



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 09:20 PM GMT

PDB ID : 4V49  
Title : Crystal Structure of a Streptomycin Dependent 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 : 8.70 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](mailto: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.

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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

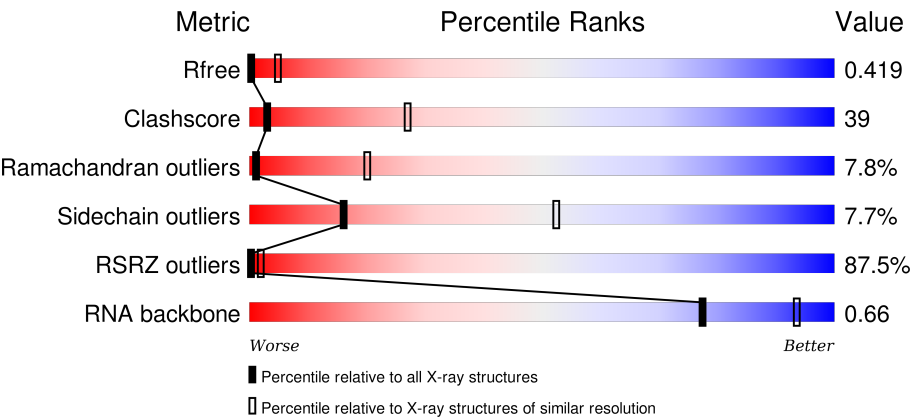
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 8.70 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 <sub>free</sub>	91344	1015 (11.50-3.66)
Clashscore	102246	1064 (11.50-3.70)
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  $\geq 3$ , 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	1527	<div><div>100%</div><div><div></div><div></div><div></div><div></div></div><div>23%57%16%.</div></div>
2	AV	76	<div><div>100%</div><div><div></div><div></div><div></div><div></div></div><div>36%39%14%11%</div></div>
2	AW	76	<div><div>100%</div><div><div></div><div></div><div></div><div></div></div><div>39%39%13%8%</div></div>
3	AU	18	<div><div>50%</div><div><div></div><div></div><div></div><div></div></div><div>44%6%50%</div></div>

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Mol	Chain	Length	Quality of chain
4	AB	234	
5	AC	206	
6	AD	208	
7	AE	150	
8	AF	101	
9	AG	155	
10	AH	138	
11	AI	127	
12	AJ	98	
13	AK	119	
14	AL	124	
15	AM	125	
16	AN	60	
17	AO	88	
18	AP	83	
19	AQ	104	
20	AR	73	
21	AS	80	
22	AT	99	
23	B0	2887	
24	B9	118	
25	BA	270	
26	BB	205	
27	BC	197	
28	BD	178	

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Mol	Chain	Length	Quality of chain
29	BE	177	76% 100%
30	BF	52	33% 100%
31	BG	143	82% 98%
32	BH	143	92% 100%
33	BI	132	42% 99%
34	BJ	141	71% 99%
35	BK	124	38% 100%
36	BL	114	92% 99%
37	BM	111	30% 100%
38	BN	125	54% 99%
39	BO	117	85% 100%
40	BP	100	95% 100%
41	BQ	130	89% 100%
42	BR	93	83% 100%
43	BS	113	98% 100%
44	BT	173	82% 100%
45	BU	86	76% 99%
46	BV	16	100%
47	BW	65	82% 100%
48	BX	55	69% 100%
49	BY	73	63% 100%
50	BZ	58	91% 100%
51	B1	53	43% 100%
52	B2	46	100%
53	B3	63	100%

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Mol	Chain	Length	Quality of chain
54	B4	35	<div><div></div><div>97%</div><div>100%</div></div>
55	B5	217	<div><div></div><div>54%</div><div>94%</div><div>6%</div></div>

## 2 Entry composition [i](#)

There are 55 unique types of molecules in this entry. The entry contains 122017 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	1527	Total	C	N	O	P	0	0	0
			32819	14610	6085	10597	1527			

- Molecule 2 is a RNA chain called tRNA-Phe.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AV	76	Total	C	N	O	P	0	0	0
			1625	725	293	531	76			
2	AW	76	Total	C	N	O	P	0	0	0
			1625	725	293	531	76			

- Molecule 3 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AU	9	Total	C	N	O	P	0	0	0
			176	81	24	62	9			

- Molecule 4 is a protein called 30S ribosomal protein S2.

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

- Molecule 5 is a protein called 30S ribosomal protein S3.

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

- Molecule 6 is a protein called 30S ribosomal protein S4.

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

- Molecule 7 is a protein called 30S ribosomal protein S5.

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

- Molecule 8 is a protein called 30S ribosomal protein S6.

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

- Molecule 9 is a protein called 30S ribosomal protein S7.

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

- Molecule 10 is a protein called 30S ribosomal protein S8.

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

- Molecule 11 is a protein called 30S ribosomal protein S9.

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

- Molecule 12 is a protein called 30S ribosomal protein S10.

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

- Molecule 13 is a protein called 30S ribosomal protein S11.

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

- Molecule 14 is a protein called 30S ribosomal protein S12.

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

- Molecule 15 is a protein called 30S ribosomal protein S13.

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

- Molecule 16 is a protein called 30S ribosomal protein S14.

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

- Molecule 17 is a protein called 30S ribosomal protein S15.

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

- Molecule 18 is a protein called 30S ribosomal protein S16.

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

- Molecule 19 is a protein called 30S ribosomal protein S17.

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

- Molecule 20 is a protein called 30S ribosomal protein S18.



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

- Molecule 21 is a protein called 30S ribosomal protein S19.

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

- Molecule 22 is a protein called 30S ribosomal protein S20.

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

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

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

- Molecule 24 is a RNA chain called 5S RIBOSOMAL RNA.

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

- Molecule 25 is a protein called 50S ribosomal protein L2.

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

- Molecule 26 is a protein called 50S ribosomal protein L3.

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

- Molecule 27 is a protein called 50S ribosomal protein L4.

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

- Molecule 28 is a protein called 50S ribosomal protein L5.

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

- Molecule 29 is a protein called 50S ribosomal protein L6.

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

- Molecule 30 is a protein called 50S ribosomal protein L9.

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

- Molecule 31 is a protein called 50S ribosomal protein L11.

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

- Molecule 32 is a protein called 50S ribosomal protein L13.

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

- Molecule 33 is a protein called 50S ribosomal protein L14.

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

- Molecule 34 is a protein called 50S ribosomal protein L15.

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

- Molecule 35 is a protein called 50S ribosomal protein L16.

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

- Molecule 36 is a protein called 50S ribosomal protein L17.

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

- Molecule 37 is a protein called 50S ribosomal protein L18.

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

- Molecule 38 is a protein called 50S ribosomal protein L19.

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

- Molecule 39 is a protein called 50S ribosomal protein L20.

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

- Molecule 40 is a protein called 50S ribosomal protein L21.

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

- Molecule 41 is a protein called 50S ribosomal protein L22.

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

- Molecule 42 is a protein called 50S ribosomal protein L23.

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

- Molecule 43 is a protein called 50S ribosomal protein L24.

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

- Molecule 44 is a protein called general stress protein Ctc.

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

- Molecule 45 is a protein called 50S ribosomal protein L27.

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

- Molecule 46 is a protein called 50S RIBOSOMAL PROTEIN L28.

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

- Molecule 47 is a protein called 50S ribosomal protein L29.

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

- Molecule 48 is a protein called 50S ribosomal protein L30.

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

- Molecule 49 is a protein called 50S ribosomal protein L31.

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

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

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

- Molecule 51 is a protein called 50S ribosomal protein L33.

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

- Molecule 52 is a protein called 50S ribosomal protein L34.

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

- Molecule 53 is a protein called 50S ribosomal protein L35.

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

- Molecule 54 is a protein called 50S ribosomal protein L36.

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

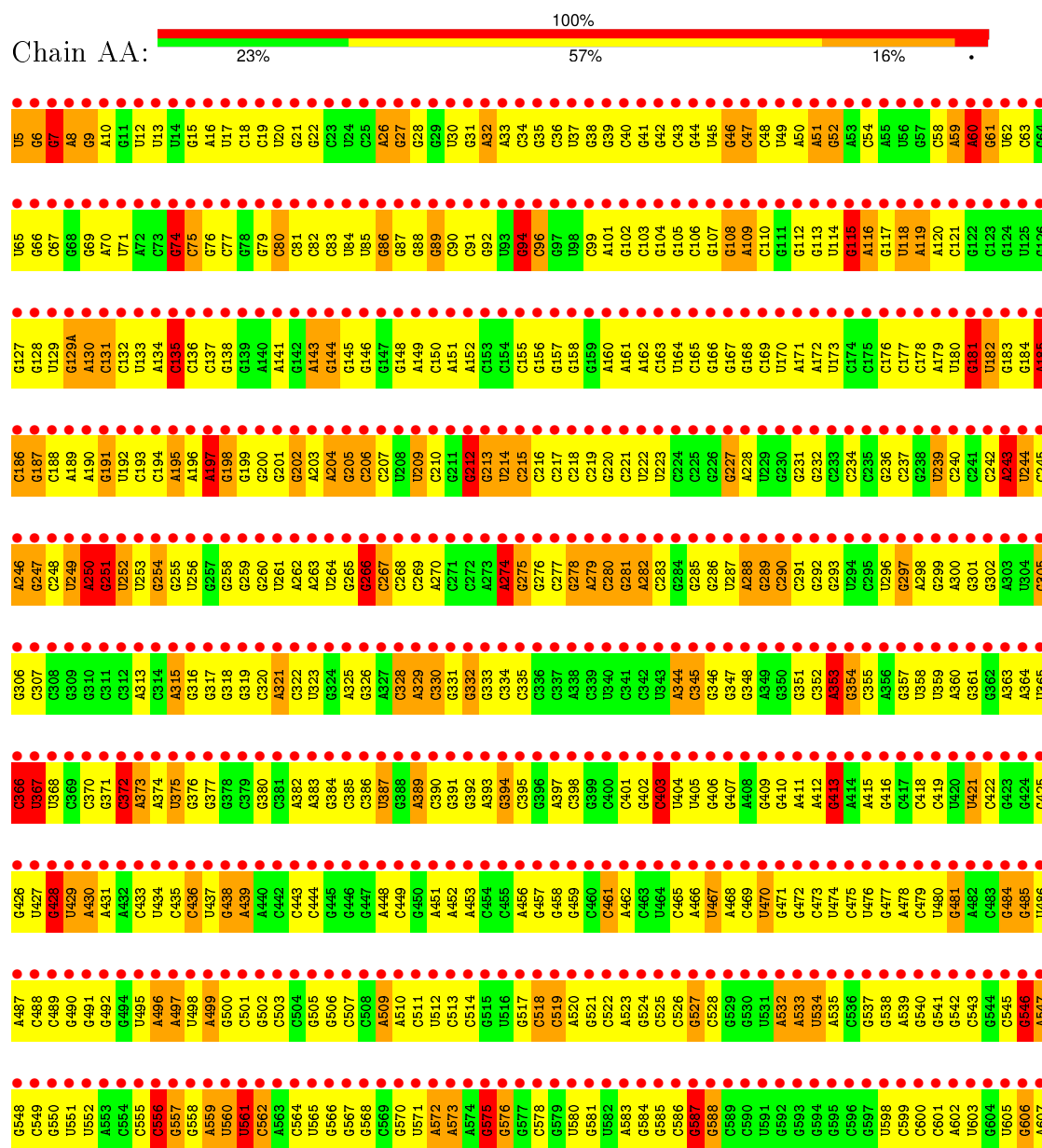
- Molecule 55 is a protein called 50S ribosomal protein L1P.

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

### 3 Residue-property plots

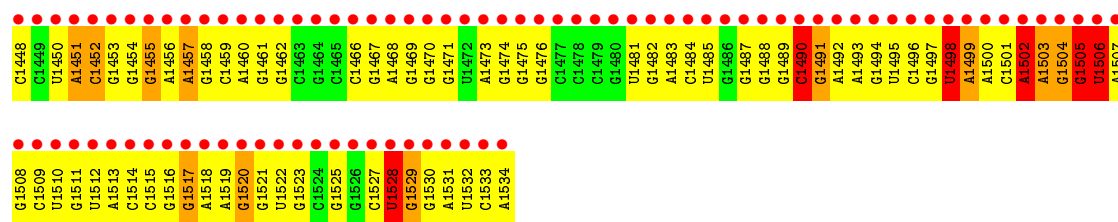
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according 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

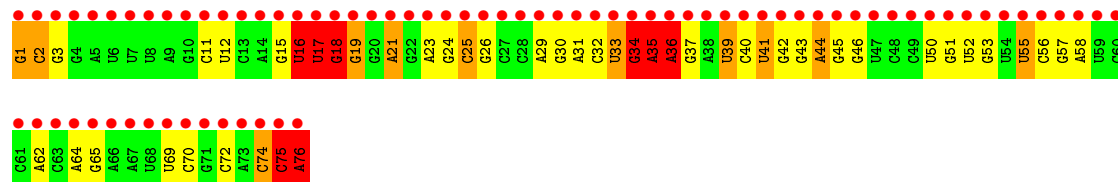


G1387	C1328	A1268	C1208	G1087	C1027	A968	A908	U788	A728	A608
C1388	A1329	A1269	C1209	G1088	C1028	A969	A909	U789	A729	A609
C1389	U1330	C1270	U1210	G1089	U1029	G970	C910	U790	G730	G610
U1390	G1331	U1271	U1211	U1090	U1030	G971	U911	G851	G731	G611
U1391	A1332	G1272	A1212	U1091	G1031	G972	C912	U792	C732	C612
G1392	A1333	A1151	A1213	A1092	G1032	G973	A913	U793	A733	C613
U1393	C1334	C1152	C1214	A1093	G1033	A974	A914	G854	G734	A614
A1394	C1335	C1153	G1215	U1094	G1034	A975	A915	U795	C735	C615
C1395	C1336	G1154	G1216	U1095	A1035	G976	A916	G855	C736	G616
A1396	G1337	G1155	C1217	U1096	A1036	A977	A917	C856	A676	A675
C1397	U1338	A1157	C1218	C1097	G1037	A978	A918	U797	A737	G617
A1398	A1339	U1158	U1219	U1098	C1038	G979	A919	G858	C738	C618
C1399	C1340	U1159	C1220	G1099	C1039	C980	U920	G799	C739	C619
U1400	U1341	G1160	G1221	C1100	U1040	G981	U921	U740	U740	C620
G1401	C1342	C1161	G1222	A1101	A1041	U982	U922	G861	G741	A621
C1402	G1343	C1162	C1223	A1102	G1042	A983	A923	U802	G742	A622
C1403	C1344	G1163	G1224	C1103	C1043	C984	C924	G862	U743	C623
C1404	U1345	G1164	A1225	G1104	A1044	C985	C925	U803	C744	C624
G1405	A1346	C1165	C1226	A1105	C1045	A986	G926	C805	C745	G685
U1406	G1347	G1166	A1227	G1106	A1046	G987	G927	U806	A746	G625
C1407	U1348	A1167	C1228	C1107	U1047	G988	G928	C806	C747	G627
A1408	A1349	A1168	A1229	G1108	G1048	C989	G929	U807	C748	G628
C1409	C1350	A1169	C1230	C1109	U1049	C990	C930	G808	C749	G629
G1410	U1351	G1171	G1231	A1110	G1050	C991	C931	G809	G750	G630
C1411	C1352	C1172	U1232	C1111	C1051	U992	C932	C811	U751	G631
C1412	G1353	G1173	G1233	C1112	U1052	G993	C933	U812	G752	A632
A1413	C1354	G1174	C1234	C1113	C1053	A994	C934	U813	A753	G633
U1414	C1355	G1175	U1235	C1114	G1054	C995	A935	A815	C754	C634
G1415	G1356	A1176	A1236	C1115	A1055	A996	C936	A816	C755	G635
C1416	A1357	G1177	C1237	C1116	U1056	U997	C937	U817	C756	U636
G1417	U1358	C1178	A1238	G1117	G1057	G998	C938	C817	U757	G637
C1418	C1359	A1179	A1239	C1118	C1058	C999	C939	G818	G758	G638
G1419	A1360	U1180	U1240	C1119	C1059	U1000	C940	A819	A759	G639
C1420	G1361	G1181	G1241	C1120	C1060	A1001	G941	U820	G760	A640
U1421	C1362	C1182	C1242	U1121	G1061	G1002	G942	G821	G761	C701
G1422	G1363	A1183	C1243	U1122	U1062	C1003	U943	C822	C762	A642
C1423	A1364	G1184	A1244	A1123	G1063	G2003	G944	G823	G763	G643
U1424	C1365	G1185	A1245	G1124	G1064	A1004	C945	C824	C764	G644
C1425	G1366	G1186	C1246	U1125	U1065	A1005	C946	G825	C765	C645
U1426	C1367	G1187	U1247	U1126	C1066	C1006	G947	C826	A766	C646
A1427	G1368	A1188	A1248	G1127	A1067	C1007	C948	U827	A767	C647
C1428	C1369	C1189	C1249	C1128	G1068	U1008	A949	A828	A768	A648
A1429	G1370	G1190	A1250	C1129	C1069	G1009	U950	G829	G769	G649
C1430	U1371	A1191	A1251	A1130	U1070	G1010	C951	G830	C770	G650
G1431	C1372	C1192	A1252	G1131	C1071	G1011	U952	U831	G771	G651
A1432	G1373	U1193	G1253	C1132	U1072	U1012	C953	C832	U772	U652
C1433	A1374	U1194	C1254	G1133	G1073	G1013	G954	C833	G773	A653
A1434	A1375	C1195	G1255	G1134	G1074	A1014	U955	C834	G774	G654
G1435	C1376	U1196	A1256	U1135	C1075	A1015	U956	U835	G775	A655
U1436	U1377	G1197	U1257	U1136	G1076	A1016	U957	G836	A716	C656
C1437	A1378	G1198	G1258	C1137	G1077	G1017	A958	C837	C717	G657
G1438	C1379	U1199	C1259	G1138	U1078	G1018	A959	C838	G718	G658
A1439	U1380	C1200	A1260	G1139	G1079	C1019	U960	G839	C719	U659
C1440	G1381	A1201	A1261	C1140	A1080	U1020	U961	A900	A780	G660
U1441	C1382	G1202	C1262	G1141	G1081	G1021	C962	C841	A781	G661
G1442	A1383	C1203	C1263	C1142	G1082	G1022	G963	U842	A782	G662
C1443	C1384	A1204	C1264	G1143	U1083	G1023	A964	C843	C783	A663
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A1445	G1386	C1206	G1266	C1145	U1085	U1025	A966	C845	G725	A665
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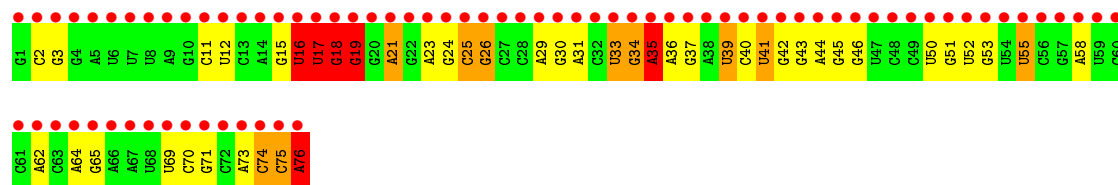




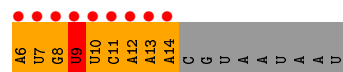
● Molecule 2: tRNA-Phe



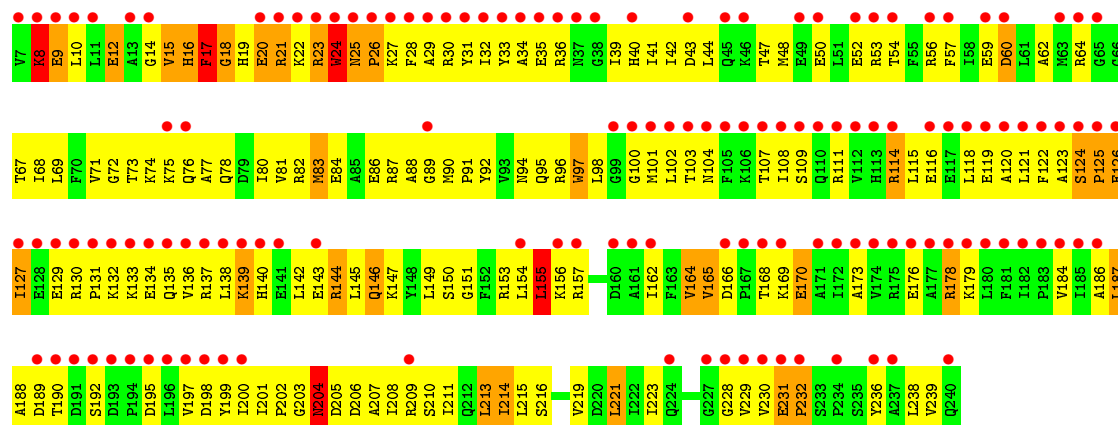
● Molecule 2: tRNA-Phe



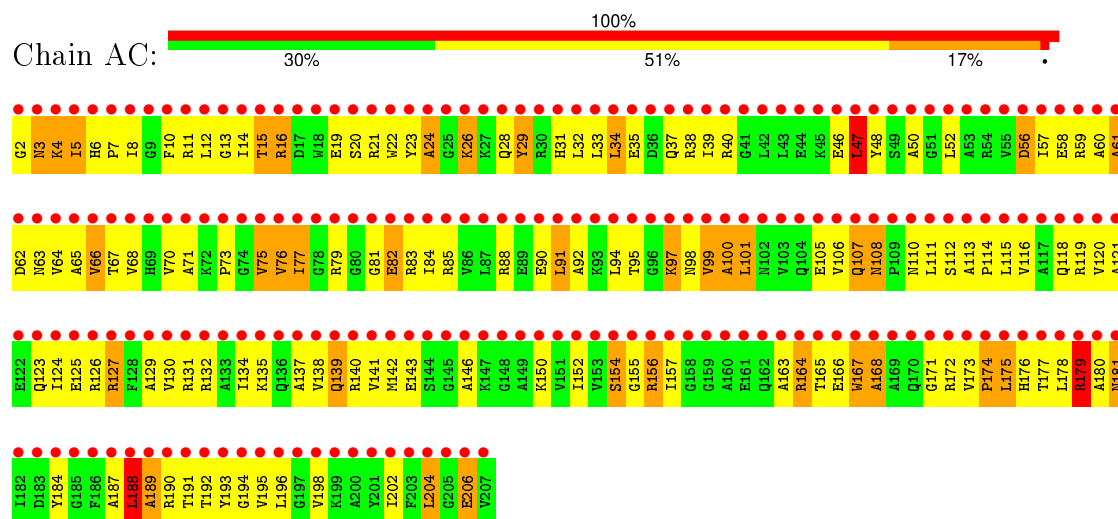
● Molecule 3: mRNA



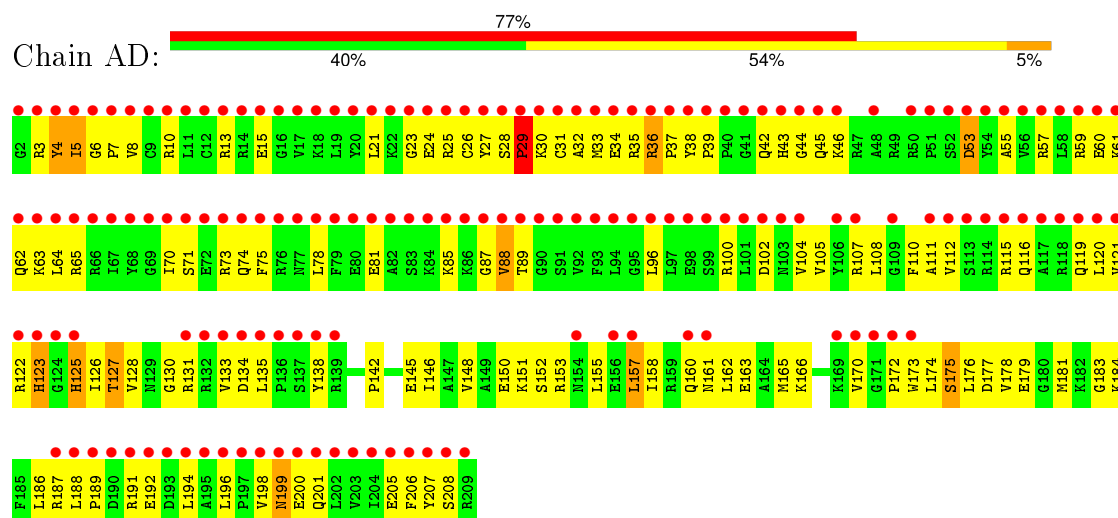
● Molecule 4: 30S ribosomal protein S2



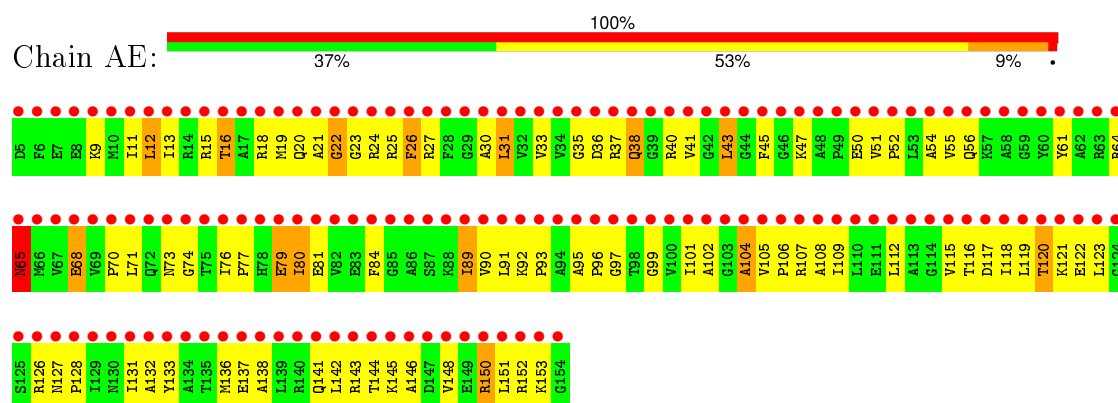
• Molecule 5: 30S ribosomal protein S3



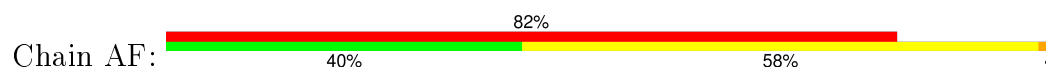
• Molecule 6: 30S ribosomal protein S4

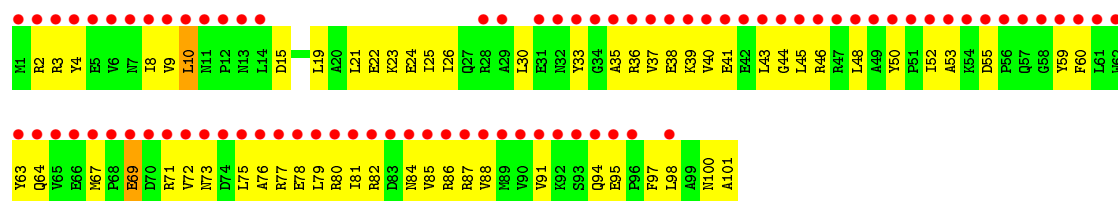


• Molecule 7: 30S ribosomal protein S5

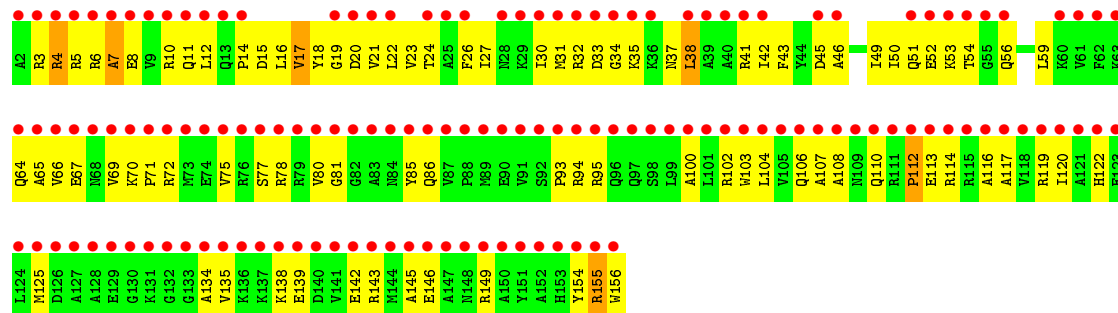
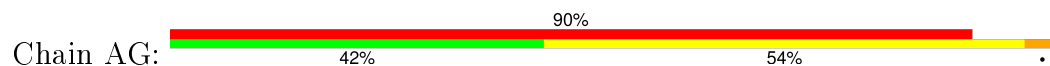


• Molecule 8: 30S ribosomal protein S6

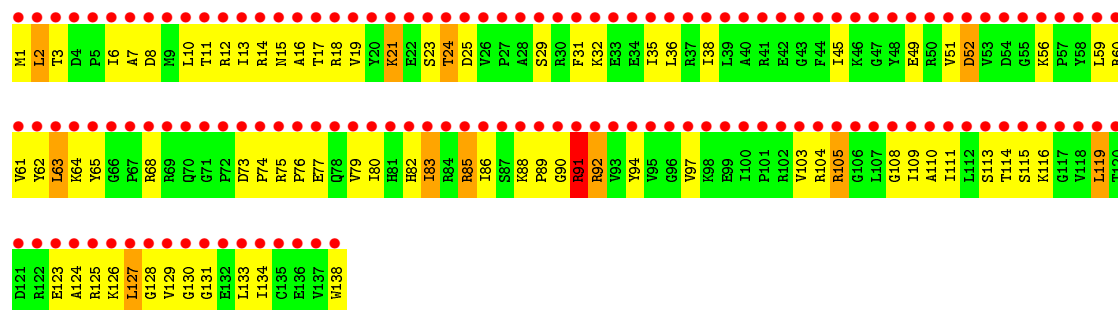
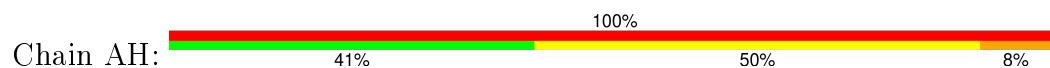




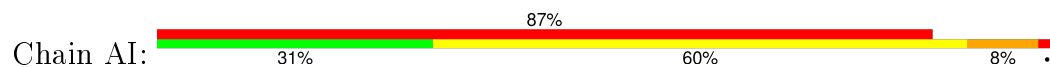
• Molecule 9: 30S ribosomal protein S7



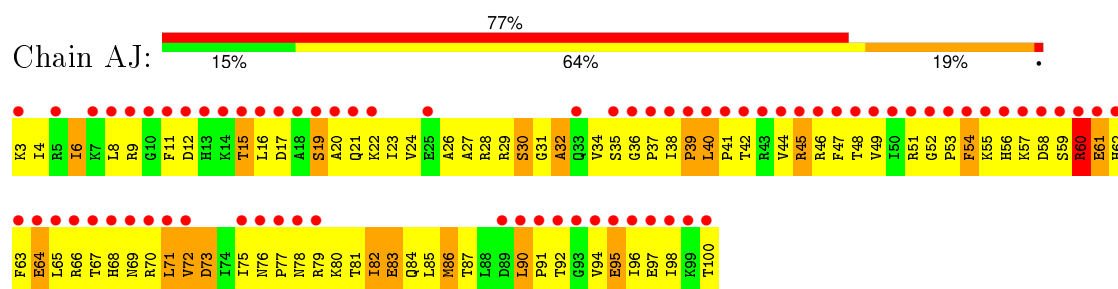
• Molecule 10: 30S ribosomal protein S8



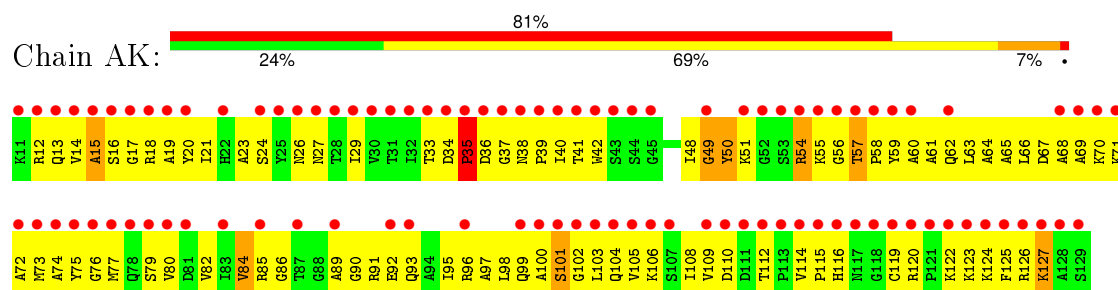
• Molecule 11: 30S ribosomal protein S9

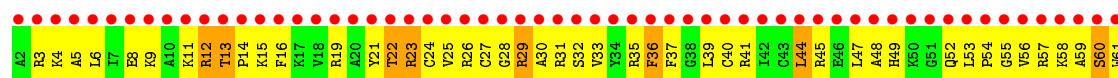


• Molecule 12: 30S ribosomal protein S10

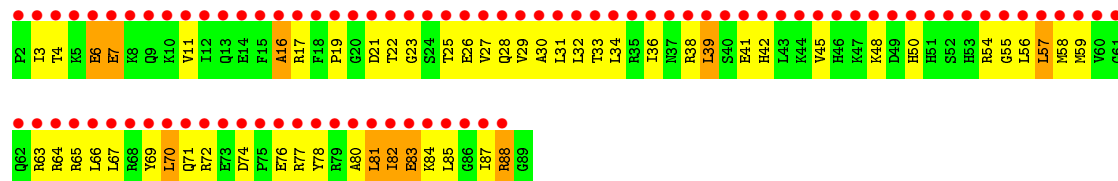


- Molecule 13: 30S ribosomal protein S11

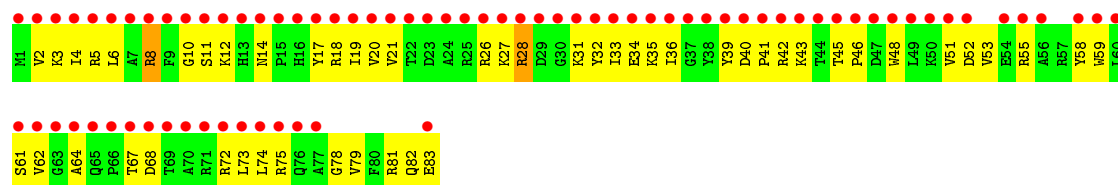




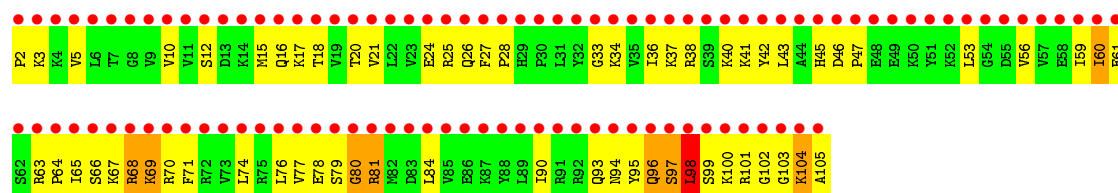
• Molecule 17: 30S ribosomal protein S15



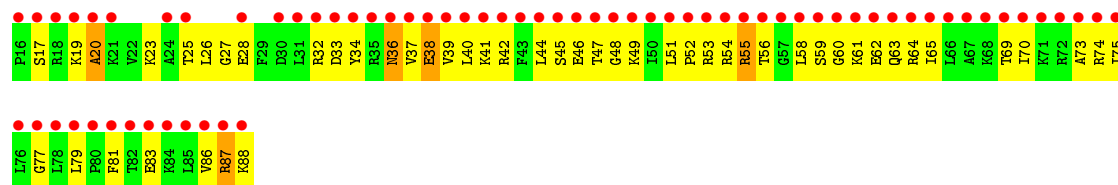
• Molecule 18: 30S ribosomal protein S16



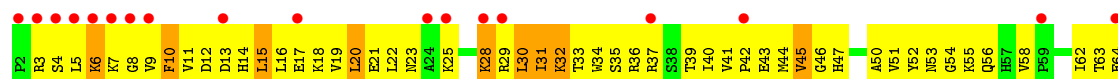
• Molecule 19: 30S ribosomal protein S17

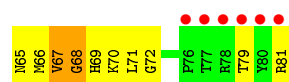


• Molecule 20: 30S ribosomal protein S18

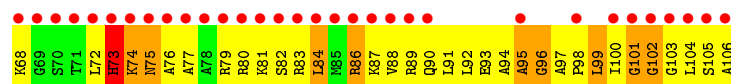
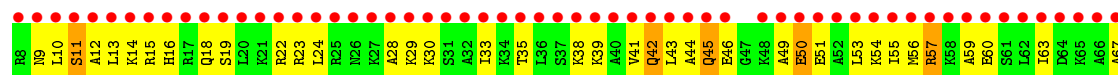


• Molecule 21: 30S ribosomal protein S19

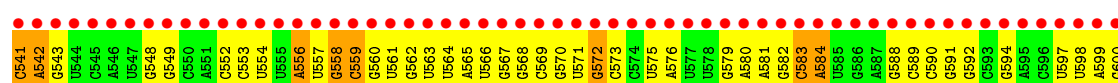
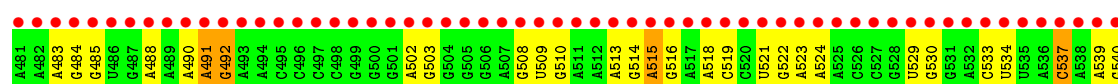
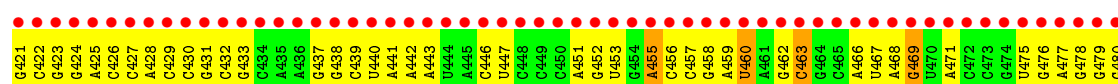
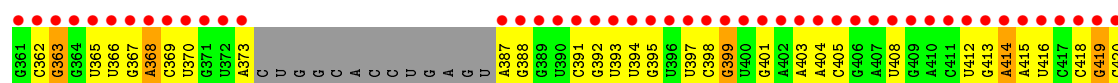
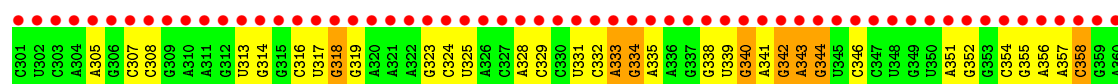
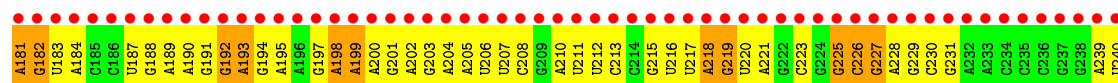
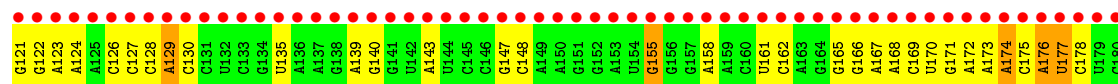
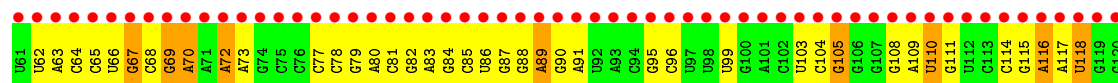
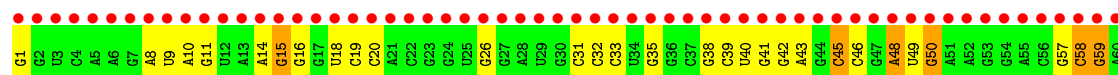




- Molecule 22: 30S ribosomal protein S20



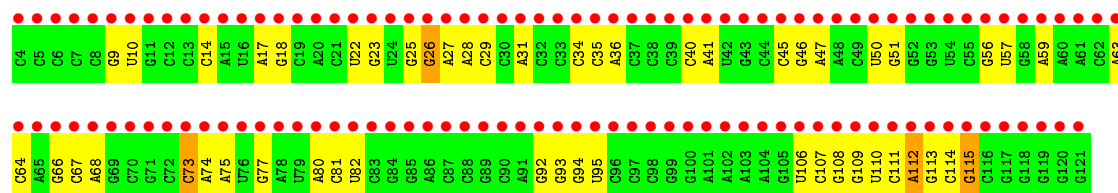
- Molecule 23: 23S RIBOSOMAL RNA



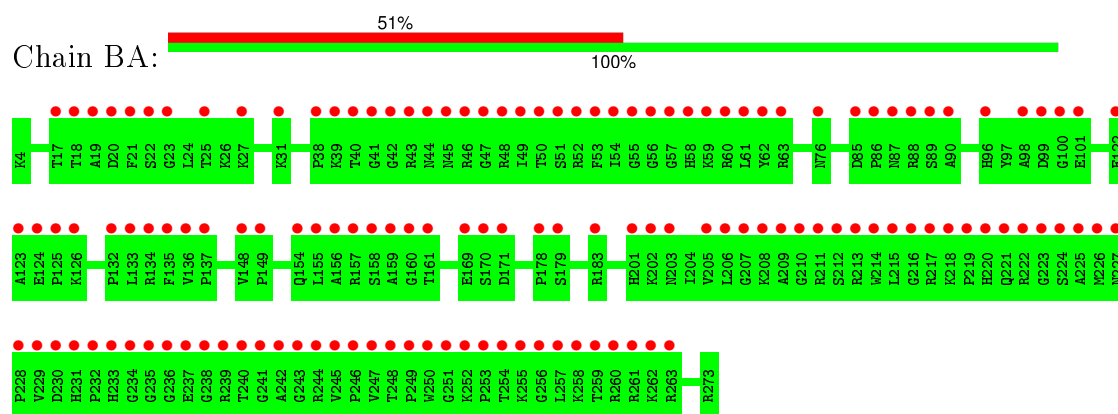
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G1383	G1323	G1263	A1203	A1143	C1083	U1023	G963	A902	8843	C783	C723	6663	C603
G1384	G1324	C1264	G1204	U1144	A1084	G1024	A964	G903	8844	U784	C724	6664	U604
G1385	G1325	G1265	G1205	G1145	G1085	A1025	G965	U904	8845	U785	C725	6665	G605
A1386	U1326	G1266	G1206	G1146	G1086	U1026	A966	G905	8846	U786	G726	U666	A606
G1387	C1327	A1267	G1207	G1147	C1087	C1027	G967	U906	8847	A787	U727	U667	C607
C1388	U1328	U1268	A1208	G1148	C1088	G1028	C968	U907	8848	C788	G728	U668	G608
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G1391	G1331	U1271	G1211	U1151	C1091	C1031	A971	A911	8851	A731	G731	A671	C611
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A1395	A1335	A1275	A1215	G1155	A1095	G1035	C975	C915	8855	A795	G735	6675	C615
A1396	G1336	U1276	G1216	U1156	A1096	G1036	C976	U916	8856	A796	G736	6676	U616
A1397	G1337	G1277	U1217	G1157	A1097	U1037	G977	U917	8857	A797	G737	6677	U617
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A2245	U2185	G3140	A2063	A1943	A1883	G1832	C1772	C1652	U1592	G1532	C1472
A2246	G2186	G3141	U2064	A1944	A1884	U1833	G1773	C1653	C1593	A1533	U1473
A2247	A2187	U3142	A2065	C1945	G1885	G1834	A1774	A1654	U1594	A1534	U1474
A2248	A2188	C3143	G2066	U1946	G1886	G1835	A1775	C1655	A1595	C1535	U1475
U2249	A2189	A3146	U2067	G1947	C1887	C1836	A1776	U1656	U1596	G1536	G1476
G2250	A2190	C3147	C2068	C1948	C1888	G1837	A1777	A1657	A1597	U1537	C1477
U2251	A2191	G3148	U2069	A1949	C1889	G1838	U1778	A1658	C1598	U1538	U1478
A2252	U2192	G3149	G2070	C1950	G1890	A1839	G1779	G1659	G1599	U1539	G1479
A2253	C2193	U3150	U2071	A1951	C1891	A1840	A1780	G1660	U1600	C1540	G1480
C2254	A2194	U3151	C2072	A1952	C1892	G1841	G1781	C1661	U1601	G1541	U1481
G2255	C2195	G3152	A2073	A1953	G1893	G1842	A1782	G1662	G1602	G1542	U1482
G2256	U2196	G3153	U2074	A1954	U1894	U1843	G1783	C1663	A1603	G1543	G1483
A2257	U2197	G3154	U2075	G2015	A1895	C1844	C1784	G1664	A1604	A1544	C1484
G2258	U2198	G3155	C3093	G1956	A1896	A1845	A1785	C1665	A1605	G1545	U1485
G2259	C2199	G3156	A3094	C1957	C1897	A1846	C1786	G1666	C1606	C1546	A1486
C2260	G2200	G3157	A3095	G1958	U1898	G1847	U1787	A1667	A1607	U1547	C1487
A3158	G2201	A3158	C3096	U1959	A1899	U1848	C1788	G1668	U1608	U1548	G1488
G2262	G2202	G3159	G3097	A1960	U1900	G1849	U1789	G1669	G1609	C1549	C1489
C2263	G2203	C3160	U3098	A1961	A1901	G1850	G1790	G1670	A1610	C1550	U1490
C2264	A2204	G3161	U3099	C1962	A1902	A1851	C1791	A1671	U1611	U1551	C1491
G2265	C2205	G3162	G3100	G1963	C1903	G1852	C1792	A1672	U1612	C1552	A1492
A2266	C2206	C3163	G3101	A1964	G1904	G1853	U1793	C1673	G1613	G1553	A1493
A2267	G2207	C3164	A2025	U1965	G1905	G1854	A1794	C1674	C1614	G1554	G1494
G2268	U2208	G3165	A3103	U1966	U1906	G1855	G1795	C1675	C1615	A1555	G1495
G2269	G2209	C3166	C2027	U1967	C1907	U1856	A1796	U1676	C1616	A1556	G1496
U2270	C2210	U3167	G3104	G1968	C1908	A3865	C1797	C1677	G1617	G1557	C1497
C2271	U2211	G3168	G3105	G1969	C1909	A3866	G1798	G1678	U1618	G1558	A1498
A2272	C2212	A3169	U3106	G1970	A1910	G3867	A1799	U1679	A1619	G1559	A1499
C2273	G2213	A3170	G3108	C1971	A1911	U3868	A1800	U1680	C1620	A1560	U1500

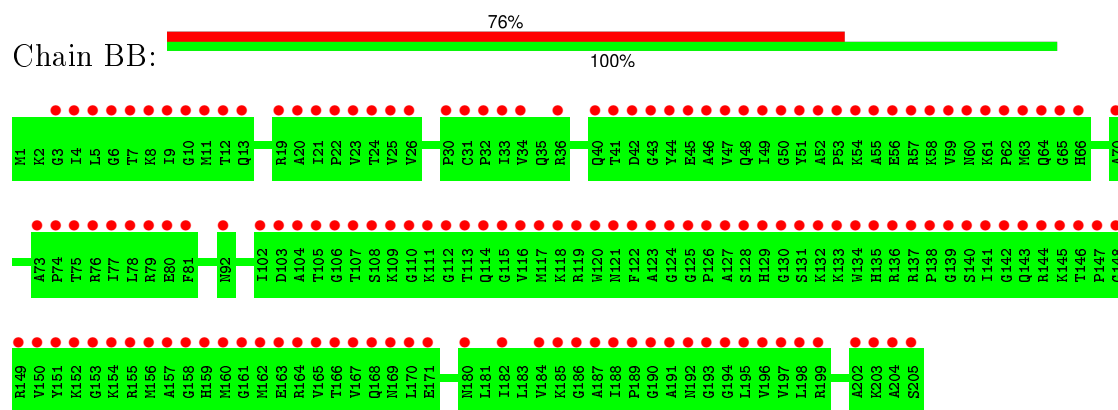




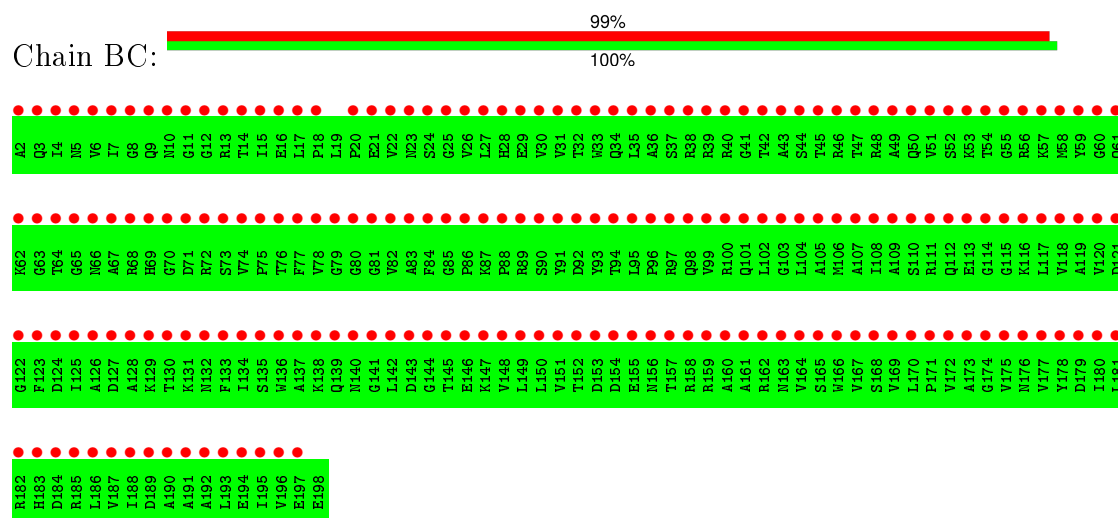
- Molecule 25: 50S ribosomal protein L2



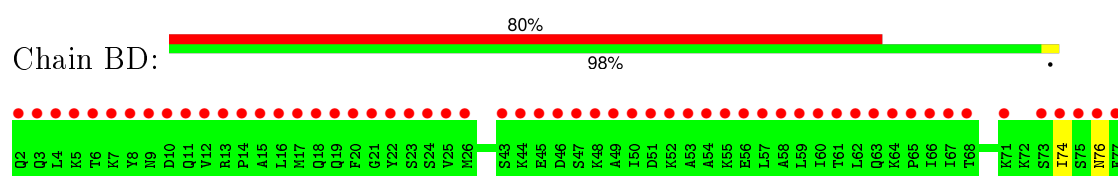
• Molecule 26: 50S ribosomal protein L3

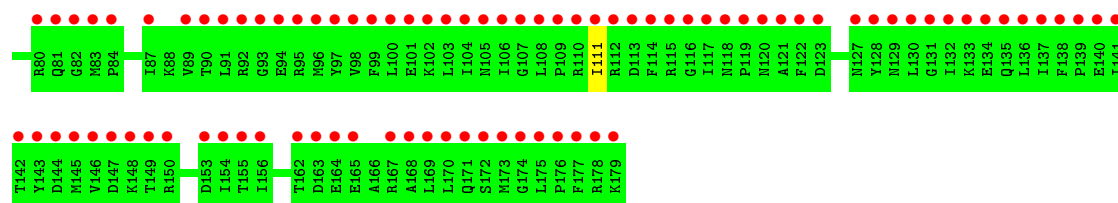


• Molecule 27: 50S ribosomal protein L4

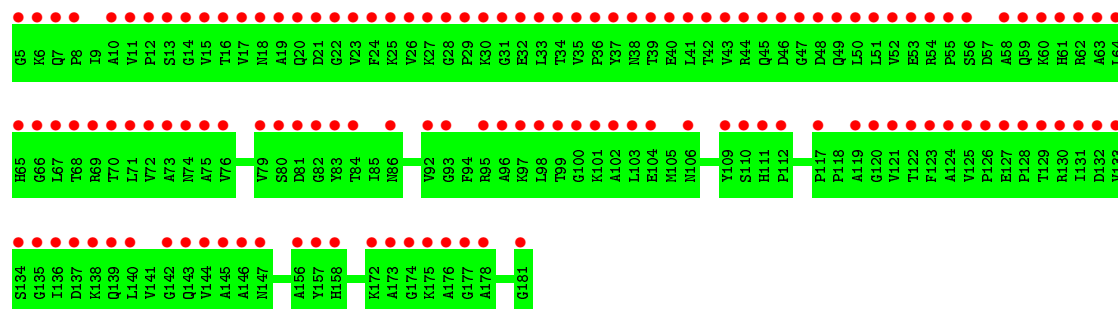
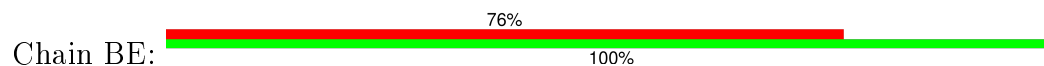


• Molecule 28: 50S ribosomal protein L5





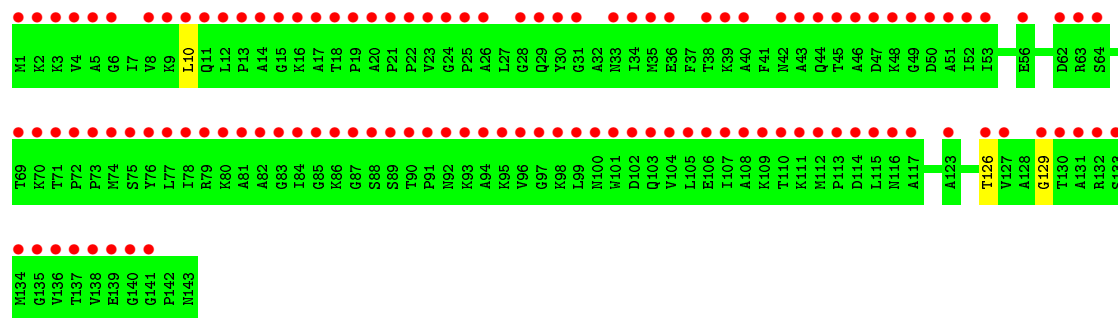
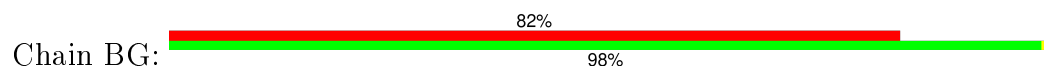
• Molecule 29: 50S ribosomal protein L6



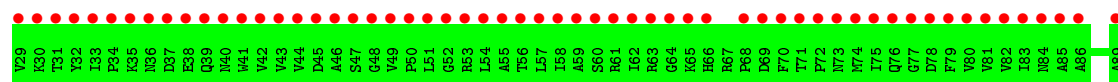
• Molecule 30: 50S ribosomal protein L9

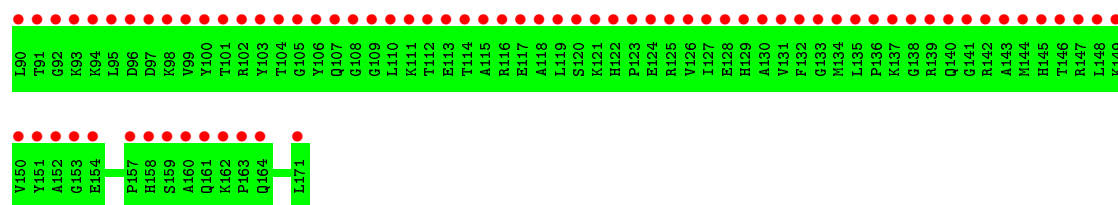


• Molecule 31: 50S ribosomal protein L11



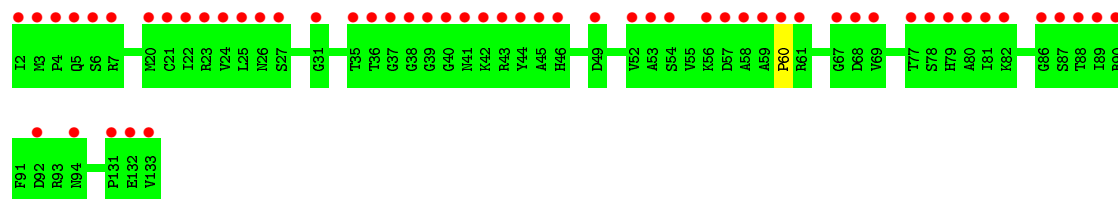
• Molecule 32: 50S ribosomal protein L13





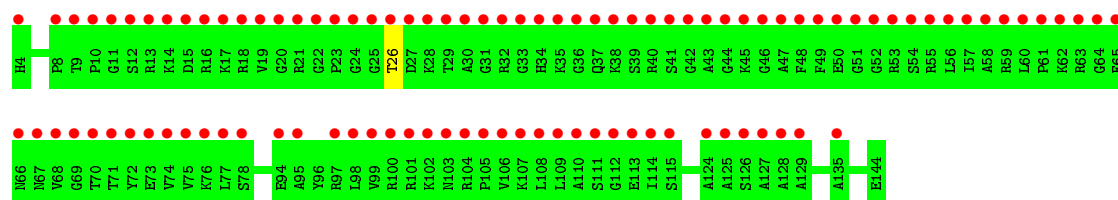
• Molecule 33: 50S ribosomal protein L14

Chain BI: 42% 99%



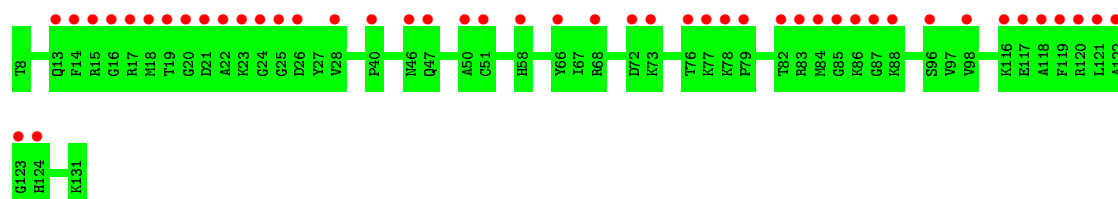
• Molecule 34: 50S ribosomal protein L15

Chain BJ: 71% 99%



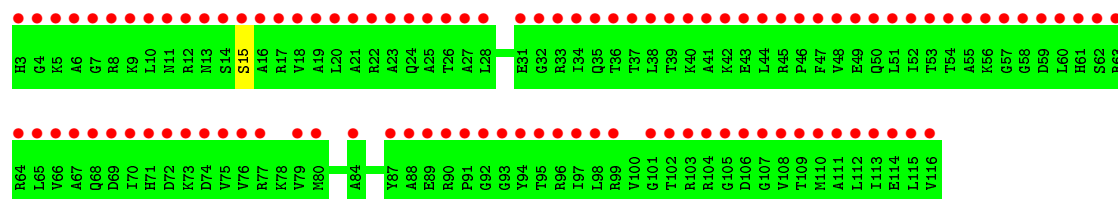
• Molecule 35: 50S ribosomal protein L16

Chain BK: 38% 100%

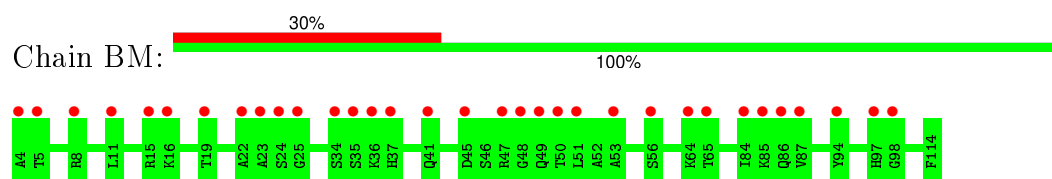


• Molecule 36: 50S ribosomal protein L17

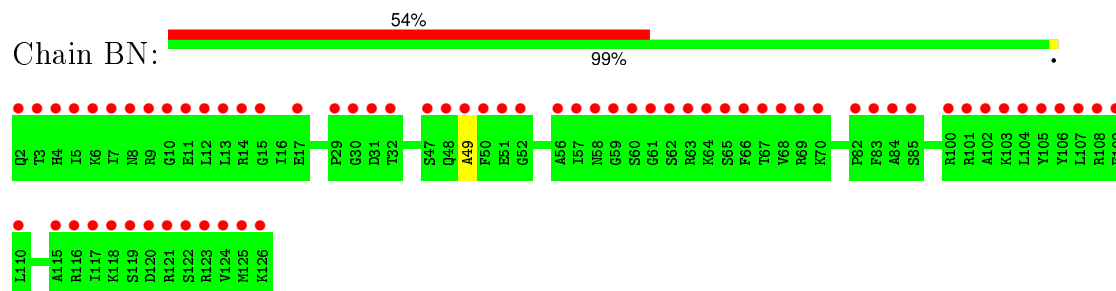
Chain BL: 92% 99%



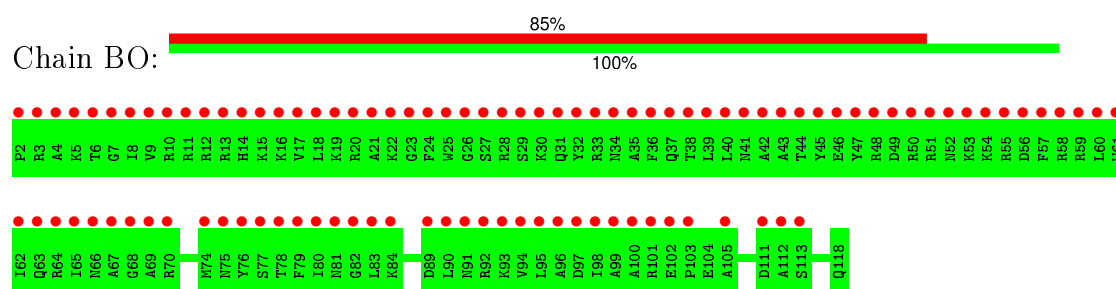
• Molecule 37: 50S ribosomal protein L18



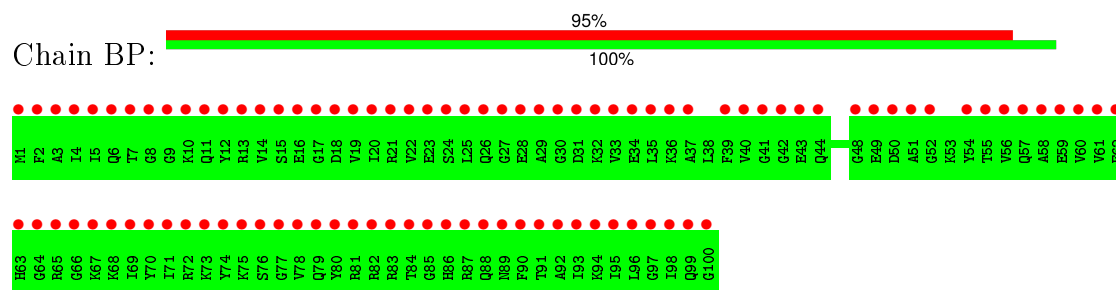
- Molecule 38: 50S ribosomal protein L19



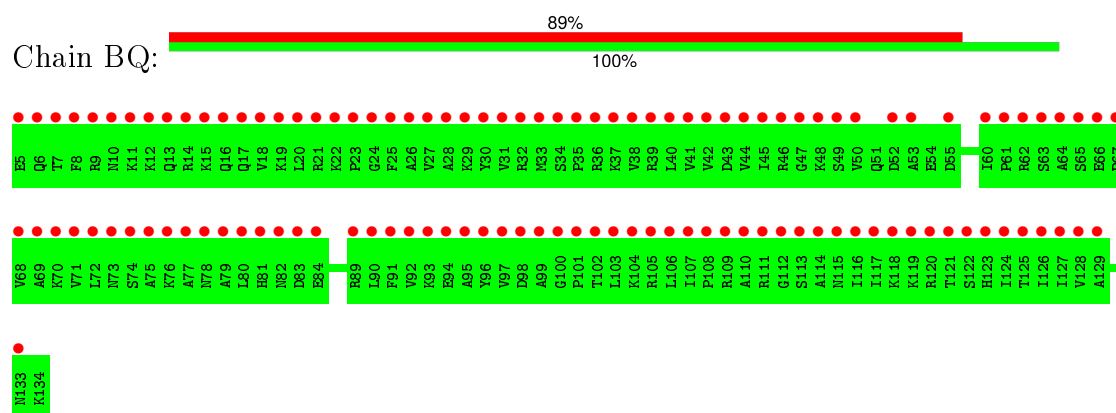
- Molecule 39: 50S ribosomal protein L20



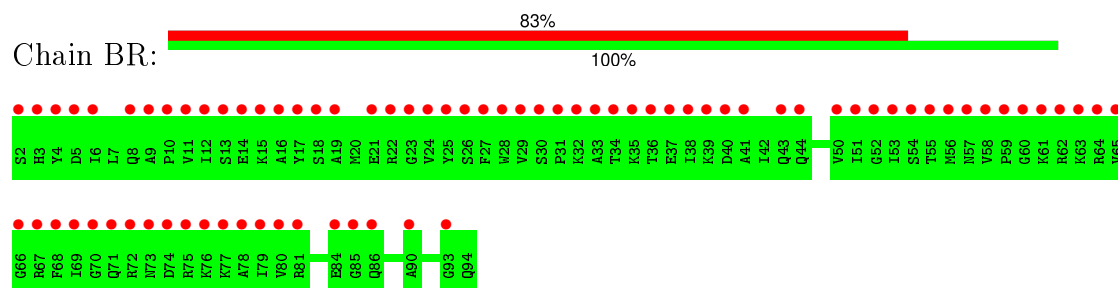
- Molecule 40: 50S ribosomal protein L21



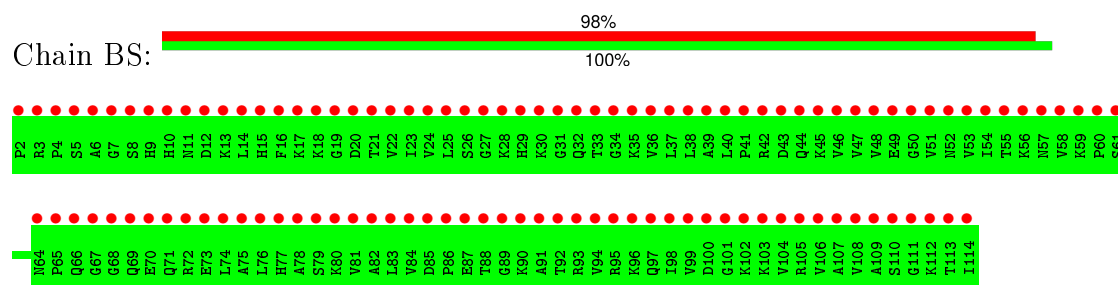
- Molecule 41: 50S ribosomal protein L22



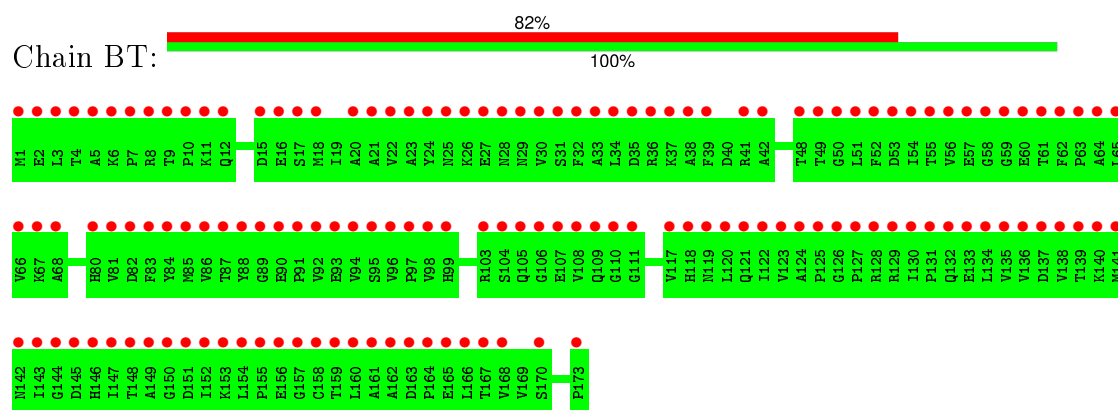
- Molecule 42: 50S ribosomal protein L23



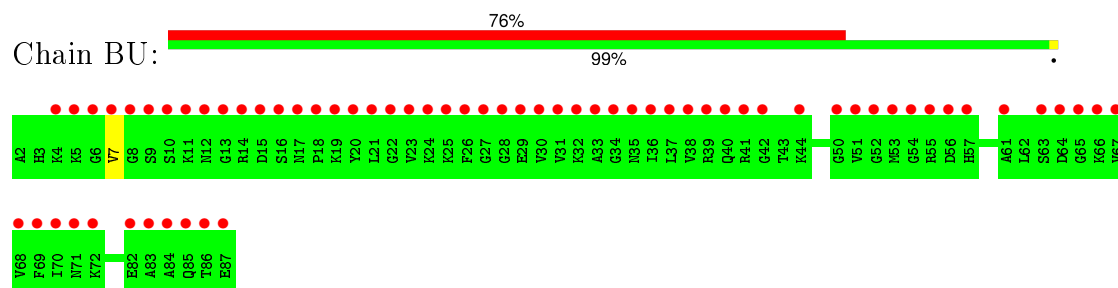
- Molecule 43: 50S ribosomal protein L24



- Molecule 44: general stress protein Ctc



- Molecule 45: 50S ribosomal protein L27

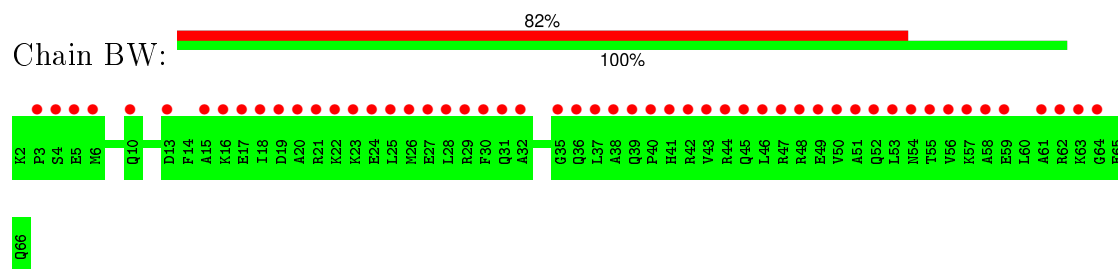


- Molecule 46: 50S RIBOSOMAL PROTEIN L28

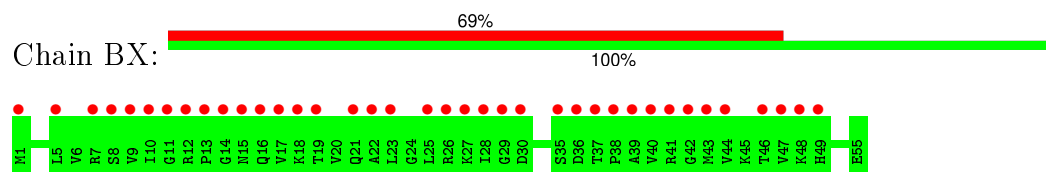


There are no outlier residues recorded for this chain.

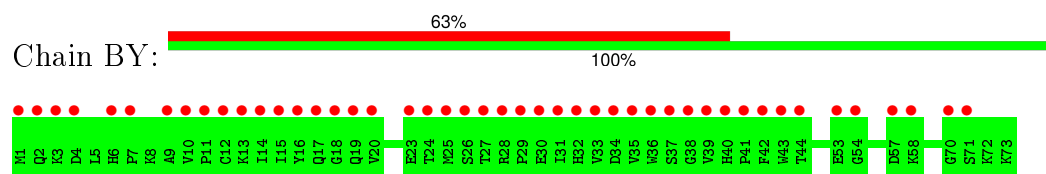
- Molecule 47: 50S ribosomal protein L29



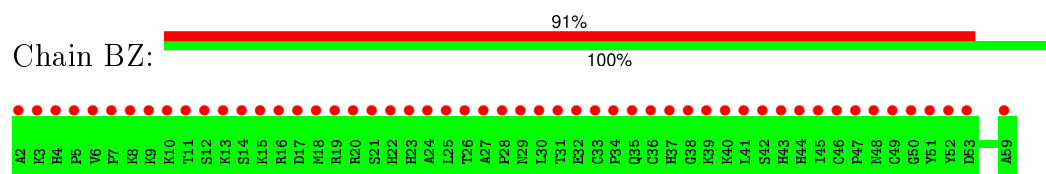
- Molecule 48: 50S ribosomal protein L30



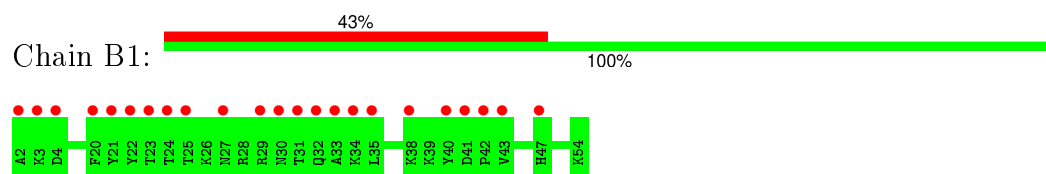
- Molecule 49: 50S ribosomal protein L31



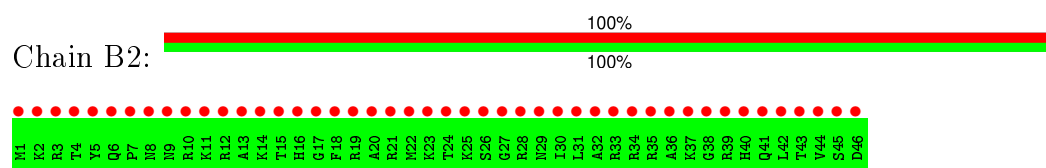
- Molecule 50: 50S ribosomal protein L32



- Molecule 51: 50S ribosomal protein L33

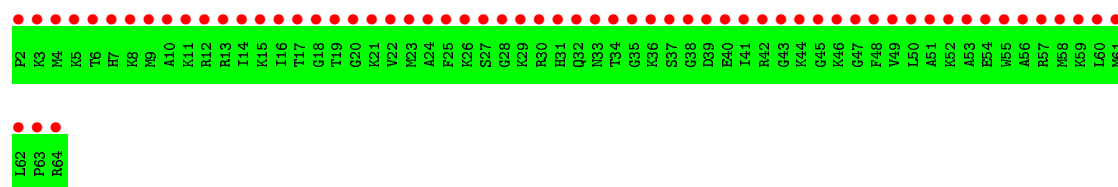


- Molecule 52: 50S ribosomal protein L34

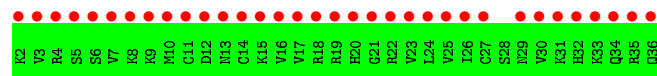


- Molecule 53: 50S ribosomal protein L35

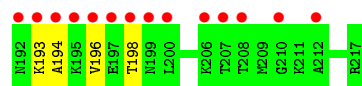
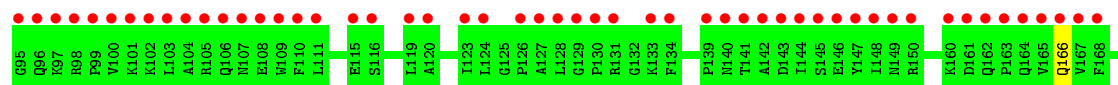
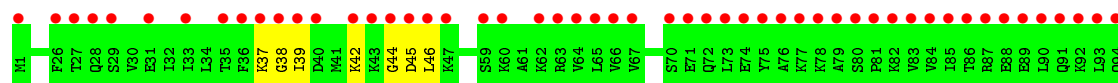




- Molecule 54: 50S ribosomal protein L36



- Molecule 55: 50S ribosomal protein L1P





## 4 Data and refinement statistics

Property	Value	Source
Space group	I 4 2 2	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	682.32Å 682.32Å 386.36Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	70.00 – 8.70 241.24 – 8.70	Depositor EDS
% Data completeness (in resolution range)	98.5 (70.00-8.70) 93.0 (241.24-8.70)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	0.15	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	2.97 (at 8.45Å)	Xtriage
Refinement program	CNS	Depositor
R, $R_{free}$	0.394 , 0.415 0.382 , 0.419	Depositor DCC
$R_{free}$ test set	1786 reflections (5.16%)	DCC
Wilson B-factor (Å <sup>2</sup> )	443.4	Xtriage
Anisotropy	0.381	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	1.30 , -10.0	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.46$ , $\langle L^2 \rangle = 0.29$	Xtriage
Outliers	0 of 37559 reflections	Xtriage
$F_o, F_c$ correlation	0.83	EDS
Total number of atoms	122017	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	641.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 7.48% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical 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	1.53	69/36688 (0.2%)	1.32	264/57135 (0.5%)
2	AV	2.23	23/1817 (1.3%)	1.84	42/2831 (1.5%)
2	AW	1.75	19/1816 (1.0%)	1.94	32/2827 (1.1%)
3	AU	45.18	35/188 (18.6%)	20.47	49/274 (17.9%)
4	AB	0.37	0/1935	0.68	1/2609 (0.0%)
5	AC	0.38	0/1636	0.66	0/2205
6	AD	0.37	0/1732	0.63	0/2318
7	AE	0.48	0/1162	0.79	0/1564
8	AF	0.34	0/855	0.63	0/1154
9	AG	0.35	0/1275	0.62	0/1709
10	AH	0.44	0/1135	0.74	0/1527
11	AI	0.36	0/1028	0.62	0/1378
12	AJ	0.36	0/807	0.71	0/1085
13	AK	0.39	0/899	0.70	0/1213
14	AL	0.70	1/986 (0.1%)	0.76	1/1320 (0.1%)
15	AM	0.44	1/1007 (0.1%)	1.11	3/1347 (0.2%)
16	AN	0.40	0/500	0.78	0/664
17	AO	0.36	0/744	0.63	1/992 (0.1%)
18	AP	0.43	0/716	0.76	0/963
19	AQ	0.44	0/869	0.75	0/1159
20	AR	0.36	0/602	0.63	0/799
21	AS	0.35	0/661	0.72	1/890 (0.1%)
22	AT	0.39	0/764	0.73	0/1006
23	B0	0.49	17/67885 (0.0%)	0.75	49/105852 (0.0%)
24	B9	0.68	1/2815 (0.0%)	0.76	3/4384 (0.1%)
All	All	1.97	166/130522 (0.1%)	1.25	446/199205 (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.

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Mol	Chain	#Chirality outliers	#Planarity outliers
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Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	2	40
2	AV	0	7
2	AW	0	7
23	B0	0	5
All	All	2	59

All (166) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	AU	14	A	C6-N6	279.73	3.57	1.33
3	AU	13	A	C6-N6	279.69	3.57	1.33
3	AU	6	A	C6-N6	279.55	3.57	1.33
3	AU	12	A	C6-N6	279.29	3.57	1.33
3	AU	8	G	C6-O6	259.50	3.57	1.24
1	AA	135	C	O3'-P	-83.90	0.60	1.61
1	AA	214	U	O3'-P	-73.46	0.72	1.61
1	AA	893	C	O3'-P	-61.19	0.87	1.61
1	AA	436	C	O3'-P	-60.64	0.88	1.61
1	AA	905	U	O3'-P	-53.63	0.96	1.61
1	AA	556	C	O3'-P	-49.20	1.02	1.61
1	AA	733	A	O3'-P	47.43	2.18	1.61
1	AA	115	G	O3'-P	47.32	2.17	1.61
1	AA	1331	G	O3'-P	47.30	2.17	1.61
1	AA	1393	U	O3'-P	-46.70	1.05	1.61
23	B0	3107	G	O3'-P	44.35	2.14	1.61
1	AA	367	U	O3'-P	44.09	2.14	1.61
1	AA	1034	G	O3'-P	43.46	2.13	1.61
1	AA	212	G	O3'-P	43.06	2.12	1.61
2	AV	25	C	O3'-P	42.67	2.12	1.61
23	B0	3098	U	O3'-P	42.58	2.12	1.61
1	AA	94	G	O3'-P	-40.86	1.12	1.61
23	B0	3106	U	O3'-P	-40.56	1.12	1.61
1	AA	288	A	O3'-P	39.52	2.08	1.61
1	AA	827	U	O3'-P	38.98	2.08	1.61
1	AA	1211	U	O3'-P	38.81	2.07	1.61
1	AA	118	U	O3'-P	37.95	2.06	1.61
3	AU	11	C	O3'-P	36.67	2.05	1.61
1	AA	239	U	O3'-P	-36.19	1.17	1.61
1	AA	403	C	O3'-P	-35.34	1.18	1.61
2	AV	36	A	O3'-P	-35.27	1.18	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1409	C	O3'-P	-34.67	1.19	1.61
23	B0	3183	A	O3'-P	34.42	2.02	1.61
24	B9	73	C	O3'-P	33.99	2.02	1.61
1	AA	375	U	O3'-P	33.88	2.01	1.61
1	AA	74	G	O3'-P	-33.76	1.20	1.61
1	AA	576	G	O3'-P	-33.51	1.21	1.61
1	AA	1155	G	O3'-P	33.18	2.00	1.61
23	B0	3149	G	O3'-P	31.47	1.99	1.61
1	AA	89	G	O3'-P	31.38	1.98	1.61
1	AA	1490	C	O3'-P	-31.15	1.23	1.61
1	AA	651	C	O3'-P	-30.60	1.24	1.61
1	AA	1398	A	O3'-P	30.38	1.97	1.61
1	AA	804	U	O3'-P	-29.69	1.25	1.61
1	AA	546	G	O3'-P	29.19	1.96	1.61
23	B0	3102	G	O3'-P	-28.88	1.26	1.61
1	AA	59	A	O3'-P	-28.52	1.26	1.61
1	AA	776	G	O3'-P	-28.42	1.27	1.61
1	AA	1297	C	O3'-P	28.30	1.95	1.61
1	AA	606	G	O3'-P	28.21	1.95	1.61
23	B0	1856	U	O3'-P	27.18	1.93	1.61
2	AV	74	C	O3'-P	-26.99	1.28	1.61
1	AA	1335	C	O3'-P	26.83	1.93	1.61
2	AW	75	C	O3'-P	-26.74	1.29	1.61
1	AA	387	U	O3'-P	26.51	1.93	1.61
1	AA	1110	A	O3'-P	-25.86	1.30	1.61
1	AA	394	G	O3'-P	-25.66	1.30	1.61
2	AV	75	C	O3'-P	-25.65	1.30	1.61
1	AA	26	A	O3'-P	-25.59	1.30	1.61
1	AA	206	C	O3'-P	25.11	1.91	1.61
1	AA	1383	C	O3'-P	-24.75	1.31	1.61
1	AA	461	C	O3'-P	-24.70	1.31	1.61
23	B0	3188	U	O3'-P	24.59	1.90	1.61
2	AW	33	U	O3'-P	-24.01	1.32	1.61
1	AA	227	G	O3'-P	-23.32	1.33	1.61
1	AA	1457	A	O3'-P	-22.16	1.34	1.61
1	AA	1455	G	O3'-P	-22.11	1.34	1.61
23	B0	3141	G	O3'-P	21.50	1.86	1.61
1	AA	1182	G	O3'-P	21.35	1.86	1.61
1	AA	631	G	O3'-P	21.17	1.86	1.61
23	B0	3101	G	O3'-P	20.97	1.86	1.61
1	AA	278	G	O3'-P	20.68	1.85	1.61
1	AA	1345	U	O3'-P	-20.45	1.36	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1374	A	O3'-P	20.11	1.85	1.61
1	AA	1237	C	O3'-P	20.05	1.85	1.61
2	AW	34	G	O3'-P	19.74	1.84	1.61
2	AW	46	G	C8-N7	19.74	1.42	1.30
1	AA	274	A	O3'-P	-19.61	1.37	1.61
2	AV	46	G	C8-N7	19.60	1.42	1.30
1	AA	1067	A	O3'-P	-18.95	1.38	1.61
2	AV	16	U	C5-C6	18.71	1.50	1.34
2	AW	16	U	C5-C6	18.61	1.50	1.34
23	B0	3190	G	O3'-P	18.37	1.83	1.61
1	AA	587	G	O3'-P	18.18	1.82	1.61
2	AV	58	A	C6-N6	17.93	1.48	1.33
2	AW	58	A	C6-N6	17.83	1.48	1.33
14	AL	19	ARG	C-N	-17.39	0.94	1.34
2	AW	17	U	C5-C6	17.21	1.49	1.34
2	AV	17	U	C5-C6	17.11	1.49	1.34
23	B0	3874	C	O3'-P	16.97	1.81	1.61
2	AV	44	A	O3'-P	-16.81	1.41	1.61
2	AV	33	U	O3'-P	-16.73	1.41	1.61
2	AV	72	C	O3'-P	-15.79	1.42	1.61
1	AA	1445	U	O3'-P	-15.56	1.42	1.61
23	B0	3186	C	O3'-P	-15.43	1.42	1.61
1	AA	754	C	O3'-P	14.57	1.78	1.61
1	AA	470	U	O3'-P	-14.49	1.43	1.61
2	AV	58	A	C6-N1	13.84	1.45	1.35
2	AW	58	A	C6-N1	13.84	1.45	1.35
1	AA	944	G	O3'-P	-13.66	1.44	1.61
2	AW	25	C	O3'-P	-13.19	1.45	1.61
1	AA	499	A	O3'-P	12.94	1.76	1.61
3	AU	9	U	O3'-P	-12.28	1.46	1.61
3	AU	10	U	O3'-P	-12.23	1.46	1.61
3	AU	13	A	O3'-P	-12.21	1.46	1.61
3	AU	6	A	O3'-P	-12.20	1.46	1.61
3	AU	12	A	O3'-P	-12.18	1.46	1.61
3	AU	7	U	O3'-P	-12.09	1.46	1.61
3	AU	8	G	C2-N2	-12.06	1.22	1.34
1	AA	869	G	O3'-P	-12.01	1.46	1.61
3	AU	11	C	C4-N4	-11.43	1.23	1.33
2	AW	16	U	N1-C6	11.24	1.48	1.38
2	AV	16	U	N1-C6	11.19	1.48	1.38
2	AW	17	U	N1-C6	10.88	1.47	1.38
2	AV	17	U	N1-C6	10.83	1.47	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AV	46	G	N9-C8	10.66	1.45	1.37
2	AW	46	G	N9-C8	10.63	1.45	1.37
1	AA	1033	G	O3'-P	10.61	1.73	1.61
23	B0	3866	A	O3'-P	10.58	1.73	1.61
1	AA	1505	G	O3'-P	-10.26	1.48	1.61
2	AV	17	U	C4-C5	10.19	1.52	1.43
1	AA	109	A	O3'-P	10.17	1.73	1.61
2	AW	17	U	C4-C5	9.84	1.52	1.43
1	AA	46	G	O3'-P	9.19	1.72	1.61
3	AU	8	G	C5-C4	9.16	1.44	1.38
3	AU	13	A	C5-C4	8.94	1.45	1.38
3	AU	8	G	O3'-P	-8.90	1.50	1.61
3	AU	12	A	C5-C4	8.88	1.45	1.38
3	AU	6	A	C5-C4	8.80	1.45	1.38
3	AU	14	A	C5-C4	8.67	1.44	1.38
15	AM	86	CYS	C-N	8.39	1.53	1.34
2	AV	16	U	C4-C5	8.32	1.51	1.43
2	AW	16	U	C4-C5	8.30	1.51	1.43
1	AA	933	G	O3'-P	8.17	1.71	1.61
1	AA	79	G	O3'-P	-8.14	1.51	1.61
2	AV	35	A	O3'-P	8.07	1.70	1.61
3	AU	8	G	C5-C6	-7.50	1.34	1.42
3	AU	8	G	C2-N3	7.04	1.38	1.32
3	AU	12	A	C5-C6	-6.99	1.34	1.41
3	AU	6	A	C5-C6	-6.89	1.34	1.41
3	AU	14	A	C5-C6	-6.87	1.34	1.41
2	AV	39	U	C4-C5	-6.83	1.37	1.43
3	AU	13	A	C5-C6	-6.78	1.34	1.41
1	AA	143	A	O3'-P	6.75	1.69	1.61
2	AW	55	U	C4-C5	-6.72	1.37	1.43
2	AV	39	U	N1-C2	6.69	1.44	1.38
2	AV	58	A	C5-C6	6.65	1.47	1.41
2	AW	39	U	C4-C5	-6.63	1.37	1.43
2	AV	55	U	C4-C5	-6.60	1.37	1.43
2	AW	58	A	C5-C6	6.55	1.47	1.41
2	AV	76	A	C2'-O2'	6.53	1.50	1.41
2	AW	39	U	N1-C2	6.49	1.44	1.38
3	AU	11	C	N3-C4	6.36	1.38	1.33
23	B0	1113	C	P-OP2	6.17	1.59	1.49
2	AW	73	A	O3'-P	6.16	1.68	1.61
3	AU	14	A	N3-C4	6.07	1.38	1.34
3	AU	13	A	N3-C4	5.83	1.38	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	AU	6	A	N3-C4	5.78	1.38	1.34
1	AA	884	U	O3'-P	5.64	1.68	1.61
3	AU	12	A	N3-C4	5.61	1.38	1.34
3	AU	12	A	C2-N3	5.51	1.38	1.33
3	AU	6	A	C2-N3	5.43	1.38	1.33
23	B0	1113	C	C3'-O3'	-5.30	1.34	1.42
3	AU	14	A	C2-N3	5.29	1.38	1.33
3	AU	13	A	C2-N3	5.28	1.38	1.33
23	B0	1112	U	C3'-O3'	-5.17	1.34	1.42

All (446) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AU	8	G	C5-C6-O6	-177.72	21.96	128.60
3	AU	6	A	C5-C6-N6	-127.11	22.02	123.70
3	AU	14	A	C5-C6-N6	-127.08	22.03	123.70
3	AU	12	A	C5-C6-N6	-127.07	22.05	123.70
3	AU	13	A	C5-C6-N6	-127.04	22.07	123.70
1	AA	884	U	P-O3'-C3'	-47.92	62.19	119.70
23	B0	3098	U	P-O3'-C3'	42.74	170.98	119.70
1	AA	274	A	OP1-P-O3'	-41.13	14.71	105.20
2	AW	35	A	P-O3'-C3'	41.11	169.03	119.70
23	B0	3190	G	P-O3'-C3'	38.30	165.66	119.70
1	AA	239	U	P-O3'-C3'	-38.09	73.99	119.70
1	AA	733	A	P-O3'-C3'	38.03	165.33	119.70
1	AA	576	G	P-O3'-C3'	-37.90	74.22	119.70
1	AA	26	A	P-O3'-C3'	-37.85	74.27	119.70
1	AA	436	C	P-O3'-C3'	-36.35	76.08	119.70
2	AW	25	C	P-O3'-C3'	-35.33	77.31	119.70
1	AA	246	A	P-O3'-C3'	-34.91	77.80	119.70
3	AU	8	G	N1-C6-O6	-34.47	99.22	119.90
1	AA	1297	C	P-O3'-C3'	34.38	160.96	119.70
1	AA	1398	A	OP2-P-O3'	-34.17	30.02	105.20
1	AA	74	G	P-O3'-C3'	32.90	159.18	119.70
2	AW	25	C	OP1-P-O3'	32.69	177.13	105.20
1	AA	1183	A	P-O3'-C3'	-32.55	80.63	119.70
3	AU	14	A	N1-C6-N6	-32.43	99.14	118.60
3	AU	6	A	N1-C6-N6	-32.38	99.17	118.60
1	AA	499	A	O3'-P-O5'	-32.34	42.55	104.00
3	AU	13	A	N1-C6-N6	-32.26	99.25	118.60
3	AU	12	A	N1-C6-N6	-32.26	99.25	118.60
3	AU	13	A	C2-N3-C4	31.89	126.55	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AU	12	A	C2-N3-C4	31.86	126.53	110.60
3	AU	6	A	C2-N3-C4	31.60	126.40	110.60
3	AU	14	A	C2-N3-C4	31.56	126.38	110.60
1	AA	185	A	OP2-P-O3'	-31.07	36.84	105.20
1	AA	115	G	P-O3'-C3'	-30.96	82.55	119.70
1	AA	499	A	P-O3'-C3'	-29.13	84.74	119.70
3	AU	8	G	N3-C4-C5	-29.07	114.07	128.60
3	AU	8	G	C2-N3-C4	28.99	126.39	111.90
1	AA	556	C	O3'-P-O5'	28.88	158.87	104.00
1	AA	1335	C	P-O3'-C3'	28.61	154.03	119.70
1	AA	1398	A	P-O3'-C3'	-28.26	85.79	119.70
3	AU	12	A	N1-C2-N3	-27.85	115.38	129.30
1	AA	239	U	O3'-P-O5'	-27.73	51.30	104.00
1	AA	884	U	O3'-P-O5'	-27.66	51.44	104.00
3	AU	6	A	N1-C2-N3	-27.65	115.48	129.30
3	AU	8	G	P-O3'-C3'	27.62	152.85	119.70
3	AU	13	A	N1-C2-N3	-27.61	115.49	129.30
3	AU	14	A	N1-C2-N3	-27.58	115.51	129.30
2	AV	33	U	P-O3'-C3'	27.26	152.41	119.70
2	AV	35	A	P-O3'-C3'	27.11	152.24	119.70
23	B0	3107	G	P-O3'-C3'	27.07	152.18	119.70
23	B0	1856	U	OP2-P-O3'	26.51	163.52	105.20
1	AA	278	G	P-O3'-C3'	-26.49	87.91	119.70
1	AA	587	G	O3'-P-O5'	26.39	154.13	104.00
1	AA	1345	U	P-O3'-C3'	26.21	151.15	119.70
23	B0	1856	U	P-O3'-C3'	25.98	150.87	119.70
1	AA	288	A	O3'-P-O5'	-25.94	54.71	104.00
1	AA	387	U	P-O3'-C3'	25.47	150.26	119.70
1	AA	546	G	OP2-P-O3'	-25.30	49.54	105.20
23	B0	3098	U	OP1-P-O3'	25.30	160.85	105.20
23	B0	3190	G	OP2-P-O3'	-25.08	50.03	105.20
1	AA	587	G	P-O3'-C3'	24.60	149.22	119.70
2	AV	74	C	O3'-P-O5'	24.47	150.49	104.00
1	AA	115	G	OP2-P-O3'	24.16	158.36	105.20
1	AA	884	U	OP1-P-O3'	23.92	157.82	105.20
1	AA	246	A	O3'-P-O5'	-23.50	59.35	104.00
1	AA	403	C	P-O3'-C3'	-23.26	91.78	119.70
1	AA	26	A	OP2-P-O3'	23.17	156.17	105.20
2	AW	17	U	C5-C6-N1	-23.09	111.15	122.70
15	AM	86	CYS	O-C-N	-23.06	85.80	122.70
2	AV	17	U	C5-C6-N1	-23.01	111.19	122.70
1	AA	1505	G	OP2-P-O3'	23.00	155.79	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	B0	1072	U	O5'-P-OP1	-22.93	83.19	110.70
1	AA	143	A	P-O3'-C3'	-22.85	92.28	119.70
1	AA	1374	A	P-O3'-C3'	-22.82	92.32	119.70
1	AA	46	G	P-O3'-C3'	-22.78	92.36	119.70
23	B0	1856	U	OP1-P-O3'	-22.54	55.60	105.20
1	AA	1409	C	P-O3'-C3'	-22.43	92.79	119.70
1	AA	1183	A	OP1-P-O3'	22.38	154.44	105.20
1	AA	1505	G	P-O3'-C3'	-21.56	93.83	119.70
1	AA	631	G	P-O3'-C3'	-21.51	93.88	119.70
1	AA	1393	U	O3'-P-O5'	-21.48	63.19	104.00
1	AA	1455	G	P-O3'-C3'	21.41	145.39	119.70
1	AA	94	G	P-O3'-C3'	21.18	145.11	119.70
2	AW	25	C	OP2-P-O3'	-21.16	58.65	105.20
2	AW	16	U	C5-C6-N1	-21.09	112.15	122.70
23	B0	3874	C	P-O3'-C3'	-20.98	94.52	119.70
2	AV	16	U	C5-C6-N1	-20.97	112.22	122.70
23	B0	1071	U	OP1-P-O3'	-20.80	59.44	105.20
23	B0	3190	G	OP1-P-O3'	20.78	150.92	105.20
23	B0	3106	U	O3'-P-O5'	-20.48	65.09	104.00
23	B0	1856	U	O3'-P-O5'	-20.38	65.28	104.00
1	AA	546	G	P-O3'-C3'	20.11	143.84	119.70
1	AA	26	A	OP1-P-O3'	-20.04	61.11	105.20
23	B0	3106	U	P-O3'-C3'	20.03	143.74	119.70
1	AA	576	G	OP1-P-O3'	-19.89	61.43	105.20
1	AA	1305	G	P-O3'-C3'	-19.78	95.97	119.70
2	AW	34	G	O3'-P-O5'	19.77	141.57	104.00
3	AU	11	C	N3-C4-C5	-19.69	114.03	121.90
1	AA	202	G	P-O3'-C3'	-19.54	96.25	119.70
1	AA	1155	G	P-O3'-C3'	-19.38	96.44	119.70
1	AA	869	G	P-O3'-C3'	19.38	142.95	119.70
3	AU	8	G	C5-C6-N1	19.37	121.19	111.50
2	AV	36	A	OP2-P-O3'	-19.29	62.76	105.20
1	AA	1409	C	OP2-P-O3'	19.23	147.51	105.20
1	AA	561	U	O3'-P-O5'	19.19	140.47	104.00
1	AA	436	C	OP1-P-O3'	-19.11	63.16	105.20
1	AA	556	C	OP2-P-O3'	-18.60	64.29	105.20
1	AA	1398	A	OP1-P-O3'	18.55	146.00	105.20
1	AA	461	C	P-O3'-C3'	18.53	141.94	119.70
1	AA	274	A	P-O3'-C3'	18.35	141.72	119.70
24	B9	73	C	O3'-P-O5'	18.34	138.85	104.00
1	AA	46	G	OP1-P-O3'	18.29	145.44	105.20
3	AU	13	A	N3-C4-C5	-18.29	114.00	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	556	C	P-O3'-C3'	-18.23	97.82	119.70
3	AU	12	A	N3-C4-C5	-18.20	114.06	126.80
3	AU	14	A	N3-C4-C5	-18.14	114.10	126.80
3	AU	6	A	N3-C4-C5	-18.08	114.14	126.80
24	B9	73	C	P-O3'-C3'	-18.05	98.04	119.70
1	AA	733	A	OP2-P-O3'	-18.04	65.51	105.20
1	AA	576	G	O3'-P-O5'	17.99	138.18	104.00
23	B0	3101	G	O3'-P-O5'	-17.90	69.99	104.00
1	AA	1182	G	P-O3'-C3'	-17.89	98.23	119.70
1	AA	606	G	O3'-P-O5'	-17.85	70.08	104.00
1	AA	631	G	OP2-P-O3'	17.84	144.44	105.20
1	AA	115	G	OP1-P-O3'	-17.74	66.17	105.20
1	AA	1393	U	OP1-P-O3'	17.66	144.05	105.20
1	AA	109	A	P-O3'-C3'	17.62	140.84	119.70
23	B0	3101	G	OP2-P-O3'	17.45	143.59	105.20
1	AA	59	A	OP1-P-O3'	-17.43	66.85	105.20
1	AA	546	G	O3'-P-O5'	17.30	136.87	104.00
1	AA	905	U	P-O3'-C3'	17.30	140.46	119.70
1	AA	1490	C	OP2-P-O3'	-17.20	67.36	105.20
1	AA	212	G	OP2-P-O3'	-17.10	67.58	105.20
1	AA	46	G	O3'-P-O5'	-17.09	71.54	104.00
23	B0	3107	G	OP1-P-O3'	16.93	142.45	105.20
1	AA	214	U	O3'-P-O5'	-16.90	71.89	104.00
1	AA	1033	G	P-O3'-C3'	16.89	139.97	119.70
1	AA	1182	G	OP2-P-O3'	16.86	142.30	105.20
23	B0	3107	G	O3'-P-O5'	-16.78	72.11	104.00
1	AA	893	C	P-O3'-C3'	-16.62	99.75	119.70
15	AM	86	CYS	CA-C-N	16.55	153.60	117.20
1	AA	394	G	O3'-P-O5'	16.37	135.11	104.00
1	AA	499	A	OP2-P-O3'	16.14	140.72	105.20
23	B0	3149	G	O3'-P-O5'	16.00	134.40	104.00
1	AA	1305	G	O3'-P-O5'	-15.96	73.67	104.00
15	AM	86	CYS	C-N-CA	15.89	161.41	121.70
2	AV	36	A	O3'-P-O5'	15.83	134.08	104.00
1	AA	185	A	O3'-P-O5'	15.70	133.84	104.00
23	B0	3098	U	OP2-P-O3'	-15.60	70.89	105.20
1	AA	893	C	OP2-P-O3'	15.58	139.47	105.20
1	AA	278	G	OP2-P-O3'	15.56	139.43	105.20
1	AA	214	U	P-O3'-C3'	15.49	138.29	119.70
2	AW	25	C	O3'-P-O5'	-15.43	74.68	104.00
23	B0	3866	A	P-O3'-C3'	15.31	138.07	119.70
23	B0	1072	U	O5'-P-OP2	-15.20	92.02	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	109	A	O3'-P-O5'	-15.19	75.13	104.00
1	AA	1297	C	OP1-P-O3'	-15.17	71.82	105.20
1	AA	1490	C	P-O3'-C3'	15.14	137.87	119.70
1	AA	1297	C	O3'-P-O5'	15.08	132.65	104.00
1	AA	1110	A	OP2-P-O3'	14.94	138.07	105.20
1	AA	1183	A	OP2-P-O3'	-14.80	72.64	105.20
1	AA	651	C	O3'-P-O5'	14.77	132.06	104.00
1	AA	1237	C	O3'-P-O5'	-14.71	76.06	104.00
1	AA	1211	U	O3'-P-O5'	14.60	131.73	104.00
2	AV	35	A	OP1-P-O3'	14.56	137.24	105.20
1	AA	1034	G	P-O3'-C3'	-14.49	102.31	119.70
1	AA	118	U	OP2-P-O3'	14.45	136.98	105.20
1	AA	1393	U	P-O3'-C3'	-14.39	102.44	119.70
1	AA	1345	U	OP1-P-O3'	-14.38	73.55	105.20
1	AA	74	G	OP2-P-O3'	-14.35	73.64	105.20
1	AA	278	G	O3'-P-O5'	-14.33	76.77	104.00
1	AA	1237	C	OP2-P-O3'	14.24	136.53	105.20
1	AA	606	G	P-O3'-C3'	-14.19	102.67	119.70
1	AA	1067	A	P-O3'-C3'	-14.05	102.84	119.70
1	AA	375	U	O3'-P-O5'	-14.03	77.34	104.00
1	AA	288	A	OP1-P-O3'	13.98	135.95	105.20
1	AA	212	G	OP1-P-O3'	13.95	135.89	105.20
2	AV	72	C	O3'-P-O5'	13.95	130.50	104.00
3	AU	8	G	N1-C2-N3	-13.90	115.56	123.90
1	AA	239	U	OP1-P-O3'	13.89	135.76	105.20
1	AA	315	A	OP2-P-O3'	13.79	135.55	105.20
1	AA	387	U	O3'-P-O5'	13.70	130.03	104.00
1	AA	436	C	O3'-P-O5'	13.69	130.01	104.00
2	AW	33	U	P-O3'-C3'	13.64	136.07	119.70
1	AA	1505	G	OP1-P-O3'	-13.55	75.39	105.20
2	AW	75	C	P-O3'-C3'	13.54	135.95	119.70
1	AA	143	A	OP1-P-O3'	13.52	134.94	105.20
3	AU	8	G	O3'-P-O5'	13.44	129.53	104.00
1	AA	1110	A	P-O3'-C3'	-13.43	103.58	119.70
1	AA	74	G	OP1-P-O3'	13.43	134.74	105.20
2	AV	58	A	N1-C6-N6	13.39	126.63	118.60
1	AA	1331	G	P-O3'-C3'	13.37	135.75	119.70
1	AA	315	A	O3'-P-O5'	-13.33	78.67	104.00
1	AA	79	G	P-O3'-C3'	-13.32	103.72	119.70
1	AA	1457	A	O3'-P-O5'	13.31	129.29	104.00
23	B0	1071	U	OP2-P-O3'	-13.30	75.94	105.20
1	AA	1335	C	OP1-P-O3'	-13.15	76.26	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AW	58	A	N1-C6-N6	13.15	126.49	118.60
1	AA	631	G	OP1-P-O3'	-13.02	76.55	105.20
3	AU	11	C	C2-N3-C4	12.95	126.37	119.90
1	AA	1305	G	OP2-P-O3'	12.90	133.58	105.20
1	AA	118	U	O3'-P-O5'	-12.85	79.59	104.00
1	AA	227	G	P-O3'-C3'	12.83	135.10	119.70
1	AA	587	G	OP1-P-O3'	-12.83	76.98	105.20
2	AV	33	U	OP1-P-O3'	12.73	133.20	105.20
2	AV	75	C	P-O3'-C3'	12.71	134.95	119.70
23	B0	3098	U	O3'-P-O5'	-12.59	80.08	104.00
2	AW	73	A	P-O3'-C3'	-12.57	104.62	119.70
23	B0	3866	A	OP1-P-O3'	12.55	132.80	105.20
2	AV	76	A	O5'-P-OP2	-12.54	94.42	105.70
1	AA	1337	G	OP1-P-O3'	12.53	132.77	105.20
1	AA	754	C	P-O3'-C3'	12.34	134.51	119.70
2	AW	58	A	C4-C5-C6	12.31	123.16	117.00
1	AA	89	G	P-O3'-C3'	-12.30	104.93	119.70
2	AV	58	A	C4-C5-C6	12.25	123.12	117.00
1	AA	143	A	O3'-P-O5'	-12.22	80.79	104.00
1	AA	1110	A	O3'-P-O5'	-12.19	80.84	104.00
2	AV	17	U	C4-C5-C6	-12.13	112.42	119.70
1	AA	59	A	P-O3'-C3'	12.03	134.13	119.70
2	AW	17	U	C4-C5-C6	-11.95	112.53	119.70
1	AA	1182	G	OP1-P-O3'	-11.94	78.94	105.20
1	AA	884	U	OP2-P-O3'	-11.87	79.08	105.20
1	AA	89	G	O3'-P-O5'	11.77	126.37	104.00
1	AA	202	G	OP2-P-O3'	11.73	131.02	105.20
2	AV	25	C	O3'-P-O5'	-11.70	81.77	104.00
2	AV	46	G	N7-C8-N9	-11.59	107.31	113.10
2	AW	35	A	OP1-P-O3'	11.48	130.46	105.20
2	AW	46	G	N7-C8-N9	-11.48	107.36	113.10
1	AA	1409	C	O3'-P-O5'	-11.45	82.25	104.00
2	AW	75	C	OP2-P-O3'	11.36	130.19	105.20
1	AA	944	G	P-O3'-C3'	11.31	133.27	119.70
1	AA	403	C	OP1-P-O3'	-11.30	80.33	105.20
1	AA	1505	G	O3'-P-O5'	-11.23	82.66	104.00
23	B0	3106	U	OP1-P-O3'	11.23	129.92	105.20
1	AA	59	A	OP2-P-O3'	11.21	129.86	105.20
1	AA	94	G	OP2-P-O3'	-11.20	80.56	105.20
2	AV	1	G	P-O3'-C3'	11.13	133.06	119.70
23	B0	3186	C	P-O3'-C3'	11.08	133.00	119.70
2	AV	25	C	OP1-P-O3'	11.00	129.40	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	651	C	OP2-P-O3'	-10.94	81.13	105.20
1	AA	869	G	O3'-P-O5'	10.90	124.70	104.00
1	AA	893	C	O3'-P-O5'	-10.87	83.35	104.00
1	AA	1374	A	OP1-P-O3'	-10.85	81.33	105.20
23	B0	3101	G	P-O3'-C3'	-10.77	106.78	119.70
1	AA	1033	G	OP2-P-O3'	-10.67	81.72	105.20
1	AA	1374	A	OP2-P-O3'	10.64	128.61	105.20
2	AV	58	A	C5-C6-N1	-10.57	112.41	117.70
1	AA	227	G	O3'-P-O5'	-10.56	83.93	104.00
2	AW	58	A	C5-C6-N1	-10.54	112.43	117.70
2	AV	33	U	O3'-P-O5'	-10.53	83.99	104.00
1	AA	1455	G	O3'-P-O5'	-10.45	84.15	104.00
1	AA	202	G	O3'-P-O5'	-10.38	84.28	104.00
23	B0	3102	G	P-O3'-C3'	-10.35	107.28	119.70
1	AA	94	G	OP1-P-O3'	10.34	127.95	105.20
1	AA	561	U	P-O3'-C3'	-10.32	107.32	119.70
1	AA	606	G	OP1-P-O3'	10.27	127.80	105.20
1	AA	905	U	OP1-P-O3'	10.25	127.75	105.20
1	AA	754	C	OP2-P-O3'	10.22	127.69	105.20
2	AV	74	C	OP2-P-O3'	-10.22	82.71	105.20
23	B0	3149	G	OP2-P-O3'	-10.21	82.73	105.20
1	AA	944	G	OP1-P-O3'	10.18	127.59	105.20
23	B0	3874	C	O3'-P-O5'	10.16	123.31	104.00
2	AW	34	G	OP2-P-O3'	-10.16	82.85	105.20
1	AA	733	A	O3'-P-O5'	10.15	123.28	104.00
1	AA	1490	C	OP1-P-O3'	10.12	127.46	105.20
1	AA	403	C	OP2-P-O3'	10.12	127.45	105.20
2	AW	16	U	C4-C5-C6	-10.00	113.70	119.70
1	AA	387	U	OP2-P-O3'	-9.97	83.26	105.20
1	AA	1498	U	C2'-C3'-O3'	9.95	131.38	109.50
1	AA	1409	C	OP1-P-O3'	-9.93	83.36	105.20
23	B0	3866	A	O3'-P-O5'	-9.93	85.14	104.00
2	AV	16	U	C4-C5-C6	-9.91	113.75	119.70
1	AA	461	C	OP2-P-O3'	-9.81	83.62	105.20
2	AV	35	A	OP2-P-O3'	-9.66	83.95	105.20
2	AV	34	G	O3'-P-O5'	9.61	122.25	104.00
2	AV	44	A	OP2-P-O3'	9.54	126.20	105.20
1	AA	1237	C	P-O3'-C3'	9.50	131.10	119.70
1	AA	243	A	C2'-C3'-O3'	9.47	130.33	109.50
1	AA	1067	A	OP2-P-O3'	9.46	126.01	105.20
1	AA	1155	G	OP1-P-O3'	-9.33	84.68	105.20
2	AV	34	G	OP2-P-O3'	-9.29	84.77	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	79	G	O3'-P-O5'	9.28	121.63	104.00
23	B0	3149	G	P-O3'-C3'	-9.21	108.65	119.70
1	AA	181	G	C2'-C3'-O3'	9.13	129.58	109.50
23	B0	3183	A	O3'-P-O5'	9.12	121.32	104.00
1	AA	827	U	P-O3'-C3'	9.10	130.62	119.70
1	AA	559	A	C2'-C3'-O3'	9.10	129.52	109.50
2	AV	72	C	OP1-P-O3'	-9.01	85.37	105.20
1	AA	733	A	OP1-P-O3'	8.99	124.98	105.20
1	AA	118	U	P-O3'-C3'	-8.98	108.92	119.70
2	AW	35	A	O3'-P-O5'	-8.90	87.09	104.00
1	AA	1190	G	O3'-P-O5'	8.89	120.89	104.00
1	AA	394	G	OP2-P-O3'	-8.89	85.65	105.20
1	AA	561	U	OP2-P-O3'	-8.88	85.65	105.20
1	AA	1345	U	O3'-P-O5'	8.87	120.85	104.00
2	AW	76	A	P-O5'-C5'	-8.80	106.83	120.90
1	AA	79	G	OP1-P-O3'	-8.79	85.86	105.20
1	AA	227	G	OP1-P-O3'	8.78	124.52	105.20
1	AA	315	A	P-O3'-C3'	8.65	130.08	119.70
1	AA	1299	A	N9-C1'-C2'	8.55	125.12	114.00
1	AA	375	U	OP2-P-O3'	8.55	124.00	105.20
1	AA	1183	A	O3'-P-O5'	-8.54	87.77	104.00
1	AA	214	U	OP1-P-O3'	8.45	123.79	105.20
2	AV	18	G	C5'-C4'-O4'	-8.45	98.96	109.10
2	AW	18	G	C5'-C4'-O4'	-8.44	98.97	109.10
1	AA	1155	G	OP2-P-O3'	8.36	123.58	105.20
1	AA	1457	A	OP2-P-O3'	-8.23	87.09	105.20
1	AA	1335	C	OP2-P-O3'	8.16	123.15	105.20
2	AV	74	C	P-O3'-C3'	-8.13	109.94	119.70
1	AA	246	A	OP2-P-O3'	8.09	123.00	105.20
1	AA	1528	U	C2'-C3'-O3'	8.03	127.16	109.50
2	AW	33	U	O3'-P-O5'	-7.96	88.87	104.00
2	AV	72	C	P-O3'-C3'	-7.89	110.23	119.70
1	AA	366	C	C2'-C3'-O3'	7.87	126.81	109.50
2	AV	44	A	O3'-P-O5'	-7.85	89.08	104.00
2	AW	58	A	C6-C5-N7	-7.82	126.83	132.30
23	B0	3135	A	O3'-P-O5'	-7.80	89.17	104.00
2	AV	58	A	C6-C5-N7	-7.80	126.84	132.30
1	AA	197	A	N9-C1'-C2'	7.74	124.06	114.00
1	AA	687	A	C2'-C3'-O3'	7.71	126.45	109.50
1	AA	804	U	OP2-P-O3'	-7.69	88.28	105.20
1	AA	575	G	C2'-C3'-O3'	7.67	126.39	109.50
24	B9	73	C	OP1-P-O3'	-7.67	88.33	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	754	C	OP1-P-O3'	-7.64	88.38	105.20
2	AV	75	C	O3'-P-O5'	7.61	118.46	104.00
1	AA	266	G	C2'-C3'-O3'	7.61	126.24	109.50
1	AA	115	G	O3'-P-O5'	-7.59	89.58	104.00
1	AA	461	C	OP1-P-O3'	7.57	121.85	105.20
1	AA	274	A	O3'-P-O5'	7.56	118.37	104.00
1	AA	1490	C	O3'-P-O5'	7.56	118.37	104.00
1	AA	1455	G	OP1-P-O3'	7.55	121.80	105.20
1	AA	60	A	C2'-C3'-O3'	7.52	126.05	109.50
3	AU	6	A	C4-C5-C6	7.46	120.73	117.00
3	AU	12	A	C4-C5-C6	7.45	120.72	117.00
3	AU	14	A	C4-C5-C6	7.45	120.72	117.00
1	AA	587	G	OP2-P-O3'	-7.40	88.92	105.20
3	AU	13	A	C4-C5-C6	7.38	120.69	117.00
1	AA	1337	G	P-O3'-C3'	-7.35	110.88	119.70
1	AA	776	G	O3'-P-O5'	-7.33	90.07	104.00
2	AV	75	C	O5'-P-OP1	-7.29	99.14	105.70
3	AU	8	G	N1-C2-N2	7.28	122.75	116.20
3	AU	11	C	C5-C4-N4	7.28	125.30	120.20
3	AU	13	A	C5-C6-N1	7.23	121.31	117.70
1	AA	792	A	C2'-C3'-O3'	7.19	125.32	109.50
3	AU	12	A	C5-C6-N1	7.18	121.29	117.70
1	AA	1345	U	OP2-P-O3'	7.09	120.79	105.20
23	B0	3186	C	OP2-P-O3'	-7.07	89.64	105.20
1	AA	869	G	OP2-P-O3'	-7.07	89.66	105.20
1	AA	1034	G	OP1-P-O3'	-7.04	89.71	105.20
1	AA	1033	G	OP1-P-O3'	6.99	120.57	105.20
3	AU	6	A	C5-C6-N1	6.98	121.19	117.70
1	AA	115	G	N9-C1'-C2'	6.95	123.04	114.00
3	AU	14	A	C5-C6-N1	6.95	121.17	117.70
1	AA	59	A	O3'-P-O5'	6.94	117.18	104.00
2	AW	55	U	C4-C5-C6	6.90	123.84	119.70
1	AA	108	G	P-O3'-C3'	6.89	127.97	119.70
23	B0	1113	C	C5'-C4'-C3'	-6.89	104.97	116.00
23	B0	3117	A	N9-C1'-C2'	6.88	122.94	114.00
23	B0	3135	A	OP2-P-O3'	6.83	120.24	105.20
1	AA	1335	C	O3'-P-O5'	6.82	116.96	104.00
3	AU	11	C	C4-C5-C6	6.79	120.80	117.40
2	AV	39	U	C4-C5-C6	6.79	123.77	119.70
3	AU	11	C	N1-C2-O2	6.75	122.95	118.90
2	AW	39	U	C4-C5-C6	6.72	123.73	119.70
1	AA	1505	G	C2'-C3'-O3'	6.66	124.35	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AV	55	U	C4-C5-C6	6.64	123.68	119.70
1	AA	1067	A	C2'-C3'-O3'	6.56	124.19	113.70
1	AA	1502	A	N9-C1'-C2'	6.55	122.52	114.00
1	AA	367	U	OP2-P-O3'	6.49	119.48	105.20
1	AA	1067	A	OP1-P-O3'	-6.49	90.93	105.20
23	B0	3188	U	OP1-P-O3'	6.49	119.47	105.20
1	AA	1033	G	O3'-P-O5'	6.48	116.31	104.00
1	AA	115	G	C2'-C3'-O3'	6.47	124.06	113.70
1	AA	893	C	OP1-P-O3'	-6.42	91.08	105.20
23	B0	903	G	O3'-P-O5'	-6.41	91.82	104.00
1	AA	1211	U	OP2-P-O3'	-6.39	91.14	105.20
1	AA	7	G	C2'-C3'-O3'	6.38	123.90	113.70
1	AA	372	C	C2'-C3'-O3'	6.37	123.90	113.70
23	B0	3183	A	P-O3'-C3'	-6.34	112.09	119.70
1	AA	1337	G	O3'-P-O5'	-6.31	92.01	104.00
1	AA	509	A	C2'-C3'-O3'	6.30	123.77	113.70
1	AA	556	C	OP1-P-O3'	-6.25	91.45	105.20
1	AA	1331	G	O3'-P-O5'	6.23	115.84	104.00
23	B0	3186	C	O3'-P-O5'	6.21	115.80	104.00
1	AA	1528	U	C4'-C3'-O3'	6.19	125.37	113.00
1	AA	905	U	O3'-P-O5'	-6.14	92.34	104.00
14	AL	19	ARG	O-C-N	-6.13	112.89	122.70
1	AA	46	G	OP2-P-O3'	-6.12	91.73	105.20
1	AA	367	U	O3'-P-O5'	-6.04	92.52	104.00
21	AS	54	GLY	N-CA-C	-6.03	98.02	113.10
2	AV	15	G	N9-C1'-C2'	-5.97	105.43	112.00
2	AW	15	G	N9-C1'-C2'	-5.95	105.45	112.00
3	AU	8	G	OP2-P-O3'	-5.95	92.11	105.20
1	AA	804	U	O3'-P-O5'	5.95	115.30	104.00
2	AW	76	A	O5'-P-OP2	-5.94	100.35	105.70
1	AA	274	A	OP2-P-O3'	5.87	118.11	105.20
3	AU	14	A	C6-N1-C2	5.85	122.11	118.60
1	AA	428	G	C2'-C3'-O3'	5.84	123.05	113.70
1	AA	436	C	OP2-P-O3'	5.81	117.98	105.20
1	AA	944	G	O3'-P-O5'	-5.80	92.97	104.00
3	AU	6	A	C6-N1-C2	5.78	122.07	118.60
1	AA	109	A	OP2-P-O3'	5.74	117.84	105.20
1	AA	63	C	C5'-C4'-C3'	-5.71	106.86	116.00
1	AA	394	G	P-O3'-C3'	-5.71	112.85	119.70
3	AU	12	A	C6-N1-C2	5.70	122.02	118.60
2	AV	74	C	N1-C1'-C2'	5.69	121.40	114.00
1	AA	1124	G	N9-C1'-C2'	5.68	121.39	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	26	A	O3'-P-O5'	-5.67	93.23	104.00
1	AA	266	G	C5'-C4'-C3'	-5.66	106.95	116.00
23	B0	1071	U	O3'-P-O5'	5.64	114.73	104.00
23	B0	3874	C	OP1-P-O3'	-5.64	92.80	105.20
1	AA	108	G	OP2-P-O3'	5.63	117.59	105.20
23	B0	1112	U	C4'-C3'-O3'	-5.60	97.63	109.40
1	AA	1337	G	OP2-P-O3'	-5.60	92.89	105.20
3	AU	13	A	C6-N1-C2	5.59	121.95	118.60
1	AA	1380	U	C2'-C3'-O3'	5.55	122.57	113.70
1	AA	353	A	C5'-C4'-O4'	-5.53	102.47	109.10
1	AA	1445	U	OP2-P-O3'	5.49	117.28	105.20
2	AW	33	U	OP1-P-O3'	5.48	117.26	105.20
1	AA	108	G	OP1-P-O3'	-5.46	93.20	105.20
1	AA	1034	G	O3'-P-O5'	5.45	114.34	104.00
1	AA	1065	U	C1'-O4'-C4'	-5.44	105.55	109.90
17	AO	45	VAL	N-CA-C	-5.41	96.40	111.00
4	AB	187	LEU	N-CA-C	-5.39	96.46	111.00
1	AA	1085	U	N1-C1'-C2'	5.33	120.92	114.00
2	AV	46	G	C5-N7-C8	5.30	106.95	104.30
1	AA	108	G	O4'-C1'-N9	5.29	112.43	108.20
1	AA	109	A	OP1-P-O3'	5.28	116.82	105.20
1	AA	389	A	C5'-C4'-C3'	5.28	124.45	116.00
1	AA	1383	C	O3'-P-O5'	5.28	114.03	104.00
1	AA	484	G	C2'-C3'-O3'	5.28	122.14	113.70
3	AU	11	C	N1-C2-N3	-5.24	115.53	119.20
1	AA	181	G	C4'-C3'-O3'	5.23	123.46	113.00
1	AA	89	G	OP1-P-O3'	-5.22	93.72	105.20
3	AU	8	G	C6-N1-C2	-5.20	121.98	125.10
2	AV	55	U	C5-C4-O4	-5.20	122.78	125.90
1	AA	686	U	C5'-C4'-C3'	-5.11	107.82	116.00
1	AA	804	U	OP1-P-O3'	5.10	116.43	105.20
2	AW	46	G	C5-N7-C8	5.10	106.85	104.30
1	AA	470	U	P-O3'-C3'	5.08	125.80	119.70
23	B0	3101	G	OP1-P-O3'	-5.08	94.02	105.20
1	AA	993	G	N9-C1'-C2'	5.07	120.58	114.00
23	B0	1072	U	OP1-P-OP2	5.06	127.19	119.60
2	AV	21	A	C5'-C4'-C3'	5.05	124.08	116.00
1	AA	976	G	C5'-C4'-O4'	5.04	115.15	109.10
2	AW	21	A	C5'-C4'-C3'	5.02	124.03	116.00

All (2) chirality outliers are listed below:

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

All (59) 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
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

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Mol	Chain	Res	Type	Group
1	AA	879	C	Sidechain
1	AA	898	G	Sidechain
1	AA	982	U	Sidechain
2	AV	16	U	Sidechain
2	AV	17	U	Sidechain
2	AV	18	G	Sidechain
2	AV	19	G	Sidechain
2	AV	39	U	Sidechain
2	AV	55	U	Sidechain
2	AV	62	A	Sidechain
2	AW	16	U	Sidechain
2	AW	17	U	Sidechain
2	AW	18	G	Sidechain
2	AW	19	G	Sidechain
2	AW	39	U	Sidechain
2	AW	55	U	Sidechain
2	AW	62	A	Sidechain
23	B0	1071	U	Sidechain
23	B0	1099	A	Sidechain
23	B0	3117	A	Sidechain
23	B0	3168	G	Sidechain
23	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	32819	0	16577	3629	5
2	AV	1625	0	821	141	0
2	AW	1625	0	819	141	0
3	AU	176	0	79	11	0
4	AB	1900	0	1951	231	0
5	AC	1612	0	1676	292	0
6	AD	1702	0	1767	227	4
7	AE	1146	0	1207	233	0
8	AF	842	0	857	81	4
9	AG	1256	0	1294	119	0
10	AH	1115	0	1177	122	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
11	AI	1010	0	1043	172	0
12	AJ	794	0	838	216	0
13	AK	884	0	903	187	0
14	AL	970	0	1055	157	0
15	AM	996	0	1071	145	0
16	AN	491	0	531	160	0
17	AO	733	0	771	55	0
18	AP	700	0	720	96	0
19	AQ	856	0	926	355	0
20	AR	596	0	667	83	0
21	AS	647	0	673	129	0
22	AT	762	0	848	259	0
23	B0	60636	0	30552	1930	8
24	B9	2519	0	1287	43	0
25	BA	270	0	0	0	0
26	BB	205	0	0	0	0
27	BC	197	0	0	0	0
28	BD	178	0	0	12	0
29	BE	177	0	0	0	0
30	BF	52	0	0	0	0
31	BG	143	0	0	7	0
32	BH	143	0	0	0	0
33	BI	132	0	0	3	0
34	BJ	141	0	0	1	0
35	BK	124	0	0	0	0
36	BL	114	0	0	1	0
37	BM	111	0	0	0	0
38	BN	125	0	0	1	0
39	BO	117	0	0	0	0
40	BP	100	0	0	0	0
41	BQ	130	0	0	0	0
42	BR	93	0	0	0	0
43	BS	113	0	0	0	0
44	BT	173	0	0	0	0
45	BU	86	0	0	1	0
46	BV	16	0	0	0	0
47	BW	65	0	0	0	0
48	BX	55	0	0	0	0
49	BY	73	0	0	0	0
50	BZ	58	0	0	0	0
51	B1	53	0	0	0	0
52	B2	46	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
53	B3	63	0	0	0	0
54	B4	35	0	0	0	0
55	B5	217	0	0	36	0
All	All	122017	0	70110	7429	12

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 39.

