	2.34	0.62
10:B:2564:A:OP1	10:B:2648:G:O2'	2.16	0.62
20:L:29:LYS:NZ	26:R:82:HIS:HB2	2.13	0.62
26:R:10:LYS:HE2	26:R:23:GLU:HG2	1.79	0.62
29:U:20:LYS:HD3	29:U:38:ILE:HD11	1.79	0.62
2:1:5:ARG:NH2	2:1:24:LYS:HA	2.14	0.62
4:3:51:LYS:HZ3	4:3:54:LEU:HD13	1.64	0.62
10:B:298:G:N1	10:B:339:U:OP2	2.29	0.62
10:B:856:G:H2'	10:B:857:G:C8	2.34	0.62
10:B:1406:U:H2'	10:B:1407:G:H8	1.64	0.62
10:B:1796:U:H2'	10:B:1797:G:C8	2.33	0.62
10:B:2023:C:H2'	10:B:2024:G:H8	1.64	0.62
10:B:2369:A:H2'	10:B:2370:G:C8	2.33	0.62
23:O:7:ARG:HD2	23:O:97:PHE:CZ	2.34	0.62
25:Q:18:LYS:O	25:Q:21:LYS:HD3	1.99	0.62
10:B:247:G:HO2'	10:B:386:G:H1	1.47	0.62
10:B:1223:G:N1	10:B:1226:A:OP2	2.28	0.62
10:B:1354:A:OP1	11:C:35:LYS:NZ	2.32	0.62
10:B:1969:A:O2'	10:B:1972:G:H1'	2.00	0.62
10:B:2197:U:H3'	16:H:134:VAL:HG21	1.81	0.62
10:B:2230:G:O2'	32:X:30:PRO:O	2.16	0.62
14:F:1:ALA:O	14:F:5:ASP:N	2.32	0.62
14:F:43:ILE:HA	14:F:77:LYS:HZ1	1.64	0.62
22:N:28:LEU:HD13	22:N:34:ILE:HG12	1.81	0.62
26:R:1:MET:HB3	26:R:101:ILE:HD12	1.80	0.62
29:U:73:ASN:OD1	29:U:80:ASP:N	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:V:32:GLY:N	30:V:35:GLU:OE2	2.29	0.62
30:V:80:HIS:HD2	30:V:83:LYS:N	1.97	0.62
2:1:11:VAL:HG23	2:1:49:LYS:HG3	1.81	0.62
7:6:110:ILE:HG23	7:6:229:PHE:HE2	1.64	0.62
8:7:115:GLY:HA3	8:7:119:PRO:HG2	1.80	0.62
10:B:9:G:N2	10:B:11:C:H42	1.96	0.62
10:B:123:G:N2	10:B:124:G:N3	2.46	0.62
10:B:293:U:H3	10:B:347:A:H61	1.46	0.62
10:B:514:A:H2'	10:B:515:A:C8	2.32	0.62
10:B:1447:C:H2'	10:B:1448:G:C8	2.35	0.62
10:B:1786:A:O2'	10:B:1787:A:O5'	2.12	0.62
10:B:2208:C:H2'	10:B:2209:G:C8	2.32	0.62
10:B:2544:G:C2	10:B:2545:G:C4	2.88	0.62
10:B:2864:G:OP1	24:P:112:ARG:HA	1.99	0.62
12:D:33:ARG:NH2	12:D:72:GLY:C	2.53	0.62
12:D:34:VAL:HA	12:D:50:VAL:HG12	1.81	0.62
15:G:17:LYS:HZ1	15:G:26:LYS:HB2	1.64	0.62
6:5:54:LYS:HZ1	6:5:203:GLN:HE22	1.46	0.62
7:6:4:ARG:HH12	7:6:6:ASP:HA	1.64	0.62
7:6:261:HIS:CG	7:6:262:ASP:N	2.68	0.62
8:7:87:GLU:OE1	8:7:87:GLU:N	2.33	0.62
9:A:29:A:H5'	23:O:4:LYS:NZ	2.15	0.62
10:B:1569:A:H2'	10:B:1570:A:C8	2.34	0.62
10:B:1651:G:H5'	22:N:39:PRO:HG2	1.81	0.62
10:B:1871:A:H2'	10:B:1872:A:O4'	1.99	0.62
10:B:1936:A:H2	10:B:1943:U:H5	1.47	0.62
10:B:2020:A:N6	10:B:2022:U:O2	2.32	0.62
10:B:2560:A:H2'	10:B:2561:U:C6	2.34	0.62
10:B:2604:U:H2'	10:B:2605:U:C6	2.35	0.62
10:B:2785:C:O3'	12:D:70:LYS:NZ	2.32	0.62
10:B:2855:C:H2'	10:B:2856:A:C8	2.34	0.62
17:I:7:TYR:CE2	17:I:60:VAL:HG22	2.33	0.62
18:J:31:GLU:HG2	18:J:142:ILE:HG13	1.81	0.62
22:N:12:ARG:HE	22:N:16:HIS:CE1	2.17	0.62
4:3:30:HIS:CG	4:3:31:ILE:H	2.15	0.62
6:5:113:VAL:HB	6:5:162:ARG:HH12	1.64	0.62
8:7:130:PRO:HA	8:7:133:GLU:OE2	1.98	0.62
10:B:527:C:N4	10:B:2043:C:OP2	2.32	0.62
10:B:593:U:H2'	10:B:594:U:C6	2.34	0.62
10:B:690:G:O3'	11:C:216:ARG:NH2	2.32	0.62
10:B:1084:A:H1'	10:B:1106:G:H5'	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1152:C:H2'	10:B:1153:C:C6	2.33	0.62
10:B:2146:C:H4'	10:B:2148:G:C6	2.34	0.62
12:D:34:VAL:H	12:D:93:GLY:HA2	1.64	0.62
2:1:29:LYS:HZ2	2:1:33:LEU:HB2	1.65	0.62
6:5:164:ARG:HH11	10:B:2122:U:H5'	1.62	0.62
7:6:9:GLU:C	7:6:40:GLU:HB3	2.20	0.62
10:B:422:A:N6	10:B:423:A:N1	2.48	0.62
10:B:598:U:H2'	10:B:599:A:C8	2.35	0.62
10:B:875:G:H3'	10:B:876:C:H6	1.65	0.62
10:B:906:U:O4'	21:M:66:ARG:NH1	2.33	0.62
10:B:1709:U:O4	10:B:1749:A:N6	2.16	0.62
15:G:96:ALA:HB3	15:G:103:ASN:HB2	1.82	0.62
17:I:120:ASP:OD1	17:I:121:ILE:N	2.32	0.62
24:P:20:ARG:NH1	24:P:114:ASN:OXT	2.32	0.62
9:A:6:G:N1	9:A:114:C:O2	2.33	0.62
10:B:8:C:C5'	18:J:120:ARG:HH22	2.12	0.62
10:B:707:G:H1	10:B:724:U:H3	1.48	0.62
10:B:1435:G:H2'	10:B:1436:G:H8	1.64	0.62
10:B:2706:A:O2'	10:B:2852:G:OP1	2.16	0.62
10:B:2723:C:H2'	10:B:2724:U:C6	2.34	0.62
10:B:2764:A:C6	10:B:2766:A:C6	2.87	0.62
24:P:20:ARG:HG3	24:P:88:ARG:HH22	1.64	0.62
10:B:18:U:OP1	25:Q:29:ARG:NH2	2.33	0.62
10:B:132:G:H2'	10:B:133:U:C6	2.35	0.62
10:B:276:U:O2'	10:B:277:G:O3'	2.18	0.62
10:B:852:U:H2'	10:B:853:C:C6	2.35	0.62
10:B:971:G:OP1	10:B:974:G:O2'	2.12	0.62
10:B:1069:A:H2'	10:B:1073:A:N6	2.14	0.62
10:B:1076:C:H4'	17:I:91:LYS:HE3	1.81	0.62
10:B:1479:G:H2'	10:B:1480:C:H6	1.64	0.62
10:B:1753:G:N2	10:B:1756:G:N3	2.48	0.62
12:D:151:THR:HB	12:D:152:PRO:CD	2.28	0.62
31:W:52:CYS:HA	31:W:56:HIS:HA	1.80	0.62
9:A:70:C:N3	9:A:106:G:N1	2.47	0.62
10:B:55:G:O6	10:B:115:C:N4	2.32	0.62
10:B:154:U:H3	10:B:172:A:H61	1.48	0.62
10:B:581:C:H2'	10:B:582:A:C8	2.35	0.62
10:B:771:G:H2'	10:B:772:C:H6	1.65	0.62
10:B:1060:U:O4'	10:B:1062:G:H5''	2.00	0.62
10:B:1263:U:H2'	10:B:1264:A:C4	2.34	0.62
10:B:1267:U:O2'	10:B:1268:A:OP1	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1335:C:H2'	10:B:1336:A:H8	1.64	0.62
10:B:1534:U:O2'	10:B:1537:G:O6	2.14	0.62
10:B:1765:U:H2'	10:B:1766:G:H8	1.63	0.62
10:B:1805:A:H5''	11:C:247:TRP:CD1	2.35	0.62
10:B:2227:A:H3'	10:B:2228:G:C8	2.32	0.62
20:L:41:ARG:O	20:L:43:GLY:N	2.32	0.62
8:7:127:ALA:O	8:7:131:THR:N	2.33	0.61
10:B:108:G:H2'	10:B:109:C:H6	1.64	0.61
10:B:175:G:H2'	10:B:176:A:O4'	2.00	0.61
10:B:828:U:H4'	10:B:831:G:C6	2.35	0.61
10:B:1310:G:O6	10:B:1605:C:N4	2.33	0.61
10:B:1557:C:H3'	10:B:1558:C:H6	1.65	0.61
10:B:1746:A:H2'	10:B:1747:U:H6	1.64	0.61
10:B:2185:U:N3	10:B:2186:G:N7	2.48	0.61
10:B:2220:U:H2'	10:B:2221:G:C8	2.31	0.61
10:B:2298:A:H62	10:B:2318:G:H21	1.49	0.61
13:E:108:ILE:O	13:E:112:LEU:HG	2.00	0.61
19:K:57:LEU:HA	19:K:88:ASN:ND2	2.15	0.61
21:M:30:SER:N	21:M:106:ASP:OD1	2.33	0.61
2:1:38:PHE:HA	2:1:45:HIS:HA	1.82	0.61
7:6:364:GLU:CG	7:6:408:ILE:CD1	2.78	0.61
7:6:374:PRO:HG3	7:6:398:GLY:HA3	1.82	0.61
10:B:570:G:N2	10:B:2030:A:O4'	2.32	0.61
10:B:814:C:H2'	10:B:815:C:H6	1.66	0.61
10:B:1012:U:H3	18:J:27:ARG:NH1	1.98	0.61
10:B:1212:G:HO2'	10:B:1235:G:H1	1.45	0.61
10:B:1287:A:H3'	10:B:1288:G:N2	2.13	0.61
10:B:2620:C:H2'	10:B:2621:G:C8	2.35	0.61
15:G:108:PHE:CE2	15:G:151:ARG:NH1	2.68	0.61
18:J:27:ARG:O	18:J:30:THR:OG1	2.17	0.61
29:U:43:LYS:HE2	29:U:60:LYS:NZ	2.15	0.61
2:1:5:ARG:HG2	2:1:25:ASN:HB2	1.81	0.61
7:6:372:LEU:O	7:6:400:VAL:N	2.34	0.61
8:7:121:SER:HB2	8:7:126:LEU:HD11	1.82	0.61
10:B:8:C:H2'	10:B:9:G:H8	1.65	0.61
10:B:23:G:C5	10:B:518:G:C6	2.88	0.61
10:B:823:C:H42	10:B:834:G:H1	1.48	0.61
10:B:856:G:N2	31:W:19:ARG:HH22	1.98	0.61
10:B:1946:U:H2'	10:B:1947:C:H6	1.65	0.61
10:B:2328:A:N1	10:B:2386:A:N6	2.47	0.61
11:C:144:GLU:HB2	11:C:187:CYS:HB3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:E:40:ARG:NH2	13:E:90:GLN:OE1	2.32	0.61
13:E:125:SER:HA	13:E:157:LEU:HD21	1.82	0.61
15:G:73:SER:HA	15:G:137:LYS:HZ1	1.64	0.61
18:J:78:THR:OG1	18:J:80:HIS:O	2.13	0.61
6:5:213:SER:O	10:B:2176:A:O2'	2.18	0.61
9:A:83:G:H1	9:A:93:C:N4	1.98	0.61
10:B:1789:A:OP1	11:C:220:ARG:N	2.28	0.61
10:B:2007:U:H2'	10:B:2008:C:C6	2.35	0.61
10:B:2016:U:H2'	10:B:2017:U:H6	1.65	0.61
10:B:2057:G:H2'	10:B:2058:A:H8	1.64	0.61
10:B:2187:U:H2'	10:B:2188:U:H6	1.65	0.61
10:B:2202:U:O2'	10:B:2204:G:OP1	2.18	0.61
10:B:2653:U:O2	10:B:2667:C:N4	2.33	0.61
10:B:2834:G:H2'	10:B:2879:A:H61	1.64	0.61
10:B:2841:C:H2'	10:B:2842:G:H8	1.65	0.61
11:C:204:LEU:HD22	11:C:209:ALA:HB1	1.83	0.61
14:F:24:VAL:O	14:F:29:ARG:NH2	2.33	0.61
18:J:37:ARG:NH2	18:J:46:PRO:HB3	2.15	0.61
5:4:18:LYS:HZ3	10:B:1034:G:H5'	1.64	0.61
7:6:412:ARG:NH1	10:B:2661:G:O4'	2.34	0.61
10:B:578:G:H21	25:Q:32:ARG:NE	1.97	0.61
10:B:582:A:C5'	25:Q:10:ARG:HH12	2.13	0.61
10:B:711:G:H2'	10:B:712:G:C8	2.26	0.61
10:B:1837:C:O2'	10:B:1927:A:N3	2.32	0.61
10:B:2037:A:H2'	10:B:2038:G:C8	2.36	0.61
10:B:2863:C:N4	10:B:2864:G:O6	2.33	0.61
12:D:48:ILE:HG12	12:D:84:LEU:HD21	1.82	0.61
18:J:24:THR:O	18:J:28:LEU:N	2.22	0.61
24:P:22:GLY:H	24:P:46:VAL:HG23	1.66	0.61
25:Q:83:LYS:HA	25:Q:89:ILE:HD11	1.81	0.61
7:6:81:ASP:OD1	7:6:82:HIS:N	2.34	0.61
10:B:376:G:H2'	10:B:377:G:H8	1.65	0.61
10:B:480:A:P	29:U:43:LYS:NZ	2.74	0.61
10:B:543:G:C5	10:B:544:C:H6	2.19	0.61
10:B:712:G:H3'	10:B:713:G:C8	2.36	0.61
10:B:806:C:OP1	20:L:41:ARG:NH1	2.34	0.61
10:B:942:G:C4	10:B:943:A:C8	2.88	0.61
10:B:983:A:N6	10:B:984:A:N7	2.48	0.61
10:B:1008:A:P	18:J:111:LYS:HZ2	2.22	0.61
10:B:2093:G:N2	10:B:2196:C:N3	2.37	0.61
10:B:2141:G:N2	10:B:2151:U:H1'	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2536:G:H2'	10:B:2537:U:H6	1.66	0.61
11:C:20:ASN:OD1	11:C:89:ASN:ND2	2.32	0.61
12:D:112:THR:O	12:D:168:GLU:N	2.34	0.61
16:H:41:LYS:O	16:H:44:ILE:HG12	2.01	0.61
22:N:2:ARG:HG3	22:N:5:LYS:HB2	1.83	0.61
33:Y:22:LEU:O	33:Y:24:GLU:N	2.30	0.61
2:1:5:ARG:HH11	2:1:25:ASN:HB2	1.64	0.61
3:2:1:MET:SD	10:B:1613:G:O2'	2.58	0.61
6:5:39:VAL:HG13	6:5:217:THR:HG21	1.81	0.61
8:7:17:GLU:O	8:7:21:GLY:N	2.34	0.61
9:A:52:A:H3'	9:A:53:A:C8	2.34	0.61
10:B:414:C:O2	10:B:1864:U:O2'	2.16	0.61
10:B:699:A:H2'	10:B:700:G:O4'	2.00	0.61
10:B:1772:A:N6	10:B:1980:G:O6	2.33	0.61
10:B:1835:G:N2	10:B:1930:G:O2'	2.33	0.61
10:B:2089:C:H2'	10:B:2090:A:C8	2.33	0.61
10:B:2095:A:O5'	16:H:11:ASN:ND2	2.34	0.61
10:B:2129:C:H4'	10:B:2130:U:OP1	2.00	0.61
10:B:2257:U:H2'	10:B:2258:C:C6	2.30	0.61
10:B:2369:A:H2'	10:B:2370:G:H8	1.64	0.61
15:G:59:ASP:CG	15:G:63:GLN:HB2	2.21	0.61
16:H:128:HIS:HA	16:H:141:LYS:NZ	2.16	0.61
18:J:40:HIS:CG	18:J:41:LYS:N	2.68	0.61
18:J:115:GLY:HA2	18:J:118:MET:HB2	1.82	0.61
21:M:121:ALA:HA	21:M:124:LEU:HD12	1.83	0.61
6:5:37:LYS:HE3	10:B:2126:A:H5''	1.83	0.61
8:7:97:LYS:HD2	8:7:101:LYS:HZ2	1.64	0.61
9:A:73:A:H62	9:A:103:U:H3	1.49	0.61
10:B:24:G:N2	27:S:78:GLU:OE2	2.33	0.61
10:B:56:A:C6	10:B:57:C:C4	2.88	0.61
10:B:88:G:H2'	10:B:89:A:C8	2.36	0.61
10:B:266:G:C2	10:B:267:C:H1'	2.36	0.61
10:B:683:U:N3	10:B:684:G:N7	2.48	0.61
10:B:898:C:H2'	10:B:899:A:H8	1.66	0.61
10:B:1002:G:C6	10:B:1154:G:N2	2.69	0.61
10:B:1015:U:H2'	10:B:1016:G:C8	2.34	0.61
10:B:1212:G:H21	10:B:1237:A:H62	1.46	0.61
10:B:1809:A:H2'	10:B:1810:A:O4'	2.00	0.61
11:C:57:HIS:ND1	11:C:58:LYS:O	2.33	0.61
20:L:96:LYS:NZ	20:L:102:GLY:O	2.33	0.61
1:0:40:HIS:NE2	10:B:2884:U:OP2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:159:GLN:O	7:6:161:GLU:N	2.33	0.61
7:6:406:MET:O	7:6:411:TRP:NE1	2.34	0.61
10:B:121:G:H2'	10:B:122:G:H8	1.66	0.61
10:B:1005:C:C2	10:B:1143:A:C5	2.89	0.61
10:B:1183:U:H2'	10:B:1184:U:C6	2.35	0.61
10:B:1251:C:OP1	25:Q:12:ARG:NH1	2.33	0.61
10:B:1291:C:H2'	10:B:1292:G:C8	2.31	0.61
10:B:1454:C:H5'	22:N:63:ARG:NH1	2.16	0.61
10:B:1652:A:N1	10:B:1653:G:N2	2.48	0.61
10:B:2276:G:C2	10:B:2277:G:C8	2.89	0.61
10:B:2311:A:H3'	14:F:71:LYS:NZ	2.15	0.61
10:B:2787:C:H1'	12:D:63:PRO:HG3	1.83	0.61
14:F:105:ILE:CB	14:F:111:ARG:HH21	2.14	0.61
15:G:8:VAL:HG22	15:G:68:ARG:HG3	1.82	0.61
16:H:27:ARG:NE	32:X:59:ASP:OD1	2.33	0.61
17:I:62:ALA:HA	17:I:64:ARG:HH12	1.65	0.61
33:Y:25:GLN:HG2	33:Y:29:ARG:NH2	2.15	0.61
7:6:115:ALA:O	7:6:116:ARG:HD2	2.01	0.61
10:B:47:C:H42	10:B:179:C:N4	1.98	0.61
10:B:202:U:H5	10:B:203:A:C5	2.19	0.61
10:B:438:G:H2'	10:B:439:A:C8	2.35	0.61
10:B:2142:A:HO2'	10:B:2145:C:N4	1.96	0.61
10:B:2659:G:O2'	15:G:176:LYS:NZ	2.32	0.61
20:L:79:LEU:N	20:L:113:ALA:O	2.34	0.61
6:5:129:GLN:NE2	10:B:2170:A:H61	1.98	0.60
7:6:47:GLY:HA2	7:6:62:LYS:HE2	1.81	0.60
10:B:69:C:H2'	10:B:70:G:H8	1.65	0.60
10:B:414:C:H2'	10:B:415:A:C8	2.35	0.60
10:B:487:C:N4	10:B:488:G:O6	2.34	0.60
10:B:600:G:C2	10:B:601:C:C2	2.88	0.60
10:B:993:G:P	25:Q:50:ARG:HH22	2.24	0.60
10:B:1084:A:H8	10:B:1105:U:HO2'	1.47	0.60
10:B:2074:U:O2'	10:B:2598:A:N3	2.24	0.60
10:B:2093:G:OP1	16:H:24:GLY:N	2.34	0.60
10:B:2466:C:N3	10:B:2484:G:N2	2.42	0.60
10:B:2692:G:H2'	10:B:2693:G:C8	2.36	0.60
11:C:44:ASN:OD1	11:C:45:ASN:N	2.33	0.60
6:5:194:VAL:HG12	6:5:197:LYS:HD2	1.83	0.60
8:7:77:VAL:HG13	8:7:82:ILE:HG21	1.82	0.60
9:A:83:G:H1	9:A:93:C:H42	1.49	0.60
10:B:846:U:O2'	10:B:847:U:N3	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:952:G:H1	10:B:965:C:N4	1.99	0.60
10:B:1526:C:H42	10:B:1546:G:H1	1.48	0.60
10:B:1800:C:OP2	11:C:181:ARG:NH2	2.34	0.60
10:B:1924:C:H2'	10:B:1925:C:C6	2.36	0.60
10:B:1973:G:H2'	10:B:1974:C:H6	1.66	0.60
10:B:2286:G:H5'	10:B:2286:G:C8	2.36	0.60
10:B:2313:C:H2'	10:B:2314:A:H8	1.66	0.60
10:B:2314:A:H2'	10:B:2315:G:C8	2.36	0.60
10:B:2717:C:O3'	24:P:98:TYR:OH	2.05	0.60
12:D:61:THR:O	12:D:65:ALA:N	2.29	0.60
12:D:149:ASN:O	12:D:150:GLN:C	2.40	0.60
14:F:11:VAL:O	14:F:13:LYS:NZ	2.31	0.60
10:B:242:G:O2'	10:B:254:G:O6	2.19	0.60
10:B:465:G:C5	10:B:466:A:C6	2.90	0.60
10:B:741:U:H2'	10:B:742:A:H8	1.67	0.60
10:B:745:G:O3'	10:B:748:G:O2'	2.20	0.60
10:B:831:G:H2'	10:B:832:U:H6	1.66	0.60
10:B:1048:A:C5	10:B:1111:A:C6	2.89	0.60
10:B:1054:A:H2'	10:B:1055:G:C8	2.36	0.60
10:B:2141:G:H1	10:B:2150:C:H42	1.49	0.60
10:B:2627:G:N2	10:B:2777:G:OP2	2.34	0.60
14:F:34:THR:HG23	14:F:88:VAL:H	1.66	0.60
27:S:56:ALA:HA	27:S:59:GLU:HB2	1.83	0.60
29:U:83:GLY:N	29:U:96:LYS:HB2	2.17	0.60
29:U:85:ARG:H	29:U:94:PHE:HE2	1.49	0.60
1:0:10:SER:OG	10:B:16:C:O3'	2.15	0.60
1:0:29:VAL:O	10:B:2885:G:N2	2.34	0.60
9:A:81:G:H2'	9:A:82:U:H6	1.66	0.60
10:B:84:A:N1	10:B:98:G:O2'	2.25	0.60
10:B:528:A:N1	10:B:2042:A:H2'	2.17	0.60
10:B:578:G:N3	25:Q:32:ARG:NH2	2.47	0.60
10:B:1421:G:C2	10:B:1422:G:C8	2.89	0.60
10:B:1657:U:OP1	12:D:141:ARG:N	2.28	0.60
10:B:2051:A:H3'	10:B:2578:G:H5''	1.82	0.60
10:B:2141:G:N2	10:B:2150:C:N3	2.44	0.60
10:B:2223:G:OP1	11:C:170:TYR:OH	2.14	0.60
10:B:2325:G:N2	10:B:2326:C:N3	2.49	0.60
10:B:2581:G:OP2	10:B:2581:G:N2	2.34	0.60
14:F:78:ILE:HD11	14:F:84:ILE:HD12	1.83	0.60
17:I:36:GLU:O	17:I:40:ALA:N	2.32	0.60
25:Q:97:ILE:HG22	26:R:13:ARG:HH11	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:14:CYS:HB3	5:4:27:CYS:SG	2.42	0.60
5:4:16:ILE:HD13	10:B:1032:A:H4'	1.83	0.60
7:6:164:ARG:HB3	7:6:168:ARG:HH12	1.66	0.60
7:6:343:SER:O	7:6:347:GLY:N	2.24	0.60
10:B:47:C:H42	10:B:179:C:H42	1.49	0.60
10:B:81:G:H1	10:B:105:C:N4	1.99	0.60
10:B:120:U:H4'	10:B:121:G:H5''	1.84	0.60
10:B:155:A:H2'	10:B:156:A:H8	1.67	0.60
10:B:314:C:H2'	10:B:315:G:C8	2.37	0.60
10:B:409:G:H2'	10:B:410:G:H8	1.65	0.60
10:B:861:A:H2'	10:B:862:G:O4'	2.01	0.60
10:B:2025:C:H5'	12:D:154:LYS:HZ1	1.66	0.60
10:B:2306:C:H2'	10:B:2307:G:H21	1.66	0.60
10:B:2660:A:H2'	10:B:2661:G:O4'	2.02	0.60
11:C:250:GLN:HB3	11:C:254:LYS:NZ	2.16	0.60
14:F:132:ARG:HA	14:F:150:GLY:HA2	1.82	0.60
20:L:98:ALA:HB3	20:L:100:ILE:HG12	1.83	0.60
7:6:319:ILE:HD11	7:6:325:PHE:H	1.66	0.60
8:7:73:LYS:HE2	8:7:121:SER:HA	1.82	0.60
10:B:191:A:H2'	10:B:192:C:C6	2.36	0.60
10:B:347:A:C4	10:B:348:A:C8	2.89	0.60
10:B:501:A:H2'	10:B:502:A:C8	2.37	0.60
10:B:1277:G:H5'	22:N:20:MET:SD	2.42	0.60
10:B:1592:C:H2'	10:B:1593:A:C8	2.36	0.60
10:B:1761:C:H2'	10:B:1762:A:C4	2.37	0.60
16:H:27:ARG:HH21	32:X:59:ASP:CA	2.05	0.60
16:H:90:LEU:HB2	16:H:147:VAL:HG12	1.84	0.60
24:P:17:PRO:HG3	24:P:83:ILE:O	2.02	0.60
33:Y:13:GLU:OE2	33:Y:57:LEU:N	2.35	0.60
9:A:60:C:H2'	9:A:61:G:H8	1.67	0.60
10:B:328:U:O2'	29:U:67:SER:OG	2.11	0.60
10:B:334:C:OP1	10:B:335:C:N4	2.35	0.60
10:B:646:U:N3	10:B:647:G:H1'	2.16	0.60
10:B:1187:G:OP1	26:R:83:TYR:OH	2.12	0.60
10:B:2070:A:H2'	10:B:2071:A:C8	2.36	0.60
10:B:2147:A:O2'	10:B:2148:G:OP1	2.19	0.60
10:B:2745:C:H2'	10:B:2746:U:C6	2.37	0.60
32:X:14:GLY:HA3	32:X:26:ARG:HG2	1.83	0.60
7:6:375:GLN:OE1	7:6:378:ARG:NH1	2.35	0.60
9:A:49:C:P	23:O:30:ARG:NH1	2.75	0.60
9:A:104:A:H2'	9:A:105:G:O4'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:685:A:C2	10:B:689:A:C6	2.89	0.60
10:B:688:U:H2'	10:B:689:A:C8	2.35	0.60
10:B:701:G:H1	10:B:731:C:H42	1.48	0.60
10:B:1479:G:H2'	10:B:1480:C:C6	2.36	0.60
10:B:1819:A:H4'	10:B:1820:U:H5''	1.84	0.60
10:B:2638:G:H21	10:B:2778:A:H62	1.49	0.60
10:B:2685:G:N2	10:B:2724:U:O2	2.34	0.60
10:B:2714:G:H2'	10:B:2715:C:H6	1.67	0.60
16:H:57:LYS:NZ	16:H:61:VAL:HG11	2.17	0.60
18:J:67:ASN:O	18:J:69:ARG:N	2.34	0.60
23:O:7:ARG:HA	23:O:10:ARG:NH2	2.17	0.60
23:O:7:ARG:CG	23:O:10:ARG:HH21	2.15	0.60
29:U:86:PHE:H	29:U:91:LYS:HG3	1.65	0.60
30:V:26:PHE:HE2	30:V:44:HIS:HA	1.66	0.60
8:7:42:ARG:NH2	17:I:116:MET:O	2.20	0.60
10:B:289:G:H2'	10:B:290:U:C6	2.37	0.60
10:B:415:A:H2'	10:B:416:U:H6	1.67	0.60
10:B:484:C:H2'	10:B:485:C:H6	1.67	0.60
10:B:532:A:P	25:Q:40:LYS:NZ	2.73	0.60
10:B:832:U:OP1	20:L:38:GLN:N	2.35	0.60
10:B:1148:U:H2'	10:B:1149:G:H8	1.65	0.60
10:B:1565:C:O2'	10:B:1566:A:O5'	2.19	0.60
10:B:1663:G:C5	10:B:1998:A:N1	2.69	0.60
10:B:2636:C:HO2'	12:D:45:TYR:HH	1.41	0.60
10:B:2870:C:H2'	10:B:2871:U:O4'	2.01	0.60
12:D:19:GLY:HA3	24:P:78:PRO:HD2	1.84	0.60
16:H:9:VAL:HB	16:H:13:GLY:HA3	1.83	0.60
18:J:76:HIS:CE1	18:J:85:LYS:HB2	2.36	0.60
25:Q:60:TRP:CZ3	25:Q:93:ILE:HB	2.36	0.60
7:6:17:TYR:CE1	7:6:23:ASP:HB2	2.36	0.60
7:6:373:PRO:O	7:6:375:GLN:N	2.34	0.60
8:7:40:GLU:HG2	8:7:43:LYS:HD2	1.84	0.60
9:A:41:G:P	9:A:43:C:H41	2.25	0.60
10:B:194:G:C2	10:B:195:A:C4	2.90	0.60
10:B:459:U:H2'	10:B:460:A:H8	1.66	0.60
10:B:500:G:N1	10:B:503:A:OP2	2.33	0.60
10:B:911:A:HO2'	10:B:2263:C:HO2'	1.49	0.60
10:B:1204:A:N6	10:B:1240:U:O2'	2.35	0.60
10:B:1355:G:C2	10:B:1356:G:C5	2.90	0.60
10:B:1449:G:N2	10:B:1462:C:O2	2.33	0.60
10:B:1658:C:OP1	12:D:140:HIS:NE2	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2009:A:H2'	10:B:2010:G:C8	2.31	0.60
10:B:2052:A:C2	10:B:2053:G:C8	2.90	0.60
10:B:2211:A:HO2'	10:B:2212:A:P	2.24	0.60
10:B:2278:A:OP1	21:M:10:ARG:NH2	2.35	0.60
10:B:2333:A:P	31:W:76:ARG:HH22	2.25	0.60
10:B:2376:A:N3	23:O:111:ARG:NH2	2.50	0.60
10:B:2403:C:O2'	10:B:2404:U:O4'	2.13	0.60
10:B:2531:A:N3	10:B:2658:C:O2'	2.28	0.60
22:N:87:PHE:CZ	22:N:117:ASP:HB2	2.36	0.60
7:6:236:LEU:HD23	7:6:250:ALA:HB2	1.83	0.59
7:6:327:PRO:HA	7:6:341:TRP:HB2	1.84	0.59
10:B:57:C:H2'	10:B:58:G:H8	1.65	0.59
10:B:334:C:P	10:B:335:C:H41	2.25	0.59
10:B:644:A:H61	10:B:2349:G:N2	1.99	0.59
10:B:649:G:C2	10:B:650:C:C2	2.90	0.59
10:B:755:U:H2'	10:B:756:A:C8	2.36	0.59
10:B:938:G:H2'	10:B:939:G:H8	1.67	0.59
10:B:1461:C:H2'	10:B:1462:C:C6	2.36	0.59
10:B:1502:A:H2'	10:B:1503:A:H8	1.66	0.59
10:B:1834:U:O4	10:B:1900:A:N6	2.35	0.59
10:B:2513:A:H2'	10:B:2514:U:H6	1.67	0.59
10:B:2724:U:O2'	10:B:2725:A:O4'	2.19	0.59
10:B:2811:G:N2	10:B:2889:C:N3	2.50	0.59
12:D:32:ASN:HB2	12:D:94:GLN:NE2	2.17	0.59
14:F:18:GLU:HG3	14:F:19:PHE:CD2	2.37	0.59
15:G:85:LYS:HD2	15:G:129:GLU:OE2	2.02	0.59
23:O:37:ALA:H	23:O:52:SER:HG	1.48	0.59
26:R:56:GLY:O	26:R:103:ALA:N	2.35	0.59
3:2:2:LYS:HZ1	10:B:1620:G:H4'	1.65	0.59
3:2:34:ARG:O	3:2:38:GLY:N	2.29	0.59
10:B:28:A:N6	10:B:511:U:O2	2.35	0.59
10:B:143:C:H2'	10:B:144:A:C8	2.38	0.59
10:B:322:A:C6	10:B:340:A:C6	2.90	0.59
10:B:673:C:H2'	10:B:674:G:C8	2.37	0.59
10:B:1649:G:O2'	22:N:106:ASP:OD2	2.20	0.59
10:B:1703:G:H2'	10:B:1704:C:H6	1.66	0.59
10:B:1992:G:C2	10:B:1997:C:N3	2.69	0.59
10:B:2024:G:C2	10:B:2025:C:C2	2.90	0.59
10:B:2758:A:H1'	15:G:63:GLN:NE2	2.18	0.59
15:G:98:LYS:O	15:G:100:ASN:N	2.35	0.59
16:H:112:LYS:HD3	16:H:130:VAL:HG12	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:L:36:LYS:O	20:L:40:SER:OG	2.19	0.59
24:P:56:SER:N	24:P:74:GLN:OE1	2.35	0.59
27:S:52:GLU:HA	27:S:55:ILE:HD12	1.84	0.59
10:B:6:A:H2'	10:B:7:G:C8	2.38	0.59
10:B:311:A:C8	10:B:332:A:C5	2.90	0.59
10:B:560:C:O2'	25:Q:51:GLN:NE2	2.34	0.59
10:B:1200:C:N3	10:B:1245:G:N2	2.37	0.59
10:B:1213:A:OP2	10:B:1235:G:N2	2.23	0.59
10:B:1448:G:C2	10:B:1464:G:C2	2.90	0.59
10:B:1653:G:OP2	22:N:2:ARG:NH2	2.36	0.59
10:B:2199:A:H3'	10:B:2200:C:C6	2.38	0.59
10:B:2248:C:H42	10:B:2256:G:H1	1.50	0.59
10:B:2533:U:OP1	10:B:2665:A:O2'	2.20	0.59
20:L:102:GLY:H	20:L:105:ILE:HD12	1.67	0.59
20:L:109:LYS:HG2	20:L:126:ARG:HB2	1.84	0.59
31:W:22:VAL:CG2	31:W:25:PHE:HB2	2.32	0.59
1:0:8:THR:OG1	1:0:9:ARG:N	2.35	0.59
3:2:2:LYS:NZ	10:B:1620:G:H4'	2.16	0.59
6:5:133:PRO:CA	10:B:2121:G:N7	2.65	0.59
6:5:217:THR:HA	10:B:2124:G:O2'	2.02	0.59
9:A:113:C:H2'	9:A:114:C:H6	1.66	0.59
10:B:882:G:H1	10:B:895:U:H1'	1.67	0.59
10:B:1074:G:H2'	10:B:1075:C:C6	2.37	0.59
10:B:1164:C:H2'	10:B:1165:A:C8	2.36	0.59
10:B:1279:G:H2'	10:B:1280:G:H8	1.66	0.59
10:B:1726:C:O2	10:B:1734:G:N1	2.29	0.59
10:B:1799:G:H21	11:C:153:LEU:HD22	1.68	0.59
10:B:2311:A:O2'	10:B:2312:U:O4'	2.20	0.59
17:I:37:PHE:O	17:I:41:PHE:N	2.35	0.59
22:N:63:ARG:HD3	22:N:80:PHE:CE2	2.37	0.59
22:N:103:ARG:HG3	22:N:110:MET:HG3	1.84	0.59
23:O:64:TYR:HD2	23:O:67:ASN:HB2	1.67	0.59
25:Q:50:ARG:HA	25:Q:53:LYS:HZ1	1.67	0.59
8:7:51:TYR:HA	8:7:88:HIS:HB2	1.85	0.59
10:B:107:G:H21	10:B:346:A:H62	1.50	0.59
10:B:834:G:C2	10:B:835:C:C2	2.90	0.59
10:B:1340:U:O2'	10:B:1341:G:OP1	2.20	0.59
10:B:2083:G:N1	10:B:2084:C:O2	2.36	0.59
10:B:2543:G:H2'	10:B:2544:G:H8	1.67	0.59
10:B:2580:U:OP1	12:D:137:SER:OG	2.11	0.59
10:B:2721:A:H1'	10:B:2873:A:C8	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:132:ARG:HA	11:C:166:ARG:NH2	2.17	0.59
17:I:102:ARG:CB	17:I:141:ASP:HA	2.33	0.59
6:5:71:ARG:HH11	6:5:112:ASP:CG	2.05	0.59
10:B:24:G:C2	10:B:517:C:C2	2.91	0.59
10:B:482:A:O2'	29:U:44:HIS:ND1	2.30	0.59
10:B:491:G:H2'	10:B:492:A:H8	1.64	0.59
10:B:811:U:O4	20:L:21:ARG:NH2	2.34	0.59
10:B:832:U:H2'	10:B:833:A:H8	1.67	0.59
10:B:875:G:C2	10:B:876:C:H1'	2.38	0.59
10:B:952:G:C6	10:B:966:G:C6	2.90	0.59
10:B:1220:G:C6	10:B:1230:A:C6	2.90	0.59
10:B:1341:G:H5''	10:B:1397:U:O2	2.01	0.59
10:B:1342:A:O2'	10:B:1344:U:OP2	2.20	0.59
10:B:1818:U:C4	11:C:152:GLN:HB2	2.38	0.59
10:B:2077:A:H2'	10:B:2078:C:C6	2.38	0.59
10:B:2428:G:H21	20:L:60:ARG:NH2	2.01	0.59
10:B:2586:U:H2'	10:B:2587:A:C8	2.38	0.59
10:B:2745:C:C4	10:B:2746:U:C4	2.90	0.59
14:F:21:TYR:HD2	14:F:27:VAL:HG12	1.67	0.59
16:H:130:VAL:N	16:H:144:VAL:HG11	2.17	0.59
18:J:32:LEU:O	18:J:36:LEU:HG	2.03	0.59
7:6:156:GLY:HA3	10:B:2583:G:H21	1.67	0.59
7:6:206:THR:HG21	7:6:229:PHE:H	1.67	0.59
9:A:71:C:H42	9:A:105:G:H1	1.49	0.59
10:B:230:G:H2'	10:B:231:A:C8	2.38	0.59
10:B:740:C:H1'	10:B:1981:A:C8	2.38	0.59
10:B:983:A:C6	10:B:984:A:N7	2.70	0.59
10:B:1027:A:C6	10:B:1126:A:C4	2.91	0.59
10:B:1068:G:O2'	10:B:1070:A:N6	2.36	0.59
10:B:1089:A:H2	10:B:1090:A:H62	1.51	0.59
10:B:1170:C:H42	10:B:1179:G:H1	1.51	0.59
10:B:1705:A:H2'	10:B:1706:C:H6	1.68	0.59
10:B:2194:U:H2'	10:B:2195:U:C6	2.38	0.59
10:B:2819:G:H3'	10:B:2821:A:H62	1.68	0.59
14:F:37:MET:HB2	14:F:85:GLY:HA2	1.84	0.59
16:H:30:LEU:O	16:H:31:VAL:HB	2.03	0.59
24:P:9:GLN:HA	24:P:12:MET:HB3	1.84	0.59
25:Q:109:VAL:HG12	25:Q:113:LYS:HE3	1.84	0.59
4:3:37:THR:HA	4:3:40:LYS:HE2	1.83	0.59
6:5:5:THR:HG23	6:5:7:ARG:H	1.67	0.59
7:6:57:PHE:HD2	7:6:58:VAL:HG13	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:45:G:N3	10:B:215:G:N2	2.51	0.59
10:B:277:G:N1	10:B:360:U:H5	2.00	0.59
10:B:653:U:H3'	10:B:654:A:C8	2.37	0.59
10:B:807:U:P	20:L:36:LYS:NZ	2.76	0.59
10:B:1278:C:H2'	10:B:1279:G:C8	2.33	0.59
10:B:1700:A:H5'	10:B:1701:A:OP2	2.01	0.59
10:B:1778:U:C4	10:B:1784:A:C4	2.90	0.59
10:B:1916:A:H5''	10:B:1917:U:H5	1.68	0.59
10:B:2065:C:H2'	10:B:2066:C:C6	2.37	0.59
10:B:2345:G:C6	10:B:2381:A:C6	2.91	0.59
12:D:103:ASP:OD1	12:D:103:ASP:N	2.33	0.59
14:F:35:LEU:HB3	14:F:151:LEU:HD13	1.82	0.59
18:J:105:VAL:O	18:J:109:LEU:N	2.36	0.59
24:P:46:VAL:HG12	24:P:60:VAL:HG22	1.84	0.59
27:S:70:LYS:HE2	27:S:110:ARG:HA	1.83	0.59
28:T:10:VAL:O	28:T:34:VAL:HG13	2.03	0.59
10:B:290:U:H2'	10:B:291:G:H8	1.68	0.59
10:B:299:A:N7	10:B:300:A:N6	2.51	0.59
10:B:408:G:H2'	10:B:409:G:H8	1.68	0.59
10:B:848:C:H2'	10:B:849:A:H8	1.66	0.59
10:B:1173:U:O2'	10:B:1176:U:N3	2.16	0.59
10:B:1577:C:H2'	10:B:1578:U:C6	2.38	0.59
10:B:2001:C:H1'	10:B:2689:U:H3	1.68	0.59
10:B:2026:U:O2'	10:B:2027:G:O4'	2.12	0.59
10:B:2143:C:H1'	10:B:2145:C:C2	2.37	0.59
10:B:2246:G:C2	10:B:2247:A:C4	2.91	0.59
10:B:2519:U:N3	10:B:2542:A:N1	2.50	0.59
10:B:2805:C:H2'	10:B:2806:C:C6	2.37	0.59
12:D:62:LYS:HA	12:D:65:ALA:HB3	1.84	0.59
16:H:113:SER:HB3	16:H:132:PHE:HA	1.85	0.59
2:1:29:LYS:HE3	2:1:33:LEU:HD13	1.84	0.59
8:7:24:SER:HA	8:7:86:MET:HG2	1.85	0.59
9:A:81:G:H2'	9:A:82:U:C6	2.38	0.59
10:B:5:A:H2'	10:B:6:A:C8	2.38	0.59
10:B:76:C:H2'	10:B:77:G:H8	1.67	0.59
10:B:129:C:O2'	10:B:1348:C:O3'	2.21	0.59
10:B:634:C:H2'	10:B:635:C:C6	2.38	0.59
10:B:848:C:H2'	10:B:849:A:C8	2.38	0.59
10:B:1259:G:C2	10:B:1260:A:C5	2.90	0.59
10:B:1412:U:H2'	10:B:1413:A:H8	1.67	0.59
10:B:2293:G:OP1	23:O:94:ARG:NH1	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2685:G:C2	10:B:2686:G:C4	2.91	0.59
7:6:295:ILE:HG22	7:6:299:ASN:HD21	1.69	0.58
9:A:31:C:H42	9:A:51:G:H1	1.50	0.58
9:A:113:C:H4'	23:O:46:GLU:OE1	2.03	0.58
10:B:61:C:P	33:Y:44:LYS:NZ	2.75	0.58
10:B:64:A:H5'	28:T:68:LYS:HD2	1.85	0.58
10:B:323:C:C4	10:B:333:G:C8	2.91	0.58
10:B:545:U:OP2	10:B:546:U:O2'	2.15	0.58
10:B:626:A:H2'	20:L:78:ARG:NE	2.17	0.58
10:B:818:G:H21	10:B:1189:A:H62	1.51	0.58
10:B:831:G:H2'	10:B:832:U:C6	2.37	0.58
10:B:981:A:H8	10:B:2027:G:H21	1.51	0.58
10:B:1020:A:OP1	10:B:1034:G:N2	2.35	0.58
10:B:1066:U:H2'	10:B:1068:G:OP2	2.03	0.58
10:B:1666:G:O2'	19:K:5:THR:OG1	2.18	0.58
10:B:2359:C:H2'	10:B:2360:G:C8	2.38	0.58
10:B:2589:A:C2	10:B:2590:A:C5	2.90	0.58
10:B:2729:G:H2'	10:B:2730:C:C6	2.37	0.58
10:B:2743:U:O3'	15:G:152:ARG:NH2	2.36	0.58
13:E:22:ASP:HA	13:E:114:ARG:NH2	2.09	0.58
15:G:101:VAL:HG22	15:G:115:GLN:HB2	1.85	0.58
20:L:81:ASP:HA	20:L:84:LYS:HE3	1.84	0.58
28:T:11:LEU:HA	28:T:34:VAL:HG22	1.85	0.58
32:X:63:ILE:O	32:X:65:THR:N	2.36	0.58
4:3:7:ARG:NH1	10:B:243:U:P	2.76	0.58
6:5:22:ASP:OD1	6:5:23:ILE:N	2.37	0.58
7:6:26:ASP:O	7:6:27:LEU:HB2	2.03	0.58
7:6:84:LEU:HG	7:6:102:ASP:OD2	2.03	0.58
9:A:78:A:C4	9:A:79:G:C8	2.91	0.58
10:B:121:G:H2'	10:B:122:G:C8	2.38	0.58
10:B:684:G:C5	10:B:774:G:C6	2.91	0.58
10:B:967:U:H2'	10:B:968:C:H6	1.67	0.58
10:B:1813:G:H2'	10:B:1814:G:H8	1.68	0.58
10:B:1857:G:N1	10:B:1884:G:N7	2.51	0.58
10:B:1921:G:H2'	10:B:1922:G:C8	2.38	0.58
10:B:2037:A:C6	10:B:2038:G:C6	2.90	0.58
10:B:2803:G:H2'	10:B:2804:U:C6	2.38	0.58
33:Y:23:ARG:H	33:Y:26:PHE:HB2	1.67	0.58
6:5:8:MET:HG2	10:B:2174:C:H5''	1.83	0.58
8:7:37:LYS:HZ3	8:7:54:VAL:HB	1.65	0.58
10:B:259:G:HO2'	10:B:621:A:HO2'	1.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:329:G:O6	29:U:16:LYS:HD2	2.04	0.58
10:B:396:G:O2'	32:X:29:LEU:O	2.15	0.58
10:B:660:C:H2'	10:B:661:A:H8	1.65	0.58
10:B:831:G:C2	10:B:832:U:C2	2.91	0.58
10:B:1018:U:H3	10:B:1144:A:N6	1.98	0.58
10:B:1071:G:N7	17:I:3:LYS:NZ	2.50	0.58
10:B:1150:C:H2'	10:B:1151:A:H8	1.67	0.58
10:B:1167:C:H2'	10:B:1168:G:C8	2.37	0.58
10:B:1801:A:C5	11:C:261:ARG:NH1	2.71	0.58
10:B:1829:A:C6	10:B:1830:C:H1'	2.38	0.58
10:B:2077:A:H2'	10:B:2078:C:H6	1.67	0.58
10:B:2246:G:C6	10:B:2247:A:C6	2.91	0.58
10:B:2546:U:H4'	10:B:2565:A:C6	2.37	0.58
10:B:2562:U:O2'	19:K:22:LYS:NZ	2.33	0.58
10:B:2590:A:H5''	11:C:237:ARG:HH21	1.68	0.58
11:C:170:TYR:HA	11:C:184:GLU:HA	1.85	0.58
12:D:7:LYS:HZ2	12:D:77:ARG:HH12	1.50	0.58
13:E:109:LEU:HD23	13:E:112:LEU:HD12	1.85	0.58
26:R:10:LYS:NZ	26:R:23:GLU:OE2	2.34	0.58
2:1:33:LEU:O	2:1:50:GLU:N	2.33	0.58
3:2:12:ARG:NH2	10:B:686:U:H3	2.02	0.58
7:6:316:MET:HB3	7:6:339:ARG:HD2	1.83	0.58
7:6:328:ARG:H	7:6:341:TRP:HD1	1.49	0.58
9:A:15:A:OP2	9:A:69:G:N2	2.31	0.58
10:B:140:C:O2	10:B:141:G:N1	2.36	0.58
10:B:414:C:H42	10:B:2409:G:H1	1.51	0.58
10:B:636:G:C2	20:L:76:GLU:OE2	2.57	0.58
10:B:639:U:H2'	10:B:640:C:C6	2.38	0.58
10:B:768:G:N2	10:B:1379:U:O2'	2.36	0.58
10:B:1069:A:O2'	10:B:1070:A:OP2	2.21	0.58
10:B:1486:U:H2'	10:B:1487:U:C6	2.38	0.58
10:B:1688:U:N3	10:B:1700:A:OP1	2.36	0.58
10:B:1905:C:H3'	10:B:1930:G:C8	2.38	0.58
10:B:2162:G:H2'	10:B:2173:A:H1'	1.85	0.58
10:B:2345:G:H4'	10:B:2346:A:H5''	1.85	0.58
10:B:2805:C:H2'	10:B:2806:C:H6	1.67	0.58
12:D:56:LYS:HZ2	12:D:59:ARG:HH22	1.46	0.58
18:J:81:ILE:HG23	18:J:82:GLY:O	2.03	0.58
7:6:192:ARG:O	7:6:197:VAL:HG21	2.02	0.58
9:A:49:C:OP1	23:O:102:ARG:N	2.25	0.58
10:B:72:U:H3	33:Y:55:THR:HG1	1.50	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:476:G:N2	10:B:478:A:H3'	2.19	0.58
10:B:577:G:C2	10:B:578:G:C5	2.91	0.58
10:B:832:U:H2'	10:B:833:A:C8	2.37	0.58
10:B:1009:A:H5''	25:Q:58:GLN:HE21	1.69	0.58
10:B:1022:G:C2	10:B:1141:U:H5	2.20	0.58
10:B:1327:A:H2'	10:B:1328:A:H5'	1.85	0.58
10:B:1874:C:H2'	10:B:1875:G:O4'	2.03	0.58
10:B:1907:G:H2'	10:B:1908:C:C6	2.38	0.58
10:B:2010:G:O3'	27:S:42:LYS:NZ	2.30	0.58
10:B:2772:C:H2'	10:B:2773:C:H6	1.68	0.58
10:B:2799:A:H3'	10:B:2800:A:C5'	2.32	0.58
15:G:38:ASP:OD1	15:G:63:GLN:HG2	2.04	0.58
15:G:73:SER:HA	15:G:137:LYS:NZ	2.18	0.58
22:N:21:PHE:HZ	22:N:40:LYS:HG2	1.69	0.58
22:N:86:ARG:NH1	22:N:117:ASP:O	2.36	0.58
7:6:138:ARG:NH1	10:B:1941:C:H1'	2.18	0.58
8:7:14:GLU:O	8:7:18:VAL:HG23	2.03	0.58
10:B:252:G:H5'	20:L:47:ARG:NH2	2.17	0.58
10:B:558:U:P	18:J:113:PRO:HG2	2.44	0.58
10:B:903:C:H2'	10:B:904:G:H8	1.67	0.58
10:B:1378:A:C5	10:B:1380:G:C6	2.92	0.58
10:B:1600:C:H2'	10:B:1601:G:C8	2.39	0.58
10:B:1650:A:H2'	10:B:1651:G:H8	1.67	0.58
10:B:1882:U:H2'	10:B:1883:U:C6	2.38	0.58
10:B:2025:C:P	12:D:154:LYS:NZ	2.77	0.58
10:B:2234:G:H2'	10:B:2235:G:C8	2.38	0.58
10:B:2467:C:H2'	10:B:2468:A:C8	2.39	0.58
10:B:2884:U:C2	10:B:2885:G:N7	2.71	0.58
18:J:35:ARG:NH1	18:J:40:HIS:CD2	2.68	0.58
7:6:144:GLU:HB3	10:B:2602:A:C2	2.39	0.58
10:B:21:A:H61	10:B:519:U:H3	1.51	0.58
10:B:854:C:N4	10:B:923:G:H1	2.01	0.58
10:B:972:A:OP2	10:B:974:G:H5''	2.02	0.58
10:B:974:G:C6	10:B:1186:G:C6	2.91	0.58
10:B:1115:G:H2'	10:B:1116:G:C8	2.38	0.58
10:B:1215:G:H2'	10:B:1216:G:C8	2.37	0.58
10:B:1233:C:H2'	10:B:1234:U:H6	1.67	0.58
10:B:1599:U:H2'	10:B:1600:C:C6	2.38	0.58
10:B:2308:G:H2'	10:B:2310:C:N4	2.19	0.58
12:D:125:TRP:NE1	12:D:160:LYS:HB2	2.18	0.58
14:F:12:VAL:H	14:F:15:LEU:HB2	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:K:70:ARG:HG2	19:K:71:PRO:HD2	1.86	0.58
25:Q:99:VAL:HG23	25:Q:100:PHE:CD2	2.38	0.58
4:3:35:LYS:NZ	4:3:39:ARG:CZ	2.67	0.58
9:A:5:U:H2'	9:A:6:G:C8	2.37	0.58
10:B:61:C:O5'	33:Y:44:LYS:NZ	2.37	0.58
10:B:106:C:HO2'	10:B:294:A:HO2'	1.35	0.58
10:B:239:C:H2'	10:B:240:C:O4'	2.04	0.58
10:B:307:G:N2	10:B:310:A:OP2	2.36	0.58
10:B:438:G:H2'	10:B:439:A:H8	1.69	0.58
10:B:1229:C:H2'	10:B:1230:A:C8	2.38	0.58
10:B:1665:A:C2	10:B:1666:G:C4	2.92	0.58
10:B:1799:G:C4	11:C:175:LEU:HD13	2.38	0.58
10:B:1995:U:OP1	12:D:128:ARG:NH2	2.37	0.58
10:B:2134:A:C8	10:B:2135:A:H1'	2.39	0.58
10:B:2266:A:N3	10:B:2272:U:N3	2.52	0.58
10:B:2335:A:P	23:O:13:ARG:HE	2.27	0.58
12:D:4:LEU:HD22	12:D:32:ASN:ND2	2.17	0.58
16:H:3:VAL:CG1	16:H:30:LEU:HD11	2.17	0.58
17:I:17:ALA:HB1	17:I:22:PRO:HG3	1.86	0.58
17:I:124:MET:O	17:I:128:ILE:HG12	2.03	0.58
27:S:6:LYS:HB3	27:S:8:ARG:HG2	1.85	0.58
27:S:34:ASP:HA	27:S:37:THR:HG23	1.86	0.58
34:Z:27:GLY:O	34:Z:29:ARG:NH1	2.37	0.58
2:1:24:LYS:HD2	2:1:29:LYS:HD3	1.85	0.58
2:1:45:HIS:HD1	10:B:2371:G:HO2'	1.43	0.58
4:3:38:LYS:HA	4:3:41:ARG:CZ	2.34	0.58
5:4:9:LYS:HB3	5:4:14:CYS:SG	2.44	0.58
7:6:170:ARG:O	7:6:174:ILE:HG12	2.04	0.58
7:6:179:GLU:C	7:6:183:LYS:HZ3	2.07	0.58
9:A:15:A:O2'	9:A:16:G:O5'	2.14	0.58
10:B:272:A:H2'	10:B:273:G:C8	2.38	0.58
10:B:564:C:H2'	10:B:565:C:H6	1.68	0.58
10:B:741:U:H2'	10:B:742:A:C8	2.39	0.58
10:B:779:U:H2'	10:B:780:G:C8	2.39	0.58
10:B:895:U:H4'	10:B:896:A:C8	2.39	0.58
10:B:1062:G:H2'	10:B:1063:G:H8	1.68	0.58
10:B:1076:C:H2'	10:B:1077:A:C8	2.24	0.58
10:B:1651:G:N2	10:B:2006:C:N3	2.34	0.58
10:B:2018:G:H2'	10:B:2019:A:H8	1.69	0.58
10:B:2206:C:H2'	10:B:2207:C:C6	2.38	0.58
10:B:2748:A:C2	10:B:2757:A:C4	2.91	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2823:A:OP1	12:D:118:PHE:HB2	2.04	0.58
12:D:5:VAL:HG21	12:D:80:TRP:CD2	2.39	0.58
12:D:151:THR:HG22	12:D:152:PRO:HD2	1.86	0.58
27:S:6:LYS:HE3	27:S:8:ARG:HG2	1.85	0.58
30:V:4:ILE:O	30:V:64:VAL:N	2.36	0.58
2:1:49:LYS:HB2	2:1:50:GLU:HG2	1.85	0.58
3:2:16:HIS:ND1	3:2:21:ARG:NH2	2.52	0.58
3:2:44:VAL:N	3:2:46:LYS:O	2.37	0.58
7:6:376:GLU:OE1	7:6:376:GLU:N	2.36	0.58
10:B:274:C:O2	10:B:363:G:N1	2.35	0.58
10:B:329:G:H22	29:U:16:LYS:NZ	2.02	0.58
10:B:346:A:H3'	10:B:347:A:C8	2.39	0.58
10:B:534:U:O2'	25:Q:44:TYR:HB3	2.03	0.58
10:B:769:U:H2'	10:B:770:G:C8	2.34	0.58
10:B:874:G:C2	10:B:875:G:H1'	2.38	0.58
10:B:1790:C:H2'	10:B:1791:A:C8	2.39	0.58
10:B:1824:G:H5''	11:C:51:ARG:HH21	1.67	0.58
10:B:1831:G:N3	10:B:1975:G:N2	2.52	0.58
10:B:2186:G:C2	10:B:2187:U:H1'	2.38	0.58
10:B:2311:A:C3'	14:F:71:LYS:HZ1	2.17	0.58
14:F:3:LEU:HB2	14:F:96:TRP:CE2	2.39	0.58
14:F:56:LEU:HD11	14:F:88:VAL:HG13	1.86	0.58
16:H:144:VAL:HG23	16:H:146:VAL:HB	1.84	0.58
19:K:115:ILE:HA	19:K:118:ALA:HB3	1.86	0.58
22:N:78:LYS:HZ2	22:N:82:GLU:CD	2.06	0.58
30:V:46:LYS:HA	30:V:49:ASN:HD22	1.69	0.58
30:V:80:HIS:ND1	30:V:81:PRO:HD2	2.19	0.58
1:0:37:HIS:HB3	1:0:43:THR:HG23	1.86	0.57
2:1:29:LYS:HZ1	2:1:32:LYS:C	2.06	0.57
6:5:101:ALA:O	6:5:105:LYS:HG3	2.03	0.57
10:B:759:G:H21	10:B:760:G:H1'	1.69	0.57
10:B:814:C:N4	10:B:1193:G:H1	2.02	0.57
10:B:815:C:H42	10:B:1192:G:H1	1.52	0.57
10:B:815:C:P	26:R:85:LYS:NZ	2.76	0.57
10:B:856:G:P	31:W:23:LYS:NZ	2.77	0.57
10:B:948:C:O2	10:B:984:A:O2'	2.22	0.57
10:B:1492:G:H5''	10:B:1493:C:H5''	1.85	0.57
10:B:2813:A:C5	10:B:2814:A:C5	2.92	0.57
15:G:25:ILE:O	15:G:31:GLU:HA	2.04	0.57
16:H:30:LEU:CD2	16:H:35:LYS:HE2	2.34	0.57
16:H:68:ARG:O	16:H:132:PHE:HD2	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:I:85:ILE:HD13	17:I:137:LEU:HD21	1.85	0.57
19:K:70:ARG:HH22	24:P:71:ARG:HD3	1.69	0.57
28:T:3:ARG:NE	28:T:42:GLU:HA	2.18	0.57
28:T:14:PRO:HA	28:T:32:LEU:CB	2.33	0.57
3:2:31:LEU:O	3:2:35:ARG:HG2	2.04	0.57
4:3:38:LYS:HA	4:3:41:ARG:NH2	2.19	0.57
6:5:133:PRO:O	6:5:135:GLY:N	2.28	0.57
7:6:293:GLU:O	7:6:297:ALA:N	2.34	0.57
10:B:218:A:N7	10:B:219:A:C5	2.72	0.57
10:B:544:C:O2	10:B:544:C:H3'	2.04	0.57
10:B:676:A:H62	10:B:802:A:H61	1.50	0.57
10:B:1721:G:HO2'	10:B:1722:A:P	2.26	0.57
10:B:1799:G:C2	11:C:175:LEU:HD22	2.38	0.57
10:B:2195:U:H2'	10:B:2196:C:H6	1.69	0.57
10:B:2209:G:H2'	10:B:2210:U:H5	1.68	0.57
10:B:2261:C:H2'	10:B:2262:U:C6	2.39	0.57
10:B:2406:A:C2	20:L:69:ARG:NH1	2.72	0.57
11:C:12:ARG:O	11:C:15:VAL:HG12	2.04	0.57
14:F:98:PHE:HE1	14:F:101:ARG:NH2	2.01	0.57
7:6:5:TYR:HB3	7:6:99:ARG:NH1	2.19	0.57
8:7:59:LEU:N	8:7:62:ARG:HB2	2.19	0.57
10:B:452:G:C2	10:B:458:G:C5	2.92	0.57
10:B:564:C:P	26:R:79:ARG:HH21	2.26	0.57
10:B:704:G:C2	10:B:726:G:C5	2.93	0.57
10:B:966:G:C5	10:B:967:U:C4	2.91	0.57
10:B:1071:G:H1	10:B:1092:C:N4	2.02	0.57
10:B:1490:A:H2'	11:C:73:ILE:HD11	1.85	0.57
10:B:1612:C:N4	10:B:1619:G:O6	2.37	0.57
10:B:1749:A:H2'	10:B:1750:G:C8	2.38	0.57
10:B:2112:G:H8	10:B:2113:U:C5	2.21	0.57
10:B:2163:A:N7	10:B:2164:C:O2'	2.37	0.57
10:B:2647:U:O2'	10:B:2648:G:O4'	2.18	0.57
14:F:6:TYR:OH	14:F:168:LEU:O	2.22	0.57
16:H:64:ALA:HA	16:H:71:LYS:NZ	2.19	0.57
19:K:70:ARG:HH11	19:K:76:ILE:HD11	1.67	0.57
19:K:92:GLN:N	19:K:110:LYS:NZ	2.52	0.57
27:S:66:ILE:HG23	27:S:67:ASP:H	1.70	0.57
30:V:4:ILE:HD11	30:V:50:MET:SD	2.44	0.57
8:7:26:VAL:HG22	8:7:84:TYR:CE1	2.39	0.57
8:7:142:THR:HB	8:7:145:GLU:HB2	1.85	0.57
10:B:123:G:H2'	10:B:124:G:O4'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1685:C:H2'	10:B:1686:C:H6	1.69	0.57
10:B:1687:G:H1'	10:B:1702:G:N2	2.19	0.57
10:B:1824:G:H2'	10:B:1825:U:C6	2.39	0.57
10:B:2745:C:N4	10:B:2760:C:H42	2.03	0.57
14:F:11:VAL:HA	14:F:15:LEU:HD12	1.86	0.57
24:P:28:LYS:HB2	24:P:81:ASP:HB2	1.84	0.57
32:X:4:CYS:HB3	32:X:8:GLY:N	2.19	0.57
6:5:117:SER:H	6:5:120:ALA:HB3	1.69	0.57
7:6:275:ARG:HG2	7:6:275:ARG:NH1	2.20	0.57
7:6:370:LEU:HD22	7:6:383:PHE:CZ	2.39	0.57
8:7:57:ASN:CG	10:B:1106:G:H5''	2.25	0.57
9:A:27:C:C4	9:A:28:C:C4	2.92	0.57
9:A:68:C:H2'	9:A:69:G:C8	2.39	0.57
10:B:26:G:H1'	10:B:515:A:H61	1.69	0.57
10:B:1065:U:C4	10:B:1066:U:C4	2.92	0.57
10:B:1346:G:N1	10:B:1600:C:N3	2.41	0.57
10:B:1509:A:C4	10:B:1510:G:C8	2.93	0.57
10:B:2793:C:H2'	10:B:2794:C:H6	1.69	0.57
10:B:2846:G:C5	10:B:2847:U:C4	2.93	0.57
18:J:77:HIS:CD2	18:J:79:GLY:H	2.21	0.57
26:R:19:THR:HA	26:R:97:LYS:HA	1.85	0.57
29:U:4:ILE:O	29:U:5:ARG:HD2	2.05	0.57
7:6:324:ASP:OD2	7:6:341:TRP:CE3	2.58	0.57
7:6:394:MET:HA	7:6:400:VAL:HG13	1.86	0.57
10:B:216:A:H2'	10:B:217:A:C8	2.40	0.57
10:B:399:U:H2'	10:B:400:G:C8	2.40	0.57
10:B:637:A:C6	10:B:652:U:H5''	2.40	0.57
10:B:796:C:H2'	10:B:797:G:C8	2.40	0.57
10:B:934:U:H2'	10:B:935:C:C6	2.40	0.57
10:B:976:G:C5'	10:B:1156:A:H62	2.16	0.57
10:B:1581:G:H2'	10:B:1582:C:H6	1.69	0.57
10:B:1771:C:O2'	10:B:1786:A:N3	2.35	0.57
10:B:1953:A:N1	10:B:2549:G:O2'	2.25	0.57
10:B:2831:G:P	12:D:59:ARG:HH22	2.27	0.57
11:C:24:HIS:ND1	11:C:79:ARG:NH2	2.52	0.57
12:D:46:ARG:NH2	12:D:88:GLU:HG2	2.15	0.57
14:F:110:ILE:HG23	14:F:176:PHE:O	2.05	0.57
17:I:35:MET:HB3	17:I:39:LYS:NZ	2.19	0.57
24:P:98:TYR:HA	24:P:100:ARG:HG2	1.85	0.57
26:R:37:GLU:OE2	26:R:58:VAL:N	2.37	0.57
7:6:216:ARG:NH2	7:6:345:GLN:O	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:44:G:O4'	9:A:47:C:N4	2.37	0.57
10:B:81:G:H1	10:B:105:C:H42	1.52	0.57
10:B:90:U:H2'	10:B:91:A:C2	2.39	0.57
10:B:674:G:O3'	13:E:62:GLN:NE2	2.35	0.57
10:B:993:G:P	25:Q:50:ARG:HH12	2.28	0.57
10:B:1218:G:C2	10:B:1232:G:C5	2.92	0.57
10:B:1300:G:N2	10:B:1626:A:H62	2.02	0.57
10:B:1705:A:H2'	10:B:1706:C:C6	2.40	0.57
10:B:1826:G:H2'	10:B:1827:U:H6	1.70	0.57
10:B:2189:U:H2'	10:B:2190:G:C8	2.39	0.57
10:B:2246:G:H2'	10:B:2247:A:H8	1.70	0.57
10:B:2720:U:H2'	10:B:2721:A:O4'	2.05	0.57
10:B:2824:C:O5'	10:B:2825:G:N2	2.37	0.57
11:C:93:VAL:HG22	11:C:101:ARG:O	2.04	0.57
12:D:106:LYS:O	12:D:206:ALA:N	2.37	0.57
34:Z:5:LYS:HB3	34:Z:57:GLU:HB2	1.85	0.57
4:3:2:LYS:NZ	10:B:242:G:P	2.77	0.57
7:6:194:LYS:HZ3	7:6:197:VAL:CG2	2.18	0.57
7:6:262:ASP:N	7:6:262:ASP:OD1	2.35	0.57
9:A:30:C:O2'	9:A:57:A:N1	2.35	0.57
10:B:199:A:C5	10:B:2433:A:N1	2.72	0.57
10:B:543:G:N3	10:B:544:C:H1'	2.20	0.57
10:B:1162:G:H2'	10:B:1163:G:C8	2.39	0.57
10:B:1378:A:C4	10:B:1380:G:C6	2.93	0.57
10:B:1407:G:N1	10:B:1595:C:O2	2.34	0.57
10:B:1425:G:N2	10:B:1574:C:N3	2.52	0.57
10:B:1845:G:C6	10:B:1896:G:C6	2.93	0.57
10:B:1881:C:C4	10:B:1882:U:C4	2.92	0.57
10:B:2311:A:H3'	14:F:71:LYS:HZ1	1.70	0.57
10:B:2821:A:O2'	10:B:2822:G:H5'	2.05	0.57
12:D:38:LYS:HB2	12:D:47:ALA:HB3	1.85	0.57
14:F:159:ALA:HB1	14:F:164:GLU:HB2	1.86	0.57
18:J:28:LEU:O	18:J:32:LEU:HG	2.04	0.57
18:J:42:ALA:HB3	18:J:44:TYR:CZ	2.40	0.57
22:N:80:PHE:O	22:N:81:ASN:ND2	2.37	0.57
23:O:89:ASP:HA	23:O:116:GLN:O	2.05	0.57
26:R:71:LYS:HG2	26:R:90:ARG:HD2	1.86	0.57
26:R:71:LYS:HG3	26:R:90:ARG:NH1	2.20	0.57
29:U:89:GLY:HA2	29:U:91:LYS:HZ2	1.69	0.57
1:0:35:GLU:OE2	1:0:45:ASP:OD2	2.23	0.57
1:0:47:TYR:CE1	1:0:52:LYS:HD3	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:38:LYS:HG3	4:3:41:ARG:HH21	1.69	0.57
6:5:218:MET:SD	10:B:2173:A:N6	2.78	0.57
10:B:64:A:C6	10:B:65:U:C4	2.93	0.57
10:B:278:A:H2	10:B:279:A:C6	2.23	0.57
10:B:457:A:O5'	10:B:459:U:H1'	2.05	0.57
10:B:518:G:O5'	27:S:18:ARG:NH1	2.37	0.57
10:B:519:U:H5''	27:S:25:ARG:HH22	1.70	0.57
10:B:533:G:C5	10:B:534:U:C4	2.92	0.57
10:B:811:U:H1'	10:B:1251:C:H5'	1.86	0.57
10:B:1055:G:H3'	10:B:1056:G:C8	2.35	0.57
10:B:1206:G:H2'	10:B:1207:C:O4'	2.05	0.57
10:B:2581:G:C5	10:B:2610:C:C4	2.93	0.57
10:B:2637:U:OP1	12:D:83:ARG:HD2	2.05	0.57
13:E:147:LEU:HB2	13:E:183:PHE:CD2	2.40	0.57
14:F:98:PHE:CE1	14:F:101:ARG:NH2	2.72	0.57
20:L:12:SER:C	20:L:13:LYS:HD2	2.24	0.57
26:R:7:SER:OG	26:R:8:GLY:N	2.37	0.57
26:R:33:VAL:HG13	26:R:61:ALA:HB3	1.87	0.57
1:0:49:ARG:HB3	10:B:2884:U:C5	2.40	0.57
4:3:15:LYS:HA	4:3:21:PHE:CD1	2.40	0.57
6:5:80:GLN:HG2	10:B:2169:A:H1'	1.86	0.57
6:5:133:PRO:O	10:B:2122:U:O4	2.23	0.57
7:6:370:LEU:HG	7:6:424:TYR:HB2	1.86	0.57
10:B:222:A:H62	10:B:232:G:H21	1.52	0.57
10:B:473:G:P	10:B:473:G:H8	2.28	0.57
10:B:484:C:N3	10:B:496:G:N2	2.47	0.57
10:B:807:U:H2'	10:B:808:G:C8	2.39	0.57
10:B:1016:G:H1	10:B:1146:C:N4	2.02	0.57
10:B:1064:C:N4	10:B:1070:A:OP1	2.38	0.57
10:B:1098:A:C6	17:I:4:VAL:HA	2.40	0.57
10:B:1179:G:H2'	10:B:1180:U:C6	2.39	0.57
10:B:1818:U:C5	11:C:152:GLN:HB2	2.40	0.57
10:B:2102:G:N2	10:B:2186:G:H22	2.03	0.57
10:B:2200:C:OP1	32:X:36:ARG:N	2.30	0.57
16:H:11:ASN:CG	16:H:12:LEU:H	2.08	0.57
17:I:30:GLN:HG2	17:I:64:ARG:HD2	1.85	0.57
18:J:130:HIS:ND1	18:J:130:HIS:O	2.38	0.57
24:P:61:ARG:HH22	24:P:63:ILE:HD11	1.70	0.57
26:R:42:ALA:HA	26:R:45:GLU:O	2.05	0.57
26:R:71:LYS:HG3	26:R:90:ARG:HH11	1.70	0.57
28:T:24:MET:O	28:T:28:ASN:N	2.28	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:U:38:ILE:N	29:U:61:GLU:OE2	2.35	0.57
31:W:36:ILE:HG21	31:W:43:LYS:HB2	1.86	0.57
4:3:49:VAL:HG23	4:3:51:LYS:HG3	1.87	0.56
7:6:50:LYS:HE3	7:6:59:GLY:H	1.70	0.56
10:B:211:C:H2'	10:B:212:G:C8	2.40	0.56
10:B:325:G:H1	10:B:337:C:N4	2.01	0.56
10:B:870:U:OP2	21:M:6:ARG:NH2	2.38	0.56
10:B:1094:U:O2'	10:B:1096:A:N7	2.28	0.56
10:B:1366:A:C5	10:B:1367:A:C8	2.93	0.56
10:B:1420:A:H5''	10:B:2211:A:H62	1.69	0.56
10:B:2114:A:H2	10:B:2168:G:H1'	1.70	0.56
10:B:2179:C:O2'	10:B:2180:U:O4'	2.15	0.56
10:B:2638:G:N2	10:B:2776:A:N7	2.52	0.56
10:B:2674:G:H2'	10:B:2675:A:H8	1.68	0.56
10:B:2867:G:O2'	10:B:2868:A:H8	1.88	0.56
11:C:15:VAL:HG23	11:C:204:LEU:O	2.05	0.56
12:D:133:THR:OG1	12:D:134:HIS:N	2.37	0.56
12:D:178:VAL:HB	12:D:188:LEU:HB3	1.87	0.56
14:F:3:LEU:HB2	14:F:96:TRP:CD2	2.40	0.56
23:O:11:ALA:HB2	23:O:96:GLY:N	2.20	0.56
7:6:164:ARG:HB3	7:6:168:ARG:NH1	2.20	0.56
7:6:336:LYS:HZ1	7:6:338:ASN:ND2	2.03	0.56
35:6:527:GNP:H5'2	35:6:527:GNP:H8	1.87	0.56
10:B:70:G:O5'	10:B:75:G:N1	2.38	0.56
10:B:807:U:C2	10:B:808:G:C8	2.92	0.56
10:B:953:G:C2	10:B:954:G:C8	2.92	0.56
10:B:1314:C:H42	10:B:1338:G:H1	1.54	0.56
10:B:1440:U:H2'	10:B:1441:G:C8	2.40	0.56
10:B:1458:U:H5''	10:B:1459:G:H3'	1.86	0.56
10:B:1779:U:OP2	10:B:1784:A:N6	2.31	0.56
10:B:2399:G:H2'	10:B:2400:G:C8	2.36	0.56
10:B:2551:C:H2'	10:B:2552:U:C6	2.40	0.56
10:B:2788:C:H2'	10:B:2789:C:C6	2.39	0.56
15:G:88:LEU:HD21	15:G:95:ALA:HB2	1.85	0.56
18:J:64:VAL:HG11	18:J:69:ARG:HD2	1.86	0.56
22:N:60:VAL:O	22:N:63:ARG:HB2	2.05	0.56
23:O:7:ARG:HA	23:O:10:ARG:NE	2.20	0.56
27:S:28:LYS:H	27:S:71:VAL:HG12	1.70	0.56
32:X:35:HIS:HB3	32:X:37:PHE:CE2	2.39	0.56
6:5:161:VAL:HG11	6:5:192:LEU:HD21	1.87	0.56
6:5:168:ASN:HD22	10:B:2178:C:P	2.28	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:141:THR:O	7:6:145:ARG:HG2	2.06	0.56
7:6:144:GLU:OE2	10:B:2602:A:H3'	2.05	0.56
9:A:13:G:H4'	9:A:14:U:OP1	2.05	0.56
10:B:96:C:H4'	33:Y:41:HIS:CE1	2.41	0.56
10:B:532:A:H5'	25:Q:27:ARG:HH12	1.68	0.56
10:B:562:U:O2	10:B:572:A:H1'	2.04	0.56
10:B:775:G:C2	10:B:777:G:N1	2.74	0.56
10:B:833:A:H2'	10:B:834:G:C8	2.41	0.56
10:B:972:A:C5	10:B:973:A:C5	2.93	0.56
10:B:1130:U:C2	12:D:152:PRO:HG3	2.40	0.56
10:B:1281:G:H2'	10:B:1282:U:C6	2.40	0.56
10:B:1392:A:P	28:T:19:LYS:NZ	2.78	0.56
10:B:1837:C:O2	10:B:1903:G:N1	2.38	0.56
10:B:1861:G:O6	10:B:1881:C:N4	2.22	0.56
10:B:2244:U:H2'	10:B:2245:U:C6	2.40	0.56
10:B:2328:A:H2'	10:B:2329:U:H6	1.69	0.56
10:B:2471:A:O2'	10:B:2472:G:H8	1.73	0.56
10:B:2632:A:H2'	10:B:2633:G:C8	2.37	0.56
10:B:2803:G:H2'	10:B:2804:U:H6	1.68	0.56
13:E:5:LEU:N	13:E:10:SER:O	2.26	0.56
21:M:21:ALA:HB2	21:M:97:GLN:HB2	1.87	0.56
22:N:44:LEU:HD23	22:N:113:ILE:HD13	1.87	0.56
29:U:80:ASP:HB3	29:U:96:LYS:O	2.04	0.56
8:7:34:THR:HA	10:B:1085:A:H61	1.71	0.56
9:A:114:C:H2'	9:A:115:A:C8	2.41	0.56
10:B:220:G:H22	10:B:265:A:N6	2.03	0.56
10:B:265:A:O2'	10:B:266:G:H4'	2.05	0.56
10:B:378:C:N4	10:B:379:G:O6	2.37	0.56
10:B:631:A:N6	10:B:2416:C:HO2'	2.04	0.56
10:B:1189:A:C8	10:B:1190:G:C8	2.93	0.56
10:B:1851:U:H2'	10:B:1852:U:H6	1.70	0.56
10:B:2251:G:N2	10:B:2252:G:O4'	2.36	0.56
10:B:2751:G:O4'	15:G:2:ARG:HG3	2.06	0.56
10:B:2823:A:OP2	12:D:118:PHE:N	2.23	0.56
13:E:123:LYS:HG2	13:E:125:SER:H	1.69	0.56
29:U:43:LYS:HG2	29:U:60:LYS:HD3	1.88	0.56
6:5:130:VAL:HB	10:B:2119:A:C4	2.41	0.56
6:5:134:ARG:NH2	6:5:136:LEU:HD23	2.20	0.56
10:B:153:U:H2'	10:B:154:U:C6	2.40	0.56
10:B:251:A:C6	10:B:252:G:H1'	2.41	0.56
10:B:575:A:H2'	10:B:576:U:H6	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:583:G:C2	10:B:584:C:C2	2.93	0.56
10:B:588:U:H2'	10:B:589:U:C6	2.39	0.56
10:B:881:G:N2	10:B:897:C:O2	2.38	0.56
10:B:1147:A:H2'	10:B:1148:U:C6	2.40	0.56
10:B:2109:U:N3	10:B:2181:U:O2	2.38	0.56
10:B:2331:G:C5	10:B:2332:C:C4	2.94	0.56
10:B:2444:G:C2	10:B:2445:G:C8	2.93	0.56
10:B:2653:U:C4	10:B:2654:A:C6	2.93	0.56
10:B:2765:A:H5'	10:B:2766:A:OP2	2.06	0.56
18:J:93:ILE:HA	18:J:97:PRO:HA	1.87	0.56
24:P:67:GLU:HG2	24:P:69:VAL:HG23	1.88	0.56
25:Q:96:ASP:CG	26:R:13:ARG:HH12	2.09	0.56
9:A:21:G:H2'	9:A:22:U:C6	2.41	0.56
10:B:58:G:C6	10:B:59:U:C4	2.93	0.56
10:B:58:G:O2'	10:B:59:U:H5'	2.04	0.56
10:B:1011:G:C6	10:B:1151:A:C6	2.93	0.56
10:B:1023:U:H2'	10:B:1024:G:O4'	2.06	0.56
10:B:1139:G:O5'	18:J:72:LYS:NZ	2.36	0.56
10:B:1301:A:C5	10:B:1303:G:C8	2.93	0.56
10:B:1340:U:P	28:T:82:LYS:NZ	2.79	0.56
10:B:1346:G:C2	10:B:1347:A:C4	2.94	0.56
10:B:1553:A:H2'	10:B:1555:G:C8	2.40	0.56
10:B:1711:A:H61	10:B:1747:U:H3	1.52	0.56
10:B:2673:G:H2'	10:B:2674:G:H8	1.70	0.56
10:B:2801:G:C2	10:B:2802:G:C4	2.93	0.56
12:D:166:GLY:O	12:D:168:GLU:HG2	2.06	0.56
14:F:111:ARG:HH12	14:F:135:ILE:HG22	1.70	0.56
20:L:68:SER:HB3	20:L:70:LYS:HB2	1.87	0.56
22:N:118:ARG:NE	22:N:121:LYS:N	2.35	0.56
24:P:1:SER:OG	24:P:2:ASN:N	2.39	0.56
7:6:336:LYS:NZ	7:6:338:ASN:ND2	2.53	0.56
9:A:17:C:H2'	9:A:18:G:O4'	2.06	0.56
9:A:34:A:H4'	9:A:35:C:N3	2.20	0.56
9:A:49:C:H5''	23:O:68:LYS:HD2	1.87	0.56
10:B:857:G:H1	10:B:920:A:N6	2.04	0.56
10:B:881:G:C2	10:B:882:G:H1'	2.41	0.56
10:B:1342:A:C5	10:B:1345:C:C4	2.94	0.56
10:B:1364:G:H2'	10:B:1366:A:OP2	2.05	0.56
10:B:1759:A:C5	10:B:1760:C:C4	2.93	0.56
10:B:1773:A:H2'	10:B:1774:C:O4'	2.05	0.56
10:B:1793:C:N4	10:B:1794:A:N7	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1825:U:P	11:C:51:ARG:NH2	2.79	0.56
10:B:1841:U:H2'	10:B:1842:G:C8	2.41	0.56
10:B:1895:C:H2'	10:B:1896:G:C8	2.40	0.56
10:B:2157:G:H5''	10:B:2158:A:C4	2.40	0.56
10:B:2572:A:H8	12:D:149:ASN:HD21	1.53	0.56
10:B:2643:G:H2'	10:B:2644:G:O4'	2.05	0.56
13:E:117:ARG:NH2	13:E:183:PHE:O	2.38	0.56
17:I:30:GLN:HE22	17:I:60:VAL:HG21	1.71	0.56
18:J:24:THR:HG22	18:J:27:ARG:H	1.69	0.56
25:Q:16:ILE:HG21	25:Q:35:PHE:CD1	2.39	0.56
29:U:13:LEU:O	29:U:14:THR:OG1	2.21	0.56
29:U:39:ASN:O	29:U:61:GLU:HG2	2.06	0.56
31:W:18:LYS:HG3	31:W:19:ARG:H	1.71	0.56
6:5:62:ALA:HB3	6:5:144:THR:HB	1.87	0.56
10:B:220:G:N1	10:B:428:A:OP2	2.38	0.56
10:B:491:G:C2	10:B:492:A:C4	2.94	0.56
10:B:537:G:C2	10:B:555:G:N2	2.73	0.56
10:B:700:G:C2	10:B:701:G:C8	2.94	0.56
10:B:738:G:C6	10:B:739:A:C6	2.93	0.56
10:B:749:A:C5	10:B:1618:A:C6	2.94	0.56
10:B:857:G:H1	10:B:920:A:H61	1.54	0.56
10:B:875:G:C6	10:B:876:C:C2	2.93	0.56
10:B:1091:G:H2'	10:B:1092:C:H6	1.71	0.56
10:B:1117:C:H2'	10:B:1118:C:C6	2.40	0.56
10:B:1570:A:H2'	10:B:1571:A:H8	1.71	0.56
10:B:2494:G:C5	10:B:2495:G:N7	2.74	0.56
10:B:2507:C:H2'	10:B:2508:G:H8	1.70	0.56
10:B:2661:G:H2'	10:B:2662:A:O4'	2.05	0.56
15:G:71:LEU:HA	15:G:74:MET:HB2	1.86	0.56
17:I:38:CYS:O	17:I:42:ASN:ND2	2.38	0.56
26:R:37:GLU:HB2	26:R:53:PHE:HB3	1.88	0.56
3:2:33:ARG:NH2	10:B:466:A:O3'	2.39	0.56
7:6:194:LYS:NZ	7:6:197:VAL:HG13	2.20	0.56
7:6:257:ARG:HB3	7:6:258:HIS:ND1	2.20	0.56
7:6:384:TYR:OH	7:6:392:GLU:OE1	2.23	0.56
8:7:103:ASN:OD1	8:7:104:ALA:N	2.39	0.56
9:A:16:G:H2'	9:A:17:C:C6	2.40	0.56
10:B:210:C:H2'	10:B:211:C:H6	1.70	0.56
10:B:264:C:O2'	10:B:428:A:N6	2.39	0.56
10:B:381:G:C2	10:B:382:A:C4	2.94	0.56
10:B:618:G:C5	10:B:619:G:C5	2.94	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:662:G:H2'	10:B:663:G:C8	2.41	0.56
10:B:923:G:H21	31:W:24:ARG:NH2	2.04	0.56
10:B:969:G:H5''	10:B:970:U:OP2	2.06	0.56
10:B:1009:A:C5	10:B:1010:A:N1	2.74	0.56
10:B:1117:C:H2'	10:B:1118:C:H6	1.71	0.56
10:B:1215:G:N3	10:B:1216:G:C8	2.74	0.56
10:B:1314:C:C5	10:B:1315:C:H5	2.24	0.56
10:B:1351:C:C2	10:B:1381:G:N1	2.73	0.56
10:B:1355:G:P	11:C:42:ARG:NH1	2.78	0.56
10:B:1429:G:C5	10:B:1568:G:C6	2.94	0.56
10:B:1533:C:C4	10:B:1534:U:C4	2.94	0.56
10:B:1910:G:C2	10:B:1911:U:H1'	2.41	0.56
10:B:2279:G:C6	10:B:2280:G:C5	2.94	0.56
10:B:2371:G:OP2	10:B:2371:G:H8	1.89	0.56
10:B:2815:C:C2	10:B:2816:G:C8	2.94	0.56
14:F:108:PRO:HB2	14:F:178:LYS:HD3	1.88	0.56
16:H:29:PHE:CE2	16:H:35:LYS:HD3	2.41	0.56
17:I:106:GLN:OE1	17:I:125:THR:HG21	2.05	0.56
19:K:3:GLU:CD	19:K:3:GLU:H	2.09	0.56
21:M:90:GLU:N	21:M:90:GLU:OE1	2.39	0.56
23:O:98:GLN:O	23:O:100:HIS:N	2.39	0.56
26:R:67:GLY:HA3	26:R:93:PHE:HB2	1.87	0.56
34:Z:30:ARG:HB2	34:Z:33:HIS:HB2	1.87	0.56
9:A:69:G:H2'	9:A:70:C:H5'	1.86	0.56
10:B:74:A:OP1	33:Y:47:ARG:NH2	2.39	0.56
10:B:247:G:O2'	10:B:386:G:N1	2.38	0.56
10:B:579:G:H2'	10:B:580:U:H6	1.68	0.56
10:B:754:U:H2'	10:B:755:U:C6	2.41	0.56
10:B:974:G:H8	10:B:990:A:N6	2.00	0.56
10:B:1382:G:O2'	10:B:1573:G:N3	2.39	0.56
10:B:1392:A:P	28:T:19:LYS:HZ3	2.29	0.56
10:B:2064:C:H1'	10:B:2450:A:C2	2.40	0.56
10:B:2115:G:N2	10:B:2119:A:OP1	2.39	0.56
10:B:2207:C:H2'	10:B:2208:C:C6	2.41	0.56
10:B:2530:A:H5'	15:G:174:LYS:HZ2	1.69	0.56
11:C:143:VAL:O	11:C:151:GLY:HA2	2.06	0.56
18:J:40:HIS:O	18:J:42:ALA:N	2.37	0.56
23:O:100:HIS:CA	23:O:104:GLN:HB2	2.36	0.56
27:S:25:ARG:HA	27:S:71:VAL:HG21	1.87	0.56
28:T:27:SER:O	28:T:28:ASN:ND2	2.38	0.56
32:X:39:VAL:HG22	32:X:44:ARG:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:309:A:C6	10:B:330:A:C5	2.93	0.55
10:B:347:A:H2'	10:B:348:A:H8	1.70	0.55
10:B:925:A:H2'	10:B:926:G:H8	1.71	0.55
10:B:1279:G:H2'	10:B:1280:G:C8	2.41	0.55
10:B:2092:U:OP2	16:H:28:ASN:ND2	2.39	0.55
10:B:2115:G:O2'	10:B:2165:C:N4	2.34	0.55
10:B:2116:G:C4	10:B:2146:C:H5''	2.41	0.55
10:B:2192:U:N3	10:B:2193:G:N7	2.55	0.55
10:B:2313:C:H2'	10:B:2314:A:C8	2.40	0.55
10:B:2318:G:H3'	10:B:2319:G:C8	2.41	0.55
10:B:2556:C:H3'	10:B:2557:G:H8	1.71	0.55
10:B:2652:C:C2	10:B:2669:G:C2	2.95	0.55
10:B:2728:U:O2'	10:B:2729:G:O4'	2.24	0.55
12:D:14:ILE:HB	12:D:24:VAL:HG21	1.87	0.55
13:E:29:HIS:CE1	20:L:8:PRO:HD3	2.41	0.55
16:H:68:ARG:HD3	16:H:132:PHE:CD1	2.33	0.55
17:I:105:LEU:HD22	17:I:128:ILE:HG22	1.87	0.55
28:T:11:LEU:HD23	28:T:34:VAL:HG21	1.88	0.55
7:6:8:GLY:HA2	7:6:38:GLY:O	2.06	0.55
10:B:372:G:C6	32:X:56:ARG:NH2	2.74	0.55
10:B:894:U:H2'	10:B:895:U:O4'	2.06	0.55
10:B:909:A:O2'	10:B:910:A:O5'	2.22	0.55
10:B:912:C:H2'	10:B:913:U:H6	1.70	0.55
10:B:1432:G:C2	10:B:1433:A:C4	2.94	0.55
10:B:1529:G:H2'	10:B:1530:G:H8	1.70	0.55
10:B:1643:G:H2'	10:B:1644:C:O4'	2.05	0.55
10:B:1726:C:H2'	10:B:1727:C:C6	2.42	0.55
10:B:1835:G:N3	10:B:1931:U:N3	2.55	0.55
10:B:1916:A:OP2	10:B:1918:A:N6	2.28	0.55
10:B:1919:A:H2'	10:B:1920:C:O4'	2.06	0.55
10:B:2241:A:H2	10:B:2242:G:C6	2.24	0.55
10:B:2489:U:O4	10:B:2490:G:N1	2.39	0.55
10:B:2568:U:H2'	10:B:2569:G:C8	2.41	0.55
10:B:2660:A:N7	15:G:176:LYS:HB3	2.21	0.55
11:C:211:ARG:NH2	11:C:217:PRO:HD3	2.22	0.55
15:G:106:LEU:HD13	15:G:151:ARG:HD2	1.88	0.55
16:H:64:ALA:HA	16:H:71:LYS:HZ2	1.70	0.55
19:K:79:ASP:OD2	24:P:68:GLY:HA3	2.07	0.55
20:L:76:GLU:OE2	20:L:111:ILE:HD13	2.05	0.55
25:Q:100:PHE:O	25:Q:102:LYS:N	2.39	0.55
29:U:20:LYS:HG2	29:U:21:ARG:O	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:28:ARG:NH2	10:B:178:G:O3'	2.39	0.55
5:4:24:ARG:NH2	10:B:2742:G:P	2.79	0.55
7:6:153:ARG:NH2	10:B:2505:G:O2'	2.39	0.55
7:6:336:LYS:HZ1	7:6:338:ASN:HD22	1.55	0.55
9:A:76:G:P	30:V:9:ARG:HH22	2.28	0.55
10:B:195:A:H5''	10:B:196:A:H4'	1.87	0.55
10:B:956:G:H2'	10:B:957:C:H2'	1.87	0.55
10:B:1355:G:H1	10:B:1376:C:H42	1.55	0.55
10:B:1373:A:O2'	10:B:2212:A:H2	1.88	0.55
10:B:1454:C:HO2'	10:B:1455:G:H8	1.52	0.55
10:B:2357:G:C2	10:B:2361:G:C6	2.95	0.55
10:B:2704:C:C4	10:B:2705:A:N6	2.74	0.55
10:B:2790:U:C4	10:B:2893:A:C6	2.95	0.55
10:B:2830:C:H5''	12:D:56:LYS:NZ	2.22	0.55
10:B:2849:U:OP1	24:P:92:ARG:NH2	2.39	0.55
14:F:37:MET:HB2	14:F:86:CYS:H	1.71	0.55
14:F:105:ILE:HD12	14:F:135:ILE:HB	1.88	0.55
21:M:29:GLY:HA3	21:M:106:ASP:HB2	1.87	0.55
9:A:12:C:O2'	9:A:13:G:OP2	2.22	0.55
10:B:8:C:H2'	10:B:9:G:C8	2.41	0.55
10:B:61:C:C5'	33:Y:44:LYS:HZ3	2.19	0.55
10:B:214:G:C2	10:B:215:G:C5	2.94	0.55
10:B:589:U:H2'	10:B:590:A:C8	2.42	0.55
10:B:659:G:P	13:E:95:LYS:HZ3	2.30	0.55
10:B:704:G:O2'	10:B:705:A:H8	1.89	0.55
10:B:882:G:C6	10:B:895:U:C2	2.94	0.55
10:B:980:A:H62	10:B:981:A:N6	2.03	0.55
10:B:1805:A:H5''	11:C:247:TRP:CG	2.42	0.55
10:B:2168:G:N1	10:B:2171:A:H8	2.04	0.55
10:B:2737:G:H2'	10:B:2738:A:C8	2.41	0.55
10:B:2747:G:H2'	10:B:2748:A:C8	2.41	0.55
12:D:101:PHE:O	12:D:104:VAL:N	2.40	0.55
15:G:38:ASP:OD1	15:G:39:ALA:N	2.40	0.55
22:N:78:LYS:NZ	22:N:82:GLU:OE1	2.32	0.55
24:P:3:ILE:O	24:P:6:GLN:NE2	2.38	0.55
6:5:206:GLY:HA3	10:B:1877:A:P	2.46	0.55
7:6:295:ILE:O	7:6:299:ASN:ND2	2.39	0.55
10:B:367:G:H2'	10:B:368:A:C8	2.41	0.55
10:B:512:G:OP2	10:B:1234:U:O2'	2.25	0.55
10:B:541:A:C5	10:B:542:C:C4	2.95	0.55
10:B:621:A:H2'	10:B:622:G:O4'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:670:A:H4'	10:B:671:C:H5'	1.89	0.55
10:B:766:U:H2'	10:B:767:U:C6	2.42	0.55
10:B:771:G:H2'	10:B:772:C:C6	2.41	0.55
10:B:897:C:H6	10:B:897:C:P	2.30	0.55
10:B:988:A:C3'	34:Z:11:SER:HG	2.20	0.55
10:B:1077:A:O2'	17:I:93:ASN:ND2	2.36	0.55
10:B:1696:G:C5	10:B:1697:G:C5	2.95	0.55
10:B:1701:A:OP1	10:B:1763:G:N2	2.37	0.55
10:B:2305:U:H2'	10:B:2306:C:C6	2.42	0.55
10:B:2400:G:C5	10:B:2401:U:C4	2.94	0.55
10:B:2428:G:N2	20:L:60:ARG:NH2	2.55	0.55
10:B:2531:A:OP1	15:G:174:LYS:HE2	2.07	0.55
10:B:2638:G:P	12:D:83:ARG:HH22	2.30	0.55
10:B:2729:G:C5	10:B:2730:C:C4	2.94	0.55
10:B:2830:C:C3'	12:D:59:ARG:HH22	2.19	0.55
11:C:204:LEU:HB3	11:C:209:ALA:HB3	1.89	0.55
12:D:33:ARG:NH2	12:D:73:VAL:HA	2.21	0.55
12:D:104:VAL:C	12:D:105:LYS:HD2	2.27	0.55
12:D:106:LYS:HB2	12:D:206:ALA:HB2	1.88	0.55
14:F:43:ILE:HA	14:F:77:LYS:NZ	2.21	0.55
21:M:41:LEU:HD23	21:M:46:ILE:HG12	1.87	0.55
27:S:28:LYS:HA	27:S:70:LYS:HA	1.88	0.55
9:A:16:G:H2'	9:A:17:C:H6	1.72	0.55
10:B:100:U:H5''	10:B:102:U:OP2	2.07	0.55
10:B:321:U:H5	13:E:130:LYS:HE3	1.72	0.55
10:B:653:U:N3	10:B:654:A:N1	2.54	0.55
10:B:814:C:H2'	10:B:815:C:C6	2.42	0.55
10:B:972:A:OP2	10:B:973:A:O2'	2.23	0.55
10:B:976:G:H5'	10:B:1156:A:N6	2.19	0.55
10:B:1004:U:H1'	10:B:1010:A:C5	2.41	0.55
10:B:1138:G:C4	10:B:1139:G:H1'	2.41	0.55
10:B:1313:U:H1'	10:B:1610:A:C8	2.41	0.55
10:B:1782:U:H5''	10:B:1783:A:OP2	2.07	0.55
10:B:2366:A:H2'	10:B:2367:G:O4'	2.05	0.55
10:B:2410:G:C4	10:B:2411:A:C8	2.94	0.55
16:H:97:ARG:NH1	16:H:113:SER:HA	2.10	0.55
17:I:107:GLU:O	17:I:110:GLN:HB3	2.07	0.55
18:J:64:VAL:O	18:J:65:THR:OG1	2.22	0.55
6:5:38:PHE:O	6:5:39:VAL:CB	2.55	0.55
6:5:54:LYS:HZ1	6:5:203:GLN:NE2	2.04	0.55
7:6:380:ARG:HH22	17:I:20:SER:HB3	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:132:G:C6	10:B:133:U:C4	2.95	0.55
10:B:265:A:C5	10:B:428:A:C6	2.95	0.55
10:B:484:C:N4	10:B:496:G:H1	2.04	0.55
10:B:535:G:C5	10:B:559:G:C6	2.95	0.55
10:B:1113:U:H2'	10:B:1114:C:H6	1.71	0.55
10:B:1187:G:H5''	26:R:83:TYR:CE1	2.41	0.55
10:B:1191:G:C2	10:B:1192:G:C8	2.95	0.55
10:B:1454:C:H5'	22:N:63:ARG:HH12	1.72	0.55
10:B:1528:A:OP2	10:B:1543:G:N2	2.40	0.55
10:B:1566:A:P	11:C:17:LYS:NZ	2.80	0.55
10:B:1681:G:C6	10:B:1762:A:C6	2.95	0.55
10:B:1836:C:N4	10:B:1904:G:H1	2.05	0.55
10:B:2049:G:C4	10:B:2050:C:H5	2.25	0.55
10:B:2258:C:OP1	31:W:10:ARG:NH2	2.36	0.55
10:B:2597:G:C5	10:B:2598:A:C6	2.95	0.55
10:B:2867:G:C2	24:P:20:ARG:NH2	2.75	0.55
12:D:33:ARG:NH2	12:D:72:GLY:O	2.39	0.55
16:H:5:LEU:HD22	16:H:9:VAL:HG21	1.88	0.55
17:I:21:PRO:HG2	17:I:22:PRO:HD3	1.87	0.55
19:K:70:ARG:HH12	24:P:71:ARG:CZ	2.20	0.55
22:N:30:ARG:HB3	22:N:78:LYS:HE3	1.88	0.55
29:U:42:LYS:HG2	29:U:59:GLU:OE2	2.06	0.55
10:B:45:G:H2'	10:B:215:G:C4	2.41	0.55
10:B:199:A:O2'	32:X:22:ASN:ND2	2.40	0.55
10:B:418:C:H2'	10:B:419:U:C6	2.42	0.55
10:B:459:U:OP2	10:B:469:G:N1	2.38	0.55
10:B:544:C:H2'	10:B:545:U:O2	2.06	0.55
10:B:571:U:C2'	26:R:80:ARG:HH21	2.20	0.55
10:B:640:C:H2'	10:B:641:U:C6	2.42	0.55
10:B:855:G:C6	10:B:923:G:C6	2.95	0.55
10:B:922:C:H2'	10:B:923:G:H8	1.71	0.55
10:B:1407:G:H2'	10:B:1408:G:C8	2.42	0.55
10:B:1444:G:H2'	10:B:1445:G:C8	2.42	0.55
10:B:1930:G:H22	10:B:1968:G:H3'	1.71	0.55
10:B:2010:G:N2	10:B:2011:U:O2	2.39	0.55
10:B:2182:U:N3	10:B:2183:A:N7	2.55	0.55
10:B:2467:C:N4	10:B:2484:G:O6	2.40	0.55
10:B:2660:A:H62	15:G:176:LYS:HD2	1.72	0.55
14:F:11:VAL:O	14:F:13:LYS:HG2	2.07	0.55
23:O:17:LYS:HA	23:O:20:GLU:HB2	1.89	0.55
24:P:99:LEU:O	24:P:105:LYS:HE2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:U:86:PHE:N	29:U:91:LYS:HG3	2.21	0.55
30:V:30:ILE:HB	30:V:38:LEU:HB2	1.89	0.55
7:6:375:GLN:N	7:6:376:GLU:OE1	2.31	0.55
9:A:25:U:O2'	9:A:27:C:OP2	2.21	0.55
10:B:76:C:H2'	10:B:77:G:C8	2.42	0.55
10:B:275:C:H1'	10:B:363:G:N2	2.21	0.55
10:B:458:G:O2'	10:B:469:G:O6	2.22	0.55
10:B:629:G:C6	10:B:630:G:C6	2.94	0.55
10:B:825:A:H2'	10:B:826:U:O4'	2.07	0.55
10:B:910:A:C4	21:M:13:HIS:CE1	2.95	0.55
10:B:1094:U:O2	10:B:1096:A:H3'	2.07	0.55
10:B:1526:C:H2'	10:B:1527:G:O4'	2.07	0.55
10:B:1588:G:H2'	10:B:1589:U:C6	2.42	0.55
10:B:1704:C:N3	10:B:1705:A:N6	2.54	0.55
10:B:1801:A:N6	11:C:261:ARG:NH1	2.51	0.55
10:B:1849:G:H2'	10:B:1850:G:O4'	2.06	0.55
10:B:1941:C:H2'	10:B:1942:C:O4'	2.06	0.55
10:B:1971:U:H4'	11:C:238:ASN:ND2	2.22	0.55
10:B:2025:C:P	12:D:154:LYS:HZ2	2.23	0.55
10:B:2100:G:H3'	10:B:2101:A:H8	1.72	0.55
10:B:2304:G:O2'	14:F:129:MET:O	2.25	0.55
15:G:46:ASP:OD2	15:G:47:ASN:ND2	2.39	0.55
1:0:13:GLY:O	1:0:16:ARG:N	2.34	0.55
7:6:152:LEU:HD11	10:B:2602:A:N7	2.22	0.55
8:7:17:GLU:HA	8:7:20:LYS:HB3	1.89	0.55
10:B:123:G:N2	10:B:124:G:H1'	2.22	0.55
10:B:207:A:H3'	10:B:208:C:H6	1.72	0.55
10:B:248:G:O2'	10:B:2431:U:O3'	2.20	0.55
10:B:794:A:C5	10:B:795:C:C5	2.95	0.55
10:B:956:G:P	21:M:86:LYS:NZ	2.80	0.55
10:B:987:C:H2'	10:B:988:A:C8	2.39	0.55
10:B:1266:G:C2	10:B:2012:G:C5	2.95	0.55
10:B:1429:G:C2	10:B:1430:G:C5	2.95	0.55
10:B:1663:G:N1	10:B:1997:C:N3	2.41	0.55
10:B:1719:G:H1	10:B:1741:C:H42	1.53	0.55
10:B:1799:G:O2'	11:C:181:ARG:NH1	2.39	0.55
10:B:2079:U:O2'	32:X:22:ASN:OD1	2.22	0.55
10:B:2345:G:N3	10:B:2381:A:H2'	2.22	0.55
10:B:2414:G:H2'	10:B:2415:G:C8	2.42	0.55
10:B:2536:G:H2'	10:B:2537:U:C6	2.41	0.55
10:B:2559:C:H2'	10:B:2560:A:H8	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2867:G:O2'	10:B:2868:A:O5'	2.25	0.55
24:P:65:ASN:N	24:P:67:GLU:OE1	2.39	0.55
26:R:79:ARG:O	26:R:81:LYS:N	2.36	0.55
31:W:22:VAL:HG23	31:W:25:PHE:HB2	1.88	0.55
7:6:210:LYS:HZ2	7:6:283:VAL:HB	1.72	0.54
8:7:17:GLU:OE2	8:7:86:MET:HB2	2.08	0.54
8:7:27:VAL:HG13	8:7:109:LYS:HG2	1.88	0.54
10:B:30:G:H1	10:B:510:C:N4	2.05	0.54
10:B:484:C:H2'	10:B:485:C:C6	2.42	0.54
10:B:494:G:H4'	27:S:6:LYS:N	2.19	0.54
10:B:829:A:H5'	10:B:831:G:N7	2.22	0.54
10:B:1167:C:H2'	10:B:1168:G:H8	1.72	0.54
10:B:1406:U:H2'	10:B:1407:G:C8	2.41	0.54
10:B:1482:G:H2'	10:B:1483:G:H8	1.71	0.54
10:B:1570:A:H2'	10:B:1571:A:C8	2.42	0.54
10:B:1635:A:C6	10:B:1636:U:C2	2.95	0.54
10:B:1862:G:C2	10:B:1863:G:C8	2.94	0.54
10:B:2199:A:H3'	10:B:2200:C:H6	1.72	0.54
12:D:151:THR:HG22	12:D:152:PRO:CD	2.37	0.54
19:K:90:SER:O	19:K:110:LYS:NZ	2.39	0.54
19:K:91:GLU:CB	19:K:110:LYS:HZ2	2.13	0.54
1:0:3:GLN:HA	10:B:2615:U:C2	2.41	0.54
1:0:3:GLN:HB3	1:0:5:ASN:H	1.73	0.54
1:0:15:ARG:HH12	10:B:1265:A:H3'	1.71	0.54
8:7:69:PHE:HB2	8:7:116:GLU:OE2	2.07	0.54
9:A:49:C:P	23:O:30:ARG:HH12	2.30	0.54
10:B:26:G:H4'	10:B:1260:A:H4'	1.89	0.54
10:B:106:C:O2'	10:B:294:A:O2'	2.11	0.54
10:B:524:G:H2'	10:B:525:U:H6	1.72	0.54
10:B:580:U:H2'	10:B:581:C:C6	2.36	0.54
10:B:603:A:N6	10:B:655:A:O4'	2.40	0.54
10:B:762:U:H5'	10:B:763:G:N2	2.22	0.54
10:B:907:G:C2	10:B:908:C:C2	2.94	0.54
10:B:1923:U:H2'	10:B:1924:C:H6	1.72	0.54
10:B:1949:G:C2	10:B:1950:G:C4	2.95	0.54
10:B:2164:C:H5''	10:B:2172:U:C5	2.43	0.54
10:B:2303:G:H4'	14:F:121:PHE:H	1.72	0.54
10:B:2642:G:C2	10:B:2643:G:C5	2.95	0.54
10:B:2646:C:H2'	10:B:2647:U:O4'	2.07	0.54
12:D:21:SER:OG	19:K:72:ASP:HA	2.07	0.54
12:D:24:VAL:HG12	12:D:178:VAL:HG21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:S:4:ILE:HG13	27:S:6:LYS:HG3	1.88	0.54
7:6:180:ARG:HA	7:6:183:LYS:HD2	1.90	0.54
10:B:25:U:H5''	27:S:80:PRO:HG3	1.90	0.54
10:B:283:G:C2	10:B:284:U:C2	2.96	0.54
10:B:493:G:C4	10:B:494:G:C8	2.96	0.54
10:B:499:U:H5''	29:U:42:LYS:HD2	1.90	0.54
10:B:547:A:H2'	10:B:548:G:H5'	1.89	0.54
10:B:577:G:OP1	10:B:2502:G:O2'	2.23	0.54
10:B:806:C:H5''	20:L:41:ARG:NH2	2.22	0.54
10:B:819:A:H2	10:B:942:G:H21	1.55	0.54
10:B:1341:G:N3	28:T:84:TYR:HD2	2.04	0.54
10:B:1425:G:C6	10:B:1426:G:C2	2.95	0.54
10:B:2020:A:H4'	25:Q:24:TYR:HE2	1.72	0.54
10:B:2064:C:H2'	10:B:2065:C:C6	2.43	0.54
10:B:2072:C:N3	10:B:2073:C:C4	2.76	0.54
10:B:2141:G:N1	10:B:2142:A:N7	2.55	0.54
10:B:2230:G:N2	32:X:31:ASN:HD21	2.06	0.54
10:B:2335:A:OP1	23:O:13:ARG:NH2	2.40	0.54
10:B:2425:A:H4'	10:B:2426:A:O5'	2.06	0.54
10:B:2564:A:C2	10:B:2647:U:H4'	2.41	0.54
11:C:5:CYS:HG	11:C:12:ARG:HH21	1.54	0.54
17:I:3:LYS:O	17:I:4:VAL:HG23	2.07	0.54
17:I:105:LEU:HD23	17:I:108:ILE:HD12	1.87	0.54
19:K:112:MET:HA	19:K:115:ILE:HG12	1.89	0.54
21:M:69:PRO:HA	21:M:94:ALA:HB2	1.88	0.54
29:U:35:VAL:HB	29:U:38:ILE:HG13	1.90	0.54
2:1:45:HIS:ND1	10:B:2371:G:O2'	2.32	0.54
6:5:104:ILE:C	6:5:107:GLY:H	2.11	0.54
7:6:284:ILE:HG13	7:6:316:MET:HA	1.90	0.54
10:B:26:G:C6	10:B:27:G:C2	2.96	0.54
10:B:582:A:H2'	10:B:583:G:H8	1.69	0.54
10:B:582:A:H4'	25:Q:10:ARG:HH22	1.71	0.54
10:B:708:G:C5	10:B:709:U:C4	2.95	0.54
10:B:776:G:O6	10:B:793:A:H8	1.90	0.54
10:B:1299:G:H5''	10:B:1300:G:OP1	2.07	0.54
10:B:1301:A:C4	10:B:1303:G:C8	2.95	0.54
10:B:1412:U:H2'	10:B:1413:A:C8	2.42	0.54
10:B:1770:G:C6	10:B:1983:G:C5	2.96	0.54
10:B:1873:G:H2'	10:B:1874:C:O4'	2.07	0.54
10:B:1891:G:C6	10:B:1892:C:N3	2.75	0.54
10:B:1930:G:H2'	10:B:1968:G:N1	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2534:A:N6	10:B:2535:G:C5	2.75	0.54
10:B:2809:A:C2	10:B:2810:A:C4	2.96	0.54
14:F:107:VAL:HG12	14:F:176:PHE:HB2	1.88	0.54
16:H:30:LEU:HA	16:H:35:LYS:NZ	2.23	0.54
17:I:102:ARG:HB2	17:I:141:ASP:HA	1.88	0.54
18:J:89:PHE:O	18:J:92:MET:HB2	2.07	0.54
19:K:92:GLN:H	19:K:110:LYS:NZ	2.04	0.54
9:A:76:G:H5''	30:V:9:ARG:HH12	1.72	0.54
10:B:8:C:P	18:J:120:ARG:NH2	2.80	0.54
10:B:65:U:OP1	28:T:76:ARG:N	2.40	0.54
10:B:299:A:N7	10:B:300:A:C6	2.76	0.54
10:B:307:G:H22	10:B:309:A:H3'	1.72	0.54
10:B:649:G:C6	10:B:650:C:C4	2.96	0.54
10:B:744:U:C4	10:B:745:G:C5	2.95	0.54
10:B:1216:G:C6	10:B:1217:U:C4	2.95	0.54
10:B:1296:G:OP1	10:B:2709:G:O2'	2.15	0.54
10:B:1370:C:H2'	10:B:1371:G:H8	1.72	0.54
10:B:1437:C:H2'	10:B:1438:U:C6	2.43	0.54
10:B:1444:G:C2	10:B:1445:G:C4	2.96	0.54
10:B:1526:C:N4	10:B:1546:G:H1	2.05	0.54
10:B:1916:A:H5''	10:B:1917:U:C5	2.43	0.54
10:B:2261:C:H5'	10:B:2388:A:H4'	1.89	0.54
10:B:2408:U:N3	10:B:2409:G:N7	2.56	0.54
10:B:2646:C:C4	10:B:2647:U:C4	2.96	0.54
16:H:75:LEU:HG	16:H:77:THR:HG23	1.89	0.54
21:M:64:TRP:CZ3	21:M:106:ASP:HB3	2.43	0.54
27:S:54:ALA:HA	27:S:57:ASN:OD1	2.07	0.54
31:W:60:ALA:C	31:W:61:LYS:HD2	2.27	0.54
4:3:22:LYS:HZ3	10:B:650:C:H4'	1.73	0.54
4:3:35:LYS:HZ2	4:3:39:ARG:NH2	2.06	0.54
7:6:376:GLU:OE2	17:I:20:SER:HB2	2.07	0.54
9:A:44:G:H5'	9:A:46:A:H62	1.72	0.54
10:B:545:U:H6	10:B:549:G:H5'	1.72	0.54
10:B:596:U:H2'	10:B:597:G:C8	2.43	0.54
10:B:627:A:C4	10:B:637:A:C6	2.95	0.54
10:B:895:U:C5'	10:B:896:A:H5'	2.35	0.54
10:B:1047:G:O3'	10:B:1048:A:H8	1.91	0.54
10:B:1477:A:C2	10:B:1515:A:C4	2.95	0.54
10:B:1650:A:H2'	10:B:1651:G:C8	2.43	0.54
10:B:1690:A:H3'	10:B:1691:C:H6	1.73	0.54
10:B:1813:G:C4	10:B:1814:G:C8	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2132:U:H2'	10:B:2133:G:H3'	1.89	0.54
10:B:2557:G:C6	10:B:2558:C:C4	2.95	0.54
10:B:2588:G:O6	10:B:2607:G:N1	2.40	0.54
10:B:2638:G:C5	10:B:2775:G:C2	2.95	0.54
10:B:2655:G:H22	10:B:2664:G:H2'	1.73	0.54
12:D:7:LYS:HB3	12:D:200:ASP:OD1	2.08	0.54
12:D:151:THR:CB	12:D:152:PRO:CD	2.85	0.54
19:K:2:GLN:HB3	19:K:3:GLU:OE1	2.08	0.54
22:N:14:SER:CB	22:N:17:ARG:HH21	2.21	0.54
23:O:49:VAL:HG11	23:O:81:ARG:HB2	1.89	0.54
1:0:9:ARG:HH21	25:Q:29:ARG:CZ	2.21	0.54
2:1:24:LYS:NZ	2:1:26:LYS:HG2	2.23	0.54
7:6:153:ARG:HH11	7:6:154:GLY:N	2.03	0.54
7:6:408:ILE:HA	7:6:411:TRP:CG	2.43	0.54
10:B:216:A:C4	10:B:217:A:C8	2.96	0.54
10:B:250:G:C2	10:B:251:A:C4	2.95	0.54
10:B:527:C:P	10:B:2779:U:H3	2.30	0.54
10:B:578:G:N2	25:Q:32:ARG:NH2	2.55	0.54
10:B:679:C:H2'	10:B:680:C:C6	2.42	0.54
10:B:748:G:O5'	27:S:89:ALA:HB2	2.08	0.54
10:B:823:C:N4	10:B:834:G:H1	2.05	0.54
10:B:842:U:H3	10:B:936:A:H61	1.55	0.54
10:B:960:A:H2'	10:B:962:G:H5'	1.90	0.54
10:B:1140:C:OP1	18:J:26:GLY:N	2.38	0.54
10:B:1148:U:H2'	10:B:1149:G:C8	2.43	0.54
10:B:1223:G:N2	10:B:1227:G:C4	2.76	0.54
10:B:1340:U:O3'	10:B:1394:U:O2'	2.22	0.54
10:B:1660:G:C2	10:B:1661:G:C5	2.95	0.54
10:B:1697:G:C6	10:B:1698:A:C5	2.95	0.54
10:B:1724:G:N1	10:B:1737:G:H1'	2.22	0.54
10:B:2092:U:OP1	10:B:2199:A:O2'	2.13	0.54
10:B:2438:U:O2'	10:B:2439:A:H3'	2.08	0.54
10:B:2521:C:C2	10:B:2545:G:N2	2.76	0.54
10:B:2603:G:H2'	10:B:2604:U:C6	2.43	0.54
11:C:76:VAL:HB	11:C:94:LEU:HB3	1.89	0.54
13:E:23:PHE:CD1	13:E:111:GLU:HB2	2.42	0.54
13:E:105:LEU:HA	13:E:108:ILE:HD12	1.90	0.54
18:J:29:ALA:HA	18:J:32:LEU:HD12	1.90	0.54
20:L:109:LYS:NZ	20:L:126:ARG:HB3	2.22	0.54
24:P:67:GLU:OE1	24:P:67:GLU:N	2.40	0.54
30:V:14:LYS:HE2	30:V:18:ARG:NH2	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Y:53:VAL:O	33:Y:57:LEU:N	2.36	0.54
7:6:91:ASN:HA	7:6:94:ARG:HE	1.73	0.54
10:B:256:A:H2'	10:B:257:C:H6	1.73	0.54
10:B:264:C:H2'	10:B:265:A:H5''	1.90	0.54
10:B:277:G:H1'	10:B:361:G:C6	2.41	0.54
10:B:449:A:C1'	25:Q:2:ARG:HH22	2.20	0.54
10:B:483:A:C2	29:U:57:ILE:HD11	2.42	0.54
10:B:643:A:H2'	10:B:644:A:O4'	2.08	0.54
10:B:930:G:H3'	10:B:931:U:H5'	1.89	0.54
10:B:958:U:O2'	10:B:959:A:OP2	2.23	0.54
10:B:977:G:H2'	10:B:978:G:C8	2.43	0.54
10:B:1819:A:OP1	11:C:155:ARG:N	2.26	0.54
10:B:1984:G:H2'	10:B:1985:C:H6	1.72	0.54
10:B:2232:C:H2'	10:B:2233:U:C6	2.43	0.54
10:B:2469:A:C2	10:B:2470:G:H1'	2.43	0.54
10:B:2505:G:C6	10:B:2576:G:C8	2.96	0.54
10:B:2543:G:H2'	10:B:2544:G:C8	2.42	0.54
10:B:2661:G:O6	15:G:176:LYS:NZ	2.25	0.54
10:B:2719:G:H21	10:B:2872:A:N6	2.05	0.54
10:B:2886:A:C6	10:B:2887:A:C5	2.96	0.54
14:F:129:MET:N	14:F:153:ILE:HB	2.22	0.54
15:G:97:VAL:HG13	15:G:124:CYS:SG	2.48	0.54
15:G:100:ASN:HB2	15:G:115:GLN:HE21	1.73	0.54
17:I:60:VAL:HA	17:I:65:SER:N	2.22	0.54
19:K:11:ASP:OD2	19:K:13:SER:HB2	2.08	0.54
20:L:109:LYS:HZ2	20:L:126:ARG:HD2	1.73	0.54
22:N:8:ARG:HH11	22:N:43:GLU:HG2	1.73	0.54
23:O:76:LYS:NZ	23:O:112:GLU:HG3	2.23	0.54
28:T:3:ARG:CZ	28:T:42:GLU:HA	2.38	0.54
28:T:44:LYS:NZ	28:T:56:GLU:O	2.40	0.54
32:X:26:ARG:HD3	32:X:28:PHE:CE2	2.42	0.54
6:5:155:ASN:HA	6:5:158:ALA:HB3	1.89	0.54
7:6:326:GLU:O	7:6:328:ARG:HG3	2.08	0.54
10:B:82:U:P	29:U:90:LYS:HE2	2.48	0.54
10:B:281:C:H2'	10:B:282:A:H8	1.73	0.54
10:B:320:A:O2'	13:E:163:ASN:ND2	2.41	0.54
10:B:513:A:H4'	10:B:1216:G:O2'	2.07	0.54
10:B:634:C:H2'	10:B:635:C:H6	1.73	0.54
10:B:958:U:H3	21:M:40:ARG:CZ	2.21	0.54
10:B:1045:C:H5	10:B:1111:A:C5	2.26	0.54
10:B:1064:C:P	17:I:88:GLY:H	2.31	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1392:A:N7	10:B:1393:A:C5	2.75	0.54
10:B:1824:G:H2'	10:B:1825:U:H6	1.73	0.54
10:B:2788:C:N3	10:B:2789:C:N4	2.56	0.54
10:B:2821:A:OP1	12:D:115:GLY:N	2.41	0.54
10:B:2838:G:H2'	10:B:2839:G:O4'	2.07	0.54
18:J:20:ALA:HB3	18:J:58:ASN:O	2.07	0.54
20:L:82:LEU:HD13	20:L:135:ILE:HD12	1.90	0.54
24:P:26:GLU:O	24:P:83:ILE:HG13	2.08	0.54
24:P:36:LYS:NZ	24:P:38:ARG:HD3	2.23	0.54
2:1:5:ARG:NH1	2:1:25:ASN:HB2	2.23	0.54
7:6:137:VAL:O	7:6:140:TRP:NE1	2.40	0.54
9:A:66:A:O5'	9:A:108:A:N6	2.36	0.54
10:B:15:G:C6	10:B:16:C:C4	2.95	0.54
10:B:190:A:C5	10:B:207:A:C2	2.96	0.54
10:B:192:C:H5''	10:B:193:U:OP2	2.08	0.54
10:B:426:C:H2'	10:B:427:U:C6	2.43	0.54
10:B:484:C:H42	10:B:496:G:H1	1.55	0.54
10:B:860:U:C4	10:B:2268:A:C8	2.95	0.54
10:B:976:G:C4'	10:B:1156:A:H62	2.21	0.54
10:B:1609:A:C5	10:B:1616:A:C2	2.96	0.54
10:B:1712:U:H3'	10:B:1713:A:H8	1.73	0.54
10:B:1731:G:N2	10:B:1733:G:C4	2.76	0.54
10:B:1849:G:C4	10:B:1850:G:C8	2.96	0.54
10:B:1970:A:C5	10:B:1972:G:C5	2.96	0.54
10:B:2018:G:C2	10:B:2019:A:C4	2.96	0.54
10:B:2250:G:N7	21:M:83:GLY:HA3	2.22	0.54
10:B:2474:U:H5	10:B:2475:C:C2	2.25	0.54
10:B:2691:C:O2	10:B:2718:G:N2	2.25	0.54
10:B:2718:G:C6	10:B:2719:G:C5	2.96	0.54
10:B:2744:G:C6	10:B:2761:A:C6	2.96	0.54
10:B:2844:G:H2'	10:B:2845:U:O4'	2.07	0.54
12:D:33:ARG:HG2	12:D:93:GLY:HA3	1.89	0.54
13:E:117:ARG:HH12	20:L:2:ARG:HG2	1.72	0.54
17:I:104:GLN:O	17:I:108:ILE:HG13	2.09	0.54
18:J:19:ASP:C	18:J:21:THR:H	2.11	0.54
18:J:98:GLU:O	18:J:102:GLU:HG3	2.07	0.54
22:N:8:ARG:NH1	22:N:43:GLU:HG2	2.23	0.54
22:N:63:ARG:HD3	22:N:80:PHE:CZ	2.42	0.54
23:O:31:THR:HB	23:O:34:HIS:C	2.28	0.54
30:V:43:ASP:OD2	30:V:46:LYS:HB3	2.08	0.54
2:1:5:ARG:NH1	2:1:25:ASN:H	2.06	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:19:ARG:HG3	10:B:125:A:H5''	1.90	0.53
6:5:76:ALA:HB3	6:5:114:VAL:HG22	1.89	0.53
7:6:207:ASN:H	35:6:527:GNP:HNB3	1.56	0.53
7:6:295:ILE:HA	7:6:298:VAL:HG12	1.91	0.53
7:6:367:GLN:NE2	7:6:390:GLU:OE1	2.40	0.53
10:B:186:G:N3	10:B:187:G:C8	2.76	0.53
10:B:324:A:C6	10:B:325:G:C4	2.96	0.53
10:B:1098:A:H8	10:B:1098:A:O5'	1.91	0.53
10:B:1136:G:N2	10:B:1137:G:C4	2.76	0.53
10:B:1259:G:H2'	10:B:1260:A:C8	2.43	0.53
10:B:1323:C:OP1	27:S:84:ARG:NH1	2.40	0.53
10:B:1424:G:H2'	10:B:1425:G:C8	2.43	0.53
10:B:1551:A:C6	10:B:1552:A:C5	2.96	0.53
10:B:1580:A:H3'	10:B:1581:G:H8	1.72	0.53
10:B:1824:G:H1'	11:C:251:THR:HG23	1.90	0.53
10:B:1837:C:H2'	10:B:1899:A:N6	2.22	0.53
10:B:1946:U:H2'	10:B:1947:C:C6	2.43	0.53
10:B:2134:A:N1	10:B:2156:G:O2'	2.41	0.53
10:B:2312:U:H5'	14:F:69:ALA:HA	1.88	0.53
10:B:2568:U:N3	10:B:2569:G:C5	2.76	0.53
11:C:132:ARG:HB2	16:H:125:THR:HG21	1.89	0.53
16:H:3:VAL:CG1	16:H:30:LEU:CD1	2.77	0.53
25:Q:28:SER:OG	25:Q:29:ARG:NE	2.24	0.53
10:B:1034:G:C6	10:B:1122:G:C4	2.96	0.53
10:B:1060:U:H5''	17:I:74:PRO:HB3	1.90	0.53
10:B:1139:G:P	18:J:74:TYR:HH	2.31	0.53
10:B:1246:A:H2'	10:B:1247:A:H8	1.72	0.53
10:B:1341:G:C4	28:T:84:TYR:CD2	2.97	0.53
10:B:1524:G:H2'	10:B:1525:A:H8	1.72	0.53
10:B:1812:U:C2	10:B:1813:G:C8	2.97	0.53
10:B:1965:C:C4	10:B:1966:A:C5	2.96	0.53
10:B:2018:G:N2	10:B:2019:A:H1'	2.24	0.53
10:B:2040:G:H2'	10:B:2041:U:H6	1.73	0.53
10:B:2052:A:H4'	12:D:149:ASN:H	1.73	0.53
10:B:2447:G:C5	10:B:2501:C:C4	2.97	0.53
20:L:129:LYS:O	20:L:133:ALA:N	2.40	0.53
34:Z:4:ILE:HD11	34:Z:43:ILE:HD11	1.91	0.53
2:1:18:HIS:CD2	2:1:19:PHE:N	2.76	0.53
7:6:43:GLN:NE2	7:6:69:ALA:HB1	2.22	0.53
7:6:212:THR:HG21	35:6:527:GNP:H8	1.89	0.53
7:6:310:ILE:HG22	7:6:311:PRO:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:38:C:N4	9:A:39:A:C6	2.76	0.53
10:B:6:A:C4	10:B:7:G:C8	2.97	0.53
10:B:179:C:N4	10:B:180:G:O6	2.41	0.53
10:B:417:C:H2'	10:B:418:C:H6	1.72	0.53
10:B:451:U:P	13:E:47:LYS:HZ2	2.31	0.53
10:B:729:G:N7	10:B:1775:U:N3	2.57	0.53
10:B:950:G:C6	10:B:951:C:C4	2.97	0.53
10:B:1007:C:O2'	18:J:110:PRO:O	2.26	0.53
10:B:1080:A:H2'	10:B:1081:U:O4'	2.08	0.53
10:B:1083:U:H1'	10:B:1085:A:C8	2.43	0.53
10:B:1630:A:H2'	10:B:1631:G:C8	2.43	0.53
10:B:1952:A:C2	19:K:21:ILE:HB	2.43	0.53
10:B:2064:C:H2'	10:B:2065:C:H6	1.73	0.53
10:B:2108:A:H2'	10:B:2109:U:O4'	2.08	0.53
10:B:2115:G:HO2'	10:B:2165:C:H41	1.55	0.53
10:B:2678:C:H2'	10:B:2679:A:C8	2.43	0.53
10:B:2708:G:H1'	22:N:71:ARG:NH1	2.22	0.53
11:C:97:ASP:OD1	11:C:98:GLY:N	2.41	0.53
11:C:117:SER:HB3	11:C:128:THR:OG1	2.09	0.53
13:E:181:ILE:HG21	20:L:3:LEU:HD13	1.90	0.53
14:F:91:ARG:HG2	14:F:94:ARG:HH21	1.72	0.53
16:H:80:ILE:HD11	16:H:102:ALA:H	1.73	0.53
17:I:25:PRO:O	17:I:29:GLN:HB2	2.08	0.53
31:W:52:CYS:H	31:W:58:LEU:HD23	1.73	0.53
32:X:39:VAL:HG23	32:X:43:LYS:N	2.24	0.53
6:5:133:PRO:HA	10:B:2121:G:C8	2.43	0.53
7:6:37:ALA:HB3	7:6:39:VAL:HG23	1.91	0.53
7:6:256:ILE:HB	7:6:259:LEU:HD21	1.90	0.53
10:B:225:C:H2'	10:B:226:A:C8	2.33	0.53
10:B:471:A:H3'	10:B:472:A:H8	1.73	0.53
10:B:1039:A:C6	10:B:1040:A:C5	2.97	0.53
10:B:1324:G:H3'	10:B:1325:U:H4'	1.90	0.53
10:B:1501:G:C6	10:B:1502:A:N7	2.77	0.53
10:B:1813:G:C5	10:B:1814:G:N7	2.77	0.53
10:B:2187:U:H2'	10:B:2188:U:C6	2.43	0.53
10:B:2244:U:O2'	10:B:2245:U:OP1	2.25	0.53
10:B:2344:U:OP1	10:B:2373:G:H5''	2.07	0.53
10:B:2392:A:C5	10:B:2429:G:C5	2.96	0.53
10:B:2411:A:H2'	10:B:2412:A:C8	2.44	0.53
10:B:2453:A:N6	10:B:2500:U:H3	2.04	0.53
10:B:2484:G:C2	10:B:2485:G:C8	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2485:G:H2'	10:B:2486:C:H6	1.73	0.53
10:B:2507:C:N4	10:B:2583:G:O6	2.42	0.53
10:B:2513:A:N1	10:B:2574:G:C5	2.76	0.53
10:B:2648:G:C5	10:B:2673:G:C2	2.96	0.53
10:B:2674:G:C4	10:B:2675:A:C8	2.97	0.53
10:B:2840:C:H2'	10:B:2841:C:H6	1.71	0.53
12:D:89:GLU:HG3	12:D:90:PHE:H	1.74	0.53
13:E:19:PHE:O	13:E:110:SER:OG	2.25	0.53
20:L:109:LYS:NZ	20:L:126:ARG:HD2	2.24	0.53
25:Q:15:LYS:O	25:Q:18:LYS:N	2.41	0.53
7:6:344:ALA:N	35:6:527:GNP:O6	2.41	0.53
8:7:86:MET:O	8:7:88:HIS:NE2	2.42	0.53
10:B:4:U:O4	10:B:5:A:N6	2.42	0.53
10:B:149:A:H2'	10:B:150:U:O4'	2.08	0.53
10:B:195:A:N6	10:B:198:C:O5'	2.41	0.53
10:B:372:G:C5	32:X:56:ARG:NH2	2.76	0.53
10:B:451:U:P	13:E:47:LYS:NZ	2.81	0.53
10:B:608:A:OP2	10:B:619:G:N1	2.32	0.53
10:B:675:A:H62	10:B:803:U:H3	1.56	0.53
10:B:1062:G:H21	17:I:92:PRO:HG2	1.73	0.53
10:B:1130:U:C4	10:B:2025:C:H5''	2.43	0.53
10:B:1340:U:OP1	28:T:84:TYR:OH	2.24	0.53
10:B:1627:G:C4	10:B:1628:G:C8	2.97	0.53
10:B:1936:A:H2	10:B:1943:U:C5	2.27	0.53
10:B:1988:G:N2	10:B:1989:G:H1'	2.23	0.53
10:B:2056:G:C6	10:B:2577:A:C4	2.96	0.53
10:B:2086:U:N3	10:B:2234:G:C6	2.77	0.53
10:B:2474:U:H2'	10:B:2475:C:H5'	1.90	0.53
10:B:2787:C:H2'	10:B:2788:C:C6	2.42	0.53
10:B:2814:A:C6	10:B:2815:C:C4	2.95	0.53
11:C:132:ARG:HD3	16:H:125:THR:HB	1.91	0.53
11:C:209:ALA:HA	11:C:212:TRP:CD1	2.37	0.53
14:F:117:SER:N	14:F:173:ASP:OD1	2.41	0.53
16:H:68:ARG:O	16:H:132:PHE:CE2	2.62	0.53
7:6:181:VAL:O	7:6:184:GLN:HB3	2.09	0.53
7:6:315:VAL:HG11	7:6:342:LEU:HD22	1.91	0.53
9:A:52:A:O5'	23:O:33:ARG:NH1	2.42	0.53
10:B:171:U:H2'	10:B:172:A:H8	1.74	0.53
10:B:225:C:C2	10:B:226:A:C8	2.96	0.53
10:B:319:G:OP1	13:E:132:LYS:NZ	2.39	0.53
10:B:357:C:H2'	10:B:358:U:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:559:G:H2'	10:B:560:C:C6	2.44	0.53
10:B:833:A:H2'	10:B:834:G:H8	1.72	0.53
10:B:1022:G:O2'	10:B:1024:G:O6	2.12	0.53
10:B:1654:A:C2	10:B:1655:A:C8	2.97	0.53
10:B:1684:G:H2'	10:B:1685:C:H6	1.72	0.53
10:B:1869:G:O2'	10:B:1872:A:N6	2.42	0.53
10:B:1912:A:H1'	10:B:1913:A:O4'	2.08	0.53
10:B:2464:G:C6	10:B:2487:G:C6	2.96	0.53
10:B:2545:G:C2	10:B:2546:U:O2	2.62	0.53
10:B:2740:A:C5	10:B:2741:A:C6	2.97	0.53
10:B:2838:G:C5	10:B:2839:G:C8	2.97	0.53
12:D:90:PHE:HB3	12:D:92:VAL:HG22	1.91	0.53
15:G:99:GLY:O	15:G:100:ASN:ND2	2.41	0.53
27:S:74:ILE:HG13	27:S:105:VAL:HG22	1.91	0.53
28:T:1:MET:HG3	28:T:2:ILE:O	2.09	0.53
33:Y:17:GLU:OE2	33:Y:21:LEU:HD11	2.08	0.53
4:3:3:ILE:HG13	10:B:592:A:H1'	1.90	0.53
4:3:34:LYS:HZ3	10:B:2390:U:P	2.29	0.53
5:4:25:VAL:CG1	5:4:35:GLN:HB2	2.38	0.53
6:5:53:ARG:HD2	10:B:1860:G:OP1	2.09	0.53
6:5:72:SER:HB2	6:5:74:ARG:HE	1.74	0.53
6:5:133:PRO:CB	10:B:2121:G:C5	2.90	0.53
6:5:165:ASN:HD22	6:5:169:GLY:HA2	1.74	0.53
7:6:189:ARG:HA	7:6:192:ARG:HG2	1.90	0.53
9:A:76:G:C5'	30:V:9:ARG:HH12	2.22	0.53
9:A:93:C:H2'	9:A:94:A:C8	2.44	0.53
10:B:191:A:O2'	10:B:192:C:O4'	2.12	0.53
10:B:335:C:N3	10:B:336:C:N4	2.56	0.53
10:B:494:G:O3'	27:S:5:ALA:HA	2.09	0.53
10:B:910:A:C6	10:B:911:A:C6	2.95	0.53
10:B:1130:U:H3	12:D:152:PRO:HB2	1.70	0.53
10:B:1252:G:H21	25:Q:32:ARG:CZ	2.22	0.53
10:B:1287:A:C6	10:B:1288:G:C5	2.97	0.53
10:B:1693:U:O2	11:C:13:ARG:HD3	2.09	0.53
10:B:1763:G:N2	10:B:1765:U:H5''	2.24	0.53
10:B:2060:A:C6	10:B:2502:G:C2	2.97	0.53
10:B:2167:U:H2'	10:B:2168:G:C8	2.44	0.53
10:B:2455:G:C6	10:B:2456:C:C4	2.97	0.53
10:B:2679:A:C6	10:B:2729:G:C6	2.96	0.53
10:B:2722:G:C6	10:B:2723:C:C4	2.96	0.53
11:C:140:VAL:HG22	11:C:191:LEU:HD23	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:E:150:THR:HB	13:E:153:LEU:H	1.73	0.53
18:J:30:THR:OG1	18:J:31:GLU:N	2.41	0.53
24:P:30:TRP:HB2	24:P:79:VAL:HA	1.91	0.53
25:Q:101:ASP:O	25:Q:103:VAL:N	2.42	0.53
30:V:56:PHE:CZ	30:V:61:LEU:HD11	2.44	0.53
34:Z:3:THR:OG1	34:Z:37:ARG:N	2.41	0.53
3:2:22:MET:SD	3:2:28:ARG:HG2	2.49	0.53
7:6:138:ARG:HH11	10:B:1941:C:H1'	1.73	0.53
9:A:60:C:C2	9:A:61:G:C8	2.97	0.53
10:B:220:G:H22	10:B:265:A:H62	1.57	0.53
10:B:270:A:H1'	10:B:370:G:N2	2.24	0.53
10:B:384:A:O2'	10:B:385:C:OP1	2.25	0.53
10:B:417:C:H2'	10:B:418:C:C6	2.43	0.53
10:B:535:G:C2	10:B:559:G:C4	2.97	0.53
10:B:676:A:OP1	13:E:58:LYS:NZ	2.37	0.53
10:B:715:A:C6	10:B:716:A:C6	2.97	0.53
10:B:880:G:H1	10:B:897:C:N4	2.05	0.53
10:B:992:C:OP1	26:R:76:LYS:NZ	2.41	0.53
10:B:1023:U:C4	10:B:1024:G:C4	2.97	0.53
10:B:1031:G:H1	10:B:1123:C:H42	1.57	0.53
10:B:1084:A:C8	10:B:1105:U:O2'	2.62	0.53
10:B:1218:G:C4	10:B:1232:G:C6	2.96	0.53
10:B:1529:G:H2'	10:B:1530:G:C8	2.44	0.53
10:B:1785:A:N7	10:B:1787:A:C4	2.76	0.53
10:B:1930:G:N1	10:B:1968:G:N7	2.57	0.53
10:B:2087:G:N3	10:B:2088:A:C8	2.77	0.53
10:B:2332:C:O5'	31:W:40:ARG:NE	2.42	0.53
10:B:2385:C:H2'	10:B:2386:A:H8	1.74	0.53
10:B:2428:G:N3	20:L:60:ARG:NH2	2.56	0.53
10:B:2637:U:H5''	12:D:83:ARG:NH1	2.24	0.53
10:B:2643:G:C6	10:B:2644:G:C6	2.97	0.53
10:B:2652:C:N3	10:B:2669:G:N1	2.57	0.53
10:B:2692:G:OP1	10:B:2870:C:O2'	2.26	0.53
12:D:149:ASN:O	12:D:150:GLN:O	2.27	0.53
18:J:36:LEU:O	18:J:51:GLY:HA3	2.08	0.53
18:J:41:LYS:HD3	18:J:50:THR:O	2.09	0.53
23:O:31:THR:HB	23:O:34:HIS:O	2.08	0.53
23:O:76:LYS:HZ2	23:O:112:GLU:HG3	1.72	0.53
24:P:30:TRP:CD1	24:P:79:VAL:HA	2.44	0.53
6:5:18:THR:HA	6:5:222:VAL:HA	1.91	0.53
8:7:33:VAL:HG23	8:7:36:ASP:H	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:88:C:C4	9:A:89:U:C2	2.97	0.53
9:A:100:G:H3'	9:A:101:A:H8	1.73	0.53
10:B:97:C:H2'	10:B:98:G:C8	2.44	0.53
10:B:184:C:H42	10:B:212:G:H1	1.55	0.53
10:B:467:G:C2	10:B:468:G:C4	2.97	0.53
10:B:677:A:N1	10:B:802:A:C6	2.77	0.53
10:B:980:A:H62	10:B:981:A:H62	1.56	0.53
10:B:1058:U:H2'	10:B:1059:G:H8	1.72	0.53
10:B:1354:A:C8	10:B:1355:G:C8	2.97	0.53
10:B:1801:A:H62	11:C:261:ARG:NH1	1.97	0.53
10:B:1805:A:O3'	11:C:247:TRP:NE1	2.41	0.53
10:B:1921:G:H2'	10:B:1922:G:H8	1.74	0.53
10:B:1923:U:H2'	10:B:1924:C:C6	2.44	0.53
10:B:2078:C:N3	10:B:2079:U:N3	2.57	0.53
10:B:2163:A:H3'	10:B:2164:C:H4'	1.88	0.53
10:B:2173:A:N6	10:B:2174:C:O2	2.40	0.53
10:B:2250:G:C6	21:M:82:MET:HB3	2.43	0.53
10:B:2276:G:OP2	21:M:85:GLY:N	2.21	0.53
10:B:2327:A:H2'	10:B:2328:A:O4'	2.09	0.53
10:B:2379:G:H2'	10:B:2380:C:H6	1.74	0.53
10:B:2708:G:C2	10:B:2709:G:C8	2.96	0.53
10:B:2851:A:C5	10:B:2852:G:C5	2.96	0.53
11:C:181:ARG:HG2	11:C:182:LYS:O	2.09	0.53
13:E:90:GLN:HB3	13:E:92:HIS:CE1	2.43	0.53
17:I:99:LYS:NZ	17:I:140:GLU:HG3	2.23	0.53
21:M:113:ALA:O	21:M:116:ALA:HB3	2.09	0.53
6:5:224:VAL:HG21	6:5:233:VAL:HG23	1.90	0.53
7:6:412:ARG:HH22	10:B:2661:G:H1'	1.74	0.53
9:A:40:U:O2	9:A:43:C:H3'	2.09	0.53
9:A:64:G:C6	9:A:65:U:C2	2.97	0.53
10:B:486:C:H2'	10:B:487:C:C6	2.43	0.53
10:B:668:A:C5	10:B:670:A:C5	2.97	0.53
10:B:777:G:C5	10:B:778:G:N7	2.77	0.53
10:B:903:C:H2'	10:B:904:G:C8	2.44	0.53
10:B:995:C:C2	25:Q:56:PHE:CD2	2.97	0.53
10:B:1077:A:H2	10:B:1088:A:C6	2.27	0.53
10:B:1083:U:H2'	10:B:1085:A:OP2	2.09	0.53
10:B:1105:U:H2'	10:B:1106:G:C8	2.44	0.53
10:B:1600:C:H2'	10:B:1601:G:H8	1.72	0.53
10:B:1660:G:H1	10:B:2000:C:H42	1.57	0.53
10:B:1836:C:C2	10:B:1904:G:N2	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2159:G:H8	10:B:2161:C:N4	2.07	0.53
10:B:2222:C:P	16:H:136:SER:HB2	2.48	0.53
10:B:2465:C:O2	10:B:2485:G:N1	2.40	0.53
10:B:2535:G:C6	10:B:2536:G:C5	2.97	0.53
10:B:2876:G:C4	10:B:2877:G:C8	2.97	0.53
13:E:150:THR:HG21	13:E:153:LEU:HD23	1.91	0.53
17:I:125:THR:O	17:I:129:GLU:HG3	2.08	0.53
18:J:33:ALA:O	18:J:36:LEU:N	2.41	0.53
24:P:56:SER:H	24:P:74:GLN:HE22	1.57	0.53
26:R:21:ARG:HD3	26:R:93:PHE:CE2	2.44	0.53
28:T:44:LYS:NZ	28:T:55:VAL:HG12	2.23	0.53
29:U:48:VAL:O	29:U:53:GLN:HA	2.09	0.53
6:5:172:HIS:HB2	10:B:2122:U:O2'	2.09	0.52
10:B:165:A:C5	10:B:166:U:C4	2.96	0.52
10:B:197:A:C5	10:B:2430:A:N7	2.77	0.52
10:B:271:G:O2'	10:B:272:A:H8	1.91	0.52
10:B:376:G:H1	10:B:398:C:H42	1.57	0.52
10:B:387:U:N3	10:B:388:G:O6	2.42	0.52
10:B:426:C:H2'	10:B:427:U:H6	1.73	0.52
