



Full wwPDB X-ray Structure Validation Report ⓘ

May 13, 2020 – 04:59 pm BST

PDB ID : 4V4A
Title : Crystal Structure of the Wild Type Ribosome from E. Coli 70S Ribosome.
Authors : Vila-Sanjurjo, A.; Ridgeway, W.K.; Seymaner, V.; Zhang, W.; Santoso, S.; Yu, K.; Cate, J.H.D.
Deposited on : 2003-06-13
Resolution : 9.50 Å(reported)

This is a Full wwPDB X-ray Structure 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/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.11
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.11

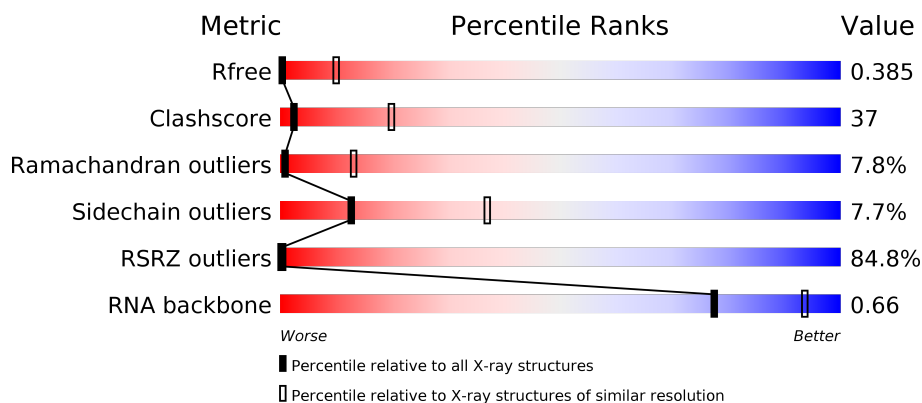
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 9.50 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)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1005 (11.50-3.90)
Clashscore	141614	1071 (15.00-3.90)
Ramachandran outliers	138981	1003 (11.50-3.90)
Sidechain outliers	138945	1003 (11.50-3.86)
RSRZ outliers	127900	1004 (9.50-3.80)
RNA backbone	3102	1079 (11.50-3.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower 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 electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AA	1537	<div> <div>100%</div> <div>23% 58% 15% .</div> </div>
2	AB	234	<div> <div>31%</div> <div>29% 56% 13% .</div> </div>
3	AC	206	<div> <div>82%</div> <div>30% 51% 17% .</div> </div>
4	AD	208	<div> <div>97%</div> <div>39% 55% 5%</div> </div>

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Mol	Chain	Length	Quality of chain
5	AE	150	
6	AF	101	
7	AG	155	
8	AH	138	
9	AI	127	
10	AJ	98	
11	AK	119	
12	AL	124	
13	AM	125	
14	AN	60	
15	AO	88	
16	AP	83	
17	AQ	104	
18	AR	73	
19	AS	80	
20	AT	99	
21	B0	2887	
22	B9	118	
23	BA	270	
24	BB	205	
25	BC	197	
26	BD	178	
27	BE	177	
28	BF	52	
29	BG	143	

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Mol	Chain	Length	Quality of chain
30	BH	143	71% 100%
31	BI	132	42% 99%
32	BJ	141	82% 99%
33	BK	124	39% 100%
34	BL	114	89% 99%
35	BM	111	33% 100%
36	BN	125	42% 100%
37	BO	117	84% 100%
38	BP	100	83% 100%
39	BQ	130	84% 100%
40	BR	93	77% 100%
41	BS	113	99% 100%
42	BT	173	61% 100%
43	BU	86	69% 100%
44	BV	16	100%
45	BW	65	83% 100%
46	BX	55	82% 100%
47	BY	73	63% 100%
48	BZ	58	78% 100%
49	B1	53	49% 100%
50	B2	46	100%
51	B3	63	98% 100%
52	B4	35	74% 100%
53	B5	217	48% 96%

2 Entry composition

There are 53 unique types of molecules in this entry. The entry contains 118711 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 16S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1533	Total	C	N	O	P	0	0	0
			32939	14664	6099	10643	1533			

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	234	Total	C	N	O	S	0	0	0
			1900	1213	341	341	5			

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	7			

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	150	Total	C	N	O	S	0	0	0
			1146	724	217	201	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	101	Total	C	N	O	S	0	0	0
			842	531	155	153	3			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	155	Total	C	N	O	S	0	0	0
			1256	781	252	217	6			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	138	Total	C	N	O	S	0	0	0
			1115	705	215	192	3			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O	0	0	0
			1010	639	198	173			

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	98	Total	C	N	O	S	0	0	0
			794	499	156	138	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	119	Total	C	N	O	S	0	0	0
			884	549	168	164	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	124	Total	C	N	O	S	0	0	0
			970	611	195	163	1			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	125	Total	C	N	O	S	0	0	0
			996	617	207	170	2			

- Molecule 14 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	60	Total	C	N	O	S	0	0	0
			491	312	104	71	4			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0	0
			733	459	147	125	2			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	83	Total	C	N	O	S	0	0	0
			700	443	139	117	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	104	Total	C	N	O	S	0	0	0
			856	547	161	146	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	73	Total	C	N	O	0	0	0
			596	380	118	98			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	80	Total	C	N	O	S	0	0	0
			647	414	119	112	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	99	Total	C	N	O	S	0	0	0
			762	469	162	129	2			

- Molecule 21 is a RNA chain called 23S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	B0	2825	Total	C	N	O	P	0	0	0
			60636	27047	11191	19573	2825			

- Molecule 22 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	B9	118	Total	C	N	O	P	0	0	0
			2519	1124	464	813	118			

- Molecule 23 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
23	BA	270	Total	C	0	0	270
			270	270			

- Molecule 24 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
24	BB	205	Total	C	0	0	205
			205	205			

- Molecule 25 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
25	BC	197	Total	C	0	0	197
			197	197			

- Molecule 26 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
26	BD	178	Total	C	0	0	178
			178	178			

- Molecule 27 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
27	BE	177	Total	C	0	0	177
			177	177			

- Molecule 28 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
28	BF	52	Total C 52 52	0	0	52

- Molecule 29 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
29	BG	143	Total C 143 143	0	0	143

- Molecule 30 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
30	BH	143	Total C 143 143	0	0	143

- Molecule 31 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
31	BI	132	Total C 132 132	0	0	132

- Molecule 32 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
32	BJ	141	Total C 141 141	0	0	141

- Molecule 33 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
33	BK	124	Total C 124 124	0	0	124

- Molecule 34 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
34	BL	114	Total C 114 114	0	0	114

- Molecule 35 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
35	BM	111	Total C 111 111	0	0	111

- Molecule 36 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
36	BN	125	Total C 125 125	0	0	125

- Molecule 37 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
37	BO	117	Total C 117 117	0	0	117

- Molecule 38 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
38	BP	100	Total C 100 100	0	0	100

- Molecule 39 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
39	BQ	130	Total C 130 130	0	0	130

- Molecule 40 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
40	BR	93	Total C 93 93	0	0	93

- Molecule 41 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
41	BS	113	Total C 113 113	0	0	113

- Molecule 42 is a protein called general stress protein Ctc.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
42	BT	173	Total C 173 173	0	0	173

- Molecule 43 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
43	BU	86	Total C 86 86	0	0	86

- Molecule 44 is a protein called 50S RIBOSOMAL PROTEIN L28.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
44	BV	16	Total C 16 16	0	0	16

- Molecule 45 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
45	BW	65	Total C 65 65	0	0	65

- Molecule 46 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
46	BX	55	Total C 55 55	0	0	55

- Molecule 47 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
47	BY	73	Total C 73 73	0	0	73

- Molecule 48 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
48	BZ	58	Total C 58 58	0	0	58

- Molecule 49 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
49	B1	53	Total C 53 53	0	0	53

- Molecule 50 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
50	B2	46	Total C 46 46	0	0	46

- Molecule 51 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
51	B3	63	Total C 63 63	0	0	63

- Molecule 52 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
52	B4	35	Total C 35 35	0	0	35

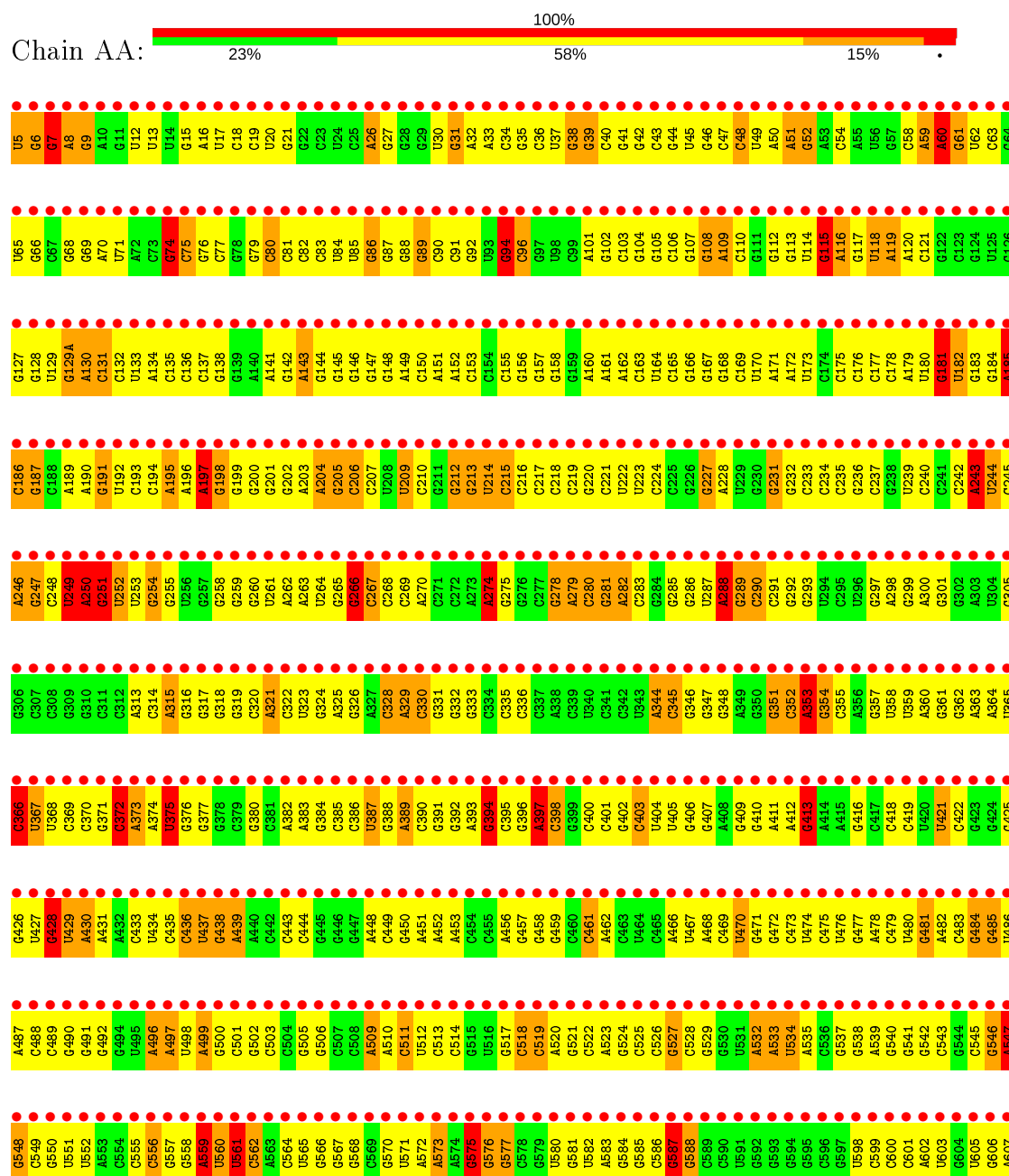
- Molecule 53 is a protein called 50S ribosomal protein L1P.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
53	B5	217	Total C 217 217	0	0	217

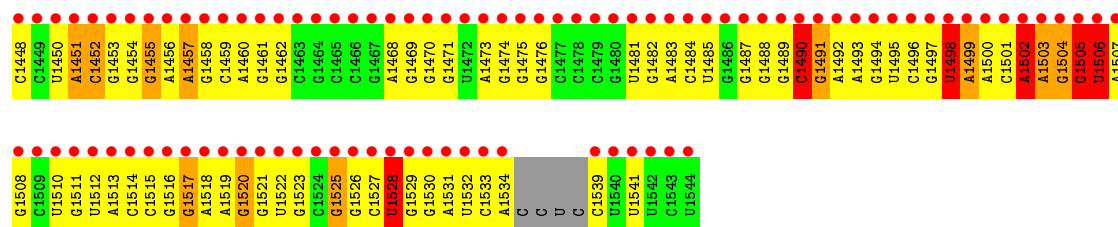
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron 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 dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). 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.

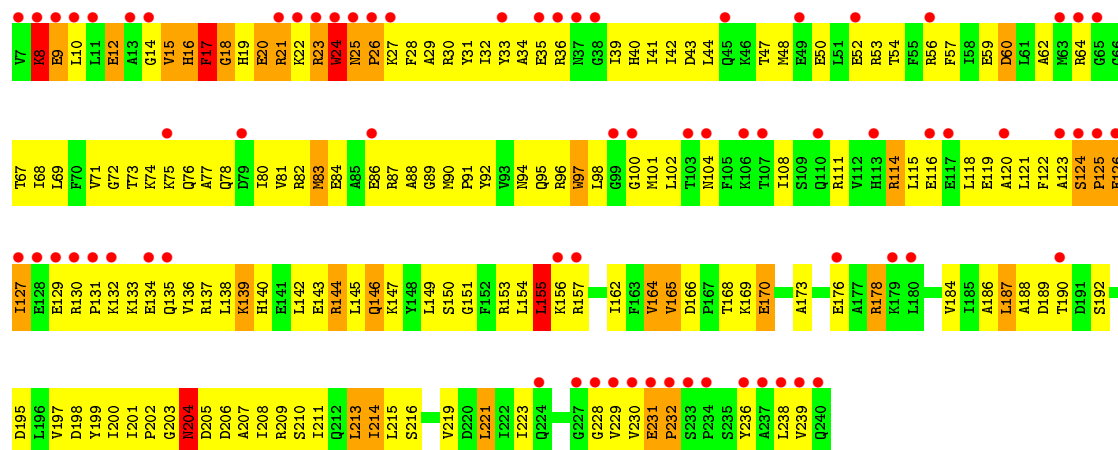
• Molecule 1: 16S RIBOSOMAL RNA



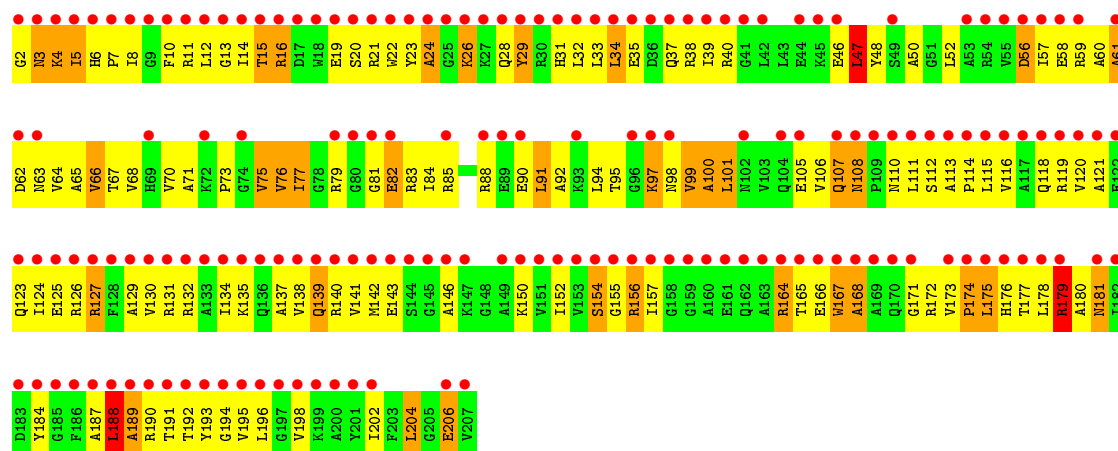
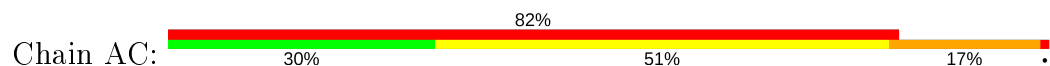
G1387	C1328	A1268	G1208	C1147	G1087	C1027	A968	A969	G848	U768	A728	A608
C1329	A1269	A1269	C1209	U1148	G1088	C1028	A969	A969	C849	U769	A729	A609
C1330	C1210	C1210	C1210	C1149	G1089	U1029	C970	C970	C850	A790	A730	G610
G1331	G1271	G1271	U1211	U1150	U1090	U1030	G971	U911	G851	G731	G731	A611
U1391	U1212	G1272	U1212	U1151	U091	C1031	C972	G912	G852	C732	U672	C612
G1392	A1273	G1273	A1213	A1152	A1092	G1032	G973	A913	G853	A733	G673	C613
U1393	C1334	G1274	C1214	C1153	A1093	G1033	A974	A914	G854	G734	A674	A614
C1335	C1335	A1275	G1215	C1154	G1094	G1034	A975	A915	G855	C735	A675	C615
C1336	G1276	G1276	G1216	G1155	U1095	A1035	G976	G916	C856	C736	A676	G616
G1396	G1337	C1277	C1217	G1156	C1096	G1036	A977	G917	C857	A737	U677	G617
C1397	G1338	U1278	U1218	A1157	C1097	C1037	A978	A918	G858	C738	U678	U618
A1398	A1279	A1279	U1219	C1158	C1098	C1038	C979	A919	A859	C739	C679	U619
C1340	A1280	A1280	G1220	U1159	G1099	C1039	C980	U920	A860	U740	C680	C620
U1341	U1281	U1281	G1221	G1160	U981	U1040	U981	U921	G861	G741	A621	A621
C1342	G1401	C1282	G1222	C1161	A1101	A1041	U982	G922	C862	G742	G682	A622
G1343	G1283	G1283	C1223	C1162	A1102	G1042	U983	A923	U863	U743	G683	C623
C1344	C1284	C1284	G1224	C1163	C1103	C1043	C984	C924	U864	C744	A684	C624
U1345	A1285	A1285	A1225	G1164	G1104	A1044	C985	G925	A865	C745	G685	G625
A1346	A1286	A1286	C1226	C1165	A1105	C1045	A986	C906	C866	A746	U686	U626
G1347	A1287	A1287	A1227	G1166	G1106	A1046	G987	G927	G867	C747	A687	U627
U1348	A1288	A1288	C1228	A1167	C1107	G1047	G988	G928	C868	C748	G688	G628
A1408	A1289	A1289	A1229	A1168	G1108	G1048	G989	G929	C869	C749	C689	G629
A1350	C1290	C1290	C1230	A1169	C1109	U1049	C990	C930	U870	G750	G690	G630
U1351	G1291	G1291	G1231	G1171	A1110	C1050	U991	C931	U871	U751	G691	A631
C1352	U1292	U1292	U1232	C1172	A1111	C1051	U992	C932	A872	G752	U692	A632
G1353	G1293	G1293	G1233	G1173	C1112	U1052	G993	G933	A873	A753	G693	A633
C1354	G1294	G1294	C1234	G1174	G1053	G1053	A994	C934	G874	C754	A694	C634
U1414	U1235	G1295	U1235	G1175	C1114	A1054	C995	A935	C875	G755	A695	G635
G1356	C1296	C1296	A1236	A1176	C1115	A1055	A996	C936	G876	C756	A696	U636
A1357	C1297	C1297	C1237	G1177	C1116	U1056	U997	A937	C877	U757	U697	G637
U1358	U1358	C1298	A1238	G1178	G1117	G1057	G998	A938	G878	G758	G698	G638
A1359	A1299	A1299	A1239	A1179	C1118	C1058	C999	G939	C879	A759	C699	G639
G1360	C1300	C1300	U1240	G1180	C1119	C1059	U1000	U940	G880	G760	G700	A640
G1361	U1301	U1301	G1241	G1181	G1120	C1060	A1001	G941	G881	G761	G701	U641
C2361	C1242	C1242	C1242	G1182	U1121	G1061	G1002	G942	C882	C762	A702	U642
C1362	G1243	C1303	G1243	A1183	U1122	U1062	G1003	U943	C883	G763	G703	C643
A1363	G1304	G1304	C1244	G1184	A1123	C1063	G2003	G944	U894	C764	A704	G644
C1364	A1245	G1305	A1245	G1185	G1124	G1064	A1004	G945	G885	G765	U705	C645
U1365	C1246	A1306	C1246	G1186	U0865	U0865	A1005	A946	G886	A766	A706	U646
C1366	U1247	C1307	U1247	G1187	U1126	C1066	C1006	G947	G887	A767	C707	C647
U1367	A1248	U1308	A1248	A1188	G1127	A1067	C1007	C948	G888	A768	G708	A648
C1368	G1309	G1309	C1249	C1189	C1128	G1068	C1008	A949	A889	G769	G709	G649
C1369	C1369	G1310	A1250	G1190	C1129	C1069	G1009	U950	G890	C770	G650	G650
G1430	G1370	C1311	A1251	A1191	A1130	U1070	G1010	G951	U891	G771	G711	C651
C1431	G1371	G1312	A1252	C1192	G1131	C1071	G1011	U952	A892	U772	G712	A652
G1432	U1372	U1313	G1253	G1193	C1132	G1072	G1012	G953	C893	G773	G713	A653
A1433	C1373	C1314	C1254	U1194	G1133	U1073	G1013	U954	G894	G774	G714	G654
A1434	A1374	U1315	G1255	C1195	G1134	U1074	A1014	G955	G895	G775	A715	A655
G1435	A1375	C1316	A1256	U1196	U1135	C1075	A1015	U956	C896	G776	A716	C656
U1436	U1376	C1317	U1257	G1197	C1136	G1076	A1016	U957	G897	A777	G717	G657
C1437	A1377	A1318	G1258	G1198	C1137	G1077	G1017	A958	G898	G778	G718	C658
A1438	A1319	A1319	C1259	U1199	G1138	U1078	U1018	A959	C899	G779	C719	U659
C1439	G1378	C1320	G1260	G1200	G1139	G1079	U960	U960	A900	A780	G720	G660
C1440	U1380	C1321	A1261	A1201	C1140	A1080	U961	U961	A901	A781	G721	G661
G1441	C1381	C1322	C1262	G1202	C1141	G1081	G1021	G962	G902	A782	U722	A662
C1442	C1382	C1323	C1263	C1203	G1142	G1082	G1022	G963	G903	C783	U723	A663
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A1446	C1385	C1326	G1266	G1206	U1145	U1085	G1025	G966	C906	G786	C726	G666
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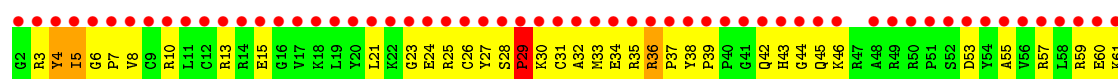
• Molecule 2: 30S ribosomal protein S2



• Molecule 3: 30S ribosomal protein S3

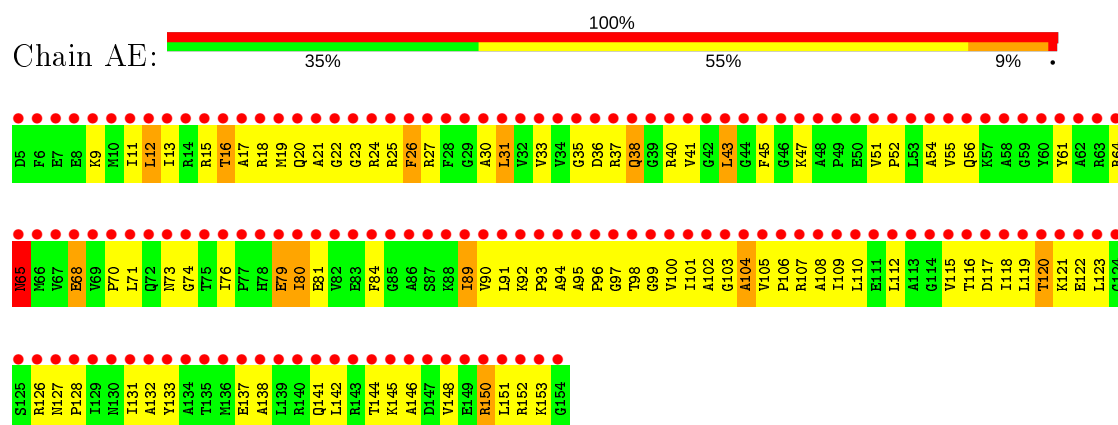


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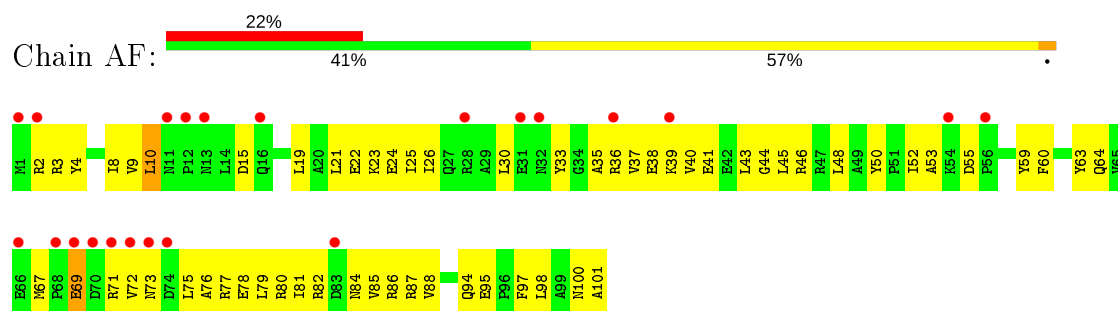




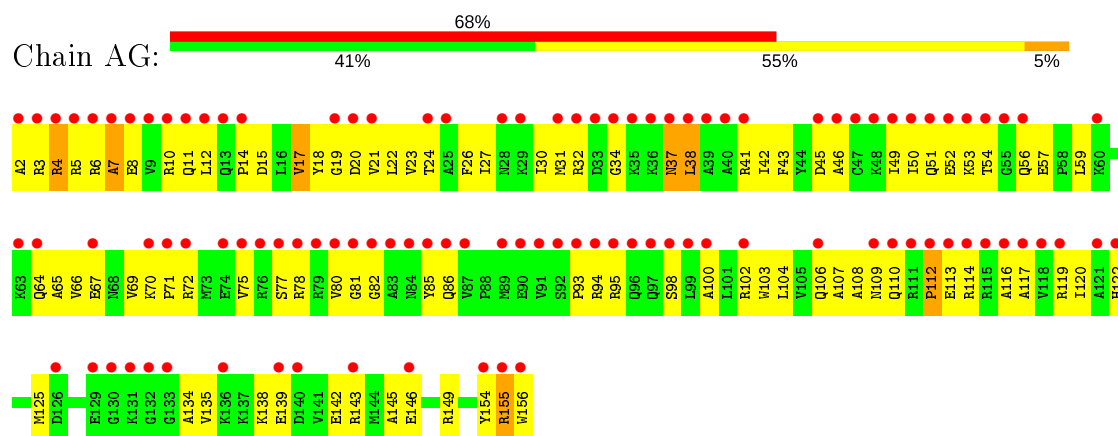
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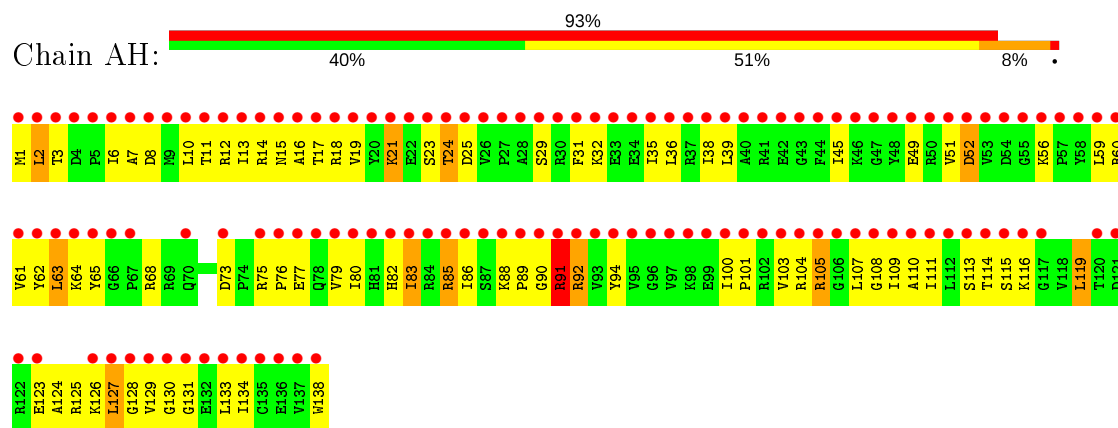
• Molecule 6: 30S ribosomal protein S6



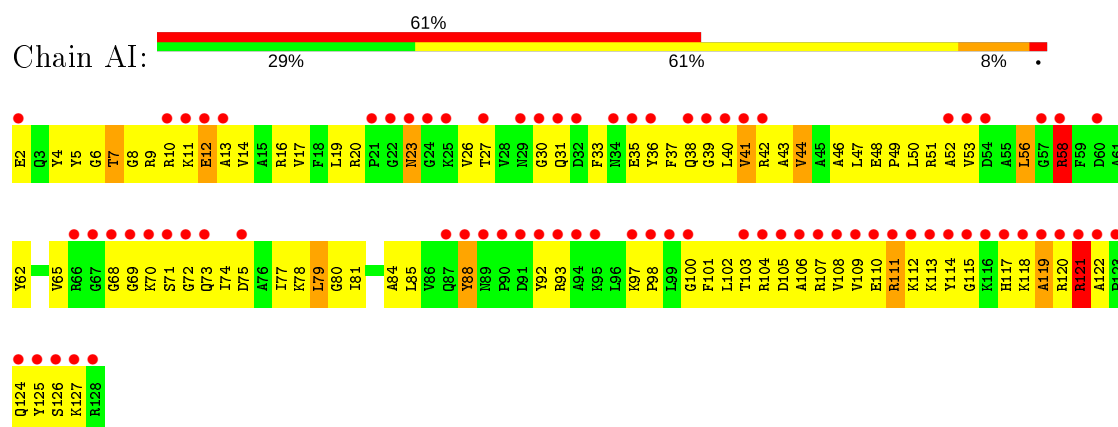
• Molecule 7: 30S ribosomal protein S7



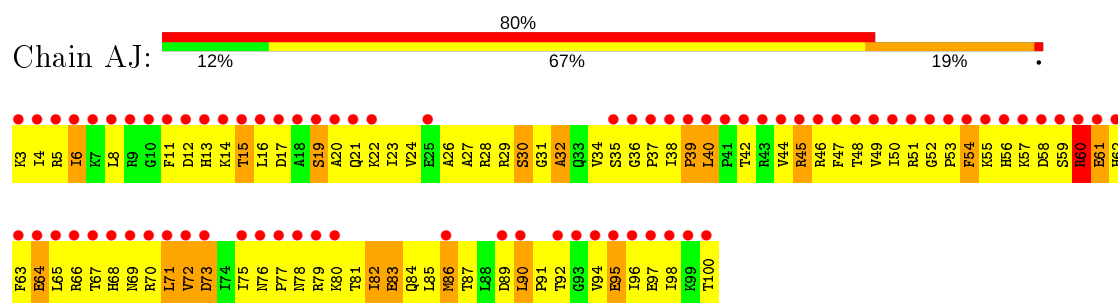
• Molecule 8: 30S ribosomal protein S8



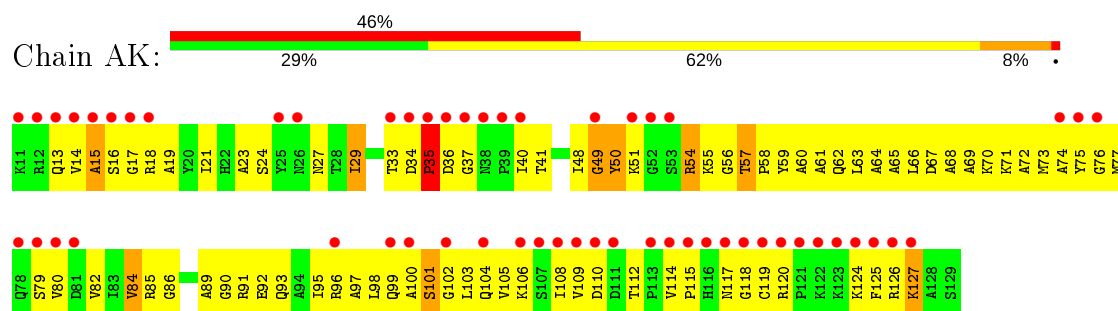
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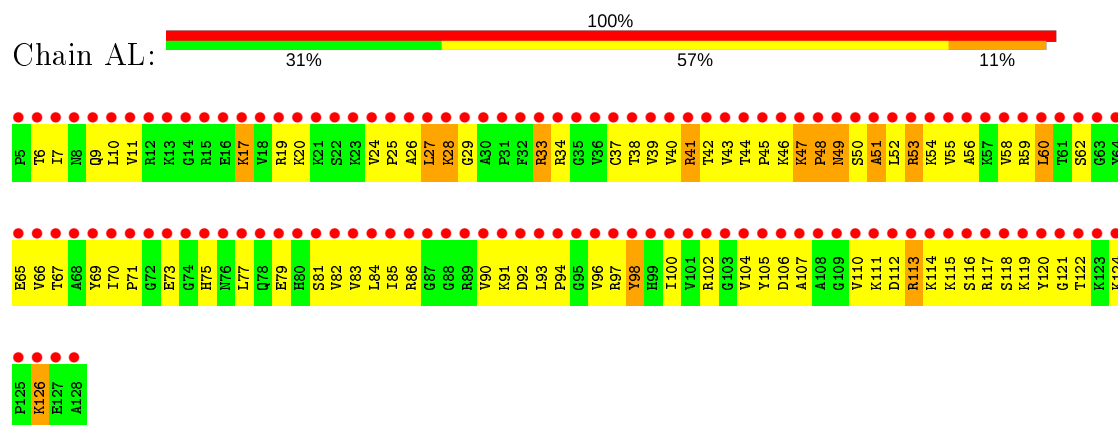
• Molecule 10: 30S ribosomal protein S10



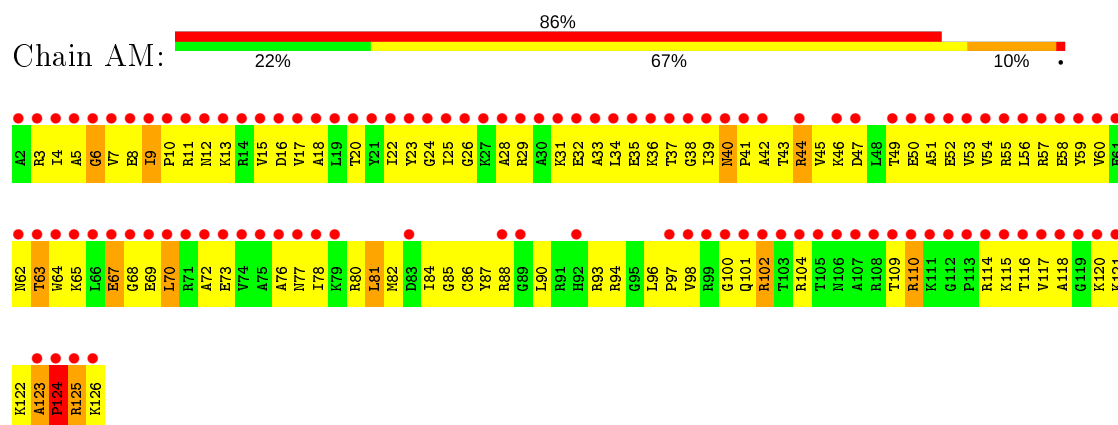
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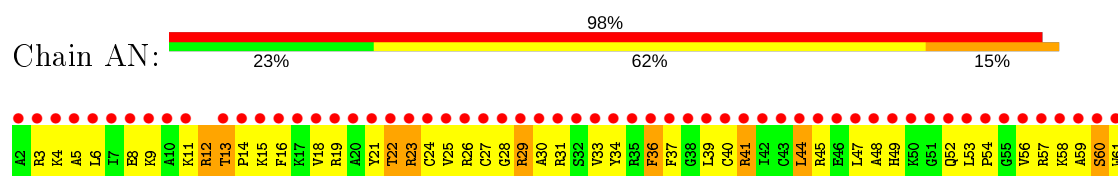
- Molecule 12: 30S ribosomal protein S12



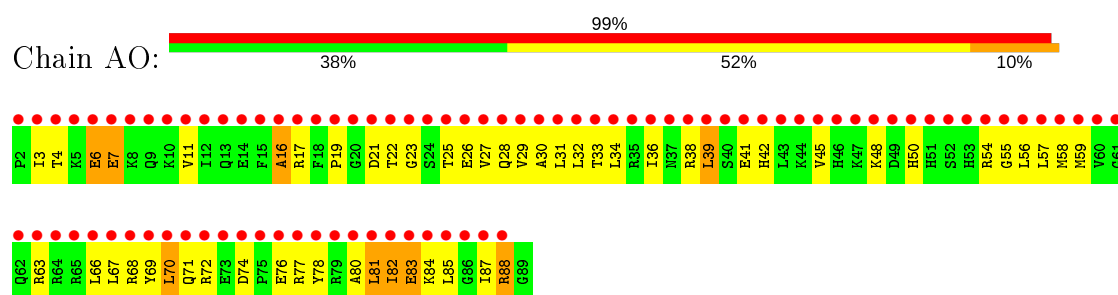
- Molecule 13: 30S ribosomal protein S13



- Molecule 14: 30S ribosomal protein S14

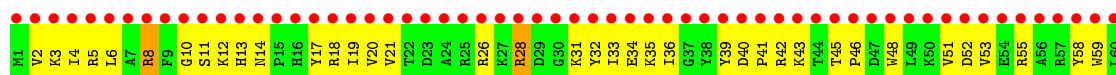


- Molecule 15: 30S ribosomal protein S15

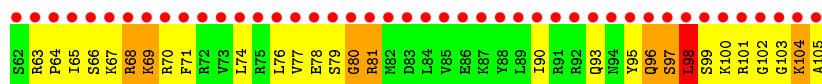
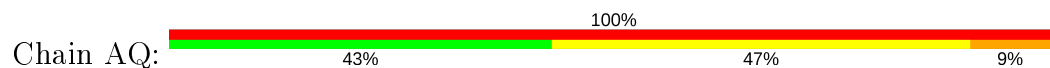


- Molecule 16: 30S ribosomal protein S16

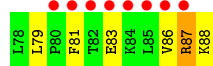
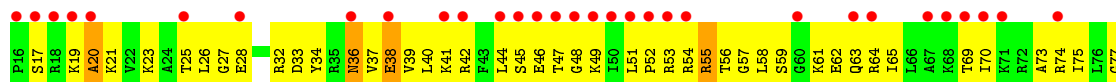




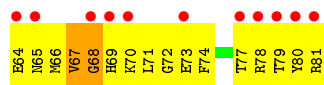
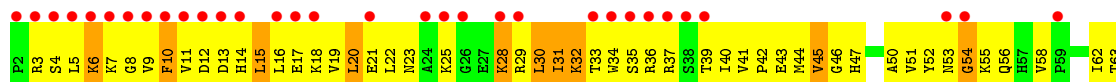
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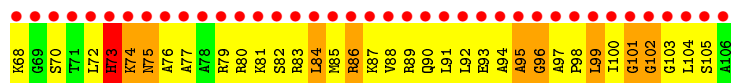
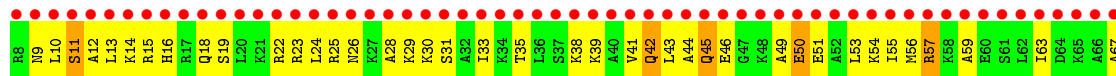
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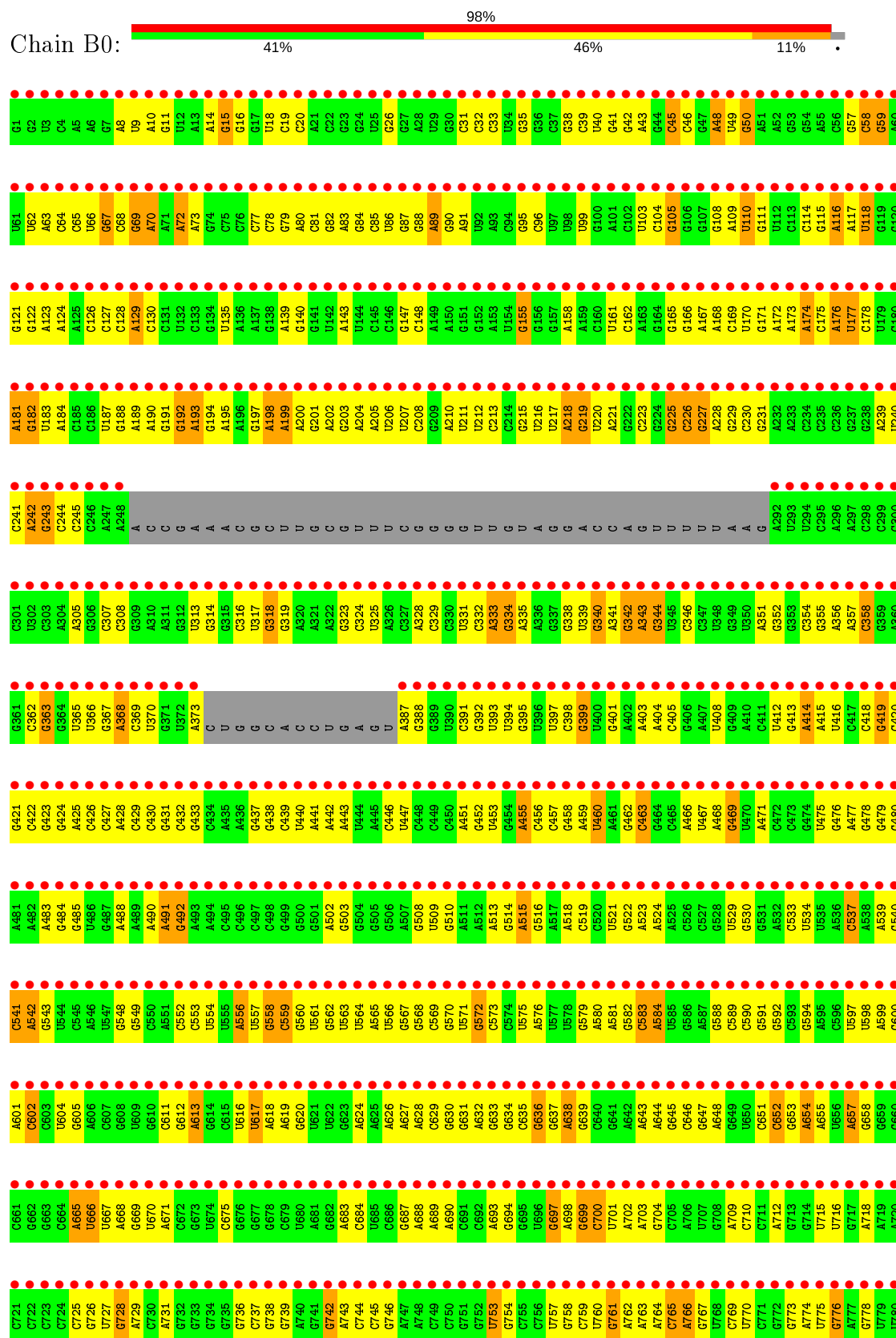
• Molecule 19: 30S ribosomal protein S19



• Molecule 20: 30S ribosomal protein S20

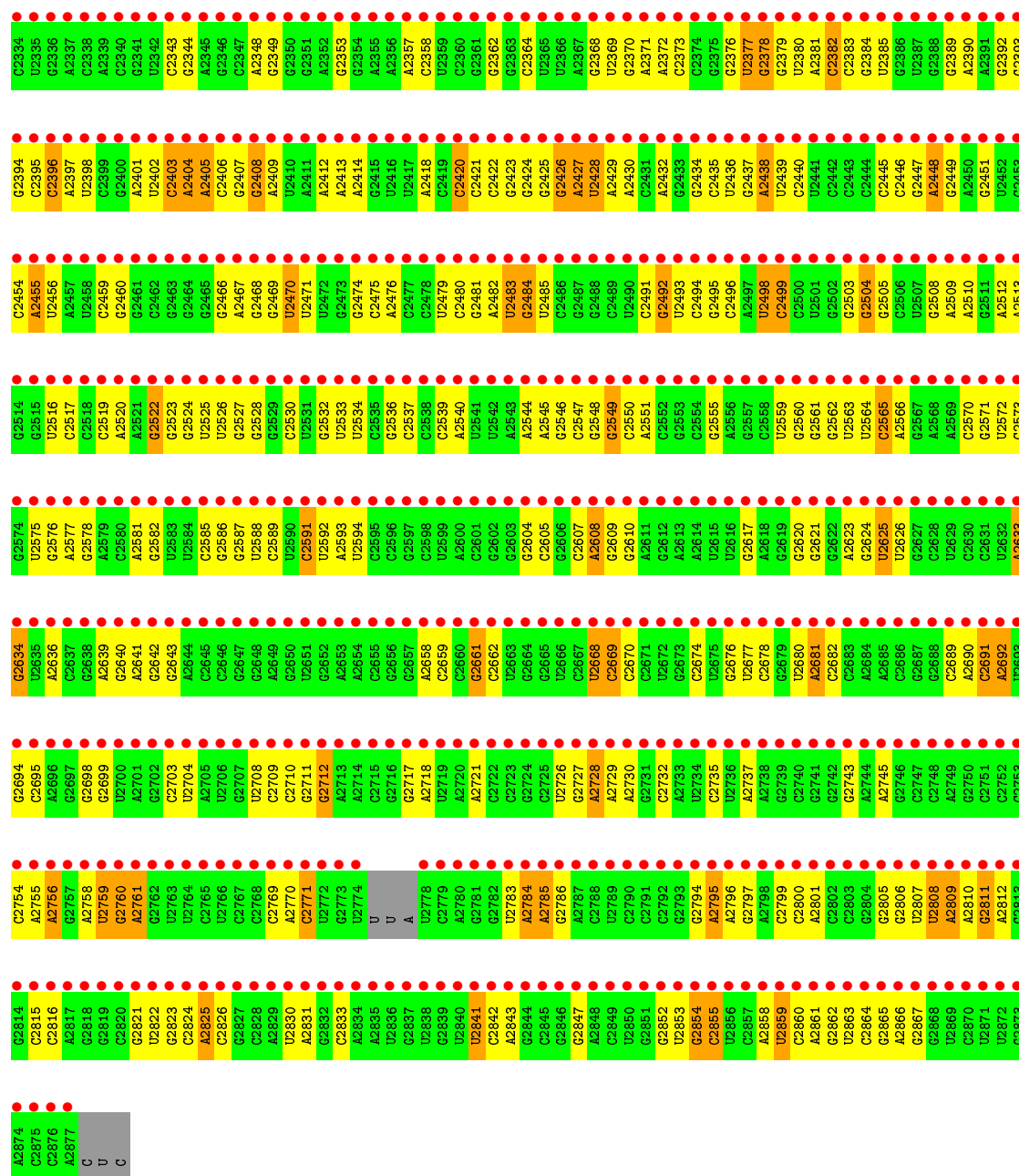


- Molecule 21: 23S RIBOSOMAL RNA



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G1504	G1444	G1384	G1324	G1264	G1204	U1144	A1084	G1204	A964	G903	G844	U784
G1505	A1445	G1385	U1325	G1265	G1205	G1145	G1085	A1025	G965	U904	U845	U785
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G1507	U1447	G1387	G1327	U1267	G1207	G1147	C1087	C1027	G967	U906	C847	U787
G1508	C1388	C1328	U1328	U1268	A1208	G1148	A1088	G1028	G968	U907	A848	G788
A1509	C1389	G1329	G1269	G1269	G1209	G1149	C1089	G1029	U969	C909	G849	G789
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A1512	U1452	U1392	G1272	U1212	U1212	G1152	U1092	A1032	C972	A912	U852	U792
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C1514	G1394	C1274	C1274	G1214	G1214	A1154	C1094	U1034	U974	C914	A854	A794
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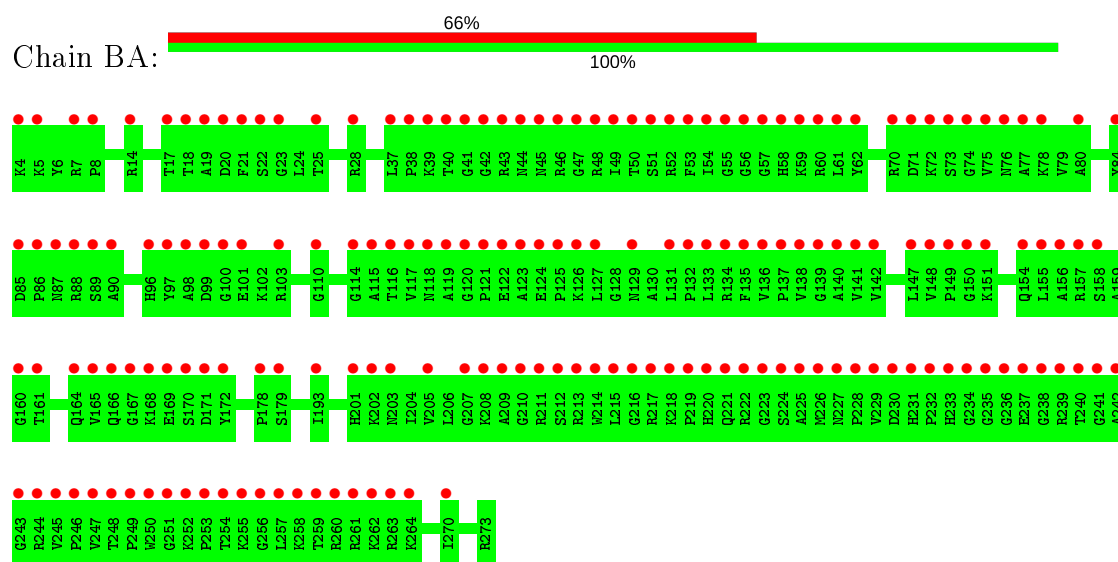
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A2324	A2203	C3160	U3099	G2021	A1961	A1901	A1851	C1791	G1730	G1670	U1611
C2325	C2205	C3161	C2022	C2022	G1962	A1902	U1852	C1792	U1732	A1671	U1612
G2326	C2206	G3162	G3100	C2023	G1963	C1903	G1853	A1793	U1733	A1672	G1613
U2327	C2207	C3163	G3101	U2024	A1964	G1904	G1854	A1794	C1674	C1674	G1614
C2328	G2208	G3165	A3103	A2025	U1965	G1905	G1855	G1795	G1735	C1675	C1615
G2329	U2209	C3166	A3104	C2026	G1966	U1906	U1856	A1796	C1736	U1676	C1616
C2330	C2210	U3167	G3105	C2027	U1967	C1907	U1857	C1797	G1737	G1677	G1617
U2331	U2211	G3168	G3106	C2028	G1968	U1908	A3865	C1798	U1738	G1678	U1618
C2332	U2212	A3169	U3107	G2029	G1969	U1909	A3866	A1799	G1739	U1679	A1619
A2333	G2213	G3170	G3108	A2031	C1971	A1911	U3868	A1800	G1740	U1680	C1620



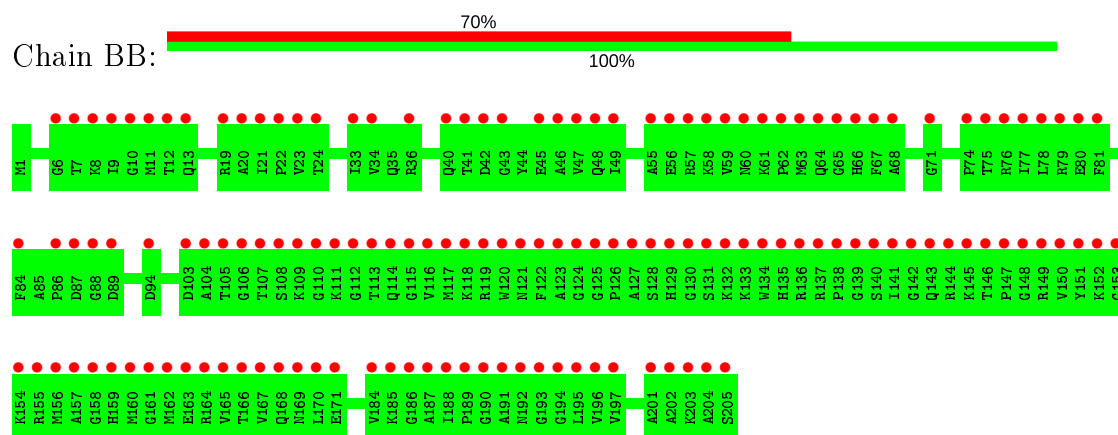
• Molecule 22: 5S RIBOSOMAL RNA



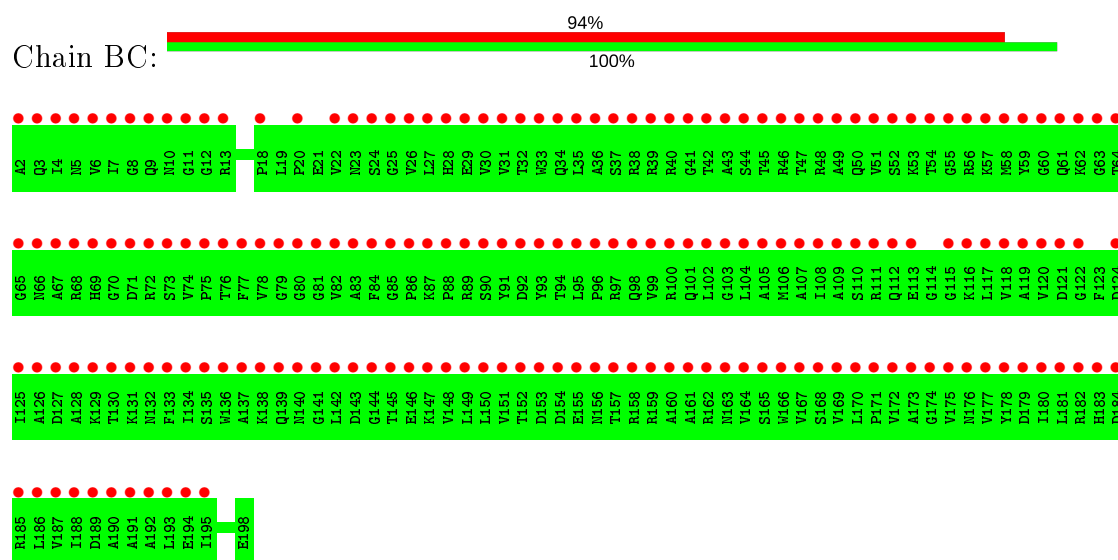
• Molecule 23: 50S ribosomal protein L2



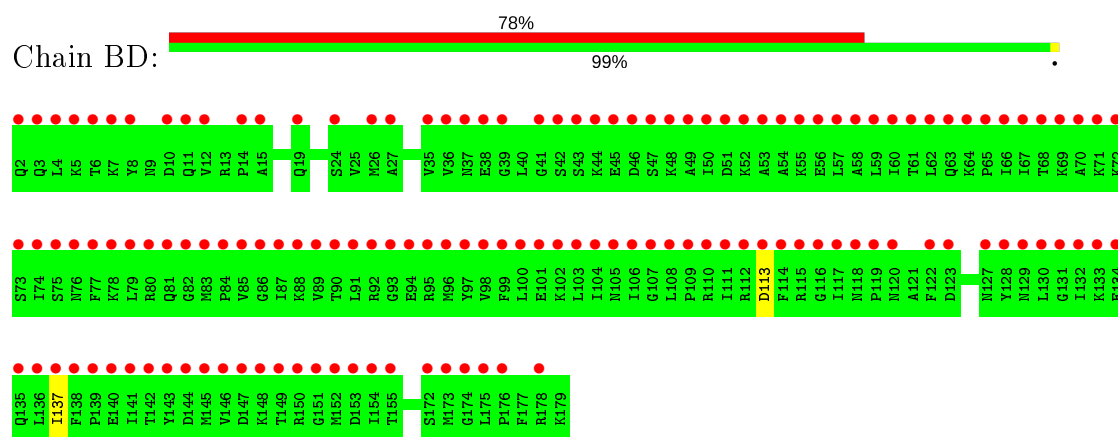
- Molecule 24: 50S ribosomal protein L3



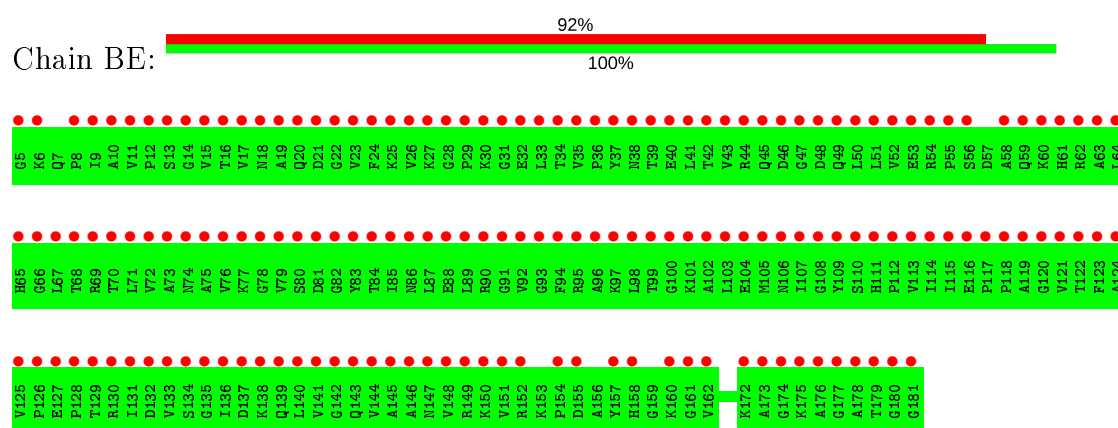
- Molecule 25: 50S ribosomal protein L4



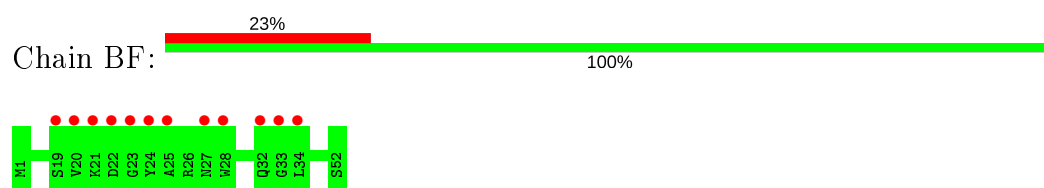
- Molecule 26: 50S ribosomal protein L5



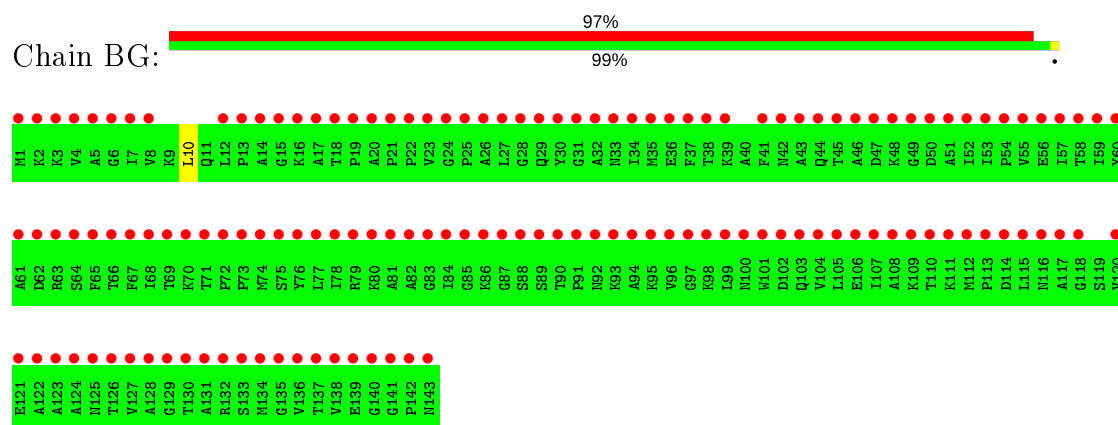
• Molecule 27: 50S ribosomal protein L6



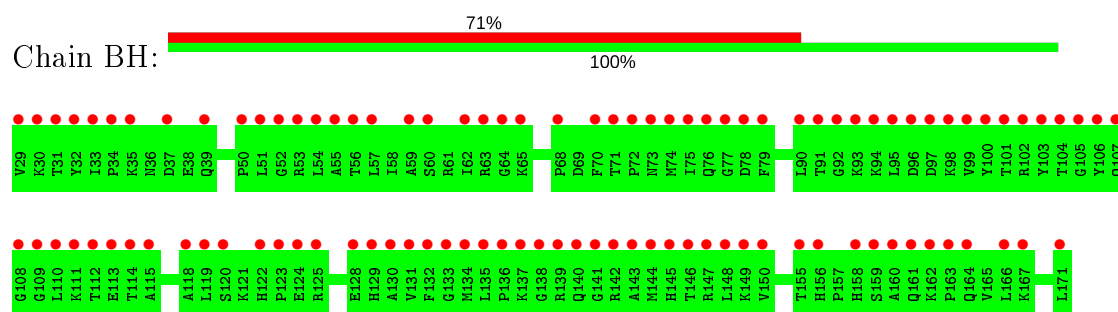
• Molecule 28: 50S ribosomal protein L9



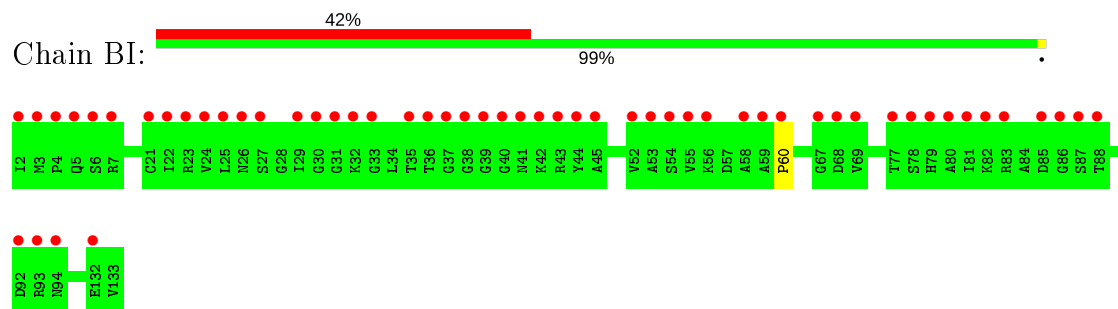
• Molecule 29: 50S ribosomal protein L11



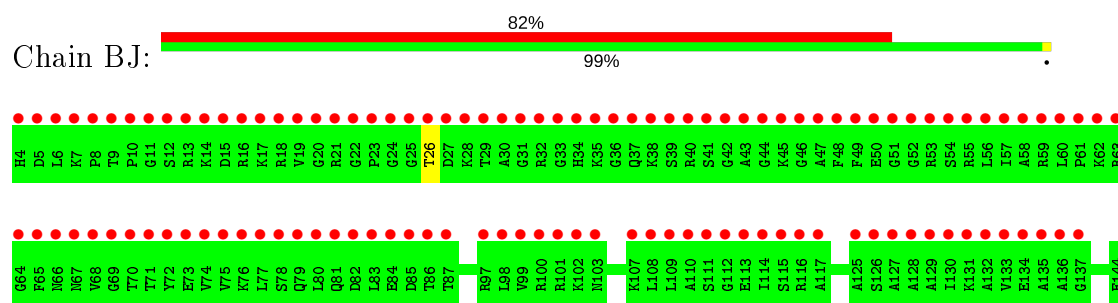
• Molecule 30: 50S ribosomal protein L13

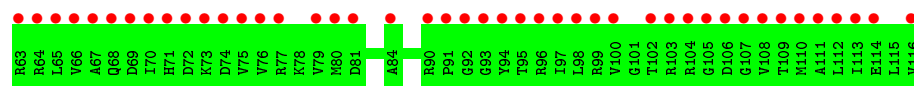


- Molecule 31: 50S ribosomal protein L14

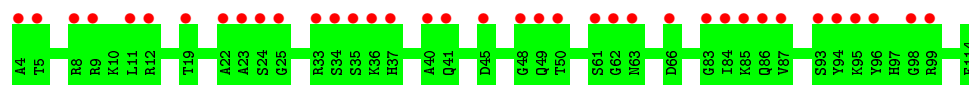


- Molecule 32: 50S ribosomal protein L15

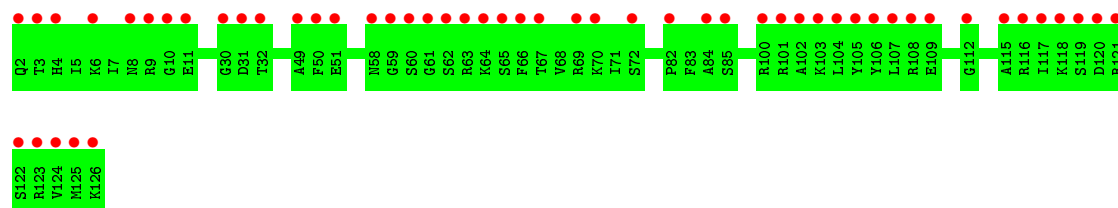
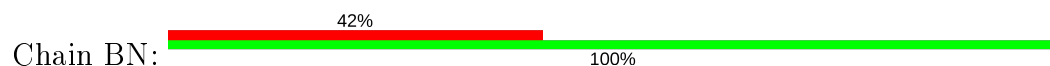




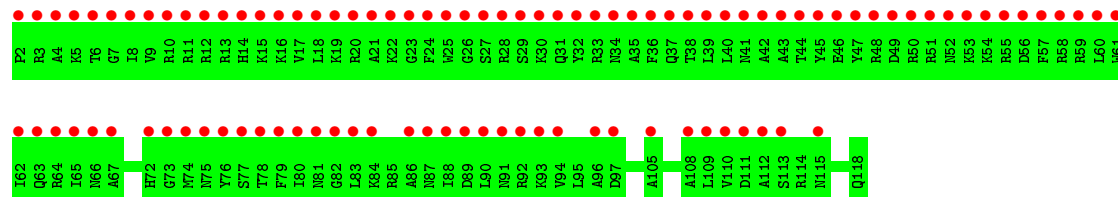
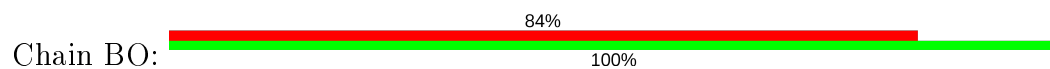
- Molecule 35: 50S ribosomal protein L18



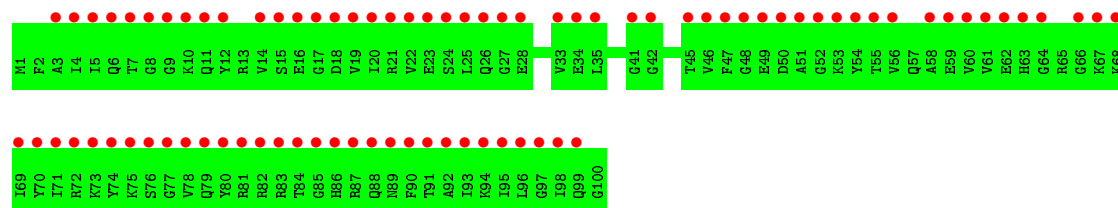
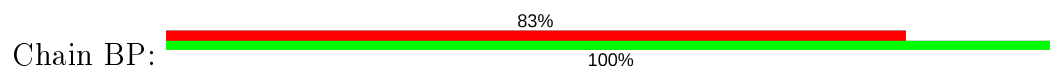
- Molecule 36: 50S ribosomal protein L19



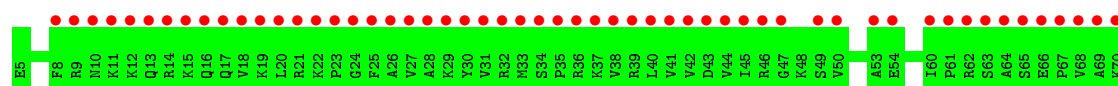
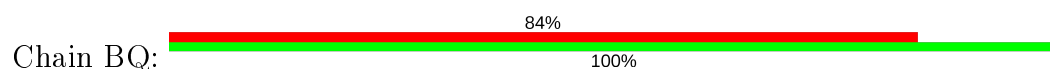
- Molecule 37: 50S ribosomal protein L20

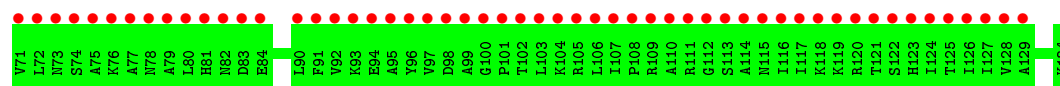


- Molecule 38: 50S ribosomal protein L21

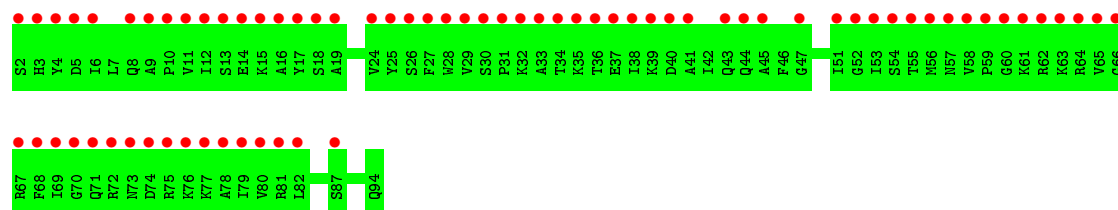
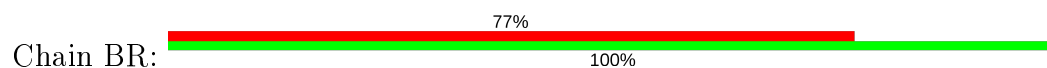


- Molecule 39: 50S ribosomal protein L22

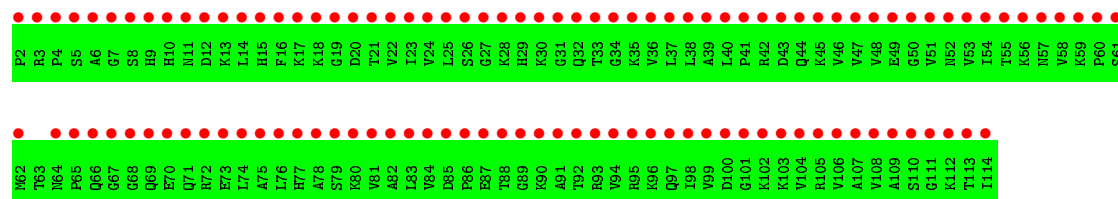




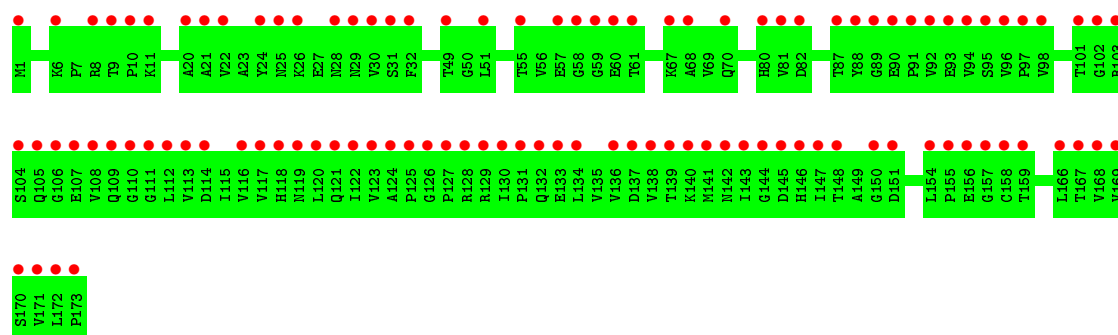
- Molecule 40: 50S ribosomal protein L23



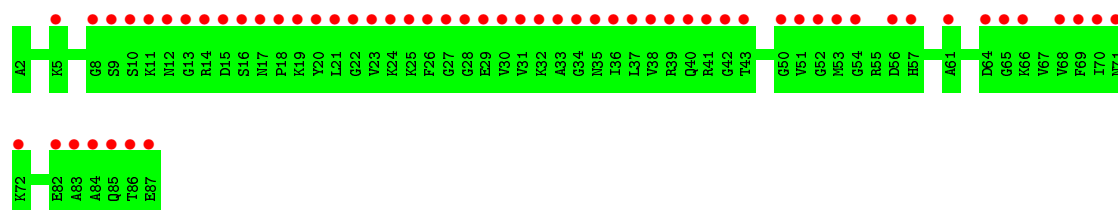
- Molecule 41: 50S ribosomal protein L24



- Molecule 42: general stress protein Ctc



- Molecule 43: 50S ribosomal protein L27




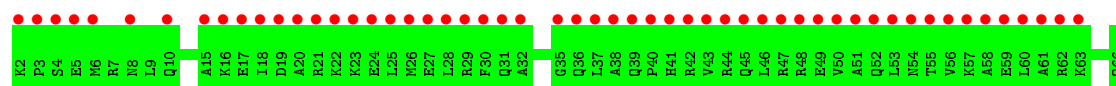
- Molecule 44: 50S RIBOSOMAL PROTEIN L28

Chain BV:  100%


There are no outlier residues recorded for this chain.

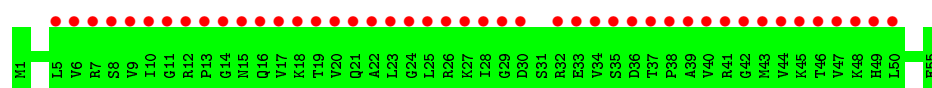
- Molecule 45: 50S ribosomal protein L29

Chain BW:  83%
100%



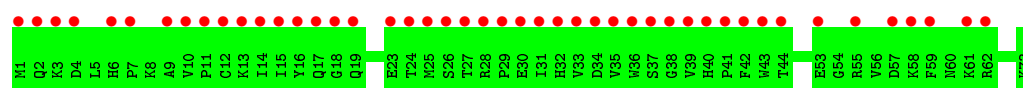
- Molecule 46: 50S ribosomal protein L30

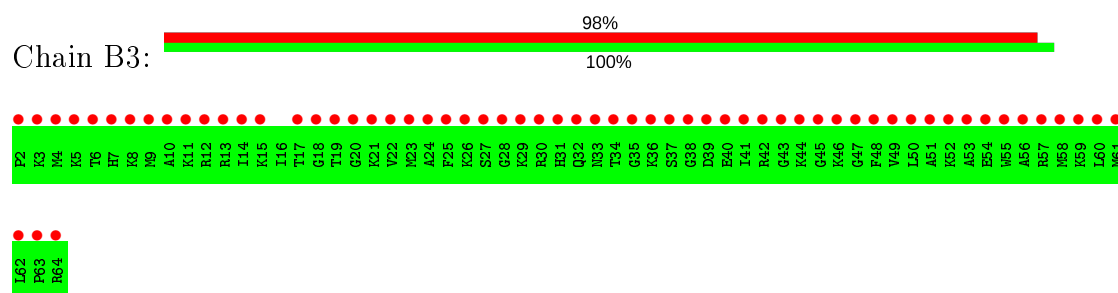
Chain BX:  82%
100%



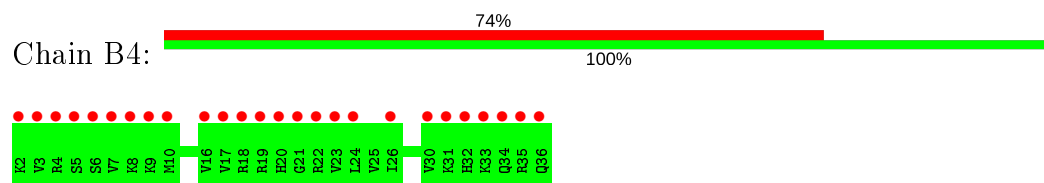
- Molecule 47: 50S ribosomal protein L31

Chain BY:  63%
100%

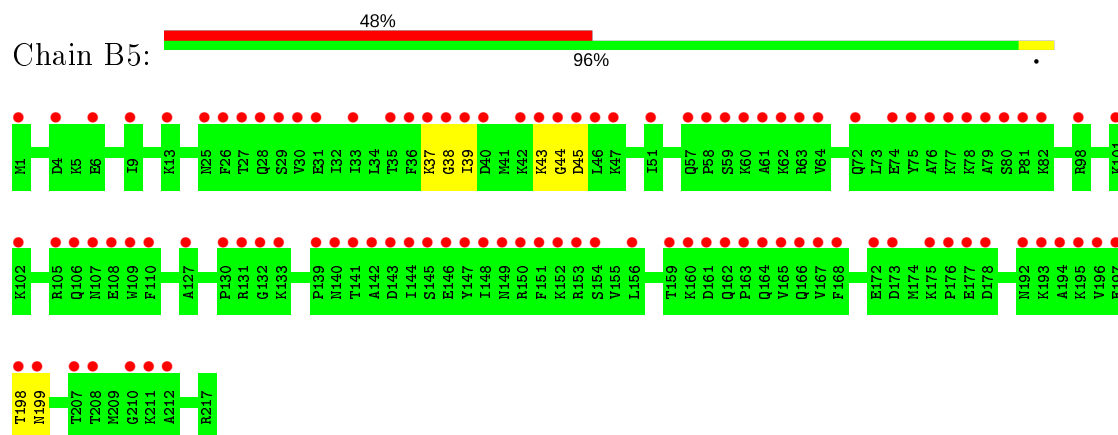




- Molecule 52: 50S ribosomal protein L36



- Molecule 53: 50S ribosomal protein L1P



4 Data and refinement statistics

Property	Value	Source
Space group	I 4 2 2	Depositor
Cell constants a, b, c, α , β , γ	683.89Å 683.89Å 386.72Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	70.00 – 9.50 241.79 – 9.50	Depositor EDS
% Data completeness (in resolution range)	92.1 (70.00-9.50) 87.2 (241.79-9.50)	Depositor EDS
R_{merge}	0.14	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	9.49 (at 9.99Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.389 , 0.407 0.369 , 0.385	Depositor DCC
R_{free} test set	1282 reflections (4.78%)	wwPDB-VP
Wilson B-factor (Å ²)	437.2	Xtriage
Anisotropy	0.460	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	1.31 , -10.0	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	118711	wwPDB-VP
Average B, all atoms (Å ²)	680.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 12.90% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	AA	1.68	75/36823 (0.2%)	1.26	270/57351 (0.5%)
2	AB	0.37	0/1935	0.68	1/2609 (0.0%)
3	AC	0.38	0/1636	0.66	0/2205
4	AD	0.37	0/1732	0.63	0/2318
5	AE	0.49	0/1162	0.79	0/1564
6	AF	0.33	0/855	0.62	0/1154
7	AG	0.34	0/1275	0.62	0/1709
8	AH	0.44	0/1135	0.74	0/1527
9	AI	0.36	0/1028	0.62	0/1378
10	AJ	0.36	0/807	0.71	0/1085
11	AK	0.39	0/899	0.70	0/1213
12	AL	0.43	0/985	0.73	0/1317
13	AM	0.36	0/1006	0.67	0/1344
14	AN	0.40	0/500	0.78	0/664
15	AO	0.36	0/744	0.63	1/992 (0.1%)
16	AP	0.43	0/716	0.76	0/963
17	AQ	0.44	0/869	0.75	0/1159
18	AR	0.36	0/602	0.63	0/799
19	AS	0.35	0/661	0.72	1/890 (0.1%)
20	AT	0.39	0/764	0.73	0/1006
21	B0	0.50	17/67885 (0.0%)	0.75	48/105852 (0.0%)
22	B9	0.68	1/2815 (0.0%)	0.76	3/4384 (0.1%)
All	All	0.99	93/126834 (0.1%)	0.93	324/193483 (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
1	AA	2	40
21	B0	0	5
All	All	2	45

All (93) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	59	A	O3'-P	-120.85	0.16	1.61
1	AA	1398	A	O3'-P	-86.38	0.57	1.61
1	AA	214	U	O3'-P	-73.42	0.73	1.61
1	AA	394	G	O3'-P	-71.42	0.75	1.61
1	AA	1505	G	O3'-P	-71.04	0.76	1.61
1	AA	1190	G	O3'-P	-65.50	0.82	1.61
1	AA	249	U	O3'-P	-57.73	0.91	1.61
1	AA	227	G	O3'-P	-51.89	0.98	1.61
1	AA	1331	G	O3'-P	48.56	2.19	1.61
1	AA	933	G	O3'-P	-48.37	1.03	1.61
1	AA	1155	G	O3'-P	44.40	2.14	1.61
21	B0	3107	G	O3'-P	44.23	2.14	1.61
1	AA	375	U	O3'-P	-43.87	1.08	1.61
1	AA	1034	G	O3'-P	43.47	2.13	1.61
1	AA	212	G	O3'-P	42.99	2.12	1.61
21	B0	3098	U	O3'-P	42.63	2.12	1.61
1	AA	118	U	O3'-P	41.73	2.11	1.61
1	AA	94	G	O3'-P	-40.94	1.12	1.61
21	B0	3106	U	O3'-P	-40.49	1.12	1.61
1	AA	765	G	O3'-P	40.04	2.09	1.61
21	B0	1856	U	O3'-P	37.56	2.06	1.61
1	AA	651	C	O3'-P	-37.05	1.16	1.61
1	AA	717	C	O3'-P	36.85	2.05	1.61
1	AA	1211	U	O3'-P	35.24	2.03	1.61
21	B0	3183	A	O3'-P	34.33	2.02	1.61
1	AA	288	A	O3'-P	-34.25	1.20	1.61
22	B9	73	C	O3'-P	33.99	2.02	1.61
1	AA	143	A	O3'-P	33.84	2.01	1.61
1	AA	74	G	O3'-P	-33.69	1.20	1.61
1	AA	274	A	O3'-P	-31.45	1.23	1.61
21	B0	3149	G	O3'-P	31.38	1.98	1.61
1	AA	89	G	O3'-P	31.37	1.98	1.61
1	AA	1110	A	O3'-P	-31.30	1.23	1.61
1	AA	351	G	O3'-P	30.52	1.97	1.61
1	AA	1409	C	O3'-P	-30.48	1.24	1.61
1	AA	576	G	O3'-P	-30.05	1.25	1.61
21	B0	3102	G	O3'-P	-28.84	1.26	1.61
1	AA	108	G	O3'-P	28.13	1.95	1.61
1	AA	1305	G	O3'-P	27.72	1.94	1.61
1	AA	914	A	O3'-P	27.55	1.94	1.61
1	AA	239	U	O3'-P	-26.48	1.29	1.61
1	AA	1238	A	O3'-P	25.23	1.91	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	206	C	O3'-P	25.07	1.91	1.61
1	AA	1337	G	O3'-P	24.68	1.90	1.61
1	AA	461	C	O3'-P	-24.66	1.31	1.61
21	B0	3188	U	O3'-P	24.57	1.90	1.61
1	AA	436	C	O3'-P	-24.35	1.31	1.61
1	AA	827	U	O3'-P	24.18	1.90	1.61
1	AA	561	U	O3'-P	-24.02	1.32	1.61
1	AA	38	G	O3'-P	23.63	1.89	1.61
1	AA	587	G	O3'-P	23.46	1.89	1.61
1	AA	1345	U	O3'-P	23.29	1.89	1.61
1	AA	733	A	O3'-P	22.74	1.88	1.61
1	AA	1455	G	O3'-P	-22.14	1.34	1.61
1	AA	1457	A	O3'-P	-22.12	1.34	1.61
1	AA	1335	C	O3'-P	-21.80	1.34	1.61
21	B0	3141	G	O3'-P	21.64	1.87	1.61
1	AA	1393	U	O3'-P	-21.48	1.35	1.61
21	B0	3101	G	O3'-P	20.96	1.86	1.61
1	AA	499	A	O3'-P	-20.48	1.36	1.61
1	AA	396	G	O3'-P	19.89	1.85	1.61
1	AA	115	G	O3'-P	19.70	1.84	1.61
21	B0	3190	G	O3'-P	18.30	1.83	1.61
1	AA	278	G	O3'-P	-18.25	1.39	1.61
1	AA	983	A	O3'-P	-17.55	1.40	1.61
1	AA	135	C	O3'-P	-17.50	1.40	1.61
1	AA	1383	C	O3'-P	-17.23	1.40	1.61
21	B0	3874	C	O3'-P	17.00	1.81	1.61
1	AA	869	G	O3'-P	16.03	1.80	1.61
21	B0	3186	C	O3'-P	-15.64	1.42	1.61
1	AA	1445	U	O3'-P	-15.43	1.42	1.61
1	AA	944	G	O3'-P	14.50	1.78	1.61
1	AA	470	U	O3'-P	-14.46	1.43	1.61
1	AA	315	A	O3'-P	14.28	1.78	1.61
1	AA	1224	G	O3'-P	-13.40	1.45	1.61
1	AA	387	U	O3'-P	-13.35	1.45	1.61
1	AA	1490	C	O3'-P	-12.70	1.46	1.61
1	AA	905	U	O3'-P	12.50	1.76	1.61
1	AA	884	U	O3'-P	-12.43	1.46	1.61
1	AA	960	U	O3'-P	11.95	1.75	1.61
1	AA	684	A	O3'-P	-11.45	1.47	1.61
1	AA	1033	G	O3'-P	10.70	1.74	1.61
21	B0	3866	A	O3'-P	10.65	1.74	1.61
1	AA	403	C	O3'-P	-8.95	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	109	A	O3'-P	8.36	1.71	1.61
1	AA	79	G	O3'-P	-8.03	1.51	1.61
1	AA	26	A	O3'-P	-7.84	1.51	1.61
1	AA	1183	A	O3'-P	-6.94	1.52	1.61
1	AA	556	C	O3'-P	-6.19	1.53	1.61
21	B0	1113	C	P-OP2	6.15	1.59	1.49
1	AA	754	C	O3'-P	-5.35	1.54	1.61
21	B0	1113	C	C3'-O3'	-5.34	1.34	1.42
21	B0	1112	U	C3'-O3'	-5.28	1.34	1.42

All (324) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	59	A	P-O3'-C3'	-58.31	49.73	119.70
21	B0	1856	U	O3'-P-O5'	-48.57	11.72	104.00
21	B0	3098	U	P-O3'-C3'	42.71	170.95	119.70
1	AA	1490	C	P-O3'-C3'	40.44	168.23	119.70
1	AA	651	C	P-O3'-C3'	-39.22	72.64	119.70
21	B0	3190	G	P-O3'-C3'	38.19	165.53	119.70
1	AA	933	G	P-O3'-C3'	-35.50	77.10	119.70
1	AA	1238	A	P-O3'-C3'	-35.04	77.65	119.70
1	AA	1383	C	P-O3'-C3'	-34.97	77.73	119.70
1	AA	436	C	P-O3'-C3'	-34.32	78.51	119.70
1	AA	351	G	O3'-P-O5'	33.23	167.14	104.00
1	AA	74	G	P-O3'-C3'	32.86	159.14	119.70
1	AA	185	A	OP2-P-O3'	-31.08	36.82	105.20
1	AA	59	A	OP2-P-O3'	-30.45	38.20	105.20
1	AA	403	C	P-O3'-C3'	-28.93	84.98	119.70
1	AA	274	A	O3'-P-O5'	-28.62	49.62	104.00
1	AA	143	A	P-O3'-C3'	-27.96	86.15	119.70
1	AA	1409	C	O3'-P-O5'	-27.46	51.83	104.00
1	AA	547	A	P-O3'-C3'	-27.30	86.94	119.70
1	AA	436	C	O3'-P-O5'	-27.04	52.62	104.00
1	AA	1183	A	P-O3'-C3'	-27.04	87.25	119.70
21	B0	3107	G	P-O3'-C3'	27.02	152.12	119.70
1	AA	1393	U	OP1-P-O3'	-26.70	46.47	105.20
21	B0	3098	U	OP1-P-O3'	25.26	160.77	105.20
21	B0	3190	G	OP2-P-O3'	-25.09	50.01	105.20
1	AA	351	G	P-O3'-C3'	24.61	149.23	119.70
1	AA	249	U	O3'-P-O5'	24.48	150.51	104.00
1	AA	1490	C	OP1-P-O3'	24.40	158.87	105.20
1	AA	1505	G	P-O3'-C3'	23.96	148.45	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	436	C	OP2-P-O3'	23.83	157.62	105.20
1	AA	1155	G	P-O3'-C3'	-22.99	92.11	119.70
1	AA	115	G	P-O3'-C3'	-22.94	92.17	119.70
21	B0	1072	U	O5'-P-OP1	-22.91	83.20	110.70
1	AA	651	C	O3'-P-O5'	22.36	146.47	104.00
1	AA	1383	C	O3'-P-O5'	21.74	145.31	104.00
1	AA	1335	C	P-O3'-C3'	21.63	145.65	119.70
1	AA	733	A	P-O3'-C3'	21.49	145.49	119.70
1	AA	1455	G	P-O3'-C3'	21.37	145.35	119.70
1	AA	94	G	P-O3'-C3'	21.22	145.17	119.70
1	AA	109	A	P-O3'-C3'	21.12	145.04	119.70
1	AA	1190	G	P-O3'-C3'	-21.07	94.42	119.70
21	B0	3874	C	P-O3'-C3'	-21.05	94.44	119.70
1	AA	651	C	OP1-P-O3'	-20.86	59.31	105.20
21	B0	1071	U	OP1-P-O3'	-20.80	59.45	105.20
21	B0	3190	G	OP1-P-O3'	20.75	150.84	105.20
1	AA	587	G	O3'-P-O5'	20.65	143.24	104.00
21	B0	3106	U	O3'-P-O5'	-20.47	65.10	104.00
1	AA	1238	A	O3'-P-O5'	20.25	142.47	104.00
21	B0	3106	U	P-O3'-C3'	20.00	143.70	119.70
1	AA	933	G	OP1-P-O3'	-19.91	61.39	105.20
1	AA	351	G	OP1-P-O3'	-19.71	61.83	105.20
1	AA	1490	C	OP2-P-O3'	-19.66	61.95	105.20
1	AA	202	G	P-O3'-C3'	-19.51	96.29	119.70
1	AA	1183	A	OP1-P-O3'	19.35	147.76	105.20
1	AA	375	U	P-O3'-C3'	19.30	142.87	119.70
1	AA	1211	U	P-O3'-C3'	-19.23	96.62	119.70
1	AA	59	A	OP1-P-O3'	19.09	147.19	105.20
1	AA	587	G	OP1-P-O3'	-19.02	63.36	105.20
1	AA	1393	U	P-O3'-C3'	-18.98	96.93	119.70
1	AA	905	U	P-O3'-C3'	18.97	142.46	119.70
1	AA	1383	C	OP1-P-O3'	-18.60	64.28	105.20
1	AA	461	C	P-O3'-C3'	18.46	141.86	119.70
22	B9	73	C	O3'-P-O5'	18.34	138.85	104.00
1	AA	1335	C	O3'-P-O5'	18.23	138.64	104.00
22	B9	73	C	P-O3'-C3'	-18.05	98.04	119.70
1	AA	249	U	OP2-P-O3'	-17.94	65.73	105.20
21	B0	3101	G	O3'-P-O5'	-17.88	70.03	104.00
1	AA	246	A	P-O3'-C3'	-17.62	98.56	119.70
1	AA	1182	G	OP2-P-O3'	17.61	143.94	105.20
21	B0	3101	G	OP2-P-O3'	17.52	143.74	105.20
1	AA	1224	G	O3'-P-O5'	17.38	137.03	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	278	G	P-O3'-C3'	-17.32	98.91	119.70
1	AA	143	A	O3'-P-O5'	-17.27	71.18	104.00
1	AA	212	G	OP2-P-O3'	-17.10	67.57	105.20
21	B0	3107	G	OP1-P-O3'	16.93	142.45	105.20
1	AA	754	C	P-O3'-C3'	-16.90	99.42	119.70
1	AA	1033	G	P-O3'-C3'	16.89	139.97	119.70
1	AA	214	U	O3'-P-O5'	-16.88	71.92	104.00
1	AA	1238	A	OP1-P-O3'	-16.82	68.20	105.20
21	B0	3107	G	O3'-P-O5'	-16.81	72.06	104.00
1	AA	288	A	O3'-P-O5'	-16.31	73.02	104.00
1	AA	1182	G	O3'-P-O5'	-16.26	73.11	104.00
1	AA	547	A	O3'-P-O5'	16.17	134.72	104.00
21	B0	3149	G	O3'-P-O5'	16.02	134.44	104.00
1	AA	185	A	O3'-P-O5'	15.72	133.86	104.00
1	AA	115	G	OP1-P-O3'	-15.68	70.69	105.20
1	AA	1190	G	O3'-P-O5'	15.63	133.69	104.00
21	B0	3098	U	OP2-P-O3'	-15.60	70.88	105.20
1	AA	214	U	P-O3'-C3'	15.59	138.41	119.70
1	AA	26	A	OP2-P-O3'	15.59	139.49	105.20
1	AA	288	A	OP1-P-O3'	15.43	139.15	105.20
1	AA	109	A	O3'-P-O5'	-15.40	74.75	104.00
21	B0	3866	A	P-O3'-C3'	15.31	138.07	119.70
1	AA	576	G	P-O3'-C3'	-15.18	101.48	119.70
21	B0	1072	U	O5'-P-OP2	-15.09	92.12	105.70
1	AA	1110	A	O3'-P-O5'	-15.07	75.37	104.00
1	AA	274	A	P-O3'-C3'	-15.06	101.63	119.70
1	AA	1505	G	O3'-P-O5'	-15.06	75.39	104.00
1	AA	754	C	O3'-P-O5'	14.90	132.32	104.00
1	AA	547	A	OP2-P-O3'	-14.82	72.59	105.20
1	AA	1183	A	OP2-P-O3'	-14.77	72.70	105.20
1	AA	315	A	OP2-P-O3'	14.69	137.51	105.20
1	AA	1331	G	P-O3'-C3'	14.66	137.30	119.70
1	AA	684	A	P-O3'-C3'	14.57	137.19	119.70
1	AA	26	A	O3'-P-O5'	-14.48	76.49	104.00
1	AA	1034	G	P-O3'-C3'	-14.48	102.33	119.70
1	AA	135	C	P-O3'-C3'	-14.39	102.43	119.70
1	AA	556	C	P-O3'-C3'	14.38	136.96	119.70
1	AA	74	G	OP2-P-O3'	-14.35	73.64	105.20
1	AA	403	C	OP1-P-O3'	-14.21	73.95	105.20
1	AA	893	C	O3'-P-O5'	-14.05	77.30	104.00
1	AA	1211	U	OP2-P-O3'	-14.02	74.35	105.20
1	AA	212	G	OP1-P-O3'	13.95	135.89	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1211	U	O3'-P-O5'	13.89	130.39	104.00
1	AA	960	U	OP1-P-O3'	13.86	135.70	105.20
1	AA	983	A	P-O3'-C3'	13.81	136.27	119.70
21	B0	1856	U	P-O3'-C3'	-13.44	103.57	119.70
1	AA	74	G	OP1-P-O3'	13.39	134.66	105.20
1	AA	1457	A	O3'-P-O5'	13.35	129.36	104.00
1	AA	1190	G	OP1-P-O3'	-13.34	75.85	105.20
21	B0	1071	U	OP2-P-O3'	-13.30	75.94	105.20
1	AA	717	C	O3'-P-O5'	-13.30	78.74	104.00
1	AA	79	G	P-O3'-C3'	-13.29	103.75	119.70
1	AA	387	U	OP1-P-O3'	13.17	134.18	105.20
1	AA	717	C	P-O3'-C3'	-13.14	103.93	119.70
1	AA	1224	G	OP2-P-O3'	-13.13	76.31	105.20
1	AA	556	C	OP2-P-O3'	-13.03	76.53	105.20
1	AA	288	A	P-O3'-C3'	13.00	135.30	119.70
1	AA	351	G	OP2-P-O3'	-13.00	76.60	105.20
21	B0	3098	U	O3'-P-O5'	-12.61	80.05	104.00
1	AA	403	C	OP2-P-O3'	12.54	132.79	105.20
1	AA	1110	A	OP2-P-O3'	12.54	132.78	105.20
21	B0	3866	A	OP1-P-O3'	12.52	132.75	105.20
1	AA	315	A	O3'-P-O5'	-12.40	80.44	104.00
1	AA	827	U	P-O3'-C3'	12.38	134.56	119.70
1	AA	375	U	OP1-P-O3'	12.37	132.41	105.20
1	AA	89	G	P-O3'-C3'	-12.23	105.02	119.70
1	AA	246	A	O3'-P-O5'	-12.20	80.83	104.00
1	AA	115	G	OP2-P-O3'	12.19	132.01	105.20
1	AA	1393	U	O3'-P-O5'	12.08	126.96	104.00
1	AA	227	G	P-O3'-C3'	-12.03	105.26	119.70
1	AA	1398	A	P-O3'-C3'	11.87	133.95	119.70
1	AA	396	G	P-O3'-C3'	11.87	133.94	119.70
1	AA	135	C	O3'-P-O5'	11.87	126.55	104.00
1	AA	89	G	O3'-P-O5'	11.82	126.45	104.00
1	AA	933	G	O3'-P-O5'	11.82	126.45	104.00
1	AA	1409	C	OP2-P-O3'	11.77	131.08	105.20
1	AA	202	G	OP2-P-O3'	11.72	130.97	105.20
1	AA	1345	U	O3'-P-O5'	11.71	126.26	104.00
1	AA	278	G	O3'-P-O5'	-11.62	81.92	104.00
1	AA	315	A	P-O3'-C3'	11.27	133.23	119.70
1	AA	274	A	OP2-P-O3'	11.24	129.92	105.20
1	AA	1155	G	OP1-P-O3'	-11.23	80.49	105.20
21	B0	3106	U	OP1-P-O3'	11.21	129.87	105.20
1	AA	94	G	OP2-P-O3'	-11.20	80.55	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	B0	3186	C	P-O3'-C3'	11.19	133.13	119.70
1	AA	436	C	OP1-P-O3'	-11.15	80.68	105.20
1	AA	143	A	OP1-P-O3'	11.11	129.64	105.20
1	AA	1224	G	P-O3'-C3'	-11.06	106.43	119.70
1	AA	246	A	OP2-P-O3'	11.06	129.53	105.20
1	AA	1305	G	O3'-P-O5'	-10.95	83.20	104.00
21	B0	3101	G	P-O3'-C3'	-10.85	106.68	119.70
1	AA	1033	G	OP2-P-O3'	-10.68	81.72	105.20
1	AA	1505	G	OP1-P-O3'	10.63	128.58	105.20
1	AA	905	U	OP1-P-O3'	10.55	128.41	105.20
1	AA	108	G	P-O3'-C3'	-10.55	107.04	119.70
1	AA	278	G	OP2-P-O3'	10.54	128.39	105.20
1	AA	394	G	P-O3'-C3'	10.51	132.31	119.70
1	AA	983	A	OP2-P-O3'	-10.48	82.13	105.20
1	AA	1455	G	O3'-P-O5'	-10.43	84.18	104.00
1	AA	202	G	O3'-P-O5'	-10.43	84.19	104.00
1	AA	983	A	OP1-P-O3'	10.43	128.14	105.20
21	B0	3102	G	P-O3'-C3'	-10.41	107.20	119.70
1	AA	94	G	OP1-P-O3'	10.38	128.03	105.20
1	AA	905	U	O3'-P-O5'	-10.23	84.56	104.00
21	B0	3149	G	OP2-P-O3'	-10.19	82.78	105.20
21	B0	3874	C	O3'-P-O5'	10.18	123.34	104.00
1	AA	1155	G	OP2-P-O3'	10.09	127.40	105.20
1	AA	684	A	OP1-P-O3'	10.08	127.37	105.20
1	AA	960	U	P-O3'-C3'	10.07	131.78	119.70
1	AA	1305	G	P-O3'-C3'	-9.97	107.73	119.70
1	AA	1498	U	C2'-C3'-O3'	9.96	131.40	109.50
21	B0	3866	A	O3'-P-O5'	-9.96	85.08	104.00
1	AA	914	A	OP2-P-O3'	9.95	127.08	105.20
1	AA	461	C	OP2-P-O3'	-9.83	83.58	105.20
1	AA	587	G	P-O3'-C3'	9.78	131.43	119.70
1	AA	243	A	C2'-C3'-O3'	9.45	130.29	109.50
1	AA	556	C	OP1-P-O3'	9.34	125.75	105.20
1	AA	499	A	O3'-P-O5'	-9.31	86.32	104.00
1	AA	79	G	O3'-P-O5'	9.26	121.59	104.00
1	AA	546	G	P-O3'-C3'	9.23	130.78	119.70
21	B0	3149	G	P-O3'-C3'	-9.23	108.62	119.70
1	AA	733	A	OP2-P-O3'	-9.20	84.95	105.20
1	AA	944	G	P-O3'-C3'	9.19	130.73	119.70
1	AA	559	A	C2'-C3'-O3'	9.17	129.68	109.50
1	AA	1337	G	OP1-P-O3'	9.16	125.36	105.20
21	B0	3183	A	O3'-P-O5'	9.14	121.37	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	181	G	C2'-C3'-O3'	9.13	129.58	109.50
1	AA	944	G	OP1-P-O3'	9.03	125.06	105.20
1	AA	869	G	P-O3'-C3'	9.01	130.51	119.70
1	AA	561	U	P-O3'-C3'	8.91	130.40	119.70
1	AA	79	G	OP1-P-O3'	-8.76	85.92	105.20
1	AA	561	U	O3'-P-O5'	8.75	120.62	104.00
1	AA	1393	U	OP2-P-O3'	8.69	124.32	105.20
1	AA	576	G	OP1-P-O3'	-8.64	86.18	105.20
1	AA	1299	A	N9-C1'-C2'	8.54	125.10	114.00
1	AA	214	U	OP1-P-O3'	8.52	123.95	105.20
1	AA	499	A	OP2-P-O3'	8.50	123.90	105.20
1	AA	26	A	P-O3'-C3'	-8.40	109.62	119.70
1	AA	1457	A	OP2-P-O3'	-8.27	87.00	105.20
1	AA	394	G	OP1-P-O3'	8.20	123.24	105.20
1	AA	239	U	OP2-P-O3'	8.17	123.18	105.20
1	AA	1345	U	P-O3'-C3'	8.16	129.49	119.70
1	AA	705	U	O3'-P-O5'	-8.13	88.56	104.00
1	AA	1305	G	OP2-P-O3'	8.11	123.04	105.20
1	AA	1528	U	C2'-C3'-O3'	8.04	127.18	109.50
1	AA	1110	A	P-O3'-C3'	-7.95	110.16	119.70
1	AA	366	C	C2'-C3'-O3'	7.84	126.76	109.50
21	B0	3135	A	O3'-P-O5'	-7.80	89.19	104.00
1	AA	933	G	OP2-P-O3'	7.71	122.17	105.20
1	AA	687	A	C2'-C3'-O3'	7.71	126.46	109.50
1	AA	1398	A	O3'-P-O5'	7.70	118.63	104.00
1	AA	197	A	N9-C1'-C2'	7.69	124.00	114.00
1	AA	575	G	C2'-C3'-O3'	7.68	126.39	109.50
22	B9	73	C	OP1-P-O3'	-7.67	88.33	105.20
1	AA	266	G	C2'-C3'-O3'	7.61	126.24	109.50
1	AA	1335	C	OP1-P-O3'	-7.58	88.52	105.20
1	AA	60	A	C2'-C3'-O3'	7.57	126.16	109.50
1	AA	461	C	OP1-P-O3'	7.56	121.84	105.20
1	AA	1455	G	OP1-P-O3'	7.52	121.75	105.20
1	AA	1490	C	O3'-P-O5'	-7.52	89.71	104.00
1	AA	546	G	O3'-P-O5'	7.48	118.21	104.00
1	AA	109	A	OP1-P-O3'	7.33	121.33	105.20
1	AA	375	U	O3'-P-O5'	-7.26	90.21	104.00
1	AA	792	A	C2'-C3'-O3'	7.21	125.37	109.50
1	AA	705	U	OP2-P-O3'	7.19	121.02	105.20
1	AA	960	U	OP2-P-O3'	-7.18	89.39	105.20
1	AA	387	U	O3'-P-O5'	-7.16	90.40	104.00
1	AA	1034	G	OP1-P-O3'	-7.05	89.69	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	B0	3186	C	OP2-P-O3'	-7.04	89.71	105.20
1	AA	884	U	O3'-P-O5'	-7.03	90.65	104.00
1	AA	1033	G	OP1-P-O3'	7.00	120.61	105.20
1	AA	115	G	N9-C1'-C2'	7.00	123.09	114.00
1	AA	561	U	OP1-P-O3'	-6.96	89.90	105.20
21	B0	3117	A	N9-C1'-C2'	6.92	122.99	114.00
21	B0	1113	C	C5'-C4'-C3'	-6.91	104.94	116.00
21	B0	3135	A	OP2-P-O3'	6.83	120.23	105.20
1	AA	397	A	P-O3'-C3'	6.72	127.76	119.70
1	AA	396	G	OP1-P-O3'	6.66	119.86	105.20
1	AA	1505	G	C2'-C3'-O3'	6.64	124.32	113.70
1	AA	733	A	OP1-P-O3'	6.60	119.73	105.20
1	AA	1067	A	C2'-C3'-O3'	6.58	124.23	113.70
1	AA	1502	A	N9-C1'-C2'	6.54	122.50	114.00
1	AA	135	C	OP1-P-O3'	-6.52	90.85	105.20
21	B0	3188	U	OP1-P-O3'	6.51	119.52	105.20
1	AA	115	G	C2'-C3'-O3'	6.49	124.08	113.70
1	AA	1033	G	O3'-P-O5'	6.47	116.30	104.00
21	B0	903	G	O3'-P-O5'	-6.45	91.75	104.00
1	AA	1345	U	OP1-P-O3'	-6.38	91.15	105.20
1	AA	372	C	C2'-C3'-O3'	6.35	123.86	113.70
1	AA	7	G	C2'-C3'-O3'	6.33	123.84	113.70
1	AA	944	G	O3'-P-O5'	-6.33	91.97	104.00
21	B0	3183	A	P-O3'-C3'	-6.31	112.13	119.70
1	AA	509	A	C2'-C3'-O3'	6.28	123.75	113.70
1	AA	108	G	OP1-P-O3'	6.25	118.96	105.20
1	AA	397	A	OP1-P-O3'	6.25	118.94	105.20
1	AA	684	A	OP2-P-O3'	-6.20	91.56	105.20
21	B0	3186	C	O3'-P-O5'	6.19	115.75	104.00
1	AA	1528	U	C4'-C3'-O3'	6.15	125.30	113.00
1	AA	827	U	OP1-P-O3'	6.12	118.66	105.20
1	AA	239	U	OP1-P-O3'	-6.11	91.76	105.20
1	AA	546	G	OP2-P-O3'	-6.09	91.80	105.20
1	AA	914	A	P-O3'-C3'	-6.04	112.45	119.70
19	AS	54	GLY	N-CA-C	-6.00	98.09	113.10
1	AA	893	C	OP2-P-O3'	5.86	118.09	105.20
1	AA	428	G	C2'-C3'-O3'	5.85	123.06	113.70
1	AA	387	U	OP2-P-O3'	-5.83	92.38	105.20
1	AA	869	G	OP2-P-O3'	-5.75	92.56	105.20
1	AA	63	C	C5'-C4'-C3'	-5.70	106.87	116.00
21	B0	1071	U	O3'-P-O5'	5.66	114.75	104.00
21	B0	3874	C	OP1-P-O3'	-5.66	92.75	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	266	G	C5'-C4'-C3'	-5.65	106.95	116.00
1	AA	1124	G	N9-C1'-C2'	5.65	121.34	114.00
1	AA	394	G	O3'-P-O5'	-5.62	93.33	104.00
21	B0	1112	U	C4'-C3'-O3'	-5.61	97.62	109.40
1	AA	733	A	O3'-P-O5'	5.60	114.64	104.00
1	AA	754	C	OP2-P-O3'	-5.58	92.93	105.20
1	AA	353	A	C5'-C4'-O4'	-5.56	102.43	109.10
1	AA	397	A	OP2-P-O3'	-5.55	92.98	105.20
1	AA	38	G	OP1-P-O3'	-5.55	93.00	105.20
1	AA	1380	U	C2'-C3'-O3'	5.54	122.56	113.70
1	AA	1445	U	OP2-P-O3'	5.51	117.31	105.20
1	AA	1065	U	C1'-O4'-C4'	-5.48	105.51	109.90
1	AA	375	U	OP2-P-O3'	-5.44	93.22	105.20
1	AA	717	C	OP1-P-O3'	5.44	117.17	105.20
1	AA	1034	G	O3'-P-O5'	5.43	114.32	104.00
15	AO	45	VAL	N-CA-C	-5.40	96.42	111.00
2	AB	187	LEU	N-CA-C	-5.38	96.46	111.00
1	AA	1085	U	N1-C1'-C2'	5.36	120.97	114.00
1	AA	1335	C	OP2-P-O3'	-5.36	93.42	105.20
1	AA	115	G	O3'-P-O5'	5.34	114.16	104.00
1	AA	1182	G	P-O3'-C3'	-5.30	113.34	119.70
1	AA	484	G	C2'-C3'-O3'	5.29	122.17	113.70
1	AA	389	A	C5'-C4'-C3'	5.28	124.44	116.00
1	AA	576	G	O3'-P-O5'	5.27	114.01	104.00
1	AA	227	G	OP1-P-O3'	-5.26	93.63	105.20
1	AA	89	G	OP1-P-O3'	-5.21	93.73	105.20
1	AA	717	C	OP2-P-O3'	5.21	116.66	105.20
1	AA	181	G	C4'-C3'-O3'	5.21	123.41	113.00
1	AA	1182	G	OP1-P-O3'	-5.20	93.77	105.20
1	AA	108	G	O4'-C1'-N9	5.18	112.35	108.20
1	AA	914	A	OP1-P-O3'	-5.17	93.83	105.20
1	AA	556	C	O3'-P-O5'	5.15	113.79	104.00
1	AA	499	A	P-O3'-C3'	-5.15	113.52	119.70
1	AA	686	U	C5'-C4'-C3'	-5.10	107.85	116.00
21	B0	1072	U	OP1-P-OP2	5.09	127.24	119.60
21	B0	3101	G	OP1-P-O3'	-5.09	94.00	105.20
1	AA	470	U	P-O3'-C3'	5.05	125.76	119.70
1	AA	993	G	N9-C1'-C2'	5.05	120.56	114.00
1	AA	239	U	P-O3'-C3'	-5.04	113.65	119.70
1	AA	976	G	C5'-C4'-O4'	5.02	115.13	109.10
1	AA	413	G	N9-C1'-C2'	5.00	120.51	114.00
1	AA	960	U	C2'-C3'-O3'	5.00	121.71	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	B0	3126	A	N9-C1'-C2'	5.00	120.51	114.00

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	AA	181	G	C3'
1	AA	1528	U	C3'

All (45) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1048	G	Sidechain
1	AA	1073	U	Sidechain
1	AA	1079	G	Sidechain
1	AA	1085	U	Sidechain
1	AA	1092	A	Sidechain
1	AA	1139	G	Sidechain
1	AA	12	U	Sidechain
1	AA	1281	U	Sidechain
1	AA	1289	A	Sidechain
1	AA	1293	G	Sidechain
1	AA	1299	A	Sidechain
1	AA	1301	U	Sidechain
1	AA	1305	G	Sidechain
1	AA	1340	A	Sidechain
1	AA	1360	A	Sidechain
1	AA	1506	U	Sidechain
1	AA	1525	G	Sidechain
1	AA	187	G	Sidechain
1	AA	191	G	Sidechain
1	AA	197	A	Sidechain
1	AA	231	G	Sidechain
1	AA	249	U	Sidechain
1	AA	250	A	Sidechain
1	AA	251	G	Sidechain
1	AA	254	G	Sidechain
1	AA	266	G	Sidechain
1	AA	274	A	Sidechain
1	AA	290	C	Sidechain
1	AA	297	G	Sidechain
1	AA	305	G	Sidechain
1	AA	380	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	413	G	Sidechain
1	AA	481	G	Sidechain
1	AA	573	A	Sidechain
1	AA	575	G	Sidechain
1	AA	603	U	Sidechain
1	AA	727	G	Sidechain
1	AA	879	C	Sidechain
1	AA	898	G	Sidechain
1	AA	982	U	Sidechain
21	B0	1071	U	Sidechain
21	B0	1099	A	Sidechain
21	B0	3117	A	Sidechain
21	B0	3168	G	Sidechain
21	B0	873	U	Sidechain

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32939	0	16652	3455	1
2	AB	1900	0	1951	209	0
3	AC	1612	0	1675	286	0
4	AD	1702	0	1767	217	2
5	AE	1146	0	1207	255	0
6	AF	842	0	855	75	2
7	AG	1256	0	1296	138	2
8	AH	1115	0	1177	126	0
9	AI	1010	0	1043	183	0
10	AJ	794	0	839	206	2
11	AK	884	0	904	81	0
12	AL	970	0	1056	151	0
13	AM	996	0	1068	184	0
14	AN	491	0	529	153	0
15	AO	733	0	770	57	0
16	AP	700	0	720	78	0
17	AQ	856	0	925	239	0
18	AR	596	0	668	77	0
19	AS	647	0	673	156	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
20	AT	762	0	853	286	0
21	B0	60636	0	30557	1717	1
22	B9	2519	0	1287	43	0
23	BA	270	0	0	0	0
24	BB	205	0	0	0	0
25	BC	197	0	0	0	0
26	BD	178	0	0	4	0
27	BE	177	0	0	0	0
28	BF	52	0	0	0	0
29	BG	143	0	0	1	0
30	BH	143	0	0	0	0
31	BI	132	0	0	2	0
32	BJ	141	0	0	1	0
33	BK	124	0	0	0	0
34	BL	114	0	0	1	0
35	BM	111	0	0	0	0
36	BN	125	0	0	0	0
37	BO	117	0	0	0	0
38	BP	100	0	0	0	0
39	BQ	130	0	0	0	0
40	BR	93	0	0	0	0
41	BS	113	0	0	0	0
42	BT	173	0	0	0	0
43	BU	86	0	0	0	0
44	BV	16	0	0	0	0
45	BW	65	0	0	0	0
46	BX	55	0	0	0	0
47	BY	73	0	0	0	0
48	BZ	58	0	0	0	0
49	B1	53	0	0	0	0
50	B2	46	0	0	0	0
51	B3	63	0	0	0	0
52	B4	35	0	0	0	0
53	B5	217	0	0	22	0
All	All	118711	0	68472	6990	5

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 37.

