



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 06:21 PM GMT

PDB ID : 4KZZ
Title : Rabbit 40S ribosomal subunit in complex with mRNA, initiator tRNA and eIF1A
Authors : Lomakin, I.B.; Steitz, T.A.
Deposited on : 2013-05-30
Resolution : 7.03 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix) : 1.9-1692
EDS : rb-20026688
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk26865

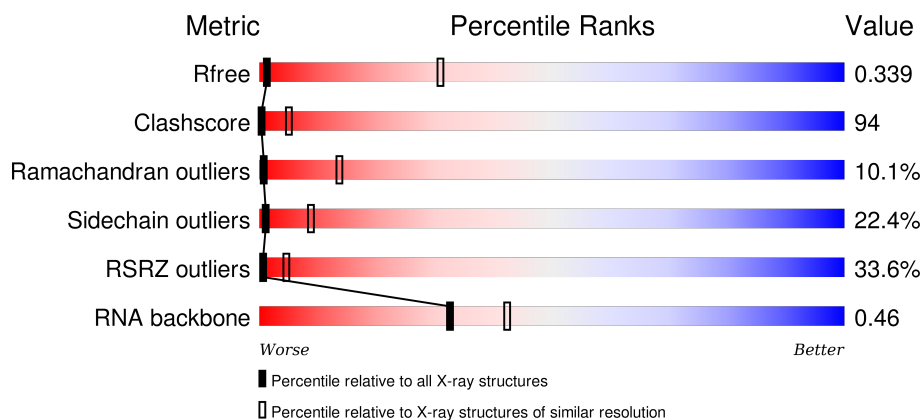
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 7.03 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	91344	1014 (9.50-3.66)
Clashscore	102246	1063 (10.00-3.70)
Ramachandran outliers	100387	1035 (9.50-3.66)
Sidechain outliers	100360	1005 (9.50-3.66)
RSRZ outliers	91569	1013 (9.50-3.66)
RNA backbone	2183	1105 (10.00-2.80)

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

Mol	Chain	Length	Quality of chain
1	A	295	<div> <div>15%</div> <div>9% 39% 19% • 29%</div> </div>
2	B	264	<div> <div>30%</div> <div>14% 45% 20% • 19%</div> </div>
3	C	278	<div> <div>40%</div> <div>14% 46% 18% • 19%</div> </div>
4	D	243	<div> <div>68%</div> <div>21% 45% 23% 5% 7%</div> </div>

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Mol	Chain	Length	Quality of chain
5	E	263	
6	F	204	
7	G	249	
8	H	194	
9	I	208	
10	J	194	
11	K	165	
12	L	158	
13	M	132	
14	N	151	
15	O	151	
16	P	145	
17	Q	146	
18	R	135	
19	S	152	
20	T	145	
21	U	119	
22	V	83	
23	W	130	
24	X	143	
25	Y	133	
26	Z	125	
27	a	115	
28	b	84	
29	c	69	

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Mol	Chain	Length	Quality of chain
30	d	56	<div><div></div><div>38%</div><div>66%</div><div>27%</div><div>5%</div></div>
31	e	133	<div><div></div><div>10%</div><div>18%</div><div>16%</div><div>10%</div><div>56%</div></div>
32	f	156	<div><div></div><div>19%</div><div>18%</div><div>8%</div><div>54%</div></div>
33	g	317	<div><div></div><div>13%</div><div>74%</div><div>20%</div></div>
34	i	1863	<div><div></div><div>30%</div><div>8%</div><div>64%</div><div>25%</div></div>
35	j	75	<div><div></div><div>32%</div><div>72%</div><div>27%</div></div>
36	k	24	<div><div></div><div>50%</div><div>42%</div><div>8%</div><div>46%</div></div>
37	n	144	<div><div></div><div>24%</div><div>44%</div><div>11%</div><div>43%</div></div>

2 Entry composition [i](#)

There are 37 unique types of molecules in this entry. The entry contains 79048 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 protein called 40S Ribosomal Protein SA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	208	Total	C	N	O	S	0	0	0
			1642	1045	289	300	8			

- Molecule 2 is a protein called 40S Ribosomal Protein S3A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	215	Total	C	N	O	S	0	0	0
			1741	1107	309	310	15			

- Molecule 3 is a protein called 40S Ribosomal Protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	226	Total	C	N	O	S	0	0	0
			1742	1127	300	306	9			

- Molecule 4 is a protein called 40S Ribosomal Protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	227	Total	C	N	O	S	0	0	0
			1764	1124	317	315	8			

- Molecule 5 is a protein called 40S Ribosomal Protein S4X.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	263	Total	C	N	O	S	0	0	0
			2083	1329	385	359	10			

- Molecule 6 is a protein called 40S Ribosomal Protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	191	Total	C	N	O	S	0	0	0
			1509	943	286	273	7			

- Molecule 7 is a protein called 40S Ribosomal Protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	237	Total	C	N	O	S	0	0	0
			1923	1200	387	329	7			

- Molecule 8 is a protein called 40S Ribosomal Protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	190	Total	C	N	O	S	0	0	0
			1530	975	281	273	1			

- Molecule 9 is a protein called 40S Ribosomal Protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	206	Total	C	N	O	S	0	0	0
			1679	1054	329	291	5			

- Molecule 10 is a protein called 40S Ribosomal Protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	182	Total	C	N	O	S	0	0	0
			1498	952	300	244	2			

- Molecule 11 is a protein called 40S Ribosomal Protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	98	Total	C	N	O	S	0	0	0
			827	539	148	134	6			

- Molecule 12 is a protein called 40S Ribosomal Protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	158	Total	C	N	O	S	0	0	0
			1296	827	241	221	7			

- Molecule 13 is a protein called 40S Ribosomal Protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	M	124	Total	C	N	O	S	0	0	0
			950	594	169	179	8			

- Molecule 14 is a protein called 40S Ribosomal Protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	N	150	Total	C	N	O	S	0	0	0
			1208	773	229	205	1			

- Molecule 15 is a protein called 40S Ribosomal Protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	O	136	Total	C	N	O	S	0	0	0
			1016	621	199	190	6			

- Molecule 16 is a protein called 40S Ribosomal Protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	P	127	Total	C	N	O	S	0	0	0
			1060	673	201	179	7			

- Molecule 17 is a protein called 40S Ribosomal Protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	Q	141	Total	C	N	O	S	0	0	0
			1124	715	212	194	3			

- Molecule 18 is a protein called 40S Ribosomal Protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	R	126	Total	C	N	O	S	0	0	0
			1019	639	188	187	5			

- Molecule 19 is a protein called 40S Ribosomal Protein S18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	S	137	Total	C	N	O	S	0	0	0
			1139	714	231	193	1			

- Molecule 20 is a protein called 40S Ribosomal Protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	T	141	Total	C	N	O	S	0	0	0
			1112	701	213	195	3			

- Molecule 21 is a protein called 40S Ribosomal Protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	U	104	Total	C	N	O	S	0	0	0
			822	514	156	148	4			

- Molecule 22 is a protein called 40S Ribosomal Protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	V	82	Total	C	N	O	S	0	0	0
			619	378	117	119	5			

- Molecule 23 is a protein called 40S Ribosomal Protein S15A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	W	129	Total	C	N	O	S	0	0	0
			1034	659	193	176	6			

- Molecule 24 is a protein called 40S Ribosomal Protein S23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	X	142	Total	C	N	O	S	0	0	0
			1106	698	220	184	4			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
X	1	MET	ALA	SEE REMARK 999	UNP G1SZ47

- Molecule 25 is a protein called 40S Ribosomal Protein S24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	Y	126	Total	C	N	O	S	0	0	0
			1021	645	198	173	5			

- Molecule 26 is a protein called 40S Ribosomal Protein S25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	Z	75	Total	C	N	O	S	0	0	0
			598	382	111	104	1			

- Molecule 27 is a protein called 40S Ribosomal Protein S26.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	a	107	Total	C	N	O	S	0	0	0
			844	527	173	138	6			

- Molecule 28 is a protein called 40S Ribosomal Protein S27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	b	84	Total	C	N	O	S	0	0	0
			659	413	122	116	8			

- Molecule 29 is a protein called 40S Ribosomal Protein S28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	c	64	Total	C	N	O	S	0	0	0
			506	308	102	94	2			

- Molecule 30 is a protein called 40S Ribosomal Protein S29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	d	53	Total	C	N	O	S	0	0	0
			445	278	90	72	5			

- Molecule 31 is a protein called 40S Ribosomal Protein S30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	e	59	Total	C	N	O	S	0	0	0
			473	293	104	75	1			

- Molecule 32 is a protein called 40S Ribosomal Protein S27A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	f	71	Total	C	N	O	S	0	0	0
			581	367	109	98	7			

- Molecule 33 is a protein called 40S Ribosomal Protein RACK1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	g	313	Total	C	N	O	S	0	0	0
			2436	1535	424	465	12			

- Molecule 34 is a RNA chain called 18S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	i	1797	Total	C	N	O	P	0	0	0
			37514	16712	6634	12372	1796			

- Molecule 35 is a RNA chain called initiator Met-RNA-i.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	j	75	Total	C	N	O	P	0	0	0
			1607	717	298	517	75			

- Molecule 36 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	k	13	Total	C	N	O	P	0	0	0
			273	123	47	90	13			

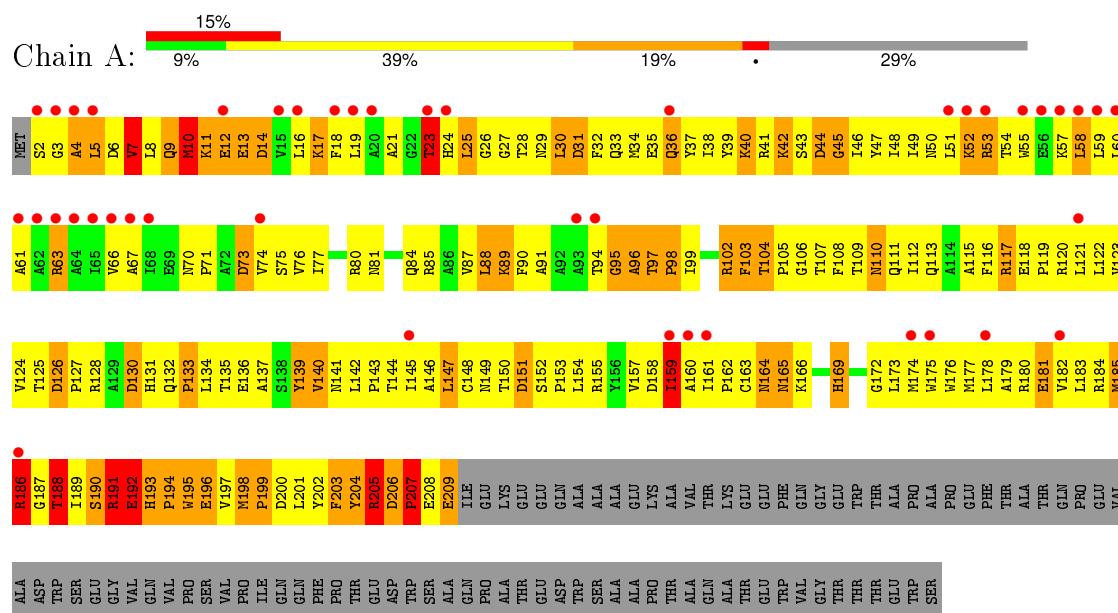
- Molecule 37 is a protein called human initiation factor eIF1A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	n	82	Total	C	N	O	S	0	0	0
			648	407	119	118	4			

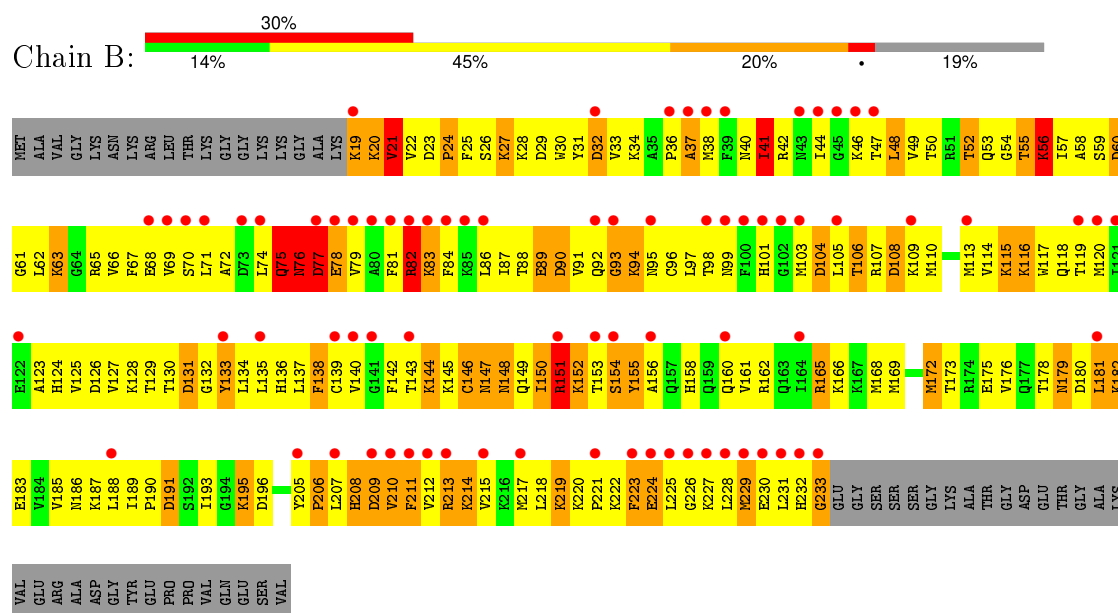
3 Residue-property plots

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 ($\text{RSRZ} > 2$). 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.

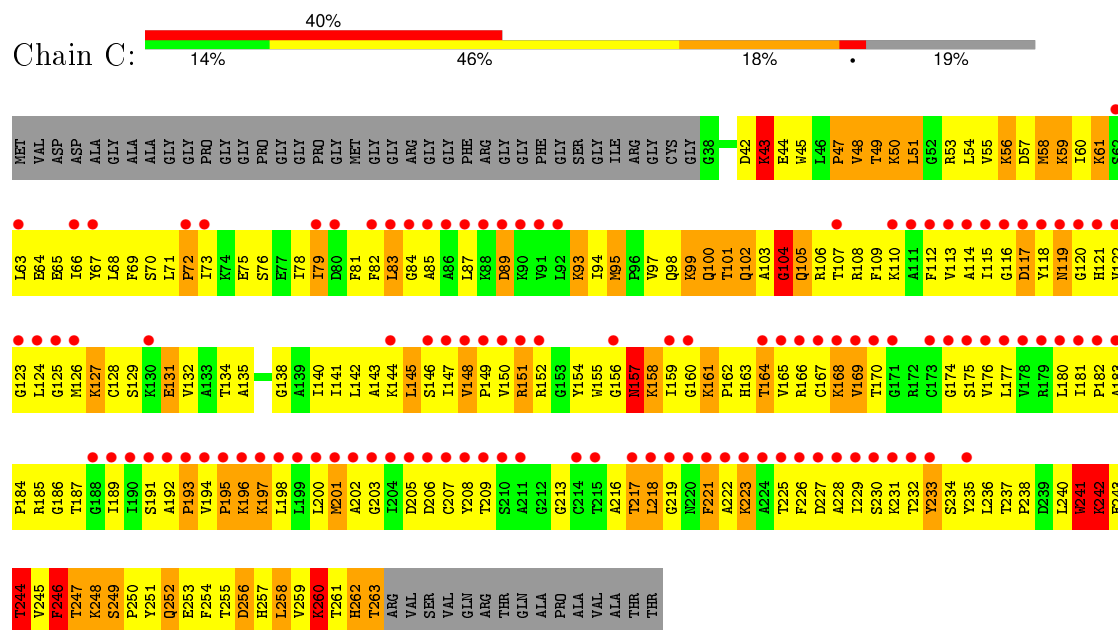
- Molecule 1: 40S Ribosomal Protein SA



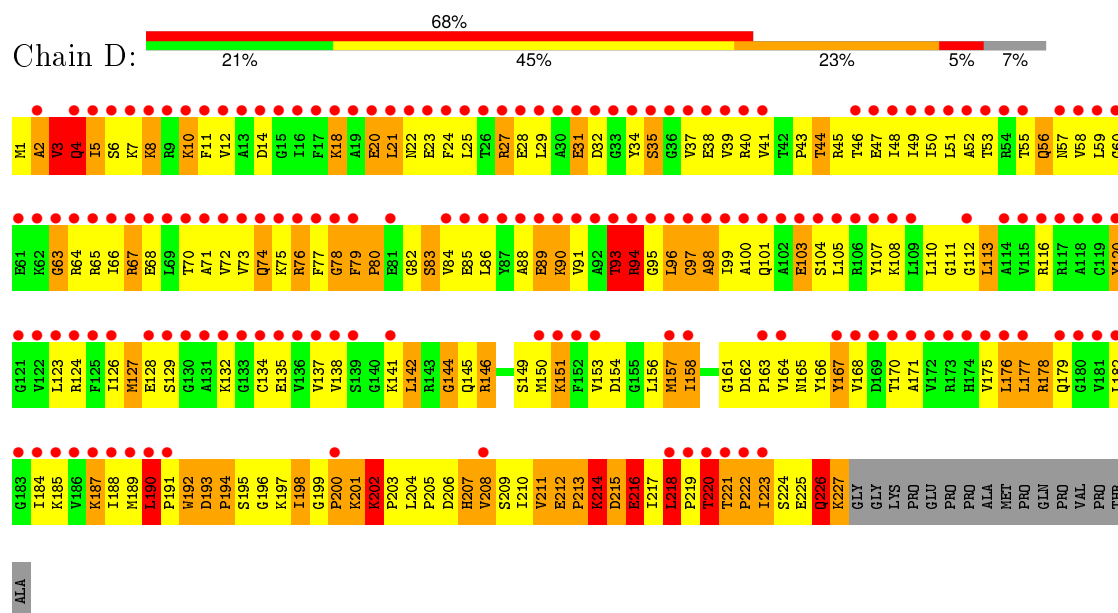
- Molecule 2: 40S Ribosomal Protein S3A



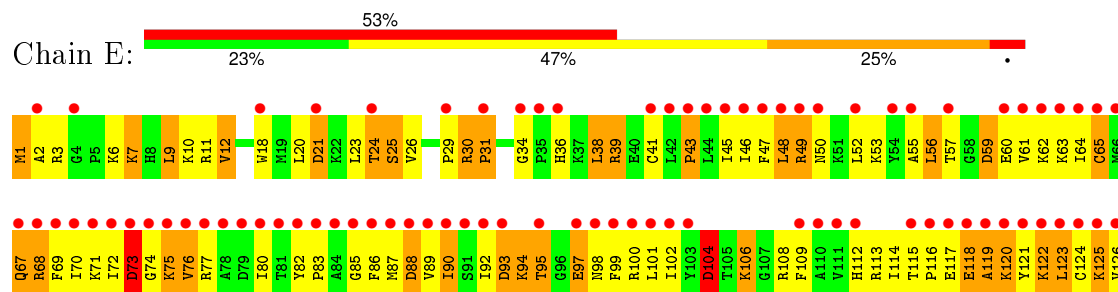
- Molecule 3: 40S Ribosomal Protein S2

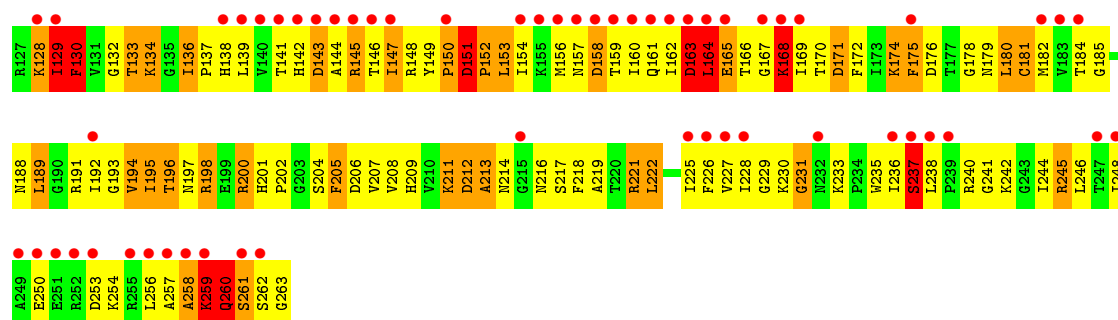


- Molecule 4: 40S Ribosomal Protein S3

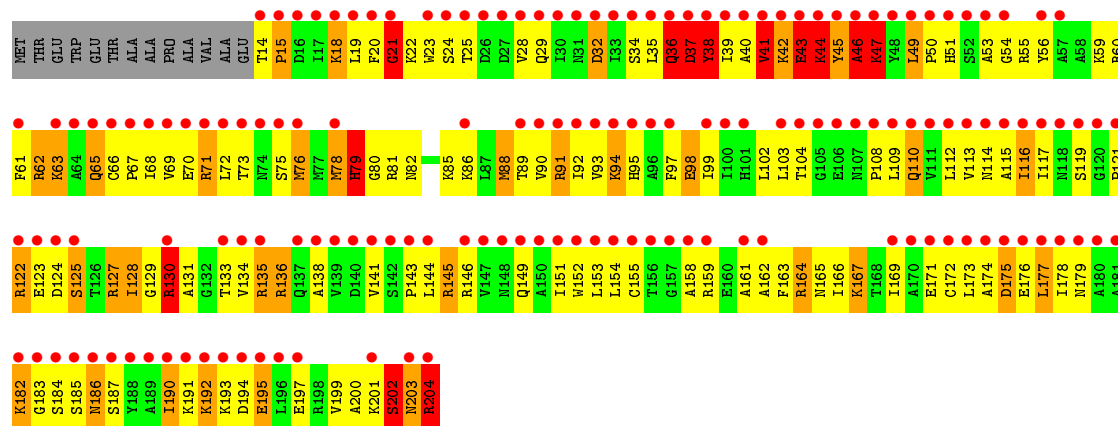
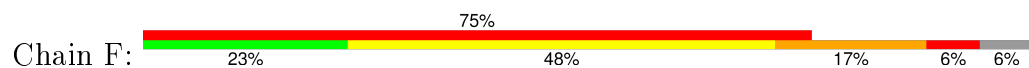


- Molecule 5: 40S Ribosomal Protein S4X

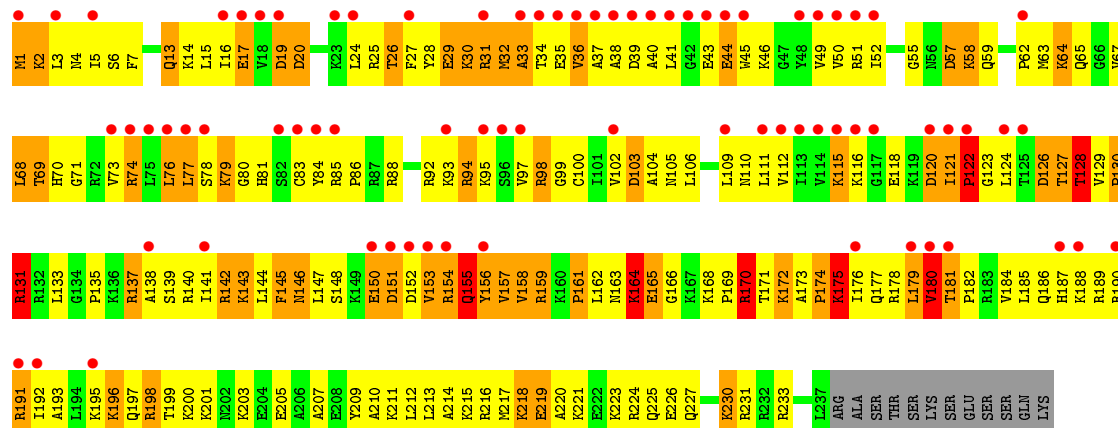
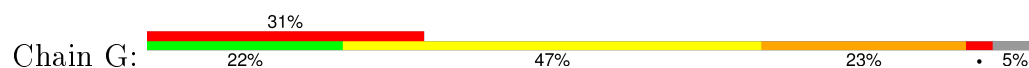




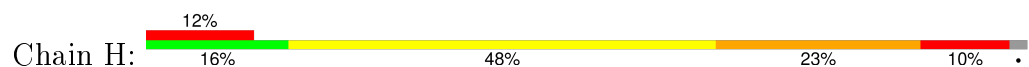
• Molecule 6: 40S Ribosomal Protein S5

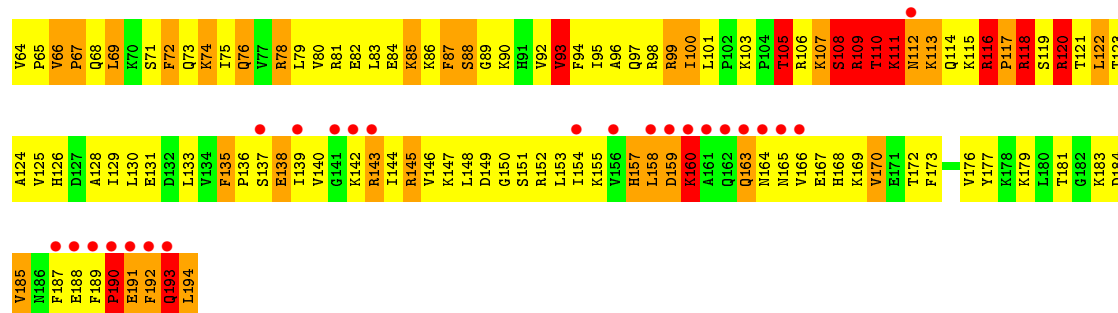


• Molecule 7: 40S Ribosomal Protein S6

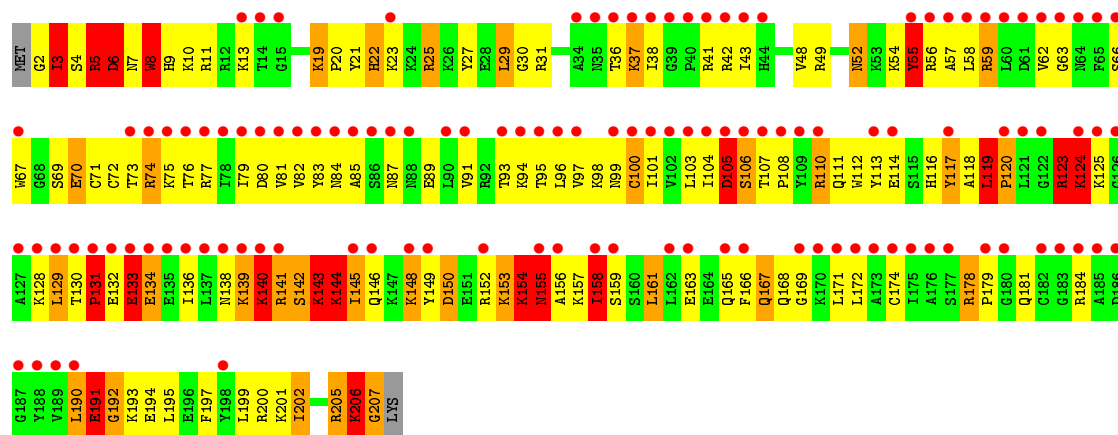


• Molecule 8: 40S Ribosomal Protein S7

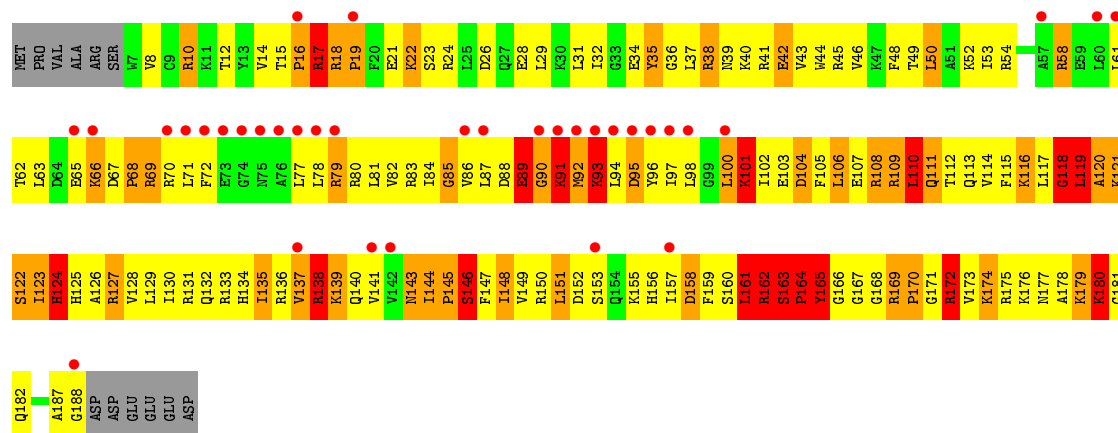
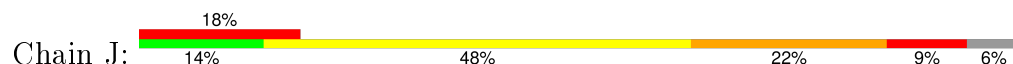




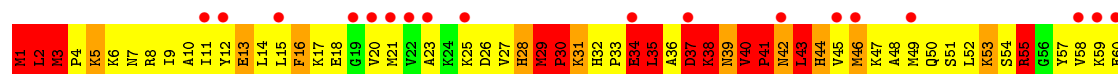
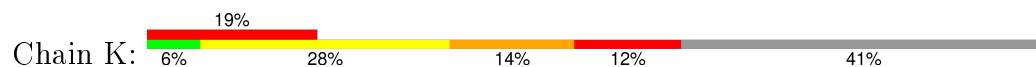
• Molecule 9: 40S Ribosomal Protein S8

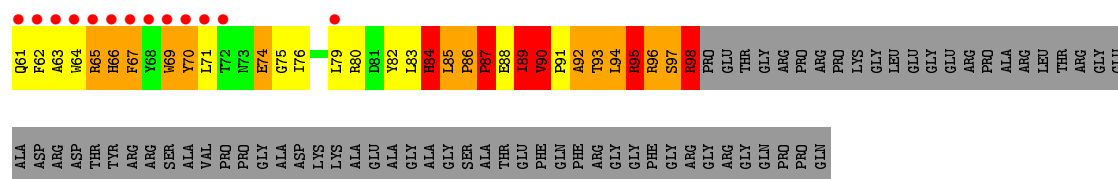


• Molecule 10: 40S Ribosomal Protein S9

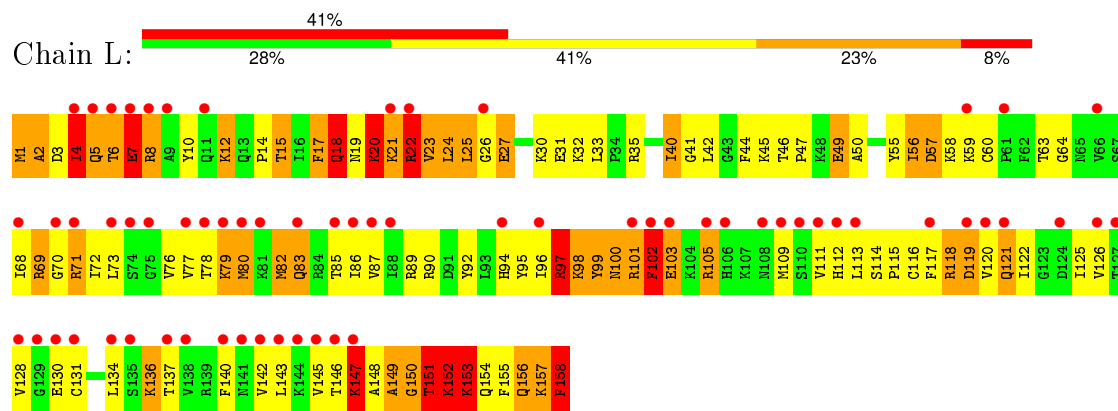


• Molecule 11: 40S Ribosomal Protein S10

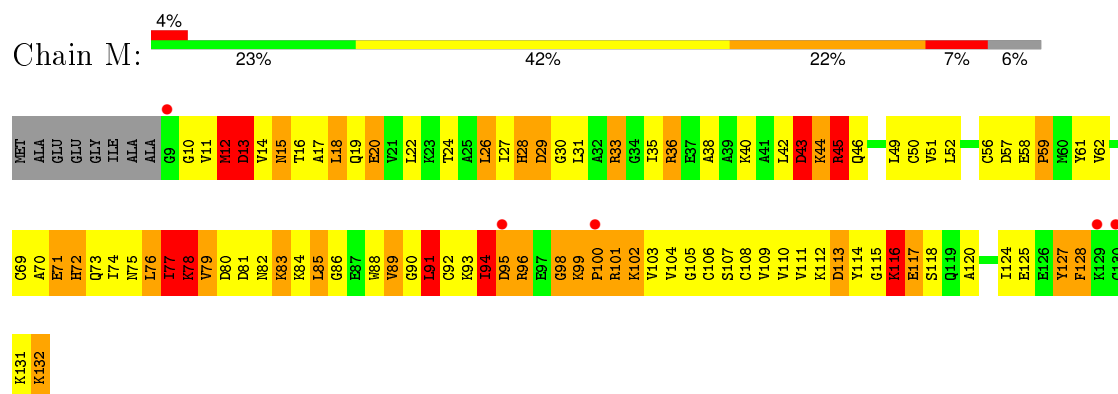




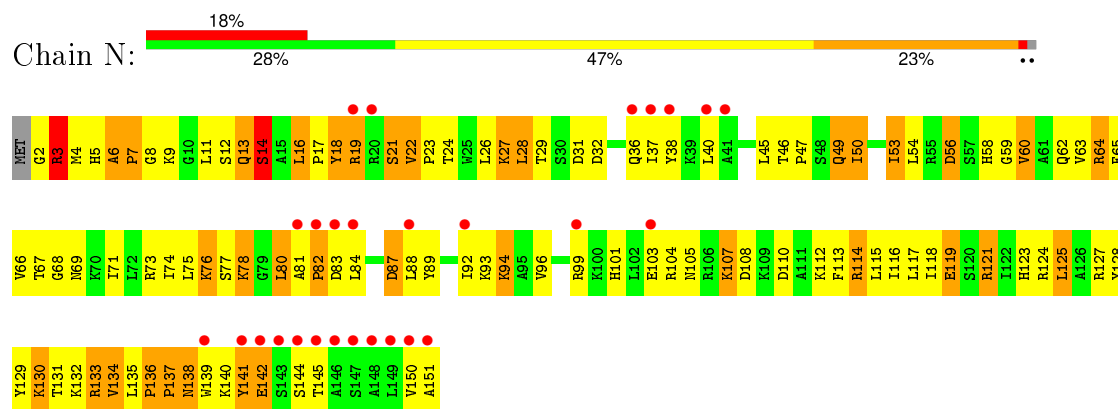
• Molecule 12: 40S Ribosomal Protein S11



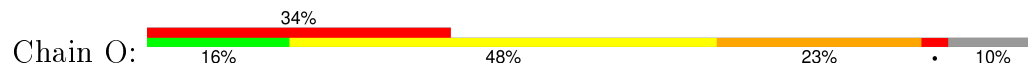
• Molecule 13: 40S Ribosomal Protein S12

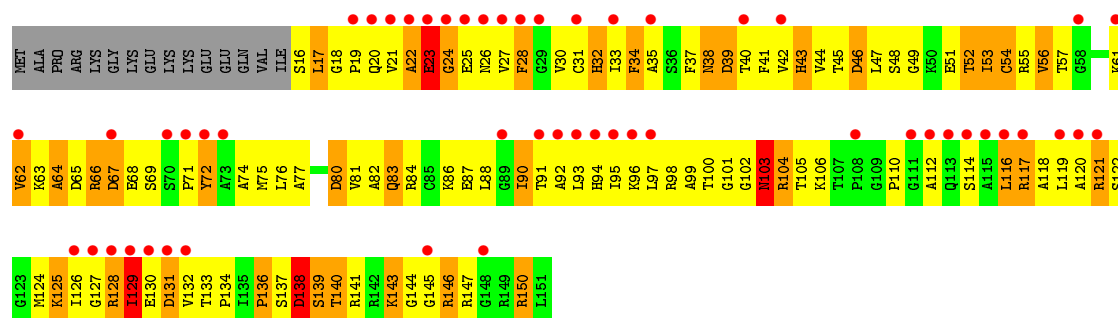


• Molecule 14: 40S Ribosomal Protein S13

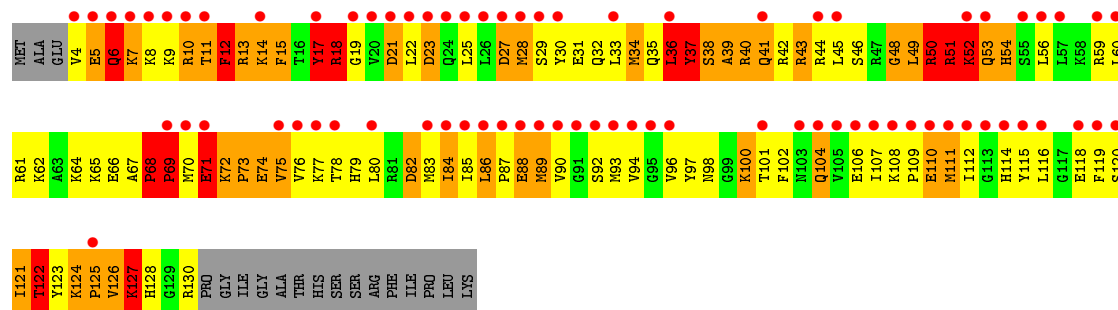


• Molecule 15: 40S Ribosomal Protein S14

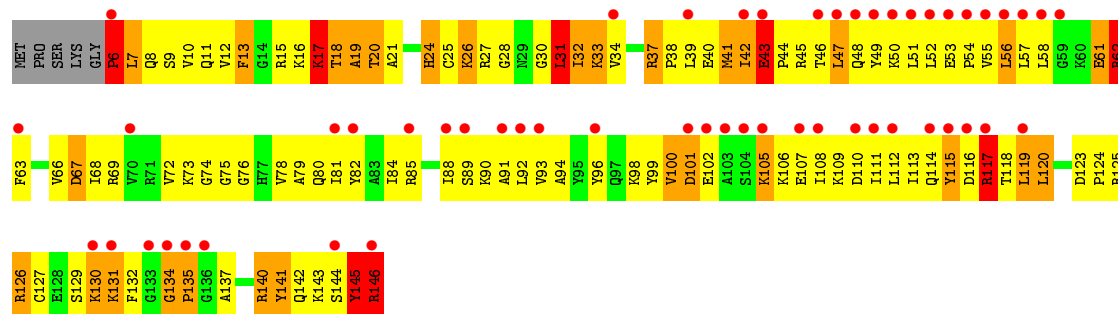
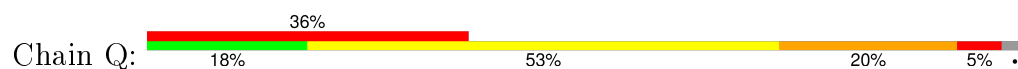




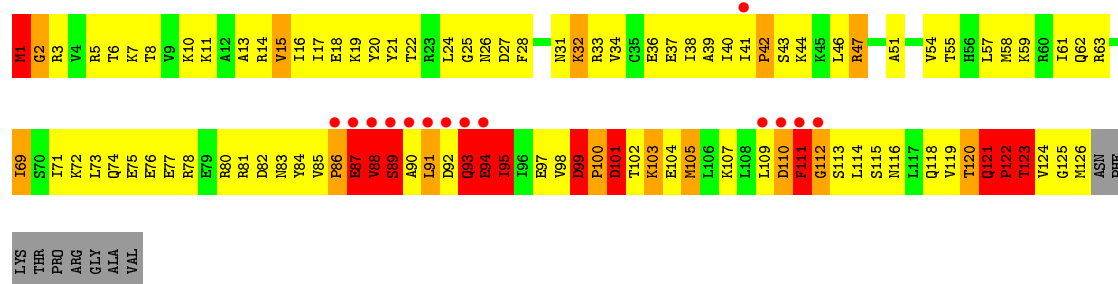
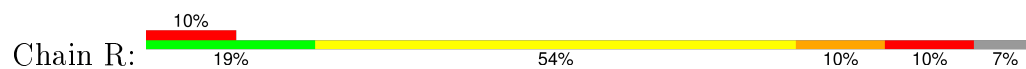
• Molecule 16: 40S Ribosomal Protein S15



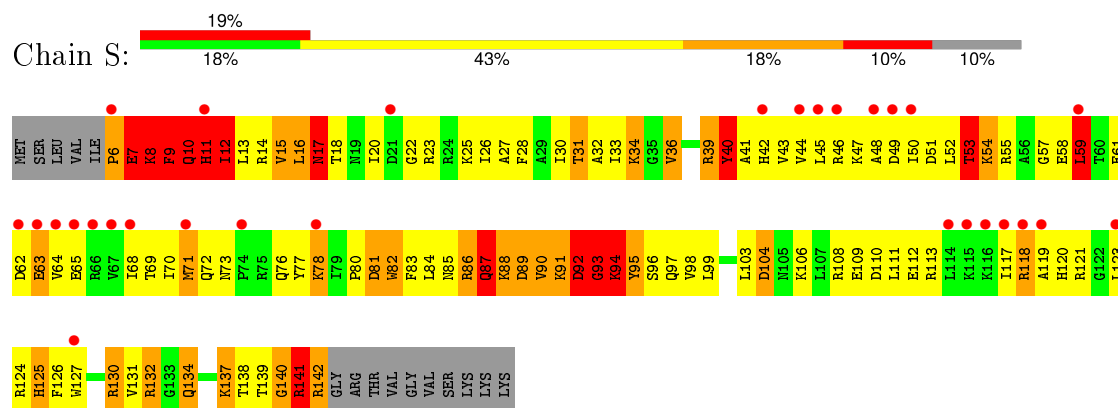
• Molecule 17: 40S Ribosomal Protein S16



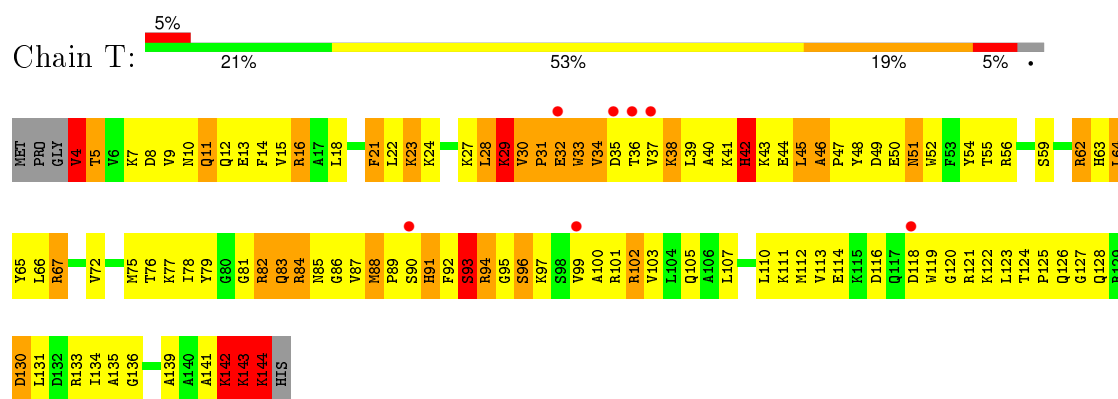
• Molecule 18: 40S Ribosomal Protein S17



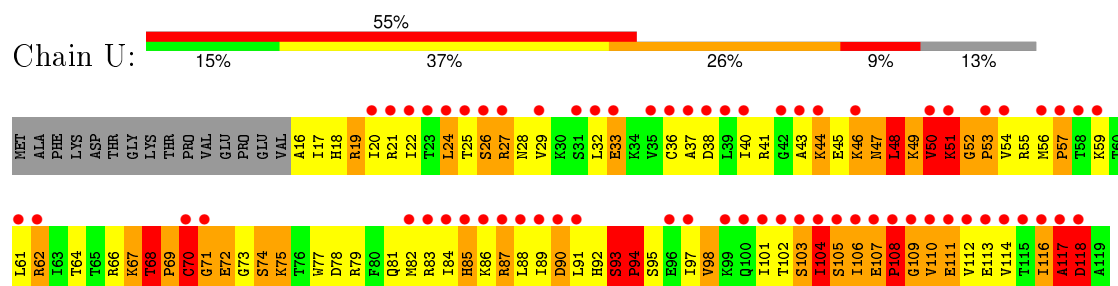
• Molecule 19: 40S Ribosomal Protein S18



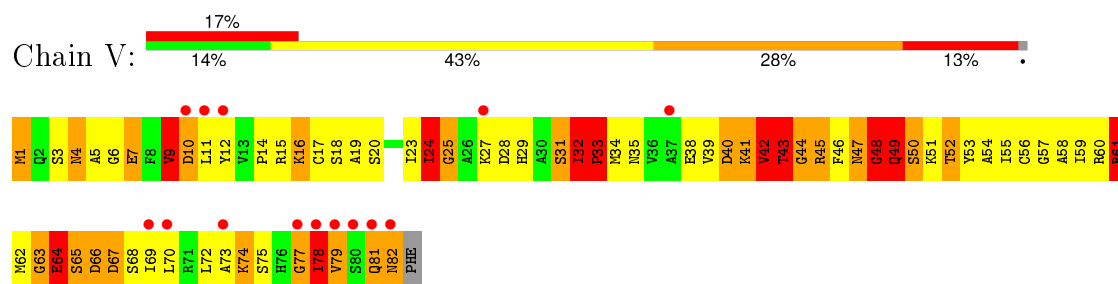
• Molecule 20: 40S Ribosomal Protein S19



• Molecule 21: 40S Ribosomal Protein S20

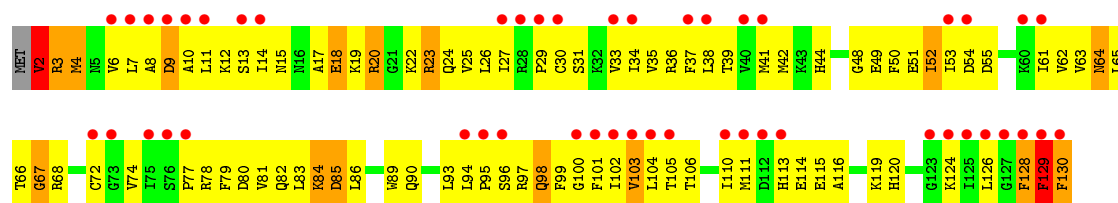


• Molecule 22: 40S Ribosomal Protein S21

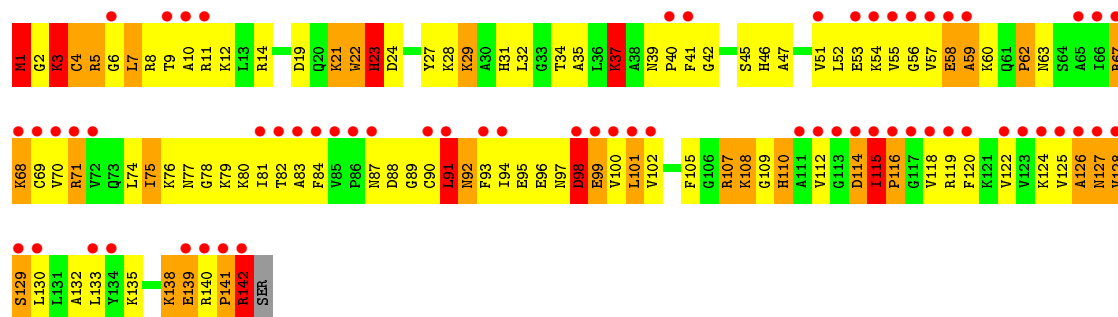


• Molecule 23: 40S Ribosomal Protein S15A

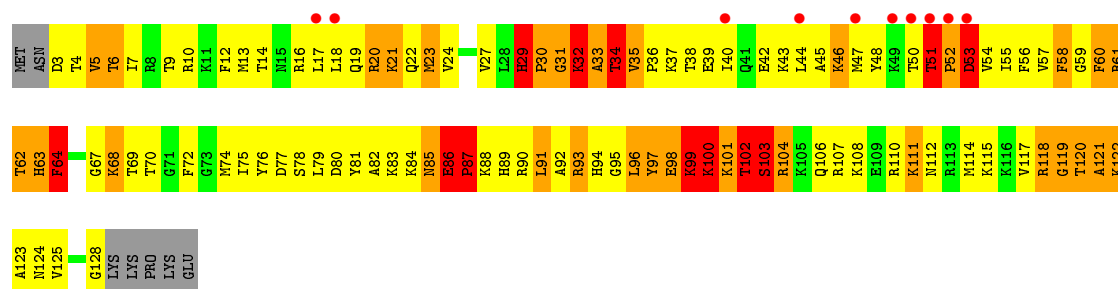
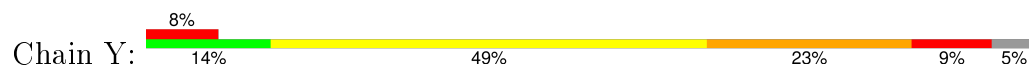




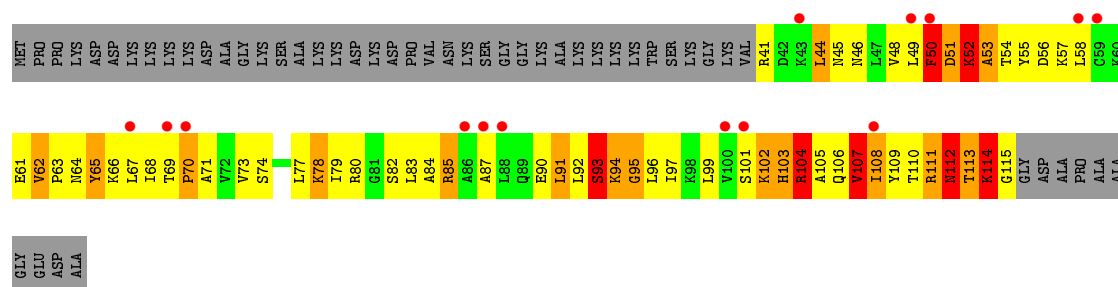
• Molecule 24: 40S Ribosomal Protein S23



• Molecule 25: 40S Ribosomal Protein S24



• Molecule 26: 40S Ribosomal Protein S25

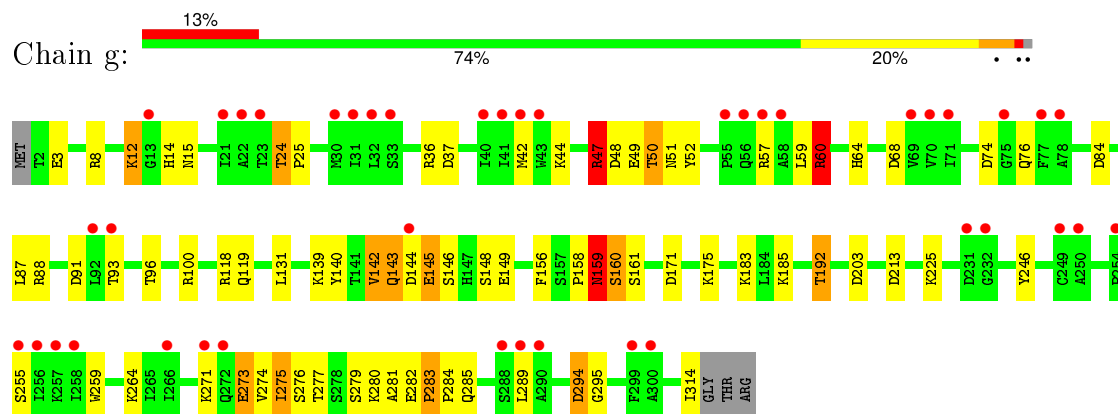


• Molecule 27: 40S Ribosomal Protein S26

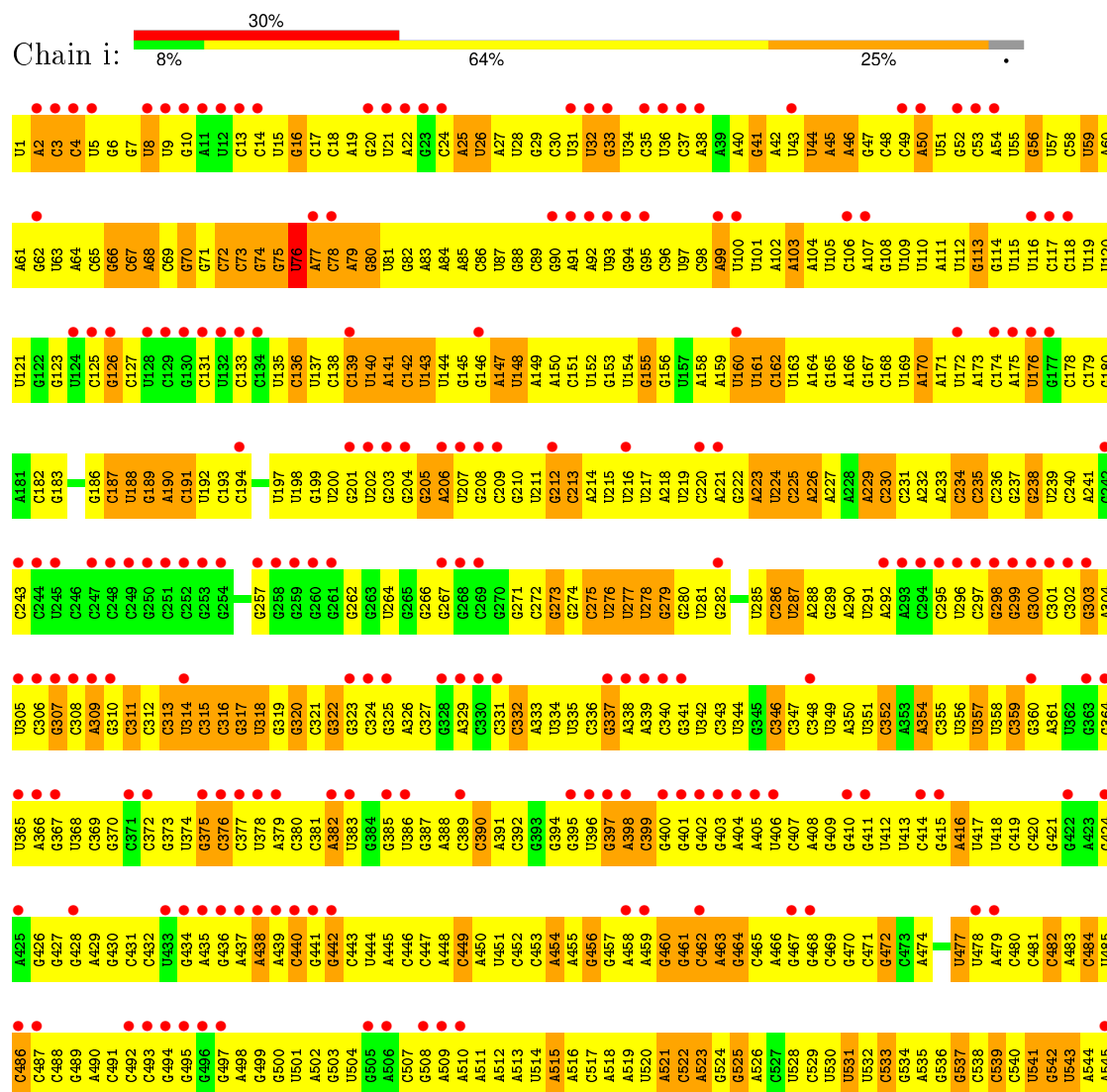




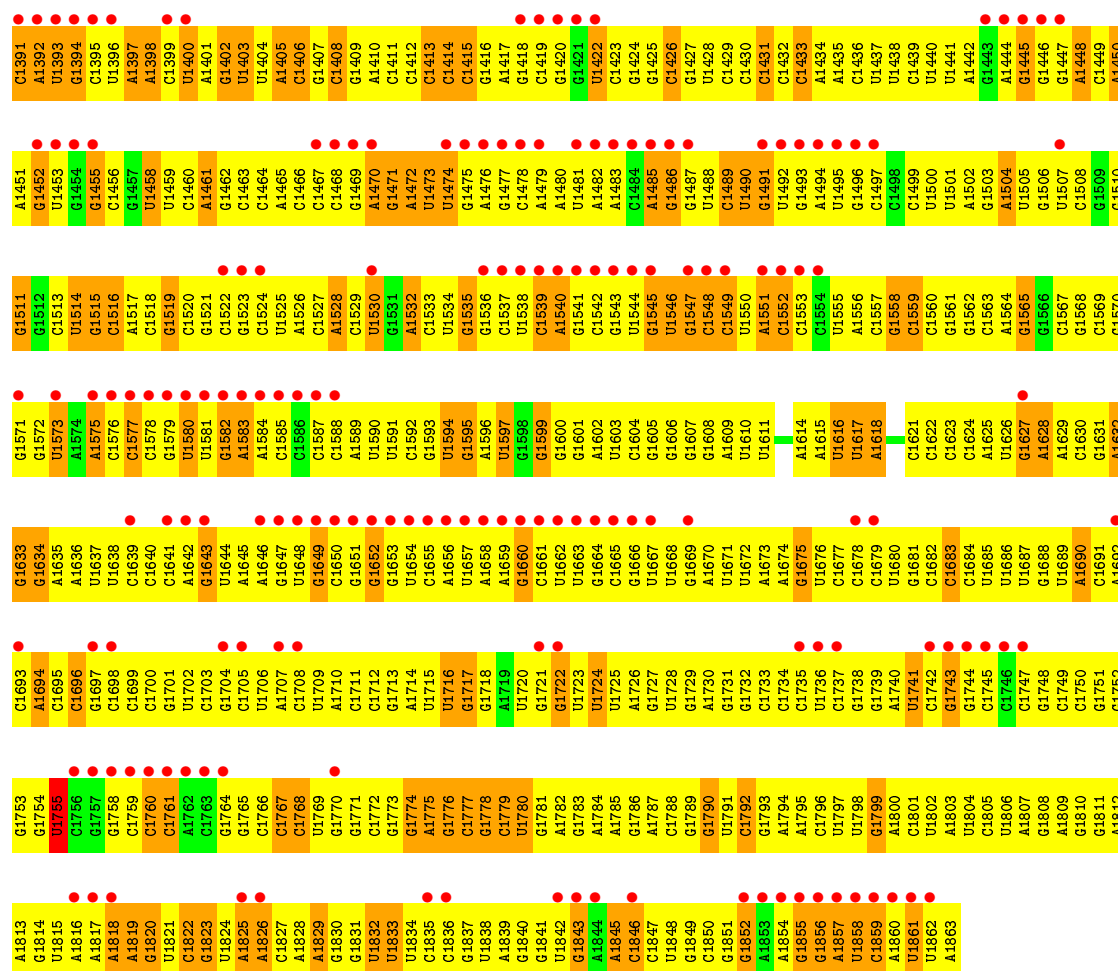
● Molecule 33: 40S Ribosomal Protein RACK1



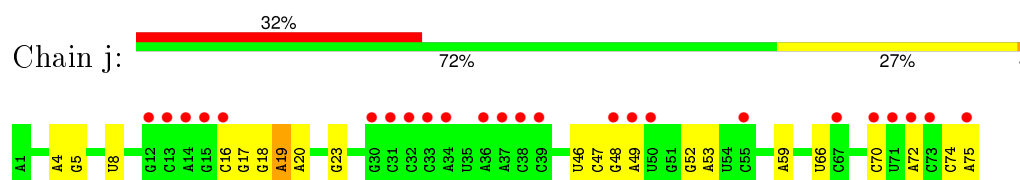
● Molecule 34: 18S Ribosomal RNA



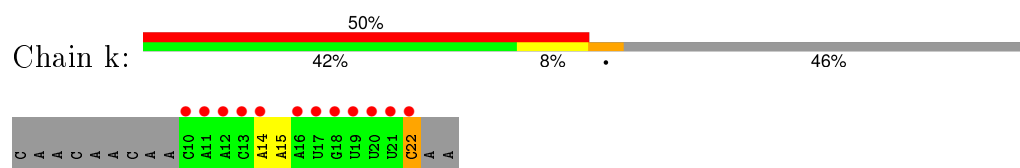
G1331	G1271	G1149	A1089	G1029	A968	C907	C847	C726	G666	A606	U546
G1332	A1272	U1150	C1090	A1030	C969	C908	G848	G727	G667	G607	U547
G1333	C1273	U1151	U1091	A1031	C970	A909	C849	U728	G668	G608	U548
G1334	A1274	U1152	G1092	A1032	G971	U910	C788	C729	A669	A609	G549
U1335	G1275	G1153	G1093	A1033	G972	G911	G851	C730	A670	G610	A550
U1336	G1276	G1154	C1094	U1034	C973	A912	G852	C731	U671	C611	A551
G1337	U1277	U1157	G1095	C1035	G974	U913	U853	C732	U672	C612	U552
U1338	A1278	U1158	A1096	G1036	C975	U914	A854	G733	G673	G613	U553
U1339	C1279	C1158	U1097	G1037	A976	A915	G855	G734	G674	C614	A554
A1340	A1280	C1159	G1098	A1038	A977	A916	G856	C735	A675	G615	G555
G1341	G1281	G1160	G1099	G1039	G978	G917	A857	C736	U676	G616	U556
U1342	G1282	G1161	G1100	G1040	A979	A918	A858	U	C677	U617	C557
U1343	G1223	G1162	G1101	U1041	C980	G919	U859	U	U678	U618	C558
G1344	A1284	G1163	C1102	U1042	G981	G920	A860	U739	U679	A619	A559
G1345	U1285	G1164	G1103	C1043	G982	C923	A861	G740	G	U620	C560
U1346	G1286	G1165	G1104	A1044	A983	G924	U862	C741	U	U621	U561
G1347	A1287	A1166	C1105	A1045	C984	G925	G863	C742	G682	C622	U562
G1348	C1288	G1167	G1106	A1046	C985	C926	A865	U743	A684	G623	U563
A1349	A1289	U1168	U1107	G1047	A986	C927	A866	C744	G685	A624	A564
G1350	G1230	A1169	U1108	A1048	G987	C928	A867	U	G686	G625	A565
C1351	G1231	U1170	A1109	C1049	A988	G929	U868	C	U687	G626	A566
G1352	U1232	G1171	U1110	G1050	G989	A930	A869	G	U688	U627	U567
A1353	C1233	G1172	U1111	A1051	C990	G930	G869	G	U689	C628	C568
U1354	U1234	U1173	C1112	U1052	G991	G931	G870	C	C690	C629	C569
U1355	U1235	U1174	C1113	C1053	G992	G932	A871	G	C691	A630	U570
U1356	A1236	G1175	G1114	A1054	A993	C933	C872	C	G692	A631	U571
G1357	A1237	C1176	U1115	G1055	C995	A934	C873	C	U693	U632	U572
U1358	G1238	U1177	A1116	A1056	G996	U935	A874	C	A694	A633	A573
C1359	C1239	A1178	G1117	U1057	A997	U936	C875	C	C695	G634	A574
U1360	U1240	U1179	A1118	A1058	U998	G937	G876	C	C696	C635	C575
G1361	G1241	C1181	C1119	C1059	U999	G938	G877	U	U697	G636	G576
U1362	A1242	U1182	C1120	C1060	U1000	U939	U878	C	G698	U637	A577
U1363	C1243	G1183	C1121	G1061	G1001	A940	U879	G	U699	A638	G578
U1364	A1304	A1184	G1122	U1062	C1002	U941	U881	A	C	A640	G579
A1365	C1245	A1185	C1123	C1063	C1003	U942	U882	C	U	U641	U581
A1366	A1246	A1186	C1124	G1064	A1004	G943	A883	C	C	U642	C582
U1367	G1307	C1187	G1125	U1065	A1005	C944	U884	U	C	A643	C583
U1368	G1308	U1188	G1126	A1066	G1006	G945	U885	C	C	A644	A584
C1369	U1248	U1189	G1127	G1067	A1007	C946	U886	C	G	A645	U585
C1370	A1249	A1190	C1128	U1068	U1008	C947	U887	U	C	G646	U586
G1371	G1251	A1191	A1129	U1069	U1009	G948	U888	A	C	U647	G587
A1372	G1252	A1192	G1130	C1070	G1010	C949	U889	C	C	U648	G588
U1373	G1253	G1193	C1131	C1071	U1011	U950	U890	C	C	G649	A589
A1374	A1254	G1194	U1132	G1072	U1012	A951	G891	U	C	C650	G590
U1375	A1255	A1195	U1133	A1073	U1013	G952	U892	C	A	U651	G591
C1376	A1256	A1196	C1134	C1074	U1014	A953	U893	C	G	G652	G592
G1377	G1257	U1197	C1135	C1075	C1015	G954	U894	A	G	C653	C593
G1378	C1258	U1198	G1136	A1076	A1016	G955	U895	G	C	A654	A594
A1379	U1259	G1199	G1137	U1077	U1017	U956	C896	U	G	G655	A595
C1380	C1260	A1200	U1138	A1078	U1018	G957	C897	C	A	U656	G596
G1381	A1261	C1201	A1139	A1079	A1019	A958	U897	U	G	U657	U597
U1382	C1262	G1202	A1140	A1080	U1020	A959	G898	C	C	A658	C598
G1383	C1263	G1203	C1141	C1081	U1021	A960	A899	C	C	A659	U599
A1384	C1264	A1204	C1142	G1082	C1022	U961	A900	C	C	G660	G601
C1385	A1205	A1205	C1143	U1083	A1023	U962	C901	C	A720	A661	G602
U1386	G1265	G1206	A1144	U1084	A1024	C963	U902	C	C721	A662	U603
G1387	G1266	G1207	A1145	G1085	G1025	U964	G903	G	C722	G663	U604
U1388	C1267	G1208	A1146	C1086	A1026	U965	A904	G	G723	G664	G605
G1389	C1268	C1209	G1147	C1087	A1027	G966	G905	G	C724	C665	
G1390	G1330	A1210	U1148	G1088	C1028	G967	G906	G	C725		



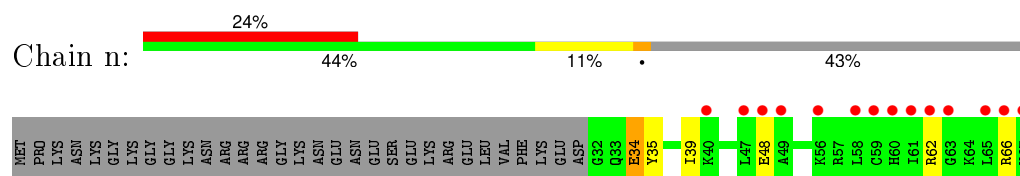
• Molecule 35: initiator Met-RNA-i

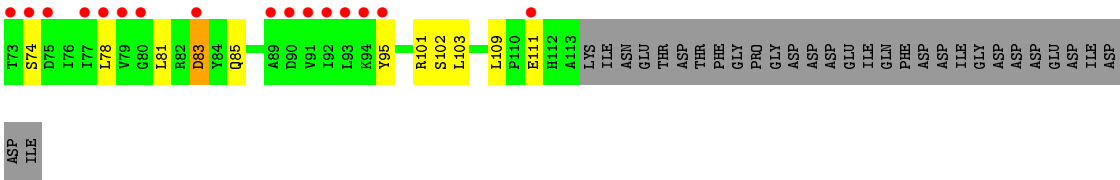


• Molecule 36: mRNA



• Molecule 37: human initiation factor eIF1A





ASP
ILE

4 Data and refinement statistics

Property	Value	Source
Space group	P 31 2 1	Depositor
Cell constants a, b, c, α , β , γ	297.75Å 297.75Å 485.16Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	77.53 – 7.03 77.53 – 7.03	Depositor EDS
% Data completeness (in resolution range)	98.3 (77.53-7.03) 98.7 (77.53-7.03)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.98 (at 6.72Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.7.3_928)	Depositor
R, R_{free}	0.345 , 0.359 0.332 , 0.339	Depositor DCC
R_{free} test set	1942 reflections (5.02%)	DCC
Wilson B-factor (Å ²)	566.4	Xtriage
Anisotropy	0.159	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.22 , 127.2	EDS
Estimated twinning fraction	0.055 for -h,-k,l	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.39$, $\langle L^2 \rangle = 0.22$	Xtriage
Outliers	0 of 38850 reflections	Xtriage
F_o, F_c correlation	0.86	EDS
Total number of atoms	79048	wwPDB-VP
Average B, all atoms (Å ²)	179.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.50% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.76	2/1679 (0.1%)	1.06	17/2283 (0.7%)
2	B	0.79	7/1769 (0.4%)	1.08	22/2367 (0.9%)
3	C	0.97	7/1778 (0.4%)	1.19	18/2399 (0.8%)
4	D	1.03	6/1792 (0.3%)	1.30	22/2412 (0.9%)
5	E	0.76	5/2125 (0.2%)	0.98	23/2856 (0.8%)
6	F	0.99	5/1531 (0.3%)	1.21	17/2059 (0.8%)
7	G	0.97	15/1946 (0.8%)	1.23	25/2590 (1.0%)
8	H	1.09	7/1553 (0.5%)	2.19	29/2079 (1.4%)
9	I	1.11	7/1708 (0.4%)	1.51	33/2278 (1.4%)
10	J	1.27	19/1522 (1.2%)	1.51	42/2031 (2.1%)
11	K	1.21	6/851 (0.7%)	1.78	31/1147 (2.7%)
12	L	1.10	6/1319 (0.5%)	1.40	17/1761 (1.0%)
13	M	1.00	3/960 (0.3%)	1.23	7/1287 (0.5%)
14	N	0.83	4/1232 (0.3%)	1.01	12/1656 (0.7%)
15	O	0.61	0/1029	1.05	12/1380 (0.9%)
16	P	0.75	1/1079 (0.1%)	1.43	32/1437 (2.2%)
17	Q	0.71	3/1142 (0.3%)	1.11	15/1528 (1.0%)
18	R	1.23	10/1031 (1.0%)	1.64	30/1383 (2.2%)
19	S	1.21	10/1157 (0.9%)	1.61	36/1548 (2.3%)
20	T	0.95	3/1132 (0.3%)	1.26	13/1517 (0.9%)
21	U	0.96	1/832 (0.1%)	1.59	29/1117 (2.6%)
22	V	0.75	1/626 (0.2%)	1.39	15/839 (1.8%)
23	W	0.85	4/1051 (0.4%)	0.86	9/1406 (0.6%)
24	X	1.00	8/1124 (0.7%)	1.24	21/1500 (1.4%)
25	Y	0.93	3/1038 (0.3%)	1.42	21/1380 (1.5%)
26	Z	1.04	5/604 (0.8%)	1.35	17/810 (2.1%)
27	a	0.89	4/860 (0.5%)	1.60	21/1156 (1.8%)
28	b	1.02	2/673 (0.3%)	1.36	12/902 (1.3%)
29	c	0.80	1/508 (0.2%)	1.18	8/680 (1.2%)
30	d	0.90	2/455 (0.4%)	0.79	3/603 (0.5%)
31	e	1.47	5/478 (1.0%)	1.43	11/628 (1.8%)
32	f	1.10	4/593 (0.7%)	1.49	16/786 (2.0%)
33	g	0.91	1/2493 (0.0%)	1.29	27/3394 (0.8%)
34	i	2.41	1848/41879 (4.4%)	2.21	2565/65157 (3.9%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
35	j	0.67	5/1798 (0.3%)	0.82	0/2802
36	k	1.64	1/304 (0.3%)	1.35	3/470 (0.6%)
37	n	0.40	0/657	0.38	0/881
All	All	1.83	2021/84308 (2.4%)	1.84	3231/122509 (2.6%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	11
2	B	0	4
3	C	1	5
4	D	0	5
5	E	1	2
6	F	0	3
7	G	0	1
8	H	0	10
9	I	0	8
10	J	1	11
11	K	0	11
12	L	0	7
13	M	0	1
14	N	0	4
15	O	0	1
16	P	0	10
17	Q	0	4
18	R	1	5
19	S	1	10
20	T	1	6
21	U	0	8
22	V	0	9
23	W	0	2
24	X	0	4
25	Y	1	6
26	Z	0	6
27	a	0	2
28	b	0	3
31	e	0	5
32	f	0	6
33	g	0	13

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Mol	Chain	#Chirality outliers	#Planarity outliers
34	i	6	0
All	All	13	183