All (7429) 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:293:G:H4'	1:AA:609:A:C2	1.16	1.69
1:AA:675:A:H1'	13:AK:116:HIS:CD2	1.26	1.66
1:AA:21:G:C1'	1:AA:914:A:H62	1.08	1.65
6:AD:88:VAL:CA	7:AE:97:GLY:HA3	1.24	1.64
23:B0:3128:G:H4'	23:B0:3174:C:C4'	1.23	1.64
1:AA:1458:G:C8	1:AA:1459:C:H2'	1.27	1.63
1:AA:1398:A:H5'	1:AA:1399:C:P	1.39	1.62
1:AA:1342:C:H5''	11:AI:125:TYR:CE1	1.21	1.62
2:AW:74:C:C4	23:B0:2534:U:C5	1.85	1.61
2:AV:76:A:H5''	23:B0:2564:U:C6	1.12	1.61
1:AA:256:U:C5'	19:AQ:17:LYS:HZ3	0.99	1.59
1:AA:191:G:C6	1:AA:192:U:C2	1.90	1.59
12:AJ:62:HIS:HB3	16:AN:59:ALA:CB	1.28	1.59
12:AJ:62:HIS:CB	16:AN:59:ALA:HB3	1.16	1.58
23:B0:1856:U:C5	23:B0:3865:A:N6	1.69	1.56
1:AA:779:C:H4'	13:AK:120:ARG:CG	1.23	1.56
1:AA:1416:G:C3'	1:AA:1417:G:C5'	1.78	1.56
1:AA:216:C:C4'	1:AA:466:A:H61	1.20	1.54
23:B0:891:A:C2	23:B0:892:A:C6	1.91	1.53
19:AQ:105:ALA:H	23:B0:727:U:C1'	0.95	1.53
6:AD:88:VAL:CG1	7:AE:97:GLY:HA2	1.36	1.52
1:AA:6:G:C4	7:AE:119:LEU:CD1	1.93	1.51
1:AA:828:A:C2	4:AB:26:PRO:HG2	1.45	1.51
1:AA:130:A:C4'	1:AA:264:U:H5'	1.39	1.50
23:B0:3867:G:N2	55:B5:44:GLY:CA	1.75	1.50
1:AA:161:A:C2	1:AA:348:G:O2'	1.64	1.50
1:AA:323:U:C5'	22:AT:22:ARG:HB2	1.42	1.50
1:AA:923:A:C1'	1:AA:1398:A:N3	1.75	1.50
1:AA:94:G:O3'	1:AA:96:C:P	1.12	1.50
1:AA:189:A:C6	22:AT:104:LEU:O	1.65	1.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:538:G:H5''	14:AL:114:LYS:CB	1.06	1.49
1:AA:21:G:H1'	1:AA:914:A:N6	1.28	1.48
1:AA:22:G:H1'	1:AA:913:A:C2	1.45	1.48
1:AA:538:G:C5'	14:AL:114:LYS:HB2	1.02	1.48
19:AQ:104:LYS:HB3	23:B0:727:U:C1'	1.14	1.48
1:AA:684:A:C1'	13:AK:38:ASN:HD22	1.24	1.48
1:AA:38:G:H5'	1:AA:547:A:N6	1.29	1.47
1:AA:456:A:N1	1:AA:477:G:H1'	1.25	1.47
1:AA:1342:C:C5'	11:AI:125:TYR:CE1	1.98	1.47
1:AA:835:U:C5'	20:AR:64:ARG:NH2	1.72	1.47
2:AV:56:C:C4'	28:BD:74:ILE:CA	1.89	1.47
1:AA:262:A:H5'	22:AT:74:LYS:CB	1.42	1.47
1:AA:293:G:H4'	1:AA:609:A:N1	1.26	1.46
1:AA:255:G:C1'	19:AQ:16:GLN:HE21	1.28	1.46
1:AA:1060:C:C4'	12:AJ:52:GLY:HA3	1.44	1.46
1:AA:322:C:H4'	22:AT:23:ARG:CD	1.39	1.46
1:AA:1342:C:O3'	11:AI:125:TYR:CE2	1.69	1.46
2:AV:56:C:H4'	28:BD:74:ILE:CA	0.98	1.45
1:AA:189:A:C5	22:AT:104:LEU:O	1.66	1.45
1:AA:255:G:H1'	19:AQ:16:GLN:NE2	1.21	1.45
1:AA:191:G:N1	1:AA:192:U:C2	1.85	1.45
1:AA:1416:G:H3'	1:AA:1417:G:C5'	1.33	1.45
1:AA:130:A:H5'	19:AQ:63:ARG:NE	1.31	1.45
1:AA:923:A:H1'	1:AA:1398:A:N3	1.21	1.45
1:AA:779:C:C4'	13:AK:120:ARG:HG2	1.47	1.45
1:AA:131:C:O2'	1:AA:262:A:C4	1.68	1.44
1:AA:762:C:H4'	23:B0:729:A:N1	1.12	1.44
1:AA:265:G:C5'	19:AQ:65:ILE:HA	1.46	1.44
1:AA:322:C:C4'	22:AT:23:ARG:HD2	1.48	1.44
1:AA:476:U:N1	1:AA:477:G:H5'	1.26	1.44
1:AA:21:G:C1'	1:AA:914:A:N6	1.79	1.43
2:AW:76:A:C1'	23:B0:2486:C:O4'	1.64	1.43
23:B0:3877:A:C8	23:B0:1861:G:C8	2.06	1.43
1:AA:1014:A:H5''	21:AS:14:HIS:CG	1.53	1.43
15:AM:7:VAL:HG12	28:BD:111:ILE:CA	1.49	1.43
1:AA:131:C:H1'	1:AA:262:A:C2	1.53	1.42
1:AA:262:A:O3'	22:AT:75:ASN:CB	1.64	1.42
1:AA:131:C:H1'	1:AA:262:A:N3	1.32	1.42
1:AA:333:G:H1'	22:AT:16:HIS:CD2	1.55	1.42
1:AA:619:U:N3	6:AD:135:LEU:HG	1.29	1.42
1:AA:332:G:OP2	22:AT:10:LEU:CB	1.66	1.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:131:C:O2'	1:AA:262:A:C1'	1.67	1.41
1:AA:1060:C:O2'	12:AJ:56:HIS:CD2	1.70	1.41
1:AA:6:G:C4	7:AE:119:LEU:HD11	1.49	1.41
1:AA:265:G:H4'	19:AQ:65:ILE:C	1.41	1.41
1:AA:677:U:H1'	13:AK:119:CYS:SG	1.57	1.41
1:AA:190:A:H61	22:AT:104:LEU:N	1.13	1.40
1:AA:38:G:O4'	1:AA:547:A:C6	1.74	1.40
1:AA:1015:A:H1'	1:AA:1219:U:C5'	1.52	1.39
1:AA:190:A:N6	22:AT:104:LEU:H	1.17	1.39
1:AA:675:A:N3	13:AK:116:HIS:HB2	1.34	1.39
6:AD:57:ARG:NH2	7:AE:107:ARG:CD	1.86	1.39
23:B0:891:A:N1	23:B0:892:A:N6	1.70	1.39
1:AA:256:U:H5'	19:AQ:17:LYS:NZ	1.07	1.38
1:AA:6:G:C5	7:AE:119:LEU:CD1	2.06	1.38
1:AA:333:G:C1'	22:AT:16:HIS:CD2	2.06	1.38
1:AA:6:G:C2	7:AE:119:LEU:HD11	1.57	1.38
1:AA:320:C:O4'	1:AA:1434:A:C2	1.76	1.38
1:AA:116:A:N6	1:AA:313:A:H1'	1.36	1.38
19:AQ:105:ALA:N	23:B0:727:U:H1'	1.30	1.37
1:AA:1484:C:H4'	23:B0:1943:A:C1'	1.53	1.37
2:AV:76:A:C5'	23:B0:2564:U:C6	2.05	1.37
6:AD:88:VAL:HA	7:AE:97:GLY:CA	1.51	1.37
2:AW:76:A:N3	23:B0:2486:C:H1'	1.35	1.37
1:AA:1416:G:C3'	1:AA:1417:G:H5'	0.90	1.37
1:AA:675:A:C1'	13:AK:116:HIS:CD2	2.07	1.36
6:AD:88:VAL:HG13	7:AE:97:GLY:CA	1.51	1.36
1:AA:293:G:C4'	1:AA:609:A:N1	1.87	1.36
1:AA:923:A:H1'	1:AA:1398:A:C4	1.59	1.36
23:B0:3865:A:P	23:B0:2388:G:H21	1.48	1.36
1:AA:905:U:O3'	1:AA:906:G:P	0.96	1.36
1:AA:131:C:C1'	1:AA:262:A:N3	1.87	1.35
1:AA:116:A:H61	1:AA:313:A:C1'	1.40	1.35
23:B0:1072:U:H3	31:BG:10:LEU:CA	1.38	1.35
1:AA:707:C:OP1	13:AK:85:ARG:NH1	1.56	1.35
2:AW:76:A:C4	23:B0:2562:G:N2	1.94	1.34
1:AA:191:G:C6	1:AA:192:U:N3	1.94	1.34
1:AA:216:C:H4'	1:AA:466:A:N6	1.03	1.34
1:AA:323:U:H5''	22:AT:22:ARG:CB	1.58	1.34
1:AA:835:U:H5''	20:AR:64:ARG:NH2	1.03	1.34
2:AV:1:G:N2	2:AV:2:C:H41	1.22	1.34
1:AA:131:C:C2'	1:AA:262:A:N3	1.89	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:397:A:N6	1:AA:547:A:N3	1.75	1.34
23:B0:3128:G:C4'	23:B0:3174:C:H4'	1.56	1.33
1:AA:1474:G:O2'	23:B0:1705:U:H4'	1.27	1.33
23:B0:2075:U:O3'	23:B0:3093:C:H5'	1.18	1.33
1:AA:265:G:C5'	19:AQ:65:ILE:CA	2.04	1.33
1:AA:1190:G:OP1	5:AC:4:LYS:HA	1.15	1.33
1:AA:131:C:O2'	1:AA:262:A:N3	1.57	1.33
23:B0:1098:G:H22	23:B0:1113:C:N4	1.25	1.32
1:AA:27:G:C6	1:AA:557:G:C6	2.15	1.32
1:AA:265:G:H4'	19:AQ:65:ILE:CA	1.58	1.32
1:AA:103:C:O2'	1:AA:171:A:N1	1.60	1.32
1:AA:994:A:C6	16:AN:5:ALA:HA	1.62	1.32
1:AA:1298:C:H2'	9:AG:114:ARG:NH1	1.44	1.32
2:AV:76:A:C5'	23:B0:2564:U:N1	1.76	1.32
1:AA:1060:C:H4'	12:AJ:52:GLY:CA	1.59	1.32
1:AA:923:A:C1'	1:AA:1398:A:C4	2.09	1.31
23:B0:3128:G:O2'	23:B0:3174:C:C5'	1.75	1.31
2:AV:1:G:N2	2:AV:2:C:N4	1.77	1.31
23:B0:1856:U:C5	23:B0:3865:A:C6	2.17	1.31
1:AA:323:U:P	22:AT:23:ARG:HA	1.69	1.31
1:AA:619:U:C4	6:AD:135:LEU:HD11	1.63	1.31
1:AA:836:G:OP1	20:AR:61:LYS:CD	1.76	1.31
1:AA:253:U:C1'	1:AA:275:G:O2'	1.77	1.31
1:AA:191:G:C5	1:AA:192:U:C6	2.17	1.31
1:AA:322:C:O3'	22:AT:23:ARG:HB2	1.20	1.31
1:AA:619:U:N3	6:AD:135:LEU:CG	1.94	1.31
1:AA:1498:U:H4'	1:AA:1519:A:C2	1.63	1.31
1:AA:131:C:O2	1:AA:262:A:C2	1.83	1.30
12:AJ:61:GLU:HG3	16:AN:58:LYS:NZ	1.43	1.30
1:AA:191:G:O6	1:AA:192:U:N3	1.62	1.30
1:AA:828:A:N3	4:AB:26:PRO:HG2	1.44	1.30
23:B0:3866:A:O2'	55:B5:194:ALA:CA	1.79	1.30
1:AA:249:U:H2'	1:AA:250:A:P	1.69	1.30
2:AW:75:C:N4	23:B0:2532:G:O6	1.64	1.30
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.13	1.30
1:AA:1458:G:O3'	22:AT:24:LEU:CD1	1.80	1.30
1:AA:779:C:H5'	13:AK:120:ARG:O	1.22	1.30
1:AA:323:U:C4'	22:AT:19:SER:HA	1.61	1.30
1:AA:836:G:OP1	20:AR:61:LYS:HD2	1.21	1.30
19:AQ:101:ARG:HD3	23:B0:731:A:N1	1.46	1.30
1:AA:293:G:C5'	1:AA:609:A:N1	1.94	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:914:A:C2'	1:AA:915:A:O4'	1.77	1.29
19:AQ:105:ALA:N	23:B0:727:U:C1'	1.80	1.29
1:AA:522:C:OP1	14:AL:120:TYR:CE2	1.84	1.29
1:AA:38:G:C5'	1:AA:547:A:N6	1.93	1.29
1:AA:1298:C:H2'	9:AG:114:ARG:CZ	1.61	1.29
1:AA:130:A:OP1	19:AQ:63:ARG:HB2	1.25	1.29
1:AA:323:U:O4'	22:AT:19:SER:HA	1.12	1.29
1:AA:619:U:C5	6:AD:135:LEU:HD11	1.64	1.29
19:AQ:101:ARG:NH1	23:B0:731:A:C2	2.00	1.29
1:AA:323:U:OP1	22:AT:23:ARG:CA	1.81	1.29
1:AA:236:G:OP1	19:AQ:40:LYS:NZ	1.63	1.29
23:B0:891:A:C2	23:B0:892:A:C5	2.21	1.29
1:AA:1416:G:C2'	1:AA:1417:G:H5'	1.59	1.29
1:AA:261:U:C6	22:AT:79:ARG:NH1	2.01	1.29
1:AA:403:C:O2'	1:AA:404:U:H5'	1.20	1.28
1:AA:933:G:OP2	9:AG:3:ARG:HD2	1.14	1.28
1:AA:1398:A:C5'	1:AA:1399:C:P	2.19	1.28
1:AA:323:U:OP1	22:AT:23:ARG:HA	1.28	1.28
1:AA:499:A:H1'	1:AA:500:G:O4'	1.30	1.28
1:AA:332:G:OP1	22:AT:10:LEU:HG	1.19	1.28
1:AA:293:G:C4'	1:AA:609:A:C2	2.13	1.28
1:AA:322:C:O3'	22:AT:23:ARG:CB	1.81	1.28
1:AA:1499:A:C1'	1:AA:1520:G:H5'	1.62	1.28
2:AW:71:G:H5''	23:B0:1925:C:O2	1.23	1.28
1:AA:1394:A:C4	1:AA:1501:C:H4'	1.66	1.27
1:AA:191:G:C2	1:AA:192:U:H1'	1.68	1.27
1:AA:619:U:O2	6:AD:133:VAL:HG13	1.26	1.27
1:AA:22:G:N2	1:AA:913:A:H2'	1.49	1.27
1:AA:1459:C:OP1	22:AT:28:ALA:C	1.73	1.27
1:AA:994:A:C5	16:AN:5:ALA:HA	1.68	1.27
1:AA:836:G:P	20:AR:61:LYS:HD2	1.72	1.27
1:AA:923:A:C2	1:AA:1395:C:O2	1.87	1.27
1:AA:131:C:P	1:AA:263:A:H4'	1.74	1.27
1:AA:1495:U:O2'	23:B0:1902:A:C2	1.87	1.26
19:AQ:93:GLN:C	23:B0:726:G:O4'	1.65	1.26
1:AA:255:G:C5'	19:AQ:17:LYS:HB2	1.64	1.26
1:AA:1393:U:C2	1:AA:1395:C:C4	2.23	1.26
1:AA:265:G:H5'	19:AQ:64:PRO:O	1.09	1.26
1:AA:108:G:N2	22:AT:15:ARG:HH21	1.32	1.26
1:AA:9:G:OP1	7:AE:122:GLU:HB2	1.10	1.26
1:AA:376:G:OP2	18:AP:67:THR:HG21	1.36	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:265:G:C4'	19:AQ:65:ILE:C	2.02	1.26
1:AA:265:G:H4'	19:AQ:65:ILE:N	1.51	1.26
1:AA:232:G:N2	1:AA:263:A:C2	2.03	1.26
1:AA:128:G:H1'	19:AQ:61:GLU:OE1	1.21	1.26
1:AA:128:G:OP1	19:AQ:2:PRO:N	1.69	1.26
1:AA:6:G:N3	7:AE:119:LEU:HD11	1.50	1.25
1:AA:397:A:N6	1:AA:547:A:H1'	1.50	1.25
1:AA:190:A:C6	22:AT:104:LEU:O	1.88	1.25
1:AA:1484:C:O3'	23:B0:1943:A:O2'	1.52	1.25
1:AA:762:C:C4'	23:B0:729:A:N1	2.00	1.25
1:AA:333:G:H1'	22:AT:16:HIS:NE2	1.51	1.25
23:B0:1098:G:N2	23:B0:1113:C:H42	1.33	1.25
1:AA:1342:C:O3'	11:AI:125:TYR:CZ	1.88	1.25
2:AW:74:C:C4	23:B0:2534:U:C4	1.93	1.25
1:AA:161:A:H2	1:AA:348:G:O2'	0.90	1.25
2:AV:75:C:OP2	23:B0:2581:A:C5'	1.83	1.25
1:AA:994:A:N1	16:AN:5:ALA:N	1.82	1.25
1:AA:707:C:C5'	13:AK:85:ARG:HH12	1.48	1.25
1:AA:46:G:O2'	1:AA:365:U:H1'	1.20	1.25
1:AA:994:A:C2	16:AN:5:ALA:HA	1.72	1.24
1:AA:323:U:C4'	22:AT:22:ARG:HB2	1.64	1.24
1:AA:905:U:C3'	1:AA:906:G:P	2.24	1.24
2:AV:75:C:OP2	23:B0:2581:A:H5'	1.36	1.24
1:AA:265:G:O3'	19:AQ:65:ILE:O	1.55	1.24
1:AA:779:C:C4'	13:AK:120:ARG:CG	2.06	1.24
1:AA:619:U:O4	6:AD:135:LEU:CD2	1.85	1.24
1:AA:262:A:C5'	22:AT:74:LYS:HB2	1.66	1.24
2:AW:71:G:H3'	23:B0:1925:C:O2'	1.28	1.24
1:AA:675:A:H1'	13:AK:116:HIS:CG	1.73	1.24
1:AA:994:A:C2	16:AN:4:LYS:C	2.10	1.24
1:AA:994:A:C6	16:AN:5:ALA:CA	2.21	1.23
1:AA:130:A:O4'	1:AA:264:U:H5'	1.32	1.23
1:AA:265:G:C5'	19:AQ:64:PRO:O	1.86	1.23
1:AA:236:G:P	19:AQ:40:LYS:NZ	2.11	1.23
1:AA:923:A:O4'	1:AA:1398:A:C2	1.89	1.23
1:AA:1457:A:C8	1:AA:1459:C:C2	2.27	1.23
1:AA:131:C:O2'	1:AA:262:A:N9	1.71	1.23
1:AA:22:G:O2'	1:AA:913:A:C6	1.86	1.23
2:AW:75:C:N4	23:B0:2532:G:C6	2.03	1.23
23:B0:1856:U:H3'	23:B0:3865:A:C8	1.73	1.23
23:B0:1912:G:H4'	23:B0:1913:G:C8	1.72	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:237:C:H5''	19:AQ:25:ARG:NH2	1.50	1.22
1:AA:1298:C:C2'	9:AG:114:ARG:NH1	2.01	1.22
1:AA:1234:C:C5'	1:AA:1365:G:OP1	1.88	1.22
1:AA:323:U:O4'	22:AT:19:SER:CA	1.87	1.22
1:AA:922:G:C2	1:AA:1396:A:C4	2.28	1.22
1:AA:255:G:H5''	19:AQ:17:LYS:CB	1.69	1.22
1:AA:323:U:H5'	22:AT:19:SER:O	1.09	1.22
1:AA:1256:A:H5'	1:AA:1258:G:C1'	1.70	1.22
1:AA:19:C:C1'	1:AA:916:G:H22	1.49	1.21
1:AA:1458:G:C8	1:AA:1459:C:C2'	2.22	1.21
23:B0:3110:G:OP1	23:B0:3148:G:C2'	1.88	1.21
1:AA:247:G:N2	1:AA:282:A:N3	1.88	1.21
1:AA:1044:A:H3'	1:AA:1045:C:C1'	1.54	1.21
2:AW:76:A:O2'	23:B0:2485:U:H2'	1.07	1.21
1:AA:255:G:O4'	19:AQ:16:GLN:HB2	1.38	1.21
1:AA:191:G:N3	1:AA:192:U:H1'	1.56	1.21
23:B0:1856:U:C4	23:B0:3865:A:C6	2.29	1.21
1:AA:619:U:O4	6:AD:135:LEU:HD21	1.06	1.21
6:AD:88:VAL:HG22	7:AE:96:PRO:C	1.59	1.21
1:AA:264:U:C1'	19:AQ:64:PRO:HD2	1.68	1.21
1:AA:249:U:C2'	1:AA:250:A:P	2.29	1.21
23:B0:3149:G:O3'	23:B0:3150:C:P	1.98	1.21
15:AM:93:ARG:HD3	23:B0:900:U:O3'	1.35	1.21
1:AA:815:A:H1'	1:AA:1527:C:O2'	1.36	1.20
6:AD:88:VAL:HG22	7:AE:97:GLY:N	1.53	1.20
2:AW:74:C:N3	23:B0:2534:U:C6	1.84	1.20
1:AA:476:U:C6	1:AA:477:G:H5'	1.75	1.20
1:AA:189:A:C6	22:AT:104:LEU:C	2.03	1.20
1:AA:202:G:C4'	1:AA:469:C:OP1	1.88	1.20
1:AA:89:G:O3'	1:AA:90:C:P	1.98	1.20
1:AA:1054:C:N4	2:AW:34:G:O2'	1.73	1.20
2:AV:76:A:H2'	23:B0:2046:C:O2	1.40	1.20
1:AA:38:G:O4'	1:AA:547:A:C5	1.94	1.20
1:AA:476:U:C2	1:AA:477:G:H5'	1.73	1.20
1:AA:1261:A:O4'	1:AA:1283:G:H4'	1.41	1.20
19:AQ:104:LYS:CB	23:B0:727:U:C1'	2.10	1.20
1:AA:202:G:H4'	1:AA:469:C:OP1	1.02	1.20
5:AC:59:ARG:O	12:AJ:92:THR:O	1.59	1.20
4:AB:77:ALA:HB2	4:AB:211:ILE:HD13	1.22	1.20
1:AA:1501:C:OP1	1:AA:1508:G:H4'	1.42	1.19
1:AA:436:C:N3	1:AA:437:U:C5	2.10	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:456:A:C6	1:AA:477:G:H1'	1.76	1.19
23:B0:3867:G:C2	55:B5:44:GLY:CA	2.25	1.19
1:AA:1305:G:O2'	1:AA:1306:A:H8	1.23	1.19
1:AA:262:A:OP2	22:AT:76:ALA:HB2	1.39	1.19
1:AA:816:A:P	1:AA:1527:C:H5'	1.82	1.19
1:AA:538:G:H5''	14:AL:114:LYS:HB3	1.21	1.19
1:AA:521:G:H5'	14:AL:72:GLY:O	1.42	1.19
1:AA:397:A:H62	1:AA:547:A:C1'	1.55	1.19
23:B0:3110:G:OP1	23:B0:3148:G:O2'	1.58	1.19
1:AA:675:A:HO2'	13:AK:116:HIS:CE1	1.58	1.19
1:AA:264:U:O2'	19:AQ:64:PRO:O	1.58	1.19
23:B0:891:A:C2	23:B0:892:A:N6	2.04	1.19
1:AA:119:A:N7	1:AA:287:U:N3	1.89	1.19
1:AA:1422:G:H5''	33:BI:60:PRO:CA	1.71	1.19
1:AA:265:G:C4'	19:AQ:65:ILE:CA	2.21	1.18
24:B9:73:C:O3'	24:B9:74:A:P	2.01	1.18
1:AA:1155:G:O3'	1:AA:1156:G:P	2.01	1.18
1:AA:6:G:H8	7:AE:92:LYS:NZ	1.41	1.18
1:AA:619:U:C4	6:AD:135:LEU:CG	2.27	1.18
2:AW:33:U:C2	2:AW:35:A:H5'	1.77	1.18
23:B0:3128:G:C4'	23:B0:3174:C:C4'	2.16	1.18
1:AA:1458:G:O3'	22:AT:24:LEU:HD11	1.01	1.18
1:AA:1278:U:H5''	1:AA:1279:A:P	1.82	1.18
1:AA:923:A:C1'	1:AA:1398:A:C2	2.27	1.18
1:AA:994:A:C4	16:AN:5:ALA:HA	1.77	1.18
23:B0:3875:A:H5'	55:B5:42:LYS:CA	1.72	1.18
1:AA:865:A:N3	1:AA:918:A:H4'	1.57	1.18
1:AA:994:A:N1	16:AN:5:ALA:CA	2.07	1.18
6:AD:57:ARG:NH2	7:AE:107:ARG:HD3	1.45	1.18
1:AA:923:A:H2	1:AA:1395:C:O2	1.23	1.17
23:B0:3183:A:O3'	23:B0:3184:C:P	2.02	1.17
1:AA:292:G:C2'	1:AA:608:A:N6	2.07	1.17
1:AA:619:U:C4	6:AD:135:LEU:CD1	2.26	1.17
1:AA:1394:A:N3	1:AA:1501:C:H4'	1.60	1.17
1:AA:1015:A:H1'	1:AA:1219:U:C4'	1.74	1.17
1:AA:994:A:O2'	16:AN:11:LYS:HE3	1.43	1.17
19:AQ:96:GLN:NE2	23:B0:725:C:O2	1.75	1.17
12:AJ:62:HIS:O	16:AN:59:ALA:N	1.77	1.17
1:AA:375:U:O3'	1:AA:376:G:P	2.01	1.17
1:AA:300:A:O2'	1:AA:564:C:N3	1.73	1.17
1:AA:191:G:N1	1:AA:192:U:O2	1.78	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:27:G:C5	1:AA:557:G:N1	2.13	1.17
1:AA:994:A:C2	16:AN:5:ALA:CA	2.26	1.16
1:AA:191:G:N3	1:AA:192:U:C1'	2.08	1.16
1:AA:130:A:OP1	19:AQ:63:ARG:CB	1.94	1.16
1:AA:6:G:C5	7:AE:119:LEU:HD12	1.70	1.16
1:AA:108:G:H22	22:AT:15:ARG:NH2	1.42	1.16
2:AV:74:C:O3'	23:B0:2581:A:P	2.03	1.16
2:AV:75:C:P	23:B0:2581:A:H5''	1.84	1.16
1:AA:43:C:OP1	18:AP:12:LYS:HD2	1.46	1.16
1:AA:815:A:N9	1:AA:1527:C:H1'	1.61	1.16
1:AA:256:U:C5'	19:AQ:17:LYS:NZ	1.74	1.16
1:AA:38:G:C4'	1:AA:547:A:N6	2.07	1.16
1:AA:456:A:N6	1:AA:477:G:C4	2.14	1.16
1:AA:1473:A:H4'	23:B0:1719:G:O4'	1.44	1.16
1:AA:236:G:OP1	19:AQ:40:LYS:CE	1.94	1.16
1:AA:755:G:H1'	10:AH:1:MET:CE	1.74	1.16
1:AA:865:A:H1'	1:AA:918:A:O2'	1.43	1.16
2:AV:76:A:H5'	23:B0:2564:U:C1'	1.76	1.16
19:AQ:94:ASN:HA	23:B0:726:G:C1'	1.76	1.16
6:AD:57:ARG:HH22	7:AE:107:ARG:CD	1.50	1.16
1:AA:1473:A:H5'	23:B0:1719:G:H4'	1.19	1.16
1:AA:1261:A:C4'	1:AA:1283:G:H4'	1.75	1.16
1:AA:914:A:H2'	1:AA:915:A:O4'	0.99	1.15
23:B0:1098:G:N2	23:B0:1113:C:N4	1.89	1.15
2:AW:74:C:C5	23:B0:2533:U:N3	2.05	1.15
1:AA:323:U:C5'	22:AT:19:SER:O	1.93	1.15
1:AA:9:G:H8	7:AE:126:ARG:NH1	1.44	1.15
6:AD:57:ARG:HH21	7:AE:107:ARG:NE	1.43	1.15
1:AA:456:A:N1	1:AA:477:G:C1'	2.10	1.15
1:AA:261:U:C6	22:AT:79:ARG:CZ	2.24	1.15
6:AD:88:VAL:CA	7:AE:97:GLY:CA	2.15	1.15
1:AA:1014:A:C2	21:AS:34:TRP:CD1	2.34	1.15
19:AQ:93:GLN:O	23:B0:726:G:O4'	1.64	1.15
1:AA:922:G:N2	1:AA:1396:A:C4	2.14	1.15
2:AV:76:A:C5'	23:B0:2564:U:C1'	2.25	1.15
1:AA:1498:U:C4'	1:AA:1519:A:H2	1.59	1.15
1:AA:1194:U:H4'	7:AE:22:GLY:HA2	1.15	1.14
1:AA:265:G:O3'	19:AQ:66:SER:HA	1.44	1.14
1:AA:1416:G:O3'	1:AA:1417:G:H5'	1.41	1.14
19:AQ:94:ASN:HA	23:B0:726:G:H1'	1.25	1.14
1:AA:1081:G:OP1	7:AE:18:ARG:HB2	1.47	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AU:11:C:O3'	3:AU:12:A:P	2.05	1.14
1:AA:1112:C:N3	5:AC:178:LEU:N	1.95	1.14
1:AA:1434:A:OP2	1:AA:1435:G:C8	2.00	1.14
1:AA:236:G:P	19:AQ:40:LYS:HZ3	1.68	1.14
1:AA:779:C:C1'	13:AK:120:ARG:HD2	1.77	1.14
1:AA:248:C:O2'	1:AA:283:C:H4'	1.47	1.14
1:AA:1394:A:C2	1:AA:1501:C:C4'	2.30	1.13
1:AA:994:A:C2	16:AN:5:ALA:N	2.16	1.13
1:AA:943:U:C1'	11:AI:124:GLN:HE22	1.60	1.13
2:AW:76:A:H4'	23:B0:2486:C:H5'	1.28	1.13
1:AA:1458:G:H8	1:AA:1459:C:C2'	1.57	1.13
1:AA:264:U:H1'	19:AQ:64:PRO:CD	1.76	1.13
23:B0:3866:A:H61	55:B5:44:GLY:CA	1.60	1.13
1:AA:37:U:C2'	1:AA:547:A:N1	2.11	1.13
1:AA:1434:A:OP1	1:AA:1435:G:P	2.07	1.13
1:AA:118:U:O3'	1:AA:119:A:P	2.06	1.13
1:AA:421:U:C6	5:AC:127:ARG:NH2	2.11	1.13
2:AW:76:A:H1'	23:B0:2486:C:C1'	1.78	1.13
1:AA:1234:C:H5'	1:AA:1365:G:OP1	1.46	1.13
1:AA:684:A:C1'	13:AK:38:ASN:ND2	2.10	1.13
1:AA:403:C:O2'	1:AA:404:U:C5'	1.95	1.13
23:B0:1861:G:OP2	55:B5:38:GLY:CA	1.97	1.13
1:AA:108:G:N2	22:AT:15:ARG:NH2	1.96	1.13
1:AA:27:G:C4	1:AA:557:G:C2	2.37	1.13
1:AA:1255:G:H1'	1:AA:1259:C:H1'	1.23	1.13
1:AA:521:G:H5'	14:AL:72:GLY:C	1.52	1.13
1:AA:436:C:C2	1:AA:437:U:C6	2.36	1.13
23:B0:1861:G:OP1	55:B5:37:LYS:CA	1.96	1.13
7:AE:79:GLU:OE2	10:AH:105:ARG:HD3	1.48	1.13
1:AA:1346:A:H2'	9:AG:10:ARG:HH22	1.05	1.13
1:AA:1342:C:H5''	11:AI:125:TYR:CZ	1.83	1.12
1:AA:131:C:OP1	1:AA:263:A:H4'	1.47	1.13
1:AA:216:C:H4'	1:AA:466:A:C6	1.83	1.12
1:AA:684:A:O4'	13:AK:38:ASN:ND2	1.81	1.13
1:AA:333:G:O4'	22:AT:16:HIS:CD2	2.01	1.12
23:B0:1072:U:N3	31:BG:10:LEU:CA	2.12	1.12
1:AA:707:C:H5''	13:AK:85:ARG:NH1	1.62	1.13
1:AA:236:G:C5'	19:AQ:40:LYS:HZ3	1.62	1.13
2:AW:25:C:C2'	2:AW:26:G:H5'	1.72	1.12
12:AJ:62:HIS:C	16:AN:59:ALA:H	1.52	1.12
1:AA:436:C:C2	1:AA:437:U:C5	2.36	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:26:A:C2'	1:AA:27:G:H5'	1.77	1.12
1:AA:129:U:OP1	19:AQ:3:LYS:NZ	1.82	1.12
1:AA:323:U:P	22:AT:23:ARG:CA	2.37	1.12
23:B0:1066:G:N2	23:B0:1115:C:N3	1.96	1.12
1:AA:1211:U:O3'	1:AA:1212:U:P	2.07	1.12
1:AA:943:U:H1'	11:AI:124:GLN:HE22	1.08	1.12
2:AW:76:A:H1'	23:B0:2486:C:C4'	1.79	1.12
1:AA:836:G:OP1	20:AR:61:LYS:CE	1.98	1.12
23:B0:3128:G:O2'	23:B0:3174:C:H5'	0.97	1.12
1:AA:131:C:O2'	1:AA:262:A:H1'	1.29	1.12
1:AA:1416:G:H3'	1:AA:1417:G:O5'	1.47	1.12
1:AA:1416:G:O3'	1:AA:1417:G:C5'	1.92	1.12
23:B0:891:A:H2	23:B0:892:A:C6	1.46	1.12
1:AA:187:G:O2'	22:AT:105:SER:N	1.83	1.12
1:AA:619:U:N3	6:AD:135:LEU:CD1	2.11	1.12
1:AA:335:C:O4'	1:AA:1434:A:H4'	1.48	1.12
1:AA:288:A:O3'	1:AA:289:G:P	2.08	1.12
1:AA:130:A:O4'	1:AA:264:U:C5'	1.99	1.11
1:AA:19:C:H1'	1:AA:916:G:H22	1.10	1.11
1:AA:684:A:H1'	13:AK:38:ASN:HD22	1.05	1.11
1:AA:27:G:C5	1:AA:557:G:C2	2.38	1.11
1:AA:292:G:C2'	1:AA:608:A:H62	1.63	1.11
1:AA:1392:G:H4'	1:AA:1531:A:H5'	1.25	1.11
2:AW:76:A:C2	23:B0:2532:G:N2	2.18	1.11
1:AA:827:U:O3'	1:AA:828:A:P	2.07	1.11
23:B0:3110:G:OP1	23:B0:3148:G:H2'	1.48	1.11
1:AA:1499:A:H1'	1:AA:1520:G:C5'	1.78	1.11
1:AA:1394:A:C2	1:AA:1501:C:H5'	1.85	1.11
1:AA:828:A:C2	4:AB:26:PRO:CG	2.33	1.11
9:AG:149:ARG:NH1	13:AK:59:TYR:CE1	2.18	1.11
14:AL:41:ARG:HG2	14:AL:42:THR:H	1.03	1.11
2:AW:76:A:O2'	23:B0:2485:U:C2'	1.97	1.11
1:AA:191:G:O6	1:AA:192:U:C4	2.02	1.11
1:AA:1060:C:C4'	12:AJ:52:GLY:CA	2.23	1.11
1:AA:1484:C:O2'	23:B0:1943:A:H4'	1.51	1.11
23:B0:1098:G:N2	23:B0:1113:C:N3	1.97	1.11
23:B0:1067:G:H5'	23:B0:1068:A:H5'	1.26	1.11
1:AA:1499:A:C1'	1:AA:1520:G:C5'	2.29	1.10
12:AJ:51:ARG:O	16:AN:45:ARG:NE	1.83	1.10
1:AA:130:A:H4'	1:AA:264:U:H5'	1.24	1.10
23:B0:1856:U:C4	23:B0:3865:A:N6	2.19	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:253:U:O2'	19:AQ:15:MET:SD	2.09	1.10
1:AA:319:G:H5'	1:AA:1468:A:H4'	1.16	1.10
1:AA:1483:A:H2'	1:AA:1484:C:C6	1.87	1.10
1:AA:292:G:O2'	1:AA:608:A:N6	1.82	1.10
2:AV:12:U:OP1	23:B0:1891:C:O2'	1.68	1.10
1:AA:186:C:H1'	22:AT:60:GLU:OE1	1.50	1.10
1:AA:22:G:C1'	1:AA:913:A:C2	2.34	1.10
1:AA:1182:G:O2'	1:AA:1183:A:P	2.09	1.10
1:AA:131:C:OP1	1:AA:263:A:C5'	1.99	1.10
1:AA:322:C:C3'	22:AT:23:ARG:HB2	1.82	1.10
11:AI:8:GLY:HA2	11:AI:79:LEU:HD12	1.32	1.10
1:AA:267:C:OP2	19:AQ:67:LYS:CD	1.84	1.09
1:AA:1190:G:OP1	5:AC:4:LYS:CA	2.00	1.09
1:AA:1014:A:H1'	21:AS:34:TRP:HB2	1.30	1.09
1:AA:249:U:C3'	1:AA:250:A:P	2.39	1.09
23:B0:940:G:H3'	23:B0:941:U:H5''	1.19	1.09
1:AA:798:G:OP1	13:AK:122:LYS:NZ	1.84	1.09
1:AA:265:G:C4'	19:AQ:65:ILE:N	2.12	1.09
12:AJ:51:ARG:HB2	12:AJ:59:SER:HB3	1.34	1.09
1:AA:815:A:C1'	1:AA:1527:C:C1'	2.26	1.09
1:AA:815:A:C1'	1:AA:1527:C:H1'	1.70	1.09
1:AA:263:A:P	22:AT:75:ASN:HB2	1.91	1.09
6:AD:57:ARG:HH21	7:AE:107:ARG:CZ	1.66	1.09
1:AA:1504:G:OP1	1:AA:1507:A:C4'	2.00	1.09
1:AA:1194:U:C4'	7:AE:22:GLY:HA2	1.82	1.09
2:AW:74:C:H42	23:B0:2533:U:C2'	1.48	1.09
1:AA:130:A:C4'	1:AA:264:U:C5'	2.31	1.09
15:AM:93:ARG:CD	23:B0:900:U:O3'	2.01	1.09
1:AA:923:A:O4'	1:AA:1398:A:C6	2.05	1.08
2:AW:76:A:N3	23:B0:2562:G:N2	2.01	1.08
1:AA:191:G:C4	1:AA:192:U:C1'	2.36	1.08
1:AA:191:G:C5	1:AA:192:U:N1	2.20	1.08
1:AA:406:G:N2	1:AA:437:U:C2	2.22	1.08
1:AA:619:U:C4	6:AD:135:LEU:HD21	1.87	1.08
1:AA:320:C:H5'	1:AA:1434:A:N1	1.66	1.08
1:AA:264:U:C2'	19:AQ:64:PRO:O	2.00	1.08
23:B0:3875:A:C5'	55:B5:42:LYS:CA	2.32	1.08
1:AA:253:U:H1'	1:AA:275:G:O2'	0.91	1.08
23:B0:3865:A:P	23:B0:2388:G:N2	2.25	1.08
23:B0:1098:G:N2	23:B0:1113:C:C4	2.21	1.08
6:AD:150:GLU:HG3	6:AD:153:ARG:HH21	1.19	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:797:C:OP1	13:AK:124:LYS:HG3	1.53	1.08
1:AA:1394:A:N1	1:AA:1501:C:H5'	1.68	1.08
1:AA:9:G:C5'	7:AE:126:ARG:HD3	1.82	1.08
2:AV:25:C:O3'	2:AV:26:G:P	2.12	1.08
1:AA:1054:C:N4	2:AW:34:G:HO2'	1.47	1.07
1:AA:1394:A:C2	1:AA:1501:C:C5'	2.36	1.07
2:AW:75:C:N3	23:B0:2532:G:N1	2.01	1.07
1:AA:265:G:H5''	19:AQ:65:ILE:CA	1.73	1.07
1:AA:778:G:O2'	13:AK:120:ARG:N	1.87	1.07
1:AA:246:A:H4'	1:AA:247:G:H4'	1.36	1.07
23:B0:3109:U:H5'	23:B0:3150:C:H5'	1.34	1.07
1:AA:69:G:O4'	1:AA:102:G:C2	2.07	1.07
23:B0:1119:U:O4	23:B0:1120:C:N4	1.86	1.07
23:B0:225:G:H3'	23:B0:226:C:H5'	1.30	1.07
1:AA:675:A:O2'	13:AK:116:HIS:CE1	2.05	1.07
1:AA:538:G:H5'	14:AL:114:LYS:HB2	1.26	1.07
1:AA:128:G:H4'	19:AQ:3:LYS:HA	1.36	1.07
5:AC:58:GLU:HB3	12:AJ:92:THR:HG21	1.30	1.07
1:AA:212:G:O3'	1:AA:213:G:P	2.12	1.07
1:AA:13:U:O4	1:AA:915:A:N7	1.87	1.07
1:AA:6:G:C4	7:AE:119:LEU:HD13	1.88	1.07
1:AA:94:G:C3'	1:AA:96:C:P	2.41	1.07
1:AA:1484:C:H4'	23:B0:1943:A:H1'	1.29	1.07
2:AW:75:C:N4	23:B0:2532:G:N1	2.01	1.07
12:AJ:61:GLU:CG	16:AN:58:LYS:HZ2	1.66	1.07
1:AA:877:C:H5''	10:AH:88:LYS:HD3	1.37	1.07
6:AD:36:ARG:H	6:AD:37:PRO:HD3	1.19	1.07
1:AA:334:C:O2	1:AA:1434:A:O2'	1.70	1.07
1:AA:1298:C:O2'	9:AG:114:ARG:NH1	1.86	1.07
6:AD:88:VAL:CB	7:AE:97:GLY:CA	2.33	1.06
23:B0:3128:G:H4'	23:B0:3174:C:O4'	1.53	1.06
2:AW:76:A:C4'	23:B0:2486:C:H5'	1.84	1.06
2:AV:76:A:H3'	23:B0:2046:C:O2'	1.54	1.06
1:AA:1044:A:H3'	1:AA:1045:C:H1'	1.34	1.06
1:AA:265:G:H4'	19:AQ:66:SER:N	1.68	1.06
1:AA:9:G:H5''	7:AE:126:ARG:HD3	1.33	1.06
1:AA:26:A:H2'	1:AA:27:G:H5'	1.12	1.06
1:AA:933:G:OP2	9:AG:3:ARG:CD	2.01	1.06
1:AA:265:G:H5'	19:AQ:64:PRO:C	1.73	1.06
1:AA:1434:A:H3'	1:AA:1435:G:C4'	1.85	1.06
1:AA:1476:G:OP1	23:B0:1707:A:OP1	1.73	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:1912:G:C4'	23:B0:1913:G:H8	1.68	1.06
1:AA:820:U:O2	1:AA:873:A:C8	2.08	1.06
1:AA:1394:A:N1	1:AA:1501:C:C5'	2.18	1.06
1:AA:264:U:O2'	19:AQ:63:ARG:C	1.93	1.06
1:AA:1394:A:C2	1:AA:1501:C:H4'	1.90	1.06
1:AA:15:G:H1'	7:AE:19:MET:HE2	1.12	1.06
1:AA:1014:A:C5'	21:AS:14:HIS:CG	2.38	1.06
1:AA:1498:U:C4'	1:AA:1519:A:C2	2.35	1.06
23:B0:3098:U:O3'	23:B0:3099:U:P	2.12	1.06
1:AA:1393:U:O2	1:AA:1395:C:C4	2.05	1.05
1:AA:262:A:C5'	22:AT:74:LYS:CB	2.28	1.05
1:AA:1489:G:H2'	1:AA:1490:C:H5''	1.37	1.05
1:AA:1474:G:H4'	23:B0:1717:A:H62	1.19	1.05
1:AA:1499:A:H1'	1:AA:1520:G:H5'	1.10	1.05
1:AA:38:G:H4'	1:AA:498:U:O2	1.53	1.05
15:AM:7:VAL:CG1	28:BD:111:ILE:CA	2.33	1.05
1:AA:9:G:C8	7:AE:126:ARG:NH1	2.24	1.05
1:AA:367:U:O3'	1:AA:368:U:P	2.14	1.05
1:AA:1034:G:O3'	1:AA:1035:A:P	2.13	1.05
1:AA:104:G:H5'	1:AA:172:A:N1	1.72	1.05
1:AA:21:G:O2'	1:AA:914:A:N6	1.89	1.05
1:AA:779:C:H4'	13:AK:120:ARG:CD	1.84	1.05
1:AA:556:C:O2'	1:AA:557:G:H5'	1.54	1.05
1:AA:923:A:O4'	1:AA:1398:A:C4	2.04	1.05
1:AA:1342:C:C4'	11:AI:125:TYR:CZ	2.40	1.05
1:AA:1108:G:H5''	5:AC:176:HIS:CE1	1.92	1.05
1:AA:779:C:C5'	13:AK:120:ARG:O	2.05	1.05
1:AA:619:U:C2	6:AD:135:LEU:CD1	2.39	1.05
1:AA:1474:G:O4'	23:B0:1718:A:N1	1.58	1.05
23:B0:3107:G:O3'	23:B0:3108:G:P	2.14	1.05
2:AW:25:C:C2'	2:AW:26:G:C5'	2.34	1.05
1:AA:1182:G:O2'	1:AA:1183:A:OP2	1.74	1.05
1:AA:9:G:OP1	7:AE:122:GLU:CB	2.04	1.05
6:AD:205:GLU:CG	7:AE:107:ARG:HH21	1.67	1.05
1:AA:129:U:H5''	19:AQ:3:LYS:HZ1	1.18	1.05
15:AM:84:ILE:HG21	21:AS:65:ASN:HD22	1.17	1.05
1:AA:866:C:H5'	1:AA:919:A:H5'	1.37	1.04
1:AA:1459:C:OP1	22:AT:29:LYS:N	1.90	1.04
2:AW:76:A:C1'	23:B0:2486:C:C4'	2.32	1.04
1:AA:322:C:O3'	22:AT:23:ARG:CA	2.03	1.04
1:AA:234:C:O2'	19:AQ:70:ARG:HG2	1.57	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:499:A:N3	1:AA:500:G:H1'	1.70	1.04
23:B0:3877:A:H3'	23:B0:1861:G:C8	1.91	1.04
1:AA:994:A:C2	16:AN:4:LYS:O	2.10	1.04
1:AA:1015:A:H1'	1:AA:1219:U:H5'	1.34	1.04
7:AE:79:GLU:CD	10:AH:105:ARG:HD3	1.77	1.04
1:AA:132:C:H5'	1:AA:262:A:C1'	1.88	1.04
23:B0:3866:A:N6	55:B5:44:GLY:CA	2.18	1.04
1:AA:923:A:C2'	1:AA:1398:A:H2'	1.87	1.04
1:AA:1393:U:N3	1:AA:1395:C:N4	2.04	1.04
1:AA:923:A:O4'	1:AA:1398:A:C5	2.10	1.04
1:AA:1109:C:OP2	5:AC:176:HIS:CD2	2.10	1.04
1:AA:320:C:C4'	1:AA:1434:A:C2	2.38	1.04
23:B0:3107:G:HO3'	23:B0:3108:G:P	1.80	1.04
1:AA:130:A:C5'	19:AQ:63:ARG:HE	1.70	1.03
23:B0:3866:A:C6	55:B5:45:ASP:CA	2.41	1.03
1:AA:246:A:O3'	1:AA:247:G:C4'	2.05	1.03
1:AA:834:C:OP1	20:AR:53:ARG:NH2	1.90	1.03
1:AA:1044:A:C3'	1:AA:1045:C:C1'	2.34	1.03
1:AA:865:A:C2	1:AA:918:A:H4'	1.93	1.03
1:AA:265:G:O3'	19:AQ:65:ILE:C	1.96	1.03
1:AA:94:G:HO3'	1:AA:96:C:P	1.13	1.03
1:AA:22:G:H21	1:AA:913:A:H2'	1.08	1.03
1:AA:476:U:N1	1:AA:477:G:C5'	2.22	1.03
1:AA:319:G:H21	1:AA:1434:A:H1'	1.14	1.03
23:B0:1888:C:H4'	23:B0:1911:A:H2	1.23	1.03
4:AB:178:ARG:HH11	4:AB:178:ARG:HG3	1.21	1.03
1:AA:1015:A:H1'	1:AA:1219:U:H4'	1.38	1.03
6:AD:57:ARG:HH22	7:AE:107:ARG:HD3	0.88	1.03
1:AA:299:G:N2	1:AA:566:G:N7	2.06	1.03
23:B0:1119:U:C4	23:B0:1120:C:N4	2.26	1.03
14:AL:75:HIS:HD2	14:AL:77:LEU:H	1.05	1.03
6:AD:88:VAL:CB	7:AE:97:GLY:HA3	1.89	1.03
1:AA:994:A:N1	16:AN:5:ALA:HA	1.65	1.03
1:AA:132:C:H5'	1:AA:262:A:O4'	1.58	1.03
1:AA:131:C:C1'	1:AA:262:A:C2	2.32	1.03
1:AA:243:A:H4'	1:AA:244:U:H5'	1.37	1.03
19:AQ:104:LYS:HG2	23:B0:726:G:C6	1.93	1.03
1:AA:190:A:N6	22:AT:104:LEU:C	2.12	1.03
1:AA:473:C:OP1	18:AP:75:ARG:HD3	1.58	1.02
1:AA:1434:A:H3'	1:AA:1435:G:O4'	1.59	1.02
1:AA:707:C:H5''	13:AK:85:ARG:HH12	0.91	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AW:71:G:C3'	23:B0:1925:C:O2'	2.07	1.02
1:AA:923:A:H2	1:AA:1395:C:C2	1.75	1.02
1:AA:332:G:OP2	22:AT:10:LEU:HB2	0.86	1.02
1:AA:1331:G:O3'	1:AA:1332:A:P	2.17	1.02
1:AA:922:G:N3	1:AA:1398:A:C2	2.27	1.02
1:AA:187:G:C2'	22:AT:105:SER:H	1.73	1.02
1:AA:835:U:H5''	20:AR:64:ARG:CZ	1.89	1.02
1:AA:27:G:C6	1:AA:557:G:N1	2.27	1.02
1:AA:27:G:O6	1:AA:557:G:C6	2.10	1.02
23:B0:1096:A:O2'	23:B0:1115:C:H1'	1.56	1.02
1:AA:262:A:H5'	22:AT:74:LYS:HB3	1.41	1.02
1:AA:131:C:OP1	1:AA:263:A:C4'	2.06	1.02
1:AA:254:G:C1'	19:AQ:15:MET:HB3	1.90	1.02
1:AA:265:G:C4'	19:AQ:64:PRO:C	2.28	1.02
1:AA:38:G:C1'	1:AA:547:A:C5	2.43	1.02
23:B0:1572:C:H2'	23:B0:1573:G:H5''	1.39	1.02
14:AL:60:LEU:HD11	14:AL:85:ILE:HD12	1.39	1.02
1:AA:865:A:C1'	1:AA:918:A:O2'	2.07	1.02
1:AA:22:G:O2'	1:AA:913:A:N6	1.92	1.02
1:AA:922:G:C6	1:AA:1396:A:C6	2.48	1.02
1:AA:323:U:OP1	22:AT:23:ARG:N	1.93	1.02
1:AA:115:G:O3'	1:AA:116:A:P	2.17	1.02
1:AA:733:A:O3'	1:AA:734:G:P	2.18	1.02
1:AA:254:G:H1'	19:AQ:15:MET:HB3	1.37	1.01
1:AA:254:G:H4'	19:AQ:18:THR:CB	1.89	1.01
1:AA:190:A:N6	22:AT:104:LEU:N	1.87	1.01
1:AA:38:G:C4'	1:AA:547:A:C6	2.40	1.01
1:AA:1484:C:C4'	23:B0:1943:A:H1'	1.90	1.01
1:AA:1458:G:HO3'	22:AT:24:LEU:CD1	1.62	1.01
19:AQ:96:GLN:OE1	23:B0:725:C:H2'	1.59	1.01
1:AA:1484:C:C5'	23:B0:1943:A:H1'	1.89	1.01
1:AA:173:U:H5'	1:AA:197:A:O4'	1.60	1.01
22:AT:39:LYS:HD2	22:AT:55:ILE:HD13	1.41	1.01
1:AA:1393:U:O2	1:AA:1395:C:C5	2.13	1.01
1:AA:864:A:N1	1:AA:917:G:O2'	1.94	1.01
1:AA:779:C:C4'	13:AK:120:ARG:CD	2.38	1.01
1:AA:762:C:H4'	23:B0:729:A:C6	1.94	1.01
19:AQ:94:ASN:N	23:B0:726:G:O4'	1.93	1.01
1:AA:332:G:P	22:AT:10:LEU:CB	2.48	1.01
1:AA:288:A:O2'	1:AA:289:G:O3'	1.77	1.01
1:AA:905:U:C5	1:AA:906:G:C5	2.48	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AS:28:LYS:HG2	21:AS:29:ARG:H	1.26	1.01
1:AA:1194:U:C5'	7:AE:22:GLY:CA	2.39	1.01
1:AA:922:G:N3	1:AA:1396:A:C2	2.28	1.01
1:AA:1014:A:H5''	21:AS:14:HIS:CB	1.90	1.01
19:AQ:94:ASN:N	23:B0:726:G:C4'	2.16	1.01
23:B0:3877:A:P	23:B0:1861:G:OP2	2.19	1.01
1:AA:1256:A:C5'	1:AA:1258:G:H1'	1.90	1.01
1:AA:1086:U:H3	1:AA:1099:G:H22	1.08	1.01
1:AA:865:A:O2'	1:AA:918:A:O2'	1.78	1.01
1:AA:815:A:N6	1:AA:1508:G:H21	1.56	1.01
23:B0:3128:G:C3'	23:B0:3174:C:H4'	1.90	1.01
1:AA:1014:A:H4'	21:AS:14:HIS:CD2	1.96	1.01
1:AA:265:G:O3'	19:AQ:66:SER:CA	2.07	1.01
5:AC:5:ILE:HG23	12:AJ:51:ARG:HH12	1.26	1.01
1:AA:322:C:H4'	22:AT:23:ARG:CG	1.90	1.01
1:AA:619:U:C6	6:AD:135:LEU:HD11	1.96	1.01
1:AA:619:U:C2	6:AD:135:LEU:HD12	1.95	1.01
1:AA:815:A:H1'	1:AA:1527:C:C2'	1.91	1.00
1:AA:15:G:H1'	7:AE:19:MET:CE	1.90	1.00
1:AA:39:G:C5	1:AA:498:U:O4	2.15	1.00
1:AA:542:G:OP1	6:AD:10:ARG:NH2	1.94	1.00
1:AA:288:A:O3'	1:AA:289:G:O5'	1.74	1.00
1:AA:923:A:O4'	1:AA:1398:A:N1	1.95	1.00
1:AA:1015:A:C1'	1:AA:1219:U:C5'	2.39	1.00
23:B0:2668:U:H4'	23:B0:2669:C:H5'	1.40	1.00
1:AA:1340:A:H1'	2:AV:31:A:O2'	1.61	1.00
1:AA:866:C:H5'	1:AA:919:A:C5'	1.92	1.00
2:AW:75:C:N4	23:B0:2532:G:H1	1.58	1.00
19:AQ:105:ALA:N	23:B0:727:U:O4'	1.92	1.00
1:AA:1484:C:H4'	23:B0:1943:A:O4'	1.60	1.00
1:AA:104:G:H5'	1:AA:172:A:C2	1.97	1.00
23:B0:1252:C:H2'	23:B0:1253:C:H5''	1.43	1.00
24:B9:107:C:H3'	24:B9:108:G:P	2.01	1.00
1:AA:293:G:O5'	1:AA:609:A:N6	1.94	1.00
1:AA:922:G:C4	1:AA:1396:A:C2	2.48	1.00
1:AA:1014:A:N3	1:AA:1219:U:O2'	1.91	1.00
1:AA:46:G:O2'	1:AA:365:U:C1'	2.08	1.00
1:AA:265:G:H5''	19:AQ:65:ILE:HA	1.02	1.00
6:AD:205:GLU:HB3	7:AE:107:ARG:NH2	1.75	1.00
1:AA:1256:A:H5'	1:AA:1258:G:H1'	1.03	1.00
1:AA:1346:A:H2'	9:AG:10:ARG:NH2	1.74	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AW:75:C:O2	23:B0:2486:C:O2'	1.79	1.00
1:AA:191:G:C2	1:AA:192:U:C1'	2.45	1.00
1:AA:7:G:N2	7:AE:123:LEU:HD11	1.76	1.00
1:AA:1497:G:O2'	1:AA:1518:A:N1	1.95	1.00
2:AW:74:C:N4	23:B0:2533:U:C2'	2.23	0.99
1:AA:130:A:C2	1:AA:264:U:C4	2.50	0.99
1:AA:191:G:C4	1:AA:192:U:N1	2.29	0.99
1:AA:653:A:O4'	10:AH:56:LYS:HE2	1.61	0.99
1:AA:59:A:H3'	1:AA:331:G:H22	1.26	0.99
1:AA:205:G:N2	1:AA:207:C:C5	2.30	0.99
2:AW:74:C:N3	23:B0:2534:U:C5	1.88	0.99
2:AV:74:C:O3'	23:B0:2581:A:C5'	2.10	0.99
23:B0:3110:G:OP1	23:B0:3149:G:H5'	1.62	0.99
1:AA:262:A:H5'	22:AT:74:LYS:HB2	1.00	0.99
12:AJ:62:HIS:ND1	16:AN:61:TRP:CZ3	2.30	0.99
1:AA:1474:G:O2'	23:B0:1705:U:C4'	2.10	0.99
15:AM:84:ILE:CG2	21:AS:65:ASN:HD22	1.74	0.99
1:AA:1061:G:C5'	12:AJ:56:HIS:HB3	1.93	0.99
23:B0:3877:A:N3	23:B0:1861:G:N3	2.09	0.99
1:AA:1484:C:C3'	23:B0:1943:A:O2'	2.11	0.99
2:AV:76:A:H5''	23:B0:2564:U:N1	1.02	0.99
1:AA:397:A:N6	1:AA:547:A:C4	2.30	0.99
2:AV:75:C:P	23:B0:2581:A:C5'	2.49	0.99
1:AA:6:G:C5	7:AE:119:LEU:HD11	1.82	0.99
24:B9:107:C:O3'	24:B9:108:G:P	2.21	0.99
2:AW:75:C:C4	23:B0:2532:G:N1	2.30	0.99
2:AW:76:A:C2'	23:B0:2562:G:H22	1.76	0.99
23:B0:3866:A:N1	55:B5:45:ASP:CA	2.25	0.99
1:AA:1484:C:C4'	23:B0:1943:A:C1'	2.40	0.99
1:AA:599:C:H4'	10:AH:130:GLY:C	1.82	0.99
1:AA:1069:C:O4'	1:AA:1191:A:H2	1.44	0.99
1:AA:391:G:H5'	18:AP:28:ARG:NH2	1.78	0.99
1:AA:1393:U:C2	1:AA:1395:C:N4	2.29	0.99
1:AA:21:G:C2'	1:AA:914:A:N6	2.25	0.98
1:AA:1457:A:N9	1:AA:1459:C:C2	2.30	0.98
2:AW:74:C:H42	23:B0:2533:U:H2'	1.25	0.98
1:AA:755:G:C1'	10:AH:1:MET:HE3	1.92	0.98
2:AW:25:C:H2'	2:AW:26:G:C5'	1.91	0.98
1:AA:255:G:O4'	19:AQ:16:GLN:CB	2.10	0.98
1:AA:189:A:OP2	22:AT:105:SER:CB	2.11	0.98
1:AA:161:A:H2	1:AA:348:G:C2'	1.75	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:188:C:O2	22:AT:106:ALA:O	1.79	0.98
1:AA:318:G:N2	1:AA:1433:A:H2	1.62	0.98
1:AA:1498:U:H4'	1:AA:1519:A:N1	1.78	0.98
1:AA:186:C:H4'	22:AT:81:LYS:CB	1.94	0.98
1:AA:974:A:OP1	16:AN:31:ARG:HG2	1.62	0.98
1:AA:6:G:C6	7:AE:119:LEU:CD1	2.47	0.98
1:AA:1261:A:O2'	1:AA:1283:G:H5''	1.62	0.98
1:AA:1190:G:H3'	5:AC:3:ASN:HB2	1.46	0.98
1:AA:473:C:OP1	18:AP:75:ARG:NH1	1.97	0.98
1:AA:1292:U:OP2	9:AG:41:ARG:NH2	1.95	0.98
10:AH:113:SER:HB2	10:AH:134:ILE:HD11	1.43	0.98
1:AA:1060:C:H4'	12:AJ:52:GLY:HA3	1.00	0.98
1:AA:191:G:C6	1:AA:192:U:C4	2.50	0.98
1:AA:323:U:OP1	22:AT:22:ARG:C	2.02	0.98
1:AA:397:A:H62	1:AA:547:A:H1'	0.85	0.98
1:AA:547:A:H4'	1:AA:548:G:P	2.04	0.98
1:AA:115:G:HO3'	1:AA:116:A:P	1.87	0.98
2:AV:74:C:N4	23:B0:2231:G:N1	2.12	0.98
24:B9:114:C:H2'	24:B9:115:G:H5''	1.45	0.98
1:AA:1116:C:H2'	1:AA:1117:G:H5''	1.46	0.98
1:AA:677:U:C1'	13:AK:119:CYS:SG	2.52	0.97
23:B0:1199:U:H3'	23:B0:1200:G:H5''	1.44	0.97
1:AA:619:U:C4	6:AD:135:LEU:CD2	2.44	0.97
1:AA:38:G:O2'	1:AA:39:G:C8	2.17	0.97
1:AA:333:G:C1'	22:AT:16:HIS:HD2	1.78	0.97
1:AA:476:U:C2	1:AA:477:G:C5'	2.30	0.97
23:B0:1861:G:H4'	55:B5:198:THR:CA	1.94	0.97
2:AW:33:U:O2	2:AW:35:A:H5'	1.64	0.97
1:AA:755:G:H1'	10:AH:1:MET:HE3	0.99	0.97
23:B0:1119:U:C4	23:B0:1120:C:C4	2.52	0.97
23:B0:2548:G:H2'	23:B0:2549:G:H5''	1.45	0.97
1:AA:293:G:O5'	1:AA:609:A:N1	1.96	0.97
1:AA:684:A:H1'	13:AK:38:ASN:ND2	1.75	0.97
1:AA:319:G:H5'	1:AA:1468:A:C4'	1.95	0.97
1:AA:128:G:OP1	19:AQ:2:PRO:CD	2.12	0.97
1:AA:203:A:O4'	1:AA:468:A:H4'	1.62	0.97
1:AA:191:G:N7	1:AA:192:U:C5	2.33	0.97
1:AA:1069:C:O2'	1:AA:1192:C:H1'	1.64	0.97
23:B0:1856:U:C3'	23:B0:3865:A:C8	2.47	0.97
1:AA:278:G:N2	1:AA:279:A:H62	1.61	0.97
19:AQ:101:ARG:HD3	23:B0:731:A:C6	2.00	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1394:A:N3	1:AA:1501:C:C4'	2.27	0.97
1:AA:1342:C:C3'	11:AI:125:TYR:CZ	2.48	0.97
1:AA:522:C:H5''	14:AL:120:TYR:OH	1.63	0.97
1:AA:129:U:H5''	19:AQ:3:LYS:NZ	1.79	0.97
1:AA:1194:U:H5'	7:AE:22:GLY:HA3	1.47	0.97
23:B0:3118:U:H3	23:B0:3149:G:H5'	1.26	0.97
15:AM:94:ARG:NH2	21:AS:81:ARG:HD3	1.80	0.97
1:AA:1194:U:C5'	7:AE:22:GLY:HA2	1.95	0.96
1:AA:1459:C:OP1	22:AT:28:ALA:O	1.82	0.96
1:AA:923:A:C2	1:AA:1395:C:C2	2.51	0.96
1:AA:865:A:N3	1:AA:918:A:C4'	2.28	0.96
1:AA:979:C:O2	16:AN:19:ARG:NE	1.97	0.96
1:AA:264:U:H1'	19:AQ:64:PRO:HD2	0.98	0.96
1:AA:332:G:OP1	22:AT:10:LEU:CG	2.14	0.96
1:AA:1392:G:H5'	1:AA:1531:A:H5''	1.44	0.96
12:AJ:61:GLU:CG	16:AN:58:LYS:NZ	2.24	0.96
1:AA:279:A:OP2	19:AQ:95:TYR:HE2	1.47	0.96
1:AA:837:G:HO3'	1:AA:838:C:H6	1.09	0.96
12:AJ:45:ARG:HH22	16:AN:36:PHE:HD2	1.01	0.96
13:AK:54:ARG:HH11	13:AK:54:ARG:HB3	1.26	0.96
1:AA:1392:G:H4'	1:AA:1531:A:C5'	1.95	0.96
1:AA:38:G:H1'	1:AA:547:A:C4	2.01	0.96
1:AA:1434:A:O3'	1:AA:1435:G:H5'	1.64	0.96
2:AV:75:C:N3	23:B0:2230:G:N2	2.13	0.96
19:AQ:104:LYS:HE3	23:B0:729:A:N7	1.79	0.96
1:AA:249:U:O3'	1:AA:250:A:OP1	1.84	0.96
2:AW:76:A:H2'	23:B0:2562:G:H22	1.27	0.96
23:B0:891:A:H2	23:B0:892:A:C5	1.67	0.96
1:AA:323:U:H5''	22:AT:22:ARG:HB2	0.97	0.96
1:AA:1256:A:N3	1:AA:1258:G:N1	2.14	0.96
2:AV:32:C:OP2	11:AI:127:LYS:HG3	1.63	0.96
1:AA:779:C:O2'	13:AK:120:ARG:CD	2.13	0.96
1:AA:497:A:O2'	1:AA:498:U:P	2.23	0.96
23:B0:2075:U:HO3'	23:B0:3093:C:H5'	1.23	0.96
1:AA:186:C:H4'	22:AT:81:LYS:HB3	1.48	0.96
1:AA:521:G:C5'	14:AL:72:GLY:C	2.34	0.96
1:AA:335:C:H1'	1:AA:1434:A:O4'	1.65	0.96
23:B0:3877:A:H8	23:B0:3877:A:O5'	1.47	0.96
2:AV:74:C:N4	23:B0:2231:G:H1	1.64	0.96
1:AA:1278:U:OP1	1:AA:1279:A:OP1	1.84	0.96
1:AA:837:G:O3'	1:AA:838:C:P	2.24	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.65	0.96
1:AA:323:U:H5''	22:AT:22:ARG:CA	1.96	0.95
23:B0:1912:G:H4'	23:B0:1913:G:H8	1.11	0.95
23:B0:3867:G:H5'	55:B5:193:LYS:CA	1.95	0.95
1:AA:1473:A:C5'	23:B0:1719:G:H4'	1.97	0.95
1:AA:1044:A:H2'	1:AA:1045:C:O2'	1.66	0.95
12:AJ:31:GLY:HA2	12:AJ:78:ASN:HD22	1.32	0.95
23:B0:1747:G:H4'	23:B0:1749:G:H1'	1.47	0.95
1:AA:815:A:C1'	1:AA:1527:C:O2'	2.12	0.95
1:AA:1060:C:H4'	12:AJ:52:GLY:N	1.81	0.95
5:AC:14:ILE:HG22	5:AC:15:THR:H	1.32	0.95
12:AJ:63:PHE:HA	16:AN:57:ARG:O	1.66	0.95
23:B0:2075:U:O3'	23:B0:3093:C:C5'	2.12	0.95
2:AW:76:A:N3	23:B0:2486:C:C1'	2.29	0.95
1:AA:191:G:C6	1:AA:192:U:N1	2.34	0.95
1:AA:1489:G:C2'	1:AA:1490:C:H5''	1.96	0.95
23:B0:1066:G:N1	23:B0:1115:C:N4	2.14	0.95
5:AC:52:LEU:HD23	5:AC:52:LEU:H	1.26	0.95
1:AA:191:G:N7	1:AA:192:U:C6	2.34	0.95
1:AA:401:C:HO2'	1:AA:621:A:H2	0.98	0.95
1:AA:236:G:P	19:AQ:40:LYS:HZ1	1.83	0.95
1:AA:46:G:HO2'	1:AA:365:U:H1'	1.25	0.95
1:AA:1409:C:O2'	1:AA:1410:G:H5'	1.66	0.95
15:AM:49:THR:HG22	15:AM:51:ALA:H	1.26	0.95
1:AA:675:A:H1'	13:AK:116:HIS:HD2	1.32	0.94
1:AA:825:G:H21	10:AH:11:THR:HG21	1.31	0.94
1:AA:128:G:H5''	19:AQ:2:PRO:C	1.86	0.94
1:AA:130:A:O3'	1:AA:263:A:H4'	1.65	0.94
1:AA:279:A:OP2	19:AQ:95:TYR:CE2	2.19	0.94
1:AA:1238:A:O3'	1:AA:1239:A:P	2.25	0.94
1:AA:1320:C:H41	21:AS:37:ARG:HD3	1.32	0.94
23:B0:3128:G:C5'	23:B0:3174:C:O2'	2.15	0.94
1:AA:261:U:H6	22:AT:79:ARG:NH1	1.65	0.94
23:B0:367:G:H2'	23:B0:368:A:H5''	1.48	0.94
1:AA:191:G:C5	1:AA:192:U:C5	2.55	0.94
12:AJ:62:HIS:CE1	16:AN:61:TRP:CH2	2.55	0.94
1:AA:288:A:O2'	1:AA:290:C:P	2.25	0.94
1:AA:254:G:O2'	19:AQ:16:GLN:O	1.86	0.94
1:AA:65:U:O4'	1:AA:200:G:H4'	1.67	0.94
1:AA:922:G:N1	1:AA:1396:A:C5	2.36	0.94
1:AA:332:G:P	22:AT:10:LEU:HG	2.06	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AM:93:ARG:CG	23:B0:900:U:O3'	2.16	0.94
4:AB:124:SER:HB2	4:AB:125:PRO:HD2	1.49	0.94
23:B0:929:A:H3'	23:B0:930:A:H5''	1.47	0.94
8:AF:94:GLN:HE21	20:AR:32:ARG:HD3	1.32	0.94
23:B0:3867:G:H21	55:B5:44:GLY:CA	1.59	0.94
1:AA:1416:G:H2'	1:AA:1417:G:C4'	1.98	0.94
1:AA:538:G:C5'	14:AL:114:LYS:CB	1.89	0.94
1:AA:9:G:O5'	7:AE:126:ARG:NH1	2.00	0.94
1:AA:905:U:O3'	1:AA:906:G:OP2	1.86	0.94
19:AQ:105:ALA:H	23:B0:727:U:H1'	0.80	0.94
1:AA:236:G:H5''	19:AQ:40:LYS:HZ3	1.32	0.94
4:AB:195:ASP:HB3	10:AH:74:PRO:CD	1.98	0.94
23:B0:2607:C:H3'	23:B0:2608:A:H5'	1.49	0.94
1:AA:320:C:O4'	1:AA:1434:A:H2	1.33	0.93
1:AA:675:A:N3	13:AK:116:HIS:CB	2.28	0.93
23:B0:3128:G:H5''	23:B0:3174:C:O2'	1.68	0.93
1:AA:815:A:H1'	1:AA:1527:C:C1'	1.91	0.93
2:AW:75:C:O2'	23:B0:2486:C:H4'	1.67	0.93
1:AA:130:A:C8	19:AQ:63:ARG:HG3	2.03	0.93
1:AA:6:G:N1	7:AE:119:LEU:HD11	1.82	0.93
1:AA:828:A:N3	4:AB:26:PRO:CG	2.28	0.93
1:AA:499:A:C1'	1:AA:500:G:O4'	2.17	0.93
1:AA:1305:G:N2	1:AA:1331:G:O2'	2.01	0.93
1:AA:293:G:O5'	1:AA:609:A:C6	2.21	0.93
1:AA:22:G:H1'	1:AA:913:A:N1	1.83	0.93
1:AA:923:A:O2'	1:AA:1398:A:H2'	1.68	0.93
1:AA:522:C:OP1	14:AL:120:TYR:HE2	1.40	0.93
1:AA:397:A:C5	1:AA:547:A:O2'	2.18	0.93
1:AA:437:U:O2'	6:AD:123:HIS:HD2	1.52	0.93
2:AV:75:C:N4	23:B0:2231:G:C2	2.37	0.93
13:AK:54:ARG:O	13:AK:57:THR:HG22	1.66	0.93
1:AA:664:G:H22	1:AA:741:G:H1	1.16	0.93
1:AA:922:G:N3	1:AA:1398:A:H2	1.64	0.93
1:AA:323:U:O2'	22:AT:22:ARG:HD2	1.65	0.93
1:AA:190:A:N6	22:AT:102:GLY:O	2.01	0.93
1:AA:37:U:H2'	1:AA:547:A:N1	1.83	0.93
1:AA:202:G:H1'	1:AA:468:A:O2'	1.66	0.93
1:AA:104:G:C4'	1:AA:172:A:C2	2.51	0.93
1:AA:33:A:OP2	1:AA:398:C:H4'	1.68	0.93
1:AA:921:U:O4	1:AA:1396:A:N6	2.01	0.93
1:AA:1224:G:O3'	1:AA:1225:A:P	2.27	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AJ:62:HIS:HB2	16:AN:59:ALA:HB3	1.51	0.93
1:AA:66:G:H5''	1:AA:199:G:O2'	1.69	0.93
5:AC:91:LEU:HD21	5:AC:99:VAL:HG13	1.48	0.93
23:B0:1066:G:N2	23:B0:1115:C:C2	2.36	0.93
24:B9:107:C:C3'	24:B9:108:G:P	2.57	0.93
1:AA:994:A:C6	16:AN:5:ALA:CB	2.50	0.93
1:AA:265:G:C5'	19:AQ:64:PRO:C	2.34	0.93
1:AA:190:A:N6	22:AT:104:LEU:CA	2.31	0.92
1:AA:128:G:H5'	19:AQ:2:PRO:O	1.68	0.92
14:AL:41:ARG:HG2	14:AL:42:THR:N	1.83	0.92
5:AC:195:VAL:O	5:AC:196:LEU:HD23	1.69	0.92
1:AA:1016:A:C1'	1:AA:1218:C:H4'	1.99	0.92
1:AA:1483:A:H2'	1:AA:1484:C:H6	1.28	0.92
1:AA:319:G:N2	1:AA:1434:A:H1'	1.82	0.92
1:AA:707:C:P	13:AK:85:ARG:NH1	2.41	0.92
1:AA:1329:A:P	15:AM:28:ALA:HB3	2.09	0.92
15:AM:40:ASN:HD22	15:AM:41:PRO:CD	1.82	0.92
23:B0:104:C:H2'	23:B0:105:G:H5''	1.49	0.92
1:AA:6:G:C8	7:AE:92:LYS:NZ	2.25	0.92
1:AA:1392:G:C5'	1:AA:1531:A:H5''	2.00	0.92
1:AA:191:G:C2	1:AA:192:U:C2	2.56	0.92
1:AA:893:C:O2'	1:AA:894:G:H5'	1.69	0.92
19:AQ:104:LYS:HE3	23:B0:729:A:C5	2.05	0.92
23:B0:226:C:HO2'	23:B0:227:G:H8	0.97	0.92
1:AA:130:A:C5'	19:AQ:63:ARG:NE	2.28	0.92
1:AA:323:U:C5'	22:AT:22:ARG:CB	2.28	0.92
1:AA:619:U:O2	6:AD:133:VAL:CG1	2.15	0.92
23:B0:1656:U:H2'	23:B0:1657:A:H5''	1.52	0.92
1:AA:922:G:C2	1:AA:1396:A:N3	2.37	0.92
2:AV:76:A:H5''	23:B0:2564:U:C1'	1.96	0.92
23:B0:1096:A:HO2'	23:B0:1115:C:H1'	1.31	0.92
23:B0:1066:G:H1	23:B0:1115:C:N4	1.65	0.92
1:AA:619:U:H3	6:AD:135:LEU:HG	0.90	0.92
1:AA:848:G:O3'	1:AA:849:C:C5'	2.18	0.92
5:AC:131:ARG:HG2	5:AC:135:LYS:HE3	1.50	0.92
1:AA:994:A:C2'	16:AN:11:LYS:HE3	1.93	0.92
1:AA:232:G:N2	1:AA:263:A:H2	1.61	0.92
1:AA:264:U:O2'	19:AQ:64:PRO:N	2.02	0.92
1:AA:333:G:C1'	22:AT:16:HIS:NE2	2.22	0.92
1:AA:291:C:O3'	1:AA:292:G:P	2.28	0.92
1:AA:922:G:N2	1:AA:1396:A:N9	2.18	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:266:G:H5'	19:AQ:66:SER:HA	1.52	0.92
1:AA:128:G:C1'	19:AQ:61:GLU:OE1	2.15	0.92
1:AA:737:A:O2'	8:AF:73:ASN:ND2	2.03	0.92
1:AA:1393:U:H2'	1:AA:1395:C:H5	1.35	0.91
1:AA:1317:C:C6	16:AN:16:PHE:CD2	2.58	0.91
21:AS:31:ILE:HG22	21:AS:32:LYS:H	1.34	0.91
1:AA:779:C:O2'	13:AK:120:ARG:HD3	1.71	0.91
1:AA:247:G:N3	1:AA:282:A:C2	2.37	0.91
7:AE:81:GLU:HG2	7:AE:90:VAL:HG22	1.52	0.91
23:B0:1090:C:O2'	31:BG:129:GLY:CA	2.19	0.91
1:AA:921:U:N3	1:AA:1396:A:N1	2.18	0.91
19:AQ:94:ASN:N	23:B0:726:G:H4'	1.83	0.91
2:AV:1:G:H22	2:AV:2:C:N4	1.65	0.91
1:AA:26:A:H2'	1:AA:27:G:C5'	1.98	0.91
23:B0:1182:U:H2'	23:B0:1183:C:H5''	1.49	0.91
1:AA:865:A:C2'	1:AA:918:A:O2'	2.17	0.91
1:AA:265:G:C3'	19:AQ:65:ILE:C	2.37	0.91
12:AJ:45:ARG:NH2	16:AN:36:PHE:CD2	2.37	0.91
1:AA:94:G:C5	1:AA:96:C:C5	2.59	0.91
1:AA:320:C:C5'	1:AA:1434:A:N1	2.32	0.91
1:AA:1238:A:H2	1:AA:1241:G:HO2'	0.96	0.91
1:AA:932:C:H5''	9:AG:3:ARG:HD3	1.50	0.91
1:AA:816:A:OP1	1:AA:1527:C:H5'	1.70	0.91
23:B0:3128:G:H4'	23:B0:3174:C:H4'	0.92	0.91
1:AA:1342:C:O3'	11:AI:125:TYR:HE2	1.41	0.91
1:AA:131:C:C2	1:AA:262:A:C2	2.58	0.91
1:AA:403:C:HO2'	1:AA:404:U:H5'	1.30	0.91
1:AA:1473:A:C4'	23:B0:1719:G:O4'	2.19	0.91
1:AA:256:U:H5'	19:AQ:17:LYS:HZ1	1.10	0.91
1:AA:6:G:C2	7:AE:119:LEU:CD1	2.52	0.91
1:AA:1305:G:O2'	1:AA:1306:A:C8	2.07	0.91
1:AA:173:U:C5'	1:AA:197:A:O4'	2.19	0.91
18:AP:58:TYR:O	18:AP:61:SER:HB3	1.68	0.91
1:AA:606:G:H3'	1:AA:607:A:H5'	1.52	0.91
1:AA:15:G:O2'	7:AE:24:ARG:NH1	2.04	0.91
1:AA:19:C:H1'	1:AA:916:G:N2	1.85	0.91
1:AA:191:G:C4	1:AA:192:U:C6	2.59	0.91
23:B0:892:A:H5'	23:B0:892:A:H8	1.35	0.91
1:AA:6:G:C6	7:AE:119:LEU:HD11	2.04	0.91
1:AA:397:A:C6	1:AA:547:A:H1'	2.04	0.91
23:B0:1066:G:C2	23:B0:1115:C:N3	2.39	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AW:41:U:H5'	2:AW:41:U:H6	1.35	0.91
1:AA:1392:G:C4'	1:AA:1531:A:C5'	2.49	0.91
2:AW:76:A:O4'	23:B0:2486:C:C4'	2.19	0.91
1:AA:191:G:C4	1:AA:192:U:O4'	2.18	0.91
1:AA:37:U:O2'	1:AA:547:A:N1	2.02	0.91
23:B0:1912:G:C4'	23:B0:1913:G:C8	2.47	0.91
1:AA:702:A:N1	23:B0:1838:G:H2'	1.86	0.91
1:AA:1502:A:H2	1:AA:1505:G:H1	1.19	0.91
1:AA:262:A:C5'	22:AT:75:ASN:H	1.84	0.91
1:AA:1434:A:C3'	1:AA:1435:G:H5'	2.00	0.91
1:AA:1261:A:H4'	1:AA:1283:G:O3'	1.70	0.91
1:AA:299:G:N1	1:AA:566:G:O6	2.03	0.91
1:AA:779:C:C2'	13:AK:120:ARG:HD2	2.01	0.90
1:AA:8:A:N6	6:AD:205:GLU:O	2.04	0.90
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.05	0.90
1:AA:69:G:C1'	1:AA:102:G:C2	2.53	0.90
4:AB:59:GLU:HG2	4:AB:221:LEU:HD11	1.51	0.90
2:AV:41:U:H6	2:AV:41:U:H5'	1.34	0.90
1:AA:1342:C:O3'	11:AI:125:TYR:OH	1.89	0.90
1:AA:456:A:C2	1:AA:477:G:H1'	2.07	0.90
2:AV:75:C:C4	23:B0:2231:G:N2	2.39	0.90
2:AW:75:C:C4	23:B0:2533:U:O2	2.24	0.90
1:AA:187:G:O2'	22:AT:104:LEU:HA	1.70	0.90
1:AA:1497:G:O2'	1:AA:1498:U:H5'	1.71	0.90
1:AA:1430:C:H5''	23:B0:1721:G:H4'	1.54	0.90
2:AV:33:U:C2	2:AV:35:A:H5'	2.06	0.90
2:AW:76:A:H1'	23:B0:2486:C:O4'	0.72	0.90
1:AA:255:G:C1'	19:AQ:16:GLN:HB2	2.02	0.90
1:AA:797:C:OP1	13:AK:124:LYS:CG	2.18	0.90
1:AA:19:C:C1'	1:AA:916:G:N2	2.33	0.90
1:AA:267:C:OP2	19:AQ:67:LYS:HD2	1.08	0.90
1:AA:1061:G:H5'	12:AJ:56:HIS:HB3	1.52	0.90
1:AA:278:G:H21	1:AA:279:A:H62	1.16	0.90
1:AA:1155:G:C3'	1:AA:1156:G:P	2.58	0.90
1:AA:1057:G:H5''	5:AC:154:SER:HB2	1.53	0.90
23:B0:128:C:H2'	23:B0:129:A:H5''	1.51	0.90
11:AI:70:LYS:O	11:AI:74:ILE:HG13	1.72	0.90
1:AA:1342:C:H5''	11:AI:125:TYR:HE1	1.09	0.90
2:AV:76:A:C3'	23:B0:2046:C:O2'	2.20	0.90
1:AA:456:A:N6	1:AA:477:G:N3	2.19	0.90
1:AA:104:G:C4'	1:AA:172:A:H2	1.83	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AJ:8:LEU:HD21	12:AJ:96:ILE:HG12	1.54	0.90
1:AA:1342:C:H4'	11:AI:125:TYR:CE2	2.05	0.90
23:B0:1856:U:H5	23:B0:3865:A:N6	1.28	0.90
1:AA:1505:G:O2'	1:AA:1506:U:OP2	1.87	0.90
1:AA:22:G:O2'	1:AA:913:A:N1	1.95	0.90
1:AA:323:U:C4'	22:AT:19:SER:CA	2.46	0.90
1:AA:476:U:C6	1:AA:477:G:C5'	2.54	0.90
1:AA:1430:C:C5'	23:B0:1721:G:H4'	2.02	0.90
1:AA:13:U:C4	1:AA:915:A:N7	2.38	0.90
1:AA:994:A:H2	16:AN:4:LYS:C	1.68	0.90
1:AA:292:G:HO2'	1:AA:608:A:H62	1.16	0.90
1:AA:733:A:HO3'	1:AA:734:G:P	1.91	0.90
1:AA:1015:A:C1'	1:AA:1219:U:H5'	2.00	0.89
19:AQ:105:ALA:C	23:B0:727:U:C4'	2.41	0.89
1:AA:905:U:O3'	1:AA:906:G:O5'	1.89	0.89
2:AW:71:G:C5'	23:B0:1925:C:O2	2.16	0.89
2:AV:75:C:OP2	23:B0:2581:A:H5''	1.62	0.89
1:AA:1112:C:O2	5:AC:179:ARG:HB3	1.71	0.89
1:AA:253:U:H1'	1:AA:275:G:C2'	2.02	0.89
19:AQ:104:LYS:HB3	23:B0:727:U:H1'	1.16	0.89
1:AA:476:U:H2'	1:AA:477:G:H5''	1.54	0.89
1:AA:236:G:C5'	19:AQ:40:LYS:NZ	2.35	0.89
1:AA:236:G:H5''	19:AQ:40:LYS:NZ	1.87	0.89
1:AA:1497:G:H1'	1:AA:1518:A:C2	2.07	0.89
1:AA:1497:G:N2	1:AA:1519:A:H1'	1.87	0.89
2:AW:25:C:H2'	2:AW:26:G:O4'	1.71	0.89
1:AA:1190:G:P	5:AC:4:LYS:HA	2.12	0.89
1:AA:835:U:OP1	20:AR:64:ARG:NH2	2.04	0.89
1:AA:436:C:O2	1:AA:437:U:C6	2.25	0.89
7:AE:51:VAL:HB	7:AE:52:PRO:HD3	1.55	0.89
1:AA:1416:G:O5'	1:AA:1417:G:P	2.30	0.89
9:AG:149:ARG:CZ	13:AK:59:TYR:CE1	2.56	0.89
1:AA:1447:A:O3'	1:AA:1448:C:P	2.29	0.89
2:AV:57:G:H5''	28:BD:76:ASN:CA	2.03	0.89
1:AA:1474:G:H4'	23:B0:1717:A:N6	1.86	0.89
1:AA:1427:U:O2'	23:B0:1704:G:H5''	1.70	0.89
1:AA:113:G:H1'	1:AA:354:G:H5'	1.55	0.89
1:AA:943:U:H1'	11:AI:124:GLN:NE2	1.88	0.88
1:AA:1016:A:C5'	16:AN:15:LYS:HE3	2.02	0.88
23:B0:891:A:N1	23:B0:892:A:C6	2.25	0.88
1:AA:932:C:C5'	9:AG:3:ARG:HD3	2.02	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1261:A:H4'	1:AA:1283:G:C4'	2.02	0.88
1:AA:702:A:H5'	23:B0:1840:A:H5'	1.54	0.88
1:AA:1416:G:H3'	1:AA:1417:G:P	2.13	0.88
1:AA:1255:G:H2'	1:AA:1258:G:H21	1.36	0.88
23:B0:3111:C:H4'	23:B0:3112:G:OP1	1.73	0.88
1:AA:202:G:N3	1:AA:468:A:O2'	2.04	0.88
1:AA:1261:A:C4'	1:AA:1283:G:C4'	2.51	0.88
2:AW:76:A:N9	23:B0:2562:G:N2	2.21	0.88
1:AA:1109:C:P	5:AC:176:HIS:CD2	2.66	0.88
19:AQ:104:LYS:CB	23:B0:727:U:H1'	1.92	0.88
1:AA:436:C:N3	1:AA:437:U:C4	2.41	0.88
7:AE:79:GLU:OE2	10:AH:105:ARG:CD	2.21	0.88
1:AA:130:A:H5'	19:AQ:63:ARG:CZ	2.04	0.88
19:AQ:97:SER:HB2	19:AQ:102:GLY:C	1.93	0.88
1:AA:1298:C:C5	9:AG:114:ARG:HD3	2.08	0.88
4:AB:116:GLU:HG2	4:AB:153:ARG:HH12	1.39	0.88
12:AJ:65:LEU:HA	16:AN:55:GLY:O	1.73	0.88
19:AQ:96:GLN:CD	23:B0:725:C:H1'	1.93	0.88
2:AW:74:C:H5	23:B0:2533:U:N3	1.23	0.88
1:AA:1495:U:O2'	23:B0:1902:A:H2	1.49	0.88
1:AA:1015:A:N3	1:AA:1219:U:O4'	2.06	0.88
1:AA:994:A:N6	16:AN:5:ALA:HB2	1.88	0.88
1:AA:1342:C:C3'	11:AI:125:TYR:CE2	2.55	0.88
1:AA:191:G:H21	22:AT:103:GLY:HA2	1.38	0.88
1:AA:1060:C:HO2'	12:AJ:56:HIS:CD2	1.70	0.88
19:AQ:101:ARG:CZ	23:B0:731:A:C2	2.57	0.88
1:AA:253:U:H4'	1:AA:276:G:H4'	1.56	0.88
23:B0:3874:C:N4	23:B0:3875:A:C5	2.41	0.88
19:AQ:105:ALA:C	23:B0:727:U:H4'	1.93	0.88
1:AA:619:U:C4	6:AD:135:LEU:HG	2.02	0.88
1:AA:1343:G:O3'	11:AI:122:ALA:HB3	1.73	0.88
1:AA:262:A:O3'	22:AT:75:ASN:HB2	1.06	0.88
23:B0:1888:C:H4'	23:B0:1911:A:C2	2.08	0.88
8:AF:10:LEU:HD12	8:AF:59:TYR:HB3	1.55	0.88
1:AA:1014:A:C1'	21:AS:34:TRP:HB2	2.02	0.88
2:AV:75:C:H4'	23:B0:2047:C:OP1	1.72	0.88
6:AD:36:ARG:N	6:AD:37:PRO:HD3	1.88	0.88
1:AA:922:G:N1	1:AA:1396:A:C6	2.42	0.87
1:AA:893:C:C4	1:AA:894:G:N7	2.42	0.87
6:AD:205:GLU:CG	7:AE:107:ARG:NH2	2.36	0.87
23:B0:1912:G:O3'	23:B0:1913:G:H3'	1.72	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AG:149:ARG:NH2	13:AK:59:TYR:OH	2.07	0.87
1:AA:588:G:C8	1:AA:753:A:C2	2.61	0.87
23:B0:665:A:H3'	23:B0:666:U:H5''	1.54	0.87
1:AA:254:G:H4'	19:AQ:18:THR:HB	1.52	0.87
23:B0:1856:U:H3'	23:B0:3865:A:H8	1.34	0.87
23:B0:3877:A:O2'	55:B5:198:THR:CA	2.22	0.87
23:B0:2633:A:H4'	23:B0:2634:G:H4'	1.54	0.87
1:AA:293:G:P	1:AA:609:A:H61	1.96	0.87
1:AA:1458:G:C8	1:AA:1459:C:C2	2.61	0.87
1:AA:1112:C:O2	5:AC:178:LEU:C	2.12	0.87
1:AA:587:G:OP1	10:AH:92:ARG:NH1	2.07	0.87
1:AA:1131:G:H1	1:AA:1143:G:H21	1.22	0.87
12:AJ:62:HIS:O	16:AN:58:LYS:HA	1.73	0.87
1:AA:1483:A:C5	1:AA:1484:C:C4	2.63	0.87
24:B9:73:C:C3'	24:B9:74:A:P	2.63	0.87
1:AA:1457:A:C8	1:AA:1459:C:N3	2.41	0.87
1:AA:835:U:H5'	20:AR:64:ARG:NH2	1.88	0.87
15:AM:3:ARG:HG2	15:AM:9:ILE:HG23	1.56	0.87
1:AA:820:U:C2	1:AA:873:A:N7	2.43	0.87
2:AW:76:A:O4'	23:B0:2486:C:H4'	1.74	0.87
1:AA:1110:A:H2'	1:AA:1111:A:O4'	1.74	0.87
1:AA:1269:A:C2	1:AA:1313:U:O4'	2.27	0.87
1:AA:923:A:O2'	1:AA:1398:A:C2'	2.21	0.87
19:AQ:96:GLN:OE1	23:B0:725:C:C2'	2.17	0.87
1:AA:9:G:H8	7:AE:126:ARG:HH12	0.87	0.87
1:AA:922:G:C2	1:AA:1396:A:C2	2.63	0.87
1:AA:922:G:C2	1:AA:1396:A:C5	2.62	0.87
1:AA:19:C:C2'	1:AA:916:G:H22	1.87	0.87
1:AA:1458:G:C8	1:AA:1459:C:O2	2.28	0.87
23:B0:3877:A:H3'	23:B0:1861:G:H8	1.32	0.87
1:AA:1429:C:HO2'	23:B0:1720:G:HO2'	1.15	0.87
4:AB:91:PRO:HG2	4:AB:155:LEU:HD23	1.54	0.87
1:AA:232:G:H1'	1:AA:262:A:H61	1.39	0.86
23:B0:3877:A:C2	23:B0:1861:G:N3	2.12	0.86
23:B0:1119:U:N3	23:B0:1120:C:C4	2.42	0.86
1:AA:1340:A:O3'	2:AV:32:C:H4'	1.74	0.86
23:B0:918:A:H2'	23:B0:919:U:H5''	1.57	0.86
1:AA:1342:C:H4'	11:AI:125:TYR:CD2	2.09	0.86
1:AA:5:U:O4	7:AE:95:ALA:HB2	1.74	0.86
1:AA:473:C:OP1	18:AP:75:ARG:CZ	2.23	0.86
1:AA:250:A:H4'	1:AA:251:G:O5'	1.76	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:651:C:N3	1:AA:652:U:C4	2.42	0.86
23:B0:88:G:H3'	23:B0:89:A:H5''	1.57	0.86
1:AA:255:G:H5''	19:AQ:17:LYS:HB2	0.87	0.86
1:AA:538:G:H4'	14:AL:114:LYS:CE	2.04	0.86
1:AA:1318:A:H4'	21:AS:10:PHE:CD1	2.11	0.86
1:AA:94:G:C6	1:AA:96:C:C4	2.63	0.86
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.10	0.86
1:AA:994:A:C5	16:AN:5:ALA:CA	2.53	0.86
1:AA:130:A:O4'	1:AA:264:U:C4'	2.23	0.86
1:AA:38:G:O2'	1:AA:39:G:H8	1.55	0.86
1:AA:905:U:HO3'	1:AA:906:G:P	1.15	0.86
2:AV:75:C:N4	23:B0:2230:G:H1	1.72	0.86
5:AC:58:GLU:HB3	12:AJ:92:THR:CG2	2.05	0.86
1:AA:69:G:C4	1:AA:102:G:C6	2.63	0.86
8:AF:30:LEU:HD23	8:AF:75:LEU:HD21	1.57	0.86
15:AM:10:PRO:HB2	15:AM:18:ALA:HB1	1.57	0.86
1:AA:265:G:O4'	19:AQ:64:PRO:C	2.14	0.86
1:AA:836:G:OP1	20:AR:61:LYS:HE3	1.76	0.86
1:AA:1256:A:O4'	1:AA:1258:G:C4	2.29	0.86
12:AJ:22:LYS:HE2	12:AJ:90:LEU:HD12	1.57	0.86
1:AA:1298:C:C2'	9:AG:114:ARG:HH12	1.72	0.86
23:B0:3098:U:HO3'	23:B0:3099:U:P	1.95	0.86
1:AA:588:G:C5	1:AA:753:A:C4	2.63	0.86
1:AA:538:G:H4'	14:AL:114:LYS:HD3	1.58	0.86
1:AA:473:C:OP1	18:AP:75:ARG:CD	2.23	0.86
1:AA:260:G:C8	22:AT:83:ARG:NH1	2.26	0.86
9:AG:149:ARG:NH2	13:AK:59:TYR:CZ	2.44	0.86
1:AA:69:G:N9	1:AA:102:G:C6	2.44	0.86
1:AA:1064:G:H4'	1:AA:1065:U:H5'	1.58	0.86
7:AE:115:VAL:HG11	7:AE:118:ILE:HG13	1.57	0.86
23:B0:1072:U:H4'	23:B0:1081:A:O2'	1.75	0.86
1:AA:104:G:C5'	1:AA:172:A:C2	2.59	0.86
2:AW:74:C:N4	23:B0:2534:U:C5	2.42	0.85
1:AA:778:G:H4'	13:AK:119:CYS:HB3	1.56	0.85
1:AA:288:A:O2'	1:AA:290:C:OP1	1.94	0.85
23:B0:3098:U:H2'	23:B0:3099:U:C6	2.10	0.85
1:AA:651:C:C4	1:AA:652:U:O4	2.29	0.85
1:AA:994:A:H2	16:AN:4:LYS:O	1.56	0.85
1:AA:1060:C:O4'	12:AJ:52:GLY:HA3	1.77	0.85
1:AA:237:C:C5'	19:AQ:25:ARG:NH2	2.37	0.85
5:AC:52:LEU:HD21	5:AC:118:GLN:HE22	1.40	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AC:29:TYR:CE1	12:AJ:65:LEU:HD11	2.10	0.85
1:AA:958:A:C4	21:AS:55:LYS:HD2	2.10	0.85
1:AA:1459:C:OP1	22:AT:29:LYS:CA	2.24	0.85
1:AA:522:C:P	14:AL:72:GLY:H	1.99	0.85
1:AA:27:G:C6	1:AA:557:G:C5	2.64	0.85
1:AA:556:C:O2'	1:AA:557:G:C5'	2.24	0.85
2:AW:75:C:N3	23:B0:2532:G:N2	2.23	0.85
2:AW:76:A:N1	23:B0:2532:G:C2	2.44	0.85
1:AA:260:G:H8	22:AT:83:ARG:HH12	1.25	0.85
1:AA:67:C:H2'	1:AA:69:G:P	2.17	0.85
1:AA:1499:A:O4'	1:AA:1520:G:C5'	2.24	0.85
1:AA:130:A:O4'	1:AA:264:U:O4'	1.94	0.85
1:AA:191:G:C2	1:AA:192:U:O2	2.30	0.85
1:AA:297:G:H4'	1:AA:557:G:H4'	1.59	0.85
19:AQ:101:ARG:CD	23:B0:731:A:N1	2.36	0.85
1:AA:261:U:H6	22:AT:79:ARG:CZ	1.81	0.85
1:AA:292:G:H2'	1:AA:608:A:N6	1.90	0.85
1:AA:588:G:C5	1:AA:753:A:C5	2.65	0.85
23:B0:3127:G:C4'	23:B0:3173:A:N1	2.33	0.85
1:AA:332:G:P	22:AT:10:LEU:CG	2.64	0.85
23:B0:3103:A:H61	23:B0:3186:C:H42	1.24	0.85
1:AA:1181:G:O2'	1:AA:1184:G:H5'	1.75	0.85
23:B0:1312:G:H5''	23:B0:1313:U:H5'	1.59	0.85
5:AC:70:VAL:HG21	5:AC:76:VAL:HG21	1.58	0.85
23:B0:542:A:H2'	23:B0:543:G:H5'	1.59	0.85
5:AC:110:ASN:HD21	5:AC:140:ARG:HB3	1.40	0.85
12:AJ:62:HIS:ND1	16:AN:61:TRP:HZ3	1.74	0.85
1:AA:27:G:O6	1:AA:557:G:O6	1.95	0.85
2:AV:32:C:OP2	11:AI:127:LYS:CG	2.24	0.85
1:AA:865:A:O2'	1:AA:919:A:H5'	1.76	0.85
1:AA:247:G:OP2	19:AQ:100:LYS:HE2	1.77	0.85
6:AD:150:GLU:HG3	6:AD:153:ARG:NH2	1.90	0.85
1:AA:1457:A:C4	1:AA:1459:C:O2	2.30	0.85
1:AA:187:G:H2'	22:AT:105:SER:HB3	1.57	0.85
6:AD:205:GLU:CB	7:AE:107:ARG:NH2	2.39	0.85
1:AA:1255:G:C2'	1:AA:1258:G:H21	1.90	0.85
5:AC:64:VAL:HB	5:AC:99:VAL:HB	1.58	0.85
1:AA:588:G:C4	1:AA:753:A:C6	2.64	0.85
14:AL:25:PRO:C	14:AL:27:LEU:H	1.79	0.85
1:AA:1342:C:C4'	11:AI:125:TYR:CE1	2.56	0.84
1:AA:994:A:C6	16:AN:5:ALA:HB2	2.10	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:322:C:O2'	22:AT:19:SER:O	1.95	0.84
5:AC:190:ARG:NH1	5:AC:190:ARG:HB3	1.91	0.84
1:AA:27:G:N1	1:AA:557:G:C5	2.45	0.84
1:AA:1239:A:O2'	1:AA:1298:C:N4	2.08	0.84
5:AC:135:LYS:HE2	7:AE:50:GLU:OE2	1.77	0.84
4:AB:102:LEU:HD21	4:AB:162:ILE:HD11	1.57	0.84
1:AA:865:A:C2	1:AA:918:A:C4'	2.60	0.84
1:AA:1014:A:C5'	21:AS:14:HIS:CB	2.52	0.84
1:AA:9:G:O5'	7:AE:126:ARG:HD3	1.77	0.84
6:AD:57:ARG:HH21	7:AE:107:ARG:CD	1.72	0.84
23:B0:3187:U:O3'	23:B0:3188:U:P	2.35	0.84
1:AA:1319:A:H5''	21:AS:5:LEU:HD21	1.58	0.84
1:AA:21:G:C2'	1:AA:914:A:H62	1.88	0.84
1:AA:1484:C:O3'	23:B0:1943:A:C2'	2.25	0.84
23:B0:1098:G:H1	23:B0:1113:C:N4	1.75	0.84
1:AA:1270:C:O2'	1:AA:1314:C:H5'	1.77	0.84
23:B0:1953:A:H1'	23:B0:1955:G:H1'	1.58	0.84
1:AA:521:G:C5'	14:AL:72:GLY:O	2.25	0.84
1:AA:820:U:O2	1:AA:873:A:H8	1.59	0.84
1:AA:779:C:H1'	13:AK:120:ARG:HD2	1.56	0.84
23:B0:1071:U:H3	23:B0:1099:A:H2	1.21	0.84
1:AA:1238:A:C2	1:AA:1241:G:O2'	2.31	0.84
1:AA:1495:U:O2'	23:B0:1902:A:N3	1.92	0.84
19:AQ:27:PHE:CZ	19:AQ:36:ILE:HD11	2.12	0.84
1:AA:676:A:O4'	13:AK:115:PRO:HA	1.77	0.84
6:AD:205:GLU:OE2	7:AE:107:ARG:NE	2.11	0.84
1:AA:69:G:H1'	1:AA:102:G:C4	2.13	0.84
5:AC:190:ARG:HB3	5:AC:190:ARG:HH11	1.43	0.84
6:AD:104:VAL:HG11	6:AD:146:ILE:HD12	1.58	0.84
1:AA:1393:U:N3	1:AA:1395:C:C4	2.43	0.84
1:AA:1014:A:N3	21:AS:34:TRP:CD1	2.45	0.84
1:AA:323:U:C1'	22:AT:19:SER:HA	2.06	0.84
1:AA:1434:A:O3'	1:AA:1435:G:C5'	2.25	0.84
1:AA:1108:G:H5''	5:AC:176:HIS:ND1	1.93	0.84
1:AA:6:G:C6	7:AE:119:LEU:HD12	2.10	0.84
1:AA:323:U:H4'	22:AT:19:SER:HA	1.60	0.84
1:AA:1238:A:C3'	1:AA:1239:A:P	2.66	0.84
1:AA:259:G:OP1	22:AT:83:ARG:HB3	1.78	0.84
1:AA:848:G:C2'	1:AA:849:C:O4'	2.26	0.84
1:AA:1393:U:H2'	1:AA:1395:C:C5	2.12	0.84
1:AA:1505:G:H4'	1:AA:1506:U:O5'	1.76	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:26:A:C2'	1:AA:27:G:C5'	2.53	0.84
11:AI:8:GLY:HA2	11:AI:79:LEU:CD1	2.08	0.84
23:B0:2548:G:C2'	23:B0:2549:G:H5''	2.08	0.84
1:AA:1499:A:O4'	1:AA:1520:G:H5'	1.78	0.83
2:AW:75:C:N3	23:B0:2532:G:C2	2.46	0.83
1:AA:130:A:H4'	1:AA:264:U:C5'	2.04	0.83
1:AA:131:C:O3'	1:AA:262:A:O2'	1.95	0.83
1:AA:779:C:O4'	13:AK:120:ARG:HB3	1.78	0.83
1:AA:436:C:C4	1:AA:437:U:C5	2.66	0.83
1:AA:27:G:C2	1:AA:557:G:C4	2.65	0.83
23:B0:616:U:H2'	23:B0:617:U:H5''	1.59	0.83
23:B0:2198:U:H3'	23:B0:2199:C:H5''	1.59	0.83
23:B0:847:C:H41	23:B0:955:G:H21	1.25	0.83
1:AA:131:C:P	1:AA:263:A:C4'	2.64	0.83
1:AA:1234:C:H5''	1:AA:1365:G:OP1	1.77	0.83
1:AA:27:G:C4	1:AA:557:G:N2	2.46	0.83
12:AJ:19:SER:HB2	12:AJ:91:PRO:HG3	1.60	0.83
1:AA:1459:C:P	22:AT:28:ALA:O	2.36	0.83
5:AC:172:ARG:HH12	5:AC:174:PRO:HG3	1.43	0.83
1:AA:7:G:H22	7:AE:123:LEU:HD11	1.37	0.83
1:AA:320:C:C4'	1:AA:1434:A:N1	2.40	0.83
1:AA:820:U:N3	1:AA:873:A:N7	2.27	0.83
6:AD:61:LYS:HD2	6:AD:207:TYR:OH	1.79	0.83
23:B0:109:A:H3'	23:B0:110:U:H5''	1.60	0.83
1:AA:1393:U:C2	1:AA:1395:C:C5	2.66	0.83
19:AQ:94:ASN:CA	23:B0:726:G:O4'	2.27	0.83
1:AA:322:C:C5'	22:AT:23:ARG:HD2	2.09	0.83
1:AA:1194:U:H5'	7:AE:22:GLY:CA	2.07	0.83
1:AA:1416:G:P	1:AA:1417:G:OP2	2.36	0.83
1:AA:216:C:H5'	1:AA:465:C:N4	1.93	0.83
1:AA:190:A:N6	22:AT:104:LEU:O	2.11	0.83
1:AA:116:A:C6	1:AA:313:A:H1'	2.10	0.83
1:AA:1126:U:OP2	1:AA:1281:U:O2	1.94	0.83
1:AA:737:A:C2'	8:AF:73:ASN:ND2	2.42	0.83
7:AE:105:VAL:HB	7:AE:106:PRO:HD3	1.60	0.83
15:AM:50:GLU:O	15:AM:54:VAL:HG23	1.77	0.83
1:AA:914:A:H2'	1:AA:915:A:C1'	2.07	0.83
1:AA:1458:G:O3'	22:AT:24:LEU:CG	2.26	0.83
1:AA:37:U:O2'	1:AA:547:A:N6	2.11	0.83
1:AA:38:G:C4'	1:AA:547:A:H62	1.88	0.83
1:AA:436:C:O2'	1:AA:437:U:H5'	1.79	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1473:A:O2'	23:B0:1718:A:C2	2.32	0.83
1:AA:1497:G:C2'	1:AA:1498:U:H5'	2.08	0.83
1:AA:1015:A:O2'	1:AA:1219:U:H5'	1.79	0.83
1:AA:1342:C:C5'	11:AI:125:TYR:CZ	2.46	0.83
1:AA:131:C:C2	1:AA:262:A:H2	1.95	0.83
1:AA:779:C:H5'	13:AK:120:ARG:C	1.98	0.83
1:AA:69:G:O4'	1:AA:102:G:N2	2.12	0.83
1:AA:653:A:N9	10:AH:56:LYS:HG2	1.93	0.83
21:AS:55:LYS:HG2	21:AS:56:GLN:HE21	1.42	0.83
2:AW:74:C:N4	23:B0:2533:U:H2'	1.89	0.83
1:AA:1060:C:HO2'	12:AJ:56:HIS:HD2	0.85	0.83
1:AA:994:A:N3	16:AN:5:ALA:HA	1.92	0.83
1:AA:264:U:H2'	19:AQ:64:PRO:O	1.78	0.83
19:AQ:104:LYS:C	23:B0:727:U:H1'	1.99	0.83
23:B0:3877:A:N9	23:B0:1861:G:N9	2.26	0.83
1:AA:707:C:H4'	13:AK:20:TYR:CE2	2.13	0.83
1:AA:1255:G:H21	1:AA:1276:G:N2	1.76	0.83
8:AF:36:ARG:HH12	8:AF:38:GLU:HG2	1.44	0.83
1:AA:36:C:O2	1:AA:501:C:H4'	1.79	0.82
23:B0:1181:C:H2'	23:B0:1182:U:H5''	1.60	0.82
1:AA:293:G:H4'	1:AA:609:A:H2	1.00	0.82
1:AA:22:G:C1'	1:AA:913:A:N1	2.41	0.82
1:AA:572:A:N3	1:AA:917:G:H1'	1.94	0.82
1:AA:323:U:H5''	22:AT:23:ARG:N	1.94	0.82
1:AA:38:G:H1'	1:AA:547:A:C5	2.11	0.82
2:AV:56:C:C3'	28:BD:74:ILE:CA	2.57	0.82
1:AA:333:G:O2'	22:AT:16:HIS:NE2	2.11	0.82
23:B0:1098:G:N1	23:B0:1113:C:N4	2.27	0.82
2:AV:11:C:H4'	23:B0:1892:C:O4'	1.78	0.82
1:AA:266:G:C5'	19:AQ:66:SER:HA	2.08	0.82
1:AA:1061:G:H5'	12:AJ:56:HIS:CB	1.88	0.82
1:AA:323:U:C5'	22:AT:23:ARG:N	2.42	0.82
1:AA:112:G:N2	1:AA:354:G:H5'	1.94	0.82
5:AC:91:LEU:HD23	5:AC:92:ALA:N	1.94	0.82
1:AA:815:A:C4	1:AA:1527:C:H1'	2.15	0.82
1:AA:865:A:HO2'	1:AA:918:A:HO2'	1.24	0.82
1:AA:816:A:P	1:AA:1527:C:C5'	2.65	0.82
1:AA:1014:A:C2	21:AS:34:TRP:NE1	2.48	0.82
1:AA:1015:A:C1'	1:AA:1219:U:H4'	2.08	0.82
1:AA:406:G:C4	1:AA:496:A:C5	2.67	0.82
2:AW:25:C:H2'	2:AW:26:G:C4'	2.10	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:653:G:H2'	23:B0:654:A:H4'	1.62	0.82
1:AA:1342:C:C5'	11:AI:125:TYR:CD1	2.62	0.82
1:AA:1473:A:H5'	23:B0:1719:G:C4'	2.07	0.82
23:B0:166:G:H21	23:B0:184:A:H62	1.27	0.82
1:AA:865:A:C2'	1:AA:918:A:HO2'	1.91	0.82
2:AV:76:A:H5'	23:B0:2564:U:H1'	1.61	0.82
12:AJ:62:HIS:O	16:AN:58:LYS:CA	2.27	0.82
1:AA:323:U:H4'	22:AT:22:ARG:HB2	1.60	0.82
1:AA:1112:C:O2	5:AC:178:LEU:O	1.98	0.82
2:AV:33:U:O2	2:AV:35:A:H3'	1.80	0.82
1:AA:1459:C:OP1	22:AT:29:LYS:HA	1.80	0.82
1:AA:131:C:H4'	1:AA:262:A:O2'	1.78	0.82
1:AA:322:C:O2'	22:AT:19:SER:C	2.18	0.82
1:AA:116:A:H61	1:AA:313:A:H1'	0.66	0.82
2:AV:25:C:H2'	2:AV:26:G:O4'	1.80	0.82
15:AM:78:ILE:HA	15:AM:81:LEU:HD21	1.62	0.82
23:B0:1964:A:H3'	23:B0:1965:U:H5'	1.60	0.82
19:AQ:104:LYS:CE	23:B0:729:A:N7	2.42	0.82
1:AA:437:U:O2'	6:AD:123:HIS:CD2	2.32	0.82
6:AD:205:GLU:CD	7:AE:107:ARG:HH21	1.81	0.82
1:AA:128:G:C5'	19:AQ:2:PRO:C	2.48	0.82
1:AA:1501:C:OP1	1:AA:1508:G:C4'	2.27	0.82
7:AE:118:ILE:HG22	7:AE:119:LEU:N	1.95	0.82
1:AA:406:G:C5	1:AA:496:A:N7	2.48	0.82
1:AA:38:G:H4'	1:AA:547:A:H62	1.43	0.82
1:AA:376:G:P	18:AP:67:THR:HG21	2.19	0.82
1:AA:1256:A:C5'	1:AA:1258:G:C1'	2.50	0.82
1:AA:212:G:HO3'	1:AA:213:G:P	1.99	0.82
2:AW:76:A:N3	23:B0:2562:G:C2	2.47	0.81
1:AA:1190:G:O2'	1:AA:1191:A:P	2.39	0.81
12:AJ:62:HIS:CB	16:AN:59:ALA:CB	2.11	0.81
1:AA:893:C:N4	1:AA:894:G:O6	2.13	0.81
1:AA:1298:C:H2'	9:AG:114:ARG:NH2	1.94	0.81
21:AS:29:ARG:O	21:AS:30:LEU:HB2	1.80	0.81
1:AA:653:A:O5'	10:AH:56:LYS:CE	2.27	0.81
20:AR:55:ARG:NH1	20:AR:55:ARG:HB3	1.95	0.81
23:B0:1062:G:O3'	23:B0:1063:C:P	2.38	0.81
23:B0:831:G:H21	23:B0:1203:A:H62	1.25	0.81
1:AA:1060:C:O2'	12:AJ:56:HIS:HD2	1.24	0.81
1:AA:502:G:H1'	1:AA:550:G:H5'	1.63	0.81
6:AD:205:GLU:CD	7:AE:107:ARG:NH2	2.34	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:335:C:O4'	1:AA:1434:A:C4'	2.26	0.81
1:AA:1194:U:H4'	7:AE:22:GLY:CA	2.07	0.81
1:AA:1015:A:C2'	1:AA:1219:U:H5'	2.10	0.81
1:AA:1069:C:O4'	1:AA:1191:A:C2	2.32	0.81
1:AA:1060:C:C5'	12:AJ:52:GLY:CA	2.59	0.81
23:B0:1856:U:C5	23:B0:3865:A:C5	2.67	0.81
23:B0:3866:A:HO2'	55:B5:194:ALA:CA	1.93	0.81
1:AA:1416:G:C5'	1:AA:1417:G:P	2.68	0.81
1:AA:108:G:C8	22:AT:12:ALA:HB1	2.15	0.81
6:AD:205:GLU:CD	7:AE:107:ARG:HE	1.82	0.81
23:B0:3118:U:N3	23:B0:3149:G:H5'	1.88	0.81
1:AA:877:C:H5''	10:AH:88:LYS:CD	2.09	0.81
9:AG:75:VAL:CG1	9:AG:86:GLN:HB3	2.10	0.81
23:B0:789:G:H21	23:B0:806:A:H62	1.25	0.81
1:AA:236:G:O5'	19:AQ:40:LYS:NZ	2.08	0.81
1:AA:1256:A:H4'	1:AA:1258:G:C8	2.16	0.81
23:B0:3108:G:C2	23:B0:3109:U:C5	2.69	0.81
1:AA:264:U:O2'	19:AQ:64:PRO:C	2.18	0.81
1:AA:323:U:O4'	22:AT:19:SER:CB	2.29	0.81
1:AA:406:G:C5	1:AA:496:A:C5	2.69	0.81
2:AV:75:C:N4	23:B0:2231:G:N2	2.29	0.81
1:AA:45:U:OP1	1:AA:307:C:O2'	1.98	0.81
23:B0:1034:U:H1'	23:B0:1133:G:H5''	1.61	0.81
1:AA:323:U:OP1	22:AT:22:ARG:O	1.97	0.81
1:AA:319:G:O2'	1:AA:1434:A:N1	2.14	0.81
1:AA:69:G:O2'	1:AA:101:A:H2	1.63	0.81
4:AB:132:LYS:HA	4:AB:135:GLN:HB3	1.63	0.81
1:AA:919:A:C2	1:AA:1080:A:H2	1.97	0.81
5:AC:8:ILE:HG23	5:AC:16:ARG:HG2	1.60	0.81
1:AA:248:C:O2'	1:AA:283:C:C4'	2.28	0.81
1:AA:538:G:H4'	14:AL:114:LYS:CD	2.10	0.81
6:AD:150:GLU:HA	6:AD:153:ARG:HE	1.44	0.81
1:AA:69:G:C2'	1:AA:101:A:N1	2.44	0.81
17:AO:78:TYR:CZ	17:AO:82:ILE:HD11	2.15	0.81
1:AA:1394:A:C6	1:AA:1501:C:H5''	2.16	0.81
6:AD:88:VAL:CG1	7:AE:97:GLY:CA	2.17	0.81
2:AV:12:U:OP1	23:B0:1891:C:H1'	1.81	0.81
1:AA:99:C:O2	1:AA:101:A:N7	2.14	0.81
22:AT:43:LEU:HD13	22:AT:51:GLU:HG3	1.62	0.81
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.15	0.81
23:B0:1807:A:H4'	23:B0:1808:C:H5'	1.61	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:866:C:C5'	1:AA:919:A:H5'	2.11	0.81
1:AA:131:C:O2	1:AA:262:A:H2	1.61	0.81
1:AA:131:C:C2'	1:AA:262:A:H1'	2.10	0.81
1:AA:190:A:H61	22:AT:104:LEU:CA	1.90	0.81
1:AA:1484:C:C4'	23:B0:1943:A:O2'	2.29	0.81
1:AA:376:G:OP1	18:AP:5:ARG:HB2	1.80	0.81
1:AA:237:C:H5''	19:AQ:25:ARG:CZ	2.11	0.81
23:B0:2227:C:H2'	23:B0:2228:U:H5'	1.63	0.81
1:AA:1392:G:C4'	1:AA:1531:A:H5'	2.06	0.80
1:AA:1194:U:H5''	7:AE:22:GLY:O	1.81	0.80
1:AA:1190:G:HO2'	1:AA:1191:A:P	2.04	0.80
1:AA:619:U:O2'	6:AD:138:TYR:CE1	2.34	0.80
6:AD:205:GLU:HG2	7:AE:107:ARG:HH21	1.45	0.80
1:AA:319:G:C5'	1:AA:1468:A:H4'	2.06	0.80
1:AA:1483:A:C4	1:AA:1484:C:C5	2.69	0.80
24:B9:73:C:HO3'	24:B9:74:A:P	2.03	0.80
1:AA:1281:U:H5'	1:AA:1282:C:H5	1.44	0.80
2:AV:12:U:P	23:B0:1891:C:O2'	2.39	0.80
23:B0:878:C:H42	23:B0:921:A:H62	1.28	0.80
1:AA:1499:A:H4'	1:AA:1520:G:O3'	1.81	0.80
1:AA:1015:A:O2'	1:AA:1219:U:C5'	2.28	0.80
1:AA:826:C:H1'	10:AH:15:ASN:ND2	1.96	0.80
4:AB:27:LYS:HD3	4:AB:195:ASP:OD2	1.82	0.80
4:AB:101:MET:HA	4:AB:108:ILE:HD12	1.63	0.80
1:AA:1014:A:C6	21:AS:34:TRP:CE2	2.70	0.80
1:AA:995:C:O2	16:AN:4:LYS:HD3	1.80	0.80
1:AA:262:A:H5''	22:AT:75:ASN:H	1.45	0.80
1:AA:651:C:C4	1:AA:652:U:C4	2.69	0.80
1:AA:1422:G:OP1	33:BI:60:PRO:CA	2.30	0.80
1:AA:1155:G:H3'	1:AA:1156:G:P	2.21	0.80
1:AA:976:G:OP1	16:AN:32:SER:HA	1.82	0.80
1:AA:66:G:H4'	1:AA:199:G:H4'	1.63	0.80
6:AD:205:GLU:CD	7:AE:107:ARG:NE	2.35	0.80
1:AA:113:G:H1'	1:AA:354:G:C5'	2.12	0.80
1:AA:237:C:C5'	19:AQ:25:ARG:CZ	2.60	0.80
9:AG:75:VAL:HG11	9:AG:86:GLN:HB3	1.63	0.80
1:AA:526:C:OP1	14:AL:91:LYS:HE2	1.81	0.80
12:AJ:47:PHE:CE2	16:AN:37:PHE:CE1	2.70	0.80
1:AA:38:G:H5'	1:AA:547:A:H61	0.98	0.80
6:AD:57:ARG:NH2	7:AE:107:ARG:HD2	1.94	0.80
15:AM:94:ARG:HH22	21:AS:81:ARG:NH1	1.79	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:848:G:O2'	1:AA:849:C:O4'	1.99	0.80
1:AA:815:A:N6	1:AA:1508:G:N2	2.28	0.80
1:AA:13:U:H1'	1:AA:914:A:H5'	1.63	0.80
1:AA:262:A:OP2	22:AT:76:ALA:CB	2.28	0.80
1:AA:1111:A:N1	5:AC:177:THR:HA	1.95	0.80
1:AA:38:G:C5'	1:AA:547:A:H62	1.91	0.80
23:B0:225:G:H3'	23:B0:226:C:C5'	2.09	0.80
2:AV:32:C:OP2	11:AI:127:LYS:CE	2.29	0.80
1:AA:59:A:H3'	1:AA:331:G:N2	1.94	0.80
1:AA:305:G:O3'	1:AA:306:G:P	2.40	0.80
14:AL:67:THR:HG22	14:AL:96:VAL:HG13	1.63	0.80
6:AD:88:VAL:CG2	7:AE:96:PRO:C	2.48	0.80
1:AA:1285:A:H4'	1:AA:1286:A:O5'	1.82	0.80
2:AV:1:G:H22	2:AV:2:C:H41	1.25	0.80
1:AA:128:G:H1'	19:AQ:61:GLU:CD	2.02	0.80
2:AV:74:C:N3	23:B0:2231:G:N2	2.30	0.80
1:AA:1060:C:C2'	12:AJ:56:HIS:CD2	2.64	0.80
1:AA:322:C:H4'	22:AT:23:ARG:HD2	0.80	0.80
15:AM:22:ILE:HD12	15:AM:25:ILE:HD12	1.61	0.80
23:B0:1072:U:C4	31:BG:10:LEU:CA	2.64	0.80
1:AA:376:G:H5''	18:AP:5:ARG:HD2	1.61	0.80
1:AA:104:G:H4'	1:AA:172:A:C2	2.17	0.80
12:AJ:8:LEU:CD2	12:AJ:96:ILE:HG12	2.11	0.80
14:AL:28:LYS:HD2	14:AL:33:ARG:HH22	1.47	0.80
1:AA:1016:A:H5'	16:AN:15:LYS:HE3	1.63	0.80
1:AA:264:U:O2'	19:AQ:63:ARG:HD2	1.82	0.80
1:AA:829:G:O2'	4:AB:24:TRP:NE1	2.14	0.80
1:AA:547:A:C4'	1:AA:548:G:P	2.70	0.80
7:AE:79:GLU:CD	10:AH:105:ARG:CD	2.50	0.80
12:AJ:45:ARG:NH2	16:AN:36:PHE:CE2	2.50	0.80
8:AF:30:LEU:HB3	8:AF:35:ALA:HB3	1.62	0.80
1:AA:914:A:C3'	1:AA:915:A:O4'	2.29	0.79
2:AW:76:A:C2	23:B0:2486:C:O2	2.34	0.79
1:AA:132:C:H5'	1:AA:262:A:H1'	1.63	0.79
1:AA:188:C:C2	22:AT:105:SER:O	2.35	0.79
1:AA:9:G:O5'	7:AE:126:ARG:CZ	2.30	0.79
1:AA:128:G:C5'	19:AQ:2:PRO:O	2.29	0.79
9:AG:149:ARG:CZ	13:AK:59:TYR:CZ	2.65	0.79
1:AA:1182:G:H5'	1:AA:1184:G:H5'	1.64	0.79
1:AA:255:G:C4'	19:AQ:17:LYS:HB2	2.12	0.79
1:AA:1341:U:H5'	2:AV:32:C:H5''	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1116:C:C2'	1:AA:1117:G:H5''	2.12	0.79
10:AH:90:GLY:O	10:AH:91:ARG:HB2	1.83	0.79
1:AA:255:G:C1'	19:AQ:16:GLN:CB	2.60	0.79
23:B0:3874:C:C4	23:B0:3875:A:C5	2.70	0.79
1:AA:835:U:OP1	20:AR:60:GLY:C	2.19	0.79
1:AA:588:G:C8	1:AA:753:A:N3	2.50	0.79
1:AA:673:G:H2'	1:AA:674:G:C8	2.17	0.79
5:AC:15:THR:O	5:AC:16:ARG:HB2	1.82	0.79
1:AA:323:U:C4'	22:AT:22:ARG:CB	2.53	0.79
13:AK:54:ARG:NH1	13:AK:54:ARG:HB3	1.97	0.79
4:AB:195:ASP:HB3	10:AH:74:PRO:HD2	1.64	0.79
5:AC:191:THR:HG22	5:AC:193:TYR:H	1.44	0.79
2:AV:11:C:C5'	23:B0:1892:C:H4'	2.12	0.79
1:AA:779:C:C5'	13:AK:120:ARG:HG2	2.11	0.79
1:AA:1490:C:H6	1:AA:1490:C:H5'	1.47	0.79
19:AQ:96:GLN:CD	23:B0:725:C:C1'	2.38	0.79
23:B0:3877:A:N9	23:B0:1861:G:C8	2.51	0.79
23:B0:1098:G:C2	23:B0:1113:C:N4	2.41	0.79
2:AW:74:C:H5	23:B0:2533:U:H3	0.83	0.79
1:AA:131:C:H1'	1:AA:262:A:H2	1.41	0.79
1:AA:266:G:H5'	19:AQ:66:SER:CA	2.13	0.79
1:AA:707:C:C5'	13:AK:85:ARG:NH1	2.32	0.79
23:B0:1572:C:C2'	23:B0:1573:G:H5''	2.11	0.79
1:AA:1342:C:C4'	11:AI:125:TYR:CE2	2.65	0.79
1:AA:1190:G:OP1	5:AC:5:ILE:N	2.16	0.79
1:AA:185:A:O2'	1:AA:186:C:P	2.41	0.79
1:AA:265:G:C5'	19:AQ:65:ILE:N	2.42	0.79
1:AA:1416:G:O3'	1:AA:1417:G:H5''	1.81	0.79
19:AQ:93:GLN:NE2	23:B0:727:U:OP2	2.15	0.79
22:AT:54:LYS:HG3	22:AT:100:ILE:CD1	2.13	0.79
1:AA:190:A:C5	22:AT:104:LEU:O	2.36	0.79
1:AA:1238:A:H2	1:AA:1241:G:O2'	1.64	0.79
1:AA:265:G:O4'	19:AQ:64:PRO:CB	2.31	0.79
4:AB:84:GLU:OE1	4:AB:216:SER:HA	1.83	0.79
1:AA:1499:A:O4'	1:AA:1520:G:H4'	1.82	0.79
1:AA:779:C:C2'	13:AK:120:ARG:CD	2.59	0.79
1:AA:160:A:N6	1:AA:347:G:H21	1.80	0.79
1:AA:1434:A:C3'	1:AA:1435:G:C4'	2.60	0.79
1:AA:1484:C:O3'	23:B0:1943:A:C3'	2.31	0.79
1:AA:1410:G:C2	1:AA:1491:G:N1	2.51	0.79
6:AD:25:ARG:C	6:AD:27:TYR:H	1.85	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:322:C:O3'	22:AT:23:ARG:HA	1.74	0.78
1:AA:653:A:C4'	10:AH:56:LYS:HE2	2.13	0.78
1:AA:1416:G:C3'	1:AA:1417:G:P	2.69	0.78
1:AA:205:G:N2	1:AA:207:C:H5	1.80	0.78
12:AJ:47:PHE:CE2	16:AN:37:PHE:HE1	2.01	0.78
1:AA:815:A:C5	1:AA:1527:C:O2	2.36	0.78
1:AA:1014:A:C5'	21:AS:14:HIS:HB3	2.12	0.78
1:AA:256:U:C5'	19:AQ:17:LYS:CE	2.61	0.78
1:AA:189:A:OP2	22:AT:105:SER:HB2	1.83	0.78
1:AA:401:C:O2'	1:AA:621:A:C2	2.35	0.78
1:AA:651:C:H2'	1:AA:652:U:C6	2.17	0.78
23:B0:471:A:H62	23:B0:480:G:H21	1.31	0.78
1:AA:318:G:N2	1:AA:1433:A:C2	2.49	0.78
1:AA:212:G:O2'	1:AA:213:G:H5'	1.82	0.78
21:AS:31:ILE:HG22	21:AS:32:LYS:N	1.99	0.78
1:AA:923:A:C4'	1:AA:1398:A:C6	2.66	0.78
1:AA:825:G:N2	10:AH:11:THR:HG21	1.97	0.78
1:AA:619:U:O2'	6:AD:138:TYR:HE1	1.66	0.78
1:AA:236:G:OP1	19:AQ:40:LYS:HE2	1.82	0.78
6:AD:150:GLU:H	6:AD:150:GLU:CD	1.86	0.78
23:B0:895:G:H8	23:B0:895:G:H5'	1.48	0.78
1:AA:264:U:O2'	19:AQ:63:ARG:CG	2.31	0.78
1:AA:893:C:H2'	1:AA:894:G:H8	1.49	0.78
1:AA:406:G:C6	1:AA:496:A:C8	2.72	0.78
6:AD:205:GLU:OE2	7:AE:107:ARG:CZ	2.32	0.78
1:AA:1483:A:H2'	1:AA:1484:C:C5	2.19	0.78
14:AL:126:LYS:H	14:AL:126:LYS:HD2	1.48	0.78
1:AA:377:G:P	18:AP:3:LYS:NZ	2.56	0.78
9:AG:66:VAL:HG12	9:AG:70:LYS:HE3	1.65	0.78
7:AE:43:LEU:HD11	7:AE:132:ALA:HB1	1.64	0.78
1:AA:1505:G:O2'	1:AA:1506:U:P	2.41	0.78
1:AA:1014:A:H5''	21:AS:14:HIS:HB3	1.65	0.78
16:AN:14:PRO:C	16:AN:16:PHE:H	1.86	0.78
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.48	0.78
1:AA:9:G:OP2	7:AE:126:ARG:CZ	2.32	0.78
1:AA:1496:C:O2	1:AA:1517:G:N2	2.17	0.78
1:AA:129:U:P	19:AQ:3:LYS:HZ2	2.05	0.78
15:AM:93:ARG:HH11	23:B0:900:U:H5''	1.46	0.78
1:AA:43:C:OP1	18:AP:12:LYS:CD	2.30	0.78
15:AM:84:ILE:CG2	21:AS:65:ASN:ND2	2.46	0.78
14:AL:70:ILE:HD13	14:AL:77:LEU:HD12	1.63	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:837:G:H2'	1:AA:838:C:C6	2.18	0.78
1:AA:1090:U:O4'	1:AA:1169:A:H2	1.67	0.78
1:AA:22:G:N2	1:AA:913:A:C2'	2.42	0.78
1:AA:1343:G:P	11:AI:125:TYR:OH	2.41	0.78
1:AA:191:G:C8	1:AA:192:U:C6	2.71	0.78
22:AT:54:LYS:HG3	22:AT:100:ILE:HD13	1.65	0.78
23:B0:1252:C:C2'	23:B0:1253:C:H5''	2.13	0.78
2:AW:17:U:O4	23:B0:895:G:OP1	2.00	0.78
23:B0:403:A:H4'	23:B0:425:A:H5'	1.63	0.78
1:AA:1458:G:N7	1:AA:1459:C:C2	2.52	0.78
1:AA:1318:A:H4'	21:AS:10:PHE:CE1	2.19	0.78
1:AA:262:A:H5''	22:AT:75:ASN:N	1.99	0.78
1:AA:188:C:N1	22:AT:105:SER:O	2.17	0.78
23:B0:225:G:C3'	23:B0:226:C:H5'	2.13	0.78
23:B0:1679:U:H3'	23:B0:1680:U:H5''	1.66	0.78
5:AC:150:LYS:HE2	5:AC:152:ILE:HD11	1.66	0.78
1:AA:1014:A:C4	21:AS:34:TRP:CG	2.72	0.78
19:AQ:94:ASN:CA	23:B0:726:G:C1'	2.62	0.78
1:AA:319:G:H21	1:AA:1434:A:C1'	1.93	0.78
1:AA:1483:A:C4	1:AA:1484:C:C6	2.72	0.78
1:AA:1484:C:H5''	23:B0:1943:A:O2'	1.84	0.78
1:AA:1271:G:H5'	1:AA:1314:C:H5''	1.66	0.78
4:AB:8:LYS:O	4:AB:9:GLU:HB2	1.81	0.78
5:AC:5:ILE:CG2	12:AJ:51:ARG:HH12	1.96	0.77
14:AL:120:TYR:O	14:AL:122:THR:HG23	1.83	0.77
6:AD:57:ARG:NH2	7:AE:107:ARG:CZ	2.47	0.77
18:AP:21:VAL:HG21	18:AP:59:TRP:CD1	2.19	0.77
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.19	0.77
1:AA:13:U:H4'	1:AA:914:A:OP1	1.84	0.77
1:AA:923:A:N9	1:AA:1398:A:C2	2.52	0.77
1:AA:1342:C:H4'	11:AI:125:TYR:CZ	2.13	0.77
4:AB:77:ALA:HB2	4:AB:211:ILE:CD1	2.10	0.77
1:AA:1458:G:N9	1:AA:1459:C:H2'	1.95	0.77
1:AA:243:A:C4'	1:AA:244:U:H5'	2.14	0.77
1:AA:186:C:C1'	22:AT:60:GLU:OE1	2.31	0.77
5:AC:23:TYR:CE1	12:AJ:67:THR:HG23	2.19	0.77
1:AA:929:G:P	1:AA:1533:C:H41	2.07	0.77
5:AC:135:LYS:CE	7:AE:50:GLU:OE2	2.32	0.77
8:AF:95:GLU:H	8:AF:95:GLU:CD	1.85	0.77
1:AA:254:G:H21	19:AQ:16:GLN:CD	1.87	0.77
14:AL:41:ARG:CG	14:AL:42:THR:H	1.88	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AE:151:LEU:HD11	10:AH:77:GLU:OE2	1.83	0.77
7:AE:64:ARG:O	7:AE:65:ASN:HB3	1.84	0.77
1:AA:130:A:C6	1:AA:264:U:C2	2.72	0.77
1:AA:1416:G:C2'	1:AA:1417:G:C5'	2.40	0.77
1:AA:161:A:N3	1:AA:348:G:O2'	2.16	0.77
1:AA:545:C:O2'	1:AA:549:C:OP1	2.03	0.77
1:AA:1434:A:H3'	1:AA:1435:G:C5'	2.14	0.77
1:AA:1340:A:C1'	2:AV:31:A:O2'	2.33	0.77
1:AA:234:C:HO2'	19:AQ:70:ARG:HG2	1.48	0.77
1:AA:9:G:P	7:AE:126:ARG:CZ	2.72	0.77
23:B0:3118:U:N3	23:B0:3148:G:O2'	2.08	0.77
1:AA:1305:G:C2'	1:AA:1306:A:H8	1.97	0.77
8:AF:100:ASN:HD22	20:AR:23:LYS:HG2	1.49	0.77
23:B0:2491:C:H2'	23:B0:2492:G:H5''	1.67	0.77
1:AA:13:U:C4'	1:AA:914:A:OP1	2.33	0.77
1:AA:923:A:O2'	1:AA:1398:A:H3'	1.85	0.77
2:AW:75:C:C2	23:B0:2532:G:N2	2.53	0.77
1:AA:1498:U:O4'	1:AA:1519:A:H2	1.68	0.77
23:B0:3185:U:H5'	23:B0:3185:U:H6	1.49	0.77
23:B0:1067:G:H5'	23:B0:1068:A:C5'	2.11	0.77
1:AA:1014:A:C4'	21:AS:14:HIS:CD2	2.68	0.77
1:AA:436:C:H2'	1:AA:437:U:H6	1.50	0.77
1:AA:397:A:C5	1:AA:547:A:H1'	2.19	0.77
1:AA:89:G:C3'	1:AA:90:C:P	2.72	0.77
17:AO:16:ALA:HB1	17:AO:21:ASP:HB3	1.64	0.77
1:AA:538:G:C4'	14:AL:114:LYS:HD3	2.15	0.77
1:AA:7:G:N3	7:AE:121:LYS:HG2	2.00	0.77
2:AW:25:C:O2'	2:AW:26:G:H5'	1.85	0.77
23:B0:940:G:H3'	23:B0:941:U:C5'	2.07	0.77
1:AA:69:G:O2'	1:AA:101:A:C2	2.37	0.77
14:AL:75:HIS:CD2	14:AL:77:LEU:H	1.97	0.77
1:AA:958:A:C2	21:AS:55:LYS:HB2	2.19	0.77
9:AG:95:ARG:HH11	9:AG:95:ARG:HG3	1.50	0.77
1:AA:216:C:H5'	1:AA:465:C:H41	1.49	0.76
1:AA:848:G:O3'	1:AA:849:C:H5'	1.85	0.76
23:B0:894:G:H2'	23:B0:895:G:H5''	1.65	0.76
23:B0:2808:U:H3'	23:B0:2809:A:H5'	1.67	0.76
23:B0:3128:G:C4'	23:B0:3174:C:O4'	2.29	0.76
23:B0:1856:U:C6	23:B0:3865:A:N7	2.53	0.76
1:AA:421:U:N1	5:AC:127:ARG:NH2	2.33	0.76
4:AB:36:ARG:HD2	4:AB:41:ILE:HD12	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:762:C:H5'	23:B0:729:A:H61	1.51	0.76
23:B0:3109:U:C5'	23:B0:3150:C:H5'	2.15	0.76
14:AL:75:HIS:HD2	14:AL:77:LEU:N	1.82	0.76
8:AF:67:MET:HE1	8:AF:72:VAL:HA	1.66	0.76
23:B0:3128:G:HO2'	23:B0:3174:C:C5'	1.76	0.76
1:AA:253:U:O2	1:AA:275:G:O2'	1.97	0.76
1:AA:264:U:HO2'	19:AQ:64:PRO:C	1.87	0.76
1:AA:265:G:O4'	19:AQ:64:PRO:HB2	1.85	0.76
1:AA:893:C:H2'	1:AA:894:G:C8	2.21	0.76
2:AV:75:C:OP1	23:B0:2581:A:H5''	1.84	0.76
23:B0:1067:G:C5'	23:B0:1068:A:H5'	2.10	0.76
17:AO:17:ARG:HH11	17:AO:17:ARG:HG3	1.49	0.76
14:AL:126:LYS:H	14:AL:126:LYS:CD	1.96	0.76
1:AA:1483:A:O2'	1:AA:1484:C:P	2.43	0.76
2:AW:33:U:C2	2:AW:35:A:C5'	2.65	0.76
1:AA:1409:C:C2	1:AA:1410:G:C8	2.74	0.76
4:AB:57:PHE:O	4:AB:60:ASP:HB3	1.85	0.76
1:AA:1014:A:N3	21:AS:34:TRP:CG	2.54	0.76
1:AA:456:A:C6	1:AA:477:G:N3	2.54	0.76
1:AA:1497:G:O2'	1:AA:1518:A:C2	2.36	0.76
1:AA:323:U:P	22:AT:23:ARG:N	2.56	0.76
1:AA:333:G:HO2'	22:AT:16:HIS:CE1	2.03	0.76
1:AA:1473:A:O2'	23:B0:1718:A:C6	2.39	0.76
23:B0:1113:C:O3'	23:B0:1114:A:OP2	2.04	0.76
1:AA:653:A:C8	10:AH:56:LYS:HG2	2.21	0.76
1:AA:1428:A:O2'	23:B0:1703:C:H1'	1.86	0.76
1:AA:588:G:C6	1:AA:753:A:C8	2.74	0.76
22:AT:14:LYS:O	22:AT:18:GLN:HG3	1.86	0.76
23:B0:1528:C:H2'	23:B0:1529:C:H5''	1.67	0.76
1:AA:452:A:H4'	18:AP:72:ARG:NH2	2.00	0.76
1:AA:1014:A:C5'	21:AS:14:HIS:CD2	2.69	0.76
1:AA:1226:C:H4'	1:AA:1227:A:OP1	1.84	0.76
11:AI:118:LYS:O	11:AI:119:ALA:HB3	1.85	0.76
2:AW:76:A:C2	23:B0:2532:G:C2	2.74	0.76
1:AA:893:C:C4	1:AA:894:G:C5	2.73	0.76
19:AQ:94:ASN:HA	23:B0:726:G:O4'	1.83	0.76
1:AA:188:C:C2	22:AT:89:ARG:NH1	2.45	0.76
1:AA:319:G:H2'	1:AA:1434:A:C2	2.21	0.76
1:AA:1321:C:H42	21:AS:37:ARG:CZ	1.98	0.76
20:AR:55:ARG:HH11	20:AR:55:ARG:HB3	1.50	0.76
6:AD:162:LEU:HD13	6:AD:181:MET:HG2	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1505:G:HO2'	1:AA:1506:U:P	2.09	0.76
24:B9:107:C:H2'	24:B9:108:G:H5'	1.68	0.76
21:AS:40:ILE:HD13	21:AS:62:ILE:HD13	1.68	0.76
23:B0:357:A:H2'	23:B0:358:C:H5'	1.66	0.76
14:AL:59:ARG:HD3	14:AL:65:GLU:HG3	1.68	0.76
19:AQ:97:SER:OG	19:AQ:103:GLY:HA2	1.85	0.75
2:AV:1:G:H21	2:AV:2:C:N4	1.81	0.75
1:AA:249:U:H3'	1:AA:250:A:P	2.26	0.75
1:AA:1256:A:H5'	1:AA:1258:G:N9	2.00	0.75
5:AC:110:ASN:O	5:AC:111:LEU:HD23	1.85	0.75
23:B0:68:C:H1'	23:B0:72:A:H1'	1.68	0.75
5:AC:19:GLU:HB3	5:AC:40:ARG:HH21	1.50	0.75
1:AA:1392:G:C4'	1:AA:1531:A:H5''	2.15	0.75
1:AA:866:C:H4'	1:AA:919:A:OP1	1.86	0.75
12:AJ:51:ARG:O	16:AN:45:ARG:CZ	2.34	0.75
23:B0:3874:C:N4	23:B0:3875:A:C6	2.54	0.75
23:B0:3874:C:C4	23:B0:3875:A:N7	2.54	0.75
1:AA:246:A:C4'	1:AA:247:G:H4'	2.16	0.75
1:AA:826:C:H1'	10:AH:15:ASN:HD22	1.50	0.75
15:AM:4:ILE:HG22	15:AM:5:ALA:N	2.00	0.75
1:AA:1473:A:O4'	23:B0:1719:G:H1'	1.85	0.75
1:AA:328:C:O2	1:AA:328:C:H2'	1.85	0.75
4:AB:139:LYS:O	4:AB:143:GLU:HG2	1.86	0.75
8:AF:86:ARG:O	8:AF:87:ARG:HG2	1.85	0.75
23:B0:1919:A:H5''	23:B0:1920:A:O5'	1.86	0.75
23:B0:3866:A:N6	55:B5:45:ASP:CA	2.49	0.75
1:AA:556:C:C2	1:AA:557:G:C8	2.73	0.75
1:AA:1405:G:N3	1:AA:1518:A:O2'	2.19	0.75
7:AE:79:GLU:OE1	10:AH:105:ARG:HD3	1.85	0.75
1:AA:1206:G:H4'	5:AC:192:THR:O	1.86	0.75
4:AB:16:HIS:NE2	4:AB:214:ILE:HG12	2.01	0.75
1:AA:992:U:H4'	1:AA:993:G:O5'	1.86	0.75
18:AP:74:LEU:O	18:AP:79:VAL:HG23	1.86	0.75
2:AV:76:A:H5'	23:B0:2564:U:O4'	1.87	0.75
19:AQ:95:TYR:C	19:AQ:97:SER:H	1.89	0.75
1:AA:1484:C:O2'	23:B0:1943:A:C4'	2.34	0.75
1:AA:1025:U:H2'	1:AA:1026:G:C8	2.21	0.75
23:B0:2806:G:H1'	23:B0:2858:A:H2'	1.68	0.75
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.22	0.75
6:AD:88:VAL:CG2	7:AE:97:GLY:N	2.42	0.75
1:AA:265:G:O3'	19:AQ:66:SER:N	2.18	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AQ:101:ARG:NH1	23:B0:731:A:N3	2.32	0.75
1:AA:820:U:O2	1:AA:873:A:N7	2.20	0.75
1:AA:653:A:C8	10:AH:56:LYS:HB3	2.22	0.75
23:B0:1199:U:H3'	23:B0:1200:G:C5'	2.17	0.75
1:AA:1492:A:H2'	1:AA:1493:A:O4'	1.87	0.75
1:AA:572:A:C2	1:AA:917:G:H1'	2.22	0.75
2:AW:74:C:C4	23:B0:2534:U:C6	2.50	0.75
23:B0:1094:C:HO2'	23:B0:1096:A:H2	1.32	0.75
1:AA:69:G:C1'	1:AA:102:G:N1	2.50	0.75
1:AA:676:A:O2'	13:AK:115:PRO:HB3	1.86	0.75
4:AB:197:VAL:HB	4:AB:200:ILE:HG12	1.66	0.75
12:AJ:61:GLU:OE2	16:AN:58:LYS:NZ	2.19	0.75
6:AD:57:ARG:NH2	7:AE:107:ARG:NE	2.15	0.75
1:AA:292:G:C2'	1:AA:608:A:H61	1.98	0.75
5:AC:52:LEU:HD23	5:AC:52:LEU:N	2.02	0.75
1:AA:1190:G:O2'	1:AA:1191:A:OP2	2.05	0.75
1:AA:27:G:N9	1:AA:557:G:N2	2.34	0.75
15:AM:49:THR:HG22	15:AM:51:ALA:N	2.02	0.75
1:AA:651:C:N4	1:AA:652:U:O4	2.20	0.75
1:AA:757:U:O2'	1:AA:879:C:H1'	1.87	0.75
5:AC:50:ALA:HB1	5:AC:70:VAL:HG11	1.68	0.75
1:AA:1075:C:OP1	4:AB:179:LYS:NZ	2.17	0.75
1:AA:1398:A:H5'	1:AA:1399:C:OP1	1.86	0.75
1:AA:1342:C:H4'	11:AI:125:TYR:CG	2.22	0.75
1:AA:893:C:C5	1:AA:894:G:N7	2.55	0.75
1:AA:497:A:HO2'	1:AA:498:U:P	2.08	0.75
24:B9:114:C:C2'	24:B9:115:G:H5''	2.17	0.75
12:AJ:45:ARG:NH1	16:AN:36:PHE:CD2	2.54	0.75
1:AA:816:A:OP2	1:AA:1527:C:H5'	1.87	0.74
2:AW:75:C:C2'	23:B0:2486:C:O2'	2.34	0.74
1:AA:1060:C:H5'	12:AJ:52:GLY:HA2	1.68	0.74
19:AQ:95:TYR:O	19:AQ:97:SER:N	2.19	0.74
12:AJ:82:ILE:O	12:AJ:86:MET:HB2	1.86	0.74
23:B0:3877:A:C8	23:B0:1861:G:N7	2.23	0.74
5:AC:52:LEU:CD2	5:AC:52:LEU:H	2.00	0.74
1:AA:848:G:H2'	1:AA:849:C:C1'	2.18	0.74
13:AK:110:ASP:OD2	20:AR:88:LYS:NZ	2.20	0.74
1:AA:866:C:C5'	1:AA:919:A:C5'	2.65	0.74
2:AW:76:A:C2'	23:B0:2485:U:H2'	2.17	0.74
2:AV:76:A:C2'	23:B0:2046:C:O2	2.30	0.74
1:AA:274:A:H2	1:AA:275:G:H1'	1.52	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:1856:U:H3'	23:B0:3865:A:N7	2.02	0.74
4:AB:23:ARG:NH1	4:AB:24:TRP:N	2.35	0.74
1:AA:1256:A:O4'	1:AA:1258:G:C5	2.41	0.74
1:AA:421:U:C2	5:AC:127:ARG:NH2	2.42	0.74
5:AC:116:VAL:HG21	5:AC:202:ILE:HD11	1.68	0.74
23:B0:3128:G:O3'	23:B0:3174:C:H4'	1.86	0.74
1:AA:1255:G:C1'	1:AA:1259:C:H1'	2.13	0.74
14:AL:24:VAL:HG13	14:AL:98:TYR:HE2	1.50	0.74
23:B0:1029:C:H2'	23:B0:1030:U:H5''	1.68	0.74
23:B0:1915:A:H62	23:B0:1951:G:H21	1.35	0.74
15:AM:93:ARG:HD3	23:B0:900:U:C3'	2.18	0.74
2:AW:76:A:C1'	23:B0:2562:G:H22	2.01	0.74
1:AA:9:G:O5'	7:AE:126:ARG:CD	2.35	0.74
1:AA:1497:G:H21	1:AA:1519:A:H1'	1.52	0.74
1:AA:66:G:C5'	1:AA:199:G:O2'	2.34	0.74
4:AB:95:GLN:O	4:AB:96:ARG:HD2	1.88	0.74
5:AC:107:GLN:CD	5:AC:107:GLN:H	1.88	0.74
23:B0:221:A:H62	23:B0:231:G:H21	1.34	0.74
1:AA:922:G:N3	1:AA:1396:A:N3	2.35	0.74
1:AA:1343:G:H4'	11:AI:122:ALA:HB3	1.70	0.74
4:AB:23:ARG:HH11	4:AB:24:TRP:N	1.86	0.74
1:AA:323:U:C3'	22:AT:22:ARG:HB2	2.18	0.74
1:AA:188:C:H3'	22:AT:105:SER:OG	1.88	0.74
14:AL:27:LEU:O	14:AL:29:GLY:N	2.21	0.74
1:AA:1416:G:OP1	1:AA:1417:G:OP2	2.05	0.74
1:AA:323:U:H5''	22:AT:22:ARG:C	2.08	0.74
1:AA:476:U:H2'	1:AA:477:G:C5'	2.16	0.74
1:AA:1261:A:O2'	1:AA:1283:G:C5'	2.35	0.74
12:AJ:96:ILE:HG22	12:AJ:97:GLU:H	1.52	0.74
4:AB:91:PRO:HG3	4:AB:154:LEU:HB2	1.69	0.74
23:B0:67:G:N2	23:B0:72:A:H2'	2.02	0.74
23:B0:1856:U:C6	23:B0:3865:A:C5	2.75	0.74
1:AA:827:U:HO3'	1:AA:828:A:P	2.07	0.74
1:AA:188:C:C3'	22:AT:105:SER:OG	2.35	0.74
15:AM:3:ARG:HA	15:AM:8:GLU:O	1.86	0.74
1:AA:319:G:H2'	1:AA:1434:A:H2	1.52	0.74
10:AH:91:ARG:HG2	14:AL:7:ILE:HG21	1.70	0.74
1:AA:1075:C:OP1	4:AB:179:LYS:CD	2.35	0.74
21:AS:16:LEU:O	21:AS:19:VAL:HG12	1.87	0.74
21:AS:17:GLU:O	21:AS:21:GLU:HG3	1.87	0.74
1:AA:1393:U:O2'	1:AA:1394:A:H2'	1.88	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:923:A:C4'	1:AA:1398:A:C5	2.71	0.74
1:AA:297:G:C4'	1:AA:557:G:H4'	2.17	0.74
4:AB:178:ARG:NH1	4:AB:178:ARG:HG3	1.92	0.74
1:AA:1409:C:C2'	1:AA:1410:G:H5'	2.18	0.74
6:AD:64:LEU:HD12	6:AD:75:PHE:HZ	1.53	0.74
8:AF:69:GLU:HA	8:AF:72:VAL:HG23	1.70	0.74
1:AA:578:C:O2'	1:AA:728:A:H1'	1.88	0.74
4:AB:72:GLY:HA3	4:AB:81:VAL:HG21	1.69	0.74
1:AA:161:A:H2'	1:AA:162:A:C8	2.23	0.73
1:AA:319:G:O2'	1:AA:1434:A:C2	2.41	0.73
1:AA:112:G:H21	1:AA:354:G:C5'	2.01	0.73
23:B0:2636:A:H62	23:B0:2643:G:H21	1.36	0.73
10:AH:108:GLY:HA3	10:AH:138:TRP:HB3	1.70	0.73
9:AG:23:VAL:HG12	9:AG:27:ILE:HD11	1.70	0.73
2:AW:76:A:C4	23:B0:2486:C:H1'	2.20	0.73
1:AA:1434:A:OP2	1:AA:1435:G:N7	2.19	0.73
1:AA:1321:C:N4	21:AS:37:ARG:NH1	2.35	0.73
23:B0:109:A:C3'	23:B0:110:U:H5''	2.18	0.73
1:AA:1256:A:N3	1:AA:1258:G:C6	2.57	0.73
1:AA:1279:A:H5''	1:AA:1280:A:OP1	1.88	0.73
1:AA:792:A:H4'	1:AA:793:U:H5''	1.68	0.73
1:AA:353:A:H5'	1:AA:353:A:H8	1.53	0.73
2:AV:76:A:H5''	23:B0:2564:U:C5	2.10	0.73
1:AA:266:G:P	19:AQ:66:SER:HA	2.27	0.73
1:AA:893:C:C2	1:AA:894:G:C8	2.76	0.73
1:AA:538:G:C5'	14:AL:114:LYS:HD3	2.18	0.73
1:AA:1261:A:H4'	1:AA:1283:G:C3'	2.18	0.73
11:AI:44:VAL:HG13	11:AI:51:ARG:HH22	1.52	0.73
1:AA:848:G:O3'	1:AA:849:C:O5'	2.05	0.73
23:B0:891:A:C6	23:B0:892:A:N6	2.56	0.73
1:AA:522:C:OP1	14:AL:120:TYR:CZ	2.41	0.73
1:AA:406:G:C2	1:AA:437:U:C2	2.77	0.73
1:AA:249:U:HO3'	1:AA:250:A:P	2.10	0.73
23:B0:1912:G:O3'	23:B0:1913:G:C3'	2.36	0.73
1:AA:1270:C:O3'	1:AA:1314:C:C5'	2.37	0.73
1:AA:1270:C:O3'	1:AA:1314:C:H4'	1.88	0.73
23:B0:2522:G:H21	23:B0:2625:U:H5''	1.53	0.73
1:AA:130:A:C8	19:AQ:63:ARG:CG	2.72	0.73
1:AA:828:A:H2	4:AB:26:PRO:HG2	1.44	0.73
1:AA:406:G:C8	1:AA:496:A:C4	2.76	0.73
5:AC:59:ARG:H	12:AJ:92:THR:HG22	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AL:27:LEU:HG	14:AL:28:LYS:H	1.53	0.73
1:AA:265:G:H1'	19:AQ:64:PRO:HB3	1.69	0.73
1:AA:406:G:C5	1:AA:496:A:C8	2.77	0.73
1:AA:292:G:C1'	1:AA:608:A:N6	2.50	0.73
1:AA:588:G:N9	1:AA:753:A:C2	2.56	0.73
11:AI:4:TYR:CE2	11:AI:88:TYR:HA	2.24	0.73
1:AA:262:A:H5''	22:AT:74:LYS:HB2	1.68	0.73
1:AA:1060:C:O2'	12:AJ:56:HIS:CG	2.41	0.73
12:AJ:62:HIS:CE1	16:AN:61:TRP:CZ3	2.77	0.73
1:AA:476:U:C1'	1:AA:477:G:H5'	2.19	0.73
5:AC:23:TYR:HE1	12:AJ:67:THR:HG23	1.52	0.73
1:AA:922:G:C5	1:AA:1396:A:N1	2.56	0.73
1:AA:254:G:C5'	19:AQ:18:THR:HG21	2.19	0.73
1:AA:1064:G:H4'	1:AA:1065:U:C5'	2.18	0.73
1:AA:246:A:O3'	1:AA:247:G:O4'	2.06	0.73
1:AA:434:U:H2'	1:AA:435:C:C6	2.24	0.73
12:AJ:45:ARG:CZ	16:AN:36:PHE:CE2	2.72	0.73
1:AA:928:G:O3'	1:AA:1533:C:N4	2.21	0.73
12:AJ:61:GLU:OE2	16:AN:58:LYS:HD3	1.88	0.73
19:AQ:104:LYS:HG2	23:B0:726:G:C5	2.24	0.73
1:AA:397:A:N7	1:AA:547:A:C1'	2.39	0.73
1:AA:27:G:C8	1:AA:557:G:N2	2.57	0.73
1:AA:653:A:C1'	10:AH:56:LYS:HG2	2.19	0.73
20:AR:26:LEU:HD12	20:AR:27:GLY:H	1.53	0.73
1:AA:391:G:H5'	18:AP:28:ARG:HH22	1.52	0.72
1:AA:1112:C:N3	5:AC:178:LEU:HB3	2.02	0.72
14:AL:48:PRO:HG2	14:AL:49:ASN:H	1.52	0.72
1:AA:130:A:C2	1:AA:263:A:C2	2.77	0.72
19:AQ:104:LYS:HB2	23:B0:726:G:C4	2.24	0.72
19:AQ:104:LYS:NZ	23:B0:730:C:N4	2.37	0.72
1:AA:1434:A:C3'	1:AA:1435:G:C5'	2.66	0.72
23:B0:3118:U:N3	23:B0:3149:G:C5'	2.51	0.72
10:AH:1:MET:HG2	10:AH:2:LEU:N	2.04	0.72
2:AV:32:C:OP2	11:AI:127:LYS:HE3	1.89	0.72
1:AA:735:C:H1'	20:AR:75:ILE:HD11	1.71	0.72
17:AO:33:THR:HG23	17:AO:63:ARG:NH1	2.03	0.72
1:AA:819:A:C5	1:AA:1529:G:C2	2.77	0.72
1:AA:835:U:P	20:AR:64:ARG:HH21	2.11	0.72
1:AA:1483:A:N7	1:AA:1484:C:C4	2.57	0.72
1:AA:69:G:H1'	1:AA:102:G:C2	2.24	0.72
23:B0:1119:U:H2'	23:B0:1120:C:O4'	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:1908:C:H2'	23:B0:1909:U:H4'	1.71	0.72
23:B0:552:C:H2'	23:B0:553:C:H4'	1.72	0.72
1:AA:1503:A:C4	1:AA:1531:A:C2	2.77	0.72
1:AA:104:G:O4'	1:AA:172:A:H2	1.72	0.72
23:B0:367:G:C2'	23:B0:368:A:H5''	2.19	0.72
1:AA:588:G:C4	1:AA:753:A:C5	2.77	0.72
23:B0:951:G:H2'	23:B0:952:A:H5''	1.70	0.72
19:AQ:59:ILE:HG23	19:AQ:71:PHE:HB3	1.69	0.72
1:AA:1111:A:N1	5:AC:177:THR:CB	2.52	0.72
1:AA:685:G:OP1	13:AK:12:ARG:NH2	2.23	0.72
10:AH:1:MET:HG2	10:AH:2:LEU:H	1.54	0.72
2:AV:32:C:P	11:AI:127:LYS:HE3	2.29	0.72
1:AA:1409:C:C2'	1:AA:1410:G:C5'	2.67	0.72
8:AF:26:ILE:HG21	8:AF:63:TYR:HE2	1.54	0.72
1:AA:748:C:H1'	1:AA:749:C:H5	1.53	0.72
1:AA:570:G:O2'	1:AA:819:A:H2'	1.89	0.72
12:AJ:61:GLU:CD	16:AN:58:LYS:HZ3	1.92	0.72
1:AA:1488:G:H2'	1:AA:1489:G:C8	2.24	0.72
23:B0:3877:A:H2	23:B0:1861:G:N2	1.86	0.72
22:AT:10:LEU:O	22:AT:12:ALA:N	2.22	0.72
23:B0:2236:U:H2'	23:B0:2237:C:H5''	1.72	0.72
1:AA:864:A:C2	1:AA:917:G:O2'	2.40	0.72
1:AA:914:A:C2'	1:AA:915:A:C4'	2.66	0.72
1:AA:132:C:H4'	22:AT:74:LYS:HD2	1.71	0.72
1:AA:216:C:O4'	1:AA:466:A:N1	2.22	0.72
1:AA:501:C:H2'	1:AA:502:G:H8	1.53	0.72
1:AA:319:G:H4'	1:AA:1468:A:O4'	1.89	0.72
1:AA:556:C:N3	1:AA:557:G:N7	2.38	0.72
2:AW:71:G:H3'	23:B0:1925:C:C2'	2.19	0.72
14:AL:24:VAL:HG13	14:AL:98:TYR:CE2	2.23	0.72
1:AA:1398:A:C4'	1:AA:1399:C:P	2.60	0.72
1:AA:779:C:C4'	13:AK:120:ARG:CB	2.67	0.72
1:AA:38:G:C4'	1:AA:547:A:C5	2.68	0.72
1:AA:9:G:OP2	7:AE:126:ARG:NH2	2.23	0.72
1:AA:1483:A:N9	1:AA:1484:C:C5	2.58	0.72
1:AA:27:G:N1	1:AA:557:G:C4	2.58	0.72
23:B0:762:A:H5'	23:B0:1284:G:H1'	1.71	0.72
1:AA:1014:A:C2	1:AA:1219:U:H1'	2.25	0.72
1:AA:1351:U:H2'	1:AA:1352:C:H6	1.55	0.72
19:AQ:96:GLN:NE2	23:B0:725:C:H1'	2.05	0.72
1:AA:556:C:HO2'	1:AA:557:G:H5'	1.49	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1281:U:H5'	1:AA:1282:C:C5	2.25	0.72
1:AA:815:A:N9	1:AA:1527:C:C1'	2.48	0.72
5:AC:13:GLY:HA3	16:AN:57:ARG:HH21	1.54	0.72
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.24	0.72
1:AA:37:U:O2'	1:AA:547:A:C6	2.39	0.72
2:AV:75:C:N4	23:B0:2230:G:N1	2.37	0.72
1:AA:1256:A:C4'	1:AA:1258:G:C4	2.73	0.72
1:AA:1182:G:HO2'	1:AA:1183:A:P	2.00	0.72
23:B0:9:U:H3	23:B0:2608:A:H62	1.37	0.72
23:B0:2426:G:H5'	23:B0:2480:C:H41	1.55	0.72
1:AA:1111:A:C6	5:AC:177:THR:HA	2.25	0.71
1:AA:778:G:O2'	13:AK:120:ARG:O	2.07	0.71
1:AA:403:C:N3	1:AA:404:U:C5	2.58	0.71
1:AA:376:G:OP2	18:AP:67:THR:CG2	2.28	0.71
23:B0:1141:U:N3	23:B0:2008:C:H5''	2.04	0.71
23:B0:1966:C:H4'	23:B0:2585:C:H4'	1.71	0.71
19:AQ:45:HIS:HB2	19:AQ:65:ILE:HD13	1.71	0.71
1:AA:456:A:C6	1:AA:477:G:C1'	2.61	0.71
19:AQ:101:ARG:NH1	23:B0:731:A:H2	1.84	0.71
1:AA:46:G:O2'	1:AA:365:U:O2'	2.07	0.71
5:AC:23:TYR:HA	12:AJ:11:PHE:CE1	2.24	0.71
23:B0:3123:G:O2'	55:B5:166:GLN:CA	2.38	0.71
12:AJ:39:PRO:O	12:AJ:40:LEU:HB2	1.89	0.71
13:AK:84:VAL:HG11	13:AK:95:ILE:HD11	1.70	0.71
23:B0:688:A:H62	23:B0:816:U:H3	1.38	0.71
23:B0:2503:G:C3'	23:B0:2504:G:H5''	2.21	0.71
1:AA:21:G:O4'	1:AA:914:A:N6	2.22	0.71
1:AA:1065:U:H4'	1:AA:1066:C:O5'	1.89	0.71
1:AA:6:G:N3	7:AE:119:LEU:CD1	2.28	0.71
1:AA:830:G:OP1	4:AB:22:LYS:HE2	1.90	0.71
1:AA:1238:A:H3'	1:AA:1239:A:P	2.30	0.71
1:AA:367:U:OP1	1:AA:395:C:O2	2.07	0.71
4:AB:116:GLU:HG2	4:AB:153:ARG:NH1	2.04	0.71
23:B0:2503:G:H3'	23:B0:2504:G:H5''	1.72	0.71
11:AI:97:LYS:HG2	11:AI:102:LEU:HD12	1.72	0.71
2:AW:44:A:O3'	2:AW:45:G:P	2.48	0.71
1:AA:293:G:H5'	1:AA:609:A:N1	2.01	0.71
1:AA:1499:A:O2'	1:AA:1520:G:H5''	1.91	0.71
1:AA:923:A:O2'	1:AA:1398:A:C3'	2.38	0.71
1:AA:1458:G:OP2	1:AA:1459:C:C6	2.36	0.71
1:AA:977:A:H2'	1:AA:978:A:H5''	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AW:76:A:H2	23:B0:2486:C:O2	1.71	0.71
1:AA:1416:G:C5	1:AA:1417:G:H1'	2.25	0.71
1:AA:406:G:N9	1:AA:496:A:C6	2.58	0.71
1:AA:332:G:P	22:AT:10:LEU:HB2	2.13	0.71
1:AA:69:G:H2'	1:AA:101:A:N1	2.06	0.71
20:AR:33:ASP:OD2	20:AR:36:ASN:HB2	1.90	0.71
23:B0:202:A:H2'	23:B0:203:G:O4'	1.89	0.71
23:B0:3866:A:C2'	55:B5:194:ALA:CA	2.67	0.71
1:AA:893:C:N4	1:AA:894:G:C6	2.59	0.71
23:B0:1487:C:H2'	23:B0:1488:G:H8	1.56	0.71
1:AA:265:G:C3'	19:AQ:65:ILE:O	2.38	0.71
1:AA:829:G:HO2'	4:AB:24:TRP:HE1	1.35	0.71
1:AA:37:U:C1'	1:AA:547:A:N1	2.54	0.71
1:AA:236:G:H5''	19:AQ:42:TYR:OH	1.91	0.71
1:AA:1256:A:C4'	1:AA:1258:G:N9	2.53	0.71
23:B0:3149:G:C3'	23:B0:3150:C:P	2.78	0.71
11:AI:65:VAL:HG21	11:AI:73:GLN:HB3	1.72	0.71
1:AA:1014:A:C4	21:AS:34:TRP:CD2	2.79	0.71
2:AW:75:C:O2'	23:B0:2486:C:C4'	2.38	0.71
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.26	0.71
1:AA:278:G:H21	1:AA:279:A:N6	1.89	0.71
1:AA:46:G:C5	1:AA:366:C:C4	2.79	0.71
1:AA:1112:C:N3	5:AC:178:LEU:CB	2.54	0.71
1:AA:1394:A:C6	1:AA:1501:C:C5'	2.73	0.71
1:AA:914:A:H2'	1:AA:915:A:C4'	2.19	0.71
1:AA:262:A:H5'	22:AT:74:LYS:CG	2.20	0.71
1:AA:130:A:C2	1:AA:264:U:C5	2.78	0.71
1:AA:1489:G:C3'	1:AA:1490:C:H5''	2.21	0.71
1:AA:392:G:H2'	1:AA:393:A:H8	1.55	0.71
1:AA:197:A:H4'	1:AA:198:G:O5'	1.90	0.71
1:AA:1410:G:C2	1:AA:1491:G:C2	2.78	0.71
23:B0:57:G:H2'	23:B0:58:C:H5''	1.73	0.71
23:B0:2274:C:H2'	23:B0:2275:U:H5'	1.73	0.71
1:AA:815:A:C6	1:AA:1508:G:N2	2.59	0.71
1:AA:815:A:C4	1:AA:1527:C:O2	2.43	0.71
2:AW:76:A:H2'	23:B0:2562:G:N2	2.02	0.71
1:AA:263:A:P	22:AT:75:ASN:CB	2.66	0.71
1:AA:1239:A:C2'	1:AA:1298:C:H42	2.03	0.71
12:AJ:45:ARG:NH1	16:AN:36:PHE:CE2	2.58	0.71
1:AA:1430:C:H5'	23:B0:1721:G:C4'	2.21	0.71
1:AA:588:G:N7	1:AA:753:A:C4	2.59	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AW:75:C:O2'	23:B0:2486:C:O3'	2.08	0.71
11:AI:111:ARG:HD3	11:AI:112:LYS:N	2.06	0.71
1:AA:1473:A:C5'	23:B0:1719:G:C4'	2.65	0.71
23:B0:1746:A:H2'	23:B0:1747:G:H5'	1.72	0.71
1:AA:1491:G:H2'	1:AA:1492:A:C8	2.26	0.71
15:AM:40:ASN:HB3	15:AM:43:THR:HG23	1.73	0.71
23:B0:1182:U:C2'	23:B0:1183:C:H5''	2.20	0.71
12:AJ:65:LEU:O	12:AJ:65:LEU:HD23	1.91	0.71
1:AA:651:C:C5	1:AA:752:G:O2'	2.43	0.71
6:AD:201:GLN:HE22	7:AE:99:GLY:HA2	1.56	0.71
1:AA:195:A:O2'	1:AA:222:U:O2'	2.06	0.71
1:AA:223:U:H5''	22:AT:68:LYS:NZ	2.05	0.71
1:AA:1499:A:C1'	1:AA:1520:G:H5''	2.18	0.70
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.26	0.70
1:AA:994:A:O2'	16:AN:8:GLU:HA	1.91	0.70
1:AA:406:G:C6	1:AA:496:A:N7	2.59	0.70
1:AA:107:G:C2'	1:AA:108:G:H5'	2.21	0.70
12:AJ:78:ASN:O	12:AJ:80:LYS:N	2.24	0.70
12:AJ:35:SER:HB2	12:AJ:72:VAL:O	1.90	0.70
1:AA:254:G:H4'	19:AQ:18:THR:CG2	2.21	0.70
1:AA:779:C:O2'	13:AK:120:ARG:HD2	1.87	0.70
23:B0:3877:A:C8	23:B0:1861:G:N9	2.59	0.70
7:AE:102:ALA:HB1	7:AE:120:THR:HG21	1.73	0.70
1:AA:128:G:P	19:AQ:2:PRO:N	2.63	0.70
1:AA:1148:U:H2'	1:AA:1149:C:O4'	1.90	0.70
20:AR:39:VAL:O	20:AR:42:ARG:HB2	1.90	0.70
1:AA:818:G:C3'	1:AA:819:A:H5''	2.21	0.70
1:AA:131:C:OP1	1:AA:263:A:H5''	1.88	0.70
23:B0:3874:C:C5	23:B0:3875:A:N7	2.59	0.70
1:AA:1413:A:H2	1:AA:1487:G:H22	1.39	0.70
1:AA:406:G:C4	1:AA:496:A:C6	2.79	0.70
1:AA:1483:A:C8	1:AA:1484:C:C5	2.79	0.70
1:AA:1484:C:C5'	23:B0:1943:A:O2'	2.39	0.70
23:B0:3098:U:C5	23:B0:3099:U:O4	2.44	0.70
23:B0:1002:C:H5'	23:B0:1200:G:OP2	1.90	0.70
21:AS:70:LYS:O	21:AS:72:GLY:N	2.24	0.70
1:AA:606:G:H3'	1:AA:607:A:C5'	2.21	0.70
23:B0:1077:U:O2'	23:B0:1079:G:N7	2.21	0.70
23:B0:2680:U:H3'	23:B0:2681:A:H5'	1.72	0.70
1:AA:1015:A:H1'	1:AA:1219:U:H5''	1.65	0.70
1:AA:1416:G:H2'	1:AA:1417:G:C5'	2.18	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	1.90	0.70
1:AA:499:A:H1'	1:AA:500:G:C4'	2.21	0.70
23:B0:1073:G:H1'	23:B0:1099:A:C2	2.27	0.70
1:AA:46:G:H2'	1:AA:366:C:H5	1.56	0.70
1:AA:1309:G:P	15:AM:88:ARG:HH21	2.14	0.70
15:AM:40:ASN:HD22	15:AM:41:PRO:HD2	1.55	0.70
1:AA:1168:A:H2'	1:AA:1169:A:C8	2.27	0.70
18:AP:20:VAL:HG11	18:AP:32:TYR:HB3	1.74	0.70
1:AA:419:C:H5''	1:AA:513:C:O4'	1.90	0.70
1:AA:1014:A:N1	21:AS:34:TRP:NE1	2.40	0.70
1:AA:1485:U:P	23:B0:1943:A:O2'	2.49	0.70
1:AA:1485:U:P	23:B0:1944:C:H5'	2.32	0.70
1:AA:249:U:O3'	1:AA:250:A:P	2.46	0.70
17:AO:17:ARG:NH1	17:AO:77:ARG:NH1	2.40	0.70
21:AS:15:LEU:HD12	21:AS:16:LEU:N	2.06	0.70
1:AA:293:G:C4'	1:AA:609:A:H2	1.78	0.70
1:AA:13:U:N3	1:AA:915:A:C8	2.60	0.70
1:AA:1342:C:H4'	11:AI:125:TYR:CE1	2.25	0.70
5:AC:52:LEU:HD21	5:AC:118:GLN:NE2	2.07	0.70
8:AF:10:LEU:HD11	8:AF:59:TYR:HD2	1.54	0.70
1:AA:588:G:H1'	1:AA:753:A:N1	2.07	0.70
6:AD:28:SER:O	6:AD:30:LYS:N	2.25	0.70
1:AA:765:G:O3'	1:AA:766:A:P	2.50	0.70
15:AM:11:ARG:HG2	15:AM:12:ASN:N	2.07	0.70
23:B0:874:A:H62	23:B0:928:G:H21	1.39	0.70
5:AC:6:HIS:CD2	5:AC:8:ILE:HB	2.27	0.70
1:AA:115:G:N2	1:AA:116:A:H62	1.89	0.70
1:AA:352:C:H4'	1:AA:354:G:OP1	1.91	0.70
1:AA:1034:G:C3'	1:AA:1035:A:P	2.80	0.70
23:B0:104:C:C2'	23:B0:105:G:H5''	2.22	0.70
1:AA:1151:A:C5'	12:AJ:41:PRO:HA	2.22	0.70
1:AA:893:C:H2'	1:AA:894:G:O4'	1.90	0.70
19:AQ:96:GLN:CD	23:B0:725:C:O2	2.29	0.70
1:AA:477:G:H2'	1:AA:478:A:H8	1.56	0.70
23:B0:3101:G:H2'	23:B0:3102:G:O4'	1.90	0.70
6:AD:150:GLU:CG	6:AD:153:ARG:HH21	2.02	0.70
6:AD:158:ILE:HG22	6:AD:181:MET:HE2	1.71	0.70
2:AW:34:G:OP1	2:AW:34:G:H8	1.75	0.70
6:AD:88:VAL:HG22	7:AE:97:GLY:CA	2.21	0.70
1:AA:1342:C:H1'	11:AI:124:GLN:HB2	1.73	0.70
1:AA:538:G:C5'	14:AL:114:LYS:CG	2.69	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:38:G:H4'	1:AA:547:A:N6	1.98	0.70
15:AM:6:GLY:O	15:AM:7:VAL:HG22	1.91	0.70
1:AA:319:G:C2'	1:AA:1434:A:C2	2.75	0.70
1:AA:112:G:H21	1:AA:354:G:C4'	2.05	0.70
1:AA:1256:A:H4'	1:AA:1258:G:N9	2.06	0.70
12:AJ:46:ARG:HH11	12:AJ:64:GLU:CB	2.05	0.70
19:AQ:24:GLU:OE2	19:AQ:37:LYS:HD3	1.92	0.70
11:AI:97:LYS:CG	11:AI:102:LEU:HD12	2.22	0.70
1:AA:819:A:N7	1:AA:1529:G:N2	2.40	0.70
23:B0:3128:G:H5'	23:B0:3174:C:O2'	1.91	0.70
12:AJ:61:GLU:HG3	16:AN:58:LYS:HZ2	0.71	0.70
1:AA:391:G:C5'	18:AP:28:ARG:HH22	2.05	0.70
1:AA:1255:G:N2	1:AA:1276:G:N2	2.39	0.70
1:AA:1181:G:H4'	1:AA:1184:G:O4'	1.92	0.70
1:AA:1319:A:H5''	21:AS:5:LEU:CD2	2.22	0.70
1:AA:1141:C:H2'	1:AA:1142:G:H8	1.57	0.70
17:AO:39:LEU:HD13	17:AO:56:LEU:HB2	1.74	0.70
22:AT:45:GLN:HA	22:AT:91:LEU:HD22	1.74	0.69
1:AA:375:U:O2	18:AP:28:ARG:NE	2.24	0.69
15:AM:84:ILE:HG21	21:AS:65:ASN:ND2	2.01	0.69
21:AS:5:LEU:O	21:AS:6:LYS:HB2	1.92	0.69
1:AA:315:A:H5''	1:AA:317:G:OP2	1.91	0.69
1:AA:21:G:H1'	1:AA:914:A:C6	2.19	0.69
1:AA:265:G:C5'	19:AQ:65:ILE:C	2.50	0.69
23:B0:892:A:C8	23:B0:892:A:H5'	2.24	0.69
1:AA:499:A:O2'	1:AA:500:G:C8	2.44	0.69
1:AA:1320:C:H41	21:AS:37:ARG:CD	2.02	0.69
1:AA:1137:C:H4'	1:AA:1138:G:N2	2.06	0.69
1:AA:1430:C:H4'	23:B0:1721:G:C5'	2.22	0.69
7:AE:151:LEU:CD1	10:AH:77:GLU:OE2	2.40	0.69
1:AA:344:A:H4'	1:AA:345:C:OP2	1.91	0.69
12:AJ:32:ALA:HB2	12:AJ:76:ASN:HD22	1.57	0.69
23:B0:814:G:H3'	23:B0:815:A:H5'	1.73	0.69
1:AA:923:A:O4'	1:AA:1398:A:N3	2.05	0.69
1:AA:130:A:OP1	19:AQ:63:ARG:HB3	1.90	0.69
15:AM:94:ARG:HH22	21:AS:81:ARG:CZ	2.05	0.69
1:AA:837:G:O3'	1:AA:838:C:O5'	2.09	0.69
23:B0:2607:C:H3'	23:B0:2608:A:C5'	2.23	0.69
14:AL:126:LYS:HD2	14:AL:126:LYS:N	2.08	0.69
23:B0:3146:A:H4'	23:B0:3147:C:OP2	1.92	0.69
1:AA:264:U:O2'	19:AQ:63:ARG:CD	2.37	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1190:G:C3'	5:AC:3:ASN:HB2	2.22	0.69
1:AA:905:U:C5	1:AA:906:G:C6	2.81	0.69
1:AA:186:C:O2	22:AT:60:GLU:OE1	2.09	0.69
1:AA:837:G:C2'	1:AA:838:C:C6	2.75	0.69
2:AV:34:G:OP1	2:AV:34:G:H8	1.75	0.69
6:AD:70:ILE:HD11	6:AD:100:ARG:CZ	2.21	0.69
1:AA:994:A:O3'	16:AN:11:LYS:HE2	1.92	0.69
1:AA:216:C:C4'	1:AA:466:A:C6	2.65	0.69
1:AA:187:G:O2'	22:AT:104:LEU:CA	2.40	0.69
1:AA:522:C:C5'	14:AL:120:TYR:OH	2.39	0.69
1:AA:115:G:O3'	1:AA:116:A:OP1	2.08	0.69
1:AA:1409:C:C4	1:AA:1410:G:N7	2.60	0.69
23:B0:1679:U:C3'	23:B0:1680:U:H5''	2.22	0.69
23:B0:1774:A:H1'	23:B0:2586:G:H21	1.58	0.69
13:AK:77:MET:HE3	13:AK:80:VAL:HG22	1.74	0.69
1:AA:131:C:OP1	1:AA:263:A:H5'	1.89	0.69
1:AA:254:G:H5''	19:AQ:18:THR:HG21	1.73	0.69
1:AA:248:C:H4'	1:AA:283:C:O2'	1.92	0.69
1:AA:1255:G:H1'	1:AA:1259:C:C1'	2.14	0.69
1:AA:692:U:OP1	13:AK:124:LYS:HE3	1.92	0.69
23:B0:226:C:O2'	23:B0:227:G:H8	1.73	0.69
1:AA:377:G:OP1	18:AP:3:LYS:CE	2.39	0.69
23:B0:1791:C:O2'	23:B0:1793:A:H5'	1.93	0.69
5:AC:7:PRO:HG2	5:AC:184:TYR:HB2	1.73	0.69
1:AA:686:U:HO2'	1:AA:687:A:H8	1.39	0.69
1:AA:675:A:C2	13:AK:116:HIS:HB2	2.25	0.69
2:AW:76:A:C2	23:B0:2562:G:N3	2.61	0.69
23:B0:3874:C:C4	23:B0:3875:A:C8	2.81	0.69
1:AA:323:U:C5'	22:AT:23:ARG:H	2.02	0.69
23:B0:3108:G:O2'	23:B0:3109:U:OP2	2.09	0.69
5:AC:38:ARG:HG3	5:AC:38:ARG:HH11	1.58	0.69
1:AA:1149:C:O2'	1:AA:1280:A:N1	2.25	0.69
2:AV:12:U:OP1	23:B0:1891:C:C1'	2.40	0.69
1:AA:1182:G:H4'	1:AA:1183:A:O5'	1.93	0.69
15:AM:81:LEU:O	15:AM:86:CYS:HB3	1.92	0.69
23:B0:2495:G:H2'	23:B0:2496:C:C6	2.27	0.69
23:B0:1004:A:H2'	23:B0:1005:U:H5''	1.74	0.69
1:AA:19:C:C2'	1:AA:916:G:N2	2.54	0.69
1:AA:1014:A:H5''	21:AS:14:HIS:CD2	2.19	0.69
1:AA:954:G:H5''	15:AM:120:LYS:HD3	1.73	0.69
1:AA:232:G:N2	1:AA:263:A:N3	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1061:G:H5''	12:AJ:56:HIS:HB3	1.75	0.69
1:AA:246:A:O3'	1:AA:247:G:H4'	1.92	0.69
19:AQ:104:LYS:HE3	23:B0:729:A:C6	2.27	0.69
4:AB:22:LYS:HD2	4:AB:35:GLU:OE1	1.93	0.69
1:AA:828:A:H2	4:AB:26:PRO:CG	2.01	0.69
1:AA:187:G:N3	22:AT:105:SER:HB2	2.08	0.69
12:AJ:30:SER:O	12:AJ:78:ASN:HB2	1.92	0.69
23:B0:1749:G:O6	23:B0:2674:C:H4'	1.92	0.69
5:AC:130:VAL:HG21	5:AC:157:ILE:HG23	1.75	0.69
23:B0:1807:A:H4'	23:B0:1808:C:C5'	2.22	0.69
23:B0:1428:G:H5''	23:B0:1429:A:H5'	1.73	0.69
23:B0:2380:U:H2'	23:B0:2381:A:H5'	1.75	0.69
6:AD:151:LYS:HD2	6:AD:151:LYS:N	2.08	0.69
1:AA:427:U:H1'	1:AA:541:G:OP1	1.92	0.69
1:AA:1337:G:H5''	1:AA:1338:G:OP1	1.93	0.69
1:AA:382:A:H2'	1:AA:383:A:C8	2.28	0.69
23:B0:2617:G:H22	23:B0:2755:A:H2'	1.57	0.69
1:AA:815:A:H62	1:AA:1508:G:H21	1.36	0.69
15:AM:81:LEU:H	15:AM:81:LEU:HD23	1.56	0.69
1:AA:1270:C:O3'	1:AA:1314:C:H5''	1.93	0.69
6:AD:64:LEU:HD12	6:AD:75:PHE:CZ	2.28	0.69
23:B0:2245:A:H5'	23:B0:2246:A:C8	2.27	0.69
23:B0:1223:G:H21	23:B0:1225:G:H21	1.40	0.69
23:B0:588:G:H4'	23:B0:2001:G:H4'	1.73	0.69
1:AA:939:G:H2'	1:AA:940:C:C6	2.28	0.69
1:AA:1394:A:N1	1:AA:1501:C:H5''	2.06	0.69
1:AA:22:G:H21	1:AA:913:A:C2'	1.96	0.69
1:AA:1194:U:H5''	7:AE:22:GLY:CA	2.23	0.69
23:B0:3867:G:C5'	55:B5:193:LYS:CA	2.72	0.69
1:AA:401:C:H4'	1:AA:622:A:H1'	1.73	0.69
1:AA:905:U:C5	1:AA:906:G:N7	2.61	0.69
12:AJ:30:SER:HB2	12:AJ:80:LYS:HB3	1.74	0.69
14:AL:47:LYS:HB2	14:AL:48:PRO:CD	2.23	0.69
1:AA:676:A:C4'	13:AK:115:PRO:HA	2.22	0.69
8:AF:100:ASN:ND2	20:AR:23:LYS:HG2	2.08	0.69
1:AA:131:C:O2'	1:AA:262:A:C2'	2.40	0.68
5:AC:180:ALA:O	5:AC:181:ASN:HB3	1.92	0.68
1:AA:496:A:H4'	1:AA:497:A:OP1	1.91	0.68
16:AN:22:THR:HB	16:AN:33:VAL:HG21	1.73	0.68
21:AS:41:VAL:HG23	21:AS:43:GLU:HG2	1.75	0.68
6:AD:199:ASN:ND2	6:AD:201:GLN:HB2	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:377:G:OP1	18:AP:3:LYS:HD2	1.93	0.68
1:AA:179:A:N6	1:AA:196:A:OP2	2.23	0.68
1:AA:922:G:C4	1:AA:1396:A:N1	2.62	0.68
1:AA:256:U:H5''	19:AQ:17:LYS:NZ	1.99	0.68
6:AD:64:LEU:HD23	6:AD:198:VAL:HG21	1.75	0.68
1:AA:943:U:C1'	11:AI:124:GLN:NE2	2.45	0.68
1:AA:1344:C:H4'	11:AI:120:ARG:HB3	1.74	0.68
1:AA:1484:C:H4'	23:B0:1943:A:C2'	2.23	0.68
14:AL:47:LYS:CB	14:AL:48:PRO:CD	2.71	0.68
23:B0:1953:A:H1'	23:B0:1955:G:C1'	2.23	0.68
2:AV:11:C:H5'	23:B0:1892:C:H4'	1.74	0.68
14:AL:55:VAL:HG12	14:AL:56:ALA:H	1.57	0.68
23:B0:2624:G:H4'	23:B0:2712:G:H2'	1.75	0.68
6:AD:157:LEU:CD2	6:AD:161:ASN:HD21	2.05	0.68
2:AW:75:C:O2	23:B0:2532:G:N2	2.27	0.68
2:AV:76:A:H3'	23:B0:2046:C:C2'	2.23	0.68
1:AA:266:G:P	19:AQ:65:ILE:O	2.51	0.68
19:AQ:66:SER:O	19:AQ:70:ARG:NH1	2.26	0.68
1:AA:1064:G:C4'	1:AA:1065:U:H5'	2.23	0.68
1:AA:1416:G:H2'	1:AA:1417:G:H4'	1.74	0.68
1:AA:216:C:C4'	1:AA:466:A:N1	2.57	0.68
1:AA:216:C:C4'	1:AA:466:A:N6	2.00	0.68
1:AA:1484:C:O3'	23:B0:1943:A:H4'	1.93	0.68
1:AA:351:G:O3'	1:AA:352:C:P	2.51	0.68
1:AA:367:U:OP1	1:AA:395:C:H1'	1.93	0.68
23:B0:939:C:H2'	23:B0:940:G:C8	2.28	0.68
5:AC:52:LEU:CD2	5:AC:118:GLN:HE22	2.05	0.68
23:B0:1838:G:H2'	23:B0:1839:A:H5'	1.75	0.68
23:B0:2058:U:H4'	23:B0:2575:U:H3	1.58	0.68
20:AR:45:SER:C	20:AR:47:THR:H	1.97	0.68
23:B0:2440:C:H1'	23:B0:2471:U:H3	1.56	0.68
1:AA:948:C:OP1	15:AM:109:THR:HG22	1.94	0.68
23:B0:2691:C:H3'	23:B0:2692:A:H5''	1.74	0.68
1:AA:17:U:H2'	1:AA:18:C:C6	2.28	0.68
6:AD:88:VAL:CG2	7:AE:97:GLY:CA	2.70	0.68
1:AA:266:G:C3'	19:AQ:67:LYS:H	2.06	0.68
12:AJ:61:GLU:OE2	16:AN:58:LYS:CD	2.41	0.68
1:AA:397:A:N7	1:AA:547:A:O2'	1.94	0.68
1:AA:39:G:C4	1:AA:498:U:O4	2.46	0.68
1:AA:332:G:P	22:AT:10:LEU:HB3	2.33	0.68
1:AA:128:G:H4'	19:AQ:3:LYS:CA	2.20	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:129:U:C5'	19:AQ:3:LYS:NZ	2.56	0.68
2:AV:12:U:P	23:B0:1891:C:HO2'	2.13	0.68
1:AA:798:G:P	13:AK:122:LYS:NZ	2.66	0.68
2:AV:57:G:C5'	28:BD:76:ASN:CA	2.72	0.68
6:AD:30:LYS:C	6:AD:32:ALA:H	1.97	0.68
23:B0:2377:U:H2'	23:B0:2378:G:C8	2.28	0.68
1:AA:105:G:H2'	1:AA:106:C:C6	2.29	0.68
23:B0:181:A:H4'	23:B0:182:G:H4'	1.76	0.68
1:AA:1342:C:H4'	11:AI:125:TYR:CD1	2.28	0.68
1:AA:1342:C:H5'	11:AI:125:TYR:CE1	2.24	0.68
1:AA:130:A:C2	1:AA:264:U:N3	2.61	0.68
1:AA:5:U:O4	7:AE:95:ALA:CB	2.40	0.68
6:AD:205:GLU:HB3	7:AE:107:ARG:HH22	1.57	0.68
1:AA:1281:U:H4'	1:AA:1282:C:OP2	1.92	0.68
2:AV:12:U:O2'	23:B0:1907:C:O4'	2.12	0.68
23:B0:940:G:C3'	23:B0:941:U:H5''	2.11	0.68
1:AA:104:G:C5'	1:AA:172:A:N1	2.55	0.68
1:AA:653:A:O5'	10:AH:56:LYS:HE2	1.93	0.68
18:AP:34:GLU:OE2	18:AP:55:ARG:HD3	1.93	0.68
12:AJ:42:THR:HG23	12:AJ:67:THR:O	1.93	0.68
1:AA:328:C:H4'	1:AA:329:A:O5'	1.94	0.68
1:AA:1503:A:C2	1:AA:1531:A:H2	2.12	0.68
1:AA:954:G:C5'	15:AM:120:LYS:HD3	2.23	0.68
1:AA:1068:G:N2	1:AA:1191:A:N3	2.34	0.68
1:AA:322:C:C4'	22:AT:23:ARG:HB2	2.23	0.68
2:AW:71:G:H5''	23:B0:1925:C:C2	2.23	0.68
1:AA:1339:A:C4	2:AV:31:A:O2'	2.44	0.68
1:AA:626:U:OP1	18:AP:35:LYS:NZ	2.27	0.68
1:AA:1427:U:O2'	23:B0:1704:G:C5'	2.42	0.68
1:AA:512:U:H1'	6:AD:42:GLN:OE1	1.92	0.68
1:AA:265:G:C3'	19:AQ:66:SER:N	2.57	0.68
1:AA:191:G:N3	1:AA:192:U:O4'	2.25	0.68
11:AI:114:TYR:CE2	12:AJ:60:ARG:HG2	2.29	0.68
1:AA:701:C:H5'	1:AA:703:G:O4'	1.93	0.68
23:B0:2381:A:H4'	23:B0:2382:C:C5	2.29	0.68
1:AA:1504:G:P	1:AA:1507:A:H4'	2.32	0.68
1:AA:1459:C:O3'	22:AT:28:ALA:HB2	1.92	0.68
6:AD:205:GLU:CD	7:AE:107:ARG:CZ	2.62	0.68
1:AA:1347:G:H3'	11:AI:108:VAL:O	1.93	0.68
1:AA:69:G:C1'	1:AA:101:A:N1	2.56	0.68
1:AA:586:C:H5''	10:AH:90:GLY:H	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AB:187:LEU:HD12	4:AB:205:ASP:HA	1.74	0.68
23:B0:26:G:H21	23:B0:524:A:H62	1.41	0.68
6:AD:3:ARG:HH22	6:AD:74:GLN:CD	1.98	0.68
1:AA:865:A:H2	1:AA:918:A:H5'	1.58	0.68
1:AA:915:A:H2'	1:AA:916:G:H5'	1.76	0.68
1:AA:397:A:N7	1:AA:547:A:H1'	2.09	0.68
1:AA:436:C:C4	1:AA:437:U:C4	2.82	0.68
23:B0:3877:A:C8	23:B0:3877:A:O5'	2.39	0.68
23:B0:3101:G:H1	23:B0:3188:U:H3	1.41	0.68
1:AA:979:C:N3	16:AN:19:ARG:HG2	2.08	0.68
4:AB:124:SER:HB2	4:AB:125:PRO:CD	2.21	0.68
5:AC:190:ARG:HH11	5:AC:190:ARG:CB	2.07	0.68
1:AA:265:G:C1'	19:AQ:64:PRO:CB	2.72	0.67
1:AA:1416:G:C5	1:AA:1417:G:C1'	2.76	0.67
1:AA:1255:G:N2	1:AA:1276:G:H21	1.90	0.67
5:AC:59:ARG:N	12:AJ:92:THR:HG22	2.07	0.67
1:AA:600:C:H5'	10:AH:129:VAL:HA	1.75	0.67
8:AF:75:LEU:O	8:AF:79:LEU:HG	1.94	0.67
23:B0:1955:G:H2'	23:B0:1956:G:H5'	1.76	0.67
11:AI:93:ARG:HD3	11:AI:97:LYS:HE3	1.74	0.67
23:B0:1033:G:H22	23:B0:1150:C:H2'	1.58	0.67
1:AA:640:A:N3	10:AH:115:SER:CB	2.57	0.67
1:AA:1502:A:H2	1:AA:1505:G:N1	1.90	0.67
1:AA:538:G:H5''	14:AL:114:LYS:CG	2.16	0.67
5:AC:26:LYS:H	5:AC:26:LYS:HD3	1.58	0.67
1:AA:960:U:O3'	1:AA:961:U:P	2.53	0.67
19:AQ:67:LYS:HA	19:AQ:70:ARG:HH12	1.60	0.67
23:B0:3875:A:C4'	55:B5:42:LYS:CA	2.73	0.67
1:AA:778:G:C4'	13:AK:119:CYS:HB3	2.25	0.67
1:AA:375:U:O3'	1:AA:376:G:H5'	1.94	0.67
1:AA:653:A:C8	10:AH:56:LYS:CG	2.77	0.67
7:AE:51:VAL:O	7:AE:55:VAL:HG23	1.93	0.67
23:B0:1021:A:H1'	23:B0:1164:C:H1'	1.76	0.67
23:B0:2261:G:H4'	23:B0:2262:C:OP2	1.94	0.67
21:AS:33:THR:HG22	21:AS:35:SER:H	1.60	0.67
1:AA:538:G:O5'	14:AL:114:LYS:HB2	1.88	0.67
1:AA:1278:U:C5'	1:AA:1279:A:P	2.73	0.67
4:AB:25:ASN:C	4:AB:25:ASN:HD22	1.97	0.67
1:AA:848:G:H2'	1:AA:849:C:N1	2.08	0.67
23:B0:1181:C:C2'	23:B0:1182:U:H5''	2.23	0.67
1:AA:587:G:O2'	1:AA:588:G:OP2	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:2381:A:H4'	23:B0:2382:C:H5	1.60	0.67
23:B0:998:C:H2'	23:B0:999:A:O4'	1.94	0.67
1:AA:130:A:C2	1:AA:263:A:N3	2.63	0.67
1:AA:691:G:C8	13:AK:26:ASN:ND2	2.63	0.67
1:AA:69:G:C4	1:AA:102:G:O6	2.47	0.67
15:AM:81:LEU:H	15:AM:81:LEU:CD2	2.08	0.67
21:AS:62:ILE:HD12	21:AS:66:MET:HG3	1.75	0.67
15:AM:40:ASN:HD22	15:AM:41:PRO:N	1.91	0.67
1:AA:650:G:O2'	1:AA:651:C:H5'	1.94	0.67
8:AF:36:ARG:NH1	8:AF:38:GLU:HG2	2.08	0.67
5:AC:82:GLU:O	5:AC:85:ARG:HB3	1.94	0.67
1:AA:320:C:H5'	1:AA:1434:A:C2	2.29	0.67
23:B0:1112:U:C2'	23:B0:1113:C:H5''	2.24	0.67
1:AA:1183:A:O2'	1:AA:1184:G:OP2	2.09	0.67
1:AA:797:C:OP1	13:AK:124:LYS:HB2	1.94	0.67
1:AA:212:G:O2'	1:AA:213:G:C5'	2.41	0.67
11:AI:93:ARG:NH1	11:AI:97:LYS:HZ1	1.93	0.67
23:B0:539:A:H62	23:B0:2024:U:H3	1.40	0.67
23:B0:2324:G:H4'	23:B0:2326:C:H5''	1.76	0.67
1:AA:322:C:HO2'	1:AA:323:U:H5'	1.59	0.67
1:AA:376:G:H5''	18:AP:5:ARG:CD	2.24	0.67
20:AR:26:LEU:HD21	20:AR:39:VAL:CG2	2.25	0.67
1:AA:253:U:H4'	1:AA:276:G:C4'	2.25	0.67
1:AA:1067:A:N3	1:AA:1068:G:H1'	2.09	0.67
12:AJ:62:HIS:O	16:AN:58:LYS:C	2.33	0.67
23:B0:3875:A:H4'	55:B5:42:LYS:CA	2.24	0.67
1:AA:1113:C:H1'	5:AC:178:LEU:HD21	1.77	0.67
5:AC:179:ARG:HD3	5:AC:206:GLU:HG2	1.76	0.67
23:B0:2508:G:H5''	23:B0:2509:A:H5''	1.76	0.67
23:B0:3110:G:P	23:B0:3149:G:H4'	2.34	0.67
15:AM:34:LEU:HD13	15:AM:41:PRO:HA	1.77	0.67
1:AA:1455:G:H2'	1:AA:1456:A:O4'	1.95	0.67
9:AG:85:TYR:HD1	9:AG:154:TYR:HE1	1.42	0.67
23:B0:1926:U:O2'	23:B0:1928:G:H5'	1.95	0.67
13:AK:14:VAL:HG21	13:AK:40:ILE:HD11	1.77	0.67
1:AA:1016:A:H2'	1:AA:1017:G:O4'	1.94	0.67
16:AN:14:PRO:HB2	16:AN:16:PHE:O	1.95	0.67
1:AA:403:C:C2'	1:AA:404:U:C5'	2.72	0.67
1:AA:436:C:N4	1:AA:437:U:O4	2.27	0.67
1:AA:394:G:C6	1:AA:395:C:N4	2.63	0.67
23:B0:665:A:H3'	23:B0:666:U:C5'	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AB:18:GLY:HA2	4:AB:42:ILE:H	1.59	0.67
15:AM:33:ALA:HA	15:AM:59:TYR:HE2	1.59	0.67
22:AT:56:MET:HE2	22:AT:88:VAL:HG11	1.76	0.67
23:B0:33:C:H42	23:B0:466:A:H61	1.41	0.67
1:AA:865:A:O2'	1:AA:919:A:C5'	2.43	0.66
1:AA:994:A:C4	16:AN:5:ALA:CA	2.67	0.66
1:AA:265:G:H5''	19:AQ:65:ILE:C	2.14	0.66
23:B0:1112:U:H2'	23:B0:1113:C:H5''	1.75	0.66
1:AA:376:G:OP1	18:AP:67:THR:OG1	2.07	0.66
6:AD:36:ARG:H	6:AD:37:PRO:CD	2.02	0.66
1:AA:929:G:P	1:AA:1533:C:N4	2.68	0.66
17:AO:33:THR:HG23	17:AO:63:ARG:HH12	1.59	0.66
13:AK:14:VAL:O	13:AK:15:ALA:HB3	1.95	0.66
23:B0:1473:U:H4'	23:B0:1474:A:C8	2.29	0.66
1:AA:130:A:H5'	19:AQ:63:ARG:HE	0.87	0.66
12:AJ:49:VAL:O	12:AJ:60:ARG:HA	1.95	0.66
23:B0:1856:U:C4	23:B0:3865:A:N1	2.62	0.66
1:AA:1270:C:O2'	1:AA:1314:C:C5'	2.43	0.66
1:AA:1057:G:O2'	1:AA:1058:G:H5'	1.95	0.66
23:B0:1312:G:H5'	23:B0:1314:A:H1'	1.77	0.66
2:AW:19:G:N7	23:B0:895:G:O2'	2.28	0.66
23:B0:1223:G:H4'	23:B0:1224:A:O5'	1.96	0.66
1:AA:662:G:H2'	1:AA:663:A:C8	2.30	0.66
2:AV:44:A:C2'	2:AV:45:G:H5'	2.25	0.66
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.30	0.66
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.59	0.66
19:AQ:97:SER:OG	19:AQ:103:GLY:CA	2.44	0.66
1:AA:103:C:O2'	1:AA:171:A:C6	2.45	0.66
1:AA:292:G:N2	1:AA:608:A:C2	2.60	0.66
21:AS:28:LYS:HG2	21:AS:29:ARG:N	2.06	0.66
1:AA:606:G:C3'	1:AA:607:A:H5'	2.23	0.66
12:AJ:96:ILE:HG22	12:AJ:97:GLU:N	2.10	0.66
17:AO:55:GLY:O	17:AO:59:MET:HG3	1.94	0.66
23:B0:1380:C:H2'	23:B0:1381:G:H5'	1.76	0.66
1:AA:1111:A:C2	5:AC:177:THR:OG1	2.48	0.66
1:AA:835:U:P	20:AR:64:ARG:NH2	2.67	0.66
1:AA:1346:A:C2'	9:AG:10:ARG:HH22	1.97	0.66
10:AH:6:ILE:HD11	10:AH:31:PHE:CD2	2.31	0.66
12:AJ:94:VAL:HG12	12:AJ:95:GLU:N	2.10	0.66
1:AA:1368:G:O2'	1:AA:1369:C:H5'	1.95	0.66
1:AA:320:C:C5'	1:AA:1434:A:C2	2.75	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AQ:101:ARG:CZ	23:B0:731:A:H2	2.07	0.66
23:B0:1141:U:H3	23:B0:2008:C:H5''	1.61	0.66
1:AA:737:A:C2'	8:AF:73:ASN:HD21	2.09	0.66
1:AA:702:A:O4'	23:B0:1840:A:OP1	2.12	0.66
14:AL:33:ARG:HD3	14:AL:62:SER:HB3	1.77	0.66
23:B0:1529:C:H2'	23:B0:1530:U:O4'	1.94	0.66
11:AI:10:ARG:HG2	11:AI:75:ASP:HB2	1.76	0.66
1:AA:371:G:O2'	1:AA:372:C:H5'	1.94	0.66
6:AD:187:ARG:HH21	6:AD:188:LEU:HD12	1.60	0.66
1:AA:254:G:N2	19:AQ:16:GLN:CD	2.49	0.66
5:AC:172:ARG:HB3	5:AC:172:ARG:NH1	2.11	0.66
1:AA:247:G:C2	1:AA:282:A:N3	2.63	0.66
1:AA:1484:C:O3'	23:B0:1943:A:C4'	2.44	0.66
1:AA:1476:G:OP1	23:B0:1707:A:P	2.54	0.66
1:AA:1112:C:N3	5:AC:178:LEU:CA	2.59	0.66
23:B0:1066:G:N1	23:B0:1115:C:C4	2.64	0.66
5:AC:188:LEU:O	5:AC:189:ALA:HB2	1.96	0.66
5:AC:107:GLN:NE2	5:AC:107:GLN:H	1.94	0.66
1:AA:748:C:H1'	1:AA:749:C:C5	2.30	0.66
1:AA:978:A:C6	1:AA:1318:A:C6	2.84	0.66
1:AA:216:C:C3'	1:AA:466:A:H61	2.04	0.66
19:AQ:105:ALA:CA	23:B0:727:U:H4'	2.25	0.66
1:AA:375:U:H2'	1:AA:376:G:O4'	1.96	0.66
23:B0:3149:G:O2'	23:B0:3150:C:H5'	1.96	0.66
5:AC:59:ARG:N	12:AJ:92:THR:CG2	2.59	0.66
5:AC:195:VAL:C	5:AC:196:LEU:HD23	2.15	0.66
1:AA:377:G:P	18:AP:3:LYS:HZ1	2.18	0.66
1:AA:427:U:O2'	1:AA:541:G:OP1	2.03	0.66
7:AE:150:ARG:HG3	7:AE:150:ARG:HH11	1.60	0.66
23:B0:897:A:N6	23:B0:898:C:N4	2.43	0.66
9:AG:16:LEU:HG	11:AI:41:VAL:O	1.95	0.66
1:AA:1016:A:O2'	1:AA:1218:C:H4'	1.96	0.66
1:AA:281:G:O2'	1:AA:282:A:OP2	2.12	0.66
1:AA:1340:A:H4'	2:AV:32:C:C4'	2.25	0.66
1:AA:1425:U:H2'	1:AA:1426:C:C6	2.31	0.66
6:AD:151:LYS:HD2	6:AD:151:LYS:H	1.60	0.66
20:AR:45:SER:OG	20:AR:49:LYS:HB2	1.94	0.66
23:B0:1978:U:H3'	23:B0:1979:C:H5''	1.77	0.66
13:AK:66:LEU:HB3	13:AK:70:LYS:HE3	1.77	0.66
1:AA:893:C:C2'	1:AA:894:G:C5'	2.74	0.66
22:AT:87:LYS:O	22:AT:91:LEU:HD12	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1319:A:C5'	21:AS:5:LEU:HD21	2.24	0.66