10:B:465:G:N7	10:B:466:A:C6	2.78	0.52
10:B:819:A:C4	10:B:1189:A:C2	2.96	0.52
10:B:841:G:H2'	10:B:842:U:C6	2.45	0.52
10:B:1098:A:C5	17:I:4:VAL:HA	2.44	0.52
10:B:1332:G:C6	10:B:1609:A:C5	2.97	0.52
10:B:1759:A:OP2	10:B:1760:C:N4	2.37	0.52
10:B:1867:G:H22	10:B:1875:G:H1'	1.74	0.52
10:B:1977:A:H3'	10:B:1978:A:H8	1.74	0.52
10:B:1996:C:OP2	19:K:30:ARG:NH2	2.42	0.52
10:B:2001:C:C2	10:B:2002:G:C8	2.98	0.52
10:B:2282:G:H1'	10:B:2390:U:O4	2.09	0.52
10:B:2543:G:C2	10:B:2544:G:C5	2.97	0.52
10:B:2547:A:C6	10:B:2562:U:C4	2.97	0.52
10:B:2674:G:H2'	10:B:2675:A:C8	2.44	0.52
12:D:29:VAL:O	12:D:185:ASN:HB3	2.09	0.52
14:F:2:LYS:HB2	14:F:100:GLU:OE1	2.08	0.52
18:J:140:LEU:CD2	18:J:142:ILE:H	2.16	0.52
32:X:15:ASN:ND2	32:X:25:LYS:HD3	2.25	0.52
4:3:13:PHE:HE2	4:3:57:VAL:HG22	1.74	0.52
6:5:182:ALA:HA	6:5:185:LEU:HD12	1.92	0.52
7:6:210:LYS:HG2	35:6:527:GNP:O1B	2.09	0.52
9:A:2:G:C5	9:A:3:C:C4	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:42:A:C4	10:B:43:G:C8	2.97	0.52
10:B:311:A:H8	10:B:332:A:C5	2.27	0.52
10:B:446:G:H4'	10:B:447:A:H5'	1.91	0.52
10:B:488:G:H4'	27:S:49:LYS:NZ	2.24	0.52
10:B:504:A:O2'	27:S:1:MET:N	2.42	0.52
10:B:712:G:H3'	10:B:713:G:H8	1.72	0.52
10:B:912:C:OP1	21:M:8:LYS:NZ	2.35	0.52
10:B:1200:C:H42	10:B:1245:G:H1	1.57	0.52
10:B:1435:G:H2'	10:B:1436:G:C8	2.44	0.52
10:B:1738:G:OP1	10:B:1738:G:H4'	2.09	0.52
10:B:2211:A:O2'	10:B:2212:A:OP2	2.25	0.52
10:B:2639:A:C6	10:B:2640:G:C4	2.97	0.52
14:F:21:TYR:HB3	14:F:26:GLN:HB3	1.90	0.52
20:L:23:ILE:HG22	26:R:82:HIS:NE2	2.25	0.52
21:M:50:ARG:HE	21:M:63:ILE:HD13	1.74	0.52
26:R:15:SER:O	26:R:18:GLN:HB3	2.09	0.52
2:1:9:LYS:HD2	2:1:19:PHE:CG	2.44	0.52
7:6:10:GLN:OE1	7:6:76:SER:OG	2.15	0.52
7:6:178:LEU:O	7:6:181:VAL:HB	2.08	0.52
10:B:190:A:P	32:X:25:LYS:HZ1	2.28	0.52
10:B:529:A:C5	10:B:2023:C:C4	2.97	0.52
10:B:559:G:C5	10:B:560:C:C4	2.97	0.52
10:B:592:A:C2	10:B:666:A:C5	2.98	0.52
10:B:631:A:N6	10:B:2416:C:O2'	2.42	0.52
10:B:676:A:N3	10:B:2443:C:O2'	2.30	0.52
10:B:775:G:C8	10:B:794:A:N7	2.77	0.52
10:B:883:G:H2'	10:B:884:U:O4'	2.09	0.52
10:B:927:A:C2	10:B:928:A:C4	2.98	0.52
10:B:976:G:H2'	10:B:977:G:H8	1.73	0.52
10:B:1063:G:N2	10:B:1076:C:O2	2.42	0.52
10:B:1588:G:H2'	10:B:1589:U:H6	1.74	0.52
10:B:1722:A:N6	10:B:1738:G:H1'	2.24	0.52
10:B:1889:A:N1	10:B:2234:G:H1'	2.25	0.52
10:B:2205:A:H2'	10:B:2206:C:H6	1.73	0.52
10:B:2392:A:C6	10:B:2393:U:C4	2.97	0.52
10:B:2461:A:H1'	10:B:2492:U:N3	2.24	0.52
10:B:2647:U:N3	10:B:2673:G:O6	2.43	0.52
11:C:174:ARG:NE	11:C:180:MET:HG2	2.24	0.52
15:G:93:TYR:OH	15:G:159:LYS:HD3	2.09	0.52
17:I:123:ALA:N	17:I:126:ARG:HH21	2.07	0.52
1:0:4:GLN:O	1:0:5:ASN:ND2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:22:LYS:HZ3	10:B:650:C:C4'	2.22	0.52
6:5:117:SER:O	6:5:121:MET:N	2.35	0.52
6:5:193:LEU:O	6:5:197:LYS:HG3	2.08	0.52
7:6:414:LEU:HD22	7:6:425:LEU:HD23	1.92	0.52
9:A:66:A:H61	9:A:107:G:H3'	1.74	0.52
10:B:55:G:O2'	10:B:126:A:N6	2.42	0.52
10:B:858:G:C2	10:B:2268:A:C4	2.98	0.52
10:B:945:A:N6	10:B:2448:A:C6	2.78	0.52
10:B:975:A:C8	10:B:990:A:N6	2.77	0.52
10:B:1066:U:O2'	10:B:1068:G:N7	2.38	0.52
10:B:1168:G:H2'	10:B:1169:A:O4'	2.09	0.52
10:B:1186:G:C6	10:B:1187:G:C2	2.98	0.52
10:B:1222:U:H5''	10:B:1223:G:OP2	2.09	0.52
10:B:1266:G:O2'	10:B:1267:U:OP2	2.25	0.52
10:B:1563:U:H2'	10:B:1564:C:C6	2.45	0.52
10:B:2104:C:H2'	10:B:2105:U:C6	2.45	0.52
10:B:2168:G:H1	10:B:2171:A:H2'	1.75	0.52
10:B:2641:G:P	18:J:85:LYS:NZ	2.82	0.52
10:B:2641:G:C2	10:B:2642:G:C5	2.97	0.52
15:G:143:VAL:HA	15:G:146:ASP:HB2	1.91	0.52
25:Q:90:ASP:O	25:Q:91:ARG:HG2	2.09	0.52
6:5:164:ARG:HH11	10:B:2122:U:C5'	2.22	0.52
7:6:153:ARG:O	7:6:155:PRO:HD2	2.09	0.52
9:A:4:C:H2'	9:A:5:U:H6	1.74	0.52
9:A:66:A:H4'	9:A:67:G:H8	1.75	0.52
10:B:61:C:P	33:Y:44:LYS:HZ3	2.33	0.52
10:B:65:U:O2'	28:T:73:ARG:HD2	2.10	0.52
10:B:202:U:C5	10:B:203:A:C5	2.97	0.52
10:B:480:A:P	29:U:43:LYS:HZ2	2.33	0.52
10:B:941:A:C2	10:B:942:G:C4	2.98	0.52
10:B:949:G:N1	10:B:968:C:O2	2.34	0.52
10:B:998:C:N3	10:B:999:U:N3	2.57	0.52
10:B:1028:A:H2'	10:B:1029:A:C8	2.45	0.52
10:B:1036:G:C5	10:B:1120:G:C6	2.98	0.52
10:B:1037:G:C2	10:B:1038:G:C8	2.98	0.52
10:B:1062:G:C6	10:B:1063:G:C6	2.96	0.52
10:B:1101:U:H2'	10:B:1102:C:C6	2.45	0.52
10:B:1173:U:H1'	10:B:1177:G:C2	2.44	0.52
10:B:1779:U:C2	10:B:1783:A:N7	2.77	0.52
10:B:1796:U:H3	10:B:1823:G:H1	1.57	0.52
10:B:1910:G:H2'	10:B:1911:U:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2047:C:H42	10:B:2621:G:H1	1.56	0.52
10:B:2177:C:C4	10:B:2178:C:H5	2.28	0.52
10:B:2209:G:H2'	10:B:2210:U:C5	2.45	0.52
10:B:2224:G:P	11:C:264:LYS:NZ	2.83	0.52
10:B:2341:G:H2'	10:B:2342:C:C6	2.45	0.52
10:B:2414:G:H2'	10:B:2415:G:H8	1.74	0.52
10:B:2579:C:O2'	12:D:136:ASN:HA	2.09	0.52
10:B:2620:C:O3'	12:D:160:LYS:HD2	2.09	0.52
10:B:2635:A:O2'	12:D:49:GLN:NE2	2.42	0.52
10:B:2737:G:C2	10:B:2738:A:C4	2.97	0.52
13:E:106:LYS:HG3	13:E:200:LEU:HD13	1.91	0.52
21:M:47:GLU:O	21:M:51:ARG:HG2	2.10	0.52
28:T:29:THR:OG1	28:T:30:ILE:O	2.28	0.52
6:5:45:ALA:HB3	6:5:213:SER:HB2	1.91	0.52
6:5:54:LYS:HZ3	10:B:1860:G:H5''	1.69	0.52
7:6:194:LYS:HE2	7:6:196:ASP:O	2.10	0.52
7:6:331:ARG:HB3	7:6:333:GLU:O	2.09	0.52
7:6:381:SER:HB2	10:B:1095:A:C4	2.44	0.52
9:A:44:G:N2	9:A:47:C:N3	2.46	0.52
9:A:58:A:H3'	9:A:59:A:H8	1.75	0.52
10:B:332:A:C6	10:B:335:C:C2	2.98	0.52
10:B:545:U:H6	10:B:549:G:C5'	2.23	0.52
10:B:653:U:H5''	10:B:654:A:OP2	2.09	0.52
10:B:862:G:C5	10:B:863:A:C8	2.97	0.52
10:B:947:A:C4	10:B:971:G:N2	2.78	0.52
10:B:1156:A:C2	25:Q:50:ARG:HG3	2.44	0.52
10:B:1205:A:C4	13:E:165:HIS:CE1	2.98	0.52
10:B:1299:G:N2	10:B:1642:G:C6	2.77	0.52
10:B:1315:C:H2'	10:B:1316:U:C6	2.45	0.52
10:B:1368:G:C2	10:B:1369:G:C8	2.98	0.52
10:B:1795:C:H2'	10:B:1796:U:H6	1.75	0.52
10:B:1831:G:C2	10:B:1975:G:C2	2.97	0.52
10:B:1837:C:C2	10:B:1899:A:N6	2.78	0.52
10:B:1853:A:C2	10:B:1854:A:C4	2.98	0.52
10:B:1973:G:H2'	10:B:1974:C:C6	2.44	0.52
10:B:2051:A:OP2	10:B:2051:A:H8	1.92	0.52
10:B:2306:C:H5'	14:F:132:ARG:NH2	2.24	0.52
10:B:2436:G:C2	10:B:2437:G:C8	2.98	0.52
10:B:2606:C:H2'	10:B:2607:G:H8	1.67	0.52
10:B:2800:A:H2'	10:B:2801:G:O4'	2.10	0.52
10:B:2829:A:C6	10:B:2830:C:C4	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:D:4:LEU:O	12:D:203:VAL:HG12	2.09	0.52
14:F:109:ARG:HA	14:F:177:ARG:HH11	1.75	0.52
18:J:118:MET:HA	18:J:121:LYS:NZ	2.19	0.52
22:N:2:ARG:HG2	22:N:2:ARG:HH11	1.74	0.52
7:6:324:ASP:OD2	7:6:325:PHE:HD2	1.92	0.52
10:B:27:G:H2'	10:B:512:G:N2	2.24	0.52
10:B:475:C:N3	10:B:476:G:C5	2.77	0.52
10:B:767:U:H2'	10:B:768:G:H8	1.74	0.52
10:B:941:A:C6	10:B:942:G:C6	2.98	0.52
10:B:1022:G:O6	18:J:68:LYS:HE2	2.10	0.52
10:B:1077:A:H2	10:B:1088:A:N6	2.08	0.52
10:B:1100:C:H5	17:I:2:LYS:HG3	1.74	0.52
10:B:1207:C:H2'	10:B:1208:C:C6	2.38	0.52
10:B:1218:G:C5	10:B:1219:U:C4	2.97	0.52
10:B:1315:C:N3	10:B:1337:G:N1	2.47	0.52
10:B:1410:G:N1	10:B:1592:C:O2	2.37	0.52
10:B:1538:G:H8	10:B:1538:G:O5'	1.93	0.52
10:B:1662:U:H2'	10:B:1663:G:H5''	1.90	0.52
10:B:1683:U:H2'	10:B:1684:G:H8	1.75	0.52
10:B:1796:U:C2	10:B:1797:G:C8	2.98	0.52
10:B:1797:G:C2	10:B:1823:G:C5	2.98	0.52
10:B:1870:C:H3'	10:B:1871:A:C8	2.45	0.52
10:B:1912:A:H2'	10:B:1919:A:N6	2.24	0.52
10:B:2331:G:O2'	31:W:40:ARG:HG2	2.10	0.52
10:B:2392:A:O2'	20:L:60:ARG:O	2.28	0.52
10:B:2807:U:H3'	10:B:2808:G:H8	1.74	0.52
19:K:17:ARG:HB3	19:K:44:GLU:OE1	2.09	0.52
9:A:57:A:H5''	14:F:22:ASN:ND2	2.24	0.52
10:B:48:G:N1	10:B:178:G:O6	2.42	0.52
10:B:51:G:O2'	10:B:119:A:N1	2.29	0.52
10:B:387:U:C2	10:B:388:G:C5	2.98	0.52
10:B:480:A:H61	10:B:505:A:H2	1.58	0.52
10:B:522:A:H2'	10:B:523:C:H6	1.74	0.52
10:B:612:G:C2	10:B:614:A:H1'	2.45	0.52
10:B:612:G:H21	10:B:616:A:H62	1.57	0.52
10:B:663:G:C2	10:B:664:G:C8	2.97	0.52
10:B:887:U:H1'	10:B:888:C:H5	1.75	0.52
10:B:981:A:H8	10:B:2027:G:N2	2.07	0.52
10:B:1091:G:H2'	10:B:1092:C:C6	2.44	0.52
10:B:1151:A:C5	10:B:1152:C:C4	2.98	0.52
10:B:1331:G:C6	10:B:1333:G:C4	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1372:U:H1'	10:B:2214:C:C2	2.45	0.52
10:B:1426:G:H3'	10:B:1427:A:H8	1.75	0.52
10:B:1429:G:H2'	10:B:1430:G:C8	2.44	0.52
10:B:1524:G:H2'	10:B:1525:A:C8	2.45	0.52
10:B:1749:A:H2'	10:B:1750:G:H8	1.73	0.52
10:B:1949:G:O6	10:B:1958:C:N4	2.42	0.52
10:B:2134:A:H1'	10:B:2159:G:O2'	2.10	0.52
10:B:2769:U:H2'	10:B:2770:G:O4'	2.10	0.52
13:E:31:VAL:HG11	13:E:104:ALA:HB2	1.92	0.52
13:E:90:GLN:HB3	13:E:92:HIS:HE1	1.73	0.52
17:I:71:LYS:NZ	17:I:115:ASP:OD2	2.31	0.52
22:N:87:PHE:CD2	22:N:90:ARG:HG3	2.45	0.52
24:P:30:TRP:CD2	24:P:39:LEU:HD21	2.45	0.52
30:V:73:LYS:O	30:V:92:VAL:HG12	2.10	0.52
1:O:15:ARG:NH1	10:B:1266:G:OP1	2.43	0.52
3:2:28:ARG:NH2	10:B:179:C:H5'	2.24	0.52
7:6:69:ALA:O	7:6:73:THR:HG22	2.09	0.52
7:6:164:ARG:CB	7:6:168:ARG:HH12	2.22	0.52
9:A:28:C:H2'	9:A:29:A:H8	1.74	0.52
9:A:86:G:N1	9:A:91:C:O2	2.43	0.52
10:B:24:G:N1	10:B:517:C:N3	2.58	0.52
10:B:66:C:C2	10:B:89:A:N1	2.78	0.52
10:B:67:U:H1'	10:B:88:G:N2	2.25	0.52
10:B:200:U:C5	10:B:201:C:C2	2.98	0.52
10:B:315:G:C6	10:B:316:C:C4	2.98	0.52
10:B:452:G:C6	10:B:453:A:C6	2.98	0.52
10:B:807:U:P	20:L:36:LYS:HZ1	2.32	0.52
10:B:1048:A:P	10:B:1110:G:H22	2.32	0.52
10:B:1131:G:C5	18:J:77:HIS:NE2	2.78	0.52
10:B:1267:U:HO2'	10:B:1268:A:P	2.33	0.52
10:B:1331:G:C6	10:B:1333:G:C5	2.97	0.52
10:B:1409:U:H2'	10:B:1410:G:C8	2.44	0.52
10:B:1663:G:O2'	10:B:1664:A:H8	1.92	0.52
10:B:1742:U:C4	10:B:1743:G:C5	2.98	0.52
10:B:1744:A:H3'	10:B:1745:A:C8	2.32	0.52
10:B:1889:A:H2'	10:B:1890:A:H8	1.73	0.52
10:B:2093:G:H1	10:B:2196:C:N4	2.02	0.52
10:B:2116:G:N2	10:B:2147:A:OP1	2.43	0.52
10:B:2366:A:C6	10:B:2367:G:C4	2.98	0.52
10:B:2516:A:C5	10:B:2517:C:C4	2.98	0.52
10:B:2532:G:H2'	10:B:2533:U:H5'	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2626:C:H2'	10:B:2627:G:C8	2.45	0.52
10:B:2674:G:C2	10:B:2675:A:C4	2.98	0.52
12:D:178:VAL:N	12:D:188:LEU:O	2.43	0.52
15:G:95:ALA:H	15:G:127:GLN:HB3	1.74	0.52
17:I:93:ASN:H	17:I:136:GLY:CA	2.18	0.52
20:L:119:PRO:HA	20:L:139:GLY:O	2.09	0.52
31:W:51:GLY:HA2	31:W:59:PHE:CE1	2.45	0.52
6:5:162:ARG:NE	10:B:2123:G:OP1	2.40	0.52
6:5:206:GLY:N	10:B:1876:A:H5''	2.25	0.52
7:6:86:PRO:HG3	7:6:135:ARG:NH1	2.17	0.52
8:7:52:MET:HA	8:7:87:GLU:HA	1.92	0.52
9:A:41:G:H21	14:F:65:LEU:HD21	1.75	0.52
10:B:27:G:C6	10:B:512:G:C6	2.97	0.52
10:B:128:C:C2	10:B:129:C:H5	2.28	0.52
10:B:216:A:H2'	10:B:217:A:H8	1.74	0.52
10:B:370:G:C6	10:B:424:G:C5	2.98	0.52
10:B:543:G:C6	10:B:551:G:C5	2.98	0.52
10:B:567:U:C4	10:B:568:U:N3	2.78	0.52
10:B:971:G:H2'	10:B:972:A:O4'	2.10	0.52
10:B:1116:G:C6	10:B:1117:C:C4	2.98	0.52
10:B:1224:U:O3'	26:R:88:GLY:HA3	2.09	0.52
10:B:1443:U:H2'	10:B:1444:G:H8	1.75	0.52
10:B:1551:A:H2'	10:B:1552:A:O4'	2.11	0.52
10:B:1560:G:C6	10:B:1561:C:C4	2.98	0.52
10:B:2078:C:C4	10:B:2079:U:C4	2.97	0.52
10:B:2351:G:H1'	10:B:2366:A:N6	2.24	0.52
10:B:2460:U:C2	10:B:2461:A:C8	2.98	0.52
10:B:2472:G:N2	10:B:2529:G:H1	2.08	0.52
13:E:156:ASN:HA	13:E:159:LEU:HD12	1.92	0.52
14:F:111:ARG:HG3	14:F:112:ASP:OD1	2.10	0.52
17:I:14:ALA:HA	17:I:41:PHE:CZ	2.45	0.52
19:K:64:THR:HG22	19:K:67:GLY:H	1.74	0.52
21:M:42:THR:OG1	21:M:45:GLN:HG2	2.09	0.52
24:P:95:LYS:O	24:P:97:TYR:N	2.43	0.52
28:T:21:SER:O	28:T:25:GLU:N	2.41	0.52
30:V:35:GLU:OE1	30:V:35:GLU:N	2.42	0.52
31:W:70:VAL:HG12	31:W:77:LYS:HG2	1.92	0.52
33:Y:31:GLN:HB3	33:Y:36:GLN:OE1	2.10	0.52
5:4:29:ALA:HB3	5:4:33:HIS:CE1	2.45	0.51
9:A:2:G:H2'	9:A:3:C:C6	2.45	0.51
9:A:6:G:H2'	9:A:7:G:H8	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:570:G:C6	10:B:2030:A:C6	2.98	0.51
10:B:648:G:C2	10:B:649:G:N7	2.78	0.51
10:B:659:G:C5	10:B:660:C:C4	2.98	0.51
10:B:661:A:C6	10:B:662:G:C5	2.98	0.51
10:B:706:A:C8	10:B:707:G:C8	2.97	0.51
10:B:899:A:H2'	10:B:899:A:N3	2.23	0.51
10:B:932:U:H4'	10:B:933:A:C4	2.45	0.51
10:B:981:A:N6	10:B:2028:U:H4'	2.25	0.51
10:B:1025:G:C2	10:B:1135:C:C6	2.97	0.51
10:B:1038:G:C2	10:B:1039:A:C5	2.98	0.51
10:B:1050:A:C4	10:B:1051:G:C8	2.98	0.51
10:B:1060:U:P	17:I:112:LYS:HZ1	2.30	0.51
10:B:1153:C:H3'	10:B:1154:G:C8	2.45	0.51
10:B:1259:G:H2'	10:B:1260:A:H8	1.75	0.51
10:B:1482:G:H2'	10:B:1483:G:C8	2.45	0.51
10:B:1659:G:C6	10:B:1660:G:C5	2.98	0.51
10:B:2030:A:C2	10:B:2499:C:H5''	2.44	0.51
10:B:2052:A:O4'	12:D:147:GLY:HA3	2.09	0.51
10:B:2541:A:H5''	10:B:2542:A:OP2	2.10	0.51
10:B:2569:G:N3	10:B:2570:G:C8	2.77	0.51
10:B:2865:U:H2'	10:B:2866:U:H5	1.75	0.51
16:H:31:VAL:CB	16:H:32:PRO:CD	2.85	0.51
16:H:57:LYS:HZ1	16:H:61:VAL:HG11	1.75	0.51
21:M:62:LYS:HD3	21:M:64:TRP:CZ2	2.45	0.51
28:T:15:HIS:NE2	28:T:17:SER:OG	2.17	0.51
5:4:34:LYS:HB3	5:4:36:ARG:NH1	2.25	0.51
7:6:235:THR:O	7:6:250:ALA:HA	2.09	0.51
8:7:80:THR:HA	10:B:1107:G:O2'	2.11	0.51
9:A:32:U:N3	9:A:51:G:C2	2.78	0.51
9:A:60:C:H2'	9:A:61:G:C8	2.46	0.51
9:A:96:G:C6	9:A:97:C:C4	2.98	0.51
10:B:70:G:H4'	10:B:75:G:H22	1.74	0.51
10:B:226:A:C6	10:B:227:A:C6	2.98	0.51
10:B:265:A:C2'	10:B:266:G:H4'	2.40	0.51
10:B:448:U:O4'	13:E:79:ARG:NH2	2.44	0.51
10:B:711:G:N2	10:B:720:U:O2'	2.43	0.51
10:B:921:C:H2'	10:B:922:C:H6	1.74	0.51
10:B:1083:U:O2	10:B:1085:A:H8	1.93	0.51
10:B:1176:U:H3'	10:B:1177:G:H8	1.75	0.51
10:B:1443:U:H2'	10:B:1444:G:C8	2.45	0.51
10:B:1721:G:O2'	10:B:1738:G:N1	2.36	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1779:U:HO2'	10:B:1780:A:P	2.33	0.51
10:B:1799:G:C5	10:B:1819:A:C5	2.98	0.51
10:B:1930:G:C6	10:B:1968:G:N7	2.78	0.51
10:B:2092:U:H4'	16:H:24:GLY:HA3	1.90	0.51
10:B:2140:G:H3'	10:B:2141:G:H8	1.74	0.51
10:B:2278:A:P	21:M:10:ARG:HH21	2.33	0.51
10:B:2373:G:H2'	10:B:2374:C:C6	2.45	0.51
10:B:2494:G:H2'	10:B:2495:G:H8	1.74	0.51
10:B:2530:A:H5'	15:G:174:LYS:HZ3	1.71	0.51
10:B:2641:G:OP2	18:J:85:LYS:NZ	2.43	0.51
10:B:2785:C:H2'	10:B:2786:U:H6	1.74	0.51
10:B:2830:C:O2'	10:B:2883:A:N1	2.42	0.51
10:B:2862:G:H2'	10:B:2863:C:C6	2.45	0.51
14:F:90:LEU:HD13	14:F:95:MET:HA	1.91	0.51
17:I:42:ASN:O	17:I:45:THR:OG1	2.25	0.51
4:3:30:HIS:CG	4:3:31:ILE:N	2.79	0.51
10:B:65:U:P	28:T:76:ARG:H	2.33	0.51
10:B:83:A:H61	10:B:102:U:H5'	1.76	0.51
10:B:488:G:N2	10:B:491:G:H3'	2.25	0.51
10:B:628:G:C6	10:B:636:G:C2	2.98	0.51
10:B:971:G:OP1	10:B:989:G:N1	2.41	0.51
10:B:1030:C:C4	10:B:1125:G:N2	2.78	0.51
10:B:1047:G:H8	10:B:1047:G:OP2	1.93	0.51
10:B:1310:G:C2	10:B:1311:G:N2	2.79	0.51
10:B:1783:A:O2'	10:B:2607:G:O2'	2.02	0.51
10:B:1795:C:N4	10:B:1824:G:H1	2.08	0.51
10:B:2201:G:H22	10:B:2223:G:H1'	1.76	0.51
10:B:2441:U:H2'	10:B:2442:C:O4'	2.10	0.51
10:B:2461:A:H1'	10:B:2492:U:H3	1.74	0.51
18:J:80:HIS:CE1	18:J:81:ILE:HB	2.46	0.51
30:V:5:ASN:HA	30:V:64:VAL:HB	1.91	0.51
32:X:12:VAL:O	32:X:27:ARG:HA	2.10	0.51
1:0:3:GLN:HB3	1:0:5:ASN:O	2.11	0.51
7:6:16:ILE:HG13	7:6:18:PHE:HB2	1.93	0.51
7:6:86:PRO:HG3	7:6:135:ARG:HD3	1.93	0.51
7:6:331:ARG:NH2	7:6:334:GLU:HA	2.24	0.51
7:6:401:SER:C	7:6:402:LEU:HD12	2.30	0.51
10:B:527:C:C4	10:B:2779:U:H2'	2.46	0.51
10:B:645:C:H4'	10:B:646:U:C5	2.46	0.51
10:B:671:C:H2'	10:B:672:C:C6	2.46	0.51
10:B:923:G:C2	10:B:924:G:C8	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1155:A:C6	10:B:1157:G:C5	2.98	0.51
10:B:1275:A:N6	10:B:1295:C:O2'	2.42	0.51
10:B:1288:G:N2	10:B:1288:G:OP2	2.43	0.51
10:B:1389:G:C2	10:B:1399:C:C2	2.98	0.51
10:B:1451:C:H4'	10:B:1452:G:C8	2.45	0.51
10:B:1668:A:N6	10:B:1676:A:H61	2.08	0.51
10:B:1826:G:OP2	11:C:221:GLY:N	2.39	0.51
10:B:1846:G:C6	10:B:1895:C:C4	2.98	0.51
10:B:2093:G:C6	10:B:2225:A:C8	2.99	0.51
10:B:2136:G:N2	10:B:2155:U:H3	2.09	0.51
10:B:2401:U:O2	10:B:2403:C:N4	2.44	0.51
10:B:2411:A:H2'	10:B:2412:A:H8	1.74	0.51
10:B:2431:U:H2'	10:B:2433:A:OP2	2.11	0.51
10:B:2432:A:C8	10:B:2433:A:C8	2.97	0.51
10:B:2452:C:N4	10:B:2453:A:H62	2.09	0.51
10:B:2556:C:C4	10:B:2557:G:C5	2.98	0.51
10:B:2757:A:N1	15:G:66:THR:OG1	2.34	0.51
10:B:2773:C:OP1	12:D:169:ARG:NE	2.42	0.51
12:D:39:ASP:OD1	12:D:46:ARG:HG3	2.10	0.51
18:J:11:VAL:HG21	18:J:13:ARG:NH2	2.24	0.51
19:K:92:GLN:CG	19:K:110:LYS:HZ3	2.20	0.51
24:P:30:TRP:HD1	24:P:79:VAL:HA	1.76	0.51
6:5:170:ILE:HG23	6:5:172:HIS:CE1	2.45	0.51
9:A:9:G:C2	9:A:112:G:C4	2.98	0.51
10:B:563:A:N6	10:B:2018:G:C8	2.79	0.51
10:B:687:C:N3	10:B:688:U:C4	2.79	0.51
10:B:718:A:H3'	10:B:719:C:C6	2.46	0.51
10:B:765:C:C4	10:B:766:U:C4	2.99	0.51
10:B:968:C:H2'	10:B:969:G:C8	2.46	0.51
10:B:1021:A:C2	10:B:1023:U:C2	2.98	0.51
10:B:1022:G:C2	10:B:1140:C:N3	2.78	0.51
10:B:1292:G:H2'	10:B:1293:C:C6	2.46	0.51
10:B:1857:G:C2	10:B:1884:G:C5	2.98	0.51
10:B:1937:A:C6	10:B:1939:U:N3	2.79	0.51
10:B:2003:A:H2'	10:B:2004:G:H8	1.75	0.51
10:B:2051:A:C6	10:B:2614:A:C5	2.99	0.51
10:B:2195:U:O2'	10:B:2196:C:H5'	2.11	0.51
10:B:2198:A:H2	16:H:29:PHE:CG	2.29	0.51
10:B:2621:G:C5	10:B:2622:U:C5	2.99	0.51
10:B:2854:G:C5	10:B:2855:C:C4	2.98	0.51
10:B:2867:G:HO2'	10:B:2868:A:P	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2897:U:O2'	10:B:2898:U:H5'	2.11	0.51
11:C:40:GLY:HA3	11:C:54:GLY:HA2	1.93	0.51
14:F:122:ASP:OD2	14:F:126:ASN:HB2	2.10	0.51
14:F:132:ARG:N	14:F:150:GLY:HA2	2.24	0.51
21:M:54:THR:O	21:M:58:LYS:N	2.44	0.51
23:O:76:LYS:HZ2	23:O:113:ALA:HA	1.75	0.51
6:5:48:LEU:O	6:5:210:LYS:NZ	2.27	0.51
9:A:83:G:H2'	9:A:84:G:H8	1.75	0.51
10:B:13:A:C6	10:B:525:U:C2	2.97	0.51
10:B:66:C:H2'	10:B:67:U:O4'	2.09	0.51
10:B:628:G:C2	10:B:629:G:C4	2.99	0.51
10:B:661:A:H2'	10:B:662:G:O4'	2.11	0.51
10:B:676:A:N6	10:B:802:A:H61	2.08	0.51
10:B:737:C:N3	10:B:760:G:C2	2.78	0.51
10:B:760:G:H3'	10:B:761:A:H8	1.76	0.51
10:B:819:A:C4	10:B:820:A:C8	2.98	0.51
10:B:885:C:O2'	10:B:886:A:H5'	2.11	0.51
10:B:976:G:H2'	10:B:977:G:C8	2.45	0.51
10:B:1131:G:C5	18:J:77:HIS:CE1	2.99	0.51
10:B:1203:U:N3	10:B:1204:A:N1	2.59	0.51
10:B:1292:G:C6	10:B:1293:C:C4	2.98	0.51
10:B:1409:U:H2'	10:B:1410:G:H8	1.74	0.51
10:B:1418:G:O6	10:B:1578:U:H5''	2.10	0.51
10:B:1494:A:H2'	10:B:1495:A:O4'	2.10	0.51
10:B:1566:A:P	11:C:17:LYS:HZ1	2.34	0.51
10:B:1764:C:H2'	10:B:1765:U:C6	2.45	0.51
10:B:1795:C:H2'	10:B:1796:U:C6	2.46	0.51
10:B:1836:C:H2'	10:B:1837:C:H6	1.76	0.51
10:B:2095:A:P	16:H:11:ASN:HD21	2.34	0.51
10:B:2339:C:H2'	10:B:2340:A:H8	1.76	0.51
10:B:2692:G:H2'	10:B:2693:G:H8	1.75	0.51
10:B:2720:U:C2	10:B:2721:A:C8	2.97	0.51
10:B:2801:G:H2'	10:B:2802:G:C8	2.46	0.51
10:B:2807:U:H1'	10:B:2892:G:N2	2.25	0.51
11:C:154:ALA:HB2	11:C:161:VAL:HG23	1.93	0.51
14:F:9:ASP:HA	14:F:13:LYS:NZ	2.25	0.51
14:F:16:MET:HG3	14:F:21:TYR:H	1.75	0.51
15:G:75:VAL:O	15:G:78:VAL:HG22	2.09	0.51
26:R:24:LYS:HG2	26:R:26:ASP:H	1.76	0.51
27:S:5:ALA:O	27:S:104:THR:OG1	2.23	0.51
7:6:261:HIS:CD2	7:6:262:ASP:H	2.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:57:ASN:HB3	8:7:62:ARG:CZ	2.40	0.51
10:B:171:U:H2'	10:B:172:A:C8	2.45	0.51
10:B:584:C:H5''	10:B:585:G:OP2	2.10	0.51
10:B:589:U:H2'	10:B:590:A:H8	1.74	0.51
10:B:747:U:C4	10:B:2613:U:C4	2.99	0.51
10:B:1374:G:C6	10:B:1375:U:C4	2.99	0.51
10:B:1457:U:C2	10:B:1458:U:C4	2.98	0.51
10:B:1625:C:C4	10:B:1626:A:N1	2.79	0.51
10:B:1631:G:N2	10:B:1633:G:H3'	2.25	0.51
10:B:1688:U:O4'	10:B:1701:A:N6	2.44	0.51
10:B:1959:G:N2	10:B:1960:A:N3	2.59	0.51
10:B:2217:G:C6	10:B:2218:G:C5	2.98	0.51
10:B:2230:G:O3'	32:X:29:LEU:HB2	2.11	0.51
10:B:2290:G:H4'	10:B:2381:A:O2'	2.11	0.51
10:B:2316:G:H5'	14:F:124:ARG:HH12	1.76	0.51
10:B:2857:G:N1	10:B:2861:U:O4	2.43	0.51
10:B:2859:G:C5	10:B:2860:A:C6	2.98	0.51
18:J:69:ARG:O	18:J:89:PHE:HB3	2.11	0.51
19:K:13:SER:OG	19:K:95:GLY:HA2	2.10	0.51
21:M:74:THR:HA	21:M:90:GLU:OE1	2.10	0.51
29:U:56:GLY:C	29:U:58:VAL:H	2.12	0.51
7:6:24:MET:CE	7:6:257:ARG:HH12	2.22	0.51
7:6:232:LEU:HA	7:6:253:VAL:HG12	1.91	0.51
10:B:155:A:H2'	10:B:156:A:C8	2.44	0.51
10:B:295:G:C6	10:B:344:A:C6	2.99	0.51
10:B:352:A:C5	10:B:353:C:C4	2.99	0.51
10:B:362:A:C5	10:B:363:G:C8	2.99	0.51
10:B:374:A:C5	10:B:375:G:C5	2.99	0.51
10:B:404:A:H5'	10:B:406:G:H1'	1.93	0.51
10:B:447:A:C2	10:B:473:G:C4	2.99	0.51
10:B:482:A:H5''	10:B:483:A:OP1	2.11	0.51
10:B:662:G:N3	10:B:663:G:N7	2.59	0.51
10:B:690:G:H2'	10:B:691:C:H6	1.72	0.51
10:B:820:A:N3	10:B:821:A:C8	2.79	0.51
10:B:840:C:H5''	10:B:841:G:OP2	2.10	0.51
10:B:870:U:H3	10:B:907:G:H1	1.58	0.51
10:B:878:A:C2	10:B:899:A:C6	2.99	0.51
10:B:959:A:H2'	10:B:960:A:H8	1.71	0.51
10:B:1418:G:N2	10:B:1579:A:OP2	2.38	0.51
10:B:1682:G:C8	10:B:1757:A:C5	2.99	0.51
10:B:1846:G:N7	10:B:1847:A:N6	2.57	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1960:A:C6	10:B:1961:C:N3	2.79	0.51
10:B:1977:A:C5	10:B:1978:A:C5	2.98	0.51
10:B:2031:A:N3	10:B:2455:G:O2'	2.33	0.51
10:B:2143:C:O2'	10:B:2145:C:O2	2.20	0.51
10:B:2224:G:N7	16:H:135:HIS:NE2	2.59	0.51
10:B:2305:U:O2'	14:F:132:ARG:NE	2.44	0.51
10:B:2364:C:H2'	10:B:2365:G:C8	2.45	0.51
10:B:2372:U:H3	10:B:2381:A:H61	1.59	0.51
10:B:2443:C:P	13:E:63:LYS:NZ	2.83	0.51
10:B:2495:G:C6	10:B:2496:C:C4	2.99	0.51
10:B:2650:U:H3	10:B:2670:A:H61	1.58	0.51
10:B:2696:U:C2	10:B:2697:G:C8	2.99	0.51
10:B:2858:C:H5	10:B:2859:G:C4	2.29	0.51
20:L:79:LEU:H	20:L:113:ALA:HB3	1.76	0.51
28:T:37:ASP:C	28:T:81:LYS:NZ	2.62	0.51
32:X:39:VAL:O	32:X:43:LYS:HA	2.11	0.51
5:4:4:ARG:HH22	10:B:2477:U:H5	1.59	0.51
7:6:204:GLY:HA2	7:6:282:HIS:HE1	1.76	0.51
10:B:35:G:H3'	10:B:35:G:OP2	2.11	0.51
10:B:337:C:P	29:U:3:LYS:HZ2	2.27	0.51
10:B:451:U:H2'	10:B:453:A:N7	2.25	0.51
10:B:489:G:C4	10:B:491:G:C8	2.99	0.51
10:B:523:C:H2'	10:B:524:G:C8	2.46	0.51
10:B:616:A:C6	10:B:617:G:C4	2.99	0.51
10:B:953:G:N3	10:B:954:G:C8	2.79	0.51
10:B:962:G:H2'	10:B:963:U:H6	1.76	0.51
10:B:1364:G:N2	10:B:1367:A:OP2	2.41	0.51
10:B:2119:A:C2	10:B:2170:A:H2'	2.46	0.51
10:B:2297:A:C4	10:B:2320:U:C2	2.99	0.51
10:B:2418:A:C6	10:B:2419:U:C4	2.99	0.51
10:B:2427:C:H5''	10:B:2429:G:OP1	2.10	0.51
10:B:2458:G:H1'	10:B:2459:A:N7	2.26	0.51
12:D:151:THR:C	12:D:153:GLY:N	2.56	0.51
16:H:107:GLY:O	16:H:109:GLU:HG3	2.10	0.51
18:J:71:ASP:O	18:J:73:VAL:N	2.41	0.51
20:L:74:THR:HG21	20:L:126:ARG:NH2	2.26	0.51
23:O:85:LYS:HB3	23:O:87:ILE:HG23	1.93	0.51
29:U:23:LYS:HZ3	29:U:25:LYS:HA	1.76	0.51
4:3:16:THR:HG23	10:B:629:G:OP1	2.11	0.51
7:6:211:SER:N	35:6:527:GNP:O2B	2.32	0.51
10:B:9:G:C6	10:B:2629:U:C5	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:55:G:H2'	10:B:56:A:H8	1.75	0.51
10:B:142:A:H2'	10:B:143:C:H6	1.76	0.51
10:B:181:A:H2'	10:B:182:A:H8	1.76	0.51
10:B:325:G:N2	10:B:337:C:N3	2.49	0.51
10:B:471:A:H2'	10:B:472:A:O4'	2.09	0.51
10:B:881:G:H2'	10:B:882:G:O4'	2.11	0.51
10:B:1359:A:C6	10:B:1360:G:C4	2.99	0.51
10:B:1462:C:H2'	10:B:1463:C:C6	2.44	0.51
10:B:1566:A:OP2	11:C:17:LYS:NZ	2.43	0.51
10:B:1631:G:H21	10:B:1633:G:H8	1.58	0.51
10:B:1843:C:H2'	10:B:1844:C:C6	2.46	0.51
10:B:2109:U:N3	10:B:2181:U:C2	2.79	0.51
10:B:2514:U:H4'	12:D:156:PHE:CE2	2.46	0.51
10:B:2745:C:O2'	15:G:142:GLN:HB2	2.10	0.51
10:B:2849:U:H3	10:B:2867:G:H1'	1.76	0.51
16:H:31:VAL:CG1	16:H:32:PRO:HD3	2.41	0.51
16:H:97:ARG:HH22	16:H:114:GLU:N	2.09	0.51
18:J:122:LEU:O	18:J:123:LYS:HD2	2.11	0.51
20:L:109:LYS:HA	20:L:126:ARG:O	2.11	0.51
21:M:18:ARG:HE	21:M:97:GLN:NE2	2.09	0.51
26:R:67:GLY:CA	26:R:93:PHE:HB2	2.41	0.51
7:6:422:ILE:H	7:6:422:ILE:HD12	1.76	0.50
10:B:158:U:H3'	10:B:159:G:H8	1.75	0.50
10:B:265:A:H2'	10:B:266:G:H4'	1.92	0.50
10:B:608:A:C5	10:B:609:A:C5	2.99	0.50
10:B:640:C:H2'	10:B:641:U:H6	1.76	0.50
10:B:647:G:C6	10:B:648:G:C6	2.99	0.50
10:B:783:A:C6	10:B:785:G:C4	2.99	0.50
10:B:822:G:C2	10:B:823:C:C2	2.98	0.50
10:B:888:C:O2'	10:B:889:C:OP1	2.29	0.50
10:B:949:G:C4	10:B:969:G:C2	3.00	0.50
10:B:1004:U:O2'	10:B:1010:A:N7	2.33	0.50
10:B:1149:G:H2'	10:B:1150:C:H6	1.74	0.50
10:B:1248:G:O2'	10:B:1249:U:H5''	2.11	0.50
10:B:1307:A:C4	10:B:1308:A:C8	2.98	0.50
10:B:1656:C:N4	10:B:1657:U:O4	2.45	0.50
10:B:1678:A:H1'	10:B:1991:U:O2'	2.11	0.50
10:B:1815:A:C5	10:B:1817:G:C5	2.99	0.50
10:B:1841:U:H2'	10:B:1842:G:H8	1.76	0.50
10:B:2141:G:H1	10:B:2150:C:N4	2.07	0.50
10:B:2252:G:O2'	10:B:2253:G:OP1	2.29	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2677:G:H2'	10:B:2678:C:H6	1.75	0.50
10:B:2694:G:C6	10:B:2695:U:C4	2.99	0.50
10:B:2808:G:H2'	10:B:2890:G:C6	2.46	0.50
10:B:2808:G:H2'	10:B:2890:G:O6	2.11	0.50
10:B:2841:C:H2'	10:B:2842:G:C8	2.45	0.50
24:P:8:GLU:O	24:P:12:MET:N	2.44	0.50
30:V:35:GLU:CD	30:V:93:ARG:HE	2.12	0.50
7:6:376:GLU:H	7:6:376:GLU:CD	2.13	0.50
9:A:16:G:C6	9:A:69:G:N1	2.79	0.50
10:B:93:G:H2'	10:B:94:A:O4'	2.11	0.50
10:B:248:G:O5'	10:B:249:C:H5''	2.12	0.50
10:B:331:C:O2'	10:B:332:A:H5'	2.12	0.50
10:B:373:U:O2	10:B:423:A:H2	1.94	0.50
10:B:470:A:C6	10:B:471:A:C6	3.00	0.50
10:B:488:G:H22	10:B:491:G:H3'	1.75	0.50
10:B:532:A:H4'	10:B:533:G:O4'	2.12	0.50
10:B:1004:U:H4'	10:B:1010:A:N6	2.26	0.50
10:B:1147:A:H2'	10:B:1148:U:H6	1.75	0.50
10:B:1156:A:H2	25:Q:46:TYR:HH	1.57	0.50
10:B:1234:U:H2'	10:B:1235:G:O4'	2.11	0.50
10:B:1265:A:O3'	10:B:1266:G:H4'	2.11	0.50
10:B:1287:A:C6	10:B:1288:G:C6	2.99	0.50
10:B:1307:A:C5	10:B:1622:G:C6	2.99	0.50
10:B:1429:G:C6	10:B:1568:G:C6	2.99	0.50
10:B:1452:G:N7	10:B:1458:U:C4	2.80	0.50
10:B:1710:G:C6	10:B:1749:A:C6	2.99	0.50
10:B:1723:G:C2	10:B:1724:G:C4	2.99	0.50
10:B:1988:G:N2	10:B:1989:G:N3	2.59	0.50
10:B:2367:G:C6	10:B:2368:C:C4	2.99	0.50
10:B:2649:C:H2'	10:B:2650:U:C6	2.44	0.50
12:D:110:THR:OG1	12:D:171:THR:HG22	2.11	0.50
14:F:105:ILE:CG1	14:F:111:ARG:HH21	2.25	0.50
18:J:110:PRO:CB	18:J:111:LYS:HG2	2.36	0.50
29:U:10:VAL:O	29:U:72:PHE:HB2	2.11	0.50
31:W:31:LEU:H	31:W:60:ALA:HB3	1.76	0.50
7:6:315:VAL:O	7:6:317:ASN:N	2.44	0.50
7:6:350:ILE:O	7:6:353:LEU:N	2.45	0.50
8:7:17:GLU:OE2	8:7:88:HIS:HE1	1.94	0.50
8:7:55:VAL:HA	10:B:1084:A:OP1	2.11	0.50
8:7:57:ASN:OD1	10:B:1106:G:H5''	2.12	0.50
10:B:75:G:C8	10:B:76:C:H5	2.29	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:551:G:C6	10:B:552:U:C4	2.99	0.50
10:B:871:U:H3	10:B:906:U:H3	1.59	0.50
10:B:943:A:N1	10:B:944:C:C4	2.80	0.50
10:B:1238:G:H2'	10:B:1239:G:H8	1.75	0.50
10:B:1390:U:H5''	10:B:1391:U:OP2	2.12	0.50
10:B:1417:C:N3	10:B:1581:G:N2	2.56	0.50
10:B:1473:G:H2'	10:B:1474:U:C6	2.46	0.50
10:B:1566:A:C5	11:C:212:TRP:CE2	3.00	0.50
10:B:1683:U:C2	10:B:1684:G:C8	2.99	0.50
10:B:1829:A:H2'	10:B:1830:C:H5'	1.92	0.50
10:B:1839:G:H2'	10:B:1840:G:O4'	2.11	0.50
10:B:1964:G:H4'	10:B:1965:C:OP2	2.12	0.50
10:B:2231:U:H2'	10:B:2232:C:C6	2.42	0.50
10:B:2516:A:H2'	10:B:2517:C:C6	2.46	0.50
10:B:2540:C:H2'	10:B:2541:A:O4'	2.12	0.50
10:B:2545:G:N3	10:B:2565:A:H2	2.08	0.50
10:B:2853:C:H2'	10:B:2854:G:C8	2.46	0.50
10:B:2868:A:C2	10:B:2869:G:C4	2.99	0.50
12:D:122:VAL:HG22	12:D:127:PHE:HB2	1.93	0.50
20:L:95:LEU:HB3	20:L:101:ILE:HG22	1.92	0.50
25:Q:24:TYR:CG	25:Q:25:GLY:N	2.80	0.50
25:Q:93:ILE:HG23	25:Q:94:LEU:N	2.25	0.50
10:B:49:A:H4'	10:B:50:U:C5'	2.39	0.50
10:B:260:G:C2	10:B:261:G:C8	2.99	0.50
10:B:371:A:H2	10:B:372:G:N2	2.08	0.50
10:B:389:G:N3	10:B:389:G:H2'	2.27	0.50
10:B:860:U:N3	10:B:2268:A:C8	2.80	0.50
10:B:1079:C:H5	10:B:1088:A:OP1	1.94	0.50
10:B:1286:A:N6	10:B:1329:U:C2	2.79	0.50
10:B:1333:G:N3	10:B:1334:G:C8	2.80	0.50
10:B:1389:G:C6	10:B:1390:U:N3	2.79	0.50
10:B:1657:U:O4	10:B:2004:G:N1	2.44	0.50
10:B:1695:G:C6	10:B:1696:G:H1'	2.47	0.50
10:B:1858:A:C6	10:B:1859:U:C2	2.99	0.50
10:B:2013:A:C2	10:B:2014:A:C4	2.99	0.50
10:B:2094:A:P	16:H:22:LYS:HG3	2.50	0.50
10:B:2103:C:H5	10:B:2104:C:C4	2.29	0.50
10:B:2357:G:N2	10:B:2360:G:OP2	2.27	0.50
10:B:2660:A:H2'	10:B:2661:G:C8	2.46	0.50
10:B:2749:A:OP1	15:G:1:SER:N	2.44	0.50
10:B:2822:G:O6	22:N:2:ARG:NH2	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:I:56:VAL:HG11	17:I:68:PHE:HB2	1.92	0.50
18:J:98:GLU:O	18:J:101:ILE:HG22	2.11	0.50
19:K:14:GLY:HA2	19:K:51:VAL:HG11	1.93	0.50
10:B:271:G:C4	10:B:272:A:C8	3.00	0.50
10:B:310:A:C8	10:B:312:G:C6	3.00	0.50
10:B:338:G:C2	10:B:339:U:C2	2.99	0.50
10:B:664:G:H2'	10:B:664:G:N3	2.27	0.50
10:B:806:C:H5	20:L:41:ARG:NE	2.09	0.50
10:B:1275:A:N1	10:B:1296:G:H1'	2.27	0.50
10:B:1337:G:C2	10:B:1338:G:C4	3.00	0.50
10:B:1473:G:H2'	10:B:1474:U:H6	1.75	0.50
10:B:1482:G:C2	10:B:1483:G:C4	3.00	0.50
10:B:1569:A:C2	10:B:1570:A:C4	2.99	0.50
10:B:1779:U:O2'	10:B:1780:A:P	2.70	0.50
10:B:1855:U:H2'	10:B:1856:U:C6	2.47	0.50
10:B:1873:G:C2	10:B:1874:C:C2	3.00	0.50
10:B:2076:U:O2'	10:B:2077:A:OP1	2.23	0.50
10:B:2303:G:C6	10:B:2314:A:C6	3.00	0.50
10:B:2330:G:H1'	31:W:39:GLN:NE2	2.27	0.50
10:B:2513:A:H2'	10:B:2514:U:C6	2.47	0.50
10:B:2723:C:H2'	10:B:2724:U:H6	1.76	0.50
10:B:2819:G:H2'	10:B:2821:A:N7	2.26	0.50
10:B:2832:U:C2	10:B:2834:G:N1	2.79	0.50
11:C:35:LYS:HG3	11:C:36:ASN:N	2.27	0.50
12:D:45:TYR:CD2	12:D:83:ARG:HG2	2.46	0.50
13:E:123:LYS:HD3	13:E:125:SER:HB3	1.94	0.50
14:F:147:ARG:CZ	14:F:150:GLY:H	2.23	0.50
16:H:30:LEU:O	16:H:32:PRO:HD2	2.12	0.50
19:K:60:VAL:HG11	19:K:111:PHE:CE2	2.44	0.50
19:K:110:LYS:O	19:K:113:LYS:HB3	2.11	0.50
24:P:20:ARG:CG	24:P:88:ARG:HH22	2.23	0.50
24:P:27:VAL:O	24:P:41:ALA:HA	2.11	0.50
24:P:30:TRP:CE2	24:P:39:LEU:HD21	2.45	0.50
26:R:37:GLU:OE1	26:R:38:VAL:HG22	2.11	0.50
28:T:60:THR:HG22	28:T:83:ALA:HA	1.91	0.50
31:W:65:LYS:HZ2	31:W:84:GLU:C	2.14	0.50
33:Y:44:LYS:HB3	33:Y:48:ARG:NH1	2.27	0.50
7:6:21:ASP:OD1	7:6:22:LYS:N	2.42	0.50
9:A:9:G:C4	9:A:10:G:C8	3.00	0.50
9:A:10:G:H1	9:A:110:C:H42	1.58	0.50
10:B:435:C:H2'	10:B:436:C:H5'	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:461:C:N4	10:B:468:G:H1	2.10	0.50
10:B:548:G:H4'	10:B:549:G:C5	2.46	0.50
10:B:609:A:H62	10:B:619:G:H21	1.58	0.50
10:B:643:A:C4	10:B:644:A:C8	2.99	0.50
10:B:659:G:O5'	13:E:95:LYS:HD3	2.11	0.50
10:B:748:G:C6	27:S:90:LYS:HE3	2.47	0.50
10:B:963:U:O4	10:B:964:C:N4	2.44	0.50
10:B:997:G:H1	10:B:1158:C:H42	1.59	0.50
10:B:1014:A:C6	10:B:1149:G:C6	3.00	0.50
10:B:1215:G:C2	10:B:1216:G:C8	3.00	0.50
10:B:1339:G:H21	10:B:1340:U:H3	1.58	0.50
10:B:1358:G:O2'	10:B:1359:A:H5'	2.11	0.50
10:B:1444:G:C6	10:B:1445:G:C6	3.00	0.50
10:B:1690:A:OP2	10:B:1691:C:N4	2.44	0.50
10:B:1713:A:O2'	10:B:1714:U:H5''	2.10	0.50
10:B:1872:A:C6	10:B:1873:G:H1'	2.47	0.50
10:B:1932:A:C6	10:B:1933:G:C4	3.00	0.50
10:B:2023:C:H42	10:B:2040:G:H1	1.58	0.50
10:B:2044:C:C2	10:B:2625:G:C2	3.00	0.50
10:B:2062:A:O2'	10:B:2063:C:O5'	2.19	0.50
10:B:2385:C:H2'	10:B:2386:A:C8	2.47	0.50
10:B:2520:C:H2'	10:B:2521:C:C6	2.47	0.50
10:B:2588:G:H21	10:B:2589:A:H1'	1.77	0.50
10:B:2618:G:C2	10:B:2619:C:C2	3.00	0.50
10:B:2630:G:C4	10:B:2894:G:C6	2.99	0.50
10:B:2647:U:H2'	10:B:2648:G:H8	1.76	0.50
10:B:2682:A:C2	10:B:2683:C:C2	3.00	0.50
10:B:2739:U:H3'	10:B:2763:G:H1	1.76	0.50
10:B:2836:U:C4	10:B:2883:A:C6	3.00	0.50
12:D:35:THR:H	12:D:50:VAL:HA	1.76	0.50
14:F:99:PHE:O	14:F:103:ILE:HG12	2.11	0.50
14:F:132:ARG:CA	14:F:150:GLY:HA2	2.40	0.50
19:K:72:ASP:OD1	19:K:72:ASP:N	2.44	0.50
23:O:105:ALA:HA	23:O:108:ASP:OD2	2.11	0.50
24:P:32:VAL:HG22	24:P:37:LYS:HB3	1.93	0.50
6:5:79:THR:HA	6:5:120:ALA:HB2	1.93	0.50
7:6:20:GLN:CG	10:B:1916:A:OP1	2.60	0.50
7:6:179:GLU:O	7:6:182:GLU:HG2	2.11	0.50
8:7:48:ALA:HB3	8:7:51:TYR:CE1	2.46	0.50
9:A:61:G:H2'	9:A:62:C:C6	2.47	0.50
10:B:44:A:N1	10:B:45:G:C5	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:97:C:H2'	10:B:98:G:H8	1.77	0.50
10:B:104:A:H2'	10:B:105:C:O4'	2.11	0.50
10:B:247:G:N2	10:B:252:G:C4	2.80	0.50
10:B:501:A:H2'	10:B:502:A:H8	1.74	0.50
10:B:502:A:N1	10:B:505:A:C4	2.80	0.50
10:B:561:G:O2'	10:B:562:U:H5'	2.12	0.50
10:B:760:G:H3'	10:B:761:A:C8	2.46	0.50
10:B:834:G:H2'	10:B:835:C:C6	2.46	0.50
10:B:860:U:O2	10:B:2268:A:H5'	2.12	0.50
10:B:866:A:H1'	10:B:914:G:N2	2.27	0.50
10:B:1078:U:O5'	10:B:1078:U:H6	1.94	0.50
10:B:1233:C:H2'	10:B:1234:U:C6	2.46	0.50
10:B:1492:G:N2	10:B:1496:A:N1	2.60	0.50
10:B:1563:U:H2'	10:B:1564:C:H6	1.75	0.50
10:B:1595:C:H2'	10:B:1596:A:C8	2.46	0.50
10:B:1598:A:C5	10:B:1599:U:C4	3.00	0.50
10:B:1614:A:N7	27:S:93:ALA:HB2	2.26	0.50
10:B:1635:A:H2'	10:B:1636:U:O4'	2.12	0.50
10:B:1663:G:C2	10:B:1992:G:C6	3.00	0.50
10:B:1759:A:O2'	10:B:1760:C:OP1	2.25	0.50
10:B:1858:A:C2	10:B:1859:U:H1'	2.46	0.50
10:B:2090:A:H1'	10:B:2230:G:H22	1.77	0.50
10:B:2136:G:N1	10:B:2155:U:O4	2.44	0.50
10:B:2600:A:H2'	10:B:2601:C:H6	1.77	0.50
10:B:2748:A:C4	10:B:2757:A:C6	2.99	0.50
11:C:144:GLU:CD	11:C:188:ARG:H	2.15	0.50
12:D:32:ASN:HD22	12:D:94:GLN:NE2	2.10	0.50
15:G:30:GLY:HA3	15:G:78:VAL:HA	1.94	0.50
19:K:63:ARG:NH1	19:K:100:GLY:C	2.64	0.50
7:6:27:LEU:O	7:6:31:GLU:N	2.44	0.50
10:B:27:G:H2'	10:B:512:G:H22	1.77	0.50
10:B:85:G:C8	29:U:6:ARG:NH2	2.80	0.50
10:B:189:G:C4	10:B:205:G:N2	2.76	0.50
10:B:195:A:OP1	10:B:196:A:O2'	2.22	0.50
10:B:471:A:C6	10:B:472:A:C5	3.00	0.50
10:B:519:U:H2'	10:B:520:G:C8	2.45	0.50
10:B:543:G:C2	10:B:544:C:H1'	2.47	0.50
10:B:564:C:H2'	10:B:565:C:C6	2.46	0.50
10:B:726:G:HO2'	10:B:727:A:P	2.35	0.50
10:B:742:A:H2'	10:B:743:A:C8	2.47	0.50
10:B:839:U:N3	10:B:840:C:C4	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:855:G:C6	10:B:856:G:N7	2.80	0.50
10:B:940:G:C2	10:B:941:A:C8	3.00	0.50
10:B:1012:U:H3	18:J:27:ARG:HH12	1.60	0.50
10:B:1394:U:C4	10:B:1395:A:C6	3.00	0.50
10:B:1663:G:HO2'	10:B:1664:A:H8	1.59	0.50
10:B:1668:A:H61	10:B:1676:A:H61	1.60	0.50
10:B:1718:G:C4	10:B:1719:G:C8	3.00	0.50
10:B:1764:C:C4	10:B:1765:U:C4	2.98	0.50
10:B:1846:G:C4	10:B:1847:A:N7	2.80	0.50
10:B:2094:A:H5'	16:H:25:TYR:HD1	1.74	0.50
10:B:2116:G:H1	10:B:2147:A:H3'	1.77	0.50
10:B:2446:G:C2	10:B:2501:C:C5	3.00	0.50
10:B:2538:C:H2'	10:B:2539:C:H6	1.76	0.50
10:B:2675:A:C6	10:B:2676:C:C4	3.00	0.50
10:B:2682:A:O4'	12:D:11:MET:HG3	2.11	0.50
10:B:2806:C:H2'	10:B:2807:U:H6	1.77	0.50
11:C:70:LYS:HD3	11:C:101:ARG:HH22	1.75	0.50
14:F:50:ASP:HB3	14:F:144:LYS:NZ	2.27	0.50
16:H:29:PHE:CE1	16:H:33:GLN:OE1	2.48	0.50
16:H:68:ARG:CD	16:H:132:PHE:HE1	1.99	0.50
17:I:14:ALA:HA	17:I:41:PHE:CE2	2.46	0.50
17:I:89:SER:HB3	17:I:95:ASP:HB2	1.93	0.50
20:L:23:ILE:HD11	26:R:84:ARG:HD3	1.94	0.50
24:P:49:ILE:HD12	24:P:95:LYS:HD2	1.94	0.50
26:R:71:LYS:HZ3	26:R:90:ARG:HD2	1.77	0.50
31:W:18:LYS:HG3	31:W:19:ARG:HG2	1.93	0.50
31:W:70:VAL:HB	31:W:75:ASN:OD1	2.12	0.50
1:0:39:ARG:HG2	1:0:40:HIS:ND1	2.27	0.50
3:2:18:PHE:CE2	10:B:126:A:C4	2.98	0.50
7:6:122:LEU:HD23	7:6:125:GLU:OE2	2.11	0.50
7:6:363:GLY:O	7:6:364:GLU:CB	2.59	0.50
8:7:1:MET:N	8:7:7:ASP:OD2	2.45	0.50
10:B:49:A:C5	10:B:177:G:C6	3.00	0.50
10:B:111:A:C2	10:B:112:U:C2	2.99	0.50
10:B:115:C:H2'	10:B:116:C:H6	1.76	0.50
10:B:241:A:C4	10:B:243:U:N3	2.80	0.50
10:B:257:C:H2'	10:B:258:G:O4'	2.11	0.50
10:B:287:G:H2'	10:B:288:U:H6	1.77	0.50
10:B:291:G:C6	10:B:350:G:C5	3.00	0.50
10:B:449:A:C6	10:B:450:G:C4	3.00	0.50
10:B:477:A:N6	10:B:500:G:O2'	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:659:G:OP1	13:E:95:LYS:NZ	2.41	0.50
10:B:675:A:P	13:E:62:GLN:HE22	2.35	0.50
10:B:708:G:C6	10:B:709:U:C4	2.99	0.50
10:B:709:U:H3	10:B:722:A:H61	1.59	0.50
10:B:1038:G:C2	10:B:1118:C:C2	3.00	0.50
10:B:1308:A:C4	10:B:1309:G:C8	2.99	0.50
10:B:1387:A:H5'	10:B:1469:A:H1'	1.94	0.50
10:B:1452:G:N7	10:B:1458:U:C5	2.80	0.50
10:B:1494:A:C5	10:B:1495:A:C5	3.00	0.50
10:B:1667:G:N2	10:B:1992:G:OP2	2.39	0.50
10:B:1676:A:C6	10:B:1677:A:C6	2.99	0.50
10:B:1735:A:H2'	10:B:1736:U:O4'	2.12	0.50
10:B:1897:G:C2	10:B:1898:U:C2	3.00	0.50
10:B:1916:A:H8	10:B:1917:U:C5	2.30	0.50
10:B:2205:A:C2	10:B:2206:C:C2	3.00	0.50
10:B:2449:U:O2'	10:B:2450:A:OP2	2.25	0.50
10:B:2531:A:OP2	15:G:174:LYS:HB2	2.11	0.50
10:B:2581:G:H4'	10:B:2582:G:C8	2.46	0.50
10:B:2623:G:C2	10:B:2624:G:C4	2.99	0.50
10:B:2701:U:H1'	22:N:71:ARG:NH2	2.27	0.50
10:B:2703:C:H2'	10:B:2704:C:C6	2.47	0.50
10:B:2838:G:H1'	22:N:45:ARG:HH12	1.77	0.50
11:C:14:HIS:O	11:C:203:VAL:HG21	2.12	0.50
11:C:261:ARG:HG3	11:C:262:THR:N	2.27	0.50
12:D:5:VAL:HG21	12:D:80:TRP:CG	2.47	0.50
16:H:30:LEU:CG	16:H:35:LYS:HZ1	2.21	0.50
20:L:80:SER:HA	20:L:115:GLU:O	2.12	0.50
24:P:20:ARG:CB	24:P:88:ARG:HH22	2.25	0.50
29:U:8:ASP:O	29:U:23:LYS:HA	2.12	0.50
29:U:17:ASP:OD2	29:U:38:ILE:HG23	2.12	0.50
29:U:27:VAL:HA	29:U:33:VAL:HG12	1.94	0.50
32:X:26:ARG:HD3	32:X:28:PHE:CZ	2.46	0.50
6:5:100:LEU:HD22	6:5:111:PHE:CD1	2.47	0.49
6:5:163:TYR:HB2	6:5:171:ILE:CG2	2.42	0.49
7:6:209:GLY:O	7:6:212:THR:OG1	2.17	0.49
7:6:408:ILE:HG12	7:6:411:TRP:CE3	2.47	0.49
10:B:94:A:C5	10:B:95:A:C5	3.00	0.49
10:B:121:G:N3	10:B:122:G:C8	2.80	0.49
10:B:290:U:O2	10:B:350:G:N2	2.45	0.49
10:B:408:G:H2'	10:B:409:G:C8	2.46	0.49
10:B:536:G:H2'	10:B:537:G:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:683:U:C2	10:B:684:G:C8	3.00	0.49
10:B:1212:G:C5	10:B:1236:G:C6	3.00	0.49
10:B:1252:G:HO2'	10:B:1253:A:P	2.33	0.49
10:B:1306:C:C2	10:B:1623:G:C2	3.00	0.49
10:B:1349:C:H2'	10:B:1350:C:C6	2.47	0.49
10:B:1599:U:C2	10:B:1600:C:C5	3.00	0.49
10:B:1703:G:H2'	10:B:1704:C:C6	2.46	0.49
10:B:1768:C:H42	10:B:1985:C:N4	2.10	0.49
10:B:2129:C:H6	10:B:2130:U:H3'	1.77	0.49
10:B:2399:G:C4	10:B:2400:G:C8	3.00	0.49
10:B:2839:G:C2	10:B:2880:C:C4	3.00	0.49
11:C:249:VAL:HG13	11:C:254:LYS:NZ	2.27	0.49
13:E:147:LEU:HB2	13:E:183:PHE:CE2	2.47	0.49
14:F:106:ALA:O	14:F:112:ASP:HB2	2.12	0.49
14:F:160:LYS:HB2	14:F:164:GLU:OE2	2.12	0.49
15:G:44:HIS:NE2	15:G:45:ALA:O	2.45	0.49
15:G:83:THR:HB	15:G:140:ILE:HG12	1.94	0.49
17:I:4:VAL:HG12	17:I:5:GLN:H	1.77	0.49
17:I:7:TYR:CZ	17:I:60:VAL:HG22	2.47	0.49
19:K:109:GLU:HB2	19:K:111:PHE:HD1	1.76	0.49
21:M:50:ARG:NH1	21:M:51:ARG:HD2	2.27	0.49
30:V:72:VAL:HA	30:V:94:ALA:H	1.76	0.49
32:X:2:ARG:HA	32:X:49:ARG:NH2	2.27	0.49
4:3:35:LYS:HZ2	4:3:39:ARG:CZ	2.25	0.49
7:6:319:ILE:N	7:6:342:LEU:O	2.39	0.49
8:7:100:ALA:HB2	8:7:110:ALA:H	1.78	0.49
10:B:124:G:OP1	10:B:1376:C:O2'	2.23	0.49
10:B:190:A:C8	10:B:207:A:C6	2.99	0.49
10:B:255:A:H1'	10:B:384:A:N7	2.27	0.49
10:B:290:U:H3	10:B:350:G:H1	1.60	0.49
10:B:353:C:H2'	10:B:354:A:H8	1.76	0.49
10:B:414:C:C2	10:B:415:A:C8	3.00	0.49
10:B:620:G:H4'	10:B:621:A:H5'	1.93	0.49
10:B:631:A:O2'	20:L:66:PHE:HB3	2.11	0.49
10:B:762:U:H5'	10:B:763:G:H21	1.77	0.49
10:B:978:G:C2	10:B:979:A:C5	3.00	0.49
10:B:1000:A:OP2	10:B:1154:G:N1	2.32	0.49
10:B:1071:G:C8	10:B:1089:A:C6	3.01	0.49
10:B:1081:U:H2'	10:B:1082:U:H6	1.76	0.49
10:B:1151:A:C6	10:B:1152:C:C4	3.00	0.49
10:B:1193:G:C2	10:B:1194:A:C4	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1248:G:O6	13:E:46:GLN:NE2	2.32	0.49
10:B:1395:A:N6	10:B:1398:C:C2	2.81	0.49
10:B:1422:G:H2'	10:B:1423:G:C8	2.43	0.49
10:B:1426:G:O2'	10:B:1573:G:O6	2.19	0.49
10:B:1549:A:C6	10:B:1550:C:C4	3.01	0.49
10:B:1570:A:C4	10:B:1571:A:C8	3.00	0.49
10:B:1773:A:C2	10:B:1829:A:C5	3.00	0.49
10:B:1791:A:O2'	11:C:14:HIS:NE2	2.40	0.49
10:B:1977:A:C6	10:B:1978:A:C4	3.00	0.49
10:B:2040:G:H2'	10:B:2041:U:C6	2.47	0.49
10:B:2069:G:C2	10:B:2070:A:C8	3.00	0.49
10:B:2125:G:HO2'	10:B:2173:A:H61	1.56	0.49
10:B:2274:A:C6	10:B:2276:G:C8	3.00	0.49
10:B:2275:C:C2	21:M:84:LYS:NZ	2.78	0.49
10:B:2329:U:C2	10:B:2330:G:C8	3.00	0.49
10:B:2495:G:H2'	10:B:2496:C:C6	2.47	0.49
10:B:2508:G:C2	10:B:2509:G:C8	3.00	0.49
10:B:2621:G:H4'	12:D:164:GLN:H	1.77	0.49
10:B:2895:G:H2'	10:B:2896:C:C6	2.46	0.49
11:C:94:LEU:HD12	11:C:99:GLU:O	2.13	0.49
11:C:144:GLU:HB2	11:C:187:CYS:CB	2.42	0.49
11:C:166:ARG:HD3	11:C:167:ASP:H	1.76	0.49
12:D:36:GLN:OE1	12:D:67:HIS:NE2	2.41	0.49
13:E:197:GLU:HB3	13:E:201:ALA:O	2.11	0.49
14:F:74:ALA:HB3	14:F:78:ILE:O	2.12	0.49
15:G:18:ILE:O	15:G:19:ASN:ND2	2.44	0.49
16:H:30:LEU:CG	16:H:35:LYS:NZ	2.69	0.49
19:K:1:ILE:HG22	19:K:33:GLY:HA3	1.94	0.49
19:K:70:ARG:HH12	24:P:71:ARG:NE	2.10	0.49
24:P:6:GLN:O	24:P:10:GLU:HG3	2.13	0.49
26:R:16:GLU:HB2	26:R:101:ILE:HG13	1.94	0.49
31:W:20:LEU:HG	31:W:25:PHE:CZ	2.47	0.49
34:Z:5:LYS:HG3	34:Z:36:GLU:HG2	1.94	0.49
1:0:18:HIS:NE2	10:B:2045:C:H1'	2.28	0.49
4:3:56:LEU:HD22	20:L:49:GLY:HA2	1.93	0.49
6:5:47:ASN:HB3	6:5:211:LYS:O	2.12	0.49
9:A:64:G:H2'	9:A:65:U:O4'	2.12	0.49
10:B:186:G:H2'	10:B:187:G:C8	2.40	0.49
10:B:230:G:C2	10:B:231:A:C5	3.00	0.49
10:B:307:G:H22	10:B:310:A:P	2.34	0.49
10:B:346:A:H2'	10:B:347:A:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:440:C:H2'	10:B:441:U:H6	1.77	0.49
10:B:838:C:C2	10:B:839:U:C6	3.00	0.49
10:B:858:G:H21	10:B:2268:A:H3'	1.76	0.49
10:B:1128:G:C6	10:B:2518:A:C6	3.00	0.49
10:B:1417:C:N4	10:B:1581:G:H1	2.07	0.49
10:B:1827:U:H2'	10:B:1828:G:O4'	2.12	0.49
10:B:2424:C:HO2'	10:B:2425:A:P	2.34	0.49
10:B:2643:G:C5	10:B:2644:G:C5	3.00	0.49
10:B:2687:U:C4	10:B:2688:G:N1	2.80	0.49
10:B:2687:U:C4	10:B:2688:G:C6	2.99	0.49
10:B:2830:C:H2'	10:B:2831:G:H8	1.77	0.49
12:D:102:ALA:HA	12:D:180:VAL:HG21	1.94	0.49
14:F:3:LEU:HD22	14:F:96:TRP:CZ2	2.47	0.49
16:H:68:ARG:HG2	16:H:132:PHE:CZ	2.22	0.49
16:H:129:GLU:HB3	16:H:139:PHE:CE2	2.42	0.49
21:M:17:ASN:ND2	21:M:95:LEU:HD11	2.24	0.49
22:N:116:VAL:HG13	22:N:117:ASP:CG	2.33	0.49
31:W:34:SER:HB3	31:W:79:ILE:HD13	1.93	0.49
4:3:34:LYS:NZ	10:B:2390:U:P	2.84	0.49
8:7:128:THR:OG1	8:7:162:LYS:NZ	2.44	0.49
9:A:7:G:O2'	23:O:38:GLN:OE1	2.21	0.49
9:A:30:C:H42	9:A:53:A:H61	1.59	0.49
10:B:98:G:H5''	10:B:99:U:OP2	2.11	0.49
10:B:103:A:C6	10:B:104:A:C5	3.00	0.49
10:B:348:A:C6	10:B:349:U:C4	3.01	0.49
10:B:483:A:H5'	29:U:44:HIS:HB3	1.94	0.49
10:B:564:C:P	26:R:79:ARG:NH2	2.85	0.49
10:B:579:G:N1	10:B:1262:A:N7	2.60	0.49
10:B:753:A:C5	10:B:754:U:C5	3.01	0.49
10:B:949:G:C6	10:B:969:G:C6	3.00	0.49
10:B:976:G:C2	10:B:977:G:C5	3.00	0.49
10:B:1007:C:H4'	18:J:110:PRO:HA	1.94	0.49
10:B:1127:A:O2'	10:B:1128:G:H5'	2.13	0.49
10:B:1202:G:C6	10:B:1244:A:C6	3.00	0.49
10:B:1392:A:N7	10:B:1393:A:C6	2.81	0.49
10:B:1891:G:H5''	10:B:1892:C:OP2	2.12	0.49
10:B:1912:A:H62	10:B:1918:A:C4'	2.26	0.49
10:B:2044:C:H2'	10:B:2045:C:C6	2.47	0.49
10:B:2082:A:N6	10:B:2237:G:H1'	2.26	0.49
10:B:2203:U:O2'	10:B:2204:G:OP2	2.27	0.49
10:B:2286:G:N2	10:B:2346:A:C8	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2495:G:C4	10:B:2496:C:C5	3.00	0.49
14:F:129:MET:H	14:F:153:ILE:HB	1.77	0.49
20:L:109:LYS:HG2	20:L:126:ARG:CB	2.42	0.49
31:W:23:LYS:C	31:W:25:PHE:H	2.15	0.49
1:0:56:LYS:NZ	10:B:1280:G:OP1	2.46	0.49
4:3:22:LYS:NZ	10:B:650:C:C4'	2.75	0.49
7:6:382:ARG:CZ	7:6:418:GLU:OE2	2.60	0.49
8:7:56:ARG:HD2	10:B:1084:A:C5	2.47	0.49
10:B:85:G:C2	10:B:86:G:H1'	2.47	0.49
10:B:131:A:H2'	10:B:132:G:C8	2.42	0.49
10:B:238:C:O2'	10:B:608:A:N3	2.39	0.49
10:B:317:G:C2	10:B:318:C:C2	3.00	0.49
10:B:319:G:C4	10:B:333:G:N2	2.80	0.49
10:B:352:A:H8	10:B:352:A:OP2	1.95	0.49
10:B:464:U:N3	10:B:788:A:C6	2.80	0.49
10:B:684:G:C5	10:B:774:G:C5	3.00	0.49
10:B:892:A:C6	10:B:893:C:C2	3.01	0.49
10:B:939:G:C2	10:B:940:G:C8	3.01	0.49
10:B:966:G:C6	10:B:967:U:C4	3.00	0.49
10:B:1096:A:C6	10:B:1097:U:C4	3.01	0.49
10:B:1131:G:N1	10:B:2025:C:H1'	2.26	0.49
10:B:1203:U:C4	10:B:1204:A:C6	3.00	0.49
10:B:1333:G:C4	10:B:1334:G:C8	3.00	0.49
10:B:1422:G:N3	10:B:1423:G:C8	2.81	0.49
10:B:1453:A:O2'	22:N:63:ARG:NH2	2.45	0.49
10:B:1617:C:O2'	10:B:1618:A:O5'	2.18	0.49
10:B:2085:U:H3	10:B:2234:G:H1	1.60	0.49
10:B:2088:A:N6	10:B:2231:U:H3	2.09	0.49
10:B:2478:A:C4	10:B:2529:G:C5	3.00	0.49
10:B:2674:G:H4'	19:K:29:ARG:CG	2.40	0.49
11:C:161:VAL:HG13	11:C:174:ARG:O	2.13	0.49
13:E:194:LYS:HB3	13:E:198:GLU:OE2	2.13	0.49
17:I:1:ALA:C	17:I:2:LYS:HD2	2.31	0.49
27:S:70:LYS:O	27:S:107:VAL:HG13	2.13	0.49
32:X:12:VAL:HG23	32:X:28:PHE:HB2	1.94	0.49
32:X:53:LYS:O	32:X:57:VAL:HG23	2.12	0.49
33:Y:25:GLN:HE21	33:Y:29:ARG:NH2	2.10	0.49
6:5:77:VAL:HG12	6:5:79:THR:HB	1.94	0.49
6:5:173:THR:HA	10:B:2123:G:H4'	1.93	0.49
8:7:27:VAL:HG22	8:7:109:LYS:O	2.12	0.49
9:A:92:C:O2'	9:A:93:C:O4'	2.18	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:132:G:C4	10:B:133:U:C5	3.00	0.49
10:B:250:G:C6	10:B:251:A:C6	3.01	0.49
10:B:464:U:N3	10:B:465:G:C2	2.81	0.49
10:B:651:G:O3'	10:B:653:U:N3	2.45	0.49
10:B:659:G:P	13:E:95:LYS:HZ2	2.35	0.49
10:B:733:G:C5	10:B:761:A:C6	3.00	0.49
10:B:776:G:O2'	10:B:777:G:OP2	2.29	0.49
10:B:852:U:H3	10:B:925:A:H61	1.61	0.49
10:B:954:G:C5	10:B:955:U:C5	3.01	0.49
10:B:959:A:C6	10:B:960:A:C6	3.00	0.49
10:B:1007:C:OP1	18:J:39:LYS:HD2	2.13	0.49
10:B:1030:C:N3	10:B:1125:G:N2	2.61	0.49
10:B:1130:U:O4	12:D:152:PRO:HB3	2.04	0.49
10:B:1142:A:C5	10:B:1144:A:N7	2.81	0.49
10:B:1308:A:C6	10:B:1309:G:C5	3.01	0.49
10:B:1491:G:H2'	10:B:1492:G:H8	1.77	0.49
10:B:1651:G:C6	10:B:1652:A:N6	2.81	0.49
10:B:1668:A:C4	10:B:1993:U:O2	2.66	0.49
10:B:1799:G:C6	10:B:1819:A:C8	3.00	0.49
10:B:2053:G:N1	10:B:2617:U:C2	2.80	0.49
10:B:2137:U:H3	10:B:2154:A:H61	1.59	0.49
10:B:2364:C:H2'	10:B:2365:G:H8	1.78	0.49
10:B:2618:G:N1	10:B:2619:C:C2	2.81	0.49
10:B:2663:G:N2	10:B:2664:G:H1'	2.28	0.49
10:B:2685:G:H1	10:B:2724:U:H3	1.59	0.49
12:D:164:GLN:NE2	12:D:165:MET:H	2.10	0.49
13:E:134:LEU:HD21	13:E:167:VAL:HG21	1.95	0.49
17:I:78:LEU:HD12	17:I:108:ILE:HG23	1.94	0.49
17:I:99:LYS:HG3	17:I:140:GLU:OE2	2.12	0.49
26:R:62:GLU:O	26:R:96:VAL:HA	2.13	0.49
27:S:25:ARG:HG3	27:S:74:ILE:HG21	1.93	0.49
1:0:3:GLN:OE1	1:0:3:GLN:N	2.41	0.49
4:3:46:LYS:NZ	10:B:630:G:P	2.83	0.49
7:6:413:ARG:NH1	15:G:176:LYS:O	2.46	0.49
10:B:110:G:H2'	10:B:111:A:C8	2.47	0.49
10:B:226:A:H1'	10:B:230:G:C2	2.48	0.49
10:B:242:G:O2'	10:B:243:U:P	2.70	0.49
10:B:368:A:C5	10:B:369:U:C4	3.01	0.49
10:B:401:A:C4	10:B:402:A:C8	3.00	0.49
10:B:447:A:C6	10:B:473:G:C2	3.00	0.49
10:B:498:G:C2	10:B:499:U:C6	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:569:U:H5'	10:B:821:A:H2	1.77	0.49
10:B:595:C:O2'	10:B:939:G:H4'	2.13	0.49
10:B:638:G:C2	10:B:639:U:C2	3.01	0.49
10:B:669:G:C5	10:B:801:G:C6	3.01	0.49
10:B:734:A:C4	10:B:735:A:C8	3.01	0.49
10:B:841:G:H2'	10:B:842:U:H6	1.78	0.49
10:B:949:G:C2	10:B:950:G:C5	3.01	0.49
10:B:1266:G:H22	10:B:2012:G:H2'	1.77	0.49
10:B:1275:A:H2'	10:B:1275:A:N3	2.27	0.49
10:B:1288:G:N7	10:B:1327:A:N6	2.61	0.49
10:B:1387:A:C6	10:B:1388:G:C6	3.01	0.49
10:B:1404:C:H2'	10:B:1405:U:C6	2.48	0.49
10:B:1454:C:H5'	22:N:63:ARG:NH2	2.28	0.49
10:B:1525:A:H2'	10:B:1526:C:O4'	2.13	0.49
10:B:1532:A:H2'	10:B:1533:C:C6	2.47	0.49
10:B:1866:A:N6	10:B:1867:G:N3	2.61	0.49
10:B:1928:A:H2'	10:B:1929:G:O4'	2.12	0.49
10:B:1987:A:H2'	10:B:1988:G:C8	2.34	0.49
10:B:2044:C:H2'	10:B:2045:C:H6	1.76	0.49
10:B:2093:G:P	16:H:24:GLY:H	2.36	0.49
10:B:2140:G:C6	10:B:2152:G:C5	3.01	0.49
10:B:2271:G:C5	10:B:2272:U:C5	3.00	0.49
10:B:2306:C:H2'	10:B:2307:G:N2	2.27	0.49
10:B:2472:G:C2'	10:B:2475:C:H42	2.22	0.49
10:B:2519:U:C4	10:B:2542:A:C6	3.00	0.49
10:B:2662:A:C2	10:B:2663:G:H1'	2.47	0.49
10:B:2668:G:C6	10:B:2669:G:C5	3.01	0.49
10:B:2712:C:OP1	10:B:2714:G:H4'	2.13	0.49
10:B:2721:A:O2'	10:B:2873:A:O2'	2.19	0.49
10:B:2786:U:H4'	12:D:67:HIS:N	2.26	0.49
12:D:181:ASP:HB2	12:D:186:LEU:HB2	1.94	0.49
13:E:47:LYS:HB2	13:E:51:GLU:HB2	1.94	0.49
18:J:76:HIS:HE1	18:J:85:LYS:HE2	1.77	0.49
34:Z:5:LYS:HD2	34:Z:36:GLU:OE2	2.12	0.49
2:1:43:ARG:NH2	10:B:643:A:C4	2.80	0.49
6:5:100:LEU:HB3	6:5:111:PHE:CE1	2.48	0.49
6:5:105:LYS:NZ	10:B:2168:G:C5	2.81	0.49
6:5:163:TYR:HB2	6:5:171:ILE:HG23	1.93	0.49
7:6:107:ILE:O	7:6:111:PHE:HB2	2.12	0.49
9:A:28:C:OP1	23:O:36:TYR:OH	2.28	0.49
10:B:37:C:O2'	10:B:38:A:O4'	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:123:G:C2	10:B:124:G:H1'	2.47	0.49
10:B:245:G:H22	10:B:252:G:H22	1.60	0.49
10:B:358:U:H3'	10:B:359:G:H8	1.78	0.49
10:B:568:U:H5'	10:B:945:A:N6	2.26	0.49
10:B:585:G:N2	10:B:1256:G:C4	2.81	0.49
10:B:668:A:C4	10:B:670:A:N6	2.81	0.49
10:B:675:A:H2'	10:B:676:A:C4	2.48	0.49
10:B:887:U:O2	10:B:888:C:N4	2.39	0.49
10:B:947:A:C2	10:B:971:G:C2	3.01	0.49
10:B:1177:G:H8	10:B:1177:G:O5'	1.96	0.49
10:B:1268:A:N6	10:B:2012:G:H21	2.01	0.49
10:B:1455:G:N2	10:B:2704:C:O2	2.46	0.49
10:B:1788:C:C2	10:B:1789:A:C8	3.01	0.49
10:B:1840:G:C6	10:B:1841:U:C4	2.99	0.49
10:B:2016:U:H2'	10:B:2017:U:C6	2.46	0.49
10:B:2155:U:H2'	10:B:2156:G:H5'	1.95	0.49
10:B:2230:G:H21	32:X:31:ASN:HD21	1.60	0.49
10:B:2270:A:H2'	10:B:2271:G:O4'	2.12	0.49
10:B:2286:G:H5'	10:B:2286:G:H8	1.77	0.49
10:B:2474:U:H5	10:B:2475:C:N1	2.11	0.49
10:B:2677:G:C4	10:B:2678:C:C5	3.01	0.49
10:B:2698:U:H2'	10:B:2699:C:H6	1.78	0.49
11:C:103:ILE:HG12	11:C:104:LEU:H	1.77	0.49
11:C:144:GLU:HB3	11:C:146:LYS:O	2.13	0.49
11:C:250:GLN:N	11:C:254:LYS:HZ2	2.10	0.49
17:I:93:ASN:HD21	17:I:134:SER:HA	1.78	0.49
19:K:7:LEU:HD13	19:K:83:CYS:SG	2.52	0.49
19:K:24:LEU:CD1	19:K:58:LYS:HE2	2.43	0.49
22:N:48:VAL:HG13	22:N:49:GLU:HG3	1.95	0.49
23:O:7:ARG:HD2	23:O:97:PHE:CE1	2.48	0.49
23:O:36:TYR:HA	23:O:52:SER:OG	2.12	0.49
28:T:29:THR:OG1	28:T:85:VAL:O	2.31	0.49
30:V:76:ASP:H	30:V:90:ASP:HB2	1.77	0.49
31:W:31:LEU:HG	31:W:33:GLY:N	2.23	0.49
7:6:12:VAL:HG23	7:6:75:ALA:HB2	1.95	0.49
7:6:101:ILE:HG22	7:6:102:ASP:O	2.13	0.49
7:6:175:GLN:O	7:6:179:GLU:HG3	2.13	0.49
7:6:203:VAL:HG23	7:6:282:HIS:ND1	2.28	0.49
9:A:6:G:H2'	9:A:7:G:C8	2.47	0.49
10:B:14:A:N7	10:B:15:G:C8	2.81	0.49
10:B:70:G:H3'	10:B:113:U:H4'	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:83:A:N1	10:B:102:U:H5'	2.27	0.49
10:B:207:A:O2'	10:B:799:G:O4'	2.31	0.49
10:B:261:G:O2'	10:B:610:C:O2'	2.24	0.49
10:B:372:G:C4	32:X:60:LYS:NZ	2.78	0.49
10:B:399:U:C4	10:B:400:G:C5	3.00	0.49
10:B:436:C:H2'	10:B:437:U:H6	1.78	0.49
10:B:552:U:H2'	10:B:553:G:C8	2.48	0.49
10:B:558:U:OP1	18:J:114:LEU:N	2.46	0.49
10:B:608:A:H2'	10:B:609:A:C8	2.48	0.49
10:B:609:A:H61	10:B:619:G:C2'	2.25	0.49
10:B:764:A:C2	10:B:781:A:C2	3.00	0.49
10:B:807:U:C4	10:B:808:G:N7	2.81	0.49
10:B:820:A:H2'	10:B:821:A:C8	2.39	0.49
10:B:891:G:H2'	10:B:892:A:C8	2.48	0.49
10:B:1188:U:O2'	10:B:1189:A:H5'	2.13	0.49
10:B:1202:G:H1	10:B:1243:C:H42	1.60	0.49
10:B:1287:A:N6	10:B:1288:G:C6	2.81	0.49
10:B:1419:A:C5	10:B:1421:G:C4	3.00	0.49
10:B:1718:G:C2	10:B:1719:G:C4	3.01	0.49
10:B:1839:G:C8	10:B:1927:A:C1'	2.96	0.49
10:B:1936:A:C2	10:B:1943:U:H5	2.28	0.49
10:B:2116:G:C5	10:B:2146:C:H5''	2.47	0.49
10:B:2240:U:H2'	10:B:2241:A:C8	2.47	0.49
10:B:2335:A:N7	10:B:2337:G:C5	2.81	0.49
10:B:2855:C:H2'	10:B:2856:A:H8	1.74	0.49
11:C:144:GLU:OE1	11:C:147:PRO:HA	2.12	0.49
13:E:147:LEU:HB3	13:E:186:VAL:HG23	1.95	0.49
15:G:101:VAL:HA	15:G:115:GLN:HA	1.95	0.49
15:G:103:ASN:HA	15:G:113:ASP:OD1	2.12	0.49
16:H:31:VAL:HG12	32:X:38:TRP:HD1	1.77	0.49
17:I:99:LYS:CB	17:I:138:VAL:HB	2.40	0.49
22:N:52:ILE:HA	22:N:55:ALA:HB3	1.94	0.49
24:P:26:GLU:HA	24:P:42:PHE:O	2.13	0.49
28:T:16:VAL:HG22	28:T:33:LYS:NZ	2.27	0.49
30:V:23:ALA:O	30:V:25:LYS:HG2	2.12	0.49
1:0:38:LEU:HG	1:0:41:HIS:CD2	2.48	0.49
4:3:4:LYS:HE2	10:B:253:C:OP2	2.13	0.49
6:5:100:LEU:HD22	6:5:111:PHE:HD1	1.77	0.49
9:A:15:A:C6	9:A:109:A:C2	3.01	0.49
9:A:31:C:N4	9:A:51:G:H1	2.09	0.49
9:A:38:C:H2'	9:A:39:A:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:116:C:HO2'	10:B:126:A:H8	1.60	0.49
10:B:259:G:C2	10:B:260:G:C5	3.01	0.49
10:B:370:G:C5	10:B:424:G:C8	3.01	0.49
10:B:404:A:H5'	10:B:406:G:C1'	2.43	0.49
10:B:651:G:N2	10:B:652:U:O4'	2.45	0.49
10:B:722:A:H2'	10:B:723:C:O4'	2.12	0.49
10:B:901:C:C4	10:B:902:C:C4	3.01	0.49
10:B:907:G:C6	10:B:908:C:C4	3.01	0.49
10:B:925:A:H2'	10:B:926:G:C8	2.47	0.49
10:B:1031:G:C4	10:B:1124:G:C2	3.01	0.49
10:B:1055:G:C5	10:B:1056:G:C5	3.01	0.49
10:B:1136:G:C2	10:B:1137:G:C5	3.01	0.49
10:B:1210:G:C5	10:B:1237:A:C6	3.01	0.49
10:B:1224:U:H4'	26:R:88:GLY:O	2.13	0.49
10:B:1287:A:O5'	10:B:1288:G:N2	2.46	0.49
10:B:1288:G:C5	10:B:1327:A:C6	3.01	0.49
10:B:2021:C:H4'	10:B:2022:U:OP2	2.13	0.49
10:B:2092:U:P	16:H:28:ASN:HD21	2.36	0.49
10:B:2100:G:C5	10:B:2101:A:C5	3.01	0.49
10:B:2141:G:C2	10:B:2142:A:C8	3.01	0.49
10:B:2415:G:C5	10:B:2416:C:C4	3.01	0.49
10:B:2511:U:H3	12:D:145:SER:HG	1.58	0.49
10:B:2549:G:N1	10:B:2560:A:C6	2.80	0.49
10:B:2808:G:N2	10:B:2890:G:N7	2.60	0.49
10:B:2822:G:OP1	12:D:117:GLY:N	2.45	0.49
12:D:58:ASN:OD1	12:D:59:ARG:N	2.45	0.49
13:E:65:THR:OG1	13:E:66:GLY:N	2.45	0.49
19:K:20:CYS:SG	19:K:21:ILE:N	2.85	0.49
27:S:46:LEU:O	27:S:50:VAL:HG23	2.13	0.49
30:V:21:ARG:NE	30:V:87:GLN:HG2	2.27	0.49
5:4:24:ARG:HH21	10:B:2742:G:P	2.36	0.48
6:5:31:LYS:HD2	6:5:178:VAL:HG12	1.94	0.48
7:6:56:TYR:O	7:6:58:VAL:N	2.46	0.48
7:6:382:ARG:NE	7:6:418:GLU:OE2	2.46	0.48
7:6:411:TRP:HB3	7:6:426:ILE:OXT	2.13	0.48
9:A:18:G:C5	9:A:19:C:C4	3.00	0.48
10:B:383:C:O2	10:B:383:C:H2'	2.12	0.48
10:B:611:C:H2'	10:B:612:G:C8	2.48	0.48
10:B:646:U:H2'	10:B:647:G:H4'	1.94	0.48
10:B:677:A:N1	10:B:802:A:C5	2.81	0.48
10:B:778:G:H2'	10:B:779:U:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:857:G:N2	10:B:921:C:O2	2.45	0.48
10:B:968:C:H2'	10:B:969:G:H8	1.78	0.48
10:B:1014:A:H2'	10:B:1015:U:C6	2.48	0.48
10:B:1048:A:OP2	10:B:1110:G:N2	2.45	0.48
10:B:1307:A:C5	10:B:1308:A:N7	2.81	0.48
10:B:1494:A:N6	10:B:1495:A:N1	2.61	0.48
10:B:1722:A:C4	10:B:1723:G:C8	3.01	0.48
10:B:1914:C:H2'	10:B:1916:A:C6	2.48	0.48
10:B:2224:G:N7	16:H:135:HIS:CE1	2.81	0.48
10:B:2351:G:HO2'	10:B:2352:A:P	2.36	0.48
10:B:2386:A:H4'	31:W:55:ASP:OD1	2.13	0.48
10:B:2658:C:H2'	10:B:2659:G:C8	2.48	0.48
11:C:4:LYS:NZ	11:C:14:HIS:HA	2.28	0.48
12:D:103:ASP:O	12:D:105:LYS:NZ	2.28	0.48
14:F:109:ARG:HA	14:F:177:ARG:NH1	2.28	0.48
15:G:136:ASP:OD1	15:G:136:ASP:N	2.42	0.48
16:H:7:ASP:HA	16:H:15:LEU:HD12	1.94	0.48
16:H:30:LEU:CA	16:H:35:LYS:NZ	2.76	0.48
17:I:79:LEU:HB2	17:I:135:MET:SD	2.53	0.48
20:L:38:GLN:NE2	20:L:45:GLY:O	2.46	0.48
10:B:83:A:N1	10:B:100:U:H4'	2.29	0.48
10:B:288:U:H3	10:B:352:A:H61	1.60	0.48
10:B:471:A:N6	10:B:472:A:C6	2.82	0.48
10:B:755:U:OP1	10:B:1272:A:N6	2.43	0.48
10:B:854:C:N3	10:B:923:G:N2	2.54	0.48
10:B:921:C:H4'	10:B:2269:G:O6	2.12	0.48
10:B:936:A:C6	10:B:937:C:C4	3.01	0.48
10:B:1075:C:C4	10:B:1076:C:N4	2.81	0.48
10:B:1130:U:OP1	10:B:1130:U:H6	1.95	0.48
10:B:1458:U:H4'	10:B:1460:U:P	2.53	0.48
10:B:1470:A:C8	10:B:1471:G:C8	3.00	0.48
10:B:1500:G:H2'	10:B:1501:G:O4'	2.13	0.48
10:B:1897:G:H2'	10:B:1898:U:C6	2.47	0.48
10:B:1940:U:H4'	10:B:1941:C:H5'	1.95	0.48
10:B:2061:G:C8	10:B:2501:C:H1'	2.48	0.48
10:B:2251:G:N2	10:B:2252:G:C4	2.81	0.48
10:B:2287:A:H61	10:B:2344:U:H3	1.60	0.48
10:B:2377:A:C4	10:B:2378:A:C8	3.02	0.48
10:B:2469:A:C5	10:B:2482:A:C8	3.01	0.48
10:B:2859:G:H2'	10:B:2860:A:C8	2.47	0.48
10:B:2896:C:H2'	10:B:2897:U:C6	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:245:THR:O	11:C:248:GLY:N	2.44	0.48
12:D:15:PHE:HB2	24:P:11:GLN:NE2	2.29	0.48
12:D:25:THR:HG21	12:D:193:VAL:HG22	1.95	0.48
14:F:103:ILE:O	14:F:108:PRO:HD3	2.12	0.48
23:O:76:LYS:NZ	23:O:113:ALA:HA	2.28	0.48
27:S:70:LYS:O	27:S:72:THR:N	2.46	0.48
7:6:372:LEU:HD11	7:6:422:ILE:HG12	1.95	0.48
10:B:122:G:N2	10:B:129:C:N3	2.55	0.48
10:B:185:G:N1	10:B:186:G:C5	2.82	0.48
10:B:287:G:H2'	10:B:288:U:C6	2.48	0.48
10:B:302:C:P	29:U:78:LYS:NZ	2.86	0.48
10:B:307:G:N1	10:B:310:A:OP2	2.45	0.48
10:B:327:G:H2'	10:B:328:U:H6	1.78	0.48
10:B:367:G:C6	10:B:368:A:C6	3.01	0.48
10:B:621:A:H3'	10:B:622:G:H8	1.78	0.48
10:B:637:A:C5	10:B:652:U:H5''	2.49	0.48
10:B:646:U:C2	10:B:647:G:H1'	2.48	0.48
10:B:882:G:N1	10:B:895:U:H1'	2.28	0.48
10:B:976:G:N3	10:B:977:G:C8	2.81	0.48
10:B:1012:U:N3	18:J:27:ARG:NH1	2.61	0.48
10:B:1141:U:H4'	10:B:1142:A:O4'	2.13	0.48
10:B:1310:G:C5	10:B:1311:G:N1	2.81	0.48
10:B:1388:G:H2'	10:B:1389:G:H8	1.78	0.48
10:B:1454:C:H5'	22:N:63:ARG:CZ	2.44	0.48
10:B:1657:U:OP2	12:D:141:ARG:HB3	2.14	0.48
10:B:1681:G:O6	10:B:1762:A:N6	2.46	0.48
10:B:1824:G:P	11:C:51:ARG:NH2	2.86	0.48
10:B:1933:G:O6	10:B:1968:G:N2	2.46	0.48
10:B:2088:A:C5	10:B:2089:C:C4	3.01	0.48
10:B:2096:C:H2'	10:B:2097:A:H8	1.77	0.48
10:B:2464:G:C5	10:B:2465:C:C5	3.01	0.48
10:B:2677:G:H2'	10:B:2678:C:C6	2.48	0.48
10:B:2705:A:N6	10:B:2706:A:C4	2.81	0.48
10:B:2741:A:H5''	10:B:2742:G:OP2	2.13	0.48
10:B:2800:A:H2'	10:B:2801:G:C1'	2.43	0.48
10:B:2824:C:C4	10:B:2825:G:C4	3.02	0.48
11:C:23:LEU:HD22	11:C:81:GLU:C	2.34	0.48
18:J:80:HIS:O	18:J:81:ILE:HG22	2.13	0.48
18:J:118:MET:CA	18:J:121:LYS:HZ2	2.20	0.48
19:K:98:ILE:HG13	19:K:118:ALA:HB2	1.95	0.48
23:O:79:ALA:HB1	23:O:115:LEU:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:P:39:LEU:HD13	24:P:81:ASP:OD2	2.13	0.48
25:Q:90:ASP:OD2	26:R:39:LEU:HB2	2.13	0.48
28:T:69:ARG:HD2	28:T:70:HIS:CD2	2.49	0.48
32:X:38:TRP:HE1	32:X:40:GLU:HA	1.79	0.48
34:Z:40:THR:O	34:Z:44:ARG:HG2	2.14	0.48
1:O:21:LEU:HD21	27:S:41:LYS:NZ	2.28	0.48
7:6:230:ALA:HB3	35:6:527:GNP:PG	2.53	0.48
8:7:42:ARG:NH1	8:7:46:ARG:NH1	2.62	0.48
10:B:271:G:N2	10:B:367:G:H1'	2.28	0.48
10:B:375:G:C2'	10:B:376:G:H5'	2.43	0.48
10:B:480:A:H2'	10:B:480:A:N3	2.28	0.48
10:B:527:C:OP2	10:B:2779:U:N3	2.25	0.48
10:B:563:A:C6	10:B:564:C:C4	3.01	0.48
10:B:822:G:C4	10:B:836:G:C2	3.02	0.48
10:B:907:G:OP1	21:M:22:GLN:HG2	2.12	0.48
10:B:910:A:C5	21:M:13:HIS:CD2	3.00	0.48
10:B:950:G:C6	10:B:951:C:N3	2.82	0.48
10:B:1003:G:N2	10:B:1153:C:H1'	2.29	0.48
10:B:1016:G:N2	10:B:1146:C:N3	2.53	0.48
10:B:1129:A:O2'	10:B:1130:U:O5'	2.30	0.48
10:B:1227:G:N3	10:B:1228:G:C8	2.81	0.48
10:B:1352:U:H1'	10:B:1570:A:H2	1.77	0.48
10:B:1817:G:N2	10:B:1818:U:O2	2.46	0.48
10:B:1865:U:C2	10:B:1875:G:C2	3.01	0.48
10:B:2171:A:H4'	10:B:2172:U:O5'	2.13	0.48
10:B:2222:C:P	16:H:116:ARG:NH1	2.86	0.48
10:B:2235:G:C2	10:B:2236:U:H1'	2.48	0.48
10:B:2373:G:C2	10:B:2374:C:C4	3.01	0.48
10:B:2648:G:C6	10:B:2673:G:C4	3.01	0.48
10:B:2671:G:C6	10:B:2672:U:C4	3.01	0.48
10:B:2674:G:H1'	19:K:26:GLY:HA2	1.95	0.48
10:B:2793:C:H2'	10:B:2794:C:C6	2.47	0.48
11:C:107:LYS:HG2	11:C:193:GLU:HG3	1.95	0.48
11:C:186:ASP:OD2	16:H:116:ARG:NH2	2.46	0.48
15:G:94:ARG:HB2	15:G:127:GLN:HB3	1.93	0.48
23:O:92:PHE:HB2	23:O:117:PHE:CD1	2.47	0.48
26:R:64:VAL:HB	26:R:95:ASP:HB2	1.95	0.48
27:S:17:VAL:HB	27:S:76:VAL:HG21	1.96	0.48
27:S:55:ILE:O	27:S:59:GLU:HG3	2.14	0.48
29:U:89:GLY:HA2	29:U:91:LYS:HZ1	1.76	0.48
34:Z:7:THR:HG23	34:Z:33:HIS:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:67:HIS:CE1	6:5:184:LYS:HD3	2.48	0.48
6:5:139:ASN:HD21	10:B:2123:G:P	2.36	0.48
8:7:53:ARG:O	8:7:85:SER:HA	2.13	0.48
10:B:1:G:H2'	10:B:2:G:C8	2.48	0.48
10:B:5:A:C2	10:B:6:A:C5	3.02	0.48
10:B:28:A:H62	10:B:511:U:H3	1.62	0.48
10:B:56:A:C5	10:B:57:C:C5	3.02	0.48
10:B:87:U:O2	10:B:94:A:N6	2.39	0.48
10:B:285:G:C2	10:B:286:U:C2	3.01	0.48
10:B:429:A:H2'	10:B:430:A:N9	2.28	0.48
10:B:473:G:H2'	10:B:474:G:H8	1.76	0.48
10:B:503:A:C4	10:B:506:G:N7	2.82	0.48
10:B:540:C:H2'	10:B:541:A:C8	2.48	0.48
10:B:557:C:N4	10:B:558:U:O4	2.46	0.48
10:B:571:U:C5	10:B:2030:A:C5	3.01	0.48
10:B:875:G:H3'	10:B:876:C:C6	2.45	0.48
10:B:942:G:H2'	10:B:943:A:H8	1.78	0.48
10:B:1192:G:H2'	10:B:1193:G:H8	1.78	0.48
10:B:1239:G:C5	10:B:1240:U:C4	3.02	0.48
10:B:1257:C:H4'	13:E:78:TRP:NE1	2.28	0.48
10:B:1358:G:N7	10:B:1371:G:C6	2.82	0.48
10:B:1653:G:P	22:N:2:ARG:HH21	2.37	0.48
10:B:2086:U:H2'	10:B:2087:G:H8	1.77	0.48
10:B:2294:G:P	23:O:94:ARG:NH2	2.82	0.48
10:B:2396:G:C6	10:B:2421:G:C6	3.01	0.48
10:B:2519:U:C2	10:B:2542:A:N1	2.81	0.48
10:B:2578:G:N2	10:B:2579:C:C2	2.81	0.48
10:B:2638:G:H21	10:B:2778:A:N6	2.11	0.48
10:B:2640:G:C2	10:B:2641:G:C8	3.01	0.48
10:B:2702:G:C6	10:B:2703:C:C4	3.01	0.48
10:B:2729:G:C6	10:B:2730:C:C4	3.01	0.48
10:B:2772:C:H2'	10:B:2773:C:C6	2.48	0.48
10:B:2794:C:N4	10:B:2802:G:O6	2.42	0.48
11:C:133:ASN:HD21	16:H:122:LEU:HD22	1.79	0.48
11:C:160:TYR:HB3	11:C:193:GLU:OE1	2.13	0.48
15:G:86:LEU:HD23	15:G:147:LEU:HD23	1.96	0.48
17:I:91:LYS:HB2	17:I:95:ASP:CG	2.34	0.48
25:Q:50:ARG:HA	25:Q:53:LYS:HZ3	1.75	0.48
28:T:56:GLU:HG2	28:T:87:LEU:HA	1.95	0.48
33:Y:27:ASN:O	33:Y:30:MET:N	2.46	0.48
3:2:34:ARG:HH21	3:2:39:ARG:HD2	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:105:LYS:NZ	10:B:2168:G:N7	2.61	0.48
6:5:105:LYS:NZ	10:B:2170:A:OP2	2.43	0.48
6:5:134:ARG:HD2	10:B:2172:U:C5'	2.37	0.48
6:5:163:TYR:CD1	6:5:171:ILE:HD13	2.48	0.48
7:6:163:ASP:HA	7:6:166:LEU:HD12	1.95	0.48
9:A:33:G:C6	9:A:34:A:C5	3.02	0.48
10:B:42:A:H2'	10:B:43:G:H8	1.78	0.48
10:B:158:U:C4	10:B:159:G:C5	3.01	0.48
10:B:277:G:N2	10:B:360:U:OP2	2.45	0.48
10:B:518:G:O5'	27:S:18:ARG:NH2	2.47	0.48
10:B:742:A:H2'	10:B:743:A:H8	1.78	0.48
10:B:822:G:C6	10:B:836:G:C6	3.02	0.48
10:B:1019:U:H3	10:B:1142:A:N6	2.09	0.48
10:B:1036:G:C2	10:B:1120:G:C4	3.01	0.48
10:B:1068:G:H21	10:B:1096:A:H5''	1.79	0.48
10:B:1267:U:O2'	10:B:1268:A:P	2.71	0.48
10:B:1491:G:O2'	11:C:99:GLU:OE1	2.31	0.48
10:B:1650:A:C4	10:B:1651:G:C8	3.02	0.48
10:B:1652:A:C6	10:B:1653:G:C2	3.02	0.48
10:B:1781:U:C3'	10:B:1782:U:H5'	2.43	0.48
10:B:1890:A:H2'	10:B:1891:G:C8	2.48	0.48
10:B:2277:G:N2	10:B:2278:A:H1'	2.29	0.48
10:B:2728:U:OP1	19:K:69:ARG:NH1	2.47	0.48
10:B:2737:G:H2'	10:B:2738:A:H8	1.78	0.48
17:I:102:ARG:HD3	17:I:105:LEU:HD12	1.95	0.48
22:N:21:PHE:CZ	22:N:40:LYS:HG2	2.48	0.48
25:Q:64:ILE:HD13	25:Q:95:ALA:HB3	1.95	0.48
32:X:26:ARG:NH1	32:X:28:PHE:CE1	2.82	0.48
33:Y:23:ARG:HD2	33:Y:27:ASN:HB2	1.94	0.48
1:0:54:ILE:HD13	22:N:112:TYR:CD2	2.49	0.48
3:2:18:PHE:HB3	10:B:126:A:OP1	2.13	0.48
4:3:18:LYS:HE2	10:B:651:G:OP1	2.14	0.48
6:5:1:MET:SD	6:5:5:THR:HB	2.54	0.48
9:A:57:A:C4	14:F:25:MET:HB3	2.47	0.48
10:B:7:G:H2'	10:B:8:C:C6	2.49	0.48
10:B:164:C:N4	10:B:165:A:C4	2.82	0.48
10:B:259:G:H2'	10:B:260:G:C8	2.49	0.48
10:B:442:G:N2	13:E:43:THR:OG1	2.45	0.48
10:B:459:U:H2'	10:B:460:A:C8	2.46	0.48
10:B:585:G:C5	10:B:1251:C:C4	3.02	0.48
10:B:585:G:H5''	10:B:586:A:OP2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:784:G:HO2'	10:B:785:G:P	2.37	0.48
10:B:844:A:N3	10:B:845:A:C2	2.82	0.48
10:B:988:A:P	34:Z:11:SER:HB2	2.53	0.48
10:B:1026:G:C4	10:B:1134:A:C6	3.02	0.48
10:B:1036:G:C6	10:B:1120:G:C5	3.02	0.48
10:B:1179:G:C6	10:B:1180:U:C4	3.01	0.48
10:B:1184:U:H2'	10:B:1185:G:H8	1.79	0.48
10:B:1218:G:C6	10:B:1219:U:N3	2.81	0.48
10:B:1279:G:C2	10:B:1280:G:C4	3.02	0.48
10:B:1280:G:N1	10:B:1291:C:N3	2.62	0.48
10:B:1316:U:H2'	10:B:1317:G:H8	1.79	0.48
10:B:1401:G:H2'	10:B:1402:U:O4'	2.14	0.48
10:B:1632:A:N1	10:B:1633:G:C6	2.82	0.48
10:B:1809:A:N7	10:B:1810:A:C5	2.82	0.48
10:B:2287:A:N7	10:B:2289:G:C4	2.81	0.48
10:B:2317:A:H3'	10:B:2318:G:C8	2.45	0.48
10:B:2363:G:N2	10:B:2364:C:C2	2.82	0.48
10:B:2392:A:H2'	10:B:2393:U:O4'	2.13	0.48
10:B:2466:C:C2	10:B:2467:C:H5	2.30	0.48
10:B:2867:G:C6	24:P:20:ARG:NH2	2.81	0.48
11:C:239:PHE:CE2	11:C:241:LYS:HD3	2.49	0.48
11:C:250:GLN:NE2	11:C:252:LYS:H	2.10	0.48
21:M:66:ARG:CZ	21:M:104:GLU:OE2	2.62	0.48
23:O:18:LEU:HD22	23:O:91:SER:HB2	1.94	0.48
25:Q:78:PHE:HE2	25:Q:82:LEU:HD11	1.77	0.48
25:Q:87:VAL:O	25:Q:89:ILE:N	2.47	0.48
31:W:21:GLY:N	31:W:33:GLY:O	2.47	0.48
2:1:43:ARG:CZ	10:B:643:A:C4	2.96	0.48
3:2:43:THR:O	3:2:45:SER:N	2.39	0.48
5:4:31:PRO:O	5:4:34:LYS:HG3	2.14	0.48
8:7:29:ASP:HA	8:7:107:GLU:HG3	1.95	0.48
10:B:77:G:C5	10:B:110:G:C2	3.02	0.48
10:B:122:G:H1	10:B:129:C:N4	2.05	0.48
10:B:221:A:C5	10:B:266:G:C8	3.01	0.48
10:B:250:G:H5'	10:B:251:A:OP2	2.12	0.48
10:B:460:A:C6	10:B:470:A:C8	3.02	0.48
10:B:528:A:C6	10:B:2042:A:C4	3.01	0.48
10:B:535:G:C6	10:B:559:G:C6	3.02	0.48
10:B:670:A:O2'	10:B:671:C:OP2	2.23	0.48
10:B:692:C:C2	10:B:771:G:C2	3.01	0.48
10:B:874:G:C6	10:B:904:G:C6	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1162:G:C4	10:B:1163:G:C8	3.02	0.48
10:B:1241:A:C6	10:B:1242:U:C2	3.02	0.48
10:B:1341:G:H2'	10:B:1397:U:O2	2.14	0.48
10:B:1627:G:C2	10:B:1628:G:C8	3.02	0.48
10:B:1739:A:H2'	10:B:1740:G:O4'	2.13	0.48
10:B:1839:G:C4	10:B:1927:A:C8	3.01	0.48
10:B:1930:G:N2	10:B:1969:A:OP2	2.40	0.48
10:B:1993:U:C4	10:B:1994:C:C2	3.02	0.48
10:B:2425:A:H4'	10:B:2426:A:C5'	2.44	0.48
10:B:2488:G:H2'	10:B:2489:U:H6	1.79	0.48
10:B:2494:G:H2'	10:B:2495:G:C8	2.48	0.48
10:B:2532:G:O2'	10:B:2657:A:N1	2.46	0.48
10:B:2557:G:C2	10:B:2558:C:C2	3.02	0.48
10:B:2702:G:C5	10:B:2703:C:C5	3.01	0.48
10:B:2840:C:C2	10:B:2841:C:C5	3.02	0.48
11:C:86:ARG:HB3	11:C:88:ALA:H	1.78	0.48
13:E:112:LEU:HB3	13:E:118:LEU:HB2	1.95	0.48
15:G:8:VAL:HG23	15:G:51:PHE:HE2	1.79	0.48
15:G:148:ARG:HH11	15:G:153:PRO:HD3	1.79	0.48
18:J:13:ARG:HH22	18:J:49:ASP:CB	2.26	0.48
19:K:20:CYS:HA	19:K:40:ILE:HD13	1.96	0.48
21:M:50:ARG:HH12	21:M:51:ARG:HD2	1.78	0.48
23:O:90:VAL:HG23	23:O:91:SER:O	2.14	0.48
25:Q:78:PHE:CE1	25:Q:109:VAL:HG22	2.45	0.48
25:Q:81:GLY:HA3	25:Q:112:ALA:HB1	1.94	0.48
26:R:33:VAL:O	26:R:61:ALA:N	2.46	0.48
26:R:51:VAL:HG13	26:R:54:VAL:HG22	1.96	0.48
1:0:14:MET:HB3	10:B:2045:C:O3'	2.13	0.48
6:5:18:THR:HG21	6:5:213:SER:HB3	1.95	0.48
7:6:357:LEU:O	7:6:360:ARG:N	2.46	0.48
8:7:113:PHE:CB	8:7:126:LEU:HB2	2.44	0.48
9:A:74:U:H2'	9:A:75:G:C8	2.49	0.48
9:A:78:A:H2'	9:A:79:G:O4'	2.14	0.48
9:A:84:G:C2	9:A:85:G:C5	3.02	0.48
10:B:190:A:OP2	10:B:205:G:N2	2.47	0.48
10:B:203:A:C8	10:B:204:A:C8	3.02	0.48
10:B:222:A:C6	10:B:224:U:N3	2.82	0.48
10:B:585:G:N7	25:Q:5:ARG:NH1	2.61	0.48
10:B:599:A:H2'	10:B:600:G:H8	1.79	0.48
10:B:636:G:H3'	20:L:128:THR:HG21	1.96	0.48
10:B:718:A:H3'	10:B:719:C:H6	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:805:G:N2	10:B:2068:U:P	2.87	0.48
10:B:918:A:H5''	10:B:919:U:OP2	2.14	0.48
10:B:993:G:C6	10:B:1162:G:C6	3.01	0.48
10:B:997:G:H2'	10:B:998:C:H6	1.79	0.48
10:B:1099:G:C6	10:B:1100:C:C4	3.02	0.48
10:B:1177:G:H8	10:B:1177:G:P	2.37	0.48
10:B:1303:G:N1	10:B:1304:A:C5	2.82	0.48
10:B:1449:G:C4	10:B:1450:G:C8	3.02	0.48
10:B:1639:C:C2'	10:B:1640:A:H5''	2.41	0.48
10:B:1824:G:O5'	11:C:51:ARG:NH2	2.46	0.48
10:B:1880:U:H2'	10:B:1881:C:C6	2.49	0.48
10:B:2082:A:H2'	10:B:2083:G:O4'	2.13	0.48
10:B:2093:G:C5	10:B:2225:A:C4	3.01	0.48
10:B:2110:G:H4'	10:B:2111:U:OP2	2.14	0.48
10:B:2241:A:H2	10:B:2242:G:N1	2.11	0.48
10:B:2269:G:N2	10:B:2270:A:C4	2.81	0.48
10:B:2353:G:C6	10:B:2365:G:C2	3.02	0.48
10:B:2437:G:C5	10:B:2438:U:H5	2.32	0.48
10:B:2535:G:C5	10:B:2536:G:C5	3.01	0.48
10:B:2617:U:H2'	10:B:2618:G:C8	2.48	0.48
10:B:2679:A:H4'	12:D:194:PRO:HB3	1.96	0.48
10:B:2748:A:C5	10:B:2753:A:N6	2.82	0.48
10:B:2816:G:O2'	10:B:2817:U:H5'	2.14	0.48
14:F:34:THR:CG2	14:F:88:VAL:H	2.26	0.48
14:F:95:MET:HB2	14:F:96:TRP:CE3	2.48	0.48
16:H:79:THR:HG23	16:H:145:ASN:OD1	2.14	0.48
17:I:15:GLY:H	17:I:45:THR:CG2	2.25	0.48
17:I:75:ALA:HA	17:I:78:LEU:HD12	1.96	0.48
20:L:91:ASP:OD1	20:L:123:ARG:HG2	2.14	0.48
25:Q:86:SER:C	25:Q:88:GLU:H	2.17	0.48
27:S:47:VAL:HA	27:S:50:VAL:HB	1.96	0.48
31:W:30:VAL:HG22	31:W:61:LYS:HA	1.95	0.48
31:W:49:ASN:CB	31:W:61:LYS:HG2	2.41	0.48
1:0:32:THR:OG1	1:0:33:SER:N	2.45	0.48
6:5:37:LYS:HG2	10:B:2128:G:O5'	2.14	0.48
7:6:11:ALA:H	7:6:42:LEU:HG	1.79	0.48
7:6:332:ASP:OD2	7:6:338:ASN:HA	2.13	0.48
10:B:21:A:C6	10:B:520:G:C6	3.01	0.48
10:B:244:A:H62	10:B:254:G:N2	2.04	0.48
10:B:279:A:O5'	10:B:279:A:H8	1.97	0.48
10:B:299:A:C5	10:B:300:A:C6	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:478:A:C6	10:B:480:A:C5	3.02	0.48
10:B:531:C:C5	10:B:2035:G:C2	3.02	0.48
10:B:535:G:C5	10:B:536:G:N7	2.82	0.48
10:B:570:G:C2	10:B:2030:A:C4	3.02	0.48
10:B:951:C:H5''	10:B:952:G:OP2	2.14	0.48
10:B:1245:G:H2'	10:B:1246:A:C8	2.46	0.48
10:B:1286:A:H5''	22:N:104:ALA:HB3	1.96	0.48
10:B:1627:G:N3	10:B:1628:G:C8	2.82	0.48
10:B:1721:G:C2	10:B:1738:G:C4	3.02	0.48
10:B:1833:C:C4	10:B:1834:U:C4	3.02	0.48
10:B:2224:G:P	11:C:264:LYS:HZ1	2.36	0.48
10:B:2351:G:H1'	10:B:2366:A:H61	1.79	0.48
10:B:2463:C:C2	10:B:2488:G:C2	3.02	0.48
10:B:2472:G:C8	10:B:2475:C:N4	2.82	0.48
10:B:2595:G:C2	10:B:2599:G:C5	3.01	0.48
10:B:2640:G:N1	10:B:2641:G:C5	2.81	0.48
11:C:73:ILE:HD13	11:C:97:ASP:HB3	1.96	0.48
11:C:105:ALA:N	11:C:106:PRO:HD3	2.27	0.48
12:D:13:ARG:NH2	24:P:74:GLN:NE2	2.62	0.48
15:G:27:GLY:HA3	15:G:78:VAL:HB	1.96	0.48
18:J:31:GLU:HG3	18:J:142:ILE:HG21	1.95	0.48
19:K:37:ILE:HG22	19:K:60:VAL:HG12	1.96	0.48
20:L:78:ARG:HA	20:L:113:ALA:HB3	1.95	0.48
22:N:39:PRO:O	22:N:41:ALA:N	2.45	0.48
23:O:62:LEU:HB3	23:O:64:TYR:H	1.79	0.48
26:R:30:GLY:N	26:R:63:VAL:HG13	2.28	0.48
27:S:69:LEU:HB3	27:S:107:VAL:HG11	1.96	0.48
28:T:44:LYS:HG3	28:T:55:VAL:HG11	1.96	0.48
2:1:38:PHE:HB2	2:1:45:HIS:CE1	2.49	0.47
10:B:38:A:C2	10:B:39:G:C4	3.02	0.47
10:B:46:G:C6	10:B:47:C:C4	3.02	0.47
10:B:132:G:C5	10:B:133:U:C4	3.02	0.47
10:B:190:A:C2	10:B:191:A:C4	3.02	0.47
10:B:347:A:H2'	10:B:348:A:C8	2.49	0.47
10:B:364:C:H2'	10:B:365:U:C6	2.49	0.47
10:B:495:G:H1'	27:S:57:ASN:ND2	2.29	0.47
10:B:535:G:O4'	25:Q:48:ASP:OD2	2.32	0.47
10:B:585:G:C6	10:B:1251:C:C2	3.02	0.47
10:B:628:G:N1	10:B:629:G:C5	2.82	0.47
10:B:728:G:O2'	10:B:763:G:OP2	2.31	0.47
10:B:802:A:H2'	10:B:802:A:N3	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1005:C:C4	10:B:1143:A:C4	3.02	0.47
10:B:1192:G:C2	10:B:1193:G:C8	3.01	0.47
10:B:1360:G:C2	10:B:1361:G:H1'	2.49	0.47
10:B:1601:G:C6	10:B:1602:U:N3	2.82	0.47
10:B:1707:G:C6	10:B:1708:C:C2	3.02	0.47
10:B:1845:G:N1	10:B:1895:C:O2	2.42	0.47
10:B:1860:G:N1	10:B:1861:G:C5	2.82	0.47
10:B:1913:A:N6	10:B:1916:A:H62	2.12	0.47
10:B:2009:A:C4	10:B:2010:G:N7	2.82	0.47
10:B:2104:C:H2'	10:B:2105:U:H6	1.78	0.47
10:B:2126:A:H1'	10:B:2162:G:C5	2.49	0.47
10:B:2293:G:C2	10:B:2294:G:C5	3.02	0.47
10:B:2340:A:H2'	10:B:2341:G:H8	1.79	0.47
10:B:2359:C:H2'	10:B:2360:G:H8	1.79	0.47
10:B:2494:G:C4	10:B:2495:G:C8	3.02	0.47
10:B:2517:C:C2	10:B:2542:A:N7	2.82	0.47
10:B:2543:G:C4	10:B:2544:G:C8	3.01	0.47
10:B:2564:A:H62	10:B:2565:A:N6	2.12	0.47
10:B:2607:G:N1	10:B:2608:G:C6	2.82	0.47
10:B:2623:G:H2'	10:B:2624:G:C8	2.49	0.47
10:B:2655:G:O2'	10:B:2656:U:P	2.71	0.47
10:B:2660:A:H2'	10:B:2661:G:H8	1.79	0.47
10:B:2687:U:O4	10:B:2688:G:N1	2.47	0.47
10:B:2769:U:C4	10:B:2770:G:C5	3.02	0.47
10:B:2824:C:C4	10:B:2825:G:C5	3.02	0.47
11:C:142:ASN:HA	11:C:153:LEU:O	2.13	0.47
13:E:188:MET:SD	13:E:193:VAL:HG22	2.55	0.47
15:G:57:TYR:C	15:G:59:ASP:H	2.17	0.47
15:G:134:GLY:N	15:G:140:ILE:HD12	2.28	0.47
16:H:48:GLU:O	16:H:51:ARG:HG2	2.14	0.47
16:H:84:ALA:HB1	16:H:148:ALA:HA	1.96	0.47
22:N:60:VAL:O	22:N:64:ARG:HG2	2.14	0.47
23:O:100:HIS:N	23:O:104:GLN:HB2	2.29	0.47
25:Q:18:LYS:HG3	25:Q:21:LYS:HZ1	1.76	0.47
25:Q:91:ARG:NH1	26:R:11:GLN:HG3	2.28	0.47
25:Q:101:ASP:OD2	26:R:2:TYR:CZ	2.67	0.47
27:S:31:GLN:HB2	27:S:34:ASP:HB2	1.96	0.47
28:T:21:SER:O	28:T:25:GLU:HG3	2.14	0.47
6:5:43:ASP:OD1	6:5:215:SER:HB3	2.14	0.47
7:6:25:GLU:C	7:6:27:LEU:N	2.68	0.47
7:6:209:GLY:N	35:6:527:GNP:O1B	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:364:GLU:CG	7:6:408:ILE:HD11	2.43	0.47
9:A:58:A:H2'	9:A:59:A:O4'	2.15	0.47
9:A:85:G:H1	9:A:91:C:N4	2.12	0.47
9:A:102:G:H2'	9:A:103:U:C6	2.50	0.47
10:B:111:A:C6	10:B:112:U:C4	3.02	0.47
10:B:372:G:N7	32:X:56:ARG:NH2	2.61	0.47
10:B:545:U:H3'	10:B:547:A:OP2	2.14	0.47
10:B:637:A:C2	10:B:652:U:H5''	2.49	0.47
10:B:649:G:C5	10:B:650:C:C4	3.01	0.47
10:B:749:A:H4'	10:B:1271:G:H21	1.77	0.47
10:B:886:A:O2'	10:B:887:U:H3'	2.14	0.47
10:B:1078:U:O2'	10:B:1088:A:H5''	2.15	0.47
10:B:1258:U:H2'	10:B:1259:G:H8	1.79	0.47
10:B:1347:A:C6	10:B:1348:C:N3	2.82	0.47
10:B:1368:G:N3	10:B:1369:G:C8	2.82	0.47
10:B:1502:A:C4	10:B:1503:A:C8	3.01	0.47
10:B:1672:A:C6	10:B:1673:G:C6	3.02	0.47
10:B:1676:A:C5	10:B:1677:A:C5	3.02	0.47
10:B:1707:G:C6	10:B:1708:C:N3	2.82	0.47
10:B:1823:G:H2'	10:B:1824:G:H8	1.78	0.47
10:B:1880:U:H2'	10:B:1881:C:H6	1.78	0.47
10:B:2106:U:N3	10:B:2107:G:C5	2.82	0.47
10:B:2118:U:O2	10:B:2148:G:O2'	2.30	0.47
10:B:2136:G:H22	10:B:2155:U:H3	1.62	0.47
10:B:2149:U:H2'	10:B:2150:C:H6	1.79	0.47
10:B:2258:C:OP1	31:W:10:ARG:NH1	2.48	0.47
10:B:2358:A:C6	10:B:2359:C:C4	3.02	0.47
10:B:2796:U:C4	10:B:2798:U:N3	2.82	0.47
10:B:2816:G:C4	10:B:2817:U:C5	3.02	0.47
10:B:2849:U:H4'	10:B:2868:A:C4	2.48	0.47
10:B:2852:G:H5'	22:N:64:ARG:HH22	1.78	0.47
13:E:31:VAL:HG11	13:E:104:ALA:CB	2.45	0.47
14:F:37:MET:HB2	14:F:86:CYS:N	2.29	0.47
14:F:37:MET:HB2	14:F:85:GLY:CA	2.44	0.47
14:F:121:PHE:HE1	14:F:127:TYR:CZ	2.32	0.47
18:J:26:GLY:O	18:J:29:ALA:N	2.47	0.47
22:N:90:ARG:NH2	22:N:117:ASP:OD1	2.47	0.47
23:O:40:ILE:HG22	23:O:47:VAL:HG22	1.96	0.47
24:P:90:ALA:HB3	24:P:110:LYS:N	2.26	0.47
26:R:14:VAL:HA	26:R:18:GLN:NE2	2.30	0.47
26:R:24:LYS:HA	26:R:94:THR:OG1	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:R:77:PHE:CG	26:R:78:ARG:N	2.82	0.47
4:3:53:ASP:OD2	10:B:2359:C:H4'	2.15	0.47
6:5:62:ALA:HA	6:5:161:VAL:O	2.14	0.47
6:5:65:LEU:N	6:5:159:GLY:O	2.44	0.47
8:7:45:GLY:O	8:7:49:GLY:N	2.48	0.47
9:A:68:C:N3	9:A:69:G:C5	2.82	0.47
10:B:18:U:C2	10:B:19:A:C8	3.02	0.47
10:B:47:C:N4	10:B:178:G:H1	2.11	0.47
10:B:55:G:H2'	10:B:56:A:C8	2.49	0.47
10:B:217:A:N6	10:B:218:A:C2	2.82	0.47
10:B:256:A:H2'	10:B:257:C:C6	2.50	0.47
10:B:458:G:N2	10:B:470:A:OP2	2.44	0.47
10:B:536:G:H21	18:J:47:HIS:CG	2.32	0.47
10:B:559:G:N2	25:Q:48:ASP:OD1	2.48	0.47
10:B:600:G:H2'	10:B:601:C:C6	2.49	0.47
10:B:635:C:O2	10:B:639:U:H4'	2.15	0.47
10:B:708:G:H2'	10:B:709:U:C6	2.49	0.47
10:B:858:G:C4	10:B:2268:A:C2	3.03	0.47
10:B:882:G:C2	10:B:883:G:H1'	2.49	0.47
10:B:941:A:H2'	10:B:942:G:C8	2.50	0.47
10:B:973:A:P	26:R:81:LYS:NZ	2.88	0.47
10:B:1138:G:O2'	18:J:108:MET:HG3	2.14	0.47
10:B:1157:G:C6	10:B:1158:C:C4	3.02	0.47
10:B:1189:A:N7	10:B:1190:G:C8	2.82	0.47
10:B:1218:G:C6	10:B:1219:U:C4	3.03	0.47
10:B:1606:C:H5''	10:B:1607:C:OP1	2.13	0.47
10:B:1750:G:C5	10:B:1751:U:C4	3.03	0.47
10:B:1862:G:C4	10:B:1863:G:C8	3.02	0.47
10:B:1965:C:OP1	10:B:1966:A:O2'	2.30	0.47
10:B:2135:A:H2'	10:B:2136:G:C8	2.49	0.47
10:B:2156:G:H5''	10:B:2157:G:OP1	2.15	0.47
10:B:2461:A:C6	10:B:2490:G:N2	2.82	0.47
11:C:119:VAL:HG21	16:H:122:LEU:HD11	1.97	0.47
11:C:179:GLU:OE2	11:C:269:ARG:NH1	2.47	0.47
12:D:65:ALA:O	12:D:69:ALA:N	2.48	0.47
20:L:77:ILE:HD11	20:L:110:VAL:HG13	1.95	0.47
24:P:23:ASP:CG	24:P:89:GLY:H	2.17	0.47
25:Q:108:LEU:N	26:R:48:LYS:HE3	2.30	0.47
26:R:37:GLU:CD	26:R:58:VAL:H	2.18	0.47
31:W:30:VAL:O	31:W:30:VAL:HG12	2.15	0.47
31:W:31:LEU:N	31:W:60:ALA:HB3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:37:HIS:CE1	1:0:39:ARG:HA	2.49	0.47
4:3:38:LYS:HG3	4:3:41:ARG:NH2	2.29	0.47
4:3:50:SER:HB3	10:B:2360:G:OP1	2.14	0.47
7:6:84:LEU:HD13	7:6:88:GLN:HB2	1.95	0.47
7:6:327:PRO:HB3	7:6:349:GLY:HA2	1.97	0.47
7:6:370:LEU:HA	7:6:424:TYR:CD2	2.49	0.47
8:7:30:SER:O	10:B:1054:A:O2'	2.25	0.47
8:7:56:ARG:HB3	10:B:1106:G:H4'	1.97	0.47
9:A:87:U:O2'	9:A:88:C:H4'	2.14	0.47
10:B:149:A:C6	10:B:150:U:C4	3.03	0.47
10:B:202:U:C5	10:B:203:A:C4	3.02	0.47
10:B:265:A:H2'	10:B:266:G:C4'	2.44	0.47
10:B:445:C:C5	10:B:446:G:C5	3.03	0.47
10:B:455:C:N4	10:B:472:A:C5	2.82	0.47
10:B:475:C:H1'	10:B:509:C:C2	2.48	0.47
10:B:519:U:H5''	27:S:25:ARG:NH2	2.29	0.47
10:B:524:G:C5	10:B:525:U:C5	3.02	0.47
10:B:554:U:C4	10:B:555:G:N7	2.82	0.47
10:B:725:G:C2	10:B:726:G:N2	2.82	0.47
10:B:750:A:H5''	10:B:751:A:OP2	2.15	0.47
10:B:866:A:N7	10:B:867:C:C4	2.82	0.47
10:B:874:G:C2	10:B:904:G:C4	3.03	0.47
10:B:915:C:N4	10:B:916:G:C6	2.81	0.47
10:B:962:G:C2	10:B:963:U:C2	3.03	0.47
10:B:1057:A:H2'	10:B:1058:U:H5	1.79	0.47
10:B:1078:U:H5''	17:I:133:ARG:HH22	1.78	0.47
10:B:1093:G:C2	10:B:1094:U:C6	3.02	0.47
10:B:1205:A:C6	13:E:165:HIS:CD2	3.02	0.47
10:B:1216:G:C2	10:B:1217:U:C2	3.02	0.47
10:B:1321:A:O2'	10:B:1322:A:OP1	2.23	0.47
10:B:1480:C:C4	10:B:1481:U:C4	3.02	0.47
10:B:1804:C:C4	10:B:1805:A:N7	2.82	0.47
10:B:1823:G:N3	10:B:1824:G:C8	2.82	0.47
10:B:2256:G:C2	10:B:2257:U:C2	3.02	0.47
10:B:2299:U:O4	10:B:2318:G:N2	2.48	0.47
10:B:2470:G:N1	10:B:2471:A:C5	2.82	0.47
10:B:2495:G:C5	10:B:2496:C:C4	3.02	0.47
10:B:2641:G:C2	10:B:2774:C:C2	3.02	0.47
10:B:2657:A:C5	10:B:2665:A:C5	3.02	0.47
10:B:2684:U:H4'	19:K:75:VAL:HG21	1.95	0.47
11:C:211:ARG:NH2	11:C:217:PRO:CG	2.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:D:98:VAL:HG21	12:D:182:ALA:HA	1.95	0.47
16:H:32:PRO:HA	32:X:38:TRP:CE2	2.50	0.47
19:K:30:ARG:O	19:K:32:ALA:N	2.47	0.47
19:K:97:ARG:NH2	19:K:119:PRO:HD3	2.29	0.47
21:M:42:THR:H	21:M:45:GLN:NE2	2.12	0.47
22:N:31:HIS:C	22:N:33:ILE:H	2.15	0.47
5:4:15:LYS:O	5:4:25:VAL:HG23	2.15	0.47
6:5:1:MET:HB3	10:B:2118:U:H1'	1.97	0.47
6:5:129:GLN:HE22	10:B:2170:A:H61	1.61	0.47
7:6:217:ILE:HG23	7:6:218:THR:HG23	1.96	0.47
8:7:78:GLY:H	8:7:82:ILE:HG13	1.79	0.47
9:A:52:A:H8	23:O:33:ARG:NH2	2.12	0.47
9:A:113:C:H2'	9:A:114:C:C6	2.46	0.47
10:B:182:A:C5	10:B:183:C:C4	3.01	0.47
10:B:199:A:N7	10:B:2433:A:N6	2.62	0.47
10:B:222:A:C6	10:B:224:U:C2	3.03	0.47
10:B:317:G:C6	10:B:318:C:C4	3.02	0.47
10:B:337:C:OP1	29:U:3:LYS:HD2	2.14	0.47
10:B:487:C:H5''	10:B:488:G:OP2	2.14	0.47
10:B:585:G:C6	10:B:1251:C:N3	2.82	0.47
10:B:626:A:C2'	20:L:78:ARG:HH21	2.27	0.47
10:B:666:A:N1	10:B:667:U:C4	2.82	0.47
10:B:679:C:C2	10:B:799:G:N2	2.83	0.47
10:B:749:A:C4	10:B:1618:A:C5	3.02	0.47
10:B:886:A:H1'	10:B:889:C:C5	2.49	0.47
10:B:993:G:C5	10:B:994:C:C5	3.02	0.47
10:B:1084:A:N6	10:B:1085:A:C6	2.81	0.47
10:B:1341:G:O2'	10:B:1342:A:H5'	2.13	0.47
10:B:1704:C:H2'	10:B:1705:A:N7	2.29	0.47
10:B:1754:A:C4	10:B:1755:A:C8	3.03	0.47
10:B:1838:C:C4	10:B:1899:A:C2	3.02	0.47
10:B:1885:A:C6	10:B:1886:U:C4	3.03	0.47
10:B:2135:A:C5	10:B:2136:G:C5	3.02	0.47
10:B:2140:G:P	10:B:2140:G:H8	2.38	0.47
10:B:2192:U:C2	10:B:2193:G:C8	3.02	0.47
10:B:2415:G:H2'	10:B:2416:C:H6	1.78	0.47
10:B:2535:G:C5	10:B:2536:G:N7	2.82	0.47
10:B:2647:U:HO2'	10:B:2648:G:H8	1.63	0.47
11:C:77:VAL:HA	11:C:93:VAL:HA	1.95	0.47
12:D:52:THR:HG22	12:D:53:GLY:N	2.29	0.47
17:I:73:PRO:HA	17:I:74:PRO:HD3	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:J:113:PRO:CA	18:J:116:ARG:NH1	2.77	0.47
21:M:125:PRO:HG2	21:M:126:ILE:HG12	1.97	0.47
22:N:33:ILE:HG22	22:N:114:GLU:CB	2.44	0.47
23:O:62:LEU:HD12	23:O:65:THR:HG22	1.96	0.47
26:R:66:HIS:CE1	26:R:94:THR:HG23	2.49	0.47
27:S:51:LEU:O	27:S:55:ILE:HG13	2.14	0.47
32:X:36:ARG:HD2	32:X:45:PHE:CD2	2.50	0.47
32:X:37:PHE:HB3	32:X:63:ILE:HD11	1.96	0.47
34:Z:43:ILE:O	34:Z:46:MET:HB2	2.15	0.47
3:2:19:ARG:HG2	10:B:126:A:OP1	2.15	0.47
9:A:18:G:H1'	9:A:67:G:N2	2.30	0.47
9:A:109:A:H2'	9:A:110:C:O4'	2.15	0.47
10:B:85:G:C6	10:B:86:G:C5	3.03	0.47
10:B:357:C:C4	10:B:358:U:C4	3.03	0.47
10:B:529:A:N6	10:B:2023:C:C2	2.83	0.47
10:B:627:A:H4'	10:B:628:G:H5'	1.96	0.47
10:B:748:G:P	27:S:88:ARG:NH2	2.87	0.47
10:B:855:G:C4	10:B:923:G:C2	3.02	0.47
10:B:1048:A:N7	10:B:1111:A:N6	2.62	0.47
10:B:1057:A:H2'	10:B:1058:U:C5	2.50	0.47
10:B:1175:A:H5'	10:B:1176:U:H1'	1.96	0.47
10:B:1197:G:H2'	10:B:1198:U:C6	2.50	0.47
10:B:1424:G:C6	10:B:1425:G:C6	3.02	0.47
10:B:1435:G:N3	10:B:1436:G:C8	2.83	0.47
10:B:1748:C:H2'	10:B:1749:A:C8	2.49	0.47
10:B:1799:G:N1	10:B:1819:A:C8	2.82	0.47
10:B:1842:G:H2'	10:B:1843:C:H6	1.80	0.47
10:B:2061:G:HO2'	10:B:2063:C:H41	1.58	0.47
10:B:2352:A:C2	10:B:2366:A:N3	2.83	0.47
10:B:2377:A:H2'	10:B:2378:A:H8	1.78	0.47
10:B:2466:C:N4	10:B:2484:G:H1	2.13	0.47
10:B:2538:C:H2'	10:B:2539:C:C6	2.50	0.47
10:B:2552:U:H2'	10:B:2554:U:OP2	2.13	0.47
10:B:2748:A:H1'	15:G:66:THR:OG1	2.14	0.47
11:C:239:PHE:HE2	11:C:241:LYS:HB2	1.79	0.47
13:E:16:GLU:O	13:E:20:GLY:N	2.44	0.47
14:F:30:VAL:HA	14:F:157:THR:HG23	1.96	0.47
15:G:55:ASP:H	15:G:57:TYR:HE2	1.63	0.47
16:H:31:VAL:HG12	16:H:32:PRO:N	2.29	0.47
19:K:87:ASN:HB3	19:K:89:ASN:OD1	2.15	0.47
20:L:71:ALA:HA	20:L:74:THR:HB	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Q:96:ASP:OD2	26:R:13:ARG:NH1	2.47	0.47
27:S:42:LYS:O	27:S:45:VAL:HG22	2.15	0.47
30:V:51:GLN:NE2	30:V:77:VAL:HG11	2.29	0.47
31:W:19:ARG:HB2	31:W:21:GLY:H	1.80	0.47
2:1:38:PHE:HB2	2:1:45:HIS:NE2	2.29	0.47
6:5:10:VAL:HA	6:5:13:GLU:HB2	1.97	0.47
6:5:27:ILE:HD11	6:5:234:ASN:HA	1.97	0.47
7:6:50:LYS:HE3	7:6:59:GLY:N	2.29	0.47
7:6:317:ASN:OD1	7:6:344:ALA:N	2.47	0.47
7:6:364:GLU:CG	7:6:408:ILE:HG13	2.27	0.47
7:6:375:GLN:CG	7:6:378:ARG:HH12	2.28	0.47
8:7:95:LEU:HD23	8:7:98:GLU:HG3	1.97	0.47
9:A:41:G:O6	14:F:68:LYS:NZ	2.41	0.47
10:B:138:U:H2'	10:B:140:C:C4	2.50	0.47
10:B:257:C:C2	10:B:258:G:C8	3.02	0.47
10:B:313:G:N2	10:B:314:C:H1'	2.29	0.47
10:B:325:G:C2	10:B:326:G:C8	3.02	0.47
10:B:399:U:H2'	10:B:400:G:O4'	2.15	0.47
10:B:407:G:N1	10:B:421:C:N3	2.62	0.47
10:B:455:C:C4	10:B:472:A:C4	3.03	0.47
10:B:500:G:H22	10:B:502:A:H3'	1.79	0.47
10:B:597:G:H2'	10:B:598:U:C6	2.49	0.47
10:B:639:U:N3	10:B:640:C:C4	2.83	0.47
10:B:647:G:C6	10:B:648:G:C5	3.03	0.47
10:B:677:A:N7	10:B:678:C:H5	2.13	0.47
10:B:753:A:C6	10:B:754:U:C4	3.03	0.47
10:B:775:G:OP1	10:B:777:G:O2'	2.21	0.47
10:B:797:G:C2	10:B:798:G:C4	3.02	0.47
10:B:805:G:C2	10:B:2068:U:P	3.07	0.47
10:B:813:U:C4	10:B:1195:G:N1	2.82	0.47
10:B:825:A:C6	10:B:826:U:N3	2.83	0.47
10:B:842:U:H2'	10:B:843:G:C8	2.49	0.47
