



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 09:20 PM GMT

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
<http://wwpdb.org/validation/2016/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
Mogul : 1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix) : 1.9-1692
EDS : rb-20026688
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk26865

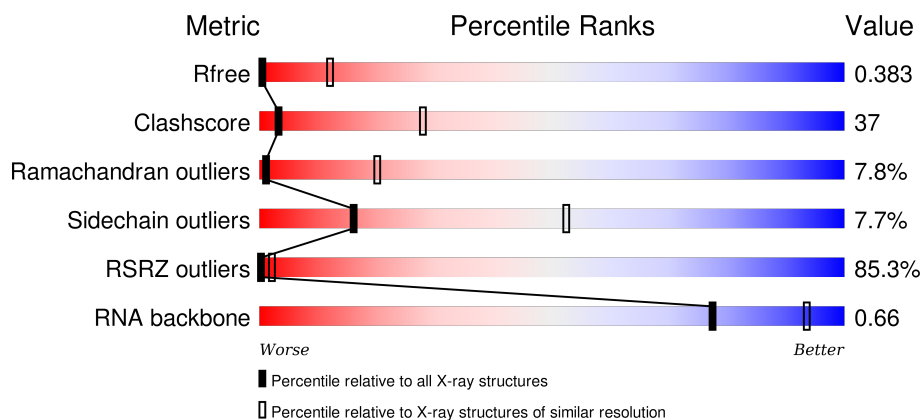
1 Overall quality at a glance

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}	91344	1015 (11.50-3.66)
Clashscore	102246	1065 (15.00-3.70)
Ramachandran outliers	100387	1036 (11.50-3.66)
Sidechain outliers	100360	1006 (11.50-3.66)
RSRZ outliers	91569	1014 (11.50-3.66)
RNA backbone	2183	1106 (11.50-2.80)

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. 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> <div>23%</div> <div>58%</div> <div>15%</div> <div>.</div> </div> </div>
2	AB	234	<div> <div>33%</div> <div>29%</div> <div>56%</div> <div>13%</div> <div>.</div> </div>
3	AC	206	<div> <div>82%</div> <div>30%</div> <div>51%</div> <div>17%</div> <div>.</div> </div>
4	AD	208	<div> <div>97%</div> <div>39%</div> <div>55%</div> <div>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	73% 100%
31	BI	132	43% 99%
32	BJ	141	82% 99%
33	BK	124	40% 100%
34	BL	114	92% 99%
35	BM	111	35% 100%
36	BN	125	44% 100%
37	BO	117	85% 100%
38	BP	100	87% 100%
39	BQ	130	85% 100%
40	BR	93	82% 100%
41	BS	113	99% 100%
42	BT	173	61% 100%
43	BU	86	71% 100%
44	BV	16	100%
45	BW	65	83% 100%
46	BX	55	82% 100%
47	BY	73	64% 100%
48	BZ	58	79% 100%
49	B1	53	51% 100%
50	B2	46	100%
51	B3	63	98% 100%
52	B4	35	77% 100%
53	B5	217	49% 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	S	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

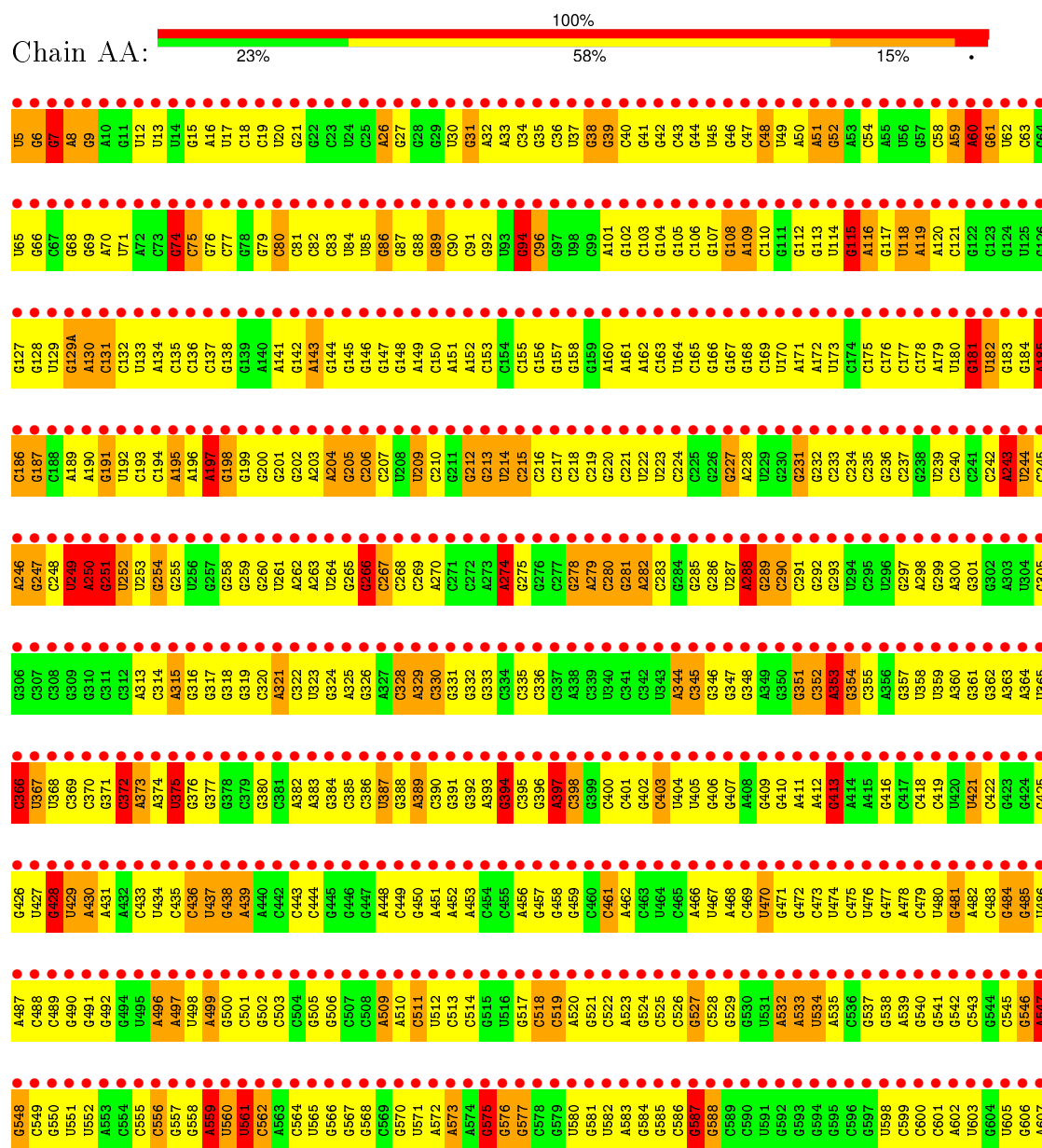
- Molecule 53 is a protein called 50S ribosomal protein L1P.

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

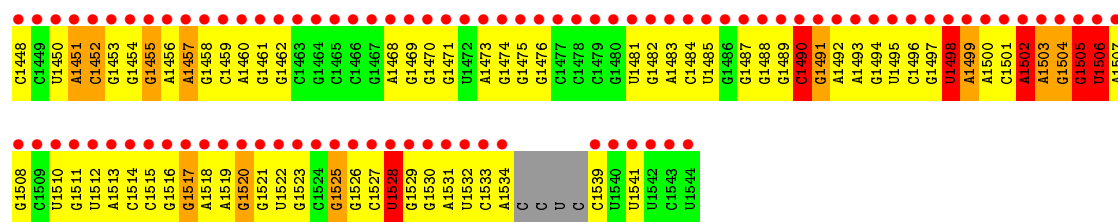
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors 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.

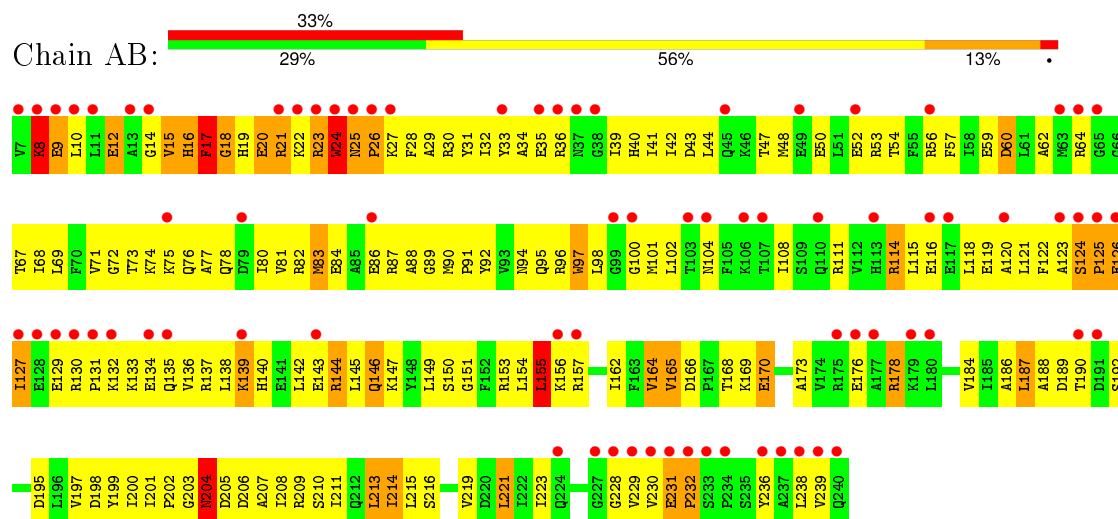
• Molecule 1: 16S RIBOSOMAL RNA



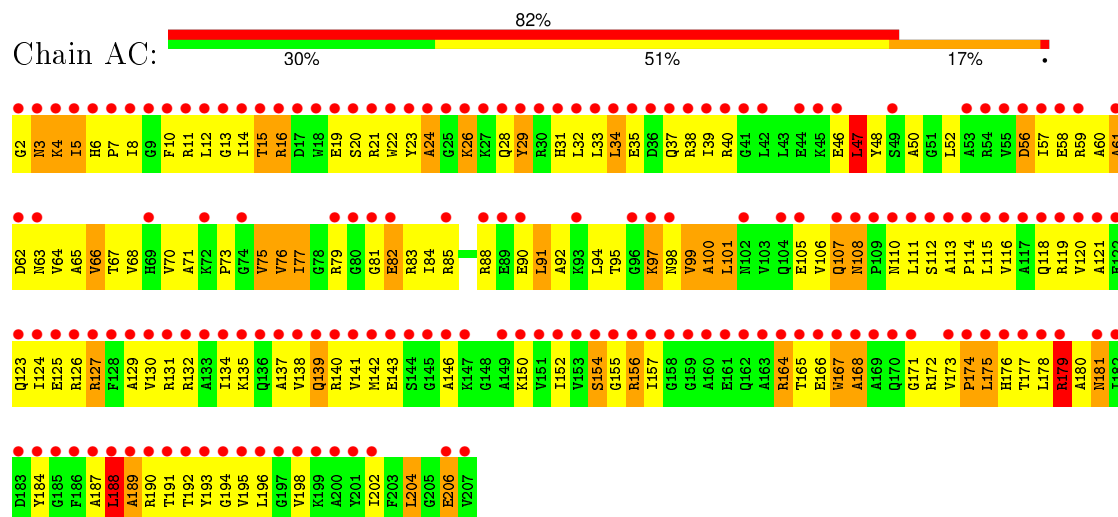
G1387	C1328	A1268	C1208	C1147	G1087	C1027	A968	A908	G848	U788	C728	G668	A608
C1388	A1329	A1269	C1209	U1148	G1088	C1028	A969	A909	C849	U789	A729	U669	A609
C1389	A1330	C1270	C1210	C1149	G1089	U1029	C970	C910	C850	G790	U850	G670	G610
G1390	A1331	G1271	U1211	U1150	U1090	U1030	G971	U911	G851	G791	C731	G671	A611
U1391	U1212	G1272	U1212	A1151	U1091	C1031	C972	C912	G852	U792	G732	U672	C612
U1392	A1333	G1273	A1213	A1152	A1092	G1032	G973	A913	G853	U793	A733	G673	C613
G1393	G1334	G1274	C1214	C1153	A1093	G1033	A974	A914	G854	A794	G734	G674	A614
A1394	C1335	A1275	G1215	G1154	G1094	G1034	A975	A915	G855	C795	G735	A675	C615
C1395	G1336	G1276	G1216	G1155	U1095	A1035	G976	A916	C856	G796	C736	A676	G616
A1396	G1337	G1277	C1217	G1156	U1096	G1036	A977	A917	C857	G797	A737	U677	G617
C1397	G1338	U1278	C1218	A1157	U1097	G1037	A978	A918	G858	G798	C738	U678	C618
A1398	A1339	A1279	U1219	C1158	C1098	C1038	C979	A919	A859	G799	C739	C679	U619
C1399	A1340	A1280	G1220	U1159	G1099	C1039	C980	U920	A860	G800	U740	C680	C620
U1400	G1341	U1281	G1221	G1160	A1100	U1040	U981	U921	G861	U801	G741	C681	A621
G1401	C1342	C1282	G1222	C1161	C1101	A1041	U982	G922	C862	A802	G742	C682	A622
C1402	G1343	G1283	C1223	C1162	A1102	G1042	A983	A923	U863	G803	U743	C683	C623
C1403	C1344	C1284	G1224	C1163	C1103	C1043	C984	C924	A864	U804	C744	A684	C624
C1404	U1345	A1285	A1225	G1164	G1104	A1044	C985	G925	A865	C805	G745	G685	G625
G1405	A1346	A1286	C1226	C1165	A1105	C1045	A986	G926	C866	C806	A746	U686	U626
U1406	G1347	A1287	A1227	G1166	C1106	A1046	G987	G927	C867	A807	C747	A687	G627
C1407	U1348	A1288	C1228	A1167	C1107	G1047	C988	G928	C868	C808	C748	G688	G628
A1408	A1349	A1289	A1229	A1168	G1108	G1048	C989	G929	C869	G809	C749	C689	G629
C1409	A1350	G1290	C1230	A1169	C1109	U1049	C990	C930	U870	C810	U750	G690	G630
G1410	U1351	G1291	G1231	G1171	A1110	G1050	U991	C931	U871	C811	U751	G691	G631
C1411	C1352	U1292	U1232	C1172	A1111	C1051	U992	C932	A872	C812	G752	U692	A632
G1412	G1353	G1293	C1233	G1173	C1112	U1052	G993	G933	A873	U813	A753	G693	G633
A1413	C1354	G1294	C1234	G1174	C1113	G1053	A994	C934	G874	A814	C754	A694	C634
G1414	G1355	G1295	U1235	G1175	C1114	C1054	C995	A935	C875	A815	G755	A695	G635
U1415	C1356	C1296	A1236	A1176	C1115	A1055	A996	C936	G876	A816	C756	G696	U636
G1416	A1357	C1297	C1237	G1177	C1116	U1056	U997	A937	C877	C817	U757	U697	G637
G1417	U1358	C1298	A1238	G1178	G1117	G1057	G998	A938	G878	G818	C758	G698	G638
A1418	C1359	A1299	A1239	A1179	C1118	G1058	C999	G939	C879	A819	A759	C699	G639
G1419	A1360	G1300	U1240	A1180	C1119	C1059	U1000	C940	C880	U820	G760	C700	A640
U1420	G1361	U1301	G1241	G1181	G1120	C1060	A1001	G941	G881	G821	G761	C701	U641
C1421	C2361	U1302	C1242	G1182	U1121	G1061	G1002	G942	C882	C822	C762	A702	A642
G1422	C1362	C1303	G1243	A1183	U1122	U1062	G1003	U943	C883	G823	G763	G703	C643
G1423	A1363	G1304	C1244	G1184	A1123	C1063	G2003	G944	U884	C824	C764	A704	G644
C1424	U1364	A1305	C1245	G1185	G1124	G1064	A1004	G945	C885	G825	A705	C705	C645
U1425	G1365	C1306	A1246	G1186	U1125	U1065	A1005	A946	G886	C826	A706	U646	U646
C1426	C1366	U1307	U1247	G1187	U1126	C1066	C1006	G947	C887	U827	A707	C707	C647
U1427	C1367	U1308	A1248	A1188	G1127	A1067	C1007	C948	G888	A828	C708	A648	A648
A1428	G1368	G1309	C1249	C1189	C1128	G1068	C1008	A949	A889	G829	C709	G649	G649
C1429	C1369	G1310	A1250	G1190	C1129	C1069	G1009	U950	G890	U830	U710	G709	G650
G1430	U1370	C1311	C1251	A1191	A1130	U1070	G1010	U951	C891	U831	G711	G711	C651
C1431	G1371	G1312	A1252	C1192	G1131	C1071	G1011	U952	A892	C832	U712	A712	U652
G1432	C1372	U1313	G1253	G1193	C1132	G1072	U1012	G953	C893	U833	G713	G713	A653
A1433	G1373	C1314	C1254	U1194	G1133	U1073	G1013	G954	G894	C834	G714	A714	G654
C1434	A1374	U1315	G1255	C1195	G1134	G1074	A1014	U955	G895	U835	G715	A715	A655
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C1440	U1380	C1321	A1261	A1201	C1140	A1080	U1020	U961	A901	C841	A781	G721	G661
G1441	A1381	C1322	C1262	G1202	C1141	G1081	G1021	G962	G902	U842	A782	G722	G662
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G1443	C1383	A1324	C1264	A1204	U1083	U1083	G1023	A964	C904	A844	C784	G724	G664
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C1446	G1385	C1326	G1266	G1206	C1145	U1085	U1025	G966	C906	C946	G786	C726	G666
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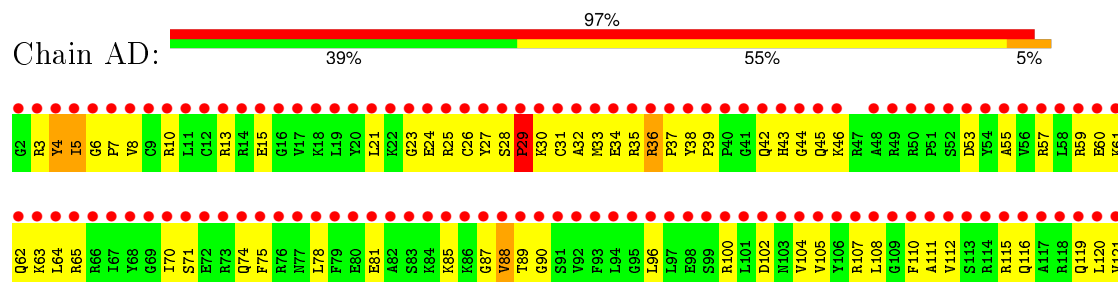
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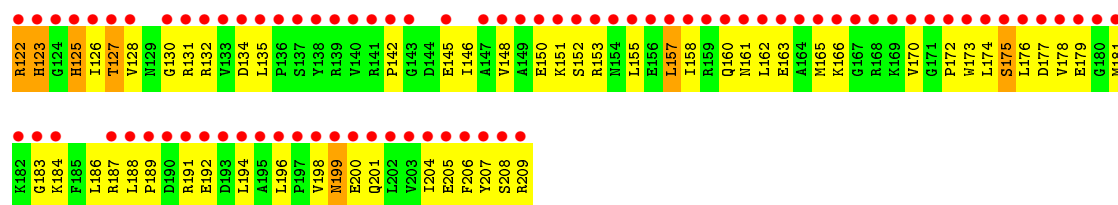


• Molecule 3: 30S ribosomal protein S3

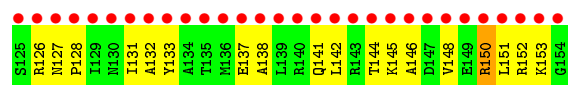
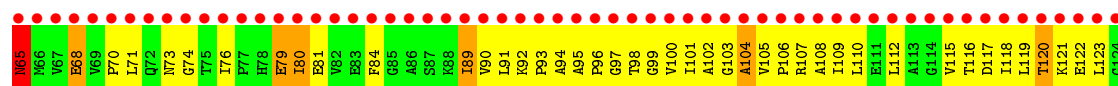
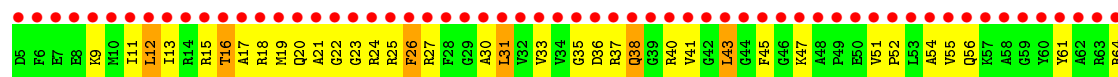


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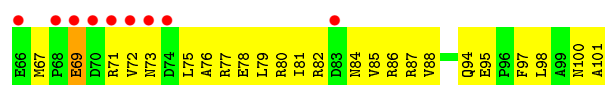
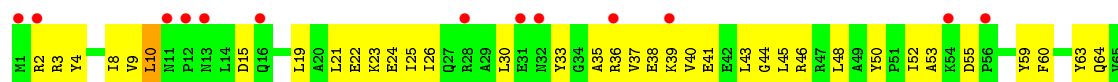
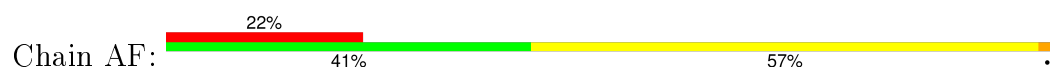




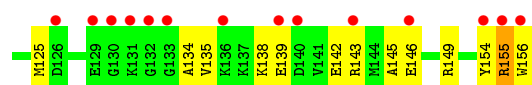
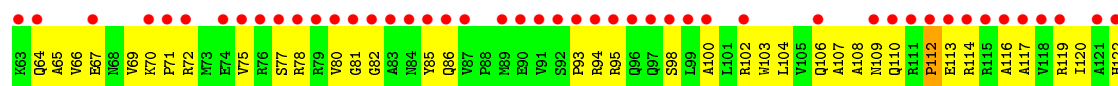
• Molecule 5: 30S ribosomal protein S5



• Molecule 6: 30S ribosomal protein S6

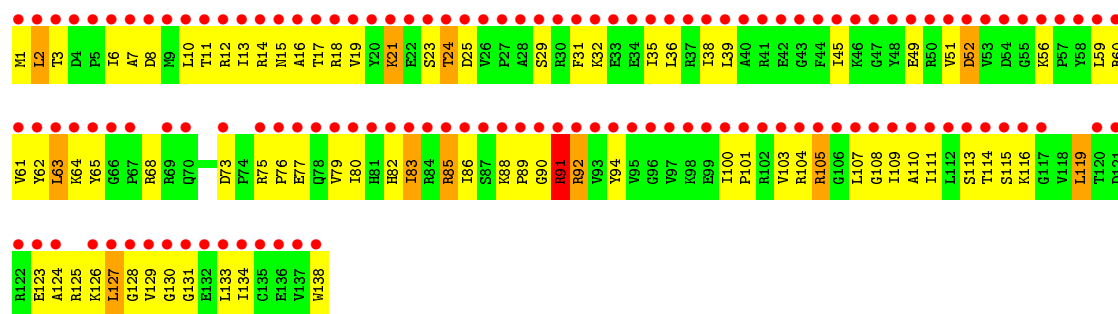


• Molecule 7: 30S ribosomal protein S7

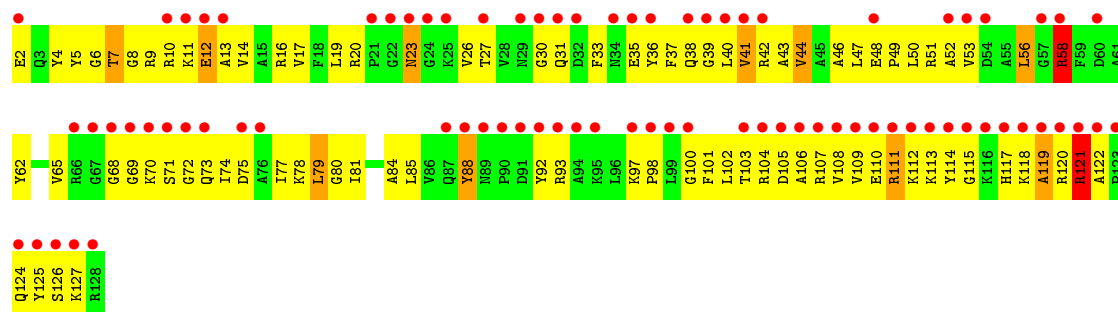


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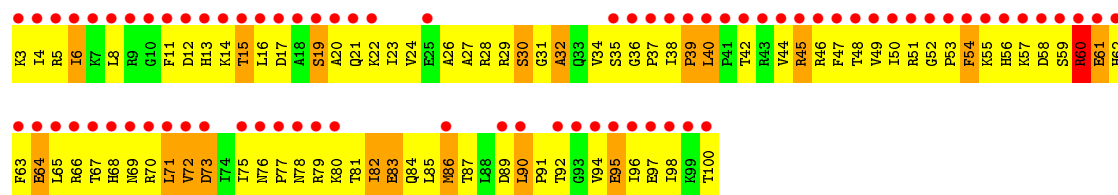
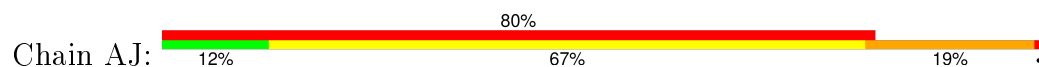




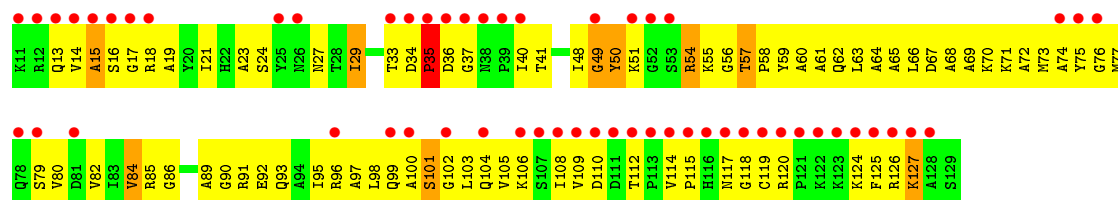
• Molecule 9: 30S ribosomal protein S9

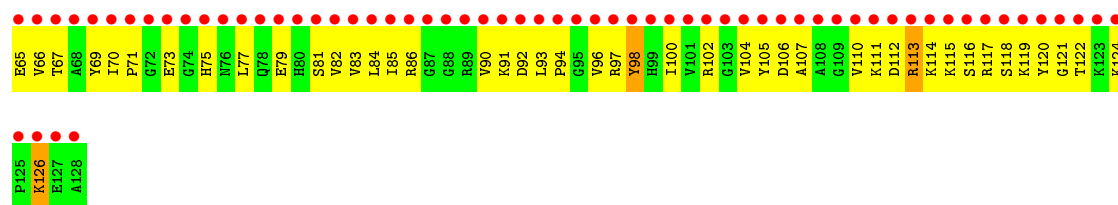


• Molecule 10: 30S ribosomal protein S10

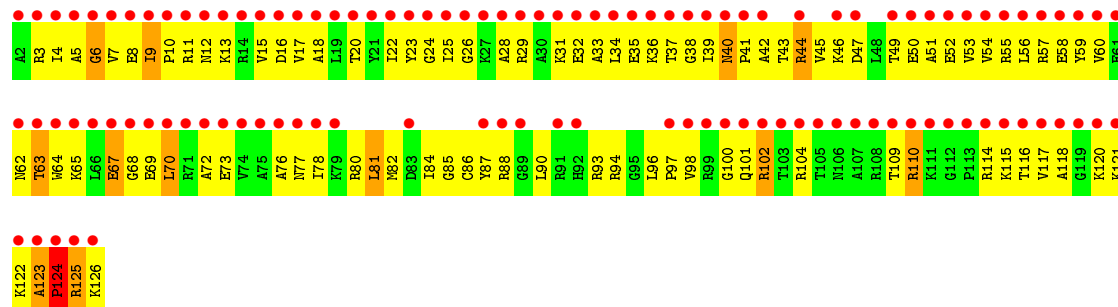


• Molecule 11: 30S ribosomal protein S11

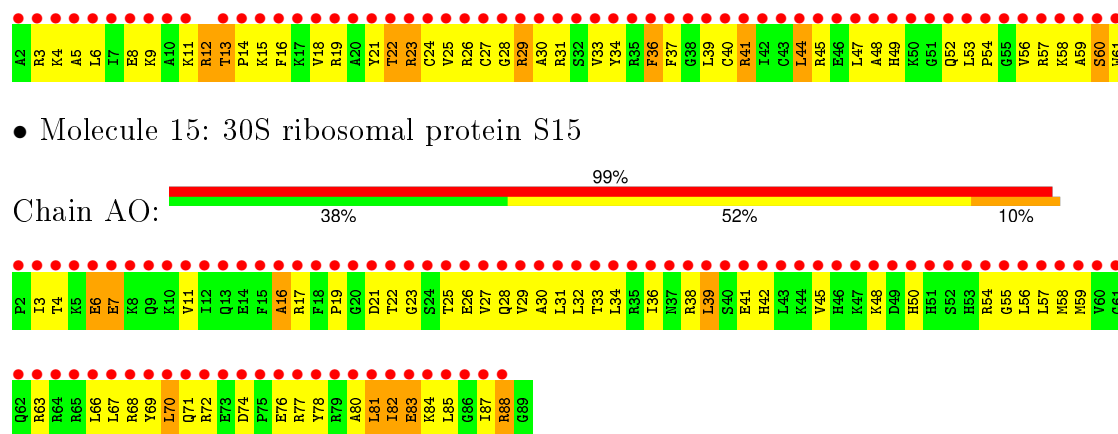




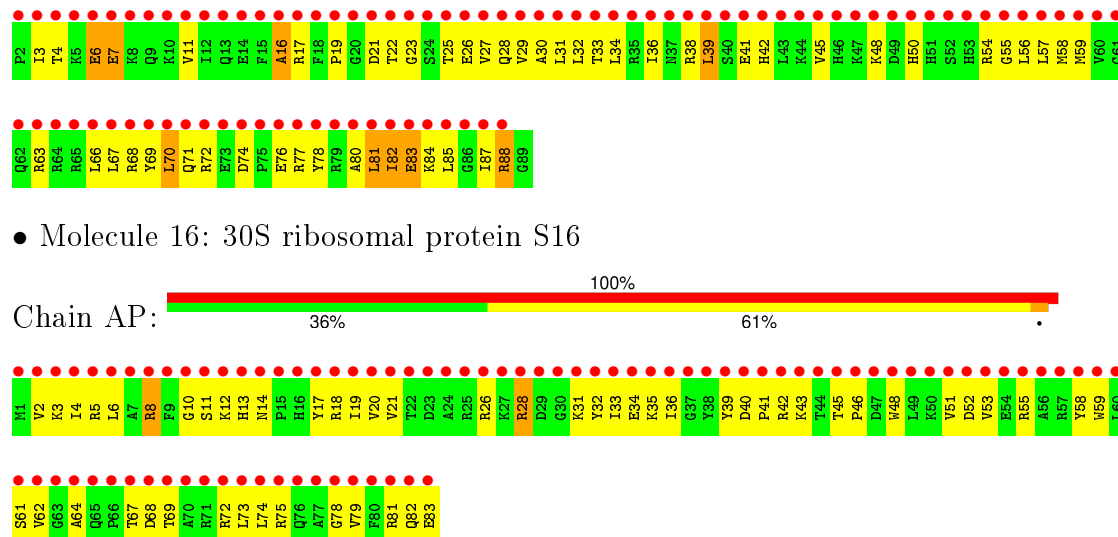
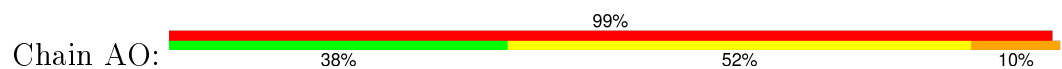
• Molecule 13: 30S ribosomal protein S13



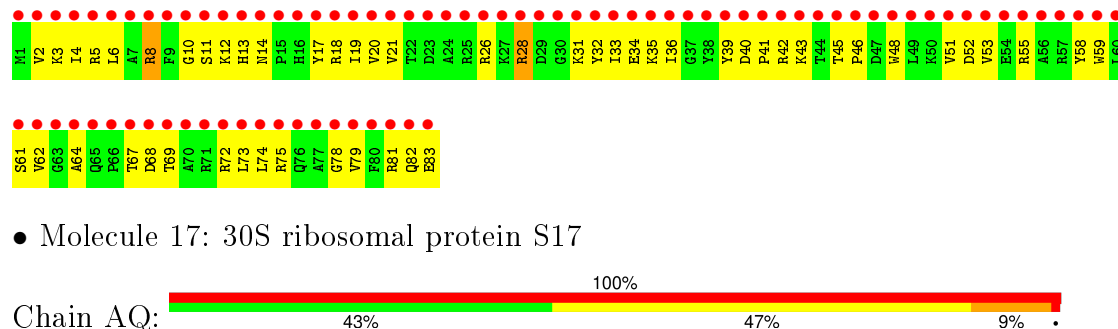
• Molecule 14: 30S ribosomal protein S14



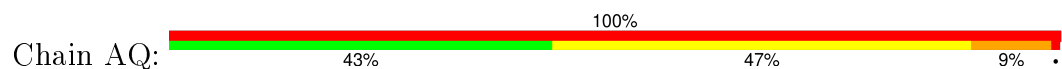
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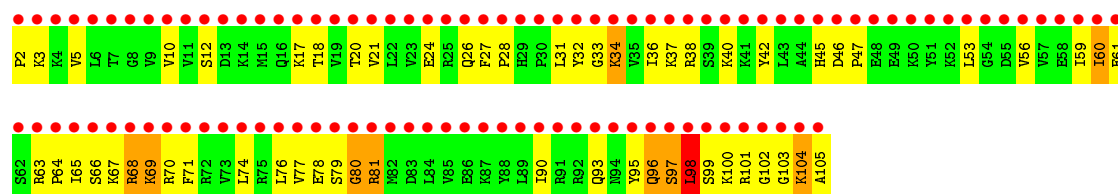


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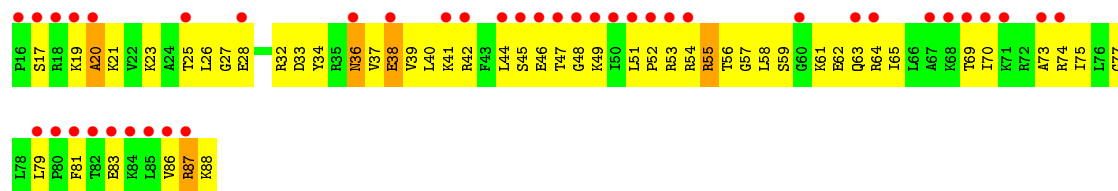


• Molecule 17: 30S ribosomal protein S17

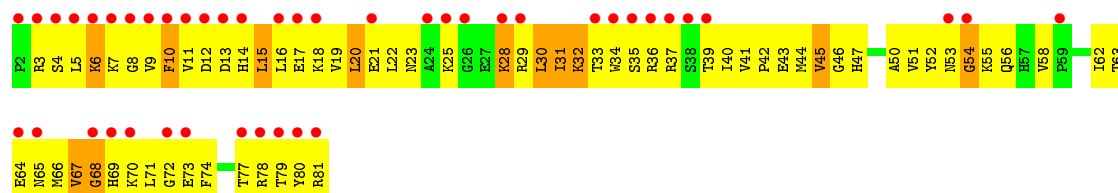




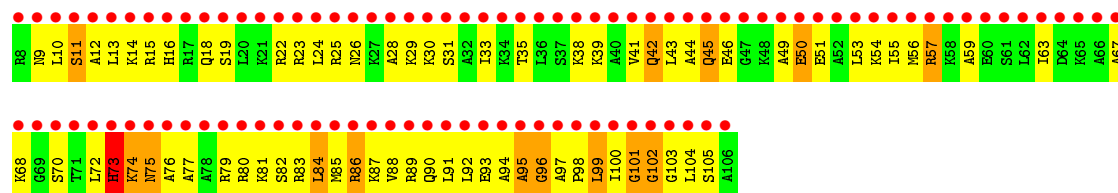
• Molecule 18: 30S ribosomal protein S18



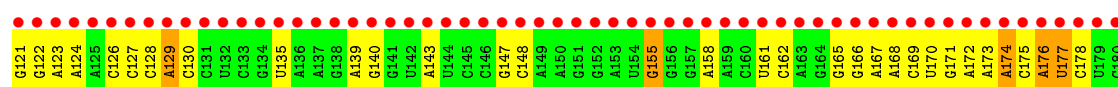
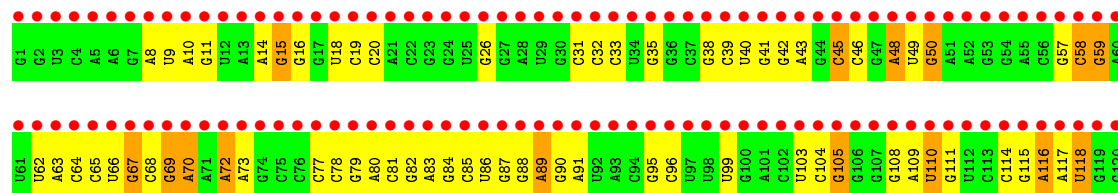
• Molecule 19: 30S ribosomal protein S19



• Molecule 20: 30S ribosomal protein S20



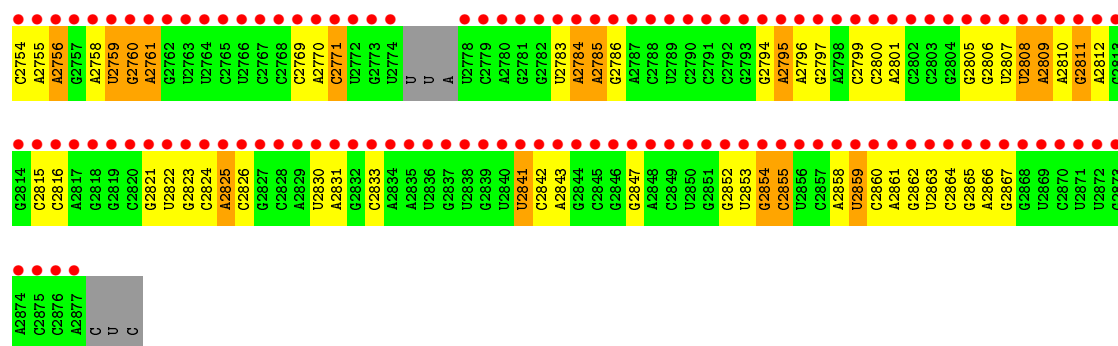
• Molecule 21: 23S RIBOSOMAL RNA



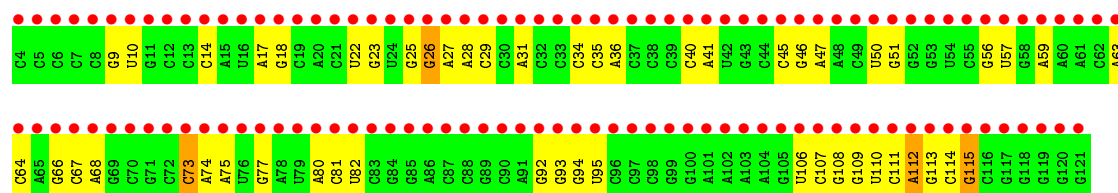
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A1025	U965	U904	U845	U785	G725	G665	G605	A545	G485	C425	U365	A305	C245	G185
U1026	A966	G905	A846	U786	G726	U666	A606	A546	U486	C426	U366	G306	G246	C186
C1027	G967	U906	C847	G787	G727	U667	G607	U547	C487	C427	G367	C307	A247	U187
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G1882	G1831	A1771	C1711	U1651	U1591	C1531	G1471	A1411	G1351	G1291	A1231	A1171	C1111
A1883	U1832	C1772	G1712	G1652	U1592	A1532	C1472	C1412	G1352	A1292	U1232	U1172	U1112
A1884	C1833	C1773	G1713	C1653	C1593	G1533	U1473	U1413	A1353	A1293	A1233	G1173	C1113
C1885	G1834	A1774	A1714	A1654	U1594	A1534	A1474	G1414	A1354	G1294	C1234	G1174	A1114
G1886	G1835	A1775	A1715	C1655	U1595	C1535	U1475	C1415	A1355	U1295	C1235	A1175	C1115
G1887	C1836	A1776	U1716	U1656	A1596	G1536	G1476	A1416	G1356	G1296	G1236	U1176	U1116
G1888	G1837	A1777	A1717	A1657	A1597	U1537	G1477	C1417	U1357	A1297	G1237	U1177	G1117
G1889	G1838	U1778	A1718	A1658	C1598	A1538	U1478	C1418	C1358	G1298	A1238	G1178	C1118
C1890	A1839	C1779	G1719	G1659	G1599	U1539	G1479	A1419	G1359	A1299	A1239	A1179	U1119
C1891	A1840	U1780	G1720	G1660	U1600	C1540	G1480	A1420	G1360	A1300	G1240	A1180	C1120
C1892	G1841	G1781	G1721	C1661	U1601	G1541	U1481	U1421	G1361	U1301	A1241	C1181	G1121
G1893	G1842	G1782	G1722	G1662	G1602	G1542	U1482	C1422	A1362	G1302	A1242	U1182	A1122
U1894	G1843	G1783	G1723	C1663	A1603	G1543	G1483	A1423	C1363	U1303	G1243	C1183	G1123
A1895	C1844	C1784	C1724	G1664	A1604	A1544	G1484	U1424	G1364	U1304	U1244	G1184	U1124
A1896	A1845	A1785	C1725	C1665	A1605	G1545	U1485	G1425	U1365	C1305	G1245	C1185	G1125
C1897	A1846	G1786	C1726	G1666	C1606	C1546	A1486	U1426	A1366	U1306	G1246	G1186	A1126
U1898	G1847	U1787	C1727	A1667	A1607	U1547	G1487	G1427	A1367	G1307	U1247	A1187	C1127
A1899	U1848	G1788	A1728	G1668	U1608	U1548	G1488	G1428	G1368	C1308	G1248	A1188	G1128
U1900	G1849	U1789	G1729	A1669	G1609	C1549	G1489	A1429	G1369	G1309	G1249	G1189	A1129
A1901	G1850	G1790	G1730	U1670	A1610	C1550	U1490	G1430	U1370	C1310	A1250	C1190	U1130
A1902	A1851	C1791	C1731	A1671	U1611	U1551	C1491	U1431	G1371	C1311	G1251	G1191	G1131
C1903	G1852	C1792	U1732	A1672	U1612	C1552	A1492	G1432	A1372	G1312	C1252	A1192	C1132
G1904	C1853	A1793	C1733	C1673	G1613	G1553	A1493	A1433	G1373	U1313	C1253	G1193	C1133
G1905	G1854	A1794	C1734	C1674	C1614	G1554	G1494	U1434	G1374	A1314	G1254	U1194	C1134
U1906	G1855	G1795	G1735	C1675	C1615	A1555	G1495	A1435	C1375	A1315	A1255	U1195	G1135
C1907	U1856	A1796	U1736	U1676	C1616	A1556	G1496	G1436	C1376	A1316	C1256	U1196	G1136
C1908	A3865	C1797	G1737	C1677	G1617	G1557	C1497	A1437	G1377	G1317	U1257	U1197	A1137
U1909	G1866	U1798	U1738	G1678	U1618	C1558	G1498	G1438	A1378	A1318	G1258	C1198	A1138
A1910	A1910	A1799	G1739	U1679	A1619	G1559	A1499	G1439	A1379	A1319	A1259	U1199	A1139
A1911	U3868	A1800	G1740	U1680	C1620	A1560	U1500	G1440	C1380	A1320	A1260	G1200	A1140

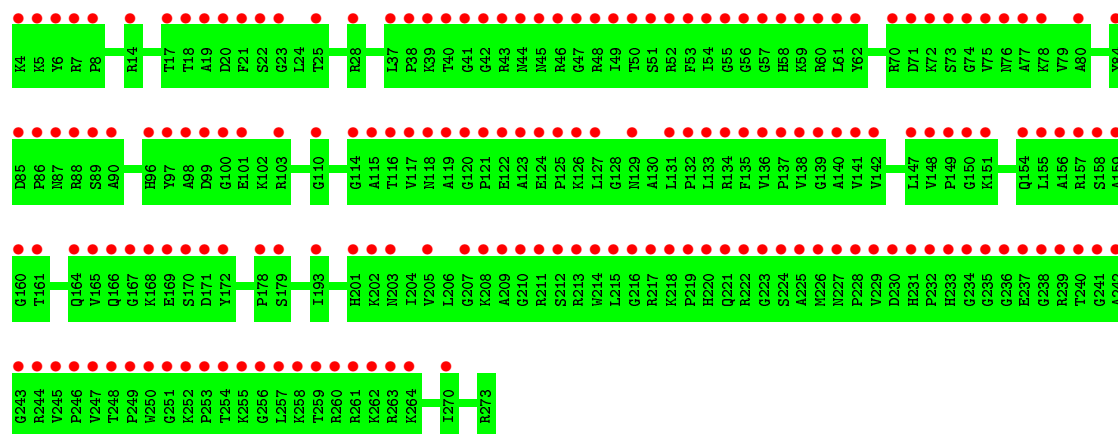




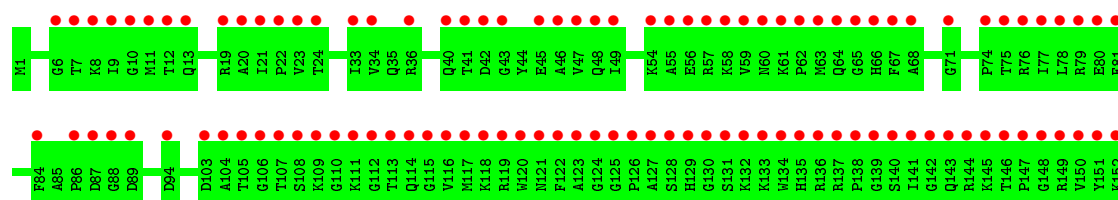
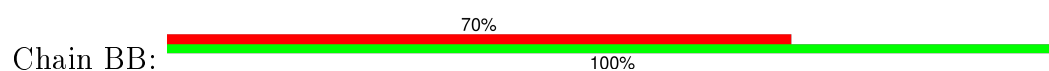
• Molecule 22: 5S RIBOSOMAL RNA

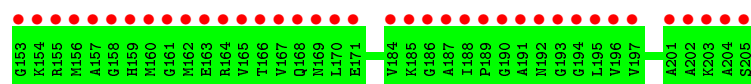


• Molecule 23: 50S ribosomal protein L2

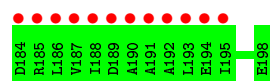
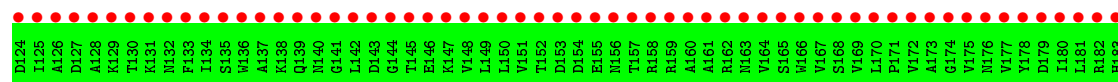
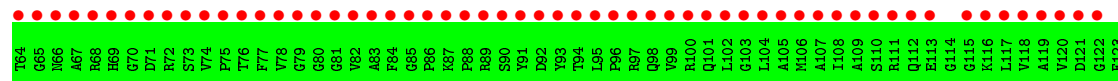
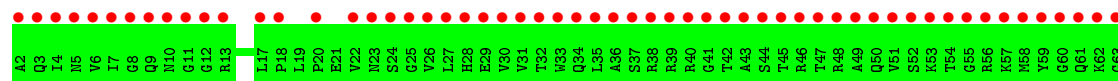


• Molecule 24: 50S ribosomal protein L3

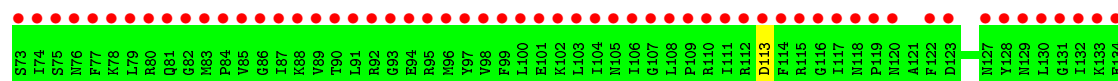
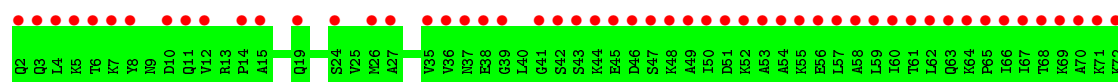
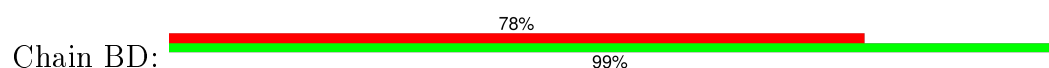




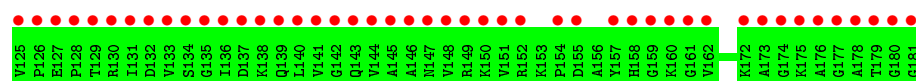
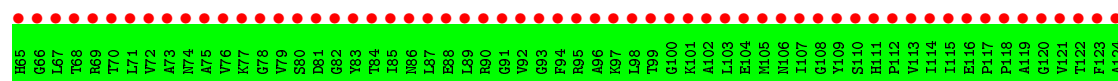
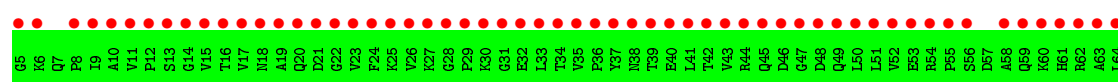
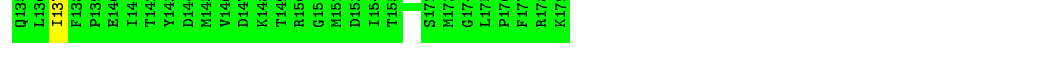
● Molecule 25: 50S ribosomal protein L4



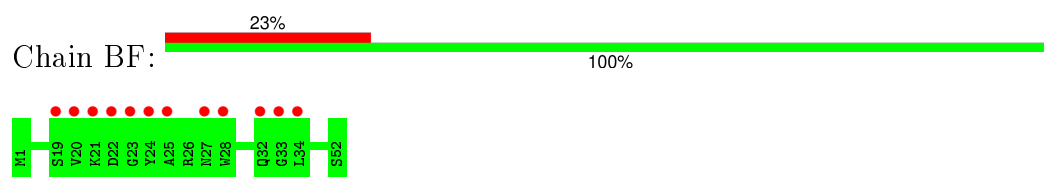
● Molecule 26: 50S ribosomal protein L5



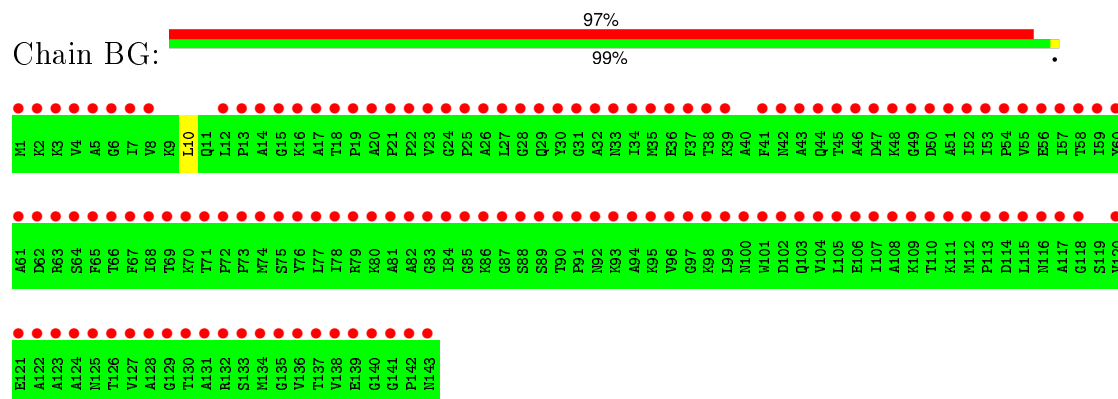
● Molecule 27: 50S ribosomal protein L6



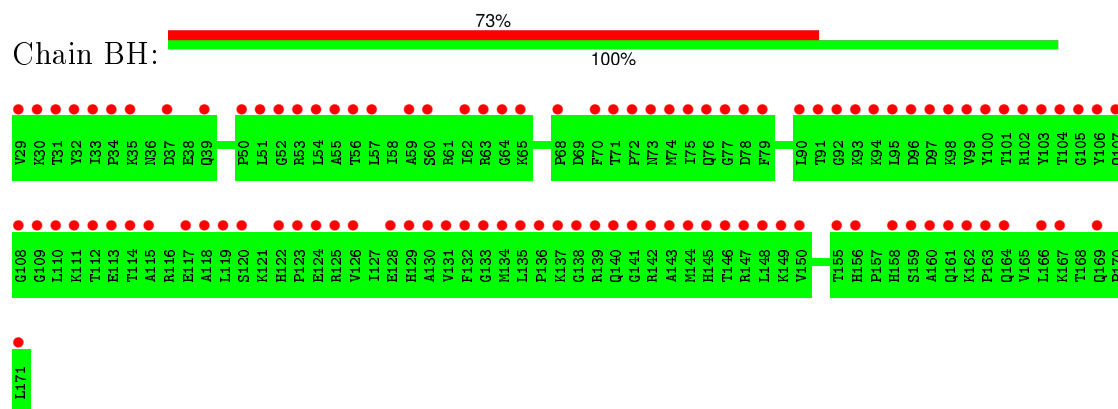
● Molecule 28: 50S ribosomal protein L9



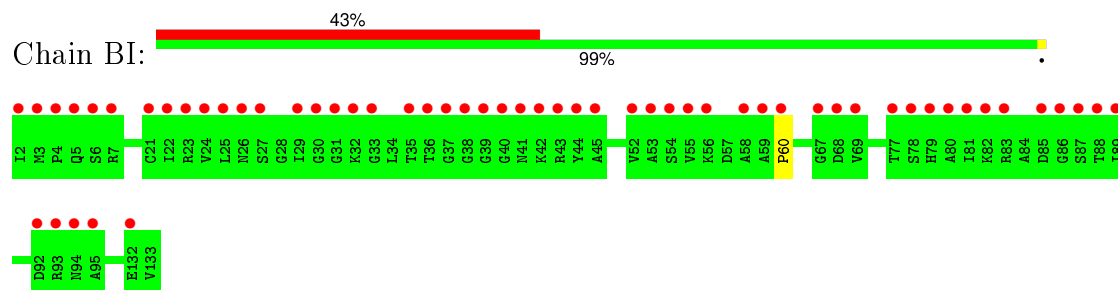
- Molecule 29: 50S ribosomal protein L11



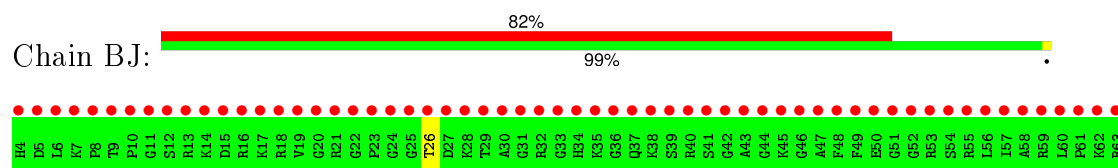
- Molecule 30: 50S ribosomal protein L13

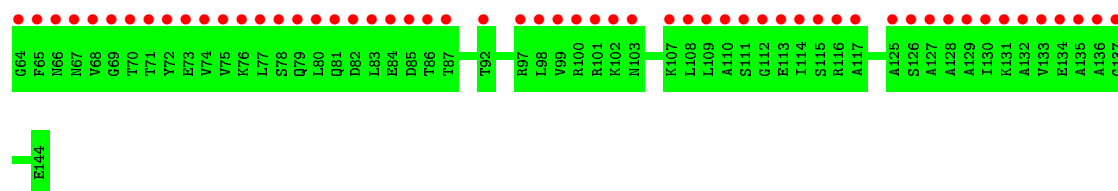


- Molecule 31: 50S ribosomal protein L14

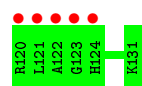
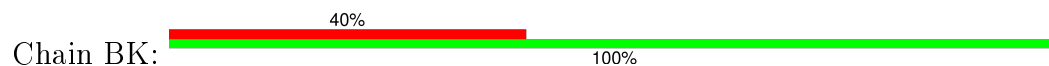


- Molecule 32: 50S ribosomal protein L15

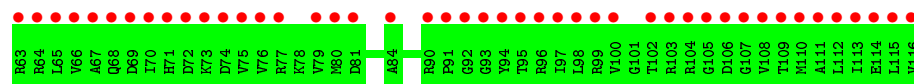




- Molecule 33: 50S ribosomal protein L16



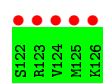
- Molecule 34: 50S ribosomal protein L17



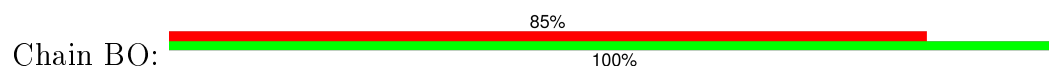
- Molecule 35: 50S ribosomal protein L18



- Molecule 36: 50S ribosomal protein L19



- Molecule 37: 50S ribosomal protein L20



P2 R3 R4 A4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15 R16 R17 R18 R19 R20 R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34 R35 R36 R37 R38 R39 R40 R41 R42 R43 R44 R45 R46 R47 R48 R49 R50 R51 R52 R53 R54 R55 R56 R57 R58 R59 R60 R61

I62 Q63 R64 I65 A66 N67 H72 G73 M74 N75 Y76 Y77 T78 F79 I80 N81 N82 G83 L84 R85 R86 N87 I88 D89 L90 N91 R92 R93 R94 V95 A96 D97 A105 F106 K107 A108 L109 V110 D111 A112 S113 R114 N115 Q118


- Molecule 38: 50S ribosomal protein L21

Chain BP:  87%
100%

H1 F2 F3 A3 I4 I5 I6 T7 T8 G9 G10 K11 Q12 Y13 R14 R15 Y16 Y17 R18 R19 V20 V21 R22 V23 E24 S25 L26 Q27 E28 V33 E34 L35 R36 F39 V40 G41 G42 T45 V46 G48 E49 D50 A51 G52 R53 Y54 T55 V56 Q57 A58 E59 V60 V61 E62 H63 G64 R65

G66 K67 K68 I69 Y70 Y71 R72 K73 Y74 Y75 S76 G77 Y78 Q79 Y80 R81 R82 R83 T84 G85 R86 R87 R88 Q89 N90 Y91 T92 I93 R94 I95 L96 Q97 Q98 Q99 G100


- Molecule 39: 50S ribosomal protein L22

Chain BQ:  85%
100%

E5 F8 R9 R10 K11 K12 Q13 K14 K15 Q16 Q17 V18 K19 L20 L21 R22 P23 Q24 F25 F26 V27 V28 A29 Y30 Y31 R32 R33 S34 P35 R36 K37 V38 R39 L40 L41 V42 D43 V44 R45 R46 A47 K48 S49 V50 A53 E54 T60 P61 R62 S63 A64 S65 P66 P67 V68 A69 K70

V71 L72 M73 S74 A75 K76 A77 N78 A79 L80 H81 H82 D83 E84 E87 L90 F91 A92 A93 E94 A95 A96 Y97 D98 A99 G100 P101 T102 L103 K104 A105 L106 L107 L108 P109 V110 A111 G112 S113 A114 N115 I116 I117 K118 K119 R120 T121 S122 H123 I124 T125 I126 V127 V128 A129 K134

- Molecule 40: 50S ribosomal protein L23

Chain BR:  82%
100%

S2 R3 R4 V4 D5 I6 I7 I8 Q9 A9 R10 H11 V12 I13 S14 E15 K16 A17 V18 R19 I20 S21 G23 Y25 I26 F27 F28 V29 S30 R31 F32 K33 K34 A35 T36 E37 I38 L39 K40 D41 A42 L43 Q44 A45 F46 Q47 V50 I51 G52 I53 S54 T55 P56 N57 V58 P59 G60 K61 R62 R63 R64

V65 G66 R67 F68 I69 G70 G71 R72 N73 H74 D75 R76 K77 K78 A79 V80 R81 L82 S87 Q94

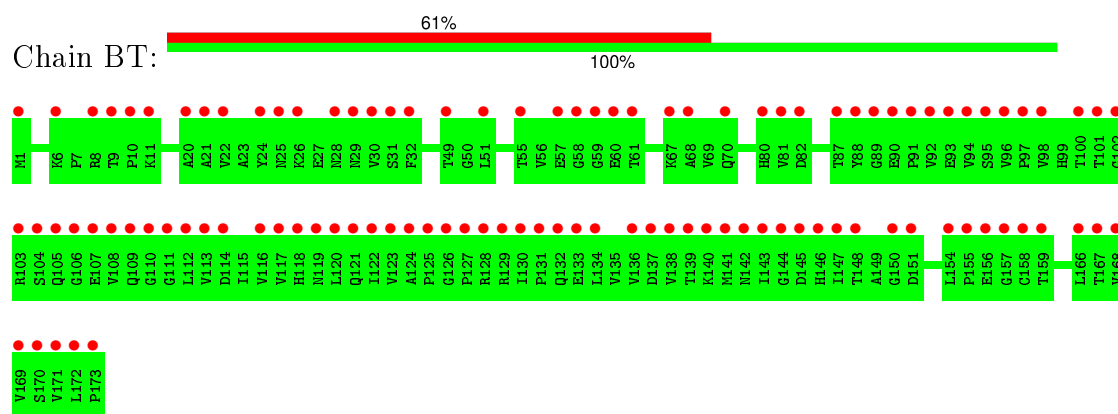
- Molecule 41: 50S ribosomal protein L24

Chain BS:  99%
100%

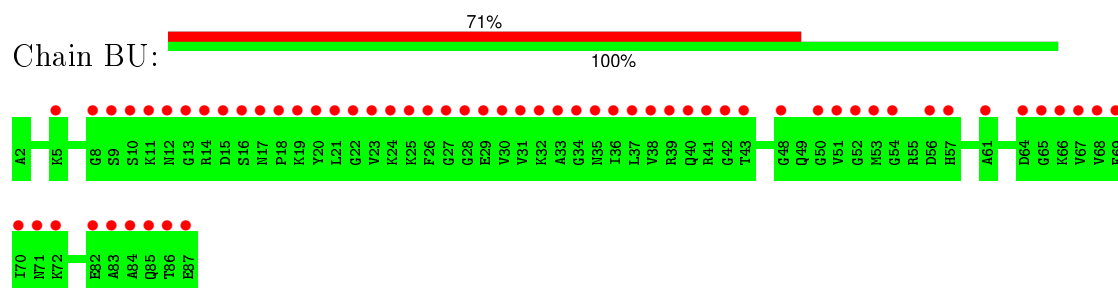
P2 R3 R4 S5 A6 G7 S8 H9 H10 H11 D12 I13 K14 H15 F16 F17 H18 K19 G20 D21 T22 V23 I24 Y25 I26 V27 G28 S29 H30 K31 G32 A33 T34 K35 T36 E37 I38 L39 K40 D41 A42 L43 Q44 A45 F46 Q47 V50 I51 G52 I53 S54 T55 P56 N57 V58 P59 G60 K61 R62 R63 R64

R62 T63 R64 P65 S66 Q67 G68 Q69 E70 E71 Q72 R73 E74 L75 A76 F77 H78 A79 S79 G80 R81 T82 A83 L84 V85 D86 P86 E87 T88 G89 R90 K91 A92 T93 R94 R95 R96 Q97 L98 I99 D100 G101 K102 K103 K104 V105 R106 V107 V108 A109 S110 G111 K112 T113 I114

- Molecule 42: general stress protein Ctc



- Molecule 43: 50S ribosomal protein L27

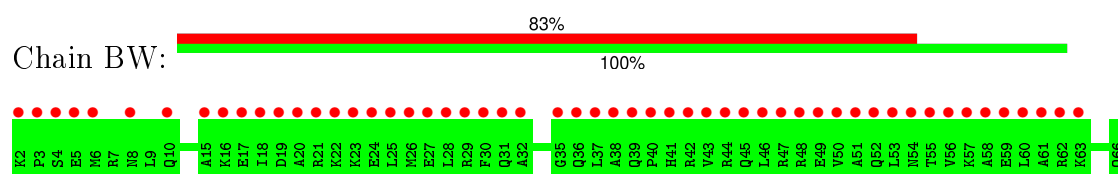


- Molecule 44: 50S RIBOSOMAL PROTEIN L28

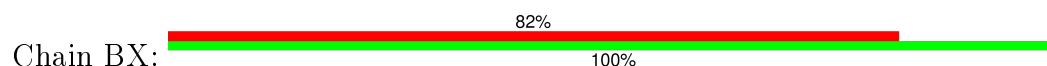


There are no outlier residues recorded for this chain.

- Molecule 45: 50S ribosomal protein L29



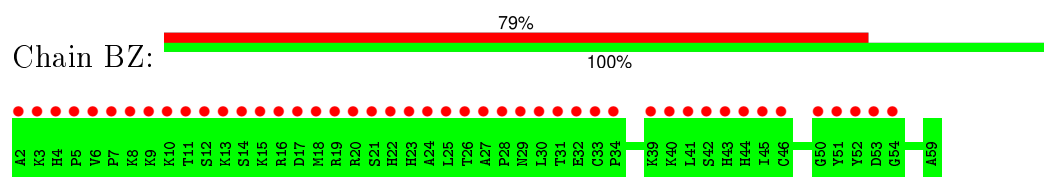
- Molecule 46: 50S ribosomal protein L30



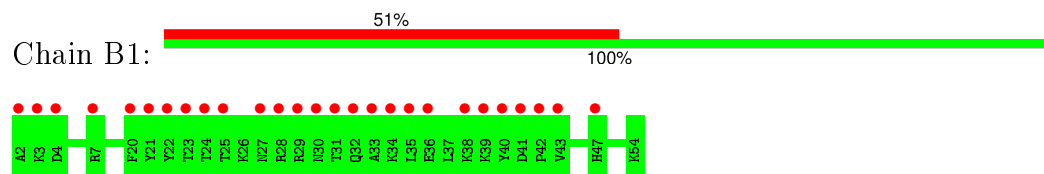
- Molecule 47: 50S ribosomal protein L31



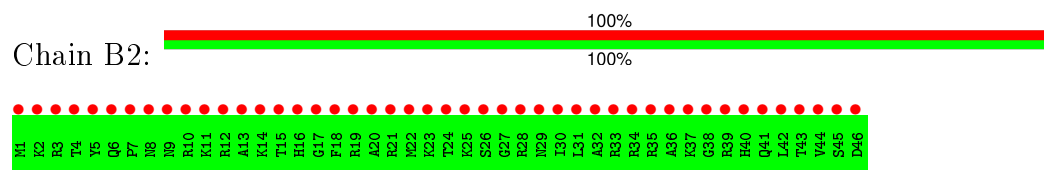
- Molecule 48: 50S ribosomal protein L32



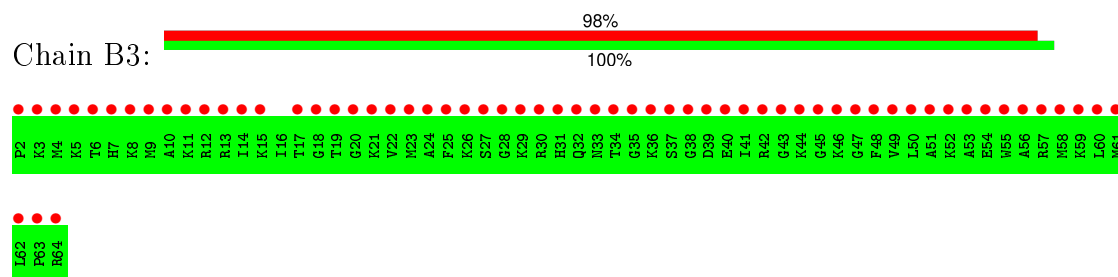
- Molecule 49: 50S ribosomal protein L33



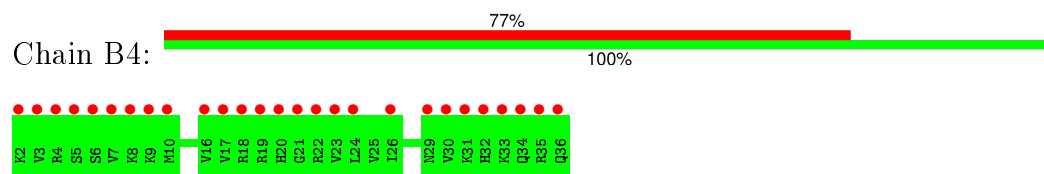
- Molecule 50: 50S ribosomal protein L34



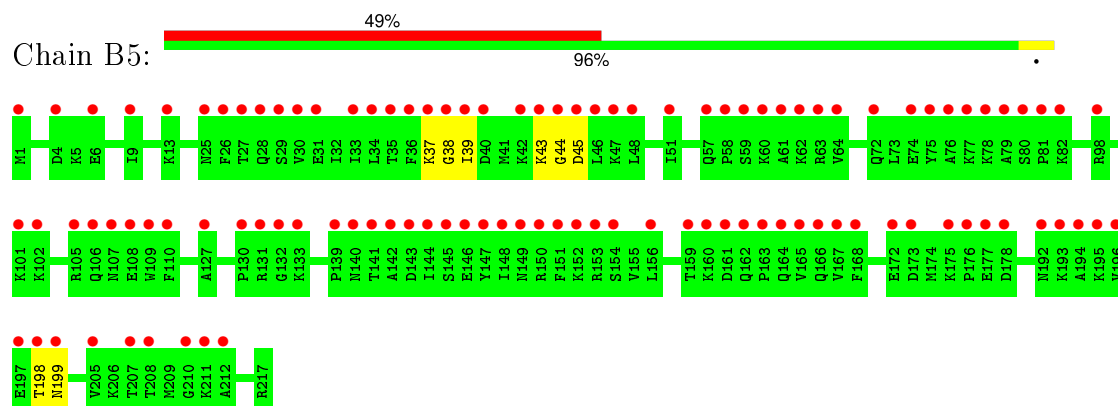
- Molecule 51: 50S ribosomal protein L35



- 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 0.367 , 0.383	Depositor DCC
R_{free} test set	1211 reflections (4.79%)	DCC
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
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.30$	Xtriage
Outliers	0 of 26821 reflections	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, 0.375 respectively for untwinned datasets, and 0.333, 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:922:G:N2	1:AA:1396:A:C5	1.84	1.45
1:AA:112:G:N2	1:AA:354:G:H5'	1.21	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:189:A:C6	20:AT:89:ARG:NH2	1.86	1.42
1:AA:323:U:H5''	20:AT:23:ARG:N	1.34	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
21:B0:1861:G:C5'	53:B5:199:ASN:CA	1.96	1.39
1:AA:293:G:H4'	1:AA:609:A:C2	1.53	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
21:B0:1856:U:O5'	21:B0:3865:A:C8	1.76	1.39

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:262:A:O2'	20:AT:75:ASN:ND2	1.56	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
21:B0:3197:U:H1'	21:B0:2181:A:N7	1.46	1.30
1:AA:6:G:O6	5:AE:94:ALA:HA	1.24	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
21:B0:3197:U:N3	21:B0:2204:A:N6	1.79	1.30
1:AA:1182:G:H5'	1:AA:1184:G:C5'	1.62	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
4:AD:89:THR:CB	5:AE:97:GLY:O	1.79	1.29
21:B0:891:A:O2'	21:B0:892:A:C5'	1.80	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1405:G:H1'	1:AA:1519:A:O4'	1.25	1.29
1:AA:1256:A:C5'	1:AA:1258:G:C1'	2.10	1.29
1:AA:1014:A:N3	1:AA:1219:U:O2'	1.65	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
21:B0:1856:U:H3'	21:B0:3865:A:C8	1.67	1.28
1:AA:1297:C:OP1	13:AM:44:ARG:NH2	1.64	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:702:A:C2	21:B0:1838:G:C2'	2.11	1.27
1:AA:489:C:OP1	4:AD:132:ARG:NH2	1.66	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:130:A:C2	1:AA:264:U:C6	2.22	1.25
1:AA:132:C:C4'	1:AA:262:A:H1'	1.63	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:1278:U:C5'	1:AA:1279:A:P	2.22	1.25
1:AA:112:G:C2	1:AA:354:G:H5'	1.70	1.25
1:AA:319:G:N2	1:AA:1434:A:C1'	1.99	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
3:AC:59:ARG:O	10:AJ:92:THR:O	1.52	1.25
1:AA:1255:G:C1'	1:AA:1259:C:H1'	1.66	1.25
21:B0:891:A:H1'	21:B0:892:A:C8	1.51	1.25
21:B0:1098:G:N2	21:B0:1113:C:H42	1.33	1.25
1:AA:319:G:H21	1:AA:1434:A:C1'	1.46	1.24
1:AA:702:A:C6	21:B0:1838:G:H2'	1.70	1.24
1:AA:187:G:N3	20:AT:105:SER:HB2	1.50	1.24
1:AA:1416:G:H3'	1:AA:1417:G:P	1.76	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:1484:C:O2'	21:B0:1943:A:H4'	1.23	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:476:U:H3'	1:AA:477:G:P	1.73	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
21:B0:1856:U:O4	21:B0:3865:A:C2	1.86	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
1:AA:922:G:C2	1:AA:1396:A:N1	2.06	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:323:U:O3'	20:AT:22:ARG:HB3	1.36	1.23
1:AA:1224:G:O2'	1:AA:1225:A:OP1	1.53	1.23
1:AA:476:U:C4	1:AA:477:G:C8	2.26	1.23
1:AA:820:U:O2	1:AA:873:A:C8	1.89	1.23
4:AD:89:THR:N	5:AE:97:GLY:CA	2.01	1.23
1:AA:1416:G:C2'	1:AA:1417:G:H5'	1.68	1.23
21:B0:892:A:H1'	21:B0:911:A:C2	1.72	1.23
1:AA:217:C:O2'	1:AA:470:U:H5'	1.38	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: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: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: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:216:C:H1'	1:AA:468:A:O2'	1.09	1.22
1:AA:1014:A:C2	1:AA:1219:U:O2'	1.78	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:1458:G:C8	1:AA:1459:C:C2'	2.22	1.21
1:AA:130:A:C8	17:AQ:63:ARG:HG3	1.75	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:1459:C:H5'	20:AT:28:ALA:CB	1.72	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
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
21:B0:3110:G:P	21:B0:3149:G:C4'	2.29	1.19
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
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:1256:A:C5'	1:AA:1258:G:H1'	1.67	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:20:U:O2	1:AA:915:A:N6	1.75	1.18
1:AA:143:A:O3'	1:AA:144:G:P	2.01	1.18
22:B9:73:C:O3'	22:B9:74:A:P	2.01	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:1342:C:O3'	9:AI:125:TYR:OH	1.60	1.18
1:AA:1261:A:H4'	1:AA:1283:G:C3'	1.73	1.18
1:AA:130:A:O4'	1:AA:264:U:H4'	1.42	1.18
1:AA:1261:A:H4'	1:AA:1283:G:C4'	1.67	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:1475:G:C4'	21:B0:1706:A:H4'	1.74	1.17
1:AA:815:A:C2	1:AA:1528:U:O4'	1.97	1.17
21:B0:1098:G:N2	21:B0:1113:C:N4	1.89	1.17
1:AA:1231:G:OP1	9:AI:127:LYS:NZ	1.78	1.17
1:AA:1347:G:C5	9:AI:107:ARG:NH1	2.10	1.17
1:AA:1211:U:O3'	1:AA:1212:U:P	2.03	1.17
1:AA:261:U:O4	20:AT:79:ARG:HD2	1.41	1.17
1:AA:69:G:H5'	1:AA:152:A:C2	1.78	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:319:G:C2	1:AA:1434:A:N3	2.12	1.16
1:AA:103:C:O2'	1:AA:171:A:N1	1.73	1.16
1:AA:835:U:H5''	18:AR:64:ARG:NH2	1.58	1.16
1:AA:131:C:O2	1:AA:262:A:H2	1.25	1.16
1:AA:436:C:C2'	1:AA:437:U:O4'	1.94	1.16
1:AA:1495:U:O2'	21:B0:1902:A:N3	1.78	1.16
3:AC:29:TYR:CE1	10:AJ:65:LEU:HD11	1.79	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:191:G:N1	1:AA:192:U:O2	1.78	1.15
1:AA:191:G:N3	1:AA:192:U:C1'	2.08	1.15
21:B0:1856:U:H3	21:B0:3877:A:N6	1.44	1.15
1:AA:1505:G:H4'	1:AA:1506:U:H5''	1.26	1.15
1:AA:19:C:N3	1:AA:916:G:N1	1.94	1.15
1:AA:367:U:C2	1:AA:369:C:C5	2.34	1.15
1:AA:1505:G:O3'	1:AA:1506:U:P	0.75	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: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:1459:C:H5''	20:AT:28:ALA:CA	1.77	1.15
1:AA:717:C:O3'	1:AA:718:G:P	2.05	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
21:B0:3876:A:C1'	53:B5:45:ASP:CA	2.25	1.14
1:AA:406:G:C6	1:AA:496:A:N7	2.15	1.14
1:AA:1298:C:C5	7:AG:114:ARG:HD3	1.82	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:960:U:H1'	1:AA:1222:G:O2'	1.44	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: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:452:A:OP1	16:AP:43:LYS:NZ	1.77	1.14
1:AA:293:G:P	1:AA:609:A:H61	1.71	1.13
1:AA:320:C:O4'	1:AA:1434:A:C2	2.00	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:237:C:OP1	17:AQ:40:LYS:CD	1.95	1.13
21:B0:1861:G:OP2	53:B5:38:GLY:CA	1.97	1.13
1:AA:1261:A:H4'	1:AA:1283:G:O3'	1.45	1.13
1:AA:319:G:C2'	1:AA:1434:A:C2	2.31	1.13
1:AA:142:G:H21	1:AA:196:A:H1'	1.06	1.13
21:B0:1861:G:OP1	53:B5:37:LYS:CA	1.96	1.13
17:AQ:104:LYS:CE	21:B0:727:U:O2	1.97	1.13
1:AA:319:G:N3	1:AA:1434:A:C2	2.17	1.13
1:AA:323:U:C5'	20:AT:23:ARG:N	2.12	1.13
1:AA:293:G:O5'	1:AA:609:A:N6	1.81	1.13
1:AA:436:C:C4	1:AA:437:U:C5	2.37	1.13
1:AA:1234:C:H5'	1:AA:1365:G:OP1	1.49	1.13
1:AA:130:A:O4'	1:AA:264:U:C5'	1.97	1.12
21:B0:891:A:C2'	21:B0:892:A:C8	2.30	1.13
21:B0:891:A:O2'	21:B0:892:A:H5'	0.96	1.12
13:AM:93:ARG:HG2	21:B0:900(A):A:OP1	0.96	1.13
1:AA:421:U:C6	3:AC:127:ARG:NH2	1.99	1.13
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
12:AL:19:ARG:C	12:AL:20:LYS:N	2.01	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
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
17:AQ:104:LYS:CG	21:B0:727:U:H1'	1.79	1.12
1:AA:191:G:O6	1:AA:192:U:C4	2.02	1.12
1:AA:406:G:C8	1:AA:496:A:C2	2.37	1.12
1:AA:755:G:H1'	8:AH:1:MET:HE3	1.24	1.12
1:AA:1483:A:C3'	1:AA:1484:C:OP2	1.97	1.12
1:AA:1298:C:N4	7:AG:114:ARG:HB3	1.65	1.12
1:AA:571:U:H5''	1:AA:819:A:C2	1.85	1.12
1:AA:922:G:N3	1:AA:1396:A:N1	1.98	1.11
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:761:G:H5''	17:AQ:102:GLY:HA3	1.33	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
21:B0:3109:U:H5'	21:B0:3150:C:H5'	1.15	1.11
4:AD:88:VAL:HG22	5:AE:96:PRO:HB3	1.20	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:216:C:O2'	1:AA:468:A:H2'	1.48	1.11
1:AA:1261:A:O2'	1:AA:1283:G:C5'	1.99	1.11
1:AA:143:A:C3'	1:AA:144:G:P	2.38	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:1500:A:OP1	1:AA:1508:G:OP1	1.67	1.10
1:AA:186:C:O4'	20:AT:81:LYS:CE	1.98	1.10
1:AA:1318:A:H4'	19:AS:10:PHE:CE1	1.85	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:132:C:H4'	1:AA:262:A:O4'	1.50	1.10
1:AA:390:C:O3'	16:AP:28:ARG:NH2	1.83	1.10
1:AA:1416:G:C3'	1:AA:1417:G:H5'	1.81	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: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:1318:A:H4'	19:AS:10:PHE:CD1	1.86	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
10:AJ:51:ARG:HB2	10:AJ:59:SER:HB3	1.34	1.09
1:AA:1092:A:H5''	7:AG:4:ARG:NH2	1.67	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
1:AA:1014:A:P	19:AS:14:HIS:HB3	1.91	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: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:1416:G:H2'	1:AA:1417:G:H5'	1.25	1.09
1:AA:1483:A:C5	1:AA:1484:C:C5	2.41	1.09
1:AA:1112:C:N3	3:AC:178:LEU:N	1.99	1.09
1:AA:130:A:N3	1:AA:264:U:N1	2.00	1.09
1:AA:118:U:O3'	1:AA:119:A:P	2.11	1.09
21:B0:1856:U:O4	21:B0:3865:A:N1	1.79	1.09
1:AA:130:A:N3	1:AA:264:U:C1'	2.16	1.09
21:B0:1856:U:O5'	21:B0:3865:A:N7	1.85	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:835:U:OP1	18:AR:64:ARG:NH2	1.85	1.08
9:AI:8:GLY:HA2	9:AI:79:LEU:HD12	1.32	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:191:G:C4	1:AA:192:U:C1'	2.36	1.08
21:B0:1098:G:N2	21:B0:1113:C:C4	2.21	1.08
1:AA:928:G:O3'	1:AA:1533:C:N4	1.85	1.08
1:AA:1398:A:H61	5:AE:21:ALA:CA	1.67	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: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
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
21:B0:1856:U:O2'	21:B0:3865:A:H5'	1.28	1.07
1:AA:132:C:O4'	1:AA:262:A:H1'	1.53	1.07
1:AA:403:C:O2'	1:AA:404:U:C5'	2.02	1.07
21:B0:3098:U:O3'	21:B0:3099:U:P	2.12	1.07
1:AA:212:G:O3'	1:AA:213:G:P	2.12	1.07
1:AA:599:C:H4'	8:AH:130:GLY:C	1.75	1.07
4:AD:36:ARG:H	4:AD:37:PRO:HD3	1.19	1.07
17:AQ:104:LYS:HG2	21:B0:726:G:C2	1.89	1.07
1:AA:142:G:H4'	1:AA:195:A:N6	1.68	1.07
1:AA:142:G:C1'	1:AA:195:A:N1	2.18	1.07
1:AA:1367:C:OP1	9:AI:115:GLY:N	1.86	1.07
1:AA:1211:U:H5'	1:AA:1212:U:P	1.94	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:1475:G:H4'	21:B0:1706:A:C5'	1.86	1.06
1:AA:51:A:N1	1:AA:314:C:C1'	2.18	1.06
1:AA:1495:U:O2'	21:B0:1902:A:C2	2.06	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:1034:G:O3'	1:AA:1035:A:P	2.13	1.06
21:B0:1856:U:H5''	21:B0:3865:A:OP1	1.53	1.06
17:AQ:104:LYS:HG3	21:B0:727:U:C2	1.90	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:394:G:H2'	1:AA:395:C:H6	1.21	1.06
1:AA:133:U:H5'	20:AT:74:LYS:NZ	1.71	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: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:132:C:H5'	1:AA:262:A:C2'	1.86	1.06
1:AA:189:A:N6	20:AT:89:ARG:NH2	1.87	1.06
1:AA:1459:C:OP1	20:AT:28:ALA:O	1.74	1.05
1:AA:755:G:H1'	8:AH:1:MET:CE	1.85	1.05
1:AA:1269:A:C2	1:AA:1313:U:O4'	2.10	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:323:U:H5''	20:AT:23:ARG:CA	1.85	1.05
1:AA:421:U:C2	3:AC:127:ARG:NH2	2.11	1.05
1:AA:502:G:H4'	1:AA:550:G:H4'	1.35	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:216:C:C1'	1:AA:468:A:O2'	2.05	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:94:G:HO3'	1:AA:96:C:P	1.19	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
21:B0:910:U:H2'	21:B0:911:A:P	1.95	1.05
1:AA:142:G:C4'	1:AA:195:A:H61	1.68	1.05
1:AA:571:U:H5'	1:AA:819:A:C4	1.91	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:1394:A:C6	1:AA:1501:C:C5'	2.39	1.04
1:AA:1261:A:C2'	1:AA:1283:G:H5''	1.87	1.04
1:AA:323:U:H5'	20:AT:23:ARG:HB2	1.33	1.04
1:AA:1298:C:H2'	7:AG:114:ARG:HH12	1.23	1.04
10:AJ:62:HIS:HB2	14:AN:59:ALA:HB3	1.37	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:131:C:H4'	1:AA:263:A:C4'	1.87	1.04
21:B0:3197:U:C1'	21:B0:2181:A:N7	2.20	1.04
1:AA:292:G:H1'	1:AA:608:A:N6	1.71	1.04
1:AA:142:G:C4'	1:AA:195:A:N6	2.21	1.04
1:AA:300:A:H1'	1:AA:565:U:O2	1.57	1.04
1:AA:189:A:H61	20:AT:104:LEU:CB	1.59	1.04
1:AA:1483:A:O3'	1:AA:1484:C:OP2	1.73	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:421:U:N1	3:AC:127:ARG:NH2	2.04	1.04
1:AA:1296:C:O4'	1:AA:1302:U:C4	2.10	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
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
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
21:B0:3108:G:H2'	21:B0:3109:U:H5	0.89	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
1:AA:141:A:H4'	1:AA:182:U:C1'	1.87	1.03
1:AA:187:G:N2	20:AT:105:SER:HB2	1.71	1.03
1:AA:1014:A:C2	19:AS:34:TRP:CD1	2.46	1.03
1:AA:243:A:H4'	1:AA:244:U:H5'	1.36	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
17:AQ:104:LYS:HG3	21:B0:727:U:C1'	1.89	1.03
1:AA:994:A:H1'	14:AN:8:GLU:HB3	1.41	1.03
1:AA:261:U:H5	20:AT:79:ARG:NE	1.46	1.02
1:AA:760:G:C2	17:AQ:103:GLY:O	2.12	1.02
1:AA:406:G:C6	1:AA:496:A:C5	2.47	1.02
1:AA:223:U:C5'	20:AT:68:LYS:NZ	2.22	1.02
1:AA:735:C:O2'	18:AR:75:ILE:CD1	2.06	1.02
21:B0:3107:G:HO3'	21:B0:3108:G:P	1.81	1.02
17:AQ:103:GLY:C	21:B0:726:G:H21	1.60	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
21:B0:892:A:C1'	21:B0:911:A:C2	2.41	1.02
1:AA:502:G:C1'	1:AA:550:G:H5'	1.87	1.02
1:AA:1459:C:H5'	20:AT:28:ALA:HB1	1.37	1.02
1:AA:132:C:H5'	1:AA:262:A:O2'	1.59	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:1346:A:C4	7:AG:10:ARG:NH2	2.27	1.02
21:B0:1572:C:H2'	21:B0:1573:G:H5''	1.39	1.02
1:AA:322:C:C4'	20:AT:23:ARG:HD2	1.88	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: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:1475:G:C5'	21:B0:1706:A:O4'	2.08	1.01
1:AA:702:A:C2	21:B0:1838:G:H2'	1.84	1.01
1:AA:8:A:H1'	5:AE:103:GLY:CA	1.89	1.01
1:AA:141:A:C2	1:AA:195:A:C2	2.48	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
17:AQ:104:LYS:CD	21:B0:727:U:O2	2.08	1.01
1:AA:1109:C:OP2	3:AC:176:HIS:CD2	2.13	1.01
1:AA:957:U:H4'	19:AS:79:THR:HB	1.41	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
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
19:AS:28:LYS:HG2	19:AS:29:ARG:H	1.26	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:376:G:O3'	16:AP:5:ARG:HD2	1.60	1.01
1:AA:217:C:O2'	1:AA:470:U:C5'	2.09	1.01
1:AA:143:A:H3'	1:AA:144:G:P	2.00	1.01
1:AA:394:G:H2'	1:AA:395:C:C6	1.95	1.01
1:AA:59:A:C6	1:AA:331:G:N3	2.28	1.01
1:AA:1256:A:C4'	1:AA:1258:G:C8	2.43	1.00
1:AA:1474:G:O4'	21:B0:1718:A:H2	1.41	1.00
4:AD:88:VAL:CG2	5:AE:96:PRO:CB	2.37	1.00
1:AA:5:U:C4	5:AE:95:ALA:CB	2.44	1.00
1:AA:186:C:C1'	20:AT:81:LYS:HE2	1.91	1.00
1:AA:1182:G:H5'	1:AA:1184:G:H5'	1.03	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1086:U:H3	1:AA:1099:G:H22	1.08	1.00
21:B0:2668:U:H4'	21:B0:2669:C:H5'	1.40	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:B0:3110:G:OP1	21:B0:3149:G:O4'	1.79	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
12:AL:75:HIS:HD2	12:AL:77:LEU:H	1.05	1.00
1:AA:706:A:H1'	11:AK:29:ILE:HD11	1.39	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
21:B0:1856:U:C6	21:B0:3865:A:C8	2.34	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
1:AA:436:C:N4	1:AA:437:U:O4	1.94	1.00
1:AA:142:G:N2	1:AA:196:A:H1'	1.77	1.00
1:AA:714:G:H4'	1:AA:776:G:H4'	1.44	1.00
1:AA:319:G:C2'	1:AA:1434:A:N1	2.24	0.99
1:AA:1316:G:H4'	14:AN:18:VAL:HG11	1.40	0.99
1:AA:367:U:C2	1:AA:369:C:C4	2.50	0.99
1:AA:929:G:P	1:AA:1533:C:H41	1.84	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:191:G:C4	1:AA:192:U:N1	2.29	0.99
1:AA:1394:A:C2	1:AA:1501:C:O4'	2.15	0.99
1:AA:1087:G:OP1	1:AA:1389:C:H4'	1.61	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:6:G:N9	5:AE:119:LEU:HD11	1.72	0.99
1:AA:314:C:O2	1:AA:353:A:C2	2.16	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1298:C:P	7:AG:114:ARG:NH2	2.36	0.99
3:AC:59:ARG:O	10:AJ:92:THR:HG22	1.59	0.99
1:AA:1398:A:N6	5:AE:21:ALA:HA	1.77	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
1:AA:545:C:O2'	1:AA:549:C:OP1	1.81	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:130:A:C1'	1:AA:264:U:C4'	2.42	0.98
1:AA:992:U:H2'	1:AA:1043:C:C5	1.98	0.98
1:AA:762:C:H4'	21:B0:729:A:H61	1.28	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
22:B9:114:C:H2'	22:B9:115:G:H5''	1.45	0.98
8:AH:113:SER:HB2	8:AH:134:ILE:HD11	1.43	0.98
1:AA:1116:C:H2'	1:AA:1117:G:H5''	1.46	0.98
1:AA:974:A:OP1	14:AN:31:ARG:HG2	1.64	0.98
21:B0:1856:U:O5'	21:B0:3865:A:H8	1.40	0.97
1:AA:262:A:C5'	20:AT:74:LYS:HB2	1.94	0.97
1:AA:1505:G:H4'	1:AA:1506:U:C5'	1.94	0.97
13:AM:80:ARG:NH2	19:AS:65:ASN:O	1.97	0.97
1:AA:237:C:OP1	17:AQ:40:LYS:HD3	1.59	0.97
21:B0:1199:U:H3'	21:B0:1200:G:H5''	1.44	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:191:G:C6	1:AA:192:U:C4	2.50	0.97
1:AA:927:G:O2'	1:AA:1532:U:H4'	1.63	0.97
1:AA:113:G:C4	1:AA:353:A:O2'	2.15	0.97
1:AA:994:A:C4	14:AN:5:ALA:O	2.18	0.97
1:AA:1092:A:C5'	7:AG:4:ARG:NH2	2.26	0.97
21:B0:1861:G:H4'	53:B5:198:THR:CA	1.94	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
1:AA:143:A:O3'	1:AA:144:G:H8	1.45	0.97
1:AA:261:U:H5	20:AT:79:ARG:CZ	1.62	0.97
13:AM:88:ARG:HD2	19:AS:3:ARG:NH2	1.78	0.97
1:AA:1087:G:OP1	1:AA:1389:C:C4'	2.11	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:293:G:C4'	1:AA:609:A:C2	2.40	0.96
1:AA:69:G:H5'	1:AA:152:A:H2	1.21	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
21:B0:3877:A:H8	21:B0:3877:A:O5'	1.47	0.96
1:AA:1394:A:N6	1:AA:1501:C:C5'	2.28	0.96
1:AA:116:A:N6	1:AA:313:A:N3	2.12	0.96
1:AA:187:G:C1'	20:AT:85:MET:HE1	1.94	0.96
1:AA:37:U:O2'	1:AA:500:G:H4'	1.66	0.96
1:AA:1459:C:P	20:AT:28:ALA:O	2.23	0.96
1:AA:190:A:H2	20:AT:101:GLY:HA2	1.28	0.96
1:AA:651:C:N4	1:AA:652:U:O4	1.98	0.96
1:AA:191:G:N7	1:AA:192:U:C5	2.33	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:837:G:O3'	1:AA:838:C:P	2.23	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:C6	2.34	0.96
1:AA:187:G:O4'	20:AT:85:MET:HE1	0.79	0.96
1:AA:216:C:H1'	1:AA:468:A:HO2'	1.13	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:131:C:O2'	1:AA:262:A:C2'	2.14	0.95
21:B0:891:A:O3'	21:B0:892:A:OP2	1.83	0.95
1:AA:977:A:C2	1:AA:1224:G:C6	2.54	0.95
1:AA:143:A:H5'	1:AA:196:A:N6	1.80	0.95
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.65	0.95
1:AA:1255:G:N3	1:AA:1259:C:O2	1.99	0.95
1:AA:133:U:C5'	20:AT:74:LYS:NZ	2.28	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:7:G:H5'	1:AA:298:A:C5'	1.96	0.95
1:AA:406:G:N3	1:AA:496:A:N6	2.14	0.95
21:B0:3128:G:O3'	21:B0:3174:C:H4'	1.66	0.95
21:B0:1747:G:H4'	21:B0:1749:G:H1'	1.47	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1110:A:H2'	1:AA:1111:A:O4'	1.64	0.95
1:AA:992:U:H2'	1:AA:1043:C:H5	1.32	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
10:AJ:62:HIS:HB3	14:AN:59:ALA:HB3	1.46	0.95
1:AA:651:C:N3	1:AA:652:U:C4	2.35	0.95
3:AC:14:ILE:HG22	3:AC:15:THR:H	1.32	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
1:AA:191:G:C6	1:AA:192:U:N1	2.34	0.95
1:AA:762:C:H4'	21:B0:729:A:N1	1.81	0.95
1:AA:189:A:N6	20:AT:104:LEU:CA	2.30	0.95
1:AA:323:U:H5'	20:AT:23:ARG:CB	1.95	0.95
21:B0:3109:U:C5'	21:B0:3150:C:C5'	2.09	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
1:AA:1277:C:C1'	1:AA:1279:A:C8	2.50	0.94
1:AA:702:A:C6	21:B0:1839:A:O4'	2.08	0.94
1:AA:619:U:C2	4:AD:135:LEU:HG	2.02	0.94
21:B0:3110:G:OP1	21:B0:3148:G:C2'	2.15	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
1:AA:1255:G:N2	1:AA:1276:G:H21	1.64	0.94
1:AA:762:C:C4'	21:B0:729:A:H61	1.79	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:315:A:O4'	1:AA:353:A:N1	2.01	0.94
1:AA:187:G:N3	20:AT:105:SER:CB	2.29	0.94
1:AA:436:C:N4	1:AA:437:U:C4	2.34	0.94
1:AA:394:G:C6	1:AA:395:C:C4	2.54	0.94
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.26	0.94
1:AA:761:G:C5'	17:AQ:102:GLY:HA3	1.97	0.94
1:AA:1416:G:O5'	1:AA:1417:G:P	2.25	0.94
1:AA:112:G:N2	1:AA:354:G:OP2	2.00	0.94
1:AA:190:A:H2	20:AT:101:GLY:CA	1.58	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:1374:A:O3'	1:AA:1375:A:P	2.26	0.94
1:AA:619:U:C4	4:AD:135:LEU:HD21	2.02	0.94
21:B0:3108:G:C2'	21:B0:3109:U:H5	1.80	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
1:AA:1296:C:H4'	1:AA:1302:U:C5	2.03	0.94
21:B0:929:A:H3'	21:B0:930:A:H5''	1.47	0.94
1:AA:5:U:C4	5:AE:95:ALA:HB2	2.03	0.94
1:AA:406:G:C4	1:AA:496:A:N6	2.35	0.94
1:AA:1269:A:C2	1:AA:1313:U:C1'	2.50	0.94
1:AA:651:C:N4	1:AA:752:G:O2'	2.01	0.94
1:AA:59:A:C4	1:AA:331:G:C2	2.55	0.94
21:B0:2607:C:H3'	21:B0:2608:A:H5'	1.49	0.94
6:AF:94:GLN:HE21	18:AR:32:ARG:HD3	1.32	0.94
1:AA:664:G:H22	1:AA:741:G:H1	1.16	0.94
17:AQ:104:LYS:CE	21:B0:729:A:N6	1.99	0.93
1:AA:319:G:H5'	1:AA:1468:A:C4'	1.98	0.93
1:AA:1298:C:OP2	7:AG:114:ARG:NH2	2.01	0.93
1:AA:59:A:N1	1:AA:331:G:C4	2.35	0.93
1:AA:762:C:H4'	21:B0:729:A:N6	1.82	0.93
1:AA:39:G:C5	1:AA:498:U:O4	2.20	0.93
1:AA:935:A:O4'	1:AA:1384:C:O2	1.87	0.93
1:AA:815:A:H2	1:AA:1528:U:O4'	1.33	0.93
10:AJ:49:VAL:HG13	14:AN:41:ARG:HB2	1.49	0.93
1:AA:586:C:O3'	8:AH:89:PRO:CB	2.15	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
21:B0:892:A:C1'	21:B0:911:A:H2	1.81	0.93
1:AA:141:A:H2	1:AA:195:A:C2	1.83	0.93
1:AA:1505:G:O3'	1:AA:1506:U:OP2	1.85	0.93
21:B0:910:U:C2'	21:B0:911:A:P	2.56	0.93
1:AA:1406:U:O4'	1:AA:1518:A:H4'	1.66	0.93
21:B0:892:A:H1'	21:B0:911:A:H2	1.15	0.93
1:AA:141:A:H4'	1:AA:182:U:H1'	1.45	0.93
12:AL:41:ARG:HG2	12:AL:42:THR:N	1.83	0.93
1:AA:1248:A:O2'	9:AI:70:LYS:NZ	2.01	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:559:A:P	5:AE:126:ARG:NH2	2.42	0.93
1:AA:1416:G:H3'	1:AA:1417:G:C5'	1.97	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:6:G:O6	5:AE:94:ALA:CA	2.15	0.93
1:AA:436:C:N3	1:AA:437:U:C4	2.37	0.93
1:AA:994:A:O2'	14:AN:11:LYS:HE3	1.69	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: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
21:B0:1066:G:N2	21:B0:1115:C:C2	2.36	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
1:AA:191:G:C2	1:AA:192:U:C2	2.56	0.92
17:AQ:104:LYS:CD	21:B0:727:U:H1'	1.99	0.92
1:AA:1416:G:C6	1:AA:1417:G:H1'	2.03	0.92
13:AM:86:CYS:C	13:AM:87:TYR:N	2.23	0.92
9:AI:115:GLY:HA2	10:AJ:58:ASP:OD1	1.69	0.92
1:AA:333:G:O4'	20:AT:16:HIS:CD2	2.21	0.92
21:B0:226:C:HO2'	21:B0:227:G:H8	0.97	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:B0:1656:U:H2'	21:B0:1657:A:H5''	1.52	0.92
21:B0:1856:U:OP2	21:B0:3865:A:N7	2.02	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:B0:3109:U:H5'	21:B0:3150:C:C5'	1.86	0.92
3:AC:91:LEU:HD21	3:AC:99:VAL:HG13	1.48	0.92
1:AA:476:U:C3'	1:AA:477:G:P	2.56	0.92
1:AA:1296:C:C4'	1:AA:1302:U:O4	2.18	0.92
17:AQ:104:LYS:CG	21:B0:727:U:C1'	2.47	0.92
1:AA:815:A:H2	1:AA:1528:U:C4'	1.82	0.92
1:AA:319:G:N2	1:AA:1434:A:N3	2.18	0.92
21:B0:1066:G:H1	21:B0:1115:C:N4	1.66	0.92
1:AA:1292:U:P	7:AG:41:ARG:HH22	1.91	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:31:ILE:HG22	19:AS:32:LYS:H	1.34	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
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
2:AB:59:GLU:HG2	2:AB:221:LEU:HD11	1.51	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:189:A:H62	20:AT:89:ARG:HH21	1.12	0.91
1:AA:324:G:P	20:AT:22:ARG:HB3	2.10	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:292:G:C2'	1:AA:608:A:H62	1.82	0.91
1:AA:31:G:O6	1:AA:48:C:O4'	1.88	0.91
5:AE:81:GLU:HG2	5:AE:90:VAL:HG22	1.52	0.91
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.05	0.91
1:AA:261:U:C5	20:AT:79:ARG:CD	2.51	0.91
1:AA:1409:C:H2'	1:AA:1410:G:H8	1.30	0.91
1:AA:1405:G:O4'	1:AA:1519:A:C4'	2.17	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
3:AC:23:TYR:HA	10:AJ:11:PHE:CD1	2.06	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:115:G:O2'	1:AA:116:A:P	2.28	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:B0:3877: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
21:B0:1066:G:C2	21:B0:1115:C:N3	2.39	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:293:G:C5'	1:AA:609:A:N1	2.33	0.90
1:AA:1497:G:O2'	1:AA:1498:U:H5'	1.71	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: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
1:AA:1346:A:H2'	7:AG:10:ARG:NH2	1.86	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:262:A:H5'	20:AT:74:LYS:HB2	1.53	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: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:1182:G:C5'	1:AA:1184:G:H5'	1.98	0.90
1:AA:1368:G:OP2	9:AI:113:LYS:C	2.10	0.90
1:AA:322:C:O3'	20:AT:23:ARG:HG3	1.70	0.90
1:AA:7:G:C5'	1:AA:298:A:H5'	2.02	0.90
1:AA:1372:U:OP1	9:AI:71:SER:HB3	1.72	0.90
1:AA:1070:U:OP1	5:AE:25:ARG:NH1	2.05	0.90
1:AA:190:A:N1	20:AT:101:GLY:O	2.05	0.90
1:AA:1447:A:O3'	1:AA:1448:C:P	2.29	0.90
1:AA:9:G:OP1	5:AE:122:GLU:CB	2.19	0.89
1:AA:367:U:O2	1:AA:369:C:C5	2.25	0.89
1:AA:406:G:O6	1:AA:496:A:C8	2.25	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:1155:G:C3'	1:AA:1156:G:P	2.61	0.89
1:AA:231:G:N2	1:AA:262:A:C2	2.41	0.89
1:AA:762:C:H4'	21:B0:729:A:C6	2.08	0.89
1:AA:319:G:H5'	1:AA:1468:A:H4'	1.54	0.89
1:AA:1483:A:C2'	1:AA:1484:C:OP2	2.19	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
1:AA:1190:G:H3'	3:AC:3:ASN:HB2	1.51	0.89
1:AA:1329:A:C5'	13:AM:26:GLY:H	1.84	0.89
8:AH:91:ARG:NH1	17:AQ:32:TYR:O	2.04	0.89
21:B0:3111:C:H4'	21:B0:3112:G:OP1	1.73	0.89
1:AA:318:G:O2'	1:AA:1468:A:C4'	2.18	0.89
21:B0:891:A:HO2'	21:B0:892:A:H8	0.89	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:571:U:C5'	1:AA:819:A:C5	2.56	0.89
10:AJ:45:ARG:NH1	14:AN:36:PHE:CE2	2.40	0.89
1:AA:935:A:C1'	1:AA:1384:C:N3	2.35	0.89
10:AJ:61:GLU:OE2	14:AN:49:HIS:HE1	1.55	0.89
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.55	0.89
1:AA:1416:G:H3'	1:AA:1417:G:H5'	1.50	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:405:U:O3'	1:AA:406:G:P	2.30	0.89
1:AA:1015:A:H1'	1:AA:1219:U:C5'	2.02	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:261:U:C6	20:AT:79:ARG:CZ	2.56	0.88
1:AA:235:C:C5'	17:AQ:70:ARG:CG	2.42	0.88
17:AQ:97:SER:HB2	17:AQ:102:GLY:C	1.93	0.88
1:AA:1483:A:O2'	1:AA:1484:C:P	2.31	0.88
1:AA:142:G:O4'	1:AA:195:A:N1	2.06	0.88
1:AA:246:A:O3'	1:AA:247:G:C4'	2.19	0.88
1:AA:1367:C:H5''	9:AI:114:TYR:CB	2.02	0.88
1:AA:1060:C:O2'	10:AJ:56:HIS:CD2	2.25	0.88
1:AA:375:U:O3'	1:AA:376:G:OP2	1.89	0.88
1:AA:293:G:O5'	1:AA:609:A:C6	2.25	0.88
1:AA:8:A:N6	4:AD:205:GLU:O	2.06	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:1371:G:OP1	9:AI:11:LYS:O	1.92	0.88
1:AA:1255:G:O2'	1:AA:1259:C:N1	2.07	0.88
21:B0:3110:G:OP1	21:B0:3149:G:C4'	2.22	0.88
1:AA:1298:C:C6	7:AG:114:ARG:NH1	2.42	0.88
1:AA:1211:U:C3'	1:AA:1212:U:P	2.61	0.88
1:AA:651:C:N3	1:AA:652:U:C5	2.41	0.88
21:B0:3874:C:N4	21:B0:3875:A:C5	2.41	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
1:AA:581:G:O2'	17:AQ:105:ALA:O	1.89	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:436:C:O2'	1:AA:437:U:H5'	1.72	0.88
1:AA:539:A:OP2	12:AL:115:LYS:HE2	1.74	0.88
1:AA:976:G:OP2	1:AA:1358:U:O2'	1.91	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:323:U:H5''	20:AT:22:ARG:C	1.94	0.88
1:AA:406:G:N7	1:AA:496:A:C4	2.41	0.88
17:AQ:104:LYS:HD2	21:B0:727:U:H1'	1.56	0.88
1:AA:184:G:C4'	1:AA:224:C:O2'	2.22	0.88
4:AD:36:ARG:N	4:AD:37:PRO:HD3	1.88	0.88
2:AB:116:GLU:HG2	2:AB:153:ARG:HH12	1.39	0.88
1:AA:132:C:OP1	20:AT:75:ASN:OD1	1.91	0.88
1:AA:6:G:C6	5:AE:94:ALA:HA	2.08	0.88
1:AA:538:G:OP2	12:AL:115:LYS:HG3	1.73	0.88
1:AA:1067:A:O3'	1:AA:1068:G:P	2.32	0.88
1:AA:142:G:C1'	1:AA:195:A:C6	2.57	0.88
21:B0:1096:A:HO2'	21:B0:1115:C:H1'	1.37	0.88
1:AA:760:G:C6	17:AQ:104:LYS:O	2.27	0.87
1:AA:394:G:C6	1:AA:395:C:N4	2.42	0.87
1:AA:1131:G:H1	1:AA:1143:G:H21	1.22	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:1457:A:C8	1:AA:1459:C:N3	2.41	0.87
1:AA:1369:C:OP2	9:AI:112:LYS:N	2.07	0.87
1:AA:923:A:C2	1:AA:1395:C:N3	2.42	0.87
1:AA:6:G:N2	5:AE:98:THR:HG23	1.89	0.87
1:AA:51:A:N6	1:AA:314:C:O2	2.07	0.87
1:AA:325:A:OP2	20:AT:70:SER:HB3	1.74	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
22:B9:73:C:C3'	22:B9:74:A:P	2.63	0.87
21:B0:3128:G:O2'	21:B0:3174:C:C5'	2.21	0.87
1:AA:1292:U:P	7:AG:41:ARG:NH2	2.47	0.87
1:AA:1458:G:C8	1:AA:1459:C:C2	2.61	0.87
1:AA:130:A:C4	1:AA:264:U:H1'	1.86	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1261:A:H5'	1:AA:1283:G:O2'	1.74	0.87
1:AA:190:A:N7	20:AT:105:SER:CA	2.37	0.87
4:AD:57:ARG:HH21	5:AE:107:ARG:CD	1.76	0.87
1:AA:776:G:O3'	1:AA:777:A:P	2.33	0.87
1:AA:235:C:H5'	17:AQ:70:ARG:CD	2.04	0.87
1:AA:94:G:C6	1:AA:96:C:C4	2.63	0.87
1:AA:436:C:C2	1:AA:437:U:N1	2.42	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:1475:G:H5'	21:B0:1706:A:C4'	2.00	0.87
1:AA:1392:G:C4'	1:AA:1531:A:H5''	2.04	0.87
13:AM:82:MET:HG2	13:AM:93:ARG:NE	1.89	0.87
2:AB:91:PRO:HG2	2:AB:155:LEU:HD23	1.54	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:1261:A:C4'	1:AA:1283:G:C5'	2.52	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:1343:G:P	9:AI:125:TYR:OH	2.31	0.86
1:AA:502:G:C4'	1:AA:550:G:H4'	2.03	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
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
10:AJ:22:LYS:HE2	10:AJ:90:LEU:HD12	1.57	0.86
21:B0:1856:U:H3'	21:B0:3865:A:H8	1.37	0.86
1:AA:261:U:C5	20:AT:79:ARG:NH1	2.43	0.86
1:AA:292:G:O2'	1:AA:608:A:N6	2.07	0.86
1:AA:1014:A:OP2	19:AS:14:HIS:HB3	1.73	0.86
1:AA:719:C:O2'	18:AR:49:LYS:HG2	1.74	0.86
1:AA:129:U:OP1	17:AQ:3:LYS:NZ	2.08	0.86
1:AA:132:C:H4'	1:AA:262:A:C1'	1.96	0.86
1:AA:1061:G:C1'	10:AJ:56:HIS:CE1	2.59	0.86
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.57	0.86
1:AA:1256:A:H5'	1:AA:1258:G:C4	2.09	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1416:G:H2'	1:AA:1417:G:C5'	2.06	0.86
1:AA:1014:A:H2	1:AA:1219:U:O2'	1.47	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
13:AM:93:ARG:HG2	21:B0:900(A):A:P	2.16	0.86
1:AA:571:U:H5'	1:AA:819:A:C5	2.10	0.86
21:B0:1119:U:C3'	21:B0:1120:C:O5'	2.22	0.86
6:AF:30:LEU:HD23	6:AF:75:LEU:HD21	1.57	0.86
1:AA:1064:G:H22	1:AA:1190:G:C2'	1.88	0.86
1:AA:1318:A:C4'	19:AS:10:PHE:CE1	2.59	0.86
1:AA:835:U:H5''	18:AR:64:ARG:HH22	1.39	0.86
1:AA:1155:G:H3'	1:AA:1156:G:P	2.15	0.86
12:AL:25:PRO:C	12:AL:27:LEU:H	1.79	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
1:AA:1256:A:C5'	1:AA:1258:G:C4	2.59	0.86
1:AA:1474:G:O4'	21:B0:1718:A:C2	2.28	0.86
1:AA:130:A:N7	17:AQ:63:ARG:HG3	1.91	0.86
5:AE:115:VAL:HG11	5:AE:118:ILE:HG13	1.57	0.86
1:AA:1067:A:O2'	1:AA:1093:A:O3'	1.92	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:571:U:C5'	1:AA:819:A:C4	2.59	0.85
21:B0:3187:U:O3'	21:B0:3188:U:P	2.35	0.85
1:AA:1347:G:C6	9:AI:107:ARG:NH2	2.43	0.85
1:AA:1328:C:C5'	13:AM:28:ALA:HB1	2.03	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:588:G:C5	1:AA:753:A:C5	2.64	0.85
1:AA:104:G:H5'	1:AA:172:A:C2	2.10	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:262:A:H5'	20:AT:74:LYS:CB	2.05	0.85
4:AD:88:VAL:C	5:AE:97:GLY:HA3	1.97	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
21:B0:542:A:H2'	21:B0:543:G:H5'	1.59	0.85
21:B0:1312:G:H5''	21:B0:1313:U:H5'	1.59	0.85
1:AA:1092:A:H5''	7:AG:4:ARG:HH22	1.42	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:3098:U:H2'	21:B0:3099:U:C6	2.10	0.85
1:AA:59:A:C5	1:AA:331:G:C2	2.64	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:702:A:H5'	21:B0:1840:A:H5'	1.58	0.85
1:AA:190:A:N1	20:AT:104:LEU:CB	2.34	0.85
21:B0:1098:G:H1	21:B0:1113:C:N4	1.75	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
1:AA:186:C:H4'	20:AT:81:LYS:HB2	1.58	0.84
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: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
17:AQ:101:ARG:NH1	21:B0:731:A:C2	2.36	0.84
1:AA:804:U:O3'	1:AA:805:C:P	2.35	0.84
1:AA:130:A:C6	1:AA:264:U:C2	2.64	0.84
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	0.84	0.84
1:AA:1505:G:HO3'	1:AA:1506:U:P	0.97	0.84
21:B0:3098:U:HO3'	21:B0:3099:U:P	1.99	0.84
1:AA:1057:G:H5''	3:AC:154:SER:HB2	1.59	0.84
1:AA:191:G:C2	1:AA:192:U:O2	2.30	0.84
17:AQ:96:GLN:HG3	21:B0:725:C:O2'	1.76	0.84
21:B0:910:U:C2'	21:B0:911:A:H5'	2.07	0.84
1:AA:216:C:O2'	1:AA:469:C:O4'	1.93	0.84
1:AA:247:G:OP2	17:AQ:100:LYS:CE	2.24	0.84
1:AA:1115:C:H1'	14:AN:61:TRP:O	1.77	0.84
21:B0:1953:A:H1'	21:B0:1955:G:H1'	1.58	0.84
1:AA:994:A:O2'	14:AN:8:GLU:CA	2.25	0.84
1:AA:274:A:N3	1:AA:275:G:C1'	2.39	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:133:U:H5''	20:AT:74:LYS:HZ3	1.42	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:1457:A:C4	1:AA:1459:C:O2	2.30	0.84
21:B0:1856:U:H3	21:B0:3877:A:H61	1.02	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