All (6990) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1278:U:H5''	1:AA:1279:A:P	1.31	1.68
1:AA:1458:G:C8	1:AA:1459:C:H2'	1.27	1.63
1:AA:191:G:C6	1:AA:192:U:C2	1.90	1.60
1:AA:1475:G:H5''	21:B0:1706:A:C4'	1.13	1.60
1:AA:1475:G:C5'	21:B0:1706:A:H4'	1.32	1.59
21:B0:1861:G:H5'	53:B5:199:ASN:CA	1.09	1.56
1:AA:1256:A:H5'	1:AA:1258:G:C1'	1.26	1.56
1:AA:130:A:C2	1:AA:264:U:N1	1.72	1.55
21:B0:3109:U:C5'	21:B0:3150:C:H5'	1.13	1.55
1:AA:922:G:C2	1:AA:1396:A:C6	1.93	1.55
4:AD:89:THR:N	5:AE:97:GLY:HA3	1.21	1.54
1:AA:130:A:N1	1:AA:264:U:C2	1.76	1.53
1:AA:1261:A:C4'	1:AA:1283:G:H4'	1.37	1.52
1:AA:1475:G:C5'	21:B0:1706:A:C4'	1.83	1.52
17:AQ:104:LYS:CE	21:B0:729:A:H62	1.23	1.52
1:AA:130:A:C2	1:AA:264:U:C2	1.92	1.51
21:B0:3197:U:H3	21:B0:2204:A:N6	1.09	1.51
1:AA:94:G:O3'	1:AA:96:C:P	1.12	1.50
1:AA:6:G:C4	5:AE:119:LEU:HD11	1.42	1.50
1:AA:130:A:C4	1:AA:264:U:O4'	1.66	1.47
1:AA:1394:A:C6	1:AA:1501:C:H4'	1.48	1.47
1:AA:319:G:N3	1:AA:1434:A:N3	1.62	1.47
1:AA:112:G:H21	1:AA:354:G:C5'	1.23	1.47
1:AA:375:U:O3'	1:AA:376:G:P	1.08	1.46
1:AA:702:A:N1	21:B0:1838:G:C2'	1.78	1.46
1:AA:112:G:N2	1:AA:354:G:H5'	1.21	1.45
1:AA:922:G:N2	1:AA:1396:A:C5	1.84	1.45
1:AA:189:A:N6	20:AT:89:ARG:HH21	1.05	1.44
1:AA:191:G:N1	1:AA:192:U:C2	1.85	1.43
1:AA:323:U:H5''	20:AT:23:ARG:N	1.34	1.42
1:AA:189:A:C6	20:AT:89:ARG:NH2	1.86	1.42
1:AA:130:A:C4	1:AA:264:U:C1'	2.02	1.42
4:AD:57:ARG:NH2	5:AE:107:ARG:HD3	1.15	1.41
1:AA:1394:A:C5	1:AA:1501:C:H4'	1.53	1.41
17:AQ:104:LYS:HE3	21:B0:729:A:N6	1.12	1.40
1:AA:187:G:C2	20:AT:105:SER:HB2	1.56	1.40
1:AA:293:G:H4'	1:AA:609:A:C2	1.53	1.39
21:B0:1861:G:C5'	53:B5:199:ASN:CA	1.96	1.39
1:AA:51:A:N1	1:AA:314:C:H1'	1.32	1.39
1:AA:293:G:H4'	1:AA:609:A:N1	1.38	1.39
21:B0:3876:A:H1'	53:B5:45:ASP:CA	1.52	1.39
1:AA:262:A:O2'	20:AT:75:ASN:ND2	1.56	1.39