10:B:861:A:C8	10:B:862:G:C8	3.02	0.47
10:B:861:A:N6	10:B:862:G:C2	2.83	0.47
10:B:981:A:C6	10:B:2028:U:H4'	2.50	0.47
10:B:1098:A:C2	17:I:5:GLN:HB3	2.50	0.47
10:B:1131:G:C6	18:J:77:HIS:NE2	2.83	0.47
10:B:1265:A:C8	10:B:1267:U:C4	3.02	0.47
10:B:1265:A:C8	10:B:1267:U:C2	3.03	0.47
10:B:1339:G:N2	10:B:1340:U:O4	2.47	0.47
10:B:1403:A:H2'	10:B:1404:C:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1426:G:H2'	10:B:1572:A:H61	1.80	0.47
10:B:1477:A:C6	10:B:1515:A:C8	3.03	0.47
10:B:1478:G:C5	10:B:1479:G:N7	2.83	0.47
10:B:1588:G:C6	10:B:1589:U:C4	3.03	0.47
10:B:1650:A:C6	10:B:1651:G:C5	3.01	0.47
10:B:1707:G:N1	10:B:1708:C:C2	2.83	0.47
10:B:1719:G:C6	10:B:1720:U:C4	3.02	0.47
10:B:1764:C:O2'	10:B:1765:U:H5'	2.15	0.47
10:B:1774:C:C6	10:B:1775:U:H5	2.33	0.47
10:B:1949:G:C6	10:B:1958:C:N3	2.82	0.47
10:B:2010:G:H2'	10:B:2011:U:O4'	2.14	0.47
10:B:2011:U:H2'	10:B:2012:G:O4'	2.13	0.47
10:B:2011:U:P	27:S:42:LYS:NZ	2.88	0.47
10:B:2137:U:N3	10:B:2138:G:N7	2.63	0.47
10:B:2227:A:H2'	10:B:2228:G:O4'	2.15	0.47
10:B:2307:G:C2	10:B:2311:A:N6	2.83	0.47
10:B:2359:C:N3	10:B:2360:G:C5	2.83	0.47
10:B:2531:A:H4'	15:G:175:LYS:HZ2	1.78	0.47
10:B:2642:G:H1	10:B:2772:C:N4	2.11	0.47
10:B:2798:U:H1'	10:B:2800:A:C4	2.49	0.47
10:B:2811:G:H2'	10:B:2812:G:C8	2.43	0.47
10:B:2871:U:P	22:N:69:ARG:HH22	2.38	0.47
11:C:1:ALA:O	11:C:18:VAL:HA	2.15	0.47
11:C:132:ARG:CZ	16:H:121:VAL:HA	2.44	0.47
11:C:211:ARG:HH21	11:C:217:PRO:CG	2.26	0.47
12:D:13:ARG:HH12	12:D:15:PHE:HZ	1.63	0.47
12:D:38:LYS:NZ	12:D:45:TYR:OH	2.45	0.47
13:E:188:MET:HG3	13:E:192:ALA:HB3	1.97	0.47
13:E:195:GLN:HA	13:E:198:GLU:OE1	2.14	0.47
19:K:69:ARG:HD2	19:K:75:VAL:HG22	1.97	0.47
21:M:18:ARG:HG2	21:M:97:GLN:HE21	1.80	0.47
23:O:16:ARG:O	23:O:19:GLN:N	2.47	0.47
24:P:51:ASN:ND2	24:P:56:SER:HB2	2.29	0.47
28:T:38:ALA:CB	28:T:81:LYS:HZ3	2.17	0.47
30:V:43:ASP:OD1	30:V:45:ASP:N	2.48	0.47
33:Y:25:GLN:O	33:Y:29:ARG:NH1	2.47	0.47
1:O:21:LEU:HD11	27:S:41:LYS:NZ	2.27	0.47
7:6:295:ILE:HG22	7:6:299:ASN:ND2	2.28	0.47
9:A:44:G:H5'	9:A:46:A:N6	2.30	0.47
10:B:26:G:C6	10:B:27:G:N1	2.83	0.47
10:B:533:G:H4'	25:Q:23:TYR:HE2	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:564:C:C2	10:B:565:C:C5	3.03	0.47
10:B:643:A:C6	10:B:644:A:C5	3.03	0.47
10:B:697:G:C5	10:B:698:C:C4	3.03	0.47
10:B:784:G:O4'	11:C:225:ASN:ND2	2.47	0.47
10:B:1079:C:H2'	10:B:1080:A:C8	2.50	0.47
10:B:1111:A:N3	10:B:1112:G:H1'	2.28	0.47
10:B:1128:G:N3	10:B:2516:A:O2'	2.48	0.47
10:B:1193:G:C4	10:B:1194:A:C8	3.02	0.47
10:B:1366:A:C6	10:B:1367:A:C4	3.03	0.47
10:B:1707:G:C4	10:B:1756:G:C2	3.03	0.47
10:B:1716:U:H2'	10:B:1717:A:C8	2.47	0.47
10:B:1865:U:O2'	10:B:1875:G:N2	2.32	0.47
10:B:1873:G:N1	10:B:1874:C:C2	2.83	0.47
10:B:1947:C:H2'	10:B:1948:G:C8	2.50	0.47
10:B:2011:U:OP1	27:S:42:LYS:NZ	2.45	0.47
10:B:2076:U:O2	10:B:2076:U:H3'	2.15	0.47
10:B:2184:A:C6	10:B:2185:U:C2	3.02	0.47
10:B:2198:A:O2'	10:B:2224:G:N2	2.44	0.47
10:B:2320:U:N3	10:B:2333:A:N1	2.63	0.47
10:B:2360:G:C2	10:B:2428:G:C2	3.03	0.47
10:B:2464:G:C2	10:B:2487:G:C2	3.03	0.47
10:B:2616:C:C2	10:B:2617:U:C6	3.03	0.47
10:B:2863:C:P	24:P:112:ARG:HD2	2.54	0.47
18:J:18:VAL:HG22	18:J:20:ALA:H	1.80	0.47
21:M:52:ALA:O	21:M:56:ALA:N	2.46	0.47
23:O:35:ILE:HG22	23:O:53:THR:CG2	2.44	0.47
24:P:29:VAL:HG22	24:P:40:GLN:O	2.14	0.47
26:R:71:LYS:NZ	26:R:90:ARG:HD2	2.29	0.47
30:V:43:ASP:OD1	30:V:44:HIS:N	2.47	0.47
7:6:210:LYS:H	35:6:527:GNP:PB	2.37	0.47
8:7:3:LEU:HD12	8:7:5:LEU:N	2.30	0.47
9:A:15:A:C4	9:A:109:A:C4	3.03	0.47
9:A:18:G:C4	9:A:67:G:C6	3.03	0.47
9:A:82:U:C4	9:A:83:G:N7	2.82	0.47
10:B:23:G:C6	10:B:518:G:C5	3.03	0.47
10:B:190:A:C8	10:B:207:A:N1	2.83	0.47
10:B:191:A:C2	10:B:192:C:C4	3.02	0.47
10:B:195:A:H62	10:B:198:C:P	2.38	0.47
10:B:226:A:C4	10:B:230:G:C6	3.03	0.47
10:B:322:A:O5'	13:E:163:ASN:ND2	2.45	0.47
10:B:332:A:O2'	10:B:335:C:N4	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:449:A:C5	10:B:450:G:C5	3.03	0.47
10:B:465:G:C6	10:B:466:A:C6	3.03	0.47
10:B:602:A:C6	10:B:656:G:C6	3.03	0.47
10:B:705:A:H2'	10:B:706:A:O4'	2.15	0.47
10:B:746:U:H5'	10:B:748:G:H1'	1.96	0.47
10:B:838:C:H2'	10:B:839:U:C6	2.41	0.47
10:B:897:C:N4	10:B:898:C:N3	2.63	0.47
10:B:1028:A:C2	10:B:1029:A:C5	3.03	0.47
10:B:1031:G:N3	10:B:1124:G:C2	2.83	0.47
10:B:1136:G:H2'	10:B:1137:G:C8	2.50	0.47
10:B:1201:U:H3	10:B:1244:A:H61	1.61	0.47
10:B:1422:G:C4	10:B:1423:G:C8	3.03	0.47
10:B:1562:U:C4	10:B:1563:U:C4	3.03	0.47
10:B:1651:G:C2	10:B:1652:A:C5	3.02	0.47
10:B:1677:A:C2	10:B:1678:A:C4	3.03	0.47
10:B:1687:G:H21	10:B:1701:A:H62	1.63	0.47
10:B:1912:A:O2'	10:B:1913:A:OP2	2.23	0.47
10:B:1914:C:H2'	10:B:1916:A:C5	2.50	0.47
10:B:1924:C:N3	10:B:1925:C:C4	2.83	0.47
10:B:2023:C:H2'	10:B:2024:G:C8	2.46	0.47
10:B:2350:C:C2	10:B:2351:G:C8	3.03	0.47
10:B:2415:G:C2	10:B:2416:C:C2	3.02	0.47
10:B:2445:G:C4	10:B:2446:G:C8	3.03	0.47
10:B:2747:G:O2'	15:G:66:THR:HG23	2.15	0.47
10:B:2758:A:C6	10:B:2759:G:C5	3.03	0.47
10:B:2786:U:H4'	12:D:66:GLY:C	2.35	0.47
10:B:2847:U:C5	10:B:2848:G:C5	3.03	0.47
10:B:2849:U:N3	10:B:2867:G:H1'	2.30	0.47
11:C:170:TYR:HA	11:C:184:GLU:CA	2.44	0.47
11:C:239:PHE:CD2	11:C:241:LYS:HB2	2.49	0.47
15:G:70:LEU:O	15:G:74:MET:N	2.44	0.47
15:G:108:PHE:HE2	15:G:151:ARG:NH1	2.13	0.47
16:H:112:LYS:HG2	16:H:131:SER:HA	1.95	0.47
17:I:74:PRO:O	17:I:78:LEU:HG	2.15	0.47
18:J:33:ALA:HA	18:J:36:LEU:HD12	1.97	0.47
19:K:70:ARG:HB3	19:K:74:SER:CB	2.40	0.47
20:L:109:LYS:HZ2	20:L:126:ARG:CB	2.25	0.47
23:O:100:HIS:HA	23:O:104:GLN:OE1	2.15	0.47
25:Q:46:TYR:OH	25:Q:50:ARG:NH2	2.47	0.47
25:Q:109:VAL:O	25:Q:113:LYS:HG3	2.14	0.47
29:U:85:ARG:HA	29:U:91:LYS:CG	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Y:20:ASN:HA	33:Y:24:GLU:HG2	1.96	0.47
2:1:5:ARG:NH1	2:1:25:ASN:CB	2.78	0.47
3:2:3:ARG:NH2	10:B:463:G:O3'	2.48	0.47
6:5:80:GLN:NE2	10:B:2169:A:O2'	2.48	0.47
8:7:146:ALA:HB1	8:7:153:ARG:HD3	1.96	0.47
10:B:204:A:C8	10:B:206:U:N3	2.83	0.47
10:B:583:G:OP1	25:Q:6:GLY:HA2	2.15	0.47
10:B:609:A:H62	10:B:619:G:N2	2.13	0.47
10:B:879:G:H2'	10:B:880:G:O4'	2.15	0.47
10:B:1067:A:H2'	10:B:1068:G:O4'	2.15	0.47
10:B:1153:C:H2'	10:B:1154:G:O4'	2.15	0.47
10:B:1262:A:P	27:S:99:ARG:HH22	2.38	0.47
10:B:1383:A:N7	10:B:1384:A:C5	2.82	0.47
10:B:1385:A:H1'	10:B:1386:C:C6	2.50	0.47
10:B:1498:C:H2'	10:B:1499:C:O4'	2.15	0.47
10:B:1619:G:N3	10:B:1620:G:C8	2.83	0.47
10:B:2060:A:O2'	10:B:2061:G:P	2.73	0.47
10:B:2279:G:C6	10:B:2280:G:N7	2.82	0.47
10:B:2346:A:C2	10:B:2383:G:C6	3.03	0.47
10:B:2357:G:N2	10:B:2361:G:C5	2.83	0.47
10:B:2445:G:N3	10:B:2446:G:C8	2.83	0.47
10:B:2478:A:C6	10:B:2529:G:C2	3.03	0.47
10:B:2547:A:O4'	10:B:2566:A:C6	2.68	0.47
10:B:2723:C:H2'	10:B:2724:U:C5	2.50	0.47
10:B:2740:A:H8	10:B:2763:G:N2	2.13	0.47
10:B:2764:A:C5	10:B:2766:A:C6	3.03	0.47
10:B:2801:G:C6	10:B:2802:G:C6	3.03	0.47
10:B:2884:U:H2'	10:B:2885:G:H8	1.80	0.47
11:C:107:LYS:CG	11:C:193:GLU:HG3	2.45	0.47
11:C:138:SER:HB2	11:C:163:ILE:HD12	1.97	0.47
12:D:33:ARG:NH2	12:D:73:VAL:CA	2.78	0.47
15:G:53:PRO:HG2	15:G:61:TRP:CZ3	2.50	0.47
15:G:100:ASN:HB2	15:G:115:GLN:HG3	1.97	0.47
20:L:47:ARG:O	20:L:48:ARG:HB2	2.14	0.47
20:L:74:THR:HG21	20:L:126:ARG:HH22	1.80	0.47
30:V:50:MET:HA	30:V:53:LYS:HG3	1.97	0.47
31:W:34:SER:O	31:W:36:ILE:HG12	2.15	0.47
6:5:123:VAL:HA	6:5:127:LEU:HD12	1.98	0.46
7:6:184:GLN:NE2	10:B:2479:U:O2	2.47	0.46
7:6:257:ARG:NH2	7:6:258:HIS:HE1	2.12	0.46
7:6:288:ASP:HB3	7:6:290:ARG:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:99:A:H2'	9:A:100:G:C8	2.50	0.46
9:A:100:G:N2	10:B:863:A:H4'	2.29	0.46
10:B:175:G:C6	10:B:176:A:C6	3.02	0.46
10:B:200:U:H5	10:B:201:C:C4	2.33	0.46
10:B:277:G:C6	10:B:360:U:H5	2.34	0.46
10:B:500:G:N2	10:B:502:A:H3'	2.30	0.46
10:B:556:A:H3'	10:B:557:C:H6	1.79	0.46
10:B:709:U:N3	10:B:710:U:C4	2.83	0.46
10:B:819:A:C6	10:B:820:A:C5	3.03	0.46
10:B:895:U:H2'	10:B:897:C:C4	2.50	0.46
10:B:1079:C:O2'	17:I:130:GLY:HA2	2.14	0.46
10:B:1156:A:HO2'	10:B:1157:G:C5'	2.27	0.46
10:B:1171:G:C2	10:B:1172:C:C2	3.03	0.46
10:B:1268:A:H62	10:B:2012:G:N2	2.00	0.46
10:B:1354:A:H62	10:B:1377:G:H21	1.61	0.46
10:B:1711:A:H2'	10:B:1712:U:O4'	2.15	0.46
10:B:1717:A:C5	10:B:1718:G:C8	3.04	0.46
10:B:1718:G:C6	10:B:1719:G:C5	3.03	0.46
10:B:1770:G:C5	10:B:1983:G:C6	3.03	0.46
10:B:1815:A:N7	10:B:1817:G:C5	2.83	0.46
10:B:1988:G:H2'	10:B:1989:G:O4'	2.15	0.46
10:B:2094:A:H2'	10:B:2095:A:C8	2.50	0.46
10:B:2272:U:HO2'	10:B:2273:A:H8	1.63	0.46
10:B:2357:G:C2	10:B:2361:G:C5	3.03	0.46
10:B:2454:G:C8	10:B:2455:G:N7	2.83	0.46
10:B:2556:C:H3'	10:B:2557:G:C8	2.51	0.46
10:B:2560:A:C4	10:B:2561:U:C5	3.03	0.46
10:B:2678:C:H2'	10:B:2679:A:H8	1.80	0.46
10:B:2714:G:C2	10:B:2715:C:C2	3.03	0.46
10:B:2835:A:N6	10:B:2878:U:C2	2.83	0.46
10:B:2862:G:H2'	10:B:2863:C:H6	1.79	0.46
10:B:2868:A:C6	10:B:2869:G:C6	3.03	0.46
10:B:2901:C:N3	10:B:2902:C:C4	2.82	0.46
11:C:28:PRO:HG2	11:C:33:LEU:HD11	1.97	0.46
11:C:179:GLU:OE2	11:C:269:ARG:CZ	2.63	0.46
13:E:23:PHE:O	13:E:24:ASN:ND2	2.48	0.46
14:F:54:ALA:HB1	14:F:139:GLU:OE2	2.14	0.46
18:J:8:PRO:O	18:J:11:VAL:HG22	2.15	0.46
19:K:70:ARG:CG	19:K:71:PRO:HD2	2.45	0.46
23:O:49:VAL:HG22	23:O:85:LYS:NZ	2.30	0.46
23:O:76:LYS:HG2	23:O:109:ALA:HB1	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:94:ARG:HD2	23:O:97:PHE:O	2.14	0.46
23:O:100:HIS:CD2	23:O:101:GLY:H	2.33	0.46
24:P:47:ILE:HG13	24:P:59:THR:HB	1.96	0.46
25:Q:65:ASN:O	25:Q:69:ARG:HG2	2.15	0.46
27:S:2:GLU:HG2	27:S:3:THR:H	1.80	0.46
28:T:44:LYS:HG3	28:T:55:VAL:CG1	2.45	0.46
6:5:37:LYS:CE	10:B:2127:G:O2'	2.56	0.46
6:5:168:ASN:HB2	10:B:2178:C:H4'	1.97	0.46
7:6:167:LEU:HD23	7:6:170:ARG:HG3	1.97	0.46
7:6:255:PHE:HD1	7:6:259:LEU:HD12	1.79	0.46
9:A:43:C:C4	9:A:45:A:C6	3.03	0.46
10:B:85:G:C5	10:B:98:G:C2	3.03	0.46
10:B:185:G:H2'	10:B:186:G:H8	1.81	0.46
10:B:414:C:H1'	10:B:1864:U:O2'	2.16	0.46
10:B:429:A:H2'	10:B:430:A:C4	2.50	0.46
10:B:629:G:H1	10:B:634:C:H42	1.63	0.46
10:B:671:C:C2	10:B:672:C:C5	3.02	0.46
10:B:704:G:O2'	10:B:705:A:O5'	2.33	0.46
10:B:756:A:C4	10:B:757:G:N7	2.83	0.46
10:B:775:G:O6	10:B:787:C:H2'	2.15	0.46
10:B:827:U:H5	10:B:2430:A:C4	2.32	0.46
10:B:858:G:H3'	10:B:859:G:N7	2.30	0.46
10:B:886:A:H1'	10:B:889:C:H41	1.80	0.46
10:B:1017:G:H2'	10:B:1018:U:H6	1.78	0.46
10:B:1045:C:C2	10:B:1047:G:C6	3.02	0.46
10:B:1107:G:H2'	10:B:1108:U:C6	2.50	0.46
10:B:1225:G:H4'	26:R:86:GLN:NE2	2.31	0.46
10:B:1308:A:C5	10:B:1309:G:C5	3.04	0.46
10:B:1502:A:H2'	10:B:1503:A:C8	2.49	0.46
10:B:1721:G:O2'	10:B:1738:G:N2	2.46	0.46
10:B:1767:G:N1	10:B:1768:C:C4	2.83	0.46
10:B:1796:U:H2'	10:B:1797:G:O4'	2.16	0.46
10:B:1891:G:O2'	10:B:2235:G:O2'	2.33	0.46
10:B:1959:G:C2	10:B:1960:A:C4	3.03	0.46
10:B:2380:C:H42	10:B:2381:A:N6	2.13	0.46
10:B:2662:A:H2'	10:B:2663:G:O4'	2.15	0.46
10:B:2740:A:N7	10:B:2741:A:N6	2.64	0.46
10:B:2811:G:C4	10:B:2812:G:C8	3.03	0.46
11:C:23:LEU:HD13	11:C:82:TYR:HB2	1.97	0.46
11:C:257:ARG:NH2	11:C:262:THR:OG1	2.48	0.46
16:H:54:LEU:HD12	16:H:58:LEU:HD23	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:I:42:ASN:HA	17:I:45:THR:HG23	1.97	0.46
19:K:63:ARG:HB2	19:K:82:ALA:HB3	1.97	0.46
19:K:90:SER:O	19:K:92:GLN:HG3	2.16	0.46
21:M:31:PHE:O	21:M:105:MET:N	2.48	0.46
28:T:36:LYS:C	28:T:81:LYS:HZ1	2.15	0.46
6:5:14:LYS:HD3	10:B:2131:U:OP1	2.14	0.46
6:5:46:VAL:O	6:5:171:ILE:N	2.28	0.46
7:6:389:ILE:HA	7:6:404:VAL:HG22	1.97	0.46
9:A:18:G:C2	9:A:67:G:C5	3.04	0.46
10:B:81:G:C6	10:B:82:U:C4	3.02	0.46
10:B:114:U:C4	10:B:115:C:C4	3.04	0.46
10:B:153:U:H3	10:B:173:A:H61	1.64	0.46
10:B:188:G:C5	10:B:189:G:C5	3.03	0.46
10:B:204:A:O2'	10:B:205:G:OP2	2.25	0.46
10:B:217:A:N6	10:B:218:A:H2	2.12	0.46
10:B:597:G:H2'	10:B:598:U:H6	1.80	0.46
10:B:616:A:C5	10:B:617:G:C8	3.04	0.46
10:B:705:A:C8	10:B:727:A:C2	3.03	0.46
10:B:738:G:C6	10:B:739:A:N1	2.83	0.46
10:B:780:G:N1	10:B:782:A:N1	2.62	0.46
10:B:798:G:C2	10:B:799:G:C5	3.03	0.46
10:B:848:C:H5''	10:B:849:A:OP2	2.15	0.46
10:B:1048:A:OP2	10:B:1109:C:N4	2.49	0.46
10:B:1202:G:C6	10:B:1203:U:C2	3.03	0.46
10:B:1257:C:H2'	10:B:1258:U:C6	2.50	0.46
10:B:1376:C:N4	10:B:1377:G:C6	2.83	0.46
10:B:1683:U:H2'	10:B:1684:G:C8	2.49	0.46
10:B:1731:G:N1	10:B:1733:G:C5	2.83	0.46
10:B:1741:C:H2'	10:B:1742:U:O4'	2.15	0.46
10:B:2057:G:H2'	10:B:2058:A:C8	2.48	0.46
10:B:2212:A:O2'	10:B:2213:U:O5'	2.29	0.46
10:B:2278:A:C5'	21:M:10:ARG:HH21	2.24	0.46
10:B:2282:G:H1'	10:B:2390:U:C4	2.51	0.46
10:B:2454:G:C8	10:B:2455:G:C8	3.03	0.46
10:B:2463:C:N3	10:B:2488:G:N1	2.63	0.46
10:B:2507:C:N3	10:B:2583:G:C6	2.83	0.46
10:B:2511:U:N3	10:B:2578:G:C6	2.83	0.46
10:B:2599:G:C2	10:B:2600:A:C4	3.02	0.46
10:B:2676:C:C2	10:B:2677:G:C8	3.03	0.46
10:B:2703:C:C4	10:B:2704:C:N4	2.83	0.46
10:B:2703:C:C4	10:B:2704:C:C4	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:66:PHE:CZ	11:C:155:ARG:NH1	2.84	0.46
11:C:250:GLN:HB3	11:C:254:LYS:HZ2	1.80	0.46
14:F:12:VAL:N	14:F:15:LEU:HB2	2.30	0.46
19:K:10:ALA:HB2	19:K:82:ALA:HB1	1.98	0.46
22:N:47:VAL:O	22:N:50:PRO:HD2	2.16	0.46
31:W:18:LYS:HG3	31:W:19:ARG:N	2.30	0.46
9:A:18:G:C5	9:A:19:C:N4	2.84	0.46
9:A:34:A:C2	9:A:44:G:C6	3.03	0.46
10:B:451:U:C5'	13:E:47:LYS:HZ1	2.15	0.46
10:B:577:G:O2'	10:B:1254:A:OP1	2.33	0.46
10:B:628:G:H2'	10:B:629:G:H8	1.81	0.46
10:B:705:A:N1	10:B:727:A:H1'	2.30	0.46
10:B:780:G:C2	10:B:782:A:C6	3.03	0.46
10:B:1016:G:N1	10:B:1147:A:C6	2.84	0.46
10:B:1239:G:C6	10:B:1240:U:C4	3.04	0.46
10:B:1309:G:N1	10:B:1310:G:C5	2.83	0.46
10:B:1420:A:C5'	10:B:2211:A:H62	2.29	0.46
10:B:1499:C:C2	10:B:1500:G:C8	3.03	0.46
10:B:1528:A:C8	10:B:1529:G:C8	3.03	0.46
10:B:1552:A:O2'	10:B:1553:A:H5'	2.15	0.46
10:B:1871:A:O5'	10:B:1871:A:H8	1.97	0.46
10:B:1994:C:C4	10:B:1995:U:C5	3.03	0.46
10:B:2061:G:O2'	10:B:2063:C:N4	2.37	0.46
10:B:2149:U:H2'	10:B:2150:C:C6	2.50	0.46
10:B:2512:C:H5''	12:D:127:PHE:CE1	2.51	0.46
10:B:2537:U:N3	10:B:2538:C:C4	2.83	0.46
10:B:2644:G:H5''	10:B:2645:G:OP2	2.16	0.46
12:D:80:TRP:CD1	12:D:202:ILE:HD11	2.50	0.46
13:E:148:ILE:HB	13:E:169:VAL:HG12	1.98	0.46
20:L:120:VAL:N	20:L:141:LYS:HD2	2.31	0.46
21:M:31:PHE:CE2	21:M:110:GLU:HA	2.50	0.46
29:U:23:LYS:HG2	29:U:24:VAL:O	2.16	0.46
6:5:9:ARG:NH1	10:B:2151:U:P	2.88	0.46
8:7:52:MET:HB2	8:7:87:GLU:HG3	1.98	0.46
10:B:216:A:H2'	10:B:217:A:O4'	2.16	0.46
10:B:522:A:H2'	10:B:523:C:C6	2.50	0.46
10:B:547:A:C8	10:B:548:G:H5'	2.47	0.46
10:B:632:A:C2	10:B:633:A:C4	3.03	0.46
10:B:873:C:H4'	21:M:64:TRP:HE1	1.81	0.46
10:B:915:C:C4	10:B:916:G:C5	3.03	0.46
10:B:942:G:N3	10:B:943:A:C8	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1129:A:C5	10:B:2570:G:H1'	2.51	0.46
10:B:1199:U:O4'	25:Q:3:VAL:HG22	2.16	0.46
10:B:1266:G:C2	10:B:2012:G:N7	2.84	0.46
10:B:1301:A:C6	10:B:1303:G:C5	3.04	0.46
10:B:1314:C:H5''	10:B:1315:C:OP2	2.15	0.46
10:B:1355:G:N3	10:B:1356:G:C8	2.84	0.46
10:B:1435:G:C2	10:B:1436:G:C5	3.04	0.46
10:B:1613:G:C5	10:B:1617:C:C4	3.03	0.46
10:B:1630:A:C6	10:B:1637:A:N1	2.84	0.46
10:B:1672:A:N6	10:B:1673:G:O6	2.49	0.46
10:B:2010:G:N2	10:B:2011:U:H1'	2.30	0.46
10:B:2216:G:H2'	10:B:2217:G:H8	1.80	0.46
10:B:2313:C:OP2	14:F:70:ARG:HB2	2.15	0.46
10:B:2428:G:C2	20:L:60:ARG:NH2	2.84	0.46
10:B:2727:A:H5''	10:B:2728:U:OP2	2.15	0.46
10:B:2747:G:N2	10:B:2748:A:N7	2.63	0.46
10:B:2772:C:H5'	12:D:173:GLN:HE22	1.79	0.46
10:B:2820:A:H4'	22:N:3:HIS:CD2	2.50	0.46
10:B:2853:C:H2'	10:B:2854:G:H8	1.80	0.46
23:O:17:LYS:HA	23:O:20:GLU:OE1	2.15	0.46
23:O:89:ASP:OD1	23:O:116:GLN:HB2	2.16	0.46
25:Q:96:ASP:OD1	26:R:13:ARG:NH1	2.48	0.46
27:S:84:ARG:CZ	27:S:98:LYS:HD2	2.45	0.46
7:6:315:VAL:HG22	7:6:340:VAL:HB	1.97	0.46
9:A:100:G:C5	9:A:101:A:C5	3.03	0.46
10:B:271:G:HO2'	10:B:272:A:H8	1.64	0.46
10:B:808:G:H5''	10:B:809:G:OP2	2.16	0.46
10:B:877:A:H8	10:B:877:A:O5'	1.99	0.46
10:B:877:A:H61	10:B:899:A:N6	2.14	0.46
10:B:917:A:H2'	10:B:917:A:N3	2.30	0.46
10:B:992:C:N3	10:B:1163:G:N1	2.63	0.46
10:B:1131:G:C6	18:J:77:HIS:CD2	3.03	0.46
10:B:1225:G:C5	10:B:1226:A:C6	3.03	0.46
10:B:1445:G:H2'	10:B:1446:C:H6	1.81	0.46
10:B:1527:G:C6	10:B:1543:G:H2'	2.50	0.46
10:B:1539:U:H2'	10:B:1540:G:C8	2.51	0.46
10:B:1614:A:N1	27:S:91:GLY:HA2	2.31	0.46
10:B:1717:A:H3'	10:B:1718:G:H8	1.80	0.46
10:B:1772:A:N1	10:B:1980:G:C6	2.83	0.46
10:B:1781:U:H3'	10:B:1782:U:H5'	1.98	0.46
10:B:1825:U:C2	10:B:1826:G:C8	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1842:G:C2	10:B:1901:A:C2	3.04	0.46
10:B:1945:G:H2'	10:B:1946:U:C6	2.50	0.46
10:B:1979:U:N3	10:B:1980:G:N7	2.64	0.46
10:B:2199:A:N1	10:B:2225:A:H1'	2.31	0.46
10:B:2230:G:H2'	10:B:2231:U:C6	2.51	0.46
10:B:2238:G:H8	10:B:2241:A:N6	2.10	0.46
10:B:2311:A:H3'	10:B:2311:A:OP1	2.16	0.46
10:B:2509:G:N2	10:B:2580:U:H1'	2.31	0.46
10:B:2584:U:H6	10:B:2584:U:O5'	1.98	0.46
10:B:2641:G:N1	10:B:2774:C:N3	2.64	0.46
13:E:154:ASP:HB2	13:E:157:LEU:HD12	1.98	0.46
14:F:16:MET:O	14:F:20:ASN:HA	2.15	0.46
15:G:59:ASP:OD2	15:G:63:GLN:HB2	2.16	0.46
21:M:73:ILE:HG22	21:M:90:GLU:OE2	2.16	0.46
22:N:118:ARG:HB3	22:N:121:LYS:N	2.31	0.46
24:P:14:GLN:OE1	24:P:14:GLN:N	2.49	0.46
25:Q:60:TRP:CH2	25:Q:93:ILE:HD12	2.49	0.46
27:S:74:ILE:HG13	27:S:105:VAL:CG2	2.46	0.46
29:U:39:ASN:O	29:U:61:GLU:HA	2.16	0.46
33:Y:10:SER:HA	33:Y:62:GLY:HA3	1.98	0.46
4:3:2:LYS:NZ	10:B:242:G:O5'	2.47	0.46
4:3:15:LYS:HG3	4:3:21:PHE:HE1	1.81	0.46
7:6:299:ASN:O	7:6:303:GLU:HG3	2.16	0.46
9:A:39:A:H2'	9:A:40:U:C6	2.51	0.46
9:A:82:U:HO2'	34:Z:52:PHE:HE2	1.64	0.46
10:B:32:C:H2'	10:B:33:C:H6	1.79	0.46
10:B:199:A:C6	10:B:2434:A:C6	3.03	0.46
10:B:232:G:N2	10:B:420:C:OP1	2.48	0.46
10:B:351:C:H2'	10:B:352:A:C8	2.50	0.46
10:B:440:C:C2	10:B:441:U:C5	3.04	0.46
10:B:464:U:H3	10:B:465:G:N2	2.14	0.46
10:B:585:G:H5''	10:B:586:A:P	2.56	0.46
10:B:647:G:C2	10:B:648:G:C4	3.04	0.46
10:B:738:G:C2	10:B:759:G:C6	3.04	0.46
10:B:862:G:C6	10:B:863:A:C4	3.03	0.46
10:B:866:A:N6	10:B:867:C:N3	2.63	0.46
10:B:980:A:N7	10:B:981:A:C6	2.83	0.46
10:B:1069:A:C8	10:B:1073:A:N7	2.84	0.46
10:B:1294:U:H5'	10:B:1295:C:OP2	2.15	0.46
10:B:1477:A:C4	10:B:1515:A:C6	3.03	0.46
10:B:1628:G:C6	10:B:1629:U:C4	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1754:A:C6	10:B:1755:A:C5	3.04	0.46
10:B:1758:U:H3'	10:B:1759:A:N7	2.30	0.46
10:B:1781:U:O2'	10:B:1782:U:OP1	2.27	0.46
10:B:1865:U:H4'	10:B:1866:A:OP1	2.16	0.46
10:B:1868:C:H2'	10:B:1869:G:C8	2.50	0.46
10:B:1945:G:H2'	10:B:1946:U:H6	1.80	0.46
10:B:2175:C:H2'	10:B:2176:A:H8	1.80	0.46
10:B:2190:G:C2	10:B:2191:A:C4	3.04	0.46
10:B:2244:U:H2'	10:B:2245:U:H6	1.79	0.46
10:B:2283:C:C2	10:B:2389:G:C2	3.04	0.46
10:B:2322:A:C4	10:B:2323:G:C8	3.04	0.46
10:B:2347:C:H2'	10:B:2348:U:C6	2.51	0.46
10:B:2509:G:C2	10:B:2510:C:C2	3.04	0.46
10:B:2521:C:N3	10:B:2545:G:N1	2.63	0.46
10:B:2620:C:H2'	10:B:2621:G:H8	1.78	0.46
10:B:2740:A:N7	10:B:2741:A:C6	2.84	0.46
10:B:2786:U:OP1	12:D:70:LYS:NZ	2.47	0.46
10:B:2867:G:C5	24:P:20:ARG:CZ	2.99	0.46
10:B:2895:G:H2'	10:B:2896:C:H6	1.80	0.46
12:D:33:ARG:NH2	12:D:73:VAL:N	2.64	0.46
12:D:142:VAL:HG12	12:D:143:PRO:O	2.15	0.46
15:G:73:SER:CB	15:G:137:LYS:HZ2	2.29	0.46
18:J:140:LEU:HD23	18:J:141:ASP:N	2.31	0.46
20:L:118:THR:HG22	20:L:119:PRO:O	2.15	0.46
22:N:38:LEU:HB3	22:N:39:PRO:HD3	1.97	0.46
25:Q:96:ASP:C	25:Q:98:ALA:H	2.18	0.46
30:V:77:VAL:O	30:V:79:ARG:N	2.49	0.46
31:W:19:ARG:HA	31:W:35:ILE:CG2	2.46	0.46
32:X:15:ASN:HD21	32:X:25:LYS:HD3	1.81	0.46
7:6:299:ASN:HA	7:6:302:LEU:HD12	1.98	0.46
7:6:372:LEU:HD12	7:6:379:LEU:HD11	1.98	0.46
8:7:26:VAL:HG22	8:7:84:TYR:HE1	1.77	0.46
8:7:80:THR:O	10:B:1107:G:H4'	2.16	0.46
10:B:1:G:C2	10:B:2:G:C4	3.03	0.46
10:B:17:G:C4	10:B:18:U:C5	3.04	0.46
10:B:83:A:N6	10:B:102:U:H5'	2.30	0.46
10:B:142:A:H2'	10:B:143:C:C6	2.51	0.46
10:B:161:A:OP2	10:B:162:U:O2'	2.28	0.46
10:B:308:G:N3	10:B:501:A:C8	2.83	0.46
10:B:498:G:N3	10:B:498:G:H2'	2.30	0.46
10:B:617:G:C6	10:B:618:G:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:702:U:O2'	10:B:703:U:O4'	2.25	0.46
10:B:909:A:H2'	10:B:912:C:C5	2.50	0.46
10:B:1139:G:C5'	18:J:72:LYS:HZ1	2.29	0.46
10:B:1163:G:C6	10:B:1164:C:C4	3.03	0.46
10:B:1227:G:C2	10:B:1228:G:C8	3.04	0.46
10:B:1230:A:C6	10:B:1231:U:C4	3.03	0.46
10:B:1270:C:H5''	10:B:1271:G:OP1	2.16	0.46
10:B:1331:G:O2'	10:B:1332:G:H5'	2.16	0.46
10:B:1374:G:N1	10:B:1375:U:C4	2.84	0.46
10:B:1443:U:C2	10:B:1444:G:C8	3.04	0.46
10:B:1544:A:C6	10:B:1545:A:C6	3.04	0.46
10:B:1830:C:H2'	10:B:1831:G:C8	2.51	0.46
10:B:1831:G:C4	10:B:1975:G:N2	2.84	0.46
10:B:1912:A:HO2'	10:B:1913:A:P	2.39	0.46
10:B:2034:U:C2	10:B:2035:G:N7	2.84	0.46
10:B:2041:U:C2	10:B:2042:A:C8	3.04	0.46
10:B:2082:A:H2'	10:B:2083:G:C8	2.50	0.46
10:B:2086:U:H2'	10:B:2087:G:C8	2.51	0.46
10:B:2392:A:C6	10:B:2429:G:C8	3.04	0.46
10:B:2517:C:O2	10:B:2542:A:N6	2.48	0.46
10:B:2544:G:H2'	10:B:2545:G:C8	2.51	0.46
10:B:2583:G:H3'	10:B:2584:U:H5	1.81	0.46
10:B:2822:G:H4'	10:B:2825:G:O6	2.16	0.46
11:C:76:VAL:HG23	11:C:94:LEU:O	2.16	0.46
11:C:89:ASN:HB2	11:C:196:ASN:ND2	2.31	0.46
13:E:124:PHE:HZ	13:E:137:LYS:HB3	1.80	0.46
14:F:11:VAL:H	14:F:13:LYS:HZ3	1.64	0.46
14:F:77:LYS:O	14:F:78:ILE:HB	2.16	0.46
15:G:79:THR:HG22	15:G:80:GLU:HG2	1.98	0.46
18:J:26:GLY:O	18:J:30:THR:HG23	2.16	0.46
19:K:103:THR:HB	19:K:105:GLU:HG2	1.98	0.46
20:L:29:LYS:HB2	20:L:29:LYS:HE3	1.72	0.46
22:N:118:ARG:HE	22:N:120:GLU:C	2.13	0.46
23:O:25:ARG:HB2	23:O:40:ILE:HG12	1.98	0.46
26:R:2:TYR:CD1	26:R:42:ALA:HB3	2.51	0.46
2:1:9:LYS:HD2	2:1:19:PHE:CD2	2.51	0.46
2:1:29:LYS:NZ	2:1:33:LEU:HB2	2.31	0.46
5:4:19:ARG:NH2	10:B:2755:C:H3'	2.30	0.46
5:4:33:HIS:O	5:4:35:GLN:N	2.49	0.46
6:5:47:ASN:HA	6:5:170:ILE:HG13	1.97	0.46
7:6:4:ARG:HH12	7:6:113:GLN:HE21	1.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:24:MET:HE3	7:6:257:ARG:NH1	2.27	0.46
10:B:6:A:C2'	10:B:7:G:H8	2.28	0.46
10:B:33:C:N4	10:B:473:G:H22	2.14	0.46
10:B:64:A:H2'	10:B:65:U:C6	2.51	0.46
10:B:186:G:C2	10:B:187:G:C8	3.04	0.46
10:B:250:G:H2'	10:B:250:G:N3	2.31	0.46
10:B:431:U:H2'	10:B:432:A:C8	2.43	0.46
10:B:588:U:H1'	13:E:85:PHE:CD1	2.51	0.46
10:B:713:G:H1'	10:B:719:C:O2	2.15	0.46
10:B:799:G:N1	10:B:800:A:N6	2.63	0.46
10:B:856:G:H4'	31:W:23:LYS:HD2	1.98	0.46
10:B:924:G:C2	10:B:925:A:C8	3.04	0.46
10:B:1019:U:C2	10:B:1142:A:N6	2.84	0.46
10:B:1030:C:H2'	10:B:1031:G:C8	2.50	0.46
10:B:1168:G:H2'	10:B:1169:A:C8	2.51	0.46
10:B:1389:G:C5	10:B:1390:U:C4	3.04	0.46
10:B:1425:G:H2'	10:B:1426:G:O4'	2.16	0.46
10:B:1491:G:N3	10:B:1492:G:C8	2.84	0.46
10:B:1642:G:H2'	10:B:1643:G:O4'	2.16	0.46
10:B:1769:U:N3	10:B:1984:G:O6	2.46	0.46
10:B:1778:U:H3'	10:B:1784:A:N6	2.31	0.46
10:B:1830:C:C2	10:B:1831:G:N7	2.84	0.46
10:B:1861:G:N1	10:B:1862:G:C5	2.84	0.46
10:B:1862:G:C6	10:B:1881:C:C4	3.04	0.46
10:B:1883:U:N3	10:B:1884:G:N2	2.63	0.46
10:B:1927:A:C2	10:B:1928:A:C4	3.04	0.46
10:B:2128:G:N3	10:B:2130:U:C4	2.83	0.46
10:B:2153:C:H2'	10:B:2154:A:C8	2.51	0.46
10:B:2218:G:H2'	10:B:2219:U:C6	2.51	0.46
10:B:2415:G:C6	10:B:2416:C:N3	2.84	0.46
10:B:2437:G:C5	10:B:2438:U:C5	3.04	0.46
10:B:2480:C:C2	10:B:2481:G:H1'	2.51	0.46
10:B:2670:A:C6	10:B:2671:G:C5	3.04	0.46
10:B:2739:U:H5''	10:B:2763:G:O6	2.16	0.46
10:B:2806:C:H2'	10:B:2807:U:C6	2.50	0.46
14:F:24:VAL:O	14:F:27:VAL:HG22	2.16	0.46
14:F:29:ARG:O	14:F:157:THR:HG23	2.16	0.46
15:G:144:ALA:O	15:G:147:LEU:HB3	2.16	0.46
18:J:81:ILE:HG12	18:J:82:GLY:H	1.79	0.46
20:L:74:THR:HG23	20:L:107:PHE:HB2	1.96	0.46
21:M:50:ARG:HB3	21:M:103:TYR:HE2	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:P:48:ALA:CB	24:P:58:PHE:HA	2.46	0.46
25:Q:46:TYR:O	25:Q:49:ARG:N	2.48	0.46
25:Q:86:SER:O	25:Q:88:GLU:N	2.49	0.46
5:4:34:LYS:HB3	5:4:36:ARG:NH2	2.31	0.46
6:5:176:GLY:HA3	6:5:185:LEU:HD22	1.98	0.46
6:5:193:LEU:HD12	6:5:231:ALA:HA	1.97	0.46
9:A:16:G:C2	9:A:17:C:C2	3.04	0.46
9:A:37:C:H42	9:A:44:G:H1	1.64	0.46
10:B:36:G:C4	10:B:37:C:C5	3.04	0.46
10:B:220:G:O6	10:B:427:U:H3'	2.15	0.46
10:B:242:G:H22	10:B:254:G:H3'	1.81	0.46
10:B:298:G:H5'	29:U:85:ARG:HH21	1.80	0.46
10:B:412:A:C6	10:B:413:C:C2	3.04	0.46
10:B:436:C:H2'	10:B:437:U:C6	2.50	0.46
10:B:533:G:H1	10:B:560:C:N4	2.14	0.46
10:B:552:U:C2	10:B:553:G:C8	3.03	0.46
10:B:636:G:P	20:L:128:THR:HG22	2.56	0.46
10:B:648:G:N1	10:B:649:G:N7	2.64	0.46
10:B:808:G:H2'	10:B:809:G:C8	2.51	0.46
10:B:841:G:C4	10:B:842:U:C5	3.04	0.46
10:B:986:C:C4	10:B:987:C:C4	3.04	0.46
10:B:1010:A:H4'	25:Q:75:TYR:HD2	1.81	0.46
10:B:1111:A:H1'	10:B:1112:G:H1'	1.98	0.46
10:B:1178:C:C2	10:B:1179:G:C8	3.04	0.46
10:B:1303:G:C6	10:B:1304:A:C5	3.03	0.46
10:B:1432:G:H2'	10:B:1433:A:C8	2.51	0.46
10:B:1434:A:C8	10:B:1435:G:C8	3.03	0.46
10:B:1817:G:N2	10:B:1818:U:H1'	2.31	0.46
10:B:1861:G:C2	10:B:1862:G:C8	3.04	0.46
10:B:1935:G:C2	10:B:1962:C:C2	3.04	0.46
10:B:2470:G:C5	10:B:2481:G:N2	2.81	0.46
10:B:2486:C:N3	10:B:2487:G:C8	2.84	0.46
10:B:2536:G:C4	10:B:2537:U:C5	3.04	0.46
10:B:2549:G:C6	10:B:2560:A:C6	3.04	0.46
10:B:2637:U:H5	10:B:2638:G:C6	2.34	0.46
10:B:2835:A:C2	10:B:2879:A:C5	3.03	0.46
11:C:130:PRO:CA	11:C:188:ARG:HG2	2.46	0.46
14:F:93:GLU:HA	14:F:96:TRP:CZ3	2.51	0.46
15:G:148:ARG:HD3	15:G:163:TYR:H	1.80	0.46
17:I:4:VAL:HG12	17:I:5:GLN:N	2.31	0.46
23:O:81:ARG:HG2	23:O:84:GLU:CD	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:P:6:GLN:O	24:P:10:GLU:N	2.46	0.46
26:R:37:GLU:HB2	26:R:53:PHE:HD1	1.79	0.46
33:Y:44:LYS:HA	33:Y:47:ARG:CD	2.46	0.46
34:Z:26:LEU:HD11	34:Z:46:MET:HB3	1.98	0.46
7:6:230:ALA:HB3	35:6:527:GNP:N3B	2.31	0.45
7:6:371:ARG:HG2	7:6:424:TYR:CE2	2.51	0.45
7:6:375:GLN:HG3	7:6:378:ARG:HH12	1.79	0.45
10:B:15:G:C5	10:B:16:C:C5	3.04	0.45
10:B:89:A:C5	10:B:90:U:C4	3.03	0.45
10:B:141:G:C2	10:B:142:A:O4'	2.69	0.45
10:B:199:A:N7	10:B:2433:A:C6	2.84	0.45
10:B:203:A:C6	10:B:204:A:N6	2.83	0.45
10:B:329:G:H22	29:U:16:LYS:HZ1	1.64	0.45
10:B:467:G:N2	10:B:468:G:N3	2.63	0.45
10:B:483:A:O2'	29:U:56:GLY:HA2	2.16	0.45
10:B:553:G:H2'	10:B:554:U:O4'	2.17	0.45
10:B:636:G:O2'	10:B:637:A:O5'	2.34	0.45
10:B:732:C:N3	10:B:733:G:C5	2.85	0.45
10:B:1011:G:C2	10:B:1151:A:C4	3.04	0.45
10:B:1041:G:C2	10:B:1042:G:C8	3.04	0.45
10:B:1078:U:C5'	17:I:133:ARG:HH12	2.29	0.45
10:B:1394:U:O4	10:B:1395:A:C6	2.69	0.45
10:B:1417:C:H4'	10:B:1587:G:H21	1.82	0.45
10:B:1717:A:N6	10:B:1743:G:O2'	2.44	0.45
10:B:1769:U:N3	10:B:1984:G:C6	2.84	0.45
10:B:1770:G:C2	10:B:1983:G:C4	3.04	0.45
10:B:2049:G:C4	10:B:2050:C:C5	3.04	0.45
10:B:2417:C:C2	10:B:2418:A:C8	3.04	0.45
10:B:2470:G:N2	10:B:2471:A:C4	2.85	0.45
10:B:2487:G:C4	10:B:2488:G:C8	3.03	0.45
10:B:2520:C:HO2'	10:B:2565:A:HO2'	1.48	0.45
10:B:2627:G:C2	10:B:2777:G:C6	3.04	0.45
10:B:2630:G:H1'	10:B:2894:G:N3	2.31	0.45
10:B:2642:G:N2	10:B:2772:C:N3	2.53	0.45
10:B:2714:G:C6	10:B:2715:C:C4	3.04	0.45
12:D:7:LYS:HD3	12:D:77:ARG:NH2	2.29	0.45
14:F:73:VAL:HA	14:F:79:ARG:HH11	1.81	0.45
14:F:141:ASP:HB2	14:F:144:LYS:HD3	1.98	0.45
18:J:37:ARG:NH2	18:J:43:GLU:OE2	2.43	0.45
18:J:64:VAL:HG11	18:J:69:ARG:HH11	1.81	0.45
19:K:23:VAL:HA	19:K:38:ILE:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:36:TYR:HA	23:O:52:SER:CB	2.46	0.45
30:V:49:ASN:O	30:V:52:ALA:HB3	2.17	0.45
6:5:133:PRO:HA	10:B:2121:G:N7	2.30	0.45
8:7:99:PHE:O	8:7:108:VAL:HG12	2.16	0.45
9:A:66:A:C5'	9:A:108:A:H61	2.29	0.45
10:B:9:G:OP2	18:J:120:ARG:NH2	2.49	0.45
10:B:58:G:H8	10:B:58:G:OP2	2.00	0.45
10:B:132:G:H2'	10:B:133:U:H6	1.79	0.45
10:B:187:G:C6	10:B:188:G:C5	3.04	0.45
10:B:214:G:H2'	10:B:215:G:C8	2.51	0.45
10:B:245:G:C2	10:B:246:C:C6	3.05	0.45
10:B:265:A:C6	10:B:428:A:C5	3.04	0.45
10:B:299:A:C5	10:B:322:A:C2	3.04	0.45
10:B:379:G:C2	10:B:380:G:C8	3.04	0.45
10:B:652:U:OP2	10:B:653:U:N3	2.44	0.45
10:B:713:G:H2'	10:B:714:U:C6	2.51	0.45
10:B:815:C:N4	10:B:1192:G:H1	2.15	0.45
10:B:836:G:C5	10:B:837:C:N3	2.85	0.45
10:B:847:U:H5	10:B:932:U:H1'	1.82	0.45
10:B:1083:U:H1'	10:B:1085:A:N7	2.30	0.45
10:B:1331:G:C5	10:B:1333:G:N7	2.84	0.45
10:B:1361:G:C6	10:B:1362:C:C4	3.05	0.45
10:B:1394:U:H2'	10:B:1395:A:H5'	1.97	0.45
10:B:1681:G:C5	10:B:1762:A:C6	3.05	0.45
10:B:1754:A:H2'	10:B:1755:A:O4'	2.16	0.45
10:B:1839:G:C5	10:B:1840:G:C8	3.04	0.45
10:B:2003:A:H2'	10:B:2004:G:C8	2.51	0.45
10:B:2073:C:H2'	10:B:2074:U:H6	1.81	0.45
10:B:2074:U:H4'	10:B:2598:A:H1'	1.97	0.45
10:B:2224:G:O6	16:H:135:HIS:NE2	2.49	0.45
10:B:2298:A:C5	10:B:2299:U:C4	3.04	0.45
10:B:2327:A:C6	10:B:2328:A:C6	3.05	0.45
10:B:2399:G:C6	10:B:2418:A:C6	3.04	0.45
10:B:2470:G:C2	10:B:2471:A:C8	3.05	0.45
10:B:2575:C:H5''	10:B:2576:G:OP2	2.16	0.45
10:B:2592:G:N2	10:B:2603:G:C4	2.85	0.45
10:B:2659:G:O2'	15:G:176:LYS:HG3	2.16	0.45
10:B:2746:U:H2'	10:B:2747:G:O4'	2.16	0.45
10:B:2808:G:H4'	10:B:2809:A:C5'	2.46	0.45
11:C:144:GLU:OE1	11:C:187:CYS:HA	2.16	0.45
11:C:250:GLN:HG3	11:C:252:LYS:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:D:33:ARG:CG	12:D:93:GLY:HA3	2.46	0.45
23:O:80:GLU:O	23:O:83:LEU:HB3	2.16	0.45
23:O:99:TYR:OH	23:O:111:ARG:NH2	2.45	0.45
1:O:8:THR:O	1:O:12:ARG:N	2.48	0.45
4:3:15:LYS:HG3	4:3:21:PHE:CE1	2.51	0.45
6:5:53:ARG:HB3	6:5:203:GLN:HE21	1.82	0.45
9:A:28:C:C2	9:A:29:A:C8	3.05	0.45
10:B:58:G:C2	10:B:59:U:C2	3.04	0.45
10:B:136:G:C6	10:B:144:A:C6	3.04	0.45
10:B:327:G:N1	10:B:335:C:O2	2.47	0.45
10:B:530:G:H5''	10:B:531:C:OP2	2.15	0.45
10:B:733:G:N2	10:B:734:A:N7	2.64	0.45
10:B:792:A:N6	10:B:2440:C:O5'	2.48	0.45
10:B:809:G:C4	10:B:810:U:C5	3.05	0.45
10:B:851:C:N3	10:B:852:U:C4	2.84	0.45
10:B:958:U:H3	21:M:40:ARG:NE	2.13	0.45
10:B:998:C:N3	10:B:999:U:C2	2.84	0.45
10:B:1327:A:N7	10:B:1328:A:N3	2.64	0.45
10:B:1356:G:C5	10:B:1357:C:C5	3.04	0.45
10:B:1438:U:OP2	10:B:1552:A:N6	2.50	0.45
10:B:1456:G:H2'	10:B:1457:U:O4'	2.16	0.45
10:B:1491:G:C2	10:B:1492:G:C5	3.04	0.45
10:B:1571:A:C2	10:B:1572:A:C4	3.04	0.45
10:B:1685:C:H2'	10:B:1686:C:C6	2.50	0.45
10:B:1695:G:O2'	11:C:8:THR:HA	2.16	0.45
10:B:1818:U:OP2	11:C:155:ARG:NE	2.49	0.45
10:B:1897:G:H2'	10:B:1898:U:H6	1.80	0.45
10:B:2023:C:C2	10:B:2024:G:C8	3.03	0.45
10:B:2027:G:C6	10:B:2028:U:N3	2.84	0.45
10:B:2032:G:C2	12:D:150:GLN:CG	2.92	0.45
10:B:2168:G:N2	10:B:2171:A:OP2	2.49	0.45
10:B:2189:U:C2	10:B:2190:G:C8	3.04	0.45
10:B:2383:G:C5	10:B:2384:U:C4	3.05	0.45
10:B:2472:G:C5	10:B:2475:C:C4	3.04	0.45
10:B:2592:G:C6	10:B:2593:U:N3	2.85	0.45
10:B:2621:G:C6	10:B:2622:U:C4	3.04	0.45
10:B:2843:G:C2	10:B:2844:G:C4	3.03	0.45
11:C:132:ARG:NE	16:H:120:GLY:O	2.49	0.45
15:G:8:VAL:CB	15:G:49:LEU:HD12	2.46	0.45
16:H:143:ILE:HG22	16:H:145:ASN:H	1.81	0.45
17:I:102:ARG:O	17:I:106:GLN:HG2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:25:ARG:CZ	23:O:40:ILE:HD11	2.45	0.45
26:R:91:GLN:NE2	26:R:92:TRP:H	2.14	0.45
30:V:2:PHE:HE2	30:V:59:GLU:OE2	2.00	0.45
31:W:50:VAL:HG12	31:W:51:GLY:O	2.16	0.45
2:1:24:LYS:HZ1	2:1:26:LYS:HG2	1.81	0.45
7:6:328:ARG:HB2	7:6:341:TRP:NE1	2.31	0.45
8:7:61:ARG:NE	10:B:1047:G:OP2	2.45	0.45
10:B:17:G:H2'	10:B:18:U:C6	2.51	0.45
10:B:247:G:N2	10:B:252:G:C5	2.84	0.45
10:B:310:A:OP1	29:U:15:GLY:N	2.49	0.45
10:B:319:G:H2'	10:B:320:A:O4'	2.16	0.45
10:B:380:G:C2	10:B:381:G:C4	3.04	0.45
10:B:402:A:H3'	10:B:403:U:C6	2.51	0.45
10:B:497:A:C4	10:B:498:G:C8	3.04	0.45
10:B:529:A:C5	10:B:2023:C:C5	3.05	0.45
10:B:746:U:H5''	10:B:747:U:H5'	1.98	0.45
10:B:953:G:C6	10:B:965:C:N4	2.85	0.45
10:B:1022:G:C6	10:B:1140:C:C5	3.05	0.45
10:B:1116:G:O2'	10:B:1117:C:H5'	2.16	0.45
10:B:1352:U:O2'	10:B:1353:A:H5'	2.17	0.45
10:B:1774:C:H5''	10:B:1775:U:OP2	2.16	0.45
10:B:1825:U:OP2	11:C:51:ARG:NH2	2.49	0.45
10:B:1834:U:C4	10:B:1900:A:N6	2.84	0.45
10:B:1877:A:C6	10:B:1878:G:C5	3.04	0.45
10:B:2117:A:N1	10:B:2164:C:C4	2.84	0.45
10:B:2140:G:C6	10:B:2152:G:C6	3.05	0.45
10:B:2227:A:C5	10:B:2228:G:C5	3.04	0.45
10:B:2366:A:C5	10:B:2367:G:C5	3.05	0.45
10:B:2392:A:C5	10:B:2393:U:C5	3.04	0.45
10:B:2447:G:N2	10:B:2450:A:OP2	2.49	0.45
10:B:2461:A:N1	10:B:2490:G:N2	2.65	0.45
10:B:2592:G:H2'	10:B:2593:U:O4'	2.17	0.45
10:B:2624:G:C2	10:B:2625:G:C8	3.05	0.45
10:B:2704:C:H2'	10:B:2705:A:C4	2.52	0.45
12:D:121:THR:HB	12:D:127:PHE:HD2	1.82	0.45
15:G:42:VAL:HG23	15:G:50:THR:O	2.15	0.45
15:G:120:ILE:HG13	15:G:133:LYS:C	2.37	0.45
17:I:49:GLU:HB3	17:I:52:LEU:CD1	2.46	0.45
17:I:93:ASN:OD1	17:I:133:ARG:HB2	2.17	0.45
17:I:102:ARG:N	17:I:140:GLU:O	2.49	0.45
22:N:33:ILE:O	22:N:33:ILE:HG13	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:24:THR:HG22	23:O:42:PRO:HD3	1.99	0.45
30:V:2:PHE:HB3	30:V:61:LEU:HD23	1.99	0.45
31:W:45:HIS:CD2	31:W:49:ASN:O	2.69	0.45
4:3:51:LYS:HA	4:3:54:LEU:HB2	1.99	0.45
6:5:218:MET:HB3	10:B:2128:G:N2	2.31	0.45
7:6:10:GLN:N	7:6:40:GLU:HB3	2.31	0.45
7:6:311:PRO:HB2	7:6:360:ARG:NH2	2.27	0.45
9:A:20:G:C4	9:A:21:G:C8	3.05	0.45
10:B:19:A:C4	10:B:20:C:C5	3.04	0.45
10:B:197:A:N6	10:B:2430:A:H2'	2.31	0.45
10:B:406:G:H2'	10:B:407:G:C8	2.47	0.45
10:B:528:A:N6	10:B:2042:A:C5	2.84	0.45
10:B:596:U:C2	10:B:597:G:C8	3.04	0.45
10:B:669:G:C6	10:B:801:G:O6	2.70	0.45
10:B:914:G:O2'	10:B:915:C:OP1	2.29	0.45
10:B:917:A:N3	10:B:918:A:C8	2.85	0.45
10:B:1067:A:C6	10:B:1068:G:C6	3.05	0.45
10:B:1170:C:N4	10:B:1171:G:O6	2.50	0.45
10:B:1238:G:C2	10:B:1239:G:C8	3.05	0.45
10:B:1268:A:C6	10:B:2013:A:N7	2.84	0.45
10:B:1283:G:H22	10:B:1286:A:P	2.38	0.45
10:B:1759:A:N6	10:B:2696:U:O2'	2.49	0.45
10:B:1787:A:H4'	10:B:2589:A:H4'	1.99	0.45
10:B:1867:G:C6	10:B:1875:G:C2	3.05	0.45
10:B:1949:G:H2'	10:B:1950:G:H8	1.77	0.45
10:B:1996:C:H1'	10:B:1997:C:O4'	2.17	0.45
10:B:2024:G:C5	10:B:2025:C:C4	3.05	0.45
10:B:2048:G:N2	10:B:2049:G:H1'	2.31	0.45
10:B:2175:C:H2'	10:B:2176:A:C8	2.51	0.45
10:B:2527:C:H42	10:B:2536:G:H1	1.63	0.45
10:B:2537:U:H2'	10:B:2538:C:C6	2.52	0.45
10:B:2544:G:H2'	10:B:2545:G:H8	1.82	0.45
10:B:2630:G:C8	10:B:2894:G:C8	3.04	0.45
10:B:2644:G:N2	10:B:2645:G:H22	2.15	0.45
10:B:2652:C:O2	10:B:2668:G:N1	2.46	0.45
10:B:2705:A:N6	10:B:2706:A:C2	2.84	0.45
10:B:2791:G:C4	10:B:2792:A:C8	3.05	0.45
10:B:2842:G:H2'	10:B:2843:G:H8	1.82	0.45
12:D:20:VAL:O	12:D:21:SER:HB2	2.16	0.45
14:F:3:LEU:HB2	14:F:96:TRP:CG	2.51	0.45
14:F:31:GLU:N	14:F:156:THR:O	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:I:96:LYS:HD3	17:I:138:VAL:HG22	1.98	0.45
18:J:32:LEU:HD22	18:J:54:ILE:HD11	1.98	0.45
20:L:29:LYS:HE3	26:R:82:HIS:CE1	2.52	0.45
26:R:34:GLU:OE2	26:R:60:LYS:HA	2.15	0.45
27:S:51:LEU:O	27:S:55:ILE:N	2.41	0.45
28:T:44:LYS:HZ2	28:T:55:VAL:HG12	1.81	0.45
31:W:22:VAL:HG22	31:W:25:PHE:HB2	1.98	0.45
31:W:48:ALA:O	31:W:61:LYS:HB2	2.16	0.45
2:1:8:ILE:HG21	2:1:26:LYS:HE3	1.98	0.45
7:6:324:ASP:OD2	7:6:341:TRP:HE3	1.97	0.45
9:A:30:C:N4	9:A:53:A:H61	2.15	0.45
9:A:81:G:C6	9:A:96:G:C5	3.05	0.45
9:A:102:G:H2'	9:A:103:U:H6	1.81	0.45
9:A:106:G:C5	9:A:107:G:C5	3.05	0.45
10:B:18:U:C2	10:B:19:A:N7	2.85	0.45
10:B:194:G:C6	10:B:195:A:C5	3.05	0.45
10:B:338:G:C5	10:B:339:U:C4	3.05	0.45
10:B:594:U:C4	10:B:595:C:C4	3.05	0.45
10:B:673:C:H2'	10:B:674:G:H8	1.78	0.45
10:B:678:C:C2	10:B:679:C:C6	3.05	0.45
10:B:868:U:C4	10:B:869:G:C5	3.04	0.45
10:B:910:A:C8	21:M:13:HIS:CG	3.05	0.45
10:B:974:G:C5	10:B:1186:G:C2	3.05	0.45
10:B:1039:A:H4'	30:V:45:ASP:OD2	2.16	0.45
10:B:1093:G:C2	17:I:3:LYS:HB3	2.52	0.45
10:B:1131:G:C4	18:J:77:HIS:CE1	3.05	0.45
10:B:1202:G:C6	10:B:1203:U:N3	2.85	0.45
10:B:1205:A:H4'	10:B:1206:G:OP2	2.16	0.45
10:B:1230:A:C5	10:B:1231:U:C4	3.04	0.45
10:B:1269:A:H2'	10:B:1270:C:C6	2.52	0.45
10:B:1385:A:H4'	10:B:1386:C:OP1	2.16	0.45
10:B:1458:U:C5	10:B:2702:G:N1	2.85	0.45
10:B:1527:G:H1'	10:B:1546:G:N2	2.31	0.45
10:B:1729:U:C4	10:B:1731:G:N2	2.85	0.45
10:B:1850:G:C6	10:B:1851:U:C4	3.04	0.45
10:B:2122:U:O5'	10:B:2122:U:H6	1.99	0.45
10:B:2199:A:O2'	16:H:28:ASN:ND2	2.49	0.45
10:B:2272:U:HO2'	10:B:2273:A:P	2.38	0.45
10:B:2345:G:H1'	10:B:2381:A:H2'	1.98	0.45
10:B:2358:A:C5	10:B:2359:C:C5	3.05	0.45
10:B:2506:U:O2'	10:B:2507:C:O5'	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2563:U:H4'	19:K:26:GLY:O	2.16	0.45
10:B:2643:G:C6	10:B:2644:G:C5	3.05	0.45
10:B:2819:G:C6	10:B:2821:A:C2	3.05	0.45
10:B:2846:G:O3'	24:P:49:ILE:HD11	2.16	0.45
10:B:2863:C:OP1	24:P:112:ARG:HD2	2.16	0.45
11:C:54:GLY:N	11:C:216:ARG:HG3	2.32	0.45
12:D:33:ARG:HE	12:D:74:GLU:HB2	1.82	0.45
13:E:49:ARG:O	13:E:74:LYS:HD3	2.17	0.45
15:G:156:TYR:CG	15:G:175:LYS:NZ	2.82	0.45
17:I:2:LYS:C	17:I:3:LYS:HD2	2.37	0.45
17:I:9:LYS:HA	17:I:56:VAL:O	2.17	0.45
19:K:63:ARG:HG2	19:K:78:PHE:CE2	2.51	0.45
27:S:33:LEU:O	27:S:36:LEU:HB2	2.17	0.45
7:6:51:ALA:HA	7:6:52:PRO:HD3	1.81	0.45
7:6:78:VAL:CG1	7:6:100:VAL:HG22	2.47	0.45
8:7:59:LEU:O	8:7:63:ALA:N	2.37	0.45
8:7:132:TYR:HE1	8:7:153:ARG:HH21	1.64	0.45
10:B:27:G:C5	10:B:512:G:N1	2.85	0.45
10:B:91:A:N3	10:B:91:A:H2'	2.32	0.45
10:B:102:U:H6	10:B:102:U:H2'	1.56	0.45
10:B:251:A:N1	10:B:252:G:H1'	2.32	0.45
10:B:252:G:P	20:L:47:ARG:NH2	2.85	0.45
10:B:289:G:H2'	10:B:290:U:H6	1.78	0.45
10:B:291:G:H2'	10:B:292:U:H6	1.82	0.45
10:B:445:C:O2'	25:Q:2:ARG:NH1	2.49	0.45
10:B:464:U:C2	10:B:788:A:C6	3.05	0.45
10:B:711:G:C6	10:B:721:A:C6	3.04	0.45
10:B:754:U:C2	10:B:755:U:C5	3.04	0.45
10:B:945:A:N1	10:B:2448:A:C4	2.85	0.45
10:B:1323:C:H3'	10:B:1324:G:H5''	1.98	0.45
10:B:1424:G:N1	10:B:1425:G:C2	2.85	0.45
10:B:1665:A:H5''	19:K:65:LYS:HG3	1.99	0.45
10:B:1789:A:OP2	11:C:220:ARG:NE	2.50	0.45
10:B:1881:C:H2'	10:B:1882:U:O4'	2.16	0.45
10:B:1952:A:C6	10:B:1953:A:N1	2.84	0.45
10:B:2083:G:C6	10:B:2084:C:C2	3.05	0.45
10:B:2265:U:C4	10:B:2266:A:C6	3.04	0.45
10:B:2374:C:N4	10:B:2375:G:O6	2.49	0.45
10:B:2483:C:C4	10:B:2484:G:C8	3.04	0.45
10:B:2523:G:C6	10:B:2524:G:N7	2.85	0.45
10:B:2588:G:N2	10:B:2589:A:C4	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2597:G:C6	10:B:2598:A:N1	2.85	0.45
10:B:2634:A:N3	10:B:2635:A:C8	2.85	0.45
10:B:2839:G:C6	10:B:2840:C:C2	3.04	0.45
12:D:33:ARG:HH21	12:D:73:VAL:HA	1.81	0.45
14:F:7:TYR:CD2	14:F:11:VAL:HG11	2.51	0.45
15:G:104:LEU:HD11	15:G:147:LEU:HD11	1.99	0.45
16:H:2:GLN:HA	16:H:19:VAL:O	2.17	0.45
17:I:38:CYS:O	17:I:42:ASN:N	2.33	0.45
23:O:34:HIS:CD2	23:O:54:VAL:HG22	2.51	0.45
25:Q:27:ARG:HG2	25:Q:33:VAL:HG12	1.99	0.45
27:S:69:LEU:HB3	27:S:107:VAL:CG1	2.46	0.45
27:S:108:SER:OG	27:S:109:ASP:N	2.47	0.45
4:3:20:GLY:HA3	4:3:48:MET:HE1	1.98	0.45
6:5:3:LYS:HE2	10:B:2177:C:N4	2.32	0.45
7:6:30:PHE:O	7:6:34:VAL:HG23	2.17	0.45
7:6:147:LYS:HZ2	7:6:159:GLN:CD	2.20	0.45
8:7:37:LYS:NZ	8:7:83:ALA:HB1	2.32	0.45
9:A:36:C:N4	9:A:49:C:HI'	2.32	0.45
9:A:45:A:C6	9:A:46:A:C4	3.05	0.45
10:B:85:G:C5	10:B:86:G:C8	3.05	0.45
10:B:203:A:N7	10:B:204:A:C5	2.85	0.45
10:B:301:G:C5	10:B:302:C:C4	3.05	0.45
10:B:374:A:C6	10:B:375:G:C5	3.05	0.45
10:B:393:C:H2'	10:B:394:C:H6	1.81	0.45
10:B:618:G:C4	10:B:619:G:C8	3.04	0.45
10:B:695:G:C2	10:B:768:G:C4	3.05	0.45
10:B:740:C:N4	10:B:757:G:H22	2.15	0.45
10:B:795:C:C2	10:B:796:C:C6	3.05	0.45
10:B:820:A:C4	10:B:821:A:C8	3.05	0.45
10:B:843:G:N2	10:B:936:A:C4	2.85	0.45
10:B:856:G:C2	10:B:857:G:C4	3.05	0.45
10:B:859:G:O2'	10:B:916:G:O6	2.28	0.45
10:B:876:C:H2'	10:B:877:A:C1'	2.47	0.45
10:B:879:G:C5	10:B:880:G:C5	3.04	0.45
10:B:880:G:C6	10:B:895:U:N3	2.85	0.45
10:B:1007:C:C5	10:B:1008:A:C5	3.05	0.45
10:B:1011:G:C6	10:B:1013:C:N3	2.85	0.45
10:B:1017:G:H2'	10:B:1018:U:C6	2.52	0.45
10:B:1151:A:H4'	25:Q:80:ASN:HD22	1.82	0.45
10:B:1249:U:OP2	20:L:21:ARG:NH2	2.50	0.45
10:B:1290:C:C4	10:B:1291:C:N4	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1359:A:H62	10:B:1372:U:H3	1.65	0.45
10:B:1666:G:O2'	10:B:1667:G:H5'	2.17	0.45
10:B:1691:C:O2	10:B:1696:G:N1	2.50	0.45
10:B:1795:C:N3	10:B:1824:G:N2	2.59	0.45
10:B:2048:G:C6	10:B:2621:G:N1	2.85	0.45
10:B:2198:A:C2	16:H:29:PHE:CG	3.05	0.45
10:B:2239:G:C6	10:B:2240:U:N3	2.85	0.45
10:B:2333:A:H5'	10:B:2335:A:H1'	1.98	0.45
10:B:2372:U:H2'	10:B:2373:G:C8	2.52	0.45
10:B:2410:G:C2	10:B:2411:A:C4	3.04	0.45
10:B:2428:G:N2	20:L:54:GLN:HE21	2.15	0.45
10:B:2825:G:C6	10:B:2826:A:C5	3.05	0.45
11:C:97:ASP:OD2	11:C:99:GLU:OE2	2.34	0.45
11:C:229:HIS:HE1	11:C:231:HIS:HD2	1.64	0.45
12:D:15:PHE:HB2	24:P:11:GLN:HE21	1.82	0.45
12:D:109:VAL:HB	12:D:175:LEU:HD12	1.98	0.45
14:F:168:LEU:O	14:F:170:ALA:N	2.50	0.45
18:J:13:ARG:HH22	18:J:49:ASP:C	2.20	0.45
21:M:73:ILE:HG21	21:M:91:TYR:OH	2.17	0.45
24:P:110:LYS:O	24:P:114:ASN:ND2	2.47	0.45
27:S:83:LYS:HG2	27:S:97:LEU:HD23	1.99	0.45
30:V:46:LYS:HB3	30:V:46:LYS:HE2	1.77	0.45
2:1:24:LYS:NZ	2:1:26:LYS:HA	2.32	0.45
6:5:41:SER:HB3	6:5:174:THR:HG23	1.99	0.45
7:6:15:HIS:CD2	7:6:81:ASP:OD2	2.64	0.45
7:6:23:ASP:O	7:6:24:MET:HG2	2.17	0.45
9:A:52:A:C5	9:A:53:A:C4	3.04	0.45
10:B:21:A:C4	10:B:520:G:C2	3.05	0.45
10:B:102:U:C1'	33:Y:4:LYS:NZ	2.79	0.45
10:B:150:U:H2'	10:B:151:C:O4'	2.17	0.45
10:B:258:G:C4	10:B:259:G:C8	3.05	0.45
10:B:465:G:C6	10:B:466:A:N1	2.85	0.45
10:B:476:G:N1	10:B:479:A:OP2	2.50	0.45
10:B:493:G:H2'	10:B:494:G:O4'	2.17	0.45
10:B:501:A:C2	10:B:502:A:C4	3.05	0.45
10:B:524:G:H2'	10:B:525:U:C6	2.51	0.45
10:B:567:U:N3	10:B:568:U:O2	2.49	0.45
10:B:577:G:N2	10:B:578:G:C5	2.85	0.45
10:B:651:G:HO2'	10:B:652:U:P	2.38	0.45
10:B:668:A:C6	10:B:670:A:C6	3.05	0.45
10:B:701:G:H1	10:B:731:C:N4	2.14	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:776:G:N7	10:B:793:A:C8	2.85	0.45
10:B:873:C:H1'	21:M:28:PHE:HE1	1.82	0.45
10:B:915:C:N3	10:B:916:G:C4	2.85	0.45
10:B:1011:G:N1	10:B:1151:A:C5	2.85	0.45
10:B:1014:A:C5	10:B:1015:U:C4	3.04	0.45
10:B:1026:G:H2'	10:B:1027:A:C8	2.52	0.45
10:B:1057:A:P	10:B:1057:A:H8	2.40	0.45
10:B:1062:G:C1'	10:B:1088:A:H62	2.28	0.45
10:B:1081:U:O3'	17:I:118:GLY:HA2	2.16	0.45
10:B:1125:G:C6	10:B:1126:A:N6	2.84	0.45
10:B:1307:A:C6	10:B:1622:G:C6	3.05	0.45
10:B:1410:G:H2'	10:B:1411:U:C6	2.52	0.45
10:B:1434:A:H62	10:B:1558:C:N4	2.14	0.45
10:B:1623:G:C6	10:B:1624:U:C4	3.05	0.45
10:B:1642:G:C2	10:B:1643:G:C4	3.05	0.45
10:B:1754:A:C2	10:B:1755:A:C4	3.05	0.45
10:B:1907:G:C6	10:B:1908:C:N3	2.84	0.45
10:B:1909:C:O2	10:B:1921:G:N1	2.44	0.45
10:B:2027:G:C6	10:B:2028:U:C2	3.04	0.45
10:B:2035:G:OP1	10:B:2036:C:N4	2.38	0.45
10:B:2054:A:N1	10:B:2616:C:C4	2.85	0.45
10:B:2285:C:O2	10:B:2346:A:N6	2.50	0.45
10:B:2331:G:N7	10:B:2332:C:N4	2.65	0.45
10:B:2355:G:C6	10:B:2356:U:N3	2.83	0.45
10:B:2414:G:C2	10:B:2415:G:C4	3.05	0.45
10:B:2465:C:H2'	10:B:2466:C:C6	2.52	0.45
10:B:2485:G:H2'	10:B:2486:C:C6	2.52	0.45
10:B:2657:A:H2'	10:B:2658:C:H5'	1.99	0.45
10:B:2721:A:C2	10:B:2873:A:C5	3.05	0.45
10:B:2785:C:H2'	10:B:2786:U:C6	2.51	0.45
10:B:2836:U:H2'	10:B:2837:A:H8	1.82	0.45
10:B:2852:G:P	22:N:64:ARG:HH22	2.37	0.45
12:D:35:THR:HB	12:D:67:HIS:HE1	1.82	0.45
12:D:138:LEU:O	12:D:139:SER:OG	2.30	0.45
12:D:179:ARG:O	12:D:188:LEU:HB2	2.16	0.45
14:F:62:GLN:HB3	14:F:63:LYS:H	1.48	0.45
16:H:144:VAL:O	16:H:146:VAL:HG23	2.17	0.45
19:K:46:ILE:HG13	19:K:47:PRO:HD2	1.99	0.45
19:K:62:VAL:HG23	19:K:82:ALA:HB3	1.99	0.45
20:L:23:ILE:CD1	26:R:84:ARG:HD3	2.47	0.45
22:N:38:LEU:O	22:N:41:ALA:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:P:4:ILE:O	24:P:6:GLN:HG2	2.16	0.45
26:R:91:GLN:HE21	26:R:92:TRP:H	1.63	0.45
27:S:47:VAL:HG12	27:S:103:ILE:HG21	1.99	0.45
32:X:34:SER:HA	32:X:48:LEU:O	2.16	0.45
6:5:9:ARG:NH1	10:B:2151:U:OP2	2.50	0.45
6:5:12:ARG:NH2	10:B:2176:A:N7	2.65	0.45
6:5:139:ASN:HD22	6:5:162:ARG:HD2	1.82	0.45
7:6:26:ASP:O	7:6:27:LEU:HB3	2.15	0.45
7:6:224:ALA:HB1	35:6:527:GNP:PA	2.57	0.45
7:6:257:ARG:HH21	7:6:258:HIS:HE1	1.65	0.45
9:A:18:G:H3'	9:A:19:C:C5	2.52	0.45
9:A:78:A:C4	9:A:99:A:C5	3.05	0.45
10:B:49:A:OP1	10:B:50:U:H2'	2.17	0.45
10:B:120:U:H4'	10:B:121:G:C5'	2.47	0.45
10:B:596:U:H2'	10:B:597:G:H8	1.81	0.45
10:B:644:A:N6	10:B:2349:G:H21	2.07	0.45
10:B:707:G:C2	10:B:725:G:H1'	2.51	0.45
10:B:759:G:H2'	10:B:760:G:H8	1.81	0.45
10:B:986:C:C2	10:B:987:C:C6	3.05	0.45
10:B:986:C:H2'	10:B:987:C:C6	2.52	0.45
10:B:1063:G:N1	10:B:1075:C:O2	2.46	0.45
10:B:1095:A:C5	10:B:1096:A:C6	3.04	0.45
10:B:1129:A:HO2'	10:B:1130:U:P	2.40	0.45
10:B:1214:A:N6	10:B:1235:G:O2'	2.44	0.45
10:B:1227:G:C4	10:B:1228:G:C8	3.05	0.45
10:B:1306:C:N3	10:B:1623:G:C6	2.85	0.45
10:B:1361:G:C6	10:B:1362:C:N4	2.85	0.45
10:B:1613:G:C8	10:B:1617:C:N4	2.85	0.45
10:B:1658:C:P	12:D:140:HIS:CD2	3.10	0.45
10:B:1945:G:C4	10:B:1946:U:C5	3.04	0.45
10:B:2091:C:C5'	10:B:2092:U:H5''	2.46	0.45
10:B:2198:A:H4'	10:B:2199:A:OP1	2.17	0.45
10:B:2346:A:C5	10:B:2383:G:C2	3.05	0.45
10:B:2372:U:C2	10:B:2373:G:N7	2.85	0.45
10:B:2523:G:C4	10:B:2765:A:N6	2.85	0.45
10:B:2828:G:C6	10:B:2829:A:N7	2.85	0.45
12:D:64:GLU:HG3	12:D:68:PHE:HE2	1.82	0.45
12:D:65:ALA:HA	12:D:68:PHE:HB2	1.98	0.45
13:E:124:PHE:CZ	13:E:137:LYS:HB3	2.52	0.45
15:G:120:ILE:HD12	15:G:140:ILE:HG13	1.99	0.45
18:J:130:HIS:O	18:J:130:HIS:CG	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Q:64:ILE:HG12	25:Q:95:ALA:O	2.18	0.45
28:T:43:ILE:O	28:T:47:VAL:HG22	2.15	0.45
29:U:10:VAL:HG22	29:U:22:GLY:O	2.17	0.45
32:X:10:ARG:O	32:X:12:VAL:HG13	2.17	0.45
6:5:105:LYS:HG2	10:B:2168:G:C6	2.52	0.44
8:7:34:THR:HA	10:B:1085:A:N6	2.32	0.44
9:A:29:A:H5'	23:O:4:LYS:HZ1	1.82	0.44
9:A:46:A:C6	9:A:47:C:C2	3.05	0.44
10:B:169:G:H2'	10:B:170:U:C6	2.52	0.44
10:B:194:G:N1	10:B:195:A:C4	2.86	0.44
10:B:220:G:O2'	10:B:233:A:O2'	2.18	0.44
10:B:329:G:C2	10:B:477:A:C2	3.05	0.44
10:B:375:G:C2	10:B:376:G:C8	3.05	0.44
10:B:417:C:C2	10:B:418:C:C6	3.05	0.44
10:B:464:U:C5	10:B:788:A:C2	3.05	0.44
10:B:496:G:C4	10:B:497:A:C8	3.05	0.44
10:B:648:G:C2	10:B:649:G:C8	3.06	0.44
10:B:775:G:C5	10:B:777:G:N2	2.85	0.44
10:B:953:G:C2	10:B:965:C:C2	3.05	0.44
10:B:973:A:H5'	10:B:1188:U:C2	2.52	0.44
10:B:1003:G:N2	10:B:1010:A:N3	2.62	0.44
10:B:1060:U:P	17:I:75:ALA:H	2.40	0.44
10:B:1061:U:C2	10:B:1070:A:C4	3.06	0.44
10:B:1212:G:O2'	10:B:1213:A:OP2	2.35	0.44
10:B:1246:A:H2'	10:B:1247:A:C8	2.52	0.44
10:B:1392:A:H62	10:B:1393:A:N6	2.15	0.44
10:B:1813:G:C4	10:B:1814:G:N7	2.85	0.44
10:B:1815:A:C8	10:B:1817:G:C4	3.05	0.44
10:B:1940:U:H4'	10:B:1941:C:C5'	2.46	0.44
10:B:2080:A:H2'	10:B:2081:U:C6	2.51	0.44
10:B:2285:C:H5'	10:B:2288:A:N1	2.32	0.44
10:B:2331:G:C6	10:B:2332:C:C4	3.05	0.44
10:B:2386:A:C6	10:B:2387:U:C4	3.05	0.44
10:B:2469:A:N6	10:B:2470:G:C4	2.85	0.44
10:B:2531:A:H2'	10:B:2532:G:O4'	2.16	0.44
10:B:2550:G:C5	10:B:2551:C:C5	3.04	0.44
10:B:2588:G:C2	10:B:2589:A:C4	3.06	0.44
10:B:2618:G:N2	10:B:2619:C:H1'	2.32	0.44
10:B:2653:U:H3'	10:B:2654:A:H8	1.77	0.44
10:B:2718:G:H5'	24:P:98:TYR:HE1	1.82	0.44
10:B:2723:C:C2	10:B:2724:U:C5	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2821:A:H4'	12:D:167:ASN:ND2	2.32	0.44
10:B:2831:G:P	12:D:56:LYS:NZ	2.90	0.44
11:C:86:ARG:HB3	11:C:88:ALA:N	2.32	0.44
11:C:143:VAL:HG22	11:C:144:GLU:O	2.17	0.44
12:D:124:ARG:HG2	12:D:125:TRP:NE1	2.31	0.44
14:F:121:PHE:HA	14:F:126:ASN:O	2.17	0.44
14:F:125:GLY:N	14:F:162:ASP:OD1	2.30	0.44
19:K:85:LEU:HB2	19:K:94:ILE:CD1	2.47	0.44
31:W:59:PHE:N	31:W:59:PHE:CD1	2.85	0.44
1:0:3:GLN:HA	10:B:2615:U:O2	2.18	0.44
1:0:42:ILE:HD11	1:0:46:GLY:HA2	1.99	0.44
5:4:4:ARG:NH2	10:B:2477:U:H5	2.15	0.44
6:5:6:LYS:HG3	6:5:9:ARG:NH2	2.32	0.44
6:5:59:VAL:HG23	6:5:60:ARG:H	1.82	0.44
7:6:320:ASP:H	7:6:343:SER:HB2	1.82	0.44
8:7:58:THR:OG1	8:7:82:ILE:HB	2.16	0.44
9:A:57:A:C5	9:A:58:A:C5	3.05	0.44
9:A:85:G:C2	9:A:86:G:C5	3.06	0.44
10:B:35:G:C5	10:B:36:G:C8	3.06	0.44
10:B:64:A:C2	10:B:65:U:C2	3.06	0.44
10:B:170:U:H2'	10:B:171:U:O4'	2.17	0.44
10:B:374:A:H1'	10:B:401:A:C6	2.52	0.44
10:B:508:A:O2'	10:B:509:C:OP1	2.31	0.44
10:B:563:A:P	26:R:79:ARG:NH2	2.91	0.44
10:B:587:C:N3	20:L:33:ARG:NH1	2.58	0.44
10:B:684:G:C6	10:B:774:G:C5	3.05	0.44
10:B:729:G:C5'	11:C:206:LYS:HZ2	2.31	0.44
10:B:1192:G:N3	10:B:1193:G:C8	2.86	0.44
10:B:1201:U:H3	10:B:1244:A:N6	2.14	0.44
10:B:1204:A:O4'	10:B:1206:G:C8	2.70	0.44
10:B:1357:C:H2'	10:B:1358:G:O4'	2.16	0.44
10:B:1361:G:C5	10:B:1362:C:C4	3.04	0.44
10:B:1391:U:O2'	28:T:19:LYS:HD3	2.17	0.44
10:B:1707:G:H2'	10:B:1708:C:O4'	2.18	0.44
10:B:1932:A:C4	10:B:1933:G:C8	3.05	0.44
10:B:2050:C:H5''	12:D:143:PRO:HG2	1.99	0.44
10:B:2057:G:C5	10:B:2058:A:N7	2.85	0.44
10:B:2296:U:H2'	23:O:9:ARG:HH22	1.82	0.44
10:B:2300:C:H2'	10:B:2301:C:C6	2.53	0.44
10:B:2328:A:C2	10:B:2329:U:C4	3.05	0.44
10:B:2336:A:N7	31:W:40:ARG:CZ	2.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2359:C:N4	10:B:2360:G:O6	2.50	0.44
10:B:2373:G:N2	10:B:2374:C:C2	2.85	0.44
10:B:2400:G:C6	10:B:2401:U:N3	2.85	0.44
10:B:2469:A:C5	10:B:2470:G:C8	3.05	0.44
10:B:2550:G:H2'	10:B:2551:C:H6	1.82	0.44
10:B:2734:A:C6	10:B:2735:G:C4	3.04	0.44
10:B:2771:C:O2'	12:D:173:GLN:OE1	2.35	0.44
10:B:2847:U:O4	10:B:2848:G:N1	2.50	0.44
11:C:23:LEU:HD23	11:C:23:LEU:HA	1.75	0.44
11:C:67:LYS:HG2	11:C:69:ASN:HD21	1.82	0.44
11:C:242:HIS:HA	11:C:243:PRO:HD3	1.54	0.44
12:D:34:VAL:H	12:D:93:GLY:CA	2.28	0.44
13:E:67:ARG:HG2	13:E:67:ARG:HH11	1.82	0.44
13:E:106:LYS:CG	13:E:200:LEU:HD13	2.46	0.44
13:E:155:GLU:HA	13:E:158:PHE:CD2	2.43	0.44
15:G:139:VAL:O	15:G:143:VAL:HG22	2.18	0.44
16:H:65:ALA:H	16:H:71:LYS:HG3	1.82	0.44
18:J:25:LEU:HD11	18:J:100:VAL:HG12	1.99	0.44
18:J:38:GLY:O	18:J:40:HIS:N	2.43	0.44
18:J:57:LEU:HB3	18:J:128:ASN:HA	1.99	0.44
18:J:99:ARG:O	18:J:103:ILE:HG22	2.17	0.44
19:K:92:GLN:CA	19:K:110:LYS:HZ3	2.30	0.44
26:R:34:GLU:HB3	26:R:35:PHE:H	1.68	0.44
28:T:5:GLU:HG3	33:Y:18:LEU:HD11	1.99	0.44
28:T:22:THR:HA	28:T:25:GLU:HB2	1.99	0.44
29:U:88:ASP:O	29:U:91:LYS:HD2	2.17	0.44
6:5:33:LEU:HD13	6:5:220:ALA:HB3	2.00	0.44
9:A:20:G:H1	9:A:63:C:H42	1.65	0.44
9:A:63:C:C4	9:A:64:G:N7	2.85	0.44
10:B:83:A:N6	10:B:100:U:O3'	2.50	0.44
10:B:122:G:H2'	10:B:123:G:H8	1.83	0.44
10:B:189:G:H3'	10:B:205:G:H22	1.81	0.44
10:B:242:G:O2'	10:B:243:U:OP2	2.34	0.44
10:B:399:U:H2'	10:B:400:G:H8	1.83	0.44
10:B:572:A:N7	10:B:573:U:C5	2.85	0.44
10:B:582:A:C4'	25:Q:10:ARG:HH22	2.30	0.44
10:B:744:U:C4	10:B:745:G:C6	3.06	0.44
10:B:760:G:C6	10:B:761:A:C4	3.05	0.44
10:B:795:C:C4	10:B:796:C:C4	3.05	0.44
10:B:1016:G:C6	10:B:1147:A:N6	2.85	0.44
10:B:1245:G:C2	10:B:1246:A:N7	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1250:G:OP1	20:L:21:ARG:NH2	2.46	0.44
10:B:1252:G:C2	10:B:1253:A:C2	3.05	0.44
10:B:1341:G:H5'	10:B:1397:U:C2	2.53	0.44
10:B:1401:G:C6	10:B:1402:U:N3	2.85	0.44
10:B:1478:G:C6	10:B:1479:G:C5	3.05	0.44
10:B:1676:A:N6	10:B:1677:A:C6	2.85	0.44
10:B:1792:G:C2	10:B:1793:C:C2	3.06	0.44
10:B:1948:G:C2	10:B:1959:G:C2	3.05	0.44
10:B:1959:G:C2	10:B:1960:A:N3	2.85	0.44
10:B:1990:C:C4	10:B:1991:U:C4	3.06	0.44
10:B:2088:A:C6	10:B:2089:C:C4	3.05	0.44
10:B:2128:G:O2'	10:B:2159:G:N1	2.32	0.44
10:B:2223:G:C6	10:B:2224:G:C4	3.06	0.44
10:B:2369:A:C6	10:B:2370:G:C6	3.05	0.44
10:B:2372:U:H3	10:B:2381:A:N6	2.14	0.44
10:B:2376:A:OP1	10:B:2376:A:H8	1.99	0.44
10:B:2386:A:H2'	10:B:2387:U:C6	2.53	0.44
10:B:2408:U:C2	10:B:2409:G:N7	2.85	0.44
10:B:2516:A:C6	10:B:2517:C:C4	3.06	0.44
10:B:2759:G:H21	15:G:138:GLN:HE22	1.65	0.44
14:F:120:SER:O	14:F:127:TYR:HA	2.18	0.44
16:H:97:ARG:HH12	16:H:113:SER:CA	2.12	0.44
18:J:46:PRO:HG2	18:J:47:HIS:HD2	1.82	0.44
18:J:103:ILE:O	18:J:106:LYS:N	2.51	0.44
22:N:45:ARG:HB3	22:N:49:GLU:OE2	2.18	0.44
23:O:81:ARG:HA	23:O:84:GLU:CG	2.47	0.44
28:T:15:HIS:CE1	28:T:17:SER:HA	2.52	0.44
31:W:45:HIS:HE2	31:W:48:ALA:C	2.18	0.44
4:3:32:LEU:N	10:B:2420:C:OP2	2.50	0.44
5:4:34:LYS:CD	5:4:36:ARG:HH22	2.25	0.44
7:6:117:THR:HG23	7:6:233:ASP:OD2	2.18	0.44
7:6:282:HIS:HB3	7:6:314:LEU:HD23	2.00	0.44
9:A:4:C:H2'	9:A:5:U:C6	2.50	0.44
9:A:34:A:C2	9:A:49:C:C2	3.06	0.44
10:B:67:U:C4	10:B:68:G:N7	2.85	0.44
10:B:310:A:C5	10:B:312:G:C4	3.06	0.44
10:B:461:C:C5	10:B:462:C:H5	2.35	0.44
10:B:480:A:P	29:U:43:LYS:HZ3	2.39	0.44
10:B:630:G:N2	10:B:632:A:H3'	2.32	0.44
10:B:777:G:H2'	10:B:778:G:H8	1.83	0.44
10:B:809:G:H2'	10:B:810:U:C5	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:816:C:O2'	10:B:817:C:H5'	2.17	0.44
10:B:860:U:C2	10:B:2268:A:O4'	2.70	0.44
10:B:954:G:C4	10:B:955:U:C6	3.05	0.44
10:B:1004:U:H4'	10:B:1010:A:H62	1.83	0.44
10:B:1142:A:C6	10:B:1144:A:C4	3.05	0.44
10:B:1262:A:C6	10:B:1263:U:C4	3.06	0.44
10:B:1403:A:C6	10:B:1404:C:C2	3.06	0.44
10:B:1430:G:H2'	10:B:1431:A:C8	2.40	0.44
10:B:1608:A:O3'	10:B:1609:A:H3'	2.17	0.44
10:B:1675:C:H2'	10:B:1676:A:C8	2.53	0.44
10:B:1853:A:N1	10:B:2087:G:H1'	2.31	0.44
10:B:2347:C:N3	10:B:2348:U:C4	2.85	0.44
10:B:2524:G:C2	10:B:2525:G:C4	3.05	0.44
10:B:2682:A:H2'	10:B:2683:C:C6	2.52	0.44
10:B:2721:A:H1'	10:B:2873:A:H8	1.80	0.44
10:B:2746:U:O2	10:B:2758:A:N6	2.35	0.44
10:B:2800:A:N3	10:B:2801:G:H1'	2.32	0.44
10:B:2824:C:P	10:B:2825:G:H22	2.39	0.44
10:B:2868:A:C6	10:B:2869:G:C5	3.05	0.44
11:C:231:HIS:HB3	11:C:232:GLY:H	1.66	0.44
13:E:29:HIS:CD2	20:L:8:PRO:HB3	2.52	0.44
14:F:5:ASP:HA	14:F:8:LYS:HE3	1.98	0.44
15:G:94:ARG:NH1	15:G:105:SER:OG	2.51	0.44
15:G:120:ILE:HD11	15:G:132:LEU:HB3	1.99	0.44
17:I:30:GLN:NE2	17:I:60:VAL:HG21	2.31	0.44
18:J:34:ARG:HG3	18:J:39:LYS:NZ	2.32	0.44
18:J:110:PRO:CB	18:J:111:LYS:HZ3	2.29	0.44
19:K:29:ARG:CZ	19:K:36:ASP:OD2	2.66	0.44
19:K:34:VAL:HA	19:K:61:VAL:HG11	1.99	0.44
23:O:64:TYR:CD2	23:O:67:ASN:HB2	2.50	0.44
24:P:31:VAL:O	24:P:37:LYS:HA	2.17	0.44
26:R:52:PRO:O	26:R:54:VAL:N	2.49	0.44
27:S:17:VAL:HG11	27:S:103:ILE:HD11	1.99	0.44
27:S:55:ILE:HG22	27:S:59:GLU:OE2	2.17	0.44
31:W:49:ASN:HB2	31:W:61:LYS:CG	2.45	0.44
1:0:15:ARG:CG	10:B:2046:G:H5'	2.43	0.44
3:2:4:THR:O	10:B:686:U:O2'	2.36	0.44
3:2:26:ASN:O	3:2:29:GLN:HB3	2.17	0.44
6:5:5:THR:OG1	10:B:2150:C:H5''	2.17	0.44
7:6:12:VAL:HG23	7:6:75:ALA:CB	2.47	0.44
7:6:92:LEU:HD12	7:6:92:LEU:HA	1.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:3:LEU:HD12	8:7:5:LEU:H	1.82	0.44
8:7:97:LYS:HD3	8:7:130:PRO:HB3	2.00	0.44
9:A:10:G:C5	9:A:11:C:C4	3.06	0.44
9:A:99:A:C5	9:A:100:G:C5	3.06	0.44
9:A:116:G:H5'	23:O:55:GLU:HG3	1.98	0.44
10:B:48:G:N1	10:B:178:G:C6	2.86	0.44
10:B:57:C:C2	10:B:58:G:C8	3.06	0.44
10:B:89:A:C6	10:B:90:U:C4	3.06	0.44
10:B:407:G:H1	10:B:420:C:N4	2.15	0.44
10:B:516:C:C2	10:B:517:C:C5	3.06	0.44
10:B:712:G:C5	10:B:713:G:C5	3.06	0.44
10:B:799:G:C4	10:B:800:A:N7	2.86	0.44
10:B:956:G:P	21:M:86:LYS:HZ3	2.40	0.44
10:B:958:U:O4	21:M:40:ARG:HG3	2.18	0.44
10:B:1057:A:N7	10:B:1086:A:H2'	2.33	0.44
10:B:1197:G:C2	10:B:1250:G:C6	3.05	0.44
10:B:1228:G:C6	10:B:1229:C:C4	3.06	0.44
10:B:1235:G:C2	10:B:1236:G:N2	2.86	0.44
10:B:1448:G:C4	10:B:1449:G:C8	3.06	0.44
10:B:1582:C:N4	10:B:1583:A:H62	2.15	0.44
10:B:1678:A:O2'	10:B:1991:U:H4'	2.17	0.44
10:B:1750:G:H2'	10:B:1751:U:C6	2.51	0.44
10:B:1833:C:N3	10:B:1834:U:C4	2.86	0.44
10:B:1835:G:N3	10:B:1931:U:C2	2.86	0.44
10:B:1921:G:C4	10:B:1922:G:C8	3.04	0.44
10:B:1922:G:H2'	10:B:1923:U:C6	2.53	0.44
10:B:2011:U:O4	10:B:2012:G:N1	2.51	0.44
10:B:2020:A:N6	10:B:2022:U:C2	2.86	0.44
10:B:2050:C:H2'	10:B:2051:A:C8	2.52	0.44
10:B:2121:G:H1	10:B:2176:A:N6	2.16	0.44
10:B:2197:U:C2	10:B:2224:G:C2	3.06	0.44
10:B:2269:G:C2	10:B:2270:A:C4	3.06	0.44
10:B:2400:G:N1	10:B:2417:C:N3	2.65	0.44
10:B:2659:G:H2'	10:B:2661:G:OP2	2.17	0.44
10:B:2725:A:HO2'	10:B:2726:A:P	2.39	0.44
10:B:2869:G:C5	10:B:2870:C:C5	3.06	0.44
11:C:18:VAL:C	11:C:202:ARG:NH2	2.69	0.44
21:M:95:LEU:HD12	21:M:95:LEU:HA	1.82	0.44
25:Q:96:ASP:OD1	25:Q:97:ILE:N	2.49	0.44
31:W:59:PHE:CZ	31:W:61:LYS:HE3	2.53	0.44
32:X:41:SER:O	32:X:43:LYS:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:104:ILE:CD1	10:B:2170:A:H5''	2.45	0.44
7:6:61:GLY:N	10:B:1908:C:OP1	2.50	0.44
7:6:99:ARG:NE	7:6:101:ILE:HD11	2.32	0.44
7:6:175:GLN:O	7:6:178:LEU:HB3	2.18	0.44
7:6:409:VAL:HG12	10:B:2660:A:C2	2.52	0.44
9:A:10:G:N2	9:A:110:C:C2	2.82	0.44
9:A:15:A:H3'	9:A:16:G:C8	2.44	0.44
9:A:20:G:H1	9:A:63:C:N4	2.14	0.44
10:B:45:G:C2	10:B:215:G:N2	2.84	0.44
10:B:93:G:C5	10:B:94:A:C8	3.06	0.44
10:B:197:A:C5	10:B:2430:A:C8	3.05	0.44
10:B:220:G:N2	10:B:265:A:H62	2.16	0.44
10:B:288:U:H2'	10:B:289:G:C8	2.53	0.44
10:B:565:C:H5'	10:B:1253:A:N6	2.33	0.44
10:B:604:G:C4	10:B:625:G:C2	3.05	0.44
10:B:638:G:N2	10:B:639:U:C2	2.86	0.44
10:B:650:C:H2'	10:B:651:G:O4'	2.17	0.44
10:B:664:G:O2'	10:B:940:G:H5'	2.17	0.44
10:B:701:G:C4	10:B:702:U:C5	3.05	0.44
10:B:729:G:H4'	10:B:763:G:H4'	1.99	0.44
10:B:769:U:O2	10:B:770:G:C8	2.71	0.44
10:B:877:A:H2	10:B:900:A:N7	2.16	0.44
10:B:1082:U:H2'	10:B:1083:U:C6	2.53	0.44
10:B:1150:C:H2'	10:B:1151:A:C8	2.49	0.44
10:B:1268:A:C6	10:B:1269:A:C4	3.06	0.44
10:B:1457:U:N3	10:B:1458:U:C4	2.85	0.44
10:B:1458:U:H1'	10:B:1461:C:O2	2.18	0.44
10:B:1497:U:O2'	10:B:1498:C:H5'	2.18	0.44
10:B:1559:U:O2'	10:B:1560:G:OP1	2.31	0.44
10:B:1643:G:C6	10:B:1644:C:N3	2.85	0.44
10:B:1907:G:C5	10:B:1908:C:C4	3.05	0.44
10:B:1930:G:H2'	10:B:1968:G:C6	2.53	0.44
10:B:2053:G:C4	10:B:2054:A:C8	3.06	0.44
10:B:2100:G:H3'	10:B:2101:A:C8	2.51	0.44
10:B:2266:A:H5'	10:B:2267:A:N3	2.33	0.44
10:B:2282:G:C6	10:B:2425:A:N1	2.86	0.44
10:B:2342:C:H6	10:B:2342:C:O5'	2.01	0.44
10:B:2460:U:H2'	10:B:2461:A:H8	1.83	0.44
10:B:2658:C:N3	10:B:2659:G:C5	2.86	0.44
10:B:2684:U:H2'	10:B:2685:G:O4'	2.17	0.44
11:C:226:PRO:HG3	11:C:232:GLY:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:D:12:THR:OG1	12:D:24:VAL:HG23	2.17	0.44
14:F:25:MET:HA	14:F:29:ARG:HH22	1.83	0.44
14:F:117:SER:H	14:F:173:ASP:CG	2.20	0.44
16:H:2:GLN:HG2	16:H:20:ASN:HB2	1.99	0.44
17:I:10:LEU:HD12	17:I:10:LEU:O	2.18	0.44
17:I:14:ALA:HB3	17:I:52:LEU:N	2.32	0.44
17:I:123:ALA:HA	17:I:126:ARG:HE	1.82	0.44
17:I:131:THR:HA	17:I:134:SER:HB2	2.00	0.44
25:Q:18:LYS:HG3	25:Q:21:LYS:HZ3	1.82	0.44
25:Q:40:LYS:O	25:Q:43:GLN:HB2	2.18	0.44
26:R:19:THR:OG1	26:R:97:LYS:HD3	2.18	0.44
29:U:24:VAL:HG12	29:U:26:ASN:N	2.32	0.44
29:U:25:LYS:N	29:U:34:ILE:O	2.42	0.44
2:1:39:ASP:OD2	2:1:42:VAL:HG23	2.17	0.44
5:4:2:LYS:HE2	5:4:4:ARG:HD2	1.99	0.44
7:6:15:HIS:HE1	7:6:17:TYR:HB2	1.82	0.44
7:6:50:LYS:HD2	7:6:53:HIS:NE2	2.33	0.44
7:6:425:LEU:HG	7:6:426:ILE:OXT	2.17	0.44
9:A:14:U:O2'	9:A:107:G:O2'	2.33	0.44
9:A:16:G:C4	9:A:69:G:N2	2.85	0.44
9:A:24:G:C5	9:A:56:G:C4	3.05	0.44
9:A:53:A:C2	9:A:54:G:C4	3.05	0.44
10:B:17:G:C6	10:B:524:G:N1	2.85	0.44
10:B:48:G:C2	10:B:178:G:C6	3.06	0.44
10:B:63:A:C8	10:B:64:A:N7	2.86	0.44
10:B:122:G:C2	10:B:123:G:C5	3.05	0.44
10:B:162:U:O2'	10:B:163:C:OP2	2.35	0.44
10:B:327:G:H2'	10:B:328:U:C6	2.52	0.44
10:B:402:A:N1	10:B:422:A:N6	2.66	0.44
10:B:479:A:C8	10:B:481:G:N7	2.86	0.44
10:B:488:G:C4	10:B:490:C:C2	3.06	0.44
10:B:507:A:H4'	10:B:508:A:H5''	2.00	0.44
10:B:543:G:C6	10:B:551:G:C6	3.05	0.44
10:B:565:C:N4	10:B:573:U:OP1	2.50	0.44
10:B:647:G:C5	10:B:648:G:C5	3.05	0.44
10:B:699:A:N7	10:B:734:A:C5	2.86	0.44
10:B:792:A:C6	10:B:2440:C:C6	3.05	0.44
10:B:818:G:O2'	10:B:819:A:O4'	2.31	0.44
10:B:902:C:O5'	10:B:902:C:H6	2.01	0.44
10:B:930:G:C6	10:B:933:A:C2	3.06	0.44
10:B:955:U:OP1	21:M:86:LYS:HE3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:962:G:H2'	10:B:963:U:C6	2.53	0.44
10:B:976:G:H4'	10:B:1156:A:H62	1.80	0.44
10:B:1009:A:H8	10:B:1009:A:H3'	1.83	0.44
10:B:1026:G:C5	10:B:1134:A:C5	3.06	0.44
10:B:1534:U:H3'	10:B:1536:C:H41	1.83	0.44
10:B:1696:G:H2'	10:B:1697:G:C8	2.52	0.44
10:B:1936:A:C2	10:B:1945:G:C4	3.06	0.44
10:B:2121:G:H2'	10:B:2122:U:C6	2.53	0.44
10:B:2121:G:N2	10:B:2177:C:O2	2.45	0.44
10:B:2331:G:H4'	31:W:41:GLY:HA3	1.99	0.44
10:B:2527:C:N4	10:B:2536:G:H1	2.16	0.44
10:B:2547:A:OP2	10:B:2566:A:H1'	2.18	0.44
10:B:2630:G:C5	10:B:2894:G:C5	3.05	0.44
10:B:2650:U:H3	10:B:2670:A:N6	2.15	0.44
10:B:2704:C:H5''	10:B:2705:A:OP2	2.18	0.44
10:B:2816:G:C4	10:B:2817:U:H5	2.35	0.44
10:B:2849:U:O4	24:P:20:ARG:NH2	2.50	0.44
12:D:64:GLU:HG3	12:D:68:PHE:CE2	2.52	0.44
15:G:120:ILE:HG13	15:G:133:LYS:O	2.17	0.44
18:J:64:VAL:CG1	18:J:69:ARG:HH11	2.31	0.44
19:K:109:GLU:OE1	19:K:111:PHE:HE1	2.01	0.44
21:M:50:ARG:O	21:M:53:MET:HB3	2.18	0.44
23:O:41:ALA:HB1	23:O:42:PRO:HD2	1.98	0.44
27:S:9:HIS:CD2	27:S:102:HIS:CE1	3.05	0.44
28:T:30:ILE:HD11	28:T:94:ASP:N	2.33	0.44
30:V:72:VAL:HA	30:V:94:ALA:N	2.32	0.44
5:4:7:VAL:HG13	5:4:35:GLN:CB	2.48	0.44
7:6:60:GLU:O	7:6:64:VAL:HG23	2.17	0.44
7:6:61:GLY:HA3	10:B:1908:C:H5'	2.00	0.44
7:6:167:LEU:O	7:6:171:ILE:HG13	2.18	0.44
7:6:210:LYS:HZ2	7:6:283:VAL:CB	2.31	0.44
9:A:8:C:H4'	23:O:25:ARG:NH2	2.30	0.44
9:A:33:G:C2	9:A:50:A:C4	3.06	0.44
9:A:73:A:C5	9:A:74:U:C4	3.06	0.44
9:A:100:G:H3'	9:A:101:A:C8	2.51	0.44
10:B:58:G:C2	10:B:70:G:C6	3.05	0.44
10:B:85:G:H8	29:U:6:ARG:NH2	2.16	0.44
10:B:150:U:C4	10:B:151:C:C4	3.06	0.44
10:B:184:C:H4'	10:B:217:A:C2	2.53	0.44
10:B:321:U:O2'	10:B:322:A:P	2.76	0.44
10:B:384:A:OP1	10:B:385:C:N4	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:445:C:C5	10:B:446:G:C6	3.06	0.44
10:B:533:G:C6	10:B:534:U:N3	2.86	0.44
10:B:604:G:C6	10:B:625:G:C5	3.05	0.44
10:B:604:G:C6	10:B:625:G:C6	3.06	0.44
10:B:611:C:H2'	10:B:612:G:O4'	2.17	0.44
10:B:664:G:C2	10:B:665:U:C2	3.06	0.44
10:B:675:A:C6	10:B:804:A:N3	2.86	0.44
10:B:675:A:H5'	13:E:58:LYS:HZ3	1.83	0.44
10:B:681:G:C5	10:B:682:G:C8	3.06	0.44
10:B:695:G:C6	10:B:768:G:C6	3.06	0.44
10:B:700:G:C2	10:B:701:G:N9	2.86	0.44
10:B:738:G:C5	10:B:739:A:C6	3.06	0.44
10:B:854:C:C2	10:B:924:G:C2	3.06	0.44
10:B:945:A:C5	10:B:2448:A:C2	3.06	0.44
10:B:1011:G:C6	10:B:1013:C:C2	3.06	0.44
10:B:1147:A:C4	10:B:1148:U:C5	3.06	0.44
10:B:1252:G:H1'	25:Q:32:ARG:HH11	1.82	0.44
10:B:1445:G:H2'	10:B:1446:C:C6	2.53	0.44
10:B:1569:A:C6	10:B:1570:A:C5	3.06	0.44
10:B:1773:A:N3	10:B:1977:A:N6	2.66	0.44
10:B:1867:G:N2	10:B:1875:G:O2'	2.51	0.44
10:B:1910:G:C6	10:B:1911:U:C2	3.06	0.44
10:B:2339:C:H2'	10:B:2340:A:C8	2.53	0.44
10:B:2364:C:OP1	31:W:54:ARG:HD3	2.18	0.44
10:B:2391:G:N2	10:B:2424:C:H2'	2.24	0.44
10:B:2461:A:C6	10:B:2462:C:C4	3.05	0.44
10:B:2776:A:H2'	10:B:2782:G:O6	2.17	0.44
10:B:2796:U:H2'	10:B:2797:U:O2	2.18	0.44
10:B:2812:G:C2	10:B:2813:A:H1'	2.53	0.44
10:B:2831:G:P	12:D:56:LYS:HZ3	2.40	0.44
10:B:2831:G:H5''	10:B:2832:U:O5'	2.17	0.44
13:E:24:ASN:HB2	13:E:27:LEU:HB3	2.00	0.44
14:F:31:GLU:O	14:F:156:THR:HB	2.18	0.44
14:F:129:MET:O	14:F:152:ASP:HA	2.17	0.44
15:G:82:PHE:O	15:G:84:LYS:HG3	2.17	0.44
15:G:140:ILE:HG23	15:G:141:GLY:H	1.83	0.44
15:G:148:ARG:HG3	15:G:161:VAL:HG12	1.99	0.44
18:J:38:GLY:C	18:J:40:HIS:H	2.21	0.44
26:R:62:GLU:OE2	26:R:98:ILE:N	2.51	0.44
27:S:9:HIS:CD2	27:S:102:HIS:HE1	2.35	0.44
28:T:28:ASN:C	28:T:91:GLN:HE22	2.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:V:9:ARG:N	30:V:39:ALA:O	2.37	0.44
32:X:32:LEU:HD23	32:X:51:SER:N	2.33	0.44
5:4:36:ARG:HG3	5:4:37:GLN:OE1	2.18	0.44
6:5:139:ASN:OD1	10:B:2122:U:H5'	2.18	0.44
7:6:18:PHE:N	7:6:18:PHE:CD1	2.83	0.44
7:6:54:PRO:HG2	7:6:55:LYS:HG3	1.98	0.44
7:6:200:VAL:HG22	7:6:248:VAL:O	2.18	0.44
8:7:76:PHE:HB2	8:7:122:GLN:HE22	1.82	0.44
10:B:142:A:C6	10:B:143:C:C4	3.05	0.44
10:B:202:U:H5	10:B:203:A:C6	2.36	0.44
10:B:207:A:H3'	10:B:208:C:C6	2.52	0.44
10:B:303:G:C6	10:B:304:U:N3	2.86	0.44
10:B:308:G:N3	10:B:501:A:N7	2.66	0.44
10:B:352:A:C6	10:B:353:C:C4	3.06	0.44
10:B:374:A:C4	10:B:375:G:C8	3.06	0.44
10:B:380:G:C4	10:B:381:G:C8	3.06	0.44
10:B:496:G:C5	10:B:497:A:C8	3.06	0.44
10:B:504:A:H3'	10:B:504:A:N3	2.32	0.44
10:B:537:G:N2	10:B:557:C:C4	2.86	0.44
10:B:604:G:C6	10:B:605:G:C6	3.06	0.44
10:B:648:G:N1	10:B:649:G:C5	2.86	0.44
10:B:668:A:C5	10:B:670:A:C6	3.06	0.44
10:B:675:A:H5'	13:E:58:LYS:NZ	2.33	0.44
10:B:974:G:C4	10:B:1186:G:C2	3.06	0.44
10:B:1094:U:C2	10:B:1097:U:OP2	2.71	0.44
10:B:1099:G:N9	17:I:4:VAL:HB	2.33	0.44
10:B:1277:G:H2'	10:B:1278:C:C6	2.53	0.44
10:B:1528:A:C4	10:B:1544:A:C6	3.06	0.44
10:B:1542:U:H2'	10:B:1543:G:C8	2.53	0.44
10:B:1604:C:O2'	10:B:1610:A:N6	2.51	0.44
10:B:1676:A:H2'	10:B:1677:A:C8	2.53	0.44
10:B:1694:C:H5'	10:B:1695:G:C8	2.52	0.44
10:B:1801:A:N3	10:B:2203:U:N3	2.66	0.44
10:B:1903:G:C5	10:B:1904:G:C5	3.06	0.44
10:B:1952:A:H62	10:B:1953:A:N6	2.15	0.44
10:B:2123:G:N1	10:B:2175:C:O2	2.51	0.44
10:B:2168:G:N1	10:B:2171:A:C8	2.85	0.44
10:B:2217:G:C6	10:B:2218:G:C6	3.06	0.44
10:B:2297:A:N6	10:B:2319:G:H1'	2.32	0.44
10:B:2388:A:O2'	10:B:2389:G:H5'	2.18	0.44
10:B:2397:G:C6	10:B:2420:C:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2692:G:O2'	10:B:2847:U:O2	2.33	0.44
10:B:2724:U:H2'	10:B:2725:A:C8	2.53	0.44
10:B:2758:A:O2'	15:G:63:GLN:NE2	2.50	0.44
10:B:2773:C:OP1	12:D:169:ARG:NH2	2.51	0.44
10:B:2838:G:C2	10:B:2839:G:H1'	2.53	0.44
10:B:2852:G:C2	10:B:2853:C:C2	3.06	0.44
12:D:122:VAL:O	12:D:122:VAL:HG12	2.18	0.44
14:F:140:ILE:HB	14:F:141:ASP:H	1.62	0.44
23:O:92:PHE:CG	23:O:93:ASP:N	2.86	0.44
25:Q:79:ILE:HA	25:Q:82:LEU:HD12	2.00	0.44
27:S:36:LEU:HA	27:S:39:THR:OG1	2.18	0.44
27:S:66:ILE:HG23	27:S:67:ASP:N	2.33	0.44
30:V:26:PHE:HA	30:V:27:PRO:HD3	1.71	0.44
32:X:32:LEU:O	32:X:33:HIS:ND1	2.51	0.44
33:Y:42:LEU:HA	33:Y:42:LEU:HD23	1.74	0.44
5:4:34:LYS:HB3	5:4:36:ARG:HH12	1.82	0.43
7:6:317:ASN:O	7:6:318:LYS:HB2	2.18	0.43
9:A:43:C:C2	9:A:45:A:C5	3.06	0.43
10:B:60:G:N2	10:B:74:A:C4	2.86	0.43
10:B:153:U:H2'	10:B:154:U:H6	1.82	0.43
10:B:191:A:C2	10:B:192:C:N3	2.86	0.43
10:B:234:U:H2'	10:B:235:U:C6	2.53	0.43
10:B:253:C:N4	10:B:254:G:C6	2.86	0.43
10:B:326:G:C2	10:B:337:C:C2	3.06	0.43
10:B:373:U:H5''	10:B:374:A:OP2	2.17	0.43
10:B:376:G:H1	10:B:398:C:N4	2.15	0.43
10:B:387:U:C2	10:B:388:G:N7	2.86	0.43
10:B:388:G:C2	10:B:390:U:C4	3.06	0.43
10:B:613:A:N1	10:B:616:A:C5	2.86	0.43
10:B:760:G:C2	10:B:761:A:H1'	2.53	0.43
10:B:778:G:C2	10:B:779:U:C2	3.06	0.43
10:B:822:G:C5	10:B:836:G:C2	3.06	0.43
10:B:856:G:H4'	31:W:23:LYS:CD	2.48	0.43
10:B:928:A:H2'	10:B:929:U:O4'	2.18	0.43
10:B:936:A:C6	10:B:937:C:N3	2.86	0.43
10:B:973:A:P	26:R:81:LYS:HZ3	2.40	0.43
10:B:1002:G:H22	10:B:1154:G:H1'	1.83	0.43
10:B:1024:G:C3'	10:B:1025:G:H5''	2.48	0.43
10:B:1137:G:H2'	10:B:1138:G:H8	1.83	0.43
10:B:1238:G:N3	10:B:1239:G:C8	2.86	0.43
10:B:1429:G:H2'	10:B:1430:G:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1454:C:C5'	22:N:63:ARG:NH2	2.81	0.43
10:B:1520:U:C4	10:B:1521:G:C6	3.06	0.43
10:B:1566:A:C6	11:C:212:TRP:CZ2	3.06	0.43
10:B:1579:A:H3'	10:B:1580:A:H8	1.83	0.43
10:B:1629:U:C2	10:B:1630:A:N7	2.86	0.43
10:B:1676:A:C6	10:B:1677:A:C5	3.06	0.43
10:B:1766:G:H2'	10:B:1767:G:H8	1.82	0.43
10:B:1770:G:C6	10:B:1771:C:C2	3.06	0.43
10:B:1791:A:H61	10:B:1828:G:HO2'	1.64	0.43
10:B:1827:U:O4	10:B:1828:G:N1	2.51	0.43
10:B:2199:A:N7	10:B:2200:C:C2	2.86	0.43
10:B:2294:G:O6	10:B:2339:C:N4	2.51	0.43
10:B:2410:G:N2	10:B:2411:A:H1'	2.33	0.43
10:B:2633:G:C2	10:B:2634:A:C4	3.06	0.43
10:B:2638:G:C5	10:B:2775:G:N1	2.86	0.43
10:B:2684:U:C4	10:B:2685:G:N7	2.86	0.43
10:B:2806:C:C2	10:B:2807:U:C6	3.06	0.43
10:B:2816:G:C2	10:B:2831:G:C4	3.06	0.43
10:B:2848:G:C6	10:B:2867:G:C6	3.06	0.43
10:B:2887:A:C6	10:B:2888:C:C4	3.05	0.43
12:D:89:GLU:HG3	12:D:90:PHE:N	2.33	0.43
14:F:67:THR:OG1	14:F:85:GLY:O	2.30	0.43
14:F:108:PRO:HB2	14:F:178:LYS:CD	2.49	0.43
16:H:72:ILE:HD12	16:H:111:ALA:O	2.18	0.43
20:L:130:GLY:O	20:L:133:ALA:HB3	2.18	0.43
22:N:28:LEU:C	22:N:30:ARG:H	2.21	0.43
22:N:33:ILE:HG22	22:N:114:GLU:HB2	2.00	0.43
23:O:29:HIS:CD2	23:O:36:TYR:HB2	2.53	0.43
23:O:98:GLN:HG2	23:O:100:HIS:HB2	1.99	0.43
24:P:88:ARG:HG2	24:P:89:GLY:N	2.32	0.43
25:Q:96:ASP:CG	26:R:13:ARG:NH1	2.71	0.43
33:Y:23:ARG:O	33:Y:27:ASN:HB3	2.18	0.43
33:Y:25:GLN:CG	33:Y:29:ARG:HH22	2.30	0.43
34:Z:5:LYS:CG	34:Z:36:GLU:HG2	2.47	0.43
4:3:22:LYS:NZ	10:B:650:C:O2'	2.41	0.43
6:5:76:ALA:HB2	6:5:111:PHE:HB2	1.99	0.43
6:5:104:ILE:HD12	10:B:2171:A:P	2.58	0.43
7:6:124:VAL:O	7:6:127:ALA:N	2.51	0.43
7:6:173:GLN:O	7:6:176:SER:HB2	2.18	0.43
7:6:212:THR:O	7:6:215:ASN:HB2	2.17	0.43
8:7:54:VAL:HG21	10:B:1083:U:H5''	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:78:A:H2'	9:A:79:G:H8	1.83	0.43
10:B:98:G:C6	10:B:99:U:N3	2.86	0.43
10:B:222:A:C5	10:B:224:U:C2	3.06	0.43
10:B:463:G:N2	10:B:467:G:C4	2.86	0.43
10:B:468:G:C6	10:B:469:G:C4	3.06	0.43
10:B:480:A:N1	10:B:505:A:N1	2.65	0.43
10:B:523:C:C2	10:B:524:G:C8	3.06	0.43
10:B:604:G:C5	10:B:625:G:C2	3.06	0.43
10:B:612:G:N2	10:B:616:A:H62	2.15	0.43
10:B:613:A:N1	10:B:616:A:C6	2.86	0.43
10:B:631:A:H2'	10:B:632:A:O4'	2.17	0.43
10:B:717:C:H3'	10:B:718:A:C2	2.53	0.43
10:B:768:G:H2'	10:B:769:U:C6	2.54	0.43
10:B:808:G:H3'	10:B:809:G:H8	1.83	0.43
10:B:856:G:O2'	31:W:23:LYS:HB2	2.18	0.43
10:B:1006:C:H5''	18:J:39:LYS:HZ2	1.82	0.43
10:B:1034:G:C6	10:B:1122:G:C5	3.05	0.43
10:B:1218:G:C2	10:B:1232:G:C4	3.06	0.43
10:B:1234:U:N3	10:B:1235:G:C5	2.86	0.43
10:B:1288:G:C8	10:B:1328:A:H2	2.35	0.43
10:B:1334:G:C5	10:B:1335:C:C5	3.06	0.43
10:B:1419:A:C8	10:B:1421:G:C5	3.06	0.43
10:B:1491:G:H1'	11:C:99:GLU:HB3	2.00	0.43
10:B:1690:A:H3'	10:B:1691:C:C6	2.51	0.43
10:B:1694:C:H2'	10:B:1694:C:OP2	2.19	0.43
10:B:1824:G:OP1	11:C:51:ARG:NH2	2.51	0.43
10:B:1871:A:C6	10:B:1872:A:C4	3.06	0.43
10:B:2209:G:C4	10:B:2210:U:C5	3.06	0.43
10:B:2569:G:C2'	10:B:2570:G:H8	2.28	0.43
10:B:2745:C:H2'	10:B:2746:U:O4'	2.17	0.43
10:B:2749:A:C6	10:B:2750:A:N7	2.86	0.43
15:G:42:VAL:HA	15:G:50:THR:O	2.17	0.43
18:J:109:LEU:CD1	18:J:119:PHE:HD1	2.30	0.43
21:M:57:VAL:HG21	21:M:105:MET:HE1	2.00	0.43
23:O:76:LYS:HB3	23:O:80:GLU:OE2	2.18	0.43
25:Q:94:LEU:HD11	26:R:11:GLN:HB3	1.99	0.43
28:T:22:THR:HA	28:T:25:GLU:CG	2.48	0.43
31:W:30:VAL:HA	31:W:60:ALA:C	2.38	0.43
3:2:44:VAL:HG21	10:B:465:G:H5''	1.99	0.43
7:6:50:LYS:HD2	7:6:53:HIS:CE1	2.53	0.43
7:6:78:VAL:HG12	7:6:98:CYS:SG	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:31:ARG:NH2	8:7:105:LYS:HD2	2.33	0.43
10:B:255:A:C6	10:B:256:A:C5	3.07	0.43
10:B:279:A:H8	10:B:279:A:P	2.41	0.43
10:B:562:U:N3	10:B:572:A:C4	2.78	0.43
10:B:575:A:H2'	10:B:576:U:C6	2.50	0.43
10:B:643:A:C5	10:B:644:A:C8	3.06	0.43
10:B:653:U:C4	10:B:654:A:C2	3.06	0.43
10:B:689:A:N1	10:B:773:U:O4	2.51	0.43
10:B:740:C:H5''	10:B:741:U:OP2	2.17	0.43
10:B:749:A:H4'	10:B:1271:G:N2	2.33	0.43
10:B:806:C:C5	10:B:807:U:C5	3.06	0.43
10:B:861:A:C2	10:B:917:A:C5	3.07	0.43
10:B:973:A:H8	10:B:973:A:OP1	2.02	0.43
10:B:1170:C:N4	10:B:1179:G:H1	2.13	0.43
10:B:1288:G:C8	10:B:1327:A:N6	2.86	0.43
10:B:1300:G:C6	10:B:1626:A:N7	2.86	0.43
10:B:1326:U:C6	10:B:1648:U:H1'	2.53	0.43
10:B:1339:G:N2	10:B:1340:U:H3	2.15	0.43
10:B:1394:U:C2'	10:B:1395:A:H5'	2.48	0.43
10:B:1492:G:C2	10:B:1496:A:N1	2.86	0.43
10:B:1582:C:H3'	10:B:1583:A:H8	1.84	0.43
10:B:1805:A:C6	10:B:1813:G:N1	2.86	0.43
10:B:1835:G:C2	10:B:1931:U:C4	3.06	0.43
10:B:1931:U:H2'	10:B:1932:A:O4'	2.18	0.43
10:B:1996:C:H5'	19:K:30:ARG:HH12	1.79	0.43
10:B:2033:A:C6	10:B:2036:C:N3	2.86	0.43
10:B:2094:A:C2	10:B:2196:C:C2	3.06	0.43
10:B:2115:G:HO2'	10:B:2165:C:H5	1.64	0.43
10:B:2294:G:N1	10:B:2339:C:N3	2.66	0.43
10:B:2312:U:H5''	10:B:2313:C:OP2	2.18	0.43
10:B:2318:G:C5	10:B:2319:G:C6	3.06	0.43
10:B:2425:A:H5''	10:B:2427:C:O4'	2.18	0.43
10:B:2589:A:N1	10:B:2590:A:C6	2.86	0.43
10:B:2593:U:H2'	10:B:2594:C:C6	2.53	0.43
10:B:2625:G:C4	10:B:2626:C:C5	3.07	0.43
10:B:2734:A:H2'	10:B:2735:G:O4'	2.18	0.43
10:B:2819:G:C5	10:B:2821:A:C6	3.06	0.43
10:B:2877:G:O2'	10:B:2878:U:H5'	2.17	0.43
15:G:137:LYS:HE3	15:G:137:LYS:HB2	1.77	0.43
16:H:25:TYR:O	16:H:29:PHE:HB3	2.18	0.43
18:J:16:TYR:HA	18:J:138:GLN:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:N:25:ALA:O	22:N:29:VAL:HG13	2.18	0.43
23:O:26:LEU:O	23:O:93:ASP:HB3	2.17	0.43
23:O:81:ARG:O	23:O:84:GLU:HB2	2.18	0.43
24:P:48:ALA:HB2	24:P:58:PHE:HA	2.00	0.43
25:Q:103:VAL:O	25:Q:106:THR:HB	2.18	0.43
1:O:54:ILE:HD13	22:N:112:TYR:HD2	1.83	0.43
5:4:38:GLY:O	10:B:1124:G:O2'	2.28	0.43
6:5:106:LYS:HD2	6:5:106:LYS:N	2.33	0.43
6:5:206:GLY:HA3	10:B:1877:A:OP1	2.18	0.43
7:6:20:GLN:HG3	10:B:1916:A:OP1	2.19	0.43
7:6:194:LYS:HZ1	7:6:197:VAL:HG13	1.82	0.43
7:6:212:THR:HG21	35:6:527:GNP:C8	2.48	0.43
8:7:96:PHE:CE2	8:7:113:PHE:HD2	2.37	0.43
9:A:4:C:C2	9:A:117:G:C2	3.06	0.43
10:B:66:C:O2	10:B:88:G:N1	2.48	0.43
10:B:90:U:H5''	10:B:91:A:OP2	2.18	0.43
10:B:132:G:C2	10:B:133:U:C2	3.07	0.43
10:B:169:G:C2	10:B:170:U:C4	3.06	0.43
10:B:184:C:N4	10:B:212:G:H1	2.16	0.43
10:B:265:A:C8	10:B:428:A:N6	2.86	0.43
10:B:475:C:N4	10:B:476:G:O6	2.52	0.43
10:B:563:A:O5'	26:R:79:ARG:NH2	2.52	0.43
10:B:657:U:H2'	10:B:658:U:C6	2.52	0.43
10:B:705:A:N6	10:B:726:G:H1'	2.33	0.43
10:B:729:G:O5'	11:C:206:LYS:NZ	2.52	0.43
10:B:799:G:C5	10:B:800:A:N7	2.86	0.43
10:B:879:G:C8	10:B:880:G:N7	2.87	0.43
10:B:897:C:C5	10:B:898:C:C5	3.06	0.43
10:B:910:A:C4	21:M:13:HIS:NE2	2.85	0.43
10:B:1016:G:C6	10:B:1147:A:C6	3.05	0.43
10:B:1078:U:C5'	17:I:133:ARG:HH22	2.30	0.43
10:B:1213:A:N3	10:B:1214:A:C8	2.86	0.43
10:B:1296:G:C6	10:B:1645:G:C6	3.06	0.43
10:B:1310:G:O6	10:B:1605:C:C4	2.71	0.43
10:B:1373:A:H3'	10:B:1374:G:H8	1.83	0.43
10:B:1410:G:C6	10:B:1411:U:C4	3.07	0.43
10:B:1449:G:N1	10:B:1463:C:C4	2.86	0.43
10:B:1459:G:OP2	10:B:1461:C:C4	2.71	0.43
10:B:1479:G:N1	10:B:1513:U:C2	2.86	0.43
10:B:1492:G:C2	10:B:1496:A:C6	3.06	0.43
10:B:1556:C:N3	10:B:1557:C:C4	2.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1692:U:H4'	10:B:1977:A:H4'	2.00	0.43
10:B:1729:U:C5	10:B:1731:G:N2	2.86	0.43
10:B:1774:C:C5	10:B:1775:U:H5	2.36	0.43
10:B:1867:G:C6	10:B:1875:G:N3	2.87	0.43
10:B:1896:G:C2	10:B:1897:G:C8	3.06	0.43
10:B:1977:A:C6	10:B:1978:A:C5	3.06	0.43
10:B:2082:A:C5	10:B:2083:G:C5	3.07	0.43
10:B:2087:G:C2	10:B:2088:A:C5	3.06	0.43
10:B:2317:A:C5	10:B:2318:G:C5	3.06	0.43
10:B:2355:G:C2	10:B:2363:G:C4	3.07	0.43
10:B:2514:U:P	12:D:159:LYS:NZ	2.91	0.43
10:B:2621:G:C5	10:B:2622:U:C4	3.07	0.43
10:B:2630:G:C8	10:B:2894:G:C4	3.07	0.43
10:B:2754:U:O2'	10:B:2756:U:OP1	2.22	0.43
10:B:2816:G:C5	10:B:2817:U:C5	3.07	0.43
10:B:2852:G:H2'	10:B:2853:C:O4'	2.19	0.43
13:E:192:ALA:O	13:E:195:GLN:N	2.52	0.43
15:G:4:ALA:HB3	15:G:61:TRP:HD1	1.83	0.43
15:G:120:ILE:HA	15:G:133:LYS:O	2.17	0.43
17:I:61:TYR:HB2	17:I:63:ASP:OD1	2.19	0.43
21:M:120:ALA:O	21:M:124:LEU:HG	2.19	0.43
22:N:87:PHE:HD2	22:N:90:ARG:HG3	1.81	0.43
23:O:6:ALA:O	23:O:9:ARG:HB3	2.18	0.43
26:R:31:GLU:O	26:R:62:GLU:HA	2.18	0.43
28:T:47:VAL:HG23	28:T:55:VAL:HG21	1.99	0.43
29:U:95:PHE:N	29:U:100:GLU:O	2.38	0.43
33:Y:25:GLN:NE2	33:Y:29:ARG:NH2	2.67	0.43
34:Z:8:GLN:HG2	34:Z:9:THR:N	2.33	0.43
7:6:89:GLU:HG2	7:6:100:VAL:HB	2.01	0.43
7:6:211:SER:OG	7:6:222:VAL:O	2.37	0.43
7:6:364:GLU:CD	7:6:408:ILE:CD1	2.81	0.43
7:6:375:GLN:CD	7:6:378:ARG:HH12	2.21	0.43
10:B:45:G:H5''	10:B:46:G:H5'	2.00	0.43
10:B:54:G:C6	10:B:117:G:N2	2.86	0.43
10:B:81:G:C2	10:B:82:U:C2	3.07	0.43
10:B:309:A:N6	10:B:330:A:C5	2.86	0.43
10:B:323:C:N4	10:B:333:G:C5	2.86	0.43
10:B:327:G:C2	10:B:336:C:C2	3.06	0.43
10:B:388:G:C2	10:B:390:U:O4	2.71	0.43
10:B:451:U:C2	10:B:453:A:N7	2.87	0.43
10:B:503:A:C6	10:B:506:G:C6	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:656:G:C6	10:B:657:U:N3	2.87	0.43
10:B:838:C:H2'	10:B:839:U:O4'	2.17	0.43
10:B:1022:G:N1	10:B:1140:C:C2	2.86	0.43
10:B:1079:C:C2	10:B:1088:A:C2	3.06	0.43
10:B:1122:G:C6	10:B:1123:C:C4	3.06	0.43
10:B:1204:A:C8	10:B:1206:G:C6	3.06	0.43
10:B:1274:A:C6	10:B:1302:A:C2	3.06	0.43
10:B:1281:G:N2	10:B:1282:U:C2	2.87	0.43
10:B:1323:C:OP2	27:S:98:LYS:NZ	2.52	0.43
10:B:1331:G:C4	10:B:1333:G:C8	3.06	0.43
10:B:1356:G:C2	10:B:1357:C:C6	3.06	0.43
10:B:1388:G:C4	10:B:1389:G:C8	3.06	0.43
10:B:1410:G:C2	10:B:1411:U:C2	3.07	0.43
10:B:1498:C:C4	10:B:1499:C:C4	3.07	0.43
10:B:1608:A:N6	10:B:1611:C:C2	2.87	0.43
10:B:1629:U:C2	10:B:1630:A:C8	3.07	0.43
10:B:1707:G:C8	10:B:1756:G:C5	3.07	0.43
10:B:1715:G:H1'	10:B:1716:U:H5	1.84	0.43
10:B:1810:A:N6	10:B:1811:G:C2	2.87	0.43
10:B:1823:G:C2	10:B:1824:G:C8	3.07	0.43
10:B:1937:A:C5	10:B:1939:U:C4	3.07	0.43
10:B:1942:C:N3	10:B:1943:U:C4	2.86	0.43
10:B:1949:G:N2	10:B:1950:G:N3	2.67	0.43
10:B:1963:U:H5''	10:B:1964:G:P	2.58	0.43
10:B:1973:G:O2'	10:B:1974:C:H5'	2.19	0.43
10:B:2025:C:OP1	12:D:152:PRO:HB2	2.17	0.43
10:B:2060:A:N6	10:B:2502:G:N1	2.67	0.43
10:B:2108:A:N6	10:B:2180:U:O4	2.51	0.43
10:B:2134:A:H8	10:B:2160:C:H5'	1.83	0.43
10:B:2223:G:H2'	10:B:2224:G:O4'	2.18	0.43
10:B:2256:G:C2	10:B:2257:U:N3	2.87	0.43
10:B:2272:U:O2'	10:B:2273:A:H8	2.01	0.43
10:B:2295:C:N4	10:B:2296:U:O4	2.51	0.43
10:B:2322:A:C2	10:B:2323:G:H1'	2.54	0.43
10:B:2405:G:HO2'	10:B:2406:A:P	2.41	0.43
10:B:2457:U:H3'	10:B:2458:G:H21	1.84	0.43
10:B:2511:U:N3	10:B:2578:G:N1	2.66	0.43
10:B:2516:A:N6	10:B:2568:U:H3	2.15	0.43
10:B:2574:G:C6	10:B:2575:C:C4	3.07	0.43
10:B:2685:G:C2	10:B:2725:A:C2	3.06	0.43
10:B:2697:G:C6	10:B:2698:U:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2773:C:OP1	12:D:169:ARG:CZ	2.66	0.43
10:B:2834:G:C5	10:B:2879:A:C5	3.05	0.43
10:B:2873:A:N3	22:N:5:LYS:HA	2.33	0.43
11:C:83:ASP:HB2	11:C:90:ILE:HG12	2.01	0.43
12:D:16:THR:H	12:D:19:GLY:HA2	1.82	0.43
16:H:78:VAL:HB	16:H:112:LYS:CE	2.48	0.43
25:Q:110:GLU:HA	25:Q:113:LYS:HD2	2.00	0.43
32:X:38:TRP:HA	32:X:45:PHE:HD1	1.84	0.43
1:0:30:ASP:HB2	1:0:33:SER:O	2.18	0.43
2:1:45:HIS:CE1	10:B:2371:G:HO2'	2.34	0.43
4:3:20:GLY:HA2	4:3:51:LYS:NZ	2.33	0.43
6:5:18:THR:OG1	10:B:2176:A:H4'	2.19	0.43
7:6:62:LYS:O	7:6:66:ILE:HG23	2.18	0.43
7:6:279:LEU:HD12	7:6:311:PRO:O	2.19	0.43
8:7:20:LYS:HE2	8:7:88:HIS:CG	2.54	0.43
9:A:22:U:H2'	9:A:23:G:C8	2.53	0.43
10:B:155:A:C4	10:B:156:A:C8	3.06	0.43
10:B:155:A:C6	10:B:172:A:C6	3.07	0.43
10:B:160:A:C5	10:B:167:A:C2	3.07	0.43
10:B:488:G:C4	10:B:490:C:N3	2.87	0.43
10:B:543:G:C6	10:B:544:C:C6	3.06	0.43
10:B:582:A:H4'	25:Q:10:ARG:HH12	1.83	0.43
10:B:586:A:C2	10:B:1254:A:N1	2.86	0.43
10:B:617:G:H5''	13:E:102:ARG:HH12	1.83	0.43
10:B:692:C:C4	10:B:771:G:N1	2.86	0.43
10:B:831:G:N2	10:B:832:U:H1'	2.34	0.43
10:B:863:A:C6	10:B:864:G:C5	3.06	0.43
10:B:881:G:N3	10:B:882:G:H1'	2.34	0.43
10:B:898:C:N4	10:B:899:A:H62	2.17	0.43
10:B:1059:G:OP2	10:B:1060:U:O2'	2.36	0.43
10:B:1214:A:C4	10:B:1215:G:C8	3.06	0.43
10:B:1288:G:N7	10:B:1327:A:C6	2.87	0.43
10:B:1303:G:C2	10:B:1304:A:C4	3.06	0.43
10:B:1372:U:H1'	10:B:2214:C:O2	2.19	0.43
10:B:1411:U:H2'	10:B:1412:U:C6	2.54	0.43
10:B:1449:G:C2	10:B:1450:G:C8	3.06	0.43
10:B:1450:G:C2	10:B:1462:C:C2	3.06	0.43
10:B:1465:G:N3	10:B:1545:A:H2	2.17	0.43
10:B:1589:U:C2	10:B:1590:A:C8	3.07	0.43
10:B:1608:A:C5	10:B:1611:C:C4	3.07	0.43
10:B:1652:A:HO2'	10:B:1653:G:P	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1653:G:C6	22:N:9:GLN:HB2	2.53	0.43
10:B:1672:A:H2'	10:B:1673:G:C8	2.53	0.43
10:B:1727:C:H2'	10:B:1728:C:O4'	2.19	0.43
10:B:1739:A:C5	10:B:1740:G:C8	3.07	0.43
10:B:1789:A:H2'	10:B:1790:C:H6	1.83	0.43
10:B:1821:A:H2'	10:B:1822:C:C6	2.54	0.43
10:B:2032:G:N3	12:D:150:GLN:HG2	2.34	0.43
10:B:2600:A:H2'	10:B:2601:C:C6	2.53	0.43
10:B:2626:C:H2'	10:B:2627:G:H8	1.83	0.43
10:B:2772:C:H4'	12:D:171:THR:OG1	2.18	0.43
11:C:4:LYS:HG3	11:C:15:VAL:O	2.19	0.43
11:C:18:VAL:HG11	11:C:198:GLU:HB3	2.00	0.43
11:C:130:PRO:HA	11:C:188:ARG:HG2	2.00	0.43
11:C:207:ALA:O	11:C:210:ALA:N	2.50	0.43
14:F:15:LEU:HD23	14:F:18:GLU:OE2	2.18	0.43
15:G:82:PHE:CE1	15:G:137:LYS:HE2	2.54	0.43
23:O:81:ARG:HA	23:O:84:GLU:HG3	2.00	0.43
26:R:79:ARG:HD3	26:R:80:ARG:CZ	2.49	0.43
28:T:36:LYS:C	28:T:81:LYS:NZ	2.70	0.43
30:V:1:MET:O	30:V:3:THR:OG1	2.24	0.43
33:Y:11:VAL:CA	33:Y:63:ALA:HA	2.44	0.43
7:6:134:THR:OG1	7:6:135:ARG:N	2.51	0.43
9:A:6:G:C2	9:A:7:G:C5	3.07	0.43
9:A:90:C:H4'	21:M:38:ARG:NH1	2.33	0.43
10:B:64:A:H2'	10:B:65:U:H6	1.82	0.43
10:B:80:G:C5	10:B:81:G:N7	2.87	0.43
10:B:160:A:C2	10:B:161:A:C4	3.06	0.43
10:B:181:A:H2'	10:B:182:A:C8	2.53	0.43
10:B:190:A:N7	10:B:207:A:C6	2.86	0.43
10:B:245:G:C2	10:B:246:C:C5	3.06	0.43
10:B:291:G:C6	10:B:350:G:C6	3.06	0.43
10:B:319:G:H2'	10:B:320:A:C8	2.53	0.43
10:B:333:G:H2'	10:B:333:G:N3	2.33	0.43
10:B:367:G:C2	10:B:368:A:C4	3.07	0.43
10:B:491:G:N2	10:B:492:A:N3	2.66	0.43
10:B:503:A:H4'	10:B:504:A:H5'	2.01	0.43
10:B:538:A:H1'	10:B:556:A:N1	2.34	0.43
10:B:749:A:C5	10:B:1618:A:C5	3.06	0.43
10:B:753:A:C4	10:B:754:U:C6	3.07	0.43
10:B:759:G:O2'	10:B:760:G:O4'	2.29	0.43
10:B:765:C:C4	10:B:766:U:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:775:G:C4	10:B:777:G:C2	3.07	0.43
10:B:802:A:C2	10:B:803:U:C2	3.07	0.43
10:B:844:A:N3	10:B:845:A:H2	2.17	0.43
10:B:869:G:C2	10:B:909:A:C6	3.06	0.43
10:B:878:A:H2	10:B:899:A:C5	2.37	0.43
10:B:960:A:C2	10:B:962:G:H1'	2.53	0.43
10:B:1142:A:C6	10:B:1144:A:C5	3.07	0.43
10:B:1235:G:H2'	10:B:1236:G:C4	2.52	0.43