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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
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
3:AC:190:ARG:HH11	3:AC:190:ARG:HB3	1.43	0.84
1:AA:130:A:O4'	1:AA:264:U:H5'	1.72	0.84
21:B0:891:A:C2'	21:B0:892:A:H8	1.81	0.84
3:AC:172:ARG:HH12	3:AC:174:PRO:HG3	1.43	0.84
1:AA:960:U:H1'	1:AA:1222:G:HO2'	1.40	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
1:AA:923:A:H2	1:AA:1395:C:N3	1.75	0.83
1:AA:1182:G:H5'	1:AA:1184:G:H5''	1.60	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:B0:2198:U:H3'	21:B0:2199:C:H5''	1.59	0.83
21:B0:847:C:H41	21:B0:955:G:H21	1.25	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:1044:A:H2'	1:AA:1045:C:C2'	2.03	0.83
1:AA:640:A:N3	8:AH:115:SER:CB	2.41	0.83
4:AD:61:LYS:HD2	4:AD:207:TYR:OH	1.78	0.83
1:AA:262:A:H5'	20:AT:74:LYS:HG3	1.60	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
21:B0:109:A:H3'	21:B0:110:U:H5''	1.60	0.83
1:AA:922:G:C2	1:AA:1396:A:N6	2.41	0.83
1:AA:394:G:C5	1:AA:395:C:C5	2.67	0.83
1:AA:1475:G:OP1	21:B0:1706:A:C1'	2.26	0.83
4:AD:88:VAL:CG2	5:AE:96:PRO:HB3	2.03	0.83
1:AA:582:U:C1'	17:AQ:105:ALA:HA	2.07	0.83
1:AA:1497:G:C2'	1:AA:1498:U:H5'	2.08	0.83
13:AM:7:VAL:HG13	26:BD:113:ASP:CA	2.08	0.83
19:AS:55:LYS:HG2	19:AS:56:GLN:HE21	1.42	0.83
13:AM:50:GLU:O	13:AM:54:VAL:HG23	1.77	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
21:B0:3877:A:O3'	21:B0:1861:G:C3'	2.25	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)
1:AA:104:G:C4'	1:AA:172:A:C2	2.61	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
1:AA:1419:G:H4'	21:B0:1932:G:HO2'	1.38	0.83
5:AE:148:VAL:HG21	8:AH:107:LEU:HD13	1.60	0.83
1:AA:15:G:H4'	5:AE:24:ARG:CZ	2.09	0.83
1:AA:1250:A:H4'	9:AI:68:GLY:N	1.94	0.83
6:AF:36:ARG:HH12	6:AF:38:GLU:HG2	1.43	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
21:B0:1181:C:H2'	21:B0:1182:U:H5''	1.60	0.82
10:AJ:19:SER:HB2	10:AJ:91:PRO:HG3	1.60	0.82
21:B0:1098:G:N1	21:B0:1113:C:N4	2.27	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
1:AA:1237:C:O3'	1:AA:1238:A:P	2.38	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:130:A:OP2	17:AQ:63:ARG:NH2	2.12	0.82
1:AA:1394:A:C6	1:AA:1501:C:H5'	2.14	0.82
21:B0:910:U:O2'	21:B0:911:A:C5'	2.24	0.82
13:AM:78:ILE:HA	13:AM:81:LEU:HD21	1.62	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
1:AA:262:A:C2'	20:AT:75:ASN:ND2	2.41	0.82
10:AJ:45:ARG:CZ	14:AN:36:PHE:CD2	2.62	0.82
10:AJ:63:PHE:CZ	14:AN:48:ALA:HB3	2.13	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:1409:C:H2'	1:AA:1410:G:O4'	1.79	0.82
1:AA:1044:A:H2'	1:AA:1045:C:HO2'	1.41	0.82
1:AA:473:C:OP1	16:AP:75:ARG:NH1	2.13	0.82
1:AA:1269:A:C2	1:AA:1313:U:H1'	2.12	0.82
1:AA:132:C:H5'	20:AT:75:ASN:ND2	1.94	0.82
1:AA:234:C:O3'	17:AQ:70:ARG:NE	2.12	0.82
1:AA:116:A:H61	1:AA:313:A:C1'	1.92	0.82
1:AA:436:C:H2'	1:AA:437:U:C6	2.14	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1405:G:O2'	1:AA:1519:A:H5'	1.80	0.82
1:AA:571:U:C5'	1:AA:819:A:C6	2.62	0.82
1:AA:394:G:C5	1:AA:395:C:C4	2.68	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: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: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: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:1064:G:H22	1:AA:1190:G:H2'	1.42	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:8:A:O4'	5:AE:103:GLY:N	2.12	0.81
1:AA:1483:A:C5	1:AA:1484:C:C4	2.68	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: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:190:A:C2	20:AT:101:GLY:C	2.54	0.81
1:AA:131:C:H1'	1:AA:263:A:H1'	1.62	0.81
21:B0:3197:U:C4	21:B0:2204:A:N6	2.49	0.81
19:AS:29:ARG:O	19:AS:30:LEU:HB2	1.80	0.81
1:AA:523:A:C2	12:AL:91:LYS:HB3	2.14	0.81
21:B0:789:G:H21	21:B0:806:A:H62	1.25	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:184:G:H5'	1:AA:224:C:O2'	1.81	0.81
1:AA:1224:G:C2'	1:AA:1225:A:OP1	2.26	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
1:AA:835:U:H5''	18:AR:64:ARG:CZ	2.11	0.81
1:AA:706:A:C1'	11:AK:29:ILE:HD11	2.11	0.81
1:AA:176:C:OP1	20:AT:29:LYS:NZ	2.11	0.81
21:B0:1034:U:H1'	21:B0:1133:G:H5''	1.61	0.81
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
1:AA:218:C:OP1	1:AA:470:U:H4'	1.81	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1269:A:N3	1:AA:1313:U:H1'	1.96	0.81
21:B0:1119:U:C4	21:B0:1120:C:C5	2.69	0.81
2:AB:132:LYS:HA	2:AB:135:GLN:HB3	1.63	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: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
1:AA:1305:G:N2	1:AA:1331:G:O2'	2.13	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
2:AB:101:MET:HA	2:AB:108:ILE:HD12	1.63	0.81
1:AA:9:G:H5'	5:AE:122:GLU:OE2	1.79	0.81
1:AA:1109:C:P	3:AC:176:HIS:CD2	2.74	0.81
13:AM:82:MET:HG3	13:AM:93:ARG:NE	1.96	0.81
1:AA:702:A:N1	21:B0:1839:A:O4'	2.14	0.81
1:AA:1368:G:OP2	9:AI:114:TYR:N	2.14	0.81
1:AA:1061:G:O4'	10:AJ:56:HIS:ND1	2.14	0.81
3:AC:23:TYR:CD1	10:AJ:11:PHE:CD2	2.69	0.81
21:B0:2227:C:H2'	21:B0:2228:U:H5'	1.63	0.81
5:AE:118:ILE:HG22	5:AE:119:LEU:N	1.95	0.80
22:B9:73:C:HO3'	22:B9:74:A:P	2.03	0.80
21:B0:878:C:H42	21:B0:921:A:H62	1.28	0.80
2:AB:27:LYS:HD3	2:AB:195:ASP:OD2	1.81	0.80
1:AA:1394:A:N6	1:AA:1501:C:H5''	1.95	0.80
1:AA:5:U:O4	5:AE:95:ALA:CB	2.29	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: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
21:B0:3118:U:O4	21:B0:3149:G:H8	1.64	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
13:AM:22:ILE:HD12	13:AM:25:ILE:HD12	1.61	0.80
10:AJ:8:LEU:CD2	10:AJ:96:ILE:HG12	2.11	0.80
1:AA:1285:A:H4'	1:AA:1286:A:O5'	1.82	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
21:B0:1098:G:C2	21:B0:1113:C:N4	2.41	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:929:G:P	1:AA:1533:C:N4	2.54	0.80
3:AC:191:THR:HG22	3:AC:193:TYR:H	1.44	0.80
1:AA:130:A:H1'	1:AA:263:A:O2'	1.81	0.80
1:AA:1416:G:C3'	1:AA:1417:G:P	2.64	0.80
21:B0:225:G:H3'	21:B0:226:C:C5'	2.09	0.80
21:B0:1072:U:H3	29:BG:10:LEU:CA	1.95	0.80
6:AF:30:LEU:HB3	6:AF:35:ALA:HB3	1.62	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
12:AL:28:LYS:HD2	12:AL:33:ARG:HH22	1.47	0.80
1:AA:319:G:O2'	1:AA:1434:A:C6	2.35	0.80
1:AA:1490:C:H2'	1:AA:1491:G:C8	2.17	0.80
1:AA:1298:C:C5	7:AG:114:ARG:CD	2.63	0.80
1:AA:367:U:O2	1:AA:369:C:C6	2.35	0.80
1:AA:59:A:C2	1:AA:331:G:C4	2.68	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:994:A:O3'	14:AN:11:LYS:HE2	1.82	0.80
1:AA:820:U:O2	1:AA:873:A:H8	1.14	0.80
1:AA:547:A:H4'	1:AA:548:G:O5'	1.53	0.80
3:AC:23:TYR:HA	10:AJ:11:PHE:CE1	2.17	0.80
1:AA:1484:C:H4'	21:B0:1943:A:C2'	2.10	0.79
1:AA:1329:A:O3'	13:AM:26:GLY:N	2.09	0.79
13:AM:88:ARG:CD	19:AS:3:ARG:HH21	1.89	0.79
1:AA:933:G:OP2	7:AG:3:ARG:HD2	1.82	0.79
1:AA:237:C:P	17:AQ:40:LYS:CD	2.69	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:1116:C:C2'	1:AA:1117:G:H5''	2.12	0.79
1:AA:619:U:H2'	4:AD:135:LEU:CD1	2.11	0.79
1:AA:761:G:O4'	17:AQ:103:GLY:O	2.00	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
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
21:B0:3874:C:C4	21:B0:3875:A:C5	2.70	0.79
1:AA:1261:A:C1'	1:AA:1283:G:H4'	2.12	0.79
1:AA:1211:U:C5'	1:AA:1212:U:P	2.71	0.79
10:AJ:62:HIS:HB3	14:AN:59:ALA:CB	2.11	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:212:G:HO3'	1:AA:213:G:P	2.01	0.79
1:AA:1248:A:O2'	9:AI:70:LYS:CE	2.30	0.79
1:AA:191:G:C8	1:AA:192:U:C6	2.71	0.79
10:AJ:45:ARG:HH22	14:AN:36:PHE:HD2	1.30	0.79
8:AH:90:GLY:O	8:AH:91:ARG:HB2	1.82	0.79
21:B0:1572:C:C2'	21:B0:1573:G:H5''	2.11	0.79
21:B0:1856:U:O2	21:B0:3877:A:N1	2.15	0.79
1:AA:184:G:C5'	1:AA:224:C:O2'	2.30	0.79
1:AA:205:G:N2	1:AA:207:C:H5	1.80	0.79
1:AA:673:G:H2'	1:AA:674:G:C8	2.17	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
3:AC:15:THR:O	3:AC:16:ARG:HB2	1.81	0.79
1:AA:244:U:C4	1:AA:894:G:C2	2.71	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:315:A:H4'	1:AA:353:A:N6	1.98	0.79
1:AA:406:G:C8	1:AA:496:A:N1	2.51	0.79
1:AA:397:A:C8	1:AA:547:A:O3'	2.36	0.79
1:AA:108:G:C5	20:AT:15:ARG:HG3	2.17	0.79
4:AD:25:ARG:C	4:AD:27:TYR:H	1.85	0.79
1:AA:262:A:H5'	20:AT:74:LYS:CG	2.13	0.79
1:AA:323:U:H4'	20:AT:19:SER:O	1.82	0.79
1:AA:935:A:O4'	1:AA:1384:C:C2	2.36	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: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:212:G:O2'	1:AA:213:G:H5'	1.82	0.78
1:AA:104:G:C4'	1:AA:172:A:H2	1.95	0.78
5:AE:43:LEU:HD11	5:AE:132:ALA:HB1	1.64	0.78
1:AA:1459:C:P	20:AT:31:SER:OG	2.41	0.78
1:AA:1474:G:H5'	21:B0:1718:A:N3	1.99	0.78
20:AT:54:LYS:HG3	20:AT:100:ILE:HD13	1.65	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
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
1:AA:1314:C:C5	19:AS:6:LYS:HE2	2.17	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1296:C:O4'	1:AA:1302:U:O4	2.01	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
12:AL:70:ILE:HD13	12:AL:77:LEU:HD12	1.63	0.78
11:AK:54:ARG:NH1	11:AK:54:ARG:HB3	1.97	0.78
1:AA:837:G:H2'	1:AA:838:C:C6	2.19	0.78
21:B0:891:A:C2'	21:B0:892:A:N7	2.36	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
19:AS:31:ILE:HG22	19:AS:32:LYS:N	1.99	0.78
16:AP:21:VAL:HG21	16:AP:59:TRP:CD1	2.19	0.78
21:B0:895:G:H8	21:B0:895:G:H5'	1.48	0.78
1:AA:1256:A:C2	1:AA:1258:G:N1	2.47	0.78
1:AA:187:G:N2	20:AT:105:SER:CB	2.46	0.78
12:AL:120:TYR:O	12:AL:122:THR:HG23	1.83	0.78
1:AA:1016:A:O2'	1:AA:1218:C:H4'	1.84	0.78
1:AA:243:A:C4'	1:AA:244:U:H5'	2.14	0.78
1:AA:1211:U:H5'	1:AA:1212:U:O5'	1.84	0.78
2:AB:84:GLU:OE1	2:AB:216:SER:HA	1.83	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
14:AN:14:PRO:C	14:AN:16:PHE:H	1.86	0.78
13:AM:80:ARG:CZ	19:AS:65:ASN:O	2.32	0.78
21:B0:1252:C:C2'	21:B0:1253:C:H5''	2.13	0.78
2:AB:8:LYS:O	2:AB:9:GLU:HB2	1.81	0.78
21:B0:403:A:H4'	21:B0:425:A:H5'	1.63	0.78
1:AA:130:A:H2	1:AA:264:U:C6	1.98	0.78
1:AA:1232:U:OP1	9:AI:126:SER:N	2.17	0.78
1:AA:89:G:C3'	1:AA:90:C:P	2.72	0.78
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.48	0.78
1:AA:367:U:N3	1:AA:369:C:N4	2.31	0.78
21:B0:225:G:C3'	21:B0:226:C:H5'	2.13	0.78
1:AA:714:G:H4'	1:AA:776:G:C4'	2.13	0.78
21:B0:1679:U:H3'	21:B0:1680:U:H5''	1.66	0.78
5:AE:64:ARG:O	5:AE:65:ASN:HB3	1.84	0.78
1:AA:1256:A:H4'	1:AA:1258:G:N9	1.95	0.78
4:AD:88:VAL:HA	5:AE:97:GLY:N	1.98	0.78
1:AA:476:U:O2	1:AA:477:G:O4'	1.99	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
21:B0:1067:G:H5'	21:B0:1068:A:C5'	2.11	0.77
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
17:AQ:104:LYS:CG	21:B0:727:U:C2	2.66	0.77
1:AA:323:U:O2'	20:AT:22:ARG:HD2	1.84	0.77
1:AA:436:C:C6	1:AA:437:U:C5	2.72	0.77
1:AA:216:C:O2'	1:AA:468:A:C2'	2.32	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
1:AA:128:G:H4'	17:AQ:3:LYS:HG2	1.65	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:190:A:C5	20:AT:105:SER:HA	2.19	0.77
1:AA:216:C:O2'	1:AA:468:A:N3	2.17	0.77
1:AA:130:A:P	17:AQ:63:ARG:HH21	2.07	0.77
1:AA:293:G:H4'	1:AA:609:A:H2	1.42	0.77
6:AF:100:ASN:HD22	18:AR:23:LYS:HG2	1.49	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
1:AA:1226:C:H4'	1:AA:1227:A:OP1	1.84	0.77
1:AA:1092:A:C5'	7:AG:4:ARG:CZ	2.61	0.77
2:AB:197:VAL:HB	2:AB:200:ILE:HG12	1.66	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
21:B0:1067:G:C5'	21:B0:1068:A:H5'	2.10	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:B0:2491:C:H2'	21:B0:2492:G:H5''	1.67	0.77
1:AA:314:C:O2	1:AA:353:A:H2	1.66	0.77
1:AA:7:G:H21	5:AE:121:LYS:HG2	1.50	0.77
1:AA:935:A:H1'	1:AA:1384:C:C4	2.20	0.77
1:AA:46:G:O3'	1:AA:47:C:P	2.42	0.77
1:AA:922:G:C2	1:AA:1396:A:C2	2.73	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
2:AB:57:PHE:O	2:AB:60:ASP:HB3	1.84	0.77
1:AA:577:G:H1'	1:AA:816:A:C2	2.19	0.77
1:AA:323:U:H5'	20:AT:23:ARG:CA	2.08	0.77
1:AA:236:G:C5'	17:AQ:42:TYR:HE2	1.94	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
6:AF:95:GLU:H	6:AF:95:GLU:CD	1.86	0.77
16:AP:74:LEU:O	16:AP:79:VAL:HG23	1.85	0.77
21:B0:1856:U:C5'	21:B0:3865:A:OP1	2.33	0.76
4:AD:205:GLU:OE1	5:AE:100:VAL:HB	1.85	0.76
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
21:B0:2808:U:H3'	21:B0:2809:A:H5'	1.67	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
17:AQ:104:LYS:HG3	21:B0:727:U:H1'	1.55	0.76
21:B0:1094:C:HO2'	21:B0:1096:A:H2	1.31	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
17:AQ:104:LYS:HZ3	21:B0:726:G:H1	1.32	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
1:AA:367:U:O2	1:AA:369:C:C4	2.38	0.76
1:AA:6:G:N2	5:AE:98:THR:CG2	2.47	0.76
1:AA:293:G:P	1:AA:609:A:N6	2.54	0.76
1:AA:1014:A:C2	19:AS:34:TRP:CG	2.72	0.76
1:AA:935:A:H1'	1:AA:1384:C:C2	2.21	0.76
1:AA:1329:A:H5''	13:AM:26:GLY:N	1.94	0.76
18:AR:55:ARG:HH11	18:AR:55:ARG:HB3	1.50	0.76
21:B0:894:G:H2'	21:B0:895:G:H5''	1.65	0.76
1:AA:132:C:C5'	20:AT:75:ASN:ND2	2.48	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
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
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:1459:C:C5'	20:AT:28:ALA:CA	2.62	0.76
1:AA:132:C:C5'	1:AA:262:A:O4'	2.31	0.76
1:AA:262:A:OP2	20:AT:76:ALA:HB2	1.85	0.76
1:AA:761:G:H4'	17:AQ:102:GLY:C	2.06	0.76
1:AA:37:U:O2	1:AA:547:A:C2	2.39	0.76
17:AQ:104:LYS:CB	21:B0:727:U:H1'	2.16	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:1182:G:O2'	1:AA:1183:A:OP2	2.04	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
1:AA:994:A:HO2'	14:AN:8:GLU:HA	1.50	0.76
1:AA:588:G:C8	1:AA:753:A:C2	2.74	0.76
6:AF:86:ARG:O	6:AF:87:ARG:HG2	1.85	0.76
6:AF:67:MET:HE1	6:AF:72:VAL:HA	1.67	0.76
17:AQ:97:SER:OG	17:AQ:103:GLY:HA2	1.85	0.76
1:AA:403:C:C2'	1:AA:404:U:H5'	2.14	0.76
19:AS:40:ILE:HD13	19:AS:62:ILE:HD13	1.68	0.76
22:B9:107:C:H2'	22:B9:108:G:H5'	1.68	0.76
1:AA:1428:A:H4'	21:B0:1703:C:O2'	1.85	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
21:B0:357:A:H2'	21:B0:358:C:H5'	1.66	0.76
1:AA:1114:C:O2	14:AN:60:SER:OG	2.04	0.76
21:B0:1113:C:O3'	21:B0:1114:A:OP2	2.04	0.75
1:AA:958:A:C4	19:AS:55:LYS:HD2	2.21	0.75
21:B0:68:C:H1'	21:B0:72:A:H1'	1.68	0.75
1:AA:322:C:O3'	20:AT:23:ARG:CG	2.33	0.75
21:B0:910:U:O3'	21:B0:911:A:P	2.45	0.75
1:AA:587:G:OP1	8:AH:89:PRO:HB3	1.86	0.75
2:AB:139:LYS:O	2:AB:143:GLU:HG2	1.86	0.75
1:AA:16:A:H4'	5:AE:17:ALA:H	1.51	0.75
21:B0:1919:A:H5''	21:B0:1920:A:O5'	1.86	0.75
21:B0:3874:C:N4	21:B0:3875:A:C6	2.54	0.75
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.22	0.75
1:AA:1261:A:H1'	1:AA:1283:G:H5'	1.67	0.75
1:AA:279:A:OP2	17:AQ:95:TYR:CE2	2.35	0.75
1:AA:1069:C:O2'	1:AA:1192:C:H1'	1.86	0.75
1:AA:1061:G:H1'	10:AJ:56:HIS:HE1	1.50	0.75
1:AA:1025:U:H2'	1:AA:1026:G:C8	2.21	0.75
2:AB:16:HIS:NE2	2:AB:214:ILE:HG12	2.02	0.75
1:AA:328:C:O2	1:AA:328:C:H2'	1.85	0.75
21:B0:3126:A:O4'	21:B0:3127:G:H5'	1.84	0.75
21:B0:3874:C:C4	21:B0:3875:A:N7	2.54	0.75
1:AA:234:C:O2'	17:AQ:64:PRO:HG3	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
17:AQ:95:TYR:C	17:AQ:97:SER:H	1.89	0.75
1:AA:323:U:C4'	20:AT:22:ARG:HB2	2.15	0.75
1:AA:8:A:O4'	5:AE:102:ALA:C	2.24	0.75
1:AA:436:C:H2'	1:AA:437:U:H6	1.49	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
9:AI:118:LYS:O	9:AI:119:ALA:HB3	1.85	0.75
21:B0:1199:U:H3'	21:B0:1200:G:C5'	2.17	0.75
12:AL:59:ARG:HD3	12:AL:65:GLU:HG3	1.68	0.75
1:AA:1492:A:H2'	1:AA:1493:A:O4'	1.87	0.75
21:B0:892:A:N3	21:B0:911:A:C4	2.54	0.75
1:AA:960:U:C1'	1:AA:1222:G:O2'	2.29	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
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
1:AA:132:C:O4'	1:AA:262:A:C1'	2.29	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:31:G:C8	1:AA:48:C:C4	2.75	0.75
1:AA:6:G:C8	5:AE:119:LEU:CD1	2.69	0.75
1:AA:51:A:C6	1:AA:314:C:H1'	2.21	0.75
1:AA:1367:C:H5'	10:AJ:60:ARG:NH1	2.02	0.75
1:AA:835:U:P	18:AR:64:ARG:HH21	2.10	0.75
1:AA:995:C:O2	14:AN:4:LYS:CD	2.34	0.75
10:AJ:82:ILE:O	10:AJ:86:MET:HB2	1.87	0.75
1:AA:1297:C:HO3'	1:AA:1298:C:P	2.07	0.75
1:AA:250:A:N6	1:AA:275:G:C6	2.55	0.75
1:AA:1296:C:C4'	1:AA:1302:U:C5	2.69	0.75
22:B9:114:C:C2'	22:B9:115:G:H5''	2.17	0.75
21:B0:1856:U:O4	21:B0:3877:A:N6	2.20	0.74
1:AA:223:U:H5''	20:AT:68:LYS:NZ	1.94	0.74
13:AM:4:ILE:HG22	13:AM:5:ALA:N	2.00	0.74
8:AH:91:ARG:HA	17:AQ:34:LYS:HB2	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
21:B0:3197:U:O2	21:B0:2181:A:N6	2.20	0.74
1:AA:994:A:O3'	14:AN:11:LYS:CE	2.35	0.74
12:AL:24:VAL:HG13	12:AL:98:TYR:HE2	1.51	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
21:B0:1856:U:HO2'	21:B0:3865:A:H5'	1.49	0.74
1:AA:959:A:N1	1:AA:1221:G:O2'	2.19	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
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
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
1:AA:1113:C:H1'	3:AC:178:LEU:CD2	2.14	0.74
1:AA:1092:A:H4'	7:AG:4:ARG:NH2	2.02	0.74
3:AC:50:ALA:HB1	3:AC:70:VAL:HG11	1.69	0.74
1:AA:6:G:H2'	5:AE:119:LEU:CD1	2.18	0.74
1:AA:186:C:C4'	20:AT:81:LYS:HE2	2.18	0.74
1:AA:960:U:O2'	1:AA:1223:C:C5'	2.36	0.74
3:AC:58:GLU:HB3	10:AJ:92:THR:HG21	1.67	0.74
13:AM:3:ARG:HA	13:AM:8:GLU:O	1.86	0.74
12:AL:27:LEU:O	12:AL:29:GLY:N	2.21	0.74
21:B0:221:A:H62	21:B0:231:G:H21	1.34	0.74
3:AC:116:VAL:HG21	3:AC:202:ILE:HD11	1.67	0.74
1:AA:1277:C:O2'	1:AA:1279:A:C1'	2.35	0.74
21:B0:3118:U:C2	21:B0:3149:G:H5'	1.82	0.74
17:AQ:95:TYR:O	17:AQ:97:SER:N	2.20	0.74
1:AA:436:C:H2'	1:AA:437:U:C4'	2.13	0.74
4:AD:89:THR:H	5:AE:97:GLY:HA3	0.65	0.74
1:AA:403:C:C2'	1:AA:404:U:C5'	2.65	0.74
1:AA:141:A:H1'	1:AA:182:U:N3	1.50	0.74
21:B0:1119:U:O4	21:B0:1120:C:N4	2.20	0.74
4:AD:64:LEU:HD12	4:AD:75:PHE:HZ	1.53	0.74
21:B0:67:G:N2	21:B0:72:A:H2'	2.02	0.74
19:AS:16:LEU:O	19:AS:19:VAL:HG12	1.87	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:1346:A:C2	7:AG:10:ARG:CZ	2.71	0.74
1:AA:719:C:O2'	18:AR:49:LYS:CG	2.34	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
1:AA:958:A:C8	19:AS:55:LYS:CD	2.71	0.74
2:AB:95:GLN:O	2:AB:96:ARG:HD2	1.88	0.74
19:AS:17:GLU:O	19:AS:21:GLU:HG3	1.87	0.74
10:AJ:47:PHE:CE2	14:AN:37:PHE:CE1	2.76	0.74
1:AA:815:A:H2	1:AA:1528:U:C5'	2.01	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
1:AA:1314:C:C5	19:AS:6:LYS:CD	2.71	0.73
1:AA:848:G:O3'	1:AA:849:C:O5'	2.05	0.73
1:AA:792:A:H4'	1:AA:793:U:H5''	1.68	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:815:A:N1	1:AA:1528:U:O4'	2.20	0.73
1:AA:1419:G:C1'	21:B0:1932:G:H4'	2.18	0.73
12:AL:27:LEU:HG	12:AL:28:LYS:H	1.53	0.73
1:AA:619:U:C2	4:AD:135:LEU:CG	2.71	0.73
21:B0:109:A:C3'	21:B0:110:U:H5''	2.18	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
1:AA:1279:A:H5''	1:AA:1280:A:OP1	1.88	0.73
21:B0:3865:A:OP1	21:B0:2389:G:H1'	1.88	0.73
1:AA:1232:U:P	9:AI:126:SER:HB3	2.28	0.73
1:AA:1367:C:H5'	10:AJ:60:ARG:HH12	1.53	0.73
1:AA:717:C:C3'	1:AA:718:G:P	2.75	0.73
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.23	0.73
6:AF:69:GLU:HA	6:AF:72:VAL:HG23	1.70	0.73
18:AR:26:LEU:HD12	18:AR:27:GLY:H	1.53	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
10:AJ:96:ILE:HG22	10:AJ:97:GLU:H	1.52	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
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: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:367:U:N3	1:AA:369:C:C4	2.55	0.73
1:AA:588:G:N2	1:AA:653:A:C2	2.55	0.73
1:AA:189:A:C5	20:AT:104:LEU:C	2.59	0.73
13:AM:86:CYS:SG	13:AM:87:TYR:N	2.60	0.73
21:B0:1119:U:H3'	21:B0:1120:C:P	2.28	0.73
1:AA:1251:A:H4'	9:AI:12:GLU:OE2	1.88	0.73
1:AA:161:A:H2'	1:AA:162:A:C8	2.23	0.73
15:AO:33:THR:HG23	15:AO:63:ARG:NH1	2.03	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:141:A:H4'	1:AA:182:U:O4'	1.87	0.73
1:AA:1347:G:C5	9:AI:107:ARG:CZ	2.71	0.73
1:AA:108:G:O6	20:AT:15:ARG:HD2	1.89	0.73
1:AA:1278:U:H5''	1:AA:1279:A:O5'	1.88	0.73
1:AA:1068:G:N3	1:AA:1191:A:C2	2.57	0.73
12:AL:48:PRO:HG2	12:AL:49:ASN:H	1.52	0.73
21:B0:1856:U:C4	21:B0:3865:A:N3	2.34	0.73
1:AA:9:G:OP1	5:AE:122:GLU:CG	2.37	0.73
1:AA:434:U:H2'	1:AA:435:C:C6	2.24	0.73
1:AA:216:C:C5'	1:AA:466:A:N1	2.52	0.73
1:AA:586:C:H5''	8:AH:90:GLY:CA	2.19	0.73
1:AA:104:G:O4'	1:AA:172:A:H2	1.72	0.73
21:B0:1856:U:C4	21:B0:3877:A:N6	2.51	0.72
1:AA:1115:C:C1'	14:AN:61:TRP:HA	2.19	0.72
13:AM:3:ARG:HH22	26:BD:137:ILE:CA	2.02	0.72
8:AH:1:MET:HG2	8:AH:2:LEU:N	2.05	0.72
1:AA:131:C:H1'	1:AA:263:A:C1'	2.17	0.72
1:AA:132:C:OP1	20:AT:75:ASN:CG	2.28	0.72
1:AA:189:A:N6	20:AT:104:LEU:HD22	2.03	0.72
4:AD:57:ARG:CZ	5:AE:107:ARG:HD3	2.16	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: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
1:AA:401:C:O4'	1:AA:622:A:H1'	1.88	0.72
1:AA:200:G:H2'	1:AA:201:G:C8	2.25	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:1458:G:OP2	1:AA:1459:C:C6	2.36	0.72
21:B0:1856:U:C5'	21:B0:3865:A:C8	2.71	0.72
1:AA:1410:G:C2	1:AA:1491:G:N1	2.57	0.72
1:AA:1015:A:N3	1:AA:1219:U:O4'	2.22	0.72
1:AA:249:U:C2'	1:AA:250:A:P	2.65	0.72
1:AA:1113:C:N1	3:AC:178:LEU:HD23	2.03	0.72
1:AA:397:A:C8	1:AA:547:A:O2'	2.33	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:B0:951:G:H2'	21:B0:952:A:H5''	1.70	0.72
6:AF:26:ILE:HG21	6:AF:63:TYR:HE2	1.54	0.72
1:AA:131:C:H4'	1:AA:263:A:O4'	1.89	0.72
1:AA:1064:G:H1'	1:AA:1190:G:H22	1.49	0.72
1:AA:1108:G:H5''	3:AC:176:HIS:CE1	2.24	0.72
1:AA:1347:G:C8	9:AI:107:ARG:NH1	2.57	0.72
1:AA:1277:C:O2'	1:AA:1279:A:O4'	2.07	0.72
1:AA:1484:C:C4'	21:B0:1943:A:C1'	2.52	0.72
1:AA:406:G:N9	1:AA:496:A:C6	2.57	0.72
1:AA:39:G:C8	1:AA:498:U:C4	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: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:227:G:O2'	1:AA:228:A:H5'	1.88	0.72
21:B0:2236:U:H2'	21:B0:2237:C:H5''	1.72	0.72
1:AA:1499:A:H1'	1:AA:1520:G:C5'	2.19	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
2:AB:91:PRO:HG3	2:AB:154:LEU:HB2	1.69	0.72
1:AA:866:C:C4'	1:AA:919:A:H5'	2.20	0.72
1:AA:132:C:O3'	20:AT:74:LYS:HD2	1.90	0.72
1:AA:1392:G:H4'	1:AA:1531:A:H5'	1.72	0.72
21:B0:892:A:C4	21:B0:911:A:C2	2.77	0.72
10:AJ:51:ARG:HA	14:AN:45:ARG:HD2	1.69	0.72
1:AA:1418:A:H2	21:B0:1931:G:O2'	1.72	0.72
21:B0:762:A:H5'	21:B0:1284:G:H1'	1.71	0.72
21:B0:1856:U:C5'	21:B0:3865:A:H8	2.02	0.72
1:AA:131:C:C1'	1:AA:263:A:H1'	2.19	0.72
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.08	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)
1:AA:5:U:N3	5:AE:95:ALA:HB3	2.04	0.72
2:AB:116:GLU:HG2	2:AB:153:ARG:NH1	2.04	0.72
17:AQ:59:ILE:HG23	17:AQ:71:PHE:HB3	1.70	0.72
21:B0:1856:U:C6	21:B0:3865:A:N9	2.31	0.72
1:AA:353:A:H5'	1:AA:353:A:H8	1.53	0.72
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.24	0.72
1:AA:1065:U:H4'	1:AA:1066:C:O5'	1.89	0.72
13:AM:84:ILE:HG21	19:AS:66:MET:HE2	1.71	0.72
21:B0:9:U:H3	21:B0:2608:A:H62	1.37	0.72
21:B0:2426:G:H5'	21:B0:2480:C:H41	1.55	0.72
20:AT:10:LEU:O	20:AT:12:ALA:N	2.22	0.72
9:AI:65:VAL:HG21	9:AI:73:GLN:HB3	1.72	0.72
1:AA:1281:U:H5'	1:AA:1282:C:C5	2.25	0.71
1:AA:261:U:C5	20:AT:79:ARG:HD3	2.21	0.71
1:AA:116:A:N6	1:AA:313:A:H1'	2.04	0.71
1:AA:324:G:O5'	20:AT:22:ARG:HD3	1.90	0.71
21:B0:1141:U:N3	21:B0:2008:C:H5''	2.04	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:B0:1966:C:H4'	21:B0:2585:C:H4'	1.71	0.71
1:AA:761:G:C5'	17:AQ:102:GLY:CA	2.68	0.71
1:AA:760:G:N3	17:AQ:103:GLY:O	2.22	0.71
1:AA:143:A:O3'	1:AA:144:G:C8	2.28	0.71
1:AA:933:G:C5	1:AA:935:A:N7	2.58	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
18:AR:33:ASP:OD2	18:AR:36:ASN:HB2	1.90	0.71
3:AC:13:GLY:HA3	14:AN:57:ARG:HH21	1.54	0.71
1:AA:1351:U:H2'	1:AA:1352:C:H6	1.55	0.71
11:AK:84:VAL:HG11	11:AK:95:ILE:HD11	1.70	0.71
1:AA:748:C:H1'	1:AA:749:C:H5	1.53	0.71
21:B0:688:A:H62	21:B0:816:U:H3	1.38	0.71
21:B0:2503:G:C3'	21:B0:2504:G:H5''	2.21	0.71
17:AQ:104:LYS:HD2	21:B0:727:U:O2	1.89	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
21:B0:3126:A:H4'	21:B0:3127:G:P	2.30	0.71
21:B0:2503:G:H3'	21:B0:2504:G:H5''	1.72	0.71
17:AQ:45:HIS:HB2	17:AQ:65:ILE:HD13	1.71	0.71
9:AI:97:LYS:HG2	9:AI:102:LEU:HD12	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:977:A:H2'	1:AA:978:A:H5''	1.72	0.71
1:AA:818:G:N2	1:AA:873:A:OP1	2.23	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:260:G:N7	20:AT:83:ARG:NH2	2.37	0.71
1:AA:977:A:C8	1:AA:1223:C:C4	2.79	0.71
1:AA:866:C:H4'	1:AA:919:A:H5'	1.72	0.71
21:B0:1487:C:H2'	21:B0:1488:G:H8	1.56	0.71
1:AA:130:A:C2	1:AA:264:U:C5	2.77	0.71
21:B0:3149:G:C3'	21:B0:3150:C:P	2.78	0.71
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.26	0.71
1:AA:1182:G:HO2'	1:AA:1183:A:P	2.13	0.71
1:AA:1503:A:C4	1:AA:1531:A:H2	2.08	0.71
1:AA:1261:A:C4'	1:AA:1283:G:C3'	2.47	0.71
5:AE:102:ALA:HB1	5:AE:120:THR:HG21	1.72	0.71
1:AA:1489:G:C3'	1:AA:1490:C:H5''	2.21	0.71
3:AC:59:ARG:N	10:AJ:92:THR:CG2	2.54	0.71
9:AI:111:ARG:HD3	9:AI:112:LYS:N	2.06	0.71
1:AA:59:A:C2	1:AA:331:G:C5	2.79	0.71
10:AJ:35:SER:HB2	10:AJ:72:VAL:O	1.90	0.71
1:AA:130:A:H2	1:AA:264:U:C5	2.07	0.71
1:AA:922:G:H5'	5:AE:20:GLN:NE2	2.05	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:1060:C:O2'	10:AJ:56:HIS:CG	2.42	0.71
21:B0:57:G:H2'	21:B0:58:C:H5''	1.73	0.71
21:B0:3126:A:C4'	21:B0:3127:G:H5'	2.21	0.71
21:B0:2274:C:H2'	21:B0:2275:U:H5'	1.73	0.71
21:B0:1077:U:O2'	21:B0:1079:G:N7	2.21	0.71
1:AA:537:G:OP1	12:AL:113:ARG:NH2	2.23	0.71
1:AA:6:G:C2'	5:AE:119:LEU:HD13	2.20	0.71
1:AA:189:A:N6	20:AT:104:LEU:C	2.43	0.71
1:AA:1491:G:H2'	1:AA:1492:A:C8	2.26	0.71
1:AA:571:U:H4'	1:AA:819:A:N6	2.05	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:760:G:N1	17:AQ:104:LYS:C	2.43	0.71
1:AA:352:C:H4'	1:AA:354:G:OP1	1.91	0.71
19:AS:70:LYS:O	19:AS:72:GLY:N	2.24	0.71
21:B0:3098:U:C5	21:B0:3099:U:O4	2.44	0.71
21:B0:1746:A:H2'	21:B0:1747:G:H5'	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:40:ASN:HB3	13:AM:43:THR:HG23	1.72	0.71
21:B0:1182:U:C2'	21:B0:1183:C:H5''	2.20	0.71
1:AA:288:A:O2'	1:AA:289:G:O3'	2.05	0.71
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:1014:A:C6	19:AS:34:TRP:CE2	2.79	0.70
3:AC:59:ARG:H	10:AJ:92:THR:HG22	1.56	0.70
1:AA:818:G:C3'	1:AA:819:A:H5''	2.21	0.70
1:AA:392:G:H2'	1:AA:393:A:H8	1.55	0.70
18:AR:39:VAL:O	18:AR:42:ARG:HB2	1.90	0.70
1:AA:227:G:C6	1:AA:228:A:C5	2.79	0.70
11:AK:77:MET:HE3	11:AK:80:VAL:HG22	1.73	0.70
1:AA:235:C:H4'	17:AQ:70:ARG:HB2	1.72	0.70
21:B0:3197:U:C2'	21:B0:2181:A:N7	2.51	0.70
1:AA:1409:C:C2	1:AA:1410:G:C8	2.79	0.70
21:B0:891:A:O2'	21:B0:892:A:C8	2.30	0.70
1:AA:436:C:C2'	1:AA:437:U:H6	2.03	0.70
1:AA:994:A:C4	14:AN:5:ALA:C	2.51	0.70
1:AA:44:G:OP1	16:AP:12:LYS:N	2.24	0.70
1:AA:1371:G:OP1	9:AI:11:LYS:HG2	1.91	0.70
13:AM:40:ASN:HD22	13:AM:41:PRO:HD2	1.55	0.70
1:AA:108:G:C6	20:AT:15:ARG:HG3	2.26	0.70
1:AA:1148:U:H2'	1:AA:1149:C:O4'	1.90	0.70
21:B0:3874:C:C5	21:B0:3875:A:N7	2.59	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
21:B0:1073:G:H1'	21:B0:1099:A:C2	2.27	0.70
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.26	0.70
1:AA:1320:C:N3	19:AS:36:ARG:HG3	2.05	0.70
1:AA:142:G:H21	1:AA:196:A:C1'	1.95	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
3:AC:52:LEU:CD2	3:AC:52:LEU:H	2.00	0.70
1:AA:107:G:C2'	1:AA:108:G:H5'	2.21	0.70
1:AA:288:A:H2'	1:AA:289:G:H4'	1.74	0.70
21:B0:2680:U:H3'	21:B0:2681:A:H5'	1.72	0.70
1:AA:599:C:H5'	8:AH:131:GLY:HA2	1.73	0.70
1:AA:586:C:H5''	8:AH:90:GLY:H	1.54	0.70
1:AA:344:A:H4'	1:AA:345:C:OP2	1.91	0.70
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:438:G:H4'	1:AA:439:A:OP1	1.91	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
3:AC:52:LEU:HD21	3:AC:118:GLN:NE2	2.07	0.70
10:AJ:78:ASN:O	10:AJ:80:LYS:N	2.24	0.70
6:AF:10:LEU:HD11	6:AF:59:TYR:HD2	1.55	0.70
19:AS:15:LEU:HD12	19:AS:16:LEU:N	2.06	0.70
1:AA:919:A:O3'	1:AA:920:U:P	2.50	0.70
21:B0:3867:G:N3	53:B5:44:GLY:CA	2.55	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:520:A:O2'	12:AL:73:GLU:OE2	2.07	0.70
1:AA:1250:A:C4'	9:AI:68:GLY:O	2.39	0.70
4:AD:28:SER:O	4:AD:30:LYS:N	2.25	0.70
4:AD:158:ILE:HG22	4:AD:181:MET:HE2	1.71	0.70
1:AA:686:U:HO2'	1:AA:687:A:H8	1.38	0.70
21:B0:874:A:H62	21:B0:928:G:H21	1.39	0.70
3:AC:6:HIS:CD2	3:AC:8:ILE:HB	2.27	0.70
1:AA:402:G:C1'	1:AA:620:C:H42	2.05	0.70
10:AJ:45:ARG:NH2	14:AN:36:PHE:CD2	2.60	0.70
1:AA:588:G:N7	1:AA:753:A:C4	2.60	0.70
1:AA:59:A:C5	1:AA:331:G:N2	2.60	0.70
1:AA:974:A:OP2	14:AN:29:ARG:NH2	2.25	0.70
21:B0:104:C:C2'	21:B0:105:G:H5''	2.22	0.70
17:AQ:24:GLU:OE2	17:AQ:37:LYS:HD3	1.92	0.70
15:AO:17:ARG:NH1	15:AO:77:ARG:NH1	2.40	0.70
1:AA:323:U:OP1	20:AT:23:ARG:CA	2.35	0.70
21:B0:892:A:C8	21:B0:892:A:H5'	2.24	0.70
10:AJ:65:LEU:O	10:AJ:65:LEU:HD23	1.91	0.70
4:AD:150:GLU:CG	4:AD:153:ARG:HH21	2.02	0.70
1:AA:521:G:OP1	12:AL:73:GLU:O	2.10	0.70
13:AM:11:ARG:HG2	13:AM:12:ASN:N	2.07	0.70
10:AJ:39:PRO:O	10:AJ:40:LEU:HB2	1.89	0.70
21:B0:3146:A:H4'	21:B0:3147:C:OP2	1.92	0.70
3:AC:180:ALA:O	3:AC:181:ASN:HB3	1.92	0.70
1:AA:954:G:H5''	13:AM:120:LYS:HD3	1.73	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
9:AI:97:LYS:CG	9:AI:102:LEU:HD12	2.22	0.70
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:197:A:H4'	1:AA:198:G:O5'	1.90	0.70
1:AA:292:G:N3	1:AA:608:A:N1	2.40	0.70
1:AA:436:C:H2'	1:AA:437:U:C1'	2.21	0.70
1:AA:19:C:N4	1:AA:916:G:O6	2.24	0.70
21:B0:3101:G:H2'	21:B0:3102:G:O4'	1.90	0.70
1:AA:1372:U:OP2	9:AI:11:LYS:HD3	1.92	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:476:U:C2	1:AA:477:G:C1'	2.75	0.69
3:AC:29:TYR:CE1	10:AJ:65:LEU:CD1	2.68	0.69
10:AJ:46:ARG:HH11	10:AJ:64:GLU:CB	2.05	0.69
1:AA:587:G:OP1	8:AH:92:ARG:NH1	2.23	0.69
10:AJ:30:SER:O	10:AJ:78:ASN:HB2	1.92	0.69
21:B0:1856:U:H3'	21:B0:3865:A:C2'	2.12	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
1:AA:477:G:H2'	1:AA:478:A:H8	1.56	0.69
13:AM:6:GLY:O	13:AM:7:VAL:HG22	1.92	0.69
1:AA:837:G:O3'	1:AA:838:C:O5'	2.09	0.69
1:AA:1141:C:H2'	1:AA:1142:G:H8	1.58	0.69
12:AL:126:LYS:HD2	12:AL:126:LYS:N	2.08	0.69
20:AT:45:GLN:HA	20:AT:91:LEU:HD22	1.74	0.69
21:B0:814:G:H3'	21:B0:815:A:H5'	1.73	0.69
21:B0:1912:G:H4'	21:B0:1913:G:H8	1.56	0.69
21:B0:3874:C:C4	21:B0:3875:A:C8	2.80	0.69
1:AA:262:A:C3'	20:AT:75:ASN:ND2	2.55	0.69
1:AA:190:A:C5	20:AT:105:SER:CA	2.75	0.69
1:AA:1314:C:C6	19:AS:6:LYS:HD3	2.26	0.69
13:AM:81:LEU:H	13:AM:81:LEU:HD23	1.56	0.69
13:AM:82:MET:HE2	21:B0:900(A):A:OP1	1.92	0.69
1:AA:586:C:C5'	8:AH:90:GLY:CA	2.69	0.69
21:B0:2607:C:H3'	21:B0:2608:A:C5'	2.23	0.69
16:AP:20:VAL:HG11	16:AP:32:TYR:HB3	1.74	0.69
3:AC:7:PRO:HG2	3:AC:184:TYR:HB2	1.73	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:1416:G:C5	1:AA:1417:G:C1'	2.75	0.69
1:AA:496:A:H4'	1:AA:497:A:OP1	1.91	0.69
1:AA:476:U:O3'	1:AA:477:G:OP1	2.10	0.69
1:AA:141:A:O4'	1:AA:182:U:H1'	1.90	0.69
1:AA:714:G:H5'	1:AA:776:G:H5''	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:619:U:H2'	4:AD:135:LEU:HD12	1.72	0.69
10:AJ:30:SER:HB2	10:AJ:80:LYS:HB3	1.74	0.69
10:AJ:32:ALA:HB2	10:AJ:76:ASN:HD22	1.57	0.69
4:AD:70:ILE:HD11	4:AD:100:ARG:CZ	2.21	0.69
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.92	0.69
17:AQ:104:LYS:CB	21:B0:727:U:C1'	2.71	0.69
1:AA:318:G:O2'	1:AA:1468:A:H4'	1.93	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
1:AA:248:C:O2'	1:AA:283:C:H4'	1.92	0.69
1:AA:714:G:H4'	1:AA:776:G:C5'	2.22	0.69
1:AA:1137:C:H4'	1:AA:1138:G:N2	2.06	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:66:SER:O	17:AQ:70:ARG:NH1	2.26	0.69
21:B0:892:A:N3	21:B0:911:A:N3	2.41	0.69
1:AA:216:C:H5'	1:AA:466:A:N1	2.08	0.69
21:B0:226:C:O2'	21:B0:227:G:H8	1.73	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
21:B0:1791:C:O2'	21:B0:1793:A:H5'	1.93	0.69
1:AA:376:G:OP1	16:AP:6:LEU:HD13	1.92	0.69
1:AA:406:G:N2	1:AA:437:U:O2	2.25	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
3:AC:23:TYR:HD1	10:AJ:11:PHE:CD2	2.09	0.69
4:AD:151:LYS:HD2	4:AD:151:LYS:N	2.08	0.69
1:AA:939:G:H2'	1:AA:940:C:C6	2.28	0.69
21:B0:2495:G:H2'	21:B0:2496:C:C6	2.27	0.69
21:B0:1004:A:H2'	21:B0:1005:U:H5''	1.74	0.69
1:AA:1255:G:O3'	1:AA:1258:G:N3	2.26	0.69
4:AD:89:THR:OG1	5:AE:97:GLY:O	2.10	0.69
1:AA:51:A:C6	1:AA:314:C:O2	2.44	0.69
1:AA:355:C:H4'	1:AA:389:A:P	2.33	0.69
1:AA:375:U:H2'	1:AA:376:G:C8	2.26	0.69
1:AA:186:C:H4'	20:AT:81:LYS:CB	2.22	0.69
1:AA:992:U:HO2'	1:AA:993:G:P	2.16	0.69
3:AC:59:ARG:N	10:AJ:92:THR:HG22	2.08	0.69
19:AS:41:VAL:HG23	19:AS:43:GLU:HG2	1.75	0.69
1:AA:36:C:O2	1:AA:501:C:C5'	2.40	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1087:G:P	1:AA:1389:C:H4'	2.32	0.69
21:B0:1749:G:O6	21:B0:2674:C:H4'	1.92	0.69
3:AC:130:VAL:HG21	3:AC:157:ILE:HG23	1.75	0.69
10:AJ:42:THR:HG23	10:AJ:67:THR:O	1.93	0.69
4:AD:64:LEU:HD12	4:AD:75:PHE:CZ	2.28	0.69
21:B0:1807:A:H4'	21:B0:1808:C:C5'	2.22	0.69
12:AL:55:VAL:HG12	12:AL:56:ALA:H	1.57	0.69
21:B0:1428:G:H5''	21:B0:1429:A:H5'	1.73	0.69
21:B0:2380:U:H2'	21:B0:2381:A:H5'	1.75	0.69
21:B0:2617:G:H22	21:B0:2755:A:H2'	1.57	0.69
13:AM:87:TYR:N	19:AS:73:GLU:O	2.26	0.69
10:AJ:49:VAL:HG21	14:AN:44:LEU:HG	1.75	0.69
1:AA:587:G:H4'	8:AH:3:THR:O	1.93	0.69
12:AL:47:LYS:CB	12:AL:48:PRO:CD	2.71	0.69
21:B0:2245:A:H5'	21:B0:2246:A:C8	2.27	0.69
21:B0:1223:G:H21	21:B0:1225:G:H21	1.40	0.69
21:B0:588:G:H4'	21:B0:2001:G:H4'	1.73	0.69
1:AA:232:G:C2	1:AA:263:A:C2	2.81	0.69
1:AA:44:G:P	16:AP:12:LYS:H	2.16	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:1250:A:H4'	9:AI:68:GLY:H	1.57	0.69
20:AT:56:MET:HE2	20:AT:88:VAL:HG11	1.74	0.69
4:AD:88:VAL:HG23	5:AE:96:PRO:HB2	1.72	0.68
4:AD:199:ASN:ND2	4:AD:201:GLN:HB2	2.08	0.68
2:AB:22:LYS:HD2	2:AB:35:GLU:OE1	1.93	0.68
1:AA:583:A:H5'	17:AQ:90:ILE:CG2	2.22	0.68
6:AF:100:ASN:ND2	18:AR:23:LYS:HG2	2.08	0.68
1:AA:105:G:H2'	1:AA:106:C:C6	2.29	0.68
1:AA:702:A:N6	21:B0:1838:G:N3	2.40	0.68
1:AA:1314:C:H5	19:AS:6:LYS:CG	2.05	0.68
21:B0:3101:G:H1	21:B0:3188:U:H3	1.41	0.68
1:AA:928:G:O2'	1:AA:1533:C:H5	1.75	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:382:A:H2'	1:AA:383:A:C8	2.28	0.68
1:AA:376:G:N3	1:AA:389:A:C2	2.61	0.68
1:AA:324:G:P	20:AT:22:ARG:HD3	2.33	0.68
1:AA:119:A:C5	1:AA:240:C:C4	2.81	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)
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
5:AE:51:VAL:O	5:AE:55:VAL:HG23	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: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
1:AA:247:G:P	17:AQ:100:LYS:HE2	2.33	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
21:B0:939:C:H2'	21:B0:940:G:C8	2.28	0.68
1:AA:129:U:P	17:AQ:3:LYS:NZ	2.66	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
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:B0:2058:U:H4'	21:B0:2575:U:H3	1.58	0.68
1:AA:191:G:N3	1:AA:192:U:O4'	2.25	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: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:406:G:C2	1:AA:496:A:N6	2.61	0.68
1:AA:394:G:O2'	1:AA:395:C:H5'	1.93	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:B0:2075:U:O2'	21:B0:3093:C:C6	2.41	0.68
21:B0:2377:U:H2'	21:B0:2378:G:C8	2.28	0.68
21:B0:181:A:H4'	21:B0:182:G:H4'	1.76	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
1:AA:113:G:O4'	1:AA:354:G:C5'	2.42	0.68
1:AA:323:U:C4'	20:AT:19:SER:O	2.41	0.68
1:AA:954:G:C5'	13:AM:120:LYS:HD3	2.23	0.68
1:AA:1346:A:C4	7:AG:10:ARG:CZ	2.77	0.68
1:AA:1060:C:H5''	10:AJ:51:ARG:HB3	1.75	0.68
21:B0:940:G:C3'	21:B0:941:U:H5''	2.11	0.68
1:AA:1475:G:H5''	21:B0:1706:A:H4'	0.76	0.68
1:AA:1314:C:C5	19:AS:6:LYS:CE	2.77	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
1:AA:761:G:HO2'	21:B0:726:G:H22	1.42	0.68
1:AA:1298:C:H41	7:AG:114:ARG:HB3	1.54	0.68
10:AJ:51:ARG:HG2	14:AN:45:ARG:CZ	2.22	0.68
6:AF:75:LEU:O	6:AF:79:LEU:HG	1.94	0.68
4:AD:30:LYS:C	4:AD:32:ALA:H	1.97	0.68
9:AI:93:ARG:HD3	9:AI:97:LYS:HE3	1.75	0.68
21:B0:2381:A:H4'	21:B0:2382:C:C5	2.29	0.68
1:AA:1261:A:C3'	1:AA:1283:G:H5''	2.23	0.68
1:AA:292:G:H1'	1:AA:608:A:H62	1.59	0.68
1:AA:915:A:H2'	1:AA:916:G:H5'	1.76	0.68
1:AA:571:U:C5'	1:AA:819:A:C2	2.71	0.68
1:AA:43:C:OP1	16:AP:13:HIS:CD2	2.44	0.68
1:AA:46:G:H2'	1:AA:366:C:C5	2.28	0.68
1:AA:212:G:O2'	1:AA:213:G:C5'	2.41	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
21:B0:3875:A:C4'	53:B5:43:LYS:CA	2.72	0.67
1:AA:132:C:OP1	20:AT:75:ASN:ND2	2.27	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
1:AA:1417:G:H21	1:AA:1484:C:N4	1.90	0.67
13:AM:81:LEU:H	13:AM:81:LEU:CD2	2.08	0.67
3:AC:190:ARG:HH11	3:AC:190:ARG:CB	2.07	0.67
21:B0:1955:G:H2'	21:B0:1956:G:H5'	1.76	0.67
1:AA:583:A:C5'	17:AQ:90:ILE:HG21	2.23	0.67
2:AB:18:GLY:HA2	2:AB:42:ILE:H	1.59	0.67
21:B0:1033:G:H22	21:B0:1150:C:H2'	1.58	0.67
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.59	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
1:AA:187:G:H5'	20:AT:85:MET:SD	2.35	0.67
10:AJ:45:ARG:CZ	14:AN:36:PHE:CE2	2.78	0.67
1:AA:108:G:C6	20:AT:15:ARG:CD	2.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:93:ARG:NH1	9:AI:97:LYS:HZ1	1.92	0.67
21:B0:2261:G:H4'	21:B0:2262:C:OP2	1.94	0.67
21:B0:1021:A:H1'	21:B0:1164:C:H1'	1.76	0.67
1:AA:131:C:C1'	1:AA:263:A:C1'	2.72	0.67
1:AA:189:A:N6	20:AT:104:LEU:CD2	2.57	0.67
1:AA:1483:A:C6	1:AA:1484:C:C4	2.82	0.67
19:AS:33:THR:HG22	19:AS:35:SER:H	1.60	0.67
13:AM:93:ARG:CB	21:B0:900(A):A:OP1	2.43	0.67
21:B0:1181:C:C2'	21:B0:1182:U:H5''	2.23	0.67
6:AF:36:ARG:NH1	6:AF:38:GLU:HG2	2.08	0.67
1:AA:701:C:H5'	1:AA:703:G:O4'	1.94	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
21:B0:1112:U:C2'	21:B0:1113:C:H5''	2.24	0.67
1:AA:1495:U:O2'	21:B0:1902:A:H2	1.74	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: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:761:G:H1'	17:AQ:104:LYS:HA	1.77	0.67
17:AQ:104:LYS:HG2	21:B0:726:G:N1	2.10	0.67
1:AA:1502:A:H2	1:AA:1505:G:N1	1.90	0.67
1:AA:1225:A:C4'	19:AS:78:ARG:HH11	2.07	0.67
3:AC:82:GLU:O	3:AC:85:ARG:HB3	1.94	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
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.29	0.67
13:AM:7:VAL:CG1	26:BD:113:ASP:CA	2.73	0.67
7:AG:149:ARG:NH1	11:AK:59:TYR:CZ	2.62	0.67
21:B0:2508:G:H5''	21:B0:2509:A:H5''	1.76	0.67
21:B0:3877:A:C8	21:B0:3877:A:O5'	2.39	0.67
1:AA:1261:A:H5''	1:AA:1283:G:O3'	1.93	0.67
1:AA:315:A:H2	1:AA:354:G:OP2	1.77	0.67
1:AA:1064:G:C4'	1:AA:1065:U:H5'	2.23	0.67
14:AN:14:PRO:HB2	14:AN:16:PHE:O	1.95	0.67
1:AA:893:C:H2'	1:AA:894:G:C8	2.30	0.67
1:AA:1347:G:N7	9:AI:107:ARG:NH1	2.43	0.67
1:AA:929:G:OP1	1:AA:1533:C:N4	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:976:G:OP1	14:AN:31:ARG:O	2.12	0.67
1:AA:362:G:H4'	12:AL:28:LYS:HZ2	1.57	0.67
13:AM:34:LEU:HD13	13:AM:41:PRO:HA	1.77	0.67
2:AB:124:SER:HB2	2:AB:125:PRO:CD	2.21	0.67
21:B0:1926:U:O2'	21:B0:1928:G:H5'	1.95	0.67
11:AK:14:VAL:HG21	11:AK:40:ILE:HD11	1.77	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
1:AA:1483:A:H2'	1:AA:1484:C:OP2	1.90	0.67
1:AA:68:G:H2'	1:AA:69:G:P	2.35	0.67
1:AA:650:G:O2'	1:AA:651:C:H5'	1.94	0.67
1:AA:104:G:H4'	1:AA:172:A:C2	2.28	0.67
21:B0:665:A:H3'	21:B0:666:U:C5'	2.24	0.67
7:AG:85:TYR:HD1	7:AG:154:TYR:HE1	1.43	0.67
21:B0:33:C:H42	21:B0:466:A:H61	1.41	0.67
1:AA:815:A:C2	1:AA:1528:U:C4'	2.69	0.66
21:B0:3876:A:N9	53:B5:45:ASP:CA	2.57	0.66
1:AA:1483:A:C5	1:AA:1484:C:C6	2.81	0.66
1:AA:1368:G:O2'	1:AA:1369:C:H5'	1.95	0.66
1:AA:1211:U:H1'	1:AA:1213:A:C2	2.29	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
1:AA:921:U:H5'	1:AA:1082:G:H5'	1.76	0.66
15:AO:55:GLY:O	15:AO:59:MET:HG3	1.94	0.66
1:AA:371:G:O2'	1:AA:372:C:H5'	1.94	0.66
21:B0:1473:U:H4'	21:B0:1474:A:C8	2.29	0.66
1:AA:582:U:O4'	17:AQ:105:ALA:C	2.33	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:835:U:P	18:AR:64:ARG:NH2	2.66	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
1:AA:1296:C:H5'	1:AA:1302:U:O4	1.95	0.66
18:AR:45:SER:OG	18:AR:49:LYS:HB2	1.94	0.66
21:B0:1312:G:H5'	21:B0:1314:A:H1'	1.77	0.66
5:AE:12:LEU:HD13	5:AE:31:LEU:HB2	1.77	0.66
21:B0:1223:G:H4'	21:B0:1224:A:O5'	1.96	0.66
1:AA:662:G:H2'	1:AA:663:A:C8	2.30	0.66
17:AQ:104:LYS:HB3	21:B0:727:U:C1'	2.26	0.66
1:AA:1416:G:P	1:AA:1417:G:OP2	2.53	0.66
1:AA:436:C:C4	1:AA:437:U:O4	2.40	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1065:U:O4	1:AA:1189:C:C2	2.49	0.66
1:AA:37:U:OP1	12:AL:124:LYS:CB	2.43	0.66
9:AI:26:VAL:HB	9:AI:33:PHE:HB2	1.76	0.66
1:AA:1057:G:O2'	1:AA:1058:G:H5'	1.96	0.66
10:AJ:96:ILE:HG22	10:AJ:97:GLU:N	2.10	0.66
9:AI:10:ARG:HG2	9:AI:75:ASP:HB2	1.77	0.66
4:AD:187:ARG:HH21	4:AD:188:LEU:HD12	1.60	0.66
21:B0:1380:C:H2'	21:B0:1381:G:H5'	1.76	0.66
17:AQ:97:SER:OG	17:AQ:103:GLY:CA	2.44	0.66
1:AA:51:A:H2'	1:AA:116:A:O4'	1.94	0.66
1:AA:315:A:H4'	1:AA:353:A:H61	1.59	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
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
13:AM:33:ALA:HA	13:AM:59:TYR:HE2	1.60	0.66
21:B0:3128:G:O2'	21:B0:3174:C:C4'	2.44	0.66
1:AA:587:G:P	8:AH:89:PRO:HB3	2.35	0.66
1:AA:748:C:H1'	1:AA:749:C:C5	2.30	0.66
8:AH:6:ILE:HD11	8:AH:31:PHE:CD2	2.30	0.66
21:B0:3111:C:N3	21:B0:3148:G:OP2	2.26	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
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:B0:1529:C:H2'	21:B0:1530:U:O4'	1.94	0.66
1:AA:524:G:H2'	1:AA:525:C:C6	2.31	0.66
21:B0:910:U:H2'	21:B0:911:A:O5'	1.94	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
21:B0:1119:U:C3'	21:B0:1120:C:P	2.84	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
3:AC:172:ARG:HB3	3:AC:172:ARG:NH1	2.11	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
10:AJ:90:LEU:H	10:AJ:91:PRO:HD2	1.61	0.66
3:AC:107:GLN:NE2	3:AC:107:GLN:H	1.94	0.66
1:AA:1255:G:C2'	1:AA:1258:G:N2	2.56	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:131:C:C4'	1:AA:263:A:C4'	2.70	0.66
21:B0:910:U:H2'	21:B0:911:A:C5'	2.26	0.66
1:AA:1111:A:N1	3:AC:177:THR:HA	2.09	0.66
1:AA:218:C:P	1:AA:470:U:C4'	2.83	0.66
1:AA:993:G:C6	1:AA:1046:A:C6	2.83	0.66
1:AA:143:A:O3'	1:AA:144:G:O5'	2.13	0.66
1:AA:37:U:OP1	12:AL:124:LYS:HB3	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
1:AA:1425:U:H2'	1:AA:1426:C:C6	2.31	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
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
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
21:B0:1112:U:H2'	21:B0:1113:C:H5''	1.75	0.66
1:AA:1107:C:OP1	3:AC:173:VAL:N	2.25	0.66
10:AJ:38:ILE:CG1	10:AJ:71:LEU:HB3	2.26	0.66
4:AD:151:LYS:HD2	4:AD:151:LYS:H	1.60	0.66
5:AE:150:ARG:HG3	5:AE:150:ARG:HH11	1.60	0.66
10:AJ:94:VAL:HG12	10:AJ:95:GLU:N	2.11	0.66
21:B0:515:A:H2'	21:B0:516:G:H5'	1.77	0.66
21:B0:439:C:H2'	21:B0:440:U:O4'	1.95	0.66
1:AA:130:A:H2	1:AA:264:U:C4	2.15	0.66
4:AD:88:VAL:HA	5:AE:97:GLY:CA	2.25	0.66
1:AA:94:G:C4	1:AA:96:C:C5	2.84	0.66
1:AA:1319:A:C5'	19:AS:5:LEU:HD21	2.23	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:161:A:H2	1:AA:348:G:H1'	1.60	0.66
20:AT:87:LYS:O	20:AT:91:LEU:HD12	1.96	0.66
4:AD:187:ARG:NH2	4:AD:188:LEU:HD12	2.10	0.66
1:AA:26:A:C2'	1:AA:27:G:H5'	2.26	0.66
21:B0:897:A:N6	21:B0:898:C:N4	2.43	0.66
1:AA:427:U:OP1	4:AD:13:ARG:NH2	2.29	0.66
21:B0:1191:G:H2'	21:B0:1192:A:H8	1.61	0.66
21:B0:3197:U:O2'	21:B0:2181:A:C8	2.25	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
3:AC:172:ARG:HH11	3:AC:172:ARG:HB3	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:216:C:C1'	1:AA:468:A:C2'	2.70	0.65
10:AJ:60:ARG:O	10:AJ:61:GLU:HB3	1.96	0.65
1:AA:1296:C:H4'	1:AA:1302:U:H5	1.57	0.65
21:B0:128:C:C2'	21:B0:129:A:H5''	2.23	0.65
2:AB:15:VAL:CG2	2:AB:209:ARG:HG3	2.26	0.65
5:AE:80:ILE:HD11	5:AE:91:LEU:HD12	1.76	0.65
1:AA:926:G:C8	1:AA:1505:G:C2	2.83	0.65
1:AA:1190:G:H3'	3:AC:3:ASN:CB	2.24	0.65
13:AM:3:ARG:NH2	26:BD:137:ILE:CA	2.58	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
21:B0:1471:G:H1	21:B0:2682:C:H42	1.44	0.65
1:AA:1475:G:H2'	1:AA:1476:G:H8	1.62	0.65
1:AA:1402:C:H2'	1:AA:1403:C:O4'	1.97	0.65
1:AA:927:G:O2'	1:AA:1532:U:C4'	2.41	0.65
1:AA:187:G:C4'	20:AT:85:MET:HE2	2.26	0.65
1:AA:1319:A:H5''	19:AS:5:LEU:CD2	2.21	0.65
1:AA:474:U:H2'	1:AA:475:C:C6	2.31	0.65
1:AA:244:U:C4	1:AA:893:C:N3	2.64	0.65
1:AA:935:A:C6	7:AG:3:ARG:NH2	2.64	0.65
1:AA:1329:A:C5'	13:AM:26:GLY:N	2.58	0.65
13:AM:65:LYS:HG3	13:AM:69:GLU:OE2	1.96	0.65
12:AL:86:ARG:HH11	12:AL:86:ARG:HG3	1.61	0.65
11:AK:48:ILE:HG22	11:AK:49:GLY:H	1.61	0.65
5:AE:40:ARG:HG2	5:AE:68:GLU:OE2	1.96	0.65
17:AQ:104:LYS:HB3	21:B0:727:U:H1'	1.79	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
1:AA:1113:C:N1	3:AC:178:LEU:CD2	2.59	0.65
2:AB:25:ASN:C	2:AB:25:ASN:HD22	1.97	0.65
2:AB:215:LEU:O	2:AB:219:VAL:HG23	1.97	0.65
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.78	0.65
1:AA:1442:G:H2'	1:AA:1442:G:N3	2.11	0.65
21:B0:2794:G:H3'	21:B0:2796:A:H62	1.61	0.65
1:AA:436:C:N3	1:AA:437:U:N3	2.44	0.65
13:AM:33:ALA:HA	13:AM:59:TYR:CE2	2.32	0.65
19:AS:28:LYS:HG2	19:AS:29:ARG:N	2.06	0.65
1:AA:825:G:H21	8:AH:11:THR:CG2	2.10	0.65
21:B0:542:A:C2'	21:B0:543:G:H5'	2.26	0.65
21:B0:1918:G:H4'	21:B0:1920:A:N3	2.10	0.65
19:AS:17:GLU:HA	19:AS:20:LEU:HD11	1.78	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
1:AA:458:G:H2'	1:AA:459:G:H8	1.62	0.65
21:B0:1098:G:H3'	21:B0:1099:A:H5''	1.79	0.65
1:AA:992:U:O2'	1:AA:1043:C:N4	2.29	0.65
1:AA:933:G:O6	1:AA:935:A:C4	2.49	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
3:AC:155:GLY:O	3:AC:156:ARG:HB2	1.96	0.65
1:AA:918:A:H2'	1:AA:919:A:C8	2.32	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
5:AE:15:ARG:HD2	5:AE:15:ARG:O	1.96	0.65
21:B0:651:C:H2'	21:B0:652:C:H5''	1.78	0.65
1:AA:234:C:O2'	17:AQ:70:ARG:HG3	1.97	0.65
1:AA:923:A:O4'	1:AA:1398:A:H2	1.70	0.65
1:AA:353:A:C8	1:AA:353:A:H5'	2.31	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: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
10:AJ:49:VAL:O	10:AJ:60:ARG:HA	1.95	0.65
1:AA:677:U:H3	1:AA:713:G:H22	1.45	0.65
18:AR:47:THR:HG23	18:AR:83:GLU:H	1.61	0.65
6:AF:100:ASN:HD22	18:AR:23:LYS:CG	2.10	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
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:1522:U:O2'	1:AA:1523:G:H5'	1.96	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
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
4:AD:131:ARG:H	4:AD:131:ARG:HD2	1.62	0.65
21:B0:727:U:H2'	21:B0:728:G:H5''	1.78	0.65
1:AA:6:G:C1'	5:AE:119:LEU:CD1	2.75	0.65
1:AA:377:G:P	16:AP:5:ARG:HD2	2.37	0.65
21:B0:892:A:N9	21:B0:911:A:C2	2.65	0.65
12:AL:110:VAL:O	12:AL:122:THR:HG21	1.97	0.65
1:AA:1347:G:N9	9:AI:107:ARG:NH1	2.45	0.65
1:AA:59:A:C5	1:AA:331:G:N3	2.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1656:U:C2'	21:B0:1657:A:H5''	2.25	0.65
12:AL:55:VAL:HG12	12:AL:56:ALA:N	2.12	0.65
1:AA:287:U:O2'	1:AA:288:A:H5'	1.97	0.65
21:B0:927:C:H2'	21:B0:928:G:O4'	1.97	0.65
7:AG:50:ILE:O	7:AG:54:THR:HB	1.96	0.65
6:AF:21:LEU:O	6:AF:24:GLU:HB3	1.97	0.65
1:AA:130:A:C4'	1:AA:264:U:C5'	2.75	0.64
1:AA:7:G:N2	5:AE:121:LYS:HG2	2.11	0.64
1:AA:1110:A:N6	1:AA:1111:A:C6	2.64	0.64
1:AA:1497:G:H2'	1:AA:1498:U:H5'	1.78	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:281:G:O2'	1:AA:282:A:OP2	2.12	0.64
17:AQ:101:ARG:HA	17:AQ:101:ARG:HE	1.62	0.64
21:B0:1472:C:H2'	21:B0:1473:U:H5'	1.79	0.64
1:AA:443:C:H2'	1:AA:444:C:H6	1.61	0.64
21:B0:1811:A:O2'	21:B0:1812:U:H5''	1.97	0.64
11:AK:66:LEU:HB3	11:AK:70:LYS:HE3	1.78	0.64
1:AA:1474:G:H4'	21:B0:1718:A:C2	2.32	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:1318:A:H5'	19:AS:10:PHE:CD1	2.32	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
1:AA:1153:C:H2'	1:AA:1154:G:H8	1.62	0.64
21:B0:897:A:C6	21:B0:898:C:C4	2.85	0.64
7:AG:37:ASN:ND2	9:AI:41:VAL:HG23	2.12	0.64
21:B0:1432:G:H21	21:B0:1596:A:H62	1.45	0.64
1:AA:131:C:O2'	1:AA:262:A:O2'	2.16	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:818:G:H3'	1:AA:819:A:C5'	2.27	0.64
1:AA:243:A:H4'	1:AA:244:U:C5'	2.22	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:1249:C:H1'	9:AI:70:LYS:HG3	1.79	0.64
11:AK:40:ILE:HG22	11:AK:41:THR:HG23	1.80	0.64
1:AA:51:A:N1	1:AA:314:C:O2'	2.23	0.64
19:AS:40:ILE:HB	19:AS:67:VAL:O	1.98	0.64
1:AA:1368:G:P	9:AI:112:LYS:O	2.56	0.64
1:AA:588:G:C4	1:AA:753:A:C5	2.83	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:2422:C:H2'	21:B0:2423:G:H8	1.62	0.64
7:AG:42:ILE:HG22	7:AG:120:ILE:HD12	1.80	0.64
15:AO:29:VAL:HG12	15:AO:85:LEU:CD1	2.26	0.64
1:AA:1475:G:H4'	21:B0:1706:A:C4'	2.16	0.64
1:AA:760:G:N2	17:AQ:103:GLY:C	2.50	0.64
5:AE:115:VAL:CG1	5:AE:118:ILE:HG13	2.25	0.64
1:AA:112:G:N3	1:AA:354:G:C5'	2.59	0.64
1:AA:1190:G:O2'	1:AA:1191:A:O5'	2.12	0.64
3:AC:177:THR:CG2	3:AC:180:ALA:HB2	2.28	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:59:A:C6	1:AA:331:G:C4	2.85	0.64
15:AO:17:ARG:CZ	15:AO:77:ARG:HH11	2.11	0.64
21:B0:2075:U:O2'	21:B0:3093:C:C1'	2.45	0.64
21:B0:1436:G:H1'	21:B0:1508:G:H21	1.60	0.64
21:B0:1861:G:P	53:B5:37:LYS:CA	2.86	0.64
1:AA:130:A:P	17:AQ:63:ARG:HE	2.18	0.64
1:AA:103:C:O2'	1:AA:171:A:C6	2.50	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
13:AM:36:LYS:HD2	13:AM:59:TYR:CZ	2.32	0.64
1:AA:36:C:O2'	1:AA:501:C:OP1	2.13	0.64
9:AI:49:PRO:O	9:AI:52:ALA:HB3	1.97	0.64
1:AA:1141:C:H2'	1:AA:1142:G:C8	2.33	0.64
3:AC:112:SER:HB2	3:AC:115:LEU:HD12	1.79	0.64
1:AA:262:A:C5'	20:AT:74:LYS:CB	2.66	0.64
1:AA:6:G:C5	5:AE:119:LEU:CD1	2.79	0.64
1:AA:375:U:OP1	16:AP:69:THR:OG1	2.03	0.64
20:AT:50:GLU:HG2	20:AT:100:ILE:HG13	1.79	0.64
1:AA:1014:A:C2	1:AA:1219:U:C2'	2.78	0.64
19:AS:64:GLU:O	19:AS:67:VAL:HG23	1.97	0.64
1:AA:141:A:N3	1:AA:195:A:C2	2.66	0.64
10:AJ:45:ARG:NH1	14:AN:36:PHE:HD2	1.87	0.64
1:AA:15:G:H4'	5:AE:24:ARG:NH2	2.13	0.64
21:B0:1474:A:H2'	21:B0:1475:U:H5'	1.79	0.64
1:AA:13:U:O2	1:AA:914:A:H3'	1.96	0.64
11:AK:18:ARG:HB2	11:AK:33:THR:HG23	1.78	0.64
1:AA:1256:A:N3	1:AA:1258:G:O6	2.30	0.64
5:AE:115:VAL:HG11	5:AE:118:ILE:CG1	2.28	0.64
1:AA:1409:C:C2'	1:AA:1410:G:C8	2.75	0.64
1:AA:994:A:N3	14:AN:5:ALA:O	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:835:U:C5'	18:AR:64:ARG:HH22	2.03	0.64
1:AA:499:A:H4'	1:AA:500:G:H5'	1.79	0.64
1:AA:837:G:O3'	1:AA:838:C:C6	2.49	0.64
21:B0:1047:G:H1	21:B0:1130:U:H3	1.46	0.64
16:AP:45:THR:HB	16:AP:46:PRO:HD2	1.80	0.64
1:AA:1475:G:H4'	21:B0:1706:A:H5'	1.80	0.64
21:B0:3110:G:H5''	21:B0:3148:G:H1'	1.80	0.64
1:AA:926:G:C2	1:AA:1505:G:C8	2.86	0.64
21:B0:910:U:C2'	21:B0:911:A:C5'	2.76	0.64
1:AA:1040:U:H2'	1:AA:1041:A:C8	2.33	0.64
1:AA:204:A:H5''	1:AA:205:G:OP1	1.97	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
21:B0:894:G:C2'	21:B0:895:G:H5''	2.27	0.64
6:AF:9:VAL:HB	6:AF:87:ARG:HB2	1.80	0.64
21:B0:2245:A:H5'	21:B0:2246:A:N7	2.12	0.64
7:AG:37:ASN:HD21	9:AI:41:VAL:HG23	1.62	0.64
21:B0:2690:A:OP2	21:B0:2694:G:H5'	1.98	0.64
1:AA:191:G:C2	1:AA:192:U:N1	2.66	0.64
1:AA:234:C:O2'	17:AQ:70:ARG:CG	2.45	0.64
1:AA:262:A:O3'	20:AT:75:ASN:CB	2.41	0.64
1:AA:5:U:O4	5:AE:95:ALA:HB1	1.99	0.64
1:AA:1109:C:OP2	3:AC:176:HIS:CG	2.51	0.64
1:AA:403:C:N3	1:AA:404:U:C5	2.66	0.64
1:AA:1086:U:H5''	1:AA:1389:C:OP1	1.96	0.64
14:AN:27:CYS:SG	14:AN:29:ARG:HB2	2.38	0.64
21:B0:65:C:H2'	21:B0:66:U:O4'	1.97	0.64
4:AD:70:ILE:HD11	4:AD:100:ARG:NE	2.13	0.64
1:AA:1394:A:N1	1:AA:1501:C:O4'	2.31	0.63
21:B0:1838:G:H2'	21:B0:1839:A:H5'	1.75	0.63
1:AA:9:G:N7	5:AE:126:ARG:NH1	2.45	0.63
1:AA:436:C:O2'	1:AA:437:U:O4'	2.16	0.63
1:AA:1044:A:C8	1:AA:1045:C:H1'	2.32	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:958:A:C2	19:AS:55:LYS:HB2	2.33	0.63
21:B0:2510:A:H61	21:B0:2641:A:H61	1.46	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
1:AA:1503:A:OP1	1:AA:1531:A:C2'	2.46	0.63
1:AA:322:C:O3'	20:AT:23:ARG:CB	2.46	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:933:G:C6	1:AA:935:A:N9	2.65	0.63
21:B0:3184:C:O2'	21:B0:3185:U:H5''	1.98	0.63
1:AA:587:G:HO2'	1:AA:588:G:P	2.22	0.63
14:AN:22:THR:CB	14:AN:33:VAL:HG21	2.27	0.63
1:AA:1131:G:H1	1:AA:1143:G:N2	1.95	0.63
2:AB:95:GLN:OE1	2:AB:95:GLN:HA	1.97	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:B0:1715:A:H1'	21:B0:1717:A:O4'	1.99	0.63
3:AC:64:VAL:CB	3:AC:99:VAL:HB	2.27	0.63
1:AA:1115:C:O4'	14:AN:61:TRP:HA	1.99	0.63
12:AL:25:PRO:C	12:AL:27:LEU:N	2.52	0.63
1:AA:1142:G:H2'	1:AA:1143:G:O4'	1.97	0.63
1:AA:108:G:O6	20:AT:15:ARG:CD	2.47	0.63
21:B0:2491:C:C2'	21:B0:2492:G:H5''	2.29	0.63
1:AA:173:U:C5'	1:AA:197:A:O4'	2.46	0.63
1:AA:1499:A:H1'	1:AA:1520:G:H5''	1.80	0.63
17:AQ:104:LYS:HE3	21:B0:729:A:H62	0.53	0.63
16:AP:8:ARG:HB2	16:AP:28:ARG:NH1	2.14	0.63
1:AA:1347:G:O2'	1:AA:1348:U:OP2	2.16	0.63
1:AA:1291:G:O3'	7:AG:41:ARG:NH2	2.31	0.63
11:AK:18:ARG:HB2	11:AK:33:THR:CG2	2.28	0.63
1:AA:635:G:O2'	17:AQ:2:PRO:HG2	1.98	0.63
21:B0:3149:G:C2'	21:B0:3150:C:P	2.87	0.63
1:AA:922:G:H2'	1:AA:923:A:C8	2.33	0.63
17:AQ:104:LYS:CG	21:B0:726:G:C2	2.75	0.63
1:AA:434:U:H2'	1:AA:435:C:H6	1.63	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:976:G:P	1:AA:1358:U:HO2'	2.18	0.63
1:AA:1249:C:H4'	9:AI:36:TYR:OH	1.98	0.63
4:AD:148:VAL:HG11	4:AD:158:ILE:HG21	1.81	0.63
1:AA:636:U:H5'	17:AQ:2:PRO:HG2	1.79	0.63
1:AA:168:G:O2'	1:AA:169:C:H5'	1.98	0.63
1:AA:74:G:H2'	1:AA:75:C:C6	2.34	0.63
2:AB:74:LYS:HZ1	2:AB:206:ASP:HA	1.63	0.63
21:B0:1856:U:N3	21:B0:3877:A:C6	2.56	0.63
1:AA:130:A:H1'	1:AA:263:A:HO2'	1.61	0.63
1:AA:253:U:OP1	17:AQ:67:LYS:NZ	2.31	0.63
1:AA:190:A:N3	20:AT:101:GLY:HA3	2.12	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)
5:AE:79:GLU:HG3	5:AE:93:PRO:HD2	1.79	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
8:AH:91:ARG:HD3	17:AQ:34:LYS:HB3	1.81	0.63
1:AA:1250:A:H5'	9:AI:68:GLY:O	1.98	0.63
2:AB:82:ARG:O	2:AB:86:GLU:HG3	1.98	0.63
1:AA:191:G:C6	1:AA:192:U:C6	2.77	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
5:AE:120:THR:CG2	5:AE:121:LYS:N	2.61	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:402:G:C4'	1:AA:620:C:H42	2.11	0.63
1:AA:959:A:C4'	1:AA:985:C:H4'	2.28	0.63
21:B0:3183:A:C3'	21:B0:3184:C:P	2.87	0.63
1:AA:619:U:N1	4:AD:135:LEU:HD11	2.13	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
3:AC:59:ARG:C	10:AJ:92:THR:CG2	2.66	0.63
1:AA:571:U:H4'	1:AA:819:A:C5	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:274:A:C2	1:AA:275:G:H1'	2.32	0.63
7:AG:26:PHE:CE2	7:AG:30:ILE:HD11	2.33	0.63
21:B0:1856:U:H6	21:B0:3865:A:C8	1.71	0.63
1:AA:261:U:P	20:AT:79:ARG:HH22	2.21	0.63
1:AA:323:U:O3'	20:AT:22:ARG:HD3	1.99	0.63
1:AA:1505:G:C3'	1:AA:1506:U:O5'	2.39	0.63
3:AC:177:THR:HG23	3:AC:180:ALA:HB2	1.81	0.63
1:AA:216:C:C2'	1:AA:468:A:N3	2.42	0.63
1:AA:402:G:C4'	1:AA:620:C:N3	2.39	0.63
1:AA:141:A:N3	1:AA:195:A:H2	1.96	0.63
1:AA:619:U:N3	4:AD:135:LEU:HG	2.13	0.63
1:AA:1292:U:OP2	7:AG:41:ARG:NH2	2.31	0.63
2:AB:186:ALA:HB3	2:AB:197:VAL:HG11	1.81	0.63
7:AG:155:ARG:O	7:AG:156:TRP:HB3	1.98	0.63
21:B0:514:G:H2'	21:B0:514:G:N3	2.12	0.63
4:AD:152:SER:HB3	4:AD:155:LEU:HD12	1.80	0.63
21:B0:1711:C:H4'	21:B0:1712:G:C2	2.34	0.63
21:B0:1464:A:H4'	21:B0:1545:G:H4'	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:926:G:C5	1:AA:1505:G:C2	2.87	0.62
19:AS:39:THR:HA	19:AS:70:LYS:HG2	1.81	0.62
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.13	0.62
3:AC:120:VAL:O	3:AC:124:ILE:HG13	1.99	0.62
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.32	0.62
5:AE:116:THR:HG23	5:AE:117:ASP:OD2	1.98	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
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
5:AE:150:ARG:NH1	5:AE:150:ARG:HG3	2.13	0.62
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.29	0.62
1:AA:1020:U:H2'	1:AA:1021:G:H8	1.63	0.62
3:AC:60:ALA:O	3:AC:61:ALA:HB2	2.00	0.62
1:AA:815:A:C4	1:AA:1527:C:H1'	2.34	0.62
17:AQ:104:LYS:CG	21:B0:727:U:O2	2.47	0.62
1:AA:375:U:N3	1:AA:376:G:C5	2.67	0.62
2:AB:73:THR:HB	2:AB:170:GLU:OE2	1.99	0.62
17:AQ:21:VAL:HG21	17:AQ:59:ILE:HD11	1.82	0.62
2:AB:142:LEU:HD22	2:AB:146:GLN:NE2	2.14	0.62
1:AA:325:A:OP2	20:AT:70:SER:OG	2.16	0.62
1:AA:218:C:OP1	1:AA:470:U:C4'	2.47	0.62
7:AG:114:ARG:HG2	7:AG:114:ARG:HH11	1.64	0.62
1:AA:599:C:H4'	8:AH:131:GLY:N	2.14	0.62
12:AL:33:ARG:CD	12:AL:62:SER:HB3	2.29	0.62
21:B0:892:A:N3	21:B0:911:A:C2	2.67	0.62
1:AA:1190:G:H4'	1:AA:1191:A:C5'	2.27	0.62
1:AA:1298:C:C4	7:AG:114:ARG:HD3	2.35	0.62
1:AA:244:U:N3	1:AA:894:G:C4	2.67	0.62
21:B0:2607:C:H1'	21:B0:2761:A:H2'	1.79	0.62
1:AA:1132:C:H2'	1:AA:1133:G:H8	1.64	0.62
21:B0:2236:U:C2'	21:B0:2237:C:H5''	2.29	0.62
21:B0:1429:A:H62	21:B0:1601:U:H5''	1.65	0.62
21:B0:2756:A:H4'	21:B0:2758:A:OP1	1.98	0.62
4:AD:88:VAL:CA	5:AE:97:GLY:HA3	2.28	0.62
1:AA:436:C:O2	1:AA:437:U:N1	2.32	0.62
1:AA:994:A:H1'	14:AN:8:GLU:CB	2.24	0.62
1:AA:1229:A:OP2	13:AM:114:ARG:HD3	1.99	0.62
21:B0:3183:A:HO3'	21:B0:3184:C:P	2.19	0.62
1:AA:600:C:H5''	8:AH:129:VAL:HA	1.81	0.62
1:AA:586:C:C5'	8:AH:90:GLY:N	2.60	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:714:G:C5'	1:AA:776:G:H5'	2.30	0.62
2:AB:132:LYS:HG2	2:AB:135:GLN:OE1	1.99	0.62
19:AS:31:ILE:CG2	19:AS:32:LYS:H	2.10	0.62
1:AA:129:U:P	17:AQ:3:LYS:HZ2	2.23	0.62
1:AA:866:C:H4'	1:AA:919:A:C5'	2.30	0.62
9:AI:19:LEU:O	9:AI:20:ARG:HG3	1.99	0.62
1:AA:319:G:C4	1:AA:1434:A:C2	2.88	0.62
1:AA:336:C:O4'	1:AA:1433:A:H1'	1.99	0.62
14:AN:53:LEU:HB3	14:AN:56:VAL:HG21	1.81	0.62
1:AA:31:G:N2	1:AA:47:C:H4'	2.14	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
17:AQ:76:LEU:HD23	17:AQ:77:VAL:N	2.15	0.62
12:AL:43:VAL:HG12	12:AL:44:THR:N	2.14	0.62
21:B0:1196:G:H2'	21:B0:1197:U:O4'	2.00	0.62
1:AA:6:G:C2'	5:AE:119:LEU:CD1	2.77	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:1349:A:OP1	9:AI:120:ARG:HB2	2.00	0.62
1:AA:501:C:H2'	1:AA:502:G:C8	2.34	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
20:AT:54:LYS:HE3	20:AT:100:ILE:HD11	1.82	0.62
1:AA:1109:C:P	3:AC:176:HIS:NE2	2.72	0.62
6:AF:94:GLN:NE2	18:AR:32:ARG:HD3	2.09	0.62
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.35	0.62
4:AD:61:LYS:NZ	4:AD:62:GLN:HE21	1.98	0.62
21:B0:1528:C:C2'	21:B0:1529:C:H5''	2.30	0.62
2:AB:74:LYS:NZ	2:AB:206:ASP:HA	2.13	0.62
21:B0:2571:G:H2'	21:B0:2572:U:C6	2.34	0.62
5:AE:120:THR:HG23	5:AE:121:LYS:N	2.15	0.62
1:AA:1297:C:P	13:AM:44:ARG:NH2	2.71	0.62
1:AA:1320:C:H41	19:AS:37:ARG:HD3	1.65	0.62
1:AA:1211:U:O3'	1:AA:1212:U:OP2	2.17	0.62
8:AH:91:ARG:NH2	17:AQ:32:TYR:O	2.31	0.62
20:AT:43:LEU:HD12	20:AT:55:ILE:HD12	1.81	0.62
21:B0:2668:U:H4'	21:B0:2669:C:C5'	2.25	0.62
2:AB:115:LEU:HG	2:AB:153:ARG:NH2	2.14	0.62
5:AE:80:ILE:CD1	5:AE:91:LEU:HB2	2.30	0.62
1:AA:1440:C:H2'	1:AA:1441:G:H5'	1.82	0.62
4:AD:191:ARG:O	4:AD:191:ARG:HD2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1580:C:H2'	21:B0:1581:C:C6	2.35	0.62
1:AA:1474:G:H5'	21:B0:1718:A:C2	2.34	0.61
1:AA:922:G:N2	1:AA:1396:A:C2	2.68	0.61
1:AA:51:A:N1	1:AA:314:C:C2'	2.63	0.61
1:AA:355:C:H4'	1:AA:389:A:OP2	1.99	0.61
5:AE:102:ALA:CB	5:AE:120:THR:HG21	2.28	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
10:AJ:63:PHE:HE1	14:AN:45:ARG:HA	1.63	0.61
1:AA:502:G:C4'	1:AA:550:G:C4'	2.77	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
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
9:AI:4:TYR:CZ	9:AI:88:TYR:HD1	2.17	0.61
21:B0:788:G:H5'	21:B0:790:A:H1'	1.81	0.61
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.35	0.61
1:AA:193:C:H2'	1:AA:194:C:C6	2.35	0.61
21:B0:1856:U:C4'	21:B0:3865:A:C8	2.83	0.61
1:AA:234:C:H4'	17:AQ:64:PRO:HG2	1.82	0.61
1:AA:1182:G:C5'	1:AA:1184:G:H5''	2.26	0.61
1:AA:969:A:H61	13:AM:126:LYS:HB2	1.65	0.61
1:AA:1370:G:O2'	1:AA:1371:G:H5'	2.00	0.61
1:AA:755:G:H1'	8:AH:1:MET:HE2	1.79	0.61
1:AA:119:A:C6	1:AA:240:C:C2	2.88	0.61
12:AL:27:LEU:C	12:AL:29:GLY:H	2.04	0.61
1:AA:15:G:C1'	5:AE:19:MET:HE2	2.30	0.61
21:B0:2522:G:N2	21:B0:2625:U:H5''	2.15	0.61
1:AA:386:C:O2'	1:AA:387:U:H5'	2.00	0.61
15:AO:29:VAL:HG12	15:AO:85:LEU:HD11	1.82	0.61
2:AB:20:GLU:HG2	2:AB:189:ASP:OD2	1.99	0.61
21:B0:973:U:H2'	21:B0:974:U:C6	2.35	0.61
21:B0:1147:G:H2'	21:B0:1148:G:C8	2.35	0.61
1:AA:778:G:O2'	11:AK:120:ARG:O	2.17	0.61
1:AA:1487:G:O2'	1:AA:1488:G:H5'	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
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)
3:AC:50:ALA:O	3:AC:70:VAL:HG12	1.99	0.61
21:B0:1920:A:H3'	21:B0:1920:A:OP2	2.01	0.61
1:AA:1425:U:H2'	1:AA:1426:C:H6	1.65	0.61
1:AA:448:A:H2'	1:AA:449:C:H6	1.64	0.61
2:AB:184:VAL:N	2:AB:198:ASP:OD2	2.32	0.61
1:AA:1490:C:H6	1:AA:1490:C:C5'	2.13	0.61
1:AA:1225:A:H1'	19:AS:78:ARG:HD3	1.82	0.61
1:AA:1347:G:O2'	1:AA:1348:U:P	2.57	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:161:A:H2	1:AA:348:G:C1'	2.13	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
21:B0:1518:C:H2'	21:B0:1519:G:C8	2.35	0.61
18:AR:52:PRO:O	18:AR:56:THR:HG23	2.00	0.61
1:AA:812:C:O2'	1:AA:813:U:OP2	2.17	0.61
1:AA:1457:A:C5	1:AA:1459:C:O2	2.53	0.61
1:AA:235:C:C5'	17:AQ:70:ARG:CD	2.76	0.61
1:AA:112:G:H21	1:AA:354:G:P	2.22	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: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:588:G:H1'	1:AA:753:A:N1	2.16	0.61
21:B0:2548:G:H2'	21:B0:2549:G:C5'	2.27	0.61
1:AA:15:G:C1'	5:AE:19:MET:CE	2.77	0.61
2:AB:115:LEU:O	2:AB:119:GLU:HG3	2.00	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
10:AJ:46:ARG:HH11	10:AJ:64:GLU:HB3	1.65	0.61
21:B0:1093:U:O4	21:B0:1094:C:C4	2.54	0.61
1:AA:651:C:C4	1:AA:652:U:O4	2.51	0.61
11:AK:48:ILE:HG22	11:AK:49:GLY:N	2.16	0.61
3:AC:129:ALA:HB3	3:AC:132:ARG:HD2	1.82	0.61
20:AT:50:GLU:HG3	20:AT:99:LEU:HD12	1.82	0.61
1:AA:476:U:HO3'	1:AA:477:G:P	2.23	0.61
1:AA:179:A:O3'	1:AA:180:U:P	2.59	0.61
1:AA:933:G:C6	1:AA:935:A:C4	2.88	0.61
21:B0:1094:C:O2'	21:B0:1096:A:H2	1.83	0.61
12:AL:27:LEU:C	12:AL:29:GLY:N	2.54	0.61
2:AB:143:GLU:O	2:AB:147:LYS:HG3	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:10:PRO:O	13:AM:45:VAL:HG11	2.01	0.61
17:AQ:76:LEU:C	17:AQ:76:LEU:HD23	2.20	0.61
12:AL:40:VAL:O	12:AL:40:VAL:HG12	1.99	0.61
1:AA:263:A:OP2	20:AT:79:ARG:NH1	2.32	0.61
1:AA:6:G:C1'	5:AE:119:LEU:HD13	2.31	0.61
1:AA:292:G:C2	1:AA:608:A:N1	2.68	0.61
1:AA:1484:C:H2'	1:AA:1485:U:H6	1.65	0.61
1:AA:186:C:O4'	20:AT:81:LYS:NZ	2.33	0.61
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.66	0.61
4:AD:61:LYS:NZ	4:AD:62:GLN:NE2	2.48	0.61
3:AC:47:LEU:HD23	3:AC:68:VAL:HG11	1.83	0.61
21:B0:2223:U:H2'	21:B0:2224:U:O4'	2.01	0.61
21:B0:3874:C:H2'	21:B0:3875:A:C5'	2.30	0.61
21:B0:3108:G:C2'	21:B0:3109:U:C5	2.63	0.61
1:AA:244:U:O4	1:AA:893:C:C4	2.54	0.61
1:AA:933:G:C6	1:AA:935:A:C5	2.89	0.61
21:B0:3184:C:C2'	21:B0:3185:U:H5''	2.31	0.61
1:AA:1329:A:C3'	13:AM:26:GLY:N	2.63	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:333:G:O4'	20:AT:16:HIS:NE2	2.34	0.61
4:AD:25:ARG:O	4:AD:27:TYR:N	2.33	0.61
21:B0:362:C:H2'	21:B0:363:G:H4'	1.82	0.61
1:AA:953:G:H1'	13:AM:125:ARG:CB	2.31	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
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
1:AA:1250:A:C5'	9:AI:68:GLY:O	2.49	0.61
21:B0:181:A:H5''	21:B0:182:G:OP1	2.00	0.61
7:AG:78:ARG:HB2	7:AG:156:TRP:HZ3	1.65	0.61
21:B0:1500:U:H3	21:B0:1520:G:H22	1.48	0.61
1:AA:923:A:H1'	1:AA:1398:A:N3	2.16	0.60
17:AQ:104:LYS:O	17:AQ:105:ALA:HB2	2.01	0.60
1:AA:292:G:C1'	1:AA:608:A:H62	2.03	0.60
1:AA:1484:C:HO2'	21:B0:1943:A:H4'	1.57	0.60
21:B0:892:A:C2	21:B0:911:A:C4	2.89	0.60
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:1112:C:O2	3:AC:178:LEU:O	2.19	0.60
9:AI:44:VAL:HG12	9:AI:51:ARG:HH12	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:19:ALA:HB2	11:AK:80:VAL:HG11	1.82	0.60
3:AC:83:ARG:C	3:AC:85:ARG:H	2.04	0.60
21:B0:161:U:H4'	21:B0:194:G:H21	1.66	0.60
1:AA:1459:C:C5'	20:AT:28:ALA:HA	2.23	0.60
1:AA:351:G:O3'	1:AA:352:C:OP2	2.18	0.60
21:B0:3876:A:O2'	53:B5:39:ILE:CA	2.49	0.60
3:AC:20:SER:HB3	3:AC:22:TRP:HE1	1.67	0.60
10:AJ:49:VAL:CG1	14:AN:41:ARG:O	2.46	0.60
1:AA:59:A:C8	1:AA:331:G:N2	2.69	0.60
3:AC:191:THR:HG22	3:AC:192:THR:N	2.15	0.60
3:AC:191:THR:CG2	3:AC:192:THR:N	2.64	0.60
21:B0:1427:G:H2'	21:B0:1428:G:H5'	1.82	0.60
4:AD:157:LEU:HD22	4:AD:161:ASN:ND2	2.16	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
1:AA:8:A:C1'	5:AE:103:GLY:HA2	2.23	0.60
17:AQ:101:ARG:NE	17:AQ:101:ARG:HA	2.16	0.60
13:AM:40:ASN:ND2	13:AM:41:PRO:HD2	2.16	0.60
12:AL:46:LYS:HG2	12:AL:47:LYS:N	2.16	0.60
4:AD:32:ALA:C	4:AD:34:GLU:H	2.04	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:278:G:N2	1:AA:279:A:H62	1.99	0.60
17:AQ:93:GLN:O	21:B0:726:G:O4'	2.20	0.60
1:AA:319:G:H21	1:AA:1434:A:C2'	2.01	0.60
16:AP:67:THR:HG22	16:AP:68:ASP:N	2.15	0.60
1:AA:189:A:H61	20:AT:104:LEU:CD2	2.13	0.60
1:AA:1069:C:HO2'	1:AA:1192:C:H1'	1.64	0.60
1:AA:1318:A:C5'	19:AS:10:PHE:HD1	2.12	0.60
1:AA:1239:A:O2'	1:AA:1298:C:N4	2.34	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
10:AJ:30:SER:HB3	10:AJ:84:GLN:HE21	1.67	0.60
1:AA:848:G:H2'	1:AA:849:C:C6	2.36	0.60
1:AA:848:G:HO3'	1:AA:849:C:C5'	2.03	0.60
11:AK:84:VAL:CG1	11:AK:95:ILE:HD11	2.31	0.60
10:AJ:71:LEU:O	10:AJ:72:VAL:HB	2.00	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:B0:1352:G:H2'	21:B0:1353:A:H8	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:540:G:H2'	21:B0:541:C:H4'	1.82	0.60
1:AA:1277:C:C1'	1:AA:1279:A:H8	1.95	0.60
21:B0:1856:U:C3'	21:B0:3865:A:C2'	2.79	0.60
1:AA:1226:C:N4	13:AM:104:ARG:HD2	2.16	0.60
1:AA:1298:C:C2'	7:AG:114:ARG:HH12	2.06	0.60
5:AE:76:ILE:HD13	5:AE:142:LEU:HD11	1.84	0.60
1:AA:244:U:C5	1:AA:894:G:N2	2.69	0.60
21:B0:941:U:H2'	21:B0:942:U:O4'	2.02	0.60
1:AA:1003:G:H2'	1:AA:2003:G:C8	2.36	0.60
1:AA:1247:U:O2'	1:AA:1248:A:H5'	2.02	0.60
1:AA:1250:A:H4'	9:AI:68:GLY:O	2.01	0.60
1:AA:107:G:H2'	1:AA:108:G:H5'	1.83	0.60
1:AA:1053:G:C4'	1:AA:1054:C:H5'	2.31	0.60
21:B0:1763:G:H2'	21:B0:1764:A:H4'	1.83	0.60
1:AA:1470:G:O2'	1:AA:1471:G:H5'	2.02	0.60
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.36	0.60
2:AB:80:ILE:HD11	2:AB:208:ILE:HG23	1.81	0.60
1:AA:760:G:H1	17:AQ:105:ALA:CA	2.13	0.60
1:AA:760:G:H1	17:AQ:104:LYS:C	2.02	0.60
10:AJ:51:ARG:O	14:AN:45:ARG:CD	2.49	0.60
1:AA:1329:A:C5'	13:AM:29:ARG:CG	2.75	0.60
1:AA:119:A:C4	1:AA:240:C:C4	2.90	0.60
1:AA:1117:G:H5'	1:AA:1117:G:H8	1.66	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
21:B0:742:G:H2'	21:B0:1766:U:H1'	1.83	0.60
14:AN:11:LYS:O	14:AN:13:THR:N	2.35	0.60
1:AA:1368:G:O5'	9:AI:112:LYS:O	2.20	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
16:AP:52:ASP:OD2	16:AP:55:ARG:HG3	2.00	0.60
1:AA:425:G:O2'	1:AA:426:G:H5'	2.01	0.60
21:B0:2783:U:H2'	21:B0:2785:A:N7	2.16	0.60
1:AA:926:G:C4	1:AA:1505:G:C4	2.89	0.60
21:B0:1073:G:H1'	21:B0:1099:A:N1	2.17	0.60
1:AA:184:G:H5'	1:AA:224:C:HO2'	1.66	0.60
1:AA:1014:A:C2	1:AA:1219:U:H1'	2.37	0.60
1:AA:977:A:C2	1:AA:1224:G:C5	2.90	0.60
14:AN:8:GLU:O	14:AN:11:LYS:HB2	2.02	0.60
1:AA:250:A:N6	1:AA:275:G:O6	2.34	0.60
1:AA:619:U:O2	4:AD:135:LEU:HG	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:619:U:C2	4:AD:135:LEU:HD11	2.36	0.60
4:AD:23:GLY:HA3	4:AD:112:VAL:HG12	1.83	0.60
3:AC:79:ARG:HE	3:AC:82:GLU:HG2	1.67	0.60
7:AG:78:ARG:HB2	7:AG:156:TRP:CZ3	2.36	0.60
7:AG:42:ILE:HG23	7:AG:117:ALA:HA	1.84	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
1:AA:861:G:P	8:AH:75:ARG:HH22	2.25	0.60
21:B0:83:A:H4'	21:B0:84:G:O4'	2.01	0.60
2:AB:114:ARG:NH1	2:AB:118:LEU:HD21	2.15	0.60
21:B0:3110:G:P	21:B0:3149:G:O4'	2.54	0.60
1:AA:1503:A:P	1:AA:1531:A:C1'	2.89	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:1016:A:H5''	14:AN:15:LYS:HE3	1.78	0.60
1:AA:991:U:O2'	1:AA:992:U:H5'	2.02	0.60
1:AA:564:C:O4'	17:AQ:32:TYR:CE2	2.54	0.60
5:AE:24:ARG:HG2	5:AE:24:ARG:HH11	1.66	0.60
1:AA:1238:A:C2	1:AA:1241:G:H1'	2.37	0.60
5:AE:65:ASN:O	5:AE:65:ASN:CG	2.40	0.60
19:AS:13:ASP:HA	19:AS:16:LEU:HB3	1.84	0.60
1:AA:458:G:H2'	1:AA:459:G:C8	2.37	0.60
21:B0:1194:U:H2'	21:B0:1195:U:C6	2.37	0.60
21:B0:317:U:H2'	21:B0:318:G:H5''	1.82	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
15:AO:11:VAL:HG21	15:AO:34:LEU:HD12	1.83	0.60
21:B0:1921:A:H2'	21:B0:1922:U:H5''	1.83	0.60
11:AK:69:ALA:O	11:AK:73:MET:HG2	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
1:AA:36:C:O2	1:AA:501:C:H5''	2.01	0.60
20:AT:96:GLY:O	20:AT:97:ALA:HB3	2.00	0.60
5:AE:151:LEU:HD11	8:AH:77:GLU:OE2	2.02	0.60
22:B9:67:C:H2'	22:B9:68:A:H5'	1.84	0.60
1:AA:233:C:O2'	1:AA:264:U:N3	2.31	0.59
1:AA:262:A:H4'	20:AT:75:ASN:ND2	2.17	0.59
1:AA:1261:A:O2'	1:AA:1283:G:H5'	1.97	0.59
1:AA:560:U:H4'	1:AA:561:U:H5''	1.83	0.59
3:AC:6:HIS:NE2	3:AC:8:ILE:HD12	2.17	0.59
3:AC:59:ARG:C	10:AJ:92:THR:HG22	2.21	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:33:LEU:HD11	14:AN:53:LEU:CD2	2.32	0.59
21:B0:1066:G:H21	21:B0:1096:A:H8	1.50	0.59
1:AA:588:G:C1'	1:AA:753:A:N1	2.64	0.59
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
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.37	0.59
7:AG:38:LEU:HD12	7:AG:38:LEU:O	2.01	0.59
1:AA:922:G:C4	1:AA:1396:A:N1	2.68	0.59
1:AA:762:C:C4'	21:B0:729:A:N1	2.63	0.59
1:AA:322:C:O2'	20:AT:23:ARG:CD	2.50	0.59
1:AA:436:C:C2'	1:AA:437:U:C6	2.82	0.59
1:AA:184:G:H4'	1:AA:224:C:O3'	2.01	0.59
13:AM:82:MET:SD	21:B0:900(A):A:OP1	2.61	0.59
1:AA:474:U:H2'	1:AA:475:C:H6	1.65	0.59
12:AL:24:VAL:O	12:AL:24:VAL:HG12	2.02	0.59
1:AA:974:A:P	14:AN:29:ARG:HH22	2.24	0.59
21:B0:366:U:H2'	21:B0:367:G:H8	1.67	0.59
2:AB:140:HIS:O	2:AB:143:GLU:HB2	2.01	0.59
4:AD:25:ARG:C	4:AD:27:TYR:N	2.55	0.59
2:AB:33:TYR:O	2:AB:34:ALA:HB2	2.02	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:B0:766:A:H2'	21:B0:767:G:C8	2.37	0.59
1:AA:996:A:H2'	1:AA:997:U:C6	2.37	0.59
16:AP:81:ARG:HG3	16:AP:83:GLU:HG2	1.84	0.59
1:AA:761:G:H1'	17:AQ:104:LYS:CA	2.32	0.59
1:AA:376:G:C2	1:AA:389:A:N1	2.71	0.59
1:AA:1225:A:O4'	19:AS:78:ARG:NH1	2.34	0.59
1:AA:1318:A:H5'	19:AS:10:PHE:CE1	2.37	0.59
1:AA:992:U:C2'	1:AA:1043:C:H41	2.15	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
4:AD:33:MET:O	4:AD:37:PRO:HG3	2.02	0.59
1:AA:714:G:C4'	1:AA:776:G:H4'	2.28	0.59
7:AG:95:ARG:NH1	7:AG:95:ARG:HG3	2.17	0.59
7:AG:51:GLN:HA	7:AG:51:GLN:OE1	2.02	0.59
21:B0:2185:U:H2'	21:B0:2186:G:C8	2.37	0.59
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.84	0.59
21:B0:81:C:H2'	21:B0:82:G:O4'	2.02	0.59
21:B0:3866:A:H61	53:B5:43:LYS:CA	2.15	0.59
1:AA:760:G:C2	17:AQ:103:GLY:C	2.75	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:109:A:H2'	1:AA:326:G:N2	2.17	0.59
1:AA:1067:A:H2'	1:AA:1093:A:H4'	1.83	0.59
3:AC:6:HIS:HD2	3:AC:8:ILE:HB	1.66	0.59
1:AA:1496:C:O2'	1:AA:1517:G:O6	2.18	0.59
13:AM:93:ARG:CG	21:B0:900(A):A:P	2.86	0.59
10:AJ:46:ARG:NH1	10:AJ:64:GLU:HG2	2.18	0.59
1:AA:588:G:N9	1:AA:753:A:C6	2.70	0.59
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.17	0.59
21:B0:895:G:H5'	21:B0:895:G:C8	2.35	0.59
1:AA:1233:G:OP2	9:AI:124:GLN:HG2	2.01	0.59
21:B0:198:A:H5''	21:B0:199:A:H5'	1.82	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
1:AA:1106:G:OP1	3:AC:172:ARG:HG2	2.02	0.59
21:B0:918:A:C2'	21:B0:919:U:H5''	2.30	0.59
21:B0:1147:G:H2'	21:B0:1148:G:H8	1.67	0.59
21:B0:1057:A:H3'	21:B0:1058:G:C5'	2.32	0.59
21:B0:860:U:C2'	21:B0:861:G:H5'	2.32	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
18:AR:86:VAL:O	18:AR:87:ARG:HB2	2.03	0.59
1:AA:262:A:C4'	20:AT:75:ASN:ND2	2.66	0.59
1:AA:1500:A:O3'	1:AA:1508:G:H4'	2.03	0.59
1:AA:189:A:C6	20:AT:89:ARG:HH21	1.54	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:63:PHE:CE2	14:AN:48:ALA:HB1	2.38	0.59
1:AA:227:G:N1	1:AA:228:A:C4	2.71	0.59
10:AJ:15:THR:HG23	10:AJ:94:VAL:HG22	1.85	0.59
1:AA:1521:G:H2'	1:AA:1522:U:C6	2.38	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
17:AQ:104:LYS:HE2	21:B0:729:A:H62	1.52	0.59
5:AE:122:GLU:O	5:AE:123:LEU:HD23	2.03	0.59
1:AA:435:C:H2'	1:AA:436:C:H6	1.67	0.59
1:AA:1318:A:C5'	19:AS:10:PHE:CE1	2.86	0.59
21:B0:3128:G:H4'	21:B0:3174:C:C4'	2.33	0.59
3:AC:10:PHE:CZ	3:AC:178:LEU:HD13	2.38	0.59
9:AI:93:ARG:NH1	9:AI:97:LYS:NZ	2.51	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1381:U:O2'	1:AA:1382:C:H5'	2.02	0.59
11:AK:74:ALA:C	11:AK:76:GLY:H	2.06	0.59
20:AT:57:ARG:HH21	20:AT:100:ILE:CG2	2.16	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
1:AA:1343:G:P	9:AI:125:TYR:HH	2.25	0.59
14:AN:12:ARG:O	14:AN:14:PRO:N	2.36	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
21:B0:3098:U:C5	21:B0:3099:U:C4	2.90	0.59
6:AF:10:LEU:CD1	6:AF:59:TYR:HB3	2.29	0.59
4:AD:151:LYS:CD	4:AD:151:LYS:H	2.16	0.59
3:AC:47:LEU:CD1	3:AC:47:LEU:H	2.15	0.59
1:AA:231:G:H22	1:AA:262:A:H2	1.49	0.59
21:B0:2181:A:H2'	21:B0:2182:A:H5'	1.85	0.59
4:AD:204:ILE:HG21	5:AE:99:GLY:HA3	1.85	0.59
1:AA:187:G:H4'	20:AT:85:MET:HE2	1.85	0.59
1:AA:184:G:O2'	1:AA:224:C:H5''	2.03	0.59
1:AA:119:A:C2	1:AA:240:C:C6	2.90	0.59
1:AA:677:U:H1'	11:AK:119:CYS:SG	2.43	0.59
1:AA:518:C:H5''	1:AA:519:C:C6	2.38	0.59
21:B0:830:C:O2'	21:B0:852:U:H5''	2.03	0.59
2:AB:34:ALA:O	2:AB:41:ILE:N	2.31	0.59
21:B0:67:G:H21	21:B0:72:A:H2'	1.67	0.59
21:B0:3126:A:C2	21:B0:3127:G:H1'	2.38	0.59
22:B9:67:C:C2'	22:B9:68:A:H5'	2.32	0.59
21:B0:2368:G:H5''	21:B0:2369:U:O4'	2.02	0.59
21:B0:1621:C:H4'	21:B0:1626:A:H61	1.68	0.59
22:B9:25:G:H2'	22:B9:26:G:H5'	1.84	0.59
1:AA:262:A:H5''	20:AT:74:LYS:HB2	1.80	0.59
1:AA:1395:C:H5'	1:AA:1401:G:H21	1.67	0.59
1:AA:190:A:C8	20:AT:105:SER:HA	2.34	0.59
1:AA:1505:G:C4'	1:AA:1506:U:C5'	2.77	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
1:AA:935:A:H4'	1:AA:1384:C:O2	2.02	0.59
1:AA:46:G:O2'	1:AA:365:U:H1'	2.02	0.59
1:AA:686:U:O2'	1:AA:687:A:H8	1.84	0.59
4:AD:157:LEU:HD22	4:AD:161:ASN:HD21	1.66	0.59
1:AA:505:G:H2'	1:AA:506:G:C8	2.37	0.59
21:B0:576:A:H2	21:B0:580:A:H62	1.51	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.38	0.59
7:AG:72:ARG:HG2	7:AG:142:GLU:OE1	2.02	0.59
1:AA:1261:A:H4'	1:AA:1283:G:H5''	1.83	0.58
5:AE:118:ILE:CG2	5:AE:119:LEU:N	2.65	0.58
1:AA:1113:C:C6	3:AC:178:LEU:HD23	2.38	0.58
21:B0:2547:C:H2'	21:B0:2548:G:C8	2.38	0.58
21:B0:1029:C:C2'	21:B0:1030:U:H5''	2.33	0.58
1:AA:617:G:H4'	16:AP:45:THR:HG22	1.84	0.58
21:B0:2727:G:O2'	21:B0:2728:A:H5''	2.03	0.58
1:AA:757:U:H2'	1:AA:758:G:O4'	2.03	0.58
21:B0:191:G:O2'	21:B0:192:G:H5'	2.03	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
1:AA:736:C:H2'	1:AA:737:A:C8	2.38	0.58
1:AA:1087:G:OP1	1:AA:1389:C:O4'	2.21	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
21:B0:181:A:H4'	21:B0:182:G:C5'	2.33	0.58
1:AA:513:C:O2'	1:AA:514:C:H5'	2.03	0.58
1:AA:1130:A:H3'	1:AA:1130:A:OP2	2.02	0.58
21:B0:3110:G:H5''	21:B0:3148:G:C1'	2.34	0.58
21:B0:1088:A:H2'	21:B0:1089:C:O4'	2.03	0.58
1:AA:436:C:O2'	1:AA:437:U:C4'	2.51	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
1:AA:397:A:N7	1:AA:547:A:C2'	2.65	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
1:AA:1475:G:C5'	21:B0:1706:A:H5'	2.31	0.58
1:AA:1394:A:N1	1:AA:1501:C:C5'	2.59	0.58
1:AA:113:G:N3	1:AA:353:A:H1'	2.19	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
21:B0:2668:U:C4'	21:B0:2669:C:H5'	2.25	0.58
1:AA:205:G:H21	1:AA:207:C:H5	1.44	0.58
21:B0:2547:C:H2'	21:B0:2548:G:H8	1.67	0.58
21:B0:805:G:H5''	21:B0:806:A:O5'	2.03	0.58
16:AP:4:ILE:HG13	16:AP:64:ALA:HB1	1.83	0.58
8:AH:83:ILE:HG23	8:AH:83:ILE:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1475:G:C4'	21:B0:1706:A:H5'	2.32	0.58
1:AA:254:G:OP1	17:AQ:66:SER:OG	2.14	0.58
1:AA:761:G:H4'	17:AQ:102:GLY:O	2.03	0.58
1:AA:322:C:H4'	20:AT:23:ARG:NE	2.19	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
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:367:U:O3'	1:AA:368:U:H5'	2.02	0.58
1:AA:619:U:N3	4:AD:135:LEU:HD21	2.18	0.58
2:AB:133:LYS:O	2:AB:137:ARG:HG3	2.04	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:1054:C:OP1	1:AA:1197:G:OP1	2.21	0.58
2:AB:156:LYS:O	2:AB:156:LYS:HD3	2.03	0.58
19:AS:25:LYS:HD2	19:AS:25:LYS:H	1.68	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
21:B0:175:C:H1'	21:B0:2413:A:H61	1.69	0.58
9:AI:5:TYR:O	9:AI:84:ALA:HA	2.03	0.58
21:B0:3877:A:H4'	53:B5:199:ASN:CA	2.33	0.58
1:AA:189:A:C6	20:AT:104:LEU:O	2.57	0.58
1:AA:1014:A:H2	1:AA:1219:U:C2'	2.13	0.58
1:AA:2003:G:C2	1:AA:1004:A:H1'	2.39	0.58
1:AA:15:G:C4'	5:AE:24:ARG:NH1	2.66	0.58
18:AR:47:THR:HG22	18:AR:48:GLY:N	2.18	0.58
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.06	0.58
20:AT:10:LEU:HD12	20:AT:12:ALA:HB3	1.85	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
17:AQ:69:LYS:C	17:AQ:70:ARG:HD2	2.24	0.58
1:AA:1503:A:P	1:AA:1531:A:H1'	2.44	0.58
1:AA:761:G:H1'	17:AQ:104:LYS:C	2.24	0.58
1:AA:391:G:O3'	16:AP:8:ARG:NH2	2.36	0.58
1:AA:216:C:O4'	1:AA:468:A:H1'	2.03	0.58
9:AI:11:LYS:O	9:AI:11:LYS:HG2	2.03	0.58
10:AJ:24:VAL:HG12	10:AJ:28:ARG:HE	1.68	0.58
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.19	0.58
2:AB:101:MET:CA	2:AB:108:ILE:HD12	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:55:VAL:CG1	12:AL:67:THR:HG23	2.33	0.58
2:AB:16:HIS:NE2	2:AB:214:ILE:CG1	2.66	0.58
1:AA:723:U:H2'	1:AA:723:U:O2	2.04	0.58
15:AO:87:ILE:O	15:AO:88:ARG:HB2	2.04	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
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
20:AT:53:LEU:O	20:AT:57:ARG:HD2	2.04	0.58
1:AA:7:G:C6	1:AA:298:A:C2	2.91	0.58
1:AA:926:G:C2	1:AA:1505:G:C4	2.92	0.58
13:AM:120:LYS:HE2	13:AM:123:ALA:HB2	1.86	0.58
2:AB:120:ALA:O	2:AB:124:SER:HB3	2.02	0.58
16:AP:51:VAL:O	16:AP:51:VAL:HG12	2.02	0.58
1:AA:791:G:C5'	21:B0:1905:G:OP1	2.52	0.58
15:AO:36:ILE:HA	15:AO:59:MET:HE3	1.86	0.58
19:AS:7:LYS:O	19:AS:7:LYS:HG3	2.03	0.58
1:AA:923:A:H1'	1:AA:1398:A:C2	2.38	0.58
1:AA:189:A:N1	20:AT:104:LEU:HB3	2.19	0.58
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.39	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
9:AI:46:ALA:HB1	9:AI:77:ILE:HG22	1.85	0.58
2:AB:130:ARG:HD2	2:AB:131:PRO:HD2	1.85	0.58
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.39	0.58
21:B0:653:G:H4'	21:B0:2328:G:H4'	1.86	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:B0:876:A:H2'	21:B0:877:G:C8	2.39	0.58
21:B0:2434:G:H2'	21:B0:2435:C:C6	2.39	0.58
11:AK:40:ILE:HG23	11:AK:75:TYR:CD2	2.39	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
22:B9:14:C:H4'	22:B9:17:A:N6	2.19	0.58
7:AG:122:HIS:HA	7:AG:125:MET:HE3	1.86	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
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: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)
13:AM:84:ILE:C	13:AM:86:CYS:H	2.08	0.58
1:AA:476:U:O4	1:AA:477:G:C5	2.57	0.58
1:AA:1329:A:OP1	13:AM:26:GLY:O	2.21	0.58
1:AA:38:G:H4'	1:AA:547:A:N6	2.19	0.58
21:B0:3098:U:C4	21:B0:3099:U:O4	2.57	0.58
13:AM:13:LYS:O	13:AM:45:VAL:HG23	2.04	0.58
15:AO:17:ARG:NH1	15:AO:77:ARG:HH11	2.01	0.58
1:AA:1114:C:O2'	14:AN:60:SER:O	2.14	0.58
10:AJ:3:LYS:N	10:AJ:77:PRO:HD3	2.18	0.58
21:B0:2035:G:H2'	21:B0:2036:G:H8	1.69	0.58
1:AA:355:C:C4'	1:AA:389:A:P	2.92	0.57
1:AA:538:G:OP1	12:AL:115:LYS:CG	2.50	0.57
1:AA:1181:G:O2'	1:AA:1184:G:C5'	2.52	0.57
1:AA:1014:A:N1	19:AS:34:TRP:NE1	2.52	0.57
21:B0:3128:G:HO2'	21:B0:3174:C:H5'	1.65	0.57
1:AA:300:A:C2	1:AA:566:G:O6	2.57	0.57
14:AN:29:ARG:HG2	14:AN:29:ARG:HH11	1.69	0.57
13:AM:15:VAL:HG23	13:AM:43:THR:O	2.04	0.57
21:B0:2854:G:H4'	21:B0:2855:C:H5	1.69	0.57
1:AA:227:G:C6	1:AA:228:A:C4	2.92	0.57
21:B0:118:U:H1'	21:B0:143:A:C8	2.39	0.57
21:B0:331:U:H2'	21:B0:332:C:H5"	1.85	0.57
21:B0:3866:A:N1	53:B5:44:GLY:CA	2.67	0.57
1:AA:815:A:H2	1:AA:1528:U:H5'	1.67	0.57
1:AA:8:A:C6	4:AD:209:ARG:HB2	2.39	0.57
1:AA:1223:C:OP1	1:AA:1224:G:H3'	2.04	0.57
21:B0:3184:C:H2'	21:B0:3185:U:C5'	2.35	0.57
10:AJ:62:HIS:CE1	14:AN:61:TRP:HH2	2.22	0.57
1:AA:502:G:OP1	12:AL:118:SER:CB	2.52	0.57
1:AA:15:G:H1'	5:AE:19:MET:HE2	1.86	0.57
1:AA:577:G:H1'	1:AA:816:A:N3	2.19	0.57
2:AB:74:LYS:HZ1	2:AB:206:ASP:CA	2.17	0.57
21:B0:1195:U:H2'	21:B0:1196:G:C8	2.38	0.57
1:AA:512:U:H1'	4:AD:42:GLN:OE1	2.03	0.57
1:AA:390:C:H2'	1:AA:391:G:C8	2.38	0.57
1:AA:538:G:O5'	12:AL:115:LYS:HG3	2.04	0.57
1:AA:1342:C:H5"	9:AI:125:TYR:CE1	2.40	0.57
1:AA:818:G:C3'	1:AA:819:A:C5'	2.83	0.57
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.19	0.57
1:AA:60:A:H4'	1:AA:61:G:O5'	2.04	0.57
1:AA:108:G:C6	20:AT:15:ARG:CG	2.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:30:LYS:C	4:AD:32:ALA:N	2.58	0.57
2:AB:10:LEU:HD23	2:AB:48:MET:HG3	1.86	0.57
18:AR:25:THR:O	18:AR:26:LEU:HB2	2.04	0.57
1:AA:346:G:C2'	1:AA:347:G:H5'	2.35	0.57
21:B0:1912:G:H4'	21:B0:1913:G:C8	2.38	0.57
21:B0:1188:A:H2'	21:B0:1189:G:O4'	2.02	0.57
2:AB:76:GLN:HG3	2:AB:206:ASP:OD1	2.03	0.57
4:AD:7:PRO:HG2	4:AD:10:ARG:HD2	1.87	0.57
1:AA:860:A:H2'	1:AA:861:G:O4'	2.03	0.57
3:AC:121:ALA:O	3:AC:125:GLU:HG3	2.04	0.57
21:B0:218:A:O2'	21:B0:219:G:H4'	2.05	0.57
1:AA:192:U:O2'	1:AA:193:C:H5'	2.05	0.57
1:AA:8:A:C5	4:AD:209:ARG:HA	2.39	0.57
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.18	0.57
14:AN:36:PHE:CD1	14:AN:36:PHE:O	2.58	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
12:AL:85:ILE:HG23	12:AL:98:TYR:HB3	1.86	0.57
3:AC:191:THR:HG21	3:AC:193:TYR:CZ	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
1:AA:1237:C:H4'	1:AA:1334:G:N2	2.19	0.57
10:AJ:82:ILE:HG22	10:AJ:82:ILE:O	2.03	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:1152:A:H5'	10:AJ:70:ARG:HH22	1.68	0.57
21:B0:521:U:H4'	21:B0:1248:G:O2'	2.04	0.57
1:AA:130:A:N9	1:AA:264:U:C4'	2.63	0.57
1:AA:815:A:O2'	1:AA:1527:C:C1'	2.51	0.57
1:AA:185:A:H2'	1:AA:186:C:C6	2.40	0.57
1:AA:39:G:C6	1:AA:404:U:C4	2.92	0.57
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.39	0.57
1:AA:1317:C:H2'	1:AA:1318:A:O4'	2.04	0.57
1:AA:1297:C:P	13:AM:44:ARG:HH22	2.27	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
1:AA:586:C:H5'	8:AH:90:GLY:CA	2.33	0.57
1:AA:205:G:N2	1:AA:207:C:C4	2.71	0.57
21:B0:1001:A:H62	21:B0:1200:G:H1'	1.69	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:B0:879:A:C2'	21:B0:880:C:H5'	2.35	0.57
21:B0:1187:A:H2'	21:B0:1188:A:H8	1.69	0.57
14:AN:24:CYS:HB3	14:AN:28:GLY:N	2.20	0.57
21:B0:1861:G:C4'	53:B5:198:THR:CA	2.76	0.57
1:AA:94:G:C5	1:AA:96:C:C4	2.91	0.57
19:AS:40:ILE:HG21	19:AS:62:ILE:CD1	2.33	0.57
1:AA:570:G:HO2'	1:AA:819:A:H2'	1.67	0.57
3:AC:10:PHE:CE2	3:AC:178:LEU:HD13	2.38	0.57
1:AA:651:C:C4	1:AA:752:G:O2'	2.57	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
1:AA:173:U:C6	1:AA:197:A:C2	2.93	0.57
21:B0:1458:A:H3'	21:B0:1459:U:H5'	1.86	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:B0:176:A:H5''	21:B0:177:U:H5	1.69	0.57
1:AA:130:A:C2	1:AA:264:U:C4	2.92	0.57
1:AA:261:U:O4	20:AT:79:ARG:HD3	1.75	0.57
1:AA:1321:C:H42	19:AS:37:ARG:CZ	2.17	0.57
2:AB:23:ARG:C	2:AB:23:ARG:NH1	2.58	0.57
1:AA:411:A:N9	1:AA:413:G:H1'	2.19	0.57
21:B0:1517:C:H2'	21:B0:1518:C:C6	2.40	0.57
1:AA:780:A:O2'	1:AA:781:A:H5''	2.05	0.57
1:AA:6:G:N1	5:AE:94:ALA:HB1	2.19	0.57
3:AC:29:TYR:CZ	14:AN:54:PRO:HG2	2.40	0.57
1:AA:1369:C:OP2	9:AI:111:ARG:HA	2.04	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:755:G:O2'	8:AH:1:MET:HB2	2.03	0.57
1:AA:642:A:N3	8:AH:113:SER:OG	2.37	0.57
21:B0:1119:U:O3'	21:B0:1120:C:P	2.63	0.57
21:B0:369:C:H2'	21:B0:370:U:O4'	2.05	0.57
21:B0:804:C:O2'	21:B0:806:A:H4'	2.05	0.57
21:B0:1807:A:H5'	21:B0:1809:G:O4'	2.05	0.57
2:AB:209:ARG:HE	2:AB:239:VAL:HG11	1.68	0.57
6:AF:2:ARG:CD	6:AF:69:GLU:HG2	2.35	0.57
21:B0:1791:C:H1'	21:B0:1793:A:O4'	2.05	0.57
1:AA:505:G:H2'	1:AA:506:G:H8	1.69	0.57
21:B0:59:G:N2	21:B0:73:A:H61	2.03	0.57
9:AI:17:VAL:HG21	9:AI:80:GLY:HA3	1.86	0.57
9:AI:5:TYR:CD2	9:AI:6:GLY:N	2.71	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:234:C:H4'	17:AQ:64:PRO:CG	2.35	0.57
1:AA:9:G:C5'	5:AE:122:GLU:CD	2.73	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:1230:C:H1'	13:AM:126:LYS:HA	1.86	0.57
1:AA:1270:C:O2'	1:AA:1314:C:C5'	2.53	0.57
1:AA:818:G:C2'	1:AA:819:A:H5''	2.34	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
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
21:B0:1358:C:H2'	21:B0:1359:G:C5'	2.34	0.57
6:AF:3:ARG:HH21	6:AF:64:GLN:NE2	2.02	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
20:AT:67:ALA:HA	20:AT:73:HIS:H	1.70	0.57
4:AD:205:GLU:HG2	5:AE:100:VAL:O	2.05	0.57
19:AS:10:PHE:CD2	19:AS:11:VAL:N	2.73	0.57
1:AA:1115:C:H1'	14:AN:61:TRP:C	2.25	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
14:AN:3:ARG:NH1	14:AN:6:LEU:HD11	2.20	0.57
12:AL:50:SER:O	12:AL:51:ALA:HB2	2.05	0.57
7:AG:15:ASP:OD1	7:AG:17:VAL:N	2.37	0.57
1:AA:1129:C:OP1	9:AI:62:TYR:CE2	2.58	0.57
8:AH:17:THR:HG22	8:AH:63:LEU:HG	1.86	0.57
1:AA:854:G:C8	1:AA:871:U:O4	2.58	0.57
1:AA:1125:U:H3	10:AJ:5:ARG:HH21	1.53	0.56
1:AA:926:G:C4	1:AA:1505:G:C2	2.93	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
4:AD:35:ARG:O	4:AD:36:ARG:HB2	2.04	0.56
12:AL:26:ALA:O	12:AL:27:LEU:O	2.22	0.56
3:AC:188:LEU:HD13	3:AC:195:VAL:HG13	1.86	0.56
3:AC:7:PRO:CG	3:AC:184:TYR:HB2	2.35	0.56
21:B0:317:U:H3'	21:B0:318:G:H5''	1.86	0.56
9:AI:39:GLY:O	9:AI:40:LEU:HD23	2.05	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
21:B0:1289:A:H62	21:B0:1662:G:H1	1.53	0.56
1:AA:1228:C:OP1	13:AM:115:LYS:HG3	2.03	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:2268:G:H22	21:B0:2323:U:H4'	1.68	0.56
1:AA:1255:G:H1'	1:AA:1259:C:H1'	0.75	0.56
1:AA:132:C:P	20:AT:75:ASN:ND2	2.79	0.56
1:AA:927:G:H1'	1:AA:1532:U:H5'	1.88	0.56
1:AA:960:U:O2'	1:AA:1223:C:H4'	2.05	0.56
3:AC:33:LEU:HD11	14:AN:53:LEU:HD22	1.87	0.56
13:AM:13:LYS:HD3	13:AM:17:VAL:HG11	1.86	0.56
1:AA:382:A:H2'	1:AA:383:A:H8	1.70	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
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:665:A:N3	1:AA:732:C:H2'	2.20	0.56
1:AA:657:G:H4'	15:AO:28:GLN:HG2	1.86	0.56
1:AA:1392:G:C4'	1:AA:1531:A:C5'	2.72	0.56
4:AD:88:VAL:CA	5:AE:97:GLY:CA	2.83	0.56
1:AA:114:U:H1'	1:AA:353:A:H1'	1.87	0.56
1:AA:355:C:H5'	1:AA:389:A:OP1	2.05	0.56
1:AA:323:U:C5'	20:AT:23:ARG:H	2.12	0.56
1:AA:1414:U:O2'	1:AA:1415:G:H5'	2.04	0.56
1:AA:1108:G:H5''	3:AC:176:HIS:ND1	2.20	0.56
1:AA:1016:A:O2'	1:AA:1218:C:C4'	2.54	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
1:AA:143:A:O4'	1:AA:196:A:C4	2.57	0.56
21:B0:984:A:H2'	21:B0:1200:G:H22	1.71	0.56
2:AB:126:GLU:HG2	2:AB:129:GLU:OE1	2.05	0.56
21:B0:879:A:O2'	21:B0:880:C:H5'	2.05	0.56
4:AD:24:GLU:H	4:AD:112:VAL:CG1	2.19	0.56
2:AB:12:GLU:C	2:AB:14:GLY:N	2.59	0.56
21:B0:874:A:N6	21:B0:928:G:H21	2.03	0.56
21:B0:2058:U:H4'	21:B0:2575:U:N3	2.20	0.56
1:AA:1195:C:H3'	1:AA:1196:U:C5'	2.35	0.56
21:B0:1923:U:H4'	21:B0:1948:C:H41	1.71	0.56
15:AO:3:ILE:HG22	15:AO:7:GLU:HB3	1.86	0.56
4:AD:43:HIS:CE1	4:AD:46:LYS:HZ2	2.23	0.56
21:B0:2270:U:H2'	21:B0:2271:C:C6	2.40	0.56
1:AA:1104:G:OP1	2:AB:111:ARG:HD2	2.05	0.56
21:B0:2402:U:H5'	21:B0:2404:A:C5	2.41	0.56
6:AF:25:ILE:HD12	6:AF:82:ARG:HD2	1.88	0.56
4:AD:107:ARG:HH21	4:AD:194:LEU:HD12	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1474:G:C5'	21:B0:1718:A:C2	2.88	0.56
21:B0:3197:U:H1'	21:B0:2181:A:C5	2.37	0.56
16:AP:17:TYR:HE1	16:AP:41:PRO:HG2	1.69	0.56
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:653:A:OP1	8:AH:56:LYS:CE	2.53	0.56
1:AA:59:A:P	1:AA:60:A:H5''	2.46	0.56
1:AA:1374:A:C3'	1:AA:1375:A:P	2.93	0.56
12:AL:47:LYS:HB2	12:AL:48:PRO:HD2	1.88	0.56
13:AM:17:VAL:O	13:AM:20:THR:HB	2.05	0.56
21:B0:33:C:N4	21:B0:466:A:H61	2.03	0.56
21:B0:3116:G:H4'	21:B0:3117:A:OP1	2.04	0.56
1:AA:911:U:OP2	12:AL:97:ARG:NH2	2.37	0.56
17:AQ:67:LYS:O	17:AQ:68:ARG:HB3	2.05	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
14:AN:14:PRO:C	14:AN:16:PHE:N	2.56	0.56
3:AC:32:LEU:HD23	3:AC:32:LEU:O	2.05	0.56
1:AA:1319:A:H5'	1:AA:1320:C:OP1	2.06	0.56
1:AA:143:A:C1'	1:AA:196:A:C4	2.89	0.56
13:AM:8:GLU:OE1	13:AM:22:ILE:HG12	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:B0:368:A:H2'	21:B0:369:C:O4'	2.06	0.56
21:B0:2466:G:H2'	21:B0:2467:A:C8	2.40	0.56
1:AA:1339:A:H2'	1:AA:1340:A:O4'	2.06	0.56
1:AA:191:G:C6	1:AA:192:U:C5	2.86	0.56
1:AA:187:G:H21	20:AT:105:SER:CB	2.17	0.56
1:AA:1417:G:N2	1:AA:1484:C:N4	2.52	0.56
1:AA:1405:G:H4'	1:AA:1519:A:H5'	1.88	0.56
1:AA:39:G:N7	1:AA:498:U:O4	2.38	0.56
19:AS:63:THR:HG22	19:AS:64:GLU:H	1.71	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
4:AD:6:GLY:O	4:AD:8:VAL:HG23	2.06	0.56
1:AA:448:A:H2'	1:AA:449:C:C6	2.40	0.56
12:AL:6:THR:OG1	12:AL:9:GLN:HG3	2.05	0.56
1:AA:1394:A:N3	1:AA:1501:C:H1'	2.20	0.56
1:AA:189:A:H62	20:AT:104:LEU:CA	2.19	0.56
1:AA:293:G:H5'	1:AA:610:G:N3	2.21	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:39:G:N1	1:AA:404:U:C4	2.74	0.56
1:AA:915:A:C2'	1:AA:916:G:H5'	2.35	0.56
3:AC:91:LEU:HD11	3:AC:99:VAL:HG13	1.86	0.56
1:AA:179:A:N6	1:AA:196:A:OP2	2.38	0.56
1:AA:933:G:C6	1:AA:935:A:N7	2.74	0.56
1:AA:1086:U:H3	1:AA:1099:G:N2	1.91	0.56
2:AB:88:ALA:C	2:AB:90:MET:H	2.09	0.56
1:AA:1351:U:H2'	1:AA:1352:C:C6	2.40	0.56
21:B0:2503:G:H2'	21:B0:2504:G:H5''	1.88	0.56
21:B0:813:A:O2'	21:B0:815:A:H5'	2.05	0.56
21:B0:795:A:H4'	21:B0:796:A:N7	2.20	0.56
5:AE:80:ILE:O	5:AE:80:ILE:HD12	2.05	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
13:AM:31:LYS:O	13:AM:35:GLU:HB2	2.05	0.56
1:AA:1255:G:O2'	1:AA:1258:G:N3	2.38	0.56
21:B0:3110:G:O2'	21:B0:3120:G:H5'	2.06	0.56
17:AQ:104:LYS:HE2	21:B0:727:U:C2	2.34	0.56
1:AA:292:G:N3	1:AA:608:A:C6	2.74	0.56
1:AA:977:A:C8	1:AA:1223:C:N3	2.74	0.56
1:AA:1267:C:O2	1:AA:1327:C:H4'	2.06	0.56
1:AA:546:G:H4'	1:AA:548:G:O3'	2.06	0.56
1:AA:1092:A:H4'	7:AG:4:ARG:HH21	1.69	0.56
12:AL:47:LYS:CB	12:AL:48:PRO:HD3	2.35	0.56
1:AA:108:G:N7	20:AT:15:ARG:HG3	2.20	0.56
9:AI:97:LYS:O	9:AI:100:GLY:N	2.36	0.56
8:AH:103:VAL:HG21	8:AH:110:ALA:HB2	1.87	0.56
17:AQ:5:VAL:HG22	17:AQ:60:ILE:HG12	1.87	0.56
3:AC:84:ILE:O	3:AC:88:ARG:HB2	2.05	0.56
21:B0:1567:A:H2'	21:B0:1568:A:O4'	2.06	0.56
1:AA:130:A:N7	17:AQ:63:ARG:CG	2.66	0.56
17:AQ:103:GLY:O	17:AQ:104:LYS:O	2.24	0.56
1:AA:113:G:N9	1:AA:353:A:O2'	2.37	0.56
1:AA:322:C:O2'	20:AT:23:ARG:HD2	2.04	0.56
1:AA:1483:A:O3'	1:AA:1484:C:P	2.62	0.56
1:AA:1368:G:OP2	9:AI:114:TYR:CA	2.54	0.56
21:B0:1093:U:O4	21:B0:1094:C:N4	2.39	0.56
1:AA:551:U:H2'	1:AA:552:U:C6	2.41	0.56
1:AA:1004:A:H5''	1:AA:1025:U:C5	2.39	0.56
20:AT:35:THR:O	20:AT:39:LYS:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1202:G:O2'	1:AA:1203:C:H5'	2.06	0.56
1:AA:411:A:C4	1:AA:413:G:H1'	2.41	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
18:AR:53:ARG:HD3	18:AR:63:GLN:CB	2.36	0.56
15:AO:41:GLU:HA	15:AO:41:GLU:OE2	2.05	0.56
4:AD:88:VAL:C	5:AE:97:GLY:CA	2.67	0.56
17:AQ:104:LYS:HB3	21:B0:727:U:O4'	2.06	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:965:A:C2	13:AM:124:PRO:HB2	2.40	0.56
1:AA:1042:G:O2'	1:AA:1043:C:H5'	2.06	0.56
5:AE:79:GLU:OE2	8:AH:105:ARG:HD3	2.04	0.56
19:AS:40:ILE:HG21	19:AS:62:ILE:HD11	1.88	0.56
1:AA:89:G:C2'	1:AA:90:C:P	2.94	0.56
1:AA:1346:A:N9	7:AG:10:ARG:NH2	2.54	0.56
1:AA:837:G:H2'	1:AA:838:C:N1	2.19	0.56
13:AM:40:ASN:ND2	13:AM:42:ALA:H	2.04	0.56
21:B0:1426:U:H2'	21:B0:1427:G:O4'	2.05	0.56
10:AJ:12:ASP:HB3	10:AJ:15:THR:HB	1.88	0.56
21:B0:533:C:H2'	21:B0:534:U:O4'	2.06	0.56
1:AA:923:A:C4'	1:AA:1398:A:C2	2.88	0.55
1:AA:926:G:C4	1:AA:1505:G:N3	2.74	0.55
1:AA:977:A:H1'	1:AA:1223:C:H42	1.69	0.55
1:AA:1298:C:C6	7:AG:114:ARG:CZ	2.89	0.55
1:AA:1346:A:H4'	1:AA:1347:G:O5'	2.06	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:B0:68:C:H2'	21:B0:69:G:C8	2.40	0.55
1:AA:812:C:HO2'	1:AA:813:U:P	2.27	0.55
21:B0:2299:A:N3	21:B0:2299:A:H2'	2.21	0.55
2:AB:223:ILE:HG21	2:AB:230:VAL:CG2	2.35	0.55
1:AA:1504:G:P	1:AA:1507:A:H4'	2.45	0.55
1:AA:1110:A:C6	1:AA:1111:A:C6	2.93	0.55
3:AC:3:ASN:ND2	3:AC:4:LYS:HE2	2.21	0.55
1:AA:402:G:H4'	1:AA:620:C:N4	2.20	0.55
1:AA:978:A:C6	1:AA:1318:A:C6	2.93	0.55
1:AA:1014:A:C6	19:AS:34:TRP:CD2	2.93	0.55
13:AM:29:ARG:HB3	13:AM:64:TRP:CH2	2.42	0.55
1:AA:946:A:H2'	1:AA:947:G:C8	2.40	0.55
21:B0:2549:G:H2'	21:B0:2550:C:O4'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:848:G:H2'	1:AA:849:C:O4'	2.04	0.55
21:B0:952:A:O2'	21:B0:1204:G:H4'	2.06	0.55
2:AB:21:ARG:HG3	2:AB:23:ARG:HD2	1.88	0.55
6:AF:46:ARG:HB2	6:AF:60:PHE:HE1	1.71	0.55
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.36	0.55
16:AP:81:ARG:CG	16:AP:83:GLU:HG2	2.36	0.55
20:AT:86:ARG:O	20:AT:90:GLN:HG3	2.05	0.55
1:AA:166:G:O2'	1:AA:167:G:H5'	2.07	0.55
1:AA:1006:C:H2'	1:AA:1007:C:H6	1.72	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: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
13:AM:125:ARG:C	13:AM:125:ARG:HD2	2.27	0.55
1:AA:397:A:H8	1:AA:547:A:O3'	1.87	0.55
1:AA:976:G:H22	1:AA:1362:C:H5''	1.71	0.55
21:B0:2755:A:O2'	21:B0:2756:A:H5'	2.06	0.55
1:AA:26:A:N6	1:AA:558:G:H1'	2.21	0.55
21:B0:1971:C:H2'	21:B0:1972:G:H8	1.70	0.55
21:B0:2759:U:H4'	21:B0:2760:G:OP2	2.05	0.55
1:AA:133:U:OP1	20:AT:74:LYS:HD3	2.06	0.55
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.72	0.55
1:AA:1112:C:O2	3:AC:178:LEU:N	2.38	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
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
21:B0:26:G:N2	21:B0:524:A:H62	2.03	0.55
1:AA:26:A:H2'	1:AA:27:G:H5'	1.88	0.55
7:AG:116:ALA:HA	7:AG:119:ARG:NH2	2.21	0.55
1:AA:843:C:H2'	1:AA:844:A:O4'	2.07	0.55
3:AC:46:GLU:O	3:AC:48:TYR:N	2.33	0.55
4:AD:176:LEU:HA	4:AD:183:GLY:HA2	1.87	0.55
1:AA:1500:A:H5''	1:AA:1508:G:H5''	1.87	0.55
1:AA:1394:A:N6	1:AA:1501:C:H4'	2.13	0.55
1:AA:1496:C:H1'	1:AA:1517:G:N1	2.22	0.55
1:AA:489:C:P	4:AD:132:ARG:NH2	2.75	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:1236:A:H2'	1:AA:1237:C:C6	2.41	0.55
1:AA:808:C:OP1	15:AO:48:LYS:CE	2.53	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:65:LYS:HE3	13:AM:69:GLU:OE2	2.07	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:B0:611:C:H2'	21:B0:612:G:O4'	2.07	0.55
8:AH:123:GLU:O	8:AH:127:LEU:HD23	2.05	0.55
4:AD:177:ASP:OD1	4:AD:179:GLU:HB2	2.07	0.55
21:B0:597:U:H3	21:B0:683:A:H2'	1.71	0.55
1:AA:1257:U:H4'	1:AA:1258:G:O5'	2.06	0.55
17:AQ:68:ARG:N	17:AQ:70:ARG:NH1	2.55	0.55
1:AA:490:G:H2'	1:AA:491:G:H8	1.72	0.55
1:AA:477:G:H2'	1:AA:478:A:C8	2.40	0.55
1:AA:571:U:C4'	1:AA:819:A:C5	2.89	0.55
10:AJ:31:GLY:HA2	10:AJ:78:ASN:ND2	2.12	0.55
10:AJ:24:VAL:HG21	10:AJ:37:PRO:HD3	1.88	0.55
4:AD:24:GLU:HG2	4:AD:25:ARG:N	2.21	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
1:AA:1376:U:OP1	7:AG:98:SER:OG	2.13	0.55
21:B0:784:U:H2'	21:B0:785:U:C6	2.41	0.55
20:AT:94:ALA:O	20:AT:95:ALA:HB3	2.06	0.55
1:AA:193:C:H2'	1:AA:194:C:H6	1.72	0.55
17:AQ:102:GLY:O	21:B0:726:G:N2	2.40	0.55
1:AA:6:G:C6	5:AE:94:ALA:CA	2.85	0.55
1:AA:314:C:C2	1:AA:353:A:H2	2.24	0.55
21:B0:892:A:H2'	21:B0:893:G:O4'	2.07	0.55
1:AA:954:G:H2'	1:AA:955:U:C6	2.42	0.55
1:AA:1014:A:N3	19:AS:34:TRP:CB	2.69	0.55
13:AM:93:ARG:HB3	21:B0:900(A):A:OP2	2.07	0.55
1:AA:1346:A:C2	7:AG:10:ARG:NH1	2.75	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
21:B0:951:G:C2'	21:B0:952:A:H5''	2.35	0.55
21:B0:805:G:H4'	21:B0:806:A:OP2	2.05	0.55
21:B0:1528:C:C3'	21:B0:1529:C:H5''	2.36	0.55
21:B0:582:G:H2'	21:B0:583:C:H3'	1.88	0.55
5:AE:15:ARG:O	5:AE:27:ARG:O	2.25	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
17:AQ:18:THR:HG23	17:AQ:69:LYS:HE3	1.89	0.55
1:AA:735:C:C1'	18:AR:75:ILE:HD11	2.37	0.55
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:70:LEU:HD11	15:AO:77:ARG:HB2	1.89	0.55
2:AB:33:TYR:HB2	2:AB:43:ASP:HB2	1.89	0.55
21:B0:64:C:H2'	21:B0:65:C:C6	2.42	0.55
12:AL:43:VAL:HG12	12:AL:44:THR:H	1.71	0.55
1:AA:1539:C:P	7:AG:82:GLY:HA2	2.46	0.55
5:AE:21:ALA:O	5:AE:23:GLY:N	2.40	0.55
21:B0:728:G:H2'	21:B0:729:A:O4'	2.06	0.55
1:AA:187:G:C1'	20:AT:85:MET:CE	2.71	0.55
1:AA:8:A:H1'	5:AE:103:GLY:N	2.21	0.55
1:AA:1416:G:N7	1:AA:1417:G:C8	2.75	0.55
1:AA:406:G:C8	1:AA:496:A:C6	2.95	0.55
1:AA:438:G:C4'	1:AA:439:A:OP1	2.53	0.55
1:AA:1314:C:H5	19:AS:6:LYS:CD	2.20	0.55
1:AA:46:G:O6	1:AA:394:G:O6	2.24	0.55
1:AA:237:C:P	17:AQ:40:LYS:HD2	2.40	0.55
1:AA:1112:C:N3	3:AC:178:LEU:CB	2.69	0.55
21:B0:103:U:H2'	21:B0:104:C:C6	2.41	0.55
1:AA:1251:A:H5'	9:AI:12:GLU:OE1	2.07	0.55
2:AB:47:THR:HA	2:AB:202:PRO:HG2	1.87	0.55
6:AF:76:ALA:O	6:AF:80:ARG:HG3	2.06	0.55
21:B0:1975:G:H4'	21:B0:1976:U:H5	1.72	0.55
21:B0:121:G:O2'	21:B0:1389:C:H4'	2.05	0.55
21:B0:2544:A:H2'	21:B0:2545:A:H4'	1.88	0.55
1:AA:1460:A:H2'	1:AA:1461:G:O4'	2.07	0.55
22:B9:45:C:H3'	22:B9:46:G:H5'	1.89	0.55
2:AB:67:THR:HG22	2:AB:68:ILE:N	2.21	0.55
1:AA:1255:G:O2'	1:AA:1259:C:C1'	2.55	0.55
1:AA:761:G:O2'	17:AQ:104:LYS:HA	2.06	0.55
1:AA:54:C:H2'	1:AA:352:C:H41	1.71	0.55
1:AA:1383:C:N3	1:AA:1384:C:C5	2.75	0.55
21:B0:942:U:C2'	21:B0:943:U:H5'	2.37	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:429:U:H2'	4:AD:25:ARG:NH1	2.22	0.55
21:B0:3126:A:H4'	21:B0:3127:G:H5'	1.89	0.55
21:B0:2503:G:C2'	21:B0:2504:G:H5''	2.37	0.55
1:AA:939:G:H2'	1:AA:940:C:H6	1.71	0.55
1:AA:606:G:O3'	1:AA:607:A:H5'	2.06	0.55
21:B0:1994:U:H2'	21:B0:1995:G:O4'	2.07	0.55
17:AQ:79:SER:O	17:AQ:80:GLY:O	2.25	0.55
16:AP:26:ARG:HD2	16:AP:31:LYS:O	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:3109:U:H5''	21:B0:3150:C:H5'	1.61	0.54
17:AQ:96:GLN:OE1	21:B0:726:G:C8	2.60	0.54
1:AA:113:G:N3	1:AA:353:A:C1'	2.70	0.54
1:AA:9:G:H5'	5:AE:122:GLU:CD	2.26	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
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
21:B0:3098:U:C4	21:B0:3099:U:C4	2.96	0.54
1:AA:59:A:O5'	1:AA:60:A:H5''	2.06	0.54
1:AA:537:G:H5''	12:AL:113:ARG:NH2	2.22	0.54
1:AA:1193:G:O2'	1:AA:1194:U:H5'	2.07	0.54
15:AO:87:ILE:O	15:AO:88:ARG:CB	2.54	0.54
21:B0:1514:C:H2'	21:B0:1515:U:O4'	2.07	0.54
1:AA:235:C:C5'	17:AQ:70:ARG:HD3	2.37	0.54
20:AT:67:ALA:HB2	20:AT:77:ALA:HB2	1.88	0.54
21:B0:3110:G:H4'	21:B0:3111:C:OP2	2.07	0.54
1:AA:1394:A:C4	1:AA:1501:C:C4'	2.91	0.54
4:AD:57:ARG:HB3	4:AD:206:PHE:HB2	1.88	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
5:AE:19:MET:HE1	5:AE:24:ARG:HH12	1.73	0.54
1:AA:429:U:H2'	4:AD:25:ARG:HH12	1.73	0.54
16:AP:21:VAL:O	16:AP:33:ILE:HB	2.07	0.54
1:AA:583:A:C5'	17:AQ:90:ILE:CG2	2.84	0.54
21:B0:798:G:O2'	21:B0:1770:U:H4'	2.07	0.54
21:B0:788:G:C5'	21:B0:790:A:H1'	2.37	0.54
1:AA:425:G:H4'	4:AD:45:GLN:HE22	1.73	0.54
21:B0:1976:U:C2'	21:B0:1977:C:H5'	2.38	0.54
1:AA:689:C:OP1	11:AK:55:LYS:HD3	2.05	0.54
15:AO:27:VAL:O	15:AO:31:LEU:HD13	2.07	0.54
1:AA:1126:U:H1'	1:AA:1280:A:N6	2.22	0.54
4:AD:88:VAL:HA	5:AE:97:GLY:HA3	1.85	0.54
1:AA:761:G:H5'	17:AQ:102:GLY:CA	2.37	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
21:B0:3128:G:C3'	21:B0:3174:C:H4'	2.38	0.54
4:AD:199:ASN:HD21	4:AD:201:GLN:HB2	1.71	0.54
3:AC:116:VAL:O	3:AC:120:VAL:HG23	2.07	0.54
15:AO:32:LEU:O	15:AO:36:ILE:HG13	2.06	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
10:AJ:4:ILE:HA	10:AJ:100:THR:HA	1.88	0.54
1:AA:1457:A:C8	1:AA:1459:C:O2	2.60	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:403:C:C4	1:AA:404:U:C5	2.95	0.54
1:AA:1181:G:O3'	1:AA:1184:G:H5'	2.07	0.54
1:AA:818:G:H3'	1:AA:819:A:H5''	1.87	0.54
10:AJ:65:LEU:CD1	14:AN:36:PHE:CZ	2.81	0.54
10:AJ:51:ARG:HB2	10:AJ:59:SER:CB	2.23	0.54
17:AQ:101:ARG:HD3	21:B0:731:A:N1	2.23	0.54
1:AA:598:U:H4'	8:AH:94:TYR:CG	2.43	0.54
17:AQ:26:GLN:HE21	17:AQ:37:LYS:HE2	1.71	0.54
2:AB:15:VAL:HG22	2:AB:209:ARG:HG3	1.88	0.54
21:B0:873:U:H1'	21:B0:2246:A:OP1	2.07	0.54
21:B0:1496:G:H1	21:B0:1527:G:H1	1.55	0.54
8:AH:36:LEU:HD12	8:AH:59:LEU:HD13	1.88	0.54
1:AA:532:A:H2'	1:AA:533:A:H5''	1.89	0.54
21:B0:1356:G:H1'	21:B0:1613:G:C2	2.43	0.54
18:AR:61:LYS:O	18:AR:65:ILE:HG13	2.08	0.54
7:AG:18:TYR:CE2	7:AG:59:LEU:HB2	2.42	0.54
1:AA:1402:C:O2	1:AA:1500:A:N1	2.41	0.54
3:AC:14:ILE:HG22	3:AC:15:THR:N	2.12	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
1:AA:281:G:O2'	1:AA:282:A:P	2.66	0.54
10:AJ:63:PHE:CE1	14:AN:45:ARG:HA	2.41	0.54
1:AA:68:G:O2'	1:AA:152:A:C2	2.56	0.54
1:AA:35:G:H2'	1:AA:36:C:C6	2.43	0.54
8:AH:56:LYS:N	8:AH:56:LYS:HD2	2.23	0.54
10:AJ:81:THR:C	10:AJ:83:GLU:H	2.10	0.54
21:B0:918:A:H2'	21:B0:919:U:C5'	2.35	0.54
2:AB:187:LEU:HD23	2:AB:214:ILE:HG21	1.90	0.54
21:B0:2437:G:H2'	21:B0:2469:G:C2	2.42	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
21:B0:2516:U:H2'	21:B0:2517:C:C6	2.42	0.54
21:B0:1319:C:H41	21:B0:1622:G:H2'	1.73	0.54
1:AA:132:C:C5'	1:AA:262:A:O2'	2.45	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:390:C:H4'	16:AP:28:ARG:NH2	2.22	0.54
1:AA:1066:C:O2'	1:AA:1067:A:H5'	2.07	0.54
1:AA:1405:G:O2'	1:AA:1519:A:C5'	2.53	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
13:AM:60:VAL:O	13:AM:63:THR:HG22	2.07	0.54
1:AA:1155:G:HO3'	1:AA:1156:G:P	2.27	0.54
1:AA:958:A:C4	19:AS:55:LYS:HB2	2.43	0.54
2:AB:17:PHE:CD1	2:AB:18:GLY:N	2.75	0.54
21:B0:357:A:C2'	21:B0:358:C:H5'	2.38	0.54
5:AE:137:GLU:O	5:AE:141:GLN:HG3	2.07	0.54
21:B0:635:C:H3'	21:B0:636:G:H5''	1.90	0.54
3:AC:37:GLN:NE2	14:AN:52:GLN:OE1	2.40	0.54
21:B0:2677:U:H2'	21:B0:2678:C:C6	2.43	0.54
1:AA:292:G:H2'	1:AA:609:A:N1	2.22	0.54
3:AC:91:LEU:HD21	3:AC:99:VAL:CG1	2.30	0.54
1:AA:179:A:HO3'	1:AA:180:U:P	2.31	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
10:AJ:51:ARG:H	10:AJ:59:SER:HB2	1.72	0.54
1:AA:1003:G:C2	1:AA:2003:G:C6	2.96	0.54
1:AA:1268:A:H2'	1:AA:1269:A:C8	2.41	0.54
3:AC:130:VAL:O	3:AC:134:ILE:HG13	2.07	0.54
2:AB:124:SER:CB	2:AB:125:PRO:HD2	2.31	0.54
1:AA:639:G:O2'	1:AA:640:A:H5'	2.08	0.54
4:AD:32:ALA:C	4:AD:34:GLU:N	2.60	0.54
21:B0:2510:A:H61	21:B0:2641:A:N6	2.06	0.54
11:AK:13:GLN:HA	11:AK:75:TYR:O	2.08	0.54
1:AA:1081:G:C8	5:AE:27:ARG:NH1	2.75	0.54
21:B0:1713:G:H2'	21:B0:1714:A:O4'	2.08	0.54
21:B0:317:U:C2'	21:B0:318:G:H5''	2.38	0.54
1:AA:1128:C:H2'	1:AA:1129:C:H5''	1.90	0.54
7:AG:113:GLU:HG2	7:AG:119:ARG:HG2	1.90	0.54
21:B0:857:U:H2'	21:B0:858:G:H5'	1.89	0.54
21:B0:1615:C:H2'	21:B0:1616:C:C6	2.42	0.54
1:AA:391:G:P	16:AP:28:ARG:HH22	2.31	0.54
1:AA:702:A:N6	21:B0:1838:G:C2	2.76	0.54
5:AE:101:ILE:O	5:AE:120:THR:HB	2.08	0.54
1:AA:1068:G:N2	1:AA:1191:A:N3	2.55	0.54
1:AA:403:C:C4	1:AA:404:U:H5	2.25	0.54
1:AA:1225:A:C4'	19:AS:78:ARG:NH1	2.70	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1367:C:OP2	9:AI:112:LYS:NZ	2.37	0.54
1:AA:1368:G:P	9:AI:114:TYR:N	2.80	0.54
1:AA:101:A:O2'	1:AA:102:G:H5'	2.07	0.54
16:AP:43:LYS:HB3	16:AP:48:TRP:CD1	2.43	0.54
1:AA:1038:C:H2'	1:AA:1039:C:C6	2.43	0.54
1:AA:619:U:N3	4:AD:135:LEU:CD2	2.71	0.54
21:B0:2227:C:C2'	21:B0:2228:U:H5'	2.35	0.54
4:AD:148:VAL:HG11	4:AD:158:ILE:HD13	1.88	0.54
14:AN:9:LYS:C	14:AN:9:LYS:HD3	2.28	0.54
21:B0:2446:C:H2'	21:B0:2447:G:C8	2.43	0.54
1:AA:1257:U:O2'	1:AA:1258:G:OP2	2.21	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
20:AT:72:LEU:HD21	20:AT:80:ARG:CZ	2.38	0.54
1:AA:115:G:HO2'	1:AA:116:A:P	2.20	0.54
1:AA:401:C:C4'	1:AA:622:A:H1'	2.37	0.54
5:AE:76:ILE:O	5:AE:93:PRO:HB3	2.07	0.54
3:AC:33:LEU:C	3:AC:33:LEU:HD23	2.29	0.54
1:AA:394:G:O6	1:AA:395:C:N4	2.40	0.54
2:AB:23:ARG:HD3	2:AB:23:ARG:N	2.22	0.54
6:AF:4:TYR:OH	6:AF:69:GLU:HB3	2.07	0.54
10:AJ:47:PHE:CD2	14:AN:37:PHE:CE1	2.94	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
1:AA:1053:G:H4'	1:AA:1054:C:H5'	1.88	0.54
1:AA:419:C:H5''	1:AA:513:C:O4'	2.08	0.54
12:AL:53:ARG:HG2	12:AL:69:TYR:HE1	1.73	0.54
9:AI:85:LEU:O	9:AI:92:TYR:HD1	1.91	0.54
1:AA:33:A:H2'	1:AA:34:C:H6	1.72	0.54
1:AA:750:G:H1'	15:AO:22:THR:OG1	2.08	0.54
16:AP:11:SER:OG	16:AP:14:ASN:HB3	2.08	0.54
2:AB:75:LYS:HD3	2:AB:75:LYS:O	2.08	0.54
21:B0:319:G:H21	21:B0:340:G:H21	1.55	0.54
1:AA:1475:G:H5'	21:B0:1706:A:C5'	2.31	0.54
1:AA:131:C:H4'	1:AA:263:A:C5'	2.37	0.54
1:AA:922:G:H1	1:AA:1396:A:N6	2.00	0.54
1:AA:187:G:H21	20:AT:105:SER:HA	1.72	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1016:A:C1'	1:AA:1218:C:H4'	2.37	0.54
1:AA:244:U:N3	1:AA:893:C:O2	2.41	0.54
1:AA:1383:C:C4	1:AA:1384:C:C5	2.96	0.54
13:AM:53:VAL:O	13:AM:57:ARG:HB2	2.08	0.54
19:AS:51:VAL:HG12	19:AS:52:TYR:N	2.23	0.54
6:AF:69:GLU:HA	6:AF:72:VAL:CG2	2.36	0.54
10:AJ:3:LYS:N	10:AJ:75:ILE:HA	2.22	0.54
18:AR:86:VAL:O	18:AR:87:ARG:CB	2.55	0.54
10:AJ:4:ILE:HG12	10:AJ:100:THR:HB	1.90	0.54
1:AA:743:U:H2'	1:AA:744:C:C6	2.43	0.54
12:AL:82:VAL:N	12:AL:106:ASP:OD1	2.34	0.54
1:AA:1458:G:C5	1:AA:1459:C:O2	2.61	0.53
21:B0:3877:A:OP1	21:B0:1861:G:OP2	2.21	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:323:U:C3'	20:AT:22:ARG:HB2	2.38	0.53
3:AC:181:ASN:HD21	3:AC:204:LEU:HD12	1.72	0.53
1:AA:961:U:OP1	1:AA:1223:C:C4'	2.56	0.53
1:AA:43:C:H5''	16:AP:12:LYS:HB3	1.90	0.53
13:AM:37:THR:O	13:AM:37:THR:HG22	2.07	0.53
3:AC:138:VAL:HG21	3:AC:168:ALA:HB1	1.89	0.53
21:B0:800:U:H3'	21:B0:804:C:H41	1.73	0.53
21:B0:2246:A:H2'	21:B0:2246:A:N3	2.23	0.53
21:B0:1316:G:H2'	21:B0:1317:G:H8	1.72	0.53
21:B0:2241:U:H1'	21:B0:2307:A:H1'	1.90	0.53
21:B0:1137:A:H5''	21:B0:1138:A:H5''	1.90	0.53
21:B0:968:C:H2'	21:B0:970:A:OP1	2.08	0.53
1:AA:86:G:H4'	1:AA:87:G:OP2	2.07	0.53
21:B0:3196:G:O2'	21:B0:3197:U:P	2.66	0.53
1:AA:94:G:C4	1:AA:96:C:C6	2.97	0.53
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.08	0.53
3:AC:38:ARG:HB3	3:AC:94:LEU:HD21	1.88	0.53
1:AA:1329:A:C4'	13:AM:29:ARG:HD2	2.38	0.53
17:AQ:27:PHE:CE1	17:AQ:36:ILE:HD11	2.42	0.53
5:AE:31:LEU:HD22	5:AE:43:LEU:CD2	2.39	0.53
3:AC:150:LYS:CE	3:AC:152:ILE:HD11	2.38	0.53
3:AC:112:SER:CB	3:AC:115:LEU:HD12	2.36	0.53
21:B0:45:C:H5''	21:B0:192:G:C8	2.43	0.53
9:AI:81:ILE:O	9:AI:85:LEU:HB2	2.08	0.53
21:B0:2316:G:H2'	21:B0:2317:G:H8	1.74	0.53
1:AA:702:A:N6	21:B0:1839:A:O4'	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:44:LEU:HD12	14:AN:44:LEU:C	2.29	0.53
13:AM:8:GLU:OE1	13:AM:22:ILE:HA	2.08	0.53
1:AA:717:C:H3'	1:AA:718:G:P	2.48	0.53
1:AA:501:C:O4'	1:AA:548:G:N2	2.41	0.53
1:AA:299:G:H2'	1:AA:300:A:C8	2.44	0.53
1:AA:619:U:N3	4:AD:135:LEU:CG	2.71	0.53
12:AL:46:LYS:CG	12:AL:47:LYS:N	2.71	0.53
2:AB:33:TYR:HB3	2:AB:41:ILE:O	2.08	0.53
21:B0:2623:A:H2'	21:B0:2624:G:O4'	2.09	0.53
7:AG:138:LYS:HE2	7:AG:142:GLU:OE1	2.08	0.53
12:AL:53:ARG:NH1	12:AL:92:ASP:OD2	2.42	0.53
21:B0:658:G:H4'	21:B0:2331:A:H5'	1.90	0.53
21:B0:1217:U:H2'	21:B0:1218:C:C6	2.43	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:B0:2392:G:H2'	21:B0:2393:G:C8	2.44	0.53
1:AA:80:C:H2'	1:AA:81:C:C6	2.43	0.53
1:AA:1503:A:C5'	1:AA:1531:A:H1'	2.38	0.53
1:AA:322:C:C2'	20:AT:23:ARG:HD2	2.37	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:960:U:H5'	1:AA:960:U:O2	2.08	0.53
21:B0:3184:C:H2'	21:B0:3185:U:H5'	1.89	0.53
21:B0:3098:U:C2'	21:B0:3099:U:C6	2.89	0.53
1:AA:1269:A:N1	1:AA:1313:U:C4'	2.72	0.53
1:AA:300:A:H2'	1:AA:301:G:O4'	2.08	0.53
21:B0:1141:U:H5'	21:B0:2549:G:N2	2.23	0.53
1:AA:527:G:O2'	1:AA:535:A:N1	2.32	0.53
5:AE:80:ILE:HD13	5:AE:138:ALA:HB1	1.90	0.53
1:AA:33:A:H2'	1:AA:34:C:C6	2.44	0.53
21:B0:412:U:H2'	21:B0:413:G:O4'	2.08	0.53
7:AG:69:VAL:HG21	7:AG:104:LEU:HD21	1.90	0.53
21:B0:757:U:O2'	21:B0:758:G:H5'	2.09	0.53
21:B0:1861:G:P	53:B5:38:GLY:CA	2.96	0.53
1:AA:315:A:H5''	1:AA:317:G:OP2	2.08	0.53
1:AA:1110:A:C2'	1:AA:1111:A:H5'	2.38	0.53
1:AA:933:G:OP2	7:AG:3:ARG:CB	2.55	0.53
21:B0:3102:G:H2'	21:B0:3103:A:H8	1.74	0.53
1:AA:1238:A:C2	1:AA:1241:G:O2'	2.62	0.53
21:B0:2494:C:H2'	21:B0:2495:G:C8	2.44	0.53
21:B0:459:A:H1'	21:B0:466:A:N7	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:21:G:H1'	1:AA:914:A:N6	2.22	0.53
21:B0:1298:G:N2	21:B0:1341:G:H5''	2.23	0.53
8:AH:8:ASP:O	8:AH:12:ARG:HG3	2.08	0.53
1:AA:1240:U:C4	7:AG:32:ARG:NH2	2.77	0.53
21:B0:3867:G:N2	53:B5:43:LYS:CA	2.72	0.53
17:AQ:67:LYS:CA	17:AQ:70:ARG:HH12	2.21	0.53
4:AD:89:THR:CB	5:AE:97:GLY:C	2.67	0.53
1:AA:762:C:C5'	21:B0:729:A:H61	2.20	0.53
1:AA:376:G:N1	1:AA:389:A:N1	2.57	0.53
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.09	0.53
1:AA:953:G:H2'	1:AA:954:G:O4'	2.09	0.53
10:AJ:65:LEU:CD1	14:AN:36:PHE:CE1	2.89	0.53
5:AE:18:ARG:HG2	5:AE:19:MET:N	2.24	0.53
11:AK:14:VAL:O	11:AK:15:ALA:CB	2.57	0.53
1:AA:1081:G:OP2	5:AE:27:ARG:HD2	2.07	0.53
8:AH:25:ASP:OD1	8:AH:60:ARG:HD3	2.09	0.53
21:B0:2445:C:H2'	21:B0:2446:C:O4'	2.08	0.53
8:AH:119:LEU:HD12	8:AH:124:ALA:HA	1.90	0.53
4:AD:160:GLN:O	4:AD:163:GLU:HB3	2.08	0.53
21:B0:1479:G:N2	21:B0:1543:G:H21	2.06	0.53
21:B0:394:U:H2'	21:B0:395:G:H8	1.74	0.53
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.90	0.53
17:AQ:104:LYS:CB	21:B0:727:U:O4'	2.56	0.53
1:AA:6:G:H22	5:AE:98:THR:CG2	2.18	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:8:A:N6	4:AD:209:ARG:HB2	2.24	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:1347:G:C2'	1:AA:1348:U:OP2	2.56	0.53
14:AN:44:LEU:HD12	14:AN:44:LEU:O	2.08	0.53
1:AA:1418:A:C2	21:B0:1931:G:O2'	2.60	0.53
1:AA:1296:C:C1'	1:AA:1302:U:C4	2.92	0.53
21:B0:1746:A:C2'	21:B0:1747:G:H5'	2.36	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
21:B0:917:U:H2'	21:B0:918:A:O4'	2.09	0.53
21:B0:616:U:C2'	21:B0:617:U:H5''	2.35	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
1:AA:386:C:C2'	1:AA:387:U:H5'	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1288:A:O2'	21:B0:1289:A:H5'	2.08	0.53
21:B0:2322:U:O2'	21:B0:2323:U:H5'	2.09	0.53
19:AS:42:PRO:O	19:AS:45:VAL:HG23	2.09	0.53
2:AB:32:ILE:HD13	2:AB:40:HIS:CD2	2.44	0.53
1:AA:1481:U:O2'	1:AA:1482:G:H5'	2.09	0.53
1:AA:8:A:C1'	5:AE:102:ALA:C	2.77	0.53
1:AA:1330:U:C5'	13:AM:23:TYR:O	2.57	0.53
1:AA:1112:C:O2	3:AC:179:ARG:HB3	2.09	0.53
3:AC:130:VAL:HG12	3:AC:134:ILE:HD11	1.91	0.53
1:AA:791:G:H2'	1:AA:792:A:H5'	1.91	0.53
21:B0:1791:C:H2'	21:B0:1792:C:H5''	1.91	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
2:AB:142:LEU:HD22	2:AB:146:GLN:HE22	1.73	0.53
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.90	0.53
21:B0:216:U:H5''	21:B0:601:A:N6	2.23	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:109:A:H5'	1:AA:110:C:C5	2.44	0.53
1:AA:1108:G:H4'	1:AA:1191:A:C4'	2.39	0.53
1:AA:1110:A:O2'	1:AA:1111:A:H5'	2.08	0.53
1:AA:20:U:C2	1:AA:915:A:N6	2.68	0.53
1:AA:101:A:H2'	1:AA:102:G:H8	1.74	0.53
9:AI:48:GLU:OE1	9:AI:51:ARG:HD2	2.09	0.53
1:AA:59:A:H2'	1:AA:331:G:H1	1.73	0.53
21:B0:366:U:H2'	21:B0:367:G:C8	2.43	0.53
2:AB:73:THR:HG23	2:AB:95:GLN:O	2.09	0.53
2:AB:18:GLY:CA	2:AB:42:ILE:H	2.20	0.53
21:B0:1286:U:H5''	21:B0:1663:C:H42	1.73	0.53
21:B0:2057:U:H1'	21:B0:2577:A:H1'	1.90	0.53
7:AG:71:PRO:HD3	7:AG:103:TRP:HZ3	1.73	0.53
13:AM:117:VAL:HG12	13:AM:118:ALA:N	2.24	0.53
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.23	0.53
8:AH:80:ILE:O	8:AH:80:ILE:HG22	2.08	0.53
13:AM:102:ARG:HB2	13:AM:102:ARG:NH1	2.24	0.53
21:B0:1789:U:C2'	21:B0:1790:G:H5'	2.39	0.53
21:B0:605:G:H4'	21:B0:949:G:O2'	2.08	0.53
21:B0:1730:G:H2'	21:B0:1731:C:C6	2.43	0.53
1:AA:1416:G:P	1:AA:1417:G:P	3.07	0.53
1:AA:184:G:O4'	1:AA:224:C:H4'	2.08	0.53
1:AA:1329:A:H5'	13:AM:29:ARG:CD	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:976:G:H22	1:AA:2361:C:H2'	1.72	0.53
21:B0:2010:G:H2'	21:B0:2011:U:O4'	2.09	0.53
21:B0:665:A:OP2	21:B0:666:U:H5'	2.09	0.53
1:AA:128:G:H4'	17:AQ:3:LYS:CG	2.38	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
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:B0:2025:A:H2'	21:B0:2026:C:H5''	1.91	0.53
22:B9:81:C:H2'	22:B9:82:U:O4'	2.09	0.53
1:AA:191:G:H21	20:AT:103:GLY:HA2	1.73	0.52
21:B0:3877:A:C3'	21:B0:1861:G:H3'	2.39	0.52
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
3:AC:32:LEU:HD21	3:AC:59:ARG:HD2	1.91	0.52
12:AL:42:THR:HG21	12:AL:52:LEU:HB3	1.92	0.52
1:AA:623:C:O2'	1:AA:624:C:H5'	2.09	0.52
12:AL:47:LYS:HB3	12:AL:48:PRO:HD3	1.91	0.52
11:AK:17:GLY:O	11:AK:80:VAL:HA	2.09	0.52
6:AF:3:ARG:NH2	6:AF:64:GLN:NE2	2.57	0.52
21:B0:1289:A:O2'	21:B0:1290:A:H5'	2.09	0.52
9:AI:23:ASN:C	9:AI:23:ASN:HD22	2.12	0.52
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.44	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:1394:A:N3	1:AA:1501:C:C1'	2.73	0.52
1:AA:923:A:C1'	1:AA:1398:A:N3	2.70	0.52
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.10	0.52
1:AA:376:G:H5''	16:AP:5:ARG:HB2	1.91	0.52
13:AM:88:ARG:HG3	13:AM:98:VAL:CG1	2.40	0.52
1:AA:1428:A:H2'	1:AA:1429:C:C6	2.44	0.52
1:AA:826:C:O2'	8:AH:15:ASN:CB	2.57	0.52
1:AA:1435:G:H2'	1:AA:1436:U:H6	1.69	0.52
17:AQ:45:HIS:HB2	17:AQ:65:ILE:CD1	2.37	0.52
3:AC:77:ILE:HG22	3:AC:81:GLY:HA2	1.90	0.52
2:AB:166:ASP:OD2	2:AB:169:LYS:HB2	2.09	0.52
9:AI:17:VAL:HG11	9:AI:81:ILE:HA	1.90	0.52
1:AA:373:A:O2'	1:AA:374:A:H5'	2.09	0.52
21:B0:579:G:H2'	21:B0:2013:A:N6	2.24	0.52
10:AJ:44:VAL:HG22	10:AJ:66:ARG:HB3	1.91	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)
3:AC:139:GLN:O	3:AC:143:GLU:N	2.37	0.52
1:AA:760:G:N1	17:AQ:105:ALA:HB2	2.20	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:142:G:H4'	1:AA:195:A:H61	1.35	0.52
3:AC:20:SER:HB3	3:AC:22:TRP:NE1	2.24	0.52
1:AA:104:G:C5'	1:AA:172:A:N1	2.64	0.52
19:AS:13:ASP:O	19:AS:17:GLU:HG2	2.10	0.52
13:AM:11:ARG:CG	13:AM:12:ASN:N	2.72	0.52
1:AA:370:C:O2'	1:AA:371:G:H5'	2.09	0.52
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.09	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:B0:1278:A:H4'	21:B0:1279:G:O5'	2.08	0.52
20:AT:76:ALA:O	20:AT:80:ARG:HG2	2.09	0.52
20:AT:50:GLU:O	20:AT:100:ILE:HD12	2.09	0.52
1:AA:621:A:H2'	1:AA:622:A:C8	2.44	0.52
1:AA:977:A:C2'	1:AA:978:A:H5''	2.38	0.52
13:AM:78:ILE:HA	13:AM:81:LEU:CD2	2.38	0.52
1:AA:118:U:HO3'	1:AA:119:A:P	2.29	0.52
1:AA:588:G:C5	1:AA:753:A:N7	2.78	0.52
1:AA:714:G:C4'	1:AA:776:G:C5'	2.86	0.52
3:AC:23:TYR:CD2	3:AC:24:ALA:N	2.78	0.52
1:AA:108:G:N1	20:AT:15:ARG:NE	2.57	0.52
1:AA:227:G:C4	1:AA:228:A:C8	2.98	0.52
21:B0:2240:C:H2'	21:B0:2241:U:H5'	1.90	0.52
1:AA:148:G:H2'	1:AA:149:A:H8	1.74	0.52
1:AA:357:G:O2'	1:AA:358:U:H5'	2.09	0.52
1:AA:175:C:H4'	20:AT:25:ARG:HD2	1.91	0.52
1:AA:983:A:H2	1:AA:984:C:C5	2.28	0.52
11:AK:27:ASN:HA	11:AK:56:GLY:HA2	1.92	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
21:B0:2418:A:H4'	21:B0:2420:C:OP2	2.10	0.52
1:AA:130:A:H1'	1:AA:264:U:O4'	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
1:AA:324:G:OP1	20:AT:22:ARG:HB3	2.09	0.52
1:AA:1016:A:H1'	1:AA:1218:C:H4'	1.91	0.52
9:AI:127:LYS:HD2	9:AI:127:LYS:N	2.25	0.52
1:AA:1315:U:H5	19:AS:6:LYS:NZ	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:942:U:O2'	21:B0:943:U:H5'	2.09	0.52
1:AA:1003:G:N2	1:AA:1039:C:C2	2.77	0.52
1:AA:1038:C:H2'	1:AA:1039:C:H6	1.75	0.52
14:AN:3:ARG:O	14:AN:4:LYS:C	2.48	0.52
13:AM:49:THR:CG2	13:AM:51:ALA:H	2.13	0.52
6:AF:8:ILE:HD11	6:AF:79:LEU:HD13	1.92	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
16:AP:19:ILE:HG22	16:AP:36:ILE:HG13	1.90	0.52
1:AA:1006:C:H2'	1:AA:1007:C:C6	2.44	0.52
22:B9:50:U:H2'	22:B9:51:G:C8	2.44	0.52
1:AA:1121:U:H2'	1:AA:1122:U:H6	1.73	0.52
1:AA:1064:G:OP2	1:AA:1385:G:O2'	2.27	0.52
19:AS:10:PHE:C	19:AS:10:PHE:CD2	2.83	0.52
1:AA:246:A:N6	1:AA:281:G:H1'	2.24	0.52
1:AA:935:A:C4'	1:AA:1384:C:C2	2.91	0.52
10:AJ:62:HIS:CE1	14:AN:61:TRP:CH2	2.97	0.52
1:AA:588:G:C6	1:AA:753:A:C8	2.98	0.52
1:AA:300:A:H2	1:AA:566:G:O6	1.93	0.52
1:AA:1202:G:H2'	1:AA:1203:C:O4'	2.10	0.52
1:AA:860:A:H4'	8:AH:75:ARG:NH1	2.25	0.52
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.75	0.52
21:B0:176:A:H1'	21:B0:2221:G:H21	1.75	0.52
20:AT:93:GLU:HA	20:AT:93:GLU:OE2	2.09	0.52
21:B0:2533:U:H2'	21:B0:2534:U:C6	2.45	0.52
13:AM:73:GLU:O	13:AM:76:ALA:HB3	2.09	0.52
21:B0:2698:G:H2'	21:B0:2699:G:C8	2.45	0.52
1:AA:1409:C:C2'	1:AA:1410:G:C5'	2.87	0.52
1:AA:1483:A:C6	1:AA:1484:C:N3	2.77	0.52
21:B0:891:A:HO2'	21:B0:892:A:H5'	0.70	0.52
3:AC:22:TRP:CZ2	14:AN:54:PRO:HG3	2.44	0.52
1:AA:1086:U:O3'	1:AA:1389:C:C5'	2.57	0.52
19:AS:53:ASN:HB2	19:AS:56:GLN:H	1.73	0.52
6:AF:10:LEU:HD11	6:AF:59:TYR:CD2	2.41	0.52
2:AB:23:ARG:O	2:AB:24:TRP:O	2.27	0.52
2:AB:15:VAL:HG11	2:AB:209:ARG:C	2.30	0.52
1:AA:163:C:O2'	1:AA:164:U:H5'	2.10	0.52
3:AC:83:ARG:C	3:AC:85:ARG:N	2.63	0.52
1:AA:1424:C:O2'	1:AA:1425:U:H5'	2.09	0.52
1:AA:1129:C:O2'	1:AA:1130:A:OP2	2.24	0.52
6:AF:43:LEU:CD2	6:AF:43:LEU:H	2.23	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
21:B0:3866:A:N7	21:B0:3875:A:H2	2.07	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:322:C:C3'	20:AT:23:ARG:HD2	2.39	0.52
3:AC:94:LEU:HD22	3:AC:95:THR:HG23	1.92	0.52
1:AA:1234:C:H1'	1:AA:1364:U:O2	2.10	0.52
1:AA:1348:U:OP1	9:AI:110:GLU:HB3	2.10	0.52
22:B9:107:C:C2'	22:B9:108:G:H5'	2.39	0.52
14:AN:33:VAL:HA	14:AN:40:CYS:HA	1.91	0.52
21:B0:929:A:H3'	21:B0:930:A:C5'	2.30	0.52
2:AB:10:LEU:C	2:AB:12:GLU:H	2.12	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:26:PRO:O	2:AB:29:ALA:HB2	2.10	0.52
18:AR:19:LYS:O	18:AR:20:ALA:HB2	2.10	0.52
21:B0:2401:A:H2'	21:B0:2403:C:C5	2.45	0.52
21:B0:1018:C:H2'	21:B0:1019:U:C5	2.44	0.52
1:AA:1458:G:O5'	1:AA:1458:G:H8	1.91	0.52
1:AA:189:A:H61	20:AT:104:LEU:HD22	1.71	0.52
1:AA:1483:A:C6	1:AA:1484:C:C5	2.97	0.52
1:AA:1191:A:H2'	1:AA:1192:C:C6	2.45	0.52
13:AM:77:ASN:O	13:AM:80:ARG:HB3	2.10	0.52
1:AA:475:C:H2'	1:AA:476:U:C6	2.44	0.52
1:AA:1027:C:O3'	1:AA:1028:C:P	2.68	0.52
3:AC:154:SER:O	3:AC:165:THR:HA	2.09	0.52
1:AA:1238:A:H2	1:AA:1241:G:H1'	1.75	0.52
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.45	0.52
7:AG:42:ILE:CG2	7:AG:120:ILE:HD12	2.39	0.52
21:B0:1686:A:H2'	21:B0:1687:C:H5'	1.92	0.52
21:B0:1325:U:H4'	21:B0:1326:U:C5	2.45	0.52
1:AA:828:A:H2'	1:AA:829:G:O4'	2.10	0.52
8:AH:24:THR:HG23	8:AH:61:VAL:HB	1.92	0.52
8:AH:49:GLU:HG2	8:AH:62:TYR:HE2	1.75	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:1457:A:C4	1:AA:1459:C:C2	2.89	0.52
21:B0:1856:U:C3'	21:B0:3865:A:H8	2.03	0.52
1:AA:131:C:C4'	1:AA:263:A:H4'	2.34	0.52
1:AA:6:G:C5	5:AE:119:LEU:HD12	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:190:A:N1	20:AT:101:GLY:C	2.58	0.52
4:AD:208:SER:OG	5:AE:101:ILE:HG12	2.10	0.52
1:AA:926:G:N2	1:AA:1505:G:C8	2.78	0.52
12:AL:119:LYS:O	12:AL:120:TYR:HB2	2.10	0.52
1:AA:476:U:O4	1:AA:477:G:C8	2.55	0.52
1:AA:143:A:H4'	1:AA:144:G:C8	2.45	0.52
1:AA:244:U:O2	1:AA:894:G:H1'	2.10	0.52
22:B9:73:C:H3'	22:B9:74:A:P	2.48	0.52
1:AA:2003:G:N1	1:AA:1004:A:H1'	2.25	0.52
10:AJ:22:LYS:CE	10:AJ:90:LEU:HD12	2.33	0.52
3:AC:70:VAL:O	3:AC:106:VAL:HG23	2.09	0.52
5:AE:12:LEU:HD22	5:AE:12:LEU:C	2.30	0.52
1:AA:808:C:OP2	15:AO:48:LYS:HE2	2.10	0.52
21:B0:1029:C:C3'	21:B0:1030:U:H5''	2.40	0.52
10:AJ:38:ILE:HG13	10:AJ:71:LEU:HB3	1.90	0.52
21:B0:2245:A:H4'	21:B0:2246:A:O5'	2.10	0.52
21:B0:1140:A:H61	21:B0:2470:U:H6	1.58	0.52
1:AA:1423:G:O2'	1:AA:1424:C:H5'	2.09	0.52
1:AA:26:A:C3'	1:AA:27:G:C5'	2.86	0.52
5:AE:40:ARG:HG2	5:AE:40:ARG:HH11	1.75	0.52
21:B0:81:C:H4'	21:B0:307:C:H5'	1.92	0.52
1:AA:853:G:O2'	1:AA:854:G:H5'	2.10	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
1:AA:203:A:O2'	1:AA:206:C:H4'	2.10	0.52
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
4:AD:205:GLU:HB3	5:AE:107:ARG:NH2	2.25	0.51
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.45	0.51
1:AA:1518:A:H2'	1:AA:1519:A:C8	2.45	0.51
1:AA:1085:U:O3'	1:AA:1086:U:C6	2.64	0.51
1:AA:1253:G:O2'	1:AA:1356:G:H5'	2.09	0.51
4:AD:65:ARG:HB2	4:AD:75:PHE:CE1	2.45	0.51
5:AE:12:LEU:CD1	5:AE:31:LEU:HB2	2.39	0.51
14:AN:57:ARG:HG2	14:AN:58:LYS:H	1.75	0.51
21:B0:1038:U:O2	21:B0:2466:G:H4'	2.10	0.51
3:AC:79:ARG:HG2	3:AC:82:GLU:HG2	1.92	0.51
21:B0:1431:U:H2'	21:B0:1432:G:O4'	2.09	0.51
1:AA:844:A:H2'	1:AA:845:A:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:80:C:H2'	1:AA:81:C:H6	1.75	0.51
1:AA:148:G:H2'	1:AA:149:A:C8	2.45	0.51
21:B0:840:U:H4'	21:B0:841:G:C2	2.45	0.51
8:AH:14:ARG:O	8:AH:18:ARG:HD3	2.10	0.51
21:B0:77:C:H2'	21:B0:78:C:C6	2.45	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
1:AA:116:A:N1	1:AA:314:C:O4'	2.43	0.51
12:AL:115:LYS:O	12:AL:117:ARG:N	2.37	0.51
3:AC:177:THR:O	3:AC:177:THR:HG23	2.10	0.51
21:B0:1119:U:O4	21:B0:1120:C:C5	2.62	0.51
10:AJ:22:LYS:NZ	10:AJ:91:PRO:HD3	2.25	0.51
21:B0:1029:C:OP1	21:B0:1047:G:H4'	2.10	0.51
21:B0:230:C:H2'	21:B0:231:G:O4'	2.10	0.51
21:B0:925:U:H4'	21:B0:926:C:C6	2.45	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
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
21:B0:1031:C:H1'	21:B0:1151:U:O2	2.09	0.51
21:B0:864:C:H2'	21:B0:865:A:C8	2.46	0.51
1:AA:999:C:H2'	1:AA:1000:U:C6	2.46	0.51
21:B0:2038:C:H5'	21:B0:2039:G:H5'	1.91	0.51
5:AE:13:ILE:HG22	5:AE:30:ALA:CB	2.40	0.51
11:AK:126:ARG:O	11:AK:127:LYS:C	2.48	0.51
1:AA:923:A:HO2'	1:AA:1398:A:H2'	1.74	0.51
1:AA:8:A:N7	4:AD:208:SER:CB	2.74	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
1:AA:119:A:C2	1:AA:240:C:C5	2.98	0.51
3:AC:108:ASN:C	3:AC:110:ASN:H	2.12	0.51
21:B0:215:G:H4'	21:B0:617:U:O2'	2.09	0.51
21:B0:1807:A:H5'	21:B0:1809:G:C1'	2.40	0.51
2:AB:33:TYR:HB3	2:AB:41:ILE:HG22	1.93	0.51
17:AQ:45:HIS:CB	17:AQ:65:ILE:HD13	2.39	0.51
21:B0:341:A:H1'	21:B0:1223:G:O6	2.10	0.51
21:B0:2217:G:H4'	21:B0:2219:U:C5	2.46	0.51
21:B0:1220:G:H2'	21:B0:1221:C:C6	2.45	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)
2:AB:53:ARG:NH1	2:AB:53:ARG:HG2	2.26	0.51
1:AA:191:G:O3'	1:AA:192:U:OP1	2.26	0.51
21:B0:2205:C:H2'	21:B0:2206:C:C6	2.46	0.51
1:AA:375:U:C4	1:AA:376:G:N7	2.79	0.51
1:AA:68:G:N2	1:AA:152:A:H1'	2.16	0.51
1:AA:249:U:O2'	1:AA:250:A:P	2.68	0.51
21:B0:3098:U:C6	21:B0:3099:U:C5	2.97	0.51
1:AA:1305:G:OP2	1:AA:1305:G:C8	2.64	0.51
14:AN:22:THR:OG1	14:AN:33:VAL:HG21	2.10	0.51
2:AB:186:ALA:HB3	2:AB:197:VAL:CG1	2.41	0.51
1:AA:1426:C:H2'	1:AA:1427:U:C6	2.44	0.51
21:B0:1712:G:H2'	21:B0:1713:G:H5'	1.91	0.51
18:AR:46:GLU:CD	18:AR:46:GLU:H	2.13	0.51
7:AG:102:ARG:O	7:AG:106:GLN:HG3	2.10	0.51
21:B0:1818:G:H2'	21:B0:1819:U:C6	2.45	0.51
1:AA:234:C:O2'	17:AQ:70:ARG:HG2	2.10	0.51
1:AA:580:U:H2'	1:AA:581:G:O4'	2.11	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:538:G:OP2	12:AL:115:LYS:CG	2.53	0.51
1:AA:1191:A:OP1	3:AC:3:ASN:ND2	2.43	0.51
1:AA:1406:U:C1'	1:AA:1518:A:C4'	2.88	0.51
1:AA:1367:C:O3'	9:AI:114:TYR:HB3	2.11	0.51
1:AA:397:A:N7	1:AA:547:A:H1'	2.25	0.51
3:AC:167:TRP:O	3:AC:168:ALA:HB3	2.10	0.51
1:AA:958:A:C6	19:AS:55:LYS:HB2	2.45	0.51
1:AA:528:C:H41	12:AL:49:ASN:CG	2.13	0.51
21:B0:1955:G:C2'	21:B0:1956:G:H5'	2.38	0.51
1:AA:1238:A:H2	1:AA:1241:G:HO2'	1.51	0.51
2:AB:206:ASP:O	2:AB:207:ALA:HB3	2.11	0.51
4:AD:8:VAL:HG13	4:AD:21:LEU:HD13	1.92	0.51
21:B0:192:G:H4'	21:B0:193:A:H4'	1.91	0.51
21:B0:2320:G:H2'	21:B0:2321:C:O4'	2.09	0.51
1:AA:979:C:O2	14:AN:19:ARG:NE	2.44	0.51
10:AJ:23:ILE:HD12	10:AJ:23:ILE:N	2.26	0.51
21:B0:1625:A:H2'	21:B0:1625:A:N3	2.25	0.51
21:B0:1597:A:H2'	21:B0:1598:C:C6	2.46	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
1:AA:1167:A:H2'	1:AA:1168:A:C8	2.45	0.51
1:AA:1182:G:H4'	1:AA:1183:A:O5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
21:B0:1251:G:H2'	21:B0:1252:C:C6	2.46	0.51
1:AA:1241:G:H2'	1:AA:1242:C:H6	1.75	0.51
21:B0:2245:A:O2'	21:B0:2246:A:OP2	2.24	0.51
2:AB:19:HIS:NE2	2:AB:206:ASP:HB3	2.26	0.51
1:AA:1021:G:C2'	1:AA:1022:G:H5'	2.40	0.51
21:B0:1210:C:H2'	21:B0:1211:G:O4'	2.09	0.51
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.46	0.51
1:AA:1422:G:H5''	31:BI:60:PRO:CA	2.41	0.51
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.11	0.51
8:AH:126:LYS:C	8:AH:128:GLY:H	2.14	0.51
21:B0:630:G:H2'	21:B0:631:G:H5'	1.92	0.51
21:B0:1373:G:H1	21:B0:2192:U:H3	1.58	0.51
21:B0:484:G:O2'	21:B0:485:G:H5'	2.11	0.51
1:AA:8:A:N6	4:AD:209:ARG:H	2.08	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
9:AI:44:VAL:CG1	9:AI:51:ARG:HH12	2.23	0.51
10:AJ:27:ALA:HB1	10:AJ:81:THR:HG23	1.92	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
10:AJ:20:ALA:O	10:AJ:24:VAL:HG23	2.11	0.51
1:AA:640:A:C2	8:AH:115:SER:HB3	2.45	0.51
21:B0:66:U:H2'	21:B0:67:G:C8	2.46	0.51
1:AA:757:U:O2'	1:AA:879:C:H1'	2.11	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
9:AI:27:THR:HG23	9:AI:30:GLY:O	2.11	0.51
1:AA:1256:A:H5''	1:AA:1258:G:C1'	2.31	0.51
1:AA:292:G:HO2'	1:AA:608:A:H62	1.52	0.51
1:AA:406:G:N7	1:AA:496:A:C2	2.76	0.51
1:AA:39:G:C2	1:AA:404:U:C2	2.99	0.51
3:AC:97:LYS:O	3:AC:98:ASN:HB3	2.10	0.51
1:AA:246:A:N3	1:AA:247:G:H1'	2.25	0.51
10:AJ:48:THR:O	14:AN:34:TYR:OH	2.28	0.51
1:AA:1329:A:O2'	1:AA:1330:U:H5'	2.11	0.51
1:AA:37:U:O2	1:AA:547:A:H2	1.89	0.51
20:AT:43:LEU:CD1	20:AT:55:ILE:HD12	2.40	0.51
11:AK:62:GLN:HG3	11:AK:97:ALA:HB2	1.92	0.51
21:B0:832:A:H2'	21:B0:833:A:O4'	2.11	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
21:B0:795:A:H4'	21:B0:796:A:C8	2.46	0.51
9:AI:10:ARG:HG2	9:AI:75:ASP:CB	2.41	0.51
21:B0:1712:G:C2'	21:B0:1713:G:H5'	2.40	0.51
1:AA:1021:G:C2	1:AA:1022:G:H1'	2.46	0.51
21:B0:333:A:H1'	21:B0:351:A:C4	2.45	0.51
3:AC:139:GLN:HA	3:AC:139:GLN:NE2	2.25	0.51
21:B0:841:G:H4'	21:B0:844:G:N1	2.26	0.51
21:B0:2038:C:H5'	21:B0:2039:G:C5'	2.41	0.51
9:AI:31:GLN:HB3	9:AI:35:GLU:HB3	1.91	0.51
21:B0:1492:A:H2	21:B0:1531:C:H41	1.59	0.51
1:AA:292:G:HO2'	1:AA:608:A:N6	2.08	0.51
9:AI:125:TYR:N	9:AI:125:TYR:CD2	2.78	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
9:AI:46:ALA:HA	9:AI:78:LYS:HB2	1.93	0.51
1:AA:652:U:O4	1:AA:752:G:O2'	2.28	0.51
22:B9:111:C:H5''	22:B9:112:A:H5''	1.93	0.51
3:AC:188:LEU:CD1	3:AC:195:VAL:HG13	2.41	0.51
2:AB:126:GLU:O	2:AB:129:GLU:HB2	2.11	0.51
21:B0:1181:C:H2'	21:B0:1182:U:C5'	2.38	0.51
21:B0:804:C:O2	21:B0:807:A:H5'	2.11	0.51
6:AF:69:GLU:OE1	6:AF:69:GLU:N	2.44	0.51
9:AI:93:ARG:HH11	9:AI:97:LYS:HZ1	1.55	0.51
21:B0:80:A:H2'	21:B0:81:C:O4'	2.11	0.51
14:AN:28:GLY:O	14:AN:30:ALA:N	2.43	0.51
21:B0:579:G:H2'	21:B0:2013:A:H62	1.75	0.51
3:AC:34:LEU:HD23	3:AC:34:LEU:O	2.11	0.51
21:B0:1611:U:H2'	21:B0:1612:U:O4'	2.11	0.51
21:B0:1532:A:H2'	21:B0:1533:G:C8	2.46	0.51
21:B0:18:U:H2'	21:B0:19:C:C6	2.46	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:1090:U:O4'	1:AA:1169:A:H2	1.93	0.51
1:AA:1094:G:H5''	1:AA:1095:U:H5	1.75	0.51
1:AA:470:U:H2'	1:AA:471:G:H8	1.76	0.51
3:AC:59:ARG:C	10:AJ:92:THR:HG23	2.30	0.51
1:AA:31:G:N1	1:AA:48:C:C5'	2.74	0.51
1:AA:1112:C:N3	3:AC:178:LEU:HB3	2.26	0.51
21:B0:942:U:H2'	21:B0:943:U:O4'	2.11	0.51
21:B0:2011:U:H2'	21:B0:2012:A:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:958:A:C8	19:AS:55:LYS:HD3	2.46	0.51
1:AA:333:G:C4'	20:AT:16:HIS:CD2	2.94	0.51
1:AA:605:U:O2'	1:AA:606:G:H5'	2.10	0.51
21:B0:394:U:H2'	21:B0:395:G:C8	2.45	0.51
1:AA:884:U:H4'	1:AA:885:G:H5''	1.92	0.51
21:B0:2795:A:N3	21:B0:2795:A:H2'	2.24	0.51
21:B0:2565:C:O2'	21:B0:2566:A:H5'	2.11	0.51
19:AS:50:ALA:HA	19:AS:58:VAL:O	2.10	0.51
4:AD:170:VAL:CG1	4:AD:174:LEU:HB2	2.39	0.51
21:B0:460:U:H3	21:B0:592:G:H1'	1.75	0.51
1:AA:1126:U:O4'	1:AA:1280:A:C5	2.64	0.50
21:B0:3874:C:H2'	21:B0:3875:A:H5'	1.91	0.50
1:AA:1394:A:C4	1:AA:1501:C:C1'	2.93	0.50
1:AA:762:C:H5'	17:AQ:104:LYS:NZ	2.26	0.50
1:AA:1483:A:C2	1:AA:1484:C:C6	2.99	0.50
1:AA:1484:C:C5'	21:B0:1943:A:H1'	2.39	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
3:AC:134:ILE:HG21	3:AC:167:TRP:O	2.11	0.50
2:AB:121:LEU:O	2:AB:127:ILE:HG12	2.11	0.50
12:AL:45:PRO:HD3	12:AL:51:ALA:O	2.11	0.50
1:AA:1250:A:C4'	9:AI:68:GLY:H	2.24	0.50
21:B0:1807:A:O2'	21:B0:1808:C:O5'	2.24	0.50
4:AD:24:GLU:O	4:AD:25:ARG:HB3	2.10	0.50
2:AB:17:PHE:C	2:AB:17:PHE:HD1	2.14	0.50
2:AB:17:PHE:CD1	2:AB:17:PHE:C	2.85	0.50
20:AT:41:VAL:O	20:AT:45:GLN:HB2	2.10	0.50
21:B0:2058:U:H5'	21:B0:2576:G:H1'	1.93	0.50
21:B0:2321:C:O2'	21:B0:2353:G:H5''	2.11	0.50
15:AO:3:ILE:CG2	15:AO:7:GLU:HB3	2.41	0.50
21:B0:1495:G:H2'	21:B0:1496:G:C8	2.47	0.50
21:B0:635:C:C3'	21:B0:636:G:H5''	2.41	0.50
1:AA:875:C:O2'	8:AH:14:ARG:HD2	2.11	0.50
21:B0:1586:A:H2'	21:B0:1587:A:C8	2.46	0.50
21:B0:1040:A:H2'	21:B0:1041:G:H5'	1.93	0.50
21:B0:1779:C:H2'	21:B0:1780:A:O4'	2.10	0.50
21:B0:2213:G:H2'	21:B0:2214:G:C8	2.46	0.50
21:B0:2769:C:O2'	21:B0:2770:A:H5'	2.11	0.50
1:AA:319:G:C2	1:AA:1434:A:H1'	2.33	0.50
1:AA:7:G:N3	5:AE:121:LYS:HG2	2.27	0.50
3:AC:38:ARG:HG3	3:AC:38:ARG:NH1	2.26	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:1347:G:C8	9:AI:107:ARG:HB3	2.47	0.50
3:AC:137:ALA:HA	3:AC:140:ARG:NH1	2.26	0.50
2:AB:96:ARG:O	2:AB:98:LEU:HD23	2.11	0.50
1:AA:227:G:C6	1:AA:228:A:C6	2.99	0.50
10:AJ:3:LYS:HA	10:AJ:75:ILE:HA	1.94	0.50
21:B0:897:A:C6	21:B0:898:C:N4	2.79	0.50
18:AR:87:ARG:HH11	18:AR:87:ARG:HG2	1.76	0.50
21:B0:1661:C:O2'	21:B0:1662:G:H5'	2.11	0.50
4:AD:126:ILE:CG2	4:AD:127:THR:N	2.75	0.50
8:AH:38:ILE:N	8:AH:38:ILE:HD12	2.27	0.50
21:B0:2272:A:H2'	21:B0:2273:C:C6	2.46	0.50
1:AA:659:U:O2'	1:AA:660:G:H5'	2.11	0.50
1:AA:760:G:H1	17:AQ:105:ALA:HA	1.76	0.50
3:AC:171:GLY:O	3:AC:173:VAL:HG23	2.11	0.50
1:AA:403:C:C2	1:AA:404:U:C6	2.98	0.50
1:AA:367:U:OP1	1:AA:394:G:N2	2.44	0.50
1:AA:31:G:N1	1:AA:48:C:H5''	2.26	0.50
4:AD:61:LYS:HZ1	4:AD:62:GLN:NE2	2.09	0.50
1:AA:1251:A:H4'	9:AI:12:GLU:CD	2.31	0.50
1:AA:227:G:C5	1:AA:228:A:C5	2.99	0.50
21:B0:2235:G:H2'	21:B0:2236:U:C6	2.46	0.50
10:AJ:39:PRO:O	10:AJ:40:LEU:CB	2.57	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
3:AC:139:GLN:CA	3:AC:139:GLN:HE21	2.23	0.50
21:B0:95:G:H2'	21:B0:96:C:C6	2.46	0.50
1:AA:1262:C:H42	1:AA:1273:G:H1	1.59	0.50
21:B0:429:C:H2'	21:B0:430:C:O4'	2.11	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:994:A:O2'	14:AN:8:GLU:HB2	2.08	0.50
1:AA:476:U:O3'	1:AA:477:G:P	2.67	0.50
1:AA:394:G:N1	1:AA:395:C:N3	2.60	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
22:B9:113:G:H2'	22:B9:114:C:C6	2.47	0.50
1:AA:958:A:C6	19:AS:55:LYS:CB	2.94	0.50
2:AB:221:LEU:O	2:AB:221:LEU:HD13	2.11	0.50
1:AA:1447:A:N7	1:AA:1456:A:H2	2.09	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:824:C:H2'	1:AA:825:G:H8	1.76	0.50
6:AF:26:ILE:HG21	6:AF:63:TYR:CE2	2.40	0.50
5:AE:15:ARG:O	5:AE:16:THR:O	2.28	0.50
11:AK:51:LYS:O	11:AK:55:LYS:HE3	2.11	0.50
7:AG:18:TYR:HD2	7:AG:59:LEU:HD22	1.76	0.50
21:B0:775:U:O2	21:B0:1445:A:H5''	2.11	0.50
1:AA:130:A:P	17:AQ:63:ARG:NH2	2.81	0.50
5:AE:121:LYS:HE3	5:AE:123:LEU:HD21	1.93	0.50
1:AA:215:C:O2'	1:AA:216:C:H5'	2.12	0.50
1:AA:244:U:C4	1:AA:894:G:C4	2.99	0.50
1:AA:1370:G:H3'	9:AI:109:VAL:HG21	1.93	0.50
1:AA:1048:G:H1'	1:AA:1215:G:H4'	1.92	0.50
1:AA:397:A:N6	1:AA:547:A:C2	2.79	0.50
1:AA:1092:A:H5''	7:AG:4:ARG:NH1	2.25	0.50
1:AA:1306:A:H2'	1:AA:1307:U:O4'	2.12	0.50
22:B9:107:C:O3'	22:B9:108:G:OP1	2.29	0.50
1:AA:976:G:OP2	1:AA:1358:U:H1'	2.12	0.50
13:AM:40:ASN:ND2	13:AM:41:PRO:CD	2.63	0.50
2:AB:132:LYS:O	2:AB:136:VAL:HG23	2.11	0.50
21:B0:127:C:H2'	21:B0:128:C:C6	2.47	0.50
2:AB:88:ALA:O	2:AB:90:MET:N	2.45	0.50
4:AD:61:LYS:HZ2	4:AD:62:GLN:HE21	1.59	0.50
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.47	0.50
5:AE:104:ALA:O	5:AE:105:VAL:C	2.49	0.50
1:AA:227:G:N2	1:AA:228:A:H1'	2.27	0.50
4:AD:8:VAL:HG11	4:AD:21:LEU:HB3	1.94	0.50
3:AC:61:ALA:O	3:AC:63:ASN:N	2.44	0.50
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.47	0.50
21:B0:868:U:H2'	21:B0:869:C:C6	2.46	0.50
21:B0:1865:C:H2'	21:B0:1866:G:O4'	2.12	0.50
21:B0:1727:C:H4'	21:B0:2833:C:O2	2.12	0.50
21:B0:1272:G:H2'	21:B0:1273:G:C8	2.46	0.50
1:AA:279:A:H5''	1:AA:280:C:H3'	1.94	0.50
1:AA:7:G:H5'	1:AA:298:A:C4'	2.41	0.50
21:B0:1111:C:C4	21:B0:1112:U:C5	3.00	0.50
1:AA:538:G:OP1	12:AL:115:LYS:CB	2.59	0.50
1:AA:216:C:C1'	1:AA:468:A:HO2'	2.02	0.50
1:AA:205:G:N2	1:AA:207:C:N4	2.60	0.50
12:AL:28:LYS:CD	12:AL:33:ARG:HH12	2.24	0.50
1:AA:1102:A:H2'	1:AA:1103:C:C6	2.46	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
21:B0:68:C:H2'	21:B0:69:G:H8	1.76	0.50
21:B0:897:A:O3'	21:B0:898:C:P	2.70	0.50
1:AA:1194:U:O2'	1:AA:1195:C:H5'	2.12	0.50
1:AA:1021:G:H2'	1:AA:1022:G:O4'	2.11	0.50
21:B0:612:G:O3'	21:B0:613:A:H4'	2.11	0.50
13:AM:102:ARG:HB2	13:AM:102:ARG:HH11	1.75	0.50
21:B0:1886:G:H2'	21:B0:1887:G:C8	2.46	0.50
21:B0:791:G:H2'	21:B0:792:U:C6	2.47	0.50
21:B0:168:A:H2'	21:B0:169:C:C6	2.47	0.50
1:AA:1503:A:P	1:AA:1531:A:O4'	2.69	0.50
17:AQ:104:LYS:HG2	21:B0:726:G:N3	2.24	0.50
1:AA:1409:C:N1	1:AA:1410:G:C8	2.80	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
3:AC:58:GLU:O	3:AC:59:ARG:HG2	2.11	0.50
1:AA:222:U:H2'	1:AA:223:U:C6	2.47	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: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
1:AA:227:G:C2'	1:AA:228:A:C5'	2.89	0.50
11:AK:48:ILE:HD13	11:AK:63:LEU:HB3	1.93	0.50
1:AA:1440:C:C2'	1:AA:1441:G:H5'	2.41	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
9:AI:17:VAL:CG2	9:AI:80:GLY:HA3	2.41	0.50
19:AS:45:VAL:HG12	19:AS:46:GLY:N	2.26	0.50
1:AA:971:G:N1	1:AA:1363:A:OP2	2.42	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
21:B0:891:A:C2	21:B0:893:G:C5	3.00	0.50
1:AA:185:A:H2'	1:AA:186:C:C5	2.47	0.50
1:AA:1223:C:OP1	1:AA:1225:A:H8	1.95	0.50
1:AA:491:G:H2'	1:AA:492:G:H8	1.77	0.50
10:AJ:50:ILE:HB	14:AN:41:ARG:CD	2.42	0.50
1:AA:546:G:H5'	1:AA:549:C:OP1	2.11	0.50
21:B0:1571:G:H2'	21:B0:1572:C:C6	2.46	0.50
12:AL:46:LYS:HG2	12:AL:47:LYS:HG3	1.93	0.50
2:AB:97:TRP:CH2	2:AB:176:GLU:CD	2.85	0.50
21:B0:847:C:N4	21:B0:955:G:H21	2.03	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:346:G:H2'	1:AA:347:G:H5'	1.94	0.50
1:AA:1539:C:OP1	7:AG:82:GLY:HA2	2.12	0.50
21:B0:1052:C:H2'	21:B0:1053:G:C8	2.46	0.50
1:AA:1337:G:H5''	1:AA:1338:G:OP1	2.12	0.50
21:B0:2383:C:H2'	21:B0:2384:G:O4'	2.11	0.50
21:B0:899:G:O2'	21:B0:900:U:H5'	2.12	0.50
21:B0:3877:A:C4'	21:B0:1861:G:O4'	2.55	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:1283:G:O2'	1:AA:1284:C:H5'	2.11	0.50
9:AI:9:ARG:HG2	9:AI:14:VAL:HG22	1.92	0.50
1:AA:625:G:H2'	1:AA:626:U:C6	2.47	0.50
14:AN:29:ARG:O	14:AN:33:VAL:HG13	2.11	0.50
21:B0:1747:G:H1'	21:B0:1749:G:N3	2.26	0.50
1:AA:523:A:N6	12:AL:90:VAL:CG1	2.75	0.50
1:AA:129:U:P	17:AQ:3:LYS:HZ1	2.32	0.50
21:B0:165:G:H2'	21:B0:166:G:O4'	2.12	0.50
21:B0:2426:G:O6	21:B0:2479:U:H2'	2.11	0.50
7:AG:85:TYR:HD1	7:AG:154:TYR:CE1	2.27	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
17:AQ:78:GLU:O	17:AQ:78:GLU:HG3	2.12	0.50
21:B0:2357:A:H2'	21:B0:2358:C:O4'	2.12	0.50
4:AD:78:LEU:HD22	4:AD:96:LEU:HB3	1.94	0.50
21:B0:638:A:O2'	21:B0:639:G:H5'	2.12	0.50
11:AK:79:SER:OG	11:AK:106:LYS:HG2	2.12	0.50
21:B0:2301:A:H2'	21:B0:2302:G:O4'	2.11	0.50
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:218:C:H2'	1:AA:219:C:H6	1.76	0.49
1:AA:478:A:O2'	1:AA:479:C:H5'	2.11	0.49
1:AA:393:A:C2	1:AA:394:G:C8	3.00	0.49
13:AM:5:ALA:O	13:AM:6:GLY:C	2.51	0.49
16:AP:51:VAL:O	16:AP:51:VAL:CG1	2.60	0.49
21:B0:2324:G:C4'	21:B0:2326:C:H5''	2.42	0.49
14:AN:21:TYR:HE2	14:AN:23:ARG:NE	2.09	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
15:AO:4:THR:HB	15:AO:6:GLU:HG2	1.93	0.49
4:AD:81:GLU:O	4:AD:85:LYS:HG3	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1323:G:H2'	21:B0:1324:G:H4'	1.94	0.49
21:B0:2658:A:H2'	21:B0:2659:C:C6	2.47	0.49
2:AB:168:THR:OG1	2:AB:192:SER:HB3	2.12	0.49
21:B0:1386:A:H2'	21:B0:1387:G:O4'	2.12	0.49
21:B0:2310:G:H2'	21:B0:2311:U:O4'	2.12	0.49
21:B0:1391:A:H2'	21:B0:1392:U:C6	2.47	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:184:G:H2'	1:AA:185:A:H8	1.77	0.49
1:AA:1111:A:N1	3:AC:177:THR:CA	2.73	0.49
1:AA:951:G:H1'	1:AA:970:C:O2'	2.12	0.49
1:AA:220:G:O2'	1:AA:221:C:H5'	2.12	0.49
1:AA:1329:A:H3'	13:AM:26:GLY:HA3	1.94	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
9:AI:36:TYR:HD2	9:AI:37:PHE:CE2	2.30	0.49
21:B0:2858:A:H3'	21:B0:2859:U:C5'	2.42	0.49
21:B0:2435:C:H2'	21:B0:2436:U:C6	2.47	0.49
21:B0:1286:U:H5''	21:B0:1663:C:N4	2.27	0.49
1:AA:443:C:H2'	1:AA:444:C:C6	2.43	0.49
21:B0:1949:A:H1'	21:B0:2572:U:C4'	2.42	0.49
3:AC:47:LEU:N	3:AC:47:LEU:HD12	2.26	0.49
21:B0:1683:G:C2'	21:B0:1684:G:H5'	2.43	0.49
7:AG:108:ALA:O	7:AG:119:ARG:HB3	2.12	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
11:AK:23:ALA:CB	11:AK:91:ARG:HB2	2.42	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
11:AK:82:VAL:HG23	11:AK:105:VAL:HG13	1.93	0.49
21:B0:2313:G:H2'	21:B0:2314:A:H5'	1.94	0.49
1:AA:1322:C:H5''	13:AM:100:GLY:HA3	1.95	0.49
1:AA:218:C:H2'	1:AA:219:C:C6	2.47	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:143:A:H5'	1:AA:196:A:C6	2.45	0.49
1:AA:1296:C:H4'	1:AA:1302:U:O4	2.03	0.49
1:AA:619:U:H2'	4:AD:135:LEU:HD11	1.90	0.49
21:B0:1180:A:H2'	21:B0:1181:C:C6	2.47	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:B0:1223:G:O2'	21:B0:1224:A:OP2	2.26	0.49
21:B0:652:C:H42	21:B0:657:A:N6	2.10	0.49
21:B0:568:G:H5''	21:B0:1019:U:H5'	1.93	0.49
21:B0:2536:G:H2'	21:B0:2537:C:C6	2.47	0.49
1:AA:1172:C:O2'	1:AA:1173:G:H5'	2.11	0.49
21:B0:189:A:H2'	21:B0:190:A:C8	2.47	0.49
21:B0:1715:A:H1'	21:B0:1717:A:C1'	2.42	0.49
21:B0:3110:G:OP2	21:B0:3149:G:C5'	2.56	0.49
17:AQ:97:SER:HB2	17:AQ:103:GLY:N	2.26	0.49
17:AQ:104:LYS:HA	21:B0:726:G:N2	2.28	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:959:A:H4'	1:AA:985:C:C4'	2.42	0.49
13:AM:84:ILE:CD1	19:AS:66:MET:HB3	2.42	0.49
1:AA:968:A:C8	1:AA:1062:U:H4'	2.47	0.49
1:AA:766:A:H2	1:AA:1525:G:HO2'	1.54	0.49
1:AA:1102:A:H2'	1:AA:1103:C:H6	1.77	0.49
6:AF:9:VAL:HG22	6:AF:60:PHE:CE2	2.47	0.49
21:B0:2805:G:O2'	21:B0:2806:G:H5'	2.12	0.49
3:AC:112:SER:O	3:AC:116:VAL:HG23	2.11	0.49
1:AA:160:A:H61	1:AA:347:G:H21	1.60	0.49
10:AJ:38:ILE:HG13	10:AJ:71:LEU:CB	2.42	0.49
15:AO:36:ILE:HA	15:AO:59:MET:CE	2.42	0.49
1:AA:173:U:O4'	1:AA:197:A:C4	2.66	0.49
10:AJ:16:LEU:HD23	10:AJ:94:VAL:HG22	1.95	0.49
21:B0:1923:U:H4'	21:B0:1948:C:N4	2.27	0.49
1:AA:722:A:H4'	1:AA:723:U:C5	2.48	0.49
21:B0:2321:C:H2'	21:B0:2322:U:O4'	2.12	0.49
21:B0:1993:G:H2'	21:B0:1994:U:C6	2.47	0.49
21:B0:601:A:H3'	21:B0:602:C:C5'	2.42	0.49
1:AA:149:A:O2'	1:AA:150:C:H5'	2.11	0.49
21:B0:960:U:H2'	21:B0:961:G:C8	2.48	0.49
21:B0:2312:A:H4'	21:B0:2313:G:N7	2.26	0.49
21:B0:1268:U:H5''	21:B0:1269:G:H5''	1.95	0.49
1:AA:1413:A:O2'	1:AA:1414:U:H5'	2.12	0.49
1:AA:1505:G:H4'	1:AA:1506:U:O5'	2.13	0.49
1:AA:1183:A:O2'	1:AA:1184:G:OP2	2.28	0.49
14:AN:15:LYS:HB3	14:AN:16:PHE:CD1	2.47	0.49
5:AE:79:GLU:CD	8:AH:105:ARG:NE	2.65	0.49
13:AM:84:ILE:CG2	19:AS:66:MET:HE2	2.42	0.49
1:AA:245:C:O2	1:AA:283:C:N3	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1369:C:P	9:AI:111:ARG:HG2	2.52	0.49
4:AD:36:ARG:N	4:AD:37:PRO:CD	2.66	0.49
1:AA:1085:U:O3'	1:AA:1086:U:H6	1.95	0.49
21:B0:1199:U:H2'	21:B0:1200:G:C8	2.46	0.49
1:AA:958:A:C5	19:AS:55:LYS:HB2	2.47	0.49
1:AA:1136:U:H5''	1:AA:1137:C:OP2	2.12	0.49
1:AA:1238:A:N7	1:AA:1303:C:H1'	2.28	0.49
21:B0:2492:G:H2'	21:B0:2493:U:O4'	2.12	0.49
1:AA:18:C:O2	1:AA:917:G:N1	2.41	0.49
4:AD:7:PRO:HB2	4:AD:10:ARG:HD2	1.93	0.49
2:AB:230:VAL:HG13	2:AB:231:GLU:OE2	2.13	0.49
21:B0:1218:C:H2'	21:B0:1219:C:C6	2.47	0.49
7:AG:69:VAL:HG12	7:AG:69:VAL:O	2.11	0.49
1:AA:149:A:H2'	1:AA:150:C:C6	2.47	0.49
2:AB:53:ARG:HH11	2:AB:53:ARG:HG2	1.76	0.49
21:B0:628:A:H2'	21:B0:629:C:C6	2.48	0.49
1:AA:430:A:C2'	1:AA:431:A:H5'	2.42	0.49
21:B0:2717:G:H2'	21:B0:2718:A:C8	2.48	0.49
21:B0:2249:U:H2'	21:B0:2250:G:O4'	2.13	0.49
21:B0:703:A:H2'	21:B0:704:G:H8	1.77	0.49
1:AA:746:A:O2'	1:AA:747:C:H5'	2.11	0.49
21:B0:2397:A:H2'	21:B0:2398:U:O4'	2.12	0.49
21:B0:1007:A:H2'	21:B0:1008:G:C8	2.47	0.49
17:AQ:104:LYS:N	21:B0:726:G:N3	2.37	0.49
1:AA:375:U:N3	1:AA:376:G:N7	2.59	0.49
20:AT:101:GLY:O	20:AT:102:GLY:O	2.30	0.49
1:AA:323:U:H5''	20:AT:23:ARG:HA	1.73	0.49
1:AA:559:A:OP1	5:AE:126:ARG:CZ	2.61	0.49
1:AA:1230:C:O2'	1:AA:1231:G:H5'	2.13	0.49
1:AA:933:G:N1	1:AA:935:A:N9	2.61	0.49
1:AA:1365:G:O2'	1:AA:1366:C:H5'	2.12	0.49
1:AA:834:C:H2'	1:AA:835:U:C6	2.48	0.49
1:AA:31:G:H2'	1:AA:48:C:N4	2.28	0.49
1:AA:36:C:O2	1:AA:501:C:H4'	2.12	0.49
1:AA:564:C:C2	17:AQ:31:LEU:HD11	2.47	0.49
6:AF:100:ASN:O	18:AR:28:GLU:HG3	2.13	0.49
1:AA:577:G:O4'	1:AA:816:A:C5	2.66	0.49
2:AB:44:LEU:HA	2:AB:47:THR:OG1	2.12	0.49
17:AQ:45:HIS:NE2	17:AQ:47:PRO:HG3	2.27	0.49
21:B0:2274:C:C2'	21:B0:2275:U:H5'	2.40	0.49
21:B0:1164:C:H2'	21:B0:1165:G:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1949:A:O2'	21:B0:2572:U:H5'	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
1:AA:1051:C:O2'	1:AA:1052:U:H5'	2.13	0.49
18:AR:41:LYS:HG2	18:AR:41:LYS:O	2.13	0.49
5:AE:84:PHE:CE2	5:AE:133:TYR:HD1	2.31	0.49
21:B0:1998:A:H2'	21:B0:1999:U:H5'	1.94	0.49
1:AA:136:C:H2'	1:AA:137:C:H6	1.77	0.49
1:AA:1458:G:C1'	1:AA:1459:C:H2'	2.41	0.49
1:AA:582:U:O4'	17:AQ:105:ALA:CA	2.61	0.49
5:AE:92:LYS:HB3	5:AE:119:LEU:HB2	1.94	0.49
1:AA:185:A:O2'	1:AA:186:C:O5'	2.24	0.49
1:AA:960:U:O2'	1:AA:1223:C:H5'	2.12	0.49
1:AA:489:C:H2'	1:AA:490:G:H8	1.77	0.49
1:AA:847:C:O2'	1:AA:848:G:H5'	2.12	0.49
15:AO:25:THR:HG21	15:AO:70:LEU:HD23	1.94	0.49
21:B0:879:A:H2'	21:B0:880:C:H5'	1.94	0.49
5:AE:11:ILE:HB	5:AE:31:LEU:HB3	1.93	0.49
2:AB:12:GLU:HG2	2:AB:213:LEU:HD11	1.95	0.49
5:AE:61:TYR:O	5:AE:64:ARG:O	2.29	0.49
3:AC:116:VAL:O	3:AC:119:ARG:HB3	2.13	0.49
21:B0:2821:G:H2'	21:B0:2822:U:C6	2.48	0.49
21:B0:2260:C:H4'	21:B0:2368:G:H21	1.77	0.49
21:B0:599:A:H2'	21:B0:600:G:C8	2.48	0.49
4:AD:127:THR:CG2	4:AD:128:VAL:N	2.75	0.49
21:B0:483:A:H2'	21:B0:484:G:H5'	1.93	0.49
17:AQ:10:VAL:O	17:AQ:53:LEU:HD12	2.12	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
21:B0:427:C:H2'	21:B0:428:A:C8	2.47	0.49
2:AB:30:ARG:HG3	2:AB:31:TYR:CD2	2.48	0.49
21:B0:2852:G:H2'	21:B0:2853:U:O4'	2.12	0.49
21:B0:1829:C:H2'	21:B0:1830:C:H5'	1.95	0.49
1:AA:1277:C:HO2'	1:AA:1279:A:N9	1.48	0.49
1:AA:5:U:C4	5:AE:95:ALA:HB3	2.34	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
19:AS:5:LEU:HD11	19:AS:70:LYS:NZ	2.28	0.49
1:AA:1112:C:C2	3:AC:178:LEU:HB3	2.46	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:97:TRP:CH2	2:AB:173:ALA:HA	2.48	0.49
21:B0:807:A:H2'	21:B0:808:C:C6	2.48	0.49
21:B0:1223:G:H1'	21:B0:1225:G:C4	2.48	0.49
15:AO:30:ALA:HA	15:AO:85:LEU:HD21	1.94	0.49
1:AA:1121:U:H2'	1:AA:1122:U:C6	2.48	0.49
12:AL:34:ARG:O	12:AL:34:ARG:HG3	2.13	0.49
21:B0:1982:C:H2'	21:B0:1983:G:H8	1.78	0.49
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	2.48	0.49
21:B0:1856:U:C5'	21:B0:3865:A:P	2.96	0.49
1:AA:253:U:P	17:AQ:67:LYS:HZ3	2.36	0.49
17:AQ:68:ARG:O	17:AQ:69:LYS:HB2	2.13	0.49
1:AA:235:C:H5''	17:AQ:70:ARG:HD3	1.95	0.49
21:B0:3110:G:P	21:B0:3149:G:C5'	3.00	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
20:AT:89:ARG:HE	20:AT:104:LEU:HD22	1.78	0.49
13:AM:82:MET:CE	21:B0:900(A):A:OP1	2.58	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:1328:C:C5'	13:AM:28:ALA:CB	2.85	0.49
11:AK:58:PRO:HB2	11:AK:93:GLN:HG3	1.95	0.49
1:AA:521:G:O2'	1:AA:522:C:H5'	2.12	0.49
17:AQ:27:PHE:HB2	17:AQ:28:PRO:HD2	1.94	0.49
21:B0:653:G:N2	21:B0:655:A:H1'	2.27	0.49
2:AB:35:GLU:HA	2:AB:39:ILE:O	2.13	0.49
16:AP:20:VAL:CG1	16:AP:32:TYR:HB3	2.40	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
21:B0:1970:G:H2'	21:B0:1971:C:C6	2.48	0.49
9:AI:23:ASN:C	9:AI:23:ASN:ND2	2.66	0.49
21:B0:1489:C:H3'	21:B0:1490:U:H5'	1.95	0.49
19:AS:81:ARG:O	19:AS:81:ARG:HG2	2.11	0.49
21:B0:1895:A:H2'	21:B0:1896:A:O4'	2.13	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
21:B0:114:C:O2'	21:B0:124:A:H1'	2.12	0.49
1:AA:926:G:C2	1:AA:1505:G:N9	2.80	0.49
1:AA:403:C:H4'	4:AD:122:ARG:CZ	2.42	0.49
1:AA:1342:C:C5'	9:AI:125:TYR:CE1	2.96	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.48	0.49
1:AA:1329:A:O3'	13:AM:25:ILE:CA	2.49	0.49
1:AA:59:A:C2	1:AA:331:G:C2	3.01	0.49
8:AH:113:SER:HB2	8:AH:134:ILE:CD1	2.29	0.49
21:B0:930:A:H4'	21:B0:930:A:OP1	2.11	0.49
3:AC:138:VAL:O	3:AC:142:MET:HB2	2.13	0.49
2:AB:144:ARG:HG3	2:AB:145:LEU:H	1.77	0.49
12:AL:45:PRO:HB2	12:AL:49:ASN:O	2.13	0.49
20:AT:29:LYS:O	20:AT:33:ILE:HG13	2.13	0.49
2:AB:188:ALA:O	2:AB:202:PRO:HA	2.13	0.49
21:B0:2380:U:C2'	21:B0:2381:A:H5'	2.42	0.49
4:AD:3:ARG:NH2	4:AD:74:GLN:OE1	2.43	0.49
21:B0:1380:C:C2'	21:B0:1381:G:H5'	2.41	0.49
17:AQ:56:VAL:HG12	17:AQ:77:VAL:HB	1.95	0.49
12:AL:53:ARG:HB3	12:AL:93:LEU:HD11	1.95	0.49
21:B0:2392:G:H2'	21:B0:2393:G:H8	1.77	0.49
21:B0:216:U:H2'	21:B0:217:U:O4'	2.12	0.49
1:AA:659:U:H2'	1:AA:660:G:O4'	2.13	0.49
21:B0:1617:G:H2'	21:B0:1618:U:H5'	1.95	0.49
4:AD:105:VAL:HG13	4:AD:110:PHE:HB2	1.95	0.49
21:B0:3869:G:H2'	21:B0:3871:A:OP2	2.13	0.48
1:AA:1396:A:H4'	1:AA:1397:C:H5'	1.93	0.48
1:AA:1261:A:H5'	1:AA:1283:G:O3'	2.07	0.48
1:AA:323:U:P	20:AT:23:ARG:CA	2.84	0.48
4:AD:57:ARG:NH2	4:AD:205:GLU:OE2	2.46	0.48
1:AA:977:A:N1	1:AA:1224:G:C4	2.81	0.48
1:AA:893:C:H2'	1:AA:894:G:O4'	2.12	0.48
9:AI:117:HIS:HB2	9:AI:121:ARG:HD2	1.94	0.48
1:AA:1329:A:H4'	13:AM:24:GLY:O	2.13	0.48
1:AA:1329:A:C2'	1:AA:1330:U:H5'	2.43	0.48
1:AA:1310:G:O2'	1:AA:1311:G:H5'	2.12	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
21:B0:2809:A:C2'	21:B0:2810:A:H5'	2.43	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
10:AJ:71:LEU:O	10:AJ:72:VAL:CB	2.60	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
21:B0:338:G:H1	21:B0:346:C:H42	1.60	0.48
1:AA:1030:U:H5'	1:AA:1031:C:C5	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:265:G:O2'	1:AA:266:G:H5'	2.13	0.48
1:AA:315:A:C2	1:AA:354:G:OP2	2.62	0.48
1:AA:291:C:O3'	1:AA:292:G:P	2.71	0.48
1:AA:141:A:H5'	1:AA:182:U:H1'	1.95	0.48
21:B0:3184:C:C2'	21:B0:3185:U:C5'	2.91	0.48
1:AA:1346:A:H1'	1:AA:1348:U:C5	2.47	0.48
13:AM:88:ARG:CD	19:AS:3:ARG:NH2	2.61	0.48
1:AA:1418:A:H2'	1:AA:1419:G:O4'	2.12	0.48
1:AA:212:G:O2'	1:AA:213:G:O5'	2.30	0.48
22:B9:112:A:H2'	22:B9:113:G:C8	2.49	0.48
1:AA:619:U:C6	4:AD:135:LEU:HD11	2.47	0.48
16:AP:52:ASP:OD2	16:AP:55:ARG:HB2	2.13	0.48
2:AB:97:TRP:CZ2	2:AB:102:LEU:HD13	2.45	0.48
21:B0:1964:A:H5''	21:B0:1965:U:OP2	2.13	0.48
21:B0:58:C:H1'	21:B0:72:A:C8	2.48	0.48
18:AR:39:VAL:HG13	18:AR:40:LEU:N	2.28	0.48
4:AD:7:PRO:CG	4:AD:10:ARG:HD2	2.42	0.48
21:B0:1949:A:H1'	21:B0:2572:U:H4'	1.95	0.48
8:AH:60:ARG:HG3	8:AH:60:ARG:NH1	2.28	0.48
6:AF:43:LEU:N	6:AF:43:LEU:HD22	2.27	0.48
1:AA:784:C:H4'	21:B0:1829:C:OP1	2.13	0.48
18:AR:34:TYR:HA	18:AR:69:THR:HG23	1.93	0.48
21:B0:737:C:H2'	21:B0:738:G:O4'	2.14	0.48
1:AA:1279:A:O2'	1:AA:1282:C:N4	2.46	0.48
1:AA:702:A:O4'	21:B0:1840:A:OP1	2.29	0.48
12:AL:119:LYS:O	12:AL:120:TYR:CB	2.61	0.48
1:AA:402:G:C2'	1:AA:620:C:H42	2.26	0.48
1:AA:1497:G:H2'	1:AA:1498:U:C5'	2.42	0.48
13:AM:78:ILE:O	13:AM:82:MET:HB2	2.12	0.48
12:AL:28:LYS:O	12:AL:29:GLY:C	2.50	0.48
21:B0:126:C:H2'	21:B0:127:C:C6	2.48	0.48
5:AE:51:VAL:O	5:AE:54:ALA:HB3	2.13	0.48
21:B0:1312:G:C5'	21:B0:1313:U:H5'	2.39	0.48
6:AF:38:GLU:O	6:AF:39:LYS:HB3	2.12	0.48
1:AA:161:A:H2	1:AA:348:G:HO2'	1.55	0.48
10:AJ:32:ALA:HB2	10:AJ:76:ASN:HB2	1.94	0.48
21:B0:2754:C:H2'	21:B0:2755:A:O4'	2.14	0.48
21:B0:1190:C:H2'	21:B0:1191:G:C8	2.48	0.48
21:B0:742:G:H2'	21:B0:742:G:N3	2.29	0.48
21:B0:1356:G:H5'	21:B0:1614:C:OP2	2.12	0.48
1:AA:269:C:H2'	1:AA:270:A:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1451:A:O2'	1:AA:1452:C:OP1	2.26	0.48
17:AQ:12:SER:HB3	17:AQ:20:THR:HB	1.95	0.48
12:AL:83:VAL:HG21	12:AL:100:ILE:HD13	1.95	0.48
1:AA:113:G:C2	1:AA:353:A:H1'	2.47	0.48
1:AA:390:C:C3'	16:AP:28:ARG:NH2	2.76	0.48
1:AA:1485:U:H5'	21:B0:1943:A:O3'	2.13	0.48
21:B0:1099:A:H3'	21:B0:1100:G:H5'	1.94	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
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
10:AJ:45:ARG:CZ	14:AN:36:PHE:HD2	2.12	0.48
21:B0:3102:G:H2'	21:B0:3103:A:C8	2.48	0.48
21:B0:1930:C:H2'	21:B0:1931:G:H8	1.78	0.48
1:AA:35:G:O2'	12:AL:118:SER:O	2.21	0.48
1:AA:528:C:H5'	1:AA:535:A:C6	2.49	0.48
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.96	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
12:AL:53:ARG:HG2	12:AL:93:LEU:HD11	1.95	0.48
2:AB:111:ARG:HB3	2:AB:149:LEU:HD11	1.95	0.48
12:AL:83:VAL:HG22	12:AL:84:LEU:N	2.28	0.48
4:AD:119:GLN:HG2	4:AD:123:HIS:CD2	2.48	0.48
21:B0:1343:C:H2'	21:B0:1344:C:C6	2.48	0.48
21:B0:422:C:H2'	21:B0:423:G:H8	1.78	0.48
1:AA:209:U:H5'	1:AA:210:C:C5	2.48	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:1342:C:O2'	1:AA:1343:G:H5'	2.13	0.48
1:AA:456:A:C2	1:AA:477:G:H1'	2.48	0.48
1:AA:1366:C:C2	1:AA:1367:C:C5	3.00	0.48
9:AI:111:ARG:HG3	9:AI:111:ARG:NH1	2.28	0.48
1:AA:421:U:H5'	1:AA:422:C:C5	2.49	0.48
1:AA:588:G:N9	1:AA:753:A:N1	2.61	0.48
21:B0:31:C:H2'	21:B0:32:C:O4'	2.14	0.48
21:B0:929:A:H2'	21:B0:930:A:H4'	1.95	0.48
19:AS:32:LYS:O	19:AS:32:LYS:HG3	2.13	0.48
3:AC:23:TYR:O	3:AC:24:ALA:HB2	2.14	0.48
21:B0:2808:U:H3'	21:B0:2809:A:C5'	2.40	0.48
6:AF:67:MET:CE	6:AF:72:VAL:HA	2.40	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:2642:G:H2'	21:B0:2643:G:O4'	2.13	0.48
18:AR:36:ASN:CG	18:AR:39:VAL:HG12	2.34	0.48
21:B0:2504:G:H2'	21:B0:2505:G:C8	2.49	0.48
4:AD:151:LYS:CD	4:AD:151:LYS:N	2.75	0.48
21:B0:2437:G:N2	21:B0:2469:G:H2'	2.28	0.48
10:AJ:94:VAL:CG1	10:AJ:95:GLU:N	2.77	0.48
5:AE:36:ASP:O	5:AE:37:ARG:HB2	2.13	0.48
21:B0:1301:U:H2'	21:B0:1664:G:H21	1.79	0.48
15:AO:34:LEU:O	15:AO:34:LEU:HD23	2.12	0.48
8:AH:65:TYR:HA	8:AH:79:VAL:HG23	1.95	0.48
6:AF:43:LEU:H	6:AF:43:LEU:HD22	1.76	0.48
21:B0:703:A:H2'	21:B0:704:G:C8	2.49	0.48
7:AG:6:ARG:O	7:AG:7:ALA:C	2.52	0.48
1:AA:647:C:H2'	1:AA:648:A:H8	1.78	0.48
1:AA:130:A:C6	1:AA:264:U:C1'	2.84	0.48
20:AT:67:ALA:O	20:AT:73:HIS:ND1	2.47	0.48
1:AA:279:A:P	17:AQ:95:TYR:HE2	2.35	0.48
1:AA:94:G:H2'	1:AA:96:C:H6	1.79	0.48
1:AA:322:C:C2'	20:AT:23:ARG:HB2	2.42	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
21:B0:891:A:N1	21:B0:893:G:C5	2.81	0.48
1:AA:1108:G:OP1	3:AC:175:LEU:HB2	2.14	0.48
1:AA:1271:G:H5'	1:AA:1314:C:H5''	1.96	0.48
1:AA:571:U:C5'	1:AA:819:A:N3	2.75	0.48
10:AJ:62:HIS:ND1	14:AN:61:TRP:CH2	2.82	0.48
3:AC:178:LEU:O	3:AC:179:ARG:CB	2.60	0.48
20:AT:38:LYS:O	20:AT:39:LYS:C	2.51	0.48
3:AC:130:VAL:CG2	3:AC:157:ILE:HG23	2.41	0.48
1:AA:1070:U:O2'	1:AA:1071:C:H5'	2.13	0.48
2:AB:115:LEU:HD12	2:AB:115:LEU:O	2.13	0.48
16:AP:20:VAL:CG1	16:AP:21:VAL:N	2.76	0.48
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.12	0.48
21:B0:2017:U:O2'	21:B0:2018:G:H5'	2.13	0.48
21:B0:634:G:H2'	21:B0:635:C:C6	2.49	0.48
21:B0:340:G:H1'	21:B0:488:A:C4	2.49	0.48
21:B0:490:A:C5	21:B0:492:G:H1'	2.48	0.48
21:B0:477:A:H2'	21:B0:478:G:H5'	1.95	0.48
5:AE:13:ILE:HG13	5:AE:13:ILE:O	2.12	0.48
11:AK:86:GLY:H	11:AK:112:THR:HG23	1.79	0.48
1:AA:1165:C:O2'	1:AA:1166:G:H5'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:64:GLN:O	7:AG:67:GLU:HB3	2.14	0.48
1:AA:1501:C:OP1	1:AA:1508:G:H4'	2.13	0.48
4:AD:88:VAL:CA	5:AE:96:PRO:O	2.54	0.48
17:AQ:104:LYS:NZ	21:B0:729:A:N6	2.61	0.48
1:AA:6:G:H22	5:AE:98:THR:HG23	1.74	0.48
1:AA:41:G:H2'	1:AA:42:G:C8	2.49	0.48
1:AA:1312:G:N7	19:AS:4:SER:HB3	2.29	0.48
1:AA:1533:C:O2'	1:AA:1534:A:H5'	2.14	0.48
7:AG:149:ARG:CZ	11:AK:59:TYR:CZ	2.97	0.48
1:AA:792:A:H4'	1:AA:793:U:C5'	2.39	0.48
1:AA:407:G:H5''	4:AD:115:ARG:HB3	1.96	0.48
21:B0:2308:A:H2'	21:B0:2309:G:C8	2.48	0.48
1:AA:983:A:C2	1:AA:984:C:C5	3.01	0.48
21:B0:1418:C:H2'	21:B0:1419:G:H8	1.79	0.48
21:B0:1231:A:H2'	21:B0:1232:U:O4'	2.13	0.48
21:B0:1023:U:H1'	21:B0:1154:A:N7	2.28	0.48
5:AE:20:GLN:C	5:AE:21:ALA:O	2.51	0.48
1:AA:6:G:H2'	5:AE:119:LEU:CD2	2.44	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:1110:A:C2'	1:AA:1111:A:C5'	2.92	0.48
3:AC:173:VAL:N	3:AC:174:PRO:CD	2.76	0.48
10:AJ:65:LEU:CD2	10:AJ:65:LEU:O	2.59	0.48
1:AA:38:G:C4'	1:AA:547:A:N6	2.77	0.48
1:AA:588:G:C5	1:AA:753:A:C4	3.02	0.48
1:AA:995:C:O2	14:AN:4:LYS:CG	2.62	0.48
1:AA:15:G:O4'	5:AE:24:ARG:NH1	2.44	0.48
1:AA:825:G:H2'	1:AA:826:C:H6	1.78	0.48
21:B0:951:G:C3'	21:B0:952:A:H5''	2.43	0.48
6:AF:67:MET:HE2	6:AF:72:VAL:HG22	1.96	0.48
21:B0:1130:U:H2'	21:B0:1131:G:C8	2.48	0.48
18:AR:36:ASN:HD22	18:AR:38:GLU:HG2	1.79	0.48
1:AA:173:U:H5''	1:AA:197:A:O4'	2.13	0.48
21:B0:2319:G:H2'	21:B0:2320:G:C8	2.49	0.48
1:AA:1162:C:H2'	1:AA:1163:C:H6	1.78	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:B0:3176:A:H2'	21:B0:3177:C:C6	2.48	0.48
1:AA:761:G:C1'	17:AQ:103:GLY:O	2.62	0.48
5:AE:71:LEU:HD21	5:AE:115:VAL:HG22	1.96	0.48
1:AA:335:C:C2'	1:AA:1434:A:H5'	2.38	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:376:G:P	16:AP:6:LEU:HB2	2.54	0.48
1:AA:926:G:H2'	1:AA:1505:G:N3	2.28	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
1:AA:714:G:H5'	1:AA:776:G:H5'	1.93	0.48
2:AB:18:GLY:CA	2:AB:41:ILE:HA	2.44	0.48
21:B0:1427:G:C2'	21:B0:1428:G:H5'	2.42	0.48
1:AA:26:A:C3'	1:AA:27:G:H5'	2.43	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
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
13:AM:97:PRO:HB2	13:AM:101:GLN:OE1	2.14	0.48
1:AA:376:G:N1	1:AA:389:A:C6	2.82	0.48
1:AA:8:A:O4'	5:AE:102:ALA:CA	2.62	0.48
1:AA:292:G:H2'	1:AA:609:A:C6	2.49	0.48
1:AA:1111:A:H61	3:AC:176:HIS:C	2.17	0.48
14:AN:12:ARG:O	14:AN:13:THR:C	2.52	0.48
1:AA:586:C:C3'	8:AH:89:PRO:HB2	2.43	0.48
1:AA:1250:A:H4'	9:AI:68:GLY:C	2.35	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
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
1:AA:768:A:H2'	1:AA:769:G:O4'	2.14	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: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:323:U:OP1	20:AT:26:ASN:HB2	2.13	0.47
1:AA:7:G:C2	5:AE:121:LYS:HG2	2.49	0.47
1:AA:39:G:C5	1:AA:498:U:C4	3.02	0.47
3:AC:35:GLU:O	3:AC:38:ARG:N	2.47	0.47
10:AJ:27:ALA:HB2	10:AJ:85:LEU:HD21	1.96	0.47
2:AB:213:LEU:C	2:AB:213:LEU:CD2	2.82	0.47
2:AB:17:PHE:HA	2:AB:44:LEU:HD21	1.95	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
21:B0:1825:C:C2'	21:B0:1826:U:H5'	2.44	0.47
2:AB:53:ARG:NH1	2:AB:199:TYR:CD2	2.82	0.47
21:B0:457:C:H2'	21:B0:458:G:O4'	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:155:C:H2'	1:AA:156:G:H8	1.79	0.47
1:AA:1398:A:N6	5:AE:21:ALA:CA	2.52	0.47
1:AA:113:G:O2'	1:AA:353:A:C4'	2.58	0.47
5:AE:107:ARG:HG2	5:AE:108:ALA:N	2.29	0.47
21:B0:1071:U:N3	21:B0:1099:A:H2	2.02	0.47
1:AA:538:G:OP1	12:AL:115:LYS:N	2.47	0.47
1:AA:186:C:H1'	20:AT:81:LYS:HE2	1.88	0.47
1:AA:1014:A:C2	1:AA:1219:U:C1'	2.97	0.47
1:AA:119:A:N6	1:AA:240:C:C2	2.81	0.47
21:B0:1572:C:C3'	21:B0:1573:G:H5''	2.43	0.47
1:AA:204:A:H4'	1:AA:205:G:O5'	2.15	0.47
21:B0:1002:C:H2'	21:B0:1003:C:C6	2.49	0.47
1:AA:526:C:OP2	12:AL:91:LYS:HE2	2.13	0.47
21:B0:1182:U:C3'	21:B0:1183:C:H5''	2.45	0.47
2:AB:90:MET:HA	2:AB:91:PRO:HD3	1.70	0.47
21:B0:88:G:H3'	21:B0:89:A:C5'	2.37	0.47
10:AJ:22:LYS:HZ3	10:AJ:91:PRO:HD3	1.79	0.47
18:AR:47:THR:HA	18:AR:83:GLU:HB2	1.96	0.47
21:B0:952:A:H2'	21:B0:953:G:O4'	2.14	0.47
20:AT:42:GLN:O	20:AT:42:GLN:NE2	2.47	0.47
21:B0:2794:G:H2'	21:B0:2796:A:N7	2.29	0.47
1:AA:657:G:O2'	1:AA:658:G:H5'	2.13	0.47
18:AR:53:ARG:HD3	18:AR:63:GLN:HB3	1.95	0.47
21:B0:611:C:O2'	21:B0:612:G:H5'	2.14	0.47
21:B0:2407:G:H4'	21:B0:2408:G:C8	2.49	0.47
21:B0:1260:A:N6	21:B0:1262:U:H1'	2.29	0.47
1:AA:253:U:P	17:AQ:67:LYS:NZ	2.87	0.47
5:AE:92:LYS:O	5:AE:118:ILE:HG23	2.15	0.47
16:AP:6:LEU:HB3	16:AP:17:TYR:CD2	2.49	0.47
1:AA:1409:C:N3	1:AA:1410:G:C5	2.83	0.47
1:AA:41:G:H2'	1:AA:42:G:H8	1.79	0.47
1:AA:1221:G:O2'	1:AA:1222:G:H5'	2.15	0.47
1:AA:180:U:H2'	1:AA:181:G:H5'	1.96	0.47
1:AA:834:C:H2'	1:AA:835:U:H6	1.79	0.47
1:AA:394:G:C5	1:AA:395:C:N4	2.79	0.47
21:B0:1930:C:H2'	21:B0:1931:G:C8	2.49	0.47
1:AA:1113:C:C1'	3:AC:178:LEU:HD23	2.42	0.47
5:AE:148:VAL:O	5:AE:152:ARG:HG3	2.14	0.47
3:AC:23:TYR:OH	10:AJ:67:THR:HG21	2.14	0.47
21:B0:1313:U:C4	21:B0:1651:U:H5'	2.49	0.47
21:B0:831:G:N2	21:B0:1203:A:H62	2.01	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:215:LEU:O	2:AB:216:SER:C	2.52	0.47
18:AR:28:GLU:OE1	18:AR:28:GLU:N	2.46	0.47
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
4:AD:111:ALA:HB2	4:AD:120:LEU:HD12	1.96	0.47
1:AA:1233:G:OP1	9:AI:124:GLN:N	2.43	0.47
1:AA:780:A:C2	1:AA:801:U:C5	3.02	0.47
17:AQ:17:LYS:HA	17:AQ:46:ASP:O	2.14	0.47
21:B0:646:C:H2'	21:B0:647:G:O4'	2.14	0.47
21:B0:1938:U:C2'	21:B0:1939:U:H5'	2.44	0.47
7:AG:21:VAL:HG23	7:AG:22:LEU:N	2.29	0.47
1:AA:1127:G:N2	1:AA:1147:C:N4	2.62	0.47
1:AA:1261:A:C5'	1:AA:1283:G:C3'	2.85	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
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
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
1:AA:848:G:O3'	1:AA:849:C:P	2.72	0.47
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.37	0.47
21:B0:109:A:C2'	21:B0:110:U:H5''	2.44	0.47
10:AJ:47:PHE:CZ	14:AN:37:PHE:CE1	3.02	0.47
21:B0:2437:G:C2	21:B0:2469:G:H2'	2.50	0.47
7:AG:54:THR:HG22	7:AG:56:GLN:H	1.80	0.47
14:AN:21:TYR:HE2	14:AN:23:ARG:HE	1.63	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
21:B0:2307:A:H2'	21:B0:2308:A:C8	2.49	0.47
21:B0:393:U:H2'	21:B0:394:U:C6	2.49	0.47
21:B0:1598:C:H2'	21:B0:1599:G:O4'	2.14	0.47
1:AA:1262:C:H2'	1:AA:1263:C:H6	1.79	0.47
1:AA:264:U:O2'	17:AQ:63:ARG:HD3	2.13	0.47
1:AA:1501:C:P	1:AA:1508:G:C5'	3.02	0.47
1:AA:1503:A:OP1	1:AA:1531:A:C1'	2.62	0.47
1:AA:113:G:C2'	1:AA:353:A:O2'	2.63	0.47
1:AA:315:A:C2	1:AA:353:A:H2'	2.50	0.47
1:AA:1488:G:H2'	1:AA:1489:G:H8	1.78	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
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:49:VAL:CG1	14:AN:41:ARG:HB2	2.34	0.47
6:AF:75:LEU:C	6:AF:75:LEU:HD13	2.34	0.47
3:AC:19:GLU:HB3	3:AC:40:ARG:NH2	2.25	0.47
1:AA:160:A:N6	1:AA:347:G:H21	2.13	0.47
11:AK:80:VAL:HG21	11:AK:103:LEU:HD13	1.97	0.47
21:B0:242:A:O2'	21:B0:243:G:P	2.72	0.47
21:B0:2220:A:H2'	21:B0:2221:G:C8	2.48	0.47
8:AH:103:VAL:CG2	8:AH:110:ALA:HB2	2.44	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:B0:1489:C:H3'	21:B0:1490:U:C5'	2.45	0.47
21:B0:3181:C:H2'	21:B0:3182:U:C6	2.50	0.47
21:B0:2799:C:H2'	21:B0:2800:C:O4'	2.14	0.47
21:B0:2455:A:O2'	21:B0:2456:U:H5'	2.15	0.47
21:B0:2062:U:H4'	21:B0:2412:A:H2	1.78	0.47
21:B0:3171:A:H4'	21:B0:3172:U:OP1	2.13	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:560:U:O2'	1:AA:561:U:OP2	2.27	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: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
1:AA:1004:A:N6	1:AA:1035:A:H62	2.13	0.47
1:AA:518:C:H5''	1:AA:519:C:H6	1.78	0.47
18:AR:47:THR:HG22	18:AR:48:GLY:H	1.79	0.47
7:AG:75:VAL:CG1	7:AG:86:GLN:HE21	2.27	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
21:B0:1918:G:H4'	21:B0:1920:A:C2	2.50	0.47
7:AG:23:VAL:HG12	7:AG:27:ILE:CD1	2.41	0.47
9:AI:65:VAL:HG13	9:AI:65:VAL:O	2.13	0.47
21:B0:1286:U:H2'	21:B0:2692:A:H2	1.80	0.47
1:AA:913:A:O2'	1:AA:914:A:P	2.72	0.47
8:AH:75:ARG:HA	8:AH:76:PRO:HD3	1.71	0.47
21:B0:1922:U:H1'	21:B0:2570:C:O2'	2.15	0.47
1:AA:513:C:H2'	1:AA:514:C:C6	2.49	0.47
21:B0:1279:G:HO2'	21:B0:1280:U:H6	1.62	0.47
21:B0:404:A:H2'	21:B0:405:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1497:C:O2'	21:B0:1498:G:H5'	2.14	0.47
1:AA:613:C:O2'	1:AA:614:A:H5'	2.14	0.47
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
6:AF:53:ALA:C	6:AF:55:ASP:H	2.18	0.47
1:AA:1256:A:O3'	1:AA:1257:U:H5'	2.15	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
20:AT:59:ALA:O	20:AT:63:ILE:HG13	2.14	0.47
1:AA:189:A:H8	20:AT:105:SER:HG	0.47	0.47
1:AA:321:A:O2'	1:AA:322:C:H5'	2.15	0.47
21:B0:1101:U:O4	21:B0:1113:C:N4	2.48	0.47
21:B0:1088:A:C2	21:B0:1099:A:C8	3.03	0.47
1:AA:406:G:N1	1:AA:496:A:N7	2.61	0.47
1:AA:1515:C:H2'	1:AA:1516:G:C8	2.50	0.47
1:AA:1405:G:N3	1:AA:1519:A:H1'	2.29	0.47
1:AA:1495:U:HO2'	21:B0:1902:A:H2	1.38	0.47
1:AA:952:U:O2'	1:AA:953:G:H5'	2.14	0.47
1:AA:1318:A:H5''	19:AS:10:PHE:CD1	2.48	0.47
3:AC:100:ALA:O	3:AC:101:LEU:HB2	2.14	0.47
13:AM:80:ARG:NH2	19:AS:69:HIS:HE2	2.11	0.47
21:B0:3185:U:C6	21:B0:3185:U:H5'	2.40	0.47
10:AJ:63:PHE:CE2	14:AN:48:ALA:CB	2.96	0.47
1:AA:968:A:N9	1:AA:1062:U:H4'	2.29	0.47
12:AL:42:THR:CG2	12:AL:52:LEU:HB3	2.44	0.47
1:AA:625:G:H2'	1:AA:626:U:H6	1.79	0.47
21:B0:2008:C:H2'	21:B0:2009:U:C6	2.49	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
21:B0:9:U:H2'	21:B0:10:A:C8	2.49	0.47
11:AK:59:TYR:O	11:AK:62:GLN:HB3	2.15	0.47
15:AO:17:ARG:HG3	15:AO:17:ARG:NH1	2.23	0.47
2:AB:50:GLU:HB3	2:AB:200:ILE:O	2.15	0.47
1:AA:577:G:C1'	1:AA:816:A:C2	2.95	0.47
6:AF:4:TYR:CZ	6:AF:72:VAL:HG21	2.49	0.47
1:AA:791:G:H5''	21:B0:1905:G:OP1	2.14	0.47
21:B0:2376:G:H2'	21:B0:2377:U:C6	2.50	0.47
1:AA:66:G:C5'	1:AA:199:G:O2'	2.63	0.47
21:B0:1189:G:O2'	21:B0:1190:C:H5'	2.14	0.47
21:B0:1074:G:O2'	21:B0:1075:C:H5'	2.15	0.47
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:911:U:P	12:AL:97:ARG:HH21	2.38	0.47
2:AB:75:LYS:HE3	2:AB:78:GLN:OE1	2.14	0.47
1:AA:743:U:H2'	1:AA:744:C:H6	1.79	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
3:AC:139:GLN:CA	3:AC:139:GLN:NE2	2.78	0.47
1:AA:1118:C:H1'	1:AA:1179:A:C8	2.50	0.47
21:B0:1886:G:H2'	21:B0:1887:G:H8	1.79	0.47
21:B0:1829:C:C2'	21:B0:1830:C:H5'	2.44	0.47
13:AM:94:ARG:HH22	19:AS:81:ARG:NH1	2.12	0.47
21:B0:3171:A:O2'	21:B0:3172:U:H6	1.98	0.47
22:B9:22:U:H2'	22:B9:23:G:H8	1.79	0.47
13:AM:39:ILE:CD1	13:AM:56:LEU:HG	2.45	0.47
11:AK:50:TYR:HD1	11:AK:60:ALA:HB2	1.79	0.47
1:AA:130:A:H5'	17:AQ:63:ARG:CZ	2.45	0.47
1:AA:51:A:H4'	1:AA:52:G:C5'	2.45	0.47
21:B0:1838:G:C2'	21:B0:1839:A:H5'	2.37	0.47
1:AA:323:U:H1'	20:AT:19:SER:HB2	1.95	0.47
5:AE:102:ALA:HB2	5:AE:120:THR:HB	1.97	0.47
1:AA:1497:G:C2'	1:AA:1498:U:C5'	2.87	0.47
1:AA:1231:G:O3'	9:AI:126:SER:OG	2.32	0.47
1:AA:1014:A:N3	19:AS:34:TRP:CG	2.82	0.47
16:AP:42:ARG:O	16:AP:43:LYS:C	2.51	0.47
1:AA:59:A:C2	1:AA:331:G:C6	3.03	0.47
10:AJ:8:LEU:HD12	10:AJ:20:ALA:HB2	1.97	0.47
2:AB:23:ARG:C	2:AB:23:ARG:HH11	2.16	0.47
1:AA:227:G:HO2'	1:AA:228:A:H5'	1.80	0.47
1:AA:1178:G:OP2	9:AI:97:LYS:NZ	2.48	0.47
3:AC:79:ARG:HG2	3:AC:82:GLU:CG	2.45	0.47
21:B0:859:U:H4'	21:B0:860:U:C5	2.49	0.47
21:B0:537:C:C6	21:B0:2759:U:H2'	2.50	0.47
21:B0:2238:G:H2'	21:B0:2239:C:C6	2.49	0.47
1:AA:209:U:H5'	1:AA:210:C:H5	1.80	0.47
5:AE:127:ASN:O	5:AE:128:PRO:C	2.53	0.47
21:B0:38:G:H2'	21:B0:39:C:C6	2.49	0.47
4:AD:145:GLU:HG2	4:AD:184:LYS:HE2	1.96	0.47
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.49	0.47
14:AN:14:PRO:O	14:AN:16:PHE:N	2.44	0.47
1:AA:248:C:HO2'	1:AA:283:C:H4'	1.80	0.47
1:AA:88:G:O2'	1:AA:89:G:H5'	2.14	0.47
9:AI:33:PHE:CE2	9:AI:47:LEU:HD11	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1300:G:O2'	1:AA:1301:U:P	2.73	0.47
1:AA:947:G:H2'	1:AA:948:C:O4'	2.15	0.47
12:AL:28:LYS:HD2	12:AL:33:ARG:NH1	2.29	0.47
1:AA:1057:G:C2'	1:AA:1058:G:H5'	2.45	0.47
1:AA:528:C:H41	12:AL:49:ASN:ND2	2.13	0.47
10:AJ:22:LYS:HE2	10:AJ:90:LEU:HB2	1.97	0.47
1:AA:719:C:O2'	18:AR:49:LYS:HD3	2.15	0.47
15:AO:77:ARG:O	15:AO:80:ALA:HB3	2.15	0.47
1:AA:227:G:C2	1:AA:228:A:C4	3.03	0.47
8:AH:23:SER:OG	8:AH:60:ARG:HD2	2.15	0.47
21:B0:1974:U:H2'	21:B0:1975:G:H5''	1.95	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:B0:810:U:H2'	21:B0:811:G:C8	2.49	0.47
21:B0:558:G:H5''	21:B0:559:C:C5	2.50	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
1:AA:232:G:N2	1:AA:263:A:C2	2.82	0.47
1:AA:1261:A:H5'	1:AA:1284:C:H5'	1.96	0.47
20:AT:50:GLU:HG3	20:AT:99:LEU:CD1	2.45	0.47
1:AA:1111:A:N6	3:AC:176:HIS:HB3	2.30	0.47
1:AA:571:U:P	1:AA:819:A:HO2'	2.29	0.47
1:AA:246:A:H4'	1:AA:247:G:H4'	1.96	0.47
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.77	0.47
1:AA:975:A:H4'	1:AA:976:G:H5'	1.97	0.47
6:AF:30:LEU:HB3	6:AF:35:ALA:CB	2.41	0.47
21:B0:2199:C:H2'	21:B0:2200:G:C8	2.50	0.47
2:AB:142:LEU:HB3	2:AB:146:GLN:HE22	1.80	0.47
21:B0:85:C:O2'	21:B0:86:U:H5'	2.15	0.47
1:AA:606:G:O3'	1:AA:607:A:P	2.73	0.47
21:B0:2429:A:O2'	21:B0:2430:A:H5'	2.16	0.47
15:AO:66:LEU:O	15:AO:69:TYR:HB3	2.15	0.47
1:AA:633:G:H2'	1:AA:634:C:C6	2.50	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
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:235:C:C4'	17:AQ:70:ARG:HG2	2.43	0.46
1:AA:927:G:H4'	1:AA:1503:A:N7	2.30	0.46
4:AD:87:GLY:O	4:AD:88:VAL:C	2.53	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:355:C:H4'	1:AA:388:G:O3'	2.15	0.46
1:AA:926:G:N3	1:AA:1505:G:C4	2.83	0.46
3:AC:174:PRO:O	3:AC:177:THR:HG22	2.15	0.46
1:AA:1321:C:N4	19:AS:37:ARG:NH1	2.61	0.46
10:AJ:51:ARG:O	14:AN:45:ARG:HD3	2.15	0.46
21:B0:3129:C:H5'	21:B0:3174:C:H5''	1.97	0.46
1:AA:119:A:C4	1:AA:240:C:C5	3.03	0.46
21:B0:3098:U:H3'	21:B0:3099:U:C5	2.49	0.46
1:AA:564:C:N3	17:AQ:31:LEU:HD11	2.30	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
21:B0:1223:G:H5'	21:B0:1225:G:OP1	2.15	0.46
1:AA:457:G:O2'	1:AA:458:G:H5'	2.16	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
21:B0:1155:G:H2'	21:B0:1156:U:O4'	2.16	0.46
21:B0:2432:A:H4'	21:B0:2551:A:O2'	2.15	0.46
21:B0:1184:G:H2'	21:B0:1185:C:H5'	1.97	0.46
5:AE:118:ILE:CG2	5:AE:119:LEU:H	2.28	0.46
3:AC:59:ARG:N	10:AJ:92:THR:HG21	2.30	0.46
9:AI:44:VAL:HG13	9:AI:51:ARG:NH2	2.24	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
6:AF:44:GLY:HA2	6:AF:59:TYR:CE1	2.51	0.46
21:B0:1313:U:O4	21:B0:1651:U:H5'	2.15	0.46
1:AA:1152:A:H5''	10:AJ:13:HIS:CD2	2.50	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
17:AQ:80:GLY:O	17:AQ:81:ARG:HB3	2.15	0.46
21:B0:566:U:H2'	21:B0:567:G:C8	2.50	0.46
21:B0:1445:A:H2'	21:B0:1446:U:O4'	2.14	0.46
21:B0:3181:C:O3'	21:B0:3182:U:P	2.73	0.46
21:B0:2560:G:N3	21:B0:2560:G:H3'	2.31	0.46
18:AR:59:SER:OG	18:AR:62:GLU:HG3	2.15	0.46
1:AA:1001:A:H2'	1:AA:1002:G:H8	1.79	0.46
3:AC:28:GLN:O	3:AC:31:HIS:N	2.46	0.46
1:AA:675:A:C2	11:AK:118:GLY:HA3	2.51	0.46
1:AA:130:A:N1	1:AA:264:U:N3	2.48	0.46
1:AA:132:C:O2'	1:AA:133:U:H5'	2.15	0.46
21:B0:3149:G:O3'	21:B0:3150:C:OP2	2.33	0.46
1:AA:1503:A:O4'	1:AA:1531:A:N3	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:375:U:O4	1:AA:376:G:O6	2.33	0.46
21:B0:1840:A:H2'	21:B0:1841:G:H5'	1.98	0.46
1:AA:951:G:O2'	1:AA:952:U:H5'	2.15	0.46
1:AA:1320:C:O2	19:AS:72:GLY:HA3	2.14	0.46
1:AA:1372:U:H5''	9:AI:71:SER:HB2	1.98	0.46
8:AH:92:ARG:HG2	8:AH:94:TYR:OH	2.16	0.46
10:AJ:30:SER:CB	10:AJ:80:LYS:HB3	2.44	0.46
3:AC:167:TRP:O	3:AC:168:ALA:CB	2.63	0.46
1:AA:1445:U:O2'	1:AA:1446:A:H5'	2.15	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
1:AA:161:A:C2	1:AA:348:G:O2'	2.66	0.46
7:AG:46:ALA:O	7:AG:50:ILE:HG13	2.15	0.46
7:AG:135:VAL:O	7:AG:139:GLU:HG3	2.15	0.46
21:B0:397:U:H2'	21:B0:398:C:C6	2.51	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
7:AG:20:ASP:OD1	7:AG:22:LEU:HB3	2.16	0.46
22:B9:22:U:H2'	22:B9:23:G:C8	2.50	0.46
21:B0:2512:A:H2'	21:B0:2513:A:O4'	2.15	0.46
21:B0:2277:A:H2'	21:B0:2278:A:O4'	2.16	0.46
21:B0:3131:A:H5''	21:B0:3133:G:O4'	2.16	0.46
21:B0:2498:U:H5''	21:B0:2499:C:OP1	2.15	0.46
12:AL:71:PRO:O	12:AL:102:ARG:HD2	2.16	0.46
1:AA:91:C:O2'	1:AA:92:G:H5'	2.15	0.46
1:AA:1277:C:C2'	1:AA:1278:U:H5'	2.45	0.46
1:AA:1475:G:H5''	21:B0:1706:A:C1'	2.42	0.46
1:AA:112:G:H2'	1:AA:354:G:H4'	1.96	0.46
19:AS:10:PHE:HE2	19:AS:12:ASP:OD1	1.97	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:151:A:H2'	1:AA:152:A:O4'	2.15	0.46
1:AA:59:A:N3	1:AA:331:G:C2	2.82	0.46
1:AA:58:C:O2'	1:AA:59:A:H5'	2.16	0.46
21:B0:2669:C:H41	34:BL:15:SER:CA	2.28	0.46
1:AA:15:G:N3	5:AE:19:MET:HG2	2.30	0.46
3:AC:110:ASN:ND2	3:AC:140:ARG:HB3	2.21	0.46
18:AR:36:ASN:ND2	18:AR:38:GLU:HG2	2.30	0.46
1:AA:227:G:C2	1:AA:228:A:H1'	2.51	0.46
21:B0:584:A:H4'	21:B0:2479:U:C5'	2.45	0.46
11:AK:72:ALA:HB1	11:AK:77:MET:HG3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:68:GLU:O	5:AE:70:PRO:HD3	2.15	0.46
1:AA:1195:C:H2'	1:AA:1197:G:H5'	1.96	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
1:AA:127:G:N2	17:AQ:61:GLU:OE1	2.30	0.46
2:AB:78:GLN:O	2:AB:94:ASN:OD1	2.33	0.46
12:AL:82:VAL:O	12:AL:106:ASP:HB2	2.15	0.46
1:AA:1481:U:H2'	1:AA:1482:G:O4'	2.15	0.46
21:B0:323:G:H2'	21:B0:324:C:C6	2.50	0.46
7:AG:107:ALA:O	7:AG:110:GLN:HB2	2.16	0.46
13:AM:46:LYS:HG3	13:AM:47:ASP:N	2.30	0.46
21:B0:2784:A:H4'	21:B0:2786:G:OP2	2.15	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
21:B0:891:A:O2'	21:B0:892:A:OP2	2.33	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:397:A:N7	1:AA:547:A:O3'	2.49	0.46
9:AI:48:GLU:OE1	9:AI:48:GLU:HA	2.16	0.46
1:AA:719:C:O2'	18:AR:49:LYS:CD	2.63	0.46
2:AB:97:TRP:CH2	2:AB:176:GLU:OE2	2.69	0.46
2:AB:15:VAL:CG1	2:AB:209:ARG:HG3	2.46	0.46
21:B0:2075:U:C2'	21:B0:3093:C:C6	2.98	0.46
7:AG:15:ASP:O	7:AG:19:GLY:HA2	2.16	0.46
21:B0:203:G:O2'	21:B0:204:A:H5'	2.15	0.46
4:AD:3:ARG:NE	4:AD:71:SER:HB3	2.31	0.46
21:B0:508:G:H22	21:B0:516:G:H22	1.63	0.46
2:AB:19:HIS:HD2	2:AB:189:ASP:OD2	1.99	0.46
21:B0:2321:C:H2'	21:B0:2322:U:H5'	1.97	0.46
21:B0:670:U:H2'	21:B0:671:A:C8	2.50	0.46
13:AM:94:ARG:HH22	19:AS:81:ARG:HH11	1.64	0.46
21:B0:645:G:H2'	21:B0:646:C:C6	2.51	0.46
19:AS:18:LYS:HG2	19:AS:18:LYS:O	2.16	0.46
21:B0:887:G:O2'	21:B0:888:G:H5'	2.15	0.46
21:B0:1856:U:O2	21:B0:3877:A:C2	2.68	0.46
17:AQ:97:SER:O	17:AQ:98:LEU:C	2.54	0.46
1:AA:51:A:H4'	1:AA:52:G:O5'	2.15	0.46
1:AA:184:G:O2'	1:AA:224:C:H4'	2.15	0.46
1:AA:19:C:N3	1:AA:916:G:O6	2.48	0.46
1:AA:993:G:N1	1:AA:1046:A:C5	2.84	0.46
1:AA:69:G:O2'	1:AA:153:C:H5'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:48:THR:OG1	10:AJ:62:HIS:CD2	2.69	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
21:B0:1226:A:N1	21:B0:1250:A:H1'	2.30	0.46
13:AM:51:ALA:O	13:AM:55:ARG:HG3	2.16	0.46
18:AR:48:GLY:O	18:AR:74:ARG:NH2	2.41	0.46
21:B0:831:G:H5'	21:B0:852:U:OP1	2.15	0.46
11:AK:84:VAL:HG23	11:AK:109:VAL:O	2.16	0.46
21:B0:84:G:H2'	21:B0:85:C:C6	2.50	0.46
21:B0:1358:C:H2'	21:B0:1359:G:H5'	1.97	0.46
12:AL:54:LYS:N	12:AL:54:LYS:HD2	2.30	0.46
22:B9:59:A:N3	22:B9:59:A:H2'	2.31	0.46
21:B0:1414:G:H2'	21:B0:1415:C:C6	2.50	0.46
21:B0:1036:G:H1'	21:B0:1145:C:C4'	2.45	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
1:AA:690:G:H2'	1:AA:691:G:O4'	2.15	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
1:AA:322:C:H4'	20:AT:23:ARG:CG	2.42	0.46
1:AA:1097:C:H4'	1:AA:1168:A:O2'	2.15	0.46
1:AA:1314:C:C4	19:AS:6:LYS:HE2	2.50	0.46
16:AP:43:LYS:HG2	16:AP:48:TRP:CE2	2.50	0.46
1:AA:1086:U:O3'	1:AA:1389:C:H4'	2.16	0.46
12:AL:60:LEU:HD21	12:AL:66:VAL:HG22	1.97	0.46
1:AA:1056:U:O2'	1:AA:1057:G:H5'	2.14	0.46
3:AC:188:LEU:O	3:AC:189:ALA:CB	2.59	0.46
1:AA:1237:C:H2'	1:AA:1336:C:C5	2.51	0.46
1:AA:411:A:C6	1:AA:429:U:C4	3.04	0.46
6:AF:101:ALA:HB2	18:AR:28:GLU:HB3	1.97	0.46
1:AA:227:G:C2'	1:AA:228:A:H5'	2.46	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
1:AA:542:G:H2'	1:AA:543:C:H6	1.81	0.46
21:B0:575:U:H2'	21:B0:576:A:C8	2.51	0.46
1:AA:1128:C:O2'	1:AA:1130:A:C8	2.62	0.46
21:B0:1269:G:H2'	21:B0:1270:C:C6	2.50	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
1:AA:1390:U:H2'	1:AA:1391:U:C6	2.51	0.46
1:AA:560:U:H6	1:AA:560:U:O5'	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:8:A:N7	4:AD:208:SER:HB2	2.30	0.46
1:AA:1416:G:H3'	1:AA:1417:G:OP1	2.13	0.46
1:AA:214:U:H5'	1:AA:215:C:OP2	2.15	0.46
1:AA:1497:G:N2	1:AA:1519:A:C2	2.76	0.46
3:AC:92:ALA:C	3:AC:94:LEU:H	2.17	0.46
19:AS:67:VAL:O	19:AS:69:HIS:N	2.49	0.46
9:AI:121:ARG:HG2	9:AI:121:ARG:HH11	1.81	0.46
13:AM:59:TYR:O	13:AM:63:THR:HB	2.15	0.46
2:AB:129:GLU:O	2:AB:130:ARG:HB2	2.15	0.46
5:AE:18:ARG:HG2	5:AE:19:MET:H	1.81	0.46
2:AB:69:LEU:HD23	2:AB:69:LEU:C	2.36	0.46
1:AA:1152:A:O2'	1:AA:1153:C:H5'	2.16	0.46
10:AJ:94:VAL:HG12	10:AJ:95:GLU:H	1.76	0.46
3:AC:60:ALA:O	3:AC:61:ALA:CB	2.63	0.46
21:B0:317:U:H3'	21:B0:318:G:C5'	2.46	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
1:AA:909:A:H2'	1:AA:910:C:O4'	2.16	0.46
11:AK:34:ASP:O	11:AK:36:ASP:N	2.48	0.46
4:AD:173:TRP:CD2	4:AD:189:PRO:HB3	2.51	0.46
1:AA:191:G:C5	1:AA:192:U:C4	2.92	0.46
1:AA:234:C:C4'	17:AQ:64:PRO:HG2	2.44	0.46
1:AA:926:G:O6	1:AA:1505:G:C6	2.68	0.46
14:AN:53:LEU:HB3	14:AN:56:VAL:CG2	2.45	0.46
1:AA:421:U:H5'	1:AA:422:C:H5	1.80	0.46
9:AI:50:LEU:C	9:AI:52:ALA:N	2.69	0.46
1:AA:714:G:N3	1:AA:777:A:H1'	2.31	0.46
1:AA:523:A:C2	12:AL:91:LYS:CB	2.95	0.46
4:AD:104:VAL:HG11	4:AD:146:ILE:CD1	2.37	0.46
21:B0:471:A:H62	21:B0:480:G:N2	2.07	0.46
21:B0:2809:A:C6	21:B0:2854:G:H2'	2.50	0.46
21:B0:1193:G:H2'	21:B0:1194:U:C6	2.50	0.46
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.50	0.46
1:AA:998:G:O2'	1:AA:999:C:H5'	2.15	0.46
21:B0:644:A:H2'	21:B0:645:G:H5'	1.98	0.46
21:B0:2800:C:H2'	21:B0:2801:A:O4'	2.15	0.46
13:AM:39:ILE:HD12	13:AM:56:LEU:HG	1.98	0.46
5:AE:35:GLY:HA3	5:AE:112:LEU:HB3	1.97	0.46
21:B0:502:A:H2'	21:B0:503:G:O4'	2.15	0.46
1:AA:1245:A:H2'	1:AA:1246:C:C6	2.50	0.46
21:B0:42:G:H2'	21:B0:43:A:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1149:C:O2'	1:AA:1280:A:N1	2.47	0.46
20:AT:63:ILE:HG23	20:AT:72:LEU:CD1	2.46	0.46
21:B0:3110:G:OP1	21:B0:3149:G:C5'	2.64	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:1111:A:C6	3:AC:177:THR:HA	2.51	0.46
1:AA:1225:A:H5'	1:AA:1226:C:OP2	2.16	0.46
1:AA:1342:C:C4'	9:AI:125:TYR:CZ	2.99	0.46
1:AA:1320:C:H2'	1:AA:1321:C:O4'	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
22:B9:74:A:H2'	22:B9:75:A:C8	2.51	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
8:AH:91:ARG:HG3	12:AL:7:ILE:HG13	1.98	0.46
12:AL:77:LEU:HD21	12:AL:107:ALA:HB2	1.97	0.46
11:AK:93:GLN:HE21	11:AK:96:ARG:NH2	2.13	0.46
1:AA:1206:G:H4'	3:AC:192:THR:O	2.16	0.46
12:AL:46:LYS:O	12:AL:47:LYS:C	2.54	0.46
21:B0:1312:G:H5''	21:B0:1313:U:C5'	2.39	0.46
6:AF:2:ARG:HD2	6:AF:69:GLU:HG2	1.96	0.46
19:AS:15:LEU:O	19:AS:19:VAL:N	2.48	0.46
1:AA:1153:C:H2'	1:AA:1154:G:C8	2.46	0.46
1:AA:913:A:O2'	1:AA:914:A:O4'	2.26	0.46
21:B0:1750:A:H1'	21:B0:2690:A:C2	2.51	0.46
4:AD:152:SER:HA	4:AD:155:LEU:HG	1.97	0.46
21:B0:1352:G:H2'	21:B0:1353:A:C8	2.49	0.46
21:B0:599:A:H2'	21:B0:600:G:H8	1.80	0.46
21:B0:2448:A:H2'	21:B0:2449:G:O4'	2.16	0.46
21:B0:1586:A:H2'	21:B0:1587:A:H8	1.81	0.46
1:AA:1171:G:H2'	1:AA:1172:C:C6	2.51	0.46
1:AA:645:C:O2'	1:AA:646:U:H5'	2.16	0.46
21:B0:590:C:H2'	21:B0:591:G:C8	2.51	0.46
1:AA:934:C:C4	1:AA:1345:U:C5	3.04	0.46
21:B0:556:A:H2'	21:B0:557:U:H5'	1.98	0.46
6:AF:19:LEU:C	6:AF:19:LEU:HD23	2.36	0.46
1:AA:1459:C:OP1	20:AT:28:ALA:HA	2.16	0.45
1:AA:131:C:O4'	1:AA:263:A:H1'	2.16	0.45
1:AA:1501:C:P	1:AA:1508:G:H4'	2.56	0.45
1:AA:760:G:C6	17:AQ:105:ALA:CB	2.66	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:390:C:O5'	1:AA:390:C:H6	1.99	0.45
1:AA:324:G:H5'	20:AT:70:SER:HG	1.80	0.45
1:AA:1106:G:OP1	3:AC:172:ARG:CG	2.64	0.45
1:AA:401:C:H4'	1:AA:622:A:O4'	2.17	0.45
3:AC:64:VAL:CG2	3:AC:99:VAL:HB	2.45	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
13:AM:5:ALA:O	13:AM:8:GLU:N	2.45	0.45
13:AM:49:THR:O	13:AM:53:VAL:HG23	2.16	0.45
21:B0:1203:A:H2'	21:B0:1204:G:H5'	1.98	0.45
21:B0:403:A:H4'	21:B0:425:A:C5'	2.39	0.45
21:B0:3093:C:O2'	21:B0:3094:A:H5'	2.15	0.45
21:B0:2640:G:H2'	21:B0:2641:A:O4'	2.16	0.45
20:AT:42:GLN:O	20:AT:45:GLN:HB3	2.16	0.45
21:B0:689:A:N3	21:B0:689:A:H3'	2.31	0.45
21:B0:1223:G:H1'	21:B0:1225:G:N3	2.31	0.45
1:AA:105:G:H2'	1:AA:106:C:H6	1.81	0.45
21:B0:2437:G:H2'	21:B0:2469:G:N2	2.31	0.45
21:B0:1683:G:H2'	21:B0:1684:G:O4'	2.16	0.45
21:B0:1684:G:H2'	21:B0:1974:U:O4	2.16	0.45
21:B0:839:U:OP1	21:B0:2407:G:H3'	2.16	0.45
21:B0:2429:A:H5''	21:B0:2476:A:C6	2.51	0.45
12:AL:37:CYS:O	12:AL:79:GLU:O	2.34	0.45
8:AH:45:ILE:HG13	8:AH:45:ILE:O	2.16	0.45
21:B0:162:C:H4'	21:B0:195:A:O2'	2.16	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:51:A:N6	1:AA:313:A:C2	2.84	0.45
5:AE:121:LYS:HE3	5:AE:123:LEU:CD2	2.46	0.45
1:AA:217:C:O2'	1:AA:470:U:P	2.71	0.45
5:AE:79:GLU:CD	8:AH:105:ARG:HE	2.19	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
1:AA:1115:C:O4'	14:AN:61:TRP:CB	2.64	0.45
8:AH:91:ARG:HD3	17:AQ:34:LYS:CB	2.45	0.45
1:AA:59:A:H5''	1:AA:60:A:C5'	2.47	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
3:AC:154:SER:OG	3:AC:155:GLY:N	2.48	0.45
3:AC:131:ARG:O	3:AC:135:LYS:HG3	2.16	0.45
3:AC:157:ILE:HD11	3:AC:166:GLU:HB2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:831:G:C2'	21:B0:832:A:H5''	2.46	0.45
2:AB:42:ILE:HD12	2:AB:203:GLY:HA2	1.97	0.45
19:AS:20:LEU:O	19:AS:23:ASN:HB2	2.15	0.45
4:AD:187:ARG:HA	4:AD:187:ARG:HD2	1.81	0.45
21:B0:508:G:H2'	21:B0:509:U:C6	2.50	0.45
1:AA:1196:U:H4'	1:AA:1197:G:OP2	2.15	0.45
21:B0:629:C:H2'	21:B0:630:G:H5'	1.98	0.45
21:B0:523:A:H2	21:B0:591:G:H4'	1.81	0.45
21:B0:715:U:H2'	21:B0:716:U:C6	2.51	0.45
21:B0:2610:G:C4'	21:B0:2866:A:H4'	2.47	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
17:AQ:66:SER:OG	17:AQ:69:LYS:HB3	2.15	0.45
1:AA:5:U:O2'	1:AA:6:G:P	2.73	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
1:AA:319:G:O2'	1:AA:320:C:H5'	2.16	0.45
1:AA:293:G:C4'	1:AA:609:A:H2	2.11	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:184:G:H4'	1:AA:224:C:C3'	2.46	0.45
3:AC:11:ARG:NH1	3:AC:177:THR:O	2.50	0.45
1:AA:1515:C:H2'	1:AA:1516:G:H8	1.81	0.45
1:AA:143:A:H1'	1:AA:196:A:C4	2.52	0.45
10:AJ:65:LEU:CD1	14:AN:36:PHE:HZ	2.26	0.45
1:AA:242:C:H2'	1:AA:243:A:H5'	1.98	0.45
1:AA:244:U:O4	1:AA:894:G:C6	2.70	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:619:U:C2'	4:AD:135:LEU:HD12	2.45	0.45
21:B0:930:A:H3'	21:B0:931:G:C8	2.51	0.45
19:AS:22:LEU:CD1	19:AS:31:ILE:HD11	2.46	0.45
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.84	0.45
21:B0:129:A:H2'	21:B0:130:C:C6	2.51	0.45
1:AA:826:C:H2'	1:AA:827:U:H6	1.82	0.45
21:B0:666:U:H2'	21:B0:668:A:OP1	2.16	0.45
3:AC:108:ASN:OD1	3:AC:110:ASN:HB2	2.16	0.45
12:AL:59:ARG:NH1	12:AL:65:GLU:HG2	2.31	0.45
10:AJ:6:ILE:O	10:AJ:71:LEU:O	2.35	0.45
4:AD:4:TYR:O	4:AD:5:ILE:HB	2.17	0.45
21:B0:2451:G:H2'	21:B0:2508:G:N2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1578:U:H2'	21:B0:1579:G:C8	2.51	0.45
11:AK:16:SER:O	11:AK:35:PRO:HD3	2.16	0.45
2:AB:52:GLU:O	2:AB:56:ARG:HB2	2.17	0.45
21:B0:560:G:H2'	21:B0:561:U:C6	2.52	0.45
14:AN:26:ARG:NH1	14:AN:47:LEU:HD21	2.32	0.45
1:AA:82:C:H2'	1:AA:83:C:O4'	2.17	0.45
21:B0:1861:G:O2'	21:B0:1862:C:H5'	2.17	0.45
21:B0:3873:G:O2'	21:B0:3874:C:H5'	2.16	0.45
1:AA:1394:A:C4	1:AA:1501:C:H1'	2.52	0.45
1:AA:335:C:C2	1:AA:1434:A:C1'	2.99	0.45
1:AA:1409:C:C2	1:AA:1410:G:N7	2.84	0.45
1:AA:1485:U:OP1	21:B0:1944:C:OP1	2.26	0.45
1:AA:926:G:N7	1:AA:1505:G:C2	2.84	0.45
1:AA:1065:U:C4	1:AA:1189:C:N3	2.84	0.45
1:AA:1515:C:O2'	1:AA:1516:G:H5'	2.16	0.45
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.81	0.45
14:AN:12:ARG:O	14:AN:14:PRO:HD3	2.16	0.45
13:AM:93:ARG:HA	21:B0:900(A):A:H5'	1.97	0.45
1:AA:143:A:H1'	1:AA:196:A:N9	2.31	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
1:AA:958:A:C2	19:AS:54:GLY:O	2.70	0.45
12:AL:46:LYS:CG	12:AL:47:LYS:H	2.29	0.45
1:AA:847:C:H2'	1:AA:848:G:H8	1.81	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
21:B0:2421:C:O2'	21:B0:2422:C:H5'	2.16	0.45
21:B0:515:A:C2'	21:B0:516:G:H5'	2.43	0.45
18:AR:51:LEU:HA	18:AR:52:PRO:HD3	1.80	0.45
21:B0:3171:A:O2'	21:B0:3172:U:C6	2.70	0.45
14:AN:39:LEU:CD1	14:AN:47:LEU:HD12	2.46	0.45
7:AG:12:LEU:N	7:AG:12:LEU:HD12	2.32	0.45
21:B0:701:U:H2'	21:B0:702:A:O4'	2.15	0.45
21:B0:1349:A:H2'	21:B0:1350:G:C8	2.51	0.45
1:AA:1049:U:H4'	1:AA:1050:G:OP2	2.15	0.45
1:AA:191:G:N9	1:AA:192:U:C6	2.84	0.45
1:AA:260:G:O2'	1:AA:261:U:H5'	2.16	0.45
1:AA:6:G:H1	5:AE:94:ALA:HB1	1.79	0.45
1:AA:375:U:C2	1:AA:376:G:N7	2.84	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1409:C:C4	1:AA:1410:G:C5	3.04	0.45
1:AA:470:U:H2'	1:AA:471:G:C8	2.51	0.45
1:AA:1014:A:C4	19:AS:34:TRP:CG	3.04	0.45
1:AA:1014:A:N6	19:AS:34:TRP:CZ2	2.84	0.45
3:AC:99:VAL:CG2	3:AC:100:ALA:N	2.80	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
10:AJ:54:PHE:O	10:AJ:55:LYS:HG2	2.17	0.45
1:AA:586:C:C5'	8:AH:90:GLY:HA3	2.40	0.45
1:AA:624:C:H2'	1:AA:625:G:H8	1.81	0.45
3:AC:131:ARG:HA	3:AC:134:ILE:HD12	1.96	0.45
10:AJ:96:ILE:CG2	10:AJ:97:GLU:N	2.79	0.45
6:AF:30:LEU:CB	6:AF:35:ALA:HB3	2.41	0.45
1:AA:640:A:C2	8:AH:115:SER:CB	2.99	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
19:AS:15:LEU:HD12	19:AS:16:LEU:H	1.77	0.45
1:AA:227:G:O6	1:AA:228:A:C6	2.69	0.45
21:B0:688:A:O2'	21:B0:2422:C:H4'	2.17	0.45
5:AE:15:ARG:CD	5:AE:26:PHE:CD2	2.99	0.45
21:B0:307:C:H2'	21:B0:308:C:C6	2.51	0.45
15:AO:87:ILE:CG2	15:AO:88:ARG:N	2.79	0.45
1:AA:781:A:H2'	1:AA:782:A:H5'	1.98	0.45
21:B0:1566:G:H4'	21:B0:1733:U:O4	2.16	0.45
7:AG:18:TYR:CD2	7:AG:59:LEU:HB2	2.52	0.45
21:B0:452:G:H2'	21:B0:453:U:O4'	2.16	0.45
21:B0:211:U:C2'	21:B0:212:U:H5'	2.46	0.45
1:AA:1051:C:H2'	1:AA:1052:U:H6	1.80	0.45
3:AC:164:ARG:HH11	3:AC:164:ARG:HB3	1.80	0.45
21:B0:2708:U:H2'	21:B0:2709:C:C6	2.51	0.45
21:B0:2348:A:H2'	21:B0:2349:G:C8	2.52	0.45
1:AA:133:U:H5''	20:AT:74:LYS:NZ	2.09	0.45
5:AE:21:ALA:C	5:AE:23:GLY:H	2.19	0.45
1:AA:114:U:C1'	1:AA:353:A:H1'	2.46	0.45
1:AA:1314:C:C5	19:AS:6:LYS:HG3	2.36	0.45
13:AM:62:ASN:O	13:AM:63:THR:HB	2.16	0.45
1:AA:735:C:O2'	1:AA:736:C:H5'	2.17	0.45
10:AJ:30:SER:CB	10:AJ:84:GLN:HE21	2.29	0.45
1:AA:958:A:C5	19:AS:55:LYS:CB	2.99	0.45
7:AG:75:VAL:HG12	7:AG:86:GLN:HE21	1.81	0.45
2:AB:213:LEU:C	2:AB:213:LEU:HD23	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:8:LYS:O	2:AB:9:GLU:CB	2.60	0.45
1:AA:161:A:C2	1:AA:348:G:H1'	2.47	0.45
21:B0:687:G:O2'	21:B0:688:A:H5'	2.17	0.45
4:AD:8:VAL:HG21	4:AD:115:ARG:CZ	2.46	0.45
11:AK:74:ALA:C	11:AK:76:GLY:N	2.69	0.45
1:AA:513:C:H2'	1:AA:514:C:H6	1.80	0.45
9:AI:40:LEU:O	9:AI:42:ARG:N	2.50	0.45
21:B0:604:U:H2'	21:B0:605:G:H8	1.82	0.45
21:B0:1278:A:O2'	21:B0:1279:G:P	2.75	0.45
21:B0:1016:C:H2'	21:B0:1017:C:C6	2.52	0.45
1:AA:828:A:H5''	1:AA:859:A:C2	2.51	0.45
1:AA:1030:U:H5'	1:AA:1031:C:H5	1.80	0.45
1:AA:627:G:O2'	1:AA:628:G:H5'	2.17	0.45
21:B0:978:U:H2'	21:B0:979:A:C8	2.51	0.45
21:B0:419:G:O2'	21:B0:420:C:H5'	2.17	0.45
21:B0:2370:G:HO2'	21:B0:2371:A:H2	1.62	0.45
21:B0:700:C:O2'	21:B0:801:A:H5'	2.17	0.45
17:AQ:68:ARG:H	17:AQ:70:ARG:NH1	2.15	0.45
21:B0:3118:U:O2	21:B0:3149:G:H5'	2.09	0.45
16:AP:39:TYR:CZ	16:AP:41:PRO:HA	2.52	0.45
1:AA:439:A:C4	1:AA:497:A:C2	3.04	0.45
1:AA:217:C:O2'	1:AA:470:U:O5'	2.34	0.45
1:AA:1497:G:H1'	1:AA:1518:A:H2	1.76	0.45
1:AA:1230:C:O2'	13:AM:126:LYS:HA	2.16	0.45
10:AJ:46:ARG:NH1	10:AJ:64:GLU:CG	2.80	0.45
1:AA:1346:A:C6	7:AG:10:ARG:NE	2.84	0.45
1:AA:1301:U:O2'	1:AA:1302:U:OP1	2.30	0.45
1:AA:1202:G:C2'	1:AA:1203:C:H5'	2.46	0.45
21:B0:1745:C:H2'	21:B0:1746:A:O4'	2.16	0.45
13:AM:37:THR:HG23	13:AM:55:ARG:CB	2.46	0.45
10:AJ:24:VAL:CG1	10:AJ:28:ARG:HE	2.29	0.45
6:AF:33:TYR:HB2	6:AF:75:LEU:HD23	1.98	0.45
2:AB:25:ASN:C	2:AB:25:ASN:ND2	2.68	0.45
1:AA:792:A:H1'	1:AA:794:A:N7	2.32	0.45
11:AK:40:ILE:HG23	11:AK:75:TYR:CE2	2.51	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
5:AE:80:ILE:CD1	5:AE:91:LEU:HD12	2.46	0.45
9:AI:19:LEU:C	9:AI:20:ARG:HG3	2.37	0.45
21:B0:316:C:H2'	21:B0:317:U:C6	2.52	0.45
1:AA:1376:U:OP2	7:AG:94:ARG:NH2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:1685:A:H1'	21:B0:1686:A:N7	2.32	0.45
21:B0:1921:A:C2'	21:B0:1922:U:H5''	2.46	0.45
1:AA:419:C:OP1	1:AA:513:C:H1'	2.16	0.45
21:B0:611:C:C2'	21:B0:612:G:H5'	2.47	0.45
1:AA:1461:G:O2'	1:AA:1462:G:H5'	2.16	0.45
21:B0:1373:G:H2'	21:B0:1374:G:H5'	1.99	0.45
1:AA:644:G:O2'	1:AA:645:C:H5'	2.17	0.45
21:B0:15:G:O2'	21:B0:16:G:H5'	2.17	0.45
2:AB:83:MET:HG3	2:AB:238:LEU:CD1	2.46	0.45
1:AA:76:G:O2'	1:AA:77:C:H5'	2.17	0.45
1:AA:323:U:C1'	20:AT:19:SER:HB2	2.47	0.45
5:AE:102:ALA:HB2	5:AE:120:THR:CB	2.46	0.45
1:AA:1483:A:C6	1:AA:1484:C:C6	3.04	0.45
21:B0:1089:C:H1'	21:B0:1099:A:H8	1.82	0.45
12:AL:110:VAL:O	12:AL:122:THR:CG2	2.62	0.45
1:AA:39:G:C4	1:AA:498:U:C4	3.05	0.45
1:AA:19:C:H2'	1:AA:20:U:H6	1.80	0.45
1:AA:993:G:C2	1:AA:1046:A:C4	3.05	0.45
2:AB:178:ARG:NH1	2:AB:178:ARG:CG	2.67	0.45
1:AA:975:A:O5'	1:AA:976:G:H5'	2.17	0.45
9:AI:36:TYR:CD2	9:AI:37:PHE:CE2	3.04	0.45
2:AB:137:ARG:O	2:AB:140:HIS:HB2	2.16	0.45
18:AR:74:ARG:HB3	18:AR:81:PHE:CE1	2.51	0.45
21:B0:109:A:H3'	21:B0:110:U:C5'	2.41	0.45
21:B0:852:U:H3	21:B0:950:G:H1	1.64	0.45
21:B0:221:A:H62	21:B0:231:G:N2	2.10	0.45
21:B0:926:C:C2'	21:B0:927:C:H5'	2.47	0.45
1:AA:1019:C:O2'	1:AA:1020:U:H5'	2.17	0.45
22:B9:66:G:H2'	22:B9:67:C:C6	2.52	0.45
1:AA:533:A:O2'	1:AA:534:U:P	2.75	0.45
21:B0:959:C:H2'	21:B0:960:U:C6	2.52	0.45
1:AA:882:C:O2'	1:AA:883:C:H5'	2.16	0.45
21:B0:2428:U:O2'	21:B0:2429:A:H5'	2.17	0.45
21:B0:1502:G:O2'	21:B0:1503:G:H5'	2.16	0.45
2:AB:92:TYR:CE1	2:AB:151:GLY:HA3	2.52	0.45
5:AE:144:THR:C	5:AE:146:ALA:N	2.67	0.45
21:B0:2661:G:O2'	21:B0:2662:C:H5'	2.17	0.45
1:AA:131:C:O2'	1:AA:262:A:C1'	2.64	0.45
21:B0:3111:C:C2	21:B0:3148:G:P	2.96	0.45
1:AA:1503:A:O2'	1:AA:1504:G:P	2.75	0.45
21:B0:2181:A:C2'	21:B0:2182:A:H5'	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:187:G:H21	20:AT:105:SER:CA	2.29	0.45
1:AA:187:G:H21	20:AT:105:SER:HB2	1.65	0.45
1:AA:1506:U:OP2	1:AA:1541:U:OP2	2.35	0.45
1:AA:1372:U:OP2	9:AI:11:LYS:CD	2.64	0.45
10:AJ:53:PRO:O	10:AJ:54:PHE:O	2.34	0.45
1:AA:1060:C:P	14:AN:45:ARG:HH21	2.40	0.45
21:B0:3129:C:H5'	21:B0:3174:C:C5'	2.47	0.45
1:AA:502:G:H1'	1:AA:550:G:C5'	2.23	0.45
4:AD:31:CYS:C	4:AD:33:MET:H	2.21	0.45
1:AA:737:A:H1'	6:AF:73:ASN:CG	2.35	0.45
12:AL:85:ILE:HG23	12:AL:98:TYR:CB	2.46	0.45
1:AA:975:A:H4'	1:AA:976:G:OP2	2.16	0.45
21:B0:1199:U:C3'	21:B0:1200:G:H5''	2.32	0.45
10:AJ:85:LEU:O	10:AJ:87:THR:N	2.50	0.45
21:B0:8:A:H2'	21:B0:9:U:C6	2.52	0.45
1:AA:1206:G:C6	1:AA:1207:G:C5	3.04	0.45
1:AA:15:G:H1'	5:AE:19:MET:SD	2.56	0.45
18:AR:70:ILE:O	18:AR:74:ARG:HG3	2.17	0.45
1:AA:1238:A:H2	1:AA:1241:G:O2'	1.99	0.45
1:AA:807:A:H2'	1:AA:808:C:C6	2.52	0.45
18:AR:25:THR:HG22	18:AR:25:THR:O	2.17	0.45
1:AA:160:A:H61	1:AA:347:G:N2	2.14	0.45
1:AA:920:U:H2'	1:AA:921:U:C6	2.52	0.45
21:B0:874:A:H62	21:B0:928:G:N2	2.12	0.45
21:B0:925:U:H4'	21:B0:926:C:C5	2.52	0.45
21:B0:1793:A:H2'	21:B0:1794:A:C8	2.52	0.45
21:B0:2454:C:H42	21:B0:2508:G:H22	1.64	0.45
7:AG:155:ARG:O	7:AG:156:TRP:CB	2.63	0.45
5:AE:15:ARG:NE	5:AE:26:PHE:CD2	2.84	0.45
7:AG:143:ARG:O	7:AG:145:ALA:O	2.34	0.45
3:AC:129:ALA:HB3	3:AC:132:ARG:CD	2.45	0.45
21:B0:2026:C:H2'	21:B0:2027:C:C6	2.52	0.45
21:B0:475:U:H2'	21:B0:476:G:O4'	2.17	0.45
16:AP:72:ARG:HG2	16:AP:72:ARG:O	2.16	0.45
13:AM:110:ARG:HG2	13:AM:110:ARG:HH11	1.82	0.45
1:AA:258:G:H2'	1:AA:259:G:H8	1.82	0.45
22:B9:94:G:O2'	22:B9:95:U:H5'	2.16	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:B0:709:A:H2'	21:B0:710:C:C6	2.52	0.45
21:B0:2830:U:H2'	21:B0:2831:A:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:485:G:C2'	1:AA:486:U:OP2	2.65	0.45
22:B9:40:C:H2'	22:B9:41:A:O4'	2.16	0.45
1:AA:115:G:H4'	1:AA:116:A:O5'	2.17	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:1484:C:H2'	1:AA:1485:U:C6	2.50	0.45
1:AA:1064:G:N2	1:AA:1190:G:O2'	2.49	0.45
13:AM:120:LYS:HE2	13:AM:123:ALA:CB	2.47	0.45
3:AC:59:ARG:CA	10:AJ:92:THR:CG2	2.95	0.45
1:AA:1234:C:H5''	1:AA:1365:G:OP1	2.10	0.45
9:AI:46:ALA:O	9:AI:49:PRO:HD2	2.17	0.45
1:AA:976:G:C8	1:AA:2361:C:N4	2.85	0.45
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.51	0.45
2:AB:22:LYS:O	2:AB:23:ARG:HG3	2.16	0.45
16:AP:20:VAL:HG13	16:AP:21:VAL:N	2.32	0.45
2:AB:71:VAL:HB	2:AB:164:VAL:HG23	1.99	0.45
2:AB:36:ARG:HD2	2:AB:41:ILE:CD1	2.44	0.45
1:AA:686:U:O4	1:AA:703:G:H1'	2.17	0.45
1:AA:372:C:O2	1:AA:387:U:O4	2.34	0.45
4:AD:142:PRO:HG2	4:AD:187:ARG:NH1	2.32	0.45
21:B0:116:A:C2	21:B0:155:G:H1'	2.51	0.45
21:B0:241:C:C2'	21:B0:242:A:H5''	2.46	0.45
17:AQ:81:ARG:O	17:AQ:81:ARG:HG3	2.17	0.45
10:AJ:4:ILE:HG12	10:AJ:100:THR:CB	2.46	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
21:B0:871:U:H1'	21:B0:2248:A:H5''	1.99	0.45
1:AA:1049:U:H1'	1:AA:1201:A:N7	2.31	0.45
21:B0:2555:G:N3	21:B0:2555:G:H3'	2.32	0.45
14:AN:25:VAL:O	14:AN:25:VAL:HG13	2.16	0.45
21:B0:1504:G:O2'	21:B0:1505:U:H5'	2.17	0.45
21:B0:626:A:O2'	21:B0:627:A:H5'	2.17	0.45
1:AA:233:C:O2'	1:AA:264:U:C2	2.70	0.44
20:AT:72:LEU:O	20:AT:73:HIS:O	2.35	0.44
16:AP:6:LEU:HB3	16:AP:17:TYR:HD2	1.81	0.44
1:AA:1409:C:O2'	1:AA:1410:G:C5'	2.62	0.44
21:B0:1098:G:H22	21:B0:1113:C:N3	1.52	0.44
1:AA:436:C:O2	1:AA:437:U:H1'	2.17	0.44
1:AA:1231:G:C5'	9:AI:126:SER:OG	2.64	0.44
13:AM:80:ARG:NH2	19:AS:69:HIS:NE2	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1060:C:C5	3:AC:2:GLY:HA3	2.52	0.44
1:AA:1329:A:C5'	13:AM:29:ARG:HD2	2.46	0.44
1:AA:37:U:OP1	12:AL:124:LYS:HB2	2.16	0.44
1:AA:848:G:HO3'	1:AA:849:C:P	2.38	0.44
1:AA:826:C:O2'	8:AH:15:ASN:HB2	2.16	0.44
4:AD:24:GLU:CG	4:AD:25:ARG:H	2.31	0.44
4:AD:162:LEU:HD13	4:AD:181:MET:CG	2.42	0.44
21:B0:926:C:H2'	21:B0:927:C:H5'	1.99	0.44
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.80	0.44
11:AK:51:LYS:O	11:AK:55:LYS:CE	2.65	0.44
21:B0:857:U:C2'	21:B0:858:G:H5'	2.48	0.44
2:AB:32:ILE:HG21	2:AB:40:HIS:HD2	1.81	0.44
21:B0:1273:G:H2'	21:B0:1274:C:C6	2.52	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
20:AT:24:LEU:O	20:AT:24:LEU:HD12	2.17	0.44
1:AA:1289:A:H2'	1:AA:1290:G:H5'	2.00	0.44
21:B0:1367:A:H2'	21:B0:1368:G:O4'	2.17	0.44
21:B0:1055:A:C2	21:B0:1121:G:H2'	2.52	0.44
4:AD:39:PRO:HG2	4:AD:44:GLY:HA2	1.97	0.44
21:B0:40:U:H2'	21:B0:41:G:C8	2.52	0.44
17:AQ:18:THR:HG23	17:AQ:69:LYS:CE	2.47	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:1496:C:H2'	1:AA:1497:G:O4'	2.16	0.44
1:AA:1372:U:OP1	9:AI:72:GLY:N	2.50	0.44
1:AA:1115:C:C1'	14:AN:61:TRP:HB2	2.47	0.44
13:AM:9:ILE:N	13:AM:9:ILE:HD12	2.31	0.44
1:AA:1301:U:O2'	1:AA:1302:U:P	2.74	0.44
13:AM:34:LEU:HD13	13:AM:41:PRO:CA	2.45	0.44
3:AC:123:GLN:HE22	3:AC:140:ARG:NH2	2.16	0.44
21:B0:2854:G:H3'	21:B0:2854:G:N3	2.33	0.44
5:AE:45:PHE:CD2	5:AE:47:LYS:HE3	2.52	0.44
21:B0:438:G:H2'	21:B0:439:C:C6	2.51	0.44
21:B0:1436:G:H1'	21:B0:1508:G:N2	2.31	0.44
21:B0:431:G:H2'	21:B0:432:C:C6	2.53	0.44
21:B0:455:A:H4'	21:B0:1214:C:O2'	2.17	0.44
21:B0:2591:C:O2'	21:B0:2592:U:H5'	2.17	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
21:B0:3877:A:H4'	21:B0:1861:G:C5'	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:129(A):G:O2'	1:AA:130:A:OP2	2.28	0.44
1:AA:1394:A:N3	1:AA:1501:C:O4'	2.47	0.44
1:AA:389:A:H2'	1:AA:390:C:C5'	2.48	0.44
1:AA:8:A:O4'	5:AE:102:ALA:HA	2.17	0.44
1:AA:559:A:OP1	5:AE:126:ARG:NH1	2.50	0.44
1:AA:1409:C:O2'	1:AA:1410:G:O4'	2.32	0.44
1:AA:185:A:H2'	1:AA:186:C:H6	1.82	0.44
1:AA:19:C:C4	1:AA:916:G:O6	2.70	0.44
16:AP:75:ARG:O	16:AP:78:GLY:N	2.49	0.44
1:AA:45:U:H2'	1:AA:46:G:C8	2.53	0.44
1:AA:397:A:N3	1:AA:397:A:H3'	2.32	0.44
1:AA:502:G:C1'	1:AA:550:G:C5'	2.78	0.44
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.52	0.44
21:B0:1956:G:H2'	21:B0:1957:C:O4'	2.17	0.44
1:AA:1250:A:H5''	9:AI:68:GLY:N	2.32	0.44
2:AB:8:LYS:HB2	2:AB:9:GLU:H	1.58	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
21:B0:1436:G:H2'	21:B0:1437:A:C8	2.51	0.44
21:B0:788:G:H5'	21:B0:790:A:N3	2.32	0.44
9:AI:85:LEU:O	9:AI:92:TYR:CD1	2.69	0.44
2:AB:223:ILE:HG21	2:AB:230:VAL:HG23	1.99	0.44
8:AH:116:LYS:NZ	8:AH:127:LEU:HD12	2.31	0.44
21:B0:457:C:O2'	21:B0:458:G:H5'	2.16	0.44
21:B0:1938:U:O2'	21:B0:1939:U:OP1	2.28	0.44
11:AK:60:ALA:O	11:AK:61:ALA:C	2.56	0.44
21:B0:763:A:H2'	21:B0:764:A:H5''	2.00	0.44
21:B0:1785:A:H2'	21:B0:1786:C:C6	2.52	0.44
21:B0:1408:A:H1'	21:B0:1410:U:C5	2.52	0.44
21:B0:1708:C:H2'	21:B0:1709:U:O4'	2.18	0.44
9:AI:103:THR:HG22	9:AI:104:ARG:N	2.31	0.44
21:B0:1667:A:H2'	21:B0:1668:G:H8	1.83	0.44
1:AA:1457:A:C8	1:AA:1459:C:C4	3.06	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
1:AA:6:G:C6	5:AE:94:ALA:CB	3.00	0.44
1:AA:113:G:H5'	1:AA:354:G:O3'	2.17	0.44
1:AA:1409:C:C5	1:AA:1410:G:N7	2.85	0.44
12:AL:117:ARG:HD2	12:AL:122:THR:OG1	2.17	0.44
1:AA:970:C:C2	1:AA:1231:G:H1'	2.52	0.44
1:AA:950:U:H2'	1:AA:951:G:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:962:C:H2'	1:AA:963:G:O4'	2.18	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: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
10:AJ:30:SER:HB3	10:AJ:84:GLN:NE2	2.31	0.44
21:B0:1679:U:C2'	21:B0:1680:U:H5''	2.47	0.44
1:AA:583:A:H2'	1:AA:584:G:O4'	2.17	0.44
1:AA:1152:A:H5'	10:AJ:70:ARG:NH2	2.32	0.44
4:AD:8:VAL:HG11	4:AD:21:LEU:CB	2.47	0.44
21:B0:121:G:H2'	21:B0:122:G:O4'	2.18	0.44
5:AE:13:ILE:HG22	5:AE:30:ALA:HB2	1.99	0.44
21:B0:1452:U:H5''	21:B0:1533:G:H5'	2.00	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
21:B0:1331:G:H2'	21:B0:1332:G:C8	2.52	0.44
21:B0:1023:U:H1'	21:B0:1154:A:C8	2.52	0.44
6:AF:40:VAL:CG2	6:AF:41:GLU:N	2.80	0.44
21:B0:1659:G:H2'	21:B0:1660:G:C8	2.52	0.44
1:AA:132:C:H5''	20:AT:75:ASN:ND2	2.32	0.44
1:AA:1501:C:OP1	1:AA:1508:G:C4'	2.66	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:1506:U:OP2	1:AA:1541:U:P	2.75	0.44
3:AC:6:HIS:CD2	3:AC:8:ILE:H	2.36	0.44
1:AA:1372:U:O2'	1:AA:1373:G:H5'	2.18	0.44
1:AA:394:G:N3	1:AA:395:C:C6	2.86	0.44
3:AC:179:ARG:C	3:AC:179:ARG:HD2	2.37	0.44
21:B0:1226:A:C6	21:B0:1250:A:H1'	2.53	0.44
16:AP:55:ARG:O	16:AP:58:TYR:HB3	2.17	0.44
10:AJ:8:LEU:CD1	10:AJ:20:ALA:HB2	2.48	0.44
3:AC:123:GLN:HE22	3:AC:140:ARG:HH22	1.65	0.44
1:AA:1353:G:H2'	1:AA:1354:C:H6	1.82	0.44
11:AK:95:ILE:HD13	11:AK:108:ILE:HG21	1.99	0.44
7:AG:38:LEU:HD11	7:AG:42:ILE:HD11	1.99	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
21:B0:1836:C:H2'	21:B0:1837:G:C8	2.53	0.44
1:AA:133:U:P	20:AT:74:LYS:HD3	2.57	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:90:GLY:H	5:AE:97:GLY:HA2	1.82	0.44
1:AA:116:A:H2'	1:AA:117:G:O4'	2.18	0.44
1:AA:113:G:N2	1:AA:353:A:C1'	2.80	0.44
1:AA:9:G:H8	5:AE:126:ARG:NH1	2.10	0.44
1:AA:1190:G:OP1	3:AC:4:LYS:CB	2.59	0.44
14:AN:12:ARG:O	14:AN:14:PRO:CD	2.65	0.44
3:AC:99:VAL:HG22	3:AC:100:ALA:O	2.18	0.44
13:AM:7:VAL:HG23	13:AM:7:VAL:O	2.18	0.44
1:AA:564:C:C6	17:AQ:32:TYR:HE2	2.36	0.44
1:AA:176:C:H2'	1:AA:177:C:H6	1.83	0.44
20:AT:30:LYS:O	20:AT:33:ILE:HB	2.18	0.44
18:AR:26:LEU:HD21	18:AR:39:VAL:HG23	2.00	0.44
1:AA:384:G:H2'	1:AA:385:C:C6	2.53	0.44
21:B0:1927:U:H3'	21:B0:1928:G:H5'	2.00	0.44
1:AA:1377:A:N3	7:AG:2:ALA:HB2	2.32	0.44
1:AA:1005:A:H2'	1:AA:1006:C:O4'	2.17	0.44
21:B0:2316:G:H2'	21:B0:2317:G:C8	2.50	0.44
21:B0:1373:G:H22	21:B0:2192:U:H3	1.65	0.44
21:B0:460:U:N3	21:B0:592:G:H1'	2.33	0.44
21:B0:1999:U:H5''	21:B0:2041:A:OP1	2.18	0.44
2:AB:92:TYR:CD1	2:AB:151:GLY:HA3	2.53	0.44
4:AD:178:VAL:HG12	4:AD:178:VAL:O	2.18	0.44
4:AD:200:GLU:N	4:AD:200:GLU:OE1	2.46	0.44
1:AA:540:G:H2'	1:AA:541:G:O4'	2.18	0.44
21:B0:354:C:H2'	21:B0:355:G:O4'	2.17	0.44
21:B0:3872:A:H2'	21:B0:3873:G:H5'	2.00	0.44
1:AA:702:A:H1'	21:B0:1839:A:OP1	2.17	0.44
1:AA:1410:G:N2	1:AA:1491:G:C2	2.85	0.44
21:B0:892:A:H1'	21:B0:911:A:N3	2.26	0.44
1:AA:217:C:P	1:AA:468:A:C2	3.11	0.44
1:AA:977:A:H2'	1:AA:978:A:C5'	2.46	0.44
1:AA:1314:C:H2'	1:AA:1315:U:C6	2.53	0.44
13:AM:84:ILE:HG13	13:AM:86:CYS:HB2	2.00	0.44
1:AA:1059:C:O2'	10:AJ:52:GLY:HA2	2.18	0.44
13:AM:4:ILE:CG2	13:AM:5:ALA:N	2.72	0.44
1:AA:1004:A:H5''	1:AA:1025:U:C4	2.53	0.44
1:AA:59:A:N9	1:AA:331:G:N2	2.65	0.44
21:B0:1118:G:O2'	21:B0:1119:U:H5'	2.17	0.44
7:AG:149:ARG:NH1	11:AK:59:TYR:CD1	2.84	0.44
2:AB:25:ASN:HD22	2:AB:27:LYS:H	1.65	0.44
1:AA:865:A:H2'	1:AA:866:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:288:A:C2'	1:AA:289:G:H4'	2.47	0.44
20:AT:42:GLN:HA	20:AT:45:GLN:HB2	1.99	0.44
21:B0:2057:U:H2'	21:B0:2058:U:C6	2.52	0.44
21:B0:1459:U:H2'	21:B0:1475:U:O2'	2.16	0.44
1:AA:913:A:O2'	1:AA:914:A:OP2	2.36	0.44
21:B0:415:A:O2'	21:B0:416:U:H5'	2.17	0.44
8:AH:73:ASP:OD2	8:AH:75:ARG:HB2	2.18	0.44
21:B0:242:A:O2'	21:B0:243:G:O4'	2.34	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
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
11:AK:23:ALA:HB2	11:AK:91:ARG:HB2	2.00	0.44
18:AR:37:VAL:O	18:AR:41:LYS:HB3	2.18	0.44
21:B0:432:C:H2'	21:B0:433:G:H8	1.83	0.44
21:B0:2242:C:H42	21:B0:2257:A:N6	2.16	0.44
21:B0:956:A:H2'	21:B0:956:A:N3	2.32	0.44
21:B0:1882:G:H21	21:B0:1885:C:N4	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
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
21:B0:1292:A:H2'	21:B0:1293:A:C8	2.53	0.44
1:AA:132:C:O4'	1:AA:262:A:C4	2.71	0.44
1:AA:1503:A:O5'	1:AA:1531:A:C1'	2.50	0.44
1:AA:1501:C:P	1:AA:1508:G:H5'	2.58	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
4:AD:204:ILE:HG21	5:AE:98:THR:O	2.17	0.44
1:AA:702:A:N1	21:B0:1838:G:C3'	2.30	0.44
1:AA:189:A:H62	20:AT:104:LEU:HA	1.83	0.44
20:AT:100:ILE:O	20:AT:102:GLY:N	2.50	0.44
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.82	0.44
5:AE:79:GLU:OE2	8:AH:105:ARG:CD	2.64	0.44
3:AC:29:TYR:CZ	10:AJ:65:LEU:CD1	3.01	0.44
1:AA:243:A:N6	1:AA:281:G:O2'	2.51	0.44
10:AJ:49:VAL:HG13	14:AN:41:ARG:CB	2.35	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
12:AL:7:ILE:O	12:AL:11:VAL:HG23	2.18	0.44
10:AJ:27:ALA:CB	10:AJ:81:THR:HG23	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:134:GLU:C	2:AB:136:VAL:N	2.71	0.44
2:AB:54:THR:O	2:AB:57:PHE:HB3	2.18	0.44
21:B0:1703:C:H2'	21:B0:1704:G:O4'	2.17	0.44
4:AD:25:ARG:HH21	4:AD:30:LYS:HD3	1.82	0.44
2:AB:187:LEU:HD21	2:AB:214:ILE:HG13	2.00	0.44
5:AE:64:ARG:O	5:AE:65:ASN:CB	2.60	0.44
21:B0:1915:A:H62	21:B0:1951:G:N2	2.09	0.44
21:B0:875:G:H2'	21:B0:876:A:O4'	2.18	0.44
15:AO:39:LEU:HD12	15:AO:59:MET:CE	2.48	0.44
21:B0:2439:U:H2'	21:B0:2440:C:H5'	1.99	0.44
21:B0:539:A:N6	21:B0:2024:U:H3	2.11	0.44
1:AA:21:G:H1'	1:AA:914:A:H61	1.82	0.44
21:B0:1326:U:H1'	21:B0:1626:A:N3	2.33	0.44
21:B0:1288:A:H2'	21:B0:1289:A:O4'	2.17	0.44
21:B0:3116:G:O3'	21:B0:3117:A:O4'	2.36	0.44
21:B0:114:C:H4'	21:B0:124:A:O2'	2.17	0.44
21:B0:736:G:H2'	21:B0:737:C:O4'	2.17	0.44
11:AK:50:TYR:N	11:AK:50:TYR:CD2	2.84	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
21:B0:2193:C:H2'	21:B0:2194:A:O4'	2.18	0.44
21:B0:548:G:H2'	21:B0:549:G:C8	2.53	0.44
1:AA:1503:A:N9	1:AA:1531:A:N3	2.66	0.44
1:AA:351:G:O2'	1:AA:352:C:OP1	2.25	0.44
20:AT:50:GLU:HG2	20:AT:100:ILE:CG1	2.47	0.44
21:B0:1113:C:O3'	21:B0:1114:A:P	2.75	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
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
1:AA:1320:C:P	19:AS:70:LYS:HZ2	2.41	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
14:AN:29:ARG:HB3	14:AN:40:CYS:HB3	1.99	0.44
21:B0:1313:U:H4'	21:B0:1314:A:O5'	2.18	0.44
1:AA:1250:A:C4'	9:AI:68:GLY:N	2.74	0.44
5:AE:105:VAL:HB	5:AE:106:PRO:CD	2.40	0.44
16:AP:20:VAL:HG13	16:AP:32:TYR:HB2	2.00	0.44
2:AB:17:PHE:H	2:AB:44:LEU:HD21	1.83	0.44
1:AA:197:A:H1'	1:AA:198:G:O4'	2.17	0.44
1:AA:383:A:H2'	1:AA:384:G:H5'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:181:A:C4'	21:B0:182:G:H4'	2.44	0.44
21:B0:1033:G:N2	21:B0:1150:C:H2'	2.30	0.44
21:B0:2022:C:H2'	21:B0:2023:C:C6	2.53	0.44
21:B0:1188:A:H62	21:B0:1189:G:H21	1.66	0.44
1:AA:1053:G:O2'	1:AA:1199:U:H5	2.01	0.44
20:AT:96:GLY:O	20:AT:97:ALA:CB	2.66	0.44
21:B0:192:G:O2'	21:B0:193:A:OP2	2.33	0.44
1:AA:1128:C:H5'	9:AI:16:ARG:NH1	2.33	0.44
3:AC:113:ALA:N	3:AC:114:PRO:CD	2.80	0.44
21:B0:839:U:H5'	21:B0:2407:G:H2'	2.00	0.44
1:AA:1422:G:OP1	31:BI:60:PRO:CA	2.66	0.44
21:B0:529:U:H2'	21:B0:530:G:C8	2.53	0.44
21:B0:2343:C:H2'	21:B0:2344:G:O4'	2.18	0.44
1:AA:94:G:C6	1:AA:96:C:N4	2.84	0.43
1:AA:6:G:H2'	5:AE:119:LEU:HD11	1.99	0.43
1:AA:335:C:O2	1:AA:1433:A:N3	2.51	0.43
21:B0:891:A:N1	21:B0:893:G:C6	2.86	0.43
1:AA:1190:G:C3'	3:AC:3:ASN:HB2	2.37	0.43
1:AA:1231:G:C4'	9:AI:126:SER:OG	2.66	0.43
21:B0:3128:G:H4'	21:B0:3174:C:H1'	1.97	0.43
1:AA:500:G:O2'	1:AA:548:G:N2	2.51	0.43
1:AA:1299:A:C8	1:AA:1301:U:H1'	2.53	0.43
21:B0:10:A:O2'	21:B0:11:G:H5'	2.18	0.43
7:AG:24:THR:HA	7:AG:27:ILE:HD12	2.00	0.43
1:AA:227:G:C2	1:AA:228:A:C1'	3.01	0.43
9:AI:97:LYS:HG3	9:AI:102:LEU:HD12	1.96	0.43
4:AD:3:ARG:HD3	4:AD:3:ARG:HA	1.78	0.43
21:B0:35:G:C1'	21:B0:466:A:H1'	2.48	0.43
21:B0:197:G:N2	21:B0:440:U:H2'	2.33	0.43
5:AE:36:ASP:OD2	5:AE:40:ARG:HD3	2.18	0.43
7:AG:38:LEU:HD12	7:AG:42:ILE:HG13	2.00	0.43
21:B0:1664:G:O5'	21:B0:1665:C:OP1	2.36	0.43
2:AB:146:GLN:O	2:AB:150:SER:HB3	2.18	0.43
21:B0:198:A:H4'	21:B0:199:A:OP2	2.17	0.43
8:AH:114:THR:C	8:AH:116:LYS:H	2.22	0.43
21:B0:758:G:O2'	21:B0:761:G:H1'	2.18	0.43
1:AA:137:C:O2'	1:AA:138:G:H5'	2.17	0.43
21:B0:1259:A:H2'	21:B0:1260:A:C8	2.53	0.43
21:B0:2065:A:H2'	21:B0:2066:G:O4'	2.18	0.43
21:B0:2265:A:H5''	21:B0:2266:A:O4'	2.18	0.43
21:B0:2033:C:H2'	21:B0:2034:A:O4'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:207:U:H2'	21:B0:208:C:C6	2.52	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
21:B0:3871:A:H2'	21:B0:3872:A:C8	2.54	0.43
1:AA:262:A:H4'	20:AT:74:LYS:HB3	2.00	0.43
1:AA:1398:A:C6	5:AE:21:ALA:HA	2.49	0.43
1:AA:114:U:O4'	1:AA:353:A:O4'	2.35	0.43
1:AA:433:C:O2'	1:AA:434:U:H5'	2.18	0.43
1:AA:184:G:C4'	1:AA:224:C:H4'	2.48	0.43
3:AC:11:ARG:O	3:AC:14:ILE:O	2.36	0.43
1:AA:1229:A:H2'	1:AA:1230:C:H6	1.84	0.43
1:AA:961:U:C2'	1:AA:962:C:H5'	2.48	0.43
19:AS:41:VAL:HG22	19:AS:44:MET:CE	2.49	0.43
13:AM:22:ILE:HD12	13:AM:25:ILE:CD1	2.41	0.43
21:B0:1065:A:O2'	21:B0:1066:G:H5'	2.19	0.43
3:AC:188:LEU:HD13	3:AC:189:ALA:H	1.83	0.43
3:AC:134:ILE:HG22	3:AC:168:ALA:CB	2.48	0.43
6:AF:75:LEU:HD13	6:AF:75:LEU:O	2.18	0.43
21:B0:109:A:H2'	21:B0:110:U:H5''	2.00	0.43
21:B0:1283:C:OP1	21:B0:1284:G:H5'	2.17	0.43
21:B0:583:C:N3	21:B0:2016:A:H4'	2.32	0.43
21:B0:2680:U:H3'	21:B0:2681:A:C5'	2.43	0.43
21:B0:925:U:H5''	21:B0:926:C:OP1	2.18	0.43
21:B0:1429:A:H1'	21:B0:1603:A:C6	2.53	0.43
21:B0:2469:G:H4'	21:B0:2470:U:C6	2.54	0.43
3:AC:47:LEU:HD13	3:AC:47:LEU:H	1.83	0.43
21:B0:860:U:O2	21:B0:860:U:H2'	2.17	0.43
21:B0:243:G:H2'	21:B0:244:C:O4'	2.18	0.43
1:AA:1128:C:H4'	9:AI:16:ARG:NH1	2.33	0.43
21:B0:1358:C:C2'	21:B0:1359:G:H5''	2.48	0.43
8:AH:16:ALA:O	8:AH:21:LYS:HG2	2.18	0.43
1:AA:858:G:O2'	1:AA:859:A:H5'	2.18	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
1:AA:430:A:H2'	1:AA:431:A:H5'	1.99	0.43
21:B0:1258:G:H2'	21:B0:1259:A:C8	2.52	0.43
21:B0:2498:U:H3'	21:B0:2498:U:OP1	2.17	0.43
13:AM:110:ARG:CG	13:AM:110:ARG:HH11	2.31	0.43
21:B0:1054:C:H2'	21:B0:1055:A:H5'	2.00	0.43
21:B0:1871:G:N3	21:B0:1871:G:H2'	2.33	0.43
3:AC:12:LEU:HD23	3:AC:12:LEU:HA	1.76	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:2069:U:H2'	21:B0:2070:G:C8	2.53	0.43
21:B0:1633:C:HO2'	21:B0:1634:A:P	2.40	0.43
2:AB:100:GLY:O	2:AB:104:ASN:N	2.44	0.43
21:B0:2867:G:N3	21:B0:2867:G:H3'	2.32	0.43
21:B0:1014:G:O2'	21:B0:1015:U:H5'	2.17	0.43
21:B0:944:A:H2'	21:B0:945:G:O4'	2.17	0.43
1:AA:1458:G:C4	1:AA:1459:C:O2	2.72	0.43
1:AA:235:C:C4'	17:AQ:70:ARG:CB	2.96	0.43
1:AA:1261:A:C1'	1:AA:1283:G:C4'	2.75	0.43
17:AQ:96:GLN:HG3	21:B0:725:C:HO2'	1.79	0.43
1:AA:538:G:OP1	12:AL:115:LYS:HB2	2.18	0.43
1:AA:451:A:N6	1:AA:480:U:H2'	2.33	0.43
1:AA:236:G:C5'	17:AQ:42:TYR:CE2	2.80	0.43
1:AA:205:G:N2	1:AA:207:C:H41	2.15	0.43
21:B0:2011:U:H2'	21:B0:2012:A:H8	1.83	0.43
3:AC:191:THR:HG21	3:AC:193:TYR:CE1	2.53	0.43
1:AA:640:A:C2'	1:AA:641:U:H5'	2.48	0.43
5:AE:31:LEU:HA	5:AE:31:LEU:HD23	1.74	0.43
21:B0:1923:U:H1'	21:B0:1947:G:H4'	1.99	0.43
8:AH:103:VAL:HG21	8:AH:109:ILE:O	2.18	0.43
21:B0:792:U:H2'	21:B0:793:G:O4'	2.19	0.43
21:B0:1881:U:H2'	21:B0:1882:G:H5'	2.00	0.43
15:AO:54:ARG:O	15:AO:58:MET:HG3	2.17	0.43
1:AA:363:A:O2'	1:AA:364:A:H5'	2.18	0.43
21:B0:712:A:H61	21:B0:746:G:H1'	1.83	0.43
6:AF:22:GLU:OE2	6:AF:84:ASN:HB2	2.18	0.43
21:B0:1482:U:H2'	21:B0:1483:G:C8	2.53	0.43
20:AT:63:ILE:HD13	20:AT:80:ARG:CB	2.48	0.43
17:AQ:95:TYR:C	17:AQ:97:SER:N	2.58	0.43
1:AA:560:U:N3	5:AE:123:LEU:CD1	2.81	0.43
3:AC:8:ILE:O	3:AC:11:ARG:N	2.47	0.43
13:AM:93:ARG:CB	21:B0:900(A):A:P	3.07	0.43
10:AJ:46:ARG:HH11	10:AJ:64:GLU:CG	2.31	0.43
13:AM:23:TYR:CE2	13:AM:70:LEU:HD13	2.53	0.43
16:AP:43:LYS:HA	16:AP:48:TRP:HB3	2.00	0.43
1:AA:501:C:H5'	1:AA:548:G:H22	1.83	0.43
1:AA:738:C:O4'	6:AF:73:ASN:ND2	2.51	0.43
1:AA:529:G:O6	12:AL:49:ASN:ND2	2.51	0.43
5:AE:24:ARG:NH1	5:AE:24:ARG:HG2	2.32	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:16:A:O2'	1:AA:17:U:H5'	2.18	0.43
10:AJ:86:MET:HE3	10:AJ:86:MET:HA	2.01	0.43
21:B0:437:G:O2'	21:B0:438:G:H5'	2.19	0.43
21:B0:1196:G:C2'	21:B0:1197:U:H5'	2.48	0.43
7:AG:138:LYS:HD3	7:AG:138:LYS:C	2.39	0.43
1:AA:1128:C:C4'	9:AI:16:ARG:NH1	2.81	0.43
21:B0:1257:U:H2'	21:B0:1258:G:C8	2.53	0.43
18:AR:58:LEU:HD22	18:AR:62:GLU:HB3	1.99	0.43
1:AA:675:A:O2'	11:AK:114:VAL:O	2.36	0.43
10:AJ:68:HIS:CD2	10:AJ:68:HIS:N	2.85	0.43
21:B0:1722:G:H2'	21:B0:1723:U:C6	2.54	0.43
21:B0:826:U:H2'	21:B0:827:C:C6	2.53	0.43
11:AK:100:ALA:O	11:AK:102:GLY:N	2.51	0.43
4:AD:55:ALA:O	4:AD:59:ARG:HG2	2.19	0.43
12:AL:111:LYS:O	12:AL:112:ASP:HB2	2.18	0.43
1:AA:1256:A:HO3'	1:AA:1257:U:C5'	2.32	0.43
1:AA:319:G:H5'	1:AA:1468:A:H5'	2.01	0.43
1:AA:1405:G:C1'	1:AA:1519:A:O4'	2.21	0.43
1:AA:1517:G:N2	21:B0:1902:A:HO2'	2.15	0.43
1:AA:1181:G:O2'	1:AA:1182:G:H5'	2.19	0.43
13:AM:84:ILE:HD12	19:AS:66:MET:HB3	2.01	0.43
1:AA:1347:G:O6	9:AI:107:ARG:NH2	2.42	0.43
3:AC:191:THR:HB	3:AC:194:GLY:O	2.18	0.43
16:AP:52:ASP:O	16:AP:52:ASP:CG	2.57	0.43
4:AD:24:GLU:HG2	4:AD:25:ARG:H	1.82	0.43
16:AP:20:VAL:CG1	16:AP:32:TYR:CB	2.95	0.43
21:B0:2636:A:H62	21:B0:2643:G:N2	2.09	0.43
1:AA:227:G:H2'	1:AA:228:A:O4'	2.19	0.43
1:AA:1353:G:H2'	1:AA:1354:C:C6	2.54	0.43
21:B0:815:A:H8	21:B0:815:A:P	2.42	0.43
21:B0:2378:G:H2'	21:B0:2379:G:H8	1.83	0.43
3:AC:79:ARG:C	3:AC:81:GLY:H	2.21	0.43
5:AE:40:ARG:NH1	5:AE:68:GLU:OE1	2.51	0.43
4:AD:10:ARG:HH11	4:AD:10:ARG:HG3	1.83	0.43
21:B0:2259:G:H2'	21:B0:2260:C:C6	2.53	0.43
15:AO:87:ILE:HG22	15:AO:88:ARG:N	2.34	0.43
21:B0:2035:G:H2'	21:B0:2036:G:C8	2.52	0.43
21:B0:2559:U:C2'	21:B0:2560:G:H5'	2.49	0.43
2:AB:83:MET:HG3	2:AB:238:LEU:HD11	2.00	0.43
21:B0:1482:U:H2'	21:B0:1483:G:H8	1.83	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:B0:1310:C:OP1	21:B0:2689:C:H4'	2.18	0.43
17:AQ:97:SER:O	17:AQ:98:LEU:HD12	2.19	0.43
1:AA:375:U:C4	1:AA:376:G:C5	3.06	0.43
1:AA:216:C:H5''	1:AA:466:A:N1	2.30	0.43
1:AA:489:C:H2'	1:AA:490:G:C8	2.54	0.43
1:AA:1060:C:O2'	1:AA:1061:G:H5'	2.18	0.43
1:AA:1367:C:H5''	9:AI:114:TYR:HB3	1.97	0.43
11:AK:54:ARG:H	11:AK:54:ARG:HG2	1.47	0.43
21:B0:1119:U:P	21:B0:1120:C:OP2	2.76	0.43
21:B0:931:G:N2	21:B0:2247:A:H5''	2.34	0.43
2:AB:124:SER:CB	2:AB:125:PRO:CD	2.90	0.43
2:AB:59:GLU:O	2:AB:60:ASP:C	2.57	0.43
21:B0:69:G:O2'	21:B0:70:A:H4'	2.17	0.43
1:AA:921:U:H4'	1:AA:1082:G:OP1	2.18	0.43
21:B0:2586:G:H2'	21:B0:2587:G:O4'	2.19	0.43
21:B0:2436:U:H2'	21:B0:2437:G:O4'	2.18	0.43
7:AG:78:ARG:HG2	7:AG:80:VAL:HG23	1.99	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
21:B0:45:C:H2'	21:B0:46:C:C6	2.53	0.43
1:AA:782:A:H2'	1:AA:783:C:O4'	2.19	0.43
21:B0:2241:U:H4'	21:B0:2307:A:C2	2.54	0.43
21:B0:969:U:O2'	21:B0:970:A:H5''	2.18	0.43
21:B0:491:A:N3	21:B0:491:A:H2'	2.34	0.43
21:B0:1391:A:H2'	21:B0:1392:U:C5	2.54	0.43
21:B0:1938:U:H3'	21:B0:2530:C:O2'	2.19	0.43
11:AK:98:LEU:HD23	11:AK:98:LEU:HA	1.82	0.43
21:B0:1424:U:H2'	21:B0:1425:G:C8	2.53	0.43
2:AB:28:PHE:CD2	2:AB:190:THR:HA	2.54	0.43
1:AA:1125:U:H5''	1:AA:1126:U:H5	1.83	0.43
1:AA:1474:G:H4'	21:B0:1717:A:N6	2.33	0.43
21:B0:1856:U:H5''	21:B0:3865:A:P	2.52	0.43
20:AT:63:ILE:HD13	20:AT:80:ARG:HB3	2.01	0.43
1:AA:7:G:H21	5:AE:121:LYS:CG	2.27	0.43
21:B0:3876:A:C4	53:B5:45:ASP:CA	3.02	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:1231:G:O3'	9:AI:126:SER:CB	2.67	0.43
1:AA:1230:C:H1'	13:AM:125:ARG:O	2.19	0.43
1:AA:1327:C:O2'	1:AA:1328:C:H5'	2.19	0.43
21:B0:941:U:H2'	21:B0:942:U:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1533:C:O2	1:AA:1533:C:H2'	2.17	0.43
1:AA:564:C:H5'	12:AL:10:LEU:HD13	2.01	0.43
1:AA:15:G:C1'	5:AE:24:ARG:NH1	2.82	0.43
1:AA:1131:G:H2'	1:AA:1132:C:H6	1.82	0.43
15:AO:78:TYR:CE2	15:AO:82:ILE:HD11	2.53	0.43
2:AB:41:ILE:O	2:AB:41:ILE:HG22	2.19	0.43
1:AA:160:A:H2'	1:AA:161:A:O4'	2.18	0.43
5:AE:80:ILE:HD12	5:AE:80:ILE:H	1.84	0.43
21:B0:540:G:N7	21:B0:2018:G:H4'	2.33	0.43
1:AA:836:G:OP1	18:AR:61:LYS:HD2	2.19	0.43
21:B0:217:U:H5'	21:B0:633:G:O2'	2.18	0.43
22:B9:35:C:H2'	22:B9:36:A:O4'	2.19	0.43
21:B0:211:U:O2'	21:B0:212:U:H5'	2.19	0.43
21:B0:1329:U:H2'	21:B0:1330:G:C8	2.54	0.43
1:AA:1010:G:O2'	1:AA:1011:G:H5'	2.18	0.43
1:AA:157:G:O2'	1:AA:158:G:H5'	2.19	0.43
21:B0:1401:G:H2'	21:B0:1402:G:H8	1.83	0.43
21:B0:2055:G:H2'	21:B0:2056:C:C6	2.54	0.43
17:AQ:104:LYS:CB	21:B0:726:G:N3	2.82	0.43
1:AA:315:A:C4'	1:AA:353:A:H61	2.25	0.43
1:AA:1485:U:P	21:B0:1943:A:O3'	2.77	0.43
21:B0:892:A:C4	21:B0:911:A:N1	2.87	0.43
1:AA:456:A:C6	1:AA:477:G:N3	2.86	0.43
19:AS:3:ARG:O	19:AS:4:SER:HB3	2.18	0.43
9:AI:78:LYS:HD3	9:AI:101:PHE:CD2	2.54	0.43
1:AA:59:A:H2'	1:AA:331:G:N1	2.33	0.43
3:AC:70:VAL:O	3:AC:106:VAL:N	2.51	0.43
2:AB:16:HIS:CE1	2:AB:210:SER:HG	2.37	0.43
21:B0:70:A:OP2	21:B0:111:G:H4'	2.19	0.43
3:AC:112:SER:HB2	3:AC:115:LEU:HB2	2.01	0.43
21:B0:2426:G:C5'	21:B0:2480:C:H41	2.28	0.43
21:B0:798:G:C2'	21:B0:799:C:H5'	2.48	0.43
21:B0:1429:A:O2'	21:B0:1430:G:H4'	2.19	0.43
21:B0:2468:G:H2'	21:B0:2469:G:O4'	2.19	0.43
21:B0:2728:A:H2'	21:B0:2729:A:O4'	2.18	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
21:B0:1634:A:O2'	21:B0:1635:G:OP1	2.29	0.43
1:AA:1458:G:N9	1:AA:1459:C:O2	2.52	0.43
17:AQ:104:LYS:HB3	17:AQ:105:ALA:H	1.48	0.43
5:AE:115:VAL:CG1	5:AE:116:THR:N	2.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:57:ARG:HE	20:AT:100:ILE:HG21	1.84	0.43
1:AA:618:C:N3	1:AA:622:A:N6	2.67	0.43
19:AS:12:ASP:HB2	19:AS:35:SER:OG	2.19	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
12:AL:26:ALA:C	12:AL:27:LEU:O	2.57	0.43
1:AA:958:A:C6	19:AS:55:LYS:HB3	2.53	0.43
17:AQ:45:HIS:CD2	17:AQ:47:PRO:HG3	2.54	0.43
1:AA:173:U:O4'	1:AA:197:A:C5	2.71	0.43
21:B0:873:U:O2	21:B0:2246:A:H5''	2.18	0.43
1:AA:370:C:C2'	1:AA:371:G:H5'	2.48	0.43
21:B0:2424:G:H2'	21:B0:2425:G:O4'	2.19	0.43
15:AO:29:VAL:HG11	15:AO:67:LEU:HD21	2.00	0.43
7:AG:112:PRO:O	7:AG:113:GLU:C	2.57	0.43
4:AD:127:THR:HG23	4:AD:128:VAL:N	2.34	0.43
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.54	0.43
20:AT:11:SER:C	20:AT:13:LEU:H	2.23	0.43
21:B0:1561:A:H2'	21:B0:1562:G:O4'	2.19	0.43
21:B0:1393:G:O2'	21:B0:1394:G:H5'	2.19	0.43
21:B0:2204:A:H1'	21:B0:2205:C:C5	2.53	0.43
4:AD:205:GLU:HB3	5:AE:107:ARG:HH21	1.83	0.43
1:AA:1342:C:C4'	9:AI:125:TYR:CE1	3.00	0.43
3:AC:59:ARG:O	10:AJ:92:THR:C	2.45	0.43
22:B9:108:G:O2'	22:B9:109:G:H5'	2.19	0.43
11:AK:93:GLN:NE2	11:AK:96:ARG:NH2	2.67	0.43
1:AA:1137:C:H4'	1:AA:1138:G:N1	2.33	0.43
4:AD:198:VAL:HG12	4:AD:199:ASN:N	2.34	0.43
1:AA:409:G:OP1	4:AD:24:GLU:O	2.36	0.43
1:AA:409:G:H2'	1:AA:410:G:O4'	2.18	0.43
11:AK:21:ILE:HD12	11:AK:95:ILE:HG12	2.00	0.43
2:AB:74:LYS:HD2	2:AB:166:ASP:HB2	2.00	0.43
21:B0:2572:U:H2'	21:B0:2573:C:C6	2.54	0.43
21:B0:765:C:O2'	21:B0:766:A:O4'	2.36	0.43
21:B0:635:C:H2'	21:B0:636:G:H5''	2.00	0.43
21:B0:1039:A:H2'	21:B0:1040:A:C8	2.54	0.43
21:B0:2475:C:C2'	21:B0:2476:A:H5'	2.49	0.43
21:B0:114:C:H2'	21:B0:115:G:O4'	2.19	0.43
21:B0:738:G:H2'	21:B0:739:G:O4'	2.18	0.43
1:AA:628:G:H2'	1:AA:629:G:H8	1.84	0.43
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.54	0.43
21:B0:1411:C:H6	21:B0:1411:C:O5'	2.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:170:U:H2'	21:B0:171:G:H8	1.84	0.43
21:B0:1466:C:H2'	21:B0:1467:U:O4'	2.19	0.43
21:B0:572:G:H2'	21:B0:573:C:C6	2.54	0.43
1:AA:1126:U:H2'	1:AA:1127:G:O4'	2.19	0.42
1:AA:991:U:O2	1:AA:993:G:H8	2.02	0.42
1:AA:1346:A:C2'	7:AG:10:ARG:NH2	2.65	0.42
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	2.00	0.42
1:AA:730:G:C5	1:AA:731:G:H1'	2.54	0.42
12:AL:41:ARG:HH11	12:AL:41:ARG:HB3	1.84	0.42
1:AA:1268:A:H1'	1:AA:1326:C:O2'	2.19	0.42
1:AA:735:C:HO2'	18:AR:75:ILE:CD1	2.28	0.42
9:AI:106:ALA:O	9:AI:108:VAL:HG23	2.19	0.42
2:AB:137:ARG:HA	2:AB:140:HIS:HD2	1.84	0.42
10:AJ:96:ILE:CG2	10:AJ:97:GLU:H	2.25	0.42
1:AA:15:G:N3	5:AE:19:MET:CG	2.82	0.42
21:B0:2625:U:H2'	21:B0:2626:U:O4'	2.18	0.42
9:AI:69:GLY:O	9:AI:73:GLN:HG3	2.18	0.42
20:AT:42:GLN:O	20:AT:46:GLU:HG3	2.19	0.42
21:B0:689:A:C2'	21:B0:690:A:H5'	2.48	0.42
21:B0:1429:A:N6	21:B0:1602:G:H5'	2.34	0.42
11:AK:33:THR:OG1	11:AK:37:GLY:C	2.58	0.42
1:AA:778:G:O2'	1:AA:779:C:H5'	2.19	0.42
17:AQ:60:ILE:HD13	17:AQ:61:GLU:N	2.34	0.42
21:B0:842:A:H5'	21:B0:844:G:C5	2.54	0.42
1:AA:1263:C:H2'	1:AA:1264:C:H6	1.83	0.42
21:B0:2455:A:C2'	21:B0:2456:U:H5'	2.49	0.42
1:AA:1135:U:O5'	1:AA:1135:U:H6	2.01	0.42
4:AD:60:GLU:OE1	4:AD:60:GLU:HA	2.19	0.42
21:B0:1307:U:H2'	21:B0:1308:C:O4'	2.19	0.42
21:B0:744:C:H2'	21:B0:745:C:C6	2.54	0.42
1:AA:1393:U:C2	1:AA:1395:C:N4	2.87	0.42
17:AQ:104:LYS:NZ	21:B0:726:G:H1	2.09	0.42
21:B0:2204:A:H4'	21:B0:2205:C:O4'	2.19	0.42
1:AA:1483:A:N3	1:AA:1484:C:C6	2.87	0.42
1:AA:42:G:H21	1:AA:622:A:H2	1.66	0.42
1:AA:1158:C:N3	1:AA:1181:G:N2	2.61	0.42
19:AS:40:ILE:HG23	19:AS:44:MET:SD	2.59	0.42
21:B0:3185:U:H2'	21:B0:3186:C:O4'	2.19	0.42
12:AL:41:ARG:NH1	12:AL:41:ARG:CB	2.82	0.42
1:AA:714:G:H4'	1:AA:776:G:H5'	2.01	0.42
1:AA:974:A:OP1	1:AA:974:A:H8	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:88:ALA:C	2:AB:90:MET:N	2.71	0.42
4:AD:196:LEU:C	4:AD:198:VAL:H	2.22	0.42
12:AL:55:VAL:CG1	12:AL:67:THR:CG2	2.97	0.42
6:AF:100:ASN:ND2	18:AR:23:LYS:O	2.52	0.42
21:B0:220:U:H2'	21:B0:221:A:O4'	2.19	0.42
21:B0:2639:A:H2'	21:B0:2640:G:O4'	2.20	0.42
18:AR:26:LEU:CD1	18:AR:27:GLY:H	2.29	0.42
17:AQ:59:ILE:CG2	17:AQ:71:PHE:CD1	3.02	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:B0:796:A:C2	21:B0:798:G:H1'	2.54	0.42
4:AD:157:LEU:CD2	4:AD:161:ASN:ND2	2.74	0.42
21:B0:1626:A:H5''	21:B0:1627:C:OP2	2.19	0.42
1:AA:418:C:H2'	1:AA:419:C:C6	2.54	0.42
1:AA:854:G:H3'	1:AA:871:U:O4	2.19	0.42
21:B0:1975:G:H4'	21:B0:1976:U:C5	2.53	0.42
21:B0:2404:A:OP1	21:B0:2406:C:H5'	2.18	0.42
4:AD:163:GLU:C	4:AD:165:MET:N	2.72	0.42
21:B0:1788:C:H2'	21:B0:1789:U:C6	2.54	0.42
18:AR:46:GLU:CD	18:AR:46:GLU:N	2.72	0.42
11:AK:85:ARG:NH1	11:AK:85:ARG:HG3	2.34	0.42
21:B0:1982:C:H2'	21:B0:1983:G:C8	2.52	0.42
21:B0:1292:A:H2'	21:B0:1293:A:H8	1.84	0.42
1:AA:762:C:C4'	21:B0:729:A:N6	2.54	0.42
1:AA:1489:G:H2'	1:AA:1490:C:C5'	2.27	0.42
1:AA:1016:A:C5'	14:AN:15:LYS:CE	2.75	0.42
1:AA:1221:G:O3'	19:AS:77:THR:HG21	2.20	0.42
1:AA:977:A:C8	1:AA:1223:C:N4	2.87	0.42
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.52	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
12:AL:60:LEU:CD2	12:AL:66:VAL:HG22	2.49	0.42
21:B0:1080:A:H4'	21:B0:1081:A:C8	2.54	0.42
3:AC:50:ALA:O	3:AC:70:VAL:CG1	2.67	0.42
21:B0:872:G:H2'	21:B0:928:G:N1	2.35	0.42
10:AJ:15:THR:HG23	10:AJ:94:VAL:CG2	2.49	0.42
5:AE:16:THR:HG23	5:AE:27:ARG:O	2.19	0.42
21:B0:1811:A:H1'	21:B0:1813:A:C5	2.53	0.42
1:AA:1195:C:H3'	1:AA:1196:U:H5''	2.01	0.42
21:B0:1764:A:H2'	21:B0:1765:C:O4'	2.19	0.42
1:AA:1228:C:H4'	13:AM:116:THR:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:942:G:H2'	1:AA:943:U:H6	1.85	0.42
21:B0:338:G:O2'	21:B0:339:U:H5'	2.19	0.42
21:B0:1981:A:H4'	21:B0:2704:U:O2'	2.19	0.42
6:AF:40:VAL:HG22	6:AF:41:GLU:N	2.34	0.42
10:AJ:17:ASP:O	10:AJ:21:GLN:HB2	2.19	0.42
9:AI:56:LEU:O	9:AI:58:ARG:N	2.49	0.42
21:B0:569:C:H2'	21:B0:570:G:C8	2.53	0.42
7:AG:31:MET:SD	7:AG:34:GLY:HA2	2.59	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: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
19:AS:41:VAL:HB	19:AS:43:GLU:OE2	2.19	0.42
1:AA:1371:G:OP2	9:AI:11:LYS:CE	2.68	0.42
1:AA:848:G:HO2'	1:AA:849:C:C4'	2.28	0.42
7:AG:65:ALA:O	7:AG:66:VAL:C	2.58	0.42
21:B0:2492:G:H2'	21:B0:2493:U:C6	2.54	0.42
2:AB:33:TYR:O	2:AB:34:ALA:CB	2.67	0.42
1:AA:808:C:P	15:AO:48:LYS:CE	3.07	0.42
3:AC:116:VAL:HG11	3:AC:141:VAL:HG21	2.01	0.42
19:AS:17:GLU:HA	19:AS:20:LEU:CD1	2.49	0.42
7:AG:15:ASP:OD2	7:AG:23:VAL:HG11	2.19	0.42
21:B0:1223:G:H4'	21:B0:1224:A:C5'	2.49	0.42
4:AD:8:VAL:CG1	4:AD:21:LEU:CD1	2.97	0.42
12:AL:43:VAL:CG1	12:AL:44:THR:N	2.81	0.42
1:AA:487:A:H2'	1:AA:488:C:O4'	2.19	0.42
1:AA:418:C:H2'	1:AA:419:C:H6	1.84	0.42
16:AP:4:ILE:HG23	16:AP:36:ILE:HD11	2.01	0.42
21:B0:1017:C:H2'	21:B0:1018:C:O4'	2.19	0.42
21:B0:477:A:H2'	21:B0:478:G:O4'	2.20	0.42
21:B0:2561:G:N3	21:B0:2561:G:H2'	2.35	0.42
1:AA:1244:C:O2'	1:AA:1245:A:H5'	2.19	0.42
21:B0:2771:C:H5	21:B0:2867:G:H22	1.66	0.42
5:AE:131:ILE:HD13	5:AE:131:ILE:HA	1.93	0.42
8:AH:68:ARG:HH11	8:AH:68:ARG:HG2	1.84	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:1126:U:H2'	1:AA:1127:G:H8	1.85	0.42
1:AA:264:U:O2'	17:AQ:63:ARG:CD	2.68	0.42
1:AA:761:G:C5'	17:AQ:102:GLY:C	2.87	0.42
1:AA:1407:C:H2'	1:AA:1408:A:H8	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1505:G:H3'	1:AA:1505:G:H8	1.85	0.42
1:AA:1106:G:OP1	3:AC:172:ARG:CD	2.68	0.42
1:AA:1015:A:C2	1:AA:1218:C:O2'	2.73	0.42
1:AA:1231:G:O3'	9:AI:126:SER:HB3	2.19	0.42
3:AC:59:ARG:O	10:AJ:92:THR:HG23	2.13	0.42
1:AA:246:A:O3'	1:AA:247:G:O4'	2.36	0.42
1:AA:44:G:OP2	16:AP:12:LYS:CG	2.63	0.42
22:B9:73:C:H3'	22:B9:74:A:OP2	2.20	0.42
1:AA:452:A:O2'	1:AA:453:A:O4'	2.34	0.42
1:AA:1266:G:N2	1:AA:1269:A:OP2	2.49	0.42
1:AA:1086:U:O3'	1:AA:1389:C:H5''	2.20	0.42
12:AL:70:ILE:CD1	12:AL:77:LEU:HD12	2.42	0.42
1:AA:1446:A:C4	1:AA:1456:A:N1	2.87	0.42
21:B0:1313:U:O2'	21:B0:1314:A:P	2.78	0.42
21:B0:1957:C:O2'	21:B0:1958:G:H5'	2.20	0.42
4:AD:25:ARG:HA	4:AD:28:SER:OG	2.19	0.42
1:AA:583:A:H5''	17:AQ:90:ILE:HG21	2.01	0.42
21:B0:2523:G:O2'	21:B0:2524:G:H5'	2.20	0.42
21:B0:2437:G:H4'	21:B0:2438:A:N7	2.35	0.42
5:AE:80:ILE:HD12	5:AE:91:LEU:HB2	2.00	0.42
1:AA:1441:G:H4'	1:AA:1442:G:C8	2.54	0.42
1:AA:617:G:H4'	16:AP:45:THR:CG2	2.47	0.42
1:AA:448:A:C4	1:AA:487:A:C2	3.07	0.42
21:B0:669:G:H2'	21:B0:670:U:O4'	2.20	0.42
21:B0:19:C:H2'	21:B0:20:C:C6	2.54	0.42
21:B0:2564:U:H5''	21:B0:2565:C:H5'	2.01	0.42
1:AA:1264:C:H2'	1:AA:1265:G:C8	2.54	0.42
11:AK:104:GLN:OE1	11:AK:106:LYS:HE2	2.19	0.42
21:B0:2559:U:H2'	21:B0:2560:G:H5'	2.01	0.42
1:AA:359:U:O2'	1:AA:360:A:H5'	2.18	0.42
1:AA:631:G:O3'	1:AA:632:A:P	2.77	0.42
21:B0:1775:A:H4'	21:B0:1776:A:C8	2.54	0.42
21:B0:1480:G:C2'	21:B0:1481:U:H5'	2.49	0.42
1:AA:1392:G:C5'	1:AA:1531:A:H5''	2.50	0.42
17:AQ:103:GLY:C	21:B0:726:G:N2	2.46	0.42
17:AQ:95:TYR:CD1	17:AQ:95:TYR:N	2.88	0.42
1:AA:1416:G:C3'	1:AA:1417:G:OP1	2.68	0.42
1:AA:1227:A:H5'	19:AS:80:TYR:OH	2.19	0.42
1:AA:992:U:H2'	1:AA:1043:C:C4	2.48	0.42
1:AA:833:U:H2'	1:AA:834:C:C6	2.55	0.42
10:AJ:62:HIS:ND1	14:AN:61:TRP:CZ3	2.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:928:G:HO2'	1:AA:1533:C:H5	1.66	0.42
1:AA:1305:G:N2	1:AA:1331:G:HO2'	2.14	0.42
1:AA:333:G:O4'	20:AT:16:HIS:HD2	1.90	0.42
21:B0:833:A:H2'	21:B0:834:A:C8	2.55	0.42
21:B0:1679:U:H2'	21:B0:1680:U:H5''	2.02	0.42
19:AS:20:LEU:HD12	19:AS:21:GLU:N	2.34	0.42
10:AJ:72:VAL:O	10:AJ:73:ASP:HB2	2.18	0.42
1:AA:288:A:HO2'	1:AA:290:C:P	2.36	0.42
1:AA:1377:A:H2'	7:AG:2:ALA:HB3	2.02	0.42
15:AO:41:GLU:O	15:AO:42:HIS:C	2.57	0.42
7:AG:108:ALA:O	7:AG:119:ARG:HD2	2.18	0.42
22:B9:50:U:H2'	22:B9:51:G:H8	1.83	0.42
21:B0:1672:A:H2'	21:B0:1673:C:O4'	2.20	0.42
8:AH:51:VAL:CG1	8:AH:52:ASP:N	2.82	0.42
21:B0:1855:G:H4'	21:B0:2390:A:H4'	2.00	0.42
21:B0:3148:G:H2'	21:B0:3149:G:H5'	1.91	0.42
1:AA:762:C:H5'	17:AQ:104:LYS:HZ1	1.85	0.42
1:AA:117:G:N2	1:AA:313:A:H4'	2.34	0.42
1:AA:1399:C:C2	1:AA:1502:A:N6	2.86	0.42
1:AA:218:C:P	1:AA:470:U:O4'	2.78	0.42
1:AA:960:U:O2'	1:AA:1223:C:C4'	2.68	0.42
1:AA:960:U:O2	1:AA:960:U:H2'	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
13:AM:6:GLY:O	13:AM:7:VAL:CG2	2.65	0.42
12:AL:60:LEU:HD21	12:AL:66:VAL:CG2	2.50	0.42
3:AC:193:TYR:HE1	3:AC:196:LEU:HD11	1.83	0.42
21:B0:1181:C:H3'	21:B0:1182:U:H5''	2.01	0.42
1:AA:107:G:O2'	1:AA:108:G:H5'	2.20	0.42
4:AD:24:GLU:H	4:AD:112:VAL:HG11	1.85	0.42
1:AA:584:G:H2'	1:AA:585:G:C8	2.54	0.42
21:B0:69:G:O2'	21:B0:70:A:P	2.78	0.42
1:AA:1152:A:H5''	10:AJ:13:HIS:HD2	1.85	0.42
1:AA:1376:U:OP1	7:AG:98:SER:CB	2.68	0.42
1:AA:1129:C:O2'	1:AA:1130:A:P	2.78	0.42
21:B0:841:G:N1	21:B0:2226:A:H4'	2.35	0.42
21:B0:738:G:C2'	21:B0:739:G:H5'	2.50	0.42
21:B0:589:C:H2'	21:B0:590:C:C6	2.55	0.42
21:B0:1961:A:H2'	21:B0:1962:C:O4'	2.19	0.42
1:AA:461:C:O2'	1:AA:462:A:H5'	2.19	0.42
21:B0:903:G:C6	21:B0:904:U:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:AA:1394:A:O2'	1:AA:1501:C:O2	2.37	0.42
1:AA:1394:A:H61	1:AA:1501:C:C5'	2.26	0.42
1:AA:1261:A:H5'	1:AA:1283:G:C3'	2.50	0.42
1:AA:51:A:N6	1:AA:313:A:H2	2.17	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:39:G:N7	1:AA:498:U:C4	2.87	0.42
1:AA:960:U:C1'	1:AA:1222:G:HO2'	2.18	0.42
13:AM:80:ARG:C	13:AM:82:MET:N	2.73	0.42
1:AA:44:G:P	16:AP:12:LYS:CB	2.85	0.42
17:AQ:40:LYS:HD3	17:AQ:42:TYR:OH	2.20	0.42
21:B0:2633:A:H4'	21:B0:2634:G:C4'	2.39	0.42
3:AC:70:VAL:HG12	3:AC:71:ALA:H	1.84	0.42
11:AK:65:ALA:O	11:AK:68:ALA:HB3	2.20	0.42
4:AD:63:LYS:O	4:AD:64:LEU:C	2.58	0.42
1:AA:1237:C:H4'	1:AA:1334:G:H21	1.85	0.42
21:B0:583:C:H4'	21:B0:584:A:OP2	2.20	0.42
21:B0:2467:A:H2'	21:B0:2468:G:C8	2.55	0.42
3:AC:77:ILE:CG2	3:AC:81:GLY:HA2	2.50	0.42
21:B0:509:U:H2'	21:B0:510:G:H5'	2.00	0.42
2:AB:204:ASN:HD22	2:AB:206:ASP:H	1.66	0.42
1:AA:851:G:H2'	1:AA:852:G:H8	1.84	0.42
11:AK:100:ALA:O	11:AK:101:SER:C	2.57	0.42
3:AC:57:ILE:HG22	3:AC:57:ILE:O	2.20	0.42
22:B9:9:G:H2'	22:B9:10:U:O4'	2.20	0.42
1:AA:132:C:O4'	1:AA:262:A:N9	2.53	0.42
1:AA:815:A:C2	1:AA:1528:U:C5'	2.85	0.42
1:AA:8:A:C5	4:AD:209:ARG:CA	3.03	0.42
1:AA:1409:C:N4	1:AA:1410:G:O6	2.53	0.42
1:AA:1106:G:OP1	3:AC:172:ARG:HD3	2.19	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:70:A:O2'	1:AA:71:U:H5'	2.19	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
1:AA:825:G:O2'	1:AA:826:C:H5'	2.20	0.42
12:AL:55:VAL:CG1	12:AL:56:ALA:N	2.83	0.42
4:AD:148:VAL:HG13	4:AD:158:ILE:HD13	2.01	0.42
21:B0:877:G:N2	21:B0:926:C:H41	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:814:G:H3'	21:B0:815:A:C5'	2.46	0.42
4:AD:70:ILE:HD11	4:AD:100:ARG:CD	2.49	0.42
1:AA:169:C:O2'	1:AA:170:U:H5'	2.19	0.42
21:B0:332:C:H2'	21:B0:333:A:H5'	2.02	0.42
21:B0:2404:A:O2'	21:B0:2405:A:OP2	2.29	0.42
21:B0:2393:G:H2'	21:B0:2394:G:H8	1.85	0.42
1:AA:1264:C:H2'	1:AA:1265:G:H8	1.85	0.42
21:B0:1938:U:O2'	21:B0:1939:U:H5'	2.20	0.42
21:B0:1667:A:H2'	21:B0:1668:G:C8	2.55	0.42
8:AH:39:LEU:HD13	8:AH:39:LEU:HA	1.86	0.42
21:B0:2815:C:H2'	21:B0:2816:C:C6	2.55	0.42
21:B0:594:G:H21	21:B0:1267:A:H62	1.68	0.42
21:B0:571:U:H2'	21:B0:581:A:H1'	2.02	0.42
21:B0:391:C:H2'	21:B0:392:G:C8	2.54	0.42
1:AA:692:U:O2	1:AA:695:A:C8	2.73	0.42
1:AA:1277:C:O3'	1:AA:1279:A:H5'	2.20	0.42
17:AQ:95:TYR:HA	17:AQ:98:LEU:HD11	2.02	0.42
1:AA:319:G:O2'	1:AA:1434:A:C2	2.40	0.42
1:AA:560:U:H4'	1:AA:561:U:C5'	2.50	0.42
5:AE:120:THR:HG23	5:AE:121:LYS:H	1.84	0.42
1:AA:1095:U:H2'	1:AA:1096:C:H6	1.83	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
5:AE:93:PRO:HG2	8:AH:105:ARG:NH2	2.35	0.42
13:AM:84:ILE:CG2	19:AS:66:MET:CE	2.98	0.42
21:B0:3184:C:H2'	21:B0:3185:U:H5''	1.98	0.42
9:AI:120:ARG:O	9:AI:122:ALA:N	2.53	0.42
1:AA:119:A:C8	1:AA:240:C:N4	2.88	0.42
21:B0:3098:U:O3'	21:B0:3099:U:OP2	2.15	0.42
22:B9:106:U:O2'	22:B9:107:C:H5'	2.19	0.42
12:AL:58:VAL:N	12:AL:66:VAL:O	2.47	0.42
11:AK:57:THR:OG1	11:AK:58:PRO:HD2	2.20	0.42
21:B0:1747:G:H1'	21:B0:1749:G:C2	2.55	0.42
2:AB:125:PRO:C	2:AB:127:ILE:H	2.22	0.42
1:AA:522:C:O2'	1:AA:523:A:H5'	2.19	0.42
1:AA:15:G:N9	5:AE:19:MET:HE2	2.35	0.42
1:AA:825:G:H2'	1:AA:826:C:C6	2.53	0.42
1:AA:640:A:O2'	1:AA:641:U:H5'	2.20	0.42
1:AA:413:G:N2	1:AA:428:G:H1'	2.34	0.42
6:AF:45:LEU:O	6:AF:46:ARG:HG2	2.20	0.42
15:AO:48:LYS:O	15:AO:50:HIS:N	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:3126:A:H4'	21:B0:3127:G:OP1	2.19	0.42
21:B0:1912:G:H3'	21:B0:1912:G:N3	2.35	0.42
3:AC:79:ARG:NE	3:AC:82:GLU:HG2	2.34	0.42
1:AA:636:U:H2'	1:AA:637:G:C8	2.54	0.42
22:B9:25:G:C2'	22:B9:26:G:H5'	2.50	0.42
13:AM:32:GLU:O	13:AM:35:GLU:N	2.53	0.42
1:AA:606:G:H3'	1:AA:607:A:H5'	2.02	0.42
21:B0:1040:A:C2'	21:B0:1041:G:H5'	2.49	0.42
21:B0:869:C:O2'	21:B0:870:C:H5'	2.19	0.42
11:AK:99:GLN:HG2	11:AK:105:VAL:HG21	2.02	0.42
1:AA:767:A:H2'	1:AA:768:A:O4'	2.20	0.42
21:B0:1671:A:H2'	21:B0:1672:A:H8	1.85	0.42
2:AB:228:GLY:O	2:AB:229:VAL:C	2.58	0.42
6:AF:77:ARG:O	6:AF:81:ILE:HG13	2.19	0.42
21:B0:334:G:N3	21:B0:344:G:H1'	2.35	0.42
18:AR:17:SER:HB2	18:AR:54:ARG:HH21	1.85	0.42
21:B0:1900:U:H3'	21:B0:1901:A:H8	1.85	0.42
21:B0:3110:G:C4'	21:B0:3111:C:OP2	2.67	0.41
1:AA:927:G:O2'	1:AA:1532:U:C5'	2.67	0.41
1:AA:761:G:C4'	17:AQ:102:GLY:C	2.82	0.41
1:AA:189:A:N6	20:AT:104:LEU:HA	2.28	0.41
20:AT:54:LYS:HA	20:AT:57:ARG:HD3	2.02	0.41
21:B0:1112:U:O2	21:B0:1112:U:H2'	2.20	0.41
9:AI:110:GLU:OE2	9:AI:113:LYS:NZ	2.53	0.41
1:AA:625:G:O2'	1:AA:626:U:H5'	2.20	0.41
1:AA:976:G:C5	1:AA:2361:C:C4	3.08	0.41
2:AB:60:ASP:O	2:AB:64:ARG:HB2	2.20	0.41
2:AB:187:LEU:HA	2:AB:201:ILE:HB	2.01	0.41
21:B0:425:A:H2'	21:B0:426:C:O4'	2.20	0.41
21:B0:2809:A:H2'	21:B0:2810:A:H5'	2.01	0.41
10:AJ:32:ALA:HB2	10:AJ:75:ILE:O	2.19	0.41
20:AT:44:ALA:HB2	20:AT:88:VAL:HG13	2.02	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
16:AP:4:ILE:CG1	16:AP:64:ALA:HB1	2.49	0.41
7:AG:69:VAL:CG1	7:AG:69:VAL:O	2.68	0.41
8:AH:126:LYS:C	8:AH:128:GLY:N	2.73	0.41
1:AA:145:G:O2'	1:AA:146:G:H5'	2.20	0.41
7:AG:45:ASP:O	7:AG:49:ILE:HG13	2.20	0.41
21:B0:2195:C:H2'	21:B0:2196:U:O4'	2.20	0.41
3:AC:187:ALA:O	3:AC:198:VAL:N	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:3875:A:H4'	53:B5:43:LYS:CA	2.51	0.41
20:AT:80:ARG:O	20:AT:84:LEU:HB2	2.20	0.41
1:AA:1182:G:O2'	1:AA:1183:A:C5'	2.69	0.41
3:AC:64:VAL:HG12	3:AC:65:ALA:H	1.84	0.41
1:AA:935:A:H4'	1:AA:1384:C:H1'	2.02	0.41
1:AA:1234:C:H4'	1:AA:1364:U:C1'	2.50	0.41
3:AC:191:THR:HG22	3:AC:193:TYR:N	2.23	0.41
3:AC:134:ILE:HG22	3:AC:168:ALA:HB3	2.01	0.41
2:AB:64:ARG:HB2	2:AB:64:ARG:HE	1.70	0.41
1:AA:162:A:H2'	1:AA:163:C:O4'	2.20	0.41
1:AA:866:C:H2'	1:AA:867:G:O4'	2.20	0.41
9:AI:97:LYS:HB2	9:AI:98:PRO:HD3	2.01	0.41
1:AA:1440:C:H2'	1:AA:1441:G:C5'	2.48	0.41
21:B0:2694:G:H2'	21:B0:2695:C:C6	2.55	0.41
21:B0:1196:G:H2'	21:B0:1197:U:H5'	2.00	0.41
21:B0:860:U:O2'	21:B0:861:G:H5'	2.20	0.41
21:B0:167:A:H2'	21:B0:168:A:C8	2.55	0.41
1:AA:628:G:O2'	1:AA:629:G:H5'	2.20	0.41
9:AI:104:ARG:O	9:AI:105:ASP:C	2.59	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:B0:2721:A:H62	21:B0:2743:G:H21	1.68	0.41
21:B0:1448:A:H2'	21:B0:1449:C:C6	2.55	0.41
1:AA:1402:C:H2'	1:AA:1403:C:H6	1.85	0.41
17:AQ:95:TYR:N	17:AQ:95:TYR:HD1	2.18	0.41
16:AP:39:TYR:CD2	16:AP:73:LEU:HD11	2.54	0.41
4:AD:205:GLU:O	4:AD:208:SER:HB2	2.20	0.41
21:B0:1082:G:H1'	21:B0:1100:G:H2'	2.03	0.41
1:AA:439:A:N6	1:AA:497:A:H1'	2.35	0.41
1:AA:406:G:O6	1:AA:496:A:N7	2.31	0.41
1:AA:19:C:O2'	1:AA:20:U:H5'	2.20	0.41
10:AJ:55:LYS:O	10:AJ:56:HIS:HB2	2.19	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
15:AO:70:LEU:HD12	15:AO:78:TYR:HB2	2.01	0.41
21:B0:1528:C:H3'	21:B0:1529:C:H5''	2.02	0.41
10:AJ:3:LYS:HG3	10:AJ:75:ILE:HG23	2.02	0.41
7:AG:93:PRO:HG2	7:AG:94:ARG:H	1.85	0.41
15:AO:34:LEU:C	15:AO:34:LEU:HD23	2.40	0.41
21:B0:1683:G:H2'	21:B0:1684:G:H5'	2.02	0.41
21:B0:2676:G:H2'	21:B0:2677:U:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1262:C:N4	1:AA:1273:G:H1	2.18	0.41
21:B0:2459:C:C2'	21:B0:2460:G:H5'	2.51	0.41
1:AA:942:G:C2	1:AA:943:U:C6	3.07	0.41
13:AM:67:GLU:HB3	13:AM:68:GLY:H	1.58	0.41
1:AA:1431:C:H2'	1:AA:1432:G:O4'	2.21	0.41
21:B0:328:A:O2'	21:B0:329:C:H5'	2.20	0.41
21:B0:1447:U:H1'	21:B0:1577:G:H22	1.86	0.41
1:AA:1531:A:O5'	1:AA:1531:A:H8	2.03	0.41
1:AA:953:G:H1'	13:AM:125:ARG:HB3	1.99	0.41
13:AM:82:MET:HG3	13:AM:93:ARG:HG3	2.02	0.41
1:AA:246:A:H1'	1:AA:247:G:H1'	2.02	0.41
9:AI:110:GLU:HG2	9:AI:113:LYS:NZ	2.35	0.41
1:AA:1372:U:OP2	9:AI:11:LYS:CE	2.68	0.41
1:AA:47:C:C6	1:AA:365:U:H2'	2.56	0.41
13:AM:36:LYS:C	13:AM:38:GLY:H	2.24	0.41
1:AA:397:A:H5'	1:AA:398:C:P	2.60	0.41
1:AA:550:G:O2'	1:AA:551:U:H5'	2.20	0.41
1:AA:1269:A:C6	1:AA:1313:U:H4'	2.56	0.41
1:AA:300:A:C1'	1:AA:565:U:O2	2.47	0.41
21:B0:31:C:H5''	21:B0:1252:C:OP1	2.20	0.41
8:AH:111:ILE:O	8:AH:134:ILE:HB	2.20	0.41
1:AA:1355:G:O2'	1:AA:1356:G:H5'	2.21	0.41
2:AB:145:LEU:HA	2:AB:145:LEU:HD23	1.84	0.41
2:AB:62:ALA:C	2:AB:64:ARG:H	2.23	0.41
1:AA:1138:G:N1	1:AA:1140:C:C2	2.89	0.41
21:B0:895:G:H2'	21:B0:896:C:O4'	2.20	0.41
21:B0:1679:U:H3'	21:B0:1680:U:C5'	2.45	0.41
7:AG:23:VAL:HG13	7:AG:43:PHE:CE2	2.55	0.41
1:AA:382:A:C2	1:AA:383:A:C4	3.08	0.41
15:AO:26:GLU:HG3	15:AO:81:LEU:HG	2.02	0.41
1:AA:532:A:H2'	1:AA:533:A:C5'	2.48	0.41
21:B0:2448:A:C2'	21:B0:2449:G:H5'	2.50	0.41
1:AA:1240:U:H5	7:AG:109:ASN:OD1	2.04	0.41
21:B0:601:A:H3'	21:B0:602:C:H5'	2.03	0.41
6:AF:48:LEU:HD13	6:AF:52:ILE:CG1	2.50	0.41
1:AA:647:C:H2'	1:AA:648:A:C8	2.54	0.41
13:AM:96:LEU:HB3	13:AM:97:PRO:HD2	2.01	0.41
21:B0:1880:G:H2'	21:B0:1881:U:C6	2.55	0.41
15:AO:83:GLU:C	15:AO:83:GLU:OE1	2.58	0.41
1:AA:1453:G:H2'	1:AA:1454:G:O4'	2.21	0.41
21:B0:773:G:H2'	21:B0:774:A:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1473:A:O2'	21:B0:1718:A:C2	2.66	0.41
21:B0:3865:A:C4	21:B0:3875:A:N1	2.89	0.41
1:AA:262:A:C4'	20:AT:74:LYS:CB	2.98	0.41
1:AA:355:C:C4'	1:AA:389:A:OP2	2.68	0.41
20:AT:100:ILE:C	20:AT:102:GLY:N	2.74	0.41
1:AA:8:A:C6	4:AD:209:ARG:CA	3.03	0.41
21:B0:1073:G:H2'	21:B0:1073:G:N3	2.35	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
13:AM:84:ILE:HD12	19:AS:74:PHE:HE2	1.86	0.41
1:AA:1112:C:C2	3:AC:178:LEU:CA	3.03	0.41
1:AA:38:G:O4'	1:AA:547:A:C6	2.73	0.41
1:AA:1057:G:H2'	1:AA:1058:G:O4'	2.20	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
21:B0:1204:G:H2'	21:B0:1205:G:C8	2.55	0.41
2:AB:10:LEU:C	2:AB:12:GLU:N	2.72	0.41
7:AG:95:ARG:NH1	7:AG:95:ARG:CG	2.80	0.41
1:AA:867:G:O2'	1:AA:868:C:H5'	2.20	0.41
21:B0:2756:A:H1'	21:B0:2758:A:N7	2.36	0.41
21:B0:2440:C:H1'	21:B0:2471:U:N3	2.32	0.41
21:B0:2796:A:H2'	21:B0:2797:G:O4'	2.20	0.41
1:AA:602:A:C2	1:AA:637:G:C2	3.08	0.41
21:B0:1579:G:H2'	21:B0:1580:C:C6	2.56	0.41
16:AP:19:ILE:HG22	16:AP:36:ILE:CG1	2.51	0.41
21:B0:59:G:O6	21:B0:62:U:H2'	2.19	0.41
1:AA:841:C:N3	1:AA:845:A:N6	2.67	0.41
21:B0:567:G:H2'	21:B0:568:G:C8	2.56	0.41
13:AM:46:LYS:HE3	13:AM:46:LYS:HB2	1.86	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
21:B0:1055:A:H2	21:B0:1121:G:H2'	1.83	0.41
21:B0:2710:C:O2'	21:B0:2711:G:H5'	2.20	0.41
1:AA:191:G:N2	1:AA:192:U:H1'	2.23	0.41
1:AA:1394:A:C2	1:AA:1501:C:C1'	3.02	0.41
20:AT:53:LEU:HD13	20:AT:101:GLY:N	2.35	0.41
1:AA:134:A:C1'	1:AA:325:A:C4	3.03	0.41
21:B0:909:C:H2'	21:B0:910:U:H6	1.85	0.41
3:AC:172:ARG:HH12	3:AC:174:PRO:CG	2.22	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:977:A:H1'	1:AA:1223:C:N4	2.35	0.41
1:AA:1044:A:C2'	1:AA:1045:C:HO2'	2.18	0.41
1:AA:143:A:H2	1:AA:220:G:H22	1.66	0.41
1:AA:1213:A:N1	1:AA:1215:G:H1'	2.35	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:1300:G:O2'	1:AA:1301:U:C6	2.70	0.41
14:AN:3:ARG:NH1	14:AN:6:LEU:CD1	2.84	0.41
21:B0:365:U:H2'	21:B0:366:U:C6	2.56	0.41
2:AB:215:LEU:HD23	2:AB:215:LEU:HA	1.90	0.41
6:AF:95:GLU:CD	6:AF:95:GLU:N	2.65	0.41
10:AJ:3:LYS:CG	10:AJ:75:ILE:HG23	2.50	0.41
1:AA:939:G:C6	1:AA:940:C:N4	2.89	0.41
4:AD:130:GLY:O	4:AD:131:ARG:C	2.58	0.41
21:B0:974:U:H2'	21:B0:975:C:C6	2.55	0.41
8:AH:126:LYS:O	8:AH:128:GLY:N	2.54	0.41
21:B0:870:C:H2'	21:B0:871:U:C6	2.56	0.41
21:B0:1007:A:H2'	21:B0:1008:G:H8	1.84	0.41
11:AK:86:GLY:H	11:AK:112:THR:CG2	2.32	0.41
21:B0:643:A:H2'	21:B0:644:A:C8	2.56	0.41
21:B0:1962:C:H2'	21:B0:1963:G:H8	1.84	0.41
3:AC:73:PRO:HD3	3:AC:105:GLU:HG3	2.03	0.41
21:B0:1889:G:H2'	21:B0:1890:G:C8	2.55	0.41
1:AA:285:G:O2'	1:AA:286:G:H5'	2.21	0.41
21:B0:3197:U:O2	21:B0:2181:A:C6	2.73	0.41
20:AT:23:ARG:NH1	20:AT:23:ARG:HG2	2.36	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:1225:A:H4'	19:AS:78:ARG:HH11	1.85	0.41
1:AA:367:U:O2	1:AA:369:C:C2	2.73	0.41
16:AP:43:LYS:HA	16:AP:48:TRP:CB	2.51	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
8:AH:91:ARG:HA	17:AQ:34:LYS:CB	2.46	0.41
20:AT:43:LEU:HD13	20:AT:51:GLU:CG	2.43	0.41
21:B0:128:C:C3'	21:B0:129:A:H5''	2.50	0.41
1:AA:176:C:H2'	1:AA:177:C:C6	2.56	0.41
2:AB:95:GLN:C	2:AB:96:ARG:HD2	2.40	0.41
2:AB:14:GLY:O	2:AB:15:VAL:CG2	2.69	0.41
21:B0:1915:A:H2'	21:B0:1916:G:O4'	2.21	0.41
8:AH:6:ILE:O	8:AH:10:LEU:HG	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1426:C:H2'	1:AA:1427:U:H6	1.84	0.41
1:AA:13:U:O2	1:AA:914:A:C8	2.74	0.41
21:B0:1948:C:H2'	21:B0:1949:A:N7	2.36	0.41
21:B0:178:C:H4'	21:B0:399:G:C2	2.56	0.41
1:AA:511:C:O3'	4:AD:43:HIS:CE1	2.74	0.41
21:B0:1018:C:H2'	21:B0:1019:U:H5	1.86	0.41
21:B0:1332:G:H2'	21:B0:1333:G:O4'	2.21	0.41
14:AN:39:LEU:HD11	14:AN:47:LEU:HD12	2.02	0.41
21:B0:1354:A:O2'	21:B0:1355:A:OP1	2.29	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
1:AA:1416:G:N1	1:AA:1417:G:H1'	2.33	0.41
13:AM:86:CYS:O	13:AM:90:LEU:CG	2.49	0.41
13:AM:84:ILE:HG21	19:AS:65:ASN:ND2	2.35	0.41
1:AA:2003:G:H2'	1:AA:1004:A:H4'	2.02	0.41
1:AA:1305:G:C2'	1:AA:1306:A:H8	2.32	0.41
1:AA:948:C:O2'	1:AA:949:A:H5'	2.21	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
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
15:AO:39:LEU:HD12	15:AO:59:MET:HE2	2.02	0.41
11:AK:48:ILE:O	11:AK:49:GLY:C	2.59	0.41
5:AE:36:ASP:OD1	5:AE:38:GLN:N	2.39	0.41
21:B0:1566:G:H2'	21:B0:1567:A:C8	2.56	0.41
21:B0:753:U:C2'	21:B0:754:G:H5'	2.51	0.41
5:AE:144:THR:O	5:AE:145:LYS:C	2.59	0.41
21:B0:675:C:H5''	32:BJ:26:THR:CA	2.51	0.41
21:B0:139:A:H2'	21:B0:140:G:C8	2.56	0.41
21:B0:2395:C:H2'	21:B0:2396:C:C5'	2.51	0.41
1:AA:1126:U:H6	1:AA:1126:U:P	2.43	0.41
21:B0:3110:G:P	21:B0:3148:G:H2'	2.45	0.41
1:AA:1394:A:C4	1:AA:1501:C:O4'	2.74	0.41
1:AA:1392:G:H2'	1:AA:1393:U:H6	1.86	0.41
17:AQ:97:SER:CB	17:AQ:102:GLY:C	2.78	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
1:AA:1184:G:H2'	1:AA:1185:G:C8	2.56	0.41
1:AA:992:U:H2'	1:AA:1043:C:H41	1.85	0.41
3:AC:65:ALA:O	3:AC:66:VAL:HB	2.21	0.41
1:AA:1270:C:HO2'	1:AA:1314:C:H5'	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:53:LEU:HA	14:AN:54:PRO:HD2	1.77	0.41
1:AA:1061:G:C2'	1:AA:1062:U:H5'	2.50	0.41
1:AA:1048:G:C1'	1:AA:1215:G:H4'	2.50	0.41
1:AA:1367:C:H5''	10:AJ:60:ARG:NH1	2.35	0.41
10:AJ:63:PHE:CE1	14:AN:48:ALA:HB3	2.53	0.41
1:AA:367:U:C4	1:AA:369:C:N4	2.89	0.41
1:AA:119:A:C5	1:AA:240:C:N3	2.89	0.41
1:AA:588:G:N1	1:AA:652:U:N3	2.69	0.41
12:AL:27:LEU:HB3	12:AL:62:SER:HB2	2.03	0.41
13:AM:37:THR:HG23	13:AM:55:ARG:HB2	2.03	0.41
2:AB:130:ARG:HB3	2:AB:134:GLU:OE1	2.20	0.41
12:AL:46:LYS:NZ	12:AL:47:LYS:HE3	2.36	0.41
12:AL:48:PRO:CG	12:AL:49:ASN:H	2.25	0.41
6:AF:33:TYR:HA	6:AF:71:ARG:NH2	2.36	0.41
3:AC:108:ASN:C	3:AC:110:ASN:N	2.73	0.41
21:B0:831:G:H21	21:B0:1203:A:N6	2.04	0.41
2:AB:15:VAL:HG11	2:AB:210:SER:N	2.36	0.41
2:AB:165:VAL:O	2:AB:187:LEU:O	2.38	0.41
21:B0:2491:C:H2'	21:B0:2492:G:C5'	2.45	0.41
1:AA:577:G:H1'	1:AA:816:A:C4	2.56	0.41
1:AA:16:A:C2'	1:AA:17:U:H5'	2.51	0.41
1:AA:1350:A:C6	1:AA:1351:U:N3	2.89	0.41
21:B0:1004:A:C2'	21:B0:1005:U:H5''	2.46	0.41
3:AC:79:ARG:CG	3:AC:82:GLU:HG2	2.51	0.41
1:AA:371:G:C2'	1:AA:372:C:H5'	2.51	0.41
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.50	0.41
5:AE:40:ARG:NH1	5:AE:68:GLU:OE2	2.49	0.41
21:B0:514:G:C2'	21:B0:514:G:N3	2.82	0.41
4:AD:7:PRO:CB	4:AD:10:ARG:HD2	2.51	0.41
21:B0:1196:G:H2'	21:B0:1197:U:C5'	2.51	0.41
21:B0:2018:G:H3'	21:B0:2019:C:H5'	2.03	0.41
20:AT:92:LEU:O	20:AT:96:GLY:HA3	2.21	0.41
8:AH:82:HIS:O	8:AH:83:ILE:HB	2.21	0.41
19:AS:25:LYS:N	19:AS:25:LYS:HD2	2.34	0.41
15:AO:38:ARG:O	15:AO:41:GLU:HB3	2.20	0.41
21:B0:967:G:H1'	21:B0:970:A:H62	1.86	0.41
21:B0:2239:C:O2'	21:B0:2240:C:H5'	2.21	0.41
21:B0:239:A:H2'	21:B0:240:U:O4'	2.20	0.41
21:B0:658:G:H4'	21:B0:2331:A:C5'	2.50	0.41
21:B0:2028:C:O2'	21:B0:2029:G:H5'	2.21	0.41
21:B0:477:A:C2'	21:B0:478:G:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:478:G:O2'	21:B0:479:G:H5'	2.20	0.41
11:AK:127:LYS:HD3	11:AK:127:LYS:HA	1.78	0.41
21:B0:2212:U:H2'	21:B0:2213:G:C8	2.55	0.41
21:B0:776:G:N3	21:B0:776:G:H3'	2.36	0.41
21:B0:3177:C:O2'	21:B0:3178:C:H5'	2.19	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:B0:811:G:O2'	21:B0:812:G:H5'	2.21	0.41
21:B0:1542:G:H21	21:B0:1561:A:H62	1.69	0.41
21:B0:2811:G:H2'	21:B0:2812:A:C8	2.55	0.41
21:B0:187:U:H2'	21:B0:188:G:C8	2.56	0.41
21:B0:1760:G:H2'	21:B0:1761:G:C8	2.56	0.41
21:B0:2620:G:H2'	21:B0:2621:G:H8	1.86	0.41
21:B0:147:G:C2	21:B0:148:C:H1'	2.56	0.41
15:AO:74:ASP:OD1	15:AO:76:GLU:HB3	2.21	0.41
21:B0:2562:G:H2'	21:B0:2563:U:O4'	2.20	0.41
1:AA:562:C:O2'	12:AL:17:LYS:HE3	2.20	0.41
12:AL:104:VAL:HG12	12:AL:105:TYR:CD1	2.56	0.41
21:B0:2526:U:H2'	21:B0:2527:G:C8	2.55	0.41
1:AA:1257:U:H4'	1:AA:1258:G:C5'	2.50	0.41
4:AD:88:VAL:HG13	5:AE:97:GLY:N	2.36	0.41
17:AQ:97:SER:O	17:AQ:99:SER:N	2.53	0.41
1:AA:402:G:O2'	1:AA:620:C:N4	2.54	0.41
3:AC:95:THR:C	3:AC:97:LYS:N	2.73	0.41
1:AA:1320:C:OP1	19:AS:70:LYS:NZ	2.45	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
1:AA:397:A:H5'	1:AA:398:C:OP1	2.21	0.41
12:AL:7:ILE:HA	12:AL:7:ILE:HD13	1.93	0.41
21:B0:1119:U:O5'	21:B0:1120:C:P	2.79	0.41
1:AA:958:A:N1	19:AS:54:GLY:C	2.75	0.41
2:AB:134:GLU:O	2:AB:138:LEU:HG	2.21	0.41
1:AA:848:G:C3'	1:AA:849:C:O4'	2.68	0.41
1:AA:824:C:H2'	1:AA:825:G:C8	2.56	0.41
21:B0:108:G:H2'	21:B0:109:A:C8	2.56	0.41
21:B0:878:C:N4	21:B0:921:A:H62	2.07	0.41
3:AC:150:LYS:HE2	3:AC:152:ILE:CD1	2.44	0.41
18:AR:39:VAL:CG1	18:AR:40:LEU:N	2.84	0.41
11:AK:95:ILE:O	11:AK:95:ILE:HG22	2.20	0.41
3:AC:7:PRO:HG2	3:AC:184:TYR:CB	2.45	0.41
10:AJ:75:ILE:O	10:AJ:76:ASN:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:B0:819:C:H2'	21:B0:820:U:C6	2.56	0.41
15:AO:26:GLU:HA	15:AO:81:LEU:HD11	2.03	0.41
21:B0:1194:U:O2'	21:B0:1195:U:P	2.79	0.41
16:AP:82:GLN:O	16:AP:83:GLU:C	2.59	0.41
1:AA:1128:C:H5'	9:AI:16:ARG:CZ	2.51	0.41
21:B0:1682:A:H2'	21:B0:1683:G:C8	2.56	0.41
1:AA:836:G:C6	1:AA:851:G:C6	3.09	0.41
21:B0:856:A:H2'	21:B0:857:U:O4'	2.21	0.41
21:B0:2447:G:H2'	21:B0:2448:A:H5'	2.02	0.41
1:AA:1263:C:H2'	1:AA:1264:C:C6	2.56	0.41
1:AA:359:U:H2'	1:AA:360:A:C8	2.56	0.41
4:AD:108:LEU:HD23	4:AD:108:LEU:HA	1.86	0.41
21:B0:769:C:H2'	21:B0:770:U:O4'	2.21	0.41
1:AA:930:C:O2'	1:AA:931:C:H5'	2.20	0.41
11:AK:67:ASP:OD2	11:AK:71:LYS:HE3	2.21	0.41
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
5:AE:110:LEU:HD13	5:AE:118:ILE:HD12	2.04	0.40
1:AA:292:G:C2'	1:AA:608:A:H61	2.23	0.40
1:AA:1342:C:O3'	9:AI:125:TYR:CE2	2.70	0.40
9:AI:117:HIS:C	9:AI:118:LYS:HG3	2.42	0.40
10:AJ:59:SER:O	10:AJ:60:ARG:HB2	2.20	0.40
1:AA:766:A:C2	1:AA:1525:G:H1'	2.56	0.40
9:AI:78:LYS:HB3	9:AI:78:LYS:HE2	1.87	0.40
21:B0:930:A:H5'	21:B0:931:G:C8	2.57	0.40
3:AC:191:THR:HG21	3:AC:193:TYR:CE2	2.56	0.40
1:AA:519:C:H2'	1:AA:520:A:C8	2.56	0.40
18:AR:44:LEU:HD22	18:AR:48:GLY:O	2.21	0.40
6:AF:79:LEU:O	6:AF:85:VAL:HG11	2.22	0.40
1:AA:1286:A:H2'	1:AA:1287:A:O5'	2.21	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
1:AA:864:A:H2'	1:AA:865:A:C8	2.56	0.40
21:B0:1223:G:N2	21:B0:1225:G:H21	2.13	0.40
21:B0:2023:C:H2'	21:B0:2024:U:C6	2.56	0.40
3:AC:77:ILE:O	3:AC:83:ARG:HB3	2.21	0.40
21:B0:820:U:H5'	21:B0:2424:G:H4'	2.04	0.40
21:B0:1686:A:C2'	21:B0:1687:C:H5'	2.52	0.40
7:AG:72:ARG:HH12	7:AG:138:LYS:NZ	2.19	0.40
12:AL:53:ARG:CB	12:AL:93:LEU:HD11	2.50	0.40
4:AD:194:LEU:N	4:AD:194:LEU:HD22	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:165:C:H2'	1:AA:166:G:H8	1.86	0.40
1:AA:844:A:H2'	1:AA:845:A:H8	1.86	0.40
21:B0:2240:C:H2'	21:B0:2241:U:C5'	2.50	0.40
21:B0:2027:C:H2'	21:B0:2028:C:C6	2.55	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
10:AJ:23:ILE:CD1	10:AJ:23:ILE:N	2.85	0.40
8:AH:125:ARG:HB2	8:AH:125:ARG:HE	1.68	0.40
21:B0:1234:C:H2'	21:B0:1235:C:C6	2.57	0.40
8:AH:100:ILE:HA	8:AH:101:PRO:HD2	1.95	0.40
21:B0:1861:G:O4'	53:B5:199:ASN:CA	2.70	0.40
1:AA:234:C:H5''	17:AQ:70:ARG:HH21	1.87	0.40
21:B0:3111:C:C4	21:B0:3148:G:P	2.85	0.40
1:AA:1394:A:C8	1:AA:1501:C:O2'	2.68	0.40
16:AP:6:LEU:HD12	16:AP:6:LEU:N	2.36	0.40
1:AA:1415:G:O2'	1:AA:1416:G:H5'	2.22	0.40
1:AA:538:G:H3'	12:AL:115:LYS:HE2	2.03	0.40
1:AA:1406:U:H1'	1:AA:1518:A:C4'	2.51	0.40
1:AA:975:A:C2	1:AA:1357:A:H1'	2.56	0.40
2:AB:125:PRO:HG2	2:AB:126:GLU:H	1.86	0.40
5:AE:24:ARG:O	5:AE:25:ARG:HG2	2.20	0.40
1:AA:1237:C:C4'	1:AA:1334:G:H21	2.34	0.40
4:AD:23:GLY:HA3	4:AD:112:VAL:HG13	2.02	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
21:B0:552:C:C2'	21:B0:553:C:H4'	2.46	0.40
21:B0:2236:U:H2'	21:B0:2237:C:C5'	2.47	0.40
1:AA:1123:A:O2'	10:AJ:38:ILE:HG22	2.21	0.40
21:B0:1770:U:H2'	21:B0:1774:A:H62	1.86	0.40
21:B0:1474:A:C2'	21:B0:1475:U:H5'	2.47	0.40
13:AM:69:GLU:O	13:AM:72:ALA:HB3	2.21	0.40
15:AO:81:LEU:HD22	15:AO:85:LEU:HD12	2.03	0.40
1:AA:637:G:O2'	1:AA:638:G:H5'	2.21	0.40
1:AA:1053:G:C3'	1:AA:1054:C:C5'	2.99	0.40
1:AA:1020:U:H2'	1:AA:1021:G:C8	2.50	0.40
1:AA:813:U:HO2'	1:AA:1511:G:HO2'	1.67	0.40
1:AA:1380:U:O2'	1:AA:1381:U:OP2	2.36	0.40
21:B0:174:A:H2'	21:B0:175:C:O4'	2.21	0.40
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.37	0.40
4:AD:163:GLU:O	4:AD:166:LYS:HG3	2.22	0.40
1:AA:155:C:H2'	1:AA:156:G:C8	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:B0:699:G:N3	21:B0:699:G:H3'	2.35	0.40
3:AC:67:THR:HG22	3:AC:67:THR:O	2.21	0.40
1:AA:1124:G:C8	1:AA:1145:C:C5	3.09	0.40
22:B9:56:G:H2'	22:B9:57:U:O4'	2.22	0.40
21:B0:2048:C:H2'	21:B0:2049:C:C6	2.56	0.40
22:B9:63:A:H2'	22:B9:64:C:C6	2.55	0.40
1:AA:1390:U:H2'	1:AA:1391:U:H6	1.85	0.40
1:AA:1394:A:H61	1:AA:1501:C:H5'	1.81	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
1:AA:185:A:HO2'	1:AA:186:C:C5'	2.33	0.40
1:AA:1405:G:H4'	1:AA:1519:A:C5'	2.50	0.40
1:AA:965:A:O2'	1:AA:966:G:P	2.80	0.40
3:AC:64:VAL:H	3:AC:64:VAL:HG23	1.60	0.40
1:AA:43:C:H2'	1:AA:44:G:O4'	2.21	0.40
13:AM:63:THR:HG23	13:AM:64:TRP:CD2	2.56	0.40
3:AC:126:ARG:C	3:AC:127:ARG:HG3	2.42	0.40
21:B0:3128:G:H5''	21:B0:3174:C:O2'	2.22	0.40
1:AA:599:C:O2'	1:AA:600:C:H5'	2.22	0.40
1:AA:976:G:C6	1:AA:2361:C:C5	3.09	0.40
15:AO:17:ARG:CG	15:AO:17:ARG:NH1	2.85	0.40
2:AB:24:TRP:CG	2:AB:25:ASN:N	2.89	0.40
21:B0:2437:G:H2'	21:B0:2469:G:N1	2.37	0.40
1:AA:1021:G:H2'	1:AA:1022:G:H5'	2.04	0.40
21:B0:1337:G:H1'	21:B0:1632:A:C6	2.56	0.40
21:B0:521:U:C2'	21:B0:522:G:H5'	2.51	0.40
7:AG:104:LEU:HD23	7:AG:134:ALA:HB1	2.04	0.40
6:AF:48:LEU:HD13	6:AF:52:ILE:CD1	2.51	0.40
21:B0:2532:G:H1'	21:B0:2561:G:N3	2.36	0.40
21:B0:2370:G:H2'	21:B0:2371:A:H2	1.87	0.40
21:B0:1354:A:C2	21:B0:1411:C:H4'	2.56	0.40
21:B0:2048:C:H2'	21:B0:2049:C:H6	1.87	0.40
21:B0:1906:U:H2'	21:B0:1907:C:C6	2.56	0.40
1:AA:482:A:H2'	1:AA:483:C:O4'	2.21	0.40
1:AA:1126:U:C1'	1:AA:1280:A:C6	2.99	0.40
1:AA:8:A:C6	4:AD:209:ARG:CB	3.04	0.40
1:AA:1408:A:O2'	1:AA:1409:C:H5'	2.21	0.40
1:AA:1110:A:C3'	1:AA:1111:A:C5'	2.95	0.40
1:AA:961:U:O2'	1:AA:962:C:H5'	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:67:VAL:HG12	19:AS:68:GLY:N	2.35	0.40
1:AA:182:U:OP2	1:AA:183:G:C8	2.74	0.40
9:AI:121:ARG:HD3	9:AI:121:ARG:C	2.42	0.40
1:AA:450:G:C4'	16:AP:42:ARG:HG2	2.51	0.40
3:AC:126:ARG:O	3:AC:127:ARG:HB2	2.21	0.40
22:B9:110:U:O2'	22:B9:111:C:H5'	2.21	0.40
2:AB:134:GLU:HG2	2:AB:137:ARG:HH21	1.86	0.40
21:B0:878:C:O2'	21:B0:879:A:P	2.80	0.40
2:AB:9:GLU:O	2:AB:48:MET:SD	2.80	0.40
21:B0:69:G:HO2'	21:B0:70:A:P	2.45	0.40
4:AD:100:ARG:HB3	4:AD:102:ASP:OD1	2.22	0.40
21:B0:35:G:H1'	21:B0:466:A:H1'	2.04	0.40
10:AJ:12:ASP:OD1	10:AJ:14:LYS:N	2.50	0.40
1:AA:913:A:H1'	1:AA:914: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
1:AA:373:A:H2'	1:AA:374:A:H8	1.85	0.40
1:AA:147:G:O2'	1:AA:148:G:H5'	2.21	0.40
21:B0:211:U:H2'	21:B0:212:U:O4'	2.22	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:B0:1026:U:H2'	21:B0:1027:C:C6	2.56	0.40
21:B0:79:G:H1'	21:B0:356:A:C2	2.57	0.40
21:B0:2519:C:H2'	21:B0:2520:A:O4'	2.21	0.40
1:AA:330:C:H5''	1:AA:330:C:H6	1.87	0.40
1:AA:715:A:H2'	1:AA:716:A:C8	2.57	0.40
15:AO:71:GLN:O	15:AO:72:ARG:C	2.59	0.40
21:B0:2372:A:H2'	21:B0:2373:C:C6	2.56	0.40
18:AR:21:LYS:HG3	18:AR:57:GLY:CA	2.51	0.40
1:AA:567:G:H2'	1:AA:568:G:O4'	2.21	0.40
21:B0:3196:G:O3'	21:B0:3197:U:P	2.80	0.40
1:AA:94:G:O6	1:AA:96:C:N4	2.55	0.40
5:AE:118:ILE:HG22	5:AE:119:LEU:O	2.21	0.40
5:AE:119:LEU:HD23	5:AE:119:LEU:HA	1.84	0.40
1:AA:112:G:N3	1:AA:354:G:O4'	2.55	0.40
1:AA:1110:A:H8	1:AA:1110:A:O5'	2.04	0.40
1:AA:952:U:H2'	1:AA:953:G:H8	1.85	0.40
13:AM:123:ALA:O	13:AM:124:PRO:C	2.60	0.40
1:AA:600:C:H4'	8:AH:129:VAL:HG12	2.04	0.40
1:AA:1300:G:C2'	1:AA:1301:U:OP2	2.70	0.40
19:AS:28:LYS:CG	19:AS:29:ARG:H	2.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:134:ILE:CD1	3:AC:166:GLU:HB3	2.52	0.40
16:AP:51:VAL:O	16:AP:52:ASP:C	2.58	0.40
21:B0:2809:A:N6	21:B0:2854:G:H2'	2.36	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
1:AA:748:C:OP2	1:AA:748:C:H6	2.05	0.40
21:B0:1197:U:H2'	21:B0:1198:C:O4'	2.21	0.40
8:AH:18:ARG:HD2	8:AH:18:ARG:N	2.36	0.40
21:B0:1452:U:H5'	21:B0:1532:A:O2'	2.21	0.40
1:AA:883:C:O2'	1:AA:884:U:H5'	2.21	0.40
6:AF:48:LEU:HD13	6:AF:52:ILE:HD12	2.03	0.40
12:AL:83:VAL:HG22	12:AL:84:LEU:H	1.86	0.40
11:AK:86:GLY:N	11:AK:112:THR:HG23	2.35	0.40
1:AA:1001:A:H2'	1:AA:1002:G:C8	2.56	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:671:G:H2'	1:AA:672:U:O4'	2.21	0.40
21:B0:2862:G:O2'	21:B0:2863:U:H5'	2.22	0.40
11:AK:115:PRO:C	11:AK:117:ASN:H	2.25	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%)	1	12
3	AC	204/206 (99%)	135 (66%)	40 (20%)	29 (14%)	0	6
4	AD	206/208 (99%)	166 (81%)	31 (15%)	9 (4%)	3	33
5	AE	148/150 (99%)	130 (88%)	13 (9%)	5 (3%)	5	40
6	AF	99/101 (98%)	79 (80%)	19 (19%)	1 (1%)	19	65
7	AG	153/155 (99%)	127 (83%)	16 (10%)	10 (6%)	1	25
8	AH	136/138 (99%)	125 (92%)	7 (5%)	4 (3%)	6	43
9	AI	125/127 (98%)	88 (70%)	27 (22%)	10 (8%)	1	19
10	AJ	96/98 (98%)	59 (62%)	20 (21%)	17 (18%)	0	4
11	AK	117/119 (98%)	88 (75%)	20 (17%)	9 (8%)	1	20
12	AL	120/124 (97%)	96 (80%)	15 (12%)	9 (8%)	1	21
13	AM	121/125 (97%)	87 (72%)	26 (22%)	8 (7%)	1	24
14	AN	58/60 (97%)	40 (69%)	11 (19%)	7 (12%)	0	8
15	AO	86/88 (98%)	70 (81%)	11 (13%)	5 (6%)	2	27
16	AP	81/83 (98%)	65 (80%)	15 (18%)	1 (1%)	16	61
17	AQ	102/104 (98%)	84 (82%)	10 (10%)	8 (8%)	1	20
18	AR	71/73 (97%)	62 (87%)	7 (10%)	2 (3%)	6	44
19	AS	78/80 (98%)	48 (62%)	19 (24%)	11 (14%)	0	6
20	AT	97/99 (98%)	65 (67%)	20 (21%)	12 (12%)	0	8
All	All	2330/2372 (98%)	1788 (77%)	361 (16%)	181 (8%)	1	20