1:AA:586:C:H5''	10:AH:90:GLY:N	2.11	0.66
23:B0:515:A:H2'	23:B0:516:G:H5'	1.77	0.66
23:B0:439:C:H2'	23:B0:440:U:O4'	1.95	0.66
1:AA:1317:C:C2	16:AN:16:PHE:CE2	2.84	0.66
1:AA:247:G:P	19:AQ:100:LYS:HE2	2.36	0.66
1:AA:538:G:C5'	14:AL:114:LYS:CD	2.74	0.66
1:AA:335:C:C1'	1:AA:1434:A:C4'	2.74	0.66
1:AA:1473:A:O2'	23:B0:1718:A:N1	2.29	0.66
1:AA:394:G:C6	1:AA:395:C:C4	2.84	0.66
1:AA:186:C:C2	22:AT:60:GLU:OE1	2.49	0.66
1:AA:186:C:H5'	22:AT:81:LYS:HZ3	1.60	0.66
1:AA:526:C:P	14:AL:91:LYS:HE2	2.36	0.66
1:AA:427:U:OP1	6:AD:13:ARG:NH2	2.29	0.66
1:AA:719:C:H1'	20:AR:49:LYS:HG2	1.78	0.66
23:B0:3197:U:O2'	23:B0:2181:A:P	2.53	0.66
23:B0:1191:G:H2'	23:B0:1192:A:H8	1.61	0.66
19:AQ:104:LYS:HB2	23:B0:727:U:C6	2.29	0.65
1:AA:474:U:H2'	1:AA:475:C:C6	2.31	0.65
2:AV:75:C:O2'	23:B0:2047:C:O5'	2.10	0.65
5:AC:155:GLY:O	5:AC:156:ARG:HB2	1.96	0.65
23:B0:128:C:C2'	23:B0:129:A:H5''	2.23	0.65
12:AJ:90:LEU:H	12:AJ:91:PRO:HD2	1.61	0.65
6:AD:187:ARG:NH2	6:AD:188:LEU:HD12	2.10	0.65
1:AA:524:G:H2'	1:AA:525:C:C6	2.31	0.65
7:AE:80:ILE:HD11	7:AE:91:LEU:HD12	1.76	0.65
1:AA:865:A:H2	1:AA:918:A:C5'	2.08	0.65
1:AA:232:G:C2	1:AA:263:A:C2	2.83	0.65
5:AC:172:ARG:HH11	5:AC:172:ARG:HB3	1.61	0.65
1:AA:779:C:O4'	13:AK:120:ARG:HD2	1.96	0.65
1:AA:685:G:O4'	13:AK:39:PRO:HG2	1.97	0.65
11:AI:26:VAL:HB	11:AI:33:PHE:HB2	1.76	0.65
15:AM:94:ARG:CZ	21:AS:81:ARG:HD3	2.26	0.65
4:AB:18:GLY:HA3	4:AB:41:ILE:HA	1.79	0.65
21:AS:17:GLU:HA	21:AS:20:LEU:HD11	1.78	0.65
15:AM:33:ALA:HA	15:AM:59:TYR:CE2	2.32	0.65
23:B0:1471:G:H1	23:B0:2682:C:H42	1.44	0.65
7:AE:40:ARG:HG2	7:AE:68:GLU:OE2	1.96	0.65
1:AA:923:A:N9	1:AA:1398:A:N3	2.43	0.65
1:AA:815:A:C4	1:AA:1527:C:C1'	2.72	0.65
1:AA:1016:A:O2'	1:AA:1218:C:C4'	2.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AJ:60:ARG:O	12:AJ:61:GLU:HB3	1.95	0.65
23:B0:1856:U:C3'	23:B0:3865:A:H8	1.99	0.65
1:AA:778:G:H4'	13:AK:119:CYS:CB	2.26	0.65
19:AQ:104:LYS:CE	23:B0:729:A:H62	2.10	0.65
1:AA:322:C:H4'	22:AT:23:ARG:CB	2.25	0.65
1:AA:1475:G:H2'	1:AA:1476:G:H8	1.62	0.65
1:AA:112:G:H21	1:AA:354:G:H5'	1.57	0.65
1:AA:797:C:OP1	13:AK:124:LYS:CB	2.44	0.65
1:AA:173:U:C6	1:AA:197:A:C2	2.85	0.65
1:AA:1430:C:H4'	23:B0:1721:G:H5'	1.76	0.65
1:AA:929:G:OP1	1:AA:1533:C:N4	2.28	0.65
12:AJ:38:ILE:CG1	12:AJ:71:LEU:HB3	2.26	0.65
1:AA:923:A:N3	1:AA:1395:C:O2	2.28	0.65
1:AA:1402:C:H2'	1:AA:1403:C:O4'	1.97	0.65
23:B0:3128:G:HO2'	23:B0:3174:C:H5'	0.79	0.65
23:B0:1098:G:H3'	23:B0:1099:A:H5''	1.79	0.65
5:AC:64:VAL:HB	5:AC:99:VAL:CB	2.27	0.65
1:AA:848:G:HO3'	1:AA:849:C:C5'	2.02	0.65
7:AE:12:LEU:HD13	7:AE:31:LEU:HB2	1.77	0.65
1:AA:1178:G:OP2	11:AI:97:LYS:NZ	2.28	0.65
23:B0:2794:G:H3'	23:B0:2796:A:H62	1.61	0.65
1:AA:1111:A:N1	5:AC:177:THR:CA	2.59	0.65
1:AA:94:G:C4	1:AA:96:C:C5	2.84	0.65
1:AA:39:G:C8	1:AA:498:U:C4	2.85	0.65
1:AA:1495:U:H2'	1:AA:1496:C:C6	2.31	0.65
1:AA:1182:G:H5'	1:AA:1184:G:C5'	2.26	0.65
1:AA:1321:C:H42	21:AS:37:ARG:NH1	1.94	0.65
23:B0:542:A:C2'	23:B0:543:G:H5'	2.26	0.65
4:AB:84:GLU:HB3	4:AB:219:VAL:HG21	1.78	0.65
23:B0:1918:G:H4'	23:B0:1920:A:N3	2.10	0.65
23:B0:2236:U:C3'	23:B0:2237:C:H5''	2.26	0.65
15:AM:65:LYS:HG3	15:AM:69:GLU:OE2	1.96	0.65
1:AA:1522:U:O2'	1:AA:1523:G:H5'	1.96	0.65
1:AA:815:A:N6	1:AA:1529:G:O2'	2.29	0.65
1:AA:905:U:C4	1:AA:906:G:C5	2.84	0.65
1:AA:391:G:H5'	18:AP:28:ARG:HH21	1.57	0.65
1:AA:99:C:H1'	1:AA:101:A:OP2	1.96	0.65
4:AB:15:VAL:CG2	4:AB:209:ARG:HG3	2.26	0.65
4:AB:71:VAL:O	4:AB:165:VAL:HG23	1.96	0.65
23:B0:1472:C:C2'	23:B0:1473:U:H5'	2.27	0.65
6:AD:131:ARG:H	6:AD:131:ARG:HD2	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:2822:U:H2'	23:B0:2823:G:O4'	1.97	0.65
13:AK:48:ILE:HG22	13:AK:49:GLY:H	1.61	0.65
23:B0:651:C:H2'	23:B0:652:C:H5''	1.78	0.65
1:AA:918:A:H2'	1:AA:919:A:C8	2.32	0.65
23:B0:3127:G:H4'	23:B0:3173:A:N1	2.10	0.65
1:AA:274:A:C2	1:AA:275:G:H1'	2.31	0.65
1:AA:677:U:H3	1:AA:713:G:H22	1.45	0.65
23:B0:2047:C:H42	23:B0:2425:G:H1	1.43	0.65
1:AA:1422:G:C5'	33:BI:60:PRO:CA	2.63	0.65
1:AA:393:A:OP2	18:AP:12:LYS:HE2	1.97	0.65
1:AA:186:C:H5'	22:AT:81:LYS:HD3	1.77	0.65
1:AA:33:A:OP2	1:AA:398:C:C4'	2.43	0.65
1:AA:1430:C:C5'	23:B0:1721:G:C4'	2.73	0.65
4:AB:215:LEU:O	4:AB:219:VAL:HG23	1.97	0.65
20:AR:47:THR:HG23	20:AR:83:GLU:H	1.61	0.65
14:AL:86:ARG:HH11	14:AL:86:ARG:HG3	1.61	0.65
4:AB:74:LYS:HZ1	4:AB:206:ASP:HA	1.61	0.65
1:AA:1393:U:O2	1:AA:1395:C:C6	2.49	0.65
1:AA:923:A:C1'	1:AA:1398:A:H2'	2.26	0.65
12:AJ:61:GLU:OE2	16:AN:49:HIS:HE1	1.79	0.65
23:B0:3875:A:H1'	55:B5:44:GLY:CA	2.26	0.65
1:AA:456:A:N6	1:AA:477:G:N9	2.45	0.65
1:AA:1497:G:H2'	1:AA:1498:U:H5'	1.78	0.65
1:AA:391:G:C5'	18:AP:28:ARG:NH2	2.57	0.65
1:AA:1347:G:C4	11:AI:107:ARG:NH1	2.65	0.65
1:AA:99:C:C1'	1:AA:101:A:OP2	2.17	0.65
8:AF:100:ASN:HD22	20:AR:23:LYS:CG	2.10	0.65
1:AA:1442:G:H2'	1:AA:1442:G:N3	2.11	0.65
7:AE:15:ARG:HD2	7:AE:15:ARG:O	1.96	0.65
1:AA:919:A:N3	1:AA:1080:A:H2	1.95	0.65
2:AV:76:A:C3'	23:B0:2046:C:HO2'	2.07	0.65
1:AA:130:A:N1	1:AA:264:U:N3	2.44	0.65
19:AQ:104:LYS:HZ1	23:B0:730:C:N4	1.94	0.65
1:AA:619:U:C6	6:AD:135:LEU:CD1	2.76	0.65
1:AA:261:U:H3'	22:AT:79:ARG:HH12	1.61	0.65
9:AG:50:ILE:O	9:AG:54:THR:HB	1.96	0.65
1:AA:922:G:C4	1:AA:1398:A:H2	2.14	0.65
23:B0:727:U:H2'	23:B0:728:G:H5''	1.78	0.65
14:AL:110:VAL:O	14:AL:122:THR:HG21	1.97	0.65
1:AA:1484:C:O3'	23:B0:1943:A:O3'	2.15	0.65
2:AV:1:G:N2	2:AV:2:C:C4	2.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1474:G:C4'	23:B0:1717:A:N6	2.57	0.65
23:B0:1119:U:H2'	23:B0:1120:C:C1'	2.27	0.65
23:B0:1656:U:C2'	23:B0:1657:A:H5''	2.25	0.65
4:AB:95:GLN:OE1	4:AB:95:GLN:HA	1.97	0.65
14:AL:55:VAL:HG12	14:AL:56:ALA:N	2.12	0.65
23:B0:927:C:H2'	23:B0:928:G:O4'	1.97	0.65
15:AM:36:LYS:HD2	15:AM:59:TYR:CZ	2.32	0.65
1:AA:1153:C:H2'	1:AA:1154:G:H8	1.62	0.65
8:AF:21:LEU:O	8:AF:24:GLU:HB3	1.97	0.65
7:AE:115:VAL:CG1	7:AE:118:ILE:HG13	2.25	0.64
22:AT:50:GLU:HG2	22:AT:100:ILE:HG13	1.79	0.64
19:AQ:101:ARG:HE	19:AQ:101:ARG:HA	1.62	0.64
1:AA:1075:C:P	4:AB:179:LYS:HZ2	2.20	0.64
23:B0:1472:C:H2'	23:B0:1473:U:H5'	1.79	0.64
1:AA:458:G:H2'	1:AA:459:G:H8	1.62	0.64
23:B0:1811:A:O2'	23:B0:1812:U:H5''	1.97	0.64
1:AA:1393:U:C4	1:AA:1395:C:N4	2.66	0.64
19:AQ:105:ALA:CA	23:B0:727:U:C4'	2.74	0.64
1:AA:287:U:O2'	1:AA:288:A:H5'	1.97	0.64
1:AA:392:G:H2'	1:AA:393:A:C8	2.32	0.64
1:AA:186:C:H1'	22:AT:60:GLU:CD	2.16	0.64
1:AA:1410:G:N3	1:AA:1491:G:C2	2.65	0.64
1:AA:353:A:C8	1:AA:353:A:H5'	2.31	0.64
1:AA:443:C:H2'	1:AA:444:C:H6	1.61	0.64
23:B0:1432:G:H21	23:B0:1596:A:H62	1.45	0.64
1:AA:922:G:C6	1:AA:1396:A:N6	2.65	0.64
1:AA:15:G:C1'	7:AE:19:MET:HE2	2.07	0.64
1:AA:499:A:N3	1:AA:500:G:C1'	2.53	0.64
1:AA:651:C:O2'	1:AA:652:U:O5'	2.14	0.64
23:B0:897:A:C6	23:B0:898:C:C4	2.85	0.64
1:AA:1466:C:H2'	1:AA:1467:G:N7	2.13	0.64
1:AA:921:U:C4	1:AA:1396:A:N1	2.65	0.64
5:AC:177:THR:CG2	5:AC:180:ALA:HB2	2.28	0.64
7:AE:79:GLU:HG3	7:AE:93:PRO:HD2	1.79	0.64
1:AA:69:G:N9	1:AA:102:G:N1	2.45	0.64
1:AA:974:A:P	16:AN:29:ARG:HH22	2.20	0.64
5:AC:29:TYR:OH	16:AN:54:PRO:HG2	1.98	0.64
23:B0:2422:C:H2'	23:B0:2423:G:H8	1.62	0.64
11:AI:114:TYR:CD2	12:AJ:60:ARG:HG2	2.32	0.64
1:AA:522:C:H5''	14:AL:120:TYR:CZ	2.32	0.64
1:AA:1256:A:H5'	1:AA:1258:G:C4	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1141:C:H2'	1:AA:1142:G:C8	2.33	0.64
17:AO:17:ARG:CZ	17:AO:77:ARG:HH11	2.11	0.64
13:AK:40:ILE:HG22	13:AK:41:THR:HG23	1.80	0.64
23:B0:1436:G:H1'	23:B0:1508:G:H21	1.60	0.64
1:AA:922:G:N2	1:AA:1396:A:C1'	2.60	0.64
1:AA:819:A:C8	1:AA:1529:G:N2	2.66	0.64
1:AA:828:A:H2	4:AB:26:PRO:CD	2.11	0.64
1:AA:438:G:OP1	6:AD:125:HIS:HE1	1.79	0.64
23:B0:1861:G:P	55:B5:37:LYS:CA	2.86	0.64
1:AA:236:G:C5'	19:AQ:42:TYR:OH	2.44	0.64
11:AI:49:PRO:O	11:AI:52:ALA:HB3	1.97	0.64
1:AA:1292:U:P	9:AG:41:ARG:NH2	2.70	0.64
5:AC:135:LYS:NZ	7:AE:50:GLU:OE2	2.30	0.64
9:AG:71:PRO:HD3	9:AG:103:TRP:CZ3	2.33	0.64
1:AA:818:G:H3'	1:AA:819:A:C5'	2.28	0.64
1:AA:1234:C:H1'	1:AA:1364:U:O2	1.97	0.64
1:AA:248:C:O4'	1:AA:282:A:H2	1.81	0.64
1:AA:37:U:O2'	1:AA:500:G:H4'	1.98	0.64
23:B0:3184:C:O2'	23:B0:3185:U:H5''	1.98	0.64
1:AA:204:A:H5''	1:AA:205:G:OP1	1.98	0.64
21:AS:64:GLU:O	21:AS:67:VAL:HG23	1.97	0.64
1:AA:702:A:C5'	23:B0:1840:A:H5'	2.27	0.64
23:B0:1474:A:H2'	23:B0:1475:U:H5'	1.79	0.64
17:AO:29:VAL:HG12	17:AO:85:LEU:CD1	2.26	0.64
1:AA:255:G:O3'	19:AQ:17:LYS:NZ	2.22	0.64
23:B0:891:A:N3	23:B0:892:A:C5	2.65	0.64
7:AE:115:VAL:HG11	7:AE:118:ILE:CG1	2.28	0.64
23:B0:1072:U:O4	31:BG:10:LEU:CA	2.46	0.64
1:AA:260:G:H8	22:AT:83:ARG:NH1	1.86	0.64
1:AA:1040:U:H2'	1:AA:1041:A:C8	2.33	0.64
16:AN:22:THR:CB	16:AN:33:VAL:HG21	2.27	0.64
1:AA:588:G:C6	1:AA:753:A:N7	2.66	0.64
23:B0:894:G:C2'	23:B0:895:G:H5''	2.27	0.64
8:AF:9:VAL:HB	8:AF:87:ARG:HB2	1.80	0.64
23:B0:1047:G:H1	23:B0:1130:U:H3	1.46	0.64
13:AK:18:ARG:HB2	13:AK:33:THR:HG23	1.78	0.64
2:AW:11:C:O2'	23:B0:1898:U:C5'	2.45	0.64
1:AA:922:G:H2'	1:AA:923:A:C8	2.32	0.64
1:AA:266:G:H3'	19:AQ:67:LYS:H	1.63	0.64
1:AA:191:G:C6	1:AA:192:U:C5	2.86	0.64
1:AA:187:G:C2	22:AT:105:SER:HB2	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:188:C:H3'	22:AT:105:SER:CB	2.27	0.64
1:AA:292:G:N3	1:AA:608:A:N1	2.45	0.64
1:AA:393:A:O2'	1:AA:394:G:H5'	1.98	0.64
16:AN:27:CYS:SG	16:AN:29:ARG:HB2	2.38	0.64
1:AA:1131:G:H1	1:AA:1143:G:N2	1.95	0.64
5:AC:112:SER:HB2	5:AC:115:LEU:HD12	1.79	0.64
6:AD:70:ILE:HD11	6:AD:100:ARG:NE	2.13	0.64
23:B0:2245:A:H5'	23:B0:2246:A:N7	2.12	0.64
23:B0:2690:A:OP2	23:B0:2694:G:H5'	1.98	0.64
1:AA:118:U:C3'	1:AA:119:A:P	2.86	0.64
11:AI:48:GLU:N	11:AI:49:PRO:HD2	2.13	0.64
1:AA:69:G:H1'	1:AA:102:G:C5	2.33	0.64
21:AS:43:GLU:H	21:AS:43:GLU:CD	2.00	0.64
21:AS:40:ILE:HB	21:AS:67:VAL:O	1.98	0.64
5:AC:155:GLY:O	5:AC:196:LEU:HD22	1.98	0.64
23:B0:65:C:H2'	23:B0:66:U:O4'	1.97	0.64
23:B0:3876:A:H1'	55:B5:46:LEU:CA	2.28	0.64
1:AA:1499:A:O4'	1:AA:1520:G:C4'	2.46	0.63
1:AA:816:A:OP2	1:AA:1527:C:C5'	2.45	0.63
1:AA:262:A:C5'	22:AT:74:LYS:HB3	2.12	0.63
1:AA:830:G:OP1	4:AB:22:LYS:CE	2.46	0.63
1:AA:375:U:H1'	18:AP:28:ARG:NE	2.13	0.63
5:AC:64:VAL:CB	5:AC:99:VAL:HB	2.27	0.63
1:AA:837:G:O3'	1:AA:838:C:C6	2.49	0.63
21:AS:44:MET:O	21:AS:47:HIS:HB2	1.97	0.63
18:AP:18:ARG:HD3	18:AP:35:LYS:HE3	1.79	0.63
23:B0:2510:A:H61	23:B0:2641:A:H61	1.46	0.63
9:AG:42:ILE:HG22	9:AG:120:ILE:HD12	1.79	0.63
23:B0:1075:C:H2'	23:B0:1076:U:O4'	1.99	0.63
2:AW:76:A:N1	23:B0:2532:G:N2	2.42	0.63
2:AV:76:A:C5'	23:B0:2564:U:O4'	2.42	0.63
1:AA:38:G:C1'	1:AA:547:A:C4	2.72	0.63
1:AA:1484:C:C2'	23:B0:1943:A:H4'	2.28	0.63
1:AA:375:U:C2'	18:AP:28:ARG:HD3	2.29	0.63
23:B0:1458:A:H3'	23:B0:1459:U:C5'	2.28	0.63
23:B0:1341:G:H22	23:B0:1664:G:H1	1.46	0.63
1:AA:994:A:H1'	16:AN:8:GLU:HB3	1.80	0.63
19:AQ:104:LYS:HB3	23:B0:727:U:O4'	1.92	0.63
1:AA:762:C:C5'	23:B0:729:A:H61	2.12	0.63
1:AA:322:C:C4'	22:AT:23:ARG:CG	2.73	0.63
1:AA:434:U:H2'	1:AA:435:C:H6	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AE:120:THR:CG2	7:AE:121:LYS:N	2.61	0.63
23:B0:1715:A:H1'	23:B0:1717:A:O4'	1.99	0.63
1:AA:1298:C:C4	9:AG:114:ARG:HD3	2.33	0.63
1:AA:1346:A:C4	9:AG:10:ARG:NH2	2.67	0.63
1:AA:877:C:OP1	10:AH:88:LYS:HE2	1.97	0.63
12:AJ:45:ARG:CZ	16:AN:36:PHE:CD2	2.81	0.63
1:AA:33:A:OP2	1:AA:398:C:H5'	1.97	0.63
23:B0:2491:C:C2'	23:B0:2492:G:H5''	2.29	0.63
1:AA:1015:A:N3	1:AA:1218:C:O2'	2.30	0.63
1:AA:1016:A:C2'	1:AA:1218:C:H4'	2.27	0.63
1:AA:1416:G:C4	1:AA:1417:G:O4'	2.52	0.63
1:AA:188:C:N3	22:AT:106:ALA:HA	2.12	0.63
1:AA:685:G:H4'	13:AK:39:PRO:O	1.99	0.63
1:AA:473:C:OP1	18:AP:75:ARG:NE	2.30	0.63
1:AA:168:G:O2'	1:AA:169:C:H5'	1.97	0.63
1:AA:1142:G:H2'	1:AA:1143:G:O4'	1.97	0.63
1:AA:1151:A:H5'	12:AJ:41:PRO:HA	1.81	0.63
13:AK:18:ARG:HB2	13:AK:33:THR:CG2	2.28	0.63
1:AA:130:A:N3	1:AA:264:U:C6	2.65	0.63
1:AA:255:G:H1'	19:AQ:16:GLN:CB	2.27	0.63
12:AJ:63:PHE:CA	16:AN:57:ARG:O	2.44	0.63
19:AQ:102:GLY:O	23:B0:726:G:N1	2.32	0.63
1:AA:202:G:C1'	1:AA:468:A:O2'	2.45	0.63
1:AA:377:G:P	18:AP:3:LYS:HZ2	2.21	0.63
6:AD:148:VAL:HG11	6:AD:158:ILE:HG21	1.81	0.63
1:AA:21:G:H1'	1:AA:914:A:H62	0.46	0.63
1:AA:191:G:C2	1:AA:192:U:N1	2.66	0.63
1:AA:893:C:HO2'	1:AA:894:G:H5'	1.62	0.63
7:AE:116:THR:HG23	7:AE:117:ASP:OD2	1.98	0.63
23:B0:3149:G:C2'	23:B0:3150:C:P	2.87	0.63
15:AM:93:ARG:HD3	23:B0:900:U:C4'	2.28	0.63
2:AV:11:C:H4'	23:B0:1892:C:C1'	2.28	0.63
1:AA:13:U:C1'	1:AA:914:A:H5'	2.29	0.63
1:AA:1229:A:OP2	15:AM:114:ARG:HD3	1.99	0.63
1:AA:274:A:H2	1:AA:275:G:C1'	2.11	0.63
5:AC:177:THR:HG23	5:AC:180:ALA:HB2	1.81	0.63
1:AA:39:G:C4	1:AA:498:U:C4	2.87	0.63
9:AG:114:ARG:HG2	9:AG:114:ARG:HH11	1.64	0.63
1:AA:237:C:H4'	19:AQ:25:ARG:NH1	2.14	0.63
1:AA:212:G:O3'	1:AA:213:G:OP2	2.08	0.63
23:B0:2198:U:C3'	23:B0:2199:C:H5''	2.27	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AI:118:LYS:O	11:AI:119:ALA:CB	2.45	0.63
1:AA:255:G:C4'	19:AQ:16:GLN:CB	2.76	0.63
1:AA:243:A:H4'	1:AA:244:U:C5'	2.22	0.63
1:AA:188:C:C6	22:AT:105:SER:O	2.51	0.63
1:AA:1483:A:C6	1:AA:1484:C:C2	2.87	0.63
5:AC:58:GLU:CB	12:AJ:92:THR:HG21	2.19	0.63
23:B0:3183:A:C3'	23:B0:3184:C:P	2.87	0.63
1:AA:1112:C:C2	5:AC:178:LEU:O	2.51	0.63
1:AA:1347:G:O2'	1:AA:1348:U:OP2	2.16	0.63
4:AB:74:LYS:NZ	4:AB:206:ASP:HA	2.13	0.63
9:AG:26:PHE:CE2	9:AG:30:ILE:HD11	2.33	0.63
6:AD:152:SER:HB3	6:AD:155:LEU:HD12	1.80	0.63
1:AA:254:G:H1'	19:AQ:15:MET:CB	2.14	0.63
1:AA:116:A:N6	1:AA:313:A:C4	2.67	0.63
1:AA:1473:A:O4'	23:B0:1719:G:C1'	2.47	0.63
1:AA:836:G:OP2	20:AR:61:LYS:HD2	1.99	0.63
18:AP:8:ARG:HB2	18:AP:28:ARG:NH1	2.14	0.63
1:AA:1278:U:OP1	1:AA:1279:A:P	2.56	0.63
1:AA:733:A:O3'	1:AA:734:G:OP2	2.06	0.63
12:AJ:30:SER:OG	12:AJ:81:THR:HA	1.99	0.63
21:AS:52:TYR:HA	21:AS:56:GLN:O	1.99	0.63
7:AE:150:ARG:NH1	7:AE:150:ARG:HG3	2.14	0.63
2:AW:11:C:O2'	23:B0:1898:U:H5'	1.98	0.63
23:B0:514:G:H2'	23:B0:514:G:N3	2.12	0.63
23:B0:1711:C:H4'	23:B0:1712:G:C2	2.34	0.63
23:B0:1464:A:H4'	23:B0:1545:G:H4'	1.81	0.63
1:AA:1505:G:H4'	1:AA:1506:U:C5'	2.29	0.62
1:AA:265:G:C4'	19:AQ:66:SER:N	2.44	0.62
1:AA:262:A:C4'	22:AT:75:ASN:H	2.11	0.62
1:AA:1410:G:N1	1:AA:1491:G:C6	2.68	0.62
9:AG:155:ARG:O	9:AG:156:TRP:HB3	1.98	0.62
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.29	0.62
1:AA:191:G:C6	1:AA:192:U:C6	2.77	0.62
5:AC:13:GLY:HA3	16:AN:57:ARG:NH2	2.14	0.62
1:AA:546:G:OP1	6:AD:73:ARG:HB2	2.00	0.62
23:B0:3877:A:H5''	23:B0:1861:G:P	2.39	0.62
1:AA:375:U:O2'	18:AP:28:ARG:HD3	1.99	0.62
1:AA:69:G:C5	1:AA:102:G:O6	2.52	0.62
21:AS:39:THR:HA	21:AS:70:LYS:HG2	1.81	0.62
4:AB:73:THR:HB	4:AB:170:GLU:OE2	1.99	0.62
1:AA:1097:C:O2'	1:AA:1168:A:H1'	1.97	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1014:A:C5	21:AS:34:TRP:CE2	2.88	0.62
1:AA:1496:C:H1'	1:AA:1517:G:N2	2.14	0.62
19:AQ:21:VAL:HG21	19:AQ:59:ILE:HD11	1.82	0.62
4:AB:184:VAL:N	4:AB:198:ASP:OD2	2.32	0.62
1:AA:919:A:N3	1:AA:1080:A:C2	2.67	0.62
1:AA:264:U:O2'	19:AQ:64:PRO:CA	2.47	0.62
1:AA:1067:A:H4'	1:AA:1068:G:O5'	1.99	0.62
1:AA:248:C:HO2'	1:AA:283:C:H4'	1.64	0.62
7:AE:102:ALA:CB	7:AE:120:THR:HG21	2.29	0.62
1:AA:119:A:N7	1:AA:287:U:C4	2.68	0.62
1:AA:288:A:C2'	1:AA:289:G:O3'	2.48	0.62
5:AC:120:VAL:O	5:AC:124:ILE:HG13	1.99	0.62
9:AG:23:VAL:O	9:AG:27:ILE:HG13	1.99	0.62
18:AP:45:THR:HB	18:AP:46:PRO:HD2	1.80	0.62
5:AC:60:ALA:O	5:AC:61:ALA:HB2	2.00	0.62
1:AA:675:A:O4'	13:AK:116:HIS:CD2	2.53	0.62
1:AA:265:G:C1'	19:AQ:64:PRO:HB2	2.28	0.62
23:B0:2607:C:H1'	23:B0:2761:A:H2'	1.79	0.62
1:AA:1132:C:H2'	1:AA:1133:G:H8	1.64	0.62
14:AL:33:ARG:CD	14:AL:62:SER:HB3	2.29	0.62
23:B0:2236:U:C2'	23:B0:2237:C:H5''	2.29	0.62
23:B0:1429:A:H62	23:B0:1601:U:H5''	1.65	0.62
23:B0:2756:A:H4'	23:B0:2758:A:OP1	1.98	0.62
1:AA:1420:C:H4'	23:B0:1933:G:OP1	2.00	0.62
1:AA:923:A:H5'	1:AA:1398:A:N6	2.15	0.62
1:AA:255:G:H5''	19:AQ:17:LYS:CA	2.30	0.62
22:AT:50:GLU:HG3	22:AT:99:LEU:HD12	1.82	0.62
6:AD:57:ARG:NH2	7:AE:107:ARG:NH1	2.47	0.62
1:AA:320:C:H4'	1:AA:1434:A:N1	2.14	0.62
1:AA:1483:A:N7	1:AA:1484:C:N4	2.48	0.62
5:AC:23:TYR:CD1	12:AJ:11:PHE:CE2	2.87	0.62
4:AB:82:ARG:O	4:AB:86:GLU:HG3	1.98	0.62
1:AA:448:A:H2'	1:AA:449:C:H6	1.64	0.62
9:AG:139:GLU:O	9:AG:143:ARG:HG3	2.00	0.62
1:AA:815:A:O3'	1:AA:1527:C:H4'	1.99	0.62
23:B0:1066:G:C6	23:B0:1115:C:N4	2.62	0.62
12:AJ:71:LEU:O	12:AJ:72:VAL:HB	2.00	0.62
14:AL:43:VAL:HG12	14:AL:44:THR:N	2.14	0.62
11:AI:19:LEU:O	11:AI:20:ARG:HG3	1.99	0.62
23:B0:1196:G:H2'	23:B0:1197:U:O4'	2.00	0.62
1:AA:1501:C:P	1:AA:1508:G:H4'	2.39	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:113:G:C1'	1:AA:354:G:C5'	2.77	0.62
1:AA:292:G:H2'	1:AA:608:A:H61	1.58	0.62
1:AA:1347:G:O2'	1:AA:1348:U:P	2.57	0.62
1:AA:186:C:H4'	22:AT:81:LYS:HB2	1.82	0.62
4:AB:132:LYS:HG2	4:AB:135:GLN:OE1	1.99	0.62
8:AF:94:GLN:NE2	20:AR:32:ARG:HD3	2.09	0.62
16:AN:53:LEU:HB3	16:AN:56:VAL:HG21	1.81	0.62
4:AB:142:LEU:HD22	4:AB:146:GLN:NE2	2.15	0.62
1:AA:1106:G:OP1	5:AC:172:ARG:HG2	2.00	0.62
1:AA:187:G:H2'	22:AT:105:SER:CB	2.30	0.62
1:AA:333:G:O4'	22:AT:16:HIS:HD2	1.74	0.62
15:AM:84:ILE:O	15:AM:86:CYS:N	2.32	0.62
12:AJ:46:ARG:HH11	12:AJ:64:GLU:HB3	1.65	0.62
1:AA:1320:C:N4	21:AS:37:ARG:HD3	2.12	0.62
21:AS:31:ILE:CG2	21:AS:32:LYS:H	2.10	0.62
6:AD:61:LYS:NZ	6:AD:62:GLN:HE21	1.98	0.62
23:B0:1528:C:C2'	23:B0:1529:C:H5''	2.30	0.62
17:AO:29:VAL:HG12	17:AO:85:LEU:HD11	1.82	0.62
14:AL:40:VAL:O	14:AL:40:VAL:HG12	1.99	0.62
23:B0:2571:G:H2'	23:B0:2572:U:C6	2.34	0.62
1:AA:675:A:C1'	13:AK:116:HIS:CG	2.63	0.62
1:AA:13:U:O4'	1:AA:914:A:P	2.58	0.62
2:AW:76:A:C1'	23:B0:2562:G:N2	2.61	0.62
1:AA:1487:G:O2'	1:AA:1488:G:H5'	1.99	0.62
1:AA:323:U:H5'	22:AT:23:ARG:H	1.65	0.62
1:AA:905:U:C6	1:AA:906:G:N7	2.68	0.62
1:AA:1473:A:O2'	23:B0:1718:A:C5	2.53	0.62
1:AA:932:C:H5'	9:AG:3:ARG:HD3	1.78	0.62
18:AP:67:THR:HG22	18:AP:68:ASP:N	2.15	0.62
23:B0:2668:U:H4'	23:B0:2669:C:C5'	2.25	0.62
2:AW:40:C:H2'	2:AW:41:U:H5'	1.82	0.62
6:AD:148:VAL:CG1	6:AD:158:ILE:HD13	2.30	0.62
4:AB:186:ALA:HB3	4:AB:197:VAL:HG11	1.82	0.62
9:AG:78:ARG:HB2	9:AG:156:TRP:HZ3	1.65	0.62
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.35	0.62
19:AQ:76:LEU:HD23	19:AQ:77:VAL:N	2.15	0.62
1:AA:1020:U:H2'	1:AA:1021:G:H8	1.63	0.62
1:AA:74:G:H2'	1:AA:75:C:C6	2.34	0.62
23:B0:1580:C:H2'	23:B0:1581:C:C6	2.35	0.62
1:AA:1457:A:C5	1:AA:1459:C:O2	2.53	0.61
1:AA:1342:C:O2'	11:AI:124:GLN:HA	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:254:G:O2'	19:AQ:15:MET:HB3	1.98	0.61
1:AA:1110:A:C2'	1:AA:1111:A:H5'	2.30	0.61
22:AT:54:LYS:HE3	22:AT:100:ILE:HD11	1.82	0.61
23:B0:1250:A:O2'	23:B0:1251:G:H4'	2.00	0.61
1:AA:837:G:O2'	1:AA:838:C:O4'	2.12	0.61
4:AB:115:LEU:HG	4:AB:153:ARG:NH2	2.14	0.61
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.35	0.61
1:AA:1370:G:O2'	1:AA:1371:G:H5'	2.00	0.61
1:AA:1440:C:H2'	1:AA:1441:G:H5'	1.82	0.61
6:AD:191:ARG:O	6:AD:191:ARG:HD2	2.00	0.61
23:B0:788:G:H5'	23:B0:790:A:H1'	1.81	0.61
1:AA:675:A:C4	13:AK:116:HIS:HB2	2.29	0.61
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.14	0.61
2:AW:75:C:N3	23:B0:2533:U:O2	2.31	0.61
2:AW:75:C:O2'	23:B0:2486:C:C3'	2.48	0.61
1:AA:262:A:H4'	22:AT:75:ASN:H	1.64	0.61
1:AA:254:G:O2'	19:AQ:16:GLN:N	2.33	0.61
1:AA:193:C:H2'	1:AA:194:C:C6	2.36	0.61
1:AA:653:A:O4'	10:AH:56:LYS:HG2	2.00	0.61
4:AB:69:LEU:HD12	4:AB:155:LEU:HD11	1.82	0.61
23:B0:2522:G:N2	23:B0:2625:U:H5''	2.15	0.61
11:AI:4:TYR:CZ	11:AI:88:TYR:HD1	2.17	0.61
23:B0:973:U:H2'	23:B0:974:U:C6	2.35	0.61
23:B0:1147:G:H2'	23:B0:1148:G:C8	2.35	0.61
1:AA:812:C:O2'	1:AA:813:U:OP2	2.17	0.61
1:AA:386:C:O2'	1:AA:387:U:H5'	2.00	0.61
2:AW:76:A:N1	23:B0:2532:G:N1	2.48	0.61
1:AA:246:A:H1'	1:AA:247:G:C1'	2.30	0.61
19:AQ:105:ALA:H	23:B0:727:U:C2'	1.99	0.61
1:AA:406:G:N7	1:AA:496:A:C4	2.68	0.61
7:AE:120:THR:HG23	7:AE:121:LYS:N	2.15	0.61
1:AA:116:A:N6	1:AA:313:A:C1'	2.21	0.61
1:AA:128:G:OP1	19:AQ:2:PRO:HD3	1.96	0.61
9:AG:149:ARG:NH1	13:AK:59:TYR:CD1	2.67	0.61
2:AV:12:U:OP1	23:B0:1891:C:C2'	2.48	0.61
1:AA:1425:U:H2'	1:AA:1426:C:H6	1.65	0.61
4:AB:122:PHE:HE2	4:AB:139:LYS:HG2	1.65	0.61
23:B0:1920:A:H3'	23:B0:1920:A:OP2	2.01	0.61
4:AB:20:GLU:HG2	4:AB:189:ASP:OD2	1.99	0.61
1:AA:403:C:C2	1:AA:404:U:C6	2.89	0.61
1:AA:436:C:O2'	1:AA:437:U:C5'	2.47	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:598:U:H4'	10:AH:94:TYR:CG	2.35	0.61
14:AL:27:LEU:C	14:AL:29:GLY:H	2.04	0.61
6:AD:23:GLY:HA3	6:AD:112:VAL:CG1	2.30	0.61
1:AA:223:U:H5''	22:AT:68:LYS:HZ2	1.64	0.61
23:B0:116:A:N3	23:B0:155:G:H1'	2.15	0.61
23:B0:2727:G:H1	23:B0:2735:C:H5''	1.64	0.61
23:B0:1518:C:H2'	23:B0:1519:G:C8	2.35	0.61
1:AA:1067:A:N3	1:AA:1068:G:C1'	2.64	0.61
1:AA:1490:C:H6	1:AA:1490:C:C5'	2.13	0.61
19:AQ:104:LYS:CB	23:B0:726:G:C4	2.83	0.61
1:AA:551:U:H2'	1:AA:552:U:H6	1.64	0.61
1:AA:1484:C:H2'	1:AA:1485:U:H6	1.65	0.61
1:AA:1112:C:C2	5:AC:178:LEU:N	2.68	0.61
1:AA:691:G:H3'	13:AK:26:ASN:HD21	1.65	0.61
23:B0:2548:G:H2'	23:B0:2549:G:C5'	2.27	0.61
13:AK:19:ALA:HB2	13:AK:80:VAL:HG11	1.82	0.61
4:AB:80:ILE:HD11	4:AB:208:ILE:HG23	1.81	0.61
1:AA:954:G:H21	1:AA:1227:A:H62	1.49	0.61
1:AA:1226:C:N4	15:AM:104:ARG:HD2	2.16	0.61
1:AA:1473:A:C1'	23:B0:1719:G:H1'	2.30	0.61
2:AV:74:C:C4	23:B0:2231:G:N1	2.69	0.61
1:AA:837:G:C3'	1:AA:838:C:C6	2.83	0.61
1:AA:1269:A:C2	1:AA:1313:U:C1'	2.83	0.61
5:AC:50:ALA:O	5:AC:70:VAL:HG12	1.99	0.61
13:AK:84:VAL:CG1	13:AK:95:ILE:HD11	2.31	0.61
5:AC:83:ARG:C	5:AC:85:ARG:H	2.04	0.61
13:AK:48:ILE:HG22	13:AK:49:GLY:N	2.16	0.61
19:AQ:76:LEU:C	19:AQ:76:LEU:HD23	2.20	0.61
20:AR:52:PRO:O	20:AR:56:THR:HG23	2.00	0.61
1:AA:253:U:N1	1:AA:275:G:O2'	2.32	0.61
23:B0:3877:A:C3'	23:B0:1861:G:C8	2.76	0.61
1:AA:335:C:C1'	1:AA:1434:A:O4'	2.47	0.61
1:AA:905:U:H2'	1:AA:906:G:O4'	2.00	0.61
1:AA:300:A:H1'	1:AA:565:U:C2	2.36	0.61
14:AL:46:LYS:HG2	14:AL:47:LYS:N	2.16	0.61
14:AL:27:LEU:C	14:AL:29:GLY:N	2.54	0.61
4:AB:97:TRP:HZ2	4:AB:102:LEU:HD13	1.66	0.61
9:AG:78:ARG:HB2	9:AG:156:TRP:CZ3	2.36	0.61
2:AW:76:A:O4'	23:B0:2486:C:C5'	2.48	0.61
1:AA:131:C:O3'	1:AA:262:A:H1'	2.01	0.61
1:AA:779:C:O2'	13:AK:120:ARG:NH1	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:501:C:H2'	1:AA:502:G:C8	2.34	0.61
1:AA:390:C:H2'	1:AA:391:G:H8	1.66	0.61
23:B0:1093:U:O4	23:B0:1094:C:C4	2.54	0.61
11:AI:44:VAL:HG12	11:AI:51:ARG:HH12	1.66	0.61
15:AM:84:ILE:HG22	21:AS:65:ASN:ND2	2.15	0.61
15:AM:10:PRO:O	15:AM:45:VAL:HG11	2.01	0.61
6:AD:61:LYS:NZ	6:AD:62:GLN:NE2	2.49	0.61
15:AM:54:VAL:O	15:AM:58:GLU:HG2	2.01	0.61
7:AE:80:ILE:CD1	7:AE:91:LEU:HB2	2.30	0.61
22:AT:96:GLY:O	22:AT:97:ALA:HB3	2.01	0.61
23:B0:2223:U:H2'	23:B0:2224:U:O4'	2.01	0.61
1:AA:265:G:H5'	19:AQ:65:ILE:N	2.10	0.61
23:B0:3874:C:H2'	23:B0:3875:A:C5'	2.30	0.61
1:AA:779:C:O4'	13:AK:120:ARG:CB	2.48	0.61
1:AA:37:U:H5'	1:AA:501:C:OP1	2.00	0.61
1:AA:438:G:OP1	6:AD:125:HIS:CE1	2.54	0.61
1:AA:333:G:O2'	22:AT:16:HIS:CE1	2.52	0.61
1:AA:1255:G:H2'	1:AA:1258:G:N2	2.13	0.61
23:B0:3184:C:C2'	23:B0:3185:U:H5''	2.31	0.61
23:B0:1094:C:O2'	23:B0:1096:A:H2	1.83	0.61
14:AL:28:LYS:HD2	14:AL:33:ARG:HH12	1.65	0.61
1:AA:179:A:N1	1:AA:196:A:N7	2.48	0.61
2:AV:44:A:O2'	2:AV:45:G:H5'	2.00	0.61
23:B0:362:C:H2'	23:B0:363:G:H4'	1.82	0.61
5:AC:129:ALA:HB3	5:AC:132:ARG:HD2	1.82	0.61
1:AA:796:C:OP1	13:AK:123:LYS:HE2	2.01	0.61
1:AA:953:G:H1'	15:AM:125:ARG:CB	2.31	0.61
1:AA:266:G:H5'	19:AQ:67:LYS:N	2.15	0.61
23:B0:891:A:N3	23:B0:892:A:N7	2.48	0.61
19:AQ:104:LYS:HE3	23:B0:729:A:N6	2.15	0.61
1:AA:319:G:C5'	1:AA:1468:A:C4'	2.74	0.61
1:AA:27:G:C2	1:AA:557:G:N3	2.69	0.61
1:AA:1492:A:OP1	14:AL:47:LYS:HA	2.00	0.61
15:AM:40:ASN:ND2	15:AM:41:PRO:HD2	2.15	0.61
6:AD:25:ARG:O	6:AD:27:TYR:N	2.33	0.61
1:AA:377:G:OP1	18:AP:3:LYS:NZ	2.34	0.61
23:B0:181:A:H5''	23:B0:182:G:OP1	2.00	0.61
23:B0:1500:U:H3	23:B0:1520:G:H22	1.48	0.61
5:AC:47:LEU:HD23	5:AC:68:VAL:HG11	1.83	0.61
4:AB:114:ARG:NH1	4:AB:118:LEU:HD21	2.15	0.61
1:AA:247:G:C2	1:AA:282:A:C2	2.89	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AQ:104:LYS:O	19:AQ:105:ALA:HB2	2.01	0.60
1:AA:456:A:C6	1:AA:477:G:C4	2.86	0.60
1:AA:476:U:C2'	1:AA:477:G:C5'	2.79	0.60
1:AA:102:G:N3	1:AA:151:A:H2	1.98	0.60
22:AT:43:LEU:HD12	22:AT:55:ILE:HD12	1.81	0.60
1:AA:651:C:C2	1:AA:652:U:C5	2.89	0.60
23:B0:161:U:H4'	23:B0:194:G:H21	1.66	0.60
1:AA:1190:G:C2'	1:AA:1191:A:OP2	2.50	0.60
1:AA:1434:A:H3'	1:AA:1435:G:H5'	1.75	0.60
1:AA:1483:A:C2'	1:AA:1484:C:C5	2.85	0.60
1:AA:299:G:C2	1:AA:566:G:O6	2.55	0.60
5:AC:191:THR:CG2	5:AC:192:THR:N	2.64	0.60
4:AB:140:HIS:O	4:AB:143:GLU:HB2	2.01	0.60
23:B0:1427:G:H2'	23:B0:1428:G:H5'	1.82	0.60
1:AA:1470:G:O2'	1:AA:1471:G:H5'	2.02	0.60
1:AA:675:A:O2'	13:AK:116:HIS:ND1	2.33	0.60
1:AA:893:C:N3	1:AA:894:G:C5	2.69	0.60
1:AA:39:G:N1	1:AA:404:U:C4	2.69	0.60
19:AQ:101:ARG:NE	19:AQ:101:ARG:HA	2.16	0.60
12:AJ:30:SER:HB3	12:AJ:84:GLN:HE21	1.67	0.60
5:AC:191:THR:HG22	5:AC:192:THR:N	2.15	0.60
23:B0:1139:A:H1'	23:B0:2496:C:H5'	1.83	0.60
6:AD:157:LEU:HD22	6:AD:161:ASN:ND2	2.16	0.60
23:B0:317:U:C3'	23:B0:318:G:H5''	2.31	0.60
1:AA:293:G:C5'	1:AA:609:A:C6	2.81	0.60
16:AN:11:LYS:O	16:AN:13:THR:N	2.35	0.60
1:AA:893:C:O2'	1:AA:894:G:C5'	2.47	0.60
19:AQ:104:LYS:CA	23:B0:727:U:H1'	2.30	0.60
1:AA:835:U:P	20:AR:60:GLY:HA3	2.40	0.60
1:AA:1475:G:H2'	1:AA:1476:G:C8	2.36	0.60
1:AA:46:G:C6	1:AA:366:C:C2	2.89	0.60
1:AA:1256:A:C5'	1:AA:1258:G:N9	2.63	0.60
1:AA:1247:U:O2'	1:AA:1248:A:H5'	2.02	0.60
5:AC:20:SER:HB3	5:AC:22:TRP:HE1	1.67	0.60
4:AB:34:ALA:O	4:AB:41:ILE:N	2.31	0.60
5:AC:26:LYS:N	5:AC:26:LYS:HD3	2.17	0.60
23:B0:1576:G:H8	23:B0:1576:G:OP2	1.85	0.60
23:B0:414:A:H2'	23:B0:415:A:O4'	2.01	0.60
23:B0:1352:G:H2'	23:B0:1353:A:H8	1.66	0.60
23:B0:540:G:H2'	23:B0:541:C:H4'	1.82	0.60
1:AA:1416:G:H5''	1:AA:1417:G:P	2.41	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:322:C:C4'	22:AT:23:ARG:CD	2.31	0.60
23:B0:3877:A:C2	23:B0:1861:G:N2	2.20	0.60
1:AA:108:G:C8	22:AT:12:ALA:CB	2.83	0.60
1:AA:1474:G:C2'	23:B0:1705:U:H4'	2.27	0.60
7:AE:76:ILE:HD13	7:AE:142:LEU:HD11	1.84	0.60
23:B0:941:U:H2'	23:B0:942:U:O4'	2.02	0.60
1:AA:848:G:H2'	1:AA:849:C:C6	2.36	0.60
18:AP:52:ASP:OD2	18:AP:55:ARG:HG3	2.00	0.60
2:AV:40:C:H2'	2:AV:41:U:H5'	1.82	0.60
6:AD:32:ALA:C	6:AD:34:GLU:H	2.04	0.60
23:B0:1763:G:H2'	23:B0:1764:A:H4'	1.83	0.60
1:AA:1297:C:P	15:AM:44:ARG:NH2	2.75	0.60
1:AA:1434:A:OP1	1:AA:1435:G:OP2	2.19	0.60
1:AA:1003:G:H2'	1:AA:2003:G:C8	2.36	0.60
1:AA:1117:G:H8	1:AA:1117:G:H5'	1.66	0.60
4:AB:33:TYR:O	4:AB:34:ALA:HB2	2.01	0.60
4:AB:143:GLU:O	4:AB:147:LYS:HG3	2.00	0.60
1:AA:1091:U:O2	1:AA:1093:A:C8	2.54	0.60
23:B0:742:G:H2'	23:B0:1766:U:H1'	1.83	0.60
13:AK:69:ALA:O	13:AK:73:MET:HG2	2.02	0.60
1:AA:1053:G:C4'	1:AA:1054:C:H5'	2.31	0.60
1:AA:18:C:O2	1:AA:918:A:C6	2.54	0.60
1:AA:1016:A:O4'	1:AA:1218:C:H4'	2.01	0.60
16:AN:8:GLU:O	16:AN:11:LYS:HB2	2.02	0.60
1:AA:333:G:C2'	22:AT:16:HIS:NE2	2.64	0.60
1:AA:377:G:OP2	18:AP:3:LYS:NZ	2.33	0.60
1:AA:991:U:O2'	1:AA:992:U:H5'	2.02	0.60
5:AC:79:ARG:HE	5:AC:82:GLU:HG2	1.66	0.60
9:AG:38:LEU:HD12	9:AG:38:LEU:O	2.01	0.60
5:AC:33:LEU:HD11	16:AN:53:LEU:CD2	2.32	0.60
23:B0:2783:U:H2'	23:B0:2785:A:N7	2.16	0.60
1:AA:227:G:H2'	1:AA:228:A:O4'	2.01	0.60
1:AA:923:A:C2	1:AA:1395:C:N3	2.69	0.60
1:AA:323:U:C3'	22:AT:22:ARG:CB	2.67	0.60
2:AV:56:C:O3'	28:BD:74:ILE:CA	2.49	0.60
1:AA:905:U:C3'	1:AA:906:G:O5'	2.49	0.60
23:B0:1073:G:H1'	23:B0:1099:A:N1	2.17	0.60
1:AA:259:G:OP2	22:AT:83:ARG:HG2	2.01	0.60
1:AA:375:U:O3'	1:AA:376:G:C5'	2.49	0.60
1:AA:317:G:OP1	1:AA:353:A:N6	2.21	0.60
23:B0:1127:C:H2'	23:B0:1128:G:H8	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:1337:G:H1'	23:B0:1632:A:N6	2.17	0.60
18:AP:4:ILE:HG13	18:AP:64:ALA:HB1	1.83	0.60
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.36	0.60
23:B0:83:A:H4'	23:B0:84:G:O4'	2.01	0.60
1:AA:293:G:P	1:AA:609:A:N6	2.68	0.60
1:AA:919:A:C2	1:AA:1080:A:C2	2.84	0.60
1:AA:1014:A:C5	21:AS:34:TRP:CD2	2.89	0.60
1:AA:254:G:H4'	19:AQ:18:THR:HG21	1.83	0.60
1:AA:1111:A:H61	5:AC:176:HIS:C	2.05	0.60
23:B0:3866:A:H1'	55:B5:194:ALA:CA	2.32	0.60
14:AL:24:VAL:O	14:AL:24:VAL:HG12	2.02	0.60
4:AB:115:LEU:O	4:AB:119:GLU:HG3	2.00	0.60
23:B0:1194:U:H2'	23:B0:1195:U:C6	2.37	0.60
23:B0:317:U:H2'	23:B0:318:G:H5''	1.82	0.60
1:AA:28:G:O2'	1:AA:296:U:H5''	2.01	0.60
23:B0:1685:A:H1'	23:B0:1686:A:C5	2.36	0.60
23:B0:1686:A:N3	23:B0:1686:A:H2'	2.17	0.60
23:B0:1921:A:H2'	23:B0:1922:U:H5''	1.83	0.60
1:AA:425:G:O2'	1:AA:426:G:H5'	2.02	0.60
7:AE:24:ARG:HG2	7:AE:24:ARG:HH11	1.66	0.60
2:AW:75:C:HO2'	23:B0:2486:C:C3'	2.15	0.60
1:AA:1067:A:C4'	1:AA:1068:G:O5'	2.50	0.60
1:AA:216:C:C5'	1:AA:465:C:H41	2.14	0.60
1:AA:246:A:H1'	1:AA:247:G:H1'	1.84	0.60
1:AA:323:U:O4'	22:AT:19:SER:HB2	2.02	0.60
1:AA:1473:A:O2'	23:B0:1718:A:C4	2.55	0.60
1:AA:292:G:C2	1:AA:608:A:N1	2.70	0.60
6:AD:23:GLY:HA3	6:AD:112:VAL:HG12	1.84	0.60
2:AW:44:A:H3'	2:AW:45:G:P	2.41	0.60
1:AA:345:C:OP1	38:BN:49:ALA:CA	2.50	0.60
1:AA:458:G:H2'	1:AA:459:G:C8	2.36	0.60
10:AH:64:LYS:HG2	10:AH:79:VAL:HG21	1.84	0.60
9:AG:72:ARG:HG2	9:AG:142:GLU:OE1	2.02	0.60
24:B9:67:C:H2'	24:B9:68:A:H5'	1.84	0.60
23:B0:3127:G:N2	23:B0:3173:A:O2'	2.27	0.59
1:AA:1016:A:H1'	1:AA:1218:C:H4'	1.79	0.59
1:AA:132:C:C5'	1:AA:262:A:O4'	2.43	0.59
5:AC:6:HIS:HD2	5:AC:8:ILE:HB	1.66	0.59
1:AA:406:G:C8	1:AA:496:A:C5	2.90	0.59
2:AV:74:C:N3	23:B0:2231:G:C2	2.70	0.59
1:AA:537:G:H5''	14:AL:113:ARG:CZ	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:3128:G:C2'	23:B0:3174:C:H5'	2.22	0.59
1:AA:959:A:H3'	1:AA:960:U:H5''	1.82	0.59
1:AA:274:A:C2	1:AA:275:G:C1'	2.85	0.59
1:AA:246:A:H4'	1:AA:247:G:C4'	2.23	0.59
1:AA:538:G:H5'	14:AL:114:LYS:HD3	1.83	0.59
1:AA:402:G:H5'	1:AA:621:A:N3	2.17	0.59
1:AA:397:A:C8	1:AA:547:A:O2'	2.54	0.59
1:AA:474:U:H2'	1:AA:475:C:H6	1.65	0.59
23:B0:3148:G:C2'	23:B0:3149:G:H5'	2.33	0.59
23:B0:1066:G:H21	23:B0:1096:A:H8	1.50	0.59
23:B0:1119:U:C2'	23:B0:1120:C:O4'	2.50	0.59
6:AD:33:MET:O	6:AD:37:PRO:HG3	2.02	0.59
1:AA:653:A:O4'	10:AH:56:LYS:CE	2.46	0.59
23:B0:366:U:H2'	23:B0:367:G:H8	1.67	0.59
21:AS:13:ASP:HA	21:AS:16:LEU:HB3	1.83	0.59
1:AA:513:C:O2'	1:AA:514:C:H5'	2.03	0.59
23:B0:2691:C:H3'	23:B0:2692:A:C5'	2.32	0.59
23:B0:766:A:H2'	23:B0:767:G:C8	2.37	0.59
1:AA:996:A:H2'	1:AA:997:U:C6	2.37	0.59
18:AP:81:ARG:HG3	18:AP:83:GLU:HG2	1.84	0.59
1:AA:815:A:O3'	1:AA:1527:C:C4'	2.50	0.59
5:AC:6:HIS:NE2	5:AC:8:ILE:HD12	2.17	0.59
1:AA:246:A:C2	1:AA:278:G:N3	2.71	0.59
1:AA:397:A:N6	1:AA:547:A:C1'	2.32	0.59
1:AA:107:G:H2'	1:AA:108:G:H5'	1.83	0.59
1:AA:205:G:H21	1:AA:207:C:H5	1.44	0.59
2:AW:41:U:H2'	2:AW:42:G:O4'	2.03	0.59
1:AA:1430:C:C4'	23:B0:1721:G:H5'	2.31	0.59
6:AD:25:ARG:C	6:AD:27:TYR:N	2.55	0.59
12:AJ:15:THR:HG23	12:AJ:94:VAL:HG22	1.85	0.59
7:AE:80:ILE:HD11	7:AE:91:LEU:HB2	1.83	0.59
23:B0:2185:U:H2'	23:B0:2186:G:C8	2.37	0.59
23:B0:81:C:H2'	23:B0:82:G:O4'	2.02	0.59
23:B0:3127:G:O2'	23:B0:3174:C:H1'	2.03	0.59
23:B0:3128:G:O2'	23:B0:3174:C:H5''	1.93	0.59
1:AA:253:U:C2	1:AA:275:G:O2'	2.37	0.59
1:AA:265:G:H5'	19:AQ:65:ILE:HA	1.45	0.59
12:AJ:60:ARG:HD2	12:AJ:60:ARG:N	2.17	0.59
5:AC:91:LEU:CD2	5:AC:99:VAL:HG13	2.27	0.59
1:AA:393:A:OP1	18:AP:12:LYS:HD3	2.02	0.59
1:AA:600:C:C5'	10:AH:129:VAL:HA	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AM:94:ARG:HH22	21:AS:81:ARG:HD3	1.65	0.59
23:B0:895:G:H5'	23:B0:895:G:C8	2.35	0.59
1:AA:1381:U:O2'	1:AA:1382:C:H5'	2.02	0.59
1:AA:109:A:H2'	1:AA:326:G:N2	2.17	0.59
23:B0:198:A:H5''	23:B0:199:A:H5'	1.82	0.59
1:AA:246:A:N3	1:AA:247:G:H1'	2.17	0.59
7:AE:118:ILE:HG22	7:AE:119:LEU:H	1.66	0.59
1:AA:619:U:C2	6:AD:135:LEU:HG	2.29	0.59
1:AA:1484:C:H5''	23:B0:1943:A:H1'	1.81	0.59
1:AA:1473:A:H4'	23:B0:1719:G:C4'	2.31	0.59
2:AV:74:C:O3'	23:B0:2581:A:OP2	2.20	0.59
11:AI:79:LEU:HD23	11:AI:101:PHE:O	2.02	0.59
1:AA:69:G:C2'	1:AA:101:A:C2	2.85	0.59
12:AJ:46:ARG:NH1	12:AJ:64:GLU:HG2	2.18	0.59
1:AA:737:A:H1'	8:AF:73:ASN:ND2	2.17	0.59
23:B0:918:A:C2'	23:B0:919:U:H5''	2.30	0.59
7:AE:65:ASN:O	7:AE:65:ASN:CG	2.40	0.59
23:B0:1147:G:H2'	23:B0:1148:G:H8	1.67	0.59
23:B0:1057:A:H3'	23:B0:1058:G:C5'	2.32	0.59
23:B0:860:U:C2'	23:B0:861:G:H5'	2.32	0.59
23:B0:1455:C:O2'	23:B0:1644:G:H5''	2.03	0.59
23:B0:2217:G:H4'	23:B0:2219:U:H5	1.68	0.59
1:AA:254:G:HO2'	1:AA:255:G:H5'	1.63	0.59
23:B0:3867:G:N3	55:B5:44:GLY:CA	2.62	0.59
1:AA:248:C:O4'	1:AA:282:A:C2	2.55	0.59
7:AE:122:GLU:O	7:AE:123:LEU:HD23	2.03	0.59
1:AA:1473:A:C4'	23:B0:1719:G:C4'	2.80	0.59
1:AA:69:G:C1'	1:AA:102:G:C6	2.85	0.59
1:AA:757:U:H4'	1:AA:878:G:N2	2.17	0.59
4:AB:97:TRP:HH2	4:AB:176:GLU:CD	2.06	0.59
1:AA:1521:G:H2'	1:AA:1522:U:C6	2.38	0.59
23:B0:2018:G:H3'	23:B0:2019:C:C5'	2.32	0.59
23:B0:241:C:O2'	23:B0:242:A:H5''	2.03	0.59
1:AA:518:C:H5''	1:AA:519:C:C6	2.38	0.59
1:AA:1308:U:C5	15:AM:99:ARG:NH1	2.71	0.59
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.37	0.59
1:AA:255:G:C1'	19:AQ:16:GLN:NE2	2.11	0.59
7:AE:118:ILE:CG2	7:AE:119:LEU:N	2.65	0.59
22:AT:57:ARG:HH21	22:AT:100:ILE:CG2	2.16	0.59
1:AA:435:C:H2'	1:AA:436:C:H6	1.67	0.59
2:AV:74:C:O3'	23:B0:2581:A:H5'	1.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.17	0.59
1:AA:735:C:O2'	20:AR:75:ILE:HD12	2.03	0.59
17:AO:11:VAL:HG21	17:AO:34:LEU:HD12	1.83	0.59
1:AA:921:U:O4	1:AA:1396:A:C6	2.56	0.59
16:AN:12:ARG:O	16:AN:14:PRO:N	2.36	0.59
1:AA:131:C:C4'	1:AA:262:A:O2'	2.49	0.59
1:AA:254:G:H5'	19:AQ:43:LEU:HD13	1.85	0.59
1:AA:1064:G:H1'	1:AA:1190:G:H21	1.68	0.59
1:AA:406:G:N2	1:AA:437:U:O2	2.33	0.59
1:AA:1484:C:C5'	23:B0:1943:A:C1'	2.74	0.59
1:AA:1211:U:H5'	1:AA:1212:U:P	2.43	0.59
1:AA:99:C:O2	1:AA:101:A:C8	2.56	0.59
4:AB:120:ALA:O	4:AB:124:SER:HB3	2.02	0.59
1:AA:737:A:C1'	8:AF:73:ASN:ND2	2.65	0.59
1:AA:1269:A:N1	1:AA:1313:U:O4'	2.35	0.59
1:AA:377:G:OP1	18:AP:3:LYS:CD	2.51	0.59
1:AA:1123:A:O2'	12:AJ:38:ILE:HG22	2.03	0.59
6:AD:151:LYS:CD	6:AD:151:LYS:H	2.16	0.59
9:AG:51:GLN:HA	9:AG:51:GLN:OE1	2.02	0.59
1:AA:705:U:O3'	1:AA:706:A:P	2.60	0.59
9:AG:122:HIS:HA	9:AG:125:MET:HE3	1.85	0.59
1:AA:21:G:O2'	1:AA:914:A:C6	2.55	0.59
1:AA:1345:U:H5''	11:AI:120:ARG:HH11	1.67	0.59
1:AA:1069:C:HO2'	1:AA:1192:C:H1'	1.66	0.59
1:AA:1234:C:C4'	1:AA:1365:G:OP1	2.49	0.59
1:AA:258:G:O3'	22:AT:87:LYS:HE2	2.01	0.59
5:AC:64:VAL:HB	5:AC:99:VAL:CG2	2.33	0.59
2:AV:41:U:H2'	2:AV:42:G:O4'	2.03	0.59
8:AF:10:LEU:CD1	8:AF:59:TYR:HB3	2.29	0.59
23:B0:830:C:O2'	23:B0:852:U:H5''	2.03	0.59
4:AB:98:LEU:O	4:AB:101:MET:HG3	2.01	0.59
4:AB:101:MET:CA	4:AB:108:ILE:HD12	2.33	0.59
23:B0:67:G:H21	23:B0:72:A:H2'	1.67	0.59
1:AA:686:U:O2'	1:AA:687:A:H8	1.84	0.59
23:B0:2181:A:H2'	23:B0:2182:A:H5'	1.85	0.59
9:AG:42:ILE:HG23	9:AG:117:ALA:HA	1.84	0.59
5:AC:47:LEU:CD1	5:AC:47:LEU:H	2.15	0.59
24:B9:67:C:C2'	24:B9:68:A:H5'	2.32	0.59
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.38	0.59
23:B0:2368:G:H5''	23:B0:2369:U:O4'	2.02	0.59
23:B0:1621:C:H4'	23:B0:1626:A:H61	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:B9:25:G:H2'	24:B9:26:G:H5'	1.84	0.59
10:AH:83:ILE:HG23	10:AH:83:ILE:O	2.03	0.59
1:AA:20:U:H3	1:AA:915:A:N6	1.85	0.59
2:AW:76:A:O4'	23:B0:2486:C:H5'	2.03	0.59
1:AA:265:G:C1'	19:AQ:64:PRO:HB3	2.33	0.59
1:AA:1110:A:N6	1:AA:1111:A:C6	2.71	0.59
12:AJ:62:HIS:C	16:AN:59:ALA:N	2.38	0.59
1:AA:39:G:O2'	1:AA:40:C:H5'	2.03	0.59
1:AA:332:G:OP2	22:AT:10:LEU:CG	2.47	0.59
23:B0:1088:A:H2'	23:B0:1089:C:O4'	2.03	0.59
1:AA:1255:G:O2'	1:AA:1258:G:N2	2.35	0.59
5:AC:10:PHE:CZ	5:AC:178:LEU:HD13	2.38	0.59
15:AM:81:LEU:HD23	15:AM:81:LEU:N	2.17	0.59
23:B0:576:A:H2	23:B0:580:A:H62	1.51	0.59
21:AS:25:LYS:HD2	21:AS:25:LYS:H	1.68	0.59
1:AA:815:A:C2	1:AA:1528:U:C6	2.91	0.58
1:AA:1392:G:O4'	1:AA:1531:A:H4'	2.02	0.58
1:AA:1109:C:P	5:AC:176:HIS:NE2	2.76	0.58
1:AA:547:A:P	1:AA:548:G:O5'	2.61	0.58
23:B0:3877:A:OP1	23:B0:1861:G:OP2	2.20	0.58
1:AA:1497:G:H1'	1:AA:1518:A:H2	1.62	0.58
1:AA:1348:U:OP1	11:AI:110:GLU:HB3	2.03	0.58
1:AA:104:G:C5'	1:AA:172:A:H2	2.09	0.58
23:B0:2547:C:H2'	23:B0:2548:G:C8	2.38	0.58
1:AA:736:C:H2'	1:AA:737:A:C8	2.38	0.58
18:AP:51:VAL:O	18:AP:51:VAL:HG12	2.02	0.58
9:AG:95:ARG:NH1	9:AG:95:ARG:HG3	2.17	0.58
23:B0:1029:C:C2'	23:B0:1030:U:H5''	2.33	0.58
23:B0:2727:G:O2'	23:B0:2728:A:H5''	2.03	0.58
1:AA:505:G:H2'	1:AA:506:G:C8	2.37	0.58
23:B0:191:G:O2'	23:B0:192:G:H5'	2.03	0.58
16:AN:24:CYS:HB3	16:AN:28:GLY:H	1.66	0.58
1:AA:1014:A:H5'	21:AS:14:HIS:CB	2.33	0.58
1:AA:1416:G:C2'	1:AA:1417:G:C4'	2.70	0.58
1:AA:1483:A:C8	1:AA:1484:C:C4	2.91	0.58
12:AJ:45:ARG:O	12:AJ:64:GLU:HA	2.03	0.58
21:AS:5:LEU:O	21:AS:6:LYS:CB	2.52	0.58
4:AB:130:ARG:HD2	4:AB:131:PRO:HD2	1.85	0.58
2:AV:41:U:H5'	2:AV:41:U:C6	2.26	0.58
1:AA:651:C:H2'	1:AA:652:U:H6	1.67	0.58
23:B0:800:U:H3'	23:B0:804:C:N4	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AW:16:U:O2'	2:AW:17:U:OP2	2.21	0.58
23:B0:877:G:H21	23:B0:926:C:H41	1.50	0.58
6:AD:157:LEU:HD22	6:AD:161:ASN:HD21	1.67	0.58
23:B0:181:A:H4'	23:B0:182:G:C5'	2.33	0.58
1:AA:1317:C:C5	16:AN:16:PHE:CG	2.91	0.58
1:AA:234:C:O2'	19:AQ:70:ARG:CG	2.43	0.58
22:AT:10:LEU:HD12	22:AT:12:ALA:HB3	1.85	0.58
1:AA:1496:C:O2'	1:AA:1517:G:C6	2.56	0.58
1:AA:113:G:C1'	1:AA:354:G:H5'	2.32	0.58
1:AA:798:G:P	13:AK:122:LYS:HZ3	2.26	0.58
23:B0:3098:U:C5	23:B0:3099:U:C4	2.90	0.58
23:B0:1181:C:C3'	23:B0:1182:U:H5''	2.32	0.58
4:AB:133:LYS:O	4:AB:137:ARG:HG3	2.04	0.58
11:AI:93:ARG:NH1	11:AI:97:LYS:NZ	2.51	0.58
1:AA:1441:G:H4'	1:AA:1442:G:N7	2.18	0.58
23:B0:45:C:H5''	23:B0:192:G:N7	2.19	0.58
4:AB:156:LYS:O	4:AB:156:LYS:HD3	2.03	0.58
1:AA:1130:A:H3'	1:AA:1130:A:OP2	2.02	0.58
1:AA:1231:G:H5''	11:AI:126:SER:OG	2.04	0.58
19:AQ:69:LYS:C	19:AQ:70:ARG:HD2	2.24	0.58
1:AA:191:G:N2	22:AT:103:GLY:HA2	2.15	0.58
5:AC:3:ASN:C	5:AC:4:LYS:HG2	2.23	0.58
1:AA:69:G:C8	1:AA:102:G:N1	2.72	0.58
23:B0:2668:U:C4'	23:B0:2669:C:H5'	2.25	0.58
23:B0:2547:C:H2'	23:B0:2548:G:H8	1.67	0.58
23:B0:805:G:H5''	23:B0:806:A:O5'	2.03	0.58
12:AJ:3:LYS:N	12:AJ:77:PRO:HD3	2.18	0.58
20:AR:47:THR:HG22	20:AR:48:GLY:N	2.18	0.58
13:AK:74:ALA:C	13:AK:76:GLY:H	2.06	0.58
1:AA:1054:C:OP1	1:AA:1197:G:OP1	2.21	0.58
1:AA:130:A:O4'	19:AQ:63:ARG:HG3	2.02	0.58
1:AA:264:U:O2'	19:AQ:63:ARG:O	2.21	0.58
1:AA:253:U:O4'	1:AA:276:G:O4'	2.21	0.58
12:AJ:61:GLU:CD	16:AN:58:LYS:NZ	2.55	0.58
1:AA:405:U:O3'	1:AA:406:G:P	2.62	0.58
2:AV:74:C:N4	23:B0:2231:G:C6	2.68	0.58
1:AA:651:C:C4	1:AA:752:G:O2'	2.56	0.58
1:AA:676:A:O2'	13:AK:115:PRO:CB	2.52	0.58
14:AL:55:VAL:CG1	14:AL:67:THR:HG23	2.33	0.58
4:AB:10:LEU:HD23	4:AB:48:MET:HG3	1.86	0.58
23:B0:2236:U:H3'	23:B0:2237:C:H5''	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:2045:A:H4'	23:B0:2421:C:OP2	2.03	0.58
23:B0:2422:C:H2'	23:B0:2423:G:C8	2.37	0.58
1:AA:723:U:H2'	1:AA:723:U:O2	2.04	0.58
23:B0:175:C:H1'	23:B0:2413:A:H61	1.69	0.58
1:AA:1504:G:H3'	1:AA:1504:G:OP2	2.04	0.58
1:AA:254:G:N2	19:AQ:16:GLN:NE2	2.51	0.58
11:AI:111:ARG:HD3	11:AI:112:LYS:C	2.24	0.58
1:AA:779:C:C3'	13:AK:120:ARG:CD	2.82	0.58
1:AA:322:C:H4'	22:AT:23:ARG:HB2	1.85	0.58
1:AA:1484:C:H4'	23:B0:1943:A:C4'	2.33	0.58
1:AA:707:C:OP1	13:AK:85:ARG:CZ	2.44	0.58
1:AA:390:C:H2'	1:AA:391:G:C8	2.38	0.58
23:B0:3108:G:C2'	23:B0:3109:U:OP2	2.51	0.58
11:AI:5:TYR:O	11:AI:84:ALA:HA	2.03	0.58
23:B0:1119:U:C4	23:B0:1120:C:C5	2.91	0.58
1:AA:66:G:H4'	1:AA:199:G:C4'	2.33	0.58
2:AW:41:U:H6	2:AW:41:U:C5'	2.13	0.58
2:AV:57:G:H4'	28:BD:76:ASN:CA	2.33	0.58
11:AI:11:LYS:O	11:AI:11:LYS:HG2	2.03	0.58
14:AL:92:ASP:O	14:AL:94:PRO:HD3	2.04	0.58
5:AC:14:ILE:O	5:AC:16:ARG:N	2.36	0.58
1:AA:1484:C:C3'	23:B0:1943:A:H4'	2.34	0.58
1:AA:46:G:C4	1:AA:366:C:C5	2.91	0.58
12:AJ:47:PHE:CD2	16:AN:37:PHE:HE1	2.21	0.58
23:B0:2329:C:H2'	23:B0:2330:G:H5'	1.84	0.58
1:AA:1014:A:C6	21:AS:34:TRP:CZ2	2.92	0.58
1:AA:265:G:C3'	19:AQ:66:SER:CA	2.82	0.58
1:AA:1060:C:C5	5:AC:2:GLY:HA3	2.39	0.58
1:AA:1256:A:C5'	1:AA:1258:G:C4	2.87	0.58
23:B0:3110:G:OP1	23:B0:3149:G:C5'	2.44	0.58
1:AA:653:A:C8	10:AH:56:LYS:CB	2.87	0.58
21:AS:40:ILE:HG21	21:AS:62:ILE:CD1	2.33	0.58
4:AB:209:ARG:HE	4:AB:239:VAL:HG11	1.69	0.58
12:AJ:82:ILE:HG22	12:AJ:82:ILE:O	2.03	0.58
2:AW:64:A:H2'	2:AW:65:G:O4'	2.04	0.58
1:AA:18:C:H1'	1:AA:918:A:C2	2.39	0.58
1:AA:817:C:H42	1:AA:1529:G:H1	1.51	0.58
1:AA:1261:A:C4'	1:AA:1283:G:O3'	2.48	0.58
23:B0:3098:U:C4	23:B0:3099:U:O4	2.57	0.58
15:AM:15:VAL:HG23	15:AM:43:THR:O	2.04	0.58
1:AA:757:U:H2'	1:AA:758:G:O4'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:878:G:H5'	10:AH:89:PRO:HG2	1.85	0.58
14:AL:25:PRO:C	14:AL:27:LEU:N	2.52	0.58
14:AL:28:LYS:HD2	14:AL:33:ARG:NH2	2.16	0.58
23:B0:653:G:H4'	23:B0:2328:G:H4'	1.86	0.58
23:B0:2491:C:C3'	23:B0:2492:G:H5''	2.34	0.58
23:B0:2858:A:H3'	23:B0:2859:U:H5'	1.85	0.58
23:B0:876:A:H2'	23:B0:877:G:C8	2.39	0.58
23:B0:2434:G:H2'	23:B0:2435:C:C6	2.39	0.58
24:B9:14:C:H4'	24:B9:17:A:N6	2.19	0.58
1:AA:560:U:H4'	1:AA:561:U:H5''	1.83	0.58
1:AA:1223:C:OP1	1:AA:1224:G:H3'	2.04	0.58
1:AA:714:G:N3	1:AA:777:A:H1'	2.19	0.58
1:AA:6:G:N9	7:AE:119:LEU:HD13	2.19	0.58
1:AA:239:U:H5''	1:AA:240:C:OP1	2.02	0.58
1:AA:1496:C:O2'	1:AA:1517:G:N1	2.31	0.58
1:AA:46:G:O2'	1:AA:365:U:C2'	2.52	0.58
1:AA:1248:A:O2'	11:AI:70:LYS:CE	2.52	0.58
12:AJ:24:VAL:HG12	12:AJ:28:ARG:HE	1.68	0.58
17:AO:17:ARG:NH1	17:AO:77:ARG:HH11	2.01	0.58
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.39	0.58
1:AA:1075:C:OP1	4:AB:179:LYS:HD3	2.04	0.58
1:AA:812:C:O2'	1:AA:813:U:P	2.62	0.58
17:AO:87:ILE:O	17:AO:88:ARG:HB2	2.04	0.58
23:B0:2035:G:H2'	23:B0:2036:G:H8	1.69	0.58
1:AA:1194:U:H5''	7:AE:22:GLY:HA2	1.85	0.57
1:AA:264:U:O2'	19:AQ:63:ARG:HG2	1.82	0.57
11:AI:114:TYR:CZ	12:AJ:60:ARG:HB2	2.39	0.57
19:AQ:95:TYR:C	19:AQ:97:SER:N	2.58	0.57
22:AT:53:LEU:O	22:AT:57:ARG:HD2	2.04	0.57
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.39	0.57
1:AA:46:G:C2'	1:AA:365:U:HO2'	2.16	0.57
15:AM:84:ILE:C	15:AM:86:CYS:H	2.07	0.57
16:AN:29:ARG:HG2	16:AN:29:ARG:HH11	1.69	0.57
15:AM:13:LYS:O	15:AM:45:VAL:HG23	2.04	0.57
6:AD:30:LYS:C	6:AD:32:ALA:N	2.58	0.57
23:B0:2854:G:H4'	23:B0:2855:C:H5	1.69	0.57
20:AR:25:THR:O	20:AR:26:LEU:HB2	2.04	0.57
17:AO:36:ILE:HA	17:AO:59:MET:HE3	1.86	0.57
23:B0:118:U:H1'	23:B0:143:A:C8	2.39	0.57
23:B0:331:U:H2'	23:B0:332:C:H5''	1.85	0.57
20:AR:86:VAL:O	20:AR:87:ARG:HB2	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:22:G:C2'	1:AA:913:A:N1	2.67	0.57
23:B0:1856:U:C2'	23:B0:3865:A:C8	2.87	0.57
1:AA:119:A:C2	1:AA:240:C:C5	2.92	0.57
11:AI:7:THR:HG21	11:AI:9:ARG:NH1	2.19	0.57
1:AA:2003:G:C2	1:AA:1004:A:H1'	2.39	0.57
16:AN:36:PHE:O	16:AN:36:PHE:CD1	2.58	0.57
1:AA:702:A:N1	23:B0:1838:G:C2'	2.64	0.57
4:AB:16:HIS:NE2	4:AB:214:ILE:CG1	2.66	0.57
23:B0:1195:U:H2'	23:B0:1196:G:C8	2.38	0.57
1:AA:1250:A:H4'	11:AI:68:GLY:H	1.68	0.57
1:AA:527:G:O2'	1:AA:535:A:N1	2.32	0.57
1:AA:135:C:C2'	1:AA:136:C:H5'	2.34	0.57
1:AA:1194:U:C4'	7:AE:22:GLY:CA	2.65	0.57
1:AA:1392:G:C5'	1:AA:1531:A:C5'	2.77	0.57
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.19	0.57
15:AM:120:LYS:HE2	15:AM:123:ALA:HB2	1.86	0.57
1:AA:995:C:C2	16:AN:4:LYS:HD3	2.39	0.57
1:AA:192:U:O2'	1:AA:193:C:H5'	2.05	0.57
1:AA:779:C:C4'	13:AK:120:ARG:HD2	2.22	0.57
1:AA:160:A:H61	1:AA:348:G:H1'	1.69	0.57
1:AA:619:U:N1	6:AD:135:LEU:CD1	2.66	0.57
1:AA:66:G:O3'	1:AA:199:G:H4'	2.04	0.57
23:B0:1188:A:H2'	23:B0:1189:G:O4'	2.02	0.57
16:AN:24:CYS:HB3	16:AN:28:GLY:N	2.19	0.57
21:AS:7:LYS:O	21:AS:7:LYS:HG3	2.04	0.57
23:B0:218:A:O2'	23:B0:219:G:H4'	2.05	0.57
1:AA:60:A:H4'	1:AA:61:G:O5'	2.03	0.57
1:AA:1416:G:C6	1:AA:1417:G:H1'	2.39	0.57
23:B0:3184:C:H2'	23:B0:3185:U:C5'	2.34	0.57
5:AC:10:PHE:CE2	5:AC:178:LEU:HD13	2.38	0.57
11:AI:46:ALA:HB1	11:AI:77:ILE:HG22	1.85	0.57
1:AA:67:C:H2'	1:AA:69:G:OP2	2.03	0.57
23:B0:1916:G:H2'	23:B0:1917:C:C6	2.40	0.57
23:B0:2641:A:H2'	23:B0:2642:G:O4'	2.05	0.57
9:AG:15:ASP:OD1	9:AG:17:VAL:N	2.37	0.57
13:AK:40:ILE:HG23	13:AK:75:TYR:CD2	2.39	0.57
4:AB:76:GLN:HG3	4:AB:206:ASP:OD1	2.03	0.57
23:B0:521:U:H4'	23:B0:1248:G:O2'	2.04	0.57
2:AV:36:A:H61	3:AU:6:A:N6	2.02	0.57
1:AA:130:A:O3'	1:AA:263:A:C4'	2.48	0.57
1:AA:130:A:N9	1:AA:264:U:O4'	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:779:C:H4'	13:AK:120:ARG:HG2	0.60	0.57
1:AA:828:A:H2	4:AB:26:PRO:HD2	1.69	0.57
1:AA:547:A:H5'	1:AA:548:G:P	2.45	0.57
23:B0:3877:A:C5'	23:B0:1861:G:P	2.92	0.57
2:AV:75:C:C2	23:B0:2230:G:N2	2.70	0.57
2:AV:74:C:N4	23:B0:2232:G:C2	2.73	0.57
11:AI:5:TYR:CD2	11:AI:6:GLY:N	2.71	0.57
9:AG:149:ARG:HH12	13:AK:59:TYR:HE1	1.48	0.57
1:AA:185:A:H2'	1:AA:186:C:C6	2.39	0.57
1:AA:69:G:H1'	1:AA:102:G:N3	2.20	0.57
23:B0:1001:A:H62	23:B0:1200:G:H1'	1.69	0.57
5:AC:188:LEU:HD13	5:AC:195:VAL:HG13	1.86	0.57
5:AC:191:THR:HG21	5:AC:193:TYR:CZ	2.39	0.57
6:AD:201:GLN:NE2	7:AE:99:GLY:HA2	2.18	0.57
23:B0:879:A:C2'	23:B0:880:C:H5'	2.35	0.57
23:B0:1187:A:H2'	23:B0:1188:A:H8	1.69	0.57
5:AC:121:ALA:O	5:AC:125:GLU:HG3	2.04	0.57
1:AA:957:U:H4'	21:AS:79:THR:HB	1.86	0.57
1:AA:1228:C:OP1	15:AM:115:LYS:HG3	2.03	0.57
1:AA:675:A:C2'	13:AK:116:HIS:CD2	2.87	0.57
1:AA:1503:A:C4	1:AA:1531:A:H2	2.22	0.57
1:AA:818:G:C3'	1:AA:819:A:C5'	2.83	0.57
1:AA:1317:C:H2'	1:AA:1318:A:O4'	2.04	0.57
2:AW:76:A:C4'	23:B0:2486:C:C5'	2.71	0.57
12:AJ:61:GLU:CG	16:AN:58:LYS:HD2	2.34	0.57
4:AB:23:ARG:C	4:AB:23:ARG:NH1	2.58	0.57
1:AA:546:G:H4'	1:AA:548:G:O3'	2.04	0.57
6:AD:7:PRO:HG2	6:AD:10:ARG:HD2	1.87	0.57
23:B0:1861:G:C4'	55:B5:198:THR:CA	2.76	0.57
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.19	0.57
14:AL:85:ILE:HG23	14:AL:98:TYR:HB3	1.86	0.57
1:AA:205:G:N2	1:AA:207:C:C4	2.71	0.57
4:AB:12:GLU:C	4:AB:14:GLY:H	2.07	0.57
19:AQ:59:ILE:HG22	19:AQ:71:PHE:CD1	2.39	0.57
23:B0:1458:A:H3'	23:B0:1459:U:H5'	1.86	0.57
2:AV:44:A:H2'	2:AV:45:G:O4'	2.04	0.57
23:B0:1947:G:H3'	23:B0:1947:G:OP1	2.05	0.57
23:B0:2726:U:H2'	23:B0:2727:G:O4'	2.05	0.57
1:AA:1297:C:OP1	15:AM:44:ARG:NH2	2.37	0.57
23:B0:176:A:H5''	23:B0:177:U:H5	1.69	0.57
8:AF:3:ARG:HH21	8:AF:64:GLN:NE2	2.01	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:780:A:O2'	1:AA:781:A:H5''	2.05	0.57
1:AA:814:A:N6	1:AA:816:A:C2	2.73	0.57
19:AQ:104:LYS:NZ	23:B0:730:C:H42	2.02	0.57
1:AA:94:G:C5	1:AA:96:C:C4	2.91	0.57
1:AA:406:G:H1'	1:AA:496:A:C6	2.39	0.57
1:AA:119:A:C4	1:AA:240:C:C4	2.93	0.57
1:AA:1474:G:H5''	23:B0:1717:A:N6	2.19	0.57
11:AI:9:ARG:HA	11:AI:13:ALA:O	2.05	0.57
14:AL:50:SER:O	14:AL:51:ALA:HB2	2.05	0.57
1:AA:737:A:C1'	8:AF:73:ASN:HD21	2.18	0.57
2:AW:41:U:H5'	2:AW:41:U:C6	2.27	0.57
5:AC:29:TYR:CZ	16:AN:54:PRO:HG2	2.40	0.57
1:AA:411:A:N9	1:AA:413:G:H1'	2.19	0.57
4:AB:144:ARG:HG3	4:AB:145:LEU:N	2.19	0.57
23:B0:1517:C:H2'	23:B0:1518:C:C6	2.40	0.57
2:AV:64:A:H2'	2:AV:65:G:O4'	2.04	0.57
1:AA:860:A:H2'	1:AA:861:G:O4'	2.03	0.57
1:AA:818:G:C2'	1:AA:819:A:H5''	2.34	0.57
2:AW:76:A:C2'	23:B0:2562:G:N2	2.60	0.57
1:AA:1109:C:OP2	5:AC:176:HIS:CG	2.57	0.57
1:AA:538:G:H4'	14:AL:114:LYS:HE2	1.86	0.57
2:AW:33:U:O2'	2:AW:35:A:N7	2.36	0.57
1:AA:1340:A:H4'	2:AV:32:C:H4'	1.86	0.57
23:B0:369:C:H2'	23:B0:370:U:O4'	2.05	0.57
23:B0:804:C:O2'	23:B0:806:A:H4'	2.05	0.57
23:B0:1807:A:H5'	23:B0:1809:G:O4'	2.05	0.57
23:B0:1791:C:H1'	23:B0:1793:A:O4'	2.05	0.57
10:AH:17:THR:HG22	10:AH:63:LEU:HG	1.86	0.57
23:B0:59:G:N2	23:B0:73:A:H61	2.03	0.57
1:AA:1394:A:C2	1:AA:1501:C:O4'	2.57	0.57
1:AA:1499:A:C4'	1:AA:1520:G:H4'	2.35	0.57
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.39	0.57
1:AA:131:C:H4'	1:AA:263:A:O4'	2.05	0.57
1:AA:893:C:O3'	1:AA:894:G:C5'	2.36	0.57
1:AA:762:C:O2'	23:B0:729:A:C2	2.53	0.57
1:AA:128:G:C1'	19:AQ:61:GLU:CD	2.70	0.57
1:AA:1261:A:C2'	1:AA:1283:G:H5''	2.35	0.57
8:AF:97:PHE:HB2	20:AR:32:ARG:CZ	2.34	0.57
1:AA:958:A:C4	21:AS:55:LYS:CD	2.87	0.57
8:AF:2:ARG:CD	8:AF:69:GLU:HG2	2.35	0.57
1:AA:1178:G:P	11:AI:97:LYS:HZ2	2.28	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AI:97:LYS:O	11:AI:100:GLY:N	2.36	0.57
1:AA:382:A:H2'	1:AA:383:A:H8	1.70	0.57
5:AC:33:LEU:HD11	16:AN:53:LEU:HD22	1.87	0.57
10:AH:60:ARG:HG3	10:AH:60:ARG:HH11	1.70	0.57
23:B0:1358:C:H2'	23:B0:1359:G:C5'	2.34	0.57
11:AI:17:VAL:HG21	11:AI:80:GLY:HA3	1.86	0.57
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.40	0.57
21:AS:10:PHE:CD2	21:AS:11:VAL:N	2.73	0.57
1:AA:762:C:C4'	23:B0:729:A:H61	2.17	0.57
1:AA:346:G:C2'	1:AA:347:G:H5'	2.35	0.57
1:AA:376:G:H5''	18:AP:5:ARG:CG	2.34	0.57
1:AA:1255:G:C2'	1:AA:1258:G:N2	2.64	0.57
12:AJ:31:GLY:HA2	12:AJ:78:ASN:ND2	2.12	0.57
1:AA:505:G:H2'	1:AA:506:G:H8	1.69	0.57
10:AH:29:SER:OG	10:AH:32:LYS:HB2	2.05	0.57
8:AF:80:ARG:NH1	8:AF:88:VAL:HB	2.19	0.57
1:AA:571:U:H5''	1:AA:819:A:C2	2.40	0.56
1:AA:923:A:H5'	1:AA:1398:A:C6	2.40	0.56
6:AD:88:VAL:HA	7:AE:97:GLY:HA3	0.57	0.56
1:AA:1414:U:O2'	1:AA:1415:G:H5'	2.05	0.56
1:AA:828:A:C2	4:AB:26:PRO:CD	2.87	0.56
1:AA:406:G:C1'	1:AA:496:A:C6	2.88	0.56
1:AA:375:U:H1'	18:AP:28:ARG:CD	2.35	0.56
1:AA:1374:A:H2'	1:AA:1375:A:H5'	1.87	0.56
14:AL:47:LYS:CB	14:AL:48:PRO:HD3	2.35	0.56
15:AM:13:LYS:HD3	15:AM:17:VAL:HG11	1.86	0.56
5:AC:33:LEU:O	5:AC:33:LEU:HD23	2.04	0.56
23:B0:317:U:H3'	23:B0:318:G:H5''	1.86	0.56
10:AH:103:VAL:HG21	10:AH:110:ALA:HB2	1.87	0.56
1:AA:657:G:H4'	17:AO:28:GLN:HG2	1.87	0.56
23:B0:1289:A:H62	23:B0:1662:G:H1	1.53	0.56
23:B0:2268:G:H22	23:B0:2323:U:H4'	1.68	0.56
1:AA:923:A:H2'	1:AA:1398:A:H2'	1.81	0.56
6:AD:89:THR:N	7:AE:97:GLY:O	2.38	0.56
16:AN:14:PRO:C	16:AN:16:PHE:N	2.56	0.56
16:AN:3:ARG:NH1	16:AN:6:LEU:HD11	2.20	0.56
1:AA:130:A:N3	1:AA:264:U:C5	2.73	0.56
1:AA:1111:A:H61	5:AC:177:THR:N	2.03	0.56
1:AA:1484:C:C4'	23:B0:1943:A:C2'	2.82	0.56
6:AD:35:ARG:O	6:AD:36:ARG:HB2	2.04	0.56
1:AA:1409:C:H2'	1:AA:1410:G:C5'	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AB:115:LEU:HG	4:AB:153:ARG:HH21	1.69	0.56
14:AL:26:ALA:O	14:AL:27:LEU:O	2.22	0.56
4:AB:12:GLU:C	4:AB:14:GLY:N	2.59	0.56
15:AM:117:VAL:HG12	15:AM:118:ALA:H	1.70	0.56
23:B0:1971:C:H2'	23:B0:1972:G:C8	2.40	0.56
23:B0:1976:U:H2'	23:B0:1977:C:H5'	1.87	0.56
1:AA:675:A:C1'	13:AK:116:HIS:HD2	1.97	0.56
1:AA:1458:G:N7	1:AA:1459:C:O2	2.38	0.56
1:AA:1016:A:C4'	1:AA:1218:C:H4'	2.36	0.56
1:AA:1230:C:H1'	15:AM:126:LYS:HA	1.86	0.56
2:AW:75:C:H2'	23:B0:2486:C:O2'	2.05	0.56
1:AA:253:U:C4'	1:AA:276:G:C4'	2.83	0.56
22:AT:67:ALA:HA	22:AT:73:HIS:H	1.70	0.56
1:AA:246:A:H1'	1:AA:247:G:O4'	2.05	0.56
1:AA:403:C:C2	1:AA:404:U:C5	2.93	0.56
1:AA:335:C:H1'	1:AA:1434:A:C4'	2.35	0.56
1:AA:27:G:C6	1:AA:557:G:C2	2.87	0.56
19:AQ:5:VAL:HG22	19:AQ:60:ILE:HG12	1.87	0.56
5:AC:32:LEU:HD23	5:AC:32:LEU:O	2.05	0.56
7:AE:79:GLU:OE1	10:AH:105:ARG:CD	2.53	0.56
2:AV:25:C:HO2'	23:B0:1905:G:HO2'	1.47	0.56
2:AV:25:C:HO3'	2:AV:26:G:P	2.26	0.56
1:AA:1339:A:H2'	1:AA:1340:A:O4'	2.06	0.56
1:AA:974:A:P	16:AN:31:ARG:HG2	2.46	0.56
23:B0:984:A:H2'	23:B0:1200:G:H22	1.71	0.56
1:AA:32:A:C5'	1:AA:398:C:O2'	2.53	0.56
2:AV:11:C:H5''	23:B0:1892:C:H4'	1.87	0.56
23:B0:879:A:O2'	23:B0:880:C:H5'	2.05	0.56
23:B0:874:A:N6	23:B0:928:G:H21	2.03	0.56
5:AC:7:PRO:CG	5:AC:184:TYR:HB2	2.35	0.56
23:B0:2058:U:H4'	23:B0:2575:U:N3	2.20	0.56
2:AW:12:U:H5'	23:B0:1898:U:H4'	1.86	0.56
23:B0:1923:U:H4'	23:B0:1948:C:H41	1.71	0.56
23:B0:2270:U:H2'	23:B0:2271:C:C6	2.40	0.56
11:AI:39:GLY:O	11:AI:40:LEU:HD23	2.05	0.56
14:AL:6:THR:OG1	14:AL:9:GLN:HG3	2.05	0.56
23:B0:2402:U:H5'	23:B0:2404:A:C5	2.41	0.56
18:AP:17:TYR:HE1	18:AP:41:PRO:HG2	1.69	0.56
6:AD:107:ARG:HH21	6:AD:194:LEU:HD12	1.70	0.56
10:AH:19:VAL:HG23	10:AH:21:LYS:HD3	1.86	0.56
15:AM:31:LYS:O	15:AM:35:GLU:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:1092:U:H2'	23:B0:1093:U:C6	2.41	0.56
23:B0:1093:U:C4	23:B0:1094:C:C4	2.94	0.56
4:AB:178:ARG:NH1	4:AB:178:ARG:CG	2.67	0.56
1:AA:1410:G:C2	1:AA:1491:G:C6	2.94	0.56
15:AM:49:THR:HB	15:AM:52:GLU:HG3	1.86	0.56
1:AA:1319:A:H5'	1:AA:1320:C:OP1	2.06	0.56
4:AB:126:GLU:HG2	4:AB:129:GLU:OE1	2.05	0.56
1:AA:676:A:C1'	13:AK:115:PRO:HA	2.34	0.56
6:AD:24:GLU:H	6:AD:112:VAL:CG1	2.19	0.56
23:B0:33:C:N4	23:B0:466:A:H61	2.03	0.56
12:AJ:12:ASP:HB3	12:AJ:15:THR:HB	1.88	0.56
1:AA:1351:U:H2'	1:AA:1352:C:C6	2.40	0.56
1:AA:1343:G:C4'	11:AI:122:ALA:HB3	2.35	0.56
23:B0:891:A:C2	23:B0:892:A:N7	2.71	0.56
10:AH:105:ARG:HH11	10:AH:105:ARG:HG3	1.71	0.56
1:AA:173:U:O4'	1:AA:197:A:C4	2.59	0.56
23:B0:368:A:H2'	23:B0:369:C:O4'	2.06	0.56
1:AA:1329:A:OP1	15:AM:28:ALA:HB3	2.06	0.56
23:B0:2466:G:H2'	23:B0:2467:A:C8	2.40	0.56
17:AO:3:ILE:HG22	17:AO:7:GLU:HB3	1.86	0.56
22:AT:94:ALA:O	22:AT:95:ALA:HB3	2.06	0.56
8:AF:25:ILE:HD12	8:AF:82:ARG:HD2	1.88	0.56
19:AQ:67:LYS:O	19:AQ:68:ARG:HB3	2.05	0.56
18:AP:5:ARG:HB2	18:AP:67:THR:HG1	1.71	0.56
2:AV:74:C:C2	23:B0:2231:G:N2	2.74	0.56
1:AA:89:G:C2'	1:AA:90:C:P	2.93	0.56
1:AA:1086:U:H3	1:AA:1099:G:N2	1.91	0.56
1:AA:1269:A:N3	1:AA:1313:U:H1'	2.20	0.56
4:AB:88:ALA:C	4:AB:90:MET:H	2.09	0.56
23:B0:584:A:H4'	23:B0:2479:U:H5'	1.87	0.56
23:B0:689:A:H2'	23:B0:690:A:H5'	1.87	0.56
23:B0:1103:C:OP1	23:B0:2454:C:O2'	2.23	0.56
1:AA:448:A:H2'	1:AA:449:C:C6	2.40	0.56
1:AA:1195:C:H3'	1:AA:1196:U:C5'	2.35	0.56
15:AM:8:GLU:OE1	15:AM:22:ILE:HG12	2.05	0.56
1:AA:8:A:H5''	7:AE:121:LYS:HD3	1.88	0.56
1:AA:1004:A:H5''	1:AA:1025:U:C5	2.40	0.56
12:AJ:81:THR:O	12:AJ:85:LEU:HG	2.06	0.56
14:AL:47:LYS:HB2	14:AL:48:PRO:HD2	1.88	0.56
21:AS:63:THR:HG22	21:AS:64:GLU:H	1.71	0.56
4:AB:124:SER:CB	4:AB:125:PRO:HD2	2.32	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:2503:G:H2'	23:B0:2504:G:H5''	1.88	0.56
23:B0:813:A:O2'	23:B0:815:A:H5'	2.05	0.56
23:B0:795:A:H4'	23:B0:796:A:N7	2.20	0.56
23:B0:1057:A:H3'	23:B0:1058:G:H5'	1.87	0.56
1:AA:1250:A:H5'	11:AI:68:GLY:O	2.04	0.56
23:B0:1669:A:H2'	23:B0:1670:G:H4'	1.87	0.56
5:AC:84:ILE:O	5:AC:88:ARG:HB2	2.05	0.56
23:B0:1825:C:O2'	23:B0:1826:U:H5'	2.06	0.56
19:AQ:103:GLY:O	19:AQ:104:LYS:O	2.24	0.56
1:AA:547:A:OP1	1:AA:548:G:O5'	2.23	0.56
6:AD:6:GLY:O	6:AD:8:VAL:HG23	2.06	0.56
1:AA:1473:A:C4'	23:B0:1719:G:C1'	2.84	0.56
23:B0:3110:G:O2'	23:B0:3120:G:H5'	2.06	0.56
1:AA:1346:A:H4'	1:AA:1347:G:O5'	2.06	0.56
23:B0:1093:U:O4	23:B0:1094:C:N4	2.39	0.56
22:AT:35:THR:O	22:AT:39:LYS:HB2	2.05	0.56
1:AA:837:G:H2'	1:AA:838:C:N1	2.19	0.56
1:AA:1430:C:H5'	23:B0:1721:G:H4'	1.77	0.56
15:AM:17:VAL:O	15:AM:20:THR:HB	2.05	0.56
1:AA:946:A:H2'	1:AA:947:G:C8	2.40	0.56
1:AA:1092:A:OP2	9:AG:4:ARG:NH1	2.39	0.56
1:AA:983:A:H5'	1:AA:984:C:OP2	2.06	0.56
5:AC:46:GLU:O	5:AC:48:TYR:N	2.33	0.56
23:B0:1567:A:H2'	23:B0:1568:A:O4'	2.06	0.56
1:AA:1395:C:H4'	1:AA:1401:G:H21	1.70	0.56
1:AA:915:A:C2'	1:AA:916:G:H5'	2.35	0.56
1:AA:401:C:H4'	1:AA:622:A:C1'	2.36	0.56
1:AA:619:U:C2	6:AD:135:LEU:CG	2.79	0.56
1:AA:237:C:H5''	19:AQ:25:ARG:HH21	1.57	0.56
1:AA:1255:G:O2'	1:AA:1258:G:C2	2.59	0.56
5:AC:91:LEU:HD11	5:AC:99:VAL:HG13	1.87	0.56
2:AW:25:C:C4	2:AW:26:G:C8	2.94	0.56
1:AA:1034:G:HO3'	1:AA:1035:A:P	2.28	0.56
23:B0:1191:G:H2'	23:B0:1192:A:C8	2.41	0.56
7:AE:80:ILE:O	7:AE:80:ILE:HD12	2.05	0.56
23:B0:2402:U:H5'	23:B0:2404:A:N7	2.21	0.56
1:AA:866:C:C5'	1:AA:919:A:H5''	2.35	0.56
1:AA:254:G:C2'	19:AQ:15:MET:HB3	2.36	0.56
1:AA:1257:U:H4'	1:AA:1258:G:O5'	2.06	0.56
1:AA:1147:C:H4'	11:AI:5:TYR:CE1	2.41	0.56
1:AA:1040:U:H2'	1:AA:1041:A:H8	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1042:G:O2'	1:AA:1043:C:H5'	2.06	0.56
23:B0:1426:U:H2'	23:B0:1427:G:O4'	2.05	0.56
17:AO:41:GLU:HA	17:AO:41:GLU:OE2	2.05	0.56
22:AT:86:ARG:O	22:AT:90:GLN:HG3	2.05	0.56
23:B0:533:C:H2'	23:B0:534:U:O4'	2.06	0.56
1:AA:256:U:H5''	19:AQ:17:LYS:CE	2.33	0.55
1:AA:1067:A:N3	1:AA:1068:G:N9	2.54	0.55
12:AJ:51:ARG:HG2	16:AN:45:ARG:HH12	1.70	0.55
1:AA:893:C:C2'	1:AA:894:G:H5'	2.34	0.55
1:AA:476:U:C5	1:AA:477:G:C5'	2.89	0.55
20:AR:53:ARG:HD3	20:AR:63:GLN:CB	2.36	0.55
1:AA:319:G:C4'	1:AA:1468:A:O4'	2.54	0.55
21:AS:40:ILE:HG21	21:AS:62:ILE:HD11	1.88	0.55
15:AM:40:ASN:ND2	15:AM:42:ALA:H	2.05	0.55
1:AA:411:A:C4	1:AA:413:G:H1'	2.41	0.55
23:B0:68:C:H2'	23:B0:69:G:C8	2.40	0.55
8:AF:46:ARG:HB2	8:AF:60:PHE:HE1	1.71	0.55
4:AB:74:LYS:HZ1	4:AB:206:ASP:CA	2.18	0.55
1:AA:135:C:H2'	1:AA:136:C:H5'	1.88	0.55
23:B0:2299:A:N3	23:B0:2299:A:H2'	2.21	0.55
1:AA:1202:G:O2'	1:AA:1203:C:H5'	2.06	0.55
4:AB:223:ILE:HG21	4:AB:230:VAL:CG2	2.35	0.55
1:AA:406:G:N1	1:AA:437:U:N3	2.54	0.55
1:AA:547:A:C5'	1:AA:548:G:P	2.94	0.55
23:B0:2549:G:H2'	23:B0:2550:C:O4'	2.06	0.55
1:AA:848:G:H2'	1:AA:849:C:O4'	2.04	0.55
1:AA:588:G:C6	1:AA:753:A:C5	2.94	0.55
23:B0:952:A:O2'	23:B0:1204:G:H4'	2.06	0.55
1:AA:939:G:H2'	1:AA:940:C:H6	1.71	0.55
15:AM:29:ARG:HB3	15:AM:64:TRP:CH2	2.42	0.55
1:AA:1297:C:P	15:AM:44:ARG:HH22	2.29	0.55
22:AT:82:SER:O	22:AT:86:ARG:HB2	2.07	0.55
1:AA:1006:C:H2'	1:AA:1007:C:H6	1.72	0.55
5:AC:3:ASN:ND2	5:AC:4:LYS:HE2	2.21	0.55
1:AA:477:G:H2'	1:AA:478:A:C8	2.40	0.55
1:AA:1483:A:C5	1:AA:1484:C:C5	2.94	0.55
1:AA:26:A:N6	1:AA:558:G:H1'	2.21	0.55
9:AG:146:GLU:HA	9:AG:149:ARG:HB2	1.87	0.55
23:B0:2755:A:O2'	23:B0:2756:A:H5'	2.06	0.55
23:B0:1971:C:H2'	23:B0:1972:G:H8	1.70	0.55
9:AG:116:ALA:HA	9:AG:119:ARG:NH2	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:3116:G:H4'	23:B0:3117:A:OP1	2.04	0.55
23:B0:2759:U:H4'	23:B0:2760:G:OP2	2.05	0.55
1:AA:130:A:C5	1:AA:264:U:C2	2.94	0.55
1:AA:254:G:C4'	19:AQ:18:THR:HG21	2.36	0.55
1:AA:128:G:H5''	19:AQ:2:PRO:N	2.21	0.55
1:AA:292:G:H1'	1:AA:608:A:N6	2.21	0.55
1:AA:737:A:N3	8:AF:73:ASN:ND2	2.54	0.55
23:B0:26:G:N2	23:B0:524:A:H62	2.03	0.55
14:AL:43:VAL:HG12	14:AL:44:THR:H	1.72	0.55
12:AJ:4:ILE:HA	12:AJ:100:THR:HA	1.88	0.55
1:AA:843:C:H2'	1:AA:844:A:O4'	2.07	0.55
1:AA:1111:A:N6	5:AC:177:THR:HA	2.21	0.55
23:B0:3874:C:C5	23:B0:3875:A:C8	2.94	0.55
1:AA:551:U:H2'	1:AA:552:U:C6	2.41	0.55
1:AA:335:C:C1'	1:AA:1434:A:H4'	2.33	0.55
1:AA:129:U:H5''	19:AQ:3:LYS:CE	2.37	0.55
1:AA:217:C:H4'	1:AA:469:C:O2	2.06	0.55
2:AW:25:C:C5	2:AW:26:G:C8	2.95	0.55
1:AA:599:C:H4'	10:AH:131:GLY:N	2.22	0.55
6:AD:24:GLU:HG2	6:AD:25:ARG:N	2.21	0.55
1:AA:1090:U:O4'	1:AA:1169:A:C2	2.53	0.55
4:AB:17:PHE:CD1	4:AB:18:GLY:N	2.75	0.55
23:B0:1316:G:H2'	23:B0:1317:G:C8	2.41	0.55
23:B0:611:C:H2'	23:B0:612:G:O4'	2.07	0.55
6:AD:177:ASP:OD1	6:AD:179:GLU:HB2	2.07	0.55
23:B0:597:U:H3	23:B0:683:A:H2'	1.71	0.55
6:AD:176:LEU:HA	6:AD:183:GLY:HA2	1.87	0.55
1:AA:724:G:OP1	1:AA:854:G:O2'	2.24	0.55
1:AA:923:A:C8	1:AA:1398:A:C2	2.94	0.55
1:AA:1416:G:HO3'	1:AA:1417:G:P	2.29	0.55
23:B0:892:A:H2'	23:B0:893:G:O4'	2.07	0.55
1:AA:6:G:N1	7:AE:119:LEU:CD1	2.59	0.55
1:AA:187:G:O2'	22:AT:104:LEU:C	2.44	0.55
1:AA:476:U:O2	1:AA:477:G:H4'	2.01	0.55
5:AC:58:GLU:H	5:AC:65:ALA:HB3	1.72	0.55
17:AO:70:LEU:HD11	17:AO:77:ARG:HB2	1.89	0.55
19:AQ:59:ILE:CG2	19:AQ:71:PHE:HB3	2.36	0.55
23:B0:2261:G:H5''	23:B0:2262:C:O5'	2.06	0.55
7:AE:15:ARG:O	7:AE:27:ARG:O	2.25	0.55
23:B0:2727:G:C2'	23:B0:2728:A:H5''	2.36	0.55
1:AA:227:G:H2'	1:AA:228:A:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:784:U:H2'	23:B0:785:U:C6	2.41	0.55
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.07	0.55
1:AA:1342:C:H5'	11:AI:125:TYR:CD1	2.42	0.55
19:AQ:18:THR:HG23	19:AQ:69:LYS:HE3	1.88	0.55
1:AA:1059:C:O2'	12:AJ:53:PRO:HD3	2.06	0.55
1:AA:397:A:N7	1:AA:547:A:HO2'	1.45	0.55
1:AA:1474:G:O2'	23:B0:1705:U:O3'	2.25	0.55
2:AV:74:C:C4	23:B0:2232:G:C2	2.95	0.55
1:AA:394:G:N1	1:AA:395:C:C4	2.75	0.55
1:AA:1270:C:HO2'	1:AA:1314:C:H5'	1.71	0.55
23:B0:951:G:C2'	23:B0:952:A:H5''	2.35	0.55
23:B0:805:G:H4'	23:B0:806:A:OP2	2.05	0.55
4:AB:15:VAL:HG22	4:AB:209:ARG:HG3	1.88	0.55
4:AB:17:PHE:HD1	4:AB:18:GLY:N	2.04	0.55
23:B0:1528:C:C3'	23:B0:1529:C:H5''	2.36	0.55
23:B0:582:G:H2'	23:B0:583:C:H3'	1.88	0.55
23:B0:2222:U:H2'	23:B0:2223:U:C6	2.41	0.55
18:AP:81:ARG:CG	18:AP:83:GLU:HG2	2.36	0.55
17:AO:87:ILE:O	17:AO:88:ARG:CB	2.54	0.55
1:AA:1236:A:H2'	1:AA:1237:C:C6	2.41	0.55
23:B0:223:C:H4'	23:B0:398:C:H1'	1.88	0.55
1:AA:865:A:O2'	1:AA:919:A:C4'	2.54	0.55
1:AA:866:C:C4'	1:AA:919:A:H5'	2.36	0.55
1:AA:923:A:H1'	1:AA:1398:A:N9	2.18	0.55
23:B0:3128:G:H4'	23:B0:3174:C:C1'	2.36	0.55
15:AM:125:ARG:C	15:AM:125:ARG:HD2	2.27	0.55
1:AA:905:U:C6	1:AA:906:G:C8	2.95	0.55
1:AA:394:G:C4	1:AA:395:C:C5	2.95	0.55
1:AA:1268:A:H2'	1:AA:1269:A:C8	2.42	0.55
18:AP:21:VAL:O	18:AP:33:ILE:HB	2.07	0.55
23:B0:64:C:H2'	23:B0:65:C:C6	2.42	0.55
8:AF:76:ALA:O	8:AF:80:ARG:HG3	2.06	0.55
1:AA:255:G:C1'	19:AQ:16:GLN:HB3	2.37	0.55
19:AQ:68:ARG:N	19:AQ:70:ARG:NH1	2.55	0.55
1:AA:1234:C:H4'	1:AA:1364:U:H1'	1.89	0.55
12:AJ:51:ARG:H	12:AJ:59:SER:HB2	1.72	0.55
1:AA:281:G:O2'	1:AA:282:A:P	2.65	0.55
23:B0:728:G:H2'	23:B0:729:A:O4'	2.06	0.55
1:AA:46:G:C6	1:AA:366:C:N3	2.75	0.55
1:AA:212:G:O2'	1:AA:213:G:P	2.65	0.55
1:AA:1409:C:H2'	1:AA:1410:G:H8	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1271:G:H5'	1:AA:1314:C:OP1	2.07	0.55
23:B0:103:U:H2'	23:B0:104:C:C6	2.41	0.55
4:AB:33:TYR:HB2	4:AB:43:ASP:HB2	1.89	0.55
23:B0:1975:G:H4'	23:B0:1976:U:H5	1.72	0.55
18:AP:26:ARG:HD2	18:AP:31:LYS:O	2.06	0.55
10:AH:36:LEU:HD12	10:AH:59:LEU:HD13	1.88	0.55
1:AA:166:G:O2'	1:AA:167:G:H5'	2.06	0.55
23:B0:121:G:O2'	23:B0:1389:C:H4'	2.05	0.55
23:B0:2544:A:H2'	23:B0:2545:A:H4'	1.88	0.55
24:B9:45:C:H3'	24:B9:46:G:H5'	1.89	0.55
17:AO:27:VAL:O	17:AO:31:LEU:HD13	2.07	0.55
1:AA:954:G:H2'	1:AA:955:U:C6	2.42	0.55
1:AA:1110:A:O2'	1:AA:1111:A:H5'	2.07	0.55
4:AB:23:ARG:N	4:AB:23:ARG:HD3	2.22	0.55
1:AA:438:G:C4'	1:AA:439:A:OP1	2.53	0.55
6:AD:57:ARG:HB3	6:AD:206:PHE:HB2	1.88	0.55
2:AV:75:C:C4	23:B0:2231:G:C2	2.90	0.55
1:AA:1044:A:C3'	1:AA:1045:C:H1'	2.18	0.55
1:AA:300:A:H1'	1:AA:565:U:N3	2.22	0.55
23:B0:942:U:C2'	23:B0:943:U:H5'	2.37	0.55
1:AA:588:G:C1'	1:AA:753:A:N1	2.69	0.55
1:AA:429:U:H2'	6:AD:25:ARG:NH1	2.22	0.55
5:AC:116:VAL:O	5:AC:120:VAL:HG23	2.07	0.55
23:B0:2503:G:C2'	23:B0:2504:G:H5''	2.37	0.55
15:AM:65:LYS:HE3	15:AM:69:GLU:OE2	2.07	0.55
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.41	0.55
1:AA:141:A:O4'	1:AA:182:U:O2	2.25	0.55
23:B0:1994:U:H2'	23:B0:1995:G:O4'	2.07	0.55
1:AA:1460:A:H2'	1:AA:1461:G:O4'	2.07	0.55
19:AQ:79:SER:O	19:AQ:80:GLY:O	2.25	0.55
1:AA:490:G:H2'	1:AA:491:G:H8	1.72	0.55
1:AA:1343:G:O3'	11:AI:122:ALA:CB	2.49	0.54
1:AA:825:G:H21	10:AH:11:THR:CG2	2.14	0.54
1:AA:188:C:H3'	22:AT:105:SER:HB3	1.88	0.54
1:AA:115:G:N2	1:AA:116:A:N6	2.55	0.54
1:AA:54:C:H2'	1:AA:352:C:H41	1.71	0.54
1:AA:1255:G:H21	1:AA:1276:G:H22	1.53	0.54
23:B0:3110:G:H4'	23:B0:3111:C:OP2	2.07	0.54
1:AA:1112:C:C2	5:AC:178:LEU:C	2.80	0.54
1:AA:101:A:O2'	1:AA:102:G:H5'	2.07	0.54
1:AA:676:A:H1'	13:AK:115:PRO:HB3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AW:44:A:C3'	2:AW:45:G:P	2.95	0.54
23:B0:1514:C:H2'	23:B0:1515:U:O4'	2.07	0.54
22:AT:72:LEU:HD21	22:AT:80:ARG:CZ	2.38	0.54
1:AA:1060:C:OP1	16:AN:45:ARG:NH2	2.40	0.54
1:AA:779:C:O4'	13:AK:120:ARG:CG	2.56	0.54
1:AA:1416:G:P	1:AA:1417:G:P	3.04	0.54
1:AA:522:C:P	14:AL:72:GLY:N	2.76	0.54
1:AA:302:G:O2'	1:AA:556:C:H5''	2.07	0.54
1:AA:46:G:C2'	1:AA:365:U:O2'	2.56	0.54
1:AA:1026:G:O3'	1:AA:1027:C:P	2.65	0.54
2:AV:29:A:O2'	2:AV:30:G:H5'	2.06	0.54
12:AJ:24:VAL:HG21	12:AJ:37:PRO:HD3	1.88	0.54
4:AB:47:THR:HA	4:AB:202:PRO:HG2	1.87	0.54
23:B0:798:G:O2'	23:B0:1770:U:H4'	2.07	0.54
23:B0:788:G:C5'	23:B0:790:A:H1'	2.37	0.54
1:AA:425:G:H4'	6:AD:45:GLN:HE22	1.73	0.54
23:B0:1976:U:C2'	23:B0:1977:C:H5'	2.38	0.54
2:AW:29:A:O2'	2:AW:30:G:H5'	2.06	0.54
1:AA:779:C:C4'	13:AK:120:ARG:HB3	2.36	0.54
4:AB:21:ARG:HG3	4:AB:23:ARG:HD2	1.88	0.54
1:AA:161:A:H2	1:AA:348:G:C1'	2.19	0.54
1:AA:9:G:H5''	7:AE:126:ARG:CD	2.22	0.54
1:AA:9:G:P	7:AE:126:ARG:NH1	2.80	0.54
5:AC:59:ARG:O	12:AJ:92:THR:HG22	2.06	0.54
2:AW:33:U:O2	2:AW:35:A:H3'	2.07	0.54
1:AA:1147:C:H4'	11:AI:5:TYR:HE1	1.72	0.54
1:AA:755:G:OP2	17:AO:65:ARG:HD2	2.07	0.54
1:AA:1374:A:C2'	1:AA:1375:A:H5'	2.37	0.54
1:AA:185:A:O2'	1:AA:186:C:O5'	2.24	0.54
11:AI:7:THR:HG22	11:AI:8:GLY:N	2.22	0.54
23:B0:3098:U:C2'	23:B0:3099:U:C6	2.89	0.54
1:AA:33:A:H2'	1:AA:34:C:H6	1.72	0.54
1:AA:429:U:H2'	6:AD:25:ARG:HH12	1.73	0.54
23:B0:1187:A:H2'	23:B0:1188:A:C8	2.43	0.54
23:B0:1358:C:H2'	23:B0:1359:G:H5''	1.89	0.54
1:AA:21:G:C4'	1:AA:914:A:H61	2.20	0.54
1:AA:1232:U:OP1	11:AI:125:TYR:HA	2.06	0.54
2:AW:76:A:C2'	23:B0:2486:C:O4'	2.50	0.54
5:AC:174:PRO:HB2	5:AC:177:THR:HG22	1.89	0.54
12:AJ:51:ARG:O	16:AN:45:ARG:CD	2.55	0.54
1:AA:1434:A:C3'	1:AA:1435:G:H4'	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:905:U:C4	1:AA:906:G:C4	2.94	0.54
20:AR:61:LYS:O	20:AR:65:ILE:HG13	2.08	0.54
1:AA:46:G:H2'	1:AA:366:C:C5	2.39	0.54
15:AM:93:ARG:HH11	23:B0:900:U:C5'	2.19	0.54
5:AC:91:LEU:HD21	5:AC:99:VAL:CG1	2.30	0.54
1:AA:1305:G:C2'	1:AA:1306:A:C8	2.80	0.54
1:AA:69:G:O2'	1:AA:70:A:H5'	2.08	0.54
23:B0:3098:U:C4	23:B0:3099:U:C4	2.96	0.54
1:AA:1328:C:O3'	15:AM:28:ALA:HB3	2.08	0.54
1:AA:651:C:C2	1:AA:652:U:C4	2.95	0.54
19:AQ:26:GLN:HE21	19:AQ:37:LYS:HE2	1.71	0.54
6:AD:199:ASN:HD21	6:AD:201:GLN:HB2	1.71	0.54
2:AW:16:U:H1'	2:AW:17:U:OP2	2.08	0.54
23:B0:873:U:H1'	23:B0:2246:A:OP1	2.07	0.54
12:AJ:4:ILE:HG12	12:AJ:100:THR:HB	1.90	0.54
23:B0:1496:G:H1	23:B0:1527:G:H1	1.55	0.54
7:AE:137:GLU:O	7:AE:141:GLN:HG3	2.07	0.54
10:AH:123:GLU:O	10:AH:127:LEU:HD23	2.05	0.54
23:B0:1356:G:H1'	23:B0:1613:G:C2	2.43	0.54
1:AA:1193:G:O2'	1:AA:1194:U:H5'	2.07	0.54
1:AA:1015:A:C1'	1:AA:1219:U:H5''	2.30	0.54
1:AA:1317:C:C5	16:AN:16:PHE:CD2	2.95	0.54
1:AA:1234:C:H4'	1:AA:1364:U:C1'	2.38	0.54
1:AA:39:G:C5	1:AA:498:U:C4	2.94	0.54
1:AA:407:G:O2'	6:AD:116:GLN:HG3	2.07	0.54
23:B0:918:A:H2'	23:B0:919:U:C5'	2.35	0.54
23:B0:2437:G:H2'	23:B0:2469:G:C2	2.42	0.54
13:AK:13:GLN:HA	13:AK:75:TYR:O	2.08	0.54
15:AM:60:VAL:O	15:AM:63:THR:HG22	2.07	0.54
23:B0:2516:U:H2'	23:B0:2517:C:C6	2.42	0.54
23:B0:1319:C:H41	23:B0:1622:G:H2'	1.73	0.54
2:AV:16:U:H1'	2:AV:17:U:OP2	2.08	0.54
7:AE:21:ALA:O	7:AE:23:GLY:N	2.40	0.54
1:AA:22:G:C2	1:AA:913:A:H2'	2.35	0.54
1:AA:778:G:H4'	13:AK:119:CYS:SG	2.48	0.54
1:AA:278:G:N2	1:AA:279:A:N6	2.44	0.54
1:AA:893:C:N1	1:AA:894:G:C8	2.76	0.54
19:AQ:90:ILE:HG23	23:B0:727:U:OP1	2.08	0.54
1:AA:1497:G:C1'	1:AA:1518:A:C2	2.87	0.54
5:AC:38:ARG:HB3	5:AC:94:LEU:HD21	1.88	0.54
1:AA:300:A:H2'	1:AA:301:G:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:173:U:H5''	1:AA:197:A:O4'	2.05	0.54
4:AB:195:ASP:HB3	10:AH:74:PRO:HD3	1.85	0.54
5:AC:130:VAL:O	5:AC:134:ILE:HG13	2.07	0.54
8:AF:4:TYR:OH	8:AF:69:GLU:HB3	2.07	0.54
23:B0:357:A:C2'	23:B0:358:C:H5'	2.38	0.54
17:AO:32:LEU:O	17:AO:36:ILE:HG13	2.07	0.54
23:B0:635:C:H3'	23:B0:636:G:H5''	1.90	0.54
23:B0:2677:U:H2'	23:B0:2678:C:C6	2.43	0.54
1:AA:86:G:H4'	1:AA:87:G:OP2	2.07	0.54
1:AA:1402:C:O2	1:AA:1500:A:N1	2.41	0.54
1:AA:818:G:O2'	1:AA:819:A:H5''	2.08	0.54
1:AA:864:A:C2	1:AA:917:G:C2'	2.90	0.54
1:AA:1458:G:C5	1:AA:1459:C:O2	2.61	0.54
1:AA:977:A:C2	1:AA:1224:G:C6	2.95	0.54
1:AA:38:G:H1'	1:AA:547:A:C8	2.43	0.54
1:AA:38:G:C4'	1:AA:498:U:O2	2.42	0.54
1:AA:1474:G:C5'	23:B0:1717:A:N6	2.70	0.54
1:AA:1261:A:O4'	1:AA:1283:G:C4'	2.34	0.54
1:AA:735:C:H1'	20:AR:75:ILE:CD1	2.38	0.54
1:AA:588:G:C1'	1:AA:753:A:C2	2.91	0.54
6:AD:32:ALA:C	6:AD:34:GLU:N	2.60	0.54
4:AB:33:TYR:HB3	4:AB:41:ILE:O	2.08	0.54
23:B0:2510:A:H61	23:B0:2641:A:N6	2.06	0.54
1:AA:639:G:O2'	1:AA:640:A:H5'	2.08	0.54
23:B0:1713:G:H2'	23:B0:1714:A:O4'	2.08	0.54
23:B0:317:U:C2'	23:B0:318:G:H5''	2.38	0.54
23:B0:857:U:H2'	23:B0:858:G:H5'	1.89	0.54
1:AA:532:A:H2'	1:AA:533:A:H5''	1.89	0.54
23:B0:1615:C:H2'	23:B0:1616:C:C6	2.42	0.54
1:AA:1187:G:N3	16:AN:60:SER:OG	2.38	0.54
4:AB:67:THR:HG22	4:AB:68:ILE:N	2.21	0.54
1:AA:1066:C:O2'	1:AA:1067:A:H5'	2.07	0.54
1:AA:323:U:C4'	22:AT:19:SER:O	2.56	0.54
1:AA:403:C:C4	1:AA:404:U:H5	2.26	0.54
1:AA:403:C:C4	1:AA:404:U:C5	2.96	0.54
1:AA:438:G:H5'	6:AD:123:HIS:CG	2.43	0.54
1:AA:128:G:H5''	19:AQ:2:PRO:CA	2.37	0.54
1:AA:203:A:H4'	1:AA:468:A:H5'	1.88	0.54
1:AA:300:A:O2'	1:AA:564:C:C2	2.58	0.54
1:AA:653:A:C5'	10:AH:56:LYS:HE2	2.38	0.54
1:AA:1117:G:O3'	1:AA:1118:C:P	2.66	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:2227:C:C2'	23:B0:2228:U:H5'	2.35	0.54
8:AF:69:GLU:HA	8:AF:72:VAL:CG2	2.37	0.54
1:AA:640:A:N3	10:AH:115:SER:HB2	2.23	0.54
20:AR:86:VAL:O	20:AR:87:ARG:CB	2.55	0.54
11:AI:85:LEU:O	11:AI:92:TYR:HD1	1.91	0.54
23:B0:2446:C:H2'	23:B0:2447:G:C8	2.43	0.54
5:AC:37:GLN:NE2	16:AN:52:GLN:OE1	2.40	0.54
1:AA:750:G:H1'	17:AO:22:THR:OG1	2.08	0.54
1:AA:1408:A:H4'	23:B0:1900:U:H3	1.73	0.54
1:AA:1053:G:H4'	1:AA:1054:C:H5'	1.88	0.54
23:B0:3128:G:H5'	23:B0:3174:C:H1'	1.89	0.54
1:AA:685:G:C5'	13:AK:39:PRO:O	2.55	0.54
1:AA:35:G:H2'	1:AA:36:C:C6	2.43	0.54
1:AA:37:U:H2'	1:AA:547:A:C6	2.43	0.54
1:AA:476:U:C2'	1:AA:477:G:H5''	2.32	0.54
15:AM:8:GLU:OE1	15:AM:22:ILE:HA	2.08	0.54
1:AA:1494:G:O2'	1:AA:1495:U:H5'	2.08	0.54
1:AA:1261:A:C5'	1:AA:1283:G:O3'	2.56	0.54
23:B0:3184:C:H2'	23:B0:3185:U:H5'	1.89	0.54
1:AA:299:G:N2	1:AA:566:G:C5	2.64	0.54
4:AB:187:LEU:HD23	4:AB:214:ILE:HG21	1.90	0.54
23:B0:201:G:H2'	23:B0:202:A:C8	2.42	0.54
23:B0:2379:G:H2'	23:B0:2380:U:O4'	2.07	0.54
7:AE:80:ILE:HD13	7:AE:138:ALA:HB1	1.90	0.54
18:AP:43:LYS:HB3	18:AP:48:TRP:CD1	2.43	0.54
9:AG:113:GLU:HG2	9:AG:119:ARG:HG2	1.90	0.54
5:AC:139:GLN:O	5:AC:143:GLU:N	2.37	0.54
23:B0:319:G:H21	23:B0:340:G:H21	1.55	0.54
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.42	0.54
5:AC:14:ILE:HG22	5:AC:15:THR:N	2.12	0.54
12:AJ:62:HIS:CE1	16:AN:61:TRP:HH2	2.16	0.54
1:AA:826:C:O2'	10:AH:15:ASN:CB	2.56	0.54
1:AA:476:U:H3'	1:AA:477:G:OP1	2.08	0.54
1:AA:905:U:O4	1:AA:906:G:C2	2.61	0.54
1:AA:1184:G:H2'	1:AA:1185:G:H8	1.73	0.54
1:AA:1340:A:C3'	2:AV:32:C:H4'	2.38	0.54
15:AM:37:THR:HG22	15:AM:37:THR:O	2.07	0.54
6:AD:148:VAL:HG11	6:AD:158:ILE:HD13	1.89	0.54
9:AG:138:LYS:HE2	9:AG:142:GLU:OE1	2.08	0.54
18:AP:11:SER:OG	18:AP:14:ASN:HB3	2.08	0.54
9:AG:18:TYR:CE2	9:AG:59:LEU:HB2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:866:C:C4'	1:AA:919:A:OP1	2.55	0.53
1:AA:1344:C:H5'	11:AI:120:ARG:O	2.09	0.53
1:AA:264:U:C1'	19:AQ:64:PRO:CD	2.55	0.53
1:AA:1068:G:OP2	1:AA:1068:G:H8	1.91	0.53
1:AA:332:G:OP2	22:AT:10:LEU:HB3	1.91	0.53
7:AE:101:ILE:O	7:AE:120:THR:HB	2.08	0.53
1:AA:7:G:O2'	7:AE:120:THR:O	2.12	0.53
1:AA:905:U:C3'	1:AA:906:G:OP2	2.51	0.53
1:AA:1475:G:O3'	23:B0:1706:A:H5''	2.07	0.53
7:AE:76:ILE:O	7:AE:93:PRO:HB3	2.07	0.53
10:AH:56:LYS:N	10:AH:56:LYS:HD2	2.23	0.53
12:AJ:81:THR:C	12:AJ:83:GLU:H	2.10	0.53
21:AS:51:VAL:HG12	21:AS:52:TYR:N	2.23	0.53
19:AQ:27:PHE:CE1	19:AQ:36:ILE:HD11	2.42	0.53
23:B0:800:U:H3'	23:B0:804:C:H41	1.73	0.53
5:AC:112:SER:CB	5:AC:115:LEU:HD12	2.36	0.53
12:AJ:3:LYS:N	12:AJ:75:ILE:HA	2.22	0.53
23:B0:2246:A:H2'	23:B0:2246:A:N3	2.23	0.53
1:AA:1250:A:H4'	11:AI:68:GLY:N	2.23	0.53
9:AG:116:ALA:HA	9:AG:119:ARG:CZ	2.37	0.53
23:B0:1316:G:H2'	23:B0:1317:G:H8	1.72	0.53
23:B0:2241:U:H1'	23:B0:2307:A:H1'	1.90	0.53
23:B0:1137:A:H5''	23:B0:1138:A:H5''	1.90	0.53
23:B0:968:C:H2'	23:B0:970:A:OP1	2.08	0.53
10:AH:8:ASP:O	10:AH:12:ARG:HG3	2.08	0.53
10:AH:119:LEU:HD12	10:AH:124:ALA:HA	1.89	0.53
1:AA:743:U:H2'	1:AA:744:C:C6	2.43	0.53
9:AG:69:VAL:HG12	9:AG:100:ALA:HA	1.89	0.53
1:AA:818:G:H3'	1:AA:819:A:H5''	1.87	0.53
7:AE:18:ARG:HG2	7:AE:19:MET:N	2.24	0.53
1:AA:193:C:H2'	1:AA:194:C:H6	1.72	0.53
5:AC:181:ASN:HD21	5:AC:204:LEU:HD12	1.72	0.53
1:AA:279:A:OP2	19:AQ:95:TYR:CZ	2.61	0.53
19:AQ:104:LYS:HD3	23:B0:729:A:H62	1.74	0.53
1:AA:620:C:H2'	1:AA:621:A:O4'	2.07	0.53
1:AA:1003:G:C2	1:AA:2003:G:C6	2.96	0.53
4:AB:18:GLY:CA	4:AB:42:ILE:H	2.20	0.53
23:B0:3196:G:O2'	23:B0:3197:U:P	2.66	0.53
23:B0:45:C:H5''	23:B0:192:G:C8	2.43	0.53
16:AN:9:LYS:C	16:AN:9:LYS:HD3	2.28	0.53
1:AA:1128:C:H2'	1:AA:1129:C:H5''	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AV:16:U:O2'	2:AV:17:U:OP2	2.21	0.53
16:AN:44:LEU:HD12	16:AN:44:LEU:C	2.29	0.53
23:B0:2316:G:H2'	23:B0:2317:G:H8	1.74	0.53
1:AA:255:G:C4'	19:AQ:17:LYS:CB	2.86	0.53
22:AT:67:ALA:HB2	22:AT:77:ALA:HB2	1.88	0.53
1:AA:1190:G:OP1	5:AC:4:LYS:C	2.47	0.53
1:AA:1298:C:C6	9:AG:114:ARG:HD3	2.43	0.53
1:AA:1038:C:H2'	1:AA:1039:C:C6	2.43	0.53
1:AA:1315:U:H5	21:AS:6:LYS:HZ1	1.54	0.53
1:AA:317:G:P	1:AA:353:A:H61	2.29	0.53
23:B0:2623:A:H2'	23:B0:2624:G:O4'	2.09	0.53
9:AG:71:PRO:HD3	9:AG:103:TRP:HZ3	1.74	0.53
5:AC:33:LEU:C	5:AC:33:LEU:HD23	2.29	0.53
14:AL:53:ARG:NH1	14:AL:92:ASP:OD2	2.42	0.53
23:B0:658:G:H4'	23:B0:2331:A:H5'	1.90	0.53
23:B0:1217:U:H2'	23:B0:1218:C:C6	2.43	0.53
23:B0:239:A:H4'	23:B0:620:G:H5'	1.89	0.53
23:B0:2483:U:H2'	23:B0:2484:G:H5'	1.91	0.53
23:B0:2392:G:H2'	23:B0:2393:G:C8	2.44	0.53
1:AA:1457:A:C8	1:AA:1459:C:O2	2.60	0.53
1:AA:1015:A:C2'	1:AA:1219:U:C5'	2.81	0.53
1:AA:1367:C:OP2	11:AI:112:LYS:NZ	2.41	0.53
19:AQ:104:LYS:CD	23:B0:729:A:H62	2.21	0.53
1:AA:685:G:C4'	13:AK:39:PRO:O	2.56	0.53
1:AA:397:A:N6	1:AA:547:A:N9	2.52	0.53
1:AA:1405:G:H21	1:AA:1518:A:H1'	1.74	0.53
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.08	0.53
23:B0:1141:U:H5'	23:B0:2549:G:N2	2.23	0.53
1:AA:588:G:N3	1:AA:753:A:C6	2.75	0.53
12:AJ:22:LYS:CE	12:AJ:90:LEU:HD12	2.33	0.53
14:AL:53:ARG:HG2	14:AL:69:TYR:HE1	1.73	0.53
23:B0:412:U:H2'	23:B0:413:G:O4'	2.08	0.53
21:AS:42:PRO:O	21:AS:45:VAL:HG23	2.09	0.53
4:AB:75:LYS:HD3	4:AB:75:LYS:O	2.08	0.53
23:B0:757:U:O2'	23:B0:758:G:H5'	2.09	0.53
1:AA:960:U:H5'	1:AA:960:U:O2	2.08	0.53
2:AW:76:A:C2	23:B0:2562:G:C2	2.96	0.53
1:AA:252:U:H2'	1:AA:253:U:C6	2.44	0.53
1:AA:256:U:H5''	19:AQ:17:LYS:HE2	1.90	0.53
1:AA:130:A:C4	1:AA:264:U:N1	2.76	0.53
23:B0:1861:G:P	55:B5:38:GLY:CA	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:319:G:N3	1:AA:1434:A:N3	2.57	0.53
1:AA:300:A:H1'	1:AA:565:U:O2	2.09	0.53
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.08	0.53
11:AI:44:VAL:HG13	11:AI:51:ARG:NH2	2.23	0.53
15:AM:53:VAL:O	15:AM:57:ARG:HB2	2.08	0.53
1:AA:737:A:H1'	8:AF:73:ASN:CG	2.29	0.53
4:AB:73:THR:HG23	4:AB:95:GLN:O	2.09	0.53
7:AE:31:LEU:HD22	7:AE:43:LEU:CD2	2.39	0.53
23:B0:2494:C:H2'	23:B0:2495:G:C8	2.44	0.53
23:B0:459:A:H1'	23:B0:466:A:N7	2.23	0.53
23:B0:1298:G:N2	23:B0:1341:G:H5''	2.23	0.53
1:AA:80:C:H2'	1:AA:81:C:C6	2.43	0.53
1:AA:1503:A:C4	1:AA:1531:A:N3	2.77	0.53
1:AA:814:A:O3'	1:AA:815:A:P	2.67	0.53
1:AA:864:A:H2	1:AA:917:G:C2'	2.22	0.53
1:AA:677:U:O2	13:AK:119:CYS:SG	2.67	0.53
1:AA:1309:G:P	15:AM:88:ARG:NH2	2.80	0.53
4:AB:124:SER:O	4:AB:127:ILE:HG13	2.08	0.53
23:B0:1838:G:C2'	23:B0:1839:A:H5'	2.37	0.53
14:AL:55:VAL:HG11	14:AL:67:THR:HG23	1.91	0.53
5:AC:150:LYS:CE	5:AC:152:ILE:HD11	2.37	0.53
13:AK:14:VAL:O	13:AK:15:ALA:CB	2.57	0.53
11:AI:81:ILE:O	11:AI:85:LEU:HB2	2.08	0.53
23:B0:2445:C:H2'	23:B0:2446:C:O4'	2.08	0.53
10:AH:80:ILE:O	10:AH:80:ILE:HG22	2.08	0.53
4:AB:32:ILE:HD13	4:AB:40:HIS:CD2	2.44	0.53
6:AD:160:GLN:O	6:AD:163:GLU:HB3	2.08	0.53
23:B0:1479:G:N2	23:B0:1543:G:H21	2.06	0.53
23:B0:394:U:H2'	23:B0:395:G:H8	1.74	0.53
5:AC:113:ALA:HB3	5:AC:114:PRO:HD3	1.90	0.53
1:AA:922:G:C2	1:AA:1396:A:C6	2.95	0.53
1:AA:1343:G:P	11:AI:125:TYR:CE2	2.99	0.53
1:AA:9:G:O5'	7:AE:126:ARG:NE	2.41	0.53
1:AA:375:U:C3'	1:AA:376:G:P	2.96	0.53
5:AC:32:LEU:HD21	5:AC:59:ARG:HD2	1.91	0.53
1:AA:1347:G:C2'	1:AA:1348:U:OP2	2.56	0.53
12:AJ:44:VAL:HG22	12:AJ:66:ARG:HB3	1.91	0.53
23:B0:1746:A:C2'	23:B0:1747:G:H5'	2.36	0.53
23:B0:917:U:H2'	23:B0:918:A:O4'	2.09	0.53
23:B0:616:U:C2'	23:B0:617:U:H5''	2.35	0.53
14:AL:55:VAL:HG11	14:AL:67:THR:CG2	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1075:C:H5''	4:AB:179:LYS:NZ	2.23	0.53
10:AH:25:ASP:OD1	10:AH:60:ARG:HD3	2.09	0.53
23:B0:1288:A:O2'	23:B0:1289:A:H5'	2.08	0.53
23:B0:2322:U:O2'	23:B0:2323:U:H5'	2.09	0.53
9:AG:69:VAL:HG21	9:AG:104:LEU:HD21	1.89	0.53
15:AM:102:ARG:HB2	15:AM:102:ARG:NH1	2.24	0.53
1:AA:1015:A:O2'	1:AA:1219:U:H5''	2.06	0.53
1:AA:191:G:O3'	1:AA:192:U:OP1	2.26	0.53
1:AA:94:G:C4	1:AA:96:C:C6	2.97	0.53
1:AA:7:G:H5'	1:AA:298:A:H5'	1.89	0.53
23:B0:3102:G:H2'	23:B0:3103:A:H8	1.74	0.53
1:AA:101:A:H2'	1:AA:102:G:H8	1.74	0.53
1:AA:1409:C:H2'	1:AA:1410:G:O4'	2.09	0.53
14:AL:47:LYS:HB3	14:AL:48:PRO:HD3	1.91	0.53
1:AA:66:G:C4'	1:AA:199:G:H4'	2.37	0.53
5:AC:138:VAL:HG21	5:AC:168:ALA:HB1	1.89	0.53
23:B0:1791:C:H2'	23:B0:1792:C:H5''	1.91	0.53
23:B0:2470:U:O2'	23:B0:2471:U:H5'	2.08	0.53
23:B0:513:A:H4'	23:B0:515:A:H5'	1.90	0.53
11:AI:17:VAL:HG11	11:AI:81:ILE:HA	1.90	0.53
16:AN:44:LEU:HD12	16:AN:44:LEU:O	2.08	0.53
23:B0:216:U:H5''	23:B0:601:A:N6	2.23	0.53
1:AA:953:G:H2'	1:AA:954:G:O4'	2.09	0.53
1:AA:977:A:C2'	1:AA:978:A:H5''	2.38	0.53
1:AA:266:G:H5'	19:AQ:66:SER:C	2.28	0.53
19:AQ:67:LYS:CA	19:AQ:70:ARG:HH12	2.21	0.53
22:AT:76:ALA:O	22:AT:80:ARG:HG2	2.09	0.53
1:AA:108:G:N7	22:AT:12:ALA:HB1	2.23	0.53
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.09	0.53
1:AA:1483:A:C6	1:AA:1484:C:N3	2.76	0.53
1:AA:27:G:N7	1:AA:557:G:N1	2.54	0.53
1:AA:1498:U:O4'	1:AA:1519:A:C2	2.55	0.53
1:AA:217:C:H1'	1:AA:469:C:O2'	2.09	0.53
15:AM:94:ARG:NH2	21:AS:81:ARG:NH1	2.55	0.53
14:AL:46:LYS:CG	14:AL:47:LYS:N	2.71	0.53
23:B0:366:U:H2'	23:B0:367:G:C8	2.43	0.53
1:AA:32:A:OP1	1:AA:398:C:H1'	2.08	0.53
5:AC:130:VAL:HG12	5:AC:134:ILE:HD11	1.91	0.53
23:B0:2057:U:H1'	23:B0:2577:A:H1'	1.90	0.53
23:B0:1286:U:H5''	23:B0:1663:C:H42	1.73	0.53
8:AF:3:ARG:NH2	8:AF:64:GLN:NE2	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AI:23:ASN:C	11:AI:23:ASN:HD22	2.12	0.53
23:B0:1789:U:C2'	23:B0:1790:G:H5'	2.39	0.53
23:B0:605:G:H4'	23:B0:949:G:O2'	2.08	0.53
20:AR:73:ALA:HB3	20:AR:79:LEU:HD12	1.91	0.53
23:B0:1730:G:H2'	23:B0:1731:C:C6	2.43	0.53
1:AA:1232:U:OP1	11:AI:126:SER:N	2.42	0.53
1:AA:475:C:H2'	1:AA:476:U:C6	2.44	0.53
1:AA:835:U:OP2	20:AR:60:GLY:HA3	2.08	0.53
1:AA:9:G:C5'	7:AE:126:ARG:CD	2.71	0.53
6:AD:57:ARG:HH21	7:AE:107:ARG:NH1	2.00	0.53
1:AA:1257:U:O2'	1:AA:1258:G:OP2	2.21	0.53
1:AA:1113:C:N1	5:AC:178:LEU:HD23	2.24	0.53
1:AA:150:C:C3'	1:AA:151:A:P	2.97	0.53
23:B0:2010:G:H2'	23:B0:2011:U:O4'	2.09	0.53
1:AA:33:A:H2'	1:AA:34:C:C6	2.44	0.53
1:AA:623:C:O2'	1:AA:624:C:H5'	2.09	0.53
23:B0:665:A:OP2	23:B0:666:U:H5'	2.09	0.53
1:AA:791:G:H2'	1:AA:792:A:H5'	1.91	0.53
15:AM:11:ARG:CG	15:AM:12:ASN:N	2.72	0.53
23:B0:1474:A:H3'	23:B0:1474:A:N3	2.23	0.53
1:AA:386:C:C2'	1:AA:387:U:H5'	2.39	0.53
23:B0:192:G:C4'	23:B0:193:A:H4'	2.38	0.53
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.44	0.53
6:AD:126:ILE:HG22	6:AD:127:THR:N	2.23	0.53
1:AA:1481:U:O2'	1:AA:1482:G:H5'	2.09	0.53
23:B0:2025:A:H2'	23:B0:2026:C:H5''	1.91	0.53
24:B9:81:C:H2'	24:B9:82:U:O4'	2.09	0.53
1:AA:21:G:C1'	1:AA:914:A:H61	2.05	0.52
1:AA:13:U:O4'	1:AA:914:A:OP1	2.27	0.52
1:AA:13:U:C4	1:AA:915:A:C8	2.97	0.52
1:AA:188:C:C2	22:AT:106:ALA:HA	2.44	0.52
1:AA:545:C:O2'	1:AA:549:C:H5''	2.09	0.52
1:AA:621:A:H2'	1:AA:622:A:C8	2.44	0.52
1:AA:835:U:O5'	20:AR:64:ARG:NH2	2.39	0.52
1:AA:1347:G:C5	11:AI:107:ARG:NH1	2.78	0.52
1:AA:1211:U:C3'	1:AA:1212:U:P	2.96	0.52
1:AA:1003:G:N2	1:AA:1039:C:C2	2.77	0.52
15:AM:88:ARG:HG3	15:AM:98:VAL:CG1	2.40	0.52
4:AB:134:GLU:C	4:AB:136:VAL:H	2.12	0.52
21:AS:53:ASN:HB2	21:AS:56:GLN:H	1.73	0.52
1:AA:370:C:O2'	1:AA:371:G:H5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AP:19:ILE:HG22	18:AP:36:ILE:HG13	1.90	0.52
23:B0:1289:A:O2'	23:B0:1290:A:H5'	2.09	0.52
1:AA:1359:C:C5	16:AN:35:ARG:CZ	2.92	0.52
23:B0:468:A:H2'	23:B0:469:G:H4'	1.90	0.52
23:B0:669:G:H2'	23:B0:670:U:C6	2.44	0.52
1:AA:247:G:N2	1:AA:282:A:C2	2.69	0.52
1:AA:762:C:C4'	23:B0:729:A:N6	2.71	0.52
7:AE:79:GLU:CD	10:AH:105:ARG:NE	2.62	0.52
1:AA:976:G:OP1	16:AN:31:ARG:O	2.27	0.52
4:AB:10:LEU:C	4:AB:12:GLU:H	2.12	0.52
5:AC:23:TYR:CD2	5:AC:24:ALA:N	2.78	0.52
5:AC:83:ARG:C	5:AC:85:ARG:N	2.62	0.52
1:AA:1006:C:H2'	1:AA:1007:C:C6	2.44	0.52
1:AA:357:G:O2'	1:AA:358:U:H5'	2.10	0.52
23:B0:579:G:H2'	23:B0:2013:A:N6	2.24	0.52
23:B0:2860:C:H2'	23:B0:2861:A:O4'	2.09	0.52
1:AA:1121:U:H2'	1:AA:1122:U:H6	1.73	0.52
14:AL:82:VAL:N	14:AL:106:ASP:OD1	2.34	0.52
1:AA:1393:U:O2	1:AA:1395:C:N3	2.42	0.52
19:AQ:45:HIS:HB2	19:AQ:65:ILE:CD1	2.37	0.52
19:AQ:104:LYS:HE3	23:B0:729:A:H62	1.74	0.52
7:AE:74:GLY:HA3	7:AE:116:THR:HG22	1.92	0.52
1:AA:828:A:N3	4:AB:26:PRO:CB	2.72	0.52
1:AA:115:G:N2	1:AA:117:G:O6	2.42	0.52
14:AL:42:THR:HG21	14:AL:52:LEU:HB3	1.91	0.52
1:AA:186:C:C5'	22:AT:81:LYS:HZ3	2.21	0.52
1:AA:148:G:H2'	1:AA:149:A:H8	1.74	0.52
5:AC:22:TRP:CZ2	16:AN:54:PRO:HG3	2.44	0.52
13:AK:17:GLY:O	13:AK:80:VAL:HA	2.09	0.52
5:AC:77:ILE:HG22	5:AC:81:GLY:HA2	1.90	0.52
1:AA:134:A:H1'	1:AA:325:A:C4	2.44	0.52
23:B0:2329:C:C2'	23:B0:2330:G:H5'	2.39	0.52
23:B0:490:A:O2'	23:B0:491:A:H5'	2.09	0.52
23:B0:1278:A:H4'	23:B0:1279:G:O5'	2.08	0.52
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.09	0.52
21:AS:10:PHE:C	21:AS:10:PHE:CD2	2.83	0.52
1:AA:1234:C:C4'	1:AA:1364:U:H1'	2.40	0.52
23:B0:3875:A:O2'	55:B5:44:GLY:CA	2.57	0.52
19:AQ:104:LYS:CG	23:B0:726:G:C5	2.91	0.52
1:AA:476:U:C2'	1:AA:477:G:H5'	2.39	0.52
1:AA:1435:G:H2'	1:AA:1436:U:H6	1.69	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1239:A:C2'	1:AA:1298:C:N4	2.68	0.52
23:B0:3148:G:H2'	23:B0:3149:G:H5'	1.91	0.52
1:AA:299:G:H2'	1:AA:300:A:C8	2.44	0.52
23:B0:3098:U:C6	23:B0:3099:U:C5	2.98	0.52
1:AA:1424:C:O2'	1:AA:1425:U:H5'	2.09	0.52
1:AA:1428:A:H2'	1:AA:1429:C:C6	2.44	0.52
5:AC:20:SER:HB3	5:AC:22:TRP:NE1	2.24	0.52
21:AS:13:ASP:O	21:AS:17:GLU:HG2	2.10	0.52
23:B0:2240:C:H2'	23:B0:2241:U:H5'	1.90	0.52
23:B0:841:G:N3	23:B0:841:G:H3'	2.24	0.52
23:B0:839:U:H2'	23:B0:841:G:O4'	2.09	0.52
23:B0:2418:A:H4'	23:B0:2420:C:OP2	2.10	0.52
1:AA:13:U:C1'	1:AA:914:A:C5'	2.87	0.52
1:AA:1317:C:N1	16:AN:16:PHE:CD2	2.77	0.52
1:AA:994:A:C5	16:AN:5:ALA:CB	2.89	0.52
1:AA:252:U:H1'	1:AA:275:G:C2	2.44	0.52
1:AA:216:C:C5'	1:AA:466:A:H61	2.10	0.52
4:AB:23:ARG:O	4:AB:24:TRP:O	2.27	0.52
1:AA:323:U:H4'	22:AT:19:SER:CA	2.30	0.52
1:AA:501:C:H1'	1:AA:549:C:H1'	1.91	0.52
23:B0:942:U:O2'	23:B0:943:U:H5'	2.09	0.52
1:AA:979:C:H2'	1:AA:980:C:H5'	1.91	0.52
1:AA:1409:C:N3	1:AA:1410:G:N7	2.57	0.52
1:AA:588:G:O6	1:AA:753:A:C8	2.62	0.52
4:AB:15:VAL:HG11	4:AB:209:ARG:C	2.30	0.52
23:B0:509:U:H3	23:B0:513:A:H62	1.58	0.52
1:AA:134:A:H1'	1:AA:325:A:C5	2.44	0.52
23:B0:860:U:H2'	23:B0:861:G:H5'	1.90	0.52
15:AM:117:VAL:HG12	15:AM:118:ALA:N	2.24	0.52
1:AA:1202:G:H2'	1:AA:1203:C:O4'	2.10	0.52
24:B9:50:U:H2'	24:B9:51:G:C8	2.44	0.52
23:B0:2533:U:H2'	23:B0:2534:U:C6	2.45	0.52
1:AA:130:A:H2	1:AA:263:A:C2	2.25	0.52
23:B0:1856:U:H2'	23:B0:3865:A:C8	2.45	0.52
1:AA:538:G:P	14:AL:114:LYS:HB2	2.49	0.52
1:AA:546:G:H5'	1:AA:549:C:OP1	2.09	0.52
11:AI:48:GLU:OE1	11:AI:51:ARG:HD2	2.09	0.52
1:AA:69:G:C8	1:AA:102:G:C6	2.96	0.52
1:AA:1027:C:O3'	1:AA:1028:C:P	2.68	0.52
11:AI:127:LYS:HD2	11:AI:127:LYS:N	2.25	0.52
9:AG:85:TYR:HD1	9:AG:154:TYR:CE1	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.75	0.52
23:B0:176:A:H1'	23:B0:2221:G:H21	1.75	0.52
8:AF:43:LEU:CD2	8:AF:43:LEU:H	2.23	0.52
20:AR:19:LYS:O	20:AR:20:ALA:HB2	2.10	0.52
23:B0:2698:G:H2'	23:B0:2699:G:C8	2.45	0.52
1:AA:921:U:O4	1:AA:1396:A:N1	2.43	0.52
23:B0:3128:G:H5'	23:B0:3174:C:C1'	2.39	0.52
1:AA:994:A:N1	16:AN:4:LYS:C	2.38	0.52
1:AA:131:C:N1	1:AA:262:A:C2	2.77	0.52
23:B0:3866:A:N7	23:B0:3875:A:H2	2.07	0.52
4:AB:26:PRO:O	4:AB:29:ALA:HB2	2.10	0.52
22:AT:50:GLU:O	22:AT:100:ILE:HD12	2.09	0.52
1:AA:476:U:C5	1:AA:477:G:O5'	2.62	0.52
23:B0:3877:A:C3'	23:B0:3877:A:C8	2.92	0.52
5:AC:94:LEU:HD22	5:AC:95:THR:HG23	1.92	0.52
1:AA:600:C:OP1	10:AH:97:VAL:HG12	2.10	0.52
16:AN:33:VAL:HA	16:AN:40:CYS:HA	1.91	0.52
12:AJ:27:ALA:HB1	12:AJ:81:THR:HG23	1.92	0.52
1:AA:114:U:H1'	1:AA:353:A:H1'	1.91	0.52
1:AA:844:A:H2'	1:AA:845:A:C8	2.44	0.52
22:AT:93:GLU:HA	22:AT:93:GLU:OE2	2.09	0.52
1:AA:373:A:O2'	1:AA:374:A:H5'	2.09	0.52
1:AA:1296:C:C5'	15:AM:14:ARG:HD2	2.40	0.52
1:AA:819:A:N7	1:AA:1529:G:C2	2.77	0.52
1:AA:21:G:N3	1:AA:914:A:N7	2.57	0.52
1:AA:1367:C:H5''	11:AI:114:TYR:HB2	1.91	0.52
12:AJ:62:HIS:CB	16:AN:59:ALA:CA	2.87	0.52
1:AA:473:C:O2'	1:AA:474:U:H5'	2.09	0.52
23:B0:3877:A:H3'	23:B0:3877:A:C8	2.45	0.52
1:AA:239:U:C5'	1:AA:240:C:OP1	2.58	0.52
1:AA:1483:A:C5	1:AA:1484:C:N3	2.78	0.52
15:AM:93:ARG:HD3	23:B0:900:U:H4'	1.92	0.52
1:AA:1038:C:H2'	1:AA:1039:C:H6	1.75	0.52
24:B9:107:C:C2'	24:B9:108:G:H5'	2.39	0.52
23:B0:929:A:H3'	23:B0:930:A:C5'	2.30	0.52
1:AA:1426:C:H2'	1:AA:1427:U:C6	2.44	0.52
8:AF:8:ILE:HD11	8:AF:79:LEU:HD13	1.92	0.52
10:AH:14:ARG:O	10:AH:18:ARG:HD3	2.10	0.52
23:B0:2401:A:H2'	23:B0:2403:C:C5	2.45	0.52
23:B0:1018:C:H2'	23:B0:1019:U:C5	2.44	0.52
1:AA:1397:C:H4'	1:AA:1398:A:OP2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1505:G:C4'	1:AA:1506:U:O5'	2.41	0.52
6:AD:88:VAL:HG13	7:AE:97:GLY:HA2	0.59	0.52
16:AN:3:ARG:O	16:AN:4:LYS:C	2.48	0.52
23:B0:1856:U:O4	23:B0:3865:A:N6	2.39	0.52
1:AA:779:C:HO2'	13:AK:120:ARG:HH11	1.57	0.52
14:AL:119:LYS:O	14:AL:120:TYR:HB2	2.10	0.52
1:AA:1256:A:C4'	1:AA:1258:G:C8	2.90	0.52
15:AM:77:ASN:O	15:AM:80:ARG:HB3	2.10	0.52
12:AJ:69:ASN:O	12:AJ:70:ARG:HD3	2.10	0.52
9:AG:42:ILE:CG2	9:AG:120:ILE:HD12	2.39	0.52
4:AB:142:LEU:HD22	4:AB:146:GLN:HE22	1.73	0.52
23:B0:1686:A:H2'	23:B0:1687:C:H5'	1.92	0.52
23:B0:1325:U:H4'	23:B0:1326:U:C5	2.45	0.52
10:AH:24:THR:HG23	10:AH:61:VAL:HB	1.92	0.52
15:AM:73:GLU:O	15:AM:76:ALA:HB3	2.09	0.52
23:B0:476:G:H2'	23:B0:477:A:C8	2.45	0.52
1:AA:1458:G:O3'	22:AT:24:LEU:HD21	2.10	0.52
19:AQ:45:HIS:CB	19:AQ:65:ILE:HD13	2.39	0.52
16:AN:57:ARG:HG2	16:AN:58:LYS:H	1.75	0.52
1:AA:163:C:O2'	1:AA:164:U:H5'	2.10	0.52
1:AA:684:A:C4'	13:AK:38:ASN:ND2	2.73	0.52
1:AA:36:C:O2'	1:AA:501:C:H5''	2.10	0.52
1:AA:406:G:H1'	1:AA:496:A:N6	2.25	0.52
23:B0:3093:C:C2	23:B0:2204:A:N6	2.78	0.52
1:AA:170:U:C2'	1:AA:171:A:H5'	2.39	0.52
1:AA:1518:A:H2'	1:AA:1519:A:C8	2.45	0.52
1:AA:376:G:C5'	18:AP:5:ARG:HD2	2.36	0.52
24:B9:73:C:H3'	24:B9:74:A:P	2.48	0.52
1:AA:1428:A:C4'	23:B0:1704:G:H5'	2.40	0.52
5:AC:108:ASN:C	5:AC:110:ASN:H	2.12	0.52
7:AE:12:LEU:HD22	7:AE:12:LEU:C	2.30	0.52
23:B0:1029:C:C3'	23:B0:1030:U:H5''	2.40	0.52
1:AA:794:A:H2'	1:AA:795:C:C6	2.45	0.52
12:AJ:38:ILE:HG13	12:AJ:71:LEU:HB3	1.90	0.52
23:B0:2245:A:H4'	23:B0:2246:A:O5'	2.10	0.52
23:B0:1140:A:H61	23:B0:2470:U:H6	1.58	0.52
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.45	0.52
23:B0:81:C:H4'	23:B0:307:C:H5'	1.92	0.52
1:AA:1251:A:H4'	11:AI:12:GLU:OE2	2.10	0.52
1:AA:853:G:O2'	1:AA:854:G:H5'	2.10	0.52
23:B0:758:G:H2'	23:B0:759:C:H5'	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1296:C:H5''	15:AM:14:ARG:HD2	1.91	0.52
23:B0:959:C:H5''	23:B0:972:C:O2'	2.10	0.52
23:B0:986:A:H2'	23:B0:987:G:H5'	1.92	0.52
10:AH:49:GLU:HG2	10:AH:62:TYR:HE2	1.75	0.52
7:AE:13:ILE:HG22	7:AE:30:ALA:CB	2.40	0.52
2:AV:76:A:OP1	23:B0:2564:U:O4'	2.28	0.51
1:AA:472:G:O2'	1:AA:473:C:H5'	2.10	0.51
1:AA:1241:G:H2'	1:AA:1242:C:H6	1.75	0.51
2:AV:75:C:O2'	23:B0:2047:C:P	2.68	0.51
1:AA:33:A:OP2	1:AA:398:C:C5'	2.57	0.51
2:AV:41:U:H6	2:AV:41:U:C5'	2.13	0.51
8:AF:10:LEU:HD11	8:AF:59:TYR:CD2	2.41	0.51
12:AJ:22:LYS:NZ	12:AJ:91:PRO:HD3	2.25	0.51
5:AC:70:VAL:O	5:AC:106:VAL:HG23	2.09	0.51
23:B0:1038:U:O2	23:B0:2466:G:H4'	2.10	0.51
7:AE:40:ARG:HG2	7:AE:40:ARG:HH11	1.76	0.51
23:B0:1431:U:H2'	23:B0:1432:G:O4'	2.09	0.51
1:AA:1129:C:O2'	1:AA:1130:A:OP2	2.24	0.51
23:B0:840:U:H4'	23:B0:841:G:C2	2.45	0.51
23:B0:77:C:H2'	23:B0:78:C:C6	2.45	0.51
1:AA:277:C:OP1	19:AQ:41:LYS:HE3	2.10	0.51
23:B0:441:A:H2'	23:B0:442:A:O4'	2.10	0.51
23:B0:451:A:H2'	23:B0:452:G:C8	2.45	0.51
1:AA:1458:G:O5'	1:AA:1458:G:H8	1.91	0.51
1:AA:1457:A:C4	1:AA:1459:C:C2	2.89	0.51
1:AA:1191:A:H2'	1:AA:1192:C:C6	2.45	0.51
5:AC:177:THR:O	5:AC:177:THR:HG23	2.10	0.51
1:AA:1261:A:H4'	1:AA:1283:G:C5'	2.40	0.51
13:AK:62:GLN:HG3	13:AK:97:ALA:HB2	1.92	0.51
1:AA:1085:U:O3'	1:AA:1086:U:C6	2.64	0.51
1:AA:588:G:N9	1:AA:753:A:N1	2.58	0.51
6:AD:65:ARG:HB2	6:AD:75:PHE:CE1	2.45	0.51
23:B0:1029:C:OP1	23:B0:1047:G:H4'	2.10	0.51
23:B0:230:C:H2'	23:B0:231:G:O4'	2.10	0.51
1:AA:791:G:H2'	1:AA:792:A:C5'	2.40	0.51
23:B0:925:U:H4'	23:B0:926:C:C6	2.45	0.51
23:B0:513:A:C4'	23:B0:515:A:H5'	2.40	0.51
23:B0:652:C:H42	23:B0:657:A:H61	1.56	0.51
5:AC:84:ILE:HG12	5:AC:84:ILE:O	2.10	0.51
20:AR:46:GLU:CD	20:AR:46:GLU:H	2.13	0.51
11:AI:31:GLN:HB3	11:AI:35:GLU:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:1031:C:H1'	23:B0:1151:U:O2	2.09	0.51
23:B0:864:C:H2'	23:B0:865:A:C8	2.46	0.51
13:AK:27:ASN:HA	13:AK:56:GLY:HA2	1.92	0.51
23:B0:2038:C:H5'	23:B0:2039:G:H5'	1.91	0.51
1:AA:246:A:N6	1:AA:281:G:H1'	2.24	0.51
19:AQ:102:GLY:O	23:B0:726:G:C2	2.63	0.51
7:AE:115:VAL:HG12	7:AE:116:THR:N	2.24	0.51
1:AA:37:U:C1'	1:AA:547:A:C2	2.94	0.51
1:AA:1473:A:C2'	23:B0:1718:A:C2	2.93	0.51
1:AA:375:U:O3'	1:AA:376:G:O5'	2.28	0.51
2:AW:25:C:H2'	2:AW:26:G:H5'	1.58	0.51
1:AA:148:G:H2'	1:AA:149:A:C8	2.45	0.51
1:AA:846:C:O2'	1:AA:847:C:H5'	2.10	0.51
1:AA:1423:G:O2'	1:AA:1424:C:H5'	2.09	0.51
23:B0:215:G:H4'	23:B0:617:U:O2'	2.09	0.51
23:B0:1807:A:H5'	23:B0:1809:G:C1'	2.40	0.51
23:B0:341:A:H1'	23:B0:1223:G:O6	2.10	0.51
1:AA:1021:G:C2	1:AA:1022:G:H1'	2.45	0.51
23:B0:2217:G:H4'	23:B0:2219:U:C5	2.46	0.51
23:B0:1220:G:H2'	23:B0:1221:C:C6	2.45	0.51
1:AA:911:U:P	14:AL:97:ARG:HH21	2.33	0.51
23:B0:2841:U:O2	23:B0:2843:A:H1'	2.11	0.51
1:AA:580:U:H2'	1:AA:581:G:O4'	2.11	0.51
1:AA:1194:U:H5''	7:AE:22:GLY:C	2.31	0.51
1:AA:572:A:H4'	1:AA:917:G:H5'	1.92	0.51
1:AA:943:U:O4'	11:AI:124:GLN:NE2	2.43	0.51
11:AI:125:TYR:N	11:AI:125:TYR:CD2	2.78	0.51
1:AA:828:A:H2'	1:AA:829:G:O4'	2.10	0.51
1:AA:707:C:H4'	13:AK:20:TYR:CD2	2.45	0.51
23:B0:2205:C:H2'	23:B0:2206:C:C6	2.46	0.51
1:AA:1305:G:OP2	1:AA:1305:G:C8	2.64	0.51
1:AA:974:A:OP2	16:AN:29:ARG:NH2	2.42	0.51
1:AA:605:U:O2'	1:AA:606:G:H5'	2.10	0.51
2:AV:40:C:H2'	2:AV:41:U:C5'	2.40	0.51
12:AJ:39:PRO:O	12:AJ:40:LEU:CB	2.57	0.51
4:AB:206:ASP:O	4:AB:207:ALA:HB3	2.11	0.51
23:B0:1712:G:H2'	23:B0:1713:G:H5'	1.91	0.51
5:AC:47:LEU:N	5:AC:47:LEU:CD1	2.74	0.51
1:AA:80:C:H2'	1:AA:81:C:H6	1.76	0.51
2:AW:69:U:H2'	2:AW:70:C:C6	2.46	0.51
1:AA:999:C:H2'	1:AA:1000:U:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:1818:G:H2'	23:B0:1819:U:C6	2.45	0.51
21:AS:50:ALA:HA	21:AS:58:VAL:O	2.10	0.51
13:AK:126:ARG:O	13:AK:127:LYS:C	2.48	0.51
1:AA:322:C:C2'	22:AT:23:ARG:HB2	2.41	0.51
1:AA:261:U:H3'	22:AT:79:ARG:NH1	2.24	0.51
1:AA:112:G:OP1	18:AP:27:LYS:HE3	2.11	0.51
1:AA:129:U:H5'	19:AQ:3:LYS:HE3	1.92	0.51
5:AC:97:LYS:O	5:AC:98:ASN:HB3	2.10	0.51
1:AA:1113:C:C2	5:AC:178:LEU:CD2	2.94	0.51
11:AI:44:VAL:CG1	11:AI:51:ARG:HH12	2.23	0.51
22:AT:39:LYS:HD2	22:AT:55:ILE:CD1	2.27	0.51
10:AH:126:LYS:C	10:AH:128:GLY:H	2.14	0.51
15:AM:49:THR:CG2	15:AM:51:ALA:H	2.13	0.51
5:AC:154:SER:O	5:AC:165:THR:HA	2.09	0.51
5:AC:167:TRP:O	5:AC:168:ALA:HB3	2.11	0.51
23:B0:1955:G:C2'	23:B0:1956:G:H5'	2.38	0.51
1:AA:1167:A:H2'	1:AA:1168:A:C8	2.45	0.51
4:AB:17:PHE:HD1	4:AB:17:PHE:C	2.14	0.51
8:AF:69:GLU:OE1	8:AF:69:GLU:N	2.44	0.51
4:AB:166:ASP:OD2	4:AB:169:LYS:HB2	2.09	0.51
23:B0:192:G:H4'	23:B0:193:A:H4'	1.91	0.51
23:B0:2320:G:H2'	23:B0:2321:C:O4'	2.09	0.51
12:AJ:23:ILE:HD12	12:AJ:23:ILE:N	2.26	0.51
23:B0:1625:A:H2'	23:B0:1625:A:N3	2.25	0.51
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.11	0.51
23:B0:1597:A:H2'	23:B0:1598:C:C6	2.46	0.51
6:AD:43:HIS:CE1	6:AD:46:LYS:HZ2	2.28	0.51
12:AJ:51:ARG:HB2	12:AJ:59:SER:CB	2.23	0.51
12:AJ:62:HIS:HB2	16:AN:59:ALA:C	2.31	0.51
1:AA:760:G:H1	19:AQ:105:ALA:HB2	1.76	0.51
6:AD:8:VAL:HG13	6:AD:21:LEU:HD13	1.92	0.51
22:AT:41:VAL:O	22:AT:45:GLN:HB2	2.10	0.51
2:AV:75:C:P	23:B0:2581:A:H5'	2.36	0.51
22:AT:43:LEU:CD1	22:AT:55:ILE:HD12	2.40	0.51
23:B0:1251:G:H2'	23:B0:1252:C:C6	2.46	0.51
4:AB:121:LEU:O	4:AB:127:ILE:HG12	2.11	0.51
4:AB:126:GLU:O	4:AB:129:GLU:HB2	2.11	0.51
1:AA:1329:A:O2'	1:AA:1330:U:H5'	2.11	0.51
1:AA:588:G:C8	1:AA:753:A:C4	2.98	0.51
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.45	0.51
23:B0:2245:A:O2'	23:B0:2246:A:OP2	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AE:15:ARG:O	7:AE:16:THR:O	2.28	0.51
23:B0:1210:C:H2'	23:B0:1211:G:O4'	2.09	0.51
5:AC:34:LEU:O	5:AC:34:LEU:HD23	2.10	0.51
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.46	0.51
23:B0:630:G:H2'	23:B0:631:G:H5'	1.92	0.51
23:B0:1373:G:H1	23:B0:2192:U:H3	1.58	0.51
23:B0:484:G:O2'	23:B0:485:G:H5'	2.11	0.51
1:AA:1014:A:H5'	21:AS:33:THR:HG23	1.93	0.51
1:AA:1059:C:O2'	1:AA:1060:C:H5'	2.11	0.51
1:AA:160:A:N6	1:AA:347:G:N2	2.55	0.51
1:AA:38:G:H1'	1:AA:547:A:N9	2.25	0.51
1:AA:707:C:H5''	13:AK:85:ARG:CZ	2.36	0.51
1:AA:1404:C:O2	1:AA:1519:A:O2'	2.29	0.51
1:AA:1044:A:C2'	1:AA:1045:C:O2'	2.51	0.51
1:AA:2003:G:N1	1:AA:1004:A:H1'	2.25	0.51
16:AN:22:THR:OG1	16:AN:33:VAL:HG21	2.11	0.51
5:AC:188:LEU:CD1	5:AC:195:VAL:HG13	2.41	0.51
5:AC:134:ILE:HG21	5:AC:167:TRP:O	2.10	0.51
2:AW:40:C:H2'	2:AW:41:U:C5'	2.40	0.51
1:AA:1430:C:H4'	23:B0:1721:G:H5''	1.93	0.51
1:AA:650:G:C2'	1:AA:651:C:H5'	2.40	0.51
7:AE:12:LEU:CD1	7:AE:31:LEU:HB2	2.39	0.51
4:AB:33:TYR:HB3	4:AB:41:ILE:HG22	1.93	0.51
23:B0:66:U:H2'	23:B0:67:G:C8	2.46	0.51
4:AB:186:ALA:HB3	4:AB:197:VAL:CG1	2.41	0.51
1:AA:944:G:O6	1:AA:1337:G:H8	1.94	0.51
5:AC:79:ARG:HG2	5:AC:82:GLU:HG2	1.92	0.51
1:AA:1021:G:C2'	1:AA:1022:G:H5'	2.40	0.51
23:B0:2404:A:H5''	23:B0:2405:A:H3'	1.93	0.51
23:B0:604:U:H2'	23:B0:605:G:C8	2.46	0.51
1:AA:675:A:HO2'	13:AK:116:HIS:CD2	2.27	0.51
1:AA:922:G:C6	1:AA:1396:A:N1	2.73	0.51
2:AW:76:A:N3	23:B0:2486:C:O2	2.43	0.51
1:AA:131:C:C4'	1:AA:263:A:O4'	2.58	0.51
1:AA:1067:A:C2'	1:AA:1068:G:OP2	2.58	0.51
1:AA:1110:A:C2'	1:AA:1111:A:C5'	2.89	0.51
7:AE:121:LYS:HE3	7:AE:123:LEU:HD21	1.93	0.51
23:B0:1087:C:H2'	23:B0:1088:A:O4'	2.11	0.51
1:AA:113:G:H1'	1:AA:354:G:H5''	1.91	0.51
15:AM:93:ARG:NH1	23:B0:900:U:H5''	2.22	0.51
1:AA:692:U:H5	13:AK:26:ASN:OD1	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1314:C:C5	21:AS:6:LYS:HD3	2.45	0.51
1:AA:1057:G:H5''	5:AC:154:SER:CB	2.34	0.51
1:AA:1248:A:O2'	11:AI:70:LYS:NZ	2.44	0.51
23:B0:832:A:H2'	23:B0:833:A:O4'	2.11	0.51
23:B0:795:A:H4'	23:B0:796:A:C8	2.46	0.51
23:B0:1712:G:C2'	23:B0:1713:G:H5'	2.40	0.51
23:B0:333:A:H1'	23:B0:351:A:C4	2.45	0.51
23:B0:841:G:H4'	23:B0:844:G:N1	2.26	0.51
23:B0:2038:C:H5'	23:B0:2039:G:C5'	2.41	0.51
23:B0:1492:A:H2	23:B0:1531:C:H41	1.59	0.51
1:AA:130:A:N1	1:AA:264:U:C2	2.78	0.51
1:AA:497:A:O3'	1:AA:498:U:P	2.69	0.51
1:AA:619:U:C2	6:AD:135:LEU:HD11	2.29	0.51
1:AA:203:A:O2'	1:AA:206:C:H4'	2.10	0.51
24:B9:111:C:H5''	24:B9:112:A:H5''	1.93	0.51
14:AL:45:PRO:HD3	14:AL:51:ALA:O	2.11	0.51
1:AA:848:G:O3'	1:AA:849:C:O4'	2.29	0.51
7:AE:89:ILE:HD13	7:AE:90:VAL:H	1.75	0.51
23:B0:1181:C:H2'	23:B0:1182:U:C5'	2.38	0.51
23:B0:804:C:O2	23:B0:807:A:H5'	2.11	0.51
4:AB:96:ARG:O	4:AB:98:LEU:HD23	2.11	0.51
1:AA:1094:G:H5''	1:AA:1095:U:H5	1.75	0.51
9:AG:102:ARG:O	9:AG:106:GLN:HG3	2.10	0.51
11:AI:10:ARG:HG2	11:AI:75:ASP:CB	2.41	0.51
23:B0:80:A:H2'	23:B0:81:C:O4'	2.11	0.51
16:AN:28:GLY:O	16:AN:30:ALA:N	2.43	0.51
9:AG:18:TYR:HD2	9:AG:59:LEU:HD22	1.76	0.51
23:B0:579:G:H2'	23:B0:2013:A:H62	1.75	0.51
23:B0:1611:U:H2'	23:B0:1612:U:O4'	2.11	0.51
23:B0:1532:A:H2'	23:B0:1533:G:C8	2.46	0.51
23:B0:18:U:H2'	23:B0:19:C:C6	2.46	0.51
6:AD:170:VAL:CG1	6:AD:174:LEU:HB2	2.39	0.51
4:AB:53:ARG:NH1	4:AB:53:ARG:HG2	2.26	0.51
2:AV:69:U:H2'	2:AV:70:C:C6	2.46	0.51
1:AA:814:A:N7	1:AA:816:A:C6	2.79	0.51
23:B0:2565:C:O2'	23:B0:2566:A:H5'	2.11	0.51
1:AA:1298:C:O5'	9:AG:114:ARG:NH2	2.44	0.51
5:AC:38:ARG:HG3	5:AC:38:ARG:NH1	2.26	0.51
13:AK:65:ALA:HB3	13:AK:97:ALA:HB3	1.93	0.51
23:B0:942:U:H2'	23:B0:943:U:O4'	2.11	0.51
23:B0:2011:U:H2'	23:B0:2012:A:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AB:17:PHE:CD1	4:AB:17:PHE:C	2.85	0.51
20:AR:87:ARG:HH11	20:AR:87:ARG:HG2	1.76	0.51
17:AO:3:ILE:CG2	17:AO:7:GLU:HB3	2.41	0.51
5:AC:139:GLN:HA	5:AC:139:GLN:NE2	2.25	0.51
23:B0:394:U:H2'	23:B0:395:G:C8	2.45	0.51
10:AH:38:ILE:N	10:AH:38:ILE:HD12	2.27	0.51
23:B0:2795:A:N3	23:B0:2795:A:H2'	2.24	0.51
23:B0:460:U:H3	23:B0:592:G:H1'	1.75	0.51
1:AA:130:A:N3	1:AA:263:A:N3	2.59	0.50
1:AA:130:A:C4	1:AA:264:U:C6	2.99	0.50
19:AQ:104:LYS:CE	23:B0:729:A:N6	2.73	0.50
11:AI:46:ALA:HA	11:AI:78:LYS:HB2	1.93	0.50
12:AJ:20:ALA:O	12:AJ:24:VAL:HG23	2.11	0.50
23:B0:1807:A:O2'	23:B0:1808:C:O5'	2.24	0.50
23:B0:2058:U:H5'	23:B0:2576:G:H1'	1.93	0.50
13:AK:48:ILE:HD13	13:AK:63:LEU:HB3	1.93	0.50
4:AB:19:HIS:NE2	4:AB:206:ASP:HB3	2.26	0.50
1:AA:1021:G:H2'	1:AA:1022:G:O4'	2.11	0.50
23:B0:2321:C:O2'	23:B0:2353:G:H5''	2.11	0.50
23:B0:1495:G:H2'	23:B0:1496:G:C8	2.47	0.50
23:B0:635:C:C3'	23:B0:636:G:H5''	2.41	0.50
23:B0:1586:A:H2'	23:B0:1587:A:C8	2.46	0.50
23:B0:1040:A:H2'	23:B0:1041:G:H5'	1.93	0.50
23:B0:1779:C:H2'	23:B0:1780:A:O4'	2.10	0.50
11:AI:27:THR:HG23	11:AI:30:GLY:O	2.11	0.50
23:B0:2213:G:H2'	23:B0:2214:G:C8	2.46	0.50
23:B0:2769:C:O2'	23:B0:2770:A:H5'	2.11	0.50
1:AA:1458:G:O3'	22:AT:24:LEU:CD2	2.58	0.50
1:AA:779:C:C2'	13:AK:120:ARG:HD3	2.34	0.50
1:AA:1416:G:N9	1:AA:1417:G:O4'	2.44	0.50
1:AA:685:G:H5'	13:AK:39:PRO:O	2.11	0.50
15:AM:93:ARG:HA	23:B0:900(A):A:H8	1.76	0.50
1:AA:218:C:H2'	1:AA:219:C:H6	1.76	0.50
4:AB:221:LEU:O	4:AB:221:LEU:HD13	2.11	0.50
6:AD:61:LYS:HZ1	6:AD:62:GLN:NE2	2.09	0.50
1:AA:992:U:HO2'	1:AA:993:G:P	2.33	0.50
1:AA:1075:C:OP1	4:AB:179:LYS:HD2	2.10	0.50
5:AC:61:ALA:O	5:AC:63:ASN:N	2.44	0.50
23:B0:1661:C:O2'	23:B0:1662:G:H5'	2.11	0.50
1:AA:1114:C:O2	16:AN:60:SER:OG	2.29	0.50
23:B0:2272:A:H2'	23:B0:2273:C:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:659:U:O2'	1:AA:660:G:H5'	2.11	0.50
1:AA:470:U:H2'	1:AA:471:G:H8	1.77	0.50
1:AA:255:G:O6	1:AA:266:G:O6	2.29	0.50
23:B0:3874:C:H2'	23:B0:3875:A:H5'	1.91	0.50
1:AA:1416:G:C4	1:AA:1417:G:C1'	2.94	0.50
1:AA:215:C:O2'	1:AA:216:C:H5'	2.12	0.50
1:AA:824:C:H2'	1:AA:825:G:H8	1.76	0.50
5:AC:58:GLU:O	5:AC:59:ARG:HG2	2.11	0.50
1:AA:1102:A:H2'	1:AA:1103:C:C6	2.46	0.50
14:AL:46:LYS:HG2	14:AL:47:LYS:HG3	1.93	0.50
5:AC:137:ALA:HA	5:AC:140:ARG:NH1	2.26	0.50
6:AD:24:GLU:O	6:AD:25:ARG:HB3	2.10	0.50
8:AF:26:ILE:HG21	8:AF:63:TYR:CE2	2.40	0.50
23:B0:2235:G:H2'	23:B0:2236:U:C6	2.46	0.50
23:B0:689:A:H61	23:B0:815:A:H61	1.59	0.50
23:B0:798:G:H2'	23:B0:799:C:H5'	1.93	0.50
1:AA:443:C:H2'	1:AA:444:C:C6	2.43	0.50
11:AI:17:VAL:CG2	11:AI:80:GLY:HA3	2.41	0.50
5:AC:139:GLN:CA	5:AC:139:GLN:HE21	2.23	0.50
15:AM:102:ARG:HB2	15:AM:102:ARG:HH11	1.75	0.50
6:AD:126:ILE:CG2	6:AD:127:THR:N	2.75	0.50
23:B0:95:G:H2'	23:B0:96:C:C6	2.46	0.50
23:B0:429:C:H2'	23:B0:430:C:O4'	2.11	0.50
1:AA:1194:U:O2'	1:AA:1195:C:H5'	2.12	0.50
1:AA:406:G:C2	1:AA:437:U:N3	2.80	0.50
1:AA:375:U:O2'	18:AP:28:ARG:CD	2.59	0.50
1:AA:1306:A:H2'	1:AA:1307:U:O4'	2.12	0.50
15:AM:81:LEU:HD12	15:AM:88:ARG:HD3	1.93	0.50
24:B9:113:G:H2'	24:B9:114:C:C6	2.47	0.50
18:AP:51:VAL:O	18:AP:51:VAL:CG1	2.60	0.50
18:AP:20:VAL:CG1	18:AP:32:TYR:HB3	2.40	0.50
5:AC:23:TYR:CE2	12:AJ:9:ARG:HD3	2.47	0.50
1:AA:992:U:H2'	1:AA:1043:C:H5	1.77	0.50
1:AA:222:U:H2'	1:AA:223:U:C6	2.47	0.50
1:AA:1337:G:H5''	1:AA:1338:G:P	2.51	0.50
1:AA:1440:C:C2'	1:AA:1441:G:H5'	2.41	0.50
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.47	0.50
4:AB:53:ARG:HH11	4:AB:53:ARG:HG2	1.75	0.50
19:AQ:78:GLU:O	19:AQ:78:GLU:HG3	2.12	0.50
23:B0:775:U:O2	23:B0:1445:A:H5''	2.11	0.50
1:AA:1343:G:C3'	11:AI:122:ALA:HB3	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:130:A:C1'	1:AA:264:U:O4'	2.59	0.50
1:AA:779:C:C3'	13:AK:120:ARG:HD3	2.42	0.50
1:AA:37:U:C2'	1:AA:547:A:C6	2.88	0.50
1:AA:39:G:C2	1:AA:404:U:C2	3.00	0.50
1:AA:556:C:H2'	1:AA:557:G:H8	1.77	0.50
1:AA:113:G:C1'	1:AA:354:G:H5''	2.41	0.50
1:AA:149:A:O2'	1:AA:150:C:H5'	2.11	0.50
24:B9:107:C:O3'	24:B9:108:G:OP1	2.29	0.50
23:B0:127:C:H2'	23:B0:128:C:C6	2.47	0.50
1:AA:1447:A:N7	1:AA:1456:A:H2	2.09	0.50
2:AV:11:C:C5'	23:B0:1892:C:C4'	2.88	0.50
12:AJ:71:LEU:O	12:AJ:72:VAL:CB	2.60	0.50
23:B0:897:A:C6	23:B0:898:C:N4	2.79	0.50
23:B0:868:U:H2'	23:B0:869:C:C6	2.46	0.50
23:B0:1865:C:H2'	23:B0:1866:G:O4'	2.12	0.50
13:AK:82:VAL:HG23	13:AK:105:VAL:HG13	1.93	0.50
23:B0:1727:C:H4'	23:B0:2833:C:O2	2.12	0.50
23:B0:1272:G:H2'	23:B0:1273:G:C8	2.46	0.50
1:AA:1458:G:HO3'	22:AT:24:LEU:HD11	0.67	0.50
1:AA:1367:C:OP1	11:AI:115:GLY:N	2.33	0.50
1:AA:279:A:H5''	1:AA:280:C:H3'	1.94	0.50
1:AA:499:A:C2'	1:AA:500:G:O4'	2.60	0.50
1:AA:556:C:C4	1:AA:557:G:N7	2.79	0.50
2:AW:25:C:C5	2:AW:26:G:N7	2.80	0.50
1:AA:185:A:H2'	1:AA:186:C:C5	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	1.76	0.50
2:AV:30:G:O2'	2:AV:31:A:H5'	2.12	0.50
1:AA:653:A:O5'	10:AH:56:LYS:NZ	2.44	0.50
1:AA:205:G:N2	1:AA:207:C:N4	2.60	0.50
1:AA:1292:U:P	9:AG:41:ARG:HH22	2.24	0.50
10:AH:113:SER:HB2	10:AH:134:ILE:CD1	2.29	0.50
6:AD:61:LYS:HZ2	6:AD:62:GLN:HE21	1.59	0.50
5:AC:23:TYR:HA	12:AJ:11:PHE:CD1	2.47	0.50
23:B0:68:C:H2'	23:B0:69:G:H8	1.76	0.50
23:B0:897:A:O3'	23:B0:898:C:P	2.70	0.50
23:B0:612:G:O3'	23:B0:613:A:H4'	2.11	0.50
23:B0:1886:G:H2'	23:B0:1887:G:C8	2.46	0.50
23:B0:791:G:H2'	23:B0:792:U:C6	2.47	0.50
13:AK:23:ALA:CB	13:AK:91:ARG:HB2	2.42	0.50
23:B0:168:A:H2'	23:B0:169:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1391:U:H2'	1:AA:1392:G:H8	1.74	0.50
1:AA:1014:A:H5''	21:AS:14:HIS:ND1	2.15	0.50
1:AA:619:U:N1	6:AD:135:LEU:HD11	2.25	0.50
1:AA:1483:A:C2'	1:AA:1484:C:P	2.99	0.50
1:AA:1305:G:O2'	1:AA:1306:A:O4'	2.30	0.50
1:AA:393:A:OP2	18:AP:12:LYS:CE	2.59	0.50
11:AI:47:LEU:C	11:AI:49:PRO:HD2	2.32	0.50
1:AA:1270:C:O3'	1:AA:1314:C:C4'	2.58	0.50
23:B0:1326:U:O2	23:B0:1326:U:H2'	2.10	0.50
23:B0:177:U:H2'	23:B0:178:C:C6	2.46	0.50
1:AA:1262:C:H42	1:AA:1273:G:H1	1.59	0.50
5:AC:171:GLY:O	5:AC:173:VAL:HG23	2.12	0.50
7:AE:92:LYS:HB3	7:AE:119:LEU:HB2	1.94	0.50
1:AA:323:U:C1'	22:AT:19:SER:CB	2.90	0.50
22:AT:101:GLY:O	22:AT:102:GLY:O	2.30	0.50
6:AD:8:VAL:HG11	6:AD:21:LEU:HB3	1.94	0.50
1:AA:478:A:O2'	1:AA:479:C:H5'	2.11	0.50
1:AA:46:G:H2'	1:AA:365:U:O2'	2.12	0.50
23:B0:899:G:O2'	23:B0:900:U:H5'	2.12	0.50
1:AA:393:A:C2	1:AA:394:G:C8	3.00	0.50
11:AI:9:ARG:HG2	11:AI:14:VAL:HG22	1.92	0.50
23:B0:1571:G:H2'	23:B0:1572:C:C6	2.46	0.50
16:AN:29:ARG:O	16:AN:33:VAL:HG13	2.11	0.50
12:AJ:27:ALA:C	12:AJ:29:ARG:H	2.15	0.50
15:AM:40:ASN:ND2	15:AM:41:PRO:CD	2.62	0.50
1:AA:625:G:H2'	1:AA:626:U:C6	2.47	0.50
4:AB:88:ALA:O	4:AB:90:MET:N	2.45	0.50
23:B0:847:C:N4	23:B0:955:G:H21	2.03	0.50
1:AA:1151:A:H5''	12:AJ:41:PRO:HA	1.93	0.50
2:AW:30:G:O2'	2:AW:31:A:H5'	2.12	0.50
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.47	0.50
1:AA:220:G:O2'	1:AA:221:C:H5'	2.12	0.50
23:B0:1052:C:H2'	23:B0:1053:G:C8	2.46	0.50
6:AD:78:LEU:HD22	6:AD:96:LEU:HB3	1.94	0.50
23:B0:2383:C:H2'	23:B0:2384:G:O4'	2.11	0.50
1:AA:1107:C:OP1	5:AC:173:VAL:N	2.37	0.50
1:AA:1416:G:H2'	1:AA:1417:G:O4'	2.12	0.50
1:AA:893:C:C2'	1:AA:894:G:H8	2.23	0.50
14:AL:115:LYS:O	14:AL:117:ARG:N	2.37	0.50
1:AA:438:G:H5'	6:AD:123:HIS:CD2	2.46	0.50
23:B0:1747:G:H1'	23:B0:1749:G:N3	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1136:U:H5''	1:AA:1137:C:OP2	2.12	0.50
19:AQ:27:PHE:HB2	19:AQ:28:PRO:HD2	1.94	0.50
23:B0:165:G:H2'	23:B0:166:G:O4'	2.12	0.50
23:B0:2426:G:O6	23:B0:2479:U:H2'	2.11	0.50
1:AA:686:U:H1'	13:AK:42:TRP:HE1	1.76	0.50
1:AA:325:A:H2'	1:AA:326:G:O4'	2.12	0.50
23:B0:192:G:H4'	23:B0:193:A:O5'	2.12	0.50
9:AG:69:VAL:HG12	9:AG:69:VAL:O	2.12	0.50
23:B0:212:U:H2'	23:B0:213:C:C6	2.47	0.50
23:B0:2357:A:H2'	23:B0:2358:C:O4'	2.12	0.50
23:B0:638:A:O2'	23:B0:639:G:H5'	2.12	0.50
23:B0:2301:A:H2'	23:B0:2302:G:O4'	2.11	0.50
1:AA:1016:A:H1'	1:AA:1218:C:O2'	2.12	0.49
1:AA:1106:G:OP1	5:AC:172:ARG:CD	2.60	0.49
12:AJ:51:ARG:HG2	16:AN:45:ARG:NH1	2.27	0.49
21:AS:81:ARG:O	21:AS:81:ARG:HG2	2.11	0.49
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.77	0.49
5:AC:23:TYR:HE1	12:AJ:67:THR:CG2	2.23	0.49
8:AF:9:VAL:HG22	8:AF:60:PHE:CE2	2.47	0.49
12:AJ:3:LYS:HA	12:AJ:75:ILE:HA	1.94	0.49
23:B0:2324:G:C4'	23:B0:2326:C:H5''	2.42	0.49
1:AA:1308:U:C5	15:AM:99:ARG:CZ	2.95	0.49
2:AW:64:A:C4'	23:B0:2461:G:O2'	2.60	0.49
23:B0:521:U:H2'	23:B0:522:G:H5'	1.93	0.49
23:B0:618:A:H2'	23:B0:619:A:O4'	2.11	0.49
23:B0:775:U:H4'	23:B0:776:G:C8	2.46	0.49
6:AD:81:GLU:O	6:AD:85:LYS:HG3	2.11	0.49
23:B0:1323:G:H2'	23:B0:1324:G:H4'	1.94	0.49
23:B0:2658:A:H2'	23:B0:2659:C:C6	2.47	0.49
13:AK:51:LYS:O	13:AK:55:LYS:HE3	2.11	0.49
13:AK:79:SER:OG	13:AK:106:LYS:HG2	2.12	0.49
23:B0:1386:A:H2'	23:B0:1387:G:O4'	2.12	0.49
23:B0:2310:G:H2'	23:B0:2311:U:O4'	2.12	0.49
23:B0:1391:A:H2'	23:B0:1392:U:C6	2.47	0.49
1:AA:819:A:C5	1:AA:1529:G:N1	2.80	0.49
1:AA:1230:C:O2'	1:AA:1231:G:H5'	2.12	0.49
1:AA:255:G:C4'	19:AQ:16:GLN:HB3	2.42	0.49
19:AQ:97:SER:HB2	19:AQ:103:GLY:N	2.26	0.49
1:AA:160:A:H61	1:AA:347:G:H21	1.58	0.49
23:B0:1111:C:C4	23:B0:1112:U:C5	3.00	0.49
1:AA:1283:G:O2'	1:AA:1284:C:H5'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:2858:A:H3'	23:B0:2859:U:C5'	2.42	0.49
12:AJ:38:ILE:HG13	12:AJ:71:LEU:CB	2.42	0.49
23:B0:2435:C:H2'	23:B0:2436:U:C6	2.47	0.49
23:B0:1286:U:H5''	23:B0:1663:C:N4	2.27	0.49
23:B0:1949:A:H1'	23:B0:2572:U:C4'	2.42	0.49
1:AA:1172:C:O2'	1:AA:1173:G:H5'	2.11	0.49
16:AN:21:TYR:HE2	16:AN:23:ARG:NE	2.09	0.49
23:B0:1683:G:C2'	23:B0:1684:G:H5'	2.43	0.49
23:B0:597:U:H2'	23:B0:598:U:C6	2.47	0.49
19:AQ:10:VAL:O	19:AQ:53:LEU:HD12	2.12	0.49
8:AF:48:LEU:HD13	8:AF:52:ILE:HG13	1.95	0.49
23:B0:693:A:H2'	23:B0:694:G:C8	2.46	0.49
11:AI:36:TYR:HD2	11:AI:37:PHE:CE2	2.30	0.49
23:B0:2459:C:H2'	23:B0:2460:G:H5'	1.94	0.49
23:B0:971:A:H2	23:B0:2475:C:H1'	1.77	0.49
23:B0:2313:G:H2'	23:B0:2314:A:H5'	1.94	0.49
1:AA:675:A:O2'	13:AK:116:HIS:CD2	2.65	0.49
1:AA:1503:A:N3	1:AA:1531:A:H2	2.09	0.49
1:AA:1458:G:C1'	1:AA:1459:C:H2'	2.41	0.49
12:AJ:63:PHE:HE2	16:AN:58:LYS:HG2	1.76	0.49
1:AA:893:C:C4	1:AA:894:G:C6	2.99	0.49
1:AA:538:G:C8	14:AL:115:LYS:HE3	2.47	0.49
1:AA:836:G:P	20:AR:61:LYS:CD	2.65	0.49
2:AV:75:C:N4	23:B0:2231:G:N1	2.60	0.49
1:AA:212:G:O2'	1:AA:213:G:O5'	2.30	0.49
4:AB:132:LYS:O	4:AB:136:VAL:HG23	2.12	0.49
23:B0:1180:A:H2'	23:B0:1181:C:C6	2.47	0.49
14:AL:28:LYS:CD	14:AL:33:ARG:HH12	2.24	0.49
1:AA:929:G:C5'	1:AA:1533:C:H41	2.25	0.49
17:AO:36:ILE:HA	17:AO:59:MET:CE	2.42	0.49
23:B0:1223:G:O2'	23:B0:1224:A:OP2	2.26	0.49
23:B0:652:C:H42	23:B0:657:A:N6	2.10	0.49
1:AA:61:G:H2'	1:AA:62:U:O4'	2.12	0.49
1:AA:491:G:H2'	1:AA:492:G:H8	1.78	0.49
23:B0:568:G:H5''	23:B0:1019:U:H5'	1.93	0.49
23:B0:2536:G:H2'	23:B0:2537:C:C6	2.47	0.49
2:AV:23:A:O2'	2:AV:24:G:H5'	2.12	0.49
23:B0:189:A:H2'	23:B0:190:A:C8	2.47	0.49
2:AW:23:A:O2'	2:AW:24:G:H5'	2.12	0.49
1:AA:245:C:O2	1:AA:283:C:N3	2.46	0.49
4:AB:35:GLU:HA	4:AB:39:ILE:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AM:5:ALA:O	15:AM:6:GLY:C	2.51	0.49
23:B0:1715:A:H1'	23:B0:1717:A:C1'	2.42	0.49
1:AA:46:G:C4	1:AA:366:C:C4	3.00	0.49
2:AW:25:C:N4	2:AW:26:G:C5	2.80	0.49
6:AD:36:ARG:N	6:AD:37:PRO:CD	2.66	0.49
4:AB:97:TRP:CH2	4:AB:173:ALA:HA	2.48	0.49
7:AE:104:ALA:O	7:AE:105:VAL:C	2.49	0.49
23:B0:2805:G:O2'	23:B0:2806:G:H5'	2.12	0.49
12:AJ:32:ALA:HB2	12:AJ:76:ASN:HB2	1.94	0.49
23:B0:1923:U:H4'	23:B0:1948:C:N4	2.27	0.49
1:AA:722:A:H4'	1:AA:723:U:C5	2.48	0.49
1:AA:926:G:H22	3:AU:6:A:P	2.35	0.49
23:B0:2321:C:H2'	23:B0:2322:U:O4'	2.12	0.49
23:B0:1993:G:H2'	23:B0:1994:U:C6	2.47	0.49
23:B0:601:A:H3'	23:B0:602:C:C5'	2.42	0.49
23:B0:960:U:H2'	23:B0:961:G:C8	2.48	0.49
23:B0:2312:A:H4'	23:B0:2313:G:N7	2.26	0.49
1:AA:430:A:C2'	1:AA:431:A:H5'	2.42	0.49
4:AB:168:THR:OG1	4:AB:192:SER:HB3	2.12	0.49
23:B0:1268:U:H5''	23:B0:1269:G:H5''	1.95	0.49
1:AA:1500:A:H4'	1:AA:1509:C:OP1	2.12	0.49
1:AA:15:G:C8	1:AA:1396:A:O2'	2.64	0.49
2:AW:75:C:O2'	23:B0:2486:C:O2'	2.30	0.49
1:AA:1367:C:H5''	11:AI:114:TYR:CB	2.43	0.49
1:AA:346:G:H2'	1:AA:347:G:H5'	1.94	0.49
6:AD:7:PRO:HB2	6:AD:10:ARG:HD2	1.93	0.49
1:AA:834:C:H2'	1:AA:835:U:C6	2.48	0.49
1:AA:376:G:OP1	18:AP:67:THR:CB	2.60	0.49
1:AA:129:U:C5'	19:AQ:3:LYS:HE3	2.43	0.49
23:B0:1199:U:H2'	23:B0:1200:G:C8	2.46	0.49
1:AA:847:C:O2'	1:AA:848:G:H5'	2.13	0.49
1:AA:1430:C:C5'	23:B0:1721:G:C5'	2.90	0.49
8:AF:100:ASN:O	20:AR:28:GLU:HG3	2.13	0.49
23:B0:2492:G:H2'	23:B0:2493:U:O4'	2.12	0.49
5:AC:47:LEU:N	5:AC:47:LEU:HD12	2.27	0.49
23:B0:1218:C:H2'	23:B0:1219:C:C6	2.47	0.49
23:B0:628:A:H2'	23:B0:629:C:C6	2.48	0.49
23:B0:2717:G:H2'	23:B0:2718:A:C8	2.48	0.49
20:AR:41:LYS:HG2	20:AR:41:LYS:O	2.13	0.49
23:B0:2249:U:H2'	23:B0:2250:G:O4'	2.13	0.49
7:AE:84:PHE:CE2	7:AE:133:TYR:HD1	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:703:A:H2'	23:B0:704:G:H8	1.77	0.49
1:AA:746:A:O2'	1:AA:747:C:H5'	2.11	0.49
23:B0:2397:A:H2'	23:B0:2398:U:O4'	2.12	0.49
23:B0:1007:A:H2'	23:B0:1008:G:C8	2.47	0.49
1:AA:255:G:C4	19:AQ:16:GLN:NE2	2.80	0.49
1:AA:778:G:O2'	13:AK:119:CYS:C	2.47	0.49
1:AA:826:C:C1'	10:AH:15:ASN:HD22	2.21	0.49
1:AA:161:A:C2	1:AA:348:G:C1'	2.95	0.49
1:AA:322:C:C4'	22:AT:23:ARG:CB	2.88	0.49
1:AA:932:C:H5''	9:AG:3:ARG:CD	2.33	0.49
1:AA:128:G:O3'	19:AQ:3:LYS:CG	2.61	0.49
1:AA:149:A:H2'	1:AA:150:C:C6	2.48	0.49
1:AA:1102:A:H2'	1:AA:1103:C:H6	1.77	0.49
1:AA:606:G:C3'	1:AA:607:A:C5'	2.88	0.49
4:AB:12:GLU:HG2	4:AB:213:LEU:HD11	1.95	0.49
23:B0:2274:C:C2'	23:B0:2275:U:H5'	2.40	0.49
23:B0:1164:C:H2'	23:B0:1165:G:O4'	2.12	0.49
23:B0:1949:A:O2'	23:B0:2572:U:H5'	2.12	0.49
23:B0:117:A:H4'	23:B0:118:U:C6	2.47	0.49
10:AH:13:ILE:O	10:AH:17:THR:HG23	2.13	0.49
1:AA:489:C:H2'	1:AA:490:G:H8	1.77	0.49
1:AA:1121:U:H2'	1:AA:1122:U:C6	2.48	0.49
23:B0:1532:A:H2'	23:B0:1533:G:H8	1.77	0.49
23:B0:1998:A:H2'	23:B0:1999:U:H5'	1.94	0.49
1:AA:923:A:H1'	1:AA:1398:A:H2'	1.93	0.49
1:AA:864:A:H2	1:AA:917:G:H2'	1.78	0.49
1:AA:866:C:C4'	1:AA:919:A:C5'	2.90	0.49
16:AN:15:LYS:HB3	16:AN:16:PHE:CD1	2.47	0.49
19:AQ:45:HIS:NE2	19:AQ:47:PRO:HG3	2.27	0.49
1:AA:1110:A:C6	1:AA:1111:A:C5	3.00	0.49
1:AA:1413:A:O2'	1:AA:1414:U:H5'	2.12	0.49
1:AA:406:G:N9	1:AA:496:A:C5	2.81	0.49
1:AA:261:U:O5'	22:AT:79:ARG:NH1	2.46	0.49
1:AA:218:C:H2'	1:AA:219:C:C6	2.47	0.49
1:AA:1126:U:H1'	1:AA:1280:A:C6	2.48	0.49
23:B0:3184:C:C2'	23:B0:3185:U:C5'	2.91	0.49
22:AT:38:LYS:O	22:AT:39:LYS:C	2.51	0.49
1:AA:624:C:O2'	1:AA:625:G:H5'	2.13	0.49
12:AJ:65:LEU:CD2	12:AJ:65:LEU:O	2.59	0.49
1:AA:586:C:O2'	1:AA:587:G:H5'	2.12	0.49
1:AA:958:A:O4'	21:AS:55:LYS:NZ	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:879:A:H2'	23:B0:880:C:H5'	1.94	0.49
5:AC:112:SER:O	5:AC:116:VAL:HG23	2.11	0.49
23:B0:2821:G:H2'	23:B0:2822:U:C6	2.48	0.49
17:AO:30:ALA:HA	17:AO:85:LEU:HD21	1.94	0.49
23:B0:2260:C:H4'	23:B0:2368:G:H21	1.77	0.49
14:AL:53:ARG:HB3	14:AL:93:LEU:HD11	1.94	0.49
4:AB:230:VAL:HG13	4:AB:231:GLU:OE2	2.13	0.49
23:B0:599:A:H2'	23:B0:600:G:C8	2.48	0.49