10:B:1334:G:C6	10:B:1335:C:C4	3.07	0.43
10:B:1366:A:N6	10:B:1367:A:C4	2.86	0.43
10:B:1587:G:C5	10:B:1588:G:C8	3.07	0.43
10:B:1625:C:C5	10:B:1626:A:C6	3.07	0.43
10:B:1684:G:C2	10:B:1685:C:C2	3.07	0.43
10:B:1739:A:O5'	10:B:1739:A:H8	2.01	0.43
10:B:1766:G:H1	10:B:1986:C:H42	1.66	0.43
10:B:1907:G:C2	10:B:1908:C:C2	3.06	0.43
10:B:1949:G:N2	10:B:1950:G:C4	2.87	0.43
10:B:1975:G:C5	10:B:1976:U:C5	3.07	0.43
10:B:2020:A:OP1	25:Q:26:ALA:N	2.49	0.43
10:B:2043:C:C5	10:B:2777:G:C4	3.07	0.43
10:B:2061:G:HO2'	10:B:2063:C:H5	1.65	0.43
10:B:2083:G:H2'	10:B:2084:C:O4'	2.19	0.43
10:B:2122:U:H2'	10:B:2123:G:C8	2.54	0.43
10:B:2173:A:H8	10:B:2173:A:O5'	2.02	0.43
10:B:2190:G:N1	10:B:2191:A:C5	2.86	0.43
10:B:2306:C:N4	14:F:38:GLY:HA3	2.34	0.43
10:B:2308:G:H5''	10:B:2309:A:OP2	2.18	0.43
10:B:2425:A:H4'	10:B:2426:A:H5''	1.99	0.43
10:B:2808:G:H4'	10:B:2809:A:H5'	1.99	0.43
17:I:92:PRO:O	17:I:93:ASN:HB2	2.18	0.43
18:J:106:LYS:O	18:J:109:LEU:HB2	2.19	0.43
19:K:68:VAL:HG22	19:K:69:ARG:O	2.19	0.43
21:M:62:LYS:HB3	21:M:64:TRP:CH2	2.54	0.43
25:Q:91:ARG:CD	26:R:11:GLN:HG3	2.41	0.43
30:V:20:LEU:HA	30:V:20:LEU:HD23	1.78	0.43
30:V:75:GLN:HB2	30:V:90:ASP:HB2	2.01	0.43
6:5:2:ALA:HB1	10:B:2110:G:C8	2.54	0.43
6:5:112:ASP:O	6:5:114:VAL:HG23	2.19	0.43
10:B:129:C:O2'	10:B:1349:C:OP1	2.37	0.43
10:B:201:C:OP1	32:X:17:ARG:NH1	2.48	0.43
10:B:268:C:H2'	10:B:269:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:301:G:O2'	10:B:302:C:H5''	2.19	0.43
10:B:449:A:C4	10:B:450:G:C8	3.06	0.43
10:B:590:A:C5	10:B:591:U:N3	2.87	0.43
10:B:626:A:C8	20:L:78:ARG:NH2	2.87	0.43
10:B:643:A:C5	10:B:644:A:N7	2.87	0.43
10:B:721:A:H2'	10:B:722:A:C1'	2.48	0.43
10:B:992:C:N4	10:B:1163:G:O6	2.50	0.43
10:B:1000:A:N1	10:B:1155:A:C4	2.86	0.43
10:B:1128:G:C4	10:B:1129:A:C2	3.07	0.43
10:B:1172:C:H3'	10:B:1173:U:C6	2.54	0.43
10:B:1173:U:O2	10:B:1177:G:C6	2.71	0.43
10:B:1279:G:N3	10:B:1280:G:C8	2.87	0.43
10:B:1386:C:H2'	10:B:1387:A:C8	2.53	0.43
10:B:1531:C:O2	10:B:1541:C:H1'	2.19	0.43
10:B:1555:G:C2	10:B:1556:C:C6	3.07	0.43
10:B:1678:A:H2'	10:B:1679:A:O4'	2.19	0.43
10:B:1709:U:O2'	10:B:2859:G:H1'	2.19	0.43
10:B:1869:G:H8	10:B:1869:G:OP2	2.01	0.43
10:B:2143:C:H2'	10:B:2146:C:OP2	2.18	0.43
10:B:2218:G:H2'	10:B:2219:U:H6	1.84	0.43
10:B:2394:C:OP1	20:L:63:LYS:N	2.51	0.43
10:B:2495:G:C2	10:B:2496:C:C2	3.06	0.43
10:B:2513:A:C8	10:B:2514:U:H5	2.37	0.43
10:B:2578:G:C2	10:B:2579:C:C5	3.06	0.43
10:B:2578:G:H2'	10:B:2579:C:H6	1.84	0.43
10:B:2720:U:C2	10:B:2872:A:C5	3.07	0.43
11:C:75:ALA:HB3	11:C:115:ILE:HG12	2.01	0.43
11:C:92:LEU:HD12	11:C:101:ARG:O	2.19	0.43
11:C:175:LEU:HD23	11:C:175:LEU:HA	1.83	0.43
13:E:155:GLU:O	13:E:159:LEU:HG	2.19	0.43
25:Q:57:ARG:O	25:Q:60:TRP:HB2	2.19	0.43
26:R:62:GLU:CD	26:R:97:LYS:HB3	2.39	0.43
27:S:70:LYS:O	27:S:107:VAL:HG22	2.18	0.43
28:T:37:ASP:HB3	28:T:42:GLU:OE1	2.18	0.43
32:X:4:CYS:HB3	32:X:8:GLY:H	1.82	0.43
33:Y:35:GLY:O	33:Y:39:GLN:HG3	2.18	0.43
34:Z:40:THR:OG1	34:Z:42:ALA:HB3	2.19	0.43
1:0:42:ILE:C	1:0:44:ALA:H	2.22	0.43
3:2:10:LEU:HD23	10:B:125:A:N1	2.33	0.43
3:2:24:THR:HG23	3:2:26:ASN:N	2.32	0.43
4:3:31:ILE:O	4:3:32:LEU:HD23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:2:ALA:HB1	10:B:2110:G:H2'	2.01	0.43
7:6:411:TRP:HE3	7:6:426:ILE:HG22	1.84	0.43
8:7:58:THR:N	10:B:1107:G:OP1	2.50	0.43
8:7:114:GLU:OE2	8:7:122:GLN:NE2	2.51	0.43
9:A:52:A:H2'	9:A:53:A:O4'	2.19	0.43
10:B:118:A:C8	10:B:118:A:H3'	2.53	0.43
10:B:145:C:H2'	10:B:146:A:O4'	2.19	0.43
10:B:216:A:C6	10:B:217:A:C5	3.07	0.43
10:B:255:A:C4	10:B:256:A:C8	3.07	0.43
10:B:299:A:H3'	10:B:300:A:C8	2.54	0.43
10:B:412:A:N6	10:B:413:C:C2	2.87	0.43
10:B:452:G:N7	13:E:53:THR:HG21	2.33	0.43
10:B:470:A:C6	10:B:471:A:C5	3.07	0.43
10:B:503:A:C4	10:B:505:A:N7	2.87	0.43
10:B:699:A:H2'	10:B:700:G:H8	1.84	0.43
10:B:708:G:O6	10:B:723:C:N4	2.46	0.43
10:B:759:G:C8	10:B:1981:A:H2	2.36	0.43
10:B:843:G:C2	10:B:844:A:C2	3.07	0.43
10:B:891:G:C6	10:B:892:A:C6	3.06	0.43
10:B:1139:G:C5'	18:J:72:LYS:NZ	2.82	0.43
10:B:1262:A:OP1	27:S:99:ARG:NH2	2.35	0.43
10:B:1286:A:C2	10:B:1289:C:C2	3.07	0.43
10:B:1343:G:C5	10:B:1597:A:C6	3.06	0.43
10:B:1420:A:C4	10:B:2211:A:C6	3.06	0.43
10:B:1542:U:C4	10:B:1543:G:C6	3.07	0.43
10:B:1776:G:C2	10:B:1777:U:C6	3.07	0.43
10:B:1823:G:H2'	10:B:1824:G:C8	2.53	0.43
10:B:1858:A:N6	10:B:1884:G:H1'	2.34	0.43
10:B:1918:A:H4'	10:B:1919:A:H5'	1.99	0.43
10:B:2024:G:H2'	10:B:2025:C:C6	2.54	0.43
10:B:2038:G:H2'	10:B:2039:U:O4'	2.18	0.43
10:B:2070:A:C2	10:B:2071:A:C4	3.07	0.43
10:B:2322:A:C5	10:B:2323:G:C8	3.07	0.43
10:B:2342:C:O2'	10:B:2374:C:H5''	2.19	0.43
10:B:2472:G:O6	10:B:2476:A:H4'	2.19	0.43
10:B:2519:U:C4	10:B:2541:A:C5	3.07	0.43
10:B:2547:A:C8	10:B:2566:A:N7	2.87	0.43
10:B:2623:G:C2	10:B:2624:G:C5	3.07	0.43
10:B:2822:G:C8	22:N:1:MET:HE3	2.53	0.43
10:B:2839:G:H4'	22:N:49:GLU:OE1	2.19	0.43
12:D:56:LYS:CD	12:D:59:ARG:HH21	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:D:101:PHE:HB3	12:D:104:VAL:HG22	2.00	0.43
13:E:31:VAL:O	13:E:34:ALA:HB3	2.18	0.43
16:H:4:ILE:HD12	16:H:44:ILE:HG22	2.01	0.43
20:L:116:VAL:HG11	20:L:134:ALA:O	2.19	0.43
20:L:132:ARG:HE	20:L:143:GLU:CD	2.22	0.43
22:N:34:ILE:O	22:N:112:TYR:HA	2.19	0.43
23:O:81:ARG:HG2	23:O:84:GLU:OE2	2.19	0.43
24:P:6:GLN:HA	24:P:9:GLN:HB2	2.01	0.43
32:X:4:CYS:O	32:X:50:VAL:HG12	2.19	0.43
34:Z:26:LEU:HD21	34:Z:46:MET:SD	2.59	0.43
6:5:180:PHE:HB2	6:5:185:LEU:HD21	2.01	0.43
6:5:183:ASP:OD1	6:5:184:LYS:N	2.52	0.43
7:6:194:LYS:NZ	7:6:197:VAL:HG22	2.28	0.43
7:6:224:ALA:HB1	35:6:527:GNP:O5'	2.18	0.43
7:6:244:VAL:O	7:6:246:GLU:N	2.52	0.43
7:6:411:TRP:CE3	7:6:426:ILE:HG22	2.54	0.43
9:A:56:G:O2'	9:A:59:A:N6	2.47	0.43
9:A:71:C:N4	9:A:105:G:H1	2.16	0.43
10:B:301:G:C2	10:B:302:C:C2	3.07	0.43
10:B:360:U:C4	10:B:361:G:N2	2.87	0.43
10:B:409:G:C2	10:B:410:G:C4	3.07	0.43
10:B:436:C:C2	10:B:437:U:C5	3.07	0.43
10:B:475:C:H2'	10:B:476:G:O4'	2.19	0.43
10:B:533:G:H2'	10:B:534:U:O4'	2.19	0.43
10:B:578:G:C5	10:B:2018:G:H5'	2.54	0.43
10:B:776:G:O6	10:B:793:A:C8	2.71	0.43
10:B:785:G:C5	10:B:786:C:C5	3.07	0.43
10:B:803:U:C2	10:B:804:A:C8	3.07	0.43
10:B:862:G:C6	10:B:863:A:C5	3.07	0.43
10:B:887:U:H1'	10:B:888:C:C5	2.53	0.43
10:B:923:G:N3	10:B:924:G:C8	2.87	0.43
10:B:952:G:N2	10:B:953:G:C4	2.86	0.43
10:B:970:U:O2	10:B:970:U:H2'	2.19	0.43
10:B:972:A:N1	10:B:973:A:N6	2.66	0.43
10:B:1003:G:C2	10:B:1153:C:C2	3.07	0.43
10:B:1048:A:C8	10:B:1111:A:N6	2.86	0.43
10:B:1106:G:C5	10:B:1107:G:N7	2.87	0.43
10:B:1163:G:C6	10:B:1164:C:N4	2.86	0.43
10:B:1277:G:C6	10:B:1278:C:C4	3.07	0.43
10:B:1286:A:C6	10:B:1329:U:C4	3.07	0.43
10:B:1491:G:N1	10:B:1492:G:C5	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1522:A:C4	10:B:1524:G:C2	3.06	0.43
10:B:1707:G:C2	10:B:1708:C:H1'	2.53	0.43
10:B:1902:C:N4	10:B:1903:G:C4	2.87	0.43
10:B:1910:G:C2	10:B:1921:G:C4	3.06	0.43
10:B:1932:A:C2	10:B:1933:G:H1'	2.53	0.43
10:B:2025:C:H5'	12:D:154:LYS:NZ	2.33	0.43
10:B:2359:C:N4	10:B:2360:G:C6	2.87	0.43
10:B:2408:U:C2	10:B:2409:G:C8	3.07	0.43
10:B:2599:G:N1	10:B:2600:A:C5	2.87	0.43
10:B:2679:A:C2	10:B:2680:U:C4	3.07	0.43
10:B:2687:U:H5''	10:B:2688:G:OP2	2.19	0.43
12:D:16:THR:OG1	12:D:19:GLY:N	2.43	0.43
12:D:121:THR:HB	12:D:127:PHE:CD2	2.54	0.43
13:E:48:THR:HG22	13:E:86:ALA:HB2	2.00	0.43
13:E:134:LEU:CD2	13:E:167:VAL:HG21	2.49	0.43
14:F:3:LEU:HD22	14:F:96:TRP:CH2	2.54	0.43
14:F:9:ASP:HA	14:F:13:LYS:CE	2.49	0.43
15:G:143:VAL:O	15:G:147:LEU:N	2.50	0.43
16:H:124:THR:HG22	16:H:125:THR:H	1.83	0.43
17:I:19:PRO:O	17:I:22:PRO:HD2	2.19	0.43
27:S:66:ILE:C	27:S:68:ASP:N	2.72	0.43
29:U:14:THR:HG23	29:U:68:ASN:ND2	2.33	0.43
29:U:86:PHE:CG	29:U:87:GLU:N	2.87	0.43
31:W:19:ARG:HA	31:W:35:ILE:HG22	2.01	0.43
31:W:35:ILE:O	31:W:36:ILE:HD13	2.19	0.43
2:1:6:GLU:O	2:1:23:THR:HA	2.19	0.42
2:1:37:LYS:HB2	2:1:48:TYR:CD2	2.54	0.42
7:6:122:LEU:HD22	7:6:174:ILE:HG23	2.01	0.42
7:6:180:ARG:NH2	10:B:2537:U:O3'	2.52	0.42
7:6:202:LEU:HD23	7:6:281:LEU:HB2	2.00	0.42
8:7:84:TYR:CE2	8:7:86:MET:HG3	2.54	0.42
9:A:14:U:O2'	9:A:15:A:H5'	2.19	0.42
9:A:20:G:H2'	9:A:21:G:H8	1.83	0.42
10:B:89:A:H2'	10:B:90:U:C6	2.54	0.42
10:B:105:C:H5	33:Y:2:LYS:HZ1	1.63	0.42
10:B:111:A:O2'	10:B:112:U:H5'	2.19	0.42
10:B:121:G:C4	10:B:122:G:N7	2.87	0.42
10:B:532:A:O2'	25:Q:24:TYR:HB3	2.18	0.42
10:B:685:A:N7	10:B:774:G:N1	2.66	0.42
10:B:857:G:C6	10:B:858:G:O6	2.71	0.42
10:B:972:A:C8	10:B:973:A:C8	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1017:G:N2	10:B:1018:U:C2	2.87	0.42
10:B:1022:G:N1	10:B:1141:U:H5	2.17	0.42
10:B:1040:A:H2	10:B:1115:G:H22	1.67	0.42
10:B:1107:G:H2'	10:B:1108:U:O4'	2.19	0.42
10:B:1168:G:C6	10:B:1169:A:C5	3.06	0.42
10:B:1262:A:C5	10:B:1263:U:C5	3.07	0.42
10:B:1297:C:O2'	10:B:1298:C:H5'	2.18	0.42
10:B:1301:A:C4	10:B:1303:G:N7	2.86	0.42
10:B:1343:G:O6	10:B:1403:A:N6	2.52	0.42
10:B:1359:A:N6	10:B:1360:G:C2	2.87	0.42
10:B:1452:G:N1	10:B:2702:G:C4	2.87	0.42
10:B:1482:G:C4	10:B:1483:G:C8	3.06	0.42
10:B:1585:C:C5	10:B:1586:A:C4	3.07	0.42
10:B:1698:A:H4'	10:B:1699:G:O5'	2.18	0.42
10:B:1736:U:C4	10:B:1737:G:C5	3.06	0.42
10:B:1782:U:C2	10:B:2609:U:C5	3.06	0.42
10:B:1794:A:O2'	10:B:1795:C:O4'	2.37	0.42
10:B:1935:G:H2'	10:B:1962:C:N4	2.28	0.42
10:B:1953:A:N9	10:B:2550:G:H1'	2.34	0.42
10:B:2029:G:C2	10:B:2033:A:N7	2.87	0.42
10:B:2221:G:O2'	16:H:116:ARG:CZ	2.67	0.42
10:B:2230:G:H1'	32:X:31:ASN:OD1	2.19	0.42
10:B:2264:C:C5	10:B:2265:U:C4	3.07	0.42
10:B:2311:A:OP1	14:F:71:LYS:NZ	2.42	0.42
10:B:2392:A:C2	10:B:2393:U:C2	3.07	0.42
10:B:2419:U:H2'	10:B:2420:C:H6	1.84	0.42
10:B:2536:G:N1	10:B:2537:U:C4	2.87	0.42
10:B:2567:G:O2'	10:B:2568:U:H5'	2.19	0.42
10:B:2583:G:C5	10:B:2584:U:C4	3.07	0.42
10:B:2700:A:H2'	10:B:2701:U:C6	2.54	0.42
10:B:2822:G:N7	22:N:1:MET:HE3	2.34	0.42
11:C:143:VAL:C	11:C:151:GLY:HA2	2.40	0.42
11:C:167:ASP:OD2	11:C:170:TYR:O	2.37	0.42
13:E:158:PHE:O	13:E:162:ARG:HG3	2.19	0.42
14:F:31:GLU:HG3	14:F:32:LYS:H	1.84	0.42
14:F:48:LEU:HD12	14:F:49:LEU:HG	2.00	0.42
15:G:3:VAL:HB	15:G:68:ARG:NH1	2.34	0.42
27:S:28:LYS:HD3	27:S:70:LYS:CB	2.48	0.42
27:S:51:LEU:HG	27:S:55:ILE:HD11	2.00	0.42
29:U:94:PHE:CB	29:U:101:THR:HA	2.49	0.42
2:1:43:ARG:NH2	10:B:2370:G:H4'	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:46:LYS:NZ	10:B:630:G:H5''	2.33	0.42
6:5:67:HIS:HB2	6:5:188:ASN:OD1	2.19	0.42
6:5:105:LYS:HG2	10:B:2168:G:O6	2.19	0.42
7:6:63:ALA:O	7:6:66:ILE:HG12	2.19	0.42
7:6:132:LEU:HD23	7:6:132:LEU:HA	1.80	0.42
8:7:41:LEU:O	8:7:45:GLY:HA3	2.19	0.42
9:A:6:G:C4	9:A:7:G:C8	3.07	0.42
9:A:20:G:H2'	9:A:21:G:C8	2.54	0.42
9:A:48:U:H3'	23:O:30:ARG:HH12	1.82	0.42
9:A:64:G:C2	9:A:65:U:H1'	2.53	0.42
10:B:258:G:N1	10:B:259:G:C5	2.87	0.42
10:B:323:C:N4	10:B:333:G:N7	2.67	0.42
10:B:488:G:C8	10:B:490:C:N4	2.87	0.42
10:B:488:G:H4'	27:S:49:LYS:HZ3	1.84	0.42
10:B:607:U:P	13:E:98:LYS:HG2	2.58	0.42
10:B:623:C:H5''	10:B:624:C:OP2	2.18	0.42
10:B:711:G:C2	10:B:721:A:C4	3.06	0.42
10:B:795:C:C4	10:B:796:C:C5	3.07	0.42
10:B:811:U:N3	10:B:1250:G:OP1	2.44	0.42
10:B:828:U:O2	10:B:828:U:H2'	2.19	0.42
10:B:870:U:OP1	21:M:6:ARG:NE	2.52	0.42
10:B:924:G:N1	10:B:925:A:C5	2.87	0.42
10:B:934:U:N3	10:B:935:C:C4	2.86	0.42
10:B:976:G:C2	10:B:977:G:C4	3.07	0.42
10:B:1000:A:C6	10:B:1001:A:N1	2.87	0.42
10:B:1009:A:H3'	10:B:1009:A:C8	2.53	0.42
10:B:1131:G:H22	10:B:2024:G:N2	2.15	0.42
10:B:1206:G:C6	10:B:1207:C:C2	3.07	0.42
10:B:1239:G:C5	10:B:1240:U:C5	3.07	0.42
10:B:1266:G:C8	27:S:15:GLN:NE2	2.87	0.42
10:B:1310:G:C4	10:B:1311:G:C2	3.06	0.42
10:B:1353:A:C6	10:B:1354:A:C2	3.07	0.42
10:B:1441:G:H2'	10:B:1442:U:C6	2.54	0.42
10:B:1754:A:N1	10:B:1755:A:C5	2.88	0.42
10:B:1796:U:H4'	11:C:252:LYS:HG3	2.00	0.42
10:B:1867:G:N2	10:B:1875:G:H1'	2.34	0.42
10:B:1867:G:C5	10:B:1868:C:C4	3.07	0.42
10:B:2011:U:C5	10:B:2012:G:C5	3.07	0.42
10:B:2048:G:C4	10:B:2049:G:C8	3.07	0.42
10:B:2127:G:H1'	10:B:2173:A:H2	1.83	0.42
10:B:2185:U:C2	10:B:2186:G:N7	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2199:A:N6	10:B:2224:G:O2'	2.42	0.42
10:B:2219:U:C4	10:B:2220:U:C4	3.07	0.42
10:B:2259:U:H5''	10:B:2260:C:OP2	2.18	0.42
10:B:2340:A:C2	10:B:2341:G:C5	3.07	0.42
10:B:2721:A:C4	10:B:2873:A:N7	2.87	0.42
10:B:2739:U:H3'	10:B:2763:G:N1	2.34	0.42
10:B:2748:A:C2	10:B:2749:A:C8	3.07	0.42
10:B:2792:A:C6	10:B:2793:C:C4	3.07	0.42
10:B:2819:G:C4	10:B:2821:A:C6	3.07	0.42
12:D:48:ILE:HG13	12:D:82:PHE:HB2	2.01	0.42
12:D:170:VAL:HG22	12:D:171:THR:O	2.18	0.42
13:E:141:MET:O	13:E:143:LEU:HG	2.19	0.42
16:H:46:PHE:C	16:H:50:ARG:HE	2.18	0.42
24:P:39:LEU:HD22	24:P:81:ASP:OD2	2.18	0.42
24:P:56:SER:H	24:P:74:GLN:NE2	2.15	0.42
31:W:20:LEU:HG	31:W:20:LEU:O	2.19	0.42
32:X:3:VAL:HA	32:X:9:LYS:O	2.19	0.42
2:1:9:LYS:HZ1	2:1:52:LYS:HD3	1.84	0.42
2:1:46:VAL:HG22	2:1:47:ILE:N	2.34	0.42
6:5:33:LEU:O	10:B:2130:U:H5'	2.19	0.42
6:5:53:ARG:HD2	10:B:1860:G:P	2.59	0.42
6:5:65:LEU:HD22	6:5:191:ALA:HB1	2.00	0.42
7:6:15:HIS:CE1	7:6:17:TYR:N	2.88	0.42
7:6:208:ALA:HB3	7:6:210:LYS:HD3	2.01	0.42
7:6:236:LEU:HD12	10:B:2472:G:H5''	2.01	0.42
7:6:256:ILE:HG22	7:6:257:ARG:N	2.35	0.42
9:A:104:A:C8	9:A:105:G:C8	3.07	0.42
10:B:33:C:OP2	10:B:33:C:H2'	2.19	0.42
10:B:169:G:N1	10:B:170:U:C4	2.87	0.42
10:B:173:A:H2'	10:B:174:U:C6	2.53	0.42
10:B:296:U:H3	10:B:342:A:N6	2.13	0.42
10:B:362:A:C2	10:B:363:G:H1'	2.54	0.42
10:B:446:G:OP1	25:Q:2:ARG:HD3	2.19	0.42
10:B:497:A:C6	10:B:498:G:C5	3.08	0.42
10:B:618:G:C6	10:B:619:G:C5	3.07	0.42
10:B:662:G:C2	10:B:663:G:N7	2.87	0.42
10:B:785:G:O2'	10:B:786:C:H5'	2.20	0.42
10:B:920:A:H2'	10:B:921:C:C6	2.54	0.42
10:B:941:A:H3'	10:B:942:G:C8	2.47	0.42
10:B:953:G:C2	10:B:965:C:N3	2.87	0.42
10:B:978:G:C6	10:B:986:C:N4	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1055:G:C6	10:B:1056:G:C6	3.08	0.42
10:B:1077:A:C5'	17:I:94:LYS:HZ2	2.29	0.42
10:B:1252:G:H1'	25:Q:32:ARG:NH1	2.34	0.42
10:B:1331:G:C5	10:B:1333:G:C5	3.08	0.42
10:B:1459:G:O5'	10:B:1459:G:N3	2.52	0.42
10:B:1560:G:C5	10:B:1561:C:C5	3.08	0.42
10:B:1708:C:H2'	10:B:1709:U:H6	1.84	0.42
10:B:1795:C:C4	10:B:1796:U:C4	3.07	0.42
10:B:1802:A:C5	10:B:1803:A:N1	2.87	0.42
10:B:1839:G:C8	10:B:1927:A:H1'	2.54	0.42
10:B:1904:G:C6	10:B:1905:C:N4	2.87	0.42
10:B:1947:C:O2	10:B:1959:G:N2	2.52	0.42
10:B:2079:U:H2'	10:B:2080:A:C8	2.49	0.42
10:B:2121:G:N2	10:B:2176:A:N1	2.66	0.42
10:B:2216:G:C4	10:B:2217:G:C8	3.07	0.42
10:B:2272:U:O2'	10:B:2273:A:O5'	2.26	0.42
10:B:2469:A:C6	10:B:2482:A:C8	3.07	0.42
10:B:2526:G:H1	10:B:2536:G:H22	1.68	0.42
10:B:2535:G:C6	10:B:2536:G:C6	3.07	0.42
10:B:2741:A:C8	10:B:2742:G:C8	3.07	0.42
10:B:2751:G:H5'	10:B:2752:C:C5	2.53	0.42
10:B:2834:G:C6	10:B:2879:A:C8	3.07	0.42
11:C:94:LEU:HD13	11:C:100:ARG:HG2	2.02	0.42
11:C:123:ILE:HG13	11:C:123:ILE:O	2.19	0.42
11:C:144:GLU:CD	11:C:148:GLY:H	2.22	0.42
13:E:1:MET:H3	13:E:19:PHE:HD2	1.67	0.42
13:E:67:ARG:HG2	13:E:67:ARG:NH1	2.34	0.42
13:E:147:LEU:HD13	13:E:183:PHE:CE2	2.44	0.42
14:F:18:GLU:HG3	14:F:19:PHE:HD2	1.79	0.42
14:F:76:PHE:HB2	14:F:77:LYS:O	2.19	0.42
14:F:157:THR:HG21	14:F:168:LEU:HD22	2.02	0.42
15:G:77:GLY:HA2	15:G:82:PHE:CZ	2.55	0.42
15:G:77:GLY:HA2	15:G:82:PHE:HZ	1.84	0.42
18:J:140:LEU:HD23	18:J:142:ILE:N	2.23	0.42
22:N:67:PHE:CZ	22:N:71:ARG:HB2	2.54	0.42
22:N:95:THR:OG1	22:N:114:GLU:O	2.22	0.42
23:O:94:ARG:HB2	23:O:97:PHE:O	2.19	0.42
24:P:29:VAL:HG11	24:P:71:ARG:NH1	2.35	0.42
29:U:83:GLY:H	29:U:96:LYS:HB2	1.82	0.42
31:W:45:HIS:HE1	31:W:81:ILE:HG12	1.83	0.42
5:4:4:ARG:NH1	10:B:2477:U:C6	2.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:150:ILE:HD11	10:B:2585:U:C2	2.54	0.42
9:A:61:G:C2	9:A:62:C:C2	3.07	0.42
9:A:100:G:C6	9:A:101:A:C6	3.08	0.42
9:A:116:G:C4	9:A:117:G:N7	2.87	0.42
10:B:9:G:C2	10:B:2629:U:N3	2.87	0.42
10:B:146:A:H2'	10:B:147:C:C6	2.54	0.42
10:B:356:G:H2'	10:B:357:C:O4'	2.18	0.42
10:B:444:C:OP1	13:E:44:ARG:HD3	2.19	0.42
10:B:523:C:H1'	10:B:554:U:O2'	2.19	0.42
10:B:565:C:H5''	10:B:566:U:OP2	2.19	0.42
10:B:570:G:C2	10:B:2030:A:C5	3.08	0.42
10:B:578:G:C2	25:Q:32:ARG:NH2	2.63	0.42
10:B:644:A:H2'	10:B:645:C:H5''	2.01	0.42
10:B:656:G:N7	10:B:657:U:C4	2.88	0.42
10:B:798:G:N1	10:B:799:G:C6	2.87	0.42
10:B:822:G:C6	10:B:836:G:C5	3.08	0.42
10:B:877:A:H2'	10:B:878:A:O4'	2.20	0.42
10:B:1012:U:OP2	25:Q:69:ARG:NH2	2.52	0.42
10:B:1107:G:N2	10:B:1108:U:H1'	2.34	0.42
10:B:1200:C:H2'	10:B:1201:U:H6	1.84	0.42
10:B:1321:A:H2'	10:B:1321:A:N3	2.34	0.42
10:B:1586:A:N6	10:B:1587:G:C2	2.87	0.42
10:B:1608:A:C6	10:B:1611:C:C2	3.07	0.42
10:B:1688:U:H2'	10:B:1698:A:C6	2.53	0.42
10:B:1728:C:H2'	10:B:1730:C:O2	2.20	0.42
10:B:1810:A:N7	10:B:1811:G:C8	2.88	0.42
10:B:1869:G:N2	10:B:1873:G:C5	2.88	0.42
10:B:1903:G:C5	10:B:1904:G:N7	2.87	0.42
10:B:1930:G:N1	10:B:1968:G:C8	2.87	0.42
10:B:1977:A:H3'	10:B:1978:A:C8	2.55	0.42
10:B:1992:G:N3	10:B:1994:C:H5	2.17	0.42
10:B:2060:A:O2'	10:B:2061:G:OP2	2.37	0.42
10:B:2096:C:C2'	10:B:2097:A:H8	2.33	0.42
10:B:2217:G:H2'	10:B:2218:G:H8	1.85	0.42
10:B:2228:G:OP2	11:C:260:LYS:HD2	2.19	0.42
10:B:2406:A:H5''	10:B:2407:A:OP1	2.19	0.42
10:B:2422:C:C2	10:B:2424:C:C5	3.07	0.42
10:B:2457:U:C2	10:B:2458:G:N3	2.88	0.42
10:B:2470:G:C2	10:B:2471:A:C5	3.06	0.42
10:B:2482:A:C6	10:B:2483:C:C4	3.07	0.42
10:B:2484:G:N2	10:B:2485:G:C4	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2512:C:H1'	12:D:145:SER:O	2.19	0.42
10:B:2543:G:C2	10:B:2544:G:C4	3.08	0.42
10:B:2717:C:H2'	10:B:2718:G:C8	2.53	0.42
10:B:2828:G:C2	10:B:2829:A:C8	3.07	0.42
10:B:2854:G:C2	10:B:2864:G:C2	3.07	0.42
10:B:2886:A:H2'	10:B:2887:A:O4'	2.19	0.42
11:C:211:ARG:NH2	11:C:217:PRO:HG3	2.30	0.42
13:E:5:LEU:HB3	13:E:9:GLN:O	2.19	0.42
14:F:121:PHE:HE1	14:F:127:TYR:CE2	2.37	0.42
14:F:122:ASP:CG	14:F:126:ASN:HB2	2.40	0.42
19:K:29:ARG:NH1	19:K:36:ASP:OD2	2.52	0.42
23:O:72:ALA:HB2	23:O:105:ALA:HB1	2.01	0.42
23:O:78:VAL:HG23	23:O:79:ALA:N	2.33	0.42
26:R:1:MET:HB2	26:R:15:SER:OG	2.19	0.42
28:T:29:THR:OG1	28:T:30:ILE:N	2.52	0.42
30:V:25:LYS:HA	30:V:42:LEU:O	2.19	0.42
32:X:1:SER:O	32:X:3:VAL:N	2.53	0.42
1:0:8:THR:OG1	1:0:9:ARG:HG2	2.19	0.42
6:5:190:GLU:O	6:5:194:VAL:HG22	2.20	0.42
7:6:214:PHE:HE1	7:6:249:LEU:HB3	1.84	0.42
7:6:231:THR:N	35:6:527:GNP:O2G	2.51	0.42
7:6:268:LYS:HB2	7:6:268:LYS:HE3	1.86	0.42
7:6:320:ASP:CG	35:6:527:GNP:HN21	2.16	0.42
9:A:26:C:O2'	9:A:117:G:O4'	2.31	0.42
9:A:82:U:O3'	34:Z:19:HIS:HE1	2.03	0.42
10:B:55:G:C4	10:B:56:A:C8	3.08	0.42
10:B:80:G:C2	10:B:107:G:C5	3.08	0.42
10:B:80:G:C6	10:B:107:G:C6	3.07	0.42
10:B:81:G:C2	10:B:106:C:C2	3.07	0.42
10:B:103:A:C5	10:B:104:A:C5	3.07	0.42
10:B:237:C:N4	10:B:261:G:C6	2.88	0.42
10:B:255:A:O2'	10:B:384:A:N7	2.41	0.42
10:B:513:A:C2	10:B:514:A:C4	3.08	0.42
10:B:541:A:N6	10:B:551:G:O6	2.53	0.42
10:B:783:A:N1	10:B:785:G:H1'	2.35	0.42
10:B:826:U:H2'	10:B:828:U:O4'	2.20	0.42
10:B:855:G:C6	10:B:923:G:N1	2.87	0.42
10:B:886:A:H1'	10:B:889:C:H5	1.82	0.42
10:B:928:A:H2'	10:B:929:U:C6	2.55	0.42
10:B:974:G:O2'	10:B:989:G:N2	2.51	0.42
10:B:983:A:N1	10:B:984:A:C8	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1128:G:C2	10:B:1129:A:H2	2.37	0.42
10:B:1155:A:C2	10:B:1157:G:C8	3.08	0.42
10:B:1277:G:C6	10:B:1294:U:N3	2.88	0.42
10:B:1347:A:C5	10:B:1348:C:C4	3.07	0.42
10:B:1363:C:H1'	10:B:1810:A:H1'	2.02	0.42
10:B:1595:C:H2'	10:B:1596:A:H8	1.82	0.42
10:B:1663:G:C4	10:B:1998:A:C2	3.08	0.42
10:B:1748:C:H2'	10:B:1749:A:H8	1.85	0.42
10:B:1933:G:C2	10:B:1934:C:C2	3.08	0.42
10:B:2069:G:N2	10:B:2070:A:C4	2.88	0.42
10:B:2234:G:C2	10:B:2235:G:C5	3.08	0.42
10:B:2351:G:N2	10:B:2365:G:C4	2.87	0.42
10:B:2385:C:C2	10:B:2386:A:C8	3.08	0.42
10:B:2445:G:C2	10:B:2446:G:C8	3.08	0.42
10:B:2786:U:O2'	12:D:63:PRO:O	2.26	0.42
11:C:167:ASP:HB2	11:C:171:VAL:HA	2.01	0.42
17:I:126:ARG:HA	17:I:129:GLU:CG	2.50	0.42
18:J:13:ARG:HA	18:J:52:ASP:OD1	2.19	0.42
18:J:40:HIS:CG	18:J:41:LYS:H	2.35	0.42
21:M:57:VAL:HA	21:M:112:LEU:HD21	2.01	0.42
23:O:24:THR:HB	23:O:40:ILE:O	2.19	0.42
24:P:20:ARG:HG3	24:P:88:ARG:NH2	2.33	0.42
26:R:59:ILE:HD12	26:R:101:ILE:H	1.84	0.42
30:V:56:PHE:CE1	30:V:61:LEU:HD11	2.54	0.42
4:3:35:LYS:HZ3	4:3:39:ARG:CZ	2.33	0.42
6:5:29:LEU:HD23	6:5:32:GLU:OE2	2.20	0.42
7:6:10:GLN:HA	7:6:40:GLU:O	2.20	0.42
7:6:87:ALA:O	7:6:90:ARG:HB2	2.20	0.42
7:6:110:ILE:HG12	7:6:229:PHE:CD2	2.53	0.42
8:7:7:ASP:O	8:7:11:ILE:HG12	2.20	0.42
8:7:56:ARG:NH1	10:B:1084:A:C8	2.86	0.42
9:A:99:A:C6	9:A:100:G:C5	3.07	0.42
10:B:3:U:H2'	10:B:4:U:O4'	2.20	0.42
10:B:7:G:H2'	10:B:8:C:H6	1.85	0.42
10:B:19:A:C6	10:B:20:C:C4	3.08	0.42
10:B:28:A:C5	10:B:513:A:C8	3.08	0.42
10:B:38:A:C6	10:B:442:G:C6	3.08	0.42
10:B:94:A:H2'	10:B:95:A:C8	2.55	0.42
10:B:103:A:C6	10:B:104:A:C6	3.08	0.42
10:B:111:A:H2'	10:B:112:U:C6	2.55	0.42
10:B:137:U:C4	10:B:138:U:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:283:G:C6	10:B:284:U:C4	3.08	0.42
10:B:354:A:C5	10:B:355:U:C5	3.07	0.42
10:B:426:C:C2	10:B:427:U:C5	3.07	0.42
10:B:496:G:C2'	10:B:497:A:H5'	2.49	0.42
10:B:603:A:C5	10:B:655:A:N3	2.87	0.42
10:B:628:G:H2'	10:B:629:G:C8	2.55	0.42
10:B:723:C:C4	10:B:724:U:C4	3.08	0.42
10:B:797:G:N1	10:B:798:G:C5	2.88	0.42
10:B:818:G:N2	10:B:1190:G:C6	2.88	0.42
10:B:822:G:C6	10:B:823:C:C4	3.07	0.42
10:B:843:G:N1	10:B:936:A:C6	2.88	0.42
10:B:882:G:N1	10:B:895:U:C2	2.88	0.42
10:B:892:A:H2'	10:B:893:C:O4'	2.19	0.42
10:B:911:A:C5	21:M:9:PHE:CE2	3.08	0.42
10:B:1027:A:N1	10:B:1126:A:C4	2.88	0.42
10:B:1050:A:C6	10:B:1051:G:C5	3.08	0.42
10:B:1292:G:C2	10:B:1293:C:C2	3.07	0.42
10:B:1439:A:C4	10:B:1553:A:C6	3.08	0.42
10:B:1668:A:N3	10:B:1674:G:C8	2.88	0.42
10:B:1764:C:N4	10:B:1765:U:O4	2.52	0.42
10:B:1937:A:C8	10:B:1939:U:C6	3.07	0.42
10:B:2024:G:OP2	10:B:2034:U:H4'	2.20	0.42
10:B:2056:G:C6	10:B:2577:A:N3	2.87	0.42
10:B:2074:U:H1'	10:B:2598:A:N3	2.34	0.42
10:B:2103:C:C2	10:B:2186:G:N1	2.88	0.42
10:B:2243:U:C6	10:B:2244:U:H5	2.38	0.42
10:B:2327:A:H61	10:B:2387:U:H3	1.66	0.42
10:B:2345:G:C5	10:B:2347:C:C5	3.08	0.42
10:B:2400:G:H2'	10:B:2401:U:C6	2.55	0.42
10:B:2524:G:N2	10:B:2525:G:C4	2.88	0.42
10:B:2618:G:C6	10:B:2619:C:C4	3.08	0.42
10:B:2643:G:H2'	10:B:2644:G:C8	2.55	0.42
10:B:2648:G:C2	10:B:2649:C:C2	3.07	0.42
10:B:2651:C:C2	10:B:2652:C:C5	3.08	0.42
10:B:2659:G:C2	10:B:2663:G:C6	3.08	0.42
10:B:2683:C:C4	10:B:2684:U:C5	3.08	0.42
10:B:2740:A:C8	10:B:2741:A:N7	2.87	0.42
10:B:2837:A:C6	10:B:2882:A:N1	2.87	0.42
15:G:154:GLU:HG2	15:G:159:LYS:O	2.20	0.42
17:I:125:THR:O	17:I:128:ILE:HB	2.19	0.42
18:J:110:PRO:HB2	18:J:111:LYS:NZ	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:L:128:THR:O	20:L:131:ALA:HB3	2.19	0.42
22:N:78:LYS:NZ	22:N:82:GLU:CD	2.71	0.42
23:O:105:ALA:O	23:O:108:ASP:HB2	2.20	0.42
24:P:22:GLY:N	24:P:46:VAL:HG23	2.33	0.42
28:T:54:GLU:OE2	28:T:90:GLY:HA3	2.19	0.42
29:U:43:LYS:HE2	29:U:60:LYS:HZ1	1.80	0.42
29:U:84:PHE:CD1	29:U:93:ARG:HG2	2.55	0.42
5:4:34:LYS:HB3	5:4:36:ARG:CZ	2.50	0.42
7:6:205:TYR:HA	7:6:255:PHE:H	1.85	0.42
7:6:208:ALA:HA	7:6:285:ASP:OD1	2.19	0.42
7:6:239:ILE:HG13	7:6:247:THR:HB	2.00	0.42
9:A:20:G:N2	9:A:63:C:N3	2.64	0.42
9:A:106:G:H3'	9:A:107:G:H8	1.84	0.42
10:B:7:G:C6	10:B:8:C:C4	3.08	0.42
10:B:70:G:C5'	10:B:75:G:H1	2.32	0.42
10:B:83:A:C2	10:B:100:U:H4'	2.55	0.42
10:B:185:G:C2	10:B:186:G:C5	3.07	0.42
10:B:201:C:C4	10:B:202:U:O2	2.73	0.42
10:B:274:C:C4	10:B:275:C:C4	3.07	0.42
10:B:342:A:N6	10:B:343:C:N3	2.67	0.42
10:B:460:A:C2	10:B:470:A:C4	3.08	0.42
10:B:533:G:H3'	10:B:534:U:C6	2.54	0.42
10:B:689:A:N1	10:B:690:G:C5	2.87	0.42
10:B:733:G:N7	10:B:761:A:N6	2.67	0.42
10:B:743:A:N3	10:B:744:U:C6	2.88	0.42
10:B:813:U:N3	10:B:1195:G:C2	2.88	0.42
10:B:826:U:HO2'	20:L:53:GLY:H	1.54	0.42
10:B:854:C:N3	10:B:924:G:C6	2.88	0.42
10:B:958:U:O2'	10:B:959:A:P	2.78	0.42
10:B:1031:G:H1	10:B:1123:C:N4	2.17	0.42
10:B:1189:A:OP2	20:L:27:LEU:HD13	2.20	0.42
10:B:1465:G:N2	10:B:1466:U:H1'	2.34	0.42
10:B:1588:G:C2	10:B:1589:U:C2	3.08	0.42
10:B:1799:G:OP1	11:C:257:ARG:HD3	2.18	0.42
10:B:1858:A:C4	10:B:1885:A:C8	3.08	0.42
10:B:2128:G:N2	10:B:2174:C:O2'	2.44	0.42
10:B:2232:C:C4	10:B:2233:U:C4	3.07	0.42
10:B:2244:U:HO2'	10:B:2245:U:P	2.41	0.42
10:B:2359:C:C2	10:B:2360:G:C8	3.08	0.42
10:B:2460:U:H2'	10:B:2461:A:C8	2.55	0.42
10:B:2461:A:C5	10:B:2462:C:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2661:G:C2	10:B:2662:A:H1'	2.54	0.42
10:B:2674:G:N3	10:B:2675:A:C8	2.88	0.42
10:B:2743:U:C4'	15:G:152:ARG:HH22	2.27	0.42
10:B:2813:A:C4	10:B:2814:A:C8	3.08	0.42
10:B:2892:G:H5''	10:B:2893:A:H5'	2.02	0.42
11:C:242:HIS:ND1	11:C:242:HIS:O	2.53	0.42
14:F:137:PHE:HB3	14:F:139:GLU:C	2.40	0.42
14:F:169:LEU:HG	14:F:172:PHE:CZ	2.55	0.42
15:G:76:ILE:O	15:G:79:THR:HB	2.19	0.42
18:J:59:ALA:O	18:J:62:VAL:HG13	2.19	0.42
30:V:77:VAL:HB	30:V:89:ILE:HG13	2.01	0.42
34:Z:1:ALA:HB3	34:Z:38:GLU:OE2	2.20	0.42
4:3:51:LYS:HG2	4:3:54:LEU:HB2	2.01	0.42
6:5:100:LEU:HD13	6:5:111:PHE:CG	2.54	0.42
7:6:48:SER:O	7:6:50:LYS:HG3	2.20	0.42
8:7:35:VAL:O	8:7:39:THR:N	2.47	0.42
8:7:42:ARG:HD3	8:7:42:ARG:HA	1.79	0.42
9:A:20:G:C2	9:A:64:G:C2	3.08	0.42
9:A:27:C:H2'	9:A:28:C:O4'	2.20	0.42
9:A:57:A:C6	9:A:58:A:C5	3.07	0.42
10:B:32:C:H2'	10:B:33:C:C6	2.54	0.42
10:B:76:C:N3	10:B:110:G:N1	2.49	0.42
10:B:82:U:H5''	10:B:83:A:OP2	2.20	0.42
10:B:85:G:N2	10:B:86:G:H1'	2.35	0.42
10:B:134:G:H2'	10:B:134:G:N3	2.35	0.42
10:B:237:C:H2'	10:B:238:C:C6	2.50	0.42
10:B:251:A:H4'	20:L:47:ARG:HD3	2.02	0.42
10:B:267:C:H42	10:B:268:C:N4	2.18	0.42
10:B:287:G:C2	10:B:354:A:C4	3.08	0.42
10:B:407:G:C6	10:B:421:C:N3	2.88	0.42
10:B:408:G:C2	10:B:409:G:C4	3.08	0.42
10:B:556:A:C6	10:B:557:C:H1'	2.55	0.42
10:B:742:A:C4	10:B:743:A:C8	3.08	0.42
10:B:756:A:H2'	10:B:757:G:H8	1.85	0.42
10:B:779:U:H3'	10:B:780:G:H8	1.84	0.42
10:B:855:G:C2	10:B:856:G:C8	3.08	0.42
10:B:862:G:C4	10:B:863:A:C8	3.08	0.42
10:B:863:A:C6	10:B:864:G:C6	3.08	0.42
10:B:897:C:C4	10:B:898:C:C2	3.07	0.42
10:B:1001:A:N7	10:B:1002:G:C4	2.88	0.42
10:B:1077:A:C5'	17:I:94:LYS:NZ	2.80	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1082:U:H2'	10:B:1083:U:O4'	2.20	0.42
10:B:1203:U:C4	10:B:1204:A:N1	2.88	0.42
10:B:1277:G:H2'	10:B:1278:C:H6	1.85	0.42
10:B:1282:U:H2'	10:B:1283:G:O4'	2.20	0.42
10:B:1427:A:C4	10:B:1428:C:N4	2.87	0.42
10:B:1435:G:C4	10:B:1436:G:C8	3.07	0.42
10:B:1462:C:O2'	10:B:1463:C:H5'	2.19	0.42
10:B:1543:G:O2'	10:B:1544:A:H8	2.02	0.42
10:B:1677:A:C6	10:B:1678:A:C6	3.08	0.42
10:B:1707:G:C5	10:B:1756:G:C6	3.07	0.42
10:B:1773:A:C2	10:B:1829:A:C4	3.07	0.42
10:B:2228:G:H2'	10:B:2229:U:C6	2.55	0.42
10:B:2403:C:C4	10:B:2415:G:N1	2.86	0.42
10:B:2711:A:C8	10:B:2714:G:O4'	2.73	0.42
10:B:2717:C:C3'	24:P:98:TYR:HH	2.25	0.42
10:B:2846:G:H2'	10:B:2847:U:C6	2.54	0.42
10:B:2858:C:H2'	10:B:2859:G:H5'	2.01	0.42
11:C:62:ARG:HG3	11:C:84:PRO:HD2	2.02	0.42
11:C:176:ARG:O	11:C:176:ARG:NH1	2.45	0.42
11:C:249:VAL:HG13	11:C:254:LYS:HZ3	1.85	0.42
12:D:2:ILE:O	12:D:205:PRO:HD3	2.18	0.42
17:I:92:PRO:HB3	17:I:135:MET:C	2.40	0.42
20:L:102:GLY:N	20:L:105:ILE:HD12	2.33	0.42
24:P:30:TRP:CZ3	24:P:37:LYS:HE3	2.55	0.42
27:S:28:LYS:O	27:S:32:ALA:HB2	2.20	0.42
30:V:21:ARG:HH21	30:V:87:GLN:C	2.23	0.42
33:Y:7:ARG:O	33:Y:9:LYS:HG3	2.20	0.42
6:5:78:PHE:CD2	6:5:138:PRO:HG3	2.55	0.42
7:6:24:MET:HE1	7:6:257:ARG:HH12	1.83	0.42
7:6:203:VAL:HG23	7:6:282:HIS:HD1	1.84	0.42
7:6:332:ASP:CG	7:6:338:ASN:HA	2.39	0.42
9:A:37:C:O2	9:A:48:U:O2'	2.20	0.42
10:B:36:G:N3	10:B:36:G:H2'	2.34	0.42
10:B:122:G:OP1	10:B:149:A:H4'	2.20	0.42
10:B:138:U:H2'	10:B:140:C:N3	2.35	0.42
10:B:160:A:N6	10:B:167:A:H1'	2.35	0.42
10:B:197:A:H8	10:B:197:A:O5'	2.03	0.42
10:B:216:A:N7	10:B:432:A:C5	2.87	0.42
10:B:238:C:H1'	10:B:609:A:H1'	2.01	0.42
10:B:281:C:C2	10:B:359:G:N2	2.82	0.42
10:B:309:A:C5	10:B:330:A:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:315:G:C2	10:B:316:C:C2	3.08	0.42
10:B:319:G:C4	10:B:320:A:C8	3.08	0.42
10:B:401:A:C2	10:B:402:A:C4	3.07	0.42
10:B:404:A:C4	10:B:406:G:N1	2.88	0.42
10:B:406:G:H2'	10:B:407:G:O4'	2.19	0.42
10:B:447:A:H2'	10:B:473:G:O6	2.20	0.42
10:B:565:C:H5'	10:B:1253:A:H61	1.85	0.42
10:B:569:U:H5'	10:B:821:A:C2	2.53	0.42
10:B:579:G:O4'	10:B:2017:U:N3	2.53	0.42
10:B:608:A:C4	10:B:621:A:C6	3.07	0.42
10:B:769:U:C2	10:B:770:G:C8	3.07	0.42
10:B:834:G:C6	10:B:835:C:C4	3.08	0.42
10:B:856:G:P	31:W:23:LYS:HZ3	2.43	0.42
10:B:856:G:C2	10:B:857:G:C5	3.07	0.42
10:B:874:G:N1	10:B:904:G:C5	2.88	0.42
10:B:949:G:C5	10:B:969:G:N1	2.88	0.42
10:B:973:A:O4'	10:B:1188:U:C2	2.72	0.42
10:B:1022:G:C2	10:B:1140:C:C4	3.08	0.42
10:B:1063:G:C6	10:B:1064:C:C2	3.08	0.42
10:B:1079:C:O2'	17:I:133:ARG:HD3	2.19	0.42
10:B:1099:G:C8	17:I:4:VAL:N	2.88	0.42
10:B:1100:C:C5	17:I:2:LYS:HG3	2.55	0.42
10:B:1200:C:N4	10:B:1245:G:H1	2.16	0.42
10:B:1282:U:C4	10:B:1283:G:C5	3.07	0.42
10:B:1293:C:C4	10:B:1294:U:C4	3.08	0.42
10:B:1316:U:H2'	10:B:1317:G:C8	2.54	0.42
10:B:1412:U:C2	10:B:1591:A:C2	3.07	0.42
10:B:1434:A:N7	10:B:1435:G:C5	2.88	0.42
10:B:1455:G:C2	10:B:1456:G:C4	3.08	0.42
10:B:1463:C:H2'	10:B:1464:G:C8	2.54	0.42
10:B:1498:C:C2	10:B:1499:C:C6	3.08	0.42
10:B:1722:A:C5	10:B:1739:A:C5	3.07	0.42
10:B:1799:G:N9	11:C:175:LEU:HD13	2.35	0.42
10:B:1840:G:C2	10:B:1841:U:C2	3.08	0.42
10:B:2026:U:H2'	10:B:2027:G:C8	2.54	0.42
10:B:2027:G:H2'	10:B:2028:U:O4'	2.19	0.42
10:B:2047:C:C2	10:B:2048:G:C8	3.07	0.42
10:B:2242:G:N7	10:B:2243:U:C2	2.88	0.42
10:B:2291:U:C2	10:B:2292:U:C4	3.08	0.42
10:B:2679:A:C6	10:B:2729:G:O6	2.73	0.42
10:B:2688:G:N2	10:B:2722:G:O6	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2693:G:O2'	10:B:2694:G:H5'	2.20	0.42
10:B:2704:C:C2	10:B:2705:A:N1	2.88	0.42
10:B:2735:G:C2	10:B:2736:A:C4	3.08	0.42
10:B:2836:U:C2	10:B:2837:A:C8	3.07	0.42
10:B:2849:U:OP2	24:P:92:ARG:NH1	2.53	0.42
10:B:2895:G:N2	10:B:2896:C:C2	2.88	0.42
11:C:11:GLY:HA3	11:C:206:LYS:HB3	2.02	0.42
11:C:77:VAL:HA	11:C:92:LEU:O	2.20	0.42
12:D:172:VAL:HG21	12:D:175:LEU:HD11	2.02	0.42
13:E:61:ARG:HA	13:E:61:ARG:HD3	1.65	0.42
14:F:101:ARG:O	14:F:105:ILE:HG12	2.20	0.42
16:H:67:ALA:C	16:H:68:ARG:HG2	2.40	0.42
21:M:49:ALA:HB2	21:M:123:LYS:HB2	2.02	0.42
22:N:83:LEU:HD21	22:N:86:ARG:CZ	2.50	0.42
23:O:75:GLY:HA2	23:O:106:LEU:HG	2.02	0.42
25:Q:86:SER:C	25:Q:88:GLU:N	2.73	0.42
25:Q:96:ASP:OD2	26:R:13:ARG:NH2	2.53	0.42
26:R:22:LEU:HD11	26:R:25:LEU:HD11	2.02	0.42
26:R:32:THR:HA	26:R:61:ALA:O	2.20	0.42
31:W:24:ARG:H	31:W:66:VAL:HG23	1.84	0.42
32:X:18:SER:O	32:X:21:LEU:N	2.48	0.42
2:1:13:SER:HB2	2:1:46:VAL:HG22	2.02	0.42
3:2:34:ARG:NH1	10:B:466:A:P	2.93	0.42
4:3:22:LYS:CE	10:B:650:C:H4'	2.49	0.42
6:5:44:VAL:HG22	6:5:214:ILE:HB	2.02	0.42
6:5:47:ASN:N	6:5:170:ILE:HG13	2.35	0.42
6:5:163:TYR:CE1	6:5:196:LEU:HD21	2.55	0.42
7:6:23:ASP:O	7:6:24:MET:CG	2.68	0.42
9:A:21:G:C6	9:A:22:U:C4	3.08	0.42
10:B:7:G:H1	10:B:2896:C:H42	1.68	0.42
10:B:7:G:C2	10:B:8:C:C2	3.08	0.42
10:B:27:G:O2'	10:B:513:A:N6	2.53	0.42
10:B:43:G:C6	10:B:44:A:C6	3.08	0.42
10:B:94:A:C6	10:B:95:A:C5	3.08	0.42
10:B:97:C:C2	10:B:98:G:C8	3.08	0.42
10:B:105:C:H2'	10:B:106:C:H6	1.84	0.42
10:B:124:G:H5'	10:B:1376:C:O2'	2.20	0.42
10:B:165:A:C6	10:B:166:U:C4	3.08	0.42
10:B:218:A:N6	10:B:219:A:C6	2.82	0.42
10:B:249:C:O2'	10:B:250:G:OP2	2.37	0.42
10:B:299:A:C4	10:B:322:A:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:393:C:C2	10:B:394:C:C5	3.08	0.42
10:B:463:G:N1	10:B:467:G:C5	2.88	0.42
10:B:623:C:C4	10:B:624:C:N4	2.88	0.42
10:B:650:C:C4	10:B:651:G:C8	3.08	0.42
10:B:699:A:C8	10:B:700:G:C8	3.08	0.42
10:B:699:A:C4	10:B:700:G:C8	3.08	0.42
10:B:775:G:N3	10:B:777:G:N1	2.68	0.42
10:B:808:G:C5	10:B:809:G:N7	2.88	0.42
10:B:845:A:H1'	10:B:847:U:H5'	2.02	0.42
10:B:872:U:H2'	10:B:873:C:C6	2.55	0.42
10:B:882:G:H22	10:B:895:U:H1'	1.85	0.42
10:B:936:A:C5	10:B:937:C:C4	3.08	0.42
10:B:953:G:C4	10:B:954:G:C8	3.08	0.42
10:B:1040:A:C4	10:B:1041:G:C8	3.08	0.42
10:B:1158:C:H2'	10:B:1159:U:H6	1.85	0.42
10:B:1178:C:C4	10:B:1179:G:N7	2.88	0.42
10:B:1213:A:C4	10:B:1214:A:C8	3.08	0.42
10:B:1227:G:H2'	10:B:1228:G:H8	1.85	0.42
10:B:1303:G:C6	10:B:1304:A:C6	3.08	0.42
10:B:1333:G:H2'	10:B:1334:G:C8	2.46	0.42
10:B:1383:A:C8	10:B:1384:A:C4	3.08	0.42
10:B:1548:A:N3	10:B:1549:A:C8	2.88	0.42
10:B:1619:G:C2	10:B:1620:G:C4	3.08	0.42
10:B:1693:U:H6	10:B:1693:U:OP1	2.03	0.42
10:B:1759:A:C6	10:B:1760:C:N3	2.88	0.42
10:B:1842:G:C8	10:B:1843:C:C5	3.08	0.42
10:B:1975:G:C8	10:B:1976:U:H5	2.38	0.42
10:B:2043:C:N4	10:B:2777:G:C6	2.88	0.42
10:B:2182:U:C2	10:B:2183:A:N7	2.88	0.42
10:B:2332:C:H1'	10:B:2336:A:C8	2.55	0.42
10:B:2346:A:C6	10:B:2383:G:C2	3.08	0.42
10:B:2508:G:C4	10:B:2509:G:C8	3.07	0.42
10:B:2535:G:C4	10:B:2536:G:C8	3.07	0.42
10:B:2570:G:H2'	10:B:2571:U:O4'	2.19	0.42
10:B:2654:A:C4	10:B:2656:U:N3	2.88	0.42
10:B:2747:G:C4	10:B:2756:U:O4	2.73	0.42
10:B:2794:C:C2	10:B:2803:G:C2	3.08	0.42
10:B:2818:U:O5'	10:B:2837:A:O2'	2.32	0.42
10:B:2867:G:N1	24:P:20:ARG:NH2	2.67	0.42
10:B:2899:A:C4	10:B:2900:A:C8	3.07	0.42
15:G:106:LEU:HD22	15:G:151:ARG:HD3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:G:148:ARG:HD3	15:G:163:TYR:N	2.35	0.42
17:I:120:ASP:O	17:I:124:MET:HG3	2.20	0.42
21:M:47:GLU:HG2	21:M:51:ARG:HG2	2.01	0.42
23:O:40:ILE:HG22	23:O:47:VAL:HA	2.02	0.42
27:S:52:GLU:O	27:S:55:ILE:HB	2.20	0.42
27:S:88:ARG:HG3	27:S:94:ASP:CG	2.40	0.42
31:W:71:LYS:O	31:W:75:ASN:HA	2.19	0.42
32:X:74:GLY:O	32:X:77:TYR:OH	2.32	0.42
6:5:39:VAL:HG21	10:B:2125:G:OP1	2.19	0.41
6:5:113:VAL:HA	6:5:162:ARG:NH2	2.28	0.41
6:5:134:ARG:HH21	6:5:136:LEU:CD2	2.27	0.41
7:6:146:GLN:HB3	10:B:2252:G:O6	2.20	0.41
7:6:408:ILE:O	7:6:411:TRP:N	2.51	0.41
8:7:7:ASP:HB3	10:B:1046:A:C8	2.55	0.41
9:A:28:C:N3	9:A:29:A:C5	2.89	0.41
9:A:49:C:C5'	23:O:68:LYS:HD2	2.49	0.41
9:A:96:G:C2	9:A:97:C:C2	3.08	0.41
10:B:24:G:C2	10:B:25:U:O2	2.73	0.41
10:B:46:G:N1	10:B:180:G:C2	2.88	0.41
10:B:59:U:OP2	10:B:59:U:H6	2.03	0.41
10:B:61:C:P	33:Y:44:LYS:HZ2	2.39	0.41
10:B:366:C:O5'	10:B:366:C:H6	2.02	0.41
10:B:465:G:N2	10:B:684:G:H1'	2.34	0.41
10:B:582:A:N1	10:B:1259:G:C2	2.88	0.41
10:B:610:C:H42	10:B:619:G:N2	2.18	0.41
10:B:664:G:C4	10:B:665:U:C5	3.08	0.41
10:B:799:G:C6	10:B:800:A:C6	3.08	0.41
10:B:802:A:C6	10:B:803:U:C4	3.08	0.41
10:B:838:C:H42	10:B:940:G:H1	1.67	0.41
10:B:863:A:C2	10:B:864:G:C4	3.08	0.41
10:B:873:C:H1'	21:M:28:PHE:CE1	2.54	0.41
10:B:911:A:C2	21:M:9:PHE:CE1	3.08	0.41
10:B:950:G:C5	10:B:951:C:C4	3.08	0.41
10:B:973:A:H5'	10:B:1188:U:O2	2.20	0.41
10:B:1084:A:H8	10:B:1105:U:O2'	2.02	0.41
10:B:1139:G:P	18:J:72:LYS:NZ	2.93	0.41
10:B:1140:C:O5'	18:J:68:LYS:NZ	2.34	0.41
10:B:1142:A:C5	10:B:1144:A:C5	3.08	0.41
10:B:1182:G:H2'	10:B:1183:U:O4'	2.20	0.41
10:B:1186:G:O6	10:B:1187:G:C2	2.73	0.41
10:B:1223:G:P	26:R:71:LYS:NZ	2.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1341:G:OP2	10:B:1397:U:N3	2.53	0.41
10:B:1374:G:N2	10:B:1375:U:C2	2.88	0.41
10:B:1378:A:C2	10:B:1380:G:C5	3.08	0.41
10:B:1442:U:H2'	10:B:1443:U:C6	2.55	0.41
10:B:1486:U:H3	10:B:1503:A:H61	1.66	0.41
10:B:1559:U:HO2'	10:B:1560:G:P	2.43	0.41
10:B:1562:U:C2	10:B:1563:U:C6	3.08	0.41
10:B:1689:A:C6	10:B:1700:A:C2	3.08	0.41
10:B:1779:U:H4'	10:B:1780:A:OP2	2.20	0.41
10:B:1797:G:C2	10:B:1798:U:C2	3.08	0.41
10:B:1799:G:C6	10:B:1819:A:C5	3.08	0.41
10:B:1820:U:H5''	10:B:1821:A:C8	2.55	0.41
10:B:1849:G:C2	10:B:1850:G:C8	3.07	0.41
10:B:1889:A:C2	10:B:1890:A:C4	3.08	0.41
10:B:1892:C:H5''	10:B:1893:C:OP2	2.20	0.41
10:B:2054:A:N6	10:B:2616:C:N4	2.68	0.41
10:B:2092:U:H5	10:B:2226:C:OP2	2.03	0.41
10:B:2186:G:N1	10:B:2187:U:H1'	2.34	0.41
10:B:2217:G:C4	10:B:2218:G:C8	3.08	0.41
10:B:2277:G:C6	10:B:2278:A:C8	3.08	0.41
10:B:2335:A:C8	10:B:2337:G:C5	3.08	0.41
10:B:2630:G:H1'	10:B:2894:G:C2	2.54	0.41
10:B:2636:C:O2'	12:D:45:TYR:OH	2.14	0.41
10:B:2753:A:C5	10:B:2754:U:C2	3.07	0.41
10:B:2762:C:N4	10:B:2763:G:C6	2.88	0.41
10:B:2764:A:C5	10:B:2766:A:N6	2.88	0.41
10:B:2817:U:O2'	10:B:2837:A:H1'	2.19	0.41
10:B:2817:U:OP1	22:N:42:LYS:NZ	2.30	0.41
10:B:2865:U:OP2	24:P:113:LEU:HD23	2.20	0.41
10:B:2870:C:N3	10:B:2871:U:N3	2.68	0.41
10:B:2893:A:H4'	10:B:2894:G:O5'	2.20	0.41
11:C:245:THR:N	11:C:249:VAL:O	2.29	0.41
12:D:151:THR:CG2	12:D:152:PRO:CD	2.95	0.41
15:G:54:ARG:NH2	15:G:57:TYR:OH	2.32	0.41
16:H:4:ILE:HA	16:H:17:ASP:O	2.20	0.41
18:J:103:ILE:HA	18:J:106:LYS:HB3	2.02	0.41
19:K:17:ARG:HG2	19:K:18:VAL:N	2.35	0.41
19:K:87:ASN:OD1	19:K:90:SER:HB2	2.20	0.41
21:M:41:LEU:HA	21:M:45:GLN:NE2	2.35	0.41
26:R:57:GLY:O	26:R:103:ALA:HA	2.20	0.41
28:T:6:ARG:O	28:T:9:LYS:HE3	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:X:26:ARG:NH1	32:X:28:PHE:CZ	2.88	0.41
34:Z:19:HIS:O	34:Z:23:LEU:HG	2.19	0.41
4:3:18:LYS:HB3	10:B:651:G:OP1	2.20	0.41
6:5:75:VAL:HA	6:5:113:VAL:HG23	2.02	0.41
6:5:209:ILE:O	6:5:229:LEU:HD12	2.20	0.41
7:6:213:LEU:O	7:6:217:ILE:HG22	2.20	0.41
9:A:98:G:H1	30:V:14:LYS:HB2	1.84	0.41
10:B:109:C:H2'	10:B:110:G:O4'	2.19	0.41
10:B:266:G:C2	10:B:427:U:C2	3.09	0.41
10:B:268:C:N4	10:B:424:G:H1	2.18	0.41
10:B:323:C:C2	10:B:333:G:H1'	2.55	0.41
10:B:342:A:N6	10:B:343:C:C4	2.88	0.41
10:B:424:G:C2	10:B:425:G:C5	3.09	0.41
10:B:425:G:N2	10:B:426:C:C2	2.88	0.41
10:B:514:A:C4	10:B:515:A:C8	3.08	0.41
10:B:585:G:N2	10:B:1256:G:C5	2.88	0.41
10:B:604:G:C5	10:B:625:G:N1	2.88	0.41
10:B:695:G:C5	10:B:768:G:C6	3.08	0.41
10:B:739:A:N3	10:B:740:C:N4	2.67	0.41
10:B:827:U:H6	10:B:827:U:H2'	1.74	0.41
10:B:868:U:C4	10:B:869:G:N7	2.88	0.41
10:B:915:C:H2'	10:B:916:G:O4'	2.20	0.41
10:B:1024:G:H3'	10:B:1025:G:H5''	2.01	0.41
10:B:1034:G:C5	10:B:1122:G:C2	3.09	0.41
10:B:1081:U:H2'	10:B:1082:U:C6	2.53	0.41
10:B:1137:G:H2'	10:B:1138:G:C8	2.55	0.41
10:B:1210:G:H3'	10:B:1211:C:C5	2.55	0.41
10:B:1266:G:N7	27:S:15:GLN:HG3	2.35	0.41
10:B:1389:G:H2'	10:B:1390:U:O4'	2.20	0.41
10:B:1425:G:N2	10:B:1574:C:C2	2.89	0.41
10:B:1435:G:N1	10:B:1436:G:C5	2.87	0.41
10:B:1452:G:C2	10:B:2702:G:C8	3.08	0.41
10:B:1587:G:C4	10:B:1588:G:C8	3.08	0.41
10:B:1649:G:C2	10:B:2009:A:C5	3.08	0.41
10:B:1675:C:C2	10:B:1676:A:C8	3.08	0.41
10:B:1681:G:O2'	10:B:1682:G:H5'	2.20	0.41
10:B:1739:A:C6	10:B:1740:G:C4	3.09	0.41
10:B:1805:A:H4'	11:C:247:TRP:CE2	2.55	0.41
10:B:1846:G:C2	10:B:1895:C:C2	3.08	0.41
10:B:1851:U:C4	10:B:1852:U:C4	3.08	0.41
10:B:1860:G:C4	10:B:1861:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1861:G:C2	10:B:1862:G:C4	3.09	0.41
10:B:1932:A:C5	10:B:1933:G:C5	3.08	0.41
10:B:2010:G:C2	10:B:2011:U:C2	3.08	0.41
10:B:2070:A:C4	10:B:2071:A:C8	3.08	0.41
10:B:2074:U:H2'	10:B:2075:U:C6	2.55	0.41
10:B:2106:U:N3	10:B:2107:G:N7	2.68	0.41
10:B:2189:U:H2'	10:B:2190:G:H8	1.81	0.41
10:B:2261:C:H2'	10:B:2262:U:H6	1.85	0.41
10:B:2293:G:H2'	10:B:2294:G:C8	2.55	0.41
10:B:2329:U:H2'	10:B:2330:G:C8	2.55	0.41
10:B:2357:G:N2	10:B:2361:G:N7	2.68	0.41
10:B:2397:G:C2	10:B:2398:U:C2	3.08	0.41
10:B:2399:G:C2	10:B:2400:G:C4	3.08	0.41
10:B:2521:C:H2'	10:B:2522:U:C6	2.54	0.41
10:B:2661:G:N1	10:B:2662:A:N3	2.69	0.41
10:B:2759:G:H21	15:G:138:GLN:NE2	2.17	0.41
10:B:2766:A:H2'	10:B:2766:A:N3	2.34	0.41
10:B:2792:A:N1	10:B:2793:C:C2	2.89	0.41
10:B:2802:G:C6	10:B:2803:G:C5	3.08	0.41
15:G:44:HIS:HA	15:G:49:LEU:HD23	2.02	0.41
21:M:38:ARG:O	21:M:126:ILE:HG21	2.20	0.41
23:O:76:LYS:CD	23:O:109:ALA:HB1	2.50	0.41
29:U:10:VAL:HG21	29:U:35:VAL:HG21	2.03	0.41
29:U:16:LYS:O	29:U:17:ASP:HB2	2.21	0.41
29:U:45:GLN:O	29:U:55:GLY:HA3	2.20	0.41
31:W:60:ALA:O	31:W:61:LYS:HD2	2.19	0.41
1:0:31:LYS:HE3	10:B:2885:G:N2	2.36	0.41
3:2:12:ARG:O	3:2:15:SER:N	2.54	0.41
3:2:14:ARG:HH22	10:B:770:G:C3'	2.30	0.41
4:3:46:LYS:NZ	10:B:631:A:OP2	2.53	0.41
6:5:26:ALA:HB1	6:5:224:VAL:HG12	2.02	0.41
7:6:328:ARG:N	7:6:341:TRP:CD1	2.85	0.41
35:6:527:GNP:H2'	35:6:527:GNP:H8	1.84	0.41
8:7:37:LYS:HD2	8:7:54:VAL:HG21	2.02	0.41
9:A:32:U:C4	9:A:51:G:C2	3.08	0.41
10:B:29:U:C2	10:B:30:G:C8	3.07	0.41
10:B:270:A:H1'	10:B:370:G:C2	2.55	0.41
10:B:340:A:C2	10:B:341:C:H1'	2.56	0.41
10:B:465:G:N7	10:B:466:A:C5	2.89	0.41
10:B:539:G:C5	10:B:540:C:C5	3.08	0.41
10:B:585:G:C5	10:B:1251:C:N3	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:593:U:N3	10:B:594:U:C4	2.87	0.41
10:B:615:U:C2	13:E:35:TYR:CD1	3.08	0.41
10:B:687:C:C5	10:B:788:A:C8	3.08	0.41
10:B:695:G:C2	10:B:696:G:C8	3.08	0.41
10:B:709:U:C4	10:B:710:U:O4	2.73	0.41
10:B:722:A:H2'	10:B:723:C:C6	2.54	0.41
10:B:737:C:N3	10:B:759:G:N2	2.67	0.41
10:B:880:G:H2'	10:B:881:G:N7	2.35	0.41
10:B:979:A:N1	10:B:985:C:N3	2.68	0.41
10:B:1045:C:C4	10:B:1047:G:C2	3.07	0.41
10:B:1115:G:HO2'	10:B:1116:G:P	2.41	0.41
10:B:1130:U:C2	12:D:152:PRO:HB3	2.31	0.41
10:B:1197:G:H2'	10:B:1198:U:H6	1.84	0.41
10:B:1234:U:C4	10:B:1235:G:C5	3.08	0.41
10:B:1311:G:H1'	10:B:1313:U:O4	2.20	0.41
10:B:1338:G:C2	10:B:1339:G:C8	3.08	0.41
10:B:1478:G:C6	10:B:1514:G:N3	2.88	0.41
10:B:1627:G:C6	10:B:1640:A:C5	3.09	0.41
10:B:1631:G:H8	10:B:1631:G:O5'	2.03	0.41
10:B:1739:A:C4	10:B:1740:G:C8	3.08	0.41
10:B:1783:A:C2	10:B:2587:A:C6	3.08	0.41
10:B:1799:G:C6	10:B:1819:A:N7	2.88	0.41
10:B:1811:G:C2	10:B:1812:U:C6	3.09	0.41
10:B:1856:U:H3	10:B:1887:C:N4	2.18	0.41
10:B:1857:G:N1	10:B:1884:G:C5	2.88	0.41
10:B:1904:G:C6	10:B:1905:C:C4	3.08	0.41
10:B:2070:A:N3	10:B:2071:A:C8	2.88	0.41
10:B:2099:U:H1'	10:B:2191:A:C2	2.55	0.41
10:B:2205:A:C6	10:B:2206:C:C4	3.08	0.41
10:B:2209:G:C2	10:B:2216:G:C2	3.08	0.41
10:B:2231:U:C2	10:B:2232:C:C5	3.09	0.41
10:B:2297:A:C8	10:B:2320:U:N3	2.88	0.41
10:B:2329:U:N3	10:B:2330:G:N7	2.69	0.41
10:B:2330:G:C4	10:B:2331:G:H1'	2.55	0.41
10:B:2360:G:H1'	20:L:60:ARG:NH1	2.35	0.41
10:B:2556:C:H2'	10:B:2557:G:O4'	2.20	0.41
10:B:2637:U:C4	10:B:2638:G:C2	3.09	0.41
10:B:2666:C:H6	10:B:2666:C:H2'	1.69	0.41
10:B:2667:C:H1'	15:G:108:PHE:CD1	2.55	0.41
10:B:2742:G:N2	10:B:2743:U:C2	2.88	0.41
11:C:249:VAL:HG12	11:C:250:GLN:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:D:180:VAL:HA	12:D:187:LEU:HD12	2.02	0.41
14:F:122:ASP:OD1	14:F:125:GLY:N	2.53	0.41
14:F:160:LYS:HE3	14:F:164:GLU:OE2	2.19	0.41
18:J:91:GLU:HA	18:J:94:ALA:HB3	2.01	0.41
19:K:6:MET:SD	19:K:17:ARG:CZ	3.09	0.41
19:K:28:HIS:O	19:K:28:HIS:ND1	2.54	0.41
22:N:44:LEU:HA	22:N:44:LEU:HD12	1.84	0.41
22:N:51:LEU:O	22:N:55:ALA:N	2.53	0.41
23:O:36:TYR:HA	23:O:52:SER:HB3	2.03	0.41
25:Q:63:ARG:HH22	25:Q:98:ALA:HB3	1.84	0.41
25:Q:90:ASP:HA	25:Q:91:ARG:NH2	2.35	0.41
26:R:34:GLU:OE2	26:R:60:LYS:HG2	2.20	0.41
26:R:37:GLU:HB2	26:R:53:PHE:CD1	2.55	0.41
28:T:65:GLY:HA3	28:T:77:ARG:HG3	2.01	0.41
4:3:2:LYS:HZ2	10:B:242:G:P	2.40	0.41
7:6:108:LEU:HD13	7:6:128:GLN:HA	2.02	0.41
7:6:144:GLU:HB3	10:B:2602:A:H2	1.85	0.41
7:6:263:LEU:O	7:6:267:PHE:HB2	2.20	0.41
8:7:57:ASN:ND2	10:B:1106:G:OP1	2.48	0.41
8:7:118:ILE:HB	8:7:119:PRO:HD3	2.02	0.41
9:A:46:A:C5	9:A:47:C:C5	3.08	0.41
10:B:37:C:H5'	10:B:451:U:P	2.60	0.41
10:B:329:G:N2	29:U:16:LYS:NZ	2.68	0.41
10:B:457:A:H8	10:B:457:A:OP1	2.04	0.41
10:B:464:U:C4	10:B:788:A:C5	3.08	0.41
10:B:490:C:O2'	10:B:491:G:OP2	2.29	0.41
10:B:546:U:H6	10:B:548:G:H22	1.65	0.41
10:B:552:U:N3	10:B:553:G:N7	2.69	0.41
10:B:577:G:P	10:B:2502:G:O2'	2.78	0.41
10:B:691:C:P	11:C:216:ARG:HH21	2.42	0.41
10:B:705:A:C2	10:B:727:A:H1'	2.55	0.41
10:B:806:C:H5	20:L:41:ARG:HE	1.67	0.41
10:B:833:A:C6	10:B:834:G:O6	2.73	0.41
10:B:888:C:HO2'	10:B:889:C:P	2.42	0.41
10:B:918:A:H2'	10:B:918:A:N3	2.36	0.41
10:B:920:A:C5	10:B:921:C:C4	3.08	0.41
10:B:975:A:C2	10:B:990:A:C8	3.08	0.41
10:B:997:G:O2'	10:B:998:C:H5'	2.20	0.41
10:B:1106:G:C5	10:B:1107:G:C8	3.09	0.41
10:B:1215:G:N2	10:B:1216:G:C4	2.89	0.41
10:B:1262:A:H2'	10:B:1262:A:N3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1277:G:C2	10:B:1278:C:C2	3.08	0.41
10:B:1366:A:H2'	10:B:1367:A:H5'	2.01	0.41
10:B:1420:A:C4	10:B:2211:A:C5	3.08	0.41
10:B:1423:G:C2	10:B:1424:G:C4	3.09	0.41
10:B:1429:G:C5	10:B:1568:G:C5	3.08	0.41
10:B:1562:U:H2'	10:B:1563:U:C6	2.55	0.41
10:B:1660:G:H1	10:B:2000:C:N4	2.16	0.41
10:B:1786:A:C5	10:B:1938:A:C6	3.09	0.41
10:B:1889:A:H2'	10:B:1890:A:O4'	2.21	0.41
10:B:1949:G:C2	10:B:1950:G:C5	3.09	0.41
10:B:2056:G:N2	10:B:2057:G:C4	2.88	0.41
10:B:2107:G:O2'	10:B:2108:A:O5'	2.37	0.41
10:B:2163:A:H5''	10:B:2164:C:OP2	2.20	0.41
10:B:2293:G:N1	10:B:2294:G:C5	2.89	0.41
10:B:2410:G:H2'	10:B:2411:A:C8	2.55	0.41
10:B:2419:U:H2'	10:B:2420:C:C6	2.55	0.41
10:B:2509:G:N2	10:B:2510:C:C2	2.88	0.41
10:B:2509:G:N1	10:B:2580:U:O2	2.53	0.41
10:B:2583:G:C4	10:B:2584:U:C5	3.08	0.41
10:B:2592:G:N1	10:B:2603:G:C6	2.88	0.41
10:B:2595:G:C6	10:B:2599:G:O6	2.73	0.41
10:B:2684:U:N3	10:B:2685:G:C8	2.88	0.41
10:B:2728:U:OP1	19:K:69:ARG:HG3	2.20	0.41
10:B:2832:U:C2	10:B:2834:G:C2	3.08	0.41
10:B:2848:G:C5	10:B:2867:G:N1	2.88	0.41
10:B:2865:U:H2'	10:B:2866:U:C5	2.55	0.41
11:C:132:ARG:NH1	16:H:121:VAL:HG12	2.35	0.41
11:C:229:HIS:HE1	11:C:231:HIS:CD2	2.38	0.41
12:D:56:LYS:HD2	12:D:59:ARG:HH21	1.86	0.41
13:E:117:ARG:NH1	20:L:2:ARG:HG2	2.33	0.41
14:F:9:ASP:HA	14:F:13:LYS:HZ3	1.85	0.41
14:F:105:ILE:HB	14:F:111:ARG:NH2	2.29	0.41
15:G:49:LEU:HD23	15:G:49:LEU:HA	1.76	0.41
16:H:27:ARG:NH2	32:X:59:ASP:HA	2.06	0.41
16:H:80:ILE:HD11	16:H:102:ALA:N	2.34	0.41
17:I:59:THR:O	17:I:65:SER:HB3	2.21	0.41
19:K:106:LEU:HD21	19:K:111:PHE:HD2	1.86	0.41
23:O:16:ARG:O	23:O:20:GLU:HG3	2.21	0.41
23:O:66:GLY:O	23:O:102:ARG:HD3	2.20	0.41
30:V:66:ASP:CB	30:V:68:LYS:HZ3	2.33	0.41
31:W:18:LYS:CG	31:W:19:ARG:H	2.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:X:14:GLY:O	32:X:26:ARG:N	2.54	0.41
6:5:7:ARG:HE	10:B:2174:C:P	2.43	0.41
7:6:118:HIS:O	7:6:121:LYS:HB2	2.20	0.41
7:6:194:LYS:CG	7:6:197:VAL:HG22	2.50	0.41
7:6:319:ILE:HD12	7:6:341:TRP:HB3	2.02	0.41
7:6:332:ASP:N	7:6:338:ASN:OD1	2.35	0.41
7:6:371:ARG:HG2	7:6:424:TYR:CZ	2.55	0.41
7:6:371:ARG:HG2	7:6:424:TYR:OH	2.19	0.41
8:7:119:PRO:HB3	8:7:126:LEU:HD13	2.01	0.41
10:B:56:A:C5	10:B:57:C:C4	3.08	0.41
10:B:190:A:P	32:X:25:LYS:NZ	2.91	0.41
10:B:217:A:C6	10:B:218:A:N3	2.89	0.41
10:B:452:G:H8	10:B:452:G:O5'	2.03	0.41
10:B:465:G:N7	10:B:466:A:N6	2.68	0.41
10:B:499:U:C5'	29:U:42:LYS:HD2	2.49	0.41
10:B:532:A:H8	10:B:2021:C:C4	2.38	0.41
10:B:627:A:P	10:B:627:A:H8	2.44	0.41
10:B:721:A:N6	10:B:722:A:N6	2.69	0.41
10:B:722:A:H2'	10:B:723:C:H6	1.85	0.41
10:B:743:A:H2'	10:B:744:U:C6	2.47	0.41
10:B:775:G:C5'	10:B:777:G:H1'	2.50	0.41
10:B:821:A:O2'	10:B:946:C:H5''	2.21	0.41
10:B:855:G:O3'	31:W:23:LYS:NZ	2.52	0.41
10:B:882:G:N1	10:B:883:G:H1'	2.35	0.41
10:B:1022:G:C2	10:B:1141:U:C5	3.07	0.41
10:B:1064:C:P	17:I:80:LYS:NZ	2.92	0.41
10:B:1107:G:H2'	10:B:1108:U:H6	1.84	0.41
10:B:1180:U:H2'	10:B:1181:U:C6	2.55	0.41
10:B:1196:C:H1'	10:B:1226:A:C4	2.55	0.41
10:B:1248:G:OP1	13:E:44:ARG:NH1	2.53	0.41
10:B:1258:U:H2'	10:B:1259:G:C8	2.56	0.41
10:B:1298:C:N3	10:B:1299:G:C2	2.89	0.41
10:B:1368:G:N2	10:B:1809:A:N1	2.69	0.41
10:B:1378:A:C6	10:B:1380:G:N1	2.88	0.41
10:B:1412:U:C2	10:B:1413:A:C8	3.08	0.41
10:B:1422:G:C2	10:B:1423:G:C8	3.08	0.41
10:B:1629:U:N3	10:B:1630:A:N7	2.68	0.41
10:B:1633:G:O2'	10:B:1634:A:H5'	2.20	0.41
10:B:1651:G:N1	10:B:1652:A:C6	2.88	0.41
10:B:1744:A:H2'	10:B:1744:A:N3	2.35	0.41
10:B:1817:G:C2	10:B:1818:U:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1845:G:C2	10:B:1896:G:C4	3.09	0.41
10:B:2111:U:H4'	10:B:2115:G:O6	2.20	0.41
10:B:2148:G:H5''	10:B:2149:U:OP2	2.20	0.41
10:B:2189:U:N3	10:B:2190:G:C5	2.89	0.41
10:B:2216:G:N3	10:B:2217:G:C8	2.88	0.41
10:B:2218:G:N1	10:B:2219:U:C4	2.88	0.41
10:B:2252:G:O2'	10:B:2253:G:P	2.79	0.41
10:B:2265:U:C5	10:B:2266:A:C5	3.08	0.41
10:B:2304:G:C2	10:B:2313:C:N3	2.88	0.41
10:B:2309:A:C6	10:B:2310:C:N3	2.89	0.41
10:B:2452:C:N4	10:B:2453:A:N6	2.67	0.41
10:B:2553:G:N3	10:B:2583:G:H1'	2.35	0.41
10:B:2617:U:H3'	10:B:2618:G:H8	1.85	0.41
10:B:2749:A:C5	10:B:2750:A:N7	2.88	0.41
10:B:2842:G:C2	10:B:2843:G:C4	3.08	0.41
14:F:39:VAL:HG11	14:F:48:LEU:HB3	2.01	0.41
14:F:56:LEU:HD12	14:F:64:PRO:HD3	2.02	0.41
14:F:56:LEU:HD12	14:F:64:PRO:N	2.35	0.41
14:F:102:LEU:HD12	14:F:103:ILE:N	2.35	0.41
14:F:111:ARG:HH22	14:F:135:ILE:HG22	1.86	0.41
14:F:137:PHE:HB3	14:F:139:GLU:HG3	2.02	0.41
17:I:18:ASN:ND2	17:I:38:CYS:SG	2.94	0.41
19:K:64:THR:H	19:K:78:PHE:HD2	1.69	0.41
19:K:72:ASP:OD1	19:K:74:SER:OG	2.38	0.41
20:L:80:SER:HB3	20:L:114:GLY:HA3	2.02	0.41
21:M:38:ARG:HG2	21:M:98:PRO:HD3	2.01	0.41
21:M:76:LYS:HZ3	21:M:87:GLY:N	2.19	0.41
22:N:41:ALA:O	22:N:44:LEU:N	2.54	0.41
23:O:51:ALA:HB3	23:O:78:VAL:CG1	2.50	0.41
29:U:13:LEU:HB2	29:U:68:ASN:HD22	1.85	0.41
29:U:13:LEU:N	29:U:68:ASN:O	2.53	0.41
33:Y:11:VAL:HA	33:Y:63:ALA:CA	2.47	0.41
34:Z:43:ILE:O	34:Z:47:ILE:HG12	2.21	0.41
34:Z:50:VAL:O	34:Z:54:VAL:HG22	2.20	0.41
6:5:2:ALA:HB1	10:B:2110:G:H8	1.85	0.41
6:5:148:ASN:HB2	6:5:151:GLU:HB2	2.03	0.41
7:6:395:GLU:HG2	7:6:400:VAL:HA	2.03	0.41
8:7:123:ILE:HG22	8:7:123:ILE:O	2.20	0.41
9:A:61:G:H2'	9:A:62:C:O4'	2.20	0.41
9:A:71:C:C4	9:A:72:G:C4	3.08	0.41
10:B:35:G:C4	10:B:454:A:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:64:A:C5	10:B:65:U:C4	3.08	0.41
10:B:106:C:H41	33:Y:2:LYS:NZ	2.17	0.41
10:B:213:A:C2	10:B:214:G:C5	3.08	0.41
10:B:288:U:H3	10:B:352:A:N6	2.18	0.41
10:B:305:C:H2'	10:B:306:U:C6	2.56	0.41
10:B:542:C:C2	10:B:543:G:C8	3.08	0.41
10:B:582:A:C3'	25:Q:10:ARG:HH22	2.31	0.41
10:B:617:G:C4	10:B:618:G:C8	3.09	0.41
10:B:799:G:C8	10:B:800:A:C8	3.08	0.41
10:B:806:C:C5	10:B:807:U:H5	2.39	0.41
10:B:860:U:C2	10:B:2268:A:H5'	2.55	0.41
10:B:957:C:N3	10:B:959:A:C4	2.88	0.41
10:B:966:G:H4'	10:B:2267:A:N6	2.36	0.41
10:B:1062:G:OP1	10:B:1070:A:H4'	2.20	0.41
10:B:1193:G:H2'	10:B:1194:A:H8	1.85	0.41
10:B:1312:U:N3	10:B:1603:A:C6	2.77	0.41
10:B:1529:G:C4	10:B:1530:G:C8	3.08	0.41
10:B:1548:A:C4	10:B:1549:A:C8	3.09	0.41
10:B:1618:A:OP1	10:B:1618:A:C8	2.74	0.41
10:B:1652:A:O2'	10:B:1653:G:P	2.79	0.41
10:B:1658:C:OP1	12:D:140:HIS:CD2	2.73	0.41
10:B:1754:A:H8	10:B:1754:A:OP1	2.03	0.41
10:B:1801:A:N6	11:C:261:ARG:HH22	2.19	0.41
10:B:1935:G:C6	10:B:1964:G:C6	3.09	0.41
10:B:2046:G:C2	10:B:2047:C:C6	3.08	0.41
10:B:2059:A:C2	10:B:2503:A:N1	2.89	0.41
10:B:2117:A:H2	10:B:2118:U:H2'	1.86	0.41
10:B:2120:G:C6	10:B:2178:C:C4	3.08	0.41
10:B:2243:U:H2'	10:B:2244:U:H6	1.86	0.41
10:B:2415:G:H2'	10:B:2416:C:O4'	2.21	0.41
10:B:2435:A:N1	10:B:2436:G:C5	2.89	0.41
10:B:2662:A:O5'	10:B:2662:A:H8	2.04	0.41
10:B:2816:G:C5	10:B:2817:U:H5	2.39	0.41
10:B:2834:G:H2'	10:B:2879:A:N6	2.32	0.41
10:B:2867:G:OP2	24:P:113:LEU:HG	2.21	0.41
14:F:90:LEU:HD13	14:F:95:MET:HG2	2.02	0.41
15:G:83:THR:O	15:G:132:LEU:HB2	2.20	0.41
19:K:21:ILE:HG13	19:K:39:LYS:CB	2.49	0.41
19:K:100:GLY:HA2	19:K:101:PRO:HD3	1.75	0.41
23:O:27:VAL:HG23	23:O:38:GLN:HB2	2.03	0.41
23:O:82:ALA:O	23:O:86:GLY:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Q:108:LEU:HB2	26:R:48:LYS:HD2	2.02	0.41
26:R:2:TYR:O	26:R:41:ILE:HA	2.21	0.41
26:R:28:ALA:O	26:R:31:GLU:HG2	2.20	0.41
30:V:31:TYR:O	30:V:93:ARG:N	2.46	0.41
1:0:12:ARG:NH2	1:0:16:ARG:NH1	2.68	0.41
1:0:22:THR:OG1	1:0:23:ALA:N	2.53	0.41
5:4:4:ARG:NH2	10:B:2477:U:C5	2.89	0.41
5:4:16:ILE:HA	5:4:25:VAL:HG23	2.01	0.41
6:5:104:ILE:HB	10:B:2171:A:OP1	2.20	0.41
6:5:104:ILE:HG21	6:5:137:MET:HE3	2.02	0.41
6:5:133:PRO:HD2	6:5:134:ARG:H	1.85	0.41
7:6:50:LYS:HE2	7:6:50:LYS:HB2	1.80	0.41
7:6:317:ASN:ND2	35:6:527:GNP:O6	2.54	0.41
9:A:66:A:O2'	9:A:67:G:P	2.79	0.41
9:A:116:G:C3'	23:O:56:LYS:HZ3	2.19	0.41
10:B:68:G:C6	10:B:69:C:C2	3.08	0.41
10:B:116:C:N4	10:B:117:G:N1	2.69	0.41
10:B:136:G:C5	10:B:137:U:C4	3.09	0.41
10:B:477:A:C6	10:B:478:A:C5	3.08	0.41
10:B:508:A:H3'	10:B:509:C:H5'	2.02	0.41
10:B:511:U:C4	10:B:512:G:C4	3.09	0.41
10:B:543:G:H2'	10:B:544:C:O4'	2.20	0.41
10:B:582:A:C6	10:B:583:G:C6	3.09	0.41
10:B:613:A:N6	10:B:616:A:C4	2.87	0.41
10:B:643:A:C5	10:B:644:A:C5	3.09	0.41
10:B:643:A:N6	10:B:644:A:C6	2.88	0.41
10:B:681:G:N2	10:B:797:G:C4	2.89	0.41
10:B:685:A:C6	10:B:774:G:N2	2.89	0.41
10:B:697:G:C6	10:B:698:C:N4	2.89	0.41
10:B:712:G:C2'	10:B:713:G:H5'	2.50	0.41
10:B:760:G:C5	10:B:761:A:C4	3.09	0.41
10:B:783:A:N6	10:B:785:G:C4	2.89	0.41
10:B:809:G:C2	10:B:810:U:C2	3.09	0.41
10:B:870:U:C3'	10:B:871:U:H5''	2.46	0.41
10:B:909:A:C4	10:B:912:C:C4	3.08	0.41
10:B:917:A:H2'	10:B:918:A:C8	2.55	0.41
10:B:972:A:C6	10:B:973:A:C5	3.08	0.41
10:B:986:C:H2'	10:B:987:C:H6	1.86	0.41
10:B:1232:G:C5	10:B:1233:C:C5	3.08	0.41
10:B:1360:G:H2'	10:B:1361:G:O4'	2.21	0.41
10:B:1420:A:C5	10:B:2211:A:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1425:G:O6	10:B:1426:G:N1	2.54	0.41
10:B:1486:U:O4	10:B:1504:A:N6	2.54	0.41
10:B:1493:C:N4	10:B:1494:A:C5	2.89	0.41
10:B:1528:A:C6	10:B:1544:A:C8	3.09	0.41
10:B:1630:A:C2	10:B:1631:G:C4	3.09	0.41
10:B:1672:A:C8	10:B:1673:G:N7	2.88	0.41
10:B:1724:G:C2	10:B:1725:U:C2	3.09	0.41
10:B:1764:C:H2'	10:B:1765:U:H6	1.83	0.41
10:B:1773:A:N7	10:B:1774:C:C2	2.89	0.41
10:B:1797:G:C6	10:B:1798:U:C4	3.09	0.41
10:B:1800:C:C4	10:B:1818:U:O2	2.72	0.41
10:B:1836:C:H2'	10:B:1837:C:C6	2.55	0.41
10:B:2309:A:C5	10:B:2310:C:C4	3.08	0.41
10:B:2359:C:C4	10:B:2360:G:C5	3.08	0.41
10:B:2404:U:H1'	20:L:66:PHE:HZ	1.86	0.41
10:B:2454:G:N7	10:B:2455:G:N7	2.69	0.41
10:B:2467:C:N3	10:B:2468:A:C6	2.88	0.41
10:B:2525:G:C2	10:B:2526:G:C8	3.09	0.41
10:B:2786:U:H2'	10:B:2787:C:C6	2.55	0.41
10:B:2884:U:H2'	10:B:2885:G:C8	2.55	0.41
12:D:114:LYS:H	12:D:114:LYS:HG2	1.64	0.41
17:I:23:VAL:O	17:I:27:LEU:HB3	2.21	0.41
18:J:45:THR:OG1	18:J:48:VAL:HG22	2.21	0.41
23:O:24:THR:O	23:O:90:VAL:HB	2.21	0.41
25:Q:82:LEU:HB3	25:Q:89:ILE:HG12	2.02	0.41
32:X:15:ASN:HA	32:X:24:THR:O	2.21	0.41
3:2:2:LYS:NZ	10:B:1620:G:C4'	2.82	0.41
3:2:14:ARG:HH22	10:B:770:G:H4'	1.85	0.41
7:6:123:GLN:OE1	7:6:267:PHE:HA	2.21	0.41
7:6:206:THR:OG1	7:6:228:LEU:HG	2.20	0.41
7:6:212:THR:CG2	35:6:527:GNP:H2'	2.49	0.41
7:6:256:ILE:HG22	7:6:257:ARG:O	2.20	0.41
8:7:56:ARG:HG3	10:B:1084:A:C2	2.55	0.41
8:7:96:PHE:HA	8:7:99:PHE:CE2	2.56	0.41
9:A:25:U:O2'	9:A:26:C:O5'	2.39	0.41
9:A:33:G:C6	9:A:50:A:C6	3.08	0.41
9:A:75:G:H1'	30:V:29:ILE:HG21	2.02	0.41
9:A:89:U:O2	10:B:958:U:H5	2.04	0.41
10:B:21:A:C6	10:B:22:C:C4	3.09	0.41
10:B:160:A:C6	10:B:161:A:C6	3.09	0.41
10:B:183:C:O2'	10:B:184:C:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:195:A:C6	10:B:198:C:C5	3.08	0.41
10:B:264:C:C2'	10:B:265:A:H5''	2.50	0.41
10:B:291:G:H2'	10:B:292:U:C6	2.56	0.41
10:B:456:C:C4	28:T:73:ARG:NH1	2.88	0.41
10:B:461:C:C5	10:B:462:C:C5	3.09	0.41
10:B:483:A:H4'	29:U:45:GLN:O	2.21	0.41
10:B:628:G:O6	10:B:636:G:N1	2.54	0.41
10:B:684:G:C4	10:B:774:G:C6	3.09	0.41
10:B:768:G:C4	10:B:769:U:C5	3.09	0.41
10:B:955:U:C3'	21:M:86:LYS:HZ3	2.34	0.41
10:B:965:C:C4	10:B:966:G:N7	2.89	0.41
10:B:1063:G:C6	10:B:1064:C:C4	3.09	0.41
10:B:1074:G:C2	10:B:1075:C:C2	3.09	0.41
10:B:1076:C:C2	10:B:1077:A:C8	3.09	0.41
10:B:1168:G:C4	10:B:1169:A:C8	3.09	0.41
10:B:1280:G:H2'	10:B:1281:G:H8	1.85	0.41
10:B:1326:U:O2	10:B:1327:A:C8	2.74	0.41
10:B:1355:G:C2	10:B:1356:G:N7	2.88	0.41
10:B:1410:G:H2'	10:B:1411:U:H6	1.86	0.41
10:B:1454:C:H5'	22:N:63:ARG:HH22	1.86	0.41
10:B:1491:G:C2	10:B:1492:G:C4	3.09	0.41
10:B:1505:A:H2'	10:B:1506:U:C6	2.55	0.41
10:B:1593:A:H2'	10:B:1594:U:O4'	2.21	0.41
10:B:1620:G:O2'	10:B:1621:U:H5'	2.20	0.41
10:B:1661:G:C2	10:B:1662:U:C5	3.08	0.41
10:B:1687:G:C2	10:B:1702:G:C6	3.08	0.41
10:B:1701:A:C8	10:B:1702:G:C8	3.09	0.41
10:B:1786:A:C5	10:B:1938:A:N1	2.89	0.41
10:B:2003:A:N3	10:B:2004:G:C8	2.88	0.41
10:B:2011:U:H5'	27:S:42:LYS:NZ	2.36	0.41
10:B:2123:G:C4	10:B:2124:G:C8	3.09	0.41
10:B:2125:G:C2	10:B:2126:A:N7	2.88	0.41
10:B:2164:C:H5''	10:B:2172:U:H5	1.86	0.41
10:B:2197:U:H1'	10:B:2198:A:C8	2.48	0.41
10:B:2341:G:H2'	10:B:2342:C:H6	1.86	0.41
10:B:2429:G:N7	20:L:55:MET:HE1	2.36	0.41
10:B:2621:G:P	12:D:124:ARG:HH22	2.40	0.41
10:B:2655:G:N2	10:B:2664:G:N3	2.69	0.41
10:B:2744:G:O6	10:B:2761:A:N6	2.53	0.41
10:B:2843:G:C5	10:B:2844:G:C5	3.08	0.41
10:B:2881:U:H2'	10:B:2882:A:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:3:LEU:HD23	14:F:4:HIS:NE2	2.36	0.41
14:F:13:LYS:N	14:F:15:LEU:H	2.13	0.41
14:F:109:ARG:HE	14:F:177:ARG:HH12	1.68	0.41
15:G:100:ASN:HB2	15:G:115:GLN:NE2	2.36	0.41
15:G:140:ILE:HG23	15:G:141:GLY:N	2.36	0.41
16:H:3:VAL:HG12	16:H:38:PRO:HA	2.02	0.41
16:H:11:ASN:CG	16:H:12:LEU:N	2.73	0.41
19:K:62:VAL:HB	19:K:102:VAL:CG1	2.47	0.41
19:K:85:LEU:O	19:K:94:ILE:HG23	2.21	0.41
23:O:30:ARG:HH21	23:O:103:VAL:HG23	1.85	0.41
23:O:68:LYS:CA	23:O:102:ARG:HG2	2.48	0.41
27:S:6:LYS:NZ	27:S:102:HIS:HB3	2.27	0.41
28:T:50:LEU:HD23	28:T:50:LEU:HA	1.82	0.41
34:Z:46:MET:O	34:Z:50:VAL:HG22	2.21	0.41
7:6:16:ILE:C	7:6:18:PHE:H	2.23	0.41
7:6:84:LEU:HG	7:6:102:ASP:CG	2.40	0.41
7:6:84:LEU:HB2	7:6:88:GLN:OE1	2.20	0.41
7:6:295:ILE:O	7:6:298:VAL:HG12	2.20	0.41
7:6:356:ALA:O	7:6:360:ARG:HG3	2.20	0.41
8:7:17:GLU:OE2	8:7:88:HIS:CE1	2.73	0.41
8:7:33:VAL:HA	10:B:1055:G:H4'	2.03	0.41
8:7:52:MET:HE2	8:7:95:LEU:HD13	2.02	0.41
9:A:9:G:C6	9:A:112:G:C5	3.09	0.41
9:A:11:C:H3'	9:A:12:C:C6	2.56	0.41
9:A:18:G:N7	9:A:19:C:N4	2.69	0.41
9:A:66:A:C4	9:A:108:A:C6	3.09	0.41
10:B:15:G:H2'	10:B:16:C:H6	1.86	0.41
10:B:20:C:H2'	10:B:21:A:H8	1.86	0.41
10:B:25:U:H5	10:B:26:G:C6	2.39	0.41
10:B:38:A:C4	10:B:442:G:N2	2.89	0.41
10:B:64:A:C5	10:B:65:U:C5	3.09	0.41
10:B:67:U:H1'	10:B:88:G:C2	2.56	0.41
10:B:73:A:H4'	10:B:75:G:N3	2.35	0.41
10:B:90:U:H2'	10:B:91:A:H2	1.83	0.41
10:B:117:G:C6	10:B:119:A:N6	2.89	0.41
10:B:118:A:H3'	10:B:118:A:H8	1.86	0.41
10:B:172:A:N3	10:B:173:A:C8	2.89	0.41
10:B:178:G:C2	10:B:179:C:C4	3.08	0.41
10:B:295:G:H2'	10:B:296:U:C6	2.56	0.41
10:B:301:G:C6	10:B:317:G:C5	3.08	0.41
10:B:305:C:N3	10:B:313:G:C6	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:412:A:H8	10:B:412:A:OP2	2.03	0.41
10:B:440:C:H2'	10:B:441:U:C6	2.56	0.41
10:B:468:G:O6	10:B:469:G:C2	2.74	0.41
10:B:501:A:C4	10:B:502:A:C8	3.08	0.41
10:B:512:G:O2'	10:B:513:A:O5'	2.35	0.41
10:B:637:A:C4	10:B:652:U:H5''	2.56	0.41
10:B:639:U:H3	10:B:649:G:H1	1.69	0.41
10:B:682:G:C2	10:B:683:U:C6	3.09	0.41
10:B:786:C:N3	10:B:787:C:C4	2.89	0.41
10:B:847:U:C5	10:B:932:U:H1'	2.56	0.41
10:B:849:A:H2'	10:B:850:U:C6	2.55	0.41
10:B:864:G:C4	10:B:865:C:C5	3.08	0.41
10:B:906:U:C4'	21:M:66:ARG:NH1	2.83	0.41
10:B:910:A:C2	10:B:911:A:C4	3.08	0.41
10:B:917:A:H2'	10:B:918:A:H8	1.86	0.41
10:B:942:G:H5''	20:L:39:LYS:HE3	2.02	0.41
10:B:952:G:N1	10:B:953:G:C5	2.89	0.41
10:B:960:A:H8	10:B:960:A:O5'	2.04	0.41
10:B:978:G:O6	10:B:986:C:N4	2.54	0.41
10:B:1090:A:N6	10:B:1091:G:O6	2.54	0.41
10:B:1098:A:N3	17:I:5:GLN:HA	2.35	0.41
10:B:1130:U:C2	12:D:152:PRO:CB	2.96	0.41
10:B:1130:U:C2	12:D:152:PRO:CG	3.04	0.41
10:B:1139:G:H5''	10:B:1140:C:OP2	2.20	0.41
10:B:1166:G:C5	10:B:1167:C:C5	3.08	0.41
10:B:1171:G:H2'	10:B:1172:C:C6	2.56	0.41
10:B:1183:U:H2'	10:B:1184:U:H6	1.85	0.41
10:B:1213:A:C5	10:B:1237:A:C4	3.09	0.41
10:B:1259:G:N2	10:B:1260:A:C4	2.89	0.41
10:B:1299:G:N2	10:B:1642:G:C5	2.88	0.41
10:B:1356:G:C4	10:B:1357:C:C5	3.09	0.41
10:B:1387:A:C6	10:B:1401:G:C6	3.09	0.41
10:B:1398:C:C2	10:B:1399:C:C5	3.09	0.41
10:B:1444:G:C6	10:B:1445:G:C5	3.08	0.41
10:B:1491:G:C2	10:B:1492:G:C8	3.09	0.41
10:B:1492:G:C4	10:B:1496:A:N6	2.88	0.41
10:B:1528:A:C2	10:B:1544:A:C4	3.09	0.41
10:B:1537:G:H2'	10:B:1538:G:O4'	2.21	0.41
10:B:1601:G:C5	10:B:1602:U:C4	3.09	0.41
10:B:1613:G:C5	10:B:1617:C:N3	2.89	0.41
10:B:1620:G:N2	10:B:1621:U:C2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1631:G:N2	10:B:1634:A:OP2	2.35	0.41
10:B:1643:G:C6	10:B:1644:C:C2	3.09	0.41
10:B:1657:U:H2'	10:B:1658:C:H6	1.85	0.41
10:B:1745:A:O2'	10:B:1746:A:O4'	2.22	0.41
10:B:1817:G:N3	10:B:1817:G:H2'	2.35	0.41
10:B:1862:G:C6	10:B:1863:G:N7	2.89	0.41
10:B:1970:A:N6	10:B:1972:G:O6	2.53	0.41
10:B:2053:G:H2'	10:B:2054:A:H8	1.86	0.41
10:B:2060:A:N1	10:B:2502:G:C5	2.89	0.41
10:B:2077:A:C4	10:B:2435:A:C8	3.09	0.41
10:B:2085:U:O2	10:B:2235:G:C2	2.74	0.41
10:B:2214:C:H2'	10:B:2215:C:O4'	2.20	0.41
10:B:2218:G:N2	10:B:2219:U:C2	2.89	0.41
10:B:2303:G:H2'	10:B:2304:G:O4'	2.21	0.41
10:B:2305:U:H4'	14:F:132:ARG:HE	1.86	0.41
10:B:2327:A:N6	10:B:2328:A:N1	2.69	0.41
10:B:2435:A:C2	10:B:2436:G:C4	3.09	0.41
10:B:2454:G:N2	10:B:2499:C:C2	2.89	0.41
10:B:2454:G:C2	10:B:2499:C:C2	3.08	0.41
10:B:2597:G:C6	10:B:2598:A:C6	3.09	0.41
10:B:2646:C:N3	10:B:2647:U:N3	2.69	0.41
10:B:2731:G:C2	10:B:2732:G:N7	2.89	0.41
10:B:2742:G:C2	10:B:2743:U:C2	3.09	0.41
10:B:2825:G:H3'	10:B:2826:A:H8	1.86	0.41
10:B:2840:C:C4	10:B:2841:C:N4	2.89	0.41
10:B:2850:A:H2'	10:B:2851:A:O4'	2.21	0.41
10:B:2886:A:C4	10:B:2887:A:C8	3.09	0.41
11:C:229:HIS:CE1	11:C:231:HIS:HB2	2.56	0.41
12:D:14:ILE:HD12	12:D:14:ILE:HA	1.94	0.41
12:D:96:ILE:HD12	12:D:100:LEU:HD11	2.03	0.41
12:D:131:ASP:HB2	12:D:136:ASN:OD1	2.21	0.41
12:D:193:VAL:O	12:D:193:VAL:HG23	2.20	0.41
13:E:123:LYS:HG2	13:E:125:SER:N	2.35	0.41
13:E:164:LEU:HB3	13:E:167:VAL:HG12	2.03	0.41
14:F:169:LEU:HG	14:F:172:PHE:CE2	2.56	0.41
16:H:91:PHE:CE1	16:H:127:GLU:HA	2.56	0.41
17:I:102:ARG:H	17:I:141:ASP:C	2.24	0.41
18:J:14:ASP:H	18:J:52:ASP:CG	2.24	0.41
18:J:39:LYS:HG2	18:J:39:LYS:O	2.21	0.41
19:K:70:ARG:O	19:K:72:ASP:N	2.53	0.41
22:N:98:LEU:HD11	22:N:114:GLU:OE2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:35:ILE:HD12	23:O:102:ARG:HE	1.86	0.41
24:P:20:ARG:HD2	24:P:20:ARG:HA	1.90	0.41
24:P:36:LYS:HZ3	24:P:38:ARG:HD3	1.84	0.41
25:Q:55:GLN:O	25:Q:58:GLN:HB3	2.21	0.41
25:Q:60:TRP:CZ2	25:Q:93:ILE:HD12	2.56	0.41
25:Q:93:ILE:O	25:Q:96:ASP:N	2.47	0.41
26:R:30:GLY:N	26:R:63:VAL:O	2.33	0.41
27:S:69:LEU:HA	27:S:69:LEU:HD23	1.90	0.41
29:U:20:LYS:HD3	29:U:38:ILE:CD1	2.46	0.41
29:U:20:LYS:HE2	29:U:36:GLU:O	2.20	0.41
29:U:53:GLN:N	29:U:54:PRO:HD2	2.35	0.41
4:3:51:LYS:HD3	4:3:54:LEU:HD22	2.03	0.41
6:5:53:ARG:HH22	10:B:1859:U:P	2.44	0.41
6:5:206:GLY:CA	10:B:1876:A:H5''	2.51	0.41
7:6:271:LEU:O	7:6:274:THR:N	2.52	0.41
8:7:24:SER:HB2	8:7:116:GLU:H	1.86	0.41
10:B:17:G:N2	10:B:18:U:C2	2.89	0.41
10:B:59:U:H4'	10:B:73:A:C5	2.56	0.41
10:B:84:A:N1	10:B:103:A:C8	2.89	0.41
10:B:85:G:OP1	29:U:6:ARG:HB2	2.21	0.41
10:B:120:U:C6	10:B:149:A:C4	3.09	0.41
10:B:123:G:O2'	10:B:1376:C:H4'	2.21	0.41
10:B:258:G:C2	10:B:259:G:C4	3.09	0.41
10:B:372:G:O6	32:X:56:ARG:NH2	2.54	0.41
10:B:563:A:C5	10:B:564:C:C5	3.09	0.41
10:B:628:G:C5	10:B:636:G:N2	2.89	0.41
10:B:683:U:N3	10:B:684:G:C8	2.89	0.41
10:B:734:A:C5	10:B:735:A:N7	2.89	0.41
10:B:910:A:H2	10:B:2264:C:H1'	1.86	0.41
10:B:974:G:C6	10:B:1186:G:C5	3.09	0.41
10:B:1034:G:C5	10:B:1035:U:C4	3.09	0.41
10:B:1234:U:C4	10:B:1235:G:C6	3.09	0.41
10:B:1314:C:C5	10:B:1315:C:C5	3.08	0.41
10:B:1342:A:H5''	28:T:59:ASN:OD1	2.20	0.41
10:B:1353:A:C6	10:B:1378:A:C2	3.09	0.41
10:B:1386:C:C2	10:B:1387:A:N7	2.89	0.41
10:B:1458:U:C5'	10:B:1459:G:H3'	2.50	0.41
10:B:1665:A:N6	10:B:1996:C:H42	2.19	0.41
10:B:1803:A:H61	10:B:1814:G:C2'	2.34	0.41
10:B:1810:A:C8	10:B:1811:G:C8	3.09	0.41
10:B:1871:A:C5	10:B:1872:A:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1887:C:O2	10:B:1887:C:H2'	2.20	0.41
10:B:1889:A:C6	10:B:1890:A:C5	3.09	0.41
10:B:1890:A:C5	10:B:1891:G:C5	3.09	0.41
10:B:1919:A:H2'	10:B:1920:C:C6	2.56	0.41
10:B:1948:G:C5	10:B:1949:G:N7	2.89	0.41
10:B:2109:U:H3	10:B:2181:U:H3	1.69	0.41
10:B:2244:U:O2'	10:B:2245:U:P	2.78	0.41
10:B:2273:A:C2	10:B:2274:A:C5	3.09	0.41
10:B:2278:A:C5'	21:M:10:ARG:NH2	2.76	0.41
10:B:2336:A:C5	31:W:40:ARG:CZ	3.04	0.41
10:B:2399:G:N3	10:B:2400:G:C8	2.88	0.41
10:B:2510:C:H2'	10:B:2511:U:C6	2.56	0.41
10:B:2625:G:C6	10:B:2626:C:C4	3.09	0.41
10:B:2655:G:N2	10:B:2664:G:C4	2.88	0.41
10:B:2655:G:HO2'	10:B:2656:U:P	2.43	0.41
10:B:2742:G:C6	10:B:2743:U:C4	3.09	0.41
10:B:2901:C:H2'	10:B:2902:C:C6	2.56	0.41
11:C:38:LYS:HE3	11:C:38:LYS:HB3	1.93	0.41
11:C:144:GLU:HA	11:C:150:GLY:O	2.21	0.41
12:D:187:LEU:HD12	12:D:187:LEU:HA	1.75	0.41
14:F:116:LEU:HA	14:F:173:ASP:O	2.21	0.41
15:G:86:LEU:CD2	15:G:147:LEU:HD23	2.51	0.41
18:J:91:GLU:O	18:J:95:ARG:HG2	2.21	0.41
20:L:120:VAL:H	20:L:141:LYS:HB2	1.86	0.41
23:O:40:ILE:HD12	23:O:44:GLY:HA2	2.03	0.41
30:V:24:ASN:O	30:V:25:LYS:HD2	2.20	0.41
31:W:31:LEU:O	31:W:60:ALA:N	2.40	0.41
33:Y:56:LEU:HD23	33:Y:56:LEU:HA	1.82	0.41
7:6:375:GLN:HG3	7:6:378:ARG:NH1	2.36	0.40
8:7:59:LEU:HB2	8:7:62:ARG:HG3	2.03	0.40
8:7:81:LEU:O	8:7:82:ILE:HD13	2.20	0.40
10:B:16:C:H2'	10:B:17:G:C8	2.41	0.40
10:B:83:A:H2	10:B:84:A:N6	2.19	0.40
10:B:102:U:O2'	33:Y:4:LYS:NZ	2.44	0.40
10:B:149:A:C5	10:B:150:U:C5	3.10	0.40
10:B:181:A:O2'	10:B:182:A:O4'	2.29	0.40
10:B:240:C:H3'	10:B:241:A:C8	2.43	0.40
10:B:258:G:N3	10:B:259:G:C8	2.89	0.40
10:B:268:C:H42	10:B:424:G:H1	1.70	0.40
10:B:271:G:O2'	10:B:272:A:H5''	2.21	0.40
10:B:305:C:H2'	10:B:306:U:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:332:A:C5	10:B:335:C:C2	3.09	0.40
10:B:359:G:H2'	10:B:360:U:C6	2.57	0.40
10:B:377:G:C2	10:B:378:C:C2	3.09	0.40
10:B:471:A:C5	10:B:472:A:C5	3.09	0.40
10:B:586:A:C2	10:B:1254:A:C6	3.09	0.40
10:B:649:G:H2'	10:B:650:C:O4'	2.21	0.40
10:B:690:G:C6	10:B:691:C:C4	3.09	0.40
10:B:701:G:N3	10:B:701:G:H2'	2.36	0.40
10:B:763:G:C6	10:B:765:C:N3	2.89	0.40
10:B:843:G:C2	10:B:936:A:C2	3.09	0.40
10:B:977:G:C4	10:B:978:G:N7	2.89	0.40
10:B:1007:C:N4	10:B:1136:G:H1	2.18	0.40
10:B:1031:G:C4	10:B:1124:G:N2	2.89	0.40
10:B:1035:U:H2'	10:B:1036:G:H8	1.86	0.40
10:B:1062:G:C6	10:B:1077:A:C6	3.10	0.40
10:B:1063:G:C6	10:B:1064:C:N3	2.89	0.40
10:B:1072:C:N4	17:I:3:LYS:HD3	2.24	0.40
10:B:1275:A:C4	22:N:16:HIS:NE2	2.89	0.40
10:B:1451:C:H4'	10:B:1452:G:H8	1.86	0.40
10:B:1585:C:N4	10:B:1586:A:N3	2.69	0.40
10:B:1790:C:H2'	10:B:1791:A:C4	2.56	0.40
10:B:1858:A:C5	10:B:1885:A:C8	3.09	0.40
10:B:1918:A:H1'	10:B:1919:A:C8	2.56	0.40
10:B:2093:G:O6	10:B:2225:A:H5''	2.21	0.40
10:B:2104:C:N4	10:B:2183:A:N6	2.69	0.40
10:B:2316:G:N2	10:B:2317:A:H1'	2.36	0.40
10:B:2339:C:C4	10:B:2340:A:N7	2.89	0.40
10:B:2375:G:N1	10:B:2379:G:C6	2.88	0.40
10:B:2508:G:N1	10:B:2509:G:C5	2.89	0.40
10:B:2512:C:H1'	12:D:145:SER:HB2	2.03	0.40
10:B:2536:G:C6	10:B:2537:U:C4	3.10	0.40
10:B:2583:G:C2	10:B:2584:U:C2	3.09	0.40
10:B:2671:G:C5	10:B:2672:U:C4	3.09	0.40
10:B:2684:U:H4'	19:K:75:VAL:CG2	2.51	0.40
10:B:2817:U:C4	10:B:2818:U:C4	3.09	0.40
10:B:2900:A:C5	10:B:2901:C:C4	3.10	0.40
11:C:83:ASP:HA	11:C:84:PRO:HD2	1.83	0.40
11:C:219:VAL:HG12	11:C:220:ARG:O	2.21	0.40
12:D:133:THR:HG23	12:D:134:HIS:CG	2.57	0.40
13:E:47:LYS:HB2	13:E:51:GLU:CB	2.51	0.40
13:E:180:LEU:HD23	13:E:180:LEU:HA	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:G:11:PRO:HG2	15:G:14:VAL:HB	2.03	0.40
15:G:85:LYS:HD2	15:G:85:LYS:HA	1.88	0.40
16:H:112:LYS:CD	16:H:130:VAL:HG12	2.51	0.40
20:L:59:ARG:HG2	20:L:59:ARG:O	2.21	0.40
21:M:115:GLU:O	21:M:119:LEU:HG	2.20	0.40
25:Q:48:ASP:C	25:Q:50:ARG:N	2.74	0.40
2:1:24:LYS:HZ2	2:1:26:LYS:HA	1.87	0.40
7:6:13:LEU:HD23	7:6:30:PHE:CE2	2.56	0.40
7:6:194:LYS:HG2	7:6:197:VAL:HG22	2.02	0.40
8:7:31:ARG:HG3	8:7:32:GLY:N	2.35	0.40
8:7:96:PHE:HA	8:7:99:PHE:HE2	1.86	0.40
9:A:88:C:C2	9:A:89:U:C5	3.09	0.40
9:A:89:U:OP2	9:A:90:C:C2	2.75	0.40
10:B:1:G:C4	10:B:2:G:C8	3.09	0.40
10:B:47:C:N3	10:B:178:G:N2	2.66	0.40
10:B:79:C:C4	10:B:80:G:N7	2.89	0.40
10:B:164:C:N3	10:B:165:A:H1'	2.36	0.40
10:B:182:A:C6	10:B:183:C:N3	2.88	0.40
10:B:185:G:C6	10:B:212:G:N1	2.89	0.40
10:B:185:G:C4	10:B:186:G:C8	3.09	0.40
10:B:244:A:C5	10:B:245:G:C8	3.09	0.40
10:B:249:C:HO2'	10:B:250:G:P	2.44	0.40
10:B:303:G:N1	10:B:315:G:C6	2.89	0.40
10:B:319:G:H2'	10:B:320:A:H8	1.85	0.40
10:B:387:U:C2	10:B:388:G:C6	3.10	0.40
10:B:444:C:P	13:E:44:ARG:HD3	2.61	0.40
10:B:534:U:OP1	25:Q:23:TYR:OH	2.36	0.40
10:B:543:G:C2	10:B:551:G:C4	3.08	0.40
10:B:629:G:H2'	10:B:630:G:H8	1.82	0.40
10:B:712:G:H2'	10:B:713:G:H5'	2.03	0.40
10:B:794:A:H2'	10:B:795:C:C6	2.48	0.40
10:B:807:U:OP2	20:L:36:LYS:HD2	2.21	0.40
10:B:843:G:OP2	10:B:843:G:H8	2.05	0.40
10:B:936:A:H2'	10:B:937:C:O4'	2.20	0.40
10:B:1005:C:N4	10:B:1006:C:H41	2.18	0.40
10:B:1011:G:H1'	10:B:1013:C:O4'	2.20	0.40
10:B:1077:A:H5'	17:I:94:LYS:HD2	2.02	0.40
10:B:1314:C:N3	10:B:1339:G:C2	2.89	0.40
10:B:1333:G:C2	10:B:1334:G:C8	3.09	0.40
10:B:1461:C:N4	10:B:1462:C:N4	2.70	0.40
10:B:1465:G:N1	10:B:1466:U:C2	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1491:G:C8	11:C:97:ASP:O	2.74	0.40
10:B:1627:G:H2'	10:B:1628:G:O4'	2.20	0.40
10:B:1664:A:H61	10:B:1996:C:N4	2.18	0.40
10:B:1672:A:N6	10:B:1673:G:C6	2.89	0.40
10:B:1707:G:C4	10:B:1756:G:N1	2.89	0.40
10:B:1716:U:C5	10:B:1743:G:N2	2.89	0.40
10:B:1724:G:C6	10:B:1725:U:C4	3.10	0.40
10:B:1783:A:N1	10:B:2587:A:C6	2.89	0.40
10:B:1977:A:N6	10:B:1978:A:C6	2.89	0.40
10:B:2018:G:C4	10:B:2019:A:C8	3.09	0.40
10:B:2071:A:C4	10:B:2072:C:C5	3.08	0.40
10:B:2078:C:H2'	10:B:2079:U:C6	2.57	0.40
10:B:2123:G:H2'	10:B:2124:G:O4'	2.22	0.40
10:B:2285:C:H5'	10:B:2288:A:C6	2.56	0.40
10:B:2287:A:C8	10:B:2289:G:C8	3.09	0.40
10:B:2318:G:C6	10:B:2319:G:N1	2.89	0.40
10:B:2373:G:H2'	10:B:2374:C:H6	1.83	0.40
10:B:2570:G:C4	10:B:2571:U:C6	3.09	0.40
10:B:2641:G:C2	10:B:2642:G:C4	3.10	0.40
10:B:2661:G:N2	10:B:2662:A:H1'	2.35	0.40
10:B:2869:G:C4	10:B:2870:C:C6	3.09	0.40
11:C:53:ILE:HA	11:C:216:ARG:H	1.84	0.40
11:C:245:THR:HA	11:C:246:PRO:HD3	1.95	0.40
16:H:5:LEU:HA	16:H:36:ALA:HB2	2.02	0.40
16:H:14:SER:O	16:H:15:LEU:HB3	2.21	0.40
16:H:31:VAL:CG1	32:X:38:TRP:HD1	2.34	0.40
17:I:102:ARG:HB3	17:I:141:ASP:HA	2.02	0.40
19:K:39:LYS:HA	19:K:39:LYS:HD2	1.91	0.40
20:L:85:VAL:C	20:L:86:GLU:HG2	2.41	0.40
24:P:62:LYS:HE2	24:P:64:SER:OG	2.21	0.40
26:R:1:MET:HB2	26:R:15:SER:CB	2.51	0.40
30:V:21:ARG:NH2	30:V:87:GLN:O	2.51	0.40
32:X:67:LEU:HD12	32:X:70:LEU:HD23	2.04	0.40
33:Y:6:LEU:O	33:Y:7:ARG:HG3	2.21	0.40
1:0:38:LEU:O	1:0:41:HIS:HB2	2.21	0.40
2:1:5:ARG:NH1	2:1:25:ASN:N	2.69	0.40
4:3:51:LYS:HZ3	4:3:54:LEU:CD2	2.35	0.40
6:5:37:LYS:O	6:5:38:PHE:CB	2.69	0.40
7:6:160:LEU:HA	7:6:163:ASP:HB3	2.02	0.40
7:6:211:SER:HB3	7:6:224:ALA:HB2	2.03	0.40
9:A:28:C:P	23:O:36:TYR:HH	2.43	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:30:G:C6	10:B:31:C:C4	3.09	0.40
10:B:44:A:N1	10:B:45:G:C4	2.90	0.40
10:B:210:C:H2'	10:B:211:C:C6	2.53	0.40
10:B:212:G:C2	10:B:213:A:N7	2.89	0.40
10:B:218:A:N7	10:B:219:A:C4	2.90	0.40
10:B:311:A:H5'	10:B:332:A:N3	2.36	0.40
10:B:504:A:OP2	27:S:2:GLU:HB2	2.22	0.40
10:B:562:U:H5''	10:B:563:A:OP1	2.21	0.40
10:B:592:A:H2'	10:B:593:U:C6	2.56	0.40
10:B:597:G:N1	10:B:661:A:C6	2.90	0.40
10:B:714:U:O2'	10:B:716:A:N7	2.30	0.40
10:B:732:C:H2'	10:B:733:G:O4'	2.21	0.40
10:B:777:G:C4	10:B:778:G:C8	3.09	0.40
10:B:843:G:C6	10:B:936:A:C6	3.09	0.40
10:B:871:U:H4'	21:M:68:PHE:CE2	2.57	0.40
10:B:950:G:H2'	10:B:951:C:O4'	2.22	0.40
10:B:980:A:N7	10:B:981:A:C4	2.89	0.40
10:B:997:G:H5''	25:Q:91:ARG:HB2	2.04	0.40
10:B:1031:G:C2	10:B:1124:G:C4	3.09	0.40
10:B:1055:G:N1	10:B:1105:U:N3	2.69	0.40
10:B:1165:A:C2	10:B:1185:G:C5	3.09	0.40
10:B:1177:G:C6	10:B:1178:C:C2	3.08	0.40
10:B:1199:U:O2	10:B:1200:C:C2	2.74	0.40
10:B:1205:A:C5	13:E:165:HIS:CD2	3.09	0.40
10:B:1306:C:C4	10:B:1623:G:C6	3.09	0.40
10:B:1383:A:C5	10:B:1384:A:C6	3.09	0.40
10:B:1562:U:H2'	10:B:1563:U:H6	1.85	0.40
10:B:1654:A:C2	10:B:1655:A:N9	2.90	0.40
10:B:1667:G:OP1	19:K:6:MET:HG2	2.21	0.40
10:B:1681:G:C6	10:B:1762:A:C5	3.10	0.40
10:B:1707:G:C4	10:B:1708:C:C6	3.09	0.40
10:B:1750:G:N3	10:B:2860:A:H2	2.19	0.40
10:B:1799:G:H21	11:C:153:LEU:CD2	2.32	0.40
10:B:1839:G:C4	10:B:1840:G:H8	2.37	0.40
10:B:1885:A:C5	10:B:1886:U:C5	3.09	0.40
10:B:1970:A:O2'	10:B:1971:U:OP2	2.35	0.40
10:B:2116:G:N1	10:B:2147:A:O5'	2.53	0.40
10:B:2144:G:H4'	10:B:2146:C:OP1	2.21	0.40
10:B:2147:A:HO2'	10:B:2148:G:P	2.43	0.40
10:B:2274:A:C5	10:B:2276:G:C8	3.10	0.40
10:B:2330:G:C2	10:B:2331:G:H1'	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2402:U:P	10:B:2402:U:H6	2.44	0.40
10:B:2507:C:C4	10:B:2583:G:C6	3.10	0.40
10:B:2534:A:C2	10:B:2535:G:H1'	2.57	0.40
10:B:2559:C:C2	10:B:2560:A:N7	2.89	0.40
10:B:2686:G:C5	10:B:2687:U:C2	3.09	0.40
10:B:2705:A:H3'	10:B:2705:A:C8	2.57	0.40
10:B:2830:C:C2	10:B:2831:G:C8	3.09	0.40
11:C:71:ASP:OD2	11:C:117:SER:O	2.39	0.40
11:C:171:VAL:N	11:C:184:GLU:O	2.37	0.40
12:D:40:LEU:O	12:D:40:LEU:HD23	2.22	0.40
14:F:102:LEU:HA	14:F:105:ILE:HG12	2.03	0.40
14:F:122:ASP:O	14:F:162:ASP:OD2	2.39	0.40
15:G:81:GLY:HA2	15:G:134:GLY:O	2.21	0.40
15:G:89:VAL:HG22	15:G:90:GLY:N	2.36	0.40
16:H:46:PHE:HB2	16:H:50:ARG:NH2	2.36	0.40
17:I:62:ALA:CA	17:I:64:ARG:HH12	2.32	0.40
18:J:40:HIS:CE1	18:J:41:LYS:HG2	2.56	0.40
18:J:76:HIS:CE1	18:J:85:LYS:HE2	2.57	0.40
20:L:116:VAL:HG11	20:L:134:ALA:C	2.42	0.40
28:T:5:GLU:O	28:T:8:LEU:HB2	2.21	0.40
29:U:85:ARG:N	29:U:94:PHE:HE2	2.17	0.40
1:0:42:ILE:HG23	1:0:44:ALA:H	1.86	0.40
3:2:28:ARG:NH1	10:B:178:G:O3'	2.55	0.40
6:5:151:GLU:O	6:5:154:LYS:HB2	2.21	0.40
7:6:167:LEU:HD23	7:6:167:LEU:HA	1.80	0.40
9:A:83:G:C2	9:A:94:A:N1	2.90	0.40
9:A:84:G:N1	9:A:85:G:C5	2.89	0.40
9:A:117:G:H2'	9:A:118:C:H5'	2.03	0.40
10:B:9:G:H21	10:B:11:C:H42	1.65	0.40
10:B:14:A:N3	10:B:2625:G:O2'	2.47	0.40
10:B:27:G:C4	10:B:512:G:C2	3.09	0.40
10:B:77:G:C4	10:B:78:U:C6	3.10	0.40
10:B:222:A:H2	10:B:233:A:H5''	1.85	0.40
10:B:246:C:N4	10:B:247:G:C6	2.89	0.40
10:B:250:G:H3'	10:B:251:A:H8	1.86	0.40
10:B:300:A:H2'	10:B:334:C:H1'	2.04	0.40
10:B:308:G:C4'	10:B:501:A:H5'	2.52	0.40
10:B:449:A:H1'	25:Q:2:ARG:HH22	1.87	0.40
10:B:534:U:O2'	25:Q:48:ASP:OD2	2.39	0.40
10:B:631:A:C4	10:B:632:A:C8	3.09	0.40
10:B:695:G:C6	10:B:696:G:N7	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:759:G:N2	10:B:760:G:C4	2.89	0.40
10:B:780:G:C2	10:B:782:A:C2	3.09	0.40
10:B:825:A:C2	10:B:833:A:C2	3.10	0.40
10:B:831:G:C4	10:B:832:U:C6	3.10	0.40
10:B:996:A:H61	10:B:1159:U:H3	1.68	0.40
10:B:1021:A:N1	10:B:1023:U:C4	2.90	0.40
10:B:1074:G:C5	10:B:1075:C:C4	3.10	0.40
10:B:1087:G:N7	10:B:1089:A:C5	2.90	0.40
10:B:1182:G:C5	10:B:1183:U:C5	3.10	0.40
10:B:1299:G:N2	10:B:1641:A:H62	2.10	0.40
10:B:1346:G:C4	10:B:1601:G:C2	3.10	0.40
10:B:1366:A:N6	10:B:1367:A:C5	2.89	0.40
10:B:1506:U:C4	10:B:1507:C:C4	3.10	0.40
10:B:1517:G:C5	10:B:1518:C:C5	3.09	0.40
10:B:1543:G:HO2'	10:B:1544:A:P	2.44	0.40
10:B:1558:C:O2	10:B:1560:G:C6	2.74	0.40
10:B:1628:G:C4	10:B:1629:U:C5	3.09	0.40
10:B:1682:G:C5	10:B:1757:A:C4	3.10	0.40
10:B:1814:G:H5''	10:B:1815:A:O5'	2.21	0.40
10:B:1825:U:H5'	11:C:246:PRO:HD3	2.03	0.40
10:B:1849:G:N2	10:B:1850:G:H1'	2.36	0.40
10:B:1890:A:H2'	10:B:1891:G:H8	1.86	0.40
10:B:2007:U:C2	10:B:2008:C:C5	3.10	0.40
10:B:2011:U:O4	10:B:2012:G:C2	2.75	0.40
10:B:2090:A:N1	10:B:2091:C:C4	2.90	0.40
10:B:2096:C:C2	10:B:2097:A:C8	3.09	0.40
10:B:2100:G:C6	10:B:2101:A:C4	3.10	0.40
10:B:2179:C:H2'	10:B:2180:U:C6	2.57	0.40
10:B:2369:A:C6	10:B:2370:G:C5	3.09	0.40
10:B:2461:A:H1'	10:B:2492:U:C2	2.56	0.40
10:B:2478:A:C6	10:B:2479:U:O2	2.75	0.40
10:B:2478:A:C5	10:B:2479:U:C2	3.09	0.40
10:B:2487:G:H2'	10:B:2488:G:H8	1.86	0.40
10:B:2621:G:P	12:D:124:ARG:HH12	2.44	0.40
10:B:2635:A:O3'	12:D:81:GLU:OE2	2.39	0.40
10:B:2725:A:C5	10:B:2727:A:C4	3.10	0.40
10:B:2851:A:H3'	10:B:2852:G:C8	2.56	0.40
10:B:2861:U:H2'	10:B:2862:G:O4'	2.20	0.40
10:B:2867:G:C4	24:P:20:ARG:NH2	2.90	0.40
11:C:180:MET:HB2	11:C:267:VAL:HB	2.03	0.40
15:G:82:PHE:HB2	15:G:140:ILE:HD13	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:G:100:ASN:C	15:G:115:GLN:HG3	2.42	0.40
16:H:78:VAL:O	16:H:78:VAL:HG12	2.22	0.40
18:J:80:HIS:NE2	18:J:81:ILE:HB	2.36	0.40
19:K:26:GLY:HA3	19:K:29:ARG:HG3	2.02	0.40
19:K:52:LYS:HB3	19:K:55:ASP:OD2	2.21	0.40
26:R:79:ARG:HD3	26:R:80:ARG:NH1	2.37	0.40
28:T:66:LYS:HE2	28:T:77:ARG:NH2	2.35	0.40
32:X:4:CYS:SG	32:X:7:THR:HB	2.62	0.40
2:1:24:LYS:HD3	2:1:33:LEU:HD22	2.04	0.40
3:2:19:ARG:NH2	10:B:124:G:N7	2.70	0.40
6:5:206:GLY:HA2	10:B:1876:A:H5''	2.03	0.40
7:6:78:VAL:O	7:6:78:VAL:HG13	2.21	0.40
7:6:121:LYS:O	7:6:125:GLU:HG2	2.21	0.40
7:6:147:LYS:NZ	7:6:159:GLN:CD	2.75	0.40
7:6:211:SER:OG	7:6:222:VAL:HG12	2.21	0.40
7:6:383:PHE:CD2	7:6:389:ILE:HG12	2.56	0.40
7:6:389:ILE:HG22	7:6:391:LYS:N	2.36	0.40
8:7:39:THR:O	8:7:43:LYS:HG3	2.21	0.40
8:7:41:LEU:HD13	10:B:1082:U:H4'	2.03	0.40
8:7:138:ARG:HB3	8:7:146:ALA:HB3	2.02	0.40
9:A:112:G:C6	9:A:113:C:C4	3.10	0.40
10:B:23:G:H1'	10:B:518:G:N2	2.36	0.40
10:B:199:A:N1	10:B:2434:A:C6	2.90	0.40
10:B:270:A:OP1	10:B:271:G:H5'	2.22	0.40
10:B:303:G:C6	10:B:304:U:C4	3.10	0.40
10:B:304:U:C2	10:B:305:C:C5	3.09	0.40
10:B:475:C:C4	10:B:481:G:O6	2.74	0.40
10:B:482:A:OP2	10:B:507:A:N6	2.55	0.40
10:B:487:C:H3'	10:B:490:C:N4	2.37	0.40
10:B:533:G:C2	10:B:561:G:C2	3.10	0.40
10:B:675:A:C5	10:B:804:A:C2	3.09	0.40
10:B:693:A:N7	10:B:694:U:C4	2.89	0.40
10:B:707:G:C2	10:B:708:G:C4	3.09	0.40
10:B:727:A:OP1	10:B:1431:A:O2'	2.18	0.40
10:B:787:C:H5''	10:B:788:A:C5'	2.40	0.40
10:B:798:G:C2	10:B:799:G:C6	3.10	0.40
10:B:856:G:O6	10:B:922:C:C4	2.75	0.40
10:B:862:G:H2'	10:B:863:A:O4'	2.22	0.40
10:B:922:C:H1'	31:W:22:VAL:HG11	2.03	0.40
10:B:955:U:H5''	21:M:86:LYS:NZ	2.36	0.40
10:B:956:G:C2	10:B:962:G:O6	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1011:G:C5	10:B:1013:C:C2	3.10	0.40
10:B:1055:G:O2'	10:B:1085:A:C2	2.75	0.40
10:B:1077:A:HO2'	17:I:93:ASN:HD22	1.62	0.40
10:B:1166:G:H2'	10:B:1166:G:N3	2.37	0.40
10:B:1689:A:C2	10:B:1690:A:C5	3.09	0.40
10:B:1733:G:C4	10:B:1734:G:C8	3.10	0.40
10:B:1742:U:C2	10:B:1743:G:C8	3.09	0.40
10:B:1753:G:C2	10:B:1756:G:C2	3.10	0.40
10:B:1827:U:N3	10:B:1828:G:C2	2.87	0.40
10:B:1846:G:C5	10:B:1847:A:N7	2.90	0.40
10:B:1866:A:N6	10:B:1867:G:C2	2.89	0.40
10:B:1886:U:O2'	10:B:1887:C:H5'	2.22	0.40
10:B:1936:A:C2	10:B:1945:G:C5	3.10	0.40
10:B:2196:C:C4	10:B:2197:U:C4	3.10	0.40
10:B:2230:G:H2'	10:B:2231:U:H6	1.87	0.40
10:B:2276:G:O2'	10:B:2277:G:H5'	2.21	0.40
10:B:2287:A:C8	10:B:2289:G:N9	2.89	0.40
10:B:2327:A:C5	10:B:2328:A:C5	3.10	0.40
10:B:2345:G:C6	10:B:2347:C:N4	2.87	0.40
10:B:2348:U:H2'	10:B:2349:G:C8	2.57	0.40
10:B:2414:G:C2	10:B:2415:G:C5	3.10	0.40
10:B:2455:G:C2	10:B:2498:C:N4	2.88	0.40
10:B:2468:A:C2	10:B:2481:G:C2	3.09	0.40
10:B:2560:A:C6	10:B:2561:U:C4	3.10	0.40
10:B:2630:G:C8	10:B:2894:G:C5	3.10	0.40
10:B:2646:C:N3	10:B:2647:U:C2	2.89	0.40
10:B:2821:A:C2	10:B:2822:G:C2	3.10	0.40
10:B:2854:G:C5	10:B:2855:C:N4	2.90	0.40
13:E:91:ASP:O	13:E:92:HIS:CG	2.75	0.40
13:E:149:ILE:HG13	13:E:170:ARG:O	2.21	0.40
14:F:147:ARG:NH2	14:F:150:GLY:H	2.19	0.40
15:G:10:VAL:HG23	15:G:47:ASN:O	2.21	0.40
15:G:81:GLY:C	15:G:82:PHE:CG	2.95	0.40
18:J:109:LEU:HA	18:J:109:LEU:HD23	1.70	0.40
19:K:63:ARG:HB2	19:K:82:ALA:H	1.85	0.40
20:L:90:VAL:N	20:L:121:THR:O	2.54	0.40
24:P:8:GLU:HB3	24:P:54:LEU:HB2	2.03	0.40
24:P:87:ARG:NH1	24:P:88:ARG:C	2.70	0.40
25:Q:16:ILE:HG23	25:Q:38:VAL:HG21	2.04	0.40
28:T:81:LYS:HB2	28:T:81:LYS:HE3	1.85	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	0	54/57 (95%)	45 (83%)	5 (9%)	4 (7%)	1	16
2	1	49/55 (89%)	45 (92%)	4 (8%)	0	100	100
3	2	44/46 (96%)	35 (80%)	6 (14%)	3 (7%)	1	17
4	3	62/65 (95%)	58 (94%)	4 (6%)	0	100	100
5	4	36/38 (95%)	26 (72%)	5 (14%)	5 (14%)	0	4
6	5	232/234 (99%)	190 (82%)	27 (12%)	15 (6%)	1	18
7	6	424/426 (100%)	364 (86%)	39 (9%)	21 (5%)	2	23
8	7	162/165 (98%)	128 (79%)	23 (14%)	11 (7%)	1	17
11	C	270/273 (99%)	219 (81%)	34 (13%)	17 (6%)	1	19
12	D	207/209 (99%)	166 (80%)	20 (10%)	21 (10%)	0	10
13	E	199/201 (99%)	160 (80%)	21 (11%)	18 (9%)	1	12
14	F	176/179 (98%)	131 (74%)	30 (17%)	15 (8%)	1	13
15	G	174/177 (98%)	142 (82%)	21 (12%)	11 (6%)	1	19
16	H	147/149 (99%)	97 (66%)	29 (20%)	21 (14%)	0	4
17	I	139/142 (98%)	122 (88%)	13 (9%)	4 (3%)	4	32
18	J	140/142 (99%)	109 (78%)	19 (14%)	12 (9%)	1	13
19	K	120/123 (98%)	96 (80%)	14 (12%)	10 (8%)	1	13
20	L	141/144 (98%)	113 (80%)	20 (14%)	8 (6%)	1	20
21	M	134/136 (98%)	113 (84%)	13 (10%)	8 (6%)	1	19
22	N	119/127 (94%)	96 (81%)	18 (15%)	5 (4%)	3	25
23	O	114/117 (97%)	105 (92%)	6 (5%)	3 (3%)	5	35
24	P	112/115 (97%)	89 (80%)	18 (16%)	5 (4%)	2	24
25	Q	115/118 (98%)	102 (89%)	7 (6%)	6 (5%)	2	22
26	R	101/103 (98%)	78 (77%)	13 (13%)	10 (10%)	0	10
27	S	108/110 (98%)	93 (86%)	8 (7%)	7 (6%)	1	18