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%)	8	35
3	AC	160/160 (100%)	142 (89%)	18 (11%)	7	33
4	AD	180/180 (100%)	172 (96%)	8 (4%)	35	69
5	AE	115/115 (100%)	100 (87%)	15 (13%)	5	28
6	AF	90/90 (100%)	88 (98%)	2 (2%)	60	83
7	AG	126/126 (100%)	122 (97%)	4 (3%)	46	76
8	AH	119/119 (100%)	109 (92%)	10 (8%)	14	48
9	AI	98/98 (100%)	90 (92%)	8 (8%)	14	49
10	AJ	88/88 (100%)	79 (90%)	9 (10%)	9	37
11	AK	90/90 (100%)	84 (93%)	6 (7%)	20	57
12	AL	104/104 (100%)	96 (92%)	8 (8%)	16	52
13	AM	100/100 (100%)	90 (90%)	10 (10%)	9	38
14	AN	49/49 (100%)	47 (96%)	2 (4%)	37	71
15	AO	79/79 (100%)	72 (91%)	7 (9%)	12	44
16	AP	72/72 (100%)	67 (93%)	5 (7%)	19	56
17	AQ	96/96 (100%)	90 (94%)	6 (6%)	22	59
18	AR	64/64 (100%)	61 (95%)	3 (5%)	32	68
19	AS	71/71 (100%)	68 (96%)	3 (4%)	36	70
20	AT	76/76 (100%)	69 (91%)	7 (9%)	11	43
All	All	1979/1979 (100%)	1826 (92%)	153 (8%)	16	52