All (2021) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	k	22	C	C1'-N1	28.08	1.90	1.48
34	i	1322	U	C2'-C1'	-25.56	1.25	1.53
34	i	66	G	C2'-C1'	-24.65	1.26	1.53
34	i	652	G	C2'-C1'	-23.81	1.27	1.53
34	i	858	A	C2'-C1'	-23.76	1.27	1.53
34	i	1307	C	C2'-C1'	-22.20	1.28	1.53
34	i	521	A	C2'-C1'	-22.14	1.28	1.53
34	i	1037	G	C2'-C1'	-21.86	1.29	1.53
34	i	145	G	C2'-C1'	-21.62	1.29	1.53
34	i	1233	C	C2'-C1'	-21.47	1.29	1.53
34	i	287	U	C2'-C1'	-21.27	1.29	1.53
4	D	5	ILE	C-N	21.22	1.82	1.34
34	i	1327	C	C2'-C1'	-20.67	1.30	1.53
34	i	1393	U	C2'-C1'	-20.58	1.30	1.53
34	i	299	G	C2'-C1'	-20.54	1.30	1.53
34	i	215	U	C2'-C1'	-20.29	1.31	1.53
34	i	1503	G	O4'-C1'	-19.98	1.15	1.41
34	i	630	A	C2'-C1'	-19.72	1.31	1.53
34	i	343	C	C2'-C1'	-19.71	1.31	1.53
34	i	1407	G	C2'-C1'	-19.57	1.31	1.53
34	i	612	C	C2'-C1'	-19.42	1.31	1.53
34	i	1855	G	C2'-C1'	-19.41	1.31	1.53
34	i	1738	G	C2'-C1'	-19.35	1.32	1.53
34	i	956	U	C2'-C1'	-19.28	1.32	1.53
34	i	1308	G	C2'-C1'	-19.27	1.32	1.53
34	i	684	A	C2'-C1'	-18.94	1.32	1.53
34	i	1496	G	C2'-C1'	-18.90	1.32	1.53
34	i	1159	C	C2'-C1'	-18.73	1.32	1.53
34	i	1227	C	C2'-C1'	-18.72	1.32	1.53
31	e	95	LYS	C-N	18.50	1.76	1.34
34	i	1194	G	C2'-C1'	-18.46	1.33	1.53
34	i	518	A	C2'-C1'	-18.41	1.33	1.53
34	i	1222	G	C2'-C1'	-17.91	1.33	1.53
34	i	443	C	C2'-C1'	-17.87	1.33	1.53
34	i	859	U	C2'-C1'	-17.81	1.33	1.53
34	i	1774	G	C2'-C1'	-17.75	1.33	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1226	C	C2'-C1'	-17.72	1.33	1.53
34	i	606	A	C2'-C1'	-17.50	1.34	1.53
34	i	41	G	C2'-C1'	-17.44	1.34	1.53
34	i	1199	G	C2'-C1'	-17.43	1.34	1.53
34	i	1010	G	C2'-C1'	-17.43	1.34	1.53
34	i	1279	C	O4'-C1'	17.42	1.64	1.41
34	i	389	C	O4'-C1'	17.37	1.64	1.41
34	i	1472	A	O4'-C1'	-17.21	1.19	1.41
34	i	984	C	O4'-C1'	17.19	1.64	1.41
10	J	118	GLY	C-N	17.15	1.73	1.34
34	i	1214	C	C2'-C1'	-17.07	1.34	1.53
34	i	1348	G	C2'-C1'	-16.88	1.34	1.53
34	i	1258	C	C2'-C1'	-16.87	1.34	1.53
34	i	1044	G	C2'-C1'	-16.84	1.34	1.53
34	i	1233	C	O4'-C1'	16.77	1.63	1.41
10	J	85	GLY	C-N	-16.75	0.95	1.34
34	i	1732	G	C2'-C1'	-16.74	1.34	1.53
34	i	838	C	C2'-C1'	-16.70	1.34	1.53
34	i	929	G	C2'-C1'	-16.68	1.35	1.53
34	i	94	G	C2'-C1'	-16.68	1.35	1.53
34	i	626	C	O4'-C1'	16.66	1.63	1.41
34	i	604	G	C2'-C1'	-16.65	1.35	1.53
34	i	844	U	C2'-C1'	-16.58	1.35	1.53
34	i	1467	C	O4'-C1'	16.57	1.63	1.41
34	i	1733	C	O4'-C1'	16.43	1.63	1.41
34	i	1308	G	O4'-C1'	16.43	1.63	1.41
34	i	435	A	C2'-C1'	-16.41	1.35	1.53
18	R	1	MET	N-CA	16.34	1.79	1.46
34	i	1043	C	O4'-C1'	16.34	1.62	1.41
34	i	92	A	C2'-C1'	-16.34	1.35	1.53
34	i	1325	U	C2'-C1'	-16.28	1.35	1.53
34	i	689	G	O4'-C1'	16.27	1.62	1.41
34	i	611	C	O4'-C1'	16.26	1.62	1.41
34	i	1571	G	C2'-C1'	-16.25	1.35	1.53
34	i	604	G	O4'-C1'	16.21	1.62	1.41
34	i	446	C	C2'-C1'	-16.17	1.35	1.53
34	i	390	C	O4'-C1'	16.16	1.62	1.41
34	i	277	U	O4'-C1'	16.07	1.62	1.41
34	i	1847	C	C2'-C1'	-16.03	1.35	1.53
34	i	1563	C	C2'-C1'	-16.02	1.35	1.53
34	i	143	U	C2'-C1'	-16.00	1.35	1.53
34	i	788	C	C2'-C1'	-15.93	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	446	C	O4'-C1'	15.92	1.62	1.41
34	i	1666	G	C2'-C1'	-15.92	1.35	1.53
34	i	1012	U	O4'-C1'	15.85	1.62	1.41
34	i	1305	C	O4'-C1'	15.83	1.62	1.41
34	i	225	C	O4'-C1'	15.81	1.62	1.41
34	i	792	G	C2'-C1'	-15.81	1.35	1.53
34	i	581	U	C2'-C1'	-15.77	1.35	1.53
34	i	830	C	C2'-C1'	-15.74	1.36	1.53
34	i	1432	C	O4'-C1'	15.74	1.62	1.41
34	i	1660	G	C2'-C1'	-15.71	1.36	1.53
34	i	179	C	C2'-C1'	-15.70	1.36	1.53
34	i	1227	C	O4'-C1'	15.70	1.62	1.41
34	i	1683	C	C2'-C1'	-15.70	1.36	1.53
34	i	594	A	O4'-C1'	15.69	1.62	1.41
34	i	794	G	O4'-C1'	15.66	1.62	1.41
34	i	541	U	C2'-C1'	-15.61	1.36	1.53
34	i	1688	G	C2'-C1'	-15.59	1.36	1.53
34	i	1452	G	C2'-C1'	-15.55	1.36	1.53
34	i	1736	U	C2'-C1'	-15.54	1.36	1.53
34	i	909	A	O4'-C1'	15.52	1.61	1.41
34	i	1766	C	O4'-C1'	15.52	1.61	1.41
34	i	741	C	O4'-C1'	15.48	1.61	1.41
34	i	286	C	O4'-C1'	15.47	1.61	1.41
34	i	179	C	O4'-C1'	15.38	1.61	1.41
34	i	877	G	C2'-C1'	-15.37	1.36	1.53
34	i	1659	A	C2'-C1'	-15.34	1.36	1.53
34	i	1393	U	O4'-C1'	15.34	1.61	1.41
34	i	1288	C	O4'-C1'	15.33	1.61	1.41
34	i	222	G	C2'-C1'	-15.33	1.36	1.53
34	i	62	G	C2'-C1'	-15.29	1.36	1.53
34	i	186	G	C2'-C1'	-15.29	1.36	1.53
18	R	1	MET	CA-CB	15.29	1.87	1.53
34	i	730	C	O4'-C1'	15.28	1.61	1.41
34	i	657	U	C2'-C1'	-15.27	1.36	1.53
34	i	1237	A	O4'-C1'	15.21	1.61	1.41
34	i	214	A	O4'-C1'	15.20	1.61	1.41
34	i	986	A	C2'-C1'	-15.19	1.36	1.53
34	i	1524	C	O4'-C1'	15.18	1.61	1.41
34	i	1615	A	C2'-C1'	-15.17	1.36	1.53
34	i	1012	U	C2'-C1'	-15.15	1.36	1.53
34	i	1018	U	C2'-C1'	-15.15	1.36	1.53
34	i	408	A	C2'-C1'	-15.05	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1171	G	C2'-C1'	-15.05	1.36	1.53
34	i	225	C	C2'-C1'	-15.00	1.36	1.53
34	i	734	C	C2'-C1'	-14.93	1.36	1.53
34	i	164	A	C2'-C1'	-14.91	1.36	1.53
34	i	1307	C	O4'-C1'	14.88	1.60	1.41
34	i	4	C	C2'-C1'	-14.87	1.36	1.53
34	i	1406	C	O4'-C1'	14.87	1.60	1.41
34	i	538	C	O4'-C1'	14.82	1.60	1.41
34	i	838	C	O4'-C1'	14.82	1.60	1.41
34	i	970	C	O4'-C1'	14.78	1.60	1.41
34	i	188	U	C2'-C1'	-14.77	1.37	1.53
34	i	1703	C	O4'-C1'	14.76	1.60	1.41
34	i	1413	C	O4'-C1'	14.74	1.60	1.41
34	i	1656	A	C2'-C1'	-14.70	1.37	1.53
34	i	1610	U	C2'-C1'	-14.70	1.37	1.53
34	i	1090	C	O4'-C1'	14.70	1.60	1.41
34	i	1289	A	O4'-C1'	14.68	1.60	1.41
34	i	1494	A	C2'-C1'	-14.64	1.37	1.53
34	i	205	G	C2'-C1'	-14.62	1.37	1.53
34	i	728	U	C2'-C1'	-14.62	1.37	1.53
34	i	1142	C	C2'-C1'	-14.61	1.37	1.53
10	J	188	GLY	C-O	-14.60	1.00	1.23
34	i	873	C	O4'-C1'	14.60	1.60	1.41
34	i	1828	A	C2'-C1'	-14.60	1.37	1.53
34	i	81	U	C2'-C1'	-14.59	1.37	1.53
34	i	1587	C	O4'-C1'	14.59	1.60	1.41
9	I	207	GLY	C-O	-14.57	1.00	1.23
26	Z	115	GLY	C-O	-14.54	1.00	1.23
34	i	804	A	C2'-C1'	-14.53	1.37	1.53
34	i	914	U	C2'-C1'	-14.53	1.37	1.53
34	i	1230	C	O4'-C1'	14.52	1.60	1.41
34	i	1699	C	O4'-C1'	14.52	1.60	1.41
2	B	233	GLY	C-O	-14.48	1.00	1.23
25	Y	128	GLY	C-O	-14.47	1.00	1.23
34	i	1216	A	C2'-C1'	-14.46	1.37	1.53
34	i	431	C	O4'-C1'	14.44	1.60	1.41
5	E	263	GLY	C-O	-14.44	1.00	1.23
34	i	1376	C	O4'-C1'	14.43	1.60	1.41
34	i	1014	U	C2'-C1'	-14.43	1.37	1.53
9	I	43	ILE	C-N	14.42	1.67	1.34
34	i	1611	U	C2'-C1'	-14.41	1.37	1.53
34	i	215	U	O4'-C1'	14.40	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1229	G	C2'-C1'	-14.39	1.37	1.53
34	i	1263	C	C2'-C1'	-14.39	1.37	1.53
21	U	93	SER	C-N	14.38	1.61	1.34
34	i	1738	G	O4'-C1'	14.35	1.60	1.41
34	i	1755	U	C2'-C1'	-14.34	1.37	1.53
34	i	1144	A	O4'-C1'	-14.29	1.23	1.41
34	i	845	A	C2'-C1'	-14.28	1.37	1.53
34	i	438	A	O4'-C1'	-14.27	1.23	1.41
34	i	35	C	O4'-C1'	14.24	1.60	1.41
34	i	1416	G	C2'-C1'	-14.23	1.37	1.53
34	i	431	C	C2'-C1'	-14.22	1.37	1.53
34	i	144	U	O4'-C1'	14.21	1.60	1.41
34	i	1691	C	O4'-C1'	14.11	1.59	1.41
34	i	1214	C	O4'-C1'	14.08	1.59	1.41
34	i	623	C	C2'-C1'	-14.08	1.37	1.53
18	R	1	MET	CA-C	-14.03	1.16	1.52
34	i	1587	C	C2'-C1'	-14.02	1.38	1.53
34	i	1793	G	C2'-C1'	-14.02	1.38	1.53
34	i	830	C	O4'-C1'	14.01	1.59	1.41
34	i	1801	C	C2'-C1'	-13.99	1.38	1.53
34	i	1140	A	C2'-C1'	-13.98	1.38	1.53
34	i	915	A	C2'-C1'	-13.96	1.38	1.53
34	i	1557	C	C2'-C1'	-13.96	1.38	1.53
34	i	852	C	O4'-C1'	13.94	1.59	1.41
34	i	1736	U	O4'-C1'	13.93	1.59	1.41
34	i	1184	A	O4'-C1'	13.93	1.59	1.41
34	i	1602	A	C2'-C1'	-13.92	1.38	1.53
34	i	616	G	O4'-C1'	13.90	1.59	1.41
34	i	947	C	O4'-C1'	13.89	1.59	1.41
34	i	1520	C	O4'-C1'	13.89	1.59	1.41
34	i	1693	C	O4'-C1'	13.88	1.59	1.41
34	i	1433	C	O4'-C1'	13.88	1.59	1.41
34	i	1251	G	C2'-C1'	-13.86	1.38	1.53
34	i	187	C	O4'-C1'	13.85	1.59	1.41
34	i	605	C	O4'-C1'	13.82	1.59	1.41
34	i	168	C	O4'-C1'	13.82	1.59	1.41
34	i	887	G	C2'-C1'	-13.82	1.38	1.53
34	i	735	C	O4'-C1'	13.82	1.59	1.41
34	i	1003	C	O4'-C1'	13.79	1.59	1.41
34	i	852	C	C2'-C1'	-13.79	1.38	1.53
34	i	312	C	O4'-C1'	13.76	1.59	1.41
34	i	1765	G	C2'-C1'	-13.75	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	801	U	O4'-C1'	13.75	1.59	1.41
34	i	1400	U	O4'-C1'	13.73	1.59	1.41
34	i	734	C	O4'-C1'	13.72	1.59	1.41
34	i	1427	G	C2'-C1'	-13.68	1.38	1.53
34	i	377	C	O4'-C1'	13.67	1.59	1.41
34	i	1419	C	O4'-C1'	13.67	1.59	1.41
34	i	1617	U	O4'-C1'	13.66	1.59	1.41
34	i	564	A	O4'-C1'	13.65	1.59	1.41
34	i	340	C	O4'-C1'	13.65	1.59	1.41
34	i	1263	C	O4'-C1'	13.63	1.59	1.41
34	i	1002	C	O4'-C1'	13.63	1.59	1.41
34	i	1436	C	O4'-C1'	13.63	1.59	1.41
34	i	884	U	C2'-C1'	-13.60	1.38	1.53
34	i	1022	C	O4'-C1'	13.59	1.59	1.41
34	i	1411	C	O4'-C1'	13.59	1.59	1.41
34	i	13	C	O4'-C1'	13.57	1.59	1.41
34	i	1241	G	C2'-C1'	-13.56	1.38	1.53
34	i	903	G	C2'-C1'	-13.54	1.38	1.53
34	i	1404	U	O4'-C1'	13.50	1.59	1.41
34	i	1455	G	C2'-C1'	-13.48	1.38	1.53
34	i	1805	C	O4'-C1'	13.48	1.59	1.41
34	i	1471	G	C2'-C1'	-13.47	1.38	1.53
34	i	568	C	O4'-C1'	13.46	1.59	1.41
34	i	1577	C	C2'-C1'	-13.45	1.38	1.53
34	i	1666	G	O4'-C1'	13.45	1.59	1.41
34	i	1777	C	O4'-C1'	13.39	1.59	1.41
34	i	858	A	O4'-C1'	13.39	1.59	1.41
34	i	402	G	O4'-C1'	13.39	1.59	1.41
34	i	728	U	O4'-C1'	13.39	1.59	1.41
34	i	980	C	C2'-C1'	-13.38	1.38	1.53
34	i	174	C	O4'-C1'	13.36	1.59	1.41
34	i	548	G	C2'-C1'	-13.36	1.38	1.53
34	i	510	A	C2'-C1'	-13.35	1.38	1.53
34	i	1623	C	C2'-C1'	-13.34	1.38	1.53
34	i	1091	U	C2'-C1'	-13.34	1.38	1.53
34	i	986	A	O4'-C1'	13.31	1.58	1.41
34	i	54	A	O4'-C1'	13.29	1.58	1.41
34	i	1267	C	O4'-C1'	13.29	1.58	1.41
34	i	1847	C	O4'-C1'	13.29	1.58	1.41
34	i	1433	C	C2'-C1'	-13.27	1.38	1.53
34	i	1074	C	C2'-C1'	-13.27	1.38	1.53
34	i	538	C	C2'-C1'	-13.27	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1128	C	C2'-C1'	-13.27	1.38	1.53
34	i	1270	G	C2'-C1'	-13.26	1.38	1.53
34	i	1063	C	O4'-C1'	13.26	1.58	1.41
34	i	1406	C	C2'-C1'	-13.24	1.38	1.53
34	i	1639	C	C2'-C1'	-13.21	1.38	1.53
34	i	144	U	C2'-C1'	-13.21	1.38	1.53
34	i	1232	G	O4'-C1'	-13.20	1.24	1.41
34	i	1257	C	O4'-C1'	13.17	1.58	1.41
34	i	826	A	O4'-C1'	-13.15	1.24	1.41
34	i	1583	A	C2'-C1'	-13.13	1.39	1.53
34	i	287	U	O4'-C1'	13.12	1.58	1.41
34	i	1447	G	O4'-C1'	13.10	1.58	1.41
34	i	1690	A	O4'-C1'	13.10	1.58	1.41
34	i	1715	U	C2'-C1'	13.04	1.67	1.53
34	i	565	A	O4'-C1'	13.04	1.58	1.41
34	i	1122	G	C2'-C1'	-13.04	1.39	1.53
34	i	1600	G	C2'-C1'	-13.02	1.39	1.53
34	i	1015	C	O4'-C1'	13.01	1.58	1.41
34	i	1683	C	O4'-C1'	13.00	1.58	1.41
34	i	1075	C	O4'-C1'	12.99	1.58	1.41
34	i	1515	G	C2'-C1'	-12.95	1.39	1.53
34	i	542	G	C2'-C1'	-12.95	1.39	1.53
34	i	1771	G	C2'-C1'	-12.92	1.39	1.53
34	i	1542	C	O4'-C1'	12.91	1.58	1.41
34	i	985	C	O4'-C1'	12.87	1.58	1.41
34	i	1546	U	C2'-C1'	-12.87	1.39	1.53
34	i	274	G	C2'-C1'	-12.87	1.39	1.53
34	i	1539	C	O4'-C1'	12.81	1.58	1.41
34	i	687	G	O4'-C1'	12.80	1.58	1.41
34	i	1837	G	C2'-C1'	-12.80	1.39	1.53
34	i	1390	G	C2'-C1'	-12.80	1.39	1.53
34	i	726	C	C2'-C1'	-12.78	1.39	1.53
34	i	1087	C	O4'-C1'	12.78	1.58	1.41
34	i	973	C	O4'-C1'	12.77	1.58	1.41
34	i	646	G	C2'-C1'	-12.77	1.39	1.53
34	i	1563	C	O4'-C1'	12.73	1.58	1.41
34	i	1792	C	C2'-C1'	-12.72	1.39	1.53
34	i	1856	G	O4'-C1'	12.71	1.58	1.41
34	i	1160	G	C2'-C1'	-12.69	1.39	1.53
34	i	981	G	C2'-C1'	-12.69	1.39	1.53
34	i	1786	G	C2'-C1'	-12.67	1.39	1.53
34	i	731	C	O4'-C1'	12.66	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	282	G	C2'-C1'	-12.66	1.39	1.53
34	i	484	C	O4'-C1'	12.66	1.58	1.41
34	i	1113	C	O4'-C1'	-12.65	1.25	1.41
34	i	1259	U	O4'-C1'	12.62	1.58	1.41
34	i	324	C	O4'-C1'	12.62	1.58	1.41
34	i	80	G	O4'-C1'	12.62	1.58	1.41
34	i	798	A	C2'-C1'	-12.61	1.39	1.53
34	i	539	C	O4'-C1'	12.60	1.58	1.41
34	i	193	C	O4'-C1'	12.59	1.58	1.41
34	i	788	C	O4'-C1'	12.59	1.58	1.41
34	i	853	U	C2'-C1'	-12.59	1.39	1.53
34	i	1451	A	O4'-C1'	12.59	1.58	1.41
34	i	1677	C	O4'-C1'	12.58	1.58	1.41
34	i	546	U	C2'-C1'	-12.57	1.39	1.53
34	i	1376	C	C2'-C1'	-12.56	1.39	1.53
34	i	907	C	C2'-C1'	-12.55	1.39	1.53
34	i	482	C	O4'-C1'	12.55	1.57	1.41
34	i	1079	A	C2'-C1'	-12.53	1.39	1.53
34	i	1711	C	O4'-C1'	12.51	1.57	1.41
34	i	1326	G	C2'-C1'	-12.51	1.39	1.53
34	i	741	C	C2'-C1'	-12.50	1.39	1.53
34	i	1165	G	C2'-C1'	-12.47	1.39	1.53
34	i	1632	A	C2'-C1'	12.46	1.67	1.53
34	i	1300	U	C2'-C1'	-12.45	1.39	1.53
34	i	155	G	C2'-C1'	-12.44	1.39	1.53
34	i	1436	C	C2'-C1'	-12.44	1.39	1.53
34	i	744	C	O4'-C1'	12.39	1.57	1.41
34	i	1063	C	C2'-C1'	-12.39	1.39	1.53
34	i	48	C	O4'-C1'	12.39	1.57	1.41
34	i	622	C	C2'-C1'	-12.38	1.39	1.53
34	i	650	C	O4'-C1'	12.37	1.57	1.41
34	i	1579	G	C2'-C1'	-12.36	1.39	1.53
34	i	1002	C	C2'-C1'	-12.36	1.39	1.53
34	i	1262	C	C2'-C1'	-12.35	1.39	1.53
34	i	1322	U	O4'-C1'	12.33	1.57	1.41
34	i	1312	C	C2'-C1'	-12.33	1.39	1.53
34	i	64	A	O4'-C1'	-12.30	1.25	1.41
34	i	1003	C	C2'-C1'	-12.30	1.39	1.53
34	i	34	U	C2'-C1'	-12.27	1.39	1.53
34	i	611	C	C2'-C1'	-12.26	1.39	1.53
34	i	1261	A	C2'-C1'	-12.25	1.39	1.53
34	i	522	C	O4'-C1'	12.23	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	369	C	C2'-C1'	-12.23	1.39	1.53
34	i	1734	C	O4'-C1'	12.23	1.57	1.41
34	i	1338	U	O4'-C1'	12.22	1.57	1.41
34	i	1262	C	O4'-C1'	12.20	1.57	1.41
32	f	152	LYS	C-O	-12.18	1.00	1.23
13	M	132	LYS	C-OXT	-12.15	1.00	1.23
34	i	623	C	O4'-C1'	12.15	1.57	1.41
14	N	151	ALA	C-OXT	-12.15	1.00	1.23
34	i	1737	C	C2'-C1'	-12.15	1.40	1.53
34	i	62	G	O4'-C1'	12.14	1.57	1.41
34	i	1542	C	C2'-C1'	-12.14	1.40	1.53
34	i	869	G	C2'-C1'	-12.14	1.40	1.53
34	i	638	A	C2'-C1'	-12.13	1.40	1.53
20	T	144	LYS	C-O	-12.13	1.00	1.23
13	M	132	LYS	C-O	-12.12	1.00	1.23
3	C	263	THR	C-O	-12.12	1.00	1.23
23	W	130	PHE	C-OXT	-12.12	1.00	1.23
28	b	84	HIS	C-OXT	-12.11	1.00	1.23
24	X	142	ARG	C-O	-12.10	1.00	1.23
8	H	194	LEU	C-O	-12.08	1.00	1.23
14	N	151	ALA	C-O	-12.08	1.00	1.23
34	i	1116	U	C2'-C1'	-12.08	1.40	1.53
31	e	133	SER	C-O	-12.08	1.00	1.23
34	i	1801	C	O4'-C1'	12.07	1.57	1.41
34	i	1532	A	O4'-C1'	12.07	1.57	1.41
34	i	1404	U	C2'-C1'	-12.07	1.40	1.53
34	i	598	C	O4'-C1'	12.06	1.57	1.41
34	i	583	C	O4'-C1'	12.06	1.57	1.41
5	E	263	GLY	C-OXT	-12.05	1.00	1.23
6	F	204	ARG	C-OXT	-12.05	1.00	1.23
31	e	133	SER	C-OXT	-12.04	1.00	1.23
30	d	56	ASP	C-O	-12.03	1.00	1.23
34	i	970	C	C2'-C1'	-12.03	1.40	1.53
34	i	1222	G	O4'-C1'	12.03	1.57	1.41
34	i	1066	A	C2'-C1'	-12.02	1.40	1.53
6	F	204	ARG	C-O	-12.01	1.00	1.23
11	K	98	ARG	C-O	-12.00	1.00	1.23
23	W	130	PHE	C-O	-12.00	1.00	1.23
29	c	68	LEU	C-O	-12.00	1.00	1.23
30	d	56	ASP	C-OXT	-12.00	1.00	1.23
34	i	299	G	O4'-C1'	11.99	1.57	1.41
1	A	209	GLU	C-O	-11.99	1.00	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	L	158	PHE	C-OXT	-11.99	1.00	1.23
34	i	612	C	O4'-C1'	11.99	1.57	1.41
4	D	227	LYS	C-O	-11.98	1.00	1.23
12	L	158	PHE	C-O	-11.98	1.00	1.23
34	i	1548	C	O4'-C1'	-11.97	1.26	1.41
34	i	465	C	O4'-C1'	11.97	1.57	1.41
33	g	314	ILE	C-O	-11.95	1.00	1.23
8	H	194	LEU	C-OXT	-11.94	1.00	1.23
10	J	146	SER	C-N	11.92	1.61	1.34
34	i	971	G	C2'-C1'	-11.92	1.40	1.53
34	i	1009	U	C2'-C1'	-11.91	1.40	1.53
34	i	56	G	C2'-C1'	-11.91	1.40	1.53
34	i	1788	C	O4'-C1'	11.91	1.57	1.41
34	i	276	U	O4'-C1'	11.90	1.57	1.41
34	i	553	G	O4'-C1'	11.90	1.57	1.41
28	b	84	HIS	C-O	-11.89	1.00	1.23
34	i	302	C	O4'-C1'	11.89	1.57	1.41
34	i	1573	U	C2'-C1'	11.88	1.66	1.53
34	i	1114	C	C2'-C1'	11.87	1.66	1.53
34	i	1524	C	C2'-C1'	-11.86	1.40	1.53
34	i	18	C	O4'-C1'	11.84	1.57	1.41
34	i	664	C	C2'-C1'	-11.82	1.40	1.53
34	i	67	C	C2'-C1'	11.81	1.66	1.53
34	i	1060	C	O4'-C1'	11.80	1.56	1.41
34	i	906	G	C2'-C1'	-11.80	1.40	1.53
34	i	727	G	C2'-C1'	-11.80	1.40	1.53
34	i	1650	C	O4'-C1'	11.80	1.56	1.41
34	i	907	C	O4'-C1'	11.79	1.56	1.41
34	i	667	G	C2'-C1'	-11.77	1.40	1.53
34	i	1628	A	O4'-C1'	11.77	1.56	1.41
34	i	318	U	C2'-C1'	-11.75	1.40	1.53
34	i	1428	U	O4'-C1'	11.74	1.56	1.41
34	i	569	C	O4'-C1'	11.73	1.56	1.41
34	i	670	G	C2'-C1'	-11.73	1.40	1.53
34	i	539	C	C2'-C1'	-11.69	1.40	1.53
34	i	1260	C	C2'-C1'	-11.68	1.40	1.53
34	i	396	U	C2'-C1'	-11.68	1.40	1.53
34	i	639	U	C2'-C1'	-11.68	1.40	1.53
34	i	589	A	C2'-C1'	-11.67	1.40	1.53
34	i	833	A	C2'-C1'	-11.67	1.40	1.53
34	i	1387	C	O4'-C1'	11.67	1.56	1.41
34	i	864	G	O4'-C1'	11.66	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	325	G	O4'-C1'	-11.66	1.26	1.41
34	i	1698	C	O4'-C1'	11.62	1.56	1.41
34	i	606	A	O4'-C1'	11.60	1.56	1.41
34	i	1537	C	O4'-C1'	11.58	1.56	1.41
19	S	141	ARG	C-N	11.58	1.60	1.34
34	i	549	G	C2'-C1'	-11.58	1.40	1.53
34	i	545	A	O4'-C1'	11.57	1.56	1.41
34	i	1181	C	O4'-C1'	11.57	1.56	1.41
34	i	947	C	C2'-C1'	-11.55	1.40	1.53
34	i	1195	A	C2'-C1'	-11.55	1.40	1.53
34	i	1074	C	O4'-C1'	11.54	1.56	1.41
34	i	407	C	O4'-C1'	11.53	1.56	1.41
34	i	668	U	C2'-C1'	-11.52	1.40	1.53
34	i	976	A	C2'-C1'	-11.50	1.40	1.53
34	i	805	A	C2'-C1'	-11.50	1.40	1.53
34	i	471	C	C2'-C1'	-11.50	1.40	1.53
34	i	1114	C	O4'-C1'	-11.49	1.26	1.41
34	i	436	G	O4'-C1'	11.48	1.56	1.41
34	i	1732	G	O4'-C1'	11.47	1.56	1.41
34	i	559	A	C2'-C1'	-11.45	1.40	1.53
34	i	851	G	C2'-C1'	-11.44	1.40	1.53
34	i	622	C	O4'-C1'	11.44	1.56	1.41
34	i	887	G	O4'-C1'	11.41	1.56	1.41
34	i	436	G	C2'-C1'	-11.40	1.40	1.53
34	i	521	A	O4'-C1'	11.40	1.56	1.41
34	i	1025	G	C2'-C1'	-11.40	1.40	1.53
34	i	500	G	C2'-C1'	-11.40	1.40	1.53
34	i	288	A	C2'-C1'	-11.38	1.40	1.53
34	i	1323	G	C2'-C1'	-11.38	1.40	1.53
25	Y	86	GLU	C-N	11.35	1.55	1.34
34	i	48	C	C2'-C1'	-11.34	1.40	1.53
34	i	682	G	C2'-C1'	-11.34	1.40	1.53
34	i	452	C	C2'-C1'	-11.33	1.40	1.53
34	i	1101	G	C2'-C1'	-11.33	1.40	1.53
34	i	1124	C	O4'-C1'	11.33	1.56	1.41
34	i	360	G	C2'-C1'	-11.30	1.41	1.53
34	i	323	G	C2'-C1'	-11.30	1.41	1.53
34	i	395	G	C2'-C1'	-11.28	1.41	1.53
34	i	1653	G	C2'-C1'	-11.27	1.41	1.53
34	i	1775	A	C2'-C1'	-11.27	1.41	1.53
34	i	900	A	O4'-C1'	11.24	1.56	1.41
34	i	736	C	O4'-C1'	11.24	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1669	G	O4'-C1'	11.22	1.56	1.41
34	i	936	U	C2'-C1'	-11.22	1.41	1.53
34	i	414	C	O4'-C1'	11.21	1.56	1.41
34	i	635	C	O4'-C1'	11.20	1.56	1.41
23	W	2	VAL	C-N	11.20	1.59	1.34
7	G	131	ARG	CG-CD	11.20	1.79	1.51
34	i	1792	C	O4'-C1'	11.18	1.56	1.41
34	i	1448	A	O4'-C1'	11.17	1.56	1.41
34	i	335	U	C2'-C1'	-11.14	1.41	1.53
34	i	938	G	C2'-C1'	-11.14	1.41	1.53
34	i	1044	G	O4'-C1'	11.14	1.56	1.41
34	i	1202	G	C2'-C1'	-11.14	1.41	1.53
34	i	964	U	O4'-C1'	11.13	1.56	1.41
34	i	84	A	O4'-C1'	11.12	1.56	1.41
34	i	839	C	O4'-C1'	11.11	1.56	1.41
34	i	1220	G	C2'-C1'	-11.09	1.41	1.53
34	i	1238	U	C2'-C1'	-11.09	1.41	1.53
34	i	1568	G	C2'-C1'	-11.09	1.41	1.53
34	i	77	A	C2'-C1'	11.09	1.65	1.53
34	i	1015	C	C2'-C1'	-11.08	1.41	1.53
34	i	1585	C	O4'-C1'	11.07	1.56	1.41
7	G	131	ARG	C-N	11.07	1.59	1.34
34	i	347	C	C2'-C1'	-11.06	1.41	1.53
34	i	479	A	O4'-C1'	11.05	1.56	1.41
34	i	871	A	O4'-C1'	11.04	1.56	1.41
34	i	402	G	C2'-C1'	-11.04	1.41	1.53
34	i	691	G	C2'-C1'	-11.00	1.41	1.53
34	i	1813	A	C2'-C1'	-11.00	1.41	1.53
34	i	901	C	O4'-C1'	10.99	1.55	1.41
34	i	1226	C	O4'-C1'	10.98	1.55	1.41
34	i	1603	U	O4'-C1'	10.98	1.55	1.41
34	i	1289	A	C2'-C1'	-10.98	1.41	1.53
34	i	4	C	O4'-C1'	10.97	1.55	1.41
18	R	1	MET	C-N	-10.96	1.13	1.33
34	i	664	C	O4'-C1'	10.95	1.55	1.41
34	i	1120	C	C2'-C1'	-10.94	1.41	1.53
34	i	582	C	O4'-C1'	-10.92	1.27	1.41
34	i	1176	C	O4'-C1'	10.90	1.55	1.41
34	i	547	U	C2'-C1'	-10.89	1.41	1.53
34	i	462	C	O4'-C1'	10.88	1.55	1.41
34	i	870	G	C2'-C1'	-10.87	1.41	1.53
34	i	1716	U	C2'-C1'	10.87	1.65	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1369	C	O4'-C1'	10.86	1.55	1.41
34	i	812	A	O4'-C1'	10.84	1.55	1.41
34	i	432	C	O4'-C1'	10.83	1.55	1.41
34	i	414	C	C2'-C1'	-10.83	1.41	1.53
34	i	1834	U	C2'-C1'	-10.82	1.41	1.53
34	i	839	C	C2'-C1'	-10.82	1.41	1.53
34	i	1403	U	C2'-C1'	-10.80	1.41	1.53
34	i	1400	U	C2'-C1'	-10.79	1.41	1.53
34	i	975	C	O4'-C1'	10.78	1.55	1.41
34	i	633	A	O4'-C1'	10.77	1.55	1.41
34	i	1159	C	O4'-C1'	10.76	1.55	1.41
34	i	1257	C	C2'-C1'	-10.76	1.41	1.53
34	i	916	A	C2'-C1'	-10.76	1.41	1.53
34	i	483	A	C2'-C1'	-10.75	1.41	1.53
34	i	1208	G	C2'-C1'	-10.75	1.41	1.53
34	i	1527	C	C2'-C1'	-10.75	1.41	1.53
34	i	1209	C	O4'-C1'	10.74	1.55	1.41
34	i	640	A	O4'-C1'	10.74	1.55	1.41
34	i	488	C	O4'-C1'	10.74	1.55	1.41
34	i	1301	C	C2'-C1'	-10.74	1.41	1.53
34	i	308	C	O4'-C1'	10.73	1.55	1.41
34	i	1547	G	C2'-C1'	10.73	1.65	1.53
34	i	1807	A	C2'-C1'	-10.71	1.41	1.53
34	i	327	C	C2'-C1'	-10.71	1.41	1.53
34	i	487	C	O4'-C1'	10.71	1.55	1.41
34	i	1050	G	C2'-C1'	-10.68	1.41	1.53
34	i	1200	A	O4'-C1'	10.68	1.55	1.41
34	i	1207	G	C2'-C1'	-10.66	1.41	1.53
34	i	1048	A	O4'-C1'	10.66	1.55	1.41
34	i	1578	C	O4'-C1'	10.66	1.55	1.41
34	i	1481	U	C2'-C1'	-10.65	1.41	1.53
34	i	1496	G	O4'-C1'	10.65	1.55	1.41
34	i	352	C	O4'-C1'	10.64	1.55	1.41
34	i	1684	C	C2'-C1'	-10.63	1.41	1.53
34	i	1481	U	O4'-C1'	10.63	1.55	1.41
34	i	143	U	O4'-C1'	10.63	1.55	1.41
34	i	1708	C	O4'-C1'	10.62	1.55	1.41
19	S	54	LYS	N-CA	10.61	1.67	1.46
34	i	286	C	C2'-C1'	-10.61	1.41	1.53
34	i	1729	G	C2'-C1'	-10.61	1.41	1.53
34	i	875	C	C2'-C1'	-10.60	1.41	1.53
34	i	868	A	O4'-C1'	-10.59	1.27	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	416	A	O4'-C1'	10.58	1.55	1.41
34	i	1258	C	O4'-C1'	10.57	1.55	1.41
34	i	1752	G	C2'-C1'	-10.56	1.41	1.53
9	I	43	ILE	CA-C	-10.56	1.25	1.52
34	i	1259	U	C2'-C1'	-10.55	1.41	1.53
34	i	547	U	O4'-C1'	10.54	1.55	1.41
34	i	449	C	O4'-C1'	10.53	1.55	1.41
34	i	50	A	C2'-C1'	-10.53	1.41	1.53
34	i	605	C	C2'-C1'	-10.51	1.41	1.53
34	i	507	C	C2'-C1'	-10.50	1.41	1.53
34	i	316	C	O4'-C1'	10.50	1.55	1.41
34	i	1280	A	O4'-C1'	10.50	1.55	1.41
34	i	984	C	C2'-C1'	-10.49	1.41	1.53
34	i	16	G	C2'-C1'	-10.49	1.41	1.53
19	S	40	TYR	C-N	-10.48	1.09	1.34
34	i	933	C	O4'-C1'	10.47	1.55	1.41
34	i	241	A	O4'-C1'	10.47	1.55	1.41
34	i	355	C	O4'-C1'	10.46	1.55	1.41
34	i	529	C	O4'-C1'	10.46	1.55	1.41
34	i	480	C	O4'-C1'	10.46	1.55	1.41
34	i	1755	U	O4'-C1'	10.46	1.55	1.41
34	i	1128	C	O4'-C1'	10.45	1.55	1.41
34	i	385	G	C2'-C1'	-10.44	1.41	1.53
34	i	54	A	C2'-C1'	-10.44	1.41	1.53
34	i	1578	C	C2'-C1'	-10.44	1.41	1.53
34	i	1624	C	C2'-C1'	-10.44	1.41	1.53
34	i	825	C	O4'-C1'	10.44	1.55	1.41
34	i	178	C	C2'-C1'	-10.42	1.41	1.53
34	i	1398	A	O4'-C1'	10.41	1.55	1.41
34	i	1778	G	O4'-C1'	10.41	1.55	1.41
34	i	1700	C	O4'-C1'	10.40	1.55	1.41
34	i	170	A	O4'-C1'	-10.40	1.28	1.41
34	i	1105	C	O4'-C1'	-10.40	1.28	1.41
34	i	1617	U	C2'-C1'	-10.40	1.42	1.53
34	i	1375	A	C2'-C1'	-10.39	1.42	1.53
34	i	560	C	O4'-C1'	10.39	1.55	1.41
34	i	558	C	O4'-C1'	10.37	1.55	1.41
34	i	230	C	O4'-C1'	10.36	1.55	1.41
34	i	1309	A	C2'-C1'	-10.34	1.42	1.53
34	i	1324	G	C2'-C1'	-10.32	1.42	1.53
34	i	1682	C	O4'-C1'	10.31	1.55	1.41
34	i	1230	C	C2'-C1'	-10.31	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1576	C	O4'-C1'	10.31	1.55	1.41
34	i	1682	C	C2'-C1'	-10.31	1.42	1.53
34	i	1272	A	O4'-C1'	10.27	1.55	1.41
34	i	75	G	C2'-C1'	-10.27	1.42	1.53
34	i	729	C	O4'-C1'	10.27	1.54	1.41
34	i	410	G	C2'-C1'	-10.26	1.42	1.53
34	i	1410	A	C2'-C1'	-10.25	1.42	1.53
34	i	382	A	O4'-C1'	10.25	1.54	1.41
34	i	1486	G	C2'-C1'	-10.25	1.42	1.53
34	i	1783	G	O4'-C1'	10.24	1.54	1.41
34	i	79	A	C2'-C1'	10.23	1.64	1.53
34	i	1835	C	O4'-C1'	10.23	1.54	1.41
34	i	1165	G	O4'-C1'	10.23	1.54	1.41
34	i	52	G	C2'-C1'	-10.22	1.42	1.53
34	i	84	A	C2'-C1'	-10.22	1.42	1.53
34	i	1411	C	C2'-C1'	-10.21	1.42	1.53
34	i	653	C	C2'-C1'	-10.20	1.42	1.53
34	i	315	C	C2'-C1'	10.20	1.64	1.53
34	i	352	C	C2'-C1'	-10.19	1.42	1.53
34	i	313	C	O4'-C1'	10.18	1.54	1.41
34	i	1651	G	C2'-C1'	-10.18	1.42	1.53
34	i	977	A	O4'-C1'	10.17	1.54	1.41
34	i	683	G	C2'-C1'	-10.16	1.42	1.53
34	i	1573	U	O4'-C1'	-10.16	1.28	1.41
34	i	1766	C	C2'-C1'	-10.14	1.42	1.53
34	i	1271	G	C2'-C1'	-10.14	1.42	1.53
34	i	209	C	O4'-C1'	10.12	1.54	1.41
34	i	1827	C	O4'-C1'	10.12	1.54	1.41
34	i	563	U	C2'-C1'	-10.09	1.42	1.53
34	i	1071	C	C2'-C1'	-10.09	1.42	1.53
34	i	823	A	C2'-C1'	-10.09	1.42	1.53
34	i	1076	A	O4'-C1'	-10.08	1.28	1.41
34	i	76	U	O4'-C1'	10.07	1.54	1.41
34	i	1139	A	C2'-C1'	-10.06	1.42	1.53
34	i	1181	C	C2'-C1'	-10.06	1.42	1.53
34	i	428	G	C2'-C1'	10.05	1.64	1.53
34	i	588	G	C2'-C1'	-10.05	1.42	1.53
34	i	1133	U	O4'-C1'	10.05	1.54	1.41
34	i	82	G	C2'-C1'	10.04	1.64	1.53
34	i	1312	C	O4'-C1'	10.04	1.54	1.41
34	i	486	C	O4'-C1'	10.03	1.54	1.41
34	i	1096	A	O4'-C1'	10.03	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	120	U	C2'-C1'	-10.02	1.42	1.53
34	i	809	A	O4'-C1'	10.01	1.54	1.41
34	i	1098	G	C2'-C1'	-10.00	1.42	1.53
34	i	85	A	C2'-C1'	-10.00	1.42	1.53
34	i	1359	C	O4'-C1'	9.99	1.54	1.41
34	i	1377	G	O4'-C1'	-9.99	1.28	1.41
34	i	1467	C	C2'-C1'	-9.97	1.42	1.53
34	i	1316	G	O4'-C1'	-9.97	1.28	1.41
34	i	1504	A	C2'-C1'	9.97	1.64	1.53
34	i	1600	G	O4'-C1'	9.96	1.54	1.41
34	i	142	C	O4'-C1'	-9.96	1.28	1.41
34	i	66	G	O4'-C1'	9.96	1.54	1.41
34	i	1585	C	C2'-C1'	-9.94	1.42	1.53
34	i	111	A	O4'-C1'	-9.93	1.28	1.41
34	i	193	C	C2'-C1'	-9.93	1.42	1.53
34	i	1819	A	C2'-C1'	9.93	1.64	1.53
34	i	1678	C	O4'-C1'	9.92	1.54	1.41
34	i	1787	A	O4'-C1'	9.92	1.54	1.41
34	i	437	A	C2'-C1'	9.91	1.64	1.53
34	i	533	C	O4'-C1'	9.91	1.54	1.41
34	i	1779	C	C2'-C1'	9.90	1.64	1.53
34	i	1055	G	C2'-C1'	-9.90	1.42	1.53
34	i	1006	G	O4'-C1'	-9.90	1.28	1.41
34	i	1209	C	C2'-C1'	-9.89	1.42	1.53
34	i	1822	C	O4'-C1'	9.89	1.54	1.41
34	i	149	A	O4'-C1'	9.87	1.54	1.41
34	i	392	C	O4'-C1'	9.87	1.54	1.41
34	i	946	C	O4'-C1'	9.86	1.54	1.41
34	i	1503	G	C2'-C1'	-9.86	1.42	1.53
34	i	1329	U	C2'-C1'	9.86	1.64	1.53
34	i	1740	A	C2'-C1'	9.86	1.64	1.53
34	i	1559	C	O4'-C1'	9.85	1.54	1.41
34	i	956	U	O4'-C1'	9.85	1.54	1.41
34	i	564	A	C2'-C1'	-9.84	1.42	1.53
34	i	311	C	C2'-C1'	-9.84	1.42	1.53
34	i	1594	U	C2'-C1'	9.82	1.64	1.53
34	i	1432	C	C2'-C1'	-9.82	1.42	1.53
34	i	645	A	C2'-C1'	-9.82	1.42	1.53
34	i	96	C	O4'-C1'	9.81	1.54	1.41
34	i	487	C	C2'-C1'	-9.81	1.42	1.53
34	i	1338	U	C2'-C1'	-9.80	1.42	1.53
34	i	359	C	C2'-C1'	-9.80	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	855	G	C2'-C1'	-9.79	1.42	1.53
34	i	932	G	C2'-C1'	-9.79	1.42	1.53
34	i	298	G	O4'-C1'	-9.79	1.28	1.41
34	i	1029	G	C2'-C1'	-9.78	1.42	1.53
34	i	1428	U	C2'-C1'	-9.76	1.42	1.53
34	i	1201	C	C2'-C1'	-9.75	1.42	1.53
34	i	654	A	C2'-C1'	-9.74	1.42	1.53
34	i	560	C	C2'-C1'	-9.74	1.42	1.53
34	i	1462	G	C2'-C1'	-9.73	1.42	1.53
34	i	1204	A	C2'-C1'	9.72	1.64	1.53
34	i	544	A	C2'-C1'	-9.71	1.42	1.53
34	i	1320	G	C2'-C1'	-9.70	1.42	1.53
34	i	1784	A	C2'-C1'	-9.70	1.42	1.53
34	i	481	C	C2'-C1'	-9.68	1.42	1.53
34	i	67	C	O4'-C1'	-9.67	1.29	1.41
34	i	888	U	C2'-C1'	-9.67	1.42	1.53
34	i	31	U	C2'-C1'	9.65	1.64	1.53
34	i	419	C	O4'-C1'	9.65	1.54	1.41
34	i	1120	C	O4'-C1'	9.64	1.54	1.41
34	i	1707	A	C2'-C1'	-9.63	1.42	1.53
34	i	1808	G	C2'-C1'	-9.63	1.42	1.53
34	i	1031	A	C2'-C1'	-9.63	1.42	1.53
34	i	1099	C	C2'-C1'	-9.62	1.42	1.53
34	i	1337	C	O4'-C1'	9.62	1.54	1.41
34	i	88	G	C2'-C1'	-9.61	1.42	1.53
34	i	1296	U	O4'-C1'	-9.60	1.29	1.41
34	i	507	C	O4'-C1'	9.60	1.54	1.41
34	i	829	C	C2'-C1'	-9.59	1.42	1.53
34	i	1669	G	C2'-C1'	-9.58	1.42	1.53
34	i	1464	C	O4'-C1'	9.58	1.54	1.41
34	i	150	A	O4'-C1'	9.57	1.54	1.41
34	i	166	A	C2'-C1'	-9.56	1.42	1.53
34	i	675	A	C2'-C1'	-9.56	1.42	1.53
34	i	657	U	O4'-C1'	9.55	1.54	1.41
34	i	448	A	O4'-C1'	9.55	1.54	1.41
34	i	445	A	O4'-C1'	9.54	1.54	1.41
34	i	1572	G	O4'-C1'	9.54	1.54	1.41
34	i	13	C	C2'-C1'	-9.53	1.42	1.53
34	i	511	A	C2'-C1'	-9.53	1.42	1.53
34	i	1437	U	C2'-C1'	9.52	1.63	1.53
34	i	1339	U	O4'-C1'	9.52	1.54	1.41
34	i	799	C	C2'-C1'	-9.52	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1742	C	O3'-P	-9.52	1.49	1.61
34	i	173	A	O4'-C1'	9.50	1.54	1.41
34	i	212	G	O4'-C1'	9.50	1.53	1.41
34	i	1536	G	C2'-C1'	-9.50	1.43	1.53
19	S	6	PRO	CA-C	9.48	1.71	1.52
34	i	298	G	C2'-C1'	9.47	1.63	1.53
34	i	980	C	O4'-C1'	9.46	1.53	1.41
10	J	35	TYR	CD1-CE1	-9.46	1.25	1.39
34	i	1211	C	C2'-C1'	9.45	1.63	1.53
34	i	311	C	O4'-C1'	9.45	1.53	1.41
34	i	743	U	O4'-C1'	9.44	1.53	1.41
34	i	1790	G	C2'-C1'	-9.43	1.43	1.53
34	i	1440	U	C2'-C1'	-9.42	1.43	1.53
34	i	1365	A	C2'-C1'	-9.41	1.43	1.53
34	i	1101	G	O4'-C1'	9.40	1.53	1.41
34	i	1112	C	O4'-C1'	-9.40	1.29	1.41
34	i	285	U	O4'-C1'	9.40	1.53	1.41
34	i	1025	G	O4'-C1'	9.40	1.53	1.41
34	i	1713	G	C2'-C1'	-9.40	1.43	1.53
34	i	884	U	O4'-C1'	9.39	1.53	1.41
34	i	726	C	O4'-C1'	9.38	1.53	1.41
34	i	1328	A	O4'-C1'	9.37	1.53	1.41
34	i	1735	C	O4'-C1'	9.36	1.53	1.41
34	i	1781	G	C2'-C1'	-9.36	1.43	1.53
34	i	1251	G	O4'-C1'	9.36	1.53	1.41
34	i	1301	C	O4'-C1'	9.36	1.53	1.41
34	i	1534	U	C2'-C1'	9.35	1.63	1.53
34	i	1118	A	C2'-C1'	9.35	1.63	1.53
34	i	614	C	O4'-C1'	9.34	1.53	1.41
34	i	457	G	O4'-C1'	9.33	1.53	1.41
34	i	1029	G	O4'-C1'	9.32	1.53	1.41
34	i	440	C	C2'-C1'	9.32	1.63	1.53
34	i	1548	C	C2'-C1'	9.32	1.63	1.53
34	i	53	C	O4'-C1'	9.32	1.53	1.41
34	i	1618	A	C2'-C1'	9.31	1.63	1.53
34	i	1861	U	C2'-C1'	9.31	1.63	1.53
34	i	927	C	O4'-C1'	9.30	1.53	1.41
34	i	332	C	O4'-C1'	9.30	1.53	1.41
34	i	234	C	C2'-C1'	9.30	1.63	1.53
34	i	790	A	O4'-C1'	9.29	1.53	1.41
34	i	1849	G	C2'-C1'	-9.29	1.43	1.53
34	i	1744	G	C2'-C1'	-9.29	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1335	U	P-O5'	-9.28	1.50	1.59
34	i	1402	G	C2'-C1'	-9.27	1.43	1.53
34	i	1622	C	O4'-C1'	9.27	1.53	1.41
34	i	678	U	O4'-C1'	-9.26	1.29	1.41
19	S	40	TYR	CA-C	-9.25	1.28	1.52
34	i	367	G	C2'-C1'	-9.25	1.43	1.53
34	i	1557	C	O4'-C1'	9.25	1.53	1.41
34	i	1460	C	O4'-C1'	9.23	1.53	1.41
34	i	1729	G	O4'-C1'	9.22	1.53	1.41
34	i	944	C	O4'-C1'	9.21	1.53	1.41
34	i	618	A	O4'-C1'	-9.19	1.29	1.41
4	D	96	LEU	C-N	9.17	1.55	1.34
34	i	1177	A	C2'-C1'	-9.16	1.43	1.53
34	i	49	C	C2'-C1'	-9.15	1.43	1.53
34	i	405	A	C2'-C1'	9.15	1.63	1.53
34	i	1477	G	C2'-C1'	-9.14	1.43	1.53
34	i	650	C	C2'-C1'	-9.14	1.43	1.53
34	i	666	C	O4'-C1'	9.13	1.53	1.41
34	i	1049	C	O4'-C1'	9.13	1.53	1.41
34	i	1275	C	C2'-C1'	9.13	1.63	1.53
34	i	42	A	C2'-C1'	-9.12	1.43	1.53
34	i	939	U	O4'-C1'	9.12	1.53	1.41
34	i	827	G	C2'-C1'	-9.12	1.43	1.53
3	C	47	PRO	N-CD	9.10	1.60	1.47
34	i	481	C	O4'-C1'	9.09	1.53	1.41
2	B	155	TYR	CB-CG	-9.09	1.38	1.51
34	i	1607	G	C2'-C1'	9.09	1.63	1.53
34	i	895	U	O4'-C1'	9.08	1.53	1.41
34	i	804	A	O4'-C1'	9.08	1.53	1.41
34	i	1850	C	O4'-C1'	9.07	1.53	1.41
34	i	171	A	O4'-C1'	-9.06	1.29	1.41
34	i	1385	C	C2'-C1'	-9.05	1.43	1.53
34	i	1028	C	C2'-C1'	-9.04	1.43	1.53
34	i	1647	G	C2'-C1'	-9.03	1.43	1.53
34	i	1341	G	O4'-C1'	9.02	1.53	1.41
34	i	1565	G	O4'-C1'	-9.02	1.29	1.41
34	i	666	C	C2'-C1'	-9.02	1.43	1.53
27	a	10	ARG	CD-NE	9.00	1.61	1.46
34	i	1288	C	C2'-C1'	-8.99	1.43	1.53
8	H	109	ARG	CA-CB	-8.98	1.34	1.53
34	i	373	G	O4'-C1'	8.97	1.53	1.41
34	i	1646	A	C2'-C1'	8.97	1.63	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	211	U	O4'-C1'	8.97	1.53	1.41
34	i	1040	G	C2'-C1'	-8.97	1.43	1.53
34	i	972	G	C2'-C1'	-8.96	1.43	1.53
34	i	1018	U	O4'-C1'	8.95	1.53	1.41
34	i	1559	C	C2'-C1'	-8.95	1.43	1.53
34	i	1533	C	O4'-C1'	8.94	1.53	1.41
34	i	1780	U	O4'-C1'	8.94	1.53	1.41
34	i	683	G	O4'-C1'	8.92	1.53	1.41
34	i	204	G	C2'-C1'	8.92	1.63	1.53
34	i	69	C	O4'-C1'	8.91	1.53	1.41
34	i	1054	A	O4'-C1'	8.91	1.53	1.41
34	i	41	G	O4'-C1'	8.90	1.53	1.41
34	i	97	U	O4'-C1'	8.89	1.53	1.41
34	i	1829	A	O4'-C1'	8.89	1.53	1.41
34	i	1370	C	O4'-C1'	8.89	1.53	1.41
34	i	653	C	O4'-C1'	8.88	1.53	1.41
34	i	432	C	C2'-C1'	-8.87	1.43	1.53
34	i	1478	C	O4'-C1'	8.87	1.53	1.41
34	i	813	G	C2'-C1'	-8.86	1.43	1.53
34	i	1336	U	C2'-C1'	8.86	1.63	1.53
34	i	178	C	O4'-C1'	8.86	1.53	1.41
34	i	1813	A	O4'-C1'	8.86	1.53	1.41
34	i	220	C	O4'-C1'	8.85	1.53	1.41
34	i	1791	U	O4'-C1'	8.85	1.53	1.41
34	i	936	U	O4'-C1'	8.85	1.53	1.41
34	i	1104	G	O4'-C1'	-8.84	1.30	1.41
34	i	1385	C	O4'-C1'	8.84	1.53	1.41
34	i	1571	G	O4'-C1'	8.84	1.53	1.41
34	i	106	C	O4'-C1'	8.82	1.53	1.41
7	G	36	VAL	CB-CG1	-8.82	1.34	1.52
34	i	1039	G	C2'-C1'	-8.82	1.43	1.53
34	i	1407	G	O4'-C1'	8.82	1.53	1.41
34	i	69	C	C2'-C1'	-8.82	1.43	1.53
34	i	1225	G	C2'-C1'	-8.82	1.43	1.53
34	i	26	U	O4'-C1'	8.81	1.53	1.41
27	a	97	PRO	C-N	8.80	1.50	1.34
34	i	194	C	O4'-C1'	8.80	1.53	1.41
34	i	189	G	O4'-C1'	8.80	1.53	1.41
34	i	900	A	C2'-C1'	-8.80	1.43	1.53
34	i	510	A	O4'-C1'	8.79	1.53	1.41
34	i	939	U	C2'-C1'	-8.78	1.43	1.53
34	i	1706	U	C2'-C1'	-8.76	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	380	C	O4'-C1'	8.76	1.53	1.41
34	i	1678	C	C2'-C1'	-8.75	1.43	1.53
34	i	540	C	O4'-C1'	8.75	1.53	1.41
34	i	1456	C	O4'-C1'	8.74	1.53	1.41
34	i	1822	C	C2'-C1'	-8.73	1.43	1.53
34	i	989	G	C2'-C1'	-8.73	1.43	1.53
34	i	575	C	O4'-C1'	8.72	1.52	1.41
34	i	1440	U	O4'-C1'	8.72	1.52	1.41
34	i	170	A	C2'-C1'	-8.72	1.43	1.53
34	i	1158	C	O4'-C1'	8.71	1.52	1.41
34	i	688	U	C2'-C1'	-8.71	1.43	1.53
34	i	1218	G	C2'-C1'	-8.70	1.43	1.53
34	i	853	U	O4'-C1'	8.70	1.52	1.41
19	S	54	LYS	CA-C	8.70	1.75	1.52
34	i	883	U	O4'-C1'	-8.70	1.30	1.41
34	i	1176	C	C2'-C1'	-8.69	1.43	1.53
34	i	1085	G	C2'-C1'	-8.69	1.43	1.53
34	i	824	G	O4'-C1'	-8.68	1.30	1.41
34	i	1560	C	O4'-C1'	8.68	1.52	1.41
34	i	17	C	O4'-C1'	8.68	1.52	1.41
34	i	677	C	C2'-C1'	-8.68	1.43	1.53
34	i	1434	A	O4'-C1'	8.67	1.52	1.41
34	i	1465	A	O4'-C1'	8.67	1.52	1.41
34	i	292	A	C2'-C1'	8.66	1.62	1.53
34	i	1692	A	C2'-C1'	8.66	1.62	1.53
34	i	844	U	O4'-C1'	8.65	1.52	1.41
34	i	807	A	C2'-C1'	-8.65	1.43	1.53
34	i	324	C	C2'-C1'	-8.64	1.43	1.53
34	i	235	C	O4'-C1'	8.64	1.52	1.41
34	i	574	A	C2'-C1'	-8.63	1.43	1.53
34	i	1221	U	O4'-C1'	8.62	1.52	1.41
34	i	107	A	C2'-C1'	8.61	1.62	1.53
34	i	537	G	C2'-C1'	-8.60	1.43	1.53
34	i	1142	C	O4'-C1'	8.60	1.52	1.41
34	i	543	U	O4'-C1'	8.60	1.52	1.41
34	i	1185	A	O4'-C1'	8.59	1.52	1.41
34	i	30	C	O4'-C1'	8.59	1.52	1.41
34	i	1775	A	O4'-C1'	8.59	1.52	1.41
34	i	1221	U	C2'-C1'	-8.54	1.44	1.53
34	i	1825	A	O4'-C1'	8.54	1.52	1.41
34	i	649	G	O4'-C1'	-8.54	1.30	1.41
34	i	593	C	O4'-C1'	8.54	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1267	C	C2'-C1'	-8.53	1.44	1.53
34	i	1200	A	C2'-C1'	-8.53	1.44	1.53
34	i	1331	G	C2'-C1'	-8.53	1.44	1.53
34	i	1068	U	C2'-C1'	8.52	1.62	1.53
34	i	1138	G	C2'-C1'	8.52	1.62	1.53
34	i	1414	C	C2'-C1'	-8.52	1.44	1.53
34	i	50	A	O4'-C1'	8.51	1.52	1.41
34	i	1490	U	C2'-C1'	8.51	1.62	1.53
34	i	376	C	C2'-C1'	-8.51	1.44	1.53
34	i	443	C	O4'-C1'	8.51	1.52	1.41
34	i	1345	G	O4'-C1'	8.49	1.52	1.41
34	i	1532	A	C2'-C1'	8.49	1.62	1.53
34	i	33	G	C2'-C1'	-8.49	1.44	1.53
34	i	53	C	C2'-C1'	8.49	1.62	1.53
34	i	1624	C	O4'-C1'	8.49	1.52	1.41
34	i	168	C	C2'-C1'	-8.48	1.44	1.53
34	i	361	A	C2'-C1'	-8.48	1.44	1.53
34	i	1807	A	O4'-C1'	8.48	1.52	1.41
34	i	670	G	O4'-C1'	8.48	1.52	1.41
34	i	453	C	O4'-C1'	8.47	1.52	1.41
34	i	1495	U	C2'-C1'	-8.46	1.44	1.53
34	i	1223	G	O4'-C1'	8.46	1.52	1.41
34	i	1168	U	C2'-C1'	8.46	1.62	1.53
4	D	4	GLN	N-CA	-8.45	1.29	1.46
34	i	1672	U	C2'-C1'	8.44	1.62	1.53
34	i	1212	C	O4'-C1'	8.44	1.52	1.41
34	i	409	G	O4'-C1'	8.44	1.52	1.41
34	i	441	G	C2'-C1'	-8.44	1.44	1.53
34	i	1476	A	O4'-C1'	8.43	1.52	1.41
34	i	1527	C	O4'-C1'	8.43	1.52	1.41
34	i	923	C	O4'-C1'	8.43	1.52	1.41
34	i	1611	U	O4'-C1'	8.42	1.52	1.41
34	i	661	A	C2'-C1'	-8.42	1.44	1.53
34	i	1264	C	O4'-C1'	8.42	1.52	1.41
34	i	147	A	C2'-C1'	8.42	1.62	1.53
34	i	148	U	C2'-C1'	8.41	1.62	1.53
34	i	990	C	C2'-C1'	-8.41	1.44	1.53
34	i	18	C	C2'-C1'	-8.40	1.44	1.53
34	i	236	C	O4'-C1'	8.39	1.52	1.41
34	i	462	C	C2'-C1'	-8.39	1.44	1.53
34	i	1079	A	O4'-C1'	8.39	1.52	1.41
10	J	164	PRO	C-N	8.39	1.53	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	165	G	C2'-C1'	8.38	1.62	1.53
34	i	159	A	O4'-C1'	8.37	1.52	1.41
34	i	1019	A	C2'-C1'	8.37	1.62	1.53
34	i	1367	U	O4'-C1'	8.36	1.52	1.41
34	i	1304	U	O4'-C1'	-8.36	1.30	1.41
34	i	354	A	C2'-C1'	-8.36	1.44	1.53
34	i	1292	U	C2'-C1'	-8.36	1.44	1.53
34	i	965	U	O4'-C1'	8.35	1.52	1.41
34	i	1630	C	O4'-C1'	8.35	1.52	1.41
34	i	348	C	O4'-C1'	8.34	1.52	1.41
34	i	736	C	C2'-C1'	-8.34	1.44	1.53
34	i	596	G	O4'-C1'	-8.33	1.30	1.41
34	i	1325	U	O4'-C1'	8.32	1.52	1.41
34	i	465	C	C2'-C1'	-8.32	1.44	1.53
34	i	937	C	O4'-C1'	8.32	1.52	1.41
34	i	1785	A	O4'-C1'	8.31	1.52	1.41
34	i	1569	C	C2'-C1'	-8.31	1.44	1.53
34	i	557	C	O4'-C1'	8.31	1.52	1.41
34	i	908	C	O4'-C1'	8.31	1.52	1.41
34	i	625	G	O4'-C1'	8.30	1.52	1.41
34	i	1840	G	C2'-C1'	-8.30	1.44	1.53
34	i	1252	G	O4'-C1'	8.30	1.52	1.41
34	i	1861	U	O4'-C1'	-8.30	1.30	1.41
34	i	902	U	O4'-C1'	8.29	1.52	1.41
34	i	176	U	O4'-C1'	8.29	1.52	1.41
34	i	625	G	C2'-C1'	-8.29	1.44	1.53
34	i	941	U	C2'-C1'	-8.29	1.44	1.53
34	i	1401	A	C2'-C1'	-8.29	1.44	1.53
34	i	1661	C	O4'-C1'	8.29	1.52	1.41
34	i	528	U	O4'-C1'	8.28	1.52	1.41
34	i	875	C	O4'-C1'	8.28	1.52	1.41
34	i	1046	A	C2'-C1'	-8.27	1.44	1.53
34	i	72	C	C2'-C1'	8.27	1.62	1.53
34	i	832	G	C2'-C1'	8.26	1.62	1.53
34	i	187	C	C2'-C1'	-8.26	1.44	1.53
34	i	1487	G	C2'-C1'	-8.25	1.44	1.53
34	i	1295	A	C2'-C1'	8.25	1.62	1.53
34	i	1309	A	O4'-C1'	8.25	1.52	1.41
34	i	1304	U	C2'-C1'	8.24	1.62	1.53
34	i	955	G	C2'-C1'	-8.23	1.44	1.53
34	i	313	C	C2'-C1'	-8.23	1.44	1.53
34	i	607	G	C2'-C1'	-8.23	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1679	C	O4'-C1'	8.21	1.52	1.41
34	i	1577	C	O4'-C1'	8.21	1.52	1.41
34	i	164	A	O4'-C1'	8.21	1.52	1.41
34	i	918	A	C2'-C1'	8.21	1.62	1.53
34	i	824	G	C2'-C1'	-8.21	1.44	1.53
34	i	1663	U	P-O5'	-8.21	1.51	1.59
34	i	1183	G	O4'-C1'	8.19	1.52	1.41
34	i	1558	G	C2'-C1'	-8.19	1.44	1.53
34	i	1261	A	O4'-C1'	8.18	1.52	1.41
34	i	741	C	O3'-P	-8.18	1.51	1.61
3	C	193	PRO	N-CD	8.17	1.59	1.47
34	i	1075	C	C2'-C1'	-8.17	1.44	1.53
34	i	40	A	C2'-C1'	8.17	1.62	1.53
34	i	676	U	C2'-C1'	8.16	1.62	1.53
34	i	1140	A	O4'-C1'	8.16	1.52	1.41
34	i	1059	C	C2'-C1'	-8.15	1.44	1.53
34	i	618	A	C2'-C1'	8.15	1.62	1.53
34	i	1086	C	O4'-C1'	8.13	1.52	1.41
34	i	303	G	C2'-C1'	8.12	1.62	1.53
34	i	1699	C	C2'-C1'	-8.12	1.44	1.53
34	i	739	U	O4'-C1'	8.11	1.52	1.41
34	i	302	C	C2'-C1'	-8.11	1.44	1.53
34	i	1390	G	O4'-C1'	8.11	1.52	1.41
34	i	1107	U	O4'-C1'	8.10	1.52	1.41
34	i	1480	A	O4'-C1'	8.10	1.52	1.41
34	i	1794	A	O4'-C1'	8.09	1.52	1.41
34	i	943	G	C2'-C1'	-8.09	1.44	1.53
34	i	959	A	O4'-C1'	-8.08	1.31	1.41
34	i	219	U	O4'-C1'	8.08	1.52	1.41
34	i	630	A	O4'-C1'	8.07	1.52	1.41
34	i	1001	G	C2'-C1'	-8.07	1.44	1.53
34	i	727	G	O4'-C1'	8.06	1.52	1.41
34	i	1824	U	O4'-C1'	8.06	1.52	1.41
34	i	336	C	O4'-C1'	8.06	1.52	1.41
34	i	1028	C	O4'-C1'	8.06	1.52	1.41
34	i	1733	C	C2'-C1'	-8.06	1.44	1.53
34	i	1201	C	O4'-C1'	8.04	1.52	1.41
34	i	152	U	C2'-C1'	-8.04	1.44	1.53
34	i	1623	C	O4'-C1'	8.04	1.52	1.41
19	S	95	TYR	CD1-CE1	-8.04	1.27	1.39
20	T	4	VAL	C-N	8.04	1.52	1.34
34	i	26	U	C2'-C1'	-8.04	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	G	36	VAL	CA-CB	-8.03	1.37	1.54
34	i	1394	G	C2'-C1'	-8.03	1.44	1.53
34	i	537	G	O4'-C1'	8.03	1.52	1.41
34	i	369	C	O4'-C1'	8.03	1.52	1.41
34	i	317	G	O4'-C1'	-8.02	1.31	1.41
34	i	1102	C	C2'-C1'	8.02	1.62	1.53
34	i	835	C	C2'-C1'	-8.02	1.44	1.53
34	i	1425	G	O3'-P	-8.02	1.51	1.61
34	i	1800	A	C2'-C1'	-8.01	1.44	1.53
34	i	536	G	O4'-C1'	8.01	1.52	1.41
34	i	57	U	C2'-C1'	8.01	1.62	1.53
34	i	1579	G	O4'-C1'	8.00	1.52	1.41
34	i	1604	C	O4'-C1'	8.00	1.52	1.41
18	R	89	SER	CA-C	7.99	1.73	1.52
34	i	1450	A	O4'-C1'	7.99	1.52	1.41
34	i	1446	G	C2'-C1'	-7.98	1.44	1.53
34	i	1705	C	O4'-C1'	7.98	1.52	1.41
34	i	624	A	O4'-C1'	7.97	1.52	1.41
34	i	1327	C	O4'-C1'	7.96	1.52	1.41
34	i	86	C	C2'-C1'	-7.96	1.44	1.53
34	i	988	A	O4'-C1'	7.96	1.51	1.41
34	i	1652	G	C2'-C1'	-7.96	1.44	1.53
34	i	1482	A	P-O5'	-7.95	1.51	1.59
34	i	37	C	C2'-C1'	-7.95	1.44	1.53
34	i	1447	G	C2'-C1'	-7.94	1.44	1.53
34	i	599	U	O4'-C1'	7.94	1.51	1.41
34	i	1386	U	C2'-C1'	-7.94	1.44	1.53
34	i	1535	G	C2'-C1'	-7.94	1.44	1.53
34	i	863	G	O4'-C1'	7.93	1.51	1.41
34	i	1150	U	O4'-C1'	-7.93	1.31	1.41
34	i	1279	C	C2'-C1'	-7.92	1.44	1.53
34	i	1522	C	O4'-C1'	7.92	1.51	1.41
34	i	1061	G	C2'-C1'	-7.92	1.44	1.53
34	i	1857	A	C2'-C1'	7.92	1.62	1.53
34	i	1537	C	C2'-C1'	-7.92	1.44	1.53
34	i	1321	G	O4'-C1'	7.91	1.51	1.41
34	i	492	C	O4'-C1'	7.91	1.51	1.41
34	i	486	C	C2'-C1'	-7.90	1.44	1.53
34	i	1126	G	O4'-C1'	-7.90	1.31	1.41
34	i	969	C	O4'-C1'	7.90	1.51	1.41
34	i	275	C	O4'-C1'	7.88	1.51	1.41
34	i	930	G	C2'-C1'	-7.88	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	463	A	O4'-C1'	7.88	1.51	1.41
34	i	1818	A	O4'-C1'	-7.88	1.31	1.41
7	G	131	ARG	N-CA	-7.87	1.30	1.46
34	i	338	A	C2'-C1'	-7.86	1.44	1.53
34	i	948	G	C2'-C1'	-7.86	1.44	1.53
34	i	1480	A	C2'-C1'	-7.86	1.44	1.53
34	i	1796	C	O4'-C1'	7.85	1.51	1.41
34	i	337	G	O4'-C1'	7.85	1.51	1.41
34	i	953	A	C2'-C1'	-7.83	1.44	1.53
34	i	876	G	C2'-C1'	7.83	1.61	1.53
34	i	119	U	C2'-C1'	-7.83	1.44	1.53
34	i	1385	C	P-O5'	-7.82	1.51	1.59
34	i	226	A	C2'-C1'	-7.81	1.44	1.53
34	i	557	C	C2'-C1'	-7.81	1.44	1.53
34	i	171	A	C2'-C1'	7.80	1.61	1.53
34	i	399	C	O4'-C1'	7.78	1.51	1.41
34	i	521	A	O3'-P	-7.78	1.51	1.61
34	i	566	A	C2'-C1'	-7.77	1.44	1.53
34	i	190	A	O4'-C1'	7.77	1.51	1.41
34	i	880	C	O4'-C1'	7.77	1.51	1.41
34	i	1687	U	C2'-C1'	-7.77	1.44	1.53
34	i	924	G	C2'-C1'	-7.76	1.44	1.53
34	i	1403	U	O4'-C1'	7.76	1.51	1.41
34	i	447	C	O4'-C1'	7.76	1.51	1.41
34	i	1071	C	O4'-C1'	7.76	1.51	1.41
34	i	1592	C	C2'-C1'	-7.75	1.44	1.53
34	i	37	C	O4'-C1'	7.75	1.51	1.41
34	i	342	U	O4'-C1'	7.74	1.51	1.41
34	i	544	A	O4'-C1'	-7.74	1.31	1.41
34	i	829	C	O4'-C1'	7.74	1.51	1.41
34	i	685	G	C1'-N9	-7.73	1.36	1.46
34	i	1027	A	O4'-C1'	7.73	1.51	1.41
34	i	60	A	O4'-C1'	-7.73	1.31	1.41
34	i	200	U	C2'-C1'	-7.72	1.44	1.53
34	i	368	U	C2'-C1'	-7.72	1.44	1.53
34	i	189	G	C2'-C1'	-7.72	1.44	1.53
34	i	29	G	C2'-C1'	-7.71	1.44	1.53
34	i	938	G	O4'-C1'	7.71	1.51	1.41
34	i	1332	C	O4'-C1'	7.71	1.51	1.41
34	i	563	U	O4'-C1'	7.70	1.51	1.41
34	i	604	G	C1'-N9	-7.70	1.36	1.46
10	J	35	TYR	CD2-CE2	-7.70	1.27	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	449	C	C2'-C1'	-7.69	1.44	1.53
7	G	130	PRO	C-N	-7.69	1.16	1.34
34	i	820	C	O4'-C1'	7.68	1.51	1.41
34	i	452	C	O4'-C1'	7.67	1.51	1.41
34	i	1123	C	O4'-C1'	7.67	1.51	1.41
34	i	38	A	C2'-C1'	7.67	1.61	1.53
34	i	846	C	O4'-C1'	7.67	1.51	1.41
34	i	864	G	C2'-C1'	-7.66	1.45	1.53
34	i	846	C	C2'-C1'	-7.66	1.45	1.53
34	i	874	G	C2'-C1'	-7.66	1.45	1.53
34	i	1384	A	O4'-C1'	7.65	1.51	1.41
34	i	1664	G	C2'-C1'	-7.65	1.45	1.53
34	i	49	C	O4'-C1'	7.64	1.51	1.41
34	i	1313	U	O4'-C1'	7.64	1.51	1.41
34	i	1045	A	O4'-C1'	-7.64	1.31	1.41
34	i	1343	U	O4'-C1'	7.64	1.51	1.41
34	i	399	C	C2'-C1'	-7.62	1.45	1.53
34	i	1444	A	C2'-C1'	-7.62	1.45	1.53
34	i	1382	A	O4'-C1'	7.61	1.51	1.41
34	i	1245	C	O4'-C1'	7.60	1.51	1.41
34	i	725	C	O4'-C1'	7.60	1.51	1.41
34	i	1006	G	C2'-C1'	7.60	1.61	1.53
34	i	1823	G	O4'-C1'	7.60	1.51	1.41
34	i	1799	G	O4'-C1'	7.59	1.51	1.41
34	i	1633	G	O4'-C1'	7.58	1.51	1.41
34	i	271	G	O3'-P	-7.58	1.52	1.61
19	S	82	TRP	CA-CB	-7.57	1.37	1.53
34	i	1041	U	O4'-C1'	7.57	1.51	1.41
34	i	1292	U	O4'-C1'	7.57	1.51	1.41
34	i	689	G	C1'-N9	-7.56	1.36	1.46
34	i	1423	C	C2'-C1'	7.56	1.61	1.53
34	i	211	U	O3'-P	-7.55	1.52	1.61
34	i	194	C	C2'-C1'	-7.55	1.45	1.53
34	i	518	A	O4'-C1'	7.55	1.51	1.41
34	i	386	U	O4'-C1'	7.55	1.51	1.41
34	i	1398	A	C2'-C1'	-7.54	1.45	1.53
34	i	485	U	C2'-C1'	-7.54	1.45	1.53
34	i	1392	A	C2'-C1'	7.54	1.61	1.53
34	i	343	C	O4'-C1'	7.54	1.51	1.41
34	i	360	G	O4'-C1'	7.54	1.51	1.41
10	J	164	PRO	N-CA	-7.53	1.34	1.47
34	i	1493	G	O4'-C1'	7.53	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1568	G	O4'-C1'	7.53	1.51	1.41
34	i	460	G	C2'-C1'	-7.52	1.45	1.53
34	i	355	C	C2'-C1'	-7.52	1.45	1.53
34	i	1465	A	C2'-C1'	-7.52	1.45	1.53
34	i	95	G	C2'-C1'	-7.51	1.45	1.53
34	i	202	U	C2'-C1'	-7.51	1.45	1.53
34	i	1187	C	O4'-C1'	7.51	1.51	1.41
34	i	442	G	O4'-C1'	7.50	1.51	1.41
34	i	1145	A	C2'-C1'	-7.50	1.45	1.53
34	i	1260	C	O4'-C1'	7.48	1.51	1.41
34	i	1123	C	C2'-C1'	-7.48	1.45	1.53
34	i	1814	G	C2'-C1'	-7.48	1.45	1.53
34	i	840	U	O4'-C1'	7.48	1.51	1.41
34	i	151	C	P-O5'	-7.48	1.52	1.59
34	i	872	C	O4'-C1'	7.47	1.51	1.41
34	i	656	U	O4'-C1'	7.46	1.51	1.41
34	i	1138	G	O4'-C1'	-7.46	1.31	1.41
34	i	859	U	O4'-C1'	7.46	1.51	1.41
34	i	818	U	O4'-C1'	7.46	1.51	1.41
34	i	1423	C	O4'-C1'	7.46	1.51	1.41
34	i	1850	C	C2'-C1'	-7.46	1.45	1.53
7	G	170	ARG	CA-CB	7.46	1.70	1.53
34	i	1299	C	O4'-C1'	-7.45	1.31	1.41
34	i	278	U	O4'-C1'	7.45	1.51	1.41
34	i	1137	G	O4'-C1'	-7.45	1.31	1.41
34	i	1839	A	C2'-C1'	-7.45	1.45	1.53
34	i	1638	U	O4'-C1'	7.45	1.51	1.41
34	i	1758	G	C5'-C4'	7.45	1.60	1.51
34	i	1626	U	C2'-C1'	-7.44	1.45	1.53
34	i	223	A	O4'-C1'	7.43	1.51	1.41
34	i	1778	G	C2'-C1'	-7.42	1.45	1.53
34	i	488	C	C2'-C1'	-7.42	1.45	1.53
34	i	347	C	O4'-C1'	7.42	1.51	1.41
34	i	933	C	C2'-C1'	-7.42	1.45	1.53
34	i	428	G	O4'-C1'	-7.41	1.32	1.41
34	i	686	G	C2'-C1'	-7.41	1.45	1.53
34	i	3	C	C2'-C1'	7.40	1.61	1.53
34	i	1151	U	O4'-C1'	7.40	1.51	1.41
34	i	377	C	C2'-C1'	-7.40	1.45	1.53
34	i	493	C	O4'-C1'	7.40	1.51	1.41
34	i	1340	A	O4'-C1'	7.40	1.51	1.41
34	i	1676	U	C2'-C1'	-7.39	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1808	G	O4'-C1'	7.39	1.51	1.41
34	i	86	C	O4'-C1'	7.39	1.51	1.41
34	i	1434	A	C2'-C1'	7.39	1.61	1.53
34	i	1345	G	C2'-C1'	-7.39	1.45	1.53
34	i	820	C	C2'-C1'	-7.38	1.45	1.53
34	i	845	A	O4'-C1'	7.38	1.51	1.41
34	i	1186	A	O4'-C1'	7.38	1.51	1.41
34	i	1835	C	C2'-C1'	-7.38	1.45	1.53
34	i	515	A	C2'-C1'	-7.38	1.45	1.53
34	i	1045	A	C2'-C1'	7.37	1.61	1.53
34	i	120	U	O4'-C1'	7.36	1.51	1.41
34	i	1091	U	O4'-C1'	7.35	1.51	1.41
34	i	225	C	O3'-P	-7.35	1.52	1.61
34	i	1008	A	C2'-C1'	-7.34	1.45	1.53
34	i	1363	U	O4'-C1'	7.34	1.51	1.41
16	P	122	THR	CA-CB	7.34	1.72	1.53
34	i	743	U	O3'-P	-7.33	1.52	1.61
34	i	982	G	C2'-C1'	-7.33	1.45	1.53
34	i	514	U	O4'-C1'	7.33	1.51	1.41
34	i	621	U	C2'-C1'	-7.33	1.45	1.53
34	i	1668	U	C2'-C1'	-7.31	1.45	1.53
34	i	1059	C	O4'-C1'	7.31	1.51	1.41
34	i	1798	U	O4'-C1'	7.31	1.51	1.41
34	i	213	C	O4'-C1'	7.30	1.51	1.41
9	I	3	ILE	CA-CB	-7.29	1.38	1.54
34	i	404	A	C2'-C1'	7.28	1.61	1.53
34	i	85	A	O4'-C1'	7.27	1.51	1.41
34	i	456	G	C4'-C3'	7.27	1.61	1.53
34	i	798	A	O4'-C1'	7.27	1.51	1.41
34	i	1472	A	C2'-C1'	7.27	1.61	1.53
34	i	1489	C	C2'-C1'	7.27	1.61	1.53
34	i	216	U	O4'-C1'	7.26	1.51	1.41
14	N	137	PRO	N-CD	7.26	1.58	1.47
34	i	596	G	C2'-C1'	-7.25	1.45	1.53
34	i	516	A	C2'-C1'	-7.25	1.45	1.53
34	i	1741	U	O3'-P	7.24	1.69	1.61
34	i	1096	A	C2'-C1'	-7.24	1.45	1.53
6	F	108	PRO	N-CD	7.24	1.57	1.47
34	i	652	G	O4'-C1'	7.23	1.51	1.41
34	i	361	A	O4'-C1'	7.22	1.51	1.41
34	i	35	C	C2'-C1'	-7.21	1.45	1.53
34	i	1460	C	C2'-C1'	-7.21	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	J	91	LYS	C-O	-7.21	1.09	1.23
34	i	1424	G	C2'-C1'	7.21	1.61	1.53
34	i	86	C	P-O5'	-7.21	1.52	1.59
34	i	327	C	O4'-C1'	7.21	1.51	1.41
34	i	856	G	O4'-C1'	7.21	1.51	1.41
34	i	42	A	O4'-C1'	7.20	1.51	1.41
25	Y	91	LEU	C-N	7.20	1.50	1.34
34	i	576	G	O4'-C1'	7.20	1.51	1.41
34	i	6	G	C2'-C1'	-7.18	1.45	1.53
34	i	632	U	C2'-C1'	-7.18	1.45	1.53
34	i	660	A	O4'-C1'	-7.18	1.32	1.41
34	i	1259	U	C5'-C4'	7.18	1.59	1.51
34	i	485	U	O4'-C1'	7.17	1.50	1.41
34	i	937	C	C2'-C1'	-7.16	1.45	1.53
34	i	470	G	C2'-C1'	-7.16	1.45	1.53
34	i	897	G	C2'-C1'	-7.16	1.45	1.53
34	i	1223	G	C2'-C1'	-7.15	1.45	1.53
34	i	1387	C	C2'-C1'	-7.15	1.45	1.53
34	i	871	A	C2'-C1'	-7.15	1.45	1.53
34	i	1256	A	C2'-C1'	-7.13	1.45	1.53
7	G	131	ARG	CB-CG	7.13	1.71	1.52
34	i	1293	U	C2'-C1'	7.12	1.61	1.53
34	i	619	A	C2'-C1'	7.12	1.61	1.53
34	i	916	A	O4'-C1'	7.11	1.50	1.41
34	i	74	G	O4'-C1'	7.11	1.50	1.41
34	i	1033	G	C2'-C1'	-7.11	1.45	1.53
34	i	1405	A	O4'-C1'	7.11	1.50	1.41
34	i	960	A	C2'-C1'	7.10	1.61	1.53
34	i	1528	A	C2'-C1'	-7.09	1.45	1.53
34	i	1419	C	C2'-C1'	-7.09	1.45	1.53
34	i	988	A	C2'-C1'	-7.09	1.45	1.53
34	i	959	A	C2'-C1'	-7.08	1.45	1.53
34	i	489	G	C2'-C1'	-7.07	1.45	1.53
8	H	111	LYS	CA-C	-7.06	1.34	1.52
24	X	24	ASP	CA-C	-7.06	1.34	1.52
34	i	81	U	O4'-C1'	7.05	1.50	1.41
34	i	632	U	O4'-C1'	7.05	1.50	1.41
34	i	1255	A	O4'-C1'	-7.05	1.32	1.41
34	i	104	A	O4'-C1'	7.04	1.50	1.41
34	i	390	C	C2'-C1'	-7.03	1.45	1.53
34	i	1211	C	O4'-C1'	7.03	1.50	1.41
34	i	59	U	C2'-C1'	7.03	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1174	U	C2'-C1'	-7.02	1.45	1.53
34	i	1355	U	C2'-C1'	7.02	1.61	1.53
34	i	880	C	C2'-C1'	-7.01	1.45	1.53
34	i	674	G	C2'-C1'	-7.01	1.45	1.53
34	i	818	U	C2'-C1'	-7.00	1.45	1.53
34	i	1717	G	O4'-C1'	7.00	1.50	1.41
34	i	1843	G	C2'-C1'	-7.00	1.45	1.53
34	i	1583	A	O4'-C1'	7.00	1.50	1.41
34	i	1125	G	C2'-C1'	-6.99	1.45	1.53
34	i	655	G	C2'-C1'	-6.98	1.45	1.53
34	i	1044	G	C5'-C4'	6.98	1.59	1.51
34	i	601	G	O4'-C1'	6.97	1.50	1.41
34	i	742	C	C2'-C1'	-6.97	1.45	1.53
10	J	35	TYR	CE1-CZ	-6.97	1.29	1.38
34	i	118	C	O4'-C1'	6.97	1.50	1.41
34	i	903	G	O4'-C1'	6.96	1.50	1.41
34	i	876	G	O4'-C1'	-6.96	1.32	1.41
34	i	418	U	C2'-C1'	6.96	1.61	1.53
3	C	93	LYS	C-N	-6.96	1.18	1.34
34	i	811	U	O4'-C1'	6.96	1.50	1.41
34	i	1039	G	O4'-C1'	6.95	1.50	1.41
34	i	1054	A	C2'-C1'	-6.95	1.45	1.53
34	i	172	U	O4'-C1'	6.94	1.50	1.41
34	i	1395	C	O4'-C1'	6.94	1.50	1.41
34	i	1519	G	O4'-C1'	-6.94	1.32	1.41
34	i	464	G	C2'-C1'	-6.94	1.45	1.53
34	i	860	A	C2'-C1'	-6.94	1.45	1.53
34	i	899	A	O4'-C1'	-6.94	1.32	1.41
34	i	1250	C	O4'-C1'	6.94	1.50	1.41
34	i	823	A	O4'-C1'	6.93	1.50	1.41
34	i	609	A	C2'-C1'	6.93	1.60	1.53
34	i	735	C	C2'-C1'	-6.93	1.45	1.53
34	i	231	C	C2'-C1'	-6.92	1.45	1.53
34	i	264	U	O3'-P	-6.92	1.52	1.61
34	i	1021	U	C2'-C1'	6.92	1.60	1.53
34	i	382	A	C2'-C1'	-6.92	1.45	1.53
34	i	1283	A	C2'-C1'	6.91	1.60	1.53
34	i	1043	C	C2'-C1'	-6.91	1.45	1.53
2	B	133	TYR	CB-CG	-6.90	1.41	1.51
34	i	46	A	C2'-C1'	-6.89	1.45	1.53
34	i	1782	A	O4'-C1'	6.89	1.50	1.41
34	i	1784	A	O4'-C1'	6.89	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1654	U	O3'-P	-6.89	1.52	1.61
34	i	1805	C	C2'-C1'	-6.89	1.45	1.53
34	i	65	C	C2'-C1'	6.88	1.60	1.53
34	i	1621	C	O4'-C1'	6.88	1.50	1.41
34	i	1032	A	C2'-C1'	-6.88	1.45	1.53
34	i	668	U	O4'-C1'	6.87	1.50	1.41
34	i	983	A	O4'-C1'	6.87	1.50	1.41
34	i	325	G	C2'-C1'	6.86	1.60	1.53
35	j	23	G	C1'-N9	-6.86	1.37	1.46
34	i	1452	G	O4'-C1'	6.86	1.50	1.41
34	i	597	U	C2'-C1'	-6.85	1.45	1.53
34	i	1244	U	C2'-C1'	-6.85	1.45	1.53
34	i	1681	G	C2'-C1'	-6.85	1.45	1.53
34	i	1696	C	O4'-C1'	6.85	1.50	1.41
34	i	1538	U	P-O5'	-6.84	1.52	1.59
24	X	128	VAL	CA-CB	-6.84	1.40	1.54
34	i	1175	G	C2'-C1'	-6.84	1.45	1.53
34	i	1723	U	O4'-C1'	6.83	1.50	1.41
34	i	1303	U	C2'-C1'	6.83	1.60	1.53
34	i	896	C	O4'-C1'	6.83	1.50	1.41
24	X	126	ALA	CA-CB	-6.82	1.38	1.52
34	i	1836	C	C2'-C1'	-6.82	1.45	1.53
34	i	969	C	C5'-C4'	6.82	1.59	1.51
34	i	1670	A	O4'-C1'	-6.82	1.32	1.41
34	i	435	A	O4'-C1'	6.81	1.50	1.41
34	i	1842	U	C2'-C1'	-6.81	1.45	1.53
34	i	1144	A	C2'-C1'	6.80	1.60	1.53
34	i	348	C	C2'-C1'	-6.80	1.45	1.53
34	i	1018	U	O3'-P	-6.80	1.52	1.61
34	i	1149	C	O4'-C1'	-6.79	1.32	1.41
34	i	1525	U	O4'-C1'	6.79	1.50	1.41
34	i	1031	A	O4'-C1'	6.79	1.50	1.41
34	i	314	U	O4'-C1'	-6.78	1.32	1.41
34	i	1072	G	C2'-C1'	-6.77	1.46	1.53
34	i	147	A	O4'-C1'	-6.77	1.32	1.41
34	i	118	C	C2'-C1'	-6.76	1.46	1.53
34	i	470	G	O4'-C1'	6.76	1.50	1.41
34	i	1378	A	O4'-C1'	6.76	1.50	1.41
34	i	513	A	O4'-C1'	6.76	1.50	1.41
34	i	941	U	O4'-C1'	6.75	1.50	1.41
34	i	438	A	C2'-C1'	6.75	1.60	1.53
34	i	628	C	O4'-C1'	6.74	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	S	95	TYR	CE1-CZ	-6.73	1.29	1.38
34	i	1691	C	C2'-C1'	-6.73	1.46	1.53
34	i	1734	C	C2'-C1'	-6.73	1.46	1.53
34	i	556	U	C2'-C1'	6.72	1.60	1.53
34	i	434	G	O4'-C1'	-6.72	1.32	1.41
34	i	397	G	C2'-C1'	6.72	1.60	1.53
34	i	320	G	C2'-C1'	-6.71	1.46	1.53
34	i	663	G	P-O5'	-6.71	1.53	1.59
34	i	699	C	C5'-C4'	6.71	1.59	1.51
34	i	1842	U	O4'-C1'	6.71	1.50	1.41
34	i	1707	A	O4'-C1'	6.70	1.50	1.41
34	i	1051	A	C5'-C4'	6.70	1.59	1.51
34	i	504	U	C2'-C1'	-6.70	1.46	1.53
34	i	812	A	C2'-C1'	-6.69	1.46	1.53
34	i	1203	G	O4'-C1'	6.68	1.50	1.41
34	i	1836	C	O4'-C1'	6.68	1.50	1.41
34	i	1514	U	C2'-C1'	6.67	1.60	1.53
34	i	996	C	O4'-C1'	6.67	1.50	1.41
10	J	163	SER	C-N	-6.66	1.21	1.34
34	i	1035	C	O4'-C1'	6.66	1.50	1.41
34	i	913	U	C2'-C1'	6.66	1.60	1.53
34	i	14	C	O4'-C1'	6.65	1.50	1.41
34	i	165	G	O4'-C1'	-6.65	1.33	1.41
34	i	1051	A	O4'-C1'	6.65	1.50	1.41
34	i	1634	G	O4'-C1'	6.65	1.50	1.41
34	i	1743	G	C2'-C1'	-6.65	1.46	1.53
19	S	95	TYR	CD2-CE2	-6.64	1.29	1.39
34	i	388	A	O4'-C1'	6.64	1.50	1.41
34	i	1810	G	C2'-C1'	-6.64	1.46	1.53
34	i	1735	C	C2'-C1'	-6.63	1.46	1.53
34	i	338	A	O4'-C1'	6.63	1.50	1.41
34	i	946	C	C2'-C1'	-6.62	1.46	1.53
34	i	1232	G	C3'-C2'	6.62	1.60	1.52
34	i	273	G	O4'-C1'	6.61	1.50	1.41
34	i	411	G	O3'-P	-6.61	1.53	1.61
34	i	1391	C	O4'-C1'	6.61	1.50	1.41
7	G	157	VAL	CA-CB	-6.61	1.40	1.54
34	i	103	A	O4'-C1'	-6.61	1.33	1.41
34	i	494	G	C2'-C1'	-6.60	1.46	1.53
34	i	1414	C	O4'-C1'	-6.60	1.33	1.41
34	i	1731	G	C2'-C1'	-6.60	1.46	1.53
34	i	1712	C	O4'-C1'	6.59	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	467	G	C2'-C1'	-6.59	1.46	1.53
34	i	1479	A	C2'-C1'	6.57	1.60	1.53
34	i	1797	U	O4'-C1'	6.57	1.50	1.41
34	i	733	G	C2'-C1'	6.57	1.60	1.53
34	i	1499	C	O4'-C1'	6.57	1.50	1.41
34	i	101	U	C2'-C1'	6.56	1.60	1.53
34	i	9	U	O4'-C1'	6.56	1.50	1.41
34	i	227	A	O4'-C1'	6.55	1.50	1.41
34	i	1737	C	O4'-C1'	6.55	1.50	1.41
34	i	442	G	C2'-C1'	-6.54	1.46	1.53
34	i	1667	U	C2'-C1'	-6.54	1.46	1.53
34	i	1234	U	C2'-C1'	-6.54	1.46	1.53
34	i	1626	U	O4'-C1'	6.54	1.50	1.41
34	i	100	U	O4'-C1'	6.53	1.50	1.41
34	i	1121	C	O4'-C1'	6.53	1.50	1.41
34	i	205	G	O4'-C1'	6.52	1.50	1.41
34	i	300	G	C2'-C1'	-6.52	1.46	1.53
34	i	30	C	C2'-C1'	-6.52	1.46	1.53
3	C	72	PRO	N-CD	6.51	1.56	1.47
34	i	806	A	O4'-C1'	6.51	1.50	1.41
34	i	795	U	C2'-C1'	-6.50	1.46	1.53
34	i	1061	G	O4'-C1'	6.49	1.50	1.41
34	i	201	G	C2'-C1'	6.48	1.60	1.53
34	i	637	U	O4'-C1'	6.48	1.50	1.41
34	i	928	G	C2'-C1'	-6.48	1.46	1.53
34	i	965	U	C2'-C1'	-6.48	1.46	1.53
34	i	958	A	C2'-C1'	6.48	1.60	1.53
34	i	471	C	O4'-C1'	6.48	1.50	1.41
34	i	1243	C	O4'-C1'	6.47	1.50	1.41
34	i	892	U	O4'-C1'	6.47	1.50	1.41
34	i	1702	U	C2'-C1'	-6.46	1.46	1.53
34	i	1392	A	O4'-C1'	-6.46	1.33	1.41
9	I	8	TRP	CD2-CE3	-6.45	1.30	1.40
34	i	920	G	P-O5'	-6.45	1.53	1.59
34	i	1463	C	O4'-C1'	6.45	1.50	1.41
34	i	1797	U	C2'-C1'	-6.45	1.46	1.53
34	i	1030	A	C2'-C1'	6.45	1.60	1.53
34	i	799	C	O4'-C1'	6.44	1.50	1.41
34	i	826	A	C2'-C1'	6.43	1.60	1.53
34	i	1603	U	C2'-C1'	-6.43	1.46	1.53
34	i	458	A	C2'-C1'	-6.42	1.46	1.53
34	i	421	G	C2'-C1'	-6.41	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1569	C	O4'-C1'	6.41	1.50	1.41
34	i	160	U	O4'-C1'	6.40	1.50	1.41
34	i	627	U	C2'-C1'	6.40	1.60	1.53
34	i	1090	C	C2'-C1'	-6.39	1.46	1.53
34	i	1610	U	O4'-C1'	6.39	1.50	1.41
34	i	1121	C	C2'-C1'	-6.39	1.46	1.53
34	i	1278	A	O4'-C1'	6.39	1.50	1.41
34	i	1173	U	O4'-C1'	6.38	1.50	1.41
34	i	1840	G	O4'-C1'	6.37	1.50	1.41
34	i	1311	U	C5'-C4'	6.36	1.58	1.51
34	i	370	G	O4'-C1'	-6.36	1.33	1.41
34	i	639	U	O4'-C1'	6.36	1.50	1.41
7	G	156	TYR	CB-CG	-6.35	1.42	1.51
34	i	94	G	O4'-C1'	6.35	1.50	1.41
34	i	290	A	C2'-C1'	6.35	1.60	1.53
34	i	406	U	C2'-C1'	6.35	1.60	1.53
34	i	1615	A	O4'-C1'	-6.35	1.33	1.41
34	i	1799	G	C2'-C1'	-6.35	1.46	1.53
34	i	389	C	C2'-C1'	-6.35	1.46	1.53
34	i	997	A	C2'-C1'	6.34	1.60	1.53
34	i	1103	G	C2'-C1'	-6.34	1.46	1.53
34	i	1622	C	C2'-C1'	-6.34	1.46	1.53
34	i	1334	G	O4'-C1'	6.33	1.49	1.41
34	i	1032	A	C5'-C4'	6.33	1.58	1.51
34	i	1102	C	O4'-C1'	6.33	1.49	1.41
34	i	139	C	C2'-C1'	6.33	1.60	1.53
34	i	1138	G	P-O5'	-6.33	1.53	1.59
10	J	101	LYS	N-CA	6.32	1.58	1.46
34	i	1256	A	O3'-P	-6.32	1.53	1.61
34	i	408	A	O4'-C1'	6.32	1.49	1.41
34	i	1215	C	O4'-C1'	6.32	1.49	1.41
34	i	1233	C	P-O5'	-6.32	1.53	1.59
34	i	962	U	C2'-C1'	-6.31	1.46	1.53
4	D	20	GLU	CG-CD	6.30	1.61	1.51
34	i	1047	G	C2'-C1'	-6.30	1.46	1.53
34	i	1444	A	O4'-C1'	6.30	1.49	1.41
34	i	528	U	C2'-C1'	-6.30	1.46	1.53
34	i	567	U	O4'-C1'	6.30	1.49	1.41
34	i	1042	U	O4'-C1'	6.30	1.49	1.41
34	i	461	G	O4'-C1'	-6.29	1.33	1.41
7	G	170	ARG	CA-C	-6.28	1.36	1.52
5	E	150	PRO	N-CD	6.28	1.56	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
17	Q	145	TYR	CD2-CE2	-6.28	1.29	1.39
34	i	1584	A	C2'-C1'	6.28	1.60	1.53
34	i	879	U	C5'-C4'	6.27	1.58	1.51
34	i	1753	G	C2'-C1'	-6.27	1.46	1.53
26	Z	104	ARG	CD-NE	-6.27	1.35	1.46
34	i	404	A	O4'-C1'	6.27	1.49	1.41
34	i	1426	C	P-O5'	-6.26	1.53	1.59
34	i	665	U	O4'-C1'	6.26	1.49	1.41
34	i	898	G	C2'-C1'	-6.26	1.46	1.53
34	i	954	G	O4'-C1'	-6.26	1.33	1.41
34	i	793	C	O3'-P	-6.26	1.53	1.61
34	i	1280	A	C2'-C1'	-6.26	1.46	1.53
34	i	273	G	C2'-C1'	-6.25	1.46	1.53
18	R	89	SER	C-N	6.25	1.48	1.34
34	i	220	C	C2'-C1'	-6.25	1.46	1.53
34	i	1628	A	C2'-C1'	-6.25	1.46	1.53
34	i	1684	C	O4'-C1'	6.25	1.49	1.41
34	i	1426	C	C2'-C1'	6.24	1.60	1.53
34	i	1476	A	C2'-C1'	-6.24	1.46	1.53
10	J	144	ILE	CA-CB	-6.24	1.40	1.54
34	i	656	U	O3'-P	-6.24	1.53	1.61
34	i	1097	U	C2'-C1'	-6.24	1.46	1.53
34	i	974	G	C2'-C1'	-6.23	1.46	1.53
34	i	678	U	C2'-C1'	6.22	1.60	1.53
34	i	1167	G	C2'-C1'	6.22	1.60	1.53
34	i	1167	G	C5'-C4'	6.22	1.58	1.51
34	i	889	U	C2'-C1'	6.22	1.60	1.53
34	i	364	G	C2'-C1'	-6.21	1.46	1.53
34	i	33	G	O4'-C1'	6.21	1.49	1.41
34	i	1402	G	O4'-C1'	6.21	1.49	1.41
34	i	583	C	C2'-C1'	-6.21	1.46	1.53
34	i	601	G	C2'-C1'	-6.20	1.46	1.53
34	i	969	C	C2'-C1'	-6.20	1.46	1.53
34	i	469	C	O4'-C1'	6.19	1.49	1.41
34	i	477	U	C4'-C3'	6.19	1.59	1.53
34	i	1085	G	O4'-C1'	6.19	1.49	1.41
35	j	49	A	C1'-N9	-6.18	1.38	1.46
17	Q	145	TYR	CD1-CE1	-6.18	1.30	1.39
34	i	337	G	C2'-C1'	-6.18	1.46	1.53
34	i	1657	U	O4'-C1'	6.16	1.49	1.41
24	X	116	PRO	CA-C	6.16	1.65	1.52
34	i	1415	C	O4'-C1'	6.16	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	195	PRO	N-CD	6.16	1.56	1.47
34	i	1093	G	O4'-C1'	-6.15	1.33	1.41
34	i	1852	G	C2'-C1'	-6.15	1.46	1.53
34	i	356	U	O4'-C1'	6.14	1.49	1.41
34	i	335	U	O4'-C1'	6.14	1.49	1.41
34	i	1119	C	C5'-C4'	6.14	1.58	1.51
34	i	494	G	C3'-C2'	-6.13	1.46	1.52
34	i	806	A	C2'-C1'	-6.13	1.46	1.53
27	a	10	ARG	NE-CZ	6.13	1.41	1.33
34	i	1078	A	O4'-C1'	6.13	1.49	1.41
34	i	945	G	C2'-C1'	-6.13	1.46	1.53
34	i	1791	U	P-O5'	-6.12	1.53	1.59
34	i	994	A	C2'-C1'	6.12	1.60	1.53
34	i	1700	C	C2'-C1'	-6.12	1.46	1.53
34	i	1652	G	C4'-C3'	6.11	1.59	1.53
34	i	1284	U	C5'-C4'	6.11	1.58	1.51
34	i	930	G	O4'-C1'	6.10	1.49	1.41
34	i	349	U	C2'-C1'	-6.10	1.46	1.53
34	i	1373	U	C2'-C1'	-6.10	1.46	1.53
34	i	867	U	O4'-C1'	-6.09	1.33	1.41
34	i	627	U	C5'-C4'	6.09	1.58	1.51
34	i	1515	G	C4'-C3'	6.09	1.59	1.53
34	i	1740	A	O4'-C1'	-6.09	1.33	1.41
34	i	1800	A	O4'-C1'	6.08	1.49	1.41
34	i	1739	G	C2'-C1'	6.08	1.60	1.53
34	i	1804	U	O4'-C1'	6.08	1.49	1.41
18	R	111	PHE	CB-CG	-6.08	1.41	1.51
6	F	45	TYR	CB-CG	-6.07	1.42	1.51
34	i	472	G	C2'-C1'	-6.07	1.46	1.53
34	i	370	G	P-O5'	-6.07	1.53	1.59
34	i	1650	C	C2'-C1'	-6.07	1.46	1.53
34	i	1132	U	O4'-C1'	6.06	1.49	1.41
34	i	1397	A	C2'-C1'	6.06	1.60	1.53
34	i	934	A	C2'-C1'	-6.06	1.46	1.53
7	G	36	VAL	CB-CG2	-6.05	1.40	1.52
34	i	396	U	O4'-C1'	6.05	1.49	1.41
34	i	1032	A	O4'-C1'	6.05	1.49	1.41
34	i	629	C	C2'-C1'	-6.05	1.46	1.53
34	i	170	A	O3'-P	-6.05	1.53	1.61
34	i	155	G	O4'-C1'	6.05	1.49	1.41
34	i	449	C	C5'-C4'	6.05	1.58	1.51
34	i	1066	A	O4'-C1'	6.04	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1641	C	C4'-O4'	-6.04	1.37	1.45
18	R	86	PRO	N-CD	6.03	1.56	1.47
34	i	8	U	C2'-C1'	6.03	1.59	1.53
34	i	342	U	C4'-C3'	-6.02	1.46	1.53
34	i	1016	A	C5'-C4'	6.02	1.58	1.51
34	i	1427	G	O4'-C1'	6.02	1.49	1.41
34	i	301	C	C2'-C1'	6.01	1.59	1.53
34	i	1774	G	O4'-C1'	6.01	1.49	1.41
34	i	891	G	C2'-C1'	-6.01	1.46	1.53
34	i	214	A	C2'-C1'	-6.00	1.46	1.53
34	i	1777	C	C2'-C1'	-6.00	1.46	1.53
34	i	391	A	C2'-C1'	6.00	1.59	1.53
34	i	1564	A	C2'-C1'	6.00	1.59	1.53
34	i	1332	C	P-O5'	-6.00	1.53	1.59
34	i	155	G	P-O5'	-5.99	1.53	1.59
8	H	111	LYS	N-CA	5.98	1.58	1.46
34	i	1264	C	C2'-C1'	-5.98	1.46	1.53
34	i	1037	G	O4'-C1'	5.98	1.49	1.41
34	i	529	C	C2'-C1'	-5.97	1.46	1.53
34	i	1710	A	O4'-C1'	5.96	1.49	1.41
35	j	59	A	C1'-N9	-5.96	1.38	1.46
34	i	106	C	C2'-C1'	-5.96	1.46	1.53
34	i	656	U	C2'-C1'	5.96	1.59	1.53
34	i	175	A	O4'-C1'	5.96	1.49	1.41
34	i	83	A	C2'-C1'	-5.96	1.46	1.53
34	i	593	C	C2'-C1'	-5.96	1.46	1.53
34	i	649	G	C2'-C1'	5.96	1.59	1.53
34	i	1172	G	O4'-C1'	5.96	1.49	1.41
34	i	343	C	O3'-P	-5.95	1.54	1.61
34	i	1502	A	O4'-C1'	5.95	1.49	1.41
34	i	210	G	C2'-C1'	5.94	1.59	1.53
34	i	318	U	O4'-C1'	5.94	1.49	1.41
34	i	1652	G	P-O5'	-5.94	1.53	1.59
34	i	795	U	C3'-C2'	5.93	1.59	1.52
34	i	797	U	P-O5'	-5.93	1.53	1.59
7	G	131	ARG	C-O	-5.93	1.12	1.23
34	i	146	G	C3'-O3'	5.93	1.50	1.42
34	i	1296	U	C2'-C1'	5.92	1.59	1.53
34	i	1311	U	O4'-C1'	-5.92	1.33	1.41
32	f	85	TYR	CE2-CZ	-5.92	1.30	1.38
34	i	351	U	C2'-C1'	5.92	1.59	1.53
34	i	2	A	O4'-C1'	5.92	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	J	188	GLY	CA-C	5.92	1.61	1.51
34	i	1667	U	P-O5'	-5.91	1.53	1.59
34	i	742	C	C5'-C4'	5.91	1.58	1.51
34	i	1582	G	O4'-C1'	-5.91	1.33	1.41
34	i	1845	A	C2'-C1'	5.91	1.59	1.53
34	i	602	U	C2'-C1'	-5.91	1.46	1.53
34	i	1633	G	C2'-C1'	-5.90	1.46	1.53
34	i	68	A	O4'-C1'	5.90	1.49	1.41
34	i	1776	G	C2'-C1'	-5.90	1.46	1.53
34	i	54	A	C5'-C4'	5.89	1.58	1.51
34	i	1604	C	P-O5'	-5.89	1.53	1.59
34	i	1680	U	C5'-C4'	5.89	1.58	1.51
34	i	805	A	O4'-C1'	5.89	1.49	1.41
34	i	1730	A	O4'-C1'	5.88	1.49	1.41
34	i	1830	G	C2'-C1'	-5.88	1.46	1.53
10	J	187	ALA	CA-C	5.88	1.68	1.52
34	i	282	G	O4'-C1'	5.88	1.49	1.41
34	i	825	C	O3'-P	-5.87	1.54	1.61
23	W	129	PHE	CB-CG	-5.87	1.41	1.51
34	i	804	A	O3'-P	-5.87	1.54	1.61
34	i	231	C	O4'-C1'	5.87	1.49	1.41
34	i	1591	U	O4'-C1'	5.86	1.49	1.41
5	E	130	PHE	CB-CG	-5.86	1.41	1.51
34	i	545	A	C2'-C1'	-5.86	1.47	1.53
24	X	23	HIS	N-CA	-5.85	1.34	1.46
34	i	1415	C	O3'-P	-5.85	1.54	1.61
34	i	990	C	O4'-C1'	5.85	1.49	1.41
34	i	408	A	C5'-C4'	5.85	1.58	1.51
4	D	4	GLN	C-N	-5.84	1.20	1.34
34	i	279	G	C2'-C1'	5.84	1.59	1.53
34	i	819	U	O4'-C1'	-5.84	1.34	1.41
34	i	1639	C	O4'-C1'	5.83	1.49	1.41
34	i	366	A	C2'-C1'	-5.83	1.47	1.53
34	i	1324	G	O4'-C1'	5.83	1.49	1.41
34	i	439	A	C5'-C4'	5.83	1.58	1.51
34	i	566	A	O4'-C1'	5.82	1.49	1.41
34	i	565	A	C2'-C1'	-5.80	1.47	1.53
34	i	743	U	C2'-C1'	-5.79	1.47	1.53
34	i	1523	G	O4'-C1'	-5.79	1.34	1.41
34	i	1577	C	C5'-C4'	5.78	1.58	1.51
34	i	1048	A	O3'-P	-5.78	1.54	1.61
34	i	1015	C	C4'-C3'	5.77	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1412	C	C2'-C1'	-5.77	1.47	1.53
34	i	1394	G	O4'-C1'	5.77	1.49	1.41
34	i	1402	G	C5'-C4'	5.77	1.58	1.51
34	i	1821	U	O4'-C1'	5.77	1.49	1.41
34	i	834	G	C2'-C1'	-5.77	1.47	1.53
34	i	1161	G	C2'-C1'	5.77	1.59	1.53
34	i	1310	U	O4'-C1'	-5.76	1.34	1.41
34	i	285	U	C2'-C1'	-5.76	1.47	1.53
34	i	1040	G	O4'-C1'	5.76	1.49	1.41
34	i	1567	C	C2'-C1'	-5.76	1.47	1.53
34	i	883	U	C5'-C4'	5.76	1.58	1.51
34	i	1845	A	O4'-C1'	5.75	1.49	1.41
34	i	415	G	P-O5'	-5.75	1.53	1.59
34	i	647	U	O4'-C1'	5.75	1.49	1.41
34	i	1567	C	O4'-C1'	5.75	1.49	1.41
31	e	77	HIS	C-N	5.75	1.43	1.33
34	i	211	U	C2'-C1'	-5.74	1.47	1.53
34	i	1014	U	O4'-C1'	5.74	1.49	1.41
34	i	1473	U	O4'-C1'	5.74	1.49	1.41
34	i	654	A	O4'-C1'	5.73	1.49	1.41
34	i	589	A	O4'-C1'	5.73	1.49	1.41
34	i	1073	A	O4'-C1'	5.72	1.49	1.41
34	i	854	A	O4'-C1'	5.72	1.49	1.41
34	i	1232	G	C2'-C1'	-5.71	1.47	1.53
34	i	1038	A	O4'-C1'	5.71	1.49	1.41
34	i	307	G	C2'-C1'	-5.70	1.47	1.53
34	i	914	U	O4'-C1'	5.70	1.49	1.41
34	i	1414	C	O3'-P	-5.70	1.54	1.61
34	i	317	G	C5'-C4'	5.70	1.58	1.51
34	i	1026	A	C2'-C1'	5.70	1.59	1.53
34	i	1599	G	C3'-C2'	-5.70	1.46	1.52
34	i	319	G	C2'-C1'	-5.70	1.47	1.53
34	i	721	C	P-O5'	5.70	1.65	1.59
34	i	1647	G	O4'-C1'	5.70	1.49	1.41
10	J	188	GLY	N-CA	5.69	1.54	1.46
34	i	1658	A	O4'-C1'	5.69	1.49	1.41
34	i	1439	C	O4'-C1'	5.69	1.49	1.41
32	f	136	PHE	CB-CG	-5.68	1.41	1.51
34	i	1335	U	C2'-C1'	-5.68	1.47	1.53
34	i	1487	G	O4'-C1'	5.68	1.49	1.41
34	i	1809	A	O4'-C1'	5.68	1.49	1.41
34	i	1272	A	P-O5'	-5.68	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	H	67	PRO	N-CD	5.67	1.55	1.47
34	i	794	G	O3'-P	-5.67	1.54	1.61
34	i	1712	C	C2'-C1'	-5.67	1.47	1.53
34	i	98	C	O4'-C1'	5.67	1.49	1.41
34	i	1556	A	O4'-C1'	5.67	1.49	1.41
34	i	410	G	O4'-C1'	-5.67	1.34	1.41
34	i	562	U	C2'-C1'	5.67	1.59	1.53
34	i	1618	A	O4'-C1'	-5.67	1.34	1.41
11	K	40	VAL	CB-CG1	-5.66	1.41	1.52
34	i	1725	U	O4'-C1'	5.66	1.49	1.41
34	i	97	U	C2'-C1'	-5.65	1.47	1.53
34	i	457	G	C2'-C1'	-5.65	1.47	1.53
34	i	1356	U	C2'-C1'	-5.65	1.47	1.53
34	i	1662	U	C2'-C1'	-5.65	1.47	1.53
34	i	1760	C	C4'-C3'	5.65	1.59	1.53
9	I	6	ASP	N-CA	-5.65	1.35	1.46
34	i	1246	A	C2'-C1'	5.65	1.59	1.53
34	i	1711	C	C2'-C1'	-5.65	1.47	1.53
34	i	644	A	O4'-C1'	5.65	1.49	1.41
32	f	148	TYR	CD1-CE1	-5.64	1.30	1.39
34	i	911	G	O4'-C1'	-5.64	1.34	1.41
34	i	1862	U	C4'-C3'	5.64	1.59	1.53
34	i	306	C	O4'-C1'	5.64	1.49	1.41
34	i	1419	C	C5'-C4'	5.64	1.58	1.51
34	i	1799	G	C5'-C4'	5.63	1.58	1.51
34	i	1641	C	C5'-C4'	5.63	1.58	1.51
34	i	1544	U	O4'-C1'	5.62	1.49	1.41
34	i	36	U	O4'-C1'	5.62	1.49	1.41
17	Q	145	TYR	CB-CG	-5.62	1.43	1.51
34	i	224	U	C5'-C4'	5.62	1.58	1.51
34	i	1696	C	C5'-C4'	5.61	1.58	1.51
34	i	18	C	O3'-P	-5.61	1.54	1.61
34	i	189	G	C3'-C2'	-5.61	1.46	1.52
34	i	1821	U	C2'-C1'	-5.61	1.47	1.53
34	i	497	G	C5'-C4'	5.61	1.58	1.51
31	e	97	GLU	CG-CD	-5.60	1.43	1.51
34	i	1218	G	O4'-C1'	5.60	1.49	1.41
34	i	1727	G	C2'-C1'	-5.60	1.47	1.53
34	i	314	U	O3'-P	-5.60	1.54	1.61
34	i	336	C	P-O5'	-5.60	1.54	1.59
34	i	93	U	C2'-C1'	5.59	1.59	1.53
34	i	99	A	P-O5'	-5.59	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1702	U	O4'-C1'	5.59	1.49	1.41
34	i	817	G	O3'-P	-5.59	1.54	1.61
12	L	102	PHE	C-O	5.59	1.33	1.23
34	i	550	A	C2'-C1'	-5.59	1.47	1.53
34	i	965	U	C5'-C4'	5.58	1.58	1.51
34	i	586	U	C2'-C1'	-5.58	1.47	1.53
34	i	1248	C	O4'-C1'	5.58	1.49	1.41
10	J	187	ALA	N-CA	5.58	1.57	1.46
12	L	103	GLU	CG-CD	5.58	1.60	1.51
34	i	1370	C	C2'-C1'	-5.58	1.47	1.53
34	i	1379	A	O4'-C1'	5.58	1.49	1.41
34	i	1789	G	C2'-C1'	-5.57	1.47	1.53
34	i	472	G	O4'-C1'	-5.57	1.34	1.41
18	R	42	PRO	N-CD	5.57	1.55	1.47
34	i	1764	G	C5'-C4'	5.57	1.58	1.51
34	i	1405	A	C5'-C4'	5.56	1.58	1.51
34	i	21	U	C2'-C1'	5.56	1.59	1.53
34	i	955	G	O4'-C1'	5.56	1.48	1.41
34	i	1609	A	C2'-C1'	-5.56	1.47	1.53
34	i	1196	A	C2'-C1'	-5.56	1.47	1.53
34	i	1382	A	C5'-C4'	5.56	1.58	1.51
34	i	312	C	C2'-C1'	-5.55	1.47	1.53
34	i	669	A	C2'-C1'	-5.55	1.47	1.53
34	i	221	A	O4'-C1'	5.55	1.48	1.41
34	i	402	G	C5'-C4'	5.55	1.58	1.51
34	i	430	G	C2'-C1'	-5.55	1.47	1.53
34	i	1424	G	O4'-C1'	-5.55	1.34	1.41
34	i	962	U	O4'-C1'	5.54	1.48	1.41
34	i	1833	U	O3'-P	-5.54	1.54	1.61
34	i	308	C	P-O5'	-5.54	1.54	1.59
34	i	374	U	O4'-C1'	5.54	1.48	1.41
34	i	1373	U	O4'-C1'	5.54	1.48	1.41
34	i	427	G	C2'-C1'	-5.53	1.47	1.53
34	i	1372	A	C3'-C2'	-5.53	1.46	1.52
34	i	1726	A	O4'-C1'	5.53	1.48	1.41
34	i	152	U	C5'-C4'	5.53	1.57	1.51
34	i	460	G	O4'-C1'	5.52	1.48	1.41
34	i	796	U	P-O5'	-5.52	1.54	1.59
34	i	1418	G	C2'-C1'	5.52	1.59	1.53
34	i	1415	C	C2'-C1'	5.51	1.59	1.53
34	i	731	C	C2'-C1'	-5.51	1.47	1.53
34	i	1445	G	O4'-C1'	5.51	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	112	U	C5'-C4'	5.51	1.57	1.51
34	i	272	C	O3'-P	-5.50	1.54	1.61
34	i	77	A	C4'-C3'	5.50	1.59	1.53
34	i	1780	U	C2'-C1'	-5.50	1.47	1.53
34	i	1375	A	O4'-C1'	5.49	1.48	1.41
34	i	910	U	C2'-C1'	5.49	1.59	1.53
34	i	45	A	C2'-C1'	-5.49	1.47	1.53
34	i	94	G	O3'-P	-5.49	1.54	1.61
34	i	401	G	C2'-C1'	-5.49	1.47	1.53
34	i	469	C	C2'-C1'	-5.49	1.47	1.53
34	i	1332	C	C2'-C1'	-5.49	1.47	1.53
34	i	1673	A	O4'-C1'	-5.49	1.34	1.41
34	i	1494	A	C4'-C3'	-5.48	1.47	1.52
34	i	281	U	O3'-P	-5.48	1.54	1.61
34	i	1819	A	O4'-C1'	-5.48	1.34	1.41
34	i	34	U	C5'-C4'	5.48	1.57	1.51
34	i	325	G	C4'-C3'	5.48	1.59	1.53
34	i	1829	A	C2'-C1'	-5.47	1.47	1.53
34	i	428	G	O3'-P	-5.47	1.54	1.61
34	i	343	C	P-O5'	-5.47	1.54	1.59
34	i	1366	A	O4'-C1'	5.46	1.48	1.41
11	K	89	ILE	N-CA	-5.46	1.35	1.46
34	i	112	U	O3'-P	-5.46	1.54	1.61
34	i	976	A	O4'-C1'	5.46	1.48	1.41
34	i	411	G	C2'-C1'	-5.46	1.47	1.53
34	i	577	A	C2'-C1'	-5.45	1.47	1.53
34	i	1412	C	O3'-P	-5.45	1.54	1.61
34	i	395	G	O4'-C1'	5.45	1.48	1.41
34	i	1334	G	P-O5'	-5.44	1.54	1.59
34	i	1462	G	O3'-P	-5.44	1.54	1.61
34	i	266	G	C5'-C4'	5.44	1.57	1.51
34	i	1124	C	O3'-P	-5.44	1.54	1.61
34	i	32	U	C2'-C1'	5.44	1.59	1.53
34	i	145	G	O4'-C1'	5.44	1.48	1.41
34	i	188	U	O4'-C1'	5.44	1.48	1.41
34	i	1637	U	C2'-C1'	5.44	1.59	1.53
34	i	1504	A	O4'-C1'	-5.44	1.34	1.41
34	i	629	C	O4'-C1'	5.43	1.48	1.41
34	i	574	A	O4'-C1'	5.43	1.48	1.41
34	i	82	G	O3'-P	-5.42	1.54	1.61
34	i	1564	A	P-O5'	-5.42	1.54	1.59
34	i	520	U	O3'-P	-5.42	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	K	37	ASP	CB-CG	5.42	1.63	1.51
34	i	418	U	O4'-C1'	-5.42	1.34	1.41
34	i	87	U	O4'-C1'	5.41	1.48	1.41
26	Z	104	ARG	N-CA	-5.41	1.35	1.46
34	i	1302	U	C2'-C1'	-5.41	1.47	1.53
34	i	390	C	C5'-C4'	5.41	1.57	1.51
34	i	585	U	C2'-C1'	-5.41	1.47	1.53
34	i	1636	A	O3'-P	-5.41	1.54	1.61
34	i	73	C	O4'-C1'	5.40	1.48	1.41
34	i	186	G	O4'-C1'	5.40	1.48	1.41
34	i	1076	A	O3'-P	-5.40	1.54	1.61
34	i	1390	G	C4'-O4'	5.40	1.52	1.45
34	i	44	U	C2'-C1'	-5.39	1.47	1.53
34	i	139	C	O3'-P	-5.39	1.54	1.61
34	i	818	U	C4'-C3'	5.39	1.59	1.53
34	i	979	A	O4'-C1'	5.39	1.48	1.41
34	i	1395	C	C2'-C1'	-5.39	1.47	1.53
34	i	1068	U	O4'-C1'	5.39	1.48	1.41
34	i	1657	U	C2'-C1'	-5.39	1.47	1.53
34	i	1400	U	C4'-C3'	5.38	1.59	1.53
34	i	403	G	C2'-C1'	-5.38	1.47	1.53
34	i	1172	G	C2'-C1'	-5.38	1.47	1.53
34	i	517	C	O4'-C1'	5.38	1.48	1.41
34	i	1665	C	O4'-C1'	5.38	1.48	1.41
34	i	1130	G	C2'-C1'	-5.37	1.47	1.53
34	i	1141	A	C2'-C1'	5.37	1.59	1.53
34	i	839	C	O3'-P	-5.37	1.54	1.61
34	i	1812	A	C5'-C4'	5.37	1.57	1.51
2	B	155	TYR	CD1-CE1	-5.37	1.31	1.39
34	i	1529	C	O4'-C1'	5.36	1.48	1.41
34	i	1341	G	C2'-C1'	-5.36	1.47	1.53
34	i	867	U	C3'-O3'	5.36	1.49	1.42
34	i	1718	G	O4'-C1'	-5.36	1.34	1.41
34	i	1027	A	C2'-C1'	-5.35	1.47	1.53
34	i	1064	G	C2'-C1'	-5.35	1.47	1.53
34	i	1146	A	C5'-C4'	5.35	1.57	1.51
34	i	1009	U	O4'-C1'	5.35	1.48	1.41
34	i	1523	G	P-O5'	-5.35	1.54	1.59
34	i	1365	A	O4'-C1'	5.35	1.48	1.41
9	I	8	TRP	CB-CG	5.34	1.59	1.50
34	i	346	C	C2'-C1'	-5.34	1.47	1.53
34	i	573	A	O4'-C1'	5.34	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	626	C	P-O5'	-5.34	1.54	1.59
34	i	216	U	C5'-C4'	5.33	1.57	1.51
34	i	288	A	C5'-C4'	5.33	1.57	1.51
34	i	387	G	O4'-C1'	5.32	1.48	1.41
34	i	978	G	C2'-C1'	-5.32	1.47	1.53
34	i	643	A	C2'-C1'	-5.32	1.47	1.53
34	i	942	U	C2'-C1'	-5.32	1.47	1.53
12	L	20	LYS	N-CA	-5.31	1.35	1.46
10	J	144	ILE	C-N	5.31	1.44	1.34
13	M	116	LYS	N-CA	5.31	1.56	1.46
3	C	182	PRO	N-CD	5.31	1.55	1.47
34	i	1056	A	C2'-C1'	-5.30	1.47	1.53
34	i	241	A	C2'-C1'	5.30	1.59	1.53
34	i	281	U	C2'-C1'	5.30	1.59	1.53
7	G	180	VAL	CA-CB	-5.30	1.43	1.54
34	i	1094	C	O4'-C1'	5.30	1.48	1.41
34	i	1680	U	C2'-C1'	-5.29	1.47	1.53
34	i	1279	C	O3'-P	-5.29	1.54	1.61
34	i	90	G	O4'-C1'	5.29	1.48	1.41
34	i	645	A	C5'-C4'	5.29	1.57	1.51
34	i	901	C	C2'-C1'	-5.29	1.47	1.53
34	i	1523	G	C5'-C4'	-5.29	1.45	1.51
34	i	1088	G	O4'-C1'	5.29	1.48	1.41
34	i	1148	U	O4'-C1'	5.29	1.48	1.41
34	i	1709	U	O4'-C1'	5.29	1.48	1.41
34	i	861	A	C5'-C4'	5.28	1.57	1.51
34	i	1416	G	O4'-C1'	5.28	1.48	1.41
7	G	169	PRO	N-CD	5.28	1.55	1.47
34	i	290	A	C3'-C2'	-5.28	1.47	1.52
34	i	83	A	O4'-C1'	5.28	1.48	1.41
34	i	1704	G	C2'-C1'	-5.28	1.47	1.53
8	H	111	LYS	CA-CB	5.28	1.65	1.53
34	i	1287	A	C2'-C1'	5.28	1.59	1.53
34	i	1847	C	P-O5'	-5.28	1.54	1.59
34	i	553	G	C5'-C4'	5.27	1.57	1.51
34	i	1260	C	O3'-P	-5.27	1.54	1.61
24	X	139	GLU	CB-CG	5.27	1.62	1.52
34	i	1708	C	C2'-C1'	-5.27	1.47	1.53
34	i	267	G	O3'-P	-5.27	1.54	1.61
34	i	1621	C	C2'-C1'	-5.27	1.47	1.53
34	i	1311	U	C2'-C1'	5.27	1.59	1.53
6	F	130	ARG	N-CA	5.26	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	98	C	C4'-C3'	5.26	1.58	1.53
34	i	1344	G	O3'-P	-5.26	1.54	1.61
34	i	801	U	C2'-C1'	-5.25	1.47	1.53
34	i	1533	C	O3'-P	-5.25	1.54	1.61
34	i	1795	A	C5'-C4'	5.25	1.57	1.51
27	a	97	PRO	CA-C	5.25	1.63	1.52
34	i	1119	C	O4'-C1'	5.25	1.48	1.41
34	i	1070	C	O4'-C1'	5.24	1.48	1.41
34	i	360	G	C4'-C3'	5.23	1.58	1.53
34	i	1563	C	C5'-C4'	5.23	1.57	1.51
34	i	394	G	C5'-C4'	5.23	1.57	1.51
34	i	1538	U	O4'-C1'	5.22	1.48	1.41
34	i	176	U	P-O5'	-5.22	1.54	1.59
34	i	730	C	O3'-P	-5.22	1.54	1.61
34	i	1339	U	C2'-C1'	-5.22	1.47	1.53
34	i	1713	G	P-O5'	-5.22	1.54	1.59
34	i	1543	G	C4'-C3'	-5.21	1.47	1.52
34	i	217	U	P-O5'	-5.21	1.54	1.59
34	i	1730	A	C2'-C1'	-5.21	1.47	1.53
34	i	1649	G	C2'-C1'	-5.21	1.47	1.53
35	j	53	A	C1'-N9	-5.21	1.39	1.46
34	i	1339	U	O3'-P	-5.21	1.54	1.61
34	i	1858	U	P-O5'	-5.21	1.54	1.59
35	j	19	A	C1'-N9	-5.21	1.39	1.46
18	R	89	SER	N-CA	5.20	1.56	1.46
34	i	1167	G	O3'-P	-5.20	1.54	1.61
34	i	1609	A	P-O5'	-5.20	1.54	1.59
34	i	1601	G	O4'-C1'	-5.20	1.34	1.41
34	i	1503	G	O3'-P	-5.20	1.54	1.61
34	i	1157	U	C2'-C1'	5.19	1.59	1.53
34	i	1363	U	C2'-C1'	-5.19	1.47	1.53
34	i	1667	U	O4'-C1'	5.19	1.48	1.41
34	i	878	U	C4'-C3'	5.19	1.58	1.53
34	i	667	G	O4'-C1'	5.19	1.48	1.41
34	i	1439	C	O3'-P	-5.19	1.54	1.61
11	K	35	LEU	N-CA	-5.18	1.35	1.46
34	i	1848	U	C2'-C1'	5.18	1.59	1.53
34	i	917	G	O4'-C1'	5.18	1.48	1.41
34	i	1199	G	O4'-C1'	5.18	1.48	1.41
2	B	41	ILE	N-CA	-5.18	1.35	1.46
24	X	115	ILE	CA-C	-5.18	1.39	1.52
34	i	1638	U	C2'-C1'	-5.18	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	N	136	PRO	N-CD	5.18	1.55	1.47
34	i	659	A	C2'-C1'	5.18	1.59	1.53
34	i	1695	C	O4'-C1'	5.18	1.48	1.41
34	i	21	U	O4'-C1'	5.17	1.48	1.41
34	i	1761	C	C4'-C3'	5.17	1.58	1.53
34	i	951	A	C5'-C4'	5.17	1.57	1.51
34	i	687	G	C2'-C1'	-5.17	1.47	1.53
34	i	1346	U	O4'-C1'	5.17	1.48	1.41
11	K	93	THR	CA-C	5.17	1.66	1.52
34	i	1264	C	P-O5'	-5.17	1.54	1.59
34	i	542	G	O4'-C1'	5.16	1.48	1.41
34	i	619	A	C5'-C4'	5.16	1.57	1.51
10	J	89	GLU	CG-CD	-5.16	1.44	1.51
34	i	1406	C	C4'-O4'	-5.16	1.38	1.45
34	i	662	A	C4'-C3'	5.16	1.58	1.53
34	i	935	U	C5'-C4'	5.15	1.57	1.51
34	i	1695	C	C2'-C1'	5.15	1.59	1.53
34	i	1206	G	O4'-C1'	-5.15	1.34	1.41
34	i	1235	U	O3'-P	-5.15	1.54	1.61
34	i	1627	G	O4'-C1'	-5.15	1.34	1.41
34	i	421	G	C4'-C3'	-5.15	1.47	1.52
34	i	1540	A	C2'-C1'	-5.15	1.47	1.53
34	i	1429	C	O3'-P	5.14	1.67	1.61
34	i	1776	G	C5'-C4'	5.14	1.57	1.51
34	i	1792	C	C5'-C4'	5.14	1.57	1.51
34	i	672	U	P-O5'	-5.14	1.54	1.59
34	i	1391	C	C5'-C4'	5.14	1.57	1.51
34	i	1618	A	C4'-C3'	-5.14	1.47	1.52
34	i	1808	G	C5'-C4'	5.14	1.57	1.51
34	i	78	C	C3'-C2'	5.13	1.58	1.52
34	i	1766	C	C3'-C2'	-5.13	1.47	1.52
2	B	155	TYR	CD2-CE2	-5.13	1.31	1.39
34	i	1592	C	C4'-O4'	-5.13	1.38	1.45
26	Z	104	ARG	CG-CD	5.13	1.64	1.51
34	i	1490	U	O4'-C1'	-5.13	1.34	1.41
34	i	116	U	O4'-C1'	5.13	1.48	1.41
34	i	535	A	C2'-C1'	5.13	1.58	1.53
34	i	1177	A	C5'-C4'	5.13	1.57	1.51
34	i	853	U	P-O5'	5.12	1.64	1.59
34	i	102	A	O3'-P	-5.12	1.55	1.61
34	i	95	G	O4'-C1'	5.12	1.48	1.41
5	E	31	PRO	N-CD	5.11	1.54	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1242	A	C2'-C1'	-5.11	1.47	1.53
34	i	659	A	O3'-P	-5.11	1.55	1.61
34	i	1364	U	O4'-C1'	5.11	1.48	1.41
34	i	1029	G	O3'-P	-5.10	1.55	1.61
34	i	978	G	C5'-C4'	5.10	1.57	1.51
34	i	1417	A	O4'-C1'	5.10	1.48	1.41
34	i	1467	C	P-O5'	-5.10	1.54	1.59
34	i	651	U	C5'-C4'	5.10	1.57	1.51
22	V	33	PRO	N-CD	5.09	1.54	1.47
34	i	790	A	C2'-C1'	-5.09	1.47	1.53
34	i	1314	G	C2'-C1'	-5.08	1.47	1.53
34	i	1344	G	C2'-C1'	5.08	1.58	1.53
34	i	1380	C	O4'-C1'	5.08	1.48	1.41
34	i	1768	C	O4'-C1'	5.08	1.48	1.41
34	i	151	C	C2'-C1'	-5.08	1.47	1.53
34	i	543	U	P-O5'	-5.08	1.54	1.59
34	i	1432	C	O3'-P	-5.08	1.55	1.61
34	i	1546	U	O3'-P	-5.08	1.55	1.61
34	i	1541	G	O4'-C1'	-5.07	1.35	1.41
34	i	1846	C	C2'-C1'	-5.07	1.47	1.53
34	i	1818	A	C3'-C2'	5.07	1.58	1.52
34	i	349	U	C5'-C4'	5.07	1.57	1.51
34	i	1358	U	O4'-C1'	-5.07	1.35	1.41
34	i	1232	G	C4'-C3'	-5.06	1.47	1.52
34	i	113	G	C4'-C3'	5.06	1.58	1.53
34	i	1689	U	C5'-C4'	5.06	1.57	1.51
34	i	910	U	O4'-C1'	5.06	1.48	1.41
34	i	1039	G	C5'-C4'	5.05	1.57	1.51
26	Z	104	ARG	CB-CG	-5.05	1.39	1.52
34	i	1549	C	O3'-P	-5.05	1.55	1.61
34	i	1328	A	P-O5'	-5.05	1.54	1.59
34	i	1420	G	C5'-C4'	5.05	1.57	1.51
34	i	674	G	C4'-C3'	5.04	1.58	1.53
34	i	791	A	O4'-C1'	5.04	1.48	1.41
34	i	1775	A	C5'-C4'	5.04	1.57	1.51
1	A	200	ASP	CA-C	-5.04	1.39	1.52
20	T	82	ARG	CD-NE	5.03	1.55	1.46
34	i	51	U	P-O5'	-5.03	1.54	1.59
34	i	742	C	O4'-C1'	5.03	1.48	1.41
34	i	394	G	O4'-C1'	-5.03	1.35	1.41
34	i	288	A	O4'-C1'	5.02	1.48	1.41
34	i	600	G	P-O5'	-5.02	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	L	152	LYS	C-N	5.02	1.45	1.34
34	i	597	U	O4'-C1'	5.02	1.48	1.41
34	i	683	G	C4'-O4'	5.02	1.52	1.45
34	i	1168	U	O3'-P	-5.02	1.55	1.61
34	i	308	C	C2'-C1'	-5.02	1.47	1.53
34	i	140	U	C2'-C1'	-5.01	1.47	1.53
34	i	484	C	C5'-C4'	5.01	1.57	1.51
2	B	221	PRO	N-CD	5.01	1.54	1.47
34	i	1397	A	C5'-C4'	5.01	1.57	1.51
34	i	735	C	O3'-P	-5.00	1.55	1.61
34	i	1466	C	C2'-C1'	-5.00	1.47	1.53