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
28	T	92/100 (92%)	73 (79%)	13 (14%)	6 (6%)	1	18
29	U	101/104 (97%)	79 (78%)	14 (14%)	8 (8%)	1	14
30	V	92/94 (98%)	81 (88%)	10 (11%)	1 (1%)	14	52
31	W	77/85 (91%)	58 (75%)	12 (16%)	7 (9%)	1	12
32	X	75/78 (96%)	61 (81%)	9 (12%)	5 (7%)	1	18
33	Y	61/63 (97%)	49 (80%)	6 (10%)	6 (10%)	0	10
34	Z	56/59 (95%)	51 (91%)	3 (5%)	2 (4%)	3	28
All	All	4133/4234 (98%)	3374 (82%)	484 (12%)	275 (7%)	2	18

All (275) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	4	11	CYS
5	4	34	LYS
6	5	38	PHE
6	5	39	VAL
6	5	135	GLY
6	5	166	ASP
7	6	23	ASP
7	6	24	MET
7	6	49	ARG
7	6	291	VAL
7	6	364	GLU
7	6	367	GLN
7	6	374	PRO
8	7	51	TYR
8	7	118	ILE
11	C	35	LYS
11	C	84	PRO
11	C	107	LYS
12	D	150	GLN
13	E	96	VAL
13	E	152	GLU
14	F	119	LYS
15	G	2	ARG
15	G	47	ASN
15	G	60	GLY
16	H	31	VAL
16	H	67	ALA
16	H	119	ASN