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1856:U:O5'	21:B0:3865:A:C8	1.76	1.39
17:AQ:104:LYS:N	21:B0:726:G:H21	1.20	1.38
1:AA:235:C:H5'	17:AQ:70:ARG:CG	1.52	1.38
1:AA:189:A:N6	20:AT:104:LEU:HB3	1.37	1.37
21:B0:3110:G:P	21:B0:3149:G:H4'	1.63	1.37
1:AA:187:G:O4'	20:AT:85:MET:CE	1.72	1.37
1:AA:1484:C:H4'	21:B0:1943:A:C1'	1.55	1.36
1:AA:1505:G:C3'	1:AA:1506:U:P	2.14	1.36
1:AA:319:G:N2	1:AA:1434:A:H1'	1.37	1.36
1:AA:261:U:C5	20:AT:79:ARG:CZ	2.07	1.36
1:AA:760:G:O6	17:AQ:105:ALA:HB2	1.20	1.35
1:AA:191:G:C6	1:AA:192:U:N3	1.94	1.35
21:B0:1856:U:C4	21:B0:3865:A:C2	1.89	1.34
4:AD:88:VAL:HG22	5:AE:96:PRO:CB	1.57	1.34
1:AA:319:G:O2'	1:AA:1434:A:N1	1.58	1.34
21:B0:1098:G:H22	21:B0:1113:C:N4	1.25	1.33
21:B0:891:A:C1'	21:B0:892:A:C8	2.07	1.33
1:AA:113:G:N3	1:AA:353:A:O2'	1.58	1.33
21:B0:3110:G:OP1	21:B0:3148:G:H2'	1.21	1.33
1:AA:436:C:H2'	1:AA:437:U:O4'	1.16	1.32
1:AA:436:C:C4	1:AA:437:U:C4	2.17	1.32
1:AA:538:G:P	12:AL:115:LYS:HG3	1.68	1.32
1:AA:186:C:O4'	20:AT:81:LYS:HE2	1.21	1.32
1:AA:1261:A:C4'	1:AA:1283:G:C4'	2.05	1.31
1:AA:190:A:C2	20:AT:101:GLY:CA	2.13	1.31
1:AA:1190:G:OP1	3:AC:4:LYS:CA	1.77	1.31
1:AA:216:C:C4'	1:AA:468:A:N3	1.79	1.31
1:AA:1256:A:N6	1:AA:1278:U:O2	1.62	1.30
1:AA:191:G:C5	1:AA:192:U:C6	2.17	1.30
1:AA:702:A:N1	21:B0:1838:G:H2'	0.98	1.30
1:AA:6:G:O6	5:AE:94:ALA:HA	1.24	1.30
21:B0:3197:U:H1'	21:B0:2181:A:N7	1.46	1.30
1:AA:402:G:H4'	1:AA:620:C:N3	1.43	1.30
1:AA:1405:G:O4'	1:AA:1519:A:H4'	1.25	1.30
1:AA:403:C:O2'	1:AA:404:U:H5'	1.15	1.30
1:AA:1182:G:H5'	1:AA:1184:G:C5'	1.62	1.30
21:B0:3197:U:N3	21:B0:2204:A:N6	1.79	1.30
1:AA:1394:A:C6	1:AA:1501:C:C4'	2.13	1.29
1:AA:19:C:O2	1:AA:916:G:N2	1.62	1.29
1:AA:1405:G:H1'	1:AA:1519:A:O4'	1.25	1.29
4:AD:89:THR:CB	5:AE:97:GLY:O	1.79	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:891:A:O2'	21:B0:892:A:C5'	1.80	1.29
1:AA:1014:A:N3	1:AA:1219:U:O2'	1.65	1.29
1:AA:1256:A:C5'	1:AA:1258:G:C1'	2.10	1.29
1:AA:406:G:C4	1:AA:496:A:C6	2.21	1.29
1:AA:132:C:H5'	1:AA:262:A:C1'	1.62	1.29
1:AA:1255:G:H1'	1:AA:1259:C:C1'	1.63	1.28
1:AA:1297:C:OP1	13:AM:44:ARG:NH2	1.64	1.28
21:B0:1856:U:H3'	21:B0:3865:A:C8	1.67	1.28
1:AA:51:A:C2	1:AA:314:C:O2'	1.84	1.28
1:AA:130:A:C5	1:AA:264:U:H1'	1.68	1.28
1:AA:191:G:C2	1:AA:192:U:H1'	1.68	1.28
1:AA:406:G:C5	1:AA:496:A:C5	2.22	1.28
1:AA:189:A:N6	20:AT:104:LEU:CB	1.97	1.27
1:AA:190:A:N7	20:AT:105:SER:HA	1.46	1.27
1:AA:489:C:OP1	4:AD:132:ARG:NH2	1.66	1.27
1:AA:702:A:C2	21:B0:1838:G:C2'	2.11	1.27
1:AA:191:G:O6	1:AA:192:U:N3	1.63	1.27
1:AA:1044:A:H2'	1:AA:1045:C:O2'	1.16	1.26
21:B0:3108:G:H2'	21:B0:3109:U:C5	1.67	1.26
1:AA:760:G:N1	17:AQ:104:LYS:O	1.69	1.26
1:AA:436:C:C2	1:AA:437:U:C6	2.24	1.25
1:AA:132:C:C4'	1:AA:262:A:H1'	1.63	1.25
1:AA:130:A:C2	1:AA:264:U:C6	2.22	1.25
1:AA:760:G:O6	17:AQ:105:ALA:CB	1.85	1.25
1:AA:1277:C:O2'	1:AA:1279:A:C8	1.88	1.25
1:AA:112:G:C2	1:AA:354:G:H5'	1.70	1.25
1:AA:1278:U:C5'	1:AA:1279:A:P	2.22	1.25
1:AA:293:G:C4'	1:AA:609:A:N1	1.99	1.25
5:AE:79:GLU:OE1	8:AH:105:ARG:HD3	1.31	1.25
1:AA:319:G:N2	1:AA:1434:A:C1'	1.99	1.25
3:AC:59:ARG:O	10:AJ:92:THR:O	1.52	1.25
21:B0:891:A:H1'	21:B0:892:A:C8	1.51	1.25
1:AA:1255:G:C1'	1:AA:1259:C:H1'	1.66	1.25
21:B0:1098:G:N2	21:B0:1113:C:H42	1.33	1.25
1:AA:1416:G:H3'	1:AA:1417:G:P	1.76	1.24
1:AA:319:G:H21	1:AA:1434:A:C1'	1.46	1.24
1:AA:187:G:N3	20:AT:105:SER:HB2	1.50	1.24
1:AA:702:A:C6	21:B0:1838:G:H2'	1.70	1.24
13:AM:93:ARG:CG	21:B0:900(A):A:OP1	1.84	1.24
1:AA:1261:A:O4'	1:AA:1283:G:C4'	1.86	1.24
1:AA:476:U:H3'	1:AA:477:G:P	1.73	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1484:C:O2'	21:B0:1943:A:H4'	1.23	1.24
1:AA:476:U:C2	1:AA:477:G:O4'	1.91	1.24
1:AA:261:U:C4	20:AT:79:ARG:HD3	1.69	1.24
1:AA:1256:A:H5'	1:AA:1258:G:N9	1.52	1.24
1:AA:141:A:C2	1:AA:195:A:H2	1.56	1.24
1:AA:132:C:C5'	1:AA:262:A:H1'	1.68	1.24
13:AM:82:MET:CG	13:AM:93:ARG:HE	1.49	1.24
21:B0:1856:U:O4	21:B0:3865:A:C2	1.86	1.24
1:AA:922:G:C2	1:AA:1396:A:N1	2.06	1.23
1:AA:476:U:C4	1:AA:477:G:C8	2.26	1.23
1:AA:1224:G:O2'	1:AA:1225:A:OP1	1.53	1.23
1:AA:1261:A:O2'	1:AA:1283:G:H5''	1.33	1.23
1:AA:319:G:H2'	1:AA:1434:A:C2	1.73	1.23
1:AA:820:U:O2	1:AA:873:A:C8	1.89	1.23
1:AA:323:U:O3'	20:AT:22:ARG:HB3	1.36	1.23
1:AA:1416:G:C2'	1:AA:1417:G:H5'	1.68	1.23
1:AA:217:C:O2'	1:AA:470:U:H5'	1.38	1.23
4:AD:89:THR:N	5:AE:97:GLY:CA	2.01	1.23
21:B0:892:A:H1'	21:B0:911:A:C2	1.72	1.23
1:AA:1064:G:H1'	1:AA:1190:G:N2	1.52	1.23
1:AA:132:C:C4'	1:AA:262:A:C1'	2.17	1.23
1:AA:232:G:N3	1:AA:263:A:C2	2.06	1.23
4:AD:89:THR:HB	5:AE:97:GLY:O	1.06	1.23
1:AA:351:G:O3'	1:AA:352:C:P	1.97	1.23
1:AA:115:G:O2'	1:AA:116:A:OP2	1.57	1.23
1:AA:1457:A:C8	1:AA:1459:C:C2	2.27	1.23
1:AA:261:U:C4	20:AT:79:ARG:CD	2.22	1.23
1:AA:815:A:O2'	1:AA:1527:C:O4'	1.56	1.22
10:AJ:45:ARG:NH1	14:AN:36:PHE:CD2	2.03	1.22
1:AA:1014:A:C2	1:AA:1219:U:O2'	1.78	1.22
1:AA:216:C:H1'	1:AA:468:A:O2'	1.09	1.22
1:AA:1459:C:OP1	20:AT:31:SER:OG	1.55	1.22
1:AA:261:U:C5	20:AT:79:ARG:NE	2.06	1.22
1:AA:247:G:OP2	17:AQ:100:LYS:HE2	1.38	1.22
1:AA:89:G:O3'	1:AA:90:C:P	1.98	1.22
1:AA:130:A:C8	17:AQ:63:ARG:HG3	1.75	1.21
1:AA:1458:G:C8	1:AA:1459:C:C2'	2.22	1.21
21:B0:3110:G:OP2	21:B0:3149:G:H4'	1.04	1.21
21:B0:3149:G:O3'	21:B0:3150:C:P	1.98	1.21
1:AA:1405:G:H1'	1:AA:1519:A:C4'	1.70	1.21
1:AA:190:A:C2	20:AT:101:GLY:HA3	1.73	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1277:C:H1'	1:AA:1279:A:C8	1.74	1.20
1:AA:191:G:N3	1:AA:192:U:H1'	1.56	1.20
1:AA:44:G:OP2	16:AP:12:LYS:HB2	1.07	1.20
1:AA:1459:C:H5''	20:AT:28:ALA:CB	1.72	1.20
4:AD:89:THR:H	5:AE:97:GLY:CA	1.51	1.20
4:AD:57:ARG:NH2	5:AE:107:ARG:CD	2.05	1.20
1:AA:6:G:C4	5:AE:119:LEU:CD1	2.25	1.19
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.22	1.19
21:B0:3110:G:P	21:B0:3149:G:C4'	2.29	1.19
1:AA:1256:A:H4'	1:AA:1258:G:C8	1.76	1.19
1:AA:130:A:O4'	1:AA:264:U:C4'	1.90	1.19
1:AA:935:A:H1'	1:AA:1384:C:N3	1.56	1.19
1:AA:261:U:O4	20:AT:79:ARG:CD	1.91	1.19
1:AA:132:C:C5'	1:AA:262:A:C1'	2.21	1.19
1:AA:20:U:O2	1:AA:915:A:N6	1.75	1.18
22:B9:73:C:O3'	22:B9:74:A:P	2.01	1.18
1:AA:1256:A:C5'	1:AA:1258:G:H1'	1.67	1.18
1:AA:143:A:O3'	1:AA:144:G:P	2.01	1.18
1:AA:923:A:O4'	1:AA:1398:A:C2	1.94	1.18
17:AQ:104:LYS:HE2	21:B0:727:U:O2	1.39	1.18
1:AA:1342:C:O3'	9:AI:125:TYR:OH	1.60	1.18
17:AQ:104:LYS:N	21:B0:726:G:N2	1.88	1.18
1:AA:1497:G:N2	1:AA:1519:A:N3	1.89	1.18
1:AA:1261:A:H4'	1:AA:1283:G:C3'	1.73	1.18
1:AA:1261:A:H4'	1:AA:1283:G:C4'	1.67	1.18
1:AA:130:A:O4'	1:AA:264:U:H4'	1.42	1.18
21:B0:3183:A:O3'	21:B0:3184:C:P	2.02	1.18
1:AA:760:G:C6	17:AQ:105:ALA:HB2	1.78	1.18
1:AA:570:G:O2'	1:AA:819:A:H2'	1.44	1.18
1:AA:922:G:N2	1:AA:1396:A:C6	2.05	1.17
1:AA:112:G:N2	1:AA:354:G:C5'	1.90	1.17
1:AA:1211:U:O3'	1:AA:1212:U:P	2.03	1.17
1:AA:1231:G:OP1	9:AI:127:LYS:NZ	1.78	1.17
1:AA:1475:G:C4'	21:B0:1706:A:H4'	1.74	1.17
1:AA:1347:G:C5	9:AI:107:ARG:NH1	2.10	1.17
21:B0:1098:G:N2	21:B0:1113:C:N4	1.89	1.17
1:AA:815:A:C2	1:AA:1528:U:O4'	1.97	1.17
1:AA:69:G:H5'	1:AA:152:A:C2	1.78	1.17
1:AA:261:U:O4	20:AT:79:ARG:HD2	1.41	1.17
1:AA:232:G:N3	1:AA:263:A:H2	1.37	1.17
1:AA:323:U:O3'	20:AT:22:ARG:CB	1.92	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:103:C:O2'	1:AA:171:A:N1	1.73	1.16
1:AA:319:G:C2	1:AA:1434:A:N3	2.12	1.16
1:AA:835:U:H5''	18:AR:64:ARG:NH2	1.58	1.16
1:AA:1495:U:O2'	21:B0:1902:A:N3	1.78	1.16
1:AA:436:C:C2'	1:AA:437:U:O4'	1.94	1.16
3:AC:29:TYR:CE1	10:AJ:65:LEU:HD11	1.79	1.16
1:AA:131:C:O2	1:AA:262:A:H2	1.25	1.16
21:B0:910:U:O2'	21:B0:911:A:H5'	1.42	1.16
10:AJ:62:HIS:CB	14:AN:59:ALA:HB3	1.76	1.16
1:AA:1505:G:H4'	1:AA:1506:U:H5''	1.26	1.15
1:AA:191:G:N1	1:AA:192:U:O2	1.78	1.15
1:AA:367:U:C2	1:AA:369:C:C5	2.34	1.15
21:B0:1856:U:H3	21:B0:3877:A:N6	1.44	1.15
1:AA:191:G:N3	1:AA:192:U:C1'	2.08	1.15
1:AA:19:C:N3	1:AA:916:G:N1	1.94	1.15
1:AA:1405:G:C1'	1:AA:1519:A:C4'	2.25	1.15
1:AA:1329:A:H5''	13:AM:26:GLY:H	1.09	1.15
1:AA:1505:G:O3'	1:AA:1506:U:P	0.75	1.15
1:AA:235:C:C5'	17:AQ:70:ARG:HG2	1.75	1.15
1:AA:141:A:C4'	1:AA:182:U:H1'	1.75	1.15
1:AA:1459:C:C5'	20:AT:28:ALA:HB1	1.76	1.15
1:AA:717:C:O3'	1:AA:718:G:P	2.05	1.15
1:AA:1459:C:H5''	20:AT:28:ALA:CA	1.77	1.15
1:AA:274:A:N3	1:AA:275:G:H1'	1.61	1.15
1:AA:1256:A:N3	1:AA:1258:G:C6	2.15	1.14
1:AA:375:U:HO3'	1:AA:376:G:P	1.15	1.14
1:AA:1298:C:C5	7:AG:114:ARG:HD3	1.82	1.14
1:AA:406:G:C6	1:AA:496:A:N7	2.15	1.14
21:B0:3876:A:C1'	53:B5:45:ASP:CA	2.25	1.14
1:AA:7:G:H5'	1:AA:298:A:H5'	1.25	1.14
1:AA:1458:G:H8	1:AA:1459:C:C2'	1.57	1.14
1:AA:44:G:OP2	16:AP:12:LYS:CB	1.95	1.14
13:AM:88:ARG:HD2	19:AS:3:ARG:HH21	1.03	1.14
1:AA:960:U:H1'	1:AA:1222:G:O2'	1.44	1.14
1:AA:452:A:OP1	16:AP:43:LYS:NZ	1.77	1.14
1:AA:1277:C:O2'	1:AA:1279:A:N9	1.79	1.14
1:AA:922:G:N1	1:AA:1396:A:N6	1.96	1.14
1:AA:1405:G:C1'	1:AA:1519:A:H4'	1.78	1.14
1:AA:293:G:P	1:AA:609:A:H61	1.71	1.13
1:AA:237:C:OP1	17:AQ:40:LYS:CD	1.95	1.13
1:AA:1347:G:C4	9:AI:107:ARG:NH1	2.16	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:320:C:O4'	1:AA:1434:A:C2	2.00	1.13
1:AA:1261:A:H4'	1:AA:1283:G:O3'	1.45	1.13
1:AA:142:G:H21	1:AA:196:A:H1'	1.06	1.13
1:AA:319:G:C2'	1:AA:1434:A:C2	2.31	1.13
21:B0:1861:G:OP2	53:B5:38:GLY:CA	1.97	1.13
1:AA:1234:C:H5'	1:AA:1365:G:OP1	1.49	1.13
1:AA:319:G:N3	1:AA:1434:A:C2	2.17	1.13
1:AA:293:G:O5'	1:AA:609:A:N6	1.81	1.13
1:AA:323:U:C5'	20:AT:23:ARG:N	2.12	1.13
1:AA:436:C:C4	1:AA:437:U:C5	2.37	1.13
17:AQ:104:LYS:CE	21:B0:727:U:O2	1.97	1.13
21:B0:1861:G:OP1	53:B5:37:LYS:CA	1.96	1.13
1:AA:421:U:C6	3:AC:127:ARG:NH2	1.99	1.13
13:AM:93:ARG:HG2	21:B0:900(A):A:OP1	0.96	1.13
21:B0:891:A:C2'	21:B0:892:A:C8	2.30	1.13
1:AA:130:A:O4'	1:AA:264:U:C5'	1.97	1.12
21:B0:891:A:O2'	21:B0:892:A:H5'	0.96	1.12
12:AL:19:ARG:C	12:AL:20:LYS:N	2.01	1.12
13:AM:86:CYS:HG	13:AM:87:TYR:N	1.45	1.12
21:B0:1067:G:H5'	21:B0:1068:A:H5'	1.26	1.12
1:AA:1261:A:O4'	1:AA:1283:G:H4'	0.95	1.12
1:AA:323:U:OP1	20:AT:23:ARG:HA	1.49	1.12
21:B0:1066:G:N2	21:B0:1115:C:N3	1.96	1.12
17:AQ:104:LYS:CG	21:B0:727:U:H1'	1.79	1.12
1:AA:130:A:N9	1:AA:264:U:O4'	1.82	1.12
1:AA:922:G:N2	1:AA:1396:A:C4	2.16	1.12
1:AA:1398:A:H61	5:AE:21:ALA:HA	0.97	1.12
1:AA:191:G:O6	1:AA:192:U:C4	2.02	1.12
1:AA:755:G:H1'	8:AH:1:MET:HE3	1.24	1.12
1:AA:406:G:C8	1:AA:496:A:C2	2.37	1.12
1:AA:571:U:H5''	1:AA:819:A:C2	1.85	1.12
1:AA:1298:C:N4	7:AG:114:ARG:HB3	1.65	1.12
1:AA:1483:A:C3'	1:AA:1484:C:OP2	1.97	1.12
1:AA:189:A:C5	20:AT:89:ARG:NH2	2.16	1.11
21:B0:3128:G:O2'	21:B0:3174:C:H5'	1.47	1.11
1:AA:922:G:N3	1:AA:1396:A:N1	1.98	1.11
1:AA:375:U:C3'	1:AA:376:G:P	2.36	1.11
21:B0:1098:G:N2	21:B0:1113:C:N3	1.97	1.11
1:AA:761:G:H5''	17:AQ:102:GLY:HA3	1.33	1.11
4:AD:88:VAL:HG22	5:AE:96:PRO:HB3	1.20	1.11
1:AA:216:C:O2'	1:AA:468:A:H2'	1.48	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:3109:U:H5'	21:B0:3150:C:H5'	1.15	1.11
1:AA:143:A:C3'	1:AA:144:G:P	2.38	1.11
1:AA:1261:A:O2'	1:AA:1283:G:C5'	1.99	1.11
1:AA:1419:G:H4'	21:B0:1932:G:O2'	1.50	1.11
1:AA:1256:A:N3	1:AA:1258:G:N1	1.97	1.10
1:AA:142:G:H1'	1:AA:195:A:N1	1.66	1.10
1:AA:223:U:H5'	20:AT:68:LYS:HZ1	1.02	1.10
1:AA:1329:A:H5'	13:AM:29:ARG:HG3	1.15	1.10
1:AA:1503:A:OP1	1:AA:1531:A:O2'	1.69	1.10
1:AA:186:C:O4'	20:AT:81:LYS:CE	1.98	1.10
1:AA:1113:C:H1'	3:AC:178:LEU:HD21	1.33	1.10
5:AE:152:ARG:NH2	8:AH:107:LEU:O	1.82	1.10
1:AA:1500:A:OP1	1:AA:1508:G:OP1	1.67	1.10
1:AA:1318:A:H4'	19:AS:10:PHE:CE1	1.85	1.10
1:AA:132:C:H4'	1:AA:262:A:O4'	1.50	1.10
1:AA:1416:G:C3'	1:AA:1417:G:H5'	1.81	1.10
1:AA:390:C:O3'	16:AP:28:ARG:NH2	1.83	1.10
1:AA:1475:G:OP1	21:B0:1706:A:H1'	1.49	1.10
21:B0:3110:G:OP2	21:B0:3149:G:C4'	1.98	1.10
1:AA:502:G:H1'	1:AA:550:G:H5'	1.32	1.10
1:AA:765:G:O3'	1:AA:766:A:P	2.09	1.10
1:AA:1318:A:H4'	19:AS:10:PHE:CD1	1.86	1.10
1:AA:323:U:P	20:AT:23:ARG:HA	1.92	1.10
1:AA:1484:C:C4'	21:B0:1943:A:H1'	1.82	1.10
1:AA:1092:A:H5''	7:AG:4:ARG:NH2	1.67	1.09
10:AJ:51:ARG:HB2	10:AJ:59:SER:HB3	1.34	1.09
1:AA:191:G:C5	1:AA:192:U:N1	2.20	1.09
1:AA:216:C:H4'	1:AA:468:A:C4	1.87	1.09
21:B0:940:G:H3'	21:B0:941:U:H5''	1.19	1.09
12:AL:41:ARG:HG2	12:AL:42:THR:H	1.03	1.09
1:AA:1014:A:P	19:AS:14:HIS:HB3	1.91	1.09
1:AA:1416:G:H2'	1:AA:1417:G:H5'	1.25	1.09
1:AA:130:A:N1	1:AA:264:U:O2	1.82	1.09
1:AA:355:C:C1'	1:AA:388:G:O2'	2.00	1.09
1:AA:1112:C:N3	3:AC:178:LEU:N	1.99	1.09
1:AA:1483:A:C5	1:AA:1484:C:C5	2.41	1.09
1:AA:118:U:O3'	1:AA:119:A:P	2.11	1.09
1:AA:130:A:N3	1:AA:264:U:N1	2.00	1.09
1:AA:130:A:N3	1:AA:264:U:C1'	2.16	1.09
21:B0:1856:U:O4	21:B0:3865:A:N1	1.79	1.09
1:AA:835:U:OP1	18:AR:64:ARG:NH2	1.85	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:8:GLY:HA2	9:AI:79:LEU:HD12	1.32	1.08
21:B0:1856:U:O5'	21:B0:3865:A:N7	1.85	1.08
1:AA:1346:A:H2'	7:AG:10:ARG:HH22	1.09	1.08
1:AA:1256:A:O4'	1:AA:1258:G:C5	2.05	1.08
1:AA:928:G:O3'	1:AA:1533:C:N4	1.85	1.08
21:B0:1098:G:N2	21:B0:1113:C:C4	2.21	1.08
1:AA:191:G:C4	1:AA:192:U:C1'	2.36	1.08
1:AA:323:U:C5'	20:AT:23:ARG:CA	2.32	1.08
4:AD:150:GLU:HG3	4:AD:153:ARG:HH21	1.19	1.08
4:AD:88:VAL:HA	5:AE:96:PRO:C	1.74	1.08
1:AA:322:C:O2'	20:AT:23:ARG:HB2	1.53	1.08
1:AA:1398:A:H61	5:AE:21:ALA:CA	1.67	1.08
1:AA:261:U:OP2	20:AT:79:ARG:NH2	1.86	1.08
1:AA:130:A:C1'	1:AA:264:U:H5'	1.83	1.07
1:AA:6:G:N9	5:AE:119:LEU:CD1	2.17	1.07
21:B0:225:G:H3'	21:B0:226:C:H5'	1.30	1.07
1:AA:44:G:P	16:AP:12:LYS:HB2	1.93	1.07
1:AA:94:G:C3'	1:AA:96:C:P	2.41	1.07
1:AA:1256:A:C5'	1:AA:1258:G:N9	2.17	1.07
1:AA:212:G:O3'	1:AA:213:G:P	2.12	1.07
1:AA:403:C:O2'	1:AA:404:U:C5'	2.02	1.07
1:AA:599:C:H4'	8:AH:130:GLY:C	1.75	1.07
21:B0:3098:U:O3'	21:B0:3099:U:P	2.12	1.07
1:AA:132:C:O4'	1:AA:262:A:H1'	1.53	1.07
4:AD:36:ARG:H	4:AD:37:PRO:HD3	1.19	1.07
21:B0:1856:U:O2'	21:B0:3865:A:H5'	1.28	1.07
1:AA:142:G:H4'	1:AA:195:A:N6	1.68	1.07
1:AA:1367:C:OP1	9:AI:115:GLY:N	1.86	1.07
17:AQ:104:LYS:HG2	21:B0:726:G:C2	1.89	1.07
1:AA:1211:U:H5'	1:AA:1212:U:P	1.94	1.07
1:AA:142:G:C1'	1:AA:195:A:N1	2.18	1.07
1:AA:131:C:O2	1:AA:262:A:C2	2.07	1.06
17:AQ:101:ARG:NH1	21:B0:731:A:H2	1.52	1.06
1:AA:1034:G:O3'	1:AA:1035:A:P	2.13	1.06
1:AA:1181:G:H4'	1:AA:1184:G:O4'	1.55	1.06
1:AA:223:U:H5'	20:AT:68:LYS:NZ	1.70	1.06
1:AA:1495:U:O2'	21:B0:1902:A:C2	2.06	1.06
1:AA:51:A:N1	1:AA:314:C:C1'	2.18	1.06
1:AA:1475:G:H4'	21:B0:1706:A:C5'	1.86	1.06
1:AA:394:G:H2'	1:AA:395:C:H6	1.21	1.06
21:B0:1856:U:H5''	21:B0:3865:A:OP1	1.53	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:104:LYS:HG3	21:B0:727:U:C2	1.90	1.06
1:AA:133:U:H5'	20:AT:74:LYS:NZ	1.71	1.06
1:AA:1016:A:C5'	14:AN:15:LYS:HE3	1.83	1.06
1:AA:1155:G:O3'	1:AA:1156:G:P	2.14	1.06
1:AA:130:A:N3	1:AA:264:U:C6	2.23	1.06
1:AA:130:A:N3	1:AA:264:U:O4'	1.87	1.06
1:AA:189:A:N6	20:AT:89:ARG:NH2	1.87	1.06
1:AA:132:C:H5'	1:AA:262:A:C2'	1.86	1.06
1:AA:1459:C:OP1	20:AT:28:ALA:O	1.74	1.05
1:AA:1269:A:C2	1:AA:1313:U:O4'	2.10	1.05
1:AA:755:G:H1'	8:AH:1:MET:CE	1.85	1.05
1:AA:1459:C:C5'	20:AT:28:ALA:CB	2.34	1.05
21:B0:1856:U:O2'	21:B0:3865:A:C5'	2.04	1.05
1:AA:502:G:H4'	1:AA:550:G:H4'	1.35	1.05
1:AA:421:U:C2	3:AC:127:ARG:NH2	2.11	1.05
1:AA:323:U:H5''	20:AT:23:ARG:CA	1.85	1.05
1:AA:216:C:C1'	1:AA:468:A:O2'	2.05	1.05
21:B0:3107:G:O3'	21:B0:3108:G:P	2.14	1.05
1:AA:322:C:H4'	20:AT:23:ARG:CD	1.86	1.05
1:AA:994:A:O2'	14:AN:8:GLU:HA	1.55	1.05
13:AM:82:MET:HG2	13:AM:93:ARG:HE	1.19	1.05
1:AA:1255:G:H21	1:AA:1276:G:N2	1.54	1.05
1:AA:1489:G:H2'	1:AA:1490:C:H5''	1.37	1.05
1:AA:142:G:C4'	1:AA:195:A:H61	1.68	1.05
1:AA:189:A:H8	20:AT:105:SER:OG	0.91	1.05
1:AA:322:C:H4'	20:AT:23:ARG:HD2	1.33	1.05
1:AA:559:A:OP2	5:AE:126:ARG:NH2	1.90	1.05
1:AA:8:A:H1'	5:AE:103:GLY:HA2	1.35	1.05
1:AA:571:U:H5'	1:AA:819:A:C4	1.91	1.05
1:AA:94:G:HO3'	1:AA:96:C:P	1.19	1.05
21:B0:910:U:H2'	21:B0:911:A:P	1.95	1.05
1:AA:1255:G:N2	1:AA:1276:G:N2	2.04	1.04
1:AA:355:C:H1'	1:AA:388:G:O2'	1.55	1.04
1:AA:189:A:C6	20:AT:104:LEU:HB3	1.92	1.04
1:AA:187:G:C4'	20:AT:85:MET:HE1	1.86	1.04
1:AA:1261:A:C2'	1:AA:1283:G:H5''	1.87	1.04
10:AJ:62:HIS:HB2	14:AN:59:ALA:HB3	1.37	1.04
1:AA:1298:C:H2'	7:AG:114:ARG:HH12	1.23	1.04
1:AA:1394:A:C6	1:AA:1501:C:C5'	2.39	1.04
1:AA:323:U:H5'	20:AT:23:ARG:HB2	1.33	1.04
8:AH:91:ARG:CZ	17:AQ:32:TYR:O	2.04	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1474:G:C4'	21:B0:1718:A:H2	1.69	1.04
1:AA:142:G:C4'	1:AA:195:A:N6	2.21	1.04
1:AA:131:C:H4'	1:AA:263:A:C4'	1.87	1.04
1:AA:300:A:H1'	1:AA:565:U:O2	1.57	1.04
1:AA:292:G:H1'	1:AA:608:A:N6	1.71	1.04
21:B0:3197:U:C1'	21:B0:2181:A:N7	2.20	1.04
1:AA:1296:C:O4'	1:AA:1302:U:C4	2.10	1.04
1:AA:1483:A:O3'	1:AA:1484:C:OP2	1.73	1.04
1:AA:421:U:N1	3:AC:127:ARG:NH2	2.04	1.04
1:AA:189:A:H61	20:AT:104:LEU:CB	1.59	1.04
21:B0:891:A:O2'	21:B0:892:A:H8	1.40	1.04
1:AA:1061:G:O4'	10:AJ:56:HIS:CE1	2.11	1.04
1:AA:236:G:H5''	17:AQ:42:TYR:HE2	1.16	1.04
1:AA:1256:A:O4'	1:AA:1258:G:C4	2.11	1.03
1:AA:262:A:O3'	20:AT:75:ASN:HB2	1.56	1.03
13:AM:82:MET:HG3	13:AM:93:ARG:HE	1.22	1.03
1:AA:237:C:OP1	17:AQ:40:LYS:HD2	1.57	1.03
1:AA:1409:C:H2'	1:AA:1410:G:C8	1.93	1.03
1:AA:400:C:O2'	1:AA:622:A:O2'	1.73	1.03
1:AA:141:A:H4'	1:AA:182:U:C1'	1.87	1.03
1:AA:216:C:H4'	1:AA:468:A:N3	1.22	1.03
5:AE:79:GLU:CD	8:AH:105:ARG:HD3	1.76	1.03
21:B0:3108:G:H2'	21:B0:3109:U:H5	0.89	1.03
1:AA:243:A:H4'	1:AA:244:U:H5'	1.36	1.03
1:AA:1014:A:C2	19:AS:34:TRP:CD1	2.46	1.03
1:AA:187:G:N2	20:AT:105:SER:HB2	1.71	1.03
20:AT:39:LYS:HD2	20:AT:55:ILE:HD13	1.41	1.03
1:AA:559:A:P	5:AE:126:ARG:HH22	1.81	1.03
21:B0:1096:A:O2'	21:B0:1115:C:H1'	1.56	1.03
1:AA:994:A:H1'	14:AN:8:GLU:HB3	1.41	1.03
17:AQ:104:LYS:HG3	21:B0:727:U:C1'	1.89	1.03
1:AA:735:C:O2'	18:AR:75:ILE:CD1	2.06	1.02
1:AA:261:U:H5	20:AT:79:ARG:NE	1.46	1.02
1:AA:406:G:C6	1:AA:496:A:C5	2.47	1.02
1:AA:760:G:C2	17:AQ:103:GLY:O	2.12	1.02
1:AA:223:U:C5'	20:AT:68:LYS:NZ	2.22	1.02
17:AQ:103:GLY:C	21:B0:726:G:H21	1.60	1.02
21:B0:3107:G:HO3'	21:B0:3108:G:P	1.81	1.02
1:AA:1483:A:C2'	1:AA:1484:C:P	2.48	1.02
1:AA:501:C:H1'	1:AA:549:C:H1'	1.37	1.02
1:AA:586:C:O3'	8:AH:89:PRO:HB2	1.58	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1475:G:H5''	21:B0:1706:A:O4'	1.58	1.02
1:AA:502:G:C1'	1:AA:550:G:H5'	1.87	1.02
21:B0:892:A:C1'	21:B0:911:A:C2	2.41	1.02
1:AA:1346:A:C4	7:AG:10:ARG:NH2	2.27	1.02
1:AA:132:C:H5'	1:AA:262:A:O2'	1.59	1.02
1:AA:1459:C:H5'	20:AT:28:ALA:HB1	1.37	1.02
21:B0:1572:C:H2'	21:B0:1573:G:H5''	1.39	1.02
1:AA:1319:A:H5''	19:AS:5:LEU:HD21	1.41	1.02
10:AJ:65:LEU:HD13	14:AN:36:PHE:CZ	1.94	1.02
1:AA:9:G:OP1	5:AE:122:GLU:HB2	1.59	1.02
1:AA:1190:G:OP1	3:AC:4:LYS:HA	0.85	1.02
1:AA:322:C:C4'	20:AT:23:ARG:HD2	1.88	1.02
1:AA:397:A:N7	1:AA:547:A:O2'	1.89	1.02
1:AA:1459:C:H5''	20:AT:28:ALA:HA	1.37	1.01
1:AA:702:A:C2	21:B0:1838:G:H2'	1.84	1.01
1:AA:141:A:C2	1:AA:195:A:C2	2.48	1.01
1:AA:1475:G:C5'	21:B0:1706:A:O4'	2.08	1.01
1:AA:8:A:H1'	5:AE:103:GLY:CA	1.89	1.01
1:AA:116:A:N1	1:AA:313:A:O2'	1.92	1.01
1:AA:406:G:C5	1:AA:496:A:C6	2.45	1.01
1:AA:1109:C:OP2	3:AC:176:HIS:CD2	2.13	1.01
17:AQ:104:LYS:CD	21:B0:727:U:O2	2.08	1.01
1:AA:957:U:H4'	19:AS:79:THR:HB	1.41	1.01
1:AA:1331:G:O3'	1:AA:1332:A:P	2.19	1.01
2:AB:178:ARG:HH11	2:AB:178:ARG:HG3	1.21	1.01
1:AA:1367:C:H5''	9:AI:114:TYR:HB2	1.41	1.01
10:AJ:51:ARG:HG2	14:AN:45:ARG:NH1	1.76	1.01
19:AS:28:LYS:HG2	19:AS:29:ARG:H	1.26	1.01
1:AA:143:A:H3'	1:AA:144:G:P	2.00	1.01
1:AA:59:A:C6	1:AA:331:G:N3	2.28	1.01
1:AA:217:C:O2'	1:AA:470:U:C5'	2.09	1.01
1:AA:376:G:O3'	16:AP:5:ARG:HD2	1.60	1.01
1:AA:394:G:H2'	1:AA:395:C:C6	1.95	1.01
4:AD:88:VAL:CG2	5:AE:96:PRO:HB2	1.91	1.01
17:AQ:104:LYS:HG3	21:B0:727:U:N1	1.75	1.01
1:AA:5:U:C4	5:AE:95:ALA:CB	2.44	1.00
1:AA:1474:G:O4'	21:B0:1718:A:H2	1.41	1.00
1:AA:1256:A:C4'	1:AA:1258:G:C8	2.43	1.00
4:AD:88:VAL:CG2	5:AE:96:PRO:CB	2.37	1.00
1:AA:186:C:C1'	20:AT:81:LYS:HE2	1.91	1.00
1:AA:1086:U:H3	1:AA:1099:G:H22	1.08	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1182:G:H5'	1:AA:1184:G:H5'	1.03	1.00
21:B0:2668:U:H4'	21:B0:2669:C:H5'	1.40	1.00
21:B0:3110:G:OP1	21:B0:3149:G:O4'	1.79	1.00
1:AA:1255:G:H2'	1:AA:1258:G:H21	1.21	1.00
1:AA:1256:A:C4'	1:AA:1258:G:N9	2.24	1.00
21:B0:1252:C:H2'	21:B0:1253:C:H5''	1.43	1.00
22:B9:107:C:H3'	22:B9:108:G:P	2.01	1.00
1:AA:1044:A:C2'	1:AA:1045:C:O2'	2.09	1.00
1:AA:1234:C:C5'	1:AA:1365:G:OP1	2.10	1.00
1:AA:706:A:H1'	11:AK:29:ILE:HD11	1.39	1.00
12:AL:75:HIS:HD2	12:AL:77:LEU:H	1.05	1.00
1:AA:51:A:H2	1:AA:314:C:O2'	1.26	1.00
1:AA:1190:G:P	3:AC:4:LYS:HA	2.01	1.00
12:AL:60:LEU:HD11	12:AL:85:ILE:HD12	1.40	1.00
1:AA:130:A:OP1	17:AQ:63:ARG:NE	1.93	1.00
1:AA:325:A:OP2	20:AT:70:SER:CB	2.08	1.00
1:AA:586:C:H5''	8:AH:90:GLY:N	1.75	1.00
21:B0:1856:U:C6	21:B0:3865:A:C8	2.34	1.00
1:AA:142:G:N2	1:AA:196:A:H1'	1.77	1.00
1:AA:436:C:N4	1:AA:437:U:O4	1.94	1.00
1:AA:714:G:H4'	1:AA:776:G:H4'	1.44	1.00
1:AA:929:G:P	1:AA:1533:C:H41	1.84	0.99
1:AA:319:G:C2'	1:AA:1434:A:N1	2.24	0.99
1:AA:367:U:C2	1:AA:369:C:C4	2.50	0.99
1:AA:1316:G:H4'	14:AN:18:VAL:HG11	1.40	0.99
1:AA:279:A:OP2	17:AQ:95:TYR:HE2	1.43	0.99
1:AA:189:A:O5'	20:AT:105:SER:OG	1.79	0.99
1:AA:1087:G:OP1	1:AA:1389:C:H4'	1.61	0.99
1:AA:1394:A:C2	1:AA:1501:C:O4'	2.15	0.99
1:AA:191:G:C4	1:AA:192:U:N1	2.29	0.99
1:AA:1329:A:H5'	13:AM:29:ARG:CG	1.92	0.99
1:AA:205:G:N2	1:AA:207:C:C5	2.30	0.99
21:B0:891:A:HO2'	21:B0:892:A:C5'	1.61	0.99
22:B9:107:C:O3'	22:B9:108:G:P	2.21	0.99
1:AA:292:G:C1'	1:AA:608:A:N6	2.26	0.99
1:AA:1457:A:N9	1:AA:1459:C:C2	2.30	0.99
4:AD:88:VAL:HG22	5:AE:96:PRO:HB2	1.42	0.99
1:AA:995:C:O2	14:AN:4:LYS:HD3	1.62	0.99
1:AA:130:A:C6	1:AA:264:U:O2	2.16	0.99
1:AA:314:C:O2	1:AA:353:A:C2	2.16	0.99
3:AC:59:ARG:O	10:AJ:92:THR:HG22	1.59	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:6:G:N9	5:AE:119:LEU:HD11	1.72	0.99
1:AA:1298:C:P	7:AG:114:ARG:NH2	2.36	0.99
1:AA:1398:A:N6	5:AE:21:ALA:HA	1.77	0.98
1:AA:545:C:O2'	1:AA:549:C:OP1	1.81	0.98
13:AM:86:CYS:O	13:AM:90:LEU:HG	1.62	0.98
10:AJ:49:VAL:HG11	14:AN:41:ARG:O	1.62	0.98
11:AK:54:ARG:HH11	11:AK:54:ARG:HB3	1.26	0.98
21:B0:1856:U:C3'	21:B0:3865:A:C8	2.45	0.98
1:AA:236:G:H5''	17:AQ:42:TYR:CE2	1.98	0.98
1:AA:1261:A:C5'	1:AA:1283:G:O3'	2.11	0.98
1:AA:626:U:OP1	16:AP:35:LYS:NZ	1.96	0.98
1:AA:992:U:H2'	1:AA:1043:C:C5	1.98	0.98
1:AA:130:A:C1'	1:AA:264:U:C4'	2.42	0.98
1:AA:1116:C:H2'	1:AA:1117:G:H5''	1.46	0.98
1:AA:1329:A:OP1	13:AM:28:ALA:N	1.76	0.98
1:AA:587:G:O2'	1:AA:588:G:OP2	1.81	0.98
8:AH:113:SER:HB2	8:AH:134:ILE:HD11	1.43	0.98
1:AA:762:C:H4'	21:B0:729:A:H61	1.28	0.98
22:B9:114:C:H2'	22:B9:115:G:H5''	1.45	0.98
1:AA:974:A:OP1	14:AN:31:ARG:HG2	1.64	0.98
1:AA:1505:G:H4'	1:AA:1506:U:C5'	1.94	0.97
1:AA:237:C:OP1	17:AQ:40:LYS:HD3	1.59	0.97
1:AA:262:A:C5'	20:AT:74:LYS:HB2	1.94	0.97
13:AM:80:ARG:NH2	19:AS:65:ASN:O	1.97	0.97
21:B0:1199:U:H3'	21:B0:1200:G:H5''	1.44	0.97
21:B0:1856:U:O5'	21:B0:3865:A:H8	1.40	0.97
1:AA:1503:A:O5'	1:AA:1531:A:H1'	1.64	0.97
1:AA:113:G:H1'	1:AA:353:A:O2'	1.65	0.97
1:AA:571:U:H4'	1:AA:819:A:C6	1.98	0.97
1:AA:927:G:O2'	1:AA:1532:U:H4'	1.63	0.97
1:AA:191:G:C6	1:AA:192:U:C4	2.50	0.97
1:AA:113:G:C4	1:AA:353:A:O2'	2.15	0.97
1:AA:1092:A:C5'	7:AG:4:ARG:NH2	2.26	0.97
1:AA:994:A:C4	14:AN:5:ALA:O	2.18	0.97
1:AA:223:U:H5''	20:AT:68:LYS:HZ2	1.25	0.97
21:B0:2548:G:H2'	21:B0:2549:G:H5''	1.45	0.97
21:B0:1861:G:H4'	53:B5:198:THR:CA	1.94	0.97
1:AA:143:A:O3'	1:AA:144:G:H8	1.45	0.97
1:AA:1087:G:OP1	1:AA:1389:C:C4'	2.11	0.97
13:AM:88:ARG:HD2	19:AS:3:ARG:NH2	1.78	0.97
1:AA:261:U:H5	20:AT:79:ARG:CZ	1.62	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1484:C:O2'	21:B0:1943:A:C4'	2.11	0.97
1:AA:319:G:H2'	1:AA:1434:A:H2	1.18	0.97
1:AA:323:U:H4'	20:AT:22:ARG:HB2	1.47	0.97
1:AA:351:G:O3'	1:AA:352:C:OP1	1.83	0.96
21:B0:1119:U:H3'	21:B0:1120:C:O5'	1.65	0.96
1:AA:69:G:H5'	1:AA:152:A:H2	1.21	0.96
1:AA:293:G:C4'	1:AA:609:A:C2	2.40	0.96
1:AA:187:G:C4'	20:AT:85:MET:CE	2.41	0.96
11:AK:110:ASP:OD2	18:AR:88:LYS:NZ	1.96	0.96
1:AA:116:A:N6	1:AA:313:A:N3	2.12	0.96
1:AA:1394:A:N6	1:AA:1501:C:C5'	2.28	0.96
1:AA:37:U:O2'	1:AA:500:G:H4'	1.66	0.96
1:AA:187:G:C1'	20:AT:85:MET:HE1	1.94	0.96
21:B0:3877:A:H8	21:B0:3877:A:O5'	1.47	0.96
1:AA:1459:C:P	20:AT:28:ALA:O	2.23	0.96
1:AA:651:C:N4	1:AA:652:U:O4	1.98	0.96
1:AA:190:A:H2	20:AT:101:GLY:HA2	1.28	0.96
1:AA:104:G:H5'	1:AA:172:A:N1	1.79	0.96
1:AA:191:G:N7	1:AA:192:U:C5	2.33	0.96
1:AA:837:G:O3'	1:AA:838:C:P	2.23	0.96
4:AD:57:ARG:HH21	5:AE:107:ARG:HD3	1.20	0.96
1:AA:362:G:H4'	12:AL:28:LYS:NZ	1.79	0.96
1:AA:191:G:N7	1:AA:192:U:C6	2.34	0.96
1:AA:216:C:H1'	1:AA:468:A:HO2'	1.13	0.96
1:AA:187:G:O4'	20:AT:85:MET:HE1	0.79	0.96
1:AA:837:G:HO3'	1:AA:838:C:H6	1.09	0.96
1:AA:1261:A:C4'	1:AA:1283:G:O3'	2.13	0.95
1:AA:926:G:C6	1:AA:1505:G:C6	2.54	0.95
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.65	0.95
1:AA:143:A:H5'	1:AA:196:A:N6	1.80	0.95
1:AA:131:C:O2'	1:AA:262:A:C2'	2.14	0.95
1:AA:977:A:C2	1:AA:1224:G:C6	2.54	0.95
21:B0:891:A:O3'	21:B0:892:A:OP2	1.83	0.95
1:AA:1255:G:N3	1:AA:1259:C:O2	1.99	0.95
1:AA:1394:A:C5	1:AA:1501:C:C4'	2.41	0.95
1:AA:112:G:N3	1:AA:354:G:H4'	1.81	0.95
1:AA:406:G:N3	1:AA:496:A:N6	2.14	0.95
1:AA:7:G:H5'	1:AA:298:A:C5'	1.96	0.95
1:AA:133:U:C5'	20:AT:74:LYS:NZ	2.28	0.95
21:B0:1747:G:H4'	21:B0:1749:G:H1'	1.47	0.95
21:B0:3128:G:O3'	21:B0:3174:C:H4'	1.66	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:992:U:H2'	1:AA:1043:C:H5	1.32	0.95
1:AA:1110:A:H2'	1:AA:1111:A:O4'	1.64	0.95
3:AC:52:LEU:HD23	3:AC:52:LEU:H	1.26	0.95
1:AA:191:G:C2	1:AA:192:U:C1'	2.45	0.95
21:B0:1856:U:P	21:B0:3865:A:N7	2.39	0.95
1:AA:191:G:C5	1:AA:192:U:C5	2.55	0.95
21:B0:1066:G:N1	21:B0:1115:C:N4	2.15	0.95
1:AA:1489:G:C2'	1:AA:1490:C:H5''	1.96	0.95
1:AA:651:C:N3	1:AA:652:U:C4	2.35	0.95
10:AJ:62:HIS:HB3	14:AN:59:ALA:HB3	1.46	0.95
1:AA:1342:C:O3'	9:AI:125:TYR:CZ	2.20	0.95
1:AA:933:G:C6	1:AA:935:A:C8	2.55	0.95
3:AC:14:ILE:HG22	3:AC:15:THR:H	1.32	0.95
1:AA:191:G:C6	1:AA:192:U:N1	2.34	0.95
1:AA:323:U:H5'	20:AT:23:ARG:CB	1.95	0.95
1:AA:189:A:N6	20:AT:104:LEU:CA	2.30	0.95
1:AA:762:C:H4'	21:B0:729:A:N1	1.81	0.95
1:AA:116:A:H61	1:AA:313:A:H1'	1.32	0.95
1:AA:436:C:C5	1:AA:437:U:C5	2.54	0.95
21:B0:3109:U:C5'	21:B0:3150:C:C5'	2.09	0.95
1:AA:1277:C:C1'	1:AA:1279:A:C8	2.50	0.94
1:AA:619:U:C2	4:AD:135:LEU:HG	2.02	0.94
1:AA:702:A:C6	21:B0:1839:A:O4'	2.08	0.94
1:AA:319:G:N2	1:AA:1434:A:C2'	2.29	0.94
1:AA:143:A:O4'	1:AA:196:A:C5	2.21	0.94
21:B0:3110:G:OP1	21:B0:3148:G:C2'	2.15	0.94
1:AA:1255:G:N2	1:AA:1276:G:H21	1.64	0.94
1:AA:376:G:C2	1:AA:389:A:C2	2.54	0.94
1:AA:292:G:C2'	1:AA:608:A:N6	2.29	0.94
10:AJ:31:GLY:HA2	10:AJ:78:ASN:HD22	1.32	0.94
21:B0:367:G:H2'	21:B0:368:A:H5''	1.48	0.94
1:AA:762:C:C4'	21:B0:729:A:H61	1.79	0.94
1:AA:187:G:N3	20:AT:105:SER:CB	2.29	0.94
1:AA:315:A:O4'	1:AA:353:A:N1	2.01	0.94
1:AA:394:G:C6	1:AA:395:C:C4	2.54	0.94
1:AA:436:C:N4	1:AA:437:U:C4	2.34	0.94
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.26	0.94
1:AA:1416:G:O5'	1:AA:1417:G:P	2.25	0.94
1:AA:761:G:C5'	17:AQ:102:GLY:HA3	1.97	0.94
1:AA:112:G:N2	1:AA:354:G:OP2	2.00	0.94
1:AA:1374:A:O3'	1:AA:1375:A:P	2.26	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:54:ARG:O	11:AK:57:THR:HG22	1.66	0.94
1:AA:190:A:H2	20:AT:101:GLY:CA	1.58	0.94
1:AA:619:U:C4	4:AD:135:LEU:HD21	2.02	0.94
1:AA:1483:A:H2'	1:AA:1484:C:P	2.06	0.94
1:AA:216:C:H1'	1:AA:468:A:C2'	1.98	0.94
21:B0:929:A:H3'	21:B0:930:A:H5''	1.47	0.94
1:AA:1296:C:H4'	1:AA:1302:U:C5	2.03	0.94
21:B0:3108:G:C2'	21:B0:3109:U:H5	1.80	0.94
1:AA:1269:A:C2	1:AA:1313:U:C1'	2.50	0.94
1:AA:59:A:C4	1:AA:331:G:C2	2.55	0.94
1:AA:406:G:C4	1:AA:496:A:N6	2.35	0.94
1:AA:651:C:N4	1:AA:752:G:O2'	2.01	0.94
1:AA:5:U:C4	5:AE:95:ALA:HB2	2.03	0.94
1:AA:664:G:H22	1:AA:741:G:H1	1.16	0.94
6:AF:94:GLN:HE21	18:AR:32:ARG:HD3	1.32	0.94
21:B0:2607:C:H3'	21:B0:2608:A:H5'	1.49	0.94
1:AA:1298:C:OP2	7:AG:114:ARG:NH2	2.01	0.93
1:AA:319:G:H5'	1:AA:1468:A:C4'	1.98	0.93
1:AA:59:A:N1	1:AA:331:G:C4	2.35	0.93
17:AQ:104:LYS:CE	21:B0:729:A:N6	1.99	0.93
1:AA:935:A:O4'	1:AA:1384:C:O2	1.87	0.93
1:AA:39:G:C5	1:AA:498:U:O4	2.20	0.93
1:AA:762:C:H4'	21:B0:729:A:N6	1.82	0.93
1:AA:815:A:H2	1:AA:1528:U:O4'	1.33	0.93
1:AA:586:C:O3'	8:AH:89:PRO:CB	2.15	0.93
10:AJ:49:VAL:HG13	14:AN:41:ARG:HB2	1.49	0.93
1:AA:1392:G:H4'	1:AA:1531:A:C5'	1.98	0.93
1:AA:189:A:C6	20:AT:104:LEU:C	2.41	0.93
1:AA:141:A:H2	1:AA:195:A:C2	1.83	0.93
21:B0:892:A:C1'	21:B0:911:A:H2	1.81	0.93
1:AA:1505:G:O3'	1:AA:1506:U:OP2	1.85	0.93
1:AA:1406:U:O4'	1:AA:1518:A:H4'	1.66	0.93
21:B0:910:U:C2'	21:B0:911:A:P	2.56	0.93
1:AA:141:A:H4'	1:AA:182:U:H1'	1.45	0.93
1:AA:1248:A:O2'	9:AI:70:LYS:NZ	2.01	0.93
12:AL:41:ARG:HG2	12:AL:42:THR:N	1.83	0.93
21:B0:892:A:H1'	21:B0:911:A:H2	1.15	0.93
1:AA:244:U:O4	1:AA:893:C:N3	2.02	0.93
8:AH:91:ARG:HG2	12:AL:7:ILE:HG21	1.51	0.93
1:AA:737:A:H1'	6:AF:73:ASN:OD1	1.69	0.93
1:AA:112:G:N3	1:AA:354:G:C4'	2.31	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1416:G:H3'	1:AA:1417:G:C5'	1.97	0.93
1:AA:559:A:P	5:AE:126:ARG:NH2	2.42	0.93
1:AA:651:C:C4	1:AA:652:U:C4	2.56	0.93
22:B9:107:C:C3'	22:B9:108:G:P	2.57	0.93
1:AA:436:C:N3	1:AA:437:U:C4	2.37	0.93
1:AA:6:G:O6	5:AE:94:ALA:CA	2.15	0.93
1:AA:571:U:H5''	1:AA:819:A:N1	1.83	0.93
13:AM:40:ASN:HD22	13:AM:41:PRO:CD	1.82	0.93
1:AA:994:A:O2'	14:AN:11:LYS:HE3	1.69	0.93
1:AA:133:U:H5'	20:AT:74:LYS:HZ2	1.29	0.92
1:AA:922:G:N1	1:AA:1396:A:C6	2.31	0.92
3:AC:195:VAL:O	3:AC:196:LEU:HD23	1.68	0.92
1:AA:130:A:H1'	1:AA:264:U:H5'	1.48	0.92
1:AA:735:C:O2'	18:AR:75:ILE:HD12	1.69	0.92
3:AC:131:ARG:HG2	3:AC:135:LYS:HE3	1.50	0.92
1:AA:1296:C:C4'	1:AA:1302:U:C4	2.52	0.92
1:AA:958:A:N9	19:AS:55:LYS:HD2	1.85	0.92
21:B0:104:C:H2'	21:B0:105:G:H5''	1.49	0.92
21:B0:1066:G:N2	21:B0:1115:C:C2	2.36	0.92
1:AA:1416:G:C6	1:AA:1417:G:H1'	2.03	0.92
1:AA:191:G:C2	1:AA:192:U:C2	2.56	0.92
9:AI:115:GLY:HA2	10:AJ:58:ASP:OD1	1.69	0.92
13:AM:86:CYS:C	13:AM:87:TYR:N	2.23	0.92
1:AA:333:G:O4'	20:AT:16:HIS:CD2	2.21	0.92
17:AQ:104:LYS:CD	21:B0:727:U:H1'	1.99	0.92
1:AA:1305:G:O2'	1:AA:1306:A:H8	1.51	0.92
2:AB:124:SER:HB2	2:AB:125:PRO:HD2	1.49	0.92
21:B0:226:C:HO2'	21:B0:227:G:H8	0.97	0.92
21:B0:1656:U:H2'	21:B0:1657:A:H5''	1.52	0.92
1:AA:130:A:C6	1:AA:264:U:H1'	2.05	0.92
1:AA:651:C:C4	1:AA:652:U:C5	2.58	0.92
21:B0:1856:U:OP2	21:B0:3865:A:N7	2.02	0.92
1:AA:1296:C:C4'	1:AA:1302:U:O4	2.18	0.92
1:AA:476:U:C3'	1:AA:477:G:P	2.56	0.92
3:AC:91:LEU:HD21	3:AC:99:VAL:HG13	1.48	0.92
21:B0:3109:U:H5'	21:B0:3150:C:C5'	1.86	0.92
17:AQ:104:LYS:CG	21:B0:727:U:C1'	2.47	0.92
1:AA:1292:U:P	7:AG:41:ARG:HH22	1.91	0.92
1:AA:319:G:N2	1:AA:1434:A:N3	2.18	0.92
1:AA:815:A:H2	1:AA:1528:U:C4'	1.82	0.92
19:AS:31:ILE:HG22	19:AS:32:LYS:H	1.34	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1066:G:H1	21:B0:1115:C:N4	1.66	0.92
1:AA:130:A:C1'	1:AA:264:U:C5'	2.47	0.91
1:AA:518:C:O2'	12:AL:50:SER:HB3	1.70	0.91
1:AA:1064:G:H1'	1:AA:1190:G:H21	1.14	0.91
2:AB:59:GLU:HG2	2:AB:221:LEU:HD11	1.51	0.91
5:AE:79:GLU:OE1	8:AH:105:ARG:CD	2.17	0.91
1:AA:835:U:C5'	18:AR:64:ARG:NH2	2.34	0.91
21:B0:1182:U:H2'	21:B0:1183:C:H5''	1.49	0.91
1:AA:1392:G:H4'	1:AA:1531:A:H5''	1.50	0.91
1:AA:94:G:C5	1:AA:96:C:C5	2.59	0.91
1:AA:1429:C:O2'	21:B0:1720:G:O2'	1.87	0.91
1:AA:324:G:P	20:AT:22:ARG:HB3	2.10	0.91
1:AA:189:A:H62	20:AT:89:ARG:HH21	1.12	0.91
21:B0:1062:G:O3'	21:B0:1063:C:P	2.28	0.91
21:B0:892:A:H5'	21:B0:892:A:H8	1.35	0.91
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.05	0.91
1:AA:31:G:O6	1:AA:48:C:O4'	1.88	0.91
1:AA:292:G:C2'	1:AA:608:A:H62	1.82	0.91
5:AE:81:GLU:HG2	5:AE:90:VAL:HG22	1.52	0.91
1:AA:1405:G:O4'	1:AA:1519:A:C4'	2.17	0.91
1:AA:1409:C:H2'	1:AA:1410:G:H8	1.30	0.91
3:AC:23:TYR:HA	10:AJ:11:PHE:CD1	2.06	0.91
13:AM:82:MET:CG	13:AM:93:ARG:NE	2.34	0.91
16:AP:58:TYR:O	16:AP:61:SER:HB3	1.68	0.91
1:AA:261:U:C5	20:AT:79:ARG:CD	2.51	0.91
1:AA:115:G:O2'	1:AA:116:A:P	2.28	0.91
1:AA:1277:C:H1'	1:AA:1279:A:H8	1.10	0.91
1:AA:132:C:H5'	1:AA:262:A:H1'	1.33	0.91
1:AA:190:A:C2	20:AT:101:GLY:HA2	2.03	0.91
1:AA:848:G:O3'	1:AA:849:C:C5'	2.18	0.91
21:B0:1066:G:C2	21:B0:1115:C:N3	2.39	0.91
21:B0:3877:A:O3'	21:B0:1861:G:H3'	1.69	0.91
21:B0:3197:U:H3	21:B0:2204:A:H61	0.97	0.91
1:AA:1474:G:C4'	21:B0:1718:A:C2	2.54	0.90
1:AA:1484:C:H4'	21:B0:1943:A:H1'	0.92	0.90
1:AA:6:G:N3	5:AE:119:LEU:HD11	1.86	0.90
1:AA:1497:G:O2'	1:AA:1498:U:H5'	1.71	0.90
1:AA:293:G:C5'	1:AA:609:A:N1	2.33	0.90
1:AA:564:C:O4'	17:AQ:32:TYR:CD2	2.25	0.90
1:AA:1502:A:H2	1:AA:1505:G:H1	1.20	0.90
1:AA:1406:U:C4'	1:AA:1518:A:H4'	2.02	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:190:A:N1	20:AT:104:LEU:HB2	1.84	0.90
9:AI:70:LYS:O	9:AI:74:ILE:HG13	1.72	0.90
1:AA:1346:A:H2'	7:AG:10:ARG:NH2	1.86	0.90
1:AA:131:C:O3'	1:AA:262:A:O2'	1.88	0.90
1:AA:43:C:OP1	16:AP:13:HIS:HD2	1.55	0.90
10:AJ:8:LEU:HD21	10:AJ:96:ILE:HG12	1.54	0.90
21:B0:128:C:H2'	21:B0:129:A:H5''	1.51	0.90
1:AA:191:G:C4	1:AA:192:U:O4'	2.18	0.90
1:AA:113:G:N3	1:AA:353:A:C2'	2.34	0.90
1:AA:994:A:C2'	14:AN:11:LYS:HE3	2.01	0.90
1:AA:262:A:H5'	20:AT:74:LYS:HB2	1.53	0.90
1:AA:1182:G:C5'	1:AA:1184:G:H5'	1.98	0.90
1:AA:1256:A:H5'	1:AA:1258:G:H1'	0.90	0.90
1:AA:191:G:C4	1:AA:192:U:C6	2.59	0.90
1:AA:922:G:N3	1:AA:1396:A:C2	2.39	0.90
4:AD:57:ARG:HH22	5:AE:107:ARG:HD3	1.29	0.90
1:AA:1368:G:OP2	9:AI:113:LYS:C	2.10	0.90
1:AA:1372:U:OP1	9:AI:71:SER:HB3	1.72	0.90
1:AA:7:G:C5'	1:AA:298:A:H5'	2.02	0.90
1:AA:322:C:O3'	20:AT:23:ARG:HG3	1.70	0.90
1:AA:1070:U:OP1	5:AE:25:ARG:NH1	2.05	0.90
1:AA:1447:A:O3'	1:AA:1448:C:P	2.29	0.90
1:AA:190:A:N1	20:AT:101:GLY:O	2.05	0.90
1:AA:367:U:O2	1:AA:369:C:C5	2.25	0.89
1:AA:9:G:OP1	5:AE:122:GLU:CB	2.19	0.89
1:AA:406:G:O6	1:AA:496:A:C8	2.25	0.89
1:AA:1155:G:C3'	1:AA:1156:G:P	2.61	0.89
1:AA:133:U:C5'	20:AT:74:LYS:HZ3	1.85	0.89
1:AA:1329:A:OP2	13:AM:28:ALA:N	1.93	0.89
1:AA:1483:A:C2'	1:AA:1484:C:OP2	2.19	0.89
1:AA:231:G:N2	1:AA:262:A:C2	2.41	0.89
1:AA:319:G:H5'	1:AA:1468:A:H4'	1.54	0.89
1:AA:762:C:H4'	21:B0:729:A:C6	2.08	0.89
1:AA:1190:G:H3'	3:AC:3:ASN:HB2	1.51	0.89
1:AA:130:A:C2	1:AA:264:U:C1'	2.51	0.89
1:AA:113:G:C1'	1:AA:353:A:O2'	2.19	0.89
8:AH:91:ARG:NH1	17:AQ:32:TYR:O	2.04	0.89
1:AA:1329:A:C5'	13:AM:26:GLY:H	1.84	0.89
1:AA:318:G:O2'	1:AA:1468:A:C4'	2.18	0.89
1:AA:571:U:C5'	1:AA:819:A:C5	2.56	0.89
1:AA:935:A:C1'	1:AA:1384:C:N3	2.35	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.55	0.89
10:AJ:45:ARG:NH1	14:AN:36:PHE:CE2	2.40	0.89
10:AJ:61:GLU:OE2	14:AN:49:HIS:HE1	1.55	0.89
21:B0:3111:C:H4'	21:B0:3112:G:OP1	1.73	0.89
21:B0:891:A:HO2'	21:B0:892:A:H8	0.89	0.89
1:AA:1224:G:O2'	1:AA:1225:A:P	2.31	0.89
1:AA:1297:C:O3'	1:AA:1298:C:P	2.31	0.89
1:AA:1416:G:H3'	1:AA:1417:G:H5'	1.50	0.89
1:AA:1015:A:H1'	1:AA:1219:U:C5'	2.02	0.89
1:AA:405:U:O3'	1:AA:406:G:P	2.30	0.89
1:AA:570:G:O3'	1:AA:819:A:O2'	1.91	0.89
1:AA:1060:C:OP1	14:AN:45:ARG:NH2	2.04	0.89
1:AA:130:A:C1'	1:AA:264:U:O4'	2.21	0.89
1:AA:355:C:O4'	1:AA:388:G:O2'	1.88	0.89
1:AA:826:C:H1'	8:AH:15:ASN:HD22	1.36	0.89
1:AA:113:G:O4'	1:AA:354:G:H5''	1.71	0.89
1:AA:394:G:C4	1:AA:395:C:C5	2.61	0.89
1:AA:1367:C:H5''	9:AI:114:TYR:CB	2.02	0.88
1:AA:142:G:O4'	1:AA:195:A:N1	2.06	0.88
1:AA:1483:A:O2'	1:AA:1484:C:P	2.31	0.88
1:AA:235:C:C5'	17:AQ:70:ARG:CG	2.42	0.88
1:AA:246:A:O3'	1:AA:247:G:C4'	2.19	0.88
1:AA:261:U:C6	20:AT:79:ARG:CZ	2.56	0.88
1:AA:1060:C:O2'	10:AJ:56:HIS:CD2	2.25	0.88
17:AQ:97:SER:HB2	17:AQ:102:GLY:C	1.93	0.88
1:AA:293:G:O5'	1:AA:609:A:C6	2.25	0.88
1:AA:375:U:O3'	1:AA:376:G:OP2	1.89	0.88
1:AA:184:G:H4'	1:AA:224:C:O2'	1.73	0.88
1:AA:141:A:H2	1:AA:195:A:H2	0.94	0.88
1:AA:8:A:N6	4:AD:205:GLU:O	2.06	0.88
1:AA:1371:G:OP1	9:AI:11:LYS:O	1.92	0.88
1:AA:1211:U:C3'	1:AA:1212:U:P	2.61	0.88
1:AA:1255:G:O2'	1:AA:1259:C:N1	2.07	0.88
1:AA:651:C:N3	1:AA:652:U:C5	2.41	0.88
1:AA:1298:C:C6	7:AG:114:ARG:NH1	2.42	0.88
21:B0:3110:G:OP1	21:B0:3149:G:C4'	2.22	0.88
1:AA:320:C:H5'	1:AA:1434:A:N1	1.88	0.88
1:AA:142:G:H1'	1:AA:195:A:C2	2.09	0.88
6:AF:10:LEU:HD12	6:AF:59:TYR:HB3	1.55	0.88
21:B0:3874:C:N4	21:B0:3875:A:C5	2.41	0.88
1:AA:436:C:O2'	1:AA:437:U:H5'	1.72	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:581:G:O2'	17:AQ:105:ALA:O	1.89	0.88
1:AA:976:G:OP2	1:AA:1358:U:O2'	1.91	0.88
1:AA:539:A:OP2	12:AL:115:LYS:HE2	1.74	0.88
1:AA:538:G:P	12:AL:115:LYS:CG	2.60	0.88
1:AA:995:C:C2	14:AN:4:LYS:HB3	2.08	0.88
1:AA:923:A:O2'	1:AA:1398:A:H2'	1.73	0.88
1:AA:406:G:N7	1:AA:496:A:C4	2.41	0.88
1:AA:323:U:H5''	20:AT:22:ARG:C	1.94	0.88
1:AA:184:G:C4'	1:AA:224:C:O2'	2.22	0.88
2:AB:116:GLU:HG2	2:AB:153:ARG:HH12	1.39	0.88
4:AD:36:ARG:N	4:AD:37:PRO:HD3	1.88	0.88
17:AQ:104:LYS:HD2	21:B0:727:U:H1'	1.56	0.88
1:AA:1067:A:O3'	1:AA:1068:G:P	2.32	0.88
1:AA:132:C:OP1	20:AT:75:ASN:OD1	1.91	0.88
1:AA:142:G:C1'	1:AA:195:A:C6	2.57	0.88
1:AA:538:G:OP2	12:AL:115:LYS:HG3	1.73	0.88
1:AA:6:G:C6	5:AE:94:ALA:HA	2.08	0.88
21:B0:1096:A:HO2'	21:B0:1115:C:H1'	1.37	0.88
1:AA:1131:G:H1	1:AA:1143:G:H21	1.22	0.87
1:AA:394:G:C6	1:AA:395:C:N4	2.42	0.87
1:AA:760:G:C6	17:AQ:104:LYS:O	2.27	0.87
21:B0:665:A:H3'	21:B0:666:U:H5''	1.54	0.87
1:AA:1261:A:C1'	1:AA:1283:G:C5'	2.52	0.87
3:AC:59:ARG:O	10:AJ:92:THR:CG2	2.22	0.87
21:B0:2633:A:H4'	21:B0:2634:G:H4'	1.54	0.87
1:AA:1255:G:H21	1:AA:1276:G:H22	1.21	0.87
1:AA:142:G:H1'	1:AA:195:A:C6	2.09	0.87
1:AA:68:G:H21	1:AA:152:A:H1'	1.38	0.87
1:AA:1369:C:OP2	9:AI:112:LYS:N	2.07	0.87
1:AA:1457:A:C8	1:AA:1459:C:N3	2.41	0.87
1:AA:923:A:C2	1:AA:1395:C:N3	2.42	0.87
1:AA:141:A:C4'	1:AA:182:U:C1'	2.48	0.87
1:AA:196:A:O2'	1:AA:221:C:O2	1.92	0.87
1:AA:325:A:OP2	20:AT:70:SER:HB3	1.74	0.87
1:AA:51:A:N6	1:AA:314:C:O2	2.07	0.87
1:AA:6:G:N2	5:AE:98:THR:HG23	1.89	0.87
1:AA:1292:U:P	7:AG:41:ARG:NH2	2.47	0.87
21:B0:3128:G:O2'	21:B0:3174:C:C5'	2.21	0.87
22:B9:73:C:C3'	22:B9:74:A:P	2.63	0.87
1:AA:1261:A:H5'	1:AA:1283:G:O2'	1.74	0.87
1:AA:1458:G:C8	1:AA:1459:C:C2	2.61	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:190:A:N7	20:AT:105:SER:CA	2.37	0.87
1:AA:130:A:C4	1:AA:264:U:H1'	1.86	0.87
1:AA:776:G:O3'	1:AA:777:A:P	2.33	0.87
4:AD:57:ARG:HH21	5:AE:107:ARG:CD	1.76	0.87
1:AA:1108:G:H4'	1:AA:1191:A:O4'	1.75	0.87
1:AA:1316:G:H4'	14:AN:18:VAL:CG1	2.05	0.87
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.10	0.87
1:AA:235:C:H5'	17:AQ:70:ARG:CD	2.04	0.87
1:AA:436:C:C2	1:AA:437:U:N1	2.42	0.87
1:AA:94:G:C6	1:AA:96:C:C4	2.63	0.87
1:AA:1392:G:C4'	1:AA:1531:A:H5''	2.04	0.87
2:AB:91:PRO:HG2	2:AB:155:LEU:HD23	1.54	0.87
13:AM:82:MET:HG2	13:AM:93:ARG:NE	1.89	0.87
1:AA:1475:G:H5'	21:B0:1706:A:C4'	2.00	0.87
1:AA:1261:A:C4'	1:AA:1283:G:C5'	2.52	0.87
1:AA:1475:G:C5'	21:B0:1706:A:C5'	2.52	0.87
1:AA:131:C:O2'	1:AA:262:A:H2'	1.74	0.87
1:AA:402:G:H4'	1:AA:620:C:C4	2.09	0.87
13:AM:3:ARG:HG2	13:AM:9:ILE:HG23	1.56	0.87
1:AA:1458:G:C8	1:AA:1459:C:O2	2.28	0.86
1:AA:293:G:O5'	1:AA:609:A:N1	2.08	0.86
1:AA:502:G:C4'	1:AA:550:G:H4'	2.03	0.86
1:AA:1343:G:P	9:AI:125:TYR:OH	2.31	0.86
1:AA:1255:G:H2'	1:AA:1258:G:N2	1.90	0.86
4:AD:88:VAL:HA	5:AE:96:PRO:O	1.73	0.86
1:AA:564:C:O4'	17:AQ:32:TYR:HD2	1.58	0.86
21:B0:918:A:H2'	21:B0:919:U:H5''	1.57	0.86
1:AA:1113:C:C1'	3:AC:178:LEU:HD21	2.05	0.86
10:AJ:22:LYS:HE2	10:AJ:90:LEU:HD12	1.57	0.86
12:AL:41:ARG:CG	12:AL:42:THR:H	1.88	0.86
21:B0:88:G:H3'	21:B0:89:A:H5''	1.57	0.86
1:AA:1014:A:OP2	19:AS:14:HIS:HB3	1.73	0.86
1:AA:292:G:O2'	1:AA:608:A:N6	2.07	0.86
1:AA:129:U:OP1	17:AQ:3:LYS:NZ	2.08	0.86
1:AA:719:C:O2'	18:AR:49:LYS:HG2	1.74	0.86
1:AA:261:U:C5	20:AT:79:ARG:NH1	2.43	0.86
21:B0:1856:U:H3'	21:B0:3865:A:H8	1.37	0.86
1:AA:1061:G:C1'	10:AJ:56:HIS:CE1	2.59	0.86
1:AA:132:C:H4'	1:AA:262:A:C1'	1.96	0.86
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.57	0.86
1:AA:1014:A:H2	1:AA:1219:U:O2'	1.47	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1256:A:H5'	1:AA:1258:G:C4	2.09	0.86
1:AA:1416:G:H2'	1:AA:1417:G:C5'	2.06	0.86
1:AA:250:A:H4'	1:AA:251:G:O5'	1.76	0.86
21:B0:1072:U:H4'	21:B0:1081:A:O2'	1.75	0.86
1:AA:571:U:H5'	1:AA:819:A:C5	2.10	0.86
6:AF:30:LEU:HD23	6:AF:75:LEU:HD21	1.57	0.86
13:AM:93:ARG:HG2	21:B0:900(A):A:P	2.16	0.86
21:B0:1119:U:C3'	21:B0:1120:C:O5'	2.22	0.86
1:AA:1064:G:H22	1:AA:1190:G:C2'	1.88	0.86
1:AA:835:U:H5''	18:AR:64:ARG:HH22	1.39	0.86
1:AA:1318:A:C4'	19:AS:10:PHE:CE1	2.59	0.86
1:AA:1155:G:H3'	1:AA:1156:G:P	2.15	0.86
2:AB:102:LEU:HD21	2:AB:162:ILE:HD11	1.57	0.86
3:AC:110:ASN:HD21	3:AC:140:ARG:HB3	1.40	0.86
12:AL:25:PRO:C	12:AL:27:LEU:H	1.79	0.86
1:AA:1067:A:O2'	1:AA:1093:A:O3'	1.92	0.86
1:AA:1256:A:C5'	1:AA:1258:G:C4	2.59	0.86
1:AA:130:A:N7	17:AQ:63:ARG:HG3	1.91	0.86
1:AA:1474:G:O4'	21:B0:1718:A:C2	2.28	0.86
5:AE:115:VAL:HG11	5:AE:118:ILE:HG13	1.57	0.86
1:AA:323:U:C5'	20:AT:23:ARG:HA	2.05	0.85
1:AA:826:C:H1'	8:AH:15:ASN:ND2	1.91	0.85
1:AA:1064:G:H4'	1:AA:1065:U:H5'	1.58	0.85
1:AA:1328:C:C5'	13:AM:28:ALA:HB1	2.03	0.85
1:AA:571:U:C5'	1:AA:819:A:C4	2.59	0.85
1:AA:1092:A:H5''	7:AG:4:ARG:CZ	2.05	0.85
1:AA:640:A:N3	8:AH:115:SER:HB2	1.91	0.85
1:AA:1347:G:C6	9:AI:107:ARG:NH2	2.43	0.85
21:B0:3187:U:O3'	21:B0:3188:U:P	2.35	0.85
1:AA:104:G:H5'	1:AA:172:A:C2	2.10	0.85
1:AA:588:G:C5	1:AA:753:A:C5	2.64	0.85
3:AC:52:LEU:HD21	3:AC:118:GLN:HE22	1.40	0.85
1:AA:131:C:H4'	1:AA:263:A:H4'	1.59	0.85
1:AA:9:G:C8	5:AE:126:ARG:NH1	2.44	0.85
3:AC:64:VAL:HB	3:AC:99:VAL:HB	1.59	0.85
3:AC:70:VAL:HG21	3:AC:76:VAL:HG21	1.58	0.85
4:AD:88:VAL:C	5:AE:97:GLY:HA3	1.97	0.85
1:AA:262:A:H5'	20:AT:74:LYS:CB	2.05	0.85
21:B0:1312:G:H5''	21:B0:1313:U:H5'	1.59	0.85
21:B0:542:A:H2'	21:B0:543:G:H5'	1.59	0.85
1:AA:59:A:C5	1:AA:331:G:C2	2.64	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1092:A:H5''	7:AG:4:ARG:HH22	1.42	0.85
21:B0:3098:U:H2'	21:B0:3099:U:C6	2.10	0.85
1:AA:261:U:C6	20:AT:79:ARG:NH1	2.45	0.85
1:AA:375:U:O3'	1:AA:376:G:O5'	1.93	0.85
1:AA:190:A:N1	20:AT:104:LEU:CB	2.34	0.85
1:AA:702:A:H5'	21:B0:1840:A:H5'	1.58	0.85
1:AA:183:G:N2	1:AA:223:U:O2'	2.10	0.85
4:AD:150:GLU:HG3	4:AD:153:ARG:NH2	1.90	0.85
7:AG:149:ARG:NH1	11:AK:59:TYR:CE1	2.45	0.85
21:B0:1098:G:H1	21:B0:1113:C:N4	1.75	0.85
1:AA:1318:A:C5'	19:AS:10:PHE:CD1	2.60	0.84
1:AA:1419:G:H1'	21:B0:1932:G:H4'	1.58	0.84
1:AA:186:C:H4'	20:AT:81:LYS:HB2	1.58	0.84
1:AA:588:G:C4	1:AA:753:A:C6	2.65	0.84
3:AC:190:ARG:NH1	3:AC:190:ARG:HB3	1.91	0.84
1:AA:187:G:C2	20:AT:105:SER:CB	2.53	0.84
1:AA:804:U:O3'	1:AA:805:C:P	2.35	0.84
17:AQ:101:ARG:NH1	21:B0:731:A:C2	2.36	0.84
1:AA:1505:G:HO3'	1:AA:1506:U:P	0.97	0.84
1:AA:130:A:C6	1:AA:264:U:C2	2.64	0.84
1:AA:1057:G:H5''	3:AC:154:SER:HB2	1.59	0.84
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	0.84	0.84
21:B0:3098:U:HO3'	21:B0:3099:U:P	1.99	0.84
1:AA:1115:C:H1'	14:AN:61:TRP:O	1.77	0.84
1:AA:191:G:C2	1:AA:192:U:O2	2.30	0.84
1:AA:247:G:OP2	17:AQ:100:LYS:CE	2.24	0.84
1:AA:216:C:O2'	1:AA:469:C:O4'	1.93	0.84
17:AQ:96:GLN:HG3	21:B0:725:C:O2'	1.76	0.84
21:B0:1953:A:H1'	21:B0:1955:G:H1'	1.58	0.84
21:B0:910:U:C2'	21:B0:911:A:H5'	2.07	0.84
1:AA:274:A:N3	1:AA:275:G:C1'	2.39	0.84
1:AA:994:A:O2'	14:AN:8:GLU:CA	2.25	0.84
4:AD:104:VAL:HG11	4:AD:146:ILE:HD12	1.58	0.84
1:AA:1256:A:C4'	1:AA:1258:G:C4	2.60	0.84
1:AA:923:A:C1'	1:AA:1398:A:C2	2.61	0.84
17:AQ:104:LYS:N	21:B0:726:G:C2	2.42	0.84
1:AA:133:U:H5''	20:AT:74:LYS:HZ3	1.42	0.84
1:AA:1457:A:C4	1:AA:1459:C:O2	2.30	0.84
1:AA:190:A:C2	20:AT:101:GLY:O	2.30	0.84
17:AQ:27:PHE:CZ	17:AQ:36:ILE:HD11	2.12	0.84
21:B0:1856:U:H3	21:B0:3877:A:H61	1.02	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:848:G:C2'	1:AA:849:C:O4'	2.26	0.84
3:AC:190:ARG:HH11	3:AC:190:ARG:HB3	1.43	0.84
10:AJ:65:LEU:HD13	14:AN:36:PHE:CE1	2.11	0.84
21:B0:3128:G:H4'	21:B0:3174:C:O4'	1.78	0.84
1:AA:960:U:H1'	1:AA:1222:G:HO2'	1.40	0.84
1:AA:130:A:O4'	1:AA:264:U:H5'	1.72	0.84
3:AC:172:ARG:HH12	3:AC:174:PRO:HG3	1.43	0.84
1:AA:1298:C:H5	7:AG:114:ARG:HD3	1.42	0.84
9:AI:8:GLY:HA2	9:AI:79:LEU:CD1	2.07	0.84
21:B0:2548:G:C2'	21:B0:2549:G:H5''	2.08	0.84
21:B0:891:A:C2'	21:B0:892:A:H8	1.81	0.84
1:AA:1182:G:H5'	1:AA:1184:G:H5''	1.60	0.83
1:AA:923:A:H2	1:AA:1395:C:N3	1.75	0.83
21:B0:2198:U:H3'	21:B0:2199:C:H5''	1.59	0.83
21:B0:3103:A:H61	21:B0:3186:C:H42	1.24	0.83
21:B0:616:U:H2'	21:B0:617:U:H5''	1.59	0.83
21:B0:847:C:H41	21:B0:955:G:H21	1.25	0.83
1:AA:1044:A:H2'	1:AA:1045:C:C2'	2.03	0.83
4:AD:61:LYS:HD2	4:AD:207:TYR:OH	1.78	0.83
1:AA:640:A:N3	8:AH:115:SER:CB	2.41	0.83
21:B0:1071:U:H3	21:B0:1099:A:H2	1.21	0.83
21:B0:910:U:C3'	21:B0:911:A:P	2.65	0.83
1:AA:19:C:O2	1:AA:916:G:C2	2.30	0.83
1:AA:935:A:C4'	1:AA:1384:C:O2	2.26	0.83
1:AA:262:A:H5'	20:AT:74:LYS:HG3	1.60	0.83
21:B0:109:A:H3'	21:B0:110:U:H5''	1.60	0.83
1:AA:394:G:C5	1:AA:395:C:C5	2.67	0.83
1:AA:922:G:C2	1:AA:1396:A:N6	2.41	0.83
1:AA:1497:G:C2'	1:AA:1498:U:H5'	2.08	0.83
1:AA:582:U:C1'	17:AQ:105:ALA:HA	2.07	0.83
4:AD:88:VAL:CG2	5:AE:96:PRO:HB3	2.03	0.83
13:AM:50:GLU:O	13:AM:54:VAL:HG23	1.77	0.83
19:AS:55:LYS:HG2	19:AS:56:GLN:HE21	1.42	0.83
1:AA:1475:G:OP1	21:B0:1706:A:C1'	2.26	0.83
13:AM:7:VAL:HG13	26:BD:113:ASP:CA	2.08	0.83
1:AA:1277:C:C2'	1:AA:1279:A:C8	2.62	0.83
1:AA:246:A:O3'	1:AA:247:G:H4'	1.76	0.83
1:AA:104:G:C4'	1:AA:172:A:C2	2.61	0.83
1:AA:1261:A:HO2'	1:AA:1283:G:H5''	1.44	0.83
1:AA:189:A:C8	20:AT:105:SER:OG	1.69	0.83
1:AA:436:C:C2	1:AA:437:U:C5	2.65	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:3877:A:O3'	21:B0:1861:G:C3'	2.25	0.83
1:AA:1328:C:H5''	13:AM:28:ALA:HB1	1.59	0.83
1:AA:1475:G:H4'	21:B0:1706:A:H5''	1.60	0.83
1:AA:717:C:HO3'	1:AA:718:G:P	1.96	0.83
5:AE:148:VAL:HG21	8:AH:107:LEU:HD13	1.60	0.83
1:AA:1419:G:H4'	21:B0:1932:G:HO2'	1.38	0.83
1:AA:15:G:H4'	5:AE:24:ARG:CZ	2.09	0.83
6:AF:36:ARG:HH12	6:AF:38:GLU:HG2	1.43	0.83
1:AA:1250:A:H4'	9:AI:68:GLY:N	1.94	0.83
1:AA:1256:A:N6	1:AA:1278:U:C2	2.46	0.82
1:AA:935:A:C1'	1:AA:1384:C:C2	2.62	0.82
1:AA:958:A:C8	19:AS:55:LYS:HD2	2.14	0.82
10:AJ:19:SER:HB2	10:AJ:91:PRO:HG3	1.60	0.82
21:B0:1181:C:H2'	21:B0:1182:U:H5''	1.60	0.82
1:AA:1237:C:O3'	1:AA:1238:A:P	2.38	0.82
1:AA:436:C:N3	1:AA:437:U:C5	2.45	0.82
1:AA:244:U:C5	1:AA:894:G:C2	2.67	0.82
3:AC:23:TYR:CE1	10:AJ:67:THR:HG23	2.15	0.82
21:B0:1098:G:N1	21:B0:1113:C:N4	2.27	0.82
1:AA:1182:G:C5'	1:AA:1184:G:C5'	2.53	0.82
3:AC:91:LEU:HD23	3:AC:92:ALA:N	1.94	0.82
1:AA:1394:A:C6	1:AA:1501:C:H5'	2.14	0.82
1:AA:274:A:H1'	1:AA:275:G:O4'	1.77	0.82
5:AE:105:VAL:HB	5:AE:106:PRO:HD3	1.60	0.82
13:AM:78:ILE:HA	13:AM:81:LEU:HD21	1.62	0.82
1:AA:130:A:OP2	17:AQ:63:ARG:NH2	2.12	0.82
21:B0:910:U:O2'	21:B0:911:A:C5'	2.24	0.82
1:AA:262:A:C2'	20:AT:75:ASN:ND2	2.41	0.82
10:AJ:63:PHE:CZ	14:AN:48:ALA:HB3	2.13	0.82
10:AJ:45:ARG:CZ	14:AN:36:PHE:CD2	2.62	0.82
21:B0:653:G:H2'	21:B0:654:A:H4'	1.62	0.82
1:AA:217:C:O3'	1:AA:470:U:O4'	1.98	0.82
21:B0:166:G:H21	21:B0:184:A:H62	1.27	0.82
1:AA:1044:A:H2'	1:AA:1045:C:HO2'	1.41	0.82
1:AA:1269:A:C2	1:AA:1313:U:H1'	2.12	0.82
1:AA:1409:C:H2'	1:AA:1410:G:O4'	1.79	0.82
1:AA:473:C:OP1	16:AP:75:ARG:NH1	2.13	0.82
1:AA:116:A:H61	1:AA:313:A:C1'	1.92	0.82
1:AA:132:C:H5'	20:AT:75:ASN:ND2	1.94	0.82
1:AA:1405:G:O2'	1:AA:1519:A:H5'	1.80	0.82
1:AA:234:C:O3'	17:AQ:70:ARG:NE	2.12	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:394:G:C5	1:AA:395:C:C4	2.68	0.82
1:AA:436:C:H2'	1:AA:437:U:C6	2.14	0.82
1:AA:571:U:C5'	1:AA:819:A:C6	2.62	0.82
20:AT:43:LEU:HD13	20:AT:51:GLU:HG3	1.62	0.82
21:B0:1964:A:H3'	21:B0:1965:U:H5'	1.60	0.82
1:AA:189:A:H61	20:AT:104:LEU:CG	1.92	0.82
18:AR:55:ARG:NH1	18:AR:55:ARG:HB3	1.95	0.82
1:AA:1475:G:C4'	21:B0:1706:A:C5'	2.58	0.82
21:B0:3118:U:O4	21:B0:3149:G:C8	2.33	0.82
1:AA:1064:G:H22	1:AA:1190:G:H2'	1.42	0.82
1:AA:132:C:C4'	1:AA:262:A:O4'	2.21	0.82
1:AA:436:C:N1	1:AA:437:U:C6	2.47	0.82
1:AA:571:U:H5''	1:AA:819:A:C6	2.15	0.82
1:AA:112:G:N2	1:AA:354:G:P	2.53	0.81
1:AA:1483:A:C5	1:AA:1484:C:C4	2.68	0.81
1:AA:8:A:O4'	5:AE:103:GLY:N	2.12	0.81
1:AA:825:G:H21	8:AH:11:THR:HG21	1.45	0.81
21:B0:831:G:H21	21:B0:1203:A:H62	1.25	0.81
1:AA:190:A:C2	20:AT:101:GLY:C	2.54	0.81
1:AA:130:A:C2	1:AA:264:U:N3	2.47	0.81
1:AA:760:G:C2	17:AQ:104:LYS:O	2.33	0.81
1:AA:131:C:H1'	1:AA:263:A:H1'	1.62	0.81
19:AS:29:ARG:O	19:AS:30:LEU:HB2	1.80	0.81
21:B0:3197:U:C4	21:B0:2204:A:N6	2.49	0.81
21:B0:789:G:H21	21:B0:806:A:H62	1.25	0.81
1:AA:523:A:C2	12:AL:91:LYS:HB3	2.14	0.81
15:AO:78:TYR:CZ	15:AO:82:ILE:HD11	2.15	0.81
1:AA:1064:G:N2	1:AA:1190:G:C2'	2.43	0.81
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.15	0.81
7:AG:75:VAL:CG1	7:AG:86:GLN:HB3	2.10	0.81
1:AA:1224:G:C2'	1:AA:1225:A:OP1	2.26	0.81
1:AA:176:C:OP1	20:AT:29:LYS:NZ	2.11	0.81
1:AA:184:G:H5'	1:AA:224:C:O2'	1.81	0.81
1:AA:706:A:C1'	11:AK:29:ILE:HD11	2.11	0.81
1:AA:835:U:H5''	18:AR:64:ARG:CZ	2.11	0.81
1:AA:1318:A:C4'	19:AS:10:PHE:CD1	2.64	0.81
1:AA:223:U:C5'	20:AT:68:LYS:HZ2	1.87	0.81
21:B0:1034:U:H1'	21:B0:1133:G:H5''	1.61	0.81
1:AA:1269:A:N3	1:AA:1313:U:H1'	1.96	0.81
1:AA:218:C:OP1	1:AA:470:U:H4'	1.81	0.81
2:AB:132:LYS:HA	2:AB:135:GLN:HB3	1.63	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:89:THR:HB	5:AE:97:GLY:C	1.98	0.81
1:AA:189:A:H61	20:AT:104:LEU:HB3	1.04	0.81
21:B0:1119:U:C4	21:B0:1120:C:C5	2.69	0.81
1:AA:1416:G:C4	1:AA:1417:G:O4'	2.34	0.81
1:AA:1416:G:C5	1:AA:1417:G:O4'	2.33	0.81
4:AD:150:GLU:HA	4:AD:153:ARG:HE	1.44	0.81
1:AA:1261:A:C2'	1:AA:1283:G:C5'	2.58	0.81
1:AA:1305:G:N2	1:AA:1331:G:O2'	2.13	0.81
1:AA:406:G:N9	1:AA:496:A:N1	2.29	0.81
1:AA:600:C:C5'	8:AH:129:VAL:HA	2.11	0.81
2:AB:101:MET:HA	2:AB:108:ILE:HD12	1.63	0.81
7:AG:75:VAL:HG11	7:AG:86:GLN:HB3	1.63	0.81
21:B0:1807:A:H4'	21:B0:1808:C:H5'	1.61	0.81
1:AA:1109:C:P	3:AC:176:HIS:CD2	2.74	0.81
1:AA:9:G:H5'	5:AE:122:GLU:OE2	1.79	0.81
13:AM:82:MET:HG3	13:AM:93:ARG:NE	1.96	0.81
1:AA:1368:G:OP2	9:AI:114:TYR:N	2.14	0.81
1:AA:702:A:N1	21:B0:1839:A:O4'	2.14	0.81
3:AC:23:TYR:CD1	10:AJ:11:PHE:CD2	2.69	0.81
1:AA:1061:G:O4'	10:AJ:56:HIS:ND1	2.14	0.81
21:B0:2227:C:H2'	21:B0:2228:U:H5'	1.63	0.81
2:AB:27:LYS:HD3	2:AB:195:ASP:OD2	1.81	0.80
5:AE:118:ILE:HG22	5:AE:119:LEU:N	1.95	0.80
21:B0:878:C:H42	21:B0:921:A:H62	1.28	0.80
22:B9:73:C:HO3'	22:B9:74:A:P	2.03	0.80
1:AA:1394:A:N6	1:AA:1501:C:H5''	1.95	0.80
1:AA:406:G:C6	1:AA:496:A:C8	2.69	0.80
1:AA:518:C:HO2'	12:AL:50:SER:HB3	1.44	0.80
1:AA:5:U:O4	5:AE:95:ALA:CB	2.29	0.80
1:AA:1281:U:H5'	1:AA:1282:C:H5	1.44	0.80
1:AA:1483:A:C4	1:AA:1484:C:C6	2.69	0.80
1:AA:1285:A:H4'	1:AA:1286:A:O5'	1.82	0.80
1:AA:1416:G:C6	1:AA:1417:G:C1'	2.64	0.80
3:AC:8:ILE:HG23	3:AC:16:ARG:HG2	1.60	0.80
10:AJ:8:LEU:CD2	10:AJ:96:ILE:HG12	2.11	0.80
13:AM:22:ILE:HD12	13:AM:25:ILE:HD12	1.61	0.80
21:B0:3118:U:O4	21:B0:3149:G:H8	1.64	0.80
1:AA:1255:G:C2'	1:AA:1258:G:H21	1.93	0.80
1:AA:926:G:C6	1:AA:1505:G:C5	2.69	0.80
1:AA:848:G:O2'	1:AA:849:C:O4'	1.99	0.80
1:AA:929:G:P	1:AA:1533:C:N4	2.54	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:191:THR:HG22	3:AC:193:TYR:H	1.44	0.80
21:B0:1098:G:C2	21:B0:1113:C:N4	2.41	0.80
1:AA:1416:G:C3'	1:AA:1417:G:P	2.64	0.80
1:AA:130:A:H1'	1:AA:263:A:O2'	1.81	0.80
6:AF:30:LEU:HB3	6:AF:35:ALA:HB3	1.62	0.80
21:B0:1072:U:H3	29:BG:10:LEU:CA	1.95	0.80
21:B0:225:G:H3'	21:B0:226:C:C5'	2.09	0.80
12:AL:28:LYS:HD2	12:AL:33:ARG:HH22	1.47	0.80
1:AA:995:C:C2	14:AN:4:LYS:HD3	2.17	0.80
21:B0:1119:U:O3'	21:B0:1120:C:O5'	2.00	0.80
1:AA:1298:C:C5	7:AG:114:ARG:CD	2.63	0.80
1:AA:1490:C:H2'	1:AA:1491:G:C8	2.17	0.80
1:AA:319:G:O2'	1:AA:1434:A:C6	2.35	0.80
1:AA:59:A:C2	1:AA:331:G:C4	2.68	0.80
1:AA:367:U:O2	1:AA:369:C:C6	2.35	0.80
1:AA:974:A:P	14:AN:31:ARG:HG2	2.21	0.80
12:AL:67:THR:HG22	12:AL:96:VAL:HG13	1.63	0.80
1:AA:19:C:C2	1:AA:916:G:N1	2.43	0.80
1:AA:547:A:H4'	1:AA:548:G:O5'	1.53	0.80
1:AA:820:U:O2	1:AA:873:A:H8	1.14	0.80
3:AC:23:TYR:HA	10:AJ:11:PHE:CE1	2.17	0.80
1:AA:994:A:O3'	14:AN:11:LYS:HE2	1.82	0.80
1:AA:1329:A:O3'	13:AM:26:GLY:N	2.09	0.79
1:AA:1484:C:H4'	21:B0:1943:A:C2'	2.10	0.79
13:AM:88:ARG:CD	19:AS:3:ARG:HH21	1.89	0.79
1:AA:1116:C:C2'	1:AA:1117:G:H5''	2.12	0.79
1:AA:1269:A:N1	1:AA:1313:U:O4'	2.14	0.79
1:AA:1305:G:O2'	1:AA:1306:A:C8	2.30	0.79
1:AA:237:C:P	17:AQ:40:LYS:CD	2.69	0.79
1:AA:619:U:H2'	4:AD:135:LEU:CD1	2.11	0.79
1:AA:933:G:OP2	7:AG:3:ARG:HD2	1.82	0.79
1:AA:1483:A:C4	1:AA:1484:C:C5	2.69	0.79
1:AA:1490:C:H6	1:AA:1490:C:H5'	1.47	0.79
1:AA:761:G:O4'	17:AQ:103:GLY:O	2.00	0.79
21:B0:1119:U:O4	21:B0:1120:C:C4	2.36	0.79
1:AA:1261:A:H4'	1:AA:1283:G:C5'	2.11	0.79
1:AA:1314:C:H5	19:AS:6:LYS:HG3	1.44	0.79
1:AA:1211:U:C5'	1:AA:1212:U:P	2.71	0.79
1:AA:1248:A:O2'	9:AI:70:LYS:CE	2.30	0.79
1:AA:1261:A:C1'	1:AA:1283:G:H4'	2.12	0.79
1:AA:212:G:HO3'	1:AA:213:G:P	2.01	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:62:HIS:HB3	14:AN:59:ALA:CB	2.11	0.79
21:B0:3874:C:C4	21:B0:3875:A:C5	2.70	0.79
1:AA:191:G:C8	1:AA:192:U:C6	2.71	0.79
8:AH:90:GLY:O	8:AH:91:ARG:HB2	1.82	0.79
10:AJ:45:ARG:HH22	14:AN:36:PHE:HD2	1.30	0.79
21:B0:1572:C:C2'	21:B0:1573:G:H5''	2.11	0.79
1:AA:205:G:N2	1:AA:207:C:H5	1.80	0.79
1:AA:184:G:C5'	1:AA:224:C:O2'	2.30	0.79
1:AA:673:G:H2'	1:AA:674:G:C8	2.17	0.79
21:B0:1856:U:O2	21:B0:3877:A:N1	2.15	0.79
1:AA:1394:A:N1	1:AA:1501:C:H5'	1.98	0.79
1:AA:278:G:H21	1:AA:279:A:H62	1.30	0.79
1:AA:113:G:O2'	1:AA:353:A:H4'	1.82	0.79
1:AA:244:U:C4	1:AA:894:G:C2	2.71	0.79
3:AC:15:THR:O	3:AC:16:ARG:HB2	1.81	0.79
1:AA:315:A:H4'	1:AA:353:A:N6	1.98	0.79
1:AA:397:A:C8	1:AA:547:A:O3'	2.36	0.79
1:AA:406:G:C8	1:AA:496:A:N1	2.51	0.79
4:AD:25:ARG:C	4:AD:27:TYR:H	1.85	0.79
1:AA:108:G:C5	20:AT:15:ARG:HG3	2.17	0.79
1:AA:1475:G:H4'	21:B0:1706:A:H4'	1.65	0.79
21:B0:1856:U:C2	21:B0:3877:A:N1	2.51	0.79
21:B0:1856:U:N3	21:B0:3877:A:N6	2.14	0.79
1:AA:935:A:O4'	1:AA:1384:C:C2	2.36	0.79
1:AA:262:A:H5'	20:AT:74:LYS:CG	2.13	0.79
1:AA:1346:A:C2'	7:AG:10:ARG:HH22	1.91	0.79
12:AL:126:LYS:H	12:AL:126:LYS:HD2	1.48	0.79
1:AA:323:U:H4'	20:AT:19:SER:O	1.82	0.79
1:AA:104:G:C4'	1:AA:172:A:H2	1.95	0.78
1:AA:212:G:O2'	1:AA:213:G:H5'	1.82	0.78
5:AE:43:LEU:HD11	5:AE:132:ALA:HB1	1.64	0.78
1:AA:1475:G:H5'	21:B0:1706:A:O4'	1.83	0.78
21:B0:1861:G:C4'	53:B5:199:ASN:CA	2.61	0.78
1:AA:1474:G:H5'	21:B0:1718:A:N3	1.99	0.78
1:AA:185:A:O2'	1:AA:186:C:P	2.41	0.78
2:AB:77:ALA:HB2	2:AB:211:ILE:CD1	2.10	0.78
20:AT:54:LYS:HG3	20:AT:100:ILE:HD13	1.65	0.78
1:AA:1459:C:P	20:AT:31:SER:OG	2.41	0.78
1:AA:1296:C:O4'	1:AA:1302:U:O4	2.01	0.78
1:AA:184:G:C1'	1:AA:224:C:H4'	2.13	0.78
5:AE:79:GLU:CD	8:AH:105:ARG:CD	2.51	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1314:C:C5	19:AS:6:LYS:HE2	2.17	0.78
21:B0:471:A:H62	21:B0:480:G:H21	1.31	0.78
20:AT:54:LYS:HG3	20:AT:100:ILE:CD1	2.13	0.78
1:AA:1416:G:C3'	1:AA:1417:G:C5'	2.54	0.78
1:AA:406:G:C5	1:AA:496:A:C4	2.71	0.78
1:AA:837:G:H2'	1:AA:838:C:C6	2.19	0.78
11:AK:54:ARG:NH1	11:AK:54:ARG:HB3	1.97	0.78
12:AL:70:ILE:HD13	12:AL:77:LEU:HD12	1.63	0.78
1:AA:1112:C:O2	3:AC:178:LEU:C	2.21	0.78
4:AD:150:GLU:H	4:AD:150:GLU:CD	1.86	0.78
16:AP:21:VAL:HG21	16:AP:59:TRP:CD1	2.19	0.78
19:AS:31:ILE:HG22	19:AS:32:LYS:N	1.99	0.78
21:B0:891:A:C2'	21:B0:892:A:N7	2.36	0.78
21:B0:895:G:H8	21:B0:895:G:H5'	1.48	0.78
1:AA:1016:A:O2'	1:AA:1218:C:H4'	1.84	0.78
1:AA:1211:U:H5'	1:AA:1212:U:O5'	1.84	0.78
1:AA:1256:A:C2	1:AA:1258:G:N1	2.47	0.78
1:AA:243:A:C4'	1:AA:244:U:H5'	2.14	0.78
2:AB:84:GLU:OE1	2:AB:216:SER:HA	1.83	0.78
12:AL:120:TYR:O	12:AL:122:THR:HG23	1.83	0.78
1:AA:187:G:N2	20:AT:105:SER:CB	2.46	0.78
1:AA:1458:G:N7	1:AA:1459:C:C2	2.52	0.78
1:AA:1394:A:N1	1:AA:1501:C:C4'	2.46	0.78
1:AA:279:A:H3'	17:AQ:95:TYR:CZ	2.19	0.78
2:AB:8:LYS:O	2:AB:9:GLU:HB2	1.81	0.78
13:AM:80:ARG:CZ	19:AS:65:ASN:O	2.32	0.78
14:AN:14:PRO:C	14:AN:16:PHE:H	1.86	0.78
21:B0:1252:C:C2'	21:B0:1253:C:H5''	2.13	0.78
21:B0:403:A:H4'	21:B0:425:A:H5'	1.63	0.78
1:AA:1232:U:OP1	9:AI:126:SER:N	2.17	0.78
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.48	0.78
1:AA:130:A:H2	1:AA:264:U:C6	1.98	0.78
1:AA:367:U:N3	1:AA:369:C:N4	2.31	0.78
1:AA:714:G:H4'	1:AA:776:G:C4'	2.13	0.78
1:AA:89:G:C3'	1:AA:90:C:P	2.72	0.78
5:AE:64:ARG:O	5:AE:65:ASN:HB3	1.84	0.78
21:B0:1679:U:H3'	21:B0:1680:U:H5''	1.66	0.78
21:B0:225:G:C3'	21:B0:226:C:H5'	2.13	0.78
1:AA:1256:A:H4'	1:AA:1258:G:N9	1.95	0.78
1:AA:476:U:O2	1:AA:477:G:O4'	1.99	0.78
4:AD:88:VAL:HA	5:AE:97:GLY:N	1.98	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	1.65	0.78
1:AA:651:C:C2	1:AA:652:U:C5	2.72	0.77
3:AC:150:LYS:HE2	3:AC:152:ILE:HD11	1.66	0.77
21:B0:1067:G:H5'	21:B0:1068:A:C5'	2.11	0.77
1:AA:216:C:O2'	1:AA:468:A:C2'	2.32	0.77
1:AA:436:C:C6	1:AA:437:U:C5	2.72	0.77
1:AA:1112:C:C2	3:AC:178:LEU:N	2.51	0.77
1:AA:1117:G:O2'	9:AI:106:ALA:HB2	1.85	0.77
17:AQ:104:LYS:CG	21:B0:727:U:C2	2.66	0.77
1:AA:128:G:H4'	17:AQ:3:LYS:HG2	1.65	0.77
1:AA:323:U:O2'	20:AT:22:ARG:HD2	1.84	0.77
1:AA:1147:C:H4'	9:AI:5:TYR:HE1	1.46	0.77
1:AA:1181:G:O2'	1:AA:1184:G:H5'	1.83	0.77
1:AA:583:A:H5'	17:AQ:90:ILE:HG21	1.66	0.77
1:AA:216:C:O2'	1:AA:468:A:N3	2.17	0.77
1:AA:190:A:C5	20:AT:105:SER:HA	2.19	0.77
1:AA:293:G:H4'	1:AA:609:A:H2	1.42	0.77
1:AA:130:A:P	17:AQ:63:ARG:HH21	2.07	0.77
6:AF:100:ASN:HD22	18:AR:23:LYS:HG2	1.49	0.77
1:AA:1092:A:C5'	7:AG:4:ARG:CZ	2.61	0.77
1:AA:1226:C:H4'	1:AA:1227:A:OP1	1.84	0.77
1:AA:1255:G:O2'	1:AA:1259:C:C2	2.34	0.77
1:AA:760:G:O6	17:AQ:105:ALA:HB1	1.84	0.77
2:AB:197:VAL:HB	2:AB:200:ILE:HG12	1.66	0.77
1:AA:848:G:O3'	1:AA:849:C:H5'	1.85	0.77
7:AG:66:VAL:HG12	7:AG:70:LYS:HE3	1.65	0.77
21:B0:1067:G:C5'	21:B0:1068:A:H5'	2.10	0.77
21:B0:2491:C:H2'	21:B0:2492:G:H5''	1.67	0.77
21:B0:3109:U:H5'	21:B0:3150:C:C4'	2.15	0.77
21:B0:3185:U:H5'	21:B0:3185:U:H6	1.49	0.77
1:AA:935:A:H1'	1:AA:1384:C:C4	2.20	0.77
1:AA:314:C:O2	1:AA:353:A:H2	1.66	0.77
1:AA:46:G:O3'	1:AA:47:C:P	2.42	0.77
1:AA:7:G:H21	5:AE:121:LYS:HG2	1.50	0.77
1:AA:577:G:H1'	1:AA:816:A:C2	2.19	0.77
1:AA:922:G:C2	1:AA:1396:A:C2	2.73	0.77
2:AB:57:PHE:O	2:AB:60:ASP:HB3	1.84	0.77
10:AJ:61:GLU:OE2	14:AN:49:HIS:CE1	2.37	0.77
12:AL:75:HIS:CD2	12:AL:77:LEU:H	1.97	0.77
1:AA:323:U:H5'	20:AT:23:ARG:CA	2.08	0.77
6:AF:95:GLU:H	6:AF:95:GLU:CD	1.86	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:74:LEU:O	16:AP:79:VAL:HG23	1.85	0.77
1:AA:236:G:C5'	17:AQ:42:TYR:HE2	1.94	0.77
21:B0:3128:G:H4'	21:B0:3174:C:C1'	2.14	0.77
21:B0:940:G:H3'	21:B0:941:U:C5'	2.07	0.77
1:AA:1409:C:C2'	1:AA:1410:G:H8	1.99	0.76
1:AA:142:G:O4'	1:AA:195:A:C6	2.37	0.76
4:AD:205:GLU:OE1	5:AE:100:VAL:HB	1.85	0.76
21:B0:2808:U:H3'	21:B0:2809:A:H5'	1.67	0.76
21:B0:1856:U:C5'	21:B0:3865:A:OP1	2.33	0.76
7:AG:95:ARG:HH11	7:AG:95:ARG:HG3	1.50	0.76
1:AA:1277:C:O2	1:AA:1279:A:N7	2.19	0.76
1:AA:1458:G:N9	1:AA:1459:C:H2'	1.95	0.76
1:AA:755:G:C1'	8:AH:1:MET:HE3	2.12	0.76
12:AL:75:HIS:HD2	12:AL:77:LEU:N	1.82	0.76
21:B0:1094:C:HO2'	21:B0:1096:A:H2	1.31	0.76
17:AQ:104:LYS:HG3	21:B0:727:U:H1'	1.55	0.76
1:AA:367:U:O2	1:AA:369:C:C4	2.38	0.76
1:AA:19:C:N3	1:AA:916:G:C6	2.54	0.76
1:AA:1016:A:H5'	14:AN:15:LYS:HE3	1.66	0.76
17:AQ:104:LYS:HZ3	21:B0:726:G:H1	1.32	0.76
1:AA:1329:A:H5''	13:AM:26:GLY:N	1.94	0.76
1:AA:293:G:P	1:AA:609:A:N6	2.54	0.76
1:AA:6:G:N2	5:AE:98:THR:CG2	2.47	0.76
1:AA:935:A:H1'	1:AA:1384:C:C2	2.21	0.76
18:AR:55:ARG:HH11	18:AR:55:ARG:HB3	1.50	0.76
1:AA:1014:A:C2	19:AS:34:TRP:CG	2.72	0.76
21:B0:894:G:H2'	21:B0:895:G:H5''	1.65	0.76
1:AA:1108:G:H5'	1:AA:1191:A:H4'	1.67	0.76
1:AA:217:C:C2'	1:AA:470:U:H5'	2.15	0.76
1:AA:994:A:O2'	14:AN:8:GLU:CB	2.33	0.76
2:AB:36:ARG:HD2	2:AB:41:ILE:HD12	1.68	0.76
4:AD:162:LEU:HD13	4:AD:181:MET:HG2	1.67	0.76
1:AA:1250:A:H4'	9:AI:68:GLY:CA	2.14	0.76
12:AL:126:LYS:H	12:AL:126:LYS:CD	1.96	0.76
1:AA:132:C:C5'	20:AT:75:ASN:ND2	2.48	0.76
1:AA:132:C:C5'	1:AA:262:A:O4'	2.31	0.76
1:AA:1459:C:C5'	20:AT:28:ALA:CA	2.62	0.76
1:AA:262:A:OP2	20:AT:76:ALA:HB2	1.85	0.76
1:AA:37:U:O2	1:AA:547:A:C2	2.39	0.76
1:AA:761:G:H4'	17:AQ:102:GLY:C	2.06	0.76
1:AA:1182:G:O2'	1:AA:1183:A:OP2	2.04	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:323:U:O3'	20:AT:22:ARG:HB2	1.83	0.76
1:AA:977:A:H2	1:AA:1224:G:C6	2.00	0.76
1:AA:1113:C:C1'	3:AC:178:LEU:CD2	2.62	0.76
20:AT:14:LYS:O	20:AT:18:GLN:HG3	1.86	0.76
21:B0:1528:C:H2'	21:B0:1529:C:H5''	1.67	0.76
17:AQ:104:LYS:CB	21:B0:727:U:H1'	2.16	0.76
1:AA:588:G:C8	1:AA:753:A:C2	2.74	0.76
6:AF:67:MET:HE1	6:AF:72:VAL:HA	1.67	0.76
6:AF:86:ARG:O	6:AF:87:ARG:HG2	1.85	0.76
1:AA:994:A:HO2'	14:AN:8:GLU:HA	1.50	0.76
1:AA:1114:C:O2	14:AN:60:SER:OG	2.04	0.76
1:AA:1428:A:H4'	21:B0:1703:C:O2'	1.85	0.76
1:AA:403:C:C2'	1:AA:404:U:H5'	2.14	0.76
3:AC:110:ASN:O	3:AC:111:LEU:HD23	1.85	0.76
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.49	0.76
1:AA:808:C:OP1	15:AO:48:LYS:HE3	1.86	0.76
17:AQ:97:SER:OG	17:AQ:103:GLY:HA2	1.85	0.76
19:AS:40:ILE:HD13	19:AS:62:ILE:HD13	1.68	0.76
21:B0:357:A:H2'	21:B0:358:C:H5'	1.66	0.76
22:B9:107:C:H2'	22:B9:108:G:H5'	1.68	0.76
1:AA:958:A:C4	19:AS:55:LYS:HD2	2.21	0.75
21:B0:1113:C:O3'	21:B0:1114:A:OP2	2.04	0.75
21:B0:68:C:H1'	21:B0:72:A:H1'	1.68	0.75
1:AA:16:A:H4'	5:AE:17:ALA:H	1.51	0.75
1:AA:322:C:O3'	20:AT:23:ARG:CG	2.33	0.75
2:AB:139:LYS:O	2:AB:143:GLU:HG2	1.86	0.75
1:AA:587:G:OP1	8:AH:89:PRO:HB3	1.86	0.75
21:B0:1919:A:H5''	21:B0:1920:A:O5'	1.86	0.75
21:B0:910:U:O3'	21:B0:911:A:P	2.45	0.75
1:AA:1025:U:H2'	1:AA:1026:G:C8	2.21	0.75
1:AA:1069:C:O2'	1:AA:1192:C:H1'	1.86	0.75
1:AA:1261:A:H1'	1:AA:1283:G:H5'	1.67	0.75
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.22	0.75
1:AA:279:A:OP2	17:AQ:95:TYR:CE2	2.35	0.75
1:AA:328:C:O2	1:AA:328:C:H2'	1.85	0.75
2:AB:16:HIS:NE2	2:AB:214:ILE:HG12	2.02	0.75
1:AA:1061:G:H1'	10:AJ:56:HIS:HE1	1.50	0.75
21:B0:3126:A:O4'	21:B0:3127:G:H5'	1.84	0.75
21:B0:3874:C:N4	21:B0:3875:A:C6	2.54	0.75
1:AA:1261:A:C4'	1:AA:1283:G:H5''	2.15	0.75
1:AA:142:G:O4'	1:AA:195:A:N6	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:501:C:H1'	1:AA:549:C:C1'	2.15	0.75
1:AA:15:G:H1'	5:AE:19:MET:CE	2.15	0.75
1:AA:234:C:O2'	17:AQ:64:PRO:HG3	1.87	0.75
21:B0:2075:U:O2'	21:B0:3093:C:N1	2.18	0.75
21:B0:2806:G:H1'	21:B0:2858:A:H2'	1.68	0.75
21:B0:3874:C:C4	21:B0:3875:A:N7	2.54	0.75
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.00	0.75
1:AA:1298:C:P	7:AG:114:ARG:HH22	2.09	0.75
1:AA:323:U:C4'	20:AT:22:ARG:HB2	2.15	0.75
1:AA:436:C:H2'	1:AA:437:U:H6	1.49	0.75
1:AA:8:A:O4'	5:AE:102:ALA:C	2.24	0.75
9:AI:118:LYS:O	9:AI:119:ALA:HB3	1.85	0.75
12:AL:59:ARG:HD3	12:AL:65:GLU:HG3	1.68	0.75
17:AQ:95:TYR:C	17:AQ:97:SER:H	1.89	0.75
21:B0:1199:U:H3'	21:B0:1200:G:C5'	2.17	0.75
1:AA:960:U:C1'	1:AA:1222:G:O2'	2.29	0.75
1:AA:1492:A:H2'	1:AA:1493:A:O4'	1.87	0.75
3:AC:107:GLN:CD	3:AC:107:GLN:H	1.88	0.75
3:AC:19:GLU:HB3	3:AC:40:ARG:HH21	1.50	0.75
3:AC:52:LEU:HD23	3:AC:52:LEU:N	2.02	0.75
13:AM:49:THR:HG22	13:AM:51:ALA:N	2.02	0.75
21:B0:892:A:N3	21:B0:911:A:C4	2.54	0.75
1:AA:132:C:O4'	1:AA:262:A:C1'	2.29	0.75
1:AA:31:G:C8	1:AA:48:C:C4	2.75	0.75
1:AA:6:G:C8	5:AE:119:LEU:HD12	2.21	0.75
1:AA:992:U:H4'	1:AA:993:G:O5'	1.86	0.75
10:AJ:45:ARG:NH2	14:AN:36:PHE:HD2	1.85	0.75
1:AA:51:A:C6	1:AA:314:C:H1'	2.21	0.75
1:AA:6:G:C8	5:AE:119:LEU:CD1	2.69	0.75
1:AA:1367:C:H5'	10:AJ:60:ARG:NH1	2.02	0.75
10:AJ:82:ILE:O	10:AJ:86:MET:HB2	1.87	0.75
1:AA:995:C:O2	14:AN:4:LYS:CD	2.34	0.75
1:AA:835:U:P	18:AR:64:ARG:HH21	2.10	0.75
1:AA:1297:C:HO3'	1:AA:1298:C:P	2.07	0.75
1:AA:1296:C:C4'	1:AA:1302:U:C5	2.69	0.75
1:AA:250:A:N6	1:AA:275:G:C6	2.55	0.75
22:B9:114:C:C2'	22:B9:115:G:H5''	2.17	0.75
1:AA:223:U:H5''	20:AT:68:LYS:NZ	1.94	0.74
1:AA:59:A:H61	1:AA:331:G:H1'	1.52	0.74
2:AB:72:GLY:HA3	2:AB:81:VAL:HG21	1.69	0.74
13:AM:4:ILE:HG22	13:AM:5:ALA:N	2.00	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:91:ARG:HA	17:AQ:34:LYS:HB2	1.68	0.74
21:B0:1856:U:O4	21:B0:3877:A:N6	2.20	0.74
1:AA:1255:G:C1'	1:AA:1259:C:C1'	2.42	0.74
1:AA:761:G:HO2'	17:AQ:104:LYS:HZ2	1.32	0.74
12:AL:24:VAL:HG13	12:AL:98:TYR:HE2	1.51	0.74
1:AA:994:A:O3'	14:AN:11:LYS:CE	2.35	0.74
21:B0:3197:U:O2	21:B0:2181:A:N6	2.20	0.74
1:AA:1182:G:O2'	1:AA:1183:A:P	2.44	0.74
1:AA:1015:A:H1'	1:AA:1219:U:H5''	1.67	0.74
1:AA:1296:C:H4'	1:AA:1302:U:C4	2.18	0.74
1:AA:816:A:OP1	1:AA:1526:G:O2'	2.05	0.74
1:AA:731:G:OP1	1:AA:766:A:H1'	1.88	0.74
1:AA:848:G:H2'	1:AA:849:C:C1'	2.18	0.74
1:AA:959:A:N1	1:AA:1221:G:O2'	2.19	0.74
21:B0:1029:C:H2'	21:B0:1030:U:H5''	1.68	0.74
21:B0:1915:A:H62	21:B0:1951:G:H21	1.35	0.74
21:B0:1856:U:HO2'	21:B0:3865:A:H5'	1.49	0.74
1:AA:1113:C:H1'	3:AC:178:LEU:CD2	2.14	0.74
1:AA:922:G:C6	1:AA:1396:A:N6	2.54	0.74
1:AA:112:G:C2	1:AA:354:G:C5'	2.55	0.74
3:AC:50:ALA:HB1	3:AC:70:VAL:HG11	1.69	0.74
1:AA:1092:A:H4'	7:AG:4:ARG:NH2	2.02	0.74
1:AA:960:U:O2'	1:AA:1223:C:C5'	2.36	0.74
1:AA:6:G:H2'	5:AE:119:LEU:CD1	2.18	0.74
3:AC:116:VAL:HG21	3:AC:202:ILE:HD11	1.67	0.74
3:AC:58:GLU:HB3	10:AJ:92:THR:HG21	1.67	0.74
12:AL:27:LEU:O	12:AL:29:GLY:N	2.21	0.74
13:AM:3:ARG:HA	13:AM:8:GLU:O	1.86	0.74
1:AA:186:C:C4'	20:AT:81:LYS:HE2	2.18	0.74
21:B0:221:A:H62	21:B0:231:G:H21	1.34	0.74
1:AA:1277:C:O2'	1:AA:1279:A:C1'	2.35	0.74
1:AA:436:C:H2'	1:AA:437:U:C4'	2.13	0.74
17:AQ:95:TYR:O	17:AQ:97:SER:N	2.20	0.74
21:B0:3118:U:C2	21:B0:3149:G:H5'	1.82	0.74
1:AA:141:A:H1'	1:AA:182:U:N3	1.50	0.74
1:AA:403:C:C2'	1:AA:404:U:C5'	2.65	0.74
4:AD:64:LEU:HD12	4:AD:75:PHE:HZ	1.53	0.74
4:AD:89:THR:H	5:AE:97:GLY:HA3	0.65	0.74
19:AS:16:LEU:O	19:AS:19:VAL:HG12	1.87	0.74
21:B0:1119:U:O4	21:B0:1120:C:N4	2.20	0.74
21:B0:67:G:N2	21:B0:72:A:H2'	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1126:U:H1'	1:AA:1280:A:C6	2.23	0.74
1:AA:719:C:O2'	18:AR:49:LYS:CG	2.34	0.74
1:AA:1346:A:C2	7:AG:10:ARG:CZ	2.71	0.74
1:AA:476:U:N3	1:AA:477:G:C8	2.56	0.74
1:AA:571:U:C4'	1:AA:819:A:C6	2.71	0.74
1:AA:677:U:O2	1:AA:777:A:O2'	2.05	0.74
2:AB:95:GLN:O	2:AB:96:ARG:HD2	1.88	0.74
10:AJ:47:PHE:CE2	14:AN:37:PHE:CE1	2.76	0.74
19:AS:17:GLU:O	19:AS:21:GLU:HG3	1.87	0.74
1:AA:958:A:C8	19:AS:55:LYS:CD	2.71	0.74
1:AA:1314:C:C5	19:AS:6:LYS:CD	2.71	0.73
1:AA:815:A:H2	1:AA:1528:U:C5'	2.01	0.73
1:AA:792:A:H4'	1:AA:793:U:H5''	1.68	0.73
1:AA:848:G:O3'	1:AA:849:C:O5'	2.05	0.73
1:AA:377:G:OP1	16:AP:3:LYS:HD2	1.88	0.73
1:AA:1014:A:N1	19:AS:34:TRP:CD1	2.56	0.73
21:B0:2636:A:H62	21:B0:2643:G:H21	1.36	0.73
1:AA:1147:C:H4'	9:AI:5:TYR:CE1	2.21	0.73
1:AA:1419:G:C1'	21:B0:1932:G:H4'	2.18	0.73
1:AA:815:A:N1	1:AA:1528:U:O4'	2.20	0.73
1:AA:619:U:C2	4:AD:135:LEU:CG	2.71	0.73
2:AB:23:ARG:HH11	2:AB:24:TRP:N	1.86	0.73
7:AG:23:VAL:HG12	7:AG:27:ILE:HD11	1.70	0.73
12:AL:27:LEU:HG	12:AL:28:LYS:H	1.53	0.73
21:B0:109:A:C3'	21:B0:110:U:H5''	2.18	0.73
1:AA:1232:U:P	9:AI:126:SER:HB3	2.28	0.73
1:AA:1279:A:H5''	1:AA:1280:A:OP1	1.88	0.73
1:AA:717:C:C3'	1:AA:718:G:P	2.75	0.73
6:AF:69:GLU:HA	6:AF:72:VAL:HG23	1.70	0.73
1:AA:1367:C:H5'	10:AJ:60:ARG:HH12	1.53	0.73
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.23	0.73
18:AR:26:LEU:HD12	18:AR:27:GLY:H	1.53	0.73
21:B0:3865:A:OP1	21:B0:2389:G:H1'	1.88	0.73
1:AA:218:C:P	1:AA:470:U:H4'	2.28	0.73
1:AA:1232:U:OP1	9:AI:125:TYR:C	2.27	0.73
1:AA:131:C:C4'	1:AA:263:A:O4'	2.36	0.73
2:AB:23:ARG:NH1	2:AB:24:TRP:N	2.35	0.73
8:AH:108:GLY:HA3	8:AH:138:TRP:HB3	1.70	0.73
9:AI:4:TYR:CE2	9:AI:88:TYR:HA	2.24	0.73
10:AJ:96:ILE:HG22	10:AJ:97:GLU:H	1.52	0.73
21:B0:2522:G:H21	21:B0:2625:U:H5''	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:367:U:N3	1:AA:369:C:C4	2.55	0.73
1:AA:375:U:C2	1:AA:376:G:C8	2.76	0.73
1:AA:436:C:O2'	1:AA:437:U:C5'	2.34	0.73
1:AA:588:G:N2	1:AA:653:A:C2	2.55	0.73
1:AA:161:A:H2'	1:AA:162:A:C8	2.23	0.73
1:AA:1251:A:H4'	9:AI:12:GLU:OE2	1.88	0.73
13:AM:86:CYS:SG	13:AM:87:TYR:N	2.60	0.73
15:AO:33:THR:HG23	15:AO:63:ARG:NH1	2.03	0.73
1:AA:189:A:C5	20:AT:104:LEU:C	2.59	0.73
21:B0:1119:U:H3'	21:B0:1120:C:P	2.28	0.73
1:AA:108:G:O6	20:AT:15:ARG:HD2	1.89	0.73
1:AA:141:A:H4'	1:AA:182:U:O4'	1.87	0.73
1:AA:319:G:H22	1:AA:1434:A:C2'	2.00	0.73
1:AA:992:U:O4	1:AA:1044:A:OP2	2.07	0.73
1:AA:1347:G:C5	9:AI:107:ARG:CZ	2.71	0.73
1:AA:1068:G:N3	1:AA:1191:A:C2	2.57	0.73
1:AA:1278:U:H5''	1:AA:1279:A:O5'	1.88	0.73
12:AL:48:PRO:HG2	12:AL:49:ASN:H	1.52	0.73
1:AA:104:G:O4'	1:AA:172:A:H2	1.72	0.73
1:AA:216:C:C5'	1:AA:466:A:N1	2.52	0.73
1:AA:434:U:H2'	1:AA:435:C:C6	2.24	0.73
1:AA:586:C:H5''	8:AH:90:GLY:CA	2.19	0.73
1:AA:9:G:OP1	5:AE:122:GLU:CG	2.37	0.73
21:B0:1856:U:C4	21:B0:3865:A:N3	2.34	0.73
8:AH:1:MET:HG2	8:AH:2:LEU:N	2.05	0.72
1:AA:1115:C:C1'	14:AN:61:TRP:HA	2.19	0.72
21:B0:1856:U:C4	21:B0:3877:A:N6	2.51	0.72
13:AM:3:ARG:HH22	26:BD:137:ILE:CA	2.02	0.72
1:AA:1064:G:H4'	1:AA:1065:U:C5'	2.18	0.72
1:AA:1190:G:O2'	1:AA:1191:A:OP2	1.74	0.72
1:AA:1317:C:OP1	14:AN:16:PHE:HB3	1.90	0.72
1:AA:132:C:OP1	20:AT:75:ASN:CG	2.28	0.72
1:AA:131:C:H1'	1:AA:263:A:C1'	2.17	0.72
1:AA:248:C:O4'	1:AA:282:A:H2	1.72	0.72
1:AA:501:C:H2'	1:AA:502:G:H8	1.53	0.72
1:AA:502:G:H4'	1:AA:550:G:C4'	2.16	0.72
1:AA:825:G:N2	8:AH:11:THR:HG21	2.03	0.72
4:AD:57:ARG:CZ	5:AE:107:ARG:HD3	2.16	0.72
1:AA:189:A:N6	20:AT:104:LEU:HD22	2.03	0.72
1:AA:200:G:H2'	1:AA:201:G:C8	2.25	0.72
1:AA:401:C:O4'	1:AA:622:A:H1'	1.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:552:C:H2'	21:B0:553:C:H4'	1.72	0.72
1:AA:1015:A:N3	1:AA:1219:U:O4'	2.22	0.72
1:AA:1458:G:OP2	1:AA:1459:C:C6	2.36	0.72
1:AA:1410:G:C2	1:AA:1491:G:N1	2.57	0.72
1:AA:249:U:C2'	1:AA:250:A:P	2.65	0.72
1:AA:397:A:C8	1:AA:547:A:O2'	2.33	0.72
1:AA:1113:C:N1	3:AC:178:LEU:HD23	2.03	0.72
6:AF:26:ILE:HG21	6:AF:63:TYR:HE2	1.54	0.72
9:AI:44:VAL:HG13	9:AI:51:ARG:HH22	1.52	0.72
21:B0:367:G:C2'	21:B0:368:A:H5''	2.19	0.72
21:B0:1856:U:C5'	21:B0:3865:A:C8	2.71	0.72
21:B0:951:G:H2'	21:B0:952:A:H5''	1.70	0.72
1:AA:1064:G:H1'	1:AA:1190:G:H22	1.49	0.72
1:AA:131:C:H4'	1:AA:263:A:O4'	1.89	0.72
1:AA:1347:G:C8	9:AI:107:ARG:NH1	2.57	0.72
1:AA:1108:G:H5''	3:AC:176:HIS:CE1	2.24	0.72
1:AA:1277:C:O2'	1:AA:1279:A:O4'	2.07	0.72
1:AA:227:G:O2'	1:AA:228:A:H5'	1.88	0.72
1:AA:39:G:C8	1:AA:498:U:C4	2.78	0.72
1:AA:406:G:N9	1:AA:496:A:C6	2.57	0.72
1:AA:600:C:H5'	8:AH:129:VAL:HA	1.72	0.72
3:AC:23:TYR:CD1	10:AJ:11:PHE:CE2	2.78	0.72
1:AA:1061:G:H1'	10:AJ:56:HIS:CE1	2.24	0.72
1:AA:1329:A:C5'	13:AM:29:ARG:HG3	2.07	0.72
1:AA:1484:C:C4'	21:B0:1943:A:C1'	2.52	0.72
21:B0:2236:U:H2'	21:B0:2237:C:H5''	1.72	0.72
1:AA:319:G:H1'	1:AA:1433:A:N1	2.05	0.72
1:AA:1488:G:H2'	1:AA:1489:G:C8	2.24	0.72
1:AA:1499:A:H1'	1:AA:1520:G:C5'	2.19	0.72
1:AA:866:C:C4'	1:AA:919:A:H5'	2.20	0.72
2:AB:91:PRO:HG3	2:AB:154:LEU:HB2	1.69	0.72
1:AA:1418:A:H2	21:B0:1931:G:O2'	1.72	0.72
1:AA:1392:G:H4'	1:AA:1531:A:H5'	1.72	0.72
10:AJ:51:ARG:HA	14:AN:45:ARG:HD2	1.69	0.72
1:AA:132:C:O3'	20:AT:74:LYS:HD2	1.90	0.72
21:B0:762:A:H5'	21:B0:1284:G:H1'	1.71	0.72
21:B0:892:A:C4	21:B0:911:A:C2	2.77	0.72
1:AA:131:C:C1'	1:AA:263:A:H1'	2.19	0.72
2:AB:116:GLU:HG2	2:AB:153:ARG:NH1	2.04	0.72
1:AA:5:U:N3	5:AE:95:ALA:HB3	2.04	0.72
1:AA:582:U:H1'	17:AQ:105:ALA:HA	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:59:ILE:HG23	17:AQ:71:PHE:HB3	1.70	0.72
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.08	0.72
21:B0:1856:U:C5'	21:B0:3865:A:H8	2.02	0.72
1:AA:1065:U:H4'	1:AA:1066:C:O5'	1.89	0.72
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.24	0.72
1:AA:353:A:H5'	1:AA:353:A:H8	1.53	0.72
9:AI:65:VAL:HG21	9:AI:73:GLN:HB3	1.72	0.72
13:AM:84:ILE:HG21	19:AS:66:MET:HE2	1.71	0.72
20:AT:10:LEU:O	20:AT:12:ALA:N	2.22	0.72
21:B0:1856:U:C6	21:B0:3865:A:N9	2.31	0.72
21:B0:2426:G:H5'	21:B0:2480:C:H41	1.55	0.72
21:B0:9:U:H3	21:B0:2608:A:H62	1.37	0.72
1:AA:116:A:N6	1:AA:313:A:H1'	2.04	0.71
1:AA:1281:U:H5'	1:AA:1282:C:C5	2.25	0.71
1:AA:324:G:O5'	20:AT:22:ARG:HD3	1.90	0.71
1:AA:261:U:C5	20:AT:79:ARG:HD3	2.21	0.71
21:B0:1119:U:C4	21:B0:1120:C:C4	2.78	0.71
21:B0:1908:C:H2'	21:B0:1909:U:H4'	1.71	0.71
21:B0:1141:U:N3	21:B0:2008:C:H5''	2.04	0.71
21:B0:1966:C:H4'	21:B0:2585:C:H4'	1.71	0.71
1:AA:1351:U:H2'	1:AA:1352:C:H6	1.55	0.71
1:AA:143:A:O3'	1:AA:144:G:C8	2.28	0.71
1:AA:102:G:O2'	1:AA:151:A:O2'	2.08	0.71
1:AA:104:G:C5'	1:AA:172:A:C2	2.73	0.71
1:AA:748:C:H1'	1:AA:749:C:H5	1.53	0.71
1:AA:761:G:C5'	17:AQ:102:GLY:CA	2.68	0.71
1:AA:933:G:C5	1:AA:935:A:N7	2.58	0.71
11:AK:84:VAL:HG11	11:AK:95:ILE:HD11	1.70	0.71
3:AC:13:GLY:HA3	14:AN:57:ARG:HH21	1.54	0.71
1:AA:760:G:N3	17:AQ:103:GLY:O	2.22	0.71
18:AR:33:ASP:OD2	18:AR:36:ASN:HB2	1.90	0.71
21:B0:2503:G:C3'	21:B0:2504:G:H5''	2.21	0.71
21:B0:688:A:H62	21:B0:816:U:H3	1.38	0.71
1:AA:113:G:C1'	1:AA:354:G:H5''	2.21	0.71
1:AA:933:G:N1	1:AA:935:A:C8	2.58	0.71
8:AH:1:MET:HG2	8:AH:2:LEU:H	1.54	0.71
9:AI:97:LYS:HG2	9:AI:102:LEU:HD12	1.72	0.71
17:AQ:45:HIS:HB2	17:AQ:65:ILE:HD13	1.71	0.71
21:B0:2503:G:H3'	21:B0:2504:G:H5''	1.72	0.71
21:B0:3126:A:H4'	21:B0:3127:G:P	2.30	0.71
17:AQ:104:LYS:HD2	21:B0:727:U:O2	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:818:G:N2	1:AA:873:A:OP1	2.23	0.71
1:AA:977:A:H2'	1:AA:978:A:H5''	1.72	0.71
21:B0:202:A:H2'	21:B0:203:G:O4'	1.89	0.71
1:AA:132:C:O3'	20:AT:74:LYS:CD	2.37	0.71
1:AA:866:C:H4'	1:AA:919:A:H5'	1.72	0.71
1:AA:977:A:C8	1:AA:1223:C:C4	2.79	0.71
1:AA:260:G:N7	20:AT:83:ARG:NH2	2.37	0.71
21:B0:1487:C:H2'	21:B0:1488:G:H8	1.56	0.71
1:AA:1182:G:HO2'	1:AA:1183:A:P	2.13	0.71
1:AA:130:A:C2	1:AA:264:U:C5	2.77	0.71
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.26	0.71
21:B0:3149:G:C3'	21:B0:3150:C:P	2.78	0.71
1:AA:1261:A:C4'	1:AA:1283:G:C3'	2.47	0.71
1:AA:1489:G:C3'	1:AA:1490:C:H5''	2.21	0.71
1:AA:1503:A:C4	1:AA:1531:A:H2	2.08	0.71
1:AA:59:A:C2	1:AA:331:G:C5	2.79	0.71
3:AC:59:ARG:N	10:AJ:92:THR:CG2	2.54	0.71
5:AE:102:ALA:HB1	5:AE:120:THR:HG21	1.72	0.71
9:AI:111:ARG:HD3	9:AI:112:LYS:N	2.06	0.71
10:AJ:35:SER:HB2	10:AJ:72:VAL:O	1.90	0.71
1:AA:1405:G:H1'	1:AA:1519:A:C1'	2.21	0.71
1:AA:1405:G:O2'	1:AA:1518:A:O3'	2.09	0.71
1:AA:130:A:H2	1:AA:264:U:C5	2.07	0.71
1:AA:537:G:OP1	12:AL:113:ARG:NH2	2.23	0.71
1:AA:922:G:H5'	5:AE:20:GLN:NE2	2.05	0.71
1:AA:1060:C:O2'	10:AJ:56:HIS:CG	2.42	0.71
21:B0:1077:U:O2'	21:B0:1079:G:N7	2.21	0.71
21:B0:2274:C:H2'	21:B0:2275:U:H5'	1.73	0.71
21:B0:3126:A:C4'	21:B0:3127:G:H5'	2.21	0.71
21:B0:57:G:H2'	21:B0:58:C:H5''	1.73	0.71
1:AA:1491:G:H2'	1:AA:1492:A:C8	2.26	0.71
1:AA:189:A:N6	20:AT:104:LEU:C	2.43	0.71
1:AA:571:U:H4'	1:AA:819:A:N6	2.05	0.71
1:AA:6:G:C2'	5:AE:119:LEU:HD13	2.20	0.71
1:AA:933:G:OP2	7:AG:3:ARG:HB2	1.91	0.71
1:AA:1261:A:C1'	1:AA:1283:G:H5'	2.20	0.71
1:AA:288:A:O2'	1:AA:289:G:O3'	2.05	0.71
1:AA:352:C:H4'	1:AA:354:G:OP1	1.91	0.71
1:AA:760:G:N1	17:AQ:104:LYS:C	2.43	0.71
13:AM:40:ASN:HB3	13:AM:43:THR:HG23	1.72	0.71
19:AS:70:LYS:O	19:AS:72:GLY:N	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1182:U:C2'	21:B0:1183:C:H5''	2.20	0.71
21:B0:1746:A:H2'	21:B0:1747:G:H5'	1.72	0.71
21:B0:3098:U:C5	21:B0:3099:U:O4	2.44	0.71
1:AA:1014:A:C6	19:AS:34:TRP:CE2	2.79	0.70
1:AA:1413:A:H2	1:AA:1487:G:H22	1.39	0.70
1:AA:1406:U:O2	1:AA:1517:G:N2	2.24	0.70
1:AA:227:G:C6	1:AA:228:A:C5	2.79	0.70
1:AA:392:G:H2'	1:AA:393:A:H8	1.55	0.70
1:AA:818:G:C3'	1:AA:819:A:H5''	2.21	0.70
3:AC:59:ARG:H	10:AJ:92:THR:HG22	1.56	0.70
11:AK:77:MET:HE3	11:AK:80:VAL:HG22	1.73	0.70
18:AR:39:VAL:O	18:AR:42:ARG:HB2	1.90	0.70
1:AA:1371:G:OP1	9:AI:11:LYS:HG2	1.91	0.70
1:AA:1409:C:C2	1:AA:1410:G:C8	2.79	0.70
1:AA:436:C:C2'	1:AA:437:U:H6	2.03	0.70
1:AA:44:G:OP1	16:AP:12:LYS:N	2.24	0.70
13:AM:40:ASN:HD22	13:AM:41:PRO:HD2	1.55	0.70
1:AA:994:A:C4	14:AN:5:ALA:C	2.51	0.70
1:AA:235:C:H4'	17:AQ:70:ARG:HB2	1.72	0.70
1:AA:108:G:C6	20:AT:15:ARG:HG3	2.26	0.70
21:B0:3197:U:C2'	21:B0:2181:A:N7	2.51	0.70
21:B0:891:A:O2'	21:B0:892:A:C8	2.30	0.70
1:AA:107:G:C2'	1:AA:108:G:H5'	2.21	0.70
1:AA:1148:U:H2'	1:AA:1149:C:O4'	1.90	0.70
1:AA:1320:C:N3	19:AS:36:ARG:HG3	2.05	0.70
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.26	0.70
1:AA:142:G:H21	1:AA:196:A:C1'	1.95	0.70
1:AA:288:A:H2'	1:AA:289:G:H4'	1.74	0.70
1:AA:761:G:H1'	17:AQ:104:LYS:O	1.91	0.70
1:AA:8:A:C1'	5:AE:103:GLY:N	2.53	0.70
3:AC:52:LEU:CD2	3:AC:52:LEU:H	2.00	0.70
10:AJ:65:LEU:HD13	14:AN:36:PHE:HZ	1.55	0.70
21:B0:1002:C:H5'	21:B0:1200:G:OP2	1.90	0.70
21:B0:1073:G:H1'	21:B0:1099:A:C2	2.27	0.70
21:B0:2680:U:H3'	21:B0:2681:A:H5'	1.72	0.70
21:B0:3874:C:C5	21:B0:3875:A:N7	2.59	0.70
1:AA:344:A:H4'	1:AA:345:C:OP2	1.91	0.70
1:AA:586:C:H5''	8:AH:90:GLY:H	1.54	0.70
1:AA:599:C:H5'	8:AH:131:GLY:HA2	1.73	0.70
1:AA:1168:A:H2'	1:AA:1169:A:C8	2.26	0.70
1:AA:1015:A:N3	1:AA:1219:U:C4'	2.54	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1394:A:N6	1:AA:1501:C:H5'	2.06	0.70
1:AA:322:C:O2'	20:AT:23:ARG:CB	2.35	0.70
1:AA:438:G:H4'	1:AA:439:A:OP1	1.91	0.70
1:AA:919:A:O3'	1:AA:920:U:P	2.50	0.70
3:AC:52:LEU:HD21	3:AC:118:GLN:NE2	2.07	0.70
6:AF:10:LEU:HD11	6:AF:59:TYR:HD2	1.55	0.70
10:AJ:78:ASN:O	10:AJ:80:LYS:N	2.24	0.70
19:AS:15:LEU:HD12	19:AS:16:LEU:N	2.06	0.70
1:AA:1250:A:C4'	9:AI:68:GLY:O	2.39	0.70
1:AA:190:A:C6	20:AT:101:GLY:O	2.44	0.70
1:AA:292:G:C1'	1:AA:608:A:H61	2.00	0.70
1:AA:476:U:C5	1:AA:477:G:C8	2.80	0.70
1:AA:686:U:HO2'	1:AA:687:A:H8	1.38	0.70
4:AD:158:ILE:HG22	4:AD:181:MET:HE2	1.71	0.70
4:AD:28:SER:O	4:AD:30:LYS:N	2.25	0.70
1:AA:520:A:O2'	12:AL:73:GLU:OE2	2.07	0.70
21:B0:3867:G:N3	53:B5:44:GLY:CA	2.55	0.70
21:B0:874:A:H62	21:B0:928:G:H21	1.39	0.70
1:AA:59:A:C5	1:AA:331:G:N2	2.60	0.70
1:AA:588:G:N7	1:AA:753:A:C4	2.60	0.70
1:AA:402:G:C1'	1:AA:620:C:H42	2.05	0.70
1:AA:974:A:OP2	14:AN:29:ARG:NH2	2.25	0.70
3:AC:6:HIS:CD2	3:AC:8:ILE:HB	2.27	0.70
10:AJ:45:ARG:NH2	14:AN:36:PHE:CD2	2.60	0.70
15:AO:17:ARG:NH1	15:AO:77:ARG:NH1	2.40	0.70
17:AQ:24:GLU:OE2	17:AQ:37:LYS:HD3	1.92	0.70
21:B0:104:C:C2'	21:B0:105:G:H5''	2.22	0.70
1:AA:323:U:OP1	20:AT:23:ARG:CA	2.35	0.70
1:AA:521:G:OP1	12:AL:73:GLU:O	2.10	0.70
4:AD:150:GLU:CG	4:AD:153:ARG:HH21	2.02	0.70
10:AJ:39:PRO:O	10:AJ:40:LEU:HB2	1.89	0.70
10:AJ:65:LEU:O	10:AJ:65:LEU:HD23	1.91	0.70
13:AM:11:ARG:HG2	13:AM:12:ASN:N	2.07	0.70
21:B0:3146:A:H4'	21:B0:3147:C:OP2	1.92	0.70
21:B0:892:A:C8	21:B0:892:A:H5'	2.24	0.70
1:AA:197:A:H4'	1:AA:198:G:O5'	1.90	0.70
1:AA:587:G:O2'	1:AA:588:G:P	2.49	0.70
2:AB:178:ARG:NH1	2:AB:178:ARG:HG3	1.92	0.70
3:AC:180:ALA:O	3:AC:181:ASN:HB3	1.92	0.70
9:AI:97:LYS:CG	9:AI:102:LEU:HD12	2.22	0.70
1:AA:954:G:H5''	13:AM:120:LYS:HD3	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.74	0.70
1:AA:1034:G:C3'	1:AA:1035:A:P	2.80	0.70
1:AA:128:G:O3'	17:AQ:3:LYS:NZ	2.23	0.70
1:AA:19:C:N4	1:AA:916:G:O6	2.24	0.70
1:AA:436:C:H2'	1:AA:437:U:C1'	2.21	0.70
1:AA:292:G:N3	1:AA:608:A:N1	2.40	0.70
1:AA:1372:U:OP2	9:AI:11:LYS:HD3	1.92	0.70
21:B0:3101:G:H2'	21:B0:3102:G:O4'	1.90	0.70
1:AA:476:U:C2	1:AA:477:G:C1'	2.75	0.69
1:AA:587:G:OP1	8:AH:92:ARG:NH1	2.23	0.69
3:AC:29:TYR:CE1	10:AJ:65:LEU:CD1	2.68	0.69
10:AJ:30:SER:O	10:AJ:78:ASN:HB2	1.92	0.69
10:AJ:46:ARG:HH11	10:AJ:64:GLU:CB	2.05	0.69
1:AA:1141:C:H2'	1:AA:1142:G:H8	1.58	0.69
1:AA:477:G:H2'	1:AA:478:A:H8	1.56	0.69
1:AA:837:G:O3'	1:AA:838:C:O5'	2.09	0.69
12:AL:126:LYS:HD2	12:AL:126:LYS:N	2.08	0.69
13:AM:6:GLY:O	13:AM:7:VAL:HG22	1.92	0.69
17:AQ:96:GLN:CG	21:B0:725:C:O2'	2.40	0.69
19:AS:5:LEU:O	19:AS:6:LYS:HB2	1.92	0.69
20:AT:45:GLN:HA	20:AT:91:LEU:HD22	1.74	0.69
21:B0:1856:U:H3'	21:B0:3865:A:C2'	2.12	0.69
21:B0:1912:G:H4'	21:B0:1913:G:H8	1.56	0.69
21:B0:814:G:H3'	21:B0:815:A:H5'	1.73	0.69
1:AA:190:A:C5	20:AT:105:SER:CA	2.75	0.69
3:AC:7:PRO:HG2	3:AC:184:TYR:HB2	1.73	0.69
1:AA:586:C:C5'	8:AH:90:GLY:CA	2.69	0.69
13:AM:81:LEU:H	13:AM:81:LEU:HD23	1.56	0.69
16:AP:20:VAL:HG11	16:AP:32:TYR:HB3	1.74	0.69
1:AA:1314:C:C6	19:AS:6:LYS:HD3	2.26	0.69
1:AA:262:A:C3'	20:AT:75:ASN:ND2	2.55	0.69
21:B0:2607:C:H3'	21:B0:2608:A:C5'	2.23	0.69
21:B0:3874:C:C4	21:B0:3875:A:C8	2.80	0.69
13:AM:82:MET:HE2	21:B0:900(A):A:OP1	1.92	0.69
1:AA:1416:G:C5	1:AA:1417:G:C1'	2.75	0.69
1:AA:141:A:O4'	1:AA:182:U:H1'	1.90	0.69
1:AA:112:G:N3	1:AA:354:G:H5'	2.07	0.69
1:AA:375:U:H2'	1:AA:376:G:H8	1.57	0.69
1:AA:476:U:O3'	1:AA:477:G:OP1	2.10	0.69
1:AA:496:A:H4'	1:AA:497:A:OP1	1.91	0.69
1:AA:619:U:H2'	4:AD:135:LEU:HD12	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:714:G:H5'	1:AA:776:G:H5''	1.74	0.69
4:AD:70:ILE:HD11	4:AD:100:ARG:CZ	2.21	0.69
10:AJ:32:ALA:HB2	10:AJ:76:ASN:HD22	1.57	0.69
10:AJ:30:SER:HB2	10:AJ:80:LYS:HB3	1.74	0.69
1:AA:1137:C:H4'	1:AA:1138:G:N2	2.06	0.69
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.92	0.69
1:AA:248:C:O2'	1:AA:283:C:H4'	1.92	0.69
1:AA:318:G:O2'	1:AA:1468:A:H4'	1.93	0.69
1:AA:714:G:H4'	1:AA:776:G:C5'	2.22	0.69
3:AC:38:ARG:HG3	3:AC:38:ARG:HH11	1.58	0.69
13:AM:81:LEU:O	13:AM:86:CYS:HB3	1.92	0.69
21:B0:1679:U:C3'	21:B0:1680:U:H5''	2.22	0.69
21:B0:1774:A:H1'	21:B0:2586:G:H21	1.58	0.69
17:AQ:104:LYS:CB	21:B0:727:U:C1'	2.71	0.69
1:AA:216:C:H5'	1:AA:466:A:N1	2.08	0.69
1:AA:59:A:C4	1:AA:331:G:N2	2.61	0.69
1:AA:837:G:C2'	1:AA:838:C:C6	2.75	0.69
3:AC:23:TYR:HE1	10:AJ:67:THR:HG23	1.55	0.69
17:AQ:66:SER:O	17:AQ:70:ARG:NH1	2.26	0.69
21:B0:1791:C:O2'	21:B0:1793:A:H5'	1.93	0.69
21:B0:226:C:O2'	21:B0:227:G:H8	1.73	0.69
21:B0:892:A:N3	21:B0:911:A:N3	2.41	0.69
1:AA:1064:G:C1'	1:AA:1190:G:N2	2.45	0.69
1:AA:1015:A:C2	1:AA:1219:U:O4'	2.45	0.69
1:AA:406:G:N2	1:AA:437:U:O2	2.25	0.69
1:AA:939:G:H2'	1:AA:940:C:C6	2.28	0.69
4:AD:151:LYS:HD2	4:AD:151:LYS:N	2.08	0.69
3:AC:23:TYR:HD1	10:AJ:11:PHE:CD2	2.09	0.69
1:AA:376:G:OP1	16:AP:6:LEU:HD13	1.92	0.69
21:B0:1004:A:H2'	21:B0:1005:U:H5''	1.74	0.69
21:B0:2495:G:H2'	21:B0:2496:C:C6	2.27	0.69
1:AA:1087:G:P	1:AA:1389:C:H4'	2.32	0.69
1:AA:1255:G:O3'	1:AA:1258:G:N3	2.26	0.69
1:AA:355:C:H4'	1:AA:389:A:P	2.33	0.69
1:AA:992:U:HO2'	1:AA:993:G:P	2.16	0.69
4:AD:89:THR:OG1	5:AE:97:GLY:O	2.10	0.69
10:AJ:42:THR:HG23	10:AJ:67:THR:O	1.93	0.69
21:B0:1428:G:H5''	21:B0:1429:A:H5'	1.73	0.69
21:B0:1749:G:O6	21:B0:2674:C:H4'	1.92	0.69
21:B0:1807:A:H4'	21:B0:1808:C:C5'	2.22	0.69
21:B0:2380:U:H2'	21:B0:2381:A:H5'	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:186:C:H4'	20:AT:81:LYS:CB	2.22	0.69
1:AA:51:A:C6	1:AA:314:C:O2	2.44	0.69
1:AA:36:C:O2	1:AA:501:C:C5'	2.40	0.69
1:AA:375:U:H2'	1:AA:376:G:C8	2.26	0.69
3:AC:130:VAL:HG21	3:AC:157:ILE:HG23	1.75	0.69
3:AC:59:ARG:N	10:AJ:92:THR:HG22	2.08	0.69
4:AD:64:LEU:HD12	4:AD:75:PHE:CZ	2.28	0.69
12:AL:55:VAL:HG12	12:AL:56:ALA:H	1.57	0.69
19:AS:41:VAL:HG23	19:AS:43:GLU:HG2	1.75	0.69
21:B0:2617:G:H22	21:B0:2755:A:H2'	1.57	0.69
1:AA:587:G:H4'	8:AH:3:THR:O	1.93	0.69
10:AJ:49:VAL:HG21	14:AN:44:LEU:HG	1.75	0.69
12:AL:47:LYS:CB	12:AL:48:PRO:CD	2.71	0.69
13:AM:87:TYR:N	19:AS:73:GLU:O	2.26	0.69
21:B0:1223:G:H21	21:B0:1225:G:H21	1.40	0.69
21:B0:2245:A:H5'	21:B0:2246:A:C8	2.27	0.69
21:B0:588:G:H4'	21:B0:2001:G:H4'	1.73	0.69
1:AA:1250:A:H4'	9:AI:68:GLY:H	1.57	0.69
1:AA:232:G:C2	1:AA:263:A:C2	2.81	0.69
1:AA:501:C:C1'	1:AA:549:C:H1'	2.20	0.69
4:AD:64:LEU:HD23	4:AD:198:VAL:HG21	1.75	0.69
1:AA:44:G:P	16:AP:12:LYS:H	2.16	0.69
20:AT:56:MET:HE2	20:AT:88:VAL:HG11	1.74	0.69
1:AA:105:G:H2'	1:AA:106:C:C6	2.29	0.68
1:AA:583:A:H5'	17:AQ:90:ILE:CG2	2.22	0.68
2:AB:22:LYS:HD2	2:AB:35:GLU:OE1	1.93	0.68
4:AD:199:ASN:ND2	4:AD:201:GLN:HB2	2.08	0.68
4:AD:88:VAL:HG23	5:AE:96:PRO:HB2	1.72	0.68
6:AF:100:ASN:ND2	18:AR:23:LYS:HG2	2.08	0.68
1:AA:928:G:O2'	1:AA:1533:C:H5	1.75	0.68
1:AA:382:A:H2'	1:AA:383:A:C8	2.28	0.68
3:AC:52:LEU:CD2	3:AC:118:GLN:HE22	2.05	0.68
4:AD:157:LEU:CD2	4:AD:161:ASN:HD21	2.05	0.68
1:AA:1314:C:H5	19:AS:6:LYS:CG	2.05	0.68
1:AA:702:A:N6	21:B0:1838:G:N3	2.40	0.68
21:B0:3101:G:H1	21:B0:3188:U:H3	1.41	0.68
1:AA:119:A:C5	1:AA:240:C:C4	2.81	0.68
1:AA:324:G:P	20:AT:22:ARG:HD3	2.33	0.68
1:AA:376:G:N3	1:AA:389:A:C2	2.61	0.68
1:AA:599:C:H4'	8:AH:130:GLY:O	1.94	0.68
1:AA:651:C:C2	1:AA:652:U:C6	2.82	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:51:VAL:O	5:AE:55:VAL:HG23	1.93	0.68
12:AL:47:LYS:HB2	12:AL:48:PRO:CD	2.23	0.68
16:AP:34:GLU:OE2	16:AP:55:ARG:HD3	1.93	0.68
21:B0:1953:A:H1'	21:B0:1955:G:C1'	2.23	0.68
21:B0:2624:G:H4'	21:B0:2712:G:H2'	1.75	0.68
1:AA:1281:U:H4'	1:AA:1282:C:OP2	1.92	0.68
1:AA:17:U:H2'	1:AA:18:C:C6	2.28	0.68
1:AA:328:C:H4'	1:AA:329:A:O5'	1.94	0.68
1:AA:926:G:C5	1:AA:1505:G:C6	2.81	0.68
1:AA:992:U:C5	1:AA:1043:C:OP2	2.47	0.68
10:AJ:63:PHE:CZ	14:AN:48:ALA:CB	2.76	0.68
1:AA:1115:C:H1'	14:AN:61:TRP:CA	2.23	0.68
1:AA:247:G:P	17:AQ:100:LYS:HE2	2.33	0.68
1:AA:129:U:P	17:AQ:3:LYS:NZ	2.66	0.68
21:B0:2058:U:H4'	21:B0:2575:U:H3	1.58	0.68
21:B0:2440:C:H1'	21:B0:2471:U:H3	1.56	0.68
21:B0:2691:C:H3'	21:B0:2692:A:H5''	1.74	0.68
21:B0:939:C:H2'	21:B0:940:G:C8	2.28	0.68
1:AA:134:A:H1'	1:AA:325:A:C5	2.28	0.68
1:AA:1409:C:O2'	1:AA:1410:G:H5'	1.92	0.68
1:AA:1503:A:C4	1:AA:1531:A:C2	2.81	0.68
1:AA:815:A:C2	1:AA:1528:U:H5'	2.29	0.68
1:AA:191:G:N3	1:AA:192:U:O4'	2.25	0.68
1:AA:394:G:O2'	1:AA:395:C:H5'	1.93	0.68
1:AA:406:G:C2	1:AA:496:A:N6	2.61	0.68
1:AA:948:C:OP1	13:AM:109:THR:HG22	1.94	0.68
14:AN:22:THR:HB	14:AN:33:VAL:HG21	1.73	0.68
18:AR:45:SER:C	18:AR:47:THR:H	1.97	0.68
21:B0:181:A:H4'	21:B0:182:G:H4'	1.76	0.68
21:B0:2377:U:H2'	21:B0:2378:G:C8	2.28	0.68
21:B0:2075:U:O2'	21:B0:3093:C:C6	2.41	0.68
1:AA:1060:C:H5''	10:AJ:51:ARG:HB3	1.75	0.68
1:AA:113:G:O4'	1:AA:354:G:C5'	2.42	0.68
1:AA:1346:A:C4	7:AG:10:ARG:CZ	2.77	0.68
1:AA:954:G:C5'	13:AM:120:LYS:HD3	2.23	0.68
1:AA:323:U:C4'	20:AT:19:SER:O	2.41	0.68
21:B0:3118:U:C2	21:B0:3149:G:C5'	2.50	0.68
17:AQ:104:LYS:CA	21:B0:726:G:N2	2.56	0.68
21:B0:940:G:C3'	21:B0:941:U:H5''	2.11	0.68
1:AA:1314:C:C5	19:AS:6:LYS:CE	2.77	0.68
1:AA:1475:G:H5''	21:B0:1706:A:H4'	0.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:394:G:C2	1:AA:395:C:C2	2.81	0.68
1:AA:848:G:H2'	1:AA:849:C:N1	2.08	0.68
4:AD:3:ARG:HH22	4:AD:74:GLN:CD	1.97	0.68
13:AM:80:ARG:NE	19:AS:65:ASN:O	2.27	0.68
19:AS:62:ILE:HD12	19:AS:66:MET:HG3	1.75	0.68
1:AA:1298:C:H41	7:AG:114:ARG:HB3	1.54	0.68
4:AD:30:LYS:C	4:AD:32:ALA:H	1.97	0.68
6:AF:75:LEU:O	6:AF:79:LEU:HG	1.94	0.68
9:AI:93:ARG:HD3	9:AI:97:LYS:HE3	1.75	0.68
10:AJ:51:ARG:HG2	14:AN:45:ARG:CZ	2.22	0.68
21:B0:2381:A:H4'	21:B0:2382:C:C5	2.29	0.68
1:AA:761:G:HO2'	21:B0:726:G:H22	1.42	0.68
1:AA:1261:A:C3'	1:AA:1283:G:H5''	2.23	0.68
1:AA:212:G:O2'	1:AA:213:G:C5'	2.41	0.68
1:AA:292:G:H1'	1:AA:608:A:H62	1.59	0.68
1:AA:46:G:H2'	1:AA:366:C:C5	2.28	0.68
1:AA:43:C:OP1	16:AP:13:HIS:CD2	2.44	0.68
1:AA:571:U:C5'	1:AA:819:A:C2	2.71	0.68
1:AA:915:A:H2'	1:AA:916:G:H5'	1.76	0.68
21:B0:26:G:H21	21:B0:524:A:H62	1.41	0.68
1:AA:1342:C:H4'	9:AI:125:TYR:CE1	2.29	0.68
2:AB:187:LEU:HD12	2:AB:205:ASP:HA	1.74	0.68
1:AA:1417:G:H21	1:AA:1484:C:N4	1.90	0.67
1:AA:355:C:O2'	1:AA:388:G:H1'	1.93	0.67
1:AA:9:G:P	5:AE:122:GLU:HB2	2.33	0.67
2:AB:18:GLY:HA2	2:AB:42:ILE:H	1.59	0.67
3:AC:190:ARG:HH11	3:AC:190:ARG:CB	2.07	0.67
13:AM:81:LEU:H	13:AM:81:LEU:CD2	2.08	0.67
1:AA:583:A:C5'	17:AQ:90:ILE:HG21	2.23	0.67
1:AA:132:C:OP1	20:AT:75:ASN:ND2	2.27	0.67
21:B0:1033:G:H22	21:B0:1150:C:H2'	1.58	0.67
21:B0:1955:G:H2'	21:B0:1956:G:H5'	1.76	0.67
21:B0:3875:A:C4'	53:B5:43:LYS:CA	2.72	0.67
1:AA:1410:G:C2	1:AA:1491:G:C2	2.82	0.67
1:AA:476:U:C4	1:AA:477:G:N7	2.60	0.67
1:AA:59:A:N6	1:AA:331:G:H1'	2.07	0.67
3:AC:26:LYS:H	3:AC:26:LYS:HD3	1.58	0.67
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.59	0.67
1:AA:187:G:H5'	20:AT:85:MET:SD	2.35	0.67
9:AI:93:ARG:NH1	9:AI:97:LYS:HZ1	1.92	0.67
10:AJ:45:ARG:CZ	14:AN:36:PHE:CE2	2.78	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:108:G:C6	20:AT:15:ARG:CD	2.76	0.67
21:B0:1021:A:H1'	21:B0:1164:C:H1'	1.76	0.67
21:B0:2261:G:H4'	21:B0:2262:C:OP2	1.94	0.67
1:AA:1483:A:C6	1:AA:1484:C:C4	2.82	0.67
1:AA:189:A:N6	20:AT:104:LEU:CD2	2.57	0.67
1:AA:131:C:C1'	1:AA:263:A:C1'	2.72	0.67
1:AA:701:C:H5'	1:AA:703:G:O4'	1.94	0.67
6:AF:36:ARG:NH1	6:AF:38:GLU:HG2	2.08	0.67
13:AM:93:ARG:CB	21:B0:900(A):A:OP1	2.43	0.67
19:AS:33:THR:HG22	19:AS:35:SER:H	1.60	0.67
21:B0:1181:C:C2'	21:B0:1182:U:H5''	2.23	0.67
21:B0:2381:A:H4'	21:B0:2382:C:H5	1.60	0.67
21:B0:998:C:H2'	21:B0:999:A:O4'	1.94	0.67
1:AA:1315:U:H5	19:AS:6:LYS:HZ3	1.42	0.67
1:AA:1330:U:H5''	13:AM:23:TYR:O	1.95	0.67
1:AA:1495:U:O2'	21:B0:1902:A:H2	1.74	0.67
21:B0:1112:U:C2'	21:B0:1113:C:H5''	2.24	0.67
1:AA:1016:A:H2'	1:AA:1017:G:O4'	1.93	0.67
1:AA:1455:G:H2'	1:AA:1456:A:O4'	1.95	0.67
18:AR:26:LEU:HD21	18:AR:39:VAL:CG2	2.25	0.67
21:B0:539:A:H62	21:B0:2024:U:H3	1.40	0.67
21:B0:2324:G:H4'	21:B0:2326:C:H5''	1.76	0.67
1:AA:1502:A:H2	1:AA:1505:G:N1	1.90	0.67
1:AA:761:G:H1'	17:AQ:104:LYS:HA	1.77	0.67
3:AC:82:GLU:O	3:AC:85:ARG:HB3	1.94	0.67
1:AA:1225:A:C4'	19:AS:78:ARG:HH11	2.07	0.67
17:AQ:104:LYS:HG2	21:B0:726:G:N1	2.10	0.67
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.29	0.67
1:AA:815:A:O2'	1:AA:1527:C:C4'	2.43	0.67
1:AA:933:G:C5	1:AA:935:A:C8	2.83	0.67
7:AG:149:ARG:NH1	11:AK:59:TYR:CZ	2.62	0.67
13:AM:7:VAL:CG1	26:BD:113:ASP:CA	2.73	0.67
21:B0:2508:G:H5''	21:B0:2509:A:H5''	1.76	0.67
1:AA:1064:G:C4'	1:AA:1065:U:H5'	2.23	0.67
1:AA:1261:A:H5''	1:AA:1283:G:O3'	1.93	0.67
1:AA:929:G:OP1	1:AA:1533:C:N4	2.28	0.67
1:AA:315:A:H2	1:AA:354:G:OP2	1.77	0.67
1:AA:362:G:H4'	12:AL:28:LYS:HZ2	1.57	0.67
1:AA:893:C:H2'	1:AA:894:G:C8	2.30	0.67
1:AA:976:G:OP1	14:AN:31:ARG:O	2.12	0.67
2:AB:124:SER:HB2	2:AB:125:PRO:CD	2.21	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1347:G:N7	9:AI:107:ARG:NH1	2.43	0.67
11:AK:14:VAL:HG21	11:AK:40:ILE:HD11	1.77	0.67
13:AM:34:LEU:HD13	13:AM:41:PRO:HA	1.77	0.67
14:AN:14:PRO:HB2	14:AN:16:PHE:O	1.95	0.67
21:B0:1926:U:O2'	21:B0:1928:G:H5'	1.95	0.67
21:B0:3877:A:C8	21:B0:3877:A:O5'	2.39	0.67
1:AA:104:G:H4'	1:AA:172:A:C2	2.28	0.67
1:AA:1483:A:H2'	1:AA:1484:C:OP2	1.90	0.67
1:AA:650:G:O2'	1:AA:651:C:H5'	1.94	0.67
1:AA:68:G:H2'	1:AA:69:G:P	2.35	0.67
7:AG:85:TYR:HD1	7:AG:154:TYR:HE1	1.43	0.67
1:AA:1459:C:OP1	20:AT:28:ALA:C	2.33	0.67
1:AA:263:A:P	20:AT:75:ASN:HB2	2.34	0.67
21:B0:33:C:H42	21:B0:466:A:H61	1.41	0.67
21:B0:665:A:H3'	21:B0:666:U:C5'	2.24	0.67
1:AA:1211:U:H1'	1:AA:1213:A:C2	2.29	0.66
1:AA:1368:G:O2'	1:AA:1369:C:H5'	1.95	0.66
1:AA:1483:A:C5	1:AA:1484:C:C6	2.81	0.66
1:AA:371:G:O2'	1:AA:372:C:H5'	1.94	0.66
1:AA:815:A:C2	1:AA:1528:U:C4'	2.69	0.66
1:AA:921:U:H5'	1:AA:1082:G:H5'	1.76	0.66
1:AA:1092:A:C4'	7:AG:4:ARG:NH2	2.58	0.66
13:AM:40:ASN:HD22	13:AM:41:PRO:N	1.91	0.66
15:AO:55:GLY:O	15:AO:59:MET:HG3	1.94	0.66
21:B0:1473:U:H4'	21:B0:1474:A:C8	2.29	0.66
21:B0:3876:A:N9	53:B5:45:ASP:CA	2.57	0.66
1:AA:1296:C:H5'	1:AA:1302:U:O4	1.95	0.66
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.59	0.66
1:AA:1406:U:C1'	1:AA:1518:A:H4'	2.25	0.66
1:AA:582:U:O4'	17:AQ:105:ALA:C	2.33	0.66
1:AA:662:G:H2'	1:AA:663:A:C8	2.30	0.66
3:AC:179:ARG:HD3	3:AC:206:GLU:HG2	1.76	0.66
4:AD:36:ARG:H	4:AD:37:PRO:CD	2.02	0.66
5:AE:12:LEU:HD13	5:AE:31:LEU:HB2	1.77	0.66
18:AR:45:SER:OG	18:AR:49:LYS:HB2	1.94	0.66
1:AA:835:U:P	18:AR:64:ARG:NH2	2.66	0.66
21:B0:1223:G:H4'	21:B0:1224:A:O5'	1.96	0.66
21:B0:1312:G:H5'	21:B0:1314:A:H1'	1.77	0.66
1:AA:1057:G:O2'	1:AA:1058:G:H5'	1.96	0.66
1:AA:1065:U:O4	1:AA:1189:C:C2	2.49	0.66
1:AA:1416:G:P	1:AA:1417:G:OP2	2.53	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:436:C:C4	1:AA:437:U:O4	2.40	0.66
4:AD:187:ARG:HH21	4:AD:188:LEU:HD12	1.60	0.66
9:AI:10:ARG:HG2	9:AI:75:ASP:HB2	1.77	0.66
9:AI:26:VAL:HB	9:AI:33:PHE:HB2	1.76	0.66
10:AJ:96:ILE:HG22	10:AJ:97:GLU:N	2.10	0.66
1:AA:37:U:OP1	12:AL:124:LYS:CB	2.43	0.66
21:B0:1380:C:H2'	21:B0:1381:G:H5'	1.76	0.66
17:AQ:104:LYS:HB3	21:B0:727:U:C1'	2.26	0.66
1:AA:1270:C:O2'	1:AA:1314:C:H5'	1.95	0.66
1:AA:143:A:O4'	1:AA:196:A:C6	2.48	0.66
1:AA:315:A:H4'	1:AA:353:A:H61	1.59	0.66
1:AA:51:A:H2'	1:AA:116:A:O4'	1.94	0.66
1:AA:748:C:H1'	1:AA:749:C:C5	2.30	0.66
4:AD:57:ARG:HH21	5:AE:107:ARG:NE	1.93	0.66
1:AA:8:A:C1'	5:AE:103:GLY:CA	2.69	0.66
8:AH:6:ILE:HD11	8:AH:31:PHE:CD2	2.30	0.66
1:AA:587:G:P	8:AH:89:PRO:HB3	2.35	0.66
13:AM:33:ALA:HA	13:AM:59:TYR:HE2	1.60	0.66
17:AQ:97:SER:OG	17:AQ:103:GLY:CA	2.44	0.66
21:B0:3128:G:O2'	21:B0:3174:C:C4'	2.44	0.66
1:AA:524:G:H2'	1:AA:525:C:C6	2.31	0.66
3:AC:195:VAL:C	3:AC:196:LEU:HD23	2.15	0.66
1:AA:108:G:C6	20:AT:15:ARG:NE	2.64	0.66
21:B0:1066:G:N1	21:B0:1115:C:C4	2.64	0.66
21:B0:1141:U:H3	21:B0:2008:C:H5''	1.61	0.66
21:B0:1529:C:H2'	21:B0:1530:U:O4'	1.94	0.66
21:B0:3111:C:N3	21:B0:3148:G:OP2	2.26	0.66
1:AA:1406:U:H4'	1:AA:1518:A:H4'	1.76	0.66
1:AA:476:U:N3	1:AA:477:G:N9	2.43	0.66
1:AA:714:G:H5'	1:AA:776:G:C5'	2.24	0.66
3:AC:188:LEU:O	3:AC:189:ALA:HB2	1.96	0.66
15:AO:33:THR:HG23	15:AO:63:ARG:HH12	1.60	0.66
21:B0:1119:U:C3'	21:B0:1120:C:P	2.84	0.66
21:B0:910:U:H2'	21:B0:911:A:O5'	1.94	0.66
1:AA:1231:G:H5''	9:AI:126:SER:OG	1.95	0.66
1:AA:141:A:C5'	1:AA:182:U:H1'	2.25	0.66
1:AA:394:G:C4	1:AA:395:C:C6	2.84	0.66
3:AC:107:GLN:NE2	3:AC:107:GLN:H	1.94	0.66
3:AC:172:ARG:HB3	3:AC:172:ARG:NH1	2.11	0.66
10:AJ:90:LEU:H	10:AJ:91:PRO:HD2	1.61	0.66
1:AA:993:G:C6	1:AA:1046:A:C6	2.83	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1111:A:N1	3:AC:177:THR:HA	2.09	0.66
1:AA:1255:G:C2'	1:AA:1258:G:N2	2.56	0.66
1:AA:1425:U:H2'	1:AA:1426:C:C6	2.31	0.66
1:AA:143:A:O3'	1:AA:144:G:O5'	2.13	0.66
1:AA:218:C:P	1:AA:470:U:C4'	2.83	0.66
1:AA:131:C:C4'	1:AA:263:A:C4'	2.70	0.66
1:AA:37:U:OP1	12:AL:124:LYS:HB3	1.96	0.66
1:AA:66:G:H5''	1:AA:199:G:O2'	1.96	0.66
1:AA:1080:A:OP1	5:AE:47:LYS:HG2	1.96	0.66
12:AL:33:ARG:HD3	12:AL:62:SER:HB3	1.77	0.66
21:B0:1978:U:H3'	21:B0:1979:C:H5''	1.77	0.66
21:B0:910:U:H2'	21:B0:911:A:C5'	2.26	0.66
1:AA:1107:C:OP1	3:AC:173:VAL:N	2.25	0.66
1:AA:1503:A:N3	1:AA:1531:A:H2	1.93	0.66
1:AA:582:U:OP1	15:AO:68:ARG:NH2	2.25	0.66
4:AD:151:LYS:HD2	4:AD:151:LYS:H	1.60	0.66
1:AA:6:G:H2'	5:AE:119:LEU:HD13	1.78	0.66
1:AA:560:U:N3	5:AE:123:LEU:HD13	2.10	0.66
5:AE:150:ARG:HG3	5:AE:150:ARG:HH11	1.60	0.66
10:AJ:38:ILE:CG1	10:AJ:71:LEU:HB3	2.26	0.66
10:AJ:94:VAL:HG12	10:AJ:95:GLU:N	2.11	0.66
21:B0:1112:U:H2'	21:B0:1113:C:H5''	1.75	0.66
21:B0:439:C:H2'	21:B0:440:U:O4'	1.95	0.66
21:B0:515:A:H2'	21:B0:516:G:H5'	1.77	0.66
1:AA:130:A:H2	1:AA:264:U:C4	2.15	0.66
1:AA:161:A:H2	1:AA:348:G:H1'	1.60	0.66
1:AA:26:A:C2'	1:AA:27:G:H5'	2.26	0.66
1:AA:94:G:C4	1:AA:96:C:C5	2.84	0.66
1:AA:427:U:OP1	4:AD:13:ARG:NH2	2.29	0.66
4:AD:187:ARG:NH2	4:AD:188:LEU:HD12	2.10	0.66
4:AD:88:VAL:HA	5:AE:97:GLY:CA	2.25	0.66
1:AA:362:G:H4'	12:AL:28:LYS:HZ1	1.59	0.66
10:AJ:47:PHE:CD2	14:AN:37:PHE:HE1	2.14	0.66
1:AA:1319:A:C5'	19:AS:5:LEU:HD21	2.23	0.66
20:AT:87:LYS:O	20:AT:91:LEU:HD12	1.96	0.66
21:B0:1191:G:H2'	21:B0:1192:A:H8	1.61	0.66
21:B0:897:A:N6	21:B0:898:C:N4	2.43	0.66
1:AA:1296:C:H4'	1:AA:1302:U:H5	1.57	0.65
1:AA:216:C:C1'	1:AA:468:A:C2'	2.70	0.65
1:AA:112:G:N2	1:AA:354:G:O5'	2.17	0.65
1:AA:436:C:O2	1:AA:437:U:C1'	2.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:15:VAL:CG2	2:AB:209:ARG:HG3	2.26	0.65
3:AC:172:ARG:HH11	3:AC:172:ARG:HB3	1.61	0.65
5:AE:80:ILE:HD11	5:AE:91:LEU:HD12	1.76	0.65
10:AJ:60:ARG:O	10:AJ:61:GLU:HB3	1.96	0.65
21:B0:128:C:C2'	21:B0:129:A:H5''	2.23	0.65
21:B0:3197:U:O2'	21:B0:2181:A:C8	2.25	0.65
1:AA:926:G:C8	1:AA:1505:G:C2	2.83	0.65
1:AA:173:U:H5'	1:AA:197:A:O4'	1.96	0.65
1:AA:877:C:H5''	8:AH:88:LYS:HD3	1.78	0.65
1:AA:1190:G:H3'	3:AC:3:ASN:CB	2.24	0.65
21:B0:1471:G:H1	21:B0:2682:C:H42	1.44	0.65
13:AM:3:ARG:NH2	26:BD:137:ILE:CA	2.58	0.65
1:AA:1319:A:H5''	19:AS:5:LEU:CD2	2.21	0.65
1:AA:1329:A:C5'	13:AM:26:GLY:N	2.58	0.65
1:AA:1402:C:H2'	1:AA:1403:C:O4'	1.97	0.65
1:AA:1475:G:H2'	1:AA:1476:G:H8	1.62	0.65
1:AA:927:G:O2'	1:AA:1532:U:C4'	2.41	0.65
1:AA:244:U:C4	1:AA:893:C:N3	2.64	0.65
1:AA:474:U:H2'	1:AA:475:C:C6	2.31	0.65
1:AA:935:A:C6	7:AG:3:ARG:NH2	2.64	0.65
5:AE:40:ARG:HG2	5:AE:68:GLU:OE2	1.96	0.65
11:AK:48:ILE:HG22	11:AK:49:GLY:H	1.61	0.65
12:AL:86:ARG:HH11	12:AL:86:ARG:HG3	1.61	0.65
13:AM:65:LYS:HG3	13:AM:69:GLU:OE2	1.96	0.65
1:AA:187:G:C4'	20:AT:85:MET:HE2	2.26	0.65
1:AA:1442:G:H2'	1:AA:1442:G:N3	2.11	0.65
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.78	0.65
2:AB:215:LEU:O	2:AB:219:VAL:HG23	1.97	0.65
2:AB:25:ASN:C	2:AB:25:ASN:HD22	1.97	0.65
1:AA:1113:C:N1	3:AC:178:LEU:CD2	2.59	0.65
3:AC:64:VAL:HB	3:AC:99:VAL:CB	2.27	0.65
1:AA:1329:A:H4'	13:AM:29:ARG:HD2	1.76	0.65
21:B0:2794:G:H3'	21:B0:2796:A:H62	1.61	0.65
17:AQ:104:LYS:HB3	21:B0:727:U:H1'	1.79	0.65
1:AA:436:C:N3	1:AA:437:U:N3	2.44	0.65
1:AA:458:G:H2'	1:AA:459:G:H8	1.62	0.65
1:AA:825:G:H21	8:AH:11:THR:CG2	2.10	0.65
13:AM:33:ALA:HA	13:AM:59:TYR:CE2	2.32	0.65
19:AS:17:GLU:HA	19:AS:20:LEU:HD11	1.78	0.65
19:AS:28:LYS:HG2	19:AS:29:ARG:N	2.06	0.65
21:B0:1918:G:H4'	21:B0:1920:A:N3	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:2236:U:C3'	21:B0:2237:C:H5''	2.26	0.65
21:B0:542:A:C2'	21:B0:543:G:H5'	2.26	0.65
1:AA:212:G:O3'	1:AA:213:G:OP2	2.08	0.65
1:AA:619:U:C2	4:AD:135:LEU:CD1	2.80	0.65
1:AA:918:A:H2'	1:AA:919:A:C8	2.32	0.65
1:AA:933:G:O6	1:AA:935:A:C4	2.49	0.65
1:AA:992:U:O2'	1:AA:1043:C:N4	2.29	0.65
3:AC:155:GLY:O	3:AC:156:ARG:HB2	1.96	0.65
5:AE:15:ARG:HD2	5:AE:15:ARG:O	1.96	0.65
21:B0:1098:G:H3'	21:B0:1099:A:H5''	1.79	0.65
21:B0:1472:C:C2'	21:B0:1473:U:H5'	2.27	0.65
21:B0:2822:U:H2'	21:B0:2823:G:O4'	1.97	0.65
21:B0:651:C:H2'	21:B0:652:C:H5''	1.78	0.65
1:AA:1014:A:C4	19:AS:34:TRP:HB2	2.31	0.65
1:AA:977:A:N1	1:AA:1224:G:C5	2.64	0.65
1:AA:1483:A:N7	1:AA:1484:C:C5	2.65	0.65
1:AA:1497:G:H1'	1:AA:1518:A:C2	2.32	0.65
1:AA:353:A:C8	1:AA:353:A:H5'	2.31	0.65
1:AA:677:U:H3	1:AA:713:G:H22	1.45	0.65
1:AA:923:A:O4'	1:AA:1398:A:H2	1.70	0.65
6:AF:100:ASN:HD22	18:AR:23:LYS:CG	2.10	0.65
10:AJ:49:VAL:O	10:AJ:60:ARG:HA	1.95	0.65
1:AA:234:C:O2'	17:AQ:70:ARG:HG3	1.97	0.65
18:AR:47:THR:HG23	18:AR:83:GLU:H	1.61	0.65
21:B0:2047:C:H42	21:B0:2425:G:H1	1.43	0.65
1:AA:1495:U:H2'	1:AA:1496:C:C6	2.31	0.65
1:AA:1522:U:O2'	1:AA:1523:G:H5'	1.96	0.65
2:AB:18:GLY:HA3	2:AB:41:ILE:HA	1.79	0.65
11:AK:14:VAL:O	11:AK:15:ALA:HB3	1.95	0.65
1:AA:1298:C:H2'	7:AG:114:ARG:NH1	2.05	0.65
1:AA:1296:C:C5'	1:AA:1302:U:O4	2.45	0.65
1:AA:1499:A:H1'	1:AA:1520:G:H5'	1.79	0.65
1:AA:319:G:H2'	1:AA:1434:A:N1	1.98	0.65
4:AD:131:ARG:H	4:AD:131:ARG:HD2	1.62	0.65
1:AA:287:U:O2'	1:AA:288:A:H5'	1.97	0.65
1:AA:377:G:P	16:AP:5:ARG:HD2	2.37	0.65
1:AA:59:A:C5	1:AA:331:G:N3	2.61	0.65
1:AA:6:G:C1'	5:AE:119:LEU:CD1	2.75	0.65
6:AF:21:LEU:O	6:AF:24:GLU:HB3	1.97	0.65
7:AG:50:ILE:O	7:AG:54:THR:HB	1.96	0.65
1:AA:1347:G:N9	9:AI:107:ARG:NH1	2.45	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:110:VAL:O	12:AL:122:THR:HG21	1.97	0.65
12:AL:55:VAL:HG12	12:AL:56:ALA:N	2.12	0.65
21:B0:1656:U:C2'	21:B0:1657:A:H5''	2.25	0.65
21:B0:727:U:H2'	21:B0:728:G:H5''	1.78	0.65
21:B0:892:A:N9	21:B0:911:A:C2	2.65	0.65
21:B0:927:C:H2'	21:B0:928:G:O4'	1.97	0.65
1:AA:1110:A:N6	1:AA:1111:A:C6	2.64	0.64
1:AA:130:A:C4'	1:AA:264:U:C5'	2.75	0.64
1:AA:1497:G:H2'	1:AA:1498:U:H5'	1.78	0.64
1:AA:281:G:O2'	1:AA:282:A:OP 2	2.12	0.64
1:AA:443:C:H2'	1:AA:444:C:H6	1.61	0.64
1:AA:959:A:H1'	1:AA:985:C:H1'	1.78	0.64
3:AC:29:TYR:OH	14:AN:54:PRO:HG2	1.97	0.64
1:AA:7:G:N2	5:AE:121:LYS:HG2	2.11	0.64
11:AK:66:LEU:HB3	11:AK:70:LYS:HE3	1.78	0.64
17:AQ:101:ARG:HE	17:AQ:101:ARG:HA	1.62	0.64
21:B0:1472:C:H2'	21:B0:1473:U:H5'	1.79	0.64
21:B0:1811:A:O2'	21:B0:1812:U:H5''	1.97	0.64
1:AA:1153:C:H2'	1:AA:1154:G:H8	1.62	0.64
1:AA:1483:A:C6	1:AA:1484:C:C2	2.85	0.64
1:AA:436:C:N3	1:AA:437:U:C6	2.62	0.64
1:AA:476:U:O4	1:AA:477:G:N7	2.30	0.64
2:AB:71:VAL:O	2:AB:165:VAL:HG23	1.96	0.64
7:AG:37:ASN:ND2	9:AI:41:VAL:HG23	2.12	0.64
1:AA:1318:A:H5'	19:AS:10:PHE:CD1	2.32	0.64
21:B0:1432:G:H21	21:B0:1596:A:H62	1.45	0.64
1:AA:1474:G:H4'	21:B0:1718:A:C2	2.32	0.64
21:B0:897:A:C6	21:B0:898:C:C4	2.85	0.64
1:AA:1249:C:H1'	9:AI:70:LYS:HG3	1.79	0.64
1:AA:243:A:H4'	1:AA:244:U:C5'	2.22	0.64
1:AA:131:C:O2'	1:AA:262:A:O2'	2.16	0.64
1:AA:31:G:C6	1:AA:48:C:O4'	2.50	0.64
1:AA:588:G:C8	1:AA:753:A:C4	2.84	0.64
1:AA:818:G:H3'	1:AA:819:A:C5'	2.27	0.64
11:AK:40:ILE:HG22	11:AK:41:THR:HG23	1.80	0.64
19:AS:43:GLU:H	19:AS:43:GLU:CD	2.00	0.64
19:AS:44:MET:O	19:AS:47:HIS:HB2	1.97	0.64
1:AA:1368:G:P	9:AI:112:LYS:O	2.56	0.64
1:AA:51:A:N1	1:AA:314:C:O2'	2.23	0.64
1:AA:588:G:C4	1:AA:753:A:C5	2.83	0.64
7:AG:42:ILE:HG22	7:AG:120:ILE:HD12	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:29:VAL:HG12	15:AO:85:LEU:CD1	2.26	0.64
19:AS:40:ILE:HB	19:AS:67:VAL:O	1.98	0.64
21:B0:2422:C:H2'	21:B0:2423:G:H8	1.62	0.64
1:AA:1190:G:O2'	1:AA:1191:A:O5'	2.12	0.64
1:AA:1475:G:H4'	21:B0:1706:A:C4'	2.16	0.64
1:AA:59:A:C6	1:AA:331:G:C4	2.85	0.64
1:AA:112:G:N3	1:AA:354:G:C5'	2.59	0.64
1:AA:588:G:C6	1:AA:753:A:N7	2.66	0.64
1:AA:735:C:O2'	18:AR:75:ILE:HD11	1.96	0.64
1:AA:760:G:N2	17:AQ:103:GLY:C	2.50	0.64
3:AC:177:THR:CG2	3:AC:180:ALA:HB2	2.28	0.64
5:AE:115:VAL:CG1	5:AE:118:ILE:HG13	2.25	0.64
15:AO:17:ARG:CZ	15:AO:77:ARG:HH11	2.11	0.64
21:B0:1436:G:H1'	21:B0:1508:G:H21	1.60	0.64
21:B0:2075:U:O2'	21:B0:3093:C:C1'	2.45	0.64
1:AA:103:C:O2'	1:AA:171:A:C6	2.50	0.64
1:AA:1141:C:H2'	1:AA:1142:G:C8	2.33	0.64
1:AA:393:A:O2'	1:AA:394:G:H5'	1.98	0.64
1:AA:31:G:H1	1:AA:48:C:H5''	1.62	0.64
1:AA:36:C:O2'	1:AA:501:C:OP1	2.13	0.64
3:AC:112:SER:HB2	3:AC:115:LEU:HD12	1.79	0.64
9:AI:49:PRO:O	9:AI:52:ALA:HB3	1.97	0.64
13:AM:36:LYS:HD2	13:AM:59:TYR:CZ	2.32	0.64
1:AA:130:A:P	17:AQ:63:ARG:HE	2.18	0.64
21:B0:1861:G:P	53:B5:37:LYS:CA	2.86	0.64
1:AA:1014:A:C2	1:AA:1219:U:C2'	2.78	0.64
1:AA:13:U:O2	1:AA:914:A:H3'	1.96	0.64
1:AA:15:G:H4'	5:AE:24:ARG:NH2	2.13	0.64
1:AA:141:A:N3	1:AA:195:A:C2	2.66	0.64
1:AA:262:A:C5'	20:AT:74:LYS:CB	2.66	0.64
1:AA:375:U:OP1	16:AP:69:THR:OG1	2.03	0.64
1:AA:6:G:C5	5:AE:119:LEU:CD1	2.79	0.64
10:AJ:45:ARG:NH1	14:AN:36:PHE:HD2	1.87	0.64
11:AK:18:ARG:HB2	11:AK:33:THR:HG23	1.78	0.64
19:AS:64:GLU:O	19:AS:67:VAL:HG23	1.97	0.64
20:AT:50:GLU:HG2	20:AT:100:ILE:HG13	1.79	0.64
21:B0:1474:A:H2'	21:B0:1475:U:H5'	1.79	0.64
1:AA:1256:A:N3	1:AA:1258:G:O6	2.30	0.64
1:AA:1409:C:C2'	1:AA:1410:G:C8	2.75	0.64
1:AA:499:A:H4'	1:AA:500:G:H5'	1.79	0.64
1:AA:835:U:C5'	18:AR:64:ARG:HH22	2.03	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:837:G:O3'	1:AA:838:C:C6	2.49	0.64
1:AA:994:A:N3	14:AN:5:ALA:O	2.31	0.64
5:AE:115:VAL:HG11	5:AE:118:ILE:CG1	2.28	0.64
16:AP:45:THR:HB	16:AP:46:PRO:HD2	1.80	0.64
21:B0:1047:G:H1	21:B0:1130:U:H3	1.46	0.64
1:AA:1040:U:H2'	1:AA:1041:A:C8	2.33	0.64
1:AA:1475:G:H4'	21:B0:1706:A:H5'	1.80	0.64
1:AA:204:A:H5''	1:AA:205:G:OP1	1.97	0.64
1:AA:926:G:C2	1:AA:1505:G:C8	2.86	0.64
1:AA:976:G:N2	1:AA:2361:C:H2'	2.13	0.64
3:AC:155:GLY:O	3:AC:196:LEU:HD22	1.98	0.64
6:AF:9:VAL:HB	6:AF:87:ARG:HB2	1.80	0.64
7:AG:37:ASN:HD21	9:AI:41:VAL:HG23	1.62	0.64
21:B0:2245:A:H5'	21:B0:2246:A:N7	2.12	0.64
21:B0:2690:A:OP2	21:B0:2694:G:H5'	1.98	0.64
21:B0:3110:G:H5''	21:B0:3148:G:H1'	1.80	0.64
21:B0:894:G:C2'	21:B0:895:G:H5''	2.27	0.64
21:B0:910:U:C2'	21:B0:911:A:C5'	2.76	0.64
1:AA:1109:C:OP2	3:AC:176:HIS:CG	2.51	0.64
1:AA:1086:U:H5''	1:AA:1389:C:OP1	1.96	0.64
1:AA:191:G:C2	1:AA:192:U:N1	2.66	0.64
1:AA:262:A:O3'	20:AT:75:ASN:CB	2.41	0.64
1:AA:403:C:N3	1:AA:404:U:C5	2.66	0.64
4:AD:70:ILE:HD11	4:AD:100:ARG:NE	2.13	0.64
1:AA:5:U:O4	5:AE:95:ALA:HB1	1.99	0.64
14:AN:27:CYS:SG	14:AN:29:ARG:HB2	2.38	0.64
1:AA:234:C:O2'	17:AQ:70:ARG:CG	2.45	0.64
21:B0:65:C:H2'	21:B0:66:U:O4'	1.97	0.64
1:AA:1044:A:C8	1:AA:1045:C:H1'	2.32	0.63
1:AA:1394:A:N1	1:AA:1501:C:O4'	2.31	0.63
1:AA:367:U:O3'	1:AA:368:U:P	2.56	0.63
1:AA:392:G:H2'	1:AA:393:A:C8	2.32	0.63
1:AA:436:C:O2'	1:AA:437:U:O4'	2.16	0.63
1:AA:958:A:C2	19:AS:55:LYS:HB2	2.33	0.63
1:AA:9:G:N7	5:AE:126:ARG:NH1	2.45	0.63
7:AG:71:PRO:HD3	7:AG:103:TRP:CZ3	2.33	0.63
21:B0:1075:C:H2'	21:B0:1076:U:O4'	1.99	0.63
21:B0:1838:G:H2'	21:B0:1839:A:H5'	1.75	0.63
21:B0:2510:A:H61	21:B0:2641:A:H61	1.46	0.63
1:AA:1131:G:H1	1:AA:1143:G:N2	1.95	0.63
1:AA:1503:A:OP1	1:AA:1531:A:C2'	2.46	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:587:G:HO2'	1:AA:588:G:P	2.22	0.63
1:AA:933:G:C6	1:AA:935:A:N9	2.65	0.63
2:AB:95:GLN:OE1	2:AB:95:GLN:HA	1.97	0.63
14:AN:22:THR:CB	14:AN:33:VAL:HG21	2.27	0.63
1:AA:322:C:O3'	20:AT:23:ARG:CB	2.46	0.63
21:B0:1458:A:H3'	21:B0:1459:U:C5'	2.28	0.63
21:B0:1341:G:H22	21:B0:1664:G:H1	1.46	0.63
21:B0:3184:C:O2'	21:B0:3185:U:H5''	1.98	0.63
1:AA:1115:C:O4'	14:AN:61:TRP:HA	1.99	0.63
1:AA:1142:G:H2'	1:AA:1143:G:O4'	1.97	0.63
1:AA:173:U:C5'	1:AA:197:A:O4'	2.46	0.63
3:AC:64:VAL:CB	3:AC:99:VAL:HB	2.27	0.63
12:AL:25:PRO:C	12:AL:27:LEU:N	2.52	0.63
1:AA:108:G:O6	20:AT:15:ARG:CD	2.47	0.63
21:B0:1715:A:H1'	21:B0:1717:A:O4'	1.99	0.63
21:B0:2491:C:C2'	21:B0:2492:G:H5''	2.29	0.63
1:AA:1291:G:O3'	7:AG:41:ARG:NH2	2.31	0.63
1:AA:1347:G:O2'	1:AA:1348:U:OP2	2.16	0.63
1:AA:1499:A:H1'	1:AA:1520:G:H5''	1.80	0.63
1:AA:635:G:O2'	17:AQ:2:PRO:HG2	1.98	0.63
11:AK:18:ARG:HB2	11:AK:33:THR:CG2	2.28	0.63
16:AP:8:ARG:HB2	16:AP:28:ARG:NH1	2.14	0.63
17:AQ:104:LYS:HE3	21:B0:729:A:H62	0.53	0.63
1:AA:1249:C:H4'	9:AI:36:TYR:OH	1.98	0.63
1:AA:976:G:P	1:AA:1358:U:HO2'	2.18	0.63
1:AA:168:G:O2'	1:AA:169:C:H5'	1.98	0.63
1:AA:434:U:H2'	1:AA:435:C:H6	1.63	0.63
1:AA:74:G:H2'	1:AA:75:C:C6	2.34	0.63
1:AA:922:G:H2'	1:AA:923:A:C8	2.33	0.63
2:AB:74:LYS:HZ1	2:AB:206:ASP:HA	1.63	0.63
4:AD:148:VAL:HG11	4:AD:158:ILE:HG21	1.81	0.63
1:AA:994:A:N3	14:AN:5:ALA:C	2.42	0.63
16:AP:18:ARG:HD3	16:AP:35:LYS:HE3	1.79	0.63
1:AA:636:U:H5'	17:AQ:2:PRO:HG2	1.79	0.63
21:B0:3149:G:C2'	21:B0:3150:C:P	2.87	0.63
17:AQ:104:LYS:CG	21:B0:726:G:C2	2.75	0.63
1:AA:1250:A:H5'	9:AI:68:GLY:O	1.98	0.63
1:AA:130:A:H1'	1:AA:263:A:HO2'	1.61	0.63
1:AA:1314:C:C5	19:AS:6:LYS:HD3	2.33	0.63
1:AA:1346:A:N3	7:AG:10:ARG:CZ	2.62	0.63
1:AA:926:G:N1	1:AA:1505:G:C5	2.66	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:253:U:OP1	17:AQ:67:LYS:NZ	2.31	0.63
2:AB:82:ARG:O	2:AB:86:GLU:HG3	1.98	0.63
5:AE:79:GLU:HG3	5:AE:93:PRO:HD2	1.79	0.63
8:AH:91:ARG:HD3	17:AQ:34:LYS:HB3	1.81	0.63
1:AA:190:A:N3	20:AT:101:GLY:HA3	2.12	0.63
21:B0:1856:U:N3	21:B0:3877:A:C6	2.56	0.63
1:AA:130:A:H1'	1:AA:264:U:C5'	2.19	0.63
1:AA:320:C:C5'	1:AA:1434:A:N1	2.61	0.63
1:AA:191:G:C6	1:AA:192:U:C6	2.77	0.63
1:AA:402:G:C4'	1:AA:620:C:H42	2.11	0.63
1:AA:926:G:C5	1:AA:1505:G:N1	2.66	0.63
1:AA:926:G:C8	1:AA:1505:G:N2	2.66	0.63
1:AA:959:A:C4'	1:AA:985:C:H4'	2.28	0.63
1:AA:619:U:N1	4:AD:135:LEU:HD11	2.13	0.63
5:AE:120:THR:CG2	5:AE:121:LYS:N	2.61	0.63
10:AJ:30:SER:OG	10:AJ:81:THR:HA	1.99	0.63
19:AS:52:TYR:HA	19:AS:56:GLN:O	1.99	0.63
21:B0:2198:U:C3'	21:B0:2199:C:H5''	2.27	0.63
21:B0:3183:A:C3'	21:B0:3184:C:P	2.87	0.63
1:AA:274:A:C2	1:AA:275:G:H1'	2.32	0.63
1:AA:571:U:H4'	1:AA:819:A:C5	2.33	0.63
3:AC:59:ARG:C	10:AJ:92:THR:CG2	2.66	0.63
7:AG:26:PHE:CE2	7:AG:30:ILE:HD11	2.33	0.63
9:AI:118:LYS:O	9:AI:119:ALA:CB	2.45	0.63
1:AA:1367:C:C5'	10:AJ:60:ARG:NH1	2.61	0.63
1:AA:1292:U:OP2	7:AG:41:ARG:NH2	2.31	0.63
1:AA:1505:G:C3'	1:AA:1506:U:O5'	2.39	0.63
1:AA:141:A:N3	1:AA:195:A:H2	1.96	0.63
1:AA:216:C:C2'	1:AA:468:A:N3	2.42	0.63
1:AA:619:U:N3	4:AD:135:LEU:HG	2.13	0.63
1:AA:402:G:C4'	1:AA:620:C:N3	2.39	0.63
2:AB:186:ALA:HB3	2:AB:197:VAL:HG11	1.81	0.63
3:AC:177:THR:HG23	3:AC:180:ALA:HB2	1.81	0.63
4:AD:152:SER:HB3	4:AD:155:LEU:HD12	1.80	0.63
7:AG:155:ARG:O	7:AG:156:TRP:HB3	1.98	0.63
1:AA:323:U:O3'	20:AT:22:ARG:HD3	1.99	0.63
1:AA:261:U:P	20:AT:79:ARG:HH22	2.21	0.63
21:B0:1464:A:H4'	21:B0:1545:G:H4'	1.81	0.63
21:B0:1711:C:H4'	21:B0:1712:G:C2	2.34	0.63
21:B0:1856:U:H6	21:B0:3865:A:C8	1.71	0.63
21:B0:514:G:H2'	21:B0:514:G:N3	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.32	0.62
1:AA:926:G:C5	1:AA:1505:G:C2	2.87	0.62
3:AC:120:VAL:O	3:AC:124:ILE:HG13	1.99	0.62
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.13	0.62
19:AS:39:THR:HA	19:AS:70:LYS:HG2	1.81	0.62
1:AA:1020:U:H2'	1:AA:1021:G:H8	1.63	0.62
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.29	0.62
1:AA:403:C:HO2'	1:AA:404:U:H5'	1.57	0.62
1:AA:586:C:H5'	8:AH:90:GLY:HA3	1.80	0.62
3:AC:60:ALA:O	3:AC:61:ALA:HB2	2.00	0.62
5:AE:116:THR:HG23	5:AE:117:ASP:OD2	1.98	0.62
5:AE:150:ARG:NH1	5:AE:150:ARG:HG3	2.13	0.62
7:AG:23:VAL:O	7:AG:27:ILE:HG13	2.00	0.62
3:AC:13:GLY:HA3	14:AN:57:ARG:NH2	2.14	0.62
1:AA:375:U:N3	1:AA:376:G:C5	2.67	0.62
1:AA:815:A:C4	1:AA:1527:C:H1'	2.34	0.62
2:AB:142:LEU:HD22	2:AB:146:GLN:NE2	2.14	0.62
2:AB:73:THR:HB	2:AB:170:GLU:OE2	1.99	0.62
17:AQ:104:LYS:CG	21:B0:727:U:O2	2.47	0.62
17:AQ:21:VAL:HG21	17:AQ:59:ILE:HD11	1.82	0.62
1:AA:218:C:OP1	1:AA:470:U:C4'	2.47	0.62
1:AA:325:A:OP2	20:AT:70:SER:OG	2.16	0.62
1:AA:599:C:H4'	8:AH:131:GLY:N	2.14	0.62
7:AG:114:ARG:HG2	7:AG:114:ARG:HH11	1.64	0.62
12:AL:33:ARG:CD	12:AL:62:SER:HB3	2.29	0.62
1:AA:1132:C:H2'	1:AA:1133:G:H8	1.64	0.62
1:AA:1190:G:H4'	1:AA:1191:A:C5'	2.27	0.62
1:AA:244:U:N3	1:AA:894:G:C4	2.67	0.62
1:AA:1298:C:C4	7:AG:114:ARG:HD3	2.35	0.62
21:B0:1429:A:H62	21:B0:1601:U:H5''	1.65	0.62
21:B0:2236:U:C2'	21:B0:2237:C:H5''	2.29	0.62
21:B0:2607:C:H1'	21:B0:2761:A:H2'	1.79	0.62
21:B0:2756:A:H4'	21:B0:2758:A:OP1	1.98	0.62
21:B0:892:A:N3	21:B0:911:A:C2	2.67	0.62
1:AA:1229:A:OP2	13:AM:114:ARG:HD3	1.99	0.62
1:AA:436:C:O2	1:AA:437:U:N1	2.32	0.62
1:AA:600:C:H5''	8:AH:129:VAL:HA	1.81	0.62
1:AA:714:G:C5'	1:AA:776:G:H5'	2.30	0.62
1:AA:866:C:H4'	1:AA:919:A:C5'	2.30	0.62
1:AA:994:A:H1'	14:AN:8:GLU:CB	2.24	0.62
2:AB:132:LYS:HG2	2:AB:135:GLN:OE1	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:88:VAL:CA	5:AE:97:GLY:HA3	2.28	0.62
1:AA:586:C:C5'	8:AH:90:GLY:N	2.60	0.62
9:AI:19:LEU:O	9:AI:20:ARG:HG3	1.99	0.62
1:AA:129:U:P	17:AQ:3:LYS:HZ2	2.23	0.62
19:AS:31:ILE:CG2	19:AS:32:LYS:H	2.10	0.62
21:B0:3183:A:HO3'	21:B0:3184:C:P	2.19	0.62
1:AA:319:G:C4	1:AA:1434:A:C2	2.88	0.62
1:AA:31:G:N2	1:AA:47:C:H4'	2.14	0.62
1:AA:336:C:O4'	1:AA:1433:A:H1'	1.99	0.62
1:AA:837:G:O2'	1:AA:838:C:O4'	2.12	0.62
3:AC:23:TYR:CE1	10:AJ:11:PHE:CE2	2.88	0.62
12:AL:43:VAL:HG12	12:AL:44:THR:N	2.14	0.62
14:AN:53:LEU:HB3	14:AN:56:VAL:HG21	1.81	0.62
17:AQ:76:LEU:HD23	17:AQ:77:VAL:N	2.15	0.62
21:B0:1196:G:H2'	21:B0:1197:U:O4'	2.00	0.62
1:AA:501:C:H2'	1:AA:502:G:C8	2.34	0.62
1:AA:6:G:C2'	5:AE:119:LEU:CD1	2.77	0.62
4:AD:148:VAL:CG1	4:AD:158:ILE:HD13	2.30	0.62
7:AG:139:GLU:O	7:AG:143:ARG:HG3	2.00	0.62
1:AA:1349:A:OP1	9:AI:120:ARG:HB2	2.00	0.62
1:AA:1342:C:H4'	9:AI:125:TYR:CZ	2.34	0.62
13:AM:84:ILE:O	13:AM:86:CYS:N	2.32	0.62
1:AA:1109:C:P	3:AC:176:HIS:NE2	2.72	0.62
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.35	0.62
2:AB:74:LYS:NZ	2:AB:206:ASP:HA	2.13	0.62
4:AD:61:LYS:NZ	4:AD:62:GLN:HE21	1.98	0.62
6:AF:94:GLN:NE2	18:AR:32:ARG:HD3	2.09	0.62
20:AT:54:LYS:HE3	20:AT:100:ILE:HD11	1.82	0.62
21:B0:1528:C:C2'	21:B0:1529:C:H5''	2.30	0.62
21:B0:2571:G:H2'	21:B0:2572:U:C6	2.34	0.62
1:AA:1211:U:O3'	1:AA:1212:U:OP2	2.17	0.62
1:AA:1320:C:H41	19:AS:37:ARG:HD3	1.65	0.62
1:AA:1440:C:H2'	1:AA:1441:G:H5'	1.82	0.62
2:AB:115:LEU:HG	2:AB:153:ARG:NH2	2.14	0.62
4:AD:191:ARG:O	4:AD:191:ARG:HD2	2.00	0.62
5:AE:120:THR:HG23	5:AE:121:LYS:N	2.15	0.62
5:AE:80:ILE:CD1	5:AE:91:LEU:HB2	2.30	0.62
8:AH:91:ARG:NH2	17:AQ:32:TYR:O	2.31	0.62
1:AA:1297:C:P	13:AM:44:ARG:NH2	2.71	0.62
20:AT:43:LEU:HD12	20:AT:55:ILE:HD12	1.81	0.62
21:B0:1580:C:H2'	21:B0:1581:C:C6	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:2668:U:H4'	21:B0:2669:C:C5'	2.25	0.62
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.35	0.61
1:AA:922:G:N2	1:AA:1396:A:C2	2.68	0.61
1:AA:1409:C:C2'	1:AA:1410:G:O4'	2.47	0.61
1:AA:1416:G:H3'	1:AA:1417:G:O5'	2.00	0.61
1:AA:1474:G:H5'	21:B0:1718:A:C2	2.34	0.61
1:AA:355:C:H4'	1:AA:389:A:OP2	1.99	0.61
1:AA:51:A:N1	1:AA:314:C:C2'	2.63	0.61
1:AA:502:G:C4'	1:AA:550:G:C4'	2.77	0.61
2:AB:122:PHE:HE2	2:AB:139:LYS:HG2	1.65	0.61
2:AB:69:LEU:HD12	2:AB:155:LEU:HD11	1.81	0.61
4:AD:23:GLY:HA3	4:AD:112:VAL:CG1	2.30	0.61
5:AE:102:ALA:CB	5:AE:120:THR:HG21	2.28	0.61
9:AI:4:TYR:CZ	9:AI:88:TYR:HD1	2.17	0.61
10:AJ:63:PHE:HE1	14:AN:45:ARG:HA	1.63	0.61
8:AH:91:ARG:CG	12:AL:7:ILE:HG21	2.28	0.61
1:AA:735:C:H1'	18:AR:75:ILE:HD11	1.82	0.61
21:B0:1250:A:O2'	21:B0:1251:G:H4'	2.00	0.61
21:B0:788:G:H5'	21:B0:790:A:H1'	1.81	0.61
1:AA:1182:G:C5'	1:AA:1184:G:H5''	2.26	0.61
1:AA:119:A:C6	1:AA:240:C:C2	2.88	0.61
1:AA:1370:G:O2'	1:AA:1371:G:H5'	2.00	0.61
1:AA:15:G:C1'	5:AE:19:MET:HE2	2.30	0.61
1:AA:193:C:H2'	1:AA:194:C:C6	2.35	0.61
1:AA:234:C:H4'	17:AQ:64:PRO:HG2	1.82	0.61
1:AA:386:C:O2'	1:AA:387:U:H5'	2.00	0.61
1:AA:755:G:H1'	8:AH:1:MET:HE2	1.79	0.61
2:AB:20:GLU:HG2	2:AB:189:ASP:OD2	1.99	0.61
1:AA:778:G:O2'	11:AK:120:ARG:O	2.17	0.61
12:AL:27:LEU:C	12:AL:29:GLY:H	2.04	0.61
1:AA:969:A:H61	13:AM:126:LYS:HB2	1.65	0.61
15:AO:29:VAL:HG12	15:AO:85:LEU:HD11	1.82	0.61
21:B0:1147:G:H2'	21:B0:1148:G:C8	2.35	0.61
21:B0:1856:U:C4'	21:B0:3865:A:C8	2.83	0.61
21:B0:2522:G:N2	21:B0:2625:U:H5''	2.15	0.61
21:B0:973:U:H2'	21:B0:974:U:C6	2.35	0.61
1:AA:1425:U:H2'	1:AA:1426:C:H6	1.65	0.61
1:AA:1487:G:O2'	1:AA:1488:G:H5'	1.99	0.61
1:AA:448:A:H2'	1:AA:449:C:H6	1.64	0.61
1:AA:502:G:OP1	12:AL:118:SER:HB2	1.99	0.61
1:AA:837:G:C3'	1:AA:838:C:C6	2.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:184:VAL:N	2:AB:198:ASP:OD2	2.32	0.61
3:AC:50:ALA:O	3:AC:70:VAL:HG12	1.99	0.61
9:AI:114:TYR:CZ	10:AJ:60:ARG:HB2	2.36	0.61
21:B0:1066:G:C6	21:B0:1115:C:N4	2.62	0.61
21:B0:1920:A:H3'	21:B0:1920:A:OP2	2.01	0.61
1:AA:1347:G:O2'	1:AA:1348:U:P	2.57	0.61
1:AA:1490:C:H6	1:AA:1490:C:C5'	2.13	0.61
1:AA:161:A:H2	1:AA:348:G:C1'	2.13	0.61
1:AA:651:C:N4	1:AA:652:U:C4	2.66	0.61
1:AA:653:A:OP1	8:AH:56:LYS:NZ	2.33	0.61
1:AA:812:C:O2'	1:AA:813:U:OP2	2.17	0.61
18:AR:52:PRO:O	18:AR:56:THR:HG23	2.00	0.61
1:AA:1225:A:H1'	19:AS:78:ARG:HD3	1.82	0.61
21:B0:1518:C:H2'	21:B0:1519:G:C8	2.35	0.61
21:B0:116:A:N3	21:B0:155:G:H1'	2.15	0.61
21:B0:2727:G:H1	21:B0:2735:C:H5''	1.64	0.61
1:AA:112:G:H21	1:AA:354:G:P	2.22	0.61
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.14	0.61
1:AA:954:G:H21	1:AA:1227:A:H62	1.49	0.61
1:AA:1457:A:C5	1:AA:1459:C:O2	2.53	0.61
1:AA:15:G:C1'	5:AE:19:MET:CE	2.77	0.61
1:AA:235:C:C5'	17:AQ:70:ARG:CD	2.76	0.61
1:AA:390:C:H2'	1:AA:391:G:H8	1.66	0.61
1:AA:538:G:H5''	12:AL:114:LYS:HB2	1.81	0.61
1:AA:588:G:H1'	1:AA:753:A:N1	2.16	0.61
2:AB:115:LEU:O	2:AB:119:GLU:HG3	2.00	0.61
21:B0:2548:G:H2'	21:B0:2549:G:C5'	2.27	0.61
1:AA:1483:A:H3'	1:AA:1484:C:OP2	1.98	0.61
1:AA:1405:G:C4'	1:AA:1519:A:H4'	2.29	0.61
1:AA:651:C:C4	1:AA:652:U:O4	2.51	0.61
3:AC:129:ALA:HB3	3:AC:132:ARG:HD2	1.82	0.61
10:AJ:46:ARG:HH11	10:AJ:64:GLU:HB3	1.65	0.61
11:AK:48:ILE:HG22	11:AK:49:GLY:N	2.16	0.61
21:B0:1093:U:O4	21:B0:1094:C:C4	2.54	0.61
1:AA:179:A:O3'	1:AA:180:U:P	2.59	0.61
1:AA:476:U:HO3'	1:AA:477:G:P	2.23	0.61
1:AA:933:G:C6	1:AA:935:A:C4	2.88	0.61
2:AB:143:GLU:O	2:AB:147:LYS:HG3	2.00	0.61
12:AL:27:LEU:C	12:AL:29:GLY:N	2.54	0.61
12:AL:40:VAL:O	12:AL:40:VAL:HG12	1.99	0.61
13:AM:10:PRO:O	13:AM:45:VAL:HG11	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:76:LEU:C	17:AQ:76:LEU:HD23	2.20	0.61
20:AT:50:GLU:HG3	20:AT:99:LEU:HD12	1.82	0.61
21:B0:1094:C:O2'	21:B0:1096:A:H2	1.83	0.61
1:AA:1484:C:H2'	1:AA:1485:U:H6	1.65	0.61
1:AA:292:G:C2	1:AA:608:A:N1	2.68	0.61
1:AA:6:G:C1'	5:AE:119:LEU:HD13	2.31	0.61
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.66	0.61
3:AC:47:LEU:HD23	3:AC:68:VAL:HG11	1.83	0.61
4:AD:61:LYS:NZ	4:AD:62:GLN:NE2	2.48	0.61
1:AA:263:A:OP2	20:AT:79:ARG:NH1	2.32	0.61
1:AA:186:C:O4'	20:AT:81:LYS:NZ	2.33	0.61
21:B0:2223:U:H2'	21:B0:2224:U:O4'	2.01	0.61
1:AA:1329:A:C3'	13:AM:26:GLY:N	2.63	0.61
1:AA:244:U:O4	1:AA:893:C:C4	2.54	0.61
1:AA:333:G:O4'	20:AT:16:HIS:NE2	2.34	0.61
1:AA:551:U:H2'	1:AA:552:U:H6	1.64	0.61
1:AA:586:C:O3'	8:AH:89:PRO:HB3	2.00	0.61
1:AA:933:G:C6	1:AA:935:A:C5	2.89	0.61
4:AD:25:ARG:O	4:AD:27:TYR:N	2.33	0.61
21:B0:3108:G:C2'	21:B0:3109:U:C5	2.63	0.61
21:B0:3184:C:C2'	21:B0:3185:U:H5''	2.31	0.61
21:B0:362:C:H2'	21:B0:363:G:H4'	1.82	0.61
21:B0:3874:C:H2'	21:B0:3875:A:C5'	2.30	0.61
1:AA:1250:A:C5'	9:AI:68:GLY:O	2.49	0.61
1:AA:1298:C:P	7:AG:114:ARG:HH21	2.20	0.61
1:AA:300:A:H1'	1:AA:565:U:C2	2.35	0.61
1:AA:953:G:H1'	13:AM:125:ARG:CB	2.31	0.61
7:AG:78:ARG:HB2	7:AG:156:TRP:HZ3	1.65	0.61
12:AL:28:LYS:HD2	12:AL:33:ARG:HH12	1.65	0.61
13:AM:54:VAL:O	13:AM:58:GLU:HG2	2.01	0.61
21:B0:1500:U:H3	21:B0:1520:G:H22	1.48	0.61
21:B0:181:A:H5''	21:B0:182:G:OP1	2.00	0.61
1:AA:436:C:N3	1:AA:437:U:C2	2.69	0.60
1:AA:476:U:N3	1:AA:477:G:C1'	2.64	0.60
1:AA:292:G:C1'	1:AA:608:A:H62	2.03	0.60
1:AA:923:A:H1'	1:AA:1398:A:N3	2.16	0.60
1:AA:1112:C:O2	3:AC:178:LEU:O	2.19	0.60
3:AC:83:ARG:C	3:AC:85:ARG:H	2.04	0.60
9:AI:44:VAL:HG12	9:AI:51:ARG:HH12	1.66	0.60
11:AK:19:ALA:HB2	11:AK:80:VAL:HG11	1.82	0.60
17:AQ:104:LYS:O	17:AQ:105:ALA:HB2	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1484:C:HO2'	21:B0:1943:A:H4'	1.57	0.60
21:B0:161:U:H4'	21:B0:194:G:H21	1.66	0.60
21:B0:892:A:C2	21:B0:911:A:C4	2.89	0.60
1:AA:351:G:O3'	1:AA:352:C:OP2	2.18	0.60
1:AA:59:A:C8	1:AA:331:G:N2	2.69	0.60
3:AC:191:THR:CG2	3:AC:192:THR:N	2.64	0.60
3:AC:191:THR:HG22	3:AC:192:THR:N	2.15	0.60
3:AC:20:SER:HB3	3:AC:22:TRP:HE1	1.67	0.60
4:AD:157:LEU:HD22	4:AD:161:ASN:ND2	2.16	0.60
10:AJ:49:VAL:CG1	14:AN:41:ARG:O	2.46	0.60
1:AA:1459:C:C5'	20:AT:28:ALA:HA	2.23	0.60
21:B0:1427:G:H2'	21:B0:1428:G:H5'	1.82	0.60
21:B0:3876:A:O2'	53:B5:39:ILE:CA	2.49	0.60
1:AA:1475:G:H2'	1:AA:1476:G:C8	2.36	0.60
1:AA:235:C:H4'	17:AQ:70:ARG:CB	2.31	0.60
1:AA:922:G:H4'	5:AE:20:GLN:HA	1.83	0.60
4:AD:32:ALA:C	4:AD:34:GLU:H	2.04	0.60
1:AA:8:A:C1'	5:AE:103:GLY:HA2	2.23	0.60
12:AL:46:LYS:HG2	12:AL:47:LYS:N	2.16	0.60
13:AM:40:ASN:ND2	13:AM:41:PRO:HD2	2.16	0.60
17:AQ:101:ARG:NE	17:AQ:101:ARG:HA	2.16	0.60
21:B0:1139:A:H1'	21:B0:2496:C:H5'	1.83	0.60
21:B0:317:U:C3'	21:B0:318:G:H5''	2.31	0.60
1:AA:1069:C:HO2'	1:AA:1192:C:H1'	1.64	0.60
1:AA:1239:A:O2'	1:AA:1298:C:N4	2.34	0.60
1:AA:189:A:H61	20:AT:104:LEU:CD2	2.13	0.60
1:AA:278:G:N2	1:AA:279:A:H62	1.99	0.60
1:AA:319:G:H21	1:AA:1434:A:C2'	2.01	0.60
1:AA:848:G:HO3'	1:AA:849:C:C5'	2.03	0.60
1:AA:848:G:H2'	1:AA:849:C:C6	2.36	0.60
10:AJ:71:LEU:O	10:AJ:72:VAL:HB	2.00	0.60
10:AJ:30:SER:HB3	10:AJ:84:GLN:HE21	1.67	0.60
11:AK:84:VAL:CG1	11:AK:95:ILE:HD11	2.31	0.60
13:AM:82:MET:HG3	13:AM:93:ARG:CG	2.32	0.60
1:AA:1115:C:H1'	14:AN:61:TRP:HA	1.84	0.60
16:AP:67:THR:HG22	16:AP:68:ASP:N	2.15	0.60
1:AA:1318:A:C5'	19:AS:10:PHE:HD1	2.12	0.60
21:B0:1352:G:H2'	21:B0:1353:A:H8	1.66	0.60
21:B0:1576:G:H8	21:B0:1576:G:OP2	1.85	0.60
21:B0:414:A:H2'	21:B0:415:A:O4'	2.01	0.60
21:B0:540:G:H2'	21:B0:541:C:H4'	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:93:GLN:O	21:B0:726:G:O4'	2.20	0.60
1:AA:1053:G:C4'	1:AA:1054:C:H5'	2.31	0.60
1:AA:107:G:H2'	1:AA:108:G:H5'	1.83	0.60
1:AA:1247:U:O2'	1:AA:1248:A:H5'	2.02	0.60
1:AA:1277:C:C1'	1:AA:1279:A:H8	1.95	0.60
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.36	0.60
1:AA:1470:G:O2'	1:AA:1471:G:H5'	2.02	0.60
1:AA:1003:G:H2'	1:AA:2003:G:C8	2.36	0.60
1:AA:244:U:C5	1:AA:894:G:N2	2.69	0.60
2:AB:80:ILE:HD11	2:AB:208:ILE:HG23	1.81	0.60
5:AE:76:ILE:HD13	5:AE:142:LEU:HD11	1.84	0.60
1:AA:1298:C:C2'	7:AG:114:ARG:HH12	2.06	0.60
1:AA:1250:A:H4'	9:AI:68:GLY:O	2.01	0.60
1:AA:1226:C:N4	13:AM:104:ARG:HD2	2.16	0.60
21:B0:1763:G:H2'	21:B0:1764:A:H4'	1.83	0.60
21:B0:1856:U:C3'	21:B0:3865:A:C2'	2.79	0.60
21:B0:941:U:H2'	21:B0:942:U:O4'	2.02	0.60
1:AA:1117:G:H8	1:AA:1117:G:H5'	1.66	0.60
1:AA:119:A:C4	1:AA:240:C:C4	2.90	0.60
1:AA:760:G:H1	17:AQ:105:ALA:CA	2.13	0.60
3:AC:26:LYS:N	3:AC:26:LYS:HD3	2.17	0.60
5:AE:80:ILE:HD11	5:AE:91:LEU:HB2	1.83	0.60
1:AA:1329:A:C5'	13:AM:29:ARG:CG	2.75	0.60
10:AJ:51:ARG:O	14:AN:45:ARG:CD	2.49	0.60
1:AA:760:G:H1	17:AQ:104:LYS:C	2.02	0.60
21:B0:742:G:H2'	21:B0:1766:U:H1'	1.83	0.60
1:AA:1372:U:H5''	9:AI:71:SER:CB	2.31	0.60
1:AA:237:C:P	17:AQ:40:LYS:HD3	2.37	0.60
1:AA:425:G:O2'	1:AA:426:G:H5'	2.01	0.60
1:AA:1368:G:O5'	9:AI:112:LYS:O	2.20	0.60
14:AN:11:LYS:O	14:AN:13:THR:N	2.35	0.60
16:AP:52:ASP:OD2	16:AP:55:ARG:HG3	2.00	0.60
21:B0:2783:U:H2'	21:B0:2785:A:N7	2.16	0.60
1:AA:1014:A:C2	1:AA:1219:U:H1'	2.37	0.60
1:AA:184:G:H5'	1:AA:224:C:HO2'	1.66	0.60
1:AA:250:A:N6	1:AA:275:G:O6	2.34	0.60
1:AA:619:U:C2	4:AD:135:LEU:HD11	2.36	0.60
1:AA:619:U:O2	4:AD:135:LEU:HG	2.01	0.60
1:AA:861:G:P	8:AH:75:ARG:HH22	2.25	0.60
1:AA:926:G:C4	1:AA:1505:G:C4	2.89	0.60
1:AA:977:A:C2	1:AA:1224:G:C5	2.90	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:114:ARG:NH1	2:AB:118:LEU:HD21	2.15	0.60
3:AC:79:ARG:HE	3:AC:82:GLU:HG2	1.67	0.60
4:AD:23:GLY:HA3	4:AD:112:VAL:HG12	1.83	0.60
7:AG:42:ILE:HG23	7:AG:117:ALA:HA	1.84	0.60
7:AG:78:ARG:HB2	7:AG:156:TRP:CZ3	2.36	0.60
14:AN:8:GLU:O	14:AN:11:LYS:HB2	2.02	0.60
21:B0:1073:G:H1'	21:B0:1099:A:N1	2.17	0.60
21:B0:1127:C:H2'	21:B0:1128:G:H8	1.66	0.60
21:B0:1337:G:H1'	21:B0:1632:A:N6	2.17	0.60
21:B0:83:A:H4'	21:B0:84:G:O4'	2.01	0.60
1:AA:1091:U:O2	1:AA:1093:A:C8	2.54	0.60
1:AA:1110:A:C5	1:AA:1111:A:C5	2.89	0.60
1:AA:1238:A:C2	1:AA:1241:G:H1'	2.37	0.60
1:AA:1503:A:P	1:AA:1531:A:C1'	2.89	0.60
1:AA:458:G:H2'	1:AA:459:G:C8	2.37	0.60
1:AA:991:U:O2'	1:AA:992:U:H5'	2.02	0.60
5:AE:24:ARG:HG2	5:AE:24:ARG:HH11	1.66	0.60
5:AE:65:ASN:O	5:AE:65:ASN:CG	2.40	0.60
11:AK:69:ALA:O	11:AK:73:MET:HG2	2.02	0.60
1:AA:1016:A:H5''	14:AN:15:LYS:HE3	1.78	0.60
15:AO:11:VAL:HG21	15:AO:34:LEU:HD12	1.83	0.60
1:AA:564:C:O4'	17:AQ:32:TYR:CE2	2.54	0.60
19:AS:13:ASP:HA	19:AS:16:LEU:HB3	1.84	0.60
21:B0:1194:U:H2'	21:B0:1195:U:C6	2.37	0.60
21:B0:1685:A:H1'	21:B0:1686:A:C5	2.36	0.60
21:B0:1686:A:N3	21:B0:1686:A:H2'	2.17	0.60
21:B0:1921:A:H2'	21:B0:1922:U:H5''	1.83	0.60
21:B0:3110:G:P	21:B0:3149:G:O4'	2.54	0.60
21:B0:317:U:H2'	21:B0:318:G:H5''	1.82	0.60
1:AA:36:C:O2	1:AA:501:C:H5''	2.01	0.60
5:AE:151:LEU:HD11	8:AH:77:GLU:OE2	2.02	0.60
10:AJ:60:ARG:HD2	10:AJ:60:ARG:N	2.17	0.60
10:AJ:51:ARG:CG	14:AN:45:ARG:NH1	2.60	0.60
20:AT:96:GLY:O	20:AT:97:ALA:HB3	2.00	0.60
22:B9:67:C:H2'	22:B9:68:A:H5'	1.84	0.60
1:AA:1261:A:O2'	1:AA:1283:G:H5'	1.97	0.59
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.37	0.59
1:AA:262:A:H4'	20:AT:75:ASN:ND2	2.17	0.59
1:AA:233:C:O2'	1:AA:264:U:N3	2.31	0.59
1:AA:560:U:H4'	1:AA:561:U:H5''	1.83	0.59
1:AA:588:G:C1'	1:AA:753:A:N1	2.64	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:714:G:C5'	1:AA:776:G:C5'	2.80	0.59
2:AB:98:LEU:O	2:AB:101:MET:HG3	2.01	0.59
3:AC:33:LEU:HD11	14:AN:53:LEU:CD2	2.32	0.59
3:AC:6:HIS:NE2	3:AC:8:ILE:HD12	2.17	0.59
7:AG:38:LEU:HD12	7:AG:38:LEU:O	2.01	0.59
3:AC:59:ARG:C	10:AJ:92:THR:HG22	2.21	0.59
21:B0:1066:G:H21	21:B0:1096:A:H8	1.50	0.59
1:AA:184:G:H4'	1:AA:224:C:O3'	2.01	0.59
1:AA:436:C:C2'	1:AA:437:U:C6	2.82	0.59
1:AA:474:U:H2'	1:AA:475:C:H6	1.65	0.59
1:AA:922:G:C4	1:AA:1396:A:N1	2.68	0.59
1:AA:974:A:P	14:AN:29:ARG:HH22	2.24	0.59
1:AA:996:A:H2'	1:AA:997:U:C6	2.37	0.59
2:AB:140:HIS:O	2:AB:143:GLU:HB2	2.01	0.59
2:AB:33:TYR:O	2:AB:34:ALA:HB2	2.02	0.59
4:AD:25:ARG:C	4:AD:27:TYR:N	2.55	0.59
12:AL:24:VAL:O	12:AL:24:VAL:HG12	2.02	0.59
13:AM:82:MET:SD	21:B0:900(A):A:OP1	2.61	0.59
16:AP:81:ARG:HG3	16:AP:83:GLU:HG2	1.84	0.59
1:AA:322:C:O2'	20:AT:23:ARG:CD	2.50	0.59
21:B0:1912:G:N3	21:B0:1913:G:OP1	2.13	0.59
21:B0:2691:C:H3'	21:B0:2692:A:C5'	2.32	0.59
21:B0:366:U:H2'	21:B0:367:G:H8	1.67	0.59
1:AA:762:C:C4'	21:B0:729:A:N1	2.63	0.59
21:B0:766:A:H2'	21:B0:767:G:C8	2.37	0.59
1:AA:992:U:C2'	1:AA:1043:C:H41	2.15	0.59
1:AA:376:G:C2	1:AA:389:A:N1	2.71	0.59
1:AA:502:G:O4'	1:AA:550:G:H5'	2.02	0.59
1:AA:731:G:H5'	1:AA:766:A:H4'	1.83	0.59
1:AA:714:G:C4'	1:AA:776:G:H4'	2.28	0.59
4:AD:33:MET:O	4:AD:37:PRO:HG3	2.02	0.59
7:AG:51:GLN:HA	7:AG:51:GLN:OE1	2.02	0.59
7:AG:95:ARG:NH1	7:AG:95:ARG:HG3	2.17	0.59
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.84	0.59
1:AA:761:G:H1'	17:AQ:104:LYS:CA	2.32	0.59
1:AA:1318:A:H5'	19:AS:10:PHE:CE1	2.37	0.59
1:AA:1225:A:O4'	19:AS:78:ARG:NH1	2.34	0.59
21:B0:2185:U:H2'	21:B0:2186:G:C8	2.37	0.59
21:B0:81:C:H2'	21:B0:82:G:O4'	2.02	0.59
1:AA:1067:A:H2'	1:AA:1093:A:H4'	1.83	0.59
1:AA:109:A:H2'	1:AA:326:G:N2	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1233:G:OP2	9:AI:124:GLN:HG2	2.01	0.59
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.17	0.59
1:AA:1496:C:O2'	1:AA:1517:G:O6	2.18	0.59
1:AA:588:G:N9	1:AA:753:A:C6	2.70	0.59
3:AC:6:HIS:HD2	3:AC:8:ILE:HB	1.66	0.59
10:AJ:46:ARG:NH1	10:AJ:64:GLU:HG2	2.18	0.59
1:AA:760:G:C2	17:AQ:103:GLY:C	2.75	0.59
21:B0:198:A:H5''	21:B0:199:A:H5'	1.82	0.59
21:B0:3866:A:H61	53:B5:43:LYS:CA	2.15	0.59
21:B0:895:G:H5'	21:B0:895:G:C8	2.35	0.59
13:AM:93:ARG:CG	21:B0:900(A):A:P	2.86	0.59
1:AA:1106:G:OP1	3:AC:172:ARG:HG2	2.02	0.59
1:AA:262:A:O3'	20:AT:75:ASN:ND2	2.36	0.59
1:AA:761:G:O2'	21:B0:726:G:N2	2.36	0.59
1:AA:538:G:OP1	12:AL:115:LYS:HG3	2.00	0.59
18:AR:86:VAL:O	18:AR:87:ARG:HB2	2.03	0.59
21:B0:1057:A:H3'	21:B0:1058:G:C5'	2.32	0.59
21:B0:1147:G:H2'	21:B0:1148:G:H8	1.67	0.59
21:B0:1455:C:O2'	21:B0:1644:G:H5''	2.03	0.59
21:B0:2217:G:H4'	21:B0:2219:U:H5	1.68	0.59
21:B0:860:U:C2'	21:B0:861:G:H5'	2.32	0.59
21:B0:918:A:C2'	21:B0:919:U:H5''	2.30	0.59
1:AA:1500:A:O3'	1:AA:1508:G:H4'	2.03	0.59
1:AA:1521:G:H2'	1:AA:1522:U:C6	2.38	0.59
1:AA:227:G:N1	1:AA:228:A:C4	2.71	0.59
1:AA:406:G:N7	1:AA:496:A:C5	2.64	0.59
9:AI:115:GLY:CA	10:AJ:58:ASP:OD1	2.46	0.59
10:AJ:15:THR:HG23	10:AJ:94:VAL:HG22	1.85	0.59
10:AJ:63:PHE:CE2	14:AN:48:ALA:HB1	2.38	0.59
1:AA:262:A:C4'	20:AT:75:ASN:ND2	2.66	0.59
1:AA:189:A:C6	20:AT:89:ARG:HH21	1.54	0.59
21:B0:2018:G:H3'	21:B0:2019:C:C5'	2.32	0.59
21:B0:241:C:O2'	21:B0:242:A:H5''	2.03	0.59
1:AA:1255:G:O2'	1:AA:1258:G:C2	2.56	0.59
1:AA:1381:U:O2'	1:AA:1382:C:H5'	2.02	0.59
1:AA:435:C:H2'	1:AA:436:C:H6	1.67	0.59
3:AC:10:PHE:CZ	3:AC:178:LEU:HD13	2.38	0.59
5:AE:122:GLU:O	5:AE:123:LEU:HD23	2.03	0.59
9:AI:93:ARG:NH1	9:AI:97:LYS:NZ	2.51	0.59
11:AK:74:ALA:C	11:AK:76:GLY:H	2.06	0.59
1:AA:1318:A:C5'	19:AS:10:PHE:CE1	2.86	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:3128:G:H4'	21:B0:3174:C:C4'	2.33	0.59
17:AQ:104:LYS:HE2	21:B0:729:A:H62	1.52	0.59
1:AA:1343:G:P	9:AI:125:TYR:HH	2.25	0.59
1:AA:1404:C:O2	1:AA:1519:A:O2'	2.19	0.59
1:AA:39:G:O2'	1:AA:40:C:H5'	2.03	0.59
3:AC:47:LEU:CD1	3:AC:47:LEU:H	2.15	0.59
4:AD:151:LYS:CD	4:AD:151:LYS:H	2.16	0.59
6:AF:10:LEU:CD1	6:AF:59:TYR:HB3	2.29	0.59
1:AA:1346:A:N3	7:AG:10:ARG:NH2	2.50	0.59
9:AI:79:LEU:HD23	9:AI:101:PHE:O	2.02	0.59
14:AN:12:ARG:O	14:AN:14:PRO:N	2.36	0.59
20:AT:57:ARG:HH21	20:AT:100:ILE:CG2	2.16	0.59
21:B0:3098:U:C5	21:B0:3099:U:C4	2.90	0.59
1:AA:184:G:O2'	1:AA:224:C:H5''	2.03	0.59
1:AA:187:G:H4'	20:AT:85:MET:HE2	1.85	0.59
1:AA:231:G:H22	1:AA:262:A:H2	1.49	0.59
1:AA:119:A:C2	1:AA:240:C:C6	2.90	0.59
1:AA:518:C:H5''	1:AA:519:C:C6	2.38	0.59
2:AB:34:ALA:O	2:AB:41:ILE:N	2.31	0.59
4:AD:204:ILE:HG21	5:AE:99:GLY:HA3	1.85	0.59
1:AA:677:U:H1'	11:AK:119:CYS:SG	2.43	0.59
21:B0:1621:C:H4'	21:B0:1626:A:H61	1.68	0.59
21:B0:2181:A:H2'	21:B0:2182:A:H5'	1.85	0.59
21:B0:2368:G:H5''	21:B0:2369:U:O4'	2.02	0.59
21:B0:3126:A:C2	21:B0:3127:G:H1'	2.38	0.59
21:B0:67:G:H21	21:B0:72:A:H2'	1.67	0.59
21:B0:830:C:O2'	21:B0:852:U:H5''	2.03	0.59
22:B9:25:G:H2'	22:B9:26:G:H5'	1.84	0.59
22:B9:67:C:C2'	22:B9:68:A:H5'	2.32	0.59
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.38	0.59
1:AA:1395:C:H5'	1:AA:1401:G:H21	1.67	0.59
1:AA:1505:G:C4'	1:AA:1506:U:C5'	2.77	0.59
1:AA:262:A:H5''	20:AT:74:LYS:HB2	1.80	0.59
1:AA:46:G:O2'	1:AA:365:U:H1'	2.02	0.59
1:AA:505:G:H2'	1:AA:506:G:C8	2.37	0.59
1:AA:686:U:O2'	1:AA:687:A:H8	1.84	0.59
1:AA:935:A:H4'	1:AA:1384:C:O2	2.02	0.59
1:AA:959:A:H3'	1:AA:960:U:H5''	1.82	0.59
3:AC:64:VAL:HB	3:AC:99:VAL:CG2	2.33	0.59
4:AD:157:LEU:HD22	4:AD:161:ASN:HD21	1.66	0.59
7:AG:72:ARG:HG2	7:AG:142:GLU:OE1	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:190:A:C8	20:AT:105:SER:HA	2.34	0.59
21:B0:576:A:H2	21:B0:580:A:H62	1.51	0.59
1:AA:1261:A:H4'	1:AA:1283:G:H5''	1.83	0.58
1:AA:757:U:H2'	1:AA:758:G:O4'	2.03	0.58
1:AA:1113:C:C6	3:AC:178:LEU:HD23	2.38	0.58
5:AE:118:ILE:CG2	5:AE:119:LEU:N	2.65	0.58
1:AA:617:G:H4'	16:AP:45:THR:HG22	1.84	0.58
21:B0:1029:C:C2'	21:B0:1030:U:H5''	2.33	0.58
21:B0:191:G:O2'	21:B0:192:G:H5'	2.03	0.58
21:B0:2547:C:H2'	21:B0:2548:G:C8	2.38	0.58
21:B0:2727:G:O2'	21:B0:2728:A:H5''	2.03	0.58
1:AA:1130:A:H3'	1:AA:1130:A:OP2	2.02	0.58
1:AA:1087:G:OP1	1:AA:1389:C:O4'	2.21	0.58
1:AA:513:C:O2'	1:AA:514:C:H5'	2.03	0.58
1:AA:736:C:H2'	1:AA:737:A:C8	2.38	0.58
1:AA:922:G:H5'	5:AE:20:GLN:HE22	1.66	0.58
13:AM:81:LEU:HD23	13:AM:81:LEU:N	2.17	0.58
19:AS:5:LEU:O	19:AS:6:LYS:CB	2.51	0.58
21:B0:181:A:H4'	21:B0:182:G:C5'	2.33	0.58
21:B0:800:U:H3'	21:B0:804:C:N4	2.17	0.58
21:B0:877:G:H21	21:B0:926:C:H41	1.50	0.58
1:AA:436:C:O2'	1:AA:437:U:C4'	2.51	0.58
1:AA:397:A:N7	1:AA:547:A:C2'	2.65	0.58
3:AC:91:LEU:CD2	3:AC:99:VAL:HG13	2.27	0.58
9:AI:111:ARG:HD3	9:AI:112:LYS:C	2.24	0.58
10:AJ:51:ARG:O	14:AN:45:ARG:NE	2.36	0.58
21:B0:1088:A:H2'	21:B0:1089:C:O4'	2.03	0.58
21:B0:1181:C:C3'	21:B0:1182:U:H5''	2.32	0.58
21:B0:45:C:H5''	21:B0:192:G:N7	2.19	0.58
21:B0:3110:G:H5''	21:B0:3148:G:C1'	2.34	0.58
1:AA:113:G:N3	1:AA:353:A:H1'	2.19	0.58
1:AA:1394:A:N1	1:AA:1501:C:C5'	2.59	0.58
1:AA:205:G:H21	1:AA:207:C:H5	1.44	0.58
3:AC:14:ILE:O	3:AC:16:ARG:N	2.35	0.58
3:AC:3:ASN:C	3:AC:4:LYS:HG2	2.23	0.58
8:AH:83:ILE:HG23	8:AH:83:ILE:O	2.03	0.58
16:AP:4:ILE:HG13	16:AP:64:ALA:HB1	1.83	0.58
1:AA:1475:G:C5'	21:B0:1706:A:H5'	2.31	0.58
21:B0:2547:C:H2'	21:B0:2548:G:H8	1.67	0.58
21:B0:2668:U:C4'	21:B0:2669:C:H5'	2.25	0.58
21:B0:805:G:H5''	21:B0:806:A:O5'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1054:C:OP1	1:AA:1197:G:OP1	2.21	0.58
1:AA:1061:G:C4'	10:AJ:56:HIS:ND1	2.66	0.58
1:AA:1211:U:C4'	1:AA:1212:U:P	2.91	0.58
1:AA:69:G:C5'	1:AA:152:A:C2	2.72	0.58
1:AA:254:G:OP1	17:AQ:66:SER:OG	2.14	0.58
1:AA:322:C:H4'	20:AT:23:ARG:NE	2.19	0.58
1:AA:367:U:O3'	1:AA:368:U:H5'	2.02	0.58
2:AB:133:LYS:O	2:AB:137:ARG:HG3	2.04	0.58
2:AB:156:LYS:O	2:AB:156:LYS:HD3	2.03	0.58
1:AA:619:U:N3	4:AD:135:LEU:HD21	2.18	0.58
1:AA:9:G:OP1	5:AE:122:GLU:HG3	2.03	0.58
10:AJ:45:ARG:O	10:AJ:64:GLU:HA	2.03	0.58
12:AL:92:ASP:O	12:AL:94:PRO:HD3	2.04	0.58
14:AN:24:CYS:HB3	14:AN:28:GLY:H	1.67	0.58
1:AA:761:G:H4'	17:AQ:102:GLY:O	2.03	0.58
19:AS:25:LYS:HD2	19:AS:25:LYS:H	1.68	0.58
1:AA:1475:G:C4'	21:B0:1706:A:H5'	2.32	0.58
21:B0:175:C:H1'	21:B0:2413:A:H61	1.69	0.58
21:B0:2236:U:H3'	21:B0:2237:C:H5''	1.85	0.58
21:B0:2045:A:H4'	21:B0:2421:C:OP2	2.03	0.58
21:B0:2422:C:H2'	21:B0:2423:G:C8	2.37	0.58
1:AA:2003:G:C2	1:AA:1004:A:H1'	2.39	0.58
1:AA:1014:A:H2	1:AA:1219:U:C2'	2.13	0.58
1:AA:189:A:C6	20:AT:104:LEU:O	2.57	0.58
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.06	0.58
1:AA:15:G:C4'	5:AE:24:ARG:NH1	2.66	0.58
9:AI:5:TYR:O	9:AI:84:ALA:HA	2.03	0.58
18:AR:47:THR:HG22	18:AR:48:GLY:N	2.18	0.58
20:AT:10:LEU:HD12	20:AT:12:ALA:HB3	1.85	0.58
21:B0:3877:A:H4'	53:B5:199:ASN:CA	2.33	0.58
1:AA:1255:G:H4'	1:AA:1258:G:O2'	2.03	0.58
1:AA:130:A:C4'	1:AA:264:U:H5'	2.33	0.58
1:AA:1503:A:P	1:AA:1531:A:H1'	2.44	0.58
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.19	0.58
1:AA:216:C:O4'	1:AA:468:A:H1'	2.03	0.58
1:AA:391:G:O3'	16:AP:8:ARG:NH2	2.36	0.58
1:AA:723:U:H2'	1:AA:723:U:O2	2.04	0.58
1:AA:761:G:H1'	17:AQ:104:LYS:C	2.24	0.58
2:AB:101:MET:CA	2:AB:108:ILE:HD12	2.33	0.58
2:AB:16:HIS:NE2	2:AB:214:ILE:CG1	2.66	0.58
9:AI:11:LYS:O	9:AI:11:LYS:HG2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:24:VAL:HG12	10:AJ:28:ARG:HE	1.68	0.58
12:AL:55:VAL:CG1	12:AL:67:THR:HG23	2.33	0.58
15:AO:87:ILE:O	15:AO:88:ARG:HB2	2.04	0.58
17:AQ:69:LYS:C	17:AQ:70:ARG:HD2	2.24	0.58
21:B0:2329:C:H2'	21:B0:2330:G:H5'	1.84	0.58
1:AA:1504:G:H3'	1:AA:1504:G:OP2	2.04	0.58
1:AA:926:G:C2	1:AA:1505:G:C4	2.92	0.58
1:AA:7:G:C6	1:AA:298:A:C2	2.91	0.58
2:AB:120:ALA:O	2:AB:124:SER:HB3	2.02	0.58
4:AD:89:THR:N	5:AE:97:GLY:HA2	2.12	0.58
5:AE:118:ILE:HG22	5:AE:119:LEU:H	1.67	0.58
1:AA:5:U:O4	5:AE:95:ALA:HB2	2.00	0.58
13:AM:120:LYS:HE2	13:AM:123:ALA:HB2	1.86	0.58
15:AO:36:ILE:HA	15:AO:59:MET:HE3	1.86	0.58
16:AP:51:VAL:O	16:AP:51:VAL:HG12	2.02	0.58
19:AS:7:LYS:O	19:AS:7:LYS:HG3	2.03	0.58
20:AT:53:LEU:O	20:AT:57:ARG:HD2	2.04	0.58
1:AA:791:G:C5'	21:B0:1905:G:OP1	2.52	0.58
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.39	0.58
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.39	0.58
1:AA:923:A:H1'	1:AA:1398:A:C2	2.38	0.58
1:AA:1441:G:H4'	1:AA:1442:G:N7	2.19	0.58
1:AA:812:C:O2'	1:AA:813:U:P	2.62	0.58
1:AA:961:U:OP1	1:AA:1223:C:H4'	2.04	0.58
1:AA:968:A:C6	1:AA:1062:U:O2'	2.55	0.58
2:AB:130:ARG:HD2	2:AB:131:PRO:HD2	1.85	0.58
7:AG:122:HIS:HA	7:AG:125:MET:HE3	1.86	0.58
9:AI:46:ALA:HB1	9:AI:77:ILE:HG22	1.85	0.58
11:AK:40:ILE:HG23	11:AK:75:TYR:CD2	2.39	0.58
1:AA:189:A:N1	20:AT:104:LEU:HB3	2.19	0.58
21:B0:2434:G:H2'	21:B0:2435:C:C6	2.39	0.58
21:B0:2491:C:C3'	21:B0:2492:G:H5''	2.34	0.58
21:B0:2858:A:H3'	21:B0:2859:U:H5'	1.85	0.58
21:B0:653:G:H4'	21:B0:2328:G:H4'	1.86	0.58
21:B0:876:A:H2'	21:B0:877:G:C8	2.39	0.58
22:B9:14:C:H4'	22:B9:17:A:N6	2.19	0.58
1:AA:113:G:N2	1:AA:353:A:H1'	2.19	0.58
1:AA:1505:G:C4'	1:AA:1506:U:O5'	2.52	0.58
1:AA:476:U:O4	1:AA:477:G:C5	2.57	0.58
1:AA:38:G:H4'	1:AA:547:A:N6	2.19	0.58
1:AA:959:A:H4'	1:AA:985:C:H4'	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:3:LYS:N	10:AJ:77:PRO:HD3	2.18	0.58
1:AA:1329:A:OP1	13:AM:26:GLY:O	2.21	0.58
13:AM:13:LYS:O	13:AM:45:VAL:HG23	2.04	0.58
13:AM:84:ILE:C	13:AM:86:CYS:H	2.08	0.58
1:AA:1114:C:O2'	14:AN:60:SER:O	2.14	0.58
15:AO:17:ARG:NH1	15:AO:77:ARG:HH11	2.01	0.58
21:B0:2035:G:H2'	21:B0:2036:G:H8	1.69	0.58
21:B0:3098:U:C4	21:B0:3099:U:O4	2.57	0.58
21:B0:891:A:H2'	21:B0:892:A:C8	2.35	0.58
21:B0:891:A:H2'	21:B0:892:A:N7	2.17	0.58
1:AA:1181:G:O2'	1:AA:1184:G:C5'	2.52	0.57
1:AA:227:G:C6	1:AA:228:A:C4	2.92	0.57
1:AA:355:C:C4'	1:AA:389:A:P	2.92	0.57
1:AA:300:A:C2	1:AA:566:G:O6	2.57	0.57
1:AA:538:G:OP1	12:AL:115:LYS:CG	2.50	0.57
13:AM:15:VAL:HG23	13:AM:43:THR:O	2.04	0.57
14:AN:29:ARG:HG2	14:AN:29:ARG:HH11	1.69	0.57
1:AA:1014:A:N1	19:AS:34:TRP:NE1	2.52	0.57
21:B0:118:U:H1'	21:B0:143:A:C8	2.39	0.57
21:B0:2854:G:H4'	21:B0:2855:C:H5	1.69	0.57
21:B0:3128:G:HO2'	21:B0:3174:C:H5'	1.65	0.57
21:B0:331:U:H2'	21:B0:332:C:H5"	1.85	0.57
1:AA:1223:C:OP1	1:AA:1224:G:H3'	2.04	0.57
1:AA:502:G:OP1	12:AL:118:SER:CB	2.52	0.57
1:AA:512:U:H1'	4:AD:42:GLN:OE1	2.03	0.57
1:AA:577:G:H1'	1:AA:816:A:N3	2.19	0.57
1:AA:815:A:H2	1:AA:1528:U:H5'	1.67	0.57
2:AB:74:LYS:HZ1	2:AB:206:ASP:CA	2.17	0.57
1:AA:8:A:C6	4:AD:209:ARG:HB2	2.39	0.57
1:AA:15:G:H1'	5:AE:19:MET:HE2	1.86	0.57
10:AJ:62:HIS:CE1	14:AN:61:TRP:HH2	2.22	0.57
21:B0:1195:U:H2'	21:B0:1196:G:C8	2.38	0.57
21:B0:3184:C:H2'	21:B0:3185:U:C5'	2.35	0.57
21:B0:3866:A:N1	53:B5:44:GLY:CA	2.67	0.57
1:AA:1342:C:H5"	9:AI:125:TYR:CE1	2.40	0.57
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.19	0.57
1:AA:346:G:C2'	1:AA:347:G:H5'	2.35	0.57
1:AA:390:C:H2'	1:AA:391:G:C8	2.38	0.57
1:AA:60:A:H4'	1:AA:61:G:O5'	2.04	0.57
1:AA:818:G:C3'	1:AA:819:A:C5'	2.83	0.57
1:AA:860:A:H2'	1:AA:861:G:O4'	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:10:LEU:HD23	2:AB:48:MET:HG3	1.86	0.57
2:AB:76:GLN:HG3	2:AB:206:ASP:OD1	2.03	0.57
3:AC:121:ALA:O	3:AC:125:GLU:HG3	2.04	0.57
4:AD:30:LYS:C	4:AD:32:ALA:N	2.58	0.57
4:AD:7:PRO:HG2	4:AD:10:ARG:HD2	1.87	0.57
1:AA:538:G:O5'	12:AL:115:LYS:HG3	2.04	0.57
18:AR:25:THR:O	18:AR:26:LEU:HB2	2.04	0.57
1:AA:108:G:C6	20:AT:15:ARG:CG	2.87	0.57
21:B0:1188:A:H2'	21:B0:1189:G:O4'	2.02	0.57
21:B0:1912:G:H4'	21:B0:1913:G:C8	2.38	0.57
21:B0:218:A:O2'	21:B0:219:G:H4'	2.05	0.57
1:AA:1152:A:H5'	10:AJ:70:ARG:HH22	1.68	0.57
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.18	0.57
1:AA:1237:C:H4'	1:AA:1334:G:N2	2.19	0.57
1:AA:192:U:O2'	1:AA:193:C:H5'	2.05	0.57
1:AA:244:U:N3	1:AA:893:C:C2	2.70	0.57
1:AA:59:A:N1	1:AA:331:G:N3	2.46	0.57
1:AA:8:A:C5	4:AD:209:ARG:HA	2.39	0.57
2:AB:144:ARG:HG3	2:AB:145:LEU:N	2.19	0.57
2:AB:115:LEU:HG	2:AB:153:ARG:HH21	1.69	0.57
3:AC:191:THR:HG21	3:AC:193:TYR:CZ	2.39	0.57
10:AJ:82:ILE:HG22	10:AJ:82:ILE:O	2.03	0.57
12:AL:85:ILE:HG23	12:AL:98:TYR:HB3	1.86	0.57
14:AN:36:PHE:CD1	14:AN:36:PHE:O	2.58	0.57
21:B0:521:U:H4'	21:B0:1248:G:O2'	2.04	0.57
21:B0:1916:G:H2'	21:B0:1917:C:C6	2.40	0.57
21:B0:2641:A:H2'	21:B0:2642:G:O4'	2.05	0.57
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.39	0.57
1:AA:1297:C:P	13:AM:44:ARG:HH22	2.27	0.57
1:AA:130:A:N9	1:AA:264:U:C4'	2.63	0.57
1:AA:1317:C:H2'	1:AA:1318:A:O4'	2.04	0.57
1:AA:185:A:H2'	1:AA:186:C:C6	2.40	0.57
1:AA:205:G:N2	1:AA:207:C:C4	2.71	0.57
1:AA:39:G:C6	1:AA:404:U:C4	2.92	0.57
1:AA:586:C:H5'	8:AH:90:GLY:CA	2.33	0.57
1:AA:815:A:O2'	1:AA:1527:C:C1'	2.51	0.57
3:AC:33:LEU:O	3:AC:33:LEU:HD23	2.04	0.57
9:AI:7:THR:HG21	9:AI:9:ARG:NH1	2.19	0.57
9:AI:9:ARG:HA	9:AI:13:ALA:O	2.05	0.57
14:AN:24:CYS:HB3	14:AN:28:GLY:N	2.20	0.57
21:B0:1119:U:H2'	21:B0:1120:C:O4'	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1187:A:H2'	21:B0:1188:A:H8	1.69	0.57
21:B0:1001:A:H62	21:B0:1200:G:H1'	1.69	0.57
21:B0:879:A:C2'	21:B0:880:C:H5'	2.35	0.57
1:AA:173:U:C6	1:AA:197:A:C2	2.93	0.57
1:AA:651:C:C4	1:AA:752:G:O2'	2.57	0.57
1:AA:570:G:HO2'	1:AA:819:A:H2'	1.67	0.57
1:AA:94:G:C5	1:AA:96:C:C4	2.91	0.57
3:AC:10:PHE:CE2	3:AC:178:LEU:HD13	2.38	0.57
12:AL:28:LYS:HD2	12:AL:33:ARG:NH2	2.17	0.57
17:AQ:59:ILE:HG22	17:AQ:71:PHE:CD1	2.39	0.57
19:AS:40:ILE:HG21	19:AS:62:ILE:CD1	2.33	0.57
21:B0:1458:A:H3'	21:B0:1459:U:H5'	1.86	0.57
21:B0:176:A:H5''	21:B0:177:U:H5	1.69	0.57
21:B0:1947:G:H3'	21:B0:1947:G:OP1	2.05	0.57
21:B0:2726:U:H2'	21:B0:2727:G:O4'	2.05	0.57
21:B0:1861:G:C4'	53:B5:198:THR:CA	2.76	0.57
1:AA:130:A:C2	1:AA:264:U:C4	2.92	0.57
1:AA:411:A:N9	1:AA:413:G:H1'	2.19	0.57
1:AA:780:A:O2'	1:AA:781:A:H5''	2.05	0.57
2:AB:23:ARG:C	2:AB:23:ARG:NH1	2.58	0.57
1:AA:1321:C:H42	19:AS:37:ARG:CZ	2.17	0.57
1:AA:261:U:O4	20:AT:79:ARG:HD3	1.75	0.57
21:B0:1517:C:H2'	21:B0:1518:C:C6	2.40	0.57
1:AA:1115:C:C1'	14:AN:61:TRP:CA	2.83	0.57
1:AA:450:G:H5''	16:AP:43:LYS:HZ2	1.70	0.57
1:AA:505:G:H2'	1:AA:506:G:H8	1.69	0.57
1:AA:642:A:N3	8:AH:113:SER:OG	2.37	0.57
2:AB:209:ARG:HE	2:AB:239:VAL:HG11	1.68	0.57
3:AC:29:TYR:CZ	14:AN:54:PRO:HG2	2.40	0.57
1:AA:6:G:N1	5:AE:94:ALA:HB1	2.19	0.57
6:AF:2:ARG:CD	6:AF:69:GLU:HG2	2.35	0.57
1:AA:755:G:O2'	8:AH:1:MET:HB2	2.03	0.57
1:AA:1369:C:OP2	9:AI:111:ARG:HA	2.04	0.57
9:AI:17:VAL:HG21	9:AI:80:GLY:HA3	1.86	0.57
21:B0:1119:U:O3'	21:B0:1120:C:P	2.63	0.57
21:B0:1791:C:H1'	21:B0:1793:A:O4'	2.05	0.57
21:B0:1807:A:H5'	21:B0:1809:G:O4'	2.05	0.57
21:B0:369:C:H2'	21:B0:370:U:O4'	2.05	0.57
21:B0:59:G:N2	21:B0:73:A:H61	2.03	0.57
21:B0:804:C:O2'	21:B0:806:A:H4'	2.05	0.57
1:AA:1230:C:H1'	13:AM:126:LYS:HA	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1270:C:O2'	1:AA:1314:C:C5'	2.53	0.57
1:AA:1409:C:C4	1:AA:1410:G:N7	2.72	0.57
1:AA:1483:A:N6	1:AA:1484:C:N3	2.53	0.57
1:AA:234:C:H4'	17:AQ:64:PRO:CG	2.35	0.57
1:AA:367:U:O3'	1:AA:368:U:C5'	2.52	0.57
1:AA:651:C:N4	1:AA:752:G:HO2'	2.03	0.57
1:AA:818:G:C2'	1:AA:819:A:H5''	2.34	0.57
1:AA:9:G:C5'	5:AE:122:GLU:CD	2.73	0.57
6:AF:3:ARG:HH21	6:AF:64:GLN:NE2	2.02	0.57
6:AF:97:PHE:HB2	18:AR:32:ARG:CZ	2.34	0.57
8:AH:29:SER:OG	8:AH:32:LYS:HB2	2.04	0.57
9:AI:5:TYR:CD2	9:AI:6:GLY:N	2.71	0.57
21:B0:1358:C:H2'	21:B0:1359:G:C5'	2.34	0.57
1:AA:1115:C:H1'	14:AN:61:TRP:C	2.25	0.57
1:AA:1458:G:N7	1:AA:1459:C:O2	2.38	0.57
1:AA:1475:G:H5'	21:B0:1706:A:H5'	1.86	0.57
1:AA:499:A:H1'	1:AA:500:G:O4'	2.04	0.57
1:AA:588:G:C8	1:AA:753:A:N3	2.72	0.57
1:AA:854:G:C8	1:AA:871:U:O4	2.58	0.57
4:AD:205:GLU:HG2	5:AE:100:VAL:O	2.05	0.57
7:AG:15:ASP:OD1	7:AG:17:VAL:N	2.37	0.57
8:AH:17:THR:HG22	8:AH:63:LEU:HG	1.86	0.57
1:AA:1129:C:OP1	9:AI:62:TYR:CE2	2.58	0.57
12:AL:50:SER:O	12:AL:51:ALA:HB2	2.05	0.57
14:AN:3:ARG:NH1	14:AN:6:LEU:HD11	2.20	0.57
19:AS:10:PHE:CD2	19:AS:11:VAL:N	2.73	0.57
20:AT:67:ALA:HA	20:AT:73:HIS:H	1.70	0.57
1:AA:1125:U:H3	10:AJ:5:ARG:HH21	1.53	0.56
1:AA:1228:C:OP1	13:AM:115:LYS:HG3	2.03	0.56
1:AA:186:C:C1'	20:AT:81:LYS:CE	2.71	0.56
1:AA:31:G:H1	1:AA:48:C:C5'	2.17	0.56
1:AA:926:G:C4	1:AA:1505:G:C2	2.93	0.56
3:AC:7:PRO:CG	3:AC:184:TYR:HB2	2.35	0.56
3:AC:188:LEU:HD13	3:AC:195:VAL:HG13	1.86	0.56
4:AD:35:ARG:O	4:AD:36:ARG:HB2	2.04	0.56
6:AF:80:ARG:NH1	6:AF:88:VAL:HB	2.19	0.56
8:AH:60:ARG:HG3	8:AH:60:ARG:HH11	1.70	0.56
9:AI:39:GLY:O	9:AI:40:LEU:HD23	2.05	0.56
12:AL:26:ALA:O	12:AL:27:LEU:O	2.22	0.56
21:B0:1289:A:H62	21:B0:1662:G:H1	1.53	0.56
21:B0:2268:G:H22	21:B0:2323:U:H4'	1.68	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:317:U:H3'	21:B0:318:G:H5''	1.86	0.56
1:AA:960:U:O2'	1:AA:1223:C:H4'	2.05	0.56
1:AA:1255:G:H1'	1:AA:1259:C:H1'	0.75	0.56
1:AA:927:G:H1'	1:AA:1532:U:H5'	1.88	0.56
1:AA:382:A:H2'	1:AA:383:A:H8	1.70	0.56
1:AA:665:A:N3	1:AA:732:C:H2'	2.20	0.56
3:AC:33:LEU:HD11	14:AN:53:LEU:HD22	1.87	0.56
8:AH:19:VAL:HG23	8:AH:21:LYS:HD3	1.86	0.56
13:AM:117:VAL:HG12	13:AM:118:ALA:H	1.71	0.56
13:AM:13:LYS:HD3	13:AM:17:VAL:HG11	1.86	0.56
1:AA:657:G:H4'	15:AO:28:GLN:HG2	1.86	0.56
1:AA:132:C:P	20:AT:75:ASN:ND2	2.79	0.56
21:B0:1971:C:H2'	21:B0:1972:G:C8	2.40	0.56
21:B0:1976:U:H2'	21:B0:1977:C:H5'	1.87	0.56
1:AA:1104:G:OP1	2:AB:111:ARG:HD2	2.05	0.56
1:AA:1108:G:H5''	3:AC:176:HIS:ND1	2.20	0.56
1:AA:1195:C:H3'	1:AA:1196:U:C5'	2.35	0.56
1:AA:1414:U:O2'	1:AA:1415:G:H5'	2.04	0.56
1:AA:323:U:C5'	20:AT:23:ARG:H	2.12	0.56
1:AA:355:C:H5'	1:AA:389:A:OP1	2.05	0.56
2:AB:126:GLU:HG2	2:AB:129:GLU:OE1	2.05	0.56
2:AB:12:GLU:C	2:AB:14:GLY:N	2.59	0.56
4:AD:43:HIS:CE1	4:AD:46:LYS:HZ2	2.23	0.56
4:AD:88:VAL:CA	5:AE:97:GLY:CA	2.83	0.56
15:AO:3:ILE:HG22	15:AO:7:GLU:HB3	1.86	0.56
21:B0:1923:U:H4'	21:B0:1948:C:H41	1.71	0.56
21:B0:2270:U:H2'	21:B0:2271:C:C6	2.40	0.56
21:B0:2402:U:H5'	21:B0:2404:A:C5	2.41	0.56
21:B0:2058:U:H4'	21:B0:2575:U:N3	2.20	0.56
21:B0:879:A:O2'	21:B0:880:C:H5'	2.05	0.56
21:B0:874:A:N6	21:B0:928:G:H21	2.03	0.56
1:AA:1016:A:O2'	1:AA:1218:C:C4'	2.54	0.56
1:AA:114:U:H1'	1:AA:353:A:H1'	1.87	0.56
1:AA:143:A:O4'	1:AA:196:A:C4	2.57	0.56
1:AA:1392:G:C4'	1:AA:1531:A:C5'	2.72	0.56
4:AD:107:ARG:HH21	4:AD:194:LEU:HD12	1.71	0.56
4:AD:24:GLU:H	4:AD:112:VAL:CG1	2.19	0.56
6:AF:25:ILE:HD12	6:AF:82:ARG:HD2	1.88	0.56
8:AH:105:ARG:HH11	8:AH:105:ARG:HG3	1.71	0.56
13:AM:80:ARG:HH21	19:AS:66:MET:HA	1.71	0.56
21:B0:984:A:H2'	21:B0:1200:G:H22	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.40	0.56
1:AA:1040:U:H2'	1:AA:1041:A:H8	1.70	0.56
1:AA:1374:A:C3'	1:AA:1375:A:P	2.93	0.56
1:AA:59:A:P	1:AA:60:A:H5''	2.46	0.56
1:AA:653:A:OP1	8:AH:56:LYS:CE	2.53	0.56
12:AL:47:LYS:HB2	12:AL:48:PRO:HD2	1.88	0.56
1:AA:911:U:OP2	12:AL:97:ARG:NH2	2.37	0.56
13:AM:17:VAL:O	13:AM:20:THR:HB	2.05	0.56
16:AP:17:TYR:HE1	16:AP:41:PRO:HG2	1.69	0.56
1:AA:1474:G:C5'	21:B0:1718:A:C2	2.88	0.56
21:B0:3116:G:H4'	21:B0:3117:A:OP1	2.04	0.56
21:B0:3197:U:H1'	21:B0:2181:A:C5	2.37	0.56
21:B0:33:C:N4	21:B0:466:A:H61	2.03	0.56
1:AA:1319:A:H5'	1:AA:1320:C:OP1	2.06	0.56
1:AA:1339:A:H2'	1:AA:1340:A:O4'	2.06	0.56
1:AA:143:A:C1'	1:AA:196:A:C4	2.89	0.56
1:AA:315:A:O4'	1:AA:353:A:C6	2.59	0.56
1:AA:355:C:C5'	1:AA:389:A:OP2	2.54	0.56
3:AC:32:LEU:HD23	3:AC:32:LEU:O	2.05	0.56
13:AM:8:GLU:OE1	13:AM:22:ILE:HG12	2.05	0.56
14:AN:14:PRO:C	14:AN:16:PHE:N	2.56	0.56
17:AQ:67:LYS:O	17:AQ:68:ARG:HB3	2.05	0.56
21:B0:1092:U:H2'	21:B0:1093:U:C6	2.41	0.56
21:B0:1093:U:C4	21:B0:1094:C:C4	2.94	0.56
21:B0:2466:G:H2'	21:B0:2467:A:C8	2.40	0.56
21:B0:368:A:H2'	21:B0:369:C:O4'	2.06	0.56
1:AA:1405:G:H4'	1:AA:1519:A:H5'	1.88	0.56
1:AA:1417:G:N2	1:AA:1484:C:N4	2.52	0.56
1:AA:191:G:C6	1:AA:192:U:C5	2.86	0.56
1:AA:39:G:N7	1:AA:498:U:O4	2.38	0.56
1:AA:448:A:H2'	1:AA:449:C:C6	2.40	0.56
4:AD:6:GLY:O	4:AD:8:VAL:HG23	2.06	0.56
12:AL:6:THR:OG1	12:AL:9:GLN:HG3	2.05	0.56
19:AS:63:THR:HG22	19:AS:64:GLU:H	1.71	0.56
1:AA:187:G:H21	20:AT:105:SER:CB	2.17	0.56
21:B0:584:A:H4'	21:B0:2479:U:H5'	1.87	0.56
21:B0:689:A:H2'	21:B0:690:A:H5'	1.87	0.56
1:AA:1086:U:H3	1:AA:1099:G:N2	1.91	0.56
1:AA:1351:U:H2'	1:AA:1352:C:C6	2.40	0.56
1:AA:1394:A:N3	1:AA:1501:C:H1'	2.20	0.56
1:AA:1483:A:N7	1:AA:1484:C:C4	2.74	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:179:A:N6	1:AA:196:A:OP2	2.38	0.56
1:AA:39:G:N1	1:AA:404:U:C4	2.74	0.56
1:AA:293:G:H5'	1:AA:610:G:N3	2.21	0.56
1:AA:915:A:C2'	1:AA:916:G:H5'	2.35	0.56
1:AA:933:G:C6	1:AA:935:A:N7	2.74	0.56
2:AB:88:ALA:C	2:AB:90:MET:H	2.09	0.56
3:AC:91:LEU:HD11	3:AC:99:VAL:HG13	1.86	0.56
5:AE:80:ILE:O	5:AE:80:ILE:HD12	2.05	0.56
13:AM:31:LYS:O	13:AM:35:GLU:HB2	2.05	0.56
1:AA:189:A:H62	20:AT:104:LEU:CA	2.19	0.56
21:B0:1057:A:H3'	21:B0:1058:G:H5'	1.87	0.56
21:B0:1669:A:H2'	21:B0:1670:G:H4'	1.87	0.56
21:B0:1825:C:O2'	21:B0:1826:U:H5'	2.06	0.56
21:B0:2503:G:H2'	21:B0:2504:G:H5''	1.88	0.56
21:B0:795:A:H4'	21:B0:796:A:N7	2.20	0.56
21:B0:813:A:O2'	21:B0:815:A:H5'	2.05	0.56
1:AA:1092:A:H4'	7:AG:4:ARG:HH21	1.69	0.56
1:AA:977:A:C8	1:AA:1223:C:N3	2.74	0.56
1:AA:1255:G:O2'	1:AA:1258:G:N3	2.38	0.56
1:AA:1267:C:O2	1:AA:1327:C:H4'	2.06	0.56
1:AA:292:G:N3	1:AA:608:A:C6	2.74	0.56
1:AA:546:G:H4'	1:AA:548:G:O3'	2.06	0.56
3:AC:84:ILE:O	3:AC:88:ARG:HB2	2.05	0.56
8:AH:103:VAL:HG21	8:AH:110:ALA:HB2	1.87	0.56
9:AI:97:LYS:O	9:AI:100:GLY:N	2.36	0.56
12:AL:47:LYS:CB	12:AL:48:PRO:HD3	2.35	0.56
17:AQ:104:LYS:HE2	21:B0:727:U:C2	2.34	0.56
17:AQ:5:VAL:HG22	17:AQ:60:ILE:HG12	1.87	0.56
1:AA:108:G:N7	20:AT:15:ARG:HG3	2.20	0.56
21:B0:1567:A:H2'	21:B0:1568:A:O4'	2.06	0.56
21:B0:3110:G:O2'	21:B0:3120:G:H5'	2.06	0.56
1:AA:1004:A:H5''	1:AA:1025:U:C5	2.39	0.56
1:AA:1202:G:O2'	1:AA:1203:C:H5'	2.06	0.56
1:AA:130:A:N7	17:AQ:63:ARG:CG	2.66	0.56
1:AA:1483:A:O3'	1:AA:1484:C:P	2.62	0.56
1:AA:113:G:N9	1:AA:353:A:O2'	2.37	0.56
1:AA:411:A:C4	1:AA:413:G:H1'	2.41	0.56
1:AA:551:U:H2'	1:AA:552:U:C6	2.41	0.56
1:AA:1368:G:OP2	9:AI:114:TYR:CA	2.54	0.56
15:AO:41:GLU:HA	15:AO:41:GLU:OE2	2.05	0.56
17:AQ:103:GLY:O	17:AQ:104:LYS:O	2.24	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AR:53:ARG:HD3	18:AR:63:GLN:CB	2.36	0.56
1:AA:322:C:O2'	20:AT:23:ARG:HD2	2.04	0.56
20:AT:35:THR:O	20:AT:39:LYS:HB2	2.05	0.56
21:B0:1093:U:O4	21:B0:1094:C:N4	2.39	0.56
21:B0:1191:G:H2'	21:B0:1192:A:C8	2.41	0.56
21:B0:2402:U:H5'	21:B0:2404:A:N7	2.21	0.56
1:AA:1042:G:O2'	1:AA:1043:C:H5'	2.06	0.56
1:AA:1346:A:N9	7:AG:10:ARG:NH2	2.54	0.56
1:AA:335:C:C2	1:AA:1434:A:H1'	2.41	0.56
1:AA:1506:U:P	1:AA:1541:U:OP1	2.64	0.56
1:AA:837:G:H2'	1:AA:838:C:N1	2.19	0.56
1:AA:89:G:C2'	1:AA:90:C:P	2.94	0.56
4:AD:88:VAL:C	5:AE:97:GLY:CA	2.67	0.56
5:AE:79:GLU:OE2	8:AH:105:ARG:HD3	2.04	0.56
10:AJ:12:ASP:HB3	10:AJ:15:THR:HB	1.88	0.56
1:AA:965:A:C2	13:AM:124:PRO:HB2	2.40	0.56
13:AM:40:ASN:ND2	13:AM:42:ALA:H	2.04	0.56
19:AS:40:ILE:HG21	19:AS:62:ILE:HD11	1.88	0.56
21:B0:1426:U:H2'	21:B0:1427:G:O4'	2.05	0.56
21:B0:533:C:H2'	21:B0:534:U:O4'	2.06	0.56
17:AQ:104:LYS:HB3	21:B0:727:U:O4'	2.06	0.56
1:AA:977:A:H1'	1:AA:1223:C:H42	1.69	0.55
1:AA:1346:A:H4'	1:AA:1347:G:O5'	2.06	0.55
1:AA:923:A:C4'	1:AA:1398:A:C2	2.88	0.55
1:AA:812:C:HO2'	1:AA:813:U:P	2.27	0.55
1:AA:926:G:C4	1:AA:1505:G:N3	2.74	0.55
2:AB:223:ILE:HG21	2:AB:230:VAL:CG2	2.35	0.55
1:AA:1298:C:C6	7:AG:114:ARG:CZ	2.89	0.55
1:AA:1347:G:C5	9:AI:107:ARG:NH2	2.74	0.55
13:AM:49:THR:HB	13:AM:52:GLU:HG3	1.86	0.55
21:B0:2299:A:N3	21:B0:2299:A:H2'	2.21	0.55
21:B0:68:C:H2'	21:B0:69:G:C8	2.40	0.55
1:AA:1006:C:H2'	1:AA:1007:C:H6	1.72	0.55
1:AA:1014:A:C6	19:AS:34:TRP:CD2	2.93	0.55
1:AA:1110:A:C6	1:AA:1111:A:C6	2.93	0.55
1:AA:978:A:C6	1:AA:1318:A:C6	2.93	0.55
1:AA:1504:G:P	1:AA:1507:A:H4'	2.45	0.55
1:AA:166:G:O2'	1:AA:167:G:H5'	2.07	0.55
1:AA:402:G:H4'	1:AA:620:C:N4	2.20	0.55
1:AA:848:G:H2'	1:AA:849:C:O4'	2.04	0.55
1:AA:946:A:H2'	1:AA:947:G:C8	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:21:ARG:HG3	2:AB:23:ARG:HD2	1.88	0.55
3:AC:3:ASN:ND2	3:AC:4:LYS:HE2	2.21	0.55
6:AF:46:ARG:HB2	6:AF:60:PHE:HE1	1.71	0.55
13:AM:29:ARG:HB3	13:AM:64:TRP:CH2	2.42	0.55
16:AP:81:ARG:CG	16:AP:83:GLU:HG2	2.36	0.55
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.36	0.55
20:AT:86:ARG:O	20:AT:90:GLN:HG3	2.05	0.55
21:B0:2549:G:H2'	21:B0:2550:C:O4'	2.06	0.55
21:B0:952:A:O2'	21:B0:1204:G:H4'	2.06	0.55
1:AA:1406:U:H1'	1:AA:1518:A:O4'	2.06	0.55
1:AA:1406:U:O4'	1:AA:1518:A:C4'	2.47	0.55
1:AA:397:A:H8	1:AA:547:A:O3'	1.87	0.55
1:AA:26:A:N6	1:AA:558:G:H1'	2.21	0.55
1:AA:976:G:H22	1:AA:1362:C:H5''	1.71	0.55
13:AM:125:ARG:C	13:AM:125:ARG:HD2	2.27	0.55
21:B0:1971:C:H2'	21:B0:1972:G:H8	1.70	0.55
21:B0:2755:A:O2'	21:B0:2756:A:H5'	2.06	0.55
21:B0:2759:U:H4'	21:B0:2760:G:OP2	2.05	0.55
21:B0:1856:U:P	21:B0:3865:A:C8	2.91	0.55
21:B0:3874:C:C5	21:B0:3875:A:C8	2.94	0.55
1:AA:26:A:H2'	1:AA:27:G:H5'	1.88	0.55
1:AA:843:C:H2'	1:AA:844:A:O4'	2.07	0.55
2:AB:12:GLU:C	2:AB:14:GLY:H	2.07	0.55
2:AB:17:PHE:HD1	2:AB:18:GLY:N	2.04	0.55
1:AA:1112:C:O2	3:AC:178:LEU:N	2.38	0.55
3:AC:46:GLU:O	3:AC:48:TYR:N	2.33	0.55
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.72	0.55
4:AD:176:LEU:HA	4:AD:183:GLY:HA2	1.87	0.55
7:AG:116:ALA:HA	7:AG:119:ARG:NH2	2.21	0.55
10:AJ:81:THR:O	10:AJ:85:LEU:HG	2.06	0.55
1:AA:523:A:H2	12:AL:91:LYS:HB3	1.71	0.55
1:AA:133:U:OP1	20:AT:74:LYS:HD3	2.06	0.55
21:B0:26:G:N2	21:B0:524:A:H62	2.03	0.55
1:AA:1236:A:H2'	1:AA:1237:C:C6	2.41	0.55
1:AA:1496:C:H1'	1:AA:1517:G:N1	2.22	0.55
1:AA:1394:A:N6	1:AA:1501:C:H4'	2.13	0.55
1:AA:1500:A:H5''	1:AA:1508:G:H5''	1.87	0.55
1:AA:212:G:O2'	1:AA:213:G:P	2.65	0.55
1:AA:995:C:N3	14:AN:4:LYS:HD3	2.22	0.55
1:AA:489:C:P	4:AD:132:ARG:NH2	2.75	0.55
4:AD:177:ASP:OD1	4:AD:179:GLU:HB2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:123:GLU:O	8:AH:127:LEU:HD23	2.05	0.55
13:AM:65:LYS:HE3	13:AM:69:GLU:OE2	2.07	0.55
1:AA:808:C:OP1	15:AO:48:LYS:CE	2.53	0.55
20:AT:82:SER:O	20:AT:86:ARG:HB2	2.07	0.55
21:B0:1316:G:H2'	21:B0:1317:G:C8	2.41	0.55
21:B0:597:U:H3	21:B0:683:A:H2'	1.71	0.55
21:B0:611:C:H2'	21:B0:612:G:O4'	2.07	0.55
1:AA:1257:U:H4'	1:AA:1258:G:O5'	2.06	0.55
1:AA:1376:U:OP1	7:AG:98:SER:OG	2.13	0.55
1:AA:477:G:H2'	1:AA:478:A:C8	2.40	0.55
1:AA:490:G:H2'	1:AA:491:G:H8	1.72	0.55
1:AA:571:U:C4'	1:AA:819:A:C5	2.89	0.55
4:AD:24:GLU:HG2	4:AD:25:ARG:N	2.21	0.55
10:AJ:24:VAL:HG21	10:AJ:37:PRO:HD3	1.88	0.55
10:AJ:31:GLY:HA2	10:AJ:78:ASN:ND2	2.12	0.55
17:AQ:68:ARG:N	17:AQ:70:ARG:NH1	2.55	0.55
20:AT:94:ALA:O	20:AT:95:ALA:HB3	2.06	0.55
21:B0:2261:G:H5''	21:B0:2262:C:O5'	2.06	0.55
21:B0:2727:G:C2'	21:B0:2728:A:H5''	2.36	0.55
21:B0:784:U:H2'	21:B0:785:U:C6	2.41	0.55
1:AA:1014:A:N3	19:AS:34:TRP:CB	2.69	0.55
1:AA:1092:A:H5'	7:AG:4:ARG:CZ	2.36	0.55
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.07	0.55
1:AA:1346:A:C2	7:AG:10:ARG:NH1	2.75	0.55
1:AA:193:C:H2'	1:AA:194:C:H6	1.72	0.55
1:AA:314:C:C2	1:AA:353:A:H2	2.24	0.55
1:AA:6:G:C6	5:AE:94:ALA:CA	2.85	0.55
1:AA:954:G:H2'	1:AA:955:U:C6	2.42	0.55
5:AE:15:ARG:O	5:AE:27:ARG:O	2.25	0.55
17:AQ:102:GLY:O	21:B0:726:G:N2	2.40	0.55
21:B0:1528:C:C3'	21:B0:1529:C:H5''	2.36	0.55
21:B0:2222:U:H2'	21:B0:2223:U:C6	2.41	0.55
21:B0:223:C:H4'	21:B0:398:C:H1'	1.88	0.55
21:B0:582:G:H2'	21:B0:583:C:H3'	1.88	0.55
21:B0:805:G:H4'	21:B0:806:A:OP2	2.05	0.55
21:B0:892:A:H2'	21:B0:893:G:O4'	2.07	0.55
13:AM:93:ARG:HB3	21:B0:900(A):A:OP2	2.07	0.55
21:B0:951:G:C2'	21:B0:952:A:H5''	2.35	0.55
1:AA:1539:C:P	7:AG:82:GLY:HA2	2.46	0.55
1:AA:735:C:C1'	18:AR:75:ILE:HD11	2.37	0.55
2:AB:33:TYR:HB2	2:AB:43:ASP:HB2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.87	0.55
12:AL:43:VAL:HG12	12:AL:44:THR:H	1.71	0.55
15:AO:70:LEU:HD11	15:AO:77:ARG:HB2	1.89	0.55
17:AQ:18:THR:HG23	17:AQ:69:LYS:HE3	1.89	0.55
21:B0:64:C:H2'	21:B0:65:C:C6	2.42	0.55
1:AA:1112:C:N3	3:AC:178:LEU:CB	2.69	0.55
1:AA:1251:A:H5'	9:AI:12:GLU:OE1	2.07	0.55
1:AA:1416:G:N7	1:AA:1417:G:C8	2.75	0.55
1:AA:1460:A:H2'	1:AA:1461:G:O4'	2.07	0.55
1:AA:187:G:C1'	20:AT:85:MET:CE	2.71	0.55
1:AA:46:G:O6	1:AA:394:G:O6	2.24	0.55
1:AA:438:G:C4'	1:AA:439:A:OP1	2.53	0.55
1:AA:406:G:C8	1:AA:496:A:C6	2.95	0.55
1:AA:8:A:H1'	5:AE:103:GLY:N	2.21	0.55
2:AB:47:THR:HA	2:AB:202:PRO:HG2	1.87	0.55
2:AB:67:THR:HG22	2:AB:68:ILE:N	2.21	0.55
5:AE:21:ALA:O	5:AE:23:GLY:N	2.40	0.55
6:AF:76:ALA:O	6:AF:80:ARG:HG3	2.06	0.55
1:AA:237:C:P	17:AQ:40:LYS:HD2	2.40	0.55
1:AA:1314:C:H5	19:AS:6:LYS:CD	2.20	0.55
21:B0:103:U:H2'	21:B0:104:C:C6	2.41	0.55
21:B0:121:G:O2'	21:B0:1389:C:H4'	2.05	0.55
21:B0:1975:G:H4'	21:B0:1976:U:H5	1.72	0.55
21:B0:2544:A:H2'	21:B0:2545:A:H4'	1.88	0.55
21:B0:728:G:H2'	21:B0:729:A:O4'	2.06	0.55
22:B9:45:C:H3'	22:B9:46:G:H5'	1.89	0.55
1:AA:1026:G:O3'	1:AA:1027:C:P	2.65	0.55
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.41	0.55
1:AA:1255:G:O2'	1:AA:1259:C:C1'	2.55	0.55
1:AA:1383:C:N3	1:AA:1384:C:C5	2.75	0.55
1:AA:54:C:H2'	1:AA:352:C:H41	1.71	0.55
1:AA:429:U:H2'	4:AD:25:ARG:NH1	2.22	0.55
1:AA:606:G:O3'	1:AA:607:A:H5'	2.06	0.55
1:AA:939:G:H2'	1:AA:940:C:H6	1.71	0.55
16:AP:26:ARG:HD2	16:AP:31:LYS:O	2.06	0.55
1:AA:761:G:O2'	17:AQ:104:LYS:HA	2.06	0.55
17:AQ:79:SER:O	17:AQ:80:GLY:O	2.25	0.55
21:B0:1994:U:H2'	21:B0:1995:G:O4'	2.07	0.55
21:B0:2503:G:C2'	21:B0:2504:G:H5''	2.37	0.55
21:B0:3126:A:H4'	21:B0:3127:G:H5'	1.89	0.55
21:B0:942:U:C2'	21:B0:943:U:H5'	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:113:G:N3	1:AA:353:A:C1'	2.70	0.54
1:AA:1193:G:O2'	1:AA:1194:U:H5'	2.07	0.54
1:AA:1483:A:C8	1:AA:1484:C:C5	2.95	0.54
1:AA:184:G:H1'	1:AA:224:C:H4'	1.86	0.54
1:AA:537:G:H5''	12:AL:113:ARG:NH2	2.22	0.54
1:AA:59:A:O5'	1:AA:60:A:H5''	2.06	0.54
1:AA:9:G:H5'	5:AE:122:GLU:CD	2.26	0.54
3:AC:174:PRO:HB2	3:AC:177:THR:HG22	1.89	0.54
9:AI:7:THR:HG22	9:AI:8:GLY:N	2.22	0.54
15:AO:87:ILE:O	15:AO:88:ARG:CB	2.54	0.54
17:AQ:96:GLN:OE1	21:B0:726:G:C8	2.60	0.54
21:B0:1514:C:H2'	21:B0:1515:U:O4'	2.07	0.54
21:B0:3098:U:C4	21:B0:3099:U:C4	2.96	0.54
21:B0:3109:U:H5''	21:B0:3150:C:H5'	1.61	0.54
1:AA:1394:A:C4	1:AA:1501:C:C4'	2.91	0.54
1:AA:235:C:C5'	17:AQ:70:ARG:HD3	2.37	0.54
1:AA:429:U:H2'	4:AD:25:ARG:HH12	1.73	0.54
1:AA:583:A:C5'	17:AQ:90:ILE:CG2	2.84	0.54
1:AA:689:C:OP1	11:AK:55:LYS:HD3	2.05	0.54
4:AD:57:ARG:HB3	4:AD:206:PHE:HB2	1.88	0.54
1:AA:425:G:H4'	4:AD:45:GLN:HE22	1.73	0.54
5:AE:19:MET:HE1	5:AE:24:ARG:HH12	1.73	0.54
15:AO:27:VAL:O	15:AO:31:LEU:HD13	2.07	0.54
16:AP:21:VAL:O	16:AP:33:ILE:HB	2.07	0.54
1:AA:1014:A:N3	19:AS:34:TRP:HB2	2.22	0.54
1:AA:333:G:C1'	20:AT:16:HIS:NE2	2.70	0.54
20:AT:67:ALA:HB2	20:AT:77:ALA:HB2	1.88	0.54
21:B0:798:G:O2'	21:B0:1770:U:H4'	2.07	0.54
21:B0:1976:U:C2'	21:B0:1977:C:H5'	2.38	0.54
21:B0:3110:G:H4'	21:B0:3111:C:OP2	2.07	0.54
21:B0:788:G:C5'	21:B0:790:A:H1'	2.37	0.54
1:AA:1126:U:H1'	1:AA:1280:A:N6	2.22	0.54
1:AA:319:G:H5'	1:AA:1468:A:C5'	2.37	0.54
1:AA:620:C:H2'	1:AA:621:A:O4'	2.07	0.54
1:AA:69:G:O2'	1:AA:70:A:H5'	2.08	0.54
3:AC:116:VAL:O	3:AC:120:VAL:HG23	2.07	0.54
4:AD:199:ASN:HD21	4:AD:201:GLN:HB2	1.71	0.54
4:AD:88:VAL:HA	5:AE:97:GLY:HA3	1.85	0.54
10:AJ:4:ILE:HA	10:AJ:100:THR:HA	1.88	0.54
15:AO:32:LEU:O	15:AO:36:ILE:HG13	2.06	0.54