All (3231) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	H	109	ARG	NE-CZ-NH2	-53.45	93.58	120.30
8	H	109	ARG	NE-CZ-NH1	42.58	141.59	120.30
34	i	1774	G	P-O3'-C3'	38.31	165.68	119.70
34	i	1114	C	O4'-C1'-N1	35.28	136.42	108.20
34	i	582	C	O4'-C1'-N1	32.53	134.22	108.20
34	i	67	C	O4'-C1'-N1	31.27	133.22	108.20
34	i	72	C	O4'-C1'-N1	30.36	132.49	108.20
8	H	118	ARG	NE-CZ-NH1	29.49	135.04	120.30
34	i	678	U	O4'-C1'-N1	29.07	131.46	108.20
34	i	1548	C	O4'-C1'-N1	28.61	131.09	108.20
34	i	883	U	P-O3'-C3'	28.23	153.58	119.70
34	i	793	C	O4'-C1'-N1	28.18	130.74	108.20
34	i	1299	C	O4'-C1'-N1	27.70	130.36	108.20
34	i	1113	C	O4'-C1'-N1	27.45	130.16	108.20
34	i	418	U	O4'-C1'-N1	27.33	130.06	108.20
34	i	1817	A	P-O3'-C3'	27.26	152.41	119.70
34	i	1080	A	P-O3'-C3'	27.15	152.28	119.70
34	i	521	A	P-O3'-C3'	26.77	151.82	119.70
34	i	1105	C	O4'-C1'-N1	25.52	128.61	108.20
34	i	1311	U	O4'-C1'-N1	25.33	128.47	108.20
34	i	1392	A	O4'-C1'-N9	24.78	128.02	108.20
34	i	1627	G	P-O3'-C3'	24.30	148.86	119.70
34	i	867	U	O4'-C1'-N1	24.18	127.54	108.20
34	i	730	C	P-O3'-C3'	23.82	148.28	119.70
34	i	317	G	P-O3'-C3'	23.79	148.24	119.70
34	i	1470	A	P-O3'-C3'	23.57	147.99	119.70
34	i	1564	A	O4'-C1'-N9	23.47	126.98	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	165	G	O4'-C1'-N9	23.38	126.90	108.20
34	i	1150	U	O4'-C1'-N1	23.23	126.78	108.20
34	i	66	G	P-O3'-C3'	23.04	147.35	119.70
34	i	1472	A	O4'-C1'-N9	22.98	126.58	108.20
34	i	211	U	P-O3'-C3'	22.94	147.23	119.70
34	i	1304	U	O4'-C1'-N1	22.81	126.45	108.20
34	i	544	A	O4'-C1'-N9	22.76	126.41	108.20
10	J	146	SER	O-C-N	-22.68	86.41	122.70
34	i	793	C	P-O3'-C3'	22.64	146.87	119.70
34	i	140	U	P-O3'-C3'	22.44	146.63	119.70
34	i	314	U	O4'-C1'-N1	22.32	126.06	108.20
34	i	836	C	P-O3'-C3'	22.23	146.38	119.70
34	i	876	G	O4'-C1'-N9	22.07	125.86	108.20
34	i	1573	U	O4'-C1'-N1	22.03	125.83	108.20
34	i	1776	G	O4'-C1'-N9	21.95	125.76	108.20
8	H	118	ARG	NE-CZ-NH2	-21.86	109.37	120.30
34	i	1552	C	O4'-C1'-N1	21.78	125.62	108.20
34	i	685	G	P-O3'-C3'	21.73	145.77	119.70
34	i	1296	U	O4'-C1'-N1	21.54	125.43	108.20
34	i	1516	C	P-O3'-C3'	21.53	145.54	119.70
34	i	298	G	O4'-C1'-N9	21.52	125.41	108.20
34	i	743	U	P-O3'-C3'	21.38	145.35	119.70
34	i	1664	G	P-O5'-C5'	21.34	155.05	120.90
34	i	1562	G	O4'-C1'-N9	21.26	125.20	108.20
34	i	722	C	P-O3'-C3'	21.22	145.16	119.70
34	i	1473	U	P-O3'-C3'	20.95	144.84	119.70
34	i	264	U	P-O3'-C3'	20.74	144.59	119.70
34	i	1503	G	O4'-C1'-C2'	20.66	126.46	105.80
34	i	1391	C	P-O3'-C3'	20.65	144.47	119.70
34	i	1819	A	O4'-C1'-N9	20.57	124.65	108.20
34	i	325	G	O4'-C1'-N9	20.08	124.26	108.20
34	i	618	A	O4'-C1'-N9	20.01	124.21	108.20
34	i	1392	A	P-O3'-C3'	20.00	143.70	119.70
34	i	1112	C	O4'-C1'-N1	19.97	124.17	108.20
34	i	1414	C	C3'-C2'-C1'	-19.96	85.53	101.50
34	i	1716	U	O4'-C1'-N1	19.89	124.11	108.20
34	i	1426	C	O4'-C1'-N1	19.77	124.02	108.20
34	i	319	G	P-O3'-C3'	19.66	143.29	119.70
34	i	1819	A	P-O3'-C3'	19.53	143.13	119.70
18	R	1	MET	CA-C-N	-19.48	77.23	116.20
34	i	317	G	O4'-C1'-N9	19.30	123.64	108.20
34	i	1358	U	O4'-C1'-N1	19.25	123.60	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	225	C	P-O3'-C3'	19.18	142.72	119.70
34	i	1471	G	P-O3'-C3'	19.14	142.67	119.70
34	i	142	C	O4'-C1'-N1	18.96	123.37	108.20
34	i	1151	U	N1-C1'-C2'	18.87	138.53	114.00
34	i	697	G	P-O3'-C3'	18.75	142.21	119.70
34	i	688	U	P-O3'-C3'	18.72	142.16	119.70
34	i	1673	A	O4'-C1'-N9	18.69	123.15	108.20
34	i	78	C	P-O3'-C3'	18.68	142.12	119.70
34	i	126	G	P-O3'-C3'	18.67	142.11	119.70
34	i	954	G	O4'-C1'-N9	18.61	123.09	108.20
34	i	180	G	P-O3'-C3'	-18.56	97.43	119.70
34	i	911	G	O4'-C1'-N9	18.41	122.93	108.20
34	i	883	U	O4'-C1'-N1	18.32	122.85	108.20
34	i	899	A	O4'-C1'-N9	18.20	122.76	108.20
34	i	1393	U	N1-C1'-C2'	18.17	137.62	114.00
34	i	72	C	P-O3'-C3'	18.13	141.45	119.70
34	i	1544	U	P-O3'-C3'	18.06	141.37	119.70
34	i	1226	C	N1-C1'-C2'	18.03	137.44	114.00
34	i	1133	U	P-O3'-C3'	17.98	141.28	119.70
34	i	1740	A	O4'-C1'-N9	17.91	122.52	108.20
34	i	1377	G	O4'-C1'-N9	17.85	122.48	108.20
34	i	727	G	P-O3'-C3'	17.72	140.97	119.70
34	i	428	G	O4'-C1'-N9	17.71	122.37	108.20
34	i	1316	G	O4'-C1'-N9	17.61	122.29	108.20
34	i	1012	U	N1-C1'-C2'	17.57	136.85	114.00
34	i	257	G	P-O3'-C3'	17.52	140.72	119.70
34	i	189	G	P-O3'-C3'	17.46	140.65	119.70
7	G	131	ARG	CB-CA-C	17.40	145.21	110.40
34	i	346	C	O4'-C1'-N1	17.28	122.02	108.20
27	a	10	ARG	NE-CZ-NH2	17.28	128.94	120.30
34	i	524	G	P-O3'-C3'	17.26	140.42	119.70
18	R	1	MET	N-CA-CB	17.23	141.61	110.60
34	i	1045	A	O4'-C1'-N9	17.18	121.95	108.20
34	i	135	U	P-O3'-C3'	17.18	140.31	119.70
34	i	1149	C	O4'-C1'-N1	17.12	121.89	108.20
34	i	1322	U	N1-C1'-C2'	17.10	136.23	114.00
34	i	1399	C	O4'-C1'-N1	16.97	121.78	108.20
34	i	819	U	O4'-C1'-N1	16.96	121.77	108.20
34	i	136	C	P-O3'-C3'	16.95	140.04	119.70
34	i	885	U	O4'-C1'-N1	16.92	121.74	108.20
34	i	1618	A	O4'-C1'-N9	16.90	121.72	108.20
34	i	222	G	P-O3'-C3'	16.88	139.95	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	74	G	O4'-C1'-N9	16.85	121.68	108.20
34	i	826	A	O4'-C1'-N9	16.84	121.67	108.20
34	i	868	A	O4'-C1'-N9	16.80	121.64	108.20
34	i	239	U	P-O3'-C3'	16.79	139.84	119.70
22	V	61	ARG	NE-CZ-NH2	-16.76	111.92	120.30
34	i	1563	C	N1-C1'-C2'	16.75	135.77	114.00
34	i	1470	A	O4'-C1'-N9	16.71	121.57	108.20
7	G	131	ARG	CB-CG-CD	16.61	154.79	111.60
36	k	22	C	O4'-C1'-N1	-16.58	94.94	108.20
34	i	1294	G	O4'-C1'-N9	16.54	121.43	108.20
16	P	37	TYR	N-CA-CB	-16.44	81.01	110.60
34	i	358	U	P-O3'-C3'	16.39	139.37	119.70
34	i	171	A	O4'-C1'-N9	16.36	121.29	108.20
34	i	299	G	N9-C1'-C2'	16.20	135.05	114.00
34	i	1144	A	O4'-C1'-N9	15.99	121.00	108.20
34	i	1233	C	N1-C1'-C2'	15.96	134.75	114.00
34	i	141	A	P-O3'-C3'	15.86	138.74	119.70
9	I	134	GLU	N-CA-CB	15.83	139.09	110.60
34	i	73	C	O4'-C1'-N1	15.80	120.84	108.20
34	i	620	U	O4'-C1'-N1	15.73	120.78	108.20
34	i	138	C	P-O3'-C3'	15.70	138.53	119.70
34	i	1006	G	O4'-C1'-N9	15.67	120.73	108.20
4	D	5	ILE	O-C-N	-15.62	97.70	122.70
34	i	1425	G	P-O3'-C3'	15.55	138.36	119.70
25	Y	86	GLU	C-N-CD	-15.50	86.49	120.60
34	i	1056	A	O4'-C1'-N9	15.50	120.60	108.20
34	i	1327	C	N1-C1'-C2'	15.46	134.09	114.00
34	i	295	C	P-O3'-C3'	15.41	138.19	119.70
34	i	79	A	O4'-C1'-C2'	-15.29	90.51	105.80
10	J	146	SER	CA-C-N	15.27	150.78	117.20
27	a	102	ARG	C-N-CD	-15.24	87.07	120.60
34	i	1279	C	P-O3'-C3'	15.21	137.95	119.70
34	i	396	U	P-O3'-C3'	15.19	137.93	119.70
34	i	1663	U	O4'-C1'-N1	15.18	120.35	108.20
34	i	1607	G	O4'-C1'-N9	15.13	120.31	108.20
34	i	64	A	O4'-C1'-N9	15.12	120.30	108.20
34	i	60	A	O4'-C1'-N9	15.08	120.26	108.20
9	I	43	ILE	O-C-N	-15.07	98.59	122.70
34	i	1670	A	O4'-C1'-N9	14.94	120.15	108.20
34	i	1543	G	O4'-C1'-N9	14.93	120.14	108.20
34	i	734	C	P-O3'-C3'	14.92	137.61	119.70
8	H	109	ARG	CD-NE-CZ	14.90	144.46	123.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1492	U	P-O3'-C3'	14.85	137.52	119.70
27	a	97	PRO	N-CA-C	14.83	150.66	112.10
34	i	111	A	O4'-C1'-N9	14.80	120.04	108.20
34	i	478	U	P-O3'-C3'	14.74	137.39	119.70
34	i	215	U	N1-C1'-C2'	14.72	133.13	114.00
34	i	835	C	N1-C1'-C2'	14.71	133.13	114.00
34	i	857	A	O4'-C1'-N9	14.66	119.93	108.20
34	i	1424	G	O4'-C1'-N9	14.62	119.90	108.20
34	i	538	C	P-O3'-C3'	14.59	137.20	119.70
34	i	835	C	C3'-C2'-C1'	-14.56	89.85	101.50
34	i	1773	G	O4'-C1'-N9	14.55	119.84	108.20
34	i	720	A	P-O3'-C3'	14.54	137.15	119.70
34	i	1475	G	O4'-C1'-N9	14.51	119.81	108.20
34	i	1594	U	O4'-C1'-N1	14.49	119.79	108.20
34	i	1390	G	P-O3'-C3'	14.48	137.08	119.70
34	i	383	U	O4'-C1'-N1	14.47	119.78	108.20
34	i	1227	C	N1-C1'-C2'	14.46	132.80	114.00
20	T	93	SER	N-CA-CB	14.45	132.17	110.50
34	i	1344	G	O4'-C1'-N9	14.43	119.74	108.20
34	i	1010	G	O4'-C1'-C2'	14.41	120.57	107.60
34	i	543	U	O4'-C1'-N1	14.40	119.72	108.20
34	i	1412	C	O4'-C1'-N1	14.40	119.72	108.20
34	i	133	C	P-O3'-C3'	14.39	136.97	119.70
34	i	581	U	O4'-C1'-N1	14.39	119.72	108.20
36	k	22	C	C2-N1-C1'	-14.38	102.98	118.80
34	i	210	G	O4'-C1'-N9	14.38	119.70	108.20
34	i	1412	C	P-O3'-C3'	14.31	136.87	119.70
25	Y	103	SER	O-C-N	-14.27	99.87	122.70
14	N	81	ALA	C-N-CD	-14.22	89.32	120.60
34	i	682	G	P-O3'-C3'	14.20	136.74	119.70
9	I	184	ARG	NE-CZ-NH1	-14.18	113.21	120.30
19	S	40	TYR	CB-CG-CD1	14.18	129.51	121.00
34	i	1235	U	P-O3'-C3'	-14.18	102.69	119.70
7	G	170	ARG	CA-CB-CG	14.15	144.53	113.40
34	i	1824	U	P-O3'-C3'	14.15	136.68	119.70
34	i	1414	C	O4'-C1'-N1	14.13	119.50	108.20
25	Y	86	GLU	N-CA-C	14.09	149.03	111.00
34	i	912	A	O4'-C1'-N9	14.07	119.45	108.20
34	i	649	G	O4'-C1'-N9	14.05	119.44	108.20
34	i	1637	U	O4'-C1'-N1	14.04	119.43	108.20
34	i	677	C	O4'-C1'-N1	14.03	119.42	108.20
34	i	1861	U	O4'-C1'-N1	13.97	119.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1293	U	O4'-C1'-N1	13.95	119.36	108.20
34	i	794	G	P-O3'-C3'	13.93	136.41	119.70
34	i	295	C	C4'-C3'-O3'	-13.92	80.17	109.40
34	i	1818	A	O4'-C1'-N9	13.91	119.33	108.20
34	i	240	C	P-O3'-C3'	13.88	136.36	119.70
34	i	1721	G	O4'-C1'-N9	13.83	119.26	108.20
34	i	1413	C	O4'-C1'-C2'	-13.82	91.98	105.80
34	i	1018	U	N1-C1'-C2'	13.80	131.94	114.00
34	i	454	A	P-O3'-C3'	-13.76	103.19	119.70
19	S	141	ARG	O-C-N	-13.70	100.78	122.70
28	b	36	LYS	C-N-CA	13.69	155.92	121.70
34	i	313	C	P-O3'-C3'	13.66	136.09	119.70
34	i	1773	G	P-O3'-C3'	13.65	136.08	119.70
34	i	276	U	P-O3'-C3'	13.62	136.04	119.70
34	i	1754	G	O4'-C1'-N9	13.62	119.09	108.20
34	i	1449	C	O4'-C1'-N1	13.58	119.06	108.20
34	i	1393	U	O4'-C1'-N1	-13.56	97.35	108.20
34	i	478	U	O4'-C1'-N1	13.55	119.04	108.20
34	i	548	G	O4'-C1'-N9	13.55	119.04	108.20
34	i	287	U	N1-C1'-C2'	13.51	131.56	114.00
20	T	4	VAL	N-CA-C	13.48	147.39	111.00
34	i	1510	G	O4'-C1'-N9	13.47	118.98	108.20
34	i	1769	U	O4'-C1'-N1	13.46	118.97	108.20
34	i	1862	U	P-O3'-C3'	13.46	135.85	119.70
34	i	1741	U	P-O3'-C3'	13.41	135.80	119.70
34	i	960	A	O4'-C1'-N9	13.41	118.93	108.20
34	i	889	U	O4'-C1'-N1	13.40	118.92	108.20
34	i	829	C	P-O3'-C3'	13.39	135.77	119.70
34	i	519	A	P-O3'-C3'	-13.39	103.63	119.70
34	i	1011	U	O4'-C1'-N1	13.37	118.89	108.20
34	i	830	C	N1-C1'-C2'	13.33	131.32	114.00
34	i	556	U	O4'-C1'-N1	13.32	118.86	108.20
34	i	837	G	O4'-C1'-N9	13.32	118.86	108.20
7	G	131	ARG	CA-CB-CG	13.32	142.69	113.40
36	k	22	C	C6-N1-C1'	13.27	136.73	120.80
34	i	1261	A	N9-C1'-C2'	13.27	131.25	114.00
34	i	530	U	O4'-C1'-N1	13.26	118.81	108.20
34	i	438	A	O4'-C1'-N9	13.22	118.78	108.20
34	i	1548	C	C3'-C2'-C1'	-13.22	90.92	101.50
34	i	1482	A	O4'-C1'-N9	13.22	118.77	108.20
34	i	24	C	P-O3'-C3'	13.19	135.53	119.70
27	a	97	PRO	CB-CA-C	-13.18	79.04	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	277	U	O4'-C1'-N1	-13.18	97.66	108.20
34	i	1257	C	N1-C1'-C2'	13.18	131.13	114.00
34	i	627	U	O4'-C1'-N1	13.16	118.73	108.20
34	i	415	G	O4'-C1'-N9	13.15	118.72	108.20
34	i	1841	G	O4'-C1'-N9	13.14	118.71	108.20
34	i	1616	U	O4'-C1'-N1	13.13	118.70	108.20
34	i	1514	U	O4'-C1'-N1	13.13	118.70	108.20
34	i	742	C	P-O3'-C3'	13.12	135.45	119.70
34	i	406	U	O4'-C1'-N1	13.12	118.69	108.20
34	i	1715	U	P-O3'-C3'	13.10	135.42	119.70
34	i	147	A	O4'-C1'-N9	13.09	118.67	108.20
11	K	55	ARG	CG-CD-NE	13.09	139.28	111.80
34	i	1523	G	O4'-C1'-N9	13.05	118.64	108.20
34	i	1459	U	C4'-C3'-O3'	-13.04	82.02	109.40
34	i	876	G	P-O3'-C3'	13.03	135.34	119.70
34	i	869	G	P-O3'-C3'	12.95	135.24	119.70
34	i	1503	G	O4'-C1'-N9	12.95	118.56	108.20
34	i	1406	C	N1-C1'-C2'	12.95	130.83	114.00
34	i	456	G	O4'-C1'-N9	12.91	118.53	108.20
34	i	594	A	P-O3'-C3'	12.86	135.13	119.70
34	i	1307	C	N1-C1'-C2'	12.85	130.70	114.00
34	i	1533	C	P-O3'-C3'	12.84	135.11	119.70
34	i	123	G	O4'-C1'-N9	12.84	118.47	108.20
34	i	721	C	P-O3'-C3'	12.81	135.07	119.70
34	i	1429	C	O3'-P-O5'	-12.80	79.68	104.00
34	i	126	G	C4'-C3'-O3'	-12.79	82.54	109.40
34	i	1	U	O4'-C1'-N1	12.77	118.42	108.20
34	i	622	C	N1-C1'-C2'	12.77	130.60	114.00
34	i	59	U	O4'-C1'-N1	12.76	118.41	108.20
34	i	1402	G	P-O3'-C3'	12.75	135.00	119.70
34	i	139	C	P-O3'-C3'	12.75	135.00	119.70
34	i	1168	U	O4'-C1'-N1	12.74	118.39	108.20
34	i	1565	G	O4'-C1'-N9	12.70	118.36	108.20
34	i	1238	U	N1-C1'-C2'	12.70	130.51	114.00
34	i	75	G	O4'-C1'-N9	12.63	118.30	108.20
34	i	38	A	O4'-C1'-N9	12.62	118.29	108.20
17	Q	18	THR	N-CA-CB	12.61	134.26	110.30
34	i	1240	U	O4'-C1'-N1	12.61	118.29	108.20
18	R	88	VAL	O-C-N	-12.60	102.53	122.70
34	i	170	A	O4'-C1'-C2'	12.60	118.94	107.60
34	i	1249	A	O4'-C1'-N9	12.59	118.27	108.20
18	R	89	SER	N-CA-C	12.56	144.91	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	816	U	O4'-C1'-N1	12.56	118.25	108.20
34	i	1588	C	P-O3'-C3'	12.55	134.76	119.70
24	X	23	HIS	O-C-N	-12.52	102.67	122.70
34	i	24	C	C1'-C2'-O2'	-12.52	73.04	110.60
34	i	1104	G	O4'-C1'-N9	12.45	118.16	108.20
34	i	1145	A	O4'-C1'-N9	12.44	118.15	108.20
34	i	77	A	P-O3'-C3'	12.44	134.63	119.70
7	G	170	ARG	N-CA-CB	12.41	132.94	110.60
34	i	1753	G	O4'-C1'-N9	12.41	118.12	108.20
34	i	696	G	P-O3'-C3'	12.39	134.57	119.70
34	i	66	G	C1'-O4'-C4'	-12.38	99.99	109.90
34	i	831	C	P-O5'-C5'	12.37	140.69	120.90
34	i	881	U	O4'-C1'-N1	12.35	118.08	108.20
34	i	616	G	C3'-C2'-C1'	12.32	111.35	101.50
34	i	1044	G	N9-C1'-C2'	12.31	130.01	114.00
16	P	17	TYR	CB-CG-CD2	-12.31	113.62	121.00
34	i	542	G	P-O3'-C3'	12.28	134.44	119.70
34	i	1414	C	O4'-C1'-C2'	12.27	118.64	107.60
34	i	1126	G	O4'-C1'-N9	12.25	118.00	108.20
34	i	359	C	O4'-C1'-N1	12.24	117.99	108.20
34	i	866	A	O4'-C1'-N9	12.23	117.99	108.20
34	i	280	G	O4'-C1'-N9	12.22	117.97	108.20
34	i	986	A	N9-C1'-C2'	12.22	129.88	114.00
34	i	1430	C	P-O3'-C3'	12.21	134.35	119.70
34	i	1081	C	P-O5'-C5'	-12.19	101.39	120.90
34	i	1716	U	N1-C1'-C2'	-12.19	98.15	114.00
34	i	1372	A	O4'-C1'-N9	12.18	117.95	108.20
34	i	20	G	O4'-C1'-N9	12.17	117.94	108.20
34	i	531	U	O4'-C1'-N1	12.16	117.93	108.20
34	i	1097	U	O4'-C1'-N1	12.16	117.93	108.20
4	D	4	GLN	CG-CD-OE1	-12.14	97.31	121.60
34	i	237	G	P-O3'-C3'	12.14	134.27	119.70
34	i	329	A	C4'-C3'-O3'	-12.14	83.90	109.40
34	i	1188	U	O4'-C1'-N1	12.11	117.89	108.20
34	i	1167	G	O4'-C1'-N9	12.10	117.88	108.20
34	i	1838	U	O4'-C1'-N1	12.10	117.88	108.20
33	g	24	THR	C-N-CD	-12.09	94.00	120.60
34	i	4	C	N1-C1'-C2'	12.09	129.71	114.00
34	i	857	A	N9-C1'-C2'	-12.07	98.30	114.00
25	Y	86	GLU	CA-C-O	-12.06	94.78	120.10
34	i	1469	G	O3'-P-O5'	12.05	126.91	104.00
34	i	1550	U	O4'-C1'-N1	12.05	117.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1310	U	O4'-C1'-N1	12.05	117.84	108.20
34	i	224	U	O4'-C1'-N1	12.03	117.83	108.20
34	i	1255	A	O4'-C1'-N9	12.02	117.82	108.20
34	i	1562	G	C3'-C2'-C1'	-12.01	91.89	101.50
31	e	95	LYS	O-C-N	-12.00	103.50	122.70
17	Q	146	ARG	NE-CZ-NH2	11.99	126.30	120.30
34	i	915	A	P-O3'-C3'	11.99	134.09	119.70
34	i	520	U	O4'-C1'-N1	11.99	117.79	108.20
34	i	1397	A	P-O3'-C3'	11.99	134.09	119.70
34	i	736	C	N1-C1'-C2'	11.98	129.58	114.00
34	i	146	G	O4'-C1'-N9	11.97	117.78	108.20
34	i	835	C	O4'-C1'-N1	11.97	117.78	108.20
34	i	1659	A	P-O3'-C3'	11.96	134.06	119.70
11	K	1	MET	N-CA-CB	-11.96	89.08	110.60
34	i	412	U	O4'-C1'-N1	11.95	117.76	108.20
34	i	807	A	P-O3'-C3'	11.94	134.03	119.70
34	i	426	G	O4'-C1'-N9	11.91	117.73	108.20
34	i	868	A	P-O3'-C3'	11.91	133.99	119.70
34	i	179	C	N1-C1'-C2'	11.90	129.47	114.00
34	i	1355	U	O4'-C1'-N1	11.90	117.72	108.20
34	i	596	G	O4'-C1'-N9	11.88	117.70	108.20
34	i	1549	C	O3'-P-O5'	-11.86	81.47	104.00
34	i	1538	U	P-O3'-C3'	11.85	133.92	119.70
34	i	1671	U	O4'-C1'-N1	11.85	117.68	108.20
4	D	4	GLN	N-CA-CB	-11.84	89.28	110.60
34	i	1418	G	O4'-C1'-N9	11.84	117.67	108.20
34	i	278	U	P-O3'-C3'	11.84	133.91	119.70
34	i	1607	G	N9-C1'-C2'	-11.84	98.61	114.00
18	R	1	MET	C-N-CA	-11.82	97.48	122.30
34	i	1103	G	O4'-C1'-N9	11.81	117.65	108.20
34	i	1315	U	O4'-C1'-N1	11.80	117.64	108.20
34	i	1233	C	C1'-O4'-C4'	-11.71	100.53	109.90
2	B	41	ILE	CB-CA-C	11.71	135.01	111.60
34	i	796	U	O4'-C1'-N1	11.70	117.56	108.20
34	i	1494	A	C1'-O4'-C4'	-11.70	100.54	109.90
34	i	225	C	C3'-C2'-C1'	11.70	110.86	101.50
34	i	1670	A	N9-C1'-C2'	-11.70	98.80	114.00
34	i	1157	U	O4'-C1'-N1	11.69	117.55	108.20
34	i	1828	A	N9-C1'-C2'	11.68	129.19	114.00
34	i	1515	G	N9-C1'-C2'	11.68	129.18	114.00
13	M	99	LYS	C-N-CD	-11.68	94.92	120.60
34	i	570	U	P-O3'-C3'	-11.65	105.72	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1833	U	O4'-C1'-N1	11.65	117.52	108.20
34	i	1231	G	O4'-C1'-N9	11.65	117.52	108.20
9	I	134	GLU	CB-CA-C	-11.63	87.13	110.40
34	i	526	A	P-O3'-C3'	-11.63	105.74	119.70
34	i	734	C	N1-C1'-C2'	11.63	129.11	114.00
34	i	1319	U	O4'-C1'-N1	11.62	117.50	108.20
34	i	461	G	O4'-C1'-N9	11.59	117.48	108.20
34	i	817	G	O4'-C1'-N9	11.59	117.47	108.20
34	i	1437	U	O4'-C1'-N1	11.59	117.47	108.20
34	i	1446	G	O4'-C1'-N9	11.58	117.47	108.20
34	i	365	U	O4'-C1'-N1	11.58	117.47	108.20
34	i	1806	U	O4'-C1'-N1	11.58	117.46	108.20
34	i	277	U	C3'-C2'-C1'	11.57	110.75	101.50
18	R	1	MET	N-CA-C	-11.55	79.80	111.00
34	i	417	U	O4'-C1'-N1	11.55	117.44	108.20
34	i	1007	A	O4'-C1'-N9	11.54	117.44	108.20
34	i	31	U	O4'-C1'-N1	11.52	117.42	108.20
34	i	800	U	O4'-C1'-N1	11.51	117.41	108.20
34	i	413	U	O4'-C1'-N1	11.49	117.40	108.20
34	i	929	G	C1'-O4'-C4'	-11.49	100.70	109.90
10	J	146	SER	C-N-CA	11.49	150.43	121.70
12	L	153	LYS	O-C-N	-11.48	104.33	122.70
34	i	728	U	P-O3'-C3'	11.48	133.47	119.70
34	i	672	U	O4'-C1'-N1	11.44	117.35	108.20
34	i	1000	U	O4'-C1'-N1	11.43	117.35	108.20
34	i	1206	G	O4'-C1'-N9	11.43	117.34	108.20
34	i	1552	C	P-O3'-C3'	11.37	133.35	119.70
34	i	728	U	P-O5'-C5'	11.37	139.09	120.90
34	i	368	U	O4'-C1'-N1	11.36	117.29	108.20
34	i	1718	G	O4'-C1'-N9	11.34	117.27	108.20
34	i	474	A	P-O3'-C3'	11.33	133.30	119.70
9	I	6	ASP	CB-CG-OD2	-11.31	108.12	118.30
34	i	1643	G	C4'-C3'-O3'	11.30	135.61	113.00
34	i	145	G	C1'-O4'-C4'	-11.30	100.86	109.90
34	i	536	G	P-O3'-C3'	11.28	133.24	119.70
34	i	1237	A	C3'-C2'-C1'	11.27	110.52	101.50
34	i	1500	U	O4'-C1'-N1	11.27	117.22	108.20
34	i	358	U	O4'-C1'-N1	11.26	117.20	108.20
34	i	861	A	O4'-C1'-N9	11.23	117.18	108.20
34	i	1815	U	O4'-C1'-N1	11.22	117.18	108.20
4	D	5	ILE	CA-C-N	11.22	141.89	117.20
12	L	20	LYS	N-CA-CB	-11.20	90.44	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1414	C	P-O3'-C3'	11.19	133.12	119.70
34	i	1742	C	P-O3'-C3'	11.16	133.09	119.70
34	i	1496	G	N9-C1'-C2'	11.15	128.49	114.00
27	a	98	PRO	C-N-CD	-11.15	96.08	120.60
34	i	520	U	C4'-C3'-O3'	-11.12	86.04	109.40
34	i	1348	G	C1'-O4'-C4'	-11.12	101.00	109.90
34	i	1405	A	P-O3'-C3'	11.12	133.05	119.70
34	i	947	C	C3'-C2'-C1'	11.12	110.39	101.50
34	i	1738	G	N9-C1'-C2'	11.12	128.45	114.00
34	i	385	G	O4'-C1'-N9	11.09	117.07	108.20
34	i	1414	C	C1'-O4'-C4'	-11.09	101.03	109.90
34	i	918	A	O4'-C1'-N9	11.07	117.05	108.20
34	i	1024	A	P-O3'-C3'	-11.06	106.43	119.70
34	i	1715	U	O4'-C1'-N1	11.05	117.04	108.20
34	i	1194	G	O4'-C1'-C2'	11.04	117.53	107.60
34	i	170	A	C1'-O4'-C4'	-11.03	101.08	109.90
34	i	1154	G	O4'-C1'-N9	11.02	117.02	108.20
34	i	913	U	O4'-C1'-N1	11.02	117.01	108.20
34	i	1772	C	O4'-C1'-N1	11.02	117.01	108.20
34	i	411	G	O4'-C1'-N9	11.00	117.00	108.20
34	i	1648	U	O4'-C1'-N1	11.00	117.00	108.20
34	i	948	G	O4'-C1'-N9	11.00	117.00	108.20
34	i	1255	A	O4'-C1'-C2'	10.97	117.47	107.60
34	i	340	C	O4'-C1'-C2'	-10.97	94.83	105.80
34	i	207	U	P-O3'-C3'	10.95	132.84	119.70
34	i	1432	C	C3'-C2'-C1'	10.95	110.26	101.50
34	i	1848	U	O4'-C1'-N1	10.94	116.96	108.20
34	i	684	A	O4'-C1'-C2'	10.94	117.45	107.60
34	i	1408	C	P-O3'-C3'	10.94	132.83	119.70
34	i	1062	U	O4'-C1'-N1	10.93	116.94	108.20
34	i	631	A	O4'-C1'-N9	10.91	116.93	108.20
34	i	827	G	O4'-C1'-N9	10.90	116.92	108.20
34	i	862	U	O4'-C1'-N1	10.89	116.91	108.20
24	X	91	LEU	CA-CB-CG	10.89	140.34	115.30
34	i	684	A	O4'-C1'-N9	10.87	116.90	108.20
34	i	61	A	O4'-C1'-N9	10.87	116.89	108.20
34	i	103	A	O4'-C1'-N9	10.86	116.89	108.20
34	i	1193	G	O4'-C1'-N9	10.86	116.88	108.20
34	i	1672	U	O4'-C1'-N1	10.84	116.87	108.20
26	Z	107	VAL	N-CA-CB	-10.83	87.67	111.50
34	i	832	G	O4'-C1'-N9	10.82	116.86	108.20
34	i	200	U	O4'-C1'-N1	10.80	116.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	436	G	N9-C1'-C2'	10.80	128.04	114.00
18	R	86	PRO	CA-N-CD	-10.80	96.39	111.50
34	i	1138	G	O4'-C1'-N9	10.79	116.83	108.20
18	R	89	SER	CA-C-N	10.78	140.91	117.20
34	i	1290	G	O4'-C1'-N9	10.77	116.82	108.20
19	S	40	TYR	CB-CG-CD2	-10.77	114.54	121.00
34	i	907	C	P-O5'-C5'	10.75	138.10	120.90
34	i	1632	A	P-O3'-C3'	10.75	132.60	119.70
34	i	991	G	O4'-C1'-N9	10.74	116.79	108.20
34	i	671	U	O4'-C1'-N1	10.74	116.79	108.20
34	i	1037	G	C1'-O4'-C4'	-10.73	101.31	109.90
34	i	1111	U	O4'-C1'-N1	10.70	116.76	108.20
34	i	835	C	C1'-O4'-C4'	-10.69	101.35	109.90
34	i	57	U	O4'-C1'-N1	10.68	116.75	108.20
34	i	521	A	C1'-O4'-C4'	-10.68	101.36	109.90
34	i	676	U	O4'-C1'-N1	10.68	116.74	108.20
34	i	1724	U	O4'-C1'-N1	10.65	116.72	108.20
34	i	1354	U	O4'-C1'-N1	10.65	116.72	108.20
34	i	858	A	N9-C1'-C2'	10.64	127.84	114.00
34	i	1536	G	O4'-C1'-N9	10.63	116.71	108.20
34	i	143	U	N1-C1'-C2'	10.63	127.82	114.00
34	i	682	G	O4'-C1'-N9	10.63	116.70	108.20
34	i	878	U	O4'-C1'-N1	10.63	116.70	108.20
34	i	405	A	O4'-C1'-N9	10.62	116.69	108.20
34	i	477	U	P-O3'-C3'	10.62	132.44	119.70
34	i	1329	U	O4'-C1'-N1	10.61	116.69	108.20
34	i	522	C	O4'-C1'-C2'	-10.61	95.19	105.80
34	i	1546	U	O4'-C1'-C2'	10.60	117.14	107.60
27	a	10	ARG	CD-NE-CZ	10.60	138.44	123.60
19	S	87	GLN	O-C-N	-10.59	105.75	122.70
34	i	1615	A	N9-C1'-C2'	10.59	127.77	114.00
34	i	19	A	O4'-C1'-N9	10.58	116.67	108.20
34	i	1308	G	O4'-C1'-N9	-10.58	99.73	108.20
34	i	1856	G	O4'-C1'-C2'	-10.57	95.23	105.80
34	i	1012	U	C3'-C2'-C1'	10.57	109.96	101.50
34	i	1743	G	O4'-C1'-N9	10.57	116.65	108.20
34	i	592	G	O4'-C1'-N9	10.55	116.64	108.20
34	i	894	U	P-O3'-C3'	10.55	132.36	119.70
34	i	1079	A	C1'-O4'-C4'	-10.55	101.46	109.90
34	i	1674	A	P-O3'-C3'	10.53	132.34	119.70
34	i	1346	U	O4'-C1'-N1	10.53	116.62	108.20
19	S	88	LYS	CB-CA-C	10.53	131.45	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1299	C	C3'-C2'-C1'	-10.53	93.08	101.50
34	i	1555	U	O4'-C1'-N1	10.50	116.60	108.20
34	i	1570	G	O4'-C1'-N9	10.49	116.59	108.20
34	i	739	U	O4'-C1'-N1	10.48	116.59	108.20
34	i	1021	U	O4'-C1'-N1	10.48	116.58	108.20
34	i	1210	A	P-O3'-C3'	10.48	132.27	119.70
34	i	154	U	O4'-C1'-N1	10.47	116.58	108.20
34	i	1584	A	O4'-C1'-N9	10.46	116.57	108.20
9	I	6	ASP	CB-CG-OD1	10.46	127.72	118.30
34	i	1074	C	N1-C1'-C2'	10.46	127.59	114.00
34	i	79	A	O4'-C1'-N9	10.44	116.56	108.20
34	i	1295	A	O4'-C1'-N9	10.44	116.56	108.20
34	i	1255	A	C3'-C2'-C1'	-10.44	93.15	101.50
34	i	385	G	C1'-O4'-C4'	-10.44	101.55	109.90
34	i	322	G	O4'-C1'-N9	10.44	116.55	108.20
34	i	915	A	N9-C1'-C2'	10.41	127.53	114.00
34	i	93	U	O4'-C1'-N1	10.41	116.53	108.20
34	i	815	G	O4'-C1'-N9	10.40	116.52	108.20
34	i	1288	C	C3'-C2'-C1'	10.40	109.82	101.50
34	i	542	G	O4'-C1'-N9	10.40	116.52	108.20
34	i	1407	G	C1'-O4'-C4'	-10.40	101.58	109.90
34	i	490	A	O3'-P-O5'	-10.39	84.25	104.00
15	O	129	ILE	CB-CA-C	-10.39	90.83	111.60
34	i	789	G	O4'-C1'-N9	10.39	116.51	108.20
7	G	170	ARG	CB-CG-CD	10.37	138.56	111.60
34	i	794	G	O4'-C1'-C2'	-10.37	95.43	105.80
34	i	1404	U	N1-C1'-C2'	10.37	127.48	114.00
34	i	1479	A	O4'-C1'-N9	10.36	116.49	108.20
34	i	204	G	O4'-C1'-N9	10.35	116.48	108.20
34	i	167	G	O4'-C1'-N9	10.34	116.47	108.20
34	i	170	A	C3'-C2'-C1'	-10.32	93.25	101.50
34	i	1170	U	O4'-C1'-N1	10.30	116.44	108.20
34	i	792	G	O4'-C1'-N9	10.30	116.44	108.20
34	i	585	U	O4'-C1'-N1	10.29	116.43	108.20
10	J	138	ARG	N-CA-C	10.28	138.77	111.00
34	i	1857	A	O4'-C1'-C2'	-10.27	95.53	105.80
34	i	349	U	O4'-C1'-N1	10.27	116.41	108.20
34	i	546	U	P-O5'-C5'	10.23	137.28	120.90
34	i	1010	G	O4'-C1'-N9	10.22	116.38	108.20
34	i	1774	G	C1'-O4'-C4'	-10.22	101.73	109.90
34	i	971	G	O4'-C1'-N9	10.22	116.37	108.20
34	i	1551	A	P-O3'-C3'	10.21	131.96	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	300	G	O4'-C1'-N9	10.21	116.37	108.20
18	R	2	GLY	O-C-N	-10.21	106.37	122.70
34	i	65	C	P-O3'-C3'	10.19	131.93	119.70
34	i	168	C	N1-C1'-C2'	10.19	127.25	114.00
34	i	1232	G	O4'-C1'-C2'	10.17	116.76	107.60
5	E	171	ASP	N-CA-C	10.17	138.46	111.00
34	i	662	A	O4'-C1'-N9	10.15	116.32	108.20
34	i	141	A	O4'-C1'-C2'	-10.14	95.66	105.80
34	i	102	A	P-O3'-C3'	10.13	131.86	119.70
11	K	43	LEU	CA-CB-CG	10.12	138.57	115.30
34	i	1075	C	C3'-C2'-C1'	10.11	109.59	101.50
34	i	517	C	O4'-C1'-N1	10.11	116.29	108.20
34	i	865	A	P-O3'-C3'	10.11	131.83	119.70
34	i	590	G	O4'-C1'-N9	10.10	116.28	108.20
21	U	71	GLY	N-CA-C	10.10	138.35	113.10
34	i	31	U	P-O3'-C3'	10.10	131.82	119.70
34	i	1416	G	C1'-O4'-C4'	-10.10	101.82	109.90
34	i	1662	U	O4'-C1'-N1	10.10	116.28	108.20
34	i	287	U	C1'-O4'-C4'	-10.08	101.84	109.90
34	i	935	U	O4'-C1'-N1	10.08	116.26	108.20
34	i	1276	G	O4'-C1'-N9	10.07	116.26	108.20
34	i	73	C	O4'-C1'-C2'	-10.06	95.74	105.80
34	i	1811	G	O4'-C1'-N9	10.06	116.25	108.20
34	i	1414	C	P-O5'-C5'	10.06	137.00	120.90
34	i	74	G	C3'-C2'-C1'	10.06	109.55	101.50
34	i	1408	C	O3'-P-O5'	-10.06	84.88	104.00
34	i	1722	G	O4'-C1'-N9	10.05	116.24	108.20
11	K	55	ARG	NE-CZ-NH1	10.05	125.33	120.30
34	i	1615	A	O4'-C1'-N9	10.04	116.23	108.20
34	i	1281	G	C4'-C3'-O3'	10.03	133.06	113.00
34	i	1211	C	O4'-C1'-C2'	-10.02	95.78	105.80
34	i	1258	C	N1-C1'-C2'	9.99	126.99	114.00
34	i	1303	U	P-O3'-C3'	9.99	131.69	119.70
4	D	4	GLN	CG-CD-NE2	9.99	140.67	116.70
34	i	547	U	N1-C1'-C2'	9.98	126.98	114.00
34	i	1532	A	O4'-C1'-C2'	-9.98	95.82	105.80
34	i	344	U	O4'-C1'-N1	9.98	116.18	108.20
34	i	1715	U	C1'-O4'-C4'	9.98	117.88	109.90
34	i	546	U	C4'-C3'-C2'	-9.96	92.64	102.60
11	K	1	MET	CB-CG-SD	9.96	142.28	112.40
34	i	1472	A	N9-C1'-C2'	-9.96	101.05	112.00
9	I	43	ILE	CA-C-O	9.95	141.00	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	H	110	THR	CA-C-O	-9.95	99.20	120.10
34	i	1036	G	O4'-C1'-N9	9.94	116.15	108.20
34	i	1643	G	P-O3'-C3'	9.94	131.62	119.70
24	X	23	HIS	CB-CA-C	9.93	130.26	110.40
34	i	795	U	O4'-C1'-N1	9.93	116.14	108.20
34	i	1435	A	O4'-C1'-N9	9.93	116.14	108.20
7	G	180	VAL	CB-CA-C	-9.93	92.54	111.40
34	i	204	G	N9-C1'-C2'	-9.93	101.08	112.00
34	i	189	G	C1'-O4'-C4'	-9.92	101.97	109.90
34	i	1771	G	C3'-C2'-C1'	-9.92	93.57	101.50
34	i	92	A	N9-C1'-C2'	9.90	126.87	114.00
34	i	1397	A	O4'-C1'-N9	9.90	116.12	108.20
34	i	1115	A	O4'-C1'-N9	9.89	116.11	108.20
34	i	1010	G	C1'-O4'-C4'	-9.88	102.00	109.90
34	i	663	G	O4'-C1'-N9	9.87	116.09	108.20
34	i	1234	U	O4'-C1'-N1	9.86	116.08	108.20
34	i	616	G	O4'-C1'-C2'	-9.83	95.97	105.80
34	i	1151	U	O4'-C1'-N1	9.83	116.07	108.20
18	R	42	PRO	CA-N-CD	-9.83	97.74	111.50
34	i	1803	A	O4'-C1'-N9	9.82	116.06	108.20
34	i	1004	A	P-O3'-C3'	9.82	131.48	119.70
34	i	5	U	O4'-C1'-N1	9.82	116.05	108.20
34	i	914	U	N1-C1'-C2'	9.82	126.76	114.00
34	i	1194	G	C1'-O4'-C4'	-9.81	102.05	109.90
34	i	80	G	C3'-C2'-C1'	9.80	109.34	101.50
34	i	105	U	O4'-C1'-N1	9.79	116.03	108.20
34	i	1333	C	O4'-C1'-N1	9.78	116.03	108.20
34	i	665	U	O4'-C1'-N1	9.78	116.02	108.20
33	g	142	VAL	CA-C-N	-9.78	95.69	117.20
34	i	1798	U	O4'-C1'-N1	9.77	116.02	108.20
34	i	1659	A	N9-C1'-C2'	9.76	126.69	114.00
34	i	1771	G	O4'-C1'-N9	9.76	116.00	108.20
34	i	1432	C	P-O3'-C3'	9.75	131.40	119.70
19	S	91	LYS	CG-CD-CE	9.74	141.11	111.90
34	i	928	G	O4'-C1'-N9	9.74	115.99	108.20
28	b	36	LYS	N-CA-C	9.73	137.28	111.00
34	i	1126	G	N9-C1'-C2'	-9.73	101.30	112.00
34	i	810	U	O4'-C1'-N1	9.73	115.98	108.20
34	i	999	U	O4'-C1'-N1	9.72	115.98	108.20
21	U	104	ILE	N-CA-C	-9.71	84.77	111.00
1	A	200	ASP	CB-CA-C	-9.71	90.99	110.40
34	i	1072	G	O4'-C1'-N9	9.70	115.96	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1413	C	C3'-C2'-C1'	9.70	109.26	101.50
34	i	520	U	O4'-C4'-C3'	-9.70	94.30	104.00
34	i	121	U	O4'-C1'-N1	9.70	115.96	108.20
34	i	1328	A	O4'-C1'-C2'	-9.70	96.10	105.80
34	i	321	C	O4'-C1'-N1	9.70	115.96	108.20
34	i	743	U	O4'-C1'-N1	9.70	115.96	108.20
34	i	1716	U	P-O3'-C3'	9.69	131.33	119.70
10	J	89	GLU	N-CA-C	9.69	137.16	111.00
34	i	381	C	O4'-C1'-N1	9.68	115.94	108.20
34	i	879	U	O4'-C1'-N1	9.68	115.94	108.20
34	i	1232	G	O4'-C1'-N9	9.67	115.94	108.20
34	i	397	G	O4'-C1'-N9	9.67	115.94	108.20
34	i	1551	A	O4'-C1'-N9	9.66	115.93	108.20
34	i	1490	U	O4'-C1'-N1	9.65	115.92	108.20
19	S	54	LYS	N-CA-C	9.65	137.06	111.00
33	g	159	ASN	N-CA-C	9.65	137.05	111.00
34	i	66	G	N9-C1'-C2'	9.65	126.54	114.00
3	C	93	LYS	C-N-CA	9.64	145.81	121.70
18	R	1	MET	CA-C-O	9.64	140.35	120.10
34	i	1599	G	O4'-C1'-N9	9.64	115.91	108.20
34	i	1546	U	O4'-C1'-N1	9.62	115.90	108.20
34	i	1288	C	O4'-C1'-N1	-9.61	100.52	108.20
34	i	434	G	O4'-C1'-N9	9.60	115.88	108.20
34	i	1503	G	C1'-O4'-C4'	-9.60	102.22	109.90
34	i	824	G	O4'-C1'-C2'	9.60	116.24	107.60
34	i	1249	A	P-O3'-C3'	9.59	131.21	119.70
34	i	468	G	O4'-C1'-N9	9.59	115.87	108.20
34	i	1077	U	O4'-C1'-N1	9.59	115.87	108.20
18	R	3	ARG	N-CA-CB	9.58	127.85	110.60
34	i	1530	U	P-O3'-C3'	9.58	131.20	119.70
34	i	830	C	C1'-O4'-C4'	-9.57	102.24	109.90
34	i	1132	U	O4'-C1'-N1	9.57	115.85	108.20
34	i	1490	U	P-O3'-C3'	9.54	131.14	119.70
34	i	394	G	O4'-C1'-N9	9.53	115.83	108.20
34	i	545	A	P-O3'-C3'	9.52	131.13	119.70
34	i	909	A	C3'-C2'-C1'	9.52	109.12	101.50
34	i	626	C	C3'-C2'-C1'	9.51	109.11	101.50
4	D	193	ASP	N-CA-C	-9.51	85.33	111.00
34	i	961	U	O4'-C1'-N1	9.51	115.80	108.20
34	i	1585	C	N1-C1'-C2'	9.50	126.35	114.00
34	i	1251	G	C1'-O4'-C4'	-9.50	102.30	109.90
34	i	1582	G	O4'-C1'-N9	9.49	115.79	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	647	U	O4'-C1'-N1	9.49	115.79	108.20
34	i	1163	G	O4'-C1'-N9	9.48	115.78	108.20
34	i	838	C	C3'-C2'-C1'	9.48	109.08	101.50
34	i	67	C	C3'-C2'-C1'	-9.47	93.92	101.50
34	i	504	U	O4'-C1'-N1	9.46	115.77	108.20
34	i	987	G	O4'-C1'-N9	9.46	115.77	108.20
9	I	105	ASP	CB-CG-OD2	9.46	126.82	118.30
34	i	1845	A	O4'-C1'-C2'	-9.46	96.34	105.80
34	i	1215	C	O4'-C1'-N1	9.45	115.76	108.20
34	i	1802	U	O4'-C1'-N1	9.45	115.76	108.20
34	i	883	U	P-O5'-C5'	9.45	136.02	120.90
25	Y	103	SER	CA-C-N	9.45	137.98	117.20
34	i	826	A	C3'-C2'-C1'	-9.45	93.94	101.50
27	a	63	VAL	C-N-CA	9.44	145.31	121.70
34	i	160	U	P-O3'-C3'	9.44	131.02	119.70
34	i	1291	A	O4'-C1'-N9	9.43	115.74	108.20
34	i	1564	A	O5'-P-OP2	-9.43	97.22	105.70
34	i	1140	A	N9-C1'-C2'	9.41	126.23	114.00
34	i	79	A	C5'-C4'-O4'	9.40	120.39	109.10
34	i	1125	G	O4'-C1'-N9	9.40	115.72	108.20
34	i	1013	U	O4'-C1'-N1	9.40	115.72	108.20
8	H	111	LYS	N-CA-CB	9.39	127.50	110.60
27	a	10	ARG	CB-CG-CD	9.39	136.01	111.60
34	i	207	U	C4'-C3'-O3'	9.38	131.77	113.00
34	i	793	C	C3'-C2'-C1'	9.38	109.00	101.50
34	i	642	U	O4'-C1'-N1	9.38	115.70	108.20
34	i	855	G	O4'-C1'-N9	9.37	115.70	108.20
34	i	1197	U	O4'-C1'-N1	9.37	115.70	108.20
34	i	840	U	O4'-C1'-N1	9.37	115.69	108.20
34	i	1037	G	O4'-C1'-C2'	9.36	116.03	107.60
34	i	1204	A	O4'-C1'-N9	9.36	115.69	108.20
34	i	1444	A	P-O3'-C3'	9.35	130.92	119.70
34	i	951	A	O4'-C1'-N9	9.35	115.68	108.20
34	i	728	U	N1-C1'-C2'	9.35	126.15	114.00
34	i	1266	G	O4'-C1'-N9	9.35	115.68	108.20
34	i	1317	G	O4'-C1'-N9	9.34	115.67	108.20
34	i	431	C	N1-C1'-C2'	9.33	126.12	114.00
34	i	214	A	C3'-C2'-C1'	9.32	108.96	101.50
34	i	424	G	C4'-C3'-O3'	-9.32	89.84	109.40
34	i	905	G	O3'-P-O5'	9.32	121.70	104.00
34	i	408	A	N9-C1'-C2'	9.30	126.09	114.00
34	i	524	G	O3'-P-O5'	-9.30	86.33	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1786	G	O4'-C1'-C2'	9.30	115.97	107.60
34	i	1617	U	O4'-C1'-N1	-9.30	100.76	108.20
4	D	82	GLY	C-N-CA	-9.29	98.46	121.70
22	V	61	ARG	NE-CZ-NH1	9.29	124.94	120.30
34	i	651	U	O4'-C1'-N1	9.29	115.63	108.20
7	G	122	PRO	CA-N-CD	-9.29	98.50	111.50
34	i	1068	U	O4'-C1'-N1	9.28	115.63	108.20
34	i	619	A	O4'-C1'-N9	9.27	115.62	108.20
34	i	1228	U	O4'-C1'-N1	9.27	115.62	108.20
34	i	892	U	O4'-C1'-N1	9.26	115.61	108.20
34	i	51	U	O4'-C1'-N1	9.25	115.60	108.20
19	S	40	TYR	N-CA-C	9.25	135.98	111.00
34	i	147	A	N9-C1'-C2'	-9.24	101.83	112.00
34	i	1360	U	O3'-P-O5'	9.24	121.56	104.00
34	i	1810	G	O4'-C1'-N9	9.24	115.59	108.20
21	U	94	PRO	CA-N-CD	-9.24	98.56	111.50
34	i	1065	U	P-O3'-C3'	9.24	130.79	119.70
26	Z	104	ARG	CD-NE-CZ	-9.24	110.67	123.60
34	i	1288	C	N1-C1'-C2'	9.22	125.99	114.00
34	i	641	U	O4'-C1'-N1	9.22	115.58	108.20
34	i	1102	C	O4'-C1'-N1	9.22	115.58	108.20
16	P	37	TYR	CB-CG-CD2	-9.22	115.47	121.00
33	g	274	VAL	O-C-N	-9.22	107.95	122.70
34	i	660	A	O4'-C1'-N9	9.22	115.57	108.20
34	i	1642	A	O4'-C1'-N9	9.20	115.56	108.20
34	i	551	A	C4'-C3'-O3'	-9.20	90.08	109.40
34	i	89	C	O4'-C1'-N1	9.20	115.56	108.20
7	G	157	VAL	N-CA-C	9.19	135.82	111.00
34	i	446	C	N1-C1'-C2'	9.19	125.95	114.00
34	i	1403	U	N1-C1'-C2'	9.19	125.95	114.00
34	i	1199	G	N9-C1'-C2'	9.19	125.95	114.00
2	B	40	ASN	C-N-CA	-9.18	98.74	121.70
34	i	60	A	C3'-C2'-C1'	-9.18	94.16	101.50
34	i	1736	U	N1-C1'-C2'	9.17	125.92	114.00
34	i	53	C	O4'-C1'-C2'	-9.17	96.63	105.80
34	i	1153	G	O4'-C1'-N9	9.17	115.53	108.20
34	i	1455	G	C1'-O4'-C4'	-9.17	102.57	109.90
21	U	53	PRO	CA-N-CD	-9.14	98.70	111.50
34	i	114	G	O4'-C1'-N9	9.13	115.50	108.20
12	L	17	PHE	O-C-N	9.13	137.30	122.70
34	i	1743	G	P-O5'-C5'	9.13	135.50	120.90
34	i	561	U	O4'-C1'-N1	9.12	115.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	484	C	C3'-C2'-C1'	9.12	108.80	101.50
34	i	995	G	O4'-C1'-N9	9.12	115.49	108.20
34	i	298	G	C3'-C2'-C1'	-9.11	94.21	101.50
34	i	735	C	N1-C1'-C2'	9.10	125.83	114.00
34	i	107	A	O4'-C1'-N9	9.09	115.47	108.20
34	i	1022	C	C3'-C2'-C1'	9.09	108.77	101.50
34	i	1261	A	C3'-C2'-C1'	9.09	108.77	101.50
34	i	910	U	O4'-C1'-N1	9.08	115.47	108.20
34	i	152	U	O4'-C1'-N1	9.08	115.46	108.20
34	i	99	A	O4'-C1'-N9	9.07	115.46	108.20
4	D	5	ILE	C-N-CA	9.06	144.36	121.70
12	L	17	PHE	CA-C-N	-9.06	97.27	117.20
34	i	824	G	C3'-C2'-C1'	-9.06	94.25	101.50
34	i	1076	A	O4'-C1'-N9	9.06	115.45	108.20
19	S	53	THR	O-C-N	-9.06	108.21	122.70
34	i	501	U	O4'-C1'-N1	9.04	115.44	108.20
34	i	414	C	N1-C1'-C2'	9.03	125.73	114.00
9	I	105	ASP	CB-CG-OD1	-9.02	110.18	118.30
34	i	405	A	N9-C1'-C2'	-9.02	102.08	112.00
34	i	640	A	C3'-C2'-C1'	9.02	108.72	101.50
34	i	56	G	O4'-C1'-N9	9.01	115.41	108.20
34	i	1469	G	P-O3'-C3'	9.01	130.51	119.70
34	i	1427	G	O4'-C1'-N9	9.00	115.40	108.20
34	i	1189	U	O4'-C1'-N1	8.99	115.40	108.20
34	i	24	C	O3'-P-O5'	-8.99	86.92	104.00
34	i	1129	A	O4'-C1'-N9	8.98	115.39	108.20
27	a	10	ARG	NH1-CZ-NH2	-8.98	109.53	119.40
34	i	1631	G	O4'-C1'-N9	8.98	115.38	108.20
21	U	93	SER	C-N-CD	8.97	147.24	128.40
34	i	653	C	N1-C1'-C2'	8.97	125.66	114.00
34	i	733	G	C1'-O4'-C4'	8.96	117.07	109.90
34	i	437	A	O4'-C1'-C2'	-8.95	96.85	105.80
34	i	1523	G	C3'-C2'-C1'	-8.95	94.34	101.50
27	a	97	PRO	N-CA-CB	-8.95	92.57	103.30
34	i	542	G	P-O5'-C5'	8.94	135.21	120.90
34	i	730	C	O4'-C1'-C2'	-8.94	96.86	105.80
34	i	652	G	N9-C1'-C2'	8.94	125.62	114.00
34	i	482	C	O4'-C1'-C2'	-8.94	96.86	105.80
24	X	62	PRO	CA-N-CD	-8.93	98.99	111.50
34	i	1405	A	P-O5'-C5'	8.93	135.18	120.90
34	i	1515	G	C1'-O4'-C4'	-8.93	102.76	109.90
34	i	947	C	P-O5'-C5'	8.93	135.18	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1335	U	O4'-C1'-N1	8.93	115.34	108.20
34	i	1775	A	P-O3'-C3'	8.93	130.41	119.70
34	i	1184	A	O4'-C1'-C2'	-8.92	96.88	105.80
34	i	1687	U	O4'-C1'-N1	8.92	115.34	108.20
34	i	1716	U	O4'-C1'-C2'	-8.92	96.88	105.80
34	i	1473	U	P-O5'-C5'	8.91	135.16	120.90
34	i	1472	A	C1'-O4'-C4'	8.91	117.03	109.90
34	i	189	G	N9-C1'-C2'	8.91	125.58	114.00
34	i	609	A	O4'-C1'-N9	8.90	115.32	108.20
34	i	1847	C	N1-C1'-C2'	8.90	125.57	114.00
34	i	1272	A	N9-C1'-C2'	-8.89	102.22	112.00
34	i	847	C	O3'-P-O5'	-8.88	87.12	104.00
34	i	1501	U	O4'-C1'-N1	8.88	115.31	108.20
28	b	12	PRO	CA-N-CD	-8.88	99.07	111.50
34	i	1824	U	C3'-C2'-C1'	8.88	108.60	101.50
34	i	951	A	P-O3'-C3'	8.87	130.35	119.70
34	i	611	C	N1-C1'-C2'	8.87	125.53	114.00
34	i	1191	A	O4'-C1'-N9	8.87	115.30	108.20
34	i	543	U	O4'-C1'-C2'	-8.86	96.94	105.80
34	i	1855	G	O4'-C1'-C2'	8.86	115.57	107.60
34	i	201	G	O4'-C1'-N9	8.86	115.28	108.20
34	i	956	U	N1-C1'-C2'	8.86	125.51	114.00
34	i	1159	C	N1-C1'-C2'	8.86	125.51	114.00
34	i	325	G	N9-C1'-C2'	-8.85	102.27	112.00
10	J	165	TYR	CB-CA-C	8.85	128.09	110.40
19	S	88	LYS	C-N-CA	-8.84	99.59	121.70
19	S	142	ARG	CB-CA-C	-8.84	92.72	110.40
34	i	444	U	O4'-C1'-N1	8.84	115.27	108.20
34	i	1596	A	P-O3'-C3'	8.84	130.30	119.70
34	i	212	G	O4'-C1'-N9	8.83	115.27	108.20
34	i	1214	C	N1-C1'-C2'	8.83	125.48	114.00
19	S	94	LYS	CA-C-N	-8.83	97.78	117.20
33	g	145	GLU	N-CA-C	-8.83	87.16	111.00
34	i	299	G	C1'-O4'-C4'	-8.83	102.84	109.90
34	i	1676	U	O4'-C1'-N1	8.83	115.26	108.20
34	i	25	A	N9-C1'-C2'	-8.82	102.29	112.00
34	i	548	G	C3'-C2'-C1'	-8.82	94.44	101.50
34	i	224	U	N1-C1'-C2'	-8.82	102.30	112.00
6	F	130	ARG	NE-CZ-NH1	8.81	124.71	120.30
34	i	140	U	O4'-C1'-N1	8.81	115.25	108.20
34	i	1068	U	C1'-O4'-C4'	8.81	116.95	109.90
34	i	1861	U	C3'-C2'-C1'	-8.81	94.45	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	963	C	O4'-C1'-N1	8.80	115.24	108.20
34	i	1436	C	C3'-C2'-C1'	8.80	108.54	101.50
34	i	689	G	P-O3'-C3'	8.80	130.26	119.70
22	V	67	ASP	CB-CA-C	8.79	127.98	110.40
34	i	1466	C	O4'-C1'-N1	8.79	115.23	108.20
34	i	108	G	O4'-C1'-N9	8.78	115.23	108.20
34	i	583	C	C3'-C2'-C1'	8.78	108.52	101.50
34	i	564	A	C3'-C2'-C1'	8.76	108.51	101.50
25	Y	52	PRO	CA-N-CD	-8.76	99.24	111.50
3	C	104	GLY	N-CA-C	8.75	134.97	113.10
34	i	903	G	N9-C1'-C2'	8.75	125.37	114.00
34	i	234	C	C1'-O4'-C4'	8.74	116.89	109.90
34	i	837	G	C1'-C2'-O2'	-8.74	84.39	110.60
34	i	1776	G	C3'-C2'-C1'	-8.74	94.51	101.50
34	i	1546	U	C1'-O4'-C4'	-8.73	102.91	109.90
34	i	1601	G	O4'-C1'-N9	8.73	115.18	108.20
34	i	43	U	O4'-C1'-N1	8.72	115.18	108.20
34	i	161	U	O4'-C1'-C2'	-8.72	97.08	105.80
34	i	1548	C	P-O3'-C3'	8.71	130.16	119.70
34	i	872	C	O4'-C1'-N1	8.71	115.17	108.20
34	i	234	C	O4'-C1'-C2'	-8.70	97.10	105.80
10	J	118	GLY	O-C-N	-8.70	108.79	122.70
34	i	1425	G	O4'-C1'-N9	8.70	115.16	108.20
34	i	79	A	C4'-C3'-C2'	-8.69	93.91	102.60
34	i	792	G	P-O3'-C3'	8.69	130.13	119.70
25	Y	86	GLU	CB-CA-C	-8.69	93.02	110.40
34	i	455	A	P-O3'-C3'	8.69	130.12	119.70
17	Q	134	GLY	C-N-CD	-8.68	101.50	120.60
34	i	1232	G	C3'-C2'-C1'	-8.68	94.55	101.50
34	i	604	G	C3'-C2'-C1'	8.68	108.44	101.50
34	i	1104	G	P-O3'-C3'	8.68	130.12	119.70
34	i	1131	C	O4'-C1'-N1	8.68	115.14	108.20
34	i	222	G	C1'-O4'-C4'	-8.68	102.96	109.90
34	i	1428	U	C3'-C2'-C1'	8.67	108.44	101.50
34	i	1706	U	O4'-C1'-N1	8.67	115.14	108.20
34	i	959	A	O4'-C1'-N9	8.66	115.13	108.20
34	i	58	C	O4'-C1'-N1	8.66	115.13	108.20
34	i	929	G	O4'-C1'-N9	8.66	115.12	108.20
21	U	67	LYS	C-N-CA	-8.65	100.08	121.70
34	i	1222	G	N9-C1'-C2'	8.65	125.24	114.00
34	i	1576	C	O4'-C1'-C2'	-8.65	97.15	105.80
8	H	111	LYS	N-CA-C	-8.64	87.67	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	153	G	O4'-C1'-N9	8.64	115.11	108.20
34	i	234	C	O4'-C1'-N1	8.63	115.10	108.20
34	i	472	G	O4'-C1'-N9	8.63	115.10	108.20
34	i	848	G	P-O3'-C3'	8.62	130.05	119.70
34	i	1199	G	C1'-O4'-C4'	-8.62	103.00	109.90
16	P	17	TYR	CB-CA-C	8.62	127.64	110.40
34	i	1208	G	N9-C1'-C2'	8.62	125.21	114.00
34	i	1272	A	O4'-C1'-C2'	-8.62	97.18	105.80
34	i	25	A	O4'-C1'-C2'	-8.61	97.19	105.80
34	i	795	U	N1-C1'-C2'	8.61	125.20	114.00
34	i	835	C	P-O3'-C3'	8.61	130.03	119.70
34	i	518	A	C1'-O4'-C4'	-8.60	103.02	109.90
34	i	1067	G	O4'-C1'-N9	8.60	115.08	108.20
34	i	180	G	C4'-C3'-O3'	8.59	130.18	113.00
34	i	849	C	O3'-P-O5'	8.59	120.32	104.00
34	i	296	U	P-O3'-C3'	-8.59	109.39	119.70
34	i	21	U	O4'-C1'-N1	8.58	115.06	108.20
34	i	1388	U	O4'-C1'-N1	8.58	115.06	108.20
32	f	122	PRO	CA-N-CD	-8.58	99.49	111.50
34	i	1003	C	C3'-C2'-C1'	8.58	108.36	101.50
6	F	45	TYR	CA-CB-CG	-8.57	97.11	113.40
8	H	36	LEU	CA-CB-CG	-8.57	95.58	115.30
34	i	1726	A	O4'-C1'-N9	8.56	115.05	108.20
34	i	1108	U	O4'-C1'-N1	8.56	115.05	108.20
28	b	10	PRO	CA-N-CD	-8.56	99.52	111.50
34	i	972	G	P-O5'-C5'	8.55	134.58	120.90
34	i	159	A	O4'-C1'-N9	8.54	115.03	108.20
34	i	144	U	N1-C1'-C2'	8.54	125.10	114.00
34	i	1646	A	N9-C1'-C2'	-8.53	102.61	112.00
34	i	1325	U	C1'-O4'-C4'	-8.53	103.08	109.90
10	J	161	LEU	O-C-N	-8.53	109.05	122.70
9	I	184	ARG	N-CA-CB	8.53	125.94	110.60
34	i	1229	G	C1'-O4'-C4'	-8.52	103.08	109.90
16	P	69	PRO	CA-N-CD	-8.51	99.58	111.50
34	i	1002	C	N1-C1'-C2'	8.51	125.07	114.00
34	i	1728	U	O4'-C1'-N1	8.51	115.01	108.20
34	i	1517	A	O4'-C1'-N9	8.51	115.01	108.20
27	a	80	HIS	N-CA-CB	-8.51	95.29	110.60
34	i	929	G	O4'-C1'-C2'	8.51	115.25	107.60
34	i	1109	A	O4'-C1'-N9	8.51	115.00	108.20
34	i	1770	G	O4'-C1'-N9	8.51	115.00	108.20
11	K	87	PRO	C-N-CA	8.50	142.96	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1425	G	N9-C1'-C2'	-8.50	102.65	112.00
34	i	1581	U	O4'-C1'-N1	8.50	115.00	108.20
34	i	859	U	C1'-O4'-C4'	-8.49	103.11	109.90
34	i	669	A	O4'-C1'-N9	8.49	114.99	108.20
34	i	602	U	O4'-C1'-N1	8.48	114.98	108.20
34	i	727	G	O3'-P-O5'	8.48	120.11	104.00
34	i	1198	U	N1-C1'-C2'	-8.47	102.68	112.00
34	i	1513	C	O4'-C1'-N1	8.47	114.98	108.20
34	i	343	C	C5'-C4'-C3'	8.47	129.55	116.00
34	i	1526	A	O4'-C1'-N9	8.47	114.97	108.20
34	i	131	C	P-O3'-C3'	8.46	129.85	119.70
8	H	108	SER	N-CA-CB	8.46	123.18	110.50
34	i	824	G	O4'-C1'-N9	8.46	114.97	108.20
34	i	849	C	P-O3'-C3'	-8.45	109.56	119.70
34	i	1442	A	P-O3'-C3'	8.45	129.84	119.70
34	i	28	U	O4'-C1'-N1	8.44	114.95	108.20
17	Q	18	THR	CA-CB-OG1	8.44	126.72	109.00
19	S	95	TYR	N-CA-CB	-8.44	95.41	110.60
34	i	1411	C	N1-C1'-C2'	8.44	124.97	114.00
34	i	739	U	O4'-C1'-C2'	-8.43	97.37	105.80
34	i	1137	G	O4'-C1'-N9	8.43	114.94	108.20
21	U	70	CYS	C-N-CA	8.43	140.00	122.30
31	e	95	LYS	CA-C-N	8.42	135.73	117.20
34	i	1205	A	O4'-C1'-N9	8.42	114.94	108.20
4	D	193	ASP	C-N-CD	8.42	146.08	128.40
34	i	1014	U	N1-C1'-C2'	8.42	124.94	114.00
34	i	1504	A	N9-C1'-C2'	-8.41	102.75	112.00
34	i	733	G	N9-C1'-C2'	-8.40	102.75	112.00
34	i	1272	A	C3'-C2'-C1'	8.40	108.22	101.50
10	J	180	LYS	C-N-CA	8.40	139.93	122.30
34	i	276	U	O4'-C1'-N1	-8.39	101.49	108.20
34	i	1110	U	O4'-C1'-N1	8.39	114.92	108.20
34	i	1198	U	O4'-C1'-N1	8.39	114.91	108.20
34	i	1458	U	C4'-C3'-O3'	8.39	129.78	113.00
34	i	1685	U	O4'-C1'-N1	8.39	114.91	108.20
34	i	442	G	C3'-C2'-C1'	8.39	108.21	101.50
34	i	691	G	P-O3'-C3'	8.39	129.77	119.70
34	i	964	U	O4'-C1'-C2'	-8.39	97.41	105.80
34	i	1322	U	C3'-C2'-C1'	8.39	108.21	101.50
34	i	1006	G	C3'-C2'-C1'	-8.38	94.79	101.50
34	i	1474	U	O4'-C1'-N1	8.38	114.91	108.20
34	i	276	U	C3'-C2'-C1'	8.38	108.21	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1082	G	O3'-P-O5'	-8.38	88.08	104.00
34	i	385	G	C3'-C2'-C1'	-8.38	94.80	101.50
34	i	512	A	O4'-C1'-N9	8.38	114.90	108.20
34	i	103	A	C3'-C2'-C1'	-8.37	94.80	101.50
34	i	1044	G	C1'-O4'-C4'	-8.37	103.20	109.90
5	E	43	PRO	CA-N-CD	-8.36	99.79	111.50
34	i	1691	C	N1-C1'-C2'	8.36	124.87	114.00
34	i	1434	A	O4'-C1'-C2'	-8.36	97.44	105.80
7	G	170	ARG	CB-CA-C	-8.36	93.69	110.40
34	i	1468	C	C4'-C3'-O3'	8.35	129.70	113.00
34	i	97	U	N1-C1'-C2'	8.35	124.85	114.00
34	i	1118	A	O4'-C1'-C2'	-8.35	97.45	105.80
34	i	1014	U	C1'-O4'-C4'	-8.34	103.23	109.90
34	i	389	C	C3'-C2'-C1'	8.34	108.17	101.50
34	i	543	U	C4'-C3'-C2'	-8.33	94.27	102.60
34	i	291	U	O4'-C1'-N1	8.32	114.86	108.20
34	i	546	U	O4'-C1'-N1	8.31	114.85	108.20
34	i	1655	C	O4'-C1'-N1	8.31	114.84	108.20
34	i	1316	G	C3'-C2'-C1'	-8.30	94.86	101.50
34	i	966	G	P-O3'-C3'	8.30	129.66	119.70
34	i	1336	U	O4'-C1'-N1	8.30	114.84	108.20
34	i	82	G	O4'-C1'-C2'	-8.29	97.51	105.80
34	i	544	A	C3'-C2'-C1'	-8.29	94.87	101.50
34	i	639	U	C1'-O4'-C4'	-8.29	103.27	109.90
34	i	1376	C	C3'-C2'-C1'	8.29	108.13	101.50
34	i	520	U	P-O3'-C3'	8.29	129.64	119.70
34	i	1226	C	C1'-O4'-C4'	-8.29	103.27	109.90
27	a	58	VAL	CB-CA-C	-8.28	95.66	111.40
26	Z	104	ARG	NE-CZ-NH1	-8.28	116.16	120.30
34	i	1688	G	C1'-O4'-C4'	-8.27	103.29	109.90
34	i	357	U	O4'-C1'-N1	8.27	114.81	108.20
34	i	1292	U	O4'-C1'-N1	8.27	114.81	108.20
12	L	147	LYS	N-CA-C	8.26	133.31	111.00
34	i	376	C	N1-C1'-C2'	8.26	124.74	114.00
34	i	905	G	P-O3'-C3'	-8.26	109.79	119.70
34	i	1529	C	O4'-C1'-C2'	-8.26	97.54	105.80
34	i	313	C	C3'-C2'-C1'	8.26	108.11	101.50
19	S	6	PRO	N-CA-C	8.25	133.56	112.10
34	i	1151	U	C5'-C4'-O4'	8.25	119.00	109.10
34	i	1464	C	O4'-C1'-N1	8.25	114.80	108.20
11	K	55	ARG	NE-CZ-NH2	-8.24	116.18	120.30
34	i	1305	C	O4'-C1'-C2'	-8.24	97.56	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	I	5	ARG	O-C-N	-8.23	109.52	122.70
34	i	351	U	O4'-C1'-N1	8.23	114.78	108.20
34	i	546	U	N1-C1'-C2'	8.23	124.70	114.00
32	f	87	THR	N-CA-C	-8.22	88.80	111.00
34	i	744	C	C3'-C2'-C1'	8.22	108.08	101.50
34	i	36	U	O4'-C1'-N1	8.22	114.78	108.20
34	i	334	U	O4'-C1'-N1	8.22	114.78	108.20
34	i	1208	G	C1'-O4'-C4'	-8.22	103.33	109.90
25	Y	87	PRO	CA-N-CD	-8.21	100.00	111.50
14	N	7	PRO	CA-N-CD	-8.21	100.00	111.50
34	i	38	A	N9-C1'-C2'	-8.21	102.97	112.00
34	i	578	G	O3'-P-O5'	-8.21	88.40	104.00
34	i	1836	C	O4'-C1'-N1	8.21	114.77	108.20
34	i	303	G	O4'-C1'-N9	8.21	114.77	108.20
34	i	1344	G	N9-C1'-C2'	-8.21	102.97	112.00
34	i	1615	A	C1'-O4'-C4'	-8.21	103.33	109.90
34	i	1804	U	O4'-C1'-N1	8.20	114.76	108.20
34	i	1178	A	O4'-C1'-N9	8.20	114.76	108.20
1	A	133	PRO	CA-N-CD	-8.20	100.02	111.50
34	i	80	G	P-O5'-C5'	8.20	134.01	120.90
34	i	630	A	C1'-O4'-C4'	-8.20	103.34	109.90
34	i	887	G	C1'-O4'-C4'	-8.20	103.34	109.90
34	i	1026	A	O4'-C1'-N9	8.19	114.75	108.20
34	i	1618	A	C3'-C2'-C1'	-8.19	94.95	101.50
34	i	1632	A	O4'-C1'-N9	8.18	114.75	108.20
34	i	156	G	P-O3'-C3'	-8.18	109.89	119.70
34	i	1010	G	C3'-C2'-C1'	-8.18	94.96	101.50
21	U	93	SER	CA-C-N	-8.17	94.21	117.10
34	i	281	U	O4'-C1'-N1	8.17	114.74	108.20
34	i	1660	G	O4'-C1'-C2'	8.17	114.95	107.60
34	i	1715	U	O4'-C1'-C2'	-8.17	97.63	105.80
21	U	57	PRO	CA-N-CD	-8.16	100.08	111.50
34	i	186	G	C1'-O4'-C4'	-8.15	103.38	109.90
34	i	605	C	N1-C1'-C2'	8.15	124.60	114.00
34	i	1307	C	C1'-O4'-C4'	-8.14	103.39	109.90
34	i	435	A	C1'-O4'-C4'	-8.14	103.39	109.90
34	i	1034	U	O4'-C1'-N1	8.14	114.71	108.20
34	i	908	C	C3'-C2'-C1'	8.13	108.01	101.50
34	i	1332	C	O4'-C1'-N1	8.13	114.71	108.20
16	P	37	TYR	CB-CG-CD1	8.13	125.88	121.00
21	U	103	SER	C-N-CA	-8.13	101.37	121.70
34	i	1651	G	O4'-C1'-N9	8.13	114.71	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	909	A	O4'-C1'-C2'	-8.13	97.67	105.80
34	i	145	G	N9-C1'-C2'	8.13	124.56	114.00
34	i	1322	U	C1'-O4'-C4'	-8.12	103.40	109.90
34	i	837	G	O4'-C4'-C3'	-8.12	95.88	104.00
3	C	93	LYS	O-C-N	-8.12	109.71	122.70
34	i	315	C	P-O3'-C3'	8.12	129.44	119.70
34	i	1777	C	O4'-C1'-C2'	-8.12	97.68	105.80
34	i	851	G	O4'-C1'-N9	8.11	114.69	108.20
34	i	927	C	C5'-C4'-C3'	-8.12	103.02	116.00
34	i	311	C	C3'-C2'-C1'	8.11	107.99	101.50
34	i	495	G	O4'-C1'-N9	8.11	114.69	108.20
34	i	451	U	O4'-C1'-N1	8.11	114.69	108.20
12	L	153	LYS	C-N-CA	8.10	141.95	121.70
34	i	562	U	O4'-C1'-N1	8.10	114.68	108.20
34	i	1233	C	C3'-C2'-C1'	8.10	107.98	101.50
34	i	162	C	P-O3'-C3'	8.09	129.41	119.70
34	i	1714	A	C1'-O4'-C4'	8.09	116.37	109.90
34	i	854	A	O4'-C1'-C2'	-8.09	97.71	105.80
21	U	93	SER	O-C-N	8.08	136.46	121.10
34	i	333	A	O4'-C1'-N9	8.08	114.67	108.20
34	i	520	U	N1-C1'-C2'	-8.07	103.12	112.00
34	i	619	A	O4'-C1'-C2'	-8.06	97.74	105.80
34	i	1133	U	C2'-C3'-O3'	8.06	127.24	109.50
34	i	217	U	O4'-C1'-N1	8.06	114.65	108.20
34	i	1467	C	N1-C1'-C2'	8.06	124.48	114.00
34	i	1191	A	O4'-C4'-C3'	-8.06	95.94	104.00
34	i	598	C	C3'-C2'-C1'	8.06	107.94	101.50
34	i	1030	A	O4'-C1'-N9	8.05	114.64	108.20
17	Q	31	LEU	N-CA-C	8.04	132.71	111.00
34	i	917	G	O4'-C1'-N9	8.04	114.63	108.20
34	i	1060	C	O4'-C1'-C2'	-8.04	97.76	105.80
34	i	491	C	P-O3'-C3'	8.04	129.34	119.70
34	i	1046	A	O4'-C1'-N9	8.04	114.63	108.20
34	i	464	G	N9-C1'-C2'	8.03	124.44	114.00
34	i	1161	G	N9-C1'-C2'	-8.03	103.17	112.00
34	i	1655	C	P-O3'-C3'	-8.02	110.08	119.70
34	i	844	U	N1-C1'-C2'	8.01	124.42	114.00
34	i	1359	C	C3'-C2'-C1'	8.01	107.91	101.50