23:B0:483:A:H2'	23:B0:484:G:H5'	1.93	0.49
14:AL:34:ARG:O	14:AL:34:ARG:HG3	2.13	0.49
1:AA:269:C:H2'	1:AA:270:A:C8	2.48	0.49
23:B0:427:C:H2'	23:B0:428:A:C8	2.47	0.49
23:B0:2852:G:H2'	23:B0:2853:U:O4'	2.12	0.49
23:B0:1829:C:H2'	23:B0:1830:C:H5'	1.95	0.49
1:AA:1393:U:O2'	1:AA:1394:A:C2'	2.60	0.49
1:AA:865:A:O2'	1:AA:919:A:O4'	2.29	0.49
1:AA:521:G:O2'	1:AA:522:C:H5'	2.12	0.49
23:B0:3877:A:H1'	55:B5:196:VAL:CA	2.42	0.49
1:AA:1434:A:O3'	1:AA:1435:G:C4'	2.61	0.49
1:AA:1474:G:O2'	23:B0:1705:U:C3'	2.61	0.49
1:AA:1238:A:N7	1:AA:1303:C:H1'	2.28	0.49
1:AA:184:G:H2'	1:AA:185:A:H8	1.77	0.49
15:AM:78:ILE:O	15:AM:82:MET:HB2	2.12	0.49
1:AA:1085:U:O3'	1:AA:1086:U:H6	1.95	0.49
1:AA:979:C:C2	16:AN:19:ARG:HG2	2.48	0.49
23:B0:807:A:H2'	23:B0:808:C:C6	2.48	0.49
5:AC:116:VAL:O	5:AC:119:ARG:HB3	2.13	0.49
23:B0:1223:G:H1'	23:B0:1225:G:C4	2.48	0.49
9:AG:108:ALA:O	9:AG:119:ARG:HB3	2.12	0.49
11:AI:23:ASN:C	11:AI:23:ASN:ND2	2.66	0.49
1:AA:659:U:H2'	1:AA:660:G:O4'	2.13	0.49
1:AA:1051:C:O2'	1:AA:1052:U:H5'	2.13	0.49
23:B0:1982:C:H2'	23:B0:1983:G:H8	1.78	0.49
2:AW:74:C:C5	23:B0:2534:U:C5	2.55	0.49
1:AA:255:G:C5'	19:AQ:17:LYS:CB	2.51	0.49
19:AQ:68:ARG:O	19:AQ:69:LYS:HB2	2.13	0.49
1:AA:1108:G:OP1	5:AC:175:LEU:HB2	2.12	0.49
1:AA:1365:G:O2'	1:AA:1366:C:H5'	2.12	0.49
5:AC:3:ASN:HD22	5:AC:4:LYS:HG2	1.78	0.49
23:B0:1856:U:O4	23:B0:3865:A:C6	2.63	0.49
1:AA:397:A:C5	1:AA:547:A:C1'	2.89	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:236:G:H4'	19:AQ:42:TYR:OH	2.13	0.49
2:AV:75:C:H1'	23:B0:2047:C:H4'	1.94	0.49
21:AS:5:LEU:HD11	21:AS:70:LYS:NZ	2.28	0.49
1:AA:1310:G:O2'	1:AA:1311:G:H5'	2.12	0.49
4:AB:102:LEU:CD2	4:AB:162:ILE:HD11	2.37	0.49
23:B0:653:G:N2	23:B0:655:A:H1'	2.27	0.49
17:AO:25:THR:HG21	17:AO:70:LEU:HD23	1.94	0.49
4:AB:44:LEU:HA	4:AB:47:THR:OG1	2.12	0.49
12:AJ:16:LEU:HD23	12:AJ:94:VAL:HG22	1.95	0.49
1:AA:109:A:OP2	1:AA:110:C:H5	1.96	0.49
23:B0:1970:G:H2'	23:B0:1971:C:C6	2.48	0.49
23:B0:114:C:O2'	23:B0:124:A:H1'	2.12	0.49
17:AO:4:THR:HB	17:AO:6:GLU:HG2	1.94	0.49
23:B0:1489:C:H3'	23:B0:1490:U:H5'	1.95	0.49
1:AA:209:U:H5'	1:AA:210:C:C5	2.48	0.49
1:AA:1396:A:H4'	1:AA:1397:C:H5''	1.93	0.49
1:AA:1499:A:O2'	1:AA:1500:A:H5'	2.12	0.49
1:AA:15:G:N7	1:AA:1396:A:O2'	2.44	0.49
1:AA:942:G:O2'	1:AA:943:U:H5'	2.12	0.49
1:AA:959:A:H2'	1:AA:960:U:O4'	2.12	0.49
2:AW:76:A:C1'	23:B0:2486:C:H4'	2.29	0.49
1:AA:262:A:C4'	22:AT:74:LYS:HB3	2.42	0.49
1:AA:265:G:O2'	1:AA:266:G:H5'	2.13	0.49
1:AA:1416:G:O3'	1:AA:1417:G:P	2.69	0.49
1:AA:555:C:H2'	1:AA:556:C:C6	2.48	0.49
1:AA:1497:G:C1'	1:AA:1518:A:H2	2.26	0.49
1:AA:237:C:H4'	19:AQ:25:ARG:CZ	2.43	0.49
23:B0:3102:G:H2'	23:B0:3103:A:C8	2.48	0.49
13:AK:124:LYS:HD2	13:AK:125:PHE:CE1	2.48	0.49
15:AM:94:ARG:NH2	21:AS:81:ARG:CD	2.65	0.49
23:B0:930:A:H4'	23:B0:930:A:OP1	2.11	0.49
18:AP:52:ASP:OD2	18:AP:55:ARG:HB2	2.13	0.49
19:AQ:26:GLN:O	19:AQ:27:PHE:HB3	2.12	0.49
23:B0:2380:U:C2'	23:B0:2381:A:H5'	2.42	0.49
23:B0:1380:C:C2'	23:B0:1381:G:H5'	2.41	0.49
9:AG:38:LEU:O	9:AG:42:ILE:HG13	2.12	0.49
19:AQ:56:VAL:HG12	19:AQ:77:VAL:HB	1.95	0.49
6:AD:38:TYR:CE1	6:AD:45:GLN:HG3	2.48	0.49
1:AA:136:C:H2'	1:AA:137:C:H6	1.77	0.49
23:B0:2392:G:H2'	23:B0:2393:G:H8	1.77	0.49
21:AS:45:VAL:HG12	21:AS:46:GLY:N	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:216:U:H2'	23:B0:217:U:O4'	2.12	0.49
6:AD:105:VAL:HG13	6:AD:110:PHE:HB2	1.95	0.49
23:B0:1617:G:H2'	23:B0:1618:U:H5'	1.95	0.49
4:AB:30:ARG:HG3	4:AB:31:TYR:CD2	2.48	0.49
14:AL:83:VAL:HG22	14:AL:84:LEU:N	2.28	0.49
2:AW:75:C:C1'	23:B0:2486:C:O2'	2.61	0.48
1:AA:1068:G:N3	1:AA:1191:A:C2	2.81	0.48
5:AC:180:ALA:O	5:AC:181:ASN:CB	2.61	0.48
1:AA:94:G:H2'	1:AA:96:C:H6	1.78	0.48
14:AL:119:LYS:O	14:AL:120:TYR:CB	2.61	0.48
6:AD:57:ARG:NH2	6:AD:205:GLU:OE2	2.46	0.48
1:AA:707:C:P	13:AK:85:ARG:HH12	2.17	0.48
1:AA:1497:G:H2'	1:AA:1498:U:C5'	2.42	0.48
1:AA:217:C:O2'	1:AA:218:C:H5'	2.12	0.48
1:AA:394:G:C5	1:AA:395:C:C5	3.01	0.48
1:AA:69:G:H1'	1:AA:102:G:C6	2.48	0.48
13:AK:58:PRO:HB2	13:AK:93:GLN:HG3	1.95	0.48
1:AA:1329:A:C2'	1:AA:1330:U:H5'	2.43	0.48
23:B0:1090:C:HO2'	31:BG:129:GLY:CA	2.24	0.48
1:AA:651:C:N4	1:AA:752:G:O2'	2.46	0.48
7:AE:31:LEU:HD22	7:AE:43:LEU:HD21	1.94	0.48
23:B0:2809:A:C2'	23:B0:2810:A:H5'	2.43	0.48
8:AF:67:MET:CE	8:AF:72:VAL:HA	2.40	0.48
20:AR:36:ASN:CG	20:AR:39:VAL:HG12	2.34	0.48
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.48	0.48
1:AA:560:U:O2'	1:AA:561:U:OP2	2.27	0.48
1:AA:135:C:C5	1:AA:136:C:C5	3.01	0.48
10:AH:60:ARG:HG3	10:AH:60:ARG:NH1	2.28	0.48
23:B0:338:G:H1	23:B0:346:C:H42	1.60	0.48
1:AA:923:A:C5'	1:AA:1398:A:C6	2.95	0.48
22:AT:29:LYS:O	22:AT:33:ILE:HG13	2.13	0.48
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.96	0.48
1:AA:959:A:H2	1:AA:1221:G:HO2'	1.58	0.48
1:AA:1067:A:O2'	1:AA:1068:G:OP2	2.29	0.48
11:AI:111:ARG:HG3	11:AI:111:ARG:NH1	2.28	0.48
1:AA:826:C:O2'	10:AH:15:ASN:HB2	2.12	0.48
23:B0:1099:A:H3'	23:B0:1100:G:H5'	1.94	0.48
1:AA:1255:G:O2'	1:AA:1259:C:N1	2.45	0.48
15:AM:93:ARG:NH1	23:B0:900:U:C5'	2.77	0.48
1:AA:1279:A:O2'	1:AA:1282:C:N4	2.46	0.48
24:B9:112:A:H2'	24:B9:113:G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1319:A:P	21:AS:5:LEU:HD22	2.53	0.48
21:AS:32:LYS:O	21:AS:32:LYS:HG3	2.13	0.48
1:AA:1268:A:H1'	1:AA:1326:C:O2'	2.13	0.48
4:AB:97:TRP:CH2	4:AB:176:GLU:CD	2.85	0.48
8:AF:38:GLU:O	8:AF:39:LYS:HB3	2.12	0.48
23:B0:1964:A:H5''	23:B0:1965:U:OP2	2.13	0.48
4:AB:188:ALA:O	4:AB:202:PRO:HA	2.13	0.48
23:B0:58:C:H1'	23:B0:72:A:C8	2.48	0.48
4:AB:144:ARG:O	4:AB:147:LYS:N	2.42	0.48
4:AB:144:ARG:HG3	4:AB:145:LEU:H	1.77	0.48
8:AF:46:ARG:HB2	8:AF:60:PHE:CE1	2.48	0.48
20:AR:39:VAL:HG13	20:AR:40:LEU:N	2.28	0.48
1:AA:419:C:OP1	1:AA:513:C:H1'	2.13	0.48
6:AD:3:ARG:O	6:AD:5:ILE:HG13	2.13	0.48
6:AD:3:ARG:NH2	6:AD:74:GLN:OE1	2.44	0.48
12:AJ:94:VAL:HG12	12:AJ:95:GLU:H	1.76	0.48
23:B0:1949:A:H1'	23:B0:2572:U:H4'	1.95	0.48
1:AA:135:C:H2'	1:AA:136:C:C5'	2.43	0.48
8:AF:43:LEU:N	8:AF:43:LEU:HD22	2.27	0.48
7:AE:13:ILE:HG13	7:AE:13:ILE:O	2.11	0.48
6:AD:174:LEU:O	6:AD:175:SER:HB3	2.13	0.48
1:AA:1165:C:O2'	1:AA:1166:G:H5'	2.12	0.48
9:AG:6:ARG:O	9:AG:7:ALA:C	2.52	0.48
23:B0:1895:A:H2'	23:B0:1896:A:O4'	2.13	0.48
23:B0:737:C:H2'	23:B0:738:G:O4'	2.14	0.48
1:AA:815:A:H1'	1:AA:1527:C:C4'	2.42	0.48
1:AA:131:C:C3'	1:AA:262:A:O2'	2.61	0.48
1:AA:401:C:C4'	1:AA:622:A:H1'	2.42	0.48
6:AD:119:GLN:HG2	6:AD:123:HIS:CD2	2.47	0.48
1:AA:1484:C:H5'	23:B0:1943:A:H1'	1.85	0.48
1:AA:27:G:C5	1:AA:557:G:N2	2.77	0.48
1:AA:46:G:N2	1:AA:366:C:O4'	2.45	0.48
1:AA:1112:C:C2	5:AC:178:LEU:HB3	2.48	0.48
1:AA:1346:A:H1'	1:AA:1348:U:C5	2.47	0.48
1:AA:1270:C:H4'	1:AA:1314:C:H5'	1.95	0.48
4:AB:25:ASN:O	4:AB:27:LYS:N	2.47	0.48
5:AC:135:LYS:NZ	7:AE:50:GLU:CD	2.67	0.48
23:B0:126:C:H2'	23:B0:127:C:C6	2.48	0.48
23:B0:1312:G:C5'	23:B0:1313:U:H5'	2.39	0.48
4:AB:108:ILE:HG22	4:AB:108:ILE:O	2.13	0.48
5:AC:23:TYR:O	5:AC:24:ALA:HB2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AE:61:TYR:O	7:AE:64:ARG:O	2.29	0.48
23:B0:2754:C:H2'	23:B0:2755:A:O4'	2.14	0.48
23:B0:1190:C:H2'	23:B0:1191:G:C8	2.48	0.48
4:AB:204:ASN:ND2	4:AB:206:ASP:H	2.12	0.48
23:B0:742:G:H2'	23:B0:742:G:N3	2.29	0.48
17:AO:34:LEU:O	17:AO:34:LEU:HD23	2.12	0.48
23:B0:1356:G:H5'	23:B0:1614:C:OP2	2.12	0.48
1:AA:1030:U:H5'	1:AA:1031:C:C5	2.48	0.48
1:AA:18:C:C2	1:AA:918:A:C6	3.01	0.48
1:AA:1343:G:P	11:AI:125:TYR:HE2	2.37	0.48
1:AA:254:G:O2'	19:AQ:16:GLN:C	2.52	0.48
1:AA:265:G:H5'	19:AQ:65:ILE:CA	2.05	0.48
1:AA:266:G:HO2'	19:AQ:67:LYS:HD2	1.78	0.48
23:B0:3869:G:H2'	23:B0:3871:A:OP2	2.13	0.48
6:AD:7:PRO:CG	6:AD:10:ARG:HD2	2.43	0.48
1:AA:170:U:H3'	1:AA:171:A:P	2.54	0.48
1:AA:170:U:O2'	1:AA:171:A:H5'	2.14	0.48
1:AA:43:C:OP1	18:AP:12:LYS:HB3	2.13	0.48
1:AA:421:U:H5'	1:AA:422:C:C5	2.48	0.48
2:AV:32:C:OP2	11:AI:127:LYS:HE2	2.11	0.48
15:AM:94:ARG:HH22	21:AS:81:ARG:CD	2.26	0.48
4:AB:97:TRP:CZ2	4:AB:102:LEU:HD13	2.45	0.48
14:AL:53:ARG:HG2	14:AL:93:LEU:HD11	1.95	0.48
23:B0:1343:C:H2'	23:B0:1344:C:C6	2.48	0.48
23:B0:422:C:H2'	23:B0:423:G:H8	1.78	0.48
9:AG:64:GLN:O	9:AG:67:GLU:HB3	2.14	0.48
1:AA:647:C:H2'	1:AA:648:A:H8	1.78	0.48
4:AB:111:ARG:HB3	4:AB:149:LEU:HD11	1.95	0.48
23:B0:1930:C:H2'	23:B0:1931:G:H8	1.78	0.48
1:AA:1016:A:H1'	1:AA:1218:C:C4'	2.41	0.48
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.13	0.48
22:AT:67:ALA:O	22:AT:73:HIS:ND1	2.47	0.48
1:AA:1366:C:C2	1:AA:1367:C:C5	3.00	0.48
1:AA:128:G:P	19:AQ:2:PRO:CD	3.01	0.48
1:AA:1339:A:N3	2:AV:31:A:O2'	2.46	0.48
23:B0:31:C:H2'	23:B0:32:C:O4'	2.14	0.48
23:B0:929:A:H2'	23:B0:930:A:H4'	1.95	0.48
7:AE:51:VAL:O	7:AE:54:ALA:HB3	2.13	0.48
23:B0:2808:U:H3'	23:B0:2809:A:C5'	2.40	0.48
23:B0:2642:G:H2'	23:B0:2643:G:O4'	2.13	0.48
23:B0:2504:G:H2'	23:B0:2505:G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AJ:6:ILE:HG23	12:AJ:98:ILE:HG12	1.94	0.48
6:AD:151:LYS:CD	6:AD:151:LYS:N	2.75	0.48
1:AA:178:C:O2'	1:AA:179:A:H5'	2.13	0.48
23:B0:2437:G:N2	23:B0:2469:G:H2'	2.28	0.48
23:B0:1301:U:H2'	23:B0:1664:G:H21	1.79	0.48
23:B0:703:A:H2'	23:B0:704:G:C8	2.49	0.48
1:AA:1394:A:N3	1:AA:1501:C:O4'	2.47	0.48
1:AA:255:G:N9	19:AQ:16:GLN:NE2	2.60	0.48
1:AA:1067:A:H1'	1:AA:1068:G:OP2	2.13	0.48
1:AA:1111:A:N1	5:AC:177:THR:OG1	2.45	0.48
1:AA:38:G:C1'	1:AA:547:A:N7	2.76	0.48
1:AA:407:G:H5''	6:AD:115:ARG:HB3	1.95	0.48
1:AA:476:U:C6	1:AA:477:G:P	3.07	0.48
7:AE:107:ARG:HG2	7:AE:108:ALA:N	2.29	0.48
14:AL:45:PRO:HB2	14:AL:49:ASN:O	2.13	0.48
5:AC:138:VAL:O	5:AC:142:MET:HB2	2.13	0.48
7:AE:11:ILE:HB	7:AE:31:LEU:HB3	1.93	0.48
5:AC:23:TYR:HD1	12:AJ:11:PHE:CD2	2.30	0.48
7:AE:36:ASP:O	7:AE:37:ARG:HB2	2.13	0.48
1:AA:1420:C:C4'	23:B0:1933:G:OP1	2.62	0.48
23:B0:2017:U:O2'	23:B0:2018:G:H5'	2.13	0.48
10:AH:65:TYR:HA	10:AH:79:VAL:HG23	1.95	0.48
23:B0:634:G:H2'	23:B0:635:C:C6	2.49	0.48
23:B0:340:G:H1'	23:B0:488:A:C4	2.49	0.48
23:B0:490:A:C5	23:B0:492:G:H1'	2.48	0.48
8:AF:43:LEU:H	8:AF:43:LEU:HD22	1.77	0.48
23:B0:477:A:H2'	23:B0:478:G:H5'	1.95	0.48
1:AA:143:A:O3'	1:AA:144:G:H8	1.96	0.48
19:AQ:12:SER:HB3	19:AQ:20:THR:HB	1.95	0.48
1:AA:41:G:H2'	1:AA:42:G:C8	2.49	0.48
1:AA:819:A:C6	1:AA:1529:G:C6	3.02	0.48
1:AA:1106:G:OP1	5:AC:172:ARG:CG	2.62	0.48
1:AA:1106:G:OP1	5:AC:172:ARG:HD3	2.14	0.48
22:AT:89:ARG:HE	22:AT:104:LEU:HD22	1.78	0.48
1:AA:38:G:O2'	1:AA:39:G:N7	2.46	0.48
1:AA:119:A:C2	1:AA:240:C:C6	3.01	0.48
1:AA:170:U:C3'	1:AA:171:A:P	3.02	0.48
1:AA:1126:U:OP2	1:AA:1281:U:C2	2.66	0.48
1:AA:798:G:P	13:AK:122:LYS:HZ2	2.30	0.48
1:AA:150:C:O3'	1:AA:151:A:P	2.71	0.48
5:AC:130:VAL:CG2	5:AC:157:ILE:HG23	2.41	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AR:36:ASN:HD22	20:AR:38:GLU:HG2	1.78	0.48
1:AA:1152:A:OP1	12:AJ:68:HIS:ND1	2.44	0.48
10:AH:103:VAL:CG2	10:AH:110:ALA:HB2	2.43	0.48
23:B0:2308:A:H2'	23:B0:2309:G:C8	2.48	0.48
23:B0:1023:U:H1'	23:B0:1154:A:N7	2.28	0.48
23:B0:1418:C:H2'	23:B0:1419:G:H8	1.79	0.48
23:B0:1231:A:H2'	23:B0:1232:U:O4'	2.13	0.48
20:AR:34:TYR:HA	20:AR:69:THR:HG23	1.93	0.48
1:AA:923:A:H4'	1:AA:1398:A:C5	2.49	0.48
1:AA:1505:G:H3'	1:AA:1505:G:C8	2.48	0.48
1:AA:1503:A:N3	1:AA:1531:A:C2	2.82	0.48
11:AI:117:HIS:HB2	11:AI:121:ARG:HD2	1.94	0.48
5:AC:173:VAL:N	5:AC:174:PRO:CD	2.76	0.48
1:AA:825:G:H2'	1:AA:826:C:H6	1.78	0.48
1:AA:556:C:C2'	1:AA:557:G:C5'	2.91	0.48
5:AC:35:GLU:O	5:AC:38:ARG:N	2.47	0.48
1:AA:69:G:O4'	1:AA:102:G:N1	2.43	0.48
23:B0:951:G:C3'	23:B0:952:A:H5''	2.43	0.48
23:B0:1130:U:H2'	23:B0:1131:G:C8	2.48	0.48
1:AA:427:U:C4'	1:AA:541:G:H5''	2.43	0.48
14:AL:86:ARG:HG3	14:AL:86:ARG:NH1	2.28	0.48
23:B0:2319:G:H2'	23:B0:2320:G:C8	2.49	0.48
18:AP:6:LEU:HB3	18:AP:17:TYR:CD2	2.49	0.48
1:AA:911:U:OP2	14:AL:97:ARG:NH2	2.46	0.48
1:AA:1418:A:H2'	1:AA:1419:G:O4'	2.12	0.48
23:B0:324:C:H2'	23:B0:325:U:O4'	2.14	0.48
23:B0:446:C:H2'	23:B0:447:U:C6	2.49	0.48
1:AA:865:A:C2	1:AA:918:A:C5'	2.90	0.48
16:AN:12:ARG:O	16:AN:13:THR:C	2.52	0.48
1:AA:131:C:N1	1:AA:262:A:H2	2.09	0.48
1:AA:1067:A:H1'	1:AA:1068:G:C8	2.49	0.48
1:AA:893:C:N3	1:AA:894:G:N7	2.62	0.48
7:AE:71:LEU:HD21	7:AE:115:VAL:HG22	1.96	0.48
1:AA:6:G:C8	7:AE:92:LYS:CE	2.95	0.48
1:AA:538:G:O2'	1:AA:539:A:H5'	2.13	0.48
14:AL:110:VAL:O	14:AL:122:THR:CG2	2.62	0.48
1:AA:406:G:C1'	1:AA:496:A:N1	2.77	0.48
6:AD:111:ALA:HB1	6:AD:116:GLN:HB3	1.96	0.48
1:AA:1255:G:O2'	1:AA:1258:G:N3	2.46	0.48
21:AS:39:THR:HG22	21:AS:40:ILE:N	2.29	0.48
1:AA:1533:C:O2'	1:AA:1534:A:H5'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AB:17:PHE:HA	4:AB:44:LEU:HD21	1.95	0.48
23:B0:1427:G:C2'	23:B0:1428:G:H5'	2.42	0.48
23:B0:974:U:H1'	23:B0:2229:G:N2	2.28	0.48
23:B0:2759:U:H5''	23:B0:2760:G:O5'	2.14	0.48
1:AA:1162:C:H2'	1:AA:1163:C:H6	1.78	0.48
19:AQ:17:LYS:HA	19:AQ:46:ASP:O	2.14	0.48
1:AA:37:U:HO2'	1:AA:547:A:N6	2.04	0.48
1:AA:436:C:C2'	1:AA:437:U:C5'	2.90	0.48
1:AA:119:A:C6	1:AA:240:C:C2	3.02	0.48
7:AE:51:VAL:HB	7:AE:52:PRO:CD	2.37	0.48
4:AB:187:LEU:CD2	4:AB:214:ILE:HG13	2.43	0.48
23:B0:1028:G:H2'	23:B0:1029:C:C6	2.49	0.48
1:AA:719:C:O2'	20:AR:49:LYS:HB3	2.14	0.48
1:AA:662:G:H2'	1:AA:663:A:H8	1.79	0.48
23:B0:2321:C:C2'	23:B0:2322:U:H5'	2.44	0.48
14:AL:83:VAL:HG21	14:AL:100:ILE:HD13	1.95	0.48
23:B0:387:A:H2'	23:B0:388:G:O4'	2.14	0.48
23:B0:3171:A:H4'	23:B0:3172:U:OP1	2.13	0.47
1:AA:131:C:C3'	1:AA:262:A:H1'	2.44	0.47
1:AA:255:G:H1'	19:AQ:16:GLN:HE21	0.39	0.47
1:AA:1488:G:H2'	1:AA:1489:G:H8	1.77	0.47
1:AA:322:C:H5''	22:AT:23:ARG:HG3	1.95	0.47
1:AA:684:A:O3'	1:AA:685:G:P	2.72	0.47
23:B0:3110:G:P	23:B0:3149:G:H5'	2.53	0.47
5:AC:178:LEU:O	5:AC:179:ARG:CB	2.60	0.47
12:AJ:27:ALA:HB2	12:AJ:85:LEU:HD21	1.96	0.47
4:AB:115:LEU:HD12	4:AB:115:LEU:O	2.13	0.47
17:AO:17:ARG:NH1	17:AO:17:ARG:HG3	2.23	0.47
11:AI:65:VAL:HG13	11:AI:65:VAL:O	2.13	0.47
1:AA:729:A:H2	1:AA:765:G:O4'	1.97	0.47
23:B0:1825:C:C2'	23:B0:1826:U:H5'	2.44	0.47
6:AD:127:THR:CG2	6:AD:128:VAL:N	2.75	0.47
23:B0:3176:A:H2'	23:B0:3177:C:C6	2.48	0.47
23:B0:457:C:H2'	23:B0:458:G:O4'	2.13	0.47
1:AA:768:A:H2'	1:AA:769:G:O4'	2.14	0.47
1:AA:1014:A:H1'	21:AS:34:TRP:CB	2.22	0.47
1:AA:952:U:O2'	1:AA:953:G:H5'	2.14	0.47
2:AW:76:A:OP1	23:B0:2552:C:N3	2.47	0.47
12:AJ:63:PHE:CE2	16:AN:58:LYS:HG2	2.49	0.47
1:AA:1416:G:C8	1:AA:1417:G:C8	3.02	0.47
19:AQ:94:ASN:H	23:B0:726:G:H4'	1.73	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AD:6:GLY:O	6:AD:7:PRO:C	2.50	0.47
1:AA:319:G:H1'	1:AA:1433:A:N1	2.28	0.47
1:AA:119:A:C4	1:AA:240:C:N4	2.82	0.47
1:AA:905:U:H3'	1:AA:906:G:P	2.42	0.47
23:B0:3093:C:C4	23:B0:2204:A:N7	2.82	0.47
1:AA:170:U:O3'	1:AA:171:A:P	2.72	0.47
1:AA:236:G:H5''	19:AQ:40:LYS:CE	2.44	0.47
23:B0:1572:C:C3'	23:B0:1573:G:H5''	2.43	0.47
23:B0:1002:C:H2'	23:B0:1003:C:C6	2.49	0.47
1:AA:848:G:O3'	1:AA:849:C:P	2.72	0.47
23:B0:1182:U:C3'	23:B0:1183:C:H5''	2.45	0.47
23:B0:88:G:H3'	23:B0:89:A:C5'	2.37	0.47
8:AF:75:LEU:C	8:AF:75:LEU:HD13	2.34	0.47
23:B0:952:A:H2'	23:B0:953:G:O4'	2.14	0.47
4:AB:213:LEU:C	4:AB:213:LEU:CD2	2.83	0.47
8:AF:2:ARG:NE	8:AF:69:GLU:HG2	2.29	0.47
1:AA:792:A:H4'	1:AA:793:U:C5'	2.40	0.47
12:AJ:94:VAL:CG1	12:AJ:95:GLU:N	2.77	0.47
23:B0:2794:G:H2'	23:B0:2796:A:N7	2.29	0.47
1:AA:109:A:H5'	1:AA:110:C:C5	2.50	0.47
1:AA:518:C:H5''	1:AA:519:C:H6	1.78	0.47
23:B0:611:C:O2'	23:B0:612:G:H5'	2.14	0.47
23:B0:2407:G:H4'	23:B0:2408:G:C8	2.49	0.47
1:AA:209:U:H5'	1:AA:210:C:H5	1.80	0.47
13:AK:86:GLY:H	13:AK:112:THR:HG23	1.79	0.47
1:AA:613:C:O2'	1:AA:614:A:H5'	2.14	0.47
23:B0:1260:A:N6	23:B0:1262:U:H1'	2.29	0.47
1:AA:914:A:H3'	1:AA:915:A:H8	1.79	0.47
1:AA:913:A:O2'	1:AA:914:A:P	2.73	0.47
17:AO:64:ARG:NH2	23:B0:728:G:OP1	2.48	0.47
1:AA:826:C:O2'	10:AH:15:ASN:ND2	2.45	0.47
6:AD:111:ALA:HB2	6:AD:120:LEU:HD12	1.96	0.47
1:AA:113:G:O4'	1:AA:354:G:H4'	2.14	0.47
23:B0:1313:U:C4	23:B0:1651:U:H5'	2.49	0.47
14:AL:28:LYS:O	14:AL:29:GLY:C	2.50	0.47
23:B0:831:G:N2	23:B0:1203:A:H62	2.01	0.47
9:AG:75:VAL:HG13	9:AG:86:GLN:HB3	1.95	0.47
9:AG:75:VAL:CG1	9:AG:86:GLN:HE21	2.27	0.47
4:AB:18:GLY:CA	4:AB:41:ILE:HA	2.44	0.47
4:AB:50:GLU:HB3	4:AB:200:ILE:O	2.15	0.47
1:AA:513:C:H2'	1:AA:514:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AR:47:THR:HA	20:AR:83:GLU:HB2	1.96	0.47
13:AK:48:ILE:HD11	13:AK:64:ALA:HA	1.95	0.47
23:B0:1930:C:H2'	23:B0:1931:G:C8	2.49	0.47
23:B0:646:C:H2'	23:B0:647:G:O4'	2.14	0.47
23:B0:1938:U:C2'	23:B0:1939:U:H5'	2.44	0.47
1:AA:819:A:N6	1:AA:1529:G:C4	2.82	0.47
23:B0:3866:A:C1'	55:B5:194:ALA:CA	2.92	0.47
1:AA:278:G:O4'	1:AA:282:A:H1'	2.14	0.47
1:AA:190:A:C6	22:AT:102:GLY:O	2.67	0.47
20:AR:53:ARG:HD3	20:AR:63:GLN:HB3	1.95	0.47
23:B0:1071:U:N3	23:B0:1099:A:H2	2.02	0.47
1:AA:258:G:O3'	22:AT:87:LYS:CE	2.62	0.47
1:AA:104:G:O4'	1:AA:172:A:C2	2.61	0.47
15:AM:78:ILE:HA	15:AM:81:LEU:CD2	2.38	0.47
1:AA:204:A:H4'	1:AA:205:G:O5'	2.15	0.47
1:AA:600:C:OP1	10:AH:97:VAL:N	2.33	0.47
14:AL:48:PRO:HG2	14:AL:49:ASN:N	2.25	0.47
1:AA:625:G:H2'	1:AA:626:U:H6	1.79	0.47
14:AL:27:LEU:HG	14:AL:28:LYS:N	2.25	0.47
23:B0:109:A:C2'	23:B0:110:U:H5''	2.44	0.47
20:AR:28:GLU:OE1	20:AR:28:GLU:N	2.46	0.47
9:AG:23:VAL:HG12	9:AG:27:ILE:CD1	2.41	0.47
12:AJ:39:PRO:HA	12:AJ:70:ARG:HH11	1.78	0.47
23:B0:2437:G:C2	23:B0:2469:G:H2'	2.50	0.47
10:AH:6:ILE:HD12	10:AH:35:ILE:HD12	1.96	0.47
16:AN:21:TYR:HE2	16:AN:23:ARG:HE	1.63	0.47
1:AA:657:G:O2'	1:AA:658:G:H5'	2.14	0.47
23:B0:598:U:H2'	23:B0:599:A:C8	2.49	0.47
23:B0:636:G:H2'	23:B0:637:G:H5'	1.95	0.47
23:B0:2307:A:H2'	23:B0:2308:A:C8	2.49	0.47
23:B0:393:U:H2'	23:B0:394:U:C6	2.49	0.47
23:B0:1598:C:H2'	23:B0:1599:G:O4'	2.14	0.47
1:AA:1070:U:O2'	1:AA:1071:C:H5'	2.13	0.47
1:AA:1451:A:O2'	1:AA:1452:C:OP1	2.26	0.47
1:AA:180:U:H2'	1:AA:181:G:H5'	1.96	0.47
1:AA:51:A:H4'	1:AA:52:G:C5'	2.45	0.47
1:AA:51:A:H4'	1:AA:52:G:O5'	2.15	0.47
23:B0:910:U:H2'	23:B0:911:A:H5'	1.95	0.47
1:AA:1394:A:C4	1:AA:1501:C:C4'	2.62	0.47
1:AA:1221:G:O2'	1:AA:1222:G:H5'	2.15	0.47
1:AA:130:A:C2	1:AA:264:U:C2	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:264:U:H2'	19:AQ:64:PRO:HB2	1.96	0.47
5:AC:173:VAL:HG12	5:AC:173:VAL:O	2.14	0.47
1:AA:762:C:C4'	23:B0:729:A:C6	2.74	0.47
1:AA:538:G:H4'	14:AL:114:LYS:NZ	2.27	0.47
1:AA:403:C:H2'	1:AA:404:U:H6	1.79	0.47
1:AA:435:C:O2'	1:AA:436:C:H5'	2.15	0.47
1:AA:834:C:H2'	1:AA:835:U:H6	1.80	0.47
1:AA:1261:A:C4'	1:AA:1283:G:C5'	2.92	0.47
4:AB:15:VAL:HG12	4:AB:210:SER:HB2	1.97	0.47
8:AF:4:TYR:CZ	8:AF:72:VAL:HG21	2.49	0.47
20:AR:47:THR:HG22	20:AR:48:GLY:H	1.79	0.47
9:AG:77:SER:O	9:AG:156:TRP:HZ3	1.97	0.47
2:AW:11:C:O2'	23:B0:1898:U:H5''	2.14	0.47
23:B0:242:A:O2'	23:B0:243:G:P	2.72	0.47
2:AW:64:A:O4'	23:B0:2461:G:O2'	2.32	0.47
23:B0:2220:A:H2'	23:B0:2221:G:C8	2.48	0.47
22:AT:94:ALA:O	22:AT:95:ALA:CB	2.63	0.47
23:B0:1494:G:H2'	23:B0:1495:G:C8	2.50	0.47
23:B0:1365:U:H5'	23:B0:1587:A:H1'	1.96	0.47
1:AA:1262:C:H2'	1:AA:1263:C:H6	1.79	0.47
23:B0:1489:C:H3'	23:B0:1490:U:C5'	2.45	0.47
23:B0:3181:C:H2'	23:B0:3182:U:C6	2.50	0.47
23:B0:2799:C:H2'	23:B0:2800:C:O4'	2.14	0.47
15:AM:97:PRO:HB2	15:AM:101:GLN:OE1	2.14	0.47
23:B0:2455:A:O2'	23:B0:2456:U:H5'	2.15	0.47
1:AA:665:A:C2	1:AA:732:C:C2	3.03	0.47
15:AM:39:ILE:CD1	15:AM:56:LEU:HG	2.44	0.47
23:B0:2062:U:H4'	23:B0:2412:A:H2	1.78	0.47
8:AF:53:ALA:C	8:AF:55:ASP:H	2.18	0.47
16:AN:14:PRO:O	16:AN:16:PHE:N	2.44	0.47
19:AQ:104:LYS:CB	23:B0:726:G:C5	2.97	0.47
7:AE:92:LYS:O	7:AE:118:ILE:HG23	2.15	0.47
7:AE:102:ALA:HB2	7:AE:120:THR:HB	1.97	0.47
23:B0:1101:U:O4	23:B0:1113:C:N4	2.48	0.47
1:AA:297:G:C5'	1:AA:557:G:H4'	2.44	0.47
1:AA:1515:C:H2'	1:AA:1516:G:C8	2.50	0.47
1:AA:1127:G:N2	1:AA:1147:C:N4	2.62	0.47
1:AA:299:G:N2	1:AA:566:G:C6	2.78	0.47
1:AA:1158:C:N3	1:AA:1181:G:N2	2.61	0.47
15:AM:94:ARG:HH22	21:AS:81:ARG:HH11	1.61	0.47
1:AA:1057:G:C2'	1:AA:1058:G:H5'	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:1918:G:H4'	23:B0:1920:A:C2	2.50	0.47
20:AR:45:SER:C	20:AR:47:THR:N	2.65	0.47
23:B0:1286:U:H2'	23:B0:2692:A:H2	1.80	0.47
9:AG:54:THR:HG22	9:AG:56:GLN:H	1.79	0.47
23:B0:1074:G:O2'	23:B0:1075:C:H5'	2.15	0.47
23:B0:1922:U:H1'	23:B0:2570:C:O2'	2.15	0.47
1:AA:528:C:H5'	1:AA:535:A:C6	2.49	0.47
23:B0:1279:G:HO2'	23:B0:1280:U:H6	1.62	0.47
23:B0:404:A:H2'	23:B0:405:C:C6	2.50	0.47
23:B0:1497:C:O2'	23:B0:1498:G:H5'	2.14	0.47
7:AE:127:ASN:O	7:AE:128:PRO:C	2.53	0.47
23:B0:1591:U:H2'	23:B0:1592:U:O4'	2.14	0.47
23:B0:1654:A:H2'	23:B0:1655:C:C6	2.49	0.47
8:AF:50:TYR:CE1	20:AR:77:GLY:HA2	2.49	0.47
1:AA:1393:U:C2'	1:AA:1395:C:C5	2.93	0.47
1:AA:1060:C:H5'	12:AJ:52:GLY:CA	2.27	0.47
12:AJ:51:ARG:HA	16:AN:45:ARG:NH1	2.30	0.47
1:AA:893:C:C6	1:AA:894:G:N7	2.82	0.47
22:AT:50:GLU:HG3	22:AT:99:LEU:CD1	2.45	0.47
1:AA:37:U:H1'	1:AA:500:G:O2'	2.13	0.47
6:AD:57:ARG:HH22	7:AE:107:ARG:HD2	1.60	0.47
1:AA:707:C:H4'	13:AK:20:TYR:CZ	2.50	0.47
23:B0:1088:A:C2	23:B0:1099:A:C8	3.03	0.47
19:AQ:101:ARG:HD3	23:B0:731:A:C2	2.36	0.47
5:AC:100:ALA:O	5:AC:101:LEU:HB2	2.14	0.47
1:AA:292:G:H21	1:AA:608:A:H2	1.51	0.47
14:AL:42:THR:CG2	14:AL:52:LEU:HB3	2.44	0.47
11:AI:48:GLU:N	11:AI:49:PRO:CD	2.77	0.47
1:AA:1004:A:N6	1:AA:1035:A:H62	2.13	0.47
1:AA:173:U:C2	1:AA:197:A:N1	2.82	0.47
23:B0:2008:C:H2'	23:B0:2009:U:C6	2.49	0.47
23:B0:367:G:C3'	23:B0:368:A:H5''	2.44	0.47
23:B0:930:A:H3'	23:B0:931:G:H8	1.79	0.47
23:B0:9:U:H2'	23:B0:10:A:C8	2.49	0.47
1:AA:702:A:C6	23:B0:1838:G:H2'	2.48	0.47
2:AV:57:G:C4'	28:BD:76:ASN:CA	2.92	0.47
1:AA:588:G:N7	1:AA:753:A:N3	2.63	0.47
14:AL:28:LYS:HD2	14:AL:33:ARG:NH1	2.29	0.47
4:AB:215:LEU:O	4:AB:216:SER:C	2.52	0.47
5:AC:19:GLU:HB3	5:AC:40:ARG:NH2	2.25	0.47
1:AA:992:U:O2'	1:AA:993:G:OP2	2.26	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:2376:G:H2'	23:B0:2377:U:C6	2.50	0.47
1:AA:947:G:H2'	1:AA:948:C:O4'	2.15	0.47
23:B0:1189:G:O2'	23:B0:1190:C:H5'	2.14	0.47
1:AA:1128:C:O2'	1:AA:1130:A:C8	2.62	0.47
1:AA:780:A:C2	1:AA:801:U:C5	3.02	0.47
23:B0:619:A:H2'	23:B0:620:G:C8	2.49	0.47
4:AB:78:GLN:O	4:AB:94:ASN:OD1	2.33	0.47
24:B9:80:A:H2'	24:B9:81:C:O4'	2.15	0.47
23:B0:1886:G:H2'	23:B0:1887:G:H8	1.79	0.47
23:B0:1829:C:C2'	23:B0:1830:C:H5'	2.44	0.47
1:AA:633:G:H2'	1:AA:634:C:C6	2.49	0.47
7:AE:148:VAL:O	7:AE:152:ARG:HG3	2.14	0.47
10:AH:75:ARG:HA	10:AH:76:PRO:HD3	1.70	0.47
24:B9:22:U:H2'	24:B9:23:G:H8	1.79	0.47
1:AA:155:C:H2'	1:AA:156:G:H8	1.79	0.47
7:AE:33:VAL:HG11	7:AE:109:ILE:HA	1.96	0.47
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.50	0.47
1:AA:1391:U:H1'	1:AA:1532:U:OP1	2.15	0.47
1:AA:572:A:N3	1:AA:917:G:C1'	2.72	0.47
1:AA:264:U:C2'	19:AQ:64:PRO:N	2.77	0.47
1:AA:247:G:OP2	19:AQ:100:LYS:CE	2.56	0.47
1:AA:27:G:N3	1:AA:557:G:N3	2.63	0.47
1:AA:128:G:O3'	19:AQ:3:LYS:HG2	2.13	0.47
1:AA:1255:G:N3	1:AA:1259:C:O2	2.48	0.47
23:B0:3149:G:O3'	23:B0:3150:C:OP2	2.33	0.47
1:AA:975:A:H4'	1:AA:976:G:H5'	1.97	0.47
1:AA:672:U:O3'	1:AA:673:G:P	2.72	0.47
8:AF:67:MET:HE2	8:AF:72:VAL:HG22	1.97	0.47
5:AC:79:ARG:HG2	5:AC:82:GLU:CG	2.45	0.47
23:B0:859:U:H4'	23:B0:860:U:C5	2.49	0.47
23:B0:537:C:C6	23:B0:2759:U:H2'	2.50	0.47
7:AE:20:GLN:C	7:AE:21:ALA:O	2.50	0.47
23:B0:2238:G:H2'	23:B0:2239:C:C6	2.49	0.47
1:AA:41:G:H2'	1:AA:42:G:H8	1.79	0.47
23:B0:38:G:H2'	23:B0:39:C:C6	2.49	0.47
13:AK:50:TYR:HD1	13:AK:60:ALA:HB2	1.80	0.47
23:B0:3171:A:O2'	23:B0:3172:U:H6	1.98	0.47
1:AA:129(A):G:O2'	1:AA:130:A:OP2	2.28	0.47
5:AC:174:PRO:O	5:AC:177:THR:HG22	2.15	0.47
1:AA:215:C:O2'	1:AA:465:C:N4	2.45	0.47
19:AQ:90:ILE:O	23:B0:726:G:H4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:521:G:H4'	14:AL:73:GLU:CG	2.44	0.47
22:AT:42:GLN:O	22:AT:42:GLN:NE2	2.47	0.47
1:AA:88:G:O2'	1:AA:89:G:H5'	2.14	0.47
1:AA:300:A:H1'	1:AA:565:U:H3	1.79	0.47
23:B0:3098:U:H3'	23:B0:3099:U:C5	2.49	0.47
12:AJ:8:LEU:HD12	12:AJ:20:ALA:HB2	1.97	0.47
1:AA:1427:U:HO2'	23:B0:1704:G:H5''	1.77	0.47
1:AA:1428:A:O4'	23:B0:1704:G:H5'	2.15	0.47
1:AA:586:C:C5'	10:AH:90:GLY:N	2.78	0.47
18:AP:20:VAL:CG1	18:AP:21:VAL:N	2.76	0.47
1:AA:944:G:H3'	1:AA:945:G:H5'	1.97	0.47
1:AA:457:G:O2'	1:AA:458:G:H5'	2.15	0.47
1:AA:560:U:H6	1:AA:560:U:O5'	1.98	0.47
10:AH:23:SER:OG	10:AH:60:ARG:HD2	2.15	0.47
23:B0:1974:U:H2'	23:B0:1975:G:H5''	1.95	0.47
1:AA:141:A:C1'	1:AA:182:U:O2	2.63	0.47
23:B0:1789:U:H2'	23:B0:1790:G:H5'	1.95	0.47
1:AA:1001:A:H2'	1:AA:1002:G:H8	1.79	0.47
23:B0:810:U:H2'	23:B0:811:G:C8	2.49	0.47
23:B0:558:G:H5''	23:B0:559:C:C5	2.50	0.47
1:AA:1074:G:O3'	4:AB:103:THR:CG2	2.63	0.47
21:AS:10:PHE:HE2	21:AS:12:ASP:OD1	1.97	0.47
1:AA:932:C:C5'	9:AG:3:ARG:CD	2.86	0.47
23:B0:3185:U:C6	23:B0:3185:U:H5'	2.40	0.47
2:AW:25:C:C4	2:AW:26:G:N7	2.83	0.47
1:AA:1491:G:OP1	14:AL:46:LYS:NZ	2.48	0.47
5:AC:188:LEU:O	5:AC:189:ALA:CB	2.59	0.47
8:AF:30:LEU:HB3	8:AF:35:ALA:CB	2.41	0.47
23:B0:2199:C:H2'	23:B0:2200:G:C8	2.50	0.47
13:AK:80:VAL:HG21	13:AK:103:LEU:HD13	1.97	0.47
6:AD:3:ARG:NE	6:AD:71:SER:HB3	2.30	0.47
23:B0:85:C:O2'	23:B0:86:U:H5'	2.15	0.47
1:AA:517:G:H5'	1:AA:519:C:C2	2.50	0.47
19:AQ:80:GLY:O	19:AQ:81:ARG:HB3	2.15	0.47
23:B0:2429:A:O2'	23:B0:2430:A:H5'	2.16	0.47
23:B0:342:G:O2'	23:B0:343:A:OP1	2.27	0.47
23:B0:1091:C:H4'	31:BG:126:THR:CA	2.44	0.47
23:B0:462:G:H2'	23:B0:463:C:H5'	1.97	0.47
6:AD:145:GLU:HG2	6:AD:184:LYS:HE2	1.96	0.47
23:B0:564:U:H2'	23:B0:565:A:C8	2.50	0.47
6:AD:87:GLY:O	6:AD:88:VAL:C	2.53	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:132:C:O2'	1:AA:133:U:H5'	2.15	0.46
1:AA:1110:A:C5	1:AA:1111:A:C5	3.03	0.46
19:AQ:104:LYS:HZ1	23:B0:730:C:H42	1.59	0.46
7:AE:118:ILE:CG2	7:AE:119:LEU:H	2.27	0.46
1:AA:521:G:H4'	14:AL:73:GLU:HG2	1.96	0.46
1:AA:421:U:H5'	1:AA:422:C:H5	1.80	0.46
13:AK:59:TYR:O	13:AK:62:GLN:HB3	2.15	0.46
11:AI:33:PHE:CE2	11:AI:47:LEU:HD11	2.50	0.46
1:AA:1410:G:N1	1:AA:1491:G:N1	2.63	0.46
17:AO:77:ARG:O	17:AO:80:ALA:HB3	2.15	0.46
6:AD:29:PRO:C	6:AD:30:LYS:HG3	2.35	0.46
21:AS:15:LEU:HD12	21:AS:16:LEU:H	1.77	0.46
23:B0:1223:G:H5'	23:B0:1225:G:OP1	2.15	0.46
1:AA:1153:C:H2'	1:AA:1154:G:C8	2.46	0.46
18:AP:42:ARG:O	18:AP:43:LYS:C	2.51	0.46
9:AG:135:VAL:O	9:AG:139:GLU:HG3	2.15	0.46
23:B0:351:A:H2'	23:B0:352:G:O4'	2.15	0.46
24:B9:34:C:H2'	24:B9:35:C:C6	2.50	0.46
4:AB:53:ARG:NH1	4:AB:199:TYR:CD2	2.82	0.46
23:B0:3181:C:O3'	23:B0:3182:U:P	2.73	0.46
23:B0:1155:G:H2'	23:B0:1156:U:O4'	2.16	0.46
23:B0:2432:A:H4'	23:B0:2551:A:O2'	2.15	0.46
20:AR:59:SER:OG	20:AR:62:GLU:HG3	2.15	0.46
23:B0:3131:A:H5''	23:B0:3133:G:O4'	2.16	0.46
14:AL:38:THR:HG22	14:AL:39:VAL:HG23	1.97	0.46
23:B0:1184:G:H2'	23:B0:1185:C:H5'	1.97	0.46
1:AA:1300:G:O2'	1:AA:1301:U:P	2.73	0.46
1:AA:1195:C:H2'	1:AA:1197:G:H5'	1.96	0.46
23:B0:2560:G:N3	23:B0:2560:G:H3'	2.31	0.46
1:AA:253:U:C2'	19:AQ:15:MET:SD	3.02	0.46
1:AA:1190:G:H3'	5:AC:3:ASN:CB	2.33	0.46
19:AQ:105:ALA:C	23:B0:727:U:O3'	2.48	0.46
1:AA:538:G:C8	14:AL:115:LYS:CE	2.98	0.46
14:AL:77:LEU:HD21	14:AL:107:ALA:HB2	1.97	0.46
5:AC:167:TRP:O	5:AC:168:ALA:CB	2.63	0.46
1:AA:1445:U:O2'	1:AA:1446:A:H5'	2.15	0.46
8:AF:44:GLY:HA2	8:AF:59:TYR:CE1	2.51	0.46
23:B0:1313:U:O4	23:B0:1651:U:H5'	2.15	0.46
5:AC:23:TYR:CE1	12:AJ:67:THR:CG2	2.96	0.46
9:AG:77:SER:O	9:AG:156:TRP:CZ3	2.69	0.46
18:AP:43:LYS:HG2	18:AP:48:TRP:CE2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:743:U:H2'	1:AA:744:C:H6	1.79	0.46
4:AB:75:LYS:HE3	4:AB:78:GLN:OE1	2.14	0.46
23:B0:566:U:H2'	23:B0:567:G:C8	2.50	0.46
23:B0:1445:A:H2'	23:B0:1446:U:O4'	2.14	0.46
5:AC:21:ARG:NH2	5:AC:56:ASP:OD2	2.49	0.46
7:AE:18:ARG:HG2	7:AE:19:MET:H	1.81	0.46
1:AA:265:G:C4'	19:AQ:64:PRO:O	2.46	0.46
1:AA:214:U:H5'	1:AA:215:C:OP2	2.15	0.46
1:AA:321:A:O2'	1:AA:322:C:H5'	2.15	0.46
1:AA:521:G:O4'	14:AL:73:GLU:OE2	2.33	0.46
1:AA:542:G:H2'	1:AA:543:C:H6	1.80	0.46
1:AA:1474:G:O2'	1:AA:1475:G:H5'	2.16	0.46
23:B0:3093:C:O2'	23:B0:3094:A:H5'	2.15	0.46
1:AA:1497:G:N2	1:AA:1519:A:N3	2.63	0.46
1:AA:1261:A:H4'	1:AA:1283:G:H5''	1.97	0.46
7:AE:79:GLU:CD	10:AH:105:ARG:HE	2.18	0.46
1:AA:599:C:H5'	10:AH:131:GLY:HA2	1.96	0.46
23:B0:1840:A:H2'	23:B0:1841:G:H5'	1.98	0.46
23:B0:397:U:H2'	23:B0:398:C:C6	2.51	0.46
23:B0:1280:U:O2'	23:B0:1281:A:H5'	2.15	0.46
23:B0:1333:G:N2	23:B0:1344:C:H41	2.13	0.46
24:B9:22:U:H2'	24:B9:23:G:C8	2.50	0.46
23:B0:2512:A:H2'	23:B0:2513:A:O4'	2.15	0.46
14:AL:54:LYS:N	14:AL:54:LYS:HD2	2.30	0.46
23:B0:2277:A:H2'	23:B0:2278:A:O4'	2.16	0.46
23:B0:2498:U:H5''	23:B0:2499:C:OP1	2.15	0.46
1:AA:1499:A:C2'	1:AA:1520:G:H5''	2.45	0.46
1:AA:1342:C:C4'	11:AI:125:TYR:CD1	2.93	0.46
2:AV:76:A:C5'	23:B0:2564:U:C5	2.85	0.46
2:AV:76:A:C3'	23:B0:2046:C:C2'	2.91	0.46
1:AA:130:A:N9	19:AQ:63:ARG:HG3	2.28	0.46
1:AA:1234:C:H4'	1:AA:1365:G:OP1	2.13	0.46
1:AA:761:G:H4'	23:B0:726:G:H22	1.80	0.46
1:AA:406:G:C4	1:AA:496:A:N7	2.82	0.46
1:AA:619:U:N1	6:AD:135:LEU:HD12	2.26	0.46
1:AA:128:G:C5'	19:AQ:2:PRO:N	2.78	0.46
1:AA:1256:A:C2	1:AA:1258:G:N1	2.72	0.46
23:B0:3109:U:H5'	23:B0:3150:C:C5'	2.24	0.46
23:B0:2669:C:H41	36:BL:15:SER:CA	2.28	0.46
12:AJ:45:ARG:NH2	16:AN:36:PHE:HD2	1.84	0.46
13:AK:93:GLN:HE21	13:AK:96:ARG:NH2	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AJ:22:LYS:HE2	12:AJ:90:LEU:HB2	1.97	0.46
6:AD:24:GLU:CG	6:AD:25:ARG:N	2.77	0.46
23:B0:584:A:H4'	23:B0:2479:U:C5'	2.45	0.46
13:AK:72:ALA:HB1	13:AK:77:MET:HG3	1.97	0.46
15:AM:59:TYR:O	15:AM:63:THR:HB	2.15	0.46
23:B0:1947:G:P	23:B0:1947:G:H8	2.38	0.46
23:B0:2061:C:H1'	23:B0:2413:A:H1'	1.97	0.46
5:AC:139:GLN:CA	5:AC:139:GLN:NE2	2.78	0.46
1:AA:1481:U:H2'	1:AA:1482:G:O4'	2.15	0.46
14:AL:82:VAL:O	14:AL:106:ASP:HB2	2.15	0.46
23:B0:323:G:H2'	23:B0:324:C:C6	2.50	0.46
9:AG:20:ASP:OD1	9:AG:22:LEU:HB3	2.15	0.46
9:AG:21:VAL:HG23	9:AG:22:LEU:N	2.29	0.46
17:AO:66:LEU:O	17:AO:69:TYR:HB3	2.15	0.46
23:B0:2784:A:H4'	23:B0:2786:G:OP2	2.15	0.46
1:AA:961:U:OP1	1:AA:1223:C:H4'	2.15	0.46
1:AA:253:U:H5'	1:AA:276:G:C1'	2.46	0.46
22:AT:63:ILE:HG23	22:AT:72:LEU:CD1	2.46	0.46
12:AJ:61:GLU:HG3	16:AN:58:LYS:CE	2.36	0.46
1:AA:476:U:C4	1:AA:477:G:C5'	2.97	0.46
1:AA:390:C:O5'	1:AA:390:C:H6	1.99	0.46
23:B0:1912:G:O4'	23:B0:1913:G:H8	1.95	0.46
23:B0:3108:G:N3	23:B0:3109:U:C5	2.84	0.46
14:AL:46:LYS:O	14:AL:47:LYS:C	2.54	0.46
1:AA:1320:C:N3	21:AS:36:ARG:HG3	2.30	0.46
4:AB:129:GLU:O	4:AB:130:ARG:HB2	2.15	0.46
1:AA:1056:U:O2'	1:AA:1057:G:H5'	2.14	0.46
23:B0:203:G:O2'	23:B0:204:A:H5'	2.15	0.46
1:AA:419:C:H5''	1:AA:513:C:C1'	2.44	0.46
9:AG:85:TYR:CD1	9:AG:154:TYR:HE1	2.28	0.46
9:AG:155:ARG:O	9:AG:156:TRP:CB	2.64	0.46
9:AG:154:TYR:O	9:AG:156:TRP:N	2.49	0.46
23:B0:508:G:H22	23:B0:516:G:H22	1.63	0.46
1:AA:1152:A:O2'	1:AA:1153:C:H5'	2.16	0.46
5:AC:129:ALA:HB3	5:AC:132:ARG:CD	2.45	0.46
23:B0:2321:C:H2'	23:B0:2322:U:H5'	1.97	0.46
23:B0:670:U:H2'	23:B0:671:A:C8	2.50	0.46
23:B0:645:G:H2'	23:B0:646:C:C6	2.51	0.46
1:AA:1300:G:O2'	1:AA:1301:U:H6	1.98	0.46
23:B0:887:G:O2'	23:B0:888:G:H5'	2.15	0.46
5:AC:28:GLN:O	5:AC:31:HIS:N	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AT:59:ALA:O	22:AT:63:ILE:HG13	2.14	0.46
1:AA:1064:G:H1'	1:AA:1190:G:N2	2.28	0.46
1:AA:760:G:N1	19:AQ:105:ALA:HB2	2.31	0.46
19:AQ:105:ALA:N	23:B0:727:U:C4'	2.78	0.46
19:AQ:97:SER:O	19:AQ:98:LEU:C	2.54	0.46
4:AB:23:ARG:C	4:AB:23:ARG:HH11	2.16	0.46
1:AA:127:G:OP1	1:AA:635:G:H1'	2.15	0.46
1:AA:1255:G:O2'	1:AA:1259:C:C2	2.58	0.46
1:AA:201:G:H21	1:AA:469:C:H4'	1.81	0.46
5:AC:59:ARG:O	12:AJ:92:THR:CG2	2.64	0.46
23:B0:1226:A:N1	23:B0:1250:A:H1'	2.30	0.46
1:AA:58:C:O2'	1:AA:59:A:H5'	2.16	0.46
15:AM:51:ALA:O	15:AM:55:ARG:HG3	2.16	0.46
10:AH:92:ARG:HG2	10:AH:94:TYR:OH	2.16	0.46
23:B0:831:G:H5'	23:B0:852:U:OP1	2.15	0.46
21:AS:20:LEU:O	21:AS:23:ASN:HB2	2.15	0.46
1:AA:1466:C:H2'	1:AA:1467:G:C8	2.50	0.46
4:AB:142:LEU:HB3	4:AB:146:GLN:HE22	1.80	0.46
23:B0:84:G:H2'	23:B0:85:C:C6	2.50	0.46
23:B0:1358:C:H2'	23:B0:1359:G:H5'	1.97	0.46
7:AE:143:ARG:HD3	7:AE:143:ARG:HA	1.71	0.46
24:B9:59:A:N3	24:B9:59:A:H2'	2.31	0.46
7:AE:35:GLY:HA3	7:AE:112:LEU:HB3	1.98	0.46
23:B0:1414:G:H2'	23:B0:1415:C:C6	2.50	0.46
23:B0:1036:G:H1'	23:B0:1145:C:C4'	2.45	0.46
23:B0:2825:A:H2'	23:B0:2826:C:C6	2.51	0.46
15:AM:46:LYS:HG3	15:AM:47:ASP:N	2.30	0.46
23:B0:753:U:H2'	23:B0:754:G:H5'	1.97	0.46
1:AA:815:A:N1	1:AA:1528:U:N1	2.55	0.46
1:AA:954:G:H2'	1:AA:955:U:H6	1.78	0.46
1:AA:7:G:O2'	7:AE:121:LYS:HB2	2.16	0.46
1:AA:118:U:H3'	1:AA:119:A:P	2.56	0.46
1:AA:905:U:O4	1:AA:906:G:N1	2.49	0.46
1:AA:1497:G:C2'	1:AA:1498:U:C5'	2.87	0.46
14:AL:60:LEU:HD21	14:AL:66:VAL:HG22	1.97	0.46
4:AB:25:ASN:C	4:AB:25:ASN:ND2	2.68	0.46
2:AV:33:U:O2	2:AV:35:A:H5'	2.13	0.46
4:AB:69:LEU:HD23	4:AB:69:LEU:C	2.36	0.46
6:AD:104:VAL:HG11	6:AD:146:ILE:CD1	2.37	0.46
1:AA:411:A:C6	1:AA:429:U:C4	3.04	0.46
4:AB:15:VAL:CG1	4:AB:209:ARG:HG3	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AF:101:ALA:HB2	20:AR:28:GLU:HB3	1.97	0.46
18:AP:72:ARG:HG2	18:AP:72:ARG:O	2.16	0.46
9:AG:15:ASP:O	9:AG:19:GLY:HA2	2.16	0.46
13:AK:84:VAL:HG23	13:AK:109:VAL:O	2.16	0.46
23:B0:181:A:H4'	23:B0:182:G:C4'	2.44	0.46
23:B0:2021:G:H2'	23:B0:2022:C:C6	2.51	0.46
7:AE:68:GLU:O	7:AE:70:PRO:HD3	2.15	0.46
23:B0:3876:A:H5''	55:B5:39:ILE:CA	2.45	0.46
23:B0:575:U:H2'	23:B0:576:A:C8	2.51	0.46
23:B0:1269:G:H2'	23:B0:1270:C:C6	2.50	0.46
1:AA:1030:U:H5'	1:AA:1031:C:H5	1.80	0.46
15:AM:39:ILE:HD12	15:AM:56:LEU:HG	1.98	0.46
6:AD:121:VAL:O	6:AD:134:ASP:HA	2.16	0.46
1:AA:1245:A:H2'	1:AA:1246:C:C6	2.50	0.46
14:AL:71:PRO:O	14:AL:102:ARG:HD2	2.16	0.46
1:AA:1390:U:H2'	1:AA:1391:U:C6	2.51	0.46
1:AA:255:G:C5'	19:AQ:17:LYS:CA	2.91	0.46
1:AA:778:G:HO2'	1:AA:779:C:H5'	1.80	0.46
1:AA:322:C:C5'	22:AT:23:ARG:CD	2.86	0.46
1:AA:547:A:OP1	1:AA:548:G:P	2.74	0.46
21:AS:67:VAL:O	21:AS:69:HIS:N	2.49	0.46
1:AA:1314:C:C5	21:AS:6:LYS:CD	2.99	0.46
5:AC:157:ILE:HD11	5:AC:166:GLU:HB2	1.97	0.46
1:AA:651:C:N4	1:AA:753:A:OP2	2.44	0.46
14:AL:59:ARG:NH1	14:AL:65:GLU:HG2	2.30	0.46
21:AS:15:LEU:O	21:AS:19:VAL:N	2.48	0.46
9:AG:46:ALA:O	9:AG:50:ILE:HG13	2.15	0.46
23:B0:317:U:H3'	23:B0:318:G:C5'	2.46	0.46
23:B0:1921:A:C3'	23:B0:1922:U:H5''	2.46	0.46
23:B0:313:U:H2'	23:B0:314:G:C8	2.51	0.46
9:AG:107:ALA:O	9:AG:110:GLN:HB2	2.16	0.46
1:AA:645:C:O2'	1:AA:646:U:H5'	2.16	0.46
6:AD:173:TRP:CD2	6:AD:189:PRO:HB3	2.51	0.46
19:AQ:66:SER:OG	19:AQ:69:LYS:HB3	2.15	0.46
11:AI:112:LYS:C	11:AI:112:LYS:HD3	2.37	0.46
19:AQ:96:GLN:O	19:AQ:96:GLN:CD	2.54	0.46
23:B0:3877:A:OP2	23:B0:1861:G:OP2	2.34	0.46
1:AA:1483:A:N3	1:AA:1484:C:C6	2.84	0.46
1:AA:355:C:H5'	1:AA:389:A:OP2	2.16	0.46
5:AC:64:VAL:CG2	5:AC:99:VAL:HB	2.45	0.46
1:AA:186:C:C5'	22:AT:81:LYS:NZ	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AI:48:GLU:OE1	11:AI:48:GLU:HA	2.16	0.46
1:AA:1039:C:O2'	1:AA:1040:U:H5'	2.16	0.46
23:B0:471:A:H62	23:B0:480:G:N2	2.07	0.46
23:B0:2809:A:C6	23:B0:2854:G:H2'	2.50	0.46
8:AF:2:ARG:HD2	8:AF:69:GLU:HG2	1.96	0.46
20:AR:48:GLY:O	20:AR:74:ARG:NH2	2.41	0.46
23:B0:1193:G:H2'	23:B0:1194:U:C6	2.50	0.46
1:AA:1237:C:H2'	1:AA:1336:C:C5	2.51	0.46
1:AA:998:G:O2'	1:AA:999:C:H5'	2.15	0.46
23:B0:644:A:H2'	23:B0:645:G:H5'	1.98	0.46
23:B0:2800:C:H2'	23:B0:2801:A:O4'	2.15	0.46
21:AS:18:LYS:HG2	21:AS:18:LYS:O	2.16	0.46
23:B0:502:A:H2'	23:B0:503:G:O4'	2.15	0.46
13:AK:16:SER:O	13:AK:35:PRO:HD3	2.16	0.46
13:AK:34:ASP:O	13:AK:36:ASP:N	2.48	0.46
4:AB:100:GLY:O	4:AB:104:ASN:N	2.45	0.46
23:B0:42:G:H2'	23:B0:43:A:O4'	2.16	0.46
23:B0:3874:C:C2'	23:B0:3875:A:H5'	2.46	0.46
1:AA:778:G:C4'	13:AK:119:CYS:SG	3.04	0.46
4:AB:22:LYS:O	4:AB:23:ARG:HG3	2.16	0.46
15:AM:5:ALA:O	15:AM:8:GLU:N	2.45	0.46
1:AA:9:G:OP2	7:AE:126:ARG:NH1	2.48	0.46
5:AC:92:ALA:C	5:AC:94:LEU:H	2.17	0.46
24:B9:74:A:H2'	24:B9:75:A:C8	2.51	0.46
1:AA:1277:C:C2'	1:AA:1278:U:H5'	2.46	0.46
15:AM:49:THR:O	15:AM:53:VAL:HG23	2.16	0.46
1:AA:1320:C:H2'	1:AA:1321:C:O4'	2.16	0.46
1:AA:847:C:H2'	1:AA:848:G:H8	1.81	0.46
5:AC:131:ARG:O	5:AC:135:LYS:HG3	2.16	0.46
10:AH:91:ARG:HG3	14:AL:7:ILE:HG13	1.97	0.46
23:B0:1312:G:H5''	23:B0:1313:U:C5'	2.39	0.46
1:AA:1090:U:C4'	1:AA:1169:A:C2	2.99	0.46
20:AR:36:ASN:ND2	20:AR:38:GLU:HG2	2.29	0.46
4:AB:19:HIS:HD2	4:AB:189:ASP:OD2	1.99	0.46
23:B0:1750:A:H1'	23:B0:2690:A:C2	2.51	0.46
6:AD:152:SER:HA	6:AD:155:LEU:HG	1.97	0.46
23:B0:1352:G:H2'	23:B0:1353:A:C8	2.49	0.46
23:B0:599:A:H2'	23:B0:600:G:H8	1.80	0.46
23:B0:2448:A:H2'	23:B0:2449:G:O4'	2.16	0.46
23:B0:1586:A:H2'	23:B0:1587:A:H8	1.81	0.46
14:AL:37:CYS:O	14:AL:79:GLU:O	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:590:C:H2'	23:B0:591:G:C8	2.51	0.46
23:B0:556:A:H2'	23:B0:557:U:H5'	1.98	0.46
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.50	0.45
1:AA:1532:U:H6	1:AA:1532:U:O5'	2.00	0.45
1:AA:19:C:H2'	1:AA:20:U:H6	1.80	0.45
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.81	0.45
11:AI:120:ARG:O	11:AI:121:ARG:C	2.55	0.45
2:AW:76:A:H2	23:B0:2532:G:N2	1.98	0.45
1:AA:39:G:N9	1:AA:498:U:C4	2.85	0.45
7:AE:102:ALA:HB2	7:AE:120:THR:CB	2.46	0.45
1:AA:1475:G:H5'	23:B0:1705:U:O3'	2.16	0.45
1:AA:151:A:H2'	1:AA:152:A:O4'	2.15	0.45
1:AA:600:C:H4'	10:AH:128:GLY:O	2.16	0.45
1:AA:702:A:C2	23:B0:1838:G:C2'	2.99	0.45
4:AB:97:TRP:CH2	4:AB:176:GLU:OE2	2.69	0.45
23:B0:1203:A:H2'	23:B0:1204:G:H5'	1.98	0.45
23:B0:403:A:H4'	23:B0:425:A:C5'	2.39	0.45
23:B0:2640:G:H2'	23:B0:2641:A:O4'	2.16	0.45
23:B0:689:A:N3	23:B0:689:A:H3'	2.31	0.45
23:B0:1223:G:H1'	23:B0:1225:G:N3	2.31	0.45
23:B0:2437:G:H2'	23:B0:2469:G:N2	2.31	0.45
6:AD:4:TYR:O	6:AD:5:ILE:HB	2.16	0.45
15:AM:62:ASN:O	15:AM:63:THR:HB	2.16	0.45
16:AN:53:LEU:HB3	16:AN:56:VAL:CG2	2.45	0.45
1:AA:135:C:C2'	1:AA:136:C:C5'	2.94	0.45
23:B0:1683:G:H2'	23:B0:1684:G:O4'	2.16	0.45
23:B0:1684:G:H2'	23:B0:1974:U:O4	2.16	0.45
23:B0:839:U:OP1	23:B0:2407:G:H3'	2.16	0.45
23:B0:2429:A:H5''	23:B0:2476:A:C6	2.51	0.45
1:AA:1049:U:H4'	1:AA:1050:G:OP2	2.16	0.45
23:B0:162:C:H4'	23:B0:195:A:O2'	2.16	0.45
1:AA:1401:G:OP1	3:AU:9:U:OP2	2.34	0.45
1:AA:934:C:C4	1:AA:1345:U:C5	3.04	0.45
23:B0:3872:A:H2'	23:B0:3873:G:O4'	2.16	0.45
19:AQ:105:ALA:CA	23:B0:727:U:O4'	2.64	0.45
1:AA:5:U:O2'	1:AA:6:G:P	2.73	0.45
1:AA:826:C:H2'	1:AA:827:U:H6	1.82	0.45
4:AB:23:ARG:HB2	4:AB:23:ARG:CZ	2.47	0.45
1:AA:8:A:H62	6:AD:208:SER:HB2	1.82	0.45
1:AA:119:A:C2	1:AA:240:C:C4	3.04	0.45
1:AA:905:U:C4	1:AA:906:G:C6	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:556:C:C2	1:AA:557:G:N7	2.84	0.45
1:AA:1515:C:H2'	1:AA:1516:G:H8	1.81	0.45
1:AA:112:G:H4'	1:AA:389:A:H5''	1.96	0.45
1:AA:1261:A:C4'	1:AA:1283:G:H5''	2.46	0.45
1:AA:599:C:H4'	10:AH:130:GLY:CA	2.45	0.45
23:B0:1199:U:H2'	23:B0:1200:G:H8	1.80	0.45
23:B0:2009:U:H2'	23:B0:2010:G:C8	2.51	0.45
21:AS:22:LEU:CD1	21:AS:31:ILE:HD11	2.46	0.45
1:AA:702:A:C1'	23:B0:1840:A:OP1	2.64	0.45
23:B0:831:G:C2'	23:B0:832:A:H5''	2.46	0.45
5:AC:23:TYR:CG	5:AC:24:ALA:N	2.84	0.45
1:AA:928:G:O2'	1:AA:1533:C:H5	1.99	0.45
23:B0:508:G:H2'	23:B0:509:U:C6	2.50	0.45
7:AE:80:ILE:CD1	7:AE:91:LEU:HD12	2.46	0.45
1:AA:1250:A:H5''	11:AI:68:GLY:N	2.32	0.45
23:B0:629:C:H2'	23:B0:630:G:H5'	1.98	0.45
23:B0:523:A:H2	23:B0:591:G:H4'	1.81	0.45
23:B0:715:U:H2'	23:B0:716:U:C6	2.51	0.45
8:AF:19:LEU:C	8:AF:19:LEU:HD23	2.36	0.45
4:AB:83:MET:HG3	4:AB:238:LEU:CD1	2.46	0.45
23:B0:2610:G:C4'	23:B0:2866:A:H4'	2.47	0.45
1:AA:82:C:H2'	1:AA:83:C:O4'	2.17	0.45
1:AA:1196:U:H4'	1:AA:1197:G:OP2	2.15	0.45
1:AA:132:C:O2'	22:AT:74:LYS:NZ	2.48	0.45
1:AA:1111:A:N1	5:AC:177:THR:HB	2.30	0.45
12:AJ:48:THR:OG1	12:AJ:62:HIS:CD2	2.69	0.45
12:AJ:53:PRO:O	12:AJ:54:PHE:O	2.34	0.45
1:AA:248:C:H4'	1:AA:283:C:H1'	1.98	0.45
1:AA:260:G:O2'	1:AA:261:U:H5'	2.16	0.45
23:B0:3108:G:HO2'	23:B0:3109:U:P	2.39	0.45
1:AA:690:G:H2'	1:AA:691:G:O4'	2.16	0.45
15:AM:37:THR:HG23	15:AM:55:ARG:CB	2.46	0.45
23:B0:930:A:H3'	23:B0:931:G:C8	2.51	0.45
1:AA:624:C:H2'	1:AA:625:G:H8	1.81	0.45
23:B0:129:A:H2'	23:B0:130:C:C6	2.51	0.45
23:B0:666:U:H2'	23:B0:668:A:OP1	2.16	0.45
5:AC:108:ASN:OD1	5:AC:110:ASN:HB2	2.16	0.45
6:AD:162:LEU:HD13	6:AD:181:MET:CE	2.46	0.45
23:B0:2451:G:H2'	23:B0:2508:G:N2	2.32	0.45
9:AG:143:ARG:O	9:AG:145:ALA:O	2.34	0.45
23:B0:1578:U:H2'	23:B0:1579:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1461:G:O2'	1:AA:1462:G:H5'	2.16	0.45
4:AB:32:ILE:HG21	4:AB:40:HIS:HD2	1.80	0.45
10:AH:45:ILE:HG13	10:AH:45:ILE:O	2.16	0.45
1:AA:909:A:H2'	1:AA:910:C:O4'	2.16	0.45
23:B0:560:G:H2'	23:B0:561:U:C6	2.52	0.45
16:AN:26:ARG:NH1	16:AN:47:LEU:HD21	2.32	0.45
22:AT:24:LEU:HD12	22:AT:24:LEU:O	2.17	0.45
1:AA:1225:A:H5'	1:AA:1226:C:OP2	2.16	0.45
1:AA:951:G:O2'	1:AA:952:U:H5'	2.15	0.45
5:AC:11:ARG:NH1	5:AC:177:THR:O	2.50	0.45
12:AJ:62:HIS:HB2	16:AN:59:ALA:CB	2.23	0.45
23:B0:3875:A:H5''	55:B5:42:LYS:CA	2.39	0.45
23:B0:1861:G:O2'	23:B0:1862:C:H5'	2.17	0.45
1:AA:1483:A:H3'	1:AA:1484:C:H5	1.82	0.45
1:AA:258:G:H2'	1:AA:259:G:H8	1.82	0.45
1:AA:237:C:H5'	19:AQ:25:ARG:CZ	2.45	0.45
5:AC:99:VAL:CG2	5:AC:100:ALA:N	2.80	0.45
11:AI:50:LEU:C	11:AI:52:ALA:N	2.69	0.45
12:AJ:30:SER:CB	12:AJ:84:GLN:HE21	2.29	0.45
1:AA:1410:G:C4	1:AA:1491:G:N2	2.84	0.45
1:AA:65:U:C1'	1:AA:200:G:H4'	2.47	0.45
1:AA:702:A:C8	23:B0:1840:A:C8	3.04	0.45
12:AJ:24:VAL:CG1	12:AJ:28:ARG:HE	2.29	0.45
8:AF:33:TYR:HB2	8:AF:75:LEU:HD23	1.98	0.45
23:B0:2421:C:O2'	23:B0:2422:C:H5'	2.16	0.45
6:AD:187:ARG:HD2	6:AD:187:ARG:HA	1.81	0.45
23:B0:515:A:C2'	23:B0:516:G:H5'	2.43	0.45
11:AI:19:LEU:C	11:AI:20:ARG:HG3	2.37	0.45
1:AA:1171:G:H2'	1:AA:1172:C:C6	2.51	0.45
1:AA:91:C:O2'	1:AA:92:G:H5'	2.15	0.45
1:AA:882:C:O2'	1:AA:883:C:H5'	2.16	0.45
5:AC:164:ARG:HB3	5:AC:164:ARG:HH11	1.80	0.45
23:B0:701:U:H2'	23:B0:702:A:O4'	2.15	0.45
23:B0:1349:A:H2'	23:B0:1350:G:C8	2.51	0.45
7:AE:144:THR:C	7:AE:146:ALA:N	2.67	0.45
4:AB:52:GLU:O	4:AB:56:ARG:HB2	2.17	0.45
1:AA:1193:G:H4'	7:AE:25:ARG:HH21	1.80	0.45
1:AA:953:G:H1'	15:AM:125:ARG:HB3	1.99	0.45
11:AI:121:ARG:HG2	11:AI:121:ARG:HH11	1.81	0.45
16:AN:12:ARG:O	16:AN:14:PRO:HD3	2.16	0.45
1:AA:265:G:H5''	19:AQ:65:ILE:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AJ:51:ARG:HG3	12:AJ:60:ARG:O	2.17	0.45
1:AA:521:G:H4'	14:AL:73:GLU:N	2.31	0.45
1:AA:1305:G:N2	1:AA:1331:G:HO2'	2.10	0.45
23:B0:1119:U:C5	23:B0:1120:C:C5	3.04	0.45
23:B0:1119:U:N3	23:B0:1120:C:N3	2.64	0.45
5:AC:154:SER:OG	5:AC:155:GLY:N	2.48	0.45
5:AC:131:ARG:HA	5:AC:134:ILE:HD12	1.96	0.45
23:B0:1678:G:H2'	23:B0:1679:U:C6	2.51	0.45
4:AB:42:ILE:HD12	4:AB:203:GLY:HA2	1.97	0.45
23:B0:688:A:O2'	23:B0:2422:C:H4'	2.17	0.45
9:AG:16:LEU:CG	11:AI:41:VAL:O	2.64	0.45
7:AE:15:ARG:NE	7:AE:26:PHE:CD2	2.84	0.45
5:AC:60:ALA:O	5:AC:61:ALA:CB	2.63	0.45
23:B0:307:C:H2'	23:B0:308:C:C6	2.51	0.45
13:AK:74:ALA:C	13:AK:76:GLY:N	2.69	0.45
11:AI:40:LEU:O	11:AI:42:ARG:N	2.50	0.45
23:B0:1566:G:H4'	23:B0:1733:U:O4	2.16	0.45
23:B0:452:G:H2'	23:B0:453:U:O4'	2.16	0.45
23:B0:211:U:C2'	23:B0:212:U:H5'	2.46	0.45
11:AI:36:TYR:CD2	11:AI:37:PHE:CE2	3.04	0.45
1:AA:1233:G:OP1	11:AI:123:PRO:HB2	2.16	0.45
1:AA:627:G:O2'	1:AA:628:G:H5'	2.17	0.45
23:B0:2708:U:H2'	23:B0:2709:C:C6	2.51	0.45
7:AE:45:PHE:CD2	7:AE:47:LYS:HE3	2.51	0.45
23:B0:2348:A:H2'	23:B0:2349:G:C8	2.52	0.45
1:AA:675:A:O2'	13:AK:116:HIS:NE2	2.25	0.45
23:B0:3171:A:O2'	23:B0:3172:U:C6	2.70	0.45
1:AA:1230:C:O2'	15:AM:126:LYS:HA	2.16	0.45
15:AM:120:LYS:HE2	15:AM:123:ALA:CB	2.47	0.45
1:AA:131:C:O2	1:AA:262:A:N1	2.38	0.45
1:AA:252:U:O2	1:AA:275:G:N3	2.50	0.45
1:AA:1110:A:C6	1:AA:1111:A:C6	3.04	0.45
1:AA:37:U:H1'	1:AA:547:A:N1	2.31	0.45
1:AA:542:G:P	6:AD:10:ARG:NH2	2.89	0.45
6:AD:8:VAL:HG21	6:AD:115:ARG:CZ	2.46	0.45
1:AA:46:G:C2	1:AA:366:C:C6	3.05	0.45
1:AA:1278:U:OP1	1:AA:1279:A:H5'	2.17	0.45
1:AA:393:A:C2'	1:AA:394:G:H5'	2.47	0.45
21:AS:63:THR:HG22	21:AS:64:GLU:N	2.32	0.45
9:AG:75:VAL:HG12	9:AG:86:GLN:HE21	1.81	0.45
5:AC:23:TYR:CE2	12:AJ:9:ARG:CD	3.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:687:G:O2'	23:B0:688:A:H5'	2.17	0.45
12:AJ:6:ILE:O	12:AJ:71:LEU:O	2.35	0.45
7:AE:21:ALA:C	7:AE:23:GLY:H	2.19	0.45
23:B0:604:U:H2'	23:B0:605:G:H8	1.82	0.45
23:B0:1278:A:O2'	23:B0:1279:G:P	2.75	0.45
23:B0:1016:C:H2'	23:B0:1017:C:C6	2.52	0.45
1:AA:644:G:O2'	1:AA:645:C:H5'	2.17	0.45
16:AN:39:LEU:CD1	16:AN:47:LEU:HD12	2.46	0.45
23:B0:978:U:H2'	23:B0:979:A:C8	2.51	0.45
23:B0:419:G:O2'	23:B0:420:C:H5'	2.17	0.45
23:B0:2370:G:HO2'	23:B0:2371:A:H2	1.62	0.45
23:B0:700:C:O2'	23:B0:801:A:H5'	2.17	0.45
23:B0:3873:G:O2'	23:B0:3874:C:H5'	2.17	0.45
1:AA:893:C:HO2'	1:AA:894:G:C5'	2.26	0.45
1:AA:538:G:C4'	14:AL:114:LYS:CD	2.84	0.45
1:AA:439:A:C4	1:AA:497:A:C2	3.04	0.45
1:AA:1484:C:H2'	1:AA:1485:U:C6	2.50	0.45
1:AA:1515:C:O2'	1:AA:1516:G:H5'	2.16	0.45
23:B0:1745:C:H2'	23:B0:1746:A:O4'	2.16	0.45
1:AA:65:U:C2	1:AA:200:G:O2'	2.61	0.45
15:AM:34:LEU:HD13	15:AM:41:PRO:CA	2.45	0.45
1:AA:735:C:O2'	1:AA:736:C:H5'	2.17	0.45
18:AP:55:ARG:O	18:AP:58:TYR:HB3	2.17	0.45
1:AA:792:A:H1'	1:AA:794:A:N7	2.31	0.45
20:AR:70:ILE:O	20:AR:74:ARG:HG3	2.17	0.45
1:AA:105:G:H2'	1:AA:106:C:H6	1.81	0.45
23:B0:316:C:H2'	23:B0:317:U:C6	2.52	0.45
23:B0:1685:A:H1'	23:B0:1686:A:N7	2.32	0.45
23:B0:1921:A:C2'	23:B0:1922:U:H5''	2.46	0.45
17:AO:87:ILE:CG2	17:AO:88:ARG:N	2.79	0.45
1:AA:782:A:H4'	1:AA:1514:C:O2'	2.16	0.45
11:AI:85:LEU:O	11:AI:92:TYR:CD1	2.69	0.45
1:AA:1202:G:C2'	1:AA:1203:C:H5'	2.46	0.45
4:AB:223:ILE:HG21	4:AB:230:VAL:HG23	1.99	0.45
23:B0:611:C:C2'	23:B0:612:G:H5'	2.47	0.45
23:B0:1373:G:H2'	23:B0:1374:G:H5'	1.99	0.45
1:AA:470:U:H2'	1:AA:471:G:C8	2.51	0.45
23:B0:15:G:O2'	23:B0:16:G:H5'	2.17	0.45
1:AA:1394:A:C6	1:AA:1501:C:H4'	2.51	0.45
1:AA:913:A:O2'	1:AA:914:A:O4'	2.26	0.45
1:AA:920:U:H2'	1:AA:921:U:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1342:C:C3'	11:AI:125:TYR:OH	2.58	0.45
1:AA:265:G:O4'	19:AQ:64:PRO:CA	2.65	0.45
1:AA:191:G:N9	1:AA:192:U:C6	2.84	0.45
12:AJ:54:PHE:O	12:AJ:55:LYS:HG2	2.17	0.45
12:AJ:60:ARG:O	12:AJ:61:GLU:CB	2.61	0.45
1:AA:242:C:H2'	1:AA:243:A:H5'	1.98	0.45
1:AA:828:A:H5''	1:AA:859:A:C2	2.51	0.45
1:AA:321:A:H2'	1:AA:322:C:C6	2.52	0.45
1:AA:37:U:H1'	1:AA:547:A:C2	2.52	0.45
7:AE:121:LYS:HE3	7:AE:123:LEU:CD2	2.46	0.45
1:AA:119:A:C8	1:AA:287:U:O4	2.70	0.45
1:AA:129:U:C5'	19:AQ:3:LYS:CE	2.95	0.45
6:AD:31:CYS:C	6:AD:33:MET:H	2.20	0.45
14:AL:85:ILE:HG23	14:AL:98:TYR:CB	2.46	0.45
12:AJ:30:SER:HB3	12:AJ:84:GLN:NE2	2.31	0.45
23:B0:109:A:H3'	23:B0:110:U:C5'	2.41	0.45
23:B0:852:U:H3	23:B0:950:G:H1	1.64	0.45
4:AB:8:LYS:O	4:AB:9:GLU:CB	2.60	0.45
23:B0:221:A:H62	23:B0:231:G:N2	2.10	0.45
23:B0:926:C:C2'	23:B0:927:C:H5'	2.47	0.45
1:AA:1019:C:O2'	1:AA:1020:U:H5'	2.17	0.45
24:B9:66:G:H2'	24:B9:67:C:C6	2.52	0.45
23:B0:959:C:H2'	23:B0:960:U:C6	2.52	0.45
13:AK:51:LYS:O	13:AK:55:LYS:CE	2.65	0.45
23:B0:2428:U:O2'	23:B0:2429:A:H5'	2.17	0.45
16:AN:25:VAL:O	16:AN:25:VAL:HG13	2.16	0.45
23:B0:1502:G:O2'	23:B0:1503:G:H5'	2.16	0.45
23:B0:2661:G:O2'	23:B0:2662:C:H5'	2.17	0.45
1:AA:485:G:C2'	1:AA:486:U:OP2	2.65	0.45
1:AA:1503:A:O2'	1:AA:1504:G:OP1	2.29	0.45
1:AA:814:A:H5'	1:AA:1511:G:H4'	1.98	0.45
1:AA:547:A:C3'	1:AA:548:G:P	3.05	0.45
18:AP:75:ARG:O	18:AP:78:GLY:N	2.50	0.45
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.16	0.45
22:AT:42:GLN:O	22:AT:45:GLN:HB3	2.16	0.45
1:AA:185:A:H2'	1:AA:186:C:H6	1.82	0.45
1:AA:599:C:H4'	10:AH:130:GLY:O	2.16	0.45
1:AA:975:A:O5'	1:AA:976:G:H5'	2.17	0.45
23:B0:1199:U:C3'	23:B0:1200:G:H5''	2.32	0.45
12:AJ:85:LEU:O	12:AJ:87:THR:N	2.50	0.45
23:B0:8:A:H2'	23:B0:9:U:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1206:G:C6	1:AA:1207:G:C5	3.04	0.45
12:AJ:8:LEU:HD23	12:AJ:96:ILE:HG12	1.97	0.45
2:AW:16:U:C2'	2:AW:17:U:OP2	2.65	0.45
23:B0:874:A:H62	23:B0:928:G:N2	2.12	0.45
23:B0:925:U:H4'	23:B0:926:C:C5	2.52	0.45
23:B0:1793:A:H2'	23:B0:1794:A:C8	2.52	0.45
23:B0:2454:C:H42	23:B0:2508:G:H22	1.64	0.45
23:B0:2181:A:C2'	23:B0:2182:A:H5'	2.47	0.45
18:AP:39:TYR:CZ	18:AP:41:PRO:HA	2.52	0.45
2:AV:16:U:C2'	2:AV:17:U:OP2	2.65	0.45
23:B0:2026:C:H2'	23:B0:2027:C:C6	2.52	0.45
23:B0:475:U:H2'	23:B0:476:G:O4'	2.17	0.45
1:AA:1051:C:H2'	1:AA:1052:U:H6	1.80	0.45
1:AA:1301:U:O2'	1:AA:1302:U:OP1	2.30	0.45
24:B9:94:G:O2'	24:B9:95:U:H5'	2.16	0.45
4:AB:92:TYR:CE1	4:AB:151:GLY:HA3	2.51	0.45
23:B0:2539:C:H2'	23:B0:2540:A:C8	2.52	0.45
23:B0:2703:C:H2'	23:B0:2704:U:C6	2.51	0.45
23:B0:709:A:H2'	23:B0:710:C:C6	2.52	0.45
23:B0:2830:U:H2'	23:B0:2831:A:C8	2.52	0.45
24:B9:40:C:H2'	24:B9:41:A:O4'	2.16	0.45
1:AA:922:G:N2	1:AA:1396:A:N3	2.54	0.45
1:AA:15:G:H4'	7:AE:24:ARG:HH22	1.82	0.45
22:AT:72:LEU:O	22:AT:73:HIS:O	2.35	0.45
11:AI:111:ARG:HH11	11:AI:111:ARG:HG3	1.80	0.45
11:AI:114:TYR:HB2	12:AJ:60:ARG:NH1	2.31	0.45
7:AE:115:VAL:HG11	7:AE:118:ILE:CD1	2.46	0.45
1:AA:538:G:H5'	14:AL:114:LYS:CG	2.41	0.45
1:AA:397:A:N3	1:AA:397:A:H3'	2.32	0.45
1:AA:402:G:O4'	1:AA:621:A:C2	2.71	0.45
15:AM:9:ILE:N	15:AM:9:ILE:HD12	2.32	0.45
23:B0:1089:C:H1'	23:B0:1099:A:H8	1.82	0.45
23:B0:3108:G:H2'	23:B0:3109:U:OP2	2.16	0.45
1:AA:1261:A:H5'	1:AA:1283:G:O2'	2.17	0.45
1:AA:102:G:O2'	1:AA:151:A:H2'	2.17	0.45
1:AA:173:U:C5	1:AA:198:G:N3	2.85	0.45
1:AA:974:A:C4	16:AN:31:ARG:NH2	2.85	0.45
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.51	0.45
5:AC:23:TYR:CD1	12:AJ:11:PHE:CD2	3.05	0.45
1:AA:513:C:H2'	1:AA:514:C:H6	1.81	0.45
7:AE:15:ARG:CD	7:AE:26:PHE:CD2	3.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:116:A:C2	23:B0:155:G:H1'	2.51	0.45
1:AA:227:G:C6	1:AA:228:A:C6	3.05	0.45
23:B0:241:C:C2'	23:B0:242:A:H5''	2.46	0.45
3:AU:7:U:H2'	3:AU:8:G:C6	2.52	0.45
10:AH:116:LYS:NZ	10:AH:127:LEU:HD12	2.31	0.45
23:B0:838:A:H2'	23:B0:839:U:C6	2.52	0.45
23:B0:843:G:O2'	23:B0:844:G:OP1	2.31	0.45
24:B9:36:A:H1'	24:B9:51:G:N2	2.32	0.45
23:B0:871:U:H1'	23:B0:2248:A:H5''	1.99	0.45
15:AM:110:ARG:HG2	15:AM:110:ARG:HH11	1.82	0.45
1:AA:1300:G:O2'	1:AA:1301:U:C6	2.70	0.45
23:B0:2555:G:N3	23:B0:2555:G:H3'	2.32	0.45
9:AG:12:LEU:N	9:AG:12:LEU:HD12	2.32	0.45
23:B0:1504:G:O2'	23:B0:1505:U:H5'	2.17	0.45
23:B0:626:A:O2'	23:B0:627:A:H5'	2.17	0.45
1:AA:1503:A:O2'	1:AA:1504:G:P	2.75	0.44
3:AU:9:U:H2'	3:AU:10:U:C6	2.52	0.44
23:B0:2560:G:H4'	23:B0:2561:G:N7	2.32	0.44
19:AQ:18:THR:HG23	19:AQ:69:LYS:CE	2.47	0.44
12:AJ:61:GLU:CD	16:AN:58:LYS:CD	2.86	0.44
1:AA:323:U:C4'	22:AT:19:SER:C	2.85	0.44
1:AA:39:G:C6	1:AA:404:U:C4	3.05	0.44
1:AA:319:G:O2'	1:AA:320:C:H5'	2.16	0.44
1:AA:118:U:O3'	1:AA:119:A:C5'	2.65	0.44
1:AA:1484:C:H5''	23:B0:1943:A:C2'	2.47	0.44
2:AV:74:C:O3'	23:B0:2581:A:O5'	2.34	0.44
11:AI:46:ALA:O	11:AI:49:PRO:HD2	2.17	0.44
1:AA:848:G:C2'	1:AA:849:C:C1'	2.86	0.44
1:AA:305:G:C3'	1:AA:306:G:P	3.05	0.44
20:AR:25:THR:HG22	20:AR:25:THR:O	2.17	0.44
23:B0:926:C:H2'	23:B0:927:C:H5'	1.99	0.44
12:AJ:75:ILE:HG22	12:AJ:76:ASN:N	2.32	0.44
20:AR:74:ARG:HB3	20:AR:81:PHE:CE1	2.51	0.44
6:AD:142:PRO:HG2	6:AD:187:ARG:NH1	2.32	0.44
1:AA:781:A:H2'	1:AA:782:A:H5'	1.98	0.44
19:AQ:81:ARG:O	19:AQ:81:ARG:HG3	2.17	0.44
23:B0:857:U:C2'	23:B0:858:G:H5'	2.48	0.44
1:AA:533:A:O2'	1:AA:534:U:P	2.75	0.44
23:B0:1273:G:H2'	23:B0:1274:C:C6	2.52	0.44
23:B0:2474:G:O2'	23:B0:2475:C:H5'	2.17	0.44
1:AA:1301:U:O2'	1:AA:1302:U:P	2.74	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:807:A:H2'	1:AA:808:C:C6	2.52	0.44
11:AI:103:THR:HG22	11:AI:104:ARG:N	2.31	0.44
23:B0:1367:A:H2'	23:B0:1368:G:O4'	2.17	0.44
23:B0:40:U:H2'	23:B0:41:G:C8	2.52	0.44
1:AA:76:G:O2'	1:AA:77:C:H5'	2.17	0.44
23:B0:1055:A:C2	23:B0:1121:G:H2'	2.52	0.44
1:AA:130:A:C8	1:AA:264:U:O4'	2.70	0.44
1:AA:254:G:C4'	19:AQ:18:THR:CB	2.73	0.44
23:B0:3108:G:C2	23:B0:3109:U:C4	3.05	0.44
1:AA:1112:C:O2	5:AC:179:ARG:CB	2.56	0.44
1:AA:1113:C:N1	5:AC:178:LEU:CD2	2.81	0.44
5:AC:179:ARG:C	5:AC:179:ARG:HD2	2.37	0.44
12:AJ:46:ARG:NH1	12:AJ:64:GLU:CG	2.80	0.44
1:AA:1409:C:HO2'	1:AA:1410:G:H5'	1.78	0.44
4:AB:54:THR:O	4:AB:57:PHE:HB3	2.18	0.44
12:AJ:8:LEU:CD1	12:AJ:20:ALA:HB2	2.48	0.44
1:AA:586:C:O3'	10:AH:89:PRO:CB	2.65	0.44
5:AC:123:GLN:HE22	5:AC:140:ARG:NH2	2.16	0.44
6:AD:24:GLU:CG	6:AD:25:ARG:H	2.31	0.44
18:AP:20:VAL:HG13	18:AP:21:VAL:N	2.32	0.44
18:AP:20:VAL:CG1	18:AP:32:TYR:CB	2.95	0.44
23:B0:2854:G:H3'	23:B0:2854:G:N3	2.33	0.44
6:AD:162:LEU:HD13	6:AD:181:MET:CG	2.42	0.44
4:AB:137:ARG:O	4:AB:140:HIS:HB2	2.16	0.44
1:AA:540:G:H2'	1:AA:541:G:O4'	2.18	0.44
2:AV:43:G:H2'	2:AV:44:A:C8	2.53	0.44
23:B0:438:G:H2'	23:B0:439:C:C6	2.51	0.44
23:B0:1436:G:H1'	23:B0:1508:G:N2	2.31	0.44
12:AJ:4:ILE:HG12	12:AJ:100:THR:CB	2.46	0.44
23:B0:431:G:H2'	23:B0:432:C:C6	2.53	0.44
23:B0:455:A:H4'	23:B0:1214:C:O2'	2.17	0.44
6:AD:39:PRO:HG2	6:AD:44:GLY:HA2	1.97	0.44
23:B0:2591:C:O2'	23:B0:2592:U:H5'	2.17	0.44
23:B0:562:G:H2'	23:B0:563:U:O4'	2.17	0.44
1:AA:1353:G:H2'	1:AA:1354:C:H6	1.82	0.44
1:AA:265:G:H1'	19:AQ:64:PRO:CB	2.35	0.44
5:AC:6:HIS:CD2	5:AC:8:ILE:H	2.35	0.44
1:AA:160:A:H61	1:AA:347:G:N2	2.15	0.44
1:AA:402:G:C4'	1:AA:621:A:C2	3.00	0.44
23:B0:1098:G:H22	23:B0:1113:C:N3	1.52	0.44
1:AA:389:A:H2'	1:AA:390:C:C5'	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:1956:G:H2'	23:B0:1957:C:O4'	2.17	0.44
23:B0:1436:G:H2'	23:B0:1437:A:C8	2.51	0.44
23:B0:788:G:H5'	23:B0:790:A:N3	2.32	0.44
20:AR:51:LEU:HA	20:AR:52:PRO:HD3	1.80	0.44
7:AE:13:ILE:HG22	7:AE:30:ALA:HB2	1.99	0.44
23:B0:457:C:O2'	23:B0:458:G:H5'	2.16	0.44
23:B0:1938:U:O2'	23:B0:1939:U:OP1	2.28	0.44
10:AH:73:ASP:OD2	10:AH:75:ARG:HB2	2.18	0.44
1:AA:1049:U:H1'	1:AA:1201:A:N7	2.31	0.44
23:B0:763:A:H2'	23:B0:764:A:H5''	2.00	0.44
8:AF:40:VAL:CG2	8:AF:41:GLU:N	2.80	0.44
23:B0:1785:A:H2'	23:B0:1786:C:C6	2.52	0.44
23:B0:1408:A:H1'	23:B0:1410:U:C5	2.52	0.44
23:B0:1708:C:H2'	23:B0:1709:U:O4'	2.18	0.44
1:AA:1289:A:H2'	1:AA:1290:G:H5'	2.00	0.44
23:B0:1667:A:H2'	23:B0:1668:G:H8	1.83	0.44
1:AA:819:A:C6	1:AA:1529:G:C2	3.05	0.44
1:AA:950:U:H2'	1:AA:951:G:C8	2.52	0.44
1:AA:977:A:H2'	1:AA:978:A:C5'	2.45	0.44
1:AA:262:A:H5''	22:AT:76:ALA:N	2.32	0.44
1:AA:267:C:H2'	1:AA:268:C:C6	2.53	0.44
1:AA:401:C:P	6:AD:73:ARG:HH21	2.38	0.44
1:AA:8:A:H5''	7:AE:121:LYS:CD	2.47	0.44
23:B0:2204:A:O2'	23:B0:2205:C:OP2	2.35	0.44
23:B0:2204:A:O2'	23:B0:2205:C:P	2.76	0.44
1:AA:933:G:OP2	9:AG:3:ARG:NE	2.48	0.44
23:B0:1118:G:O2'	23:B0:1119:U:H5'	2.17	0.44
15:AM:84:ILE:C	15:AM:86:CYS:N	2.70	0.44
1:AA:173:U:H5'	1:AA:197:A:C1'	2.45	0.44
4:AB:134:GLU:C	4:AB:136:VAL:N	2.71	0.44
1:AA:651:C:O2'	1:AA:652:U:P	2.72	0.44
8:AF:30:LEU:CB	8:AF:35:ALA:HB3	2.41	0.44
5:AC:123:GLN:HE22	5:AC:140:ARG:HH22	1.65	0.44
23:B0:1679:U:C2'	23:B0:1680:U:H5''	2.47	0.44
20:AR:26:LEU:HD21	20:AR:39:VAL:HG23	2.00	0.44
1:AA:1178:G:P	11:AI:97:LYS:NZ	2.89	0.44
1:AA:384:G:H2'	1:AA:385:C:C6	2.53	0.44
2:AV:44:A:C2'	2:AV:45:G:C5'	2.96	0.44
23:B0:121:G:H2'	23:B0:122:G:O4'	2.18	0.44
23:B0:1452:U:H5''	23:B0:1533:G:H5'	2.00	0.44
23:B0:2211:U:H2'	23:B0:2212:U:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:2312:A:H1'	23:B0:2314:A:C4	2.52	0.44
23:B0:1331:G:H2'	23:B0:1332:G:C8	2.52	0.44
23:B0:1023:U:H1'	23:B0:1154:A:C8	2.52	0.44
5:AC:12:LEU:HD23	5:AC:12:LEU:HA	1.76	0.44
23:B0:1659:G:H2'	23:B0:1660:G:C8	2.52	0.44
1:AA:675:A:O2'	13:AK:116:HIS:CG	2.71	0.44
1:AA:1501:C:OP2	1:AA:1504:G:H2'	2.17	0.44
1:AA:1503:A:C5	1:AA:1531:A:N3	2.86	0.44
1:AA:816:A:P	1:AA:1527:C:C4'	3.05	0.44
1:AA:962:C:H2'	1:AA:963:G:O4'	2.18	0.44
1:AA:253:U:C1'	1:AA:275:G:C2'	2.79	0.44
1:AA:253:U:C2	1:AA:275:G:H1'	2.52	0.44
1:AA:253:U:H2'	1:AA:254:G:C8	2.53	0.44
1:AA:1483:A:C8	1:AA:1484:C:N4	2.86	0.44
1:AA:69:G:O2'	1:AA:152:A:O2'	2.36	0.44
15:AM:84:ILE:HG13	15:AM:86:CYS:HB2	2.00	0.44
23:B0:1226:A:C6	23:B0:1250:A:H1'	2.53	0.44
4:AB:25:ASN:HD22	4:AB:27:LYS:H	1.65	0.44
7:AE:105:VAL:HB	7:AE:106:PRO:CD	2.40	0.44
4:AB:213:LEU:C	4:AB:213:LEU:HD23	2.37	0.44
4:AB:17:PHE:H	4:AB:44:LEU:HD21	1.83	0.44
13:AK:40:ILE:HG23	13:AK:75:TYR:CE2	2.51	0.44
7:AE:36:ASP:OD2	7:AE:40:ARG:HD3	2.18	0.44
16:AN:9:LYS:HG3	16:AN:21:TYR:O	2.17	0.44
16:AN:23:ARG:HD3	16:AN:30:ALA:HB2	2.00	0.44
3:AU:6:A:H2'	3:AU:7:U:C6	2.53	0.44
18:AP:6:LEU:HB3	18:AP:17:TYR:HD2	1.81	0.44
1:AA:1005:A:H2'	1:AA:1006:C:O4'	2.17	0.44
2:AW:23:A:H2'	2:AW:24:G:C8	2.52	0.44
6:AD:200:GLU:OE1	6:AD:200:GLU:N	2.46	0.44
23:B0:172:A:H4'	23:B0:228:A:H4'	2.00	0.44
24:B9:92:G:H2'	24:B9:93:G:H5'	1.99	0.44
23:B0:1836:C:H2'	23:B0:1837:G:C8	2.53	0.44
1:AA:913:A:O2'	1:AA:914:A:OP2	2.36	0.44
2:AW:34:G:OP1	2:AW:34:G:C8	2.64	0.44
22:AT:30:LYS:O	22:AT:33:ILE:HB	2.18	0.44
16:AN:12:ARG:O	16:AN:14:PRO:CD	2.65	0.44
1:AA:130:A:C5'	1:AA:264:U:C5'	2.94	0.44
19:AQ:68:ARG:H	19:AQ:70:ARG:NH1	2.15	0.44
22:AT:63:ILE:HD13	22:AT:80:ARG:CB	2.48	0.44
23:B0:1856:U:O4	23:B0:3865:A:N1	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AL:117:ARG:HD2	14:AL:122:THR:OG1	2.17	0.44
1:AA:38:G:H4'	1:AA:547:A:N7	2.33	0.44
1:AA:203:A:H4'	1:AA:468:A:C5'	2.47	0.44
5:AC:99:VAL:HG22	5:AC:100:ALA:O	2.18	0.44
1:AA:1346:A:C2'	9:AG:10:ARG:NH2	2.63	0.44
23:B0:1119:U:C3'	23:B0:1120:C:O4'	2.65	0.44
1:AA:600:C:O2'	1:AA:601:C:H5'	2.17	0.44
1:AA:1314:C:H2'	1:AA:1315:U:C6	2.52	0.44
1:AA:737:A:OP1	8:AF:91:VAL:HA	2.17	0.44
1:AA:1430:C:C5'	23:B0:1721:G:H5'	2.48	0.44
14:AL:7:ILE:O	14:AL:11:VAL:HG23	2.18	0.44
12:AJ:22:LYS:HZ3	12:AJ:91:PRO:HD3	1.83	0.44
6:AD:53:ASP:OD2	7:AE:104:ALA:HB1	2.18	0.44
9:AG:24:THR:HA	9:AG:27:ILE:HD12	2.00	0.44
11:AI:97:LYS:HG3	11:AI:102:LEU:HD12	1.96	0.44
2:AW:43:G:H2'	2:AW:44:A:C8	2.52	0.44
12:AJ:3:LYS:CA	12:AJ:75:ILE:HA	2.48	0.44
1:AA:686:U:O4	1:AA:703:G:H1'	2.17	0.44
9:AG:78:ARG:HG2	9:AG:80:VAL:HG23	1.99	0.44
23:B0:1927:U:H3'	23:B0:1928:G:H5'	2.00	0.44
7:AE:40:ARG:NH1	7:AE:68:GLU:OE2	2.49	0.44
12:AJ:68:HIS:CD2	12:AJ:68:HIS:N	2.85	0.44
1:AA:1420:C:H5'	23:B0:1933:G:OP1	2.17	0.44
2:AW:64:A:H4'	23:B0:2461:G:O3'	2.17	0.44
23:B0:2316:G:H2'	23:B0:2317:G:C8	2.50	0.44
5:AC:113:ALA:N	5:AC:114:PRO:CD	2.80	0.44
23:B0:1373:G:H22	23:B0:2192:U:H3	1.65	0.44
23:B0:460:U:N3	23:B0:592:G:H1'	2.33	0.44
2:AV:23:A:H2'	2:AV:24:G:C8	2.52	0.44
23:B0:1999:U:H5''	23:B0:2041:A:OP1	2.18	0.44
13:AK:60:ALA:O	13:AK:61:ALA:C	2.56	0.44
1:AA:884:U:O2'	1:AA:885:G:OP2	2.22	0.44
6:AD:178:VAL:HG12	6:AD:178:VAL:O	2.18	0.44
23:B0:354:C:H2'	23:B0:355:G:O4'	2.17	0.44
10:AH:7:ALA:HB2	10:AH:85:ARG:HD2	1.99	0.44
2:AV:50:U:O2'	2:AV:51:G:H5'	2.17	0.44
1:AA:942:G:H21	11:AI:124:GLN:CD	2.20	0.44
1:AA:1108:G:O3'	5:AC:176:HIS:NE2	2.51	0.44
1:AA:433:C:O2'	1:AA:434:U:H5'	2.18	0.44
1:AA:39:G:C6	1:AA:498:U:O4	2.67	0.44
1:AA:499:A:C2	1:AA:500:G:H1'	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AD:8:VAL:HG11	6:AD:21:LEU:CB	2.47	0.44
1:AA:456:A:C5	1:AA:477:G:N3	2.86	0.44
1:AA:835:U:OP1	20:AR:60:GLY:CA	2.65	0.44
1:AA:116:A:H2'	1:AA:117:G:O4'	2.17	0.44
1:AA:1279:A:O2'	1:AA:1281:U:OP2	2.33	0.44
1:AA:1348:U:OP1	11:AI:110:GLU:CB	2.66	0.44
1:AA:1372:U:O2'	1:AA:1373:G:H5'	2.18	0.44
15:AM:80:ARG:C	15:AM:82:MET:H	2.20	0.44
1:AA:975:A:H4'	1:AA:976:G:OP2	2.16	0.44
1:AA:383:A:H2'	1:AA:384:G:H5'	1.99	0.44
23:B0:2057:U:H2'	23:B0:2058:U:C6	2.52	0.44
23:B0:1459:U:H2'	23:B0:1475:U:O2'	2.16	0.44
1:AA:1420:C:C5'	23:B0:1933:G:OP1	2.65	0.44
23:B0:415:A:O2'	23:B0:416:U:H5'	2.17	0.44
23:B0:242:A:O2'	23:B0:243:G:O4'	2.34	0.44
23:B0:117:A:O3'	23:B0:118:U:H3'	2.17	0.44
23:B0:1279:G:C2'	23:B0:1280:U:OP2	2.66	0.44
20:AR:37:VAL:O	20:AR:41:LYS:HB3	2.18	0.44
1:AA:1299:A:C8	1:AA:1301:U:H1'	2.53	0.44
23:B0:432:C:H2'	23:B0:433:G:H8	1.83	0.44
23:B0:2242:C:H42	23:B0:2257:A:N6	2.16	0.44
2:AW:50:U:C2'	2:AW:51:G:H5'	2.48	0.44
23:B0:956:A:H2'	23:B0:956:A:N3	2.32	0.44
23:B0:1882:G:H21	23:B0:1885:C:N4	2.16	0.44
23:B0:1604:A:H2'	23:B0:1605:A:O4'	2.18	0.44
23:B0:1724:C:H2'	23:B0:1725:C:C6	2.53	0.44
23:B0:1292:A:H2'	23:B0:1293:A:C8	2.53	0.44
1:AA:815:A:N1	1:AA:1528:U:C2	2.86	0.44
1:AA:18:C:C2	1:AA:918:A:N1	2.86	0.44
1:AA:1457:A:C4	1:AA:1459:C:H1'	2.53	0.44
1:AA:1064:G:H22	1:AA:1190:G:HO2'	1.66	0.44
1:AA:436:C:H2'	1:AA:437:U:C6	2.41	0.44
2:AV:56:C:C2'	28:BD:74:ILE:CA	2.96	0.44
1:AA:119:A:N1	1:AA:240:C:C2	2.86	0.44
1:AA:45:U:H2'	1:AA:46:G:C8	2.53	0.44
1:AA:1305:G:H22	1:AA:1331:G:C2'	2.31	0.44
14:AL:46:LYS:CG	14:AL:47:LYS:H	2.29	0.44
23:B0:1703:C:H2'	23:B0:1704:G:O4'	2.17	0.44
1:AA:652:U:H2'	1:AA:752:G:N1	2.33	0.44
4:AB:88:ALA:C	4:AB:90:MET:N	2.71	0.44
1:AA:676:A:H4'	13:AK:115:PRO:HA	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AP:20:VAL:HG13	18:AP:32:TYR:HB2	2.00	0.44
23:B0:1915:A:H62	23:B0:1951:G:N2	2.09	0.44
1:AA:223:U:C5'	22:AT:68:LYS:NZ	2.79	0.44
23:B0:875:G:H2'	23:B0:876:A:O4'	2.18	0.44
1:AA:427:U:O4'	1:AA:541:G:H5''	2.17	0.44
23:B0:2439:U:H2'	23:B0:2440:C:H5'	1.99	0.44
6:AD:3:ARG:HD3	6:AD:3:ARG:HA	1.78	0.44
23:B0:539:A:N6	23:B0:2024:U:H3	2.11	0.44
23:B0:1326:U:H1'	23:B0:1626:A:N3	2.33	0.44
1:AA:137:C:O2'	1:AA:138:G:H5'	2.18	0.44
23:B0:1288:A:H2'	23:B0:1289:A:O4'	2.17	0.44
23:B0:114:C:H4'	23:B0:124:A:O2'	2.17	0.44
23:B0:736:G:H2'	23:B0:737:C:O4'	2.17	0.44
1:AA:176:C:H2'	1:AA:177:C:H6	1.83	0.44
23:B0:2193:C:H2'	23:B0:2194:A:O4'	2.18	0.44
23:B0:548:G:H2'	23:B0:549:G:C8	2.53	0.44
10:AH:86:ILE:HD12	10:AH:133:LEU:HD22	2.00	0.44
1:AA:865:A:H2'	1:AA:866:C:C6	2.53	0.44
23:B0:3872:A:H2'	23:B0:3873:G:H5'	2.00	0.44
1:AA:248:C:C4'	1:AA:283:C:H1'	2.48	0.44
1:AA:94:G:C6	1:AA:96:C:N4	2.84	0.44
22:AT:100:ILE:O	22:AT:102:GLY:N	2.50	0.44
1:AA:905:U:H5	1:AA:906:G:C6	2.36	0.44
1:AA:46:G:N1	1:AA:366:C:C2	2.85	0.44
1:AA:292:G:N3	1:AA:608:A:C6	2.86	0.44
1:AA:974:A:P	16:AN:29:ARG:NH2	2.90	0.44
5:AC:134:ILE:HG22	5:AC:168:ALA:CB	2.48	0.44
1:AA:598:U:H4'	10:AH:94:TYR:CD1	2.53	0.44
23:B0:1313:U:H4'	23:B0:1314:A:O5'	2.18	0.44
13:AK:95:ILE:HD13	13:AK:108:ILE:HG21	1.99	0.44
17:AO:39:LEU:HD12	17:AO:59:MET:CE	2.48	0.44
23:B0:181:A:C4'	23:B0:182:G:H4'	2.44	0.44
23:B0:1033:G:N2	23:B0:1150:C:H2'	2.30	0.44
23:B0:2022:C:H2'	23:B0:2023:C:C6	2.53	0.44
23:B0:1188:A:H62	23:B0:1189:G:H21	1.66	0.44
9:AG:38:LEU:HD12	9:AG:42:ILE:HG13	2.00	0.44
18:AP:43:LYS:HA	18:AP:48:TRP:HB3	2.00	0.44
5:AC:47:LEU:HD13	5:AC:47:LEU:H	1.83	0.44
1:AA:227:G:C5	1:AA:228:A:C5	3.06	0.44
23:B0:192:G:O2'	23:B0:193:A:OP2	2.33	0.44
23:B0:3116:G:O3'	23:B0:3117:A:O4'	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:839:U:H5'	23:B0:2407:G:H2'	2.00	0.44
23:B0:529:U:H2'	23:B0:530:G:C8	2.53	0.44
23:B0:2343:C:H2'	23:B0:2344:G:O4'	2.18	0.44
1:AA:1053:G:O2'	1:AA:1199:U:H5	2.01	0.43
3:AU:12:A:H2'	3:AU:13:A:C6	2.52	0.43
1:AA:266:G:C5'	19:AQ:66:SER:CA	2.82	0.43
1:AA:266:G:C5'	19:AQ:67:LYS:H	2.31	0.43
23:B0:3871:A:H2'	23:B0:3872:A:C8	2.53	0.43
19:AQ:104:LYS:O	19:AQ:105:ALA:CB	2.65	0.43
1:AA:38:G:C4'	1:AA:547:A:N7	2.81	0.43
15:AM:7:VAL:HG23	15:AM:7:VAL:O	2.18	0.43
1:AA:318:G:H22	1:AA:1433:A:H2	1.57	0.43
1:AA:1474:G:P	23:B0:1718:A:N3	2.90	0.43
1:AA:1496:C:H1'	1:AA:1517:G:H22	1.81	0.43
22:AT:42:GLN:HA	22:AT:45:GLN:HB2	1.99	0.43
1:AA:1004:A:H5''	1:AA:1025:U:C4	2.53	0.43
12:AJ:46:ARG:HH11	12:AJ:64:GLU:CG	2.31	0.43
23:B0:10:A:O2'	23:B0:11:G:H5'	2.18	0.43
1:AA:1428:A:O2'	23:B0:1703:C:O2'	2.33	0.43
4:AB:119:GLU:OE1	4:AB:153:ARG:NH2	2.51	0.43
1:AA:1269:A:C2	1:AA:1313:U:H1'	2.53	0.43
6:AD:25:ARG:HH21	6:AD:30:LYS:HD3	1.82	0.43
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.82	0.43
23:B0:35:G:C1'	23:B0:466:A:H1'	2.48	0.43
23:B0:197:G:N2	23:B0:440:U:H2'	2.33	0.43
7:AE:40:ARG:NH1	7:AE:68:GLU:OE1	2.51	0.43
23:B0:1664:G:O5'	23:B0:1665:C:OP1	2.36	0.43
23:B0:198:A:H4'	23:B0:199:A:OP2	2.17	0.43
2:AW:64:A:H4'	23:B0:2461:G:O2'	2.18	0.43
10:AH:103:VAL:HG21	10:AH:109:ILE:O	2.18	0.43
23:B0:758:G:O2'	23:B0:761:G:H1'	2.18	0.43
23:B0:1259:A:H2'	23:B0:1260:A:C8	2.53	0.43
15:AM:110:ARG:CG	15:AM:110:ARG:HH11	2.31	0.43
23:B0:207:U:H2'	23:B0:208:C:C6	2.52	0.43
17:AO:54:ARG:O	17:AO:58:MET:HG3	2.17	0.43
23:B0:2065:A:H2'	23:B0:2066:G:O4'	2.18	0.43
23:B0:2265:A:H5''	23:B0:2266:A:O4'	2.18	0.43
1:AA:157:G:O2'	1:AA:158:G:H5'	2.18	0.43
15:AM:23:TYR:CE2	15:AM:70:LEU:HD13	2.53	0.43
1:AA:583:A:H2'	1:AA:584:G:O4'	2.17	0.43
23:B0:2033:C:H2'	23:B0:2034:A:O4'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AL:111:LYS:O	14:AL:112:ASP:HB2	2.18	0.43
1:AA:262:A:C5'	22:AT:75:ASN:N	2.60	0.43
23:B0:1113:C:O3'	23:B0:1114:A:P	2.75	0.43
18:AP:67:THR:CG2	18:AP:68:ASP:N	2.81	0.43
16:AN:29:ARG:HB3	16:AN:40:CYS:HB3	1.99	0.43
5:AC:188:LEU:HD13	5:AC:189:ALA:H	1.83	0.43
8:AF:75:LEU:HD13	8:AF:75:LEU:O	2.18	0.43
23:B0:109:A:H2'	23:B0:110:U:H5''	2.00	0.43
23:B0:1283:C:OP1	23:B0:1284:G:H5'	2.17	0.43
23:B0:583:C:N3	23:B0:2016:A:H4'	2.32	0.43
23:B0:2680:U:H3'	23:B0:2681:A:C5'	2.43	0.43
23:B0:925:U:H5''	23:B0:926:C:OP1	2.18	0.43
23:B0:1429:A:H1'	23:B0:1603:A:C6	2.53	0.43
23:B0:2469:G:H4'	23:B0:2470:U:C6	2.54	0.43
1:AA:1371:G:OP1	11:AI:11:LYS:O	2.36	0.43
1:AA:370:C:C2'	1:AA:371:G:H5'	2.48	0.43
9:AG:138:LYS:HD3	9:AG:138:LYS:C	2.39	0.43
23:B0:860:U:O2	23:B0:860:U:H2'	2.17	0.43
23:B0:243:G:H2'	23:B0:244:C:O4'	2.18	0.43
23:B0:1358:C:C2'	23:B0:1359:G:H5''	2.48	0.43
10:AH:114:THR:C	10:AH:116:LYS:H	2.22	0.43
9:AG:18:TYR:CD2	9:AG:59:LEU:HB2	2.52	0.43
23:B0:1819:U:H5''	23:B0:1954:A:O3'	2.18	0.43
23:B0:167:A:H62	23:B0:183:U:H3	1.66	0.43
23:B0:1258:G:H2'	23:B0:1259:A:C8	2.52	0.43
1:AA:1450:U:H2'	1:AA:1452:C:C5	2.52	0.43
23:B0:2498:U:H3'	23:B0:2498:U:OP1	2.17	0.43
4:AB:92:TYR:CD1	4:AB:151:GLY:HA3	2.53	0.43
23:B0:1054:C:H2'	23:B0:1055:A:H5'	2.00	0.43
2:AW:50:U:O2'	2:AW:51:G:H5'	2.17	0.43
23:B0:944:A:H2'	23:B0:945:G:O4'	2.17	0.43
23:B0:1871:G:N3	23:B0:1871:G:H2'	2.33	0.43
23:B0:2069:U:H2'	23:B0:2070:G:C8	2.53	0.43
23:B0:1633:C:HO2'	23:B0:1634:A:P	2.40	0.43
23:B0:2867:G:N3	23:B0:2867:G:H3'	2.32	0.43
23:B0:1014:G:O2'	23:B0:1015:U:H5'	2.17	0.43
1:AA:922:G:H21	1:AA:1396:A:C1'	2.29	0.43
1:AA:1503:A:C5	1:AA:1531:A:C2	3.06	0.43
7:AE:24:ARG:NH1	7:AE:24:ARG:HG2	2.33	0.43
3:AU:10:U:H2'	3:AU:11:C:C6	2.52	0.43
1:AA:1229:A:H2'	1:AA:1230:C:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:264:U:HO2'	19:AQ:63:ARG:HD2	1.81	0.43
5:AC:8:ILE:O	5:AC:11:ARG:N	2.47	0.43
1:AA:189:A:OP2	22:AT:105:SER:HB3	2.13	0.43
2:AV:56:C:O2'	28:BD:74:ILE:CA	2.66	0.43
15:AM:22:ILE:HD12	15:AM:25:ILE:CD1	2.41	0.43
1:AA:288:A:HO3'	1:AA:289:G:C5'	2.24	0.43
2:AV:74:C:N4	23:B0:2232:G:N1	2.66	0.43
23:B0:1065:A:O2'	23:B0:1066:G:H5'	2.18	0.43
23:B0:2011:U:H2'	23:B0:2012:A:H8	1.83	0.43
21:AS:41:VAL:HG22	21:AS:44:MET:CE	2.49	0.43
5:AC:191:THR:HB	5:AC:194:GLY:O	2.18	0.43
2:AV:34:G:H3'	2:AV:35:A:H5''	2.00	0.43
1:AA:652:U:O4	1:AA:752:G:O2'	2.28	0.43
4:AB:187:LEU:HD21	4:AB:214:ILE:HG13	2.00	0.43
1:AA:1533:C:O2	1:AA:1533:C:H2'	2.17	0.43
1:AA:315:A:C5'	1:AA:317:G:OP2	2.64	0.43
9:AG:38:LEU:HD11	9:AG:42:ILE:HD11	1.99	0.43
23:B0:1923:U:H1'	23:B0:1947:G:H4'	1.99	0.43
17:AO:87:ILE:HG22	17:AO:88:ARG:N	2.34	0.43
1:AA:489:C:H2'	1:AA:490:G:C8	2.54	0.43
1:AA:277:C:OP2	19:AQ:41:LYS:NZ	2.42	0.43
23:B0:792:U:H2'	23:B0:793:G:O4'	2.19	0.43
4:AB:83:MET:HG3	4:AB:238:LEU:HD11	2.00	0.43
23:B0:1881:U:H2'	23:B0:1882:G:H5'	2.00	0.43
23:B0:712:A:H61	23:B0:746:G:H1'	1.83	0.43
8:AF:22:GLU:OE2	8:AF:84:ASN:HB2	2.18	0.43
23:B0:1482:U:H2'	23:B0:1483:G:C8	2.53	0.43
3:AU:13:A:H2'	3:AU:14:A:C6	2.53	0.43
1:AA:253:U:C4'	1:AA:276:G:O4'	2.66	0.43
22:AT:63:ILE:HD13	22:AT:80:ARG:HB3	2.01	0.43
5:AC:11:ARG:O	5:AC:14:ILE:O	2.36	0.43
19:AQ:104:LYS:CD	23:B0:729:A:N7	2.80	0.43
7:AE:119:LEU:HA	7:AE:119:LEU:HD23	1.84	0.43
1:AA:161:A:C2	1:AA:348:G:C2'	2.68	0.43
6:AD:205:GLU:OE2	7:AE:107:ARG:NH2	2.48	0.43
1:AA:46:G:C8	1:AA:366:C:N4	2.86	0.43
1:AA:197:A:H1'	1:AA:198:G:O4'	2.17	0.43
12:AJ:27:ALA:CB	12:AJ:81:THR:HG23	2.47	0.43
12:AJ:30:SER:CB	12:AJ:80:LYS:HB3	2.44	0.43
6:AD:24:GLU:HG2	6:AD:25:ARG:H	1.82	0.43
4:AB:8:LYS:HB2	4:AB:9:GLU:H	1.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AI:69:GLY:O	11:AI:73:GLN:HG3	2.18	0.43
1:AA:939:G:H5''	9:AG:102:ARG:NH2	2.34	0.43
9:AG:16:LEU:CB	11:AI:41:VAL:HG12	2.49	0.43
23:B0:437:G:O2'	23:B0:438:G:H5'	2.19	0.43
23:B0:1196:G:C2'	23:B0:1197:U:H5'	2.48	0.43
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.80	0.43
10:AH:16:ALA:O	10:AH:21:LYS:HG2	2.18	0.43
13:AK:23:ALA:HB2	13:AK:91:ARG:HB2	1.99	0.43
1:AA:1263:C:H2'	1:AA:1264:C:H6	1.83	0.43
23:B0:1257:U:H2'	23:B0:1258:G:C8	2.53	0.43
1:AA:665:A:C2	1:AA:732:C:H2'	2.53	0.43
20:AR:58:LEU:HD22	20:AR:62:GLU:HB3	1.99	0.43
23:B0:1722:G:H2'	23:B0:1723:U:C6	2.54	0.43
23:B0:826:U:H2'	23:B0:827:C:C6	2.53	0.43
13:AK:100:ALA:O	13:AK:102:GLY:N	2.51	0.43
6:AD:55:ALA:O	6:AD:59:ARG:HG2	2.19	0.43
1:AA:19:C:O2'	1:AA:572:A:N1	2.52	0.43
21:AS:12:ASP:HB2	21:AS:35:SER:OG	2.19	0.43
23:B0:2559:U:C2'	23:B0:2560:G:H5'	2.49	0.43
1:AA:778:G:O2'	13:AK:120:ARG:CA	2.65	0.43
19:AQ:97:SER:O	19:AQ:98:LEU:HD12	2.19	0.43
1:AA:376:G:H5''	18:AP:5:ARG:HB2	1.99	0.43
12:AJ:45:ARG:NH2	16:AN:36:PHE:HE2	2.11	0.43
5:AC:191:THR:HG21	5:AC:193:TYR:CE1	2.54	0.43
4:AB:71:VAL:HB	4:AB:164:VAL:HG23	1.99	0.43
4:AB:137:ARG:HA	4:AB:140:HIS:HD2	1.84	0.43
23:B0:2636:A:H62	23:B0:2643:G:N2	2.09	0.43
23:B0:815:A:H8	23:B0:815:A:P	2.42	0.43
23:B0:2378:G:H2'	23:B0:2379:G:H8	1.83	0.43
5:AC:79:ARG:C	5:AC:81:GLY:H	2.21	0.43
7:AE:36:ASP:OD1	7:AE:38:GLN:N	2.39	0.43
18:AP:40:ASP:HB3	18:AP:48:TRP:HB2	2.00	0.43
23:B0:2259:G:H2'	23:B0:2260:C:C6	2.53	0.43
23:B0:2035:G:H2'	23:B0:2036:G:C8	2.52	0.43
1:AA:141:A:H1'	1:AA:182:U:O2	2.18	0.43
1:AA:430:A:H2'	1:AA:431:A:H5'	1.99	0.43
23:B0:1482:U:H2'	23:B0:1483:G:H8	1.83	0.43
1:AA:10:A:O2'	1:AA:507:C:H4'	2.17	0.43
23:B0:48:A:H4'	23:B0:50:G:O4'	2.18	0.43
23:B0:1310:C:OP1	23:B0:2689:C:H4'	2.18	0.43
1:AA:819:A:C6	1:AA:1529:G:N1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1458:G:C4	1:AA:1459:C:O2	2.72	0.43
1:AA:1459:C:H5''	22:AT:28:ALA:HB3	1.60	0.43
1:AA:961:U:C2'	1:AA:962:C:H5'	2.48	0.43
1:AA:243:A:N6	1:AA:281:G:O2'	2.51	0.43
1:AA:402:G:H5'	1:AA:621:A:C2	2.54	0.43
6:AD:10:ARG:HH11	6:AD:10:ARG:HG3	1.83	0.43
1:AA:297:G:H5'	1:AA:557:G:O4'	2.19	0.43
1:AA:1157:A:O4'	1:AA:1158:C:C2	2.72	0.43
11:AI:78:LYS:HB3	11:AI:78:LYS:HE2	1.87	0.43
1:AA:205:G:N2	1:AA:207:C:H41	2.15	0.43
4:AB:124:SER:CB	4:AB:125:PRO:CD	2.90	0.43
23:B0:931:G:N2	23:B0:2247:A:H5''	2.34	0.43
4:AB:59:GLU:O	4:AB:60:ASP:C	2.57	0.43
23:B0:69:G:O2'	23:B0:70:A:H4'	2.17	0.43
23:B0:2586:G:H2'	23:B0:2587:G:O4'	2.19	0.43
23:B0:2436:U:H2'	23:B0:2437:G:O4'	2.18	0.43
23:B0:45:C:H2'	23:B0:46:C:C6	2.53	0.43
23:B0:2241:U:H4'	23:B0:2307:A:C2	2.54	0.43
23:B0:969:U:O2'	23:B0:970:A:H5''	2.18	0.43
23:B0:491:A:N3	23:B0:491:A:H2'	2.34	0.43
23:B0:1391:A:H2'	23:B0:1392:U:C5	2.54	0.43
23:B0:1938:U:H3'	23:B0:2530:C:O2'	2.19	0.43
23:B0:1424:U:H2'	23:B0:1425:G:C8	2.53	0.43
1:AA:461:C:O2'	1:AA:462:A:H5'	2.19	0.43
1:AA:818:G:H3'	1:AA:819:A:H5'	2.01	0.43
1:AA:265:G:O4'	19:AQ:64:PRO:O	2.35	0.43
1:AA:1060:C:O2'	1:AA:1061:G:H5'	2.18	0.43
22:AT:50:GLU:HG2	22:AT:100:ILE:CG1	2.48	0.43
1:AA:618:C:N3	1:AA:622:A:N6	2.67	0.43
6:AD:8:VAL:CG1	6:AD:21:LEU:HD13	2.48	0.43
1:AA:118:U:O3'	1:AA:119:A:O5'	2.37	0.43
1:AA:27:G:C4	1:AA:557:G:N3	2.81	0.43
23:B0:941:U:H2'	23:B0:942:U:C6	2.54	0.43
16:AN:29:ARG:CG	16:AN:29:ARG:HH11	2.32	0.43
18:AP:52:ASP:O	18:AP:52:ASP:CG	2.57	0.43
1:AA:1131:G:H2'	1:AA:1132:C:H6	1.83	0.43
4:AB:17:PHE:CA	4:AB:44:LEU:HD21	2.49	0.43
7:AE:80:ILE:HD12	7:AE:80:ILE:H	1.84	0.43
23:B0:540:G:N7	23:B0:2018:G:H4'	2.33	0.43
1:AA:1297:C:OP2	15:AM:44:ARG:NH2	2.51	0.43
23:B0:217:U:H5'	23:B0:633:G:O2'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:B9:35:C:H2'	24:B9:36:A:O4'	2.19	0.43
23:B0:211:U:O2'	23:B0:212:U:H5'	2.19	0.43
23:B0:2055:G:H2'	23:B0:2056:C:C6	2.54	0.43
23:B0:1329:U:H2'	23:B0:1330:G:C8	2.54	0.43
1:AA:50:A:N6	1:AA:361:G:H4'	2.33	0.43
23:B0:1401:G:H2'	23:B0:1402:G:H8	1.83	0.43
1:AA:1317:C:C6	16:AN:16:PHE:CG	3.06	0.43
1:AA:960:U:H2'	1:AA:960:U:O2	2.19	0.43
1:AA:130:A:C6	1:AA:264:U:O2	2.71	0.43
1:AA:130:A:O3'	1:AA:263:A:O2'	2.36	0.43
1:AA:255:G:N3	19:AQ:16:GLN:NE2	2.62	0.43
1:AA:762:C:H4'	23:B0:729:A:N6	2.28	0.43
7:AE:118:ILE:HD13	7:AE:118:ILE:HG21	1.74	0.43
6:AD:120:LEU:HD23	6:AD:125:HIS:CD2	2.54	0.43
11:AI:106:ALA:O	11:AI:108:VAL:HG23	2.19	0.43
14:AL:41:ARG:HH11	14:AL:41:ARG:HB3	1.84	0.43
11:AI:78:LYS:HD3	11:AI:101:PHE:CD2	2.54	0.43
1:AA:1327:C:O2'	1:AA:1328:C:H5'	2.19	0.43
1:AA:409:G:OP1	6:AD:24:GLU:O	2.36	0.43
1:AA:451:A:N6	1:AA:480:U:H2'	2.33	0.43
23:B0:70:A:OP2	23:B0:111:G:H4'	2.19	0.43
1:AA:991:U:O2	1:AA:993:G:H8	2.02	0.43
23:B0:2426:G:C5'	23:B0:2480:C:H41	2.28	0.43
23:B0:798:G:C2'	23:B0:799:C:H5'	2.48	0.43
23:B0:1429:A:O2'	23:B0:1430:G:H4'	2.19	0.43
23:B0:2468:G:H2'	23:B0:2469:G:O4'	2.19	0.43
5:AC:26:LYS:N	5:AC:26:LYS:CD	2.78	0.43
15:AM:33:ALA:HB2	15:AM:64:TRP:CH2	2.54	0.43
4:AB:204:ASN:HD22	4:AB:206:ASP:H	1.66	0.43
4:AB:74:LYS:HD2	4:AB:166:ASP:HB2	2.00	0.43
23:B0:2728:A:H2'	23:B0:2729:A:O4'	2.18	0.43
1:AA:1250:A:H4'	11:AI:68:GLY:CA	2.49	0.43
9:AG:108:ALA:O	9:AG:119:ARG:HD2	2.18	0.43
6:AD:127:THR:HG23	6:AD:128:VAL:N	2.34	0.43
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.54	0.43
2:AV:50:U:C2'	2:AV:51:G:H5'	2.48	0.43
23:B0:1634:A:O2'	23:B0:1635:G:OP1	2.29	0.43
1:AA:363:A:O2'	1:AA:364:A:H5'	2.18	0.43
1:AA:1500:A:OP1	1:AA:1508:G:OP1	2.37	0.43
1:AA:977:A:H2	1:AA:1224:G:C6	2.37	0.43
2:AV:76:A:O3'	23:B0:2046:C:O2'	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:255:G:H4'	19:AQ:17:LYS:CB	2.48	0.43
1:AA:191:G:N2	1:AA:192:U:H1'	2.23	0.43
1:AA:779:C:C5'	13:AK:120:ARG:C	2.75	0.43
1:AA:1416:G:N7	1:AA:1417:G:N9	2.67	0.43
1:AA:858:G:O2'	1:AA:859:A:H5'	2.18	0.43
23:B0:3877:A:HO2'	55:B5:198:THR:CA	2.26	0.43
22:AT:42:GLN:O	22:AT:46:GLU:HG3	2.19	0.43
23:B0:2424:G:H2'	23:B0:2425:G:O4'	2.19	0.43
1:AA:1125:U:H5''	1:AA:1126:U:H5	1.83	0.43
1:AA:564:C:H5'	14:AL:10:LEU:HD13	2.01	0.43
14:AL:41:ARG:NH1	14:AL:41:ARG:CB	2.82	0.43
1:AA:1181:G:O2'	1:AA:1182:G:H5'	2.19	0.43
1:AA:70:A:C2'	1:AA:71:U:H5'	2.48	0.43
14:AL:58:VAL:N	14:AL:66:VAL:O	2.47	0.43
1:AA:676:A:O2'	13:AK:115:PRO:HG3	2.19	0.43
5:AC:112:SER:HB2	5:AC:115:LEU:HB2	2.01	0.43
23:B0:873:U:O2	23:B0:2246:A:H5''	2.18	0.43
1:AA:640:A:C2'	1:AA:641:U:H5'	2.48	0.43
1:AA:782:A:H2'	1:AA:783:C:O4'	2.19	0.43
17:AO:48:LYS:O	17:AO:50:HIS:N	2.50	0.43
1:AA:1010:G:O2'	1:AA:1011:G:H5'	2.18	0.43
23:B0:1561:A:H2'	23:B0:1562:G:O4'	2.19	0.43
23:B0:1393:G:O2'	23:B0:1394:G:H5'	2.19	0.43
1:AA:15:G:HO2'	7:AE:24:ARG:NH1	2.14	0.43
1:AA:1287:A:C2	1:AA:1353:G:H1'	2.54	0.43
1:AA:1353:G:H2'	1:AA:1354:C:C6	2.54	0.43
1:AA:1230:C:H1'	15:AM:125:ARG:O	2.19	0.43
2:AW:76:A:C1'	23:B0:2486:C:C5'	2.97	0.43
1:AA:130:A:C5'	19:AQ:63:ARG:CZ	2.89	0.43
1:AA:119:A:N3	1:AA:240:C:C4	2.87	0.43
23:B0:2204:A:H1'	23:B0:2205:C:C5	2.53	0.43
19:AQ:101:ARG:CD	23:B0:731:A:C2	3.00	0.43
1:AA:1126:U:H2'	1:AA:1127:G:O4'	2.19	0.43
1:AA:1181:G:H4'	1:AA:1184:G:C4'	2.49	0.43
14:AL:70:ILE:CD1	14:AL:77:LEU:HD12	2.42	0.43
24:B9:108:G:O2'	24:B9:109:G:H5'	2.19	0.43
1:AA:737:A:H1'	8:AF:73:ASN:OD1	2.19	0.43
6:AD:198:VAL:HG12	6:AD:199:ASN:N	2.34	0.43
17:AO:78:TYR:CE2	17:AO:82:ILE:HD11	2.53	0.43
1:AA:409:G:H2'	1:AA:410:G:O4'	2.18	0.43
7:AE:43:LEU:HB2	7:AE:136:MET:HE2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AF:100:ASN:ND2	20:AR:23:LYS:O	2.52	0.43
1:AA:1075:C:H5''	4:AB:179:LYS:HZ1	1.82	0.43
5:AC:116:VAL:HG11	5:AC:141:VAL:HG21	2.01	0.43
23:B0:2572:U:H2'	23:B0:2573:C:C6	2.54	0.43
23:B0:765:C:O2'	23:B0:766:A:O4'	2.36	0.43
23:B0:635:C:H2'	23:B0:636:G:H5''	2.00	0.43
23:B0:1039:A:H2'	23:B0:1040:A:C8	2.54	0.43
23:B0:2475:C:C2'	23:B0:2476:A:H5'	2.49	0.43
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.53	0.43
23:B0:114:C:H2'	23:B0:115:G:O4'	2.19	0.43
23:B0:738:G:H2'	23:B0:739:G:O4'	2.18	0.43
6:AD:60:GLU:HA	6:AD:60:GLU:OE1	2.19	0.43
22:AT:11:SER:C	22:AT:13:LEU:H	2.22	0.43
23:B0:1411:C:H6	23:B0:1411:C:O5'	2.02	0.43
23:B0:170:U:H2'	23:B0:171:G:H8	1.84	0.43
4:AB:28:PHE:CD2	4:AB:190:THR:HA	2.54	0.43
23:B0:1466:C:H2'	23:B0:1467:U:O4'	2.19	0.43
23:B0:572:G:H2'	23:B0:573:C:C6	2.54	0.43
19:AQ:45:HIS:CD2	19:AQ:47:PRO:HG3	2.54	0.42
1:AA:677:U:O2	1:AA:777:A:O2'	2.36	0.42
1:AA:246:A:H2	1:AA:278:G:N3	2.13	0.42
1:AA:160:A:H2'	1:AA:161:A:O4'	2.18	0.42
1:AA:685:G:P	13:AK:12:ARG:HH22	2.42	0.42
23:B0:3877:A:O5'	23:B0:1861:G:OP2	2.37	0.42
15:AM:6:GLY:O	15:AM:7:VAL:CG2	2.65	0.42
1:AA:169:C:O2'	1:AA:170:U:H5'	2.19	0.42
19:AQ:60:ILE:HD13	19:AQ:61:GLU:N	2.34	0.42
23:B0:3185:U:H2'	23:B0:3186:C:O4'	2.19	0.42
1:AA:150:C:H2'	1:AA:151:A:P	2.58	0.42
14:AL:60:LEU:CD2	14:AL:66:VAL:HG22	2.49	0.42
6:AD:196:LEU:C	6:AD:198:VAL:H	2.21	0.42
1:AA:452:A:O2'	1:AA:453:A:O4'	2.34	0.42
23:B0:2625:U:H2'	23:B0:2626:U:O4'	2.18	0.42
23:B0:689:A:C2'	23:B0:690:A:H5'	2.48	0.42
23:B0:1429:A:N6	23:B0:1602:G:H5'	2.34	0.42
1:AA:1441:G:H4'	1:AA:1442:G:C8	2.54	0.42
17:AO:29:VAL:HG11	17:AO:67:LEU:HD21	2.00	0.42
5:AC:46:GLU:C	5:AC:48:TYR:H	2.22	0.42
23:B0:842:A:H5'	23:B0:844:G:C5	2.54	0.42
23:B0:2455:A:C2'	23:B0:2456:U:H5'	2.49	0.42
1:AA:628:G:H2'	1:AA:629:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AJ:17:ASP:O	12:AJ:21:GLN:HB2	2.19	0.42
23:B0:1307:U:H2'	23:B0:1308:C:O4'	2.19	0.42
23:B0:744:C:H2'	23:B0:745:C:C6	2.54	0.42
12:AJ:61:GLU:OE2	16:AN:58:LYS:CE	2.66	0.42
1:AA:107:G:O2'	1:AA:108:G:H5'	2.19	0.42
1:AA:1434:A:O3'	1:AA:1435:G:H4'	2.19	0.42
1:AA:117:G:O6	1:AA:289:G:H1'	2.18	0.42
23:B0:2204:A:H4'	23:B0:2205:C:O4'	2.19	0.42
4:AB:116:GLU:CG	4:AB:153:ARG:NH1	2.80	0.42
1:AA:1269:A:H2	1:AA:1312:G:N3	2.17	0.42
5:AC:50:ALA:O	5:AC:70:VAL:CG1	2.67	0.42
5:AC:70:VAL:O	5:AC:106:VAL:N	2.51	0.42
23:B0:220:U:H2'	23:B0:221:A:O4'	2.19	0.42
23:B0:2639:A:H2'	23:B0:2640:G:O4'	2.20	0.42
19:AQ:59:ILE:CG2	19:AQ:71:PHE:CD1	3.02	0.42
23:B0:2426:G:O2'	23:B0:2427:A:OP2	2.32	0.42
23:B0:2504:G:H2'	23:B0:2505:G:H8	1.83	0.42
12:AJ:72:VAL:O	12:AJ:73:ASP:HB2	2.18	0.42
1:AA:418:C:H2'	1:AA:419:C:C6	2.54	0.42
23:B0:796:A:C2	23:B0:798:G:H1'	2.54	0.42
6:AD:157:LEU:CD2	6:AD:161:ASN:ND2	2.74	0.42
1:AA:448:A:C4	1:AA:487:A:C2	3.07	0.42
1:AA:1308:U:P	15:AM:99:ARG:HG3	2.59	0.42
23:B0:1626:A:H5''	23:B0:1627:C:OP2	2.19	0.42
23:B0:1975:G:H4'	23:B0:1976:U:C5	2.53	0.42
23:B0:2404:A:OP1	23:B0:2406:C:H5'	2.18	0.42
23:B0:1788:C:H2'	23:B0:1789:U:C6	2.54	0.42
20:AR:46:GLU:CD	20:AR:46:GLU:N	2.72	0.42
23:B0:1982:C:H2'	23:B0:1983:G:C8	2.52	0.42
23:B0:1292:A:H2'	23:B0:1293:A:H8	1.84	0.42
1:AA:1397:C:O2'	1:AA:1398:A:P	2.77	0.42
1:AA:942:G:H2'	1:AA:943:U:H6	1.84	0.42
12:AJ:56:HIS:O	12:AJ:58:ASP:N	2.52	0.42
1:AA:778:G:O2'	1:AA:779:C:H5'	2.19	0.42
7:AE:115:VAL:CG1	7:AE:116:THR:N	2.82	0.42
22:AT:57:ARG:HE	22:AT:100:ILE:HG21	1.85	0.42
1:AA:538:G:H5'	14:AL:114:LYS:CD	2.46	0.42
23:B0:3877:A:P	23:B0:1861:G:P	3.16	0.42
1:AA:1126:U:H2'	1:AA:1127:G:H8	1.84	0.42
4:AB:125:PRO:C	4:AB:127:ILE:H	2.22	0.42
14:AL:26:ALA:C	14:AL:27:LEU:O	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AE:64:ARG:O	7:AE:65:ASN:CB	2.60	0.42
9:AG:95:ARG:NH1	9:AG:95:ARG:CG	2.80	0.42
23:B0:872:G:H2'	23:B0:928:G:N1	2.35	0.42
12:AJ:15:THR:HG23	12:AJ:94:VAL:CG2	2.49	0.42
23:B0:1811:A:H1'	23:B0:1813:A:C5	2.53	0.42
13:AK:33:THR:OG1	13:AK:37:GLY:C	2.58	0.42
1:AA:487:A:H2'	1:AA:488:C:O4'	2.19	0.42
4:AB:146:GLN:O	4:AB:150:SER:HB3	2.18	0.42
1:AA:796:C:OP2	13:AK:123:LYS:NZ	2.45	0.42
23:B0:1764:A:H2'	23:B0:1765:C:O4'	2.19	0.42
1:AA:926:G:H1	3:AU:6:A:P	2.43	0.42
9:AG:112:PRO:O	9:AG:113:GLU:C	2.57	0.42
23:B0:338:G:O2'	23:B0:339:U:H5'	2.19	0.42
23:B0:1981:A:H4'	23:B0:2704:U:O2'	2.19	0.42
21:AS:3:ARG:O	21:AS:4:SER:HB3	2.19	0.42
23:B0:569:C:H2'	23:B0:570:G:C8	2.53	0.42
1:AA:1505:G:H3'	1:AA:1505:G:H8	1.85	0.42
1:AA:1458:G:N9	1:AA:1459:C:O2	2.52	0.42
1:AA:1014:A:N6	21:AS:34:TRP:CZ2	2.87	0.42
23:B0:2561:G:N3	23:B0:2561:G:H2'	2.35	0.42
1:AA:1107:C:OP1	5:AC:174:PRO:N	2.53	0.42
1:AA:244:U:C5	1:AA:894:G:C2	3.08	0.42
1:AA:825:G:H2'	1:AA:826:C:C6	2.53	0.42
1:AA:128:G:O4'	19:AQ:61:GLU:OE2	2.36	0.42
1:AA:70:A:O2'	1:AA:71:U:H5'	2.19	0.42
1:AA:974:A:OP1	1:AA:974:A:H8	2.03	0.42
21:AS:40:ILE:HG23	21:AS:44:MET:SD	2.59	0.42
18:AP:51:VAL:O	18:AP:52:ASP:C	2.58	0.42
1:AA:1137:C:H4'	1:AA:1138:G:N1	2.33	0.42
1:AA:1446:A:C4	1:AA:1456:A:N1	2.87	0.42
1:AA:1266:G:N2	1:AA:1269:A:OP2	2.49	0.42
6:AD:25:ARG:HA	6:AD:28:SER:OG	2.19	0.42
4:AB:16:HIS:CE1	4:AB:210:SER:HG	2.37	0.42
23:B0:2492:G:H2'	23:B0:2493:U:C6	2.54	0.42
4:AB:33:TYR:O	4:AB:34:ALA:CB	2.67	0.42
4:AB:41:ILE:O	4:AB:41:ILE:HG22	2.18	0.42
21:AS:17:GLU:HA	21:AS:20:LEU:CD1	2.49	0.42
9:AG:15:ASP:OD2	9:AG:23:VAL:HG11	2.19	0.42
1:AA:418:C:H2'	1:AA:419:C:H6	1.84	0.42
23:B0:1223:G:H4'	23:B0:1224:A:C5'	2.49	0.42
7:AE:16:THR:HG23	7:AE:27:ARG:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AP:4:ILE:CG1	18:AP:64:ALA:HB1	2.49	0.42
17:AO:41:GLU:O	17:AO:42:HIS:C	2.57	0.42
1:AA:1407:C:H2'	1:AA:1408:A:H8	1.85	0.42
6:AD:163:GLU:C	6:AD:165:MET:N	2.72	0.42
1:AA:875:C:O2'	10:AH:14:ARG:HD2	2.18	0.42
23:B0:1017:C:H2'	23:B0:1018:C:O4'	2.19	0.42
23:B0:477:A:H2'	23:B0:478:G:O4'	2.20	0.42
1:AA:1074:G:O3'	4:AB:103:THR:HG21	2.19	0.42
1:AA:1244:C:O2'	1:AA:1245:A:H5'	2.19	0.42
8:AF:40:VAL:HG22	8:AF:41:GLU:N	2.34	0.42
23:B0:2771:C:H5	23:B0:2867:G:H22	1.66	0.42
9:AG:31:MET:SD	9:AG:34:GLY:HA2	2.59	0.42
1:AA:1135:U:H6	1:AA:1135:U:O5'	2.01	0.42
23:B0:697:G:O2'	23:B0:698:A:H5'	2.20	0.42
23:B0:883:A:H2'	23:B0:884:C:O4'	2.19	0.42
1:AA:1399:C:C2	1:AA:1502:A:N6	2.86	0.42
1:AA:16:A:O2'	1:AA:17:U:H5'	2.18	0.42
1:AA:994:A:C4	16:AN:5:ALA:O	2.72	0.42
23:B0:2559:U:H2'	23:B0:2560:G:H5'	2.01	0.42
23:B0:2564:U:H5''	23:B0:2565:C:H5'	2.01	0.42
1:AA:825:G:O2'	1:AA:826:C:H5'	2.20	0.42
1:AA:499:A:H1'	1:AA:500:G:C1'	2.40	0.42
6:AD:8:VAL:CG1	6:AD:21:LEU:CD1	2.98	0.42
1:AA:1476:G:P	23:B0:1706:A:O3'	2.77	0.42
24:B9:73:C:H3'	24:B9:74:A:OP2	2.20	0.42
21:AS:41:VAL:HB	21:AS:43:GLU:OE2	2.20	0.42
1:AA:1319:A:OP1	21:AS:5:LEU:CD2	2.68	0.42
5:AC:193:TYR:HE1	5:AC:196:LEU:HD11	1.83	0.42
1:AA:848:G:HO3'	1:AA:849:C:P	2.40	0.42
1:AA:878:G:C5'	10:AH:89:PRO:HG2	2.48	0.42
23:B0:1313:U:O2'	23:B0:1314:A:P	2.78	0.42
23:B0:1957:C:O2'	23:B0:1958:G:H5'	2.20	0.42
4:AB:187:LEU:HA	4:AB:201:ILE:HB	2.02	0.42
23:B0:2523:G:O2'	23:B0:2524:G:H5'	2.20	0.42
23:B0:2437:G:H4'	23:B0:2438:A:N7	2.35	0.42
18:AP:4:ILE:HG23	18:AP:36:ILE:HD11	2.01	0.42
23:B0:1900:U:H3'	23:B0:1901:A:H8	1.85	0.42
23:B0:669:G:H2'	23:B0:670:U:O4'	2.20	0.42
23:B0:19:C:H2'	23:B0:20:C:C6	2.54	0.42
7:AE:131:ILE:HD13	7:AE:131:ILE:HA	1.93	0.42
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AF:77:ARG:O	8:AF:81:ILE:HG13	2.18	0.42
23:B0:1775:A:H4'	23:B0:1776:A:C8	2.54	0.42
23:B0:1480:G:C2'	23:B0:1481:U:H5'	2.49	0.42
1:AA:1195:C:H3'	1:AA:1196:U:H5''	2.02	0.42
1:AA:322:C:HO2'	22:AT:23:ARG:HB2	1.84	0.42
1:AA:38:G:H4'	1:AA:547:A:C5	2.54	0.42
1:AA:376:G:P	18:AP:67:THR:CG2	3.01	0.42
1:AA:127:G:O3'	19:AQ:2:PRO:HD2	2.20	0.42
15:AM:80:ARG:C	15:AM:82:MET:N	2.72	0.42
14:AL:60:LEU:HD21	14:AL:66:VAL:CG2	2.50	0.42
23:B0:833:A:H2'	23:B0:834:A:C8	2.55	0.42
23:B0:1679:U:H2'	23:B0:1680:U:H5''	2.02	0.42
5:AC:23:TYR:CZ	12:AJ:9:ARG:HD3	2.55	0.42
12:AJ:3:LYS:HG3	12:AJ:75:ILE:HG23	2.02	0.42
24:B9:50:U:H2'	24:B9:51:G:H8	1.83	0.42
23:B0:1855:G:H4'	23:B0:2390:A:H4'	2.00	0.42
23:B0:1672:A:H2'	23:B0:1673:C:O4'	2.20	0.42
1:AA:359:U:O2'	1:AA:360:A:H5'	2.18	0.42
1:AA:570:G:O2'	1:AA:819:A:C2'	2.63	0.42
1:AA:1288:A:H1'	1:AA:1353:G:O4'	2.20	0.42
1:AA:942:G:C2	1:AA:943:U:C6	3.07	0.42
2:AV:76:A:O5'	23:B0:2564:U:C6	2.66	0.42
5:AC:172:ARG:HH12	5:AC:174:PRO:CG	2.22	0.42
1:AA:762:C:H5'	23:B0:729:A:N6	2.27	0.42
19:AQ:104:LYS:HD2	23:B0:729:A:N7	2.35	0.42
1:AA:835:U:C5'	20:AR:64:ARG:CZ	2.71	0.42
1:AA:1434:A:P	1:AA:1435:G:C8	3.09	0.42
13:AK:85:ARG:NH1	13:AK:85:ARG:HG3	2.34	0.42
23:B0:3110:G:P	23:B0:3149:G:C5'	3.08	0.42
23:B0:3110:G:C4'	23:B0:3111:C:OP2	2.67	0.42
5:AC:64:VAL:HG12	5:AC:65:ALA:H	1.84	0.42
7:AE:79:GLU:OE2	10:AH:105:ARG:NE	2.51	0.42
1:AA:69:G:H1'	1:AA:101:A:N1	2.34	0.42
13:AK:93:GLN:NE2	13:AK:96:ARG:NH2	2.67	0.42
23:B0:1181:C:H3'	23:B0:1182:U:H5''	2.01	0.42
21:AS:51:VAL:HG12	21:AS:52:TYR:H	1.85	0.42
5:AC:70:VAL:HG12	5:AC:71:ALA:H	1.84	0.42
6:AD:63:LYS:O	6:AD:64:LEU:C	2.58	0.42
23:B0:69:G:O2'	23:B0:70:A:P	2.78	0.42
8:AF:45:LEU:O	8:AF:46:ARG:HG2	2.20	0.42
1:AA:427:U:H4'	1:AA:541:G:H5''	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AC:79:ARG:NE	5:AC:82:GLU:HG2	2.34	0.42
1:AA:1228:C:H4'	15:AM:116:THR:HA	2.02	0.42
1:AA:532:A:H2'	1:AA:533:A:C5'	2.48	0.42
23:B0:841:G:N1	23:B0:2226:A:H4'	2.35	0.42
1:AA:1264:C:H2'	1:AA:1265:G:C8	2.55	0.42
23:B0:738:G:C2'	23:B0:739:G:H5'	2.50	0.42
1:AA:647:C:H2'	1:AA:648:A:C8	2.54	0.42
13:AK:86:GLY:H	13:AK:112:THR:CG2	2.32	0.42
23:B0:589:C:H2'	23:B0:590:C:C6	2.55	0.42
1:AA:584:G:H2'	1:AA:585:G:C8	2.54	0.42
5:AC:57:ILE:HG22	5:AC:57:ILE:O	2.20	0.42
23:B0:1961:A:H2'	23:B0:1962:C:O4'	2.19	0.42
1:AA:811:C:H4'	1:AA:900:A:N6	2.34	0.42
23:B0:2031:A:H2'	23:B0:2032:G:C8	2.54	0.42
23:B0:2864:C:H2'	23:B0:2865:G:O4'	2.20	0.42
1:AA:1217:C:O2'	1:AA:1218:C:H5'	2.19	0.42
1:AA:232:G:C2	1:AA:263:A:H2	2.28	0.42
1:AA:893:C:C6	1:AA:894:G:C8	3.08	0.42
19:AQ:95:TYR:CD1	19:AQ:95:TYR:N	2.88	0.42
1:AA:438:G:O2'	1:AA:495:U:O4	2.24	0.42
1:AA:406:G:N7	1:AA:496:A:C5	2.88	0.42
7:AE:120:THR:HG23	7:AE:121:LYS:H	1.84	0.42
23:B0:1112:U:O2	23:B0:1112:U:H2'	2.20	0.42
2:AV:74:C:C3'	23:B0:2581:A:P	2.67	0.42
23:B0:3109:U:O3'	23:B0:3149:G:H4'	2.20	0.42
1:AA:292:G:C1'	1:AA:608:A:H61	2.28	0.42
1:AA:1320:C:N4	21:AS:37:ARG:CD	2.77	0.42
23:B0:2633:A:H4'	23:B0:2634:G:C4'	2.39	0.42
20:AR:26:LEU:CD1	20:AR:27:GLY:H	2.29	0.42
23:B0:583:C:H4'	23:B0:584:A:OP2	2.20	0.42
23:B0:2467:A:H2'	23:B0:2468:G:C8	2.55	0.42
5:AC:77:ILE:CG2	5:AC:81:GLY:HA2	2.50	0.42
23:B0:509:U:H2'	23:B0:510:G:H5'	2.00	0.42
1:AA:537:G:H5''	14:AL:113:ARG:NE	2.33	0.42
9:AG:69:VAL:O	9:AG:69:VAL:CG1	2.68	0.42
1:AA:767:A:H2'	1:AA:768:A:O4'	2.20	0.42
10:AH:68:ARG:HH11	10:AH:68:ARG:HG2	1.84	0.42
24:B9:9:G:H2'	24:B9:10:U:O4'	2.20	0.42
23:B0:903:G:C6	23:B0:904:U:C4	3.08	0.42
1:AA:965:A:O2'	1:AA:966:G:C5'	2.67	0.42
1:AA:293:G:OP1	1:AA:609:A:N6	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1398:A:C5'	1:AA:1399:C:OP1	2.55	0.42
1:AA:1288:A:O4'	1:AA:1353:G:H4'	2.19	0.42
1:AA:501:C:O4'	1:AA:548:G:N2	2.53	0.42
1:AA:456:A:C2	1:AA:477:G:C1'	2.87	0.42
1:AA:26:A:C5'	1:AA:27:G:OP2	2.67	0.42
1:AA:113:G:H4'	1:AA:354:G:O3'	2.18	0.42
23:B0:1912:G:OP1	23:B0:1913:G:H4'	2.19	0.42
1:AA:203:A:C4'	1:AA:468:A:H4'	2.46	0.42
1:AA:1340:A:C4'	2:AV:32:C:H4'	2.50	0.42
6:AD:53:ASP:OD2	7:AE:104:ALA:CB	2.68	0.42
21:AS:20:LEU:HD12	21:AS:21:GLU:N	2.34	0.42
23:B0:877:G:N2	23:B0:926:C:H41	2.17	0.42
23:B0:814:G:H3'	23:B0:815:A:C5'	2.46	0.42
6:AD:70:ILE:HD11	6:AD:100:ARG:CD	2.49	0.42
23:B0:332:C:H2'	23:B0:333:A:H5'	2.02	0.42
23:B0:2404:A:O2'	23:B0:2405:A:OP2	2.29	0.42
18:AP:39:TYR:CD2	18:AP:73:LEU:HD11	2.54	0.42
1:AA:841:C:N3	1:AA:845:A:N6	2.67	0.42
23:B0:2393:G:H2'	23:B0:2394:G:H8	1.85	0.42
23:B0:1938:U:O2'	23:B0:1939:U:H5'	2.20	0.42
1:AA:628:G:O2'	1:AA:629:G:H5'	2.20	0.42
23:B0:1667:A:H2'	23:B0:1668:G:C8	2.55	0.42
23:B0:2815:C:H2'	23:B0:2816:C:C6	2.55	0.42
23:B0:594:G:H21	23:B0:1267:A:H62	1.68	0.42
23:B0:571:U:H2'	23:B0:581:A:H1'	2.02	0.42
23:B0:391:C:H2'	23:B0:392:G:C8	2.54	0.42
1:AA:1402:C:H2'	1:AA:1403:C:H6	1.85	0.42
1:AA:18:C:O2	1:AA:918:A:N1	2.52	0.42
22:AT:80:ARG:O	22:AT:84:LEU:HB2	2.20	0.42
12:AJ:55:LYS:O	12:AJ:56:HIS:HB2	2.19	0.42
1:AA:246:A:C3'	1:AA:247:G:H4'	2.50	0.42
19:AQ:95:TYR:N	19:AQ:95:TYR:HD1	2.18	0.42
1:AA:762:C:O2'	23:B0:729:A:H2	1.99	0.42
1:AA:538:G:H5'	14:AL:114:LYS:CB	2.06	0.42
23:B0:1080:A:H4'	23:B0:1081:A:C8	2.54	0.42
1:AA:1473:A:O3'	23:B0:1718:A:N3	2.53	0.42
1:AA:851:G:H2'	1:AA:852:G:H8	1.84	0.42
19:AQ:40:LYS:HD3	19:AQ:42:TYR:OH	2.20	0.42
1:AA:692:U:O2	1:AA:695:A:C8	2.73	0.42
24:B9:106:U:O2'	24:B9:107:C:H5'	2.19	0.42
23:B0:1747:G:H1'	23:B0:1749:G:C2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AL:7:ILE:HA	14:AL:7:ILE:HD13	1.93	0.42
6:AD:24:GLU:H	6:AD:112:VAL:HG11	1.85	0.42
9:AG:65:ALA:O	9:AG:66:VAL:C	2.58	0.42
6:AD:148:VAL:HG13	6:AD:158:ILE:HD13	2.01	0.42
1:AA:640:A:O2'	1:AA:641:U:H5'	2.20	0.42
22:AT:44:ALA:HB2	22:AT:88:VAL:HG13	2.02	0.42
14:AL:43:VAL:CG1	14:AL:44:THR:N	2.81	0.42
24:B9:25:G:C2'	24:B9:26:G:H5'	2.50	0.42
1:AA:1129:C:O2'	1:AA:1130:A:P	2.78	0.42
15:AM:32:GLU:O	15:AM:35:GLU:N	2.53	0.42
23:B0:1040:A:C2'	23:B0:1041:G:H5'	2.49	0.42
23:B0:869:C:O2'	23:B0:870:C:H5'	2.19	0.42
15:AM:96:LEU:HB3	15:AM:97:PRO:HD2	2.00	0.42
11:AI:104:ARG:O	11:AI:105:ASP:C	2.59	0.42
23:B0:1671:A:H2'	23:B0:1672:A:H8	1.85	0.42
23:B0:334:G:N3	23:B0:344:G:H1'	2.35	0.42
1:AA:602:A:C2	1:AA:637:G:C2	3.08	0.42
1:AA:730:G:C5	1:AA:731:G:H1'	2.54	0.42
1:AA:951:G:C6	1:AA:1231:G:C6	3.08	0.41
1:AA:977:A:C2	1:AA:1224:G:C5	3.08	0.41
1:AA:1489:G:H2'	1:AA:1490:C:C5'	2.27	0.41
1:AA:39:G:C8	1:AA:498:U:N3	2.88	0.41
1:AA:439:A:N6	1:AA:497:A:H1'	2.35	0.41
1:AA:877:C:O2	10:AH:3:THR:HG21	2.20	0.41
10:AH:111:ILE:O	10:AH:134:ILE:HB	2.20	0.41
4:AB:130:ARG:HB3	4:AB:134:GLU:OE1	2.20	0.41
1:AA:413:G:N2	1:AA:428:G:H1'	2.34	0.41
7:AE:31:LEU:HA	7:AE:31:LEU:HD23	1.74	0.41
1:AA:1095:U:H2'	1:AA:1096:C:H6	1.83	0.41
23:B0:425:A:H2'	23:B0:426:C:O4'	2.20	0.41
23:B0:2809:A:H2'	23:B0:2810:A:H5'	2.01	0.41
23:B0:1188:A:H62	23:B0:1189:G:N2	2.17	0.41
23:B0:1762:C:H2'	23:B0:1763:G:C8	2.55	0.41
8:AF:19:LEU:HD21	8:AF:23:LYS:HD2	2.01	0.41
5:AC:73:PRO:HD3	5:AC:105:GLU:HG3	2.03	0.41
23:B0:2195:C:H2'	23:B0:2196:U:O4'	2.20	0.41
1:AA:1531:A:O5'	1:AA:1531:A:H8	2.03	0.41
1:AA:1016:A:C5'	16:AN:15:LYS:CE	2.87	0.41
1:AA:255:G:H4'	19:AQ:17:LYS:N	2.17	0.41
22:AT:100:ILE:C	22:AT:102:GLY:N	2.74	0.41
22:AT:53:LEU:HD13	22:AT:101:GLY:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:546:G:H4'	1:AA:548:G:H4'	2.01	0.41
1:AA:833:U:H2'	1:AA:834:C:C6	2.55	0.41
1:AA:320:C:C1'	1:AA:1434:A:C2	2.93	0.41
23:B0:1082:G:H1'	23:B0:1100:G:H2'	2.03	0.41
2:AV:74:C:C4	23:B0:2231:G:N2	2.88	0.41
5:AC:134:ILE:HG22	5:AC:168:ALA:HB3	2.01	0.41
4:AB:62:ALA:C	4:AB:64:ARG:H	2.24	0.41
1:AA:586:C:H5'	10:AH:90:GLY:CA	2.51	0.41
1:AA:1311:G:H2'	1:AA:1312:G:O4'	2.20	0.41
9:AG:23:VAL:HG13	9:AG:43:PHE:CE2	2.55	0.41
23:B0:2694:G:H2'	23:B0:2695:C:C6	2.55	0.41
23:B0:1196:G:H2'	23:B0:1197:U:H5'	2.00	0.41
23:B0:860:U:O2'	23:B0:861:G:H5'	2.20	0.41
23:B0:167:A:H2'	23:B0:168:A:C8	2.55	0.41
1:AA:1264:C:H2'	1:AA:1265:G:H8	1.85	0.41
8:AF:48:LEU:HD13	8:AF:52:ILE:CG1	2.50	0.41
7:AE:144:THR:O	7:AE:145:LYS:C	2.59	0.41
1:AA:1233:G:OP1	11:AI:123:PRO:CB	2.69	0.41
23:B0:2242:C:N4	23:B0:2257:A:H61	2.18	0.41
13:AK:100:ALA:O	13:AK:101:SER:C	2.57	0.41
1:AA:145:G:O2'	1:AA:146:G:H5'	2.20	0.41
23:B0:2604:G:H2'	23:B0:2605:C:C6	2.55	0.41
8:AF:98:LEU:HD23	8:AF:98:LEU:HA	1.94	0.41
23:B0:2721:A:H62	23:B0:2743:G:H21	1.68	0.41
11:AI:56:LEU:O	11:AI:58:ARG:N	2.49	0.41
23:B0:1448:A:H2'	23:B0:1449:C:C6	2.55	0.41
9:AG:93:PRO:HG2	9:AG:94:ARG:H	1.86	0.41
2:AV:52:U:O2'	2:AV:53:G:H5'	2.20	0.41
1:AA:865:A:N3	1:AA:918:A:O4'	2.53	0.41
1:AA:866:C:H2'	1:AA:867:G:O4'	2.20	0.41
1:AA:255:G:H4'	19:AQ:17:LYS:HG3	2.02	0.41
1:AA:1067:A:C1'	1:AA:1068:G:OP2	2.69	0.41
12:AJ:63:PHE:CD2	16:AN:58:LYS:HA	2.55	0.41
12:AJ:63:PHE:CE1	16:AN:48:ALA:HB3	2.54	0.41
22:AT:23:ARG:NH1	22:AT:23:ARG:HG2	2.35	0.41
23:B0:3877:A:C1'	55:B5:196:VAL:CA	2.98	0.41
6:AD:205:GLU:O	6:AD:208:SER:HB2	2.20	0.41
23:B0:1073:G:H2'	23:B0:1073:G:N3	2.35	0.41
1:AA:1405:G:H1'	1:AA:1519:A:C4'	2.50	0.41
5:AC:38:ARG:CB	5:AC:94:LEU:HD21	2.50	0.41
13:AK:57:THR:OG1	13:AK:58:PRO:HD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:625:G:O2'	1:AA:626:U:H5'	2.20	0.41
1:AA:757:U:OP1	1:AA:823:G:C4'	2.68	0.41
14:AL:33:ARG:HD2	14:AL:62:SER:HB3	2.01	0.41
17:AO:70:LEU:HD12	17:AO:78:TYR:HB2	2.01	0.41
14:AL:55:VAL:CG1	14:AL:56:ALA:N	2.83	0.41
23:B0:895:G:H2'	23:B0:896:C:O4'	2.20	0.41
23:B0:1528:C:H3'	23:B0:1529:C:H5''	2.02	0.41
11:AI:97:LYS:HB2	11:AI:98:PRO:HD3	2.01	0.41
12:AJ:32:ALA:HB2	12:AJ:75:ILE:O	2.19	0.41
17:AO:26:GLU:HG3	17:AO:81:LEU:HG	2.02	0.41
18:AP:43:LYS:HA	18:AP:48:TRP:CB	2.50	0.41
1:AA:812:C:OP1	1:AA:903:G:H1'	2.20	0.41
23:B0:1683:G:H2'	23:B0:1684:G:H5'	2.02	0.41
23:B0:2676:G:H2'	23:B0:2677:U:C6	2.56	0.41
1:AA:1262:C:N4	1:AA:1273:G:H1	2.18	0.41
1:AA:143:A:H2	1:AA:220:G:H22	1.66	0.41
23:B0:2459:C:C2'	23:B0:2460:G:H5'	2.51	0.41
1:AA:636:U:H2'	1:AA:637:G:C8	2.55	0.41
2:AW:52:U:O2'	2:AW:53:G:H5'	2.21	0.41
17:AO:83:GLU:C	17:AO:83:GLU:OE1	2.58	0.41
23:B0:328:A:O2'	23:B0:329:C:H5'	2.20	0.41
23:B0:1889:G:H2'	23:B0:1890:G:C8	2.55	0.41
20:AR:17:SER:HB2	20:AR:54:ARG:HH21	1.85	0.41
14:AL:104:VAL:HG12	14:AL:105:TYR:CD1	2.56	0.41
23:B0:1447:U:H1'	23:B0:1577:G:H22	1.86	0.41
1:AA:19:C:O2'	1:AA:20:U:H5'	2.20	0.41
1:AA:21:G:C4'	1:AA:914:A:N6	2.81	0.41
1:AA:1061:G:C2'	1:AA:1062:U:H5'	2.50	0.41
23:B0:3865:A:C4	23:B0:3875:A:N1	2.89	0.41
1:AA:162:A:H2'	1:AA:163:C:O4'	2.20	0.41
1:AA:522:C:O2'	1:AA:523:A:H5'	2.19	0.41
1:AA:550:G:O2'	1:AA:551:U:H5'	2.20	0.41
1:AA:115:G:H1'	1:AA:116:A:C8	2.55	0.41
23:B0:1912:G:O4'	23:B0:1913:G:C8	2.72	0.41
1:AA:1112:C:C2	5:AC:178:LEU:CA	3.04	0.41
11:AI:110:GLU:OE2	11:AI:113:LYS:NZ	2.53	0.41
23:B0:31:C:H5''	23:B0:1252:C:OP1	2.20	0.41
13:AK:54:ARG:H	13:AK:54:ARG:HG2	1.47	0.41
14:AL:48:PRO:CG	14:AL:49:ASN:H	2.25	0.41
1:AA:1138:G:N1	1:AA:1140:C:C2	2.89	0.41
2:AV:34:G:OP1	2:AV:34:G:C8	2.64	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:588:G:C4	1:AA:753:A:N1	2.88	0.41
23:B0:1679:U:H3'	23:B0:1680:U:C5'	2.45	0.41
13:AK:21:ILE:HD12	13:AK:95:ILE:HG12	2.01	0.41
1:AA:944:G:C3'	1:AA:945:G:H5'	2.50	0.41
23:B0:2448:A:C2'	23:B0:2449:G:H5'	2.50	0.41
23:B0:601:A:H3'	23:B0:602:C:H5'	2.03	0.41
13:AK:127:LYS:HD3	13:AK:127:LYS:HA	1.78	0.41
13:AK:99:GLN:HG2	13:AK:105:VAL:HG21	2.02	0.41
23:B0:1880:G:H2'	23:B0:1881:U:C6	2.55	0.41
9:AG:45:ASP:O	9:AG:49:ILE:HG13	2.20	0.41
10:AH:51:VAL:CG1	10:AH:52:ASP:N	2.83	0.41
23:B0:773:G:H2'	23:B0:774:A:O4'	2.21	0.41
1:AA:923:A:H1'	1:AA:1398:A:C2'	2.51	0.41
1:AA:252:U:O2	1:AA:275:G:C4	2.74	0.41
1:AA:262:A:H5''	22:AT:76:ALA:H	1.85	0.41
1:AA:1239:A:H2'	1:AA:1298:C:H42	1.83	0.41
23:B0:1912:G:H3'	23:B0:1912:G:N3	2.35	0.41
13:AK:65:ALA:O	13:AK:68:ALA:HB3	2.20	0.41
1:AA:692:U:OP1	13:AK:124:LYS:CE	2.63	0.41
1:AA:653:A:N9	10:AH:56:LYS:CG	2.73	0.41
10:AH:126:LYS:O	10:AH:128:GLY:N	2.54	0.41
1:AA:848:G:C3'	1:AA:849:C:O4'	2.68	0.41
23:B0:1204:G:H2'	23:B0:1205:G:C8	2.55	0.41
4:AB:10:LEU:C	4:AB:12:GLU:N	2.72	0.41
1:AA:382:A:C2	1:AA:383:A:C4	3.09	0.41
23:B0:2756:A:H1'	23:B0:2758:A:N7	2.36	0.41
23:B0:2440:C:H1'	23:B0:2471:U:N3	2.32	0.41
23:B0:2796:A:H2'	23:B0:2797:G:O4'	2.20	0.41
1:AA:449:C:O2	18:AP:42:ARG:HD2	2.20	0.41
23:B0:1579:G:H2'	23:B0:1580:C:C6	2.56	0.41
18:AP:82:GLN:O	18:AP:83:GLU:C	2.59	0.41
23:B0:59:G:O6	23:B0:62:U:H2'	2.19	0.41
1:AA:844:A:H2'	1:AA:845:A:H8	1.86	0.41
23:B0:567:G:H2'	23:B0:568:G:C8	2.56	0.41
16:AN:39:LEU:HD11	16:AN:47:LEU:HD12	2.02	0.41
23:B0:1055:A:H2	23:B0:1121:G:H2'	1.83	0.41
4:AB:228:GLY:O	4:AB:229:VAL:C	2.58	0.41
23:B0:2710:C:O2'	23:B0:2711:G:H5'	2.20	0.41
1:AA:1453:G:H2'	1:AA:1454:G:O4'	2.21	0.41
1:AA:285:G:O2'	1:AA:286:G:H5'	2.21	0.41
11:AI:120:ARG:O	11:AI:122:ALA:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AN:3:ARG:NH1	16:AN:6:LEU:CD1	2.84	0.41
19:AQ:104:LYS:HB2	23:B0:726:G:C5	2.55	0.41
19:AQ:95:TYR:HA	19:AQ:98:LEU:HD11	2.02	0.41
1:AA:322:C:O2'	22:AT:23:ARG:HB2	2.21	0.41
22:AT:54:LYS:HA	22:AT:57:ARG:HD3	2.02	0.41
1:AA:456:A:C6	1:AA:477:G:N9	2.88	0.41
1:AA:7:G:H5'	1:AA:298:A:O4'	2.20	0.41
1:AA:1497:G:H21	1:AA:1519:A:C1'	2.26	0.41
11:AI:110:GLU:HG2	11:AI:113:LYS:NZ	2.35	0.41
10:AH:126:LYS:C	10:AH:128:GLY:N	2.73	0.41
23:B0:365:U:H2'	23:B0:366:U:C6	2.56	0.41
5:AC:134:ILE:HD13	5:AC:166:GLU:HB3	2.01	0.41
4:AB:60:ASP:O	4:AB:64:ARG:HB2	2.20	0.41
1:AA:1430:C:H5'	23:B0:1721:G:C5'	2.49	0.41
1:AA:676:A:H4'	13:AK:114:VAL:C	2.41	0.41
6:AD:62:GLN:HE22	6:AD:65:ARG:NH1	2.18	0.41
13:AK:95:ILE:O	13:AK:95:ILE:HG22	2.20	0.41
1:AA:419:C:H5''	1:AA:513:C:C4'	2.49	0.41
1:AA:944:G:C3'	1:AA:945:G:C5'	2.98	0.41
9:AG:16:LEU:HG	11:AI:41:VAL:HG12	2.01	0.41
7:AE:80:ILE:HD12	7:AE:91:LEU:HB2	2.00	0.41
6:AD:130:GLY:O	6:AD:131:ARG:C	2.58	0.41
23:B0:974:U:H2'	23:B0:975:C:C6	2.55	0.41
2:AV:64:A:OP1	45:BU:7:VAL:CA	2.68	0.41
1:AA:165:C:H2'	1:AA:166:G:H8	1.86	0.41
23:B0:870:C:H2'	23:B0:871:U:C6	2.56	0.41
13:AK:104:GLN:OE1	13:AK:106:LYS:HE2	2.19	0.41
23:B0:1007:A:H2'	23:B0:1008:G:H8	1.84	0.41
23:B0:643:A:H2'	23:B0:644:A:C8	2.56	0.41
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.86	0.41
23:B0:1962:C:H2'	23:B0:1963:G:H8	1.84	0.41
10:AH:125:ARG:HB2	10:AH:125:ARG:HE	1.68	0.41
1:AA:1431:C:H2'	1:AA:1432:G:O4'	2.21	0.41
5:AC:187:ALA:O	5:AC:198:VAL:N	2.52	0.41
1:AA:867:G:O2'	1:AA:868:C:H5'	2.20	0.41
1:AA:1108:G:H5'	1:AA:1191:A:H4'	2.03	0.41
1:AA:115:G:H1'	1:AA:116:A:N7	2.35	0.41
1:AA:259:G:H5''	22:AT:87:LYS:NZ	2.35	0.41
2:AV:75:C:N3	23:B0:2230:G:C2	2.86	0.41
1:AA:1057:G:H2'	1:AA:1058:G:O4'	2.20	0.41
23:B0:128:C:C3'	23:B0:129:A:H5''	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1355:G:O2'	1:AA:1356:G:H5'	2.21	0.41
23:B0:1915:A:H2'	23:B0:1916:G:O4'	2.21	0.41
5:AC:7:PRO:HG2	5:AC:184:TYR:CB	2.45	0.41
23:B0:1948:C:H2'	23:B0:1949:A:N7	2.36	0.41
18:AP:19:ILE:HG22	18:AP:36:ILE:CG1	2.51	0.41
17:AO:34:LEU:C	17:AO:34:LEU:HD23	2.40	0.41
23:B0:178:C:H4'	23:B0:399:G:C2	2.56	0.41
23:B0:1018:C:H2'	23:B0:1019:U:H5	1.86	0.41
1:AA:689:C:OP1	13:AK:27:ASN:ND2	2.48	0.41
23:B0:1332:G:H2'	23:B0:1333:G:O4'	2.21	0.41
13:AK:86:GLY:N	13:AK:112:THR:HG23	2.35	0.41
23:B0:909:C:H2'	23:B0:910:U:H6	1.85	0.41
15:AM:46:LYS:HE3	15:AM:46:LYS:HB2	1.86	0.41
23:B0:1354:A:O2'	23:B0:1355:A:OP1	2.29	0.41
17:AO:57:LEU:HD12	17:AO:57:LEU:HA	1.86	0.41
6:AD:108:LEU:HD23	6:AD:108:LEU:HA	1.86	0.41
1:AA:502:G:H2'	1:AA:503:C:C6	2.56	0.41
1:AA:355:C:C5'	1:AA:389:A:OP2	2.69	0.41
1:AA:1113:C:C1'	5:AC:178:LEU:HD21	2.46	0.41
1:AA:2003:G:H2'	1:AA:1004:A:H4'	2.02	0.41
12:AJ:80:LYS:HA	12:AJ:83:GLU:HB2	2.03	0.41
14:AL:27:LEU:HB3	14:AL:62:SER:HB2	2.03	0.41
2:AV:11:C:H4'	23:B0:1892:C:C4'	2.50	0.41
4:AB:165:VAL:O	4:AB:187:LEU:O	2.38	0.41
1:AA:948:C:O2'	1:AA:949:A:H5'	2.21	0.41
15:AM:36:LYS:C	15:AM:38:GLY:H	2.24	0.41
10:AH:6:ILE:O	10:AH:10:LEU:HG	2.20	0.41
17:AO:81:LEU:HD22	17:AO:85:LEU:HD12	2.03	0.41
23:B0:1566:G:H2'	23:B0:1567:A:C8	2.56	0.41
1:AA:182:U:OP2	1:AA:183:G:C8	2.74	0.41
1:AA:1263:C:H2'	1:AA:1264:C:C6	2.56	0.41
7:AE:9:LYS:HG3	7:AE:112:LEU:HD11	2.03	0.41
23:B0:753:U:C2'	23:B0:754:G:H5'	2.51	0.41
23:B0:675:C:H5''	34:BJ:26:THR:CA	2.51	0.41
23:B0:139:A:H2'	23:B0:140:G:C8	2.56	0.41
17:AO:74:ASP:OD1	17:AO:76:GLU:HB3	2.21	0.41
23:B0:2395:C:H2'	23:B0:2396:C:C5'	2.51	0.41
1:AA:1390:U:H2'	1:AA:1391:U:H6	1.85	0.41
1:AA:920:U:O4'	1:AA:1080:A:N1	2.54	0.41
1:AA:1457:A:C8	1:AA:1459:C:C4	3.06	0.41
23:B0:2562:G:H2'	23:B0:2563:U:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1059:C:O2'	12:AJ:53:PRO:CD	2.69	0.41
1:AA:824:C:H2'	1:AA:825:G:C8	2.56	0.41
1:AA:37:U:H4'	1:AA:500:G:O3'	2.20	0.41
1:AA:406:G:C8	1:AA:496:A:C2	3.09	0.41
6:AD:7:PRO:CB	6:AD:10:ARG:HD2	2.51	0.41
1:AA:835:U:H5''	20:AR:64:ARG:NH1	2.30	0.41
1:AA:836:G:C6	1:AA:851:G:C6	3.09	0.41
1:AA:47:C:C6	1:AA:365:U:H2'	2.56	0.41
1:AA:1278:U:H5''	1:AA:1279:A:O5'	2.17	0.41
1:AA:1126:U:H6	1:AA:1126:U:P	2.43	0.41
1:AA:367:U:C3'	1:AA:368:U:P	3.05	0.41
1:AA:1184:G:H2'	1:AA:1185:G:C8	2.56	0.41
23:B0:1119:U:N3	23:B0:1120:C:N4	2.60	0.41
12:AJ:29:ARG:C	12:AJ:84:GLN:HE22	2.24	0.41
15:AM:37:THR:HG23	15:AM:55:ARG:HB2	2.03	0.41
4:AB:134:GLU:O	4:AB:138:LEU:HG	2.21	0.41
1:AA:1430:C:C4'	23:B0:1721:G:C5'	2.93	0.41
1:AA:757:U:OP1	1:AA:823:G:H4'	2.21	0.41
23:B0:831:G:H21	23:B0:1203:A:N6	2.04	0.41
4:AB:95:GLN:C	4:AB:96:ARG:HD2	2.40	0.41
4:AB:15:VAL:HG11	4:AB:210:SER:N	2.36	0.41
23:B0:2491:C:H2'	23:B0:2492:G:C5'	2.45	0.41
1:AA:992:U:H2'	1:AA:1043:C:C5	2.54	0.41
23:B0:1004:A:C2'	23:B0:1005:U:H5''	2.46	0.41
1:AA:939:G:C6	1:AA:940:C:N4	2.89	0.41
5:AC:77:ILE:O	5:AC:83:ARG:HB3	2.21	0.41
5:AC:79:ARG:CG	5:AC:82:GLU:HG2	2.51	0.41
1:AA:371:G:C2'	1:AA:372:C:H5'	2.51	0.41
1:AA:1440:C:H2'	1:AA:1441:G:C5'	2.48	0.41
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.83	0.41
23:B0:514:G:C2'	23:B0:514:G:N3	2.82	0.41
23:B0:1196:G:H2'	23:B0:1197:U:C5'	2.51	0.41
23:B0:2018:G:H3'	23:B0:2019:C:H5'	2.03	0.41
10:AH:82:HIS:O	10:AH:83:ILE:HB	2.21	0.41
21:AS:25:LYS:N	21:AS:25:LYS:HD2	2.34	0.41
18:AP:6:LEU:HD12	18:AP:6:LEU:N	2.36	0.41
23:B0:967:G:H1'	23:B0:970:A:H62	1.86	0.41
23:B0:2239:C:O2'	23:B0:2240:C:H5'	2.21	0.41
23:B0:239:A:H2'	23:B0:240:U:O4'	2.20	0.41
23:B0:658:G:H4'	23:B0:2331:A:C5'	2.50	0.41
23:B0:2028:C:O2'	23:B0:2029:G:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:477:A:C2'	23:B0:478:G:H5'	2.51	0.41
23:B0:478:G:O2'	23:B0:479:G:H5'	2.20	0.41
23:B0:2212:U:H2'	23:B0:2213:G:C8	2.55	0.41
23:B0:776:G:N3	23:B0:776:G:H3'	2.36	0.41
23:B0:3177:C:O2'	23:B0:3178:C:H5'	2.19	0.41
23:B0:644:A:C2'	23:B0:645:G:H5'	2.50	0.41
23:B0:810:U:H2'	23:B0:811:G:H8	1.85	0.41
23:B0:811:G:O2'	23:B0:812:G:H5'	2.21	0.41
23:B0:1542:G:H21	23:B0:1561:A:H62	1.69	0.41
23:B0:1760:G:H2'	23:B0:1761:G:C8	2.56	0.41
1:AA:330:C:H5''	1:AA:330:C:H6	1.86	0.41
23:B0:2811:G:H2'	23:B0:2812:A:C8	2.55	0.41
23:B0:187:U:H2'	23:B0:188:G:C8	2.56	0.41
23:B0:2620:G:H2'	23:B0:2621:G:H8	1.86	0.41
23:B0:147:G:C2	23:B0:148:C:H1'	2.56	0.41
23:B0:2526:U:H2'	23:B0:2527:G:C8	2.55	0.41
1:AA:1053:G:C3'	1:AA:1054:C:C5'	2.99	0.41
1:AA:13:U:C2	1:AA:914:A:H3'	2.53	0.41
1:AA:1350:A:P	11:AI:121:ARG:HG3	2.61	0.41
1:AA:952:U:H2'	1:AA:953:G:H8	1.85	0.41
1:AA:1060:C:C5'	12:AJ:52:GLY:N	2.84	0.41
5:AC:174:PRO:HB2	5:AC:177:THR:CG2	2.50	0.41
19:AQ:105:ALA:HA	23:B0:727:U:H4'	2.00	0.41
1:AA:38:G:H3'	1:AA:39:G:P	2.61	0.41
23:B0:819:C:H2'	23:B0:820:U:C6	2.56	0.41
2:AW:25:C:C4	2:AW:26:G:C5	3.09	0.41
23:B0:1906:U:H2'	23:B0:1907:C:C6	2.56	0.41
21:AS:67:VAL:HG12	21:AS:68:GLY:N	2.35	0.41
1:AA:1314:C:H5	21:AS:6:LYS:HG3	1.85	0.41
4:AB:125:PRO:HG2	4:AB:126:GLU:H	1.86	0.41
5:AC:191:THR:HG22	5:AC:193:TYR:N	2.23	0.41
12:AJ:96:ILE:CG2	12:AJ:97:GLU:H	2.25	0.41
8:AF:33:TYR:HA	8:AF:71:ARG:NH2	2.36	0.41
14:AL:28:LYS:CG	14:AL:33:ARG:HH12	2.34	0.41
23:B0:108:G:H2'	23:B0:109:A:C8	2.56	0.41
23:B0:878:C:N4	23:B0:921:A:H62	2.07	0.41
4:AB:14:GLY:O	4:AB:15:VAL:CG2	2.69	0.41
20:AR:39:VAL:CG1	20:AR:40:LEU:N	2.84	0.41
17:AO:39:LEU:HD12	17:AO:59:MET:HE2	2.02	0.41
15:AM:63:THR:HG23	15:AM:64:TRP:CD2	2.56	0.41
15:AM:69:GLU:O	15:AM:72:ALA:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AO:26:GLU:HA	17:AO:81:LEU:HD11	2.03	0.41
23:B0:1194:U:O2'	23:B0:1195:U:P	2.79	0.41
1:AA:1250:A:C5'	11:AI:68:GLY:O	2.67	0.41
23:B0:1682:A:H2'	23:B0:1683:G:C8	2.56	0.41
17:AO:38:ARG:O	17:AO:41:GLU:HB3	2.20	0.41
23:B0:856:A:H2'	23:B0:857:U:O4'	2.21	0.41
23:B0:2447:G:H2'	23:B0:2448:A:H5'	2.02	0.41
4:AB:53:ARG:NH1	4:AB:199:TYR:HD2	2.19	0.41
13:AK:50:TYR:N	13:AK:50:TYR:CD2	2.84	0.41
23:B0:769:C:H2'	23:B0:770:U:O4'	2.21	0.41
1:AA:562:C:O2'	14:AL:17:LYS:HE3	2.20	0.41
1:AA:930:C:O2'	1:AA:931:C:H5'	2.20	0.41
1:AA:1213:A:N1	1:AA:1215:G:H1'	2.35	0.41
1:AA:864:A:H2'	1:AA:865:A:C8	2.56	0.40
7:AE:24:ARG:O	7:AE:25:ARG:HG2	2.20	0.40
23:B0:3127:G:N3	23:B0:3173:A:N3	2.69	0.40
1:AA:1285:A:O2'	1:AA:1286:A:OP2	2.36	0.40
1:AA:1350:A:C6	1:AA:1351:U:N3	2.89	0.40
1:AA:216:C:C5'	1:AA:466:A:N6	2.77	0.40
1:AA:246:A:C4'	1:AA:247:G:C4'	2.91	0.40
1:AA:502:G:H2'	1:AA:503:C:H6	1.84	0.40
1:AA:547:A:OP1	1:AA:548:G:OP1	2.39	0.40
1:AA:1475:G:C3'	23:B0:1706:A:H4'	2.51	0.40
1:AA:1474:G:C1'	23:B0:1705:U:H4'	2.51	0.40
9:AG:114:ARG:HH11	9:AG:114:ARG:CG	2.32	0.40
23:B0:820:U:H5'	23:B0:2424:G:H4'	2.04	0.40
5:AC:65:ALA:O	5:AC:66:VAL:HB	2.21	0.40
5:AC:95:THR:C	5:AC:97:LYS:N	2.73	0.40
1:AA:1372:U:OP1	11:AI:71:SER:HB3	2.21	0.40
1:AA:1315:U:H5	21:AS:6:LYS:NZ	2.19	0.40
23:B0:930:A:H5'	23:B0:931:G:C8	2.57	0.40
5:AC:191:THR:HG21	5:AC:193:TYR:CE2	2.56	0.40
1:AA:702:A:N7	23:B0:1839:A:O3'	2.51	0.40
1:AA:1426:C:H2'	1:AA:1427:U:H6	1.84	0.40
8:AF:79:LEU:O	8:AF:85:VAL:HG11	2.22	0.40
5:AC:108:ASN:C	5:AC:110:ASN:N	2.73	0.40
23:B0:2522:G:O2'	23:B0:2523:G:H5'	2.21	0.40
23:B0:2524:G:H2'	23:B0:2525:U:O4'	2.21	0.40
1:AA:427:U:C1'	1:AA:541:G:OP1	2.65	0.40
23:B0:1223:G:N2	23:B0:1225:G:H21	2.13	0.40
20:AR:44:LEU:HD22	20:AR:48:GLY:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B0:2023:C:H2'	23:B0:2024:U:C6	2.56	0.40
1:AA:1091:U:OP1	1:AA:1172:C:H5'	2.20	0.40
23:B0:1686:A:C2'	23:B0:1687:C:H5'	2.52	0.40
14:AL:53:ARG:CB	14:AL:93:LEU:HD11	2.50	0.40
1:AA:750:G:N3	17:AO:23:GLY:HA3	2.37	0.40
23:B0:2240:C:H2'	23:B0:2241:U:C5'	2.50	0.40
23:B0:2027:C:H2'	23:B0:2028:C:C6	2.55	0.40
1:AA:373:A:H2'	1:AA:374:A:H8	1.85	0.40
8:AF:48:LEU:HD13	8:AF:52:ILE:CD1	2.51	0.40
15:AM:96:LEU:O	15:AM:110:ARG:NH1	2.54	0.40
13:AK:98:LEU:HD23	13:AK:98:LEU:HA	1.82	0.40
5:AC:67:THR:HG22	5:AC:67:THR:O	2.21	0.40
23:B0:1234:C:H2'	23:B0:1235:C:C6	2.57	0.40
1:AA:567:G:H2'	1:AA:568:G:O4'	2.21	0.40
1:AA:1124:G:C8	1:AA:1145:C:C5	3.09	0.40
1:AA:913:A:H1'	1:AA:914:A:O4'	2.21	0.40
1:AA:1459:C:OP2	22:AT:28:ALA:O	2.40	0.40
1:AA:1014:A:C6	21:AS:34:TRP:NE1	2.87	0.40
1:AA:1415:G:O2'	1:AA:1416:G:H5'	2.21	0.40
1:AA:893:C:C2	1:AA:894:G:N7	2.88	0.40
7:AE:118:ILE:HG22	7:AE:119:LEU:O	2.21	0.40
1:AA:94:G:O6	1:AA:96:C:N4	2.55	0.40
1:AA:476:U:C6	1:AA:477:G:O5'	2.73	0.40
1:AA:1473:A:H1'	23:B0:1719:G:H1'	2.03	0.40
1:AA:1241:G:OP1	9:AG:35:LYS:NZ	2.53	0.40
1:AA:1346:A:C2	9:AG:10:ARG:CZ	3.03	0.40
14:AL:46:LYS:NZ	14:AL:47:LYS:HE3	2.36	0.40
1:AA:1056:U:H5'	5:AC:163:ALA:HB2	2.02	0.40
5:AC:110:ASN:ND2	5:AC:140:ARG:HB3	2.21	0.40
23:B0:552:C:C2'	23:B0:553:C:H4'	2.46	0.40
23:B0:2236:U:H2'	23:B0:2237:C:C5'	2.47	0.40
12:AJ:75:ILE:O	12:AJ:76:ASN:HB2	2.21	0.40
23:B0:1770:U:H2'	23:B0:1774:A:H62	1.86	0.40
23:B0:1474:A:C2'	23:B0:1475:U:H5'	2.47	0.40
13:AK:48:ILE:O	13:AK:49:GLY:C	2.59	0.40
1:AA:1020:U:H2'	1:AA:1021:G:C8	2.50	0.40
22:AT:92:LEU:O	22:AT:96:GLY:HA3	2.21	0.40
1:AA:519:C:H2'	1:AA:520:A:C8	2.56	0.40
23:B0:174:A:H2'	23:B0:175:C:O4'	2.21	0.40
18:AP:17:TYR:N	18:AP:17:TYR:CD1	2.89	0.40
6:AD:194:LEU:HD22	6:AD:194:LEU:N	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:883:C:O2'	1:AA:884:U:H5'	2.21	0.40
23:B0:420:C:H2'	23:B0:421:G:C8	2.57	0.40
1:AA:359:U:H2'	1:AA:360:A:C8	2.57	0.40
23:B0:699:G:N3	23:B0:699:G:H3'	2.35	0.40
1:AA:467:U:H2'	1:AA:467:U:O2	2.21	0.40
23:B0:3119:A:O2'	23:B0:3121:G:OP2	2.35	0.40
4:AB:107:THR:C	4:AB:109:SER:N	2.75	0.40
24:B9:56:G:H2'	24:B9:57:U:O4'	2.22	0.40
23:B0:2048:C:H2'	23:B0:2049:C:C6	2.56	0.40
24:B9:63:A:H2'	24:B9:64:C:C6	2.55	0.40
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.50	0.40
1:AA:1392:G:H2'	1:AA:1393:U:H6	1.86	0.40
1:AA:1286:A:H2'	1:AA:1287:A:O5'	2.21	0.40
1:AA:961:U:O2'	1:AA:962:C:H5'	2.20	0.40
11:AI:117:HIS:C	11:AI:118:LYS:HG3	2.42	0.40
23:B0:2532:G:H1'	23:B0:2561:G:N3	2.36	0.40
1:AA:131:C:H4'	1:AA:262:A:C2'	2.51	0.40
1:AA:475:C:H2'	1:AA:476:U:H6	1.84	0.40
1:AA:1257:U:H4'	1:AA:1258:G:C5'	2.50	0.40
1:AA:1261:A:C1'	1:AA:1283:G:C5'	2.98	0.40
1:AA:43:C:H2'	1:AA:44:G:O4'	2.21	0.40
4:AB:90:MET:HA	4:AB:91:PRO:HD3	1.70	0.40
1:AA:958:A:N9	21:AS:55:LYS:HD2	2.33	0.40
4:AB:14:GLY:O	4:AB:15:VAL:HG22	2.21	0.40
23:B0:2437:G:H2'	23:B0:2469:G:N1	2.37	0.40
23:B0:1337:G:H1'	23:B0:1632:A:C6	2.56	0.40
1:AA:1129:C:OP1	11:AI:62:TYR:CE2	2.75	0.40
23:B0:521:U:C2'	23:B0:522:G:H5'	2.51	0.40
6:AD:163:GLU:O	6:AD:166:LYS:HG3	2.22	0.40
10:AH:18:ARG:HD2	10:AH:18:ARG:N	2.36	0.40
1:AA:155:C:H2'	1:AA:156:G:C8	2.57	0.40
23:B0:2370:G:H2'	23:B0:2371:A:H2	1.87	0.40
23:B0:1354:A:C2	23:B0:1411:C:H4'	2.56	0.40
23:B0:2048:C:H2'	23:B0:2049:C:H6	1.87	0.40
17:AO:71:GLN:O	17:AO:72:ARG:C	2.59	0.40
1:AA:1499:A:C4'	1:AA:1520:G:C4'	2.99	0.40
23:B0:3172:U:O2'	23:B0:3173:A:H5'	2.21	0.40
2:AW:75:C:C4	23:B0:2533:U:C2	3.05	0.40
1:AA:1061:G:C5'	12:AJ:56:HIS:CB	2.47	0.40
19:AQ:93:GLN:O	19:AQ:96:GLN:HB3	2.22	0.40
1:AA:322:C:O2	22:AT:19:SER:CB	2.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AC:91:LEU:HD11	5:AC:99:VAL:HG22	2.03	0.40
1:AA:1112:C:C4	5:AC:178:LEU:HB3	2.55	0.40
5:AC:126:ARG:O	5:AC:127:ARG:HB2	2.21	0.40
1:AA:1346:A:N6	1:AA:1375:A:OP2	2.48	0.40
1:AA:599:C:O2'	1:AA:600:C:H5'	2.22	0.40
24:B9:110:U:O2'	24:B9:111:C:H5'	2.21	0.40
15:AM:40:ASN:ND2	15:AM:41:PRO:N	2.64	0.40
17:AO:17:ARG:CG	17:AO:17:ARG:NH1	2.84	0.40
23:B0:878:C:O2'	23:B0:879:A:P	2.80	0.40
1:AA:1094:G:OP2	1:AA:1095:U:C5	2.74	0.40
23:B0:69:G:HO2'	23:B0:70:A:P	2.45	0.40
6:AD:100:ARG:HB3	6:AD:102:ASP:OD1	2.22	0.40
23:B0:35:G:H1'	23:B0:466:A:H1'	2.04	0.40
23:B0:3196:G:O3'	23:B0:3197:U:P	2.80	0.40
23:B0:1686:A:O2'	23:B0:2528:G:H5'	2.22	0.40
23:B0:340:G:O4'	23:B0:488:A:H1'	2.22	0.40
9:AG:104:LEU:HD23	9:AG:134:ALA:HB1	2.04	0.40
12:AJ:23:ILE:CD1	12:AJ:23:ILE:N	2.85	0.40
23:B0:211:U:H2'	23:B0:212:U:O4'	2.22	0.40
23:B0:718:A:N6	23:B0:739:G:H4'	2.37	0.40
23:B0:738:G:H2'	23:B0:739:G:H5'	2.02	0.40
1:AA:1104:G:OP1	4:AB:111:ARG:HD2	2.22	0.40
1:AA:1300:G:C2'	1:AA:1301:U:OP2	2.69	0.40
1:AA:965:A:O2'	1:AA:966:G:P	2.80	0.40
23:B0:1026:U:H2'	23:B0:1027:C:C6	2.56	0.40
23:B0:79:G:H1'	23:B0:356:A:C2	2.57	0.40
23:B0:2519:C:H2'	23:B0:2520:A:O4'	2.21	0.40
23:B0:2372:A:H2'	23:B0:2373:C:C6	2.56	0.40
13:AK:67:ASP:OD2	13:AK:71:LYS:HE3	2.21	0.40
11:AI:121:ARG:HD3	11:AI:121:ARG:C	2.42	0.40
1:AA:264:U:H1'	19:AQ:64:PRO:N	2.33	0.40
12:AJ:59:SER:O	12:AJ:60:ARG:HB2	2.20	0.40
19:AQ:97:SER:O	19:AQ:99:SER:N	2.53	0.40
1:AA:473:C:C2'	1:AA:474:U:H5'	2.52	0.40
23:B0:3877:A:C8	23:B0:3877:A:C4'	3.04	0.40
23:B0:3877:A:O5'	23:B0:1861:G:P	2.80	0.40
1:AA:202:G:C4'	1:AA:469:C:P	3.01	0.40
23:B0:3184:C:H2'	23:B0:3185:U:H5''	1.98	0.40
7:AE:76:ILE:HG23	7:AE:77:PRO:HD2	2.04	0.40
12:AJ:44:VAL:HG11	12:AJ:46:ARG:NH1	2.37	0.40
18:AP:34:GLU:HG2	18:AP:35:LYS:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AW:16:U:O4'	2:AW:16:U:O2	2.40	0.40
4:AB:9:GLU:O	4:AB:48:MET:SD	2.80	0.40
23:B0:2809:A:N6	23:B0:2854:G:H2'	2.36	0.40
4:AB:47:THR:HG23	4:AB:202:PRO:O	2.21	0.40
23:B0:57:G:C2'	23:B0:58:C:H5''	2.47	0.40
23:B0:70:A:H4'	23:B0:72:A:OP1	2.22	0.40
1:AA:748:C:OP2	1:AA:748:C:H6	2.05	0.40
12:AJ:3:LYS:CG	12:AJ:75:ILE:HG23	2.50	0.40
11:AI:10:ARG:O	11:AI:11:LYS:C	2.60	0.40
23:B0:1197:U:H2'	23:B0:1198:C:O4'	2.21	0.40
1:AA:1021:G:H2'	1:AA:1022:G:H5'	2.04	0.40
1:AA:1380:U:O2'	1:AA:1381:U:OP2	2.36	0.40
23:B0:1452:U:H5'	23:B0:1532:A:O2'	2.21	0.40
8:AF:48:LEU:HD13	8:AF:52:ILE:HD12	2.03	0.40
1:AA:1437:C:H2'	1:AA:1438:G:H8	1.86	0.40
8:AF:78:GLU:HA	8:AF:81:ILE:CD1	2.51	0.40
19:AQ:84:LEU:HD23	19:AQ:84:LEU:HA	1.89	0.40
9:AG:32:ARG:O	9:AG:33:ASP:HB2	2.22	0.40
23:B0:2862:G:O2'	23:B0:2863:U:H5'	2.22	0.40