1:AA:761:G:H5'	17:AQ:102:GLY:CA	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1187:A:H2'	21:B0:1188:A:C8	2.43	0.54
21:B0:1358:C:H2'	21:B0:1359:G:H5''	1.89	0.54
21:B0:3128:G:C3'	21:B0:3174:C:H4'	2.38	0.54
1:AA:1181:G:O3'	1:AA:1184:G:H5'	2.07	0.54
1:AA:1457:A:C8	1:AA:1459:C:O2	2.60	0.54
1:AA:403:C:C4	1:AA:404:U:C5	2.95	0.54
1:AA:406:G:C8	1:AA:496:A:N3	2.75	0.54
1:AA:406:G:N7	1:AA:496:A:N3	2.55	0.54
1:AA:532:A:H2'	1:AA:533:A:H5''	1.89	0.54
1:AA:598:U:H4'	8:AH:94:TYR:CG	2.43	0.54
1:AA:818:G:H3'	1:AA:819:A:H5''	1.87	0.54
2:AB:15:VAL:HG22	2:AB:209:ARG:HG3	1.88	0.54
7:AG:18:TYR:CE2	7:AG:59:LEU:HB2	2.42	0.54
8:AH:36:LEU:HD12	8:AH:59:LEU:HD13	1.88	0.54
10:AJ:51:ARG:HB2	10:AJ:59:SER:CB	2.23	0.54
10:AJ:65:LEU:CD1	14:AN:36:PHE:CZ	2.81	0.54
17:AQ:101:ARG:HD3	21:B0:731:A:N1	2.23	0.54
17:AQ:26:GLN:HE21	17:AQ:37:LYS:HE2	1.71	0.54
18:AR:61:LYS:O	18:AR:65:ILE:HG13	2.08	0.54
21:B0:1496:G:H1	21:B0:1527:G:H1	1.55	0.54
21:B0:1356:G:H1'	21:B0:1613:G:C2	2.43	0.54
21:B0:873:U:H1'	21:B0:2246:A:OP1	2.07	0.54
1:AA:1402:C:O2	1:AA:1500:A:N1	2.41	0.54
1:AA:68:G:O2'	1:AA:152:A:C2	2.56	0.54
1:AA:281:G:O2'	1:AA:282:A:P	2.66	0.54
1:AA:35:G:H2'	1:AA:36:C:C6	2.43	0.54
1:AA:489:C:P	4:AD:132:ARG:HH22	2.31	0.54
1:AA:570:G:H4'	1:AA:819:A:O2'	2.07	0.54
2:AB:187:LEU:HD23	2:AB:214:ILE:HG21	1.90	0.54
3:AC:14:ILE:HG22	3:AC:15:THR:N	2.12	0.54
1:AA:407:G:O2'	4:AD:116:GLN:HG3	2.08	0.54
7:AG:116:ALA:HA	7:AG:119:ARG:CZ	2.37	0.54
8:AH:56:LYS:N	8:AH:56:LYS:HD2	2.23	0.54
10:AJ:63:PHE:CE1	14:AN:45:ARG:HA	2.41	0.54
10:AJ:81:THR:C	10:AJ:83:GLU:H	2.10	0.54
21:B0:1319:C:H41	21:B0:1622:G:H2'	1.73	0.54
21:B0:2437:G:H2'	21:B0:2469:G:C2	2.42	0.54
21:B0:2516:U:H2'	21:B0:2517:C:C6	2.42	0.54
21:B0:918:A:H2'	21:B0:919:U:C5'	2.35	0.54
1:AA:1066:C:O2'	1:AA:1067:A:H5'	2.07	0.54
1:AA:113:G:C1'	1:AA:354:G:C5'	2.85	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1155:G:HO3'	1:AA:1156:G:P	2.27	0.54
1:AA:1371:G:P	9:AI:11:LYS:HG2	2.48	0.54
1:AA:1372:U:H5''	9:AI:71:SER:HB3	1.90	0.54
1:AA:1405:G:O2'	1:AA:1519:A:C5'	2.53	0.54
1:AA:132:C:C5'	1:AA:262:A:O2'	2.45	0.54
1:AA:390:C:H4'	16:AP:28:ARG:NH2	2.22	0.54
2:AB:17:PHE:CD1	2:AB:18:GLY:N	2.75	0.54
3:AC:37:GLN:NE2	14:AN:52:GLN:OE1	2.40	0.54
5:AE:137:GLU:O	5:AE:141:GLN:HG3	2.07	0.54
13:AM:60:VAL:O	13:AM:63:THR:HG22	2.07	0.54
1:AA:958:A:C4	19:AS:55:LYS:HB2	2.43	0.54
21:B0:2677:U:H2'	21:B0:2678:C:C6	2.43	0.54
21:B0:357:A:C2'	21:B0:358:C:H5'	2.38	0.54
21:B0:635:C:H3'	21:B0:636:G:H5''	1.90	0.54
1:AA:1003:G:C2	1:AA:2003:G:C6	2.96	0.54
1:AA:1081:G:C8	5:AE:27:ARG:NH1	2.75	0.54
1:AA:1128:C:H2'	1:AA:1129:C:H5''	1.90	0.54
1:AA:1268:A:H2'	1:AA:1269:A:C8	2.41	0.54
1:AA:179:A:HO3'	1:AA:180:U:P	2.31	0.54
1:AA:292:G:H2'	1:AA:609:A:N1	2.22	0.54
1:AA:639:G:O2'	1:AA:640:A:H5'	2.08	0.54
1:AA:818:G:O2'	1:AA:819:A:H5''	2.08	0.54
1:AA:933:G:C2	1:AA:935:A:C8	2.95	0.54
2:AB:124:SER:CB	2:AB:125:PRO:HD2	2.31	0.54
3:AC:130:VAL:O	3:AC:134:ILE:HG13	2.07	0.54
3:AC:91:LEU:HD21	3:AC:99:VAL:CG1	2.30	0.54
4:AD:32:ALA:C	4:AD:34:GLU:N	2.60	0.54
7:AG:113:GLU:HG2	7:AG:119:ARG:HG2	1.90	0.54
10:AJ:51:ARG:H	10:AJ:59:SER:HB2	1.72	0.54
11:AK:13:GLN:HA	11:AK:75:TYR:O	2.08	0.54
21:B0:1615:C:H2'	21:B0:1616:C:C6	2.42	0.54
21:B0:1713:G:H2'	21:B0:1714:A:O4'	2.08	0.54
21:B0:2510:A:H61	21:B0:2641:A:N6	2.06	0.54
21:B0:317:U:C2'	21:B0:318:G:H5''	2.38	0.54
21:B0:857:U:H2'	21:B0:858:G:H5'	1.89	0.54
1:AA:101:A:O2'	1:AA:102:G:H5'	2.07	0.54
1:AA:1038:C:H2'	1:AA:1039:C:C6	2.43	0.54
1:AA:1068:G:N2	1:AA:1191:A:N3	2.55	0.54
1:AA:1225:A:C4'	19:AS:78:ARG:NH1	2.70	0.54
1:AA:1367:C:OP2	9:AI:112:LYS:NZ	2.37	0.54
1:AA:403:C:C4	1:AA:404:U:H5	2.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:619:U:N3	4:AD:135:LEU:CD2	2.71	0.54
4:AD:148:VAL:HG11	4:AD:158:ILE:HD13	1.88	0.54
5:AE:101:ILE:O	5:AE:120:THR:HB	2.08	0.54
1:AA:1368:G:P	9:AI:114:TYR:N	2.80	0.54
14:AN:9:LYS:HD3	14:AN:9:LYS:C	2.28	0.54
1:AA:391:G:P	16:AP:28:ARG:HH22	2.31	0.54
16:AP:43:LYS:HB3	16:AP:48:TRP:CD1	2.43	0.54
1:AA:702:A:N6	21:B0:1838:G:C2	2.76	0.54
21:B0:2227:C:C2'	21:B0:2228:U:H5'	2.35	0.54
21:B0:2446:C:H2'	21:B0:2447:G:C8	2.43	0.54
1:AA:1053:G:H4'	1:AA:1054:C:H5'	1.88	0.54
1:AA:115:G:HO2'	1:AA:116:A:P	2.20	0.54
1:AA:1257:U:O2'	1:AA:1258:G:OP2	2.21	0.54
1:AA:33:A:H2'	1:AA:34:C:H6	1.72	0.54
1:AA:394:G:O6	1:AA:395:C:N4	2.40	0.54
1:AA:419:C:H5''	1:AA:513:C:O4'	2.08	0.54
1:AA:401:C:C4'	1:AA:622:A:H1'	2.37	0.54
1:AA:750:G:H1'	15:AO:22:THR:OG1	2.08	0.54
2:AB:23:ARG:HD3	2:AB:23:ARG:N	2.22	0.54
2:AB:75:LYS:HD3	2:AB:75:LYS:O	2.08	0.54
3:AC:33:LEU:C	3:AC:33:LEU:HD23	2.29	0.54
5:AE:76:ILE:O	5:AE:93:PRO:HB3	2.07	0.54
6:AF:4:TYR:OH	6:AF:69:GLU:HB3	2.07	0.54
9:AI:85:LEU:O	9:AI:92:TYR:HD1	1.91	0.54
12:AL:53:ARG:HG2	12:AL:69:TYR:HE1	1.73	0.54
10:AJ:47:PHE:CD2	14:AN:37:PHE:CE1	2.94	0.54
16:AP:11:SER:OG	16:AP:14:ASN:HB3	2.08	0.54
20:AT:72:LEU:HD21	20:AT:80:ARG:CZ	2.38	0.54
21:B0:1856:U:H3'	21:B0:3865:A:H2'	1.87	0.54
21:B0:1856:U:H3'	21:B0:3865:A:N9	1.78	0.54
21:B0:201:G:H2'	21:B0:202:A:C8	2.42	0.54
21:B0:2379:G:H2'	21:B0:2380:U:O4'	2.07	0.54
21:B0:319:G:H21	21:B0:340:G:H21	1.55	0.54
1:AA:1016:A:C1'	1:AA:1218:C:H4'	2.37	0.54
1:AA:1184:G:H2'	1:AA:1185:G:H8	1.73	0.54
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.42	0.54
1:AA:131:C:H4'	1:AA:263:A:C5'	2.37	0.54
1:AA:1383:C:C4	1:AA:1384:C:C5	2.96	0.54
1:AA:922:G:H1	1:AA:1396:A:N6	2.00	0.54
1:AA:1494:G:O2'	1:AA:1495:U:H5'	2.08	0.54
1:AA:1496:C:H1'	1:AA:1517:G:H1	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:244:U:N3	1:AA:893:C:O2	2.41	0.54
1:AA:743:U:H2'	1:AA:744:C:C6	2.43	0.54
6:AF:69:GLU:HA	6:AF:72:VAL:CG2	2.36	0.54
10:AJ:4:ILE:HG12	10:AJ:100:THR:HB	1.90	0.54
10:AJ:3:LYS:N	10:AJ:75:ILE:HA	2.22	0.54
12:AL:82:VAL:N	12:AL:106:ASP:OD1	2.34	0.54
13:AM:53:VAL:O	13:AM:57:ARG:HB2	2.08	0.54
18:AR:86:VAL:O	18:AR:87:ARG:CB	2.55	0.54
19:AS:51:VAL:HG12	19:AS:52:TYR:N	2.23	0.54
1:AA:187:G:H21	20:AT:105:SER:HA	1.72	0.54
1:AA:1475:G:H5'	21:B0:1706:A:C5'	2.31	0.54
1:AA:1458:G:C5	1:AA:1459:C:O2	2.61	0.53
1:AA:582:U:O4'	17:AQ:105:ALA:HA	2.08	0.53
1:AA:702:A:C6	21:B0:1838:G:C2'	2.63	0.53
1:AA:86:G:H4'	1:AA:87:G:OP2	2.07	0.53
1:AA:961:U:OP1	1:AA:1223:C:C4'	2.56	0.53
3:AC:138:VAL:HG21	3:AC:168:ALA:HB1	1.89	0.53
3:AC:181:ASN:HD21	3:AC:204:LEU:HD12	1.72	0.53
13:AM:37:THR:HG22	13:AM:37:THR:O	2.07	0.53
1:AA:43:C:H5''	16:AP:12:LYS:HB3	1.90	0.53
1:AA:323:U:C3'	20:AT:22:ARG:HB2	2.38	0.53
21:B0:1137:A:H5''	21:B0:1138:A:H5''	1.90	0.53
21:B0:1316:G:H2'	21:B0:1317:G:H8	1.72	0.53
21:B0:3877:A:OP1	21:B0:1861:G:OP2	2.21	0.53
21:B0:2241:U:H1'	21:B0:2307:A:H1'	1.90	0.53
21:B0:2246:A:H2'	21:B0:2246:A:N3	2.23	0.53
21:B0:800:U:H3'	21:B0:804:C:H41	1.73	0.53
21:B0:968:C:H2'	21:B0:970:A:OP1	2.08	0.53
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.08	0.53
1:AA:1329:A:C4'	13:AM:29:ARG:HD2	2.38	0.53
1:AA:94:G:C4	1:AA:96:C:C6	2.97	0.53
3:AC:112:SER:CB	3:AC:115:LEU:HD12	2.36	0.53
3:AC:150:LYS:CE	3:AC:152:ILE:HD11	2.38	0.53
3:AC:38:ARG:HB3	3:AC:94:LEU:HD21	1.88	0.53
5:AE:31:LEU:HD22	5:AE:43:LEU:CD2	2.39	0.53
9:AI:81:ILE:O	9:AI:85:LEU:HB2	2.08	0.53
17:AQ:27:PHE:CE1	17:AQ:36:ILE:HD11	2.42	0.53
21:B0:2316:G:H2'	21:B0:2317:G:H8	1.74	0.53
21:B0:3196:G:O2'	21:B0:3197:U:P	2.66	0.53
21:B0:45:C:H5''	21:B0:192:G:C8	2.43	0.53
1:AA:299:G:H2'	1:AA:300:A:C8	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:501:C:O4'	1:AA:548:G:N2	2.41	0.53
1:AA:717:C:H3'	1:AA:718:G:P	2.48	0.53
1:AA:80:C:H2'	1:AA:81:C:C6	2.43	0.53
2:AB:33:TYR:HB3	2:AB:41:ILE:O	2.08	0.53
1:AA:619:U:N3	4:AD:135:LEU:CG	2.71	0.53
7:AG:138:LYS:HE2	7:AG:142:GLU:OE1	2.08	0.53
12:AL:46:LYS:CG	12:AL:47:LYS:N	2.71	0.53
12:AL:53:ARG:NH1	12:AL:92:ASP:OD2	2.42	0.53
13:AM:8:GLU:OE1	13:AM:22:ILE:HA	2.08	0.53
14:AN:44:LEU:HD12	14:AN:44:LEU:C	2.29	0.53
21:B0:1217:U:H2'	21:B0:1218:C:C6	2.43	0.53
1:AA:702:A:N6	21:B0:1839:A:O4'	2.40	0.53
21:B0:2392:G:H2'	21:B0:2393:G:C8	2.44	0.53
21:B0:239:A:H4'	21:B0:620:G:H5'	1.89	0.53
21:B0:2483:U:H2'	21:B0:2484:G:H5'	1.91	0.53
21:B0:2623:A:H2'	21:B0:2624:G:O4'	2.09	0.53
21:B0:658:G:H4'	21:B0:2331:A:H5'	1.90	0.53
1:AA:1068:G:OP2	1:AA:1068:G:H8	1.91	0.53
1:AA:960:U:O2'	1:AA:1223:C:H5''	2.07	0.53
1:AA:1269:A:N1	1:AA:1313:U:C4'	2.72	0.53
1:AA:1503:A:C5'	1:AA:1531:A:H1'	2.38	0.53
1:AA:300:A:H2'	1:AA:301:G:O4'	2.08	0.53
1:AA:33:A:H2'	1:AA:34:C:C6	2.44	0.53
1:AA:527:G:O2'	1:AA:535:A:N1	2.32	0.53
1:AA:960:U:H5'	1:AA:960:U:O2	2.08	0.53
5:AE:80:ILE:HD13	5:AE:138:ALA:HB1	1.90	0.53
7:AG:69:VAL:HG21	7:AG:104:LEU:HD21	1.90	0.53
1:AA:322:C:C2'	20:AT:23:ARG:HD2	2.37	0.53
21:B0:1141:U:H5'	21:B0:2549:G:N2	2.23	0.53
21:B0:3098:U:C2'	21:B0:3099:U:C6	2.89	0.53
21:B0:3184:C:H2'	21:B0:3185:U:H5'	1.89	0.53
21:B0:412:U:H2'	21:B0:413:G:O4'	2.08	0.53
21:B0:757:U:O2'	21:B0:758:G:H5'	2.09	0.53
1:AA:1110:A:C2'	1:AA:1111:A:H5'	2.38	0.53
1:AA:1238:A:C2	1:AA:1241:G:O2'	2.62	0.53
1:AA:21:G:H1'	1:AA:914:A:N6	2.22	0.53
1:AA:315:A:H5''	1:AA:317:G:OP2	2.08	0.53
1:AA:1240:U:C4	7:AG:32:ARG:NH2	2.77	0.53
1:AA:933:G:OP2	7:AG:3:ARG:CB	2.55	0.53
8:AH:8:ASP:O	8:AH:12:ARG:HG3	2.08	0.53
21:B0:1298:G:N2	21:B0:1341:G:H5''	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1861:G:P	53:B5:38:GLY:CA	2.96	0.53
21:B0:2494:C:H2'	21:B0:2495:G:C8	2.44	0.53
21:B0:3102:G:H2'	21:B0:3103:A:H8	1.74	0.53
21:B0:459:A:H1'	21:B0:466:A:N7	2.23	0.53
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.09	0.53
1:AA:376:G:N1	1:AA:389:A:N1	2.57	0.53
1:AA:953:G:H2'	1:AA:954:G:O4'	2.09	0.53
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.90	0.53
4:AD:160:GLN:O	4:AD:163:GLU:HB3	2.08	0.53
4:AD:89:THR:CB	5:AE:97:GLY:C	2.67	0.53
5:AE:18:ARG:HG2	5:AE:19:MET:N	2.24	0.53
1:AA:1081:G:OP2	5:AE:27:ARG:HD2	2.07	0.53
8:AH:119:LEU:HD12	8:AH:124:ALA:HA	1.90	0.53
8:AH:25:ASP:OD1	8:AH:60:ARG:HD3	2.09	0.53
11:AK:14:VAL:O	11:AK:15:ALA:CB	2.57	0.53
10:AJ:65:LEU:CD1	14:AN:36:PHE:CE1	2.89	0.53
17:AQ:67:LYS:CA	17:AQ:70:ARG:HH12	2.21	0.53
21:B0:1479:G:N2	21:B0:1543:G:H21	2.06	0.53
21:B0:2445:C:H2'	21:B0:2446:C:O4'	2.08	0.53
21:B0:3867:G:N2	53:B5:43:LYS:CA	2.72	0.53
21:B0:394:U:H2'	21:B0:395:G:H8	1.74	0.53
1:AA:762:C:C5'	21:B0:729:A:H61	2.20	0.53
1:AA:1110:A:C6	1:AA:1111:A:C5	2.97	0.53
1:AA:1111:A:N1	3:AC:177:THR:CB	2.72	0.53
1:AA:1296:C:C1'	1:AA:1302:U:C4	2.92	0.53
1:AA:1347:G:C2'	1:AA:1348:U:OP2	2.56	0.53
1:AA:1481:U:O2'	1:AA:1482:G:H5'	2.09	0.53
1:AA:315:A:C4'	1:AA:353:A:N6	2.70	0.53
1:AA:375:U:O2'	1:AA:376:G:H5'	2.08	0.53
1:AA:386:C:C2'	1:AA:387:U:H5'	2.39	0.53
1:AA:6:G:H22	5:AE:98:THR:CG2	2.18	0.53
1:AA:8:A:N6	4:AD:209:ARG:HB2	2.24	0.53
2:AB:124:SER:O	2:AB:127:ILE:HG13	2.08	0.53
2:AB:134:GLU:C	2:AB:136:VAL:H	2.12	0.53
2:AB:32:ILE:HD13	2:AB:40:HIS:CD2	2.44	0.53
12:AL:55:VAL:HG11	12:AL:67:THR:CG2	2.39	0.53
12:AL:55:VAL:HG11	12:AL:67:THR:HG23	1.91	0.53
14:AN:44:LEU:HD12	14:AN:44:LEU:O	2.08	0.53
19:AS:42:PRO:O	19:AS:45:VAL:HG23	2.09	0.53
21:B0:1288:A:O2'	21:B0:1289:A:H5'	2.08	0.53
21:B0:1746:A:C2'	21:B0:1747:G:H5'	2.36	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1418:A:C2	21:B0:1931:G:O2'	2.60	0.53
21:B0:2322:U:O2'	21:B0:2323:U:H5'	2.09	0.53
21:B0:616:U:C2'	21:B0:617:U:H5''	2.35	0.53
17:AQ:104:LYS:CB	21:B0:727:U:O4'	2.56	0.53
21:B0:917:U:H2'	21:B0:918:A:O4'	2.09	0.53
1:AA:1112:C:O2	3:AC:179:ARG:HB3	2.09	0.53
1:AA:791:G:H2'	1:AA:792:A:H5'	1.91	0.53
1:AA:8:A:C1'	5:AE:102:ALA:C	2.77	0.53
2:AB:142:LEU:HD22	2:AB:146:GLN:HE22	1.73	0.53
3:AC:130:VAL:HG12	3:AC:134:ILE:HD11	1.91	0.53
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.90	0.53
1:AA:1330:U:C5'	13:AM:23:TYR:O	2.57	0.53
21:B0:1791:C:H2'	21:B0:1792:C:H5''	1.91	0.53
21:B0:216:U:H5''	21:B0:601:A:N6	2.23	0.53
21:B0:2470:U:O2'	21:B0:2471:U:H5'	2.08	0.53
21:B0:513:A:H4'	21:B0:515:A:H5'	1.90	0.53
1:AA:101:A:H2'	1:AA:102:G:H8	1.74	0.53
1:AA:109:A:H5'	1:AA:110:C:C5	2.44	0.53
1:AA:1110:A:O2'	1:AA:1111:A:H5'	2.08	0.53
1:AA:1108:G:H4'	1:AA:1191:A:C4'	2.39	0.53
1:AA:1278:U:OP1	1:AA:1279:A:H5'	2.09	0.53
1:AA:252:U:H2'	1:AA:253:U:C6	2.44	0.53
1:AA:59:A:H2'	1:AA:331:G:H1	1.73	0.53
1:AA:20:U:C2	1:AA:915:A:N6	2.68	0.53
2:AB:18:GLY:CA	2:AB:42:ILE:H	2.20	0.53
2:AB:73:THR:HG23	2:AB:95:GLN:O	2.09	0.53
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.23	0.53
7:AG:71:PRO:HD3	7:AG:103:TRP:HZ3	1.73	0.53
8:AH:80:ILE:O	8:AH:80:ILE:HG22	2.08	0.53
9:AI:48:GLU:OE1	9:AI:51:ARG:HD2	2.09	0.53
13:AM:102:ARG:HB2	13:AM:102:ARG:NH1	2.24	0.53
13:AM:117:VAL:HG12	13:AM:118:ALA:N	2.24	0.53
21:B0:1286:U:H5''	21:B0:1663:C:H42	1.73	0.53
21:B0:1730:G:H2'	21:B0:1731:C:C6	2.43	0.53
21:B0:1789:U:C2'	21:B0:1790:G:H5'	2.39	0.53
21:B0:2057:U:H1'	21:B0:2577:A:H1'	1.90	0.53
21:B0:366:U:H2'	21:B0:367:G:C8	2.43	0.53
21:B0:605:G:H4'	21:B0:949:G:O2'	2.08	0.53
1:AA:128:G:H4'	17:AQ:3:LYS:CG	2.38	0.53
1:AA:1329:A:H5'	13:AM:29:ARG:CD	2.39	0.53
1:AA:1416:G:P	1:AA:1417:G:P	3.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:184:G:O4'	1:AA:224:C:H4'	2.08	0.53
1:AA:976:G:H22	1:AA:2361:C:H2'	1.72	0.53
1:AA:979:C:H2'	1:AA:980:C:H5'	1.91	0.53
18:AR:73:ALA:HB3	18:AR:79:LEU:HD12	1.91	0.53
21:B0:1474:A:N3	21:B0:1474:A:H3'	2.23	0.53
21:B0:192:G:C4'	21:B0:193:A:H4'	2.38	0.53
21:B0:2010:G:H2'	21:B0:2011:U:O4'	2.09	0.53
21:B0:2025:A:H2'	21:B0:2026:C:H5''	1.91	0.53
21:B0:665:A:OP2	21:B0:666:U:H5'	2.09	0.53
22:B9:81:C:H2'	22:B9:82:U:O4'	2.09	0.53
1:AA:1397:C:H4'	1:AA:1398:A:OP2	2.08	0.52
1:AA:1416:G:OP2	1:AA:1417:G:OP2	2.26	0.52
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.44	0.52
1:AA:623:C:O2'	1:AA:624:C:H5'	2.09	0.52
3:AC:32:LEU:HD21	3:AC:59:ARG:HD2	1.91	0.52
6:AF:3:ARG:NH2	6:AF:64:GLN:NE2	2.57	0.52
9:AI:23:ASN:C	9:AI:23:ASN:HD22	2.12	0.52
11:AK:17:GLY:O	11:AK:80:VAL:HA	2.09	0.52
12:AL:47:LYS:HB3	12:AL:48:PRO:HD3	1.91	0.52
12:AL:42:THR:HG21	12:AL:52:LEU:HB3	1.92	0.52
1:AA:191:G:H21	20:AT:103:GLY:HA2	1.73	0.52
21:B0:1289:A:O2'	21:B0:1290:A:H5'	2.09	0.52
21:B0:3877:A:C3'	21:B0:1861:G:H3'	2.39	0.52
21:B0:468:A:H2'	21:B0:469:G:H4'	1.90	0.52
21:B0:669:G:H2'	21:B0:670:U:C6	2.44	0.52
1:AA:923:A:C1'	1:AA:1398:A:N3	2.70	0.52
1:AA:1428:A:H2'	1:AA:1429:C:C6	2.44	0.52
1:AA:1435:G:H2'	1:AA:1436:U:H6	1.69	0.52
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.10	0.52
1:AA:1394:A:N3	1:AA:1501:C:C1'	2.73	0.52
1:AA:373:A:O2'	1:AA:374:A:H5'	2.09	0.52
2:AB:166:ASP:OD2	2:AB:169:LYS:HB2	2.09	0.52
3:AC:139:GLN:O	3:AC:143:GLU:N	2.37	0.52
3:AC:77:ILE:HG22	3:AC:81:GLY:HA2	1.90	0.52
1:AA:826:C:O2'	8:AH:15:ASN:CB	2.57	0.52
9:AI:17:VAL:HG11	9:AI:81:ILE:HA	1.90	0.52
10:AJ:44:VAL:HG22	10:AJ:66:ARG:HB3	1.91	0.52
13:AM:88:ARG:HG3	13:AM:98:VAL:CG1	2.40	0.52
1:AA:376:G:H5''	16:AP:5:ARG:HB2	1.91	0.52
17:AQ:45:HIS:HB2	17:AQ:65:ILE:CD1	2.37	0.52
21:B0:2860:C:H2'	21:B0:2861:A:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:579:G:H2'	21:B0:2013:A:N6	2.24	0.52
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.09	0.52
1:AA:104:G:C5'	1:AA:172:A:N1	2.64	0.52
1:AA:142:G:H4'	1:AA:195:A:H61	1.35	0.52
1:AA:370:C:O2'	1:AA:371:G:H5'	2.09	0.52
3:AC:20:SER:HB3	3:AC:22:TRP:NE1	2.24	0.52
13:AM:11:ARG:CG	13:AM:12:ASN:N	2.72	0.52
1:AA:760:G:N1	17:AQ:105:ALA:HB2	2.20	0.52
19:AS:13:ASP:O	19:AS:17:GLU:HG2	2.10	0.52
21:B0:1278:A:H4'	21:B0:1279:G:O5'	2.08	0.52
21:B0:2329:C:C2'	21:B0:2330:G:H5'	2.39	0.52
21:B0:490:A:O2'	21:B0:491:A:H5'	2.09	0.52
21:B0:891:A:O2'	21:B0:892:A:P	2.68	0.52
21:B0:910:U:H2'	21:B0:911:A:H5'	1.83	0.52
1:AA:118:U:HO3'	1:AA:119:A:P	2.29	0.52
1:AA:148:G:H2'	1:AA:149:A:H8	1.74	0.52
1:AA:175:C:H4'	20:AT:25:ARG:HD2	1.91	0.52
1:AA:227:G:C4	1:AA:228:A:C8	2.98	0.52
1:AA:357:G:O2'	1:AA:358:U:H5'	2.09	0.52
1:AA:588:G:C5	1:AA:753:A:N7	2.78	0.52
1:AA:621:A:H2'	1:AA:622:A:C8	2.44	0.52
1:AA:714:G:C4'	1:AA:776:G:C5'	2.86	0.52
1:AA:977:A:C2'	1:AA:978:A:H5''	2.38	0.52
1:AA:983:A:H2	1:AA:984:C:C5	2.28	0.52
3:AC:23:TYR:CD2	3:AC:24:ALA:N	2.78	0.52
11:AK:27:ASN:HA	11:AK:56:GLY:HA2	1.92	0.52
13:AM:78:ILE:HA	13:AM:81:LEU:CD2	2.38	0.52
1:AA:108:G:N1	20:AT:15:ARG:NE	2.57	0.52
20:AT:50:GLU:O	20:AT:100:ILE:HD12	2.09	0.52
20:AT:76:ALA:O	20:AT:80:ARG:HG2	2.09	0.52
21:B0:2240:C:H2'	21:B0:2241:U:H5'	1.90	0.52
21:B0:2418:A:H4'	21:B0:2420:C:OP2	2.10	0.52
21:B0:841:G:N3	21:B0:841:G:H3'	2.24	0.52
21:B0:839:U:H2'	21:B0:841:G:O4'	2.09	0.52
1:AA:1006:C:H2'	1:AA:1007:C:C6	2.44	0.52
1:AA:1038:C:H2'	1:AA:1039:C:H6	1.75	0.52
1:AA:1003:G:N2	1:AA:1039:C:C2	2.77	0.52
1:AA:1121:U:H2'	1:AA:1122:U:H6	1.73	0.52
1:AA:1016:A:H1'	1:AA:1218:C:H4'	1.91	0.52
1:AA:1315:U:H5	19:AS:6:LYS:NZ	2.08	0.52
1:AA:130:A:H1'	1:AA:264:U:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:324:G:OP1	20:AT:22:ARG:HB3	2.09	0.52
5:AE:74:GLY:HA3	5:AE:116:THR:HG22	1.92	0.52
5:AE:115:VAL:HG12	5:AE:116:THR:N	2.24	0.52
6:AF:8:ILE:HD11	6:AF:79:LEU:HD13	1.92	0.52
9:AI:127:LYS:HD2	9:AI:127:LYS:N	2.25	0.52
13:AM:49:THR:CG2	13:AM:51:ALA:H	2.13	0.52
14:AN:3:ARG:O	14:AN:4:LYS:C	2.48	0.52
16:AP:19:ILE:HG22	16:AP:36:ILE:HG13	1.90	0.52
21:B0:509:U:H3	21:B0:513:A:H62	1.58	0.52
21:B0:860:U:H2'	21:B0:861:G:H5'	1.90	0.52
21:B0:942:U:O2'	21:B0:943:U:H5'	2.09	0.52
22:B9:50:U:H2'	22:B9:51:G:C8	2.44	0.52
1:AA:1064:G:OP2	1:AA:1385:G:O2'	2.27	0.52
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.75	0.52
1:AA:1202:G:H2'	1:AA:1203:C:O4'	2.10	0.52
1:AA:935:A:C4'	1:AA:1384:C:C2	2.91	0.52
1:AA:246:A:N6	1:AA:281:G:H1'	2.24	0.52
1:AA:300:A:H2	1:AA:566:G:O6	1.93	0.52
1:AA:588:G:C6	1:AA:753:A:C8	2.98	0.52
1:AA:860:A:H4'	8:AH:75:ARG:NH1	2.25	0.52
13:AM:73:GLU:O	13:AM:76:ALA:HB3	2.09	0.52
10:AJ:62:HIS:CE1	14:AN:61:TRP:CH2	2.97	0.52
19:AS:10:PHE:C	19:AS:10:PHE:CD2	2.83	0.52
20:AT:93:GLU:HA	20:AT:93:GLU:OE2	2.09	0.52
21:B0:176:A:H1'	21:B0:2221:G:H21	1.75	0.52
21:B0:2533:U:H2'	21:B0:2534:U:C6	2.45	0.52
21:B0:2698:G:H2'	21:B0:2699:G:C8	2.45	0.52
1:AA:1129:C:O2'	1:AA:1130:A:OP2	2.24	0.52
1:AA:1086:U:O3'	1:AA:1389:C:C5'	2.57	0.52
1:AA:1409:C:C2'	1:AA:1410:G:C5'	2.87	0.52
1:AA:1424:C:O2'	1:AA:1425:U:H5'	2.09	0.52
1:AA:1483:A:C6	1:AA:1484:C:N3	2.77	0.52
1:AA:163:C:O2'	1:AA:164:U:H5'	2.10	0.52
2:AB:15:VAL:HG11	2:AB:209:ARG:C	2.30	0.52
2:AB:23:ARG:O	2:AB:24:TRP:O	2.27	0.52
3:AC:22:TRP:CZ2	14:AN:54:PRO:HG3	2.44	0.52
3:AC:83:ARG:C	3:AC:85:ARG:N	2.63	0.52
6:AF:10:LEU:HD11	6:AF:59:TYR:CD2	2.41	0.52
6:AF:43:LEU:CD2	6:AF:43:LEU:H	2.23	0.52
19:AS:53:ASN:HB2	19:AS:56:GLN:H	1.73	0.52
21:B0:891:A:HO2'	21:B0:892:A:H5'	0.70	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1255:G:O2'	1:AA:1259:C:C6	2.62	0.52
1:AA:1256:A:C5'	1:AA:1258:G:O4'	2.55	0.52
1:AA:1234:C:H1'	1:AA:1364:U:O2	2.10	0.52
1:AA:320:C:C4'	1:AA:1434:A:N1	2.73	0.52
1:AA:355:C:H5'	1:AA:389:A:P	2.50	0.52
1:AA:791:G:H2'	1:AA:792:A:C5'	2.40	0.52
1:AA:794:A:H2'	1:AA:795:C:C6	2.45	0.52
2:AB:10:LEU:C	2:AB:12:GLU:H	2.12	0.52
2:AB:26:PRO:O	2:AB:29:ALA:HB2	2.10	0.52
3:AC:94:LEU:HD22	3:AC:95:THR:HG23	1.92	0.52
1:AA:1348:U:OP1	9:AI:110:GLU:HB3	2.10	0.52
14:AN:33:VAL:HA	14:AN:40:CYS:HA	1.91	0.52
18:AR:19:LYS:O	18:AR:20:ALA:HB2	2.10	0.52
1:AA:322:C:C3'	20:AT:23:ARG:HD2	2.39	0.52
21:B0:1018:C:H2'	21:B0:1019:U:C5	2.44	0.52
21:B0:2401:A:H2'	21:B0:2403:C:C5	2.45	0.52
21:B0:3866:A:N7	21:B0:3875:A:H2	2.07	0.52
21:B0:929:A:H3'	21:B0:930:A:C5'	2.30	0.52
22:B9:107:C:C2'	22:B9:108:G:H5'	2.39	0.52
1:AA:1027:C:O3'	1:AA:1028:C:P	2.68	0.52
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.45	0.52
1:AA:1191:A:H2'	1:AA:1192:C:C6	2.45	0.52
1:AA:1238:A:H2	1:AA:1241:G:H1'	1.75	0.52
1:AA:1458:G:O5'	1:AA:1458:G:H8	1.91	0.52
1:AA:1483:A:C6	1:AA:1484:C:C5	2.97	0.52
1:AA:475:C:H2'	1:AA:476:U:C6	2.44	0.52
1:AA:828:A:H2'	1:AA:829:G:O4'	2.10	0.52
3:AC:154:SER:O	3:AC:165:THR:HA	2.09	0.52
7:AG:42:ILE:CG2	7:AG:120:ILE:HD12	2.39	0.52
8:AH:49:GLU:HG2	8:AH:62:TYR:HE2	1.75	0.52
8:AH:24:THR:HG23	8:AH:61:VAL:HB	1.92	0.52
13:AM:77:ASN:O	13:AM:80:ARG:HB3	2.10	0.52
1:AA:189:A:H61	20:AT:104:LEU:HD22	1.71	0.52
21:B0:1325:U:H4'	21:B0:1326:U:C5	2.45	0.52
21:B0:1686:A:H2'	21:B0:1687:C:H5'	1.92	0.52
21:B0:476:G:H2'	21:B0:477:A:C8	2.45	0.52
1:AA:1256:A:C1'	1:AA:1258:G:C5	2.92	0.52
1:AA:1423:G:O2'	1:AA:1424:C:H5'	2.09	0.52
1:AA:143:A:H4'	1:AA:144:G:C8	2.45	0.52
1:AA:1457:A:C4	1:AA:1459:C:C2	2.89	0.52
1:AA:2003:G:N1	1:AA:1004:A:H1'	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:203:A:O2'	1:AA:206:C:H4'	2.10	0.52
1:AA:244:U:O2	1:AA:894:G:H1'	2.10	0.52
1:AA:131:C:C4'	1:AA:263:A:H4'	2.34	0.52
1:AA:26:A:C3'	1:AA:27:G:C5'	2.86	0.52
1:AA:476:U:O4	1:AA:477:G:C8	2.55	0.52
1:AA:6:G:C5	5:AE:119:LEU:HD12	2.44	0.52
1:AA:853:G:O2'	1:AA:854:G:H5'	2.10	0.52
1:AA:926:G:N2	1:AA:1505:G:C8	2.78	0.52
3:AC:70:VAL:O	3:AC:106:VAL:HG23	2.09	0.52
4:AD:208:SER:OG	5:AE:101:ILE:HG12	2.10	0.52
5:AE:12:LEU:HD22	5:AE:12:LEU:C	2.30	0.52
5:AE:40:ARG:HG2	5:AE:40:ARG:HH11	1.75	0.52
10:AJ:38:ILE:HG13	10:AJ:71:LEU:HB3	1.90	0.52
10:AJ:22:LYS:CE	10:AJ:90:LEU:HD12	2.33	0.52
12:AL:119:LYS:O	12:AL:120:TYR:HB2	2.10	0.52
1:AA:808:C:OP2	15:AO:48:LYS:HE2	2.10	0.52
1:AA:190:A:N1	20:AT:101:GLY:C	2.58	0.52
21:B0:1029:C:C3'	21:B0:1030:U:H5''	2.40	0.52
21:B0:1140:A:H61	21:B0:2470:U:H6	1.58	0.52
21:B0:2245:A:H4'	21:B0:2246:A:O5'	2.10	0.52
21:B0:81:C:H4'	21:B0:307:C:H5'	1.92	0.52
21:B0:1856:U:C3'	21:B0:3865:A:H8	2.03	0.52
21:B0:758:G:H2'	21:B0:759:C:H5'	1.92	0.52
21:B0:959:C:H5''	21:B0:972:C:O2'	2.10	0.52
21:B0:986:A:H2'	21:B0:987:G:H5'	1.92	0.52
22:B9:73:C:H3'	22:B9:74:A:P	2.48	0.52
1:AA:1085:U:O3'	1:AA:1086:U:C6	2.64	0.51
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.45	0.51
1:AA:1253:G:O2'	1:AA:1356:G:H5'	2.09	0.51
1:AA:148:G:H2'	1:AA:149:A:C8	2.45	0.51
1:AA:1518:A:H2'	1:AA:1519:A:C8	2.45	0.51
1:AA:131:C:C1'	1:AA:263:A:O4'	2.58	0.51
1:AA:130:A:C5	1:AA:264:U:C1'	2.43	0.51
1:AA:320:C:O4'	1:AA:1434:A:N1	2.40	0.51
1:AA:80:C:H2'	1:AA:81:C:H6	1.75	0.51
1:AA:844:A:H2'	1:AA:845:A:C8	2.45	0.51
3:AC:79:ARG:HG2	3:AC:82:GLU:HG2	1.92	0.51
4:AD:65:ARG:HB2	4:AD:75:PHE:CE1	2.45	0.51
4:AD:205:GLU:HB3	5:AE:107:ARG:NH2	2.25	0.51
5:AE:12:LEU:CD1	5:AE:31:LEU:HB2	2.39	0.51
8:AH:14:ARG:O	8:AH:18:ARG:HD3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:57:ARG:HG2	14:AN:58:LYS:H	1.75	0.51
21:B0:1431:U:H2'	21:B0:1432:G:O4'	2.09	0.51
21:B0:1038:U:O2	21:B0:2466:G:H4'	2.10	0.51
21:B0:441:A:H2'	21:B0:442:A:O4'	2.10	0.51
21:B0:451:A:H2'	21:B0:452:G:C8	2.45	0.51
21:B0:77:C:H2'	21:B0:78:C:C6	2.45	0.51
21:B0:840:U:H4'	21:B0:841:G:C2	2.45	0.51
1:AA:116:A:N1	1:AA:314:C:O4'	2.43	0.51
1:AA:999:C:H2'	1:AA:1000:U:C6	2.46	0.51
3:AC:177:THR:O	3:AC:177:THR:HG23	2.10	0.51
3:AC:47:LEU:N	3:AC:47:LEU:CD1	2.74	0.51
3:AC:84:ILE:HG12	3:AC:84:ILE:O	2.10	0.51
5:AE:13:ILE:HG22	5:AE:30:ALA:CB	2.40	0.51
10:AJ:22:LYS:NZ	10:AJ:91:PRO:HD3	2.25	0.51
11:AK:126:ARG:O	11:AK:127:LYS:C	2.48	0.51
12:AL:115:LYS:O	12:AL:117:ARG:N	2.37	0.51
21:B0:1029:C:OP1	21:B0:1047:G:H4'	2.10	0.51
21:B0:1119:U:O4	21:B0:1120:C:C5	2.62	0.51
21:B0:1031:C:H1'	21:B0:1151:U:O2	2.09	0.51
21:B0:2038:C:H5'	21:B0:2039:G:H5'	1.91	0.51
21:B0:230:C:H2'	21:B0:231:G:O4'	2.10	0.51
21:B0:513:A:C4'	21:B0:515:A:H5'	2.40	0.51
21:B0:652:C:H42	21:B0:657:A:H61	1.56	0.51
21:B0:864:C:H2'	21:B0:865:A:C8	2.46	0.51
21:B0:925:U:H4'	21:B0:926:C:C6	2.45	0.51
1:AA:119:A:C2	1:AA:240:C:C5	2.98	0.51
1:AA:923:A:HO2'	1:AA:1398:A:H2'	1.74	0.51
1:AA:293:G:O3'	1:AA:610:G:H1'	2.10	0.51
1:AA:402:G:C4'	1:AA:620:C:N4	2.72	0.51
1:AA:473:C:O2'	1:AA:474:U:H5'	2.09	0.51
1:AA:501:C:O2	1:AA:549:C:H4'	2.09	0.51
2:AB:33:TYR:HB3	2:AB:41:ILE:HG22	1.93	0.51
2:AB:53:ARG:NH1	2:AB:53:ARG:HG2	2.26	0.51
3:AC:108:ASN:C	3:AC:110:ASN:H	2.12	0.51
1:AA:8:A:N7	4:AD:208:SER:CB	2.74	0.51
17:AQ:45:HIS:CB	17:AQ:65:ILE:HD13	2.39	0.51
21:B0:1220:G:H2'	21:B0:1221:C:C6	2.45	0.51
21:B0:341:A:H1'	21:B0:1223:G:O6	2.10	0.51
21:B0:1807:A:H5'	21:B0:1809:G:C1'	2.40	0.51
21:B0:2217:G:H4'	21:B0:2219:U:C5	2.46	0.51
21:B0:2841:U:O2	21:B0:2843:A:H1'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:215:G:H4'	21:B0:617:U:O2'	2.09	0.51
1:AA:1305:G:OP2	1:AA:1305:G:C8	2.64	0.51
1:AA:1426:C:H2'	1:AA:1427:U:C6	2.44	0.51
1:AA:68:G:N2	1:AA:152:A:H1'	2.16	0.51
1:AA:191:G:O3'	1:AA:192:U:OP1	2.26	0.51
1:AA:249:U:O2'	1:AA:250:A:P	2.68	0.51
1:AA:375:U:C4	1:AA:376:G:N7	2.79	0.51
2:AB:186:ALA:HB3	2:AB:197:VAL:CG1	2.41	0.51
7:AG:102:ARG:O	7:AG:106:GLN:HG3	2.10	0.51
14:AN:22:THR:OG1	14:AN:33:VAL:HG21	2.10	0.51
18:AR:46:GLU:H	18:AR:46:GLU:CD	2.13	0.51
21:B0:1712:G:H2'	21:B0:1713:G:H5'	1.91	0.51
21:B0:1818:G:H2'	21:B0:1819:U:C6	2.45	0.51
21:B0:2205:C:H2'	21:B0:2206:C:C6	2.46	0.51
21:B0:3098:U:C6	21:B0:3099:U:C5	2.97	0.51
1:AA:1191:A:OP1	3:AC:3:ASN:ND2	2.43	0.51
1:AA:1238:A:H2	1:AA:1241:G:HO2'	1.51	0.51
1:AA:1406:U:C1'	1:AA:1518:A:C4'	2.88	0.51
1:AA:234:C:O2'	17:AQ:70:ARG:HG2	2.10	0.51
1:AA:319:G:C1'	1:AA:1434:A:C2	2.93	0.51
1:AA:375:U:C3'	1:AA:376:G:OP2	2.52	0.51
1:AA:397:A:N7	1:AA:547:A:H1'	2.25	0.51
1:AA:528:C:H41	12:AL:49:ASN:CG	2.13	0.51
1:AA:538:G:OP2	12:AL:115:LYS:CG	2.53	0.51
1:AA:580:U:H2'	1:AA:581:G:O4'	2.11	0.51
1:AA:958:A:C6	19:AS:55:LYS:HB2	2.45	0.51
1:AA:979:C:O2	14:AN:19:ARG:NE	2.44	0.51
2:AB:206:ASP:O	2:AB:207:ALA:HB3	2.11	0.51
3:AC:167:TRP:O	3:AC:168:ALA:HB3	2.10	0.51
4:AD:8:VAL:HG13	4:AD:21:LEU:HD13	1.92	0.51
1:AA:1367:C:O3'	9:AI:114:TYR:HB3	2.11	0.51
10:AJ:23:ILE:HD12	10:AJ:23:ILE:N	2.26	0.51
21:B0:1597:A:H2'	21:B0:1598:C:C6	2.46	0.51
21:B0:1625:A:H2'	21:B0:1625:A:N3	2.25	0.51
21:B0:192:G:H4'	21:B0:193:A:H4'	1.91	0.51
21:B0:1955:G:C2'	21:B0:1956:G:H5'	2.38	0.51
21:B0:2320:G:H2'	21:B0:2321:C:O4'	2.09	0.51
1:AA:1021:G:C2'	1:AA:1022:G:H5'	2.40	0.51
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.46	0.51
1:AA:1167:A:H2'	1:AA:1168:A:C8	2.45	0.51
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1182:G:H4'	1:AA:1183:A:O5'	2.10	0.51
1:AA:1241:G:H2'	1:AA:1242:C:H6	1.75	0.51
1:AA:1422:G:H5''	31:BI:60:PRO:CA	2.41	0.51
1:AA:472:G:O2'	1:AA:473:C:H5'	2.10	0.51
1:AA:650:G:C2'	1:AA:651:C:H5'	2.40	0.51
2:AB:19:HIS:NE2	2:AB:206:ASP:HB3	2.26	0.51
8:AH:126:LYS:C	8:AH:128:GLY:H	2.14	0.51
1:AA:262:A:H4'	20:AT:75:ASN:H	1.75	0.51
21:B0:1087:C:H2'	21:B0:1088:A:O4'	2.11	0.51
21:B0:1210:C:H2'	21:B0:1211:G:O4'	2.09	0.51
21:B0:1251:G:H2'	21:B0:1252:C:C6	2.46	0.51
21:B0:1373:G:H1	21:B0:2192:U:H3	1.58	0.51
21:B0:2245:A:O2'	21:B0:2246:A:OP2	2.24	0.51
21:B0:484:G:O2'	21:B0:485:G:H5'	2.11	0.51
21:B0:630:G:H2'	21:B0:631:G:H5'	1.92	0.51
1:AA:1192:C:P	3:AC:4:LYS:HZ3	2.33	0.51
1:AA:1231:G:H5''	9:AI:126:SER:CB	2.41	0.51
1:AA:846:C:O2'	1:AA:847:C:H5'	2.10	0.51
1:AA:848:G:O3'	1:AA:849:C:O4'	2.29	0.51
1:AA:757:U:O2'	1:AA:879:C:H1'	2.11	0.51
1:AA:8:A:N6	4:AD:209:ARG:H	2.08	0.51
1:AA:640:A:C2	8:AH:115:SER:HB3	2.45	0.51
9:AI:27:THR:HG23	9:AI:30:GLY:O	2.11	0.51
9:AI:44:VAL:CG1	9:AI:51:ARG:HH12	2.23	0.51
10:AJ:20:ALA:O	10:AJ:24:VAL:HG23	2.11	0.51
10:AJ:27:ALA:HB1	10:AJ:81:THR:HG23	1.92	0.51
21:B0:2404:A:H5''	21:B0:2405:A:H3'	1.93	0.51
21:B0:604:U:H2'	21:B0:605:G:C8	2.46	0.51
21:B0:66:U:H2'	21:B0:67:G:C8	2.46	0.51
1:AA:1021:G:C2	1:AA:1022:G:H1'	2.46	0.51
1:AA:1256:A:H5''	1:AA:1258:G:C1'	2.31	0.51
1:AA:1329:A:O2'	1:AA:1330:U:H5'	2.11	0.51
1:AA:246:A:N3	1:AA:247:G:H1'	2.25	0.51
1:AA:37:U:O2	1:AA:547:A:H2	1.89	0.51
1:AA:39:G:C2	1:AA:404:U:C2	2.99	0.51
1:AA:406:G:N7	1:AA:496:A:C2	2.76	0.51
1:AA:292:G:HO2'	1:AA:608:A:H62	1.52	0.51
3:AC:139:GLN:HA	3:AC:139:GLN:NE2	2.25	0.51
3:AC:97:LYS:O	3:AC:98:ASN:HB3	2.10	0.51
9:AI:31:GLN:HB3	9:AI:35:GLU:HB3	1.91	0.51
9:AI:10:ARG:HG2	9:AI:75:ASP:CB	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:69:ASN:O	10:AJ:70:ARG:HD3	2.10	0.51
11:AK:62:GLN:HG3	11:AK:97:ALA:HB2	1.92	0.51
10:AJ:48:THR:O	14:AN:34:TYR:OH	2.28	0.51
20:AT:43:LEU:CD1	20:AT:55:ILE:HD12	2.40	0.51
21:B0:1492:A:H2	21:B0:1531:C:H41	1.59	0.51
21:B0:1712:G:C2'	21:B0:1713:G:H5'	2.40	0.51
21:B0:2038:C:H5'	21:B0:2039:G:C5'	2.41	0.51
21:B0:333:A:H1'	21:B0:351:A:C4	2.45	0.51
21:B0:795:A:H4'	21:B0:796:A:C8	2.46	0.51
21:B0:832:A:H2'	21:B0:833:A:O4'	2.11	0.51
21:B0:841:G:H4'	21:B0:844:G:N1	2.26	0.51
1:AA:1059:C:O2'	1:AA:1060:C:H5'	2.11	0.51
1:AA:394:G:O2'	1:AA:395:C:C5'	2.58	0.51
1:AA:292:G:HO2'	1:AA:608:A:N6	2.08	0.51
1:AA:652:U:O4	1:AA:752:G:O2'	2.28	0.51
2:AB:126:GLU:O	2:AB:129:GLU:HB2	2.11	0.51
3:AC:188:LEU:CD1	3:AC:195:VAL:HG13	2.41	0.51
3:AC:34:LEU:HD23	3:AC:34:LEU:O	2.11	0.51
6:AF:69:GLU:OE1	6:AF:69:GLU:N	2.44	0.51
9:AI:125:TYR:N	9:AI:125:TYR:CD2	2.78	0.51
9:AI:46:ALA:HA	9:AI:78:LYS:HB2	1.93	0.51
9:AI:93:ARG:HH11	9:AI:97:LYS:HZ1	1.55	0.51
14:AN:28:GLY:O	14:AN:30:ALA:N	2.43	0.51
21:B0:1181:C:H2'	21:B0:1182:U:C5'	2.38	0.51
21:B0:1532:A:H2'	21:B0:1533:G:C8	2.46	0.51
21:B0:1611:U:H2'	21:B0:1612:U:O4'	2.11	0.51
21:B0:18:U:H2'	21:B0:19:C:C6	2.46	0.51
21:B0:579:G:H2'	21:B0:2013:A:H62	1.75	0.51
21:B0:804:C:O2	21:B0:807:A:H5'	2.11	0.51
21:B0:80:A:H2'	21:B0:81:C:O4'	2.11	0.51
22:B9:111:C:H5''	22:B9:112:A:H5''	1.93	0.51
1:AA:1094:G:H5''	1:AA:1095:U:H5	1.75	0.51
1:AA:1112:C:N3	3:AC:178:LEU:HB3	2.26	0.51
1:AA:1090:U:O4'	1:AA:1169:A:H2	1.93	0.51
1:AA:31:G:N1	1:AA:48:C:C5'	2.74	0.51
1:AA:333:G:C4'	20:AT:16:HIS:CD2	2.94	0.51
1:AA:376:G:N2	1:AA:389:A:C4	2.79	0.51
1:AA:436:C:N1	1:AA:437:U:C5	2.76	0.51
1:AA:470:U:H2'	1:AA:471:G:H8	1.76	0.51
1:AA:605:U:O2'	1:AA:606:G:H5'	2.10	0.51
1:AA:884:U:H4'	1:AA:885:G:H5''	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:170:VAL:CG1	4:AD:174:LEU:HB2	2.39	0.51
3:AC:59:ARG:C	10:AJ:92:THR:HG23	2.30	0.51
19:AS:50:ALA:HA	19:AS:58:VAL:O	2.10	0.51
1:AA:958:A:C8	19:AS:55:LYS:HD3	2.46	0.51
21:B0:2011:U:H2'	21:B0:2012:A:C8	2.46	0.51
21:B0:2565:C:O2'	21:B0:2566:A:H5'	2.11	0.51
21:B0:2795:A:N3	21:B0:2795:A:H2'	2.24	0.51
21:B0:394:U:H2'	21:B0:395:G:C8	2.45	0.51
21:B0:460:U:H3	21:B0:592:G:H1'	1.75	0.51
21:B0:942:U:H2'	21:B0:943:U:O4'	2.11	0.51
1:AA:1250:A:C4'	9:AI:68:GLY:H	2.24	0.50
1:AA:1126:U:O4'	1:AA:1280:A:C5	2.64	0.50
1:AA:1394:A:C4	1:AA:1501:C:C1'	2.93	0.50
1:AA:1483:A:C2	1:AA:1484:C:C6	2.99	0.50
1:AA:248:C:O4'	1:AA:282:A:C2	2.59	0.50
1:AA:367:U:H1'	1:AA:369:C:C6	2.46	0.50
2:AB:121:LEU:O	2:AB:127:ILE:HG12	2.11	0.50
2:AB:17:PHE:CD1	2:AB:17:PHE:C	2.85	0.50
2:AB:17:PHE:C	2:AB:17:PHE:HD1	2.14	0.50
3:AC:134:ILE:HG21	3:AC:167:TRP:O	2.11	0.50
4:AD:24:GLU:O	4:AD:25:ARG:HB3	2.10	0.50
1:AA:875:C:O2'	8:AH:14:ARG:HD2	2.11	0.50
12:AL:45:PRO:HD3	12:AL:51:ALA:O	2.11	0.50
15:AO:3:ILE:CG2	15:AO:7:GLU:HB3	2.41	0.50
1:AA:762:C:H5'	17:AQ:104:LYS:NZ	2.26	0.50
20:AT:41:VAL:O	20:AT:45:GLN:HB2	2.10	0.50
21:B0:1040:A:H2'	21:B0:1041:G:H5'	1.93	0.50
21:B0:1495:G:H2'	21:B0:1496:G:C8	2.47	0.50
21:B0:1586:A:H2'	21:B0:1587:A:C8	2.46	0.50
21:B0:1779:C:H2'	21:B0:1780:A:O4'	2.10	0.50
21:B0:1807:A:O2'	21:B0:1808:C:O5'	2.24	0.50
1:AA:1484:C:C5'	21:B0:1943:A:H1'	2.39	0.50
21:B0:2058:U:H5'	21:B0:2576:G:H1'	1.93	0.50
21:B0:2213:G:H2'	21:B0:2214:G:C8	2.46	0.50
21:B0:2321:C:O2'	21:B0:2353:G:H5''	2.11	0.50
21:B0:2769:C:O2'	21:B0:2770:A:H5'	2.11	0.50
21:B0:3874:C:H2'	21:B0:3875:A:H5'	1.91	0.50
21:B0:635:C:C3'	21:B0:636:G:H5''	2.41	0.50
1:AA:1347:G:C8	9:AI:107:ARG:HB3	2.47	0.50
1:AA:319:G:C2	1:AA:1434:A:H1'	2.33	0.50
1:AA:227:G:C6	1:AA:228:A:C6	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:244:U:C4	1:AA:894:G:N3	2.79	0.50
1:AA:659:U:O2'	1:AA:660:G:H5'	2.11	0.50
1:AA:7:G:N3	5:AE:121:LYS:HG2	2.27	0.50
2:AB:96:ARG:O	2:AB:98:LEU:HD23	2.11	0.50
3:AC:137:ALA:HA	3:AC:140:ARG:NH1	2.26	0.50
3:AC:38:ARG:HG3	3:AC:38:ARG:NH1	2.26	0.50
4:AD:126:ILE:CG2	4:AD:127:THR:N	2.75	0.50
8:AH:38:ILE:HD12	8:AH:38:ILE:N	2.27	0.50
10:AJ:3:LYS:HA	10:AJ:75:ILE:HA	1.94	0.50
18:AR:87:ARG:HG2	18:AR:87:ARG:HH11	1.76	0.50
21:B0:1661:C:O2'	21:B0:1662:G:H5'	2.11	0.50
21:B0:2272:A:H2'	21:B0:2273:C:C6	2.46	0.50
21:B0:897:A:C6	21:B0:898:C:N4	2.79	0.50
1:AA:1251:A:H4'	9:AI:12:GLU:CD	2.31	0.50
1:AA:1262:C:H42	1:AA:1273:G:H1	1.59	0.50
1:AA:227:G:C5	1:AA:228:A:C5	2.99	0.50
1:AA:367:U:OP1	1:AA:394:G:N2	2.44	0.50
1:AA:403:C:C2	1:AA:404:U:C6	2.98	0.50
1:AA:31:G:N1	1:AA:48:C:H5''	2.26	0.50
3:AC:139:GLN:CA	3:AC:139:GLN:HE21	2.23	0.50
3:AC:171:GLY:O	3:AC:173:VAL:HG23	2.11	0.50
4:AD:61:LYS:HZ1	4:AD:62:GLN:NE2	2.09	0.50
10:AJ:39:PRO:O	10:AJ:40:LEU:CB	2.57	0.50
1:AA:760:G:H1	17:AQ:105:ALA:HA	1.76	0.50
21:B0:2235:G:H2'	21:B0:2236:U:C6	2.46	0.50
21:B0:429:C:H2'	21:B0:430:C:O4'	2.11	0.50
21:B0:689:A:H61	21:B0:815:A:H61	1.59	0.50
21:B0:798:G:H2'	21:B0:799:C:H5'	1.93	0.50
21:B0:95:G:H2'	21:B0:96:C:C6	2.46	0.50
1:AA:1113:C:C2	3:AC:178:LEU:CD2	2.94	0.50
1:AA:1307:U:H5'	13:AM:109:THR:HG21	1.94	0.50
1:AA:1447:A:N7	1:AA:1456:A:H2	2.09	0.50
1:AA:1458:G:OP1	20:AT:28:ALA:HA	2.10	0.50
1:AA:131:C:O4'	1:AA:263:A:C1'	2.59	0.50
1:AA:375:U:H2'	1:AA:376:G:O4'	2.12	0.50
1:AA:394:G:N1	1:AA:395:C:N3	2.60	0.50
1:AA:476:U:O3'	1:AA:477:G:P	2.67	0.50
1:AA:824:C:H2'	1:AA:825:G:H8	1.76	0.50
1:AA:994:A:O2'	14:AN:8:GLU:HB2	2.08	0.50
2:AB:221:LEU:O	2:AB:221:LEU:HD13	2.11	0.50
5:AE:15:ARG:O	5:AE:16:THR:O	2.28	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:26:ILE:HG21	6:AF:63:TYR:CE2	2.40	0.50
7:AG:18:TYR:HD2	7:AG:59:LEU:HD22	1.76	0.50
11:AK:51:LYS:O	11:AK:55:LYS:HE3	2.11	0.50
1:AA:958:A:C6	19:AS:55:LYS:CB	2.94	0.50
21:B0:775:U:O2	21:B0:1445:A:H5''	2.11	0.50
22:B9:113:G:H2'	22:B9:114:C:C6	2.47	0.50
1:AA:1048:G:H1'	1:AA:1215:G:H4'	1.92	0.50
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.47	0.50
1:AA:1306:A:H2'	1:AA:1307:U:O4'	2.12	0.50
1:AA:130:A:P	17:AQ:63:ARG:NH2	2.81	0.50
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.47	0.50
1:AA:215:C:O2'	1:AA:216:C:H5'	2.12	0.50
1:AA:227:G:N2	1:AA:228:A:H1'	2.27	0.50
1:AA:244:U:C4	1:AA:894:G:C4	2.99	0.50
1:AA:397:A:N6	1:AA:547:A:C2	2.79	0.50
1:AA:976:G:OP2	1:AA:1358:U:H1'	2.12	0.50
2:AB:132:LYS:O	2:AB:136:VAL:HG23	2.11	0.50
2:AB:88:ALA:O	2:AB:90:MET:N	2.45	0.50
3:AC:61:ALA:O	3:AC:63:ASN:N	2.44	0.50
4:AD:61:LYS:HZ2	4:AD:62:GLN:HE21	1.59	0.50
4:AD:8:VAL:HG11	4:AD:21:LEU:HB3	1.94	0.50
5:AE:104:ALA:O	5:AE:105:VAL:C	2.49	0.50
5:AE:121:LYS:HE3	5:AE:123:LEU:HD21	1.93	0.50
1:AA:1092:A:H5''	7:AG:4:ARG:NH1	2.25	0.50
1:AA:1370:G:H3'	9:AI:109:VAL:HG21	1.93	0.50
13:AM:40:ASN:ND2	13:AM:41:PRO:CD	2.63	0.50
21:B0:1272:G:H2'	21:B0:1273:G:C8	2.46	0.50
21:B0:127:C:H2'	21:B0:128:C:C6	2.47	0.50
21:B0:1727:C:H4'	21:B0:2833:C:O2	2.12	0.50
21:B0:1865:C:H2'	21:B0:1866:G:O4'	2.12	0.50
21:B0:868:U:H2'	21:B0:869:C:C6	2.46	0.50
22:B9:107:C:O3'	22:B9:108:G:OP1	2.29	0.50
1:AA:1021:G:H2'	1:AA:1022:G:O4'	2.11	0.50
1:AA:1102:A:H2'	1:AA:1103:C:C6	2.46	0.50
1:AA:1194:U:O2'	1:AA:1195:C:H5'	2.12	0.50
1:AA:205:G:N2	1:AA:207:C:N4	2.60	0.50
1:AA:279:A:H5''	1:AA:280:C:H3'	1.94	0.50
1:AA:216:C:C1'	1:AA:468:A:HO2'	2.02	0.50
1:AA:538:G:OP1	12:AL:115:LYS:CB	2.59	0.50
1:AA:7:G:H5'	1:AA:298:A:C4'	2.41	0.50
5:AE:89:ILE:HD13	5:AE:90:VAL:H	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:65:ALA:HB3	11:AK:97:ALA:HB3	1.93	0.50
12:AL:28:LYS:CD	12:AL:33:ARG:HH12	2.24	0.50
13:AM:102:ARG:HB2	13:AM:102:ARG:HH11	1.75	0.50
21:B0:1111:C:C4	21:B0:1112:U:C5	3.00	0.50
21:B0:168:A:H2'	21:B0:169:C:C6	2.47	0.50
21:B0:1886:G:H2'	21:B0:1887:G:C8	2.46	0.50
21:B0:612:G:O3'	21:B0:613:A:H4'	2.11	0.50
21:B0:68:C:H2'	21:B0:69:G:H8	1.76	0.50
21:B0:791:G:H2'	21:B0:792:U:C6	2.47	0.50
21:B0:897:A:O3'	21:B0:898:C:P	2.70	0.50
1:AA:1025:U:H4'	1:AA:1025:U:OP1	2.11	0.50
1:AA:1035:A:H2'	1:AA:1036:G:H8	1.77	0.50
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.77	0.50
1:AA:1097:C:O2'	1:AA:1168:A:H1'	2.11	0.50
1:AA:971:G:N1	1:AA:1363:A:OP2	2.42	0.50
1:AA:1409:C:N1	1:AA:1410:G:C8	2.80	0.50
1:AA:1440:C:C2'	1:AA:1441:G:H5'	2.41	0.50
1:AA:1503:A:P	1:AA:1531:A:O4'	2.69	0.50
1:AA:222:U:H2'	1:AA:223:U:C6	2.47	0.50
1:AA:227:G:C2'	1:AA:228:A:C5'	2.89	0.50
1:AA:848:G:C2'	1:AA:849:C:C1'	2.86	0.50
2:AB:102:LEU:CD2	2:AB:162:ILE:HD11	2.37	0.50
3:AC:58:GLU:O	3:AC:59:ARG:HG2	2.11	0.50
9:AI:17:VAL:CG2	9:AI:80:GLY:HA3	2.41	0.50
11:AK:48:ILE:HD13	11:AK:63:LEU:HB3	1.93	0.50
17:AQ:104:LYS:HG2	21:B0:726:G:N3	2.24	0.50
19:AS:45:VAL:HG12	19:AS:46:GLY:N	2.26	0.50
21:B0:1326:U:O2	21:B0:1326:U:H2'	2.10	0.50
21:B0:177:U:H2'	21:B0:178:C:C6	2.46	0.50
1:AA:1223:C:OP1	1:AA:1225:A:H8	1.95	0.50
1:AA:1337:G:H5''	1:AA:1338:G:OP1	2.12	0.50
1:AA:185:A:H2'	1:AA:186:C:C5	2.47	0.50
1:AA:131:C:O4'	1:AA:263:A:O4'	2.29	0.50
1:AA:7:G:C2	1:AA:298:A:C6	2.99	0.50
1:AA:346:G:H2'	1:AA:347:G:H5'	1.94	0.50
1:AA:491:G:H2'	1:AA:492:G:H8	1.77	0.50
1:AA:546:G:H5'	1:AA:549:C:OP1	2.11	0.50
2:AB:97:TRP:CH2	2:AB:176:GLU:CD	2.85	0.50
1:AA:1539:C:OP1	7:AG:82:GLY:HA2	2.12	0.50
10:AJ:50:ILE:HB	14:AN:41:ARG:CD	2.42	0.50
12:AL:46:LYS:HG2	12:AL:47:LYS:HG3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1052:C:H2'	21:B0:1053:G:C8	2.46	0.50
21:B0:1571:G:H2'	21:B0:1572:C:C6	2.46	0.50
21:B0:2383:C:H2'	21:B0:2384:G:O4'	2.11	0.50
21:B0:891:A:C2	21:B0:893:G:C5	3.00	0.50
21:B0:899:G:O2'	21:B0:900:U:H5'	2.12	0.50
21:B0:847:C:N4	21:B0:955:G:H21	2.03	0.50
1:AA:1283:G:O2'	1:AA:1284:C:H5'	2.11	0.50
1:AA:1391:U:H2'	1:AA:1392:G:H8	1.74	0.50
1:AA:815:A:H1'	1:AA:1527:C:O2'	2.10	0.50
1:AA:523:A:N6	12:AL:90:VAL:CG1	2.75	0.50
1:AA:625:G:H2'	1:AA:626:U:C6	2.47	0.50
4:AD:78:LEU:HD22	4:AD:96:LEU:HB3	1.94	0.50
7:AG:85:TYR:HD1	7:AG:154:TYR:CE1	2.27	0.50
9:AI:9:ARG:HG2	9:AI:14:VAL:HG22	1.92	0.50
11:AK:79:SER:OG	11:AK:106:LYS:HG2	2.12	0.50
14:AN:29:ARG:O	14:AN:33:VAL:HG13	2.11	0.50
1:AA:129:U:P	17:AQ:3:LYS:HZ1	2.32	0.50
17:AQ:78:GLU:O	17:AQ:78:GLU:HG3	2.12	0.50
21:B0:165:G:H2'	21:B0:166:G:O4'	2.12	0.50
21:B0:1747:G:H1'	21:B0:1749:G:N3	2.26	0.50
21:B0:3877:A:C4'	21:B0:1861:G:O4'	2.55	0.50
21:B0:192:G:H4'	21:B0:193:A:O5'	2.12	0.50
21:B0:212:U:H2'	21:B0:213:C:C6	2.47	0.50
21:B0:2301:A:H2'	21:B0:2302:G:O4'	2.11	0.50
21:B0:2357:A:H2'	21:B0:2358:C:O4'	2.12	0.50
21:B0:2426:G:O6	21:B0:2479:U:H2'	2.11	0.50
21:B0:638:A:O2'	21:B0:639:G:H5'	2.12	0.50
1:AA:218:C:H2'	1:AA:219:C:H6	1.76	0.49
1:AA:255:G:O6	1:AA:266:G:O6	2.29	0.49
1:AA:323:U:O3'	20:AT:22:ARG:CD	2.60	0.49
1:AA:393:A:C2	1:AA:394:G:C8	3.00	0.49
1:AA:478:A:O2'	1:AA:479:C:H5'	2.11	0.49
2:AB:168:THR:OG1	2:AB:192:SER:HB3	2.12	0.49
4:AD:81:GLU:O	4:AD:85:LYS:HG3	2.11	0.49
13:AM:5:ALA:O	13:AM:6:GLY:C	2.51	0.49
14:AN:21:TYR:HE2	14:AN:23:ARG:NE	2.09	0.49
15:AO:4:THR:HB	15:AO:6:GLU:HG2	1.93	0.49
16:AP:51:VAL:O	16:AP:51:VAL:CG1	2.60	0.49
21:B0:1323:G:H2'	21:B0:1324:G:H4'	1.94	0.49
21:B0:1386:A:H2'	21:B0:1387:G:O4'	2.12	0.49
21:B0:1391:A:H2'	21:B0:1392:U:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:2310:G:H2'	21:B0:2311:U:O4'	2.12	0.49
21:B0:2324:G:C4'	21:B0:2326:C:H5''	2.42	0.49
21:B0:2658:A:H2'	21:B0:2659:C:C6	2.47	0.49
21:B0:521:U:H2'	21:B0:522:G:H5'	1.93	0.49
21:B0:618:A:H2'	21:B0:619:A:O4'	2.11	0.49
21:B0:775:U:H4'	21:B0:776:G:C8	2.46	0.49
1:AA:1111:A:N1	3:AC:177:THR:CA	2.73	0.49
1:AA:1322:C:H5''	13:AM:100:GLY:HA3	1.95	0.49
1:AA:1329:A:H3'	13:AM:26:GLY:HA3	1.94	0.49
1:AA:184:G:H2'	1:AA:185:A:H8	1.77	0.49
1:AA:220:G:O2'	1:AA:221:C:H5'	2.12	0.49
1:AA:116:A:C2	1:AA:314:C:O4'	2.65	0.49
1:AA:325:A:H2'	1:AA:326:G:O4'	2.12	0.49
1:AA:436:C:C2	1:AA:437:U:C2	3.00	0.49
1:AA:443:C:H2'	1:AA:444:C:C6	2.43	0.49
1:AA:951:G:H1'	1:AA:970:C:O2'	2.12	0.49
3:AC:47:LEU:N	3:AC:47:LEU:HD12	2.26	0.49
7:AG:108:ALA:O	7:AG:119:ARG:HB3	2.12	0.49
9:AI:36:TYR:HD2	9:AI:37:PHE:CE2	2.30	0.49
9:AI:47:LEU:C	9:AI:49:PRO:HD2	2.32	0.49
10:AJ:27:ALA:C	10:AJ:29:ARG:H	2.15	0.49
11:AK:82:VAL:HG23	11:AK:105:VAL:HG13	1.93	0.49
11:AK:23:ALA:CB	11:AK:91:ARG:HB2	2.42	0.49
21:B0:1286:U:H5''	21:B0:1663:C:N4	2.27	0.49
21:B0:1683:G:C2'	21:B0:1684:G:H5'	2.43	0.49
21:B0:2313:G:H2'	21:B0:2314:A:H5'	1.94	0.49
21:B0:2435:C:H2'	21:B0:2436:U:C6	2.47	0.49
21:B0:2459:C:H2'	21:B0:2460:G:H5'	1.94	0.49
21:B0:971:A:H2	21:B0:2475:C:H1'	1.77	0.49
21:B0:1949:A:H1'	21:B0:2572:U:C4'	2.42	0.49
21:B0:2858:A:H3'	21:B0:2859:U:C5'	2.42	0.49
21:B0:597:U:H2'	21:B0:598:U:C6	2.47	0.49
21:B0:693:A:H2'	21:B0:694:G:C8	2.46	0.49
1:AA:1015:A:H1'	1:AA:1219:U:H5'	1.89	0.49
1:AA:992:U:HO2'	1:AA:1043:C:H41	1.60	0.49
1:AA:1172:C:O2'	1:AA:1173:G:H5'	2.11	0.49
1:AA:1296:C:H4'	1:AA:1302:U:O4	2.03	0.49
1:AA:143:A:H5'	1:AA:196:A:C6	2.45	0.49
1:AA:218:C:H2'	1:AA:219:C:C6	2.47	0.49
1:AA:619:U:H2'	4:AD:135:LEU:HD11	1.90	0.49
17:AQ:26:GLN:O	17:AQ:27:PHE:HB3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1180:A:H2'	21:B0:1181:C:C6	2.47	0.49
21:B0:1223:G:O2'	21:B0:1224:A:OP2	2.26	0.49
21:B0:189:A:H2'	21:B0:190:A:C8	2.47	0.49
21:B0:2536:G:H2'	21:B0:2537:C:C6	2.47	0.49
21:B0:568:G:H5''	21:B0:1019:U:H5'	1.93	0.49
21:B0:652:C:H42	21:B0:657:A:N6	2.10	0.49
1:AA:968:A:C8	1:AA:1062:U:H4'	2.47	0.49
1:AA:1102:A:H2'	1:AA:1103:C:H6	1.77	0.49
1:AA:149:A:O2'	1:AA:150:C:H5'	2.11	0.49
1:AA:160:A:H61	1:AA:347:G:H21	1.60	0.49
1:AA:173:U:O4'	1:AA:197:A:C4	2.66	0.49
1:AA:134:A:H1'	1:AA:325:A:C4	2.47	0.49
1:AA:39:G:C4	1:AA:498:U:O4	2.62	0.49
1:AA:722:A:H4'	1:AA:723:U:C5	2.48	0.49
1:AA:766:A:H2	1:AA:1525:G:HO2'	1.54	0.49
1:AA:959:A:H4'	1:AA:985:C:C4'	2.42	0.49
3:AC:112:SER:O	3:AC:116:VAL:HG23	2.11	0.49
6:AF:9:VAL:HG22	6:AF:60:PHE:CE2	2.47	0.49
10:AJ:38:ILE:HG13	10:AJ:71:LEU:CB	2.42	0.49
10:AJ:16:LEU:HD23	10:AJ:94:VAL:HG22	1.95	0.49
15:AO:36:ILE:HA	15:AO:59:MET:CE	2.42	0.49
17:AQ:97:SER:HB2	17:AQ:103:GLY:N	2.26	0.49
13:AM:84:ILE:CD1	19:AS:66:MET:HB3	2.42	0.49
21:B0:1268:U:H5''	21:B0:1269:G:H5''	1.95	0.49
21:B0:1715:A:H1'	21:B0:1717:A:C1'	2.42	0.49
21:B0:1923:U:H4'	21:B0:1948:C:N4	2.27	0.49
21:B0:1993:G:H2'	21:B0:1994:U:C6	2.47	0.49
21:B0:2312:A:H4'	21:B0:2313:G:N7	2.26	0.49
21:B0:2321:C:H2'	21:B0:2322:U:O4'	2.12	0.49
21:B0:2805:G:O2'	21:B0:2806:G:H5'	2.12	0.49
21:B0:3110:G:OP2	21:B0:3149:G:C5'	2.56	0.49
21:B0:601:A:H3'	21:B0:602:C:C5'	2.42	0.49
17:AQ:104:LYS:HA	21:B0:726:G:N2	2.28	0.49
21:B0:960:U:H2'	21:B0:961:G:C8	2.48	0.49
1:AA:1085:U:O3'	1:AA:1086:U:H6	1.95	0.49
1:AA:1136:U:H5''	1:AA:1137:C:OP2	2.12	0.49
1:AA:1183:A:O2'	1:AA:1184:G:OP2	2.28	0.49
1:AA:1238:A:N7	1:AA:1303:C:H1'	2.28	0.49
1:AA:1413:A:O2'	1:AA:1414:U:H5'	2.12	0.49
1:AA:149:A:H2'	1:AA:150:C:C6	2.47	0.49
1:AA:1505:G:H4'	1:AA:1506:U:O5'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:18:C:O2	1:AA:917:G:N1	2.41	0.49
1:AA:245:C:O2	1:AA:283:C:N3	2.46	0.49
1:AA:430:A:C2'	1:AA:431:A:H5'	2.42	0.49
1:AA:746:A:O2'	1:AA:747:C:H5'	2.11	0.49
2:AB:230:VAL:HG13	2:AB:231:GLU:OE2	2.13	0.49
2:AB:53:ARG:HH11	2:AB:53:ARG:HG2	1.76	0.49
4:AD:36:ARG:N	4:AD:37:PRO:CD	2.66	0.49
4:AD:7:PRO:HB2	4:AD:10:ARG:HD2	1.93	0.49
7:AG:69:VAL:HG12	7:AG:69:VAL:O	2.11	0.49
5:AE:79:GLU:CD	8:AH:105:ARG:NE	2.65	0.49
1:AA:1369:C:P	9:AI:111:ARG:HG2	2.52	0.49
14:AN:15:LYS:HB3	14:AN:16:PHE:CD1	2.47	0.49
1:AA:958:A:C5	19:AS:55:LYS:HB2	2.47	0.49
13:AM:84:ILE:CG2	19:AS:66:MET:HE2	2.42	0.49
21:B0:1007:A:H2'	21:B0:1008:G:C8	2.47	0.49
21:B0:1199:U:H2'	21:B0:1200:G:C8	2.46	0.49
21:B0:1218:C:H2'	21:B0:1219:C:C6	2.47	0.49
21:B0:2249:U:H2'	21:B0:2250:G:O4'	2.13	0.49
21:B0:2397:A:H2'	21:B0:2398:U:O4'	2.12	0.49
21:B0:2492:G:H2'	21:B0:2493:U:O4'	2.12	0.49
21:B0:2717:G:H2'	21:B0:2718:A:C8	2.48	0.49
21:B0:628:A:H2'	21:B0:629:C:C6	2.48	0.49
21:B0:703:A:H2'	21:B0:704:G:H8	1.77	0.49
1:AA:1051:C:O2'	1:AA:1052:U:H5'	2.13	0.49
1:AA:1230:C:O2'	1:AA:1231:G:H5'	2.13	0.49
1:AA:1365:G:O2'	1:AA:1366:C:H5'	2.12	0.49
1:AA:136:C:H2'	1:AA:137:C:H6	1.77	0.49
1:AA:31:G:H2'	1:AA:48:C:N4	2.28	0.49
1:AA:323:U:H5''	20:AT:23:ARG:HA	1.73	0.49
1:AA:36:C:O2	1:AA:501:C:H4'	2.12	0.49
1:AA:375:U:N3	1:AA:376:G:N7	2.59	0.49
1:AA:559:A:OP1	5:AE:126:ARG:CZ	2.61	0.49
1:AA:564:C:C2	17:AQ:31:LEU:HD11	2.47	0.49
1:AA:577:G:O4'	1:AA:816:A:C5	2.66	0.49
1:AA:834:C:H2'	1:AA:835:U:C6	2.48	0.49
1:AA:933:G:N1	1:AA:935:A:N9	2.61	0.49
2:AB:44:LEU:HA	2:AB:47:THR:OG1	2.12	0.49
5:AE:84:PHE:CE2	5:AE:133:TYR:HD1	2.31	0.49
17:AQ:45:HIS:NE2	17:AQ:47:PRO:HG3	2.27	0.49
6:AF:100:ASN:O	18:AR:28:GLU:HG3	2.13	0.49
18:AR:41:LYS:HG2	18:AR:41:LYS:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:101:GLY:O	20:AT:102:GLY:O	2.30	0.49
21:B0:1164:C:H2'	21:B0:1165:G:O4'	2.12	0.49
21:B0:117:A:H4'	21:B0:118:U:C6	2.47	0.49
21:B0:1532:A:H2'	21:B0:1533:G:H8	1.77	0.49
21:B0:1949:A:O2'	21:B0:2572:U:H5'	2.12	0.49
21:B0:1998:A:H2'	21:B0:1999:U:H5'	1.94	0.49
21:B0:2274:C:C2'	21:B0:2275:U:H5'	2.40	0.49
17:AQ:104:LYS:N	21:B0:726:G:N3	2.37	0.49
1:AA:1458:G:C1'	1:AA:1459:C:H2'	2.41	0.49
1:AA:185:A:O2'	1:AA:186:C:O5'	2.24	0.49
1:AA:489:C:H2'	1:AA:490:G:H8	1.77	0.49
1:AA:582:U:O4'	17:AQ:105:ALA:CA	2.61	0.49
1:AA:847:C:O2'	1:AA:848:G:H5'	2.12	0.49
1:AA:960:U:O2'	1:AA:1223:C:H5'	2.12	0.49
2:AB:12:GLU:HG2	2:AB:213:LEU:HD11	1.95	0.49
2:AB:30:ARG:HG3	2:AB:31:TYR:CD2	2.48	0.49
3:AC:116:VAL:O	3:AC:119:ARG:HB3	2.13	0.49
4:AD:127:THR:CG2	4:AD:128:VAL:N	2.75	0.49
5:AE:11:ILE:HB	5:AE:31:LEU:HB3	1.93	0.49
5:AE:61:TYR:O	5:AE:64:ARG:O	2.29	0.49
5:AE:92:LYS:HB3	5:AE:119:LEU:HB2	1.94	0.49
6:AF:48:LEU:HD13	6:AF:52:ILE:HG13	1.95	0.49
11:AK:85:ARG:HG3	11:AK:85:ARG:HH11	1.77	0.49
15:AO:25:THR:HG21	15:AO:70:LEU:HD23	1.94	0.49
17:AQ:10:VAL:O	17:AQ:53:LEU:HD12	2.12	0.49
21:B0:1829:C:H2'	21:B0:1830:C:H5'	1.95	0.49
21:B0:2260:C:H4'	21:B0:2368:G:H21	1.77	0.49
21:B0:2821:G:H2'	21:B0:2822:U:C6	2.48	0.49
21:B0:2852:G:H2'	21:B0:2853:U:O4'	2.12	0.49
21:B0:427:C:H2'	21:B0:428:A:C8	2.47	0.49
21:B0:483:A:H2'	21:B0:484:G:H5'	1.93	0.49
21:B0:599:A:H2'	21:B0:600:G:C8	2.48	0.49
21:B0:879:A:H2'	21:B0:880:C:H5'	1.94	0.49
1:AA:1121:U:H2'	1:AA:1122:U:C6	2.48	0.49
1:AA:1277:C:HO2'	1:AA:1279:A:N9	1.48	0.49
1:AA:51:A:C8	1:AA:114:U:O2'	2.64	0.49
1:AA:559:A:OP1	5:AE:126:ARG:NH2	2.45	0.49
1:AA:5:U:C4	5:AE:95:ALA:HB3	2.34	0.49
1:AA:61:G:H2'	1:AA:62:U:O4'	2.13	0.49
2:AB:144:ARG:O	2:AB:147:LYS:N	2.42	0.49
2:AB:97:TRP:CH2	2:AB:173:ALA:HA	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1112:C:C2	3:AC:178:LEU:HB3	2.46	0.49
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	2.48	0.49
12:AL:34:ARG:O	12:AL:34:ARG:HG3	2.13	0.49
15:AO:30:ALA:HA	15:AO:85:LEU:HD21	1.94	0.49
19:AS:5:LEU:HD11	19:AS:70:LYS:NZ	2.28	0.49
21:B0:1223:G:H1'	21:B0:1225:G:C4	2.48	0.49
21:B0:1982:C:H2'	21:B0:1983:G:H8	1.78	0.49
21:B0:807:A:H2'	21:B0:808:C:C6	2.48	0.49
1:AA:1328:C:C5'	13:AM:28:ALA:CB	2.85	0.49
1:AA:1499:A:O2'	1:AA:1500:A:H5'	2.12	0.49
1:AA:1504:G:OP1	1:AA:1507:A:C4'	2.59	0.49
1:AA:235:C:H5''	17:AQ:70:ARG:HD3	1.95	0.49
1:AA:253:U:P	17:AQ:67:LYS:HZ3	2.36	0.49
1:AA:367:U:H3	1:AA:369:C:N4	2.11	0.49
1:AA:394:G:N1	1:AA:395:C:C4	2.80	0.49
1:AA:521:G:O2'	1:AA:522:C:H5'	2.12	0.49
1:AA:555:C:H2'	1:AA:556:C:C6	2.48	0.49
1:AA:556:C:O2'	1:AA:557:G:H5'	2.13	0.49
1:AA:942:G:O2'	1:AA:943:U:H5'	2.12	0.49
2:AB:35:GLU:HA	2:AB:39:ILE:O	2.13	0.49
4:AD:3:ARG:O	4:AD:5:ILE:HG13	2.12	0.49
4:AD:38:TYR:CE1	4:AD:45:GLN:HG3	2.48	0.49
8:AH:13:ILE:O	8:AH:17:THR:HG23	2.13	0.49
9:AI:23:ASN:C	9:AI:23:ASN:ND2	2.66	0.49
11:AK:58:PRO:HB2	11:AK:93:GLN:HG3	1.95	0.49
16:AP:20:VAL:CG1	16:AP:32:TYR:HB3	2.40	0.49
17:AQ:27:PHE:HB2	17:AQ:28:PRO:HD2	1.94	0.49
17:AQ:68:ARG:O	17:AQ:69:LYS:HB2	2.13	0.49
19:AS:81:ARG:O	19:AS:81:ARG:HG2	2.11	0.49
20:AT:89:ARG:HE	20:AT:104:LEU:HD22	1.78	0.49
21:B0:114:C:O2'	21:B0:124:A:H1'	2.12	0.49
21:B0:1489:C:H3'	21:B0:1490:U:H5'	1.95	0.49
21:B0:1856:U:C5'	21:B0:3865:A:P	2.96	0.49
21:B0:1895:A:H2'	21:B0:1896:A:O4'	2.13	0.49
21:B0:1970:G:H2'	21:B0:1971:C:C6	2.48	0.49
21:B0:3110:G:P	21:B0:3149:G:C5'	3.00	0.49
21:B0:653:G:N2	21:B0:655:A:H1'	2.27	0.49
13:AM:82:MET:CE	21:B0:900(A):A:OP1	2.58	0.49
1:AA:1329:A:O3'	13:AM:25:ILE:CA	2.49	0.49
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.48	0.49
1:AA:403:C:H4'	4:AD:122:ARG:CZ	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:59:A:C2	1:AA:331:G:C2	3.01	0.49
1:AA:659:U:H2'	1:AA:660:G:O4'	2.13	0.49
1:AA:926:G:C2	1:AA:1505:G:N9	2.80	0.49
2:AB:144:ARG:HG3	2:AB:145:LEU:H	1.77	0.49
2:AB:188:ALA:O	2:AB:202:PRO:HA	2.13	0.49
3:AC:138:VAL:O	3:AC:142:MET:HB2	2.13	0.49
4:AD:105:VAL:HG13	4:AD:110:PHE:HB2	1.95	0.49
4:AD:3:ARG:NH2	4:AD:74:GLN:OE1	2.43	0.49
8:AH:113:SER:HB2	8:AH:134:ILE:CD1	2.29	0.49
1:AA:1342:C:C5'	9:AI:125:TYR:CE1	2.96	0.49
12:AL:45:PRO:HB2	12:AL:49:ASN:O	2.13	0.49
12:AL:53:ARG:HB3	12:AL:93:LEU:HD11	1.95	0.49
17:AQ:56:VAL:HG12	17:AQ:77:VAL:HB	1.95	0.49
20:AT:29:LYS:O	20:AT:33:ILE:HG13	2.13	0.49
21:B0:1380:C:C2'	21:B0:1381:G:H5'	2.41	0.49
21:B0:1617:G:H2'	21:B0:1618:U:H5'	1.95	0.49
21:B0:216:U:H2'	21:B0:217:U:O4'	2.12	0.49
21:B0:2380:U:C2'	21:B0:2381:A:H5'	2.42	0.49
21:B0:2392:G:H2'	21:B0:2393:G:H8	1.77	0.49
21:B0:930:A:H4'	21:B0:930:A:OP1	2.11	0.49
1:AA:1030:U:H5'	1:AA:1031:C:C5	2.48	0.48
1:AA:977:A:N1	1:AA:1224:G:C4	2.81	0.48
1:AA:1261:A:H5'	1:AA:1283:G:O3'	2.07	0.48
1:AA:1310:G:O2'	1:AA:1311:G:H5'	2.12	0.48
1:AA:1329:A:C2'	1:AA:1330:U:H5'	2.43	0.48
1:AA:1396:A:H4'	1:AA:1397:C:H5''	1.93	0.48
1:AA:65:U:O4'	1:AA:200:G:H4'	2.12	0.48
1:AA:227:G:H2'	1:AA:228:A:C5'	2.43	0.48
1:AA:323:U:P	20:AT:23:ARG:CA	2.84	0.48
1:AA:586:C:O2'	1:AA:587:G:H5'	2.13	0.48
1:AA:624:C:O2'	1:AA:625:G:H5'	2.13	0.48
1:AA:893:C:H2'	1:AA:894:G:O4'	2.12	0.48
2:AB:204:ASN:ND2	2:AB:206:ASP:H	2.11	0.48
4:AD:174:LEU:O	4:AD:175:SER:HB3	2.13	0.48
4:AD:57:ARG:NH2	4:AD:205:GLU:OE2	2.46	0.48
9:AI:117:HIS:HB2	9:AI:121:ARG:HD2	1.94	0.48
10:AJ:71:LEU:O	10:AJ:72:VAL:CB	2.60	0.48
1:AA:1329:A:H4'	13:AM:24:GLY:O	2.13	0.48
21:B0:2809:A:C2'	21:B0:2810:A:H5'	2.43	0.48
21:B0:338:G:H1	21:B0:346:C:H42	1.60	0.48
21:B0:3869:G:H2'	21:B0:3871:A:OP2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1346:A:H1'	1:AA:1348:U:C5	2.47	0.48
1:AA:1418:A:H2'	1:AA:1419:G:O4'	2.12	0.48
1:AA:141:A:H5'	1:AA:182:U:H1'	1.95	0.48
1:AA:212:G:O2'	1:AA:213:G:O5'	2.30	0.48
1:AA:265:G:O2'	1:AA:266:G:H5'	2.13	0.48
1:AA:291:C:O3'	1:AA:292:G:P	2.71	0.48
1:AA:315:A:C2	1:AA:354:G:OP2	2.62	0.48
1:AA:619:U:C6	4:AD:135:LEU:HD11	2.47	0.48
1:AA:784:C:H4'	21:B0:1829:C:OP1	2.13	0.48
2:AB:97:TRP:CZ2	2:AB:102:LEU:HD13	2.45	0.48
4:AD:7:PRO:CG	4:AD:10:ARG:HD2	2.42	0.48
6:AF:43:LEU:N	6:AF:43:LEU:HD22	2.27	0.48
8:AH:60:ARG:HG3	8:AH:60:ARG:NH1	2.28	0.48
16:AP:52:ASP:OD2	16:AP:55:ARG:HB2	2.13	0.48
18:AR:39:VAL:HG13	18:AR:40:LEU:N	2.28	0.48
18:AR:34:TYR:HA	18:AR:69:THR:HG23	1.93	0.48
13:AM:88:ARG:CD	19:AS:3:ARG:NH2	2.61	0.48
21:B0:1964:A:H5''	21:B0:1965:U:OP2	2.13	0.48
21:B0:1949:A:H1'	21:B0:2572:U:H4'	1.95	0.48
21:B0:3184:C:C2'	21:B0:3185:U:C5'	2.91	0.48
21:B0:58:C:H1'	21:B0:72:A:C8	2.48	0.48
21:B0:737:C:H2'	21:B0:738:G:O4'	2.14	0.48
22:B9:112:A:H2'	22:B9:113:G:C8	2.49	0.48
1:AA:1279:A:O2'	1:AA:1282:C:N4	2.46	0.48
1:AA:1451:A:O2'	1:AA:1452:C:OP1	2.26	0.48
1:AA:1497:G:H2'	1:AA:1498:U:C5'	2.42	0.48
1:AA:269:C:H2'	1:AA:270:A:C8	2.48	0.48
1:AA:161:A:H2	1:AA:348:G:HO2'	1.55	0.48
1:AA:402:G:C2'	1:AA:620:C:H42	2.26	0.48
5:AE:51:VAL:O	5:AE:54:ALA:HB3	2.13	0.48
6:AF:38:GLU:O	6:AF:39:LYS:HB3	2.12	0.48
10:AJ:32:ALA:HB2	10:AJ:76:ASN:HB2	1.94	0.48
12:AL:119:LYS:O	12:AL:120:TYR:CB	2.61	0.48
12:AL:28:LYS:O	12:AL:29:GLY:C	2.50	0.48
12:AL:83:VAL:HG21	12:AL:100:ILE:HD13	1.95	0.48
13:AM:78:ILE:O	13:AM:82:MET:HB2	2.12	0.48
17:AQ:12:SER:HB3	17:AQ:20:THR:HB	1.95	0.48
21:B0:1190:C:H2'	21:B0:1191:G:C8	2.48	0.48
21:B0:126:C:H2'	21:B0:127:C:C6	2.48	0.48
21:B0:1312:G:C5'	21:B0:1313:U:H5'	2.39	0.48
21:B0:1356:G:H5'	21:B0:1614:C:OP2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:702:A:O4'	21:B0:1840:A:OP1	2.29	0.48
21:B0:2754:C:H2'	21:B0:2755:A:O4'	2.14	0.48
21:B0:742:G:N3	21:B0:742:G:H2'	2.29	0.48
1:AA:113:G:C2	1:AA:353:A:H1'	2.47	0.48
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.96	0.48
1:AA:1485:U:H5'	21:B0:1943:A:O3'	2.13	0.48
1:AA:209:U:H5'	1:AA:210:C:C5	2.48	0.48
1:AA:528:C:H5'	1:AA:535:A:C6	2.49	0.48
1:AA:954:G:H2'	1:AA:955:U:H6	1.78	0.48
1:AA:959:A:H2'	1:AA:960:U:O4'	2.12	0.48
2:AB:111:ARG:HB3	2:AB:149:LEU:HD11	1.95	0.48
3:AC:180:ALA:O	3:AC:181:ASN:CB	2.61	0.48
3:AC:3:ASN:HD22	3:AC:4:LYS:HG2	1.78	0.48
4:AD:119:GLN:HG2	4:AD:123:HIS:CD2	2.48	0.48
5:AE:31:LEU:HD22	5:AE:43:LEU:HD21	1.94	0.48
6:AF:46:ARG:HB2	6:AF:60:PHE:CE1	2.48	0.48
10:AJ:6:ILE:HG23	10:AJ:98:ILE:HG12	1.94	0.48
1:AA:35:G:O2'	12:AL:118:SER:O	2.21	0.48
12:AL:83:VAL:HG22	12:AL:84:LEU:N	2.28	0.48
12:AL:53:ARG:HG2	12:AL:93:LEU:HD11	1.95	0.48
10:AJ:45:ARG:CZ	14:AN:36:PHE:HD2	2.12	0.48
1:AA:390:C:C3'	16:AP:28:ARG:NH2	2.76	0.48
21:B0:1099:A:H3'	21:B0:1100:G:H5'	1.94	0.48
21:B0:1343:C:H2'	21:B0:1344:C:C6	2.48	0.48
21:B0:1930:C:H2'	21:B0:1931:G:H8	1.78	0.48
21:B0:3102:G:H2'	21:B0:3103:A:C8	2.48	0.48
21:B0:422:C:H2'	21:B0:423:G:H8	1.78	0.48
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.13	0.48
1:AA:1366:C:C2	1:AA:1367:C:C5	3.00	0.48
1:AA:1459:C:H5''	20:AT:28:ALA:HB2	1.84	0.48
1:AA:216:C:O2'	1:AA:468:A:C4	2.66	0.48
1:AA:421:U:H5'	1:AA:422:C:C5	2.49	0.48
1:AA:456:A:C2	1:AA:477:G:H1'	2.48	0.48
1:AA:588:G:N9	1:AA:753:A:N1	2.61	0.48
1:AA:647:C:H2'	1:AA:648:A:H8	1.78	0.48
3:AC:23:TYR:O	3:AC:24:ALA:HB2	2.14	0.48
4:AD:151:LYS:CD	4:AD:151:LYS:N	2.75	0.48
5:AE:36:ASP:O	5:AE:37:ARG:HB2	2.13	0.48
6:AF:43:LEU:H	6:AF:43:LEU:HD22	1.76	0.48
6:AF:67:MET:CE	6:AF:72:VAL:HA	2.40	0.48
7:AG:6:ARG:O	7:AG:7:ALA:C	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:65:TYR:HA	8:AH:79:VAL:HG23	1.95	0.48
9:AI:111:ARG:NH1	9:AI:111:ARG:HG3	2.28	0.48
10:AJ:94:VAL:CG1	10:AJ:95:GLU:N	2.77	0.48
15:AO:34:LEU:O	15:AO:34:LEU:HD23	2.12	0.48
18:AR:36:ASN:CG	18:AR:39:VAL:HG12	2.34	0.48
19:AS:32:LYS:O	19:AS:32:LYS:HG3	2.13	0.48
21:B0:1301:U:H2'	21:B0:1664:G:H21	1.79	0.48
21:B0:2437:G:N2	21:B0:2469:G:H2'	2.28	0.48
21:B0:2504:G:H2'	21:B0:2505:G:C8	2.49	0.48
21:B0:2642:G:H2'	21:B0:2643:G:O4'	2.13	0.48
21:B0:2808:U:H3'	21:B0:2809:A:C5'	2.40	0.48
21:B0:31:C:H2'	21:B0:32:C:O4'	2.14	0.48
21:B0:703:A:H2'	21:B0:704:G:C8	2.49	0.48
21:B0:929:A:H2'	21:B0:930:A:H4'	1.95	0.48
1:AA:1070:U:O2'	1:AA:1071:C:H5'	2.13	0.48
1:AA:1165:C:O2'	1:AA:1166:G:H5'	2.12	0.48
1:AA:130:A:C6	1:AA:264:U:C1'	2.84	0.48
1:AA:1271:G:H5'	1:AA:1314:C:H5''	1.96	0.48
1:AA:1505:G:C3'	1:AA:1506:U:OP2	2.51	0.48
1:AA:1505:G:H3'	1:AA:1505:G:C8	2.48	0.48
1:AA:571:U:C5'	1:AA:819:A:N3	2.75	0.48
1:AA:94:G:H2'	1:AA:96:C:H6	1.79	0.48
2:AB:115:LEU:HD12	2:AB:115:LEU:O	2.13	0.48
3:AC:130:VAL:CG2	3:AC:157:ILE:HG23	2.41	0.48
1:AA:1108:G:OP1	3:AC:175:LEU:HB2	2.14	0.48
3:AC:178:LEU:O	3:AC:179:ARG:CB	2.60	0.48
5:AE:13:ILE:HG13	5:AE:13:ILE:O	2.12	0.48
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.12	0.48
7:AG:64:GLN:O	7:AG:67:GLU:HB3	2.14	0.48
10:AJ:62:HIS:ND1	14:AN:61:TRP:CH2	2.82	0.48
11:AK:86:GLY:H	11:AK:112:THR:HG23	1.79	0.48
16:AP:20:VAL:CG1	16:AP:21:VAL:N	2.76	0.48
1:AA:279:A:P	17:AQ:95:TYR:HE2	2.35	0.48
1:AA:322:C:C2'	20:AT:23:ARG:HB2	2.42	0.48
20:AT:38:LYS:O	20:AT:39:LYS:C	2.51	0.48
20:AT:67:ALA:O	20:AT:73:HIS:ND1	2.47	0.48
21:B0:2017:U:O2'	21:B0:2018:G:H5'	2.13	0.48
21:B0:340:G:H1'	21:B0:488:A:C4	2.49	0.48
21:B0:477:A:H2'	21:B0:478:G:H5'	1.95	0.48
21:B0:490:A:C5	21:B0:492:G:H1'	2.48	0.48
21:B0:634:G:H2'	21:B0:635:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:891:A:N1	21:B0:893:G:C5	2.81	0.48
1:AA:1312:G:N7	19:AS:4:SER:HB3	2.29	0.48
1:AA:1501:C:OP1	1:AA:1508:G:H4'	2.13	0.48
1:AA:1533:C:O2'	1:AA:1534:A:H5'	2.14	0.48
1:AA:407:G:H5''	4:AD:115:ARG:HB3	1.96	0.48
1:AA:41:G:H2'	1:AA:42:G:C8	2.49	0.48
1:AA:792:A:H4'	1:AA:793:U:C5'	2.39	0.48
1:AA:983:A:C2	1:AA:984:C:C5	3.01	0.48
4:AD:88:VAL:CA	5:AE:96:PRO:O	2.54	0.48
1:AA:6:G:H22	5:AE:98:THR:HG23	1.74	0.48
7:AG:149:ARG:CZ	11:AK:59:TYR:CZ	2.97	0.48
21:B0:1023:U:H1'	21:B0:1154:A:N7	2.28	0.48
21:B0:1231:A:H2'	21:B0:1232:U:O4'	2.13	0.48
21:B0:1418:C:H2'	21:B0:1419:G:H8	1.79	0.48
21:B0:2308:A:H2'	21:B0:2309:G:C8	2.48	0.48
17:AQ:104:LYS:NZ	21:B0:729:A:N6	2.61	0.48
1:AA:1110:A:C2'	1:AA:1111:A:C5'	2.92	0.48
1:AA:1162:C:H2'	1:AA:1163:C:H6	1.78	0.48
1:AA:173:U:H5''	1:AA:197:A:O4'	2.13	0.48
1:AA:38:G:C4'	1:AA:547:A:N6	2.77	0.48
1:AA:406:G:N2	1:AA:437:U:C2	2.82	0.48
1:AA:538:G:O2'	1:AA:539:A:H5'	2.13	0.48
1:AA:588:G:C5	1:AA:753:A:C4	3.02	0.48
1:AA:825:G:H2'	1:AA:826:C:H6	1.78	0.48
1:AA:995:C:O2	14:AN:4:LYS:CG	2.62	0.48
3:AC:173:VAL:N	3:AC:174:PRO:CD	2.76	0.48
1:AA:6:G:H2'	5:AE:119:LEU:CD2	2.44	0.48
5:AE:20:GLN:C	5:AE:21:ALA:O	2.51	0.48
1:AA:15:G:O4'	5:AE:24:ARG:NH1	2.44	0.48
6:AF:67:MET:HE2	6:AF:72:VAL:HG22	1.96	0.48
10:AJ:65:LEU:CD2	10:AJ:65:LEU:O	2.59	0.48
18:AR:36:ASN:HD22	18:AR:38:GLU:HG2	1.79	0.48
21:B0:1130:U:H2'	21:B0:1131:G:C8	2.48	0.48
21:B0:2319:G:H2'	21:B0:2320:G:C8	2.49	0.48
21:B0:3176:A:H2'	21:B0:3177:C:C6	2.48	0.48
21:B0:324:C:H2'	21:B0:325:U:O4'	2.14	0.48
21:B0:446:C:H2'	21:B0:447:U:C6	2.49	0.48
21:B0:951:G:C3'	21:B0:952:A:H5''	2.43	0.48
1:AA:26:A:C3'	1:AA:27:G:H5'	2.43	0.48
1:AA:335:C:C2'	1:AA:1434:A:H5'	2.38	0.48
1:AA:714:G:H5'	1:AA:776:G:H5'	1.93	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:761:G:C1'	17:AQ:103:GLY:O	2.62	0.48
1:AA:926:G:H2'	1:AA:1505:G:N3	2.28	0.48
2:AB:18:GLY:CA	2:AB:41:ILE:HA	2.44	0.48
4:AD:111:ALA:HB1	4:AD:116:GLN:HB3	1.96	0.48
4:AD:6:GLY:O	4:AD:7:PRO:C	2.50	0.48
5:AE:71:LEU:HD21	5:AE:115:VAL:HG22	1.96	0.48
13:AM:97:PRO:HB2	13:AM:101:GLN:OE1	2.14	0.48
1:AA:376:G:P	16:AP:6:LEU:HB2	2.54	0.48
1:AA:1014:A:C5	19:AS:34:TRP:CD2	3.01	0.48
20:AT:39:LYS:HD2	20:AT:55:ILE:CD1	2.27	0.48
21:B0:1427:G:C2'	21:B0:1428:G:H5'	2.42	0.48
21:B0:974:U:H1'	21:B0:2229:G:N2	2.28	0.48
21:B0:2759:U:H5''	21:B0:2760:G:O5'	2.14	0.48
1:AA:1111:A:H61	3:AC:176:HIS:C	2.17	0.48
1:AA:1250:A:H4'	9:AI:68:GLY:C	2.35	0.48
1:AA:376:G:N1	1:AA:389:A:C6	2.82	0.48
1:AA:292:G:H2'	1:AA:609:A:C6	2.49	0.48
1:AA:768:A:H2'	1:AA:769:G:O4'	2.14	0.48
1:AA:8:A:O4'	5:AE:102:ALA:CA	2.62	0.48
2:AB:108:ILE:HG22	2:AB:108:ILE:O	2.13	0.48
2:AB:25:ASN:O	2:AB:27:LYS:N	2.47	0.48
1:AA:586:C:C3'	8:AH:89:PRO:HB2	2.43	0.48
14:AN:12:ARG:O	14:AN:13:THR:C	2.52	0.48
21:B0:1028:G:H2'	21:B0:1029:C:C6	2.49	0.48
21:B0:2321:C:C2'	21:B0:2322:U:H5'	2.44	0.48
21:B0:387:A:H2'	21:B0:388:G:O4'	2.14	0.48
1:AA:1277:C:O2'	1:AA:1279:A:C4	2.52	0.47
1:AA:155:C:H2'	1:AA:156:G:H8	1.79	0.47
1:AA:232:G:C2	1:AA:263:A:H2	2.18	0.47
1:AA:355:C:C5'	1:AA:389:A:P	3.02	0.47
1:AA:39:G:C5	1:AA:498:U:C4	3.02	0.47
2:AB:17:PHE:HA	2:AB:44:LEU:HD21	1.95	0.47
2:AB:213:LEU:C	2:AB:213:LEU:CD2	2.82	0.47
2:AB:53:ARG:NH1	2:AB:199:TYR:CD2	2.82	0.47
3:AC:35:GLU:O	3:AC:38:ARG:N	2.47	0.47
1:AA:7:G:C2	5:AE:121:LYS:HG2	2.49	0.47
10:AJ:27:ALA:HB2	10:AJ:85:LEU:HD21	1.96	0.47
10:AJ:39:PRO:HA	10:AJ:70:ARG:HH11	1.78	0.47
12:AL:86:ARG:HG3	12:AL:86:ARG:NH1	2.28	0.47
1:AA:323:U:OP1	20:AT:26:ASN:HB2	2.13	0.47
21:B0:1825:C:C2'	21:B0:1826:U:H5'	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:457:C:H2'	21:B0:458:G:O4'	2.13	0.47
1:AA:1014:A:C2	1:AA:1219:U:C1'	2.97	0.47
1:AA:113:G:O2'	1:AA:353:A:C4'	2.58	0.47
1:AA:204:A:H4'	1:AA:205:G:O5'	2.15	0.47
1:AA:119:A:N6	1:AA:240:C:C2	2.81	0.47
1:AA:657:G:O2'	1:AA:658:G:H5'	2.13	0.47
2:AB:90:MET:HA	2:AB:91:PRO:HD3	1.70	0.47
5:AE:107:ARG:HG2	5:AE:108:ALA:N	2.29	0.47
1:AA:1398:A:N6	5:AE:21:ALA:CA	2.52	0.47
10:AJ:22:LYS:HZ3	10:AJ:91:PRO:HD3	1.79	0.47
1:AA:538:G:OP1	12:AL:115:LYS:N	2.47	0.47
1:AA:526:C:OP2	12:AL:91:LYS:HE2	2.13	0.47
18:AR:47:THR:HA	18:AR:83:GLU:HB2	1.96	0.47
18:AR:53:ARG:HD3	18:AR:63:GLN:HB3	1.95	0.47
20:AT:42:GLN:O	20:AT:42:GLN:NE2	2.47	0.47
1:AA:186:C:H1'	20:AT:81:LYS:HE2	1.88	0.47
21:B0:1002:C:H2'	21:B0:1003:C:C6	2.49	0.47
21:B0:1071:U:N3	21:B0:1099:A:H2	2.02	0.47
21:B0:1182:U:C3'	21:B0:1183:C:H5''	2.45	0.47
21:B0:1260:A:N6	21:B0:1262:U:H1'	2.29	0.47
21:B0:1572:C:C3'	21:B0:1573:G:H5''	2.43	0.47
21:B0:2407:G:H4'	21:B0:2408:G:C8	2.49	0.47
21:B0:2794:G:H2'	21:B0:2796:A:N7	2.29	0.47
21:B0:611:C:O2'	21:B0:612:G:H5'	2.14	0.47
21:B0:88:G:H3'	21:B0:89:A:C5'	2.37	0.47
21:B0:952:A:H2'	21:B0:953:G:O4'	2.14	0.47
1:AA:1113:C:C1'	3:AC:178:LEU:HD23	2.42	0.47
1:AA:1221:G:O2'	1:AA:1222:G:H5'	2.15	0.47
1:AA:1233:G:OP1	9:AI:124:GLN:N	2.43	0.47
1:AA:1409:C:N3	1:AA:1410:G:C5	2.83	0.47
1:AA:180:U:H2'	1:AA:181:G:H5'	1.96	0.47
1:AA:394:G:C5	1:AA:395:C:N4	2.79	0.47
1:AA:41:G:H2'	1:AA:42:G:H8	1.79	0.47
1:AA:780:A:C2	1:AA:801:U:C5	3.02	0.47
1:AA:834:C:H2'	1:AA:835:U:H6	1.79	0.47
2:AB:215:LEU:O	2:AB:216:SER:C	2.52	0.47
3:AC:23:TYR:OH	10:AJ:67:THR:HG21	2.14	0.47
4:AD:111:ALA:HB2	4:AD:120:LEU:HD12	1.96	0.47
5:AE:148:VAL:O	5:AE:152:ARG:HG3	2.14	0.47
5:AE:92:LYS:O	5:AE:118:ILE:HG23	2.15	0.47
7:AG:21:VAL:HG23	7:AG:22:LEU:N	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:6:ILE:HD12	8:AH:35:ILE:HD12	1.97	0.47
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.95	0.47
16:AP:6:LEU:HB3	16:AP:17:TYR:CD2	2.49	0.47
17:AQ:17:LYS:HA	17:AQ:46:ASP:O	2.14	0.47
1:AA:253:U:P	17:AQ:67:LYS:NZ	2.87	0.47
18:AR:28:GLU:OE1	18:AR:28:GLU:N	2.46	0.47
21:B0:831:G:N2	21:B0:1203:A:H62	2.01	0.47
21:B0:1313:U:C4	21:B0:1651:U:H5'	2.49	0.47
21:B0:1930:C:H2'	21:B0:1931:G:C8	2.49	0.47
21:B0:1938:U:C2'	21:B0:1939:U:H5'	2.44	0.47
21:B0:646:C:H2'	21:B0:647:G:O4'	2.14	0.47
1:AA:1127:G:N2	1:AA:1147:C:N4	2.62	0.47
1:AA:1262:C:H2'	1:AA:1263:C:H6	1.79	0.47
1:AA:1261:A:C5'	1:AA:1283:G:C3'	2.85	0.47
1:AA:178:C:O2'	1:AA:179:A:H5'	2.13	0.47
1:AA:236:G:O3'	17:AQ:42:TYR:OH	2.31	0.47
1:AA:848:G:O3'	1:AA:849:C:P	2.72	0.47
1:AA:926:G:N7	1:AA:1505:G:N1	2.63	0.47
3:AC:173:VAL:HG12	3:AC:173:VAL:O	2.14	0.47
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.37	0.47
7:AG:54:THR:HG22	7:AG:56:GLN:H	1.80	0.47
12:AL:27:LEU:HG	12:AL:28:LYS:N	2.25	0.47
12:AL:48:PRO:HG2	12:AL:49:ASN:N	2.25	0.47
14:AN:21:TYR:HE2	14:AN:23:ARG:HE	1.63	0.47
10:AJ:47:PHE:CZ	14:AN:37:PHE:CE1	3.02	0.47
21:B0:109:A:C2'	21:B0:110:U:H5''	2.44	0.47
21:B0:1598:C:H2'	21:B0:1599:G:O4'	2.14	0.47
21:B0:2307:A:H2'	21:B0:2308:A:C8	2.49	0.47
21:B0:2437:G:C2	21:B0:2469:G:H2'	2.50	0.47
21:B0:393:U:H2'	21:B0:394:U:C6	2.49	0.47
21:B0:598:U:H2'	21:B0:599:A:C8	2.49	0.47
21:B0:636:G:H2'	21:B0:637:G:H5'	1.95	0.47
1:AA:113:G:C2'	1:AA:353:A:O2'	2.63	0.47
1:AA:1488:G:H2'	1:AA:1489:G:H8	1.78	0.47
1:AA:1503:A:OP1	1:AA:1531:A:C1'	2.62	0.47
1:AA:1501:C:P	1:AA:1508:G:C5'	3.02	0.47
1:AA:315:A:C2	1:AA:353:A:H2'	2.50	0.47
1:AA:160:A:N6	1:AA:347:G:H21	2.13	0.47
1:AA:435:C:O2'	1:AA:436:C:H5'	2.15	0.47
1:AA:959:A:H1'	1:AA:985:C:C1'	2.44	0.47
3:AC:19:GLU:HB3	3:AC:40:ARG:NH2	2.25	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:75:LEU:HD13	6:AF:75:LEU:C	2.34	0.47
8:AH:103:VAL:CG2	8:AH:110:ALA:HB2	2.44	0.47
11:AK:80:VAL:HG21	11:AK:103:LEU:HD13	1.97	0.47
10:AJ:49:VAL:CG1	14:AN:41:ARG:HB2	2.34	0.47
1:AA:264:U:O2'	17:AQ:63:ARG:HD3	2.13	0.47
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.29	0.47
21:B0:1489:C:H3'	21:B0:1490:U:C5'	2.45	0.47
21:B0:1494:G:H2'	21:B0:1495:G:C8	2.50	0.47
21:B0:1365:U:H5'	21:B0:1587:A:H1'	1.96	0.47
21:B0:2220:A:H2'	21:B0:2221:G:C8	2.48	0.47
21:B0:2062:U:H4'	21:B0:2412:A:H2	1.78	0.47
21:B0:242:A:O2'	21:B0:243:G:P	2.72	0.47
21:B0:2455:A:O2'	21:B0:2456:U:H5'	2.15	0.47
21:B0:2799:C:H2'	21:B0:2800:C:O4'	2.14	0.47
21:B0:3171:A:H4'	21:B0:3172:U:OP1	2.13	0.47
21:B0:3181:C:H2'	21:B0:3182:U:C6	2.50	0.47
1:AA:1004:A:N6	1:AA:1035:A:H62	2.13	0.47
1:AA:1065:U:O4	1:AA:1189:C:N3	2.47	0.47
1:AA:1192:C:P	3:AC:4:LYS:NZ	2.88	0.47
1:AA:1405:G:C4'	1:AA:1519:A:H5'	2.44	0.47
1:AA:131:C:O2'	1:AA:263:A:O4'	2.32	0.47
1:AA:113:G:H1'	1:AA:354:G:H5''	1.97	0.47
1:AA:513:C:H2'	1:AA:514:C:C6	2.49	0.47
1:AA:518:C:H5''	1:AA:519:C:H6	1.78	0.47
1:AA:560:U:O2'	1:AA:561:U:OP2	2.27	0.47
1:AA:613:C:O2'	1:AA:614:A:H5'	2.14	0.47
1:AA:913:A:O2'	1:AA:914:A:P	2.72	0.47
2:AB:15:VAL:HG12	2:AB:210:SER:HB2	1.97	0.47
2:AB:187:LEU:CD2	2:AB:214:ILE:HG13	2.43	0.47
6:AF:2:ARG:NE	6:AF:69:GLU:HG2	2.29	0.47
6:AF:53:ALA:C	6:AF:55:ASP:H	2.18	0.47
7:AG:23:VAL:HG12	7:AG:27:ILE:CD1	2.41	0.47
7:AG:75:VAL:CG1	7:AG:86:GLN:HE21	2.27	0.47
8:AH:75:ARG:HA	8:AH:76:PRO:HD3	1.71	0.47
9:AI:65:VAL:HG13	9:AI:65:VAL:O	2.13	0.47
1:AA:994:A:N9	14:AN:5:ALA:O	2.48	0.47
1:AA:994:A:C1'	14:AN:8:GLU:HB3	2.29	0.47
18:AR:47:THR:HG22	18:AR:48:GLY:H	1.79	0.47
21:B0:1279:G:HO2'	21:B0:1280:U:H6	1.62	0.47
21:B0:1286:U:H2'	21:B0:2692:A:H2	1.80	0.47
21:B0:1497:C:O2'	21:B0:1498:G:H5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1591:U:H2'	21:B0:1592:U:O4'	2.14	0.47
21:B0:1654:A:H2'	21:B0:1655:C:C6	2.49	0.47
21:B0:1918:G:H4'	21:B0:1920:A:C2	2.50	0.47
21:B0:1922:U:H1'	21:B0:2570:C:O2'	2.15	0.47
21:B0:404:A:H2'	21:B0:405:C:C6	2.50	0.47
1:AA:1405:G:N3	1:AA:1519:A:H1'	2.29	0.47
1:AA:1515:C:H2'	1:AA:1516:G:C8	2.50	0.47
1:AA:189:A:H8	20:AT:105:SER:HG	0.47	0.47
1:AA:66:G:C5'	1:AA:199:G:O2'	2.63	0.47
1:AA:235:C:C5'	17:AQ:70:ARG:CB	2.92	0.47
1:AA:131:C:O2'	1:AA:262:A:N3	2.42	0.47
1:AA:625:G:H2'	1:AA:626:U:H6	1.79	0.47
1:AA:743:U:H2'	1:AA:744:C:H6	1.79	0.47
2:AB:75:LYS:HE3	2:AB:78:GLN:OE1	2.14	0.47
6:AF:4:TYR:CZ	6:AF:72:VAL:HG21	2.49	0.47
13:AM:80:ARG:NH2	19:AS:69:HIS:HE2	2.11	0.47
10:AJ:63:PHE:CE2	14:AN:48:ALA:CB	2.96	0.47
20:AT:59:ALA:O	20:AT:63:ILE:HG13	2.14	0.47
21:B0:1074:G:O2'	21:B0:1075:C:H5'	2.15	0.47
21:B0:1101:U:O4	21:B0:1113:C:N4	2.48	0.47
21:B0:1829:C:C2'	21:B0:1830:C:H5'	2.44	0.47
21:B0:3185:U:H5'	21:B0:3185:U:C6	2.40	0.47
21:B0:367:G:C3'	21:B0:368:A:H5''	2.44	0.47
21:B0:930:A:H3'	21:B0:931:G:H8	1.79	0.47
22:B9:22:U:H2'	22:B9:23:G:H8	1.79	0.47
1:AA:968:A:N9	1:AA:1062:U:H4'	2.29	0.47
1:AA:1118:C:H1'	1:AA:1179:A:C8	2.50	0.47
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.50	0.47
1:AA:1256:A:O3'	1:AA:1257:U:H5'	2.15	0.47
1:AA:1495:U:HO2'	21:B0:1902:A:H2	1.38	0.47
1:AA:321:A:O2'	1:AA:322:C:H5'	2.15	0.47
1:AA:406:G:N1	1:AA:496:A:N7	2.61	0.47
1:AA:577:G:C1'	1:AA:816:A:C2	2.95	0.47
1:AA:952:U:O2'	1:AA:953:G:H5'	2.14	0.47
2:AB:50:GLU:HB3	2:AB:200:ILE:O	2.15	0.47
3:AC:100:ALA:O	3:AC:101:LEU:HB2	2.14	0.47
3:AC:139:GLN:CA	3:AC:139:GLN:NE2	2.78	0.47
11:AK:50:TYR:HD1	11:AK:60:ALA:HB2	1.79	0.47
11:AK:59:TYR:O	11:AK:62:GLN:HB3	2.15	0.47
12:AL:42:THR:CG2	12:AL:52:LEU:HB3	2.44	0.47
1:AA:911:U:P	12:AL:97:ARG:HH21	2.38	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:39:ILE:CD1	13:AM:56:LEU:HG	2.45	0.47
15:AO:17:ARG:NH1	15:AO:17:ARG:HG3	2.23	0.47
1:AA:1318:A:H5''	19:AS:10:PHE:CD1	2.48	0.47
13:AM:94:ARG:HH22	19:AS:81:ARG:NH1	2.12	0.47
21:B0:1088:A:C2	21:B0:1099:A:C8	3.03	0.47
21:B0:9:U:H2'	21:B0:10:A:C8	2.49	0.47
21:B0:1189:G:O2'	21:B0:1190:C:H5'	2.14	0.47
21:B0:1886:G:H2'	21:B0:1887:G:H8	1.79	0.47
1:AA:791:G:H5''	21:B0:1905:G:OP1	2.14	0.47
21:B0:2008:C:H2'	21:B0:2009:U:C6	2.49	0.47
21:B0:2376:G:H2'	21:B0:2377:U:C6	2.50	0.47
21:B0:3171:A:O2'	21:B0:3172:U:H6	1.98	0.47
21:B0:619:A:H2'	21:B0:620:G:C8	2.49	0.47
22:B9:80:A:H2'	22:B9:81:C:O4'	2.15	0.47
1:AA:1231:G:O3'	9:AI:126:SER:OG	2.32	0.47
1:AA:1497:G:C2'	1:AA:1498:U:C5'	2.87	0.47
1:AA:209:U:H5'	1:AA:210:C:H5	1.80	0.47
1:AA:227:G:HO2'	1:AA:228:A:H5'	1.80	0.47
1:AA:51:A:H4'	1:AA:52:G:C5'	2.45	0.47
1:AA:59:A:C2	1:AA:331:G:C6	3.03	0.47
2:AB:23:ARG:C	2:AB:23:ARG:HH11	2.16	0.47
3:AC:79:ARG:HG2	3:AC:82:GLU:CG	2.45	0.47
4:AD:145:GLU:HG2	4:AD:184:LYS:HE2	1.96	0.47
5:AE:102:ALA:HB2	5:AE:120:THR:HB	1.97	0.47
5:AE:127:ASN:O	5:AE:128:PRO:C	2.53	0.47
1:AA:1178:G:OP2	9:AI:97:LYS:NZ	2.48	0.47
10:AJ:8:LEU:HD12	10:AJ:20:ALA:HB2	1.97	0.47
16:AP:42:ARG:O	16:AP:43:LYS:C	2.51	0.47
1:AA:130:A:H5'	17:AQ:63:ARG:CZ	2.45	0.47
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.49	0.47
1:AA:1014:A:N3	19:AS:34:TRP:CG	2.82	0.47
1:AA:323:U:H1'	20:AT:19:SER:HB2	1.95	0.47
21:B0:1838:G:C2'	21:B0:1839:A:H5'	2.37	0.47
21:B0:2238:G:H2'	21:B0:2239:C:C6	2.49	0.47
21:B0:38:G:H2'	21:B0:39:C:C6	2.49	0.47
21:B0:537:C:C6	21:B0:2759:U:H2'	2.50	0.47
21:B0:859:U:H4'	21:B0:860:U:C5	2.49	0.47
1:AA:1057:G:C2'	1:AA:1058:G:H5'	2.45	0.47
1:AA:1300:G:O2'	1:AA:1301:U:P	2.73	0.47
1:AA:227:G:C2	1:AA:228:A:C4	3.03	0.47
1:AA:248:C:HO2'	1:AA:283:C:H4'	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:719:C:O2'	18:AR:49:LYS:HD3	2.15	0.47
1:AA:88:G:O2'	1:AA:89:G:H5'	2.14	0.47
1:AA:947:G:H2'	1:AA:948:C:O4'	2.15	0.47
3:AC:21:ARG:NH2	3:AC:56:ASP:OD2	2.48	0.47
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	1.96	0.47
8:AH:23:SER:OG	8:AH:60:ARG:HD2	2.15	0.47
9:AI:33:PHE:CE2	9:AI:47:LEU:HD11	2.50	0.47
10:AJ:22:LYS:HE2	10:AJ:90:LEU:HB2	1.97	0.47
12:AL:28:LYS:HD2	12:AL:33:ARG:NH1	2.29	0.47
1:AA:528:C:H41	12:AL:49:ASN:ND2	2.13	0.47
14:AN:14:PRO:O	14:AN:16:PHE:N	2.44	0.47
15:AO:77:ARG:O	15:AO:80:ALA:HB3	2.15	0.47
20:AT:94:ALA:O	20:AT:95:ALA:CB	2.63	0.47
21:B0:1789:U:H2'	21:B0:1790:G:H5'	1.95	0.47
21:B0:1974:U:H2'	21:B0:1975:G:H5''	1.95	0.47
21:B0:558:G:H5''	21:B0:559:C:C5	2.50	0.47
21:B0:810:U:H2'	21:B0:811:G:C8	2.49	0.47
1:AA:1261:A:H5'	1:AA:1284:C:H5'	1.96	0.47
1:AA:246:A:H4'	1:AA:247:G:H4'	1.96	0.47
1:AA:232:G:N2	1:AA:263:A:C2	2.82	0.47
1:AA:606:G:O3'	1:AA:607:A:P	2.73	0.47
1:AA:633:G:H2'	1:AA:634:C:C6	2.50	0.47
1:AA:571:U:P	1:AA:819:A:HO2'	2.29	0.47
1:AA:975:A:H4'	1:AA:976:G:H5'	1.97	0.47
2:AB:142:LEU:HB3	2:AB:146:GLN:HE22	1.80	0.47
1:AA:1111:A:N6	3:AC:176:HIS:HB3	2.30	0.47
6:AF:30:LEU:HB3	6:AF:35:ALA:CB	2.41	0.47
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.77	0.47
15:AO:66:LEU:O	15:AO:69:TYR:HB3	2.15	0.47
20:AT:50:GLU:HG3	20:AT:99:LEU:CD1	2.45	0.47
21:B0:2199:C:H2'	21:B0:2200:G:C8	2.50	0.47
21:B0:2429:A:O2'	21:B0:2430:A:H5'	2.16	0.47
21:B0:342:G:O2'	21:B0:343:A:OP1	2.27	0.47
21:B0:462:G:H2'	21:B0:463:C:H5'	1.97	0.47
21:B0:564:U:H2'	21:B0:565:A:C8	2.50	0.47
21:B0:85:C:O2'	21:B0:86:U:H5'	2.15	0.47
1:AA:119:A:C4	1:AA:240:C:C5	3.03	0.46
1:AA:1256:A:O4'	1:AA:1258:G:N7	2.48	0.46
1:AA:1474:G:O2'	1:AA:1475:G:H5'	2.15	0.46
1:AA:926:G:N3	1:AA:1505:G:C4	2.83	0.46
1:AA:355:C:H4'	1:AA:388:G:O3'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:457:G:O2'	1:AA:458:G:H5'	2.16	0.46
1:AA:564:C:N3	17:AQ:31:LEU:HD11	2.30	0.46
1:AA:927:G:H4'	1:AA:1503:A:N7	2.30	0.46
3:AC:174:PRO:O	3:AC:177:THR:HG22	2.15	0.46
4:AD:87:GLY:O	4:AD:88:VAL:C	2.53	0.46
10:AJ:51:ARG:O	14:AN:45:ARG:HD3	2.15	0.46
1:AA:235:C:C4'	17:AQ:70:ARG:HG2	2.43	0.46
18:AR:45:SER:C	18:AR:47:THR:N	2.64	0.46
1:AA:719:C:H1'	18:AR:49:LYS:HG2	1.97	0.46
1:AA:1321:C:N4	19:AS:37:ARG:NH1	2.61	0.46
21:B0:1155:G:H2'	21:B0:1156:U:O4'	2.16	0.46
21:B0:1184:G:H2'	21:B0:1185:C:H5'	1.97	0.46
21:B0:1223:G:H5'	21:B0:1225:G:OP1	2.15	0.46
21:B0:2432:A:H4'	21:B0:2551:A:O2'	2.15	0.46
21:B0:3098:U:H3'	21:B0:3099:U:C5	2.49	0.46
21:B0:3129:C:H5'	21:B0:3174:C:H5''	1.97	0.46
21:B0:351:A:H2'	21:B0:352:G:O4'	2.15	0.46
22:B9:34:C:H2'	22:B9:35:C:C6	2.50	0.46
1:AA:1001:A:H2'	1:AA:1002:G:H8	1.79	0.46
1:AA:1152:A:H5''	10:AJ:13:HIS:CD2	2.50	0.46
1:AA:1305:G:HO2'	1:AA:1306:A:H8	0.68	0.46
1:AA:517:G:H5'	1:AA:519:C:C2	2.50	0.46
1:AA:675:A:C2	11:AK:118:GLY:HA3	2.51	0.46
3:AC:28:GLN:O	3:AC:31:HIS:N	2.46	0.46
5:AE:118:ILE:CG2	5:AE:119:LEU:H	2.28	0.46
6:AF:44:GLY:HA2	6:AF:59:TYR:CE1	2.51	0.46
7:AG:77:SER:O	7:AG:156:TRP:HZ3	1.98	0.46
7:AG:77:SER:O	7:AG:156:TRP:CZ3	2.69	0.46
9:AI:44:VAL:HG13	9:AI:51:ARG:NH2	2.24	0.46
3:AC:59:ARG:N	10:AJ:92:THR:HG21	2.30	0.46
17:AQ:80:GLY:O	17:AQ:81:ARG:HB3	2.15	0.46
18:AR:59:SER:OG	18:AR:62:GLU:HG3	2.15	0.46
21:B0:1445:A:H2'	21:B0:1446:U:O4'	2.14	0.46
21:B0:1313:U:O4	21:B0:1651:U:H5'	2.15	0.46
21:B0:2560:G:N3	21:B0:2560:G:H3'	2.31	0.46
21:B0:3181:C:O3'	21:B0:3182:U:P	2.73	0.46
21:B0:566:U:H2'	21:B0:567:G:C8	2.50	0.46
1:AA:130:A:N1	1:AA:264:U:N3	2.48	0.46
1:AA:1320:C:O2	19:AS:72:GLY:HA3	2.14	0.46
1:AA:132:C:O2'	1:AA:133:U:H5'	2.15	0.46
1:AA:1445:U:O2'	1:AA:1446:A:H5'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1503:A:O4'	1:AA:1531:A:N3	2.48	0.46
1:AA:161:A:C2	1:AA:348:G:O2'	2.66	0.46
1:AA:375:U:O4	1:AA:376:G:O6	2.33	0.46
1:AA:91:C:O2'	1:AA:92:G:H5'	2.15	0.46
1:AA:951:G:O2'	1:AA:952:U:H5'	2.15	0.46
3:AC:167:TRP:O	3:AC:168:ALA:CB	2.63	0.46
4:AD:24:GLU:CG	4:AD:25:ARG:N	2.77	0.46
4:AD:29:PRO:C	4:AD:30:LYS:HG3	2.35	0.46
7:AG:135:VAL:O	7:AG:139:GLU:HG3	2.15	0.46
7:AG:20:ASP:OD1	7:AG:22:LEU:HB3	2.16	0.46
7:AG:46:ALA:O	7:AG:50:ILE:HG13	2.15	0.46
8:AH:92:ARG:HG2	8:AH:94:TYR:OH	2.16	0.46
1:AA:1372:U:H5''	9:AI:71:SER:HB2	1.98	0.46
10:AJ:30:SER:CB	10:AJ:80:LYS:HB3	2.44	0.46
12:AL:71:PRO:O	12:AL:102:ARG:HD2	2.16	0.46
21:B0:1280:U:O2'	21:B0:1281:A:H5'	2.15	0.46
21:B0:1333:G:N2	21:B0:1344:C:H41	2.13	0.46
21:B0:1840:A:H2'	21:B0:1841:G:H5'	1.98	0.46
21:B0:2277:A:H2'	21:B0:2278:A:O4'	2.16	0.46
21:B0:2498:U:H5''	21:B0:2499:C:OP1	2.15	0.46
21:B0:2512:A:H2'	21:B0:2513:A:O4'	2.15	0.46
21:B0:3131:A:H5''	21:B0:3133:G:O4'	2.16	0.46
21:B0:3149:G:O3'	21:B0:3150:C:OP2	2.33	0.46
21:B0:397:U:H2'	21:B0:398:C:C6	2.51	0.46
22:B9:22:U:H2'	22:B9:23:G:C8	2.50	0.46
1:AA:1195:C:H2'	1:AA:1197:G:H5'	1.96	0.46
1:AA:1277:C:C2'	1:AA:1278:U:H5'	2.45	0.46
1:AA:1298:C:N4	7:AG:114:ARG:CB	2.56	0.46
1:AA:1368:G:OP2	9:AI:114:TYR:HA	2.15	0.46
1:AA:1475:G:H5''	21:B0:1706:A:C1'	2.42	0.46
1:AA:1481:U:H2'	1:AA:1482:G:O4'	2.15	0.46
1:AA:151:A:H2'	1:AA:152:A:O4'	2.15	0.46
1:AA:227:G:C2	1:AA:228:A:H1'	2.51	0.46
1:AA:59:A:N3	1:AA:331:G:C2	2.82	0.46
1:AA:112:G:H2'	1:AA:354:G:H4'	1.96	0.46
1:AA:58:C:O2'	1:AA:59:A:H5'	2.16	0.46
2:AB:78:GLN:O	2:AB:94:ASN:OD1	2.33	0.46
3:AC:110:ASN:ND2	3:AC:140:ARG:HB3	2.21	0.46
1:AA:15:G:N3	5:AE:19:MET:HG2	2.30	0.46
5:AE:68:GLU:O	5:AE:70:PRO:HD3	2.15	0.46
7:AG:107:ALA:O	7:AG:110:GLN:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:72:ALA:HB1	11:AK:77:MET:HG3	1.97	0.46
12:AL:82:VAL:O	12:AL:106:ASP:HB2	2.15	0.46
13:AM:46:LYS:HG3	13:AM:47:ASP:N	2.30	0.46
1:AA:127:G:N2	17:AQ:61:GLU:OE1	2.30	0.46
18:AR:36:ASN:ND2	18:AR:38:GLU:HG2	2.30	0.46
19:AS:10:PHE:HE2	19:AS:12:ASP:OD1	1.97	0.46
21:B0:1947:G:P	21:B0:1947:G:H8	2.38	0.46
21:B0:2061:C:H1'	21:B0:2413:A:H1'	1.97	0.46
21:B0:2784:A:H4'	21:B0:2786:G:OP2	2.15	0.46
21:B0:323:G:H2'	21:B0:324:C:C6	2.50	0.46
21:B0:584:A:H4'	21:B0:2479:U:C5'	2.45	0.46
21:B0:2669:C:H41	34:BL:15:SER:CA	2.28	0.46
1:AA:1015:A:H1'	1:AA:1219:U:H4'	1.97	0.46
1:AA:1112:C:N3	3:AC:178:LEU:CA	2.78	0.46
1:AA:232:G:H1'	1:AA:263:A:N1	2.31	0.46
1:AA:375:U:H3'	1:AA:376:G:OP2	2.15	0.46
1:AA:397:A:N7	1:AA:547:A:O3'	2.49	0.46
1:AA:719:C:O2'	18:AR:49:LYS:CD	2.63	0.46
2:AB:15:VAL:CG1	2:AB:209:ARG:HG3	2.46	0.46
2:AB:97:TRP:CH2	2:AB:176:GLU:OE2	2.69	0.46
2:AB:19:HIS:HD2	2:AB:189:ASP:OD2	1.99	0.46
4:AD:3:ARG:NE	4:AD:71:SER:HB3	2.31	0.46
7:AG:15:ASP:O	7:AG:19:GLY:HA2	2.16	0.46
9:AI:48:GLU:OE1	9:AI:48:GLU:HA	2.16	0.46
13:AM:94:ARG:HH22	19:AS:81:ARG:HH11	1.64	0.46
19:AS:18:LYS:HG2	19:AS:18:LYS:O	2.16	0.46
21:B0:203:G:O2'	21:B0:204:A:H5'	2.15	0.46
21:B0:2075:U:C2'	21:B0:3093:C:C6	2.98	0.46
21:B0:2321:C:H2'	21:B0:2322:U:H5'	1.97	0.46
21:B0:508:G:H22	21:B0:516:G:H22	1.63	0.46
21:B0:645:G:H2'	21:B0:646:C:C6	2.51	0.46
21:B0:670:U:H2'	21:B0:671:A:C8	2.50	0.46
21:B0:887:G:O2'	21:B0:888:G:H5'	2.15	0.46
21:B0:891:A:O2'	21:B0:892:A:OP2	2.33	0.46
1:AA:1039:C:O2'	1:AA:1040:U:H5'	2.16	0.46
1:AA:1300:G:O2'	1:AA:1301:U:H6	1.98	0.46
1:AA:69:G:O2'	1:AA:153:C:H5'	2.15	0.46
1:AA:184:G:O2'	1:AA:224:C:H4'	2.15	0.46
1:AA:51:A:H4'	1:AA:52:G:O5'	2.15	0.46
1:AA:690:G:H2'	1:AA:691:G:O4'	2.15	0.46
1:AA:19:C:N3	1:AA:916:G:O6	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:993:G:N1	1:AA:1046:A:C5	2.84	0.46
10:AJ:48:THR:OG1	10:AJ:62:HIS:CD2	2.69	0.46
11:AK:84:VAL:HG23	11:AK:109:VAL:O	2.16	0.46
12:AL:54:LYS:N	12:AL:54:LYS:HD2	2.30	0.46
13:AM:51:ALA:O	13:AM:55:ARG:HG3	2.16	0.46
17:AQ:97:SER:O	17:AQ:98:LEU:C	2.54	0.46
18:AR:48:GLY:O	18:AR:74:ARG:NH2	2.41	0.46
21:B0:1036:G:H1'	21:B0:1145:C:C4'	2.45	0.46
21:B0:1226:A:N1	21:B0:1250:A:H1'	2.30	0.46
21:B0:1358:C:H2'	21:B0:1359:G:H5'	1.97	0.46
21:B0:1414:G:H2'	21:B0:1415:C:C6	2.50	0.46
21:B0:1856:U:O2	21:B0:3877:A:C2	2.68	0.46
21:B0:2825:A:H2'	21:B0:2826:C:C6	2.51	0.46
21:B0:753:U:H2'	21:B0:754:G:H5'	1.97	0.46
21:B0:831:G:H5'	21:B0:852:U:OP1	2.15	0.46
21:B0:84:G:H2'	21:B0:85:C:C6	2.50	0.46
22:B9:59:A:N3	22:B9:59:A:H2'	2.31	0.46
1:AA:1056:U:O2'	1:AA:1057:G:H5'	2.14	0.46
1:AA:1128:C:O2'	1:AA:1130:A:C8	2.62	0.46
1:AA:1097:C:H4'	1:AA:1168:A:O2'	2.15	0.46
1:AA:1237:C:H2'	1:AA:1336:C:C5	2.51	0.46
1:AA:1086:U:O3'	1:AA:1389:C:H4'	2.16	0.46
1:AA:227:G:C2'	1:AA:228:A:H5'	2.46	0.46
1:AA:322:C:H4'	20:AT:23:ARG:CG	2.42	0.46
1:AA:411:A:C6	1:AA:429:U:C4	3.04	0.46
1:AA:542:G:H2'	1:AA:543:C:H6	1.81	0.46
3:AC:188:LEU:O	3:AC:189:ALA:CB	2.59	0.46
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.16	0.46
12:AL:38:THR:HG22	12:AL:39:VAL:HG23	1.97	0.46
12:AL:60:LEU:HD21	12:AL:66:VAL:HG22	1.97	0.46
16:AP:43:LYS:HG2	16:AP:48:TRP:CE2	2.50	0.46
17:AQ:63:ARG:HG2	17:AQ:64:PRO:HD2	1.97	0.46
17:AQ:96:GLN:O	17:AQ:96:GLN:CD	2.54	0.46
6:AF:101:ALA:HB2	18:AR:28:GLU:HB3	1.97	0.46
1:AA:1314:C:C4	19:AS:6:LYS:HE2	2.50	0.46
21:B0:1269:G:H2'	21:B0:1270:C:C6	2.50	0.46
21:B0:181:A:H4'	21:B0:182:G:C4'	2.44	0.46
21:B0:2021:G:H2'	21:B0:2022:C:C6	2.51	0.46
21:B0:575:U:H2'	21:B0:576:A:C8	2.51	0.46
1:AA:1152:A:O2'	1:AA:1153:C:H5'	2.16	0.46
1:AA:1390:U:H2'	1:AA:1391:U:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1416:G:H3'	1:AA:1417:G:OP1	2.13	0.46
1:AA:1497:G:N2	1:AA:1519:A:C2	2.76	0.46
1:AA:214:U:H5'	1:AA:215:C:OP2	2.15	0.46
1:AA:560:U:H6	1:AA:560:U:O5'	1.98	0.46
1:AA:909:A:H2'	1:AA:910:C:O4'	2.16	0.46
2:AB:129:GLU:O	2:AB:130:ARG:HB2	2.15	0.46
2:AB:69:LEU:HD23	2:AB:69:LEU:C	2.36	0.46
3:AC:60:ALA:O	3:AC:61:ALA:CB	2.63	0.46
3:AC:92:ALA:C	3:AC:94:LEU:H	2.17	0.46
4:AD:173:TRP:CD2	4:AD:189:PRO:HB3	2.51	0.46
1:AA:8:A:N7	4:AD:208:SER:HB2	2.30	0.46
5:AE:18:ARG:HG2	5:AE:19:MET:H	1.81	0.46
9:AI:121:ARG:HG2	9:AI:121:ARG:HH11	1.81	0.46
10:AJ:94:VAL:HG12	10:AJ:95:GLU:H	1.76	0.46
11:AK:34:ASP:O	11:AK:36:ASP:N	2.48	0.46
13:AM:59:TYR:O	13:AM:63:THR:HB	2.15	0.46
19:AS:67:VAL:O	19:AS:69:HIS:N	2.49	0.46
21:B0:1921:A:C3'	21:B0:1922:U:H5''	2.46	0.46
21:B0:313:U:H2'	21:B0:314:G:C8	2.51	0.46
21:B0:317:U:H3'	21:B0:318:G:C5'	2.46	0.46
1:AA:1245:A:H2'	1:AA:1246:C:C6	2.50	0.46
1:AA:926:G:O6	1:AA:1505:G:C6	2.68	0.46
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.50	0.46
1:AA:191:G:C5	1:AA:192:U:C4	2.92	0.46
1:AA:421:U:H5'	1:AA:422:C:H5	1.80	0.46
1:AA:523:A:C2	12:AL:91:LYS:CB	2.95	0.46
1:AA:714:G:N3	1:AA:777:A:H1'	2.31	0.46
1:AA:998:G:O2'	1:AA:999:C:H5'	2.15	0.46
4:AD:104:VAL:HG11	4:AD:146:ILE:CD1	2.37	0.46
5:AE:35:GLY:HA3	5:AE:112:LEU:HB3	1.97	0.46
9:AI:50:LEU:C	9:AI:52:ALA:N	2.69	0.46
13:AM:39:ILE:HD12	13:AM:56:LEU:HG	1.98	0.46
14:AN:53:LEU:HB3	14:AN:56:VAL:CG2	2.45	0.46
1:AA:234:C:C4'	17:AQ:64:PRO:HG2	2.44	0.46
21:B0:1193:G:H2'	21:B0:1194:U:C6	2.50	0.46
21:B0:2800:C:H2'	21:B0:2801:A:O4'	2.15	0.46
21:B0:2809:A:C6	21:B0:2854:G:H2'	2.50	0.46
21:B0:42:G:H2'	21:B0:43:A:O4'	2.16	0.46
21:B0:471:A:H62	21:B0:480:G:N2	2.07	0.46
21:B0:502:A:H2'	21:B0:503:G:O4'	2.15	0.46
21:B0:644:A:H2'	21:B0:645:G:H5'	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1111:A:C6	3:AC:177:THR:HA	2.51	0.46
1:AA:1153:C:H2'	1:AA:1154:G:C8	2.46	0.46
1:AA:1171:G:H2'	1:AA:1172:C:C6	2.51	0.46
1:AA:1225:A:H5'	1:AA:1226:C:OP2	2.16	0.46
1:AA:1149:C:O2'	1:AA:1280:A:N1	2.47	0.46
1:AA:1320:C:H2'	1:AA:1321:C:O4'	2.16	0.46
1:AA:1342:C:C4'	9:AI:125:TYR:CZ	2.99	0.46
1:AA:934:C:C4	1:AA:1345:U:C5	3.04	0.46
1:AA:1532:U:H6	1:AA:1532:U:O5'	2.00	0.46
1:AA:336:C:H5'	1:AA:1433:A:O2'	2.15	0.46
1:AA:645:C:O2'	1:AA:646:U:H5'	2.16	0.46
1:AA:820:U:O3'	1:AA:821:G:P	2.74	0.46
1:AA:244:U:C2	1:AA:894:G:H1'	2.51	0.46
1:AA:913:A:O2'	1:AA:914:A:O4'	2.26	0.46
1:AA:1206:G:H4'	3:AC:192:THR:O	2.16	0.46
4:AD:152:SER:HA	4:AD:155:LEU:HG	1.97	0.46
6:AF:19:LEU:C	6:AF:19:LEU:HD23	2.36	0.46
6:AF:2:ARG:HD2	6:AF:69:GLU:HG2	1.96	0.46
9:AI:114:TYR:CG	10:AJ:60:ARG:HG2	2.51	0.46
1:AA:1371:G:P	9:AI:11:LYS:HE2	2.55	0.46
10:AJ:60:ARG:O	10:AJ:61:GLU:CB	2.61	0.46
11:AK:93:GLN:HE21	11:AK:96:ARG:NH2	2.13	0.46
12:AL:46:LYS:O	12:AL:47:LYS:C	2.54	0.46
12:AL:77:LEU:HD21	12:AL:107:ALA:HB2	1.97	0.46
8:AH:91:ARG:HG3	12:AL:7:ILE:HG13	1.98	0.46
19:AS:15:LEU:O	19:AS:19:VAL:N	2.48	0.46
20:AT:63:ILE:HG23	20:AT:72:LEU:CD1	2.46	0.46
21:B0:1312:G:H5''	21:B0:1313:U:C5'	2.39	0.46
21:B0:1352:G:H2'	21:B0:1353:A:C8	2.49	0.46
21:B0:1586:A:H2'	21:B0:1587:A:H8	1.81	0.46
21:B0:1750:A:H1'	21:B0:2690:A:C2	2.51	0.46
21:B0:2448:A:H2'	21:B0:2449:G:O4'	2.16	0.46
21:B0:3110:G:OP1	21:B0:3149:G:C5'	2.64	0.46
21:B0:556:A:H2'	21:B0:557:U:H5'	1.98	0.46
21:B0:590:C:H2'	21:B0:591:G:C8	2.51	0.46
21:B0:599:A:H2'	21:B0:600:G:H8	1.80	0.46
22:B9:74:A:H2'	22:B9:75:A:C8	2.51	0.46
1:AA:105:G:H2'	1:AA:106:C:H6	1.81	0.45
1:AA:1106:G:OP1	3:AC:172:ARG:CG	2.64	0.45
1:AA:1459:C:OP1	20:AT:28:ALA:HA	2.16	0.45
1:AA:1501:C:P	1:AA:1508:G:H4'	2.56	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:131:C:O4'	1:AA:263:A:H1'	2.16	0.45
1:AA:390:C:H6	1:AA:390:C:O5'	1.99	0.45
1:AA:401:C:H4'	1:AA:622:A:O4'	2.17	0.45
1:AA:760:G:C6	17:AQ:105:ALA:CB	2.66	0.45
3:AC:64:VAL:CG2	3:AC:99:VAL:HB	2.45	0.45
8:AH:45:ILE:HG13	8:AH:45:ILE:O	2.16	0.45
9:AI:112:LYS:C	9:AI:112:LYS:HD3	2.36	0.45
10:AJ:51:ARG:HG2	14:AN:45:ARG:HH12	1.73	0.45
12:AL:37:CYS:O	12:AL:79:GLU:O	2.34	0.45
13:AM:49:THR:O	13:AM:53:VAL:HG23	2.16	0.45
13:AM:5:ALA:O	13:AM:8:GLU:N	2.45	0.45
20:AT:42:GLN:O	20:AT:45:GLN:HB3	2.16	0.45
1:AA:324:G:H5'	20:AT:70:SER:HG	1.80	0.45
21:B0:1203:A:H2'	21:B0:1204:G:H5'	1.98	0.45
21:B0:1223:G:H1'	21:B0:1225:G:N3	2.31	0.45
21:B0:1684:G:H2'	21:B0:1974:U:O4	2.16	0.45
21:B0:1683:G:H2'	21:B0:1684:G:O4'	2.16	0.45
21:B0:162:C:H4'	21:B0:195:A:O2'	2.16	0.45
21:B0:839:U:OP1	21:B0:2407:G:H3'	2.16	0.45
21:B0:2437:G:H2'	21:B0:2469:G:N2	2.31	0.45
21:B0:2429:A:H5''	21:B0:2476:A:C6	2.51	0.45
21:B0:2640:G:H2'	21:B0:2641:A:O4'	2.16	0.45
21:B0:3093:C:O2'	21:B0:3094:A:H5'	2.15	0.45
21:B0:403:A:H4'	21:B0:425:A:C5'	2.39	0.45
21:B0:689:A:N3	21:B0:689:A:H3'	2.31	0.45
1:AA:1196:U:H4'	1:AA:1197:G:OP2	2.15	0.45
1:AA:1394:A:C2	1:AA:1501:C:C4'	2.93	0.45
1:AA:1503:A:O2'	1:AA:1504:G:OP1	2.29	0.45
1:AA:217:C:O2'	1:AA:470:U:P	2.71	0.45
1:AA:51:A:N6	1:AA:313:A:C2	2.84	0.45
1:AA:59:A:H5''	1:AA:60:A:C5'	2.47	0.45
2:AB:42:ILE:HD12	2:AB:203:GLY:HA2	1.97	0.45
3:AC:131:ARG:O	3:AC:135:LYS:HG3	2.16	0.45
3:AC:154:SER:OG	3:AC:155:GLY:N	2.48	0.45
3:AC:157:ILE:HD11	3:AC:166:GLU:HB2	1.97	0.45
4:AD:187:ARG:HA	4:AD:187:ARG:HD2	1.81	0.45
5:AE:121:LYS:HE3	5:AE:123:LEU:CD2	2.46	0.45
5:AE:79:GLU:CD	8:AH:105:ARG:HE	2.19	0.45
8:AH:91:ARG:HD3	17:AQ:34:LYS:CB	2.45	0.45
9:AI:111:ARG:HG3	9:AI:111:ARG:HH11	1.80	0.45
9:AI:120:ARG:O	9:AI:121:ARG:C	2.55	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1115:C:O4'	14:AN:61:TRP:CB	2.64	0.45
19:AS:20:LEU:O	19:AS:23:ASN:HB2	2.15	0.45
21:B0:1199:U:H2'	21:B0:1200:G:H8	1.80	0.45
21:B0:2009:U:H2'	21:B0:2010:G:C8	2.51	0.45
21:B0:2610:G:C4'	21:B0:2866:A:H4'	2.47	0.45
21:B0:508:G:H2'	21:B0:509:U:C6	2.50	0.45
21:B0:523:A:H2	21:B0:591:G:H4'	1.81	0.45
21:B0:629:C:H2'	21:B0:630:G:H5'	1.98	0.45
21:B0:715:U:H2'	21:B0:716:U:C6	2.51	0.45
21:B0:831:G:C2'	21:B0:832:A:H5''	2.46	0.45
1:AA:143:A:H1'	1:AA:196:A:C4	2.52	0.45
1:AA:926:G:C2	1:AA:1505:G:C5	3.04	0.45
1:AA:926:G:C5	1:AA:1505:G:C5	3.04	0.45
1:AA:1515:C:H2'	1:AA:1516:G:H8	1.81	0.45
1:AA:184:G:H4'	1:AA:224:C:C3'	2.46	0.45
1:AA:242:C:H2'	1:AA:243:A:H5'	1.98	0.45
1:AA:293:G:C4'	1:AA:609:A:H2	2.11	0.45
1:AA:319:G:O2'	1:AA:320:C:H5'	2.16	0.45
1:AA:546:G:O2'	1:AA:548:G:H4'	2.17	0.45
1:AA:59:A:C5'	1:AA:60:A:C5'	2.94	0.45
1:AA:5:U:O2'	1:AA:6:G:P	2.73	0.45
1:AA:826:C:H2'	1:AA:827:U:H6	1.82	0.45
1:AA:82:C:H2'	1:AA:83:C:O4'	2.17	0.45
1:AA:244:U:O4	1:AA:894:G:C6	2.70	0.45
2:AB:52:GLU:O	2:AB:56:ARG:HB2	2.17	0.45
3:AC:108:ASN:OD1	3:AC:110:ASN:HB2	2.16	0.45
3:AC:11:ARG:NH1	3:AC:177:THR:O	2.50	0.45
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.84	0.45
1:AA:619:U:C2'	4:AD:135:LEU:HD12	2.45	0.45
4:AD:4:TYR:O	4:AD:5:ILE:HB	2.17	0.45
5:AE:115:VAL:HG11	5:AE:118:ILE:CD1	2.46	0.45
4:AD:204:ILE:CG2	5:AE:99:GLY:HA3	2.46	0.45
10:AJ:6:ILE:O	10:AJ:71:LEU:O	2.35	0.45
11:AK:16:SER:O	11:AK:35:PRO:HD3	2.16	0.45
12:AL:59:ARG:NH1	12:AL:65:GLU:HG2	2.31	0.45
14:AN:26:ARG:NH1	14:AN:47:LEU:HD21	2.32	0.45
10:AJ:65:LEU:CD1	14:AN:36:PHE:HZ	2.26	0.45
17:AQ:66:SER:OG	17:AQ:69:LYS:HB3	2.15	0.45
19:AS:22:LEU:CD1	19:AS:31:ILE:HD11	2.46	0.45
21:B0:129:A:H2'	21:B0:130:C:C6	2.51	0.45
21:B0:1578:U:H2'	21:B0:1579:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:2451:G:H2'	21:B0:2508:G:N2	2.32	0.45
21:B0:3872:A:H2'	21:B0:3873:G:O4'	2.17	0.45
21:B0:3874:C:C2'	21:B0:3875:A:H5'	2.46	0.45
21:B0:560:G:H2'	21:B0:561:U:C6	2.52	0.45
21:B0:666:U:H2'	21:B0:668:A:OP1	2.16	0.45
21:B0:930:A:H3'	21:B0:931:G:C8	2.51	0.45
1:AA:1049:U:H4'	1:AA:1050:G:OP2	2.15	0.45
1:AA:1065:U:C4	1:AA:1189:C:N3	2.84	0.45
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.81	0.45
1:AA:1394:A:C4	1:AA:1501:C:H1'	2.52	0.45
1:AA:1409:C:C2	1:AA:1410:G:N7	2.84	0.45
1:AA:335:C:C2	1:AA:1434:A:C1'	2.99	0.45
1:AA:1515:C:O2'	1:AA:1516:G:H5'	2.16	0.45
1:AA:143:A:H1'	1:AA:196:A:N9	2.31	0.45
1:AA:847:C:H2'	1:AA:848:G:H8	1.81	0.45
1:AA:926:G:N7	1:AA:1505:G:C2	2.84	0.45
2:AB:23:ARG:HB2	2:AB:23:ARG:CZ	2.47	0.45
4:AD:162:LEU:HD13	4:AD:181:MET:CE	2.46	0.45
7:AG:12:LEU:N	7:AG:12:LEU:HD12	2.32	0.45
1:AA:1367:C:C5'	10:AJ:60:ARG:HH12	2.20	0.45
10:AJ:51:ARG:HG3	10:AJ:60:ARG:O	2.17	0.45
12:AL:46:LYS:CG	12:AL:47:LYS:H	2.29	0.45
14:AN:12:ARG:O	14:AN:14:PRO:HD3	2.16	0.45
14:AN:39:LEU:CD1	14:AN:47:LEU:HD12	2.46	0.45
18:AR:51:LEU:HA	18:AR:52:PRO:HD3	1.80	0.45
1:AA:958:A:C2	19:AS:54:GLY:O	2.70	0.45
21:B0:1349:A:H2'	21:B0:1350:G:C8	2.51	0.45
21:B0:1861:G:O2'	21:B0:1862:C:H5'	2.17	0.45
1:AA:1485:U:OP1	21:B0:1944:C:OP1	2.26	0.45
21:B0:2421:C:O2'	21:B0:2422:C:H5'	2.16	0.45
21:B0:3171:A:O2'	21:B0:3172:U:C6	2.70	0.45
21:B0:3873:G:O2'	21:B0:3874:C:H5'	2.16	0.45
21:B0:515:A:C2'	21:B0:516:G:H5'	2.43	0.45
21:B0:701:U:H2'	21:B0:702:A:O4'	2.15	0.45
13:AM:93:ARG:HA	21:B0:900(A):A:H5'	1.97	0.45
1:AA:1014:A:N6	19:AS:34:TRP:CZ2	2.84	0.45
1:AA:1051:C:H2'	1:AA:1052:U:H6	1.80	0.45
1:AA:1409:C:C4	1:AA:1410:G:C5	3.04	0.45
1:AA:191:G:N9	1:AA:192:U:C6	2.84	0.45
1:AA:227:G:O6	1:AA:228:A:C6	2.69	0.45
1:AA:260:G:O2'	1:AA:261:U:H5'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:375:U:C2	1:AA:376:G:N7	2.84	0.45
1:AA:470:U:H2'	1:AA:471:G:C8	2.51	0.45
1:AA:624:C:H2'	1:AA:625:G:H8	1.81	0.45
1:AA:6:G:H1	5:AE:94:ALA:HB1	1.79	0.45
1:AA:781:A:H2'	1:AA:782:A:H5'	1.98	0.45
1:AA:7:G:H5'	1:AA:298:A:O4'	2.16	0.45
1:AA:9:G:H5''	5:AE:122:GLU:OE1	2.16	0.45
3:AC:99:VAL:CG2	3:AC:100:ALA:N	2.80	0.45
3:AC:131:ARG:HA	3:AC:134:ILE:HD12	1.96	0.45
3:AC:164:ARG:HH11	3:AC:164:ARG:HB3	1.80	0.45
5:AE:15:ARG:CD	5:AE:26:PHE:CD2	2.99	0.45
6:AF:30:LEU:CB	6:AF:35:ALA:HB3	2.41	0.45
7:AG:18:TYR:CD2	7:AG:59:LEU:HB2	2.52	0.45
1:AA:640:A:C2	8:AH:115:SER:CB	2.99	0.45
1:AA:586:C:C5'	8:AH:90:GLY:HA3	2.40	0.45
10:AJ:54:PHE:O	10:AJ:55:LYS:HG2	2.17	0.45
10:AJ:96:ILE:CG2	10:AJ:97:GLU:N	2.79	0.45
15:AO:87:ILE:CG2	15:AO:88:ARG:N	2.79	0.45
19:AS:15:LEU:HD12	19:AS:16:LEU:H	1.77	0.45
1:AA:1014:A:C4	19:AS:34:TRP:CG	3.04	0.45
19:AS:63:THR:HG22	19:AS:64:GLU:N	2.32	0.45
1:AA:1319:A:H5'	19:AS:70:LYS:NZ	2.30	0.45
1:AA:108:G:O6	20:AT:15:ARG:CG	2.64	0.45
21:B0:1678:G:H2'	21:B0:1679:U:C6	2.51	0.45
21:B0:1566:G:H4'	21:B0:1733:U:O4	2.16	0.45
21:B0:211:U:C2'	21:B0:212:U:H5'	2.46	0.45
21:B0:2348:A:H2'	21:B0:2349:G:C8	2.52	0.45
21:B0:688:A:O2'	21:B0:2422:C:H4'	2.17	0.45
21:B0:2708:U:H2'	21:B0:2709:C:C6	2.51	0.45
21:B0:307:C:H2'	21:B0:308:C:C6	2.51	0.45
21:B0:452:G:H2'	21:B0:453:U:O4'	2.16	0.45
1:AA:1030:U:H5'	1:AA:1031:C:H5	1.80	0.45
1:AA:133:U:H5''	20:AT:74:LYS:NZ	2.09	0.45
1:AA:161:A:C2	1:AA:348:G:H1'	2.47	0.45
1:AA:114:U:C1'	1:AA:353:A:H1'	2.46	0.45
1:AA:513:C:H2'	1:AA:514:C:H6	1.80	0.45
1:AA:627:G:O2'	1:AA:628:G:H5'	2.17	0.45
1:AA:735:C:O2'	1:AA:736:C:H5'	2.17	0.45
1:AA:828:A:H5''	1:AA:859:A:C2	2.51	0.45
2:AB:213:LEU:C	2:AB:213:LEU:HD23	2.37	0.45
2:AB:8:LYS:O	2:AB:9:GLU:CB	2.60	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:8:VAL:HG21	4:AD:115:ARG:CZ	2.46	0.45
5:AE:21:ALA:C	5:AE:23:GLY:H	2.19	0.45
7:AG:75:VAL:HG12	7:AG:86:GLN:HE21	1.81	0.45
9:AI:40:LEU:O	9:AI:42:ARG:N	2.50	0.45
10:AJ:30:SER:CB	10:AJ:84:GLN:HE21	2.29	0.45
11:AK:74:ALA:C	11:AK:76:GLY:N	2.69	0.45
13:AM:62:ASN:O	13:AM:63:THR:HB	2.16	0.45
1:AA:958:A:C5	19:AS:55:LYS:CB	2.99	0.45
1:AA:1314:C:C5	19:AS:6:LYS:HG3	2.36	0.45
21:B0:1016:C:H2'	21:B0:1017:C:C6	2.52	0.45
21:B0:1278:A:O2'	21:B0:1279:G:P	2.75	0.45
21:B0:2370:G:HO2'	21:B0:2371:A:H2	1.62	0.45
21:B0:419:G:O2'	21:B0:420:C:H5'	2.17	0.45
21:B0:604:U:H2'	21:B0:605:G:H8	1.82	0.45
21:B0:687:G:O2'	21:B0:688:A:H5'	2.17	0.45
21:B0:700:C:O2'	21:B0:801:A:H5'	2.17	0.45
21:B0:978:U:H2'	21:B0:979:A:C8	2.51	0.45
1:AA:1202:G:C2'	1:AA:1203:C:H5'	2.46	0.45
1:AA:1301:U:O2'	1:AA:1302:U:OP1	2.30	0.45
1:AA:1376:U:OP2	7:AG:94:ARG:NH2	2.49	0.45
1:AA:1461:G:O2'	1:AA:1462:G:H5'	2.16	0.45
1:AA:1497:G:H1'	1:AA:1518:A:H2	1.76	0.45
1:AA:217:C:O2'	1:AA:470:U:O5'	2.34	0.45
1:AA:419:C:OP1	1:AA:513:C:H1'	2.16	0.45
1:AA:439:A:C4	1:AA:497:A:C2	3.04	0.45
1:AA:644:G:O2'	1:AA:645:C:H5'	2.17	0.45
1:AA:76:G:O2'	1:AA:77:C:H5'	2.17	0.45
1:AA:792:A:H1'	1:AA:794:A:N7	2.32	0.45
2:AB:25:ASN:C	2:AB:25:ASN:ND2	2.68	0.45
2:AB:83:MET:HG3	2:AB:238:LEU:CD1	2.46	0.45
5:AE:80:ILE:CD1	5:AE:91:LEU:HD12	2.46	0.45
6:AF:33:TYR:HB2	6:AF:75:LEU:HD23	1.98	0.45
1:AA:1346:A:C6	7:AG:10:ARG:NE	2.84	0.45
7:AG:85:TYR:CD1	7:AG:154:TYR:HE1	2.28	0.45
7:AG:154:TYR:O	7:AG:156:TRP:N	2.49	0.45
9:AI:19:LEU:C	9:AI:20:ARG:HG3	2.37	0.45
10:AJ:24:VAL:CG1	10:AJ:28:ARG:HE	2.29	0.45
10:AJ:46:ARG:NH1	10:AJ:64:GLU:CG	2.80	0.45
11:AK:40:ILE:HG23	11:AK:75:TYR:CE2	2.51	0.45
1:AA:1230:C:O2'	13:AM:126:LYS:HA	2.16	0.45
13:AM:37:THR:HG23	13:AM:55:ARG:CB	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:39:TYR:CZ	16:AP:41:PRO:HA	2.52	0.45
17:AQ:68:ARG:H	17:AQ:70:ARG:NH1	2.15	0.45
21:B0:1373:G:H2'	21:B0:1374:G:H5'	1.99	0.45
21:B0:15:G:O2'	21:B0:16:G:H5'	2.17	0.45
21:B0:1685:A:H1'	21:B0:1686:A:N7	2.32	0.45
21:B0:1745:C:H2'	21:B0:1746:A:O4'	2.16	0.45
21:B0:1921:A:C2'	21:B0:1922:U:H5''	2.46	0.45
21:B0:3118:U:O2	21:B0:3149:G:H5'	2.09	0.45
21:B0:316:C:H2'	21:B0:317:U:C6	2.52	0.45
21:B0:611:C:C2'	21:B0:612:G:H5'	2.47	0.45
1:AA:1019:C:O2'	1:AA:1020:U:H5'	2.17	0.45
1:AA:1483:A:C6	1:AA:1484:C:C6	3.04	0.45
1:AA:19:C:H2'	1:AA:20:U:H6	1.80	0.45
1:AA:323:U:C1'	20:AT:19:SER:HB2	2.47	0.45
1:AA:39:G:C4	1:AA:498:U:C4	3.05	0.45
1:AA:533:A:O2'	1:AA:534:U:P	2.75	0.45
1:AA:882:C:O2'	1:AA:883:C:H5'	2.16	0.45
1:AA:975:A:O5'	1:AA:976:G:H5'	2.17	0.45
1:AA:993:G:C2	1:AA:1046:A:C4	3.05	0.45
2:AB:137:ARG:O	2:AB:140:HIS:HB2	2.16	0.45
2:AB:178:ARG:NH1	2:AB:178:ARG:CG	2.67	0.45
2:AB:92:TYR:CE1	2:AB:151:GLY:HA3	2.52	0.45
5:AE:102:ALA:HB2	5:AE:120:THR:CB	2.46	0.45
5:AE:144:THR:C	5:AE:146:ALA:N	2.67	0.45
9:AI:36:TYR:CD2	9:AI:37:PHE:CE2	3.04	0.45
12:AL:110:VAL:O	12:AL:122:THR:CG2	2.62	0.45
18:AR:74:ARG:HB3	18:AR:81:PHE:CE1	2.51	0.45
21:B0:1089:C:H1'	21:B0:1099:A:H8	1.82	0.45
21:B0:109:A:H3'	21:B0:110:U:C5'	2.41	0.45
21:B0:1502:G:O2'	21:B0:1503:G:H5'	2.16	0.45
21:B0:221:A:H62	21:B0:231:G:N2	2.10	0.45
21:B0:2428:U:O2'	21:B0:2429:A:H5'	2.17	0.45
21:B0:2661:G:O2'	21:B0:2662:C:H5'	2.17	0.45
21:B0:926:C:C2'	21:B0:927:C:H5'	2.47	0.45
21:B0:852:U:H3	21:B0:950:G:H1	1.64	0.45
21:B0:959:C:H2'	21:B0:960:U:C6	2.52	0.45
22:B9:66:G:H2'	22:B9:67:C:C6	2.52	0.45
1:AA:1206:G:C6	1:AA:1207:G:C5	3.04	0.45
1:AA:1238:A:H2	1:AA:1241:G:O2'	1.99	0.45
1:AA:131:C:O2'	1:AA:262:A:C1'	2.64	0.45
1:AA:1372:U:OP2	9:AI:11:LYS:CD	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1503:A:O2'	1:AA:1504:G:P	2.75	0.45
1:AA:1506:U:OP2	1:AA:1541:U:OP2	2.35	0.45
1:AA:160:A:H61	1:AA:347:G:N2	2.14	0.45
1:AA:187:G:H21	20:AT:105:SER:CA	2.29	0.45
1:AA:258:G:H2'	1:AA:259:G:H8	1.82	0.45
1:AA:485:G:C2'	1:AA:486:U:OP2	2.65	0.45
1:AA:502:G:H1'	1:AA:550:G:C5'	2.23	0.45
1:AA:737:A:H1'	6:AF:73:ASN:CG	2.35	0.45
1:AA:807:A:H2'	1:AA:808:C:C6	2.52	0.45
1:AA:920:U:H2'	1:AA:921:U:C6	2.52	0.45
1:AA:975:A:H4'	1:AA:976:G:OP2	2.16	0.45
3:AC:129:ALA:HB3	3:AC:132:ARG:CD	2.45	0.45
4:AD:31:CYS:C	4:AD:33:MET:H	2.21	0.45
5:AE:15:ARG:NE	5:AE:26:PHE:CD2	2.84	0.45
1:AA:15:G:H1'	5:AE:19:MET:SD	2.56	0.45
7:AG:143:ARG:O	7:AG:145:ALA:O	2.34	0.45
7:AG:155:ARG:O	7:AG:156:TRP:CB	2.63	0.45
10:AJ:53:PRO:O	10:AJ:54:PHE:O	2.34	0.45
10:AJ:85:LEU:O	10:AJ:87:THR:N	2.50	0.45
12:AL:85:ILE:HG23	12:AL:98:TYR:CB	2.46	0.45
13:AM:110:ARG:HG2	13:AM:110:ARG:HH11	1.82	0.45
1:AA:1060:C:P	14:AN:45:ARG:HH21	2.40	0.45
16:AP:72:ARG:HG2	16:AP:72:ARG:O	2.16	0.45
18:AR:25:THR:HG22	18:AR:25:THR:O	2.17	0.45
18:AR:70:ILE:O	18:AR:74:ARG:HG3	2.17	0.45
1:AA:187:G:H21	20:AT:105:SER:HB2	1.65	0.45
21:B0:1199:U:C3'	21:B0:1200:G:H5''	2.32	0.45
21:B0:1793:A:H2'	21:B0:1794:A:C8	2.52	0.45
21:B0:2026:C:H2'	21:B0:2027:C:C6	2.52	0.45
21:B0:2181:A:C2'	21:B0:2182:A:H5'	2.47	0.45
21:B0:2454:C:H42	21:B0:2508:G:H22	1.64	0.45
21:B0:2539:C:H2'	21:B0:2540:A:C8	2.52	0.45
21:B0:2703:C:H2'	21:B0:2704:U:C6	2.51	0.45
21:B0:2830:U:H2'	21:B0:2831:A:C8	2.52	0.45
21:B0:3111:C:C2	21:B0:3148:G:P	2.96	0.45
21:B0:3129:C:H5'	21:B0:3174:C:C5'	2.47	0.45
21:B0:475:U:H2'	21:B0:476:G:O4'	2.17	0.45
21:B0:709:A:H2'	21:B0:710:C:C6	2.52	0.45
21:B0:874:A:H62	21:B0:928:G:N2	2.12	0.45
21:B0:8:A:H2'	21:B0:9:U:C6	2.52	0.45
21:B0:925:U:H4'	21:B0:926:C:C5	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B9:40:C:H2'	22:B9:41:A:O4'	2.16	0.45
22:B9:94:G:O2'	22:B9:95:U:H5'	2.16	0.45
1:AA:1064:G:N2	1:AA:1190:G:O2'	2.49	0.45
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.51	0.45
1:AA:115:G:H4'	1:AA:116:A:O5'	2.17	0.45
1:AA:1049:U:H1'	1:AA:1201:A:N7	2.31	0.45
1:AA:1234:C:H5''	1:AA:1365:G:OP1	2.10	0.45
1:AA:1484:C:H2'	1:AA:1485:U:C6	2.50	0.45
1:AA:321:A:H2'	1:AA:322:C:C6	2.52	0.45
1:AA:323:U:O2'	20:AT:22:ARG:CD	2.58	0.45
1:AA:372:C:O2	1:AA:387:U:O4	2.34	0.45
1:AA:686:U:O4	1:AA:703:G:H1'	2.17	0.45
1:AA:976:G:C8	1:AA:2361:C:N4	2.85	0.45
2:AB:71:VAL:HB	2:AB:164:VAL:HG23	1.99	0.45
2:AB:22:LYS:O	2:AB:23:ARG:HG3	2.16	0.45
2:AB:36:ARG:HD2	2:AB:41:ILE:CD1	2.44	0.45
4:AD:142:PRO:HG2	4:AD:187:ARG:NH1	2.32	0.45
9:AI:46:ALA:O	9:AI:49:PRO:HD2	2.17	0.45
10:AJ:4:ILE:HG12	10:AJ:100:THR:CB	2.46	0.45
3:AC:59:ARG:CA	10:AJ:92:THR:CG2	2.95	0.45
13:AM:120:LYS:HE2	13:AM:123:ALA:CB	2.47	0.45
14:AN:25:VAL:O	14:AN:25:VAL:HG13	2.16	0.45
16:AP:20:VAL:HG13	16:AP:21:VAL:N	2.32	0.45
17:AQ:81:ARG:O	17:AQ:81:ARG:HG3	2.17	0.45
21:B0:116:A:C2	21:B0:155:G:H1'	2.51	0.45
21:B0:1504:G:O2'	21:B0:1505:U:H5'	2.17	0.45
21:B0:871:U:H1'	21:B0:2248:A:H5''	1.99	0.45
21:B0:241:C:C2'	21:B0:242:A:H5''	2.46	0.45
21:B0:2555:G:N3	21:B0:2555:G:H3'	2.32	0.45
21:B0:626:A:O2'	21:B0:627:A:H5'	2.17	0.45
21:B0:838:A:H2'	21:B0:839:U:C6	2.52	0.45
21:B0:843:G:O2'	21:B0:844:G:OP1	2.31	0.45
22:B9:36:A:H1'	22:B9:51:G:N2	2.32	0.45
1:AA:1060:C:C5	3:AC:2:GLY:HA3	2.52	0.44
1:AA:1289:A:H2'	1:AA:1290:G:H5'	2.00	0.44
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.80	0.44
1:AA:1409:C:O2'	1:AA:1410:G:C5'	2.62	0.44
1:AA:233:C:O2'	1:AA:264:U:C2	2.70	0.44
1:AA:37:U:OP1	12:AL:124:LYS:HB2	2.16	0.44
1:AA:436:C:O2	1:AA:437:U:H1'	2.17	0.44
1:AA:826:C:O2'	8:AH:15:ASN:HB2	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:848:G:HO3'	1:AA:849:C:P	2.38	0.44
2:AB:32:ILE:HG21	2:AB:40:HIS:HD2	1.81	0.44
4:AD:162:LEU:HD13	4:AD:181:MET:CG	2.42	0.44
4:AD:24:GLU:CG	4:AD:25:ARG:H	2.31	0.44
4:AD:39:PRO:HG2	4:AD:44:GLY:HA2	1.97	0.44
1:AA:1231:G:C5'	9:AI:126:SER:OG	2.64	0.44
11:AK:51:LYS:O	11:AK:55:LYS:CE	2.65	0.44
1:AA:1329:A:C5'	13:AM:29:ARG:HD2	2.46	0.44
13:AM:80:ARG:NH2	19:AS:69:HIS:NE2	2.65	0.44
16:AP:6:LEU:HB3	16:AP:17:TYR:HD2	1.81	0.44
20:AT:24:LEU:O	20:AT:24:LEU:HD12	2.17	0.44
20:AT:72:LEU:O	20:AT:73:HIS:O	2.35	0.44
21:B0:1055:A:C2	21:B0:1121:G:H2'	2.52	0.44
21:B0:1098:G:H22	21:B0:1113:C:N3	1.52	0.44
21:B0:1273:G:H2'	21:B0:1274:C:C6	2.52	0.44
21:B0:1367:A:H2'	21:B0:1368:G:O4'	2.17	0.44
21:B0:2474:G:O2'	21:B0:2475:C:H5'	2.17	0.44
21:B0:2560:G:H4'	21:B0:2561:G:N7	2.32	0.44
21:B0:40:U:H2'	21:B0:41:G:C8	2.52	0.44
21:B0:857:U:C2'	21:B0:858:G:H5'	2.48	0.44
21:B0:926:C:H2'	21:B0:927:C:H5'	1.99	0.44
1:AA:112:G:HO2'	1:AA:113:G:H5'	1.81	0.44
1:AA:113:G:H1'	1:AA:354:G:C5'	2.47	0.44
1:AA:1301:U:O2'	1:AA:1302:U:P	2.74	0.44
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.16	0.44
3:AC:123:GLN:HE22	3:AC:140:ARG:NH2	2.16	0.44
5:AE:45:PHE:CD2	5:AE:47:LYS:HE3	2.52	0.44
1:AA:1372:U:OP1	9:AI:72:GLY:N	2.50	0.44
13:AM:34:LEU:HD13	13:AM:41:PRO:CA	2.45	0.44
13:AM:9:ILE:N	13:AM:9:ILE:HD12	2.31	0.44
1:AA:1115:C:C1'	14:AN:61:TRP:HB2	2.47	0.44
17:AQ:18:THR:HG23	17:AQ:69:LYS:CE	2.47	0.44
21:B0:455:A:H4'	21:B0:1214:C:O2'	2.17	0.44
21:B0:1436:G:H1'	21:B0:1508:G:N2	2.31	0.44
21:B0:2591:C:O2'	21:B0:2592:U:H5'	2.17	0.44
21:B0:2854:G:N3	21:B0:2854:G:H3'	2.33	0.44
21:B0:431:G:H2'	21:B0:432:C:C6	2.53	0.44
21:B0:438:G:H2'	21:B0:439:C:C6	2.51	0.44
21:B0:562:G:H2'	21:B0:563:U:O4'	2.17	0.44
1:AA:1275:A:H2	1:AA:1282:C:O2'	2.00	0.44
1:AA:129(A):G:O2'	1:AA:130:A:OP2	2.28	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1409:C:O2'	1:AA:1410:G:O4'	2.32	0.44
1:AA:1394:A:N3	1:AA:1501:C:O4'	2.47	0.44
1:AA:185:A:H2'	1:AA:186:C:H6	1.82	0.44
1:AA:389:A:H2'	1:AA:390:C:C5'	2.48	0.44
1:AA:397:A:N3	1:AA:397:A:H3'	2.32	0.44
1:AA:45:U:H2'	1:AA:46:G:C8	2.53	0.44
1:AA:502:G:C1'	1:AA:550:G:C5'	2.78	0.44
1:AA:559:A:OP1	5:AE:126:ARG:NH1	2.50	0.44
1:AA:19:C:C4	1:AA:916:G:O6	2.70	0.44
2:AB:223:ILE:HG21	2:AB:230:VAL:HG23	1.99	0.44
2:AB:8:LYS:HB2	2:AB:9:GLU:H	1.58	0.44
1:AA:8:A:O4'	5:AE:102:ALA:HA	2.17	0.44
8:AH:116:LYS:NZ	8:AH:127:LEU:HD12	2.31	0.44
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.52	0.44
9:AI:103:THR:HG22	9:AI:104:ARG:N	2.31	0.44
1:AA:1250:A:H5''	9:AI:68:GLY:N	2.32	0.44
9:AI:85:LEU:O	9:AI:92:TYR:CD1	2.69	0.44
10:AJ:3:LYS:CA	10:AJ:75:ILE:HA	2.48	0.44
10:AJ:75:ILE:HG22	10:AJ:76:ASN:N	2.32	0.44
11:AK:60:ALA:O	11:AK:61:ALA:C	2.56	0.44
16:AP:75:ARG:O	16:AP:78:GLY:N	2.49	0.44
21:B0:1408:A:H1'	21:B0:1410:U:C5	2.52	0.44
21:B0:1436:G:H2'	21:B0:1437:A:C8	2.51	0.44
21:B0:1667:A:H2'	21:B0:1668:G:H8	1.83	0.44
21:B0:1708:C:H2'	21:B0:1709:U:O4'	2.18	0.44
21:B0:1785:A:H2'	21:B0:1786:C:C6	2.52	0.44
21:B0:3877:A:H4'	21:B0:1861:G:C5'	2.42	0.44
21:B0:1938:U:O2'	21:B0:1939:U:OP1	2.28	0.44
21:B0:1956:G:H2'	21:B0:1957:C:O4'	2.17	0.44
21:B0:457:C:O2'	21:B0:458:G:H5'	2.16	0.44
21:B0:763:A:H2'	21:B0:764:A:H5''	2.00	0.44
21:B0:788:G:H5'	21:B0:790:A:N3	2.32	0.44
1:AA:113:G:H5'	1:AA:354:G:O3'	2.17	0.44
1:AA:1152:A:H5'	10:AJ:70:ARG:NH2	2.32	0.44
1:AA:1409:C:C5	1:AA:1410:G:N7	2.85	0.44
1:AA:1457:A:C8	1:AA:1459:C:C4	3.06	0.44
1:AA:247:G:N2	1:AA:282:A:N3	2.46	0.44
1:AA:393:A:C2'	1:AA:394:G:H5'	2.47	0.44
1:AA:583:A:H2'	1:AA:584:G:O4'	2.17	0.44
1:AA:600:C:O2'	1:AA:601:C:H5'	2.17	0.44
1:AA:59:A:OP1	1:AA:60:A:H5''	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:950:U:H2'	1:AA:951:G:C8	2.52	0.44
1:AA:962:C:H2'	1:AA:963:G:O4'	2.18	0.44
1:AA:970:C:C2	1:AA:1231:G:H1'	2.52	0.44
4:AD:8:VAL:HG11	4:AD:21:LEU:CB	2.47	0.44
5:AE:13:ILE:HG22	5:AE:30:ALA:HB2	1.99	0.44
1:AA:6:G:C6	5:AE:94:ALA:CB	3.00	0.44
6:AF:40:VAL:CG2	6:AF:41:GLU:N	2.80	0.44
10:AJ:30:SER:HB3	10:AJ:84:GLN:NE2	2.31	0.44
12:AL:117:ARG:HD2	12:AL:122:THR:OG1	2.17	0.44
21:B0:1023:U:H1'	21:B0:1154:A:C8	2.52	0.44
21:B0:121:G:H2'	21:B0:122:G:O4'	2.18	0.44
21:B0:1331:G:H2'	21:B0:1332:G:C8	2.52	0.44
21:B0:1452:U:H5''	21:B0:1533:G:H5'	2.00	0.44
21:B0:1659:G:H2'	21:B0:1660:G:C8	2.52	0.44
21:B0:1679:U:C2'	21:B0:1680:U:H5''	2.47	0.44
21:B0:2204:A:O2'	21:B0:2205:C:OP2	2.35	0.44
21:B0:2204:A:O2'	21:B0:2205:C:P	2.76	0.44
21:B0:2211:U:H2'	21:B0:2212:U:C6	2.52	0.44
21:B0:2312:A:H1'	21:B0:2314:A:C4	2.52	0.44
1:AA:1353:G:H2'	1:AA:1354:C:H6	1.82	0.44
1:AA:1372:U:O2'	1:AA:1373:G:H5'	2.18	0.44
1:AA:1501:C:OP2	1:AA:1504:G:H2'	2.17	0.44
1:AA:926:G:N1	1:AA:1505:G:N7	2.64	0.44
1:AA:1501:C:OP1	1:AA:1508:G:C4'	2.66	0.44
1:AA:1506:U:OP2	1:AA:1541:U:P	2.75	0.44
1:AA:394:G:N3	1:AA:395:C:C6	2.86	0.44
3:AC:123:GLN:HE22	3:AC:140:ARG:HH22	1.65	0.44
3:AC:179:ARG:C	3:AC:179:ARG:HD2	2.37	0.44
3:AC:6:HIS:CD2	3:AC:8:ILE:H	2.36	0.44
7:AG:38:LEU:HD11	7:AG:42:ILE:HD11	1.99	0.44
10:AJ:8:LEU:CD1	10:AJ:20:ALA:HB2	2.48	0.44
11:AK:95:ILE:HD13	11:AK:108:ILE:HG21	1.99	0.44
16:AP:55:ARG:O	16:AP:58:TYR:HB3	2.17	0.44
1:AA:132:C:H5''	20:AT:75:ASN:ND2	2.32	0.44
21:B0:1226:A:C6	21:B0:1250:A:H1'	2.53	0.44
21:B0:1836:C:H2'	21:B0:1837:G:C8	2.53	0.44
21:B0:172:A:H4'	21:B0:228:A:H4'	2.00	0.44
22:B9:92:G:H2'	22:B9:93:G:H5'	1.99	0.44
1:AA:1005:A:H2'	1:AA:1006:C:O4'	2.17	0.44
1:AA:113:G:N2	1:AA:353:A:C1'	2.80	0.44
1:AA:116:A:H2'	1:AA:117:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1190:G:OP1	3:AC:4:LYS:CB	2.59	0.44
1:AA:133:U:P	20:AT:74:LYS:HD3	2.57	0.44
1:AA:176:C:H2'	1:AA:177:C:H6	1.83	0.44
1:AA:253:U:H2'	1:AA:254:G:C8	2.53	0.44
1:AA:254:G:O2'	1:AA:255:G:H5'	2.17	0.44
1:AA:384:G:H2'	1:AA:385:C:C6	2.53	0.44
1:AA:540:G:H2'	1:AA:541:G:O4'	2.18	0.44
1:AA:564:C:C6	17:AQ:32:TYR:HE2	2.36	0.44
2:AB:92:TYR:CD1	2:AB:151:GLY:HA3	2.53	0.44
3:AC:99:VAL:HG22	3:AC:100:ALA:O	2.18	0.44
4:AD:178:VAL:O	4:AD:178:VAL:HG12	2.18	0.44
4:AD:200:GLU:N	4:AD:200:GLU:OE1	2.46	0.44
4:AD:90:GLY:H	5:AE:97:GLY:HA2	1.82	0.44
1:AA:9:G:H8	5:AE:126:ARG:NH1	2.10	0.44
1:AA:1377:A:N3	7:AG:2:ALA:HB2	2.32	0.44
13:AM:7:VAL:HG23	13:AM:7:VAL:O	2.18	0.44
14:AN:12:ARG:O	14:AN:14:PRO:CD	2.65	0.44
18:AR:26:LEU:HD21	18:AR:39:VAL:HG23	2.00	0.44
20:AT:30:LYS:O	20:AT:33:ILE:HB	2.18	0.44
21:B0:1373:G:H22	21:B0:2192:U:H3	1.65	0.44
21:B0:1927:U:H3'	21:B0:1928:G:H5'	2.00	0.44
21:B0:1999:U:H5''	21:B0:2041:A:OP1	2.18	0.44
21:B0:2316:G:H2'	21:B0:2317:G:C8	2.50	0.44
21:B0:354:C:H2'	21:B0:355:G:O4'	2.17	0.44
21:B0:460:U:N3	21:B0:592:G:H1'	2.33	0.44
1:AA:1004:A:H5''	1:AA:1025:U:C4	2.53	0.44
1:AA:1314:C:H2'	1:AA:1315:U:C6	2.53	0.44
1:AA:1410:G:N2	1:AA:1491:G:C2	2.85	0.44
1:AA:288:A:C2'	1:AA:289:G:H4'	2.47	0.44
1:AA:59:A:N9	1:AA:331:G:N2	2.65	0.44
1:AA:217:C:P	1:AA:468:A:C2	3.11	0.44
1:AA:702:A:H1'	21:B0:1839:A:OP1	2.17	0.44
1:AA:865:A:H2'	1:AA:866:C:C6	2.53	0.44
1:AA:913:A:O2'	1:AA:914:A:OP2	2.36	0.44
1:AA:977:A:H2'	1:AA:978:A:C5'	2.46	0.44
2:AB:25:ASN:HD22	2:AB:27:LYS:H	1.65	0.44
7:AG:149:ARG:NH1	11:AK:59:TYR:CD1	2.84	0.44
8:AH:73:ASP:OD2	8:AH:75:ARG:HB2	2.18	0.44
8:AH:7:ALA:HB2	8:AH:85:ARG:HD2	1.99	0.44
8:AH:86:ILE:HD12	8:AH:133:LEU:HD22	2.00	0.44
1:AA:1059:C:O2'	10:AJ:52:GLY:HA2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:23:ALA:HB2	11:AK:91:ARG:HB2	2.00	0.44
13:AM:4:ILE:CG2	13:AM:5:ALA:N	2.72	0.44
13:AM:84:ILE:HG13	13:AM:86:CYS:HB2	2.00	0.44
14:AN:9:LYS:HG3	14:AN:21:TYR:O	2.17	0.44
14:AN:23:ARG:HD3	14:AN:30:ALA:HB2	2.00	0.44
18:AR:37:VAL:O	18:AR:41:LYS:HB3	2.18	0.44
20:AT:42:GLN:HA	20:AT:45:GLN:HB2	1.99	0.44
21:B0:1118:G:O2'	21:B0:1119:U:H5'	2.17	0.44
21:B0:117:A:O3'	21:B0:118:U:H3'	2.17	0.44
21:B0:1279:G:C2'	21:B0:1280:U:OP2	2.66	0.44
21:B0:1292:A:H2'	21:B0:1293:A:C8	2.53	0.44
21:B0:1459:U:H2'	21:B0:1475:U:O2'	2.16	0.44
21:B0:1604:A:H2'	21:B0:1605:A:O4'	2.18	0.44
21:B0:1724:C:H2'	21:B0:1725:C:C6	2.53	0.44
21:B0:1882:G:H21	21:B0:1885:C:N4	2.16	0.44
21:B0:2057:U:H2'	21:B0:2058:U:C6	2.52	0.44
21:B0:2242:C:H42	21:B0:2257:A:N6	2.16	0.44
21:B0:242:A:O2'	21:B0:243:G:O4'	2.34	0.44
21:B0:3872:A:H2'	21:B0:3873:G:H5'	2.00	0.44
21:B0:415:A:O2'	21:B0:416:U:H5'	2.17	0.44
21:B0:432:C:H2'	21:B0:433:G:H8	1.83	0.44
21:B0:892:A:H1'	21:B0:911:A:N3	2.26	0.44
21:B0:956:A:H2'	21:B0:956:A:N3	2.32	0.44
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.82	0.44
1:AA:132:C:O4'	1:AA:262:A:C4	2.71	0.44
1:AA:1501:C:P	1:AA:1508:G:H5'	2.58	0.44
1:AA:1503:A:O5'	1:AA:1531:A:C1'	2.50	0.44
1:AA:189:A:H62	20:AT:104:LEU:HA	1.83	0.44
1:AA:243:A:N6	1:AA:281:G:O2'	2.51	0.44
1:AA:267:C:H2'	1:AA:268:C:C6	2.53	0.44
1:AA:50:A:N6	1:AA:361:G:H4'	2.33	0.44
1:AA:702:A:N1	21:B0:1838:G:C3'	2.30	0.44
1:AA:70:A:C2'	1:AA:71:U:H5'	2.48	0.44
1:AA:652:U:H2'	1:AA:752:G:N1	2.33	0.44
1:AA:21:G:H1'	1:AA:914:A:H61	1.82	0.44
2:AB:134:GLU:C	2:AB:136:VAL:N	2.71	0.44
2:AB:187:LEU:HD21	2:AB:214:ILE:HG13	2.00	0.44
2:AB:54:THR:O	2:AB:57:PHE:HB3	2.18	0.44
4:AD:204:ILE:HG21	5:AE:98:THR:O	2.17	0.44
4:AD:25:ARG:HH21	4:AD:30:LYS:HD3	1.82	0.44
5:AE:64:ARG:O	5:AE:65:ASN:CB	2.60	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:79:GLU:OE2	8:AH:105:ARG:CD	2.64	0.44
10:AJ:27:ALA:CB	10:AJ:81:THR:HG23	2.47	0.44
10:AJ:49:VAL:HG13	14:AN:41:ARG:CB	2.35	0.44
3:AC:29:TYR:CZ	10:AJ:65:LEU:CD1	3.01	0.44
11:AK:50:TYR:N	11:AK:50:TYR:CD2	2.84	0.44
12:AL:7:ILE:O	12:AL:11:VAL:HG23	2.18	0.44
15:AO:39:LEU:HD12	15:AO:59:MET:CE	2.48	0.44
1:AA:761:G:C1'	17:AQ:104:LYS:O	2.65	0.44
17:AQ:104:LYS:O	17:AQ:105:ALA:CB	2.65	0.44
20:AT:100:ILE:O	20:AT:102:GLY:N	2.50	0.44
21:B0:114:C:H4'	21:B0:124:A:O2'	2.17	0.44
21:B0:1288:A:H2'	21:B0:1289:A:O4'	2.17	0.44
21:B0:1326:U:H1'	21:B0:1626:A:N3	2.33	0.44
21:B0:1703:C:H2'	21:B0:1704:G:O4'	2.17	0.44
21:B0:1915:A:H62	21:B0:1951:G:N2	2.09	0.44
21:B0:539:A:N6	21:B0:2024:U:H3	2.11	0.44
21:B0:2193:C:H2'	21:B0:2194:A:O4'	2.18	0.44
21:B0:2439:U:H2'	21:B0:2440:C:H5'	1.99	0.44
21:B0:3116:G:O3'	21:B0:3117:A:O4'	2.36	0.44
21:B0:548:G:H2'	21:B0:549:G:C8	2.53	0.44
21:B0:736:G:H2'	21:B0:737:C:O4'	2.17	0.44
21:B0:875:G:H2'	21:B0:876:A:O4'	2.18	0.44
1:AA:1067:A:HO2'	1:AA:1094:G:P	2.32	0.44
1:AA:1190:G:H4'	1:AA:1191:A:H5'	1.98	0.44
1:AA:1053:G:O2'	1:AA:1199:U:H5	2.01	0.44
1:AA:1422:G:OP1	31:BI:60:PRO:CA	2.66	0.44
1:AA:1503:A:N9	1:AA:1531:A:N3	2.66	0.44
1:AA:197:A:H1'	1:AA:198:G:O4'	2.17	0.44
1:AA:351:G:O2'	1:AA:352:C:OP1	2.25	0.44
1:AA:383:A:H2'	1:AA:384:G:H5'	1.99	0.44
1:AA:59:A:C5'	1:AA:60:A:H5"	2.48	0.44
1:AA:974:A:P	14:AN:29:ARG:NH2	2.89	0.44
2:AB:17:PHE:H	2:AB:44:LEU:HD21	1.83	0.44
3:AC:113:ALA:N	3:AC:114:PRO:CD	2.80	0.44
5:AE:105:VAL:HB	5:AE:106:PRO:CD	2.40	0.44
1:AA:1128:C:H5'	9:AI:16:ARG:NH1	2.33	0.44
1:AA:1250:A:C4'	9:AI:68:GLY:N	2.74	0.44
13:AM:80:ARG:C	13:AM:82:MET:H	2.20	0.44
13:AM:84:ILE:C	13:AM:86:CYS:N	2.70	0.44
14:AN:29:ARG:HB3	14:AN:40:CYS:HB3	1.99	0.44
16:AP:20:VAL:HG13	16:AP:32:TYR:HB2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1320:C:P	19:AS:70:LYS:HZ2	2.41	0.44
20:AT:50:GLU:HG2	20:AT:100:ILE:CG1	2.47	0.44
20:AT:96:GLY:O	20:AT:97:ALA:CB	2.66	0.44
21:B0:1113:C:O3'	21:B0:1114:A:P	2.75	0.44
21:B0:1033:G:N2	21:B0:1150:C:H2'	2.30	0.44
21:B0:1188:A:H62	21:B0:1189:G:H21	1.66	0.44
21:B0:1313:U:H4'	21:B0:1314:A:O5'	2.18	0.44
21:B0:181:A:C4'	21:B0:182:G:H4'	2.44	0.44
21:B0:192:G:O2'	21:B0:193:A:OP2	2.33	0.44
21:B0:2022:C:H2'	21:B0:2023:C:C6	2.53	0.44
21:B0:2343:C:H2'	21:B0:2344:G:O4'	2.18	0.44
21:B0:529:U:H2'	21:B0:530:G:C8	2.53	0.44
21:B0:839:U:H5'	21:B0:2407:G:H2'	2.00	0.44
1:AA:1231:G:C4'	9:AI:126:SER:OG	2.66	0.43
1:AA:1299:A:C8	1:AA:1301:U:H1'	2.53	0.43
1:AA:137:C:O2'	1:AA:138:G:H5'	2.17	0.43
1:AA:227:G:C2	1:AA:228:A:C1'	3.01	0.43
1:AA:335:C:O2	1:AA:1433:A:N3	2.51	0.43
1:AA:500:G:O2'	1:AA:548:G:N2	2.51	0.43
1:AA:6:G:H2'	5:AE:119:LEU:HD11	1.99	0.43
1:AA:94:G:C6	1:AA:96:C:N4	2.84	0.43
2:AB:146:GLN:O	2:AB:150:SER:HB3	2.18	0.43
1:AA:1190:G:C3'	3:AC:3:ASN:HB2	2.37	0.43
4:AD:3:ARG:HD3	4:AD:3:ARG:HA	1.78	0.43
5:AE:36:ASP:OD2	5:AE:40:ARG:HD3	2.18	0.43
7:AG:24:THR:HA	7:AG:27:ILE:HD12	2.00	0.43
7:AG:38:LEU:HD12	7:AG:42:ILE:HG13	2.00	0.43
8:AH:114:THR:C	8:AH:116:LYS:H	2.22	0.43
9:AI:97:LYS:HG3	9:AI:102:LEU:HD12	1.96	0.43
21:B0:10:A:O2'	21:B0:11:G:H5'	2.18	0.43
21:B0:1259:A:H2'	21:B0:1260:A:C8	2.53	0.43
21:B0:1664:G:O5'	21:B0:1665:C:OP1	2.36	0.43
21:B0:198:A:H4'	21:B0:199:A:OP2	2.17	0.43
21:B0:2033:C:H2'	21:B0:2034:A:O4'	2.17	0.43
21:B0:2065:A:H2'	21:B0:2066:G:O4'	2.18	0.43
21:B0:207:U:H2'	21:B0:208:C:C6	2.52	0.43
21:B0:2265:A:H5''	21:B0:2266:A:O4'	2.18	0.43
21:B0:3128:G:H4'	21:B0:3174:C:H1'	1.97	0.43
21:B0:197:G:N2	21:B0:440:U:H2'	2.33	0.43
21:B0:35:G:C1'	21:B0:466:A:H1'	2.48	0.43
21:B0:758:G:O2'	21:B0:761:G:H1'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:891:A:N1	21:B0:893:G:C6	2.86	0.43
1:AA:1128:C:H4'	9:AI:16:ARG:NH1	2.33	0.43
1:AA:114:U:O4'	1:AA:353:A:O4'	2.35	0.43
1:AA:1229:A:H2'	1:AA:1230:C:H6	1.84	0.43
1:AA:1255:G:H22	1:AA:1276:G:H21	1.56	0.43
1:AA:1279:A:O2'	1:AA:1281:U:OP2	2.33	0.43
1:AA:184:G:C4'	1:AA:224:C:H4'	2.48	0.43
1:AA:262:A:H4'	20:AT:74:LYS:HB3	2.00	0.43
1:AA:430:A:H2'	1:AA:431:A:H5'	1.99	0.43
1:AA:433:C:O2'	1:AA:434:U:H5'	2.18	0.43
1:AA:858:G:O2'	1:AA:859:A:H5'	2.18	0.43
1:AA:961:U:C2'	1:AA:962:C:H5'	2.48	0.43
2:AB:100:GLY:O	2:AB:104:ASN:N	2.44	0.43
3:AC:11:ARG:O	3:AC:14:ILE:O	2.36	0.43
3:AC:12:LEU:HD23	3:AC:12:LEU:HA	1.76	0.43
3:AC:134:ILE:HG22	3:AC:168:ALA:CB	2.48	0.43
3:AC:188:LEU:HD13	3:AC:189:ALA:H	1.83	0.43
3:AC:47:LEU:HD13	3:AC:47:LEU:H	1.83	0.43
1:AA:1398:A:C6	5:AE:21:ALA:HA	2.49	0.43
6:AF:75:LEU:HD13	6:AF:75:LEU:O	2.18	0.43
8:AH:16:ALA:O	8:AH:21:LYS:HG2	2.18	0.43
13:AM:110:ARG:CG	13:AM:110:ARG:HH11	2.31	0.43
13:AM:22:ILE:HD12	13:AM:25:ILE:CD1	2.41	0.43
19:AS:41:VAL:HG22	19:AS:44:MET:CE	2.49	0.43
21:B0:1014:G:O2'	21:B0:1015:U:H5'	2.17	0.43
21:B0:1054:C:H2'	21:B0:1055:A:H5'	2.00	0.43
21:B0:1065:A:O2'	21:B0:1066:G:H5'	2.19	0.43
21:B0:109:A:H2'	21:B0:110:U:H5''	2.00	0.43
21:B0:1258:G:H2'	21:B0:1259:A:C8	2.52	0.43
21:B0:1283:C:OP1	21:B0:1284:G:H5'	2.17	0.43
21:B0:1358:C:C2'	21:B0:1359:G:H5''	2.48	0.43
21:B0:1429:A:H1'	21:B0:1603:A:C6	2.53	0.43
21:B0:1633:C:HO2'	21:B0:1634:A:P	2.40	0.43
21:B0:1819:U:H5''	21:B0:1954:A:O3'	2.18	0.43
21:B0:167:A:H62	21:B0:183:U:H3	1.66	0.43
21:B0:1871:G:N3	21:B0:1871:G:H2'	2.33	0.43
21:B0:583:C:N3	21:B0:2016:A:H4'	2.32	0.43
21:B0:2069:U:H2'	21:B0:2070:G:C8	2.53	0.43
21:B0:243:G:H2'	21:B0:244:C:O4'	2.18	0.43
21:B0:2469:G:H4'	21:B0:2470:U:C6	2.54	0.43
21:B0:2498:U:H3'	21:B0:2498:U:OP1	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:2680:U:H3'	21:B0:2681:A:C5'	2.43	0.43
21:B0:2867:G:N3	21:B0:2867:G:H3'	2.32	0.43
21:B0:3871:A:H2'	21:B0:3872:A:C8	2.54	0.43
21:B0:860:U:O2	21:B0:860:U:H2'	2.17	0.43
21:B0:925:U:H5''	21:B0:926:C:OP1	2.18	0.43
21:B0:944:A:H2'	21:B0:945:G:O4'	2.17	0.43
1:AA:1261:A:C1'	1:AA:1283:G:C4'	2.75	0.43
1:AA:1458:G:C4	1:AA:1459:C:O2	2.72	0.43
1:AA:205:G:N2	1:AA:207:C:H41	2.15	0.43
1:AA:235:C:C4'	17:AQ:70:ARG:CB	2.96	0.43
1:AA:363:A:O2'	1:AA:364:A:H5'	2.18	0.43
1:AA:451:A:N6	1:AA:480:U:H2'	2.33	0.43
1:AA:640:A:C2'	1:AA:641:U:H5'	2.48	0.43
3:AC:191:THR:HG21	3:AC:193:TYR:CE1	2.53	0.43
5:AE:31:LEU:HA	5:AE:31:LEU:HD23	1.74	0.43
6:AF:22:GLU:OE2	6:AF:84:ASN:HB2	2.18	0.43
8:AH:103:VAL:HG21	8:AH:109:ILE:O	2.18	0.43
1:AA:538:G:OP1	12:AL:115:LYS:HB2	2.18	0.43
15:AO:54:ARG:O	15:AO:58:MET:HG3	2.17	0.43
1:AA:236:G:C5'	17:AQ:42:TYR:CE2	2.80	0.43
17:AQ:96:GLN:HG3	21:B0:725:C:HO2'	1.79	0.43
21:B0:1482:U:H2'	21:B0:1483:G:C8	2.53	0.43
21:B0:1881:U:H2'	21:B0:1882:G:H5'	2.00	0.43
21:B0:1923:U:H1'	21:B0:1947:G:H4'	1.99	0.43
21:B0:2011:U:H2'	21:B0:2012:A:H8	1.83	0.43
21:B0:712:A:H61	21:B0:746:G:H1'	1.83	0.43
21:B0:792:U:H2'	21:B0:793:G:O4'	2.19	0.43
1:AA:1128:C:C4'	9:AI:16:ARG:NH1	2.81	0.43
1:AA:16:A:O2'	1:AA:17:U:H5'	2.18	0.43
1:AA:501:C:H5'	1:AA:548:G:H22	1.83	0.43
1:AA:529:G:O6	12:AL:49:ASN:ND2	2.51	0.43
1:AA:560:U:N3	5:AE:123:LEU:CD1	2.81	0.43
1:AA:675:A:O2'	11:AK:114:VAL:O	2.36	0.43
1:AA:738:C:O4'	6:AF:73:ASN:ND2	2.51	0.43
2:AB:119:GLU:OE1	2:AB:153:ARG:NH2	2.51	0.43
2:AB:17:PHE:CA	2:AB:44:LEU:HD21	2.49	0.43
3:AC:8:ILE:O	3:AC:11:ARG:N	2.47	0.43
4:AD:55:ALA:O	4:AD:59:ARG:HG2	2.19	0.43
5:AE:24:ARG:NH1	5:AE:24:ARG:HG2	2.32	0.43
7:AG:138:LYS:C	7:AG:138:LYS:HD3	2.39	0.43
10:AJ:46:ARG:HH11	10:AJ:64:GLU:CG	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:68:HIS:CD2	10:AJ:68:HIS:N	2.85	0.43
10:AJ:86:MET:HE3	10:AJ:86:MET:HA	2.01	0.43
11:AK:100:ALA:O	11:AK:102:GLY:N	2.51	0.43
12:AL:111:LYS:O	12:AL:112:ASP:HB2	2.18	0.43
13:AM:23:TYR:CE2	13:AM:70:LEU:HD13	2.53	0.43
13:AM:93:ARG:CB	21:B0:900(A):A:P	3.07	0.43
16:AP:43:LYS:HA	16:AP:48:TRP:HB3	2.00	0.43
17:AQ:95:TYR:C	17:AQ:97:SER:N	2.58	0.43
18:AR:58:LEU:HD22	18:AR:62:GLU:HB3	1.99	0.43
20:AT:63:ILE:HD13	20:AT:80:ARG:CB	2.48	0.43
21:B0:1196:G:C2'	21:B0:1197:U:H5'	2.48	0.43
21:B0:1257:U:H2'	21:B0:1258:G:C8	2.53	0.43
21:B0:1722:G:H2'	21:B0:1723:U:C6	2.54	0.43
21:B0:437:G:O2'	21:B0:438:G:H5'	2.19	0.43
21:B0:826:U:H2'	21:B0:827:C:C6	2.53	0.43
1:AA:1181:G:O2'	1:AA:1182:G:H5'	2.19	0.43
1:AA:1256:A:HO3'	1:AA:1257:U:C5'	2.32	0.43
1:AA:1347:G:O6	9:AI:107:ARG:NH2	2.42	0.43
1:AA:1353:G:H2'	1:AA:1354:C:C6	2.54	0.43
1:AA:1405:G:C1'	1:AA:1519:A:O4'	2.21	0.43
1:AA:227:G:H2'	1:AA:228:A:O4'	2.19	0.43
1:AA:319:G:H5'	1:AA:1468:A:H5'	2.01	0.43
2:AB:83:MET:HG3	2:AB:238:LEU:HD11	2.00	0.43
3:AC:191:THR:HB	3:AC:194:GLY:O	2.18	0.43
3:AC:79:ARG:C	3:AC:81:GLY:H	2.21	0.43
4:AD:10:ARG:HH11	4:AD:10:ARG:HG3	1.83	0.43
4:AD:24:GLU:HG2	4:AD:25:ARG:H	1.82	0.43
5:AE:40:ARG:NH1	5:AE:68:GLU:OE1	2.51	0.43
15:AO:87:ILE:HG22	15:AO:88:ARG:N	2.34	0.43
16:AP:20:VAL:CG1	16:AP:32:TYR:CB	2.95	0.43
16:AP:52:ASP:CG	16:AP:52:ASP:O	2.57	0.43
13:AM:84:ILE:HD12	19:AS:66:MET:HB3	2.01	0.43
21:B0:1482:U:H2'	21:B0:1483:G:H8	1.83	0.43
1:AA:1517:G:N2	21:B0:1902:A:HO2'	2.15	0.43
21:B0:2035:G:H2'	21:B0:2036:G:C8	2.52	0.43
21:B0:2259:G:H2'	21:B0:2260:C:C6	2.53	0.43
21:B0:2378:G:H2'	21:B0:2379:G:H8	1.83	0.43
21:B0:2559:U:C2'	21:B0:2560:G:H5'	2.49	0.43
21:B0:2636:A:H62	21:B0:2643:G:N2	2.09	0.43
21:B0:1310:C:OP1	21:B0:2689:C:H4'	2.18	0.43
21:B0:48:A:H4'	21:B0:50:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:815:A:H8	21:B0:815:A:P	2.42	0.43
1:AA:1060:C:O2'	1:AA:1061:G:H5'	2.18	0.43
1:AA:921:U:H4'	1:AA:1082:G:OP1	2.18	0.43
1:AA:1367:C:H5''	9:AI:114:TYR:HB3	1.97	0.43
1:AA:216:C:H5''	1:AA:466:A:N1	2.30	0.43
1:AA:375:U:C4	1:AA:376:G:C5	3.06	0.43
1:AA:489:C:H2'	1:AA:490:G:C8	2.54	0.43
1:AA:782:A:H2'	1:AA:783:C:O4'	2.19	0.43
2:AB:124:SER:CB	2:AB:125:PRO:CD	2.90	0.43
2:AB:28:PHE:CD2	2:AB:190:THR:HA	2.54	0.43
2:AB:59:GLU:O	2:AB:60:ASP:C	2.57	0.43
4:AD:120:LEU:HD23	4:AD:125:HIS:CD2	2.54	0.43
4:AD:8:VAL:CG1	4:AD:21:LEU:HD13	2.48	0.43
7:AG:78:ARG:HG2	7:AG:80:VAL:HG23	1.99	0.43
11:AK:54:ARG:H	11:AK:54:ARG:HG2	1.47	0.43
11:AK:98:LEU:HD23	11:AK:98:LEU:HA	1.82	0.43
17:AQ:97:SER:O	17:AQ:98:LEU:HD12	2.19	0.43
21:B0:1119:U:P	21:B0:1120:C:OP2	2.76	0.43
21:B0:1391:A:H2'	21:B0:1392:U:C5	2.54	0.43
21:B0:1424:U:H2'	21:B0:1425:G:C8	2.53	0.43
21:B0:1938:U:H3'	21:B0:2530:C:O2'	2.19	0.43
21:B0:931:G:N2	21:B0:2247:A:H5''	2.34	0.43
21:B0:2241:U:H4'	21:B0:2307:A:C2	2.54	0.43
21:B0:2436:U:H2'	21:B0:2437:G:O4'	2.18	0.43
21:B0:2586:G:H2'	21:B0:2587:G:O4'	2.19	0.43
21:B0:45:C:H2'	21:B0:46:C:C6	2.53	0.43
21:B0:491:A:N3	21:B0:491:A:H2'	2.34	0.43
21:B0:69:G:O2'	21:B0:70:A:H4'	2.17	0.43
21:B0:969:U:O2'	21:B0:970:A:H5''	2.18	0.43
1:AA:1010:G:O2'	1:AA:1011:G:H5'	2.18	0.43
1:AA:1125:U:H5''	1:AA:1126:U:H5	1.83	0.43
1:AA:1131:G:H2'	1:AA:1132:C:H6	1.82	0.43
1:AA:1157:A:O4'	1:AA:1158:C:C2	2.72	0.43
1:AA:961:U:OP1	1:AA:1223:C:C1'	2.67	0.43
1:AA:1327:C:O2'	1:AA:1328:C:H5'	2.19	0.43
1:AA:1474:G:H4'	21:B0:1717:A:N6	2.33	0.43
1:AA:1533:C:O2	1:AA:1533:C:H2'	2.17	0.43
1:AA:157:G:O2'	1:AA:158:G:H5'	2.19	0.43
1:AA:15:G:C1'	5:AE:24:ARG:NH1	2.82	0.43
1:AA:160:A:H2'	1:AA:161:A:O4'	2.18	0.43
1:AA:7:G:H21	5:AE:121:LYS:CG	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:836:G:OP1	18:AR:61:LYS:HD2	2.19	0.43
2:AB:41:ILE:O	2:AB:41:ILE:HG22	2.19	0.43
5:AE:80:ILE:HD12	5:AE:80:ILE:H	1.84	0.43
1:AA:1231:G:O3'	9:AI:126:SER:CB	2.67	0.43
1:AA:564:C:H5'	12:AL:10:LEU:HD13	2.01	0.43
1:AA:1230:C:H1'	13:AM:125:ARG:O	2.19	0.43
15:AO:78:TYR:CE2	15:AO:82:ILE:HD11	2.53	0.43
20:AT:63:ILE:HD13	20:AT:80:ARG:HB3	2.01	0.43
21:B0:1329:U:H2'	21:B0:1330:G:C8	2.54	0.43
21:B0:1401:G:H2'	21:B0:1402:G:H8	1.83	0.43
21:B0:1856:U:H5''	21:B0:3865:A:P	2.52	0.43
21:B0:540:G:N7	21:B0:2018:G:H4'	2.33	0.43
21:B0:2055:G:H2'	21:B0:2056:C:C6	2.54	0.43
21:B0:211:U:O2'	21:B0:212:U:H5'	2.19	0.43
21:B0:217:U:H5'	21:B0:633:G:O2'	2.18	0.43
21:B0:941:U:H2'	21:B0:942:U:C6	2.54	0.43
21:B0:3876:A:C4	53:B5:45:ASP:CA	3.02	0.43
22:B9:35:C:H2'	22:B9:36:A:O4'	2.19	0.43
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.53	0.43
1:AA:1450:U:H2'	1:AA:1452:C:C5	2.52	0.43
1:AA:1485:U:P	21:B0:1943:A:O3'	2.77	0.43
1:AA:315:A:C4'	1:AA:353:A:H61	2.25	0.43
1:AA:456:A:C6	1:AA:477:G:N3	2.86	0.43
1:AA:59:A:H2'	1:AA:331:G:N1	2.33	0.43
2:AB:16:HIS:CE1	2:AB:210:SER:HG	2.37	0.43
3:AC:112:SER:HB2	3:AC:115:LEU:HB2	2.01	0.43
3:AC:70:VAL:O	3:AC:106:VAL:N	2.51	0.43
9:AI:78:LYS:HD3	9:AI:101:PHE:CD2	2.54	0.43
17:AQ:104:LYS:CB	21:B0:726:G:N3	2.82	0.43
19:AS:3:ARG:O	19:AS:4:SER:HB3	2.18	0.43
21:B0:1429:A:O2'	21:B0:1430:G:H4'	2.19	0.43
21:B0:1634:A:O2'	21:B0:1635:G:OP1	2.29	0.43
21:B0:2468:G:H2'	21:B0:2469:G:O4'	2.19	0.43
21:B0:2426:G:C5'	21:B0:2480:C:H41	2.28	0.43
21:B0:2728:A:H2'	21:B0:2729:A:O4'	2.18	0.43
21:B0:70:A:OP2	21:B0:111:G:H4'	2.19	0.43
21:B0:798:G:C2'	21:B0:799:C:H5'	2.48	0.43
21:B0:892:A:C4	21:B0:911:A:N1	2.87	0.43
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.54	0.43
1:AA:1458:G:N9	1:AA:1459:C:O2	2.52	0.43
1:AA:173:U:O4'	1:AA:197:A:C5	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:370:C:C2'	1:AA:371:G:H5'	2.48	0.43
1:AA:618:C:N3	1:AA:622:A:N6	2.67	0.43
1:AA:818:G:H3'	1:AA:819:A:H5'	2.01	0.43
1:AA:932:C:H5''	7:AG:3:ARG:HD3	2.01	0.43
4:AD:127:THR:HG23	4:AD:128:VAL:N	2.34	0.43
5:AE:115:VAL:CG1	5:AE:116:THR:N	2.82	0.43
7:AG:112:PRO:O	7:AG:113:GLU:C	2.57	0.43
12:AL:26:ALA:C	12:AL:27:LEU:O	2.57	0.43
15:AO:29:VAL:HG11	15:AO:67:LEU:HD21	2.00	0.43
17:AQ:104:LYS:HB3	17:AQ:105:ALA:H	1.48	0.43
17:AQ:45:HIS:CD2	17:AQ:47:PRO:HG3	2.54	0.43
19:AS:12:ASP:HB2	19:AS:35:SER:OG	2.19	0.43
1:AA:958:A:C6	19:AS:55:LYS:HB3	2.53	0.43
20:AT:11:SER:C	20:AT:13:LEU:H	2.23	0.43
20:AT:57:ARG:HE	20:AT:100:ILE:HG21	1.84	0.43
21:B0:1393:G:O2'	21:B0:1394:G:H5'	2.19	0.43
21:B0:1561:A:H2'	21:B0:1562:G:O4'	2.19	0.43
21:B0:873:U:O2	21:B0:2246:A:H5''	2.18	0.43
21:B0:2424:G:H2'	21:B0:2425:G:O4'	2.19	0.43
1:AA:1137:C:H4'	1:AA:1138:G:N1	2.33	0.43
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.54	0.43
1:AA:409:G:H2'	1:AA:410:G:O4'	2.18	0.43
1:AA:628:G:H2'	1:AA:629:G:H8	1.84	0.43
2:AB:74:LYS:HD2	2:AB:166:ASP:HB2	2.00	0.43
3:AC:59:ARG:O	10:AJ:92:THR:C	2.45	0.43
4:AD:198:VAL:HG12	4:AD:199:ASN:N	2.34	0.43
4:AD:205:GLU:HB3	5:AE:107:ARG:HH21	1.83	0.43
1:AA:409:G:OP1	4:AD:24:GLU:O	2.36	0.43
1:AA:1342:C:C4'	9:AI:125:TYR:CE1	3.00	0.43
11:AK:21:ILE:HD12	11:AK:95:ILE:HG12	2.00	0.43
11:AK:93:GLN:NE2	11:AK:96:ARG:NH2	2.67	0.43
21:B0:1039:A:H2'	21:B0:1040:A:C8	2.54	0.43
21:B0:114:C:H2'	21:B0:115:G:O4'	2.19	0.43
21:B0:1411:C:H6	21:B0:1411:C:O5'	2.02	0.43
21:B0:1466:C:H2'	21:B0:1467:U:O4'	2.19	0.43
21:B0:170:U:H2'	21:B0:171:G:H8	1.84	0.43
21:B0:2204:A:H1'	21:B0:2205:C:C5	2.53	0.43
21:B0:2475:C:C2'	21:B0:2476:A:H5'	2.49	0.43
21:B0:2572:U:H2'	21:B0:2573:C:C6	2.54	0.43
21:B0:572:G:H2'	21:B0:573:C:C6	2.54	0.43
21:B0:635:C:H2'	21:B0:636:G:H5''	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:738:G:H2'	21:B0:739:G:O4'	2.18	0.43
21:B0:765:C:O2'	21:B0:766:A:O4'	2.36	0.43
22:B9:108:G:O2'	22:B9:109:G:H5'	2.19	0.43
1:AA:1126:U:H2'	1:AA:1127:G:O4'	2.19	0.42
1:AA:1135:U:O5'	1:AA:1135:U:H6	2.01	0.42
1:AA:1263:C:H2'	1:AA:1264:C:H6	1.83	0.42
1:AA:1268:A:H1'	1:AA:1326:C:O2'	2.19	0.42
1:AA:15:G:N3	5:AE:19:MET:CG	2.82	0.42
1:AA:730:G:C5	1:AA:731:G:H1'	2.54	0.42
1:AA:778:G:O2'	1:AA:779:C:H5'	2.19	0.42
1:AA:991:U:O2	1:AA:993:G:H8	2.02	0.42
2:AB:137:ARG:HA	2:AB:140:HIS:HD2	1.84	0.42
4:AD:60:GLU:OE1	4:AD:60:GLU:HA	2.19	0.42
1:AA:1346:A:C2'	7:AG:10:ARG:NH2	2.65	0.42
9:AI:106:ALA:O	9:AI:108:VAL:HG23	2.19	0.42
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	2.00	0.42
9:AI:69:GLY:O	9:AI:73:GLN:HG3	2.18	0.42
10:AJ:96:ILE:CG2	10:AJ:97:GLU:H	2.25	0.42
11:AK:33:THR:OG1	11:AK:37:GLY:C	2.58	0.42
12:AL:41:ARG:HH11	12:AL:41:ARG:HB3	1.84	0.42
17:AQ:60:ILE:HD13	17:AQ:61:GLU:N	2.34	0.42
1:AA:735:C:HO2'	18:AR:75:ILE:CD1	2.28	0.42
20:AT:42:GLN:O	20:AT:46:GLU:HG3	2.19	0.42
21:B0:1307:U:H2'	21:B0:1308:C:O4'	2.19	0.42
21:B0:1429:A:N6	21:B0:1602:G:H5'	2.34	0.42
21:B0:2455:A:C2'	21:B0:2456:U:H5'	2.49	0.42
21:B0:2625:U:H2'	21:B0:2626:U:O4'	2.18	0.42
21:B0:689:A:C2'	21:B0:690:A:H5'	2.48	0.42
21:B0:744:C:H2'	21:B0:745:C:C6	2.54	0.42
21:B0:842:A:H5'	21:B0:844:G:C5	2.54	0.42
1:AA:1158:C:N3	1:AA:1181:G:N2	2.61	0.42
1:AA:1393:U:C2	1:AA:1395:C:N4	2.87	0.42
1:AA:1483:A:N3	1:AA:1484:C:C6	2.87	0.42
1:AA:418:C:H2'	1:AA:419:C:C6	2.54	0.42
1:AA:42:G:H21	1:AA:622:A:H2	1.66	0.42
1:AA:714:G:H4'	1:AA:776:G:H5'	2.01	0.42
1:AA:854:G:H3'	1:AA:871:U:O4	2.19	0.42
1:AA:974:A:OP1	1:AA:974:A:H8	2.03	0.42
2:AB:88:ALA:C	2:AB:90:MET:N	2.71	0.42
4:AD:157:LEU:CD2	4:AD:161:ASN:ND2	2.74	0.42
4:AD:163:GLU:C	4:AD:165:MET:N	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:196:LEU:C	4:AD:198:VAL:H	2.22	0.42
11:AK:85:ARG:NH1	11:AK:85:ARG:HG3	2.34	0.42
12:AL:41:ARG:NH1	12:AL:41:ARG:CB	2.82	0.42
12:AL:55:VAL:CG1	12:AL:67:THR:CG2	2.97	0.42
17:AQ:59:ILE:CG2	17:AQ:71:PHE:CD1	3.02	0.42
6:AF:100:ASN:ND2	18:AR:23:LYS:O	2.52	0.42
18:AR:26:LEU:CD1	18:AR:27:GLY:H	2.29	0.42
18:AR:46:GLU:CD	18:AR:46:GLU:N	2.72	0.42
19:AS:40:ILE:HG23	19:AS:44:MET:SD	2.59	0.42
21:B0:1292:A:H2'	21:B0:1293:A:H8	1.84	0.42
21:B0:1626:A:H5''	21:B0:1627:C:OP2	2.19	0.42
21:B0:1788:C:H2'	21:B0:1789:U:C6	2.54	0.42
21:B0:1975:G:H4'	21:B0:1976:U:C5	2.53	0.42
21:B0:1982:C:H2'	21:B0:1983:G:C8	2.52	0.42
21:B0:2204:A:H4'	21:B0:2205:C:O4'	2.19	0.42
21:B0:220:U:H2'	21:B0:221:A:O4'	2.19	0.42
21:B0:2404:A:OP1	21:B0:2406:C:H5'	2.18	0.42
21:B0:2426:G:O2'	21:B0:2427:A:OP2	2.32	0.42
21:B0:2504:G:H2'	21:B0:2505:G:H8	1.83	0.42
21:B0:2639:A:H2'	21:B0:2640:G:O4'	2.20	0.42
21:B0:3185:U:H2'	21:B0:3186:C:O4'	2.19	0.42
17:AQ:104:LYS:NZ	21:B0:726:G:H1	2.09	0.42
21:B0:796:A:C2	21:B0:798:G:H1'	2.54	0.42
1:AA:1016:A:C5'	14:AN:15:LYS:CE	2.75	0.42
1:AA:1195:C:H3'	1:AA:1196:U:H5''	2.01	0.42
1:AA:1228:C:H4'	13:AM:116:THR:HA	2.02	0.42
1:AA:1489:G:H2'	1:AA:1490:C:C5'	2.27	0.42
1:AA:942:G:H2'	1:AA:943:U:H6	1.85	0.42
1:AA:977:A:C8	1:AA:1223:C:N4	2.87	0.42
3:AC:50:ALA:O	3:AC:70:VAL:CG1	2.67	0.42
5:AE:16:THR:HG23	5:AE:27:ARG:O	2.19	0.42
6:AF:40:VAL:HG22	6:AF:41:GLU:N	2.34	0.42
7:AG:31:MET:SD	7:AG:34:GLY:HA2	2.59	0.42
9:AI:56:LEU:O	9:AI:58:ARG:N	2.49	0.42
10:AJ:15:THR:HG23	10:AJ:94:VAL:CG2	2.49	0.42
10:AJ:17:ASP:O	10:AJ:21:GLN:HB2	2.19	0.42
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.52	0.42
12:AL:60:LEU:CD2	12:AL:66:VAL:HG22	2.49	0.42
13:AM:33:ALA:HB2	13:AM:64:TRP:CH2	2.54	0.42
16:AP:40:ASP:HB3	16:AP:48:TRP:HB2	2.00	0.42
1:AA:1221:G:O3'	19:AS:77:THR:HG21	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1080:A:H4'	21:B0:1081:A:C8	2.54	0.42
21:B0:1764:A:H2'	21:B0:1765:C:O4'	2.19	0.42
21:B0:1811:A:H1'	21:B0:1813:A:C5	2.53	0.42
21:B0:1981:A:H4'	21:B0:2704:U:O2'	2.19	0.42
21:B0:338:G:O2'	21:B0:339:U:H5'	2.19	0.42
21:B0:569:C:H2'	21:B0:570:G:C8	2.53	0.42
1:AA:762:C:C4'	21:B0:729:A:N6	2.54	0.42
21:B0:872:G:H2'	21:B0:928:G:N1	2.35	0.42
1:AA:1015:A:H1'	1:AA:1219:U:C4'	2.48	0.42
1:AA:1217:C:O2'	1:AA:1218:C:H5'	2.19	0.42
1:AA:1244:C:O2'	1:AA:1245:A:H5'	2.19	0.42
1:AA:1397:C:O2'	1:AA:1398:A:P	2.77	0.42
1:AA:376:G:OP2	16:AP:67:THR:HG21	2.19	0.42
1:AA:418:C:H2'	1:AA:419:C:H6	1.84	0.42
1:AA:487:A:H2'	1:AA:488:C:O4'	2.19	0.42
1:AA:848:G:HO2'	1:AA:849:C:C4'	2.28	0.42
2:AB:33:TYR:O	2:AB:34:ALA:CB	2.67	0.42
3:AC:116:VAL:HG11	3:AC:141:VAL:HG21	2.01	0.42
4:AD:8:VAL:CG1	4:AD:21:LEU:CD1	2.97	0.42
5:AE:131:ILE:HD13	5:AE:131:ILE:HA	1.93	0.42
7:AG:15:ASP:OD2	7:AG:23:VAL:HG11	2.19	0.42
7:AG:65:ALA:O	7:AG:66:VAL:C	2.58	0.42
8:AH:68:ARG:HH11	8:AH:68:ARG:HG2	1.84	0.42
1:AA:1371:G:OP2	9:AI:11:LYS:CE	2.68	0.42
12:AL:43:VAL:CG1	12:AL:44:THR:N	2.81	0.42
1:AA:808:C:P	15:AO:48:LYS:CE	3.07	0.42
16:AP:4:ILE:HG23	16:AP:36:ILE:HD11	2.01	0.42
19:AS:17:GLU:HA	19:AS:20:LEU:CD1	2.49	0.42
19:AS:41:VAL:HB	19:AS:43:GLU:OE2	2.19	0.42
21:B0:1017:C:H2'	21:B0:1018:C:O4'	2.19	0.42
21:B0:1223:G:H4'	21:B0:1224:A:C5'	2.49	0.42
21:B0:2492:G:H2'	21:B0:2493:U:C6	2.54	0.42
21:B0:2561:G:N3	21:B0:2561:G:H2'	2.35	0.42
21:B0:2771:C:H5	21:B0:2867:G:H22	1.66	0.42
21:B0:477:A:H2'	21:B0:478:G:O4'	2.20	0.42
21:B0:697:G:O2'	21:B0:698:A:H5'	2.20	0.42
21:B0:883:A:H2'	21:B0:884:C:O4'	2.19	0.42
1:AA:1015:A:C2	1:AA:1218:C:O2'	2.73	0.42
1:AA:1126:U:H2'	1:AA:1127:G:H8	1.85	0.42
1:AA:1264:C:H2'	1:AA:1265:G:C8	2.54	0.42
1:AA:1266:G:N2	1:AA:1269:A:OP2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1086:U:O3'	1:AA:1389:C:H5''	2.20	0.42
1:AA:1407:C:H2'	1:AA:1408:A:H8	1.85	0.42
1:AA:1441:G:H4'	1:AA:1442:G:C8	2.54	0.42
1:AA:1446:A:C4	1:AA:1456:A:N1	2.87	0.42
1:AA:1505:G:H3'	1:AA:1505:G:H8	1.85	0.42
1:AA:246:A:O3'	1:AA:247:G:O4'	2.36	0.42
1:AA:359:U:O2'	1:AA:360:A:H5'	2.18	0.42
1:AA:448:A:C4	1:AA:487:A:C2	3.07	0.42
1:AA:44:G:OP2	16:AP:12:LYS:CG	2.63	0.42
1:AA:452:A:O2'	1:AA:453:A:O4'	2.34	0.42
1:AA:631:G:O3'	1:AA:632:A:P	2.77	0.42
1:AA:761:G:C5'	17:AQ:102:GLY:C	2.87	0.42
1:AA:1106:G:OP1	3:AC:172:ARG:CD	2.68	0.42
3:AC:59:ARG:O	10:AJ:92:THR:HG23	2.13	0.42
4:AD:25:ARG:HA	4:AD:28:SER:OG	2.19	0.42
5:AE:80:ILE:HD12	5:AE:91:LEU:HB2	2.00	0.42
1:AA:1231:G:O3'	9:AI:126:SER:HB3	2.19	0.42
11:AK:104:GLN:OE1	11:AK:106:LYS:HE2	2.19	0.42
12:AL:70:ILE:CD1	12:AL:77:LEU:HD12	2.42	0.42
1:AA:617:G:H4'	16:AP:45:THR:CG2	2.47	0.42
1:AA:264:U:O2'	17:AQ:63:ARG:CD	2.68	0.42
1:AA:583:A:H5''	17:AQ:90:ILE:HG21	2.01	0.42
21:B0:1313:U:O2'	21:B0:1314:A:P	2.78	0.42
21:B0:1480:G:C2'	21:B0:1481:U:H5'	2.49	0.42
21:B0:1775:A:H4'	21:B0:1776:A:C8	2.54	0.42
21:B0:1957:C:O2'	21:B0:1958:G:H5'	2.20	0.42
21:B0:19:C:H2'	21:B0:20:C:C6	2.54	0.42
21:B0:2437:G:H4'	21:B0:2438:A:N7	2.35	0.42
21:B0:2523:G:O2'	21:B0:2524:G:H5'	2.20	0.42
21:B0:2559:U:H2'	21:B0:2560:G:H5'	2.01	0.42
21:B0:2564:U:H5''	21:B0:2565:C:H5'	2.01	0.42
21:B0:669:G:H2'	21:B0:670:U:O4'	2.20	0.42
22:B9:73:C:H3'	22:B9:74:A:OP2	2.20	0.42
1:AA:1305:G:N2	1:AA:1331:G:HO2'	2.14	0.42
1:AA:1377:A:H2'	7:AG:2:ALA:HB3	2.02	0.42
1:AA:1416:G:C3'	1:AA:1417:G:OP1	2.68	0.42
1:AA:1392:G:C5'	1:AA:1531:A:H5''	2.50	0.42
1:AA:928:G:HO2'	1:AA:1533:C:H5	1.66	0.42
1:AA:288:A:HO2'	1:AA:290:C:P	2.36	0.42
1:AA:333:G:O4'	20:AT:16:HIS:HD2	1.90	0.42
1:AA:833:U:H2'	1:AA:834:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:992:U:H2'	1:AA:1043:C:C4	2.48	0.42
7:AG:108:ALA:O	7:AG:119:ARG:HD2	2.18	0.42
8:AH:51:VAL:CG1	8:AH:52:ASP:N	2.82	0.42
10:AJ:72:VAL:O	10:AJ:73:ASP:HB2	2.18	0.42
10:AJ:62:HIS:ND1	14:AN:61:TRP:CZ3	2.85	0.42
15:AO:41:GLU:O	15:AO:42:HIS:C	2.57	0.42
17:AQ:103:GLY:C	21:B0:726:G:N2	2.46	0.42
17:AQ:95:TYR:N	17:AQ:95:TYR:CD1	2.88	0.42
19:AS:20:LEU:HD12	19:AS:21:GLU:N	2.34	0.42
1:AA:1227:A:H5'	19:AS:80:TYR:OH	2.19	0.42
21:B0:1672:A:H2'	21:B0:1673:C:O4'	2.20	0.42
21:B0:1679:U:H2'	21:B0:1680:U:H5''	2.02	0.42
21:B0:1855:G:H4'	21:B0:2390:A:H4'	2.00	0.42
21:B0:833:A:H2'	21:B0:834:A:C8	2.55	0.42
22:B9:50:U:H2'	22:B9:51:G:H8	1.83	0.42
1:AA:107:G:O2'	1:AA:108:G:H5'	2.20	0.42
1:AA:1129:C:O2'	1:AA:1130:A:P	2.78	0.42
1:AA:1376:U:OP1	7:AG:98:SER:CB	2.68	0.42
1:AA:1399:C:C2	1:AA:1502:A:N6	2.86	0.42
1:AA:117:G:N2	1:AA:313:A:H4'	2.34	0.42
1:AA:461:C:O2'	1:AA:462:A:H5'	2.19	0.42
1:AA:218:C:P	1:AA:470:U:O4'	2.78	0.42
1:AA:584:G:H2'	1:AA:585:G:C8	2.54	0.42
1:AA:762:C:H5'	17:AQ:104:LYS:HZ1	1.85	0.42
1:AA:960:U:O2'	1:AA:1223:C:C4'	2.68	0.42
1:AA:960:U:H2'	1:AA:960:U:O2	2.19	0.42
1:AA:965:A:O2'	1:AA:966:G:C5'	2.67	0.42
1:AA:993:G:C2	1:AA:1046:A:C2	3.08	0.42
3:AC:193:TYR:HE1	3:AC:196:LEU:HD11	1.83	0.42
4:AD:24:GLU:H	4:AD:112:VAL:HG11	1.85	0.42
1:AA:1152:A:H5''	10:AJ:13:HIS:HD2	1.85	0.42
12:AL:60:LEU:HD21	12:AL:66:VAL:CG2	2.50	0.42
13:AM:6:GLY:O	13:AM:7:VAL:CG2	2.65	0.42
21:B0:1181:C:H3'	21:B0:1182:U:H5''	2.01	0.42
21:B0:1961:A:H2'	21:B0:1962:C:O4'	2.19	0.42
21:B0:2031:A:H2'	21:B0:2032:G:C8	2.54	0.42
21:B0:2864:C:H2'	21:B0:2865:G:O4'	2.20	0.42
21:B0:3148:G:H2'	21:B0:3149:G:H5'	1.91	0.42
21:B0:589:C:H2'	21:B0:590:C:C6	2.55	0.42
21:B0:69:G:O2'	21:B0:70:A:P	2.78	0.42
21:B0:738:G:C2'	21:B0:739:G:H5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:841:G:N1	21:B0:2226:A:H4'	2.35	0.42
21:B0:903:G:C6	21:B0:904:U:C4	3.08	0.42
1:AA:109:A:OP2	1:AA:110:C:H5	2.02	0.42
1:AA:1064:G:C1'	1:AA:1190:G:H22	2.26	0.42
1:AA:960:U:C1'	1:AA:1222:G:HO2'	2.18	0.42
1:AA:1237:C:H4'	1:AA:1334:G:H21	1.85	0.42
1:AA:1261:A:H5'	1:AA:1283:G:C3'	2.50	0.42
1:AA:1394:A:H61	1:AA:1501:C:C5'	2.26	0.42
1:AA:1394:A:O2'	1:AA:1501:C:O2	2.37	0.42
1:AA:39:G:N7	1:AA:498:U:C4	2.87	0.42
1:AA:44:G:P	16:AP:12:LYS:CB	2.85	0.42
1:AA:51:A:N6	1:AA:313:A:H2	2.17	0.42
1:AA:851:G:H2'	1:AA:852:G:H8	1.84	0.42
2:AB:204:ASN:HD22	2:AB:206:ASP:H	1.66	0.42
3:AC:57:ILE:HG22	3:AC:57:ILE:O	2.20	0.42
3:AC:70:VAL:HG12	3:AC:71:ALA:H	1.84	0.42
3:AC:77:ILE:CG2	3:AC:81:GLY:HA2	2.50	0.42
4:AD:63:LYS:O	4:AD:64:LEU:C	2.58	0.42
11:AK:100:ALA:O	11:AK:101:SER:C	2.57	0.42
11:AK:65:ALA:O	11:AK:68:ALA:HB3	2.20	0.42
13:AM:80:ARG:C	13:AM:82:MET:N	2.73	0.42
17:AQ:40:LYS:HD3	17:AQ:42:TYR:OH	2.20	0.42
21:B0:2467:A:H2'	21:B0:2468:G:C8	2.55	0.42
21:B0:2633:A:H4'	21:B0:2634:G:C4'	2.39	0.42
21:B0:509:U:H2'	21:B0:510:G:H5'	2.00	0.42
21:B0:583:C:H4'	21:B0:584:A:OP2	2.20	0.42
22:B9:9:G:H2'	22:B9:10:U:O4'	2.20	0.42
1:AA:1014:A:C4	19:AS:34:TRP:CB	3.03	0.42
1:AA:1014:A:OP2	19:AS:14:HIS:CB	2.58	0.42
1:AA:1264:C:H2'	1:AA:1265:G:H8	1.85	0.42
1:AA:1409:C:N4	1:AA:1410:G:O6	2.53	0.42
1:AA:815:A:C2	1:AA:1528:U:C5'	2.85	0.42
1:AA:169:C:O2'	1:AA:170:U:H5'	2.19	0.42
1:AA:132:C:O4'	1:AA:262:A:N9	2.53	0.42
1:AA:692:U:O2	1:AA:695:A:C8	2.73	0.42
1:AA:70:A:O2'	1:AA:71:U:H5'	2.19	0.42
1:AA:825:G:O2'	1:AA:826:C:H5'	2.20	0.42
1:AA:1106:G:OP1	3:AC:172:ARG:HD3	2.19	0.42
4:AD:148:VAL:HG13	4:AD:158:ILE:HD13	2.01	0.42
1:AA:8:A:C5	4:AD:209:ARG:CA	3.03	0.42
4:AD:70:ILE:HD11	4:AD:100:ARG:CD	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:39:LEU:HD13	8:AH:39:LEU:HA	1.86	0.42
12:AL:55:VAL:CG1	12:AL:56:ALA:N	2.83	0.42
1:AA:1202:G:O4'	14:AN:29:ARG:HD3	2.19	0.42
19:AS:51:VAL:HG12	19:AS:52:TYR:H	1.85	0.42
21:B0:594:G:H21	21:B0:1267:A:H62	1.68	0.42
21:B0:1667:A:H2'	21:B0:1668:G:C8	2.55	0.42
21:B0:1938:U:O2'	21:B0:1939:U:H5'	2.20	0.42
21:B0:2393:G:H2'	21:B0:2394:G:H8	1.85	0.42
21:B0:2404:A:O2'	21:B0:2405:A:OP2	2.29	0.42
21:B0:2815:C:H2'	21:B0:2816:C:C6	2.55	0.42
21:B0:332:C:H2'	21:B0:333:A:H5'	2.02	0.42
21:B0:391:C:H2'	21:B0:392:G:C8	2.54	0.42
21:B0:571:U:H2'	21:B0:581:A:H1'	2.02	0.42
21:B0:814:G:H3'	21:B0:815:A:C5'	2.46	0.42
21:B0:877:G:N2	21:B0:926:C:H41	2.17	0.42
1:AA:1095:U:H2'	1:AA:1096:C:H6	1.83	0.42
1:AA:1277:C:O3'	1:AA:1279:A:H5'	2.20	0.42
1:AA:1068:G:H5'	1:AA:1388:C:OP1	2.20	0.42
1:AA:1517:G:N2	21:B0:1902:A:O2'	2.53	0.42
1:AA:119:A:C8	1:AA:240:C:N4	2.88	0.42
1:AA:319:G:O2'	1:AA:1434:A:C2	2.40	0.42
1:AA:413:G:N2	1:AA:428:G:H1'	2.34	0.42
1:AA:522:C:O2'	1:AA:523:A:H5'	2.19	0.42
1:AA:560:U:H4'	1:AA:561:U:C5'	2.50	0.42
1:AA:606:G:H3'	1:AA:607:A:H5'	2.02	0.42
1:AA:636:U:H2'	1:AA:637:G:C8	2.54	0.42
1:AA:640:A:O2'	1:AA:641:U:H5'	2.20	0.42
1:AA:767:A:H2'	1:AA:768:A:O4'	2.20	0.42
1:AA:825:G:H2'	1:AA:826:C:C6	2.53	0.42
2:AB:125:PRO:C	2:AB:127:ILE:H	2.22	0.42
2:AB:228:GLY:O	2:AB:229:VAL:C	2.58	0.42
3:AC:79:ARG:NE	3:AC:82:GLU:HG2	2.34	0.42
5:AE:120:THR:HG23	5:AE:121:LYS:H	1.84	0.42
1:AA:15:G:N9	5:AE:19:MET:HE2	2.35	0.42
6:AF:45:LEU:O	6:AF:46:ARG:HG2	2.20	0.42
6:AF:77:ARG:O	6:AF:81:ILE:HG13	2.19	0.42
5:AE:93:PRO:HG2	8:AH:105:ARG:NH2	2.35	0.42
9:AI:120:ARG:O	9:AI:122:ALA:N	2.53	0.42
11:AK:99:GLN:HG2	11:AK:105:VAL:HG21	2.02	0.42
11:AK:57:THR:OG1	11:AK:58:PRO:HD2	2.20	0.42
12:AL:58:VAL:N	12:AL:66:VAL:O	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:32:GLU:O	13:AM:35:GLU:N	2.53	0.42
13:AM:84:ILE:CG2	19:AS:66:MET:CE	2.98	0.42
15:AO:48:LYS:O	15:AO:50:HIS:N	2.50	0.42
17:AQ:95:TYR:HA	17:AQ:98:LEU:HD11	2.02	0.42
18:AR:17:SER:HB2	18:AR:54:ARG:HH21	1.85	0.42
21:B0:1040:A:C2'	21:B0:1041:G:H5'	2.49	0.42
21:B0:1671:A:H2'	21:B0:1672:A:H8	1.85	0.42
21:B0:1747:G:H1'	21:B0:1749:G:C2	2.55	0.42
21:B0:1900:U:H3'	21:B0:1901:A:H8	1.85	0.42
21:B0:1912:G:H3'	21:B0:1912:G:N3	2.35	0.42
21:B0:3098:U:O3'	21:B0:3099:U:OP2	2.15	0.42
21:B0:3126:A:H4'	21:B0:3127:G:OP1	2.19	0.42
21:B0:3184:C:H2'	21:B0:3185:U:H5''	1.98	0.42
21:B0:334:G:N3	21:B0:344:G:H1'	2.35	0.42
21:B0:869:C:O2'	21:B0:870:C:H5'	2.19	0.42
22:B9:106:U:O2'	22:B9:107:C:H5'	2.19	0.42
22:B9:25:G:C2'	22:B9:26:G:H5'	2.50	0.42
1:AA:145:G:O2'	1:AA:146:G:H5'	2.20	0.41
1:AA:189:A:N6	20:AT:104:LEU:HA	2.28	0.41
1:AA:976:G:C5	1:AA:2361:C:C4	3.08	0.41
1:AA:625:G:O2'	1:AA:626:U:H5'	2.20	0.41
1:AA:927:G:O2'	1:AA:1532:U:C5'	2.67	0.41
2:AB:187:LEU:HA	2:AB:201:ILE:HB	2.01	0.41
2:AB:60:ASP:O	2:AB:64:ARG:HB2	2.20	0.41
3:AC:187:ALA:O	3:AC:198:VAL:N	2.51	0.41
7:AG:45:ASP:O	7:AG:49:ILE:HG13	2.20	0.41
7:AG:69:VAL:O	7:AG:69:VAL:CG1	2.68	0.41
8:AH:126:LYS:C	8:AH:128:GLY:N	2.73	0.41
9:AI:110:GLU:OE2	9:AI:113:LYS:NZ	2.53	0.41
10:AJ:32:ALA:HB2	10:AJ:75:ILE:O	2.19	0.41
16:AP:4:ILE:CG1	16:AP:64:ALA:HB1	2.49	0.41
1:AA:761:G:C4'	17:AQ:102:GLY:C	2.82	0.41
20:AT:54:LYS:HA	20:AT:57:ARG:HD3	2.02	0.41
20:AT:44:ALA:HB2	20:AT:88:VAL:HG13	2.02	0.41
21:B0:1112:U:O2	21:B0:1112:U:H2'	2.20	0.41
21:B0:1188:A:H62	21:B0:1189:G:N2	2.17	0.41
21:B0:1762:C:H2'	21:B0:1763:G:C8	2.55	0.41
21:B0:2195:C:H2'	21:B0:2196:U:O4'	2.20	0.41
21:B0:2809:A:H2'	21:B0:2810:A:H5'	2.01	0.41
21:B0:3110:G:C4'	21:B0:3111:C:OP2	2.67	0.41
21:B0:425:A:H2'	21:B0:426:C:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1182:G:O2'	1:AA:1183:A:C5'	2.69	0.41
1:AA:1234:C:H4'	1:AA:1364:U:C1'	2.50	0.41
1:AA:1440:C:H2'	1:AA:1441:G:C5'	2.48	0.41
1:AA:162:A:H2'	1:AA:163:C:O4'	2.20	0.41
1:AA:628:G:O2'	1:AA:629:G:H5'	2.20	0.41
1:AA:866:C:H2'	1:AA:867:G:O4'	2.20	0.41
1:AA:935:A:H4'	1:AA:1384:C:H1'	2.02	0.41
2:AB:64:ARG:HB2	2:AB:64:ARG:HE	1.70	0.41
3:AC:134:ILE:HG22	3:AC:168:ALA:HB3	2.01	0.41
3:AC:191:THR:HG22	3:AC:193:TYR:N	2.23	0.41
3:AC:64:VAL:HG12	3:AC:65:ALA:H	1.84	0.41
9:AI:104:ARG:O	9:AI:105:ASP:C	2.59	0.41
9:AI:97:LYS:HB2	9:AI:98:PRO:HD3	2.01	0.41
20:AT:80:ARG:O	20:AT:84:LEU:HB2	2.20	0.41
21:B0:1196:G:H2'	21:B0:1197:U:H5'	2.00	0.41
21:B0:1448:A:H2'	21:B0:1449:C:C6	2.55	0.41
21:B0:167:A:H2'	21:B0:168:A:C8	2.55	0.41
21:B0:2242:C:N4	21:B0:2257:A:H61	2.18	0.41
21:B0:2604:G:H2'	21:B0:2605:C:C6	2.55	0.41
21:B0:2694:G:H2'	21:B0:2695:C:C6	2.55	0.41
21:B0:2721:A:H62	21:B0:2743:G:H21	1.68	0.41
21:B0:860:U:O2'	21:B0:861:G:H5'	2.20	0.41
21:B0:3875:A:H4'	53:B5:43:LYS:CA	2.51	0.41
1:AA:1262:C:N4	1:AA:1273:G:H1	2.18	0.41
1:AA:1311:G:H2'	1:AA:1312:G:O4'	2.20	0.41
1:AA:1087:G:P	1:AA:1389:C:C4'	3.01	0.41
1:AA:1402:C:H2'	1:AA:1403:C:H6	1.85	0.41
1:AA:1431:C:H2'	1:AA:1432:G:O4'	2.21	0.41
1:AA:19:C:O2'	1:AA:20:U:H5'	2.20	0.41
1:AA:406:G:O6	1:AA:496:A:N7	2.31	0.41
1:AA:439:A:N6	1:AA:497:A:H1'	2.35	0.41
1:AA:942:G:C2	1:AA:943:U:C6	3.07	0.41
4:AD:205:GLU:O	4:AD:208:SER:HB2	2.20	0.41
7:AG:93:PRO:HG2	7:AG:94:ARG:H	1.85	0.41
10:AJ:55:LYS:O	10:AJ:56:HIS:HB2	2.19	0.41
10:AJ:3:LYS:HG3	10:AJ:75:ILE:HG23	2.02	0.41
13:AM:67:GLU:HB3	13:AM:68:GLY:H	1.58	0.41
15:AO:34:LEU:C	15:AO:34:LEU:HD23	2.40	0.41
15:AO:70:LEU:HD12	15:AO:78:TYR:HB2	2.01	0.41
16:AP:39:TYR:CD2	16:AP:73:LEU:HD11	2.54	0.41
17:AQ:95:TYR:N	17:AQ:95:TYR:HD1	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1082:G:H1'	21:B0:1100:G:H2'	2.03	0.41
21:B0:1447:U:H1'	21:B0:1577:G:H22	1.86	0.41
21:B0:1528:C:H3'	21:B0:1529:C:H5''	2.02	0.41
21:B0:1683:G:H2'	21:B0:1684:G:H5'	2.02	0.41
21:B0:2459:C:C2'	21:B0:2460:G:H5'	2.51	0.41
21:B0:2676:G:H2'	21:B0:2677:U:C6	2.56	0.41
21:B0:328:A:O2'	21:B0:329:C:H5'	2.20	0.41
1:AA:1138:G:N1	1:AA:1140:C:C2	2.89	0.41
1:AA:1269:A:C6	1:AA:1313:U:H4'	2.56	0.41
1:AA:1355:G:O2'	1:AA:1356:G:H5'	2.21	0.41
1:AA:1372:U:OP2	9:AI:11:LYS:CE	2.68	0.41
1:AA:1453:G:H2'	1:AA:1454:G:O4'	2.21	0.41
1:AA:1531:A:O5'	1:AA:1531:A:H8	2.03	0.41
1:AA:246:A:H1'	1:AA:247:G:H1'	2.02	0.41
1:AA:382:A:C2	1:AA:383:A:C4	3.08	0.41
1:AA:397:A:H5'	1:AA:398:C:P	2.60	0.41
1:AA:47:C:C6	1:AA:365:U:H2'	2.56	0.41
1:AA:532:A:H2'	1:AA:533:A:C5'	2.48	0.41
1:AA:550:G:O2'	1:AA:551:U:H5'	2.20	0.41
1:AA:300:A:C1'	1:AA:565:U:O2	2.47	0.41
1:AA:647:C:H2'	1:AA:648:A:C8	2.54	0.41
1:AA:953:G:H1'	13:AM:125:ARG:HB3	1.99	0.41
2:AB:145:LEU:HD23	2:AB:145:LEU:HA	1.84	0.41
2:AB:62:ALA:C	2:AB:64:ARG:H	2.23	0.41
6:AF:48:LEU:HD13	6:AF:52:ILE:CG1	2.50	0.41
1:AA:1240:U:H5	7:AG:109:ASN:OD1	2.04	0.41
7:AG:23:VAL:HG13	7:AG:43:PHE:CE2	2.55	0.41
8:AH:111:ILE:O	8:AH:134:ILE:HB	2.20	0.41
9:AI:110:GLU:HG2	9:AI:113:LYS:NZ	2.35	0.41
13:AM:36:LYS:C	13:AM:38:GLY:H	2.24	0.41
13:AM:82:MET:HG3	13:AM:93:ARG:HG3	2.02	0.41
13:AM:96:LEU:HB3	13:AM:97:PRO:HD2	2.01	0.41
15:AO:26:GLU:HG3	15:AO:81:LEU:HG	2.02	0.41
15:AO:83:GLU:C	15:AO:83:GLU:OE1	2.58	0.41
21:B0:31:C:H5''	21:B0:1252:C:OP1	2.20	0.41
21:B0:1679:U:H3'	21:B0:1680:U:C5'	2.45	0.41
21:B0:1880:G:H2'	21:B0:1881:U:C6	2.55	0.41
21:B0:2448:A:C2'	21:B0:2449:G:H5'	2.50	0.41
21:B0:601:A:H3'	21:B0:602:C:H5'	2.03	0.41
21:B0:773:G:H2'	21:B0:774:A:O4'	2.21	0.41
21:B0:895:G:H2'	21:B0:896:C:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1057:G:H2'	1:AA:1058:G:O4'	2.20	0.41
1:AA:1112:C:C2	3:AC:178:LEU:CA	3.03	0.41
1:AA:1190:G:OP1	3:AC:5:ILE:N	2.52	0.41
1:AA:1320:C:H41	19:AS:37:ARG:CD	2.32	0.41
1:AA:355:C:C4'	1:AA:389:A:OP2	2.68	0.41
1:AA:38:G:O4'	1:AA:547:A:C6	2.73	0.41
1:AA:602:A:C2	1:AA:637:G:C2	3.08	0.41
1:AA:841:C:N3	1:AA:845:A:N6	2.67	0.41
1:AA:867:G:O2'	1:AA:868:C:H5'	2.20	0.41
1:AA:8:A:C6	4:AD:209:ARG:CA	3.03	0.41
2:AB:10:LEU:C	2:AB:12:GLU:N	2.72	0.41
3:AC:134:ILE:HD13	3:AC:166:GLU:HB3	2.01	0.41
4:AD:62:GLN:HE22	4:AD:65:ARG:NH1	2.18	0.41
5:AE:9:LYS:HG3	5:AE:112:LEU:HD11	2.03	0.41
6:AF:19:LEU:HD21	6:AF:23:LYS:HD2	2.01	0.41
7:AG:95:ARG:NH1	7:AG:95:ARG:CG	2.80	0.41
13:AM:46:LYS:HE3	13:AM:46:LYS:HB2	1.86	0.41
13:AM:84:ILE:HD12	19:AS:74:PHE:HE2	1.86	0.41
16:AP:19:ILE:HG22	16:AP:36:ILE:CG1	2.51	0.41
20:AT:100:ILE:C	20:AT:102:GLY:N	2.74	0.41
1:AA:262:A:C4'	20:AT:74:LYS:CB	2.98	0.41
21:B0:1073:G:H2'	21:B0:1073:G:N3	2.35	0.41
21:B0:1055:A:H2	21:B0:1121:G:H2'	1.83	0.41
21:B0:1204:G:H2'	21:B0:1205:G:C8	2.55	0.41
21:B0:1579:G:H2'	21:B0:1580:C:C6	2.56	0.41
1:AA:1473:A:O2'	21:B0:1718:A:C2	2.66	0.41
21:B0:2440:C:H1'	21:B0:2471:U:N3	2.32	0.41
21:B0:2710:C:O2'	21:B0:2711:G:H5'	2.20	0.41
21:B0:2756:A:H1'	21:B0:2758:A:N7	2.36	0.41
21:B0:2796:A:H2'	21:B0:2797:G:O4'	2.20	0.41
21:B0:3865:A:C4	21:B0:3875:A:N1	2.89	0.41
21:B0:567:G:H2'	21:B0:568:G:C8	2.56	0.41
21:B0:59:G:O6	21:B0:62:U:H2'	2.19	0.41
1:AA:1044:A:C2'	1:AA:1045:C:HO2'	2.18	0.41
1:AA:1213:A:N1	1:AA:1215:G:H1'	2.35	0.41
1:AA:1227:A:OP1	19:AS:80:TYR:CZ	2.74	0.41
1:AA:951:G:C6	1:AA:1231:G:C6	3.08	0.41
1:AA:1300:G:O2'	1:AA:1301:U:C6	2.70	0.41
1:AA:1394:A:C2	1:AA:1501:C:C1'	3.02	0.41
1:AA:191:G:N2	1:AA:192:U:H1'	2.23	0.41
1:AA:143:A:H2	1:AA:220:G:H22	1.66	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:285:G:O2'	1:AA:286:G:H5'	2.21	0.41
1:AA:134:A:C1'	1:AA:325:A:C4	3.03	0.41
1:AA:502:G:H2'	1:AA:503:C:C6	2.56	0.41
1:AA:502:G:H2'	1:AA:503:C:H6	1.84	0.41
1:AA:939:G:C6	1:AA:940:C:N4	2.89	0.41
1:AA:977:A:H1'	1:AA:1223:C:N4	2.35	0.41
2:AB:215:LEU:HD23	2:AB:215:LEU:HA	1.90	0.41
3:AC:73:PRO:HD3	3:AC:105:GLU:HG3	2.03	0.41
3:AC:172:ARG:HH12	3:AC:174:PRO:CG	2.22	0.41
4:AD:130:GLY:O	4:AD:131:ARG:C	2.58	0.41
6:AF:95:GLU:CD	6:AF:95:GLU:N	2.65	0.41
8:AH:126:LYS:O	8:AH:128:GLY:N	2.54	0.41
10:AJ:3:LYS:CG	10:AJ:75:ILE:HG23	2.50	0.41
11:AK:86:GLY:H	11:AK:112:THR:CG2	2.32	0.41
14:AN:3:ARG:NH1	14:AN:6:LEU:CD1	2.84	0.41
20:AT:53:LEU:HD13	20:AT:101:GLY:N	2.35	0.41
21:B0:1007:A:H2'	21:B0:1008:G:H8	1.84	0.41
21:B0:1889:G:H2'	21:B0:1890:G:C8	2.55	0.41
21:B0:1962:C:H2'	21:B0:1963:G:H8	1.84	0.41
21:B0:365:U:H2'	21:B0:366:U:C6	2.56	0.41
21:B0:643:A:H2'	21:B0:644:A:C8	2.56	0.41
21:B0:870:C:H2'	21:B0:871:U:C6	2.56	0.41
21:B0:909:C:H2'	21:B0:910:U:H6	1.85	0.41
21:B0:974:U:H2'	21:B0:975:C:C6	2.55	0.41
1:AA:1110:A:N6	1:AA:1111:A:N1	2.69	0.41
1:AA:1111:A:C2	3:AC:177:THR:OG1	2.71	0.41
1:AA:13:U:O2	1:AA:914:A:C8	2.74	0.41
1:AA:1426:C:H2'	1:AA:1427:U:H6	1.84	0.41
1:AA:176:C:H2'	1:AA:177:C:C6	2.56	0.41
1:AA:367:U:O2	1:AA:369:C:C2	2.73	0.41
1:AA:511:C:O3'	4:AD:43:HIS:CE1	2.74	0.41
1:AA:651:C:C5	1:AA:652:U:C5	3.07	0.41
1:AA:653:A:OP1	8:AH:56:LYS:HE3	2.20	0.41
2:AB:14:GLY:O	2:AB:15:VAL:CG2	2.69	0.41
2:AB:95:GLN:C	2:AB:96:ARG:HD2	2.40	0.41
8:AH:6:ILE:O	8:AH:10:LEU:HG	2.20	0.41
8:AH:91:ARG:HA	17:AQ:34:LYS:CB	2.46	0.41
14:AN:39:LEU:HD11	14:AN:47:LEU:HD12	2.02	0.41
16:AP:43:LYS:HA	16:AP:48:TRP:CB	2.51	0.41
1:AA:1225:A:H4'	19:AS:78:ARG:HH11	1.85	0.41
20:AT:23:ARG:NH1	20:AT:23:ARG:HG2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:43:LEU:HD13	20:AT:51:GLU:CG	2.43	0.41
21:B0:1018:C:H2'	21:B0:1019:U:H5	1.86	0.41
21:B0:128:C:C3'	21:B0:129:A:H5''	2.50	0.41
21:B0:1332:G:H2'	21:B0:1333:G:O4'	2.21	0.41
21:B0:1354:A:O2'	21:B0:1355:A:OP1	2.29	0.41
21:B0:178:C:H4'	21:B0:399:G:C2	2.56	0.41
21:B0:1915:A:H2'	21:B0:1916:G:O4'	2.21	0.41
21:B0:1948:C:H2'	21:B0:1949:A:N7	2.36	0.41
21:B0:3197:U:O2	21:B0:2181:A:C6	2.73	0.41
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.86	0.41
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.83	0.41
1:AA:1305:G:C2'	1:AA:1306:A:H8	2.32	0.41
1:AA:1416:G:N1	1:AA:1417:G:H1'	2.33	0.41
1:AA:2003:G:H2'	1:AA:1004:A:H4'	2.02	0.41
1:AA:948:C:O2'	1:AA:949:A:H5'	2.21	0.41
5:AE:144:THR:O	5:AE:145:LYS:C	2.59	0.41
5:AE:36:ASP:OD1	5:AE:38:GLN:N	2.39	0.41
11:AK:48:ILE:O	11:AK:49:GLY:C	2.59	0.41
12:AL:28:LYS:CG	12:AL:33:ARG:HH12	2.34	0.41
12:AL:33:ARG:HD2	12:AL:62:SER:HB3	2.01	0.41
13:AM:86:CYS:O	13:AM:90:LEU:CG	2.49	0.41
15:AO:39:LEU:HD12	15:AO:59:MET:HE2	2.02	0.41
13:AM:84:ILE:HG21	19:AS:65:ASN:ND2	2.35	0.41
1:AA:187:G:H2'	20:AT:105:SER:HB3	2.02	0.41
1:AA:323:U:C5'	20:AT:19:SER:O	2.69	0.41
21:B0:139:A:H2'	21:B0:140:G:C8	2.56	0.41
21:B0:1566:G:H2'	21:B0:1567:A:C8	2.56	0.41
21:B0:2395:C:H2'	21:B0:2396:C:C5'	2.51	0.41
21:B0:675:C:H5''	32:BJ:26:THR:CA	2.51	0.41
21:B0:753:U:C2'	21:B0:754:G:H5'	2.51	0.41
1:AA:1061:G:C2'	1:AA:1062:U:H5'	2.50	0.41
1:AA:1184:G:H2'	1:AA:1185:G:C8	2.56	0.41
1:AA:1048:G:C1'	1:AA:1215:G:H4'	2.50	0.41
1:AA:1350:A:C6	1:AA:1351:U:N3	2.89	0.41
1:AA:1394:A:C4	1:AA:1501:C:O4'	2.74	0.41
1:AA:184:G:C2'	1:AA:224:C:H4'	2.51	0.41
1:AA:621:A:H2'	1:AA:622:A:H8	1.85	0.41
2:AB:130:ARG:HB3	2:AB:134:GLU:OE1	2.20	0.41
2:AB:15:VAL:HG11	2:AB:210:SER:N	2.36	0.41
3:AC:108:ASN:C	3:AC:110:ASN:N	2.73	0.41
3:AC:65:ALA:O	3:AC:66:VAL:HB	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:79:ARG:CG	3:AC:82:GLU:HG2	2.51	0.41
5:AE:40:ARG:NH1	5:AE:68:GLU:OE2	2.49	0.41
8:AH:82:HIS:O	8:AH:83:ILE:HB	2.21	0.41
11:AK:127:LYS:HD3	11:AK:127:LYS:HA	1.78	0.41
12:AL:46:LYS:NZ	12:AL:47:LYS:HE3	2.36	0.41
12:AL:27:LEU:HB3	12:AL:62:SER:HB2	2.03	0.41
15:AO:38:ARG:O	15:AO:41:GLU:HB3	2.20	0.41
19:AS:25:LYS:N	19:AS:25:LYS:HD2	2.34	0.41
21:B0:1196:G:H2'	21:B0:1197:U:C5'	2.51	0.41
21:B0:1760:G:H2'	21:B0:1761:G:C8	2.56	0.41
21:B0:187:U:H2'	21:B0:188:G:C8	2.56	0.41
21:B0:2028:C:O2'	21:B0:2029:G:H5'	2.21	0.41
21:B0:2212:U:H2'	21:B0:2213:G:C8	2.55	0.41
21:B0:239:A:H2'	21:B0:240:U:O4'	2.20	0.41
21:B0:2491:C:H2'	21:B0:2492:G:C5'	2.45	0.41
21:B0:2811:G:H2'	21:B0:2812:A:C8	2.55	0.41
21:B0:3177:C:O2'	21:B0:3178:C:H5'	2.19	0.41
21:B0:477:A:C2'	21:B0:478:G:H5'	2.51	0.41
21:B0:478:G:O2'	21:B0:479:G:H5'	2.20	0.41
21:B0:644:A:C2'	21:B0:645:G:H5'	2.50	0.41
21:B0:810:U:H2'	21:B0:811:G:H8	1.85	0.41
21:B0:831:G:H21	21:B0:1203:A:N6	2.04	0.41
21:B0:967:G:H1'	21:B0:970:A:H62	1.86	0.41
1:AA:992:U:H2'	1:AA:1043:C:H41	1.85	0.41
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.50	0.41
1:AA:1126:U:H6	1:AA:1126:U:P	2.43	0.41
1:AA:119:A:C5	1:AA:240:C:N3	2.89	0.41
1:AA:1270:C:HO2'	1:AA:1314:C:H5'	1.86	0.41
1:AA:1392:G:H2'	1:AA:1393:U:H6	1.86	0.41
1:AA:16:A:C2'	1:AA:17:U:H5'	2.51	0.41
1:AA:367:U:C4	1:AA:369:C:N4	2.89	0.41
1:AA:371:G:C2'	1:AA:372:C:H5'	2.51	0.41
1:AA:562:C:O2'	12:AL:17:LYS:HE3	2.20	0.41
1:AA:588:G:N1	1:AA:652:U:N3	2.69	0.41
1:AA:577:G:H1'	1:AA:816:A:C4	2.56	0.41
2:AB:165:VAL:O	2:AB:187:LEU:O	2.38	0.41
4:AD:7:PRO:CB	4:AD:10:ARG:HD2	2.51	0.41
6:AF:33:TYR:HA	6:AF:71:ARG:NH2	2.36	0.41
1:AA:1367:C:H5''	10:AJ:60:ARG:NH1	2.35	0.41
12:AL:104:VAL:HG12	12:AL:105:TYR:CD1	2.56	0.41
12:AL:48:PRO:CG	12:AL:49:ASN:H	2.25	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:37:THR:HG23	13:AM:55:ARG:HB2	2.03	0.41
10:AJ:63:PHE:CE1	14:AN:48:ALA:HB3	2.53	0.41
14:AN:53:LEU:HA	14:AN:54:PRO:HD2	1.77	0.41
15:AO:74:ASP:OD1	15:AO:76:GLU:HB3	2.21	0.41
17:AQ:97:SER:CB	17:AQ:102:GLY:C	2.78	0.41
20:AT:92:LEU:O	20:AT:96:GLY:HA3	2.21	0.41
21:B0:1004:A:C2'	21:B0:1005:U:H5''	2.46	0.41
21:B0:147:G:C2	21:B0:148:C:H1'	2.56	0.41
21:B0:1542:G:H21	21:B0:1561:A:H62	1.69	0.41
21:B0:2018:G:H3'	21:B0:2019:C:H5'	2.03	0.41
21:B0:2239:C:O2'	21:B0:2240:C:H5'	2.21	0.41
21:B0:2526:U:H2'	21:B0:2527:G:C8	2.55	0.41
21:B0:2562:G:H2'	21:B0:2563:U:O4'	2.20	0.41
21:B0:2620:G:H2'	21:B0:2621:G:H8	1.86	0.41
21:B0:3110:G:P	21:B0:3148:G:H2'	2.45	0.41
21:B0:514:G:C2'	21:B0:514:G:N3	2.82	0.41
21:B0:658:G:H4'	21:B0:2331:A:C5'	2.50	0.41
21:B0:776:G:N3	21:B0:776:G:H3'	2.36	0.41
21:B0:811:G:O2'	21:B0:812:G:H5'	2.21	0.41
1:AA:1128:C:H5'	9:AI:16:ARG:CZ	2.51	0.41
1:AA:1257:U:H4'	1:AA:1258:G:C5'	2.50	0.41
1:AA:1263:C:H2'	1:AA:1264:C:C6	2.56	0.41
1:AA:1320:C:OP1	19:AS:70:LYS:NZ	2.45	0.41
1:AA:359:U:H2'	1:AA:360:A:C8	2.56	0.41
1:AA:397:A:H5'	1:AA:398:C:OP1	2.21	0.41
1:AA:402:G:O2'	1:AA:620:C:N4	2.54	0.41
1:AA:824:C:H2'	1:AA:825:G:C8	2.56	0.41
1:AA:836:G:C6	1:AA:851:G:C6	3.09	0.41
1:AA:848:G:C3'	1:AA:849:C:O4'	2.68	0.41
1:AA:930:C:O2'	1:AA:931:C:H5'	2.20	0.41
2:AB:134:GLU:O	2:AB:138:LEU:HG	2.21	0.41
3:AC:150:LYS:HE2	3:AC:152:ILE:CD1	2.44	0.41
3:AC:7:PRO:HG2	3:AC:184:TYR:CB	2.45	0.41
3:AC:95:THR:C	3:AC:97:LYS:N	2.73	0.41
4:AD:108:LEU:HD23	4:AD:108:LEU:HA	1.86	0.41
4:AD:88:VAL:HG13	5:AE:97:GLY:N	2.36	0.41
1:AA:1368:G:H3'	9:AI:112:LYS:HB3	2.03	0.41
10:AJ:50:ILE:HB	14:AN:41:ARG:HD3	2.03	0.41
10:AJ:75:ILE:O	10:AJ:76:ASN:HB2	2.21	0.41
11:AK:67:ASP:OD2	11:AK:71:LYS:HE3	2.21	0.41
11:AK:95:ILE:O	11:AK:95:ILE:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:7:ILE:HA	12:AL:7:ILE:HD13	1.93	0.41
15:AO:26:GLU:HA	15:AO:81:LEU:HD11	2.03	0.41
16:AP:82:GLN:O	16:AP:83:GLU:C	2.59	0.41
17:AQ:97:SER:O	17:AQ:99:SER:N	2.53	0.41
18:AR:39:VAL:CG1	18:AR:40:LEU:N	2.84	0.41
1:AA:958:A:N1	19:AS:54:GLY:C	2.75	0.41
21:B0:108:G:H2'	21:B0:109:A:C8	2.56	0.41
21:B0:1119:U:O5'	21:B0:1120:C:P	2.79	0.41
21:B0:1194:U:O2'	21:B0:1195:U:P	2.79	0.41
21:B0:1682:A:H2'	21:B0:1683:G:C8	2.56	0.41
21:B0:2447:G:H2'	21:B0:2448:A:H5'	2.02	0.41
21:B0:769:C:H2'	21:B0:770:U:O4'	2.21	0.41
21:B0:819:C:H2'	21:B0:820:U:C6	2.56	0.41
21:B0:856:A:H2'	21:B0:857:U:O4'	2.21	0.41
21:B0:878:C:N4	21:B0:921:A:H62	2.07	0.41
1:AA:1286:A:H2'	1:AA:1287:A:O5'	2.21	0.40
1:AA:1342:C:O3'	9:AI:125:TYR:CE2	2.70	0.40
1:AA:1457:A:C4	1:AA:1459:C:H1'	2.53	0.40
1:AA:815:A:N6	1:AA:1508:G:H21	2.19	0.40
1:AA:165:C:H2'	1:AA:166:G:H8	1.86	0.40
1:AA:292:G:C2'	1:AA:608:A:H61	2.23	0.40
1:AA:519:C:H2'	1:AA:520:A:C8	2.56	0.40
1:AA:766:A:C2	1:AA:1525:G:H1'	2.56	0.40
1:AA:844:A:H2'	1:AA:845:A:H8	1.86	0.40
1:AA:864:A:H2'	1:AA:865:A:C8	2.56	0.40
1:AA:983:A:H2	1:AA:984:C:C6	2.40	0.40
2:AB:53:ARG:NH1	2:AB:199:TYR:HD2	2.19	0.40
3:AC:191:THR:HG21	3:AC:193:TYR:CE2	2.56	0.40
3:AC:77:ILE:O	3:AC:83:ARG:HB3	2.21	0.40
4:AD:194:LEU:N	4:AD:194:LEU:HD22	2.36	0.40
5:AE:110:LEU:HD13	5:AE:118:ILE:HD12	2.04	0.40
6:AF:79:LEU:O	6:AF:85:VAL:HG11	2.22	0.40
7:AG:72:ARG:HH12	7:AG:138:LYS:NZ	2.19	0.40
8:AH:100:ILE:HA	8:AH:101:PRO:HD2	1.95	0.40
8:AH:125:ARG:HB2	8:AH:125:ARG:HE	1.68	0.40
9:AI:117:HIS:C	9:AI:118:LYS:HG3	2.42	0.40
9:AI:78:LYS:HE2	9:AI:78:LYS:HB3	1.87	0.40
10:AJ:23:ILE:CD1	10:AJ:23:ILE:N	2.85	0.40
10:AJ:59:SER:O	10:AJ:60:ARG:HB2	2.20	0.40
12:AL:53:ARG:CB	12:AL:93:LEU:HD11	2.50	0.40
18:AR:44:LEU:HD22	18:AR:48:GLY:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1223:G:N2	21:B0:1225:G:H21	2.13	0.40
21:B0:1234:C:H2'	21:B0:1235:C:C6	2.57	0.40
21:B0:1686:A:C2'	21:B0:1687:C:H5'	2.52	0.40
21:B0:2023:C:H2'	21:B0:2024:U:C6	2.56	0.40
21:B0:2027:C:H2'	21:B0:2028:C:C6	2.55	0.40
21:B0:2240:C:H2'	21:B0:2241:U:C5'	2.50	0.40
21:B0:820:U:H5'	21:B0:2424:G:H4'	2.04	0.40
21:B0:2522:G:O2'	21:B0:2523:G:H5'	2.21	0.40
21:B0:2524:G:H2'	21:B0:2525:U:O4'	2.21	0.40
21:B0:930:A:H5'	21:B0:931:G:C8	2.57	0.40
1:AA:1020:U:H2'	1:AA:1021:G:C8	2.50	0.40
1:AA:1053:G:C3'	1:AA:1054:C:C5'	2.99	0.40
1:AA:1124:G:C8	1:AA:1145:C:C5	3.09	0.40
1:AA:1237:C:C4'	1:AA:1334:G:H21	2.34	0.40
1:AA:975:A:C2	1:AA:1357:A:H1'	2.56	0.40
1:AA:1380:U:O2'	1:AA:1381:U:OP2	2.36	0.40
1:AA:1394:A:C8	1:AA:1501:C:O2'	2.68	0.40
1:AA:1415:G:O2'	1:AA:1416:G:H5'	2.22	0.40
1:AA:813:U:HO2'	1:AA:1511:G:HO2'	1.67	0.40
1:AA:1406:U:H1'	1:AA:1518:A:C4'	2.51	0.40
1:AA:155:C:H2'	1:AA:156:G:C8	2.57	0.40
1:AA:234:C:H5''	17:AQ:70:ARG:HH21	1.87	0.40
1:AA:637:G:O2'	1:AA:638:G:H5'	2.21	0.40
2:AB:125:PRO:HG2	2:AB:126:GLU:H	1.86	0.40
2:AB:14:GLY:O	2:AB:15:VAL:HG22	2.21	0.40
2:AB:47:THR:HG23	2:AB:202:PRO:O	2.22	0.40
3:AC:67:THR:HG22	3:AC:67:THR:O	2.21	0.40
4:AD:163:GLU:O	4:AD:166:LYS:HG3	2.22	0.40
4:AD:23:GLY:HA3	4:AD:112:VAL:HG13	2.02	0.40
5:AE:24:ARG:O	5:AE:25:ARG:HG2	2.20	0.40
1:AA:1123:A:O2'	10:AJ:38:ILE:HG22	2.21	0.40
1:AA:538:G:H3'	12:AL:115:LYS:HE2	2.03	0.40
13:AM:69:GLU:O	13:AM:72:ALA:HB3	2.21	0.40
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.37	0.40
15:AO:81:LEU:HD22	15:AO:85:LEU:HD12	2.03	0.40
16:AP:6:LEU:HD12	16:AP:6:LEU:N	2.36	0.40
21:B0:1474:A:C2'	21:B0:1475:U:H5'	2.47	0.40
21:B0:174:A:H2'	21:B0:175:C:O4'	2.21	0.40
21:B0:1770:U:H2'	21:B0:1774:A:H62	1.86	0.40
21:B0:2048:C:H2'	21:B0:2049:C:C6	2.56	0.40
21:B0:2236:U:H2'	21:B0:2237:C:C5'	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:3111:C:C4	21:B0:3148:G:P	2.85	0.40
21:B0:3172:U:O2'	21:B0:3173:A:H5'	2.21	0.40
21:B0:420:C:H2'	21:B0:421:G:C8	2.57	0.40
21:B0:552:C:C2'	21:B0:553:C:H4'	2.46	0.40
21:B0:699:G:N3	21:B0:699:G:H3'	2.35	0.40
21:B0:1861:G:O4'	53:B5:199:ASN:CA	2.70	0.40
22:B9:56:G:H2'	22:B9:57:U:O4'	2.22	0.40
22:B9:63:A:H2'	22:B9:64:C:C6	2.55	0.40
1:AA:1021:G:H2'	1:AA:1022:G:H5'	2.04	0.40
1:AA:1390:U:H2'	1:AA:1391:U:H6	1.85	0.40
1:AA:1405:G:H4'	1:AA:1519:A:C5'	2.50	0.40
1:AA:1394:A:H61	1:AA:1501:C:H5'	1.81	0.40
1:AA:185:A:HO2'	1:AA:186:C:C5'	2.33	0.40
1:AA:976:G:C6	1:AA:2361:C:C5	3.09	0.40
1:AA:43:C:H2'	1:AA:44:G:O4'	2.21	0.40
1:AA:482:A:H2'	1:AA:483:C:O4'	2.21	0.40
1:AA:599:C:O2'	1:AA:600:C:H5'	2.22	0.40
1:AA:965:A:O2'	1:AA:966:G:P	2.80	0.40
2:AB:24:TRP:CG	2:AB:25:ASN:N	2.89	0.40
3:AC:126:ARG:C	3:AC:127:ARG:HG3	2.42	0.40
3:AC:64:VAL:H	3:AC:64:VAL:HG23	1.60	0.40
6:AF:48:LEU:HD13	6:AF:52:ILE:CD1	2.51	0.40
7:AG:104:LEU:HD23	7:AG:134:ALA:HB1	2.04	0.40
13:AM:63:THR:HG23	13:AM:64:TRP:CD2	2.56	0.40
15:AO:17:ARG:CG	15:AO:17:ARG:NH1	2.85	0.40
16:AP:17:TYR:N	16:AP:17:TYR:CD1	2.89	0.40
16:AP:67:THR:CG2	16:AP:68:ASP:N	2.81	0.40
21:B0:1337:G:H1'	21:B0:1632:A:C6	2.56	0.40
21:B0:1354:A:C2	21:B0:1411:C:H4'	2.56	0.40
21:B0:1906:U:H2'	21:B0:1907:C:C6	2.56	0.40
21:B0:2048:C:H2'	21:B0:2049:C:H6	1.87	0.40
21:B0:2370:G:H2'	21:B0:2371:A:H2	1.87	0.40
21:B0:2437:G:H2'	21:B0:2469:G:N1	2.37	0.40
21:B0:2532:G:H1'	21:B0:2561:G:N3	2.36	0.40
21:B0:3128:G:H5''	21:B0:3174:C:O2'	2.22	0.40
21:B0:521:U:C2'	21:B0:522:G:H5'	2.51	0.40
1:AA:1110:A:C3'	1:AA:1111:A:C5'	2.95	0.40
1:AA:1126:U:C1'	1:AA:1280:A:C6	2.99	0.40
1:AA:1408:A:O2'	1:AA:1409:C:H5'	2.21	0.40
1:AA:147:G:O2'	1:AA:148:G:H5'	2.21	0.40
1:AA:182:U:OP2	1:AA:183:G:C8	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:330:C:H5''	1:AA:330:C:H6	1.87	0.40
1:AA:373:A:H2'	1:AA:374:A:H8	1.85	0.40
1:AA:567:G:H2'	1:AA:568:G:O4'	2.21	0.40
1:AA:715:A:H2'	1:AA:716:A:C8	2.57	0.40
1:AA:8:A:C6	4:AD:209:ARG:CB	3.04	0.40
1:AA:913:A:H1'	1:AA:914:A:O4'	2.21	0.40
1:AA:961:U:O2'	1:AA:962:C:H5'	2.20	0.40
2:AB:134:GLU:HG2	2:AB:137:ARG:HH21	1.86	0.40
2:AB:9:GLU:O	2:AB:48:MET:SD	2.80	0.40
3:AC:126:ARG:O	3:AC:127:ARG:HB2	2.21	0.40
4:AD:100:ARG:HB3	4:AD:102:ASP:OD1	2.22	0.40
9:AI:121:ARG:HD3	9:AI:121:ARG:C	2.42	0.40
10:AJ:12:ASP:OD1	10:AJ:14:LYS:N	2.50	0.40
15:AO:71:GLN:O	15:AO:72:ARG:C	2.59	0.40
1:AA:450:G:C4'	16:AP:42:ARG:HG2	2.51	0.40
18:AR:21:LYS:HG3	18:AR:57:GLY:CA	2.51	0.40
19:AS:67:VAL:HG12	19:AS:68:GLY:N	2.35	0.40
21:B0:1026:U:H2'	21:B0:1027:C:C6	2.56	0.40
21:B0:211:U:H2'	21:B0:212:U:O4'	2.22	0.40
21:B0:2372:A:H2'	21:B0:2373:C:C6	2.56	0.40
21:B0:2519:C:H2'	21:B0:2520:A:O4'	2.21	0.40
21:B0:1686:A:O2'	21:B0:2528:G:H5'	2.22	0.40
21:B0:340:G:O4'	21:B0:488:A:H1'	2.22	0.40
21:B0:35:G:H1'	21:B0:466:A:H1'	2.04	0.40
21:B0:69:G:HO2'	21:B0:70:A:P	2.45	0.40
21:B0:718:A:N6	21:B0:739:G:H4'	2.37	0.40
21:B0:738:G:H2'	21:B0:739:G:H5'	2.02	0.40
21:B0:79:G:H1'	21:B0:356:A:C2	2.57	0.40
21:B0:878:C:O2'	21:B0:879:A:P	2.80	0.40
22:B9:110:U:O2'	22:B9:111:C:H5'	2.21	0.40
1:AA:1001:A:H2'	1:AA:1002:G:C8	2.56	0.40
1:AA:1110:A:H8	1:AA:1110:A:O5'	2.04	0.40
1:AA:112:G:N3	1:AA:354:G:O4'	2.55	0.40
1:AA:1300:G:C2'	1:AA:1301:U:OP2	2.70	0.40
1:AA:671:G:H2'	1:AA:672:U:O4'	2.21	0.40
1:AA:748:C:OP2	1:AA:748:C:H6	2.05	0.40
1:AA:883:C:O2'	1:AA:884:U:H5'	2.21	0.40
1:AA:94:G:O6	1:AA:96:C:N4	2.55	0.40
1:AA:952:U:H2'	1:AA:953:G:H8	1.85	0.40
3:AC:134:ILE:CD1	3:AC:166:GLU:HB3	2.52	0.40
5:AE:118:ILE:HG22	5:AE:119:LEU:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:119:LEU:HD23	5:AE:119:LEU:HA	1.84	0.40
6:AF:48:LEU:HD13	6:AF:52:ILE:HD12	2.03	0.40
6:AF:78:GLU:HA	6:AF:81:ILE:CD1	2.51	0.40
6:AF:98:LEU:HD23	6:AF:98:LEU:HA	1.94	0.40
1:AA:600:C:H4'	8:AH:129:VAL:HG12	2.04	0.40
8:AH:18:ARG:HD2	8:AH:18:ARG:N	2.36	0.40
11:AK:86:GLY:N	11:AK:112:THR:HG23	2.35	0.40
11:AK:115:PRO:C	11:AK:117:ASN:H	2.25	0.40
12:AL:83:VAL:HG22	12:AL:84:LEU:H	1.86	0.40
13:AM:123:ALA:O	13:AM:124:PRO:C	2.60	0.40
16:AP:51:VAL:O	16:AP:52:ASP:C	2.58	0.40
19:AS:28:LYS:CG	19:AS:29:ARG:H	2.09	0.40
21:B0:1197:U:H2'	21:B0:1198:C:O4'	2.21	0.40
21:B0:1452:U:H5'	21:B0:1532:A:O2'	2.21	0.40
21:B0:2809:A:N6	21:B0:2854:G:H2'	2.36	0.40
21:B0:2862:G:O2'	21:B0:2863:U:H5'	2.22	0.40
21:B0:3196:G:O3'	21:B0:3197:U:P	2.80	0.40
21:B0:57:G:C2'	21:B0:58:C:H5''	2.47	0.40
21:B0:70:A:H4'	21:B0:72:A:OP1	2.22	0.40