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	82
21	B0	26
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	1337:G	O3'	1338:G	P	1.90
1	B0	3188:U	O3'	3189:U	P	1.90
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%)	38.28	1533 (100%) 0 0	207, 548, 819, 940	0
2	AB	234/234 (100%)	1.53	77 (32%) 0 5	754, 754, 754, 754	0
3	AC	206/206 (100%)	5.67	168 (81%) 0 2	378, 378, 378, 378	0
4	AD	208/208 (100%)	14.87	202 (97%) 0 1	709, 709, 709, 709	0
5	AE	150/150 (100%)	14.91	150 (100%) 0 0	756, 756, 756, 756	0
6	AF	101/101 (100%)	1.33	22 (21%) 1 6	748, 748, 748, 748	0
7	AG	155/155 (100%)	4.41	106 (68%) 0 3	374, 374, 374, 374	0
8	AH	138/138 (100%)	7.39	131 (94%) 0 1	856, 856, 856, 856	0
9	AI	127/127 (100%)	7.38	79 (62%) 0 3	439, 439, 439, 439	0
10	AJ	98/98 (100%)	7.29	78 (79%) 0 2	430, 430, 430, 430	0
11	AK	119/119 (100%)	3.14	56 (47%) 0 4	652, 652, 652, 652	0
12	AL	124/124 (100%)	11.34	124 (100%) 0 0	423, 541, 541, 541	0
13	AM	125/125 (100%)	6.27	111 (88%) 0 2	378, 572, 572, 572	0
14	AN	60/60 (100%)	10.50	59 (98%) 0 0	378, 378, 378, 378	0
15	AO	88/88 (100%)	11.53	87 (98%) 0 0	740, 740, 740, 740	0
16	AP	83/83 (100%)	20.42	83 (100%) 0 0	781, 781, 781, 781	0
17	AQ	104/104 (100%)	12.31	104 (100%) 0 0	857, 857, 857, 857	0
18	AR	73/73 (100%)	3.63	41 (56%) 0 3	748, 748, 748, 748	0
19	AS	80/80 (100%)	3.13	44 (55%) 0 3	633, 633, 633, 633	0
20	AT	99/99 (100%)	13.47	99 (100%) 0 0	940, 940, 940, 940	0
21	B0	2825/2887 (97%)	61.95	2825 (100%) 0 0	462, 737, 737, 940	0
22	B9	118/118 (100%)	49.43	118 (100%) 0 0	772, 938, 938, 938	0
23	BA	270/270 (100%)	6.43	181 (67%) 0 3	737, 737, 737, 737	0
24	BB	205/205 (100%)	6.15	144 (70%) 0 3	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%)	8.67	187 (94%) 0 1	737, 737, 737, 737	0
26	BD	178/178 (100%)	18.80	139 (78%) 0 2	938, 938, 938, 938	0
27	BE	177/177 (100%)	13.62	164 (92%) 0 1	737, 737, 737, 737	0
28	BF	52/52 (100%)	1.49	12 (23%) 1 6	737, 737, 737, 737	0
29	BG	143/143 (100%)	18.40	138 (96%) 0 1	907, 907, 907, 907	0
30	BH	143/143 (100%)	6.23	105 (73%) 0 3	737, 737, 737, 737	0
31	BI	132/132 (100%)	3.24	57 (43%) 0 4	737, 737, 737, 737	0
32	BJ	141/141 (100%)	10.89	116 (82%) 0 2	737, 737, 737, 737	0
33	BK	124/124 (100%)	2.54	50 (40%) 0 4	737, 737, 737, 737	0
34	BL	114/114 (100%)	7.36	105 (92%) 0 1	737, 737, 737, 737	0
35	BM	111/111 (100%)	1.89	39 (35%) 0 4	938, 938, 938, 938	0
36	BN	125/125 (100%)	2.78	55 (44%) 0 4	737, 737, 737, 737	0
37	BO	117/117 (100%)	13.14	99 (84%) 0 2	737, 737, 737, 737	0
38	BP	100/100 (100%)	6.22	87 (87%) 0 2	737, 737, 737, 737	0
39	BQ	130/130 (100%)	7.84	110 (84%) 0 2	737, 737, 737, 737	0
40	BR	93/93 (100%)	5.08	76 (81%) 0 2	737, 737, 737, 737	0
41	BS	113/113 (100%)	11.77	112 (99%) 0 0	737, 737, 737, 737	0
42	BT	173/173 (100%)	8.73	106 (61%) 0 3	737, 772, 772, 772	0
43	BU	86/86 (100%)	6.62	61 (70%) 0 3	737, 737, 737, 737	0
44	BV	0/16	-	-	-	-
45	BW	65/65 (100%)	6.20	54 (83%) 0 2	737, 737, 737, 737	0
46	BX	55/55 (100%)	7.98	45 (81%) 0 2	737, 737, 737, 737	0
47	BY	73/73 (100%)	4.45	47 (64%) 0 3	737, 737, 737, 737	0
48	BZ	58/58 (100%)	12.29	46 (79%) 0 2	737, 737, 737, 737	0
49	B1	53/53 (100%)	6.05	27 (50%) 0 4	737, 737, 737, 737	0
50	B2	46/46 (100%)	9.82	46 (100%) 0 0	737, 737, 737, 737	0
51	B3	63/63 (100%)	7.71	62 (98%) 0 0	737, 737, 737, 737	0
52	B4	35/35 (100%)	6.96	27 (77%) 0 2	737, 737, 737, 737	0
53	B5	213/217 (98%)	4.64	107 (50%) 0 4	940, 940, 940, 940	0
All	All	10433/10519 (99%)	27.61	8901 (85%) 0 2	207, 737, 938, 940	0