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Mol	Chain	Res	Type
18	J	81	ILE
19	K	2	GLN
19	K	28	HIS
19	K	31	TYR
19	K	72	ASP
21	M	73	ILE
25	Q	87	VAL
25	Q	97	ILE
26	R	81	LYS
27	S	2	GLU
27	S	30	SER
28	T	40	LYS
31	W	49	ASN
32	X	75	GLU
33	Y	40	SER
1	0	2	VAL
5	4	28	SER
6	5	15	VAL
6	5	53	ARG
6	5	134	ARG
6	5	228	GLY
7	6	25	GLU
7	6	27	LEU
7	6	57	PHE
7	6	194	LYS
7	6	244	VAL
7	6	245	GLY
7	6	287	ALA
7	6	318	LYS
7	6	363	GLY
8	7	2	ALA
8	7	57	ASN
8	7	104	ALA
8	7	132	TYR
11	C	53	ILE
11	C	90	ILE
11	C	132	ARG
11	C	142	ASN
11	C	183	VAL
11	C	232	GLY
11	C	238	ASN
12	D	21	SER

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Mol	Chain	Res	Type
12	D	58	ASN
12	D	109	VAL
12	D	113	SER
12	D	151	THR
12	D	183	GLU
13	E	57	LYS
13	E	73	ILE
13	E	87	ALA
13	E	164	LEU
14	F	8	LYS
14	F	59	ILE
14	F	111	ARG
14	F	136	ILE
14	F	141	ASP
15	G	31	GLU
15	G	99	GLY
16	H	11	ASN
16	H	27	ARG
16	H	105	ALA
17	I	22	PRO
18	J	42	ALA
18	J	44	TYR
18	J	53	TYR
18	J	65	THR
19	K	5	THR
19	K	34	VAL
20	L	27	LEU
20	L	42	SER
20	L	58	TYR
20	L	141	LYS
21	M	79	ALA
22	N	41	ALA
22	N	70	THR
22	N	71	ARG
22	N	80	PHE
23	O	23	ALA
24	P	6	GLN
24	P	98	TYR
25	Q	101	ASP
26	R	43	ASN
26	R	98	ILE
27	S	40	ASN