All (5) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:172:PRO:O	6:AF:15:ASP:CB[3_555]	1.83	0.37
1:AA:416:G:OP1	21:B0:3140:G:O2'[3_555]	1.99	0.21
7:AG:51:GLN:NE2	10:AJ:87:THR:OG1[4_555]	2.08	0.12
7:AG:57:GLU:OE2	10:AJ:89:ASP:OD1[4_555]	2.14	0.06
4:AD:186:LEU:CD1	6:AF:15:ASP:OD2[3_555]	2.14	0.06

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	
2	AB	232/234 (99%)	174 (75%)	34 (15%)	24 (10%)	0	8
3	AC	204/206 (99%)	135 (66%)	40 (20%)	29 (14%)	0	4
4	AD	206/208 (99%)	166 (81%)	31 (15%)	9 (4%)	2	22
5	AE	148/150 (99%)	130 (88%)	13 (9%)	5 (3%)	3	26
6	AF	99/101 (98%)	79 (80%)	19 (19%)	1 (1%)	15	55
7	AG	153/155 (99%)	127 (83%)	16 (10%)	10 (6%)	1	16
8	AH	136/138 (99%)	125 (92%)	7 (5%)	4 (3%)	4	29
9	AI	125/127 (98%)	88 (70%)	27 (22%)	10 (8%)	1	12
10	AJ	96/98 (98%)	59 (62%)	20 (21%)	17 (18%)	0	3
11	AK	117/119 (98%)	88 (75%)	20 (17%)	9 (8%)	1	13
12	AL	120/124 (97%)	96 (80%)	15 (12%)	9 (8%)	1	13
13	AM	121/125 (97%)	87 (72%)	26 (22%)	8 (7%)	1	16
14	AN	58/60 (97%)	40 (69%)	11 (19%)	7 (12%)	0	6
15	AO	86/88 (98%)	70 (81%)	11 (13%)	5 (6%)	1	18
16	AP	81/83 (98%)	65 (80%)	15 (18%)	1 (1%)	13	50
17	AQ	102/104 (98%)	84 (82%)	10 (10%)	8 (8%)	1	13
18	AR	71/73 (97%)	62 (87%)	7 (10%)	2 (3%)	5	30
19	AS	78/80 (98%)	48 (62%)	19 (24%)	11 (14%)	0	4
20	AT	97/99 (98%)	65 (67%)	20 (21%)	12 (12%)	0	5
All	All	2330/2372 (98%)	1788 (77%)	361 (16%)	181 (8%)	1	13