All (12) 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)
6:AD:172:PRO:O	8:AF:15:ASP:CB[3_555]	1.18	1.02
1:AA:416:G:C4'	23:B0:3153:G:O2'[3_555]	1.79	0.41
6:AD:172:PRO:O	8:AF:15:ASP:CA[3_555]	1.87	0.33
1:AA:416:G:O2'	23:B0:3153:G:O2'[3_555]	1.87	0.33
6:AD:186:LEU:CD1	8:AF:15:ASP:OD2[3_555]	1.91	0.29
23:B0:2769:C:C5	23:B0:2877:A:C6[16_555]	2.07	0.13
23:B0:2769:C:N4	23:B0:2877:A:N3[16_555]	2.08	0.12
1:AA:415:A:O2'	23:B0:3152:G:O2'[3_555]	2.13	0.07
23:B0:1:G:N3	23:B0:2770:A:N6[16_555]	2.14	0.06
6:AD:186:LEU:CD1	8:AF:15:ASP:CG[3_555]	2.17	0.03
1:AA:416:G:C3'	23:B0:3153:G:O2'[3_555]	2.17	0.03
1:AA:416:G:C4'	23:B0:3153:G:C1'[3_555]	2.19	0.01

## 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	
4	AB	232/234 (99%)	174 (75%)	34 (15%)	24 (10%)	1	12
5	AC	204/206 (99%)	135 (66%)	40 (20%)	29 (14%)	0	6
6	AD	206/208 (99%)	166 (81%)	31 (15%)	9 (4%)	3	33
7	AE	148/150 (99%)	130 (88%)	13 (9%)	5 (3%)	5	40
8	AF	99/101 (98%)	79 (80%)	19 (19%)	1 (1%)	19	65
9	AG	153/155 (99%)	127 (83%)	16 (10%)	10 (6%)	1	25
10	AH	136/138 (99%)	125 (92%)	7 (5%)	4 (3%)	6	43
11	AI	125/127 (98%)	89 (71%)	26 (21%)	10 (8%)	1	19
12	AJ	96/98 (98%)	59 (62%)	20 (21%)	17 (18%)	0	4
13	AK	117/119 (98%)	88 (75%)	20 (17%)	9 (8%)	1	20
14	AL	122/124 (98%)	98 (80%)	15 (12%)	9 (7%)	1	21
15	AM	123/125 (98%)	88 (72%)	27 (22%)	8 (6%)	1	25
16	AN	58/60 (97%)	40 (69%)	11 (19%)	7 (12%)	0	8
17	AO	86/88 (98%)	70 (81%)	11 (13%)	5 (6%)	2	27
18	AP	81/83 (98%)	65 (80%)	15 (18%)	1 (1%)	16	61
19	AQ	102/104 (98%)	84 (82%)	10 (10%)	8 (8%)	1	20
20	AR	71/73 (97%)	62 (87%)	7 (10%)	2 (3%)	6	44
21	AS	78/80 (98%)	48 (62%)	19 (24%)	11 (14%)	0	6
22	AT	97/99 (98%)	65 (67%)	20 (21%)	12 (12%)	0	8
All	All	2334/2372 (98%)	1792 (77%)	361 (16%)	181 (8%)	1	20