All (8901) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
21	B0	1989	C	315.0
21	B0	2624	G	251.3
21	B0	2480	C	226.1
21	B0	1988	A	218.6
21	B0	2425	G	216.0
21	B0	1763	G	212.8
21	B0	2426	G	210.4
21	B0	843	G	206.3
21	B0	578	U	198.7
21	B0	169	C	198.0
21	B0	2667	C	191.2
21	B0	191	G	190.7
21	B0	1749	G	185.7
21	B0	1045	G	183.6
21	B0	579	G	183.2
21	B0	1767	G	182.4
21	B0	1345	G	182.1
21	B0	1617	G	180.8
21	B0	1327	C	178.5
21	B0	822	G	176.6
21	B0	466	A	176.4
21	B0	841	G	175.9
21	B0	1619	A	175.8
21	B0	1776	A	173.3
21	B0	1987	G	173.2
21	B0	1778	U	173.1
21	B0	1389	C	172.8
21	B0	2548	G	172.2
21	B0	2549	G	171.5
21	B0	844	G	170.4
21	B0	2021	G	169.9
21	B0	1355	A	169.2
1	AA	1504	G	166.9
21	B0	45	C	166.7
21	B0	2014	A	165.8
21	B0	821	A	165.2
21	B0	2673	G	164.9
21	B0	1626	A	164.6
21	B0	1361	G	164.5
21	B0	1622	G	161.5
21	B0	592	G	161.1
21	B0	1663	C	160.8
21	B0	819	C	160.2