34	i	570	U	C4'-C3'-O3'	8.01	129.02	113.00
34	i	1117	G	O4'-C1'-N9	8.01	114.61	108.20
34	i	1707	A	O4'-C1'-N9	8.00	114.60	108.20
11	K	84	HIS	CB-CA-C	-8.00	94.40	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	41	G	O4'-C1'-N9	-8.00	101.80	108.20
34	i	435	A	N9-C1'-C2'	7.99	124.39	114.00
34	i	490	A	P-O3'-C3'	7.99	129.29	119.70
34	i	1289	A	N9-C1'-C2'	7.99	124.39	114.00
34	i	1850	C	O4'-C1'-N1	7.99	114.59	108.20
34	i	205	G	N9-C1'-C2'	7.99	124.39	114.00
34	i	342	U	C3'-C2'-C1'	7.98	107.89	101.50
34	i	1786	G	C3'-C2'-C1'	-7.98	95.11	101.50
34	i	1068	U	O4'-C1'-C2'	-7.98	97.82	105.80
34	i	939	U	O4'-C1'-N1	7.97	114.58	108.20
34	i	1303	U	O4'-C1'-N1	7.97	114.58	108.20
34	i	366	A	O4'-C1'-N9	7.97	114.57	108.20
34	i	1534	U	O4'-C1'-C2'	-7.97	97.83	105.80
34	i	1093	G	O4'-C1'-N9	7.96	114.57	108.20
7	G	131	ARG	C-N-CA	-7.96	101.81	121.70
34	i	986	A	C3'-C2'-C1'	7.96	107.87	101.50
34	i	1650	C	N1-C1'-C2'	7.96	124.34	114.00
34	i	735	C	O4'-C1'-C2'	-7.95	97.85	105.80
34	i	429	A	N9-C1'-C2'	-7.95	103.25	112.00
34	i	1348	G	O4'-C1'-C2'	7.95	114.75	107.60
34	i	890	G	O4'-C1'-N9	7.95	114.56	108.20
34	i	238	G	O4'-C1'-N9	7.95	114.56	108.20
34	i	1677	C	O4'-C1'-C2'	-7.95	97.85	105.80
34	i	1725	U	O4'-C1'-N1	7.95	114.56	108.20
34	i	525	G	P-O3'-C3'	7.94	129.23	119.70
26	Z	70	PRO	CA-N-CD	-7.94	100.39	111.50
34	i	960	A	C1'-O4'-C4'	7.94	116.25	109.90
34	i	1136	G	O4'-C1'-N9	7.94	114.55	108.20
34	i	520	U	P-O5'-C5'	-7.94	108.20	120.90
34	i	650	C	N1-C1'-C2'	7.93	124.31	114.00
34	i	1095	G	O4'-C1'-N9	7.93	114.54	108.20
34	i	1111	U	P-O3'-C3'	7.92	129.21	119.70
34	i	80	G	O4'-C1'-C2'	-7.92	97.88	105.80
34	i	1741	U	C4'-C3'-O3'	7.92	128.85	113.00
34	i	872	C	O4'-C1'-C2'	-7.92	97.88	105.80
9	I	184	ARG	CB-CA-C	-7.92	94.56	110.40
34	i	207	U	O3'-P-O5'	-7.91	88.97	104.00
34	i	1312	C	N1-C1'-C2'	7.91	124.28	114.00
34	i	905	G	C4'-C3'-O3'	7.90	128.81	113.00
34	i	1786	G	C1'-O4'-C4'	-7.90	103.58	109.90
34	i	1297	A	C4'-C3'-O3'	7.90	128.81	113.00
34	i	1660	G	C1'-O4'-C4'	-7.90	103.58	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1369	C	C3'-C2'-C1'	7.90	107.82	101.50
34	i	626	C	P-O5'-C5'	7.90	133.53	120.90
34	i	1537	C	C1'-O4'-C4'	-7.89	103.59	109.90
34	i	817	G	P-O3'-C3'	7.88	129.16	119.70
34	i	1515	G	O3'-P-O5'	7.88	118.97	104.00
34	i	1779	C	O4'-C1'-C2'	-7.88	97.92	105.80
34	i	33	G	O4'-C1'-N9	7.87	114.50	108.20
34	i	1229	G	O4'-C1'-C2'	7.87	114.69	107.60
34	i	467	G	O4'-C1'-N9	7.87	114.50	108.20
34	i	1471	G	P-O5'-C5'	7.87	133.49	120.90
34	i	82	G	O4'-C1'-N9	7.86	114.49	108.20
34	i	342	U	O4'-C1'-C2'	-7.86	97.94	105.80
34	i	1678	C	N1-C1'-C2'	7.86	124.22	114.00
34	i	1524	C	N1-C1'-C2'	7.86	124.21	114.00
8	H	15	LYS	C-N-CD	-7.85	103.33	120.60
34	i	329	A	C2'-C3'-O3'	7.84	126.75	109.50
34	i	1539	C	C3'-C2'-C1'	7.84	107.77	101.50
34	i	1653	G	O4'-C1'-C2'	7.84	114.65	107.60
34	i	549	G	O4'-C1'-N9	7.84	114.47	108.20
34	i	907	C	N1-C1'-C2'	7.83	124.19	114.00
7	G	161	PRO	CA-N-CD	-7.83	100.53	111.50
34	i	169	U	P-O3'-C3'	7.83	129.10	119.70
34	i	791	A	O4'-C1'-N9	7.83	114.47	108.20
26	Z	104	ARG	N-CA-CB	-7.83	96.51	110.60
34	i	316	C	O4'-C1'-C2'	-7.83	97.97	105.80
34	i	1709	U	O4'-C1'-N1	7.83	114.46	108.20
34	i	77	A	N9-C1'-C2'	-7.83	103.39	112.00
34	i	117	C	O4'-C1'-N1	7.83	114.46	108.20
34	i	1632	A	N9-C1'-C2'	-7.83	103.39	112.00
34	i	1666	G	N9-C1'-C2'	7.82	124.16	114.00
34	i	1860	A	P-O3'-C3'	7.82	129.08	119.70
34	i	96	C	N1-C1'-C2'	7.81	124.16	114.00
34	i	147	A	C1'-O4'-C4'	7.81	116.15	109.90
34	i	541	U	N1-C1'-C2'	7.80	124.15	114.00
34	i	594	A	O4'-C1'-C2'	-7.80	98.00	105.80
34	i	987	G	O4'-C1'-C2'	7.80	114.62	107.60
11	K	35	LEU	CA-CB-CG	-7.80	97.37	115.30
34	i	1686	U	O4'-C1'-N1	7.79	114.44	108.20
34	i	446	C	C3'-C2'-C1'	7.79	107.73	101.50
34	i	524	G	C4'-C3'-O3'	7.79	128.58	113.00
34	i	612	C	N1-C1'-C2'	7.79	124.12	114.00
34	i	1091	U	N1-C1'-C2'	7.79	124.12	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	222	G	O4'-C1'-C2'	7.78	114.60	107.60
34	i	429	A	O4'-C1'-N9	7.77	114.42	108.20
34	i	733	G	O4'-C1'-N9	7.77	114.42	108.20
34	i	821	A	P-O3'-C3'	-7.77	110.38	119.70
34	i	368	U	C1'-O4'-C4'	-7.77	103.69	109.90
34	i	1655	C	C5'-C4'-C3'	-7.77	103.57	116.00
34	i	3	C	O4'-C1'-C2'	-7.77	98.03	105.80
34	i	1420	G	O4'-C1'-N9	7.77	114.41	108.20
34	i	904	A	O3'-P-O5'	-7.76	89.25	104.00
34	i	1386	U	O4'-C1'-N1	7.76	114.41	108.20
9	I	5	ARG	C-N-CA	7.76	141.10	121.70
25	Y	51	THR	C-N-CD	-7.76	103.54	120.60
34	i	191	C	C4'-C3'-O3'	7.75	128.50	113.00
34	i	977	A	C3'-C2'-C1'	7.75	107.70	101.50
34	i	1692	A	O4'-C1'-N9	7.75	114.40	108.20
7	G	155	GLN	O-C-N	-7.74	110.31	122.70
16	P	36	LEU	CA-C-N	-7.74	100.17	117.20
34	i	1841	G	N9-C1'-C2'	-7.74	103.48	112.00
34	i	1485	A	O4'-C1'-N9	7.74	114.39	108.20
34	i	40	A	O4'-C1'-N9	7.74	114.39	108.20
20	T	42	HIS	CB-CA-C	-7.74	94.93	110.40
9	I	178	ARG	CG-CD-NE	-7.73	95.56	111.80
17	Q	146	ARG	NE-CZ-NH1	-7.72	116.44	120.30
34	i	1449	C	N1-C1'-C2'	7.72	124.04	114.00
24	X	23	HIS	CA-C-N	7.72	134.19	117.20
34	i	645	A	O4'-C1'-N9	7.72	114.37	108.20
34	i	1405	A	C5'-C4'-C3'	7.71	128.34	116.00
3	C	148	VAL	C-N-CD	-7.71	103.64	120.60
10	J	166	GLY	C-N-CA	-7.71	106.10	122.30
34	i	1003	C	N1-C1'-C2'	7.71	124.03	114.00
34	i	1696	C	O4'-C1'-C2'	-7.71	98.09	105.80
34	i	2	A	P-O3'-C3'	7.70	128.94	119.70
34	i	171	A	N9-C1'-C2'	-7.70	103.53	112.00
34	i	1606	G	O4'-C1'-N9	7.70	114.36	108.20
34	i	164	A	C1'-O4'-C4'	-7.69	103.75	109.90
34	i	1215	C	C3'-C2'-C1'	7.69	107.66	101.50
34	i	484	C	O4'-C1'-C2'	-7.69	98.11	105.80
34	i	227	A	C1'-O4'-C4'	7.68	116.05	109.90
34	i	521	A	O4'-C4'-C3'	-7.68	96.32	104.00
34	i	690	C	O4'-C1'-N1	7.68	114.34	108.20
34	i	1134	C	O3'-P-O5'	7.68	118.58	104.00
2	B	37	ALA	C-N-CA	-7.67	102.51	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	76	U	O4'-C1'-N1	7.67	114.34	108.20
34	i	959	A	O4'-C1'-C2'	7.67	114.50	107.60
31	e	77	HIS	C-N-CA	7.67	138.41	122.30
19	S	6	PRO	CA-C-N	7.67	134.07	117.20
34	i	1448	A	C3'-C2'-C1'	7.66	107.63	101.50
34	i	522	C	O4'-C1'-N1	7.66	114.33	108.20
34	i	689	G	O4'-C1'-C2'	-7.65	98.15	105.80
18	R	89	SER	O-C-N	-7.64	110.47	122.70
34	i	301	C	O4'-C1'-N1	7.64	114.31	108.20
34	i	1396	U	O4'-C1'-N1	7.63	114.31	108.20
34	i	385	G	O4'-C1'-C2'	7.63	114.47	107.60
34	i	1597	U	O3'-P-O5'	-7.63	89.50	104.00
34	i	1859	C	C4'-C3'-O3'	7.63	128.26	113.00
34	i	630	A	N9-C1'-C2'	7.63	123.92	114.00
34	i	1056	A	N9-C1'-C2'	7.63	123.91	114.00
5	E	259	LYS	N-CA-C	7.62	131.59	111.00
34	i	1092	G	O4'-C1'-N9	7.62	114.30	108.20
34	i	296	U	O4'-C1'-N1	7.62	114.30	108.20
34	i	526	A	C4'-C3'-O3'	7.62	128.24	113.00
34	i	1690	A	O4'-C1'-C2'	-7.62	98.19	105.80
12	L	153	LYS	CA-C-N	7.61	133.95	117.20
10	J	93	LYS	C-N-CA	7.61	140.73	121.70
34	i	595	A	O4'-C1'-N9	7.61	114.29	108.20
34	i	35	C	C3'-C2'-C1'	7.61	107.59	101.50
34	i	450	A	O4'-C1'-N9	7.61	114.29	108.20
8	H	106	ARG	NE-CZ-NH1	-7.61	116.50	120.30
16	P	52	LYS	C-N-CA	-7.60	102.69	121.70
34	i	865	A	O4'-C1'-N9	7.60	114.28	108.20
34	i	1043	C	C3'-C2'-C1'	7.59	107.57	101.50
34	i	1517	A	C5'-C4'-O4'	7.59	118.21	109.10
34	i	628	C	O4'-C1'-N1	7.59	114.27	108.20
34	i	1182	U	O4'-C1'-N1	7.58	114.27	108.20
9	I	55	TYR	CA-CB-CG	-7.58	99.00	113.40
34	i	606	A	N9-C1'-C2'	7.58	123.86	114.00
33	g	274	VAL	C-N-CA	-7.58	102.76	121.70
34	i	1258	C	C1'-O4'-C4'	-7.57	103.84	109.90
34	i	1828	A	O4'-C1'-N9	7.57	114.25	108.20
6	F	36	GLN	N-CA-C	-7.55	90.60	111.00
34	i	1771	G	C1'-O4'-C4'	-7.55	103.86	109.90
34	i	436	G	C3'-C2'-C1'	7.55	107.54	101.50
6	F	131	ALA	C-N-CA	-7.55	106.44	122.30
34	i	848	G	C4'-C3'-O3'	-7.55	93.55	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1263	C	N1-C1'-C2'	7.55	123.81	114.00
34	i	1113	C	C3'-C2'-C1'	-7.55	95.46	101.50
34	i	296	U	P-O5'-C5'	7.55	132.98	120.90
34	i	1447	G	C3'-C2'-C1'	7.54	107.53	101.50
34	i	1600	G	C1'-O4'-C4'	-7.54	103.87	109.90
34	i	1771	G	O4'-C1'-C2'	7.54	114.39	107.60
34	i	1630	C	O4'-C1'-N1	7.54	114.23	108.20
34	i	554	A	O4'-C1'-N9	7.53	114.23	108.20
34	i	604	G	N9-C1'-C2'	7.53	123.80	114.00
34	i	659	A	O4'-C1'-N9	7.53	114.23	108.20
4	D	94	ARG	CB-CA-C	-7.53	95.34	110.40
34	i	902	U	O4'-C1'-N1	7.53	114.22	108.20
34	i	1269	C	P-O3'-C3'	-7.53	110.66	119.70
34	i	170	A	O4'-C1'-N9	7.53	114.22	108.20
34	i	794	G	P-O5'-C5'	7.53	132.94	120.90
34	i	1289	A	C3'-C2'-C1'	7.52	107.51	101.50
21	U	104	ILE	N-CA-CB	7.51	128.07	110.80
34	i	78	C	N1-C1'-C2'	-7.51	103.74	112.00
34	i	594	A	C3'-C2'-C1'	7.50	107.50	101.50
34	i	825	C	O4'-C1'-C2'	-7.50	98.30	105.80
34	i	795	U	P-O3'-C3'	7.50	128.71	119.70
34	i	1499	C	O4'-C1'-N1	7.50	114.20	108.20
34	i	1591	U	O4'-C1'-N1	7.50	114.20	108.20
34	i	218	A	O4'-C1'-N9	7.50	114.20	108.20
34	i	1055	G	P-O3'-C3'	7.50	128.70	119.70
34	i	1488	U	O4'-C1'-N1	7.50	114.20	108.20
34	i	1504	A	C1'-O4'-C4'	7.50	115.90	109.90
34	i	1720	U	O4'-C1'-N1	7.50	114.20	108.20
34	i	188	U	O4'-C1'-N1	7.50	114.20	108.20
13	M	10	GLY	N-CA-C	7.50	131.85	113.10
34	i	230	C	O4'-C1'-N1	7.49	114.19	108.20
34	i	400	G	O4'-C1'-N9	7.49	114.19	108.20
34	i	837	G	P-O5'-C5'	7.49	132.88	120.90
34	i	1505	U	C4'-C3'-O3'	-7.49	93.67	109.40
10	J	17	ARG	CB-CA-C	-7.49	95.42	110.40
34	i	1664	G	O4'-C1'-N9	7.49	114.19	108.20
10	J	161	LEU	C-N-CA	-7.48	103.00	121.70
34	i	1043	C	O4'-C1'-C2'	-7.48	98.32	105.80
34	i	931	G	O4'-C1'-N9	7.47	114.18	108.20
34	i	1413	C	C1'-O4'-C4'	7.47	115.88	109.90
34	i	1410	A	O4'-C1'-N9	7.47	114.18	108.20
34	i	639	U	N1-C1'-C2'	7.47	123.71	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1667	U	O4'-C1'-N1	7.47	114.18	108.20
34	i	1424	G	N9-C1'-C2'	-7.46	103.79	112.00
34	i	1559	C	N1-C1'-C2'	7.46	123.70	114.00
34	i	1244	U	O4'-C1'-N1	7.46	114.17	108.20
34	i	1530	U	O3'-P-O5'	-7.46	89.83	104.00
34	i	35	C	O4'-C1'-C2'	-7.46	98.34	105.80
34	i	853	U	C1'-O4'-C4'	-7.45	103.94	109.90
34	i	1028	C	N1-C1'-C2'	7.45	123.68	114.00
34	i	1459	U	P-O5'-C5'	7.45	132.82	120.90
34	i	797	U	O4'-C1'-N1	7.45	114.16	108.20
34	i	1270	G	C3'-C2'-C1'	7.44	107.46	101.50
18	R	1	MET	CB-CA-C	7.44	125.29	110.40
34	i	808	A	O4'-C1'-N9	7.44	114.15	108.20
34	i	684	A	C3'-C2'-C1'	-7.44	95.55	101.50
34	i	976	A	C1'-O4'-C4'	-7.44	103.95	109.90
34	i	1590	U	N1-C1'-C2'	-7.44	103.82	112.00
8	H	109	ARG	CA-CB-CG	-7.44	97.04	113.40
34	i	689	G	C3'-C2'-C1'	7.42	107.44	101.50
34	i	514	U	O4'-C1'-N1	7.42	114.14	108.20
34	i	1237	A	P-O3'-C3'	7.42	128.61	119.70
34	i	1406	C	C3'-C2'-C1'	7.42	107.44	101.50
34	i	927	C	O4'-C1'-C2'	-7.42	98.38	105.80
34	i	1632	A	C1'-O4'-C4'	7.42	115.84	109.90
34	i	1068	U	P-O3'-C3'	7.42	128.60	119.70
34	i	980	C	N1-C1'-C2'	7.41	123.64	114.00
34	i	1776	G	C5'-C4'-C3'	7.41	127.86	116.00
34	i	34	U	C1'-O4'-C4'	-7.41	103.97	109.90
5	E	75	LYS	N-CA-C	7.41	131.00	111.00
34	i	1127	G	O4'-C1'-N9	7.41	114.12	108.20
19	S	9	PHE	N-CA-C	7.40	130.99	111.00
34	i	503	G	O4'-C1'-N9	7.39	114.11	108.20
9	I	133	GLU	O-C-N	-7.39	110.88	122.70
33	g	50	THR	C-N-CA	-7.39	103.23	121.70
34	i	1186	A	O4'-C1'-C2'	-7.39	98.41	105.80
34	i	1675	G	O4'-C1'-N9	7.39	114.11	108.20
34	i	420	C	O4'-C1'-N1	7.38	114.11	108.20
34	i	432	C	C3'-C2'-C1'	7.38	107.41	101.50
32	f	148	TYR	CA-CB-CG	-7.38	99.37	113.40
34	i	1766	C	C3'-C2'-C1'	7.38	107.41	101.50
34	i	985	C	O4'-C1'-C2'	-7.38	98.42	105.80
34	i	1433	C	C1'-O4'-C4'	-7.38	104.00	109.90
34	i	1404	U	C1'-O4'-C4'	-7.37	104.00	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1533	C	C4'-C3'-C2'	-7.37	95.23	102.60
34	i	1019	A	C1'-O4'-C4'	7.37	115.79	109.90
10	J	144	ILE	CA-CB-CG1	-7.36	97.01	111.00
18	R	1	MET	O-C-N	7.36	135.71	123.20
24	X	115	ILE	N-CA-C	-7.36	91.14	111.00
34	i	27	A	O4'-C1'-N9	7.36	114.08	108.20
23	W	100	GLY	N-CA-C	-7.35	94.71	113.10
28	b	9	HIS	C-N-CD	-7.35	104.43	120.60
34	i	534	G	O4'-C1'-N9	7.35	114.08	108.20
25	Y	64	PHE	C-N-CA	-7.35	106.86	122.30
34	i	529	C	O4'-C1'-N1	7.35	114.08	108.20
34	i	76	U	P-O5'-C5'	7.35	132.66	120.90
34	i	410	G	C1'-O4'-C4'	-7.35	104.02	109.90
34	i	547	U	O4'-C1'-C2'	-7.35	98.45	105.80
34	i	841	G	P-O3'-C3'	-7.34	110.89	119.70
18	R	3	ARG	NE-CZ-NH2	7.34	123.97	120.30
34	i	731	C	O4'-C1'-N1	7.34	114.07	108.20
34	i	1717	G	P-O5'-C5'	7.34	132.65	120.90
34	i	1818	A	P-O3'-C3'	7.34	128.51	119.70
34	i	1355	U	C1'-O4'-C4'	7.34	115.77	109.90
34	i	14	C	O4'-C1'-N1	7.34	114.07	108.20
34	i	1175	G	O4'-C1'-N9	7.34	114.07	108.20
34	i	608	C	O4'-C1'-N1	7.33	114.07	108.20
34	i	893	U	O3'-P-O5'	-7.33	90.06	104.00
34	i	1773	G	N9-C1'-C2'	-7.33	103.93	112.00
34	i	81	U	N1-C1'-C2'	7.33	123.53	114.00
34	i	1194	G	C3'-C2'-C1'	-7.33	95.64	101.50
34	i	1451	A	O4'-C1'-C2'	-7.33	98.47	105.80
34	i	1773	G	C3'-C2'-C1'	-7.33	95.64	101.50
34	i	798	A	C1'-O4'-C4'	-7.33	104.04	109.90
10	J	180	LYS	CB-CA-C	-7.32	95.75	110.40
34	i	210	G	N9-C1'-C2'	-7.32	103.94	112.00
34	i	1845	A	P-O3'-C3'	7.32	128.49	119.70
34	i	57	U	C1'-O4'-C4'	7.32	115.76	109.90
34	i	1689	U	O4'-C1'-N1	7.32	114.06	108.20
4	D	82	GLY	O-C-N	-7.31	111.00	122.70
9	I	3	ILE	N-CA-C	7.31	130.74	111.00
34	i	574	A	P-O5'-C5'	7.30	132.59	120.90
34	i	168	C	C3'-C2'-C1'	7.30	107.34	101.50
34	i	1672	U	N1-C1'-C2'	-7.30	103.97	112.00
34	i	545	A	O4'-C1'-C2'	-7.30	98.50	105.80
34	i	332	C	C3'-C2'-C1'	7.29	107.34	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	225	C	N1-C1'-C2'	7.29	123.48	114.00
34	i	656	U	O4'-C1'-C2'	-7.29	98.51	105.80
21	U	93	SER	C-N-CA	-7.29	91.38	122.00
34	i	1648	U	P-O3'-C3'	7.29	128.45	119.70
34	i	1237	A	O4'-C1'-C2'	-7.28	98.52	105.80
34	i	454	A	O3'-P-O5'	7.28	117.83	104.00
34	i	1325	U	N1-C1'-C2'	7.28	123.46	114.00
18	R	1	MET	CA-CB-CG	7.28	125.67	113.30
34	i	1504	A	O4'-C1'-N9	7.28	114.02	108.20
34	i	187	C	O4'-C1'-C2'	-7.27	98.53	105.80
24	X	23	HIS	C-N-CA	7.27	139.87	121.70
34	i	827	G	C3'-C2'-C1'	-7.27	95.69	101.50
34	i	1204	A	N9-C1'-C2'	-7.27	104.00	112.00
34	i	942	U	O4'-C1'-N1	7.26	114.01	108.20
32	f	88	PRO	O-C-N	-7.26	111.08	122.70
34	i	743	U	O4'-C1'-C2'	-7.26	98.54	105.80
34	i	1527	C	C3'-C2'-C1'	7.26	107.31	101.50
34	i	64	A	N9-C1'-C2'	-7.26	104.02	112.00
34	i	541	U	P-O5'-C5'	7.26	132.51	120.90
34	i	1557	C	N1-C1'-C2'	7.26	123.44	114.00
34	i	1693	C	C3'-C2'-C1'	7.26	107.31	101.50
34	i	873	C	O4'-C1'-C2'	-7.25	98.55	105.80
34	i	1059	C	C3'-C2'-C1'	7.25	107.30	101.50
34	i	1161	G	O4'-C1'-N9	7.25	114.00	108.20
34	i	1060	C	C3'-C2'-C1'	7.25	107.30	101.50
34	i	1275	C	O4'-C1'-C2'	-7.25	98.55	105.80
34	i	498	A	O4'-C1'-N9	7.25	114.00	108.20
18	R	89	SER	C-N-CA	-7.25	103.58	121.70
34	i	798	A	O4'-C1'-N9	7.24	114.00	108.20
34	i	1781	G	O4'-C1'-N9	7.24	113.99	108.20
34	i	359	C	N1-C1'-C2'	7.24	123.41	114.00
34	i	60	A	O4'-C1'-C2'	7.24	114.11	107.60
34	i	277	U	O4'-C1'-C2'	-7.24	98.56	105.80
34	i	299	G	P-O3'-C3'	7.24	128.38	119.70
34	i	1305	C	C3'-C2'-C1'	7.24	107.29	101.50
33	g	275	ILE	N-CA-C	7.23	130.53	111.00
34	i	997	A	O4'-C1'-C2'	-7.23	98.57	105.80
34	i	1184	A	C3'-C2'-C1'	7.23	107.28	101.50
34	i	290	A	O4'-C1'-N9	7.23	113.98	108.20
34	i	1637	U	C1'-O4'-C4'	7.22	115.68	109.90
34	i	106	C	O4'-C1'-N1	7.22	113.98	108.20
34	i	1210	A	O4'-C1'-N9	7.22	113.98	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	162	C	C4'-C3'-O3'	7.22	127.44	113.00
34	i	17	C	O4'-C1'-N1	7.22	113.97	108.20
34	i	170	A	C5'-C4'-C3'	-7.22	104.45	116.00
34	i	431	C	C1'-O4'-C4'	-7.21	104.13	109.90
34	i	673	G	O4'-C1'-N9	7.21	113.97	108.20
34	i	740	G	C3'-C2'-C1'	7.21	107.27	101.50
11	K	37	ASP	CB-CG-OD2	7.21	124.79	118.30
10	J	91	LYS	O-C-N	-7.21	111.17	122.70
34	i	542	G	C3'-C2'-C1'	-7.21	95.73	101.50
34	i	1041	U	O4'-C1'-N1	7.20	113.96	108.20
14	N	19	ARG	N-CA-C	-7.20	91.56	111.00
34	i	1560	C	O4'-C1'-C2'	-7.20	98.60	105.80
10	J	35	TYR	CA-C-N	-7.20	101.81	116.20
34	i	635	C	C3'-C2'-C1'	7.19	107.25	101.50
34	i	791	A	O4'-C1'-C2'	-7.19	98.61	105.80
34	i	1767	C	O4'-C1'-N1	7.19	113.95	108.20
4	D	52	ALA	C-N-CA	-7.19	103.73	121.70
34	i	306	C	O4'-C1'-N1	7.19	113.95	108.20
34	i	1546	U	C3'-C2'-C1'	-7.19	95.75	101.50
8	H	191	GLU	O-C-N	-7.18	111.21	122.70
34	i	149	A	C3'-C2'-C1'	7.18	107.24	101.50
14	N	14	SER	CB-CA-C	-7.18	96.46	110.10
34	i	364	G	O4'-C1'-N9	7.18	113.94	108.20
34	i	1116	U	N1-C1'-C2'	7.18	123.33	114.00
34	i	1301	C	O4'-C1'-N1	7.18	113.94	108.20
27	a	97	PRO	CA-CB-CG	7.17	118.43	104.80
34	i	279	G	N9-C1'-C2'	-7.17	104.11	112.00
34	i	1517	A	P-O3'-C3'	-7.16	111.10	119.70
34	i	145	G	O4'-C1'-C2'	7.16	114.05	107.60
18	R	111	PHE	N-CA-C	7.16	130.33	111.00
34	i	1452	G	C1'-O4'-C4'	-7.16	104.17	109.90
34	i	1287	A	P-O3'-C3'	7.16	128.29	119.70
11	K	35	LEU	N-CA-C	-7.15	91.69	111.00
34	i	1578	C	C3'-C2'-C1'	7.15	107.22	101.50
8	H	109	ARG	O-C-N	7.15	134.14	122.70
34	i	1788	C	O4'-C1'-C2'	-7.15	98.65	105.80
34	i	1288	C	P-O5'-C5'	-7.15	109.46	120.90
16	P	49	LEU	CA-C-N	7.14	132.91	117.20
24	X	22	TRP	C-N-CA	-7.14	103.86	121.70
34	i	368	U	C4'-C3'-C2'	-7.14	95.46	102.60
34	i	1852	G	O4'-C1'-N9	7.14	113.91	108.20
2	B	147	ASN	C-N-CA	-7.13	103.87	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	899	A	C3'-C2'-C1'	-7.13	95.80	101.50
34	i	1118	A	N9-C1'-C2'	-7.13	104.16	112.00
34	i	1045	A	C4'-C3'-C2'	-7.13	95.47	102.60
8	H	110	THR	CA-C-N	7.12	132.87	117.20
34	i	834	G	O4'-C1'-N9	7.12	113.90	108.20
34	i	1015	C	N1-C1'-C2'	7.12	123.26	114.00
34	i	1666	G	C1'-O4'-C4'	-7.12	104.20	109.90
34	i	167	G	N9-C1'-C2'	-7.12	104.17	112.00
34	i	1019	A	N9-C1'-C2'	-7.11	104.17	112.00
34	i	1858	U	P-O5'-C5'	7.11	132.28	120.90
34	i	684	A	C1'-O4'-C4'	-7.11	104.21	109.90
34	i	1738	G	C1'-O4'-C4'	-7.11	104.21	109.90
34	i	1656	A	C1'-O4'-C4'	-7.11	104.21	109.90
19	S	93	GLY	CA-C-N	-7.11	101.56	117.20
20	T	4	VAL	N-CA-CB	-7.11	95.86	111.50
34	i	227	A	C3'-C2'-C1'	7.11	107.18	101.50
34	i	1651	G	C1'-O4'-C4'	-7.11	104.22	109.90
34	i	830	C	P-O3'-C3'	7.10	128.22	119.70
34	i	1459	U	O4'-C1'-N1	7.10	113.88	108.20
34	i	894	U	P-O5'-C5'	7.10	132.25	120.90
34	i	1001	G	O4'-C1'-N9	7.10	113.88	108.20
34	i	275	C	O4'-C1'-C2'	-7.09	98.71	105.80
34	i	47	G	O4'-C1'-N9	7.09	113.87	108.20
34	i	241	A	O4'-C1'-C2'	-7.09	98.71	105.80
34	i	1634	G	C3'-C2'-C1'	7.09	107.17	101.50
34	i	567	U	O4'-C1'-N1	7.08	113.87	108.20
34	i	906	G	O4'-C1'-N9	7.08	113.87	108.20
34	i	1663	U	O5'-P-OP2	-7.08	99.32	105.70
18	R	2	GLY	CA-C-N	7.08	132.78	117.20
34	i	275	C	C3'-C2'-C1'	7.08	107.17	101.50
34	i	1363	U	O4'-C1'-N1	7.08	113.86	108.20
15	O	145	GLY	N-CA-C	7.08	130.80	113.10
34	i	49	C	N1-C1'-C2'	7.08	123.20	114.00
34	i	1503	G	C1'-C2'-O2'	7.07	131.82	110.60
20	T	82	ARG	NE-CZ-NH1	7.07	123.84	120.30
34	i	1311	U	C3'-C2'-C1'	-7.07	95.84	101.50
34	i	792	G	C3'-C2'-C1'	-7.07	95.84	101.50
34	i	279	G	O4'-C1'-N9	7.07	113.86	108.20
34	i	1661	C	O4'-C1'-N1	7.07	113.86	108.20
34	i	53	C	C3'-C2'-C1'	7.07	107.15	101.50
34	i	32	U	O4'-C1'-N1	7.07	113.85	108.20
34	i	100	U	O4'-C1'-N1	7.06	113.85	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	970	C	N1-C1'-C2'	7.06	123.18	114.00
34	i	1783	G	O4'-C1'-C2'	-7.06	98.74	105.80
34	i	58	C	N1-C1'-C2'	-7.06	104.23	112.00
34	i	1755	U	P-O5'-C5'	7.06	132.19	120.90
19	S	142	ARG	N-CA-CB	-7.05	97.90	110.60
11	K	1	MET	N-CA-C	7.05	130.04	111.00
10	J	164	PRO	N-CA-CB	-7.05	94.84	103.30
34	i	1668	U	O4'-C1'-N1	7.05	113.84	108.20
34	i	997	A	C1'-O4'-C4'	7.04	115.54	109.90
34	i	1105	C	C3'-C2'-C1'	-7.04	95.86	101.50
10	J	123	ILE	CB-CA-C	7.04	125.69	111.60
34	i	166	A	O4'-C1'-N9	7.04	113.83	108.20
34	i	274	G	O4'-C1'-C2'	7.04	113.94	107.60
34	i	342	U	O4'-C1'-N1	7.04	113.83	108.20
34	i	1093	G	C5'-C4'-O4'	7.04	117.55	109.10
34	i	1205	A	N9-C1'-C2'	-7.04	104.26	112.00
34	i	1671	U	P-O3'-C3'	-7.04	111.25	119.70
34	i	1837	G	C1'-O4'-C4'	-7.03	104.28	109.90
34	i	518	A	N9-C1'-C2'	7.03	123.14	114.00
34	i	1478	C	O4'-C1'-N1	7.03	113.82	108.20
34	i	1326	G	C1'-O4'-C4'	-7.02	104.28	109.90
34	i	1827	C	C3'-C2'-C1'	7.02	107.11	101.50
34	i	41	G	C1'-O4'-C4'	-7.02	104.29	109.90
34	i	908	C	O4'-C1'-N1	7.02	113.81	108.20
34	i	267	G	P-O3'-C3'	7.01	128.12	119.70
34	i	1373	U	O4'-C1'-N1	7.01	113.81	108.20
3	C	258	LEU	CB-CG-CD2	7.01	122.92	111.00
34	i	1099	C	O4'-C1'-N1	7.01	113.81	108.20
34	i	1425	G	P-O5'-C5'	7.01	132.12	120.90
4	D	83	SER	N-CA-CB	7.01	121.01	110.50
34	i	1339	U	O4'-C1'-N1	7.01	113.81	108.20
34	i	93	U	O4'-C1'-C2'	-7.00	98.80	105.80
34	i	1405	A	O4'-C1'-C2'	-7.00	98.80	105.80
34	i	956	U	C1'-O4'-C4'	-7.00	104.30	109.90
34	i	1640	C	P-O3'-C3'	7.00	128.10	119.70
20	T	82	ARG	NE-CZ-NH2	7.00	123.80	120.30
34	i	286	C	N1-C1'-C2'	7.00	123.10	114.00
34	i	945	G	O4'-C1'-N9	7.00	113.80	108.20
34	i	1847	C	C1'-O4'-C4'	-7.00	104.30	109.90
34	i	1438	U	O4'-C1'-N1	6.99	113.80	108.20
20	T	82	ARG	NH1-CZ-NH2	-6.99	111.71	119.40
34	i	409	G	O4'-C1'-C2'	-6.99	98.81	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	T	4	VAL	CA-C-N	6.99	132.57	117.20
34	i	1542	C	C3'-C2'-C1'	6.98	107.09	101.50
34	i	53	C	C1'-O4'-C4'	6.98	115.49	109.90
34	i	315	C	O4'-C1'-C2'	-6.98	98.82	105.80
34	i	1479	A	N9-C1'-C2'	-6.98	104.32	112.00
11	K	55	ARG	CB-CG-CD	6.98	129.74	111.60
34	i	906	G	C1'-O4'-C4'	-6.97	104.32	109.90
34	i	91	A	O4'-C1'-N9	6.97	113.78	108.20
34	i	860	A	O4'-C1'-N9	6.97	113.78	108.20
34	i	465	C	C3'-C2'-C1'	6.96	107.07	101.50
34	i	587	G	O4'-C1'-N9	6.96	113.77	108.20
34	i	1053	C	O4'-C1'-N1	6.96	113.76	108.20
34	i	726	C	P-O3'-C3'	6.95	128.04	119.70
34	i	1584	A	N9-C1'-C2'	-6.95	104.35	112.00
34	i	499	G	O4'-C1'-N9	6.95	113.76	108.20
34	i	510	A	C1'-O4'-C4'	-6.95	104.34	109.90
25	Y	31	GLY	N-CA-C	6.94	130.45	113.10
34	i	74	G	P-O3'-C3'	6.94	128.03	119.70
34	i	1503	G	C3'-C2'-C1'	-6.94	95.95	101.50
22	V	67	ASP	CB-CG-OD2	6.93	124.54	118.30
32	f	148	TYR	N-CA-C	6.93	129.72	111.00
34	i	1693	C	P-O3'-C3'	6.93	128.02	119.70
34	i	262	G	P-O3'-C3'	6.93	128.02	119.70
34	i	1047	G	O4'-C1'-N9	6.93	113.75	108.20
34	i	1648	U	N1-C1'-C2'	-6.93	104.38	112.00
34	i	438	A	C3'-C2'-C1'	-6.93	95.96	101.50
34	i	1052	U	P-O3'-C3'	-6.93	111.39	119.70
21	U	118	ASP	CB-CG-OD1	6.92	124.53	118.30
34	i	1328	A	C3'-C2'-C1'	6.92	107.04	101.50
19	S	93	GLY	O-C-N	6.92	133.77	122.70
34	i	1114	C	C1'-O4'-C4'	6.92	115.44	109.90
34	i	1042	U	O4'-C1'-N1	6.92	113.74	108.20
34	i	597	U	N1-C1'-C2'	6.92	122.99	114.00
34	i	509	A	O4'-C1'-C2'	-6.91	98.89	105.80
8	H	110	THR	CA-CB-CG2	6.91	122.08	112.40
34	i	369	C	C3'-C2'-C1'	6.91	107.03	101.50
34	i	1426	C	O4'-C1'-C2'	-6.91	98.89	105.80
34	i	127	C	P-O3'-C3'	6.91	127.99	119.70
34	i	637	U	O4'-C1'-N1	6.91	113.73	108.20
34	i	1118	A	C1'-O4'-C4'	6.90	115.42	109.90
34	i	374	U	N1-C1'-C2'	6.90	122.97	114.00
28	b	79	PHE	N-CA-C	6.90	129.62	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	729	C	O4'-C1'-C2'	-6.89	98.91	105.80
34	i	1329	U	N1-C1'-C2'	-6.89	104.42	112.00
34	i	1497	C	O3'-P-O5'	-6.89	90.91	104.00
1	A	53	ARG	NE-CZ-NH1	-6.89	116.86	120.30
18	R	123	THR	CB-CA-C	-6.89	93.01	111.60
34	i	1173	U	O4'-C1'-N1	6.89	113.71	108.20
2	B	77	ASP	CB-CG-OD1	6.88	124.50	118.30
11	K	2	LEU	N-CA-C	6.88	129.59	111.00
34	i	63	U	O4'-C1'-N1	6.88	113.71	108.20
34	i	507	C	N1-C1'-C2'	6.88	122.95	114.00
24	X	128	VAL	N-CA-C	6.88	129.58	111.00
34	i	299	G	O4'-C1'-C2'	6.88	113.79	107.60
34	i	1402	G	N9-C1'-C2'	6.88	122.94	114.00
34	i	636	G	O4'-C1'-N9	6.88	113.70	108.20
11	K	2	LEU	CA-CB-CG	-6.87	99.49	115.30
34	i	1775	A	C3'-C2'-C1'	6.87	107.00	101.50
34	i	389	C	O4'-C1'-C2'	-6.87	98.93	105.80
34	i	1573	U	C1'-O4'-C4'	6.87	115.39	109.90
34	i	1642	A	C3'-C2'-C1'	-6.87	96.00	101.50
34	i	1693	C	O4'-C1'-C2'	-6.87	98.93	105.80
34	i	343	C	N1-C1'-C2'	6.86	122.92	114.00
34	i	1128	C	O4'-C1'-N1	6.86	113.69	108.20
34	i	978	G	O4'-C1'-N9	6.86	113.69	108.20
34	i	65	C	C1'-O4'-C4'	6.85	115.38	109.90
34	i	407	C	C3'-C2'-C1'	6.85	106.98	101.50
34	i	609	A	N9-C1'-C2'	-6.85	104.46	112.00
34	i	845	A	O4'-C1'-N9	6.85	113.68	108.20
34	i	571	U	P-O3'-C3'	-6.85	111.48	119.70
34	i	839	C	O4'-C1'-N1	6.85	113.68	108.20
18	R	87	GLU	CB-CA-C	-6.85	96.71	110.40
34	i	312	C	C3'-C2'-C1'	6.84	106.97	101.50
34	i	1171	G	C1'-O4'-C4'	-6.84	104.42	109.90
3	C	105	GLN	N-CA-C	6.84	129.47	111.00
34	i	31	U	N1-C1'-C2'	-6.84	104.48	112.00
34	i	447	C	O4'-C1'-N1	6.84	113.67	108.20
34	i	1545	G	P-O3'-C3'	6.84	127.91	119.70
34	i	227	A	O4'-C1'-C2'	-6.84	98.96	105.80
34	i	877	G	C1'-O4'-C4'	-6.84	104.43	109.90
34	i	790	A	C3'-C2'-C1'	6.83	106.97	101.50
34	i	15	U	O4'-C1'-N1	6.83	113.67	108.20
34	i	1782	A	O4'-C1'-N9	6.83	113.67	108.20
13	M	13	ASP	CB-CG-OD1	-6.83	112.15	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	31	U	C1'-O4'-C4'	6.83	115.36	109.90
3	C	242	LYS	N-CA-C	6.83	129.44	111.00
34	i	365	U	P-O5'-C5'	6.83	131.83	120.90
34	i	981	G	O4'-C1'-N9	6.83	113.66	108.20
34	i	1533	C	O4'-C1'-C2'	-6.83	98.97	105.80
34	i	900	A	C1'-O4'-C4'	-6.83	104.44	109.90
34	i	1638	U	C3'-C2'-C1'	6.83	106.96	101.50
34	i	1350	G	C2'-C3'-O3'	6.82	124.62	113.70
34	i	1199	G	O4'-C1'-C2'	6.82	113.74	107.60
34	i	1418	G	N9-C1'-C2'	-6.82	104.50	112.00
34	i	312	C	P-O3'-C3'	6.82	127.88	119.70
34	i	1603	U	O4'-C1'-N1	6.82	113.65	108.20
34	i	1779	C	P-O3'-C3'	6.81	127.87	119.70
34	i	683	G	O4'-C4'-C3'	-6.81	97.19	104.00
34	i	920	G	O4'-C1'-N9	6.80	113.64	108.20
34	i	1777	C	C3'-C2'-C1'	6.80	106.94	101.50
34	i	373	G	C3'-C2'-C1'	6.79	106.94	101.50
34	i	862	U	C3'-C2'-C1'	-6.79	96.06	101.50
34	i	612	C	C1'-O4'-C4'	-6.79	104.47	109.90
34	i	1647	G	O4'-C1'-N9	6.79	113.63	108.20
34	i	1727	G	O4'-C1'-N9	6.79	113.63	108.20
34	i	725	C	O4'-C1'-C2'	-6.79	99.01	105.80
6	F	37	ASP	N-CA-C	6.79	129.33	111.00
34	i	1681	G	O4'-C1'-N9	6.79	113.63	108.20
34	i	1222	G	C1'-O4'-C4'	-6.78	104.47	109.90
27	a	58	VAL	CG1-CB-CG2	-6.78	100.05	110.90
34	i	850	A	P-O5'-C5'	6.78	131.74	120.90
34	i	1633	G	C3'-C2'-C1'	6.78	106.92	101.50
34	i	202	U	O4'-C1'-N1	6.77	113.62	108.20
34	i	741	C	C3'-C2'-C1'	6.77	106.92	101.50
34	i	1239	U	O4'-C1'-N1	6.77	113.62	108.20
34	i	1754	G	N9-C1'-C2'	-6.77	104.55	112.00
34	i	125	C	O3'-P-O5'	6.77	116.86	104.00
34	i	876	G	C3'-C2'-C1'	-6.77	96.09	101.50
34	i	1423	C	O4'-C1'-C2'	-6.77	99.03	105.80
34	i	540	C	O3'-P-O5'	-6.76	91.15	104.00
34	i	1024	A	C5'-C4'-C3'	-6.76	105.18	116.00
34	i	1857	A	C1'-O4'-C4'	6.76	115.31	109.90
33	g	159	ASN	C-N-CA	-6.76	104.80	121.70
34	i	193	C	N1-C1'-C2'	6.76	122.79	114.00
34	i	989	G	O4'-C1'-N9	6.76	113.61	108.20
34	i	1859	C	C2'-C3'-O3'	-6.76	94.64	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	377	C	N1-C1'-C2'	6.75	122.78	114.00
31	e	122	THR	O-C-N	-6.75	111.90	122.70
34	i	243	C	P-O3'-C3'	6.75	127.80	119.70
34	i	318	U	O4'-C1'-N1	6.75	113.60	108.20
34	i	1530	U	C4'-C3'-O3'	6.75	126.49	113.00
34	i	369	C	P-O3'-C3'	6.74	127.79	119.70
34	i	1038	A	O4'-C1'-N9	6.74	113.59	108.20
33	g	142	VAL	O-C-N	6.74	133.48	122.70
34	i	421	G	O4'-C1'-N9	6.73	113.59	108.20
2	B	133	TYR	N-CA-CB	-6.73	98.48	110.60
10	J	179	LYS	C-N-CA	6.72	138.51	121.70
34	i	449	C	C5'-C4'-O4'	6.72	117.17	109.10
2	B	41	ILE	CG1-CB-CG2	-6.72	96.62	111.40
19	S	16	LEU	CB-CG-CD2	-6.72	99.58	111.00
34	i	1778	G	N9-C1'-C2'	6.72	122.73	114.00
34	i	278	U	O4'-C1'-N1	-6.71	102.83	108.20
34	i	823	A	N9-C1'-C2'	6.71	122.72	114.00
34	i	959	A	C3'-C2'-C1'	-6.71	96.13	101.50
34	i	1216	A	C1'-O4'-C4'	-6.71	104.53	109.90
34	i	1652	G	C1'-O4'-C4'	-6.71	104.53	109.90
34	i	1739	G	C1'-O4'-C4'	6.71	115.27	109.90
34	i	1455	G	N9-C1'-C2'	6.70	122.71	114.00
34	i	1774	G	O3'-P-O5'	6.70	116.73	104.00
34	i	1511	G	O4'-C1'-N9	6.69	113.55	108.20
34	i	321	C	O4'-C1'-C2'	-6.69	99.11	105.80
23	W	2	VAL	C-N-CA	-6.69	104.98	121.70
34	i	1167	G	O4'-C1'-C2'	-6.69	99.11	105.80
21	U	48	LEU	CA-CB-CG	-6.68	99.93	115.30
34	i	550	A	O4'-C1'-N9	6.68	113.55	108.20
7	G	157	VAL	CA-C-N	-6.68	102.50	117.20
34	i	1251	G	P-O3'-C3'	-6.68	111.68	119.70
34	i	548	G	C1'-O4'-C4'	-6.68	104.56	109.90
34	i	541	U	O4'-C1'-C2'	6.68	113.61	107.60
34	i	94	G	C1'-O4'-C4'	-6.67	104.56	109.90
34	i	657	U	C1'-O4'-C4'	-6.67	104.56	109.90
34	i	512	A	P-O5'-C5'	6.67	131.57	120.90
10	J	144	ILE	CB-CA-C	6.67	124.94	111.60
34	i	1775	A	P-O5'-C5'	6.67	131.57	120.90
6	F	130	ARG	N-CA-C	6.66	128.99	111.00
34	i	82	G	C1'-O4'-C4'	6.66	115.23	109.90
11	K	89	ILE	CA-CB-CG1	-6.66	98.34	111.00
34	i	471	C	N1-C1'-C2'	6.66	122.66	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1779	C	C1'-O4'-C4'	6.66	115.23	109.90
34	i	391	A	O4'-C1'-C2'	-6.66	99.14	105.80
34	i	1786	G	O4'-C1'-N9	6.66	113.53	108.20
34	i	307	G	P-O5'-C5'	6.66	131.55	120.90
34	i	1347	G	O4'-C1'-N9	6.65	113.52	108.20
34	i	1243	C	O4'-C1'-C2'	-6.65	99.15	105.80
34	i	728	U	C1'-O4'-C4'	-6.65	104.58	109.90
34	i	1366	A	O4'-C1'-C2'	-6.65	99.15	105.80
34	i	158	A	O4'-C1'-N9	6.65	113.52	108.20
18	R	121	GLN	C-N-CD	-6.65	105.97	120.60
34	i	736	C	O4'-C1'-N1	6.65	113.52	108.20
34	i	1604	C	O4'-C1'-N1	6.65	113.52	108.20
22	V	64	GLU	N-CA-C	6.64	128.94	111.00
34	i	1105	C	O4'-C1'-C2'	6.64	113.58	107.60
34	i	1342	U	O4'-C1'-N1	6.64	113.52	108.20
34	i	190	A	O4'-C1'-C2'	-6.64	99.16	105.80
10	J	91	LYS	N-CA-C	-6.63	93.09	111.00
27	a	63	VAL	CB-CA-C	6.63	124.00	111.40
34	i	144	U	C1'-O4'-C4'	-6.63	104.59	109.90
34	i	622	C	C3'-C2'-C1'	6.63	106.80	101.50
34	i	807	A	O4'-C1'-N9	6.63	113.50	108.20
2	B	155	TYR	CB-CA-C	-6.63	97.15	110.40
34	i	1202	G	O4'-C1'-N9	6.63	113.50	108.20
34	i	1541	G	O4'-C1'-N9	6.63	113.50	108.20
34	i	1656	A	C3'-C2'-C1'	-6.62	96.20	101.50
34	i	1250	C	O4'-C1'-N1	6.62	113.50	108.20
34	i	616	G	O4'-C1'-N9	-6.62	102.90	108.20
34	i	550	A	C3'-C2'-C1'	-6.62	96.20	101.50
34	i	1385	C	P-O5'-C5'	6.62	131.49	120.90
11	K	42	ASN	CA-C-N	6.62	131.76	117.20
34	i	1251	G	N9-C1'-C2'	6.61	122.60	114.00
34	i	274	G	C1'-O4'-C4'	-6.61	104.61	109.90
34	i	1646	A	C1'-O4'-C4'	6.61	115.19	109.90
34	i	40	A	C1'-O4'-C4'	6.61	115.19	109.90
34	i	53	C	O4'-C1'-N1	6.61	113.49	108.20
34	i	541	U	C1'-O4'-C4'	-6.61	104.61	109.90
34	i	340	C	C3'-C2'-C1'	6.60	106.78	101.50
34	i	554	A	P-O3'-C3'	6.60	127.62	119.70
34	i	1144	A	O4'-C1'-C2'	6.60	113.54	107.60
34	i	553	G	O4'-C1'-C2'	-6.60	99.20	105.80
19	S	87	GLN	CA-C-N	6.60	131.71	117.20
34	i	1277	G	O4'-C1'-N9	6.60	113.48	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	a	85	ARG	NE-CZ-NH2	6.59	123.60	120.30
34	i	983	A	P-O5'-C5'	-6.59	110.35	120.90
34	i	984	C	C3'-C2'-C1'	6.59	106.78	101.50
34	i	1285	U	P-O3'-C3'	6.59	127.61	119.70
15	O	43	HIS	N-CA-C	6.59	128.79	111.00
34	i	1266	G	N9-C1'-C2'	-6.59	104.75	112.00
34	i	285	U	C3'-C2'-C1'	6.59	106.77	101.50
16	P	36	LEU	N-CA-C	-6.59	93.22	111.00
34	i	286	C	O4'-C1'-C2'	-6.59	99.21	105.80
34	i	1071	C	C1'-O4'-C4'	-6.59	104.63	109.90
34	i	208	G	P-O5'-C5'	6.58	131.43	120.90
34	i	1490	U	C2'-C3'-O3'	6.58	124.23	113.70
34	i	1816	A	C4'-C3'-O3'	-6.58	95.58	109.40
34	i	432	C	N1-C1'-C2'	6.58	122.55	114.00
33	g	160	SER	N-CA-C	6.58	128.76	111.00
34	i	62	G	C1'-O4'-C4'	-6.58	104.64	109.90
34	i	1461	A	C1'-O4'-C4'	6.58	115.16	109.90
34	i	1682	C	C3'-C2'-C1'	6.58	106.76	101.50
34	i	70	G	O3'-P-O5'	-6.58	91.51	104.00
34	i	289	G	N9-C1'-C2'	-6.58	104.77	112.00
34	i	1280	A	O4'-C1'-C2'	-6.58	99.22	105.80
34	i	1525	U	O4'-C1'-N1	6.57	113.46	108.20
9	I	8	TRP	CG-CD2-CE3	-6.57	127.99	133.90
34	i	272	C	O3'-P-O5'	6.57	116.48	104.00
34	i	1695	C	O4'-C1'-C2'	-6.57	99.23	105.80
34	i	1455	G	O4'-C1'-C2'	6.57	113.51	107.60
3	C	217	THR	C-N-CA	6.57	138.12	121.70
34	i	1071	C	N1-C1'-C2'	6.56	122.53	114.00
33	g	274	VAL	CA-C-N	6.56	131.63	117.20
34	i	164	A	N9-C1'-C2'	6.56	122.53	114.00
9	I	207	GLY	CA-C-O	-6.55	108.80	120.60
34	i	1819	A	C3'-C2'-C1'	-6.55	96.26	101.50
34	i	342	U	C5'-C4'-C3'	-6.55	105.52	116.00
34	i	1088	G	O4'-C1'-N9	6.55	113.44	108.20
34	i	1861	U	O4'-C1'-C2'	-6.55	99.25	105.80
17	Q	18	THR	N-CA-C	-6.55	93.32	111.00
34	i	729	C	C3'-C2'-C1'	6.55	106.74	101.50
34	i	486	C	O4'-C1'-C2'	-6.54	99.26	105.80
34	i	1639	C	P-O3'-C3'	6.54	127.55	119.70
34	i	1816	A	O3'-P-O5'	-6.54	91.57	104.00
11	K	42	ASN	CA-C-O	-6.54	106.36	120.10
34	i	428	G	N9-C1'-C2'	-6.54	104.80	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1831	G	O4'-C1'-N9	6.54	113.43	108.20
34	i	853	U	N1-C1'-C2'	6.54	122.50	114.00
34	i	957	G	O4'-C1'-N9	6.54	113.43	108.20
34	i	1082	G	P-O3'-C3'	6.53	127.54	119.70
34	i	1550	U	O4'-C4'-C3'	-6.53	97.47	104.00
34	i	1521	G	O4'-C1'-N9	6.53	113.42	108.20
34	i	29	G	O4'-C1'-N9	6.53	113.42	108.20
34	i	1377	G	C3'-C2'-C1'	-6.53	96.28	101.50
34	i	1861	U	P-O3'-C3'	6.53	127.53	119.70
34	i	581	U	P-O3'-C3'	6.53	127.53	119.70
34	i	611	C	C3'-C2'-C1'	6.53	106.72	101.50
34	i	1656	A	O4'-C1'-N9	6.53	113.42	108.20
34	i	1664	G	O5'-P-OP2	6.53	118.53	110.70
34	i	192	U	P-O5'-C5'	6.52	131.34	120.90
34	i	459	A	O4'-C1'-C2'	-6.52	99.28	105.80
19	S	92	ASP	CB-CG-OD2	-6.52	112.43	118.30
34	i	685	G	O4'-C1'-C2'	-6.52	99.28	105.80
34	i	190	A	O3'-P-O5'	6.52	116.38	104.00
34	i	534	G	C1'-O4'-C4'	6.52	115.11	109.90
34	i	685	G	O3'-P-O5'	6.52	116.38	104.00
34	i	1859	C	P-O3'-C3'	-6.52	111.88	119.70
34	i	1204	A	O4'-C1'-C2'	-6.52	99.28	105.80
34	i	1387	C	O4'-C1'-N1	6.51	113.41	108.20
34	i	1154	G	N9-C1'-C2'	-6.51	104.84	112.00
10	J	101	LYS	N-CA-C	6.51	128.58	111.00
34	i	1794	A	C3'-C2'-C1'	6.51	106.71	101.50
25	Y	128	GLY	CA-C-O	-6.51	108.88	120.60
34	i	538	C	N1-C1'-C2'	6.51	122.46	114.00
34	i	974	G	O4'-C1'-N9	6.51	113.41	108.20
22	V	81	GLN	O-C-N	-6.51	112.29	122.70
34	i	1039	G	C3'-C2'-C1'	6.51	106.71	101.50
34	i	1519	G	O4'-C1'-N9	6.51	113.41	108.20
34	i	1151	U	C3'-C2'-C1'	6.50	106.70	101.50
34	i	401	G	O4'-C1'-N9	6.50	113.40	108.20
34	i	1665	C	O4'-C1'-N1	6.50	113.40	108.20
34	i	1656	A	N9-C1'-C2'	6.50	122.45	114.00
26	Z	115	GLY	CA-C-O	-6.50	108.90	120.60
34	i	443	C	C3'-C2'-C1'	6.50	106.70	101.50
34	i	1206	G	C3'-C2'-C1'	-6.50	96.30	101.50
34	i	1496	G	C1'-O4'-C4'	-6.50	104.70	109.90
34	i	1369	C	O4'-C1'-C2'	-6.49	99.31	105.80
34	i	390	C	O4'-C1'-C2'	-6.49	99.31	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	882	A	C3'-C2'-C1'	6.49	106.69	101.50
34	i	1169	A	O4'-C1'-N9	6.49	113.39	108.20
34	i	1673	A	C3'-C2'-C1'	-6.49	96.31	101.50
34	i	282	G	N9-C1'-C2'	6.49	122.44	114.00
34	i	962	U	O4'-C1'-N1	6.49	113.39	108.20
9	I	8	TRP	CB-CG-CD1	6.49	135.43	127.00
34	i	1486	G	O4'-C1'-N9	6.49	113.39	108.20
34	i	1376	C	N1-C1'-C2'	6.48	122.43	114.00
34	i	310	G	C4'-C3'-O3'	6.48	125.96	113.00
34	i	1202	G	C1'-O4'-C4'	-6.48	104.72	109.90
34	i	79	A	O5'-C5'-C4'	6.48	124.01	111.70
34	i	903	G	C1'-O4'-C4'	-6.48	104.72	109.90
34	i	1284	U	O4'-C1'-N1	6.48	113.38	108.20
34	i	1513	C	P-O3'-C3'	-6.48	111.93	119.70
34	i	277	U	P-O3'-C3'	6.48	127.47	119.70
34	i	837	G	C5'-C4'-O4'	6.48	116.87	109.10
21	U	70	CYS	O-C-N	-6.47	112.19	123.20
24	X	91	LEU	N-CA-C	-6.47	93.52	111.00
26	Z	107	VAL	CA-CB-CG2	6.47	120.61	110.90
26	Z	112	ASN	N-CA-CB	-6.47	98.95	110.60
34	i	840	U	P-O3'-C3'	-6.47	111.94	119.70
34	i	837	G	C2'-C3'-O3'	-6.47	95.27	109.50
11	K	46	MET	N-CA-CB	6.47	122.24	110.60
34	i	10	G	P-O3'-C3'	-6.47	111.94	119.70
34	i	947	C	N1-C1'-C2'	6.47	122.41	114.00
34	i	1537	C	O5'-C5'-C4'	6.46	123.98	111.70
3	C	157	ASN	N-CA-C	6.46	128.45	111.00
34	i	1339	U	C3'-C2'-C1'	6.46	106.67	101.50
34	i	1837	G	O4'-C1'-C2'	6.46	113.42	107.60
34	i	870	G	O4'-C1'-N9	6.46	113.36	108.20
5	E	263	GLY	CA-C-O	-6.45	108.98	120.60
9	I	119	LEU	C-N-CD	-6.45	106.40	120.60
34	i	814	A	O4'-C1'-N9	6.45	113.36	108.20
34	i	1297	A	P-O3'-C3'	6.45	127.44	119.70
34	i	305	U	P-O3'-C3'	-6.45	111.96	119.70
34	i	1089	A	O4'-C1'-N9	6.45	113.36	108.20
2	B	77	ASP	N-CA-C	6.45	128.40	111.00
34	i	882	A	P-O3'-C3'	6.44	127.43	119.70
34	i	211	U	O4'-C1'-N1	6.44	113.35	108.20
34	i	437	A	C1'-O4'-C4'	6.44	115.05	109.90
34	i	1254	A	O4'-C1'-N9	6.44	113.35	108.20
34	i	147	A	O4'-C1'-C2'	-6.44	99.36	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	c	7	GLN	C-N-CD	-6.44	106.43	120.60
34	i	577	A	P-O3'-C3'	-6.44	111.97	119.70
34	i	1202	G	N9-C1'-C2'	6.44	122.37	114.00
34	i	155	G	C5'-C4'-C3'	6.44	126.30	116.00
34	i	1467	C	C3'-C2'-C1'	6.43	106.65	101.50
34	i	236	C	O4'-C1'-N1	6.43	113.34	108.20
34	i	1405	A	C1'-O4'-C4'	6.43	115.04	109.90
34	i	1702	U	N1-C1'-C2'	6.42	122.35	114.00
34	i	1436	C	N1-C1'-C2'	6.42	122.35	114.00
34	i	1384	A	O4'-C1'-N9	6.42	113.34	108.20
10	J	188	GLY	CA-C-O	-6.42	109.05	120.60
34	i	1785	A	O4'-C1'-C2'	-6.42	99.38	105.80
34	i	1135	C	O4'-C1'-N1	6.42	113.33	108.20
34	i	372	C	P-O3'-C3'	-6.42	112.00	119.70
34	i	1232	G	P-O3'-C3'	6.41	127.39	119.70
2	B	233	GLY	CA-C-O	-6.41	109.06	120.60
34	i	9	U	O4'-C1'-N1	6.41	113.33	108.20
34	i	1502	A	P-O3'-C3'	6.41	127.39	119.70
33	g	284	PRO	N-CA-C	-6.41	95.44	112.10
34	i	192	U	O4'-C1'-N1	6.41	113.32	108.20
34	i	1361	G	C4'-C3'-O3'	-6.40	95.95	109.40
34	i	1141	A	O4'-C1'-N9	6.40	113.32	108.20
18	R	99	ASP	C-N-CD	-6.40	106.52	120.60
27	a	96	THR	O-C-N	6.40	133.26	121.10
34	i	1284	U	N1-C1'-C2'	6.40	122.32	114.00
34	i	1801	C	N1-C1'-C2'	6.40	122.31	114.00
34	i	1151	U	P-O5'-C5'	6.39	131.13	120.90
34	i	1510	G	N9-C1'-C2'	-6.39	104.97	112.00
34	i	38	A	C1'-O4'-C4'	6.39	115.01	109.90
34	i	794	G	C3'-C2'-C1'	6.39	106.61	101.50
3	C	83	LEU	C-N-CA	-6.39	108.88	122.30
34	i	994	A	C1'-O4'-C4'	6.39	115.01	109.90
34	i	1122	G	C1'-O4'-C4'	-6.39	104.79	109.90
34	i	1158	C	O4'-C1'-N1	6.39	113.31	108.20
34	i	1377	G	N9-C1'-C2'	-6.39	104.97	112.00
34	i	1411	C	O4'-C1'-N1	6.39	113.31	108.20
31	e	120	VAL	C-N-CD	-6.38	106.55	120.60
34	i	523	A	C2'-C3'-O3'	6.38	123.92	113.70
34	i	1422	U	O4'-C1'-N1	6.38	113.31	108.20
34	i	70	G	N9-C1'-C2'	-6.38	104.98	112.00
16	P	18	ARG	N-CA-CB	6.38	122.08	110.60
34	i	840	U	O4'-C1'-C2'	-6.38	99.42	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1360	U	P-O3'-C3'	-6.38	112.04	119.70
34	i	1353	A	O4'-C1'-N9	6.38	113.30	108.20
34	i	1858	U	O4'-C1'-N1	6.38	113.30	108.20
34	i	150	A	O4'-C1'-C2'	-6.37	99.43	105.80
34	i	1227	C	C3'-C2'-C1'	6.37	106.59	101.50
22	V	47	ASN	N-CA-C	-6.36	93.82	111.00
34	i	639	U	O4'-C1'-N1	6.36	113.29	108.20
19	S	49	ASP	O-C-N	-6.36	112.53	122.70
34	i	205	G	O4'-C1'-N9	6.36	113.29	108.20
34	i	1790	G	O4'-C1'-N9	6.36	113.29	108.20
34	i	176	U	N1-C1'-C2'	6.36	122.27	114.00
5	E	258	ALA	C-N-CA	-6.35	105.82	121.70
34	i	634	G	O4'-C1'-N9	6.35	113.28	108.20
34	i	1534	U	C1'-O4'-C4'	6.35	114.98	109.90
34	i	190	A	C5'-C4'-C3'	-6.35	105.84	116.00
28	b	53	VAL	N-CA-C	-6.34	93.88	111.00
34	i	1207	G	N9-C1'-C2'	6.34	122.24	114.00
34	i	568	C	C3'-C2'-C1'	6.34	106.57	101.50
34	i	1167	G	C3'-C2'-C1'	-6.34	96.43	101.50
34	i	1545	G	O4'-C1'-N9	6.34	113.27	108.20
10	J	162	ARG	N-CA-C	6.33	128.09	111.00
16	P	37	TYR	CB-CA-C	6.33	123.06	110.40
34	i	174	C	O4'-C1'-C2'	-6.33	99.47	105.80
34	i	635	C	O4'-C1'-C2'	-6.33	99.47	105.80
34	i	1196	A	O4'-C1'-N9	6.33	113.26	108.20
16	P	18	ARG	NE-CZ-NH1	6.32	123.46	120.30
34	i	1076	A	P-O3'-C3'	6.32	127.29	119.70
34	i	8	U	O4'-C1'-N1	6.32	113.26	108.20
8	H	106	ARG	CD-NE-CZ	6.32	132.45	123.60
34	i	1202	G	C3'-C2'-C1'	-6.32	96.44	101.50
34	i	1425	G	O3'-P-O5'	-6.32	91.99	104.00
34	i	831	C	P-O3'-C3'	6.32	127.28	119.70
2	B	76	ASN	N-CA-C	6.31	128.05	111.00
34	i	582	C	N1-C1'-C2'	-6.31	105.06	112.00
34	i	1495	U	O4'-C1'-N1	6.31	113.25	108.20
34	i	1015	C	C3'-C2'-C1'	6.31	106.55	101.50
34	i	1348	G	C3'-C2'-C1'	-6.31	96.45	101.50
34	i	1540	A	C5'-C4'-O4'	6.31	116.67	109.10
34	i	1390	G	C1'-O4'-C4'	-6.30	104.86	109.90
34	i	1480	A	P-O3'-C3'	6.30	127.27	119.70
7	G	128	THR	N-CA-CB	-6.30	98.33	110.30
16	P	68	PRO	C-N-CD	-6.30	106.73	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	597	U	P-O3'-C3'	6.30	127.26	119.70
34	i	806	A	C3'-C2'-C1'	6.30	106.54	101.50
34	i	626	C	O4'-C1'-C2'	-6.30	99.50	105.80
34	i	796	U	C5'-C4'-C3'	-6.30	105.92	116.00
34	i	522	C	P-O3'-C3'	6.30	127.26	119.70
34	i	730	C	C3'-C2'-C1'	6.30	106.54	101.50
34	i	1256	A	N9-C1'-C2'	6.29	122.18	114.00
16	P	18	ARG	CB-CG-CD	6.29	127.96	111.60
9	I	55	TYR	CB-CG-CD1	6.29	124.77	121.00
19	S	92	ASP	N-CA-C	6.29	127.98	111.00
34	i	486	C	O4'-C1'-N1	6.29	113.23	108.20
34	i	509	A	N9-C1'-C2'	-6.29	105.08	112.00
34	i	794	G	N9-C1'-C2'	6.29	122.17	114.00
34	i	837	G	P-O3'-C3'	6.29	127.24	119.70
34	i	1415	C	O4'-C1'-C2'	-6.29	99.51	105.80
34	i	110	U	P-O3'-C3'	-6.28	112.17	119.70
34	i	493	C	O4'-C1'-C2'	-6.28	99.52	105.80
34	i	1774	G	N9-C1'-C2'	6.28	122.16	114.00
34	i	887	G	N9-C1'-C2'	6.28	122.16	114.00
34	i	424	G	C2'-C3'-O3'	6.27	123.74	113.70
34	i	1111	U	O4'-C1'-C2'	6.27	113.25	107.60
34	i	1415	C	C3'-C2'-C1'	6.27	106.52	101.50
34	i	1594	U	P-O5'-C5'	6.27	130.94	120.90
34	i	733	G	O4'-C1'-C2'	-6.27	99.53	105.80
34	i	1337	C	O4'-C1'-C2'	-6.27	99.53	105.80
7	G	173	ALA	C-N-CD	-6.27	106.81	120.60
34	i	1084	U	O4'-C1'-N1	6.27	113.21	108.20
34	i	1337	C	C3'-C2'-C1'	6.27	106.51	101.50
34	i	62	G	N9-C1'-C2'	6.26	122.14	114.00
34	i	1304	U	P-O3'-C3'	6.26	127.22	119.70
15	O	102	GLY	C-N-CA	-6.26	106.05	121.70
34	i	341	G	N9-C1'-C2'	-6.26	105.12	112.00
31	e	120	VAL	CB-CA-C	-6.25	99.52	111.40
34	i	356	U	O4'-C1'-N1	6.25	113.20	108.20
34	i	973	C	O4'-C1'-N1	6.25	113.20	108.20
34	i	1486	G	C3'-C2'-C1'	-6.25	96.50	101.50
34	i	1487	G	O4'-C1'-N9	6.25	113.20	108.20
1	A	186	ARG	C-N-CA	6.25	135.42	122.30
34	i	109	U	C4'-C3'-O3'	-6.25	96.28	109.40
34	i	1807	A	C1'-O4'-C4'	-6.24	104.91	109.90
34	i	74	G	C4'-C3'-C2'	-6.24	96.36	102.60
34	i	1404	U	P-O3'-C3'	6.24	127.19	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	g	47	ARG	N-CA-C	-6.24	94.16	111.00
9	I	6	ASP	N-CA-CB	-6.24	99.38	110.60
34	i	341	G	O4'-C1'-N9	6.24	113.19	108.20
10	J	164	PRO	N-CD-CG	-6.23	93.85	103.20
34	i	605	C	C1'-O4'-C4'	-6.23	104.91	109.90
34	i	1515	G	O4'-C1'-N9	6.23	113.19	108.20
34	i	1658	A	C3'-C2'-C1'	6.23	106.48	101.50
19	S	82	TRP	CB-CA-C	-6.23	97.94	110.40
34	i	279	G	P-O5'-C5'	6.23	130.86	120.90
34	i	1214	C	C3'-C2'-C1'	6.23	106.48	101.50
34	i	295	C	O3'-P-O5'	6.23	115.83	104.00
6	F	130	ARG	N-CA-CB	6.22	121.81	110.60
12	L	152	LYS	CA-C-O	-6.22	107.04	120.10
34	i	1445	G	P-O3'-C3'	6.22	127.17	119.70
34	i	1636	A	C3'-C2'-C1'	6.22	106.48	101.50
34	i	825	C	P-O3'-C3'	6.22	127.16	119.70
34	i	220	C	O4'-C1'-N1	6.21	113.17	108.20
34	i	1300	U	C1'-O4'-C4'	-6.21	104.93	109.90
34	i	1514	U	N1-C1'-C2'	-6.21	105.17	112.00
34	i	1654	U	O3'-P-O5'	6.21	115.80	104.00
19	S	6	PRO	CA-C-O	-6.21	105.30	120.20
34	i	313	C	O4'-C1'-N1	6.21	113.17	108.20
34	i	445	A	C3'-C2'-C1'	6.21	106.46	101.50
9	I	178	ARG	CD-NE-CZ	6.20	132.28	123.60
34	i	544	A	C1'-O4'-C4'	-6.20	104.94	109.90
34	i	1784	A	N9-C1'-C2'	6.20	122.06	114.00
34	i	1563	C	C1'-O4'-C4'	-6.20	104.94	109.90
34	i	1855	G	C1'-O4'-C4'	-6.19	104.94	109.90
10	J	145	PRO	N-CA-C	-6.19	96.00	112.10
34	i	678	U	P-O3'-C3'	6.19	127.13	119.70
26	Z	104	ARG	CA-C-N	-6.19	103.58	117.20
34	i	1489	C	O4'-C1'-N1	6.19	113.15	108.20
34	i	424	G	O3'-P-O5'	-6.19	92.24	104.00
34	i	1036	G	C3'-C2'-C1'	-6.19	96.55	101.50
33	g	50	THR	CB-CA-C	6.19	128.30	111.60
34	i	1030	A	C1'-O4'-C4'	6.19	114.85	109.90
34	i	1395	C	O4'-C1'-N1	6.19	113.15	108.20
34	i	1519	G	O4'-C4'-C3'	-6.19	97.81	104.00
6	F	46	ALA	C-N-CA	-6.18	106.24	121.70
34	i	1214	C	C1'-O4'-C4'	-6.18	104.95	109.90
34	i	1587	C	C1'-O4'-C4'	-6.18	104.95	109.90
34	i	1521	G	N9-C1'-C2'	-6.18	105.20	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1562	G	P-O3'-C3'	-6.18	112.28	119.70
34	i	1623	C	C1'-O4'-C4'	-6.18	104.96	109.90
3	C	258	LEU	CA-CB-CG	6.18	129.51	115.30
34	i	1135	C	P-O5'-C5'	-6.18	111.02	120.90
34	i	958	A	N9-C1'-C2'	-6.17	105.21	112.00
34	i	1723	U	O4'-C1'-N1	6.17	113.14	108.20
34	i	1729	G	C3'-C2'-C1'	6.17	106.44	101.50
12	L	102	PHE	N-CA-C	-6.17	94.34	111.00
34	i	1293	U	C1'-O4'-C4'	6.16	114.83	109.90
34	i	456	G	O4'-C1'-C2'	6.16	113.14	107.60
34	i	792	G	C1'-O4'-C4'	-6.16	104.97	109.90
10	J	93	LYS	O-C-N	-6.16	112.85	122.70
34	i	210	G	P-O3'-C3'	-6.16	112.31	119.70
34	i	542	G	C1'-O4'-C4'	-6.16	104.97	109.90
6	F	41	VAL	N-CA-C	-6.15	94.39	111.00
13	M	116	LYS	N-CA-C	6.15	127.62	111.00
34	i	2	A	O4'-C1'-N9	6.15	113.12	108.20
34	i	1364	U	O4'-C1'-N1	6.15	113.12	108.20
34	i	343	C	C4'-C3'-C2'	6.15	108.75	102.60
34	i	1663	U	C3'-C2'-C1'	-6.15	96.58	101.50
4	D	4	GLN	CA-C-O	6.15	133.01	120.10
34	i	924	G	O4'-C1'-N9	6.15	113.12	108.20
34	i	1395	C	C5'-C4'-C3'	-6.15	106.16	116.00
34	i	1514	U	O4'-C1'-C2'	-6.15	99.65	105.80
34	i	549	G	N9-C1'-C2'	6.15	121.99	114.00
34	i	1570	G	C4'-C3'-C2'	-6.14	96.46	102.60
10	J	180	LYS	N-CA-C	6.14	127.58	111.00
34	i	126	G	O3'-P-O5'	6.14	115.67	104.00
34	i	1238	U	C1'-O4'-C4'	-6.14	104.99	109.90
34	i	272	C	O5'-P-OP1	-6.14	100.17	105.70
34	i	795	U	C1'-O4'-C4'	-6.14	104.99	109.90
19	S	9	PHE	C-N-CA	-6.14	106.35	121.70
34	i	824	G	C1'-O4'-C4'	-6.14	104.99	109.90
34	i	954	G	C3'-C2'-C1'	-6.14	96.59	101.50
34	i	1255	A	C1'-O4'-C4'	-6.14	104.99	109.90
34	i	1489	C	N1-C1'-C2'	-6.13	105.26	112.00
34	i	1657	U	O4'-C1'-N1	6.13	113.10	108.20
15	O	143	LYS	CB-CA-C	-6.13	98.15	110.40
34	i	395	G	C1'-O4'-C4'	-6.12	105.00	109.90
34	i	489	G	C1'-O4'-C4'	-6.12	105.00	109.90
34	i	1644	U	P-O3'-C3'	-6.12	112.35	119.70
34	i	903	G	C3'-C2'-C1'	-6.12	96.60	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	205	G	C1'-O4'-C4'	-6.12	105.00	109.90
34	i	1361	G	P-O5'-C5'	6.12	130.69	120.90
34	i	1186	A	C3'-C2'-C1'	6.12	106.39	101.50
34	i	1776	G	O4'-C4'-C3'	-6.11	97.89	104.00
34	i	973	C	O4'-C1'-C2'	-6.11	99.69	105.80
34	i	201	G	O4'-C1'-C2'	-6.11	99.69	105.80
34	i	685	G	C5'-C4'-C3'	6.11	125.77	116.00
34	i	1543	G	C3'-C2'-C1'	-6.11	96.61	101.50
34	i	986	A	C1'-O4'-C4'	-6.11	105.02	109.90
34	i	1050	G	C1'-O4'-C4'	-6.11	105.02	109.90
34	i	1849	G	O4'-C1'-C2'	6.11	113.09	107.60
34	i	193	C	C3'-C2'-C1'	6.10	106.38	101.50
34	i	880	C	O4'-C1'-N1	6.10	113.08	108.20
34	i	1796	C	O4'-C1'-N1	6.10	113.08	108.20
31	e	121	PRO	CA-N-CD	-6.10	102.96	111.50
34	i	1535	G	O4'-C1'-N9	6.10	113.08	108.20
19	S	10	GLN	C-N-CA	6.10	136.94	121.70
34	i	906	G	O4'-C1'-C2'	6.10	113.09	107.60
34	i	1533	C	P-O5'-C5'	-6.10	111.15	120.90
34	i	209	C	P-O5'-C5'	6.09	130.65	120.90
34	i	1181	C	N1-C1'-C2'	6.09	121.92	114.00
34	i	1400	U	N1-C1'-C2'	6.09	121.92	114.00
34	i	1610	U	C1'-O4'-C4'	-6.09	105.03	109.90
34	i	1678	C	C3'-C2'-C1'	6.09	106.37	101.50
11	K	89	ILE	CA-CB-CG2	6.09	123.08	110.90
34	i	327	C	O4'-C1'-N1	6.09	113.07	108.20
34	i	940	A	C3'-C2'-C1'	6.08	106.37	101.50
34	i	1066	A	N9-C1'-C2'	6.08	121.91	114.00
34	i	1462	G	O4'-C1'-N9	6.08	113.07	108.20
34	i	741	C	O4'-C1'-C2'	-6.08	99.72	105.80
34	i	854	A	C3'-C2'-C1'	6.08	106.36	101.50
34	i	872	C	C3'-C2'-C1'	6.08	106.36	101.50
34	i	64	A	C3'-C2'-C1'	-6.08	96.64	101.50
12	L	151	THR	C-N-CA	6.08	136.89	121.70
34	i	352	C	N1-C1'-C2'	6.08	121.90	114.00
34	i	584	A	P-O3'-C3'	6.08	126.99	119.70
34	i	1433	C	N1-C1'-C2'	6.07	121.89	114.00
25	Y	96	LEU	N-CA-CB	6.07	122.54	110.40
34	i	1118	A	C4'-C3'-C2'	-6.07	96.53	102.60
34	i	1431	C	C3'-C2'-C1'	6.07	106.36	101.50
34	i	1701	G	O4'-C1'-N9	6.07	113.05	108.20
34	i	1702	U	O4'-C1'-N1	6.07	113.05	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1774	G	C3'-C2'-C1'	-6.07	96.65	101.50
34	i	4	C	C1'-O4'-C4'	-6.06	105.05	109.90
34	i	460	G	O4'-C1'-N9	6.06	113.05	108.20
34	i	1486	G	O4'-C1'-C2'	6.06	113.06	107.60
34	i	1698	C	O4'-C1'-C2'	-6.06	99.74	105.80
34	i	1705	C	C3'-C2'-C1'	6.06	106.35	101.50
16	P	49	LEU	C-N-CA	-6.06	106.55	121.70
21	U	117	ALA	O-C-N	6.06	132.40	122.70
32	f	134	SER	O-C-N	6.06	132.40	122.70
2	B	151	ARG	C-N-CA	-6.06	106.56	121.70
34	i	410	G	O4'-C1'-C2'	6.06	113.05	107.60
34	i	1845	A	C1'-O4'-C4'	6.06	114.75	109.90
34	i	1102	C	O4'-C1'-C2'	-6.06	99.74	105.80
25	Y	64	PHE	N-CA-CB	-6.05	99.70	110.60
16	P	17	TYR	N-CA-CB	6.05	121.49	110.60
34	i	1425	G	OP1-P-O3'	6.05	118.51	105.20
34	i	1571	G	C1'-O4'-C4'	-6.05	105.06	109.90
12	L	150	GLY	N-CA-C	-6.05	97.98	113.10
29	c	6	VAL	N-CA-C	6.05	127.33	111.00
34	i	960	A	N9-C1'-C2'	-6.05	105.35	112.00
34	i	1112	C	O4'-C1'-C2'	6.05	113.05	107.60
34	i	1187	C	O4'-C1'-N1	6.05	113.04	108.20
11	K	40	VAL	C-N-CD	-6.04	107.30	120.60
34	i	1588	C	O4'-C1'-N1	6.04	113.04	108.20
34	i	1558	G	C1'-O4'-C4'	-6.04	105.06	109.90
33	g	213	ASP	CB-CG-OD2	-6.04	112.86	118.30