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Mol	Chain	Res	Type
27	S	71	VAL
28	T	52	GLU
28	T	55	VAL
29	U	12	VAL
29	U	98	ASN
30	V	78	GLN
31	W	17	ALA
31	W	29	SER
31	W	75	ASN
32	X	65	THR
34	Z	10	ARG
1	0	48	TYR
1	0	50	GLY
6	5	55	SER
6	5	141	LYS
6	5	205	LYS
8	7	113	PHE
11	C	78	GLU
11	C	154	ALA
11	C	169	ALA
11	C	185	ALA
11	C	231	HIS
12	D	148	GLN
12	D	159	LYS
13	E	61	ARG
13	E	78	TRP
13	E	188	MET
14	F	69	ALA
14	F	107	VAL
14	F	149	ARG
14	F	160	LYS
15	G	9	VAL
15	G	55	ASP
15	G	164	ALA
16	H	54	LEU
16	H	63	ALA
16	H	65	ALA
16	H	68	ARG
16	H	81	ALA
16	H	122	LEU
18	J	39	LYS
18	J	128	ASN

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Mol	Chain	Res	Type
19	K	120	GLU
21	M	72	PRO
21	M	78	LEU
21	M	134	THR
26	R	50	GLY
26	R	52	PRO
26	R	82	HIS
28	T	21	SER
28	T	28	ASN
31	W	8	SER
31	W	43	LYS
31	W	54	ARG
32	X	2	ARG
33	Y	5	GLU
33	Y	6	LEU
33	Y	10	SER
33	Y	12	GLU
3	2	15	SER
5	4	29	ALA
6	5	124	VAL
6	5	211	LYS
7	6	233	ASP
8	7	21	GLY
12	D	41	ALA
12	D	97	SER
12	D	152	PRO
12	D	156	PHE
12	D	160	LYS
12	D	161	MET
13	E	9	GLN
13	E	10	SER
13	E	68	ALA
13	E	93	SER
14	F	13	LYS
14	F	70	ARG
14	F	139	GLU
15	G	166	GLU
16	H	15	LEU
16	H	87	GLU
17	I	26	ALA
18	J	40	HIS
19	K	30	ARG