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Mol	Chain	Res	Type	RSRZ
21	B0	2020	G	160.2
21	B0	192	G	160.1
21	B0	2674	C	160.1
21	B0	1360	G	159.8
21	B0	1311	C	158.5
21	B0	593	C	158.2
21	B0	955	G	157.9
21	B0	2424	G	157.8
21	B0	2031	A	157.8
21	B0	2567	G	157.1
21	B0	1766	U	156.9
21	B0	1147	G	156.1
21	B0	1764	A	153.2
21	B0	2006	G	153.1
21	B0	800	U	151.9
21	B0	461	A	151.5
21	B0	2746	G	150.9
21	B0	193	A	150.9
21	B0	2013	A	150.4
21	B0	991	A	150.1
21	B0	2712	G	150.1
21	B0	1820	G	148.3
21	B0	119	G	148.2
21	B0	1699	A	147.9
21	B0	1312	G	147.8
21	B0	776	G	147.4
21	B0	2427	A	147.1
21	B0	459	A	147.0
21	B0	1975	G	147.0
21	B0	2562	G	145.7
21	B0	27	G	145.4
21	B0	2419	C	144.8
21	B0	2479	U	143.6
21	B0	1390	G	143.6
21	B0	2053	G	143.4
21	B0	458	G	143.3
21	B0	2012	A	142.9
21	B0	1030	U	142.8
21	B0	2477	C	142.7
21	B0	46	C	142.4
21	B0	773	G	142.3
22	B9	111	C	142.3

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Mol	Chain	Res	Type	RSRZ
21	B0	1765	C	142.0
21	B0	1287	A	141.8
22	B9	102	A	141.5
21	B0	115	G	141.4
21	B0	190	A	141.2
21	B0	1625	A	140.2
21	B0	2623	A	139.8
21	B0	114	C	139.1
21	B0	2798	A	139.1
21	B0	2221	G	138.3
21	B0	2469	G	138.2
21	B0	2246	A	138.1
21	B0	1333	G	137.7
21	B0	1029	C	136.7
21	B0	484	G	136.5
21	B0	2595	C	136.4
21	B0	1718	A	136.2
21	B0	1779	C	136.2
21	B0	805	G	136.1
21	B0	953	G	135.9
21	B0	820	U	135.8
1	AA	1505	G	135.7
21	B0	1777	A	135.4
1	AA	1502	A	135.3
1	AA	309	G	135.1
21	B0	957	G	135.0
21	B0	595	A	134.6
21	B0	2707	G	134.5
21	B0	523	A	134.4
21	B0	460	U	134.2
21	B0	2245	A	133.9
21	B0	711	C	133.8
21	B0	2222	U	133.7
21	B0	1440	G	133.6
21	B0	2522	G	133.3
21	B0	584	A	133.1
21	B0	2596	C	132.9
21	B0	1155	G	132.8
21	B0	2849	C	132.8
21	B0	118	U	132.7
21	B0	168	A	132.7
21	B0	772	G	132.6

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Mol	Chain	Res	Type	RSRZ
21	B0	1146	G	132.4
21	B0	1374	G	132.4
21	B0	1652	G	132.3
21	B0	1365	U	131.9
21	B0	956	A	131.6
21	B0	982	C	131.5
21	B0	2437	G	131.4
21	B0	1620	C	131.2
21	B0	524	A	131.1
21	B0	1921	A	131.0
21	B0	117	A	131.0
21	B0	50	G	130.9
21	B0	2585	C	130.9
21	B0	462	G	130.9
21	B0	1691	G	130.8
21	B0	1762	C	130.8
21	B0	1281	A	130.4
21	B0	2470	U	130.0
21	B0	594	G	129.4
21	B0	582	G	129.3
21	B0	2018	G	129.3
21	B0	122	G	129.2
21	B0	2478	C	129.0
21	B0	2523	G	128.9
21	B0	44	G	128.9
21	B0	398	C	128.8
21	B0	2586	G	128.5
21	B0	2553	G	128.4
21	B0	2005	U	128.2
21	B0	2019	C	128.2
21	B0	1685	A	128.1
21	B0	1802	A	128.0
21	B0	1655	C	127.9
21	B0	1624	A	127.8
21	B0	983	G	127.8
1	AA	310	G	127.6
1	AA	768	A	127.5
21	B0	992	A	127.0
21	B0	710	C	126.8
21	B0	1656	U	126.6
21	B0	816	U	126.5
21	B0	171	G	126.4

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Mol	Chain	Res	Type	RSRZ
21	B0	1153	A	126.2
21	B0	1724	C	126.0
21	B0	2406	C	125.6
21	B0	1359	G	125.5
21	B0	1956	G	125.5
21	B0	747	A	125.1
21	B0	28	A	124.6
21	B0	2055	G	124.5
21	B0	834	A	124.4
21	B0	2495	G	123.9
21	B0	2227	C	123.8
21	B0	1962	C	123.7
21	B0	2497	A	123.7
1	AA	122	G	123.3
1	AA	332	G	123.2
21	B0	774	A	123.2
21	B0	1621	C	123.1
21	B0	2032	G	122.9
21	B0	1284	G	122.8
21	B0	1761	G	122.7
21	B0	1375	C	122.6
21	B0	1277	G	122.4
21	B0	2433	G	122.3
21	B0	445	A	122.3
21	B0	2037	A	122.0
21	B0	877	G	121.8
21	B0	2481	G	121.6
21	B0	1961	A	121.6
21	B0	2668	U	121.3
21	B0	2054	A	121.0
21	B0	1394	G	121.0
21	B0	1886	G	120.9
21	B0	1356	G	120.7
21	B0	818	G	120.6
1	AA	1513	A	120.6
21	B0	1358	C	120.5
21	B0	2050	G	120.4
21	B0	799	C	120.3
21	B0	540	G	120.0
21	B0	36	G	119.9
21	B0	2428	U	119.8
21	B0	1320	A	119.8

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Mol	Chain	Res	Type	RSRZ
22	B9	101	A	119.8
21	B0	87	G	119.7
21	B0	1046	U	119.7
21	B0	798	G	119.6
21	B0	878	C	119.6
21	B0	954	U	119.5
21	B0	958	G	119.4
21	B0	746	G	119.3
21	B0	933	G	119.3
21	B0	1748	U	118.9
21	B0	155	G	118.7
21	B0	1986	G	118.6
21	B0	2625	U	118.6
21	B0	121	G	118.4
21	B0	2666	U	118.4
21	B0	1960	A	118.1
21	B0	546	A	118.0
21	B0	47	G	117.8
21	B0	1686	A	117.8
21	B0	831	G	117.5
21	B0	33	C	117.3
22	B9	100	G	117.1
21	B0	1807	A	116.8
21	B0	1285	A	116.4
21	B0	1393	G	116.4
21	B0	2017	U	116.3
21	B0	930	A	116.1
21	B0	1310	C	116.0
21	B0	842	A	115.9
21	B0	1326	U	115.8
21	B0	2049	C	115.7
21	B0	1201	G	115.7
21	B0	127	C	115.5
21	B0	24	G	115.5
21	B0	176	A	115.4
21	B0	2701	A	115.3
21	B0	694	G	115.3
21	B0	2051	U	114.9
21	B0	188	G	114.9
21	B0	1364	C	114.8
21	B0	817	A	114.8
21	B0	2848	A	114.8

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Mol	Chain	Res	Type	RSRZ
21	B0	989	G	114.8
21	B0	2244	C	114.7
21	B0	988	G	114.7
21	B0	399	G	114.5
21	B0	2602	G	114.4
21	B0	778	G	114.3
21	B0	2022	C	114.3
21	B0	2524	G	114.2
21	B0	2594	U	113.8
21	B0	2561	G	113.5
1	AA	609	A	113.1
21	B0	184	A	113.0
21	B0	1031	C	112.9
21	B0	1332	G	112.6
21	B0	1618	U	112.6
1	AA	563	A	112.4
21	B0	1275	A	112.4
21	B0	832	A	112.3
21	B0	1644	G	112.3
21	B0	1700	C	112.3
21	B0	2408	G	112.2
21	B0	2690	A	112.2
21	B0	1395	A	112.1
21	B0	1150	C	112.1
21	B0	170	U	111.9
21	B0	1589	G	111.6
21	B0	1687	C	111.5
21	B0	1780	A	111.4
22	B9	103	A	111.3
21	B0	111	G	111.2
21	B0	174	A	111.2
21	B0	126	C	111.1
21	B0	1723	U	111.0
21	B0	1752	U	110.9
21	B0	1353	A	110.9
21	B0	1286	U	110.8
21	B0	185	C	110.7
21	B0	591	G	110.5
21	B0	2494	C	110.5
21	B0	156	G	110.5
21	B0	51	A	110.4
21	B0	2226	A	110.4

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Mol	Chain	Res	Type	RSRZ
21	B0	1781	C	110.1
21	B0	855	G	110.1
21	B0	465	C	110.1
21	B0	2434	G	110.0
21	B0	13	A	109.9
21	B0	26	G	109.9
21	B0	2675	U	109.8
1	AA	769	G	109.8
21	B0	833	A	109.8
21	B0	2058	U	109.7
21	B0	43	A	109.6
21	B0	931	G	109.5
21	B0	2671	C	109.3
21	B0	536	A	109.2
21	B0	90	G	109.1
21	B0	2692	A	109.0
21	B0	88	G	108.6
21	B0	457	C	108.5
21	B0	2476	A	107.9
21	B0	1955	G	107.9
21	B0	1328	C	107.9
21	B0	194	G	107.9
21	B0	932	G	107.8
21	B0	976	C	107.7
21	B0	2223	U	107.7
21	B0	2015	G	107.7
21	B0	1803	G	107.7
21	B0	952	A	107.7
21	B0	1379	A	107.3
21	B0	1887	G	107.3
21	B0	2694	G	107.3
1	AA	331	G	107.1
1	AA	558	G	106.8
21	B0	2799	C	106.8
21	B0	2027	C	106.8
21	B0	1753	A	106.7
21	B0	2713	A	106.6
21	B0	973	U	106.4
21	B0	2672	U	106.4
21	B0	1133	G	106.3
21	B0	2039	G	106.2
21	B0	2016	A	106.2

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Mol	Chain	Res	Type	RSRZ
21	B0	1237	G	105.9
21	B0	677	G	105.9
21	B0	446	C	105.6
21	B0	750	C	105.5
21	B0	2429	A	105.2
21	B0	1747	G	105.2
21	B0	23	G	105.1
1	AA	1501	C	105.0
21	B0	1638	G	104.9
21	B0	89	A	104.9
21	B0	483	A	104.8
21	B0	2761	A	104.8
21	B0	2038	C	104.6
21	B0	116	A	104.5
21	B0	175	C	104.4
21	B0	1719	G	104.4
21	B0	1136	G	104.4
21	B0	1983	G	104.3
21	B0	1154	A	104.2
22	B9	110	U	104.1
21	B0	35	G	104.0
21	B0	42	G	104.0
21	B0	2563	U	103.9
21	B0	2801	A	103.8
21	B0	162	C	103.7
21	B0	164	G	103.6
1	AA	865	A	103.5
21	B0	1653	C	103.5
21	B0	1588	A	103.2
21	B0	1439	G	103.2
21	B0	1654	A	103.1
21	B0	2846	G	103.1
21	B0	2487	G	103.1
21	B0	2217	G	103.0
21	B0	1322	G	102.9
21	B0	1662	G	102.9
21	B0	1969	G	102.9
21	B0	2576	G	102.8
21	B0	815	A	102.7
21	B0	2521	A	102.5
21	B0	929	A	102.4
21	B0	2486	C	102.4

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Mol	Chain	Res	Type	RSRZ
21	B0	1319	C	102.3
21	B0	1032	A	102.3
37	BO	6	THR	102.3
21	B0	2750	G	102.2
21	B0	691	C	102.2
21	B0	775	U	102.1
21	B0	1990	U	102.1
21	B0	1774	A	102.0
21	B0	2052	G	101.9
21	B0	987	G	101.9
21	B0	224	G	101.7
21	B0	1263	G	101.6
1	AA	579	G	101.6
21	B0	1138	A	101.6
1	AA	293	G	101.5
21	B0	449	C	101.5
21	B0	186	C	101.5
21	B0	2247	A	101.4
21	B0	1646	G	101.4
21	B0	1882	G	101.4
21	B0	788	G	101.3
21	B0	48	A	101.3
21	B0	2700	U	101.1
21	B0	1970	G	101.1
1	AA	333	G	101.0
21	B0	2571	G	101.0
21	B0	1751	A	100.9
21	B0	1616	C	100.7
21	B0	1806	G	100.7
1	AA	864	A	100.7
21	B0	2483	U	100.7
21	B0	777	A	100.5
21	B0	1376	C	100.3
21	B0	1985	G	100.2
21	B0	1717	A	100.2
21	B0	1974	U	100.1
21	B0	1216	G	99.8
21	B0	1366	A	99.6
21	B0	1666	G	99.5
21	B0	951	G	99.5
1	AA	766	A	99.4
21	B0	2432	A	99.4

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Mol	Chain	Res	Type	RSRZ
21	B0	651	C	99.4
21	B0	187	U	99.2
21	B0	1293	A	99.1
21	B0	1706	A	99.0
21	B0	708	G	99.0
1	AA	134	A	98.9
21	B0	1357	U	98.9
21	B0	113	C	98.8
21	B0	2593	A	98.7
21	B0	1963	G	98.7
21	B0	925	U	98.7
1	AA	880	C	98.6
21	B0	541	C	98.2
21	B0	1615	C	98.2
21	B0	1701	C	98.2
21	B0	1793	A	98.1
22	B9	104	A	98.1
21	B0	583	C	98.1
21	B0	2252	A	98.0
1	AA	123	C	97.9
1	AA	319	G	97.9
1	AA	566	G	97.8
21	B0	2276	C	97.8
21	B0	2496	C	97.7
21	B0	2827	G	97.7
21	B0	2711	G	97.6
21	B0	2660	C	97.5
21	B0	2584	U	97.5
21	B0	1391	A	97.5
21	B0	1755	G	97.3
21	B0	2028	C	97.2
21	B0	69	G	97.1
21	B0	2488	G	96.9
21	B0	2370	G	96.9
21	B0	1750	A	96.8
21	B0	2443	C	96.8
37	BO	5	LYS	96.6
21	B0	2676	G	96.6
21	B0	585	U	96.5
21	B0	783	G	96.4
21	B0	1384	G	96.4
21	B0	120	G	96.4

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Mol	Chain	Res	Type	RSRZ
21	B0	2570	C	96.4
21	B0	1344	C	96.3
21	B0	781	G	96.2
21	B0	2679	G	96.2
1	AA	1474	G	96.1
21	B0	2568	A	96.1
21	B0	2552	C	96.1
21	B0	1471	G	96.0
26	BD	60	ILE	96.0
21	B0	447	U	95.9
21	B0	1282	A	95.9
21	B0	1204	G	95.6
1	AA	814	A	95.6
21	B0	1661	C	95.5
1	AA	546	G	95.4
21	B0	812	G	95.4
1	AA	318	G	95.4
21	B0	2847	G	95.4
21	B0	1754	G	95.3
21	B0	684	C	95.3
21	B0	125	A	95.3
21	B0	2678	C	95.2
21	B0	526	C	95.2
21	B0	1125	G	95.1
21	B0	7	G	95.1
21	B0	796	A	95.0
21	B0	836	G	94.9
21	B0	534	U	94.9
21	B0	692	C	94.8
1	AA	570	G	94.8
21	B0	985	G	94.7
21	B0	840	U	94.7
21	B0	2566	A	94.6
1	AA	47	C	94.6
21	B0	1280	U	94.6
21	B0	1200	G	94.5
21	B0	2468	G	94.5
21	B0	1034	U	94.5
21	B0	2695	C	94.5
21	B0	712	A	94.4
21	B0	1977	C	94.4
21	B0	1346	C	94.2

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Mol	Chain	Res	Type	RSRZ
21	B0	2587	G	94.2
21	B0	16	G	94.1
21	B0	1633	C	94.1
21	B0	2423	G	94.1
21	B0	1267	A	94.1
26	BD	139	PRO	94.0
21	B0	2825	A	94.0
21	B0	695	G	94.0
21	B0	2044	G	93.8
21	B0	1984	A	93.7
21	B0	2685	A	93.6
1	AA	535	A	93.5
21	B0	2603	G	93.5
21	B0	580	A	93.4
21	B0	1000	G	93.4
21	B0	1203	A	93.4
21	B0	2489	C	93.3
1	AA	910	C	93.3
21	B0	2026	C	93.2
21	B0	397	U	93.2
21	B0	1352	G	93.1
21	B0	565	A	93.1
21	B0	2802	C	93.1
21	B0	1627	C	93.1
21	B0	984	A	93.1
21	B0	874	A	92.7
21	B0	1634	A	92.7
21	B0	568	G	92.7
21	B0	160	C	92.6
21	B0	564	U	92.5
21	B0	2060	A	92.4
1	AA	812	C	92.4
21	B0	1714	A	92.3
21	B0	2757	G	92.3
21	B0	581	A	92.3
21	B0	2622	G	92.2
21	B0	1369	G	92.2
21	B0	685	U	92.2
21	B0	1957	C	92.2
21	B0	525	A	92.2
21	B0	1278	A	92.1
21	B0	2670	C	92.0

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Mol	Chain	Res	Type	RSRZ
21	B0	1407	G	91.9
21	B0	189	A	91.9
1	AA	914	A	91.8
21	B0	577	U	91.6
21	B0	742	G	91.4
21	B0	1406	A	91.4
21	B0	2800	C	91.3
21	B0	1770	U	91.2
21	B0	163	A	91.1
21	B0	977	G	91.1
21	B0	1205	G	91.0
21	B0	2569	A	90.9
21	B0	2665	G	90.9
21	B0	659	G	90.9
21	B0	225	G	90.8
21	B0	2851	G	90.8
21	B0	548	G	90.7
21	B0	2482	A	90.6
21	B0	2759	U	90.6
21	B0	924	C	90.5
21	B0	1445	A	90.4
21	B0	1338	G	90.4
21	B0	1587	A	90.4
21	B0	2745	A	90.4
21	B0	112	U	90.3
21	B0	995	A	90.3
1	AA	557	G	90.3
21	B0	971	A	90.3
21	B0	2036	G	90.2
21	B0	576	A	90.1
21	B0	1316	G	90.1
21	B0	1758	C	90.1
21	B0	2007	G	90.1
21	B0	771	C	90.1
21	B0	1614	C	90.0
21	B0	693	A	90.0
1	AA	292	G	89.9
21	B0	1775	A	89.8
21	B0	2192	U	89.8
1	AA	903	G	89.8
21	B0	1660	G	89.8
21	B0	2466	G	89.8

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Mol	Chain	Res	Type	RSRZ
1	AA	308	C	89.7
21	B0	676	G	89.6
21	B0	41	G	89.5
21	B0	2702	G	89.5
21	B0	2751	C	89.5
22	B9	105	G	89.5
21	B0	448	C	89.4
22	B9	112	A	89.4
21	B0	2029	G	89.4
21	B0	535	U	89.4
21	B0	223	C	89.3
1	AA	298	A	89.3
1	AA	547	A	89.1
21	B0	1151	U	88.9
21	B0	2243	C	88.8
1	AA	19	C	88.8
21	B0	1704	G	88.7
21	B0	2844	G	88.7
21	B0	1968	G	88.6
21	B0	128	C	88.5
21	B0	1377	G	88.5
1	AA	505	G	88.5
1	AA	1523	G	88.5
21	B0	407	A	88.5
21	B0	22	C	88.4
1	AA	610	G	88.4
1	AA	816	A	88.4
21	B0	854	G	88.4
21	B0	2435	C	88.4
21	B0	2546	G	88.3
21	B0	2852	G	88.3
21	B0	1821	A	88.3
21	B0	1920	A	88.3
21	B0	1371	G	88.3
1	AA	767	A	88.2
21	B0	154	U	88.2
21	B0	1134	C	88.2
21	B0	2193	C	88.2
21	B0	994	A	88.0
21	B0	873	U	88.0
1	AA	32	A	88.0
21	B0	1139	A	88.0

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Mol	Chain	Res	Type	RSRZ
21	B0	970	A	87.9
21	B0	1168	G	87.9
21	B0	1964	A	87.8
21	B0	1334	A	87.7
21	B0	1668	G	87.7
21	B0	2691	C	87.6
21	B0	450	C	87.5
21	B0	1331	G	87.5
21	B0	779	U	87.4
21	B0	1664	G	87.4
21	B0	1149	G	87.4
21	B0	1368	G	87.4
1	AA	297	G	87.4
21	B0	2030	U	87.4
1	AA	892	A	87.4
21	B0	1715	A	87.2
1	AA	608	A	87.2
21	B0	1688	U	86.8
1	AA	329	A	86.8
21	B0	1137	A	86.4
1	AA	1500	A	86.4
21	B0	1033	G	86.3
1	AA	765	G	86.3
21	B0	165	G	86.2
21	B0	975	C	86.2
1	AA	556	C	86.0
1	AA	813	U	86.0
21	B0	1958	G	86.0
26	BD	142	THR	85.9
21	B0	1321	A	85.9
21	B0	2383	C	85.8
21	B0	1254	G	85.7
21	B0	1255	A	85.7
21	B0	998	C	85.7
21	B0	856	A	85.6
21	B0	389	G	85.6
21	B0	707	U	85.5
21	B0	2248	A	85.5
21	B0	806	A	85.4
21	B0	2475	C	85.3
21	B0	1864	G	85.2
21	B0	522	G	85.2

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Mol	Chain	Res	Type	RSRZ
21	B0	2749	A	85.1
21	B0	32	C	85.1
21	B0	1678	G	85.1
21	B0	762	A	85.0
1	AA	133	U	85.0
22	B9	99	G	85.0
1	AA	913	A	84.9
21	B0	143	A	84.8
21	B0	1309	G	84.6
21	B0	153	A	84.6
21	B0	1385	C	84.6
21	B0	1167	A	84.6
1	AA	311	C	84.5
21	B0	1698	C	84.5
21	B0	2578	G	84.4
21	B0	1885	C	84.3
21	B0	406	G	84.2
21	B0	2762	G	84.1
1	AA	764	C	84.1
21	B0	2332	G	84.0
21	B0	2413	A	84.0
21	B0	804	C	84.0
21	B0	2654	A	84.0
21	B0	17	G	84.0
21	B0	1166	A	84.0
1	AA	160	A	83.9
1	AA	108	G	83.8
1	AA	22	G	83.8
21	B0	2409	A	83.8
21	B0	1632	A	83.8
21	B0	159	A	83.7
21	B0	1273	G	83.7
21	B0	1283	C	83.6
21	B0	2471	U	83.6
21	B0	1495	G	83.6
21	B0	391	C	83.5
21	B0	1884	A	83.5
21	B0	709	A	83.5
21	B0	1264	C	83.5
1	AA	1079	G	83.5
21	B0	1354	A	83.4
21	B0	2547	C	83.3

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Mol	Chain	Res	Type	RSRZ
21	B0	1236	G	83.3
21	B0	1300	A	83.3
21	B0	2440	C	83.2
21	B0	1059	A	83.2
1	AA	508	C	83.1
21	B0	2499	C	83.1
21	B0	2314	A	83.1
21	B0	981	C	82.9
1	AA	109	A	82.9
21	B0	2758	A	82.9
21	B0	1373	G	82.8
21	B0	1689	U	82.8
21	B0	2747	C	82.8
21	B0	2693	U	82.8
1	AA	1475	G	82.7
21	B0	1757	C	82.7
1	AA	525	C	82.6
1	AA	1503	A	82.6
21	B0	1349	A	82.5
21	B0	751	G	82.4
21	B0	2528	G	82.4
21	B0	2438	A	82.4
21	B0	1979	C	82.3
21	B0	945	G	82.3
21	B0	745	C	82.3
1	AA	135	C	82.3
21	B0	1643	A	82.3
21	B0	1229	C	82.2
21	B0	2061	C	82.2
21	B0	392	G	82.2
1	AA	578	C	82.1
21	B0	1436	G	82.1
21	B0	1410	U	82.1
21	B0	1496	G	82.1
21	B0	444	U	82.1
21	B0	1018	C	82.0
21	B0	2604	G	82.0
21	B0	2606	G	82.0
21	B0	547	U	81.9
21	B0	229	G	81.9
21	B0	1669	A	81.8
21	B0	569	C	81.8

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Mol	Chain	Res	Type	RSRZ
21	B0	179	U	81.7
21	B0	567	G	81.7
21	B0	1317	G	81.6
21	B0	928	G	81.6
21	B0	1302	C	81.6
21	B0	2410	U	81.5
21	B0	2545	A	81.4
21	B0	1337	G	81.4
1	AA	317	G	81.3
21	B0	1446	U	81.2
21	B0	140	G	81.2
22	B9	17	A	81.2
21	B0	1590	C	81.2
22	B9	65	A	81.1
21	B0	1214	C	81.1
21	B0	2237	C	81.1
21	B0	2467	A	81.0
21	B0	2242	C	81.0
21	B0	851	C	80.9
21	B0	2550	C	80.9
21	B0	2724	G	80.9
21	B0	57	G	80.8
21	B0	2554	C	80.8
21	B0	835	U	80.8
21	B0	1241	G	80.7
21	B0	451	A	80.7
21	B0	141	G	80.7
21	B0	485	G	80.7
21	B0	1211	G	80.7
21	B0	1230	C	80.6
21	B0	2382	C	80.6
21	B0	2818	G	80.6
21	B0	1347	C	80.6
21	B0	2708	U	80.5
21	B0	614	G	80.4
21	B0	2813	G	80.4
21	B0	2577	A	80.4
21	B0	2592	U	80.4
21	B0	2418	A	80.3
21	B0	1019	U	80.3
21	B0	743	A	80.3
21	B0	1276	U	80.3

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Mol	Chain	Res	Type	RSRZ
21	B0	1350	G	80.3
21	B0	1647	U	80.2
1	AA	124	G	80.2
21	B0	11	G	80.2
21	B0	2551	A	80.2
21	B0	2301	A	80.1
21	B0	2756	A	80.1
1	AA	927	G	80.1
1	AA	509	A	80.1
21	B0	974	U	80.0
21	B0	2220	A	80.0
1	AA	607	A	79.9
21	B0	1716	G	79.9
21	B0	2850	U	79.9
1	AA	575	G	79.8
1	AA	330	C	79.8
21	B0	527	C	79.8
21	B0	927	C	79.8
1	AA	821	G	79.8
1	AA	893	C	79.7
21	B0	2525	U	79.7
21	B0	1657	A	79.7
26	BD	59	LEU	79.6
21	B0	2689	C	79.6
21	B0	227	G	79.6
21	B0	658	G	79.6
21	B0	588	G	79.5
21	B0	990	A	79.4
21	B0	91	A	79.3
21	B0	1135	C	79.3
1	AA	548	G	79.3
21	B0	539	A	79.3
21	B0	2706	U	79.3
21	B0	1140	A	79.3
21	B0	1966	C	79.2
21	B0	2794	G	79.2
1	AA	572	A	79.2
1	AA	110	C	79.1
21	B0	706	A	79.1
21	B0	934	G	79.1
21	B0	72	A	79.0
21	B0	388	G	79.0

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Mol	Chain	Res	Type	RSRZ
1	AA	230	G	79.0
21	B0	999	A	78.9
1	AA	1508	G	78.9
1	AA	161	A	78.9
1	AA	1434	A	78.8
1	AA	758	G	78.8
21	B0	2216	G	78.8
21	B0	2040	A	78.7
21	B0	1245	G	78.7
21	B0	713	G	78.7
21	B0	872	G	78.7
21	B0	1367	A	78.7
21	B0	789	G	78.7
21	B0	1791	C	78.7
21	B0	1343	C	78.5
21	B0	21	A	78.5
21	B0	1813	A	78.5
1	AA	976	G	78.4
21	B0	652	C	78.3
21	B0	1760	G	78.3
21	B0	813	A	78.2
21	B0	1720	G	78.2
21	B0	1814	G	78.2
21	B0	875	G	78.2
21	B0	2277	A	78.1
1	AA	571	U	78.0
21	B0	29	U	78.0
21	B0	1847	G	78.0
21	B0	1058	G	78.0
21	B0	589	C	78.0
21	B0	1645	U	77.9
21	B0	922	A	77.9
21	B0	1258	G	77.9
21	B0	2682	C	77.9
26	BD	144	ASP	77.8
21	B0	1148	G	77.8
21	B0	1444	C	77.8
21	B0	1928	G	77.7
21	B0	1243	G	77.7
21	B0	1973	C	77.7
21	B0	2444	C	77.6
21	B0	590	C	77.6

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Mol	Chain	Res	Type	RSRZ
21	B0	2436	U	77.5
21	B0	965	G	77.4
21	B0	1768	U	77.4
21	B0	1246	G	77.3
21	B0	12	U	77.3
1	AA	46	G	77.3
21	B0	1292	A	77.3
21	B0	543	G	77.3
1	AA	1401	G	77.3
1	AA	312	C	77.2
21	B0	1744	G	77.2
21	B0	2526	U	77.2
1	AA	364	A	77.1
1	AA	21	G	77.0
21	B0	167	A	77.0
21	B0	1650	A	77.0
21	B0	161	U	76.9
21	B0	390	U	76.9
21	B0	1206	G	76.9
21	B0	1635	G	76.9
21	B0	2010	G	76.8
21	B0	2821	G	76.8
21	B0	744	C	76.8
21	B0	2442	C	76.7
21	B0	586	G	76.7
1	AA	1473	A	76.7
1	AA	315	A	76.6
1	AA	885	G	76.5
21	B0	1362	A	76.5
21	B0	570	G	76.5
21	B0	1351	G	76.4
21	B0	1315	A	76.4
1	AA	1428	A	76.4
21	B0	1215	A	76.3
1	AA	132	C	76.3
21	B0	1684	G	76.2
21	B0	1722	G	76.2
21	B0	2605	C	76.2
26	BD	140	GLU	76.2
1	AA	18	C	76.1
21	B0	1801	C	76.1
1	AA	1080	A	76.1

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Mol	Chain	Res	Type	RSRZ
22	B9	113	G	76.1
21	B0	2498	U	76.0
1	AA	1524	C	76.0
21	B0	2303	C	76.0
21	B0	1028	G	76.0
21	B0	545	C	76.0
1	AA	515	G	75.8
21	B0	950	G	75.8
21	B0	2278	A	75.8
21	B0	2420	C	75.7
21	B0	2300	G	75.7
21	B0	605	G	75.7
21	B0	2617	G	75.6
21	B0	395	G	75.5
21	B0	807	A	75.5
21	B0	1242	A	75.5
21	B0	1555	A	75.5
21	B0	2228	U	75.5
1	AA	881	G	75.4
21	B0	2607	C	75.3
21	B0	1953	A	75.3
21	B0	1829	C	75.3
21	B0	2655	C	75.3
21	B0	1001	A	75.3
1	AA	585	G	75.2
22	B9	72	C	75.2
21	B0	2404	A	75.1
21	B0	1613	G	75.0
21	B0	615	C	75.0
1	AA	316	G	74.9
1	AA	7	G	74.9
21	B0	1417	C	74.9
21	B0	1998	A	74.9
1	AA	64	G	74.9
21	B0	537	C	74.8
1	AA	115	G	74.7
21	B0	1238	A	74.7
1	AA	922	G	74.6
21	B0	1659	G	74.6
42	BT	129	ARG	74.6
1	AA	564	C	74.5
21	B0	2312	A	74.5

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Mol	Chain	Res	Type	RSRZ
21	B0	2709	C	74.5
21	B0	1967	U	74.5
21	B0	222	G	74.5
21	B0	634	G	74.5
21	B0	52	A	74.5
22	B9	64	C	74.5
21	B0	403	A	74.4
1	AA	296	U	74.4
21	B0	1303	U	74.4
21	B0	2003	A	74.4
21	B0	2828	C	74.3
21	B0	1554	G	74.3
21	B0	1047	G	74.3
21	B0	1228	G	74.3
21	B0	1981	A	74.3
21	B0	1786	C	74.2
21	B0	1062	G	74.2
21	B0	986	A	74.2
21	B0	823	U	74.2
21	B0	2583	U	74.1
21	B0	2527	G	74.1
1	AA	27	G	74.1
21	B0	1035	G	74.1
21	B0	1291	G	74.1
21	B0	959	C	74.0
21	B0	1234	C	73.9
21	B0	1386	A	73.9
1	AA	504	C	73.8
21	B0	1380	C	73.8
1	AA	781	A	73.8
22	B9	6	C	73.8
21	B0	1756	C	73.8
21	B0	59	G	73.7
1	AA	313	A	73.6
1	AA	577	G	73.6
1	AA	533	A	73.6
21	B0	853	C	73.6
21	B0	1016	C	73.6
21	B0	672	C	73.6
22	B9	25	G	73.5
21	B0	1387	G	73.4
21	B0	1396	C	73.4

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Mol	Chain	Res	Type	RSRZ
1	AA	111	G	73.4
21	B0	25	U	73.4
21	B0	1639	U	73.3
21	B0	1341	G	73.3
1	AA	33	A	73.3
21	B0	396	U	73.3
1	AA	633	G	73.3
21	B0	1919	A	73.3
1	AA	536	C	73.2
1	AA	925	G	73.2
21	B0	2803	C	73.2
21	B0	2555	G	73.2
21	B0	2392	G	73.1
21	B0	228	A	73.1
21	B0	1954	A	73.1
21	B0	173	A	73.1
1	AA	325	A	73.1
21	B0	2664	G	73.1
21	B0	533	C	73.0
21	B0	1383	C	73.0
21	B0	230	C	73.0
1	AA	526	C	73.0
21	B0	180	C	73.0
21	B0	1447	U	73.0
21	B0	794	A	72.9
21	B0	2302	G	72.9
21	B0	1266	G	72.8
21	B0	1435	G	72.8
1	AA	107	G	72.8
1	AA	888	G	72.8
29	BG	106	GLU	72.7
1	AA	576	G	72.6
21	B0	2056	C	72.6
21	B0	452	G	72.6
1	AA	321	A	72.5
21	B0	1405	A	72.5
21	B0	596	C	72.5
21	B0	2299	A	72.5
21	B0	1305	C	72.5
22	B9	66	G	72.5
21	B0	2384	G	72.5
21	B0	68	C	72.4

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Mol	Chain	Res	Type	RSRZ
21	B0	1323	G	72.4
1	AA	9	G	72.4
21	B0	1398	G	72.4
1	AA	61	G	72.3
21	B0	1576	G	72.3
21	B0	1165	G	72.3
21	B0	1017	C	72.2
1	AA	11	G	72.2
21	B0	1978	U	72.2
21	B0	1438	G	72.1
21	B0	2465	G	72.1
21	B0	784	U	72.1
1	AA	1441	G	72.0
1	AA	560	U	72.0
1	AA	289	G	71.9
21	B0	1832	G	71.8
21	B0	2814	G	71.8
1	AA	29	G	71.7
21	B0	1240	G	71.7
21	B0	2579	A	71.7
1	AA	26	A	71.7
21	B0	6	A	71.6
1	AA	113	G	71.5
22	B9	74	A	71.4
21	B0	2518	C	71.4
21	B0	1294	G	71.4
21	B0	2684	A	71.4
21	B0	1231	A	71.4
21	B0	1556	A	71.4
21	B0	852	U	71.3
21	B0	2826	C	71.3
21	B0	2699	G	71.2
21	B0	2241	U	71.2
21	B0	37	C	71.2
21	B0	1822	C	71.2
21	B0	2556	A	71.1
21	B0	1883	A	71.1
21	B0	2344	G	71.1
21	B0	1348	C	71.1
21	B0	1721	G	71.1
21	B0	2819	G	71.1
21	B0	178	C	71.0

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Mol	Chain	Res	Type	RSRZ
1	AA	1468	A	71.0
21	B0	2307	A	71.0
26	BD	141	ILE	71.0
1	AA	326	G	70.9
21	B0	701	U	70.9
21	B0	2474	G	70.9
21	B0	749	C	70.8
21	B0	993	C	70.8
21	B0	549	G	70.8
1	AA	917	G	70.8
1	AA	10	A	70.7
21	B0	1999	U	70.6
1	AA	1429	C	70.6
21	B0	1623	C	70.6
21	B0	923	A	70.5
21	B0	1586	A	70.5
1	AA	912	C	70.4
1	AA	51	A	70.4
21	B0	1671	A	70.4
21	B0	2520	A	70.3
21	B0	1769	U	70.2
21	B0	2343	C	70.2
22	B9	71	G	70.2
1	AA	307	C	70.2
21	B0	2705	A	70.2
21	B0	1665	C	70.2
21	B0	2740	C	70.1
1	AA	1488	G	70.1
21	B0	538	A	70.1
21	B0	2025	A	70.1
21	B0	1713	G	70.1
21	B0	1940	C	70.1
1	AA	763	G	70.0
21	B0	2532	G	70.0
21	B0	1636	G	70.0
21	B0	226	C	69.9
21	B0	1304	U	69.9
21	B0	1419	G	69.8
1	AA	278	G	69.8
21	B0	2309	G	69.8
21	B0	1418	C	69.7
1	AA	559	A	69.7

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Mol	Chain	Res	Type	RSRZ
1	AA	41	G	69.7
21	B0	1824	C	69.7
21	B0	791	G	69.6
21	B0	2403	C	69.6
1	AA	544	G	69.5
21	B0	690	A	69.4
21	B0	1827	G	69.4
21	B0	1819	U	69.3
21	B0	2445	C	69.2
21	B0	1318	A	69.2
21	B0	2727	G	69.2
21	B0	1272	G	69.2
21	B0	876	A	69.2
21	B0	14	A	69.1
21	B0	1667	A	69.1
21	B0	2004	U	69.1
1	AA	16	A	69.1
21	B0	1735	G	69.1
21	B0	1677	C	69.1
21	B0	239	A	69.0
21	B0	2394	G	69.0
21	B0	2008	C	69.0
21	B0	1696	C	68.9
1	AA	334	C	68.9
21	B0	2393	G	68.8
1	AA	1511	G	68.8
21	B0	2741	G	68.8
21	B0	2565	C	68.8
21	B0	1262	U	68.7
21	B0	2000	U	68.7
1	AA	573	A	68.7
21	B0	2686	C	68.7
21	B0	741	G	68.6
22	B9	83	C	68.6
1	AA	378	G	68.6
21	B0	1329	U	68.6
1	AA	320	C	68.6
1	AA	1370	G	68.6
21	B0	748	A	68.5
21	B0	1800	A	68.5
1	AA	162	A	68.5
21	B0	2229	G	68.4

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Mol	Chain	Res	Type	RSRZ
1	AA	879	C	68.4
21	B0	740	A	68.4
1	AA	60	A	68.4
21	B0	643	A	68.4
21	B0	811	G	68.3
21	B0	1982	C	68.3
21	B0	1408	A	68.3
1	AA	229	U	68.3
21	B0	1470	G	68.3
21	B0	1296	G	68.2
21	B0	972	C	68.2
21	B0	1388	C	68.2
1	AA	1521	G	68.2
21	B0	633	G	68.2
21	B0	1060	C	68.1
21	B0	705	C	68.1
21	B0	964	A	68.1
21	B0	2011	U	68.1
21	B0	67	G	68.0
21	B0	166	G	68.0
21	B0	1259	A	67.9
21	B0	8	A	67.9
21	B0	767	G	67.9
21	B0	1209	G	67.8
21	B0	1132	C	67.8
1	AA	1365	G	67.8
22	B9	109	G	67.8
21	B0	1680	U	67.7
21	B0	1342	U	67.7
21	B0	1437	A	67.7
21	B0	1952	A	67.6
21	B0	864	C	67.6
21	B0	1290	A	67.5
1	AA	1499	A	67.4
21	B0	2331	A	67.4
21	B0	1965	U	67.4
1	AA	42	G	67.4
21	B0	2214	G	67.4
21	B0	766	A	67.3
1	AA	770	C	67.3
21	B0	1830	C	67.3
21	B0	949	G	67.3

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Mol	Chain	Res	Type	RSRZ
1	AA	1433	A	67.3
21	B0	3136	C	67.3
21	B0	1207	G	67.2
1	AA	1413	A	67.1
21	B0	839	U	67.1
26	BD	145	MET	67.1
21	B0	30	G	67.0
1	AA	25	C	67.0
21	B0	2407	G	67.0
1	AA	1395	C	66.9
21	B0	482	A	66.9
21	B0	401	G	66.9
1	AA	923	A	66.9
21	B0	1392	U	66.9
21	B0	686	C	66.9
1	AA	365	U	66.9
21	B0	404	A	66.8
1	AA	803	G	66.8
21	B0	671	A	66.8
21	B0	1941	C	66.8
21	B0	1922	U	66.8
21	B0	152	G	66.8
21	B0	1239	A	66.7
21	B0	2009	U	66.7
21	B0	15	G	66.7
1	AA	299	G	66.7
21	B0	620	G	66.7
21	B0	1432	G	66.7
21	B0	1809	G	66.7
21	B0	1823	G	66.7
21	B0	2817	A	66.6
21	B0	1363	C	66.6
21	B0	698	A	66.6
21	B0	641	G	66.6
21	B0	575	U	66.6
1	AA	811	C	66.5
26	BD	57	LEU	66.5
21	B0	752	G	66.4
1	AA	1368	G	66.4
21	B0	1574	A	66.4
1	AA	904	C	66.3
21	B0	1256	C	66.3

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Mol	Chain	Res	Type	RSRZ
21	B0	1995	G	66.3
21	B0	2255	G	66.2
21	B0	1235	C	66.2
21	B0	2519	C	66.2
21	B0	1020	A	66.2
21	B0	1382	G	66.2
21	B0	1577	G	66.2
1	AA	314	C	66.2
1	AA	59	A	66.2
21	B0	2066	G	66.1
1	AA	627	G	66.1
21	B0	1959	U	66.1
1	AA	295	C	66.1
21	B0	1145	C	66.1
21	B0	157	G	66.1
21	B0	70	A	66.0
22	B9	16	U	66.0
21	B0	790	A	66.0
1	AA	301	G	66.0
1	AA	944	G	66.0
1	AA	580	U	66.0
21	B0	2696	A	66.0
21	B0	828	C	66.0
21	B0	1397	A	65.9
1	AA	353	A	65.9
21	B0	1314	A	65.9
21	B0	630	G	65.9
21	B0	2683	C	65.8
1	AA	918	A	65.8
21	B0	1210	C	65.8
21	B0	1570	C	65.8
21	B0	1497	C	65.8
21	B0	158	A	65.7
21	B0	2397	A	65.7
21	B0	642	A	65.7
1	AA	574	A	65.7
21	B0	1825	C	65.7
21	B0	867	G	65.6
1	AA	28	G	65.6
21	B0	1759	A	65.6
21	B0	2572	U	65.6
1	AA	279	A	65.6

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Mol	Chain	Res	Type	RSRZ
21	B0	20	C	65.6
21	B0	2396	C	65.5
21	B0	660	G	65.5
29	BG	102	ASP	65.4
21	B0	787	A	65.4
1	AA	117	G	65.4
1	AA	545	C	65.4
21	B0	501	G	65.4
1	AA	34	C	65.3
21	B0	1846	A	65.3
1	AA	524	G	65.3
1	AA	728	A	65.3
21	B0	2822	U	65.3
21	B0	1972	G	65.2
21	B0	604	U	65.2
21	B0	1593	C	65.2
1	AA	634	C	65.1
26	BD	3	GLN	65.1
1	AA	507	C	65.1
21	B0	1792	C	65.1
1	AA	159	G	65.1
21	B0	2251	U	65.1
1	AA	284	G	65.1
21	B0	2597	G	65.0
21	B0	2316	G	65.0
21	B0	2688	G	64.9
21	B0	181	A	64.9
21	B0	2725	C	64.9
21	B0	550	C	64.9
21	B0	1476	G	64.8
21	B0	801	A	64.8
21	B0	865	A	64.8
21	B0	2493	U	64.7
21	B0	2371	A	64.7
1	AA	625	G	64.7
21	B0	464	G	64.7
21	B0	2057	U	64.7
1	AA	730	G	64.7
21	B0	1579	G	64.7
1	AA	1387	G	64.6
22	B9	58	G	64.6
21	B0	2608	A	64.6

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Mol	Chain	Res	Type	RSRZ
22	B9	75	A	64.6
1	AA	136	C	64.5
22	B9	18	G	64.5
21	B0	1592	U	64.5
21	B0	571	U	64.5
21	B0	1980	A	64.4
1	AA	335	C	64.4
21	B0	1169	C	64.4
21	B0	172	A	64.4
21	B0	1585	A	64.4
21	B0	2730	A	64.3
21	B0	1443	G	64.3
26	BD	4	LEU	64.3
1	AA	624	C	64.3
21	B0	1274	C	64.3
21	B0	696	U	64.3
21	B0	1746	A	64.3
21	B0	1124	U	64.2
21	B0	1013	G	64.2
21	B0	702	A	64.2
21	B0	1725	C	64.2
1	AA	878	G	64.2
22	B9	81	C	64.1
21	B0	58	C	64.1
21	B0	1997	A	64.1
21	B0	1156	U	64.1
21	B0	1217	U	64.1
21	B0	2732	C	64.0
1	AA	873	A	64.0
42	BT	130	ILE	64.0
1	AA	397	A	64.0
1	AA	537	G	63.9
1	AA	543	C	63.9
1	AA	1526	G	63.9
21	B0	1298	G	63.9
21	B0	31	C	63.9
21	B0	926	C	63.8
21	B0	2843	A	63.8
21	B0	1971	C	63.8
21	B0	613	A	63.8
21	B0	602	C	63.8
21	B0	2703	C	63.7

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Mol	Chain	Res	Type	RSRZ
21	B0	1249	G	63.7
1	AA	23	C	63.7
21	B0	38	G	63.7
1	AA	514	C	63.7
21	B0	1202	U	63.6
21	B0	1828	C	63.6
1	AA	1343	G	63.6
1	AA	506	G	63.6
21	B0	797	A	63.5
21	B0	2484	G	63.5
21	B0	1299	A	63.5
21	B0	610	G	63.5
21	B0	2485	U	63.4
42	BT	127	PRO	63.4
21	B0	183	U	63.4
21	B0	761	G	63.4
1	AA	426	G	63.3
21	B0	1697	U	63.3
21	B0	1039	A	63.3
21	B0	1991	C	63.2
1	AA	869	G	63.2
21	B0	1550	C	63.2
21	B0	1008	G	63.2
1	AA	348	G	63.2
1	AA	351	G	63.2
21	B0	1002	C	63.2
1	AA	581	G	63.1
21	B0	1055	A	63.1
21	B0	980	G	63.1
21	B0	2253	A	63.1
1	AA	31	G	63.1
21	B0	606	A	63.1
1	AA	285	G	63.0
21	B0	494	A	63.0
21	B0	2729	A	63.0
21	B0	1218	C	63.0
21	B0	739	G	63.0
21	B0	2687	G	63.0
21	B0	1213	U	63.0
21	B0	2048	C	62.9
21	B0	2845	C	62.9
21	B0	645	G	62.9

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Mol	Chain	Res	Type	RSRZ
1	AA	416	G	62.9
21	B0	1703	C	62.9
21	B0	1670	G	62.9
21	B0	2677	U	62.8
1	AA	366	C	62.8
21	B0	697	G	62.8
21	B0	2308	A	62.8
21	B0	1472	C	62.8
1	AA	975	A	62.8
21	B0	2720	A	62.7
21	B0	62	U	62.7
1	AA	511	C	62.7
21	B0	405	C	62.7
21	B0	700	C	62.7
21	B0	2225	G	62.7
21	B0	139	A	62.7
22	B9	114	C	62.7
21	B0	2710	C	62.6
1	AA	804	U	62.6
1	AA	895	G	62.6
21	B0	2793	G	62.6
1	AA	866	C	62.6
22	B9	26	G	62.5
1	AA	1489	G	62.5
21	B0	544	U	62.5
21	B0	2820	C	62.5
21	B0	675	C	62.5
21	B0	49	U	62.4
21	B0	1976	U	62.4
21	B0	1477	C	62.4
21	B0	732	G	62.4
1	AA	1514	C	62.4
21	B0	1673	C	62.4
1	AA	1061	G	62.3
21	B0	488	A	62.3
21	B0	530	G	62.3
1	AA	106	C	62.3
21	B0	1003	C	62.3
21	B0	935	C	62.3
1	AA	1369	C	62.2
21	B0	487	G	62.2
21	B0	1244	U	62.2

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Mol	Chain	Res	Type	RSRZ
21	B0	387	A	62.2
21	B0	1336	G	62.1
21	B0	1232	U	62.1
1	AA	584	G	62.1
21	B0	231	G	62.1
21	B0	670	U	62.1
21	B0	409	G	62.1
21	B0	1006	C	62.0
21	B0	1871	G	62.0
21	B0	10	A	62.0
1	AA	906	G	62.0
21	B0	2681	A	62.0
21	B0	997	C	62.0
29	BG	47	ASP	62.0
21	B0	1736	C	61.9
26	BD	99	PHE	61.9
21	B0	2557	G	61.9
21	B0	1330	G	61.9
21	B0	2748	C	61.9
23	BA	136	VAL	61.8
21	B0	636	G	61.8
21	B0	1381	G	61.8
22	B9	115	G	61.8
21	B0	528	G	61.7
21	B0	631	G	61.7
21	B0	3873	G	61.7
21	B0	1066	G	61.7
21	B0	2043	A	61.7
1	AA	555	C	61.7
1	AA	322	C	61.7
21	B0	1012	A	61.7
21	B0	2395	C	61.7
21	B0	411	C	61.7
21	B0	2582	G	61.6
21	B0	1681	A	61.6
21	B0	1743	C	61.6
21	B0	232	A	61.6
21	B0	1011	A	61.5
21	B0	1785	A	61.5
1	AA	114	U	61.5
21	B0	1416	A	61.5
21	B0	562	G	61.5

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Mol	Chain	Res	Type	RSRZ
1	AA	1366	C	61.4
21	B0	845	U	61.4
21	B0	1116	U	61.4
37	BO	3	ARG	61.4
21	B0	1514	C	61.3
21	B0	1939	U	61.3
21	B0	2002	A	61.3
1	AA	1396	A	61.3
1	AA	628	G	61.3
21	B0	1741	G	61.2
21	B0	108	G	61.2
1	AA	1233	G	61.2
21	B0	1043	A	61.1
21	B0	673	G	61.1
21	B0	2238	G	61.1
21	B0	1605	A	61.1
21	B0	763	A	61.1
21	B0	39	C	61.1
21	B0	825	C	61.1
1	AA	302	G	61.1
1	AA	1371	G	61.1
21	B0	2417	U	61.1
26	BD	101	GLU	61.0
1	AA	517	G	61.0
1	AA	1512	U	60.9
21	B0	238	G	60.9
21	B0	133	C	60.8
21	B0	1123	G	60.8
21	B0	2441	U	60.8
21	B0	2279	G	60.8
41	BS	55	THR	60.8
21	B0	1279	G	60.7
21	B0	2330	G	60.7
21	B0	629	C	60.7
21	B0	2661	G	60.7
21	B0	2422	C	60.7
21	B0	2815	C	60.6
1	AA	354	G	60.6
21	B0	827	C	60.6
21	B0	1335	A	60.6
21	B0	1818	G	60.5
1	AA	886	G	60.5

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Mol	Chain	Res	Type	RSRZ
21	B0	1705	U	60.5
1	AA	1253	G	60.4
21	B0	2560	G	60.4
1	AA	112	G	60.4
21	B0	1712	G	60.3
21	B0	3135	A	60.3
21	B0	424	G	60.3
21	B0	1737	G	60.3
21	B0	1648	C	60.3
21	B0	2033	C	60.3
21	B0	480	G	60.3
21	B0	2415	G	60.3
1	AA	1357	A	60.3
1	AA	1476	G	60.3
21	B0	492	G	60.2
21	B0	2735	C	60.2
1	AA	283	C	60.2
21	B0	1707	A	60.1
21	B0	2035	G	60.1
21	B0	2544	A	60.1
1	AA	231	G	60.0
21	B0	1289	A	60.0
21	B0	1038	U	60.0
21	B0	2621	G	60.0
1	AA	1437	C	60.0
1	AA	35	G	60.0
21	B0	1833	U	60.0
1	AA	542	G	60.0
21	B0	669	G	60.0
21	B0	880	C	59.9
21	B0	703	A	59.9
21	B0	1672	A	59.9
21	B0	531	G	59.9
21	B0	738	G	59.9
26	BD	2	GLN	59.9
21	B0	1591	U	59.9
21	B0	1118	G	59.9
21	B0	1121	G	59.9
21	B0	1009	C	59.8
21	B0	2853	U	59.8
21	B0	1063	C	59.8
21	B0	2517	C	59.8

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Mol	Chain	Res	Type	RSRZ
1	AA	510	A	59.7
21	B0	1690	U	59.7
21	B0	2797	G	59.7
21	B0	1637	U	59.7
1	AA	567	G	59.7
1	AA	1438	G	59.6
21	B0	138	G	59.6
21	B0	34	U	59.6
21	B0	1378	A	59.6
21	B0	2047	C	59.6
5	AE	48	ALA	59.5
21	B0	996	C	59.5
21	B0	1064	C	59.5
1	AA	126	G	59.5
21	B0	967	G	59.5
21	B0	830	C	59.4
21	B0	124	A	59.4
21	B0	2211	U	59.4
1	AA	911	U	59.4
1	AA	399	G	59.4
21	B0	2698	G	59.4
21	B0	704	G	59.4
21	B0	1996	A	59.3
1	AA	352	C	59.3
21	B0	1257	U	59.3
21	B0	56	C	59.3
21	B0	2697	G	59.3
21	B0	1260	A	59.2
21	B0	601	A	59.2
21	B0	644	A	59.2
21	B0	2310	G	59.2
21	B0	1061	A	59.2
21	B0	2379	G	59.2
1	AA	909	A	59.2
1	AA	729	A	59.2
21	B0	758	G	59.2
21	B0	2062	U	59.1
21	B0	2213	G	59.1
29	BG	49	GLY	59.0
21	B0	76	C	59.0
21	B0	1044	U	59.0
1	AA	550	G	59.0

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Mol	Chain	Res	Type	RSRZ
21	B0	402	A	59.0
1	AA	20	U	59.0
21	B0	1581	C	59.0
1	AA	887	G	58.9
21	B0	2719	U	58.9
21	B0	1679	U	58.9
22	B9	82	U	58.8
21	B0	678	G	58.8
21	B0	1874	G	58.8
21	B0	1675	C	58.7
1	AA	388	G	58.7
21	B0	714	G	58.7
21	B0	542	A	58.6
1	AA	1392	G	58.6
1	AA	1415	G	58.6
1	AA	137	C	58.6
21	B0	5	A	58.6
1	AA	894	G	58.6
1	AA	327	A	58.5
21	B0	640	C	58.5
21	B0	1269	G	58.5
21	B0	2760	G	58.5
1	AA	291	C	58.5
21	B0	2001	G	58.4
1	AA	900	A	58.4
21	B0	2210	C	58.4
21	B0	1261	G	58.4
21	B0	1702	C	58.4
1	AA	116	A	58.3
21	B0	1250	A	58.3
21	B0	753	U	58.3
1	AA	899	C	58.3
21	B0	2073	A	58.3
21	B0	1629	G	58.3
21	B0	1409	U	58.2
21	B0	963	G	58.2
21	B0	1494	G	58.2
21	B0	782	U	58.2
21	B0	2046	C	58.2
21	B0	688	A	58.1
22	B9	108	G	58.1
21	B0	2871	U	58.0

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Mol	Chain	Res	Type	RSRZ
1	AA	356	A	58.0
21	B0	572	G	58.0
21	B0	650	U	58.0
21	B0	861	G	58.0
21	B0	1580	C	58.0
21	B0	2731	G	58.0
21	B0	491	A	57.9
1	AA	891	U	57.9
29	BG	48	LYS	57.9
21	B0	735	G	57.9
21	B0	780	U	57.9
21	B0	1640	C	57.9
21	B0	719	A	57.8
26	BD	56	GLU	57.8
21	B0	1404	C	57.8
21	B0	653	G	57.8
21	B0	736	G	57.8
1	AA	1427	U	57.8
21	B0	2261	G	57.8
21	B0	2728	A	57.8
21	B0	2870	C	57.8
21	B0	1399	C	57.7
22	B9	76	U	57.7
21	B0	3134	A	57.7
21	B0	73	A	57.7
21	B0	2839	G	57.7
21	B0	455	A	57.7
21	B0	2575	U	57.7
1	AA	898	G	57.6
21	B0	824	U	57.6
21	B0	879	A	57.6
21	B0	1695	U	57.6
21	B0	2744	A	57.6
21	B0	687	G	57.6
21	B0	689	A	57.6
21	B0	770	U	57.6
21	B0	2306	A	57.5
1	AA	969	A	57.5
21	B0	340	G	57.4
22	B9	80	A	57.4
21	B0	1918	G	57.4
1	AA	379	C	57.4

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Mol	Chain	Res	Type	RSRZ
1	AA	294	U	57.4
21	B0	857	U	57.4
21	B0	532	A	57.4
1	AA	538	G	57.3
21	B0	463	C	57.3
21	B0	2421	C	57.3
21	B0	936	A	57.3
21	B0	1676	U	57.3
21	B0	60	A	57.3
21	B0	612	G	57.2
21	B0	1301	U	57.2
21	B0	978	U	57.2
21	B0	240	U	57.2
21	B0	2414	A	57.1
21	B0	2662	C	57.1
1	AA	357	G	57.1
21	B0	2405	A	57.1
21	B0	2656	G	57.0
1	AA	829	G	57.0
21	B0	40	U	57.0
1	AA	362	G	57.0
21	B0	1117	G	57.0
21	B0	75	C	57.0
21	B0	2601	C	57.0
21	B0	1467	U	57.0
21	B0	2500	C	56.9
21	B0	2391	A	56.9
21	B0	1628	C	56.9
21	B0	1783	G	56.9
48	BZ	7	PRO	56.9
1	AA	1289	A	56.9
21	B0	946	U	56.9
21	B0	2824	C	56.8
21	B0	718	A	56.8
1	AA	757	U	56.8
1	AA	105	G	56.7
1	AA	57	G	56.6
21	B0	2209	G	56.6
21	B0	1152	C	56.6
21	B0	1297	A	56.6
1	AA	44	G	56.6
21	B0	55	A	56.5

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Mol	Chain	Res	Type	RSRZ
21	B0	443	A	56.5
21	B0	2431	C	56.5
21	B0	1784	C	56.5
21	B0	1199	U	56.4
21	B0	476	G	56.4
22	B9	61	A	56.3
21	B0	918	A	56.3
21	B0	1888	C	56.3
21	B0	3156	G	56.3
21	B0	2529	G	56.3
1	AA	120	A	56.2
21	B0	1042	G	56.2
21	B0	1557	G	56.1
21	B0	838	A	56.1
21	B0	1787	U	56.1
21	B0	502	A	56.1
21	B0	182	G	56.1
1	AA	907	A	56.1
21	B0	1863	U	56.1
1	AA	1422	G	56.1
21	B0	2530	C	56.0
1	AA	344	A	56.0
21	B0	1549	C	56.0
21	B0	1225	G	56.0
21	B0	2804	G	55.9
1	AA	349	A	55.9
26	BD	61	THR	55.9
1	AA	863	U	55.9
21	B0	563	U	55.9
21	B0	2823	G	55.9
21	B0	54	G	55.8
22	B9	37	C	55.8
21	B0	1065	A	55.8
21	B0	2215	C	55.8
22	B9	73	C	55.8
21	B0	1740	G	55.8
21	B0	2250	G	55.8
21	B0	1742	G	55.8
21	B0	1674	C	55.7
21	B0	2364	C	55.7
21	B0	2412	A	55.7
1	AA	527	G	55.7

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Mol	Chain	Res	Type	RSRZ
21	B0	574	C	55.7
21	B0	1067	G	55.6
21	B0	521	U	55.6
21	B0	145	C	55.6
21	B0	479	G	55.6
21	B0	520	C	55.6
1	AA	562	C	55.5
21	B0	637	G	55.5
22	B9	23	G	55.5
21	B0	921	A	55.5
1	AA	516	U	55.5
21	B0	1251	G	55.5
21	B0	2718	A	55.5
21	B0	1658	A	55.5
21	B0	1804	U	55.5
21	B0	2366	U	55.5
21	B0	142	U	55.4
1	AA	565	U	55.4
22	B9	7	C	55.4
1	AA	246	A	55.4
1	AA	262	A	55.4
21	B0	1113	C	55.4
21	B0	2653	A	55.3
21	B0	1115	C	55.3
21	B0	1466	C	55.3
21	B0	1233	A	55.3
1	AA	924	C	55.3
1	AA	336	C	55.3
48	BZ	6	VAL	55.3
21	B0	2816	C	55.2
21	B0	110	U	55.2
21	B0	2224	U	55.2
21	B0	850	C	55.2
21	B0	2023	C	55.2
21	B0	754	G	55.1
1	AA	1417	G	55.1
21	B0	944	A	55.1
21	B0	456	C	55.1
21	B0	1411	C	55.1
21	B0	410	A	55.1
21	B0	551	A	55.1
21	B0	1798	G	55.0

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Mol	Chain	Res	Type	RSRZ
1	AA	398	C	55.0
1	AA	1399	C	55.0
21	B0	849	G	55.0
1	AA	820	U	54.9
1	AA	613	C	54.8
21	B0	2626	U	54.8
1	AA	282	A	54.8
26	BD	138	PHE	54.8
21	B0	560	G	54.8
21	B0	829	C	54.8
1	AA	883	C	54.7
21	B0	478	G	54.7
21	B0	2041	A	54.7
21	B0	1815	G	54.7
1	AA	40	C	54.7
21	B0	1212	U	54.6
21	B0	195	A	54.6
21	B0	1805	G	54.6
21	B0	2315	A	54.6
21	B0	2739	G	54.6
21	B0	2430	A	54.6
1	AA	500	G	54.5
21	B0	2812	A	54.5
21	B0	3157	G	54.5
21	B0	2763	U	54.5
1	AA	513	C	54.5
21	B0	769	C	54.5
23	BA	138	VAL	54.5
21	B0	2072	C	54.5
21	B0	587	A	54.4
21	B0	2733	A	54.4
21	B0	635	C	54.3
42	BT	131	PRO	54.3
1	AA	425	G	54.3
1	AA	1487	G	54.3
21	B0	71	A	54.3
1	AA	499	A	54.3
1	AA	815	A	54.3
1	AA	1525	G	54.3
21	B0	77	C	54.2
21	B0	2219	U	54.2
21	B0	1515	U	54.2

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Mol	Chain	Res	Type	RSRZ
21	B0	1208	A	54.2
22	B9	32	C	54.2
1	AA	1407	C	54.1
21	B0	19	C	54.1
21	B0	1881	U	54.1
1	AA	400	C	54.1
1	AA	503	C	54.1
1	AA	569	C	54.1
21	B0	2071	G	54.1
21	B0	1248	G	54.0
21	B0	2717	G	54.0
1	AA	6	G	54.0
1	AA	1344	C	54.0
21	B0	2337	A	54.0
21	B0	1247	U	54.0
1	AA	586	C	54.0
29	BG	109	LYS	53.9
1	AA	822	C	53.9
21	B0	2230	G	53.8
21	B0	1799	A	53.8
21	B0	2258	G	53.8
1	AA	355	C	53.8
21	B0	1917	C	53.8
21	B0	554	U	53.8
37	BO	7	GLY	53.7
21	B0	1771	A	53.7
21	B0	2737	A	53.7
21	B0	1604	A	53.7
1	AA	1254	C	53.7
1	AA	1363	A	53.6
22	B9	68	A	53.5
21	B0	947	C	53.5
1	AA	347	G	53.4
21	B0	2539	C	53.4
21	B0	489	A	53.4
21	B0	503	G	53.4
1	AA	363	A	53.4
21	B0	1036	G	53.3
1	AA	228	A	53.3
1	AA	549	C	53.3
22	B9	84	G	53.3
29	BG	2	LYS	53.3

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Mol	Chain	Res	Type	RSRZ
21	B0	1782	A	53.3
21	B0	2068	C	53.3
21	B0	2535	C	53.3
22	B9	77	G	53.3
21	B0	1649	A	53.2
1	AA	342	C	53.2
1	AA	1388	C	53.2
21	B0	18	U	53.2
21	B0	2034	A	53.2
21	B0	2411	A	53.2
21	B0	1873	A	53.1
21	B0	2385	U	53.1
1	AA	1066	C	53.1
21	B0	699	G	53.1
21	B0	2464	G	53.1
21	B0	1546	C	53.1
21	B0	1642	G	53.1
21	B0	1142	G	53.1
21	B0	795	A	53.1
1	AA	1358	U	53.0
21	B0	1434	U	53.0
21	B0	2531	U	53.0
21	B0	500	G	53.0
21	B0	2490	U	53.0
21	B0	2574	G	52.9
21	B0	863	C	52.9
21	B0	2872	U	52.9
1	AA	290	C	52.9
1	AA	901	A	52.9
21	B0	1227	A	52.9
1	AA	606	G	52.9
29	BG	3	LYS	52.8
21	B0	611	C	52.8
21	B0	2723	C	52.8
21	B0	1992	G	52.8
1	AA	897	C	52.8
21	B0	2620	G	52.8
1	AA	1064	G	52.8
4	AD	11	LEU	52.8
21	B0	2067	U	52.7
1	AA	286	G	52.7
21	B0	1433	A	52.7

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Mol	Chain	Res	Type	RSRZ
21	B0	1340	C	52.7
1	AA	1469	G	52.6
1	AA	8	A	52.6
42	BT	105	GLN	52.6
21	B0	1448	A	52.6
21	B0	1834	G	52.6
1	AA	58	C	52.6
21	B0	1794	A	52.5
1	AA	1367	C	52.5
21	B0	619	A	52.5
21	B0	2714	A	52.5
1	AA	17	U	52.5
1	AA	529	G	52.4
21	B0	1007	A	52.4
21	B0	1845	A	52.4
21	B0	1739	G	52.4
4	AD	4	TYR	52.4
1	AA	635	G	52.4
21	B0	454	G	52.4
1	AA	868	C	52.4
1	AA	501	C	52.4
1	AA	1440	C	52.4
1	AA	131	C	52.3
1	AA	932	C	52.3
21	B0	1529	C	52.3
21	B0	1271	C	52.3
21	B0	61	U	52.2
1	AA	163	C	52.1
21	B0	2342	U	52.1
21	B0	147	G	52.1
21	B0	2591	C	52.1
21	B0	2619	G	52.1
21	B0	74	G	52.0
21	B0	2063	A	52.0
21	B0	468	A	52.0
1	AA	568	G	52.0
21	B0	1040	A	52.0
1	AA	889	A	52.0
5	AE	29	GLY	51.9
21	B0	1730	G	51.9
21	B0	109	A	51.9
21	B0	2669	C	51.9

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Mol	Chain	Res	Type	RSRZ
21	B0	1606	C	51.9
1	AA	15	G	51.9
21	B0	966	A	51.9
21	B0	1253	C	51.9
21	B0	1324	G	51.9
1	AA	882	C	51.8
1	AA	24	U	51.8
27	BE	142	GLY	51.8
21	B0	1295	U	51.8
21	B0	53	G	51.8
21	B0	866	U	51.8
21	B0	1441	A	51.8
21	B0	66	U	51.7
1	AA	762	C	51.7
21	B0	674	U	51.7
21	B0	2542	U	51.7
21	B0	2540	A	51.6
1	AA	377	G	51.6
21	B0	1942	G	51.6
1	AA	916	G	51.6
21	B0	221	A	51.6
21	B0	720	A	51.6
21	B0	1694	A	51.6
21	B0	1734	C	51.6
21	B0	2373	C	51.6
21	B0	616	U	51.6
1	AA	118	U	51.6
1	AA	63	C	51.6
21	B0	2573	C	51.6
1	AA	943	U	51.5
21	B0	848	A	51.5
21	B0	2065	A	51.5
1	AA	926	G	51.5
1	AA	386	C	51.5
1	AA	611	A	51.5
21	B0	3138	C	51.5
21	B0	2755	A	51.5
22	B9	78	A	51.4
21	B0	1370	U	51.4
1	AA	277	C	51.4
1	AA	1506	U	51.4
1	AA	48	C	51.3

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Mol	Chain	Res	Type	RSRZ
26	BD	147	ASP	51.3
1	AA	43	C	51.3
21	B0	1951	G	51.3
21	B0	481	A	51.3
21	B0	495	C	51.3
1	AA	350	G	51.2
1	AA	1198	G	51.2
21	B0	3103	A	51.2
21	B0	1594	U	51.2
1	AA	1467	G	51.2
1	AA	502	G	51.2
21	B0	2841	U	51.2
1	AA	1430	C	51.2
21	B0	765	C	51.2
21	B0	1144	U	51.2
1	AA	300	A	51.2
21	B0	529	U	51.1
21	B0	3105	G	51.1
21	B0	1021	A	51.1
21	B0	2365	U	51.1
1	AA	62	U	51.0
1	AA	908	A	51.0
21	B0	64	C	51.0
1	AA	490	G	51.0
1	AA	125	U	50.9
21	B0	1164	C	50.9
1	AA	921	U	50.9
1	AA	1494	G	50.8
26	BD	146	VAL	50.8
21	B0	2788	C	50.8
21	B0	1994	U	50.8
21	B0	2212	U	50.8
21	B0	144	U	50.8
1	AA	915	A	50.8
1	AA	817	C	50.7
1	AA	532	A	50.7
21	B0	93	A	50.7
21	B0	218	A	50.7
1	AA	227	G	50.7
1	AA	413	G	50.7
21	B0	717	G	50.7
21	B0	597	U	50.7

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Mol	Chain	Res	Type	RSRZ
21	B0	1226	A	50.6
21	B0	1651	U	50.6
1	AA	491	G	50.6
21	B0	92	U	50.6
22	B9	60	A	50.6
1	AA	102	G	50.5
21	B0	785	U	50.5
21	B0	1027	C	50.5
1	AA	561	U	50.5
21	B0	1014	G	50.5
1	AA	862	C	50.4
21	B0	177	U	50.4
1	AA	1522	U	50.4
21	B0	2311	U	50.4
21	B0	2369	U	50.4
21	B0	134	G	50.4
21	B0	603	C	50.4
21	B0	683	A	50.3
1	AA	1393	U	50.3
1	AA	405	U	50.3
21	B0	793	G	50.3
26	BD	48	LYS	50.3
22	B9	106	U	50.3
1	AA	237	C	50.2
21	B0	2558	C	50.2
21	B0	2070	G	50.2
21	B0	2345	A	50.1
21	B0	2341	G	50.1
1	AA	802	A	50.1
1	AA	933	G	50.1
5	AE	17	ALA	50.1
1	AA	896	C	50.1
21	B0	2280	A	50.0
21	B0	146	C	50.0
1	AA	288	A	50.0
21	B0	2752	C	50.0
1	AA	971	G	50.0
1	AA	1094	G	49.9
26	BD	50	ILE	49.9
21	B0	3093	C	49.9
21	B0	467	U	49.9
21	B0	2580	C	49.9

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Mol	Chain	Res	Type	RSRZ
21	B0	1157	G	49.8
21	B0	628	A	49.8
1	AA	127	G	49.8
21	B0	1508	G	49.8
21	B0	2218	G	49.8
21	B0	2743	G	49.8
21	B0	1010	U	49.7
21	B0	131	C	49.7
1	AA	226	G	49.7
22	B9	97	C	49.7
21	B0	107	G	49.6
21	B0	837	U	49.6
21	B0	919	U	49.6
21	B0	3867	G	49.6
21	B0	2398	U	49.6
1	AA	1067	A	49.6
21	B0	1442	C	49.6
1	AA	626	U	49.6
21	B0	2773	G	49.6
1	AA	69	G	49.6
21	B0	552	C	49.5
21	B0	1431	U	49.5
21	B0	682	G	49.5
1	AA	150	C	49.4
21	B0	477	A	49.4
21	B0	3137	C	49.4
1	AA	1464	G	49.4
21	B0	733	G	49.4
1	AA	1414	U	49.4
22	B9	15	A	49.4
21	B0	573	C	49.3
21	B0	504	G	49.3
1	AA	39	G	49.3
42	BT	142	ASN	49.3
1	AA	12	U	49.3
21	B0	1872	A	49.3
42	BT	106	GLY	49.2
21	B0	86	U	49.2
1	AA	232	G	49.2
21	B0	608	G	49.2
21	B0	1131	G	49.2
21	B0	1683	G	49.2

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Mol	Chain	Res	Type	RSRZ
21	B0	2716	G	49.2
1	AA	428	G	49.1
21	B0	2742	G	49.1
21	B0	607	C	49.1
21	B0	1223	G	49.1
21	B0	1252	C	49.1
21	B0	2502	G	49.1
1	AA	417	C	49.1
1	AA	303	A	49.1
21	B0	566	U	49.1
21	B0	1910	A	49.1
21	B0	2543	A	49.0
1	AA	488	C	49.0
21	B0	65	C	49.0
21	B0	2463	G	49.0
21	B0	1584	G	49.0
4	AD	54	TYR	49.0
1	AA	138	G	49.0
1	AA	1062	U	49.0
21	B0	2616	U	49.0
1	AA	121	C	48.9
21	B0	2618	A	48.9
21	B0	1938	U	48.9
1	AA	614	A	48.9
21	B0	1727	C	48.9
21	B0	1923	U	48.9
21	B0	1547	U	48.9
21	B0	1993	G	48.9
1	AA	629	G	48.8
21	B0	425	A	48.8
21	B0	1772	C	48.7
21	B0	506	G	48.7
21	B0	9	U	48.7
1	AA	1435	G	48.7
21	B0	474	G	48.7
21	B0	1854	G	48.7
4	AD	55	ALA	48.7
21	B0	2446	C	48.7
26	BD	98	VAL	48.7
21	B0	2194	A	48.6
1	AA	774	G	48.6
1	AA	968	A	48.6

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Mol	Chain	Res	Type	RSRZ
21	B0	1708	C	48.6
46	BX	10	ILE	48.6
1	AA	631	G	48.6
21	B0	2231	G	48.5
1	AA	68	G	48.5
21	B0	826	U	48.5
21	B0	3196	G	48.5
21	B0	2837	G	48.4
21	B0	2439	U	48.4
1	AA	1053	G	48.4
20	AT	11	SER	48.4
1	AA	1426	C	48.4
1	AA	1436	U	48.4
1	AA	1078	U	48.4
26	BD	62	LEU	48.4
1	AA	928	G	48.4
1	AA	324	G	48.3
21	B0	1865	C	48.3
1	AA	617	G	48.3
21	B0	1041	G	48.3
21	B0	600	G	48.2
21	B0	1313	U	48.2
21	B0	1826	U	48.2
21	B0	490	A	48.2
21	B0	1143	A	48.2
21	B0	2704	U	48.2
21	B0	2376	G	48.2
22	B9	63	A	48.2
21	B0	1788	C	48.2
21	B0	728	G	48.2
21	B0	1552	C	48.2
21	B0	862	A	48.2
1	AA	773	G	48.2
29	BG	103	GLN	48.2
1	AA	385	C	48.2
21	B0	213	C	48.1
21	B0	1175	A	48.1
21	B0	2256	G	48.1
21	B0	1726	C	48.1
21	B0	920	G	48.1
21	B0	1170	U	48.1
21	B0	1004	A	48.1

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Mol	Chain	Res	Type	RSRZ
1	AA	45	U	48.1
21	B0	1469	U	48.1
21	B0	1484	G	48.1
1	AA	942	G	48.0
21	B0	219	G	48.0
21	B0	2304	G	48.0
21	B0	2259	G	48.0
1	AA	934	C	47.9
1	AA	1068	G	47.9
1	AA	854	G	47.9
1	AA	782	A	47.9
21	B0	1198	C	47.9
21	B0	1054	C	47.9
21	B0	2796	A	47.9
21	B0	2372	A	47.8
1	AA	554	C	47.8
26	BD	49	ALA	47.8
21	B0	129	A	47.8
20	AT	12	ALA	47.7
1	AA	260	G	47.7
21	B0	1711	C	47.6
1	AA	1482	G	47.6
1	AA	236	G	47.6
21	B0	734	G	47.6
21	B0	1465	G	47.6
1	AA	343	U	47.6
21	B0	2840	U	47.6
21	B0	2336	G	47.5
22	B9	5	C	47.5
1	AA	1252	A	47.5
22	B9	30	C	47.5
1	AA	1498	U	47.5
1	AA	1337	G	47.5
1	AA	731	G	47.5
1	AA	328	C	47.5
21	B0	1455	C	47.5
21	B0	1875	C	47.4
21	B0	2042	A	47.4
21	B0	2736	U	47.4
21	B0	2811	G	47.3
20	AT	10	LEU	47.3
23	BA	137	PRO	47.3

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Mol	Chain	Res	Type	RSRZ
21	B0	792	U	47.3
1	AA	1355	G	47.3
21	B0	151	G	47.3
1	AA	384	G	47.3
21	B0	1573	G	47.3
21	B0	2236	U	47.3
1	AA	805	C	47.2
21	B0	2564	U	47.2
21	B0	2536	G	47.2
21	B0	132	U	47.2
49	B1	32	GLN	47.2
21	B0	94	C	47.2
21	B0	1603	A	47.2
1	AA	823	G	47.2
21	B0	2652	G	47.2
21	B0	786	U	47.1
1	AA	1356	G	47.1
1	AA	38	G	47.0
21	B0	2333	A	47.0
1	AA	49	U	47.0
26	BD	46	ASP	47.0
21	B0	2380	U	47.0
21	B0	814	G	47.0
21	B0	759	C	47.0
21	B0	2721	A	47.0
21	B0	639	G	47.0
1	AA	37	U	47.0
21	B0	2754	C	46.9
1	AA	1461	G	46.9
21	B0	1114	A	46.8
21	B0	1548	U	46.8
1	AA	1458	G	46.8
21	B0	237	G	46.8
21	B0	937	C	46.8
21	B0	1575	C	46.8
26	BD	100	LEU	46.7
1	AA	489	C	46.7
1	AA	1490	C	46.7
21	B0	2533	U	46.7
21	B0	3153	G	46.6
1	AA	380	G	46.6
1	AA	1531	A	46.6

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Mol	Chain	Res	Type	RSRZ
21	B0	1485	U	46.6
21	B0	1927	U	46.6
1	AA	1507	A	46.6
1	AA	402	G	46.5
21	B0	2492	G	46.5
1	AA	541	G	46.5
21	B0	1631	C	46.4
22	B9	89	G	46.4
21	B0	2045	A	46.3
21	B0	2627	G	46.3
21	B0	3140	G	46.3
21	B0	1641	C	46.3
21	B0	2240	C	46.3
21	B0	618	A	46.3
1	AA	1287	A	46.3
1	AA	259	G	46.2
21	B0	2614	A	46.2
1	AA	553	A	46.2
22	B9	62	C	46.2
1	AA	618	C	46.2
21	B0	860	U	46.2
1	AA	872	A	46.2
21	B0	2329	C	46.2
21	B0	2722	C	46.2
21	B0	475	U	46.1
1	AA	919	A	46.1
21	B0	338	G	46.1
21	B0	505	G	46.1
21	B0	1528	C	46.0
1	AA	1486	G	46.0
21	B0	1126	A	46.0
21	B0	335	A	46.0
21	B0	2297	G	46.0
21	B0	1219	C	46.0
25	BC	96	PRO	45.9
1	AA	1069	C	45.9
22	B9	31	A	45.9
1	AA	1421	G	45.9
4	AD	58	LEU	45.8
21	B0	553	C	45.8
21	B0	2534	U	45.8
21	B0	681	A	45.8

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Mol	Chain	Res	Type	RSRZ
21	B0	1005	U	45.7
5	AE	16	THR	45.7
21	B0	1339	U	45.7
1	AA	36	C	45.7
5	AE	19	MET	45.7
1	AA	1063	C	45.7
21	B0	408	U	45.6
21	B0	2207	G	45.6
21	B0	948	C	45.6
21	B0	1288	A	45.6
21	B0	1420	A	45.6
1	AA	247	G	45.6
1	AA	1081	G	45.6
21	B0	1098	G	45.6
1	AA	306	G	45.5
29	BG	141	GLY	45.5
21	B0	2829	A	45.5
21	B0	235	C	45.5
1	AA	861	G	45.4
21	B0	1916	G	45.4
1	AA	30	U	45.4
21	B0	2305	C	45.4
21	B0	2069	U	45.4
1	AA	263	A	45.4
21	B0	3096	C	45.4
21	B0	1053	G	45.3
21	B0	2386	G	45.3
1	AA	1439	C	45.3
21	B0	768	U	45.3
21	B0	2292	C	45.3
21	B0	236	C	45.3
1	AA	1460	A	45.3
21	B0	2501	U	45.3
21	B0	3152	G	45.3
21	B0	2317	G	45.3
1	AA	945	G	45.2
21	B0	469	G	45.2
22	B9	8	C	45.2
21	B0	3154	G	45.2
21	B0	414	A	45.2
21	B0	2600	A	45.2
42	BT	104	SER	45.2

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Mol	Chain	Res	Type	RSRZ
21	B0	3155	G	45.1
1	AA	616	G	45.1
1	AA	756	C	45.1
21	B0	1096	A	45.1
22	B9	21	C	45.1
1	AA	415	A	45.1
1	AA	759	A	45.1
1	AA	1359	C	45.0
22	B9	28	A	45.0
1	AA	401	C	45.0
26	BD	143	TYR	44.9
26	BD	82	GLY	44.9
1	AA	783	C	44.9
1	AA	1386	G	44.9
25	BC	94	THR	44.9
21	B0	1693	A	44.8
22	B9	85	G	44.8
21	B0	1527	G	44.8
21	B0	2559	U	44.8
21	B0	858	G	44.7
1	AA	492	G	44.7
1	AA	427	U	44.7
21	B0	1308	C	44.7
21	B0	721	C	44.7
21	B0	1553	G	44.7
1	AA	1416	G	44.7
21	B0	342	G	44.6
1	AA	884	U	44.6
21	B0	561	U	44.6
1	AA	1193	G	44.6
21	B0	731	A	44.6
21	B0	2657	G	44.6
32	BJ	45	LYS	44.6
21	B0	442	A	44.6
34	BL	106	ASP	44.6
21	B0	2254	C	44.5
22	B9	67	C	44.5
1	AA	439	A	44.5
1	AA	265	G	44.5
21	B0	2778	U	44.5
1	AA	1232	U	44.5
22	B9	98	C	44.5

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Mol	Chain	Res	Type	RSRZ
42	BT	140	LYS	44.4
22	B9	38	C	44.4
21	B0	3139	U	44.4
21	B0	436	A	44.4
21	B0	657	A	44.4
1	AA	1342	C	44.4
1	AA	761	G	44.4
1	AA	387	U	44.3
21	B0	2374	C	44.3
1	AA	396	G	44.3
1	AA	1515	C	44.3
21	B0	1924	C	44.3
21	B0	1728	A	44.3
1	AA	539	A	44.2
21	B0	2378	G	44.2
21	B0	1844	C	44.2
21	B0	1174	G	44.2
21	B0	63	A	44.2
23	BA	124	GLU	44.2
1	AA	1353	G	44.2
43	BU	85	GLN	44.1
21	B0	1474	A	44.1
21	B0	3183	A	44.1
21	B0	1430	G	44.1
21	B0	2235	G	44.1
21	B0	938	G	44.1
21	B0	3102	G	44.1
21	B0	2726	U	44.1
21	B0	1852	G	44.1
26	BD	55	LYS	44.1
21	B0	1171	A	44.0
21	B0	1949	A	44.0
1	AA	1350	A	44.0
1	AA	540	G	44.0
21	B0	337	G	44.0
21	B0	2855	C	44.0
1	AA	522	C	44.0
21	B0	2834	A	44.0
21	B0	555	U	43.9
21	B0	1569	A	43.9
1	AA	794	A	43.9
21	B0	2541	U	43.9

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Mol	Chain	Res	Type	RSRZ
21	B0	1745	C	43.9
21	B0	82	G	43.9
1	AA	715	A	43.9
21	B0	1122	A	43.9
1	AA	404	U	43.8
21	B0	1422	C	43.8
21	B0	394	U	43.8
1	AA	623	C	43.7
21	B0	1163	C	43.7
1	AA	440	A	43.7
1	AA	612	C	43.6
21	B0	2680	U	43.6
1	AA	523	A	43.6
21	B0	1849	G	43.6
21	B0	2368	G	43.6
1	AA	104	G	43.6
21	B0	2249	U	43.6
21	B0	2293	G	43.6
21	B0	1120	C	43.5
1	AA	853	G	43.5
21	B0	1597	A	43.5
21	B0	1943	A	43.5
1	AA	13	U	43.5
21	B0	2613	A	43.5
1	AA	157	G	43.4
21	B0	1880	G	43.4
1	AA	1442	G	43.4
21	B0	2779	C	43.4
42	BT	139	THR	43.4
26	BD	83	MET	43.4
21	B0	1578	U	43.4
1	AA	534	U	43.4
1	AA	1497	G	43.3
1	AA	361	G	43.3
21	B0	2869	U	43.3
21	B0	217	U	43.3
1	AA	1408	A	43.3
4	AD	66	ARG	43.3
1	AA	444	C	43.3
1	AA	245	C	43.2
1	AA	67	C	43.2
21	B0	1551	U	43.2

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Mol	Chain	Res	Type	RSRZ
1	AA	1255	G	43.2
21	B0	2835	A	43.2
1	AA	622	A	43.2
39	BQ	11	LYS	43.2
21	B0	1097	A	43.2
1	AA	795	C	43.1
21	B0	559	C	43.1
21	B0	1545	G	43.0
1	AA	119	A	43.0
21	B0	493	A	43.0
21	B0	496	C	43.0
21	B0	453	U	43.0
21	B0	423	G	43.0
21	B0	78	C	42.9
1	AA	1470	G	42.9
1	AA	1264	C	42.8
1	AA	1402	C	42.8
21	B0	1773	C	42.8
21	B0	1866	G	42.8
21	B0	1796	A	42.8
26	BD	51	ASP	42.8
21	B0	1870	U	42.8
21	B0	2805	G	42.8
21	B0	2473	G	42.8
21	B0	1268	U	42.7
21	B0	1015	U	42.7
21	B0	1513	U	42.7
22	B9	9	G	42.7
1	AA	238	G	42.7
12	AL	8	ASN	42.7
21	B0	1402	G	42.6
21	B0	1929	U	42.6
42	BT	125	PRO	42.6
1	AA	1509	C	42.6
21	B0	3190	G	42.6
21	B0	3158	A	42.6
21	B0	2472	U	42.6
26	BD	137	ILE	42.6
21	B0	598	U	42.6
1	AA	346	G	42.6
21	B0	1811	A	42.5
1	AA	531	U	42.5

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Mol	Chain	Res	Type	RSRZ
21	B0	1937	G	42.5
1	AA	1398	A	42.5
1	AA	775	G	42.4
21	B0	3106	U	42.4
1	AA	871	U	42.4
1	AA	442	C	42.4
21	B0	306	G	42.4
1	AA	870	U	42.3
21	B0	846	A	42.3
21	B0	810	U	42.3
1	AA	66	G	42.3
1	AA	1491	G	42.2
21	B0	1050	G	42.2
21	B0	2354	G	42.2
1	AA	877	C	42.2
22	B9	24	U	42.1
1	AA	935	A	42.1
21	B0	1128	G	42.1
1	AA	101	A	42.1
1	AA	149	A	42.1
21	B0	2208	U	42.1
21	B0	2505	G	42.1
21	B0	2367	A	42.1
1	AA	1207	G	42.1
1	AA	780	A	42.1
1	AA	828	A	42.1
21	B0	422	C	42.1
21	B0	1498	G	42.1
1	AA	1199	U	42.0
21	B0	979	A	42.0
1	AA	487	A	42.0
1	AA	1055	A	42.0
49	B1	33	ALA	42.0
21	B0	632	A	42.0
21	B0	2612	G	42.0
1	AA	936	C	42.0
1	AA	528	C	42.0
1	AA	946	A	42.0
21	B0	1403	U	41.9
21	B0	435	A	41.9
21	B0	917	U	41.9
21	B0	1372	A	41.9

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Mol	Chain	Res	Type	RSRZ
1	AA	931	C	41.9
21	B0	137	A	41.9
21	B0	3107	G	41.9
1	AA	445	G	41.9
1	AA	494	G	41.9
21	B0	1478	U	41.8
21	B0	1862	C	41.8
1	AA	276	G	41.8
1	AA	604	G	41.8
21	B0	1270	C	41.8
4	AD	59	ARG	41.8
21	B0	1473	U	41.8
21	B0	2771	C	41.7
21	B0	649	G	41.7
21	B0	1176	U	41.7
21	B0	609	U	41.7
1	AA	1349	A	41.6
21	B0	2334	C	41.6
1	AA	1197	G	41.6
21	B0	3874	C	41.6
21	B0	2789	U	41.6
21	B0	234	C	41.6
1	AA	438	G	41.6
21	B0	2461	G	41.6
21	B0	715	U	41.6
5	AE	18	ARG	41.6
1	AA	1389	C	41.5
21	B0	341	A	41.5
1	AA	905	U	41.5
21	B0	3104	C	41.5
21	B0	871	U	41.5
1	AA	867	G	41.5
21	B0	870	C	41.5
21	B0	3133	G	41.5
21	B0	2346	G	41.5
21	B0	1265	G	41.4
1	AA	714	G	41.4
22	B9	11	G	41.4
21	B0	2390	A	41.4
21	B0	2416	U	41.3
21	B0	2715	C	41.3
1	AA	371	G	41.3

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Mol	Chain	Res	Type	RSRZ
21	B0	130	C	41.3
1	AA	819	A	41.3
4	AD	62	GLN	41.3
21	B0	393	U	41.3
21	B0	2650	G	41.2
22	B9	91	A	41.2
16	AP	14	ASN	41.2
21	B0	1692	C	41.2
1	AA	551	U	41.2
22	B9	20	A	41.2
1	AA	1520	G	41.1
21	B0	1571	G	41.1
21	B0	2064	U	41.1
1	AA	258	G	41.1
27	BE	143	GLN	41.1
21	B0	100	G	41.0
1	AA	1361	G	41.0
21	B0	2400	G	41.0
21	B0	2338	C	41.0
1	AA	337	C	41.0
1	AA	771	G	41.0
21	B0	3875	A	41.0
1	AA	1362	C	41.0
22	B9	107	C	41.0
1	AA	810	C	41.0
21	B0	205	A	40.9
1	AA	158	G	40.9
4	AD	36	ARG	40.9
21	B0	415	A	40.9
21	B0	2462	C	40.9
21	B0	1468	A	40.9
1	AA	920	U	40.8
21	B0	3130	G	40.8
21	B0	2447	G	40.8
21	B0	1835	C	40.8
5	AE	20	GLN	40.8
21	B0	3866	A	40.8
1	AA	1279	A	40.7
21	B0	3095	A	40.7
21	B0	737	C	40.7
20	AT	13	LEU	40.7
1	AA	267	C	40.7

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Mol	Chain	Res	Type	RSRZ
1	AA	1394	A	40.7
21	B0	2399	C	40.7
21	B0	2810	A	40.6
26	BD	58	ALA	40.6
1	AA	1352	C	40.6
21	B0	2503	G	40.6
1	AA	233	C	40.6
21	B0	304	A	40.5
21	B0	2196	U	40.5
21	B0	212	U	40.5
21	B0	1158	A	40.5
21	B0	1607	A	40.5
21	B0	2792	C	40.5
21	B0	2381	A	40.5
21	B0	84	G	40.5
21	B0	2075	U	40.5
1	AA	1472	U	40.4
21	B0	2791	C	40.4
1	AA	1465	C	40.4
22	B9	93	G	40.4
22	B9	119	G	40.4
21	B0	716	U	40.3
1	AA	372	C	40.3
1	AA	713	G	40.3
1	AA	1432	G	40.3
21	B0	1141	U	40.3
21	B0	1456	C	40.3
21	B0	2271	C	40.3
21	B0	83	A	40.3
21	B0	1853	C	40.2
21	B0	486	U	40.2
22	B9	120	G	40.2
21	B0	2873	G	40.2
21	B0	2504	G	40.2
1	AA	244	U	40.2
21	B0	1855	G	40.2
17	AQ	34	LYS	40.2
21	B0	661	C	40.2
21	B0	621	U	40.2
21	B0	421	G	40.1
1	AA	1288	A	40.1
21	B0	2790	C	40.1

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Mol	Chain	Res	Type	RSRZ
21	B0	214	C	40.1
21	B0	1459	U	40.1
21	B0	2401	A	40.1
1	AA	52	G	40.1
16	AP	25	ARG	40.1
1	AA	151	A	40.1
21	B0	1052	C	40.0
1	AA	1527	C	40.0
21	B0	2275	U	40.0
21	B0	2615	U	40.0
21	B0	760	U	40.0
1	AA	830	G	39.9
21	B0	233	A	39.9
21	B0	150	A	39.9
21	B0	2059	U	39.9
1	AA	583	A	39.9
21	B0	215	G	39.9
37	BO	4	ALA	39.9
21	B0	809	C	39.8
21	B0	1325	U	39.8
21	B0	1947	G	39.8
1	AA	1543	C	39.8
1	AA	266	G	39.8
1	AA	1290	G	39.8
1	AA	902	G	39.8
21	B0	2838	U	39.8
1	AA	414	A	39.8
21	B0	2282	G	39.8
4	AD	2	GLY	39.8
1	AA	809	G	39.7
1	AA	403	C	39.7
1	AA	1462	G	39.7
21	B0	3159	G	39.7
1	AA	1542	U	39.7
21	B0	1831	G	39.6
21	B0	2598	C	39.6
22	B9	70	C	39.6
21	B0	868	U	39.5
1	AA	166	G	39.5
21	B0	106	G	39.5
1	AA	167	G	39.5
26	BD	6	THR	39.5

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Mol	Chain	Res	Type	RSRZ
21	B0	1936	A	39.4
21	B0	519	C	39.4
21	B0	1222	G	39.4
29	BG	19	PRO	39.4
21	B0	1102	G	39.4
29	BG	110	THR	39.4
1	AA	760	G	39.4
8	AH	90	GLY	39.3
1	AA	261	U	39.3
1	AA	305	G	39.3
21	B0	1412	C	39.3
21	B0	204	A	39.3
23	BA	134	ARG	39.3
21	B0	3094	A	39.2
4	AD	12	CYS	39.2
21	B0	2738	A	39.2
21	B0	359	G	39.2
1	AA	587	G	39.2
1	AA	268	C	39.2
21	B0	2375	G	39.2
21	B0	1173	G	39.2
21	B0	2734	U	39.2
1	AA	1251	A	39.1
21	B0	961	G	39.1
21	B0	2836	U	39.1
21	B0	2272	A	39.0
1	AA	977	A	39.0
26	BD	81	GLN	39.0
21	B0	2764	U	39.0
21	B0	1731	C	38.9
21	B0	1224	A	38.9
21	B0	1710	U	38.9
1	AA	430	A	38.9
1	AA	1265	G	38.9
1	AA	1477	C	38.9
21	B0	1596	A	38.9
21	B0	426	C	38.9
21	B0	2353	G	38.9
1	AA	1471	G	38.8
21	B0	2274	C	38.8
1	AA	168	G	38.8
1	AA	2361	C	38.8

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Mol	Chain	Res	Type	RSRZ
1	AA	1391	U	38.7
21	B0	320	A	38.7
21	B0	2659	C	38.7
21	B0	2753	C	38.7
1	AA	257	G	38.7
1	AA	1519	A	38.6
21	B0	1861	G	38.6
21	B0	2295	C	38.6
1	AA	512	U	38.6
1	AA	1495	U	38.6
26	BD	69	LYS	38.6
21	B0	349	G	38.6
21	B0	2832	G	38.6
21	B0	2663	U	38.5
21	B0	1867	A	38.5
1	AA	103	C	38.5
21	B0	1816	G	38.5
43	BU	86	THR	38.5
1	AA	54	C	38.5
1	AA	1412	C	38.5
1	AA	937	A	38.5
21	B0	1902	A	38.5
21	B0	1483	G	38.4
1	AA	1231	G	38.4
21	B0	755	C	38.4
21	B0	3868	U	38.4
21	B0	960	U	38.4
21	B0	79	G	38.4
21	B0	1401	G	38.4
21	B0	617	U	38.4
1	AA	727	G	38.4
21	B0	1400	A	38.3
1	AA	156	G	38.3
1	AA	1379	G	38.3
1	AA	779	C	38.3
1	AA	128	G	38.3
21	B0	1427	G	38.3
1	AA	281	G	38.3
21	B0	1112	U	38.3
1	AA	520	A	38.2
1	AA	1405	G	38.2
21	B0	2024	U	38.2

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Mol	Chain	Res	Type	RSRZ
21	B0	1915	A	38.2
21	B0	1595	A	38.2
21	B0	1848	U	38.2
1	AA	412	A	38.1
1	AA	243	A	38.1
1	AA	858	G	38.1
37	BO	2	PRO	38.1
1	AA	497	A	38.1
1	AA	1345	U	38.1
21	B0	2795	A	38.1
21	B0	847	C	38.1
21	B0	3100	G	38.1
21	B0	499	G	38.1
21	B0	2772	U	38.0
21	B0	1558	C	38.0
1	AA	890	G	38.0
21	B0	2537	C	38.0
1	AA	1446	A	38.0
22	B9	79	U	38.0
21	B0	1479	G	38.0
22	B9	19	C	38.0
1	AA	1206	G	38.0
21	B0	2649	A	37.9
1	AA	174	C	37.9
1	AA	389	A	37.9
21	B0	1048	U	37.9
21	B0	968	C	37.9
1	AA	175	C	37.9
30	BH	136	PRO	37.9
1	AA	1326	C	37.9
1	AA	778	G	37.9
21	B0	3876	A	37.9
1	AA	967	C	37.9
21	B0	3170	A	37.8
1	AA	1200	C	37.8
21	B0	1095	A	37.8
21	B0	2491	C	37.8
1	AA	391	G	37.8
1	AA	484	G	37.8
1	AA	269	C	37.8
21	B0	1453	A	37.7
1	AA	1377	A	37.7

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Mol	Chain	Res	Type	RSRZ
1	AA	148	G	37.7
1	AA	711	G	37.7
21	B0	3185	U	37.7
1	AA	435	C	37.7
21	B0	241	C	37.7
21	B0	412	U	37.7
1	AA	248	C	37.6
21	B0	1930	C	37.6
25	BC	98	GLN	37.5
1	AA	55	A	37.5
1	AA	746	A	37.5
1	AA	419	C	37.5
1	AA	1327	C	37.5
1	AA	521	G	37.5
22	B9	51	G	37.5
21	B0	1810	U	37.5
1	AA	176	C	37.5
1	AA	615	C	37.5
1	AA	1323	G	37.5
22	B9	86	A	37.5
21	B0	2609	G	37.5
21	B0	149	A	37.5
21	B0	1950	C	37.5
1	AA	152	A	37.5
21	B0	507	A	37.5
1	AA	938	A	37.4
1	AA	376	G	37.4
1	AA	630	G	37.4
21	B0	3193	G	37.4
21	B0	1542	G	37.4
21	B0	1531	C	37.4
21	B0	326	A	37.4
21	B0	2831	A	37.4
1	AA	1272	G	37.4
22	B9	94	G	37.4
1	AA	1190	G	37.4
21	B0	95	G	37.4
22	B9	116	C	37.4
1	AA	859	A	37.3
21	B0	962	C	37.3
1	AA	860	A	37.3
21	B0	646	C	37.3

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Mol	Chain	Res	Type	RSRZ
21	B0	1582	A	37.3
22	B9	22	U	37.3
1	AA	171	A	37.3
21	B0	679	C	37.3
21	B0	1789	U	37.3
21	B0	336	A	37.3
1	AA	972	C	37.3
1	AA	392	G	37.2
1	AA	1423	G	37.2
4	AD	14	ARG	37.2
34	BL	105	GLY	37.2
21	B0	1541	G	37.2
21	B0	599	A	37.2
22	B9	33	C	37.2
26	BD	80	ARG	37.2
21	B0	339	U	37.1
21	B0	2765	C	37.1
1	AA	323	U	37.1
1	AA	1347	G	37.1
23	BA	139	GLY	37.1
20	AT	16	HIS	37.0
1	AA	1283	G	37.0
48	BZ	8	LYS	37.0
1	AA	941	G	37.0
16	AP	11	SER	37.0
1	AA	807	A	37.0
1	AA	621	A	36.9
1	AA	1060	C	36.9
1	AA	1354	C	36.9
21	B0	1795	C	36.9
1	AA	1192	C	36.9
21	B0	1682	A	36.9
22	B9	96	C	36.9
21	B0	1797	C	36.8
21	B0	1512	A	36.8
1	AA	973	G	36.8
23	BA	140	ALA	36.8
21	B0	2377	U	36.8
1	AA	776	G	36.8
4	AD	32	ALA	36.8
21	B0	869	C	36.8
21	B0	729	A	36.8

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Mol	Chain	Res	Type	RSRZ
1	AA	418	C	36.8
21	B0	1530	U	36.7
1	AA	1273	G	36.7
21	B0	1023	U	36.7
16	AP	64	ALA	36.7
21	B0	2239	C	36.7
1	AA	406	G	36.7
1	AA	1348	U	36.7
21	B0	105	G	36.7
21	B0	1598	C	36.7
27	BE	100	GLY	36.7
21	B0	314	G	36.6
21	B0	3872	A	36.6
21	B0	2191	A	36.6
1	AA	1529	G	36.6
21	B0	1056	U	36.6
23	BA	76	ASN	36.6
1	AA	129(A)	G	36.6
21	B0	2351	G	36.6
21	B0	2628	C	36.6
1	AA	1234	C	36.6
21	B0	1933	G	36.5
21	B0	1421	U	36.5
21	B0	216	U	36.5
21	B0	2856	U	36.5
1	AA	53	A	36.5
21	B0	1559	G	36.5
1	AA	970	C	36.4
1	AA	947	G	36.4
29	BG	50	ASP	36.4
26	BD	52	LYS	36.4
37	BO	51	ARG	36.4
1	AA	169	C	36.4
21	B0	1729	C	36.4
1	AA	852	G	36.4
1	AA	1313	U	36.3
1	AA	712	A	36.3
1	AA	99	C	36.3
22	B9	90	C	36.3
1	AA	1373	G	36.2
9	AI	123	PRO	36.2
1	AA	518	C	36.2

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Mol	Chain	Res	Type	RSRZ
1	AA	242	C	36.2
1	AA	605	U	36.2
1	AA	1457	A	36.2
1	AA	755	G	36.1
21	B0	1609	G	36.1
43	BU	87	GLU	36.1
21	B0	3097	G	36.1
1	AA	1466	C	36.1
21	B0	2857	C	36.1
21	B0	913	A	36.1
1	AA	1496	C	36.0
21	B0	203	G	36.0
1	AA	1425	U	36.0
21	B0	2257	A	36.0
21	B0	508	G	35.9
21	B0	2830	U	35.9
1	AA	1385	G	35.9
1	AA	241	C	35.9
21	B0	1836	C	35.9
1	AA	56	U	35.9
21	B0	1948	C	35.8
22	B9	92	G	35.8
1	AA	1314	C	35.8
1	AA	974	A	35.8
16	AP	10	GLY	35.8
21	B0	2787	A	35.8
29	BG	101	TRP	35.8
21	B0	1306	U	35.7
21	B0	81	C	35.7
1	AA	1261	A	35.7
21	B0	1911	A	35.7
21	B0	3877	A	35.6
22	B9	29	C	35.6
21	B0	2340	C	35.6
1	AA	1403	C	35.6
21	B0	470	U	35.5
21	B0	969	U	35.5
1	AA	381	C	35.5
21	B0	723	C	35.5
21	B0	1162	A	35.5
21	B0	2328	G	35.5
21	B0	624	A	35.5