All (181) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	8	LYS
2	AB	9	GLU
2	AB	15	VAL
2	AB	16	HIS
2	AB	17	PHE
2	AB	21	ARG
2	AB	24	TRP
3	AC	4	LYS
3	AC	15	THR
3	AC	16	ARG
3	AC	26	LYS
3	AC	47	LEU

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Mol	Chain	Res	Type
3	AC	61	ALA
3	AC	62	ASP
3	AC	97	LYS
3	AC	101	LEU
3	AC	146	ALA
3	AC	154	SER
3	AC	179	ARG
3	AC	189	ALA
4	AD	29	PRO
4	AD	36	ARG
5	AE	16	THR
5	AE	153	LYS
7	AG	7	ALA
7	AG	155	ARG
8	AH	24	THR
8	AH	83	ILE
8	AH	91	ARG
9	AI	88	TYR
10	AJ	32	ALA
10	AJ	39	PRO
10	AJ	54	PHE
10	AJ	57	LYS
10	AJ	79	ARG
10	AJ	86	MET
11	AK	57	THR
11	AK	127	LYS
12	AL	27	LEU
12	AL	28	LYS
12	AL	47	LYS
13	AM	63	THR
13	AM	67	GLU
13	AM	121	LYS
13	AM	122	LYS
13	AM	124	PRO
14	AN	22	THR
14	AN	29	ARG
15	AO	88	ARG
17	AQ	69	LYS
17	AQ	80	GLY
17	AQ	81	ARG
17	AQ	96	GLN
17	AQ	98	LEU

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Mol	Chain	Res	Type
17	AQ	104	LYS
18	AR	87	ARG
19	AS	6	LYS
19	AS	71	LEU
20	AT	11	SER
20	AT	73	HIS
2	AB	18	GLY
2	AB	20	GLU
2	AB	97	TRP
2	AB	123	ALA
2	AB	232	PRO
3	AC	29	TYR
3	AC	156	ARG
3	AC	168	ALA
3	AC	181	ASN
3	AC	206	GLU
4	AD	4	TYR
4	AD	26	CYS
4	AD	88	VAL
4	AD	125	HIS
5	AE	22	GLY
5	AE	104	ALA
6	AF	37	VAL
7	AG	52	GLU
9	AI	41	VAL
9	AI	58	ARG
10	AJ	30	SER
10	AJ	34	VAL
10	AJ	40	LEU
10	AJ	72	VAL
11	AK	15	ALA
11	AK	49	GLY
11	AK	50	TYR
11	AK	89	ALA
12	AL	41	ARG
12	AL	48	PRO
12	AL	51	ALA
12	AL	116	SER
12	AL	121	GLY
13	AM	6	GLY
13	AM	85	GLY
16	AP	10	GLY

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Mol	Chain	Res	Type
18	AR	20	ALA
19	AS	9	VAL
19	AS	45	VAL
19	AS	67	VAL
19	AS	68	GLY
20	AT	9	ASN
20	AT	49	ALA
20	AT	95	ALA
20	AT	99	LEU
20	AT	102	GLY
2	AB	26	PRO
2	AB	60	ASP
2	AB	83	MET
2	AB	89	GLY
2	AB	204	ASN
4	AD	175	SER
5	AE	65	ASN
7	AG	5	ARG
8	AH	127	LEU
9	AI	56	LEU
10	AJ	19	SER
10	AJ	60	ARG
10	AJ	61	GLU
10	AJ	90	LEU
11	AK	35	PRO
11	AK	101	SER
12	AL	49	ASN
14	AN	13	THR
14	AN	23	ARG
17	AQ	97	SER
19	AS	28	LYS
19	AS	30	LEU
19	AS	32	LYS
20	AT	74	LYS
2	AB	126	GLU
2	AB	165	VAL
3	AC	39	ILE
3	AC	100	ALA
3	AC	188	LEU
7	AG	4	ARG
7	AG	81	GLY
7	AG	112	PRO

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Mol	Chain	Res	Type
9	AI	7	THR
9	AI	12	GLU
9	AI	119	ALA
13	AM	123	ALA
14	AN	12	ARG
14	AN	60	SER
15	AO	16	ALA
17	AQ	33	GLY
20	AT	50	GLU
2	AB	155	LEU
3	AC	24	ALA
3	AC	66	VAL
3	AC	127	ARG
4	AD	123	HIS
7	AG	53	LYS
9	AI	121	ARG
14	AN	36	PHE
15	AO	84	LYS
19	AS	31	ILE
2	AB	127	ILE
2	AB	214	ILE
3	AC	108	ASN
3	AC	174	PRO
4	AD	5	ILE
9	AI	43	ALA
10	AJ	26	ALA
2	AB	124	SER
3	AC	76	VAL
7	AG	14	PRO
10	AJ	82	ILE
20	AT	98	PRO
2	AB	125	PRO
3	AC	77	ILE
7	AG	17	VAL
10	AJ	36	GLY
15	AO	82	ILE
19	AS	8	GLY
20	AT	101	GLY
9	AI	44	VAL
15	AO	19	PRO
20	AT	96	GLY
3	AC	75	VAL

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Mol	Chain	Res	Type
11	AK	90	GLY

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	
2	AB	202/202 (100%)	180 (89%)	22 (11%)	6	23
3	AC	160/160 (100%)	142 (89%)	18 (11%)	6	21
4	AD	180/180 (100%)	172 (96%)	8 (4%)	28	53
5	AE	115/115 (100%)	100 (87%)	15 (13%)	4	18
6	AF	90/90 (100%)	88 (98%)	2 (2%)	52	71
7	AG	126/126 (100%)	122 (97%)	4 (3%)	39	61
8	AH	119/119 (100%)	109 (92%)	10 (8%)	11	33
9	AI	98/98 (100%)	90 (92%)	8 (8%)	11	34
10	AJ	88/88 (100%)	79 (90%)	9 (10%)	7	25
11	AK	90/90 (100%)	84 (93%)	6 (7%)	16	41
12	AL	104/104 (100%)	96 (92%)	8 (8%)	13	37
13	AM	100/100 (100%)	90 (90%)	10 (10%)	7	26
14	AN	49/49 (100%)	47 (96%)	2 (4%)	30	55
15	AO	79/79 (100%)	72 (91%)	7 (9%)	9	30
16	AP	72/72 (100%)	67 (93%)	5 (7%)	15	40
17	AQ	96/96 (100%)	90 (94%)	6 (6%)	18	43
18	AR	64/64 (100%)	61 (95%)	3 (5%)	26	51
19	AS	71/71 (100%)	68 (96%)	3 (4%)	30	54
20	AT	76/76 (100%)	69 (91%)	7 (9%)	9	29
All	All	1979/1979 (100%)	1826 (92%)	153 (8%)	13	37

All (153) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	8	LYS
2	AB	12	GLU
2	AB	17	PHE
2	AB	23	ARG
2	AB	24	TRP
2	AB	25	ASN
2	AB	87	ARG
2	AB	114	ARG
2	AB	139	LYS
2	AB	144	ARG
2	AB	146	GLN
2	AB	155	LEU
2	AB	157	ARG
2	AB	164	VAL
2	AB	170	GLU
2	AB	178	ARG
2	AB	204	ASN
2	AB	213	LEU
2	AB	221	LEU
2	AB	231	GLU
2	AB	232	PRO
2	AB	236	TYR
3	AC	3	ASN
3	AC	5	ILE
3	AC	34	LEU
3	AC	47	LEU
3	AC	56	ASP
3	AC	75	VAL
3	AC	82	GLU
3	AC	90	GLU
3	AC	91	LEU
3	AC	99	VAL
3	AC	107	GLN
3	AC	139	GLN
3	AC	164	ARG
3	AC	167	TRP
3	AC	175	LEU
3	AC	179	ARG
3	AC	188	LEU
3	AC	204	LEU
4	AD	15	GLU
4	AD	29	PRO
4	AD	53	ASP

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Mol	Chain	Res	Type
4	AD	122	ARG
4	AD	127	THR
4	AD	157	LEU
4	AD	192	GLU
4	AD	199	ASN
5	AE	12	LEU
5	AE	26	PHE
5	AE	31	LEU
5	AE	38	GLN
5	AE	41	VAL
5	AE	43	LEU
5	AE	56	GLN
5	AE	65	ASN
5	AE	68	GLU
5	AE	73	ASN
5	AE	79	GLU
5	AE	80	ILE
5	AE	89	ILE
5	AE	120	THR
5	AE	150	ARG
6	AF	10	LEU
6	AF	69	GLU
7	AG	8	GLU
7	AG	11	GLN
7	AG	37	ASN
7	AG	38	LEU
8	AH	2	LEU
8	AH	21	LYS
8	AH	52	ASP
8	AH	63	LEU
8	AH	85	ARG
8	AH	91	ARG
8	AH	92	ARG
8	AH	104	ARG
8	AH	105	ARG
8	AH	119	LEU
9	AI	2	GLU
9	AI	23	ASN
9	AI	38	GLN
9	AI	53	VAL
9	AI	58	ARG
9	AI	79	LEU

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Mol	Chain	Res	Type
9	AI	111	ARG
9	AI	121	ARG
10	AJ	6	ILE
10	AJ	15	THR
10	AJ	45	ARG
10	AJ	60	ARG
10	AJ	64	GLU
10	AJ	71	LEU
10	AJ	73	ASP
10	AJ	83	GLU
10	AJ	95	GLU
11	AK	24	SER
11	AK	29	ILE
11	AK	35	PRO
11	AK	54	ARG
11	AK	84	VAL
11	AK	92	GLU
12	AL	17	LYS
12	AL	33	ARG
12	AL	53	ARG
12	AL	60	LEU
12	AL	81	SER
12	AL	98	TYR
12	AL	113	ARG
12	AL	126	LYS
13	AM	9	ILE
13	AM	16	ASP
13	AM	40	ASN
13	AM	44	ARG
13	AM	70	LEU
13	AM	81	LEU
13	AM	102	ARG
13	AM	110	ARG
13	AM	124	PRO
13	AM	125	ARG
14	AN	41	ARG
14	AN	44	LEU
15	AO	6	GLU
15	AO	7	GLU
15	AO	39	LEU
15	AO	57	LEU
15	AO	70	LEU

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Mol	Chain	Res	Type
15	AO	81	LEU
15	AO	83	GLU
16	AP	2	VAL
16	AP	8	ARG
16	AP	28	ARG
16	AP	53	VAL
16	AP	62	VAL
17	AQ	34	LYS
17	AQ	38	ARG
17	AQ	60	ILE
17	AQ	68	ARG
17	AQ	74	LEU
17	AQ	98	LEU
18	AR	36	ASN
18	AR	38	GLU
18	AR	55	ARG
19	AS	10	PHE
19	AS	15	LEU
19	AS	20	LEU
20	AT	42	GLN
20	AT	45	GLN
20	AT	57	ARG
20	AT	73	HIS
20	AT	75	ASN
20	AT	84	LEU
20	AT	86	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (57) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	19	HIS
2	AB	25	ASN
2	AB	40	HIS
2	AB	146	GLN
2	AB	204	ASN
3	AC	3	ASN
3	AC	6	HIS
3	AC	31	HIS
3	AC	69	HIS
3	AC	110	ASN
3	AC	118	GLN
3	AC	123	GLN

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Mol	Chain	Res	Type
3	AC	139	GLN
3	AC	181	ASN
4	AD	45	GLN
4	AD	62	GLN
4	AD	123	HIS
4	AD	161	ASN
4	AD	199	ASN
5	AE	20	GLN
5	AE	73	ASN
6	AF	18	GLN
6	AF	27	GLN
6	AF	32	ASN
6	AF	57	GLN
6	AF	64	GLN
6	AF	94	GLN
6	AF	100	ASN
7	AG	37	ASN
7	AG	86	GLN
8	AH	15	ASN
9	AI	23	ASN
9	AI	73	GLN
9	AI	124	GLN
10	AJ	56	HIS
10	AJ	76	ASN
10	AJ	78	ASN
10	AJ	84	GLN
11	AK	22	HIS
11	AK	62	GLN
11	AK	93	GLN
11	AK	117	ASN
12	AL	49	ASN
12	AL	75	HIS
13	AM	12	ASN
13	AM	40	ASN
13	AM	62	ASN
14	AN	49	HIS
15	AO	13	GLN
15	AO	37	ASN
16	AP	82	GLN
17	AQ	26	GLN
18	AR	36	ASN
19	AS	14	HIS

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Mol	Chain	Res	Type
19	AS	53	ASN
19	AS	56	GLN
20	AT	42	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1487/1537 (96%)	218 (14%)	89 (5%)
21	B0	2802/2887 (97%)	430 (15%)	55 (1%)
22	B9	116/118 (98%)	10 (8%)	0
All	All	4405/4542 (96%)	658 (14%)	144 (3%)

All (658) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	6	G
1	AA	8	A
1	AA	9	G
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	48	C
1	AA	49	U
1	AA	51	A
1	AA	52	G
1	AA	60	A
1	AA	61	G
1	AA	75	C
1	AA	80	C
1	AA	84	U
1	AA	85	U
1	AA	86	G
1	AA	96	C
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	129(A)	G
1	AA	130	A
1	AA	131	C
1	AA	182	U
1	AA	186	C

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Mol	Chain	Res	Type
1	AA	195	A
1	AA	198	G
1	AA	205	G
1	AA	209	U
1	AA	213	G
1	AA	215	C
1	AA	244	U
1	AA	247	G
1	AA	250	A
1	AA	251	G
1	AA	252	U
1	AA	266	G
1	AA	267	C
1	AA	280	C
1	AA	282	A
1	AA	289	G
1	AA	316	G
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	330	C
1	AA	332	G
1	AA	344	A
1	AA	345	C
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	373	A
1	AA	397	A
1	AA	398	C
1	AA	412	A
1	AA	413	G
1	AA	421	U
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	437	U
1	AA	439	A
1	AA	467	U
1	AA	481	G
1	AA	484	G

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Mol	Chain	Res	Type
1	AA	485	G
1	AA	497	A
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	519	C
1	AA	527	G
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	547	A
1	AA	548	G
1	AA	559	A
1	AA	560	U
1	AA	561	U
1	AA	562	C
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	588	G
1	AA	652	U
1	AA	653	A
1	AA	665	A
1	AA	686	U
1	AA	687	A
1	AA	688	G
1	AA	702	A
1	AA	703	G
1	AA	718	G
1	AA	723	U
1	AA	731	G
1	AA	749	C
1	AA	755	G
1	AA	781	A
1	AA	782	A
1	AA	793	U
1	AA	794	A
1	AA	813	U
1	AA	817	C

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Mol	Chain	Res	Type
1	AA	819	A
1	AA	828	A
1	AA	858	G
1	AA	902	G
1	AA	913	A
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	945	G
1	AA	960	U
1	AA	961	U
1	AA	966	G
1	AA	969	A
1	AA	971	G
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	1004	A
1	AA	1005	A
1	AA	1023	G
1	AA	1026	G
1	AA	1030	U
1	AA	1034	G
1	AA	1050	G
1	AA	1053	G
1	AA	1065	U
1	AA	1066	C
1	AA	1085	U
1	AA	1086	U
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1102	A
1	AA	1117	G
1	AA	1124	G
1	AA	1125	U

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Mol	Chain	Res	Type
1	AA	1126	U
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1145	C
1	AA	1146	A
1	AA	1152	A
1	AA	1157	A
1	AA	1159	U
1	AA	1183	A
1	AA	1184	G
1	AA	1191	A
1	AA	1196	U
1	AA	1197	G
1	AA	1201	A
1	AA	1202	G
1	AA	1211	U
1	AA	1212	U
1	AA	1215	G
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1258	G
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1285	A
1	AA	1286	A
1	AA	1287	A
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1303	C
1	AA	1305	G
1	AA	1320	C
1	AA	1332	A
1	AA	1336	C

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Mol	Chain	Res	Type
1	AA	1338	G
1	AA	1347	G
1	AA	1348	U
1	AA	1363	A
1	AA	1364	U
1	AA	1365	G
1	AA	1381	U
1	AA	1384	C
1	AA	1394	A
1	AA	1398	A
1	AA	1442	G
1	AA	1443	G
1	AA	1452	C
1	AA	1490	C
1	AA	1491	G
1	AA	1499	A
1	AA	1502	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1520	G
1	AA	1529	G
1	AA	1530	G
21	B0	14	A
21	B0	15	G
21	B0	45	C
21	B0	48	A
21	B0	49	U
21	B0	50	G
21	B0	58	C
21	B0	59	G
21	B0	63	A
21	B0	67	G
21	B0	70	A
21	B0	72	A
21	B0	87	G
21	B0	89	A
21	B0	90	G
21	B0	91	A
21	B0	99	U
21	B0	105	G

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Mol	Chain	Res	Type
21	B0	110	U
21	B0	116	A
21	B0	118	U
21	B0	123	A
21	B0	129	A
21	B0	135	U
21	B0	155	G
21	B0	158	A
21	B0	173	A
21	B0	174	A
21	B0	176	A
21	B0	177	U
21	B0	181	A
21	B0	182	G
21	B0	193	A
21	B0	199	A
21	B0	200	A
21	B0	205	A
21	B0	206	U
21	B0	210	A
21	B0	218	A
21	B0	219	G
21	B0	225	G
21	B0	226	C
21	B0	227	G
21	B0	229	G
21	B0	242	A
21	B0	243	G
21	B0	245	C
21	B0	305	A
21	B0	318	G
21	B0	333	A
21	B0	334	G
21	B0	335	A
21	B0	340	G
21	B0	342	G
21	B0	343	A
21	B0	344	G
21	B0	358	C
21	B0	363	G
21	B0	368	A
21	B0	373	A

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Mol	Chain	Res	Type
21	B0	399	G
21	B0	401	G
21	B0	408	U
21	B0	414	A
21	B0	418	C
21	B0	419	G
21	B0	424	G
21	B0	443	A
21	B0	455	A
21	B0	456	C
21	B0	460	U
21	B0	463	C
21	B0	467	U
21	B0	469	G
21	B0	491	A
21	B0	492	G
21	B0	515	A
21	B0	518	A
21	B0	519	C
21	B0	537	C
21	B0	541	C
21	B0	542	A
21	B0	554	U
21	B0	556	A
21	B0	558	G
21	B0	559	C
21	B0	572	G
21	B0	584	A
21	B0	602	C
21	B0	613	A
21	B0	617	U
21	B0	624	A
21	B0	632	A
21	B0	636	G
21	B0	638	A
21	B0	648	A
21	B0	652	C
21	B0	654	A
21	B0	657	A
21	B0	665	A
21	B0	666	U
21	B0	667	U

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Mol	Chain	Res	Type
21	B0	684	C
21	B0	697	G
21	B0	699	G
21	B0	700	C
21	B0	728	G
21	B0	742	G
21	B0	743	A
21	B0	753	U
21	B0	760	U
21	B0	761	G
21	B0	766	A
21	B0	776	G
21	B0	778	G
21	B0	789	G
21	B0	794	A
21	B0	796	A
21	B0	797	A
21	B0	798	G
21	B0	801	A
21	B0	802	A
21	B0	803	C
21	B0	806	A
21	B0	813	A
21	B0	818	G
21	B0	825	C
21	B0	832	A
21	B0	840	U
21	B0	841	G
21	B0	844	G
21	B0	873	U
21	B0	879	A
21	B0	895	G
21	B0	919	U
21	B0	922	A
21	B0	926	C
21	B0	930	A
21	B0	941	U
21	B0	944	A
21	B0	952	A
21	B0	957	G
21	B0	969	U
21	B0	970	A

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Mol	Chain	Res	Type
21	B0	972	C
21	B0	984	A
21	B0	994	A
21	B0	996	C
21	B0	1005	U
21	B0	1006	C
21	B0	1023	U
21	B0	1024	G
21	B0	1030	U
21	B0	1032	A
21	B0	1033	G
21	B0	1036	G
21	B0	1037	U
21	B0	1044	U
21	B0	1055	A
21	B0	1056	U
21	B0	1057	A
21	B0	1068	A
21	B0	1069	G
21	B0	1071	U
21	B0	1072	U
21	B0	1073	G
21	B0	1078	A
21	B0	1081	A
21	B0	1082	G
21	B0	1084	A
21	B0	1092	U
21	B0	1099	A
21	B0	1100	G
21	B0	1113	C
21	B0	1122	A
21	B0	1137	A
21	B0	1138	A
21	B0	1142	G
21	B0	1145	C
21	B0	1146	G
21	B0	1153	A
21	B0	1167	A
21	B0	1182	U
21	B0	1183	C
21	B0	1185	C
21	B0	1188	A

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Mol	Chain	Res	Type
21	B0	1194	U
21	B0	1195	U
21	B0	1199	U
21	B0	1200	G
21	B0	1224	A
21	B0	1253	C
21	B0	1262	U
21	B0	1264	C
21	B0	1266	G
21	B0	1269	G
21	B0	1278	A
21	B0	1279	G
21	B0	1280	U
21	B0	1284	G
21	B0	1285	A
21	B0	1288	A
21	B0	1314	A
21	B0	1327	C
21	B0	1334	A
21	B0	1338	G
21	B0	1342	U
21	B0	1343	C
21	B0	1355	A
21	B0	1356	G
21	B0	1359	G
21	B0	1391	A
21	B0	1392	U
21	B0	1397	A
21	B0	1398	G
21	B0	1433	A
21	B0	1441	A
21	B0	1442	C
21	B0	1443	G
21	B0	1459	U
21	B0	1465	G
21	B0	1468	A
21	B0	1469	U
21	B0	1470	G
21	B0	1475	U
21	B0	1482	U
21	B0	1490	U
21	B0	1496	G

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Mol	Chain	Res	Type
21	B0	1505	U
21	B0	1508	G
21	B0	1509	A
21	B0	1513	U
21	B0	1519	G
21	B0	1520	G
21	B0	1524	C
21	B0	1529	C
21	B0	1552	C
21	B0	1571	G
21	B0	1573	G
21	B0	1574	A
21	B0	1576	G
21	B0	1582	A
21	B0	1583	A
21	B0	1585	A
21	B0	1601	U
21	B0	1618	U
21	B0	1623	C
21	B0	1624	A
21	B0	1625	A
21	B0	1632	A
21	B0	1633	C
21	B0	1634	A
21	B0	1635	G
21	B0	1648	C
21	B0	1651	U
21	B0	1657	A
21	B0	1664	G
21	B0	1665	C
21	B0	1670	G
21	B0	1671	A
21	B0	1680	U
21	B0	1685	A
21	B0	1691	G
21	B0	1692	C
21	B0	1710	U
21	B0	1712	G
21	B0	1715	A
21	B0	1717	A
21	B0	1724	C
21	B0	1733	U

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Mol	Chain	Res	Type
21	B0	1748	U
21	B0	1749	G
21	B0	1750	A
21	B0	1754	G
21	B0	1755	G
21	B0	1764	A
21	B0	1771	A
21	B0	1773	C
21	B0	1778	U
21	B0	1792	C
21	B0	1800	A
21	B0	1801	C
21	B0	1802	A
21	B0	1807	A
21	B0	1808	C
21	B0	1821	A
21	B0	1831	G
21	B0	3865	A
21	B0	1884	A
21	B0	1920	A
21	B0	1922	U
21	B0	1926	U
21	B0	1927	U
21	B0	1928	G
21	B0	1938	U
21	B0	1939	U
21	B0	1949	A
21	B0	1950	C
21	B0	1954	A
21	B0	1955	G
21	B0	1956	G
21	B0	1979	C
21	B0	1980	A
21	B0	2004	U
21	B0	2006	G
21	B0	2014	A
21	B0	2015	G
21	B0	2016	A
21	B0	2019	C
21	B0	2034	A
21	B0	2038	C
21	B0	2043	A

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Mol	Chain	Res	Type
21	B0	2045	A
21	B0	2051	U
21	B0	2052	G
21	B0	2060	A
21	B0	3107	G
21	B0	3111	C
21	B0	3112	G
21	B0	3116	G
21	B0	3117	A
21	B0	3118	U
21	B0	3119	A
21	B0	3146	A
21	B0	3147	C
21	B0	3150	C
21	B0	3172	U
21	B0	3173	A
21	B0	3185	U
21	B0	3191	A
21	B0	2191	A
21	B0	2195	C
21	B0	2199	C
21	B0	2205	C
21	B0	2218	G
21	B0	2229	G
21	B0	2237	C
21	B0	2241	U
21	B0	2245	A
21	B0	2246	A
21	B0	2247	A
21	B0	2255	G
21	B0	2262	C
21	B0	2268	G
21	B0	2285	U
21	B0	2286	G
21	B0	2287	G
21	B0	2288	A
21	B0	2298	U
21	B0	2299	A
21	B0	2300	G
21	B0	2301	A
21	B0	2313	G
21	B0	2315	A

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Mol	Chain	Res	Type
21	B0	2316	G
21	B0	2326	C
21	B0	2362	G
21	B0	2364	C
21	B0	2378	G
21	B0	2382	C
21	B0	2385	U
21	B0	2396	C
21	B0	2403	C
21	B0	2405	A
21	B0	2408	G
21	B0	2409	A
21	B0	2414	A
21	B0	2420	C
21	B0	2427	A
21	B0	2428	U
21	B0	2438	A
21	B0	2448	A
21	B0	2455	A
21	B0	2470	U
21	B0	2481	G
21	B0	2482	A
21	B0	2483	U
21	B0	2484	G
21	B0	2485	U
21	B0	2492	G
21	B0	2498	U
21	B0	2499	C
21	B0	2504	G
21	B0	2522	G
21	B0	2546	G
21	B0	2549	G
21	B0	2565	C
21	B0	2578	G
21	B0	2581	A
21	B0	2582	G
21	B0	2588	U
21	B0	2589	C
21	B0	2591	C
21	B0	2593	A
21	B0	2594	U
21	B0	2608	A

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Mol	Chain	Res	Type
21	B0	2609	G
21	B0	2625	U
21	B0	2633	A
21	B0	2634	G
21	B0	2661	G
21	B0	2669	C
21	B0	2670	C
21	B0	2681	A
21	B0	2691	C
21	B0	2692	A
21	B0	2712	G
21	B0	2728	A
21	B0	2730	A
21	B0	2732	C
21	B0	2737	A
21	B0	2745	A
21	B0	2756	A
21	B0	2760	G
21	B0	2761	A
21	B0	2771	C
21	B0	2784	A
21	B0	2785	A
21	B0	2795	A
21	B0	2807	U
21	B0	2808	U
21	B0	2809	A
21	B0	2811	G
21	B0	2825	A
21	B0	2841	U
21	B0	2842	C
21	B0	2847	G
21	B0	2854	G
21	B0	2855	C
21	B0	2859	U
22	B9	18	G
22	B9	26	G
22	B9	27	A
22	B9	28	A
22	B9	29	C
22	B9	31	A
22	B9	47	A
22	B9	77	G

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Mol	Chain	Res	Type
22	B9	112	A
22	B9	115	G

All (144) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	5	U
1	AA	7	G
1	AA	30	U
1	AA	48	C
1	AA	51	A
1	AA	60	A
1	AA	74	G
1	AA	94	G
1	AA	115	G
1	AA	119	A
1	AA	129(A)	G
1	AA	181	G
1	AA	185	A
1	AA	197	A
1	AA	204	A
1	AA	243	A
1	AA	249	U
1	AA	250	A
1	AA	251	G
1	AA	266	G
1	AA	279	A
1	AA	281	G
1	AA	288	A
1	AA	328	C
1	AA	329	A
1	AA	344	A
1	AA	353	A
1	AA	366	C
1	AA	372	C
1	AA	375	U
1	AA	394	G
1	AA	428	G
1	AA	429	U
1	AA	438	G
1	AA	484	G
1	AA	496	A

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Mol	Chain	Res	Type
1	AA	509	A
1	AA	518	C
1	AA	533	A
1	AA	547	A
1	AA	559	A
1	AA	560	U
1	AA	575	G
1	AA	587	G
1	AA	651	C
1	AA	687	A
1	AA	701	C
1	AA	717	C
1	AA	748	C
1	AA	792	A
1	AA	812	C
1	AA	913	A
1	AA	960	U
1	AA	965	A
1	AA	975	A
1	AA	976	G
1	AA	992	U
1	AA	1049	U
1	AA	1065	U
1	AA	1085	U
1	AA	1101	A
1	AA	1129	C
1	AA	1145	C
1	AA	1182	G
1	AA	1190	G
1	AA	1196	U
1	AA	1201	A
1	AA	1214	C
1	AA	1224	G
1	AA	1226	C
1	AA	1257	U
1	AA	1281	U
1	AA	1285	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1319	A
1	AA	1346	A

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Mol	Chain	Res	Type
1	AA	1347	G
1	AA	1364	U
1	AA	1380	U
1	AA	1393	U
1	AA	1397	C
1	AA	1398	A
1	AA	1451	A
1	AA	1498	U
1	AA	1503	A
1	AA	1504	G
1	AA	1528	U
21	B0	69	G
21	B0	173	A
21	B0	181	A
21	B0	192	G
21	B0	198	A
21	B0	242	A
21	B0	342	G
21	B0	583	C
21	B0	765	C
21	B0	801	A
21	B0	805	G
21	B0	824	U
21	B0	843	G
21	B0	878	C
21	B0	1071	U
21	B0	1141	U
21	B0	1187	A
21	B0	1193	G
21	B0	1194	U
21	B0	1223	G
21	B0	1263	G
21	B0	1278	A
21	B0	1279	G
21	B0	1313	U
21	B0	1354	A
21	B0	1495	G
21	B0	1518	C
21	B0	1519	G
21	B0	1575	C
21	B0	1633	C
21	B0	1634	A

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Mol	Chain	Res	Type
21	B0	1664	G
21	B0	1807	A
21	B0	1820	G
21	B0	1938	U
21	B0	2015	G
21	B0	3098	U
21	B0	3107	G
21	B0	3110	G
21	B0	3111	C
21	B0	3116	G
21	B0	3118	U
21	B0	3146	A
21	B0	3149	G
21	B0	3171	A
21	B0	3172	U
21	B0	2204	A
21	B0	2245	A
21	B0	2261	G
21	B0	2377	U
21	B0	2404	A
21	B0	2426	G
21	B0	2668	U
21	B0	2759	U
21	B0	2824	C

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 carbohydrates in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	AA	106
21	B0	31
22	B9	2
12	AL	1
13	AM	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AA	1443:G	O3'	1445:U	P	9.14
1	AA	1458:G	O3'	1459:C	P	8.01
1	B0	1888:C	O3'	1889:G	P	6.96
1	AA	1459:C	O3'	1460:A	P	6.03
1	B0	3180:U	O3'	3181:C	P	5.42
1	AA	993:G	O3'	994:A	P	5.01
1	AA	1434:A	O3'	1435:G	P	4.54
1	B0	3197:U	O3'	2181:A	P	4.41
1	B0	2075:U	O3'	3093:C	P	4.27
1	AA	170:U	O3'	171:A	P	4.12
1	AA	150:C	O3'	151:A	P	4.08
1	B0	3108:G	O3'	3109:U	P	3.98
1	B0	3161:C	O3'	3162:G	P	3.90
1	AA	1466:C	O3'	1467:G	P	3.88
1	AA	1044:A	O3'	1045:C	P	3.70
1	AA	497:A	O3'	498:U	P	3.58
1	AA	196:A	O3'	197:A	P	3.53
1	AA	1278:U	O3'	1279:A	P	3.49
1	AA	455:C	O3'	456:A	P	3.48
1	AA	672:U	O3'	673:G	P	3.32
1	AA	1117:G	O3'	1118:C	P	3.27
1	AA	68:G	O3'	69:G	P	3.10
1	AA	1256:A	O3'	1257:U	P	3.10
1	B0	1116:U	O3'	1117:G	P	3.10
1	AA	1416:G	O3'	1417:G	P	3.08
1	AA	337:C	O3'	338:A	P	3.07
1	B0	3126:A	O3'	3127:G	P	3.07
1	B0	1912:G	O3'	1913:G	P	3.03
1	AA	216:C	O3'	217:C	P	3.00
1	AA	200:G	O3'	201:G	P	2.93
1	AA	99:C	O3'	101:A	P	2.89

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B0	891:A	O3'	892:A	P	2.88
1	AA	305:G	O3'	306:G	P	2.83
1	AA	814:A	O3'	815:A	P	2.82
1	B0	3196:G	O3'	3197:U	P	2.80
1	AA	631:G	O3'	632:A	P	2.77
1	B0	1113:C	O3'	1114:A	P	2.75
1	AA	820:U	O3'	821:G	P	2.74
1	AA	606:G	O3'	607:A	P	2.73
1	B0	3181:C	O3'	3182:U	P	2.73
1	AA	848:G	O3'	849:C	P	2.72
1	AA	291:C	O3'	292:G	P	2.71
1	B0	897:A	O3'	898:C	P	2.70
1	AA	1027:C	O3'	1028:C	P	2.68
1	AA	476:U	O3'	477:G	P	2.67
1	AA	1026:G	O3'	1027:C	P	2.65
1	B0	1119:U	O3'	1120:C	P	2.63
1	AA	1483:A	O3'	1484:C	P	2.62
1	AA	179:A	O3'	180:U	P	2.59
1	B0	3877:A	O3'	1861:G	P	2.59
1	AA	367:U	O3'	368:U	P	2.56
1	AA	919:A	O3'	920:U	P	2.50
1	B0	910:U	O3'	911:A	P	2.45
1	AA	46:G	O3'	47:C	P	2.42
1	AA	1237:C	O3'	1238:A	P	2.38
1	AA	804:U	O3'	805:C	P	2.35
1	B0	3187:U	O3'	3188:U	P	2.35
1	AA	191:G	O3'	192:U	P	2.33
1	AA	776:G	O3'	777:A	P	2.33
1	AA	1067:A	O3'	1068:G	P	2.32
1	AA	1297:C	O3'	1298:C	P	2.31
1	AA	405:U	O3'	406:G	P	2.30
1	AA	1447:A	O3'	1448:C	P	2.29
1	B0	1062:G	O3'	1063:C	P	2.28
1	AA	1374:A	O3'	1375:A	P	2.26
1	AA	837:G	O3'	838:C	P	2.23
1	AM	86:CYS	C	87:TYR	N	2.23
1	B9	107:C	O3'	108:G	P	2.21
1	AA	1331:G	O3'	1332:A	P	2.19
1	AA	1155:G	O3'	1156:G	P	2.14
1	B0	3107:G	O3'	3108:G	P	2.14
1	AA	1034:G	O3'	1035:A	P	2.13
1	AA	212:G	O3'	213:G	P	2.12

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B0	3098:U	O3'	3099:U	P	2.12
1	AA	118:U	O3'	119:A	P	2.11
1	AA	765:G	O3'	766:A	P	2.09
1	B0	1856:U	O3'	3865:A	P	2.06
1	AA	717:C	O3'	718:G	P	2.05
1	AA	1211:U	O3'	1212:U	P	2.03
1	B0	3183:A	O3'	3184:C	P	2.02
1	AA	143:A	O3'	144:G	P	2.01
1	AL	19:ARG	C	20:LYS	N	2.01
1	B9	73:C	O3'	74:A	P	2.01
1	AA	89:G	O3'	90:C	P	1.98
1	B0	3149:G	O3'	3150:C	P	1.98
1	AA	351:G	O3'	352:C	P	1.97
1	AA	108:G	O3'	109:A	P	1.94
1	AA	914:A	O3'	915:A	P	1.94
1	AA	1305:G	O3'	1306:A	P	1.94
1	AA	206:C	O3'	207:C	P	1.91
1	AA	1238:A	O3'	1239:A	P	1.91
1	AA	827:U	O3'	828:A	P	1.90
1	AA	1337:G	O3'	1338:G	P	1.90
1	B0	3188:U	O3'	3189:U	P	1.90
1	AA	38:G	O3'	39:G	P	1.89
1	AA	587:G	O3'	588:G	P	1.89
1	AA	1345:U	O3'	1346:A	P	1.89
1	AA	733:A	O3'	734:G	P	1.88
1	B0	3141:G	O3'	3142:C	P	1.87
1	B0	3101:G	O3'	3102:G	P	1.86
1	AA	396:G	O3'	397:A	P	1.85
1	AA	115:G	O3'	116:A	P	1.84
1	B0	3190:G	O3'	3191:A	P	1.83
1	B0	3874:C	O3'	3875:A	P	1.81
1	AA	869:G	O3'	870:U	P	1.80
1	AA	315:A	O3'	316:G	P	1.78
1	AA	944:G	O3'	945:G	P	1.78
1	AA	905:U	O3'	906:G	P	1.76
1	AA	960:U	O3'	961:U	P	1.75
1	AA	135:C	O3'	136:C	P	1.40
1	AA	983:A	O3'	984:C	P	1.40
1	AA	278:G	O3'	279:A	P	1.39
1	AA	499:A	O3'	500:G	P	1.36
1	AA	1335:C	O3'	1336:C	P	1.35
1	AA	1393:U	O3'	1394:A	P	1.35

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AA	1455:G	O3'	1456:A	P	1.34
1	AA	1457:A	O3'	1458:G	P	1.34
1	AA	561:U	O3'	562:C	P	1.32
1	AA	436:C	O3'	437:U	P	1.31
1	AA	461:C	O3'	462:A	P	1.31
1	AA	239:U	O3'	240:C	P	1.29
1	B0	3102:G	O3'	3103:A	P	1.26
1	AA	576:G	O3'	577:G	P	1.25
1	AA	1409:C	O3'	1410:G	P	1.24
1	AA	274:A	O3'	275:G	P	1.23
1	AA	1110:A	O3'	1111:A	P	1.23
1	AA	74:G	O3'	75:C	P	1.20
1	AA	288:A	O3'	289:G	P	1.20
1	AA	651:C	O3'	652:U	P	1.16
1	AA	94:G	O3'	96:C	P	1.12
1	B0	3106:U	O3'	3107:G	P	1.12
1	AA	375:U	O3'	376:G	P	1.08
1	AA	933:G	O3'	934:C	P	1.03
1	AA	227:G	O3'	228:A	P	0.98
1	AA	249:U	O3'	250:A	P	0.91
1	AA	1190:G	O3'	1191:A	P	0.82
1	AA	394:G	O3'	395:C	P	0.75
1	AA	1505:G	O3'	1506:U	P	0.75
1	AA	214:U	O3'	215:C	P	0.73
1	AA	1398:A	O3'	1399:C	P	0.57
1	AA	59:A	O3'	60:A	P	0.16

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	1533/1537 (99%)	34.46	1533 (100%) 0 0	207, 548, 819, 940	0
2	AB	234/234 (100%)	1.45	72 (30%) 0 2	754, 754, 754, 754	0
3	AC	206/206 (100%)	5.43	168 (81%) 0 0	378, 378, 378, 378	0
4	AD	208/208 (100%)	14.38	201 (96%) 0 0	709, 709, 709, 709	0
5	AE	150/150 (100%)	14.31	150 (100%) 0 0	756, 756, 756, 756	0
6	AF	101/101 (100%)	1.29	22 (21%) 0 3	748, 748, 748, 748	0
7	AG	155/155 (100%)	4.22	105 (67%) 0 0	374, 374, 374, 374	0
8	AH	138/138 (100%)	7.10	129 (93%) 0 0	856, 856, 856, 856	0
9	AI	127/127 (100%)	7.06	77 (60%) 0 0	439, 439, 439, 439	0
10	AJ	98/98 (100%)	7.10	78 (79%) 0 0	430, 430, 430, 430	0
11	AK	119/119 (100%)	3.04	55 (46%) 0 1	652, 652, 652, 652	0
12	AL	124/124 (100%)	10.88	124 (100%) 0 0	423, 541, 541, 541	0
13	AM	125/125 (100%)	5.97	108 (86%) 0 0	378, 572, 572, 572	0
14	AN	60/60 (100%)	10.29	59 (98%) 0 0	378, 378, 378, 378	0
15	AO	88/88 (100%)	11.20	87 (98%) 0 0	740, 740, 740, 740	0
16	AP	83/83 (100%)	19.81	83 (100%) 0 0	781, 781, 781, 781	0
17	AQ	104/104 (100%)	11.89	104 (100%) 0 0	857, 857, 857, 857	0
18	AR	73/73 (100%)	3.48	39 (53%) 0 1	748, 748, 748, 748	0
19	AS	80/80 (100%)	3.00	43 (53%) 0 1	633, 633, 633, 633	0
20	AT	99/99 (100%)	13.05	99 (100%) 0 0	940, 940, 940, 940	0
21	B0	2825/2887 (97%)	55.87	2825 (100%) 0 0	462, 737, 737, 940	0
22	B9	118/118 (100%)	44.84	118 (100%) 0 0	772, 938, 938, 938	0
23	BA	270/270 (100%)	6.09	179 (66%) 0 0	737, 737, 737, 737	0
24	BB	205/205 (100%)	5.86	143 (69%) 0 0	737, 737, 737, 737	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
25	BC	197/197 (100%)	8.25	186 (94%) 0 0	737, 737, 737, 737	0
26	BD	178/178 (100%)	17.24	138 (77%) 0 0	938, 938, 938, 938	0
27	BE	177/177 (100%)	13.08	163 (92%) 0 0	737, 737, 737, 737	0
28	BF	52/52 (100%)	1.36	12 (23%) 0 2	737, 737, 737, 737	0
29	BG	143/143 (100%)	17.89	138 (96%) 0 0	907, 907, 907, 907	0
30	BH	143/143 (100%)	5.92	102 (71%) 0 0	737, 737, 737, 737	0
31	BI	132/132 (100%)	3.04	55 (41%) 0 1	737, 737, 737, 737	0
32	BJ	141/141 (100%)	10.40	115 (81%) 0 0	737, 737, 737, 737	0
33	BK	124/124 (100%)	2.41	48 (38%) 0 1	737, 737, 737, 737	0
34	BL	114/114 (100%)	6.99	102 (89%) 0 0	737, 737, 737, 737	0
35	BM	111/111 (100%)	1.78	37 (33%) 0 2	938, 938, 938, 938	0
36	BN	125/125 (100%)	2.62	53 (42%) 0 1	737, 737, 737, 737	0
37	BO	117/117 (100%)	12.38	98 (83%) 0 0	737, 737, 737, 737	0
38	BP	100/100 (100%)	5.91	83 (83%) 0 0	737, 737, 737, 737	0
39	BQ	130/130 (100%)	7.52	109 (83%) 0 0	737, 737, 737, 737	0
40	BR	93/93 (100%)	4.86	72 (77%) 0 0	737, 737, 737, 737	0
41	BS	113/113 (100%)	11.17	112 (99%) 0 0	737, 737, 737, 737	0
42	BT	173/173 (100%)	8.24	105 (60%) 0 0	737, 772, 772, 772	0
43	BU	86/86 (100%)	6.53	59 (68%) 0 0	737, 737, 737, 737	0
44	BV	0/16	-	-	-	-
45	BW	65/65 (100%)	5.83	54 (83%) 0 0	737, 737, 737, 737	0
46	BX	55/55 (100%)	7.60	45 (81%) 0 0	737, 737, 737, 737	0
47	BY	73/73 (100%)	4.25	46 (63%) 0 0	737, 737, 737, 737	0
48	BZ	58/58 (100%)	11.78	45 (77%) 0 0	737, 737, 737, 737	0
49	B1	53/53 (100%)	5.78	26 (49%) 0 1	737, 737, 737, 737	0
50	B2	46/46 (100%)	9.41	46 (100%) 0 0	737, 737, 737, 737	0
51	B3	63/63 (100%)	7.36	62 (98%) 0 0	737, 737, 737, 737	0
52	B4	35/35 (100%)	6.72	26 (74%) 0 0	737, 737, 737, 737	0
53	B5	213/217 (98%)	4.43	104 (48%) 0 1	940, 940, 940, 940	0
All	All	10433/10519 (99%)	25.15	8842 (84%) 0 0	207, 737, 938, 940	0

All (8842) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
21	B0	1989	C	280.5
21	B0	2624	G	227.9
21	B0	1988	A	201.4
21	B0	2480	C	196.7
21	B0	2425	G	192.2
21	B0	1763	G	187.3
21	B0	2426	G	186.3
21	B0	843	G	177.2
21	B0	578	U	177.2
21	B0	169	C	174.6
21	B0	191	G	170.6
21	B0	2667	C	169.1
21	B0	1749	G	166.9
21	B0	1345	G	164.8
21	B0	1045	G	164.4
21	B0	466	A	163.4
21	B0	1767	G	162.3
21	B0	579	G	161.5
21	B0	1619	A	160.4
21	B0	822	G	159.8
21	B0	1617	G	158.6
21	B0	1776	A	157.9
21	B0	1327	C	157.7
21	B0	1778	U	156.5
21	B0	841	G	156.2
21	B0	1987	G	155.5
21	B0	1355	A	154.4
21	B0	2548	G	154.0
21	B0	1389	C	153.8
21	B0	1626	A	152.9
21	B0	2549	G	152.5
1	AA	1504	G	152.1
21	B0	844	G	151.3
21	B0	2021	G	151.2
21	B0	821	A	150.6
21	B0	1361	G	149.7
21	B0	45	C	148.0
21	B0	2014	A	147.5
21	B0	2673	G	147.2
21	B0	2031	A	146.5
21	B0	1360	G	144.6
21	B0	1622	G	144.4
21	B0	1766	U	143.9

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Mol	Chain	Res	Type	RSRZ
21	B0	592	G	143.2
21	B0	192	G	143.0
21	B0	1663	C	142.8
21	B0	800	U	142.3
21	B0	2020	G	142.1
21	B0	955	G	141.3
21	B0	1147	G	141.1
21	B0	2674	C	140.7
21	B0	461	A	140.7
21	B0	2424	G	140.6
21	B0	819	C	140.4
21	B0	2567	G	139.7
21	B0	1764	A	139.6
21	B0	593	C	138.9
21	B0	1699	A	138.2
21	B0	1311	C	138.2
21	B0	991	A	137.2
21	B0	2006	G	137.1
21	B0	2712	G	137.0
21	B0	193	A	135.6
21	B0	459	A	134.7
21	B0	2746	G	134.2
21	B0	2013	A	133.6
21	B0	776	G	133.6
21	B0	119	G	133.4
21	B0	1312	G	132.5
21	B0	27	G	131.7
21	B0	1820	G	131.3
21	B0	1975	G	131.2
21	B0	2053	G	130.2
21	B0	1625	A	130.2
21	B0	2012	A	130.2
21	B0	458	G	129.9
22	B9	111	C	129.7
21	B0	2562	G	129.5
21	B0	2427	A	129.4
22	B9	102	A	129.0
21	B0	2479	U	128.9
21	B0	1333	G	128.9
21	B0	2419	C	128.6
21	B0	1030	U	128.3
21	B0	190	A	128.3

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Mol	Chain	Res	Type	RSRZ
21	B0	2798	A	128.2
21	B0	773	G	128.1
21	B0	1390	G	128.0
21	B0	2623	A	127.5
21	B0	115	G	127.5
21	B0	1287	A	127.2
21	B0	2221	G	127.0
21	B0	2222	U	125.3
21	B0	114	C	125.2
21	B0	1718	A	124.8
21	B0	2246	A	124.5
21	B0	118	U	124.4
21	B0	484	G	124.3
21	B0	595	A	124.0
21	B0	460	U	124.0
21	B0	1765	C	124.0
1	AA	1505	G	124.0
1	AA	1502	A	123.9
21	B0	953	G	123.7
21	B0	2469	G	123.4
21	B0	2477	C	123.4
21	B0	523	A	123.3
21	B0	820	U	123.2
21	B0	46	C	123.0
21	B0	805	G	123.0
21	B0	2595	C	123.0
21	B0	2245	A	122.9
21	B0	1777	A	122.2
21	B0	168	A	122.2
21	B0	1029	C	121.9
21	B0	1365	U	121.4
1	AA	309	G	121.2
21	B0	2470	U	120.6
21	B0	117	A	120.3
21	B0	1281	A	120.2
21	B0	2707	G	120.2
21	B0	584	A	119.9
21	B0	524	A	119.8
21	B0	1802	A	119.8
21	B0	1146	G	119.2
21	B0	2005	U	119.0
21	B0	772	G	119.0

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Mol	Chain	Res	Type	RSRZ
21	B0	1374	G	118.9
1	AA	768	A	118.7
21	B0	1921	A	118.7
21	B0	1652	G	118.7
21	B0	2522	G	118.6
21	B0	1440	G	118.2
21	B0	1155	G	118.1
21	B0	1779	C	118.0
21	B0	1685	A	117.7
21	B0	462	G	117.5
21	B0	1624	A	117.5
21	B0	957	G	117.5
21	B0	2437	G	117.5
21	B0	2596	C	117.3
21	B0	711	C	117.2
21	B0	50	G	117.1
21	B0	1656	U	117.1
21	B0	1691	G	116.9
21	B0	594	G	116.8
21	B0	2849	C	116.4
21	B0	122	G	116.1
21	B0	992	A	115.5
21	B0	44	G	115.4
21	B0	2018	G	115.4
21	B0	582	G	115.3
21	B0	982	C	115.3
21	B0	2523	G	115.2
21	B0	398	C	115.2
21	B0	2586	G	115.2
21	B0	2585	C	115.2
21	B0	1620	C	115.1
21	B0	956	A	114.9
1	AA	310	G	114.8
21	B0	983	G	114.7
21	B0	816	U	114.5
21	B0	774	A	114.0
21	B0	2055	G	113.5
21	B0	747	A	113.5
21	B0	28	A	113.5
21	B0	171	G	113.4
21	B0	1359	G	113.2
21	B0	2553	G	113.2

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Mol	Chain	Res	Type	RSRZ
21	B0	834	A	113.1
21	B0	1762	C	112.9
21	B0	2054	A	112.9
21	B0	1956	G	112.7
21	B0	1153	A	112.7
21	B0	2019	C	112.3
21	B0	2406	C	112.1
1	AA	332	G	111.9
21	B0	2032	G	111.8
21	B0	954	U	111.7
21	B0	1655	C	111.6
21	B0	2625	U	111.6
21	B0	2668	U	111.5
21	B0	2497	A	111.3
1	AA	122	G	111.3
22	B9	101	A	110.9
21	B0	1961	A	110.9
21	B0	2037	A	110.8
21	B0	1748	U	110.7
21	B0	1320	A	110.5
21	B0	1277	G	110.5
21	B0	1724	C	110.4
21	B0	445	A	110.3
21	B0	930	A	110.3
21	B0	710	C	110.1
21	B0	2433	G	110.1
21	B0	2495	G	110.1
21	B0	1284	G	110.0
21	B0	1375	C	110.0
21	B0	1046	U	109.9
21	B0	2666	U	109.4
21	B0	2478	C	109.3
21	B0	1326	U	109.1
21	B0	1356	G	109.0
21	B0	877	G	109.0
21	B0	2481	G	108.9
21	B0	1761	G	108.8
21	B0	1394	G	108.5
1	AA	1513	A	108.4
21	B0	546	A	108.4
21	B0	121	G	108.3
21	B0	540	G	108.3

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Mol	Chain	Res	Type	RSRZ
21	B0	1686	A	108.2
21	B0	1960	A	108.2
21	B0	2428	U	108.2
21	B0	2050	G	108.1
21	B0	1621	C	108.0
21	B0	87	G	107.9
21	B0	933	G	107.6
21	B0	818	G	107.5
21	B0	2227	C	107.4
22	B9	100	G	107.4
21	B0	1962	C	107.3
21	B0	799	C	106.9
21	B0	36	G	106.9
21	B0	1986	G	106.7
21	B0	798	G	106.6
21	B0	2594	U	106.4
21	B0	176	A	106.3
21	B0	746	G	106.3
21	B0	1358	C	106.1
21	B0	878	C	105.9
21	B0	1807	A	105.8
21	B0	1886	G	105.7
21	B0	2017	U	105.6
21	B0	33	C	105.3
21	B0	1393	G	105.3
21	B0	155	G	105.1
21	B0	2051	U	104.8
21	B0	2701	A	104.7
21	B0	24	G	104.7
21	B0	184	A	104.7
21	B0	399	G	104.7
21	B0	831	G	104.4
21	B0	958	G	104.1
21	B0	2848	A	104.1
21	B0	817	A	104.1
21	B0	1285	A	104.0
21	B0	1332	G	103.8
21	B0	1618	U	103.6
21	B0	842	A	103.6
21	B0	832	A	103.5
1	AA	563	A	103.5
21	B0	47	G	103.0

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Mol	Chain	Res	Type	RSRZ
21	B0	1201	G	103.0
21	B0	694	G	102.9
21	B0	1364	C	102.9
21	B0	170	U	102.7
21	B0	1353	A	102.6
1	AA	609	A	102.5
21	B0	1310	C	102.5
21	B0	1395	A	102.2
21	B0	989	G	102.1
21	B0	2244	C	102.1
21	B0	1275	A	101.9
21	B0	778	G	101.9
21	B0	833	A	101.8
21	B0	1723	U	101.8
21	B0	2602	G	101.8
21	B0	1752	U	101.7
21	B0	1589	G	101.7
21	B0	2561	G	101.5
21	B0	2524	G	101.5
21	B0	2049	C	101.5
21	B0	2690	A	101.4
21	B0	188	G	101.3
21	B0	13	A	101.3
21	B0	1700	C	101.2
21	B0	174	A	101.2
21	B0	2058	U	101.0
21	B0	1644	G	101.0
21	B0	127	C	101.0
21	B0	931	G	101.0
21	B0	2226	A	100.9
21	B0	988	G	100.9
21	B0	536	A	100.9
21	B0	2022	C	100.8
21	B0	2408	G	100.7
21	B0	1286	U	100.5
22	B9	103	A	100.5
21	B0	43	A	100.0
21	B0	26	G	100.0
21	B0	51	A	99.9
21	B0	2675	U	99.7
21	B0	1780	A	99.6
21	B0	465	C	99.4

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Mol	Chain	Res	Type	RSRZ
21	B0	2223	U	99.4
21	B0	2434	G	99.3
21	B0	591	G	99.1
21	B0	111	G	99.1
21	B0	952	A	98.9
21	B0	2476	A	98.9
21	B0	932	G	98.8
1	AA	769	G	98.7
21	B0	855	G	98.7
21	B0	156	G	98.6
21	B0	185	C	98.5
21	B0	126	C	98.1
21	B0	1687	C	98.1
21	B0	1379	A	98.0
21	B0	2494	C	97.9
21	B0	2672	U	97.9
1	AA	331	G	97.7
21	B0	2429	A	97.6
21	B0	2692	A	97.6
21	B0	1803	G	97.6
21	B0	1753	A	97.4
21	B0	1237	G	97.4
1	AA	558	G	97.3
21	B0	929	A	97.1
21	B0	1031	C	97.1
21	B0	2761	A	97.0
21	B0	90	G	97.0
21	B0	2713	A	96.9
21	B0	973	U	96.7
21	B0	2016	A	96.6
22	B9	110	U	96.5
21	B0	1955	G	96.4
21	B0	2247	A	96.4
21	B0	88	G	96.4
21	B0	2671	C	96.3
21	B0	1781	C	96.2
21	B0	1150	C	96.1
21	B0	1588	A	96.0
21	B0	483	A	95.9
21	B0	2694	G	95.9
21	B0	677	G	95.6
21	B0	457	C	95.5

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Mol	Chain	Res	Type	RSRZ
21	B0	2027	C	95.4
21	B0	1747	G	95.4
21	B0	1638	G	95.4
21	B0	1133	G	95.2
21	B0	89	A	95.2
21	B0	775	U	95.0
21	B0	116	A	95.0
21	B0	2015	G	94.9
21	B0	1328	C	94.8
21	B0	2039	G	94.7
21	B0	23	G	94.7
21	B0	1154	A	94.6
21	B0	1887	G	94.4
21	B0	2801	A	94.4
21	B0	194	G	94.3
21	B0	2563	U	94.2
1	AA	1501	C	94.0
21	B0	1990	U	93.8
21	B0	1774	A	93.8
21	B0	1662	G	93.7
21	B0	1983	G	93.7
21	B0	1719	G	93.7
21	B0	1136	G	93.6
21	B0	2799	C	93.6
21	B0	1654	A	93.6
1	AA	865	A	93.5
21	B0	1322	G	93.4
21	B0	1263	G	93.3
21	B0	1969	G	93.2
37	BO	6	THR	93.0
21	B0	35	G	93.0
21	B0	976	C	92.9
21	B0	164	G	92.9
21	B0	1138	A	92.8
21	B0	175	C	92.7
21	B0	2217	G	92.6
21	B0	750	C	92.6
21	B0	2432	A	92.4
21	B0	2576	G	92.3
21	B0	1974	U	92.3
21	B0	815	A	92.3
21	B0	2700	U	92.3

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Mol	Chain	Res	Type	RSRZ
21	B0	1751	A	92.2
21	B0	2487	G	92.1
37	BO	5	LYS	92.1
21	B0	1717	A	92.1
21	B0	42	G	92.0
21	B0	224	G	92.0
21	B0	446	C	92.0
21	B0	1439	G	92.0
21	B0	2593	A	91.9
1	AA	333	G	91.9
21	B0	2052	G	91.8
21	B0	1357	U	91.8
21	B0	2521	A	91.8
21	B0	2483	U	91.6
21	B0	925	U	91.6
21	B0	2846	G	91.5
1	AA	134	A	91.5
1	AA	864	A	91.4
21	B0	1646	G	91.3
21	B0	777	A	91.3
21	B0	449	C	91.2
21	B0	788	G	91.2
21	B0	2038	C	91.2
21	B0	1653	C	91.2
21	B0	48	A	91.1
21	B0	691	C	91.1
21	B0	1970	G	91.0
21	B0	162	C	91.0
21	B0	1293	A	90.9
21	B0	187	U	90.9
21	B0	1706	A	90.8
21	B0	2571	G	90.7
21	B0	1391	A	90.5
21	B0	1032	A	90.5
1	AA	579	G	90.5
1	AA	766	A	90.5
21	B0	1376	C	90.5
1	AA	293	G	90.4
21	B0	1216	G	90.4
21	B0	2750	G	90.4
21	B0	1985	G	90.3
21	B0	186	C	90.2

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Mol	Chain	Res	Type	RSRZ
21	B0	2486	C	90.0
21	B0	1366	A	90.0
21	B0	1666	G	89.9
21	B0	2711	G	89.8
21	B0	1806	G	89.8
21	B0	1793	A	89.6
21	B0	987	G	89.4
21	B0	2584	U	89.4
21	B0	2252	A	89.4
21	B0	1319	C	89.2
22	B9	104	A	88.9
21	B0	585	U	88.9
21	B0	708	G	88.9
21	B0	1616	C	88.9
21	B0	397	U	88.8
21	B0	951	G	88.6
21	B0	113	C	88.6
21	B0	783	G	88.5
21	B0	120	G	88.5
21	B0	781	G	88.4
21	B0	1750	A	88.4
21	B0	1280	U	88.3
21	B0	651	C	88.3
1	AA	566	G	88.2
21	B0	2827	G	88.1
21	B0	534	U	87.9
21	B0	1282	A	87.9
1	AA	880	C	87.6
21	B0	1963	G	87.4
21	B0	447	U	87.4
21	B0	125	A	87.4
21	B0	541	C	87.3
21	B0	1125	G	87.3
21	B0	1755	G	87.2
1	AA	319	G	87.1
1	AA	123	C	87.1
21	B0	2028	C	87.1
21	B0	1701	C	87.0
21	B0	2568	A	86.9
21	B0	2488	G	86.9
21	B0	2370	G	86.8
21	B0	1615	C	86.8

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Mol	Chain	Res	Type	RSRZ
21	B0	1882	G	86.7
21	B0	1384	G	86.7
1	AA	535	A	86.6
21	B0	2566	A	86.6
21	B0	1267	A	86.5
21	B0	564	U	86.5
21	B0	1344	C	86.5
21	B0	2825	A	86.4
1	AA	1474	G	86.3
21	B0	840	U	86.3
21	B0	69	G	86.2
21	B0	565	A	86.1
21	B0	2679	G	86.1
21	B0	2676	G	86.0
1	AA	546	G	86.0
21	B0	583	C	86.0
21	B0	874	A	86.0
21	B0	2685	A	86.0
21	B0	1984	A	85.8
21	B0	1661	C	85.8
1	AA	814	A	85.7
21	B0	712	A	85.7
21	B0	796	A	85.6
21	B0	1204	G	85.6
21	B0	1203	A	85.6
21	B0	7	G	85.6
21	B0	2443	C	85.5
21	B0	1034	U	85.4
1	AA	318	G	85.4
21	B0	812	G	85.3
21	B0	2847	G	85.3
21	B0	1278	A	85.2
21	B0	685	U	85.1
21	B0	1471	G	85.1
21	B0	684	C	85.1
21	B0	1754	G	85.0
21	B0	984	A	84.9
21	B0	2276	C	84.9
21	B0	836	G	84.9
21	B0	580	A	84.8
21	B0	2660	C	84.8
21	B0	16	G	84.8

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Mol	Chain	Res	Type	RSRZ
21	B0	1346	C	84.7
1	AA	570	G	84.7
21	B0	2552	C	84.7
21	B0	1200	G	84.6
21	B0	581	A	84.6
21	B0	2587	G	84.6
21	B0	2570	C	84.5
21	B0	2423	G	84.5
21	B0	2496	C	84.5
21	B0	2192	U	84.4
21	B0	985	G	84.3
21	B0	1352	G	84.3
21	B0	1714	A	84.3
21	B0	1634	A	84.3
21	B0	1770	U	84.3
21	B0	2044	G	84.2
21	B0	2759	U	84.2
1	AA	47	C	84.2
21	B0	2468	G	84.1
21	B0	692	C	84.1
21	B0	695	G	84.0
21	B0	2678	C	83.9
21	B0	1633	C	83.9
21	B0	1406	A	83.8
1	AA	914	A	83.8
21	B0	525	A	83.6
21	B0	1000	G	83.5
21	B0	2695	C	83.4
21	B0	742	G	83.4
21	B0	2603	G	83.4
21	B0	577	U	83.3
21	B0	1977	C	83.3
21	B0	112	U	83.2
21	B0	1627	C	83.1
21	B0	535	U	83.1
21	B0	568	G	83.0
21	B0	2060	A	83.0
21	B0	1587	A	83.0
21	B0	163	A	82.9
21	B0	526	C	82.8
21	B0	189	A	82.8
21	B0	2489	C	82.7

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Mol	Chain	Res	Type	RSRZ
21	B0	1775	A	82.7
21	B0	2757	G	82.6
21	B0	225	G	82.6
21	B0	2745	A	82.5
21	B0	2026	C	82.5
21	B0	2482	A	82.4
21	B0	2569	A	82.4
1	AA	298	A	82.4
21	B0	1407	G	82.3
26	BD	60	ILE	82.3
21	B0	693	A	82.2
21	B0	1369	G	82.2
21	B0	873	U	82.2
21	B0	2622	G	82.2
21	B0	576	A	82.1
1	AA	547	A	82.0
21	B0	995	A	81.9
21	B0	1821	A	81.9
21	B0	977	G	81.8
1	AA	557	G	81.7
21	B0	2802	C	81.7
21	B0	160	C	81.7
21	B0	971	A	81.7
21	B0	1957	C	81.6
1	AA	910	C	81.6
21	B0	2851	G	81.5
22	B9	112	A	81.5
21	B0	2030	U	81.5
1	AA	32	A	81.4
21	B0	659	G	81.4
21	B0	2665	G	81.4
21	B0	548	G	81.2
22	B9	105	G	81.1
1	AA	608	A	81.1
21	B0	2029	G	81.1
21	B0	1338	G	81.1
21	B0	1660	G	81.0
21	B0	1205	G	81.0
21	B0	2670	C	81.0
1	AA	812	C	81.0
1	AA	767	A	80.9
1	AA	816	A	80.9

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Mol	Chain	Res	Type	RSRZ
21	B0	1334	A	80.8
21	B0	407	A	80.7
21	B0	1964	A	80.7
21	B0	1377	G	80.4
21	B0	676	G	80.4
21	B0	1445	A	80.4
21	B0	970	A	80.4
21	B0	1316	G	80.4
21	B0	1920	A	80.4
21	B0	2007	G	80.2
21	B0	2466	G	80.2
1	AA	292	G	80.1
21	B0	1968	G	80.1
21	B0	924	C	80.1
21	B0	1139	A	80.1
21	B0	2702	G	80.1
21	B0	1331	G	80.1
21	B0	1371	G	80.0
1	AA	892	A	80.0
1	AA	1500	A	80.0
21	B0	448	C	80.0
1	AA	1523	G	80.0
21	B0	779	U	80.0
21	B0	2036	G	80.0
1	AA	329	A	80.0
21	B0	2800	C	79.9
21	B0	1255	A	79.9
1	AA	505	G	79.9
21	B0	1758	C	79.9
21	B0	1715	A	79.9
21	B0	2193	C	79.9
21	B0	994	A	79.8
21	B0	1321	A	79.7
21	B0	1688	U	79.6
1	AA	610	G	79.6
21	B0	771	C	79.5
21	B0	806	A	79.4
21	B0	1614	C	79.4
21	B0	143	A	79.4
21	B0	1704	G	79.3
21	B0	2852	G	79.3
21	B0	41	G	79.3

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Mol	Chain	Res	Type	RSRZ
21	B0	154	U	79.2
21	B0	223	C	79.2
21	B0	2844	G	79.1
1	AA	903	G	79.1
1	AA	308	C	79.0
21	B0	854	G	78.9
21	B0	1664	G	78.9
21	B0	1137	A	78.9
21	B0	2546	G	78.7
21	B0	856	A	78.6
21	B0	2248	A	78.6
21	B0	2243	C	78.6
21	B0	1254	G	78.6
1	AA	297	G	78.4
21	B0	450	C	78.4
21	B0	1151	U	78.4
1	AA	19	C	78.3
21	B0	2435	C	78.2
21	B0	1134	C	78.2
21	B0	707	U	78.2
21	B0	2314	A	78.1
21	B0	1864	G	78.0
1	AA	913	A	77.9
26	BD	59	LEU	77.9
1	AA	109	A	77.9
21	B0	2471	U	77.9
1	AA	108	G	77.9
21	B0	2751	C	77.8
21	B0	2749	A	77.7
21	B0	128	C	77.7
21	B0	1368	G	77.6
22	B9	99	G	77.6
1	AA	813	U	77.5
21	B0	1668	G	77.5
21	B0	1632	A	77.5
21	B0	1149	G	77.5
21	B0	165	G	77.4
21	B0	762	A	77.4
21	B0	522	G	77.3
1	AA	133	U	77.2
21	B0	1958	G	77.2
21	B0	1300	A	77.1

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Mol	Chain	Res	Type	RSRZ
21	B0	2654	A	77.1
1	AA	765	G	77.0
26	BD	144	ASP	77.0
21	B0	1168	G	76.9
21	B0	2762	G	76.9
21	B0	1354	A	76.7
21	B0	22	C	76.6
21	B0	2409	A	76.6
21	B0	179	U	76.5
21	B0	1309	G	76.5
21	B0	159	A	76.5
21	B0	1643	A	76.4
21	B0	2758	A	76.4
21	B0	709	A	76.4
21	B0	32	C	76.3
21	B0	2475	C	76.3
1	AA	556	C	76.2
21	B0	1349	A	76.2
21	B0	153	A	76.0
21	B0	1689	U	75.9
21	B0	1273	G	75.9
21	B0	2413	A	75.9
21	B0	2691	C	75.9
29	BG	106	GLU	75.8
21	B0	1647	U	75.8
21	B0	1678	G	75.8
1	AA	160	A	75.7
21	B0	1059	A	75.7
21	B0	2693	U	75.6
21	B0	1167	A	75.6
21	B0	389	G	75.6
21	B0	2578	G	75.6
21	B0	1236	G	75.6
21	B0	1033	G	75.5
1	AA	1503	A	75.4
21	B0	804	C	75.4
21	B0	2438	A	75.4
26	BD	139	PRO	75.3
1	AA	22	G	75.2
21	B0	998	C	75.2
21	B0	406	G	75.1
21	B0	547	U	75.1

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Mol	Chain	Res	Type	RSRZ
21	B0	1410	U	75.1
21	B0	2383	C	75.0
21	B0	17	G	75.0
21	B0	2332	G	75.0
21	B0	1166	A	75.0
21	B0	928	G	75.0
21	B0	1264	C	74.9
21	B0	2410	U	74.8
21	B0	1698	C	74.8
1	AA	1079	G	74.8
21	B0	1495	G	74.8
21	B0	2592	U	74.8
21	B0	975	C	74.8
21	B0	1385	C	74.8
21	B0	2545	A	74.7
21	B0	2220	A	74.6
1	AA	1475	G	74.5
22	B9	65	A	74.5
21	B0	1019	U	74.4
21	B0	2708	U	74.4
21	B0	743	A	74.3
21	B0	444	U	74.3
21	B0	945	G	74.2
1	AA	509	A	74.2
21	B0	140	G	74.2
1	AA	311	C	74.2
21	B0	141	G	74.2
1	AA	607	A	74.2
21	B0	2606	G	74.1
1	AA	764	C	74.1
1	AA	525	C	74.1
21	B0	1373	G	74.1
21	B0	1211	G	74.0
1	AA	135	C	74.0
21	B0	751	G	74.0
21	B0	1669	A	74.0
21	B0	1283	C	73.9
21	B0	1337	G	73.8
21	B0	835	U	73.8
21	B0	1657	A	73.8
21	B0	567	G	73.8
1	AA	508	C	73.8

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Mol	Chain	Res	Type	RSRZ
21	B0	2756	A	73.7
21	B0	2301	A	73.7
21	B0	451	A	73.6
21	B0	485	G	73.6
21	B0	1884	A	73.6
21	B0	2467	A	73.6
21	B0	2577	A	73.6
21	B0	2747	C	73.6
21	B0	2440	C	73.5
21	B0	1496	G	73.4
21	B0	1302	C	73.4
21	B0	392	G	73.4
21	B0	1276	U	73.3
21	B0	1757	C	73.3
21	B0	57	G	73.2
21	B0	2547	C	73.2
21	B0	539	A	73.2
21	B0	1018	C	73.2
21	B0	1446	U	73.1
21	B0	391	C	73.1
21	B0	2604	G	73.1
21	B0	229	G	73.1
22	B9	17	A	73.0
21	B0	981	C	73.0
21	B0	2418	A	73.0
1	AA	317	G	73.0
21	B0	2850	U	72.9
21	B0	1347	C	72.9
42	BT	129	ARG	72.9
21	B0	745	C	72.8
1	AA	124	G	72.6
21	B0	1241	G	72.6
21	B0	2499	C	72.6
21	B0	1436	G	72.6
21	B0	2706	U	72.5
21	B0	990	A	72.5
21	B0	2528	G	72.5
21	B0	1214	C	72.5
21	B0	11	G	72.5
21	B0	1140	A	72.5
21	B0	2813	G	72.5
21	B0	2525	U	72.4

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Mol	Chain	Res	Type	RSRZ
21	B0	1229	C	72.4
21	B0	872	G	72.3
21	B0	974	U	72.3
21	B0	1317	G	72.3
21	B0	1350	G	72.2
1	AA	578	C	72.2
21	B0	1590	C	72.2
21	B0	706	A	72.1
21	B0	2551	A	72.1
1	AA	927	G	72.1
21	B0	1885	C	72.1
21	B0	1645	U	72.0
1	AA	572	A	72.0
26	BD	142	THR	72.0
21	B0	72	A	72.0
1	AA	1434	A	72.0
21	B0	999	A	71.9
21	B0	2237	C	71.8
21	B0	12	U	71.8
21	B0	227	G	71.7
21	B0	658	G	71.7
21	B0	922	A	71.6
21	B0	91	A	71.6
21	B0	614	G	71.5
21	B0	1243	G	71.5
1	AA	571	U	71.5
1	AA	161	A	71.5
21	B0	1791	C	71.5
21	B0	927	C	71.5
21	B0	2242	C	71.5
21	B0	1716	G	71.4
1	AA	758	G	71.4
21	B0	2040	A	71.3
21	B0	29	U	71.3
21	B0	1813	A	71.3
1	AA	575	G	71.3
21	B0	789	G	71.3
21	B0	2061	C	71.3
1	AA	548	G	71.2
21	B0	1367	A	71.2
21	B0	1215	A	71.2
21	B0	851	C	71.2

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Mol	Chain	Res	Type	RSRZ
1	AA	821	G	71.2
21	B0	569	C	71.2
21	B0	1768	U	71.2
21	B0	1979	C	71.1
1	AA	976	G	71.1
21	B0	813	A	71.1
21	B0	1292	A	71.1
21	B0	588	G	71.1
1	AA	330	C	71.1
21	B0	2277	A	71.0
21	B0	2554	C	71.0
21	B0	965	G	70.9
1	AA	364	A	70.9
21	B0	2818	G	70.9
1	AA	893	C	70.9
21	B0	2794	G	70.8
21	B0	713	G	70.8
21	B0	2436	U	70.8
21	B0	1343	C	70.8
21	B0	2724	G	70.8
21	B0	1650	A	70.8
21	B0	1362	A	70.7
1	AA	1508	G	70.7
21	B0	934	G	70.7
21	B0	167	A	70.6
21	B0	2216	G	70.6
21	B0	2382	C	70.5
21	B0	1760	G	70.5
21	B0	2550	C	70.5
21	B0	1230	C	70.4
21	B0	2526	U	70.3
21	B0	161	U	70.3
1	AA	315	A	70.3
21	B0	875	G	70.2
21	B0	21	A	70.1
21	B0	1258	G	70.1
21	B0	543	G	70.1
21	B0	1814	G	70.1
21	B0	2689	C	70.1
21	B0	1245	G	70.1
21	B0	390	U	70.1
1	AA	110	C	70.1

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Mol	Chain	Res	Type	RSRZ
1	AA	230	G	70.0
21	B0	1135	C	70.0
21	B0	527	C	70.0
21	B0	1720	G	69.9
21	B0	1242	A	69.9
21	B0	1928	G	69.9
1	AA	1473	A	69.8
21	B0	807	A	69.8
21	B0	1966	C	69.8
21	B0	1555	A	69.8
21	B0	388	G	69.7
1	AA	46	G	69.5
21	B0	2404	A	69.4
21	B0	652	C	69.4
1	AA	1401	G	69.3
21	B0	586	G	69.3
1	AA	1428	A	69.3
1	AA	1080	A	69.2
21	B0	1303	U	69.2
21	B0	1148	G	69.2
1	AA	885	G	69.2
21	B0	1744	G	69.1
21	B0	2278	A	69.1
21	B0	1315	A	69.0
1	AA	21	G	69.0
21	B0	2010	G	68.9
21	B0	1847	G	68.9
21	B0	2312	A	68.9
21	B0	1967	U	68.9
21	B0	1722	G	68.9
21	B0	1973	C	68.9
21	B0	823	U	68.8
21	B0	1801	C	68.8
21	B0	589	C	68.8
21	B0	2498	U	68.8
21	B0	1028	G	68.8
21	B0	1238	A	68.7
21	B0	1206	G	68.7
21	B0	1635	G	68.6
21	B0	2300	G	68.6
21	B0	396	U	68.6
21	B0	1058	G	68.6

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Mol	Chain	Res	Type	RSRZ
21	B0	590	C	68.5
21	B0	1998	A	68.5
21	B0	395	G	68.5
21	B0	25	U	68.5
21	B0	2228	U	68.5
21	B0	2444	C	68.5
21	B0	2821	G	68.4
21	B0	1246	G	68.4
1	AA	1524	C	68.4
21	B0	1684	G	68.4
21	B0	1001	A	68.3
21	B0	1351	G	68.2
21	B0	1386	A	68.2
21	B0	1639	U	68.2
21	B0	2617	G	68.1
21	B0	1981	A	68.0
21	B0	1953	A	68.0
1	AA	296	U	68.0
22	B9	113	G	68.0
21	B0	2682	C	68.0
21	B0	2303	C	67.9
1	AA	585	G	67.9
21	B0	744	C	67.9
21	B0	2607	C	67.9
1	AA	312	C	67.9
1	AA	18	C	67.9
21	B0	52	A	67.8
21	B0	403	A	67.8
21	B0	2583	U	67.8
1	AA	881	G	67.7
1	AA	316	G	67.7
1	AA	64	G	67.6
21	B0	2442	C	67.6
21	B0	784	U	67.6
21	B0	570	G	67.6
21	B0	545	C	67.6
21	B0	605	G	67.5
21	B0	2605	C	67.5
21	B0	1613	G	67.5
21	B0	2003	A	67.5
21	B0	950	G	67.5
1	AA	115	G	67.4

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Mol	Chain	Res	Type	RSRZ
1	AA	107	G	67.4
1	AA	33	A	67.4
21	B0	2420	C	67.4
1	AA	922	G	67.3
1	AA	781	A	67.2
1	AA	313	A	67.1
21	B0	1554	G	67.1
21	B0	1444	C	67.0
21	B0	1234	C	67.0
21	B0	222	G	67.0
21	B0	537	C	66.9
1	AA	533	A	66.9
21	B0	1659	G	66.9
1	AA	325	A	66.9
21	B0	173	A	66.8
21	B0	228	A	66.8
1	AA	7	G	66.8
21	B0	986	A	66.8
21	B0	1919	A	66.8
21	B0	1405	A	66.7
21	B0	1228	G	66.7
21	B0	1387	G	66.7
21	B0	1341	G	66.6
21	B0	1047	G	66.6
21	B0	1556	A	66.6
21	B0	1291	G	66.6
1	AA	560	U	66.5
21	B0	2299	A	66.5
1	AA	27	G	66.5
21	B0	2241	U	66.4
21	B0	1266	G	66.4
21	B0	1417	C	66.4
22	B9	25	G	66.3
1	AA	111	G	66.3
1	AA	26	A	66.3
1	AA	10	A	66.3
21	B0	634	G	66.2
21	B0	1062	G	66.2
21	B0	2579	A	66.1
22	B9	64	C	66.1
21	B0	2709	C	66.1
21	B0	2392	G	66.1

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Mol	Chain	Res	Type	RSRZ
1	AA	9	G	66.1
22	B9	72	C	66.0
21	B0	2655	C	66.0
21	B0	1035	G	66.0
21	B0	1447	U	66.0
1	AA	504	C	65.9
21	B0	701	U	65.9
22	B9	6	C	65.9
22	B9	74	A	65.8
1	AA	515	G	65.8
1	AA	564	C	65.8
1	AA	132	C	65.7
21	B0	2302	G	65.7
21	B0	794	A	65.7
21	B0	2556	A	65.7
21	B0	59	G	65.7
21	B0	2307	A	65.7
21	B0	2527	G	65.7
1	AA	321	A	65.7
21	B0	1954	A	65.7
1	AA	61	G	65.7
21	B0	2684	A	65.6
21	B0	2555	G	65.6
1	AA	11	G	65.6
1	AA	577	G	65.6
21	B0	615	C	65.6
1	AA	925	G	65.5
21	B0	1978	U	65.5
21	B0	2828	C	65.5
1	AA	888	G	65.4
21	B0	1323	G	65.4
21	B0	6	A	65.3
21	B0	2664	G	65.3
21	B0	180	C	65.3
21	B0	1829	C	65.3
1	AA	633	G	65.2
21	B0	1756	C	65.2
21	B0	672	C	65.1
21	B0	1398	G	65.1
21	B0	1999	U	65.1
21	B0	538	A	65.1
21	B0	1383	C	65.1

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Mol	Chain	Res	Type	RSRZ
21	B0	852	U	65.0
1	AA	526	C	65.0
22	B9	66	G	65.0
21	B0	1231	A	64.9
21	B0	1380	C	64.9
21	B0	1304	U	64.9
1	AA	1441	G	64.9
1	AA	1468	A	64.9
21	B0	533	C	64.9
21	B0	1435	G	64.9
21	B0	1016	C	64.8
21	B0	1396	C	64.8
1	AA	576	G	64.8
21	B0	596	C	64.8
1	AA	51	A	64.8
21	B0	1769	U	64.7
1	AA	289	G	64.7
21	B0	1671	A	64.6
21	B0	452	G	64.6
21	B0	2056	C	64.5
21	B0	2025	A	64.5
21	B0	2465	G	64.5
21	B0	230	C	64.5
21	B0	1786	C	64.5
21	B0	923	A	64.5
21	B0	2814	G	64.4
21	B0	2474	G	64.4
21	B0	2520	A	64.4
21	B0	1438	G	64.4
21	B0	1240	G	64.4
21	B0	1294	G	64.3
21	B0	1017	C	64.3
21	B0	959	C	64.3
21	B0	2518	C	64.3
21	B0	2384	G	64.2
21	B0	853	C	64.2
21	B0	1721	G	64.2
21	B0	2803	C	64.2
1	AA	559	A	64.2
1	AA	29	G	64.1
1	AA	326	G	64.1
21	B0	1262	U	64.1

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Mol	Chain	Res	Type	RSRZ
1	AA	113	G	64.1
21	B0	2004	U	64.1
21	B0	68	C	64.0
21	B0	1305	C	64.0
21	B0	1586	A	64.0
1	AA	536	C	64.0
21	B0	1348	C	63.9
21	B0	690	A	63.8
21	B0	2699	G	63.8
21	B0	1165	G	63.8
21	B0	239	A	63.7
1	AA	16	A	63.7
21	B0	2705	A	63.7
21	B0	549	G	63.7
21	B0	1576	G	63.7
1	AA	1488	G	63.7
21	B0	2344	G	63.6
21	B0	14	A	63.6
21	B0	178	C	63.5
1	AA	544	G	63.5
21	B0	1883	A	63.5
21	B0	1800	A	63.4
1	AA	60	A	63.4
21	B0	1329	U	63.4
21	B0	2826	C	63.3
26	BD	145	MET	63.2
1	AA	917	G	63.2
21	B0	1713	G	63.2
1	AA	278	G	63.2
21	B0	1940	C	63.2
21	B0	1832	G	63.2
21	B0	2819	G	63.1
21	B0	2000	U	63.1
21	B0	876	A	63.0
21	B0	1827	G	63.0
21	B0	964	A	63.0
21	B0	1667	A	63.0
21	B0	1342	U	63.0
21	B0	1952	A	63.0
1	AA	573	A	62.9
21	B0	1822	C	62.9
21	B0	2309	G	62.8

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Mol	Chain	Res	Type	RSRZ
21	B0	1392	U	62.8
21	B0	1209	G	62.8
1	AA	912	C	62.8
1	AA	229	U	62.7
22	B9	71	G	62.7
1	AA	763	G	62.7
21	B0	1259	A	62.7
29	BG	102	ASP	62.7
21	B0	1272	G	62.7
1	AA	162	A	62.6
21	B0	2394	G	62.6
21	B0	2011	U	62.6
21	B0	748	A	62.5
21	B0	1819	U	62.5
1	AA	41	G	62.5
21	B0	2393	G	62.5
21	B0	643	A	62.5
21	B0	1636	G	62.5
21	B0	8	A	62.4
21	B0	226	C	62.4
21	B0	1419	G	62.4
1	AA	1499	A	62.4
21	B0	2532	G	62.4
21	B0	37	C	62.3
21	B0	1318	A	62.3
21	B0	791	G	62.2
21	B0	1665	C	62.2
1	AA	307	C	62.1
21	B0	749	C	62.1
21	B0	1680	U	62.1
21	B0	482	A	62.1
21	B0	993	C	62.0
21	B0	1290	A	62.0
21	B0	2343	C	61.9
1	AA	365	U	61.9
21	B0	698	A	61.9
26	BD	57	LEU	61.8
21	B0	741	G	61.8
1	AA	1429	C	61.8
21	B0	1408	A	61.8
1	AA	1433	A	61.7
21	B0	839	U	61.7

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Mol	Chain	Res	Type	RSRZ
21	B0	2403	C	61.7
21	B0	740	A	61.7
26	BD	3	GLN	61.7
21	B0	1239	A	61.7
21	B0	1965	U	61.7
21	B0	575	U	61.6
21	B0	1735	G	61.6
21	B0	1623	C	61.6
21	B0	2009	U	61.6
21	B0	2331	A	61.6
1	AA	334	C	61.5
21	B0	67	G	61.4
21	B0	671	A	61.4
21	B0	766	A	61.4
21	B0	1922	U	61.4
21	B0	2445	C	61.4
21	B0	1437	A	61.3
1	AA	1370	G	61.3
21	B0	1418	C	61.3
1	AA	1413	A	61.3
1	AA	923	A	61.2
21	B0	2229	G	61.2
21	B0	166	G	61.2
21	B0	811	G	61.2
21	B0	1388	C	61.2
21	B0	1470	G	61.2
21	B0	1207	G	61.1
21	B0	2727	G	61.1
1	AA	378	G	61.1
21	B0	1959	U	61.0
21	B0	1574	A	61.0
1	AA	42	G	61.0
21	B0	1941	C	60.9
22	B9	109	G	60.9
21	B0	2008	C	60.8
21	B0	1696	C	60.8
1	AA	279	A	60.8
21	B0	767	G	60.7
1	AA	59	A	60.7
21	B0	2572	U	60.7
21	B0	1397	A	60.7
21	B0	2686	C	60.6

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Mol	Chain	Res	Type	RSRZ
1	AA	1521	G	60.6
21	B0	2696	A	60.6
1	AA	879	C	60.6
21	B0	1296	G	60.5
21	B0	1982	C	60.5
21	B0	620	G	60.5
21	B0	158	A	60.5
22	B9	83	C	60.5
1	AA	1365	G	60.5
21	B0	790	A	60.5
1	AA	353	A	60.4
21	B0	2407	G	60.4
21	B0	1677	C	60.4
1	AA	580	U	60.4
21	B0	1060	C	60.4
22	B9	75	A	60.4
21	B0	2397	A	60.4
21	B0	404	A	60.3
21	B0	15	G	60.3
21	B0	3136	C	60.3
21	B0	1124	U	60.3
21	B0	1020	A	60.3
21	B0	2255	G	60.3
21	B0	181	A	60.3
21	B0	1824	C	60.3
21	B0	2741	G	60.3
1	AA	918	A	60.3
21	B0	2565	C	60.3
21	B0	2817	A	60.2
21	B0	1759	A	60.2
21	B0	633	G	60.2
21	B0	1809	G	60.1
21	B0	30	G	60.1
21	B0	705	C	60.1
21	B0	949	G	60.1
1	AA	728	A	60.1
1	AA	627	G	60.1
21	B0	2730	A	60.0
21	B0	1314	A	60.0
21	B0	1995	G	60.0
1	AA	25	C	60.0
21	B0	2740	C	60.0

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Mol	Chain	Res	Type	RSRZ
21	B0	2316	G	59.9
1	AA	320	C	59.9
21	B0	1382	G	59.9
21	B0	864	C	59.9
1	AA	1511	G	59.9
1	AA	574	A	59.9
21	B0	1592	U	59.9
21	B0	787	A	59.9
21	B0	2822	U	59.9
21	B0	70	A	59.8
1	AA	299	G	59.8
21	B0	2608	A	59.8
29	BG	48	LYS	59.8
1	AA	803	G	59.8
21	B0	642	A	59.8
26	BD	4	LEU	59.7
21	B0	801	A	59.7
1	AA	625	G	59.7
21	B0	401	G	59.7
21	B0	604	U	59.7
21	B0	2057	U	59.7
22	B9	16	U	59.6
21	B0	641	G	59.6
1	AA	1368	G	59.5
21	B0	2066	G	59.5
21	B0	2251	U	59.5
21	B0	752	G	59.5
21	B0	865	A	59.5
21	B0	1210	C	59.5
21	B0	1132	C	59.5
21	B0	2214	G	59.5
26	BD	140	GLU	59.5
21	B0	152	G	59.5
21	B0	157	G	59.5
37	BO	3	ARG	59.5
21	B0	1217	U	59.4
21	B0	1363	C	59.3
1	AA	944	G	59.3
21	B0	696	U	59.3
21	B0	1432	G	59.3
1	AA	1395	C	59.3
21	B0	2519	C	59.2

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Mol	Chain	Res	Type	RSRZ
21	B0	183	U	59.2
1	AA	770	C	59.2
21	B0	1256	C	59.2
29	BG	47	ASP	59.2
21	B0	972	C	59.2
1	AA	397	A	59.2
21	B0	1823	G	59.2
21	B0	2371	A	59.1
1	AA	524	G	59.1
21	B0	172	A	59.1
21	B0	2493	U	59.1
1	AA	117	G	59.1
1	AA	301	G	59.1
21	B0	1213	U	59.0
21	B0	867	G	59.0
21	B0	1792	C	59.0
21	B0	464	G	59.0
21	B0	702	A	59.0
22	B9	58	G	58.9
21	B0	2729	A	58.9
21	B0	1746	A	58.9
21	B0	571	U	58.9
21	B0	1235	C	58.8
1	AA	545	C	58.8
21	B0	630	G	58.8
21	B0	660	G	58.8
21	B0	501	G	58.8
21	B0	1997	A	58.8
21	B0	1980	A	58.7
21	B0	1299	A	58.7
21	B0	1846	A	58.7
21	B0	1697	U	58.7
21	B0	1156	U	58.6
23	BA	136	VAL	58.6
1	AA	284	G	58.6
21	B0	2843	A	58.6
21	B0	686	C	58.6
21	B0	828	C	58.5
21	B0	1972	G	58.5
21	B0	1202	U	58.5
1	AA	28	G	58.5
21	B0	1232	U	58.5

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Mol	Chain	Res	Type	RSRZ
1	AA	873	A	58.4
21	B0	1577	G	58.4
21	B0	544	U	58.4
21	B0	1145	C	58.4
1	AA	314	C	58.4
1	AA	811	C	58.3
1	AA	730	G	58.3
1	AA	975	A	58.3
21	B0	2597	G	58.3
21	B0	2688	G	58.2
1	AA	804	U	58.2
1	AA	159	G	58.2
21	B0	2253	A	58.1
21	B0	1497	C	58.1
1	AA	1526	G	58.1
1	AA	507	C	58.0
21	B0	2485	U	58.0
21	B0	232	A	58.0
21	B0	1585	A	58.0
21	B0	2683	C	58.0
21	B0	62	U	58.0
1	AA	543	C	57.9
21	B0	550	C	57.9
21	B0	2720	A	57.9
21	B0	1039	A	57.8
22	B9	18	G	57.8
1	AA	295	C	57.8
1	AA	34	C	57.8
21	B0	2308	A	57.8
21	B0	139	A	57.7
1	AA	1387	G	57.7
21	B0	797	A	57.7
21	B0	1244	U	57.7
1	AA	878	G	57.7
21	B0	2677	U	57.6
1	AA	904	C	57.6
26	BD	2	GLN	57.6
21	B0	1579	G	57.6
1	AA	634	C	57.6
21	B0	1570	C	57.6
21	B0	2396	C	57.5
1	AA	1343	G	57.5

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Mol	Chain	Res	Type	RSRZ
42	BT	127	PRO	57.5
1	AA	624	C	57.5
21	B0	613	A	57.5
21	B0	1976	U	57.4
21	B0	1476	G	57.4
21	B0	1249	G	57.4
1	AA	351	G	57.4
1	AA	335	C	57.4
21	B0	610	G	57.4
21	B0	606	A	57.4
21	B0	1055	A	57.4
22	B9	26	G	57.3
1	AA	506	G	57.3
29	BG	109	LYS	57.3
21	B0	1593	C	57.3
21	B0	1830	C	57.2
21	B0	1550	C	57.2
21	B0	1274	C	57.2
21	B0	670	U	57.2
21	B0	732	G	57.1
21	B0	645	G	57.1
21	B0	49	U	57.0
1	AA	136	C	57.0
1	AA	285	G	57.0
21	B0	1939	U	57.0
21	B0	58	C	57.0
21	B0	20	C	57.0
21	B0	1825	C	57.0
21	B0	2732	C	56.9
1	AA	581	G	56.9
21	B0	1013	G	56.9
21	B0	1298	G	56.9
42	BT	130	ILE	56.9
22	B9	115	G	56.9
26	BD	101	GLU	56.9
21	B0	10	A	56.8
21	B0	926	C	56.8
1	AA	114	U	56.8
21	B0	845	U	56.8
21	B0	602	C	56.8
21	B0	697	G	56.7
21	B0	1416	A	56.7

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Mol	Chain	Res	Type	RSRZ
21	B0	1725	C	56.7
21	B0	38	G	56.7
21	B0	1116	U	56.7
21	B0	1443	G	56.7
1	AA	31	G	56.7
21	B0	1828	C	56.7
22	B9	81	C	56.7
21	B0	2484	G	56.6
1	AA	106	C	56.6
21	B0	488	A	56.6
1	AA	348	G	56.5
1	AA	1489	G	56.5
1	AA	895	G	56.5
21	B0	2043	A	56.5
21	B0	761	G	56.5
21	B0	2225	G	56.5
21	B0	2557	G	56.5
21	B0	2417	U	56.5
26	BD	56	GLU	56.5
21	B0	2687	G	56.5
21	B0	1681	A	56.4
5	AE	48	ALA	56.4
21	B0	1218	C	56.4
21	B0	980	G	56.4
21	B0	387	A	56.4
21	B0	1336	G	56.3
21	B0	700	C	56.3
21	B0	1670	G	56.3
1	AA	584	G	56.3
21	B0	31	C	56.2
1	AA	23	C	56.2
21	B0	2703	C	56.2
21	B0	2793	G	56.2
29	BG	49	GLY	56.2
1	AA	511	C	56.2
21	B0	1335	A	56.1
21	B0	1330	G	56.1
1	AA	869	G	56.1
21	B0	1971	C	56.1
21	B0	1043	A	56.1
21	B0	562	G	56.0
1	AA	537	G	56.0