34	i	1394	G	P-O3'-C3'	-6.04	112.45	119.70
34	i	1172	G	O4'-C1'-N9	6.04	113.03	108.20
34	i	1440	U	O4'-C1'-N1	6.03	113.03	108.20
3	C	262	HIS	CB-CA-C	-6.03	98.34	110.40
18	R	88	VAL	C-N-CA	-6.03	106.62	121.70
27	a	107	ALA	C-N-CD	6.03	141.06	128.40
34	i	410	G	O4'-C1'-N9	6.03	113.02	108.20
34	i	1431	C	C5'-C4'-C3'	6.02	125.64	116.00
6	F	135	ARG	CB-CA-C	6.02	122.44	110.40
33	g	15	ASN	C-N-CA	-6.02	109.66	122.30
34	i	1549	C	C2'-C3'-O3'	-6.02	96.26	109.50
32	f	88	PRO	N-CA-C	-6.02	96.46	112.10
34	i	623	C	N1-C1'-C2'	6.02	121.82	114.00
34	i	952	G	O4'-C1'-N9	6.02	113.01	108.20
34	i	1742	C	C5'-C4'-O4'	6.02	116.32	109.10
34	i	1355	U	O4'-C1'-C2'	-6.02	99.78	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1698	C	C3'-C2'-C1'	6.02	106.31	101.50
34	i	1743	G	O5'-C5'-C4'	6.02	123.13	111.70
34	i	1367	U	C3'-C2'-C1'	6.01	106.31	101.50
21	U	109	GLY	N-CA-C	-6.01	98.07	113.10
11	K	38	LYS	N-CA-C	-6.01	94.78	111.00
34	i	1391	C	O4'-C1'-N1	6.01	113.01	108.20
34	i	1441	U	C4'-C3'-O3'	-6.01	96.78	109.40
26	Z	112	ASN	N-CA-C	6.00	127.22	111.00
34	i	1547	G	P-O5'-C5'	6.00	130.50	120.90
34	i	1393	U	C3'-C2'-C1'	6.00	106.30	101.50
34	i	946	C	C3'-C2'-C1'	6.00	106.30	101.50
7	G	173	ALA	O-C-N	-5.99	109.71	121.10
9	I	29	LEU	C-N-CA	5.99	134.88	122.30
34	i	204	G	O4'-C1'-C2'	-5.99	99.81	105.80
34	i	1663	U	P-O3'-C3'	5.99	126.89	119.70
34	i	1219	A	O4'-C1'-C2'	-5.99	99.81	105.80
34	i	7	G	O4'-C1'-N9	5.99	112.99	108.20
34	i	1403	U	O4'-C1'-N1	5.99	112.99	108.20
34	i	1367	U	O4'-C1'-N1	5.98	112.99	108.20
34	i	430	G	O4'-C1'-N9	5.98	112.98	108.20
34	i	1740	A	C4'-C3'-C2'	-5.98	96.62	102.60
9	I	132	GLU	CA-C-N	5.98	130.35	117.20
34	i	844	U	C1'-O4'-C4'	-5.98	105.12	109.90
34	i	848	G	O4'-C1'-N9	5.98	112.98	108.20
1	A	193	HIS	C-N-CD	-5.97	107.46	120.60
34	i	1348	G	O4'-C1'-N9	5.97	112.98	108.20
34	i	1441	U	P-O3'-C3'	-5.97	112.53	119.70
34	i	1752	G	C1'-O4'-C4'	-5.97	105.12	109.90
34	i	849	C	O4'-C1'-N1	5.97	112.98	108.20
34	i	959	A	P-O5'-C5'	-5.97	111.35	120.90
34	i	563	U	N1-C1'-C2'	5.96	121.75	114.00
34	i	610	G	C1'-O4'-C4'	5.96	114.67	109.90
34	i	1535	G	C1'-O4'-C4'	-5.96	105.13	109.90
34	i	1091	U	C1'-O4'-C4'	-5.96	105.13	109.90
22	V	66	ASP	C-N-CA	-5.96	106.80	121.70
34	i	194	C	O4'-C1'-N1	5.96	112.97	108.20
34	i	1343	U	O4'-C1'-C2'	-5.96	99.84	105.80
21	U	69	PRO	N-CA-C	-5.96	96.62	112.10
25	Y	86	GLU	CA-C-N	5.96	133.77	117.10
6	F	38	TYR	C-N-CA	-5.95	106.82	121.70
34	i	558	C	C3'-C2'-C1'	5.95	106.26	101.50
34	i	1547	G	O4'-C1'-C2'	-5.95	99.85	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	223	A	O4'-C1'-C2'	-5.95	99.85	105.80
11	K	41	PRO	N-CA-C	-5.95	96.63	112.10
22	V	32	ILE	C-N-CD	5.95	140.90	128.40
21	U	68	THR	N-CA-CB	-5.95	99.00	110.30
34	i	743	U	O3'-P-O5'	-5.95	92.70	104.00
34	i	727	G	C5'-C4'-O4'	-5.95	101.97	109.10
34	i	853	U	P-O5'-C5'	-5.95	111.39	120.90
34	i	1485	A	P-O3'-C3'	5.95	126.84	119.70
34	i	272	C	O5'-P-OP2	-5.94	100.35	105.70
34	i	623	C	C3'-C2'-C1'	5.94	106.25	101.50
34	i	1646	A	O4'-C1'-N9	5.94	112.95	108.20
11	K	90	VAL	N-CA-C	5.94	127.05	111.00
34	i	621	U	O4'-C1'-N1	5.94	112.95	108.20
34	i	1497	C	P-O3'-C3'	5.94	126.83	119.70
34	i	373	G	O4'-C1'-N9	5.94	112.95	108.20
34	i	970	C	C1'-O4'-C4'	-5.94	105.15	109.90
34	i	1019	A	O4'-C1'-C2'	-5.94	99.86	105.80
8	H	16	PRO	O-C-N	-5.93	113.20	122.70
34	i	793	C	P-O5'-C5'	5.93	130.39	120.90
34	i	1534	U	C3'-C2'-C1'	5.93	106.25	101.50
34	i	1087	C	O4'-C1'-C2'	-5.93	99.87	105.80
34	i	1834	U	O4'-C1'-N1	5.93	112.94	108.20
34	i	1459	U	P-O3'-C3'	-5.93	112.58	119.70
16	P	121	ILE	O-C-N	-5.93	113.22	122.70
34	i	1138	G	C3'-C2'-C1'	-5.93	96.76	101.50
34	i	541	U	P-O3'-C3'	5.93	126.81	119.70
34	i	1426	C	C1'-O4'-C4'	5.93	114.64	109.90
16	P	130	ARG	NE-CZ-NH1	5.92	123.26	120.30
34	i	1022	C	O4'-C1'-C2'	-5.92	99.88	105.80
34	i	1058	A	C3'-C2'-C1'	5.92	106.23	101.50
34	i	1127	G	C5'-C4'-C3'	-5.92	106.53	116.00
34	i	1408	C	C4'-C3'-O3'	5.92	124.83	113.00
34	i	858	A	C1'-O4'-C4'	-5.91	105.17	109.90
34	i	1694	A	P-O3'-C3'	-5.91	112.61	119.70
34	i	603	C	C1'-O4'-C4'	5.91	114.63	109.90
34	i	1621	C	O4'-C1'-N1	5.91	112.93	108.20
34	i	24	C	O4'-C1'-N1	5.91	112.93	108.20
34	i	278	U	P-O5'-C5'	5.91	130.35	120.90
34	i	1121	C	O4'-C1'-N1	5.91	112.93	108.20
34	i	1547	G	C1'-O4'-C4'	5.91	114.63	109.90
34	i	1733	C	C3'-C2'-C1'	5.90	106.22	101.50
34	i	419	C	C3'-C2'-C1'	5.90	106.22	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1148	U	O4'-C1'-N1	5.90	112.92	108.20
34	i	581	U	N1-C1'-C2'	5.90	121.67	114.00
34	i	1051	A	C3'-C2'-C1'	5.90	106.22	101.50
34	i	1300	U	O4'-C1'-N1	5.90	112.92	108.20
34	i	684	A	P-O5'-C5'	5.89	130.33	120.90
34	i	788	C	N1-C1'-C2'	5.89	121.66	114.00
34	i	1846	C	N1-C1'-C2'	5.89	121.66	114.00
34	i	1114	C	C3'-C2'-C1'	-5.89	96.79	101.50
34	i	1349	A	O3'-P-O5'	-5.89	92.80	104.00
34	i	1413	C	OP1-P-OP2	-5.89	110.76	119.60
34	i	1732	G	C1'-O4'-C4'	-5.89	105.19	109.90
34	i	1527	C	N1-C1'-C2'	5.89	121.66	114.00
29	c	5	ARG	N-CA-C	5.89	126.89	111.00
34	i	21	U	O4'-C1'-C2'	-5.88	99.92	105.80
34	i	1134	C	C4'-C3'-O3'	-5.88	97.04	109.40
34	i	1571	G	N9-C1'-C2'	5.88	121.65	114.00
34	i	1230	C	C1'-O4'-C4'	-5.88	105.20	109.90
34	i	163	U	O4'-C4'-C3'	-5.88	98.12	104.00
34	i	292	A	O4'-C1'-N9	5.88	112.90	108.20
34	i	1318	G	O4'-C1'-N9	5.88	112.90	108.20
34	i	1434	A	C3'-C2'-C1'	5.88	106.20	101.50
34	i	1577	C	N1-C1'-C2'	5.88	121.64	114.00
34	i	617	U	O4'-C1'-C2'	-5.87	99.93	105.80
34	i	826	A	O4'-C1'-C2'	5.87	112.88	107.60
34	i	119	U	O4'-C1'-N1	5.87	112.89	108.20
34	i	172	U	O4'-C1'-C2'	-5.87	99.93	105.80
34	i	1380	C	O4'-C1'-N1	5.87	112.89	108.20
34	i	1800	A	N9-C1'-C2'	5.87	121.63	114.00
34	i	830	C	C3'-C2'-C1'	-5.87	96.81	101.50
34	i	1416	G	N9-C1'-C2'	5.86	121.62	114.00
33	g	159	ASN	O-C-N	-5.86	113.32	122.70
34	i	1605	G	O4'-C1'-N9	5.86	112.89	108.20
34	i	192	U	O5'-C5'-C4'	-5.86	100.57	111.70
34	i	213	C	C3'-C2'-C1'	5.86	106.18	101.50
20	T	30	VAL	N-CA-C	5.85	126.80	111.00
28	b	53	VAL	C-N-CA	-5.85	107.07	121.70
34	i	103	A	O4'-C1'-C2'	5.85	112.87	107.60
34	i	1013	U	C1'-O4'-C4'	5.85	114.58	109.90
34	i	1552	C	C2'-C3'-O3'	5.85	123.06	113.70
34	i	1199	G	C3'-C2'-C1'	-5.85	96.82	101.50
34	i	1274	A	P-O5'-C5'	5.85	130.26	120.90
34	i	1417	A	O4'-C1'-N9	5.85	112.88	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	10	MET	N-CA-C	5.85	126.78	111.00
34	i	875	C	O4'-C1'-N1	5.85	112.88	108.20
34	i	98	C	N1-C1'-C2'	-5.84	105.57	112.00
34	i	368	U	N1-C1'-C2'	5.84	121.60	114.00
17	Q	17	LYS	O-C-N	-5.84	113.35	122.70
27	a	96	THR	CA-C-N	-5.84	100.74	117.10
34	i	1065	U	P-O5'-C5'	-5.84	111.56	120.90
34	i	332	C	O4'-C1'-N1	5.84	112.87	108.20
34	i	392	C	O4'-C1'-C2'	-5.84	99.96	105.80
34	i	633	A	O4'-C1'-C2'	-5.84	99.96	105.80
34	i	1204	A	C1'-O4'-C4'	5.84	114.57	109.90
8	H	192	PHE	N-CA-C	5.83	126.75	111.00
34	i	115	U	O4'-C1'-N1	5.83	112.87	108.20
34	i	1779	C	O4'-C1'-N1	5.83	112.87	108.20
34	i	114	G	C1'-O4'-C4'	5.83	114.57	109.90
34	i	314	U	C3'-C2'-C1'	-5.83	96.83	101.50
34	i	730	C	N1-C1'-C2'	5.83	121.58	114.00
34	i	190	A	O5'-P-OP2	-5.83	100.46	105.70
34	i	376	C	C1'-O4'-C4'	-5.82	105.24	109.90
34	i	546	U	C5'-C4'-C3'	5.82	125.32	116.00
34	i	730	C	O3'-P-O5'	5.82	115.07	104.00
34	i	528	U	C3'-C2'-C1'	5.82	106.16	101.50
34	i	1282	G	C4'-C3'-O3'	-5.82	97.18	109.40
33	g	12	LYS	C-N-CA	5.82	134.51	122.30
34	i	544	A	O4'-C1'-C2'	5.82	112.83	107.60
34	i	611	C	C1'-O4'-C4'	-5.81	105.25	109.90
34	i	1602	A	O4'-C1'-C2'	5.81	112.83	107.60
3	C	241	TRP	C-N-CA	-5.81	107.17	121.70
34	i	1118	A	C3'-C2'-C1'	5.81	106.15	101.50
34	i	1303	U	N1-C1'-C2'	-5.81	105.61	112.00
11	K	40	VAL	CB-CA-C	-5.81	100.36	111.40
13	M	99	LYS	N-CA-C	5.81	126.67	111.00
34	i	1227	C	O4'-C1'-N1	-5.81	103.56	108.20
34	i	1428	U	N1-C1'-C2'	5.81	121.55	114.00
34	i	1532	A	C3'-C2'-C1'	5.81	106.14	101.50
34	i	998	U	O4'-C1'-N1	5.80	112.84	108.20
34	i	1790	G	C5'-C4'-O4'	5.80	116.06	109.10
34	i	1450	A	O4'-C1'-C2'	-5.80	100.00	105.80
34	i	54	A	N9-C1'-C2'	5.80	121.53	114.00
34	i	726	C	O4'-C1'-N1	5.80	112.84	108.20
34	i	914	U	C1'-O4'-C4'	-5.80	105.26	109.90
34	i	367	G	O4'-C1'-N9	5.79	112.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	U	108	PRO	CA-N-CD	-5.79	103.39	111.50
34	i	77	A	O4'-C1'-N9	5.79	112.83	108.20
34	i	1633	G	O4'-C1'-N9	-5.79	103.57	108.20
34	i	1414	C	N1-C1'-C2'	5.79	121.53	114.00
34	i	839	C	C3'-C2'-C1'	5.79	106.13	101.50
34	i	884	U	P-O5'-C5'	5.79	130.16	120.90
6	F	131	ALA	N-CA-C	5.78	126.61	111.00
34	i	55	U	O4'-C1'-N1	5.78	112.83	108.20
34	i	402	G	C3'-C2'-C1'	5.78	106.13	101.50
34	i	1110	U	C1'-O4'-C4'	5.78	114.53	109.90
34	i	90	G	O4'-C1'-N9	5.78	112.82	108.20
34	i	277	U	N1-C1'-C2'	5.78	121.51	114.00
34	i	1020	A	O4'-C1'-N9	5.78	112.82	108.20
34	i	1047	G	C3'-C2'-C1'	-5.78	96.88	101.50
5	E	170	THR	C-N-CA	5.78	136.14	121.70
11	K	41	PRO	CA-N-CD	-5.78	103.41	111.50
34	i	461	G	C5'-C4'-O4'	5.78	116.03	109.10
34	i	876	G	N9-C1'-C2'	-5.77	105.65	112.00
34	i	516	A	C3'-C2'-C1'	-5.77	96.89	101.50
34	i	832	G	C1'-O4'-C4'	5.77	114.52	109.90
34	i	1501	U	C1'-O4'-C4'	5.77	114.51	109.90
34	i	206	A	O3'-P-O5'	5.76	114.95	104.00
34	i	1801	C	C1'-O4'-C4'	-5.76	105.29	109.90
12	L	4	ILE	N-CA-C	-5.76	95.44	111.00
34	i	139	C	C1'-O4'-C4'	5.76	114.51	109.90
34	i	1142	C	C1'-O4'-C4'	-5.76	105.29	109.90
17	Q	146	ARG	CA-CB-CG	5.76	126.07	113.40
34	i	962	U	C5'-C4'-O4'	5.76	116.01	109.10
34	i	970	C	C3'-C2'-C1'	5.76	106.11	101.50
34	i	1138	G	N9-C1'-C2'	-5.76	105.67	112.00
7	G	131	ARG	CG-CD-NE	5.76	123.89	111.80
34	i	188	U	C1'-O4'-C4'	-5.76	105.29	109.90
34	i	1168	U	N1-C1'-C2'	-5.76	105.67	112.00
34	i	871	A	O4'-C1'-C2'	-5.75	100.05	105.80
34	i	1251	G	C3'-C2'-C1'	-5.75	96.90	101.50
8	H	40	LEU	CA-CB-CG	-5.75	102.07	115.30
34	i	958	A	O4'-C1'-C2'	-5.75	100.05	105.80
34	i	1706	U	N1-C1'-C2'	5.75	121.48	114.00
34	i	652	G	C1'-O4'-C4'	-5.75	105.30	109.90
7	G	155	GLN	C-N-CA	-5.75	107.33	121.70
26	Z	104	ARG	N-CA-C	5.75	126.52	111.00
34	i	148	U	O4'-C1'-N1	5.75	112.80	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1135	C	C4'-C3'-O3'	-5.75	97.33	109.40
34	i	1100	G	O4'-C1'-N9	5.75	112.80	108.20
34	i	1842	U	O4'-C1'-N1	5.75	112.80	108.20
34	i	923	C	O4'-C1'-N1	5.75	112.80	108.20
12	L	151	THR	CB-CA-C	5.74	127.11	111.60
34	i	386	U	O4'-C1'-N1	5.74	112.79	108.20
34	i	215	U	C1'-O4'-C4'	-5.74	105.31	109.90
5	E	151	ASP	CB-CA-C	5.74	121.87	110.40
34	i	1057	U	O4'-C1'-N1	5.74	112.79	108.20
34	i	1345	G	N9-C1'-C2'	5.74	121.46	114.00
34	i	1494	A	O4'-C1'-C2'	5.74	112.76	107.60
34	i	1327	C	C1'-O4'-C4'	-5.74	105.31	109.90
34	i	1771	G	P-O3'-C3'	-5.74	112.82	119.70
22	V	42	VAL	CB-CA-C	-5.73	100.51	111.40
34	i	495	G	P-O3'-C3'	-5.73	112.82	119.70
34	i	1471	G	O4'-C1'-N9	5.73	112.79	108.20
11	K	29	MET	C-N-CD	-5.73	107.99	120.60
20	T	4	VAL	O-C-N	-5.73	113.53	122.70
34	i	163	U	O4'-C1'-N1	5.73	112.78	108.20
34	i	331	C	P-O3'-C3'	-5.73	112.83	119.70
34	i	1501	U	O4'-C1'-C2'	-5.73	100.07	105.80
34	i	1309	A	O4'-C1'-C2'	-5.73	100.07	105.80
34	i	1532	A	C5'-C4'-C3'	-5.72	106.84	116.00
34	i	86	C	C3'-C2'-C1'	5.72	106.08	101.50
34	i	190	A	C5'-C4'-O4'	5.72	115.97	109.10
34	i	969	C	C3'-C2'-C1'	5.72	106.08	101.50
34	i	1774	G	O4'-C1'-N9	5.72	112.78	108.20
24	X	98	ASP	N-CA-C	5.72	126.44	111.00
34	i	1262	C	N1-C1'-C2'	5.72	121.44	114.00
34	i	1366	A	C1'-O4'-C4'	5.72	114.47	109.90
34	i	79	A	O3'-P-O5'	-5.71	93.14	104.00
34	i	1407	G	N9-C1'-C2'	5.71	121.43	114.00
20	T	51	ASN	C-N-CA	5.71	135.98	121.70
34	i	864	G	O4'-C1'-N9	-5.71	103.63	108.20
34	i	504	U	N1-C1'-C2'	5.71	121.43	114.00
34	i	1390	G	C2'-C3'-O3'	5.71	122.84	113.70
34	i	1859	C	O4'-C1'-N1	5.71	112.77	108.20
4	D	96	LEU	O-C-N	-5.71	113.56	122.70
34	i	897	G	O4'-C1'-N9	5.71	112.77	108.20
26	Z	107	VAL	C-N-CA	5.71	135.97	121.70
34	i	645	A	C5'-C4'-O4'	5.70	115.94	109.10
34	i	1045	A	P-O3'-C3'	5.70	126.54	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1437	U	O4'-C1'-C2'	-5.70	100.10	105.80
19	S	53	THR	CA-C-N	5.70	129.74	117.20
34	i	734	C	C3'-C2'-C1'	5.70	106.06	101.50
34	i	965	U	P-O3'-C3'	5.70	126.54	119.70
34	i	1271	G	C5'-C4'-C3'	5.70	125.12	116.00
16	P	49	LEU	O-C-N	-5.70	113.58	122.70
34	i	171	A	C1'-O4'-C4'	5.70	114.46	109.90
34	i	441	G	P-O5'-C5'	5.69	130.01	120.90
34	i	1446	G	C3'-C2'-C1'	-5.69	96.94	101.50
34	i	141	A	C2'-C3'-O3'	5.69	122.81	113.70
34	i	827	G	O4'-C1'-C2'	5.69	112.72	107.60
34	i	895	U	O4'-C1'-N1	5.69	112.75	108.20
34	i	895	U	O4'-C1'-C2'	-5.69	100.11	105.80
34	i	78	C	O4'-C1'-N1	5.69	112.75	108.20
34	i	1779	C	N1-C1'-C2'	-5.69	105.74	112.00
34	i	274	G	N9-C1'-C2'	5.69	121.39	114.00
34	i	290	A	N9-C1'-C2'	-5.68	105.75	112.00
34	i	625	G	C5'-C4'-C3'	5.68	125.09	116.00
34	i	856	G	N9-C1'-C2'	5.68	121.39	114.00
34	i	569	C	O4'-C1'-C2'	-5.68	100.12	105.80
34	i	597	U	C3'-C2'-C1'	5.68	106.04	101.50
34	i	1821	U	O4'-C1'-N1	5.68	112.75	108.20
8	H	111	LYS	CA-CB-CG	5.68	125.89	113.40
34	i	1407	G	C3'-C2'-C1'	-5.67	96.96	101.50
11	K	42	ASN	N-CA-C	-5.67	95.69	111.00
34	i	340	C	C1'-O4'-C4'	5.67	114.44	109.90
34	i	820	C	O4'-C1'-N1	5.67	112.74	108.20
34	i	1144	A	C3'-C2'-C1'	-5.67	96.97	101.50
31	e	100	LYS	N-CA-C	-5.66	95.72	111.00
34	i	1323	G	C1'-O4'-C4'	-5.66	105.37	109.90
34	i	1826	A	P-O5'-C5'	5.66	129.96	120.90
34	i	818	U	O4'-C1'-N1	5.66	112.73	108.20
12	L	98	LYS	N-CA-C	-5.66	95.73	111.00
34	i	1646	A	O4'-C1'-C2'	-5.66	100.14	105.80
34	i	1781	G	C3'-C2'-C1'	-5.66	96.97	101.50
34	i	1467	C	O4'-C1'-C2'	-5.65	100.15	105.80
34	i	1608	G	C3'-C2'-C1'	-5.65	96.98	101.50
34	i	927	C	C5'-C4'-O4'	5.65	115.88	109.10
34	i	1753	G	C3'-C2'-C1'	-5.65	96.98	101.50
34	i	741	C	C5'-C4'-C3'	5.64	125.03	116.00
34	i	1515	G	C5'-C4'-C3'	5.64	125.03	116.00
34	i	597	U	O4'-C1'-N1	5.64	112.71	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1174	U	O4'-C1'-N1	5.64	112.71	108.20
34	i	397	G	P-O3'-C3'	5.64	126.47	119.70
34	i	1518	C	P-O5'-C5'	-5.64	111.88	120.90
34	i	1589	A	C5'-C4'-C3'	5.63	125.01	116.00
34	i	225	C	C2'-C3'-O3'	5.63	122.71	113.70
34	i	1705	C	O4'-C1'-C2'	-5.63	100.17	105.80
34	i	789	G	C4'-C3'-C2'	-5.63	96.97	102.60
34	i	1181	C	C3'-C2'-C1'	5.63	106.00	101.50
34	i	374	U	C1'-O4'-C4'	-5.62	105.40	109.90
34	i	1018	U	C1'-O4'-C4'	-5.62	105.40	109.90
20	T	45	LEU	O-C-N	-5.62	113.70	122.70
24	X	58	GLU	N-CA-C	5.62	126.18	111.00
21	U	70	CYS	CA-C-N	5.62	127.44	116.20
34	i	341	G	C4'-C3'-C2'	-5.62	96.98	102.60
34	i	1219	A	C3'-C2'-C1'	5.62	105.99	101.50
34	i	1390	G	N9-C1'-C2'	5.62	121.30	114.00
34	i	1044	G	P-O5'-C5'	5.62	129.89	120.90
19	S	10	GLN	N-CA-C	5.62	126.16	111.00
34	i	1413	C	C5'-C4'-C3'	5.62	124.99	116.00
34	i	1542	C	N1-C1'-C2'	5.62	121.30	114.00
34	i	278	U	C3'-C2'-C1'	5.61	105.99	101.50
8	H	105	THR	CB-CA-C	5.61	126.75	111.60
34	i	1423	C	O4'-C1'-N1	5.61	112.69	108.20
34	i	1460	C	C3'-C2'-C1'	5.61	105.99	101.50
34	i	819	U	O4'-C1'-C2'	5.61	112.65	107.60
34	i	3	C	C1'-O4'-C4'	5.61	114.39	109.90
34	i	323	G	C1'-O4'-C4'	-5.61	105.41	109.90
34	i	346	C	O4'-C1'-C2'	5.61	112.65	107.60
34	i	434	G	C3'-C2'-C1'	-5.61	97.01	101.50
34	i	619	A	C1'-O4'-C4'	5.61	114.39	109.90
34	i	1411	C	O4'-C1'-C2'	-5.61	100.19	105.80
34	i	1817	A	C5'-C4'-O4'	-5.61	102.37	109.10
34	i	86	C	O4'-C1'-N1	5.61	112.68	108.20
34	i	151	C	C3'-C2'-C1'	5.61	105.98	101.50
34	i	235	C	O4'-C1'-C2'	-5.61	100.19	105.80
34	i	1561	G	N9-C1'-C2'	-5.61	105.83	112.00
27	a	70	LYS	CD-CE-NZ	5.60	124.59	111.70
34	i	1819	A	C2'-C3'-O3'	5.60	122.67	113.70
34	i	176	U	O4'-C1'-N1	5.60	112.68	108.20
34	i	667	G	C1'-O4'-C4'	-5.60	105.42	109.90
34	i	817	G	C2'-C3'-O3'	5.60	122.66	113.70
34	i	874	G	C1'-O4'-C4'	-5.60	105.42	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1160	G	N9-C1'-C2'	5.60	121.28	114.00
34	i	1407	G	O4'-C1'-C2'	5.60	112.64	107.60
34	i	1448	A	O4'-C1'-C2'	-5.60	100.20	105.80
34	i	143	U	C1'-O4'-C4'	-5.60	105.42	109.90
34	i	742	C	C4'-C3'-C2'	-5.60	97.00	102.60
34	i	1439	C	O4'-C1'-N1	5.60	112.68	108.20
21	U	68	THR	CB-CA-C	5.60	126.71	111.60
34	i	93	U	N1-C1'-C2'	-5.60	105.84	112.00
34	i	1220	G	N9-C1'-C2'	5.60	121.28	114.00
34	i	1037	G	C3'-C2'-C1'	-5.59	97.03	101.50
34	i	1639	C	C1'-O4'-C4'	-5.59	105.42	109.90
16	P	53	GLN	CB-CA-C	5.59	121.58	110.40
34	i	1587	C	C3'-C2'-C1'	5.59	105.97	101.50
32	f	125	GLU	CB-CA-C	5.59	121.58	110.40
33	g	294	ASP	N-CA-CB	-5.59	100.54	110.60
34	i	1152	U	O4'-C1'-N1	5.59	112.67	108.20
34	i	1409	G	P-O3'-C3'	-5.59	112.99	119.70
34	i	1042	U	O4'-C1'-C2'	-5.58	100.22	105.80
34	i	1471	G	C4'-C3'-C2'	-5.58	97.02	102.60
34	i	224	U	P-O5'-C5'	5.58	129.83	120.90
34	i	648	U	O4'-C1'-N1	5.58	112.66	108.20
34	i	804	A	N9-C1'-C2'	5.58	121.25	114.00
34	i	1672	U	C1'-O4'-C4'	5.58	114.36	109.90
34	i	91	A	C1'-O4'-C4'	5.58	114.36	109.90
34	i	49	C	C1'-O4'-C4'	-5.58	105.44	109.90
34	i	125	C	C4'-C3'-O3'	5.57	124.15	113.00
34	i	225	C	C1'-O4'-C4'	-5.57	105.44	109.90
34	i	1587	C	N1-C1'-C2'	5.57	121.25	114.00
34	i	1361	G	P-O3'-C3'	-5.57	113.01	119.70
34	i	230	C	O4'-C1'-C2'	-5.57	100.23	105.80
34	i	508	G	O4'-C1'-N9	5.57	112.66	108.20
34	i	1079	A	C3'-C2'-C1'	5.57	105.96	101.50
24	X	37	LYS	N-CA-C	5.57	126.04	111.00
33	g	143	GLN	N-CA-C	-5.57	95.96	111.00
34	i	314	U	O4'-C1'-C2'	5.57	112.61	107.60
34	i	549	G	C3'-C2'-C1'	-5.57	97.05	101.50
34	i	1078	A	C3'-C2'-C1'	5.57	105.95	101.50
34	i	1411	C	C3'-C2'-C1'	5.57	105.95	101.50
34	i	1618	A	N9-C1'-C2'	-5.57	105.88	112.00
34	i	539	C	O4'-C1'-N1	5.57	112.65	108.20
34	i	656	U	C3'-C2'-C1'	5.57	105.95	101.50
34	i	1283	A	N9-C1'-C2'	-5.57	105.88	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1557	C	C3'-C2'-C1'	5.57	105.95	101.50
9	I	105	ASP	CB-CA-C	5.56	121.53	110.40
34	i	1198	U	C3'-C2'-C1'	5.56	105.95	101.50
34	i	1661	C	C3'-C2'-C1'	5.56	105.95	101.50
29	c	60	GLU	N-CA-C	-5.56	95.98	111.00
34	i	226	A	O4'-C1'-N9	5.56	112.65	108.20
1	A	159	ILE	CA-CB-CG1	-5.56	100.44	111.00
32	f	148	TYR	C-N-CA	5.56	135.59	121.70
34	i	658	A	O4'-C1'-N9	5.56	112.65	108.20
34	i	996	C	C3'-C2'-C1'	5.56	105.95	101.50
34	i	1070	C	O4'-C1'-N1	5.56	112.65	108.20
34	i	1692	A	N9-C1'-C2'	-5.56	105.89	112.00
4	D	142	LEU	CB-CG-CD1	5.55	120.44	111.00
34	i	1143	C	O4'-C1'-N1	5.55	112.64	108.20
34	i	1246	A	C1'-O4'-C4'	5.55	114.34	109.90
34	i	1538	U	O4'-C1'-N1	5.55	112.64	108.20
34	i	987	G	C3'-C2'-C1'	-5.55	97.06	101.50
34	i	1240	U	P-O3'-C3'	5.55	126.36	119.70
34	i	1639	C	C3'-C2'-C1'	5.55	105.94	101.50
34	i	1708	C	N1-C1'-C2'	5.55	121.21	114.00
34	i	1814	G	O4'-C1'-N9	5.55	112.64	108.20
34	i	676	U	P-O3'-C3'	-5.54	113.05	119.70
34	i	994	A	O4'-C1'-C2'	-5.54	100.26	105.80
34	i	1432	C	O4'-C1'-C2'	-5.54	100.26	105.80
17	Q	6	PRO	CB-CA-C	-5.54	98.16	112.00
34	i	286	C	C3'-C2'-C1'	5.54	105.93	101.50
34	i	1063	C	C1'-O4'-C4'	-5.54	105.47	109.90
17	Q	145	TYR	C-N-CA	5.54	135.54	121.70
34	i	40	A	N9-C1'-C2'	-5.54	105.91	112.00
34	i	308	C	C3'-C2'-C1'	5.54	105.93	101.50
34	i	1274	A	O4'-C1'-N9	5.54	112.63	108.20
34	i	1854	A	P-O3'-C3'	-5.54	113.06	119.70
34	i	58	C	C1'-O4'-C4'	5.53	114.33	109.90
34	i	329	A	P-O3'-C3'	-5.53	113.06	119.70
34	i	398	A	O4'-C1'-C2'	-5.53	100.27	105.80
34	i	1343	U	O4'-C1'-N1	5.53	112.63	108.20
9	I	5	ARG	CA-C-N	5.53	129.36	117.20
34	i	116	U	O4'-C1'-N1	5.53	112.62	108.20
34	i	805	A	P-O3'-C3'	5.53	126.33	119.70
34	i	1259	U	C3'-C2'-C1'	5.53	105.92	101.50
34	i	1638	U	O4'-C1'-N1	5.53	112.62	108.20
34	i	13	C	O4'-C1'-N1	5.52	112.62	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	949	C	P-O3'-C3'	-5.52	113.07	119.70
34	i	964	U	O4'-C1'-N1	5.52	112.62	108.20
6	F	47	LYS	CD-CE-NZ	-5.52	99.00	111.70
34	i	388	A	C1'-O4'-C4'	5.52	114.31	109.90
34	i	675	A	O4'-C1'-N9	5.52	112.61	108.20
34	i	38	A	C5'-C4'-C3'	-5.51	107.18	116.00
34	i	376	C	P-O5'-C5'	-5.51	112.08	120.90
16	P	36	LEU	C-N-CA	5.51	135.48	121.70
34	i	1795	A	O4'-C1'-N9	5.51	112.61	108.20
34	i	489	G	P-O5'-C5'	-5.51	112.08	120.90
34	i	536	G	O4'-C1'-C2'	-5.51	100.29	105.80
34	i	642	U	C1'-O4'-C4'	5.51	114.31	109.90
22	V	67	ASP	N-CA-CB	-5.50	100.69	110.60
34	i	522	C	C4'-C3'-C2'	-5.50	97.09	102.60
4	D	3	VAL	C-N-CA	5.50	135.46	121.70
15	O	103	ASN	N-CA-CB	5.50	120.51	110.60
34	i	282	G	C1'-O4'-C4'	-5.50	105.50	109.90
34	i	1370	C	N1-C1'-C2'	5.50	121.15	114.00
34	i	1837	G	P-O3'-C3'	-5.50	113.10	119.70
16	P	130	ARG	NE-CZ-NH2	-5.50	117.55	120.30
34	i	462	C	P-O3'-C3'	5.50	126.30	119.70
34	i	1123	C	O4'-C1'-N1	5.50	112.60	108.20
34	i	503	G	C1'-O4'-C4'	-5.50	105.50	109.90
34	i	241	A	O4'-C1'-N9	5.49	112.59	108.20
34	i	516	A	C5'-C4'-C3'	5.49	124.79	116.00
34	i	1106	G	O4'-C1'-C2'	-5.49	100.31	105.80
34	i	350	A	O4'-C1'-N9	5.49	112.59	108.20
34	i	1280	A	C5'-C4'-O4'	5.49	115.69	109.10
34	i	400	G	N9-C1'-C2'	-5.49	105.97	112.00
34	i	459	A	O4'-C1'-N9	5.49	112.59	108.20
34	i	1382	A	O4'-C1'-C2'	-5.49	100.31	105.80
34	i	1013	U	O4'-C1'-C2'	-5.48	100.32	105.80
18	R	89	SER	CA-C-O	-5.48	108.59	120.10
34	i	919	G	O4'-C1'-N9	5.48	112.59	108.20
34	i	1705	C	O4'-C1'-N1	5.48	112.59	108.20
34	i	469	C	C3'-C2'-C1'	5.48	105.88	101.50
34	i	1035	C	O4'-C1'-N1	5.48	112.58	108.20
34	i	1191	A	N9-C1'-C2'	-5.48	105.97	112.00
34	i	614	C	C5'-C4'-C3'	-5.48	107.23	116.00
34	i	1271	G	O4'-C1'-N9	5.48	112.58	108.20
34	i	1691	C	C3'-C2'-C1'	5.48	105.88	101.50
4	D	167	TYR	CA-CB-CG	-5.48	103.00	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	101	U	O4'-C1'-N1	5.48	112.58	108.20
34	i	391	A	C3'-C2'-C1'	5.47	105.88	101.50
34	i	80	G	O4'-C1'-N9	5.47	112.58	108.20
34	i	355	C	C3'-C2'-C1'	5.47	105.88	101.50
34	i	456	G	C3'-C2'-C1'	-5.47	97.12	101.50
34	i	1221	U	O4'-C1'-N1	5.47	112.58	108.20
34	i	1344	G	P-O3'-C3'	5.47	126.27	119.70
34	i	560	C	C5'-C4'-O4'	5.47	115.66	109.10
34	i	822	A	P-O3'-C3'	-5.47	113.14	119.70
34	i	564	A	N9-C1'-C2'	5.47	121.11	114.00
34	i	889	U	C1'-O4'-C4'	5.47	114.27	109.90
34	i	1556	A	O4'-C1'-C2'	-5.47	100.33	105.80
34	i	15	U	O4'-C1'-C2'	-5.46	100.33	105.80
34	i	1716	U	O3'-P-O5'	5.46	114.38	104.00
34	i	859	U	O4'-C1'-C2'	5.46	112.52	107.60
34	i	440	C	O4'-C1'-N1	5.46	112.57	108.20
3	C	241	TRP	O-C-N	-5.46	113.97	122.70
34	i	71	G	C4'-C3'-O3'	5.46	123.91	113.00
34	i	1595	G	P-O3'-C3'	-5.46	113.15	119.70
19	S	89	ASP	CB-CA-C	-5.45	99.49	110.40
34	i	929	G	C3'-C2'-C1'	-5.45	97.14	101.50
34	i	396	U	O4'-C1'-N1	5.45	112.56	108.20
34	i	586	U	O4'-C1'-N1	5.45	112.56	108.20
34	i	57	U	C3'-C2'-C1'	5.45	105.86	101.50
34	i	292	A	O4'-C1'-C2'	-5.45	100.35	105.80
34	i	790	A	O4'-C1'-C2'	-5.45	100.35	105.80
34	i	606	A	C1'-O4'-C4'	-5.45	105.54	109.90
34	i	540	C	C3'-C2'-C1'	5.45	105.86	101.50
34	i	1823	G	O4'-C1'-C2'	-5.45	100.35	105.80
34	i	509	A	C1'-O4'-C4'	5.44	114.25	109.90
34	i	640	A	O4'-C1'-C2'	-5.44	100.36	105.80
34	i	1848	U	N1-C1'-C2'	-5.44	106.01	112.00
17	Q	18	THR	C-N-CA	5.44	135.30	121.70
34	i	1279	C	C1'-O4'-C4'	-5.44	105.55	109.90
34	i	882	A	O3'-P-O5'	5.44	114.33	104.00
9	I	55	TYR	CB-CG-CD2	-5.44	117.74	121.00
34	i	396	U	N1-C1'-C2'	5.44	121.07	114.00
34	i	1458	U	O4'-C1'-N1	5.44	112.55	108.20
34	i	1740	A	C3'-C2'-C1'	-5.44	97.15	101.50
19	S	81	ASP	CB-CG-OD2	5.43	123.19	118.30
34	i	101	U	O4'-C1'-C2'	-5.43	100.36	105.80
34	i	911	G	O4'-C1'-C2'	5.43	112.49	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	536	G	O4'-C1'-N9	5.43	112.55	108.20
1	A	205	ARG	NE-CZ-NH1	5.43	123.01	120.30
34	i	560	C	N1-C1'-C2'	5.42	121.05	114.00
34	i	1053	C	P-O3'-C3'	-5.42	113.19	119.70
34	i	1528	A	O4'-C1'-N9	5.42	112.54	108.20
2	B	63	LYS	N-CA-C	5.42	125.64	111.00
10	J	100	LEU	N-CA-C	5.42	125.64	111.00
34	i	378	U	O4'-C1'-N1	5.42	112.53	108.20
34	i	462	C	C3'-C2'-C1'	5.42	105.83	101.50
34	i	682	G	C1'-O4'-C4'	-5.42	105.56	109.90
34	i	1166	A	C3'-C2'-C1'	-5.42	97.17	101.50
34	i	218	A	C3'-C2'-C1'	-5.42	97.17	101.50
34	i	67	C	N1-C1'-C2'	-5.42	106.04	112.00
34	i	1227	C	C1'-O4'-C4'	-5.42	105.57	109.90
34	i	404	A	O4'-C1'-C2'	-5.41	100.39	105.80
34	i	868	A	O4'-C1'-C2'	5.41	112.47	107.60
34	i	1625	A	O4'-C1'-N9	5.41	112.53	108.20
34	i	1819	A	C5'-C4'-O4'	5.41	115.60	109.10
21	U	118	ASP	N-CA-C	-5.41	96.39	111.00
34	i	1058	A	O4'-C1'-N9	5.41	112.53	108.20
34	i	1164	G	O4'-C1'-N9	5.41	112.53	108.20
1	A	14	ASP	CB-CG-OD2	5.41	123.17	118.30
29	c	36	ASP	CB-CG-OD2	5.41	123.17	118.30
34	i	1165	G	C1'-O4'-C4'	-5.41	105.57	109.90
34	i	1374	A	O4'-C1'-C2'	-5.41	100.39	105.80
34	i	1618	A	C1'-O4'-C4'	5.41	114.23	109.90
8	H	16	PRO	CA-N-CD	-5.41	103.93	111.50
34	i	870	G	P-O3'-C3'	5.40	126.18	119.70
34	i	1027	A	C5'-C4'-O4'	5.40	115.58	109.10
9	I	132	GLU	CA-C-O	-5.40	108.76	120.10
23	W	54	ASP	CB-CG-OD2	5.40	123.16	118.30
29	c	54	ASP	CB-CG-OD2	5.40	123.16	118.30
34	i	1127	G	O4'-C1'-C2'	-5.40	100.40	105.80
34	i	852	C	C1'-O4'-C4'	-5.39	105.58	109.90
34	i	1122	G	O4'-C1'-N9	5.39	112.52	108.20
34	i	1384	A	P-O3'-C3'	-5.39	113.23	119.70
34	i	1608	G	O4'-C1'-N9	5.39	112.51	108.20
10	J	35	TYR	C-N-CA	5.39	133.62	122.30
34	i	613	G	O4'-C1'-N9	5.39	112.51	108.20
34	i	1424	G	C3'-C2'-C1'	-5.39	97.19	101.50
15	O	39	ASP	CB-CG-OD2	5.39	123.15	118.30
34	i	25	A	O4'-C1'-N9	5.39	112.51	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	V	28	ASP	CB-CG-OD2	5.39	123.15	118.30
22	V	82	ASN	CB-CA-C	-5.39	99.63	110.40
34	i	188	U	P-O3'-C3'	-5.39	113.24	119.70
34	i	550	A	O5'-C5'-C4'	5.39	121.93	111.70
34	i	1437	U	C1'-O4'-C4'	5.39	114.21	109.90
34	i	918	A	N9-C1'-C2'	-5.38	106.08	112.00
34	i	1003	C	O4'-C1'-C2'	-5.38	100.42	105.80
25	Y	62	THR	C-N-CA	-5.38	108.24	121.70
34	i	1356	U	O4'-C1'-N1	5.38	112.51	108.20
6	F	21	GLY	N-CA-C	-5.38	99.65	113.10
34	i	297	C	O4'-C1'-N1	5.38	112.50	108.20
34	i	427	G	N9-C1'-C2'	5.38	120.99	114.00
34	i	1341	G	O4'-C1'-C2'	-5.38	100.42	105.80
34	i	1851	G	O4'-C1'-C2'	5.38	112.44	107.60
11	K	98	ARG	CA-C-O	-5.38	108.81	120.10
34	i	139	C	O4'-C1'-N1	5.38	112.50	108.20
34	i	276	U	P-O5'-C5'	-5.38	112.30	120.90
2	B	108	ASP	CB-CG-OD2	5.37	123.14	118.30
34	i	375	G	O4'-C1'-N9	5.37	112.50	108.20
16	P	71	GLU	CA-C-N	-5.37	105.38	117.20
34	i	502	A	O4'-C1'-N9	5.37	112.50	108.20
33	g	14	HIS	C-N-CA	-5.37	108.28	121.70
34	i	462	C	N1-C1'-C2'	5.37	120.98	114.00
34	i	1208	G	O4'-C1'-N9	5.37	112.50	108.20
34	i	1491	G	O4'-C1'-N9	5.37	112.50	108.20
34	i	69	C	O4'-C1'-N1	5.37	112.49	108.20
3	C	216	ALA	O-C-N	-5.37	114.11	122.70
34	i	94	G	N9-C1'-C2'	5.37	120.97	114.00
34	i	1370	C	O4'-C1'-N1	5.37	112.49	108.20
34	i	461	G	N9-C1'-C2'	-5.36	106.10	112.00
34	i	1823	G	C5'-C4'-O4'	5.36	115.54	109.10
11	K	43	LEU	CB-CG-CD1	5.36	120.11	111.00
34	i	139	C	C3'-C2'-C1'	5.36	105.79	101.50
34	i	229	A	O4'-C1'-N9	5.36	112.49	108.20
34	i	1318	G	C1'-O4'-C4'	5.36	114.19	109.90
34	i	1739	G	O4'-C1'-N9	5.36	112.49	108.20
34	i	146	G	O4'-C1'-C2'	-5.36	100.44	105.80
34	i	346	C	C3'-C2'-C1'	-5.36	97.22	101.50
34	i	1201	C	O4'-C1'-N1	5.36	112.48	108.20
34	i	906	G	O5'-P-OP1	-5.35	100.88	105.70
34	i	1357	G	C3'-C2'-C1'	5.35	105.78	101.50
31	e	95	LYS	C-N-CA	5.35	135.08	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	76	U	N1-C1'-C2'	5.35	120.96	114.00
34	i	1037	G	N9-C1'-C2'	5.35	120.96	114.00
34	i	727	G	N9-C1'-C2'	5.35	120.96	114.00
14	N	151	ALA	CA-C-O	-5.35	108.86	120.10
34	i	235	C	N1-C1'-C2'	5.35	120.95	114.00
15	O	129	ILE	CG1-CB-CG2	5.35	123.16	111.40
34	i	437	A	O4'-C1'-N9	5.35	112.48	108.20
34	i	109	U	C2'-C3'-O3'	5.34	122.25	113.70
34	i	685	G	C1'-O4'-C4'	5.34	114.17	109.90
1	A	53	ARG	CD-NE-CZ	-5.34	116.12	123.60
24	X	142	ARG	CA-C-O	-5.34	108.88	120.10
34	i	102	A	C1'-O4'-C4'	-5.34	105.63	109.90
34	i	1313	U	O4'-C1'-N1	5.34	112.47	108.20
10	J	104	ASP	CB-CG-OD2	5.34	123.11	118.30
14	N	6	ALA	C-N-CD	5.34	139.61	128.40
34	i	443	C	N1-C1'-C2'	5.34	120.94	114.00
34	i	988	A	C1'-O4'-C4'	-5.34	105.63	109.90
34	i	1129	A	O5'-C5'-C4'	-5.34	101.56	111.70
34	i	1300	U	N1-C1'-C2'	5.34	120.94	114.00
34	i	1717	G	C5'-C4'-C3'	-5.34	107.46	116.00
8	H	16	PRO	C-N-CA	5.34	135.04	121.70
34	i	370	G	C1'-O4'-C4'	5.34	114.17	109.90
7	G	170	ARG	CA-C-N	-5.34	105.46	117.20
34	i	820	C	N1-C1'-C2'	5.34	120.94	114.00
34	i	1846	C	O4'-C1'-N1	5.34	112.47	108.20
34	i	1150	U	C4'-C3'-C2'	-5.33	97.27	102.60
34	i	1535	G	P-O5'-C5'	-5.33	112.36	120.90
34	i	1158	C	O4'-C1'-C2'	-5.33	100.47	105.80
34	i	1667	U	C1'-O4'-C4'	-5.33	105.63	109.90
34	i	1703	C	C3'-C2'-C1'	5.33	105.77	101.50
34	i	1832	U	O4'-C1'-N1	5.33	112.47	108.20
18	R	101	ASP	CB-CG-OD2	5.33	123.10	118.30
34	i	1229	G	O4'-C1'-N9	5.33	112.47	108.20
34	i	1255	A	C5'-C4'-O4'	5.33	115.50	109.10
34	i	1301	C	N1-C1'-C2'	5.33	120.93	114.00
3	C	233	TYR	CA-CB-CG	-5.33	103.28	113.40
34	i	835	C	O3'-P-O5'	-5.33	93.88	104.00
34	i	1018	U	P-O3'-C3'	5.33	126.09	119.70
34	i	1635	A	C3'-C2'-C1'	5.33	105.76	101.50
34	i	313	C	C2'-C3'-O3'	5.33	122.22	113.70
34	i	795	U	C4'-C3'-C2'	-5.33	97.27	102.60
34	i	1024	A	C4'-C3'-O3'	-5.33	98.22	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	244	THR	N-CA-C	5.32	125.37	111.00
24	X	88	ASP	CB-CG-OD2	5.32	123.09	118.30
4	D	227	LYS	CA-C-O	-5.32	108.93	120.10
6	F	46	ALA	O-C-N	-5.32	114.19	122.70
1	A	209	GLU	CA-C-O	-5.32	108.93	120.10
4	D	193	ASP	C-N-CA	-5.32	99.67	122.00
34	i	33	G	C5'-C4'-O4'	5.32	115.48	109.10
34	i	332	C	O4'-C1'-C2'	-5.32	100.48	105.80
34	i	729	C	C4'-C3'-C2'	-5.32	97.28	102.60
34	i	1110	U	O4'-C1'-C2'	-5.32	100.48	105.80
34	i	1479	A	C4'-C3'-C2'	-5.32	97.28	102.60
34	i	1557	C	P-O3'-C3'	5.32	126.08	119.70
25	Y	53	ASP	CB-CG-OD2	5.32	123.08	118.30
34	i	1607	G	C3'-C2'-C1'	-5.32	97.25	101.50
22	V	24	ILE	CB-CA-C	-5.31	100.97	111.60
34	i	1267	C	N1-C1'-C2'	5.31	120.91	114.00
3	C	263	THR	CA-C-O	-5.31	108.95	120.10
34	i	103	A	P-O3'-C3'	5.31	126.07	119.70
23	W	130	PHE	CA-C-O	-5.31	108.96	120.10
34	i	66	G	O4'-C1'-C2'	5.31	112.38	107.60
34	i	901	C	O4'-C1'-N1	5.31	112.45	108.20
34	i	1737	C	N1-C1'-C2'	5.31	120.90	114.00
34	i	1602	A	C1'-O4'-C4'	-5.31	105.66	109.90
34	i	1833	U	C5'-C4'-O4'	5.31	115.47	109.10
10	J	95	ASP	CB-CG-OD2	5.30	123.07	118.30
34	i	1234	U	C3'-C2'-C1'	-5.30	97.26	101.50
34	i	1423	C	C3'-C2'-C1'	5.30	105.74	101.50
17	Q	110	ASP	CB-CG-OD2	5.30	123.07	118.30
34	i	540	C	O4'-C1'-C2'	-5.30	100.50	105.80
34	i	1256	A	O4'-C1'-N9	5.30	112.44	108.20
34	i	1624	C	O4'-C4'-C3'	-5.30	98.70	104.00
34	i	911	G	C3'-C2'-C1'	-5.30	97.26	101.50
34	i	1683	C	C5'-C4'-O4'	5.30	115.46	109.10
7	G	39	ASP	CB-CG-OD2	5.30	123.07	118.30
34	i	65	C	O4'-C1'-C2'	-5.30	100.50	105.80
34	i	960	A	O4'-C1'-C2'	-5.30	100.50	105.80
5	E	88	ASP	CB-CG-OD2	5.30	123.07	118.30
14	N	87	ASP	CB-CG-OD2	5.29	123.06	118.30
34	i	1807	A	O4'-C1'-N9	5.29	112.43	108.20
1	A	53	ARG	N-CA-CB	-5.29	101.09	110.60
34	i	77	A	C5'-C4'-C3'	5.29	124.46	116.00
10	J	137	VAL	C-N-CA	5.28	134.91	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	994	A	N9-C1'-C2'	-5.28	106.19	112.00
6	F	43	GLU	N-CA-C	-5.28	96.74	111.00
8	H	118	ARG	CB-CA-C	-5.28	99.84	110.40
30	d	56	ASP	CA-C-O	-5.28	109.01	120.10
33	g	314	ILE	CA-C-O	-5.28	109.01	120.10
34	i	516	A	O4'-C1'-N9	5.28	112.42	108.20
34	i	1486	G	C1'-O4'-C4'	-5.28	105.67	109.90
5	E	59	ASP	CB-CG-OD2	5.28	123.05	118.30
27	a	52	ASP	CB-CG-OD2	5.28	123.05	118.30
29	c	68	LEU	CA-C-O	-5.28	109.01	120.10
34	i	742	C	O4'-C1'-N1	5.28	112.42	108.20
34	i	1695	C	N1-C1'-C2'	-5.28	106.19	112.00
18	R	94	GLU	N-CA-C	-5.28	96.75	111.00
34	i	189	G	O5'-C5'-C4'	5.28	121.73	111.70
34	i	1539	C	O4'-C1'-C2'	-5.28	100.52	105.80
34	i	1820	G	O4'-C1'-N9	5.28	112.42	108.20
34	i	1298	G	C2'-C3'-O3'	-5.27	97.90	109.50
34	i	201	G	C1'-O4'-C4'	5.27	114.12	109.90
34	i	554	A	N9-C1'-C2'	-5.27	106.20	112.00
34	i	84	A	C5'-C4'-O4'	5.27	115.42	109.10
34	i	109	U	P-O3'-C3'	-5.27	113.38	119.70
28	b	52	THR	O-C-N	5.27	131.13	122.70
34	i	534	G	O4'-C1'-C2'	-5.27	100.53	105.80
34	i	551	A	C2'-C3'-O3'	5.27	122.13	113.70
4	D	93	THR	C-N-CA	5.27	134.87	121.70
5	E	170	THR	O-C-N	5.27	131.13	122.70
15	O	80	ASP	CB-CG-OD2	5.27	123.04	118.30
34	i	895	U	P-O5'-C5'	5.27	129.33	120.90
14	N	110	ASP	CB-CG-OD2	5.26	123.04	118.30
34	i	84	A	P-O5'-C5'	-5.26	112.48	120.90
34	i	209	C	C3'-C2'-C1'	5.26	105.71	101.50
34	i	378	U	N1-C1'-C2'	5.26	120.84	114.00
34	i	416	A	C3'-C2'-C1'	5.26	105.71	101.50
5	E	73	ASP	CB-CG-OD2	5.26	123.04	118.30
8	H	56	GLY	N-CA-C	5.26	126.26	113.10
34	i	1209	C	N1-C1'-C2'	5.26	120.84	114.00
34	i	1408	C	O5'-P-OP1	5.26	117.01	110.70
10	J	26	ASP	CB-CG-OD2	5.26	123.03	118.30
12	L	158	PHE	CA-C-O	-5.26	109.06	120.10
31	e	133	SER	CA-C-O	-5.26	109.05	120.10
34	i	1397	A	N9-C1'-C2'	-5.26	106.22	112.00
34	i	1695	C	O4'-C1'-N1	5.26	112.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	655	G	N9-C1'-C2'	5.26	120.83	114.00
34	i	660	A	C1'-O4'-C4'	5.26	114.11	109.90
34	i	1036	G	O4'-C1'-C2'	5.26	112.33	107.60
34	i	516	A	C1'-O4'-C4'	-5.25	105.70	109.90
10	J	124	HIS	N-CA-C	-5.25	96.81	111.00
34	i	1280	A	N9-C1'-C2'	5.25	120.83	114.00
34	i	1473	U	O4'-C1'-N1	5.25	112.40	108.20
10	J	91	LYS	CA-C-N	5.25	128.75	117.20
21	U	27	ARG	O-C-N	-5.25	114.30	122.70
34	i	1094	C	O4'-C1'-N1	5.25	112.40	108.20
34	i	1283	A	O4'-C1'-N9	5.25	112.40	108.20
9	I	191	GLU	CB-CA-C	-5.25	99.90	110.40
34	i	459	A	C1'-O4'-C4'	5.25	114.10	109.90
34	i	1130	G	O4'-C1'-N9	5.25	112.40	108.20
34	i	1419	C	O4'-C1'-N1	5.25	112.40	108.20
28	b	3	LEU	CB-CG-CD2	5.25	119.92	111.00
34	i	1580	U	O4'-C1'-N1	5.25	112.40	108.20
14	N	133	ARG	NE-CZ-NH1	5.25	122.92	120.30
34	i	235	C	O4'-C1'-N1	5.25	112.40	108.20
34	i	1137	G	O4'-C1'-C2'	5.25	112.32	107.60
34	i	1473	U	C1'-O4'-C4'	-5.25	105.70	109.90
34	i	306	C	P-O5'-C5'	-5.25	112.51	120.90
34	i	458	A	P-O5'-C5'	-5.25	112.51	120.90
34	i	1331	G	N9-C1'-C2'	5.24	120.82	114.00
34	i	165	G	N9-C1'-C2'	-5.24	106.23	112.00
34	i	1130	G	C5'-C4'-O4'	5.24	115.39	109.10
34	i	1361	G	O4'-C1'-N9	5.24	112.39	108.20
15	O	46	ASP	CB-CG-OD2	5.24	123.02	118.30
34	i	895	U	C3'-C2'-C1'	5.24	105.69	101.50
23	W	80	ASP	CB-CG-OD2	5.24	123.02	118.30
34	i	1051	A	C1'-O4'-C4'	5.24	114.09	109.90
34	i	1635	A	N9-C1'-C2'	-5.24	106.24	112.00
34	i	382	A	C5'-C4'-O4'	5.24	115.38	109.10
5	E	104	ASP	CB-CG-OD2	5.23	123.01	118.30
28	b	84	HIS	CA-C-O	-5.23	109.11	120.10
34	i	624	A	C3'-C2'-C1'	5.23	105.69	101.50
34	i	725	C	C1'-O4'-C4'	5.23	114.08	109.90
34	i	1262	C	C1'-O4'-C4'	-5.23	105.72	109.90
34	i	1645	A	O4'-C1'-C2'	-5.23	100.57	105.80
17	Q	67	ASP	CB-CG-OD2	5.23	123.01	118.30
18	R	25	GLY	O-C-N	5.23	131.07	122.70
28	b	34	ASP	CB-CG-OD2	5.23	123.01	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	621	U	N1-C1'-C2'	5.23	120.80	114.00
7	G	57	ASP	CB-CG-OD2	5.23	123.00	118.30
34	i	923	C	C3'-C2'-C1'	5.23	105.68	101.50
34	i	1119	C	O4'-C1'-N1	5.23	112.38	108.20
34	i	207	U	N1-C1'-C2'	5.22	120.79	114.00
8	H	194	LEU	CA-C-O	-5.22	109.13	120.10
9	I	133	GLU	CA-C-N	5.22	128.69	117.20
24	X	138	LYS	O-C-N	-5.22	114.34	122.70
34	i	1560	C	O4'-C1'-N1	5.22	112.38	108.20
34	i	1645	A	P-O5'-C5'	-5.22	112.55	120.90
34	i	88	G	O4'-C1'-N9	5.22	112.38	108.20
5	E	253	ASP	CB-CG-OD2	5.22	123.00	118.30
34	i	1186	A	O4'-C1'-N9	5.22	112.38	108.20
34	i	107	A	C1'-O4'-C4'	5.22	114.08	109.90
13	M	132	LYS	CA-C-O	-5.22	109.15	120.10
34	i	1161	G	C5'-C4'-O4'	5.22	115.36	109.10
34	i	178	C	N1-C1'-C2'	5.21	120.78	114.00
34	i	1416	G	O4'-C1'-C2'	5.21	112.29	107.60
12	L	18	GLN	C-N-CA	-5.21	108.67	121.70
23	W	9	ASP	CB-CG-OD2	5.21	122.99	118.30
34	i	1455	G	C3'-C2'-C1'	-5.21	97.33	101.50
34	i	906	G	C3'-C2'-C1'	-5.21	97.33	101.50
34	i	1137	G	P-O5'-C5'	5.21	129.24	120.90
34	i	682	G	O4'-C1'-C2'	5.21	112.29	107.60
34	i	1340	A	P-O3'-C3'	5.21	125.95	119.70
34	i	1348	G	N9-C1'-C2'	5.21	120.77	114.00
34	i	1513	C	O4'-C4'-C3'	-5.21	98.79	104.00
19	S	104	ASP	CB-CG-OD2	5.21	122.99	118.30
25	Y	80	ASP	CB-CG-OD2	5.21	122.99	118.30
21	U	90	ASP	CB-CG-OD2	5.20	122.98	118.30
26	Z	52	LYS	N-CA-C	-5.20	96.95	111.00
34	i	832	G	N9-C1'-C2'	-5.20	106.28	112.00
6	F	204	ARG	CA-C-O	-5.20	109.18	120.10
34	i	916	A	P-O3'-C3'	5.20	125.94	119.70
34	i	1006	G	N9-C1'-C2'	-5.20	106.28	112.00
34	i	1078	A	O4'-C1'-C2'	-5.20	100.60	105.80
34	i	1482	A	O5'-C5'-C4'	-5.20	101.82	111.70
15	O	131	ASP	CB-CG-OD2	5.20	122.98	118.30
34	i	370	G	O4'-C1'-N9	5.20	112.36	108.20
2	B	104	ASP	CB-CG-OD2	5.20	122.98	118.30
24	X	114	ASP	CB-CG-OD2	5.20	122.98	118.30
34	i	317	G	C5'-C4'-O4'	5.20	115.33	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	516	A	O4'-C1'-C2'	5.20	112.28	107.60
34	i	1675	G	C3'-C2'-C1'	5.20	105.66	101.50
34	i	1688	G	O4'-C1'-C2'	5.20	112.28	107.60
34	i	599	U	O4'-C1'-C2'	-5.19	100.61	105.80
34	i	984	C	O4'-C1'-N1	-5.19	104.05	108.20
34	i	1400	U	C3'-C2'-C1'	5.19	105.65	101.50
34	i	1658	A	O4'-C1'-C2'	-5.19	100.61	105.80
1	A	126	ASP	CB-CG-OD2	5.19	122.97	118.30
34	i	125	C	C5'-C4'-O4'	-5.19	102.87	109.10
34	i	652	G	C3'-C2'-C1'	5.19	105.65	101.50
34	i	78	C	C1'-O4'-C4'	-5.19	105.75	109.90
14	N	32	ASP	CB-CG-OD2	5.19	122.97	118.30
23	W	55	ASP	CB-CG-OD2	5.19	122.97	118.30
34	i	530	U	N1-C1'-C2'	-5.19	106.29	112.00
34	i	549	G	O4'-C4'-C3'	-5.19	98.81	104.00
10	J	152	ASP	CB-CG-OD2	5.19	122.97	118.30
32	f	152	LYS	CA-C-O	-5.19	109.21	120.10
34	i	1629	A	O4'-C1'-N9	5.19	112.35	108.20
34	i	1862	U	O4'-C1'-N1	5.19	112.35	108.20
10	J	158	ASP	CB-CG-OD2	5.18	122.97	118.30
34	i	480	C	O4'-C1'-C2'	-5.18	100.62	105.80
34	i	1328	A	C4'-C3'-C2'	-5.18	97.42	102.60
34	i	1501	U	C3'-C2'-C1'	5.18	105.65	101.50
34	i	1742	C	C5'-C4'-C3'	5.18	124.29	116.00
34	i	120	U	C3'-C2'-C1'	5.18	105.64	101.50
16	P	71	GLU	C-N-CA	5.18	134.65	121.70
24	X	139	GLU	CB-CA-C	5.18	120.76	110.40
34	i	1048	A	C3'-C2'-C1'	5.18	105.64	101.50
34	i	1335	U	C5'-C4'-O4'	5.18	115.32	109.10
16	P	82	ASP	CB-CG-OD2	5.18	122.96	118.30
12	L	24	LEU	C-N-CA	5.18	134.64	121.70
34	i	71	G	C2'-C3'-O3'	-5.18	98.11	109.50
34	i	142	C	O4'-C1'-C2'	5.17	112.26	107.60
34	i	1558	G	O4'-C1'-C2'	5.17	112.26	107.60
34	i	1603	U	N1-C1'-C2'	5.17	120.73	114.00
5	E	158	ASP	CB-CG-OD2	5.17	122.95	118.30
34	i	74	G	C1'-O4'-C4'	-5.17	105.76	109.90
34	i	539	C	C3'-C2'-C1'	5.17	105.64	101.50
2	B	60	ASP	CB-CG-OD2	5.17	122.95	118.30
26	Z	104	ARG	CB-CA-C	-5.17	100.06	110.40
34	i	136	C	C5'-C4'-C3'	5.17	124.27	116.00
34	i	279	G	C1'-O4'-C4'	5.17	114.03	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	850	A	P-O3'-C3'	5.17	125.90	119.70
34	i	1323	G	N9-C1'-C2'	5.17	120.72	114.00
34	i	1858	U	C5'-C4'-O4'	5.17	115.30	109.10
33	g	213	ASP	CB-CG-OD1	5.17	122.95	118.30
34	i	271	G	OP1-P-O3'	5.17	116.57	105.20
34	i	1275	C	C3'-C2'-C1'	5.17	105.63	101.50
34	i	1544	U	N1-C1'-C2'	5.17	120.72	114.00
34	i	1714	A	C3'-C2'-C1'	5.17	105.63	101.50
34	i	1019	A	O4'-C1'-N9	5.17	112.33	108.20
5	E	258	ALA	O-C-N	-5.16	114.44	122.70
34	i	72	C	P-O5'-C5'	5.16	129.16	120.90
34	i	1090	C	N1-C1'-C2'	5.16	120.71	114.00
34	i	1555	U	C4'-C3'-C2'	-5.16	97.44	102.60
32	f	148	TYR	CB-CG-CD1	-5.16	117.90	121.00
34	i	1233	C	C4'-C3'-C2'	-5.16	97.44	102.60
34	i	1453	U	P-O3'-C3'	-5.16	113.51	119.70
34	i	971	G	O4'-C4'-C3'	-5.16	98.84	104.00
34	i	932	G	O4'-C1'-N9	5.16	112.32	108.20
34	i	1039	G	O4'-C1'-N9	5.16	112.32	108.20
34	i	1461	A	C3'-C2'-C1'	5.16	105.62	101.50
34	i	1611	U	C3'-C2'-C1'	5.16	105.62	101.50
5	E	164	LEU	C-N-CA	-5.15	108.81	121.70
16	P	37	TYR	CA-CB-CG	5.15	123.19	113.40
34	i	231	C	O4'-C1'-N1	5.15	112.32	108.20
34	i	1302	U	O4'-C1'-N1	5.15	112.32	108.20
19	S	16	LEU	CA-C-N	-5.15	105.87	117.20
33	g	12	LYS	CB-CA-C	-5.15	100.10	110.40
34	i	629	C	O4'-C1'-N1	5.15	112.32	108.20
34	i	1651	G	C3'-C2'-C1'	-5.15	97.38	101.50
34	i	550	A	C1'-O4'-C4'	-5.15	105.78	109.90
34	i	1238	U	O4'-C1'-N1	-5.15	104.08	108.20
34	i	1338	U	C3'-C2'-C1'	5.15	105.62	101.50
34	i	455	A	O3'-P-O5'	-5.15	94.22	104.00
34	i	542	G	O4'-C1'-C2'	5.15	112.23	107.60
34	i	1575	A	O4'-C1'-N9	5.15	112.32	108.20
26	Z	50	PHE	CB-CA-C	-5.14	100.11	110.40
34	i	1217	G	C3'-C2'-C1'	-5.14	97.38	101.50
16	P	51	ARG	N-CA-C	5.14	124.88	111.00
34	i	32	U	C5'-C4'-O4'	5.14	115.27	109.10
34	i	308	C	O4'-C1'-C2'	-5.14	100.66	105.80
34	i	410	G	P-O3'-C3'	-5.14	113.53	119.70
34	i	740	G	O3'-P-O5'	-5.14	94.23	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	799	C	C3'-C2'-C1'	5.14	105.61	101.50
34	i	323	G	O4'-C1'-N9	5.14	112.31	108.20
34	i	411	G	O4'-C1'-C2'	5.14	112.22	107.60
34	i	1267	C	O4'-C1'-C2'	-5.14	100.66	105.80
24	X	126	ALA	N-CA-C	-5.14	97.13	111.00
34	i	1308	G	C3'-C2'-C1'	5.14	105.61	101.50
16	P	21	ASP	CB-CG-OD2	5.13	122.92	118.30
34	i	520	U	C4'-C3'-C2'	-5.13	97.47	102.60
34	i	1106	G	C1'-O4'-C4'	5.13	114.01	109.90
1	A	53	ARG	CB-CG-CD	-5.13	98.26	111.60
24	X	115	ILE	C-N-CD	-5.13	109.31	120.60
34	i	1568	G	C4'-C3'-C2'	-5.13	97.47	102.60
34	i	1788	C	C3'-C2'-C1'	5.13	105.61	101.50
34	i	608	C	C1'-O4'-C4'	5.13	114.00	109.90
13	M	43	ASP	CB-CG-OD2	5.13	122.92	118.30
20	T	144	LYS	CA-C-O	-5.13	109.33	120.10
34	i	1275	C	C1'-O4'-C4'	5.13	114.00	109.90
11	K	43	LEU	N-CA-C	-5.13	97.16	111.00
34	i	638	A	C1'-O4'-C4'	-5.13	105.80	109.90
34	i	1235	U	O3'-P-O5'	5.13	113.74	104.00
34	i	1280	A	C5'-C4'-C3'	-5.13	107.80	116.00
1	A	151	ASP	CB-CG-OD2	5.12	122.91	118.30
7	G	103	ASP	CB-CG-OD2	5.12	122.91	118.30
34	i	1157	U	N1-C1'-C2'	-5.12	106.36	112.00
34	i	1375	A	C5'-C4'-C3'	-5.12	107.80	116.00
22	V	66	ASP	CB-CG-OD2	5.12	122.91	118.30
34	i	1298	G	C5'-C4'-O4'	5.12	115.25	109.10
2	B	196	ASP	CB-CG-OD2	5.12	122.91	118.30
5	E	21	ASP	CB-CG-OD2	5.12	122.91	118.30
34	i	78	C	O4'-C1'-C2'	-5.12	100.68	105.80
2	B	191	ASP	CB-CG-OD2	5.12	122.91	118.30
23	W	2	VAL	O-C-N	-5.12	114.51	122.70
34	i	1320	G	C3'-C2'-C1'	5.12	105.59	101.50
34	i	1452	G	N9-C1'-C2'	5.12	120.65	114.00
34	i	1551	A	C5'-C4'-C3'	-5.12	107.81	116.00
34	i	1645	A	C1'-O4'-C4'	5.12	113.99	109.90
34	i	1753	G	C1'-O4'-C4'	-5.12	105.81	109.90
34	i	1784	A	C1'-O4'-C4'	-5.12	105.81	109.90
32	f	124	ASP	CB-CG-OD2	5.12	122.90	118.30
34	i	22	A	C1'-O4'-C4'	5.12	113.99	109.90
34	i	830	C	O4'-C1'-N1	5.12	112.29	108.20
34	i	1562	G	O4'-C4'-C3'	-5.12	98.88	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	G	180	VAL	N-CA-CB	-5.11	100.25	111.50
10	J	89	GLU	N-CA-CB	-5.11	101.39	110.60
19	S	110	ASP	CB-CG-OD2	5.11	122.90	118.30
23	W	85	ASP	CB-CG-OD2	5.11	122.90	118.30
34	i	1308	G	N9-C1'-C2'	5.11	120.65	114.00
34	i	1021	U	C1'-O4'-C4'	5.11	113.99	109.90
15	O	67	ASP	CB-CG-OD2	5.11	122.90	118.30
21	U	48	LEU	CB-CG-CD2	-5.11	102.32	111.00
34	i	503	G	O4'-C1'-C2'	5.11	112.20	107.60
9	I	8	TRP	CE3-CZ3-CH2	5.11	126.82	121.20
34	i	13	C	C3'-C2'-C1'	5.11	105.58	101.50
34	i	309	A	O4'-C1'-N9	5.11	112.28	108.20
34	i	1776	G	O5'-C5'-C4'	5.10	121.40	111.70
14	N	108	ASP	CB-CG-OD2	5.10	122.89	118.30
34	i	581	U	O4'-C1'-C2'	5.10	112.19	107.60
34	i	819	U	C3'-C2'-C1'	-5.10	97.42	101.50
29	c	37	ASP	CB-CG-OD2	5.10	122.89	118.30
34	i	689	G	N9-C1'-C2'	5.10	120.63	114.00
34	i	729	C	O4'-C1'-N1	5.10	112.28	108.20
34	i	896	C	P-O5'-C5'	5.10	129.06	120.90
34	i	1135	C	C2-N1-C1'	5.10	124.41	118.80
34	i	1490	U	C3'-C2'-C1'	-5.10	97.42	101.50
16	P	28	MET	CA-C-N	-5.10	105.99	117.20
34	i	1326	G	O4'-C1'-C2'	5.10	112.19	107.60
34	i	1477	G	O4'-C1'-N9	5.10	112.28	108.20
16	P	27	ASP	CB-CG-OD2	5.09	122.89	118.30
34	i	871	A	C3'-C2'-C1'	5.09	105.58	101.50
34	i	1483	A	C4'-C3'-O3'	-5.09	98.70	109.40
2	B	152	LYS	CB-CA-C	5.09	120.58	110.40
31	e	118	ASN	N-CA-C	5.09	124.75	111.00
34	i	610	G	O4'-C1'-C2'	-5.09	100.71	105.80
34	i	1313	U	O4'-C1'-C2'	-5.09	100.71	105.80
34	i	1367	U	O4'-C1'-C2'	-5.09	100.71	105.80
34	i	22	A	O4'-C1'-C2'	-5.09	100.71	105.80
34	i	341	G	O4'-C4'-C3'	-5.09	98.91	104.00
34	i	318	U	C5'-C4'-C3'	5.09	124.14	116.00
34	i	880	C	C3'-C2'-C1'	5.09	105.57	101.50
34	i	888	U	O4'-C1'-N1	5.09	112.27	108.20
14	N	31	ASP	CB-CG-OD2	5.09	122.88	118.30
18	R	110	ASP	CB-CG-OD2	5.09	122.88	118.30
34	i	1272	A	C1'-O4'-C4'	5.09	113.97	109.90
34	i	1470	A	O3'-P-O5'	5.08	113.66	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	f	106	TYR	N-CA-C	-5.08	97.27	111.00
34	i	1813	A	N9-C1'-C2'	5.08	120.61	114.00
21	U	38	ASP	CB-CG-OD2	5.08	122.87	118.30
34	i	1742	C	C4'-C3'-O3'	-5.08	98.73	109.40
8	H	191	GLU	C-N-CA	-5.08	109.00	121.70
25	Y	29	HIS	C-N-CD	-5.08	109.43	120.60
34	i	660	A	P-O3'-C3'	5.08	125.80	119.70
34	i	955	G	C3'-C2'-C1'	5.08	105.56	101.50
34	i	439	A	O4'-C1'-N9	5.08	112.26	108.20
34	i	1246	A	O4'-C1'-C2'	-5.08	100.72	105.80
34	i	1614	A	P-O3'-C3'	5.08	125.79	119.70
1	A	130	ASP	CB-CG-OD2	5.07	122.86	118.30
34	i	1765	G	P-O3'-C3'	5.07	125.79	119.70
34	i	677	C	N1-C1'-C2'	5.07	120.59	114.00
7	G	151	ASP	CB-CG-OD2	5.07	122.86	118.30
30	d	49	ASP	CB-CG-OD2	5.07	122.86	118.30
34	i	216	U	C3'-C2'-C1'	5.07	105.56	101.50
34	i	292	A	N9-C1'-C2'	-5.07	106.42	112.00
34	i	1427	G	N9-C1'-C2'	5.07	120.59	114.00
34	i	79	A	C1'-O4'-C4'	5.07	113.95	109.90
34	i	88	G	O4'-C1'-C2'	5.07	112.16	107.60
34	i	419	C	N1-C1'-C2'	5.07	120.59	114.00
4	D	52	ALA	O-C-N	-5.07	114.60	122.70
34	i	1328	A	N9-C1'-C2'	-5.07	106.43	112.00
5	E	237	SER	N-CA-CB	-5.06	102.91	110.50
10	J	188	GLY	N-CA-C	5.06	125.75	113.10
34	i	586	U	P-O3'-C3'	5.06	125.77	119.70
1	A	193	HIS	N-CA-C	5.06	124.66	111.00
26	Z	56	ASP	CB-CG-OD2	5.06	122.86	118.30
32	f	137	ASP	CB-CG-OD2	5.06	122.86	118.30
34	i	1246	A	N9-C1'-C2'	-5.06	106.43	112.00
32	f	134	SER	CA-C-N	-5.06	106.07	117.20
33	g	143	GLN	CB-CA-C	-5.06	100.29	110.40
34	i	1023	A	O3'-P-O5'	5.06	113.61	104.00
34	i	1493	G	C3'-C2'-C1'	5.06	105.55	101.50
34	i	1663	U	C4'-C3'-C2'	-5.06	97.54	102.60
2	B	155	TYR	CB-CG-CD1	-5.06	117.97	121.00
34	i	1413	C	O4'-C4'-C3'	-5.06	98.94	104.00
5	E	93	ASP	CB-CG-OD2	5.05	122.85	118.30
34	i	22	A	O4'-C1'-N9	5.05	112.24	108.20
34	i	376	C	C5'-C4'-C3'	-5.05	107.92	116.00
34	i	1656	A	O4'-C1'-C2'	5.05	112.15	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	E	143	ASP	CB-CG-OD2	5.05	122.84	118.30
34	i	1219	A	C1'-O4'-C4'	5.05	113.94	109.90
34	i	1730	A	N9-C1'-C2'	5.04	120.56	114.00
5	E	129	ILE	CA-C-N	-5.04	106.10	117.20
10	J	85	GLY	CA-C-N	-5.04	106.11	117.20
34	i	1426	C	N1-C1'-C2'	-5.04	106.45	112.00
16	P	23	ASP	CB-CG-OD2	5.04	122.84	118.30
34	i	410	G	C4'-C3'-C2'	-5.04	97.56	102.60
24	X	19	ASP	CB-CG-OD2	5.04	122.83	118.30
34	i	896	C	C3'-C2'-C1'	5.04	105.53	101.50
34	i	1541	G	C3'-C2'-C1'	-5.04	97.47	101.50
17	Q	31	LEU	C-N-CA	5.03	134.28	121.70
34	i	1711	C	N1-C1'-C2'	5.03	120.54	114.00
25	Y	103	SER	C-N-CA	5.03	134.28	121.70
34	i	125	C	P-O3'-C3'	5.03	125.74	119.70
34	i	1333	C	C2'-C3'-O3'	5.03	121.75	113.70
34	i	1573	U	C5'-C4'-O4'	5.03	115.14	109.10
34	i	1823	G	C3'-C2'-C1'	5.03	105.53	101.50
5	E	163	ASP	CB-CG-OD2	5.03	122.83	118.30
21	U	52	GLY	C-N-CD	-5.03	109.53	120.60
34	i	1410	A	P-O3'-C3'	5.03	125.73	119.70
34	i	1609	A	O4'-C1'-N9	5.03	112.22	108.20
34	i	160	U	O4'-C1'-N1	5.03	112.22	108.20
34	i	577	A	O4'-C1'-N9	5.03	112.22	108.20
34	i	625	G	C3'-C2'-C1'	5.03	105.52	101.50
34	i	1721	G	C3'-C2'-C1'	-5.03	97.48	101.50
34	i	1133	U	O4'-C1'-N1	5.02	112.22	108.20
34	i	1385	C	O5'-P-OP2	-5.02	101.18	105.70
19	S	62	ASP	CB-CG-OD2	5.02	122.81	118.30
25	Y	34	THR	N-CA-C	5.02	124.55	111.00
34	i	8	U	O4'-C1'-C2'	-5.02	100.78	105.80
34	i	677	C	P-O3'-C3'	5.02	125.72	119.70
34	i	850	A	O5'-C5'-C4'	-5.02	102.17	111.70
34	i	994	A	C3'-C2'-C1'	5.02	105.52	101.50
34	i	1248	C	P-O3'-C3'	-5.02	113.68	119.70
34	i	73	C	P-O3'-C3'	-5.02	113.68	119.70
34	i	1240	U	C4'-C3'-C2'	-5.01	97.58	102.60
34	i	1379	A	O4'-C1'-N9	5.01	112.21	108.20
34	i	1063	C	N1-C1'-C2'	5.01	120.52	114.00
34	i	1343	U	C3'-C2'-C1'	5.01	105.51	101.50
32	f	86	THR	N-CA-C	-5.01	97.47	111.00
34	i	43	U	C5'-C4'-O4'	5.01	115.11	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	859	U	N1-C1'-C2'	5.01	120.52	114.00
34	i	1386	U	N1-C1'-C2'	5.01	120.52	114.00
33	g	273	GLU	C-N-CA	5.01	134.22	121.70
2	B	32	ASP	CB-CG-OD2	5.01	122.81	118.30
2	B	90	ASP	CB-CG-OD2	5.01	122.81	118.30
34	i	1568	G	O4'-C1'-N9	5.01	112.20	108.20
26	Z	51	ASP	CB-CG-OD2	5.00	122.80	118.30
30	d	6	LEU	N-CA-C	-5.00	97.49	111.00
34	i	15	U	C1'-O4'-C4'	5.00	113.90	109.90
34	i	1634	G	O4'-C1'-C2'	-5.00	100.80	105.80
34	i	468	G	P-O5'-C5'	5.00	128.90	120.90
34	i	596	G	P-O3'-C3'	5.00	125.70	119.70