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Mol	Chain	Res	Type	RSRZ
1	AA	65	U	35.4
1	AA	94	G	35.4
1	AA	679	C	35.4
21	B0	1100	G	35.4
1	AA	443	C	35.4
42	BT	109	GLN	35.4
21	B0	1480	G	35.4
21	B0	2781	G	35.3
21	B0	2460	G	35.3
21	B0	1475	U	35.3
26	BD	102	LYS	35.3
1	AA	358	U	35.2
1	AA	1419	G	35.2
21	B0	808	C	35.2
21	B0	1449	C	35.2
21	B0	1572	C	35.2
1	AA	482	A	35.2
21	B0	123	A	35.2
1	AA	225	C	35.2
21	B0	2204	A	35.2
21	B0	627	A	35.2
22	B9	39	C	35.1
21	B0	2867	G	35.1
1	AA	76	G	35.1
1	AA	251	G	35.1
21	B0	2854	G	35.1
21	B0	881	U	35.1
1	AA	808	C	35.1
21	B0	724	C	35.0
1	AA	390	C	35.0
1	AA	235	C	35.0
5	AE	47	LYS	35.0
1	AA	498	U	35.0
1	AA	221	C	35.0
1	AA	1517	G	35.0
21	B0	1423	A	35.0
1	AA	270	A	35.0
21	B0	647	G	35.0
21	B0	211	U	35.0
21	B0	220	U	34.9
21	B0	3191	A	34.9
1	AA	718	G	34.9

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Mol	Chain	Res	Type	RSRZ
1	AA	1447	A	34.9
29	BG	100	ASN	34.9
21	B0	85	C	34.9
21	B0	1119	U	34.9
1	AA	929	G	34.9
21	B0	2186	G	34.9
21	B0	638	A	34.9
21	B0	1415	C	34.9
1	AA	874	G	34.9
42	BT	128	ARG	34.8
1	AA	632	A	34.8
1	AA	965	A	34.8
1	AA	155	C	34.8
1	AA	165	C	34.8
21	B0	2862	G	34.8
29	BG	62	ASP	34.8
21	B0	511	A	34.8
1	AA	1208	C	34.8
21	B0	2074	U	34.8
21	B0	668	A	34.8
16	AP	1	MET	34.8
21	B0	200	A	34.7
1	AA	1480	G	34.7
21	B0	2361	G	34.7
21	B0	305	A	34.7
21	B0	3195	U	34.7
21	B0	756	C	34.7
21	B0	1944	C	34.7
21	B0	3168	G	34.7
21	B0	80	A	34.7
21	B0	196	A	34.7
4	AD	10	ARG	34.7
22	B9	52	G	34.6
9	AI	110	GLU	34.6
29	BG	104	VAL	34.6
9	AI	109	VAL	34.6
1	AA	77	C	34.6
21	B0	1869	A	34.6
21	B0	400	U	34.6
21	B0	2782	G	34.5
1	AA	519	C	34.5
22	B9	27	A	34.5

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Mol	Chain	Res	Type	RSRZ
32	BJ	84	GLU	34.5
21	B0	2806	G	34.5
32	BJ	32	ARG	34.4
21	B0	2389	G	34.4
1	AA	1324	A	34.4
1	AA	1530	G	34.4
29	BG	112	MET	34.4
21	B0	1051	U	34.4
1	AA	806	C	34.4
29	BG	105	LEU	34.4
1	AA	1360	A	34.4
1	AA	234	C	34.4
1	AA	70	A	34.4
21	B0	2281	C	34.3
29	BG	108	ALA	34.3
4	AD	13	ARG	34.3
1	AA	1420	C	34.3
21	B0	802	A	34.3
1	AA	1236	A	34.2
16	AP	62	VAL	34.2
21	B0	1493	A	34.2
21	B0	1879	G	34.2
21	B0	1509	A	34.2
1	AA	1459	C	34.2
21	B0	2339	A	34.2
21	B0	1543	G	34.2
1	AA	369	C	34.2
1	AA	745	C	34.1
1	AA	1404	C	34.1
21	B0	1945	C	34.1
4	AD	72	GLU	34.1
1	AA	373	A	34.1
21	B0	722	C	34.1
1	AA	280	C	34.1
21	B0	1612	U	34.1
21	B0	1460	G	34.0
1	AA	1541	U	34.0
22	B9	87	C	34.0
26	BD	47	SER	34.0
21	B0	2232	G	34.0
21	B0	2506	C	34.0
21	B0	1738	U	34.0

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Mol	Chain	Res	Type	RSRZ
1	AA	1518	A	33.9
21	B0	473	C	33.9
21	B0	2589	C	33.9
1	AA	791	G	33.9
22	B9	59	A	33.9
21	B0	662	G	33.8
1	AA	777	A	33.8
21	B0	334	G	33.8
21	B0	303	C	33.8
9	AI	124	GLN	33.8
1	AA	1191	A	33.8
21	B0	430	C	33.7
45	BW	41	HIS	33.7
1	AA	97	G	33.7
21	B0	1931	G	33.7
37	BO	8	ILE	33.6
1	AA	450	G	33.6
21	B0	516	G	33.6
49	B1	30	ASN	33.6
21	B0	725	C	33.6
21	B0	1544	A	33.6
1	AA	1431	C	33.6
1	AA	197	A	33.6
21	B0	428	A	33.6
1	AA	1406	U	33.5
1	AA	129	U	33.5
4	AD	29	PRO	33.5
21	B0	3169	A	33.5
21	B0	2611	A	33.5
29	BG	73	PRO	33.5
21	B0	1599	G	33.4
21	B0	427	C	33.4
21	B0	1022	A	33.4
29	BG	107	ILE	33.4
1	AA	1378	C	33.4
22	B9	118	G	33.4
1	AA	772	U	33.4
1	AA	172	A	33.4
1	AA	170	U	33.4
29	BG	140	GLY	33.4
23	BA	126	LYS	33.3
21	B0	1733	U	33.3

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Mol	Chain	Res	Type	RSRZ
21	B0	2260	C	33.3
21	B0	2629	U	33.3
21	B0	1850	G	33.3
21	B0	1414	G	33.3
21	B0	1935	A	33.2
1	AA	254	G	33.2
1	AA	383	A	33.2
16	AP	23	ASP	33.2
1	AA	660	G	33.2
1	AA	341	C	33.2
1	AA	855	G	33.1
1	AA	1448	C	33.1
21	B0	556	A	33.1
21	B0	2291	U	33.1
21	B0	2610	G	33.1
22	B9	117	G	33.1
21	B0	2320	G	33.1
1	AA	725	G	33.1
21	B0	1159	U	33.1
21	B0	1454	U	33.1
1	AA	796	C	33.1
29	BG	20	ALA	33.1
21	B0	2780	A	33.0
21	B0	98	U	33.0
21	B0	757	U	33.0
1	AA	800	G	33.0
21	B0	916	U	33.0
42	BT	107	GLU	33.0
21	B0	2205	C	33.0
1	AA	1310	G	32.9
21	B0	321	A	32.9
1	AA	1516	G	32.9
21	B0	1307	U	32.9
1	AA	678	U	32.9
21	B0	307	C	32.9
1	AA	483	C	32.9
1	AA	733	A	32.9
21	B0	2267	A	32.9
1	AA	1336	C	32.8
1	AA	793	U	32.8
22	B9	69	G	32.8
1	AA	177	C	32.8

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Mol	Chain	Res	Type	RSRZ
4	AD	209	ARG	32.8
1	AA	424	G	32.8
21	B0	2359	U	32.8
21	B0	429	C	32.8
22	B9	36	A	32.7
1	AA	446	G	32.7
21	B0	2833	C	32.7
29	BG	1	MET	32.7
1	AA	271	C	32.7
21	B0	2181	A	32.7
21	B0	208	C	32.7
1	AA	530	G	32.7
21	B0	1532	A	32.7
21	B0	332	C	32.7
21	B0	2388	G	32.6
1	AA	164	U	32.6
21	B0	1094	C	32.6
1	AA	1456	A	32.6
21	B0	3865	A	32.6
1	AA	130	A	32.6
21	B0	324	C	32.6
1	AA	876	G	32.6
1	AA	716	A	32.5
1	AA	255	G	32.5
1	AA	1418	A	32.5
22	B9	57	U	32.5
1	AA	1390	U	32.5
21	B0	1540	C	32.5
1	AA	1485	U	32.5
21	B0	1068	A	32.5
1	AA	220	G	32.5
21	B0	1024	G	32.5
1	AA	382	A	32.5
21	B0	420	C	32.5
21	B0	319	G	32.4
21	B0	471	A	32.4
29	BG	139	GLU	32.4
21	B0	136	A	32.4
1	AA	200	G	32.4
1	AA	784	C	32.4
1	AA	1304	G	32.4
30	BH	133	GLY	32.3

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Mol	Chain	Res	Type	RSRZ
37	BO	9	VAL	32.3
1	AA	96	C	32.3
5	AE	25	ARG	32.3
1	AA	448	A	32.3
21	B0	515	A	32.3
1	AA	431	A	32.3
21	B0	351	A	32.3
9	AI	122	ALA	32.3
21	B0	1608	U	32.3
1	AA	1532	U	32.2
25	BC	95	LEU	32.2
1	AA	1312	G	32.2
4	AD	34	GLU	32.2
21	B0	1932	G	32.2
1	AA	178	C	32.2
21	B0	323	G	32.2
16	AP	63	GLY	32.2
53	B5	141	THR	32.2
21	B0	3186	C	32.2
21	B0	2283	G	32.2
21	B0	625	A	32.2
1	AA	1250	A	32.2
23	BA	135	PHE	32.2
26	BD	103	LEU	32.2
1	AA	153	C	32.2
1	AA	1269	A	32.2
21	B0	1925	C	32.1
1	AA	964	A	32.1
26	BD	45	GLU	32.1
26	BD	54	ALA	32.1
1	AA	1082	G	32.1
48	BZ	11	THR	32.1
21	B0	2538	C	32.1
21	B0	4	C	32.0
27	BE	146	ALA	32.0
1	AA	1334	G	32.0
39	BQ	10	ASN	32.0
21	B0	680	U	32.0
21	B0	1709	U	32.0
21	B0	2335	U	32.0
21	B0	2516	U	31.9
21	B0	419	G	31.9

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Mol	Chain	Res	Type	RSRZ
21	B0	3192	C	31.9
21	B0	498	C	31.9
1	AA	374	A	31.9
1	AA	818	G	31.9
21	B0	3101	G	31.9
45	BW	52	GLN	31.8
21	B0	887	G	31.8
23	BA	125	PRO	31.8
1	AA	792	A	31.8
1	AA	1372	U	31.8
1	AA	264	U	31.8
22	B9	10	U	31.8
1	AA	481	G	31.8
21	B0	1160	C	31.8
21	B0	472	C	31.7
1	AA	1463	C	31.7
41	BS	54	ILE	31.7
21	B0	1926	U	31.7
1	AA	394	G	31.7
21	B0	1450	G	31.7
21	B0	2234	G	31.7
21	B0	2868	G	31.7
1	AA	1445	U	31.7
1	AA	273	A	31.7
21	B0	915	C	31.7
1	AA	602	A	31.7
1	AA	145	G	31.7
10	AJ	57	LYS	31.6
21	B0	315	G	31.6
21	B0	1220	G	31.6
1	AA	824	C	31.6
21	B0	1464	A	31.6
4	AD	53	ASP	31.6
1	AA	367	U	31.6
5	AE	54	ALA	31.6
1	AA	1455	G	31.6
21	B0	2363	G	31.6
22	B9	88	C	31.6
21	B0	914	C	31.5
22	B9	12	C	31.5
1	AA	147	G	31.5
16	AP	31	LYS	31.5

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Mol	Chain	Res	Type	RSRZ
21	B0	1486	A	31.5
1	AA	1284	C	31.5
21	B0	210	A	31.5
1	AA	423	G	31.5
1	AA	98	U	31.5
22	B9	53	G	31.5
21	B0	886	A	31.5
31	BI	40	GLY	31.5
1	AA	721	G	31.5
1	AA	801	U	31.5
21	B0	517	A	31.4
29	BG	4	VAL	31.4
1	AA	680	C	31.4
21	B0	2630	C	31.4
1	AA	552	U	31.4
1	AA	1270	C	31.4
27	BE	39	THR	31.4
1	AA	1484	C	31.4
1	AA	1510	U	31.4
1	AA	668	G	31.4
1	AA	1333	A	31.3
1	AA	201	G	31.3
21	B0	1851	A	31.3
1	AA	154	C	31.3
21	B0	431	G	31.3
21	B0	2865	G	31.3
1	AA	1328	C	31.3
1	AA	429	U	31.2
1	AA	275	G	31.2
1	AA	370	C	31.2
1	AA	1093	A	31.2
21	B0	888	G	31.2
21	B0	2185	U	31.2
1	AA	1056	U	31.2
1	AA	1293	G	31.2
21	B0	2273	C	31.2
1	AA	1351	U	31.2
5	AE	121	LYS	31.2
1	AA	345	C	31.2
21	B0	3869	G	31.1
1	AA	50	A	31.1
21	B0	3184	C	31.1

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Mol	Chain	Res	Type	RSRZ
21	B0	497	C	31.1
21	B0	1868	A	31.1
12	AL	9	GLN	31.1
52	B4	6	SER	31.1
1	AA	1271	G	31.1
21	B0	2195	C	31.1
21	B0	1177	U	31.1
1	AA	144	G	31.1
21	B0	2203	G	31.1
21	B0	352	G	31.0
21	B0	360	A	31.0
21	B0	1129	A	31.0
1	AA	582	U	31.0
4	AD	15	GLU	31.0
22	B9	34	C	31.0
27	BE	63	ALA	31.0
1	AA	409	G	30.9
16	AP	59	TRP	30.9
21	B0	1913	G	30.9
21	B0	730	C	30.9
23	BA	210	GLY	30.9
1	AA	661	G	30.9
1	AA	1382	C	30.9
16	AP	65	GLN	30.9
1	AA	724	G	30.9
1	AA	1305	G	30.8
32	BJ	41	SER	30.8
1	AA	710	G	30.8
16	AP	24	ALA	30.8
21	B0	2352	A	30.8
39	BQ	78	ASN	30.8
21	B0	350	U	30.8
16	AP	66	PRO	30.8
21	B0	2324	G	30.8
37	BO	22	LYS	30.8
22	B9	35	C	30.8
1	AA	272	C	30.7
1	AA	832	C	30.7
1	AA	1285	A	30.7
21	B0	322	A	30.7
37	BO	52	ASN	30.7
21	B0	1178	C	30.6

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Mol	Chain	Res	Type	RSRZ
4	AD	38	TYR	30.6
43	BU	84	ALA	30.6
22	B9	95	U	30.6
21	B0	1111	C	30.6
21	B0	101	A	30.6
21	B0	2866	A	30.6
21	B0	3099	U	30.5
21	B0	207	U	30.5
29	BG	18	THR	30.5
21	B0	558	G	30.5
1	AA	1424	C	30.5
1	AA	1054	C	30.5
21	B0	3119	A	30.5
53	B5	40	ASP	30.5
1	AA	1202	G	30.5
1	AA	1478	C	30.5
21	B0	1901	A	30.4
21	B0	3171	A	30.4
1	AA	1380	U	30.4
1	AA	1483	A	30.4
21	B0	3197	U	30.4
4	AD	52	SER	30.4
21	B0	2456	U	30.4
15	AO	57	LEU	30.3
1	AA	636	U	30.3
21	B0	3194	U	30.3
5	AE	14	ARG	30.3
21	B0	209	G	30.3
21	B0	885	A	30.3
21	B0	2356	A	30.3
1	AA	1259	C	30.2
21	B0	2651	U	30.2
1	AA	747	C	30.2
1	AA	1443	G	30.2
21	B0	2599	U	30.2
21	B0	3121	G	30.2
21	B0	3165	G	30.2
21	B0	2864	C	30.2
21	B0	3871	A	30.2
16	AP	61	SER	30.2
21	B0	1843	U	30.2
21	B0	104	C	30.2

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Mol	Chain	Res	Type	RSRZ
1	AA	667	G	30.2
1	AA	719	C	30.1
21	B0	1510	A	30.1
21	B0	1101	U	30.1
1	AA	199	G	30.1
21	B0	2387	U	30.1
22	B9	56	G	30.1
1	AA	287	U	30.1
21	B0	327	C	30.1
21	B0	2262	C	30.1
21	B0	2658	A	30.0
1	AA	939	G	30.0
29	BG	61	ALA	30.0
51	B3	33	ASN	30.0
16	AP	60	LEU	30.0
21	B0	2786	G	30.0
1	AA	485	G	30.0
21	B0	1878	C	30.0
21	B0	1516	A	30.0
1	AA	146	G	29.9
21	B0	325	U	29.9
21	B0	1903	C	29.9
16	AP	2	VAL	29.9
21	B0	1511	A	29.9
1	AA	198	G	29.9
21	B0	1425	G	29.9
9	AI	120	ARG	29.9
21	B0	1837	G	29.9
21	B0	2189	A	29.9
1	AA	831	U	29.9
15	AO	54	ARG	29.9
21	B0	623	G	29.8
1	AA	447	G	29.8
1	AA	433	C	29.8
26	BD	107	GLY	29.8
9	AI	126	SER	29.8
1	AA	1492	A	29.8
16	AP	26	ARG	29.8
4	AD	9	CYS	29.8
4	AD	19	LEU	29.8
21	B0	1049	C	29.7
21	B0	510	G	29.7

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Mol	Chain	Res	Type	RSRZ
21	B0	2269	G	29.7
21	B0	2197	U	29.7
21	B0	1500	U	29.7
21	B0	1817	U	29.7
21	B0	2286	G	29.7
21	B0	512	A	29.6
1	AA	1189	C	29.6
21	B0	2360	C	29.6
21	B0	1499	A	29.6
21	B0	99	U	29.6
21	B0	309	G	29.6
1	AA	496	A	29.6
1	AA	393	A	29.6
21	B0	2357	A	29.6
4	AD	71	SER	29.6
21	B0	3177	C	29.5
21	B0	2358	C	29.5
1	AA	1311	G	29.5
9	AI	115	GLY	29.5
1	AA	749	C	29.5
1	AA	1346	A	29.5
21	B0	441	A	29.4
1	AA	14	U	29.4
5	AE	27	ARG	29.4
25	BC	97	ARG	29.4
1	AA	486	U	29.4
41	BS	13	LYS	29.4
1	AA	603	U	29.4
53	B5	149	ASN	29.3
1	AA	1070	U	29.3
26	BD	53	ALA	29.3
32	BJ	44	GLY	29.3
34	BL	104	ARG	29.3
21	B0	764	A	29.3
32	BJ	39	SER	29.3
21	B0	2313	G	29.3
4	AD	31	CYS	29.3
1	AA	930	C	29.3
1	AA	410	G	29.3
21	B0	2588	U	29.3
21	B0	2321	C	29.3
21	B0	2298	U	29.3

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Mol	Chain	Res	Type	RSRZ
1	AA	240	C	29.2
21	B0	518	A	29.2
27	BE	84	THR	29.2
1	AA	1329	A	29.2
21	B0	2861	A	29.2
21	B0	333	A	29.2
29	BG	113	PRO	29.2
1	AA	139	G	29.2
21	B0	201	G	29.2
1	AA	748	C	29.1
21	B0	2590	U	29.1
1	AA	1057	G	29.1
1	AA	1058	G	29.1
15	AO	50	HIS	29.1
4	AD	8	VAL	29.1
21	B0	2858	A	29.0
1	AA	1187	G	29.0
1	AA	222	U	29.0
21	B0	3141	G	29.0
21	B0	2362	G	29.0
21	B0	1602	G	29.0
1	AA	436	C	29.0
1	AA	1085	U	29.0
21	B0	1876	C	29.0
8	AH	91	ARG	29.0
21	B0	2581	A	29.0
1	AA	658	G	28.9
21	B0	648	A	28.9
21	B0	1127	C	28.9
21	B0	3115	G	28.9
21	B0	1461	C	28.9
21	B0	202	A	28.9
21	B0	912	A	28.9
1	AA	224	C	28.8
21	B0	2874	A	28.8
41	BS	26	SER	28.8
1	AA	395	C	28.8
21	B0	2206	C	28.8
27	BE	129	THR	28.8
21	B0	939	C	28.7
1	AA	677	U	28.7
1	AA	1300	G	28.7

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Mol	Chain	Res	Type	RSRZ
21	B0	1197	U	28.7
21	B0	2233	C	28.7
1	AA	173	U	28.6
49	B1	31	THR	28.6
21	B0	3116	G	28.6
1	AA	274	A	28.6
4	AD	6	GLY	28.6
21	B0	3098	U	28.6
21	B0	413	G	28.6
27	BE	40	GLU	28.6
41	BS	53	VAL	28.6
1	AA	657	G	28.6
21	B0	1196	G	28.5
27	BE	139	GLN	28.5
21	B0	1808	C	28.5
1	AA	1077	G	28.5
20	AT	14	LYS	28.5
21	B0	557	U	28.5
1	AA	1309	G	28.4
21	B0	1103	C	28.4
21	B0	1161	U	28.4
31	BI	39	GLY	28.4
1	AA	676	A	28.4
21	B0	318	G	28.4
38	BP	89	ASN	28.4
27	BE	132	ASP	28.4
5	AE	28	PHE	28.3
1	AA	179	A	28.3
1	AA	851	G	28.3
21	B0	1057	A	28.3
21	B0	940	G	28.3
29	BG	142	PRO	28.3
21	B0	361	G	28.3
1	AA	978	A	28.3
39	BQ	82	ASN	28.2
21	B0	1458	A	28.2
21	B0	882	C	28.2
21	B0	3120	G	28.2
4	AD	40	PRO	28.2
1	AA	434	U	28.2
21	B0	2182	A	28.2
1	AA	1194	U	28.2

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Mol	Chain	Res	Type	RSRZ
1	AA	752	G	28.2
41	BS	56	LYS	28.2
1	AA	744	C	28.2
17	AQ	99	SER	28.1
21	B0	1568	A	28.1
48	BZ	5	PRO	28.1
21	B0	2268	G	28.1
9	AI	111	ARG	28.1
21	B0	1934	U	28.1
21	B0	2457	A	28.1
21	B0	2294	U	28.0
20	AT	15	ARG	28.0
21	B0	1130	U	28.0
1	AA	1059	C	28.0
1	AA	1276	G	28.0
27	BE	66	GLY	28.0
1	AA	1384	C	28.0
4	AD	44	GLY	28.0
1	AA	750	G	27.9
1	AA	368	U	27.9
21	B0	3113	U	27.9
21	B0	1914	U	27.9
1	AA	1294	G	27.9
1	AA	1092	A	27.8
21	B0	726	G	27.8
1	AA	449	C	27.8
1	AA	797	C	27.8
12	AL	15	ARG	27.8
21	B0	2319	G	27.8
21	B0	1026	U	27.8
21	B0	3166	G	27.8
1	AA	949	A	27.7
21	B0	348	U	27.7
1	AA	338	A	27.7
20	AT	74	LYS	27.7
1	AA	375	U	27.7
1	AA	1235	U	27.7
1	AA	457	G	27.7
1	AA	1291	G	27.7
16	AP	13	HIS	27.7
1	AA	407	G	27.7
1	AA	1331	G	27.7

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Mol	Chain	Res	Type	RSRZ
1	AA	360	A	27.6
48	BZ	9	LYS	27.6
21	B0	1566	G	27.6
5	AE	46	GLY	27.6
21	B0	514	G	27.6
17	AQ	33	GLY	27.6
1	AA	1409	C	27.5
48	BZ	10	LYS	27.5
1	AA	656	C	27.5
1	AA	1268	A	27.5
27	BE	49	GLN	27.5
1	AA	953	G	27.4
4	AD	61	LYS	27.4
1	AA	432	A	27.4
21	B0	626	A	27.4
1	AA	1481	U	27.4
21	B0	1428	G	27.4
12	AL	6	THR	27.4
21	B0	1790	G	27.4
1	AA	495	U	27.4
21	B0	102	C	27.4
25	BC	78	VAL	27.4
21	B0	206	U	27.4
1	AA	1186	G	27.4
5	AE	123	LEU	27.3
21	B0	1172	U	27.3
17	AQ	28	PRO	27.3
8	AH	89	PRO	27.3
26	BD	106	ILE	27.3
1	AA	1280	A	27.3
1	AA	1332	A	27.3
21	B0	1457	A	27.3
1	AA	654	G	27.3
21	B0	197	G	27.3
21	B0	1037	U	27.3
21	B0	2458	U	27.2
1	AA	1277	C	27.2
39	BQ	12	LYS	27.2
21	B0	1611	U	27.2
16	AP	15	PRO	27.2
1	AA	1316	G	27.2
1	AA	1479	C	27.2

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Mol	Chain	Res	Type	RSRZ
1	AA	411	A	27.1
21	B0	2270	U	27.1
27	BE	106	ASN	27.1
21	B0	2648	G	27.1
10	AJ	56	HIS	27.1
48	BZ	3	LYS	27.1
29	BG	29	GLN	27.0
1	AA	717	C	27.0
21	B0	1221	C	26.9
41	BS	14	LEU	26.9
27	BE	128	PRO	26.9
29	BG	14	ALA	26.9
1	AA	1266	G	26.9
4	AD	16	GLY	26.9
42	BT	173	PRO	26.9
21	B0	2201	G	26.9
21	B0	1093	U	26.9
21	B0	3160	C	26.8
21	B0	148	C	26.8
21	B0	437	G	26.8
41	BS	9	HIS	26.8
1	AA	196	A	26.8
5	AE	49	PRO	26.8
21	B0	655	A	26.8
21	B0	1413	U	26.8
4	AD	33	MET	26.8
21	B0	135	U	26.7
21	B0	2769	C	26.7
21	B0	343	A	26.7
17	AQ	41	LYS	26.7
1	AA	1335	C	26.7
1	AA	1086	U	26.6
21	B0	2326	C	26.6
1	AA	722	A	26.6
21	B0	513	A	26.6
16	AP	67	THR	26.6
1	AA	1325	C	26.6
1	AA	665	A	26.6
4	AD	7	PRO	26.6
14	AN	32	SER	26.6
4	AD	39	PRO	26.6
1	AA	1011	G	26.6

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Mol	Chain	Res	Type	RSRZ
37	BO	23	GLY	26.6
1	AA	456	A	26.6
21	B0	3131	A	26.6
1	AA	455	C	26.6
9	AI	125	TYR	26.6
21	B0	1856	U	26.6
16	AP	68	ASP	26.5
21	B0	2770	A	26.5
1	AA	742	G	26.5
16	AP	9	PHE	26.5
21	B0	2263	C	26.5
21	B0	96	C	26.5
22	B9	13	C	26.5
1	AA	1084	G	26.5
1	AA	1188	A	26.4
53	B5	44	GLY	26.4
1	AA	875	C	26.4
21	B0	2766	U	26.4
1	AA	655	A	26.4
37	BO	10	ARG	26.4
21	B0	622	U	26.4
22	B9	40	C	26.4
9	AI	113	LYS	26.4
26	BD	105	ASN	26.4
53	B5	45	ASP	26.4
25	BC	161	ALA	26.3
14	AN	31	ARG	26.3
1	AA	1381	U	26.3
1	AA	720	C	26.3
21	B0	1463	A	26.3
26	BD	148	LYS	26.3
5	AE	85	GLY	26.3
1	AA	304	U	26.3
41	BS	11	ASN	26.3
1	AA	1315	U	26.3
45	BW	40	PRO	26.2
21	B0	509	U	26.2
25	BC	162	ARG	26.2
1	AA	1410	G	26.2
1	AA	1203	C	26.1
53	B5	108	GLU	26.1
21	B0	1429	A	26.0

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Mol	Chain	Res	Type	RSRZ
5	AE	30	ALA	26.0
37	BO	50	ARG	26.0
14	AN	33	VAL	26.0
21	B0	313	U	26.0
21	B0	347	C	26.0
42	BT	126	GLY	26.0
14	AN	30	ALA	25.9
21	B0	1732	U	25.9
9	AI	119	ALA	25.9
1	AA	256	U	25.9
1	AA	454	C	25.9
39	BQ	98	ASP	25.9
53	B5	39	ILE	25.9
1	AA	693	G	25.9
21	B0	3167	U	25.9
21	B0	2455	A	25.9
21	B0	1610	A	25.9
1	AA	1204	A	25.8
1	AA	253	U	25.8
1	AA	408	A	25.8
21	B0	1877	C	25.8
21	B0	2350	G	25.8
5	AE	126	ARG	25.8
1	AA	143	A	25.8
1	AA	619	U	25.8
29	BG	124	ALA	25.8
4	AD	65	ARG	25.8
10	AJ	55	LYS	25.8
37	BO	59	ARG	25.7
21	B0	1583	A	25.7
16	AP	30	GLY	25.7
5	AE	86	ALA	25.7
1	AA	1230	C	25.7
27	BE	94	PHE	25.7
1	AA	833	U	25.7
21	B0	667	U	25.6
1	AA	1237	C	25.6
1	AA	1449	C	25.6
21	B0	344	G	25.6
13	AM	118	ALA	25.6
37	BO	49	ASP	25.6
1	AA	195	A	25.6

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Mol	Chain	Res	Type	RSRZ
21	B0	2290	A	25.6
21	B0	2448	A	25.6
1	AA	754	C	25.6
1	AA	666	G	25.6
21	B0	1842	G	25.6
21	B0	3189	U	25.5
32	BJ	14	LYS	25.5
4	AD	63	LYS	25.5
21	B0	2459	C	25.5
37	BO	55	ARG	25.5
1	AA	239	U	25.5
21	B0	3178	C	25.5
41	BS	79	SER	25.5
29	BG	70	LYS	25.5
1	AA	1065	U	25.5
21	B0	1481	U	25.5
21	B0	355	G	25.4
41	BS	27	GLY	25.4
1	AA	1540	U	25.4
21	B0	3114	A	25.4
25	BC	163	ASN	25.4
21	B0	2296	U	25.4
1	AA	825	G	25.4
4	AD	43	HIS	25.3
1	AA	732	C	25.3
17	AQ	35	VAL	25.3
21	B0	199	A	25.3
1	AA	856	C	25.2
21	B0	859	U	25.2
30	BH	162	LYS	25.2
21	B0	1462	C	25.2
21	B0	312	G	25.2
21	B0	1424	U	25.2
1	AA	1319	A	25.2
4	AD	60	GLU	25.2
1	AA	951	G	25.1
5	AE	23	GLY	25.1
1	AA	223	U	25.1
21	B0	3112	G	25.1
1	AA	451	A	25.1
21	B0	1567	A	25.1
1	AA	339	C	25.1

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Mol	Chain	Res	Type	RSRZ
1	AA	834	C	25.1
20	AT	19	SER	25.1
1	AA	726	C	25.1
1	AA	709	G	25.0
21	B0	2200	G	25.0
21	B0	2638	G	25.0
1	AA	799	G	25.0
39	BQ	74	SER	25.0
21	B0	654	A	25.0
21	B0	3182	U	25.0
21	B0	1492	A	24.9
1	AA	948	C	24.9
21	B0	2863	U	24.9
16	AP	56	ALA	24.9
21	B0	3176	A	24.9
21	B0	97	U	24.9
23	BA	122	GLU	24.9
41	BS	15	HIS	24.9
27	BE	67	LEU	24.9
4	AD	57	ARG	24.9
34	BL	107	GLY	24.9
1	AA	1087	G	24.8
4	AD	5	ILE	24.8
9	AI	121	ARG	24.8
21	B0	1025	A	24.8
10	AJ	58	ASP	24.7
1	AA	963	G	24.7
51	B3	42	ARG	24.7
21	B0	1895	A	24.7
27	BE	45	GLN	24.6
21	B0	2510	A	24.6
29	BG	15	GLY	24.6
21	B0	308	C	24.6
27	BE	85	ILE	24.6
1	AA	1282	C	24.6
21	B0	2184	C	24.6
21	B0	353	G	24.5
1	AA	422	C	24.5
1	AA	250	A	24.5
1	AA	669	U	24.5
21	B0	2508	G	24.5
21	B0	2515	G	24.5

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Mol	Chain	Res	Type	RSRZ
21	B0	1092	U	24.5
9	AI	112	LYS	24.5
21	B0	357	A	24.5
15	AO	48	LYS	24.5
17	AQ	95	TYR	24.5
29	BG	71	THR	24.5
27	BE	95	ARG	24.5
21	B0	346	C	24.4
21	B0	3123	G	24.4
53	B5	43	LYS	24.4
21	B0	883	A	24.4
21	B0	2264	C	24.4
1	AA	1454	G	24.4
1	AA	420	U	24.4
21	B0	356	A	24.4
24	BB	140	SER	24.4
16	AP	12	LYS	24.4
21	B0	2202	G	24.4
21	B0	3108	G	24.4
4	AD	206	PHE	24.3
41	BS	103	LYS	24.3
26	BD	84	PRO	24.3
20	AT	17	ARG	24.3
20	AT	9	ASN	24.2
22	B9	46	G	24.2
27	BE	141	VAL	24.2
21	B0	1630	A	24.2
21	B0	3179	C	24.2
21	B0	1426	U	24.2
21	B0	3181	C	24.2
1	AA	588	G	24.1
42	BT	94	VAL	24.1
1	AA	637	G	24.0
53	B5	147	TYR	24.0
1	AA	1339	A	24.0
1	AA	620	C	24.0
1	AA	741	G	24.0
4	AD	18	LYS	24.0
21	B0	316	C	24.0
1	AA	252	U	24.0
21	B0	884	C	24.0
21	B0	103	U	24.0

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Mol	Chain	Res	Type	RSRZ
49	B1	29	ARG	24.0
41	BS	12	ASP	24.0
1	AA	1539	C	24.0
5	AE	57	LYS	23.9
1	AA	1263	C	23.9
27	BE	38	ASN	23.9
32	BJ	131	LYS	23.9
1	AA	1209	C	23.9
21	B0	2322	U	23.9
21	B0	2284	U	23.9
16	AP	27	LYS	23.9
21	B0	1487	C	23.9
26	BD	149	THR	23.8
21	B0	3188	U	23.8
21	B0	433	G	23.8
4	AD	200	GLU	23.8
1	AA	437	U	23.8
21	B0	1560	A	23.8
21	B0	2327	U	23.8
39	BQ	13	GLN	23.8
1	AA	954	G	23.8
42	BT	138	VAL	23.8
21	B0	2349	G	23.8
17	AQ	101	ARG	23.7
1	AA	653	A	23.7
1	AA	78	G	23.7
4	AD	30	LYS	23.7
1	AA	359	U	23.7
21	B0	358	C	23.7
21	B0	3164	C	23.7
1	AA	202	G	23.7
1	AA	659	U	23.7
1	AA	1052	U	23.7
32	BJ	134	GLU	23.6
1	AA	681	C	23.6
1	AA	675	A	23.6
1	AA	1338	G	23.6
1	AA	1195	C	23.6
42	BT	110	GLY	23.6
29	BG	31	GLY	23.6
1	AA	1318	A	23.6
1	AA	1051	C	23.6

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Mol	Chain	Res	Type	RSRZ
29	BG	93	LYS	23.5
47	BY	32	HIS	23.5
48	BZ	43	HIS	23.5
39	BQ	23	PRO	23.5
21	B0	1179	A	23.5
1	AA	1201	A	23.5
1	AA	194	C	23.5
1	AA	142	G	23.5
27	BE	118	PRO	23.4
21	B0	3187	U	23.4
16	AP	16	HIS	23.4
15	AO	58	MET	23.4
21	B0	1501	C	23.4
21	B0	2768	C	23.4
1	AA	184	G	23.4
53	B5	143	ASP	23.4
21	B0	1451	C	23.4
21	B0	2355	A	23.4
30	BH	93	LYS	23.3
1	AA	1376	U	23.3
4	AD	45	GLN	23.3
21	B0	3129	C	23.3
3	AC	2	GLY	23.3
4	AD	67	ILE	23.3
1	AA	753	A	23.3
12	AL	91	LYS	23.3
1	AA	1330	U	23.2
1	AA	340	U	23.2
1	AA	1364	U	23.2
1	AA	1340	A	23.2
1	AA	181	G	23.2
1	AA	1341	U	23.2
16	AP	32	TYR	23.2
21	B0	434	C	23.2
32	BJ	22	GLY	23.2
21	B0	1069	G	23.2
1	AA	93	U	23.1
22	B9	50	U	23.1
29	BG	16	LYS	23.1
34	BL	6	ALA	23.1
27	BE	179	THR	23.1
20	AT	75	ASN	23.1

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Mol	Chain	Res	Type	RSRZ
21	B0	1482	U	23.1
12	AL	31	PRO	23.0
24	BB	186	GLY	23.0
21	B0	198	A	23.0
43	BU	38	VAL	23.0
1	AA	1258	G	23.0
21	B0	416	U	23.0
4	AD	41	GLY	23.0
1	AA	979	C	22.9
1	AA	1205	U	22.9
21	B0	3117	A	22.9
22	B9	4	C	22.9
19	AS	4	SER	22.8
29	BG	51	ALA	22.8
51	B3	31	HIS	22.8
26	BD	63	GLN	22.8
21	B0	3161	C	22.8
41	BS	52	ASN	22.8
1	AA	950	U	22.8
1	AA	1275	A	22.8
17	AQ	39	SER	22.8
21	B0	656	U	22.8
16	AP	29	ASP	22.8
21	B0	1082	G	22.7
1	AA	1113	C	22.7
53	B5	145	SER	22.7
21	B0	1838	G	22.6
21	B0	2325	A	22.6
29	BG	17	ALA	22.6
32	BJ	85	ASP	22.6
1	AA	940	C	22.6
4	AD	73	ARG	22.6
21	B0	663	G	22.5
21	B0	2785	A	22.5
21	B0	1	G	22.5
21	B0	1452	U	22.5
1	AA	219	C	22.5
21	B0	727	U	22.5
17	AQ	37	LYS	22.5
12	AL	7	ILE	22.4
46	BX	39	ALA	22.4
48	BZ	14	SER	22.4

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Mol	Chain	Res	Type	RSRZ
1	AA	1528	U	22.4
21	B0	2183	C	22.4
26	BD	70	ALA	22.4
17	AQ	98	LEU	22.4
24	BB	62	PRO	22.4
15	AO	51	HIS	22.3
48	BZ	4	HIS	22.3
1	AA	453	A	22.3
1	AA	785	G	22.3
1	AA	466	A	22.3
1	AA	468	A	22.3
25	BC	160	ALA	22.2
5	AE	124	GLY	22.2
21	B0	3175	C	22.2
32	BJ	24	GLY	22.2
1	AA	1249	C	22.2
21	B0	2187	A	22.2
37	BO	76	TYR	22.2
1	AA	216	C	22.2
1	AA	1303	C	22.2
37	BO	46	GLU	22.2
1	AA	92	G	22.2
21	B0	1565	G	22.2
8	AH	3	THR	22.2
22	B9	121	G	22.2
1	AA	1262	C	22.1
21	B0	2318	U	22.1
21	B0	2323	U	22.1
1	AA	980	C	22.1
1	AA	1411	C	22.1
29	BG	53	ILE	22.1
29	BG	96	VAL	22.1
21	B0	2449	G	22.1
15	AO	53	HIS	22.1
32	BJ	36	GLY	22.1
1	AA	1383	C	22.1
20	AT	18	GLN	22.1
1	AA	836	G	22.1
21	B0	2188	A	22.1
16	AP	8	ARG	22.1
1	AA	1229	A	22.0
21	B0	2784	A	22.0

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Mol	Chain	Res	Type	RSRZ
22	B9	41	A	22.0
7	AG	4	ARG	22.0
22	B9	55	C	22.0
21	B0	1523	A	22.0
21	B0	2809	A	22.0
26	BD	97	TYR	22.0
21	B0	2767	C	21.9
51	B3	18	GLY	21.9
42	BT	145	ASP	21.9
4	AD	3	ARG	21.9
32	BJ	28	LYS	21.9
21	B0	2774	U	21.9
16	AP	57	ARG	21.9
21	B0	2347	C	21.9
21	B0	1526	U	21.9
32	BJ	26	THR	21.9
30	BH	60	SER	21.9
1	AA	1242	C	21.8
21	B0	363	G	21.8
16	AP	35	LYS	21.8
21	B0	803	C	21.8
32	BJ	10	PRO	21.8
49	B1	2	ALA	21.8
9	AI	117	HIS	21.8
21	B0	364	G	21.8
21	B0	2783	U	21.8
5	AE	45	PHE	21.8
1	AA	249	U	21.7
48	BZ	12	SER	21.7
21	B0	2509	A	21.7
7	AG	3	ARG	21.7
37	BO	80	ILE	21.7
27	BE	42	THR	21.7
27	BE	138	LYS	21.7
31	BI	41	ASN	21.7
1	AA	798	G	21.6
37	BO	63	GLN	21.6
10	AJ	43	ARG	21.6
4	AD	201	GLN	21.6
27	BE	127	GLU	21.6
21	B0	432	C	21.6
21	B0	1946	U	21.6

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Mol	Chain	Res	Type	RSRZ
21	B0	889	C	21.6
37	BO	53	LYS	21.6
1	AA	1256	A	21.6
21	B0	2266	A	21.6
24	BB	203	LYS	21.6
21	B0	3172	U	21.6
21	B0	1522	C	21.6
4	AD	208	SER	21.5
9	AI	108	VAL	21.5
4	AD	64	LEU	21.5
21	B0	3124	G	21.5
17	AQ	32	TYR	21.5
1	AA	1108	G	21.5
1	AA	790	A	21.5
21	B0	2265	A	21.5
32	BJ	21	ARG	21.5
1	AA	1260	C	21.4
21	B0	2860	C	21.4
5	AE	79	GLU	21.4
1	AA	694	A	21.4
1	AA	1185	G	21.4
21	B0	1812	U	21.4
16	AP	22	THR	21.4
1	AA	751	U	21.4
1	AA	650	G	21.4
4	AD	202	LEU	21.4
3	AC	3	ASN	21.3
21	B0	2199	C	21.3
21	B0	1562	G	21.3
1	AA	1115	C	21.3
21	B0	3870	C	21.3
16	AP	3	LYS	21.3
43	BU	12	ASN	21.3
27	BE	46	ASP	21.3
1	AA	452	A	21.2
27	BE	48	ASP	21.2
21	B0	3122	U	21.2
21	B0	2507	U	21.2
27	BE	99	THR	21.2
1	AA	477	G	21.2
16	AP	18	ARG	21.1
1	AA	478	A	21.1

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Mol	Chain	Res	Type	RSRZ
1	AA	217	C	21.1
4	AD	83	SER	21.1
1	AA	601	C	21.1
1	AA	1071	C	21.1
21	B0	2643	G	21.1
1	AA	674	G	21.1
21	B0	1104	G	21.0
5	AE	150	ARG	21.0
41	BS	69	GLN	21.0
21	B0	1110	G	21.0
1	AA	1243	C	21.0
1	AA	837	G	21.0
42	BT	122	ILE	21.0
7	AG	2	ALA	21.0
1	AA	857	C	21.0
21	B0	2511	G	21.0
21	B0	2642	G	21.0
1	AA	465	C	21.0
21	B0	3162	G	21.0
29	BG	58	THR	21.0
30	BH	108	GLY	21.0
21	B0	1533	G	21.0
34	BL	7	GLY	20.9
27	BE	114	ILE	20.9
1	AA	1544	U	20.9
29	BG	92	ASN	20.9
26	BD	136	LEU	20.9
15	AO	55	GLY	20.9
21	B0	310	A	20.9
21	B0	1539	U	20.9
37	BO	54	LYS	20.9
1	AA	183	G	20.9
27	BE	105	MET	20.9
21	B0	941	U	20.9
1	AA	1374	A	20.9
21	B0	1561	A	20.9
1	AA	469	C	20.8
5	AE	125	SER	20.8
27	BE	68	THR	20.8
21	B0	1091	C	20.8
38	BP	88	GLN	20.8
23	BA	209	ALA	20.8

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Mol	Chain	Res	Type	RSRZ
21	B0	943	U	20.8
26	BD	104	ILE	20.8
17	AQ	36	ILE	20.8
41	BS	57	ASN	20.8
5	AE	130	ASN	20.8
38	BP	9	GLY	20.8
1	AA	682	G	20.7
1	AA	1375	A	20.7
23	BA	123	ALA	20.7
25	BC	128	ALA	20.7
21	B0	2842	C	20.7
1	AA	1224	G	20.7
1	AA	140	A	20.7
1	AA	651	C	20.6
1	AA	787	A	20.6
5	AE	122	GLU	20.6
1	AA	1241	G	20.6
52	B4	5	SER	20.6
21	B0	2637	C	20.6
37	BO	93	LYS	20.6
1	AA	1292	U	20.6
4	AD	199	ASN	20.6
21	B0	2	G	20.5
21	B0	1909	U	20.5
21	B0	1912	G	20.5
1	AA	71	U	20.5
1	AA	743	U	20.5
21	B0	317	U	20.5
4	AD	198	VAL	20.5
4	AD	205	GLU	20.5
25	BC	43	ALA	20.4
26	BD	135	GLN	20.4
17	AQ	100	LYS	20.4
1	AA	75	C	20.4
17	AQ	27	PHE	20.4
27	BE	44	ARG	20.4
16	AP	42	ARG	20.3
22	B9	14	C	20.3
27	BE	126	PRO	20.3
53	B5	148	ILE	20.3
27	BE	104	GLU	20.3
32	BJ	130	ILE	20.3

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Mol	Chain	Res	Type	RSRZ
16	AP	71	ARG	20.3
30	BH	56	THR	20.3
4	AD	56	VAL	20.3
21	B0	242	A	20.3
21	B0	2877	A	20.2
25	BC	79	GLY	20.2
5	AE	87	SER	20.2
31	BI	37	GLY	20.2
1	AA	74	G	20.2
53	B5	109	TRP	20.2
41	BS	10	HIS	20.2
21	B0	3125	G	20.2
1	AA	467	U	20.1
37	BO	26	GLY	20.1
1	AA	638	G	20.1
1	AA	1493	A	20.1
12	AL	30	ALA	20.1
48	BZ	42	SER	20.1
41	BS	41	PRO	20.1
1	AA	1317	C	20.1
21	B0	2859	U	20.1
26	BD	65	PRO	20.1
15	AO	49	ASP	20.1
21	B0	942	U	20.1
20	AT	70	SER	20.1
42	BT	95	SER	20.1
15	AO	61	GLY	20.1
1	AA	597	G	20.1
1	AA	1050	G	20.0
29	BG	138	VAL	20.0
25	BC	159	ARG	20.0
26	BD	5	LYS	20.0
1	AA	1088	G	20.0
27	BE	11	VAL	19.9
30	BH	137	LYS	19.9
1	AA	599	C	19.9
24	BB	157	ALA	19.9
37	BO	77	SER	19.9
29	BG	81	ALA	19.9
14	AN	18	VAL	19.9
24	BB	41	THR	19.9
1	AA	1306	A	19.9

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Mol	Chain	Res	Type	RSRZ
42	BT	111	GLY	19.9
1	AA	1083	U	19.9
1	AA	1114	C	19.9
14	AN	38	GLY	19.9
21	B0	2198	U	19.8
45	BW	55	THR	19.8
8	AH	88	LYS	19.8
21	B0	665	A	19.8
43	BU	11	LYS	19.8
21	B0	311	A	19.8
1	AA	185	A	19.8
21	B0	328	A	19.8
4	AD	77	ASN	19.8
10	AJ	53	PRO	19.8
9	AI	116	LYS	19.8
12	AL	49	ASN	19.7
12	AL	115	LYS	19.7
21	B0	2348	A	19.7
4	AD	42	GLN	19.7
1	AA	1248	A	19.7
46	BX	28	ILE	19.7
32	BJ	42	GLY	19.7
1	AA	1281	U	19.6
32	BJ	81	GLN	19.6
4	AD	203	VAL	19.6
16	AP	34	GLU	19.6
48	BZ	15	LYS	19.6
1	AA	218	C	19.6
1	AA	739	C	19.6
1	AA	1010	G	19.6
21	B0	243	G	19.6
24	BB	144	ARG	19.6
29	BG	137	THR	19.6
1	AA	652	U	19.6
26	BD	64	LYS	19.5
16	AP	21	VAL	19.5
27	BE	5	GLY	19.5
1	AA	589	C	19.5
12	AL	46	LYS	19.5
42	BT	103	ARG	19.5
51	B3	39	ASP	19.5
1	AA	458	G	19.5

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Mol	Chain	Res	Type	RSRZ
21	B0	2875	C	19.5
21	B0	2631	C	19.5
21	B0	247	A	19.5
27	BE	119	ALA	19.5
32	BJ	132	ALA	19.5
21	B0	2402	U	19.5
21	B0	3163	C	19.5
1	AA	479	C	19.4
27	BE	65	HIS	19.4
42	BT	141	MET	19.4
21	B0	1193	G	19.4
29	BG	95	LYS	19.4
22	B9	54	U	19.4
41	BS	28	LYS	19.4
5	AE	154	GLY	19.4
50	B2	1	MET	19.4
1	AA	788	U	19.4
26	BD	74	ILE	19.4
26	BD	75	SER	19.4
42	BT	172	LEU	19.3
10	AJ	59	SER	19.3
21	B0	1517	C	19.3
4	AD	85	LYS	19.3
14	AN	34	TYR	19.3
37	BO	109	LEU	19.3
25	BC	76	THR	19.2
29	BG	30	TYR	19.2
21	B0	3110	G	19.2
27	BE	74	ASN	19.2
5	AE	92	LYS	19.1
1	AA	1012	U	19.1
29	BG	99	LEU	19.1
16	AP	33	ILE	19.1
5	AE	21	ALA	19.1
32	BJ	98	LEU	19.1
1	AA	789	U	19.0
1	AA	966	G	19.0
4	AD	21	LEU	19.0
53	B5	79	ALA	19.0
21	B0	1904	G	19.0
4	AD	46	LYS	19.0
21	B0	1524	C	19.0

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Mol	Chain	Res	Type	RSRZ
1	AA	1109	C	19.0
42	BT	143	ILE	19.0
30	BH	53	ARG	19.0
29	BG	85	GLY	19.0
21	B0	362	C	19.0
22	B9	49	C	19.0
20	AT	73	HIS	18.9
1	AA	786	G	18.9
51	B3	34	THR	18.9
1	AA	1322	C	18.9
21	B0	438	G	18.9
1	AA	734	G	18.9
37	BO	11	ARG	18.9
13	AM	50	GLU	18.9
41	BS	74	LEU	18.9
1	AA	463	C	18.9
27	BE	102	ALA	18.8
1	AA	1048	G	18.8
4	AD	207	TYR	18.8
20	AT	23	ARG	18.8
30	BH	138	GLY	18.8
32	BJ	127	ALA	18.8
32	BJ	46	GLY	18.8
20	AT	27	LYS	18.8
21	B0	3128	G	18.8
5	AE	88	LYS	18.7
38	BP	50	ASP	18.7
12	AL	5	PRO	18.7
27	BE	117	PRO	18.7
1	AA	649	G	18.7
1	AA	600	C	18.7
9	AI	118	LYS	18.6
25	BC	176	ASN	18.6
30	BH	134	MET	18.6
12	AL	11	VAL	18.6
24	BB	113	THR	18.6
41	BS	78	ALA	18.6
27	BE	71	LEU	18.6
30	BH	109	GLY	18.5
1	AA	1295	G	18.5
1	AA	215	C	18.5
1	AA	1299	A	18.5

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Mol	Chain	Res	Type	RSRZ
1	AA	1453	G	18.5
17	AQ	29	HIS	18.5
51	B3	32	GLN	18.5
5	AE	98	THR	18.5
21	B0	1900	U	18.5
5	AE	153	LYS	18.5
17	AQ	31	LEU	18.5
27	BE	64	LEU	18.5
4	AD	26	CYS	18.5
27	BE	12	PRO	18.5
1	AA	598	U	18.5
14	AN	29	ARG	18.4
16	AP	70	ALA	18.4
16	AP	69	THR	18.4
48	BZ	13	LYS	18.4
29	BG	116	ASN	18.4
1	AA	1074	G	18.4
37	BO	78	THR	18.4
1	AA	1021	G	18.3
11	AK	118	GLY	18.3
37	BO	58	ARG	18.3
41	BS	92	THR	18.3
1	AA	640	A	18.3
53	B5	59	SER	18.3
1	AA	459	G	18.3
32	BJ	128	ALA	18.3
1	AA	639	G	18.2
23	BA	133	LEU	18.2
32	BJ	25	GLY	18.2
5	AE	120	THR	18.2
1	AA	180	U	18.2
8	AH	105	ARG	18.2
27	BE	77	LYS	18.2
1	AA	1116	C	18.2
12	AL	10	LEU	18.2
34	BL	108	VAL	18.2
17	AQ	97	SER	18.2
21	B0	295	C	18.2
21	B0	354	C	18.2
1	AA	1274	G	18.2
32	BJ	82	ASP	18.2
1	AA	1278	U	18.2

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Mol	Chain	Res	Type	RSRZ
9	AI	114	TYR	18.2
12	AL	116	SER	18.2
21	B0	299	C	18.2
1	AA	662	G	18.2
1	AA	838	C	18.2
17	AQ	25	ARG	18.1
1	AA	186	C	18.1
1	AA	826	C	18.1
21	B0	3	U	18.1
21	B0	3111	C	18.1
39	BQ	25	PHE	18.1
29	BG	97	GLY	18.1
1	AA	1151	A	18.1
53	B5	146	GLU	18.0
4	AD	81	GLU	18.0
39	BQ	77	ALA	18.0
21	B0	331	U	18.0
24	BB	65	GLY	18.0
5	AE	119	LEU	18.0
8	AH	4	ASP	18.0
15	AO	73	GLU	18.0
32	BJ	23	PRO	17.9
21	B0	911	A	17.9
1	AA	187	G	17.9
29	BG	125	ASN	17.9
21	B0	1894	U	17.9
21	B0	3151	U	17.9
21	B0	3174	C	17.9
4	AD	37	PRO	17.9
1	AA	193	C	17.9
27	BE	124	ALA	17.9
46	BX	22	ALA	17.9
53	B5	46	LEU	17.9
21	B0	345	U	17.9
37	BO	25	TRP	17.9
21	B0	2644	A	17.9
12	AL	12	ARG	17.8
16	AP	52	ASP	17.8
50	B2	26	SER	17.8
5	AE	90	VAL	17.8
1	AA	72	A	17.8
45	BW	44	ARG	17.8

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Mol	Chain	Res	Type	RSRZ
1	AA	1073	U	17.8
21	B0	1538	A	17.8
38	BP	86	HIS	17.8
1	AA	1156	G	17.8
17	AQ	68	ARG	17.8
3	AC	133	ALA	17.8
1	AA	1137	C	17.8
23	BA	253	PRO	17.8
32	BJ	31	GLY	17.8
10	AJ	41	PRO	17.8
16	AP	4	ILE	17.8
21	B0	1839	A	17.8
32	BJ	115	SER	17.8
4	AD	204	ILE	17.7
4	AD	69	GLY	17.7
1	AA	740	U	17.7
30	BH	139	ARG	17.7
1	AA	464	U	17.7
5	AE	127	ASN	17.7
1	AA	5	U	17.7
41	BS	77	HIS	17.7
17	AQ	2	PRO	17.7
37	BO	45	TYR	17.7
21	B0	664	C	17.7
27	BE	131	ILE	17.6
4	AD	76	ARG	17.6
1	AA	1210	C	17.6
27	BE	82	GLY	17.6
39	BQ	63	SER	17.6
21	B0	3180	U	17.6
14	AN	22	THR	17.6
21	B0	2640	G	17.6
20	AT	68	LYS	17.6
4	AD	196	LEU	17.6
31	BI	38	GLY	17.6
10	AJ	42	THR	17.6
1	AA	1095	U	17.6
26	BD	150	ARG	17.5
1	AA	141	A	17.5
42	BT	58	GLY	17.5
1	AA	1049	U	17.5
11	AK	119	CYS	17.5

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Mol	Chain	Res	Type	RSRZ
7	AG	8	GLU	17.5
37	BO	111	ASP	17.5
1	AA	188	C	17.5
53	B5	194	ALA	17.5
34	BL	93	GLY	17.4
41	BS	58	VAL	17.4
14	AN	61	TRP	17.4
5	AE	93	PRO	17.4
21	B0	2190	A	17.4
27	BE	180	GLY	17.4
16	AP	17	TYR	17.4
48	BZ	19	ARG	17.4
53	B5	150	ARG	17.4
21	B0	2454	C	17.4
12	AL	92	ASP	17.4
5	AE	58	ALA	17.4
37	BO	48	ARG	17.4
1	AA	471	G	17.3
35	BM	86	GLN	17.3
46	BX	11	GLY	17.3
1	AA	480	U	17.3
50	B2	8	ASN	17.3
12	AL	28	LYS	17.2
17	AQ	96	GLN	17.2
21	B0	417	C	17.2
21	B0	3173	A	17.2
27	BE	116	GLU	17.2
21	B0	1908	C	17.2
10	AJ	60	ARG	17.2
1	AA	692	U	17.2
1	AA	1072	G	17.2
26	BD	76	ASN	17.2
21	B0	440	U	17.2
27	BE	86	ASN	17.2
21	B0	1083	C	17.2
21	B0	1099	A	17.2
1	AA	590	C	17.2
1	AA	952	U	17.2
14	AN	28	GLY	17.1
17	AQ	40	LYS	17.1
41	BS	5	SER	17.1
17	AQ	102	GLY	17.1

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Mol	Chain	Res	Type	RSRZ
29	BG	77	LEU	17.1
21	B0	666	U	17.1
21	B0	1192	A	17.1
1	AA	1020	U	17.1
29	BG	63	ARG	17.1
21	B0	302	U	17.1
1	AA	835	U	17.1
27	BE	96	ALA	17.1
1	AA	644	G	17.1
20	AT	24	LEU	17.1
37	BO	30	LYS	17.0
7	AG	33	ASP	17.0
32	BJ	29	THR	17.0
1	AA	1076	C	17.0
1	AA	1301	U	17.0
1	AA	1126	U	17.0
10	AJ	52	GLY	17.0
19	AS	2	PRO	17.0
21	B0	246	C	17.0
1	AA	981	U	17.0
1	AA	1238	A	16.9
1	AA	1089	G	16.9
21	B0	330	C	16.9
26	BD	67	ILE	16.9
26	BD	95	ARG	16.9
20	AT	76	ALA	16.9
21	B0	2512	A	16.9
29	BG	94	ALA	16.9
16	AP	7	ALA	16.9
5	AE	99	GLY	16.9
16	AP	36	ILE	16.9
25	BC	84	PHE	16.9
20	AT	20	LEU	16.8
34	BL	103	ARG	16.8
1	AA	664	G	16.8
21	B0	2647	G	16.8
1	AA	648	A	16.8
1	AA	695	A	16.8
1	AA	1245	A	16.8
4	AD	80	GLU	16.8
8	AH	92	ARG	16.8
25	BC	83	ALA	16.8

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Mol	Chain	Res	Type	RSRZ
29	BG	25	PRO	16.8
29	BG	127	VAL	16.8
26	BD	7	LYS	16.8
1	AA	472	G	16.7
10	AJ	54	PHE	16.7
20	AT	8	ARG	16.7
32	BJ	83	LEU	16.7
12	AL	17	LYS	16.7
1	AA	827	U	16.7
1	AA	1013	G	16.7
51	B3	2	PRO	16.7
10	AJ	50	ILE	16.7
27	BE	130	ARG	16.7
25	BC	179	ASP	16.7
40	BR	64	ARG	16.7
21	B0	2639	A	16.7
32	BJ	37	GLN	16.7
21	B0	3142	C	16.7
32	BJ	33	GLY	16.6
10	AJ	48	THR	16.6
29	BG	98	LYS	16.6
27	BE	101	LYS	16.6
5	AE	78	HIS	16.6
21	B0	248	A	16.6
1	AA	962	C	16.6
21	B0	1180	A	16.6
22	B9	48	A	16.6
21	B0	329	C	16.6
23	BA	227	ASN	16.6
16	AP	37	GLY	16.6
12	AL	29	GLY	16.6
24	BB	139	GLY	16.6
29	BG	74	MET	16.6
1	AA	1214	C	16.6
21	B0	1090	C	16.6
20	AT	69	GLY	16.6
43	BU	83	ALA	16.5
32	BJ	111	SER	16.5
20	AT	79	ARG	16.5
1	AA	1154	G	16.5
21	B0	2641	A	16.5
32	BJ	27	ASP	16.5

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Mol	Chain	Res	Type	RSRZ
9	AI	128	ARG	16.5
25	BC	127	ASP	16.5
16	AP	5	ARG	16.5
32	BJ	75	VAL	16.5
32	BJ	135	ALA	16.5
12	AL	50	SER	16.5
20	AT	22	ARG	16.4
21	B0	2514	G	16.4
1	AA	421	U	16.4
21	B0	245	C	16.4
17	AQ	20	THR	16.4
16	AP	58	TYR	16.4
1	AA	1110	A	16.4
5	AE	97	GLY	16.4
1	AA	189	A	16.4
25	BC	164	VAL	16.3
1	AA	1267	C	16.3
1	AA	73	C	16.3
46	BX	21	GLN	16.3
27	BE	47	GLY	16.3
12	AL	14	GLY	16.3
17	AQ	14	LYS	16.3
13	AM	124	PRO	16.3
1	AA	1213	A	16.3
21	B0	1502	G	16.3
4	AD	20	TYR	16.2
3	AC	161	GLU	16.2
46	BX	18	LYS	16.2
27	BE	87	LEU	16.2
5	AE	55	VAL	16.2
1	AA	1099	G	16.2
53	B5	131	ARG	16.2
52	B4	31	LYS	16.2
21	B0	1089	C	16.2
27	BE	36	PRO	16.2
21	B0	3127	G	16.2
15	AO	65	ARG	16.2
1	AA	470	U	16.2
32	BJ	137	GLY	16.2
5	AE	12	LEU	16.1
25	BC	174	GLY	16.1
1	AA	1150	U	16.1

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Mol	Chain	Res	Type	RSRZ
1	AA	1450	U	16.1
21	B0	2876	C	16.1
27	BE	43	VAL	16.1
20	AT	83	ARG	16.1
42	BT	171	VAL	16.1
5	AE	101	ILE	16.1
26	BD	11	GLN	16.1
22	B9	47	A	16.1
13	AM	119	GLY	16.1
27	BE	83	TYR	16.1
4	AD	90	GLY	16.1
1	AA	738	C	16.1
24	BB	10	GLY	16.1
1	AA	1451	A	16.0
1	AA	1452	C	16.0
50	B2	19	ARG	16.0
4	AD	89	THR	16.0
32	BJ	30	ALA	16.0
1	AA	1302	U	16.0
15	AO	64	ARG	16.0
27	BE	37	TYR	16.0
43	BU	10	SER	16.0
15	AO	62	GLN	16.0
32	BJ	110	ALA	16.0
1	AA	595	G	15.9
16	AP	44	THR	15.9
1	AA	647	C	15.9
32	BJ	38	LYS	15.9
38	BP	10	LYS	15.9
1	AA	1075	C	15.9
1	AA	1533	C	15.9
15	AO	60	VAL	15.9
21	B0	2807	U	15.9
1	AA	461	C	15.9
23	BA	43	ARG	15.9
16	AP	41	PRO	15.9
12	AL	118	SER	15.9
21	B0	3148	G	15.8
27	BE	175	LYS	15.8
14	AN	24	CYS	15.8
40	BR	14	GLU	15.8
24	BB	57	ARG	15.8

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Mol	Chain	Res	Type	RSRZ
32	BJ	40	ARG	15.8
41	BS	104	VAL	15.8
29	BG	60	TYR	15.8
24	BB	59	VAL	15.8
48	BZ	31	THR	15.8
48	BZ	18	MET	15.7
1	AA	670	G	15.7
21	B0	1525	A	15.7
14	AN	35	ARG	15.7
1	AA	1244	C	15.7
1	AA	1397	C	15.7
1	AA	1215	G	15.7
8	AH	104	ARG	15.7
23	BA	221	GLN	15.7
16	AP	40	ASP	15.7
27	BE	80	SER	15.7
1	AA	1125	U	15.6
37	BO	27	SER	15.6
1	AA	673	G	15.6
42	BT	123	VAL	15.6
41	BS	76	LEU	15.6
21	B0	300	C	15.6
29	BG	13	PRO	15.6
4	AD	28	SER	15.6
21	B0	2634	G	15.6
38	BP	23	GLU	15.5
1	AA	1091	U	15.5
1	AA	1023	G	15.5
29	BG	35	MET	15.5
1	AA	1138	G	15.5
21	B0	2513	A	15.5
27	BE	50	LEU	15.5
49	B1	35	LEU	15.5
27	BE	81	ASP	15.5
37	BO	81	ASN	15.5
24	BB	143	GLN	15.5
1	AA	1222	G	15.4
4	AD	156	GLU	15.4
16	AP	28	ARG	15.4
29	BG	128	ALA	15.4
17	AQ	91	ARG	15.4
42	BT	124	ALA	15.4

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Mol	Chain	Res	Type	RSRZ
1	AA	1047	G	15.4
39	BQ	9	ARG	15.4
43	BU	39	ARG	15.4
39	BQ	100	GLY	15.4
21	B0	2451	G	15.4
21	B0	244	C	15.4
1	AA	683	G	15.3
1	AA	691	G	15.3
16	AP	20	VAL	15.3
21	B0	1182	U	15.3
32	BJ	126	SER	15.3
4	AD	74	GLN	15.3
25	BC	129	LYS	15.3
21	B0	1564	U	15.3
21	B0	1896	A	15.3
39	BQ	27	VAL	15.3
29	BG	117	ALA	15.3
36	BN	123	ARG	15.3
45	BW	51	ALA	15.3
20	AT	71	THR	15.3
5	AE	94	ALA	15.3
20	AT	26	ASN	15.3
29	BG	33	ASN	15.3
17	AQ	94	ASN	15.2
1	AA	1019	C	15.2
32	BJ	12	SER	15.2
32	BJ	109	LEU	15.2
21	B0	373	A	15.2
25	BC	26	VAL	15.2
27	BE	34	THR	15.2
45	BW	47	ARG	15.2
21	B0	3146	A	15.2
50	B2	4	THR	15.2
26	BD	78	LYS	15.2
4	AD	70	ILE	15.2
30	BH	73	ASN	15.2
21	B0	296	A	15.2
25	BC	182	ARG	15.2
27	BE	145	ALA	15.2
4	AD	82	ALA	15.2
12	AL	124	LYS	15.1
5	AE	60	TYR	15.1

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Mol	Chain	Res	Type	RSRZ
1	AA	1308	U	15.1
21	B0	2285	U	15.1
1	AA	1286	A	15.1
1	AA	1223	C	15.1
30	BH	55	ALA	15.1
51	B3	28	GLY	15.1
1	AA	1102	A	15.1
1	AA	182	U	15.0
29	BG	69	THR	15.0
21	B0	365	U	15.0
27	BE	144	VAL	15.0
12	AL	94	PRO	15.0
48	BZ	16	ARG	15.0
21	B0	3126	A	15.0
17	AQ	92	ARG	15.0
24	BB	128	SER	15.0
21	B0	1181	C	15.0
29	BG	111	LYS	15.0
52	B4	4	ARG	14.9
1	AA	79	G	14.9
30	BH	52	GLY	14.9
34	BL	5	LYS	14.9
21	B0	2450	A	14.9
24	BB	191	ALA	14.9
41	BS	91	ALA	14.9
1	AA	982	U	14.9
5	AE	81	GLU	14.9
5	AE	117	ASP	14.9
1	AA	1152	A	14.9
11	AK	117	ASN	14.9
16	AP	74	LEU	14.9
50	B2	7	PRO	14.9
24	BB	61	LYS	14.9
1	AA	460	C	14.9
53	B5	38	GLY	14.9
21	B0	1070	G	14.9
1	AA	645	C	14.8
27	BE	115	ILE	14.8
36	BN	125	MET	14.8
48	BZ	22	HIS	14.8
21	B0	2636	A	14.8
21	B0	2645	C	14.8

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Mol	Chain	Res	Type	RSRZ
3	AC	134	ILE	14.8
29	BG	80	LYS	14.8
37	BO	56	ASP	14.8
12	AL	22	SER	14.8
36	BN	126	LYS	14.8
42	BT	144	GLY	14.8
3	AC	137	ALA	14.8
17	AQ	103	GLY	14.8
25	BC	171	PRO	14.7
9	AI	91	ASP	14.7
14	AN	41	ARG	14.7
27	BE	93	GLY	14.7
16	AP	19	ILE	14.7
7	AG	52	GLU	14.7
41	BS	40	LEU	14.7
24	BB	64	GLN	14.7
1	AA	955	U	14.7
4	AD	23	GLY	14.7
29	BG	83	GLY	14.7
1	AA	1307	U	14.6
27	BE	133	VAL	14.6
21	B0	1520	G	14.6
34	BL	4	GLY	14.6
27	BE	107	ILE	14.6
21	B0	2289	A	14.6
1	AA	1009	G	14.6
1	AA	842	U	14.6
24	BB	145	LYS	14.6
13	AM	28	ALA	14.6
29	BG	5	ALA	14.6
21	B0	1491	C	14.6
1	AA	1221	G	14.5
20	AT	21	LYS	14.5
1	AA	1320	C	14.5
4	AD	35	ARG	14.5
23	BA	238	GLY	14.5
38	BP	8	GLY	14.5
41	BS	67	GLY	14.5
43	BU	14	ARG	14.5
10	AJ	51	ARG	14.5
34	BL	91	PRO	14.5
11	AK	120	ARG	14.5

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Mol	Chain	Res	Type	RSRZ
21	B0	418	C	14.5
15	AO	56	LEU	14.5
5	AE	61	TYR	14.5
5	AE	149	GLU	14.5
39	BQ	26	ALA	14.5
1	AA	462	A	14.5
25	BC	130	THR	14.4
1	AA	1155	G	14.4
29	BG	72	PRO	14.4
9	AI	107	ARG	14.4
1	AA	592	G	14.4
29	BG	28	GLY	14.4
21	B0	1841	G	14.4
21	B0	439	C	14.4
26	BD	68	THR	14.4
17	AQ	15	MET	14.4
14	AN	40	CYS	14.4
41	BS	88	THR	14.4
1	AA	191	G	14.4
21	B0	890	U	14.4
1	AA	1124	G	14.3
12	AL	119	LYS	14.3
29	BG	46	ALA	14.3
5	AE	22	GLY	14.3
20	AT	25	ARG	14.3
17	AQ	43	LEU	14.3
20	AT	30	LYS	14.3
1	AA	1211	U	14.3
16	AP	53	VAL	14.3
1	AA	641	U	14.3
15	AO	52	SER	14.3
4	AD	115	ARG	14.2
40	BR	58	VAL	14.2
25	BC	75	PRO	14.2
27	BE	59	GLN	14.2
24	BB	146	THR	14.2
15	AO	46	HIS	14.2
16	AP	54	GLU	14.2
17	AQ	16	GLN	14.2
23	BA	40	THR	14.2
1	AA	1139	G	14.2
18	AR	84	LYS	14.2

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Mol	Chain	Res	Type	RSRZ
13	AM	24	GLY	14.2
41	BS	25	LEU	14.2
17	AQ	67	LYS	14.2
1	AA	1022	G	14.2
16	AP	72	ARG	14.2
1	AA	1228	C	14.2
1	AA	1296	C	14.2
4	AD	25	ARG	14.2
23	BA	237	GLU	14.1
24	BB	129	HIS	14.1
21	B0	3132	A	14.1
1	AA	1321	C	14.1
23	BA	242	ALA	14.1
21	B0	301	C	14.1
25	BC	44	SER	14.1
47	BY	2	GLN	14.1
13	AM	126	LYS	14.1
25	BC	170	LEU	14.1
25	BC	25	GLY	14.1
29	BG	76	TYR	14.1
25	BC	100	ARG	14.1
27	BE	10	ALA	14.1
53	B5	175	LYS	14.0
41	BS	75	ALA	14.0
23	BA	50	THR	14.0
21	B0	1563	U	14.0
12	AL	89	ARG	14.0
5	AE	26	PHE	14.0
20	AT	28	ALA	14.0
21	B0	1601	U	14.0
23	BA	218	LYS	14.0
25	BC	99	VAL	14.0
41	BS	39	ALA	14.0
17	AQ	26	GLN	14.0
4	AD	17	VAL	14.0
17	AQ	12	SER	14.0
29	BG	88	SER	14.0
14	AN	23	ARG	14.0
1	AA	203	A	14.0
40	BR	57	ASN	14.0
27	BE	150	LYS	14.0
1	AA	596	C	14.0

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Mol	Chain	Res	Type	RSRZ
21	B0	1907	C	14.0
25	BC	55	GLY	13.9
21	B0	3118	U	13.9
5	AE	51	VAL	13.9
12	AL	97	ARG	13.9
46	BX	27	LYS	13.9
21	B0	1897	C	13.9
1	AA	190	A	13.9
50	B2	6	GLN	13.9
27	BE	41	LEU	13.9
17	AQ	4	LYS	13.9
15	AO	72	ARG	13.9
29	BG	52	ILE	13.9
1	AA	1247	U	13.9
27	BE	122	THR	13.9
16	AP	55	ARG	13.8
1	AA	1246	C	13.8
47	BY	40	HIS	13.8
34	BL	13	ASN	13.8
21	B0	3150	C	13.8
4	AD	87	GLY	13.8
3	AC	168	ALA	13.8
37	BO	21	ALA	13.8
26	BD	79	LEU	13.8
1	AA	1111	A	13.8
16	AP	76	GLN	13.7
21	B0	298	C	13.7
1	AA	594	G	13.7
4	AD	91	SER	13.7
1	AA	850	U	13.7
40	BR	56	MET	13.7
32	BJ	77	LEU	13.7
53	B5	105	ARG	13.7
5	AE	129	ILE	13.7
11	AK	122	LYS	13.7
32	BJ	43	ALA	13.7
27	BE	174	GLY	13.7
9	AI	127	LYS	13.7
14	AN	60	SER	13.7
32	BJ	20	GLY	13.7
32	BJ	66	ASN	13.7
12	AL	117	ARG	13.7

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Mol	Chain	Res	Type	RSRZ
41	BS	4	PRO	13.7
41	BS	68	GLY	13.7
29	BG	143	ASN	13.6
21	B0	1521	U	13.6
23	BA	240	THR	13.6
46	BX	23	LEU	13.6
27	BE	13	SER	13.6
41	BS	81	VAL	13.6
16	AP	79	VAL	13.6
16	AP	75	ARG	13.6
21	B0	2633	A	13.6
21	B0	1889	G	13.6
1	AA	1144	G	13.5
41	BS	90	LYS	13.5
27	BE	178	ALA	13.5
17	AQ	3	LYS	13.5
19	AS	5	LEU	13.5
25	BC	69	HIS	13.5
1	AA	646	U	13.5
21	B0	3149	G	13.5
11	AK	116	HIS	13.5
21	B0	1600	U	13.5
30	BH	146	THR	13.5
5	AE	103	GLY	13.5
4	AD	94	LEU	13.5
17	AQ	66	SER	13.5
1	AA	1090	U	13.5
23	BA	254	THR	13.5
21	B0	1518	C	13.5
1	AA	591	U	13.4
25	BC	54	THR	13.4
4	AD	22	LYS	13.4
21	B0	1893	G	13.4
38	BP	24	SER	13.4
17	AQ	105	ALA	13.4
32	BJ	9	THR	13.4
45	BW	39	GLN	13.4
20	AT	78	ALA	13.4
17	AQ	38	ARG	13.4
12	AL	16	GLU	13.4
10	AJ	62	HIS	13.4
5	AE	116	THR	13.4

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Mol	Chain	Res	Type	RSRZ
8	AH	87	SER	13.4
12	AL	62	SER	13.4
40	BR	52	GLY	13.4
4	AD	79	PHE	13.3
1	AA	1008	C	13.3
16	AP	51	VAL	13.3
5	AE	102	ALA	13.3
4	AD	88	VAL	13.3
27	BE	53	GLU	13.3
27	BE	113	VAL	13.3
10	AJ	69	ASN	13.3
32	BJ	78	SER	13.3
20	AT	90	GLN	13.3
21	B0	1195	U	13.3
3	AC	4	LYS	13.3
1	AA	1107	C	13.3
13	AM	20	THR	13.3
51	B3	35	GLY	13.2
5	AE	59	GLY	13.2
20	AT	95	ALA	13.2
5	AE	9	LYS	13.2
7	AG	11	GLN	13.2
1	AA	1117	G	13.2
1	AA	1112	C	13.2
12	AL	79	GLU	13.2
19	AS	3	ARG	13.2
1	AA	593	G	13.2
29	BG	59	ILE	13.2
16	AP	6	LEU	13.2
34	BL	3	HIS	13.2
42	BT	108	VAL	13.2
18	AR	18	ARG	13.2
1	AA	1096	C	13.1
38	BP	80	TYR	13.1
14	AN	27	CYS	13.1
26	BD	132	ILE	13.1
12	AL	48	PRO	13.1
1	AA	473	C	13.1
21	B0	2646	C	13.1
4	AD	68	TYR	13.1
1	AA	1239	A	13.1
23	BA	46	ARG	13.1

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Mol	Chain	Res	Type	RSRZ
12	AL	47	LYS	13.1
39	BQ	71	VAL	13.1
13	AM	26	GLY	13.1
32	BJ	79	GLN	13.1
1	AA	1143	G	13.0
26	BD	73	SER	13.0
52	B4	21	GLY	13.0
16	AP	39	TYR	13.0
32	BJ	114	ILE	13.0
48	BZ	44	HIS	13.0
32	BJ	113	GLU	13.0
4	AD	75	PHE	13.0
32	BJ	136	ALA	13.0
41	BS	2	PRO	13.0
1	AA	1127	G	13.0
9	AI	11	LYS	13.0
20	AT	65	LYS	13.0
24	BB	138	PRO	13.0
19	AS	6	LYS	13.0
8	AH	1	MET	13.0
21	B0	1519	G	13.0
20	AT	96	GLY	13.0
8	AH	106	GLY	13.0
12	AL	61	THR	13.0
1	AA	1184	G	13.0
27	BE	92	VAL	13.0
17	AQ	13	ASP	13.0
12	AL	125	PRO	12.9
4	AD	24	GLU	12.9
1	AA	1298	C	12.9
34	BL	11	ASN	12.9
1	AA	1183	A	12.9
25	BC	42	THR	12.9
20	AT	67	ALA	12.9
10	AJ	46	ARG	12.9
16	AP	73	LEU	12.9
31	BI	79	HIS	12.9
1	AA	1133	G	12.9
24	BB	60	ASN	12.9
5	AE	95	ALA	12.9
8	AH	107	LEU	12.9
5	AE	104	ALA	12.9

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Mol	Chain	Res	Type	RSRZ
41	BS	72	ARG	12.9
25	BC	77	PHE	12.9
24	BB	150	VAL	12.9
1	AA	476	U	12.9
1	AA	1145	C	12.9
7	AG	5	ARG	12.9
8	AH	22	GLU	12.9
32	BJ	34	HIS	12.8
1	AA	696	A	12.8
21	B0	294	U	12.8
27	BE	14	GLY	12.8
1	AA	1045	C	12.8
48	BZ	17	ASP	12.8
1	AA	475	C	12.8
1	AA	1216	G	12.8
27	BE	123	PHE	12.8
21	B0	1088	A	12.7
33	BK	16	GLY	12.7
12	AL	114	LYS	12.7
17	AQ	64	PRO	12.7
27	BE	16	THR	12.7
34	BL	60	LEU	12.7
37	BO	42	ALA	12.7
42	BT	8	ARG	12.7
1	AA	1106	G	12.7
1	AA	723	U	12.7
15	AO	47	LYS	12.7
20	AT	80	ARG	12.7
26	BD	44	LYS	12.7
27	BE	140	LEU	12.7
5	AE	107	ARG	12.7
14	AN	25	VAL	12.7
5	AE	96	PRO	12.7
27	BE	148	VAL	12.7
38	BP	52	GLY	12.7
1	AA	1122	U	12.6
21	B0	2287	G	12.6
32	BJ	48	PHE	12.6
25	BC	85	GLY	12.6
1	AA	91	C	12.6
38	BP	22	VAL	12.6
30	BH	161	GLN	12.6

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Mol	Chain	Res	Type	RSRZ
4	AD	84	LYS	12.6
25	BC	66	ASN	12.6
43	BU	32	LYS	12.6
15	AO	68	ARG	12.6
1	AA	956	U	12.6
8	AH	2	LEU	12.6
17	AQ	18	THR	12.6
17	AQ	61	GLU	12.6
24	BB	87	ASP	12.6
12	AL	81	SER	12.6
3	AC	163	ALA	12.6
5	AE	84	PHE	12.6
10	AJ	44	VAL	12.6
29	BG	57	ILE	12.6
5	AE	148	VAL	12.5
12	AL	78	GLN	12.5
24	BB	148	GLY	12.5
12	AL	104	VAL	12.5
1	AA	1167	A	12.5
15	AO	14	GLU	12.5
25	BC	134	ILE	12.5
41	BS	71	GLN	12.5
53	B5	208	THR	12.5
11	AK	11	LYS	12.5
15	AO	75	PRO	12.5
21	B0	1105	U	12.5
27	BE	98	LEU	12.5
26	BD	115	ARG	12.5
40	BR	62	ARG	12.5
51	B3	38	GLY	12.5
27	BE	120	GLY	12.5
21	B0	1905	G	12.5
17	AQ	42	TYR	12.5
17	AQ	93	GLN	12.5
16	AP	78	GLY	12.5
21	B0	371	G	12.5
26	BD	114	PHE	12.5
1	AA	1400	C	12.4
4	AD	190	ASP	12.4
1	AA	1297	C	12.4
21	B0	891	A	12.4
1	AA	1166	G	12.4

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Mol	Chain	Res	Type	RSRZ
48	BZ	29	ASN	12.4
21	B0	292	A	12.4
24	BB	130	GLY	12.4
24	BB	168	GLN	12.4
32	BJ	112	GLY	12.4
5	AE	75	THR	12.4
23	BA	127	LEU	12.4
1	AA	663	A	12.4
1	AA	961	U	12.4
25	BC	132	ASN	12.4
15	AO	24	SER	12.4
1	AA	1153	C	12.4
50	B2	5	TYR	12.4
27	BE	134	SER	12.4
5	AE	44	GLY	12.4
9	AI	23	ASN	12.4
23	BA	21	PHE	12.4
1	AA	983	A	12.4
8	AH	93	VAL	12.3
13	AM	125	ARG	12.3
24	BB	137	ARG	12.3
30	BH	59	ALA	12.3
27	BE	22	GLY	12.3
8	AH	7	ALA	12.3
21	B0	297	A	12.3
41	BS	17	LYS	12.3
12	AL	32	PHE	12.3
23	BA	222	ARG	12.3
39	BQ	62	ARG	12.3
15	AO	19	PRO	12.3
34	BL	14	SER	12.3
27	BE	147	ASN	12.3
1	AA	1123	A	12.3
50	B2	27	GLY	12.3
52	B4	2	LYS	12.3
38	BP	85	GLY	12.3
5	AE	147	ASP	12.3
1	AA	1015	A	12.3
1	AA	1142	G	12.3
29	BG	45	THR	12.3
5	AE	77	PRO	12.3
16	AP	50	LYS	12.3

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Mol	Chain	Res	Type	RSRZ
21	B0	1503	G	12.3
1	AA	214	U	12.2
27	BE	21	ASP	12.2
27	BE	97	LYS	12.2
50	B2	15	THR	12.2
21	B0	1488	G	12.2
21	B0	2808	U	12.2
22	B9	45	C	12.2
3	AC	167	TRP	12.2
50	B2	10	ARG	12.2
13	AM	123	ALA	12.2
14	AN	20	ALA	12.2
1	AA	1225	A	12.2
50	B2	2	LYS	12.2
1	AA	1018	C	12.2
21	B0	1183	C	12.2
38	BP	90	PHE	12.2
20	AT	47	GLY	12.2
38	BP	92	ALA	12.2
43	BU	13	GLY	12.2
4	AD	122	ARG	12.2
50	B2	9	ASN	12.2
51	B3	17	THR	12.2
5	AE	73	ASN	12.2
1	AA	1178	G	12.1
3	AC	156	ARG	12.1
23	BA	244	ARG	12.1
39	BQ	117	ILE	12.1
1	AA	1220	G	12.1
37	BO	33	ARG	12.1
23	BA	252	LYS	12.1
27	BE	125	VAL	12.1
21	B0	3109	U	12.1
3	AC	192	THR	12.1
22	B9	43	G	12.1
7	AG	10	ARG	12.1
1	AA	1140	C	12.1
29	BG	82	ALA	12.1
37	BO	62	ILE	12.1
2	AB	128	GLU	12.1
5	AE	100	VAL	12.1
32	BJ	35	LYS	12.1

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Mol	Chain	Res	Type	RSRZ
26	BD	71	LYS	12.1
5	AE	111	GLU	12.1
23	BA	224	SER	12.1
38	BP	18	ASP	12.1
20	AT	77	ALA	12.1
23	BA	44	ASN	12.1
11	AK	115	PRO	12.1
15	AO	74	ASP	12.1
7	AG	7	ALA	12.1
38	BP	87	ARG	12.1
34	BL	37	THR	12.1
1	AA	90	C	12.1
1	AA	993	G	12.1
20	AT	94	ALA	12.1
4	AD	123	HIS	12.0
12	AL	106	ASP	12.0
17	AQ	104	LYS	12.0
50	B2	38	GLY	12.0
1	AA	1024	G	12.0
12	AL	105	TYR	12.0
20	AT	64	ASP	12.0
30	BH	135	LEU	12.0
27	BE	103	LEU	12.0
15	AO	21	ASP	12.0
41	BS	102	LYS	12.0
12	AL	23	LYS	12.0
4	AD	197	PRO	12.0
11	AK	121	PRO	12.0
23	BA	239	ARG	12.0
32	BJ	13	ARG	12.0
27	BE	70	THR	12.0
1	AA	1177	G	11.9
1	AA	207	C	11.9
1	AA	1134	G	11.9
3	AC	135	LYS	11.9
4	AD	160	GLN	11.9
27	BE	78	GLY	11.9
23	BA	57	GLY	11.9
23	BA	114	GLY	11.9
38	BP	26	GLN	11.9
15	AO	2	PRO	11.9
21	B0	3147	C	11.9

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Mol	Chain	Res	Type	RSRZ
15	AO	26	GLU	11.8
48	BZ	2	ALA	11.8
1	AA	1017	G	11.8
35	BM	36	LYS	11.8
27	BE	18	ASN	11.8
45	BW	45	GLN	11.8
26	BD	131	GLY	11.8
24	BB	142	GLY	11.8
53	B5	62	LYS	11.8
20	AT	93	GLU	11.8
18	AR	83	GLU	11.8
5	AE	152	ARG	11.8
12	AL	95	GLY	11.8
17	AQ	63	ARG	11.8
34	BL	92	GLY	11.8
13	AM	23	TYR	11.8
32	BJ	80	LEU	11.7
30	BH	107	GLN	11.7
1	AA	192	U	11.7
39	BQ	110	ALA	11.7
24	BB	110	GLY	11.7
8	AH	85	ARG	11.7
21	B0	1504	G	11.7
15	AO	42	HIS	11.7
23	BA	49	ILE	11.7
15	AO	13	GLN	11.7
1	AA	213	G	11.7
15	AO	25	THR	11.7
4	AD	134	ASP	11.7
34	BL	97	ILE	11.7
31	BI	23	ARG	11.7
33	BK	86	LYS	11.7
49	B1	34	LYS	11.6
31	BI	42	LYS	11.6
2	AB	125	PRO	11.6
1	AA	984	C	11.6
25	BC	133	PHE	11.6
49	B1	41	ASP	11.6
39	BQ	22	LYS	11.6
1	AA	1098	C	11.6
16	AP	77	ALA	11.6
50	B2	25	LYS	11.6

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Mol	Chain	Res	Type	RSRZ
1	AA	1046	A	11.6
3	AC	130	VAL	11.6
21	B0	2632	U	11.6
12	AL	45	PRO	11.6
24	BB	192	ASN	11.6
24	BB	79	ARG	11.6
1	AA	1212	U	11.6
5	AE	80	ILE	11.6
22	B9	42	U	11.5
1	AA	1100	C	11.5
27	BE	121	VAL	11.5
41	BS	80	LYS	11.5
4	AD	191	ARG	11.5
10	AJ	49	VAL	11.5
46	BX	7	ARG	11.5
21	B0	1507	A	11.5
21	B0	1194	U	11.5
25	BC	68	ARG	11.5
1	AA	1104	G	11.5
47	BY	42	PHE	11.5
25	BC	93	TYR	11.5
18	AR	48	GLY	11.5
1	AA	1141	C	11.5
53	B5	142	ALA	11.5
53	B5	151	PHE	11.5
24	BB	149	ARG	11.5
39	BQ	111	ARG	11.5
34	BL	50	GLN	11.4
1	AA	1007	C	11.4
12	AL	103	GLY	11.4
15	AO	69	TYR	11.4
1	AA	959	A	11.4
15	AO	45	VAL	11.4
21	B0	372	U	11.4
34	BL	53	THR	11.4
43	BU	26	PHE	11.4
23	BA	236	GLY	11.4
32	BJ	67	ASN	11.4
27	BE	29	PRO	11.4
39	BQ	70	LYS	11.4
26	BD	127	ASN	11.4
32	BJ	68	VAL	11.4

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Mol	Chain	Res	Type	RSRZ
5	AE	128	PRO	11.4
38	BP	81	ARG	11.4
41	BS	95	ARG	11.4
1	AA	1121	U	11.4
23	BA	225	ALA	11.4
38	BP	53	LYS	11.4
39	BQ	79	ALA	11.4
23	BA	45	ASN	11.4
46	BX	14	GLY	11.4
36	BN	4	HIS	11.4
1	AA	1161	C	11.4
1	AA	960	U	11.3
24	BB	187	ALA	11.3
48	BZ	41	LEU	11.3
46	BX	15	ASN	11.3
40	BR	55	THR	11.3
2	AB	123	ALA	11.3
5	AE	24	ARG	11.3
45	BW	48	ARG	11.3
24	BB	147	PRO	11.3
21	B0	1191	G	11.3
30	BH	104	THR	11.3
39	BQ	108	PRO	11.3
50	B2	11	LYS	11.3
18	AR	47	THR	11.3
15	AO	16	ALA	11.2
32	BJ	47	ALA	11.2
17	AQ	65	ILE	11.2
14	AN	2	ALA	11.2
42	BT	89	GLY	11.2
51	B3	3	LYS	11.2
9	AI	68	GLY	11.2
53	B5	61	ALA	11.2
27	BE	79	VAL	11.2
1	AA	1196	U	11.2
41	BS	42	ARG	11.2
42	BT	82	ASP	11.2
5	AE	62	ALA	11.2
25	BC	34	GLN	11.2
4	AD	194	LEU	11.2
5	AE	118	ILE	11.2
8	AH	25	ASP	11.2

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Mol	Chain	Res	Type	RSRZ
1	AA	1120	G	11.2
17	AQ	70	ARG	11.2
24	BB	109	LYS	11.2
16	AP	38	TYR	11.2
13	AM	70	LEU	11.2
24	BB	122	PHE	11.2
27	BE	28	GLY	11.2
30	BH	91	THR	11.2
21	B0	2635	U	11.2
15	AO	43	LEU	11.2
31	BI	5	GLN	11.2
25	BC	81	GLY	11.2
17	AQ	69	LYS	11.2
13	AM	72	ALA	11.1
46	BX	8	SER	11.1
20	AT	72	LEU	11.1
13	AM	29	ARG	11.1
26	BD	110	ARG	11.1
21	B0	2453	C	11.1
51	B3	4	MET	11.1
5	AE	50	GLU	11.1
50	B2	29	ASN	11.1
39	BQ	101	PRO	11.1
1	AA	671	G	11.1
30	BH	163	PRO	11.1
18	AR	82	THR	11.1
36	BN	10	GLY	11.1
8	AH	8	ASP	11.1
1	AA	1227	A	11.1
4	AD	193	ASP	11.1
20	AT	82	SER	11.1
25	BC	102	LEU	11.1
46	BX	24	GLY	11.1
29	BG	136	VAL	11.1
1	AA	1534	A	11.0
39	BQ	99	ALA	11.0
2	AB	37	ASN	11.0
25	BC	82	VAL	11.0
21	B0	1899	A	11.0
1	AA	1042	G	11.0
32	BJ	60	LEU	11.0
1	AA	684	A	11.0

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Mol	Chain	Res	Type	RSRZ
5	AE	15	ARG	11.0
1	AA	474	U	11.0
1	AA	89	G	11.0
27	BE	35	VAL	11.0
53	B5	75	TYR	11.0
3	AC	160	ALA	11.0
4	AD	27	TYR	11.0
24	BB	86	PRO	11.0
18	AR	49	LYS	11.0
15	AO	17	ARG	11.0
3	AC	131	ARG	11.0
21	B0	1109	A	10.9
12	AL	80	HIS	10.9
27	BE	23	VAL	10.9
34	BL	61	HIS	10.9
9	AI	69	GLY	10.9
9	AI	12	GLU	10.9
29	BG	68	ILE	10.9
53	B5	63	ARG	10.9
3	AC	123	GLN	10.9
41	BS	3	ARG	10.9
14	AN	42	ILE	10.9
12	AL	51	ALA	10.9
12	AL	33	ARG	10.9
3	AC	194	GLY	10.9
10	AJ	79	ARG	10.9
20	AT	66	ALA	10.9
1	AA	839	G	10.9
24	BB	141	ILE	10.9
33	BK	18	MET	10.8
1	AA	212	G	10.8
48	BZ	21	SER	10.8
20	AT	31	SER	10.8
41	BS	70	GLU	10.8
38	BP	17	GLY	10.8
15	AO	71	GLN	10.8
1	AA	86	G	10.8
23	BA	51	SER	10.8
3	AC	193	TYR	10.8
15	AO	63	ARG	10.8
1	AA	1103	C	10.8
23	BA	86	PRO	10.8

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Mol	Chain	Res	Type	RSRZ
5	AE	31	LEU	10.8
7	AG	34	GLY	10.8
23	BA	241	GLY	10.8
12	AL	18	VAL	10.7
14	AN	19	ARG	10.7
50	B2	3	ARG	10.7
8	AH	57	PRO	10.7
1	AA	735	C	10.7
23	BA	47	GLY	10.7
12	AL	86	ARG	10.7
25	BC	158	ARG	10.7
35	BM	37	HIS	10.7
15	AO	22	THR	10.7
29	BG	21	PRO	10.7
27	BE	76	VAL	10.7
37	BO	108	ALA	10.7
18	AR	45	SER	10.7
7	AG	55	GLY	10.7
12	AL	35	GLY	10.7
1	AA	1157	A	10.7
30	BH	103	TYR	10.7
1	AA	643	C	10.7
20	AT	34	LYS	10.7
25	BC	131	LYS	10.7
27	BE	137	ASP	10.7
27	BE	15	VAL	10.7
17	AQ	88	TYR	10.6
46	BX	38	PRO	10.6
23	BA	256	GLY	10.6
38	BP	79	GLN	10.6
46	BX	13	PRO	10.6
13	AM	117	VAL	10.6
21	B0	3143	U	10.6
1	AA	1135	U	10.6
20	AT	45	GLN	10.6
24	BB	158	GLY	10.6
24	BB	56	GLU	10.6
29	BG	123	ALA	10.6
25	BC	103	GLY	10.6
47	BY	31	ILE	10.6
21	B0	1489	C	10.6
21	B0	901	A	10.6

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Mol	Chain	Res	Type	RSRZ
26	BD	113	ASP	10.6
31	BI	36	THR	10.6
39	BQ	81	HIS	10.6
36	BN	2	GLN	10.6
8	AH	58	TYR	10.6
13	AM	120	LYS	10.6
16	AP	80	PHE	10.6
1	AA	1014	A	10.6
15	AO	23	GLY	10.6
24	BB	126	PRO	10.5
29	BG	24	GLY	10.5
26	BD	153	ASP	10.5
41	BS	108	VAL	10.5
21	B0	1073	G	10.5
1	AA	1101	A	10.5
30	BH	92	GLY	10.5
3	AC	129	ALA	10.5
3	AC	166	GLU	10.5
1	AA	206	C	10.5
16	AP	49	LEU	10.5
20	AT	61	SER	10.5
24	BB	112	GLY	10.5
13	AM	121	LYS	10.4
27	BE	135	GLY	10.4
43	BU	17	ASN	10.4
10	AJ	40	LEU	10.4
4	AD	114	ARG	10.4
14	AN	59	ALA	10.4
23	BA	48	ARG	10.4
1	AA	1168	A	10.4
26	BD	134	GLU	10.4
20	AT	97	ALA	10.4
25	BC	126	ALA	10.4
27	BE	30	LYS	10.4
1	AA	1043	C	10.4
39	BQ	33	MET	10.4
12	AL	13	LYS	10.4
37	BO	34	ASN	10.4
5	AE	82	VAL	10.4
8	AH	56	LYS	10.4
17	AQ	62	SER	10.4
42	BT	156	GLU	10.4

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Mol	Chain	Res	Type	RSRZ
41	BS	59	LYS	10.4
43	BU	9	SER	10.4
39	BQ	34	SER	10.4
34	BL	64	ARG	10.4
15	AO	59	MET	10.4
41	BS	107	ALA	10.4
12	AL	123	LYS	10.4
23	BA	22	SER	10.4
11	AK	123	LYS	10.3
41	BS	73	GLU	10.3
10	AJ	45	ARG	10.3
24	BB	156	MET	10.3
12	AL	34	ARG	10.3
37	BO	31	GLN	10.3
1	AA	708	C	10.3
28	BF	27	ASN	10.3
50	B2	14	LYS	10.3
3	AC	5	ILE	10.3
29	BG	64	SER	10.3
13	AM	65	LYS	10.3
1	AA	1163	C	10.3
28	BF	24	TYR	10.3
14	AN	21	TYR	10.3
25	BC	63	GLY	10.3
24	BB	12	THR	10.3
30	BH	63	ARG	10.3
52	B4	36	GLN	10.3
12	AL	113	ARG	10.3
20	AT	29	LYS	10.3
34	BL	49	GLU	10.3
46	BX	42	GLY	10.3
4	AD	92	VAL	10.2
5	AE	83	GLU	10.2
24	BB	152	LYS	10.2
1	AA	840	G	10.2
14	AN	26	ARG	10.2
1	AA	209	U	10.2
4	AD	192	GLU	10.2
38	BP	82	ARG	10.2
35	BM	85	LYS	10.2
3	AC	151	VAL	10.2
27	BE	17	VAL	10.2

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Mol	Chain	Res	Type	RSRZ
1	AA	1165	C	10.2
52	B4	8	LYS	10.2
27	BE	112	PRO	10.2
1	AA	849	C	10.2
5	AE	13	ILE	10.2
51	B3	27	SER	10.2
29	BG	84	ILE	10.2
17	AQ	30	PRO	10.2
12	AL	120	TYR	10.1
15	AO	40	SER	10.1
4	AD	93	PHE	10.1
29	BG	27	LEU	10.1
1	AA	1016	A	10.1
15	AO	28	GLN	10.1
29	BG	78	ILE	10.1
43	BU	15	ASP	10.1
51	B3	30	ARG	10.1
21	B0	892	A	10.1
25	BC	32	THR	10.1
29	BG	32	ALA	10.1
8	AH	5	PRO	10.1
20	AT	87	LYS	10.1
51	B3	29	LYS	10.1
29	BG	23	VAL	10.1
27	BE	6	LYS	10.1
8	AH	108	GLY	10.1
29	BG	126	THR	10.1
53	B5	195	LYS	10.1
1	AA	1164	G	10.1
40	BR	34	THR	10.1
5	AE	91	LEU	10.1
1	AA	1097	C	10.1
1	AA	211	G	10.1
10	AJ	61	GLU	10.1
12	AL	82	VAL	10.1
5	AE	143	ARG	10.1
5	AE	10	MET	10.1
23	BA	213	ARG	10.1
5	AE	146	ALA	10.1
39	BQ	75	ALA	10.1
3	AC	136	GLN	10.1
4	AD	78	LEU	10.1

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Mol	Chain	Res	Type	RSRZ
27	BE	73	ALA	10.0
53	B5	177	GLU	10.0
1	AA	642	A	10.0
13	AM	21	TYR	10.0
26	BD	133	LYS	10.0
36	BN	102	ALA	10.0
26	BD	96	MET	10.0
23	BA	74	GLY	10.0
12	AL	53	ARG	10.0
46	BX	43	MET	10.0
24	BB	124	GLY	10.0
27	BE	20	GLN	10.0
7	AG	82	GLY	10.0
5	AE	32	VAL	10.0
1	AA	1026	G	10.0
40	BR	54	SER	10.0
3	AC	155	GLY	10.0
1	AA	1105	A	10.0
15	AO	77	ARG	9.9
12	AL	73	GLU	9.9
21	B0	293	U	9.9
21	B0	1106	A	9.9
39	BQ	15	LYS	9.9
39	BQ	83	ASP	9.9
32	BJ	8	PRO	9.9
42	BT	22	VAL	9.9
37	BO	12	ARG	9.9
7	AG	94	ARG	9.9
47	BY	3	LYS	9.9
4	AD	112	VAL	9.9
23	BA	228	PRO	9.9
25	BC	86	PRO	9.9
39	BQ	118	LYS	9.9
1	AA	1180	A	9.9
21	B0	368	A	9.9
10	AJ	68	HIS	9.9
37	BO	75	ASN	9.9
34	BL	35	GLN	9.9
4	AD	113	SER	9.9
21	B0	1890	G	9.9
27	BE	31	GLY	9.9
37	BO	38	THR	9.9

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Mol	Chain	Res	Type	RSRZ
13	AM	3	ARG	9.9
39	BQ	21	ARG	9.9
41	BS	93	ARG	9.9
21	B0	1536	G	9.8
45	BW	42	ARG	9.8
20	AT	86	ARG	9.8
5	AE	108	ALA	9.8
24	BB	132	LYS	9.8
43	BU	16	SER	9.8
25	BC	36	ALA	9.8
34	BL	15	SER	9.8
5	AE	141	GLN	9.8
30	BH	140	GLN	9.8
35	BM	34	SER	9.8
1	AA	1006	C	9.8
21	B0	367	G	9.8
1	AA	991	U	9.8
9	AI	95	LYS	9.8
20	AT	91	LEU	9.8
27	BE	32	GLU	9.8
1	AA	1136	U	9.8
37	BO	41	ASN	9.8
1	AA	998	G	9.8
4	AD	132	ARG	9.8
32	BJ	19	VAL	9.8
20	AT	89	ARG	9.8
12	AL	76	ASN	9.8
7	AG	81	GLY	9.8
1	AA	702	A	9.8
5	AE	144	THR	9.8
41	BS	82	ALA	9.8
2	AB	129	GLU	9.8
33	BK	124	HIS	9.8
1	AA	685	G	9.7
53	B5	42	LYS	9.7
1	AA	80	C	9.7
37	BO	57	PHE	9.7
41	BS	106	VAL	9.7
1	AA	1226	C	9.7
12	AL	63	GLY	9.7
24	BB	123	ALA	9.7
23	BA	165	VAL	9.7

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Mol	Chain	Res	Type	RSRZ
23	BA	212	SER	9.7
25	BC	52	SER	9.7
1	AA	1041	A	9.7
21	B0	1087	C	9.7
3	AC	191	THR	9.7
39	BQ	112	GLY	9.7
21	B0	2288	A	9.7
24	BB	43	GLY	9.7
12	AL	101	VAL	9.7
26	BD	151	GLY	9.7
25	BC	38	ARG	9.7
8	AH	27	PRO	9.7
12	AL	112	ASP	9.7
1	AA	690	G	9.7
12	AL	25	PRO	9.7
41	BS	38	LEU	9.6
25	BC	175	VAL	9.6
29	BG	39	LYS	9.6
14	AN	16	PHE	9.6
30	BH	112	THR	9.6
13	AM	27	LYS	9.6
1	AA	957	U	9.6
42	BT	167	THR	9.6
40	BR	70	GLY	9.6
27	BE	75	ALA	9.6
33	BK	19	THR	9.6
35	BM	5	THR	9.6
49	B1	3	LYS	9.6
38	BP	84	THR	9.6
50	B2	45	SER	9.6
25	BC	53	LYS	9.6
27	BE	19	ALA	9.6
13	AM	68	GLY	9.6
5	AE	53	LEU	9.6
42	BT	93	GLU	9.6
27	BE	27	LYS	9.6
15	AO	5	LYS	9.6
3	AC	195	VAL	9.6
26	BD	85	VAL	9.6
15	AO	20	GLY	9.5
29	BG	86	LYS	9.5
7	AG	83	ALA	9.5