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Mol	Chain	Res	Type	RSRZ
21	B0	2441	U	56.0
1	AA	426	G	55.9
21	B0	2710	C	55.9
1	AA	1396	A	55.9
21	B0	2681	A	55.9
21	B0	2002	A	55.8
21	B0	2725	C	55.8
21	B0	494	A	55.8
21	B0	1605	A	55.8
21	B0	231	G	55.8
21	B0	409	G	55.8
22	B9	114	C	55.8
21	B0	763	A	55.8
21	B0	1785	A	55.8
21	B0	1591	U	55.8
48	BZ	7	PRO	55.8
21	B0	1705	U	55.7
1	AA	416	G	55.7
21	B0	1991	C	55.6
21	B0	1381	G	55.6
21	B0	1002	C	55.6
21	B0	108	G	55.6
21	B0	487	G	55.6
21	B0	1008	G	55.5
21	B0	2048	C	55.5
21	B0	1066	G	55.5
1	AA	510	A	55.5
21	B0	1673	C	55.5
1	AA	906	G	55.4
21	B0	2238	G	55.4
21	B0	1169	C	55.4
21	B0	1012	A	55.4
1	AA	1357	A	55.4
21	B0	1289	A	55.3
1	AA	366	C	55.3
1	AA	911	U	55.3
21	B0	782	U	55.2
21	B0	1648	C	55.2
21	B0	1011	A	55.2
21	B0	2845	C	55.2
21	B0	1707	A	55.2
1	AA	1061	G	55.2

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Mol	Chain	Res	Type	RSRZ
21	B0	238	G	55.2
21	B0	2853	U	55.1
21	B0	3135	A	55.1
21	B0	739	G	55.1
21	B0	528	G	55.1
21	B0	2748	C	55.1
21	B0	997	C	55.0
21	B0	530	G	55.0
21	B0	1672	A	55.0
21	B0	703	A	55.0
21	B0	636	G	55.0
21	B0	2544	A	55.0
1	AA	302	G	55.0
21	B0	1703	C	54.9
21	B0	405	C	54.9
21	B0	1743	C	54.9
1	AA	514	C	54.9
1	AA	628	G	54.9
21	B0	3873	G	54.9
1	AA	886	G	54.9
21	B0	2582	G	54.9
21	B0	1637	U	54.9
21	B0	2820	C	54.8
21	B0	1260	A	54.8
21	B0	1741	G	54.8
21	B0	1038	U	54.8
21	B0	2211	U	54.8
1	AA	1233	G	54.8
21	B0	1279	G	54.8
21	B0	825	C	54.8
21	B0	1690	U	54.8
21	B0	631	G	54.8
21	B0	411	C	54.7
21	B0	1477	C	54.7
21	B0	935	C	54.7
21	B0	675	C	54.7
1	AA	866	C	54.7
21	B0	673	G	54.7
21	B0	1378	A	54.7
21	B0	2395	C	54.6
1	AA	1476	G	54.6
21	B0	1996	A	54.6

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Mol	Chain	Res	Type	RSRZ
21	B0	480	G	54.6
21	B0	1003	C	54.6
1	AA	1369	C	54.5
1	AA	1512	U	54.5
21	B0	1472	C	54.5
1	AA	1371	G	54.5
1	AA	322	C	54.5
22	B9	76	U	54.5
21	B0	1257	U	54.4
41	BS	55	THR	54.4
21	B0	2560	G	54.4
21	B0	2415	G	54.4
22	B9	82	U	54.4
21	B0	1736	C	54.4
29	BG	3	LYS	54.4
21	B0	644	A	54.4
21	B0	2719	U	54.4
1	AA	729	A	54.3
1	AA	542	G	54.3
21	B0	1712	G	54.3
1	AA	1514	C	54.3
1	AA	354	G	54.2
21	B0	1123	G	54.2
21	B0	2330	G	54.2
1	AA	555	C	54.2
21	B0	1061	A	54.2
21	B0	2279	G	54.2
1	AA	327	A	54.2
21	B0	601	A	54.2
21	B0	2661	G	54.2
21	B0	124	A	54.2
21	B0	1833	U	54.1
21	B0	1006	C	54.1
21	B0	1044	U	54.1
21	B0	2033	C	54.1
1	AA	112	G	54.1
21	B0	753	U	54.1
21	B0	542	A	54.1
21	B0	1679	U	54.0
21	B0	1737	G	54.0
1	AA	1366	C	54.0
1	AA	20	U	54.0

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Mol	Chain	Res	Type	RSRZ
21	B0	34	U	54.0
21	B0	827	C	54.0
1	AA	399	G	53.9
21	B0	2073	A	53.9
1	AA	517	G	53.9
21	B0	2422	C	53.9
21	B0	402	A	53.9
29	BG	2	LYS	53.8
21	B0	133	C	53.8
21	B0	669	G	53.8
21	B0	2797	G	53.8
21	B0	39	C	53.8
21	B0	73	A	53.8
21	B0	967	G	53.8
1	AA	35	G	53.8
21	B0	424	G	53.8
21	B0	2062	U	53.8
21	B0	650	U	53.7
21	B0	2306	A	53.7
21	B0	2744	A	53.7
21	B0	2035	G	53.7
21	B0	2621	G	53.7
1	AA	126	G	53.6
21	B0	1118	G	53.6
21	B0	780	U	53.6
21	B0	714	G	53.6
21	B0	1301	U	53.6
21	B0	629	C	53.6
21	B0	2517	C	53.6
1	AA	116	A	53.6
21	B0	138	G	53.5
21	B0	880	C	53.5
21	B0	2728	A	53.5
1	AA	283	C	53.5
21	B0	1250	A	53.4
1	AA	909	A	53.4
21	B0	824	U	53.4
42	BT	131	PRO	53.4
1	AA	567	G	53.4
21	B0	2815	C	53.4
1	AA	1253	G	53.3
21	B0	770	U	53.3

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Mol	Chain	Res	Type	RSRZ
1	AA	887	G	53.3
21	B0	704	G	53.3
1	AA	231	G	53.2
21	B0	1514	C	53.2
1	AA	1438	G	53.2
21	B0	455	A	53.2
21	B0	758	G	53.2
21	B0	1818	G	53.2
21	B0	2310	G	53.2
21	B0	857	U	53.2
21	B0	531	G	53.2
21	B0	2697	G	53.1
21	B0	1871	G	53.1
21	B0	2698	G	53.1
1	AA	356	A	53.1
21	B0	5	A	53.1
1	AA	1427	U	53.1
21	B0	1409	U	53.1
1	AA	894	G	53.1
21	B0	2575	U	53.0
21	B0	2871	U	53.0
1	AA	550	G	53.0
21	B0	1064	C	53.0
21	B0	879	A	53.0
1	AA	900	A	53.0
21	B0	738	G	52.9
21	B0	2760	G	52.9
1	AA	352	C	52.9
21	B0	56	C	52.9
21	B0	688	A	52.9
21	B0	1121	G	52.9
21	B0	1695	U	52.8
1	AA	891	U	52.8
21	B0	678	G	52.8
21	B0	978	U	52.8
21	B0	1063	C	52.8
21	B0	689	A	52.8
21	B0	2379	G	52.8
21	B0	946	U	52.8
1	AA	1415	G	52.7
21	B0	492	G	52.7
21	B0	1494	G	52.7

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Mol	Chain	Res	Type	RSRZ
1	AA	1437	C	52.7
21	B0	2735	C	52.7
21	B0	1676	U	52.7
21	B0	861	G	52.7
21	B0	240	U	52.6
21	B0	1269	G	52.6
21	B0	996	C	52.5
21	B0	2001	G	52.5
21	B0	3134	A	52.5
21	B0	1261	G	52.5
22	B9	108	G	52.5
21	B0	963	G	52.5
1	AA	294	U	52.5
22	B9	80	A	52.5
21	B0	1581	C	52.4
21	B0	2047	C	52.4
21	B0	1233	A	52.4
21	B0	142	U	52.4
21	B0	1863	U	52.4
21	B0	40	U	52.4
21	B0	2405	A	52.4
21	B0	1629	G	52.4
21	B0	735	G	52.4
21	B0	532	A	52.3
21	B0	572	G	52.3
1	AA	757	U	52.3
1	AA	344	A	52.3
21	B0	1199	U	52.3
21	B0	2261	G	52.2
21	B0	830	C	52.2
48	BZ	6	VAL	52.2
21	B0	719	A	52.2
1	AA	1392	G	52.2
21	B0	653	G	52.2
21	B0	2213	G	52.1
21	B0	2391	A	52.1
1	AA	388	G	52.1
21	B0	1675	C	52.1
21	B0	2731	G	52.1
21	B0	563	U	52.1
21	B0	2414	A	52.0
21	B0	76	C	52.0

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Mol	Chain	Res	Type	RSRZ
21	B0	936	A	52.0
1	AA	1289	A	52.0
21	B0	640	C	51.9
21	B0	1467	U	51.9
21	B0	55	A	51.9
21	B0	491	A	51.9
21	B0	1009	C	51.9
21	B0	521	U	51.8
21	B0	736	G	51.8
1	AA	969	A	51.8
1	AA	44	G	51.8
21	B0	2839	G	51.8
26	BD	147	ASP	51.8
21	B0	60	A	51.7
23	BA	138	VAL	51.7
1	AA	105	G	51.7
21	B0	918	A	51.6
21	B0	2210	C	51.6
21	B0	1065	A	51.6
21	B0	1404	C	51.6
21	B0	1580	C	51.6
22	B9	61	A	51.6
21	B0	1212	U	51.6
1	AA	291	C	51.5
21	B0	1549	C	51.5
1	AA	898	G	51.4
21	B0	502	A	51.4
1	AA	120	A	51.4
1	AA	863	U	51.4
1	AA	907	A	51.4
21	B0	1804	U	51.4
43	BU	85	GLN	51.4
1	AA	349	A	51.3
1	AA	246	A	51.3
21	B0	1557	G	51.3
1	AA	137	C	51.3
21	B0	2653	A	51.3
1	AA	357	G	51.3
21	B0	1783	G	51.3
21	B0	1874	G	51.3
21	B0	838	A	51.3
21	B0	2366	U	51.3

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Mol	Chain	Res	Type	RSRZ
21	B0	340	G	51.2
21	B0	1640	C	51.2
21	B0	1702	C	51.2
21	B0	687	G	51.2
21	B0	1787	U	51.2
21	B0	2046	C	51.2
21	B0	182	G	51.1
1	AA	57	G	51.1
21	B0	2209	G	51.1
21	B0	944	A	51.1
21	B0	2626	U	51.1
21	B0	2656	G	51.1
21	B0	1918	G	51.1
21	B0	1117	G	51.0
1	AA	829	G	51.0
26	BD	99	PHE	51.0
1	AA	362	G	51.0
21	B0	2421	C	51.0
21	B0	551	A	51.0
21	B0	443	A	51.0
22	B9	37	C	51.0
21	B0	1297	A	50.9
1	AA	899	C	50.9
21	B0	612	G	50.9
21	B0	718	A	50.9
1	AA	565	U	50.9
26	BD	61	THR	50.9
21	B0	1399	C	50.9
21	B0	2224	U	50.9
21	B0	1658	A	50.9
21	B0	2870	C	50.9
5	AE	29	GLY	50.8
21	B0	1208	A	50.8
21	B0	2718	A	50.8
21	B0	2315	A	50.8
21	B0	921	A	50.7
21	B0	463	C	50.7
37	BO	7	GLY	50.7
21	B0	476	G	50.7
1	AA	379	C	50.7
21	B0	2763	U	50.7
1	AA	282	A	50.6

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Mol	Chain	Res	Type	RSRZ
21	B0	110	U	50.6
21	B0	410	A	50.6
21	B0	2662	C	50.6
21	B0	1742	G	50.6
21	B0	75	C	50.6
21	B0	1042	G	50.5
26	BD	48	LYS	50.5
21	B0	2431	C	50.5
4	AD	11	LEU	50.5
21	B0	2219	U	50.5
21	B0	2430	A	50.4
21	B0	1628	C	50.4
21	B0	2412	A	50.3
21	B0	1225	G	50.3
21	B0	1888	C	50.3
1	AA	1422	G	50.3
21	B0	2812	A	50.3
21	B0	54	G	50.2
21	B0	2500	C	50.2
42	BT	105	GLN	50.1
21	B0	560	G	50.1
21	B0	2824	C	50.1
21	B0	587	A	50.1
21	B0	2601	C	50.1
21	B0	2733	A	50.1
21	B0	2823	G	50.1
21	B0	479	G	50.1
21	B0	1649	A	50.0
21	B0	520	C	50.0
21	B0	2041	A	49.9
1	AA	527	G	49.9
21	B0	1251	G	49.9
21	B0	3156	G	49.9
21	B0	2804	G	49.9
21	B0	2250	G	49.8
1	AA	820	U	49.8
26	BD	141	ILE	49.8
1	AA	1417	G	49.8
21	B0	2337	A	49.8
21	B0	1784	C	49.8
1	AA	499	A	49.8
21	B0	1798	G	49.7

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Mol	Chain	Res	Type	RSRZ
22	B9	23	G	49.7
21	B0	1067	G	49.7
21	B0	754	G	49.7
29	BG	103	GLN	49.6
21	B0	1674	C	49.6
22	B9	7	C	49.6
1	AA	516	U	49.6
21	B0	71	A	49.5
21	B0	554	U	49.5
1	AA	562	C	49.5
21	B0	2364	C	49.5
21	B0	2737	A	49.5
21	B0	145	C	49.5
21	B0	1799	A	49.5
21	B0	1247	U	49.5
21	B0	849	G	49.5
21	B0	2529	G	49.5
21	B0	574	C	49.4
21	B0	1740	G	49.4
1	AA	538	G	49.4
21	B0	2034	A	49.4
21	B0	637	G	49.3
1	AA	1487	G	49.3
1	AA	815	A	49.3
21	B0	478	G	49.3
1	AA	1358	U	49.3
1	AA	398	C	49.3
1	AA	262	A	49.3
21	B0	1604	A	49.2
22	B9	32	C	49.2
22	B9	68	A	49.2
1	AA	1525	G	49.2
21	B0	1771	A	49.1
21	B0	1115	C	49.1
21	B0	1782	A	49.1
22	B9	73	C	49.1
21	B0	1434	U	49.1
26	BD	146	VAL	49.1
21	B0	2215	C	49.0
21	B0	1805	G	49.0
21	B0	850	C	49.0
21	B0	1113	C	49.0

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Mol	Chain	Res	Type	RSRZ
1	AA	17	U	48.9
21	B0	1815	G	48.9
1	AA	336	C	48.9
1	AA	425	G	48.9
1	AA	924	C	48.9
21	B0	195	A	48.9
21	B0	2490	U	48.9
21	B0	2258	G	48.8
1	AA	500	G	48.8
1	AA	1363	A	48.8
21	B0	2023	C	48.8
1	AA	228	A	48.8
21	B0	3157	G	48.8
21	B0	2530	C	48.8
21	B0	1248	G	48.8
21	B0	18	U	48.7
21	B0	1227	A	48.7
1	AA	363	A	48.6
21	B0	2717	G	48.6
21	B0	1466	C	48.5
21	B0	1881	U	48.5
1	AA	1399	C	48.5
21	B0	1515	U	48.5
21	B0	699	G	48.5
21	B0	2385	U	48.5
21	B0	619	A	48.5
1	AA	883	C	48.5
21	B0	2816	C	48.4
21	B0	2872	U	48.4
21	B0	829	C	48.4
21	B0	1152	C	48.4
21	B0	489	A	48.4
21	B0	2531	U	48.4
21	B0	456	C	48.4
4	AD	4	TYR	48.3
21	B0	2067	U	48.3
21	B0	769	C	48.3
1	AA	8	A	48.3
21	B0	2411	A	48.3
1	AA	1407	C	48.3
21	B0	1411	C	48.2
21	B0	2739	G	48.2

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Mol	Chain	Res	Type	RSRZ
1	AA	586	C	48.2
1	AA	40	C	48.2
21	B0	2230	G	48.2
21	B0	1433	A	48.2
21	B0	2071	G	48.2
1	AA	613	C	48.2
1	AA	1344	C	48.2
21	B0	2072	C	48.1
1	AA	6	G	48.1
21	B0	74	G	48.1
21	B0	2342	U	48.1
1	AA	606	G	48.1
21	B0	966	A	48.1
21	B0	468	A	48.1
1	AA	901	A	48.0
1	AA	24	U	48.0
21	B0	2714	A	48.0
22	B9	77	G	48.0
21	B0	1142	G	48.0
1	AA	503	C	47.9
42	BT	142	ASN	47.9
21	B0	635	C	47.9
21	B0	1642	G	47.9
21	B0	795	A	47.8
1	AA	400	C	47.8
20	AT	11	SER	47.8
1	AA	118	U	47.8
21	B0	1794	A	47.8
21	B0	1036	G	47.8
21	B0	66	U	47.8
21	B0	2542	U	47.7
21	B0	1448	A	47.7
21	B0	1295	U	47.7
21	B0	503	G	47.7
1	AA	286	G	47.7
21	B0	147	G	47.7
22	B9	84	G	47.7
21	B0	77	C	47.6
1	AA	569	C	47.6
21	B0	2620	G	47.6
1	AA	635	G	47.6
21	B0	2540	A	47.5

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Mol	Chain	Res	Type	RSRZ
21	B0	866	U	47.5
21	B0	19	C	47.5
21	B0	481	A	47.5
21	B0	720	A	47.5
21	B0	2574	G	47.5
22	B9	106	U	47.5
21	B0	109	A	47.5
21	B0	1992	G	47.5
21	B0	2464	G	47.5
1	AA	889	A	47.4
21	B0	1040	A	47.4
1	AA	822	C	47.4
21	B0	1370	U	47.4
21	B0	221	A	47.4
21	B0	2065	A	47.4
1	AA	347	G	47.4
21	B0	947	C	47.4
21	B0	674	U	47.3
21	B0	2841	U	47.3
1	AA	513	C	47.3
1	AA	1469	G	47.3
21	B0	1917	C	47.3
1	AA	943	U	47.3
21	B0	61	U	47.3
21	B0	2063	A	47.3
1	AA	1064	G	47.3
1	AA	355	C	47.3
1	AA	62	U	47.2
1	AA	125	U	47.2
21	B0	144	U	47.2
21	B0	1144	U	47.2
1	AA	611	A	47.2
1	AA	1506	U	47.2
1	AA	342	C	47.2
21	B0	218	A	47.2
21	B0	500	G	47.2
21	B0	1873	A	47.2
21	B0	597	U	47.1
21	B0	1942	G	47.1
21	B0	1007	A	47.1
1	AA	549	C	47.1
21	B0	2755	A	47.1

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Mol	Chain	Res	Type	RSRZ
21	B0	454	G	47.1
21	B0	616	U	47.1
21	B0	848	A	47.1
21	B0	2365	U	47.1
21	B0	1694	A	47.1
22	B9	78	A	47.1
1	AA	1388	C	47.0
1	AA	405	U	47.0
21	B0	1994	U	47.0
21	B0	1845	A	47.0
21	B0	2619	G	47.0
1	AA	529	G	47.0
21	B0	2535	C	46.9
27	BE	142	GLY	46.9
1	AA	921	U	46.9
21	B0	1340	C	46.9
21	B0	863	C	46.9
21	B0	1651	U	46.9
1	AA	626	U	46.8
21	B0	177	U	46.8
21	B0	1594	U	46.8
21	B0	1529	C	46.8
21	B0	1253	C	46.8
1	AA	926	G	46.8
21	B0	611	C	46.8
21	B0	1951	G	46.8
21	B0	529	U	46.8
21	B0	785	U	46.8
21	B0	2311	U	46.8
21	B0	1441	A	46.7
1	AA	290	C	46.7
21	B0	1226	A	46.7
21	B0	1730	G	46.7
21	B0	2723	C	46.7
1	AA	350	G	46.6
21	B0	1739	G	46.6
1	AA	300	A	46.6
21	B0	1834	G	46.5
1	AA	532	A	46.5
21	B0	2068	C	46.5
1	AA	15	G	46.5
1	AA	568	G	46.5

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Mol	Chain	Res	Type	RSRZ
1	AA	58	C	46.5
21	B0	53	G	46.5
1	AA	1254	C	46.5
21	B0	3103	A	46.5
21	B0	1324	G	46.5
1	AA	908	A	46.4
21	B0	1546	C	46.4
21	B0	3138	C	46.4
1	AA	897	C	46.4
1	AA	1066	C	46.4
42	BT	106	GLY	46.4
1	AA	1522	U	46.4
21	B0	1021	A	46.4
21	B0	1271	C	46.4
1	AA	1393	U	46.4
21	B0	86	U	46.3
1	AA	1367	C	46.3
21	B0	2369	U	46.3
1	AA	561	U	46.3
21	B0	2212	U	46.3
21	B0	683	A	46.3
1	AA	43	C	46.3
1	AA	915	A	46.3
21	B0	2398	U	46.3
26	BD	46	ASP	46.3
22	B9	60	A	46.2
1	AA	868	C	46.2
21	B0	2539	C	46.1
1	AA	501	C	46.1
1	AA	1494	G	46.1
21	B0	2373	C	46.1
21	B0	2591	C	46.1
1	AA	288	A	46.1
1	AA	916	G	46.0
21	B0	1547	U	46.0
46	BX	10	ILE	46.0
26	BD	98	VAL	46.0
1	AA	163	C	46.0
1	AA	502	G	46.0
21	B0	467	U	46.0
21	B0	3105	G	45.9
4	AD	55	ALA	45.9

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Mol	Chain	Res	Type	RSRZ
49	B1	32	GLN	45.9
1	AA	1198	G	45.9
1	AA	377	G	45.9
21	B0	2669	C	45.9
1	AA	1440	C	45.9
26	BD	50	ILE	45.9
1	AA	1467	G	45.9
1	AA	63	C	45.9
21	B0	1606	C	45.8
1	AA	12	U	45.8
1	AA	48	C	45.7
21	B0	566	U	45.7
21	B0	93	A	45.7
21	B0	919	U	45.7
1	AA	1430	C	45.7
21	B0	107	G	45.7
1	AA	102	G	45.7
1	AA	882	C	45.7
20	AT	12	ALA	45.6
21	B0	2280	A	45.6
21	B0	837	U	45.6
21	B0	2573	C	45.6
1	AA	277	C	45.6
1	AA	762	C	45.6
21	B0	64	C	45.5
21	B0	628	A	45.5
21	B0	92	U	45.5
21	B0	1734	C	45.5
1	AA	227	G	45.5
21	B0	2345	A	45.4
5	AE	17	ALA	45.4
1	AA	802	A	45.4
21	B0	134	G	45.4
20	AT	10	LEU	45.4
1	AA	1414	U	45.4
1	AA	932	C	45.4
21	B0	477	A	45.4
21	B0	2616	U	45.3
21	B0	2743	G	45.3
4	AD	54	TYR	45.3
21	B0	2341	G	45.3
21	B0	146	C	45.2

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Mol	Chain	Res	Type	RSRZ
21	B0	717	G	45.2
21	B0	765	C	45.2
21	B0	826	U	45.2
21	B0	2194	A	45.0
25	BC	96	PRO	45.0
21	B0	1923	U	45.0
21	B0	2618	A	45.0
21	B0	2558	C	45.0
21	B0	1938	U	45.0
1	AA	237	C	45.0
21	B0	1010	U	44.9
1	AA	45	U	44.9
1	AA	1067	A	44.9
21	B0	1548	U	44.9
21	B0	2773	G	44.9
21	B0	9	U	44.9
22	B9	15	A	44.8
1	AA	131	C	44.8
1	AA	303	A	44.8
21	B0	1014	G	44.8
21	B0	1431	U	44.8
1	AA	386	C	44.8
1	AA	226	G	44.8
21	B0	2543	A	44.8
23	BA	137	PRO	44.7
21	B0	733	G	44.7
21	B0	2218	G	44.7
21	B0	3137	C	44.7
21	B0	425	A	44.7
1	AA	933	G	44.7
1	AA	127	G	44.7
1	AA	817	C	44.7
21	B0	2439	U	44.7
1	AA	1062	U	44.7
21	B0	2502	G	44.6
1	AA	1078	U	44.6
21	B0	603	C	44.6
21	B0	1313	U	44.6
1	AA	614	A	44.6
1	AA	971	G	44.6
1	AA	490	G	44.5
21	B0	793	G	44.5

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Mol	Chain	Res	Type	RSRZ
21	B0	862	A	44.5
21	B0	3867	G	44.4
21	B0	2704	U	44.4
21	B0	1027	C	44.4
21	B0	2716	G	44.4
21	B0	1164	C	44.4
21	B0	682	G	44.3
21	B0	1143	A	44.3
1	AA	862	C	44.3
22	B9	97	C	44.3
1	AA	631	G	44.3
1	AA	39	G	44.3
21	B0	2070	G	44.3
1	AA	1464	G	44.3
26	BD	62	LEU	44.3
21	B0	1157	G	44.2
1	AA	1094	G	44.2
21	B0	552	C	44.2
22	B9	63	A	44.2
21	B0	1910	A	44.2
21	B0	1854	G	44.2
21	B0	2752	C	44.2
1	AA	138	G	44.1
1	AA	343	U	44.1
21	B0	1469	U	44.1
21	B0	2796	A	44.1
21	B0	1508	G	44.1
1	AA	896	C	44.1
1	AA	491	G	44.1
21	B0	2580	C	44.1
1	AA	968	A	44.1
26	BD	49	ALA	44.1
21	B0	608	G	44.1
4	AD	58	LEU	44.1
21	B0	1683	G	44.1
21	B0	2742	G	44.1
21	B0	495	C	44.0
21	B0	2840	U	44.0
1	AA	1498	U	44.0
1	AA	69	G	44.0
1	AA	413	G	44.0
21	B0	1223	G	44.0

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Mol	Chain	Res	Type	RSRZ
21	B0	1175	A	44.0
1	AA	1436	U	44.0
1	AA	782	A	43.9
21	B0	504	G	43.9
21	B0	1826	U	43.9
21	B0	1993	G	43.9
21	B0	1131	G	43.9
21	B0	2463	G	43.9
1	AA	629	G	43.8
21	B0	2259	G	43.8
21	B0	573	C	43.8
21	B0	2372	A	43.8
1	AA	68	G	43.8
21	B0	3093	C	43.8
21	B0	2837	G	43.7
21	B0	1252	C	43.7
4	AD	66	ARG	43.7
21	B0	1004	A	43.6
21	B0	1872	A	43.6
21	B0	474	G	43.6
21	B0	2736	U	43.5
1	AA	928	G	43.5
1	AA	1435	G	43.5
21	B0	2788	C	43.5
32	BJ	45	LYS	43.5
21	B0	2721	A	43.5
21	B0	65	C	43.5
1	AA	49	U	43.5
26	BD	55	LYS	43.5
21	B0	1584	G	43.5
1	AA	236	G	43.5
1	AA	232	G	43.5
21	B0	600	G	43.5
21	B0	2042	A	43.5
1	AA	121	C	43.4
5	AE	19	MET	43.4
21	B0	2236	U	43.4
1	AA	324	G	43.4
21	B0	2376	G	43.4
21	B0	786	U	43.4
21	B0	1170	U	43.4
21	B0	2231	G	43.4

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Mol	Chain	Res	Type	RSRZ
21	B0	2256	G	43.4
21	B0	728	G	43.3
21	B0	490	A	43.3
1	AA	150	C	43.3
21	B0	129	A	43.3
21	B0	792	U	43.3
22	B9	31	A	43.3
21	B0	1708	C	43.2
42	BT	104	SER	43.2
21	B0	131	C	43.2
1	AA	37	U	43.2
21	B0	2446	C	43.2
21	B0	1041	G	43.1
1	AA	617	G	43.1
1	AA	942	G	43.1
42	BT	140	LYS	43.1
21	B0	920	G	43.1
21	B0	1727	C	43.1
1	AA	1053	G	43.1
21	B0	1442	C	43.1
21	B0	2564	U	43.1
21	B0	1772	C	43.0
34	BL	106	ASP	43.0
21	B0	2304	G	43.0
21	B0	219	G	43.0
21	B0	1484	G	43.0
21	B0	1927	U	43.0
5	AE	16	THR	43.0
21	B0	2336	G	43.0
21	B0	132	U	43.0
43	BU	86	THR	43.0
21	B0	2380	U	43.0
21	B0	2652	G	43.0
1	AA	1252	A	43.0
22	B9	30	C	43.0
21	B0	1603	A	42.9
1	AA	731	G	42.9
21	B0	607	C	42.9
1	AA	1068	G	42.9
25	BC	94	THR	42.9
1	AA	428	G	42.9
21	B0	213	C	42.9

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Mol	Chain	Res	Type	RSRZ
21	B0	2333	A	42.9
1	AA	854	G	42.8
21	B0	734	G	42.8
21	B0	1485	U	42.8
1	AA	260	G	42.8
26	BD	143	TYR	42.8
21	B0	1114	A	42.8
1	AA	417	C	42.8
21	B0	151	G	42.8
1	AA	774	G	42.7
1	AA	1482	G	42.7
21	B0	1552	C	42.7
21	B0	860	U	42.7
1	AA	1426	C	42.7
21	B0	475	U	42.7
21	B0	2811	G	42.7
26	BD	82	GLY	42.7
1	AA	1507	A	42.7
21	B0	506	G	42.7
21	B0	1573	G	42.7
21	B0	618	A	42.6
1	AA	488	C	42.6
21	B0	2533	U	42.6
1	AA	1531	A	42.6
21	B0	1726	C	42.6
21	B0	2614	A	42.6
22	B9	5	C	42.6
1	AA	1287	A	42.5
21	B0	1865	C	42.5
21	B0	1054	C	42.5
21	B0	1198	C	42.5
21	B0	3196	G	42.4
16	AP	14	ASN	42.4
1	AA	1337	G	42.4
21	B0	2045	A	42.4
1	AA	773	G	42.4
1	AA	934	C	42.4
29	BG	110	THR	42.4
39	BQ	11	LYS	42.4
21	B0	3140	G	42.3
1	AA	1458	G	42.3
21	B0	1465	G	42.3

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Mol	Chain	Res	Type	RSRZ
1	AA	38	G	42.3
21	B0	1126	A	42.3
21	B0	639	G	42.3
21	B0	1339	U	42.3
22	B9	28	A	42.2
29	BG	141	GLY	42.2
21	B0	237	G	42.2
1	AA	553	A	42.2
1	AA	919	A	42.2
23	BA	124	GLU	42.2
21	B0	1788	C	42.2
21	B0	2534	U	42.1
21	B0	1455	C	42.1
21	B0	561	U	42.1
21	B0	335	A	42.1
21	B0	1711	C	42.1
1	AA	823	G	42.0
1	AA	554	C	42.0
1	AA	1461	G	42.0
21	B0	408	U	42.0
21	B0	681	A	42.0
1	AA	1356	G	42.0
4	AD	59	ARG	42.0
1	AA	1355	G	42.0
21	B0	1219	C	42.0
21	B0	2536	G	41.9
12	AL	8	ASN	41.9
26	BD	83	MET	41.9
21	B0	1288	A	41.9
1	AA	30	U	41.9
1	AA	259	G	41.8
21	B0	2778	U	41.8
21	B0	3139	U	41.8
21	B0	3153	G	41.8
21	B0	2207	G	41.8
1	AA	328	C	41.8
1	AA	385	C	41.8
1	AA	380	G	41.8
21	B0	2501	U	41.8
21	B0	2627	G	41.8
21	B0	1420	A	41.7
21	B0	814	G	41.7

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Mol	Chain	Res	Type	RSRZ
1	AA	759	A	41.7
1	AA	1486	G	41.7
21	B0	1005	U	41.7
1	AA	541	G	41.7
1	AA	384	G	41.6
21	B0	2829	A	41.6
21	B0	2559	U	41.6
21	B0	768	U	41.5
1	AA	872	A	41.5
4	AD	62	GLN	41.5
1	AA	805	C	41.5
1	AA	1460	A	41.5
1	AA	884	U	41.5
21	B0	731	A	41.5
21	B0	759	C	41.5
21	B0	2754	C	41.4
21	B0	2317	G	41.4
21	B0	555	U	41.4
21	B0	94	C	41.4
21	B0	338	G	41.4
22	B9	89	G	41.4
21	B0	937	C	41.4
21	B0	436	A	41.4
21	B0	1631	C	41.3
21	B0	63	A	41.3
21	B0	2240	C	41.3
26	BD	138	PHE	41.3
1	AA	402	G	41.2
1	AA	247	G	41.2
1	AA	1421	G	41.2
21	B0	2492	G	41.2
21	B0	2541	U	41.2
1	AA	1490	C	41.2
21	B0	2069	U	41.2
21	B0	3152	G	41.2
21	B0	469	G	41.1
21	B0	1096	A	41.1
21	B0	2600	A	41.1
21	B0	1916	G	41.1
21	B0	2722	C	41.1
21	B0	1053	G	41.1
1	AA	404	U	41.0

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Mol	Chain	Res	Type	RSRZ
21	B0	1875	C	41.0
21	B0	2329	C	41.0
21	B0	505	G	40.9
21	B0	1641	C	40.9
21	B0	414	A	40.9
21	B0	1528	C	40.9
21	B0	2297	G	40.9
21	B0	858	G	40.9
21	B0	1693	A	40.9
21	B0	1575	C	40.9
22	B9	62	C	40.9
1	AA	306	G	40.8
1	AA	1232	U	40.8
1	AA	415	A	40.8
1	AA	1081	G	40.8
1	AA	439	A	40.7
21	B0	553	C	40.7
21	B0	1098	G	40.7
26	BD	51	ASP	40.7
1	AA	1193	G	40.7
21	B0	394	U	40.6
21	B0	235	C	40.6
1	AA	1069	C	40.6
21	B0	1949	A	40.6
42	BT	139	THR	40.6
21	B0	657	A	40.6
1	AA	616	G	40.6
1	AA	861	G	40.5
21	B0	1728	A	40.5
1	AA	618	C	40.5
22	B9	38	C	40.5
21	B0	1527	G	40.5
1	AA	715	A	40.4
21	B0	2834	A	40.4
21	B0	3183	A	40.4
22	B9	8	C	40.4
1	AA	945	G	40.4
22	B9	85	G	40.4
1	AA	1416	G	40.3
21	B0	217	U	40.3
1	AA	523	A	40.3
21	B0	1553	G	40.3

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Mol	Chain	Res	Type	RSRZ
21	B0	3154	G	40.3
1	AA	427	U	40.3
1	AA	36	C	40.3
1	AA	263	A	40.3
21	B0	2386	G	40.3
29	BG	19	PRO	40.2
1	AA	387	U	40.2
21	B0	236	C	40.2
21	B0	2305	C	40.2
1	AA	1408	A	40.2
1	AA	1063	C	40.2
21	B0	442	A	40.2
1	AA	489	C	40.1
21	B0	342	G	40.1
1	AA	534	U	40.1
21	B0	1569	A	40.1
21	B0	2835	A	40.1
1	AA	396	G	40.1
21	B0	1852	G	40.1
21	B0	1551	U	40.1
1	AA	783	C	40.1
21	B0	2657	G	40.1
21	B0	3155	G	40.1
1	AA	13	U	40.1
21	B0	2869	U	40.1
49	B1	33	ALA	40.0
1	AA	1359	C	40.0
1	AA	761	G	40.0
21	B0	2613	A	40.0
21	B0	948	C	40.0
21	B0	938	G	40.0
5	AE	18	ARG	40.0
1	AA	1386	G	40.0
21	B0	1171	A	39.9
21	B0	1474	A	39.8
22	B9	21	C	39.8
1	AA	794	A	39.8
21	B0	1174	G	39.8
1	AA	1350	A	39.8
1	AA	440	A	39.8
21	B0	1943	A	39.8
17	AQ	34	LYS	39.8

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Mol	Chain	Res	Type	RSRZ
21	B0	3096	C	39.7
21	B0	2680	U	39.7
22	B9	98	C	39.7
21	B0	2374	C	39.7
21	B0	2378	G	39.7
21	B0	2235	G	39.7
21	B0	1513	U	39.6
1	AA	157	G	39.6
21	B0	598	U	39.6
21	B0	2249	U	39.6
21	B0	2472	U	39.6
21	B0	1578	U	39.6
21	B0	337	G	39.6
21	B0	1308	C	39.6
21	B0	2292	C	39.5
1	AA	265	G	39.5
1	AA	756	C	39.5
21	B0	721	C	39.5
4	AD	12	CYS	39.5
21	B0	1122	A	39.5
21	B0	2726	U	39.5
21	B0	435	A	39.5
1	AA	119	A	39.5
21	B0	2254	C	39.5
21	B0	2779	C	39.4
21	B0	453	U	39.4
1	AA	104	G	39.4
1	AA	539	A	39.4
21	B0	1268	U	39.4
21	B0	2208	U	39.4
1	AA	853	G	39.3
1	AA	1342	C	39.3
5	AE	20	GLN	39.3
22	B9	67	C	39.3
1	AA	1439	C	39.2
1	AA	622	A	39.2
1	AA	1442	G	39.2
1	AA	401	C	39.2
1	AA	540	G	39.2
21	B0	1796	A	39.2
1	AA	1353	G	39.2
21	B0	1422	C	39.2

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Mol	Chain	Res	Type	RSRZ
1	AA	492	G	39.2
1	AA	522	C	39.2
21	B0	82	G	39.1
21	B0	1811	A	39.1
1	AA	531	U	39.1
21	B0	1929	U	39.1
21	B0	3102	G	39.1
21	B0	2368	G	39.1
16	AP	25	ARG	39.0
21	B0	1097	A	39.0
21	B0	1849	G	39.0
22	B9	9	G	39.0
1	AA	361	G	39.0
21	B0	1924	C	39.0
1	AA	1515	C	39.0
21	B0	917	U	39.0
21	B0	810	U	38.9
20	AT	13	LEU	38.9
21	B0	1015	U	38.9
1	AA	1199	U	38.9
21	B0	2367	A	38.8
26	BD	137	ILE	38.8
1	AA	1497	G	38.8
4	AD	36	ARG	38.8
27	BE	143	GLN	38.8
21	B0	846	A	38.8
21	B0	3158	A	38.8
1	AA	871	U	38.8
21	B0	715	U	38.8
21	B0	3106	U	38.8
4	AD	2	GLY	38.7
21	B0	1403	U	38.7
21	B0	2855	C	38.7
22	B9	24	U	38.7
1	AA	67	C	38.7
21	B0	1478	U	38.7
21	B0	1372	A	38.7
21	B0	609	U	38.6
21	B0	1745	C	38.6
21	B0	2505	G	38.6
21	B0	2473	G	38.6
21	B0	559	C	38.6

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Mol	Chain	Res	Type	RSRZ
1	AA	245	C	38.6
1	AA	1398	A	38.6
21	B0	2196	U	38.5
1	AA	935	A	38.5
1	AA	66	G	38.5
1	AA	623	C	38.5
1	AA	780	A	38.5
1	AA	238	G	38.5
21	B0	2293	G	38.5
1	AA	612	C	38.5
1	AA	1264	C	38.5
1	AA	101	A	38.4
1	AA	1470	G	38.4
21	B0	1880	G	38.4
43	BU	87	GLU	38.4
21	B0	979	A	38.4
21	B0	871	U	38.4
1	AA	1255	G	38.4
21	B0	137	A	38.4
21	B0	2416	U	38.3
21	B0	1402	G	38.3
21	B0	1176	U	38.3
42	BT	125	PRO	38.3
21	B0	1430	G	38.3
21	B0	1866	G	38.2
21	B0	1163	C	38.2
21	B0	1597	A	38.2
21	B0	423	G	38.2
21	B0	1545	G	38.2
21	B0	2805	G	38.2
21	B0	1120	C	38.2
8	AH	90	GLY	38.1
21	B0	1870	U	38.1
1	AA	1402	C	38.1
21	B0	632	A	38.1
1	AA	1055	A	38.0
21	B0	393	U	38.0
1	AA	946	A	38.0
1	AA	870	U	38.0
21	B0	1050	G	38.0
21	B0	233	A	38.0
21	B0	1773	C	38.0

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Mol	Chain	Res	Type	RSRZ
16	AP	11	SER	38.0
26	BD	69	LYS	37.9
21	B0	493	A	37.9
1	AA	905	U	37.9
21	B0	1498	G	37.9
1	AA	828	A	37.9
21	B0	341	A	37.9
21	B0	1473	U	37.9
1	AA	795	C	37.8
1	AA	551	U	37.8
21	B0	2390	A	37.8
1	AA	487	A	37.8
22	B9	20	A	37.8
21	B0	2612	G	37.8
21	B0	2064	U	37.8
21	B0	234	C	37.7
1	AA	149	A	37.7
23	BA	134	ARG	37.7
21	B0	1937	G	37.7
1	AA	1349	A	37.7
21	B0	1844	C	37.7
1	AA	346	G	37.7
1	AA	604	G	37.6
21	B0	621	U	37.6
21	B0	3190	G	37.6
21	B0	78	C	37.6
21	B0	205	A	37.6
1	AA	819	A	37.5
21	B0	306	G	37.5
1	AA	714	G	37.5
21	B0	1265	G	37.5
1	AA	877	C	37.5
21	B0	3875	A	37.5
21	B0	1128	G	37.5
37	BO	4	ALA	37.5
22	B9	91	A	37.5
1	AA	1207	G	37.5
1	AA	1197	G	37.5
21	B0	2354	G	37.4
1	AA	920	U	37.4
1	AA	276	G	37.4
21	B0	1468	A	37.4

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Mol	Chain	Res	Type	RSRZ
21	B0	2810	A	37.4
21	B0	2789	U	37.3
1	AA	775	G	37.3
21	B0	2461	G	37.3
1	AA	1394	A	37.3
37	BO	2	PRO	37.3
21	B0	716	U	37.3
4	AD	14	ARG	37.3
21	B0	1607	A	37.3
21	B0	2075	U	37.3
21	B0	2503	G	37.3
21	B0	1325	U	37.3
21	B0	3133	G	37.3
21	B0	2650	G	37.3
21	B0	3866	A	37.3
22	B9	11	G	37.3
1	AA	444	C	37.3
1	AA	1509	C	37.2
1	AA	244	U	37.2
1	AA	1279	A	37.2
21	B0	496	C	37.2
1	AA	583	A	37.2
21	B0	1158	A	37.2
1	AA	442	C	37.2
1	AA	528	C	37.1
1	AA	258	G	37.1
21	B0	2400	G	37.1
21	B0	1141	U	37.1
1	AA	1472	U	37.1
21	B0	2401	A	37.0
1	AA	438	G	37.0
26	BD	100	LEU	37.0
1	AA	936	C	37.0
21	B0	2275	U	37.0
21	B0	2615	U	37.0
21	B0	486	U	37.0
1	AA	371	G	37.0
1	AA	867	G	37.0
21	B0	2504	G	37.0
21	B0	212	U	37.0
21	B0	415	A	37.0
21	B0	1862	C	37.0

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Mol	Chain	Res	Type	RSRZ
21	B0	2771	C	37.0
21	B0	150	A	37.0
1	AA	158	G	37.0
21	B0	649	G	37.0
21	B0	2715	C	37.0
21	B0	1459	U	37.0
23	BA	139	GLY	36.9
21	B0	422	C	36.9
21	B0	1270	C	36.9
1	AA	151	A	36.9
21	B0	3095	A	36.9
26	BD	6	THR	36.9
1	AA	494	G	36.9
21	B0	2346	G	36.9
21	B0	870	C	36.9
1	AA	1491	G	36.9
21	B0	1571	G	36.9
21	B0	3874	C	36.8
21	B0	2381	A	36.8
1	AA	1389	C	36.8
21	B0	3107	G	36.8
21	B0	868	U	36.8
21	B0	2334	C	36.8
26	BD	52	LYS	36.7
30	BH	136	PRO	36.7
1	AA	1542	U	36.7
21	B0	3104	C	36.7
1	AA	1288	A	36.7
1	AA	1520	G	36.6
22	B9	119	G	36.6
21	B0	304	A	36.6
21	B0	2838	U	36.6
21	B0	760	U	36.6
16	AP	10	GLY	36.6
21	B0	2338	C	36.6
21	B0	84	G	36.6
21	B0	83	A	36.6
1	AA	1361	G	36.6
21	B0	2836	U	36.6
21	B0	2447	G	36.6
1	AA	713	G	36.5
22	B9	93	G	36.5

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Mol	Chain	Res	Type	RSRZ
22	B9	120	G	36.5
22	B9	107	C	36.5
1	AA	931	C	36.5
1	AA	445	G	36.5
1	AA	1432	G	36.5
1	AA	52	G	36.4
21	B0	2738	A	36.4
21	B0	2059	U	36.4
29	BG	107	ILE	36.3
21	B0	3130	G	36.3
48	BZ	8	LYS	36.3
1	AA	337	C	36.2
1	AA	771	G	36.2
21	B0	1692	C	36.2
21	B0	1855	G	36.2
21	B0	2734	U	36.2
1	AA	266	G	36.1
21	B0	2399	C	36.1
21	B0	2272	A	36.1
25	BC	98	GLN	36.1
21	B0	130	C	36.1
21	B0	2462	C	36.0
21	B0	1853	C	36.0
27	BE	100	GLY	36.0
21	B0	359	G	36.0
21	B0	215	G	36.0
21	B0	2764	U	36.0
21	B0	1456	C	36.0
1	AA	267	C	35.9
21	B0	204	A	35.9
1	AA	977	A	35.9
21	B0	106	G	35.9
21	B0	2873	G	35.9
1	AA	1362	C	35.9
1	AA	830	G	35.9
21	B0	737	C	35.9
21	B0	214	C	35.8
21	B0	421	G	35.8
1	AA	166	G	35.8
34	BL	105	GLY	35.8
21	B0	1222	G	35.8
21	B0	1102	G	35.8

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Mol	Chain	Res	Type	RSRZ
21	B0	2792	C	35.8
1	AA	1290	G	35.8
1	AA	261	U	35.8
1	AA	1251	A	35.8
21	B0	100	G	35.8
21	B0	1947	G	35.7
1	AA	810	C	35.7
1	AA	1495	U	35.7
1	AA	760	G	35.7
21	B0	1835	C	35.7
21	B0	1902	A	35.7
1	AA	1527	C	35.7
1	AA	1465	C	35.6
21	B0	1710	U	35.6
1	AA	167	G	35.6
26	BD	58	ALA	35.6
1	AA	1352	C	35.6
21	B0	2271	C	35.6
21	B0	1915	A	35.5
29	BG	112	MET	35.5
21	B0	3159	G	35.5
1	AA	902	G	35.5
21	B0	1224	A	35.5
1	AA	1462	G	35.5
20	AT	16	HIS	35.5
21	B0	1052	C	35.5
29	BG	108	ALA	35.5
21	B0	1112	U	35.5
21	B0	3868	U	35.5
29	BG	50	ASP	35.4
21	B0	2663	U	35.4
21	B0	2375	G	35.4
1	AA	1391	U	35.4
1	AA	587	G	35.4
21	B0	3094	A	35.4
1	AA	1519	A	35.3
21	B0	2024	U	35.3
21	B0	1173	G	35.3
21	B0	320	A	35.3
21	B0	2791	C	35.3
1	AA	414	A	35.3
23	BA	76	ASN	35.3

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Mol	Chain	Res	Type	RSRZ
1	AA	512	U	35.3
1	AA	1345	U	35.3
1	AA	372	C	35.3
21	B0	661	C	35.3
1	AA	520	A	35.2
21	B0	2274	C	35.2
21	B0	617	U	35.2
21	B0	2772	U	35.2
1	AA	233	C	35.2
21	B0	519	C	35.2
21	B0	809	C	35.2
1	AA	305	G	35.2
22	B9	70	C	35.2
21	B0	960	U	35.2
29	BG	104	VAL	35.2
21	B0	1831	G	35.2
21	B0	2282	G	35.2
1	AA	1543	C	35.2
37	BO	51	ARG	35.2
21	B0	1867	A	35.2
5	AE	47	LYS	35.1
21	B0	1048	U	35.1
1	AA	1265	G	35.1
21	B0	961	G	35.1
9	AI	123	PRO	35.1
21	B0	1936	A	35.1
1	AA	937	A	35.1
1	AA	55	A	35.1
1	AA	243	A	35.1
1	AA	168	G	35.1
1	AA	403	C	35.1
21	B0	1810	U	35.1
21	B0	1400	A	35.0
21	B0	1848	U	35.0
1	AA	809	G	35.0
21	B0	2649	A	35.0
1	AA	497	A	35.0
1	AA	430	A	35.0
22	B9	79	U	34.9
21	B0	2795	A	34.9
1	AA	268	C	34.9
1	AA	1446	A	34.9

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Mol	Chain	Res	Type	RSRZ
32	BJ	84	GLU	34.9
21	B0	1596	A	34.8
1	AA	257	G	34.8
1	AA	1477	C	34.8
1	AA	156	G	34.8
1	AA	54	C	34.8
21	B0	2790	C	34.8
1	AA	727	G	34.8
21	B0	2598	C	34.8
21	B0	2832	G	34.8
1	AA	1377	A	34.7
21	B0	412	U	34.7
21	B0	3170	A	34.7
23	BA	140	ALA	34.7
1	AA	1379	G	34.7
21	B0	1595	A	34.7
1	AA	1471	G	34.7
29	BG	100	ASN	34.7
21	B0	3876	A	34.6
21	B0	349	G	34.6
21	B0	1483	G	34.6
21	B0	1453	A	34.6
21	B0	1861	G	34.6
21	B0	1731	C	34.6
1	AA	391	G	34.5
29	BG	73	PRO	34.5
1	AA	281	G	34.5
1	AA	389	A	34.5
21	B0	1095	A	34.5
22	B9	86	A	34.5
1	AA	152	A	34.5
1	AA	1231	G	34.4
21	B0	1401	G	34.4
21	B0	2831	A	34.4
21	B0	1479	G	34.4
21	B0	2353	G	34.4
1	AA	323	U	34.4
22	B9	22	U	34.3
1	AA	171	A	34.3
1	AA	103	C	34.3
21	B0	599	A	34.3
26	BD	80	ARG	34.3

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Mol	Chain	Res	Type	RSRZ
1	AA	412	A	34.3
21	B0	1412	C	34.3
21	B0	1427	G	34.3
21	B0	149	A	34.3
21	B0	1816	G	34.3
4	AD	32	ALA	34.2
21	B0	1530	U	34.2
21	B0	3185	U	34.2
21	B0	2753	C	34.2
21	B0	339	U	34.2
1	AA	1405	G	34.2
1	AA	974	A	34.2
1	AA	392	G	34.2
21	B0	2659	C	34.2
21	B0	1789	U	34.2
21	B0	326	A	34.2
21	B0	336	A	34.2
22	B9	116	C	34.2
21	B0	1582	A	34.2
4	AD	29	PRO	34.1
1	AA	938	A	34.1
21	B0	426	C	34.1
1	AA	128	G	34.1
1	AA	778	G	34.1
1	AA	2361	C	34.1
21	B0	3100	G	34.1
42	BT	109	GLN	34.0
21	B0	2191	A	34.0
1	AA	521	G	34.0
1	AA	1412	C	34.0
21	B0	755	C	34.0
1	AA	53	A	34.0
1	AA	858	G	34.0
26	BD	47	SER	34.0
1	AA	973	G	34.0
4	AD	10	ARG	34.0
1	AA	1313	U	34.0
21	B0	79	G	34.0
21	B0	499	G	34.0
21	B0	2377	U	34.0
22	B9	51	G	33.9
21	B0	1558	C	33.9

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Mol	Chain	Res	Type	RSRZ
1	AA	779	C	33.9
1	AA	1190	G	33.9
26	BD	81	GLN	33.9
21	B0	216	U	33.9
21	B0	1421	U	33.9
22	B9	94	G	33.8
1	AA	746	A	33.8
21	B0	95	G	33.8
21	B0	2609	G	33.8
1	AA	630	G	33.8
1	AA	860	A	33.8
1	AA	269	C	33.8
1	AA	711	G	33.8
21	B0	2295	C	33.8
21	B0	729	A	33.8
1	AA	1206	G	33.8
1	AA	890	G	33.7
21	B0	1682	A	33.7
1	AA	1323	G	33.7
21	B0	1542	G	33.7
1	AA	376	G	33.7
4	AD	72	GLU	33.7
1	AA	248	C	33.6
1	AA	859	A	33.6
21	B0	2856	U	33.6
1	AA	56	U	33.6
1	AA	484	G	33.6
1	AA	1348	U	33.6
21	B0	847	C	33.6
1	AA	1326	C	33.6
29	BG	101	TRP	33.6
21	B0	1541	G	33.6
9	AI	110	GLU	33.6
22	B9	19	C	33.5
1	AA	1272	G	33.5
1	AA	852	G	33.5
1	AA	1423	G	33.5
21	B0	1950	C	33.5
32	BJ	32	ARG	33.5
29	BG	62	ASP	33.5
21	B0	1023	U	33.5
21	B0	1056	U	33.4

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Mol	Chain	Res	Type	RSRZ
16	AP	1	MET	33.4
1	AA	1200	C	33.4
21	B0	1531	C	33.4
1	AA	1457	A	33.4
21	B0	968	C	33.4
1	AA	807	A	33.4
22	B9	33	C	33.4
1	AA	712	A	33.3
21	B0	913	A	33.3
21	B0	507	A	33.3
21	B0	1512	A	33.3
21	B0	3872	A	33.3
1	AA	605	U	33.3
1	AA	967	C	33.3
21	B0	1933	G	33.3
1	AA	1192	C	33.3
1	AA	435	C	33.2
4	AD	13	ARG	33.2
1	AA	1425	U	33.2
21	B0	1930	C	33.2
1	AA	65	U	33.2
1	AA	621	A	33.2
21	B0	962	C	33.2
21	B0	1609	G	33.2
21	B0	3193	G	33.2
1	AA	1327	C	33.2
42	BT	128	ARG	33.2
1	AA	174	C	33.1
21	B0	2491	C	33.1
1	AA	406	G	33.1
1	AA	615	C	33.1
21	B0	646	C	33.1
1	AA	419	C	33.1
21	B0	314	G	33.1
21	B0	2830	U	33.0
1	AA	1273	G	33.0
21	B0	2537	C	33.0
1	AA	1347	G	32.9
21	B0	679	C	32.9
49	B1	30	ASN	32.9
21	B0	969	U	32.9
21	B0	105	G	32.9

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Mol	Chain	Res	Type	RSRZ
1	AA	941	G	32.9
22	B9	96	C	32.9
1	AA	972	C	32.9
21	B0	241	C	32.9
21	B0	470	U	32.9
21	B0	2257	A	32.9
22	B9	27	A	32.9
16	AP	64	ALA	32.8
21	B0	2765	C	32.8
1	AA	1529	G	32.8
21	B0	203	G	32.8
1	AA	148	G	32.8
1	AA	776	G	32.7
21	B0	1911	A	32.7
23	BA	126	LYS	32.7
1	AA	1283	G	32.7
21	B0	869	C	32.7
21	B0	2239	C	32.7
21	B0	624	A	32.7
21	B0	1306	U	32.6
21	B0	1423	A	32.6
1	AA	358	U	32.6
21	B0	3877	A	32.6
1	AA	1261	A	32.6
21	B0	1797	C	32.6
9	AI	109	VAL	32.6
21	B0	881	U	32.5
1	AA	175	C	32.5
9	AI	124	GLN	32.5
1	AA	482	A	32.5
21	B0	1559	G	32.5
1	AA	129(A)	G	32.5
21	B0	2351	G	32.5
21	B0	1795	C	32.4
1	AA	270	A	32.4
1	AA	169	C	32.4
1	AA	947	G	32.4
1	AA	498	U	32.4
1	AA	1060	C	32.3
1	AA	176	C	32.3
21	B0	1475	U	32.3
22	B9	92	G	32.3

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Mol	Chain	Res	Type	RSRZ
21	B0	220	U	32.3
16	AP	23	ASP	32.3
21	B0	627	A	32.2
29	BG	140	GLY	32.2
21	B0	1162	A	32.2
16	AP	62	VAL	32.2
21	B0	2074	U	32.2
1	AA	1354	C	32.2
21	B0	1729	C	32.2
1	AA	755	G	32.2
21	B0	2328	G	32.2
1	AA	418	C	32.1
21	B0	200	A	32.1
21	B0	1948	C	32.1
22	B9	39	C	32.1
21	B0	1480	G	32.1
21	B0	3097	G	32.1
42	BT	107	GLU	32.1
1	AA	242	C	32.1
21	B0	2787	A	32.1
4	AD	209	ARG	32.1
1	AA	1234	C	32.0
1	AA	518	C	32.0
1	AA	1385	G	32.0
1	AA	1419	G	32.0
21	B0	1119	U	32.0
29	BG	4	VAL	32.0
1	AA	1373	G	32.0
21	B0	1493	A	31.9
22	B9	29	C	31.9
21	B0	123	A	31.9
1	AA	251	G	31.9
1	AA	1314	C	31.9
21	B0	2857	C	31.9
21	B0	400	U	31.9
1	AA	970	C	31.9
21	B0	2186	G	31.9
1	AA	94	G	31.9
21	B0	2781	G	31.9
1	AA	965	A	31.8
21	B0	1100	G	31.8
29	BG	1	MET	31.8

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Mol	Chain	Res	Type	RSRZ
21	B0	2204	A	31.8
45	BW	41	HIS	31.8
21	B0	511	A	31.8
1	AA	241	C	31.8
1	AA	1496	C	31.8
21	B0	638	A	31.8
21	B0	2628	C	31.8
1	AA	632	A	31.8
1	AA	1324	A	31.8
1	AA	381	C	31.7
1	AA	1466	C	31.7
1	AA	1447	A	31.7
21	B0	1051	U	31.7
1	AA	1403	C	31.7
21	B0	2340	C	31.7
26	BD	102	LYS	31.7
1	AA	99	C	31.7
1	AA	225	C	31.7
21	B0	2867	G	31.6
21	B0	211	U	31.6
4	AD	34	GLU	31.6
21	B0	668	A	31.6
22	B9	52	G	31.6
37	BO	8	ILE	31.6
22	B9	90	C	31.6
21	B0	2339	A	31.6
1	AA	76	G	31.6
21	B0	723	C	31.6
21	B0	80	A	31.5
21	B0	305	A	31.5
21	B0	647	G	31.4
21	B0	2460	G	31.4
21	B0	1738	U	31.4
21	B0	1612	U	31.4
21	B0	1836	C	31.4
21	B0	508	G	31.4
21	B0	3191	A	31.4
1	AA	929	G	31.4
1	AA	221	C	31.4
21	B0	1509	A	31.3
21	B0	802	A	31.3
16	AP	31	LYS	31.3

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Mol	Chain	Res	Type	RSRZ
1	AA	1191	A	31.3
5	AE	25	ARG	31.3
21	B0	85	C	31.3
1	AA	679	C	31.3
21	B0	2854	G	31.3
21	B0	81	C	31.3
21	B0	2361	G	31.3
21	B0	3195	U	31.3
1	AA	1360	A	31.3
1	AA	777	A	31.3
1	AA	1480	G	31.2
1	AA	1541	U	31.2
21	B0	1572	C	31.2
21	B0	1449	C	31.2
1	AA	1517	G	31.2
21	B0	808	C	31.2
22	B9	59	A	31.2
21	B0	724	C	31.1
1	AA	373	A	31.1
37	BO	9	VAL	31.1
1	AA	170	U	31.1
1	AA	235	C	31.1
39	BQ	10	ASN	31.1
21	B0	3168	G	31.1
21	B0	1733	U	31.1
21	B0	1460	G	31.0
21	B0	196	A	31.0
1	AA	390	C	31.0
1	AA	443	C	31.0
21	B0	1415	C	31.0
1	AA	165	C	31.0
1	AA	718	G	31.0
22	B9	57	U	30.9
1	AA	197	A	30.9
1	AA	874	G	30.9
1	AA	1530	G	30.9
21	B0	1598	C	30.9
1	AA	155	C	30.9
21	B0	2611	A	30.9
21	B0	2782	G	30.9
23	BA	125	PRO	30.8
1	AA	1236	A	30.8

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Mol	Chain	Res	Type	RSRZ
1	AA	1518	A	30.8
1	AA	1406	U	30.8
4	AD	53	ASP	30.8
21	B0	1159	U	30.8
21	B0	916	U	30.8
21	B0	3169	A	30.8
21	B0	1543	G	30.8
21	B0	2780	A	30.8
21	B0	756	C	30.8
21	B0	556	A	30.7
21	B0	2389	G	30.7
1	AA	678	U	30.7
21	B0	1544	A	30.7
21	B0	1869	A	30.7
27	BE	39	THR	30.7
10	AJ	57	LYS	30.7
29	BG	113	PRO	30.7
21	B0	1931	G	30.7
1	AA	70	A	30.6
1	AA	172	A	30.6
21	B0	2806	G	30.6
37	BO	22	LYS	30.6
1	AA	1459	C	30.6
21	B0	1454	U	30.6
29	BG	139	GLU	30.6
30	BH	133	GLY	30.6
21	B0	757	U	30.6
4	AD	15	GLU	30.5
22	B9	118	G	30.5
1	AA	519	C	30.5
21	B0	2232	G	30.5
1	AA	808	C	30.5
1	AA	77	C	30.5
1	AA	1420	C	30.5
22	B9	117	G	30.5
21	B0	2862	G	30.5
1	AA	1208	C	30.4
21	B0	428	A	30.4
21	B0	2506	C	30.4
1	AA	97	G	30.4
21	B0	1879	G	30.4
5	AE	121	LYS	30.4

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Mol	Chain	Res	Type	RSRZ
1	AA	772	U	30.3
21	B0	1022	A	30.3
1	AA	129	U	30.3
45	BW	52	GLN	30.3
21	B0	1532	A	30.3
1	AA	369	C	30.3
21	B0	2629	U	30.3
23	BA	135	PHE	30.3
52	B4	6	SER	30.3
21	B0	334	G	30.3
12	AL	9	GLN	30.2
21	B0	1944	C	30.2
21	B0	2267	A	30.2
21	B0	1608	U	30.2
21	B0	722	C	30.2
21	B0	1935	A	30.2
21	B0	1307	U	30.2
21	B0	321	A	30.2
1	AA	1404	C	30.2
21	B0	2281	C	30.2
1	AA	716	A	30.2
1	AA	280	C	30.2
1	AA	450	G	30.2
1	AA	745	C	30.2
1	AA	1456	A	30.2
1	AA	164	U	30.2
21	B0	2291	U	30.1
1	AA	234	C	30.1
26	BD	45	GLU	30.1
22	B9	36	A	30.1
4	AD	52	SER	30.1
1	AA	383	A	30.1
22	B9	87	C	30.1
1	AA	1418	A	30.1
25	BC	95	LEU	30.1
21	B0	662	G	30.1
16	AP	66	PRO	30.0
16	AP	63	GLY	30.0
1	AA	806	C	30.0
21	B0	2610	G	30.0
29	BG	105	LEU	30.0
1	AA	424	G	30.0

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Mol	Chain	Res	Type	RSRZ
1	AA	1431	C	30.0
48	BZ	11	THR	30.0
1	AA	793	U	29.9
21	B0	2589	C	29.9
1	AA	1390	U	29.9
21	B0	1414	G	29.9
1	AA	791	G	29.9
21	B0	2359	U	29.9
1	AA	800	G	29.9
1	AA	1485	U	29.9
1	AA	733	A	29.9
21	B0	1850	G	29.8
21	B0	473	C	29.8
21	B0	3865	A	29.8
1	AA	254	G	29.8
21	B0	725	C	29.8
31	BI	40	GLY	29.8
21	B0	98	U	29.8
39	BQ	78	ASN	29.8
1	AA	725	G	29.8
5	AE	54	ALA	29.8
21	B0	1945	C	29.8
37	BO	52	ASN	29.8
1	AA	1269	A	29.8
21	B0	136	A	29.8
1	AA	200	G	29.8
1	AA	1310	G	29.8
5	AE	14	ARG	29.8
1	AA	1378	C	29.7
4	AD	9	CYS	29.7
29	BG	18	THR	29.7
27	BE	63	ALA	29.7
1	AA	1250	A	29.7
21	B0	516	G	29.7
21	B0	2516	U	29.7
21	B0	2181	A	29.7
1	AA	220	G	29.7
1	AA	855	G	29.7
21	B0	471	A	29.6
22	B9	69	G	29.6
53	B5	141	THR	29.6
21	B0	2260	C	29.6

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Mol	Chain	Res	Type	RSRZ
1	AA	382	A	29.6
21	B0	625	A	29.6
21	B0	1709	U	29.6
21	B0	1932	G	29.6
27	BE	146	ALA	29.5
32	BJ	41	SER	29.5
1	AA	602	A	29.5
21	B0	2335	U	29.5
23	BA	210	GLY	29.5
53	B5	149	ASN	29.5
22	B9	10	U	29.5
21	B0	430	C	29.5
21	B0	1220	G	29.5
1	AA	1532	U	29.5
1	AA	964	A	29.4
21	B0	515	A	29.4
9	AI	122	ALA	29.4
21	B0	680	U	29.4
21	B0	351	A	29.4
4	AD	31	CYS	29.4
21	B0	2185	U	29.4
1	AA	374	A	29.4
1	AA	341	C	29.4
1	AA	1516	G	29.4
41	BS	13	LYS	29.4
1	AA	130	A	29.3
16	AP	65	GLN	29.3
21	B0	1926	U	29.3
21	B0	303	C	29.3
21	B0	2205	C	29.3
21	B0	2320	G	29.3
1	AA	483	C	29.3
21	B0	427	C	29.3
29	BG	20	ALA	29.3
1	AA	530	G	29.3
1	AA	1445	U	29.3
1	AA	367	U	29.2
21	B0	887	G	29.2
1	AA	1312	G	29.2
15	AO	54	ARG	29.2
16	AP	26	ARG	29.2
1	AA	255	G	29.2

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Mol	Chain	Res	Type	RSRZ
43	BU	84	ALA	29.2
1	AA	876	G	29.2
9	AI	120	ARG	29.1
1	AA	423	G	29.1
21	B0	323	G	29.1
21	B0	1068	A	29.1
53	B5	40	ASP	29.1
1	AA	271	C	29.1
51	B3	33	ASN	29.1
4	AD	71	SER	29.1
1	AA	582	U	29.0
1	AA	801	U	29.0
21	B0	319	G	29.0
21	B0	2388	G	29.0
21	B0	886	A	29.0
21	B0	324	C	29.0
1	AA	431	A	29.0
1	AA	796	C	29.0
21	B0	1024	G	29.0
22	B9	53	G	29.0
41	BS	54	ILE	29.0
21	B0	307	C	28.9
1	AA	394	G	28.9
16	AP	61	SER	28.9
1	AA	1372	U	28.9
26	BD	54	ALA	28.9
21	B0	208	C	28.9
21	B0	1450	G	28.9
1	AA	177	C	28.9
1	AA	792	A	28.8
21	B0	360	A	28.8
21	B0	332	C	28.8
1	AA	448	A	28.8
1	AA	660	G	28.8
1	AA	178	C	28.8
20	AT	14	LYS	28.8
21	B0	1540	C	28.8
1	AA	145	G	28.8
1	AA	1304	G	28.8
21	B0	2833	C	28.8
1	AA	98	U	28.8
1	AA	1336	C	28.8

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Mol	Chain	Res	Type	RSRZ
16	AP	59	TRP	28.8
1	AA	201	G	28.8
1	AA	273	A	28.7
21	B0	1901	A	28.7
1	AA	668	G	28.7
21	B0	1851	A	28.7
9	AI	126	SER	28.7
21	B0	1486	A	28.7
1	AA	552	U	28.7
1	AA	50	A	28.7
29	BG	61	ALA	28.7
1	AA	96	C	28.7
21	B0	1464	A	28.7
21	B0	2868	G	28.7
32	BJ	39	SER	28.7
1	AA	264	U	28.7
1	AA	784	C	28.7
21	B0	888	G	28.6
1	AA	1448	C	28.6
21	B0	429	C	28.6
21	B0	2234	G	28.6
1	AA	1082	G	28.6
4	AD	19	LEU	28.6
16	AP	24	ALA	28.6
1	AA	446	G	28.6
21	B0	1913	G	28.6
34	BL	104	ARG	28.5
16	AP	2	VAL	28.5
21	B0	517	A	28.5
8	AH	91	ARG	28.5
21	B0	1094	C	28.5
21	B0	1177	U	28.5
1	AA	1334	G	28.5
1	AA	153	C	28.5
1	AA	1093	A	28.5
22	B9	95	U	28.5
5	AE	27	ARG	28.5
1	AA	818	G	28.4
1	AA	1510	U	28.4
27	BE	40	GLU	28.4
1	AA	481	G	28.4
21	B0	420	C	28.4

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Mol	Chain	Res	Type	RSRZ
21	B0	1160	C	28.4
21	B0	1925	C	28.4
1	AA	1351	U	28.4
1	AA	636	U	28.4
21	B0	3101	G	28.4
1	AA	1455	G	28.4
21	B0	1129	A	28.3
4	AD	38	TYR	28.3
21	B0	315	G	28.3
21	B0	419	G	28.3
1	AA	1056	U	28.3
1	AA	1333	A	28.3
21	B0	1599	G	28.3
21	B0	322	A	28.3
1	AA	429	U	28.3
21	B0	2283	G	28.3
21	B0	350	U	28.3
1	AA	144	G	28.2
21	B0	3186	C	28.2
21	B0	2651	U	28.2
21	B0	2363	G	28.2
21	B0	915	C	28.2
21	B0	207	U	28.2
25	BC	97	ARG	28.2
21	B0	2273	C	28.1
21	B0	498	C	28.1
22	B9	56	G	28.1
15	AO	50	HIS	28.1
21	B0	210	A	28.1
21	B0	2189	A	28.1
1	AA	1380	U	28.1
15	AO	57	LEU	28.1
21	B0	3869	G	28.1
21	B0	2866	A	28.1
21	B0	1868	A	28.1
21	B0	3099	U	28.1
21	B0	4	C	28.0
21	B0	2865	G	28.0
4	AD	8	VAL	28.0
1	AA	721	G	28.0
1	AA	1270	C	28.0
21	B0	431	G	28.0

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Mol	Chain	Res	Type	RSRZ
16	AP	15	PRO	28.0
1	AA	1271	G	28.0
21	B0	2456	U	28.0
21	B0	1101	U	27.9
9	AI	115	GLY	27.9
21	B0	472	C	27.9
21	B0	3119	A	27.9
1	AA	1463	C	27.9
21	B0	914	C	27.9
20	AT	15	ARG	27.9
1	AA	1285	A	27.9
1	AA	1483	A	27.9
1	AA	1202	G	27.9
4	AD	40	PRO	27.9
21	B0	101	A	27.8
32	BJ	44	GLY	27.8
21	B0	2197	U	27.8
21	B0	2195	C	27.8
1	AA	275	G	27.8
1	AA	667	G	27.8
21	B0	2352	A	27.8
41	BS	26	SER	27.8
1	AA	287	U	27.8
38	BP	89	ASN	27.8
22	B9	12	C	27.8
27	BE	132	ASP	27.8
1	AA	154	C	27.8
21	B0	352	G	27.8
22	B9	88	C	27.7
27	BE	49	GLN	27.7
1	AA	370	C	27.7
4	AD	61	LYS	27.7
21	B0	3192	C	27.7
26	BD	53	ALA	27.7
1	AA	147	G	27.7
1	AA	393	A	27.7
21	B0	558	G	27.7
1	AA	409	G	27.7
16	AP	60	LEU	27.7
1	AA	1443	G	27.7
21	B0	325	U	27.7
21	B0	3171	A	27.7

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Mol	Chain	Res	Type	RSRZ
1	AA	724	G	27.6
1	AA	1484	C	27.6
22	B9	34	C	27.6
21	B0	3871	A	27.6
1	AA	824	C	27.6
21	B0	2203	G	27.6
21	B0	885	A	27.6
21	B0	2324	G	27.6
1	AA	1284	C	27.6
21	B0	2599	U	27.6
14	AN	31	ARG	27.6
21	B0	2538	C	27.6
1	AA	199	G	27.6
21	B0	3197	U	27.6
21	B0	2356	A	27.6
9	AI	111	ARG	27.6
27	BE	84	THR	27.5
1	AA	345	C	27.5
1	AA	1293	G	27.5
48	BZ	5	PRO	27.5
21	B0	730	C	27.5
21	B0	2658	A	27.5
21	B0	2630	C	27.5
1	AA	603	U	27.5
1	AA	1382	C	27.5
21	B0	2387	U	27.5
21	B0	1510	A	27.4
8	AH	89	PRO	27.4
21	B0	3194	U	27.4
17	AQ	99	SER	27.4
12	AL	15	ARG	27.4
1	AA	680	C	27.4
1	AA	710	G	27.4
5	AE	46	GLY	27.4
21	B0	3184	C	27.3
21	B0	1500	U	27.3
21	B0	497	C	27.3
1	AA	831	U	27.3
1	AA	1305	G	27.3
1	AA	1328	C	27.3
16	AP	13	HIS	27.3
1	AA	198	G	27.2

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Mol	Chain	Res	Type	RSRZ
21	B0	1111	C	27.2
39	BQ	82	ASN	27.2
1	AA	14	U	27.2
4	AD	44	GLY	27.2
22	B9	35	C	27.2
49	B1	31	THR	27.2
1	AA	1478	C	27.2
39	BQ	12	LYS	27.2
1	AA	222	U	27.2
1	AA	496	A	27.2
4	AD	6	GLY	27.1
48	BZ	9	LYS	27.1
21	B0	512	A	27.1
1	AA	661	G	27.1
14	AN	32	SER	27.1
21	B0	2357	A	27.1
31	BI	39	GLY	27.1
21	B0	1499	A	27.1
21	B0	1511	A	27.1
21	B0	3121	G	27.1
5	AE	28	PHE	27.1
21	B0	623	G	27.1
21	B0	202	A	27.1
1	AA	1424	C	27.0
27	BE	66	GLY	27.0
21	B0	2588	U	27.0
1	AA	1054	C	27.0
21	B0	1425	G	27.0
21	B0	1817	U	27.0
1	AA	1492	A	27.0
26	BD	148	LYS	26.9
1	AA	272	C	26.9
48	BZ	10	LYS	26.9
41	BS	53	VAL	26.9
1	AA	146	G	26.9
1	AA	832	C	26.9
21	B0	2298	U	26.9
21	B0	518	A	26.9
41	BS	56	LYS	26.8
21	B0	209	G	26.8
21	B0	1516	A	26.8
1	AA	1070	U	26.8

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Mol	Chain	Res	Type	RSRZ
21	B0	104	C	26.8
1	AA	677	U	26.8
1	AA	1346	A	26.8
21	B0	764	A	26.8
20	AT	74	LYS	26.8
27	BE	129	THR	26.8
21	B0	2590	U	26.8
21	B0	1843	U	26.8
21	B0	912	A	26.7
16	AP	9	PHE	26.7
21	B0	3141	G	26.7
1	AA	939	G	26.7
21	B0	3165	G	26.7
1	AA	486	U	26.7
21	B0	333	A	26.7
21	B0	1178	C	26.7
1	AA	173	U	26.7
1	AA	1311	G	26.7
21	B0	309	G	26.7
21	B0	2786	G	26.6
21	B0	201	G	26.6
21	B0	441	A	26.6
17	AQ	28	PRO	26.6
21	B0	1903	C	26.6
21	B0	510	G	26.5
21	B0	2864	C	26.5
21	B0	1837	G	26.5
21	B0	99	U	26.5
5	AE	49	PRO	26.5
21	B0	1197	U	26.5
1	AA	485	G	26.5
21	B0	2269	G	26.5
1	AA	1189	C	26.5
1	AA	139	G	26.5
1	AA	1259	C	26.4
21	B0	2858	A	26.4
21	B0	557	U	26.4
25	BC	78	VAL	26.4
48	BZ	3	LYS	26.4
21	B0	1049	C	26.4
1	AA	179	A	26.4
21	B0	2262	C	26.3

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Mol	Chain	Res	Type	RSRZ
21	B0	2874	A	26.3
21	B0	1878	C	26.3
17	AQ	33	GLY	26.3
21	B0	327	C	26.3
1	AA	1329	A	26.3
4	AD	39	PRO	26.3
1	AA	1085	U	26.3
21	B0	1458	A	26.3
1	AA	747	C	26.3
21	B0	2581	A	26.3
1	AA	1187	G	26.3
21	B0	1914	U	26.3
21	B0	2286	G	26.2
21	B0	2313	G	26.2
1	AA	224	C	26.2
1	AA	719	C	26.2
21	B0	1161	U	26.2
21	B0	1602	G	26.2
17	AQ	41	LYS	26.1
37	BO	10	ARG	26.1
21	B0	3115	G	26.1
4	AD	16	GLY	26.1
21	B0	2861	A	26.1
29	BG	29	GLN	26.1
9	AI	113	LYS	26.1
42	BT	173	PRO	26.1
21	B0	2362	G	26.1
14	AN	33	VAL	26.1
1	AA	1300	G	26.0
1	AA	433	C	26.0
21	B0	3098	U	26.0
1	AA	410	G	26.0
1	AA	447	G	26.0
4	AD	33	MET	26.0
1	AA	676	A	26.0
21	B0	648	A	26.0
12	AL	6	THR	26.0
21	B0	2360	C	26.0
21	B0	2358	C	26.0
21	B0	1057	A	26.0
53	B5	108	GLU	26.0
21	B0	3177	C	25.9

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Mol	Chain	Res	Type	RSRZ
1	AA	1194	U	25.9
4	AD	7	PRO	25.9
27	BE	106	ASN	25.9
1	AA	274	A	25.9
27	BE	128	PRO	25.9
1	AA	749	C	25.9
1	AA	851	G	25.9
4	AD	65	ARG	25.9
21	B0	3113	U	25.9
41	BS	11	ASN	25.9
1	AA	375	U	25.8
21	B0	2182	A	25.8
4	AD	63	LYS	25.8
1	AA	240	C	25.8
5	AE	123	LEU	25.8
21	B0	2206	C	25.8
1	AA	434	U	25.8
21	B0	1568	A	25.8
21	B0	3116	G	25.8
26	BD	105	ASN	25.8
1	AA	395	C	25.8
21	B0	1461	C	25.8
1	AA	368	U	25.7
1	AA	658	G	25.7
21	B0	939	C	25.7
21	B0	1934	U	25.7
14	AN	30	ALA	25.7
1	AA	1309	G	25.7
16	AP	68	ASP	25.7
21	B0	1130	U	25.7
21	B0	1196	G	25.7
21	B0	348	U	25.7
1	AA	436	C	25.6
21	B0	2294	U	25.6
1	AA	657	G	25.6
1	AA	1077	G	25.6
21	B0	940	G	25.6
1	AA	930	C	25.6
1	AA	1092	A	25.6
21	B0	413	G	25.6
1	AA	1058	G	25.5
1	AA	978	A	25.5

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Mol	Chain	Res	Type	RSRZ
1	AA	360	A	25.5
21	B0	2233	C	25.5
27	BE	139	GLN	25.5
1	AA	338	A	25.5
1	AA	748	C	25.4
1	AA	1280	A	25.5
1	AA	1057	G	25.4
21	B0	2457	A	25.4
21	B0	1103	C	25.4
21	B0	2321	C	25.4
37	BO	50	ARG	25.4
5	AE	126	ARG	25.4
21	B0	318	G	25.4
26	BD	103	LEU	25.4
21	B0	1026	U	25.4
1	AA	1268	A	25.4
21	B0	1457	A	25.4
41	BS	9	HIS	25.4
21	B0	1127	C	25.4
27	BE	45	GLN	25.4
25	BC	162	ARG	25.4
1	AA	949	A	25.4
37	BO	23	GLY	25.4
45	BW	40	PRO	25.3
10	AJ	56	HIS	25.3
16	AP	67	THR	25.3
1	AA	1481	U	25.3
21	B0	1172	U	25.3
21	B0	361	G	25.3
41	BS	14	LEU	25.3
53	B5	45	ASP	25.3
26	BD	107	GLY	25.3
21	B0	1876	C	25.3
21	B0	726	G	25.2
1	AA	744	C	25.2
21	B0	626	A	25.2
32	BJ	14	LYS	25.2
21	B0	1808	C	25.2
1	AA	495	U	25.2
21	B0	1566	G	25.2
21	B0	1611	U	25.2
21	B0	2268	G	25.2

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Mol	Chain	Res	Type	RSRZ
5	AE	85	GLY	25.1
21	B0	3120	G	25.1
10	AJ	55	LYS	25.1
1	AA	750	G	25.1
1	AA	1235	U	25.1
21	B0	206	U	25.1
29	BG	14	ALA	25.1
16	AP	12	LYS	25.1
21	B0	514	G	25.1
53	B5	44	GLY	25.1
1	AA	457	G	25.1
29	BG	70	LYS	25.0
1	AA	752	G	25.0
16	AP	30	GLY	25.0
21	B0	882	C	24.9
1	AA	407	G	24.9
5	AE	30	ALA	24.9
1	AA	953	G	24.9
1	AA	1276	G	24.9
30	BH	162	LYS	24.9
39	BQ	98	ASP	24.9
21	B0	2270	U	24.9
1	AA	1186	G	24.8
1	AA	1291	G	24.8
21	B0	135	U	24.8
1	AA	196	A	24.8
21	B0	1037	U	24.8
1	AA	432	A	24.8
21	B0	2319	G	24.8
21	B0	2458	U	24.8
27	BE	38	ASN	24.8
41	BS	79	SER	24.8
21	B0	1790	G	24.7
21	B0	622	U	24.7
4	AD	43	HIS	24.7
25	BC	163	ASN	24.7
21	B0	343	A	24.7
21	B0	1221	C	24.7
21	B0	1428	G	24.7
37	BO	55	ARG	24.7
37	BO	49	ASP	24.7
15	AO	48	LYS	24.7

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Mol	Chain	Res	Type	RSRZ
1	AA	1332	A	24.7
1	AA	1294	G	24.6
1	AA	1384	C	24.6
9	AI	125	TYR	24.6
21	B0	3166	G	24.6
1	AA	797	C	24.6
17	AQ	35	VAL	24.6
4	AD	60	GLU	24.5
1	AA	1409	C	24.5
21	B0	1413	U	24.5
1	AA	456	A	24.5
21	B0	102	C	24.5
21	B0	1856	U	24.4
1	AA	1381	U	24.4
37	BO	59	ARG	24.4
1	AA	1059	C	24.4
1	AA	1188	A	24.4
21	B0	655	A	24.4
1	AA	1331	G	24.4
21	B0	2648	G	24.4
21	B0	437	G	24.4
21	B0	3131	A	24.4
21	B0	2766	U	24.4
1	AA	665	A	24.3
20	AT	19	SER	24.3
1	AA	411	A	24.3
21	B0	2770	A	24.3
1	AA	1086	U	24.3
27	BE	94	PHE	24.3
4	AD	57	ARG	24.3
51	B3	42	ARG	24.3
1	AA	656	C	24.3
21	B0	1093	U	24.3
29	BG	142	PRO	24.3
53	B5	39	ILE	24.3
1	AA	1266	G	24.2
39	BQ	74	SER	24.2
41	BS	27	GLY	24.2
1	AA	654	G	24.2
25	BC	161	ALA	24.2
5	AE	57	LYS	24.2
1	AA	1315	U	24.2

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Mol	Chain	Res	Type	RSRZ
21	B0	1732	U	24.2
22	B9	40	C	24.1
1	AA	1316	G	24.1
1	AA	722	A	24.1
9	AI	112	LYS	24.1
1	AA	304	U	24.1
21	B0	313	U	24.1
21	B0	513	A	24.1
1	AA	1479	C	24.1
1	AA	449	C	24.1
21	B0	2201	G	24.1
21	B0	1610	A	24.1
29	BG	71	THR	24.0
27	BE	95	ARG	24.0
1	AA	742	G	24.0
4	AD	18	LYS	24.0
20	AT	17	ARG	24.0
21	B0	197	G	24.0
1	AA	655	A	24.0
1	AA	717	C	24.0
21	B0	148	C	24.0
32	BJ	134	GLU	24.0
5	AE	23	GLY	23.9
41	BS	103	LYS	23.9
1	AA	1277	C	23.9
21	B0	1463	A	23.9
1	AA	253	U	23.9
26	BD	106	ILE	23.9
9	AI	121	ARG	23.9
1	AA	195	A	23.9
49	B1	29	ARG	23.8
41	BS	15	HIS	23.8
1	AA	143	A	23.8
21	B0	509	U	23.8
1	AA	1011	G	23.8
13	AM	118	ALA	23.8
21	B0	3160	C	23.8
53	B5	43	LYS	23.8
16	AP	27	LYS	23.8
21	B0	1481	U	23.8
21	B0	2326	C	23.8
23	BA	122	GLU	23.8

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Mol	Chain	Res	Type	RSRZ
1	AA	619	U	23.7
1	AA	256	U	23.7
34	BL	107	GLY	23.7
5	AE	86	ALA	23.7
21	B0	2455	A	23.7
29	BG	15	GLY	23.7
1	AA	223	U	23.7
21	B0	3167	U	23.7
1	AA	408	A	23.7
4	AD	30	LYS	23.7
26	BD	84	PRO	23.7
21	B0	96	C	23.6
1	AA	1335	C	23.6
27	BE	67	LEU	23.6
1	AA	455	C	23.6
1	AA	1325	C	23.6
24	BB	140	SER	23.6
21	B0	1424	U	23.6
4	AD	5	ILE	23.6
21	B0	1429	A	23.6
10	AJ	58	ASP	23.6
21	B0	667	U	23.6
21	B0	859	U	23.5
9	AI	119	ALA	23.5
1	AA	833	U	23.5
20	AT	9	ASN	23.5
1	AA	1410	G	23.5
1	AA	239	U	23.5
1	AA	1084	G	23.5
21	B0	199	A	23.4
16	AP	16	HIS	23.4
29	BG	124	ALA	23.4
21	B0	2769	C	23.4
1	AA	1065	U	23.4
21	B0	1583	A	23.4
21	B0	2448	A	23.4
21	B0	2290	A	23.4
4	AD	206	PHE	23.4
21	B0	3114	A	23.4
21	B0	1492	A	23.3
1	AA	1204	A	23.3
21	B0	3189	U	23.3

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Mol	Chain	Res	Type	RSRZ
17	AQ	101	ARG	23.3
1	AA	1203	C	23.3
1	AA	666	G	23.3
26	BD	149	THR	23.2
22	B9	13	C	23.2
39	BQ	13	GLN	23.2
27	BE	85	ILE	23.2
29	BG	16	LYS	23.2
21	B0	2296	U	23.2
1	AA	1540	U	23.2
32	BJ	131	LYS	23.1
1	AA	875	C	23.1
21	B0	1895	A	23.1
1	AA	720	C	23.1
21	B0	1567	A	23.1
21	B0	347	C	23.1
17	AQ	95	TYR	23.1
1	AA	451	A	23.1
1	AA	669	U	23.1
21	B0	344	G	23.1
21	B0	2350	G	23.1
21	B0	2263	C	23.0
12	AL	91	LYS	23.0
41	BS	12	ASP	23.0
1	AA	454	C	23.0
21	B0	3176	A	22.9
21	B0	654	A	22.9
4	AD	200	GLU	22.9
1	AA	1319	A	22.9
29	BG	93	LYS	22.9
27	BE	118	PRO	22.9
21	B0	97	U	22.8
1	AA	1230	C	22.8
42	BT	94	VAL	22.8
29	BG	31	GLY	22.8
21	B0	1877	C	22.8
1	AA	693	G	22.7
1	AA	420	U	22.7
21	B0	2510	A	22.7
16	AP	56	ALA	22.7
1	AA	799	G	22.7
21	B0	357	A	22.7

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Mol	Chain	Res	Type	RSRZ
21	B0	1842	G	22.6
4	AD	45	GLN	22.6
1	AA	834	C	22.6
21	B0	3182	U	22.6
21	B0	312	G	22.6
21	B0	3112	G	22.6
21	B0	1025	A	22.6
1	AA	951	G	22.6
1	AA	250	A	22.6
21	B0	2863	U	22.6
30	BH	93	LYS	22.6
1	AA	963	G	22.5
21	B0	355	G	22.5
21	B0	2200	G	22.5
42	BT	126	GLY	22.5
21	B0	103	U	22.5
16	AP	8	ARG	22.5
1	AA	825	G	22.4
21	B0	2638	G	22.4
21	B0	2327	U	22.4
1	AA	339	C	22.4
1	AA	1237	C	22.4
1	AA	732	C	22.4
39	BQ	23	PRO	22.4
47	BY	32	HIS	22.4
4	AD	67	ILE	22.4
1	AA	754	C	22.4
21	B0	356	A	22.3
19	AS	4	SER	22.3
1	AA	856	C	22.3
21	B0	3178	C	22.3
42	BT	110	GLY	22.3
15	AO	58	MET	22.3
42	BT	138	VAL	22.3
1	AA	726	C	22.3
16	AP	35	LYS	22.3
16	AP	29	ASP	22.3
53	B5	143	ASP	22.3
21	B0	883	A	22.2
17	AQ	37	LYS	22.2
21	B0	1462	C	22.2
21	B0	1426	U	22.2

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Mol	Chain	Res	Type	RSRZ
1	AA	252	U	22.2
21	B0	2184	C	22.2
21	B0	2459	C	22.2
12	AL	31	PRO	22.2
1	AA	1087	G	22.2
20	AT	75	ASN	22.2
21	B0	1630	A	22.1
3	AC	2	GLY	22.1
4	AD	41	GLY	22.1
1	AA	1449	C	22.1
21	B0	1092	U	22.1
1	AA	1201	A	22.1
21	B0	2515	G	22.1
21	B0	3123	G	22.0
1	AA	359	U	22.0
15	AO	51	HIS	22.0
1	AA	1339	A	22.0
27	BE	141	VAL	22.0
32	BJ	22	GLY	22.0
22	B9	46	G	22.0
48	BZ	43	HIS	22.0
1	AA	948	C	22.0
1	AA	637	G	22.0
43	BU	38	VAL	21.9
17	AQ	39	SER	21.9
1	AA	437	U	21.9
24	BB	62	PRO	21.9
1	AA	1454	G	21.9
16	AP	32	TYR	21.9
1	AA	422	C	21.9
22	B9	50	U	21.9
21	B0	2508	G	21.8
21	B0	353	G	21.8
21	B0	2202	G	21.8
51	B3	31	HIS	21.8
21	B0	3188	U	21.8
4	AD	73	ARG	21.8
1	AA	340	U	21.8
21	B0	308	C	21.7
1	AA	709	G	21.7
1	AA	741	G	21.7
24	BB	203	LYS	21.7

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Mol	Chain	Res	Type	RSRZ
21	B0	346	C	21.7
1	AA	1052	U	21.7
24	BB	186	GLY	21.7
1	AA	202	G	21.7
7	AG	4	ARG	21.7
32	BJ	10	PRO	21.7
1	AA	653	A	21.7
21	B0	2284	U	21.6
21	B0	2322	U	21.6
1	AA	954	G	21.6
20	AT	18	GLN	21.6
1	AA	184	G	21.6
1	AA	675	A	21.6
1	AA	588	G	21.5
21	B0	1560	A	21.5
27	BE	46	ASP	21.5
16	AP	18	ARG	21.5
37	BO	46	GLU	21.5
1	AA	1282	C	21.5
21	B0	433	G	21.5
41	BS	52	ASN	21.5
21	B0	3187	U	21.4
4	AD	3	ARG	21.4
21	B0	1482	U	21.4
1	AA	78	G	21.4
1	AA	1376	U	21.4
17	AQ	98	LEU	21.4
48	BZ	14	SER	21.4
37	BO	53	LYS	21.4
53	B5	145	SER	21.4
27	BE	42	THR	21.4
29	BG	17	ALA	21.4
1	AA	181	G	21.4
15	AO	53	HIS	21.4
5	AE	45	PHE	21.4
53	B5	147	TYR	21.3
21	B0	358	C	21.3
21	B0	3108	G	21.3
21	B0	2349	G	21.3
5	AE	124	GLY	21.3
1	AA	142	G	21.3
1	AA	1341	U	21.3

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Mol	Chain	Res	Type	RSRZ
1	AA	1318	A	21.3
48	BZ	4	HIS	21.3
21	B0	2355	A	21.3
1	AA	194	C	21.2
1	AA	659	U	21.2
1	AA	1364	U	21.2
1	AA	1338	G	21.2
27	BE	179	THR	21.2
32	BJ	28	LYS	21.2
29	BG	51	ALA	21.2
1	AA	1340	A	21.2
1	AA	93	U	21.2
21	B0	2264	C	21.2
34	BL	6	ALA	21.2
1	AA	1263	C	21.2
32	BJ	36	GLY	21.1
30	BH	60	SER	21.1
27	BE	127	GLU	21.1
16	AP	57	ARG	21.1
26	BD	63	GLN	21.1
10	AJ	43	ARG	21.1
12	AL	7	ILE	21.1
21	B0	1179	A	21.1
3	AC	3	ASN	21.1
32	BJ	24	GLY	21.1
8	AH	3	THR	21.1
21	B0	316	C	21.0
1	AA	1330	U	21.0
21	B0	884	C	21.0
7	AG	3	ARG	21.0
21	B0	3117	A	21.0
21	B0	3179	C	21.0
1	AA	753	A	21.0
27	BE	48	ASP	21.0
1	AA	950	U	21.0
21	B0	1487	C	20.9
16	AP	3	LYS	20.9
21	B0	656	U	20.9
21	B0	416	U	20.9
21	B0	2188	A	20.9
1	AA	1209	C	20.9
21	B0	198	A	20.9

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Mol	Chain	Res	Type	RSRZ
21	B0	2187	A	20.9
1	AA	1539	C	20.9
21	B0	1451	C	20.9
21	B0	1452	U	20.9
32	BJ	21	ARG	20.9
43	BU	12	ASN	20.8
29	BG	53	ILE	20.8
27	BE	68	THR	20.8
31	BI	41	ASN	20.8
46	BX	39	ALA	20.8
29	BG	96	VAL	20.8
1	AA	620	C	20.8
1	AA	1195	C	20.8
4	AD	208	SER	20.8
21	B0	727	U	20.8
21	B0	1501	C	20.8
1	AA	1051	C	20.7
51	B3	18	GLY	20.7
21	B0	2325	A	20.7
1	AA	1205	U	20.7
22	B9	41	A	20.7
21	B0	3129	C	20.7
4	AD	201	GLN	20.7
1	AA	1528	U	20.7
4	AD	83	SER	20.7
48	BZ	12	SER	20.7
21	B0	434	C	20.7
1	AA	1275	A	20.7
21	B0	3181	C	20.7
5	AE	130	ASN	20.6
37	BO	54	LYS	20.6
27	BE	44	ARG	20.6
42	BT	145	ASP	20.6
21	B0	2768	C	20.6
1	AA	453	A	20.6
1	AA	468	A	20.6
21	B0	2785	A	20.6
21	B0	2318	U	20.6
9	AI	117	HIS	20.6
16	AP	22	THR	20.5
4	AD	64	LEU	20.5
1	AA	1258	G	20.5

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Mol	Chain	Res	Type	RSRZ
1	AA	466	A	20.5
27	BE	114	ILE	20.5
25	BC	160	ALA	20.5
21	B0	3164	C	20.5
5	AE	79	GLU	20.5
21	B0	1523	A	20.4
32	BJ	26	THR	20.4
21	B0	1082	G	20.4
1	AA	1229	A	20.4
22	B9	4	C	20.4
21	B0	1526	U	20.4
5	AE	125	SER	20.4
21	B0	1565	G	20.4
37	BO	63	GLN	20.3
49	B1	2	ALA	20.3
1	AA	681	C	20.3
21	B0	1	G	20.3
26	BD	135	GLN	20.3
1	AA	249	U	20.3
21	B0	3161	C	20.3
29	BG	58	THR	20.2
21	B0	1069	G	20.2
1	AA	1113	C	20.2
4	AD	199	ASN	20.2
27	BE	99	THR	20.2
1	AA	219	C	20.2
17	AQ	100	LYS	20.2
30	BH	108	GLY	20.2
21	B0	2774	U	20.2
21	B0	2323	U	20.2
21	B0	2809	A	20.1
9	AI	108	VAL	20.1
22	B9	55	C	20.1
27	BE	105	MET	20.1
37	BO	76	TYR	20.1
1	AA	979	C	20.1
1	AA	836	G	20.1
27	BE	126	PRO	20.1
16	AP	42	ARG	20.1
21	B0	1838	G	20.1
38	BP	88	GLN	20.1
27	BE	104	GLU	20.1

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Mol	Chain	Res	Type	RSRZ
16	AP	71	ARG	20.1
29	BG	92	ASN	20.0
4	AD	202	LEU	20.0
21	B0	663	G	20.0
21	B0	2183	C	20.0
5	AE	122	GLU	20.0
42	BT	122	ILE	20.0
22	B9	121	G	20.0
21	B0	2509	A	20.0
41	BS	57	ASN	20.0
52	B4	5	SER	20.0
15	AO	49	ASP	20.0
8	AH	88	LYS	20.0
1	AA	785	G	20.0
1	AA	216	C	19.9
15	AO	55	GLY	19.9
21	B0	3175	C	19.9
17	AQ	32	TYR	19.9
1	AA	1249	C	19.9
21	B0	2784	A	19.9
21	B0	2783	U	19.9
37	BO	80	ILE	19.9
21	B0	943	U	19.8
5	AE	150	ARG	19.8
42	BT	95	SER	19.8
1	AA	92	G	19.8
21	B0	1946	U	19.8
34	BL	7	GLY	19.8
5	AE	87	SER	19.8
1	AA	751	U	19.8
4	AD	56	VAL	19.7
27	BE	11	VAL	19.7
21	B0	3172	U	19.7
1	AA	1256	A	19.7
4	AD	198	VAL	19.7
1	AA	1303	C	19.7
21	B0	2449	G	19.7
17	AQ	36	ILE	19.7
4	AD	205	GLU	19.6
21	B0	2507	U	19.6
26	BD	70	ALA	19.6
1	AA	940	C	19.6

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Mol	Chain	Res	Type	RSRZ
1	AA	980	C	19.6
21	B0	2266	A	19.6
7	AG	2	ALA	19.6
25	BC	159	ARG	19.6
1	AA	798	G	19.6
1	AA	1411	C	19.6
21	B0	1812	U	19.6
21	B0	3122	U	19.6
41	BS	41	PRO	19.6
38	BP	9	GLY	19.5
1	AA	790	A	19.5
1	AA	452	A	19.5
10	AJ	53	PRO	19.5
1	AA	1108	G	19.5
21	B0	941	U	19.5
30	BH	137	LYS	19.5
37	BO	93	LYS	19.5
1	AA	1383	C	19.5
1	AA	1262	C	19.5
14	AN	38	GLY	19.5
21	B0	3124	G	19.5
21	B0	889	C	19.5
1	AA	1185	G	19.5
25	BC	79	GLY	19.4
43	BU	11	LYS	19.4
25	BC	128	ALA	19.4
21	B0	2265	A	19.4
26	BD	5	LYS	19.4
27	BE	138	LYS	19.4
21	B0	2767	C	19.4
21	B0	363	G	19.4
21	B0	1539	U	19.4
23	BA	209	ALA	19.4
17	AQ	27	PHE	19.4
41	BS	69	GLN	19.3
9	AI	116	LYS	19.3
21	B0	364	G	19.3
1	AA	478	A	19.3
21	B0	803	C	19.3
4	AD	42	GLN	19.3
21	B0	1522	C	19.3
42	BT	111	GLY	19.3

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Mol	Chain	Res	Type	RSRZ
1	AA	694	A	19.3
1	AA	183	G	19.3
21	B0	2347	C	19.3
1	AA	140	A	19.2
21	B0	310	A	19.2
32	BJ	130	ILE	19.2
21	B0	1533	G	19.2
21	B0	1562	G	19.2
4	AD	77	ASN	19.2
12	AL	49	ASN	19.2
4	AD	85	LYS	19.2
1	AA	1544	U	19.2
48	BZ	15	LYS	19.2
16	AP	34	GLU	19.2
26	BD	136	LEU	19.2
1	AA	1242	C	19.1
41	BS	28	LYS	19.1
1	AA	477	G	19.1
21	B0	1110	G	19.1
21	B0	432	C	19.1
15	AO	61	GLY	19.1
37	BO	77	SER	19.1
1	AA	743	U	19.1
20	AT	70	SER	19.1
32	BJ	82	ASP	19.1
31	BI	37	GLY	19.1
12	AL	115	LYS	19.0
21	B0	1561	A	19.0
21	B0	1104	G	19.0
21	B0	2199	C	19.0
21	B0	942	U	19.0
1	AA	674	G	19.0
48	BZ	42	SER	18.9
1	AA	217	C	18.9
14	AN	29	ARG	18.9
21	B0	3870	C	18.9
1	AA	1115	C	18.9
23	BA	123	ALA	18.9
27	BE	117	PRO	18.9
37	BO	26	GLY	18.9
20	AT	27	LYS	18.8
30	BH	56	THR	18.8

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Mol	Chain	Res	Type	RSRZ
1	AA	465	C	18.8
41	BS	10	HIS	18.8
12	AL	46	LYS	18.8
1	AA	1260	C	18.8
27	BE	5	GLY	18.8
21	B0	3162	G	18.8
24	BB	41	THR	18.8
16	AP	21	VAL	18.8
32	BJ	81	GLN	18.8
1	AA	787	A	18.8
1	AA	837	G	18.8
21	B0	2511	G	18.8
21	B0	2642	G	18.8
29	BG	138	VAL	18.8
24	BB	144	ARG	18.8
29	BG	95	LYS	18.8
4	AD	203	VAL	18.8
1	AA	1292	U	18.8
1	AA	1375	A	18.7
1	AA	1374	A	18.7
4	AD	46	LYS	18.7
21	B0	317	U	18.7
45	BW	55	THR	18.7
32	BJ	42	GLY	18.7
26	BD	97	TYR	18.7
14	AN	18	VAL	18.7
1	AA	601	C	18.7
21	B0	2860	C	18.7
21	B0	1912	G	18.7
1	AA	650	G	18.6
21	B0	2643	G	18.6
21	B0	1909	U	18.6
25	BC	43	ALA	18.6
53	B5	59	SER	18.6
1	AA	469	C	18.6
10	AJ	59	SER	18.6
5	AE	92	LYS	18.6
42	BT	103	ARG	18.6
26	BD	65	PRO	18.6
53	B5	79	ALA	18.6
27	BE	65	HIS	18.5
1	AA	857	C	18.5

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Mol	Chain	Res	Type	RSRZ
5	AE	88	LYS	18.5
27	BE	12	PRO	18.5
51	B3	39	ASP	18.5
1	AA	185	A	18.5
1	AA	467	U	18.5
29	BG	81	ALA	18.5
1	AA	1224	G	18.5
1	AA	71	U	18.4
32	BJ	85	ASP	18.4
4	AD	26	CYS	18.4
27	BE	77	LYS	18.4
1	AA	74	G	18.4
21	B0	2	G	18.4
12	AL	5	PRO	18.4
1	AA	1493	A	18.4
24	BB	157	ALA	18.4
21	B0	2198	U	18.4
20	AT	23	ARG	18.4
21	B0	2877	A	18.4
37	BO	11	ARG	18.4
26	BD	75	SER	18.3
12	AL	30	ALA	18.3
13	AM	50	GLU	18.3
1	AA	75	C	18.3
14	AN	34	TYR	18.3
1	AA	1071	C	18.3
22	B9	54	U	18.3
50	B2	1	MET	18.3
27	BE	74	ASN	18.3
1	AA	1243	C	18.3
25	BC	176	ASN	18.3
21	B0	2859	U	18.3
5	AE	154	GLY	18.3
21	B0	2842	C	18.3
26	BD	64	LYS	18.3
1	AA	1281	U	18.2
21	B0	665	A	18.2
1	AA	1241	G	18.2
4	AD	21	LEU	18.2
21	B0	1091	C	18.2
27	BE	102	ALA	18.2
46	BX	28	ILE	18.2

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Mol	Chain	Res	Type	RSRZ
29	BG	99	LEU	18.2
1	AA	1248	A	18.2
25	BC	76	THR	18.2
29	BG	30	TYR	18.2
9	AI	118	LYS	18.2
21	B0	242	A	18.2
21	B0	247	A	18.1
21	B0	311	A	18.1
1	AA	1083	U	18.1
21	B0	3125	G	18.1
1	AA	638	G	18.1
21	B0	2637	C	18.1
29	BG	137	THR	18.1
30	BH	109	GLY	18.1
21	B0	2348	A	18.0
32	BJ	98	LEU	18.0
16	AP	33	ILE	18.0
21	B0	2402	U	18.0
42	BT	141	MET	18.0
26	BD	104	ILE	18.0
17	AQ	97	SER	18.0
1	AA	1050	G	18.0
53	B5	146	GLU	18.0
30	BH	53	ARG	17.9
1	AA	1306	A	17.9
1	AA	597	G	17.9
29	BG	85	GLY	17.9
30	BH	138	GLY	17.9
32	BJ	46	GLY	17.9
32	BJ	132	ALA	17.9
20	AT	73	HIS	17.9
10	AJ	41	PRO	17.9
27	BE	119	ALA	17.9
21	B0	328	A	17.9
1	AA	682	G	17.9
27	BE	64	LEU	17.8
42	BT	172	LEU	17.8
22	B9	14	C	17.8
12	AL	11	VAL	17.8
1	AA	1088	G	17.8
48	BZ	13	LYS	17.8
1	AA	651	C	17.8

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Mol	Chain	Res	Type	RSRZ
11	AK	118	GLY	17.8
16	AP	69	THR	17.8
8	AH	4	ASP	17.8
1	AA	652	U	17.8
51	B3	32	GLN	17.7
30	BH	134	MET	17.7
1	AA	1114	C	17.7
38	BP	50	ASP	17.7
17	AQ	25	ARG	17.7
42	BT	143	ILE	17.7
17	AQ	29	HIS	17.7
1	AA	458	G	17.7
5	AE	127	ASN	17.6
4	AD	207	TYR	17.6
24	BB	113	THR	17.6
20	AT	68	LYS	17.6
1	AA	788	U	17.6
32	BJ	115	SER	17.6
1	AA	1317	C	17.6
4	AD	37	PRO	17.6
11	AK	119	CYS	17.6
8	AH	105	ARG	17.6
1	AA	218	C	17.6
21	B0	1900	U	17.6
26	BD	150	ARG	17.6
51	B3	34	THR	17.6
1	AA	1012	U	17.6
5	AE	21	ALA	17.6
17	AQ	68	ARG	17.5
53	B5	109	TRP	17.5
12	AL	12	ARG	17.5
15	AO	73	GLU	17.5
12	AL	116	SER	17.5
1	AA	739	C	17.5
29	BG	116	ASN	17.5
17	AQ	2	PRO	17.5
1	AA	599	C	17.5
23	BA	253	PRO	17.4
4	AD	81	GLU	17.4
37	BO	58	ARG	17.4
29	BG	125	ASN	17.4
1	AA	1010	G	17.4

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Mol	Chain	Res	Type	RSRZ
21	B0	243	G	17.4
27	BE	71	LEU	17.4
41	BS	74	LEU	17.4
5	AE	98	THR	17.4
29	BG	63	ARG	17.3
41	BS	92	THR	17.3
23	BA	133	LEU	17.3
17	AQ	31	LEU	17.3
30	BH	139	ARG	17.3
32	BJ	23	PRO	17.3
14	AN	28	GLY	17.3
16	AP	70	ALA	17.3
1	AA	789	U	17.3
4	AD	76	ARG	17.3
12	AL	10	LEU	17.3
4	AD	69	GLY	17.2
42	BT	58	GLY	17.2
21	B0	1193	G	17.2
22	B9	49	C	17.2
16	AP	52	ASP	17.2
1	AA	589	C	17.2
21	B0	2875	C	17.2
21	B0	3128	G	17.2
1	AA	1299	A	17.1
21	B0	2631	C	17.1
1	AA	180	U	17.1
39	BQ	63	SER	17.1
21	B0	1524	C	17.1
27	BE	116	GLU	17.1
24	BB	65	GLY	17.1
5	AE	153	LYS	17.1
50	B2	26	SER	17.1
48	BZ	19	ARG	17.1
50	B2	8	ASN	17.1
27	BE	101	LYS	17.0
17	AQ	40	LYS	17.0
1	AA	1048	G	17.0
41	BS	78	ALA	17.0
21	B0	3110	G	17.0
1	AA	479	C	17.0
1	AA	786	G	17.0
14	AN	22	THR	17.0

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Mol	Chain	Res	Type	RSRZ
29	BG	97	GLY	17.0
32	BJ	83	LEU	17.0
1	AA	598	U	17.0
1	AA	966	G	17.0
21	B0	1904	G	17.0
27	BE	131	ILE	17.0
38	BP	86	HIS	17.0
21	B0	3163	C	17.0
27	BE	124	ALA	16.9
37	BO	78	THR	16.9
21	B0	438	G	16.9
10	AJ	42	THR	16.9
21	B0	1894	U	16.9
26	BD	74	ILE	16.9
25	BC	127	ASP	16.9
12	AL	28	LYS	16.9
32	BJ	127	ALA	16.9
53	B5	148	ILE	16.9
34	BL	108	VAL	16.9
17	AQ	96	GLN	16.9
1	AA	734	G	16.9
32	BJ	25	GLY	16.9
1	AA	1109	C	16.9
46	BX	22	ALA	16.9
5	AE	93	PRO	16.9
8	AH	92	ARG	16.8
5	AE	120	THR	16.8
16	AP	17	TYR	16.8
16	AP	4	ILE	16.8
9	AI	114	TYR	16.8
32	BJ	31	GLY	16.8
41	BS	77	HIS	16.8
1	AA	1278	U	16.8
45	BW	44	ARG	16.8
39	BQ	25	PHE	16.8
31	BI	38	GLY	16.7
5	AE	90	VAL	16.7
10	AJ	60	ARG	16.7
19	AS	2	PRO	16.7
21	B0	3151	U	16.7
34	BL	93	GLY	16.7
3	AC	133	ALA	16.7

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Mol	Chain	Res	Type	RSRZ
21	B0	1517	C	16.7
4	AD	204	ILE	16.7
21	B0	331	U	16.7
27	BE	180	GLY	16.7
29	BG	127	VAL	16.6
1	AA	215	C	16.6
1	AA	463	C	16.6
4	AD	196	LEU	16.6
21	B0	911	A	16.6
29	BG	25	PRO	16.6
39	BQ	77	ALA	16.6
1	AA	1049	U	16.6
37	BO	48	ARG	16.6
53	B5	46	LEU	16.6
7	AG	8	GLU	16.6
17	AQ	102	GLY	16.6
12	AL	92	ASP	16.6
21	B0	362	C	16.6
12	AL	17	LYS	16.6
5	AE	58	ALA	16.5
37	BO	30	LYS	16.5
1	AA	740	U	16.5
21	B0	3	U	16.5
21	B0	345	U	16.5
27	BE	36	PRO	16.5
1	AA	1021	G	16.5
1	AA	1322	C	16.5
1	AA	1151	A	16.5
27	BE	82	GLY	16.5
26	BD	76	ASN	16.5
46	BX	11	GLY	16.5
37	BO	25	TRP	16.5
1	AA	1295	G	16.5
5	AE	119	LEU	16.5
41	BS	58	VAL	16.4
26	BD	7	LYS	16.4
32	BJ	128	ALA	16.4
1	AA	464	U	16.4
35	BM	86	GLN	16.4
1	AA	1453	G	16.4
16	AP	37	GLY	16.4
29	BG	77	LEU	16.4

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Mol	Chain	Res	Type	RSRZ
14	AN	61	TRP	16.4
1	AA	459	G	16.4
1	AA	600	C	16.4
21	B0	1538	A	16.4
1	AA	1074	G	16.3
41	BS	5	SER	16.3
1	AA	141	A	16.3
1	AA	640	A	16.3
1	AA	649	G	16.3
51	B3	2	PRO	16.3
4	AD	80	GLU	16.3
27	BE	86	ASN	16.3
29	BG	98	LYS	16.2
40	BR	64	ARG	16.2
29	BG	74	MET	16.2
1	AA	662	G	16.2
1	AA	1274	G	16.2
1	AA	72	A	16.2
1	AA	5	U	16.2
10	AJ	52	GLY	16.2
53	B5	150	ARG	16.2
16	AP	5	ARG	16.2
14	AN	24	CYS	16.2
20	AT	79	ARG	16.2
1	AA	186	C	16.2
37	BO	45	TYR	16.2
20	AT	8	ARG	16.2
32	BJ	37	GLN	16.2
46	BX	21	GLN	16.2
16	AP	7	ALA	16.1
1	AA	835	U	16.1
10	AJ	54	PHE	16.1
20	AT	24	LEU	16.1
1	AA	1095	U	16.1
16	AP	36	ILE	16.1
25	BC	179	ASP	16.1
21	B0	1839	A	16.1
21	B0	3174	C	16.1
1	AA	1073	U	16.1
34	BL	103	ARG	16.1
25	BC	84	PHE	16.1
27	BE	43	VAL	16.1

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Mol	Chain	Res	Type	RSRZ
27	BE	96	ALA	16.0
7	AG	33	ASP	16.0
1	AA	639	G	16.0
53	B5	194	ALA	16.0
1	AA	1116	C	16.0
21	B0	299	C	16.0
15	AO	65	ARG	16.0
21	B0	2190	A	16.0
9	AI	128	ARG	16.0
21	B0	3111	C	16.0
20	AT	22	ARG	16.0
23	BA	227	ASN	16.0
52	B4	31	LYS	16.0
1	AA	187	G	16.0
1	AA	193	C	16.0
1	AA	1156	G	16.0
5	AE	99	GLY	16.0
16	AP	41	PRO	16.0
32	BJ	29	THR	15.9
12	AL	50	SER	15.9
5	AE	78	HIS	15.9
13	AM	124	PRO	15.9
1	AA	1301	U	15.9
21	B0	3173	A	15.9
46	BX	18	LYS	15.9
1	AA	981	U	15.9
27	BE	37	TYR	15.9
1	AA	952	U	15.9
21	B0	354	C	15.9
15	AO	64	ARG	15.9
10	AJ	48	THR	15.9
32	BJ	137	GLY	15.9
27	BE	175	LYS	15.8
24	BB	139	GLY	15.8
32	BJ	38	LYS	15.8
20	AT	20	LEU	15.8
20	AT	83	ARG	15.8
27	BE	130	ARG	15.8
32	BJ	33	GLY	15.8
3	AC	161	GLU	15.8
10	AJ	50	ILE	15.8
1	AA	838	C	15.8

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Mol	Chain	Res	Type	RSRZ
53	B5	131	ARG	15.8
1	AA	1126	U	15.7
21	B0	2644	A	15.7
27	BE	47	GLY	15.7
12	AL	29	GLY	15.7
5	AE	55	VAL	15.7
1	AA	480	U	15.7
12	AL	14	GLY	15.7
21	B0	2640	G	15.7
21	B0	666	U	15.7
21	B0	3180	U	15.7
17	AQ	14	LYS	15.7
1	AA	692	U	15.7
21	B0	1192	A	15.7
5	AE	12	LEU	15.7
38	BP	10	LYS	15.7
1	AA	421	U	15.6
21	B0	248	A	15.6
1	AA	1020	U	15.6
1	AA	1137	C	15.6
15	AO	62	GLN	15.6
29	BG	111	LYS	15.6
1	AA	826	C	15.6
20	AT	69	GLY	15.6
26	BD	95	ARG	15.6
32	BJ	27	ASP	15.6
1	AA	471	G	15.6
29	BG	94	ALA	15.6
21	B0	664	C	15.6
20	AT	76	ALA	15.6
5	AE	97	GLY	15.6
21	B0	2454	C	15.6
21	B0	440	U	15.5
43	BU	10	SER	15.5
22	B9	48	A	15.5
25	BC	164	VAL	15.5
21	B0	295	C	15.5
25	BC	129	LYS	15.5
25	BC	83	ALA	15.5
29	BG	13	PRO	15.5
21	B0	1099	A	15.5
32	BJ	75	VAL	15.5

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Mol	Chain	Res	Type	RSRZ
16	AP	40	ASP	15.5
13	AM	119	GLY	15.5
25	BC	174	GLY	15.5
1	AA	1238	A	15.4
29	BG	33	ASN	15.4
14	AN	35	ARG	15.4
23	BA	43	ARG	15.4
50	B2	19	ARG	15.4
21	B0	302	U	15.4
32	BJ	111	SER	15.4
32	BJ	40	ARG	15.3
1	AA	644	G	15.3
1	AA	1210	C	15.3
26	BD	11	GLN	15.3
21	B0	246	C	15.3
4	AD	90	GLY	15.3
17	AQ	20	THR	15.3
12	AL	118	SER	15.3
1	AA	695	A	15.3
8	AH	104	ARG	15.3
21	B0	2512	A	15.3
16	AP	28	ARG	15.3
4	AD	89	THR	15.2
1	AA	188	C	15.2
21	B0	2639	A	15.2
37	BO	111	ASP	15.2
42	BT	171	VAL	15.2
26	BD	67	ILE	15.2
32	BJ	135	ALA	15.2
17	AQ	94	ASN	15.2
40	BR	14	GLU	15.2
1	AA	1072	G	15.2
21	B0	1083	C	15.2
1	AA	1245	A	15.2
4	AD	28	SER	15.2
1	AA	664	G	15.2
4	AD	20	TYR	15.1
21	B0	2641	A	15.1
24	BB	57	ARG	15.1
1	AA	472	G	15.1
48	BZ	18	MET	15.1
1	AA	1110	A	15.1

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Mol	Chain	Res	Type	RSRZ
27	BE	80	SER	15.1
21	B0	3142	C	15.1
41	BS	104	VAL	15.1
1	AA	1089	G	15.0
17	AQ	91	ARG	15.0
24	BB	59	VAL	15.0
1	AA	1013	G	15.0
15	AO	60	VAL	15.0
16	AP	44	THR	15.0
16	AP	58	TYR	15.0
29	BG	35	MET	15.0
1	AA	1302	U	15.0
1	AA	590	C	15.0
27	BE	50	LEU	15.0
1	AA	1076	C	15.0
27	BE	87	LEU	15.0
29	BG	60	TYR	15.0
38	BP	23	GLU	15.0
1	AA	470	U	15.0
1	AA	648	A	15.0
43	BU	39	ARG	15.0
16	AP	20	VAL	15.0
20	AT	26	ASN	15.0
21	B0	2647	G	15.0
21	B0	417	C	15.0
1	AA	962	C	14.9
5	AE	101	ILE	14.9
23	BA	221	GLN	14.9
1	AA	827	U	14.9
43	BU	83	ALA	14.9
37	BO	27	SER	14.9
22	B9	47	A	14.9
12	AL	124	LYS	14.9
21	B0	330	C	14.9
1	AA	1150	U	14.9
24	BB	10	GLY	14.9
32	BJ	126	SER	14.9
21	B0	245	C	14.8
32	BJ	12	SER	14.8
21	B0	1180	A	14.8
1	AA	1154	G	14.8
39	BQ	100	GLY	14.8

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Mol	Chain	Res	Type	RSRZ
30	BH	73	ASN	14.8
36	BN	123	ARG	14.8
21	B0	3127	G	14.8
1	AA	1213	A	14.8
21	B0	1908	C	14.8
24	BB	61	LYS	14.8
24	BB	143	GLN	14.7
32	BJ	30	ALA	14.7
39	BQ	9	ARG	14.7
37	BO	81	ASN	14.7
14	AN	41	ARG	14.7
14	AN	40	CYS	14.7
21	B0	2514	G	14.7
4	AD	156	GLU	14.7
34	BL	5	LYS	14.7
53	B5	175	LYS	14.6
4	AD	74	GLN	14.6
27	BE	81	ASP	14.6
11	AK	117	ASN	14.6
25	BC	182	ARG	14.6
21	B0	2807	U	14.6
21	B0	1090	C	14.6
17	AQ	92	ARG	14.6
21	B0	1525	A	14.6
52	B4	4	ARG	14.6
1	AA	189	A	14.6
27	BE	34	THR	14.6
29	BG	80	LYS	14.6
48	BZ	16	ARG	14.6
27	BE	83	TYR	14.6
50	B2	7	PRO	14.6
21	B0	1502	G	14.6
48	BZ	31	THR	14.6
41	BS	76	LEU	14.5
36	BN	126	LYS	14.5
25	BC	171	PRO	14.5
4	AD	70	ILE	14.5
1	AA	1125	U	14.5
1	AA	73	C	14.5
21	B0	1564	U	14.5
29	BG	128	ALA	14.5
1	AA	1099	G	14.5

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Mol	Chain	Res	Type	RSRZ
1	AA	1450	U	14.5
4	AD	35	ARG	14.5
49	B1	35	LEU	14.5
1	AA	1267	C	14.5
42	BT	123	VAL	14.4
24	BB	128	SER	14.4
21	B0	329	C	14.4
32	BJ	110	ALA	14.4
45	BW	47	ARG	14.4
12	AL	94	PRO	14.4
20	AT	30	LYS	14.4
20	AT	21	LYS	14.4
20	AT	71	THR	14.4
27	BE	115	ILE	14.4
50	B2	4	THR	14.4
39	BQ	27	VAL	14.4
5	AE	60	TYR	14.4
17	AQ	103	GLY	14.3
1	AA	1451	A	14.3
1	AA	1214	C	14.3
5	AE	81	GLU	14.3
16	AP	19	ILE	14.3
29	BG	72	PRO	14.3
21	B0	1896	A	14.3
11	AK	120	ARG	14.3
25	BC	26	VAL	14.3
14	AN	23	ARG	14.3
21	B0	373	A	14.3
26	BD	78	LYS	14.3
1	AA	1091	U	14.3
7	AG	52	GLU	14.3
21	B0	1089	C	14.2
51	B3	28	GLY	14.2
12	AL	22	SER	14.2
1	AA	738	C	14.2
24	BB	64	GLN	14.2
24	BB	145	LYS	14.2
48	BZ	22	HIS	14.2
9	AI	91	ASP	14.2
27	BE	145	ALA	14.2
12	AL	119	LYS	14.2
21	B0	3148	G	14.2

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Mol	Chain	Res	Type	RSRZ
1	AA	182	U	14.2
37	BO	56	ASP	14.2
32	BJ	109	LEU	14.2
36	BN	125	MET	14.1
3	AC	134	ILE	14.1
17	AQ	67	LYS	14.1
4	AD	82	ALA	14.1
16	AP	74	LEU	14.1
10	AJ	51	ARG	14.1
27	BE	144	VAL	14.1
34	BL	91	PRO	14.1
21	B0	2876	C	14.1
5	AE	117	ASP	14.1
43	BU	14	ARG	14.1
21	B0	2513	A	14.1
15	AO	52	SER	14.0
21	B0	3146	A	14.0
1	AA	673	G	14.0
16	AP	72	ARG	14.0
42	BT	144	GLY	14.0
1	AA	982	U	14.0
1	AA	1308	U	14.0
1	AA	1075	C	14.0
29	BG	5	ALA	14.0
4	AD	115	ARG	14.0
53	B5	38	GLY	14.0
11	AK	122	LYS	14.0
1	AA	1047	G	14.0
1	AA	1215	G	14.0
1	AA	1533	C	14.0
1	AA	670	G	14.0
27	BE	133	VAL	14.0
1	AA	1452	C	14.0
17	AQ	4	LYS	14.0
13	AM	126	LYS	13.9
15	AO	46	HIS	13.9
25	BC	75	PRO	13.9
34	BL	4	GLY	13.9
15	AO	72	ARG	13.9
4	AD	23	GLY	13.9
30	BH	52	GLY	13.9
1	AA	595	G	13.9

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Mol	Chain	Res	Type	RSRZ
20	AT	25	ARG	13.9
21	B0	3126	A	13.9
27	BE	93	GLY	13.9
29	BG	83	GLY	13.9
38	BP	8	GLY	13.9
5	AE	94	ALA	13.9
29	BG	28	GLY	13.8
1	AA	1023	G	13.8
9	AI	107	ARG	13.8
29	BG	69	THR	13.8
40	BR	57	ASN	13.8
21	B0	1182	U	13.8
18	AR	84	LYS	13.8
23	BA	238	GLY	13.8
21	B0	2285	U	13.8
21	B0	2634	G	13.8
21	B0	365	U	13.8
47	BY	2	GLN	13.8
45	BW	51	ALA	13.8
1	AA	1286	A	13.8
1	AA	1397	C	13.8
29	BG	117	ALA	13.8
1	AA	691	G	13.8
5	AE	149	GLU	13.8
27	BE	150	LYS	13.8
40	BR	58	VAL	13.8
41	BS	91	ALA	13.7
41	BS	67	GLY	13.7
1	AA	647	C	13.7
25	BC	130	THR	13.7
41	BS	40	LEU	13.7
4	AD	25	ARG	13.7
1	AA	1138	G	13.7
1	AA	461	C	13.7
1	AA	1102	A	13.7
21	B0	244	C	13.7
12	AL	89	ARG	13.7
27	BE	41	LEU	13.7
1	AA	1222	G	13.7
27	BE	59	GLN	13.7
21	B0	296	A	13.7
1	AA	955	U	13.7

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Mol	Chain	Res	Type	RSRZ
16	AP	54	GLU	13.7
5	AE	61	TYR	13.7
24	BB	191	ALA	13.6
5	AE	22	GLY	13.6
17	AQ	26	GLN	13.6
10	AJ	69	ASN	13.6
1	AA	1244	C	13.6
12	AL	97	ARG	13.6
37	BO	109	LEU	13.6
21	B0	300	C	13.6
23	BA	218	LYS	13.6
41	BS	88	THR	13.6
30	BH	55	ALA	13.6
46	BX	27	LYS	13.6
1	AA	1152	A	13.6
21	B0	2451	G	13.6
25	BC	44	SER	13.6
1	AA	79	G	13.5
16	AP	53	VAL	13.5
23	BA	237	GLU	13.5
29	BG	88	SER	13.5
4	AD	17	VAL	13.5
16	AP	75	ARG	13.5
9	AI	127	LYS	13.5
50	B2	6	GLN	13.5
17	AQ	3	LYS	13.5
24	BB	129	HIS	13.5
26	BD	68	THR	13.5
34	BL	13	ASN	13.5
17	AQ	16	GLN	13.5
25	BC	100	ARG	13.4
16	AP	76	GLN	13.4
17	AQ	43	LEU	13.4
3	AC	137	ALA	13.4
17	AQ	15	MET	13.4
25	BC	25	GLY	13.4
15	AO	56	LEU	13.4
21	B0	2450	A	13.4
1	AA	1307	U	13.4
21	B0	2289	A	13.4
32	BJ	66	ASN	13.4
41	BS	90	LYS	13.4

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Mol	Chain	Res	Type	RSRZ
16	AP	55	ARG	13.4
5	AE	51	VAL	13.4
8	AH	87	SER	13.4
41	BS	25	LEU	13.4
3	AC	4	LYS	13.3
21	B0	890	U	13.3
14	AN	27	CYS	13.3
24	BB	146	THR	13.3
5	AE	9	LYS	13.3
1	AA	842	U	13.3
1	AA	683	G	13.3
23	BA	40	THR	13.3
14	AN	60	SER	13.3
21	B0	2636	A	13.3
5	AE	26	PHE	13.3
12	AL	117	ARG	13.3
53	B5	105	ARG	13.3
1	AA	1223	C	13.3
25	BC	170	LEU	13.3
21	B0	1563	U	13.3
13	AM	28	ALA	13.3
40	BR	56	MET	13.2
5	AE	129	ILE	13.2
1	AA	462	A	13.2
25	BC	55	GLY	13.2
27	BE	53	GLU	13.2
1	AA	1019	C	13.2
4	AD	91	SER	13.2
23	BA	50	THR	13.2
17	AQ	12	SER	13.2
4	AD	87	GLY	13.2
27	BE	107	ILE	13.2
47	BY	40	HIS	13.2
4	AD	22	LYS	13.2
41	BS	4	PRO	13.2
17	AQ	66	SER	13.1
20	AT	28	ALA	13.1
27	BE	13	SER	13.1
1	AA	1211	U	13.1
27	BE	174	GLY	13.1
21	B0	1491	C	13.1
21	B0	1520	G	13.1

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Mol	Chain	Res	Type	RSRZ
42	BT	124	ALA	13.1
13	AM	24	GLY	13.1
23	BA	242	ALA	13.1
27	BE	122	THR	13.1
32	BJ	20	GLY	13.0
20	AT	65	LYS	13.0
45	BW	39	GLN	13.0
25	BC	99	VAL	13.0
17	AQ	38	ARG	13.0
21	B0	1841	G	13.0
29	BG	76	TYR	13.0
21	B0	1070	G	13.0
5	AE	59	GLY	13.0
21	B0	1601	U	13.0
39	BQ	26	ALA	13.0
1	AA	645	C	13.0
1	AA	203	A	13.0
1	AA	1155	G	13.0
12	AL	16	GLU	13.0
29	BG	52	ILE	13.0
16	AP	79	VAL	12.9
29	BG	46	ALA	12.9
30	BH	146	THR	12.9
5	AE	103	GLY	12.9
23	BA	240	THR	12.9
19	AS	3	ARG	12.9
41	BS	81	VAL	12.9
32	BJ	9	THR	12.9
1	AA	1009	G	12.9
18	AR	18	ARG	12.9
21	B0	3132	A	12.9
20	AT	90	GLN	12.9
3	AC	168	ALA	12.9
32	BJ	78	SER	12.9
15	AO	68	ARG	12.9
32	BJ	113	GLU	12.9
46	BX	23	LEU	12.9
12	AL	62	SER	12.8
4	AD	79	PHE	12.8
21	B0	3118	U	12.8
10	AJ	62	HIS	12.8
19	AS	6	LYS	12.8

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Mol	Chain	Res	Type	RSRZ
1	AA	1221	G	12.8
11	AK	116	HIS	12.8
41	BS	75	ALA	12.8
1	AA	460	C	12.8
25	BC	69	HIS	12.8
20	AT	96	GLY	12.8
24	BB	138	PRO	12.8
16	AP	6	LEU	12.8
1	AA	641	U	12.8
40	BR	52	GLY	12.8
15	AO	75	PRO	12.7
1	AA	1247	U	12.7
41	BS	39	ALA	12.7
41	BS	68	GLY	12.7
23	BA	46	ARG	12.7
1	AA	1320	C	12.7
16	AP	51	VAL	12.7
7	AG	11	GLN	12.7
42	BT	108	VAL	12.7
1	AA	1111	A	12.7
32	BJ	79	GLN	12.7
9	AI	11	LYS	12.7
24	BB	60	ASN	12.7
1	AA	1124	G	12.7
1	AA	1228	C	12.7
21	B0	1181	C	12.7
12	AL	48	PRO	12.7
25	BC	54	THR	12.7
10	AJ	46	ARG	12.7
1	AA	850	U	12.7
23	BA	254	THR	12.7
1	AA	592	G	12.7
4	AD	94	LEU	12.7
19	AS	5	LEU	12.7
20	AT	80	ARG	12.7
38	BP	24	SER	12.7
27	BE	10	ALA	12.7
53	B5	62	LYS	12.7
7	AG	5	ARG	12.7
20	AT	95	ALA	12.6
1	AA	191	G	12.6
1	AA	1022	G	12.6