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Mol	Chain	Res	Type
19	K	48	ARG
20	L	66	PHE
20	L	113	ALA
20	L	138	ALA
21	M	100	LYS
22	N	56	LYS
23	O	99	TYR
24	P	4	ILE
24	P	109	ILE
26	R	100	GLY
26	R	101	ILE
27	S	66	ILE
28	T	35	ALA
29	U	16	LYS
3	2	10	LEU
5	4	8	LYS
6	5	3	LYS
7	6	82	HIS
7	6	423	ASP
8	7	30	SER
8	7	108	VAL
11	C	77	VAL
11	C	155	ARG
12	D	75	ALA
12	D	123	LYS
12	D	136	ASN
13	E	86	ALA
14	F	144	LYS
15	G	29	ASN
16	H	29	PHE
16	H	69	ALA
18	J	38	GLY
21	M	38	ARG
21	M	116	ALA
23	O	13	ARG
25	Q	29	ARG
25	Q	91	ARG
26	R	7	SER
29	U	17	ASP
29	U	38	ILE
29	U	43	LYS
32	X	27	ARG

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Mol	Chain	Res	Type
32	X	30	PRO
33	Y	3	ALA
34	Z	42	ALA
1	0	54	ILE
6	5	227	ALA
7	6	375	GLN
13	E	6	LYS
13	E	137	LYS
14	F	78	ILE
15	G	79	THR
16	H	82	SER
16	H	125	THR
17	I	24	GLY
18	J	68	LYS
18	J	71	ASP
19	K	92	GLN
20	L	48	ARG
27	S	4	ILE
3	2	44	VAL
12	D	205	PRO
16	H	120	GLY
7	6	58	VAL
13	E	42	GLY
13	E	174	GLY
29	U	57	ILE
16	H	121	VAL
17	I	19	PRO
18	J	127	GLY
24	P	34	GLY
27	S	74	ILE
12	D	122	VAL
25	Q	89	ILE
26	R	58	VAL
29	U	10	VAL
8	7	123	ILE
12	D	203	VAL
16	H	78	VAL

5.3.2 Protein sidechains [i](#)

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

entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	0	47/48 (98%)	47 (100%)	0	100	100
2	1	45/49 (92%)	45 (100%)	0	100	100
3	2	38/38 (100%)	38 (100%)	0	100	100
4	3	51/52 (98%)	51 (100%)	0	100	100
5	4	34/34 (100%)	34 (100%)	0	100	100
6	5	181/181 (100%)	179 (99%)	2 (1%)	73	85
7	6	364/364 (100%)	363 (100%)	1 (0%)	92	95
8	7	123/123 (100%)	123 (100%)	0	100	100
11	C	216/218 (99%)	216 (100%)	0	100	100
12	D	164/164 (100%)	163 (99%)	1 (1%)	86	92
13	E	165/165 (100%)	164 (99%)	1 (1%)	86	92
14	F	149/150 (99%)	149 (100%)	0	100	100
15	G	137/138 (99%)	137 (100%)	0	100	100
16	H	114/114 (100%)	113 (99%)	1 (1%)	78	87
17	I	109/110 (99%)	109 (100%)	0	100	100
18	J	116/116 (100%)	116 (100%)	0	100	100
19	K	102/104 (98%)	102 (100%)	0	100	100
20	L	102/103 (99%)	102 (100%)	0	100	100
21	M	109/109 (100%)	109 (100%)	0	100	100
22	N	100/103 (97%)	100 (100%)	0	100	100
23	O	86/87 (99%)	86 (100%)	0	100	100
24	P	99/100 (99%)	99 (100%)	0	100	100
25	Q	89/90 (99%)	88 (99%)	1 (1%)	73	85
26	R	84/84 (100%)	84 (100%)	0	100	100
27	S	93/93 (100%)	93 (100%)	0	100	100
28	T	80/84 (95%)	80 (100%)	0	100	100
29	U	83/85 (98%)	83 (100%)	0	100	100
30	V	78/78 (100%)	78 (100%)	0	100	100
31	W	59/63 (94%)	59 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
32	X	67/68 (98%)	67 (100%)	0	100	100
33	Y	55/55 (100%)	55 (100%)	0	100	100
34	Z	48/49 (98%)	48 (100%)	0	100	100
All	All	3387/3419 (99%)	3380 (100%)	7 (0%)	93	96

All (7) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
6	5	37	LYS
6	5	38	PHE
7	6	24	MET
12	D	151	THR
13	E	78	TRP
16	H	68	ARG
25	Q	56	PHE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (82) such sidechains are listed below:

Mol	Chain	Res	Type
1	0	4	GLN
1	0	5	ASN
1	0	41	HIS
2	1	18	HIS
6	5	203	GLN
7	6	15	HIS
7	6	43	GLN
7	6	82	HIS
7	6	113	GLN
7	6	128	GLN
7	6	146	GLN
7	6	258	HIS
7	6	292	GLN
7	6	299	ASN
7	6	335	ASN
7	6	338	ASN
7	6	367	GLN
11	C	69	ASN
11	C	231	HIS
11	C	250	GLN
12	D	94	GLN

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Mol	Chain	Res	Type
12	D	130	GLN
12	D	148	GLN
12	D	149	ASN
12	D	164	GLN
12	D	173	GLN
13	E	29	HIS
13	E	62	GLN
13	E	92	HIS
13	E	163	ASN
13	E	165	HIS
14	F	22	ASN
15	G	19	ASN
15	G	21	GLN
15	G	63	GLN
15	G	100	ASN
15	G	114	HIS
15	G	115	GLN
16	H	33	GLN
17	I	29	GLN
17	I	30	GLN
18	J	40	HIS
18	J	47	HIS
18	J	76	HIS
18	J	136	GLN
21	M	17	ASN
21	M	45	GLN
21	M	97	GLN
22	N	9	GLN
22	N	11	ASN
22	N	62	ASN
22	N	81	ASN
24	P	11	GLN
24	P	51	ASN
24	P	114	ASN
25	Q	51	GLN
25	Q	58	GLN
26	R	11	GLN
26	R	86	GLN
26	R	91	GLN
27	S	7	HIS
27	S	9	HIS
27	S	102	HIS

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Mol	Chain	Res	Type
28	T	28	ASN
28	T	91	GLN
28	T	92	ASN
29	U	68	ASN
29	U	98	ASN
30	V	5	ASN
30	V	49	ASN
30	V	51	GLN
30	V	80	HIS
30	V	87	GLN
31	W	39	GLN
31	W	56	HIS
32	X	15	ASN
32	X	22	ASN
33	Y	25	GLN
33	Y	38	GLN
33	Y	39	GLN
33	Y	58	ASN
34	Z	19	HIS

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
10	B	2902/2903 (99%)	1015 (34%)	56 (1%)
9	A	116/120 (96%)	35 (30%)	2 (1%)
All	All	3018/3023 (99%)	1050 (34%)	58 (1%)

All (1050) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
9	A	7	G
9	A	11	C
9	A	13	G
9	A	14	U
9	A	15	A
9	A	16	G
9	A	18	G
9	A	24	G
9	A	25	U
9	A	26	C
9	A	27	C

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Mol	Chain	Res	Type
9	A	29	A
9	A	30	C
9	A	35	C
9	A	37	C
9	A	38	C
9	A	41	G
9	A	45	A
9	A	56	G
9	A	57	A
9	A	63	C
9	A	64	G
9	A	67	G
9	A	73	A
9	A	76	G
9	A	83	G
9	A	86	G
9	A	87	U
9	A	88	C
9	A	90	C
9	A	91	C
9	A	94	A
9	A	99	A
9	A	105	G
9	A	109	A
10	B	4	U
10	B	6	A
10	B	7	G
10	B	8	C
10	B	11	C
10	B	12	U
10	B	18	U
10	B	26	G
10	B	32	C
10	B	33	C
10	B	34	U
10	B	35	G
10	B	37	C
10	B	39	G
10	B	46	G
10	B	49	A
10	B	50	U
10	B	51	G

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Mol	Chain	Res	Type
10	B	58	G
10	B	59	U
10	B	60	G
10	B	61	C
10	B	63	A
10	B	71	A
10	B	74	A
10	B	75	G
10	B	79	C
10	B	80	G
10	B	82	U
10	B	83	A
10	B	84	A
10	B	87	U
10	B	91	A
10	B	93	G
10	B	99	U
10	B	101	A
10	B	102	U
10	B	106	C
10	B	114	U
10	B	118	A
10	B	119	A
10	B	120	U
10	B	122	G
10	B	124	G
10	B	126	A
10	B	127	A
10	B	128	C
10	B	134	G
10	B	139	U
10	B	140	C
10	B	142	A
10	B	144	A
10	B	146	A
10	B	149	A
10	B	153	U
10	B	160	A
10	B	163	C
10	B	165	A
10	B	170	U
10	B	174	U

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Mol	Chain	Res	Type
10	B	180	G
10	B	181	A
10	B	182	A
10	B	193	U
10	B	196	A
10	B	199	A
10	B	201	C
10	B	204	A
10	B	205	G
10	B	214	G
10	B	215	G
10	B	216	A
10	B	218	A
10	B	221	A
10	B	223	A
10	B	224	U
10	B	227	A
10	B	228	C
10	B	229	C
10	B	230	G
10	B	233	A
10	B	240	C
10	B	244	A
10	B	248	G
10	B	249	C
10	B	250	G
10	B	254	G
10	B	255	A
10	B	265	A
10	B	266	G
10	B	267	C
10	B	271	G
10	B	273	G
10	B	277	G
10	B	281	C
10	B	282	A
10	B	284	U
10	B	285	G
10	B	286	U
10	B	287	G
10	B	292	U
10	B	294	A

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Mol	Chain	Res	Type
10	B	296	U
10	B	299	A
10	B	310	A
10	B	311	A
10	B	317	G
10	B	321	U
10	B	322	A
10	B	324	A
10	B	329	G
10	B	330	A
10	B	331	C
10	B	333	G
10	B	334	C
10	B	338	G
10	B	339	U
10	B	342	A
10	B	343	C
10	B	344	A
10	B	346	A
10	B	347	A
10	B	349	U
10	B	352	A
10	B	353	C
10	B	360	U
10	B	361	G
10	B	362	A
10	B	364	C
10	B	365	U
10	B	371	A
10	B	372	G
10	B	373	U
10	B	375	G
10	B	376	G
10	B	381	G
10	B	385	C
10	B	386	G
10	B	388	G
10	B	396	G
10	B	404	A
10	B	405	U
10	B	406	G
10	B	411	G

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Mol	Chain	Res	Type
10	B	420	C
10	B	424	G
10	B	428	A
10	B	429	A
10	B	431	U
10	B	452	G
10	B	456	C
10	B	457	A
10	B	461	C
10	B	467	G
10	B	473	G
10	B	475	C
10	B	479	A
10	B	481	G
10	B	482	A
10	B	488	G
10	B	490	C
10	B	491	G
10	B	494	G
10	B	496	G
10	B	497	A
10	B	498	G
10	B	504	A
10	B	505	A
10	B	508	A
10	B	509	C
10	B	510	C
10	B	512	G
10	B	513	A
10	B	521	U
10	B	528	A
10	B	530	G
10	B	531	C
10	B	532	A
10	B	533	G
10	B	539	G
10	B	542	C
10	B	544	C
10	B	545	U
10	B	546	U
10	B	547	A
10	B	548	G

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Mol	Chain	Res	Type
10	B	549	G
10	B	550	C
10	B	555	G
10	B	558	U
10	B	562	U
10	B	563	A
10	B	565	C
10	B	566	U
10	B	567	U
10	B	568	U
10	B	569	U
10	B	571	U
10	B	572	A
10	B	573	U
10	B	575	A
10	B	583	G
10	B	584	C
10	B	585	G
10	B	586	A
10	B	587	C
10	B	593	U
10	B	595	C
10	B	613	A
10	B	614	A
10	B	620	G
10	B	621	A
10	B	623	C
10	B	630	G
10	B	637	A
10	B	639	U
10	B	640	C
10	B	643	A
10	B	644	A
10	B	645	C
10	B	646	U
10	B	647	G
10	B	652	U
10	B	655	A
10	B	656	G
10	B	657	U
10	B	664	G
10	B	669	G

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Mol	Chain	Res	Type
10	B	670	A
10	B	671	C
10	B	672	C
10	B	675	A
10	B	677	A
10	B	686	U
10	B	687	C
10	B	695	G
10	B	700	G
10	B	701	G
10	B	705	A
10	B	713	G
10	B	716	A
10	B	721	A
10	B	722	A
10	B	723	C
10	B	724	U
10	B	727	A
10	B	729	G
10	B	730	A
10	B	733	G
10	B	740	C
10	B	741	U
10	B	745	G
10	B	748	G
10	B	749	A
10	B	750	A
10	B	751	A
10	B	752	A
10	B	756	A
10	B	759	G
10	B	765	C
10	B	769	U
10	B	773	U
10	B	775	G
10	B	780	G
10	B	781	A
10	B	782	A
10	B	784	G
10	B	785	G
10	B	788	A
10	B	790	U

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Mol	Chain	Res	Type
10	B	792	A
10	B	797	G
10	B	800	A
10	B	802	A
10	B	803	U
10	B	805	G
10	B	806	C
10	B	807	U
10	B	808	G
10	B	811	U
10	B	812	C
10	B	819	A
10	B	820	A
10	B	822	G
10	B	823	C
10	B	824	U
10	B	827	U
10	B	830	G
10	B	840	C
10	B	843	G
10	B	846	U
10	B	848	C
10	B	851	C
10	B	859	G
10	B	860	U
10	B	866	A
10	B	869	G
10	B	870	U
10	B	871	U
10	B	872	U
10	B	873	C
10	B	875	G
10	B	879	G
10	B	881	G
10	B	882	G
10	B	883	G
10	B	884	U
10	B	888	C
10	B	889	C
10	B	891	G
10	B	896	A
10	B	897	C

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Mol	Chain	Res	Type
10	B	905	A
10	B	909	A
10	B	910	A
10	B	912	C
10	B	915	C
10	B	930	G
10	B	931	U
10	B	932	U
10	B	933	A
10	B	937	C
10	B	940	G
10	B	941	A
10	B	942	G
10	B	945	A
10	B	946	C
10	B	951	C
10	B	952	G
10	B	953	G
10	B	957	C
10	B	958	U
10	B	959	A
10	B	961	C
10	B	962	G
10	B	969	G
10	B	970	U
10	B	974	G
10	B	975	A
10	B	983	A
10	B	985	C
10	B	991	C
10	B	992	C
10	B	996	A
10	B	1005	C
10	B	1009	A
10	B	1012	U
10	B	1013	C
10	B	1020	A
10	B	1021	A
10	B	1022	G
10	B	1023	U
10	B	1025	G
10	B	1027	A

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Mol	Chain	Res	Type
10	B	1033	U
10	B	1039	A
10	B	1046	A
10	B	1047	G
10	B	1054	A
10	B	1055	G
10	B	1056	G
10	B	1058	U
10	B	1060	U
10	B	1069	A
10	B	1070	A
10	B	1071	G
10	B	1073	A
10	B	1084	A
10	B	1087	G
10	B	1088	A
10	B	1089	A
10	B	1090	A
10	B	1093	G
10	B	1095	A
10	B	1099	G
10	B	1102	C
10	B	1104	C
10	B	1110	G
10	B	1112	G
10	B	1115	G
10	B	1116	G
10	B	1122	G
10	B	1129	A
10	B	1130	U
10	B	1131	G
10	B	1132	U
10	B	1133	A
10	B	1134	A
10	B	1135	C
10	B	1136	G
10	B	1139	G
10	B	1140	C
10	B	1141	U
10	B	1142	A
10	B	1143	A
10	B	1144	A

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Mol	Chain	Res	Type
10	B	1155	A
10	B	1157	G
10	B	1163	G
10	B	1166	G
10	B	1170	C
10	B	1171	G
10	B	1174	U
10	B	1175	A
10	B	1176	U
10	B	1178	C
10	B	1179	G
10	B	1180	U
10	B	1186	G
10	B	1195	G
10	B	1205	A
10	B	1209	U
10	B	1211	C
10	B	1212	G
10	B	1222	U
10	B	1223	G
10	B	1227	G
10	B	1232	G
10	B	1233	C
10	B	1236	G
10	B	1238	G
10	B	1241	A
10	B	1244	A
10	B	1248	G
10	B	1249	U
10	B	1251	C
10	B	1253	A
10	B	1256	G
10	B	1258	U
10	B	1265	A
10	B	1266	G
10	B	1268	A
10	B	1270	C
10	B	1271	G
10	B	1272	A
10	B	1273	U
10	B	1274	A
10	B	1275	A

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Mol	Chain	Res	Type
10	B	1276	A
10	B	1279	G
10	B	1280	G
10	B	1286	A
10	B	1287	A
10	B	1289	C
10	B	1293	C
10	B	1294	U
10	B	1296	G
10	B	1297	C
10	B	1299	G
10	B	1300	G
10	B	1301	A
10	B	1302	A
10	B	1309	G
10	B	1311	G
10	B	1312	U
10	B	1313	U
10	B	1314	C
10	B	1316	U
10	B	1318	U
10	B	1320	C
10	B	1321	A
10	B	1322	A
10	B	1324	G
10	B	1325	U
10	B	1326	U
10	B	1327	A
10	B	1328	A
10	B	1329	U
10	B	1330	C
10	B	1337	G
10	B	1341	G
10	B	1342	A
10	B	1344	U
10	B	1345	C
10	B	1350	C
10	B	1355	G
10	B	1356	G
10	B	1368	G
10	B	1374	G
10	B	1378	A

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Mol	Chain	Res	Type
10	B	1379	U
10	B	1383	A
10	B	1384	A
10	B	1385	A
10	B	1386	C
10	B	1391	U
10	B	1396	U
10	B	1398	C
10	B	1399	C
10	B	1408	G
10	B	1416	G
10	B	1419	A
10	B	1420	A
10	B	1421	G
10	B	1426	G
10	B	1427	A
10	B	1428	C
10	B	1429	G
10	B	1430	G
10	B	1434	A
10	B	1435	G
10	B	1440	U
10	B	1451	C
10	B	1452	G
10	B	1453	A
10	B	1454	C
10	B	1456	G
10	B	1458	U
10	B	1459	G
10	B	1461	C
10	B	1463	C
10	B	1466	U
10	B	1467	U
10	B	1475	G
10	B	1476	U
10	B	1477	A
10	B	1478	G
10	B	1479	G
10	B	1482	G
10	B	1490	A
10	B	1498	C
10	B	1501	G

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Mol	Chain	Res	Type
10	B	1502	A
10	B	1504	A
10	B	1505	A
10	B	1507	C
10	B	1508	A
10	B	1510	G
10	B	1516	G
10	B	1519	G
10	B	1523	U
10	B	1524	G
10	B	1535	A
10	B	1536	C
10	B	1537	G
10	B	1540	G
10	B	1544	A
10	B	1547	C
10	B	1552	A
10	B	1557	C
10	B	1558	C
10	B	1560	G
10	B	1566	A
10	B	1571	A
10	B	1575	C
10	B	1578	U
10	B	1583	A
10	B	1584	U
10	B	1585	C
10	B	1587	G
10	B	1600	C
10	B	1602	U
10	B	1603	A
10	B	1606	C
10	B	1607	C
10	B	1608	A
10	B	1610	A
10	B	1613	G
10	B	1614	A
10	B	1616	A
10	B	1618	A
10	B	1619	G
10	B	1624	U
10	B	1625	C

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Mol	Chain	Res	Type
10	B	1627	G
10	B	1628	G
10	B	1635	A
10	B	1640	A
10	B	1643	G
10	B	1646	C
10	B	1647	U
10	B	1648	U
10	B	1649	G
10	B	1652	A
10	B	1653	G
10	B	1659	G
10	B	1663	G
10	B	1665	A
10	B	1668	A
10	B	1670	C
10	B	1674	G
10	B	1679	A
10	B	1681	G
10	B	1693	U
10	B	1694	C
10	B	1696	G
10	B	1698	A
10	B	1699	G
10	B	1701	A
10	B	1702	G
10	B	1705	A
10	B	1715	G
10	B	1716	U
10	B	1718	G
10	B	1721	G
10	B	1725	U
10	B	1728	C
10	B	1729	U
10	B	1730	C
10	B	1731	G
10	B	1737	G
10	B	1738	G
10	B	1739	A
10	B	1744	A
10	B	1745	A
10	B	1748	C

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Mol	Chain	Res	Type
10	B	1751	U
10	B	1753	G
10	B	1756	G
10	B	1757	A
10	B	1758	U
10	B	1760	C
10	B	1763	G
10	B	1764	C
10	B	1769	U
10	B	1771	C
10	B	1772	A
10	B	1773	A
10	B	1775	U
10	B	1779	U
10	B	1780	A
10	B	1781	U
10	B	1782	U
10	B	1784	A
10	B	1785	A
10	B	1787	A
10	B	1798	U
10	B	1800	C
10	B	1801	A
10	B	1802	A
10	B	1808	A
10	B	1811	G
10	B	1814	G
10	B	1815	A
10	B	1816	C
10	B	1819	A
10	B	1821	A
10	B	1828	G
10	B	1833	C
10	B	1838	C
10	B	1839	G
10	B	1841	U
10	B	1845	G
10	B	1847	A
10	B	1848	A
10	B	1854	A
10	B	1858	A
10	B	1866	A

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Mol	Chain	Res	Type
10	B	1869	G
10	B	1884	G
10	B	1891	G
10	B	1903	G
10	B	1905	C
10	B	1906	G
10	B	1910	G
10	B	1912	A
10	B	1913	A
10	B	1915	U
10	B	1916	A
10	B	1917	U
10	B	1918	A
10	B	1919	A
10	B	1929	G
10	B	1930	G
10	B	1936	A
10	B	1937	A
10	B	1938	A
10	B	1941	C
10	B	1948	G
10	B	1951	U
10	B	1955	U
10	B	1956	U
10	B	1964	G
10	B	1965	C
10	B	1967	C
10	B	1968	G
10	B	1970	A
10	B	1972	G
10	B	1973	G
10	B	1975	G
10	B	1980	G
10	B	1981	A
10	B	1990	C
10	B	1992	G
10	B	1994	C
10	B	1997	C
10	B	1999	C
10	B	2000	C
10	B	2001	C
10	B	2004	G

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Mol	Chain	Res	Type
10	B	2016	U
10	B	2017	U
10	B	2023	C
10	B	2025	C
10	B	2027	G
10	B	2030	A
10	B	2032	G
10	B	2033	A
10	B	2043	C
10	B	2055	C
10	B	2056	G
10	B	2060	A
10	B	2061	G
10	B	2062	A
10	B	2063	C
10	B	2069	G
10	B	2073	C
10	B	2077	A
10	B	2085	U
10	B	2092	U
10	B	2093	G
10	B	2095	A
10	B	2097	A
10	B	2099	U
10	B	2100	G
10	B	2104	C
10	B	2108	A
10	B	2109	U
10	B	2110	G
10	B	2111	U
10	B	2112	G
10	B	2113	U
10	B	2116	G
10	B	2117	A
10	B	2119	A
10	B	2121	G
10	B	2123	G
10	B	2127	G
10	B	2128	G
10	B	2130	U
10	B	2131	U
10	B	2132	U

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Mol	Chain	Res	Type
10	B	2134	A
10	B	2135	A
10	B	2138	G
10	B	2142	A
10	B	2148	G
10	B	2149	U
10	B	2151	U
10	B	2153	C
10	B	2154	A
10	B	2157	G
10	B	2158	A
10	B	2159	G
10	B	2160	C
10	B	2161	C
10	B	2162	G
10	B	2163	A
10	B	2164	C
10	B	2169	A
10	B	2172	U
10	B	2173	A
10	B	2174	C
10	B	2176	A
10	B	2177	C
10	B	2178	C
10	B	2179	C
10	B	2184	A
10	B	2186	G
10	B	2187	U
10	B	2192	U
10	B	2193	G
10	B	2196	C
10	B	2198	A
10	B	2199	A
10	B	2204	G
10	B	2212	A
10	B	2213	U
10	B	2214	C
10	B	2223	G
10	B	2225	A
10	B	2234	G
10	B	2238	G
10	B	2239	G

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Mol	Chain	Res	Type
10	B	2241	A
10	B	2243	U
10	B	2245	U
10	B	2247	A
10	B	2250	G
10	B	2251	G
10	B	2252	G
10	B	2253	G
10	B	2254	C
10	B	2259	U
10	B	2266	A
10	B	2267	A
10	B	2268	A
10	B	2269	G
10	B	2272	U
10	B	2273	A
10	B	2274	A
10	B	2278	A
10	B	2279	G
10	B	2283	C
10	B	2284	A
10	B	2287	A
10	B	2288	A
10	B	2297	A
10	B	2298	A
10	B	2305	U
10	B	2307	G
10	B	2308	G
10	B	2309	A
10	B	2312	U
10	B	2319	G
10	B	2320	U
10	B	2322	A
10	B	2324	U
10	B	2325	G
10	B	2326	C
10	B	2331	G
10	B	2332	C
10	B	2333	A
10	B	2334	U
10	B	2336	A
10	B	2337	G

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Mol	Chain	Res	Type
10	B	2344	U
10	B	2345	G
10	B	2347	C
10	B	2349	G
10	B	2352	A
10	B	2366	A
10	B	2371	G
10	B	2373	G
10	B	2379	G
10	B	2383	G
10	B	2385	C
10	B	2387	U
10	B	2388	A
10	B	2390	U
10	B	2391	G
10	B	2396	G
10	B	2402	U
10	B	2404	U
10	B	2405	G
10	B	2406	A
10	B	2407	A
10	B	2417	C
10	B	2422	C
10	B	2423	U
10	B	2425	A
10	B	2426	A
10	B	2428	G
10	B	2429	G
10	B	2430	A
10	B	2431	U
10	B	2432	A
10	B	2434	A
10	B	2435	A
10	B	2440	C
10	B	2441	U
10	B	2442	C
10	B	2443	C
10	B	2447	G
10	B	2448	A
10	B	2449	U
10	B	2450	A
10	B	2469	A

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Mol	Chain	Res	Type
10	B	2472	G
10	B	2474	U
10	B	2476	A
10	B	2478	A
10	B	2479	U
10	B	2481	G
10	B	2484	G
10	B	2487	G
10	B	2491	U
10	B	2492	U
10	B	2497	A
10	B	2498	C
10	B	2502	G
10	B	2503	A
10	B	2504	U
10	B	2505	G
10	B	2511	U
10	B	2518	A
10	B	2519	U
10	B	2529	G
10	B	2531	A
10	B	2534	A
10	B	2535	G
10	B	2541	A
10	B	2542	A
10	B	2543	G
10	B	2548	U
10	B	2552	U
10	B	2553	G
10	B	2554	U
10	B	2556	C
10	B	2562	U
10	B	2566	A
10	B	2567	G
10	B	2572	A
10	B	2573	C
10	B	2574	G
10	B	2576	G
10	B	2577	A
10	B	2578	G
10	B	2582	G
10	B	2584	U

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Mol	Chain	Res	Type
10	B	2585	U
10	B	2586	U
10	B	2597	G
10	B	2598	A
10	B	2599	G
10	B	2602	A
10	B	2603	G
10	B	2608	G
10	B	2609	U
10	B	2613	U
10	B	2620	C
10	B	2622	U
10	B	2625	G
10	B	2628	C
10	B	2629	U
10	B	2633	G
10	B	2634	A
10	B	2636	C
10	B	2637	U
10	B	2639	A
10	B	2645	G
10	B	2651	C
10	B	2656	U
10	B	2671	G
10	B	2681	C
10	B	2682	A
10	B	2683	C
10	B	2684	U
10	B	2688	G
10	B	2689	U
10	B	2690	U
10	B	2692	G
10	B	2704	C
10	B	2706	A
10	B	2707	U
10	B	2708	G
10	B	2712	C
10	B	2716	C
10	B	2717	C
10	B	2719	G
10	B	2726	A
10	B	2727	A

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Mol	Chain	Res	Type
10	B	2729	G
10	B	2732	G
10	B	2733	A
10	B	2741	A
10	B	2742	G
10	B	2744	G
10	B	2748	A
10	B	2750	A
10	B	2751	G
10	B	2752	C
10	B	2753	A
10	B	2757	A
10	B	2762	C
10	B	2765	A
10	B	2776	A
10	B	2777	G
10	B	2778	A
10	B	2779	U
10	B	2780	G
10	B	2782	G
10	B	2783	U
10	B	2784	U
10	B	2789	C
10	B	2791	G
10	B	2793	C
10	B	2796	U
10	B	2797	U
10	B	2798	U
10	B	2800	A
10	B	2801	G
10	B	2804	U
10	B	2806	C
10	B	2808	G
10	B	2809	A
10	B	2811	G
10	B	2813	A
10	B	2814	A
10	B	2820	A
10	B	2821	A
10	B	2822	G
10	B	2832	U
10	B	2833	U

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Mol	Chain	Res	Type
10	B	2834	G
10	B	2835	A
10	B	2836	U
10	B	2839	G
10	B	2846	G
10	B	2849	U
10	B	2850	A
10	B	2858	C
10	B	2861	U
10	B	2864	G
10	B	2866	U
10	B	2867	G
10	B	2868	A
10	B	2869	G
10	B	2872	A
10	B	2873	A
10	B	2874	C
10	B	2879	A
10	B	2883	A
10	B	2884	U
10	B	2886	A
10	B	2887	A
10	B	2888	C
10	B	2891	U
10	B	2893	A
10	B	2894	G
10	B	2895	G
10	B	2896	C
10	B	2898	U
10	B	2899	A
10	B	2900	A

All (58) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
9	A	13	G
9	A	66	A
10	B	127	A
10	B	321	U
10	B	384	A
10	B	387	U
10	B	490	C

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Mol	Chain	Res	Type
10	B	509	C
10	B	512	G
10	B	636	G
10	B	651	G
10	B	669	G
10	B	670	A
10	B	704	G
10	B	726	G
10	B	780	G
10	B	784	G
10	B	830	G
10	B	880	G
10	B	888	C
10	B	909	A
10	B	914	G
10	B	958	U
10	B	984	A
10	B	1115	G
10	B	1129	A
10	B	1267	U
10	B	1321	A
10	B	1385	A
10	B	1395	A
10	B	1489	C
10	B	1543	G
10	B	1652	A
10	B	1730	C
10	B	1759	A
10	B	1779	U
10	B	2022	U
10	B	2076	U
10	B	2129	C
10	B	2147	A
10	B	2152	G
10	B	2158	A
10	B	2211	A
10	B	2244	U
10	B	2252	G
10	B	2253	G
10	B	2272	U
10	B	2336	A
10	B	2351	G

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Mol	Chain	Res	Type
10	B	2389	G
10	B	2425	A
10	B	2573	C
10	B	2655	G
10	B	2688	G
10	B	2808	G
10	B	2810	A
10	B	2832	U
10	B	2867	G

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2 ligands modelled in this entry, 1 is monoatomic - leaving 1 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
35	GNP	6	527	36	29,34,34	2.07	9 (31%)	33,54,54	2.52	10 (30%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
35	GNP	6	527	36	-	4/14/38/38	0/3/3/3

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	6	527	GNP	PB-O3A	-7.03	1.50	1.59
35	6	527	GNP	PB-O2B	-3.47	1.47	1.56
35	6	527	GNP	C6-N1	3.29	1.38	1.33
35	6	527	GNP	PG-O1G	2.92	1.50	1.46
35	6	527	GNP	C8-N7	-2.67	1.29	1.34
35	6	527	GNP	PG-N3B	-2.35	1.57	1.63
35	6	527	GNP	PB-N3B	-2.31	1.57	1.63
35	6	527	GNP	PG-O3G	-2.27	1.50	1.56
35	6	527	GNP	PG-O2G	-2.19	1.50	1.56

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	6	527	GNP	C5-C6-N1	-8.46	111.86	123.43
35	6	527	GNP	C2-N1-C6	5.19	124.17	115.93
35	6	527	GNP	PB-O3A-PA	-5.07	114.77	132.62
35	6	527	GNP	O2B-PB-O1B	3.71	117.71	109.92
35	6	527	GNP	C2-N3-C4	-3.67	111.17	115.36
35	6	527	GNP	O3G-PG-O1G	-3.32	105.11	113.45
35	6	527	GNP	O2G-PG-O3G	3.08	115.85	107.64
35	6	527	GNP	C2'-C3'-C4'	-2.96	96.89	102.64
35	6	527	GNP	C4-C5-N7	2.16	111.65	109.40
35	6	527	GNP	O1G-PG-N3B	-2.13	108.64	111.77

There are no chirality outliers.

All (4) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
35	6	527	GNP	PB-N3B-PG-O1G
35	6	527	GNP	PG-N3B-PB-O1B
35	6	527	GNP	PA-O3A-PB-O1B
35	6	527	GNP	O4'-C4'-C5'-O5'

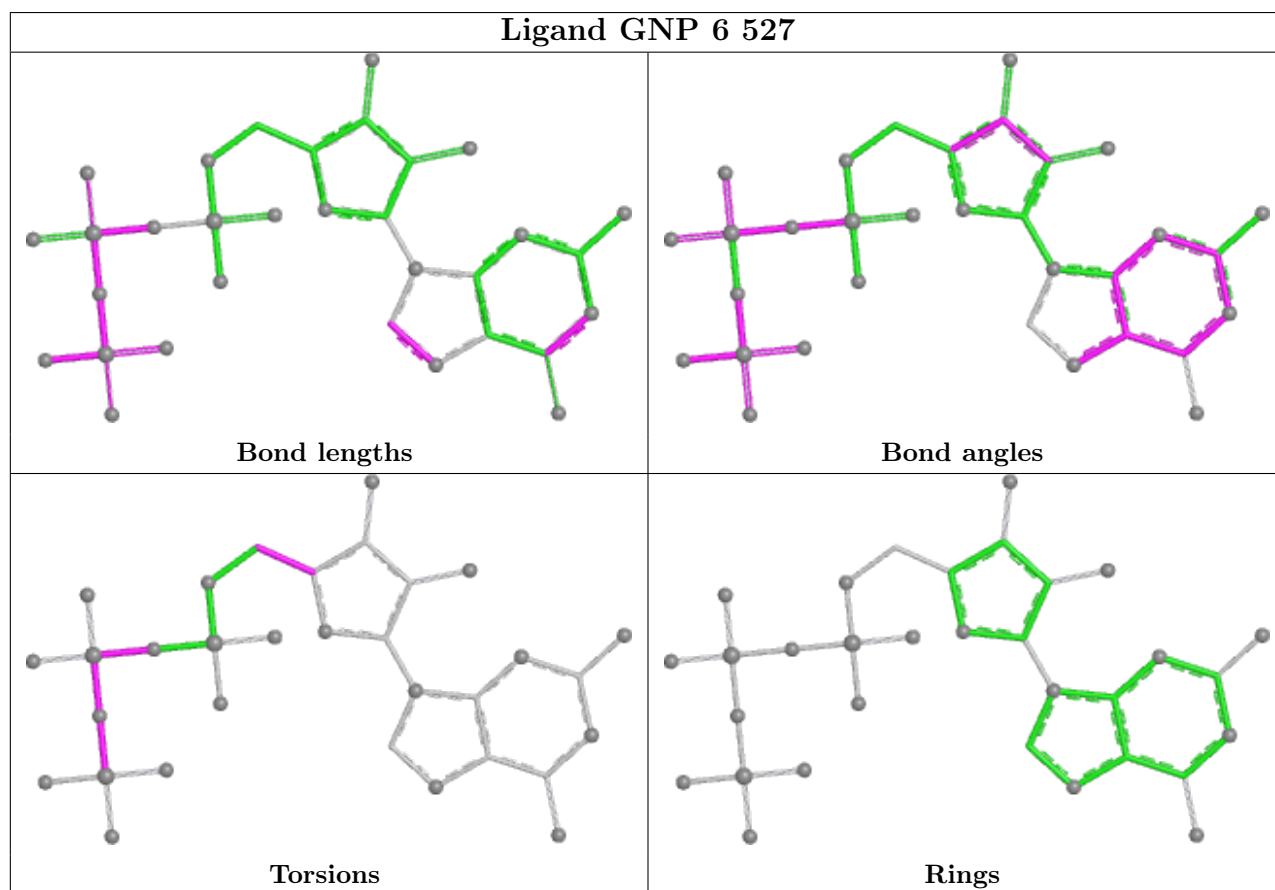
There are no ring outliers.

1 monomer is involved in 23 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
35	6	527	GNP	23	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths,

bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

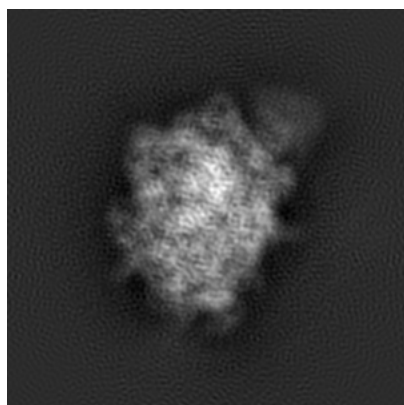
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-3133. These allow visual inspection of the internal detail of the map and identification of artifacts.

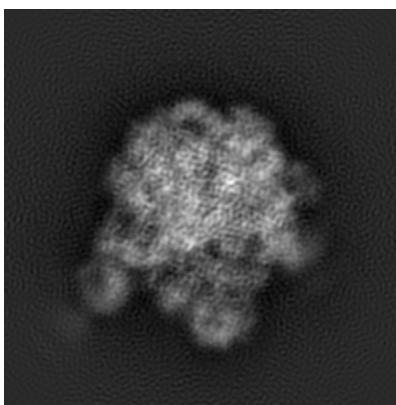
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

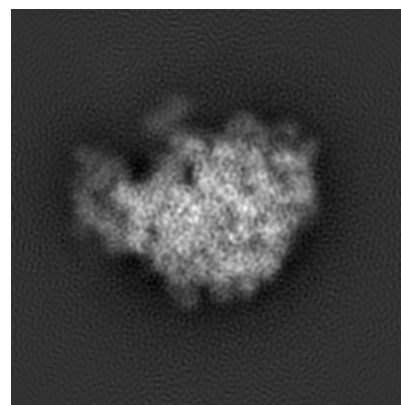
6.1.1 Primary map



X



Y

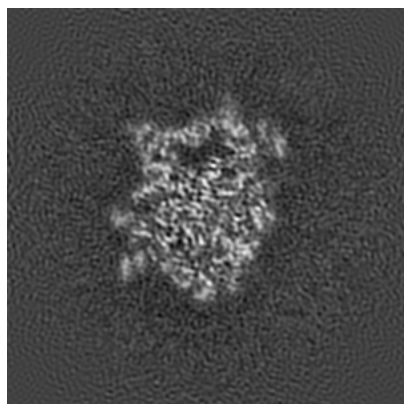


Z

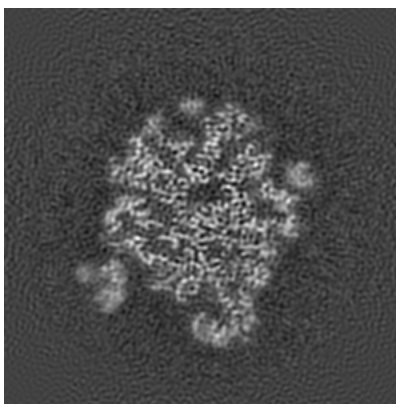
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

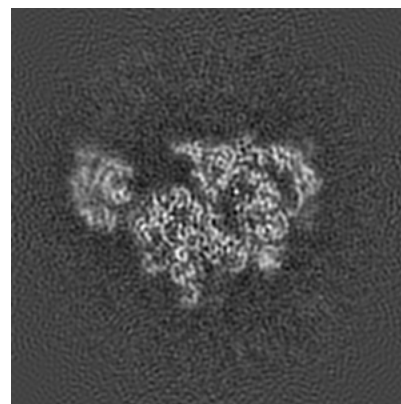
6.2.1 Primary map



X Index: 150



Y Index: 150

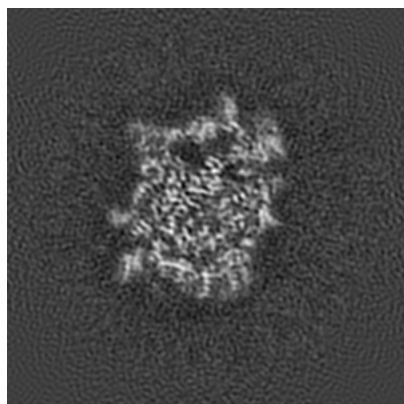


Z Index: 150

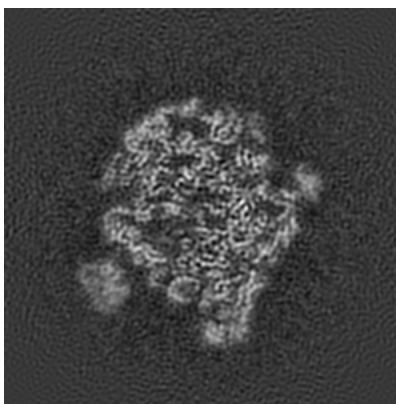
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

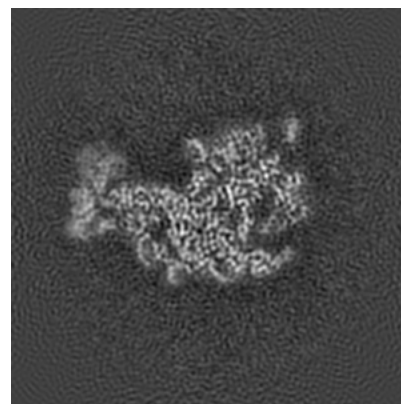
6.3.1 Primary map



X Index: 153



Y Index: 155



Z Index: 164

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

6.4 Orthogonal surface views [i](#)

6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 1.4. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

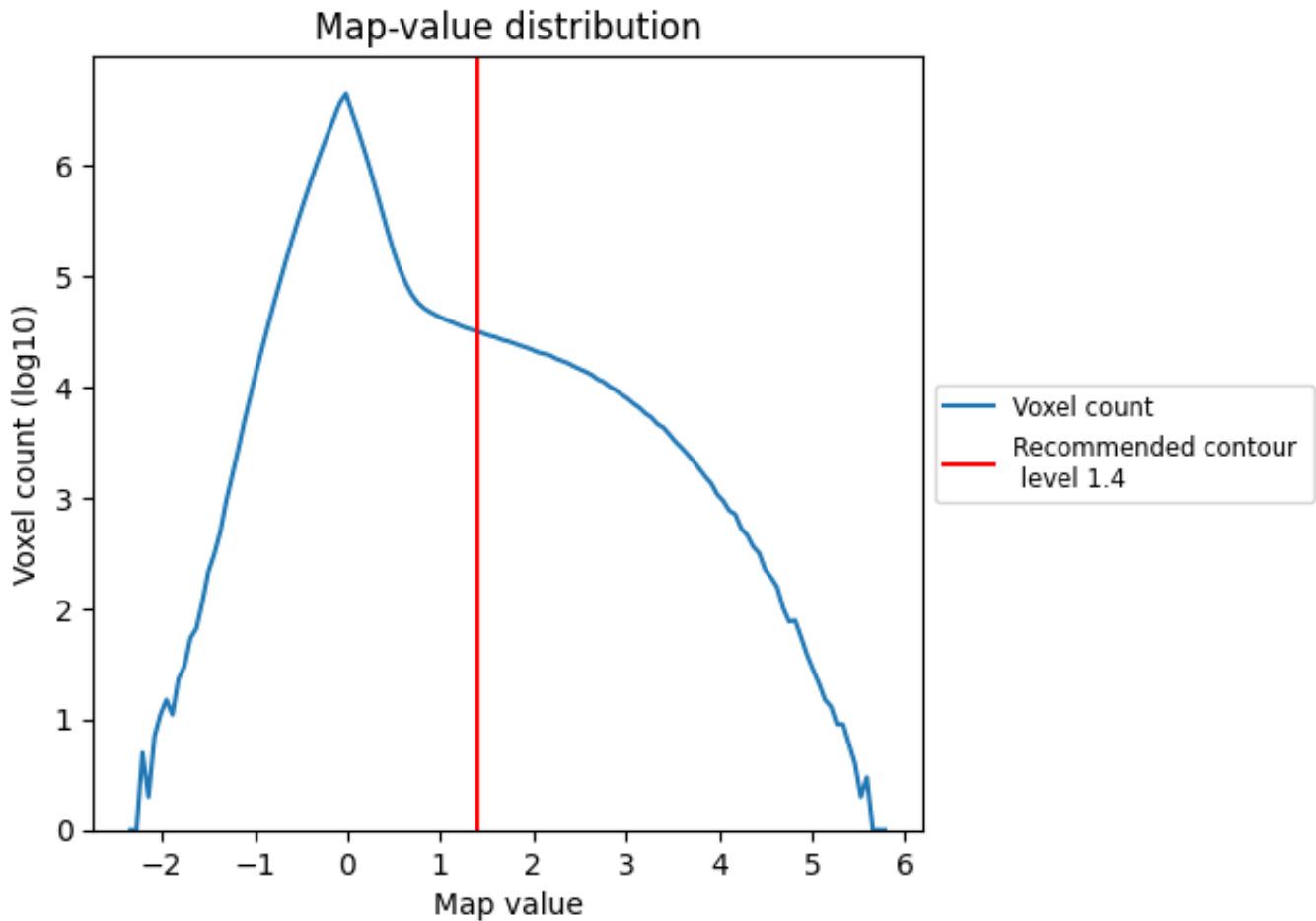
6.5 Mask visualisation

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

7 Map analysis [i](#)

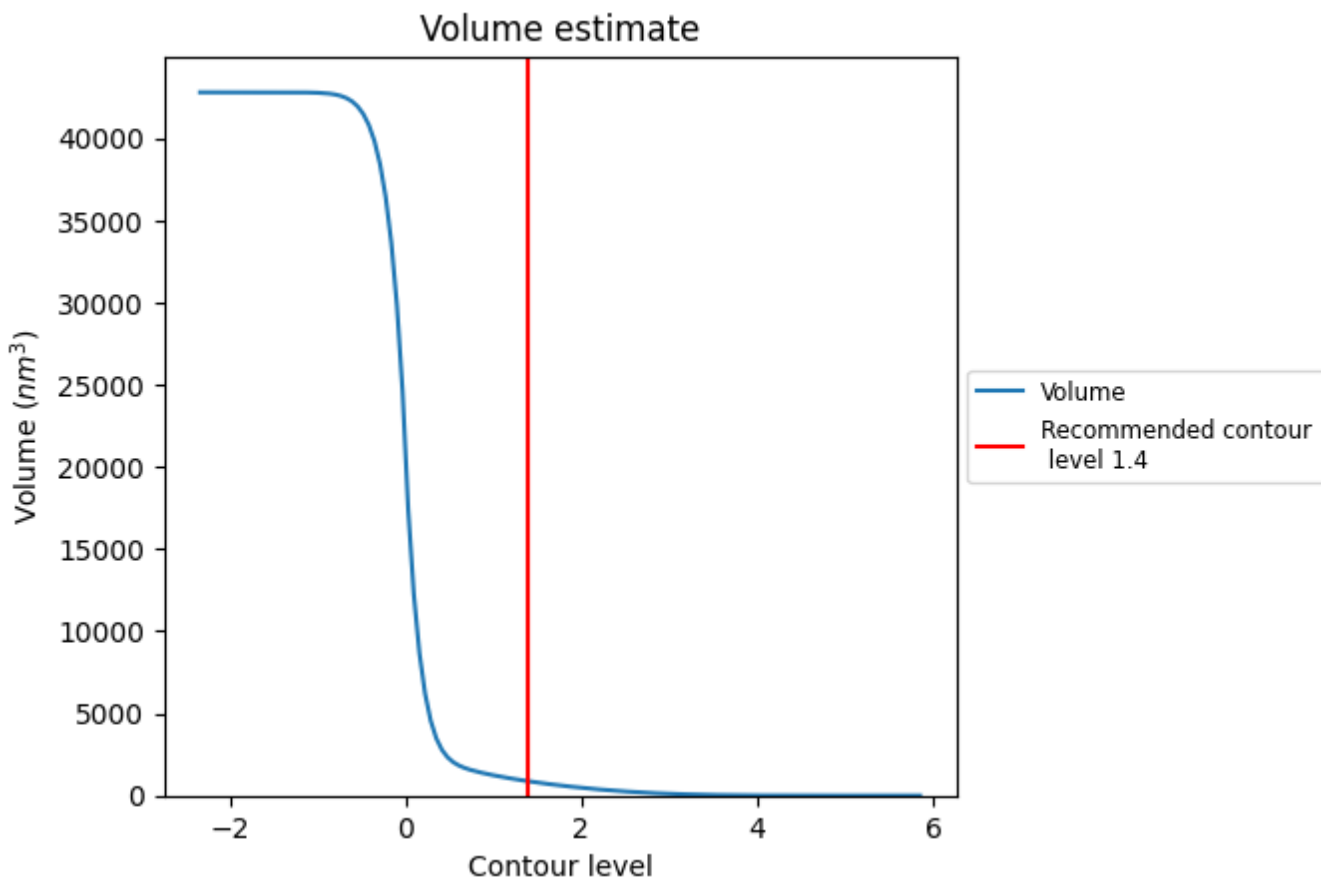
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

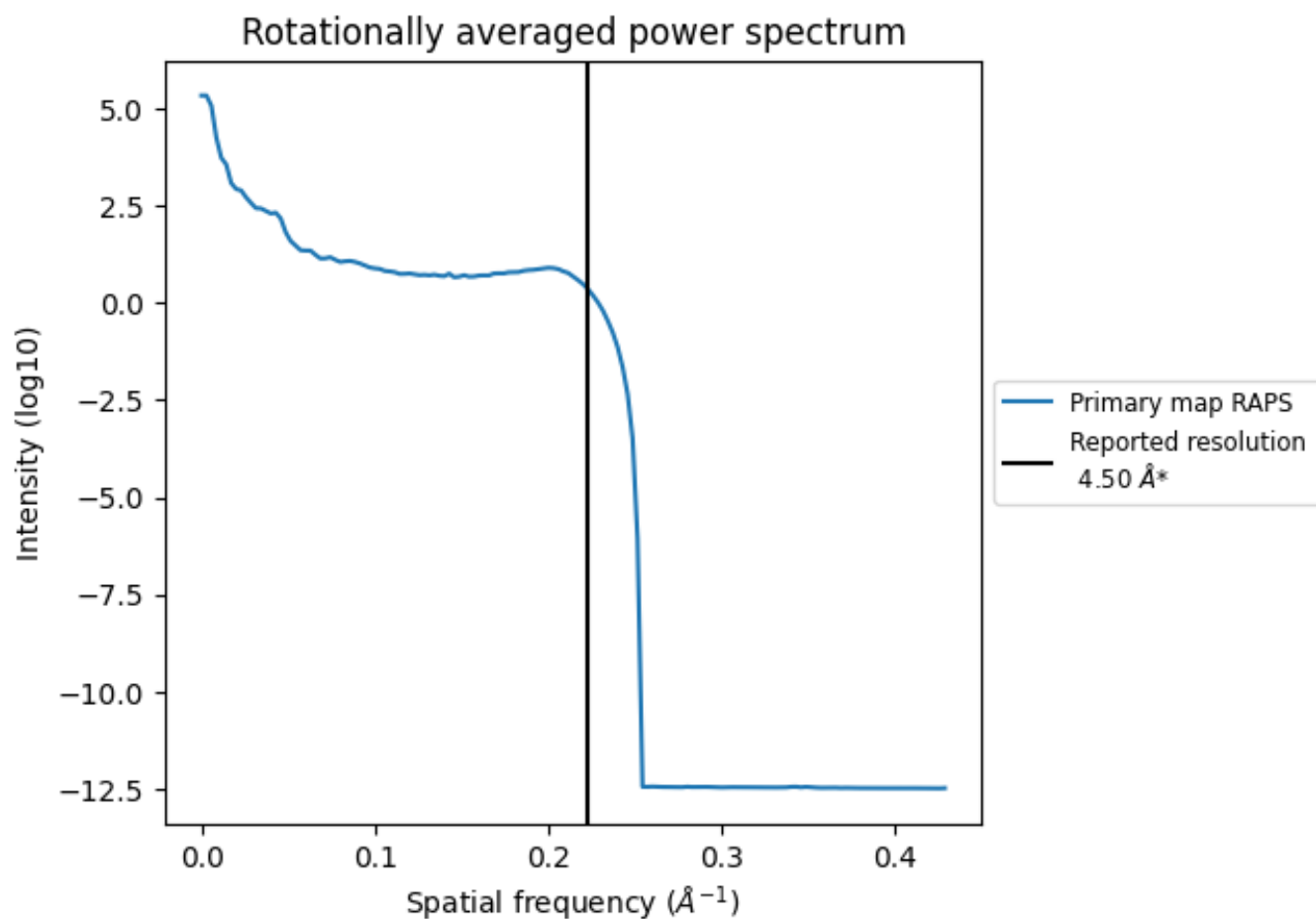
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 869 nm^3 ; this corresponds to an approximate mass of 785 kDa.

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

7.3 Rotationally averaged power spectrum [i](#)



*Reported resolution corresponds to spatial frequency of 0.222 Å⁻¹

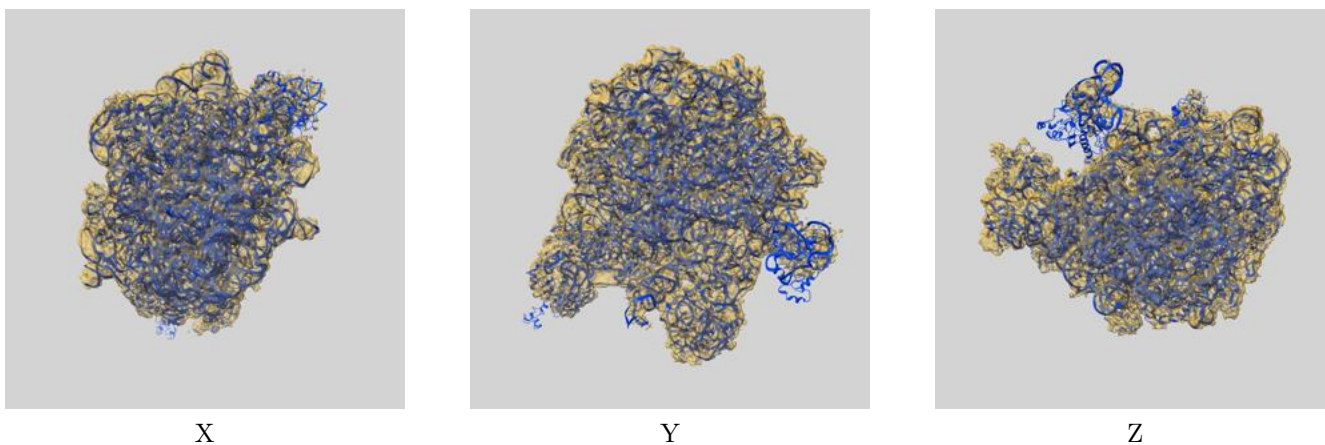
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

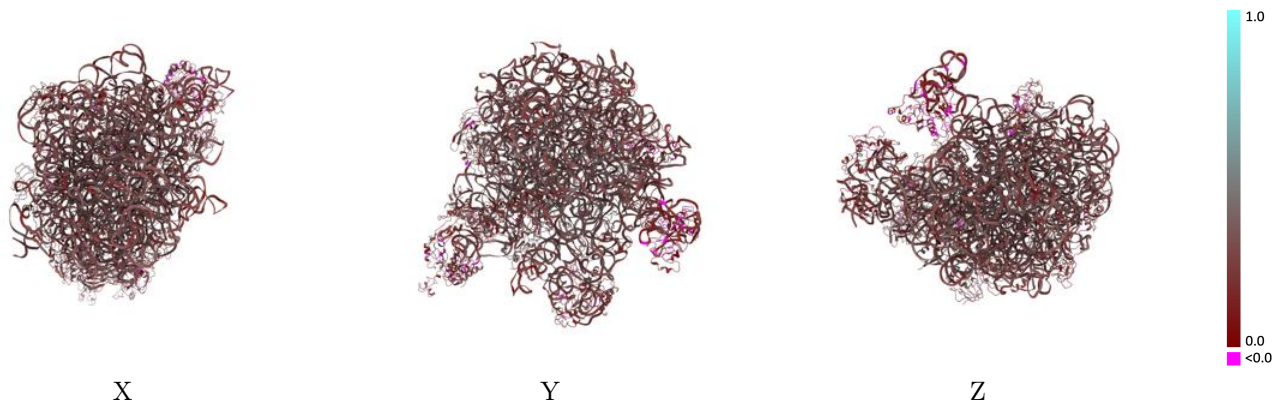
This section contains information regarding the fit between EMDB map EMD-3133 and PDB model 5ADY. Per-residue inclusion information can be found in section 3 on page 12.

9.1 Map-model overlay [i](#)



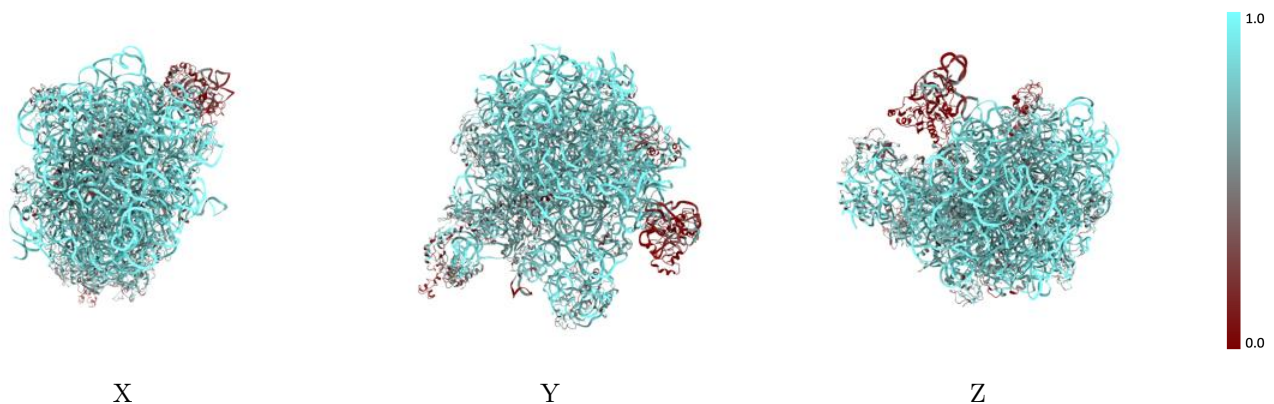
The images above show the 3D surface view of the map at the recommended contour level 1.4 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



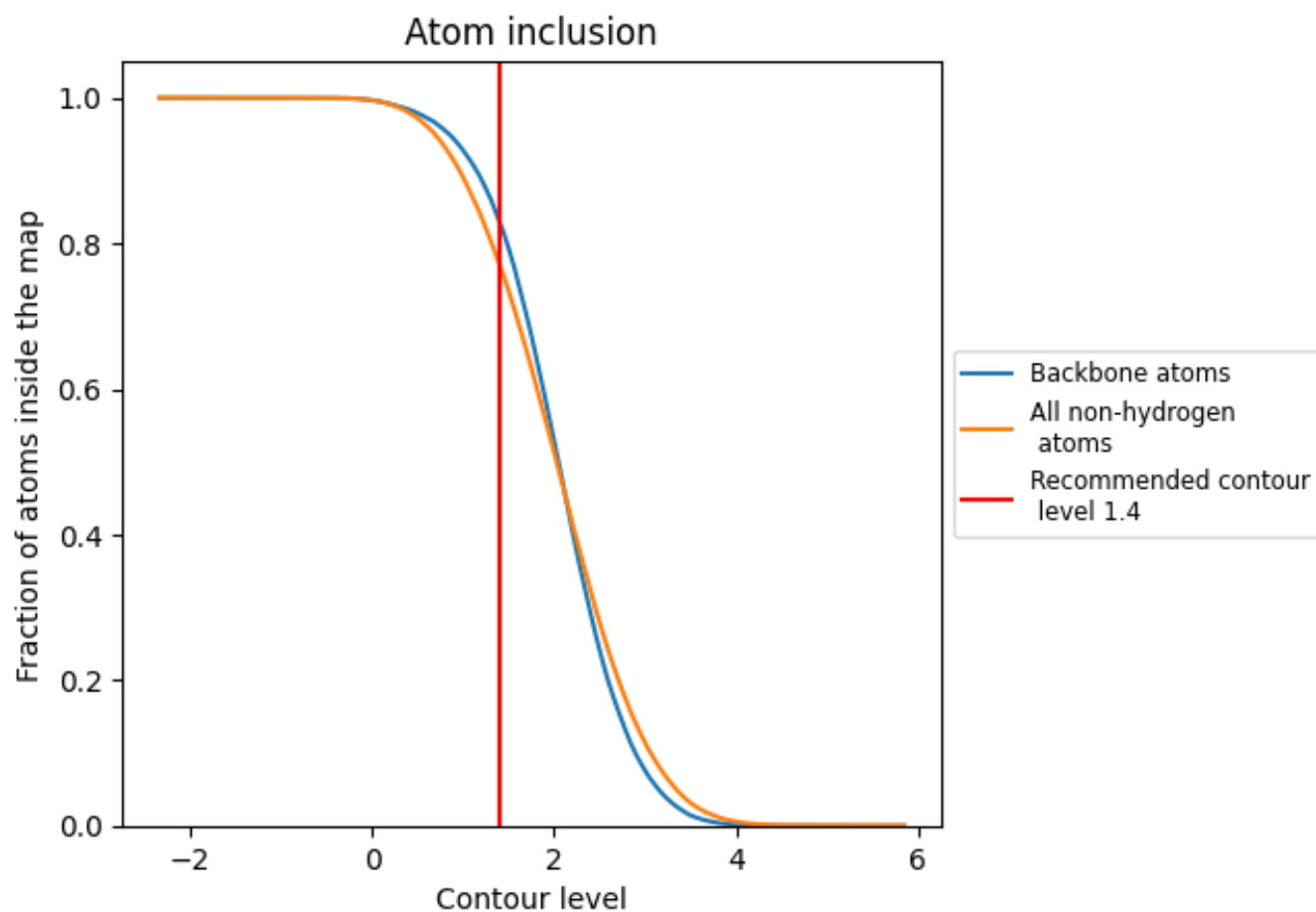
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (1.4).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 83% of all backbone atoms, 77% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (1.4) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7713	 0.2890
0	 0.6659	 0.2990
1	 0.5423	 0.2310
2	 0.6254	 0.2920
3	 0.6354	 0.3150
4	 0.6233	 0.2650
5	 0.0556	 0.1520
6	 0.5357	 0.2530
7	 0.2292	 0.2080
A	 0.8954	 0.2860
B	 0.8722	 0.3020
C	 0.6842	 0.2940
D	 0.6632	 0.2870
E	 0.5539	 0.2820
F	 0.5944	 0.2280
G	 0.6168	 0.2780
H	 0.2263	 0.2040
I	 0.4873	 0.2160
J	 0.6164	 0.2920
K	 0.6413	 0.2870
L	 0.6683	 0.3000
M	 0.6612	 0.3040
N	 0.6869	 0.2840
O	 0.6964	 0.2500
P	 0.6329	 0.2850
Q	 0.6762	 0.2910
R	 0.6688	 0.2970
S	 0.6304	 0.2850
T	 0.6584	 0.2900
U	 0.6471	 0.2460
V	 0.6301	 0.2810
W	 0.6190	 0.2700
X	 0.6290	 0.2970
Y	 0.6620	 0.2380
Z	 0.6156	 0.3110