All (181) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	AB	9	GLU
4	AB	15	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	AB	16	HIS
4	AB	17	PHE
4	AB	21	ARG
4	AB	24	TRP
5	AC	4	LYS
5	AC	15	THR
5	AC	16	ARG
5	AC	26	LYS
5	AC	47	LEU
5	AC	61	ALA
5	AC	62	ASP
5	AC	97	LYS
5	AC	101	LEU
5	AC	146	ALA
5	AC	154	SER
5	AC	179	ARG
5	AC	189	ALA
6	AD	29	PRO
6	AD	36	ARG
7	AE	16	THR
7	AE	153	LYS
9	AG	7	ALA
9	AG	155	ARG
10	AH	24	THR
10	AH	83	ILE
10	AH	91	ARG
11	AI	88	TYR
12	AJ	32	ALA
12	AJ	39	PRO
12	AJ	54	PHE
12	AJ	57	LYS
12	AJ	79	ARG
12	AJ	86	MET
13	AK	57	THR
13	AK	127	LYS
14	AL	27	LEU
14	AL	28	LYS
14	AL	47	LYS
15	AM	63	THR
15	AM	67	GLU
15	AM	121	LYS
15	AM	122	LYS

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Mol	Chain	Res	Type
15	AM	124	PRO
16	AN	22	THR
16	AN	29	ARG
17	AO	88	ARG
19	AQ	69	LYS
19	AQ	80	GLY
19	AQ	81	ARG
19	AQ	96	GLN
19	AQ	98	LEU
19	AQ	104	LYS
20	AR	87	ARG
21	AS	6	LYS
21	AS	71	LEU
22	AT	11	SER
22	AT	73	HIS
4	AB	8	LYS
4	AB	18	GLY
4	AB	20	GLU
4	AB	97	TRP
4	AB	123	ALA
4	AB	232	PRO
5	AC	29	TYR
5	AC	156	ARG
5	AC	168	ALA
5	AC	181	ASN
5	AC	206	GLU
6	AD	4	TYR
6	AD	26	CYS
6	AD	88	VAL
6	AD	125	HIS
7	AE	22	GLY
7	AE	104	ALA
8	AF	37	VAL
9	AG	52	GLU
11	AI	41	VAL
11	AI	58	ARG
12	AJ	30	SER
12	AJ	34	VAL
12	AJ	40	LEU
12	AJ	72	VAL
13	AK	15	ALA
13	AK	49	GLY

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Mol	Chain	Res	Type
13	AK	50	TYR
13	AK	89	ALA
14	AL	41	ARG
14	AL	48	PRO
14	AL	51	ALA
14	AL	116	SER
14	AL	121	GLY
15	AM	6	GLY
15	AM	85	GLY
18	AP	10	GLY
20	AR	20	ALA
21	AS	9	VAL
21	AS	45	VAL
21	AS	67	VAL
21	AS	68	GLY
22	AT	9	ASN
22	AT	49	ALA
22	AT	95	ALA
22	AT	99	LEU
22	AT	102	GLY
4	AB	26	PRO
4	AB	60	ASP
4	AB	83	MET
4	AB	89	GLY
4	AB	204	ASN
6	AD	175	SER
7	AE	65	ASN
9	AG	5	ARG
10	AH	127	LEU
11	AI	56	LEU
12	AJ	19	SER
12	AJ	60	ARG
12	AJ	61	GLU
12	AJ	90	LEU
13	AK	35	PRO
13	AK	101	SER
14	AL	49	ASN
16	AN	13	THR
16	AN	23	ARG
19	AQ	97	SER
21	AS	28	LYS
21	AS	30	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
21	AS	32	LYS
22	AT	74	LYS
4	AB	126	GLU
4	AB	165	VAL
5	AC	39	ILE
5	AC	100	ALA
5	AC	188	LEU
9	AG	4	ARG
9	AG	81	GLY
9	AG	112	PRO
11	AI	7	THR
11	AI	12	GLU
11	AI	119	ALA
15	AM	123	ALA
16	AN	12	ARG
16	AN	60	SER
17	AO	16	ALA
19	AQ	33	GLY
22	AT	50	GLU
4	AB	155	LEU
5	AC	24	ALA
5	AC	66	VAL
5	AC	127	ARG
6	AD	123	HIS
9	AG	53	LYS
11	AI	121	ARG
16	AN	36	PHE
17	AO	84	LYS
21	AS	31	ILE
4	AB	127	ILE
4	AB	214	ILE
5	AC	108	ASN
5	AC	174	PRO
6	AD	5	ILE
11	AI	43	ALA
12	AJ	26	ALA
4	AB	124	SER
9	AG	14	PRO
12	AJ	82	ILE
22	AT	98	PRO
4	AB	125	PRO
5	AC	76	VAL

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Mol	Chain	Res	Type
5	AC	77	ILE
9	AG	17	VAL
12	AJ	36	GLY
17	AO	82	ILE
21	AS	8	GLY
11	AI	44	VAL
17	AO	19	PRO
22	AT	96	GLY
22	AT	101	GLY
5	AC	75	VAL
13	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	
4	AB	202/202 (100%)	180 (89%)	22 (11%)	8	35
5	AC	160/160 (100%)	142 (89%)	18 (11%)	7	33
6	AD	180/180 (100%)	172 (96%)	8 (4%)	35	69
7	AE	115/115 (100%)	100 (87%)	15 (13%)	5	28
8	AF	90/90 (100%)	88 (98%)	2 (2%)	60	83
9	AG	126/126 (100%)	122 (97%)	4 (3%)	46	76
10	AH	119/119 (100%)	109 (92%)	10 (8%)	14	48
11	AI	98/98 (100%)	90 (92%)	8 (8%)	14	49
12	AJ	88/88 (100%)	79 (90%)	9 (10%)	9	37
13	AK	90/90 (100%)	84 (93%)	6 (7%)	20	57
14	AL	104/104 (100%)	96 (92%)	8 (8%)	16	52
15	AM	100/100 (100%)	90 (90%)	10 (10%)	9	38
16	AN	49/49 (100%)	47 (96%)	2 (4%)	37	71
17	AO	79/79 (100%)	72 (91%)	7 (9%)	12	44
18	AP	72/72 (100%)	67 (93%)	5 (7%)	19	56

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
19	AQ	96/96 (100%)	90 (94%)	6 (6%)	22	59
20	AR	64/64 (100%)	61 (95%)	3 (5%)	32	68
21	AS	71/71 (100%)	68 (96%)	3 (4%)	36	70
22	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
4	AB	8	LYS
4	AB	12	GLU
4	AB	17	PHE
4	AB	23	ARG
4	AB	24	TRP
4	AB	25	ASN
4	AB	87	ARG
4	AB	114	ARG
4	AB	139	LYS
4	AB	144	ARG
4	AB	146	GLN
4	AB	155	LEU
4	AB	157	ARG
4	AB	164	VAL
4	AB	170	GLU
4	AB	178	ARG
4	AB	204	ASN
4	AB	213	LEU
4	AB	221	LEU
4	AB	231	GLU
4	AB	232	PRO
4	AB	236	TYR
5	AC	3	ASN
5	AC	5	ILE
5	AC	34	LEU
5	AC	47	LEU
5	AC	56	ASP
5	AC	75	VAL
5	AC	82	GLU
5	AC	90	GLU
5	AC	91	LEU
5	AC	99	VAL

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Mol	Chain	Res	Type
5	AC	107	GLN
5	AC	139	GLN
5	AC	164	ARG
5	AC	167	TRP
5	AC	175	LEU
5	AC	179	ARG
5	AC	188	LEU
5	AC	204	LEU
6	AD	15	GLU
6	AD	29	PRO
6	AD	53	ASP
6	AD	122	ARG
6	AD	127	THR
6	AD	157	LEU
6	AD	192	GLU
6	AD	199	ASN
7	AE	12	LEU
7	AE	26	PHE
7	AE	31	LEU
7	AE	38	GLN
7	AE	41	VAL
7	AE	43	LEU
7	AE	56	GLN
7	AE	65	ASN
7	AE	68	GLU
7	AE	73	ASN
7	AE	79	GLU
7	AE	80	ILE
7	AE	89	ILE
7	AE	120	THR
7	AE	150	ARG
8	AF	10	LEU
8	AF	69	GLU
9	AG	8	GLU
9	AG	11	GLN
9	AG	37	ASN
9	AG	38	LEU
10	AH	2	LEU
10	AH	21	LYS
10	AH	52	ASP
10	AH	63	LEU
10	AH	85	ARG

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Mol	Chain	Res	Type
10	AH	91	ARG
10	AH	92	ARG
10	AH	104	ARG
10	AH	105	ARG
10	AH	119	LEU
11	AI	2	GLU
11	AI	23	ASN
11	AI	38	GLN
11	AI	53	VAL
11	AI	58	ARG
11	AI	79	LEU
11	AI	111	ARG
11	AI	121	ARG
12	AJ	6	ILE
12	AJ	15	THR
12	AJ	45	ARG
12	AJ	60	ARG
12	AJ	64	GLU
12	AJ	71	LEU
12	AJ	73	ASP
12	AJ	83	GLU
12	AJ	95	GLU
13	AK	24	SER
13	AK	29	ILE
13	AK	35	PRO
13	AK	54	ARG
13	AK	84	VAL
13	AK	92	GLU
14	AL	17	LYS
14	AL	33	ARG
14	AL	53	ARG
14	AL	60	LEU
14	AL	81	SER
14	AL	98	TYR
14	AL	113	ARG
14	AL	126	LYS
15	AM	9	ILE
15	AM	16	ASP
15	AM	40	ASN
15	AM	44	ARG
15	AM	70	LEU
15	AM	81	LEU

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Mol	Chain	Res	Type
15	AM	102	ARG
15	AM	110	ARG
15	AM	124	PRO
15	AM	125	ARG
16	AN	41	ARG
16	AN	44	LEU
17	AO	6	GLU
17	AO	7	GLU
17	AO	39	LEU
17	AO	57	LEU
17	AO	70	LEU
17	AO	81	LEU
17	AO	83	GLU
18	AP	2	VAL
18	AP	8	ARG
18	AP	28	ARG
18	AP	53	VAL
18	AP	62	VAL
19	AQ	34	LYS
19	AQ	38	ARG
19	AQ	60	ILE
19	AQ	68	ARG
19	AQ	74	LEU
19	AQ	98	LEU
20	AR	36	ASN
20	AR	38	GLU
20	AR	55	ARG
21	AS	10	PHE
21	AS	15	LEU
21	AS	20	LEU
22	AT	42	GLN
22	AT	45	GLN
22	AT	57	ARG
22	AT	73	HIS
22	AT	75	ASN
22	AT	84	LEU
22	AT	86	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (62) such sidechains are listed below:

Mol	Chain	Res	Type
4	AB	19	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	AB	25	ASN
4	AB	40	HIS
4	AB	140	HIS
4	AB	146	GLN
4	AB	204	ASN
5	AC	3	ASN
5	AC	6	HIS
5	AC	31	HIS
5	AC	69	HIS
5	AC	110	ASN
5	AC	118	GLN
5	AC	123	GLN
5	AC	139	GLN
5	AC	181	ASN
6	AD	45	GLN
6	AD	62	GLN
6	AD	123	HIS
6	AD	125	HIS
6	AD	161	ASN
6	AD	199	ASN
6	AD	201	GLN
7	AE	73	ASN
8	AF	18	GLN
8	AF	27	GLN
8	AF	32	ASN
8	AF	57	GLN
8	AF	64	GLN
8	AF	73	ASN
8	AF	94	GLN
8	AF	100	ASN
9	AG	37	ASN
9	AG	86	GLN
10	AH	15	ASN
11	AI	23	ASN
11	AI	124	GLN
12	AJ	62	HIS
12	AJ	76	ASN
12	AJ	78	ASN
12	AJ	84	GLN
13	AK	22	HIS
13	AK	26	ASN
13	AK	38	ASN

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Mol	Chain	Res	Type
13	AK	62	GLN
13	AK	93	GLN
14	AL	49	ASN
14	AL	75	HIS
15	AM	12	ASN
15	AM	40	ASN
15	AM	62	ASN
16	AN	49	HIS
17	AO	13	GLN
17	AO	37	ASN
19	AQ	16	GLN
19	AQ	26	GLN
19	AQ	93	GLN
20	AR	36	ASN
21	AS	14	HIS
21	AS	53	ASN
21	AS	56	GLN
21	AS	65	ASN
22	AT	42	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1479/1527 (96%)	217 (14%)	92 (6%)
2	AV	75/76 (98%)	13 (17%)	3 (4%)
2	AW	74/76 (97%)	13 (17%)	3 (4%)
23	B0	2802/2887 (97%)	430 (15%)	56 (1%)
24	B9	116/118 (98%)	10 (8%)	0
3	AU	8/18 (44%)	1 (12%)	0
All	All	4554/4702 (96%)	684 (15%)	154 (3%)

All (684) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	6	G
1	AA	8	A
1	AA	9	G
1	AA	27	G
1	AA	31	G
1	AA	32	A
1	AA	47	C

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Mol	Chain	Res	Type
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	144	G
1	AA	182	U
1	AA	186	C
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	251	G
1	AA	252	U
1	AA	266	G
1	AA	267	C
1	AA	275	G
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

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Mol	Chain	Res	Type
1	AA	332	G
1	AA	344	A
1	AA	345	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	373	A
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	439	A
1	AA	467	U
1	AA	481	G
1	AA	484	G
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	557	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	588	G
1	AA	652	U
1	AA	653	A
1	AA	665	A

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Mol	Chain	Res	Type
1	AA	686	U
1	AA	687	A
1	AA	688	G
1	AA	702	A
1	AA	703	G
1	AA	723	U
1	AA	731	G
1	AA	734	G
1	AA	749	C
1	AA	755	G
1	AA	777	A
1	AA	781	A
1	AA	782	A
1	AA	793	U
1	AA	794	A
1	AA	813	U
1	AA	817	C
1	AA	819	A
1	AA	828	A
1	AA	858	G
1	AA	885	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	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

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Mol	Chain	Res	Type
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	1068	G
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
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	1226	C

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Mol	Chain	Res	Type
1	AA	1227	A
1	AA	1238	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
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	1394	A
1	AA	1398	A
1	AA	1399	C
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

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Mol	Chain	Res	Type
2	AV	2	C
2	AV	3	G
2	AV	17	U
2	AV	18	G
2	AV	19	G
2	AV	21	A
2	AV	34	G
2	AV	35	A
2	AV	36	A
2	AV	37	G
2	AV	41	U
2	AV	75	C
2	AV	76	A
3	AU	9	U
2	AW	2	C
2	AW	3	G
2	AW	17	U
2	AW	18	G
2	AW	19	G
2	AW	21	A
2	AW	26	G
2	AW	35	A
2	AW	36	A
2	AW	37	G
2	AW	41	U
2	AW	74	C
2	AW	76	A
23	B0	14	A
23	B0	15	G
23	B0	45	C
23	B0	48	A
23	B0	49	U
23	B0	50	G
23	B0	58	C
23	B0	59	G
23	B0	63	A
23	B0	67	G
23	B0	70	A
23	B0	72	A
23	B0	87	G
23	B0	89	A
23	B0	90	G

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Mol	Chain	Res	Type
23	B0	91	A
23	B0	99	U
23	B0	105	G
23	B0	110	U
23	B0	116	A
23	B0	118	U
23	B0	123	A
23	B0	129	A
23	B0	135	U
23	B0	155	G
23	B0	158	A
23	B0	173	A
23	B0	174	A
23	B0	176	A
23	B0	177	U
23	B0	181	A
23	B0	182	G
23	B0	193	A
23	B0	199	A
23	B0	200	A
23	B0	205	A
23	B0	206	U
23	B0	210	A
23	B0	218	A
23	B0	219	G
23	B0	225	G
23	B0	226	C
23	B0	227	G
23	B0	229	G
23	B0	242	A
23	B0	243	G
23	B0	245	C
23	B0	305	A
23	B0	318	G
23	B0	333	A
23	B0	334	G
23	B0	335	A
23	B0	340	G
23	B0	342	G
23	B0	343	A
23	B0	344	G
23	B0	358	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	B0	363	G
23	B0	368	A
23	B0	373	A
23	B0	399	G
23	B0	401	G
23	B0	408	U
23	B0	414	A
23	B0	418	C
23	B0	419	G
23	B0	424	G
23	B0	443	A
23	B0	455	A
23	B0	456	C
23	B0	460	U
23	B0	463	C
23	B0	467	U
23	B0	469	G
23	B0	491	A
23	B0	492	G
23	B0	515	A
23	B0	518	A
23	B0	519	C
23	B0	537	C
23	B0	541	C
23	B0	542	A
23	B0	554	U
23	B0	556	A
23	B0	558	G
23	B0	559	C
23	B0	572	G
23	B0	584	A
23	B0	602	C
23	B0	613	A
23	B0	617	U
23	B0	624	A
23	B0	632	A
23	B0	636	G
23	B0	638	A
23	B0	648	A
23	B0	652	C
23	B0	654	A
23	B0	657	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	B0	665	A
23	B0	666	U
23	B0	667	U
23	B0	684	C
23	B0	697	G
23	B0	699	G
23	B0	700	C
23	B0	728	G
23	B0	742	G
23	B0	743	A
23	B0	753	U
23	B0	760	U
23	B0	761	G
23	B0	766	A
23	B0	776	G
23	B0	778	G
23	B0	789	G
23	B0	794	A
23	B0	796	A
23	B0	797	A
23	B0	798	G
23	B0	801	A
23	B0	802	A
23	B0	803	C
23	B0	806	A
23	B0	813	A
23	B0	818	G
23	B0	825	C
23	B0	832	A
23	B0	840	U
23	B0	841	G
23	B0	844	G
23	B0	873	U
23	B0	879	A
23	B0	895	G
23	B0	919	U
23	B0	922	A
23	B0	926	C
23	B0	930	A
23	B0	941	U
23	B0	944	A
23	B0	952	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	B0	957	G
23	B0	969	U
23	B0	970	A
23	B0	972	C
23	B0	984	A
23	B0	994	A
23	B0	996	C
23	B0	1005	U
23	B0	1006	C
23	B0	1023	U
23	B0	1024	G
23	B0	1030	U
23	B0	1032	A
23	B0	1033	G
23	B0	1036	G
23	B0	1037	U
23	B0	1044	U
23	B0	1055	A
23	B0	1056	U
23	B0	1057	A
23	B0	1068	A
23	B0	1069	G
23	B0	1071	U
23	B0	1072	U
23	B0	1073	G
23	B0	1078	A
23	B0	1081	A
23	B0	1082	G
23	B0	1084	A
23	B0	1092	U
23	B0	1099	A
23	B0	1100	G
23	B0	1113	C
23	B0	1122	A
23	B0	1137	A
23	B0	1138	A
23	B0	1142	G
23	B0	1145	C
23	B0	1146	G
23	B0	1153	A
23	B0	1167	A
23	B0	1182	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	B0	1183	C
23	B0	1185	C
23	B0	1188	A
23	B0	1194	U
23	B0	1195	U
23	B0	1199	U
23	B0	1200	G
23	B0	1224	A
23	B0	1253	C
23	B0	1262	U
23	B0	1264	C
23	B0	1266	G
23	B0	1269	G
23	B0	1278	A
23	B0	1279	G
23	B0	1280	U
23	B0	1284	G
23	B0	1285	A
23	B0	1288	A
23	B0	1314	A
23	B0	1327	C
23	B0	1334	A
23	B0	1338	G
23	B0	1342	U
23	B0	1343	C
23	B0	1355	A
23	B0	1356	G
23	B0	1359	G
23	B0	1391	A
23	B0	1392	U
23	B0	1397	A
23	B0	1398	G
23	B0	1433	A
23	B0	1441	A
23	B0	1442	C
23	B0	1443	G
23	B0	1459	U
23	B0	1465	G
23	B0	1468	A
23	B0	1469	U
23	B0	1470	G
23	B0	1475	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	B0	1482	U
23	B0	1490	U
23	B0	1496	G
23	B0	1505	U
23	B0	1508	G
23	B0	1509	A
23	B0	1513	U
23	B0	1519	G
23	B0	1520	G
23	B0	1524	C
23	B0	1529	C
23	B0	1552	C
23	B0	1571	G
23	B0	1573	G
23	B0	1574	A
23	B0	1576	G
23	B0	1582	A
23	B0	1583	A
23	B0	1585	A
23	B0	1601	U
23	B0	1618	U
23	B0	1623	C
23	B0	1624	A
23	B0	1625	A
23	B0	1632	A
23	B0	1633	C
23	B0	1634	A
23	B0	1635	G
23	B0	1648	C
23	B0	1651	U
23	B0	1657	A
23	B0	1664	G
23	B0	1665	C
23	B0	1670	G
23	B0	1671	A
23	B0	1680	U
23	B0	1685	A
23	B0	1691	G
23	B0	1692	C
23	B0	1710	U
23	B0	1712	G
23	B0	1715	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	B0	1717	A
23	B0	1724	C
23	B0	1733	U
23	B0	1748	U
23	B0	1749	G
23	B0	1750	A
23	B0	1754	G
23	B0	1755	G
23	B0	1764	A
23	B0	1771	A
23	B0	1773	C
23	B0	1778	U
23	B0	1792	C
23	B0	1800	A
23	B0	1801	C
23	B0	1802	A
23	B0	1807	A
23	B0	1808	C
23	B0	1821	A
23	B0	1831	G
23	B0	3865	A
23	B0	1884	A
23	B0	1920	A
23	B0	1922	U
23	B0	1926	U
23	B0	1927	U
23	B0	1928	G
23	B0	1938	U
23	B0	1939	U
23	B0	1949	A
23	B0	1950	C
23	B0	1954	A
23	B0	1955	G
23	B0	1956	G
23	B0	1979	C
23	B0	1980	A
23	B0	2004	U
23	B0	2006	G
23	B0	2014	A
23	B0	2015	G
23	B0	2016	A
23	B0	2019	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	B0	2034	A
23	B0	2038	C
23	B0	2043	A
23	B0	2045	A
23	B0	2051	U
23	B0	2052	G
23	B0	2060	A
23	B0	3107	G
23	B0	3111	C
23	B0	3112	G
23	B0	3116	G
23	B0	3117	A
23	B0	3118	U
23	B0	3119	A
23	B0	3146	A
23	B0	3147	C
23	B0	3150	C
23	B0	3172	U
23	B0	3173	A
23	B0	3185	U
23	B0	3191	A
23	B0	2191	A
23	B0	2195	C
23	B0	2199	C
23	B0	2205	C
23	B0	2218	G
23	B0	2229	G
23	B0	2237	C
23	B0	2241	U
23	B0	2245	A
23	B0	2246	A
23	B0	2247	A
23	B0	2255	G
23	B0	2262	C
23	B0	2268	G
23	B0	2285	U
23	B0	2286	G
23	B0	2287	G
23	B0	2288	A
23	B0	2298	U
23	B0	2299	A
23	B0	2300	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	B0	2301	A
23	B0	2313	G
23	B0	2315	A
23	B0	2316	G
23	B0	2326	C
23	B0	2362	G
23	B0	2364	C
23	B0	2378	G
23	B0	2382	C
23	B0	2385	U
23	B0	2396	C
23	B0	2403	C
23	B0	2405	A
23	B0	2408	G
23	B0	2409	A
23	B0	2414	A
23	B0	2420	C
23	B0	2427	A
23	B0	2428	U
23	B0	2438	A
23	B0	2448	A
23	B0	2455	A
23	B0	2470	U
23	B0	2481	G
23	B0	2482	A
23	B0	2483	U
23	B0	2484	G
23	B0	2485	U
23	B0	2492	G
23	B0	2498	U
23	B0	2499	C
23	B0	2504	G
23	B0	2522	G
23	B0	2546	G
23	B0	2549	G
23	B0	2565	C
23	B0	2578	G
23	B0	2581	A
23	B0	2582	G
23	B0	2588	U
23	B0	2589	C
23	B0	2591	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	B0	2593	A
23	B0	2594	U
23	B0	2608	A
23	B0	2609	G
23	B0	2625	U
23	B0	2633	A
23	B0	2634	G
23	B0	2661	G
23	B0	2669	C
23	B0	2670	C
23	B0	2681	A
23	B0	2691	C
23	B0	2692	A
23	B0	2712	G
23	B0	2728	A
23	B0	2730	A
23	B0	2732	C
23	B0	2737	A
23	B0	2745	A
23	B0	2756	A
23	B0	2760	G
23	B0	2761	A
23	B0	2771	C
23	B0	2784	A
23	B0	2785	A
23	B0	2795	A
23	B0	2807	U
23	B0	2808	U
23	B0	2809	A
23	B0	2811	G
23	B0	2825	A
23	B0	2841	U
23	B0	2842	C
23	B0	2847	G
23	B0	2854	G
23	B0	2855	C
23	B0	2859	U
24	B9	18	G
24	B9	26	G
24	B9	27	A
24	B9	28	A
24	B9	29	C

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Mol	Chain	Res	Type
24	B9	31	A
24	B9	47	A
24	B9	77	G
24	B9	112	A
24	B9	115	G

All (154) 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	135	C
1	AA	181	G
1	AA	185	A
1	AA	197	A
1	AA	204	A
1	AA	212	G
1	AA	243	A
1	AA	250	A
1	AA	251	G
1	AA	266	G
1	AA	274	A
1	AA	279	A
1	AA	281	G
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	403	C
1	AA	428	G
1	AA	429	U

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Mol	Chain	Res	Type
1	AA	438	G
1	AA	484	G
1	AA	496	A
1	AA	509	A
1	AA	518	C
1	AA	533	A
1	AA	546	G
1	AA	556	C
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	733	A
1	AA	748	C
1	AA	792	A
1	AA	812	C
1	AA	905	U
1	AA	913	A
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	1067	A
1	AA	1085	U
1	AA	1101	A
1	AA	1129	C
1	AA	1145	C
1	AA	1182	G
1	AA	1183	A
1	AA	1190	G
1	AA	1196	U
1	AA	1201	A
1	AA	1214	C
1	AA	1226	C
1	AA	1237	C
1	AA	1257	U
1	AA	1281	U

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Mol	Chain	Res	Type
1	AA	1285	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1319	A
1	AA	1346	A
1	AA	1347	G
1	AA	1364	U
1	AA	1380	U
1	AA	1397	C
1	AA	1409	C
1	AA	1451	A
1	AA	1498	U
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1528	U
2	AV	16	U
2	AV	18	G
2	AV	35	A
2	AW	16	U
2	AW	18	G
2	AW	35	A
23	B0	69	G
23	B0	173	A
23	B0	181	A
23	B0	192	G
23	B0	198	A
23	B0	242	A
23	B0	342	G
23	B0	583	C
23	B0	765	C
23	B0	801	A
23	B0	805	G
23	B0	824	U
23	B0	843	G
23	B0	878	C
23	B0	1071	U
23	B0	1141	U
23	B0	1187	A
23	B0	1193	G
23	B0	1194	U

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Mol	Chain	Res	Type
23	B0	1223	G
23	B0	1263	G
23	B0	1278	A
23	B0	1279	G
23	B0	1313	U
23	B0	1354	A
23	B0	1495	G
23	B0	1518	C
23	B0	1519	G
23	B0	1575	C
23	B0	1633	C
23	B0	1634	A
23	B0	1664	G
23	B0	1807	A
23	B0	1820	G
23	B0	1856	U
23	B0	1938	U
23	B0	2015	G
23	B0	3098	U
23	B0	3107	G
23	B0	3110	G
23	B0	3111	C
23	B0	3116	G
23	B0	3118	U
23	B0	3146	A
23	B0	3149	G
23	B0	3171	A
23	B0	3172	U
23	B0	2204	A
23	B0	2245	A
23	B0	2261	G
23	B0	2377	U
23	B0	2404	A
23	B0	2426	G
23	B0	2668	U
23	B0	2759	U
23	B0	2824	C

## 5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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

## 5.5 Carbohydrates [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 [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	AA	84
23	B0	25
24	B9	2
2	AV	2
2	AW	1
3	AU	1
14	AL	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	10.46
1	AA	1459:C	O3'	1460:A	P	10.16
1	AA	1458:G	O3'	1459:C	P	8.01
1	B0	1888:C	O3'	1889:G	P	6.63
1	B0	3180:U	O3'	3181:C	P	5.39
1	AA	455:C	O3'	456:A	P	5.28
1	B0	891:A	O3'	892:A	P	4.99
1	AA	993:G	O3'	994:A	P	4.72
1	B0	3161:C	O3'	3162:G	P	4.56
1	AA	68:G	O3'	69:G	P	4.50
1	B0	910:U	O3'	911:A	P	4.44
1	AA	476:U	O3'	477:G	P	4.41
1	AA	1434:A	O3'	1435:G	P	4.39
1	AA	1044:A	O3'	1045:C	P	4.27

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B0	3108:G	O3'	3109:U	P	4.23
1	B0	3126:A	O3'	3127:G	P	4.03
1	AA	1466:C	O3'	1467:G	P	3.96
1	AA	1278:U	O3'	1279:A	P	3.65
1	AA	200:G	O3'	201:G	P	3.50
1	B0	2075:U	O3'	3093:C	P	3.50
1	AA	820:U	O3'	821:G	P	3.45
1	B0	1912:G	O3'	1913:G	P	3.36
1	AA	196:A	O3'	197:A	P	3.29
1	AA	397:A	O3'	398:C	P	3.28
1	AA	1256:A	O3'	1257:U	P	3.23
1	AA	337:C	O3'	338:A	P	3.13
1	B0	1116:U	O3'	1117:G	P	3.10
1	AA	919:A	O3'	920:U	P	3.05
1	AA	547:A	O3'	548:G	P	3.02
1	AA	396:G	O3'	397:A	P	3.00
1	AA	216:C	O3'	217:C	P	2.94
1	AA	717:C	O3'	718:G	P	2.91
1	AA	179:A	O3'	180:U	P	2.86
1	AA	38:G	O3'	39:G	P	2.81
1	B0	3877:A	O3'	1861:G	P	2.80
1	B0	3196:G	O3'	3197:U	P	2.80
1	B0	1113:C	O3'	1114:A	P	2.75
1	B0	3181:C	O3'	3182:U	P	2.73
1	AA	170:U	O3'	171:A	P	2.72
1	AA	672:U	O3'	673:G	P	2.72
1	AA	684:A	O3'	685:G	P	2.72
1	AA	848:G	O3'	849:C	P	2.72
1	AA	150:C	O3'	151:A	P	2.71
1	B0	897:A	O3'	898:C	P	2.70
1	AA	497:A	O3'	498:U	P	2.69
1	AA	1416:G	O3'	1417:G	P	2.69
1	AA	1027:C	O3'	1028:C	P	2.68
1	AA	814:A	O3'	815:A	P	2.67
1	AA	1117:G	O3'	1118:C	P	2.66
1	AA	1026:G	O3'	1027:C	P	2.65
1	AA	405:U	O3'	406:G	P	2.62
1	AA	705:U	O3'	706:A	P	2.60
1	AA	960:U	O3'	961:U	P	2.53
1	AA	351:G	O3'	352:C	P	2.51
1	AA	765:G	O3'	766:A	P	2.50
1	AW	44:A	O3'	45:G	P	2.48

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AA	249:U	O3'	250:A	P	2.46
1	AA	914:A	O3'	915:A	P	2.42
1	B0	1119:U	O3'	1120:C	P	2.42
1	AA	305:G	O3'	306:G	P	2.40
1	AA	1483:A	O3'	1484:C	P	2.39
1	B0	1062:G	O3'	1063:C	P	2.38
1	B0	3187:U	O3'	3188:U	P	2.35
1	AA	191:G	O3'	192:U	P	2.33
1	AA	1447:A	O3'	1448:C	P	2.29
1	AA	291:C	O3'	292:G	P	2.28
1	AA	1224:G	O3'	1225:A	P	2.27
1	AA	1238:A	O3'	1239:A	P	2.25
1	AA	837:G	O3'	838:C	P	2.24
1	B9	107:C	O3'	108:G	P	2.21
1	AA	733:A	O3'	734:G	P	2.18
1	AA	1331:G	O3'	1332:A	P	2.17
1	AA	367:U	O3'	368:U	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
1	AV	25:C	O3'	26:G	P	2.12
1	B0	3098:U	O3'	3099:U	P	2.12
1	AA	288:A	O3'	289:G	P	2.08
1	AA	827:U	O3'	828:A	P	2.07
1	AA	1211:U	O3'	1212:U	P	2.07
1	AA	118:U	O3'	119:A	P	2.06
1	AU	11:C	O3'	12:A	P	2.05
1	B0	3183:A	O3'	3184:C	P	2.02
1	AA	375:U	O3'	376:G	P	2.01
1	AA	1155:G	O3'	1156:G	P	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	1398:A	O3'	1399:C	P	1.97
1	AA	546:G	O3'	547:A	P	1.96
1	AA	606:G	O3'	607:A	P	1.95
1	AA	1297:C	O3'	1298:C	P	1.95
1	AA	387:U	O3'	388:G	P	1.93
1	AA	1335:C	O3'	1336:C	P	1.93
1	B0	1856:U	O3'	3865:A	P	1.93
1	AA	206:C	O3'	207:C	P	1.91
1	B0	3188:U	O3'	3189:U	P	1.90

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AA	651:C	O3'	652:U	P	1.24
1	AA	1490:C	O3'	1491:G	P	1.23
1	AA	74:G	O3'	75:C	P	1.20
1	AA	576:G	O3'	577:G	P	1.20
1	AA	1409:C	O3'	1410:G	P	1.19
1	AA	403:C	O3'	404:U	P	1.18
1	AV	36:A	O3'	37:G	P	1.18
1	AA	239:U	O3'	240:C	P	1.17
1	AA	94:G	O3'	96:C	P	1.12
1	B0	3106:U	O3'	3107:G	P	1.12
1	AA	1393:U	O3'	1394:A	P	1.05
1	AA	556:C	O3'	557:G	P	1.02
1	AA	905:U	O3'	906:G	P	0.96
1	AL	19:ARG	C	20:LYS	N	0.94
1	AA	436:C	O3'	437:U	P	0.88
1	AA	893:C	O3'	894:G	P	0.87
1	AA	214:U	O3'	215:C	P	0.73
1	AA	135:C	O3'	136:C	P	0.60

## 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, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	AA	1527/1527 (100%)	34.56	1527 (100%) 0 0	341, 531, 705, 847	0
2	AV	76/76 (100%)	30.99	76 (100%) 0 0	379, 379, 379, 379	0
2	AW	76/76 (100%)	17.01	76 (100%) 0 0	510, 510, 510, 510	76 (100%)
3	AU	9/18 (50%)	30.40	9 (100%) 0 0	379, 379, 379, 379	0
4	AB	234/234 (100%)	3.18	138 (58%) 0 3	496, 496, 496, 496	0
5	AC	206/206 (100%)	11.67	206 (100%) 0 0	264, 264, 264, 264	0
6	AD	208/208 (100%)	11.26	161 (77%) 0 2	479, 479, 479, 479	0
7	AE	150/150 (100%)	21.21	150 (100%) 0 0	669, 669, 669, 669	0
8	AF	101/101 (100%)	5.28	83 (82%) 0 2	640, 640, 640, 640	0
9	AG	155/155 (100%)	6.52	139 (89%) 0 2	406, 406, 406, 406	0
10	AH	138/138 (100%)	30.08	138 (100%) 0 0	647, 647, 647, 647	0
11	AI	127/127 (100%)	9.92	110 (86%) 0 2	426, 426, 426, 426	0
12	AJ	98/98 (100%)	7.85	75 (76%) 0 2	507, 507, 507, 507	0
13	AK	119/119 (100%)	3.89	96 (80%) 0 2	510, 510, 510, 510	0
14	AL	124/124 (100%)	10.79	124 (100%) 0 0	367, 367, 384, 384	0
15	AM	125/125 (100%)	6.50	95 (76%) 0 2	349, 454, 454, 454	0
16	AN	60/60 (100%)	10.65	60 (100%) 0 0	264, 264, 264, 264	0
17	AO	88/88 (100%)	26.33	87 (98%) 0 0	572, 572, 572, 572	0
18	AP	83/83 (100%)	6.70	76 (91%) 0 1	662, 662, 662, 662	0
19	AQ	104/104 (100%)	13.14	104 (100%) 0 0	670, 670, 670, 670	0
20	AR	73/73 (100%)	6.16	68 (93%) 0 1	640, 640, 640, 640	0
21	AS	80/80 (100%)	1.83	24 (30%) 1 5	545, 545, 545, 545	0
22	AT	99/99 (100%)	9.92	91 (91%) 0 1	744, 744, 744, 744	0
23	B0	2825/2887 (97%)	53.21	2821 (99%) 0 0	517, 737, 737, 936	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )		Q<0.9	
24	B9	118/118 (100%)	44.21	118 (100%)	0	0	772, 938, 938, 938	0
25	BA	270/270 (100%)	4.38	137 (50%)	0	4	737, 737, 737, 737	0
26	BB	205/205 (100%)	7.71	155 (75%)	0	2	737, 737, 737, 737	0
27	BC	197/197 (100%)	7.48	195 (98%)	0	0	737, 737, 737, 737	0
28	BD	178/178 (100%)	11.40	143 (80%)	0	2	938, 938, 938, 938	0
29	BE	177/177 (100%)	9.26	134 (75%)	0	2	737, 737, 737, 737	0
30	BF	52/52 (100%)	2.67	17 (32%)	1	5	737, 737, 737, 737	0
31	BG	143/143 (100%)	16.75	117 (81%)	0	2	907, 907, 907, 907	0
32	BH	143/143 (100%)	4.48	132 (92%)	0	1	737, 737, 737, 737	0
33	BI	132/132 (100%)	2.78	56 (42%)	0	4	737, 737, 737, 737	0
34	BJ	141/141 (100%)	11.00	100 (70%)	0	3	737, 737, 737, 737	0
35	BK	124/124 (100%)	2.46	47 (37%)	0	4	737, 737, 737, 737	0
36	BL	114/114 (100%)	5.91	105 (92%)	0	1	737, 737, 737, 737	0
37	BM	111/111 (100%)	1.65	33 (29%)	1	5	938, 938, 938, 938	0
38	BN	125/125 (100%)	3.10	67 (53%)	0	4	737, 737, 737, 737	0
39	BO	117/117 (100%)	12.91	99 (84%)	0	2	737, 737, 737, 737	0
40	BP	100/100 (100%)	7.18	95 (95%)	0	1	737, 737, 737, 737	0
41	BQ	130/130 (100%)	10.32	116 (89%)	0	2	737, 737, 737, 737	0
42	BR	93/93 (100%)	6.73	77 (82%)	0	2	737, 737, 737, 737	0
43	BS	113/113 (100%)	8.05	111 (98%)	0	0	737, 737, 737, 737	0
44	BT	173/173 (100%)	12.96	142 (82%)	0	2	737, 772, 772, 772	0
45	BU	86/86 (100%)	6.13	65 (75%)	0	2	737, 737, 737, 737	0
46	BV	0/16	-	-	-	-	-	-
47	BW	65/65 (100%)	4.98	53 (81%)	0	2	737, 737, 737, 737	0
48	BX	55/55 (100%)	6.92	38 (69%)	0	3	737, 737, 737, 737	0
49	BY	73/73 (100%)	4.79	46 (63%)	0	3	737, 737, 737, 737	0
50	BZ	58/58 (100%)	12.40	53 (91%)	0	1	737, 737, 737, 737	0
51	B1	53/53 (100%)	2.37	23 (43%)	0	4	737, 737, 737, 737	0
52	B2	46/46 (100%)	11.20	46 (100%)	0	0	737, 737, 737, 737	0
53	B3	63/63 (100%)	5.54	63 (100%)	0	0	737, 737, 737, 737	0
54	B4	35/35 (100%)	4.38	34 (97%)	0	1	737, 737, 737, 737	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
55	B5	213/217 (98%)	8.63	118 (55%) 0 3	940, 940, 940, 940	0
All	All	10588/10679 (99%)	25.02	9269 (87%) 0 2	264, 737, 938, 940	76 (0%)

All (9269) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
23	B0	398	C	195.8
23	B0	399	G	180.2
23	B0	2031	A	170.5
23	B0	2523	G	167.1
23	B0	755	C	166.7
23	B0	1802	A	160.4
23	B0	2691	C	159.0
23	B0	2667	C	157.8
23	B0	466	A	152.7
23	B0	426	C	151.6
23	B0	711	C	148.7
23	B0	2524	G	147.7
23	B0	1692	C	146.2
23	B0	2543	A	145.7
23	B0	1361	G	144.6
23	B0	425	A	143.6
23	B0	1678	G	143.2
23	B0	2030	U	141.7
23	B0	2361	G	141.7
23	B0	1029	C	141.3
23	B0	424	G	141.0
23	B0	397	U	140.1
23	B0	427	C	138.9
23	B0	801	A	137.2
23	B0	1989	C	137.0
23	B0	1793	A	136.4
23	B0	1677	C	136.0
23	B0	877	G	135.8
23	B0	474	G	133.4
23	B0	423	G	133.3
23	B0	1030	U	131.0
23	B0	2627	G	129.7
23	B0	465	C	129.2
23	B0	541	C	127.5
23	B0	1803	G	127.5
23	B0	13	A	127.4

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Mol	Chain	Res	Type	RSRZ
23	B0	1356	G	126.3
23	B0	2522	G	126.1
23	B0	1374	G	125.8
24	B9	6	C	125.0
23	B0	2827	G	123.8
23	B0	1716	G	123.7
23	B0	1676	U	123.4
23	B0	213	C	123.3
23	B0	1619	A	123.3
23	B0	2006	G	123.3
1	AA	525	C	123.2
23	B0	2029	G	123.1
23	B0	807	A	122.9
23	B0	836	G	121.8
23	B0	462	G	121.5
23	B0	677	G	121.4
23	B0	2665	G	121.2
23	B0	461	A	120.7
23	B0	676	G	120.3
23	B0	2229	G	119.9
23	B0	2466	G	119.7
23	B0	1617	G	119.7
23	B0	2032	G	119.5
23	B0	1389	C	119.2
23	B0	203	G	119.0
23	B0	1309	G	118.6
23	B0	388	G	118.1
23	B0	1749	G	118.1
23	B0	2798	A	117.9
23	B0	993	C	117.8
23	B0	74	G	117.7
23	B0	752	G	117.3
23	B0	1693	A	116.8
23	B0	754	G	116.8
23	B0	202	A	116.4
23	B0	543	G	116.0
23	B0	1618	U	115.9
23	B0	404	A	115.8
23	B0	1376	C	115.3
23	B0	540	G	115.3
23	B0	2666	U	115.3
23	B0	1975	G	115.1

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Mol	Chain	Res	Type	RSRZ
23	B0	756	C	115.0
23	B0	458	G	114.6
23	B0	1638	G	114.1
23	B0	789	G	114.1
23	B0	1675	C	113.4
23	B0	234	C	113.4
23	B0	2244	C	112.9
23	B0	781	G	112.8
23	B0	2742	G	112.8
1	AA	557	G	112.4
23	B0	1986	G	112.3
23	B0	2694	G	111.8
23	B0	962	C	111.8
23	B0	1353	A	111.7
23	B0	2386	G	111.6
23	B0	428	A	111.1
23	B0	546	A	111.1
23	B0	1390	G	110.6
23	B0	750	C	110.6
23	B0	87	G	110.4
23	B0	1636	G	110.4
23	B0	1642	G	110.2
1	AA	758	G	110.0
23	B0	2346	G	109.5
23	B0	239	A	109.0
23	B0	669	G	109.0
23	B0	483	A	108.8
23	B0	1360	G	108.6
23	B0	2692	A	108.5
1	AA	969	A	108.5
23	B0	2668	U	108.2
23	B0	1082	G	107.8
23	B0	1375	C	107.6
24	B9	103	A	107.5
23	B0	776	G	106.6
23	B0	1694	A	106.6
23	B0	1357	U	106.6
23	B0	211	U	106.2
23	B0	694	G	106.2
23	B0	405	C	106.2
23	B0	1066	G	106.2
23	B0	2408	G	105.9

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Mol	Chain	Res	Type	RSRZ
23	B0	2324	G	105.9
23	B0	2743	G	105.7
23	B0	1314	A	105.6
23	B0	1990	U	105.6
23	B0	2858	A	105.6
23	B0	2503	G	105.4
23	B0	457	C	105.4
23	B0	1155	G	105.3
1	AA	813	U	104.9
23	B0	1662	G	104.8
23	B0	778	G	104.6
23	B0	2221	G	104.6
23	B0	1635	G	104.6
23	B0	1147	G	104.5
1	AA	973	G	104.4
23	B0	191	G	104.4
23	B0	1724	C	104.2
23	B0	199	A	104.1
23	B0	2690	A	103.9
23	B0	2500	C	103.7
23	B0	769	C	103.6
23	B0	2019	C	103.2
23	B0	2406	C	103.1
23	B0	2498	U	103.0
23	B0	633	G	103.0
23	B0	992	A	102.8
23	B0	788	G	102.7
23	B0	710	C	102.5
23	B0	1801	C	102.4
23	B0	2744	A	102.2
23	B0	201	G	102.2
23	B0	160	C	102.1
23	B0	192	G	101.9
23	B0	597	U	101.8
23	B0	695	G	101.8
23	B0	73	A	101.5
23	B0	2467	A	101.5
23	B0	422	C	101.5
23	B0	2245	A	101.3
23	B0	2018	G	101.2
23	B0	156	G	101.0
23	B0	1987	G	100.9

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Mol	Chain	Res	Type	RSRZ
23	B0	200	A	100.8
23	B0	237	G	100.8
23	B0	1988	A	100.7
23	B0	1165	G	100.4
23	B0	1355	A	100.4
23	B0	2227	C	100.3
23	B0	443	A	100.0
23	B0	614	G	100.0
23	B0	212	U	100.0
23	B0	2306	A	100.0
23	B0	2695	C	99.9
23	B0	119	G	99.7
1	AA	730	G	99.6
23	B0	159	A	99.5
23	B0	230	C	99.5
23	B0	180	C	99.3
23	B0	1767	G	99.2
23	B0	421	G	99.2
23	B0	783	G	99.2
23	B0	1164	C	99.1
23	B0	1384	G	99.1
23	B0	2625	U	98.9
1	AA	9	G	98.9
23	B0	1447	U	98.8
23	B0	190	A	98.8
23	B0	1715	A	98.7
23	B0	2363	G	98.7
23	B0	2799	C	98.6
23	B0	875	G	98.5
23	B0	2496	C	98.4
23	B0	876	A	98.2
23	B0	36	G	98.2
23	B0	2707	G	98.1
23	B0	431	G	97.9
23	B0	1407	G	97.8
23	B0	2521	A	97.7
23	B0	12	U	97.6
23	B0	1446	U	97.6
23	B0	193	A	97.5
23	B0	2329	C	97.5
23	B0	2495	G	97.5
23	B0	236	C	97.5

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Mol	Chain	Res	Type	RSRZ
23	B0	1615	C	97.4
23	B0	194	G	97.4
23	B0	2693	U	97.2
23	B0	970	A	97.2
23	B0	632	A	97.1
23	B0	808	C	97.0
23	B0	1629	G	96.9
23	B0	2020	G	96.7
23	B0	1313	U	96.6
23	B0	1620	C	96.3
23	B0	975	C	96.3
23	B0	596	C	96.2
23	B0	2544	A	96.2
23	B0	1511	A	96.1
1	AA	316	G	96.1
23	B0	2606	G	95.9
23	B0	90	G	95.8
23	B0	1445	A	95.8
23	B0	1983	G	95.6
23	B0	231	G	95.6
23	B0	953	G	95.5
23	B0	2193	C	95.4
23	B0	2364	C	95.3
23	B0	81	C	95.0
23	B0	176	A	95.0
23	B0	564	U	94.9
23	B0	2857	C	94.7
23	B0	2028	C	94.5
23	B0	2610	G	94.4
23	B0	2007	G	94.3
23	B0	2499	C	94.3
1	AA	816	A	94.2
23	B0	2626	U	94.2
23	B0	1393	G	94.2
23	B0	571	U	94.1
1	AA	556	C	94.1
23	B0	692	C	94.1
23	B0	1637	U	94.0
23	B0	2360	C	94.0
23	B0	475	U	93.8
23	B0	1028	G	93.6
23	B0	534	U	93.4

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Mol	Chain	Res	Type	RSRZ
23	B0	444	U	93.4
23	B0	233	A	93.4
23	B0	850	C	93.2
24	B9	7	C	93.1
23	B0	1747	G	93.1
1	AA	1489	G	92.9
23	B0	232	A	92.9
23	B0	459	A	92.7
23	B0	225	G	92.6
23	B0	542	A	92.5
23	B0	989	G	92.4
23	B0	1855	G	92.4
23	B0	2546	G	92.4
1	AA	1230	C	92.3
23	B0	1068	A	92.2
23	B0	2243	C	92.1
23	B0	44	G	92.0
23	B0	82	G	92.0
23	B0	1153	A	92.0
23	B0	188	G	91.9
23	B0	751	G	91.8
23	B0	235	C	91.6
23	B0	678	G	91.6
23	B0	204	A	91.6
23	B0	1124	U	91.6
23	B0	2745	A	91.5
23	B0	748	A	91.3
1	AA	585	G	91.3
23	B0	403	A	91.3
23	B0	2337	A	91.3
23	B0	613	A	91.3
23	B0	1616	C	91.3
23	B0	50	G	91.0
23	B0	1289	A	91.0
23	B0	359	G	90.9
23	B0	216	U	90.9
23	B0	482	A	90.8
23	B0	387	A	90.8
23	B0	1627	C	90.7
23	B0	570	G	90.6
23	B0	549	G	90.4
23	B0	675	C	90.4

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Mol	Chain	Res	Type	RSRZ
23	B0	171	G	90.3
23	B0	1714	A	90.3
1	AA	765	G	90.1
23	B0	2767	C	90.1
1	AA	1441	G	90.0
23	B0	2465	G	89.9
23	B0	2504	G	89.8
1	AA	1201	A	89.8
1	AA	755	G	89.7
23	B0	2348	A	89.7
23	B0	2328	G	89.7
23	B0	2404	A	89.6
23	B0	189	A	89.5
23	B0	2502	G	89.5
23	B0	951	G	89.4
23	B0	1394	G	89.3
23	B0	767	G	89.3
23	B0	2307	A	89.3
1	AA	869	G	89.3
23	B0	2033	C	89.2
23	B0	749	C	89.2
23	B0	484	G	89.2
1	AA	753	A	89.1
23	B0	697	G	89.1
23	B0	2308	A	89.1
23	B0	210	A	89.0
23	B0	1146	G	89.0
23	B0	2008	C	88.9
23	B0	545	C	88.8
23	B0	2021	G	88.8
23	B0	1864	G	88.7
23	B0	2648	G	88.6
23	B0	1510	A	88.5
23	B0	157	G	88.4
23	B0	2746	G	88.4
23	B0	2624	G	88.3
23	B0	878	C	88.2
23	B0	488	A	88.2
23	B0	175	C	88.2
1	AA	584	G	88.2
23	B0	435	A	88.1
23	B0	619	A	88.1

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Mol	Chain	Res	Type	RSRZ
23	B0	1679	U	88.1
23	B0	671	A	88.1
23	B0	127	C	88.0
23	B0	88	G	88.0
23	B0	1512	A	87.9
23	B0	433	G	87.8
23	B0	72	A	87.8
1	AA	1231	G	87.8
23	B0	45	C	87.7
23	B0	1067	G	87.5
23	B0	1359	G	87.4
23	B0	1641	C	87.3
23	B0	185	C	87.2
23	B0	744	C	87.0
23	B0	1021	A	87.0
23	B0	172	A	86.8
23	B0	2828	C	86.7
23	B0	1327	C	86.6
23	B0	612	G	86.6
23	B0	961	G	86.6
23	B0	1345	G	86.5
23	B0	1623	C	86.4
23	B0	2741	G	86.4
23	B0	775	U	86.4
1	AA	879	C	86.4
23	B0	2497	A	86.3
23	B0	1316	G	86.3
1	AA	505	G	86.2
23	B0	703	A	86.1
23	B0	572	G	86.0
1	AA	972	C	86.0
23	B0	238	G	85.9
23	B0	215	G	85.9
23	B0	1628	C	85.8
23	B0	179	U	85.7
23	B0	246	C	85.6
23	B0	741	G	85.6
17	AO	66	LEU	85.6
23	B0	389	G	85.5
23	B0	1034	U	85.5
1	AA	8	A	85.3
23	B0	1022	A	85.3

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Mol	Chain	Res	Type	RSRZ
23	B0	481	A	85.2
23	B0	17	G	85.2
23	B0	698	A	85.0
23	B0	952	A	84.9
23	B0	1391	A	84.8
23	B0	1047	G	84.8
1	AA	754	C	84.8
24	B9	8	C	84.8
23	B0	839	U	84.7
23	B0	991	A	84.6
23	B0	2226	A	84.6
23	B0	2727	G	84.5
23	B0	2705	A	84.5
23	B0	1982	C	84.4
1	AA	558	G	84.4
23	B0	121	G	84.4
23	B0	965	G	84.4
23	B0	610	G	84.3
23	B0	1570	C	84.3
23	B0	1594	U	84.2
23	B0	186	C	84.2
23	B0	2597	G	84.2
23	B0	1377	G	84.1
23	B0	1800	A	84.1
23	B0	78	C	84.1
23	B0	2494	C	84.1
23	B0	838	A	84.0
23	B0	874	A	84.0
23	B0	95	G	84.0
23	B0	780	U	83.8
23	B0	35	G	83.7
23	B0	476	G	83.7
23	B0	155	G	83.6
23	B0	1639	U	83.6
23	B0	794	A	83.6
1	AA	903	G	83.5
23	B0	1962	C	83.5
23	B0	1354	A	83.5
1	AA	351	G	83.5
23	B0	2806	G	83.4
1	AA	306	G	83.3
23	B0	16	G	83.3

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Mol	Chain	Res	Type	RSRZ
23	B0	1985	G	83.3
23	B0	166	G	83.2
1	AA	317	G	83.2
23	B0	536	A	83.1
23	B0	1364	C	83.1
23	B0	1046	U	83.0
1	AA	284	G	83.0
23	B0	809	C	82.9
23	B0	618	A	82.9
23	B0	544	U	82.9
23	B0	2684	A	82.7
1	AA	295	C	82.7
23	B0	793	G	82.6
23	B0	1163	C	82.5
10	AH	9	MET	82.5
23	B0	1687	C	82.5
23	B0	115	G	82.5
23	B0	743	A	82.4
23	B0	1471	G	82.3
23	B0	158	A	82.3
23	B0	1069	G	82.3
1	AA	581	G	82.2
23	B0	2228	U	82.2
23	B0	1622	G	82.2
23	B0	442	A	82.1
23	B0	181	A	82.1
23	B0	873	U	82.1
23	B0	75	C	81.9
23	B0	1365	U	81.9
23	B0	1613	G	81.9
23	B0	224	G	81.8
23	B0	1317	G	81.8
23	B0	1045	G	81.7
23	B0	2867	G	81.6
23	B0	740	A	81.6
1	AA	885	G	81.5
1	AA	1415	G	81.5
23	B0	485	G	81.5
23	B0	406	G	81.5
23	B0	700	C	81.4
23	B0	32	C	81.4
23	B0	463	C	81.4

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Mol	Chain	Res	Type	RSRZ
1	AA	588	G	81.4
23	B0	550	C	81.3
23	B0	2682	C	81.3
23	B0	691	C	81.2
23	B0	86	U	81.1
23	B0	1100	G	81.0
23	B0	990	A	81.0
23	B0	243	G	81.0
23	B0	3865	A	80.9
23	B0	1398	G	80.9
23	B0	492	G	80.7
23	B0	1963	G	80.7
23	B0	1768	U	80.6
23	B0	445	A	80.6
23	B0	407	A	80.6
23	B0	2410	U	80.6
23	B0	1013	G	80.6
1	AA	508	C	80.6
23	B0	143	A	80.5
23	B0	1031	C	80.5
23	B0	480	G	80.5
23	B0	11	G	80.4
23	B0	1035	G	80.4
23	B0	971	A	80.4
23	B0	2809	A	80.4
23	B0	1358	C	80.3
23	B0	1713	G	80.3
23	B0	1640	C	80.3
23	B0	768	U	80.3
23	B0	2726	U	80.3
23	B0	1691	G	80.2
23	B0	1977	C	80.2
23	B0	2	G	80.2
23	B0	2792	C	80.1
23	B0	782	U	80.1
23	B0	2611	A	80.1
23	B0	307	C	80.0
23	B0	742	G	80.0
1	AA	524	G	79.9
23	B0	963	G	79.9
23	B0	1798	G	79.9
23	B0	2683	C	79.9

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Mol	Chain	Res	Type	RSRZ
23	B0	1856	U	79.9
23	B0	118	U	79.8
23	B0	1495	G	79.8
23	B0	1097	A	79.8
24	B9	111	C	79.8
23	B0	174	A	79.7
10	AH	36	LEU	79.7
23	B0	432	C	79.5
23	B0	2223	U	79.5
23	B0	2866	A	79.5
1	AA	868	C	79.5
23	B0	198	A	79.4
23	B0	2347	C	79.4
23	B0	2368	G	79.4
55	B5	96	GLN	79.3
23	B0	51	A	79.3
23	B0	1269	G	79.3
1	AA	296	U	79.3
1	AA	325	A	79.3
23	B0	240	U	79.3
1	AA	318	G	79.2
23	B0	533	C	79.2
23	B0	2451	G	79.1
1	AA	910	C	79.1
23	B0	2730	A	79.0
1	AA	752	G	78.9
23	B0	214	C	78.9
1	AA	878	G	78.9
23	B0	2501	U	78.8
23	B0	931	G	78.8
23	B0	1322	G	78.8
23	B0	2678	C	78.7
23	B0	658	G	78.7
23	B0	2605	C	78.7
23	B0	1614	C	78.7
1	AA	597	G	78.7
23	B0	1794	A	78.7
23	B0	2248	A	78.6
23	B0	693	A	78.6
1	AA	579	G	78.5
24	B9	104	A	78.5
1	AA	881	G	78.4

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Mol	Chain	Res	Type	RSRZ
23	B0	925	U	78.4
1	AA	315	A	78.3
23	B0	207	U	78.3
23	B0	184	A	78.3
23	B0	2671	C	78.3
23	B0	1748	U	78.3
1	AA	880	C	78.2
23	B0	791	G	78.2
1	AA	22	G	78.2
23	B0	2231	G	78.1
23	B0	223	C	78.1
55	B5	93	LEU	78.1
1	AA	1488	G	78.0
23	B0	2596	C	78.0
23	B0	1039	A	78.0
23	B0	2192	U	77.9
23	B0	974	U	77.9
23	B0	1125	G	77.9
23	B0	446	C	77.8
23	B0	2238	G	77.8
23	B0	468	A	77.8
50	BZ	11	THR	77.8
23	B0	702	A	77.7
23	B0	2679	G	77.7
23	B0	478	G	77.7
23	B0	1624	A	77.6
23	B0	1038	U	77.6
23	B0	2525	U	77.4
23	B0	2729	A	77.4
23	B0	1323	G	77.4
23	B0	634	G	77.3
23	B0	100	G	77.3
23	B0	120	G	77.2
1	AA	586	C	77.2
1	AA	1202	G	77.2
23	B0	2520	A	77.2
23	B0	1320	A	77.2
23	B0	1494	G	77.1
1	AA	507	C	77.1
23	B0	473	C	77.1
23	B0	1961	A	77.1
10	AH	137	VAL	77.0

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Mol	Chain	Res	Type	RSRZ
23	B0	479	G	77.0
23	B0	1980	A	77.0
23	B0	2786	G	77.0
23	B0	358	C	77.0
23	B0	338	G	77.0
55	B5	95	GLY	76.9
1	AA	570	G	76.9
23	B0	1032	A	76.8
23	B0	79	G	76.8
24	B9	67	C	76.7
23	B0	2725	C	76.6
23	B0	178	C	76.5
23	B0	2545	A	76.4
23	B0	2222	U	76.4
1	AA	974	A	76.3
23	B0	2468	G	76.3
1	AA	1200	C	76.3
23	B0	1754	G	76.2
23	B0	2673	G	76.2
23	B0	59	G	76.2
23	B0	33	C	76.2
23	B0	434	C	76.1
23	B0	1576	G	76.0
23	B0	1315	A	76.0
23	B0	1667	A	75.9
23	B0	245	C	75.9
23	B0	699	G	75.9
23	B0	548	G	75.8
23	B0	89	A	75.7
23	B0	606	A	75.7
23	B0	615	C	75.7
23	B0	2242	C	75.7
1	AA	332	G	75.7
1	AA	285	G	75.6
1	AA	293	G	75.6
23	B0	2250	G	75.6
23	B0	2216	G	75.5
23	B0	1286	U	75.5
23	B0	1666	G	75.5
23	B0	2330	G	75.5
23	B0	187	U	75.4
23	B0	1310	C	75.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	350	G	75.4
2	AV	30	G	75.3
23	B0	2791	C	75.2
23	B0	1766	U	75.1
23	B0	229	G	75.1
1	AA	729	A	75.1
1	AA	1365	G	75.1
23	B0	932	G	75.1
23	B0	107	G	75.0
23	B0	1287	A	75.0
23	B0	1132	C	75.0
23	B0	2409	A	75.0
23	B0	630	G	75.0
23	B0	2438	A	74.9
23	B0	2027	C	74.9
23	B0	668	A	74.9
23	B0	106	G	74.9
1	AA	535	A	74.8
23	B0	1824	C	74.8
23	B0	2217	G	74.7
23	B0	1964	A	74.7
23	B0	1326	U	74.6
23	B0	2066	G	74.6
23	B0	1020	A	74.5
23	B0	122	G	74.5
23	B0	812	G	74.5
23	B0	1133	G	74.5
23	B0	657	A	74.5
24	B9	69	G	74.5
23	B0	1902	A	74.5
23	B0	2241	U	74.4
23	B0	128	C	74.3
23	B0	773	G	74.3
23	B0	1271	C	74.3
23	B0	1757	C	74.3
31	BG	97	GLY	74.2
1	AA	330	C	74.2
23	B0	96	C	74.2
23	B0	357	A	74.2
1	AA	812	C	74.1
23	B0	1753	A	74.1
23	B0	208	C	74.1

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Mol	Chain	Res	Type	RSRZ
1	AA	555	C	74.0
23	B0	420	C	74.0
23	B0	448	C	74.0
23	B0	2034	A	74.0
23	B0	2220	A	74.0
23	B0	1083	C	74.0
23	B0	437	G	73.9
23	B0	922	A	73.9
1	AA	859	A	73.8
23	B0	681	A	73.8
23	B0	988	G	73.8
23	B0	98	U	73.7
23	B0	1823	G	73.7
23	B0	2437	G	73.6
23	B0	2332	G	73.6
23	B0	80	A	73.6
23	B0	1984	A	73.5
23	B0	58	C	73.5
23	B0	1806	G	73.5
23	B0	2367	A	73.5
23	B0	2768	C	73.4
23	B0	2194	A	73.4
23	B0	2790	C	73.3
23	B0	67	G	73.2
23	B0	2511	G	73.2
23	B0	2003	A	73.2
23	B0	227	G	73.2
23	B0	2365	U	73.2
23	B0	48	A	73.2
23	B0	1508	G	73.1
23	B0	195	A	73.0
10	AH	26	VAL	73.0
23	B0	1663	C	73.0
23	B0	306	G	72.9
55	B5	92	LYS	72.9
23	B0	3867	G	72.9
24	B9	112	A	72.9
24	B9	102	A	72.9
23	B0	1626	A	72.8
1	AA	583	A	72.8
23	B0	1690	U	72.7
31	BG	96	VAL	72.7

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Mol	Chain	Res	Type	RSRZ
23	B0	164	G	72.7
1	AA	892	A	72.6
1	AA	865	A	72.5
23	B0	217	U	72.5
23	B0	779	U	72.5
23	B0	840	U	72.5
1	AA	971	G	72.5
24	B9	16	U	72.5
39	BO	7	GLY	72.4
1	AA	757	U	72.3
23	B0	2389	G	72.3
23	B0	772	G	72.3
1	AA	911	U	72.2
1	AA	667	G	72.2
23	B0	84	G	72.2
23	B0	611	C	72.2
23	B0	1634	A	72.1
23	B0	2643	G	72.1
23	B0	2728	A	72.1
23	B0	849	G	72.1
23	B0	76	C	72.0
23	B0	1352	G	72.0
23	B0	2674	C	72.0
1	AA	1061	G	71.9
23	B0	2246	A	71.8
24	B9	17	A	71.8
23	B0	1319	C	71.8
23	B0	2731	G	71.7
23	B0	811	G	71.7
23	B0	593	C	71.7
23	B0	1324	G	71.7
23	B0	2602	G	71.7
1	AA	768	A	71.6
1	AA	506	G	71.6
23	B0	340	G	71.6
23	B0	1162	A	71.5
23	B0	818	G	71.5
23	B0	1603	A	71.4
23	B0	1312	G	71.4
23	B0	2299	A	71.4
23	B0	1657	A	71.4
23	B0	165	G	71.4

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Mol	Chain	Res	Type	RSRZ
23	B0	1136	G	71.2
23	B0	2061	C	71.2
23	B0	1595	A	71.2
23	B0	1385	C	71.2
23	B0	460	U	71.1
23	B0	1379	A	71.1
23	B0	2055	G	71.0
10	AH	59	LEU	71.0
23	B0	491	A	71.0
23	B0	2405	A	71.0
23	B0	487	G	70.9
1	AA	331	G	70.9
23	B0	2261	G	70.9
23	B0	395	G	70.9
1	AA	31	G	70.9
23	B0	2331	A	70.9
23	B0	218	A	70.7
23	B0	2362	G	70.7
1	AA	767	A	70.7
23	B0	2793	G	70.7
23	B0	1373	G	70.6
23	B0	2304	G	70.6
23	B0	608	G	70.6
23	B0	950	G	70.5
23	B0	800	U	70.5
23	B0	620	G	70.5
31	BG	95	LYS	70.4
23	B0	2252	A	70.4
1	AA	644	G	70.3
23	B0	2689	C	70.3
23	B0	1651	U	70.3
23	B0	2547	C	70.3
23	B0	2022	C	70.3
23	B0	2609	G	70.3
1	AA	29	G	70.3
23	B0	2232	G	70.3
1	AA	10	A	70.3
23	B0	933	G	70.2
23	B0	2868	G	70.2
23	B0	607	C	70.2
23	B0	1151	U	70.2
23	B0	2390	A	70.1

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Mol	Chain	Res	Type	RSRZ
23	B0	1863	U	70.1
23	B0	477	A	70.1
23	B0	2316	G	70.0
23	B0	126	C	70.0
23	B0	83	A	70.0
23	B0	539	A	69.9
23	B0	1621	C	69.9
1	AA	970	C	69.9
23	B0	2512	A	69.9
23	B0	1765	C	69.9
23	B0	683	A	69.8
23	B0	2267	A	69.8
23	B0	2247	A	69.8
23	B0	639	G	69.8
23	B0	1981	A	69.7
1	AA	580	U	69.7
1	AA	307	C	69.7
1	AA	504	C	69.7
23	B0	708	G	69.7
23	B0	841	G	69.7
23	B0	2877	A	69.7
23	B0	447	U	69.7
44	BT	160	LEU	69.6
23	B0	2812	A	69.6
23	B0	105	G	69.5
1	AA	766	A	69.5
23	B0	837	U	69.5
23	B0	2699	G	69.5
1	AA	578	C	69.4
23	B0	52	A	69.4
1	AA	32	A	69.4
1	AA	509	A	69.3
1	AA	1413	A	69.3
23	B0	1771	A	69.2
23	B0	1960	A	69.2
23	B0	1366	A	69.2
23	B0	844	G	69.2
23	B0	1625	A	69.1
23	B0	1371	G	69.1
23	B0	65	C	69.1
1	AA	326	G	69.0
23	B0	1763	G	68.9

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Mol	Chain	Res	Type	RSRZ
23	B0	2474	G	68.9
23	B0	2706	U	68.8
23	B0	2548	G	68.8
23	B0	1321	A	68.8
1	AA	25	C	68.7
23	B0	43	A	68.7
23	B0	2739	G	68.7
23	B0	955	G	68.6
23	B0	1673	C	68.6
23	B0	2305	C	68.5
23	B0	964	A	68.5
23	B0	802	A	68.5
23	B0	1406	A	68.4
23	B0	396	U	68.4
23	B0	228	A	68.4
23	B0	1367	A	68.3
23	B0	1137	A	68.2
23	B0	1674	C	68.1
23	B0	1706	A	68.1
1	AA	1412	C	68.1
1	AA	913	A	68.0
24	B9	80	A	67.7
23	B0	2650	G	67.7
23	B0	2604	G	67.7
45	BU	85	GLN	67.7
1	AA	510	A	67.7
23	B0	114	C	67.6
23	B0	1699	A	67.6
1	AA	886	G	67.6
23	B0	601	A	67.6
23	B0	1685	A	67.6
23	B0	1577	G	67.6
23	B0	2779	C	67.6
23	B0	638	A	67.5
23	B0	2732	C	67.5
10	AH	32	LYS	67.5
23	B0	1684	G	67.5
1	AA	105	G	67.4
23	B0	1098	G	67.4
23	B0	167	A	67.4
23	B0	64	C	67.4
1	AA	27	G	67.4

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Mol	Chain	Res	Type	RSRZ
1	AA	286	G	67.4
24	B9	68	A	67.3
23	B0	77	C	67.3
23	B0	592	G	67.3
23	B0	2225	G	67.3
23	B0	162	C	67.3
1	AA	814	A	67.3
10	AH	7	ALA	67.3
23	B0	649	G	67.3
23	B0	3875	A	67.2
23	B0	1756	C	67.2
1	AA	297	G	67.2
1	AA	791	G	67.1
23	B0	1110	G	67.1
23	B0	1139	A	67.1
23	B0	1070	G	67.1
23	B0	2642	G	67.1
1	AA	23	C	67.0
23	B0	2761	A	67.0
1	AA	1232	U	67.0
1	AA	756	C	67.0
23	B0	1958	G	67.0
23	B0	1755	G	66.9
23	B0	2403	C	66.9
23	B0	2224	U	66.9
23	B0	930	A	66.8
1	AA	533	A	66.8
23	B0	2788	C	66.8
23	B0	2785	A	66.8
23	B0	46	C	66.8
24	B9	81	C	66.7
24	B9	83	C	66.7
23	B0	2724	G	66.6
23	B0	1250	A	66.6
1	AA	113	G	66.6
23	B0	804	C	66.6
10	AH	10	LEU	66.5
23	B0	806	A	66.5
23	B0	2344	G	66.5
23	B0	2268	G	66.5
24	B9	115	G	66.5
23	B0	1012	A	66.5

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Mol	Chain	Res	Type	RSRZ
23	B0	2326	C	66.4
23	B0	2876	C	66.4
23	B0	563	U	66.4
24	B9	91	A	66.4
23	B0	361	G	66.3
23	B0	2457	A	66.3
23	B0	2407	G	66.3
23	B0	569	C	66.3
24	B9	66	G	66.3
1	AA	741	G	66.2
23	B0	1059	A	66.2
23	B0	2630	C	66.2
23	B0	594	G	66.2
23	B0	1780	A	66.2
1	AA	26	A	66.2
23	B0	2259	G	66.2
1	AA	563	A	66.2
23	B0	617	U	66.2
23	B0	2854	G	66.1
23	B0	2865	G	66.1
23	B0	2805	G	66.1
10	AH	8	ASP	66.1
23	B0	560	G	66.1
23	B0	2770	A	66.1
31	BG	50	ASP	66.1
1	AA	1233	G	66.1
23	B0	1270	C	66.0
1	AA	574	A	66.0
23	B0	1668	G	65.9
23	B0	163	A	65.9
23	B0	2528	G	65.9
23	B0	451	A	65.9
1	AA	119	A	65.8
1	AA	1198	G	65.8
23	B0	1024	G	65.8
23	B0	2676	G	65.8
23	B0	651	C	65.7
23	B0	177	U	65.7
23	B0	1631	C	65.7
23	B0	209	G	65.6
23	B0	1822	C	65.6
23	B0	2473	G	65.6

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Mol	Chain	Res	Type	RSRZ
23	B0	1686	A	65.6
28	BD	2	GLN	65.5
23	B0	1392	U	65.5
23	B0	1016	C	65.5
23	B0	153	A	65.4
23	B0	684	C	65.4
23	B0	784	U	65.4
1	AA	944	G	65.4
23	B0	31	C	65.4
23	B0	1758	C	65.4
23	B0	2412	A	65.4
23	B0	102	C	65.4
23	B0	872	G	65.4
23	B0	438	G	65.3
23	B0	810	U	65.2
23	B0	436	A	65.2
1	AA	731	G	65.2
23	B0	2811	G	65.2
23	B0	15	G	65.2
23	B0	355	G	65.2
23	B0	1978	U	65.1
24	B9	84	G	65.1
23	B0	113	C	65.1
23	B0	1746	A	65.1
23	B0	2309	G	65.0
31	BG	98	LYS	65.0
23	B0	2016	A	65.0
23	B0	1261	G	65.0
23	B0	1744	G	65.0
23	B0	341	A	65.0
23	B0	2675	U	64.9
23	B0	636	G	64.9
23	B0	1318	A	64.9
23	B0	68	C	64.9
23	B0	987	G	64.9
23	B0	2740	C	64.9
23	B0	464	G	64.8
23	B0	581	A	64.8
23	B0	954	U	64.8
23	B0	1308	C	64.8
23	B0	1752	U	64.8
23	B0	2276	C	64.8

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Mol	Chain	Res	Type	RSRZ
1	AA	24	U	64.8
23	B0	63	A	64.7
23	B0	97	U	64.7
1	AA	28	G	64.7
23	B0	111	G	64.7
23	B0	2060	A	64.7
23	B0	308	C	64.6
23	B0	1288	A	64.6
23	B0	363	G	64.6
1	AA	895	G	64.6
24	B9	95	U	64.5
34	BJ	34	HIS	64.5
23	B0	924	C	64.5
23	B0	1574	A	64.4
23	B0	2810	A	64.3
23	B0	1791	C	64.3
1	AA	587	G	64.3
10	AH	135	CYS	64.3
23	B0	1764	A	64.2
23	B0	2800	C	64.2
23	B0	2696	A	64.1
23	B0	851	C	64.1
1	AA	1053	G	64.1
1	AA	914	A	64.1
23	B0	47	G	64.1
1	AA	1434	A	64.1
23	B0	1959	U	64.0
23	B0	1328	C	64.0
23	B0	1369	G	64.0
1	AA	349	A	63.9
23	B0	339	U	63.9
1	AA	727	G	63.8
23	B0	977	G	63.8
23	B0	2453	C	63.8
23	B0	757	U	63.7
23	B0	814	G	63.7
23	B0	2269	G	63.7
23	B0	966	A	63.6
23	B0	312	G	63.6
23	B0	1203	A	63.6
1	AA	30	U	63.6
23	B0	429	C	63.6

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Mol	Chain	Res	Type	RSRZ
23	B0	1015	U	63.5
23	B0	71	A	63.5
23	B0	774	A	63.5
23	B0	1427	G	63.5
23	B0	2002	A	63.5
23	B0	997	C	63.5
23	B0	419	G	63.5
23	B0	2603	G	63.4
23	B0	1671	A	63.4
2	AV	29	A	63.4
23	B0	1970	G	63.3
23	B0	161	U	63.3
23	B0	101	A	63.3
23	B0	37	C	63.3
23	B0	342	G	63.2
23	B0	69	G	63.2
23	B0	351	A	63.2
23	B0	2631	C	63.1
1	AA	523	A	63.1
23	B0	1717	A	63.0
1	AA	333	G	63.0
23	B0	551	A	63.0
50	BZ	12	SER	63.0
23	B0	690	A	63.0
23	B0	562	G	63.0
23	B0	2469	G	63.0
23	B0	848	A	63.0
23	B0	1821	A	63.0
23	B0	2054	A	62.9
1	AA	728	A	62.9
1	AA	319	G	62.9
23	B0	2762	G	62.9
23	B0	1743	C	62.9
23	B0	2539	C	62.9
1	AA	1508	G	62.9
1	AA	511	C	62.9
17	AO	55	GLY	62.8
23	B0	960	U	62.8
1	AA	575	G	62.8
23	B0	1695	U	62.8
23	B0	1862	C	62.8
23	B0	923	A	62.7

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Mol	Chain	Res	Type	RSRZ
23	B0	2230	G	62.7
23	B0	1660	G	62.7
1	AA	1199	U	62.7
23	B0	662	G	62.7
23	B0	1653	C	62.7
23	B0	2475	C	62.6
23	B0	1579	G	62.6
39	BO	5	LYS	62.6
23	B0	2443	C	62.6
23	B0	168	A	62.6
23	B0	1820	G	62.6
1	AA	134	A	62.5
23	B0	2413	A	62.5
23	B0	2454	C	62.5
23	B0	1272	G	62.5
23	B0	360	A	62.5
31	BG	99	LEU	62.4
1	AA	1079	G	62.4
23	B0	1311	C	62.4
23	B0	605	G	62.4
23	B0	739	G	62.4
23	B0	1285	A	62.3
23	B0	353	G	62.2
23	B0	2010	G	62.2
23	B0	701	U	62.2
23	B0	1815	G	62.2
23	B0	994	A	62.2
10	AH	35	ILE	62.2
23	B0	2235	G	62.2
23	B0	1969	G	62.1
23	B0	670	U	62.1
23	B0	973	U	62.1
23	B0	2608	A	62.0
23	B0	1408	A	62.0
28	BD	59	LEU	61.9
24	B9	85	G	61.9
23	B0	2855	C	61.8
23	B0	565	A	61.8
23	B0	1680	U	61.7
23	B0	813	A	61.7
23	B0	2345	A	61.7
23	B0	1104	G	61.7

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Mol	Chain	Res	Type	RSRZ
23	B0	921	A	61.7
23	B0	1725	C	61.7
23	B0	2493	U	61.6
23	B0	928	G	61.6
23	B0	2009	U	61.6
23	B0	2338	C	61.6
23	B0	2700	U	61.6
1	AA	739	C	61.5
23	B0	747	A	61.5
23	B0	673	G	61.5
23	B0	1661	C	61.5
1	AA	48	C	61.5
1	AA	305	G	61.5
23	B0	57	G	61.5
23	B0	1903	C	61.5
23	B0	2258	G	61.5
44	BT	158	CYS	61.4
23	B0	979	A	61.4
23	B0	1154	A	61.4
23	B0	2336	G	61.3
1	AA	1525	G	61.3
23	B0	1814	G	61.3
23	B0	2712	G	61.3
23	B0	456	C	61.3
1	AA	21	G	61.3
23	B0	777	A	61.2
23	B0	2766	U	61.2
1	AA	542	G	61.2
23	B0	1751	A	61.2
23	B0	976	C	61.2
23	B0	2234	G	61.2
23	B0	1750	A	61.2
1	AA	120	A	61.1
23	B0	1251	G	61.1
23	B0	787	A	61.1
23	B0	552	C	61.1
24	B9	113	G	61.1
23	B0	2813	G	61.1
10	AH	28	ALA	61.1
23	B0	2633	A	61.1
1	AA	1524	C	61.0
26	BB	146	THR	61.0

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Mol	Chain	Res	Type	RSRZ
23	B0	309	G	61.0
23	B0	616	U	61.0
23	B0	959	C	61.0
31	BG	100	ASN	60.9
23	B0	2515	G	60.9
23	B0	2253	A	60.9
10	AH	3	THR	60.8
23	B0	1017	C	60.8
23	B0	2670	C	60.8
23	B0	182	G	60.8
23	B0	647	G	60.8
1	AA	106	C	60.7
23	B0	2647	G	60.7
23	B0	1655	C	60.7
23	B0	117	A	60.7
1	AA	1435	G	60.7
1	AA	1432	G	60.7
23	B0	1145	C	60.6
23	B0	1011	A	60.6
23	B0	2607	C	60.6
23	B0	2589	C	60.5
23	B0	42	G	60.5
23	B0	1470	G	60.5
24	B9	86	A	60.5
1	AA	114	U	60.5
1	AA	1055	A	60.5
23	B0	1265	G	60.4
23	B0	1587	A	60.4
1	AA	573	A	60.4
1	AA	335	C	60.4
23	B0	927	C	60.4
1	AA	589	C	60.3
1	AA	278	G	60.3
1	AA	769	G	60.3
23	B0	53	G	60.3
23	B0	116	A	60.3
23	B0	2519	C	60.3
1	AA	643	C	60.3
23	B0	609	U	60.2
23	B0	1266	G	60.2
23	B0	2415	G	60.2
24	B9	94	G	60.2

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Mol	Chain	Res	Type	RSRZ
23	B0	1014	G	60.2
1	AA	1396	A	60.2
23	B0	2237	C	60.2
23	B0	125	A	60.1
23	B0	547	U	60.1
7	AE	122	GLU	60.1
23	B0	352	G	60.0
23	B0	2279	G	60.0
23	B0	2697	G	60.0
23	B0	598	U	60.0
23	B0	91	A	60.0
23	B0	454	G	59.9
23	B0	14	A	59.9
23	B0	489	A	59.9
23	B0	2458	U	59.9
23	B0	2325	A	59.9
23	B0	452	G	59.9
23	B0	1150	C	59.8
23	B0	1792	C	59.8
1	AA	526	C	59.8
23	B0	196	A	59.8
17	AO	69	TYR	59.8
23	B0	967	G	59.8
1	AA	230	G	59.8
23	B0	1290	A	59.7
23	B0	2757	G	59.7
23	B0	2623	A	59.7
23	B0	2549	G	59.7
24	B9	89	G	59.7
23	B0	183	U	59.7
23	B0	696	U	59.7
23	B0	1698	C	59.7
23	B0	1784	C	59.7
23	B0	242	A	59.7
23	B0	1654	A	59.7
1	AA	245	C	59.6
1	AA	291	C	59.6
23	B0	401	G	59.5
23	B0	595	A	59.5
1	AA	329	A	59.5
23	B0	2056	C	59.5
23	B0	2822	U	59.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
23	B0	2664	G	59.4
23	B0	1760	G	59.4
24	B9	117	G	59.4
1	AA	823	G	59.4
1	AA	951	G	59.4
23	B0	1382	G	59.3
1	AA	654	G	59.3
23	B0	770	U	59.3
23	B0	2035	G	59.3
1	AA	773	G	59.2
23	B0	27	G	59.2
23	B0	888	G	59.2
23	B0	441	A	59.2
1	AA	1523	G	59.1
23	B0	108	G	59.1
1	AA	1401	G	59.1
23	B0	2505	G	59.1
1	AA	294	U	59.1
23	B0	1399	C	59.0
23	B0	790	A	59.0
1	AA	1229	A	59.0
23	B0	1096	A	59.0
23	B0	2769	C	58.9
23	B0	1383	C	58.9
23	B0	2255	G	58.9
1	AA	912	C	58.9
1	AA	1206	G	58.9
23	B0	30	G	58.8
23	B0	333	A	58.8
23	B0	1410	U	58.8
1	AA	320	C	58.8
23	B0	2005	U	58.8
10	AH	79	VAL	58.7
23	B0	1643	A	58.7
23	B0	847	C	58.7
1	AA	894	G	58.7
23	B0	1788	C	58.7
23	B0	1781	C	58.6
23	B0	682	G	58.6
23	B0	1742	G	58.6
24	B9	9	G	58.6
1	AA	873	A	58.6

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Mol	Chain	Res	Type	RSRZ
23	B0	2218	G	58.6
23	B0	535	U	58.5
23	B0	2317	G	58.5
23	B0	1669	A	58.5
1	AA	1505	G	58.5
23	B0	1901	A	58.5
23	B0	745	C	58.5
2	AV	31	A	58.5
23	B0	1362	A	58.5
1	AA	543	C	58.4
23	B0	354	C	58.4
23	B0	2685	A	58.4
23	B0	1138	A	58.4
10	AH	27	PRO	58.4
23	B0	2053	G	58.4
23	B0	771	C	58.4
23	B0	1140	A	58.3
23	B0	2787	A	58.3
23	B0	2839	G	58.3
23	B0	314	G	58.3
23	B0	2312	A	58.3
1	AA	742	G	58.3
23	B0	2264	C	58.3
23	B0	2628	C	58.3
23	B0	2638	G	58.3
23	B0	929	A	58.3
23	B0	835	U	58.3
1	AA	860	A	58.2
23	B0	197	G	58.2
23	B0	1325	U	58.2
23	B0	3876	A	58.2
23	B0	2240	C	58.2
23	B0	222	G	58.1
23	B0	449	C	58.1
23	B0	573	C	58.1
23	B0	1018	C	58.1
23	B0	2527	G	58.1
23	B0	652	C	58.1
10	AH	39	LEU	58.1
1	AA	122	G	58.1
23	B0	1596	A	58.0
23	B0	1761	G	58.0

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Mol	Chain	Res	Type	RSRZ
1	AA	1526	G	58.0
23	B0	1772	C	58.0
1	AA	891	U	58.0
23	B0	356	A	58.0
23	B0	1436	G	57.9
1	AA	896	C	57.9
23	B0	672	C	57.9
23	B0	568	G	57.9
1	AA	1433	A	57.9
23	B0	1214	C	57.9
23	B0	1118	G	57.9
23	B0	2067	U	57.9
23	B0	320	A	57.9
23	B0	417	C	57.8
1	AA	544	G	57.8
1	AA	917	G	57.8
23	B0	2017	U	57.8
23	B0	414	A	57.8
1	AA	550	G	57.8
10	AH	4	ASP	57.8
23	B0	334	G	57.7
1	AA	571	U	57.7
23	B0	1258	G	57.7
23	B0	1395	A	57.7
23	B0	469	G	57.7
23	B0	1109	A	57.7
23	B0	1723	U	57.7
1	AA	968	A	57.7
1	AA	790	A	57.7
23	B0	2303	C	57.6
23	B0	1520	G	57.6
23	B0	1519	G	57.6
23	B0	766	A	57.5
23	B0	1672	A	57.5
23	B0	679	C	57.5
23	B0	753	U	57.4
23	B0	2315	A	57.4
23	B0	2542	U	57.4
23	B0	795	A	57.4
1	AA	1366	C	57.4
23	B0	2637	C	57.4
1	AA	666	G	57.4