All (13) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
3	C	157	ASN	CA
5	E	171	ASP	CA
10	J	138	ARG	CA
18	R	3	ARG	CA
19	S	92	ASP	CA
20	T	93	SER	CA
25	Y	86	GLU	CA
34	i	544	A	C1'
34	i	794	G	C4'
34	i	835	C	C1'
34	i	1151	U	C1'
34	i	1414	C	C1'
34	i	1503	G	C1'

All (183) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	146	ALA	Mainchain
1	A	185	MET	Mainchain
1	A	192	GLU	Mainchain,Peptide
1	A	199	PRO	Mainchain
1	A	206	ASP	Mainchain,Peptide
1	A	23	THR	Mainchain
1	A	4	ALA	Peptide
1	A	63	ARG	Sidechain
1	A	97	THR	Mainchain

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Mol	Chain	Res	Type	Group
2	B	146	CYS	Peptide
2	B	56	LYS	Mainchain
2	B	75	GLN	Peptide
2	B	76	ASN	Peptide
3	C	157	ASN	Peptide
3	C	160	GLY	Mainchain
3	C	241	TRP	Mainchain
3	C	97	VAL	Mainchain,Peptide
4	D	144	GLY	Peptide
4	D	190	LEU	Mainchain
4	D	3	VAL	Mainchain,Peptide
4	D	96	LEU	Mainchain
5	E	1	MET	Peptide
5	E	129	ILE	Peptide
6	F	43	GLU	Peptide
6	F	44	LYS	Peptide
6	F	79	HIS	Peptide
7	G	155	GLN	Mainchain
8	H	105	THR	Peptide
8	H	108	SER	Peptide
8	H	109	ARG	Sidechain
8	H	113	LYS	Mainchain
8	H	118	ARG	Sidechain
8	H	16	PRO	Peptide
8	H	17	ASP	Peptide
8	H	190	PRO	Peptide
8	H	193	GLN	Peptide
8	H	53	VAL	Peptide
9	I	123	ARG	Mainchain
9	I	129	LEU	Mainchain
9	I	131	PRO	Mainchain
9	I	155	ASN	Peptide
9	I	190	LEU	Mainchain
9	I	2	GLY	Mainchain
9	I	3	ILE	Peptide
9	I	55	TYR	Sidechain
10	J	146	SER	Mainchain
10	J	16	PRO	Peptide
10	J	161	LEU	Mainchain,Peptide
10	J	162	ARG	Peptide
10	J	164	PRO	Mainchain
10	J	165	TYR	Peptide