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Mol	Chain	Res	Type	RSRZ
21	B0	2645	C	12.6
4	AD	88	VAL	12.6
12	AL	125	PRO	12.6
32	BJ	114	ILE	12.6
12	AL	47	LYS	12.6
34	BL	11	ASN	12.6
21	B0	418	C	12.6
4	AD	75	PHE	12.6
27	BE	113	VAL	12.6
21	B0	1521	U	12.6
32	BJ	43	ALA	12.6
21	B0	439	C	12.6
37	BO	21	ALA	12.6
42	BT	8	ARG	12.6
34	BL	3	HIS	12.6
21	B0	1897	C	12.6
12	AL	79	GLU	12.5
41	BS	2	PRO	12.5
20	AT	78	ALA	12.5
15	AO	47	LYS	12.5
26	BD	132	ILE	12.5
39	BQ	22	LYS	12.5
32	BJ	77	LEU	12.5
51	B3	35	GLY	12.5
29	BG	59	ILE	12.5
27	BE	178	ALA	12.5
27	BE	16	THR	12.5
1	AA	1296	C	12.5
4	AD	84	LYS	12.5
13	AM	20	THR	12.5
16	AP	73	LEU	12.4
17	AQ	105	ALA	12.4
17	AQ	64	PRO	12.4
5	AE	116	THR	12.4
48	BZ	44	HIS	12.4
1	AA	190	A	12.4
43	BU	32	LYS	12.4
11	AK	11	LYS	12.4
4	AD	24	GLU	12.4
16	AP	39	TYR	12.4
52	B4	21	GLY	12.4
39	BQ	71	VAL	12.4

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Mol	Chain	Res	Type	RSRZ
5	AE	96	PRO	12.4
5	AE	107	ARG	12.4
24	BB	87	ASP	12.4
40	BR	62	ARG	12.4
1	AA	1139	G	12.4
31	BI	79	HIS	12.4
21	B0	1889	G	12.4
8	AH	106	GLY	12.4
38	BP	52	GLY	12.3
15	AO	24	SER	12.3
29	BG	143	ASN	12.3
14	AN	25	VAL	12.3
25	BC	66	ASN	12.3
1	AA	1321	C	12.3
27	BE	14	GLY	12.3
26	BD	44	LYS	12.3
12	AL	114	LYS	12.3
15	AO	19	PRO	12.3
27	BE	123	PHE	12.3
21	B0	1195	U	12.3
17	AQ	61	GLU	12.3
48	BZ	17	ASP	12.3
5	AE	44	GLY	12.3
1	AA	1090	U	12.3
13	AM	26	GLY	12.3
30	BH	161	GLN	12.3
16	AP	50	LYS	12.3
15	AO	14	GLU	12.3
27	BE	92	VAL	12.3
25	BC	77	PHE	12.2
8	AH	1	MET	12.2
27	BE	148	VAL	12.2
8	AH	22	GLU	12.2
4	AD	68	TYR	12.2
32	BJ	34	HIS	12.2
27	BE	97	LYS	12.2
21	B0	301	C	12.2
12	AL	61	THR	12.2
5	AE	77	PRO	12.2
5	AE	102	ALA	12.2
41	BS	17	LYS	12.2
21	B0	298	C	12.2

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Mol	Chain	Res	Type	RSRZ
21	B0	3150	C	12.2
1	AA	646	U	12.2
25	BC	42	THR	12.2
17	AQ	13	ASP	12.2
21	B0	1893	G	12.2
24	BB	137	ARG	12.2
1	AA	591	U	12.2
17	AQ	93	GLN	12.2
20	AT	47	GLY	12.1
27	BE	22	GLY	12.1
33	BK	16	GLY	12.1
41	BS	71	GLN	12.1
25	BC	132	ASN	12.1
24	BB	150	VAL	12.1
21	B0	2633	A	12.1
21	B0	3149	G	12.1
1	AA	1246	C	12.1
1	AA	596	C	12.1
38	BP	22	VAL	12.1
48	BZ	29	ASN	12.1
52	B4	2	LYS	12.1
12	AL	104	VAL	12.1
8	AH	107	LEU	12.1
13	AM	125	ARG	12.1
5	AE	104	ALA	12.1
5	AE	84	PHE	12.1
32	BJ	136	ALA	12.1
11	AK	121	PRO	12.1
20	AT	67	ALA	12.1
24	BB	168	GLN	12.1
25	BC	85	GLY	12.0
32	BJ	112	GLY	12.0
21	B0	1600	U	12.0
26	BD	114	PHE	12.0
15	AO	74	ASP	12.0
38	BP	80	TYR	12.0
39	BQ	62	ARG	12.0
53	B5	208	THR	12.0
10	AJ	44	VAL	12.0
1	AA	594	G	12.0
51	B3	38	GLY	12.0
53	B5	63	ARG	12.0

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Mol	Chain	Res	Type	RSRZ
32	BJ	48	PHE	12.0
4	AD	190	ASP	12.0
8	AH	93	VAL	12.0
1	AA	476	U	12.0
12	AL	78	GLN	12.0
15	AO	26	GLU	12.0
3	AC	156	ARG	12.0
26	BD	115	ARG	12.0
27	BE	98	LEU	12.0
1	AA	1183	A	11.9
17	AQ	104	LYS	11.9
9	AI	23	ASN	11.9
50	B2	2	LYS	11.9
16	AP	78	GLY	11.9
5	AE	73	ASN	11.9
32	BJ	35	LYS	11.9
4	AD	122	ARG	11.9
27	BE	147	ASN	11.9
12	AL	81	SER	11.9
21	B0	1907	C	11.9
27	BE	125	VAL	11.9
29	BG	57	ILE	11.9
23	BA	252	LYS	11.9
50	B2	10	ARG	11.9
27	BE	18	ASN	11.9
34	BL	14	SER	11.9
1	AA	1107	C	11.9
15	AO	21	ASP	11.9
20	AT	64	ASP	11.9
5	AE	147	ASP	11.8
23	BA	44	ASN	11.8
50	B2	9	ASN	11.8
1	AA	1144	G	11.8
24	BB	130	GLY	11.8
24	BB	148	GLY	11.8
34	BL	60	LEU	11.8
27	BE	134	SER	11.8
27	BE	21	ASP	11.8
37	BO	33	ARG	11.8
23	BA	222	ARG	11.8
1	AA	1239	A	11.8
12	AL	23	LYS	11.8

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Mol	Chain	Res	Type	RSRZ
4	AD	197	PRO	11.8
3	AC	192	THR	11.8
3	AC	135	LYS	11.8
8	AH	2	LEU	11.8
3	AC	167	TRP	11.8
41	BS	72	ARG	11.8
5	AE	95	ALA	11.8
26	BD	79	LEU	11.8
23	BA	244	ARG	11.8
27	BE	120	GLY	11.8
8	AH	85	ARG	11.8
17	AQ	18	THR	11.8
41	BS	102	LYS	11.8
37	BO	42	ALA	11.8
35	BM	36	LYS	11.8
25	BC	134	ILE	11.7
26	BD	73	SER	11.7
1	AA	696	A	11.7
1	AA	1117	G	11.7
23	BA	114	GLY	11.7
1	AA	473	C	11.7
38	BP	87	ARG	11.7
1	AA	1112	C	11.7
1	AA	1184	G	11.7
5	AE	148	VAL	11.7
11	AK	115	PRO	11.7
23	BA	21	PHE	11.7
5	AE	111	GLU	11.7
50	B2	27	GLY	11.7
7	AG	10	ARG	11.6
1	AA	723	U	11.6
21	B0	1518	C	11.6
32	BJ	13	ARG	11.6
7	AG	7	ALA	11.6
8	AH	7	ALA	11.6
17	AQ	42	TYR	11.6
23	BA	127	LEU	11.6
23	BA	239	ARG	11.6
38	BP	85	GLY	11.6
50	B2	38	GLY	11.6
15	AO	2	PRO	11.6
5	AE	75	THR	11.6

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Mol	Chain	Res	Type	RSRZ
27	BE	103	LEU	11.6
50	B2	15	THR	11.6
1	AA	1008	C	11.6
3	AC	163	ALA	11.6
21	B0	1088	A	11.6
12	AL	32	PHE	11.6
12	AL	106	ASP	11.6
43	BU	13	GLY	11.6
1	AA	956	U	11.6
3	AC	130	VAL	11.6
49	B1	34	LYS	11.6
4	AD	123	HIS	11.6
1	AA	593	G	11.6
23	BA	224	SER	11.5
1	AA	475	C	11.5
38	BP	90	PHE	11.5
21	B0	1519	G	11.5
38	BP	53	LYS	11.5
33	BK	86	LYS	11.5
17	AQ	63	ARG	11.5
1	AA	1127	G	11.5
1	AA	1096	C	11.5
1	AA	1122	U	11.5
1	AA	961	U	11.5
2	AB	128	GLU	11.5
5	AE	128	PRO	11.5
21	B0	1105	U	11.5
38	BP	26	GLN	11.5
1	AA	1133	G	11.5
1	AA	983	A	11.5
1	AA	1216	G	11.4
1	AA	1298	C	11.4
20	AT	93	GLU	11.4
53	B5	61	ALA	11.4
21	B0	294	U	11.4
1	AA	1143	G	11.4
27	BE	70	THR	11.4
1	AA	214	U	11.4
50	B2	5	TYR	11.4
21	B0	891	A	11.4
15	AO	25	THR	11.4
38	BP	18	ASP	11.4

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Mol	Chain	Res	Type	RSRZ
31	BI	23	ARG	11.4
39	BQ	117	ILE	11.4
5	AE	100	VAL	11.4
1	AA	663	A	11.4
1	AA	1106	G	11.4
21	B0	292	A	11.4
15	AO	13	GLN	11.4
51	B3	17	THR	11.4
31	BI	42	LYS	11.4
1	AA	1045	C	11.3
21	B0	2808	U	11.3
30	BH	59	ALA	11.3
30	BH	107	GLN	11.3
21	B0	2287	G	11.3
14	AN	20	ALA	11.3
50	B2	25	LYS	11.3
15	AO	42	HIS	11.3
20	AT	77	ALA	11.3
41	BS	80	LYS	11.3
1	AA	1167	A	11.3
21	B0	371	G	11.3
29	BG	45	THR	11.3
20	AT	94	ALA	11.3
21	B0	2646	C	11.3
45	BW	45	GLN	11.3
27	BE	140	LEU	11.3
4	AD	134	ASP	11.3
13	AM	123	ALA	11.3
21	B0	297	A	11.3
1	AA	1015	A	11.3
24	BB	110	GLY	11.2
4	AD	191	ARG	11.2
4	AD	160	GLN	11.2
39	BQ	70	LYS	11.2
30	BH	135	LEU	11.2
23	BA	57	GLY	11.2
18	AR	83	GLU	11.2
24	BB	79	ARG	11.2
24	BB	142	GLY	11.2
27	BE	78	GLY	11.2
26	BD	131	GLY	11.2
17	AQ	69	LYS	11.2

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Mol	Chain	Res	Type	RSRZ
1	AA	1225	A	11.2
24	BB	192	ASN	11.2
50	B2	11	LYS	11.2
34	BL	37	THR	11.2
2	AB	125	PRO	11.2
15	AO	71	GLN	11.1
34	BL	92	GLY	11.1
1	AA	1123	A	11.1
46	BX	7	ARG	11.1
49	B1	41	ASP	11.1
41	BS	95	ARG	11.1
12	AL	105	TYR	11.1
12	AL	95	GLY	11.1
32	BJ	67	ASN	11.1
38	BP	92	ALA	11.1
23	BA	45	ASN	11.1
39	BQ	111	ARG	11.1
25	BC	68	ARG	11.1
27	BE	29	PRO	11.1
1	AA	91	C	11.1
12	AL	103	GLY	11.1
26	BD	127	ASN	11.1
10	AJ	49	VAL	11.1
25	BC	133	PHE	11.1
1	AA	1145	C	11.1
12	AL	45	PRO	11.1
24	BB	149	ARG	11.0
24	BB	109	LYS	11.0
2	AB	37	ASN	11.0
39	BQ	108	PRO	11.0
38	BP	81	ARG	11.0
29	BG	82	ALA	11.0
51	B3	3	LYS	11.0
37	BO	62	ILE	11.0
17	AQ	70	ARG	11.0
34	BL	50	GLN	11.0
1	AA	1297	C	11.0
5	AE	152	ARG	11.0
5	AE	24	ARG	11.0
24	BB	147	PRO	11.0
26	BD	71	LYS	11.0
15	AO	17	ARG	11.0

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Mol	Chain	Res	Type	RSRZ
34	BL	97	ILE	11.0
39	BQ	101	PRO	11.0
23	BA	49	ILE	10.9
47	BY	42	PHE	10.9
21	B0	1905	G	10.9
21	B0	3109	U	10.9
21	B0	1183	C	10.9
21	B0	1488	G	10.9
46	BX	15	ASN	10.9
1	AA	1400	C	10.9
15	AO	45	VAL	10.9
9	AI	68	GLY	10.9
1	AA	993	G	10.9
30	BH	163	PRO	10.9
20	AT	82	SER	10.9
20	AT	34	LYS	10.9
48	BZ	2	ALA	10.9
27	BE	121	VAL	10.8
1	AA	1153	C	10.8
14	AN	2	ALA	10.8
3	AC	131	ARG	10.8
1	AA	1166	G	10.8
21	B0	1503	G	10.8
27	BE	23	VAL	10.8
50	B2	29	ASN	10.8
8	AH	57	PRO	10.8
25	BC	34	GLN	10.8
15	AO	69	TYR	10.8
32	BJ	68	VAL	10.8
18	AR	49	LYS	10.8
23	BA	236	GLY	10.8
1	AA	1142	G	10.8
41	BS	42	ARG	10.8
20	AT	31	SER	10.8
46	BX	8	SER	10.8
1	AA	207	C	10.8
8	AH	25	ASP	10.8
26	BD	110	ARG	10.8
31	BI	5	GLN	10.7
36	BN	4	HIS	10.7
39	BQ	110	ALA	10.8
1	AA	1220	G	10.7

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Mol	Chain	Res	Type	RSRZ
43	BU	26	PHE	10.7
1	AA	1178	G	10.7
5	AE	80	ILE	10.7
3	AC	123	GLN	10.7
5	AE	50	GLU	10.7
1	AA	1046	A	10.7
5	AE	15	ARG	10.7
40	BR	55	THR	10.7
16	AP	77	ALA	10.7
17	AQ	65	ILE	10.7
34	BL	53	THR	10.7
27	BE	28	GLY	10.7
1	AA	192	U	10.7
27	BE	35	VAL	10.7
18	AR	48	GLY	10.7
21	B0	372	U	10.7
1	AA	213	G	10.7
25	BC	93	TYR	10.7
46	BX	14	GLY	10.7
30	BH	104	THR	10.7
15	AO	63	ARG	10.7
4	AD	193	ASP	10.6
8	AH	8	ASP	10.6
15	AO	16	ALA	10.6
5	AE	62	ALA	10.6
21	B0	1507	A	10.6
45	BW	48	ARG	10.6
1	AA	1024	G	10.6
24	BB	86	PRO	10.6
25	BC	81	GLY	10.6
13	AM	29	ARG	10.6
26	BD	134	GLU	10.6
18	AR	47	THR	10.6
48	BZ	41	LEU	10.6
25	BC	131	LYS	10.6
1	AA	1134	G	10.6
1	AA	1177	G	10.6
46	BX	24	GLY	10.6
15	AO	43	LEU	10.6
5	AE	31	LEU	10.6
20	AT	72	LEU	10.6
22	B9	42	U	10.6

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Mol	Chain	Res	Type	RSRZ
42	BT	82	ASP	10.6
16	AP	38	TYR	10.6
1	AA	1212	U	10.5
51	B3	4	MET	10.5
1	AA	1018	C	10.5
22	B9	43	G	10.5
22	B9	45	C	10.5
1	AA	90	C	10.5
23	BA	86	PRO	10.5
4	AD	194	LEU	10.5
9	AI	69	GLY	10.5
9	AI	12	GLU	10.5
13	AM	23	TYR	10.5
14	AN	19	ARG	10.5
32	BJ	80	LEU	10.5
21	B0	1194	U	10.5
1	AA	1017	G	10.5
13	AM	120	LYS	10.5
10	AJ	79	ARG	10.5
25	BC	82	VAL	10.5
21	B0	3147	C	10.5
12	AL	33	ARG	10.5
24	BB	122	PHE	10.5
48	BZ	21	SER	10.5
27	BE	79	VAL	10.5
36	BN	10	GLY	10.5
53	B5	75	TYR	10.4
12	AL	80	HIS	10.4
25	BC	158	ARG	10.4
29	BG	64	SER	10.4
20	AT	45	GLN	10.4
21	B0	2632	U	10.4
41	BS	3	ARG	10.4
26	BD	113	ASP	10.4
50	B2	3	ARG	10.4
12	AL	86	ARG	10.4
3	AC	166	GLU	10.4
29	BG	21	PRO	10.4
23	BA	51	SER	10.4
33	BK	18	MET	10.4
30	BH	91	THR	10.4
3	AC	160	ALA	10.4

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Mol	Chain	Res	Type	RSRZ
32	BJ	60	LEU	10.4
1	AA	474	U	10.4
20	AT	61	SER	10.4
11	AK	123	LYS	10.4
29	BG	136	VAL	10.4
46	BX	38	PRO	10.4
1	AA	1121	U	10.4
14	AN	42	ILE	10.4
18	AR	45	SER	10.4
24	BB	126	PRO	10.3
38	BP	17	GLY	10.3
53	B5	151	PHE	10.3
32	BJ	47	ALA	10.3
5	AE	118	ILE	10.3
13	AM	72	ALA	10.3
1	AA	960	U	10.3
8	AH	56	LYS	10.3
24	BB	187	ALA	10.3
34	BL	61	HIS	10.3
21	B0	1899	A	10.3
1	AA	1140	C	10.3
23	BA	225	ALA	10.3
13	AM	70	LEU	10.3
1	AA	959	A	10.3
1	AA	1227	A	10.3
46	BX	13	PRO	10.3
10	AJ	40	LEU	10.3
1	AA	1196	U	10.3
27	BE	76	VAL	10.3
35	BM	37	HIS	10.3
42	BT	89	GLY	10.3
27	BE	15	VAL	10.3
1	AA	1104	G	10.3
12	AL	13	LYS	10.3
20	AT	29	LYS	10.3
13	AM	117	VAL	10.3
27	BE	30	LYS	10.3
25	BC	102	LEU	10.2
23	BA	241	GLY	10.2
3	AC	194	GLY	10.2
26	BD	133	LYS	10.2
21	B0	1191	G	10.2

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Mol	Chain	Res	Type	RSRZ
21	B0	1504	G	10.2
13	AM	121	LYS	10.2
39	BQ	79	ALA	10.2
36	BN	2	GLN	10.2
17	AQ	62	SER	10.2
18	AR	82	THR	10.2
38	BP	79	GLN	10.2
15	AO	23	GLY	10.2
39	BQ	99	ALA	10.2
4	AD	27	TYR	10.2
4	AD	114	ARG	10.2
23	BA	47	GLY	10.2
15	AO	22	THR	10.2
12	AL	123	LYS	10.2
24	BB	56	GLU	10.2
8	AH	5	PRO	10.2
52	B4	8	LYS	10.2
10	AJ	45	ARG	10.2
1	AA	1098	C	10.2
50	B2	14	LYS	10.2
16	AP	80	PHE	10.2
24	BB	141	ILE	10.2
39	BQ	15	LYS	10.2
12	AL	18	VAL	10.1
2	AB	123	ALA	10.1
15	AO	77	ARG	10.1
37	BO	34	ASN	10.1
43	BU	17	ASN	10.1
1	AA	984	C	10.1
1	AA	1100	C	10.1
21	B0	1109	A	10.1
12	AL	35	GLY	10.1
20	AT	66	ALA	10.1
7	AG	55	GLY	10.1
39	BQ	34	SER	10.1
3	AC	193	TYR	10.1
41	BS	59	LYS	10.1
27	BE	17	VAL	10.1
53	B5	142	ALA	10.1
24	BB	158	GLY	10.1
23	BA	48	ARG	10.1
20	AT	87	LYS	10.1

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Mol	Chain	Res	Type	RSRZ
41	BS	108	VAL	10.1
21	B0	2635	U	10.0
39	BQ	33	MET	10.0
7	AG	34	GLY	10.0
26	BD	153	ASP	10.0
12	AL	51	ALA	10.0
29	BG	68	ILE	10.0
23	BA	256	GLY	10.0
14	AN	26	ARG	10.0
30	BH	63	ARG	10.0
27	BE	6	LYS	10.0
27	BE	137	ASP	10.0
39	BQ	81	HIS	10.0
23	BA	22	SER	10.0
43	BU	9	SER	10.0
3	AC	129	ALA	10.0
12	AL	34	ARG	10.0
5	AE	143	ARG	10.0
34	BL	64	ARG	10.0
12	AL	113	ARG	10.0
24	BB	112	GLY	10.0
28	BF	27	ASN	10.0
24	BB	152	LYS	10.0
32	BJ	8	PRO	10.0
1	AA	1534	A	10.0
4	AD	192	GLU	10.0
31	BI	36	THR	10.0
25	BC	103	GLY	10.0
39	BQ	21	ARG	9.9
1	AA	1120	G	9.9
53	B5	195	LYS	9.9
1	AA	1007	C	9.9
29	BG	126	THR	9.9
13	AM	65	LYS	9.9
1	AA	1161	C	9.9
15	AO	28	GLN	9.9
1	AA	212	G	9.9
8	AH	58	TYR	9.9
1	AA	1141	C	9.9
21	B0	3143	U	9.9
16	AP	49	LEU	9.9
27	BE	112	PRO	9.9

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Mol	Chain	Res	Type	RSRZ
37	BO	31	GLN	9.9
52	B4	36	GLN	9.9
3	AC	151	VAL	9.9
5	AE	32	VAL	9.9
30	BH	92	GLY	9.9
15	AO	59	MET	9.9
5	AE	82	VAL	9.9
34	BL	49	GLU	9.9
47	BY	31	ILE	9.9
17	AQ	30	PRO	9.9
47	BY	3	LYS	9.9
30	BH	103	TYR	9.8
29	BG	24	GLY	9.8
38	BP	82	ARG	9.8
1	AA	684	A	9.8
5	AE	10	MET	9.8
25	BC	126	ALA	9.8
21	B0	2453	C	9.8
25	BC	63	GLY	9.8
46	BX	42	GLY	9.8
24	BB	156	MET	9.8
27	BE	135	GLY	9.8
5	AE	83	GLU	9.8
3	AC	5	ILE	9.8
1	AA	1042	G	9.8
20	AT	97	ALA	9.8
21	B0	901	A	9.8
39	BQ	118	LYS	9.8
53	B5	177	GLU	9.8
12	AL	73	GLU	9.8
29	BG	39	LYS	9.8
1	AA	671	G	9.8
4	AD	92	VAL	9.8
51	B3	27	SER	9.8
51	B3	29	LYS	9.8
12	AL	53	ARG	9.8
14	AN	21	TYR	9.7
23	BA	213	ARG	9.7
24	BB	132	LYS	9.7
4	AD	132	ARG	9.7
1	AA	89	G	9.7
4	AD	93	PHE	9.7

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Mol	Chain	Res	Type	RSRZ
10	AJ	61	GLU	9.7
10	AJ	68	HIS	9.7
3	AC	136	GLN	9.7
17	AQ	88	TYR	9.7
51	B3	30	ARG	9.7
43	BU	15	ASP	9.7
1	AA	1014	A	9.7
1	AA	1157	A	9.7
35	BM	85	LYS	9.7
15	AO	40	SER	9.7
5	AE	13	ILE	9.7
27	BE	20	GLN	9.7
24	BB	12	THR	9.7
1	AA	209	U	9.7
25	BC	86	PRO	9.7
41	BS	107	ALA	9.7
1	AA	1135	U	9.6
8	AH	27	PRO	9.6
23	BA	228	PRO	9.6
41	BS	93	ARG	9.6
1	AA	1103	C	9.6
37	BO	12	ARG	9.6
12	AL	82	VAL	9.6
13	AM	3	ARG	9.6
7	AG	94	ARG	9.6
1	AA	1101	A	9.6
14	AN	59	ALA	9.6
40	BR	54	SER	9.6
20	AT	86	ARG	9.6
41	BS	73	GLU	9.6
46	BX	43	MET	9.6
9	AI	95	LYS	9.6
37	BO	41	ASN	9.6
3	AC	155	GLY	9.6
1	AA	643	C	9.6
27	BE	27	LYS	9.6
53	B5	42	LYS	9.6
12	AL	76	ASN	9.6
49	B1	3	LYS	9.6
12	AL	25	PRO	9.5
1	AA	86	G	9.5
5	AE	141	GLN	9.5

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Mol	Chain	Res	Type	RSRZ
35	BM	34	SER	9.5
1	AA	839	G	9.5
4	AD	113	SER	9.5
8	AH	108	GLY	9.5
25	BC	32	THR	9.5
29	BG	23	VAL	9.5
13	AM	27	LYS	9.5
24	BB	124	GLY	9.5
34	BL	35	GLN	9.5
29	BG	123	ALA	9.5
37	BO	75	ASN	9.5
30	BH	140	GLN	9.5
40	BR	34	THR	9.5
25	BC	38	ARG	9.5
29	BG	78	ILE	9.5
29	BG	84	ILE	9.5
20	AT	89	ARG	9.5
23	BA	165	VAL	9.5
40	BR	63	LYS	9.5
12	AL	120	TYR	9.5
29	BG	27	LEU	9.5
34	BL	15	SER	9.5
5	AE	144	THR	9.5
25	BC	53	LYS	9.4
42	BT	156	GLU	9.4
43	BU	16	SER	9.4
12	AL	71	PRO	9.4
41	BS	70	GLU	9.4
45	BW	42	ARG	9.4
28	BF	24	TYR	9.4
27	BE	31	GLY	9.4
23	BA	212	SER	9.4
27	BE	32	GLU	9.4
4	AD	78	LEU	9.4
26	BD	151	GLY	9.4
27	BE	25	LYS	9.4
39	BQ	83	ASP	9.4
1	AA	206	C	9.4
3	AC	26	LYS	9.4
7	AG	82	GLY	9.4
27	BE	60	LYS	9.4
25	BC	52	SER	9.4

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Mol	Chain	Res	Type	RSRZ
1	AA	735	C	9.3
37	BO	38	THR	9.3
29	BG	86	LYS	9.3
15	AO	5	LYS	9.3
41	BS	106	VAL	9.3
5	AE	91	LEU	9.3
20	AT	91	LEU	9.3
48	BZ	33	CYS	9.3
29	BG	32	ALA	9.3
3	AC	191	THR	9.3
13	AM	21	TYR	9.3
27	BE	73	ALA	9.3
5	AE	146	ALA	9.3
1	AA	1016	A	9.3
12	AL	101	VAL	9.3
32	BJ	19	VAL	9.3
1	AA	211	G	9.3
1	AA	1168	A	9.3
21	B0	1489	C	9.3
30	BH	30	LYS	9.3
4	AD	112	VAL	9.3
21	B0	892	A	9.3
23	BA	154	GLN	9.3
37	BO	13	ARG	9.3
42	BT	22	VAL	9.2
42	BT	96	VAL	9.2
12	AL	63	GLY	9.2
15	AO	20	GLY	9.2
20	AT	35	THR	9.2
33	BK	124	HIS	9.2
28	BF	21	LYS	9.2
24	BB	43	GLY	9.2
15	AO	18	PHE	9.2
42	BT	167	THR	9.2
33	BK	120	ARG	9.2
12	AL	112	ASP	9.2
23	BA	52	ARG	9.2
39	BQ	112	GLY	9.2
5	AE	108	ALA	9.2
4	AD	51	PRO	9.2
2	AB	129	GLU	9.2
35	BM	5	THR	9.2

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Mol	Chain	Res	Type	RSRZ
47	BY	41	PRO	9.2
53	B5	13	LYS	9.2
40	BR	70	GLY	9.2
1	AA	642	A	9.2
5	AE	53	LEU	9.2
34	BL	99	ARG	9.2
20	AT	46	GLU	9.2
30	BH	112	THR	9.1
50	B2	39	ARG	9.1
13	AM	106	ASN	9.1
3	AC	126	ARG	9.1
21	B0	1073	G	9.1
50	B2	45	SER	9.1
14	AN	14	PRO	9.1
24	BB	121	ASN	9.1
15	AO	41	GLU	9.1
24	BB	131	SER	9.1
1	AA	1043	C	9.1
36	BN	102	ALA	9.1
14	AN	16	PHE	9.1
42	BT	93	GLU	9.1
5	AE	52	PRO	9.1
33	BK	19	THR	9.1
4	AD	103	ASN	9.1
5	AE	64	ARG	9.1
26	BD	86	GLY	9.1
37	BO	57	PHE	9.1
42	BT	60	GLU	9.1
37	BO	108	ALA	9.1
53	B5	78	LYS	9.1
7	AG	81	GLY	9.1
24	BB	133	LYS	9.1
39	BQ	75	ALA	9.1
53	B5	199	ASN	9.1
25	BC	175	VAL	9.0
10	AJ	67	THR	9.0
30	BH	72	PRO	9.0
40	BR	60	GLY	9.0
27	BE	72	VAL	9.0
39	BQ	37	LYS	9.0
42	BT	132	GLN	9.0
25	BC	36	ALA	9.0

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Mol	Chain	Res	Type	RSRZ
51	B3	8	LYS	9.0
1	AA	1105	A	9.0
7	AG	53	LYS	9.0
1	AA	1163	C	9.0
10	AJ	39	PRO	9.0
48	BZ	40	LYS	9.0
41	BS	38	LEU	9.0
1	AA	1136	U	9.0
21	B0	293	U	9.0
23	BA	74	GLY	9.0
26	BD	85	VAL	9.0
1	AA	840	G	9.0
38	BP	84	THR	9.0
27	BE	19	ALA	9.0
1	AA	991	U	9.0
13	AM	68	GLY	9.0
41	BS	82	ALA	9.0
4	AD	118	ARG	9.0
1	AA	1180	A	8.9
21	B0	1106	A	8.9
53	B5	198	THR	8.9
29	BG	129	GLY	8.9
1	AA	849	C	8.9
24	BB	123	ALA	8.9
20	AT	49	ALA	8.9
1	AA	1026	G	8.9
17	AQ	19	VAL	8.9
12	AL	37	CYS	8.9
21	B0	368	A	8.9
32	BJ	70	THR	8.9
7	AG	95	ARG	8.9
21	B0	1890	G	8.9
23	BA	259	THR	8.9
4	AD	98	GLU	8.9
1	AA	1164	G	8.9
1	AA	1041	A	8.9
33	BK	20	GLY	8.9
35	BM	25	GLY	8.9
48	BZ	20	ARG	8.9
21	B0	2288	A	8.8
3	AC	195	VAL	8.8
15	AO	88	ARG	8.8

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Mol	Chain	Res	Type	RSRZ
39	BQ	73	ASN	8.8
42	BT	121	GLN	8.8
1	AA	208	U	8.8
16	AP	43	LYS	8.8
27	BE	75	ALA	8.8
21	B0	1536	G	8.8
1	AA	702	A	8.8
11	AK	124	LYS	8.8
20	AT	32	ALA	8.8
24	BB	114	GLN	8.8
41	BS	18	LYS	8.8
4	AD	154	ASN	8.8
1	AA	957	U	8.8
1	AA	708	C	8.8
1	AA	1097	C	8.8
16	AP	47	ASP	8.8
5	AE	89	ILE	8.8
20	AT	48	LYS	8.8
45	BW	54	ASN	8.8
8	AH	138	TRP	8.7
16	AP	48	TRP	8.7
47	BY	17	GLN	8.7
17	AQ	11	VAL	8.7
5	AE	63	ARG	8.7
12	AL	99	HIS	8.7
26	BD	96	MET	8.7
4	AD	119	GLN	8.7
10	AJ	3	LYS	8.7
1	AA	992	U	8.7
30	BH	110	LEU	8.7
46	BX	12	ARG	8.7
1	AA	1165	C	8.7
5	AE	74	GLY	8.7
39	BQ	14	ARG	8.7
7	AG	92	SER	8.7
21	B0	367	G	8.7
3	AC	138	VAL	8.7
50	B2	30	ILE	8.7
15	AO	9	GLN	8.7
15	AO	27	VAL	8.7
5	AE	11	ILE	8.7
8	AH	53	VAL	8.7

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Mol	Chain	Res	Type	RSRZ
52	B4	20	HIS	8.7
20	AT	44	ALA	8.7
25	BC	46	ARG	8.7
32	BJ	15	ASP	8.7
1	AA	690	G	8.7
32	BJ	65	PHE	8.7
48	BZ	30	LEU	8.7
1	AA	1226	C	8.7
8	AH	11	THR	8.7
1	AA	80	C	8.7
50	B2	16	HIS	8.7
9	AI	32	ASP	8.7
14	AN	39	LEU	8.7
21	B0	1537	U	8.6
10	AJ	7	LYS	8.6
17	AQ	17	LYS	8.6
23	BA	219	PRO	8.6
7	AG	35	LYS	8.6
11	AK	114	VAL	8.6
21	B0	1534	A	8.6
27	BE	69	ARG	8.6
25	BC	50	GLN	8.6
50	B2	18	PHE	8.6
43	BU	37	LEU	8.6
3	AC	17	ASP	8.6
9	AI	71	SER	8.6
32	BJ	54	SER	8.6
7	AG	9	VAL	8.6
15	AO	33	THR	8.6
46	BX	19	THR	8.6
1	AA	998	G	8.6
21	B0	366	U	8.6
15	AO	12	ILE	8.6
17	AQ	75	ARG	8.6
26	BD	116	GLY	8.6
52	B4	19	ARG	8.6
25	BC	169	VAL	8.5
24	BB	136	ARG	8.5
34	BL	12	ARG	8.5
9	AI	2	GLU	8.5
15	AO	10	LYS	8.5
34	BL	23	ALA	8.5

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Mol	Chain	Res	Type	RSRZ
23	BA	20	ASP	8.5
1	AA	697	U	8.5
1	AA	685	G	8.5
7	AG	83	ALA	8.5
23	BA	59	LYS	8.5
12	AL	121	GLY	8.5
29	BG	75	SER	8.5
39	BQ	28	ALA	8.5
1	AA	204	A	8.5
1	AA	737	A	8.5
15	AO	66	LEU	8.5
27	BE	24	PHE	8.5
30	BH	57	LEU	8.5
1	AA	1006	C	8.5
13	AM	71	ARG	8.5
46	BX	49	HIS	8.5
53	B5	80	SER	8.5
32	BJ	5	ASP	8.5
42	BT	133	GLU	8.5
14	AN	36	PHE	8.4
14	AN	58	LYS	8.4
1	AA	205	G	8.4
1	AA	210	C	8.4
16	AP	46	PRO	8.4
21	B0	1087	C	8.4
15	AO	70	LEU	8.4
20	AT	81	LYS	8.4
4	AD	161	ASN	8.4
16	AP	45	THR	8.4
24	BB	21	ILE	8.4
38	BP	83	ARG	8.4
23	BA	223	GLY	8.4
1	AA	1219	U	8.4
5	AE	72	GLN	8.4
3	AC	13	GLY	8.4
36	BN	103	LYS	8.4
27	BE	26	VAL	8.4
3	AC	159	GLY	8.4
29	BG	7	ILE	8.4
53	B5	47	LYS	8.4
52	B4	18	ARG	8.4
13	AM	99	ARG	8.4

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Mol	Chain	Res	Type	RSRZ
24	BB	111	LYS	8.4
17	AQ	90	ILE	8.4
23	BA	148	VAL	8.4
3	AC	10	PHE	8.4
5	AE	76	ILE	8.4
43	BU	41	ARG	8.4
7	AG	6	ARG	8.4
20	AT	92	LEU	8.4
53	B5	164	GLN	8.4
13	AM	74	VAL	8.4
27	BE	62	ARG	8.4
40	BR	15	LYS	8.3
7	AG	76	ARG	8.3
37	BO	29	SER	8.3
8	AH	86	ILE	8.3
13	AM	67	GLU	8.3
15	AO	15	PHE	8.3
29	BG	6	GLY	8.3
1	AA	1149	C	8.3
15	AO	6	GLU	8.3
41	BS	96	LYS	8.3
25	BC	168	SER	8.3
13	AM	25	ILE	8.3
32	BJ	50	GLU	8.3
17	AQ	78	GLU	8.3
40	BR	71	GLN	8.3
15	AO	39	LEU	8.3
21	B0	1840	A	8.3
39	BQ	109	ARG	8.3
2	AB	26	PRO	8.3
3	AC	36	ASP	8.3
47	BY	39	VAL	8.3
3	AC	190	ARG	8.3
25	BC	40	ARG	8.3
8	AH	82	HIS	8.3
53	B5	64	VAL	8.3
50	B2	13	ALA	8.2
1	AA	1181	G	8.2
3	AC	165	THR	8.2
41	BS	89	GLY	8.2
3	AC	164	ARG	8.2
5	AE	133	TYR	8.2

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Mol	Chain	Res	Type	RSRZ
5	AE	56	GLN	8.2
8	AH	96	GLY	8.2
3	AC	28	GLN	8.2
26	BD	77	PHE	8.2
39	BQ	120	ARG	8.2
4	AD	116	GLN	8.2
24	BB	127	ALA	8.2
4	AD	159	ARG	8.2
27	BE	157	TYR	8.2
30	BH	94	LYS	8.2
52	B4	22	ARG	8.2
27	BE	33	LEU	8.2
12	AL	90	VAL	8.2
39	BQ	61	PRO	8.2
43	BU	20	TYR	8.2
21	B0	1107	A	8.2
1	AA	985	C	8.2
3	AC	120	VAL	8.2
47	BY	24	THR	8.2
12	AL	84	LEU	8.2
24	BB	125	GLY	8.2
37	BO	92	ARG	8.2
32	BJ	17	LYS	8.2
50	B2	40	HIS	8.1
26	BD	87	ILE	8.1
1	AA	703	G	8.1
17	AQ	21	VAL	8.1
5	AE	8	GLU	8.1
1	AA	2003	G	8.1
34	BL	39	THR	8.1
39	BQ	16	GLN	8.1
46	BX	37	THR	8.1
12	AL	93	LEU	8.1
21	B0	902	U	8.1
15	AO	8	LYS	8.1
52	B4	3	VAL	8.1
36	BN	124	VAL	8.1
8	AH	98	LYS	8.1
37	BO	24	PHE	8.1
2	AB	130	ARG	8.1
8	AH	84	ARG	8.1
12	AL	102	ARG	8.1

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Mol	Chain	Res	Type	RSRZ
34	BL	8	ARG	8.1
50	B2	12	ARG	8.1
9	AI	67	GLY	8.1
20	AT	88	VAL	8.1
49	B1	20	PHE	8.1
24	BB	115	GLY	8.1
30	BH	143	ALA	8.1
8	AH	94	TYR	8.1
3	AC	140	ARG	8.1
21	B0	1898	U	8.1
23	BA	132	PRO	8.1
13	AM	66	LEU	8.1
16	AP	83	GLU	8.1
42	BT	31	SER	8.1
26	BD	72	LYS	8.1
8	AH	81	HIS	8.1
24	BB	193	GLY	8.1
25	BC	184	ASP	8.1
23	BA	243	GLY	8.1
26	BD	109	PRO	8.0
30	BH	54	LEU	8.0
43	BU	24	LYS	8.0
15	AO	44	LYS	8.0
27	BE	108	GLY	8.0
4	AD	155	LEU	8.0
32	BJ	133	VAL	8.0
33	BK	87	GLY	8.0
11	AK	125	PHE	8.0
41	BS	105	ARG	8.0
4	AD	195	ALA	8.0
27	BE	161	GLY	8.0
47	BY	12	CYS	8.0
8	AH	52	ASP	8.0
12	AL	107	ALA	8.0
48	BZ	32	GLU	8.0
5	AE	106	PRO	8.0
8	AH	103	VAL	8.0
34	BL	46	PRO	8.0
41	BS	44	GLN	8.0
3	AC	80	GLY	8.0
21	B0	1906	U	8.0
26	BD	108	LEU	8.0

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Mol	Chain	Res	Type	RSRZ
8	AH	43	GLY	8.0
32	BJ	18	ARG	8.0
14	AN	37	PHE	8.0
4	AD	157	LEU	8.0
30	BH	51	LEU	8.0
25	BC	178	TYR	8.0
13	AM	73	GLU	8.0
14	AN	43	CYS	8.0
30	BH	155	THR	8.0
39	BQ	102	THR	8.0
40	BR	73	ASN	8.0
13	AM	69	GLU	8.0
24	BB	135	HIS	8.0
34	BL	34	ILE	8.0
25	BC	45	THR	7.9
27	BE	151	VAL	7.9
12	AL	96	VAL	7.9
51	B3	7	HIS	7.9
8	AH	15	ASN	7.9
12	AL	52	LEU	7.9
26	BD	112	ARG	7.9
15	AO	35	ARG	7.9
27	BE	136	ILE	7.9
23	BA	41	GLY	7.9
5	AE	68	GLU	7.9
3	AC	93	LYS	7.9
32	BJ	69	GLY	7.9
15	AO	76	GLU	7.9
42	BT	25	ASN	7.9
12	AL	20	LYS	7.9
12	AL	72	GLY	7.9
37	BO	47	TYR	7.9
15	AO	37	ASN	7.9
34	BL	36	THR	7.9
37	BO	19	LYS	7.9
1	AA	1169	A	7.9
26	BD	129	ASN	7.9
1	AA	1132	C	7.9
5	AE	115	VAL	7.9
40	BR	72	ARG	7.9
15	AO	29	VAL	7.9
18	AR	16	PRO	7.9

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Mol	Chain	Res	Type	RSRZ
42	BT	146	HIS	7.8
10	AJ	70	ARG	7.8
8	AH	55	GLY	7.8
27	BE	181	GLY	7.8
37	BO	28	ARG	7.8
39	BQ	115	ASN	7.8
7	AG	79	ARG	7.8
29	BG	54	PRO	7.8
39	BQ	24	GLY	7.8
34	BL	65	LEU	7.8
21	B0	369	C	7.8
17	AQ	80	GLY	7.8
20	AT	60	GLU	7.8
32	BJ	100	ARG	7.8
40	BR	61	LYS	7.8
21	B0	1081	A	7.8
23	BA	77	ALA	7.8
23	BA	220	HIS	7.8
40	BR	59	PRO	7.8
1	AA	88	G	7.8
1	AA	1179	A	7.8
15	AO	84	LYS	7.8
1	AA	1162	C	7.8
23	BA	234	GLY	7.8
15	AO	67	LEU	7.8
17	AQ	71	PHE	7.8
50	B2	36	ALA	7.8
1	AA	1160	G	7.8
3	AC	154	SER	7.8
3	AC	162	GLN	7.8
8	AH	24	THR	7.8
53	B5	196	VAL	7.8
4	AD	95	GLY	7.8
8	AH	23	SER	7.8
9	AI	98	PRO	7.8
12	AL	27	LEU	7.8
37	BO	37	GLN	7.8
17	AQ	44	ALA	7.8
12	AL	122	THR	7.8
26	BD	88	LYS	7.8
45	BW	37	LEU	7.8
25	BC	48	ARG	7.7

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Mol	Chain	Res	Type	RSRZ
12	AL	75	HIS	7.7
24	BB	166	THR	7.7
26	BD	42	SER	7.7
2	AB	240	GLN	7.7
32	BJ	129	ALA	7.7
12	AL	77	LEU	7.7
20	AT	98	PRO	7.7
13	AM	22	ILE	7.7
26	BD	89	VAL	7.7
22	B9	44	C	7.7
20	AT	42	GLN	7.7
24	BB	108	SER	7.7
4	AD	124	GLY	7.7
29	BG	135	GLY	7.7
23	BA	116	THR	7.7
1	AA	1001	A	7.7
32	BJ	4	HIS	7.7
3	AC	33	LEU	7.7
30	BH	105	GLY	7.7
15	AO	30	ALA	7.7
38	BP	91	THR	7.7
17	AQ	55	ASP	7.7
26	BD	117	ILE	7.7
21	B0	2452	U	7.7
33	BK	21	ASP	7.7
3	AC	34	LEU	7.7
24	BB	202	ALA	7.7
40	BR	32	LYS	7.7
51	B3	37	SER	7.7
10	AJ	100	THR	7.6
25	BC	74	VAL	7.6
27	BE	51	LEU	7.6
29	BG	131	ALA	7.6
15	AO	4	THR	7.6
41	BS	94	VAL	7.6
13	AM	114	ARG	7.6
41	BS	43	ASP	7.6
15	AO	36	ILE	7.6
30	BH	32	TYR	7.6
17	AQ	54	GLY	7.6
46	BX	40	VAL	7.6
37	BO	32	TYR	7.6

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Mol	Chain	Res	Type	RSRZ
24	BB	154	LYS	7.6
4	AD	107	ARG	7.6
23	BA	73	SER	7.6
10	AJ	47	PHE	7.6
7	AG	77	SER	7.6
42	BT	120	LEU	7.6
46	BX	34	VAL	7.6
5	AE	151	LEU	7.6
3	AC	176	HIS	7.6
23	BA	100	GLY	7.6
10	AJ	14	LYS	7.5
23	BA	121	PRO	7.5
5	AE	142	LEU	7.5
25	BC	172	VAL	7.5
13	AM	17	VAL	7.5
3	AC	153	VAL	7.5
12	AL	54	LYS	7.5
13	AM	75	ALA	7.5
24	BB	58	LYS	7.5
3	AC	32	LEU	7.5
25	BC	177	VAL	7.5
21	B0	1084	A	7.5
23	BA	118	ASN	7.5
17	AQ	5	VAL	7.5
1	AA	1044	A	7.5
8	AH	19	VAL	7.5
18	AR	19	LYS	7.5
13	AM	105	THR	7.5
9	AI	94	ALA	7.5
3	AC	6	HIS	7.5
33	BK	25	GLY	7.5
39	BQ	29	LYS	7.5
8	AH	14	ARG	7.5
25	BC	39	ARG	7.5
12	AL	44	THR	7.4
40	BR	26	SER	7.4
35	BM	23	ALA	7.4
1	AA	1176	A	7.4
37	BO	15	LYS	7.4
20	AT	105	SER	7.4
1	AA	990	C	7.4
1	AA	1119	C	7.4

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Mol	Chain	Res	Type	RSRZ
8	AH	60	ARG	7.4
1	AA	1030	U	7.4
12	AL	83	VAL	7.4
34	BL	96	ARG	7.4
17	AQ	87	LYS	7.4
38	BP	25	LEU	7.4
32	BJ	49	PHE	7.4
26	BD	66	ILE	7.4
12	AL	26	ALA	7.4
8	AH	50	ARG	7.4
2	AB	11	LEU	7.4
25	BC	67	ALA	7.4
39	BQ	36	ARG	7.4
47	BY	30	GLU	7.4
13	AM	76	ALA	7.4
12	AL	69	TYR	7.4
4	AD	86	LYS	7.4
15	AO	32	LEU	7.4
34	BL	9	LYS	7.4
1	AA	995	C	7.4
41	BS	16	PHE	7.4
1	AA	958	A	7.4
39	BQ	119	LYS	7.4
50	B2	28	ARG	7.4
3	AC	152	ILE	7.4
5	AE	66	MET	7.4
26	BD	94	GLU	7.4
1	AA	843	C	7.4
20	AT	106	ALA	7.4
21	B0	900(A)	A	7.4
4	AD	136	PRO	7.4
17	AQ	48	GLU	7.4
40	BR	31	PRO	7.4
3	AC	169	ALA	7.4
3	AC	189	ALA	7.4
29	BG	34	ILE	7.4
21	B0	1506	C	7.4
1	AA	848	G	7.3
50	B2	33	ARG	7.3
5	AE	114	GLY	7.3
32	BJ	11	GLY	7.3
23	BA	78	LYS	7.3

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Mol	Chain	Res	Type	RSRZ
1	AA	1182	G	7.3
21	B0	1071	U	7.3
21	B0	1108	U	7.3
15	AO	38	ARG	7.3
4	AD	106	TYR	7.3
24	BB	165	VAL	7.3
20	AT	58	LYS	7.3
1	AA	1158	C	7.3
8	AH	51	VAL	7.3
12	AL	87	GLY	7.3
15	AO	80	ALA	7.3
3	AC	139	GLN	7.3
14	AN	45	ARG	7.3
30	BH	111	LYS	7.3
41	BS	8	SER	7.3
18	AR	50	ILE	7.3
1	AA	1175	G	7.3
53	B5	152	LYS	7.3
13	AM	30	ALA	7.3
14	AN	13	THR	7.3
20	AT	62	LEU	7.3
34	BL	71	HIS	7.3
4	AD	189	PRO	7.3
13	AM	77	ASN	7.3
29	BG	36	GLU	7.3
10	AJ	66	ARG	7.3
21	B0	1490	U	7.3
40	BR	74	ASP	7.3
1	AA	989	C	7.3
7	AG	156	TRP	7.3
47	BY	27	THR	7.3
17	AQ	10	VAL	7.3
40	BR	77	LYS	7.3
5	AE	105	VAL	7.3
33	BK	82	THR	7.3
21	B0	1086	C	7.3
46	BX	29	GLY	7.2
21	B0	910	U	7.2
4	AD	97	LEU	7.2
38	BP	74	TYR	7.2
15	AO	7	GLU	7.2
12	AL	100	ILE	7.2

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Mol	Chain	Res	Type	RSRZ
47	BY	34	ASP	7.2
13	AM	64	TRP	7.2
25	BC	41	GLY	7.2
42	BT	170	SER	7.2
8	AH	12	ARG	7.2
3	AC	7	PRO	7.2
43	BU	71	ASN	7.2
37	BO	20	ARG	7.2
1	AA	1003	G	7.2
15	AO	11	VAL	7.2
25	BC	180	ILE	7.2
24	BB	116	VAL	7.2
46	BX	20	VAL	7.2
26	BD	93	GLY	7.2
42	BT	137	ASP	7.2
25	BC	80	GLY	7.2
47	BY	18	GLY	7.2
39	BQ	32	ARG	7.2
17	AQ	24	GLU	7.2
51	B3	40	GLU	7.2
25	BC	62	LYS	7.2
7	AG	93	PRO	7.2
8	AH	18	ARG	7.2
53	B5	144	ILE	7.2
41	BS	109	ALA	7.1
23	BA	211	ARG	7.1
12	AL	24	VAL	7.1
39	BQ	31	VAL	7.1
1	AA	1171	G	7.1
5	AE	42	GLY	7.1
8	AH	136	GLU	7.1
27	BE	111	HIS	7.1
25	BC	29	GLU	7.1
47	BY	1	MET	7.1
42	BT	155	PRO	7.1
20	AT	63	ILE	7.1
25	BC	71	ASP	7.1
8	AH	6	ILE	7.1
12	AL	36	VAL	7.1
24	BB	189	PRO	7.1
37	BO	87	ASN	7.1
4	AD	96	LEU	7.1

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Mol	Chain	Res	Type	RSRZ
3	AC	14	ILE	7.1
1	AA	1128	C	7.1
24	BB	159	HIS	7.1
17	AQ	22	LEU	7.1
1	AA	1146	A	7.1
8	AH	26	VAL	7.1
23	BA	19	ALA	7.1
37	BO	14	HIS	7.1
51	B3	45	GLY	7.1
23	BA	229	VAL	7.1
42	BT	157	GLY	7.1
25	BC	151	VAL	7.1
5	AE	131	ILE	7.1
45	BW	36	GLN	7.1
8	AH	67	PRO	7.1
8	AH	28	ALA	7.0
34	BL	19	ALA	7.0
37	BO	61	TRP	7.0
12	AL	38	THR	7.0
25	BC	47	THR	7.0
51	B3	5	LYS	7.0
1	AA	1131	G	7.0
53	B5	162	GLN	7.0
24	BB	153	GLY	7.0
13	AM	61	GLU	7.0
20	AT	57	ARG	7.0
2	AB	156	LYS	7.0
8	AH	126	LYS	7.0
14	AN	15	LYS	7.0
23	BA	217	ARG	7.0
3	AC	9	GLY	7.0
25	BC	31	VAL	7.0
9	AI	58	ARG	7.0
21	B0	1085	G	7.0
33	BK	121	LEU	7.0
8	AH	49	GLU	7.0
21	B0	1190	C	7.0
39	BQ	95	ALA	7.0
40	BR	69	ILE	7.0
12	AL	60	LEU	7.0
20	AT	51	GLU	7.0
9	AI	89	ASN	7.0

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Mol	Chain	Res	Type	RSRZ
9	AI	99	LEU	7.0
7	AG	84	ASN	7.0
32	BJ	64	GLY	7.0
47	BY	58	LYS	7.0
25	BC	33	TRP	7.0
12	AL	88	GLY	7.0
1	AA	841	C	7.0
24	BB	190	GLY	7.0
17	AQ	23	VAL	6.9
8	AH	115	SER	6.9
23	BA	42	GLY	6.9
37	BO	66	ASN	6.9
26	BD	43	SER	6.9
19	AS	12	ASP	6.9
26	BD	111	ILE	6.9
1	AA	704	A	6.9
46	BX	46	THR	6.9
50	B2	17	GLY	6.9
32	BJ	125	ALA	6.9
1	AA	87	G	6.9
17	AQ	45	HIS	6.9
23	BA	60	ARG	6.9
39	BQ	96	TYR	6.9
42	BT	57	GLU	6.9
3	AC	158	GLY	6.9
5	AE	65	ASN	6.9
4	AD	125	HIS	6.9
17	AQ	60	ILE	6.9
8	AH	99	GLU	6.9
18	AR	46	GLU	6.9
25	BC	183	HIS	6.9
3	AC	79	ARG	6.9
9	AI	106	ALA	6.9
1	AA	994	A	6.9
1	AA	1174	G	6.9
21	B0	1074	G	6.9
17	AQ	81	ARG	6.9
43	BU	18	PRO	6.9
12	AL	85	ILE	6.9
3	AC	150	LYS	6.9
17	AQ	52	LYS	6.9
23	BA	75	VAL	6.8

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Mol	Chain	Res	Type	RSRZ
38	BP	11	GLN	6.8
20	AT	43	LEU	6.8
50	B2	43	THR	6.8
15	AO	87	ILE	6.8
3	AC	29	TYR	6.8
17	AQ	79	SER	6.8
20	AT	50	GLU	6.8
31	BI	25	LEU	6.8
50	B2	44	VAL	6.8
1	AA	1218	C	6.8
11	AK	126	ARG	6.8
5	AE	112	LEU	6.8
23	BA	230	ASP	6.8
24	BB	63	MET	6.8
1	AA	997	U	6.8
1	AA	1032	G	6.8
20	AT	38	LYS	6.8
20	AT	85	MET	6.8
1	AA	1000	U	6.8
21	B0	370	U	6.8
25	BC	135	SER	6.8
42	BT	114	ASP	6.8
50	B2	41	GLN	6.8
1	AA	81	C	6.8
46	BX	16	GLN	6.8
51	B3	41	ILE	6.8
17	AQ	46	ASP	6.8
32	BJ	7	LYS	6.8
12	AL	59	ARG	6.8
12	AL	65	GLU	6.8
25	BC	165	SER	6.8
25	BC	61	GLN	6.8
39	BQ	97	VAL	6.8
1	AA	1038	C	6.8
15	AO	78	TYR	6.8
3	AC	31	HIS	6.8
15	AO	86	GLY	6.8
4	AD	152	SER	6.8
29	BG	89	SER	6.8
12	AL	67	THR	6.8
47	BY	33	VAL	6.8
36	BN	106	TYR	6.8

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Mol	Chain	Res	Type	RSRZ
10	AJ	9	ARG	6.8
13	AM	11	ARG	6.8
32	BJ	116	ARG	6.8
12	AL	70	ILE	6.8
1	AA	1002	G	6.7
14	AN	46	GLU	6.7
7	AG	56	GLN	6.7
43	BU	40	GLN	6.7
17	AQ	72	ARG	6.7
8	AH	46	LYS	6.7
3	AC	11	ARG	6.7
7	AG	110	GLN	6.7
25	BC	49	ALA	6.7
20	AT	37	SER	6.7
40	BR	13	SER	6.7
14	AN	3	ARG	6.7
19	AS	29	ARG	6.7
3	AC	157	ILE	6.7
4	AD	137	SER	6.7
24	BB	42	ASP	6.7
53	B5	173	ASP	6.7
3	AC	132	ARG	6.7
53	B5	35	THR	6.7
21	B0	1072	U	6.7
26	BD	118	ASN	6.7
5	AE	134	ALA	6.7
38	BP	71	ILE	6.7
1	AA	698	G	6.7
13	AM	32	GLU	6.7
13	AM	116	THR	6.7
24	BB	117	MET	6.7
14	AN	52	GLN	6.7
30	BH	160	ALA	6.7
34	BL	16	ALA	6.7
40	BR	67	ARG	6.7
15	AO	81	LEU	6.7
40	BR	35	LYS	6.7
17	AQ	53	LEU	6.7
3	AC	124	ILE	6.7
5	AE	67	VAL	6.7
45	BW	43	VAL	6.7
5	AE	138	ALA	6.6

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Mol	Chain	Res	Type	RSRZ
12	AL	98	TYR	6.6
30	BH	130	ALA	6.6
32	BJ	51	GLY	6.6
1	AA	988	G	6.6
20	AT	84	LEU	6.6
39	BQ	67	PRO	6.6
10	AJ	21	GLN	6.6
20	AT	59	ALA	6.6
41	BS	6	ALA	6.6
21	B0	1189	G	6.6
4	AD	102	ASP	6.6
4	AD	111	ALA	6.6
10	AJ	64	GLU	6.6
52	B4	7	VAL	6.6
34	BL	40	LYS	6.6
17	AQ	77	VAL	6.6
20	AT	33	ILE	6.6
24	BB	151	TYR	6.6
3	AC	125	GLU	6.6
48	BZ	23	HIS	6.6
17	AQ	82	MET	6.6
20	AT	103	GLY	6.6
50	B2	37	LYS	6.6
5	AE	33	VAL	6.6
26	BD	154	ILE	6.6
20	AT	52	ALA	6.6
1	AA	1217	C	6.6
12	AL	21	LYS	6.6
24	BB	134	TRP	6.6
4	AD	163	GLU	6.6
50	B2	24	THR	6.6
53	B5	27	THR	6.6
2	AB	124	SER	6.6
41	BS	45	LYS	6.6
1	AA	847	C	6.5
3	AC	116	VAL	6.5
41	BS	46	VAL	6.5
47	BY	10	VAL	6.5
13	AM	100	GLY	6.5
25	BC	101	GLN	6.5
42	BT	59	GLY	6.5
24	BB	118	LYS	6.5

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Mol	Chain	Res	Type	RSRZ
47	BY	38	GLY	6.5
25	BC	35	LEU	6.5
1	AA	1118	C	6.5
13	AM	49	THR	6.5
42	BT	20	ALA	6.5
1	AA	1005	A	6.5
1	AA	1173	G	6.5
3	AC	122	GLU	6.5
5	AE	39	GLY	6.5
30	BH	147	ARG	6.5
3	AC	25	GLY	6.5
5	AE	70	PRO	6.5
39	BQ	66	GLU	6.5
23	BA	166	GLN	6.5
38	BP	21	ARG	6.5
1	AA	1036	G	6.5
53	B5	207	THR	6.5
53	B5	176	PRO	6.5
42	BT	118	HIS	6.5
40	BR	68	PHE	6.5
40	BR	79	ILE	6.5
1	AA	1039	C	6.5
8	AH	78	GLN	6.5
38	BP	73	LYS	6.5
45	BW	2	LYS	6.5
5	AE	135	THR	6.5
39	BQ	17	GLN	6.5
42	BT	10	PRO	6.5
5	AE	36	ASP	6.4
45	BW	53	LEU	6.4
40	BR	65	VAL	6.4
21	B0	1891	C	6.4
24	BB	9	ILE	6.4
29	BG	79	ARG	6.4
3	AC	121	ALA	6.4
21	B0	1184	G	6.4
32	BJ	73	GLU	6.4
50	B2	32	ALA	6.4
8	AH	95	VAL	6.4
49	B1	36	GLU	6.4
37	BO	60	LEU	6.4
21	B0	893	G	6.4

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Mol	Chain	Res	Type	RSRZ
33	BK	17	ARG	6.4
2	AB	36	ARG	6.4
25	BC	56	ARG	6.4
39	BQ	105	ARG	6.4
5	AE	35	GLY	6.4
17	AQ	83	ASP	6.4
10	AJ	38	ILE	6.4
19	AS	37	ARG	6.4
23	BA	58	HIS	6.4
24	BB	169	ASN	6.4
24	BB	167	VAL	6.4
13	AM	102	ARG	6.4
3	AC	8	ILE	6.4
1	AA	999	C	6.4
34	BL	69	ASP	6.4
5	AE	34	VAL	6.4
15	AO	31	LEU	6.4
20	AT	41	VAL	6.4
15	AO	3	ILE	6.4
8	AH	64	LYS	6.3
20	AT	39	LYS	6.3
23	BA	39	LYS	6.3
39	BQ	35	PRO	6.3
3	AC	37	GLN	6.3
8	AH	21	LYS	6.3
21	B0	1188	A	6.3
24	BB	164	ARG	6.3
28	BF	28	TRP	6.3
53	B5	166	GLN	6.3
14	AN	9	LYS	6.3
1	AA	736	C	6.3
36	BN	62	SER	6.3
7	AG	72	ARG	6.3
21	B0	1080	A	6.3
14	AN	57	ARG	6.3
34	BL	45	ARG	6.3
39	BQ	107	ILE	6.3
47	BY	11	PRO	6.3
13	AM	18	ALA	6.3
30	BH	97	ASP	6.3
9	AI	90	PRO	6.3
25	BC	73	SER	6.3

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Mol	Chain	Res	Type	RSRZ
29	BG	38	THR	6.3
25	BC	65	GLY	6.3
17	AQ	50	LYS	6.3
21	B0	903	G	6.3
5	AE	7	GLU	6.3
50	B2	34	ARG	6.3
50	B2	35	ARG	6.3
3	AC	20	SER	6.3
15	AO	79	ARG	6.3
1	AA	996	A	6.3
16	AP	81	ARG	6.3
30	BH	141	GLY	6.3
25	BC	136	TRP	6.3
20	AT	56	MET	6.3
25	BC	64	THR	6.3
8	AH	17	THR	6.3
19	AS	13	ASP	6.3
19	AS	10	PHE	6.3
3	AC	21	ARG	6.3
5	AE	37	ARG	6.3
3	AC	27	LYS	6.3
12	AL	66	VAL	6.3
24	BB	11	MET	6.3
46	BX	9	VAL	6.3
3	AC	143	GLU	6.3
37	BO	115	ASN	6.3
23	BA	55	GLY	6.2
21	B0	1078	A	6.2
25	BC	70	GLY	6.2
45	BW	3	PRO	6.2
7	AG	115	ARG	6.2
25	BC	57	LYS	6.2
51	B3	23	MET	6.2
21	B0	894	G	6.2
3	AC	30	ARG	6.2
5	AE	43	LEU	6.2
42	BT	112	LEU	6.2
5	AE	38	GLN	6.2
14	AN	49	HIS	6.2
32	BJ	107	LYS	6.2
13	AM	58	GLU	6.2
39	BQ	121	THR	6.2

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Mol	Chain	Res	Type	RSRZ
42	BT	119	ASN	6.2
20	AT	36	LEU	6.2
10	AJ	17	ASP	6.2
37	BO	86	ALA	6.2
20	AT	54	LYS	6.2
25	BC	92	ASP	6.2
21	B0	1535	C	6.2
17	AQ	49	GLU	6.2
33	BK	22	ALA	6.2
41	BS	66	GLN	6.2
42	BT	147	ILE	6.2
45	BW	58	ALA	6.2
20	AT	102	GLY	6.2
40	BR	76	LYS	6.2
32	BJ	6	LEU	6.2
24	BB	205	SER	6.2
43	BU	31	VAL	6.2
4	AD	135	LEU	6.2
33	BK	84	MET	6.2
43	BU	19	LYS	6.2
21	B0	1892	C	6.2
8	AH	79	VAL	6.2
35	BM	84	ILE	6.2
31	BI	78	SER	6.2
28	BF	33	GLY	6.2
41	BS	29	HIS	6.2
25	BC	157	THR	6.1
4	AD	139	ARG	6.1
53	B5	51	ILE	6.1
8	AH	29	SER	6.1
47	BY	26	SER	6.1
53	B5	211	LYS	6.1
34	BL	68	GLN	6.1
8	AH	32	LYS	6.1
20	AT	101	GLY	6.1
12	AL	64	TYR	6.1
23	BA	235	GLY	6.1
8	AH	42	GLU	6.1
36	BN	63	ARG	6.1
23	BA	262	LYS	6.1
39	BQ	43	ASP	6.1
3	AC	16	ARG	6.1

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Mol	Chain	Res	Type	RSRZ
3	AC	196	LEU	6.1
5	AE	40	ARG	6.1
31	BI	31	GLY	6.1
3	AC	119	ARG	6.1
41	BS	83	LEU	6.1
47	BY	13	LYS	6.1
52	B4	9	LYS	6.1
29	BG	132	ARG	6.1
9	AI	30	GLY	6.1
51	B3	51	ALA	6.1
3	AC	15	THR	6.1
5	AE	137	GLU	6.1
47	BY	43	TRP	6.1
21	B0	899	G	6.1
9	AI	34	ASN	6.1
32	BJ	53	ARG	6.1
41	BS	60	PRO	6.1
3	AC	127	ARG	6.1
25	BC	152	THR	6.1
13	AM	6	GLY	6.1
23	BA	226	MET	6.1
1	AA	85	U	6.0
9	AI	10	ARG	6.0
34	BL	67	ALA	6.0
31	BI	69	VAL	6.0
39	BQ	64	ALA	6.0
38	BP	78	VAL	6.0
1	AA	845	A	6.0
53	B5	31	GLU	6.0
5	AE	140	ARG	6.0
3	AC	199	LYS	6.0
5	AE	110	LEU	6.0
30	BH	106	TYR	6.0
10	AJ	97	GLU	6.0
12	AL	68	ALA	6.0
25	BC	145	THR	6.0
40	BR	36	THR	6.0
1	AA	707	C	6.0
8	AH	132	GLU	6.0
53	B5	26	PHE	6.0
39	BQ	19	LYS	6.0
24	BB	163	GLU	6.0

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Mol	Chain	Res	Type	RSRZ
38	BP	93	ILE	6.0
1	AA	672	U	6.0
39	BQ	76	LYS	6.0
17	AQ	76	LEU	6.0
27	BE	54	ARG	6.0
31	BI	22	ILE	6.0
51	B3	52	LYS	6.0
38	BP	70	TYR	6.0
33	BK	78	LYS	6.0
15	AO	82	ILE	6.0
32	BJ	61	PRO	6.0
1	AA	1240	U	6.0
24	BB	77	ILE	6.0
10	AJ	12	ASP	5.9
13	AM	62	ASN	5.9
34	BL	20	LEU	5.9
13	AM	7	VAL	5.9
32	BJ	16	ARG	5.9
53	B5	163	PRO	5.9
3	AC	107	GLN	5.9
4	AD	117	ALA	5.9
30	BH	64	GLY	5.9
25	BC	30	VAL	5.9
10	AJ	13	HIS	5.9
39	BQ	123	HIS	5.9
29	BG	115	LEU	5.9
23	BA	208	LYS	5.9
3	AC	207	VAL	5.9
3	AC	35	GLU	5.9
1	AA	844	A	5.9
13	AM	57	ARG	5.9
29	BG	12	LEU	5.9
43	BU	8	GLY	5.9
1	AA	1028	C	5.9
41	BS	30	LYS	5.9
8	AH	44	PHE	5.9
50	B2	20	ALA	5.9
29	BG	42	ASN	5.9
24	BB	107	THR	5.9
53	B5	28	GLN	5.9
17	AQ	58	GLU	5.9
1	AA	846	C	5.9

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Mol	Chain	Res	Type	RSRZ
37	BO	83	LEU	5.9
13	AM	60	VAL	5.9
13	AM	63	THR	5.9
47	BY	16	TYR	5.9
20	AT	104	LEU	5.9
31	BI	60	PRO	5.9
8	AH	9	MET	5.9
25	BC	88	PRO	5.9
23	BA	101	GLU	5.9
53	B5	60	LYS	5.9
45	BW	59	GLU	5.9
53	B5	197	GLU	5.9
13	AM	5	ALA	5.9
3	AC	117	ALA	5.8
24	BB	94	ASP	5.8
3	AC	110	ASN	5.8
12	AL	111	LYS	5.8
20	AT	55	ILE	5.8
3	AC	128	PHE	5.8
1	AA	986	A	5.8
21	B0	909	C	5.8
1	AA	1147	C	5.8
30	BH	102	ARG	5.8
1	AA	706	A	5.8
29	BG	120	VAL	5.8
13	AM	101	GLN	5.8
25	BC	153	ASP	5.8
41	BS	100	ASP	5.8
34	BL	109	THR	5.8
9	AI	70	LYS	5.8
42	BT	117	VAL	5.8
29	BG	26	ALA	5.8
9	AI	25	LYS	5.8
4	AD	158	ILE	5.8
24	BB	161	GLY	5.8
8	AH	61	VAL	5.8
1	AA	1037	C	5.8
15	AO	85	LEU	5.8
38	BP	75	LYS	5.8
7	AG	97	GLN	5.8
20	AT	40	ALA	5.8
35	BM	63	ASN	5.8

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Mol	Chain	Res	Type	RSRZ
13	AM	51	ALA	5.8
24	BB	204	ALA	5.8
5	AE	71	LEU	5.8
10	AJ	71	LEU	5.8
34	BL	38	LEU	5.7
2	AB	104	ASN	5.7
24	BB	78	LEU	5.7
3	AC	141	VAL	5.7
9	AI	22	GLY	5.7
12	AL	58	VAL	5.7
1	AA	1004	A	5.7
45	BW	62	ARG	5.7
1	AA	1040	U	5.7
8	AH	109	ILE	5.7
32	BJ	63	ARG	5.7
34	BL	72	ASP	5.7
49	B1	27	ASN	5.7
12	AL	128	ALA	5.7
19	AS	25	LYS	5.7
25	BC	124	ASP	5.7
10	AJ	78	ASN	5.7
38	BP	45	THR	5.7
4	AD	100	ARG	5.7
52	B4	17	VAL	5.7
5	AE	145	LYS	5.7
1	AA	1025	U	5.7
13	AM	104	ARG	5.7
25	BC	167	VAL	5.7
33	BK	24	GLY	5.7
43	BU	30	VAL	5.7
3	AC	22	TRP	5.7
4	AD	99	SER	5.7
25	BC	125	ILE	5.7
25	BC	37	SER	5.7
29	BG	90	THR	5.7
8	AH	77	GLU	5.7
25	BC	150	LEU	5.7
53	B5	107	ASN	5.7
2	AB	227	GLY	5.7
4	AD	121	VAL	5.6
38	BP	76	SER	5.6
17	AQ	74	LEU	5.6

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Mol	Chain	Res	Type	RSRZ
30	BH	71	THR	5.6
14	AN	54	PRO	5.6
53	B5	58	PRO	5.6
12	AL	74	GLY	5.6
50	B2	46	ASP	5.6
8	AH	102	ARG	5.6
4	AD	131	ARG	5.6
25	BC	23	ASN	5.6
19	AS	14	HIS	5.6
20	AT	99	LEU	5.6
1	AA	700	G	5.6
35	BM	11	LEU	5.6
53	B5	139	PRO	5.6
3	AC	197	GLY	5.6
23	BA	249	PRO	5.6
25	BC	87	LYS	5.6
41	BS	7	GLY	5.6
3	AC	175	LEU	5.6
25	BC	5	ASN	5.6
5	AE	41	VAL	5.6
17	AQ	56	VAL	5.6
39	BQ	125	THR	5.6
1	AA	987	G	5.6
13	AM	16	ASP	5.6
30	BH	101	THR	5.6
33	BK	123	GLY	5.6
39	BQ	122	SER	5.6
10	AJ	37	PRO	5.6
31	BI	4	PRO	5.6
37	BO	40	LEU	5.6
39	BQ	30	TYR	5.6
45	BW	50	VAL	5.6
5	AE	132	ALA	5.6
45	BW	49	GLU	5.6
38	BP	72	ARG	5.6
3	AC	198	VAL	5.6
7	AG	13	GLN	5.6
8	AH	16	ALA	5.6
17	AQ	59	ILE	5.6
47	BY	23	GLU	5.6
2	AB	106	LYS	5.6
27	BE	55	PRO	5.6

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Mol	Chain	Res	Type	RSRZ
12	AL	19	ARG	5.5
8	AH	62	TYR	5.5
8	AH	30	ARG	5.5
1	AA	1031	C	5.5
3	AC	45	LYS	5.5
26	BD	176	PRO	5.5
27	BE	162	VAL	5.5
37	BO	82	GLY	5.5
30	BH	129	HIS	5.5
23	BA	87	ASN	5.5
51	B3	62	LEU	5.5
8	AH	83	ILE	5.5
24	BB	188	ILE	5.5
24	BB	155	ARG	5.5
14	AN	10	ALA	5.5
33	BK	23	LYS	5.5
33	BK	83	ARG	5.5
21	B0	1505	U	5.5
3	AC	12	LEU	5.5
19	AS	81	ARG	5.5
4	AD	50	ARG	5.5
5	AE	113	ALA	5.5
8	AH	10	LEU	5.5
8	AH	65	TYR	5.5
12	AL	126	LYS	5.5
32	BJ	101	ARG	5.5
9	AI	21	PRO	5.5
13	AM	19	LEU	5.5
20	AT	53	LEU	5.5
30	BH	142	ARG	5.5
32	BJ	55	ARG	5.5
32	BJ	59	ARG	5.5
25	BC	90	SER	5.5
27	BE	158	HIS	5.5
3	AC	144	SER	5.5
10	AJ	10	GLY	5.5
17	AQ	89	LEU	5.5
37	BO	79	PHE	5.5
25	BC	173	ALA	5.5
4	AD	151	LYS	5.5
25	BC	147	LYS	5.5
8	AH	131	GLY	5.5

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Mol	Chain	Res	Type	RSRZ
7	AG	112	PRO	5.5
34	BL	62	SER	5.4
26	BD	174	GLY	5.4
18	AR	52	PRO	5.4
32	BJ	57	ILE	5.4
27	BE	176	ALA	5.4
30	BH	113	GLU	5.4
47	BY	19	GLN	5.4
23	BA	214	TRP	5.4
9	AI	38	GLN	5.4
48	BZ	34	PRO	5.4
23	BA	157	ARG	5.4
33	BK	15	ARG	5.4
43	BU	35	ASN	5.4
39	BQ	39	ARG	5.4
39	BQ	94	GLU	5.4
26	BD	152	MET	5.4
26	BD	41	GLY	5.4
8	AH	130	GLY	5.4
21	B0	904	U	5.4
39	BQ	113	SER	5.4
1	AA	689	C	5.4
25	BC	156	ASN	5.4
5	AE	136	MET	5.4
3	AC	178	LEU	5.4
34	BL	102	THR	5.4
42	BT	67	LYS	5.4
25	BC	166	TRP	5.4
31	BI	29	ILE	5.4
42	BT	98	VAL	5.4
13	AM	109	THR	5.3
25	BC	28	HIS	5.3
41	BS	51	VAL	5.3
41	BS	97	GLN	5.3
2	AB	231	GLU	5.3
2	AB	23	ARG	5.3
27	BE	110	SER	5.3
25	BC	51	VAL	5.3
8	AH	80	ILE	5.3
51	B3	43	GLY	5.3
9	AI	54	ASP	5.3
4	AD	150	GLU	5.3

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Mol	Chain	Res	Type	RSRZ
5	AE	109	ILE	5.3
36	BN	49	ALA	5.3
7	AG	131	LYS	5.3
27	BE	91	GLY	5.3
8	AH	135	CYS	5.3
29	BG	22	PRO	5.3
18	AR	25	THR	5.3
23	BA	56	GLY	5.3
39	BQ	18	VAL	5.3
39	BQ	116	ILE	5.3
3	AC	113	ALA	5.3
13	AM	88	ARG	5.3
5	AE	69	VAL	5.3
7	AG	78	ARG	5.3
36	BN	9	ARG	5.3
4	AD	120	LEU	5.3
17	AQ	86	GLU	5.3
53	B5	25	ASN	5.3
42	BT	97	PRO	5.3
3	AC	188	LEU	5.3
17	AQ	6	LEU	5.3
25	BC	149	LEU	5.3
8	AH	137	VAL	5.3
14	AN	51	GLY	5.3
21	B0	1075	C	5.2
18	AR	87	ARG	5.2
10	AJ	76	ASN	5.2
23	BA	167	GLY	5.2
1	AA	705	U	5.2
13	AM	8	GLU	5.2
43	BU	42	GLY	5.2
7	AG	98	SER	5.2
36	BN	109	GLU	5.2
25	BC	189	ASP	5.2
30	BH	29	VAL	5.2
33	BK	62	GLY	5.2
50	B2	31	LEU	5.2
17	AQ	73	VAL	5.2
46	BX	35	SER	5.2
12	AL	108	ALA	5.2
23	BA	168	LYS	5.2
7	AG	90	GLU	5.2

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Mol	Chain	Res	Type	RSRZ
50	B2	42	LEU	5.2
1	AA	701	C	5.2
18	AR	17	SER	5.2
12	AL	40	VAL	5.2
10	AJ	36	GLY	5.2
23	BA	255	LYS	5.2
3	AC	200	ALA	5.2
25	BC	104	LEU	5.2
34	BL	17	ARG	5.2
34	BL	54	THR	5.2
8	AH	101	PRO	5.2
14	AN	17	LYS	5.2
8	AH	59	LEU	5.2
23	BA	257	LEU	5.2
17	AQ	47	PRO	5.2
21	B0	905	G	5.2
40	BR	2	SER	5.1
51	B3	6	THR	5.1
8	AH	20	TYR	5.1
27	BE	173	ALA	5.1
4	AD	133	VAL	5.1
2	AB	8	LYS	5.1
1	AA	688	G	5.1
30	BH	114	THR	5.1
49	B1	40	TYR	5.1
26	BD	130	LEU	5.1
29	BG	65	PHE	5.1
34	BL	24	GLN	5.1
4	AD	153	ARG	5.1
33	BK	68	ARG	5.1
11	AK	53	SER	5.1
15	AO	34	LEU	5.1
21	B0	1079	G	5.1
26	BD	15	ALA	5.1
1	AA	1172	C	5.1
23	BA	246	PRO	5.1
8	AH	110	ALA	5.1
25	BC	138	LYS	5.1
8	AH	75	ARG	5.1
38	BP	51	ALA	5.1
47	BY	14	ILE	5.1
53	B5	30	VAL	5.1

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Mol	Chain	Res	Type	RSRZ
10	AJ	5	ARG	5.1
3	AC	98	ASN	5.1
13	AM	54	VAL	5.1
29	BG	87	GLY	5.1
36	BN	101	ARG	5.1
36	BN	8	ASN	5.1
23	BA	18	THR	5.1
25	BC	181	LEU	5.1
42	BT	80	HIS	5.1
3	AC	23	TYR	5.1
51	B3	36	LYS	5.1
23	BA	164	GLN	5.1
24	BB	40	GLN	5.1
7	AG	19	GLY	5.1
32	BJ	76	LYS	5.1
38	BP	69	ILE	5.1
48	BZ	28	PRO	5.1
10	AJ	11	PHE	5.1
6	AF	70	ASP	5.1
42	BT	159	THR	5.1
37	BO	16	LYS	5.1
24	BB	194	GLY	5.1
37	BO	35	ALA	5.1
40	BR	78	ALA	5.1
23	BA	149	PRO	5.0
47	BY	53	GLU	5.0
20	AT	100	ILE	5.0
2	AB	25	ASN	5.0
3	AC	38	ARG	5.0
12	AL	56	ALA	5.0
2	AB	229	VAL	5.0
7	AG	80	VAL	5.0
34	BL	10	LEU	5.0
10	AJ	95	GLU	5.0
8	AH	54	ASP	5.0
18	AR	67	ALA	5.0
37	BO	44	THR	5.0
2	AB	45	GLN	5.0
3	AC	19	GLU	5.0
9	AI	31	GLN	5.0
15	AO	83	GLU	5.0
50	B2	21	ARG	5.0

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Mol	Chain	Res	Type	RSRZ
30	BH	74	MET	5.0
9	AI	105	ASP	5.0
35	BM	48	GLY	5.0
7	AG	85	TYR	5.0
32	BJ	117	ALA	5.0
34	BL	63	ARG	5.0
24	BB	170	LEU	5.0
41	BS	19	GLY	5.0
13	AM	115	LYS	5.0
4	AD	109	GLY	5.0
5	AE	139	LEU	5.0
30	BH	145	HIS	5.0
31	BI	81	ILE	5.0
48	BZ	52	TYR	5.0
30	BH	31	THR	5.0
53	B5	192	ASN	5.0
25	BC	89	ARG	5.0
23	BA	170	SER	5.0
25	BC	119	ALA	5.0
23	BA	178	PRO	5.0
41	BS	101	GLY	5.0
23	BA	53	PHE	5.0
1	AA	1148	U	5.0
3	AC	62	ASP	5.0
13	AM	33	ALA	5.0
1	AA	686	U	5.0
24	BB	36	ARG	5.0
40	BR	53	ILE	5.0
51	B3	19	THR	4.9
24	BB	88	GLY	4.9
1	AA	82	C	4.9
21	B0	898	C	4.9
7	AG	37	ASN	4.9
29	BG	91	PRO	4.9
10	AJ	35	SER	4.9
14	AN	50	LYS	4.9
18	AR	81	PHE	4.9
24	BB	47	VAL	4.9
24	BB	75	THR	4.9
28	BF	23	GLY	4.9
13	AM	59	TYR	4.9
25	BC	107	ALA	4.9

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Mol	Chain	Res	Type	RSRZ
41	BS	85	ASP	4.9
30	BH	98	LYS	4.9
2	AB	157	ARG	4.9
8	AH	63	LEU	4.9
9	AI	72	GLY	4.9
25	BC	148	VAL	4.9
10	AJ	63	PHE	4.9
24	BB	162	MET	4.9
29	BG	56	GLU	4.9
25	BC	27	LEU	4.9
38	BP	77	GLY	4.9
41	BS	48	VAL	4.9
11	AK	12	ARG	4.9
11	AK	13	GLN	4.9
41	BS	31	GLY	4.9
13	AM	47	ASP	4.9
29	BG	67	PHE	4.9
31	BI	132	GLU	4.9
53	B5	74	GLU	4.9
35	BM	50	THR	4.9
3	AC	177	THR	4.9
7	AG	96	GLN	4.9
21	B0	900	U	4.9
7	AG	136	LYS	4.9
45	BW	57	LYS	4.9
3	AC	24	ALA	4.9
4	AD	171	GLY	4.9
27	BE	177	GLY	4.9
1	AA	687	A	4.9
17	AQ	57	VAL	4.9
53	B5	130	PRO	4.9
2	AB	126	GLU	4.9
37	BO	43	ALA	4.9
41	BS	99	VAL	4.9
12	AL	127	GLU	4.9
25	BC	137	ALA	4.9
45	BW	31	GLN	4.9
13	AM	9	ILE	4.9
41	BS	20	ASP	4.9
47	BY	28	ARG	4.9
27	BE	155	ASP	4.9
53	B5	154	SER	4.9

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Mol	Chain	Res	Type	RSRZ
23	BA	247	VAL	4.8
8	AH	13	ILE	4.8
31	BI	88	THR	4.8
10	AJ	77	PRO	4.8
9	AI	93	ARG	4.8
29	BG	130	THR	4.8
31	BI	56	LYS	4.8
34	BL	27	ALA	4.8
36	BN	3	THR	4.8
23	BA	233	HIS	4.8
25	BC	72	ARG	4.8
48	BZ	45	ILE	4.8
21	B0	1187	A	4.8
18	AR	71	LYS	4.8
13	AM	2	ALA	4.8
8	AH	47	GLY	4.8
52	B4	33	LYS	4.8
53	B5	82	LYS	4.8
3	AC	63	ASN	4.8
41	BS	21	THR	4.8
24	BB	105	THR	4.8
34	BL	59	ASP	4.8
47	BY	37	SER	4.8
23	BA	248	THR	4.8
47	BY	29	PRO	4.8
8	AH	45	ILE	4.8
13	AM	38	GLY	4.8
19	AS	17	GLU	4.8
34	BL	42	LYS	4.8
43	BU	64	ASP	4.8
26	BD	26	MET	4.8
21	B0	896	C	4.8
36	BN	6	LYS	4.8
7	AG	91	VAL	4.8
10	AJ	90	LEU	4.8
52	B4	23	VAL	4.8
3	AC	187	ALA	4.8
26	BD	90	THR	4.8
53	B5	37	LYS	4.8
32	BJ	62	LYS	4.8
4	AD	179	GLU	4.7
23	BA	23	GLY	4.7

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Mol	Chain	Res	Type	RSRZ
36	BN	104	LEU	4.7
1	AA	1257	U	4.7
41	BS	47	VAL	4.7
41	BS	87	GLU	4.7
11	AK	100	ALA	4.7
42	BT	61	THR	4.7
9	AI	35	GLU	4.7
25	BC	146	GLU	4.7
40	BR	75	ARG	4.7
41	BS	23	ILE	4.7
4	AD	164	ALA	4.7
46	BX	26	ARG	4.7
17	AQ	51	TYR	4.7
38	BP	49	GLU	4.7
18	AR	38	GLU	4.7
2	AB	24	TRP	4.7
8	AH	41	ARG	4.7
41	BS	24	VAL	4.7
24	BB	106	GLY	4.7
26	BD	37	ASN	4.7
7	AG	14	PRO	4.7
33	BK	75	VAL	4.7
37	BO	74	MET	4.7
53	B5	127	ALA	4.7
50	B2	22	MET	4.7
1	AA	1129	C	4.7
12	AL	39	VAL	4.7
41	BS	84	VAL	4.7
4	AD	149	ALA	4.7
3	AC	112	SER	4.7
23	BA	232	PRO	4.7
8	AH	97	VAL	4.7
14	AN	55	GLY	4.7
1	AA	1027	C	4.7
37	BO	67	ALA	4.7
8	AH	70	GLN	4.7
30	BH	132	PHE	4.7
17	AQ	8	GLY	4.7
24	BB	120	TRP	4.7
51	B3	11	LYS	4.7
2	AB	21	ARG	4.6
37	BO	110	VAL	4.6

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Mol	Chain	Res	Type	RSRZ
36	BN	108	ARG	4.6
53	B5	81	PRO	4.6
18	AR	44	LEU	4.6
23	BA	80	ALA	4.6
25	BC	2	ALA	4.6
34	BL	95	THR	4.6
42	BT	29	ASN	4.6
3	AC	185	GLY	4.6
23	BA	54	ILE	4.6
37	BO	112	ALA	4.6
24	BB	23	VAL	4.6
32	BJ	74	VAL	4.6
39	BQ	38	VAL	4.6
38	BP	16	GLU	4.6
23	BA	179	SER	4.6
51	B3	63	PRO	4.6
23	BA	202	LYS	4.6
3	AC	114	PRO	4.6
21	B0	1077	U	4.6
31	BI	68	ASP	4.6
11	AK	38	ASN	4.6
3	AC	183	ASP	4.6
7	AG	36	LYS	4.6
41	BS	86	PRO	4.6
37	BO	39	LEU	4.6
45	BW	56	VAL	4.6
7	AG	32	ARG	4.6
17	AQ	9	VAL	4.6
52	B4	16	VAL	4.5
53	B5	210	GLY	4.5
41	BS	32	GLN	4.5
42	BT	169	VAL	4.5
26	BD	27	ALA	4.5
51	B3	46	LYS	4.5
1	AA	1035	A	4.5
11	AK	107	SER	4.5
36	BN	50	PHE	4.5
47	BY	15	ILE	4.5
2	AB	228	GLY	4.5
3	AC	201	TYR	4.5
7	AG	155	ARG	4.5
31	BI	26	ASN	4.5

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Mol	Chain	Res	Type	RSRZ
38	BP	63	HIS	4.5
2	AB	232	PRO	4.5
30	BH	96	ASP	4.5
53	B5	106	GLN	4.5
36	BN	51	GLU	4.5
12	AL	43	VAL	4.5
42	BT	91	PRO	4.5
43	BU	25	LYS	4.5
13	AM	108	ARG	4.5
7	AG	54	THR	4.5
12	AL	42	THR	4.5
38	BP	94	LYS	4.5
1	AA	699	C	4.5
35	BM	35	SER	4.5
23	BA	231	HIS	4.5
42	BT	102	GLY	4.5
13	AM	113	PRO	4.5
29	BG	134	MET	4.5
27	BE	52	VAL	4.5
43	BU	23	VAL	4.5
21	B0	895	G	4.5
17	AQ	7	THR	4.5
51	B3	47	GLY	4.5
39	BQ	84	GLU	4.5
23	BA	115	ALA	4.5
1	AA	1130	A	4.5
25	BC	140	ASN	4.5
39	BQ	106	LEU	4.5
13	AM	31	LYS	4.5
36	BN	105	TYR	4.5
3	AC	145	GLY	4.5
11	AK	113	PRO	4.5
17	AQ	85	VAL	4.5
4	AD	168	ARG	4.5
14	AN	44	LEU	4.5
30	BH	148	LEU	4.5
40	BR	30	SER	4.5
38	BP	48	GLY	4.5
25	BC	106	MET	4.4
38	BP	55	THR	4.4
42	BT	88	TYR	4.4
12	AL	109	GLY	4.4

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Mol	Chain	Res	Type	RSRZ
31	BI	43	ARG	4.4
27	BE	89	LEU	4.4
10	AJ	8	LEU	4.4
23	BA	141	VAL	4.4
34	BL	26	THR	4.4
19	AS	78	ARG	4.4
37	BO	36	PHE	4.4
25	BC	91	TYR	4.4
30	BH	62	ILE	4.4
28	BF	22	ASP	4.4
3	AC	105	GLU	4.4
2	AB	10	LEU	4.4
10	AJ	65	LEU	4.4
43	BU	27	GLY	4.4
18	AR	64	ARG	4.4
19	AS	8	GLY	4.4
42	BT	21	ALA	4.4
2	AB	132	LYS	4.4
53	B5	110	PHE	4.4
21	B0	906	U	4.4
40	BR	16	ALA	4.4
49	B1	22	TYR	4.4
25	BC	58	MET	4.3
41	BS	49	GLU	4.3
33	BK	26	ASP	4.3
23	BA	207	GLY	4.3
38	BP	54	TYR	4.3
16	AP	82	GLN	4.3
18	AR	51	LEU	4.3
14	AN	48	ALA	4.3
41	BS	98	ILE	4.3
4	AD	165	MET	4.3
14	AN	8	GLU	4.3
34	BL	43	GLU	4.3
39	BQ	114	ALA	4.3
4	AD	173	TRP	4.3
40	BR	66	GLY	4.3
45	BW	29	ARG	4.3
25	BC	187	VAL	4.3
3	AC	18	TRP	4.3
7	AG	45	ASP	4.3
33	BK	41	ALA	4.3

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Mol	Chain	Res	Type	RSRZ
4	AD	170	VAL	4.3
47	BY	36	TRP	4.3
46	BX	17	VAL	4.3
3	AC	109	PRO	4.3
35	BM	4	ALA	4.3
6	AF	69	GLU	4.3
41	BS	22	VAL	4.3
1	AA	1033	G	4.3
8	AH	37	ARG	4.3
13	AM	112	GLY	4.3
41	BS	33	THR	4.3
2	AB	49	GLU	4.3
37	BO	18	LEU	4.3
33	BK	85	GLY	4.3
53	B5	29	SER	4.3
8	AH	40	ALA	4.3
10	AJ	18	ALA	4.3
23	BA	156	ALA	4.3
39	BQ	127	ILE	4.3
3	AC	170	GLN	4.3
42	BT	28	ASN	4.3
2	AB	110	GLN	4.3
34	BL	98	LEU	4.3
26	BD	119	PRO	4.2
4	AD	162	LEU	4.2
25	BC	120	VAL	4.2
39	BQ	93	LYS	4.2
7	AG	114	ARG	4.2
8	AH	133	LEU	4.2
33	BK	50	ALA	4.2
33	BK	96	SER	4.2
39	BQ	103	LEU	4.2
41	BS	34	GLY	4.2
47	BY	44	THR	4.2
47	BY	57	ASP	4.2
34	BL	41	ALA	4.2
26	BD	122	PHE	4.2
23	BA	71	ASP	4.2
49	B1	23	THR	4.2
26	BD	36	VAL	4.2
37	BO	89	ASP	4.2
40	BR	19	ALA	4.2

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Mol	Chain	Res	Type	RSRZ
31	BI	24	VAL	4.2
35	BM	9	ARG	4.2
38	BP	7	THR	4.2
3	AC	186	PHE	4.2
43	BU	69	PHE	4.2
3	AC	118	GLN	4.2
30	BH	144	MET	4.2
32	BJ	99	VAL	4.2
35	BM	94	TYR	4.2
2	AB	64	ARG	4.2
8	AH	66	GLY	4.2
4	AD	104	VAL	4.2
29	BG	118	GLY	4.2
14	AN	6	LEU	4.2
31	BI	3	MET	4.2
43	BU	36	ILE	4.2
45	BW	46	LEU	4.2
53	B5	168	PHE	4.2
23	BA	88	ARG	4.2
32	BJ	52	GLY	4.2
14	AN	5	ALA	4.2
24	BB	66	HIS	4.2
34	BL	111	ALA	4.2
3	AC	40	ARG	4.2
34	BL	18	VAL	4.2
23	BA	85	ASP	4.2
24	BB	160	MET	4.2
52	B4	32	HIS	4.2
23	BA	61	LEU	4.2
23	BA	258	LYS	4.2
18	AR	74	ARG	4.2
24	BB	119	ARG	4.2
32	BJ	108	LEU	4.2
13	AM	103	THR	4.1
23	BA	98	ALA	4.1
23	BA	151	LYS	4.1
2	AB	103	THR	4.1
18	AR	80	PRO	4.1
26	BD	91	LEU	4.1
31	BI	35	THR	4.1
21	B0	897	A	4.1
13	AM	46	LYS	4.1

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Mol	Chain	Res	Type	RSRZ
14	AN	53	LEU	4.1
41	BS	111	GLY	4.1
8	AH	113	SER	4.1
18	AR	60	GLY	4.1
36	BN	122	SER	4.1
13	AM	52	GLU	4.1
3	AC	49	SER	4.1
4	AD	188	LEU	4.1
3	AC	61	ALA	4.1
40	BR	12	ILE	4.1
34	BL	21	ALA	4.1
34	BL	31	GLU	4.1
50	B2	23	LYS	4.1
51	B3	26	LYS	4.1
5	AE	6	PHE	4.1
52	B4	35	ARG	4.1
25	BC	105	ALA	4.1
43	BU	21	LEU	4.1
7	AG	113	GLU	4.1
3	AC	142	MET	4.1
4	AD	177	ASP	4.1
31	BI	6	SER	4.1
3	AC	46	GLU	4.1
13	AM	4	ILE	4.1
32	BJ	102	LYS	4.1
42	BT	158	CYS	4.1
1	AA	1159	U	4.1
39	BQ	126	ILE	4.1
53	B5	102	LYS	4.1
26	BD	10	ASP	4.1
30	BH	131	VAL	4.1
23	BA	216	GLY	4.1
30	BH	115	ALA	4.1
19	AS	35	SER	4.0
46	BX	30	ASP	4.1
51	B3	10	ALA	4.1
25	BC	122	GLY	4.0
48	BZ	53	ASP	4.0
41	BS	36	VAL	4.0
7	AG	143	ARG	4.0
48	BZ	24	ALA	4.0
40	BR	11	VAL	4.0

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Mol	Chain	Res	Type	RSRZ
25	BC	109	ALA	4.0
37	BO	91	ASN	4.0
39	BQ	128	VAL	4.0
41	BS	37	LEU	4.0
43	BU	65	GLY	4.0
4	AD	105	VAL	4.0
1	AA	1034	G	4.0
53	B5	193	LYS	4.0
23	BA	96	HIS	4.0
14	AN	7	ILE	4.0
21	B0	907	U	4.0
34	BL	22	ARG	4.0
38	BP	64	GLY	4.0
7	AG	21	VAL	4.0
7	AG	122	HIS	4.0
10	AJ	75	ILE	4.0
35	BM	45	ASP	4.0
24	BB	76	ARG	4.0
1	AA	83	C	4.0
31	BI	21	CYS	4.0
25	BC	118	VAL	4.0
25	BC	24	SER	4.0
25	BC	185	ARG	4.0
19	AS	24	ALA	3.9
23	BA	155	LEU	3.9
34	BL	77	ARG	3.9
12	AL	110	VAL	3.9
29	BG	66	THR	3.9
17	AQ	84	LEU	3.9
24	BB	89	ASP	3.9
31	BI	27	SER	3.9
3	AC	72	LYS	3.9
4	AD	138	TYR	3.9
40	BR	33	ALA	3.9
10	AJ	15	THR	3.9
34	BL	110	MET	3.9
42	BT	68	ALA	3.9
2	AB	230	VAL	3.9
47	BY	55	ARG	3.9
7	AG	38	LEU	3.9
11	AK	35	PRO	3.9
25	BC	18	PRO	3.9

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Mol	Chain	Res	Type	RSRZ
38	BP	68	LYS	3.9
31	BI	52	VAL	3.9
23	BA	99	ASP	3.9
38	BP	27	GLY	3.9
11	AK	26	ASN	3.9
27	BE	90	ARG	3.9
26	BD	173	MET	3.9
32	BJ	103	ASN	3.9
25	BC	190	ALA	3.9
43	BU	34	GLY	3.9
25	BC	60	GLY	3.9
28	BF	25	ALA	3.9
47	BY	35	VAL	3.9
27	BE	154	PRO	3.9
39	BQ	65	SER	3.9
7	AG	48	LYS	3.9
7	AG	118	VAL	3.9
53	B5	9	ILE	3.9
7	AG	41	ARG	3.9
11	AK	36	ASP	3.9
13	AM	55	ARG	3.9
3	AC	58	GLU	3.9
36	BN	61	GLY	3.9
37	BO	94	VAL	3.9
38	BP	95	ILE	3.9
4	AD	48	ALA	3.9
36	BN	115	ALA	3.9
11	AK	34	ASP	3.9
4	AD	166	LYS	3.9
8	AH	114	THR	3.9
12	AL	55	VAL	3.9
12	AL	57	LYS	3.9
14	AN	4	LYS	3.9
43	BU	66	LYS	3.9
48	BZ	26	THR	3.9
4	AD	169	LYS	3.8
26	BD	178	ARG	3.8
32	BJ	56	LEU	3.8
26	BD	92	ARG	3.8
11	AK	109	VAL	3.8
4	AD	167	GLY	3.8
38	BP	67	LYS	3.8

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Mol	Chain	Res	Type	RSRZ
40	BR	5	ASP	3.8
36	BN	58	ASN	3.8
7	AG	129	GLU	3.8
34	BL	70	ILE	3.8
25	BC	121	ASP	3.8
29	BG	44	GLN	3.8
26	BD	19	GLN	3.8
10	AJ	72	VAL	3.8
14	AN	56	VAL	3.8
51	B3	12	ARG	3.8
3	AC	184	TYR	3.8
39	BQ	20	LEU	3.8
10	AJ	16	LEU	3.8
26	BD	172	SER	3.8
46	BX	25	LEU	3.8
29	BG	114	ASP	3.8
27	BE	109	TYR	3.8
13	AM	107	ALA	3.8
51	B3	50	LEU	3.8
14	AN	47	LEU	3.8
21	B0	1076	U	3.8
51	B3	61	MET	3.8
2	AB	100	GLY	3.8
21	B0	1186	G	3.8
13	AM	40	ASN	3.8
23	BA	158	SER	3.7
9	AI	29	ASN	3.7
39	BQ	124	ILE	3.7
2	AB	14	GLY	3.7
25	BC	12	GLY	3.7
35	BM	66	ASP	3.7
31	BI	82	LYS	3.7
8	AH	116	LYS	3.7
46	BX	45	LYS	3.7
34	BL	90	ARG	3.7
41	BS	50	GLY	3.7
45	BW	4	SER	3.7
30	BH	164	GLN	3.7
26	BD	123	ASP	3.7
4	AD	126	ILE	3.7
28	BF	32	GLN	3.7
24	BB	185	LYS	3.7

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Mol	Chain	Res	Type	RSRZ
43	BU	52	GLY	3.7
4	AD	127	THR	3.7
34	BL	94	TYR	3.7
2	AB	237	ALA	3.7
36	BN	59	GLY	3.7
25	BC	10	ASN	3.7
23	BA	169	GLU	3.7
30	BH	167	LYS	3.7
51	B3	59	LYS	3.7
4	AD	110	PHE	3.7
40	BR	80	VAL	3.7
8	AH	134	ILE	3.7
42	BT	32	PHE	3.7
33	BK	100	PRO	3.7
39	BQ	46	ARG	3.7
10	AJ	25	GLU	3.7
51	B3	54	GLU	3.7
8	AH	121	ASP	3.6
12	AL	41	ARG	3.6
39	BQ	104	LYS	3.6
19	AS	77	THR	3.6
36	BN	82	PRO	3.6
23	BA	251	GLY	3.6
43	BU	33	ALA	3.6
24	BB	13	GLN	3.6
26	BD	38	GLU	3.6
1	AA	1029	U	3.6
25	BC	188	ILE	3.6
51	B3	44	LYS	3.6
33	BK	117	GLU	3.6
39	BQ	42	VAL	3.6
7	AG	49	ILE	3.6
35	BM	95	LYS	3.6
40	BR	37	GLU	3.6
27	BE	149	ARG	3.6
10	AJ	73	ASP	3.6
2	AB	33	TYR	3.6
7	AG	31	MET	3.6
37	BO	17	VAL	3.6
13	AM	12	ASN	3.6
4	AD	148	VAL	3.6
23	BA	72	LYS	3.6

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Mol	Chain	Res	Type	RSRZ
10	AJ	98	ILE	3.6
25	BC	186	LEU	3.6
47	BY	59	PHE	3.6
1	AA	84	U	3.6
31	BI	80	ALA	3.6
2	AB	9	GLU	3.6
3	AC	82	GLU	3.6
40	BR	24	VAL	3.6
37	BO	64	ARG	3.6
36	BN	107	LEU	3.6
35	BM	24	SER	3.6
45	BW	21	ARG	3.6
8	AH	129	VAL	3.6
25	BC	3	GLN	3.6
8	AH	39	LEU	3.5
14	AN	11	LYS	3.5
2	AB	65	GLY	3.5
4	AD	172	PRO	3.5
23	BA	245	VAL	3.5
18	AR	28	GLU	3.5
23	BA	38	PRO	3.5
23	BA	260	ARG	3.5
23	BA	261	ARG	3.5
25	BC	13	ARG	3.5
5	AE	5	ASP	3.5
23	BA	70	ARG	3.5
28	BF	19	SER	3.5
39	BQ	68	VAL	3.5
19	AS	9	VAL	3.5
24	BB	103	ASP	3.5
25	BC	143	ASP	3.5
37	BO	96	ALA	3.5
42	BT	92	VAL	3.5
45	BW	61	ALA	3.5
32	BJ	86	THR	3.5
18	AR	70	ILE	3.5
6	AF	73	ASN	3.5
30	BH	90	LEU	3.5
46	BX	50	LEU	3.5
52	B4	30	VAL	3.5
10	AJ	99	LYS	3.5
37	BO	84	LYS	3.5

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Mol	Chain	Res	Type	RSRZ
45	BW	22	LYS	3.5
49	B1	28	ARG	3.5
51	B3	55	TRP	3.5
2	AB	7	VAL	3.5
7	AG	140	ASP	3.5
19	AS	79	THR	3.5
9	AI	39	GLY	3.5
21	B0	1185	C	3.5
23	BA	62	TYR	3.5
32	BJ	58	ALA	3.5
23	BA	14	ARG	3.5
2	AB	131	PRO	3.5
30	BH	78	ASP	3.5
11	AK	51	LYS	3.5
28	BF	20	VAL	3.5
11	AK	110	ASP	3.5
2	AB	179	LYS	3.5
7	AG	116	ALA	3.5
31	BI	30	GLY	3.5
23	BA	201	HIS	3.5
6	AF	13	ASN	3.5
25	BC	116	LYS	3.5
42	BT	90	GLU	3.5
43	BU	56	ASP	3.4
51	B3	53	ALA	3.4
6	AF	1	MET	3.4
38	BP	97	GLY	3.4
9	AI	87	GLN	3.4
42	BT	87	THR	3.4
3	AC	149	ALA	3.4
10	AJ	93	GLY	3.4
23	BA	4	LYS	3.4
24	BB	22	PRO	3.4
4	AD	141	ARG	3.4
39	BQ	8	PHE	3.4
43	BU	5	LYS	3.4
43	BU	22	GLY	3.4
13	AM	79	LYS	3.4
8	AH	120	THR	3.4
2	AB	27	LYS	3.4
2	AB	234	PRO	3.4
42	BT	55	THR	3.4

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Mol	Chain	Res	Type	RSRZ
25	BC	7	ILE	3.4
30	BH	37	ASP	3.4
45	BW	19	ASP	3.4
25	BC	112	GLN	3.4
11	AK	16	SER	3.4
23	BA	161	THR	3.4
27	BE	152	ARG	3.4
41	BS	110	SER	3.4
19	AS	21	GLU	3.4
19	AS	70	LYS	3.4
23	BA	7	ARG	3.4
3	AC	146	ALA	3.4
18	AR	41	LYS	3.4
25	BC	144	GLY	3.4
41	BS	35	LYS	3.4
11	AK	81	ASP	3.4
2	AB	99	GLY	3.4
3	AC	181	ASN	3.4
32	BJ	72	TYR	3.4
7	AG	60	LYS	3.4
40	BR	10	PRO	3.4
4	AD	181	MET	3.4
7	AG	89	MET	3.4
7	AG	117	ALA	3.4
19	AS	39	THR	3.4
4	AD	130	GLY	3.4
25	BC	142	LEU	3.4
9	AI	73	GLN	3.4
30	BH	159	SER	3.4
6	AF	83	ASP	3.4
10	AJ	96	ILE	3.3
23	BA	205	VAL	3.3
25	BC	141	GLY	3.3
42	BT	70	GLN	3.3
6	AF	71	ARG	3.3
13	AM	36	LYS	3.3
40	BR	40	ASP	3.3
53	B5	156	LEU	3.3
38	BP	20	ILE	3.3
3	AC	59	ARG	3.3
30	BH	35	LYS	3.3
51	B3	20	GLY	3.3

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Mol	Chain	Res	Type	RSRZ
11	AK	37	GLY	3.3
6	AF	2	ARG	3.3
49	B1	38	LYS	3.3
39	BQ	72	LEU	3.3
13	AM	89	GLY	3.3
25	BC	20	PRO	3.3
41	BS	112	LYS	3.3
7	AG	74	GLU	3.3
40	BR	8	GLN	3.3
37	BO	65	ILE	3.3
33	BK	39	GLU	3.3
11	AK	52	GLY	3.3
42	BT	134	LEU	3.3
42	BT	154	LEU	3.3
25	BC	110	SER	3.3
11	AK	74	ALA	3.3
3	AC	108	ASN	3.3
31	BI	87	SER	3.3
6	AF	68	PRO	3.3
25	BC	6	VAL	3.3
25	BC	154	ASP	3.3
3	AC	54	ARG	3.3
39	BQ	129	ALA	3.3
3	AC	115	LEU	3.3
9	AI	36	TYR	3.3
8	AH	111	ILE	3.3
13	AM	10	PRO	3.3
30	BH	50	PRO	3.3
53	B5	140	ASN	3.3
39	BQ	69	ALA	3.3
8	AH	48	TYR	3.2
19	AS	7	LYS	3.2
25	BC	117	LEU	3.2
3	AC	111	LEU	3.2
30	BH	171	LEU	3.2
11	AK	104	GLN	3.2
25	BC	111	ARG	3.2
42	BT	30	VAL	3.2
33	BK	40	PRO	3.2
53	B5	6	GLU	3.2
13	AM	98	VAL	3.2
31	BI	2	ILE	3.2

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Mol	Chain	Res	Type	RSRZ
34	BL	113	ILE	3.2
3	AC	174	PRO	3.2
34	BL	52	ILE	3.2
39	BQ	47	GLY	3.2
48	BZ	27	ALA	3.2
30	BH	158	HIS	3.2
41	BS	113	THR	3.2
25	BC	191	ALA	3.2
7	AG	86	GLN	3.2
53	B5	36	PHE	3.2
25	BC	139	GLN	3.2
13	AM	37	THR	3.2
53	B5	133	LYS	3.2
40	BR	41	ALA	3.2
4	AD	108	LEU	3.2
19	AS	28	LYS	3.2
19	AS	73	GLU	3.2
39	BQ	80	LEU	3.2
18	AR	63	GLN	3.2
24	BB	20	ALA	3.2
25	BC	8	GLY	3.2
29	BG	37	PHE	3.2
26	BD	39	GLY	3.2
8	AH	76	PRO	3.2
36	BN	31	ASP	3.2
52	B4	34	GLN	3.1
35	BM	19	THR	3.1
3	AC	57	ILE	3.1
40	BR	51	ILE	3.1
36	BN	11	GLU	3.1
40	BR	3	HIS	3.1
38	BP	62	GLU	3.1
42	BT	168	VAL	3.1
27	BE	172	LYS	3.1
4	AD	101	LEU	3.1
26	BD	175	LEU	3.1
38	BP	96	LEU	3.1
30	BH	33	ILE	3.1
7	AG	28	ASN	3.1
31	BI	33	GLY	3.1
31	BI	86	GLY	3.1
49	B1	43	VAL	3.1

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Mol	Chain	Res	Type	RSRZ
30	BH	149	LYS	3.1
34	BL	73	LYS	3.1
40	BR	9	ALA	3.1
23	BA	250	TRP	3.1
39	BQ	92	VAL	3.1
2	AB	127	ILE	3.1
11	AK	108	ILE	3.1
24	BB	80	GLU	3.1
7	AG	51	GLN	3.1
53	B5	212	ALA	3.1
9	AI	66	ARG	3.1
36	BN	67	THR	3.1
18	AR	85	LEU	3.1
23	BA	120	GLY	3.1
48	BZ	25	LEU	3.1
2	AB	13	ALA	3.1
18	AR	54	ARG	3.1
3	AC	102	ASN	3.1
10	AJ	92	THR	3.1
38	BP	28	GLU	3.1
25	BC	115	GLY	3.1
30	BH	128	GLU	3.1
29	BG	133	SER	3.1
26	BD	8	TYR	3.1
19	AS	38	SER	3.1
30	BH	76	GLN	3.1
4	AD	187	ARG	3.1
51	B3	13	ARG	3.1
34	BL	33	ARG	3.1
38	BP	3	ALA	3.1
4	AD	182	LYS	3.1
8	AH	31	PHE	3.1
24	BB	7	THR	3.1
42	BT	9	THR	3.1
31	BI	94	ASN	3.1
40	BR	18	SER	3.1
24	BB	48	GLN	3.1
34	BL	25	ALA	3.1
36	BN	65	SER	3.1
7	AG	12	LEU	3.1
3	AC	179	ARG	3.1
53	B5	72	GLN	3.0

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Mol	Chain	Res	Type	RSRZ
9	AI	97	LYS	3.0
38	BP	19	VAL	3.0
45	BW	25	LEU	3.0
10	AJ	20	ALA	3.0
47	BY	25	MET	3.0
19	AS	59	PRO	3.0
34	BL	114	GLU	3.0
19	AS	36	ARG	3.0
2	AB	236	TYR	3.0
13	AM	92	HIS	3.0
6	AF	16	GLN	3.0
25	BC	155	GLU	3.0
7	AG	132	GLY	3.0
9	AI	57	GLY	3.0
47	BY	6	HIS	3.0
24	BB	104	ALA	3.0
25	BC	11	GLY	3.0
9	AI	75	ASP	3.0
11	AK	111	ASP	3.0
13	AM	41	PRO	3.0
18	AR	42	ARG	3.0
36	BN	60	SER	3.0
3	AC	147	LYS	3.0
4	AD	147	ALA	3.0
11	AK	39	PRO	3.0
24	BB	34	VAL	3.0
51	B3	49	VAL	3.0
11	AK	106	LYS	3.0
9	AI	104	ARG	3.0
25	BC	9	GLN	3.0
43	BU	68	VAL	3.0
31	BI	67	GLY	3.0
51	B3	64	ARG	3.0
3	AC	44	GLU	3.0
31	BI	58	ALA	3.0
33	BK	72	ASP	3.0
11	AK	79	SER	3.0
13	AM	34	LEU	3.0
46	BX	36	ASP	3.0
18	AR	86	VAL	3.0
49	B1	39	LYS	3.0
39	BQ	40	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
46	BX	33	GLU	3.0
7	AG	121	ALA	3.0
30	BH	75	ILE	3.0
31	BI	7	ARG	2.9
51	B3	9	MET	2.9
8	AH	100	ILE	2.9
29	BG	43	ALA	2.9
34	BL	51	LEU	2.9
53	B5	33	ILE	2.9
41	BS	65	PRO	2.9
49	B1	25	THR	2.9
4	AD	178	VAL	2.9
13	AM	78	ILE	2.9
53	B5	153	ARG	2.9
34	BL	74	ASP	2.9
53	B5	101	LYS	2.9
29	BG	55	VAL	2.9
8	AH	128	GLY	2.9
53	B5	98	ARG	2.9
53	B5	178	ASP	2.9
11	AK	78	GLN	2.9
13	AM	14	ARG	2.9
7	AG	99	LEU	2.9
40	BR	39	LYS	2.9
8	AH	35	ILE	2.9
13	AM	56	LEU	2.9
13	AM	110	ARG	2.9
38	BP	59	GLU	2.9
49	B1	47	HIS	2.9
2	AB	224	GLN	2.9
53	B5	172	GLU	2.9
31	BI	54	SER	2.9
38	BP	61	VAL	2.9
8	AH	36	LEU	2.9
49	B1	24	THR	2.9
3	AC	104	GLN	2.9
53	B5	161	ASP	2.9
25	BC	4	ILE	2.9
34	BL	47	PHE	2.9
43	BU	70	ILE	2.9
3	AC	56	ASP	2.9
9	AI	100	GLY	2.9

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Mol	Chain	Res	Type	RSRZ
3	AC	206	GLU	2.8
3	AC	41	GLY	2.8
35	BM	22	ALA	2.8
48	BZ	51	TYR	2.8
19	AS	11	VAL	2.8
40	BR	38	ILE	2.8
3	AC	97	LYS	2.8
7	AG	46	ALA	2.8
42	BT	24	TYR	2.8
53	B5	165	VAL	2.8
25	BC	194	GLU	2.8
45	BW	18	ILE	2.8
48	BZ	46	CYS	2.8
38	BP	6	GLN	2.8
8	AH	73	ASP	2.8
51	B3	58	MET	2.8
37	BO	113	SER	2.8
23	BA	150	GLY	2.8
46	BX	44	VAL	2.8
11	AK	33	THR	2.8
18	AR	20	ALA	2.8
30	BH	77	GLY	2.8
35	BM	41	GLN	2.8
46	BX	41	ARG	2.8
10	AJ	6	ILE	2.8
8	AH	127	LEU	2.8
23	BA	131	LEU	2.8
34	BL	76	VAL	2.8
35	BM	61	SER	2.8
41	BS	64	ASN	2.8
35	BM	87	VAL	2.8
13	AM	111	LYS	2.8
37	BO	72	HIS	2.8
11	AK	25	TYR	2.8
3	AC	89	GLU	2.8
7	AG	20	ASP	2.8
9	AI	13	ALA	2.8
45	BW	15	ALA	2.8
8	AH	122	ARG	2.8
3	AC	55	VAL	2.8
13	AM	53	VAL	2.8
24	BB	81	PHE	2.8

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Mol	Chain	Res	Type	RSRZ
53	B5	77	LYS	2.8
47	BY	9	ALA	2.8
46	BX	47	VAL	2.8
34	BL	100	VAL	2.8
40	BR	28	TRP	2.8
3	AC	53	ALA	2.8
45	BW	38	ALA	2.8
2	AB	107	THR	2.8
2	AB	239	VAL	2.8
23	BA	89	SER	2.8
35	BM	49	GLN	2.8
38	BP	5	ILE	2.8
11	AK	15	ALA	2.8
45	BW	24	GLU	2.8
9	AI	60	ASP	2.8
33	BK	118	ALA	2.8
11	AK	49	GLY	2.8
7	AG	39	ALA	2.7
27	BE	88	GLU	2.7
23	BA	110	GLY	2.7
29	BG	41	PHE	2.7
13	AM	35	GLU	2.7
36	BN	66	PHE	2.7
36	BN	64	LYS	2.7
43	BU	53	MET	2.7
3	AC	182	ILE	2.7
4	AD	180	GLY	2.7
11	AK	99	GLN	2.7
25	BC	108	ILE	2.7
31	BI	44	TYR	2.7
23	BA	270	ILE	2.7
46	BX	32	ARG	2.7
39	BQ	41	VAL	2.7
30	BH	70	PHE	2.7
23	BA	84	TYR	2.7
25	BC	59	TYR	2.7
29	BG	121	GLU	2.7
53	B5	132	GLY	2.7
51	B3	48	PHE	2.7
2	AB	117	GLU	2.7
4	AD	142	PRO	2.7
51	B3	25	PHE	2.7

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Mol	Chain	Res	Type	RSRZ
13	AM	13	LYS	2.7
38	BP	33	VAL	2.7
19	AS	54	GLY	2.7
2	AB	113	HIS	2.7
7	AG	100	ALA	2.7
26	BD	155	THR	2.7
31	BI	93	ARG	2.7
35	BM	40	ALA	2.7
11	AK	17	GLY	2.7
34	BL	55	ALA	2.7
7	AG	146	GLU	2.7
34	BL	66	VAL	2.7
40	BR	25	TYR	2.7
23	BA	203	ASN	2.7
6	AF	28	ARG	2.7
11	AK	96	ARG	2.7
23	BA	215	LEU	2.7
19	AS	69	HIS	2.7
3	AC	202	ILE	2.7
45	BW	8	ASN	2.7
33	BK	47	GLN	2.7
40	BR	29	VAL	2.7
51	B3	24	ALA	2.7
40	BR	81	ARG	2.7
43	BU	51	VAL	2.7
11	AK	14	VAL	2.7
26	BD	24	SER	2.7
32	BJ	97	ARG	2.7
36	BN	69	ARG	2.7
25	BC	113	GLU	2.6
42	BT	101	THR	2.6
45	BW	32	ALA	2.6
7	AG	126	ASP	2.6
23	BA	37	LEU	2.6
6	AF	74	ASP	2.6
47	BY	4	ASP	2.6
33	BK	66	TYR	2.6
10	AJ	19	SER	2.6
29	BG	122	ALA	2.6
33	BK	67	ILE	2.6
38	BP	34	GLU	2.6
33	BK	76	THR	2.6

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Mol	Chain	Res	Type	RSRZ
36	BN	32	THR	2.6
9	AI	40	LEU	2.6
23	BA	264	LYS	2.6
34	BL	48	VAL	2.6
53	B5	167	VAL	2.6
19	AS	26	GLY	2.6
36	BN	116	ARG	2.6
43	BU	43	THR	2.6
7	AG	70	LYS	2.6
23	BA	8	PRO	2.6
34	BL	58	GLY	2.6
35	BM	83	GLY	2.6
9	AI	42	ARG	2.6
37	BO	97	ASP	2.6
49	B1	21	TYR	2.6
30	BH	118	ALA	2.6
34	BL	28	LEU	2.6
2	AB	135	GLN	2.6
30	BH	125	ARG	2.6
27	BE	58	ALA	2.6
40	BR	27	PHE	2.6
34	BL	116	VAL	2.6
23	BA	160	GLY	2.6
30	BH	100	TYR	2.6
2	AB	22	LYS	2.6
42	BT	113	VAL	2.6
34	BL	56	LYS	2.6
45	BW	17	GLU	2.6
34	BL	81	ASP	2.6
6	AF	36	ARG	2.6
13	AM	97	PRO	2.6
39	BQ	45	ILE	2.6
23	BA	142	VAL	2.6
45	BW	26	MET	2.6
34	BL	44	LEU	2.6
36	BN	70	LYS	2.6
36	BN	118	LYS	2.6
38	BP	41	GLY	2.6
7	AG	102	ARG	2.5
7	AG	63	LYS	2.5
35	BM	8	ARG	2.5
36	BN	84	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
23	BA	172	TYR	2.5
26	BD	35	VAL	2.5
9	AI	52	ALA	2.5
24	BB	6	GLY	2.5
38	BP	15	SER	2.5
23	BA	103	ARG	2.5
27	BE	9	ILE	2.5
7	AG	64	GLN	2.5
4	AD	140	VAL	2.5
39	BQ	44	VAL	2.5
39	BQ	50	VAL	2.5
23	BA	263	ARG	2.5
51	B3	21	LYS	2.5
43	BU	57	HIS	2.5
6	AF	11	ASN	2.5
43	BU	61	ALA	2.5
38	BP	99	GLN	2.5
39	BQ	53	ALA	2.5
40	BR	44	GLN	2.5
43	BU	82	GLU	2.5
51	B3	60	LEU	2.5
34	BL	112	LEU	2.5
36	BN	85	SER	2.5
19	AS	80	TYR	2.5
23	BA	171	ASP	2.5
30	BH	122	HIS	2.5
8	AH	33	GLU	2.5
30	BH	34	PRO	2.5
42	BT	151	ASP	2.5
43	BU	29	GLU	2.5
6	AF	72	VAL	2.5
31	BI	45	ALA	2.5
30	BH	95	LEU	2.5
42	BT	81	VAL	2.5
45	BW	35	GLY	2.5
30	BH	150	VAL	2.5
3	AC	88	ARG	2.5
8	AH	112	LEU	2.5
7	AG	109	ASN	2.5
13	AM	39	ILE	2.5
6	AF	39	LYS	2.5
18	AR	53	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
39	BQ	91	PHE	2.5
7	AG	29	LYS	2.5
47	BY	62	ARG	2.5
37	BO	88	ILE	2.5
24	BB	45	GLU	2.5
42	BT	150	GLY	2.5
49	B1	7	ARG	2.5
42	BT	148	THR	2.5
3	AC	90	GLU	2.5
4	AD	174	LEU	2.5
40	BR	17	TYR	2.5
9	AI	53	VAL	2.5
48	BZ	50	GLY	2.5
7	AG	24	THR	2.5
2	AB	180	LEU	2.5
2	AB	176	GLU	2.4
26	BD	12	VAL	2.4
35	BM	62	GLY	2.4
36	BN	117	ILE	2.4
2	AB	38	GLY	2.4
26	BD	14	PRO	2.4
38	BP	66	GLY	2.4
32	BJ	71	THR	2.4
8	AH	34	GLU	2.4
33	BK	122	ALA	2.4
11	AK	102	GLY	2.4
24	BB	19	ARG	2.4
31	BI	32	LYS	2.4
31	BI	59	ALA	2.4
45	BW	63	LYS	2.4
33	BK	119	PHE	2.4
38	BP	98	ILE	2.4
4	AD	176	LEU	2.4
13	AM	15	VAL	2.4
31	BI	77	THR	2.4
35	BM	12	ARG	2.4
7	AG	87	VAL	2.4
19	AS	33	THR	2.4
11	AK	127	LYS	2.4
19	AS	64	GLU	2.4
30	BH	65	LYS	2.4
33	BK	77	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
53	B5	160	LYS	2.4
7	AG	139	GLU	2.4
24	BB	8	LYS	2.4
30	BH	68	PRO	2.4
2	AB	116	GLU	2.4
8	AH	38	ILE	2.4
23	BA	119	ALA	2.4
23	BA	117	VAL	2.4
43	BU	54	GLY	2.4
33	BK	61	ARG	2.4
42	BT	166	LEU	2.4
7	AG	111	ARG	2.4
9	AI	92	TYR	2.4
40	BR	6	ILE	2.4
52	B4	24	LEU	2.4
53	B5	57	GLN	2.4
24	BB	184	VAL	2.4
35	BM	98	GLY	2.4
53	B5	76	ALA	2.4
24	BB	46	ALA	2.3
9	AI	103	THR	2.3
19	AS	18	LYS	2.3
4	AD	175	SER	2.3
42	BT	116	VAL	2.3
51	B3	56	ALA	2.3
30	BH	156	HIS	2.3
42	BT	6	LYS	2.3
46	BX	48	LYS	2.3
9	AI	88	TYR	2.3
2	AB	120	ALA	2.3
10	AJ	80	LYS	2.3
35	BM	93	SER	2.3
7	AG	106	GLN	2.3
7	AG	119	ARG	2.3
7	AG	130	GLY	2.3
36	BN	30	GLY	2.3
41	BS	114	ILE	2.3
2	AB	75	LYS	2.3
38	BP	12	TYR	2.3
40	BR	45	ALA	2.3
42	BT	136	VAL	2.3
23	BA	5	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
19	AS	68	GLY	2.3
34	BL	32	GLY	2.3
40	BR	43	GLN	2.3
31	BI	53	ALA	2.3
7	AG	133	GLY	2.3
24	BB	197	VAL	2.3
30	BH	39	GLN	2.3
2	AB	86	GLU	2.3
23	BA	17	THR	2.3
45	BW	6	MET	2.3
33	BK	73	LYS	2.3
7	AG	67	GLU	2.3
39	BQ	60	ILE	2.3
45	BW	10	GLN	2.3
3	AC	96	GLY	2.3
7	AG	75	VAL	2.3
30	BH	79	PHE	2.3
38	BP	42	GLY	2.3
48	BZ	54	GLY	2.3
38	BP	58	ALA	2.3
3	AC	173	VAL	2.3
24	BB	24	THR	2.3
35	BM	96	TYR	2.3
40	BR	4	TYR	2.3
2	AB	63	MET	2.3
10	AJ	89	ASP	2.3
19	AS	34	TRP	2.3
43	BU	72	LYS	2.3
51	B3	57	ARG	2.3
2	AB	238	LEU	2.3
31	BI	92	ASP	2.3
33	BK	13	GLN	2.3
52	B4	26	ILE	2.3
42	BT	11	LYS	2.3
6	AF	12	PRO	2.3
49	B1	42	PRO	2.3
3	AC	39	ILE	2.2
36	BN	119	SER	2.2
38	BP	4	ILE	2.2
37	BO	90	LEU	2.2
47	BY	61	LYS	2.2
30	BH	120	SER	2.2

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Mol	Chain	Res	Type	RSRZ
32	BJ	87	THR	2.2
38	BP	14	VAL	2.2
2	AB	56	ARG	2.2
10	AJ	22	LYS	2.2
13	AM	83	ASP	2.2
38	BP	47	PHE	2.2
45	BW	5	GLU	2.2
40	BR	47	GLY	2.2
36	BN	72	SER	2.2
24	BB	171	GLU	2.2
27	BE	8	PRO	2.2
43	BU	28	GLY	2.2
3	AC	69	HIS	2.2
24	BB	49	ILE	2.2
39	BQ	49	SER	2.2
42	BT	51	LEU	2.2
6	AF	31	GLU	2.2
23	BA	193	ILE	2.2
33	BK	88	LYS	2.2
24	BB	55	ALA	2.2
53	B5	1	MET	2.2
2	AB	233	SER	2.2
27	BE	61	HIS	2.2
3	AC	81	GLY	2.2
7	AG	40	ALA	2.2
30	BH	123	PRO	2.2
23	BA	147	LEU	2.2
18	AR	68	LYS	2.2
3	AC	171	GLY	2.2
8	AH	117	GLY	2.2
30	BH	124	GLU	2.2
24	BB	196	VAL	2.2
31	BI	85	ASP	2.2
2	AB	35	GLU	2.2
37	BO	73	GLY	2.2
42	BT	49	THR	2.2
35	BM	33	ARG	2.2
45	BW	30	PHE	2.2
6	AF	32	ASN	2.2
36	BN	112	GLY	2.2
45	BW	27	GLU	2.2
9	AI	41	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
23	BA	129	ASN	2.2
10	AJ	4	ILE	2.2
25	BC	192	ALA	2.2
30	BH	119	LEU	2.2
7	AG	50	ILE	2.2
11	AK	18	ARG	2.2
25	BC	195	ILE	2.2
2	AB	79	ASP	2.2
29	BG	8	VAL	2.2
24	BB	201	ALA	2.2
10	AJ	94	VAL	2.1
46	BX	6	VAL	2.1
37	BO	105	ALA	2.1
13	AM	42	ALA	2.1
9	AI	24	GLY	2.1
24	BB	71	GLY	2.1
30	BH	99	VAL	2.1
40	BR	87	SER	2.1
7	AG	71	PRO	2.1
7	AG	25	ALA	2.1
9	AI	27	THR	2.1
42	BT	26	LYS	2.1
33	BK	51	CYS	2.1
6	AF	56	PRO	2.1
36	BN	100	ARG	2.1
47	BY	7	PRO	2.1
7	AG	47	CYS	2.1
4	AD	145	GLU	2.1
11	AK	76	GLY	2.1
18	AR	69	THR	2.1
51	B3	22	VAL	2.1
23	BA	28	ARG	2.1
19	AS	16	LEU	2.1
24	BB	68	ALA	2.1
40	BR	82	LEU	2.1
27	BE	56	SER	2.1
53	B5	4	ASP	2.1
45	BW	16	LYS	2.1
45	BW	23	LYS	2.1
51	B3	15	LYS	2.1
4	AD	143	GLY	2.1
24	BB	33	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
24	BB	195	LEU	2.1
31	BI	83	ARG	2.1
36	BN	120	ASP	2.1
36	BN	121	ARG	2.1
46	BX	5	LEU	2.1
34	BL	79	VAL	2.1
38	BP	56	VAL	2.1
45	BW	20	ALA	2.1
39	BQ	54	GLU	2.1
23	BA	25	THR	2.1
25	BC	22	VAL	2.1
38	BP	35	LEU	2.1
41	BS	62	MET	2.1
8	AH	123	GLU	2.1
4	AD	184	LYS	2.1
26	BD	120	ASN	2.1
2	AB	134	GLU	2.1
6	AF	66	GLU	2.1
24	BB	74	PRO	2.1
45	BW	60	LEU	2.1
33	BK	80	ALA	2.1
23	BA	97	TYR	2.1
34	BL	80	MET	2.1
35	BM	99	ARG	2.1
53	B5	159	THR	2.1
23	BA	90	ALA	2.1
30	BH	166	LEU	2.1
34	BL	75	VAL	2.1
24	BB	84	PHE	2.1
51	B3	14	ILE	2.1
2	AB	190	THR	2.1
6	AF	54	LYS	2.1
27	BE	160	LYS	2.1
31	BI	55	VAL	2.1
39	BQ	90	LEU	2.1
7	AG	154	TYR	2.0
10	AJ	86	MET	2.0
24	BB	67	PHE	2.0
18	AR	36	ASN	2.0
42	BT	1	MET	2.0
3	AC	42	LEU	2.0
19	AS	53	ASN	2.0

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Mol	Chain	Res	Type	RSRZ
43	BU	50	GLY	2.0
38	BP	46	VAL	2.0
52	B4	10	MET	2.0
19	AS	65	ASN	2.0
2	AB	52	GLU	2.0
3	AC	74	GLY	2.0
25	BC	193	LEU	2.0
28	BF	34	LEU	2.0
41	BS	61	SER	2.0
45	BW	28	LEU	2.0
26	BD	128	TYR	2.0
38	BP	60	VAL	2.0
4	AD	49	ARG	2.0
13	AM	44	ARG	2.0
34	BL	84	ALA	2.0
11	AK	75	TYR	2.0
3	AC	85	ARG	2.0
34	BL	30	ARG	2.0
4	AD	128	VAL	2.0
11	AK	80	VAL	2.0
11	AK	40	ILE	2.0

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

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

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

There are no ligands in this entry.

6.5 Other polymers ⓘ

There are no such residues in this entry.