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Mol	Chain	Res	Type	RSRZ
23	B0	998	C	57.4
23	B0	2688	G	57.4
23	B0	1503	G	57.4
23	B0	1103	C	57.3
23	B0	1797	C	57.3
23	B0	2001	G	57.3
23	B0	2319	G	57.3
1	AA	290	C	57.3
23	B0	1351	G	57.3
23	B0	792	U	57.3
1	AA	572	A	57.2
23	B0	70	A	57.2
23	B0	1380	C	57.2
1	AA	828	A	57.2
23	B0	66	U	57.2
1	AA	108	G	57.2
23	B0	2414	A	57.2
23	B0	49	U	57.1
1	AA	1416	G	57.1
23	B0	1134	C	57.1
23	B0	1681	A	57.1
24	B9	5	C	57.1
23	B0	430	C	57.0
23	B0	2026	C	57.0
23	B0	1854	G	57.0
23	B0	1652	G	57.0
1	AA	33	A	56.9
23	B0	55	A	56.9
23	B0	661	C	56.9
23	B0	1368	G	56.9
23	B0	2436	U	56.9
23	B0	2837	G	56.9
1	AA	109	A	56.9
23	B0	247	A	56.9
1	AA	652	U	56.8
1	AA	577	G	56.8
1	AA	1511	G	56.8
1	AA	115	G	56.8
24	B9	90	C	56.8
23	B0	1448	A	56.7
23	B0	2333	A	56.7
23	B0	653	G	56.7

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Mol	Chain	Res	Type	RSRZ
23	B0	2721	A	56.6
1	AA	1527	C	56.6
1	AA	16	A	56.6
23	B0	3877	A	56.6
1	AA	1064	G	56.6
23	B0	3866	A	56.6
23	B0	2640	G	56.6
1	AA	538	G	56.6
23	B0	1048	U	56.6
23	B0	2233	C	56.6
23	B0	2065	A	56.5
1	AA	1417	G	56.5
23	B0	2353	G	56.5
23	B0	832	A	56.5
23	B0	103	U	56.5
23	B0	2251	U	56.5
23	B0	1388	C	56.5
1	AA	889	A	56.5
23	B0	2370	G	56.5
1	AA	1410	G	56.4
23	B0	732	G	56.4
23	B0	173	A	56.4
23	B0	712	A	56.4
23	B0	1166	A	56.4
1	AA	645	C	56.4
24	B9	65	A	56.4
1	AA	1491	G	56.4
23	B0	2492	G	56.4
23	B0	3	U	56.4
23	B0	490	A	56.4
1	AA	1414	U	56.3
23	B0	2801	A	56.3
1	AA	763	G	56.3
23	B0	1861	G	56.3
1	AA	1080	A	56.3
1	AA	909	A	56.3
23	B0	2720	A	56.2
23	B0	1409	U	56.2
23	B0	815	A	56.2
23	B0	2698	G	56.2
23	B0	1260	A	56.1
1	AA	963	G	56.1

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Mol	Chain	Res	Type	RSRZ
1	AA	1468	A	56.1
23	B0	1779	C	56.1
23	B0	2460	G	56.1
23	B0	1796	A	56.1
1	AA	1408	A	56.0
1	AA	18	C	56.0
1	AA	922	G	56.0
23	B0	799	C	56.0
23	B0	154	U	56.0
23	B0	1609	G	55.9
34	BJ	40	ARG	55.9
23	B0	104	C	55.9
23	B0	2266	A	55.9
23	B0	1807	A	55.9
23	B0	567	G	55.9
7	AE	29	GLY	55.9
23	B0	54	G	55.9
23	B0	599	A	55.9
23	B0	2655	C	55.8
1	AA	353	A	55.8
23	B0	958	G	55.8
23	B0	1010	U	55.8
23	B0	244	C	55.8
1	AA	1442	G	55.7
23	B0	2821	G	55.7
23	B0	655	A	55.7
23	B0	2526	U	55.7
1	AA	1517	G	55.7
24	B9	82	U	55.7
23	B0	1416	A	55.7
1	AA	861	G	55.7
1	AA	918	A	55.7
23	B0	94	C	55.6
23	B0	152	G	55.6
23	B0	1659	G	55.6
23	B0	1979	C	55.6
23	B0	392	G	55.5
23	B0	2576	G	55.5
23	B0	2012	A	55.5
1	AA	874	G	55.5
23	B0	2385	U	55.5
23	B0	2773	G	55.5

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Mol	Chain	Res	Type	RSRZ
23	B0	918	A	55.4
1	AA	529	G	55.4
23	B0	984	A	55.4
23	B0	510	G	55.3
1	AA	1466	C	55.3
23	B0	2644	A	55.3
23	B0	2636	A	55.3
1	AA	668	G	55.3
23	B0	1050	G	55.3
23	B0	1415	C	55.3
1	AA	872	A	55.2
23	B0	511	A	55.2
23	B0	2782	G	55.2
23	B0	645	G	55.2
23	B0	2807	U	55.2
1	AA	897	C	55.2
23	B0	707	U	55.2
23	B0	319	G	55.2
23	B0	2780	A	55.1
23	B0	845	U	55.1
23	B0	2249	U	55.1
23	B0	371	G	55.1
23	B0	1656	U	55.1
23	B0	85	C	55.1
23	B0	2300	G	55.1
23	B0	2004	U	55.1
24	B9	96	C	55.0
23	B0	1825	C	55.0
23	B0	574	C	55.0
23	B0	746	G	55.0
23	B0	1928	G	55.0
23	B0	2052	G	55.0
1	AA	503	C	54.9
1	AA	964	A	54.9
23	B0	1976	U	54.9
23	B0	889	C	54.9
1	AA	321	A	54.9
23	B0	169	C	54.9
23	B0	494	A	54.8
23	B0	2388	G	54.8
23	B0	2829	A	54.8
23	B0	335	A	54.7

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Mol	Chain	Res	Type	RSRZ
1	AA	738	C	54.7
23	B0	1060	C	54.6
23	B0	142	U	54.6
23	B0	508	G	54.6
23	B0	346	C	54.5
1	AA	1497	G	54.5
23	B0	1429	A	54.5
23	B0	1141	U	54.5
1	AA	893	C	54.4
23	B0	62	U	54.4
1	AA	336	C	54.4
1	AA	536	C	54.4
23	B0	4	C	54.3
23	B0	1658	A	54.3
23	B0	241	C	54.3
23	B0	1215	A	54.3
23	B0	1597	A	54.3
1	AA	502	G	54.3
23	B0	1670	G	54.2
55	B5	143	ASP	54.2
23	B0	2783	U	54.2
1	AA	341	C	54.1
1	AA	1193	G	54.1
23	B0	1762	C	54.1
1	AA	302	G	54.1
23	B0	470	U	54.1
23	B0	2509	A	54.1
23	B0	2011	U	54.0
23	B0	2711	G	54.0
23	B0	846	A	54.0
23	B0	1062	G	54.0
23	B0	985	G	54.0
23	B0	2260	C	54.0
23	B0	1700	C	53.9
23	B0	2062	U	53.9
23	B0	2702	G	53.9
1	AA	541	G	53.9
23	B0	1991	C	53.9
1	AA	342	C	53.9
23	B0	2577	A	53.9
23	B0	1968	G	53.8
24	B9	120	G	53.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
23	B0	1065	A	53.8
23	B0	1259	A	53.8
1	AA	815	A	53.8
23	B0	2660	C	53.8
31	BG	51	ALA	53.8
1	AA	399	G	53.7
23	B0	996	C	53.7
1	AA	398	C	53.6
1	AA	898	G	53.6
23	B0	674	U	53.6
23	B0	2723	C	53.6
1	AA	17	U	53.5
23	B0	2716	G	53.5
1	AA	916	G	53.5
1	AA	1467	G	53.5
1	AA	582	U	53.5
1	AA	107	G	53.5
23	B0	305	A	53.5
23	B0	41	G	53.5
23	B0	1580	C	53.5
44	BT	156	GLU	53.4
23	B0	129	A	53.4
23	B0	2634	G	53.4
1	AA	759	A	53.4
23	B0	763	A	53.4
23	B0	1386	A	53.4
23	B0	2550	C	53.4
24	B9	110	U	53.4
1	AA	1504	G	53.3
23	B0	349	G	53.3
23	B0	602	C	53.3
55	B5	94	GLN	53.3
1	AA	334	C	53.3
23	B0	650	U	53.3
23	B0	824	U	53.3
23	B0	38	G	53.3
23	B0	112	U	53.2
23	B0	717	G	53.2
23	B0	680	U	53.2
23	B0	1799	A	53.2
1	AA	1476	G	53.2
23	B0	986	A	53.2

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Mol	Chain	Res	Type	RSRZ
28	BD	3	GLN	53.2
23	B0	60	A	53.2
23	B0	337	G	53.1
1	AA	1062	U	53.1
23	B0	1602	G	53.1
23	B0	145	C	53.0
23	B0	591	G	53.0
1	AA	821	G	53.0
1	AA	906	G	53.0
23	B0	455	A	53.0
23	B0	972	C	52.9
23	B0	472	C	52.8
23	B0	1099	A	52.8
1	AA	761	G	52.8
23	B0	1688	U	52.8
1	AA	279	A	52.8
23	B0	980	G	52.8
23	B0	1707	A	52.8
23	B0	2873	G	52.8
1	AA	888	G	52.8
23	B0	450	C	52.8
10	AH	17	THR	52.7
23	B0	2434	G	52.7
1	AA	764	C	52.7
23	B0	713	G	52.7
23	B0	2508	G	52.7
23	B0	1157	G	52.7
23	B0	2612	G	52.7
23	B0	2789	U	52.7
23	B0	561	U	52.7
1	AA	348	G	52.6
23	B0	2514	G	52.6
23	B0	2759	U	52.6
1	AA	344	A	52.6
23	B0	18	U	52.6
23	B0	2704	U	52.6
23	B0	2736	U	52.5
23	B0	842	A	52.5
10	AH	11	THR	52.5
23	B0	704	G	52.5
23	B0	2765	C	52.5
23	B0	709	A	52.4

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Mol	Chain	Res	Type	RSRZ
23	B0	995	A	52.4
23	B0	1040	A	52.3
23	B0	1223	G	52.3
23	B0	2435	C	52.3
23	B0	394	U	52.3
23	B0	303	C	52.3
23	B0	327	C	52.3
44	BT	159	THR	52.3
1	AA	1501	C	52.3
23	B0	738	G	52.3
23	B0	2391	A	52.2
23	B0	322	A	52.2
1	AA	1512	U	52.2
23	B0	299	C	52.2
34	BJ	35	LYS	52.2
1	AA	817	C	52.2
17	AO	25	THR	52.2
1	AA	1518	A	52.1
10	AH	109	ILE	52.1
23	B0	304	A	52.1
1	AA	1469	G	52.1
17	AO	59	MET	52.1
23	B0	1769	U	52.0
23	B0	934	G	52.0
23	B0	2864	C	52.0
23	B0	3874	C	52.0
1	AA	1409	C	52.0
23	B0	1633	C	52.0
1	AA	1207	G	52.0
23	B0	1117	G	52.0
23	B0	1	G	52.0
1	AA	762	C	52.0
1	AA	537	G	51.9
23	B0	1216	G	51.9
23	B0	2641	A	51.9
23	B0	93	A	51.9
1	AA	1437	C	51.9
23	B0	1378	A	51.9
23	B0	2196	U	51.8
1	AA	953	G	51.8
23	B0	409	G	51.8
1	AA	883	C	51.8

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Mol	Chain	Res	Type	RSRZ
1	AA	1436	U	51.7
23	B0	786	U	51.7
23	B0	648	A	51.7
1	AA	133	U	51.7
31	BG	82	ALA	51.7
6	AD	53	ASP	51.7
23	B0	56	C	51.7
23	B0	626	A	51.7
1	AA	289	G	51.7
23	B0	823	U	51.6
1	AA	792	A	51.6
23	B0	2366	U	51.6
23	B0	2560	G	51.6
1	AA	653	A	51.6
23	B0	219	G	51.6
23	B0	659	G	51.6
1	AA	34	C	51.6
1	AA	11	G	51.6
23	B0	347	C	51.5
23	B0	640	C	51.5
1	AA	303	A	51.5
1	AA	1486	G	51.5
1	AA	774	G	51.5
23	B0	2490	U	51.5
23	B0	1795	C	51.5
28	BD	144	ASP	51.5
10	AH	61	VAL	51.5
23	B0	2557	G	51.5
24	B9	116	C	51.5
23	B0	1785	A	51.5
23	B0	364	G	51.4
23	B0	956	A	51.4
23	B0	2756	A	51.4
1	AA	734	G	51.4
6	AD	55	ALA	51.4
23	B0	1630	A	51.4
10	AH	29	SER	51.4
1	AA	236	G	51.4
24	B9	64	C	51.4
1	AA	827	U	51.4
23	B0	660	G	51.4
31	BG	94	ALA	51.3

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Mol	Chain	Res	Type	RSRZ
23	B0	2656	G	51.3
23	B0	1262	U	51.3
1	AA	803	G	51.3
1	AA	1343	G	51.3
23	B0	2518	C	51.3
26	BB	148	GLY	51.3
23	B0	1435	G	51.3
23	B0	2464	G	51.3
1	AA	1440	C	51.2
39	BO	3	ARG	51.2
23	B0	2529	G	51.2
23	B0	1941	C	51.2
24	B9	93	G	51.2
10	AH	6	ILE	51.2
1	AA	902	G	51.2
23	B0	1759	A	51.1
23	B0	2771	C	51.1
1	AA	324	G	51.1
1	AA	650	G	51.1
23	B0	1593	C	51.1
23	B0	315	G	51.0
1	AA	110	C	51.0
1	AA	522	C	51.0
23	B0	1273	G	51.0
1	AA	950	U	51.0
1	AA	1179	A	51.0
23	B0	5	A	50.9
23	B0	226	C	50.9
1	AA	1494	G	50.9
1	AA	160	A	50.9
23	B0	1444	C	50.9
23	B0	2869	U	50.9
1	AA	559	A	50.9
23	B0	2349	G	50.9
34	BJ	33	GLY	50.8
17	AO	33	THR	50.8
23	B0	1350	G	50.8
1	AA	517	G	50.8
23	B0	2506	C	50.7
23	B0	624	A	50.7
23	B0	2015	G	50.7
23	B0	332	C	50.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
23	B0	1291	G	50.7
1	AA	246	A	50.6
23	B0	124	A	50.6
23	B0	1131	G	50.6
1	AA	64	G	50.6
23	B0	506	G	50.6
23	B0	2652	G	50.6
23	B0	2681	A	50.6
24	B9	118	G	50.5
28	BD	61	THR	50.5
23	B0	1167	A	50.5
23	B0	714	G	50.5
1	AA	598	U	50.5
23	B0	1573	G	50.5
23	B0	2310	G	50.5
23	B0	532	A	50.5
31	BG	80	LYS	50.5
23	B0	2852	G	50.5
23	B0	2825	A	50.5
1	AA	123	C	50.5
23	B0	141	G	50.5
23	B0	2320	G	50.4
1	AA	15	G	50.4
1	AA	794	A	50.4
34	BJ	36	GLY	50.4
23	B0	622	U	50.4
1	AA	864	A	50.4
1	AA	312	C	50.3
1	AA	1431	C	50.3
23	B0	1123	G	50.3
23	B0	2722	C	50.2
1	AA	1475	G	50.2
1	AA	884	U	50.2
1	AA	35	G	50.2
1	AA	1398	A	50.2
23	B0	1073	G	50.1
23	B0	2354	G	50.1
1	AA	949	A	50.1
23	B0	1428	G	50.1
23	B0	1485	U	50.0
1	AA	1117	G	50.0
10	AH	80	ILE	50.0

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Mol	Chain	Res	Type	RSRZ
23	B0	520	C	50.0
23	B0	343	A	50.0
1	AA	1058	G	50.0
23	B0	631	G	50.0
17	AO	32	LEU	49.9
23	B0	1279	G	49.9
23	B0	1423	A	49.9
24	B9	71	G	49.9
23	B0	2856	U	49.9
23	B0	3868	U	49.8
3	AU	8	G	49.8
23	B0	2271	C	49.8
23	B0	2703	C	49.8
23	B0	393	U	49.8
23	B0	2701	A	49.7
23	B0	1249	G	49.7
23	B0	833	A	49.7
23	B0	1300	A	49.7
23	B0	2384	G	49.7
23	B0	706	A	49.6
23	B0	983	G	49.6
1	AA	811	C	49.6
23	B0	926	C	49.6
23	B0	2846	G	49.6
23	B0	2476	A	49.6
23	B0	1440	G	49.6
23	B0	318	G	49.5
39	BO	8	ILE	49.5
23	B0	1711	C	49.5
23	B0	733	G	49.5
23	B0	1431	U	49.5
1	AA	904	C	49.4
23	B0	1061	A	49.4
23	B0	2781	G	49.4
2	AV	49	C	49.4
23	B0	758	G	49.4
1	AA	308	C	49.4
10	AH	1	MET	49.4
23	B0	957	G	49.3
23	B0	2491	C	49.3
23	B0	2717	G	49.3
23	B0	1027	C	49.3

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Mol	Chain	Res	Type	RSRZ
23	B0	1009	C	49.2
28	BD	62	LEU	49.2
1	AA	124	G	49.2
1	AA	1492	A	49.2
23	B0	2735	C	49.1
1	AA	610	G	49.1
23	B0	644	A	49.1
23	B0	1049	C	49.0
23	B0	1204	G	49.0
17	AO	63	ARG	49.0
23	B0	2282	G	49.0
23	B0	1514	C	49.0
24	B9	79	U	49.0
23	B0	2513	A	49.0
23	B0	2445	C	48.9
10	AH	33	GLU	48.9
23	B0	1430	G	48.9
1	AA	299	G	48.9
1	AA	576	G	48.9
12	AJ	55	LYS	48.9
23	B0	2826	C	48.9
23	B0	718	A	48.8
23	B0	1202	U	48.8
23	B0	1472	C	48.8
23	B0	1972	G	48.8
23	B0	761	G	48.8
23	B0	715	U	48.8
23	B0	1432	G	48.7
23	B0	1084	A	48.7
23	B0	310	A	48.7
23	B0	326	A	48.7
1	AA	882	C	48.7
1	AA	967	C	48.7
10	AH	13	ILE	48.7
23	B0	1722	G	48.7
23	B0	2784	A	48.7
1	AA	829	G	48.7
23	B0	2450	A	48.7
1	AA	132	C	48.7
1	AA	288	A	48.6
1	AA	1407	C	48.6
1	AA	343	U	48.6

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Mol	Chain	Res	Type	RSRZ
1	AA	314	C	48.6
23	B0	26	G	48.6
1	AA	292	G	48.6
23	B0	1054	C	48.6
1	AA	51	A	48.5
1	AA	1060	C	48.5
23	B0	1632	A	48.5
23	B0	205	A	48.5
23	B0	2416	U	48.5
10	AH	44	PHE	48.5
24	B9	18	G	48.5
24	B9	114	C	48.4
23	B0	600	G	48.4
1	AA	1203	C	48.4
1	AA	595	G	48.4
23	B0	2750	G	48.4
1	AA	1405	G	48.3
39	BO	4	ALA	48.3
23	B0	1036	G	48.3
23	B0	1425	G	48.3
1	AA	1498	U	48.3
1	AA	1385	G	48.3
23	B0	1405	A	48.3
1	AA	596	C	48.3
1	AA	1069	C	48.3
23	B0	641	G	48.2
23	B0	735	G	48.2
23	B0	2283	G	48.2
23	B0	1712	G	48.2
23	B0	2314	A	48.2
10	AH	108	GLY	48.2
1	AA	1057	G	48.2
1	AA	527	G	48.2
23	B0	1484	G	48.2
23	B0	2219	U	48.2
23	B0	1387	G	48.2
23	B0	2270	U	48.2
1	AA	104	G	48.1
23	B0	1417	C	48.1
3	AU	7	U	48.1
23	B0	1397	A	48.1
23	B0	402	A	48.1

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Mol	Chain	Res	Type	RSRZ
1	AA	1490	C	48.0
23	B0	1644	G	48.0
23	B0	28	A	48.0
7	AE	75	THR	48.0
23	B0	2063	A	48.0
23	B0	2632	U	48.0
2	AV	35	A	48.0
23	B0	2715	C	48.0
7	AE	17	ALA	48.0
23	B0	1789	U	47.9
23	B0	1957	C	47.9
23	B0	323	G	47.9
1	AA	825	G	47.9
23	B0	2622	G	47.9
23	B0	2649	A	47.8
23	B0	2794	G	47.8
23	B0	1168	G	47.8
23	B0	719	A	47.8
31	BG	86	LYS	47.7
23	B0	1467	U	47.7
23	B0	495	C	47.7
23	B0	855	G	47.7
1	AA	775	G	47.7
1	AA	1513	A	47.7
23	B0	2280	A	47.7
10	AH	78	GLN	47.6
23	B0	471	A	47.6
1	AA	1344	C	47.6
24	B9	23	G	47.6
1	AA	554	C	47.6
23	B0	1329	U	47.6
24	B9	87	C	47.6
23	B0	2840	U	47.5
23	B0	391	C	47.5
23	B0	1507	A	47.5
1	AA	300	A	47.5
1	AA	1500	A	47.5
23	B0	1161	U	47.4
23	B0	2051	U	47.4
23	B0	2064	U	47.4
23	B0	1992	G	47.4
1	AA	528	C	47.4

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Mol	Chain	Res	Type	RSRZ
23	B0	2507	U	47.4
23	B0	321	A	47.3
1	AA	804	U	47.3
23	B0	2359	U	47.3
23	B0	1008	G	47.3
23	B0	1710	U	47.3
23	B0	1344	C	47.3
23	B0	2797	G	47.3
1	AA	1192	C	47.3
1	AA	562	C	47.3
1	AA	1056	U	47.3
2	AV	51	G	47.2
23	B0	2442	C	47.2
1	AA	900	A	47.2
1	AA	340	U	47.2
23	B0	2680	U	47.2
23	B0	2411	A	47.1
1	AA	298	A	47.1
1	AA	545	C	47.1
23	B0	486	U	47.1
23	B0	587	A	47.1
23	B0	999	A	47.0
1	AA	651	C	47.0
23	B0	1775	A	47.0
24	B9	100	G	47.0
1	AA	1465	C	47.0
23	B0	362	C	47.0
23	B0	1805	G	47.0
23	B0	528	G	46.9
1	AA	311	C	46.9
1	AA	1521	G	46.9
23	B0	493	A	46.9
23	B0	1502	G	46.9
23	B0	1033	G	46.9
26	BB	147	PRO	46.8
1	AA	566	G	46.8
23	B0	1610	A	46.8
23	B0	2874	A	46.8
23	B0	949	G	46.8
23	B0	3869	G	46.8
23	B0	2293	G	46.8
23	B0	2387	U	46.8

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Mol	Chain	Res	Type	RSRZ
1	AA	301	G	46.7
1	AA	521	G	46.7
23	B0	2449	G	46.7
24	B9	101	A	46.7
1	AA	751	U	46.7
23	B0	2672	U	46.7
23	B0	1466	C	46.7
1	AA	7	G	46.7
1	AA	771	G	46.7
23	B0	2578	G	46.7
23	B0	99	U	46.6
23	B0	39	C	46.6
23	B0	1201	G	46.6
34	BJ	41	SER	46.6
23	B0	685	U	46.6
23	B0	170	U	46.6
23	B0	764	A	46.5
23	B0	2352	A	46.5
1	AA	899	C	46.5
23	B0	1783	G	46.5
23	B0	2351	G	46.5
23	B0	2601	C	46.5
24	B9	72	C	46.5
23	B0	2058	U	46.5
12	AJ	54	PHE	46.5
31	BG	88	SER	46.5
1	AA	354	G	46.5
10	AH	87	SER	46.5
1	AA	770	C	46.4
1	AA	858	G	46.4
1	AA	919	A	46.4
23	B0	2301	A	46.4
1	AA	887	G	46.4
23	B0	822	G	46.3
23	B0	507	A	46.3
23	B0	621	U	46.3
23	B0	313	U	46.3
34	BJ	37	GLN	46.3
23	B0	1904	G	46.3
23	B0	2814	G	46.3
1	AA	175	C	46.3
24	B9	109	G	46.3

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Mol	Chain	Res	Type	RSRZ
23	B0	2870	C	46.3
1	AA	1049	U	46.3
23	B0	2510	A	46.2
23	B0	798	G	46.2
1	AA	965	A	46.2
23	B0	576	A	46.2
23	B0	628	A	46.2
23	B0	330	C	46.2
23	B0	2440	C	46.2
23	B0	1588	A	46.2
1	AA	877	C	46.2
1	AA	1499	A	46.2
23	B0	2369	U	46.2
23	B0	2677	U	46.2
1	AA	352	C	46.1
11	AI	110	GLU	46.1
23	B0	762	A	46.1
23	B0	2297	G	46.1
23	B0	1865	C	46.1
1	AA	19	C	46.1
1	AA	237	C	46.0
1	AA	1430	C	46.0
23	B0	919	U	46.0
1	AA	921	U	46.0
23	B0	1646	G	46.0
23	B0	527	C	46.0
23	B0	2272	A	46.0
23	B0	324	C	46.0
23	B0	2057	U	46.0
1	AA	1184	G	45.9
1	AA	1464	G	45.9
23	B0	1264	C	45.9
23	B0	302	U	45.9
23	B0	331	U	45.9
23	B0	1818	G	45.9
17	AO	70	LEU	45.9
1	AA	1059	C	45.8
23	B0	2383	C	45.8
23	B0	2050	G	45.8
1	AA	1050	G	45.8
23	B0	646	C	45.7
23	B0	869	C	45.7

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Mol	Chain	Res	Type	RSRZ
24	B9	105	G	45.7
1	AA	1185	G	45.7
23	B0	538	A	45.7
23	B0	1509	A	45.7
23	B0	2804	G	45.7
23	B0	1422	C	45.7
24	B9	32	C	45.7
23	B0	2718	A	45.7
23	B0	467	U	45.6
23	B0	1284	G	45.6
23	B0	2847	G	45.6
23	B0	2836	U	45.6
1	AA	327	A	45.6
23	B0	1476	G	45.5
23	B0	439	C	45.5
23	B0	920	G	45.5
23	B0	2629	U	45.5
1	AA	649	G	45.5
24	B9	92	G	45.5
23	B0	716	U	45.5
23	B0	1225	G	45.4
23	B0	2274	C	45.4
23	B0	2653	A	45.4
23	B0	390	U	45.4
1	AA	908	A	45.4
23	B0	1000	G	45.4
23	B0	978	U	45.3
23	B0	144	U	45.3
44	BT	157	GLY	45.3
23	B0	1158	A	45.3
7	AE	76	ILE	45.3
17	AO	54	ARG	45.3
7	AE	19	MET	45.3
24	B9	99	G	45.3
23	B0	2598	C	45.3
10	AH	5	PRO	45.3
1	AA	551	U	45.3
1	AA	1063	C	45.3
23	B0	588	G	45.3
1	AA	283	C	45.2
23	B0	1773	C	45.2
23	B0	1504	G	45.2

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Mol	Chain	Res	Type	RSRZ
1	AA	826	C	45.2
23	B0	2441	U	45.2
23	B0	1041	G	45.2
23	B0	1598	C	45.2
34	BJ	27	ASP	45.2
1	AA	905	U	45.2
1	AA	426	G	45.2
1	AA	737	A	45.2
23	B0	2455	A	45.2
23	B0	663	G	45.1
23	B0	1809	G	45.1
23	B0	817	A	45.1
23	B0	2262	C	45.1
23	B0	2538	C	45.1
1	AA	514	C	45.1
2	AV	63	C	45.1
23	B0	559	C	45.1
1	AA	915	A	45.0
23	B0	1718	A	45.0
23	B0	1804	U	45.0
23	B0	1581	C	45.0
23	B0	1936	A	45.0
23	B0	2444	C	45.0
24	B9	12	C	45.0
24	B9	33	C	45.0
1	AA	313	A	45.0
24	B9	30	C	45.0
23	B0	1200	G	44.9
23	B0	2302	G	44.9
10	AH	38	ILE	44.9
23	B0	2327	U	44.9
23	B0	344	G	44.9
2	AV	32	C	44.9
23	B0	1488	G	44.9
23	B0	2654	A	44.9
23	B0	1414	G	44.9
23	B0	1051	U	44.9
23	B0	1683	G	44.9
1	AA	943	U	44.8
23	B0	29	U	44.8
23	B0	1787	U	44.8
23	B0	2747	C	44.8

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Mol	Chain	Res	Type	RSRZ
23	B0	1696	C	44.8
23	B0	1708	C	44.8
23	B0	1782	A	44.7
44	BT	87	THR	44.7
1	AA	1228	C	44.7
23	B0	2321	C	44.7
23	B0	816	U	44.7
23	B0	1088	A	44.7
1	AA	231	G	44.7
23	B0	2277	A	44.7
1	AA	161	A	44.6
23	B0	2517	C	44.6
1	AA	1516	G	44.6
1	AA	952	U	44.6
23	B0	625	A	44.6
1	AA	1399	C	44.6
1	AA	594	G	44.6
23	B0	2574	G	44.6
1	AA	539	A	44.5
1	AA	901	A	44.5
23	B0	408	U	44.5
23	B0	553	C	44.5
1	AA	642	A	44.5
23	B0	2189	A	44.5
39	BO	23	GLY	44.5
1	AA	61	G	44.5
23	B0	1965	U	44.5
23	B0	1477	C	44.5
1	AA	819	A	44.4
24	B9	119	G	44.4
1	AA	347	G	44.4
23	B0	1443	G	44.4
23	B0	2709	C	44.4
23	B0	325	U	44.4
23	B0	2215	C	44.4
23	B0	2036	G	44.4
1	AA	47	C	44.4
23	B0	1001	A	44.3
23	B0	2835	A	44.3
23	B0	1381	G	44.3
23	B0	1111	C	44.3
1	AA	655	A	44.3

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Mol	Chain	Res	Type	RSRZ
24	B9	15	A	44.3
28	BD	142	THR	44.3
1	AA	1502	A	44.3
26	BB	139	GLY	44.3
23	B0	637	G	44.2
23	B0	785	U	44.2
1	AA	977	A	44.2
23	B0	1927	U	44.2
31	BG	48	LYS	44.2
28	BD	60	ILE	44.2
1	AA	515	G	44.2
23	B0	34	U	44.2
1	AA	1118	C	44.2
31	BG	137	THR	44.2
1	AA	162	A	44.2
1	AA	174	C	44.2
1	AA	1068	G	44.2
2	AV	62	A	44.1
23	B0	1149	G	44.1
23	B0	1933	G	44.1
1	AA	1509	C	44.1
23	B0	2433	G	44.1
24	B9	73	C	44.1
2	AV	33	U	44.1
23	B0	1142	G	44.1
23	B0	1363	C	44.1
1	AA	1094	G	44.1
1	AA	1514	C	44.1
1	AA	1480	G	44.0
23	B0	1664	G	44.0
23	B0	350	U	44.0
23	B0	1042	G	44.0
23	B0	2588	U	44.0
23	B0	705	C	44.0
1	AA	42	G	44.0
23	B0	1940	C	44.0
44	BT	161	ALA	44.0
23	B0	2871	U	43.9
23	B0	797	A	43.9
23	B0	336	A	43.9
23	B0	328	A	43.9
1	AA	1369	C	43.9

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Mol	Chain	Res	Type	RSRZ
23	B0	2401	A	43.9
1	AA	789	U	43.9
23	B0	1974	U	43.9
23	B0	2358	C	43.9
31	BG	81	ALA	43.9
1	AA	569	C	43.8
23	B0	109	A	43.8
23	B0	765	C	43.8
1	AA	564	C	43.8
1	AA	824	C	43.8
26	BB	130	GLY	43.8
1	AA	962	C	43.8
1	AA	512	U	43.8
1	AA	1496	C	43.8
23	B0	311	A	43.7
23	B0	623	G	43.7
23	B0	2862	G	43.7
1	AA	112	G	43.7
1	AA	740	U	43.7
24	B9	11	G	43.7
23	B0	2635	U	43.6
23	B0	2536	G	43.6
23	B0	2844	G	43.6
2	AV	38	A	43.6
23	B0	206	U	43.6
23	B0	2875	C	43.6
23	B0	736	G	43.6
23	B0	2838	U	43.6
23	B0	603	C	43.5
23	B0	575	U	43.5
1	AA	599	C	43.5
23	B0	2558	C	43.5
1	AA	1474	G	43.5
7	AE	48	ALA	43.5
1	AA	876	G	43.5
23	B0	1129	A	43.5
23	B0	1019	U	43.4
17	AO	62	GLN	43.4
23	B0	10	A	43.4
1	AA	99	C	43.4
23	B0	1886	G	43.4
1	AA	1197	G	43.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
23	B0	1426	U	43.4
23	B0	2334	C	43.4
23	B0	2646	C	43.4
23	B0	1336	G	43.4
1	AA	1519	A	43.4
23	B0	2278	A	43.4
1	AA	425	G	43.4
1	AA	540	G	43.4
1	AA	328	C	43.4
23	B0	2392	G	43.3
23	B0	519	C	43.3
1	AA	805	C	43.3
1	AA	656	C	43.3
1	AA	725	G	43.3
1	AA	397	A	43.3
23	B0	1938	U	43.3
23	B0	1160	C	43.3
1	AA	1411	C	43.2
23	B0	734	G	43.2
23	B0	887	G	43.2
10	AH	89	PRO	43.2
23	B0	1612	U	43.2
23	B0	2832	G	43.1
23	B0	300	C	43.1
23	B0	629	C	43.1
23	B0	2025	A	43.1
23	B0	509	U	43.1
23	B0	1006	C	43.1
23	B0	2764	U	43.1
28	BD	55	LYS	43.1
10	AH	85	ARG	43.1
23	B0	870	C	43.1
23	B0	843	G	43.1
23	B0	1777	A	43.0
23	B0	2540	A	43.0
23	B0	2292	C	43.0
23	B0	643	A	43.0
10	AH	111	ILE	43.0
1	AA	548	G	42.9
23	B0	880	C	42.9
1	AA	1438	G	42.9
1	AA	760	G	42.9

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Mol	Chain	Res	Type	RSRZ
23	B0	689	A	42.9
1	AA	1406	U	42.9
1	AA	606	G	42.9
1	AA	590	C	42.9
1	AA	567	G	42.9
2	AV	50	U	42.8
1	AA	795	C	42.8
1	AA	1515	C	42.8
23	B0	415	A	42.8
23	B0	2669	C	42.8
1	AA	111	G	42.8
24	B9	70	C	42.8
23	B0	453	U	42.8
23	B0	686	C	42.8
1	AA	1477	C	42.7
23	B0	522	G	42.7
23	B0	796	A	42.7
23	B0	1337	G	42.7
23	B0	1607	A	42.7
23	B0	348	U	42.7
23	B0	1025	A	42.7
10	AH	134	ILE	42.6
1	AA	907	A	42.6
23	B0	1608	U	42.6
55	B5	146	GLU	42.6
23	B0	440	U	42.6
23	B0	373	A	42.6
1	AA	976	G	42.6
34	BJ	42	GLY	42.5
23	B0	1148	G	42.5
23	B0	2439	U	42.5
23	B0	1372	A	42.5
1	AA	941	G	42.5
23	B0	2645	C	42.5
23	B0	1971	C	42.4
1	AA	546	G	42.4
1	AA	1234	C	42.4
23	B0	1937	G	42.4
23	B0	40	U	42.4
23	B0	1893	G	42.4
23	B0	316	C	42.4
40	BP	88	GLN	42.3

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Mol	Chain	Res	Type	RSRZ
23	B0	1493	A	42.3
23	B0	1929	U	42.3
23	B0	146	C	42.3
23	B0	1604	A	42.3
1	AA	322	C	42.2
23	B0	1222	G	42.2
23	B0	759	C	42.2
23	B0	586	G	42.2
23	B0	1330	G	42.2
17	AO	51	HIS	42.2
1	AA	793	U	42.2
23	B0	981	C	42.1
23	B0	2662	C	42.1
1	AA	1495	U	42.1
23	B0	2470	U	42.1
23	B0	2713	A	42.1
23	B0	2516	U	42.1
23	B0	2849	C	42.1
1	AA	1377	A	42.1
23	B0	1156	U	42.1
23	B0	1650	A	42.1
1	AA	1522	U	42.0
1	AA	942	G	42.0
1	AA	380	G	42.0
10	AH	24	THR	42.0
23	B0	2459	C	42.0
23	B0	2758	A	42.0
1	AA	715	A	42.0
1	AA	1190	G	42.0
23	B0	2553	G	42.0
1	AA	116	A	42.0
23	B0	2595	C	42.0
1	AA	854	G	41.9
1	AA	1342	C	41.9
23	B0	24	G	41.9
23	B0	1496	G	41.9
17	AO	29	VAL	41.9
23	B0	2841	U	41.9
23	B0	805	G	41.9
23	B0	1092	U	41.9
23	B0	2371	A	41.9
23	B0	2687	G	41.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
31	BG	83	GLY	41.8
1	AA	935	A	41.8
23	B0	512	A	41.8
24	B9	28	A	41.8
24	B9	63	A	41.8
23	B0	554	U	41.8
23	B0	1719	G	41.8
23	B0	2265	A	41.8
1	AA	280	C	41.8
23	B0	1305	C	41.8
1	AA	1386	G	41.8
23	B0	1887	G	41.8
23	B0	1346	C	41.7
23	B0	140	G	41.7
1	AA	1347	G	41.7
23	B0	1486	A	41.6
1	AA	1348	U	41.6
23	B0	2860	C	41.6
23	B0	2751	C	41.6
23	B0	2853	U	41.6
7	AE	93	PRO	41.6
23	B0	1894	U	41.6
1	AA	657	G	41.6
55	B5	144	ILE	41.5
26	BB	140	SER	41.5
23	B0	1942	G	41.5
23	B0	1966	C	41.5
1	AA	96	C	41.5
1	AA	126	G	41.5
23	B0	688	A	41.5
23	B0	2394	G	41.4
1	AA	309	G	41.4
1	AA	549	C	41.4
1	AA	1493	A	41.4
23	B0	2489	C	41.4
11	AI	119	ALA	41.4
23	B0	1278	A	41.4
23	B0	2335	U	41.3
1	AA	1388	C	41.3
23	B0	2590	U	41.3
23	B0	590	C	41.3
23	B0	505	G	41.3

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Mol	Chain	Res	Type	RSRZ
23	B0	871	U	41.3
17	AO	57	LEU	41.3
1	AA	1339	A	41.3
52	B2	1	MET	41.3
23	B0	1919	A	41.2
23	B0	221	A	41.2
23	B0	2803	C	41.2
1	AA	59	A	41.2
23	B0	2591	C	41.2
1	AA	866	C	41.2
1	AA	244	U	41.2
1	AA	924	C	41.2
23	B0	2382	C	41.2
1	AA	1387	G	41.2
23	B0	329	C	41.2
23	B0	1090	C	41.1
23	B0	151	G	41.1
1	AA	66	G	41.1
1	AA	310	G	41.1
23	B0	589	C	41.1
7	AE	54	ALA	41.1
23	B0	1055	A	41.1
55	B5	145	SER	41.1
23	B0	1233	A	41.0
23	B0	301	C	41.0
23	B0	1007	A	41.0
1	AA	932	C	41.0
23	B0	1276	U	41.0
7	AE	120	THR	41.0
23	B0	968	C	41.0
1	AA	1461	G	41.0
1	AA	631	G	41.0
1	AA	1081	G	40.9
1	AA	1224	G	40.9
23	B0	1956	G	40.9
1	AA	532	A	40.9
1	AA	633	G	40.9
23	B0	1071	U	40.9
1	AA	282	A	40.9
1	AA	920	U	40.9
1	AA	281	G	40.8
23	B0	1213	U	40.8

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Mol	Chain	Res	Type	RSRZ
1	AA	1423	G	40.8
23	B0	1741	G	40.8
1	AA	1368	G	40.8
23	B0	2708	U	40.7
28	BD	140	GLU	40.7
23	B0	61	U	40.7
23	B0	2802	C	40.7
23	B0	1252	C	40.7
23	B0	2291	U	40.7
1	AA	65	U	40.7
1	AA	1208	C	40.6
7	AE	20	GLN	40.6
1	AA	870	U	40.6
1	AA	117	G	40.6
2	AV	34	G	40.6
17	AO	61	GLY	40.6
23	B0	518	A	40.6
23	B0	1205	G	40.6
26	BB	144	ARG	40.5
23	B0	2343	C	40.5
26	BB	145	LYS	40.5
23	B0	892	A	40.5
23	B0	945	G	40.5
1	AA	135	C	40.5
23	B0	1418	C	40.5
23	B0	834	A	40.5
23	B0	1786	C	40.4
23	B0	2651	U	40.4
23	B0	2290	A	40.4
23	B0	1257	U	40.4
23	B0	1102	G	40.3
23	B0	2551	A	40.3
1	AA	665	A	40.3
24	B9	21	C	40.3
23	B0	1058	G	40.3
3	AU	6	A	40.3
31	BG	47	ASP	40.2
1	AA	717	C	40.2
17	AO	52	SER	40.2
1	AA	1338	G	40.2
1	AA	1470	G	40.2
23	B0	2600	A	40.2

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Mol	Chain	Res	Type	RSRZ
24	B9	31	A	40.1
1	AA	923	A	40.1
19	AQ	39	SER	40.1
23	B0	580	A	40.1
7	AE	121	LYS	40.1
1	AA	1395	C	40.1
23	B0	1275	A	40.1
1	AA	1392	G	40.1
23	B0	1306	U	40.1
1	AA	36	C	40.0
23	B0	1126	A	40.0
1	AA	726	C	40.0
1	AA	379	C	40.0
7	AE	119	LEU	40.0
23	B0	1347	C	39.9
23	B0	1967	U	39.9
23	B0	138	G	39.9
1	AA	1487	G	39.9
1	AA	63	C	39.9
1	AA	200	G	39.9
23	B0	1993	G	39.9
23	B0	2738	A	39.9
23	B0	982	C	39.9
23	B0	1107	A	39.8
1	AA	925	G	39.8
23	B0	1112	U	39.8
28	BD	106	ILE	39.8
23	B0	2295	C	39.8
23	B0	854	G	39.8
1	AA	593	G	39.8
23	B0	687	G	39.8
1	AA	1067	A	39.8
23	B0	1885	C	39.8
1	AA	41	G	39.8
1	AA	802	A	39.8
1	AA	71	U	39.8
23	B0	2059	U	39.8
23	B0	2393	G	39.7
1	AA	60	A	39.7
23	B0	1144	U	39.7
1	AA	947	G	39.6
1	AA	400	C	39.6

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Mol	Chain	Res	Type	RSRZ
23	B0	2446	C	39.6
1	AA	337	C	39.6
1	AA	1337	G	39.6
23	B0	2617	G	39.6
1	AA	339	C	39.6
24	B9	13	C	39.6
26	BB	61	LYS	39.6
1	AA	609	A	39.6
42	BR	56	MET	39.5
7	AE	16	THR	39.5
10	AH	132	GLU	39.5
23	B0	2396	C	39.5
1	AA	1363	A	39.5
23	B0	1918	G	39.5
23	B0	1973	C	39.4
23	B0	1224	A	39.4
26	BB	129	HIS	39.4
31	BG	90	THR	39.4
23	B0	1404	C	39.4
23	B0	2848	A	39.4
23	B0	400	U	39.3
1	AA	1419	G	39.3
1	AA	1482	G	39.3
23	B0	582	G	39.3
23	B0	2318	U	39.3
23	B0	3873	G	39.3
23	B0	537	C	39.3
7	AE	131	ILE	39.3
1	AA	664	G	39.3
23	B0	1778	U	39.3
23	B0	2831	A	39.3
23	B0	604	U	39.2
23	B0	1955	G	39.2
1	AA	277	C	39.2
1	AA	592	G	39.2
23	B0	946	U	39.2
23	B0	2824	C	39.2
26	BB	141	ILE	39.2
23	B0	2663	U	39.2
17	AO	67	LEU	39.1
23	B0	1370	U	39.1
34	BJ	26	THR	39.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
23	B0	2573	C	39.1
23	B0	1586	A	39.1
1	AA	199	G	39.1
1	AA	1507	A	39.1
23	B0	627	A	39.1
23	B0	1114	A	39.1
23	B0	2733	A	39.1
1	AA	1370	G	39.1
17	AO	30	ALA	39.1
1	AA	287	U	39.1
23	B0	2657	G	39.1
23	B0	1492	A	39.0
23	B0	1813	A	39.0
23	B0	1307	U	39.0
1	AA	954	G	39.0
23	B0	531	G	39.0
1	AA	648	A	39.0
1	AA	384	G	39.0
24	B9	88	C	39.0
7	AE	78	HIS	39.0
23	B0	19	C	39.0
23	B0	139	A	39.0
1	AA	6	G	39.0
23	B0	2859	U	39.0
1	AA	936	C	38.9
23	B0	503	G	38.9
44	BT	124	ALA	38.9
1	AA	70	A	38.9
23	B0	917	U	38.9
1	AA	853	G	38.9
23	B0	2350	G	38.9
23	B0	1419	G	38.9
23	B0	2209	G	38.9
23	B0	92	U	38.9
23	B0	969	U	38.9
10	AH	83	ILE	38.9
1	AA	1421	G	38.8
23	B0	2575	U	38.8
1	AA	781	A	38.8
23	B0	2834	A	38.7
1	AA	20	U	38.7
23	B0	2593	A	38.7

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Mol	Chain	Res	Type	RSRZ
1	AA	69	G	38.7
1	AA	518	C	38.7
23	B0	856	A	38.6
23	B0	1143	A	38.6
1	AA	669	U	38.6
23	B0	2763	U	38.6
23	B0	1819	U	38.6
23	B0	1087	C	38.6
10	AH	110	ALA	38.6
23	B0	2395	C	38.6
24	B9	97	C	38.6
44	BT	105	GLN	38.6
23	B0	504	G	38.6
1	AA	1093	A	38.5
17	AO	65	ARG	38.5
23	B0	1228	G	38.5
1	AA	830	G	38.5
1	AA	1445	U	38.5
23	B0	1895	A	38.5
23	B0	831	G	38.5
1	AA	750	G	38.4
23	B0	2254	C	38.4
31	BG	19	PRO	38.4
1	AA	939	G	38.4
1	AA	640	A	38.4
23	B0	1816	G	38.4
7	AE	89	ILE	38.4
24	B9	29	C	38.4
23	B0	579	G	38.4
23	B0	2373	C	38.4
1	AA	378	G	38.3
23	B0	2023	C	38.3
1	AA	945	G	38.3
15	AM	125	ARG	38.3
23	B0	298	C	38.3
23	B0	557	U	38.3
1	AA	243	A	38.3
23	B0	726	G	38.2
23	B0	1003	C	38.2
1	AA	553	A	38.2
23	B0	524	A	38.2
23	B0	1274	C	38.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	1530	G	38.2
23	B0	1995	G	38.2
24	B9	25	G	38.2
1	AA	121	C	38.2
23	B0	819	C	38.2
23	B0	1726	C	38.2
23	B0	2541	U	38.2
1	AA	1473	A	38.1
23	B0	110	U	38.1
23	B0	1206	G	38.1
23	B0	893	G	38.1
23	B0	1280	U	38.1
1	AA	658	G	38.1
1	AA	1402	C	38.1
1	AA	1439	C	38.1
24	B9	62	C	38.1
1	AA	1462	G	38.1
1	AA	867	G	38.0
1	AA	68	G	38.0
23	B0	1834	G	38.0
23	B0	1611	U	38.0
1	AA	1520	G	38.0
1	AA	1367	C	38.0
1	AA	1066	C	38.0
23	B0	2195	C	38.0
23	B0	526	C	37.9
23	B0	1709	U	37.9
23	B0	1400	A	37.9
23	B0	1701	C	37.9
23	B0	1053	G	37.8
1	AA	125	U	37.8
23	B0	891	A	37.8
23	B0	1529	C	37.8
23	B0	7	G	37.8
23	B0	2256	G	37.8
23	B0	2823	G	37.8
45	BU	86	THR	37.7
1	AA	247	G	37.7
1	AA	714	G	37.7
1	AA	820	U	37.7
1	AA	1460	A	37.7
34	BJ	38	LYS	37.7

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Mol	Chain	Res	Type	RSRZ
2	AV	42	G	37.7
1	AA	713	G	37.6
1	AA	1349	A	37.6
23	B0	1697	U	37.6
23	B0	131	C	37.6
1	AA	782	A	37.6
23	B0	2048	C	37.6
23	B0	2239	C	37.6
23	B0	566	U	37.6
1	AA	513	C	37.6
1	AA	934	C	37.6
17	AO	39	LEU	37.6
55	B5	43	LYS	37.6
23	B0	916	U	37.6
1	AA	1191	A	37.6
23	B0	2710	C	37.5
24	B9	59	A	37.5
1	AA	1458	G	37.5
23	B0	2530	C	37.5
23	B0	1585	A	37.5
23	B0	2273	C	37.5
23	B0	1004	A	37.4
23	B0	2049	C	37.4
1	AA	516	U	37.4
23	B0	1421	U	37.4
31	BG	85	GLY	37.4
2	AV	3	G	37.4
23	B0	1402	G	37.3
23	B0	525	A	37.3
23	B0	1089	C	37.3
1	AA	724	G	37.3
23	B0	523	A	37.3
23	B0	2714	A	37.3
1	AA	94	G	37.2
23	B0	2191	A	37.2
2	AV	7	U	37.2
17	AO	42	HIS	37.2
1	AA	806	C	37.2
24	B9	34	C	37.2
23	B0	1411	C	37.2
22	AT	14	LYS	37.2
23	B0	1338	G	37.2

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Mol	Chain	Res	Type	RSRZ
23	B0	2749	A	37.2
1	AA	381	C	37.2
1	AA	501	C	37.2
1	AA	938	A	37.1
23	B0	1401	G	37.1
1	AA	1443	G	37.1
23	B0	1248	G	37.1
1	AA	660	G	37.1
23	B0	137	A	37.0
17	AO	64	ARG	37.0
23	B0	1074	G	37.0
23	B0	2447	G	37.0
23	B0	1682	A	37.0
23	B0	2461	G	37.0
23	B0	2778	U	36.9
6	AD	54	TYR	36.9
24	B9	61	A	36.9
23	B0	1932	G	36.8
23	B0	410	A	36.8
1	AA	238	G	36.8
23	B0	130	C	36.8
2	AV	26	G	36.8
2	AV	65	G	36.8
23	B0	2341	G	36.8
1	AA	242	C	36.8
23	B0	948	C	36.8
23	B0	1091	C	36.8
23	B0	1005	U	36.8
23	B0	2463	G	36.8
1	AA	634	C	36.7
23	B0	728	G	36.7
23	B0	1827	G	36.7
23	B0	2427	A	36.7
24	B9	74	A	36.7
23	B0	1267	A	36.7
1	AA	67	C	36.7
1	AA	159	G	36.7
1	AA	118	U	36.7
39	BO	77	SER	36.7
24	B9	26	G	36.7
23	B0	345	U	36.7
1	AA	346	G	36.6

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Mol	Chain	Res	Type	RSRZ
23	B0	2397	A	36.6
1	AA	822	C	36.6
23	B0	656	U	36.6
23	B0	731	A	36.6
23	B0	1853	C	36.6
1	AA	745	C	36.6
23	B0	556	A	36.6
1	AA	385	C	36.6
23	B0	1745	C	36.6
23	B0	1135	C	36.6
23	B0	2734	U	36.6
1	AA	12	U	36.6
1	AA	1078	U	36.5
24	B9	78	A	36.5
23	B0	2833	C	36.5
23	B0	2357	A	36.5
1	AA	1478	C	36.5
23	B0	1939	U	36.5
23	B0	1900	U	36.5
1	AA	55	A	36.5
23	B0	1921	A	36.5
23	B0	1910	A	36.4
23	B0	635	C	36.4
1	AA	240	C	36.4
39	BO	9	VAL	36.4
23	B0	1437	A	36.4
23	B0	1589	G	36.4
1	AA	983	A	36.4
1	AA	97	G	36.3
1	AA	198	G	36.3
1	AA	630	G	36.3
23	B0	2772	U	36.3
23	B0	1530	U	36.3
10	AH	45	ILE	36.3
1	AA	1426	C	36.2
1	AA	772	U	36.2
1	AA	561	U	36.2
24	B9	10	U	36.2
1	AA	948	C	36.2
23	B0	23	G	36.1
23	B0	890	U	36.1
23	B0	2621	G	36.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	1529	G	36.1
23	B0	2294	U	36.1
24	B9	98	C	36.1
1	AA	1394	A	36.1
2	AV	71	G	36.0
1	AA	975	A	36.0
26	BB	142	GLY	35.9
41	BQ	82	ASN	35.9
2	AV	28	C	35.9
24	B9	19	C	35.9
23	B0	1226	A	35.9
23	B0	2658	A	35.9
1	AA	46	G	35.9
23	B0	2872	U	35.9
23	B0	1689	U	35.9
25	BA	210	GLY	35.9
1	AA	1204	A	35.9
1	AA	1471	G	35.9
23	B0	2851	G	35.9
23	B0	642	A	35.9
1	AA	776	G	35.9
23	B0	516	G	35.9
23	B0	2472	U	35.9
23	B0	1105	U	35.9
1	AA	933	G	35.8
23	B0	1349	A	35.8
23	B0	1532	A	35.8
23	B0	577	U	35.8
23	B0	530	G	35.8
23	B0	2830	U	35.8
1	AA	102	G	35.8
34	BJ	29	THR	35.8
23	B0	1531	C	35.8
6	AD	40	PRO	35.8
1	AA	304	U	35.7
23	B0	411	C	35.7
24	B9	20	A	35.7
22	AT	12	ALA	35.7
31	BG	49	GLY	35.7
1	AA	1350	A	35.7
1	AA	519	C	35.7
1	AA	673	G	35.7

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Mol	Chain	Res	Type	RSRZ
17	AO	49	ASP	35.7
23	B0	1721	G	35.7
28	BD	51	ASP	35.7
1	AA	172	A	35.7
23	B0	2014	A	35.7
10	AH	31	PHE	35.6
1	AA	520	A	35.6
23	B0	1171	A	35.6
23	B0	1130	U	35.6
23	B0	2686	C	35.6
31	BG	136	VAL	35.6
23	B0	1217	U	35.6
23	B0	1292	A	35.6
23	B0	1883	A	35.6
23	B0	1023	U	35.6
23	B0	1935	A	35.6
23	B0	1943	A	35.6
1	AA	232	G	35.6
23	B0	1348	C	35.5
23	B0	1645	U	35.5
23	B0	147	G	35.5
1	AA	148	G	35.5
55	B5	45	ASP	35.5
1	AA	149	A	35.5
23	B0	2537	C	35.5
23	B0	1920	A	35.5
23	B0	2471	U	35.5
23	B0	2613	A	35.5
1	AA	565	U	35.4
1	AA	1393	U	35.4
23	B0	25	U	35.4
1	AA	1186	G	35.4
23	B0	1169	C	35.4
24	B9	60	A	35.4
22	AT	11	SER	35.4
23	B0	1571	G	35.4
50	BZ	15	LYS	35.4
23	B0	2748	C	35.4
6	AD	209	ARG	35.4
1	AA	1362	C	35.3
1	AA	62	U	35.3
1	AA	1376	U	35.3

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Mol	Chain	Res	Type	RSRZ
23	B0	1770	U	35.3
55	B5	44	GLY	35.3
1	AA	176	C	35.3
1	AA	783	C	35.3
23	B0	2818	G	35.3
1	AA	809	G	35.2
7	AE	18	ARG	35.2
23	B0	1832	G	35.2
23	B0	2379	G	35.2
1	AA	641	U	35.2
23	B0	852	U	35.2
23	B0	2620	G	35.2
23	B0	2068	C	35.2
23	B0	517	A	35.2
23	B0	1263	G	35.2
23	B0	2400	G	35.1
6	AD	14	ARG	35.1
23	B0	1085	G	35.1
1	AA	54	C	35.1
1	AA	732	C	35.1
1	AA	1092	A	35.1
23	B0	2417	U	35.1
6	AD	62	GLN	35.1
23	B0	2556	A	35.1
2	AV	37	G	35.0
7	AE	130	ASN	35.0
7	AE	30	ALA	35.0
23	B0	1954	A	35.0
1	AA	940	C	35.0
23	B0	2843	A	35.0
23	B0	1037	U	34.9
23	B0	2422	C	34.9
23	B0	1905	G	34.9
23	B0	2559	U	34.9
23	B0	1052	C	34.9
1	AA	1180	A	34.9
17	AO	56	LEU	34.8
23	B0	720	A	34.8
23	B0	1515	U	34.8
2	AV	36	A	34.8
23	B0	2423	G	34.8
23	B0	1281	A	34.8

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Mol	Chain	Res	Type	RSRZ
1	AA	401	C	34.7
26	BB	149	ARG	34.7
1	AA	1052	U	34.7
23	B0	1128	G	34.7
55	B5	142	ALA	34.7
23	B0	1064	C	34.7
23	B0	1944	C	34.7
36	BL	106	ASP	34.7
1	AA	875	C	34.7
1	AA	1371	G	34.7
1	AA	1340	A	34.7
23	B0	2737	A	34.7
23	B0	1896	A	34.6
44	BT	131	PRO	34.6
23	B0	727	U	34.6
23	B0	1474	A	34.6
6	AD	66	ARG	34.6
1	AA	424	G	34.6
1	AA	1528	U	34.6
23	B0	412	U	34.6
23	B0	1826	U	34.6
23	B0	1926	U	34.6
28	BD	58	ALA	34.6
17	AO	26	GLU	34.5
1	AA	927	G	34.5
2	AV	53	G	34.5
23	B0	2376	G	34.5
1	AA	810	C	34.5
23	B0	1302	C	34.5
1	AA	173	U	34.5
1	AA	622	A	34.5
23	B0	1911	A	34.5
10	AH	15	ASN	34.4
1	AA	568	G	34.4
23	B0	1478	U	34.4
23	B0	1113	C	34.4
1	AA	1418	A	34.4
12	AJ	56	HIS	34.4
23	B0	1599	G	34.4
23	B0	555	U	34.3
1	AA	197	A	34.3
1	AA	150	C	34.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	855	G	34.3
1	AA	1378	C	34.3
1	AA	365	U	34.3
23	B0	2275	U	34.3
23	B0	2323	U	34.2
1	AA	670	G	34.2
23	B0	1665	C	34.2
23	B0	2208	U	34.2
16	AN	31	ARG	34.2
23	B0	521	U	34.2
55	B5	74	GLU	34.2
1	AA	552	U	34.2
1	AA	163	C	34.2
44	BT	121	GLN	34.2
23	B0	1227	A	34.2
23	B0	1483	G	34.1
23	B0	2861	A	34.1
23	B0	1578	U	34.1
23	B0	1396	C	34.1
23	B0	1303	U	34.1
23	B0	515	A	34.1
23	B0	502	A	34.1
1	AA	1420	C	34.1
23	B0	1245	G	34.1
2	AV	2	C	34.0
23	B0	558	G	34.0
23	B0	664	C	34.0
23	B0	1115	C	34.0
23	B0	1487	C	34.0
23	B0	1301	U	34.0
23	B0	1890	G	34.0
23	B0	2845	C	34.0
1	AA	890	G	34.0
23	B0	2263	C	34.0
17	AO	35	ARG	33.9
23	B0	2421	C	33.9
23	B0	1790	G	33.9
1	AA	53	A	33.9
1	AA	1115	C	33.9
39	BO	2	PRO	33.9
23	B0	2661	G	33.9
5	AC	156	ARG	33.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
39	BO	11	ARG	33.9
23	B0	947	C	33.8
23	B0	1256	C	33.8
23	B0	2796	A	33.8
22	AT	13	LEU	33.8
23	B0	2863	U	33.8
23	B0	853	C	33.8
23	B0	1469	U	33.8
23	B0	1086	C	33.8
10	AH	94	TYR	33.8
23	B0	1930	C	33.8
6	AD	39	PRO	33.8
23	B0	1468	A	33.8
1	AA	1345	U	33.8
6	AD	58	LEU	33.8
1	AA	674	G	33.8
23	B0	2819	G	33.8
23	B0	1934	U	33.8
23	B0	2719	U	33.7
1	AA	623	C	33.7
1	AA	560	U	33.7
3	AU	10	U	33.7
23	B0	1584	G	33.7
1	AA	98	U	33.7
7	AE	94	ALA	33.7
23	B0	1268	U	33.6
1	AA	818	G	33.6
23	B0	2456	U	33.6
17	AO	58	MET	33.6
23	B0	2535	C	33.6
23	B0	8	A	33.5
23	B0	1516	A	33.5
23	B0	725	C	33.5
39	BO	22	LYS	33.5
39	BO	6	THR	33.5
1	AA	145	G	33.5
1	AA	530	G	33.5
23	B0	1917	C	33.5
23	B0	1116	U	33.5
1	AA	647	C	33.5
1	AA	419	C	33.5
22	AT	10	LEU	33.5

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Mol	Chain	Res	Type	RSRZ
23	B0	1811	A	33.5
23	B0	2587	G	33.5
1	AA	1479	C	33.4
19	AQ	25	ARG	33.4
23	B0	1081	A	33.4
31	BG	13	PRO	33.4
23	B0	1237	G	33.4
28	BD	56	GLU	33.4
10	AH	65	TYR	33.4
23	B0	2815	C	33.4
23	B0	2289	A	33.4
23	B0	2339	A	33.4
1	AA	1120	G	33.3
23	B0	2375	G	33.3
23	B0	136	A	33.3
2	AV	66	A	33.3
1	AA	1463	C	33.3
23	B0	134	G	33.3
1	AA	382	A	33.3
23	B0	2186	G	33.3
10	AH	133	LEU	33.3
23	B0	2356	A	33.3
1	AA	103	C	33.3
23	B0	1473	U	33.2
23	B0	2462	C	33.2
23	B0	2286	G	33.2
26	BB	143	GLN	33.2
23	B0	2399	C	33.2
1	AA	144	G	33.2
1	AA	1422	G	33.2
44	BT	86	VAL	33.2
1	AA	671	G	33.2
2	AV	74	C	33.2
28	BD	102	LYS	33.2
23	B0	2752	C	33.2
1	AA	1357	A	33.2
23	B0	1121	G	33.1
23	B0	1439	G	33.1
1	AA	746	A	33.1
23	B0	1517	C	33.1
10	AH	92	ARG	33.1
23	B0	3157	G	33.1

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Mol	Chain	Res	Type	RSRZ
1	AA	1389	C	33.1
23	B0	1108	U	33.1
17	AO	34	LEU	33.1
1	AA	101	A	33.1
7	AE	77	PRO	33.1
24	B9	58	G	33.1
23	B0	292	A	33.0
23	B0	2531	U	33.0
1	AA	43	C	33.0
1	AA	1119	C	33.0
1	AA	364	A	33.0
23	B0	6	A	33.0
7	AE	47	LYS	33.0
23	B0	1282	A	33.0
7	AE	138	ALA	33.0
1	AA	1375	A	33.0
23	B0	821	A	33.0
23	B0	1776	A	33.0
23	B0	1828	C	32.9
24	B9	24	U	32.9
23	B0	3124	G	32.9
1	AA	1510	U	32.9
1	AA	716	A	32.9
23	B0	1833	U	32.9
23	B0	1605	A	32.9
10	AH	90	GLY	32.9
1	AA	1070	U	32.9
23	B0	2311	U	32.9
23	B0	1277	G	32.9
1	AA	1352	C	32.9
28	BD	139	PRO	32.9
23	B0	1412	C	32.8
25	BA	221	GLN	32.8
23	B0	1479	G	32.8
23	B0	803	C	32.8
23	B0	1063	C	32.8
1	AA	57	G	32.8
23	B0	1434	U	32.8
1	AA	1503	A	32.8
23	B0	3871	A	32.8
10	AH	2	LEU	32.8
1	AA	355	C	32.8

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Mol	Chain	Res	Type	RSRZ
1	AA	1116	C	32.8
23	B0	1093	U	32.7
23	B0	1465	G	32.7
23	B0	1740	G	32.7
44	BT	28	ASN	32.7
2	AV	64	A	32.7
1	AA	966	G	32.7
1	AA	1403	C	32.7
11	AI	127	LYS	32.7
52	B2	4	THR	32.7
23	B0	2013	A	32.7
1	AA	201	G	32.7
23	B0	1424	U	32.7
14	AL	8	ASN	32.7
23	B0	1884	A	32.6
15	AM	126	LYS	32.6
39	BO	34	ASN	32.6
23	B0	1438	G	32.6
23	B0	1720	G	32.6
1	AA	718	G	32.6
23	B0	3155	G	32.6
23	B0	2592	U	32.6
1	AA	611	A	32.6
23	B0	1433	A	32.6
23	B0	2372	A	32.6
23	B0	2281	C	32.6
50	BZ	10	LYS	32.5
23	B0	2236	U	32.5
23	B0	915	C	32.5
44	BT	162	ALA	32.5
55	B5	199	ASN	32.5
1	AA	386	C	32.5
27	BC	76	THR	32.5
7	AE	91	LEU	32.4
23	B0	1888	C	32.4
40	BP	86	HIS	32.4
23	B0	2428	U	32.4
23	B0	2579	A	32.4
42	BR	57	ASN	32.4
1	AA	607	A	32.4
23	B0	3135	A	32.4
7	AE	25	ARG	32.4

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Mol	Chain	Res	Type	RSRZ
23	B0	879	A	32.3
23	B0	1945	C	32.3
23	B0	2432	A	32.3
23	B0	2188	A	32.3
23	B0	1533	G	32.3
28	BD	141	ILE	32.3
23	B0	2284	U	32.2
10	AH	16	ALA	32.2
1	AA	262	A	32.2
23	B0	911	A	32.2
40	BP	89	ASN	32.2
23	B0	2374	C	32.2
23	B0	9	U	32.2
23	B0	413	G	32.2
23	B0	2555	G	32.2
23	B0	1647	U	32.2
24	B9	52	G	32.1
7	AE	28	PHE	32.1
6	AD	52	SER	32.1
2	AV	61	C	32.1
1	AA	1051	C	32.1
23	B0	1913	G	32.1
55	B5	40	ASP	32.1
23	B0	2257	A	32.1
23	B0	935	C	32.1
25	BA	209	ALA	32.1
40	BP	80	TYR	32.1
1	AA	357	G	32.0
23	B0	2554	C	32.0
25	BA	242	ALA	32.0
25	BA	237	GLU	32.0
23	B0	2659	C	32.0
1	AA	646	U	32.0
1	AA	937	A	31.9
1	AA	323	U	31.9
23	B0	2322	U	31.9
23	B0	496	C	31.9
1	AA	852	G	31.9
44	BT	91	PRO	31.9
14	AL	46	LYS	31.9
44	BT	140	LYS	31.9
1	AA	926	G	31.9

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Mol	Chain	Res	Type	RSRZ
31	BG	14	ALA	31.9
23	B0	1916	G	31.9
1	AA	1472	U	31.9
1	AA	961	U	31.9
23	B0	1026	U	31.9
24	B9	22	U	31.9
1	AA	427	U	31.8
1	AA	1446	A	31.8
31	BG	17	ALA	31.8
3	AU	9	U	31.8
23	B0	1343	C	31.8
19	AQ	99	SER	31.8
23	B0	1056	U	31.8
1	AA	1048	G	31.7
2	AW	21	A	31.7
23	B0	513	A	31.7
1	AA	531	U	31.7
1	AA	777	A	31.7
1	AA	946	A	31.7
1	AA	49	U	31.7
1	AA	591	U	31.7
23	B0	2817	A	31.7
28	BD	143	TYR	31.7
23	B0	1889	G	31.6
14	AL	45	PRO	31.6
23	B0	1866	G	31.6
55	B5	100	VAL	31.6
2	AW	57	G	31.6
1	AA	629	G	31.5
7	AE	103	GLY	31.5
50	BZ	13	LYS	31.5
23	B0	1606	C	31.5
1	AA	661	G	31.5
1	AA	345	C	31.4
1	AA	624	C	31.4
28	BD	107	GLY	31.4
1	AA	1358	U	31.4
23	B0	2214	G	31.4
34	BJ	44	GLY	31.4
23	B0	1727	C	31.4
23	B0	729	A	31.4
23	B0	1331	G	31.4

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Mol	Chain	Res	Type	RSRZ
23	B0	2037	A	31.4
19	AQ	101	ARG	31.4
1	AA	40	C	31.4
1	AA	1205	U	31.4
1	AA	744	C	31.3
7	AE	90	VAL	31.3
23	B0	2614	A	31.3
1	AA	13	U	31.3
41	BQ	111	ARG	31.3
1	AA	1183	A	31.3
23	B0	2820	C	31.3
23	B0	1420	A	31.3
23	B0	737	C	31.3
1	AA	1424	C	31.3
23	B0	1925	C	31.3
1	AA	220	G	31.3
23	B0	2207	G	31.2
2	AV	44	A	31.2
1	AA	807	A	31.2
11	AI	122	ALA	31.2
23	B0	1159	U	31.2
1	AA	388	G	31.2
11	AI	126	SER	31.1
23	B0	1996	A	31.1
23	B0	1283	C	31.1
1	AA	1346	A	31.1
23	B0	2616	U	31.1
23	B0	416	U	31.1
23	B0	2296	U	31.1
1	AA	635	G	31.1
23	B0	1852	G	31.1
1	AA	928	G	31.1
10	AH	43	GLY	31.1
2	AV	72	C	31.1
17	AO	81	LEU	31.1
23	B0	1341	G	31.1
23	B0	2024	U	31.1
1	AA	450	G	31.0
23	B0	1119	U	31.0
44	BT	126	GLY	31.0
23	B0	1335	A	31.0
23	B0	2619	G	31.0

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Mol	Chain	Res	Type	RSRZ
6	AD	15	GLU	31.0
23	B0	317	U	31.0
23	B0	2298	U	31.0
23	B0	529	U	31.0
1	AA	834	C	31.0
1	AA	171	A	30.9
23	B0	3123	G	30.9
23	B0	1931	G	30.9
1	AA	1082	G	30.9
23	B0	1094	C	30.9
1	AA	857	C	30.9
23	B0	1518	C	30.9
23	B0	2477	C	30.9
23	B0	1704	G	30.9
23	B0	583	C	30.9
23	B0	2615	U	30.9
34	BJ	32	ARG	30.8
1	AA	613	C	30.8
23	B0	1246	G	30.8
28	BD	145	MET	30.8
1	AA	147	G	30.8
1	AA	659	U	30.8
1	AA	38	G	30.7
1	AA	58	C	30.7
23	B0	2342	U	30.7
23	B0	220	U	30.7
23	B0	1572	C	30.7
23	B0	2808	U	30.6
1	AA	146	G	30.6
23	B0	2448	A	30.6
23	B0	1817	U	30.6
28	BD	65	PRO	30.6
1	AA	1379	G	30.6
23	B0	2340	C	30.6
19	AQ	41	LYS	30.5
10	AH	63	LEU	30.5
23	B0	1413	U	30.5
23	B0	1044	U	30.4
1	AA	662	G	30.4
2	AW	43	G	30.4
23	B0	2755	A	30.4
23	B0	1449	C	30.4

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Mol	Chain	Res	Type	RSRZ
1	AA	1084	G	30.4
1	AA	127	G	30.4
1	AA	1156	G	30.3
1	AA	862	C	30.3
23	B0	3136	C	30.3
23	B0	2431	C	30.3
7	AE	46	GLY	30.3
55	B5	75	TYR	30.3
1	AA	1382	C	30.3
23	B0	1648	C	30.3
31	BG	87	GLY	30.3
23	B0	1002	C	30.2
23	B0	2488	G	30.2
31	BG	46	ALA	30.2
39	BO	37	GLN	30.2
23	B0	2430	A	30.2
31	BG	110	THR	30.2
1	AA	534	U	30.2
7	AE	118	ILE	30.2
1	AA	402	G	30.2
23	B0	293	U	30.2
1	AA	456	A	30.2
2	AV	75	C	30.2
12	AJ	53	PRO	30.2
2	AV	55	U	30.1
34	BJ	21	ARG	30.1
2	AV	45	G	30.1
1	AA	1178	G	30.1
39	BO	81	ASN	30.1
34	BJ	46	GLY	30.1
23	B0	1952	A	30.1
1	AA	1425	U	30.0
50	BZ	16	ARG	30.0
10	AH	88	LYS	30.0
1	AA	44	G	30.0
23	B0	1774	A	29.9
1	AA	241	C	29.9
5	AC	134	ILE	29.9
23	B0	3156	G	29.9
1	AA	1341	U	29.9
10	AH	18	ARG	29.9
1	AA	221	C	29.9

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Mol	Chain	Res	Type	RSRZ
1	AA	1531	A	29.9
1	AA	52	G	29.9
17	AO	53	HIS	29.8
1	AA	735	C	29.8
7	AE	98	THR	29.8
23	B0	1304	U	29.8
1	AA	982	U	29.8
42	BR	64	ARG	29.8
23	B0	1299	A	29.8
1	AA	736	C	29.7
11	AI	113	LYS	29.7
2	AV	43	G	29.7
1	AA	1085	U	29.7
7	AE	142	LEU	29.7
23	B0	1340	C	29.7
10	AH	34	GLU	29.7
23	B0	2197	U	29.7
52	B2	5	TYR	29.7
23	B0	2047	C	29.6
23	B0	2378	G	29.6
2	AV	41	U	29.6
55	B5	99	PRO	29.6
23	B0	2429	A	29.6
1	AA	1155	G	29.6
10	AH	42	GLU	29.6
27	BC	78	VAL	29.6
23	B0	3125	G	29.6
23	B0	2452	U	29.6
7	AE	104	ALA	29.6
23	B0	1170	U	29.6
31	BG	134	MET	29.6
23	B0	1490	U	29.6
23	B0	1229	C	29.6
19	AQ	35	VAL	29.5
34	BJ	31	GLY	29.5
44	BT	57	GLU	29.5
10	AH	40	ALA	29.5
14	AL	92	ASP	29.5
55	B5	39	ILE	29.5
31	BG	109	LYS	29.5
41	BQ	16	GLN	29.5
41	BQ	110	ALA	29.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	151	A	29.5
1	AA	383	A	29.4
1	AA	1187	G	29.4
23	B0	2586	G	29.4
23	B0	2552	C	29.4
23	B0	2210	C	29.4
1	AA	1182	G	29.4
1	AA	1181	G	29.4
2	AV	67	A	29.4
7	AE	129	ILE	29.4
1	AA	396	G	29.4
23	B0	1523	A	29.4
1	AA	455	C	29.3
23	B0	1953	A	29.3
1	AA	1106	G	29.3
23	B0	1705	U	29.3
1	AA	338	A	29.3
23	B0	667	U	29.3
1	AA	1359	C	29.3
44	BT	88	TYR	29.3
1	AA	712	A	29.3
1	AA	749	C	29.3
1	AA	481	G	29.3
23	B0	666	U	29.2
1	AA	276	G	29.2
23	B0	2753	C	29.2
23	B0	1907	C	29.2
1	AA	733	A	29.2
11	AI	108	VAL	29.2
1	AA	56	U	29.2
23	B0	1569	A	29.2
43	BS	79	SER	29.2
1	AA	778	G	29.1
2	AV	10	G	29.1
10	AH	14	ARG	29.1
23	B0	1521	U	29.1
23	B0	1912	G	29.1
23	B0	825	C	29.1
1	AA	1485	U	29.1
23	B0	1947	G	29.1
17	AO	31	LEU	29.1
23	B0	1441	A	29.1

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Mol	Chain	Res	Type	RSRZ
24	B9	108	G	29.1
1	AA	1506	U	29.0
23	B0	1403	U	29.0
23	B0	827	C	29.0
23	B0	828	C	29.0
23	B0	2420	C	29.0
6	AD	59	ARG	29.0
23	B0	2313	G	29.0
34	BJ	39	SER	29.0
55	B5	42	LYS	29.0
23	B0	370	U	29.0
1	AA	614	A	29.0
26	BB	128	SER	29.0
23	B0	578	U	29.0
23	B0	123	A	29.0
23	B0	2599	U	28.9
10	AH	47	GLY	28.9
11	AI	120	ARG	28.9
1	AA	1054	C	28.9
2	AV	48	C	28.9
23	B0	1491	C	28.9
17	AO	36	ILE	28.9
23	B0	514	G	28.9
2	AW	58	A	28.8
1	AA	1356	G	28.8
23	B0	1527	G	28.8
23	B0	1994	U	28.8
7	AE	117	ASP	28.8
17	AO	28	GLN	28.8
23	B0	1951	G	28.8
7	AE	70	PRO	28.7
7	AE	27	ARG	28.7
19	AQ	40	LYS	28.7
1	AA	500	G	28.7
31	BG	135	GLY	28.7
23	B0	2594	U	28.7
25	BA	236	GLY	28.7
5	AC	133	ALA	28.7
1	AA	152	A	28.7
30	BF	32	GLN	28.7
7	AE	134	ALA	28.6
1	AA	780	A	28.6

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Mol	Chain	Res	Type	RSRZ
1	AA	1355	G	28.6
23	B0	372	U	28.6
11	AI	109	VAL	28.6
1	AA	1152	A	28.6
1	AA	678	U	28.6
1	AA	1481	U	28.6
23	B0	1120	C	28.6
10	AH	19	VAL	28.6
23	B0	1207	G	28.5
17	AO	73	GLU	28.5
1	AA	1384	C	28.5
23	B0	20	C	28.5
23	B0	1829	C	28.5
39	BO	10	ARG	28.5
23	B0	3158	A	28.5
23	B0	1072	U	28.5
40	BP	87	ARG	28.5
23	B0	135	U	28.5
10	AH	103	VAL	28.5
1	AA	248	C	28.5
2	AV	73	A	28.5
6	AD	13	ARG	28.4
1	AA	1373	G	28.4
39	BO	33	ARG	28.4
23	B0	1127	C	28.4
23	B0	1453	A	28.3
23	B0	1835	C	28.3
1	AA	871	U	28.3
2	AV	25	C	28.3
11	AI	124	GLN	28.3
23	B0	1528	C	28.3
31	BG	76	TYR	28.3
1	AA	39	G	28.3
23	B0	2850	U	28.3
23	B0	1080	A	28.2
23	B0	2398	U	28.2
23	B0	148	C	28.2
19	AQ	100	LYS	28.2
2	AV	40	C	28.2
1	AA	929	G	28.2
23	B0	2484	G	28.2
23	B0	2816	C	28.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	356	A	28.2
41	BQ	109	ARG	28.1
2	AW	71	G	28.1
22	AT	17	ARG	28.1
1	AA	679	C	28.1
23	B0	760	U	28.1
10	AH	60	ARG	28.1
1	AA	235	C	28.1
1	AA	856	C	28.0
23	B0	2424	G	28.0
19	AQ	26	GLN	28.0
6	AD	10	ARG	28.0
23	B0	1043	A	28.0
27	BC	84	PHE	28.0
28	BD	103	LEU	28.0
11	AI	121	ARG	28.0
1	AA	153	C	28.0
41	BQ	11	LYS	27.9
23	B0	722	C	27.9
1	AA	1305	G	27.9
23	B0	1244	U	27.9
1	AA	1457	A	27.9
1	AA	1484	C	27.9
23	B0	721	C	27.9
1	AA	14	U	27.9
1	AA	1404	C	27.9
5	AC	117	ALA	27.9
10	AH	118	VAL	27.9
44	BT	150	GLY	27.9
28	BD	98	VAL	27.9
1	AA	808	C	27.8
5	AC	151	VAL	27.8
1	AA	418	C	27.8
1	AA	832	C	27.8
24	B9	53	G	27.8
1	AA	788	U	27.8
1	AA	721	G	27.8
23	B0	1506	C	27.8
7	AE	57	LYS	27.8
23	B0	2618	A	27.8
1	AA	457	G	27.8
10	AH	64	LYS	27.7

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Mol	Chain	Res	Type	RSRZ
31	BG	84	ILE	27.7
23	B0	1212	U	27.7
1	AA	604	G	27.7
23	B0	1908	C	27.7
24	B9	35	C	27.7
5	AC	163	ALA	27.7
22	AT	18	GLN	27.6
1	AA	454	C	27.6
1	AA	229	U	27.6
7	AE	148	VAL	27.6
23	B0	2185	U	27.6
1	AA	1459	C	27.6
11	AI	117	HIS	27.6
10	AH	76	PRO	27.6
23	B0	1526	U	27.6
23	B0	2380	U	27.6
6	AD	41	GLY	27.6
1	AA	478	A	27.6
36	BL	105	GLY	27.6
2	AV	54	U	27.6
1	AA	37	U	27.5
23	B0	2754	C	27.5
1	AA	1353	G	27.5
23	B0	2569	A	27.5
23	B0	501	G	27.5
23	B0	914	C	27.4
1	AA	1223	C	27.4
1	AA	158	G	27.4
1	AA	177	C	27.4
34	BJ	28	LYS	27.4
23	B0	1522	C	27.4
23	B0	2073	A	27.3
23	B0	2571	G	27.3
1	AA	632	A	27.3
23	B0	1234	C	27.3
2	AV	60	C	27.3
55	B5	71	GLU	27.3
2	AV	13	C	27.3
23	B0	1540	C	27.3
2	AV	24	G	27.2
23	B0	3134	A	27.2
19	AQ	95	TYR	27.2

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Mol	Chain	Res	Type	RSRZ
17	AO	60	VAL	27.2
23	B0	2639	A	27.2
23	B0	1946	U	27.2
2	AV	27	C	27.2
23	B0	723	C	27.2
23	B0	2039	G	27.2
23	B0	2288	A	27.1
23	B0	881	U	27.1
23	B0	1095	A	27.1
23	B0	1649	A	27.1
44	BT	27	GLU	27.1
17	AO	46	HIS	27.1
1	AA	423	G	27.1
23	B0	1243	G	27.1
23	B0	2561	G	27.0
41	BQ	108	PRO	27.0
1	AA	1351	U	27.0
5	AC	160	ALA	27.0
1	AA	487	A	27.0
23	B0	1897	C	27.0
1	AA	93	U	27.0
2	AV	9	A	27.0
23	B0	1442	C	27.0
34	BJ	22	GLY	26.9
1	AA	233	C	26.9
1	AA	239	U	26.9
1	AA	612	C	26.9
25	BA	240	THR	26.9
1	AA	1447	A	26.9
23	B0	365	U	26.9
41	BQ	14	ARG	26.9
50	BZ	14	SER	26.9
1	AA	621	A	26.8
23	B0	3154	G	26.8
1	AA	1400	C	26.8
6	AD	11	LEU	26.8
23	B0	3137	C	26.8
23	B0	2287	G	26.8
16	AN	29	ARG	26.8
23	B0	2581	A	26.8
23	B0	2532	G	26.7
11	AI	118	LYS	26.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	AC	3	ASN	26.7
2	AV	58	A	26.7
23	B0	2570	C	26.7
7	AE	102	ALA	26.7
23	B0	150	A	26.7
23	B0	2481	G	26.7
44	BT	120	LEU	26.7
1	AA	1157	A	26.7
22	AT	16	HIS	26.6
23	B0	1924	C	26.6
10	AH	12	ARG	26.6
1	AA	260	G	26.6
1	AA	1160	G	26.6
23	B0	497	C	26.6
34	BJ	30	ALA	26.6
1	AA	92	G	26.6
2	AV	4	G	26.6
1	AA	479	C	26.5
1	AA	1209	C	26.5
1	AA	1397	C	26.5
23	B0	857	U	26.5
1	AA	1381	U	26.5
1	AA	743	U	26.5
10	AH	121	ASP	26.4
10	AH	20	TYR	26.4
1	AA	547	A	26.4
23	B0	2425	G	26.4
23	B0	1475	U	26.4
6	AD	19	LEU	26.4
2	AV	70	C	26.4
1	AA	178	C	26.4
23	B0	3138	C	26.4
55	B5	46	LEU	26.4
28	BD	57	LEU	26.3
23	B0	2187	A	26.3
55	B5	90	LEU	26.3
45	BU	87	GLU	26.3
23	B0	886	A	26.3
2	AW	72	C	26.3
7	AE	126	ARG	26.3
23	B0	1218	C	26.3
2	AW	44	A	26.3

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Mol	Chain	Res	Type	RSRZ
23	B0	936	A	26.3
1	AA	219	C	26.3
27	BC	130	THR	26.3
29	BE	71	LEU	26.2
23	B0	2568	A	26.2
23	B0	1172	U	26.2
23	B0	1079	G	26.2
1	AA	1077	G	26.2
1	AA	1380	U	26.2
1	AA	663	A	26.1
23	B0	1525	A	26.1
17	AO	68	ARG	26.1
31	BG	103	GLN	26.1
23	B0	1882	G	26.1
44	BT	95	SER	26.1
23	B0	894	G	26.1
1	AA	628	G	26.1
1	AA	608	A	26.1
1	AA	453	A	26.1
1	AA	1087	G	26.1
23	B0	1810	U	26.0
17	AO	77	ARG	26.0
2	AW	18	G	26.0
1	AA	165	C	26.0
1	AA	170	U	26.0
1	AA	836	G	26.0
1	AA	451	A	26.0
23	B0	1582	A	26.0
29	BE	99	THR	26.0
2	AW	29	A	26.0
24	B9	51	G	25.9
41	BQ	77	ALA	25.9
44	BT	90	GLU	25.9
34	BJ	45	LYS	25.9
23	B0	2760	G	25.9
23	B0	1221	C	25.9
1	AA	1194	U	25.9
1	AA	1189	C	25.9
23	B0	2572	U	25.9
1	AA	449	C	25.8
42	BR	55	THR	25.8
6	AD	65	ARG	25.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
23	B0	1505	U	25.8
1	AA	1108	G	25.8
23	B0	1997	A	25.8
23	B0	1247	U	25.8
1	AA	605	U	25.8
23	B0	820	U	25.8
15	AM	105	THR	25.8
23	B0	2567	G	25.8
44	BT	125	PRO	25.7
23	B0	3872	A	25.7
1	AA	166	G	25.7
29	BE	34	THR	25.7
14	AL	94	PRO	25.7
23	B0	883	A	25.7
23	B0	1541	G	25.7
31	BG	106	GLU	25.7
55	B5	141	THR	25.7
23	B0	1590	C	25.7
6	AD	43	HIS	25.6
1	AA	1429	C	25.6
19	AQ	91	ARG	25.6
23	B0	1553	G	25.6
34	BJ	24	GLY	25.6
1	AA	711	G	25.6
7	AE	106	PRO	25.6
1	AA	417	C	25.6
17	AO	8	LYS	25.5
23	B0	1152	C	25.5
1	AA	72	A	25.5
11	AI	112	LYS	25.5
34	BJ	47	ALA	25.5
1	AA	1114	C	25.5
29	BE	54	ARG	25.5
1	AA	981	U	25.5
1	AA	1354	C	25.5
23	B0	1231	A	25.5
1	AA	676	A	25.5
1	AA	1374	A	25.5
23	B0	2426	G	25.5
19	AQ	12	SER	25.5
1	AA	2361	C	25.5
23	B0	1173	G	25.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	1227	A	25.4
1	AA	371	G	25.4
31	BG	15	GLY	25.4
1	AA	1086	U	25.4
1	AA	1109	C	25.4
23	B0	2419	C	25.4
23	B0	1339	U	25.4
29	BE	125	VAL	25.4
28	BD	4	LEU	25.4
23	B0	1480	G	25.4
31	BG	16	LYS	25.4
7	AE	92	LYS	25.3
1	AA	484	G	25.3
1	AA	45	U	25.3
1	AA	1236	A	25.3
23	B0	1899	A	25.3
5	AC	2	GLY	25.3
1	AA	1214	C	25.3
23	B0	3159	G	25.3
23	B0	2418	A	25.3
29	BE	53	GLU	25.3
1	AA	787	A	25.3
5	AC	168	ALA	25.3
11	AI	123	PRO	25.3
2	AV	57	G	25.2
1	AA	1456	A	25.2
23	B0	868	U	25.2
1	AA	784	C	25.2
14	AL	51	ALA	25.2
10	AH	25	ASP	25.2
2	AW	19	G	25.2
7	AE	139	LEU	25.2
22	AT	70	SER	25.2
23	B0	2211	U	25.2
1	AA	169	C	25.2
23	B0	1501	C	25.1
1	AA	677	U	25.1
23	B0	1812	U	25.1
15	AM	124	PRO	25.1
23	B0	1915	A	25.1
6	AD	12	CYS	25.1
23	B0	1538	A	25.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	1065	U	25.1
39	BO	26	GLY	25.1
24	B9	77	G	25.1
1	AA	377	G	25.1
1	AA	1322	C	25.1
23	B0	909	C	25.0
23	B0	865	A	25.0
41	BQ	10	ASN	25.0
29	BE	67	LEU	25.0
1	AA	1304	G	25.0
23	B0	1702	C	25.0
23	B0	1298	G	25.0
1	AA	1235	U	25.0
14	AL	9	GLN	24.9
1	AA	1427	U	24.9
23	B0	1199	U	24.9
23	B0	830	C	24.9
1	AA	452	A	24.9
1	AA	143	A	24.9
1	AA	1226	C	24.9
2	AV	56	C	24.9
7	AE	128	PRO	24.9
40	BP	81	ARG	24.9
1	AA	747	C	24.9
1	AA	1334	G	24.9
44	BT	164	PRO	24.8
10	AH	120	THR	24.8
23	B0	1174	G	24.8
1	AA	372	C	24.8
1	AA	600	C	24.8
23	B0	2190	A	24.8
1	AA	831	U	24.8
23	B0	885	A	24.8
2	AW	10	G	24.8
1	AA	387	U	24.8
5	AC	130	VAL	24.8
1	AA	984	C	24.8
6	AD	57	ARG	24.8
7	AE	127	ASN	24.7
1	AA	833	U	24.7
1	AA	1195	C	24.7
23	B0	864	C	24.7

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Mol	Chain	Res	Type	RSRZ
27	BC	43	ALA	24.7
15	AM	106	ASN	24.7
41	BQ	15	LYS	24.6
14	AL	6	THR	24.6
11	AI	106	ALA	24.6
1	AA	488	C	24.6
41	BQ	78	ASN	24.6
23	B0	1230	C	24.6
9	AG	95	ARG	24.6
2	AV	6	U	24.6
43	BS	10	HIS	24.6
2	AV	39	U	24.5
23	B0	132	U	24.5
23	B0	1333	G	24.5
1	AA	1383	C	24.5
1	AA	222	U	24.5
23	B0	1106	A	24.5
23	B0	2580	C	24.5
1	AA	1158	C	24.5
29	BE	52	VAL	24.5
44	BT	29	ASN	24.4
23	B0	585	U	24.4
1	AA	672	U	24.4
55	B5	76	ALA	24.4
48	BX	11	GLY	24.4
1	AA	980	C	24.4
22	AT	15	ARG	24.4
23	B0	1542	G	24.4
44	BT	130	ILE	24.4
1	AA	477	G	24.4
1	AA	164	U	24.4
11	AI	111	ARG	24.4
1	AA	168	G	24.4
41	BQ	26	ALA	24.4
1	AA	1428	A	24.3
23	B0	1293	A	24.3
23	B0	903	G	24.3
19	AQ	37	LYS	24.3
10	AH	75	ARG	24.3
23	B0	1739	G	24.3
1	AA	389	A	24.3
23	B0	1539	U	24.3

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Mol	Chain	Res	Type	RSRZ
10	AH	48	TYR	24.3
23	B0	1914	U	24.3
10	AH	58	TYR	24.3
23	B0	2043	A	24.3
14	AL	116	SER	24.3
1	AA	748	C	24.2
19	AQ	38	ARG	24.2
1	AA	167	G	24.2
23	B0	867	G	24.2
47	BW	52	GLN	24.2
1	AA	1483	A	24.2
41	BQ	9	ARG	24.2
1	AA	1188	A	24.2
5	AC	155	GLY	24.2
23	B0	829	C	24.2
23	B0	2038	C	24.2
5	AC	137	ALA	24.2
27	BC	67	ALA	24.2
23	B0	1332	G	24.2
23	B0	1454	U	24.2
1	AA	363	A	24.1
1	AA	1151	A	24.1
23	B0	3870	C	24.1
1	AA	499	A	24.1
25	BA	224	SER	24.1
39	BO	51	ARG	24.1
2	AW	74	C	24.1
47	BW	51	ALA	24.1
23	B0	2585	C	24.1
26	BB	132	LYS	24.1
1	AA	428	G	24.0
5	AC	116	VAL	24.0
23	B0	2478	C	24.0
17	AO	50	HIS	24.0
1	AA	1251	A	24.0
2	AV	8	U	24.0
23	B0	1238	A	24.0
1	AA	1071	C	24.0
1	AA	1364	U	24.0
14	AL	50	SER	24.0
9	AG	98	SER	24.0
1	AA	1361	G	24.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
7	AE	151	LEU	24.0
2	AV	46	G	24.0
23	B0	1831	G	24.0
29	BE	63	ALA	24.0
40	BP	79	GLN	24.0
28	BD	5	LYS	24.0
7	AE	135	THR	24.0
23	B0	1950	C	24.0
23	B0	1592	U	23.9
41	BQ	12	LYS	23.9
17	AO	24	SER	23.9
23	B0	584	A	23.9
28	BD	54	ALA	23.9
1	AA	930	C	23.9
1	AA	1288	A	23.9
14	AL	49	ASN	23.9
23	B0	297	A	23.9
1	AA	1083	U	23.9
6	AD	208	SER	23.9
1	AA	1336	C	23.9
34	BJ	23	PRO	23.9
1	AA	366	C	23.8
1	AA	136	C	23.8
10	AH	113	SER	23.8
23	B0	133	C	23.8
1	AA	1448	C	23.8
24	B9	121	G	23.8
17	AO	11	VAL	23.8
23	B0	2402	U	23.8
1	AA	420	U	23.8
23	B0	1455	C	23.8
23	B0	2795	A	23.8
1	AA	76	G	23.7
23	B0	1892	C	23.7
24	B9	56	G	23.7
1	AA	779	C	23.7
23	B0	1575	C	23.7
1	AA	234	C	23.7
7	AE	105	VAL	23.7
1	AA	196	A	23.7
2	AW	46	G	23.7
1	AA	1159	U	23.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
23	B0	1949	A	23.6
14	AL	115	LYS	23.6
39	BO	12	ARG	23.6
23	B0	1534	A	23.6
1	AA	785	G	23.6
28	BD	63	GLN	23.6
23	B0	2566	A	23.6
1	AA	1095	U	23.6
28	BD	64	LYS	23.6
24	B9	4	C	23.6
1	AA	74	G	23.6
23	B0	1891	C	23.6
23	B0	149	A	23.5
23	B0	913	A	23.5
1	AA	863	U	23.5
23	B0	3122	U	23.5
23	B0	248	A	23.5
23	B0	3121	G	23.5
2	AV	23	A	23.5
1	AA	931	C	23.5
7	AE	95	ALA	23.5
1	AA	78	G	23.5
11	AI	125	TYR	23.5
26	BB	137	ARG	23.5
23	B0	2000	U	23.4
29	BE	48	ASP	23.4
1	AA	1323	G	23.4
1	AA	1455	G	23.4
7	AE	132	ALA	23.4
47	BW	55	THR	23.4
1	AA	179	A	23.4
23	B0	2377	U	23.4
44	BT	56	VAL	23.4
1	AA	1306	A	23.4
29	BE	124	ALA	23.4
10	AH	86	ILE	23.3
23	B0	1554	G	23.3
23	B0	3133	G	23.3
14	AL	91	LYS	23.3
1	AA	1225	A	23.3
2	AW	8	U	23.3
1	AA	391	G	23.3

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Mol	Chain	Res	Type	RSRZ
1	AA	1331	G	23.3
23	B0	22	C	23.3
25	BA	124	GLU	23.3
23	B0	1101	U	23.2
41	BQ	13	GLN	23.2
1	AA	1096	C	23.2
2	AV	5	A	23.2
2	AV	59	U	23.2
1	AA	1154	G	23.2
29	BE	139	GLN	23.2
23	B0	2534	U	23.2
12	AJ	52	GLY	23.2
29	BE	126	PRO	23.2
44	BT	163	ASP	23.2
23	B0	1450	G	23.2
49	BY	32	HIS	23.2
7	AE	80	ILE	23.2
2	AW	22	G	23.1
28	BD	105	ASN	23.1
23	B0	1513	U	23.1
23	B0	1122	A	23.1
23	B0	1499	A	23.1
42	BR	62	ARG	23.1
5	AC	157	ILE	23.1
23	B0	665	A	23.1
23	B0	1198	C	23.0
17	AO	37	ASN	23.0
23	B0	2562	G	23.0
34	BJ	111	SER	23.0
27	BC	62	LYS	23.0
1	AA	837	G	23.0
1	AA	1265	G	23.0
23	B0	2046	C	22.9
31	BG	91	PRO	22.9
6	AD	83	SER	22.9
23	B0	2074	U	22.9
25	BA	238	GLY	22.9
23	B0	730	C	22.9
23	B0	863	C	22.9
1	AA	261	U	22.9
44	BT	30	VAL	22.8
23	B0	2213	G	22.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
23	B0	2565	C	22.8
23	B0	1057	A	22.8
39	BO	27	SER	22.8
6	AD	72	GLU	22.8
23	B0	295	C	22.8
7	AE	97	GLY	22.8
41	BQ	74	SER	22.8
39	BO	31	GLN	22.8
23	B0	2582	G	22.8
6	AD	63	LYS	22.8
1	AA	482	A	22.8
1	AA	1300	G	22.8
1	AA	483	C	22.8
2	AV	14	A	22.8
1	AA	796	C	22.8
23	B0	1255	A	22.8
1	AA	625	G	22.8
1	AA	639	G	22.8
5	AC	166	GLU	22.7
23	B0	3175	C	22.7
28	BD	99	PHE	22.7
31	BG	93	LYS	22.7
1	AA	719	C	22.7
1	AA	373	A	22.7
1	AA	851	G	22.7
28	BD	101	GLU	22.7
5	AC	115	LEU	22.7
26	BB	131	SER	22.7
39	BO	30	LYS	22.6
29	BE	49	GLN	22.6
1	AA	801	U	22.6
2	AV	47	U	22.6
23	B0	3174	C	22.6
44	BT	53	ASP	22.6
23	B0	2487	G	22.6
10	AH	115	SER	22.6
23	B0	294	U	22.6
29	BE	127	GLU	22.6
1	AA	722	A	22.6
11	AI	105	ASP	22.6
1	AA	154	C	22.6
1	AA	1107	C	22.6

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Mol	Chain	Res	Type	RSRZ
2	AV	52	U	22.6
12	AJ	59	SER	22.5
2	AV	15	G	22.5
1	AA	1333	A	22.5
1	AA	675	A	22.5
10	AH	93	VAL	22.5
6	AD	32	ALA	22.5
23	B0	1236	G	22.5
1	AA	978	A	22.5
6	AD	44	GLY	22.5
1	AA	1253	G	22.5
5	AC	114	PRO	22.5
23	B0	2355	A	22.5
19	AQ	27	PHE	22.5
1	AA	442	C	22.5
23	B0	1923	U	22.5
1	AA	1252	A	22.4
23	B0	1253	C	22.4
23	B0	1075	C	22.4
6	AD	36	ARG	22.4
6	AD	61	LYS	22.4
31	BG	18	THR	22.4
23	B0	2584	U	22.4
14	AL	95	GLY	22.3
23	B0	3130	G	22.3
23	B0	1254	G	22.3
55	B5	79	ALA	22.3
24	B9	36	A	22.3
27	BC	75	PRO	22.3
2	AW	48	C	22.3
31	BG	77	LEU	22.3
1	AA	1390	U	22.3
1	AA	720	C	22.3
23	B0	1703	C	22.3
23	B0	296	A	22.3
23	B0	1728	A	22.3
1	AA	358	U	22.3
23	B0	1906	U	22.2
1	AA	1161	C	22.2
7	AE	152	ARG	22.2
27	BC	68	ARG	22.2
1	AA	1222	G	22.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
11	AI	116	LYS	22.2
17	AO	80	ALA	22.2
1	AA	128	G	22.2
23	B0	1232	U	22.2
23	B0	1334	A	22.2
1	AA	1177	G	22.2
22	AT	73	HIS	22.2
7	AE	147	ASP	22.2
6	AD	42	GLN	22.1
23	B0	2533	U	22.1
23	B0	498	C	22.1
1	AA	800	G	22.1
7	AE	23	GLY	22.1
23	B0	21	A	22.1
6	AD	206	PHE	22.1
1	AA	267	C	22.1
10	AH	136	GLU	22.1
1	AA	1110	A	22.1
23	B0	1209	G	22.1
7	AE	71	LEU	22.0
41	BQ	25	PHE	22.0
31	BG	73	PRO	22.0
2	AV	22	G	22.0
24	B9	76	U	22.0
1	AA	1105	A	22.0
23	B0	1211	G	22.0
2	AW	45	G	22.0
23	B0	3131	A	22.0
24	B9	75	A	22.0
1	AA	1215	G	22.0
50	BZ	29	ASN	22.0
1	AA	1072	G	22.0
23	B0	3172	U	22.0
34	BJ	14	LYS	21.9
44	BT	129	ARG	21.9
1	AA	226	G	21.9
17	AO	43	LEU	21.9
1	AA	131	C	21.9
23	B0	1948	C	21.9
1	AA	202	G	21.9
23	B0	1294	G	21.9
5	AC	118	GLN	21.9

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Mol	Chain	Res	Type	RSRZ
23	B0	1735	G	21.9
1	AA	1047	G	21.9
1	AA	50	A	21.9
23	B0	654	A	21.9
1	AA	710	G	21.9
6	AD	60	GLU	21.9
23	B0	3160	C	21.9
44	BT	59	GLY	21.9
1	AA	390	C	21.8
25	BA	254	THR	21.8
34	BJ	25	GLY	21.8
29	BE	24	PHE	21.8
39	BO	50	ARG	21.8
23	B0	1591	U	21.8
23	B0	1922	U	21.8
1	AA	392	G	21.8
1	AA	1289	A	21.8
24	B9	49	C	21.8
43	BS	26	SER	21.7
7	AE	58	ALA	21.7
7	AE	123	LEU	21.7
1	AA	227	G	21.7
1	AA	835	U	21.7
23	B0	2045	A	21.7
2	AW	75	C	21.7
12	AJ	57	LYS	21.7
22	AT	74	LYS	21.7
1	AA	480	U	21.6
1	AA	1153	C	21.6
29	BE	66	GLY	21.6
7	AE	49	PRO	21.6
1	AA	1250	A	21.6
2	AW	13	C	21.6
19	AQ	88	TYR	21.6
23	B0	937	C	21.6
26	BB	138	PRO	21.6
1	AA	275	G	21.6
17	AO	27	VAL	21.6
1	AA	77	C	21.6
2	AW	76	A	21.6
23	B0	1736	C	21.6
1	AA	1121	U	21.6

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Mol	Chain	Res	Type	RSRZ
1	AA	1372	U	21.6
29	BE	17	VAL	21.6
29	BE	25	LYS	21.5
29	BE	98	LEU	21.5
1	AA	955	U	21.5
1	AA	79	G	21.5
2	AV	12	U	21.5
15	AM	102	ARG	21.5
28	BD	48	LYS	21.5
1	AA	228	A	21.5
10	AH	138	TRP	21.5
41	BQ	112	GLY	21.5
2	AW	7	U	21.5
49	BY	40	HIS	21.5
23	B0	861	G	21.4
19	AQ	105	ALA	21.4
1	AA	218	C	21.4
1	AA	1258	G	21.4
1	AA	618	C	21.4
44	BT	61	THR	21.4
1	AA	362	G	21.4
50	BZ	43	HIS	21.4
1	AA	403	C	21.4
1	AA	368	U	21.4
23	B0	724	C	21.4
50	BZ	9	LYS	21.3
1	AA	265	G	21.3
1	AA	413	G	21.3
45	BU	83	ALA	21.3
1	AA	1324	A	21.3
23	B0	1543	G	21.3
44	BT	96	VAL	21.3
7	AE	45	PHE	21.3
17	AO	38	ARG	21.3
43	BS	9	HIS	21.3
1	AA	1074	G	21.3
23	B0	1235	C	21.3
2	AW	15	G	21.3
23	B0	2044	G	21.3
16	AN	42	ILE	21.2
7	AE	87	SER	21.2
27	BC	66	ASN	21.2

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Mol	Chain	Res	Type	RSRZ
55	B5	38	GLY	21.2
41	BQ	23	PRO	21.2
2	AV	11	C	21.2
6	AD	67	ILE	21.2
24	B9	55	C	21.2
1	AA	1391	U	21.1
31	BG	133	SER	21.1
43	BS	11	ASN	21.1
5	AC	120	VAL	21.1
23	B0	2381	A	21.1
39	BO	24	PHE	21.1
15	AM	119	GLY	21.0
1	AA	1091	U	21.0
24	B9	14	C	21.0
23	B0	826	U	21.0
48	BX	7	ARG	21.0
1	AA	84	U	21.0
29	BE	143	GLN	21.0
1	AA	1454	G	21.0
17	AO	78	TYR	21.0
19	AQ	36	ILE	21.0
16	AN	32	SER	21.0
1	AA	1237	C	21.0
2	AV	1	G	21.0
6	AD	38	TYR	21.0
29	BE	45	GLN	21.0
5	AC	154	SER	21.0
29	BE	55	PRO	21.0
7	AE	108	ALA	21.0
17	AO	15	PHE	21.0
27	BC	174	GLY	20.9
23	B0	882	C	20.9
23	B0	1175	A	20.9
23	B0	1498	G	20.9
2	AW	60	C	20.9
23	B0	1555	A	20.9
17	AO	82	ILE	20.9
29	BE	22	GLY	20.9
41	BQ	81	HIS	20.9
55	B5	97	LYS	20.9
1	AA	1332	A	20.9
1	AA	1449	C	20.9

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Mol	Chain	Res	Type	RSRZ
25	BA	225	ALA	20.9
1	AA	1264	C	20.8
1	AA	157	G	20.8
6	AD	69	GLY	20.8
23	B0	3173	A	20.8
23	B0	910	U	20.8
7	AE	74	GLY	20.8
2	AV	18	G	20.8
44	BT	123	VAL	20.8
1	AA	374	A	20.8
9	AG	92	SER	20.8
10	AH	57	PRO	20.8
23	B0	902	U	20.7
1	AA	266	G	20.7
23	B0	3116	G	20.7
1	AA	786	G	20.7
1	AA	268	C	20.7
2	AV	68	U	20.7
23	B0	1898	U	20.7
2	AW	51	G	20.7
1	AA	979	C	20.7
1	AA	440	A	20.7
24	B9	48	A	20.6
55	B5	78	LYS	20.6
23	B0	1500	U	20.6
41	BQ	98	ASP	20.6
19	AQ	24	GLU	20.6
1	AA	1335	C	20.6
23	B0	1456	C	20.6
1	AA	1360	A	20.6
1	AA	263	A	20.5
23	B0	3153	G	20.5
1	AA	1271	G	20.5
23	B0	2774	U	20.5
2	AW	64	A	20.5
39	BO	41	ASN	20.5
1	AA	259	G	20.5
1	AA	680	C	20.5
2	AW	70	C	20.5
7	AE	99	GLY	20.5
24	B9	57	U	20.5
24	B9	27	A	20.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	AC	162	GLN	20.5
28	BD	104	ILE	20.4
44	BT	89	GLY	20.4
1	AA	1269	A	20.4
7	AE	101	ILE	20.4
1	AA	370	C	20.4
23	B0	895	G	20.4
29	BE	40	GLU	20.4
23	B0	1078	A	20.4
19	AQ	23	VAL	20.4
23	B0	369	C	20.4
12	AJ	50	ILE	20.4
44	BT	155	PRO	20.4
48	BX	10	ILE	20.4
1	AA	1266	G	20.4
2	AW	14	A	20.4
1	AA	1162	C	20.4
2	AV	69	U	20.4
5	AC	153	VAL	20.4
7	AE	133	TYR	20.3
41	BQ	75	ALA	20.3
22	AT	23	ARG	20.3
14	AL	5	PRO	20.3
6	AD	4	TYR	20.3
1	AA	627	G	20.3
23	B0	1998	A	20.3
34	BJ	43	ALA	20.3
33	BI	39	GLY	20.3
1	AA	361	G	20.2
1	AA	1287	A	20.2
23	B0	3126	A	20.2
10	AH	81	HIS	20.2
23	B0	1208	A	20.2
44	BT	3	LEU	20.2
23	B0	1536	G	20.2
1	AA	498	U	20.2
23	B0	3162	G	20.2
2	AV	76	A	20.2
1	AA	1099	G	20.2
19	AQ	94	ASN	20.2
11	AI	115	GLY	20.2
23	B0	3171	A	20.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	AC	79	ARG	20.2
36	BL	13	ASN	20.2
29	BE	21	ASP	20.2
17	AO	9	GLN	20.1
19	AQ	97	SER	20.1
23	B0	367	G	20.1
1	AA	73	C	20.1
6	AD	205	GLU	20.1
23	B0	912	A	20.1
50	BZ	18	MET	20.1
42	BR	54	SER	20.1
10	AH	23	SER	20.1
7	AE	31	LEU	20.1
2	AW	9	A	20.1
2	AW	73	A	20.1
23	B0	1459	U	20.0
6	AD	73	ARG	20.0
52	B2	8	ASN	20.0
19	AQ	34	LYS	20.0
1	AA	80	C	20.0
10	AH	21	LYS	20.0
1	AA	842	U	20.0
7	AE	11	ILE	20.0
10	AH	51	VAL	20.0
10	AH	56	LYS	20.0
44	BT	2	GLU	20.0
1	AA	448	A	19.9
19	AQ	11	VAL	19.9
5	AC	113	ALA	19.9
1	AA	369	C	19.9
1	AA	1314	C	19.9
6	AD	77	ASN	19.9
19	AQ	98	LEU	19.9
39	BO	21	ALA	19.9
6	AD	89	THR	19.9
23	B0	1524	C	19.9
9	AG	94	ARG	19.9
5	AC	167	TRP	19.9
6	AD	204	ILE	19.9
18	AP	25	ARG	19.9
22	AT	9	ASN	19.9
5	AC	195	VAL	19.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
16	AN	41	ARG	19.8
31	BG	139	GLU	19.8
5	AC	150	LYS	19.8
23	B0	1583	A	19.8
19	AQ	102	GLY	19.8
1	AA	1307	U	19.8
23	B0	418	C	19.8
44	BT	94	VAL	19.8
23	B0	1874	G	19.8
5	AC	191	THR	19.7
24	B9	37	C	19.7
7	AE	144	THR	19.7
1	AA	156	G	19.7
41	BQ	17	GLN	19.7
31	BG	130	THR	19.7
1	AA	1312	G	19.7
44	BT	104	SER	19.7
24	B9	50	U	19.7
1	AA	615	C	19.7
6	AD	56	VAL	19.7
23	B0	944	A	19.7
1	AA	155	C	19.7
29	BE	41	LEU	19.7
28	BD	100	LEU	19.6
10	AH	77	GLU	19.6
23	B0	499	G	19.6
11	AI	114	TYR	19.6
23	B0	884	C	19.6
15	AM	101	GLN	19.6
28	BD	146	VAL	19.6
17	AO	74	ASP	19.6
7	AE	21	ALA	19.5
23	B0	1239	A	19.5
23	B0	2072	C	19.5
1	AA	617	G	19.5
17	AO	12	ILE	19.5
27	BC	69	HIS	19.5
1	AA	376	G	19.5
1	AA	416	G	19.5
1	AA	1171	G	19.5
23	B0	866	U	19.5
44	BT	55	THR	19.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	1326	C	19.5
22	AT	69	GLY	19.5
1	AA	404	U	19.4
27	BC	82	VAL	19.4
23	B0	1836	C	19.4
10	AH	114	THR	19.4
10	AH	107	LEU	19.4
2	AW	11	C	19.4
23	B0	2564	U	19.4
44	BT	35	ASP	19.4
14	AL	118	SER	19.3
31	BG	52	ILE	19.3
2	AW	63	C	19.3
2	AW	30	G	19.3
39	BO	25	TRP	19.3
23	B0	2483	U	19.3
1	AA	1210	C	19.3
1	AA	1270	C	19.3
52	B2	6	GLN	19.3
10	AH	62	TYR	19.3
12	AJ	42	THR	19.3
23	B0	1734	C	19.3
29	BE	35	VAL	19.3
19	AQ	22	LEU	19.3
1	AA	486	U	19.2
7	AE	69	VAL	19.2
6	AD	81	GLU	19.2
19	AQ	92	ARG	19.2
16	AN	27	CYS	19.2
23	B0	366	U	19.2
1	AA	75	C	19.2
1	AA	1089	G	19.2
5	AC	200	ALA	19.2
1	AA	1124	G	19.1
23	B0	500	G	19.1
40	BP	9	GLY	19.1
1	AA	1088	G	19.1
1	AA	223	U	19.1
28	BD	46	ASP	19.1
1	AA	1256	A	19.1
15	AM	123	ALA	19.1
23	B0	3161	C	19.1

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Mol	Chain	Res	Type	RSRZ
23	B0	1342	U	19.1
3	AU	11	C	19.0
44	BT	139	THR	19.0
7	AE	116	THR	19.0
23	B0	2040	A	19.0
55	B5	208	THR	19.0
24	B9	106	U	19.0
5	AC	123	GLN	19.0
6	AD	8	VAL	19.0
23	B0	1220	G	19.0
44	BT	128	ARG	19.0
23	B0	1535	C	19.0
11	AI	128	ARG	19.0
23	B0	1464	A	19.0
31	BG	138	VAL	19.0
6	AD	33	MET	18.9
1	AA	1113	C	18.9
23	B0	2480	C	18.9
23	B0	2842	C	18.9
29	BE	137	ASP	18.9
6	AD	201	GLN	18.9
1	AA	1166	G	18.9
44	BT	122	ILE	18.9
22	AT	19	SER	18.9
1	AA	254	G	18.9
7	AE	107	ARG	18.9
55	B5	37	LYS	18.9
1	AA	83	C	18.8
39	BO	13	ARG	18.8
10	AH	131	GLY	18.8
23	B0	1176	U	18.8
23	B0	2486	C	18.8
44	BT	58	GLY	18.8
50	BZ	5	PRO	18.8
33	BI	37	GLY	18.8
38	BN	126	LYS	18.7
1	AA	1075	C	18.7
23	B0	860	U	18.7
23	B0	2069	U	18.7
10	AH	112	LEU	18.7
52	B2	7	PRO	18.7
44	BT	62	PHE	18.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
23	B0	2563	U	18.7
29	BE	128	PRO	18.7
19	AQ	20	THR	18.7
5	AC	193	TYR	18.7
6	AD	9	CYS	18.7
10	AH	117	GLY	18.7
10	AH	96	GLY	18.6
23	B0	2583	U	18.6
11	AI	107	ARG	18.6
1	AA	1164	G	18.6
23	B0	1240	G	18.6
2	AW	49	C	18.6
23	B0	1601	U	18.6
1	AA	1173	G	18.6
23	B0	1463	A	18.5
55	B5	77	LYS	18.5
41	BQ	118	LYS	18.5
22	AT	26	ASN	18.5
22	AT	21	LYS	18.5
39	BO	14	HIS	18.5
20	AR	16	PRO	18.5
34	BJ	15	ASP	18.5
6	AD	82	ALA	18.5
1	AA	1325	C	18.5
5	AC	194	GLY	18.5
17	AO	14	GLU	18.4
23	B0	2184	C	18.4
50	BZ	4	HIS	18.4
7	AE	136	MET	18.4
32	BH	73	ASN	18.4
48	BX	8	SER	18.4
23	B0	368	A	18.4
26	BB	150	VAL	18.4
1	AA	799	G	18.4
23	B0	3128	G	18.4
5	AC	161	GLU	18.4
1	AA	224	C	18.4
15	AM	121	LYS	18.4
19	AQ	96	GLN	18.4
31	BG	102	ASP	18.4
16	AN	30	ALA	18.4
1	AA	251	G	18.4

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Mol	Chain	Res	Type	RSRZ
23	B0	1830	C	18.4
2	AV	21	A	18.4
12	AJ	58	ASP	18.3
23	B0	862	A	18.3
1	AA	838	C	18.3
1	AA	1272	G	18.3
9	AG	3	ARG	18.3
23	B0	1481	U	18.3
22	AT	22	ARG	18.3
6	AD	207	TYR	18.3
10	AH	74	PRO	18.3
2	AW	24	G	18.3
42	BR	65	VAL	18.3
1	AA	1285	A	18.2
55	B5	91	GLN	18.2
29	BE	12	PRO	18.2
23	B0	1737	G	18.2
50	BZ	19	ARG	18.2
1	AA	195	A	18.2
1	AA	1313	U	18.2
23	B0	1460	G	18.2
15	AM	104	ARG	18.2
29	BE	33	LEU	18.2
23	B0	1556	A	18.1
1	AA	1097	C	18.1
23	B0	3127	G	18.1
2	AW	56	C	18.1
29	BE	23	VAL	18.1
22	AT	20	LEU	18.1
28	BD	97	TYR	18.1
7	AE	143	ARG	18.1
23	B0	3117	A	18.1
29	BE	43	VAL	18.1
1	AA	1104	G	18.1
23	B0	3176	A	18.1
17	AO	85	LEU	18.1
7	AE	115	VAL	18.1
28	BD	95	ARG	18.1
55	B5	195	LYS	18.1
1	AA	393	A	18.1
23	B0	1482	U	18.1
23	B0	1999	U	18.1

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Mol	Chain	Res	Type	RSRZ
42	BR	63	LYS	18.1
17	AO	16	ALA	18.0
55	B5	89	GLU	18.0
6	AD	85	LYS	18.0
1	AA	616	G	18.0
44	BT	51	LEU	18.0
48	BX	27	LYS	18.0
17	AO	71	GLN	18.0
9	AG	2	ALA	18.0
1	AA	439	A	18.0
1	AA	1311	G	18.0
5	AC	121	ALA	17.9
1	AA	142	G	17.9
1	AA	422	C	17.9
1	AA	1073	U	17.9
33	BI	38	GLY	17.9
1	AA	394	G	17.9
17	AO	21	ASP	17.9
25	BA	243	GLY	17.9
6	AD	200	GLU	17.9
23	B0	899	G	17.9
9	AG	97	GLN	17.9
5	AC	53	ALA	17.9
23	B0	1909	U	17.9
29	BE	44	ARG	17.8
44	BT	127	PRO	17.8
7	AE	22	GLY	17.8
23	B0	2479	U	17.8
29	BE	16	THR	17.8
1	AA	458	G	17.8
23	B0	1241	G	17.8
1	AA	1172	C	17.8
1	AA	1268	A	17.8
6	AD	198	VAL	17.8
1	AA	1532	U	17.8
22	AT	25	ARG	17.8
23	B0	1544	A	17.7
23	B0	1497	C	17.7
2	AW	42	G	17.7
14	AL	114	LYS	17.7
24	B9	44	C	17.7
1	AA	249	U	17.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	443	C	17.7
41	BQ	117	ILE	17.7
1	AA	412	A	17.7
48	BX	28	ILE	17.6
1	AA	620	C	17.6
1	AA	1216	G	17.6
31	BG	89	SER	17.6
1	AA	225	C	17.6
6	AD	203	VAL	17.6
38	BN	124	VAL	17.6
3	AU	13	A	17.6
5	AC	187	ALA	17.6
5	AC	138	VAL	17.6
1	AA	1176	A	17.6
1	AA	430	A	17.6
19	AQ	104	LYS	17.6
23	B0	1210	C	17.6
29	BE	136	ILE	17.5
41	BQ	18	VAL	17.5
1	AA	217	C	17.5
25	BA	222	ARG	17.5
1	AA	1327	C	17.5
24	B9	54	U	17.5
7	AE	79	GLU	17.5
2	AW	25	C	17.5
24	B9	47	A	17.5
41	BQ	120	ARG	17.5
1	AA	1254	C	17.5
2	AV	19	G	17.4
24	B9	41	A	17.4
16	AN	2	ALA	17.4
1	AA	405	U	17.4
27	BC	83	ALA	17.4
33	BI	40	GLY	17.4
23	B0	2212	U	17.4
23	B0	896	C	17.4
23	B0	1177	U	17.4
24	B9	40	C	17.4
23	B0	1242	A	17.4
23	B0	3120	G	17.3
19	AQ	42	TYR	17.3
27	BC	44	SER	17.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
22	AT	8	ARG	17.3
28	BD	116	GLY	17.3
29	BE	46	ASP	17.3
22	AT	71	THR	17.3
2	AW	20	G	17.3
1	AA	1123	A	17.3
23	B0	1562	G	17.3
1	AA	1533	C	17.3
7	AE	59	GLY	17.3
23	B0	2206	C	17.3
43	BS	17	LYS	17.3
14	AL	89	ARG	17.3
6	AD	79	PHE	17.2
27	BC	162	ARG	17.2
44	BT	1	MET	17.2
2	AW	65	G	17.2
17	AO	7	GLU	17.2
24	B9	46	G	17.2
5	AC	192	THR	17.2
1	AA	1167	A	17.2
24	B9	107	C	17.2
1	AA	723	U	17.2
14	AL	7	ILE	17.1
27	BC	79	GLY	17.1
43	BS	103	LYS	17.1
45	BU	84	ALA	17.1
27	BC	163	ASN	17.1
44	BT	54	ILE	17.1
41	BQ	28	ALA	17.1
1	AA	1321	C	17.1
19	AQ	28	PRO	17.1
6	AD	87	GLY	17.1
43	BS	93	ARG	17.1
41	BQ	32	ARG	17.0
43	BS	13	LYS	17.0
2	AW	28	C	17.0
1	AA	1255	G	17.0
23	B0	1461	C	17.0
1	AA	485	G	17.0
1	AA	1076	C	17.0
1	AA	1098	C	17.0
23	B0	1462	C	17.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	AC	6	HIS	17.0
6	AD	35	ARG	17.0
23	B0	2485	U	17.0
6	AD	71	SER	16.9
22	AT	27	LYS	16.9
1	AA	1175	G	16.9
49	BY	2	GLN	16.9
10	AH	119	LEU	16.9
1	AA	81	C	16.9
23	B0	2200	G	16.9
43	BS	90	LYS	16.9
7	AE	125	SER	16.9
38	BN	125	MET	16.9
2	AW	12	U	16.9
23	B0	907	U	16.9
23	B0	1296	G	16.9
42	BR	60	GLY	16.9
17	AO	40	SER	16.9
41	BQ	107	ILE	16.9
5	AC	112	SER	16.9
23	B0	1873	A	16.9
17	AO	75	PRO	16.9
26	BB	157	ALA	16.8
1	AA	1330	U	16.8
16	AN	28	GLY	16.8
28	BD	137	ILE	16.8
7	AE	44	GLY	16.7
1	AA	1277	C	16.7
1	AA	1286	A	16.7
23	B0	2482	A	16.7
31	BG	20	ALA	16.7
6	AD	88	VAL	16.7
41	BQ	27	VAL	16.7
2	AV	17	U	16.7
23	B0	2070	G	16.7
23	B0	3170	A	16.7
7	AE	111	GLU	16.7
1	AA	1102	A	16.7
34	BJ	126	SER	16.7
23	B0	1559	G	16.7
44	BT	106	GLY	16.7
1	AA	798	G	16.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
29	BE	68	THR	16.7
3	AU	14	A	16.7
1	AA	269	C	16.7
23	B0	3119	A	16.7
9	AG	74	GLU	16.7
23	B0	1600	U	16.7
1	AA	1169	A	16.6
5	AC	152	ILE	16.6
25	BA	239	ARG	16.6
18	AP	13	HIS	16.6
12	AJ	44	VAL	16.6
23	B0	901	A	16.6
1	AA	85	U	16.6
6	AD	37	PRO	16.6
24	B9	38	C	16.6
23	B0	3177	C	16.6
6	AD	34	GLU	16.6
29	BE	47	GLY	16.6
23	B0	1451	C	16.6
43	BS	78	ALA	16.6
10	AH	66	GLY	16.6
3	AU	12	A	16.6
14	AL	15	ARG	16.6
23	B0	938	G	16.6
19	AQ	93	GLN	16.6
5	AC	51	GLY	16.6
31	BG	45	THR	16.6
23	B0	3129	C	16.6
31	BG	116	ASN	16.6
23	B0	1847	G	16.6
1	AA	1329	A	16.6
7	AE	55	VAL	16.5
1	AA	1196	U	16.5
5	AC	165	THR	16.5
1	AA	636	U	16.5
23	B0	1738	U	16.5
7	AE	14	ARG	16.5
23	B0	1875	C	16.5
1	AA	1103	C	16.5
34	BJ	13	ARG	16.4
14	AL	124	LYS	16.4
1	AA	994	A	16.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
15	AM	108	ARG	16.4
1	AA	709	G	16.4
1	AA	91	C	16.4
23	B0	3112	G	16.4
1	AA	216	C	16.4
7	AE	12	LEU	16.4
14	AL	10	LEU	16.4
14	AL	125	PRO	16.4
23	B0	2183	C	16.4
35	BK	25	GLY	16.4
39	BO	49	ASP	16.4
41	BQ	33	MET	16.4
29	BE	42	THR	16.3
10	AH	95	VAL	16.3
39	BO	36	PHE	16.3
1	AA	1149	C	16.3
2	AW	26	G	16.3
17	AO	72	ARG	16.3
1	AA	489	C	16.2
7	AE	51	VAL	16.2
9	AG	96	GLN	16.2
26	BB	112	GLY	16.2
29	BE	97	LYS	16.2
4	AB	26	PRO	16.2
1	AA	137	C	16.2
1	AA	395	C	16.2
1	AA	797	C	16.2
1	AA	1111	A	16.2
1	AA	1259	C	16.2
5	AC	69	HIS	16.2
14	AL	53	ARG	16.2
5	AC	124	ILE	16.2
34	BJ	18	ARG	16.2
9	AG	76	ARG	16.2
23	B0	2071	G	16.2
23	B0	3115	G	16.2
1	AA	1308	U	16.2
5	AC	4	LYS	16.2
44	BT	85	MET	16.2
1	AA	1267	C	16.2
31	BG	35	MET	16.1
11	AI	104	ARG	16.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	AC	164	ARG	16.1
44	BT	5	ALA	16.1
16	AN	40	CYS	16.1
29	BE	13	SER	16.1
14	AL	113	ARG	16.1
2	AW	59	U	16.1
24	B9	39	C	16.1
5	AC	199	LYS	16.1
44	BT	165	GLU	16.1
1	AA	469	C	16.1
17	AO	23	GLY	16.1
1	AA	82	C	16.0
38	BN	51	GLU	16.0
53	B3	33	ASN	16.0
14	AL	117	ARG	16.0
50	BZ	37	HIS	16.0
29	BE	142	GLY	16.0
23	B0	2201	G	16.0
23	B0	3178	C	16.0
23	B0	1457	A	16.0
23	B0	1452	U	16.0
5	AC	70	VAL	16.0
5	AC	185	GLY	16.0
1	AA	360	A	16.0
5	AC	50	ALA	16.0
17	AO	84	LYS	15.9
1	AA	1278	U	15.9
55	B5	84	VAL	15.9
31	BG	92	ASN	15.9
1	AA	86	G	15.9
1	AA	255	G	15.9
22	AT	31	SER	15.9
1	AA	375	U	15.9
28	BD	109	PRO	15.9
17	AO	4	THR	15.9
1	AA	274	A	15.9
55	B5	127	ALA	15.9
16	AN	61	TRP	15.9
1	AA	129(A)	G	15.9
1	AA	1221	G	15.9
1	AA	1309	G	15.9
1	AA	215	C	15.9

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Mol	Chain	Res	Type	RSRZ
36	BL	12	ARG	15.9
41	BQ	96	TYR	15.8
1	AA	1316	G	15.8
48	BX	12	ARG	15.8
5	AC	131	ARG	15.8
23	B0	1489	C	15.8
1	AA	693	G	15.8
1	AA	1090	U	15.8
5	AC	189	ALA	15.8
29	BE	109	TYR	15.8
23	B0	1219	C	15.8
23	B0	3163	C	15.8
23	B0	1545	G	15.8
7	AE	100	VAL	15.8
17	AO	17	ARG	15.8
40	BP	84	THR	15.7
1	AA	253	U	15.7
27	BC	77	PHE	15.7
17	AO	48	LYS	15.7
4	AB	123	ALA	15.7
29	BE	18	ASN	15.7
34	BJ	115	SER	15.7
1	AA	1453	G	15.7
23	B0	2041	A	15.7
23	B0	3186	C	15.7
55	B5	126	PRO	15.6
14	AL	47	LYS	15.6
1	AA	1163	C	15.6
13	AK	117	ASN	15.6
1	AA	1122	U	15.6
7	AE	60	TYR	15.6
1	AA	138	G	15.6
14	AL	48	PRO	15.6
2	AW	3	G	15.6
19	AQ	103	GLY	15.6
23	B0	2198	U	15.6
27	BC	42	THR	15.6
18	AP	14	ASN	15.6
39	BO	46	GLU	15.5
23	B0	1808	C	15.5
6	AD	45	GLN	15.5
7	AE	39	GLY	15.5

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Mol	Chain	Res	Type	RSRZ
10	AH	106	GLY	15.5
11	AI	11	LYS	15.5
1	AA	1165	C	15.5
18	AP	11	SER	15.5
10	AH	104	ARG	15.5
1	AA	1127	G	15.5
1	AA	273	A	15.5
2	AW	2	C	15.5
53	B3	2	PRO	15.5
30	BF	9	SER	15.5
23	B0	1178	C	15.5
23	B0	1729	C	15.5
17	AO	3	ILE	15.4
55	B5	108	GLU	15.4
48	BX	15	ASN	15.4
1	AA	468	A	15.4
1	AA	367	U	15.4
10	AH	91	ARG	15.4
12	AJ	51	ARG	15.4
1	AA	421	U	15.4
23	B0	2042	A	15.4
6	AD	90	GLY	15.4
10	AH	37	ARG	15.4
1	AA	87	G	15.4
1	AA	359	U	15.4
6	AD	2	GLY	15.4
52	B2	3	ARG	15.4
29	BE	14	GLY	15.4
7	AE	67	VAL	15.4
11	AI	23	ASN	15.4
1	AA	1213	A	15.4
5	AC	5	ILE	15.4
1	AA	252	U	15.4
1	AA	89	G	15.4
5	AC	198	VAL	15.4
44	BT	60	GLU	15.4
23	B0	905	G	15.3
14	AL	119	LYS	15.3
7	AE	26	PHE	15.3
1	AA	1273	G	15.3
23	B0	2075	U	15.3
6	AD	31	CYS	15.3

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Mol	Chain	Res	Type	RSRZ
48	BX	42	GLY	15.3
1	AA	619	U	15.3
1	AA	1125	U	15.3
28	BD	117	ILE	15.3
24	B9	42	U	15.3
39	BO	54	LYS	15.3
49	BY	42	PHE	15.3
39	BO	15	LYS	15.3
42	BR	58	VAL	15.2
1	AA	1168	A	15.2
45	BU	31	VAL	15.2
15	AM	118	ALA	15.2
23	B0	904	U	15.2
9	AG	91	VAL	15.2
36	BL	104	ARG	15.2
5	AC	159	GLY	15.2
2	AW	23	A	15.2
24	B9	43	G	15.2
34	BJ	113	GLU	15.2
15	AM	100	GLY	15.2
39	BO	32	TYR	15.2
28	BD	18	GLN	15.2
22	AT	30	LYS	15.2
1	AA	1150	U	15.2
28	BD	108	LEU	15.2
15	AM	103	THR	15.2
43	BS	94	VAL	15.2
41	BQ	99	ALA	15.2
29	BE	70	THR	15.2
13	AK	118	GLY	15.1
42	BR	13	SER	15.1
1	AA	129	U	15.1
1	AA	1174	G	15.1
55	B5	109	TRP	15.1
25	BA	223	GLY	15.1
29	BE	19	ALA	15.1
19	AQ	13	ASP	15.1
10	AH	130	GLY	15.1
23	B0	1458	A	15.1
23	B0	3132	A	15.1
1	AA	5	U	15.0
22	AT	24	LEU	15.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
55	B5	194	ALA	15.0
1	AA	203	A	15.0
48	BX	13	PRO	15.0
17	AO	22	THR	15.0
40	BP	85	GLY	15.0
31	BG	117	ALA	15.0
1	AA	626	U	15.0
44	BT	26	LYS	15.0
23	B0	3168	G	15.0
23	B0	1297	A	15.0
53	B3	3	LYS	15.0
1	AA	682	G	15.0
23	B0	3105	G	15.0
2	AW	52	U	15.0
16	AN	24	CYS	15.0
6	AD	76	ARG	14.9
1	AA	258	G	14.9
6	AD	199	ASN	14.9
52	B2	40	HIS	14.9
1	AA	1100	C	14.9
5	AC	197	GLY	14.9
15	AM	116	THR	14.9
14	AL	90	VAL	14.9
23	B0	1846	A	14.9
15	AM	114	ARG	14.9
7	AE	50	GLU	14.8
23	B0	3166	G	14.8
39	BO	58	ARG	14.8
20	AR	87	ARG	14.8
1	AA	1137	C	14.8
16	AN	60	SER	14.8
50	BZ	42	SER	14.8
7	AE	82	VAL	14.8
1	AA	1319	A	14.8
41	BQ	97	VAL	14.8
4	AB	37	ASN	14.8
23	B0	1197	U	14.8
34	BJ	10	PRO	14.8
43	BS	57	ASN	14.8
11	AI	103	THR	14.8
14	AL	12	ARG	14.8
1	AA	250	A	14.8

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Mol	Chain	Res	Type	RSRZ
23	B0	1557	G	14.8
15	AM	107	ALA	14.7
23	B0	858	G	14.7
31	BG	79	ARG	14.7
5	AC	122	GLU	14.7
1	AA	1276	G	14.7
1	AA	205	G	14.7
2	AV	20	G	14.7
23	B0	1560	A	14.7
53	B3	31	HIS	14.7
23	B0	3139	U	14.7
29	BE	32	GLU	14.7
1	AA	1310	G	14.7
10	AH	49	GLU	14.7
19	AQ	90	ILE	14.7
32	BH	109	GLY	14.7
23	B0	3104	C	14.6
1	AA	1450	U	14.6
23	B0	1537	U	14.6
1	AA	194	C	14.6
43	BS	27	GLY	14.6
9	AG	99	LEU	14.6
10	AH	101	PRO	14.6
1	AA	184	G	14.6
44	BT	134	LEU	14.6
1	AA	459	G	14.6
8	AF	73	ASN	14.6
7	AE	114	GLY	14.6
19	AQ	85	VAL	14.6
11	AI	12	GLU	14.6
34	BJ	48	PHE	14.6
1	AA	1263	C	14.5
8	AF	68	PRO	14.5
1	AA	1315	U	14.5
17	AO	13	GLN	14.5
12	AJ	60	ARG	14.5
10	AH	30	ARG	14.5
37	BM	19	THR	14.5
1	AA	466	A	14.5
17	AO	10	LYS	14.5
1	AA	467	U	14.5
23	B0	3187	U	14.5

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Mol	Chain	Res	Type	RSRZ
2	AW	4	G	14.5
43	BS	56	LYS	14.4
7	AE	113	ALA	14.4
10	AH	123	GLU	14.4
2	AW	53	G	14.4
50	BZ	17	ASP	14.4
18	AP	68	ASP	14.4
1	AA	1328	C	14.4
1	AA	213	G	14.4
8	AF	69	GLU	14.4
22	AT	75	ASN	14.4
1	AA	1136	U	14.3
1	AA	183	G	14.3
1	AA	130	A	14.3
10	AH	116	LYS	14.3
2	AW	27	C	14.3
28	BD	176	PRO	14.3
19	AQ	9	VAL	14.3
1	AA	88	G	14.3
29	BE	26	VAL	14.3
7	AE	61	TYR	14.3
39	BO	45	TYR	14.3
6	AD	5	ILE	14.3
6	AD	202	LEU	14.3
6	AD	68	TYR	14.3
23	B0	1867	A	14.3
27	BC	55	GLY	14.3
1	AA	601	C	14.3
12	AJ	68	HIS	14.3
1	AA	995	C	14.3
26	BB	133	LYS	14.3
5	AC	196	LEU	14.2
7	AE	32	VAL	14.2
23	B0	1561	A	14.2
1	AA	1010	G	14.2
1	AA	1142	G	14.2
1	AA	1284	C	14.2
40	BP	8	GLY	14.2
6	AD	196	LEU	14.2
44	BT	110	GLY	14.2
6	AD	16	GLY	14.2
7	AE	10	MET	14.2

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Mol	Chain	Res	Type	RSRZ
1	AA	471	G	14.2
7	AE	124	GLY	14.2
25	BA	51	SER	14.2
1	AA	181	G	14.2
1	AA	1279	A	14.2
1	AA	1451	A	14.2
23	B0	1552	C	14.1
28	BD	178	ARG	14.1
1	AA	497	A	14.1
25	BA	99	ASP	14.1
1	AA	447	G	14.1
10	AH	82	HIS	14.1
50	BZ	32	GLU	14.1
7	AE	9	LYS	14.1
25	BA	220	HIS	14.1
37	BM	50	THR	14.1
40	BP	82	ARG	14.1
1	AA	476	U	14.1
15	AM	120	LYS	14.1
1	AA	1144	G	14.1
5	AC	52	LEU	14.1
7	AE	109	ILE	14.1
27	BC	131	LYS	14.1
1	AA	1008	C	14.0
29	BE	50	LEU	14.0
23	B0	3169	A	14.0
27	BC	160	ALA	14.0
43	BS	102	LYS	14.0
1	AA	848	G	14.0
6	AD	21	LEU	14.0
1	AA	90	C	14.0
1	AA	681	C	14.0
1	AA	434	U	14.0
6	AD	6	GLY	14.0
29	BE	64	LEU	14.0
23	B0	2182	A	14.0
40	BP	83	ARG	14.0
13	AK	119	CYS	14.0
1	AA	429	U	14.0
5	AC	7	PRO	13.9
1	AA	1126	U	13.9
17	AO	19	PRO	13.9