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Mol	Chain	Res	Type	Group
10	J	85	GLY	Mainchain
10	J	90	GLY	Peptide
10	J	91	LYS	Mainchain
10	J	92	MET	Peptide
11	K	29	MET	Peptide
11	K	30	PRO	Peptide
11	K	37	ASP	Peptide
11	K	43	LEU	Peptide
11	K	55	ARG	Sidechain
11	K	70	TYR	Sidechain
11	K	86	PRO	Peptide
11	K	89	ILE	Mainchain
11	K	90	VAL	Mainchain
11	K	92	ALA	Peptide
11	K	97	SER	Peptide
12	L	147	LYS	Peptide
12	L	149	ALA	Mainchain
12	L	152	LYS	Mainchain
12	L	18	GLN	Peptide
12	L	26	GLY	Peptide
12	L	27	GLU	Peptide
12	L	97	ARG	Peptide
13	M	98	GLY	Peptide
14	N	13	GLN	Peptide
14	N	14	SER	Peptide
14	N	18	TYR	Peptide
14	N	82	PRO	Peptide
15	O	138	ASP	Peptide
16	P	17	TYR	Sidechain,Peptide
16	P	18	ARG	Sidechain
16	P	27	ASP	Peptide
16	P	36	LEU	Peptide
16	P	37	TYR	Peptide
16	P	38	SER	Peptide
16	P	48	GLY	Mainchain,Peptide
16	P	50	ARG	Peptide
17	Q	146	ARG	Sidechain
17	Q	31	LEU	Peptide
17	Q	43	GLU	Peptide
17	Q	47	LEU	Peptide
18	R	1	MET	Mainchain
18	R	122	PRO	Peptide

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Mol	Chain	Res	Type	Group
18	R	88	VAL	Mainchain,Peptide
18	R	89	SER	Peptide
19	S	10	GLN	Peptide
19	S	141	ARG	Mainchain
19	S	15	VAL	Peptide
19	S	40	TYR	Sidechain,Mainchain
19	S	8	LYS	Peptide
19	S	87	GLN	Mainchain
19	S	9	PHE	Peptide
19	S	93	GLY	Peptide
19	S	94	LYS	Peptide
20	T	142	LYS	Mainchain,Peptide
20	T	4	VAL	Mainchain,Peptide
20	T	42	HIS	Sidechain
20	T	82	ARG	Sidechain
21	U	104	ILE	Mainchain
21	U	105	SER	Mainchain
21	U	108	PRO	Peptide
21	U	46	LYS	Peptide
21	U	50	VAL	Peptide
21	U	68	THR	Peptide
21	U	70	CYS	Mainchain
21	U	93	SER	Mainchain
22	V	25	GLY	Peptide
22	V	48	GLY	Mainchain,Peptide
22	V	49	GLN	Peptide
22	V	61	ARG	Sidechain
22	V	63	GLY	Mainchain
22	V	81	GLN	Mainchain,Peptide
22	V	9	VAL	Peptide
23	W	2	VAL	Mainchain
23	W	84	LYS	Peptide
24	X	1	MET	Peptide
24	X	127	ASN	Peptide
24	X	23	HIS	Mainchain
24	X	42	GLY	Peptide
25	Y	103	SER	Peptide
25	Y	32	LYS	Peptide
25	Y	33	ALA	Peptide
25	Y	34	THR	Peptide
25	Y	85	ASN	Peptide
25	Y	86	GLU	Mainchain

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Mol	Chain	Res	Type	Group
26	Z	101	SER	Mainchain
26	Z	104	ARG	Sidechain,Mainchain
26	Z	41	ARG	Peptide
26	Z	93	SER	Peptide
26	Z	95	GLY	Peptide
27	a	96	THR	Mainchain,Peptide
28	b	2	PRO	Mainchain
28	b	36	LYS	Peptide
28	b	37	CYS	Mainchain
31	e	93	VAL	Mainchain
31	e	94	ALA	Mainchain,Peptide
31	e	96	GLN	Mainchain
31	e	97	GLU	Peptide
32	f	102	VAL	Peptide
32	f	105	TYR	Peptide
32	f	135	HIS	Mainchain
32	f	148	TYR	Peptide
32	f	84	SER	Peptide
32	f	90	LYS	Peptide
33	g	12	LYS	Peptide
33	g	142	VAL	Mainchain
33	g	148	SER	Mainchain
33	g	158	PRO	Peptide
33	g	159	ASN	Mainchain,Peptide
33	g	160	SER	Peptide
33	g	192	THR	Peptide
33	g	273	GLU	Peptide
33	g	283	PRO	Peptide
33	g	47	ARG	Peptide
33	g	59	LEU	Mainchain
33	g	60	ARG	Peptide

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	A	1642	0	1638	603	0
2	B	1741	0	1808	523	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	C	1742	0	1829	582	0
4	D	1764	0	1855	595	0
5	E	2083	0	2189	523	0
6	F	1509	0	1556	476	0
7	G	1923	0	2086	499	3
8	H	1530	0	1624	476	0
9	I	1679	0	1762	431	3
10	J	1498	0	1598	537	0
11	K	827	0	853	351	18
12	L	1296	0	1370	397	0
13	M	950	0	969	245	0
14	N	1208	0	1294	261	0
15	O	1016	0	1037	293	0
16	P	1060	0	1120	483	0
17	Q	1124	0	1189	439	0
18	R	1019	0	1067	349	0
19	S	1139	0	1188	427	1
20	T	1112	0	1149	393	0
21	U	822	0	886	208	0
22	V	619	0	620	278	0
23	W	1034	0	1079	262	0
24	X	1106	0	1177	310	0
25	Y	1021	0	1083	490	0
26	Z	598	0	652	210	0
27	a	844	0	895	0	0
28	b	659	0	680	0	0
29	c	506	0	534	0	0
30	d	445	0	441	0	0
31	e	473	0	519	0	31
32	f	581	0	598	0	0
33	g	2436	0	2388	0	0
34	i	37514	0	18808	0	78
35	j	1607	0	811	0	0
36	k	273	0	139	0	0
37	n	648	0	642	0	0
All	All	79048	0	61133	9794	81

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 94.

All (9794) 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)
3:C:197:LYS:HA	3:C:200:LEU:CD2	1.22	1.68
9:I:141:ARG:CB	9:I:144:LYS:HB2	1.24	1.68
17:Q:135:PRO:HD3	17:Q:141:TYR:CE1	1.15	1.66
11:K:16:PHE:CE2	11:K:79:LEU:HB2	1.24	1.65
16:P:41:GLN:CG	16:P:84:ILE:HG21	1.18	1.64
25:Y:78:SER:HB3	25:Y:81:TYR:CD2	1.32	1.64
3:C:93:LYS:HD2	3:C:218:LEU:CD2	1.27	1.64
7:G:41:LEU:CD2	7:G:45:TRP:CZ3	1.80	1.63
5:E:129:ILE:HG12	5:E:139:LEU:CD2	1.24	1.63
1:A:58:LEU:CD2	1:A:178:LEU:HD23	1.28	1.62
3:C:50:LYS:HD2	3:C:251:TYR:CE1	1.21	1.62
4:D:132:LYS:CB	4:D:191:PRO:HG3	1.23	1.62
22:V:11:LEU:CD1	22:V:12:TYR:HD2	1.12	1.62
19:S:42:HIS:CD2	20:T:45:LEU:HD11	1.21	1.61
16:P:33:LEU:CD2	16:P:87:PRO:HD3	1.20	1.61
16:P:41:GLN:HG2	16:P:84:ILE:CG1	1.29	1.61
16:P:123:TYR:CE2	19:S:120:HIS:CE1	1.85	1.61
21:U:40:ILE:CD1	21:U:53:PRO:HG3	1.20	1.60
20:T:77:LYS:HG3	20:T:92:PHE:CE2	1.13	1.60
16:P:53:GLN:HG2	16:P:80:LEU:CD1	1.24	1.60
3:C:55:VAL:HG13	3:C:82:PHE:CE2	1.35	1.60
16:P:41:GLN:CG	16:P:84:ILE:CG2	1.79	1.60
8:H:40:LEU:CD2	8:H:43:LEU:HD12	1.14	1.60
2:B:66:VAL:CG2	2:B:87:ILE:HG22	1.23	1.59
6:F:14:THR:HG21	17:Q:56:LEU:CG	1.32	1.59
5:E:129:ILE:CG1	5:E:139:LEU:CD2	1.80	1.59
11:K:27:VAL:CG1	11:K:43:LEU:HD22	1.28	1.59
7:G:41:LEU:HD22	7:G:45:TRP:CZ3	1.34	1.59
25:Y:78:SER:CB	25:Y:81:TYR:HD2	1.16	1.59
8:H:83:LEU:HD13	8:H:92:VAL:CG2	1.25	1.59
1:A:42:LYS:HD3	18:R:105:MET:CG	1.33	1.59
6:F:25:THR:HG21	6:F:42:LYS:CG	1.22	1.59
5:E:70:ILE:HG12	5:E:92:ILE:CD1	1.12	1.58
7:G:131:ARG:CG	7:G:131:ARG:CD	1.79	1.57
2:B:71:LEU:HD13	2:B:84:PHE:CE2	1.39	1.57
22:V:17:CYS:SG	22:V:56:CYS:HB3	1.44	1.57
19:S:34:LYS:CB	19:S:103:LEU:HD21	1.17	1.57
25:Y:55:ILE:HG12	25:Y:75:ILE:CG1	1.22	1.56
11:K:14:LEU:HD22	11:K:35:LEU:CD2	1.22	1.56
24:X:27:TYR:CE1	24:X:31:HIS:NE2	1.70	1.56
17:Q:9:SER:HB3	17:Q:26:LYS:CG	1.36	1.56
4:D:158:ILE:CD1	4:D:189:MET:CE	1.81	1.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:93:VAL:CG1	17:Q:105:LYS:HE2	1.10	1.55
8:H:146:VAL:HG21	23:W:50:PHE:CZ	1.37	1.55
4:D:34:TYR:CZ	21:U:61:LEU:CD2	26.29	1.55
3:C:50:LYS:CD	3:C:251:TYR:CE1	1.89	1.55
16:P:4:VAL:CA	16:P:10:ARG:HD3	1.18	1.54
1:A:21:ALA:CB	1:A:173:LEU:CD1	1.77	1.54
1:A:21:ALA:HB2	1:A:173:LEU:CD1	1.34	1.54
6:F:14:THR:CG2	17:Q:56:LEU:HD22	1.07	1.54
17:Q:9:SER:CB	17:Q:26:LYS:HG3	1.34	1.54
5:E:248:ILE:CD1	10:J:72:PHE:CG	1.89	1.54
3:C:93:LYS:CD	3:C:218:LEU:HD21	1.12	1.54
1:A:42:LYS:CD	18:R:105:MET:HG2	1.36	1.53
5:E:248:ILE:HD12	10:J:72:PHE:CD2	1.02	1.53
7:G:41:LEU:HD22	7:G:45:TRP:CE3	1.37	1.53
17:Q:42:ILE:HD13	17:Q:51:LEU:CD2	1.16	1.53
16:P:4:VAL:HA	16:P:10:ARG:CD	1.07	1.53
19:S:54:LYS:N	19:S:54:LYS:CA	1.67	1.53
19:S:42:HIS:CD2	20:T:45:LEU:CD1	1.92	1.53
19:S:54:LYS:C	19:S:54:LYS:CA	1.75	1.53
25:Y:29:HIS:CE1	25:Y:68:LYS:N	1.74	1.53
19:S:34:LYS:HB3	19:S:103:LEU:CD2	1.08	1.53
9:I:142:SER:CB	9:I:143:LYS:HB2	1.35	1.53
10:J:17:ARG:HG2	10:J:18:ARG:CD	1.33	1.53
4:D:34:TYR:CE2	21:U:61:LEU:HD22	26.59	1.52
7:G:121:ILE:HG23	7:G:122:PRO:CD	1.38	1.52
1:A:30:LEU:HD13	1:A:38:ILE:CD1	1.32	1.52
3:C:50:LYS:HD2	3:C:251:TYR:CD1	1.42	1.52
17:Q:135:PRO:CD	17:Q:141:TYR:HE1	1.19	1.52
1:A:30:LEU:CD1	1:A:38:ILE:HD11	1.06	1.52
9:I:69:SER:CB	12:L:19:ASN:HD21	1.17	1.52
5:E:99:PHE:CE1	5:E:113:ARG:HG3	1.45	1.51
25:Y:55:ILE:CG1	25:Y:75:ILE:HG12	1.35	1.51
4:D:197:LYS:HB2	4:D:198:ILE:CG1	1.35	1.51
6:F:14:THR:HG21	17:Q:56:LEU:CD2	1.05	1.51
16:P:33:LEU:CD2	16:P:87:PRO:CD	1.82	1.51
4:D:76:ARG:NE	11:K:66:HIS:CE1	1.76	1.51
19:S:39:ARG:CZ	20:T:38:LYS:CE	1.83	1.51
2:B:25:PHE:CE2	15:O:88:LEU:CD1	1.91	1.50
3:C:55:VAL:CG1	3:C:82:PHE:CE2	1.93	1.50
6:F:103:LEU:CD2	6:F:178:ILE:HD13	1.37	1.50
26:Z:99:LEU:HD13	26:Z:102:LYS:CE	1.35	1.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:25:ARG:HD2	9:I:27:TYR:CE2	1.42	1.50
9:I:157:LYS:CB	12:L:22:ARG:NH1	1.71	1.49
8:H:144:ILE:HB	23:W:52:ILE:CG2	1.38	1.49
11:K:27:VAL:HG13	11:K:43:LEU:CD2	1.02	1.49
1:A:48:ILE:HD11	18:R:105:MET:CE	1.39	1.49
25:Y:18:LEU:CB	25:Y:20:ARG:HH11	1.22	1.49
8:H:122:LEU:HD13	8:H:123:THR:N	1.21	1.49
22:V:11:LEU:CD1	22:V:12:TYR:CD2	1.94	1.48
16:P:79:HIS:CE1	16:P:102:PHE:HZ	1.31	1.48
4:D:34:TYR:CZ	21:U:61:LEU:HD22	26.22	1.48
18:R:1:MET:CA	18:R:1:MET:CB	1.87	1.48
15:O:19:PRO:CG	15:O:27:VAL:CG2	1.86	1.48
1:A:141:ASN:C	22:V:32:ILE:HG12	1.27	1.48
23:W:14:ILE:CD1	23:W:72:CYS:SG	2.01	1.48
5:E:248:ILE:HG13	10:J:72:PHE:CD1	1.48	1.48
12:L:149:ALA:CB	12:L:156:GLN:CG	1.89	1.48
18:R:99:ASP:CA	18:R:119:VAL:CG1	1.92	1.47
18:R:99:ASP:CA	18:R:119:VAL:HG11	1.40	1.47
20:T:23:LYS:HD3	20:T:54:TYR:CD2	1.47	1.47
11:K:3:MET:CE	11:K:8:ARG:NH2	1.74	1.47
9:I:161:LEU:HD11	9:I:199:LEU:CD1	1.43	1.47
17:Q:135:PRO:CD	17:Q:141:TYR:CE1	1.92	1.47
3:C:93:LYS:CD	3:C:218:LEU:CD2	1.78	1.47
5:E:248:ILE:HD12	10:J:72:PHE:CG	1.49	1.46
6:F:63:LYS:HD3	6:F:71:ARG:CZ	1.42	1.46
19:S:8:LYS:HB2	19:S:9:PHE:CD1	1.46	1.46
17:Q:93:VAL:CG1	17:Q:105:LYS:CE	1.94	1.46
3:C:50:LYS:CD	3:C:251:TYR:HE1	1.19	1.45
5:E:248:ILE:CD1	10:J:72:PHE:CD2	1.89	1.45
3:C:55:VAL:HG13	3:C:82:PHE:CZ	1.49	1.45
7:G:157:VAL:CG1	7:G:159:ARG:H	1.28	1.45
7:G:76:LEU:CD2	7:G:92:ARG:HG2	1.44	1.45
16:P:44:ARG:HE	16:P:84:ILE:CD1	1.28	1.45
8:H:146:VAL:HG21	23:W:50:PHE:CE1	1.50	1.45
12:L:149:ALA:HB2	12:L:156:GLN:NE2	1.17	1.45
16:P:49:LEU:CD1	16:P:51:ARG:HE	1.25	1.45
5:E:208:VAL:HB	5:E:225:ILE:CD1	1.46	1.44
6:F:42:LYS:HB2	6:F:45:TYR:N	1.21	1.44
21:U:40:ILE:HD11	21:U:53:PRO:CG	1.47	1.44
26:Z:99:LEU:CD1	26:Z:102:LYS:HE2	1.43	1.44
18:R:1:MET:N	18:R:1:MET:CA	1.79	1.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:137:LEU:CD2	2:B:215:VAL:HG13	1.45	1.44
9:I:142:SER:HB3	9:I:143:LYS:CB	1.44	1.44
12:L:149:ALA:HB1	12:L:156:GLN:CB	1.46	1.44
12:L:80:MET:CE	12:L:120:VAL:O	1.65	1.44
5:E:159:THR:HG23	5:E:227:VAL:CG2	1.43	1.44
19:S:39:ARG:NH2	20:T:38:LYS:CE	1.76	1.44
16:P:33:LEU:HD22	16:P:87:PRO:CD	1.41	1.44
7:G:16:ILE:HD13	7:G:45:TRP:CZ2	1.51	1.43
7:G:176:ILE:CB	7:G:179:LEU:HD23	1.47	1.43
11:K:11:ILE:CG2	11:K:49:MET:CE	1.94	1.43
6:F:25:THR:CG2	6:F:42:LYS:HG3	1.46	1.43
17:Q:50:LYS:HZ2	17:Q:85:ARG:NH2	1.13	1.43
1:A:58:LEU:CD2	1:A:178:LEU:CD2	1.95	1.43
15:O:19:PRO:CG	15:O:27:VAL:HG21	0.97	1.43
25:Y:29:HIS:HE1	25:Y:68:LYS:N	1.03	1.43
6:F:167:LYS:HD3	6:F:171:GLU:CG	1.47	1.43
18:R:20:TYR:CE1	18:R:38:ILE:HG21	1.52	1.43
10:J:110:LEU:HD13	10:J:130:ILE:CD1	1.48	1.43
10:J:89:GLU:HA	10:J:92:MET:CG	1.45	1.43
1:A:57:LYS:NZ	22:V:70:LEU:HD11	1.34	1.43
17:Q:8:GLN:CG	17:Q:99:TYR:CE1	2.01	1.43
25:Y:18:LEU:CD1	25:Y:20:ARG:HH12	1.31	1.43
19:S:120:HIS:NE2	19:S:124:ARG:NE	1.62	1.43
10:J:170:PRO:HG2	10:J:175:ARG:CG	1.46	1.43
11:K:2:LEU:HD13	11:K:3:MET:N	1.32	1.42
5:E:153:LEU:HD13	5:E:172:PHE:CZ	1.51	1.42
18:R:99:ASP:C	18:R:119:VAL:HG11	1.08	1.42
10:J:90:GLY:O	10:J:96:TYR:CD2	1.73	1.42
25:Y:102:THR:HG21	25:Y:107:ARG:NE	1.16	1.42
16:P:41:GLN:CG	16:P:84:ILE:HG12	1.47	1.42
19:S:39:ARG:NE	20:T:38:LYS:HE3	1.27	1.42
3:C:155:TRP:CH2	23:W:97:ARG:NH1	1.73	1.42
10:J:134:HIS:ND1	10:J:163:SER:HB2	1.30	1.42
12:L:80:MET:HE1	12:L:120:VAL:C	1.34	1.42
1:A:176:TRP:CZ3	1:A:177:MET:SD	2.13	1.41
10:J:89:GLU:HA	10:J:92:MET:CB	1.48	1.41
2:B:113:MET:CE	2:B:211:PHE:CE2	2.03	1.41
9:I:69:SER:HB2	12:L:19:ASN:ND2	1.33	1.41
1:A:58:LEU:HD21	1:A:178:LEU:CD2	1.47	1.41
12:L:149:ALA:HB2	12:L:156:GLN:CD	1.37	1.41
5:E:98:ASN:ND2	5:E:119:ALA:HB2	1.28	1.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:177:ASN:O	10:J:180:LYS:CG	1.69	1.41
10:J:110:LEU:CD1	10:J:130:ILE:CD1	1.96	1.41
15:O:19:PRO:HG3	15:O:27:VAL:CG2	1.40	1.41
1:A:48:ILE:CD1	18:R:105:MET:CE	1.98	1.40
4:D:195:SER:C	4:D:197:LYS:HA	1.41	1.40
16:P:41:GLN:CD	16:P:84:ILE:HG21	1.38	1.40
18:R:20:TYR:OH	18:R:38:ILE:CG2	1.67	1.40
7:G:157:VAL:HG11	7:G:159:ARG:CG	1.51	1.40
10:J:118:GLY:C	10:J:119:LEU:N	1.73	1.40
7:G:85:ARG:HD2	25:Y:118:ARG:NH2	1.25	1.40
6:F:91:ARG:NH1	6:F:94:LYS:CB	1.85	1.40
16:P:123:TYR:CE2	19:S:120:HIS:HE1	1.24	1.40
19:S:58:GLU:C	19:S:59:LEU:HD13	1.35	1.40
5:E:208:VAL:CB	5:E:225:ILE:CD1	1.99	1.40
7:G:32:MET:SD	7:G:100:CYS:HB3	1.62	1.39
6:F:103:LEU:HD23	6:F:178:ILE:CD1	1.49	1.39
19:S:39:ARG:HH21	20:T:38:LYS:NZ	1.17	1.39
19:S:138:THR:CA	19:S:141:ARG:NH2	1.86	1.39
16:P:79:HIS:HE1	16:P:102:PHE:CZ	1.40	1.39
25:Y:36:PRO:HG2	25:Y:39:GLU:CG	1.51	1.39
18:R:20:TYR:CZ	18:R:38:ILE:CG2	2.03	1.39
2:B:113:MET:CE	2:B:211:PHE:HE2	1.35	1.39
19:S:46:ARG:NH2	20:T:50:GLU:HB3	1.16	1.39
3:C:101:THR:CG2	3:C:103:ALA:O	1.69	1.39
1:A:97:THR:CG2	1:A:98:PRO:HD2	1.52	1.39
16:P:44:ARG:NE	16:P:84:ILE:HD12	1.34	1.39
10:J:79:ARG:NH1	10:J:83:ARG:NH1	1.62	1.39
12:L:99:TYR:OH	24:X:14:ARG:CA	1.70	1.39
5:E:248:ILE:HD12	10:J:72:PHE:CE2	1.55	1.39
21:U:50:VAL:HG22	21:U:51:LYS:C	1.43	1.39
19:S:39:ARG:CZ	20:T:38:LYS:HE3	0.92	1.38
10:J:48:PHE:CE1	10:J:52:LYS:HE3	1.57	1.38
9:I:155:ASN:O	12:L:22:ARG:CD	1.72	1.38
4:D:132:LYS:HB2	4:D:191:PRO:CG	1.52	1.38
8:H:143:ARG:CD	23:W:53:ILE:HG12	1.53	1.38
18:R:122:PRO:CA	18:R:123:THR:HG23	1.51	1.38
18:R:21:TYR:CB	18:R:71:ILE:HD13	1.53	1.38
10:J:37:LEU:CD1	10:J:42:GLU:HB3	1.51	1.37
7:G:25:ARG:HG2	7:G:28:TYR:CD2	1.59	1.37
1:A:57:LYS:CE	22:V:70:LEU:HD11	1.55	1.37
26:Z:112:ASN:O	26:Z:113:THR:HG23	1.23	1.37