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Mol	Chain	Res	Type	RSRZ
48	BZ	33	CYS	9.5
33	BK	120	ARG	9.5
20	AT	35	THR	9.5
37	BO	13	ARG	9.5
40	BR	63	LYS	9.5
34	BL	99	ARG	9.5
30	BH	30	LYS	9.5
23	BA	52	ARG	9.5
1	AA	1149	C	9.5
12	AL	71	PRO	9.5
16	AP	48	TRP	9.5
15	AO	18	PHE	9.5
32	BJ	70	THR	9.5
27	BE	60	LYS	9.5
1	AA	992	U	9.5
53	B5	198	THR	9.5
23	BA	259	THR	9.4
1	AA	985	C	9.4
15	AO	41	GLU	9.4
8	AH	138	TRP	9.4
42	BT	96	VAL	9.4
21	B0	1537	U	9.4
1	AA	703	G	9.4
24	BB	131	SER	9.4
1	AA	737	A	9.4
28	BF	21	LYS	9.4
23	BA	154	GLN	9.4
42	BT	60	GLU	9.4
17	AQ	11	VAL	9.4
17	AQ	19	VAL	9.4
47	BY	41	PRO	9.4
11	AK	114	VAL	9.4
24	BB	121	ASN	9.4
27	BE	72	VAL	9.4
27	BE	25	LYS	9.4
50	B2	39	ARG	9.4
3	AC	26	LYS	9.4
21	B0	366	U	9.3
3	AC	138	VAL	9.3
5	AE	89	ILE	9.3
10	AJ	67	THR	9.3
40	BR	60	GLY	9.3

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Mol	Chain	Res	Type	RSRZ
53	B5	199	ASN	9.3
20	AT	49	ALA	9.3
4	AD	103	ASN	9.3
14	AN	14	PRO	9.3
39	BQ	28	ALA	9.3
5	AE	74	GLY	9.3
48	BZ	30	LEU	9.3
34	BL	23	ALA	9.3
13	AM	106	ASN	9.3
20	AT	32	ALA	9.3
1	AA	208	U	9.3
20	AT	46	GLU	9.3
50	B2	30	ILE	9.3
1	AA	1181	G	9.3
16	AP	47	ASP	9.3
5	AE	52	PRO	9.3
26	BD	72	LYS	9.3
30	BH	72	PRO	9.3
8	AH	11	THR	9.3
26	BD	86	GLY	9.3
33	BK	20	GLY	9.3
1	AA	205	G	9.3
21	B0	1534	A	9.2
4	AD	51	PRO	9.2
43	BU	37	LEU	9.2
1	AA	210	C	9.2
1	AA	697	U	9.2
20	AT	44	ALA	9.2
30	BH	110	LEU	9.2
1	AA	1219	U	9.2
35	BM	25	GLY	9.2
50	B2	18	PHE	9.2
4	AD	98	GLU	9.2
12	AL	37	CYS	9.2
26	BD	116	GLY	9.2
1	AA	204	A	9.2
46	BX	19	THR	9.2
52	B4	20	HIS	9.2
51	B3	8	LYS	9.2
30	BH	57	LEU	9.2
4	AD	118	ARG	9.2
7	AG	53	LYS	9.2

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Mol	Chain	Res	Type	RSRZ
15	AO	9	GLN	9.2
15	AO	33	THR	9.1
7	AG	95	ARG	9.1
48	BZ	40	LYS	9.1
42	BT	132	GLN	9.1
21	B0	369	C	9.1
39	BQ	37	LYS	9.1
4	AD	154	ASN	9.1
15	AO	12	ILE	9.1
24	BB	114	GLN	9.1
24	BB	133	LYS	9.1
12	AL	99	HIS	9.1
32	BJ	65	PHE	9.1
39	BQ	73	ASN	9.1
48	BZ	20	ARG	9.1
50	B2	16	HIS	9.1
26	BD	77	PHE	9.1
29	BG	129	GLY	9.1
47	BY	17	GLN	9.1
22	B9	44	C	9.1
7	AG	9	VAL	9.1
8	AH	53	VAL	9.1
25	BC	169	VAL	9.1
16	AP	45	THR	9.1
21	B0	1107	A	9.1
53	B5	13	LYS	9.1
13	AM	25	ILE	9.1
1	AA	1132	C	9.1
21	B0	1840	A	9.0
14	AN	39	LEU	9.0
43	BU	20	TYR	9.0
16	AP	43	LYS	9.0
3	AC	17	ASP	9.0
1	AA	2003	G	9.0
24	BB	21	ILE	9.0
50	B2	13	ALA	9.0
46	BX	12	ARG	9.0
4	AD	119	GLN	9.0
7	AG	92	SER	9.0
32	BJ	15	ASP	9.0
27	BE	157	TYR	9.0
25	BC	50	GLN	9.0

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Mol	Chain	Res	Type	RSRZ
3	AC	126	ARG	9.0
13	AM	67	GLU	9.0
5	AE	64	ARG	9.0
8	AH	43	GLY	9.0
21	B0	1906	U	9.0
1	AA	1162	C	9.0
25	BC	46	ARG	9.0
10	AJ	39	PRO	9.0
15	AO	27	VAL	9.0
32	BJ	54	SER	9.0
24	BB	127	ALA	8.9
45	BW	54	ASN	8.9
23	BA	223	GLY	8.9
9	AI	32	ASP	8.9
5	AE	11	ILE	8.9
41	BS	18	LYS	8.9
42	BT	121	GLN	8.9
9	AI	71	SER	8.9
23	BA	219	PRO	8.9
1	AA	88	G	8.9
23	BA	20	ASP	8.9
5	AE	76	ILE	8.9
13	AM	66	LEU	8.9
15	AO	6	GLU	8.9
29	BG	75	SER	8.9
4	AD	161	ASN	8.9
46	BX	49	HIS	8.9
17	AQ	17	LYS	8.9
52	B4	19	ARG	8.9
1	AA	1169	A	8.9
7	AG	35	LYS	8.9
1	AA	1160	G	8.9
16	AP	46	PRO	8.9
32	BJ	129	ALA	8.8
12	AL	121	GLY	8.8
15	AO	39	LEU	8.8
15	AO	88	ARG	8.8
34	BL	12	ARG	8.8
11	AK	124	LYS	8.8
17	AQ	90	ILE	8.8
5	AE	63	ARG	8.8
30	BH	54	LEU	8.8

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Mol	Chain	Res	Type	RSRZ
9	AI	2	GLU	8.8
25	BC	178	TYR	8.8
53	B5	164	GLN	8.8
27	BE	108	GLY	8.8
15	AO	66	LEU	8.8
24	BB	136	ARG	8.8
3	AC	13	GLY	8.8
23	BA	77	ALA	8.8
27	BE	69	ARG	8.7
30	BH	143	ALA	8.7
47	BY	24	THR	8.7
29	BG	7	ILE	8.7
38	BP	83	ARG	8.7
4	AD	155	LEU	8.7
20	AT	92	LEU	8.7
5	AE	133	TYR	8.7
13	AM	71	ARG	8.7
14	AN	36	PHE	8.7
4	AD	195	ALA	8.7
27	BE	33	LEU	8.7
37	BO	29	SER	8.7
34	BL	39	THR	8.7
23	BA	148	VAL	8.7
27	BE	26	VAL	8.7
10	AJ	3	LYS	8.7
53	B5	47	LYS	8.7
12	AL	93	LEU	8.7
12	AL	84	LEU	8.7
1	AA	1179	A	8.7
3	AC	10	PHE	8.7
25	BC	168	SER	8.7
23	BA	59	LYS	8.7
52	B4	18	ARG	8.7
21	B0	1081	A	8.7
47	BY	39	VAL	8.7
21	B0	902	U	8.7
27	BE	24	PHE	8.7
30	BH	51	LEU	8.7
8	AH	86	ILE	8.7
37	BO	92	ARG	8.7
53	B5	64	VAL	8.7
32	BJ	50	GLU	8.7

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Mol	Chain	Res	Type	RSRZ
8	AH	82	HIS	8.6
41	BS	89	GLY	8.6
4	AD	159	ARG	8.6
15	AO	10	LYS	8.6
21	B0	1898	U	8.6
46	BX	37	THR	8.6
27	BE	62	ARG	8.6
43	BU	41	ARG	8.6
3	AC	36	ASP	8.6
15	AO	15	PHE	8.6
42	BT	133	GLU	8.6
5	AE	72	GLN	8.6
4	AD	157	LEU	8.6
29	BG	6	GLY	8.6
20	AT	48	LYS	8.6
37	BO	47	TYR	8.6
17	AQ	75	ARG	8.6
12	AL	107	ALA	8.6
8	AH	94	TYR	8.6
1	AA	990	C	8.6
39	BQ	14	ARG	8.6
36	BN	103	LYS	8.6
12	AL	90	VAL	8.6
13	AM	74	VAL	8.6
49	B1	20	PHE	8.6
52	B4	3	VAL	8.6
37	BO	24	PHE	8.6
3	AC	159	GLY	8.6
36	BN	124	VAL	8.6
40	BR	71	GLN	8.6
13	AM	99	ARG	8.6
24	BB	125	GLY	8.5
27	BE	136	ILE	8.5
14	AN	58	LYS	8.5
39	BQ	109	ARG	8.5
50	B2	40	HIS	8.5
17	AQ	21	VAL	8.5
24	BB	193	GLY	8.5
3	AC	120	VAL	8.5
3	AC	165	THR	8.5
4	AD	116	GLN	8.5
26	BD	108	LEU	8.5

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Mol	Chain	Res	Type	RSRZ
8	AH	96	GLY	8.5
1	AA	843	C	8.5
1	AA	1119	C	8.5
15	AO	70	LEU	8.5
13	AM	69	GLU	8.5
7	AG	76	ARG	8.5
8	AH	81	HIS	8.5
24	BB	111	LYS	8.5
24	BB	115	GLY	8.5
21	B0	2452	U	8.5
17	AQ	78	GLU	8.5
3	AC	190	ARG	8.5
25	BC	40	ARG	8.5
26	BD	117	ILE	8.5
40	BR	15	LYS	8.5
48	BZ	32	GLU	8.5
53	B5	78	LYS	8.5
3	AC	140	ARG	8.5
7	AG	6	ARG	8.5
52	B4	22	ARG	8.5
23	BA	243	GLY	8.5
13	AM	22	ILE	8.5
21	B0	1506	C	8.5
25	BC	45	THR	8.5
1	AA	1001	A	8.5
50	B2	36	ALA	8.4
5	AE	56	GLN	8.4
34	BL	34	ILE	8.4
33	BK	87	GLY	8.4
25	BC	184	ASP	8.4
1	AA	989	C	8.4
30	BH	94	LYS	8.4
8	AH	103	VAL	8.4
39	BQ	24	GLY	8.4
34	BL	36	THR	8.4
20	AT	88	VAL	8.4
34	BL	65	LEU	8.4
1	AA	1158	C	8.4
3	AC	28	GLN	8.4
39	BQ	102	THR	8.4
39	BQ	120	ARG	8.4
23	BA	73	SER	8.4

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Mol	Chain	Res	Type	RSRZ
29	BG	131	ALA	8.4
12	AL	96	VAL	8.4
39	BQ	61	PRO	8.4
34	BL	8	ARG	8.4
51	B3	7	HIS	8.4
12	AL	52	LEU	8.4
26	BD	42	SER	8.4
20	AT	81	LYS	8.4
2	AB	130	ARG	8.4
30	BH	32	TYR	8.4
23	BA	41	GLY	8.3
24	BB	135	HIS	8.3
32	BJ	69	GLY	8.3
15	AO	8	LYS	8.3
41	BS	44	GLN	8.3
50	B2	12	ARG	8.3
5	AE	115	VAL	8.3
3	AC	80	GLY	8.3
3	AC	164	ARG	8.3
32	BJ	133	VAL	8.3
1	AA	848	G	8.3
8	AH	24	THR	8.3
5	AE	151	LEU	8.3
42	BT	31	SER	8.3
12	AL	77	LEU	8.3
17	AQ	44	ALA	8.3
12	AL	27	LEU	8.3
8	AH	52	ASP	8.3
42	BT	146	HIS	8.3
37	BO	32	TYR	8.3
1	AA	995	C	8.3
32	BJ	17	LYS	8.3
1	AA	1171	G	8.3
1	AA	1175	G	8.3
1	AA	1182	G	8.3
26	BD	66	ILE	8.3
21	B0	1086	C	8.3
27	BE	181	GLY	8.3
8	AH	15	ASN	8.3
24	BB	202	ALA	8.3
8	AH	55	GLY	8.3
16	AP	83	GLU	8.3

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Mol	Chain	Res	Type	RSRZ
45	BW	37	LEU	8.3
23	BA	220	HIS	8.3
41	BS	96	LYS	8.3
15	AO	36	ILE	8.3
8	AH	84	ARG	8.3
9	AI	67	GLY	8.3
5	AE	8	GLU	8.2
15	AO	4	THR	8.2
23	BA	234	GLY	8.2
1	AA	1176	A	8.2
1	AA	1128	C	8.2
32	BJ	18	ARG	8.2
53	B5	144	ILE	8.2
15	AO	30	ALA	8.2
53	B5	196	VAL	8.2
21	B0	1084	A	8.2
26	BD	129	ASN	8.2
14	AN	37	PHE	8.2
20	AT	106	ALA	8.2
34	BL	46	PRO	8.2
12	AL	122	THR	8.2
1	AA	1044	A	8.2
15	AO	35	ARG	8.2
21	B0	1071	U	8.2
11	AK	125	PHE	8.2
24	BB	166	THR	8.2
26	BD	87	ILE	8.2
38	BP	91	THR	8.2
2	AB	26	PRO	8.2
10	AJ	7	LYS	8.2
29	BG	135	GLY	8.2
12	AL	102	ARG	8.2
43	BU	24	LYS	8.2
3	AC	189	ALA	8.2
1	AA	958	A	8.2
27	BE	151	VAL	8.2
8	AH	98	LYS	8.2
32	BJ	5	ASP	8.2
9	AI	94	ALA	8.2
13	AM	73	GLU	8.2
7	AG	79	ARG	8.2
4	AD	95	GLY	8.1

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Mol	Chain	Res	Type	RSRZ
15	AO	37	ASN	8.2
30	BH	155	THR	8.1
26	BD	112	ARG	8.1
41	BS	105	ARG	8.1
17	AQ	80	GLY	8.1
12	AL	75	HIS	8.1
47	BY	12	CYS	8.1
23	BA	121	PRO	8.1
37	BO	28	ARG	8.1
8	AH	23	SER	8.1
12	AL	72	GLY	8.1
15	AO	44	LYS	8.1
1	AA	1030	U	8.1
3	AC	33	LEU	8.1
25	BC	74	VAL	8.1
3	AC	34	LEU	8.1
25	BC	67	ALA	8.1
12	AL	26	ALA	8.1
30	BH	105	GLY	8.1
1	AA	841	C	8.1
12	AL	20	LYS	8.1
23	BA	100	GLY	8.1
23	BA	132	PRO	8.1
40	BR	73	ASN	8.1
13	AM	75	ALA	8.1
27	BE	161	GLY	8.1
18	AR	16	PRO	8.1
37	BO	37	GLN	8.1
9	AI	98	PRO	8.0
29	BG	54	PRO	8.0
23	BA	116	THR	8.0
17	AQ	71	PHE	8.0
37	BO	19	LYS	8.0
15	AO	29	VAL	8.0
5	AE	68	GLU	8.0
35	BM	23	ALA	8.0
39	BQ	115	ASN	8.0
5	AE	106	PRO	8.0
14	AN	43	CYS	8.0
25	BC	177	VAL	8.0
42	BT	25	ASN	8.0
1	AA	1131	G	8.0

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Mol	Chain	Res	Type	RSRZ
8	AH	19	VAL	8.0
25	BC	48	ARG	8.0
41	BS	43	ASP	8.0
12	AL	44	THR	8.0
26	BD	109	PRO	8.0
40	BR	72	ARG	8.0
3	AC	162	GLN	8.0
4	AD	106	TYR	8.0
3	AC	169	ALA	8.0
41	BS	94	VAL	8.0
12	AL	69	TYR	8.0
45	BW	2	LYS	8.0
15	AO	67	LEU	8.0
25	BC	172	VAL	8.0
33	BK	21	ASP	8.0
2	AB	240	GLN	8.0
17	AQ	54	GLY	8.0
21	B0	900(A)	A	8.0
46	BX	40	VAL	8.0
42	BT	157	GLY	8.0
3	AC	154	SER	8.0
24	BB	108	SER	8.0
21	B0	1108	U	8.0
4	AD	124	GLY	7.9
1	AA	1003	G	7.9
21	B0	1074	G	7.9
26	BD	94	GLU	7.9
13	AM	30	ALA	7.9
1	AA	1146	A	7.9
3	AC	32	LEU	7.9
20	AT	60	GLU	7.9
2	AB	11	LEU	7.9
10	AJ	100	THR	7.9
13	AM	64	TRP	7.9
5	AE	142	LEU	7.9
17	AQ	55	ASP	7.9
46	BX	34	VAL	7.9
21	B0	910	U	7.9
21	B0	1490	U	7.9
39	BQ	16	GLN	7.9
38	BP	74	TYR	7.9
27	BE	51	LEU	7.9

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Mol	Chain	Res	Type	RSRZ
40	BR	59	PRO	7.9
13	AM	76	ALA	7.9
1	AA	87	G	7.9
51	B3	37	SER	7.9
10	AJ	47	PHE	7.9
4	AD	107	ARG	7.9
32	BJ	100	ARG	7.9
1	AA	704	A	7.9
23	BA	118	ASN	7.9
20	AT	42	GLN	7.9
15	AO	76	GLU	7.9
15	AO	32	LEU	7.9
33	BK	25	GLY	7.9
32	BJ	4	HIS	7.9
1	AA	1174	G	7.9
12	AL	83	VAL	7.9
7	AG	77	SER	7.8
20	AT	105	SER	7.8
29	BG	34	ILE	7.8
32	BJ	49	PHE	7.8
41	BS	16	PHE	7.8
26	BD	93	GLY	7.8
3	AC	93	LYS	7.8
40	BR	61	LYS	7.8
21	B0	1085	G	7.8
13	AM	105	THR	7.8
20	AT	98	PRO	7.8
25	BC	180	ILE	7.8
42	BT	120	LEU	7.8
3	AC	6	HIS	7.8
37	BO	61	TRP	7.8
13	AM	114	ARG	7.8
21	B0	1190	C	7.8
3	AC	176	HIS	7.8
24	BB	154	LYS	7.8
47	BY	30	GLU	7.8
1	AA	1218	C	7.8
40	BR	26	SER	7.8
26	BD	89	VAL	7.8
53	B5	80	SER	7.8
38	BP	25	LEU	7.8
1	AA	1038	C	7.8

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Mol	Chain	Res	Type	RSRZ
40	BR	32	LYS	7.8
15	AO	84	LYS	7.7
17	AQ	10	VAL	7.7
24	BB	58	LYS	7.7
23	BA	19	ALA	7.7
47	BY	27	THR	7.7
7	AG	156	TRP	7.7
8	AH	14	ARG	7.7
17	AQ	5	VAL	7.7
18	AR	50	ILE	7.7
4	AD	97	LEU	7.7
42	BT	137	ASP	7.7
34	BL	71	HIS	7.7
1	AA	81	C	7.7
3	AC	153	VAL	7.7
33	BK	82	THR	7.7
46	BX	29	GLY	7.7
24	BB	165	VAL	7.7
34	BL	19	ALA	7.7
41	BS	109	ALA	7.7
39	BQ	95	ALA	7.7
41	BS	8	SER	7.7
5	AE	114	GLY	7.7
12	AL	38	THR	7.7
12	AL	100	ILE	7.7
27	BE	111	HIS	7.7
12	AL	87	GLY	7.7
10	AJ	70	ARG	7.7
14	AN	13	THR	7.7
17	AQ	22	LEU	7.7
32	BJ	11	GLY	7.7
51	B3	40	GLU	7.7
26	BD	88	LYS	7.7
13	AM	17	VAL	7.6
3	AC	152	ILE	7.6
17	AQ	48	GLU	7.6
25	BC	39	ARG	7.6
32	BJ	125	ALA	7.6
3	AC	139	GLN	7.6
9	AI	106	ALA	7.6
46	BX	20	VAL	7.6
15	AO	80	ALA	7.6

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Mol	Chain	Res	Type	RSRZ
50	B2	28	ARG	7.6
8	AH	60	ARG	7.6
42	BT	170	SER	7.6
15	AO	7	GLU	7.6
15	AO	11	VAL	7.6
15	AO	38	ARG	7.6
39	BQ	36	ARG	7.6
1	AA	1032	G	7.6
26	BD	43	SER	7.6
34	BL	96	ARG	7.6
25	BC	41	GLY	7.6
47	BY	18	GLY	7.6
12	AL	36	VAL	7.6
4	AD	86	LYS	7.6
4	AD	96	LEU	7.6
24	BB	116	VAL	7.6
1	AA	847	C	7.6
37	BO	15	LYS	7.6
39	BQ	96	TYR	7.6
8	AH	51	VAL	7.6
25	BC	80	GLY	7.6
23	BA	75	VAL	7.6
1	AA	997	U	7.6
34	BL	9	LYS	7.6
39	BQ	29	LYS	7.6
47	BY	34	ASP	7.6
50	B2	33	ARG	7.6
20	AT	62	LEU	7.6
1	AA	988	G	7.5
12	AL	54	LYS	7.5
12	AL	60	LEU	7.5
33	BK	121	LEU	7.5
14	AN	45	ARG	7.5
53	B5	162	GLN	7.5
8	AH	12	ARG	7.5
40	BR	74	ASP	7.5
21	B0	370	U	7.5
51	B3	45	GLY	7.5
1	AA	1000	U	7.5
4	AD	136	PRO	7.5
25	BC	151	VAL	7.5
10	AJ	14	LYS	7.5

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Mol	Chain	Res	Type	RSRZ
1	AA	1118	C	7.5
5	AE	66	MET	7.5
8	AH	50	ARG	7.5
25	BC	33	TRP	7.5
23	BA	78	LYS	7.5
9	AI	99	LEU	7.5
17	AQ	87	LYS	7.5
25	BC	47	THR	7.5
23	BA	229	VAL	7.5
39	BQ	31	VAL	7.5
24	BB	159	HIS	7.5
40	BR	31	PRO	7.5
13	AM	61	GLU	7.5
40	BR	69	ILE	7.5
25	BC	71	ASP	7.5
3	AC	14	ILE	7.5
24	BB	153	GLY	7.5
17	AQ	24	GLU	7.5
25	BC	29	GLU	7.5
37	BO	14	HIS	7.5
1	AA	698	G	7.5
1	AA	1002	G	7.5
1	AA	1173	G	7.5
37	BO	20	ARG	7.5
12	AL	24	VAL	7.5
21	B0	1072	U	7.5
18	AR	19	LYS	7.4
39	BQ	119	LYS	7.4
8	AH	28	ALA	7.4
1	AA	1217	C	7.4
45	BW	36	GLN	7.4
47	BY	1	MET	7.4
1	AA	999	C	7.4
43	BU	71	ASN	7.4
4	AD	189	PRO	7.4
25	BC	31	VAL	7.4
1	AA	994	A	7.4
5	AE	105	VAL	7.4
36	BN	106	TYR	7.4
26	BD	111	ILE	7.4
8	AH	18	ARG	7.4
12	AL	85	ILE	7.4

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Mol	Chain	Res	Type	RSRZ
8	AH	26	VAL	7.4
30	BH	111	LYS	7.4
1	AA	1039	C	7.4
8	AH	136	GLU	7.4
10	AJ	66	ARG	7.4
25	BC	49	ALA	7.4
46	BX	46	THR	7.4
5	AE	131	ILE	7.4
3	AC	9	GLY	7.4
20	AT	63	ILE	7.4
23	BA	211	ARG	7.3
24	BB	190	GLY	7.3
39	BQ	32	ARG	7.3
1	AA	1005	A	7.3
30	BH	130	ALA	7.3
13	AM	77	ASN	7.3
1	AA	736	C	7.3
8	AH	115	SER	7.3
21	B0	1891	C	7.3
50	B2	17	GLY	7.3
40	BR	77	LYS	7.3
42	BT	155	PRO	7.3
32	BJ	64	GLY	7.3
8	AH	6	ILE	7.3
23	BA	42	GLY	7.3
3	AC	29	TYR	7.3
25	BC	183	HIS	7.3
17	AQ	23	VAL	7.3
9	AI	58	ARG	7.3
50	B2	43	THR	7.3
26	BD	154	ILE	7.3
4	AD	111	ALA	7.3
8	AH	67	PRO	7.3
41	BS	6	ALA	7.3
24	BB	189	PRO	7.3
23	BA	217	ARG	7.3
12	AL	88	GLY	7.3
34	BL	16	ALA	7.3
31	BI	25	LEU	7.3
50	B2	44	VAL	7.3
32	BJ	116	ARG	7.3
25	BC	62	LYS	7.3

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Mol	Chain	Res	Type	RSRZ
1	AA	1036	G	7.3
21	B0	893	G	7.3
12	AL	67	THR	7.3
20	AT	58	LYS	7.3
30	BH	160	ALA	7.3
51	B3	41	ILE	7.3
7	AG	93	PRO	7.2
7	AG	84	ASN	7.2
8	AH	49	GLU	7.2
24	BB	151	TYR	7.2
37	BO	66	ASN	7.2
5	AE	42	GLY	7.2
24	BB	63	MET	7.2
12	AL	98	TYR	7.2
19	AS	12	ASP	7.2
17	AQ	53	LEU	7.2
38	BP	71	ILE	7.2
4	AD	125	HIS	7.2
29	BG	36	GLU	7.2
45	BW	43	VAL	7.2
5	AE	134	ALA	7.2
12	AL	70	ILE	7.2
42	BT	20	ALA	7.2
51	B3	5	LYS	7.2
5	AE	138	ALA	7.2
38	BP	11	GLN	7.2
7	AG	56	GLN	7.2
9	AI	89	ASN	7.2
53	B5	35	THR	7.2
14	AN	46	GLU	7.2
39	BQ	97	VAL	7.2
3	AC	7	PRO	7.2
47	BY	33	VAL	7.2
17	AQ	60	ILE	7.2
25	BC	135	SER	7.2
23	BA	230	ASP	7.1
21	B0	1189	G	7.1
20	AT	57	ARG	7.1
53	B5	27	THR	7.1
21	B0	894	G	7.1
5	AE	112	LEU	7.1
17	AQ	79	SER	7.1

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Mol	Chain	Res	Type	RSRZ
23	BA	60	ARG	7.1
12	AL	65	GLU	7.1
8	AH	126	LYS	7.1
20	AT	43	LEU	7.1
26	BD	118	ASN	7.1
46	BX	16	GLN	7.1
15	AO	87	ILE	7.1
17	AQ	45	HIS	7.1
14	AN	15	LYS	7.1
20	AT	51	GLU	7.1
42	BT	114	ASP	7.1
50	B2	41	GLN	7.1
25	BC	165	SER	7.1
47	BY	58	LYS	7.1
2	AB	156	LYS	7.1
8	AH	99	GLU	7.1
21	B0	1080	A	7.1
43	BU	18	PRO	7.1
40	BR	13	SER	7.1
12	AL	59	ARG	7.1
20	AT	85	MET	7.1
24	BB	134	TRP	7.1
4	AD	137	SER	7.1
25	BC	61	GLN	7.0
21	B0	903	G	7.0
4	AD	152	SER	7.0
18	AR	46	GLU	7.0
3	AC	31	HIS	7.0
53	B5	152	LYS	7.0
14	AN	52	GLN	7.0
4	AD	163	GLU	7.0
15	AO	86	GLY	7.0
24	BB	117	MET	7.0
7	AG	110	GLN	7.0
29	BG	89	SER	7.0
32	BJ	51	GLY	7.0
17	AQ	46	ASP	7.0
43	BU	40	GLN	7.0
17	AQ	52	LYS	7.0
24	BB	42	ASP	7.0
50	B2	32	ALA	7.0
42	BT	57	GLU	7.0

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Mol	Chain	Res	Type	RSRZ
20	AT	52	ALA	7.0
20	AT	59	ALA	7.0
21	B0	1892	C	7.0
24	BB	9	ILE	7.0
13	AM	116	THR	7.0
37	BO	86	ALA	7.0
3	AC	79	ARG	7.0
13	AM	32	GLU	7.0
37	BO	60	LEU	7.0
50	B2	24	THR	7.0
8	AH	46	LYS	7.0
17	AQ	81	ARG	7.0
3	AC	116	VAL	7.0
3	AC	121	ALA	7.0
37	BO	115	ASN	7.0
2	AB	124	SER	7.0
1	AA	707	C	7.0
21	B0	1535	C	7.0
25	BC	35	LEU	7.0
20	AT	50	GLU	6.9
48	BZ	23	HIS	6.9
41	BS	46	VAL	6.9
40	BR	79	ILE	6.9
15	AO	78	TYR	6.9
20	AT	84	LEU	6.9
21	B0	1078	A	6.9
52	B4	7	VAL	6.9
37	BO	87	ASN	6.9
45	BW	3	PRO	6.9
53	B5	51	ILE	6.9
1	AA	996	A	6.9
19	AS	29	ARG	6.9
45	BW	53	LEU	6.9
13	AM	49	THR	6.9
21	B0	1184	G	6.9
4	AD	102	ASP	6.9
28	BF	28	TRP	6.9
40	BR	67	ARG	6.9
47	BY	10	VAL	6.9
47	BY	38	GLY	6.9
11	AK	126	ARG	6.9
15	AO	3	ILE	6.9

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Mol	Chain	Res	Type	RSRZ
20	AT	103	GLY	6.9
53	B5	207	THR	6.9
13	AM	100	GLY	6.9
3	AC	158	GLY	6.9
40	BR	68	PHE	6.9
25	BC	101	GLN	6.9
5	AE	65	ASN	6.9
5	AE	67	VAL	6.9
40	BR	65	VAL	6.9
1	AA	846	C	6.8
17	AQ	82	MET	6.8
10	AJ	64	GLU	6.8
3	AC	132	ARG	6.8
23	BA	166	GLN	6.8
3	AC	124	ILE	6.8
20	AT	33	ILE	6.8
15	AO	81	LEU	6.8
21	B0	899	G	6.8
20	AT	38	LYS	6.8
40	BR	35	LYS	6.8
17	AQ	77	VAL	6.8
28	BF	33	GLY	6.8
42	BT	59	GLY	6.8
15	AO	31	LEU	6.8
49	B1	36	GLU	6.8
3	AC	150	LYS	6.8
3	AC	11	ARG	6.8
20	AT	37	SER	6.8
42	BT	147	ILE	6.8
5	AE	135	THR	6.8
33	BK	22	ALA	6.8
34	BL	40	LYS	6.8
39	BQ	67	PRO	6.8
39	BQ	107	ILE	6.8
3	AC	157	ILE	6.8
23	BA	58	HIS	6.8
25	BC	136	TRP	6.8
3	AC	125	GLU	6.7
45	BW	58	ALA	6.7
39	BQ	66	GLU	6.7
38	BP	21	ARG	6.7
3	AC	122	GLU	6.7

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Mol	Chain	Res	Type	RSRZ
21	B0	909	C	6.7
24	BB	167	VAL	6.7
13	AM	11	ARG	6.7
8	AH	78	GLN	6.7
12	AL	21	LYS	6.7
32	BJ	73	GLU	6.7
3	AC	25	GLY	6.7
12	AL	64	TYR	6.7
14	AN	3	ARG	6.7
17	AQ	72	ARG	6.7
42	BT	118	HIS	6.7
8	AH	17	THR	6.7
1	AA	845	A	6.7
41	BS	45	LYS	6.7
13	AM	18	ALA	6.7
19	AS	10	PHE	6.7
1	AA	1147	C	6.7
29	BG	120	VAL	6.7
12	AL	66	VAL	6.7
3	AC	8	ILE	6.7
21	B0	1188	A	6.7
29	BG	79	ARG	6.7
10	AJ	21	GLN	6.7
10	AJ	9	ARG	6.7
1	AA	85	U	6.7
19	AS	37	ARG	6.7
25	BC	64	THR	6.7
34	BL	69	ASP	6.7
30	BH	147	ARG	6.7
8	AH	79	VAL	6.7
30	BH	97	ASP	6.7
51	B3	51	ALA	6.7
1	AA	1028	C	6.7
1	AA	1037	C	6.7
1	AA	672	U	6.7
8	AH	95	VAL	6.7
53	B5	26	PHE	6.7
24	BB	118	LYS	6.6
5	AE	33	VAL	6.6
5	AE	39	GLY	6.6
25	BC	65	GLY	6.6
50	B2	37	LYS	6.6

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Mol	Chain	Res	Type	RSRZ
25	BC	56	ARG	6.6
4	AD	135	LEU	6.6
30	BH	141	GLY	6.6
13	AM	5	ALA	6.6
24	BB	11	MET	6.6
34	BL	67	ALA	6.6
8	AH	64	LYS	6.6
35	BM	84	ILE	6.6
1	AA	1240	U	6.6
12	AL	68	ALA	6.6
46	BX	9	VAL	6.6
33	BK	17	ARG	6.6
25	BC	70	GLY	6.6
14	AN	49	HIS	6.6
1	AA	844	A	6.6
51	B3	23	MET	6.6
3	AC	37	GLN	6.6
42	BT	10	PRO	6.6
39	BQ	105	ARG	6.6
13	AM	6	GLY	6.6
5	AE	36	ASP	6.6
38	BP	70	TYR	6.6
38	BP	93	ILE	6.6
8	AH	42	GLU	6.6
20	AT	41	VAL	6.6
23	BA	55	GLY	6.6
30	BH	106	TYR	6.6
38	BP	73	LYS	6.6
25	BC	73	SER	6.6
39	BQ	121	THR	6.6
3	AC	20	SER	6.6
10	AJ	38	ILE	6.6
53	B5	166	GLN	6.6
39	BQ	64	ALA	6.6
36	BN	62	SER	6.6
47	BY	43	TRP	6.6
29	BG	38	THR	6.6
20	AT	102	GLY	6.5
3	AC	196	LEU	6.5
43	BU	31	VAL	6.5
31	BI	31	GLY	6.5
3	AC	143	GLU	6.5

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Mol	Chain	Res	Type	RSRZ
13	AM	58	GLU	6.5
24	BB	169	ASN	6.5
13	AM	102	ARG	6.5
5	AE	35	GLY	6.5
34	BL	45	ARG	6.5
7	AG	72	ARG	6.5
8	AH	21	LYS	6.5
24	BB	164	ARG	6.5
41	BS	83	LEU	6.5
25	BC	157	THR	6.5
20	AT	101	GLY	6.5
14	AN	57	ARG	6.5
19	AS	13	ASP	6.5
23	BA	39	LYS	6.5
33	BK	84	MET	6.5
53	B5	173	ASP	6.5
3	AC	21	ARG	6.5
1	AA	706	A	6.5
17	AQ	49	GLU	6.5
25	BC	152	THR	6.5
39	BQ	35	PRO	6.5
32	BJ	7	LYS	6.5
50	B2	34	ARG	6.5
50	B2	35	ARG	6.5
2	AB	36	ARG	6.5
23	BA	235	GLY	6.5
47	BY	11	PRO	6.5
29	BG	115	LEU	6.5
41	BS	29	HIS	6.5
50	B2	20	ALA	6.5
1	AA	986	A	6.5
1	AA	700	G	6.5
9	AI	90	PRO	6.5
20	AT	56	MET	6.5
4	AD	117	ALA	6.5
3	AC	117	ALA	6.4
41	BS	66	GLN	6.4
25	BC	92	ASP	6.4
5	AE	70	PRO	6.4
53	B5	139	PRO	6.4
5	AE	34	VAL	6.4
47	BY	16	TYR	6.4

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Mol	Chain	Res	Type	RSRZ
17	AQ	83	ASP	6.4
20	AT	36	LEU	6.4
23	BA	226	MET	6.4
38	BP	78	VAL	6.4
8	AH	44	PHE	6.4
29	BG	26	ALA	6.4
31	BI	78	SER	6.4
47	BY	26	SER	6.4
53	B5	176	PRO	6.4
5	AE	7	GLU	6.4
25	BC	145	THR	6.4
39	BQ	43	ASP	6.4
40	BR	36	THR	6.4
4	AD	139	ARG	6.4
42	BT	112	LEU	6.4
34	BL	68	GLN	6.4
5	AE	110	LEU	6.4
37	BO	83	LEU	6.4
17	AQ	50	LYS	6.4
31	BI	69	VAL	6.4
34	BL	20	LEU	6.4
13	AM	51	ALA	6.4
25	BC	57	LYS	6.4
5	AE	43	LEU	6.4
24	BB	77	ILE	6.4
5	AE	37	ARG	6.4
7	AG	115	ARG	6.4
1	AA	987	G	6.4
24	BB	205	SER	6.4
31	BI	22	ILE	6.4
3	AC	27	LYS	6.4
5	AE	38	GLN	6.4
1	AA	1025	U	6.3
3	AC	30	ARG	6.3
13	AM	60	VAL	6.3
29	BG	132	ARG	6.3
1	AA	1031	C	6.3
20	AT	104	LEU	6.3
29	BG	12	LEU	6.3
3	AC	15	THR	6.3
15	AO	79	ARG	6.3
13	AM	7	VAL	6.3

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Mol	Chain	Res	Type	RSRZ
16	AP	81	ARG	6.3
14	AN	9	LYS	6.3
42	BT	119	ASN	6.3
13	AM	63	THR	6.3
43	BU	19	LYS	6.3
13	AM	62	ASN	6.3
25	BC	30	VAL	6.3
9	AI	30	GLY	6.3
3	AC	107	GLN	6.3
4	AD	158	ILE	6.3
20	AT	39	LYS	6.3
37	BO	110	VAL	6.3
39	BQ	17	GLN	6.3
53	B5	211	LYS	6.3
32	BJ	53	ARG	6.3
36	BN	63	ARG	6.3
32	BJ	107	LYS	6.3
30	BH	64	GLY	6.3
3	AC	119	ARG	6.3
9	AI	10	ARG	6.3
23	BA	101	GLU	6.3
24	BB	107	THR	6.3
43	BU	8	GLY	6.3
17	AQ	76	LEU	6.3
34	BL	38	LEU	6.3
1	AA	1004	A	6.3
12	AL	128	ALA	6.3
41	BS	60	PRO	6.3
53	B5	31	GLU	6.3
39	BQ	123	HIS	6.2
5	AE	137	GLU	6.2
24	BB	163	GLU	6.2
40	BR	76	LYS	6.2
10	AJ	17	ASP	6.2
24	BB	204	ALA	6.2
34	BL	109	THR	6.2
3	AC	141	VAL	6.2
1	AA	1040	U	6.2
47	BY	13	LYS	6.2
3	AC	16	ARG	6.2
32	BJ	6	LEU	6.2
8	AH	16	ALA	6.2

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Mol	Chain	Res	Type	RSRZ
20	AT	54	LYS	6.2
23	BA	262	LYS	6.2
53	B5	163	PRO	6.2
21	B0	1505	U	6.2
1	AA	689	C	6.2
13	AM	57	ARG	6.2
12	AL	58	VAL	6.2
24	BB	78	LEU	6.2
20	AT	40	ALA	6.2
21	B0	1075	C	6.2
9	AI	34	ASN	6.1
3	AC	207	VAL	6.1
52	B4	9	LYS	6.1
8	AH	109	ILE	6.1
8	AH	61	VAL	6.1
39	BQ	76	LYS	6.1
8	AH	29	SER	6.1
8	AH	62	TYR	6.1
32	BJ	16	ARG	6.1
3	AC	110	ASN	6.1
15	AO	82	ILE	6.1
3	AC	22	TRP	6.1
25	BC	150	LEU	6.1
53	B5	197	GLU	6.1
5	AE	40	ARG	6.1
8	AH	132	GLU	6.1
45	BW	59	GLU	6.1
42	BT	117	VAL	6.1
8	AH	9	MET	6.1
32	BJ	61	PRO	6.1
24	BB	161	GLY	6.1
25	BC	153	ASP	6.1
27	BE	54	ARG	6.1
51	B3	52	LYS	6.1
9	AI	22	GLY	6.1
15	AO	85	LEU	6.1
3	AC	199	LYS	6.1
5	AE	140	ARG	6.1
39	BQ	30	TYR	6.1
33	BK	78	LYS	6.1
1	AA	701	C	6.1
5	AE	71	LEU	6.1

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Mol	Chain	Res	Type	RSRZ
24	BB	94	ASP	6.1
20	AT	55	ILE	6.1
3	AC	35	GLU	6.1
29	BG	90	THR	6.1
10	AJ	12	ASP	6.0
25	BC	167	VAL	6.0
10	AJ	13	HIS	6.0
30	BH	71	THR	6.0
43	BU	30	VAL	6.0
31	BI	60	PRO	6.0
52	B4	17	VAL	6.0
35	BM	11	LEU	6.0
8	AH	32	LYS	6.0
25	BC	173	ALA	6.0
8	AH	65	TYR	6.0
17	AQ	58	GLU	6.0
25	BC	88	PRO	6.0
37	BO	82	GLY	6.0
1	AA	1172	C	6.0
30	BH	102	ARG	6.0
25	BC	125	ILE	6.0
34	BL	72	ASP	6.0
41	BS	100	ASP	6.0
33	BK	24	GLY	6.0
41	BS	30	LYS	6.0
39	BQ	125	THR	6.0
37	BO	40	LEU	6.0
41	BS	7	GLY	6.0
23	BA	208	LYS	6.0
29	BG	42	ASN	6.0
3	AC	197	GLY	6.0
13	AM	101	GLN	6.0
10	AJ	97	GLU	6.0
30	BH	101	THR	6.0
37	BO	79	PHE	6.0
45	BW	50	VAL	6.0
2	AB	227	GLY	6.0
9	AI	25	LYS	6.0
21	B0	904	U	6.0
7	AG	97	GLN	6.0
49	B1	27	ASN	6.0
53	B5	28	GLN	6.0

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Mol	Chain	Res	Type	RSRZ
24	BB	188	ILE	6.0
45	BW	49	GLU	5.9
14	AN	10	ALA	5.9
3	AC	127	ARG	5.9
8	AH	77	GLU	5.9
3	AC	128	PHE	5.9
51	B3	62	LEU	5.9
33	BK	123	GLY	5.9
20	AT	99	LEU	5.9
50	B2	46	ASP	5.9
23	BA	214	TRP	5.9
27	BE	158	HIS	5.9
27	BE	176	ALA	5.9
4	AD	121	VAL	5.9
38	BP	75	LYS	5.9
38	BP	76	SER	5.9
4	AD	100	ARG	5.9
4	AD	99	SER	5.9
45	BW	62	ARG	5.9
21	B0	905	G	5.9
37	BO	112	ALA	5.9
32	BJ	63	ARG	5.9
13	AM	19	LEU	5.9
25	BC	124	ASP	5.9
10	AJ	78	ASN	5.9
39	BQ	19	LYS	5.9
5	AE	113	ALA	5.9
17	AQ	89	LEU	5.9
5	AE	132	ALA	5.9
8	AH	10	LEU	5.9
30	BH	129	HIS	5.9
17	AQ	74	LEU	5.9
25	BC	37	SER	5.9
3	AC	12	LEU	5.9
12	AL	111	LYS	5.9
1	AA	705	U	5.8
8	AH	83	ILE	5.9
21	B0	1079	G	5.8
8	AH	102	ARG	5.8
19	AS	14	HIS	5.8
47	BY	23	GLU	5.8
3	AC	198	VAL	5.8

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Mol	Chain	Res	Type	RSRZ
17	AQ	56	VAL	5.8
1	AA	688	G	5.8
25	BC	166	TRP	5.8
2	AB	104	ASN	5.8
27	BE	162	VAL	5.8
36	BN	49	ALA	5.8
32	BJ	57	ILE	5.8
39	BQ	122	SER	5.8
17	AQ	59	ILE	5.8
12	AL	74	GLY	5.8
3	AC	175	LEU	5.8
20	AT	53	LEU	5.8
3	AC	144	SER	5.8
26	BD	174	GLY	5.8
12	AL	19	ARG	5.8
25	BC	5	ASN	5.8
8	AH	80	ILE	5.8
13	AM	104	ARG	5.8
19	AS	25	LYS	5.8
3	AC	113	ALA	5.8
25	BC	23	ASN	5.8
23	BA	249	PRO	5.8
38	BP	72	ARG	5.8
14	AN	54	PRO	5.7
26	BD	41	GLY	5.7
31	BI	29	ILE	5.7
34	BL	102	THR	5.7
13	AM	16	ASP	5.7
26	BD	176	PRO	5.7
31	BI	4	PRO	5.7
5	AE	41	VAL	5.7
24	BB	155	ARG	5.7
3	AC	188	LEU	5.7
7	AG	13	GLN	5.7
10	AJ	71	LEU	5.7
4	AD	131	ARG	5.7
25	BC	149	LEU	5.7
5	AE	145	LYS	5.7
25	BC	87	LYS	5.7
9	AI	70	LYS	5.7
33	BK	83	ARG	5.7
23	BA	167	GLY	5.7

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Mol	Chain	Res	Type	RSRZ
3	AC	178	LEU	5.7
25	BC	90	SER	5.7
34	BL	62	SER	5.7
21	B0	898	C	5.7
39	BQ	94	GLU	5.7
41	BS	51	VAL	5.7
27	BE	110	SER	5.7
39	BQ	116	ILE	5.7
47	BY	19	GLN	5.7
8	AH	131	GLY	5.7
51	B3	43	GLY	5.7
23	BA	87	ASN	5.7
30	BH	113	GLU	5.7
35	BM	63	ASN	5.7
8	AH	130	GLY	5.7
13	AM	109	THR	5.7
26	BD	130	LEU	5.7
32	BJ	55	ARG	5.7
32	BJ	59	ARG	5.7
9	AI	54	ASP	5.7
25	BC	51	VAL	5.7
30	BH	142	ARG	5.7
42	BT	159	THR	5.7
12	AL	40	VAL	5.7
25	BC	28	HIS	5.7
1	AA	82	C	5.7
19	AS	81	ARG	5.6
4	AD	50	ARG	5.6
49	B1	40	TYR	5.6
4	AD	120	LEU	5.6
27	BE	91	GLY	5.6
32	BJ	101	ARG	5.6
25	BC	104	LEU	5.6
27	BE	173	ALA	5.6
12	AL	108	ALA	5.6
3	AC	200	ALA	5.6
26	BD	15	ALA	5.6
12	AL	126	LYS	5.6
33	BK	23	LYS	5.6
12	AL	56	ALA	5.6
23	BA	157	ARG	5.6
23	BA	170	SER	5.6

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Mol	Chain	Res	Type	RSRZ
39	BQ	113	SER	5.6
23	BA	56	GLY	5.6
9	AI	21	PRO	5.6
27	BE	55	PRO	5.6
50	B2	31	LEU	5.6
33	BK	15	ARG	5.6
18	AR	25	THR	5.6
13	AM	8	GLU	5.6
14	AN	51	GLY	5.6
50	B2	42	LEU	5.6
25	BC	147	LYS	5.6
10	AJ	10	GLY	5.6
39	BQ	39	ARG	5.6
7	AG	112	PRO	5.6
48	BZ	34	PRO	5.6
8	AH	20	TYR	5.6
23	BA	257	LEU	5.6
43	BU	35	ASN	5.6
1	AA	686	U	5.6
2	AB	231	GLU	5.6
4	AD	151	LYS	5.6
8	AH	137	VAL	5.6
38	BP	45	THR	5.6
7	AG	85	TYR	5.6
30	BH	29	VAL	5.6
8	AH	110	ALA	5.5
38	BP	51	ALA	5.5
9	AI	38	GLN	5.5
21	B0	896	C	5.5
15	AO	34	LEU	5.5
17	AQ	6	LEU	5.5
32	BJ	117	ALA	5.5
37	BO	35	ALA	5.5
40	BR	78	ALA	5.5
32	BJ	76	LYS	5.5
1	AA	687	A	5.5
34	BL	54	THR	5.5
42	BT	98	VAL	5.5
5	AE	109	ILE	5.5
8	AH	30	ARG	5.5
36	BN	9	ARG	5.5
3	AC	45	LYS	5.5

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Mol	Chain	Res	Type	RSRZ
23	BA	168	LYS	5.5
5	AE	136	MET	5.5
43	BU	42	GLY	5.5
25	BC	181	LEU	5.5
41	BS	97	GLN	5.5
51	B3	6	THR	5.5
26	BD	152	MET	5.5
4	AD	150	GLU	5.5
25	BC	189	ASP	5.5
48	BZ	52	TYR	5.5
53	B5	25	ASN	5.5
30	BH	114	THR	5.5
42	BT	67	LYS	5.5
47	BY	14	ILE	5.5
25	BC	119	ALA	5.5
10	AJ	37	PRO	5.5
13	AM	59	TYR	5.5
38	BP	69	ILE	5.5
36	BN	109	GLU	5.5
25	BC	156	ASN	5.5
1	AA	1129	C	5.5
7	AG	98	SER	5.5
13	AM	33	ALA	5.5
3	AC	23	TYR	5.4
7	AG	78	ARG	5.4
18	AR	67	ALA	5.4
2	AB	106	LYS	5.4
25	BC	107	ALA	5.4
29	BG	22	PRO	5.4
5	AE	69	VAL	5.4
18	AR	17	SER	5.4
23	BA	18	THR	5.4
8	AH	59	LEU	5.4
7	AG	131	LYS	5.4
7	AG	80	VAL	5.4
29	BG	87	GLY	5.4
13	AM	88	ARG	5.4
34	BL	10	LEU	5.4
4	AD	109	GLY	5.4
17	AQ	86	GLU	5.4
18	AR	52	PRO	5.4
13	AM	54	VAL	5.4

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Mol	Chain	Res	Type	RSRZ
42	BT	80	HIS	5.4
11	AK	53	SER	5.4
10	AJ	76	ASN	5.4
20	AT	100	ILE	5.4
53	B5	60	LYS	5.4
1	AA	1148	U	5.4
3	AC	187	ALA	5.4
8	AH	54	ASP	5.4
10	AJ	36	GLY	5.4
17	AQ	73	VAL	5.4
40	BR	2	SER	5.4
46	BX	35	SER	5.4
37	BO	44	THR	5.4
7	AG	90	GLU	5.4
2	AB	23	ARG	5.3
34	BL	17	ARG	5.3
37	BO	43	ALA	5.3
39	BQ	18	VAL	5.3
4	AD	153	ARG	5.3
4	AD	133	VAL	5.3
24	BB	170	LEU	5.3
34	BL	24	GLN	5.3
53	B5	30	VAL	5.3
18	AR	81	PHE	5.3
24	BB	194	GLY	5.3
31	BI	81	ILE	5.3
8	AH	63	LEU	5.3
30	BH	31	THR	5.3
40	BR	53	ILE	5.3
25	BC	137	ALA	5.3
53	B5	107	ASN	5.3
4	AD	164	ALA	5.3
2	AB	229	VAL	5.3
9	AI	105	ASP	5.3
21	B0	900	U	5.3
18	AR	87	ARG	5.3
33	BK	68	ARG	5.3
25	BC	27	LEU	5.3
23	BA	255	LYS	5.3
51	B3	19	THR	5.3
3	AC	19	GLU	5.3
34	BL	27	ALA	5.3

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Mol	Chain	Res	Type	RSRZ
47	BY	53	GLU	5.3
23	BA	53	PHE	5.3
14	AN	17	LYS	5.3
30	BH	74	MET	5.3
36	BN	101	ARG	5.3
7	AG	19	GLY	5.3
41	BS	19	GLY	5.3
24	BB	40	GLN	5.3
1	AA	1027	C	5.3
24	BB	75	THR	5.3
53	B5	58	PRO	5.3
8	AH	135	CYS	5.3
8	AH	45	ILE	5.3
2	AB	45	GLN	5.3
29	BG	65	PHE	5.3
30	BH	145	HIS	5.2
8	AH	13	ILE	5.2
23	BA	246	PRO	5.2
36	BN	8	ASN	5.2
5	AE	139	LEU	5.2
25	BC	148	VAL	5.2
1	AA	1257	U	5.2
3	AC	24	ALA	5.2
35	BM	48	GLY	5.2
2	AB	8	LYS	5.2
41	BS	48	VAL	5.2
3	AC	98	ASN	5.2
10	AJ	11	PHE	5.2
6	AF	70	ASP	5.2
17	AQ	47	PRO	5.2
28	BF	23	GLY	5.2
53	B5	110	PHE	5.2
8	AH	101	PRO	5.2
8	AH	75	ARG	5.2
27	BE	177	GLY	5.2
33	BK	62	GLY	5.2
24	BB	47	VAL	5.2
42	BT	97	PRO	5.2
38	BP	77	GLY	5.2
41	BS	101	GLY	5.2
26	BD	90	THR	5.2
35	BM	50	THR	5.2

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Mol	Chain	Res	Type	RSRZ
1	AA	699	C	5.2
42	BT	61	THR	5.2
2	AB	126	GLU	5.2
10	AJ	63	PHE	5.2
48	BZ	45	ILE	5.2
50	B2	21	ARG	5.2
48	BZ	28	PRO	5.2
25	BC	138	LYS	5.2
34	BL	63	ARG	5.2
37	BO	74	MET	5.2
13	AM	2	ALA	5.2
13	AM	9	ILE	5.2
21	B0	895	G	5.2
41	BS	31	GLY	5.2
51	B3	36	LYS	5.2
29	BG	67	PHE	5.2
24	BB	162	MET	5.2
31	BI	88	THR	5.2
37	BO	16	LYS	5.2
37	BO	67	ALA	5.2
23	BA	149	PRO	5.2
36	BN	3	THR	5.2
3	AC	62	ASP	5.2
8	AH	47	GLY	5.2
23	BA	247	VAL	5.2
41	BS	85	ASP	5.2
4	AD	171	GLY	5.1
29	BG	130	THR	5.1
25	BC	2	ALA	5.1
25	BC	89	ARG	5.1
53	B5	127	ALA	5.1
12	AL	39	VAL	5.1
29	BG	91	PRO	5.1
31	BI	132	GLU	5.1
41	BS	21	THR	5.1
38	BP	48	GLY	5.1
23	BA	248	THR	5.1
24	BB	105	THR	5.1
23	BA	164	GLN	5.1
3	AC	38	ARG	5.1
29	BG	56	GLU	5.1
9	AI	72	GLY	5.1

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Mol	Chain	Res	Type	RSRZ
23	BA	80	ALA	5.1
36	BN	104	LEU	5.1
11	AK	100	ALA	5.1
21	B0	1077	U	5.1
45	BW	31	GLN	5.1
23	BA	233	HIS	5.1
24	BB	36	ARG	5.1
3	AC	177	THR	5.1
10	AJ	95	GLU	5.1
12	AL	127	GLU	5.1
23	BA	178	PRO	5.1
41	BS	20	ASP	5.1
4	AD	179	GLU	5.1
9	AI	31	GLN	5.1
10	AJ	90	LEU	5.1
17	AQ	57	VAL	5.1
41	BS	99	VAL	5.1
27	BE	155	ASP	5.1
14	AN	50	LYS	5.1
38	BP	49	GLU	5.1
41	BS	23	ILE	5.1
17	AQ	51	TYR	5.1
7	AG	96	GLN	5.1
10	AJ	5	ARG	5.1
4	AD	149	ALA	5.1
13	AM	38	GLY	5.1
24	BB	120	TRP	5.1
13	AM	47	ASP	5.1
15	AO	83	GLU	5.1
9	AI	93	ARG	5.1
7	AG	136	LYS	5.0
41	BS	47	VAL	5.0
53	B5	192	ASN	5.0
21	B0	1187	A	5.0
52	B4	23	VAL	5.0
10	AJ	35	SER	5.0
34	BL	59	ASP	5.0
47	BY	28	ARG	5.0
30	BH	98	LYS	5.0
3	AC	63	ASN	5.0
26	BD	26	MET	5.0
53	B5	130	PRO	5.0

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Mol	Chain	Res	Type	RSRZ
43	BU	64	ASP	5.0
1	AA	1130	A	5.0
13	AM	115	LYS	5.0
23	BA	23	GLY	5.0
25	BC	72	ARG	5.0
7	AG	91	VAL	5.0
47	BY	37	SER	5.0
2	AB	157	ARG	5.0
23	BA	54	ILE	5.0
41	BS	24	VAL	5.0
33	BK	75	VAL	5.0
24	BB	106	GLY	5.0
26	BD	27	ALA	5.0
11	AK	12	ARG	5.0
11	AK	13	GLN	5.0
25	BC	146	GLU	5.0
41	BS	87	GLU	5.0
10	AJ	77	PRO	5.0
45	BW	57	LYS	5.0
50	B2	22	MET	5.0
30	BH	132	PHE	5.0
41	BS	84	VAL	4.9
2	AB	25	ASN	4.9
7	AG	37	ASN	4.9
42	BT	102	GLY	4.9
53	B5	74	GLU	4.9
42	BT	91	PRO	4.9
18	AR	44	LEU	4.9
18	AR	38	GLU	4.9
34	BL	95	THR	4.9
3	AC	112	SER	4.9
53	B5	154	SER	4.9
18	AR	71	LYS	4.9
19	AS	17	GLU	4.9
24	BB	23	VAL	4.9
31	BI	56	LYS	4.9
47	BY	29	PRO	4.9
46	BX	26	ARG	4.9
36	BN	105	TYR	4.9
32	BJ	74	VAL	4.9
1	AA	1035	A	4.9
52	B4	33	LYS	4.9

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Mol	Chain	Res	Type	RSRZ
42	BT	88	TYR	4.9
3	AC	185	GLY	4.9
42	BT	169	VAL	4.9
36	BN	6	LYS	4.9
2	AB	24	TRP	4.9
34	BL	42	LYS	4.9
8	AH	41	ARG	4.9
14	AN	55	GLY	4.9
37	BO	39	LEU	4.9
17	AQ	8	GLY	4.9
23	BA	115	ALA	4.9
21	B0	906	U	4.9
23	BA	71	ASP	4.9
53	B5	37	LYS	4.9
8	AH	97	VAL	4.9
39	BQ	38	VAL	4.9
40	BR	75	ARG	4.9
47	BY	15	ILE	4.9
8	AH	70	GLN	4.9
7	AG	32	ARG	4.9
27	BE	89	LEU	4.8
11	AK	113	PRO	4.8
24	BB	88	GLY	4.8
32	BJ	62	LYS	4.8
7	AG	54	THR	4.8
9	AI	35	GLU	4.8
17	AQ	9	VAL	4.8
45	BW	56	VAL	4.8
29	BG	134	MET	4.8
31	BI	68	ASP	4.8
25	BC	91	TYR	4.8
12	AL	43	VAL	4.8
36	BN	50	PHE	4.8
12	AL	42	THR	4.8
36	BN	108	ARG	4.8
52	B4	16	VAL	4.8
3	AC	201	TYR	4.8
8	AH	40	ALA	4.8
53	B5	210	GLY	4.8
42	BT	21	ALA	4.8
23	BA	179	SER	4.8
23	BA	232	PRO	4.8

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Mol	Chain	Res	Type	RSRZ
3	AC	145	GLY	4.8
39	BQ	106	LEU	4.8
1	AA	1033	G	4.8
40	BR	16	ALA	4.8
49	B1	22	TYR	4.8
38	BP	63	HIS	4.8
2	AB	228	GLY	4.8
3	AC	114	PRO	4.8
14	AN	48	ALA	4.8
30	BH	148	LEU	4.8
43	BU	23	VAL	4.8
23	BA	231	HIS	4.8
14	AN	44	LEU	4.7
30	BH	96	ASP	4.7
39	BQ	114	ALA	4.7
51	B3	11	LYS	4.7
2	AB	10	LEU	4.7
32	BJ	108	LEU	4.7
51	B3	47	GLY	4.7
17	AQ	7	THR	4.7
41	BS	32	GLN	4.7
7	AG	14	PRO	4.7
36	BN	51	GLU	4.7
38	BP	54	TYR	4.7
33	BK	41	ALA	4.7
34	BL	26	THR	4.7
30	BH	62	ILE	4.7
51	B3	63	PRO	4.7
4	AD	168	ARG	4.7
11	AK	38	ASN	4.7
38	BP	16	GLU	4.7
17	AQ	85	VAL	4.7
4	AD	165	MET	4.7
25	BC	106	MET	4.7
35	BM	4	ALA	4.7
26	BD	91	LEU	4.7
39	BQ	84	GLU	4.7
23	BA	156	ALA	4.7
2	AB	21	ARG	4.7
3	AC	183	ASP	4.7
41	BS	86	PRO	4.7
11	AK	107	SER	4.7

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Mol	Chain	Res	Type	RSRZ
23	BA	202	LYS	4.7
37	BO	36	PHE	4.7
3	AC	18	TRP	4.7
35	BM	35	SER	4.7
43	BU	27	GLY	4.7
23	BA	98	ALA	4.7
47	BY	36	TRP	4.7
4	AD	162	LEU	4.7
34	BL	41	ALA	4.7
33	BK	50	ALA	4.7
38	BP	94	LYS	4.6
19	AS	78	ARG	4.6
3	AC	105	GLU	4.6
4	AD	173	TRP	4.6
40	BR	19	ALA	4.6
31	BI	26	ASN	4.6
40	BR	30	SER	4.6
7	AG	155	ARG	4.6
19	AS	8	GLY	4.6
39	BQ	127	ILE	4.6
51	B3	46	LYS	4.6
7	AG	36	LYS	4.6
10	AJ	65	LEU	4.6
42	BT	29	ASN	4.6
28	BF	22	ASP	4.6
2	AB	232	PRO	4.6
21	B0	897	A	4.6
4	AD	170	VAL	4.6
12	AL	109	GLY	4.6
37	BO	18	LEU	4.6
1	AA	1159	U	4.6
25	BC	58	MET	4.6
25	BC	140	ASN	4.6
13	AM	108	ARG	4.6
31	BI	43	ARG	4.6
43	BU	25	LYS	4.6
23	BA	207	GLY	4.6
34	BL	111	ALA	4.6
41	BS	98	ILE	4.6
25	BC	187	VAL	4.6
40	BR	66	GLY	4.6
46	BX	17	VAL	4.6

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Mol	Chain	Res	Type	RSRZ
1	AA	83	C	4.6
34	BL	98	LEU	4.6
41	BS	33	THR	4.6
3	AC	186	PHE	4.6
13	AM	113	PRO	4.6
33	BK	26	ASP	4.6
45	BW	46	LEU	4.6
13	AM	31	LYS	4.6
32	BJ	99	VAL	4.6
41	BS	49	GLU	4.6
27	BE	52	VAL	4.5
26	BD	37	ASN	4.5
39	BQ	103	LEU	4.5
41	BS	22	VAL	4.5
23	BA	141	VAL	4.5
26	BD	119	PRO	4.5
34	BL	43	GLU	4.5
33	BK	85	GLY	4.5
2	AB	49	GLU	4.5
25	BC	105	ALA	4.5
34	BL	21	ALA	4.5
18	AR	51	LEU	4.5
26	BD	122	PHE	4.5
47	BY	44	THR	4.5
35	BM	94	TYR	4.5
49	B1	23	THR	4.5
3	AC	61	ALA	4.5
37	BO	89	ASP	4.5
10	AJ	18	ALA	4.5
25	BC	120	VAL	4.5
38	BP	7	THR	4.5
43	BU	36	ILE	4.5
42	BT	158	CYS	4.5
2	AB	132	LYS	4.5
45	BW	29	ARG	4.5
3	AC	118	GLN	4.5
41	BS	34	GLY	4.5
23	BA	61	LEU	4.5
43	BU	69	PHE	4.5
13	AM	112	GLY	4.5
40	BR	12	ILE	4.5
21	B0	907	U	4.5

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Mol	Chain	Res	Type	RSRZ
38	BP	55	THR	4.5
3	AC	109	PRO	4.5
31	BI	24	VAL	4.5
30	BH	115	ALA	4.5
31	BI	35	THR	4.5
8	AH	66	GLY	4.5
51	B3	10	ALA	4.5
3	AC	142	MET	4.4
13	AM	4	ILE	4.4
47	BY	57	ASP	4.4
3	AC	170	GLN	4.4
14	AN	5	ALA	4.4
16	AP	82	GLN	4.4
43	BU	21	LEU	4.4
10	AJ	8	LEU	4.4
30	BH	144	MET	4.4
8	AH	133	LEU	4.4
14	AN	53	LEU	4.4
48	BZ	24	ALA	4.4
31	BI	3	MET	4.4
25	BC	109	ALA	4.4
33	BK	96	SER	4.4
1	AA	1034	G	4.4
26	BD	36	VAL	4.4
4	AD	104	VAL	4.4
32	BJ	52	GLY	4.4
34	BL	18	VAL	4.4
8	AH	37	ARG	4.4
39	BQ	126	ILE	4.4
24	BB	66	HIS	4.4
24	BB	160	MET	4.4
6	AF	69	GLU	4.4
52	B4	32	HIS	4.4
53	B5	29	SER	4.4
4	AD	188	LEU	4.4
53	B5	106	GLN	4.4
23	BA	96	HIS	4.4
2	AB	103	THR	4.4
27	BE	109	TYR	4.4
14	AN	8	GLU	4.4
23	BA	85	ASP	4.4
53	B5	168	PHE	4.4

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Mol	Chain	Res	Type	RSRZ
7	AG	114	ARG	4.4
41	BS	37	LEU	4.4
41	BS	111	GLY	4.4
39	BQ	93	LYS	4.3
13	AM	52	GLU	4.3
13	AM	103	THR	4.3
18	AR	64	ARG	4.3
3	AC	40	ARG	4.3
35	BM	9	ARG	4.3
30	BH	131	VAL	4.3
42	BT	68	ALA	4.3
4	AD	177	ASP	4.3
7	AG	45	ASP	4.3
14	AN	6	LEU	4.3
18	AR	74	ARG	4.3
23	BA	88	ARG	4.3
29	BG	118	GLY	4.3
40	BR	33	ALA	4.3
24	BB	119	ARG	4.3
36	BN	122	SER	4.3
34	BL	31	GLU	4.3
4	AD	138	TYR	4.3
2	AB	64	ARG	4.3
40	BR	11	VAL	4.3
23	BA	216	GLY	4.3
3	AC	49	SER	4.3
19	AS	24	ALA	4.3
39	BQ	128	VAL	4.3
32	BJ	86	THR	4.3
41	BS	36	VAL	4.3
26	BD	10	ASP	4.3
25	BC	190	ALA	4.3
26	BD	92	ARG	4.3
28	BF	25	ALA	4.3
25	BC	122	GLY	4.3
2	AB	110	GLN	4.3
48	BZ	53	ASP	4.3
52	B4	35	ARG	4.3
31	BI	6	SER	4.3
5	AE	6	PHE	4.3
18	AR	80	PRO	4.3
46	BX	30	ASP	4.3

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Mol	Chain	Res	Type	RSRZ
38	BP	64	GLY	4.3
37	BO	91	ASN	4.2
23	BA	258	LYS	4.2
36	BN	115	ALA	4.2
4	AD	105	VAL	4.2
43	BU	65	GLY	4.2
21	B0	1076	U	4.2
38	BP	27	GLY	4.2
4	AD	48	ALA	4.2
8	AH	113	SER	4.2
7	AG	113	GLU	4.2
53	B5	82	LYS	4.2
23	BA	155	LEU	4.2
10	AJ	75	ILE	4.2
11	AK	109	VAL	4.2
37	BO	94	VAL	4.2
25	BC	118	VAL	4.2
7	AG	38	LEU	4.2
23	BA	151	LYS	4.2
50	B2	23	LYS	4.2
51	B3	26	LYS	4.2
7	AG	143	ARG	4.2
17	AQ	84	LEU	4.2
19	AS	35	SER	4.2
3	AC	46	GLU	4.2
38	BP	95	ILE	4.2
23	BA	99	ASP	4.2
26	BD	173	MET	4.2
34	BL	110	MET	4.2
53	B5	9	ILE	4.2
42	BT	28	ASN	4.2
2	AB	230	VAL	4.1
32	BJ	102	LYS	4.1
14	AN	7	ILE	4.1
4	AD	167	GLY	4.1
12	AL	55	VAL	4.1
32	BJ	56	LEU	4.1
7	AG	21	VAL	4.1
31	BI	52	VAL	4.1
34	BL	22	ARG	4.1
53	B5	81	PRO	4.1
18	AR	60	GLY	4.1

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Mol	Chain	Res	Type	RSRZ
25	BC	24	SER	4.1
43	BU	34	GLY	4.1
48	BZ	26	THR	4.1
47	BY	35	VAL	4.1
24	BB	76	ARG	4.1
26	BD	178	ARG	4.1
14	AN	47	LEU	4.1
25	BC	60	GLY	4.1
34	BL	70	ILE	4.1
3	AC	184	TYR	4.1
7	AG	122	HIS	4.1
13	AM	46	LYS	4.1
31	BI	27	SER	4.1
23	BA	169	GLU	4.1
46	BX	25	LEU	4.1
36	BN	61	GLY	4.1
3	AC	58	GLU	4.1
25	BC	185	ARG	4.1
8	AH	114	THR	4.1
34	BL	77	ARG	4.1
51	B3	50	LEU	4.1
45	BW	4	SER	4.1
12	AL	110	VAL	4.1
13	AM	107	ALA	4.1
27	BE	90	ARG	4.1
53	B5	102	LYS	4.1
47	BY	55	ARG	4.1
13	AM	55	ARG	4.1
10	AJ	15	THR	4.1
2	AB	237	ALA	4.0
4	AD	166	LYS	4.0
39	BQ	65	SER	4.0
34	BL	94	TYR	4.0
23	BA	70	ARG	4.0
35	BM	45	ASP	4.0
31	BI	21	CYS	4.0
39	BQ	124	ILE	4.0
25	BC	121	ASP	4.0
14	AN	56	VAL	4.0
40	BR	5	ASP	4.0
29	BG	114	ASP	4.0
25	BC	18	PRO	4.0

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Mol	Chain	Res	Type	RSRZ
32	BJ	103	ASN	4.0
12	AL	57	LYS	4.0
19	AS	77	THR	4.0
29	BG	44	GLN	4.0
53	B5	193	LYS	4.0
43	BU	33	ALA	4.0
21	B0	1186	G	4.0
23	BA	72	LYS	4.0
38	BP	68	LYS	4.0
7	AG	129	GLU	4.0
51	B3	61	MET	4.0
4	AD	169	LYS	4.0
2	AB	14	GLY	4.0
7	AG	118	VAL	4.0
27	BE	154	PRO	4.0
1	AA	1029	U	4.0
25	BC	12	GLY	4.0
29	BG	66	THR	4.0
3	AC	72	LYS	4.0
1	AA	84	U	4.0
11	AK	36	ASP	4.0
26	BD	19	GLN	4.0
42	BT	92	VAL	4.0
51	B3	12	ARG	4.0
31	BI	80	ALA	3.9
36	BN	58	ASN	3.9
41	BS	50	GLY	3.9
26	BD	172	SER	3.9
4	AD	110	PHE	3.9
38	BP	67	LYS	3.9
43	BU	66	LYS	3.9
11	AK	26	ASN	3.9
25	BC	188	ILE	3.9
28	BF	32	GLN	3.9
11	AK	110	ASP	3.9
43	BU	52	GLY	3.9
26	BD	123	ASP	3.9
4	AD	126	ILE	3.9
23	BA	158	SER	3.9
42	BT	32	PHE	3.9
2	AB	100	GLY	3.9
36	BN	59	GLY	3.9

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Mol	Chain	Res	Type	RSRZ
37	BO	96	ALA	3.9
7	AG	31	MET	3.9
40	BR	80	VAL	3.9
2	AB	33	TYR	3.9
25	BC	186	LEU	3.9
11	AK	34	ASP	3.9
34	BL	90	ARG	3.9
10	AJ	16	LEU	3.9
7	AG	41	ARG	3.9
30	BH	164	GLN	3.9
8	AH	39	LEU	3.9
7	AG	48	LYS	3.9
45	BW	61	ALA	3.9
36	BN	107	LEU	3.9
24	BB	89	ASP	3.9
23	BA	251	GLY	3.9
39	BQ	42	VAL	3.9
11	AK	35	PRO	3.8
23	BA	62	TYR	3.8
12	AL	41	ARG	3.8
32	BJ	58	ALA	3.8
37	BO	17	VAL	3.8
47	BY	59	PHE	3.8
51	B3	54	GLU	3.8
8	AH	116	LYS	3.8
42	BT	90	GLU	3.8
8	AH	121	ASP	3.8
14	AN	4	LYS	3.8
31	BI	82	LYS	3.8
40	BR	24	VAL	3.8
10	AJ	72	VAL	3.8
51	B3	55	TRP	3.8
46	BX	45	LYS	3.8
8	AH	134	ILE	3.8
3	AC	149	ALA	3.8
13	AM	40	ASN	3.8
33	BK	117	GLU	3.8
30	BH	90	LEU	3.8
51	B3	53	ALA	3.8
24	BB	13	GLN	3.8
4	AD	148	VAL	3.8
39	BQ	46	ARG	3.8

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Mol	Chain	Res	Type	RSRZ
40	BR	37	GLU	3.8
21	B0	1185	C	3.8
4	AD	127	THR	3.8
39	BQ	20	LEU	3.8
7	AG	49	ILE	3.8
25	BC	10	ASN	3.8
46	BX	50	LEU	3.8
23	BA	7	ARG	3.8
42	BT	55	THR	3.8
24	BB	185	LYS	3.8
8	AH	129	VAL	3.8
10	AJ	25	GLU	3.8
2	AB	9	GLU	3.8
3	AC	146	ALA	3.8
23	BA	245	VAL	3.8
33	BK	100	PRO	3.8
7	AG	116	ALA	3.7
19	AS	79	THR	3.7
51	B3	59	LYS	3.7
19	AS	9	VAL	3.7
25	BC	3	GLN	3.7
36	BN	82	PRO	3.7
2	AB	65	GLY	3.7
18	AR	70	ILE	3.7
23	BA	14	ARG	3.7
39	BQ	68	VAL	3.7
37	BO	64	ARG	3.7
39	BQ	8	PHE	3.7
5	AE	5	ASP	3.7
25	BC	143	ASP	3.7
39	BQ	104	LYS	3.7
30	BH	171	LEU	3.7
52	B4	30	VAL	3.7
32	BJ	72	TYR	3.7
51	B3	44	LYS	3.7
25	BC	13	ARG	3.7
45	BW	21	ARG	3.7
7	AG	140	ASP	3.7
24	BB	103	ASP	3.7
3	AC	82	GLU	3.7
18	AR	28	GLU	3.7
2	AB	7	VAL	3.7

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Mol	Chain	Res	Type	RSRZ
9	AI	29	ASN	3.7
28	BF	20	VAL	3.7
28	BF	19	SER	3.7
27	BE	149	ARG	3.7
49	B1	28	ARG	3.7
23	BA	201	HIS	3.7
8	AH	120	THR	3.7
30	BH	78	ASP	3.7
23	BA	260	ARG	3.7
23	BA	261	ARG	3.7
25	BC	7	ILE	3.7
10	AJ	98	ILE	3.7
35	BM	66	ASP	3.7
38	BP	97	GLY	3.6
35	BM	95	LYS	3.6
31	BI	30	GLY	3.6
43	BU	22	GLY	3.6
43	BU	56	ASP	3.6
10	AJ	93	GLY	3.6
25	BC	142	LEU	3.6
23	BA	4	LYS	3.6
23	BA	38	PRO	3.6
23	BA	161	THR	3.6
6	AF	73	ASN	3.6
42	BT	154	LEU	3.6
53	B5	156	LEU	3.6
10	AJ	73	ASP	3.6
35	BM	24	SER	3.6
3	AC	115	LEU	3.6
4	AD	181	MET	3.6
6	AF	1	MET	3.6
11	AK	74	ALA	3.6
38	BP	20	ILE	3.6
13	AM	12	ASN	3.6
53	B5	140	ASN	3.6
39	BQ	129	ALA	3.6
39	BQ	69	ALA	3.6
4	AD	172	PRO	3.6
42	BT	87	THR	3.6
9	AI	87	GLN	3.6
30	BH	37	ASP	3.6
9	AI	39	GLY	3.6

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Mol	Chain	Res	Type	RSRZ
19	AS	39	THR	3.6
25	BC	144	GLY	3.6
45	BW	22	LYS	3.6
8	AH	48	TYR	3.6
39	BQ	72	LEU	3.6
41	BS	110	SER	3.6
45	BW	19	ASP	3.6
2	AB	179	LYS	3.6
31	BI	33	GLY	3.6
3	AC	111	LEU	3.6
7	AG	117	ALA	3.6
11	AK	51	LYS	3.6
25	BC	141	GLY	3.6
37	BO	84	LYS	3.6
2	AB	131	PRO	3.5
37	BO	65	ILE	3.5
14	AN	11	LYS	3.5
23	BA	205	VAL	3.5
48	BZ	27	ALA	3.5
26	BD	38	GLU	3.5
25	BC	112	GLN	3.5
4	AD	141	ARG	3.5
24	BB	22	PRO	3.5
25	BC	116	LYS	3.5
25	BC	191	ALA	3.5
30	BH	167	LYS	3.5
2	AB	234	PRO	3.5
7	AG	89	MET	3.5
25	BC	117	LEU	3.5
40	BR	41	ALA	3.5
23	BA	120	GLY	3.5
51	B3	20	GLY	3.5
43	BU	5	LYS	3.5
11	AK	52	GLY	3.5
24	BB	20	ALA	3.5
40	BR	40	ASP	3.5
3	AC	59	ARG	3.5
42	BT	70	GLN	3.5
2	AB	99	GLY	3.5
13	AM	89	GLY	3.5
19	AS	21	GLU	3.5
30	BH	159	SER	3.5

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Mol	Chain	Res	Type	RSRZ
26	BD	8	TYR	3.5
31	BI	2	ILE	3.5
6	AF	83	ASP	3.5
25	BC	6	VAL	3.5
42	BT	134	LEU	3.5
11	AK	37	GLY	3.5
34	BL	52	ILE	3.5
34	BL	113	ILE	3.5
10	AJ	99	LYS	3.5
4	AD	108	LEU	3.5
3	AC	108	ASN	3.5
8	AH	111	ILE	3.5
13	AM	79	LYS	3.5
40	BR	10	PRO	3.5
2	AB	13	ALA	3.4
2	AB	127	ILE	3.4
40	BR	9	ALA	3.4
19	AS	70	LYS	3.4
53	B5	133	LYS	3.4
41	BS	113	THR	3.4
25	BC	154	ASP	3.4
6	AF	13	ASN	3.4
41	BS	35	LYS	3.4
10	AJ	96	ILE	3.4
33	BK	39	GLU	3.4
53	B5	212	ALA	3.4
25	BC	110	SER	3.4
39	BQ	80	LEU	3.4
40	BR	8	GLN	3.4
13	AM	37	THR	3.4
53	B5	6	GLU	3.4
53	B5	36	PHE	3.4
18	AR	41	LYS	3.4
3	AC	54	ARG	3.4
31	BI	87	SER	3.4
4	AD	130	GLY	3.4
11	AK	111	ASP	3.4
23	BA	250	TRP	3.4
42	BT	30	VAL	3.4
3	AC	57	ILE	3.4
9	AI	36	TYR	3.4
39	BQ	47	GLY	3.4

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Mol	Chain	Res	Type	RSRZ
38	BP	96	LEU	3.4
38	BP	3	ALA	3.4
40	BR	51	ILE	3.4
7	AG	74	GLU	3.4
7	AG	60	LYS	3.4
25	BC	20	PRO	3.4
13	AM	36	LYS	3.4
30	BH	33	ILE	3.4
49	B1	38	LYS	3.4
34	BL	25	ALA	3.4
30	BH	35	LYS	3.4
11	AK	81	ASP	3.4
3	AC	181	ASN	3.4
25	BC	8	GLY	3.4
6	AF	71	ARG	3.4
48	BZ	25	LEU	3.4
6	AF	2	ARG	3.4
25	BC	111	ARG	3.4
11	AK	16	SER	3.4
4	AD	101	LEU	3.4
9	AI	73	GLN	3.4
18	AR	85	LEU	3.4
19	AS	73	GLU	3.4
41	BS	112	LYS	3.4
35	BM	19	THR	3.4
2	AB	236	TYR	3.3
10	AJ	92	THR	3.3
25	BC	139	GLN	3.3
36	BN	67	THR	3.3
30	BH	158	HIS	3.3
13	AM	98	VAL	3.3
24	BB	104	ALA	3.3
30	BH	50	PRO	3.3
40	BR	3	HIS	3.3
31	BI	86	GLY	3.3
27	BE	152	ARG	3.3
39	BQ	92	VAL	3.3
26	BD	175	LEU	3.3
33	BK	40	PRO	3.3
36	BN	31	ASP	3.3
42	BT	168	VAL	3.3
49	B1	43	VAL	3.3

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Mol	Chain	Res	Type	RSRZ
11	AK	104	GLN	3.3
11	AK	108	ILE	3.3
7	AG	86	GLN	3.3
19	AS	7	LYS	3.3
25	BC	115	GLY	3.3
38	BP	62	GLU	3.3
9	AI	57	GLY	3.3
36	BN	11	GLU	3.3
52	B4	34	GLN	3.3
45	BW	25	LEU	3.3
29	BG	133	SER	3.3
42	BT	9	THR	3.3
7	AG	51	GLN	3.3
2	AB	27	LYS	3.3
24	BB	80	GLU	3.3
7	AG	12	LEU	3.3
31	BI	58	ALA	3.3
24	BB	7	THR	3.3
38	BP	19	VAL	3.3
7	AG	28	ASN	3.3
25	BC	11	GLY	3.3
4	AD	147	ALA	3.3
6	AF	68	PRO	3.3
30	BH	128	GLU	3.2
38	BP	28	GLU	3.2
53	B5	72	GLN	3.2
30	BH	76	GLN	3.2
47	BY	25	MET	3.2
7	AG	132	GLY	3.2
13	AM	10	PRO	3.2
19	AS	28	LYS	3.2
19	AS	38	SER	3.2
39	BQ	40	LEU	3.2
51	B3	13	ARG	3.2
27	BE	172	LYS	3.2
29	BG	37	PHE	3.2
3	AC	174	PRO	3.2
8	AH	76	PRO	3.2
34	BL	33	ARG	3.2
53	B5	161	ASP	3.2
9	AI	97	LYS	3.2
30	BH	149	LYS	3.2

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Mol	Chain	Res	Type	RSRZ
34	BL	114	GLU	3.2
36	BN	65	SER	3.2
40	BR	18	SER	3.2
24	BB	48	GLN	3.2
3	AC	102	ASN	3.2
30	BH	75	ILE	3.2
34	BL	73	LYS	3.2
24	BB	34	VAL	3.2
51	B3	49	VAL	3.2
25	BC	155	GLU	3.2
26	BD	39	GLY	3.2
19	AS	36	ARG	3.2
31	BI	67	GLY	3.2
4	AD	187	ARG	3.2
18	AR	54	ARG	3.2
43	BU	68	VAL	3.2
53	B5	33	ILE	3.2
34	BL	51	LEU	3.2
13	AM	34	LEU	3.2
29	BG	43	ALA	3.2
31	BI	94	ASN	3.2
4	AD	178	VAL	3.2
48	BZ	51	TYR	3.2
7	AG	99	LEU	3.1
4	AD	182	LYS	3.1
36	BN	60	SER	3.1
7	AG	121	ALA	3.1
43	BU	61	ALA	3.1
9	AI	104	ARG	3.1
51	B3	9	MET	3.1
35	BM	22	ALA	3.1
9	AI	75	ASP	3.1
42	BT	24	TYR	3.1
3	AC	53	ALA	3.1
49	B1	25	THR	3.1
6	AF	16	GLN	3.1
13	AM	56	LEU	3.1
13	AM	92	HIS	3.1
18	AR	63	GLN	3.1
25	BC	9	GLN	3.1
33	BK	72	ASP	3.1
46	BX	33	GLU	3.1

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Mol	Chain	Res	Type	RSRZ
19	AS	59	PRO	3.1
35	BM	87	VAL	3.1
29	BG	55	VAL	3.1
29	BG	122	ALA	3.1
8	AH	31	PHE	3.1
8	AH	100	ILE	3.1
9	AI	66	ARG	3.1
29	BG	121	GLU	3.1
51	B3	64	ARG	3.1
3	AC	179	ARG	3.1
10	AJ	20	ALA	3.1
8	AH	128	GLY	3.1
13	AM	78	ILE	3.1
25	BC	4	ILE	3.1
43	BU	70	ILE	3.1
40	BR	38	ILE	3.1
49	B1	24	THR	3.1
49	B1	47	HIS	3.1
31	BI	7	ARG	3.1
3	AC	147	LYS	3.1
34	BL	74	ASP	3.1
45	BW	18	ILE	3.1
9	AI	100	GLY	3.1
11	AK	39	PRO	3.1
18	AR	42	ARG	3.1
45	BW	15	ALA	3.1
45	BW	38	ALA	3.1
37	BO	113	SER	3.1
47	BY	9	ALA	3.1
34	BL	47	PHE	3.1
18	AR	86	VAL	3.1
38	BP	61	VAL	3.1
53	B5	98	ARG	3.1
3	AC	44	GLU	3.0
8	AH	36	LEU	3.0
27	BE	88	GLU	3.0
18	AR	20	ALA	3.0
33	BK	118	ALA	3.0
23	BA	110	GLY	3.0
11	AK	25	TYR	3.0
31	BI	44	TYR	3.0
3	AC	56	ASP	3.0

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Mol	Chain	Res	Type	RSRZ
53	B5	165	VAL	3.0
8	AH	127	LEU	3.0
38	BP	59	GLU	3.0
23	BA	150	GLY	3.0
40	BR	28	TRP	3.0
3	AC	104	GLN	3.0
31	BI	54	SER	3.0
41	BS	65	PRO	3.0
23	BA	84	TYR	3.0
49	B1	39	LYS	3.0
2	AB	224	GLN	3.0
19	AS	11	VAL	3.0
25	BC	59	TYR	3.0
51	B3	58	MET	3.0
8	AH	35	ILE	3.0
46	BX	36	ASP	3.0
46	BX	44	VAL	3.0
7	AG	39	ALA	3.0
3	AC	55	VAL	3.0
30	BH	77	GLY	3.0
53	B5	132	GLY	3.0
26	BD	155	THR	3.0
38	BP	5	ILE	3.0
25	BC	194	GLU	3.0
3	AC	41	GLY	3.0
13	AM	53	VAL	3.0
34	BL	76	VAL	3.0
34	BL	55	ALA	3.0
35	BM	40	ALA	3.0
13	AM	41	PRO	3.0
7	AG	46	ALA	3.0
23	BA	270	ILE	3.0
24	BB	81	PHE	3.0
53	B5	101	LYS	3.0
40	BR	25	TYR	3.0
3	AC	206	GLU	3.0
11	AK	106	LYS	3.0
38	BP	6	GLN	3.0
23	BA	172	TYR	3.0
25	BC	108	ILE	3.0
7	AG	100	ALA	3.0
9	AI	13	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
8	AH	73	ASP	3.0
53	B5	178	ASP	3.0
40	BR	39	LYS	2.9
46	BX	47	VAL	2.9
51	B3	24	ALA	2.9
2	AB	239	VAL	2.9
34	BL	100	VAL	2.9
11	AK	15	ALA	2.9
36	BN	66	PHE	2.9
11	AK	78	GLN	2.9
11	AK	79	SER	2.9
13	AM	110	ARG	2.9
45	BW	8	ASN	2.9
46	BX	41	ARG	2.9
9	AI	60	ASP	2.9
11	AK	49	GLY	2.9
35	BM	41	GLN	2.9
43	BU	53	MET	2.9
19	AS	54	GLY	2.9
33	BK	66	TYR	2.9
11	AK	33	THR	2.9
29	BG	41	PHE	2.9
42	BT	101	THR	2.9
30	BH	70	PHE	2.9
41	BS	64	ASN	2.9
51	B3	48	PHE	2.9
39	BQ	41	VAL	2.9
51	B3	25	PHE	2.9
48	BZ	46	CYS	2.9
4	AD	180	GLY	2.9
23	BA	215	LEU	2.9
13	AM	14	ARG	2.9
32	BJ	97	ARG	2.9
2	AB	117	GLU	2.9
3	AC	97	LYS	2.9
13	AM	35	GLU	2.9
23	BA	89	SER	2.9
45	BW	24	GLU	2.9
23	BA	131	LEU	2.9
45	BW	32	ALA	2.9
38	BP	33	VAL	2.9
49	B1	21	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
35	BM	49	GLN	2.9
23	BA	103	ARG	2.9
37	BO	72	HIS	2.9
7	AG	20	ASP	2.9
8	AH	122	ARG	2.9
30	BH	100	TYR	2.9
23	BA	37	LEU	2.9
30	BH	118	ALA	2.9
35	BM	83	GLY	2.9
34	BL	66	VAL	2.9
27	BE	58	ALA	2.8
53	B5	172	GLU	2.8
38	BP	41	GLY	2.8
23	BA	8	PRO	2.8
46	BX	32	ARG	2.8
23	BA	171	ASP	2.8
9	AI	52	ALA	2.8
33	BK	67	ILE	2.8
40	BR	29	VAL	2.8
47	BY	6	HIS	2.8
3	AC	89	GLU	2.8
43	BU	51	VAL	2.8
3	AC	202	ILE	2.8
36	BN	84	ALA	2.8
2	AB	113	HIS	2.8
3	AC	182	ILE	2.8
2	AB	107	THR	2.8
10	AJ	6	ILE	2.8
23	BA	119	ALA	2.8
33	BK	76	THR	2.8
7	AG	146	GLU	2.8
34	BL	28	LEU	2.8
19	AS	69	HIS	2.8
36	BN	64	LYS	2.8
43	BU	43	THR	2.8
31	BI	93	ARG	2.8
23	BA	203	ASN	2.8
36	BN	32	THR	2.8
45	BW	5	GLU	2.8
11	AK	99	GLN	2.8
33	BK	47	GLN	2.8
25	BC	113	GLU	2.8

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Mol	Chain	Res	Type	RSRZ
34	BL	48	VAL	2.8
27	BE	9	ILE	2.8
13	AM	111	LYS	2.8
34	BL	44	LEU	2.8
39	BQ	45	ILE	2.8
34	BL	58	GLY	2.8
39	BQ	53	ALA	2.8
23	BA	160	GLY	2.8
37	BO	105	ALA	2.8
36	BN	69	ARG	2.8
35	BM	61	SER	2.8
40	BR	81	ARG	2.8
47	BY	4	ASP	2.8
40	BR	27	PHE	2.8
31	BI	45	ALA	2.8
2	AB	135	GLN	2.8
34	BL	116	VAL	2.8
53	B5	167	VAL	2.8
26	BD	24	SER	2.7
38	BP	34	GLU	2.7
19	AS	26	GLY	2.7
4	AD	142	PRO	2.7
7	AG	126	ASP	2.7
19	AS	80	TYR	2.7
6	AF	28	ARG	2.7
34	BL	81	ASP	2.7
51	B3	60	LEU	2.7
6	AF	74	ASP	2.7
34	BL	112	LEU	2.7
45	BW	26	MET	2.7
40	BR	17	TYR	2.7
36	BN	116	ARG	2.7
43	BU	82	GLU	2.7
9	AI	40	LEU	2.7
38	BP	15	SER	2.7
26	BD	35	VAL	2.7
53	B5	153	ARG	2.7
33	BK	122	ALA	2.7
7	AG	102	ARG	2.7
30	BH	95	LEU	2.7
30	BH	125	ARG	2.7
37	BO	97	ASP	2.7

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Mol	Chain	Res	Type	RSRZ
43	BU	57	HIS	2.7
11	AK	17	GLY	2.7
31	BI	59	ALA	2.7
11	AK	14	VAL	2.7
11	AK	96	ARG	2.7
4	AD	176	LEU	2.7
39	BQ	44	VAL	2.7
39	BQ	50	VAL	2.7
24	BB	6	GLY	2.7
23	BA	264	LYS	2.7
4	AD	140	VAL	2.7
45	BW	17	GLU	2.7
30	BH	122	HIS	2.7
36	BN	117	ILE	2.7
4	AD	174	LEU	2.7
13	AM	39	ILE	2.7
35	BM	8	ARG	2.7
49	B1	7	ARG	2.7
9	AI	92	TYR	2.6
30	BH	150	VAL	2.6
42	BT	81	VAL	2.6
2	AB	180	LEU	2.6
39	BQ	91	PHE	2.6
9	AI	53	VAL	2.6
2	AB	120	ALA	2.6
32	BJ	87	THR	2.6
9	AI	42	ARG	2.6
38	BP	99	GLN	2.6
53	B5	160	LYS	2.6
6	AF	36	ARG	2.6
36	BN	85	SER	2.6
38	BP	98	ILE	2.6
42	BT	151	ASP	2.6
45	BW	35	GLY	2.6
7	AG	70	LYS	2.6
42	BT	113	VAL	2.6
40	BR	44	GLN	2.6
43	BU	29	GLU	2.6
34	BL	56	LYS	2.6
23	BA	263	ARG	2.6
26	BD	12	VAL	2.6
7	AG	64	GLN	2.6

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Mol	Chain	Res	Type	RSRZ
8	AH	112	LEU	2.6
36	BN	118	LYS	2.6
32	BJ	71	THR	2.6
36	BN	70	LYS	2.6
6	AF	72	VAL	2.6
48	BZ	50	GLY	2.6
23	BA	117	VAL	2.6
23	BA	142	VAL	2.6
24	BB	46	ALA	2.6
33	BK	119	PHE	2.6
10	AJ	19	SER	2.6
13	AM	13	LYS	2.6
51	B3	56	ALA	2.6
31	BI	77	THR	2.6
42	BT	148	THR	2.6
9	AI	88	TYR	2.6
24	BB	45	GLU	2.6
38	BP	12	TYR	2.6
31	BI	53	ALA	2.6
31	BI	32	LYS	2.6
42	BT	150	GLY	2.6
47	BY	62	ARG	2.6
8	AH	38	ILE	2.6
30	BH	34	PRO	2.6
51	B3	21	LYS	2.6
7	AG	109	ASN	2.6
40	BR	45	ALA	2.6
53	B5	76	ALA	2.6
40	BR	6	ILE	2.6
52	B4	24	LEU	2.6
53	B5	77	LYS	2.6
2	AB	176	GLU	2.6
7	AG	24	THR	2.6
9	AI	103	THR	2.6
7	AG	29	LYS	2.6
13	AM	97	PRO	2.6
38	BP	66	GLY	2.5
42	BT	116	VAL	2.5
48	BZ	54	GLY	2.5
7	AG	87	VAL	2.5
7	AG	139	GLU	2.5
38	BP	58	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
24	BB	19	ARG	2.5
43	BU	54	GLY	2.5
7	AG	63	LYS	2.5
11	AK	102	GLY	2.5
35	BM	96	TYR	2.5
40	BR	4	TYR	2.5
28	BF	34	LEU	2.5
11	AK	127	LYS	2.5
41	BS	114	ILE	2.5
2	AB	38	GLY	2.5
23	BA	5	LYS	2.5
24	BB	55	ALA	2.5
8	AH	33	GLU	2.5
19	AS	64	GLU	2.5
19	AS	33	THR	2.5
42	BT	136	VAL	2.5
2	AB	22	LYS	2.5
42	BT	166	LEU	2.5
24	BB	184	VAL	2.5
3	AC	88	ARG	2.5
35	BM	62	GLY	2.5
34	BL	32	GLY	2.5
35	BM	12	ARG	2.5
23	BA	17	THR	2.5
2	AB	116	GLU	2.5
39	BQ	60	ILE	2.5
6	AF	11	ASN	2.5
13	AM	15	VAL	2.5
35	BM	98	GLY	2.5
45	BW	63	LYS	2.5
7	AG	133	GLY	2.5
36	BN	30	GLY	2.5
6	AF	39	LYS	2.5
7	AG	130	GLY	2.5
4	AD	175	SER	2.5
8	AH	34	GLU	2.5
26	BD	14	PRO	2.5
23	BA	97	TYR	2.5
19	AS	34	TRP	2.5
38	BP	4	ILE	2.5
2	AB	238	LEU	2.5
38	BP	42	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
3	AC	90	GLU	2.5
30	BH	79	PHE	2.5
24	BB	197	VAL	2.5
30	BH	156	HIS	2.5
52	B4	26	ILE	2.5
7	AG	106	GLN	2.5
33	BK	77	LYS	2.4
19	AS	68	GLY	2.4
30	BH	65	LYS	2.4
37	BO	88	ILE	2.4
45	BW	6	MET	2.4
2	AB	86	GLU	2.4
30	BH	68	PRO	2.4
53	B5	159	THR	2.4
42	BT	6	LYS	2.4
18	AR	53	ARG	2.4
24	BB	24	THR	2.4
30	BH	39	GLN	2.4
37	BO	106	PHE	2.4
40	BR	43	GLN	2.4
35	BM	93	SER	2.4
37	BO	90	LEU	2.4
7	AG	111	ARG	2.4
24	BB	8	LYS	2.4
38	BP	47	PHE	2.4
2	AB	75	LYS	2.4
10	AJ	89	ASP	2.4
24	BB	201	ALA	2.4
10	AJ	80	LYS	2.4
46	BX	48	LYS	2.4
23	BA	147	LEU	2.4
3	AC	96	GLY	2.4
38	BP	14	VAL	2.4
7	AG	75	VAL	2.4
25	BC	192	ALA	2.4
31	BI	92	ASP	2.4
42	BT	51	LEU	2.4
24	BB	49	ILE	2.4
3	AC	69	HIS	2.4
24	BB	68	ALA	2.4
7	AG	67	GLU	2.4
13	AM	83	ASP	2.4

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Mol	Chain	Res	Type	RSRZ
33	BK	13	GLN	2.4
33	BK	61	ARG	2.4
36	BN	119	SER	2.4
2	AB	63	MET	2.4
45	BW	10	GLN	2.4
3	AC	173	VAL	2.4
3	AC	39	ILE	2.4
51	B3	57	ARG	2.4
53	B5	1	MET	2.4
40	BR	47	GLY	2.4
7	AG	119	ARG	2.4
3	AC	171	GLY	2.3
27	BE	61	HIS	2.3
25	BC	195	ILE	2.3
33	BK	73	LYS	2.3
30	BH	119	LEU	2.3
35	BM	112	LEU	2.3
7	AG	154	TYR	2.3
30	BH	120	SER	2.3
24	BB	171	GLU	2.3
2	AB	56	ARG	2.3
9	AI	24	GLY	2.3
31	BI	85	ASP	2.3
43	BU	28	GLY	2.3
36	BN	112	GLY	2.3
13	AM	42	ALA	2.3
23	BA	193	ILE	2.3
45	BW	30	PHE	2.3
3	AC	81	GLY	2.3
24	BB	196	VAL	2.3
37	BO	73	GLY	2.3
42	BT	1	MET	2.3
42	BT	11	LYS	2.3
24	BB	84	PHE	2.3
2	AB	233	SER	2.3
7	AG	25	ALA	2.3
11	AK	112	THR	2.3
42	BT	49	THR	2.3
19	AS	18	LYS	2.3
43	BU	72	LYS	2.3
49	B1	42	PRO	2.3
24	BB	33	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
30	BH	124	GLU	2.3
36	BN	72	SER	2.3
39	BQ	49	SER	2.3
45	BW	20	ALA	2.3
10	AJ	4	ILE	2.3
24	BB	195	LEU	2.3
40	BR	82	LEU	2.3
8	AH	117	GLY	2.3
26	BD	128	TYR	2.3
47	BY	61	LYS	2.3
7	AG	50	ILE	2.3
46	BX	6	VAL	2.3
33	BK	80	ALA	2.3
23	BA	25	THR	2.3
46	BX	5	LEU	2.3
7	AG	40	ALA	2.3
2	AB	79	ASP	2.3
23	BA	6	TYR	2.3
23	BA	90	ALA	2.3
30	BH	99	VAL	2.3
38	BP	35	LEU	2.3
9	AI	27	THR	2.3
18	AR	69	THR	2.3
23	BA	129	ASN	2.3
6	AF	31	GLU	2.3
10	AJ	94	VAL	2.3
51	B3	22	VAL	2.3
34	BL	84	ALA	2.3
45	BW	27	GLU	2.3
19	AS	16	LEU	2.3
29	BG	8	VAL	2.3
39	BQ	90	LEU	2.2
45	BW	60	LEU	2.2
25	BC	22	VAL	2.2
30	BH	123	PRO	2.2
33	BK	88	LYS	2.2
53	B5	4	ASP	2.2
34	BL	79	VAL	2.2
53	B5	57	GLN	2.2
35	BM	33	ARG	2.2
11	AK	76	GLY	2.2
51	B3	14	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
2	AB	177	ALA	2.2
4	AD	143	GLY	2.2
2	AB	35	GLU	2.2
36	BN	120	ASP	2.2
18	AR	68	LYS	2.2
23	BA	28	ARG	2.2
40	BR	87	SER	2.2
41	BS	62	MET	2.2
24	BB	67	PHE	2.2
27	BE	8	PRO	2.2
11	AK	75	TYR	2.2
31	BI	83	ARG	2.2
36	BN	100	ARG	2.2
6	AF	12	PRO	2.2
34	BL	80	MET	2.2
2	AB	134	GLU	2.2
25	BC	193	LEU	2.2
31	BI	55	VAL	2.2
33	BK	51	CYS	2.2
34	BL	75	VAL	2.2
36	BN	121	ARG	2.2
45	BW	28	LEU	2.2
4	AD	145	GLU	2.2
6	AF	32	ASN	2.2
8	AH	123	GLU	2.2
39	BQ	54	GLU	2.2
7	AG	71	PRO	2.2
52	B4	10	MET	2.2
26	BD	120	ASN	2.2
38	BP	56	VAL	2.2
10	AJ	22	LYS	2.2
32	BJ	92	THR	2.2
11	AK	128	ALA	2.2
27	BE	56	SER	2.2
43	BU	50	GLY	2.2
13	AM	87	TYR	2.2
4	AD	49	ARG	2.2
10	AJ	86	MET	2.2
24	BB	71	GLY	2.2
19	AS	53	ASN	2.2
51	B3	15	LYS	2.2
36	BN	83	PHE	2.2

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Mol	Chain	Res	Type	RSRZ
2	AB	52	GLU	2.2
38	BP	60	VAL	2.2
34	BL	115	LEU	2.1
45	BW	23	LYS	2.1
18	AR	36	ASN	2.1
9	AI	41	VAL	2.1
3	AC	74	GLY	2.1
11	AK	40	ILE	2.1
45	BW	16	LYS	2.1
11	AK	18	ARG	2.1
30	BH	166	LEU	2.1
36	BN	71	ILE	2.1
42	BT	26	LYS	2.1
27	BE	159	GLY	2.1
35	BM	99	ARG	2.1
6	AF	56	PRO	2.1
42	BT	100	THR	2.1
4	AD	184	LYS	2.1
6	AF	66	GLU	2.1
41	BS	61	SER	2.1
23	BA	159	ALA	2.1
27	BE	160	LYS	2.1
31	BI	95	ALA	2.1
3	AC	42	LEU	2.1
19	AS	65	ASN	2.1
34	BL	30	ARG	2.1
25	BC	17	LEU	2.1
35	BM	88	VAL	2.1
40	BR	7	LEU	2.1
38	BP	39	PHE	2.1
49	B1	4	ASP	2.1
19	AS	72	GLY	2.1
38	BP	100	GLY	2.1
43	BU	48	GLY	2.1
24	BB	74	PRO	2.1
2	AB	190	THR	2.1
34	BL	57	GLY	2.1
30	BH	126	VAL	2.1
30	BH	169	GLN	2.1
47	BY	21	VAL	2.1
24	BB	54	LYS	2.1
33	BK	98	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
18	AR	73	ALA	2.1
9	AI	48	GLU	2.1
53	B5	48	LEU	2.1
4	AD	128	VAL	2.1
40	BR	50	VAL	2.1
52	B4	29	ASN	2.1
2	AB	175	ARG	2.1
40	BR	23	GLY	2.1
39	BQ	87	GLU	2.1
2	AB	191	ASP	2.0
7	AG	57	GLU	2.0
3	AC	85	ARG	2.0
33	BK	97	VAL	2.0
6	AF	54	LYS	2.0
48	BZ	39	LYS	2.0
38	BP	46	VAL	2.0
2	AB	143	GLU	2.0
4	AD	183	GLY	2.0
30	BH	117	GLU	2.0
40	BR	42	ILE	2.0
7	AG	47	CYS	2.0
8	AH	124	ALA	2.0
38	BP	40	VAL	2.0
53	B5	205	VAL	2.0
2	AB	139	LYS	2.0
47	BY	45	GLY	2.0
9	AI	76	ALA	2.0
13	AM	44	ARG	2.0
26	BD	179	LYS	2.0
53	B5	34	LEU	2.0
8	AH	69	ARG	2.0
43	BU	67	VAL	2.0
38	BP	36	LYS	2.0
13	AM	91	ARG	2.0
18	AR	79	LEU	2.0
31	BI	89	ILE	2.0
13	AM	122	LYS	2.0
34	BL	29	LEU	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 [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

There are no ligands in this entry.

6.5 Other polymers [i](#)

There are no such residues in this entry.