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Mol	Chain	Res	Type	RSRZ
1	AA	1143	G	13.9
27	BC	54	THR	13.9
7	AE	62	ALA	13.9
31	BG	78	ILE	13.9
15	AM	112	GLY	13.9
1	AA	1023	G	13.9
9	AG	102	ARG	13.9
1	AA	264	U	13.9
1	AA	839	G	13.8
23	B0	1837	G	13.8
1	AA	444	C	13.8
7	AE	110	LEU	13.8
1	AA	1009	G	13.8
2	AW	6	U	13.8
28	BD	179	LYS	13.8
1	AA	849	C	13.8
22	AT	76	ALA	13.8
6	AD	64	LEU	13.8
1	AA	1303	C	13.8
23	B0	1077	U	13.8
6	AD	17	VAL	13.8
17	AO	20	GLY	13.8
14	AL	44	THR	13.8
6	AD	75	PHE	13.8
24	B9	45	C	13.8
34	BJ	17	LYS	13.8
52	B2	2	LYS	13.8
55	B5	106	GLN	13.7
1	AA	1112	C	13.7
23	B0	1881	U	13.7
26	BB	136	ARG	13.7
35	BK	16	GLY	13.7
1	AA	956	U	13.7
9	AG	100	ALA	13.7
14	AL	97	ARG	13.7
1	AA	960	U	13.7
23	B0	1076	U	13.7
10	AH	125	ARG	13.7
1	AA	470	U	13.7
5	AC	158	GLY	13.7
7	AE	85	GLY	13.7
41	BQ	19	LYS	13.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	270	A	13.7
19	AQ	84	LEU	13.7
27	BC	50	GLN	13.7
33	BI	41	ASN	13.7
23	B0	3188	U	13.7
55	B5	72	GLN	13.7
51	B1	30	ASN	13.7
1	AA	204	A	13.6
1	AA	1283	G	13.6
38	BN	49	ALA	13.6
10	AH	105	ARG	13.6
38	BN	123	ARG	13.6
44	BT	8	ARG	13.6
39	BO	38	THR	13.6
23	B0	1849	G	13.6
5	AC	141	VAL	13.6
23	B0	1295	U	13.5
23	B0	1851	A	13.5
1	AA	257	G	13.5
1	AA	1452	C	13.5
7	AE	141	GLN	13.5
19	AQ	21	VAL	13.5
16	AN	33	VAL	13.5
32	BH	133	GLY	13.5
7	AE	24	ARG	13.5
28	BD	75	SER	13.5
6	AD	7	PRO	13.5
44	BT	4	THR	13.5
23	B0	3152	G	13.5
52	B2	10	ARG	13.5
1	AA	446	G	13.4
23	B0	2199	C	13.4
16	AN	46	GLU	13.4
6	AD	18	LYS	13.4
2	AW	5	A	13.4
18	AP	12	LYS	13.4
5	AC	169	ALA	13.4
7	AE	140	ARG	13.4
28	BD	138	PHE	13.4
29	BE	15	VAL	13.4
10	AH	124	ALA	13.4
22	AT	68	LYS	13.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
53	B3	7	HIS	13.4
14	AL	23	LYS	13.4
44	BT	25	ASN	13.3
22	AT	28	ALA	13.3
1	AA	694	A	13.3
5	AC	106	VAL	13.3
1	AA	1318	A	13.3
19	AQ	33	GLY	13.3
23	B0	1565	G	13.3
7	AE	42	GLY	13.3
11	AI	97	LYS	13.3
18	AP	23	ASP	13.3
41	BQ	22	LYS	13.3
26	BB	60	ASN	13.3
50	BZ	59	ALA	13.3
1	AA	1317	C	13.3
14	AL	11	VAL	13.3
1	AA	683	G	13.3
14	AL	22	SER	13.3
1	AA	206	C	13.3
10	AH	41	ARG	13.2
40	BP	90	PHE	13.2
22	AT	72	LEU	13.2
23	B0	3100	G	13.2
43	BS	55	THR	13.2
47	BW	41	HIS	13.2
29	BE	181	GLY	13.2
1	AA	1024	G	13.2
25	BA	135	PHE	13.2
29	BE	20	GLN	13.2
1	AA	494	G	13.2
23	B0	906	U	13.2
26	BB	186	GLY	13.2
1	AA	406	G	13.2
17	AO	2	PRO	13.2
26	BB	115	GLY	13.2
1	AA	490	G	13.1
1	AA	207	C	13.1
1	AA	435	C	13.1
22	AT	67	ALA	13.1
1	AA	141	A	13.1
1	AA	1534	A	13.1

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Mol	Chain	Res	Type	RSRZ
26	BB	113	THR	13.1
1	AA	415	A	13.1
5	AC	55	VAL	13.1
25	BA	49	ILE	13.1
25	BA	241	GLY	13.1
29	BE	123	PHE	13.1
43	BS	58	VAL	13.1
27	BC	129	LYS	13.1
43	BS	92	THR	13.1
52	B2	11	LYS	13.1
7	AE	96	PRO	13.1
1	AA	638	G	13.1
28	BD	19	GLN	13.1
49	BY	3	LYS	13.1
43	BS	91	ALA	13.1
15	AM	117	VAL	13.1
1	AA	1007	C	13.0
6	AD	70	ILE	13.0
14	AL	99	HIS	13.0
19	AQ	86	GLU	13.0
20	AR	18	ARG	13.0
50	BZ	47	PRO	13.0
48	BX	39	ALA	13.0
34	BJ	12	SER	13.0
14	AL	52	LEU	13.0
2	AW	47	U	13.0
5	AC	67	THR	13.0
1	AA	214	U	13.0
19	AQ	83	ASP	13.0
28	BD	50	ILE	13.0
12	AJ	69	ASN	12.9
32	BH	138	GLY	12.9
5	AC	110	ASN	12.9
55	B5	36	PHE	12.9
44	BT	63	PRO	12.9
6	AD	20	TYR	12.9
1	AA	475	C	12.9
7	AE	72	GLN	12.9
52	B2	9	ASN	12.9
1	AA	1280	A	12.9
7	AE	88	LYS	12.9
39	BO	42	ALA	12.9

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Mol	Chain	Res	Type	RSRZ
44	BT	154	LEU	12.9
11	AI	10	ARG	12.9
43	BS	18	LYS	12.9
1	AA	139	G	12.9
23	B0	1733	U	12.9
1	AA	1101	A	12.9
1	AA	637	G	12.8
47	BW	40	PRO	12.8
19	AQ	89	LEU	12.8
5	AC	184	TYR	12.8
16	AN	35	ARG	12.8
1	AA	1249	C	12.8
11	AI	91	ASP	12.8
1	AA	1275	A	12.8
6	AD	74	GLN	12.8
1	AA	433	C	12.8
30	BF	33	GLY	12.8
44	BT	52	PHE	12.8
10	AH	100	ILE	12.8
1	AA	959	A	12.8
1	AA	492	G	12.8
1	AA	1147	C	12.8
28	BD	118	ASN	12.8
41	BQ	73	ASN	12.8
23	B0	897	A	12.7
39	BO	29	SER	12.7
45	BU	14	ARG	12.7
10	AH	97	VAL	12.7
16	AN	26	ARG	12.7
25	BA	208	LYS	12.7
23	B0	3103	A	12.7
50	BZ	6	VAL	12.7
1	AA	985	C	12.7
31	BG	107	ILE	12.7
36	BL	14	SER	12.7
23	B0	3140	G	12.6
1	AA	407	G	12.6
27	BC	48	ARG	12.6
27	BC	61	GLN	12.6
23	B0	1568	A	12.6
29	BE	122	THR	12.6
41	BQ	115	ASN	12.6

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Mol	Chain	Res	Type	RSRZ
1	AA	445	G	12.6
1	AA	1133	G	12.6
23	B0	3165	G	12.6
6	AD	91	SER	12.6
29	BE	80	SER	12.6
28	BD	6	THR	12.6
36	BL	93	GLY	12.6
17	AO	87	ILE	12.6
50	BZ	21	SER	12.6
11	AI	67	GLY	12.6
49	BY	41	PRO	12.6
23	B0	3114	A	12.6
29	BE	5	GLY	12.5
8	AF	2	ARG	12.5
17	AO	76	GLU	12.5
1	AA	180	U	12.5
39	BO	48	ARG	12.5
5	AC	135	LYS	12.5
14	AL	120	TYR	12.5
1	AA	1274	G	12.5
23	B0	1730	G	12.5
6	AD	3	ARG	12.5
1	AA	602	A	12.5
23	B0	3164	C	12.5
55	B5	103	LEU	12.5
5	AC	125	GLU	12.5
29	BE	29	PRO	12.5
14	AL	93	LEU	12.4
1	AA	1005	A	12.4
39	BO	52	ASN	12.4
1	AA	1217	C	12.4
6	AD	78	LEU	12.4
9	AG	71	PRO	12.4
44	BT	21	ALA	12.4
23	B0	900	U	12.4
1	AA	695	A	12.4
52	B2	12	ARG	12.4
44	BT	118	HIS	12.4
1	AA	272	C	12.4
14	AL	18	VAL	12.4
35	BK	86	LYS	12.3
7	AE	66	MET	12.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	850	U	12.3
4	AB	27	LYS	12.3
12	AJ	13	HIS	12.3
19	AQ	29	HIS	12.3
27	BC	53	LYS	12.3
12	AJ	67	THR	12.3
29	BE	30	LYS	12.3
1	AA	1320	C	12.3
51	B1	31	THR	12.3
39	BO	62	ILE	12.3
1	AA	1148	U	12.3
1	AA	1134	G	12.3
42	BR	34	THR	12.3
28	BD	115	ARG	12.3
41	BQ	105	ARG	12.3
1	AA	271	C	12.3
1	AA	1006	C	12.3
23	B0	1196	G	12.3
55	B5	80	SER	12.2
1	AA	465	C	12.2
27	BC	176	ASN	12.2
1	AA	140	A	12.2
17	AO	41	GLU	12.2
9	AG	33	ASP	12.2
12	AJ	12	ASP	12.2
16	AN	38	GLY	12.2
31	BG	43	ALA	12.2
31	BG	3	LYS	12.2
51	B1	32	GLN	12.2
1	AA	1211	U	12.2
13	AK	116	HIS	12.2
18	AP	10	GLY	12.2
1	AA	708	C	12.2
36	BL	11	ASN	12.2
2	AW	61	C	12.2
8	AF	72	VAL	12.2
55	B5	163	PRO	12.2
14	AL	17	LYS	12.2
26	BB	127	ALA	12.1
29	BE	31	GLY	12.1
6	AD	80	GLU	12.1
18	AP	15	PRO	12.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
19	AQ	68	ARG	12.1
34	BJ	19	VAL	12.1
1	AA	603	U	12.1
23	B0	1563	U	12.1
5	AC	31	HIS	12.1
27	BC	45	THR	12.1
5	AC	104	GLN	12.1
29	BE	27	LYS	12.1
48	BX	14	GLY	12.1
32	BH	107	GLN	12.1
14	AL	31	PRO	12.1
55	B5	66	VAL	12.1
6	AD	197	PRO	12.1
17	AO	79	ARG	12.1
1	AA	472	G	12.0
23	B0	2202	G	12.0
5	AC	201	TYR	12.0
40	BP	26	GLN	12.0
1	AA	2003	G	12.0
27	BC	96	PRO	12.0
29	BE	28	GLY	12.0
43	BS	28	LYS	12.0
6	AD	46	LYS	12.0
1	AA	1037	C	12.0
16	AN	43	CYS	12.0
55	B5	98	ARG	12.0
10	AH	99	GLU	12.0
6	AD	92	VAL	12.0
48	BX	29	GLY	12.0
25	BA	46	ARG	12.0
1	AA	491	G	12.0
23	B0	3179	C	11.9
1	AA	1021	G	11.9
39	BO	28	ARG	11.9
5	AC	183	ASP	11.9
19	AQ	87	LYS	11.9
25	BA	234	GLY	11.9
5	AC	54	ARG	11.9
5	AC	119	ARG	11.9
2	AW	50	U	11.9
1	AA	1145	C	11.9
4	AB	195	ASP	11.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	1046	A	11.9
16	AN	3	ARG	11.9
40	BP	23	GLU	11.9
48	BX	19	THR	11.9
10	AH	22	GLU	11.8
44	BT	132	GLN	11.8
45	BU	11	LYS	11.8
1	AA	411	A	11.8
6	AD	29	PRO	11.8
45	BU	82	GLU	11.8
5	AC	140	ARG	11.8
1	AA	460	C	11.8
5	AC	93	LYS	11.8
23	B0	1872	A	11.8
29	BE	75	ALA	11.8
7	AE	65	ASN	11.8
55	B5	162	GLN	11.8
50	BZ	7	PRO	11.8
26	BB	124	GLY	11.7
29	BE	51	LEU	11.7
11	AI	98	PRO	11.7
25	BA	100	GLY	11.7
28	BD	110	ARG	11.7
23	B0	1845	A	11.7
7	AE	43	LEU	11.7
28	BD	94	GLU	11.7
42	BR	71	GLN	11.7
26	BB	126	PRO	11.7
41	BQ	30	TYR	11.7
7	AE	37	ARG	11.7
1	AA	409	G	11.7
23	B0	898	C	11.7
1	AA	1260	C	11.7
41	BQ	34	SER	11.6
7	AE	137	GLU	11.6
5	AC	186	PHE	11.6
40	BP	24	SER	11.6
27	BC	85	GLY	11.6
23	B0	1566	G	11.6
1	AA	185	A	11.6
13	AK	120	ARG	11.6
28	BD	175	LEU	11.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
44	BT	38	ALA	11.6
7	AE	41	VAL	11.6
53	B3	32	GLN	11.6
1	AA	840	G	11.6
55	B5	198	THR	11.6
55	B5	196	VAL	11.6
1	AA	1026	G	11.6
2	AW	1	G	11.6
43	BS	2	PRO	11.5
54	B4	6	SER	11.5
5	AC	28	GLN	11.5
22	AT	29	LYS	11.5
13	AK	11	LYS	11.5
43	BS	4	PRO	11.5
1	AA	438	G	11.5
23	B0	3113	U	11.5
52	B2	25	LYS	11.5
23	B0	1546	C	11.5
1	AA	408	A	11.5
2	AW	62	A	11.5
19	AQ	82	MET	11.5
10	AH	98	LYS	11.5
39	BO	20	ARG	11.5
1	AA	1036	G	11.5
43	BS	54	ILE	11.4
7	AE	15	ARG	11.4
36	BL	15	SER	11.4
41	BQ	70	LYS	11.4
9	AG	10	ARG	11.4
23	B0	1558	C	11.4
23	B0	3102	G	11.4
18	AP	26	ARG	11.4
23	B0	3185	U	11.4
49	BY	39	VAL	11.4
7	AE	13	ILE	11.4
1	AA	212	G	11.4
27	BC	74	VAL	11.4
16	AN	25	VAL	11.3
23	B0	1850	G	11.3
13	AK	123	LYS	11.3
36	BL	107	GLY	11.3
43	BS	15	HIS	11.3

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Mol	Chain	Res	Type	RSRZ
23	B0	1732	U	11.3
31	BG	29	GLN	11.3
39	BO	63	GLN	11.3
12	AJ	48	THR	11.3
15	AM	109	THR	11.3
1	AA	1146	A	11.3
23	B0	900(A)	A	11.3
39	BO	76	TYR	11.3
27	BC	94	THR	11.3
55	B5	104	ALA	11.3
39	BO	19	LYS	11.3
4	AB	127	ILE	11.3
32	BH	105	GLY	11.2
12	AJ	46	ARG	11.2
36	BL	3	HIS	11.2
7	AE	73	ASN	11.2
27	BC	182	ARG	11.2
1	AA	691	G	11.2
26	BB	125	GLY	11.2
1	AA	193	C	11.2
5	AC	32	LEU	11.2
16	AN	23	ARG	11.2
1	AA	1138	G	11.2
29	BE	110	SER	11.2
40	BP	10	LYS	11.2
33	BI	60	PRO	11.2
1	AA	1282	C	11.2
17	AO	18	PHE	11.2
44	BT	92	VAL	11.2
23	B0	3189	U	11.2
41	BQ	101	PRO	11.2
29	BE	95	ARG	11.2
1	AA	410	G	11.2
1	AA	414	A	11.2
23	B0	1564	U	11.1
5	AC	49	SER	11.1
10	AH	46	LYS	11.1
5	AC	56	ASP	11.1
16	AN	22	THR	11.1
7	AE	33	VAL	11.1
1	AA	1038	C	11.1
19	AQ	32	TYR	11.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
17	AO	86	GLY	11.1
15	AM	111	LYS	11.1
32	BH	52	GLY	11.1
20	AR	86	VAL	11.1
19	AQ	10	VAL	11.1
4	AB	128	GLU	11.1
6	AD	94	LEU	11.1
14	AL	112	ASP	11.0
20	AR	19	LYS	11.0
4	AB	135	GLN	11.0
1	AA	1022	G	11.0
25	BA	226	MET	11.0
5	AC	8	ILE	11.0
17	AO	6	GLU	11.0
31	BG	44	GLN	11.0
31	BG	132	ARG	11.0
16	AN	49	HIS	11.0
52	B2	15	THR	11.0
55	B5	73	LEU	11.0
28	BD	47	SER	11.0
1	AA	1262	C	11.0
19	AQ	8	GLY	11.0
55	B5	47	LYS	11.0
1	AA	182	U	11.0
7	AE	81	GLU	11.0
32	BH	93	LYS	11.0
14	AL	73	GLU	11.0
45	BU	12	ASN	11.0
18	AP	42	ARG	11.0
38	BN	106	TYR	11.0
14	AL	20	LYS	11.0
1	AA	1045	C	10.9
15	AM	115	LYS	10.9
20	AR	67	ALA	10.9
20	AR	64	ARG	10.9
2	AW	69	U	10.9
1	AA	1293	G	10.9
23	B0	1880	G	10.9
26	BB	110	GLY	10.9
29	BE	120	GLY	10.9
19	AQ	14	LYS	10.9
36	BL	37	THR	10.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
39	BO	53	LYS	10.9
1	AA	847	C	10.9
25	BA	244	ARG	10.9
39	BO	55	ARG	10.9
1	AA	1299	A	10.9
5	AC	71	ALA	10.9
32	BH	104	THR	10.9
40	BP	91	THR	10.9
11	AI	100	GLY	10.9
18	AP	69	THR	10.8
9	AG	89	MET	10.8
23	B0	3107	G	10.8
16	AN	34	TYR	10.8
18	AP	67	THR	10.8
1	AA	496	A	10.8
43	BS	76	LEU	10.8
25	BA	235	GLY	10.8
44	BT	7	PRO	10.8
42	BR	61	LYS	10.8
31	BG	12	LEU	10.8
34	BJ	114	ILE	10.8
23	B0	1848	U	10.8
5	AC	190	ARG	10.8
47	BW	54	ASN	10.8
27	BC	98	GLN	10.8
29	BE	56	SER	10.8
25	BA	227	ASN	10.8
34	BJ	50	GLU	10.8
54	B4	5	SER	10.8
1	AA	692	U	10.8
9	AG	70	LYS	10.8
23	B0	3184	C	10.8
7	AE	63	ARG	10.8
12	AJ	10	GLY	10.7
27	BC	56	ARG	10.7
1	AA	495	U	10.7
5	AC	19	GLU	10.7
29	BE	101	LYS	10.7
2	AV	16	U	10.7
6	AD	93	PHE	10.7
43	BS	12	ASP	10.7
1	AA	993	G	10.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
25	BA	256	GLY	10.7
32	BH	136	PRO	10.7
30	BF	10	ARG	10.7
48	BX	18	LYS	10.7
5	AC	149	ALA	10.7
14	AL	21	LYS	10.7
37	BM	25	GLY	10.7
31	BG	101	TRP	10.7
43	BS	40	LEU	10.7
29	BE	82	GLY	10.7
23	B0	2181	A	10.6
2	AW	34	G	10.6
29	BE	131	ILE	10.6
4	AB	25	ASN	10.6
13	AK	126	ARG	10.6
1	AA	696	A	10.6
14	AL	86	ARG	10.6
23	B0	1731	C	10.6
25	BA	45	ASN	10.6
44	BT	153	LYS	10.6
1	AA	1212	U	10.6
1	AA	431	A	10.6
7	AE	112	LEU	10.6
20	AR	68	LYS	10.6
28	BD	147	ASP	10.6
44	BT	144	GLY	10.5
39	BO	66	ASN	10.5
26	BB	154	LYS	10.5
44	BT	149	ALA	10.5
53	B3	51	ALA	10.5
17	AO	45	VAL	10.5
22	AT	77	ALA	10.5
40	BP	30	GLY	10.5
11	AI	99	LEU	10.5
14	AL	88	GLY	10.5
2	AW	55	U	10.5
2	AW	68	U	10.5
25	BA	50	THR	10.5
11	AI	95	LYS	10.5
1	AA	1220	G	10.5
14	AL	30	ALA	10.5
7	AE	64	ARG	10.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	AC	188	LEU	10.5
44	BT	34	LEU	10.5
1	AA	1011	G	10.5
14	AL	96	VAL	10.5
12	AJ	17	ASP	10.5
44	BT	9	THR	10.5
34	BJ	66	ASN	10.5
55	B5	105	ARG	10.4
9	AG	136	LYS	10.4
44	BT	109	GLN	10.4
11	AI	102	LEU	10.4
16	AN	45	ARG	10.4
28	BD	127	ASN	10.4
11	AI	93	ARG	10.4
41	BQ	21	ARG	10.4
6	AD	84	LYS	10.4
7	AE	149	GLU	10.4
7	AE	86	ALA	10.4
28	BD	10	ASP	10.4
27	BC	63	GLY	10.4
18	AP	1	MET	10.4
23	B0	1567	A	10.4
27	BC	26	VAL	10.4
43	BS	41	PRO	10.4
43	BS	69	GLN	10.4
44	BT	23	ALA	10.4
32	BH	137	LYS	10.4
44	BT	138	VAL	10.3
29	BE	59	GLN	10.3
52	B2	43	THR	10.3
27	BC	65	GLY	10.3
23	B0	2203	G	10.3
18	AP	27	LYS	10.3
41	BQ	63	SER	10.3
49	BY	31	ILE	10.3
41	BQ	119	LYS	10.3
31	BG	113	PRO	10.3
19	AQ	67	LYS	10.3
8	AF	90	VAL	10.3
11	AI	68	GLY	10.3
27	BC	25	GLY	10.3
50	BZ	31	THR	10.3

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Mol	Chain	Res	Type	RSRZ
5	AC	17	ASP	10.2
23	B0	3146	A	10.2
22	AT	78	ALA	10.2
14	AL	13	LYS	10.2
14	AL	71	PRO	10.2
1	AA	1238	A	10.2
12	AJ	43	ARG	10.2
39	BO	80	ILE	10.2
45	BU	15	ASP	10.2
2	AW	67	A	10.2
34	BJ	16	ARG	10.2
27	BC	46	ARG	10.2
29	BE	81	ASP	10.2
5	AC	68	VAL	10.2
1	AA	186	C	10.2
23	B0	3093	C	10.2
28	BD	52	LYS	10.2
4	AB	36	ARG	10.2
14	AL	14	GLY	10.2
14	AL	29	GLY	10.2
36	BL	36	THR	10.2
26	BB	122	PHE	10.2
5	AC	20	SER	10.1
6	AD	191	ARG	10.1
23	B0	2205	C	10.1
7	AE	53	LEU	10.1
22	AT	79	ARG	10.1
36	BL	4	GLY	10.1
1	AA	1301	U	10.1
44	BT	80	HIS	10.1
23	B0	1547	U	10.1
1	AA	1004	A	10.1
7	AE	68	GLU	10.1
32	BH	108	GLY	10.1
31	BG	4	VAL	10.1
33	BI	5	GLN	10.1
5	AC	129	ALA	10.1
36	BL	27	ALA	10.1
23	B0	3101	G	10.1
23	B0	3106	U	10.1
25	BA	48	ARG	10.1
25	BA	47	GLY	10.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
34	BJ	11	GLY	10.1
49	BY	1	MET	10.1
28	BD	177	PHE	10.1
50	BZ	8	LYS	10.0
8	AF	83	ASP	10.0
9	AG	140	ASP	10.0
23	B0	3167	U	10.0
27	BC	80	GLY	10.0
6	AD	190	ASP	10.0
25	BA	123	ALA	10.0
8	AF	70	ASP	10.0
52	B2	36	ALA	10.0
27	BC	39	ARG	10.0
2	AW	35	A	10.0
28	BD	132	ILE	10.0
9	AG	66	VAL	10.0
9	AG	103	TRP	10.0
43	BS	3	ARG	10.0
1	AA	436	C	10.0
26	BB	191	ALA	10.0
25	BA	40	THR	10.0
20	AR	71	LYS	10.0
41	BQ	100	GLY	9.9
49	BY	53	GLU	9.9
6	AD	194	LEU	9.9
8	AF	4	TYR	9.9
17	AO	5	LYS	9.9
18	AP	29	ASP	9.9
5	AC	36	ASP	9.9
8	AF	3	ARG	9.9
12	AJ	100	THR	9.9
1	AA	1139	G	9.9
48	BX	9	VAL	9.9
10	AH	126	LYS	9.9
26	BB	134	TRP	9.9
18	AP	41	PRO	9.9
12	AJ	66	ARG	9.9
5	AC	15	THR	9.9
30	BF	7	GLU	9.9
42	BR	15	LYS	9.9
10	AH	52	ASP	9.9
1	AA	684	A	9.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
43	BS	14	LEU	9.9
8	AF	67	MET	9.8
12	AJ	61	GLU	9.8
37	BM	48	GLY	9.8
52	B2	14	LYS	9.8
1	AA	1141	C	9.8
5	AC	9	GLY	9.8
34	BJ	127	ALA	9.8
1	AA	432	A	9.8
18	AP	8	ARG	9.8
52	B2	38	GLY	9.8
26	BB	65	GLY	9.8
55	B5	102	LYS	9.8
1	AA	707	C	9.8
14	AL	126	LYS	9.8
1	AA	1218	C	9.8
23	B0	859	U	9.8
9	AG	134	ALA	9.8
43	BS	80	LYS	9.8
1	AA	187	G	9.8
7	AE	84	PHE	9.8
42	BR	72	ARG	9.7
45	BU	40	GLN	9.7
48	BX	38	PRO	9.7
1	AA	1261	A	9.7
19	AQ	7	THR	9.7
53	B3	4	MET	9.7
55	B5	123	ILE	9.7
4	AB	178	ARG	9.7
45	BU	17	ASN	9.7
5	AC	142	MET	9.7
36	BL	5	LYS	9.7
26	BB	123	ALA	9.7
9	AG	137	LYS	9.7
15	AM	97	PRO	9.7
26	BB	151	TYR	9.7
4	AB	132	LYS	9.7
14	AL	123	LYS	9.7
53	B3	27	SER	9.7
55	B5	83	VAL	9.7
1	AA	191	G	9.7
1	AA	1003	G	9.7

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Mol	Chain	Res	Type	RSRZ
10	AH	129	VAL	9.7
5	AC	11	ARG	9.7
1	AA	256	U	9.7
10	AH	102	ARG	9.7
19	AQ	66	SER	9.7
12	AJ	41	PRO	9.7
39	BO	47	TYR	9.7
36	BL	35	GLN	9.6
1	AA	461	C	9.6
55	B5	107	ASN	9.6
45	BU	13	GLY	9.6
6	AD	51	PRO	9.6
10	AH	84	ARG	9.6
43	BS	75	ALA	9.6
5	AC	89	GLU	9.6
12	AJ	49	VAL	9.6
29	BE	100	GLY	9.6
23	B0	3097	G	9.6
12	AJ	45	ARG	9.6
10	AH	73	ASP	9.6
19	AQ	54	GLY	9.6
22	AT	32	ALA	9.6
43	BS	77	HIS	9.6
27	BC	159	ARG	9.6
40	BP	22	VAL	9.6
13	AK	115	PRO	9.6
55	B5	167	VAL	9.6
9	AG	11	GLN	9.6
2	AW	36	A	9.6
19	AQ	81	ARG	9.6
5	AC	10	PHE	9.6
34	BJ	60	LEU	9.6
1	AA	208	U	9.6
6	AD	95	GLY	9.6
9	AG	68	ASN	9.6
39	BO	56	ASP	9.6
5	AC	16	ARG	9.6
7	AE	40	ARG	9.6
7	AE	36	ASP	9.6
1	AA	957	U	9.6
8	AF	71	ARG	9.5
9	AG	93	PRO	9.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
23	B0	3141	G	9.5
26	BB	203	LYS	9.5
1	AA	474	U	9.5
18	AP	72	ARG	9.5
20	AR	46	GLU	9.5
26	BB	159	HIS	9.5
50	BZ	20	ARG	9.5
26	BB	114	GLN	9.5
22	AT	66	ALA	9.5
45	BU	38	VAL	9.5
52	B2	34	ARG	9.5
45	BU	16	SER	9.5
30	BF	8	PRO	9.5
5	AC	139	GLN	9.5
5	AC	47	LEU	9.5
48	BX	43	MET	9.5
41	BQ	24	GLY	9.5
1	AA	1025	U	9.5
42	BR	73	ASN	9.5
1	AA	1241	G	9.5
25	BA	219	PRO	9.4
29	BE	96	ALA	9.4
1	AA	473	C	9.4
23	B0	1879	G	9.4
5	AC	46	GLU	9.4
14	AL	32	PHE	9.4
32	BH	55	ALA	9.4
23	B0	3099	U	9.4
41	BQ	121	THR	9.4
52	B2	30	ILE	9.4
40	BP	25	LEU	9.4
19	AQ	43	LEU	9.4
26	BB	168	GLN	9.4
50	BZ	2	ALA	9.4
25	BA	253	PRO	9.4
37	BM	86	GLN	9.4
55	B5	164	GLN	9.4
1	AA	706	A	9.4
44	BT	49	THR	9.3
36	BL	103	ARG	9.3
52	B2	26	SER	9.3
31	BG	22	PRO	9.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
44	BT	31	SER	9.3
5	AC	109	PRO	9.3
1	AA	1132	C	9.3
14	AL	28	LYS	9.3
5	AC	85	ARG	9.3
10	AH	128	GLY	9.3
36	BL	16	ALA	9.3
11	AI	90	PRO	9.3
52	B2	41	GLN	9.3
1	AA	690	G	9.3
5	AC	74	GLY	9.3
9	AG	77	SER	9.3
39	BO	59	ARG	9.3
8	AF	93	SER	9.3
28	BD	119	PRO	9.3
41	BQ	116	ILE	9.3
5	AC	73	PRO	9.3
9	AG	73	MET	9.3
11	AI	89	ASN	9.3
23	B0	1876	C	9.2
9	AG	65	ALA	9.2
27	BC	164	VAL	9.2
9	AG	101	LEU	9.2
23	B0	3108	G	9.2
41	BQ	76	LYS	9.2
2	AW	66	A	9.2
9	AG	69	VAL	9.2
5	AC	37	GLN	9.2
40	BP	71	ILE	9.2
49	BY	12	CYS	9.2
27	BC	47	THR	9.2
44	BT	148	THR	9.2
5	AC	170	GLN	9.2
14	AL	69	TYR	9.2
5	AC	105	GLU	9.2
23	B0	1550	C	9.2
5	AC	62	ASP	9.2
52	B2	39	ARG	9.2
28	BD	76	ASN	9.2
36	BL	7	GLY	9.2
52	B2	13	ALA	9.2
2	AW	40	C	9.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	1257	U	9.1
23	B0	3190	G	9.1
21	AS	8	GLY	9.1
36	BL	91	PRO	9.1
27	BC	97	ARG	9.1
16	AN	5	ALA	9.1
25	BA	44	ASN	9.1
41	BQ	31	VAL	9.1
14	AL	54	LYS	9.1
5	AC	48	TYR	9.1
19	AQ	53	LEU	9.1
1	AA	1019	C	9.1
6	AD	86	LYS	9.1
41	BQ	123	HIS	9.1
1	AA	841	C	9.1
43	BS	16	PHE	9.1
11	AI	21	PRO	9.1
27	BC	86	PRO	9.1
41	BQ	37	LYS	9.0
5	AC	30	ARG	9.0
41	BQ	36	ARG	9.0
1	AA	211	G	9.0
4	AB	124	SER	9.0
18	AP	24	ALA	9.0
50	BZ	3	LYS	9.0
10	AH	50	ARG	9.0
1	AA	697	U	9.0
28	BD	120	ASN	9.0
16	AN	39	LEU	9.0
23	B0	3110	G	9.0
31	BG	140	GLY	9.0
41	BQ	29	LYS	9.0
30	BF	35	ALA	9.0
14	AL	16	GLU	9.0
52	B2	37	LYS	8.9
6	AD	97	LEU	8.9
28	BD	49	ALA	8.9
5	AC	176	HIS	8.9
5	AC	40	ARG	8.9
19	AQ	15	MET	8.9
27	BC	71	ASP	8.9
44	BT	119	ASN	8.9

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Mol	Chain	Res	Type	RSRZ
1	AA	1244	C	8.9
5	AC	38	ARG	8.9
25	BA	229	VAL	8.9
27	BC	179	ASP	8.9
26	BB	109	LYS	8.9
9	AG	29	LYS	8.9
5	AC	34	LEU	8.9
45	BU	10	SER	8.9
11	AI	2	GLU	8.9
13	AK	121	PRO	8.9
8	AF	91	VAL	8.9
20	AR	84	LYS	8.9
47	BW	39	GLN	8.9
14	AL	72	GLY	8.9
42	BR	85	GLY	8.8
35	BK	21	ASP	8.8
41	BQ	79	ALA	8.8
31	BG	53	ILE	8.8
37	BM	23	ALA	8.8
26	BB	121	ASN	8.8
1	AA	1017	G	8.8
22	AT	34	LYS	8.8
18	AP	16	HIS	8.8
1	AA	1281	U	8.8
22	AT	80	ARG	8.8
28	BD	66	ILE	8.8
9	AG	156	TRP	8.8
42	BR	69	ILE	8.8
22	AT	65	LYS	8.8
20	AR	47	THR	8.8
10	AH	71	GLY	8.8
11	AI	13	ALA	8.8
42	BR	31	PRO	8.8
1	AA	1246	C	8.8
35	BK	20	GLY	8.8
21	AS	7	LYS	8.8
15	AM	99	ARG	8.8
28	BD	136	LEU	8.8
52	B2	32	ALA	8.8
25	BA	202	LYS	8.8
29	BE	65	HIS	8.8
14	AL	43	VAL	8.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	1290	G	8.8
23	B0	3096	C	8.7
1	AA	685	G	8.7
45	BU	18	PRO	8.7
29	BE	69	ARG	8.7
28	BD	15	ALA	8.7
9	AG	90	GLU	8.7
41	BQ	102	THR	8.7
47	BW	37	LEU	8.7
43	BS	39	ALA	8.7
32	BH	134	MET	8.7
11	AI	25	LYS	8.7
23	B0	1838	G	8.7
5	AC	80	GLY	8.7
12	AJ	15	THR	8.7
8	AF	74	ASP	8.7
5	AC	202	ILE	8.7
39	BO	44	THR	8.7
18	AP	65	GLN	8.7
52	B2	16	HIS	8.7
34	BJ	109	LEU	8.6
12	AJ	9	ARG	8.6
27	BC	81	GLY	8.6
29	BE	11	VAL	8.6
1	AA	843	C	8.6
12	AJ	3	LYS	8.6
44	BT	103	ARG	8.6
55	B5	124	LEU	8.6
45	BU	19	LYS	8.6
36	BL	24	GLN	8.6
44	BT	6	LYS	8.6
7	AE	35	GLY	8.6
45	BU	39	ARG	8.6
11	AI	94	ALA	8.6
41	BQ	61	PRO	8.6
7	AE	34	VAL	8.6
26	BB	64	GLN	8.6
42	BR	35	LYS	8.6
1	AA	1128	C	8.6
6	AD	193	ASP	8.6
47	BW	58	ALA	8.6
21	AS	6	LYS	8.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
14	AL	79	GLU	8.6
15	AM	69	GLU	8.6
16	AN	59	ALA	8.6
6	AD	26	CYS	8.6
16	AN	6	LEU	8.6
19	AQ	4	LYS	8.6
10	AH	67	PRO	8.6
39	BO	78	THR	8.6
2	AW	54	U	8.6
16	AN	50	LYS	8.6
1	AA	1242	C	8.5
34	BJ	75	VAL	8.5
1	AA	1002	G	8.5
23	B0	1549	C	8.5
6	AD	96	LEU	8.5
19	AQ	18	THR	8.5
7	AE	52	PRO	8.5
1	AA	1020	U	8.5
1	AA	1131	G	8.5
1	AA	1294	G	8.5
41	BQ	83	ASP	8.5
9	AG	133	GLY	8.5
25	BA	211	ARG	8.5
11	AI	22	GLY	8.5
40	BP	29	ALA	8.5
26	BB	158	GLY	8.5
34	BJ	98	LEU	8.5
49	BY	14	ILE	8.5
19	AQ	70	ARG	8.5
23	B0	1179	A	8.5
25	BA	22	SER	8.5
5	AC	33	LEU	8.5
23	B0	3183	A	8.5
41	BQ	8	PHE	8.5
1	AA	209	U	8.5
5	AC	13	GLY	8.5
6	AD	30	LYS	8.5
2	AW	17	U	8.5
4	AB	24	TRP	8.4
44	BT	64	ALA	8.4
36	BL	6	ALA	8.4
1	AA	1039	C	8.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
9	AG	138	LYS	8.4
18	AP	2	VAL	8.4
23	B0	3094	A	8.4
55	B5	88	GLU	8.4
40	BP	73	LYS	8.4
44	BT	39	PHE	8.4
5	AC	21	ARG	8.4
15	AM	23	TYR	8.4
20	AR	82	THR	8.4
31	BG	74	MET	8.4
10	AH	68	ARG	8.4
1	AA	1140	C	8.4
14	AL	78	GLN	8.4
40	BP	69	ILE	8.4
55	B5	101	LYS	8.4
19	AQ	69	LYS	8.4
23	B0	1844	C	8.4
5	AC	111	LEU	8.4
51	B1	41	ASP	8.4
52	B2	45	SER	8.4
34	BJ	49	PHE	8.4
55	B5	139	PRO	8.4
15	AM	110	ARG	8.4
31	BG	36	GLU	8.4
11	AI	96	LEU	8.4
25	BA	21	PHE	8.4
1	AA	464	U	8.4
26	BB	156	MET	8.4
41	BQ	62	ARG	8.4
1	AA	1016	A	8.4
5	AC	175	LEU	8.4
16	AN	52	GLN	8.4
27	BC	99	VAL	8.3
8	AF	92	LYS	8.3
44	BT	17	SER	8.3
1	AA	845	A	8.3
5	AC	102	ASN	8.3
18	AP	31	LYS	8.3
23	B0	1548	U	8.3
5	AC	144	SER	8.3
5	AC	145	GLY	8.3
40	BP	93	ILE	8.3

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Mol	Chain	Res	Type	RSRZ
26	BB	187	ALA	8.3
16	AN	10	ALA	8.3
39	BO	75	ASN	8.3
23	B0	1877	C	8.3
32	BH	72	PRO	8.3
39	BO	57	PHE	8.3
1	AA	190	A	8.3
42	BR	59	PRO	8.3
49	BY	33	VAL	8.3
26	BB	10	GLY	8.3
11	AI	9	ARG	8.3
42	BR	32	LYS	8.3
54	B4	21	GLY	8.3
16	AN	18	VAL	8.2
47	BW	47	ARG	8.2
49	BY	57	ASP	8.2
23	B0	3098	U	8.2
33	BI	4	PRO	8.2
36	BL	31	GLU	8.2
12	AJ	39	PRO	8.2
1	AA	844	A	8.2
19	AQ	6	LEU	8.2
14	AL	87	GLY	8.2
5	AC	103	VAL	8.2
1	AA	988	G	8.2
32	BH	139	ARG	8.2
44	BT	151	ASP	8.2
20	AR	60	GLY	8.2
53	B3	28	GLY	8.2
55	B5	131	ARG	8.2
23	B0	1869	A	8.2
28	BD	11	GLN	8.2
5	AC	108	ASN	8.2
18	AP	30	GLY	8.2
1	AA	189	A	8.2
26	BB	135	HIS	8.2
20	AR	72	ARG	8.2
27	BC	40	ARG	8.2
29	BE	175	LYS	8.2
1	AA	463	C	8.2
12	AJ	99	LYS	8.2
23	B0	3118	U	8.2

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Mol	Chain	Res	Type	RSRZ
27	BC	161	ALA	8.2
1	AA	210	C	8.2
28	BD	111	ILE	8.1
9	AG	64	GLN	8.1
20	AR	63	GLN	8.1
28	BD	131	GLY	8.1
18	AP	28	ARG	8.1
44	BT	22	VAL	8.1
32	BH	111	LYS	8.1
44	BT	82	ASP	8.1
1	AA	462	A	8.1
1	AA	192	U	8.1
23	B0	3180	U	8.1
53	B3	6	THR	8.1
7	AE	150	ARG	8.1
45	BU	7	VAL	8.1
12	AJ	36	GLY	8.1
16	AN	21	TYR	8.1
23	B0	939	C	8.1
28	BD	74	ILE	8.1
19	AQ	30	PRO	8.1
8	AF	76	ALA	8.1
9	AG	139	GLU	8.1
18	AP	70	ALA	8.1
55	B5	147	TYR	8.1
1	AA	958	A	8.1
2	AW	41	U	8.1
19	AQ	31	LEU	8.1
9	AG	4	ARG	8.1
5	AC	41	GLY	8.1
29	BE	39	THR	8.1
15	AM	98	VAL	8.0
41	BQ	94	GLU	8.0
10	AH	53	VAL	8.0
35	BK	120	ARG	8.0
1	AA	1015	A	8.0
52	B2	29	ASN	8.0
45	BU	56	ASP	8.0
20	AR	69	THR	8.0
42	BR	93	GLY	8.0
1	AA	846	C	8.0
6	AD	114	ARG	8.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
27	BC	49	ALA	8.0
14	AL	122	THR	8.0
27	BC	41	GLY	8.0
40	BP	31	ASP	8.0
23	B0	1868	A	8.0
6	AD	98	GLU	8.0
36	BL	10	LEU	8.0
16	AN	20	ALA	8.0
7	AE	38	GLN	8.0
12	AJ	70	ARG	8.0
53	B3	17	THR	8.0
12	AJ	62	HIS	8.0
44	BT	16	GLU	8.0
28	BD	129	ASN	8.0
27	BC	70	GLY	8.0
43	BS	66	GLN	8.0
9	AG	67	GLU	8.0
5	AC	27	LYS	8.0
11	AI	83	ARG	8.0
19	AQ	44	ALA	8.0
38	BN	102	ALA	8.0
19	AQ	61	GLU	8.0
29	BE	134	SER	7.9
20	AR	49	LYS	7.9
23	B0	940	G	7.9
25	BA	228	PRO	7.9
26	BB	111	LYS	7.9
5	AC	98	ASN	7.9
1	AA	1219	U	7.9
5	AC	44	GLU	7.9
1	AA	997	U	7.9
1	AA	1243	C	7.9
32	BH	146	THR	7.9
53	B3	39	ASP	7.9
5	AC	43	LEU	7.9
8	AF	80	ARG	7.9
5	AC	127	ARG	7.9
14	AL	128	ALA	7.9
1	AA	996	A	7.9
19	AQ	16	GLN	7.9
31	BG	115	LEU	7.9
1	AA	1247	U	7.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	AC	22	TRP	7.9
20	AR	83	GLU	7.9
25	BA	43	ARG	7.9
19	AQ	19	VAL	7.9
42	BR	11	VAL	7.9
23	B0	2204	A	7.9
2	AW	31	A	7.9
16	AN	51	GLY	7.9
19	AQ	2	PRO	7.9
52	B2	19	ARG	7.8
12	AJ	14	LYS	7.8
34	BJ	67	ASN	7.8
41	BQ	71	VAL	7.8
27	BC	93	TYR	7.8
31	BG	129	GLY	7.8
5	AC	75	VAL	7.8
5	AC	72	LYS	7.8
9	AG	34	GLY	7.8
10	AH	127	LEU	7.8
22	AT	64	ASP	7.8
47	BW	42	ARG	7.8
28	BD	25	VAL	7.8
1	AA	1027	C	7.8
53	B3	18	GLY	7.8
4	AB	179	LYS	7.8
4	AB	131	PRO	7.8
25	BA	255	LYS	7.8
19	AQ	64	PRO	7.8
20	AR	81	PHE	7.8
6	AD	134	ASP	7.8
16	AN	13	THR	7.8
28	BD	113	ASP	7.8
28	BD	174	GLY	7.8
49	BY	34	ASP	7.8
1	AA	989	C	7.8
5	AC	136	GLN	7.8
42	BR	70	GLY	7.8
6	AD	22	LYS	7.7
41	BQ	122	SER	7.7
43	BS	5	SER	7.7
31	BG	23	VAL	7.7
32	BH	30	LYS	7.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
6	AD	115	ARG	7.7
39	BO	92	ARG	7.7
48	BX	26	ARG	7.7
23	B0	3181	C	7.7
43	BS	89	GLY	7.7
7	AE	8	GLU	7.7
26	BB	192	ASN	7.7
1	AA	437	U	7.7
31	BG	21	PRO	7.7
12	AJ	40	LEU	7.7
25	BA	252	LYS	7.7
12	AJ	16	LEU	7.7
28	BD	173	MET	7.7
52	B2	17	GLY	7.7
26	BB	166	THR	7.6
32	BH	56	THR	7.6
18	AP	17	TYR	7.6
10	AH	122	ARG	7.6
38	BN	103	LYS	7.6
52	B2	44	VAL	7.6
52	B2	42	LEU	7.6
17	AO	83	GLU	7.6
29	BE	36	PRO	7.6
26	BB	153	GLY	7.6
4	AB	193	ASP	7.6
26	BB	155	ARG	7.6
28	BD	155	THR	7.6
29	BE	72	VAL	7.6
40	BP	92	ALA	7.6
26	BB	165	VAL	7.6
42	BR	16	ALA	7.6
47	BW	53	LEU	7.6
55	B5	140	ASN	7.6
4	AB	23	ARG	7.6
1	AA	1248	A	7.6
12	AJ	35	SER	7.6
9	AG	52	GLU	7.6
26	BB	12	THR	7.6
36	BL	96	ARG	7.6
7	AE	56	GLN	7.6
23	B0	3095	A	7.6
31	BG	75	SER	7.6

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Mol	Chain	Res	Type	RSRZ
32	BH	106	TYR	7.6
55	B5	65	LEU	7.6
21	AS	4	SER	7.6
18	AP	71	ARG	7.5
36	BL	64	ARG	7.5
29	BE	74	ASN	7.5
4	AB	129	GLU	7.5
9	AG	7	ALA	7.5
9	AG	106	GLN	7.5
39	BO	18	LEU	7.5
30	BF	24	TYR	7.5
51	B1	2	ALA	7.5
22	AT	35	THR	7.5
35	BK	22	ALA	7.5
49	BY	24	THR	7.5
12	AJ	97	GLU	7.5
32	BH	53	ARG	7.5
18	AP	40	ASP	7.5
27	BC	128	ALA	7.5
35	BK	17	ARG	7.5
41	BQ	125	THR	7.5
9	AG	135	VAL	7.5
12	AJ	11	PHE	7.5
9	AG	13	GLN	7.4
23	B0	3111	C	7.4
25	BA	59	LYS	7.4
40	BP	17	GLY	7.4
5	AC	29	TYR	7.4
44	BT	152	ILE	7.4
4	AB	103	THR	7.4
50	BZ	22	HIS	7.4
5	AC	26	LYS	7.4
15	AM	91	ARG	7.4
19	AQ	71	PHE	7.4
25	BA	257	LEU	7.4
5	AC	82	GLU	7.4
14	AL	101	VAL	7.4
41	BQ	114	ALA	7.4
14	AL	121	GLY	7.4
23	B0	2285	U	7.4
15	AM	3	ARG	7.4
34	BJ	54	SER	7.4

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Mol	Chain	Res	Type	RSRZ
20	AR	53	ARG	7.4
20	AR	45	SER	7.4
27	BC	95	LEU	7.4
18	AP	66	PRO	7.4
1	AA	1035	A	7.4
45	BU	66	LYS	7.4
1	AA	990	C	7.4
40	BP	72	ARG	7.3
27	BC	92	ASP	7.3
5	AC	146	ALA	7.3
5	AC	14	ILE	7.3
34	BJ	20	GLY	7.3
7	AE	146	ALA	7.3
25	BA	42	GLY	7.3
49	BY	38	GLY	7.3
6	AD	192	GLU	7.3
27	BC	183	HIS	7.3
26	BB	21	ILE	7.3
5	AC	92	ALA	7.3
29	BE	92	VAL	7.3
34	BJ	65	PHE	7.3
4	AB	21	ARG	7.3
36	BL	26	THR	7.3
9	AG	88	PRO	7.3
1	AA	704	A	7.3
4	AB	198	ASP	7.3
43	BS	53	VAL	7.3
5	AC	182	ILE	7.3
52	B2	35	ARG	7.3
9	AG	131	LYS	7.3
5	AC	132	ARG	7.3
1	AA	698	G	7.3
23	B0	1551	U	7.3
5	AC	173	VAL	7.3
26	BB	152	LYS	7.3
52	B2	33	ARG	7.3
20	AR	52	PRO	7.2
37	BM	85	LYS	7.2
25	BA	20	ASP	7.2
41	BQ	113	SER	7.2
1	AA	705	U	7.2
8	AF	77	ARG	7.2

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Mol	Chain	Res	Type	RSRZ
1	AA	1001	A	7.2
44	BT	50	GLY	7.2
34	BJ	128	ALA	7.2
21	AS	2	PRO	7.2
36	BL	92	GLY	7.2
15	AM	72	ALA	7.2
33	BI	36	THR	7.2
35	BK	83	ARG	7.2
47	BW	36	GLN	7.2
42	BR	53	ILE	7.2
43	BS	104	VAL	7.2
44	BT	98	VAL	7.2
5	AC	12	LEU	7.2
4	AB	126	GLU	7.2
12	AJ	38	ILE	7.2
15	AM	95	GLY	7.2
1	AA	1018	C	7.2
26	BB	62	PRO	7.2
12	AJ	64	GLU	7.2
55	B5	35	THR	7.2
5	AC	23	TYR	7.2
18	AP	9	PHE	7.2
42	BR	36	THR	7.2
1	AA	987	G	7.2
6	AD	189	PRO	7.2
11	AI	87	GLN	7.1
9	AG	63	LYS	7.1
1	AA	1245	A	7.1
5	AC	171	GLY	7.1
23	B0	1878	C	7.1
9	AG	28	ASN	7.1
31	BG	39	LYS	7.1
5	AC	25	GLY	7.1
18	AP	63	GLY	7.1
44	BT	93	GLU	7.1
32	BH	59	ALA	7.1
53	B3	34	THR	7.1
5	AC	178	LEU	7.1
20	AR	75	ILE	7.1
47	BW	44	ARG	7.1
6	AD	195	ALA	7.1
8	AF	51	PRO	7.1

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Mol	Chain	Res	Type	RSRZ
8	AF	89	MET	7.1
35	BK	19	THR	7.1
39	BO	93	LYS	7.1
48	BX	46	THR	7.1
11	AI	52	ALA	7.1
23	B0	3193	G	7.1
36	BL	46	PRO	7.1
7	AE	83	GLU	7.1
16	AN	8	GLU	7.1
1	AA	1240	U	7.1
25	BA	246	PRO	7.1
32	BH	103	TYR	7.1
23	B0	943	U	7.1
11	AI	8	GLY	7.0
16	AN	7	ILE	7.0
16	AN	36	PHE	7.0
18	AP	33	ILE	7.0
54	B4	31	LYS	7.0
5	AC	100	ALA	7.0
14	AL	42	THR	7.0
41	BQ	6	GLN	7.0
17	AO	47	LYS	7.0
34	BJ	9	THR	7.0
5	AC	96	GLY	7.0
26	BB	57	ARG	7.0
28	BD	21	GLY	7.0
16	AN	58	LYS	7.0
18	AP	3	LYS	7.0
8	AF	1	MET	7.0
8	AF	53	ALA	7.0
15	AM	76	ALA	7.0
37	BM	15	ARG	7.0
20	AR	50	ILE	7.0
11	AI	60	ASP	7.0
18	AP	39	TYR	7.0
20	AR	48	GLY	7.0
26	BB	41	THR	7.0
35	BK	123	GLY	7.0
28	BD	14	PRO	7.0
14	AL	103	GLY	7.0
9	AG	110	GLN	7.0
20	AR	74	ARG	7.0

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Mol	Chain	Res	Type	RSRZ
4	AB	104	ASN	7.0
31	BG	131	ALA	7.0
35	BK	87	GLY	7.0
26	BB	190	GLY	7.0
42	BR	2	SER	7.0
22	AT	33	ILE	7.0
43	BS	88	THR	7.0
16	AN	19	ARG	6.9
1	AA	1013	G	6.9
9	AG	126	ASP	6.9
32	BH	74	MET	6.9
36	BL	61	HIS	6.9
1	AA	703	G	6.9
1	AA	188	C	6.9
4	AB	125	PRO	6.9
11	AI	55	ALA	6.9
14	AL	70	ILE	6.9
26	BB	117	MET	6.9
43	BS	59	LYS	6.9
29	BE	8	PRO	6.9
32	BH	60	SER	6.9
41	BQ	7	THR	6.9
12	AJ	95	GLU	6.9
53	B3	38	GLY	6.9
29	BE	76	VAL	6.9
31	BG	25	PRO	6.9
34	BJ	51	GLY	6.9
14	AL	67	THR	6.9
28	BD	123	ASP	6.9
5	AC	126	ARG	6.9
45	BU	37	LEU	6.9
44	BT	65	LEU	6.9
10	AH	69	ARG	6.9
8	AF	87	ARG	6.9
1	AA	1030	U	6.9
9	AG	142	GLU	6.9
43	BS	42	ARG	6.9
35	BK	24	GLY	6.9
42	BR	74	ASP	6.9
49	BY	11	PRO	6.9
9	AG	75	VAL	6.8
43	BS	99	VAL	6.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	AC	128	PHE	6.8
28	BD	114	PHE	6.8
33	BI	3	MET	6.8
39	BO	35	ALA	6.8
55	B5	212	ALA	6.8
11	AI	92	TYR	6.8
25	BA	52	ARG	6.8
27	BC	73	SER	6.8
5	AC	57	ILE	6.8
13	AK	122	LYS	6.8
23	B0	3147	C	6.8
27	BC	38	ARG	6.8
14	AL	80	HIS	6.8
43	BS	100	ASP	6.8
9	AG	72	ARG	6.8
14	AL	24	VAL	6.8
1	AA	689	C	6.8
49	BY	16	TYR	6.8
1	AA	1034	G	6.8
36	BL	8	ARG	6.8
28	BD	22	TYR	6.8
49	BY	13	LYS	6.8
43	BS	43	ASP	6.8
27	BC	170	LEU	6.8
1	AA	1028	C	6.8
11	AI	101	PHE	6.8
9	AG	112	PRO	6.8
1	AA	998	G	6.8
55	B5	193	LYS	6.8
2	AW	37	G	6.8
27	BC	168	SER	6.8
9	AG	141	VAL	6.8
31	BG	72	PRO	6.8
31	BG	105	LEU	6.8
1	AA	1297	C	6.8
16	AN	4	LYS	6.8
35	BK	23	LYS	6.8
36	BL	60	LEU	6.8
28	BD	96	MET	6.7
48	BX	49	HIS	6.7
27	BC	165	SER	6.7
26	BB	56	GLU	6.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
25	BA	249	PRO	6.7
22	AT	83	ARG	6.7
44	BT	42	ALA	6.7
7	AE	7	GLU	6.7
8	AF	7	ASN	6.7
18	AP	22	THR	6.7
41	BQ	95	ALA	6.7
6	AD	28	SER	6.7
18	AP	43	LYS	6.7
31	BG	104	VAL	6.7
32	BH	29	VAL	6.7
8	AF	66	GLU	6.7
29	BE	132	ASP	6.7
19	AQ	65	ILE	6.7
26	BB	108	SER	6.7
43	BS	8	SER	6.7
53	B3	8	LYS	6.7
32	BH	130	ALA	6.7
15	AM	92	HIS	6.7
34	BJ	107	LYS	6.7
39	BO	16	LYS	6.7
39	BO	82	GLY	6.7
25	BA	170	SER	6.6
31	BG	9	LYS	6.6
8	AF	86	ARG	6.6
18	AP	7	ALA	6.6
12	AJ	37	PRO	6.6
41	BQ	35	PRO	6.6
25	BA	218	LYS	6.6
36	BL	68	GLN	6.6
1	AA	1135	U	6.6
48	BX	37	THR	6.6
15	AM	50	GLU	6.6
19	AQ	55	ASP	6.6
11	AI	69	GLY	6.6
5	AC	58	GLU	6.6
36	BL	108	VAL	6.6
45	BU	30	VAL	6.6
49	BY	18	GLY	6.6
23	B0	3142	C	6.6
1	AA	991	U	6.6
1	AA	1044	A	6.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
40	BP	74	TYR	6.6
8	AF	55	ASP	6.6
32	BH	135	LEU	6.6
14	AL	98	TYR	6.6
48	BX	1	MET	6.6
4	AB	107	THR	6.6
20	AR	61	LYS	6.6
19	AQ	56	VAL	6.6
21	AS	78	ARG	6.6
43	BS	74	LEU	6.6
13	AK	102	GLY	6.6
27	BC	32	THR	6.6
50	BZ	33	CYS	6.5
53	B3	30	ARG	6.5
23	B0	3197	U	6.5
4	AB	175	ARG	6.5
26	BB	63	MET	6.5
14	AL	102	ARG	6.5
27	BC	36	ALA	6.5
27	BC	57	LYS	6.5
49	BY	6	HIS	6.5
27	BC	35	LEU	6.5
40	BP	75	LYS	6.5
6	AD	122	ARG	6.5
44	BT	145	ASP	6.5
32	BH	112	THR	6.5
45	BU	9	SER	6.5
23	B0	1192	A	6.5
23	B0	1871	G	6.5
29	BE	121	VAL	6.5
8	AF	88	VAL	6.5
41	BQ	64	ALA	6.5
9	AG	9	VAL	6.5
43	BS	68	GLY	6.5
47	BW	48	ARG	6.5
26	BB	189	PRO	6.5
31	BG	114	ASP	6.5
4	AB	180	LEU	6.5
8	AF	94	GLN	6.5
44	BT	68	ALA	6.5
44	BT	37	LYS	6.5
40	BP	78	VAL	6.5

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Mol	Chain	Res	Type	RSRZ
15	AM	26	GLY	6.5
48	BX	16	GLN	6.5
11	AI	76	ALA	6.5
54	B4	20	HIS	6.5
35	BK	26	ASP	6.4
47	BW	45	GLN	6.4
1	AA	1130	A	6.4
6	AD	23	GLY	6.4
16	AN	54	PRO	6.4
22	AT	61	SER	6.4
9	AG	104	LEU	6.4
33	BI	7	ARG	6.4
22	AT	63	ILE	6.4
49	BY	30	GLU	6.4
5	AC	18	TRP	6.4
25	BA	60	ARG	6.4
27	BC	29	GLU	6.4
6	AD	137	SER	6.4
1	AA	1012	U	6.4
29	BE	138	LYS	6.4
5	AC	35	GLU	6.4
26	BB	164	ARG	6.4
5	AC	148	GLY	6.4
23	B0	1193	G	6.4
4	AB	134	GLU	6.4
16	AN	14	PRO	6.4
54	B4	4	ARG	6.4
42	BR	84	GLU	6.4
25	BA	169	GLU	6.4
1	AA	1298	C	6.3
15	AM	96	LEU	6.3
29	BE	84	THR	6.3
31	BG	5	ALA	6.3
34	BJ	64	GLY	6.3
40	BP	21	ARG	6.3
27	BC	171	PRO	6.3
25	BA	134	ARG	6.3
28	BD	8	TYR	6.3
28	BD	23	SER	6.3
34	BJ	68	VAL	6.3
53	B3	42	ARG	6.3
6	AD	118	ARG	6.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
13	AK	125	PHE	6.3
32	BH	92	GLY	6.3
27	BC	52	SER	6.3
39	BO	40	LEU	6.3
44	BT	10	PRO	6.3
27	BC	134	ILE	6.3
18	AP	18	ARG	6.3
29	BE	10	ALA	6.3
55	B5	166	GLN	6.3
13	AK	114	VAL	6.3
28	BD	7	LYS	6.3
25	BA	19	ALA	6.3
31	BG	33	ASN	6.3
9	AG	129	GLU	6.3
16	AN	9	LYS	6.3
10	AH	55	GLY	6.3
23	B0	1841	G	6.3
39	BO	61	TRP	6.3
43	BS	44	GLN	6.3
43	BS	30	LYS	6.3
14	AL	111	LYS	6.3
38	BN	10	GLY	6.3
27	BC	169	VAL	6.3
54	B4	19	ARG	6.3
4	AB	113	HIS	6.3
49	BY	17	GLN	6.3
8	AF	50	TYR	6.3
44	BT	97	PRO	6.3
15	AM	73	GLU	6.3
27	BC	51	VAL	6.3
11	AI	6	GLY	6.3
31	BG	71	THR	6.3
11	AI	80	GLY	6.2
11	AI	7	THR	6.2
31	BG	112	MET	6.2
14	AL	75	HIS	6.2
27	BC	146	GLU	6.2
11	AI	72	GLY	6.2
27	BC	28	HIS	6.2
55	B5	110	PHE	6.2
25	BA	125	PRO	6.2
1	AA	1295	G	6.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
31	BG	30	TYR	6.2
8	AF	44	GLY	6.2
29	BE	146	ALA	6.2
11	AI	66	ARG	6.2
4	AB	49	GLU	6.2
19	AQ	78	GLU	6.2
11	AI	30	GLY	6.2
1	AA	688	G	6.2
31	BG	8	VAL	6.2
25	BA	56	GLY	6.2
18	AP	5	ARG	6.2
12	AJ	18	ALA	6.2
44	BT	167	THR	6.2
26	BB	163	GLU	6.2
43	BS	25	LEU	6.2
23	B0	3148	G	6.2
18	AP	64	ALA	6.2
4	AB	120	ALA	6.2
30	BF	34	LEU	6.2
1	AA	986	A	6.2
8	AF	84	ASN	6.2
9	AG	55	GLY	6.1
9	AG	78	ARG	6.1
9	AG	143	ARG	6.1
10	AH	72	PRO	6.1
13	AK	124	LYS	6.1
23	B0	1842	G	6.1
23	B0	3196	G	6.1
28	BD	93	GLY	6.1
23	B0	1843	U	6.1
1	AA	1239	A	6.1
9	AG	79	ARG	6.1
9	AG	132	GLY	6.1
25	BA	247	VAL	6.1
42	BR	14	GLU	6.1
5	AC	90	GLU	6.1
5	AC	177	THR	6.1
33	BI	26	ASN	6.1
9	AG	35	LYS	6.1
6	AD	103	ASN	6.1
26	BB	202	ALA	6.1
36	BL	39	THR	6.1

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Mol	Chain	Res	Type	RSRZ
54	B4	18	ARG	6.1
9	AG	107	ALA	6.1
43	BS	107	ALA	6.1
47	BW	43	VAL	6.1
32	BH	110	LEU	6.1
50	BZ	38	GLY	6.1
1	AA	1043	C	6.1
23	B0	3182	U	6.1
16	AN	47	LEU	6.1
20	AR	17	SER	6.1
28	BD	77	PHE	6.1
15	AM	62	ASN	6.1
27	BC	132	ASN	6.1
5	AC	76	VAL	6.1
55	B5	85	ILE	6.1
52	B2	27	GLY	6.1
4	AB	194	PRO	6.1
12	AJ	65	LEU	6.1
26	BB	167	VAL	6.1
27	BC	181	LEU	6.1
33	BI	88	THR	6.0
5	AC	24	ALA	6.0
11	AI	29	ASN	6.0
53	B3	5	LYS	6.0
20	AR	70	ILE	6.0
5	AC	42	LEU	6.0
28	BD	135	GLN	6.0
45	BU	8	GLY	6.0
20	AR	73	ALA	6.0
15	AM	24	GLY	6.0
43	BS	73	GLU	6.0
12	AJ	79	ARG	6.0
39	BO	79	PHE	6.0
52	B2	24	THR	6.0
52	B2	28	ARG	6.0
11	AI	75	ASP	6.0
17	AO	44	LYS	6.0
48	BX	22	ALA	6.0
5	AC	78	GLY	6.0
5	AC	143	GLU	6.0
40	BP	70	TYR	6.0
27	BC	172	VAL	6.0

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Mol	Chain	Res	Type	RSRZ
49	BY	23	GLU	6.0
20	AR	85	LEU	6.0
45	BU	29	GLU	6.0
43	BS	67	GLY	6.0
43	BS	72	ARG	6.0
2	AW	33	U	6.0
27	BC	100	ARG	6.0
11	AI	82	ALA	6.0
21	AS	80	TYR	6.0
38	BN	109	GLU	6.0
11	AI	58	ARG	6.0
16	AN	17	LYS	6.0
31	BG	111	LYS	6.0
9	AG	127	ALA	6.0
36	BL	17	ARG	6.0
23	B0	1195	U	6.0
4	AB	136	VAL	6.0
26	BB	169	ASN	6.0
9	AG	82	GLY	5.9
53	B3	29	LYS	5.9
31	BG	1	MET	5.9
8	AF	78	GLU	5.9
32	BH	94	LYS	5.9
40	BP	11	GLN	5.9
44	BT	20	ALA	5.9
1	AA	1041	A	5.9
20	AR	38	GLU	5.9
36	BL	34	ILE	5.9
25	BA	259	THR	5.9
36	BL	109	THR	5.9
54	B4	22	ARG	5.9
9	AG	130	GLY	5.9
26	BB	118	LYS	5.9
35	BK	121	LEU	5.9
45	BU	32	LYS	5.9
44	BT	141	MET	5.9
20	AR	41	LYS	5.9
36	BL	23	ALA	5.9
6	AD	100	ARG	5.9
16	AN	11	LYS	5.9
25	BA	41	GLY	5.9
9	AG	144	MET	5.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
31	BG	40	ALA	5.9
6	AD	50	ARG	5.9
20	AR	80	PRO	5.9
29	BE	38	ASN	5.9
23	B0	3151	U	5.9
15	AM	35	GLU	5.9
14	AL	100	ILE	5.9
38	BN	62	SER	5.9
44	BT	143	ILE	5.9
33	BI	23	ARG	5.9
11	AI	53	VAL	5.9
31	BG	6	GLY	5.9
33	BI	42	LYS	5.9
15	AM	88	ARG	5.9
4	AB	176	GLU	5.9
16	AN	48	ALA	5.9
29	BE	79	VAL	5.9
9	AG	115	ARG	5.9
36	BL	19	ALA	5.9
8	AF	11	ASN	5.9
25	BA	261	ARG	5.9
9	AG	53	LYS	5.9
13	AK	127	LYS	5.9
44	BT	84	TYR	5.9
27	BC	178	TYR	5.8
41	BQ	65	SER	5.8
27	BC	72	ARG	5.8
41	BQ	103	LEU	5.8
35	BK	18	MET	5.8
8	AF	42	GLU	5.8
28	BD	20	PHE	5.8
48	BX	36	ASP	5.8
33	BI	79	HIS	5.8
28	BD	67	ILE	5.8
43	BS	81	VAL	5.8
9	AG	32	ARG	5.8
20	AR	59	SER	5.8
15	AM	20	THR	5.8
27	BC	158	ARG	5.8
27	BC	147	LYS	5.8
37	BM	41	GLN	5.8
51	B1	38	LYS	5.8

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Mol	Chain	Res	Type	RSRZ
23	B0	3149	G	5.8
11	AI	57	GLY	5.8
18	AP	6	LEU	5.8
4	AB	119	GLU	5.8
8	AF	52	ILE	5.8
9	AG	12	LEU	5.8
27	BC	34	GLN	5.8
42	BR	80	VAL	5.8
14	AL	65	GLU	5.8
42	BR	67	ARG	5.8
18	AP	73	LEU	5.8
6	AD	27	TYR	5.8
14	AL	38	THR	5.8
8	AF	81	ILE	5.8
4	AB	240	GLN	5.8
1	AA	1031	C	5.8
14	AL	25	PRO	5.8
55	B5	31	GLU	5.8
9	AG	25	ALA	5.8
14	AL	68	ALA	5.8
5	AC	61	ALA	5.8
6	AD	136	PRO	5.8
45	BU	42	GLY	5.8
33	BI	54	SER	5.8
25	BA	149	PRO	5.7
36	BL	71	HIS	5.7
50	BZ	52	TYR	5.7
27	BC	23	ASN	5.7
26	BB	59	VAL	5.7
26	BB	193	GLY	5.7
43	BS	38	LEU	5.7
14	AL	33	ARG	5.7
15	AM	71	ARG	5.7
14	AL	63	GLY	5.7
48	BX	17	VAL	5.7
14	AL	19	ARG	5.7
37	BM	84	ILE	5.7
19	AQ	45	HIS	5.7
5	AC	65	ALA	5.7
5	AC	101	LEU	5.7
19	AQ	62	SER	5.7
20	AR	66	LEU	5.7

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Mol	Chain	Res	Type	RSRZ
10	AH	70	GLN	5.7
13	AK	104	GLN	5.7
20	AR	65	ILE	5.7
29	BE	62	ARG	5.7
12	AJ	93	GLY	5.7
4	AB	109	SER	5.7
36	BL	9	LYS	5.7
23	B0	3150	C	5.7
43	BS	60	PRO	5.7
5	AC	181	ASN	5.7
6	AD	25	ARG	5.7
6	AD	113	SER	5.7
9	AG	21	VAL	5.7
41	BQ	126	ILE	5.7
7	AE	153	LYS	5.7
8	AF	5	GLU	5.7
25	BA	258	LYS	5.7
26	BB	116	VAL	5.7
9	AG	145	ALA	5.7
36	BL	50	GLN	5.7
42	BR	66	GLY	5.7
43	BS	95	ARG	5.7
4	AB	227	GLY	5.7
55	B5	82	LYS	5.6
1	AA	1033	G	5.6
4	AB	110	GLN	5.6
5	AC	95	THR	5.6
25	BA	18	THR	5.6
8	AF	75	LEU	5.6
18	AP	76	GLN	5.6
14	AL	26	ALA	5.6
25	BA	230	ASP	5.6
4	AB	22	LYS	5.6
25	BA	248	THR	5.6
22	AT	62	LEU	5.6
27	BC	91	TYR	5.6
5	AC	63	ASN	5.6
6	AD	99	SER	5.6
8	AF	49	ALA	5.6
27	BC	64	THR	5.6
28	BD	73	SER	5.6
53	B3	43	GLY	5.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
27	BC	175	VAL	5.6
34	BJ	59	ARG	5.6
9	AG	128	ALA	5.6
20	AR	77	GLY	5.6
32	BH	162	LYS	5.6
50	BZ	34	PRO	5.6
25	BA	57	GLY	5.6
29	BE	174	GLY	5.6
41	BQ	5	GLU	5.6
15	AM	94	ARG	5.6
4	AB	133	LYS	5.6
7	AE	6	PHE	5.6
9	AG	105	VAL	5.6
33	BI	22	ILE	5.6
2	AW	32	C	5.6
19	AQ	80	GLY	5.6
4	AB	116	GLU	5.6
5	AC	45	LYS	5.6
28	BD	172	SER	5.6
32	BH	140	GLN	5.6
1	AA	1000	U	5.5
4	AB	177	ALA	5.5
44	BT	12	GLN	5.5
6	AD	135	LEU	5.5
30	BF	52	SER	5.5
11	AI	79	LEU	5.5
26	BB	205	SER	5.5
19	AQ	52	LYS	5.5
2	AW	39	U	5.5
41	BQ	72	LEU	5.5
50	BZ	48	ASN	5.5
41	BQ	80	LEU	5.5
49	BY	43	TRP	5.5
1	AA	1032	G	5.5
54	B4	2	LYS	5.5
23	B0	942	U	5.5
31	BG	34	ILE	5.5
42	BR	78	ALA	5.5
11	AI	86	VAL	5.5
16	AN	37	PHE	5.5
28	BD	24	SER	5.5
5	AC	88	ARG	5.5

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Mol	Chain	Res	Type	RSRZ
26	BB	11	MET	5.5
25	BA	55	GLY	5.5
31	BG	2	LYS	5.5
35	BK	72	ASP	5.4
15	AM	87	TYR	5.4
34	BJ	110	ALA	5.4
52	B2	31	LEU	5.4
13	AK	79	SER	5.4
4	AB	106	LYS	5.4
51	B1	22	TYR	5.4
9	AG	111	ARG	5.4
28	BD	53	ALA	5.4
44	BT	36	ARG	5.4
31	BG	24	GLY	5.4
4	AB	8	LYS	5.4
29	BE	6	LYS	5.4
37	BM	24	SER	5.4
8	AF	82	ARG	5.4
1	AA	1042	G	5.4
40	BP	76	SER	5.4
36	BL	54	THR	5.4
8	AF	85	VAL	5.4
15	AM	68	GLY	5.4
38	BN	107	LEU	5.4
15	AM	113	PRO	5.4
20	AR	88	LYS	5.4
43	BS	65	PRO	5.4
44	BT	83	PHE	5.4
8	AF	36	ARG	5.4
9	AG	83	ALA	5.4
25	BA	58	HIS	5.4
31	BG	108	ALA	5.4
38	BN	2	GLN	5.4
43	BS	82	ALA	5.4
47	BW	56	VAL	5.4
5	AC	39	ILE	5.4
55	B5	207	THR	5.4
31	BG	141	GLY	5.4
13	AK	13	GLN	5.4
42	BR	33	ALA	5.4
19	AQ	59	ILE	5.4
42	BR	68	PHE	5.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
19	AQ	63	ARG	5.4
13	AK	78	GLN	5.4
44	BT	11	LYS	5.4
50	BZ	23	HIS	5.4
16	AN	57	ARG	5.4
33	BI	59	ALA	5.4
27	BC	90	SER	5.3
34	BJ	63	ARG	5.3
26	BB	161	GLY	5.3
32	BH	141	GLY	5.3
51	B1	34	LYS	5.3
1	AA	686	U	5.3
9	AG	22	LEU	5.3
38	BN	4	HIS	5.3
8	AF	6	VAL	5.3
18	AP	44	THR	5.3
40	BP	18	ASP	5.3
25	BA	126	LYS	5.3
9	AG	14	PRO	5.3
14	AL	76	ASN	5.3
27	BC	184	ASP	5.3
55	B5	87	ARG	5.3
28	BD	17	MET	5.3
28	BD	16	LEU	5.3
6	AD	102	ASP	5.3
42	BR	90	ALA	5.3
9	AG	84	ASN	5.3
47	BW	50	VAL	5.3
16	AN	55	GLY	5.3
27	BC	103	GLY	5.3
11	AI	14	VAL	5.3
44	BT	146	HIS	5.3
11	AI	88	TYR	5.3
13	AK	106	LYS	5.3
18	AP	32	TYR	5.3
52	B2	18	PHE	5.3
31	BG	38	THR	5.3
31	BG	42	ASN	5.3
34	BJ	112	GLY	5.3
9	AG	87	VAL	5.3
29	BE	112	PRO	5.3
41	BQ	38	VAL	5.3

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Mol	Chain	Res	Type	RSRZ
36	BL	95	THR	5.3
38	BN	3	THR	5.3
44	BT	136	VAL	5.3
1	AA	1302	U	5.3
33	BI	35	THR	5.3
4	AB	196	LEU	5.3
44	BT	142	ASN	5.3
14	AL	41	ARG	5.3
25	BA	38	PRO	5.3
4	AB	64	ARG	5.2
11	AI	34	ASN	5.3
38	BN	63	ARG	5.2
39	BO	39	LEU	5.2
44	BT	133	GLU	5.2
27	BC	135	SER	5.2
18	AP	62	VAL	5.2
27	BC	173	ALA	5.2
43	BS	20	ASP	5.2
1	AA	687	A	5.2
23	B0	3194	U	5.2
25	BA	39	LYS	5.2
37	BM	5	THR	5.2
27	BC	133	PHE	5.2
43	BS	45	LYS	5.2
14	AL	77	LEU	5.2
26	BB	204	ALA	5.2
19	AQ	3	LYS	5.2
44	BT	24	TYR	5.2
23	B0	1180	A	5.2
4	AB	11	LEU	5.2
36	BL	49	GLU	5.2
13	AK	107	SER	5.2
40	BP	77	GLY	5.2
6	AD	139	ARG	5.2
27	BC	37	SER	5.2
5	AC	86	VAL	5.2
14	AL	74	GLY	5.2
5	AC	66	VAL	5.2
27	BC	101	GLN	5.2
34	BJ	61	PRO	5.2
9	AG	147	ALA	5.2
11	AI	32	ASP	5.2

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Mol	Chain	Res	Type	RSRZ
22	AT	82	SER	5.2
26	BB	194	GLY	5.2
47	BW	31	GLN	5.2
4	AB	229	VAL	5.2
27	BC	88	PRO	5.2
5	AC	107	GLN	5.2
15	AM	21	TYR	5.2
34	BJ	55	ARG	5.2
45	BU	35	ASN	5.2
1	AA	992	U	5.2
5	AC	81	GLY	5.2
2	AW	38	A	5.2
9	AG	56	GLN	5.2
38	BN	59	GLY	5.2
27	BC	87	LYS	5.2
1	AA	999	C	5.2
1	AA	1129	C	5.2
25	BA	232	PRO	5.1
20	AR	62	GLU	5.1
27	BC	89	ARG	5.1
11	AI	71	SER	5.1
55	B5	28	GLN	5.1
38	BN	9	ARG	5.1
49	BY	28	ARG	5.1
26	BB	188	ILE	5.1
41	BQ	68	VAL	5.1
5	AC	179	ARG	5.1
19	AQ	17	LYS	5.1
40	BP	68	LYS	5.1
43	BS	106	VAL	5.1
32	BH	71	THR	5.1
14	AL	55	VAL	5.1
15	AM	67	GLU	5.1
19	AQ	79	SER	5.1
45	BU	20	TYR	5.1
11	AI	15	ALA	5.1
15	AM	70	LEU	5.1
42	BR	81	ARG	5.1
44	BT	81	VAL	5.1
48	BX	40	VAL	5.1
9	AG	109	ASN	5.1
14	AL	110	VAL	5.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
20	AR	36	ASN	5.1
12	AJ	63	PHE	5.1
52	B2	46	ASP	5.1
44	BT	166	LEU	5.1
1	AA	1040	U	5.1
37	BM	98	GLY	5.1
42	BR	52	GLY	5.1
15	AM	11	ARG	5.1
8	AF	34	GLY	5.1
33	BI	6	SER	5.1
43	BS	6	ALA	5.1
23	B0	3109	U	5.1
11	AI	49	PRO	5.1
23	B0	3191	A	5.1
27	BC	177	VAL	5.1
11	AI	84	ALA	5.1
29	BE	129	THR	5.1
9	AG	113	GLU	5.1
26	BB	79	ARG	5.0
4	AB	100	GLY	5.0
43	BS	101	GLY	5.0
8	AF	57	GLN	5.0
53	B3	37	SER	5.0
33	BI	132	GLU	5.0
34	BJ	70	THR	5.0
43	BS	29	HIS	5.0
50	BZ	44	HIS	5.0
5	AC	99	VAL	5.0
9	AG	123	GLU	5.0
14	AL	62	SER	5.0
34	BJ	69	GLY	5.0
37	BM	35	SER	5.0
43	BS	52	ASN	5.0
6	AD	123	HIS	5.0
45	BU	6	GLY	5.0
11	AI	48	GLU	5.0
14	AL	27	LEU	5.0
34	BJ	135	ALA	5.0
45	BU	23	VAL	5.0
2	AW	16	U	5.0
26	BB	107	THR	5.0
51	B1	33	ALA	5.0

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Mol	Chain	Res	Type	RSRZ
23	B0	1839	A	5.0
23	B0	3192	C	5.0
27	BC	33	TRP	5.0
25	BA	212	SER	5.0
49	BY	15	ILE	5.0
4	AB	56	ARG	5.0
25	BA	122	GLU	5.0
20	AR	54	ARG	5.0
26	BB	162	MET	5.0
25	BA	213	ARG	5.0
34	BJ	52	GLY	5.0
16	AN	12	ARG	5.0
11	AI	5	TYR	5.0
18	AP	37	GLY	5.0
22	AT	81	LYS	5.0
9	AG	155	ARG	5.0
32	BH	161	GLN	5.0
54	B4	36	GLN	5.0
4	AB	156	LYS	5.0
27	BC	5	ASN	4.9
21	AS	5	LEU	4.9
14	AL	56	ALA	4.9
16	AN	16	PHE	4.9
42	BR	75	ARG	4.9
4	AB	122	PHE	4.9
1	AA	700	G	4.9
25	BA	156	ALA	4.9
8	AF	12	PRO	4.9
33	BI	27	SER	4.9
6	AD	107	ARG	4.9
16	AN	44	LEU	4.9
29	BE	37	TYR	4.9
19	AQ	57	VAL	4.9
27	BC	167	VAL	4.9
9	AG	31	MET	4.9
43	BS	105	ARG	4.9
44	BT	173	PRO	4.9
45	BU	64	ASP	4.9
20	AR	28	GLU	4.9
43	BS	108	VAL	4.9
27	BC	126	ALA	4.9
15	AM	75	ALA	4.9

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Mol	Chain	Res	Type	RSRZ
4	AB	65	GLY	4.9
49	BY	29	PRO	4.9
4	AB	137	ARG	4.9
53	B3	41	ILE	4.9
17	AO	88	ARG	4.9
55	B5	64	VAL	4.9
14	AL	37	CYS	4.9
9	AG	86	GLN	4.9
14	AL	66	VAL	4.9
7	AE	154	GLY	4.9
20	AR	33	ASP	4.9
39	BO	17	VAL	4.9
4	AB	228	GLY	4.9
36	BL	97	ILE	4.9
38	BN	104	LEU	4.9
54	B4	7	VAL	4.9
33	BI	82	LYS	4.9
14	AL	107	ALA	4.9
43	BS	21	THR	4.9
1	AA	1014	A	4.9
43	BS	61	SER	4.9
47	BW	49	GLU	4.9
41	BQ	39	ARG	4.9
53	B3	19	THR	4.9
13	AK	25	TYR	4.9
38	BN	105	TYR	4.9
21	AS	29	ARG	4.8
43	BS	109	ALA	4.8
49	BY	36	TRP	4.8
8	AF	45	LEU	4.8
23	B0	1870	U	4.8
8	AF	58	GLY	4.8
41	BQ	20	LEU	4.8
50	BZ	24	ALA	4.8
8	AF	46	ARG	4.8
8	AF	79	LEU	4.8
26	BB	120	TRP	4.8
34	BJ	53	ARG	4.8
39	BO	43	ALA	4.8
5	AC	97	LYS	4.8
36	BL	33	ARG	4.8
36	BL	72	ASP	4.8

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Mol	Chain	Res	Type	RSRZ
25	BA	154	GLN	4.8
25	BA	233	HIS	4.8
44	BT	147	ILE	4.8
27	BC	152	THR	4.8
32	BH	147	ARG	4.8
43	BS	24	VAL	4.8
53	B3	62	LEU	4.8
13	AK	26	ASN	4.8
40	BP	66	GLY	4.8
4	AB	171	ALA	4.8
27	BC	189	ASP	4.8
15	AM	89	GLY	4.8
36	BL	62	SER	4.8
35	BK	68	ARG	4.8
36	BL	63	ARG	4.8
18	AP	4	ILE	4.8
5	AC	60	ALA	4.8
5	AC	83	ARG	4.8
26	BB	106	GLY	4.8
31	BG	11	GLN	4.8
20	AR	44	LEU	4.8
40	BP	7	THR	4.8
26	BB	34	VAL	4.8
54	B4	17	VAL	4.8
23	B0	1840	A	4.8
32	BH	35	LYS	4.8
16	AN	15	LYS	4.8
6	AD	124	GLY	4.7
36	BL	42	LYS	4.7
53	B3	52	LYS	4.7
41	BQ	67	PRO	4.7
26	BB	36	ARG	4.7
42	BR	77	LYS	4.7
26	BB	160	MET	4.7
53	B3	45	GLY	4.7
12	AJ	47	PHE	4.7
20	AR	56	THR	4.7
43	BS	46	VAL	4.7
42	BR	30	SER	4.7
27	BC	127	ASP	4.7
27	BC	153	ASP	4.7
40	BP	16	GLU	4.7

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Mol	Chain	Res	Type	RSRZ
34	BJ	100	ARG	4.7
5	AC	180	ALA	4.7
9	AG	60	LYS	4.7
20	AR	79	LEU	4.7
39	BO	91	ASN	4.7
8	AF	95	GLU	4.7
14	AL	81	SER	4.7
8	AF	43	LEU	4.7
36	BL	53	THR	4.7
5	AC	172	ARG	4.7
27	BC	31	VAL	4.7
32	BH	145	HIS	4.7
8	AF	56	PRO	4.7
4	AB	7	VAL	4.7
20	AR	51	LEU	4.7
15	AM	74	VAL	4.7
35	BK	50	ALA	4.7
49	BY	37	SER	4.7
23	B0	1191	G	4.7
35	BK	85	GLY	4.7
37	BM	49	GLN	4.7
20	AR	20	ALA	4.7
31	BG	126	THR	4.7
26	BB	47	VAL	4.7
28	BD	92	ARG	4.7
8	AF	33	TYR	4.7
14	AL	40	VAL	4.7
36	BL	38	LEU	4.7
43	BS	110	SER	4.6
52	B2	22	MET	4.6
12	AJ	21	GLN	4.6
27	BC	166	TRP	4.6
6	AD	24	GLU	4.6
13	AK	16	SER	4.6
32	BH	101	THR	4.6
9	AG	122	HIS	4.6
1	AA	1029	U	4.6
8	AF	13	ASN	4.6
12	AJ	75	ILE	4.6
4	AB	99	GLY	4.6
32	BH	163	PRO	4.6
27	BC	137	ALA	4.6

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Mol	Chain	Res	Type	RSRZ
45	BU	24	LYS	4.6
54	B4	3	VAL	4.6
15	AM	51	ALA	4.6
21	AS	3	ARG	4.6
4	AB	231	GLU	4.6
13	AK	100	ALA	4.6
25	BA	53	PHE	4.6
32	BH	143	ALA	4.6
43	BS	7	GLY	4.6
20	AR	40	LEU	4.6
9	AG	146	GLU	4.6
45	BU	71	ASN	4.6
55	B5	81	PRO	4.6
28	BD	71	LYS	4.6
55	B5	150	ARG	4.6
5	AC	91	LEU	4.6
33	BI	43	ARG	4.6
13	AK	101	SER	4.6
52	B2	20	ALA	4.6
23	B0	1194	U	4.6
18	AP	19	ILE	4.6
9	AG	85	TYR	4.6
18	AP	75	ARG	4.6
1	AA	1292	U	4.5
12	AJ	92	THR	4.5
14	AL	61	THR	4.5
28	BD	153	ASP	4.5
9	AG	19	GLY	4.5
4	AB	63	MET	4.5
28	BD	90	THR	4.5
8	AF	8	ILE	4.5
23	B0	3143	U	4.5
11	AI	4	TYR	4.5
27	BC	119	ALA	4.5
20	AR	25	THR	4.5
4	AB	168	THR	4.5
36	BL	98	LEU	4.5
13	AK	36	ASP	4.5
1	AA	1296	C	4.5
8	AF	40	VAL	4.5
49	BY	26	SER	4.5
34	BJ	73	GLU	4.5

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Mol	Chain	Res	Type	RSRZ
5	AC	64	VAL	4.5
18	AP	59	TRP	4.5
28	BD	122	PHE	4.5
4	AB	157	ARG	4.5
14	AL	104	VAL	4.5
23	B0	941	U	4.5
50	BZ	30	LEU	4.5
49	BY	35	VAL	4.5
11	AI	85	LEU	4.5
4	AB	173	ALA	4.5
21	AS	79	THR	4.5
34	BJ	101	ARG	4.5
41	BQ	124	ILE	4.5
43	BS	87	GLU	4.5
5	AC	94	LEU	4.5
27	BC	102	LEU	4.5
42	BR	26	SER	4.5
50	BZ	41	LEU	4.5
51	B1	35	LEU	4.5
4	AB	174	VAL	4.5
15	AM	65	LYS	4.5
40	BP	27	GLY	4.5
25	BA	87	ASN	4.5
26	BB	9	ILE	4.5
19	AQ	46	ASP	4.5
27	BC	124	ASP	4.5
43	BS	49	GLU	4.5
25	BA	86	PRO	4.5
14	AL	106	ASP	4.5
34	BJ	56	LEU	4.5
50	BZ	40	LYS	4.5
41	BQ	127	ILE	4.5
43	BS	22	VAL	4.5
55	B5	161	ASP	4.5
19	AQ	5	VAL	4.5
25	BA	251	GLY	4.5
36	BL	20	LEU	4.5
5	AC	147	LYS	4.4
8	AF	41	GLU	4.4
27	BC	143	ASP	4.4
32	BH	57	LEU	4.4
11	AI	24	GLY	4.4

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Mol	Chain	Res	Type	RSRZ
32	BH	102	ARG	4.4
45	BU	21	LEU	4.4
4	AB	182	ILE	4.4
6	AD	132	ARG	4.4
45	BU	65	GLY	4.4
43	BS	51	VAL	4.4
27	BC	145	THR	4.4
43	BS	31	GLY	4.4
18	AP	21	VAL	4.4
49	BY	27	THR	4.4
14	AL	39	VAL	4.4
47	BW	29	ARG	4.4
47	BW	61	ALA	4.4
27	BC	30	VAL	4.4
51	B1	23	THR	4.4
4	AB	140	HIS	4.4
11	AI	16	ARG	4.4
53	B3	63	PRO	4.4
27	BC	157	THR	4.4
36	BL	59	ASP	4.4
18	AP	34	GLU	4.4
43	BS	83	LEU	4.4
20	AR	32	ARG	4.4
29	BE	102	ALA	4.4
12	AJ	98	ILE	4.4
32	BH	142	ARG	4.4
55	B5	200	LEU	4.4
4	AB	30	ARG	4.4
45	BU	25	LYS	4.4
1	AA	699	C	4.4
4	AB	121	LEU	4.4
26	BB	75	THR	4.4
27	BC	148	VAL	4.4
35	BK	84	MET	4.4
14	AL	84	LEU	4.4
6	AD	133	VAL	4.4
49	BY	19	GLN	4.4
8	AF	47	ARG	4.4
52	B2	21	ARG	4.4
15	AM	22	ILE	4.4
39	BO	94	VAL	4.4
26	BB	58	LYS	4.4

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Mol	Chain	Res	Type	RSRZ
39	BO	60	LEU	4.4
53	B3	40	GLU	4.4
4	AB	192	SER	4.4
8	AF	96	PRO	4.4
42	BR	76	LYS	4.4
33	BI	80	ALA	4.4
5	AC	77	ILE	4.3
14	AL	85	ILE	4.3
54	B4	8	LYS	4.3
14	AL	127	GLU	4.3
43	BS	47	VAL	4.3
13	AK	81	ASP	4.3
13	AK	51	LYS	4.3
36	BL	111	ALA	4.3
8	AF	54	LYS	4.3
32	BH	91	THR	4.3
50	BZ	35	GLN	4.3
4	AB	52	GLU	4.3
7	AE	145	LYS	4.3
4	AB	33	TYR	4.3
38	BN	122	SER	4.3
43	BS	84	VAL	4.3
5	AC	59	ARG	4.3
20	AR	55	ARG	4.3
36	BL	67	ALA	4.3
37	BM	37	HIS	4.3
22	AT	60	GLU	4.3
36	BL	40	LYS	4.3
11	AI	27	THR	4.3
18	AP	48	TRP	4.3
1	AA	701	C	4.3
5	AC	205	GLY	4.3
37	BM	22	ALA	4.3
34	BJ	62	LYS	4.3
8	AF	38	GLU	4.3
26	BB	170	LEU	4.3
34	BJ	76	LYS	4.3
15	AM	28	ALA	4.3
31	BG	10	LEU	4.3
37	BM	36	LYS	4.3
32	BH	32	TYR	4.3
27	BC	10	ASN	4.3

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Mol	Chain	Res	Type	RSRZ
8	AF	9	VAL	4.3
35	BK	28	VAL	4.3
29	BE	147	ASN	4.3
54	B4	16	VAL	4.3
36	BL	94	TYR	4.3
43	BS	50	GLY	4.3
43	BS	85	ASP	4.3
27	BC	185	ARG	4.3
55	B5	60	LYS	4.3
55	B5	116	SER	4.3
11	AI	54	ASP	4.3
37	BM	97	HIS	4.3
6	AD	131	ARG	4.3
41	BQ	106	LEU	4.3
22	AT	37	SER	4.3
21	AS	37	ARG	4.3
29	BE	117	PRO	4.3
30	BF	31	PRO	4.3
13	AK	113	PRO	4.3
4	AB	172	ILE	4.3
29	BE	140	LEU	4.3
25	BA	214	TRP	4.2
36	BL	41	ALA	4.2
15	AM	77	ASN	4.2
53	B3	35	GLY	4.2
41	BQ	69	ALA	4.2
29	BE	60	LYS	4.2
27	BC	122	GLY	4.2
5	AC	174	PRO	4.2
19	AQ	58	GLU	4.2
27	BC	138	LYS	4.2
34	BJ	108	LEU	4.2
38	BN	8	ASN	4.2
44	BT	15	ASP	4.2
13	AK	74	ALA	4.2
21	AS	25	LYS	4.2
43	BS	23	ILE	4.2
48	BX	30	ASP	4.2
43	BS	113	THR	4.2
11	AI	73	GLN	4.2
26	BB	66	HIS	4.2
40	BP	63	HIS	4.2

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Mol	Chain	Res	Type	RSRZ
43	BS	71	GLN	4.2
26	BB	105	THR	4.2
20	AR	34	TYR	4.2
29	BE	119	ALA	4.2
36	BL	90	ARG	4.2
4	AB	38	GLY	4.2
9	AG	81	GLY	4.2
25	BA	23	GLY	4.2
27	BC	156	ASN	4.2
15	AM	54	VAL	4.2
18	AP	20	VAL	4.2
27	BC	151	VAL	4.2
36	BL	110	MET	4.2
27	BC	27	LEU	4.2
4	AB	130	ARG	4.2
27	BC	24	SER	4.2
4	AB	191	ASP	4.2
5	AC	204	LEU	4.2
13	AK	103	LEU	4.2
32	BH	129	HIS	4.1
33	BI	67	GLY	4.1
33	BI	78	SER	4.1
41	BQ	43	ASP	4.1
32	BH	98	LYS	4.1
32	BH	114	THR	4.1
11	AI	56	LEU	4.1
27	BC	60	GLY	4.1
27	BC	121	ASP	4.1
42	BR	37	GLU	4.1
26	BB	119	ARG	4.1
42	BR	5	ASP	4.1
42	BR	51	ILE	4.1
43	BS	37	LEU	4.1
6	AD	48	ALA	4.1
13	AK	38	ASN	4.1
38	BN	60	SER	4.1
12	AJ	96	ILE	4.1
13	AK	33	THR	4.1
49	BY	10	VAL	4.1
43	BS	33	THR	4.1
14	AL	57	LYS	4.1
15	AM	57	ARG	4.1

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Mol	Chain	Res	Type	RSRZ
49	BY	7	PRO	4.1
13	AK	53	SER	4.1
54	B4	23	VAL	4.1
6	AD	117	ALA	4.1
13	AK	15	ALA	4.1
34	BJ	125	ALA	4.1
53	B3	47	GLY	4.1
25	BA	61	LEU	4.1
15	AM	47	ASP	4.1
36	BL	69	ASP	4.1
43	BS	34	GLY	4.1
1	AA	1291	G	4.1
6	AD	188	LEU	4.1
28	BD	170	LEU	4.1
6	AD	106	TYR	4.1
18	AP	35	LYS	4.1
26	BB	23	VAL	4.1
27	BC	112	GLN	4.1
43	BS	32	GLN	4.1
55	B5	149	ASN	4.1
4	AB	29	ALA	4.1
14	AL	105	TYR	4.1
33	BI	57	ASP	4.1
35	BK	117	GLU	4.1
8	AF	48	LEU	4.1
48	BX	21	GLN	4.1
26	BB	103	ASP	4.1
4	AB	139	LYS	4.1
43	BS	19	GLY	4.1
43	BS	48	VAL	4.1
14	AL	64	TYR	4.1
4	AB	138	LEU	4.0
27	BC	107	ALA	4.0
32	BH	160	ALA	4.0
19	AQ	60	ILE	4.0
48	BX	48	LYS	4.0
27	BC	104	LEU	4.0
35	BK	47	GLN	4.0
53	B3	36	LYS	4.0
13	AK	12	ARG	4.0
13	AK	37	GLY	4.0
25	BA	85	ASP	4.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
49	BY	70	GLY	4.0
9	AG	148	ASN	4.0
44	BT	48	THR	4.0
29	BE	103	LEU	4.0
38	BN	61	GLY	4.0
45	BU	5	LYS	4.0
4	AB	232	PRO	4.0
55	B5	210	GLY	4.0
29	BE	133	VAL	4.0
27	BC	140	ASN	4.0
15	AM	83	ASP	4.0
28	BD	121	ALA	4.0
6	AD	121	VAL	4.0
9	AG	6	ARG	4.0
32	BH	50	PRO	4.0
26	BB	45	GLU	4.0
27	BC	21	GLU	4.0
32	BH	97	ASP	4.0
9	AG	108	ALA	4.0
6	AD	119	GLN	4.0
11	AI	35	GLU	4.0
32	BH	75	ILE	4.0
45	BU	4	LYS	4.0
35	BK	82	THR	4.0
38	BN	65	SER	4.0
13	AK	31	THR	4.0
27	BC	149	LEU	4.0
13	AK	35	PRO	4.0
27	BC	150	LEU	4.0
36	BL	99	ARG	4.0
14	AL	108	ALA	4.0
27	BC	154	ASP	4.0
38	BN	47	SER	4.0
28	BD	45	GLU	4.0
27	BC	8	GLY	4.0
21	AS	81	ARG	4.0
27	BC	58	MET	4.0
8	AF	64	GLN	4.0
15	AM	58	GLU	4.0
25	BA	231	HIS	4.0
27	BC	105	ALA	3.9
27	BC	180	ILE	3.9

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Mol	Chain	Res	Type	RSRZ
55	B5	197	GLU	3.9
29	BE	104	GLU	3.9
12	AJ	8	LEU	3.9
53	B3	61	MET	3.9
18	AP	61	SER	3.9
4	AB	183	PRO	3.9
27	BC	136	TRP	3.9
4	AB	199	TYR	3.9
33	BI	87	SER	3.9
22	AT	105	SER	3.9
28	BD	130	LEU	3.9
34	BJ	103	ASN	3.9
4	AB	45	GLN	3.9
14	AL	34	ARG	3.9
11	AI	17	VAL	3.9
13	AK	34	ASP	3.9
33	BI	133	VAL	3.9
51	B1	24	THR	3.9
52	B2	23	LYS	3.9
5	AC	87	LEU	3.9
8	AF	59	TYR	3.9
55	B5	192	ASN	3.9
9	AG	24	THR	3.9
22	AT	59	ALA	3.9
27	BC	190	ALA	3.9
36	BL	18	VAL	3.9
37	BM	64	LYS	3.9
39	BO	67	ALA	3.9
45	BU	33	ALA	3.9
11	AI	20	ARG	3.9
28	BD	112	ARG	3.9
25	BA	54	ILE	3.9
27	BC	115	GLY	3.9
28	BD	12	VAL	3.9
32	BH	63	ARG	3.9
27	BC	120	VAL	3.9
34	BJ	99	VAL	3.9
39	BO	64	ARG	3.9
10	AH	54	ASP	3.9
22	AT	38	LYS	3.9
45	BU	22	GLY	3.9
4	AB	184	VAL	3.8

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Mol	Chain	Res	Type	RSRZ
6	AD	138	TYR	3.8
29	BE	157	TYR	3.8
54	B4	9	LYS	3.8
13	AK	14	VAL	3.8
53	B3	10	ALA	3.8
38	BN	121	ARG	3.8
25	BA	250	TRP	3.8
8	AF	60	PHE	3.8
40	BP	97	GLY	3.8
53	B3	46	LYS	3.8
33	BI	24	VAL	3.8
40	BP	28	GLU	3.8
20	AR	76	LEU	3.8
37	BM	8	ARG	3.8
25	BA	155	LEU	3.8
36	BL	116	VAL	3.8
13	AK	87	THR	3.8
35	BK	76	THR	3.8
40	BP	15	SER	3.8
22	AT	102	GLY	3.8
27	BC	106	MET	3.8
9	AG	61	VAL	3.8
37	BM	51	LEU	3.8
44	BT	137	ASP	3.8
13	AK	27	ASN	3.8
49	BY	25	MET	3.8
34	BJ	74	VAL	3.8
22	AT	103	GLY	3.8
43	BS	111	GLY	3.8
50	BZ	53	ASP	3.8
9	AG	152	ALA	3.8
41	BQ	93	LYS	3.8
28	BD	164	GLU	3.8
23	B0	3195	U	3.8
26	BB	20	ALA	3.8
38	BN	11	GLU	3.8
13	AK	17	GLY	3.8
9	AG	118	VAL	3.8
27	BC	187	VAL	3.8
32	BH	115	ALA	3.8
48	BX	44	VAL	3.8
25	BA	133	LEU	3.8

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Mol	Chain	Res	Type	RSRZ
43	BS	36	VAL	3.8
25	BA	88	ARG	3.8
40	BP	94	LYS	3.8
14	AL	109	GLY	3.8
27	BC	9	GLN	3.8
18	AP	49	LEU	3.8
12	AJ	94	VAL	3.8
15	AM	90	LEU	3.8
19	AQ	50	LYS	3.8
36	BL	28	LEU	3.8
27	BC	118	VAL	3.8
27	BC	110	SER	3.8
19	AQ	48	GLU	3.8
42	BR	24	VAL	3.7
36	BL	25	ALA	3.7
27	BC	18	PRO	3.7
6	AD	171	GLY	3.7
34	BJ	77	LEU	3.7
4	AB	35	GLU	3.7
35	BK	40	PRO	3.7
27	BC	12	GLY	3.7
20	AR	78	LEU	3.7
42	BR	40	ASP	3.7
22	AT	51	GLU	3.7
42	BR	79	ILE	3.7
33	BI	86	GLY	3.7
43	BS	96	LYS	3.7
4	AB	117	GLU	3.7
26	BB	22	PRO	3.7
55	B5	165	VAL	3.7
27	BC	109	ALA	3.7
12	AJ	90	LEU	3.7
25	BA	161	THR	3.7
32	BH	132	PHE	3.7
34	BJ	58	ALA	3.7
49	BY	58	LYS	3.7
36	BL	65	LEU	3.7
6	AD	173	TRP	3.7
26	BB	46	ALA	3.7
42	BR	39	LYS	3.7
18	AP	46	PRO	3.7
19	AQ	72	ARG	3.7

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Mol	Chain	Res	Type	RSRZ
53	B3	54	GLU	3.7
8	AF	65	VAL	3.7
6	AD	116	GLN	3.7
11	AI	3	GLN	3.7
8	AF	62	TRP	3.7
41	BQ	66	GLU	3.7
9	AG	80	VAL	3.7
32	BH	118	ALA	3.7
33	BI	21	CYS	3.7
11	AI	31	GLN	3.7
32	BH	64	GLY	3.7
5	AC	84	ILE	3.7
19	AQ	77	VAL	3.7
22	AT	52	ALA	3.7
47	BW	57	LYS	3.7
36	BL	45	ARG	3.7
22	AT	36	LEU	3.7
41	BQ	60	ILE	3.7
4	AB	224	GLN	3.7
16	AN	53	LEU	3.7
9	AG	45	ASP	3.7
22	AT	58	LYS	3.7
4	AB	190	THR	3.7
27	BC	125	ILE	3.7
32	BH	149	LYS	3.7
11	AI	51	ARG	3.7
18	AP	74	LEU	3.7
21	AS	24	ALA	3.7
36	BL	21	ALA	3.7
9	AG	149	ARG	3.7
33	BI	56	LYS	3.7
27	BC	6	VAL	3.7
25	BA	89	SER	3.7
25	BA	159	ALA	3.7
35	BK	46	ASN	3.7
27	BC	188	ILE	3.6
20	AR	42	ARG	3.6
50	BZ	26	THR	3.6
4	AB	10	LEU	3.6
28	BD	168	ALA	3.6
48	BX	47	VAL	3.6
18	AP	52	ASP	3.6

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Mol	Chain	Res	Type	RSRZ
5	AC	206	GLU	3.6
27	BC	191	ALA	3.6
23	B0	1181	C	3.6
25	BA	148	VAL	3.6
15	AM	36	LYS	3.6
28	BD	171	GLN	3.6
27	BC	116	LYS	3.6
40	BP	65	ARG	3.6
29	BE	144	VAL	3.6
32	BH	51	LEU	3.6
30	BF	12	GLY	3.6
47	BW	59	GLU	3.6
15	AM	46	LYS	3.6
22	AT	106	ALA	3.6
27	BC	186	LEU	3.6
39	BO	83	LEU	3.6
9	AG	36	LYS	3.6
41	BQ	46	ARG	3.6
40	BP	62	GLU	3.6
9	AG	153	HIS	3.6
41	BQ	104	LYS	3.6
25	BA	98	ALA	3.6
39	BO	97	ASP	3.6
41	BQ	41	VAL	3.6
47	BW	46	LEU	3.6
7	AE	5	ASP	3.6
13	AK	54	ARG	3.6
25	BA	217	ARG	3.6
28	BD	26	MET	3.6
47	BW	38	ALA	3.6
4	AB	114	ARG	3.6
18	AP	83	GLU	3.6
29	BE	145	ALA	3.6
30	BF	27	ASN	3.6
32	BH	36	ASN	3.6
15	AM	9	ILE	3.6
14	AL	59	ARG	3.6
29	BE	156	ALA	3.6
27	BC	20	PRO	3.6
36	BL	43	GLU	3.6
38	BN	31	ASP	3.6
36	BL	73	LYS	3.6

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Mol	Chain	Res	Type	RSRZ
40	BP	64	GLY	3.6
54	B4	35	ARG	3.6
40	BP	95	ILE	3.6
33	BI	52	VAL	3.6
9	AG	54	THR	3.6
38	BN	50	PHE	3.6
25	BA	62	TYR	3.6
32	BH	78	ASP	3.6
43	BS	35	LYS	3.6
25	BA	17	THR	3.6
27	BC	111	ARG	3.6
20	AR	37	VAL	3.6
43	BS	112	LYS	3.6
13	AK	39	PRO	3.5
22	AT	57	ARG	3.5
26	BB	76	ARG	3.5
47	BW	18	ILE	3.5
40	BP	59	GLU	3.5
28	BD	82	GLY	3.5
19	AQ	75	ARG	3.5
25	BA	179	SER	3.5
15	AM	93	ARG	3.5
26	BB	104	ALA	3.5
43	BS	86	PRO	3.5
9	AG	8	GLU	3.5
27	BC	155	GLU	3.5
29	BE	58	ALA	3.5
32	BH	96	ASP	3.5
4	AB	53	ARG	3.5
9	AG	39	ALA	3.5
25	BA	27	LYS	3.5
6	AD	172	PRO	3.5
42	BR	28	TRP	3.5
39	BO	96	ALA	3.5
14	AL	36	VAL	3.5
8	AF	39	LYS	3.5
13	AK	128	ALA	3.5
11	AI	59	PHE	3.5
25	BA	136	VAL	3.5
36	BL	51	LEU	3.5
43	BS	97	GLN	3.5
31	BG	26	ALA	3.5

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Mol	Chain	Res	Type	RSRZ
34	BJ	102	LYS	3.5
15	AM	38	GLY	3.5
19	AQ	49	GLU	3.5
41	BQ	128	VAL	3.5
44	BT	135	VAL	3.5
9	AG	119	ARG	3.5
18	AP	38	TYR	3.5
29	BE	7	GLN	3.5
4	AB	197	VAL	3.5
45	BU	26	PHE	3.5
18	AP	58	TYR	3.5
26	BB	7	THR	3.5
20	AR	57	GLY	3.5
32	BH	131	VAL	3.5
20	AR	43	PHE	3.5
26	BB	185	LYS	3.5
32	BH	31	THR	3.5
8	AF	28	ARG	3.5
47	BW	3	PRO	3.5
26	BB	42	ASP	3.5
8	AF	31	GLU	3.5
32	BH	54	LEU	3.5
34	BJ	57	ILE	3.5
8	AF	10	LEU	3.5
55	B5	26	PHE	3.5
15	AM	7	VAL	3.5
25	BA	216	GLY	3.4
49	BY	4	ASP	3.4
20	AR	35	ARG	3.4
42	BR	86	GLN	3.4
38	BN	101	ARG	3.4
53	B3	26	LYS	3.4
31	BG	28	GLY	3.4
14	AL	58	VAL	3.4
53	B3	12	ARG	3.4
13	AK	80	VAL	3.4
4	AB	9	GLU	3.4
42	BR	21	GLU	3.4
29	BE	173	ALA	3.4
15	AM	78	ILE	3.4
27	BC	194	GLU	3.4
32	BH	113	GLU	3.4

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Mol	Chain	Res	Type	RSRZ
12	AJ	19	SER	3.4
13	AK	70	LYS	3.4
33	BI	2	ILE	3.4
36	BL	55	ALA	3.4
29	BE	83	TYR	3.4
28	BD	133	LYS	3.4
42	BR	8	GLN	3.4
47	BW	19	ASP	3.4
53	B3	20	GLY	3.4
4	AB	108	ILE	3.4
20	AR	58	LEU	3.4
32	BH	128	GLU	3.4
40	BP	42	GLY	3.4
26	BB	77	ILE	3.4
53	B3	44	LYS	3.4
27	BC	108	ILE	3.4
38	BN	6	LYS	3.4
44	BT	67	LYS	3.4
55	B5	70	SER	3.4
22	AT	101	GLY	3.4
38	BN	52	GLY	3.4
35	BK	77	LYS	3.4
12	AJ	77	PRO	3.4
14	AL	82	VAL	3.4
26	BB	44	TYR	3.4
40	BP	41	GLY	3.4
45	BU	70	ILE	3.4
55	B5	120	ALA	3.4
14	AL	83	VAL	3.4
42	BR	22	ARG	3.4
13	AK	49	GLY	3.4
14	AL	35	GLY	3.4
13	AK	105	VAL	3.4
42	BR	12	ILE	3.4
21	AS	77	THR	3.4
55	B5	148	ILE	3.4
28	BD	148	LYS	3.4
27	BC	142	LEU	3.4
15	AM	25	ILE	3.4
32	BH	76	GLN	3.4
49	BY	44	THR	3.4
39	BO	68	GLY	3.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
6	AD	156	GLU	3.4
25	BA	96	HIS	3.4
26	BB	24	THR	3.4
47	BW	4	SER	3.4
45	BU	41	ARG	3.3
50	BZ	51	TYR	3.3
27	BC	11	GLY	3.3
32	BH	77	GLY	3.3
28	BD	149	THR	3.3
55	B5	115	GLU	3.3
4	AB	14	GLY	3.3
27	BC	141	GLY	3.3
38	BN	67	THR	3.3
13	AK	41	THR	3.3
33	BI	44	TYR	3.3
36	BL	22	ARG	3.3
42	BR	41	ALA	3.3
41	BQ	40	LEU	3.3
4	AB	75	LYS	3.3
13	AK	111	ASP	3.3
53	B3	13	ARG	3.3
28	BD	43	SER	3.3
15	AM	122	LYS	3.3
20	AR	39	VAL	3.3
1	AA	702	A	3.3
25	BA	205	VAL	3.3
43	BS	114	ILE	3.3
54	B4	33	LYS	3.3
20	AR	24	ALA	3.3
5	AC	203	PHE	3.3
51	B1	21	TYR	3.3
51	B1	3	LYS	3.3
36	BL	47	PHE	3.3
22	AT	54	LYS	3.3
27	BC	14	THR	3.3
27	BC	144	GLY	3.3
37	BM	11	LEU	3.3
4	AB	105	PHE	3.3
18	AP	51	VAL	3.3
35	BK	66	TYR	3.3
18	AP	36	ILE	3.3
40	BP	3	ALA	3.3

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Mol	Chain	Res	Type	RSRZ
45	BU	28	GLY	3.3
20	AR	30	ASP	3.3
39	BO	74	MET	3.3
22	AT	50	GLU	3.3
32	BH	159	SER	3.3
5	AC	207	VAL	3.3
25	BA	245	VAL	3.3
8	AF	32	ASN	3.3
31	BG	63	ARG	3.3
51	B1	27	ASN	3.3
40	BP	19	VAL	3.3
44	BT	18	MET	3.3
53	B3	58	MET	3.3
26	BB	43	GLY	3.3
12	AJ	71	LEU	3.3
37	BM	34	SER	3.3
41	BQ	129	ALA	3.3
4	AB	28	PHE	3.3
25	BA	207	GLY	3.3
12	AJ	33	GLN	3.3
54	B4	32	HIS	3.3
9	AG	121	ALA	3.2
53	B3	23	MET	3.2
53	B3	59	LYS	3.2
27	BC	139	GLN	3.2
40	BP	6	GLN	3.2
13	AK	57	THR	3.2
51	B1	43	VAL	3.2
4	AB	160	ASP	3.2
18	AP	47	ASP	3.2
32	BH	122	HIS	3.2
40	BP	96	LEU	3.2
4	AB	167	PRO	3.2
13	AK	110	ASP	3.2
30	BF	6	LEU	3.2
27	BC	4	ILE	3.2
38	BN	116	ARG	3.2
44	BT	111	GLY	3.2
50	BZ	28	PRO	3.2
41	BQ	49	SER	3.2
28	BD	83	MET	3.2
21	AS	13	ASP	3.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
33	BI	31	GLY	3.2
16	AN	56	VAL	3.2
44	BT	170	SER	3.2
32	BH	144	MET	3.2
13	AK	76	GLY	3.2
42	BR	3	HIS	3.2
28	BD	9	ASN	3.2
15	AM	63	THR	3.2
45	BU	67	VAL	3.2
20	AR	31	LEU	3.2
26	BB	78	LEU	3.2
27	BC	117	LEU	3.2
32	BH	125	ARG	3.2
42	BR	9	ALA	3.2
26	BB	80	GLU	3.2
4	AB	234	PRO	3.2
25	BA	137	PRO	3.2
13	AK	73	MET	3.2
41	BQ	84	GLU	3.2
13	AK	18	ARG	3.2
15	AM	79	LYS	3.2
26	BB	74	PRO	3.2
4	AB	50	GLU	3.2
4	AB	181	PHE	3.2
32	BH	66	HIS	3.2
32	BH	33	ILE	3.2
32	BH	117	GLU	3.2
27	BC	192	ALA	3.2
47	BW	25	LEU	3.2
54	B4	34	GLN	3.2
4	AB	54	THR	3.2
26	BB	6	GLY	3.2
41	BQ	92	VAL	3.2
50	BZ	46	CYS	3.2
38	BN	58	ASN	3.2
39	BO	99	ALA	3.2
36	BL	102	THR	3.1
11	AI	61	ALA	3.1
11	AI	19	LEU	3.1
32	BH	120	SER	3.1
40	BP	67	LYS	3.1
53	B3	53	ALA	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
6	AD	112	VAL	3.1
8	AF	61	LEU	3.1
40	BP	50	ASP	3.1
13	AK	56	GLY	3.1
9	AG	20	ASP	3.1
53	B3	11	LYS	3.1
9	AG	117	ALA	3.1
25	BA	178	PRO	3.1
35	BK	124	HIS	3.1
53	B3	24	ALA	3.1
6	AD	111	ALA	3.1
25	BA	157	ARG	3.1
47	BW	24	GLU	3.1
15	AM	27	LYS	3.1
22	AT	56	MET	3.1
22	AT	84	LEU	3.1
36	BL	56	LYS	3.1
4	AB	111	ARG	3.1
9	AG	116	ALA	3.1
32	BH	37	ASP	3.1
48	BX	41	ARG	3.1
35	BK	88	LYS	3.1
40	BP	51	ALA	3.1
23	B0	1182	U	3.1
55	B5	128	LEU	3.1
55	B5	130	PRO	3.1
12	AJ	20	ALA	3.1
29	BE	177	GLY	3.1
40	BP	20	ILE	3.1
54	B4	30	VAL	3.1
25	BA	263	ARG	3.1
4	AB	200	ILE	3.1
27	BC	7	ILE	3.1
40	BP	12	TYR	3.1
28	BD	163	ASP	3.1
31	BG	56	GLU	3.1
18	AP	50	LYS	3.1
36	BL	58	GLY	3.1
28	BD	81	GLN	3.1
32	BH	84	ASN	3.1
36	BL	48	VAL	3.1
55	B5	29	SER	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
4	AB	236	TYR	3.1
26	BB	48	GLN	3.1
13	AK	52	GLY	3.1
15	AM	6	GLY	3.1
29	BE	172	LYS	3.1
23	B0	1183	C	3.1
32	BH	124	GLU	3.0
50	BZ	27	ALA	3.0
13	AK	77	MET	3.0
22	AT	86	ARG	3.0
25	BA	262	LYS	3.0
6	AD	187	ARG	3.0
12	AJ	7	LYS	3.0
36	BL	74	ASP	3.0
40	BP	99	GLN	3.0
22	AT	40	ALA	3.0
28	BD	91	LEU	3.0
15	AM	12	ASN	3.0
38	BN	118	LYS	3.0
51	B1	4	ASP	3.0
28	BD	89	VAL	3.0
34	BJ	78	SER	3.0
11	AI	50	LEU	3.0
36	BL	66	VAL	3.0
45	BU	52	GLY	3.0
18	AP	54	GLU	3.0
38	BN	108	ARG	3.0
25	BA	171	ASP	3.0
39	BO	69	ALA	3.0
28	BD	68	THR	3.0
15	AM	40	ASN	3.0
14	AL	60	LEU	3.0
53	B3	9	MET	3.0
27	BC	3	GLN	3.0
13	AK	19	ALA	3.0
26	BB	8	LYS	3.0
9	AG	26	PHE	3.0
9	AG	125	MET	3.0
36	BL	101	GLY	3.0
37	BM	65	THR	3.0
26	BB	171	GLU	3.0
22	AT	87	LYS	3.0

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Mol	Chain	Res	Type	RSRZ
18	AP	55	ARG	3.0
9	AG	150	ALA	3.0
11	AI	78	LYS	3.0
15	AM	49	THR	3.0
27	BC	16	GLU	3.0
31	BG	64	SER	3.0
39	BO	65	ILE	3.0
31	BG	31	GLY	3.0
11	AI	18	PHE	3.0
18	AP	60	LEU	3.0
27	BC	195	ILE	3.0
55	B5	33	ILE	3.0
40	BP	100	GLY	3.0
19	AQ	73	VAL	3.0
22	AT	85	MET	3.0
26	BB	53	PRO	3.0
36	BL	113	ILE	3.0
11	AI	65	VAL	3.0
36	BL	76	VAL	3.0
40	BP	43	GLU	3.0
28	BD	169	LEU	3.0
35	BK	119	PHE	3.0
40	BP	5	ILE	3.0
38	BN	48	GLN	3.0
38	BN	64	LYS	2.9
28	BD	165	GLU	2.9
40	BP	37	ALA	2.9
32	BH	38	GLU	2.9
36	BL	77	ARG	2.9
8	AF	35	ALA	2.9
41	BQ	42	VAL	2.9
32	BH	45	ASP	2.9
9	AG	30	ILE	2.9
26	BB	50	GLY	2.9
38	BN	5	ILE	2.9
45	BU	68	VAL	2.9
53	B3	49	VAL	2.9
40	BP	61	VAL	2.9
13	AK	22	HIS	2.9
34	BJ	72	TYR	2.9
32	BH	123	PRO	2.9
42	BR	25	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
42	BR	23	GLY	2.9
55	B5	63	ARG	2.9
45	BU	36	ILE	2.9
25	BA	160	GLY	2.9
26	BB	19	ARG	2.9
32	BH	164	GLN	2.9
47	BW	22	LYS	2.9
13	AK	96	ARG	2.9
39	BO	113	SER	2.9
53	B3	21	LYS	2.9
25	BA	201	HIS	2.9
39	BO	100	ALA	2.9
40	BP	48	GLY	2.9
40	BP	4	ILE	2.9
53	B3	50	LEU	2.9
4	AB	141	GLU	2.9
28	BD	134	GLU	2.9
40	BP	14	VAL	2.9
22	AT	42	GLN	2.9
15	AM	31	LYS	2.9
4	AB	143	GLU	2.9
32	BH	99	VAL	2.9
44	BT	66	VAL	2.9
12	AJ	5	ARG	2.9
27	BC	13	ARG	2.9
28	BD	162	THR	2.9
34	BJ	97	ARG	2.9
43	BS	70	GLU	2.9
47	BW	15	ALA	2.9
19	AQ	47	PRO	2.9
35	BK	78	LYS	2.9
25	BA	206	LEU	2.9
27	BC	2	ALA	2.9
32	BH	85	ALA	2.9
34	BJ	124	ALA	2.9
42	BR	18	SER	2.9
54	B4	11	CYS	2.9
39	BO	84	LYS	2.8
40	BP	57	GLN	2.8
25	BA	203	ASN	2.8
8	AF	98	LEU	2.8
26	BB	55	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
41	BQ	47	GLY	2.8
47	BW	21	ARG	2.8
22	AT	44	ALA	2.8
29	BE	106	ASN	2.8
32	BH	40	ASN	2.8
13	AK	24	SER	2.8
40	BP	54	TYR	2.8
25	BA	158	SER	2.8
33	BI	20	MET	2.8
4	AB	237	ALA	2.8
13	AK	109	VAL	2.8
22	AT	49	ALA	2.8
26	BB	52	ALA	2.8
33	BI	94	ASN	2.8
45	BU	63	SER	2.8
6	AD	125	HIS	2.8
13	AK	20	TYR	2.8
34	BJ	71	THR	2.8
38	BN	84	ALA	2.8
41	BQ	91	PHE	2.8
15	AM	8	GLU	2.8
21	AS	9	VAL	2.8
22	AT	55	ILE	2.8
47	BW	32	ALA	2.8
13	AK	32	ILE	2.8
35	BK	15	ARG	2.8
32	BH	158	HIS	2.8
28	BD	154	ILE	2.8
32	BH	69	ASP	2.8
33	BI	25	LEU	2.8
44	BT	33	ALA	2.8
32	BH	62	ILE	2.8
37	BM	47	ARG	2.8
9	AG	124	LEU	2.8
45	BU	34	GLY	2.8
53	B3	64	ARG	2.8
36	BL	112	LEU	2.8
53	B3	55	TRP	2.8
29	BE	135	GLY	2.8
29	BE	130	ARG	2.8
36	BL	70	ILE	2.8
53	B3	48	PHE	2.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
44	BT	168	VAL	2.8
50	BZ	25	LEU	2.8
55	B5	111	LEU	2.8
28	BD	84	PRO	2.8
41	BQ	90	LEU	2.8
28	BD	44	LYS	2.8
38	BN	66	PHE	2.8
13	AK	28	THR	2.8
26	BB	184	VAL	2.8
12	AJ	76	ASN	2.8
38	BN	69	ARG	2.8
27	BC	22	VAL	2.8
36	BL	44	LEU	2.8
39	BO	89	ASP	2.8
27	BC	196	VAL	2.8
39	BO	95	LEU	2.8
39	BO	105	ALA	2.8
15	AM	29	ARG	2.8
42	BR	29	VAL	2.8
25	BA	132	PRO	2.8
36	BL	84	ALA	2.8
47	BW	6	MET	2.8
4	AB	189	ASP	2.8
42	BR	27	PHE	2.8
9	AG	62	PHE	2.7
11	AI	81	ILE	2.7
47	BW	17	GLU	2.7
42	BR	19	ALA	2.7
42	BR	50	VAL	2.7
4	AB	40	HIS	2.7
21	AS	42	PRO	2.7
40	BP	58	ALA	2.7
32	BH	116	ARG	2.7
36	BL	32	GLY	2.7
40	BP	39	PHE	2.7
50	BZ	49	CYS	2.7
4	AB	230	VAL	2.7
40	BP	1	MET	2.7
40	BP	60	VAL	2.7
36	BL	57	GLY	2.7
32	BH	41	TRP	2.7
32	BH	148	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
32	BH	34	PRO	2.7
32	BH	150	VAL	2.7
33	BI	77	THR	2.7
29	BE	111	HIS	2.7
50	BZ	39	LYS	2.7
22	AT	53	LEU	2.7
27	BC	197	GLU	2.7
32	BH	157	PRO	2.7
45	BU	53	MET	2.7
32	BH	100	TYR	2.7
26	BB	40	GLN	2.7
32	BH	152	ALA	2.7
47	BW	26	MET	2.7
6	AD	154	ASN	2.7
13	AK	99	GLN	2.7
32	BH	46	ALA	2.7
32	BH	61	ARG	2.7
40	BP	40	VAL	2.7
4	AB	31	TYR	2.7
21	AS	76	PRO	2.7
38	BN	117	ILE	2.7
22	AT	39	LYS	2.7
4	AB	76	GLN	2.7
27	BC	193	LEU	2.7
50	BZ	45	ILE	2.7
51	B1	25	THR	2.7
4	AB	186	ALA	2.7
33	BI	45	ALA	2.7
12	AJ	78	ASN	2.7
26	BB	81	PHE	2.7
38	BN	30	GLY	2.7
38	BN	82	PRO	2.7
4	AB	118	LEU	2.7
26	BB	196	VAL	2.7
53	B3	25	PHE	2.7
26	BB	195	LEU	2.7
31	BG	62	ASP	2.7
32	BH	65	LYS	2.7
26	BB	33	ILE	2.7
36	BL	52	ILE	2.7
22	AT	100	ILE	2.6
6	AD	101	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
26	BB	51	TYR	2.6
39	BO	102	GLU	2.6
38	BN	85	SER	2.6
39	BO	90	LEU	2.6
40	BP	13	ARG	2.6
40	BP	55	THR	2.6
45	BU	69	PHE	2.6
55	B5	119	LEU	2.6
55	B5	160	LYS	2.6
18	AP	45	THR	2.6
31	BG	70	LYS	2.6
40	BP	98	ILE	2.6
30	BF	22	ASP	2.6
40	BP	32	LYS	2.6
47	BW	63	LYS	2.6
53	B3	56	ALA	2.6
4	AB	102	LEU	2.6
13	AK	72	ALA	2.6
11	AI	64	THR	2.6
42	BR	17	TYR	2.6
32	BH	39	GLN	2.6
40	BP	34	GLU	2.6
29	BE	61	HIS	2.6
29	BE	176	ALA	2.6
12	AJ	91	PRO	2.6
51	B1	20	PHE	2.6
53	B3	15	LYS	2.6
15	AM	55	ARG	2.6
27	BC	113	GLU	2.6
32	BH	68	PRO	2.6
49	BY	54	GLY	2.6
11	AI	42	ARG	2.6
8	AF	29	ALA	2.6
32	BH	47	SER	2.6
43	BS	98	ILE	2.6
22	AT	104	LEU	2.6
34	BJ	105	PRO	2.6
55	B5	67	VAL	2.6
42	BR	10	PRO	2.6
43	BS	64	ASN	2.6
33	BI	58	ALA	2.6
44	BT	108	VAL	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
4	AB	166	ASP	2.6
44	BT	41	ARG	2.6
27	BC	123	PHE	2.6
31	BG	123	ALA	2.6
39	BO	98	ILE	2.6
40	BP	49	GLU	2.6
35	BK	13	GLN	2.6
26	BB	54	LYS	2.6
32	BH	48	GLY	2.6
32	BH	80	VAL	2.6
42	BR	38	ILE	2.6
32	BH	151	TYR	2.6
34	BJ	95	ALA	2.6
22	AT	43	LEU	2.6
4	AB	34	ALA	2.6
34	BJ	106	VAL	2.5
41	BQ	55	ASP	2.6
13	AK	71	LYS	2.5
28	BD	128	TYR	2.5
4	AB	13	ALA	2.5
26	BB	197	VAL	2.5
28	BD	167	ARG	2.5
38	BN	14	ARG	2.5
34	BJ	8	PRO	2.5
13	AK	69	ALA	2.5
38	BN	120	ASP	2.5
13	AK	40	ILE	2.5
37	BM	4	ALA	2.5
4	AB	46	LYS	2.5
8	AF	63	TYR	2.5
9	AG	38	LEU	2.5
12	AJ	25	GLU	2.5
23	B0	1190	C	2.5
54	B4	29	ASN	2.5
26	BB	30	PRO	2.5
32	BH	171	LEU	2.5
12	AJ	89	ASP	2.5
15	AM	18	ALA	2.5
27	BC	15	ILE	2.5
19	AQ	74	LEU	2.5
21	AS	59	PRO	2.5
22	AT	98	PRO	2.5

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Mol	Chain	Res	Type	RSRZ
54	B4	24	LEU	2.5
37	BM	87	VAL	2.5
29	BE	158	HIS	2.5
34	BJ	129	ALA	2.5
9	AG	5	ARG	2.5
32	BH	70	PHE	2.5
38	BN	100	ARG	2.5
45	BU	51	VAL	2.5
47	BW	28	LEU	2.5
53	B3	60	LEU	2.5
32	BH	82	VAL	2.5
32	BH	81	VAL	2.5
31	BG	127	VAL	2.5
36	BL	75	VAL	2.5
21	AS	64	GLU	2.5
33	BI	49	ASP	2.5
33	BI	61	ARG	2.5
28	BD	156	ILE	2.5
41	BQ	44	VAL	2.5
42	BR	6	ILE	2.5
33	BI	90	ARG	2.5
53	B3	57	ARG	2.5
9	AG	114	ARG	2.5
26	BB	92	ASN	2.5
47	BW	30	PHE	2.5
41	BQ	48	LYS	2.5
37	BM	94	TYR	2.5
32	BH	126	VAL	2.5
6	AD	160	GLN	2.5
32	BH	79	PHE	2.5
51	B1	47	HIS	2.5
9	AG	41	ARG	2.5
15	AM	32	GLU	2.4
15	AM	82	MET	2.5
6	AD	120	LEU	2.4
26	BB	49	ILE	2.4
32	BH	127	ILE	2.4
9	AG	151	TYR	2.4
32	BH	90	LEU	2.4
41	BQ	53	ALA	2.4
40	BP	33	VAL	2.4
29	BE	73	ALA	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
38	BN	15	GLY	2.4
35	BK	14	PHE	2.4
35	BK	51	CYS	2.4
38	BN	32	THR	2.4
45	BU	50	GLY	2.4
54	B4	26	ILE	2.4
13	AK	129	SER	2.4
36	BL	87	TYR	2.4
26	BB	25	VAL	2.4
26	BB	180	ASN	2.4
27	BC	17	LEU	2.4
47	BW	35	GLY	2.4
35	BK	122	ALA	2.4
4	AB	89	GLY	2.4
9	AG	120	ILE	2.4
4	AB	59	GLU	2.4
41	BQ	133	ASN	2.4
47	BW	20	ALA	2.4
45	BU	27	GLY	2.4
50	BZ	36	CYS	2.4
22	AT	46	GLU	2.4
29	BE	178	ALA	2.4
41	BQ	45	ILE	2.4
47	BW	62	ARG	2.4
51	B1	29	ARG	2.4
26	BB	73	ALA	2.4
6	AD	109	GLY	2.4
48	BX	25	LEU	2.4
32	BH	58	ILE	2.4
53	B3	22	VAL	2.4
36	BL	80	MET	2.4
40	BP	52	GLY	2.4
23	B0	1189	G	2.4
33	BI	89	ILE	2.4
38	BN	70	LYS	2.4
13	AK	55	LYS	2.4
38	BN	7	ILE	2.4
20	AR	21	LYS	2.4
13	AK	92	GLU	2.4
32	BH	83	ILE	2.4
53	B3	16	ILE	2.4
32	BH	95	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
28	BD	150	ARG	2.4
33	BI	131	PRO	2.4
11	AI	38	GLN	2.3
25	BA	183	ARG	2.3
42	BR	4	TYR	2.3
42	BR	44	GLN	2.3
38	BN	12	LEU	2.3
26	BB	70	ALA	2.3
32	BH	121	LYS	2.3
47	BW	27	GLU	2.3
19	AQ	76	LEU	2.3
32	BH	49	VAL	2.3
13	AK	93	GLN	2.3
22	AT	95	ALA	2.3
22	AT	88	VAL	2.3
22	AT	45	GLN	2.3
4	AB	101	MET	2.3
54	B4	15	LYS	2.3
6	AD	161	ASN	2.3
6	AD	157	LEU	2.3
13	AK	44	SER	2.3
18	AP	56	ALA	2.3
37	BM	53	ALA	2.3
25	BA	25	THR	2.3
35	BK	96	SER	2.3
4	AB	32	ILE	2.3
36	BL	115	LEU	2.3
9	AG	51	GLN	2.3
15	AM	61	GLU	2.3
33	BI	92	ASP	2.3
27	BC	114	GLY	2.3
45	BU	61	ALA	2.3
13	AK	83	ILE	2.3
40	BP	44	GLN	2.3
25	BA	31	LYS	2.3
38	BN	56	ALA	2.3
51	B1	42	PRO	2.3
13	AK	58	PRO	2.3
26	BB	3	GLY	2.3
32	BH	89	ALA	2.3
29	BE	86	ASN	2.3
40	BP	35	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
55	B5	62	LYS	2.3
55	B5	59	SER	2.3
26	BB	199	ARG	2.3
32	BH	119	LEU	2.3
37	BM	56	SER	2.3
37	BM	45	ASP	2.3
44	BT	117	VAL	2.3
54	B4	27	CYS	2.3
9	AG	154	TYR	2.3
23	B0	1186	G	2.3
29	BE	93	GLY	2.3
40	BP	36	LYS	2.3
45	BU	44	LYS	2.3
15	AM	52	GLU	2.3
54	B4	10	MET	2.3
13	AK	29	ILE	2.3
37	BM	16	LYS	2.3
53	B3	14	ILE	2.3
4	AB	169	LYS	2.3
9	AG	42	ILE	2.3
32	BH	153	GLY	2.3
54	B4	25	VAL	2.3
13	AK	43	SER	2.2
22	AT	89	ARG	2.2
38	BN	13	LEU	2.2
9	AG	40	ALA	2.2
26	BB	4	ILE	2.2
33	BI	68	ASP	2.2
44	BT	99	HIS	2.2
44	BT	107	GLU	2.2
22	AT	48	LYS	2.2
8	AF	14	LEU	2.2
32	BH	43	VAL	2.2
40	BP	2	PHE	2.2
44	BT	32	PHE	2.2
45	BU	55	ARG	2.2
28	BD	80	ARG	2.2
38	BN	83	PHE	2.2
33	BI	81	ILE	2.2
34	BJ	94	GLU	2.2
36	BL	114	GLU	2.2
25	BA	215	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
32	BH	42	VAL	2.2
45	BU	54	GLY	2.2
49	BY	9	ALA	2.2
28	BD	87	ILE	2.2
30	BF	28	TRP	2.2
13	AK	75	TYR	2.2
49	BY	71	SER	2.2
4	AB	60	ASP	2.2
38	BN	119	SER	2.2
13	AK	42	TRP	2.2
34	BJ	4	HIS	2.2
12	AJ	22	LYS	2.2
13	AK	62	GLN	2.2
48	BX	35	SER	2.2
35	BK	79	PRO	2.2
36	BL	89	GLU	2.2
39	BO	101	ARG	2.2
55	B5	1	MET	2.2
21	AS	17	GLU	2.2
26	BB	102	ILE	2.2
13	AK	30	VAL	2.2
25	BA	101	GLU	2.2
32	BH	86	ALA	2.2
19	AQ	51	TYR	2.2
26	BB	13	GLN	2.2
33	BI	69	VAL	2.2
41	BQ	50	VAL	2.2
6	AD	169	LYS	2.2
25	BA	260	ARG	2.2
26	BB	198	LEU	2.2
27	BC	59	TYR	2.2
55	B5	133	LYS	2.2
11	AI	62	TYR	2.2
12	AJ	72	VAL	2.2
28	BD	13	ARG	2.2
36	BL	79	VAL	2.2
48	BX	23	LEU	2.2
15	AM	5	ALA	2.1
25	BA	76	ASN	2.1
55	B5	27	THR	2.1
4	AB	161	ALA	2.1
26	BB	32	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
32	BH	154	GLU	2.1
38	BN	115	ALA	2.1
6	AD	104	VAL	2.1
25	BA	63	ARG	2.1
4	AB	20	GLU	2.1
30	BF	11	LEU	2.1
41	BQ	52	ASP	2.1
55	B5	86	THR	2.1
42	BR	43	GLN	2.1
13	AK	60	ALA	2.1
50	BZ	50	GLY	2.1
47	BW	23	LYS	2.1
13	AK	112	THR	2.1
47	BW	13	ASP	2.1
13	AK	89	ALA	2.1
39	BO	70	ARG	2.1
6	AD	170	VAL	2.1
21	AS	28	LYS	2.1
22	AT	90	GLN	2.1
54	B4	14	CYS	2.1
25	BA	90	ALA	2.1
55	B5	134	PHE	2.1
22	AT	41	VAL	2.1
26	BB	26	VAL	2.1
32	BH	44	VAL	2.1
54	B4	13	ASN	2.1
9	AG	46	ALA	2.1
13	AK	59	TYR	2.1
26	BB	5	LEU	2.1
26	BB	182	ILE	2.1
49	BY	20	VAL	2.1
4	AB	162	ILE	2.1
41	BQ	89	ARG	2.1
45	BU	72	LYS	2.1
47	BW	10	GLN	2.1
33	BI	53	ALA	2.1
38	BN	29	PRO	2.1
4	AB	185	ILE	2.1
47	BW	5	GLU	2.1
38	BN	57	ILE	2.1
13	AK	85	ARG	2.1
34	BJ	104	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
31	BG	69	THR	2.1
35	BK	98	VAL	2.1
48	BX	5	LEU	2.1
35	BK	58	HIS	2.1
4	AB	57	PHE	2.1
38	BN	17	GLU	2.1
4	AB	209	ARG	2.1
4	AB	154	LEU	2.1
33	BI	46	HIS	2.1
39	BO	103	PRO	2.1
39	BO	111	ASP	2.1
40	BP	56	VAL	2.1
13	AK	45	GLY	2.1
51	B1	40	TYR	2.1
39	BO	112	ALA	2.1
26	BB	31	CYS	2.0
38	BN	68	VAL	2.0
8	AF	37	VAL	2.0
13	AK	68	ALA	2.0
55	B5	168	PHE	2.0
15	AM	66	LEU	2.0
4	AB	43	ASP	2.0
54	B4	12	ASP	2.0
35	BK	116	LYS	2.0
55	B5	206	LYS	2.0
18	AP	77	ALA	2.0
35	BK	73	LYS	2.0
47	BW	64	GLY	2.0
47	BW	16	LYS	2.0
45	BU	57	HIS	2.0
35	BK	118	ALA	2.0
36	BL	88	ALA	2.0
38	BN	110	LEU	2.0
4	AB	112	VAL	2.0
55	B5	129	GLY	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.