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:44:LYS:CE	18:R:47:ARG:HH22	1.34	1.37
6:F:63:LYS:HD3	6:F:71:ARG:NH2	1.39	1.37
7:G:14:LYS:NZ	7:G:123:GLY:HA3	1.36	1.37
6:F:45:TYR:O	6:F:47:LYS:CD	1.71	1.37
6:F:25:THR:CG2	6:F:42:LYS:HD2	1.55	1.37
19:S:42:HIS:NE2	20:T:45:LEU:CD2	1.84	1.37
9:I:69:SER:CB	12:L:19:ASN:ND2	1.83	1.37
12:L:80:MET:CE	12:L:120:VAL:C	1.93	1.37
18:R:17:ILE:CG2	18:R:69:ILE:HD11	1.54	1.37
1:A:76:VAL:HG21	1:A:90:PHE:CD2	1.60	1.36
1:A:176:TRP:HZ3	1:A:177:MET:SD	1.46	1.36
11:K:60:GLU:CD	11:K:67:PHE:HD1	1.26	1.36
11:K:2:LEU:CD1	11:K:3:MET:H	1.37	1.36
10:J:61:LEU:HD22	10:J:98:LEU:CD1	1.56	1.36
6:F:45:TYR:O	6:F:47:LYS:CE	1.71	1.36
16:P:41:GLN:HG2	16:P:84:ILE:CB	1.54	1.36
4:D:211:VAL:HG23	18:R:38:ILE:C	1.38	1.36
25:Y:20:ARG:HG3	25:Y:74:MET:CE	1.53	1.36
8:H:83:LEU:CD1	8:H:92:VAL:HG21	1.52	1.36
6:F:59:LYS:CD	6:F:62:ARG:HH21	1.37	1.36
18:R:20:TYR:OH	18:R:38:ILE:HG22	1.20	1.36
4:D:59:LEU:HD12	4:D:60:GLY:N	1.37	1.35
7:G:32:MET:CE	7:G:100:CYS:HA	1.57	1.35
11:K:16:PHE:CE2	11:K:79:LEU:CB	2.07	1.35
8:H:31:GLU:OE2	8:H:41:ARG:CD	1.71	1.35
2:B:66:VAL:HG22	2:B:87:ILE:CG2	1.55	1.35
3:C:142:LEU:HA	3:C:145:LEU:CD2	1.56	1.35
6:F:59:LYS:HD2	6:F:62:ARG:NH2	1.03	1.35
19:S:14:ARG:NH1	19:S:17:ASN:HA	1.37	1.35
25:Y:29:HIS:CE1	25:Y:67:GLY:C	1.99	1.35
4:D:112:GLY:C	4:D:113:LEU:HD12	1.47	1.35
5:E:128:LYS:HD3	5:E:130:PHE:CE1	1.60	1.35
11:K:83:LEU:HB3	11:K:85:LEU:CD2	1.56	1.35
16:P:4:VAL:N	16:P:10:ARG:HG2	1.40	1.35
23:W:14:ILE:HD11	23:W:72:CYS:SG	1.64	1.35
20:T:77:LYS:HB2	20:T:94:ARG:CD	1.57	1.35
13:M:13:ASP:O	13:M:16:THR:CG2	1.72	1.35
18:R:5:ARG:HB2	18:R:10:LYS:NZ	1.39	1.35
19:S:42:HIS:CG	20:T:45:LEU:HD11	1.62	1.34
20:T:77:LYS:CG	20:T:92:PHE:CE2	2.07	1.34
10:J:90:GLY:O	10:J:96:TYR:CE2	1.77	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:99:ASP:HA	18:R:119:VAL:CG1	1.53	1.34
5:E:248:ILE:HB	10:J:72:PHE:CZ	1.59	1.34
22:V:11:LEU:HD11	22:V:12:TYR:CD2	1.58	1.34
19:S:42:HIS:CE1	20:T:45:LEU:HD21	1.62	1.34
24:X:114:ASP:O	24:X:116:PRO:HD3	1.16	1.34
7:G:63:MET:CE	7:G:106:LEU:HD11	1.56	1.34
4:D:7:LYS:NZ	21:U:113:GLU:OE2	1.60	1.34
2:B:147:ASN:O	18:R:124:VAL:CG2	1.73	1.34
7:G:157:VAL:HG13	7:G:159:ARG:N	1.39	1.33
25:Y:44:LEU:HD11	25:Y:48:TYR:CE2	1.63	1.33
16:P:49:LEU:HD12	16:P:51:ARG:NE	1.40	1.33
1:A:177:MET:HE1	1:A:180:ARG:NH2	1.42	1.33
9:I:141:ARG:CG	9:I:144:LYS:HB2	1.58	1.33
11:K:21:MET:CE	11:K:49:MET:SD	2.17	1.33
17:Q:42:ILE:CD1	17:Q:51:LEU:HD21	1.58	1.33
5:E:153:LEU:CD1	5:E:172:PHE:CZ	2.11	1.33
25:Y:18:LEU:HD13	25:Y:20:ARG:NH1	1.41	1.33
12:L:147:LYS:CD	12:L:148:ALA:HA	1.55	1.33
10:J:39:ASN:CG	10:J:42:GLU:OE2	1.67	1.33
24:X:105:PHE:CE2	24:X:119:ARG:HA	1.60	1.33
1:A:21:ALA:CB	1:A:173:LEU:HD12	1.42	1.32
10:J:15:THR:HG22	10:J:44:TRP:CE3	1.64	1.32
21:U:62:ARG:NH1	21:U:64:THR:HG21	1.42	1.32
6:F:122:ARG:O	6:F:141:VAL:HG13	1.26	1.32
5:E:159:THR:CG2	5:E:227:VAL:HG23	1.59	1.32
17:Q:38:PRO:HG2	17:Q:41:MET:SD	1.69	1.32
4:D:197:LYS:HB3	4:D:198:ILE:CG2	1.57	1.32
13:M:28:HIS:CD2	13:M:115:GLY:HA3	1.62	1.32
7:G:1:MET:CE	7:G:106:LEU:O	1.77	1.32
10:J:39:ASN:ND2	10:J:42:GLU:OE2	1.58	1.32
17:Q:34:VAL:HG23	17:Q:39:LEU:CD2	1.56	1.32
12:L:80:MET:HE1	12:L:121:GLN:N	1.37	1.32
2:B:205:TYR:CD2	2:B:206:PRO:HD2	1.62	1.32
2:B:25:PHE:CE2	15:O:88:LEU:HD11	1.52	1.32
18:R:21:TYR:HB2	18:R:71:ILE:CD1	1.59	1.32
4:D:157:MET:CE	4:D:187:LYS:HD3	1.59	1.32
9:I:136:ILE:CG2	9:I:139:LYS:HE3	1.60	1.32
14:N:38:TYR:HE2	14:N:74:ILE:CG2	1.43	1.32
18:R:20:TYR:CZ	18:R:38:ILE:HG21	1.63	1.32
8:H:6:ALA:CA	8:H:10:LYS:HD3	1.58	1.31
13:M:13:ASP:HB2	13:M:16:THR:CB	1.57	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:71:ARG:CD	12:L:73:LEU:HD21	1.57	1.31
7:G:176:ILE:HG21	7:G:179:LEU:CD2	1.60	1.31
5:E:70:ILE:CG1	5:E:92:ILE:CD1	2.07	1.31
20:T:77:LYS:HG3	20:T:92:PHE:CZ	1.64	1.31
24:X:2:GLY:O	24:X:3:LYS:HG3	1.23	1.31
11:K:83:LEU:CD1	11:K:85:LEU:HD21	1.60	1.31
20:T:11:GLN:NE2	20:T:62:ARG:CZ	1.92	1.31
11:K:3:MET:HE1	11:K:8:ARG:NH2	1.30	1.31
25:Y:18:LEU:CD1	25:Y:20:ARG:NH1	1.90	1.31
12:L:147:LYS:CG	12:L:148:ALA:HA	1.61	1.31
8:H:40:LEU:CD2	8:H:43:LEU:CD1	2.09	1.31
4:D:5:ILE:C	4:D:6:SER:N	1.82	1.30
16:P:53:GLN:CG	16:P:80:LEU:CD1	2.08	1.30
3:C:101:THR:HG22	3:C:104:GLY:O	1.13	1.30
22:V:55:ILE:HD11	22:V:68:SER:OG	1.26	1.30
17:Q:93:VAL:HG11	17:Q:105:LYS:CE	1.52	1.30
8:H:122:LEU:CD1	8:H:123:THR:N	1.94	1.30
3:C:167:CYS:SG	23:W:95:PRO:HB3	1.72	1.30
25:Y:99:LYS:HE3	25:Y:99:LYS:N	1.45	1.30
22:V:24:ILE:HD13	22:V:25:GLY:N	1.45	1.30
1:A:21:ALA:CB	1:A:173:LEU:HD11	1.49	1.30
1:A:76:VAL:HG13	1:A:175:TRP:CH2	1.65	1.30
20:T:23:LYS:HD3	20:T:54:TYR:CG	1.65	1.30
24:X:29:LYS:HD2	24:X:34:THR:OG1	1.31	1.30
7:G:32:MET:SD	7:G:100:CYS:CB	2.17	1.30
11:K:60:GLU:OE1	11:K:67:PHE:CD1	1.84	1.30
18:R:5:ARG:O	18:R:10:LYS:HE2	1.27	1.30
4:D:210:ILE:HD12	18:R:15:VAL:CG1	1.62	1.30
25:Y:18:LEU:CB	25:Y:20:ARG:NH1	1.94	1.29
19:S:117:ILE:O	19:S:118:ARG:HG2	1.12	1.29
12:L:149:ALA:CB	12:L:156:GLN:HG2	1.54	1.29
3:C:79:ILE:HD13	3:C:147:ILE:CD1	1.59	1.29
3:C:110:LYS:HE2	3:C:112:PHE:CZ	1.66	1.29
2:B:113:MET:HE3	2:B:209:ASP:OD1	1.22	1.29
4:D:210:ILE:CD1	18:R:15:VAL:CG1	2.09	1.29
4:D:218:LEU:CG	4:D:220:THR:CG2	2.10	1.29
6:F:91:ARG:NH1	6:F:94:LYS:HB2	1.45	1.29
9:I:25:ARG:CD	9:I:27:TYR:HE2	1.43	1.29
19:S:120:HIS:NE2	19:S:124:ARG:CZ	1.93	1.29
24:X:142:ARG:HH11	24:X:142:ARG:CB	1.44	1.29
7:G:176:ILE:CG2	7:G:179:LEU:CD2	2.10	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:177:MET:CE	1:A:180:ARG:NH2	1.95	1.29
2:B:87:ILE:HD13	2:B:101:HIS:CD2	1.66	1.29
4:D:105:LEU:CD2	4:D:184:ILE:HD12	1.63	1.29
24:X:51:VAL:HG13	24:X:70:VAL:CG1	1.60	1.28
1:A:176:TRP:CZ2	1:A:195:TRP:HE3	1.06	1.28
19:S:42:HIS:CD2	20:T:45:LEU:HD21	1.68	1.28
10:J:134:HIS:ND1	10:J:163:SER:CB	1.96	1.28
20:T:31:PRO:O	20:T:33:TRP:N	1.63	1.28
8:H:6:ALA:HA	8:H:10:LYS:CD	1.62	1.28
16:P:9:LYS:O	16:P:10:ARG:HG3	1.19	1.28
19:S:11:HIS:HD2	19:S:23:ARG:NH2	1.31	1.28
4:D:123:LEU:HD21	4:D:154:ASP:CB	1.63	1.28
3:C:241:TRP:HB3	23:W:68:ARG:NH1	1.48	1.28
3:C:154:TYR:OH	3:C:161:LYS:CA	1.81	1.28
19:S:132:ARG:HB2	19:S:134:GLN:OE1	1.18	1.28
1:A:176:TRP:CZ2	1:A:195:TRP:CE3	1.94	1.28
25:Y:102:THR:CG2	25:Y:107:ARG:HE	1.46	1.28
17:Q:42:ILE:CD1	17:Q:51:LEU:CD2	2.10	1.28
23:W:14:ILE:HD12	23:W:72:CYS:SG	1.67	1.28
6:F:25:THR:CG2	6:F:42:LYS:CD	2.12	1.27
9:I:144:LYS:O	9:I:145:ILE:HG12	1.30	1.27
17:Q:25:CYS:SG	17:Q:91:ALA:HB1	1.74	1.27
16:P:49:LEU:O	16:P:51:ARG:HA	1.31	1.27
16:P:62:LYS:O	16:P:65:LYS:HG2	1.21	1.27
8:H:138:GLU:OE2	14:N:19:ARG:HB3	1.29	1.27
10:J:17:ARG:CG	10:J:18:ARG:HD3	1.64	1.27
18:R:99:ASP:C	18:R:119:VAL:CG1	1.94	1.27
10:J:15:THR:HG22	10:J:44:TRP:CZ3	1.66	1.27
11:K:43:LEU:O	11:K:45:VAL:N	1.65	1.27
4:D:46:THR:OG1	4:D:79:PHE:CZ	1.82	1.27
17:Q:38:PRO:CG	17:Q:41:MET:SD	2.23	1.27
6:F:14:THR:CG2	17:Q:56:LEU:HB3	1.64	1.27
8:H:83:LEU:CD1	8:H:92:VAL:CG2	2.06	1.27
19:S:8:LYS:HD3	19:S:9:PHE:CE1	1.69	1.27
4:D:197:LYS:CB	4:D:198:ILE:HG23	1.63	1.27
7:G:1:MET:HE2	7:G:106:LEU:O	1.25	1.27
1:A:145:ILE:CD1	1:A:159:ILE:HG21	1.64	1.27
4:D:2:ALA:HB3	4:D:3:VAL:CA	1.65	1.27
9:I:37:LYS:O	9:I:59:ARG:HA	1.27	1.26
1:A:154:LEU:HD12	22:V:63:GLY:C	1.54	1.26
21:U:62:ARG:NH1	21:U:64:THR:CG2	1.96	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:151:ARG:NH1	3:C:240:LEU:HD11	1.50	1.26
18:R:44:LYS:HE3	18:R:47:ARG:NH2	1.48	1.26
7:G:176:ILE:CG2	7:G:179:LEU:HD23	1.65	1.26
5:E:248:ILE:CG1	10:J:72:PHE:CD1	2.17	1.26
9:I:157:LYS:HB2	12:L:22:ARG:CD	1.64	1.26
6:F:42:LYS:CB	6:F:45:TYR:H	1.48	1.26
26:Z:99:LEU:HD23	26:Z:109:TYR:CE1	1.69	1.26
12:L:101:ARG:O	24:X:10:ALA:HB2	1.29	1.26
25:Y:10:ARG:NE	25:Y:24:VAL:HG11	1.50	1.26
3:C:244:THR:HG23	3:C:246:PHE:N	1.51	1.26
9:I:116:HIS:O	9:I:152:ARG:NH1	1.67	1.26
17:Q:57:LEU:HD11	17:Q:115:TYR:CZ	1.71	1.26
18:R:44:LYS:CE	18:R:47:ARG:NH2	1.98	1.26
12:L:71:ARG:HD3	12:L:73:LEU:CD2	1.66	1.26
3:C:138:GLY:O	3:C:141:ILE:HG22	1.32	1.26
5:E:208:VAL:CG2	5:E:225:ILE:HD12	1.66	1.26
11:K:65:ARG:NH1	11:K:65:ARG:HB3	1.51	1.26
17:Q:38:PRO:HD2	17:Q:41:MET:SD	1.76	1.26
18:R:91:LEU:CD1	18:R:92:ASP:HA	1.64	1.26
2:B:137:LEU:HD21	2:B:215:VAL:CG1	1.65	1.25
3:C:79:ILE:CD1	3:C:147:ILE:HD12	1.66	1.25
3:C:69:PHE:HZ	3:C:247:THR:OG1	1.03	1.25
6:F:91:ARG:HH11	6:F:94:LYS:CB	1.41	1.25
19:S:42:HIS:NE2	20:T:45:LEU:HD21	0.94	1.25
2:B:113:MET:HE3	2:B:211:PHE:CZ	1.71	1.25
19:S:46:ARG:HG2	20:T:50:GLU:OE2	1.19	1.25
7:G:25:ARG:HG2	7:G:28:TYR:CE2	1.71	1.25
14:N:46:THR:OG1	14:N:49:GLN:HG2	1.35	1.25
10:J:28:GLU:OE1	10:J:40:LYS:HD2	1.33	1.25
12:L:147:LYS:HG3	12:L:148:ALA:CA	1.65	1.25
11:K:83:LEU:CB	11:K:85:LEU:CD2	2.15	1.25
9:I:161:LEU:CD1	9:I:199:LEU:CD1	2.12	1.25
19:S:46:ARG:CZ	20:T:50:GLU:HB3	1.66	1.25
6:F:36:GLN:HG3	6:F:37:ASP:OD1	1.36	1.25
15:O:52:THR:O	15:O:53:ILE:HG23	1.28	1.25
2:B:25:PHE:CE2	15:O:88:LEU:HD13	1.62	1.25
18:R:99:ASP:O	18:R:119:VAL:HG11	1.30	1.25
18:R:44:LYS:HG3	18:R:47:ARG:CZ	1.63	1.25
4:D:35:SER:CA	4:D:99:ILE:HD11	1.63	1.25
11:K:30:PRO:O	11:K:31:LYS:HG3	1.14	1.25
11:K:27:VAL:CG1	11:K:43:LEU:CD2	1.94	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:42:HIS:CD2	20:T:45:LEU:CG	2.19	1.25
16:P:79:HIS:CE1	16:P:102:PHE:CZ	2.17	1.25
25:Y:34:THR:O	25:Y:35:VAL:HG22	1.09	1.25
6:F:63:LYS:CD	6:F:71:ARG:NH1	1.98	1.24
6:F:14:THR:OG1	17:Q:56:LEU:CB	1.83	1.24
4:D:201:LYS:O	4:D:203:PRO:HD2	1.08	1.24
16:P:46:SER:O	16:P:49:LEU:HB2	1.11	1.24
2:B:52:THR:HG21	14:N:53:ILE:CD1	83.27	1.24
4:D:47:GLU:CG	4:D:85:GLU:OE2	1.85	1.24
22:V:1:MET:CE	22:V:10:ASP:HB2	1.68	1.24
2:B:105:LEU:HD12	2:B:110:MET:CE	1.66	1.24
9:I:141:ARG:CD	9:I:144:LYS:CB	2.15	1.24
1:A:48:ILE:CD1	18:R:105:MET:HE3	1.58	1.24
17:Q:34:VAL:CG2	17:Q:39:LEU:HD23	1.65	1.24
25:Y:55:ILE:HG12	25:Y:75:ILE:CD1	1.66	1.24
25:Y:78:SER:CB	25:Y:81:TYR:CD2	1.98	1.24
6:F:14:THR:CG2	17:Q:56:LEU:CD2	1.76	1.24
8:H:122:LEU:HD13	8:H:122:LEU:C	1.57	1.24
10:J:88:ASP:C	10:J:92:MET:HG3	1.58	1.24
16:P:126:VAL:CG1	16:P:127:LYS:H	1.46	1.24
5:E:62:LYS:CD	5:E:80:ILE:HD11	1.68	1.24
17:Q:92:LEU:CD1	17:Q:96:TYR:HE2	1.50	1.24
5:E:49:ARG:HD3	5:E:49:ARG:C	1.41	1.24
9:I:194:GLU:HG2	12:L:12:LYS:NZ	1.53	1.24
6:F:25:THR:CG2	6:F:42:LYS:CG	2.07	1.24
12:L:118:ARG:O	12:L:118:ARG:HD2	1.38	1.24
3:C:195:PRO:HB3	3:C:221:PHE:CZ	1.73	1.24
19:S:61:GLU:O	19:S:64:VAL:HG22	1.33	1.24
1:A:154:LEU:HD12	22:V:63:GLY:O	1.09	1.23
5:E:129:ILE:CG1	5:E:139:LEU:HD22	1.45	1.23
9:I:141:ARG:CD	9:I:144:LYS:HB3	1.67	1.23
24:X:60:LYS:HG3	24:X:116:PRO:CG	1.68	1.23
21:U:59:LYS:HB2	21:U:84:ILE:CG2	1.67	1.23
20:T:141:ALA:O	20:T:142:LYS:HG3	1.13	1.23
13:M:78:LYS:O	13:M:79:VAL:HG23	1.06	1.23
1:A:57:LYS:HZ1	22:V:70:LEU:CD1	1.51	1.23
10:J:17:ARG:CG	10:J:18:ARG:HG2	1.66	1.23
25:Y:120:THR:HB	25:Y:122:LYS:CE	1.67	1.23
17:Q:109:LYS:HG3	17:Q:113:ILE:CD1	1.65	1.23
8:H:40:LEU:HD21	8:H:43:LEU:CD1	1.64	1.23
4:D:211:VAL:HG23	18:R:38:ILE:O	1.36	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:71:LEU:CD2	11:K:76:ILE:CD1	2.17	1.23
25:Y:114:MET:HA	25:Y:124:ASN:ND2	1.54	1.23
8:H:53:VAL:CG2	8:H:57:ARG:O	1.86	1.23
4:D:97:CYS:O	4:D:99:ILE:N	1.67	1.23
11:K:83:LEU:CB	11:K:85:LEU:HD21	1.66	1.23
25:Y:18:LEU:HB3	25:Y:20:ARG:NH1	1.51	1.23
25:Y:22:GLN:HB3	25:Y:74:MET:SD	1.78	1.23
25:Y:99:LYS:CA	25:Y:99:LYS:HE3	1.48	1.23
11:K:71:LEU:CD2	11:K:76:ILE:HD13	1.67	1.23
15:O:95:ILE:CD1	15:O:116:LEU:HD21	1.67	1.23
17:Q:34:VAL:CG2	17:Q:39:LEU:CD2	2.15	1.23
19:S:94:LYS:HD3	19:S:96:SER:OG	1.38	1.23
9:I:157:LYS:HB3	12:L:22:ARG:CZ	1.68	1.22
14:N:46:THR:OG1	14:N:49:GLN:CG	1.86	1.22
19:S:138:THR:HA	19:S:141:ARG:NH2	0.92	1.22
5:E:62:LYS:HD3	5:E:80:ILE:CD1	1.68	1.22
5:E:126:VAL:HG13	5:E:158:ASP:O	1.35	1.22
11:K:14:LEU:CD2	11:K:35:LEU:CD2	2.18	1.22
7:G:85:ARG:CD	25:Y:118:ARG:NH2	2.03	1.22
3:C:197:LYS:CA	3:C:200:LEU:CD2	2.15	1.22
17:Q:93:VAL:HG13	17:Q:105:LYS:CD	1.69	1.22
16:P:10:ARG:HH21	16:P:11:THR:CB	1.50	1.22
5:E:47:PHE:CE2	5:E:52:LEU:HD11	1.74	1.22
2:B:57:ILE:CD1	2:B:60:ASP:OD1	1.88	1.22
4:D:35:SER:HA	4:D:99:ILE:CD1	1.69	1.22
9:I:136:ILE:O	9:I:139:LYS:HG3	1.04	1.22
10:J:17:ARG:CB	10:J:18:ARG:HG2	1.70	1.22
19:S:8:LYS:CB	19:S:9:PHE:HD1	1.53	1.22
10:J:15:THR:CG2	10:J:44:TRP:CZ3	2.23	1.21
17:Q:8:GLN:HG2	17:Q:99:TYR:CD1	1.74	1.21
19:S:39:ARG:NH2	20:T:38:LYS:HE3	1.44	1.21
9:I:161:LEU:CD1	9:I:199:LEU:HD11	1.67	1.21
8:H:93:VAL:CG2	8:H:94:PHE:H	1.43	1.21
12:L:156:GLN:OE1	12:L:158:PHE:CE2	1.92	1.21
10:J:89:GLU:C	10:J:92:MET:HB2	1.57	1.21
2:B:113:MET:CE	2:B:209:ASP:OD1	1.86	1.21
2:B:150:ILE:HG12	18:R:124:VAL:CG1	1.68	1.21
11:K:40:VAL:HG22	11:K:41:PRO:CD	1.69	1.21
10:J:17:ARG:O	10:J:17:ARG:HG3	1.41	1.21
11:K:16:PHE:CD2	11:K:79:LEU:CB	2.23	1.21
10:J:89:GLU:CA	10:J:92:MET:SD	2.28	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:11:LYS:CG	1:A:13:GLU:HG2	1.69	1.21
6:F:76:MET:CE	6:F:169:ILE:HG21	1.68	1.21
25:Y:12:PHE:CZ	25:Y:21:LYS:HB3	1.75	1.21
8:H:83:LEU:CD2	8:H:92:VAL:HG11	1.71	1.21
1:A:30:LEU:CD1	1:A:38:ILE:CD1	1.96	1.21
4:D:55:THR:O	4:D:58:VAL:HG22	1.41	1.21
6:F:59:LYS:CD	6:F:62:ARG:NH2	1.98	1.21
10:J:61:LEU:CD2	10:J:98:LEU:HD11	1.69	1.21
6:F:18:LYS:NZ	6:F:46:ALA:O	1.73	1.21
25:Y:19:GLN:HG2	25:Y:81:TYR:CD1	1.76	1.21
10:J:177:ASN:O	10:J:180:LYS:HG2	1.22	1.21
15:O:56:VAL:CG1	15:O:81:VAL:CG2	2.18	1.21
7:G:63:MET:CE	7:G:106:LEU:CD1	2.17	1.20
6:F:63:LYS:CD	6:F:71:ARG:CZ	2.19	1.20
25:Y:54:VAL:HG11	25:Y:76:TYR:O	1.35	1.20
25:Y:22:GLN:CB	25:Y:74:MET:SD	2.29	1.20
8:H:146:VAL:CG2	23:W:50:PHE:CE1	2.22	1.20
17:Q:50:LYS:NZ	17:Q:85:ARG:NH2	1.88	1.20
25:Y:32:LYS:CG	25:Y:33:ALA:H	1.55	1.20
12:L:103:GLU:OE1	24:X:11:ARG:HB2	1.07	1.20
4:D:56:GLN:O	4:D:59:LEU:HG	1.41	1.20
25:Y:120:THR:HB	25:Y:122:LYS:HE2	1.20	1.20
17:Q:85:ARG:HH12	17:Q:117:ARG:CG	1.53	1.20
16:P:41:GLN:HE21	16:P:84:ILE:CB	1.54	1.20
12:L:149:ALA:HB2	12:L:156:GLN:CG	1.60	1.20
9:I:157:LYS:HB3	12:L:22:ARG:NH1	0.87	1.20
6:F:44:LYS:HB3	6:F:45:TYR:CE1	1.76	1.20
13:M:98:GLY:O	13:M:100:PRO:HD3	1.36	1.20
14:N:99:ARG:NH2	14:N:115:LEU:HD21	1.56	1.19
1:A:48:ILE:CG1	18:R:105:MET:CE	2.20	1.19
9:I:141:ARG:CB	9:I:144:LYS:CB	2.18	1.19
16:P:41:GLN:NE2	16:P:84:ILE:HB	1.56	1.19
12:L:149:ALA:CB	12:L:156:GLN:NE2	2.05	1.19
3:C:195:PRO:CB	3:C:221:PHE:HZ	1.54	1.19
1:A:48:ILE:HD11	18:R:105:MET:SD	1.81	1.19
6:F:28:VAL:HG13	6:F:110:GLN:CD	1.60	1.19
11:K:21:MET:HE3	11:K:49:MET:SD	1.80	1.19
1:A:13:GLU:O	1:A:17:LYS:HE3	1.42	1.19
24:X:27:TYR:CZ	24:X:31:HIS:NE2	2.09	1.19
26:Z:48:VAL:O	26:Z:83:LEU:HD11	1.36	1.19
12:L:17:PHE:CZ	12:L:18:GLN:O	1.94	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:46:SER:O	16:P:49:LEU:CB	1.91	1.19
16:P:126:VAL:HG12	16:P:127:LYS:N	1.34	1.19
4:D:218:LEU:CD1	4:D:220:THR:HG21	1.71	1.19
4:D:218:LEU:CG	4:D:220:THR:HG23	1.69	1.19
17:Q:47:LEU:CD2	17:Q:81:ILE:HD12	1.72	1.19
16:P:123:TYR:OH	19:S:124:ARG:NH1	1.75	1.19
4:D:218:LEU:HG	4:D:220:THR:CG2	1.69	1.19
25:Y:84:LYS:O	25:Y:84:LYS:HD2	1.43	1.19
9:I:136:ILE:HG23	9:I:139:LYS:CE	1.70	1.19
3:C:79:ILE:CD1	3:C:147:ILE:CD1	2.19	1.19
5:E:21:ASP:OD2	5:E:24:THR:CG2	1.90	1.19
10:J:134:HIS:CE1	10:J:163:SER:HB2	1.77	1.19
10:J:17:ARG:HG2	10:J:18:ARG:CG	1.73	1.19
6:F:42:LYS:C	6:F:44:LYS:H	1.32	1.19
4:D:158:ILE:HD11	4:D:189:MET:CE	1.54	1.19
23:W:11:LEU:O	23:W:14:ILE:HG12	1.37	1.19
4:D:177:LEU:CD2	4:D:182:LEU:HD23	1.72	1.19
6:F:14:THR:CG2	17:Q:56:LEU:CB	2.21	1.19
26:Z:99:LEU:CD2	26:Z:109:TYR:CE1	2.26	1.19
17:Q:92:LEU:CD1	17:Q:96:TYR:CE2	2.25	1.19
2:B:71:LEU:CD1	2:B:84:PHE:HE2	1.55	1.18
1:A:104:THR:O	1:A:107:THR:HG23	1.38	1.18
10:J:10:ARG:HB3	10:J:10:ARG:NH1	1.58	1.18
12:L:118:ARG:HD2	12:L:118:ARG:C	1.57	1.18
5:E:212:ASP:OD1	5:E:216:ASN:HB2	1.41	1.18
1:A:125:THR:O	1:A:147:LEU:HB3	1.41	1.18
1:A:118:GLU:HB3	3:C:50:LYS:NZ	1.57	1.18
7:G:32:MET:SD	7:G:100:CYS:CA	2.31	1.18
23:W:18:GLU:OE2	23:W:67:GLY:HA2	1.36	1.18
17:Q:47:LEU:CD2	17:Q:81:ILE:CD1	2.22	1.18
17:Q:47:LEU:HD22	17:Q:81:ILE:CD1	1.72	1.18
26:Z:99:LEU:CD2	26:Z:102:LYS:HD3	1.73	1.18
3:C:158:LYS:HE2	3:C:158:LYS:O	1.42	1.18
25:Y:120:THR:CB	25:Y:122:LYS:HE2	1.72	1.18
6:F:42:LYS:C	6:F:44:LYS:N	1.88	1.18
17:Q:9:SER:CB	17:Q:26:LYS:HE3	1.72	1.18
13:M:13:ASP:CB	13:M:16:THR:HB	1.62	1.18
5:E:38:LEU:HD12	5:E:38:LEU:C	1.56	1.18
1:A:48:ILE:CG1	18:R:105:MET:HE1	1.74	1.18
16:P:41:GLN:HE22	16:P:45:LEU:CG	1.56	1.18
12:L:149:ALA:CB	12:L:156:GLN:CB	2.17	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:101:THR:HG21	3:C:103:ALA:O	1.42	1.18
8:H:163:GLN:OE1	8:H:189:PHE:CE2	1.97	1.18
11:K:18:GLU:O	11:K:92:ALA:CB	1.92	1.18
18:R:105:MET:O	18:R:109:LEU:HG	1.40	1.18
24:X:126:ALA:CB	24:X:128:VAL:HB	1.71	1.18
17:Q:38:PRO:CD	17:Q:41:MET:SD	2.32	1.18
20:T:23:LYS:CD	20:T:54:TYR:CD2	2.26	1.18
3:C:154:TYR:OH	3:C:161:LYS:HA	1.01	1.18
13:M:93:LYS:O	13:M:94:ILE:HG22	1.42	1.18
20:T:40:ALA:HB3	20:T:43:LYS:CG	1.73	1.18
14:N:62:GLN:HB2	14:N:65:PHE:CD2	1.78	1.17
21:U:67:LYS:HG2	21:U:78:ASP:OD2	1.45	1.17
19:S:42:HIS:CD2	20:T:45:LEU:CD2	2.25	1.17
18:R:1:MET:C	18:R:1:MET:N	1.95	1.17
4:D:210:ILE:CD1	18:R:15:VAL:HG11	1.73	1.17
1:A:30:LEU:HD21	1:A:35:GLU:CG	1.73	1.17
3:C:82:PHE:O	3:C:83:LEU:HD12	1.43	1.17
7:G:180:VAL:O	7:G:181:THR:HG22	1.41	1.17
11:K:40:VAL:HG22	11:K:41:PRO:N	1.59	1.17
16:P:84:ILE:O	16:P:86:LEU:CD2	1.92	1.17
12:L:147:LYS:HD2	12:L:148:ALA:CA	1.71	1.17
21:U:50:VAL:O	21:U:51:LYS:HD2	1.39	1.17
3:C:151:ARG:HH12	3:C:240:LEU:CD1	1.56	1.17
13:M:85:LEU:HA	13:M:88:TRP:CE3	1.77	1.17
7:G:27:PHE:CE2	7:G:41:LEU:HD12	1.79	1.17
2:B:57:ILE:HD13	2:B:60:ASP:CG	1.65	1.17
17:Q:58:LEU:CD2	17:Q:111:ILE:CD1	2.22	1.17
10:J:92:MET:O	10:J:93:LYS:HE3	1.40	1.17
25:Y:102:THR:CG2	25:Y:107:ARG:NE	2.03	1.17
13:M:78:LYS:O	13:M:79:VAL:CG2	1.91	1.17
1:A:141:ASN:CA	22:V:32:ILE:HG12	1.75	1.17
6:F:42:LYS:HD3	6:F:42:LYS:N	1.39	1.17
25:Y:63:HIS:CG	25:Y:64:PHE:CE1	2.31	1.17
8:H:53:VAL:HG22	8:H:57:ARG:O	0.99	1.17
22:V:11:LEU:HD12	22:V:12:TYR:CD2	1.65	1.17
1:A:154:LEU:CD1	22:V:63:GLY:O	1.91	1.17
17:Q:42:ILE:HG21	17:Q:51:LEU:CD2	1.75	1.17
2:B:66:VAL:CG2	2:B:87:ILE:CG2	2.15	1.17
19:S:8:LYS:O	26:Z:49:LEU:CD2	1.93	1.17
3:C:156:GLY:C	3:C:157:ASN:HD22	1.45	1.17
13:M:94:ILE:HG23	13:M:95:ASP:N	1.45	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:94:ILE:CG2	13:M:95:ASP:H	1.56	1.17
2:B:137:LEU:CD2	2:B:215:VAL:CG1	2.20	1.16
9:I:141:ARG:HB2	9:I:144:LYS:CB	1.75	1.16
10:J:110:LEU:CD1	10:J:130:ILE:CG1	2.22	1.16
11:K:60:GLU:CD	11:K:67:PHE:CD1	2.15	1.16
6:F:42:LYS:O	6:F:44:LYS:N	1.77	1.16
20:T:77:LYS:CG	20:T:92:PHE:HE2	1.47	1.16
8:H:65:PRO:HD2	8:H:68:GLN:OE1	1.42	1.16
19:S:138:THR:HA	19:S:141:ARG:CZ	1.75	1.16
18:R:122:PRO:HB3	18:R:123:THR:CG2	1.75	1.16
1:A:5:LEU:HD13	1:A:6:ASP:N	1.59	1.16
1:A:5:LEU:HB3	22:V:41:LYS:HE2	1.19	1.16
7:G:145:PHE:HB3	7:G:147:LEU:CD1	1.73	1.16
14:N:62:GLN:HB2	14:N:65:PHE:HD2	1.07	1.16
15:O:61:LYS:HE3	15:O:80:ASP:OD2	1.03	1.16
26:Z:44:LEU:C	26:Z:44:LEU:HD13	1.65	1.16
12:L:149:ALA:CB	12:L:156:GLN:HE21	1.55	1.16
19:S:47:LYS:NZ	19:S:78:LYS:HB2	1.59	1.16
12:L:153:LYS:HG3	14:N:131:THR:O	1.40	1.16
19:S:47:LYS:HE3	19:S:77:TYR:O	0.99	1.16
3:C:244:THR:HG22	3:C:246:PHE:CD2	1.80	1.16
4:D:76:ARG:CD	11:K:66:HIS:CE1	2.27	1.16
5:E:100:ARG:HD3	5:E:102:ILE:HD11	1.19	1.16
25:Y:63:HIS:CG	25:Y:64:PHE:HE1	1.62	1.16
12:L:101:ARG:O	24:X:10:ALA:CB	1.92	1.16
25:Y:92:ALA:N	25:Y:97:TYR:HB3	1.59	1.16
10:J:138:ARG:NH1	10:J:156:HIS:CE1	2.13	1.16
5:E:248:ILE:HB	10:J:72:PHE:CE1	1.81	1.16
11:K:11:ILE:HG21	11:K:49:MET:HE2	1.21	1.16
24:X:52:LEU:HD21	24:X:71:ARG:HB3	1.26	1.16
9:I:136:ILE:O	9:I:139:LYS:CG	1.92	1.16
11:K:11:ILE:CG2	11:K:49:MET:HE1	1.71	1.16
14:N:87:ASP:OD2	14:N:129:TYR:OH	1.64	1.16
24:X:51:VAL:HG13	24:X:70:VAL:HG11	1.23	1.16
8:H:31:GLU:OE2	8:H:41:ARG:HD2	1.01	1.16
25:Y:36:PRO:CG	25:Y:39:GLU:CD	2.14	1.16
19:S:139:THR:O	19:S:141:ARG:HG3	1.46	1.16
6:F:201:LYS:CE	6:F:204:ARG:HH21	1.58	1.16
8:H:143:ARG:HD3	23:W:53:ILE:CG1	1.74	1.16
11:K:30:PRO:O	11:K:31:LYS:CG	1.94	1.16
11:K:83:LEU:HB3	11:K:85:LEU:HD23	1.20	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:144:ILE:CB	23:W:52:ILE:CG2	2.22	1.16
1:A:103:PHE:CE2	1:A:136:GLU:OE1	1.99	1.16
4:D:21:LEU:CD1	4:D:48:ILE:HD12	1.74	1.16
10:J:143:ASN:O	10:J:145:PRO:HD3	1.41	1.16
11:K:60:GLU:OE1	11:K:67:PHE:CE1	1.99	1.16
15:O:61:LYS:O	15:O:62:VAL:HG23	1.42	1.16
25:Y:20:ARG:CG	25:Y:74:MET:CE	2.23	1.16
16:P:123:TYR:CD2	19:S:120:HIS:HE1	1.64	1.16
18:R:17:ILE:HG21	18:R:69:ILE:CD1	1.74	1.16
18:R:5:ARG:CB	18:R:10:LYS:HZ3	1.56	1.16
4:D:226:GLN:HA	4:D:226:GLN:NE2	1.58	1.15
5:E:208:VAL:HG21	5:E:225:ILE:HD12	1.24	1.15
1:A:120:ARG:HD2	3:C:251:TYR:HE2	1.03	1.15
5:E:129:ILE:HG13	5:E:139:LEU:CD2	1.70	1.15
22:V:11:LEU:HD11	22:V:12:TYR:CE2	1.80	1.15
17:Q:109:LYS:CG	17:Q:113:ILE:HD12	1.76	1.15
6:F:14:THR:CG2	17:Q:56:LEU:CG	2.10	1.15
9:I:25:ARG:CD	9:I:27:TYR:CE2	2.23	1.15
25:Y:7:ILE:HD12	25:Y:43:LYS:CG	1.76	1.15
26:Z:85:ARG:HB3	26:Z:85:ARG:NH1	1.60	1.15
5:E:159:THR:CG2	5:E:227:VAL:CG2	2.16	1.15
7:G:16:ILE:CD1	7:G:45:TRP:HZ2	1.60	1.15
14:N:80:LEU:O	14:N:82:PRO:HD3	1.43	1.15
16:P:44:ARG:NH2	16:P:84:ILE:H	1.45	1.15
25:Y:20:ARG:HD2	25:Y:74:MET:HE2	1.16	1.15
12:L:113:LEU:HD11	12:L:120:VAL:HG21	1.25	1.15
19:S:139:THR:O	19:S:141:ARG:CG	1.95	1.15
3:C:195:PRO:CG	3:C:221:PHE:HZ	1.57	1.15
3:C:70:SER:O	22:V:29:HIS:ND1	1.78	1.15
11:K:23:ALA:O	11:K:66:HIS:O	1.64	1.15
15:O:19:PRO:HG2	15:O:27:VAL:CG2	1.62	1.15
2:B:26:SER:O	2:B:27:LYS:HG3	1.44	1.15
11:K:62:PHE:HD1	11:K:67:PHE:CZ	1.65	1.15
16:P:49:LEU:CD1	16:P:51:ARG:NE	2.03	1.15
4:D:210:ILE:CD1	18:R:15:VAL:HG12	1.75	1.15
22:V:1:MET:HE2	22:V:10:ASP:HB2	1.23	1.15
20:T:84:ARG:NH2	20:T:84:ARG:HB2	1.59	1.15
6:F:176:GLU:OE1	6:F:187:SER:OG	1.63	1.15
10:J:61:LEU:HD13	10:J:94:LEU:CD1	1.76	1.15
7:G:98:ARG:HD3	7:G:99:GLY:N	1.61	1.15
10:J:125:HIS:CD2	10:J:129:LEU:HD11	1.81	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:69:THR:HB	26:Z:70:PRO:HD3	1.24	1.15
25:Y:93:ARG:HH11	25:Y:93:ARG:HG2	1.02	1.15
8:H:85:LYS:HD2	8:H:85:LYS:O	1.43	1.15
11:K:16:PHE:CD2	11:K:79:LEU:HB2	1.80	1.15
2:B:137:LEU:HD22	2:B:215:VAL:CG2	1.77	1.15
15:O:95:ILE:HD13	15:O:116:LEU:HD21	1.18	1.15
17:Q:50:LYS:NZ	17:Q:117:ARG:HD2	1.59	1.15
4:D:132:LYS:CA	4:D:191:PRO:CG	2.25	1.15
19:S:39:ARG:NH2	20:T:38:LYS:HZ2	1.38	1.15
20:T:77:LYS:CB	20:T:94:ARG:HD3	1.75	1.15
6:F:14:THR:HG22	17:Q:56:LEU:HD22	1.15	1.15
25:Y:92:ALA:HA	25:Y:97:TYR:O	1.45	1.15
7:G:50:VAL:HG11	7:G:111:LEU:HD13	1.19	1.14
9:I:116:HIS:O	9:I:152:ARG:CZ	1.93	1.14
2:B:57:ILE:HD13	2:B:60:ASP:OD1	0.97	1.14
12:L:10:TYR:CD2	12:L:12:LYS:NZ	2.14	1.14
14:N:125:LEU:HD13	14:N:129:TYR:CE2	1.82	1.14
17:Q:58:LEU:HD23	17:Q:111:ILE:HD13	1.25	1.14
20:T:46:ALA:HB1	20:T:47:PRO:CD	1.77	1.14
16:P:53:GLN:NE2	16:P:80:LEU:HD13	1.60	1.14
26:Z:48:VAL:HG22	26:Z:80:ARG:HD3	1.28	1.14
4:D:218:LEU:HD12	4:D:220:THR:HG21	1.19	1.14
10:J:169:ARG:HB3	10:J:170:PRO:CD	1.77	1.14
17:Q:57:LEU:CD1	17:Q:115:TYR:CE2	2.31	1.14
17:Q:85:ARG:HD3	17:Q:119:LEU:HD23	1.24	1.14
8:H:12:ASN:ND2	8:H:46:THR:OG1	1.81	1.14
2:B:113:MET:HE1	2:B:211:PHE:HE2	1.01	1.14
2:B:20:LYS:O	2:B:21:VAL:HG12	1.43	1.14
8:H:85:LYS:C	8:H:85:LYS:HD2	1.61	1.14
5:E:129:ILE:HG12	5:E:139:LEU:HD21	1.19	1.14
9:I:154:LYS:CA	9:I:154:LYS:HE2	1.66	1.14
10:J:48:PHE:CE1	10:J:52:LYS:CE	2.29	1.14
1:A:186:ARG:HG2	1:A:186:ARG:HH11	1.01	1.14
2:B:25:PHE:CZ	15:O:88:LEU:HD13	1.83	1.14
3:C:54:LEU:CD1	3:C:258:LEU:HD11	1.69	1.14
10:J:110:LEU:CD1	10:J:130:ILE:HG12	1.74	1.14
11:K:62:PHE:CD1	11:K:67:PHE:CE2	2.36	1.14
17:Q:57:LEU:HD11	17:Q:115:TYR:CE2	1.82	1.14
16:P:33:LEU:HD22	16:P:87:PRO:CG	1.78	1.14
19:S:8:LYS:CD	19:S:9:PHE:HE1	1.60	1.14
21:U:50:VAL:HG13	21:U:51:LYS:H	0.98	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:214:LYS:HG3	4:D:215:ASP:OD2	1.48	1.14
19:S:47:LYS:CE	19:S:77:TYR:O	1.95	1.14
1:A:32:PHE:CE1	1:A:33:GLN:HG2	1.83	1.14
9:I:194:GLU:CD	12:L:12:LYS:HZ3	1.51	1.14
10:J:114:VAL:HG12	10:J:120:ALA:HB2	1.23	1.14
10:J:48:PHE:CZ	10:J:52:LYS:NZ	2.16	1.14
7:G:14:LYS:HZ2	7:G:123:GLY:CA	1.60	1.14
7:G:181:THR:OG1	7:G:182:PRO:HD2	1.48	1.14
7:G:85:ARG:CD	25:Y:118:ARG:CZ	2.25	1.14
21:U:109:GLY:O	21:U:110:VAL:HG23	1.45	1.14
17:Q:85:ARG:NH2	17:Q:117:ARG:HG2	1.63	1.14
10:J:89:GLU:CA	10:J:92:MET:HB2	1.77	1.14
3:C:260:LYS:HG3	3:C:261:THR:H	1.09	1.14
1:A:141:ASN:C	22:V:32:ILE:CG1	2.16	1.14
24:X:71:ARG:HG2	24:X:82:THR:HG22	1.29	1.14
6:F:41:VAL:HG22	6:F:42:LYS:N	1.53	1.14
6:F:91:ARG:HA	6:F:91:ARG:NE	1.42	1.14
4:D:126:ILE:HD11	4:D:134:CYS:SG	1.86	1.14
4:D:212:GLU:CG	18:R:19:LYS:CD	2.25	1.14
6:F:63:LYS:HD2	6:F:71:ARG:NH1	1.59	1.13
7:G:157:VAL:HG11	7:G:159:ARG:HG2	1.16	1.13
21:U:109:GLY:O	21:U:110:VAL:CG2	1.95	1.13
1:A:97:THR:HG23	1:A:98:PRO:HD2	1.21	1.13
10:J:70:ARG:HH21	10:J:94:LEU:HD21	1.02	1.13
2:B:25:PHE:CD2	15:O:88:LEU:HD22	1.82	1.13
24:X:99:GLU:O	24:X:100:VAL:HG13	1.44	1.13
4:D:132:LYS:H	4:D:191:PRO:HD3	1.06	1.13
6:F:14:THR:OG1	17:Q:56:LEU:HB2	1.35	1.13
2:B:147:ASN:O	18:R:124:VAL:HG21	1.41	1.13
3:C:234:SER:HA	22:V:23:ILE:CD1	1.78	1.13
15:O:105:THR:O	15:O:106:LYS:HG2	1.45	1.13
5:E:100:ARG:HD3	5:E:102:ILE:CD1	1.78	1.13
5:E:98:ASN:ND2	5:E:119:ALA:CB	2.10	1.13
5:E:129:ILE:CG1	5:E:139:LEU:HD23	1.73	1.13
6:F:93:VAL:O	6:F:97:PHE:CD1	2.01	1.13
14:N:28:LEU:O	14:N:29:THR:HG23	1.45	1.13
22:V:55:ILE:HD13	22:V:65:SER:HA	1.25	1.13
25:Y:54:VAL:CG1	25:Y:76:TYR:O	1.95	1.13
26:Z:99:LEU:HD22	26:Z:102:LYS:HD3	1.19	1.13
1:A:103:PHE:CZ	1:A:136:GLU:OE1	2.00	1.13
4:D:76:ARG:CZ	11:K:66:HIS:CE1	2.30	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:14:LYS:NZ	7:G:123:GLY:CA	2.11	1.13
4:D:47:GLU:HG2	4:D:85:GLU:OE2	1.41	1.13
20:T:31:PRO:HB3	20:T:33:TRP:CZ2	1.83	1.13
3:C:55:VAL:HB	6:F:34:SER:CB	87.73	1.13
9:I:141:ARG:HD2	9:I:144:LYS:HB3	1.19	1.13
10:J:170:PRO:CG	10:J:175:ARG:CG	2.26	1.13
15:O:99:ALA:H	15:O:133:THR:CG2	1.60	1.13
21:U:40:ILE:CD1	21:U:53:PRO:CG	2.13	1.13
21:U:36:CYS:SG	21:U:53:PRO:HB3	1.89	1.13
18:R:1:MET:HA	18:R:1:MET:CB	1.67	1.13
18:R:17:ILE:CG2	18:R:69:ILE:CD1	2.25	1.13
7:G:32:MET:CE	7:G:100:CYS:CA	2.27	1.13
12:L:4:ILE:HD12	12:L:4:ILE:N	1.60	1.13
14:N:22:VAL:HB	14:N:23:PRO:HA	1.21	1.13
1:A:66:VAL:HG22	1:A:186:ARG:HD3	1.14	1.12
5:E:208:VAL:HG11	5:E:225:ILE:HD13	1.27	1.12
1:A:118:GLU:CB	3:C:50:LYS:NZ	2.11	1.12
9:I:153:LYS:O	9:I:154:LYS:HB3	1.40	1.12
25:Y:122:LYS:HD3	25:Y:123:ALA:H	1.05	1.12
3:C:197:LYS:CA	3:C:200:LEU:HD21	1.78	1.12
4:D:132:LYS:CB	4:D:191:PRO:CG	2.16	1.13
16:P:53:GLN:CG	16:P:80:LEU:HD13	1.74	1.13
26:Z:48:VAL:CG2	26:Z:80:ARG:HD3	1.77	1.13
17:Q:44:PRO:HG2	17:Q:81:ILE:HD11	1.27	1.12
12:L:80:MET:HE1	12:L:121:GLN:CA	1.79	1.12
10:J:91:LYS:HA	10:J:96:TYR:CB	1.78	1.12
4:D:212:GLU:HG2	18:R:19:LYS:HD3	1.30	1.12
3:C:260:LYS:CG	3:C:261:THR:H	1.56	1.12
24:X:126:ALA:HB3	24:X:128:VAL:HB	1.15	1.12
17:Q:105:LYS:HD2	17:Q:105:LYS:O	1.50	1.12
6:F:47:LYS:HG3	17:Q:117:ARG:NH2	1.63	1.12
16:P:10:ARG:HH21	16:P:11:THR:HB	1.05	1.12
16:P:52:LYS:O	16:P:52:LYS:HD3	1.44	1.12
24:X:105:PHE:HE2	24:X:119:ARG:CA	1.61	1.12
3:C:154:TYR:OH	3:C:162:PRO:HD3	1.49	1.12
15:O:136:PRO:O	15:O:138:ASP:N	1.81	1.12
3:C:197:LYS:O	3:C:200:LEU:HG	1.48	1.12
17:Q:85:ARG:NH1	17:Q:117:ARG:HG2	1.62	1.12
26:Z:62:VAL:HG13	26:Z:68:ILE:CD1	1.78	1.12
4:D:218:LEU:CB	4:D:220:THR:CG2	2.25	1.12
2:B:105:LEU:HD11	2:B:213:ARG:HB2	1.17	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:100:PRO:HG2	18:R:119:VAL:HG22	1.29	1.12
1:A:120:ARG:HD2	3:C:251:TYR:CE2	1.84	1.12
3:C:87:LEU:HD21	3:C:115:ILE:HG23	1.16	1.12
8:H:144:ILE:CD1	23:W:52:ILE:HG21	1.79	1.12
10:J:37:LEU:HD11	10:J:42:GLU:CB	1.77	1.12
18:R:100:PRO:HA	18:R:103:LYS:HB2	1.13	1.12
6:F:42:LYS:O	6:F:44:LYS:CA	1.98	1.12
16:P:41:GLN:CB	16:P:84:ILE:HG12	1.80	1.12
4:D:166:TYR:CD1	4:D:200:PRO:HB2	1.84	1.12
4:D:195:SER:O	4:D:197:LYS:HG2	1.48	1.12
12:L:76:VAL:HG12	12:L:125:ILE:CD1	1.78	1.12
1:A:106:GLY:O	1:A:113:GLN:OE1	1.67	1.12
2:B:160:GLN:NE2	2:B:205:TYR:CD1	2.18	1.12
19:S:46:ARG:NH2	20:T:50:GLU:CB	2.12	1.12
23:W:93:LEU:HD21	23:W:128:PHE:CD2	1.83	1.12
4:D:212:GLU:HG2	18:R:19:LYS:CD	1.80	1.12
10:J:170:PRO:CG	10:J:175:ARG:HG3	1.80	1.12
11:K:14:LEU:HD22	11:K:35:LEU:HD21	1.17	1.12
1:A:5:LEU:CB	22:V:41:LYS:HE2	1.79	1.12
3:C:60:ILE:O	3:C:82:PHE:CE1	2.03	1.12
9:I:194:GLU:CG	12:L:12:LYS:NZ	2.13	1.12
5:E:248:ILE:CB	10:J:72:PHE:CE1	2.33	1.12
17:Q:50:LYS:HZ1	17:Q:117:ARG:CD	1.61	1.12
8:H:8:ILE:CG2	8:H:9:VAL:HG22	1.79	1.12
4:D:123:LEU:HD21	4:D:154:ASP:HB3	1.29	1.12
6:F:185:SER:HA	6:F:190:ILE:HG21	1.12	1.12
9:I:114:GLU:OE1	9:I:133:GLU:HG3	1.50	1.11
11:K:11:ILE:HG21	11:K:49:MET:CE	1.71	1.11
22:V:17:CYS:SG	22:V:56:CYS:CB	2.38	1.11
16:P:121:ILE:CG2	19:S:123:LEU:HD12	1.80	1.11
6:F:14:THR:HG23	17:Q:56:LEU:HB3	1.28	1.11
25:Y:34:THR:O	25:Y:35:VAL:CG2	1.97	1.11
9:I:69:SER:HB3	12:L:19:ASN:HD21	1.11	1.11
4:D:195:SER:HA	4:D:197:LYS:O	1.49	1.11
25:Y:13:MET:HE2	25:Y:14:THR:O	1.49	1.11
7:G:176:ILE:HG21	7:G:179:LEU:HD22	1.12	1.11
11:K:3:MET:HE2	11:K:8:ARG:CZ	1.80	1.11
4:D:158:ILE:CD1	4:D:189:MET:HE1	1.57	1.11
12:L:80:MET:HE3	12:L:120:VAL:O	1.31	1.11
18:R:91:LEU:H	18:R:91:LEU:HD12	1.10	1.11
20:T:143:LYS:HD2	20:T:144:LYS:N	1.65	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:50:VAL:HG12	7:G:111:LEU:HD22	1.31	1.11
6:F:41:VAL:HG22	6:F:42:LYS:HD3	1.25	1.11
6:F:45:TYR:O	6:F:47:LYS:HD3	1.44	1.11
8:H:8:ILE:HG23	8:H:9:VAL:CG2	1.80	1.11
18:R:1:MET:CB	18:R:2:GLY:N	2.13	1.11
12:L:147:LYS:HD2	12:L:148:ALA:HA	1.13	1.11
10:J:110:LEU:HD12	10:J:130:ILE:CD1	1.74	1.11
1:A:45:GLY:O	1:A:46:ILE:HG12	1.50	1.11
9:I:85:ALA:HB1	12:L:8:ARG:HH11	1.11	1.11
6:F:20:PHE:O	6:F:22:LYS:N	1.83	1.11
18:R:20:TYR:CZ	18:R:38:ILE:CB	2.33	1.11
4:D:47:GLU:HG2	4:D:85:GLU:CD	1.71	1.11
5:E:208:VAL:CB	5:E:225:ILE:HD11	1.68	1.11
5:E:89:VAL:O	5:E:99:PHE:O	1.68	1.11
14:N:28:LEU:O	14:N:29:THR:CG2	1.99	1.11
8:H:37:LYS:HE2	8:H:41:ARG:HH11	1.16	1.11
16:P:108:LYS:O	16:P:111:MET:HG3	1.51	1.11
25:Y:62:THR:HG22	25:Y:69:THR:CG2	1.80	1.11
16:P:127:LYS:HZ3	16:P:127:LYS:HB2	1.10	1.11
4:D:176:LEU:H	4:D:176:LEU:HD12	1.13	1.11
23:W:36:ARG:HD3	23:W:110:ILE:HD12	1.28	1.11
7:G:16:ILE:CD1	7:G:45:TRP:CZ2	2.33	1.10
11:K:34:GLU:O	11:K:35:LEU:HB2	1.31	1.10
11:K:71:LEU:HD21	11:K:76:ILE:HD13	1.19	1.10
9:I:157:LYS:CB	12:L:22:ARG:HD3	1.78	1.10
17:Q:8:GLN:HG3	17:Q:99:TYR:HE1	0.98	1.10
22:V:32:ILE:HD12	22:V:60:ARG:NH1	1.65	1.10
2:B:71:LEU:CD1	2:B:84:PHE:CE2	2.32	1.10
11:K:40:VAL:CG2	11:K:41:PRO:CD	2.30	1.10
25:Y:20:ARG:CG	25:Y:74:MET:HE3	1.80	1.10
4:D:132:LYS:CA	4:D:191:PRO:HG3	1.80	1.10
8:H:83:LEU:CD1	8:H:92:VAL:CB	2.27	1.10
12:L:149:ALA:CB	12:L:156:GLN:HB3	1.79	1.10
16:P:49:LEU:HA	16:P:51:ARG:HG3	1.30	1.10
16:P:126:VAL:CG1	16:P:127:LYS:N	2.06	1.10
24:X:67:ARG:O	24:X:68:LYS:HG3	1.50	1.10
15:O:35:ALA:HB2	15:O:112:ALA:HB2	1.33	1.10
5:E:99:PHE:CE1	5:E:113:ARG:CG	2.34	1.10
7:G:176:ILE:CB	7:G:179:LEU:CD2	2.29	1.10
2:B:137:LEU:HB2	2:B:172:MET:HE1	1.33	1.10
13:M:116:LYS:O	13:M:117:GLU:HB2	1.43	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:83:LYS:NZ	15:O:130:GLU:OE1	1.82	1.10
6:F:41:VAL:HG22	6:F:42:LYS:CD	1.80	1.10
17:Q:19:ALA:HB2	17:Q:74:GLY:O	1.50	1.10
19:S:39:ARG:NH2	20:T:38:LYS:NZ	1.80	1.10
19:S:58:GLU:O	19:S:59:LEU:HD22	1.51	1.10
4:D:213:PRO:O	4:D:214:LYS:HB3	1.50	1.10
6:F:78:MET:O	6:F:79:HIS:HB2	1.44	1.10
20:T:18:LEU:HD13	20:T:134:ILE:HD13	1.23	1.10
3:C:55:VAL:CG2	3:C:82:PHE:HE2	1.63	1.10
7:G:76:LEU:HD21	7:G:92:ARG:HG2	1.32	1.10
8:H:144:ILE:HD12	23:W:52:ILE:CG2	1.82	1.10
10:J:115:PHE:HD1	10:J:122:SER:N	1.48	1.10
16:P:41:GLN:NE2	16:P:45:LEU:HG	1.65	1.10
25:Y:51:THR:HB	25:Y:52:PRO:HD3	1.34	1.10
16:P:107:ILE:HA	16:P:111:MET:CE	1.80	1.10
4:D:197:LYS:H	4:D:198:ILE:C	1.53	1.10
8:H:93:VAL:HG23	8:H:94:PHE:H	1.11	1.10
2:B:25:PHE:CD2	15:O:88:LEU:CD2	2.34	1.10
4:D:70:THR:HG22	4:D:86:LEU:HD13	1.31	1.10
9:I:140:LYS:CG	9:I:141:ARG:H	1.64	1.10
10:J:169:ARG:HB3	10:J:170:PRO:HD2	1.17	1.10
18:R:105:MET:O	18:R:109:LEU:CG	2.00	1.10
17:Q:109:LYS:HG3	17:Q:113:ILE:HD12	1.22	1.10
17:Q:85:ARG:CZ	17:Q:117:ARG:HG2	1.82	1.10
26:Z:103:HIS:CD2	26:Z:105:ALA:HB3	1.86	1.10
3:C:102:GLN:HG3	3:C:103:ALA:H	1.04	1.10
18:R:122:PRO:CB	18:R:123:THR:CG2	2.29	1.10
24:X:60:LYS:HG3	24:X:116:PRO:HG2	1.26	1.10
5:E:47:PHE:CZ	5:E:52:LEU:HD11	1.86	1.10
2:B:135:LEU:HD21	2:B:217:MET:SD	1.91	1.10
11:K:5:LYS:HG3	11:K:5:LYS:O	1.44	1.10
18:R:100:PRO:HB2	18:R:119:VAL:HG21	1.24	1.10
1:A:133:PRO:HD2	1:A:134:LEU:H	1.03	1.10
14:N:125:LEU:HD13	14:N:129:TYR:HE2	1.11	1.10
6:F:76:MET:HE1	6:F:169:ILE:HG21	1.25	1.10
16:P:44:ARG:HH21	16:P:84:ILE:HB	1.10	1.10
8:H:146:VAL:CG2	23:W:50:PHE:CZ	2.32	1.10
16:P:10:ARG:NH2	16:P:11:THR:HB	1.66	1.10
12:L:157:LYS:C	12:L:158:PHE:CD2	2.25	1.10
17:Q:92:LEU:HD11	17:Q:96:TYR:CE2	1.85	1.10
3:C:142:LEU:HA	3:C:145:LEU:HD21	1.27	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:8:GLN:CB	17:Q:99:TYR:CE1	2.35	1.09
1:A:185:MET:CE	22:V:39:VAL:HG12	1.82	1.09
5:E:153:LEU:HD23	7:G:216:ARG:HH22	1.14	1.09
9:I:139:LYS:HB3	9:I:145:ILE:CD1	1.82	1.09
18:R:122:PRO:CA	18:R:123:THR:CG2	2.30	1.09
10:J:179:LYS:HG2	10:J:182:GLN:OE1	1.50	1.09
1:A:30:LEU:CD2	1:A:35:GLU:HG3	1.80	1.09
4:D:47:GLU:HG2	4:D:85:GLU:CG	1.82	1.09
15:O:99:ALA:N	15:O:133:THR:HG22	1.68	1.09
17:Q:85:ARG:HD3	17:Q:119:LEU:CD2	1.81	1.09
8:H:36:LEU:HD12	8:H:36:LEU:O	1.51	1.09
10:J:89:GLU:CA	10:J:92:MET:CG	2.29	1.09
12:L:101:ARG:C	24:X:10:ALA:HB2	1.70	1.09
25:Y:92:ALA:HA	25:Y:97:TYR:C	1.71	1.09
14:N:132:LYS:HE3	14:N:132:LYS:CA	1.70	1.09
5:E:49:ARG:O	5:E:49:ARG:HD3	1.52	1.09
9:I:141:ARG:O	9:I:143:LYS:HE2	1.50	1.09
9:I:155:ASN:O	12:L:22:ARG:HD2	1.30	1.09
14:N:38:TYR:CE2	14:N:74:ILE:CG2	2.34	1.09
21:U:103:SER:O	21:U:106:ILE:CG2	1.99	1.09
21:U:64:THR:HG22	21:U:79:ARG:HG2	1.10	1.09
16:P:53:GLN:HG2	16:P:80:LEU:HD13	1.23	1.09
26:Z:62:VAL:HG13	26:Z:68:ILE:HD13	1.17	1.09
19:S:137:LYS:HG2	19:S:138:THR:HG23	1.34	1.09
1:A:205:ARG:CG	1:A:206:ASP:H	1.65	1.09
5:E:21:ASP:OD2	5:E:24:THR:HG21	1.52	1.09
5:E:70:ILE:HG12	5:E:92:ILE:HD12	1.24	1.09
14:N:38:TYR:CD1	14:N:78:LYS:HD2	1.86	1.09
25:Y:63:HIS:HB3	25:Y:64:PHE:CD1	1.86	1.09
16:P:49:LEU:O	16:P:51:ARG:CA	1.99	1.09
24:X:2:GLY:O	24:X:3:LYS:CG	2.01	1.09
6:F:36:GLN:HG3	6:F:37:ASP:CG	1.70	1.09
2:B:105:LEU:HD12	2:B:110:MET:HE2	1.13	1.09
25:Y:7:ILE:HD12	25:Y:43:LYS:HG2	1.19	1.09
23:W:26:LEU:O	23:W:26:LEU:HD12	1.53	1.09
3:C:51:LEU:HD13	3:C:78:ILE:HD13	1.30	1.09
24:X:52:LEU:HD12	24:X:53:GLU:N	1.68	1.09
7:G:184:VAL:HG12	7:G:188:LYS:HE2	1.33	1.09
10:J:127:ARG:CG	10:J:127:ARG:HH11	1.66	1.09
6:F:47:LYS:HG3	17:Q:117:ARG:HH22	1.12	1.09
6:F:49:LEU:HD12	6:F:50:PRO:HD2	1.29	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:27:ARG:CB	4:D:27:ARG:HH11	4.03	1.09
20:T:111:LYS:HB3	20:T:126:GLN:NE2	1.67	1.09
2:B:137:LEU:CD2	2:B:215:VAL:HG22	1.83	1.08
7:G:76:LEU:HD22	7:G:92:ARG:CG	1.84	1.08
9:I:114:GLU:OE1	9:I:133:GLU:CG	2.00	1.08
1:A:141:ASN:HA	22:V:32:ILE:CG1	1.82	1.08
1:A:141:ASN:O	22:V:32:ILE:HG12	1.50	1.08
6:F:39:ILE:HG23	6:F:68:ILE:HG21	1.20	1.08
9:I:154:LYS:HG3	9:I:155:ASN:H	1.16	1.08
17:Q:42:ILE:HD13	17:Q:51:LEU:HD22	1.33	1.08
23:W:11:LEU:O	23:W:14:ILE:CG1	1.99	1.08
25:Y:10:ARG:HG2	25:Y:24:VAL:HB	1.31	1.08
13:M:124:ILE:HA	13:M:127:TYR:CD2	1.88	1.08
25:Y:7:ILE:CD1	25:Y:43:LYS:CG	2.30	1.08
26:Z:73:VAL:HG12	26:Z:79:ILE:HG21	1.35	1.08
3:C:260:LYS:HD2	3:C:261:THR:HG22	1.18	1.08
2:B:124:HIS:HD2	2:B:136:HIS:NE2	1.50	1.08
10:J:100:LEU:CD1	10:J:104:ASP:OD2	2.01	1.08
24:X:40:PRO:HB3	24:X:81:ILE:HD11	1.31	1.08
1:A:66:VAL:HG11	1:A:186:ARG:HB3	1.35	1.08
7:G:142:ARG:HD3	7:G:147:LEU:CB	1.84	1.08
8:H:143:ARG:HE	23:W:53:ILE:HG23	1.09	1.08
1:A:21:ALA:HB3	1:A:173:LEU:HD12	1.21	1.08
16:P:33:LEU:CD2	16:P:87:PRO:HD2	1.83	1.08
21:U:40:ILE:HD13	21:U:53:PRO:HG3	1.27	1.08
8:H:40:LEU:HD23	8:H:43:LEU:HD12	1.16	1.08
6:F:14:THR:CB	17:Q:56:LEU:HD13	1.82	1.08
12:L:147:LYS:CD	12:L:148:ALA:CA	2.30	1.08
10:J:91:LYS:HA	10:J:96:TYR:HB2	1.29	1.08
19:S:46:ARG:CZ	20:T:50:GLU:CB	2.30	1.08
4:D:210:ILE:HD13	18:R:15:VAL:HG12	1.33	1.08
4:D:218:LEU:HB2	4:D:220:THR:CG2	1.82	1.08
23:W:104:LEU:CD1	23:W:106:THR:HG23	1.84	1.08
15:O:22:ALA:O	15:O:24:GLY:N	1.85	1.08
3:C:51:LEU:HD22	3:C:51:LEU:O	1.54	1.08
7:G:176:ILE:HG22	7:G:179:LEU:HB3	1.25	1.08
1:A:57:LYS:NZ	22:V:70:LEU:CD1	2.11	1.08
3:C:197:LYS:HA	3:C:200:LEU:HD23	1.10	1.08
17:Q:74:GLY:O	17:Q:80:GLN:NE2	1.86	1.08
19:S:124:ARG:HD3	19:S:130:ARG:O	1.52	1.08
16:P:53:GLN:HG2	16:P:80:LEU:HD11	1.26	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:34:THR:HG22	25:Y:35:VAL:N	1.61	1.08
4:D:212:GLU:HB2	4:D:213:PRO:HD2	1.28	1.08
15:O:56:VAL:HG12	15:O:81:VAL:HG22	1.30	1.08
5:E:38:LEU:HD12	5:E:38:LEU:O	1.53	1.08
26:Z:70:PRO:HD2	26:Z:71:ALA:H	1.14	1.08
1:A:34:MET:HE3	1:A:37:TYR:HD2	1.13	1.08
1:A:58:LEU:HD23	1:A:178:LEU:CD2	1.74	1.08
2:B:36:PRO:CB	2:B:231:LEU:HD21	1.82	1.08
4:D:2:ALA:CB	4:D:3:VAL:CA	2.29	1.08
15:O:61:LYS:CE	15:O:80:ASP:OD2	2.00	1.08
7:G:50:VAL:CG1	7:G:111:LEU:HD22	1.84	1.08
26:Z:103:HIS:CD2	26:Z:105:ALA:H	1.72	1.08
20:T:46:ALA:HB1	20:T:47:PRO:HD2	1.08	1.08
8:H:83:LEU:HD11	8:H:92:VAL:HB	1.16	1.08
16:P:11:THR:O	16:P:12:PHE:HB2	1.47	1.08
25:Y:63:HIS:HB3	25:Y:64:PHE:CE1	1.88	1.08
4:D:201:LYS:HA	4:D:201:LYS:HE2	1.36	1.08
10:J:89:GLU:HA	10:J:92:MET:HB2	1.21	1.08
18:R:17:ILE:HG22	18:R:69:ILE:HD11	1.14	1.08
16:P:62:LYS:O	16:P:65:LYS:CG	2.01	1.08
7:G:67:VAL:HG23	7:G:68:LEU:O	1.54	1.08
10:J:134:HIS:O	10:J:135:ILE:HG23	1.54	1.08
14:N:28:LEU:HD11	14:N:58:HIS:NE2	1.69	1.08
1:A:34:MET:HE3	1:A:37:TYR:CD2	1.88	1.08
5:E:248:ILE:HD11	10:J:72:PHE:CG	1.79	1.08
10:J:17:ARG:CG	10:J:18:ARG:CG	2.30	1.08
4:D:158:ILE:CD1	4:D:189:MET:HE2	1.60	1.08
20:T:31:PRO:CB	20:T:33:TRP:CE2	2.37	1.08
16:P:83:MET:HE3	16:P:116:LEU:HD11	1.31	1.08
16:P:127:LYS:HB2	16:P:127:LYS:NZ	1.64	1.08
12:L:94:HIS:HB2	12:L:105:ARG:HD2	1.33	1.08
18:R:22:THR:HG22	18:R:73:LEU:HD11	1.30	1.08
18:R:122:PRO:CB	18:R:123:THR:HG23	1.83	1.08
24:X:105:PHE:CE2	24:X:119:ARG:CA	2.36	1.08
3:C:154:TYR:CE1	3:C:162:PRO:HG3	1.89	1.08
15:O:20:GLN:HG2	15:O:21:VAL:N	1.61	1.08
1:A:154:LEU:HD13	1:A:154:LEU:O	1.54	1.07
9:I:141:ARG:HB2	9:I:144:LYS:HB2	1.09	1.07
4:D:34:TYR:OH	21:U:61:LEU:CD2	24.94	1.07
11:K:71:LEU:HD23	11:K:76:ILE:CD1	1.81	1.07
1:A:141:ASN:CA	22:V:32:ILE:CG1	2.31	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:128:VAL:HG13	24:X:128:VAL:O	1.51	1.07
19:S:58:GLU:C	19:S:59:LEU:CD1	2.22	1.07
6:F:167:LYS:HD3	6:F:171:GLU:CB	1.83	1.07
12:L:147:LYS:HD3	12:L:147:LYS:C	1.73	1.07
19:S:138:THR:CA	19:S:141:ARG:HH21	1.53	1.07
3:C:126:MET:HE1	3:C:223:LYS:HD2	1.33	1.07
12:L:151:THR:O	12:L:153:LYS:HD3	1.53	1.07
4:D:2:ALA:HB3	4:D:3:VAL:HA	1.09	1.07
10:J:130:ILE:HG23	10:J:135:ILE:HD11	1.35	1.07
10:J:170:PRO:HA	10:J:174:LYS:NZ	1.70	1.07
11:K:3:MET:CE	11:K:8:ARG:CZ	2.31	1.07
2:B:52:THR:CG2	14:N:53:ILE:CD1	83.58	1.07
17:Q:54:PRO:HG3	17:Q:88:ILE:CD1	1.82	1.07
26:Z:48:VAL:HG22	26:Z:80:ARG:CD	1.83	1.07
4:D:197:LYS:CB	4:D:198:ILE:CG1	2.30	1.07
12:L:95:TYR:HA	12:L:102:PHE:HB3	1.15	1.07
18:R:122:PRO:HA	18:R:123:THR:HG23	1.13	1.07
13:M:91:LEU:HD22	13:M:104:VAL:HG13	1.33	1.07
3:C:234:SER:O	22:V:23:ILE:HD11	1.54	1.07
2:B:124:HIS:CD2	2:B:136:HIS:NE2	2.22	1.07
1:A:176:TRP:CE3	1:A:177:MET:SD	2.46	1.07
1:A:39:TYR:HB2	1:A:50:ASN:ND2	1.70	1.07
2:B:63:LYS:O	2:B:88:THR:O	1.71	1.07
9:I:85:ALA:CB	12:L:8:ARG:HH11	1.66	1.07
11:K:14:LEU:CD2	11:K:35:LEU:HD22	1.80	1.07
4:D:34:TYR:CE1	21:U:61:LEU:CD2	27.27	1.07
8:H:145:ARG:HD2	23:W:51:GLU:HG2	1.30	1.07
4:D:197:LYS:HB2	4:D:198:ILE:HG12	1.30	1.07
2:B:147:ASN:O	18:R:124:VAL:HG23	1.49	1.07
12:L:103:GLU:OE1	24:X:11:ARG:CB	2.02	1.07
20:T:40:ALA:CB	20:T:43:LYS:HG2	1.84	1.07
17:Q:30:GLY:O	17:Q:31:LEU:HD12	1.52	1.07
3:C:54:LEU:HD11	3:C:258:LEU:HD11	1.19	1.07
11:K:14:LEU:HD22	11:K:35:LEU:HD22	1.10	1.07
12:L:4:ILE:H	12:L:4:ILE:CD1	1.68	1.07
1:A:180:ARG:HD3	1:A:184:ARG:NH2	1.70	1.07
1:A:118:GLU:CB	3:C:50:LYS:HZ1	1.64	1.07
3:C:84:GLY:HA2	3:C:87:LEU:HB3	1.30	1.07
7:G:145:PHE:HB3	7:G:147:LEU:HD11	1.30	1.07
10:J:89:GLU:O	10:J:92:MET:HB2	1.51	1.07
24:X:60:LYS:HE2	24:X:116:PRO:HG3	1.29	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:141:ALA:O	20:T:142:LYS:CG	2.01	1.07
10:J:138:ARG:HH11	10:J:156:HIS:CG	1.72	1.07
6:F:116:ILE:N	6:F:116:ILE:HD13	1.64	1.07
3:C:98:GLN:HB2	3:C:106:ARG:O	1.55	1.07
1:A:11:LYS:HG2	1:A:13:GLU:CG	1.84	1.07
10:J:119:LEU:HD23	10:J:119:LEU:N	1.63	1.07
24:X:126:ALA:HB3	24:X:128:VAL:CB	1.84	1.07
7:G:41:LEU:HD21	7:G:45:TRP:CZ3	1.61	1.07
6:F:25:THR:HG22	6:F:42:LYS:CD	1.78	1.07
8:H:10:LYS:HE3	8:H:17:ASP:H	1.00	1.07
8:H:9:VAL:HG12	8:H:44:ASN:OD1	1.53	1.07
2:B:66:VAL:HG21	2:B:87:ILE:HG22	1.34	1.07
18:R:20:TYR:CZ	18:R:38:ILE:HB	1.89	1.07
12:L:101:ARG:HB3	24:X:7:LEU:O	1.55	1.07
12:L:99:TYR:OH	24:X:14:ARG:HA	0.90	1.07
4:D:157:MET:HE1	4:D:187:LYS:HD3	1.15	1.07
21:U:59:LYS:HB2	21:U:84:ILE:HG22	1.21	1.07
14:N:12:SER:O	14:N:13:GLN:CG	2.02	1.07
2:B:31:TYR:CD1	2:B:94:LYS:HA	1.90	1.06
7:G:50:VAL:HG11	7:G:111:LEU:CD1	1.84	1.06
7:G:63:MET:HE1	7:G:106:LEU:HD11	1.12	1.06
1:A:125:THR:O	1:A:147:LEU:CB	2.02	1.06
7:G:74:ARG:HD3	7:G:94:ARG:HD2	1.36	1.06
17:Q:58:LEU:CD1	17:Q:108:ILE:HG23	1.85	1.06
25:Y:19:GLN:OE1	25:Y:85:ASN:ND2	1.88	1.06
25:Y:54:VAL:O	25:Y:75:ILE:HA	1.55	1.06
3:C:93:LYS:CE	3:C:218:LEU:HD21	1.84	1.06
4:D:211:VAL:CG2	18:R:38:ILE:C	2.23	1.06
12:L:99:TYR:CZ	24:X:14:ARG:HA	1.89	1.06
4:D:112:GLY:N	4:D:113:LEU:HD12	1.69	1.06
17:Q:100:VAL:HG12	17:Q:101:ASP:N	1.68	1.06
12:L:40:ILE:HD11	12:L:68:ILE:HB	1.30	1.06
5:E:23:LEU:O	5:E:24:THR:HG23	1.52	1.06
8:H:144:ILE:HB	23:W:52:ILE:HG23	1.34	1.06
14:N:16:LEU:HD11	14:N:62:GLN:HE22	1.12	1.06
2:B:107:ARG:NH2	15:O:133:THR:O	1.86	1.06
5:E:92:ILE:HB	5:E:97:GLU:OE1	1.53	1.06
4:D:132:LYS:N	4:D:191:PRO:HD3	1.69	1.06
8:H:10:LYS:CE	8:H:17:ASP:H	1.68	1.06
25:Y:32:LYS:CG	25:Y:33:ALA:N	2.13	1.06
12:L:146:THR:O	12:L:147:LYS:HB3	1.28	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:35:ALA:CB	15:O:112:ALA:HB2	1.84	1.06
4:D:76:ARG:CD	11:K:66:HIS:HE1	1.63	1.06
2:B:25:PHE:CD2	15:O:88:LEU:HD13	1.91	1.06
10:J:50:LEU:HD12	10:J:102:ILE:CD1	1.85	1.06
2:B:67:PHE:CE1	15:O:48:SER:N	2.22	1.06
24:X:139:GLU:C	24:X:141:PRO:HD3	1.75	1.06
17:Q:54:PRO:HG3	17:Q:88:ILE:HD11	1.37	1.06
6:F:46:ALA:O	6:F:47:LYS:HD2	1.53	1.06
4:D:201:LYS:O	4:D:203:PRO:CD	2.04	1.06
18:R:20:TYR:OH	18:R:38:ILE:CB	2.02	1.06
2:B:153:THR:HG23	2:B:154:SER:H	1.17	1.06
4:D:27:ARG:HB2	4:D:27:ARG:HH11	4.43	1.06
2:B:25:PHE:CZ	15:O:88:LEU:CD1	2.36	1.06
6:F:201:LYS:HE3	6:F:204:ARG:HH21	1.16	1.06
11:K:16:PHE:CD2	11:K:79:LEU:HB3	1.88	1.06
14:N:38:TYR:HE2	14:N:74:ILE:HG22	1.21	1.06
1:A:145:ILE:HA	1:A:159:ILE:CG2	1.84	1.06
1:A:30:LEU:HD11	1:A:38:ILE:HD11	1.35	1.06
8:H:164:ASN:OD1	8:H:167:GLU:OE2	1.73	1.06
9:I:136:ILE:HG23	9:I:139:LYS:HE3	1.14	1.06
5:E:248:ILE:CG1	10:J:72:PHE:CE1	2.39	1.06
16:P:121:ILE:HG21	19:S:123:LEU:CD1	1.86	1.06
18:R:122:PRO:HA	18:R:123:THR:CG2	1.86	1.06
4:D:157:MET:CE	4:D:187:LYS:CD	2.31	1.06
23:W:90:GLN:HA	23:W:102:ILE:HD11	1.37	1.06
25:Y:13:MET:CE	25:Y:14:THR:O	2.02	1.06
10:J:178:ALA:O	10:J:182:GLN:HG3	1.52	1.06
1:A:97:THR:HG22	1:A:98:PRO:HD2	1.31	1.06
7:G:121:ILE:HG23	7:G:122:PRO:HD3	1.09	1.06
7:G:142:ARG:HD3	7:G:147:LEU:HB2	1.15	1.06
8:H:191:GLU:O	8:H:192:PHE:CG	2.08	1.06
10:J:66:LYS:HA	10:J:71:LEU:HD11	1.37	1.06
10:J:61:LEU:CD2	10:J:98:LEU:CD1	2.28	1.06
1:A:185:MET:HE1	22:V:39:VAL:HG12	1.37	1.06
17:Q:85:ARG:HH12	17:Q:117:ARG:HG2	1.18	1.06
25:Y:61:ARG:HH21	25:Y:61:ARG:CG	1.66	1.06
16:P:121:ILE:HG21	19:S:123:LEU:HD12	1.11	1.06
16:P:8:LYS:O	16:P:11:THR:HG22	1.54	1.06
19:S:6:PRO:HA	26:Z:50:PHE:HB2	1.11	1.06
19:S:11:HIS:CD2	19:S:23:ARG:NH2	2.23	1.06
12:L:17:PHE:CE1	12:L:18:GLN:O	2.08	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:167:LYS:HD3	6:F:171:GLU:HG3	1.29	1.06
12:L:94:HIS:CB	12:L:105:ARG:HD2	1.86	1.06
21:U:48:LEU:HD23	21:U:48:LEU:N	1.65	1.06
13:M:12:MET:HG3	13:M:16:THR:HG23	1.10	1.06
25:Y:10:ARG:HE	25:Y:24:VAL:CG1	1.68	1.06
4:D:177:LEU:HD23	4:D:182:LEU:CD2	1.85	1.06
1:A:190:SER:O	1:A:191:ARG:HG2	1.56	1.05
6:F:42:LYS:CB	6:F:45:TYR:N	2.14	1.05
20:T:46:ALA:CB	20:T:47:PRO:HD2	1.86	1.05
20:T:29:LYS:HA	20:T:29:LYS:HE3	1.37	1.05
12:L:157:LYS:C	12:L:158:PHE:HD2	1.56	1.05
4:D:218:LEU:CG	4:D:220:THR:HG21	1.79	1.05
14:N:132:LYS:CE	14:N:132:LYS:HA	1.69	1.05
6:F:154:LEU:HD12	6:F:155:CYS:N	1.71	1.05
4:D:18:LYS:NZ	4:D:37:VAL:HG23	1.71	1.05
3:C:76:SER:O	3:C:79:ILE:HG23	1.55	1.05
8:H:191:GLU:O	8:H:192:PHE:CD1	2.08	1.05
9:I:110:ARG:HH21	9:I:124:LYS:HD3	1.20	1.05
10:J:110:LEU:HD12	10:J:130:ILE:HD13	1.36	1.05
16:P:41:GLN:HG3	16:P:84:ILE:CG2	1.65	1.05
20:T:30:VAL:O	20:T:30:VAL:HG23	1.53	1.05
19:S:14:ARG:HH12	19:S:17:ASN:CA	1.68	1.05
4:D:176:LEU:HD12	4:D:176:LEU:N	1.68	1.05
10:J:21:GLU:O	10:J:23:SER:N	1.88	1.05
1:A:11:LYS:CG	1:A:13:GLU:CG	2.35	1.05
5:E:159:THR:HG23	5:E:227:VAL:HG22	1.30	1.05
7:G:70:HIS:HB2	7:G:103:ASP:OD2	1.56	1.05
7:G:121:ILE:CG2	7:G:122:PRO:CD	2.33	1.05
9:I:140:LYS:HG3	9:I:141:ARG:H	1.16	1.05
9:I:139:LYS:CB	9:I:145:ILE:CD1	2.35	1.05
9:I:194:GLU:CG	12:L:12:LYS:HZ1	1.67	1.05
25:Y:20:ARG:CD	25:Y:74:MET:HE2	1.86	1.05
25:Y:21:LYS:HE2	25:Y:77:ASP:OD1	1.57	1.05
25:Y:78:SER:HB2	25:Y:81:TYR:CD2	1.90	1.05
8:H:40:LEU:HD23	8:H:43:LEU:CD1	1.81	1.05
6:F:14:THR:CB	17:Q:56:LEU:HB3	1.83	1.05
4:D:196:GLY:N	4:D:197:LYS:HA	1.58	1.05
4:D:197:LYS:HB2	4:D:198:ILE:HG13	1.16	1.05
24:X:109:GLY:O	24:X:119:ARG:HD3	1.56	1.05
18:R:91:LEU:N	18:R:91:LEU:HD12	1.66	1.05
9:I:142:SER:HB2	9:I:143:LYS:NZ	1.72	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:16:PHE:HE2	11:K:79:LEU:CB	1.51	1.05
3:C:59:LYS:HG3	3:C:254:PHE:CD1	1.92	1.05
7:G:176:ILE:HB	7:G:179:LEU:CD2	1.87	1.05
7:G:64:LYS:CG	7:G:67:VAL:HG13	1.87	1.05
10:J:39:ASN:OD1	10:J:42:GLU:OE2	1.73	1.05
12:L:10:TYR:CE2	12:L:12:LYS:HE3	1.92	1.05
17:Q:93:VAL:HG13	17:Q:105:LYS:CE	1.71	1.05
25:Y:61:ARG:HD2	25:Y:61:ARG:N	1.71	1.05
19:S:39:ARG:NE	20:T:38:LYS:CE	2.06	1.05
19:S:120:HIS:CE1	19:S:124:ARG:NH2	2.25	1.05
19:S:120:HIS:CD2	19:S:124:ARG:NE	2.23	1.05
20:T:77:LYS:CG	20:T:92:PHE:CZ	2.34	1.05
16:P:49:LEU:O	16:P:51:ARG:N	1.89	1.05
25:Y:101:LYS:O	25:Y:102:THR:HG23	1.57	1.05
18:R:5:ARG:O	18:R:10:LYS:CE	2.05	1.05
19:S:47:LYS:HZ2	19:S:78:LYS:HB2	1.09	1.05
20:T:84:ARG:HH21	20:T:84:ARG:CG	1.66	1.05
2:B:19:LYS:HB2	2:B:19:LYS:NZ	1.69	1.05
2:B:131:ASP:OD2	2:B:180:ASP:HB2	1.57	1.05
18:R:42:PRO:HD2	18:R:43:SER:H	1.22	1.05
26:Z:64:ASN:O	26:Z:111:ARG:NH2	1.89	1.05
1:A:10:MET:SD	1:A:10:MET:N	2.30	1.05
3:C:142:LEU:CA	3:C:145:LEU:CD2	2.33	1.05
1:A:120:ARG:CD	3:C:251:TYR:HE2	1.68	1.05
17:Q:112:LEU:HD22	17:Q:119:LEU:CD1	1.86	1.05
4:D:158:ILE:HD13	4:D:189:MET:CE	1.73	1.05
19:S:39:ARG:CD	20:T:38:LYS:CE	2.33	1.05
8:H:83:LEU:HD22	8:H:92:VAL:HG11	1.09	1.05
8:H:83:LEU:CD1	8:H:92:VAL:HB	1.86	1.05
17:Q:9:SER:CB	17:Q:26:LYS:CG	2.09	1.05
17:Q:9:SER:HB2	17:Q:26:LYS:CE	1.86	1.05
19:S:94:LYS:HB3	19:S:95:TYR:O	1.54	1.05
12:L:149:ALA:HB3	12:L:156:GLN:HG2	1.33	1.05
10:J:88:ASP:O	10:J:91:LYS:HB2	1.55	1.05
10:J:89:GLU:N	10:J:92:MET:SD	2.29	1.05
2:B:209:ASP:OD1	2:B:211:PHE:HZ	1.37	1.05
1:A:205:ARG:HG2	1:A:206:ASP:N	1.71	1.05
21:U:18:HIS:HE1	21:U:98:VAL:CG2	1.69	1.05
15:O:23:GLU:O	15:O:23:GLU:HG2	1.52	1.05
1:A:85:ARG:HH21	1:A:201:LEU:HD12	1.22	1.04
9:I:48:VAL:HG22	9:I:52:ASN:O	1.57	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:78:ILE:HD13	22:V:79:VAL:H	1.14	1.04
6:F:41:VAL:CG2	6:F:42:LYS:H	1.62	1.04
8:H:15:LYS:HB3	8:H:16:PRO:CD	1.84	1.04
25:Y:36:PRO:CD	25:Y:39:GLU:OE1	2.04	1.04
19:S:61:GLU:O	19:S:64:VAL:CG2	2.05	1.04
20:T:111:LYS:CB	20:T:126:GLN:NE2	2.20	1.04
17:Q:30:GLY:HA2	17:Q:66:VAL:O	1.55	1.04
16:P:39:ALA:HA	16:P:42:ARG:NE	1.71	1.04
16:P:68:PRO:CB	16:P:69:PRO:HD3	1.84	1.04
7:G:226:GLU:O	7:G:230:LYS:NZ	1.91	1.04
10:J:131:ARG:HD2	10:J:143:ASN:OD1	1.56	1.04
10:J:37:LEU:HD21	10:J:42:GLU:CB	1.87	1.04
11:K:60:GLU:OE2	11:K:67:PHE:HD1	1.38	1.04
24:X:100:VAL:HG12	24:X:125:VAL:HG22	1.36	1.04
5:E:208:VAL:CG1	5:E:225:ILE:HD13	1.86	1.04
10:J:122:SER:OG	10:J:124:HIS:HB2	1.57	1.04
12:L:4:ILE:H	12:L:4:ILE:HD12	1.12	1.04
4:D:34:TYR:CE1	21:U:61:LEU:HD22	27.23	1.04
24:X:94:ILE:HG12	24:X:125:VAL:HG21	1.32	1.04
6:F:42:LYS:C	6:F:42:LYS:HE3	1.78	1.04
19:S:120:HIS:CD2	19:S:124:ARG:HE	1.73	1.04
16:P:4:VAL:N	16:P:10:ARG:CG	2.19	1.04
16:P:108:LYS:H	16:P:111:MET:HE3	1.19	1.04
25:Y:32:LYS:HG3	25:Y:33:ALA:H	1.11	1.04
25:Y:29:HIS:CE1	25:Y:67:GLY:CA	2.39	1.04
21:U:50:VAL:HG21	21:U:52:GLY:CA	1.87	1.04
23:W:129:PHE:HD1	23:W:129:PHE:O	1.40	1.04
2:B:105:LEU:CD1	2:B:110:MET:CE	2.36	1.04
25:Y:7:ILE:CD1	25:Y:43:LYS:HB3	1.86	1.04
4:D:34:TYR:OH	21:U:61:LEU:HD23	25.71	1.04
22:V:24:ILE:CD1	22:V:25:GLY:N	2.18	1.04
22:V:17:CYS:HG	22:V:56:CYS:CB	1.70	1.04
7:G:32:MET:HE1	7:G:100:CYS:HA	1.08	1.04
8:H:144:ILE:HB	23:W:52:ILE:HG22	1.09	1.04
10:J:130:ILE:HG12	10:J:135:ILE:HD13	1.36	1.04
16:P:41:GLN:HG3	16:P:84:ILE:HG21	1.13	1.04
16:P:123:TYR:CE2	19:S:120:HIS:NE2	2.25	1.04
9:I:69:SER:HB3	12:L:19:ASN:ND2	1.67	1.04
12:L:158:PHE:N	12:L:158:PHE:HD2	1.56	1.04
21:U:49:LYS:O	21:U:50:VAL:HG12	1.57	1.04
21:U:50:VAL:HG21	21:U:52:GLY:HA2	1.05	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:185:SER:HA	6:F:190:ILE:CG2	1.88	1.04
1:A:32:PHE:HE1	1:A:33:GLN:NE2	1.56	1.04
7:G:212:LEU:HA	7:G:215:LYS:HE2	1.35	1.04
22:V:42:VAL:O	22:V:43:THR:HG23	1.54	1.04
5:E:208:VAL:CG2	5:E:225:ILE:CD1	2.28	1.04
10:J:18:ARG:HB2	10:J:21:GLU:OE2	1.57	1.04
22:V:40:ASP:CB	22:V:47:ASN:ND2	2.20	1.04
24:X:95:GLU:CG	24:X:140:ARG:HH22	1.69	1.04
17:Q:58:LEU:CD2	17:Q:111:ILE:HD12	1.85	1.04
8:H:9:VAL:CG1	8:H:44:ASN:OD1	2.05	1.04
8:H:50:GLU:OE2	8:H:58:LYS:HD3	1.58	1.04
8:H:146:VAL:CG1	23:W:42:MET:SD	2.46	1.04
16:P:10:ARG:HH21	16:P:11:THR:CG2	1.69	1.04
13:M:12:MET:HE1	13:M:17:ALA:O	1.56	1.04
24:X:142:ARG:HH11	24:X:142:ARG:CG	1.65	1.04
4:D:105:LEU:HD23	4:D:184:ILE:HD12	1.04	1.04
2:B:105:LEU:O	2:B:106:THR:HG23	1.57	1.04
15:O:56:VAL:CG1	15:O:81:VAL:HG22	1.82	1.04
2:B:19:LYS:O	2:B:21:VAL:CG1	2.05	1.04
1:A:205:ARG:HG2	1:A:206:ASP:H	0.93	1.04
20:T:89:PRO:O	20:T:91:HIS:NE2	1.90	1.04
9:I:154:LYS:HD3	9:I:155:ASN:N	1.72	1.04
10:J:127:ARG:HG3	10:J:127:ARG:NH1	1.55	1.04
17:Q:76:GLY:O	17:Q:80:GLN:HG3	1.56	1.04
25:Y:61:ARG:HG3	25:Y:61:ARG:HH21	0.91	1.04
19:S:39:ARG:HD3	20:T:38:LYS:CE	1.88	1.04
20:T:76:THR:O	20:T:95:GLY:N	1.90	1.04
25:Y:36:PRO:HG2	25:Y:39:GLU:HG3	1.36	1.04
2:B:113:MET:SD	2:B:211:PHE:CE2	2.50	1.04
3:C:149:PRO:HB2	3:C:233:TYR:CD2	1.93	1.03
8:H:145:ARG:HD2	23:W:51:GLU:CG	1.88	1.03
18:R:105:MET:O	18:R:109:LEU:CD1	2.05	1.03
7:G:63:MET:HE3	7:G:106:LEU:CD1	1.87	1.03
2:B:25:PHE:CD2	15:O:88:LEU:CD1	2.40	1.03
25:Y:61:ARG:HG3	25:Y:61:ARG:NH2	1.63	1.03
8:H:23:ILE:HD13	8:H:27:LEU:HD23	1.34	1.03
8:H:146:VAL:HG12	23:W:42:MET:SD	1.98	1.03
1:A:188:THR:HG23	1:A:188:THR:O	1.57	1.03
20:T:28:LEU:O	20:T:28:LEU:HD22	1.58	1.03
3:C:55:VAL:HB	6:F:34:SER:HB2	86.79	1.03
6:F:44:LYS:HB3	6:F:45:TYR:HE1	1.09	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:31:PRO:HB3	20:T:33:TRP:CE2	1.92	1.03
25:Y:36:PRO:CG	25:Y:39:GLU:CG	2.36	1.03
9:I:21:TYR:CE2	9:I:22:HIS:CD2	2.47	1.03
18:R:90:ALA:HB1	18:R:92:ASP:OD2	1.58	1.03
6:F:201:LYS:CD	6:F:204:ARG:HH21	1.71	1.03
6:F:63:LYS:HD3	6:F:71:ARG:NH1	1.67	1.03
11:K:40:VAL:HG22	11:K:41:PRO:O	1.56	1.03
22:V:24:ILE:HG23	22:V:24:ILE:O	1.58	1.03
6:F:25:THR:HG21	6:F:42:LYS:CD	1.78	1.03
4:D:212:GLU:CG	18:R:19:LYS:HD2	1.88	1.03
18:R:91:LEU:HB2	18:R:92:ASP:C	1.77	1.03
18:R:91:LEU:HD13	18:R:92:ASP:HA	1.38	1.03
3:C:234:SER:O	22:V:23:ILE:CD1	2.06	1.03
10:J:110:LEU:CD1	10:J:130:ILE:HD13	1.84	1.03
6:F:93:VAL:O	6:F:97:PHE:HD1	1.41	1.03
11:K:11:ILE:HG23	11:K:49:MET:CE	1.84	1.03
3:C:197:LYS:CA	3:C:200:LEU:HD23	1.81	1.03
23:W:42:MET:HE1	23:W:50:PHE:CD2	1.94	1.03
16:P:5:GLU:N	16:P:10:ARG:HH11	1.56	1.03
18:R:91:LEU:HB2	18:R:93:GLN:N	1.74	1.03
14:N:127:ARG:O	14:N:131:THR:HG23	1.58	1.03
1:A:30:LEU:HD21	1:A:35:GLU:HG3	1.07	1.03
7:G:27:PHE:CZ	7:G:41:LEU:HD12	1.94	1.03
10:J:67:ASP:OD1	10:J:68:PRO:HD2	1.56	1.03
5:E:248:ILE:O	10:J:72:PHE:HE1	1.42	1.03
17:Q:112:LEU:HD22	17:Q:119:LEU:HD13	1.04	1.03
16:P:41:GLN:HG2	16:P:84:ILE:CG2	1.57	1.03
8:H:16:PRO:HA	8:H:17:ASP:HB2	1.39	1.03
23:W:128:PHE:CE1	23:W:130:PHE:CE2	2.45	1.03
8:H:93:VAL:CG2	8:H:94:PHE:N	2.13	1.03
6:F:201:LYS:HD2	6:F:204:ARG:NH2	1.74	1.02
5:E:70:ILE:HG12	5:E:92:ILE:HD13	1.37	1.02
17:Q:114:GLN:HG3	17:Q:115:TYR:H	1.20	1.02
25:Y:21:LYS:N	25:Y:21:LYS:HD3	1.74	1.02
3:C:101:THR:CG2	3:C:104:GLY:O	2.06	1.02
4:D:218:LEU:HD23	4:D:218:LEU:O	1.59	1.02
17:Q:100:VAL:HG12	17:Q:101:ASP:H	0.87	1.02
21:U:18:HIS:HE1	21:U:98:VAL:HG21	1.23	1.02
24:X:107:ARG:O	24:X:110:HIS:CE1	2.12	1.02
1:A:118:GLU:OE1	3:C:50:LYS:NZ	1.91	1.02
8:H:144:ILE:HD12	23:W:52:ILE:HG21	1.05	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:25:THR:HG23	6:F:41:VAL:CG2	1.89	1.02
6:F:91:ARG:HH12	6:F:94:LYS:CG	1.72	1.02
16:P:53:GLN:CD	16:P:80:LEU:HD13	1.79	1.02
16:P:53:GLN:HG2	16:P:80:LEU:HD12	1.39	1.02
8:H:23:ILE:HD13	8:H:27:LEU:CD2	1.89	1.02
26:Z:80:ARG:HG2	26:Z:82:SER:OG	1.56	1.02
6:F:167:LYS:CD	6:F:171:GLU:CG	2.37	1.02
2:B:150:ILE:HG12	18:R:124:VAL:HG13	1.36	1.02
4:D:112:GLY:CA	4:D:113:LEU:HD12	1.89	1.02
2:B:105:LEU:HD11	2:B:213:ARG:CB	1.89	1.02
15:O:55:ARG:O	15:O:56:VAL:HG12	1.57	1.02
9:I:7:ASN:O	9:I:9:HIS:O	1.78	1.02
6:F:59:LYS:HD3	6:F:62:ARG:HD3	1.36	1.02
8:H:144:ILE:CB	23:W:52:ILE:HG23	1.87	1.02
11:K:83:LEU:CD1	11:K:85:LEU:CD2	2.38	1.02
2:B:47:THR:HG21	2:B:67:PHE:CZ	1.93	1.02
7:G:65:GLN:HA	7:G:100:CYS:SG	1.98	1.02
6:F:47:LYS:CG	17:Q:117:ARG:HH22	1.72	1.02
20:T:31:PRO:CB	20:T:33:TRP:CZ2	2.42	1.02
25:Y:63:HIS:ND1	25:Y:64:PHE:HE1	1.58	1.02
4:D:108:LYS:HB3	4:D:113:LEU:HD22	1.41	1.02
13:M:12:MET:HG3	13:M:16:THR:CG2	1.90	1.02
4:D:212:GLU:CB	18:R:19:LYS:CD	2.37	1.02
4:D:218:LEU:HG	4:D:220:THR:HG23	1.05	1.02
17:Q:100:VAL:CG1	17:Q:101:ASP:H	1.72	1.02
11:K:96:ARG:HG3	11:K:97:SER:H	1.22	1.02
1:A:145:ILE:HA	1:A:159:ILE:HG22	1.41	1.02
1:A:48:ILE:HG12	18:R:105:MET:CE	1.88	1.02
3:C:59:LYS:HG3	3:C:254:PHE:CE1	1.94	1.02
22:V:40:ASP:HB3	22:V:47:ASN:ND2	1.74	1.02
6:F:14:THR:HG21	17:Q:56:LEU:CD1	1.88	1.02
4:D:43:PRO:O	4:D:44:THR:HG23	1.58	1.02
7:G:121:ILE:HG23	7:G:122:PRO:HD2	1.39	1.02
10:J:161:LEU:O	10:J:162:ARG:CB	1.96	1.02
1:A:66:VAL:HG13	1:A:186:ARG:CD	1.90	1.02
1:A:66:VAL:CG2	1:A:186:ARG:HD3	1.90	1.02
6:F:91:ARG:HH11	6:F:94:LYS:HB3	1.23	1.02
17:Q:47:LEU:HD22	17:Q:81:ILE:HD12	1.26	1.02
19:S:117:ILE:O	19:S:118:ARG:CG	2.07	1.02
4:D:112:GLY:C	4:D:113:LEU:CD1	2.28	1.02
3:C:151:ARG:HH12	3:C:240:LEU:HD11	0.88	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:21:LEU:HD11	4:D:48:ILE:CD1	1.90	1.01
5:E:153:LEU:HD13	5:E:172:PHE:CE1	1.94	1.01
10:J:61:LEU:HD22	10:J:98:LEU:HD11	1.02	1.01
15:O:99:ALA:H	15:O:133:THR:HG22	0.85	1.01
5:E:70:ILE:HG12	5:E:92:ILE:HD11	1.04	1.01
10:J:161:LEU:O	10:J:162:ARG:HB2	1.52	1.01
19:S:12:ILE:O	19:S:12:ILE:HG22	1.60	1.01
25:Y:29:HIS:ND1	25:Y:67:GLY:C	2.13	1.01
25:Y:92:ALA:CA	25:Y:97:TYR:HB3	1.89	1.01
4:D:59:LEU:CD1	4:D:60:GLY:N	2.23	1.01
5:E:120:LYS:O	5:E:164:LEU:HB2	1.59	1.01
2:B:48:LEU:HD12	2:B:48:LEU:H	1.22	1.01
11:K:4:PRO:HG2	11:K:7:ASN:HB2	1.37	1.01
12:L:7:GLU:CG	12:L:8:ARG:H	1.70	1.01
25:Y:20:ARG:HD3	25:Y:76:TYR:CZ	1.95	1.01
16:P:123:TYR:CZ	19:S:124:ARG:NH1	2.11	1.01
8:H:10:LYS:HE3	8:H:17:ASP:N	1.72	1.01
2:B:87:ILE:HG21	2:B:101:HIS:CD2	1.96	1.01
26:Z:52:LYS:O	26:Z:55:TYR:N	1.93	1.01
3:C:101:THR:HG23	3:C:103:ALA:O	1.59	1.01
1:A:97:THR:CG2	1:A:98:PRO:CD	2.37	1.01
1:A:127:PRO:HB2	1:A:153:PRO:HG2	1.37	1.01
1:A:145:ILE:HD12	1:A:159:ILE:HG21	1.36	1.01
1:A:24:HIS:HD2	1:A:48:ILE:HG23	1.25	1.01
11:K:21:MET:HE1	11:K:49:MET:SD	1.98	1.01
11:K:83:LEU:O	11:K:84:HIS:CG	2.13	1.01
6:F:42:LYS:CE	6:F:42:LYS:C	2.29	1.01
6:F:42:LYS:H	6:F:42:LYS:CD	1.73	1.01
4:D:158:ILE:HD11	4:D:189:MET:HE1	1.01	1.01
10:J:89:GLU:HA	10:J:92:MET:SD	1.95	1.01
3:C:155:TRP:CZ2	23:W:97:ARG:HD2	1.95	1.01
12:L:95:TYR:HA	12:L:102:PHE:CB	1.89	1.01
25:Y:99:LYS:CA	25:Y:99:LYS:CE	2.39	1.01
9:I:82:VAL:HG11	9:I:202:ILE:CD1	1.91	1.01
1:A:9:GLN:HB3	1:A:10:MET:SD	2.00	1.01
5:E:139:LEU:CD1	5:E:154:ILE:HG21	1.90	1.01
10:J:170:PRO:HB2	10:J:174:LYS:HE2	1.42	1.01
1:A:11:LYS:HD3	1:A:13:GLU:HG3	1.42	1.01
10:J:17:ARG:CG	10:J:18:ARG:CD	2.29	1.01
11:K:83:LEU:CG	11:K:85:LEU:HD21	1.90	1.01
14:N:27:LYS:H	14:N:27:LYS:CE	1.73	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:54:CYS:SG	15:O:84:ARG:HB3	2.01	1.01
6:F:14:THR:HB	17:Q:56:LEU:HD13	1.43	1.01
16:P:108:LYS:HB3	16:P:110:GLU:OE1	1.60	1.01
16:P:46:SER:O	16:P:49:LEU:HD22	1.61	1.01
15:O:56:VAL:CG1	15:O:81:VAL:HG23	1.88	1.01
9:I:154:LYS:C	9:I:154:LYS:CE	2.30	1.01
1:A:127:PRO:HG2	1:A:153:PRO:HD2	1.42	1.01
8:H:169:LYS:HB2	8:H:173:PHE:CE2	1.95	1.01
8:H:138:GLU:OE2	14:N:19:ARG:CB	2.09	1.01
6:F:18:LYS:HE3	17:Q:115:TYR:CD1	1.96	1.01
17:Q:19:ALA:HB2	17:Q:74:GLY:C	1.78	1.01
17:Q:9:SER:HB3	17:Q:26:LYS:HG2	1.41	1.01
25:Y:35:VAL:HG12	25:Y:36:PRO:HD2	1.42	1.01
4:D:177:LEU:HD22	4:D:182:LEU:HD23	1.42	1.01
20:T:40:ALA:HB3	20:T:43:LYS:HG2	1.01	1.01
14:N:132:LYS:HE3	14:N:132:LYS:HA	1.01	1.01
2:B:19:LYS:O	2:B:21:VAL:HG13	1.61	1.01
14:N:21:SER:O	14:N:22:VAL:HG22	1.61	1.00
9:I:144:LYS:O	9:I:145:ILE:CG1	2.10	1.00
6:F:45:TYR:O	6:F:47:LYS:HE2	1.56	1.00
17:Q:93:VAL:HG13	17:Q:105:LYS:HE2	1.31	1.00
21:U:64:THR:HG22	21:U:79:ARG:CG	1.91	1.00
20:T:76:THR:HB	20:T:95:GLY:O	1.61	1.00
16:P:107:ILE:HA	16:P:111:MET:SD	2.01	1.00
25:Y:64:PHE:N	25:Y:64:PHE:CD1	2.29	1.00
9:I:19:LYS:HE2	9:I:20:PRO:HD2	1.39	1.00
12:L:146:THR:O	12:L:147:LYS:CB	2.04	1.00
12:L:156:GLN:OE1	12:L:158:PHE:HE2	1.35	1.00
10:J:79:ARG:NH1	10:J:83:ARG:CZ	2.23	1.00
18:R:122:PRO:HB3	18:R:123:THR:HG21	1.40	1.00
20:T:144:LYS:HB2	20:T:144:LYS:NZ	1.71	1.00
18:R:99:ASP:O	18:R:119:VAL:CG1	2.03	1.00
22:V:41:LYS:O	22:V:43:THR:N	1.94	1.00
11:K:15:LEU:HD13	11:K:21:MET:HE2	1.42	1.00
2:B:52:THR:HG21	14:N:53:ILE:HD12	83.40	1.00
6:F:91:ARG:HA	6:F:91:ARG:HE	1.03	1.00
17:Q:58:LEU:CD2	17:Q:111:ILE:HD13	1.84	1.00
2:B:113:MET:CE	2:B:209:ASP:CG	2.29	1.00
12:L:95:TYR:CA	12:L:102:PHE:HB3	1.89	1.00
4:D:176:LEU:H	4:D:176:LEU:CD1	1.72	1.00
20:T:84:ARG:HH21	20:T:84:ARG:HG3	1.22	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:234:SER:HA	22:V:23:ILE:HD12	1.38	1.00
16:P:118:GLU:O	19:S:119:ALA:HB1	1.58	1.00
2:B:137:LEU:HD22	2:B:215:VAL:HG22	1.04	1.00
14:N:21:SER:O	14:N:22:VAL:HG13	1.61	1.00
24:X:139:GLU:O	24:X:141:PRO:HD3	1.60	1.00
11:K:27:VAL:HG13	11:K:43:LEU:HD21	1.43	1.00
6:F:25:THR:HG23	6:F:41:VAL:HG23	1.41	1.00
4:D:132:LYS:N	4:D:191:PRO:CD	2.25	1.00
24:X:27:TYR:CD1	24:X:31:HIS:NE2	2.30	1.00
16:P:10:ARG:NE	16:P:11:THR:H	1.57	1.00
24:X:142:ARG:HH11	24:X:142:ARG:HB2	1.19	1.00
2:B:55:THR:O	2:B:56:LYS:HD2	1.62	1.00
4:D:21:LEU:HD11	4:D:48:ILE:HD12	1.01	1.00
7:G:121:ILE:CG2	7:G:122:PRO:HD3	1.91	1.00
7:G:142:ARG:HG3	7:G:142:ARG:HH11	1.26	1.00
11:K:62:PHE:CE1	11:K:67:PHE:CE2	2.50	1.00
25:Y:60:PHE:C	25:Y:61:ARG:HD2	1.82	1.00
4:D:193:ASP:HA	4:D:202:LYS:O	1.61	1.00
2:B:150:ILE:HG12	18:R:124:VAL:HG12	1.42	1.00
13:M:77:ILE:HG23	13:M:78:LYS:H	1.27	1.00
1:A:118:GLU:OE1	3:C:50:LYS:CE	2.08	1.00
7:G:176:ILE:HG22	7:G:179:LEU:CB	1.91	1.00
17:Q:85:ARG:HH22	17:Q:117:ARG:HG2	1.19	1.00
21:U:50:VAL:CG2	21:U:52:GLY:HA2	1.92	1.00
5:E:128:LYS:CD	5:E:130:PHE:CE1	2.45	1.00
25:Y:18:LEU:CG	25:Y:20:ARG:NH1	2.25	1.00
10:J:100:LEU:HG	10:J:101:LYS:N	1.73	1.00
13:M:70:ALA:HB3	13:M:71:GLU:OE2	1.61	1.00
4:D:2:ALA:HB1	4:D:3:VAL:C	1.82	1.00
17:Q:8:GLN:HG3	17:Q:99:TYR:CE1	1.76	1.00
20:T:31:PRO:HB3	20:T:33:TRP:CH2	1.97	1.00
18:R:20:TYR:CE2	18:R:38:ILE:HB	1.96	1.00
3:C:195:PRO:CG	3:C:221:PHE:CZ	2.44	1.00
9:I:118:ALA:O	9:I:119:LEU:HD23	1.61	0.99
10:J:127:ARG:HH12	10:J:145:PRO:HB2	1.23	0.99
16:P:127:LYS:O	16:P:127:LYS:HE3	1.61	0.99
19:S:16:LEU:O	19:S:17:ASN:CG	2.00	0.99
13:M:100:PRO:O	13:M:101:ARG:HD2	1.61	0.99
6:F:73:THR:CG2	6:F:93:VAL:HG21	1.92	0.99
9:I:79:ILE:HG22	9:I:103:LEU:O	1.62	0.99
11:K:18:GLU:O	11:K:92:ALA:HB3	1.60	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:20:PHE:O	6:F:22:LYS:CA	2.10	0.99
12:L:147:LYS:CD	12:L:147:LYS:C	2.30	0.99
3:C:155:TRP:CZ2	23:W:97:ARG:CD	2.45	0.99
19:S:46:ARG:CG	20:T:50:GLU:OE2	2.09	0.99
21:U:50:VAL:HG22	21:U:51:LYS:O	1.60	0.99
9:I:206:LYS:HD2	9:I:207:GLY:H	1.24	0.99
2:B:31:TYR:HD1	2:B:94:LYS:HA	1.27	0.99
4:D:2:ALA:CB	4:D:3:VAL:C	2.30	0.99
9:I:141:ARG:HD3	9:I:144:LYS:CB	1.92	0.99
12:L:10:TYR:HD2	12:L:12:LYS:NZ	1.54	0.99
15:O:54:CYS:SG	15:O:84:ARG:CB	2.51	0.99
6:F:91:ARG:HH11	6:F:94:LYS:HB2	1.07	0.99
8:H:83:LEU:HD13	8:H:92:VAL:CB	1.86	0.99
10:J:92:MET:O	10:J:93:LYS:CE	2.10	0.99
19:S:14:ARG:NH1	19:S:17:ASN:CA	2.25	0.99
2:B:179:ASN:CG	2:B:183:GLU:OE1	1.99	0.99
6:F:136:ARG:O	6:F:203:ASN:HB3	1.62	0.99
14:N:54:LEU:HB3	14:N:60:VAL:HG21	1.39	0.99
2:B:87:ILE:CD1	2:B:101:HIS:HD2	1.74	0.99
25:Y:63:HIS:ND1	25:Y:64:PHE:CE1	2.29	0.99
2:B:136:HIS:CE1	2:B:138:PHE:CZ	2.50	0.99
21:U:19:ARG:HG3	21:U:92:HIS:CE1	1.95	0.99
1:A:32:PHE:CE1	1:A:33:GLN:NE2	2.28	0.99
1:A:24:HIS:CD2	1:A:48:ILE:HG23	1.95	0.99
5:E:99:PHE:HE1	5:E:113:ARG:HG3	1.20	0.99
7:G:76:LEU:HD22	7:G:92:ARG:HG2	1.05	0.99
10:J:138:ARG:HH11	10:J:156:HIS:CE1	1.79	0.99
2:B:20:LYS:C	2:B:21:VAL:CG1	2.29	0.99
10:J:100:LEU:HD12	10:J:104:ASP:OD2	1.62	0.99
2:B:125:VAL:HG11	2:B:173:THR:HG22	1.43	0.99
6:F:42:LYS:HE3	6:F:43:GLU:N	1.78	0.99
19:S:6:PRO:HA	26:Z:50:PHE:CB	1.93	0.99
5:E:129:ILE:HG13	5:E:139:LEU:HD22	1.34	0.99
7:G:25:ARG:CG	7:G:28:TYR:CE2	2.45	0.99
18:R:100:PRO:O	18:R:103:LYS:N	1.90	0.99
16:P:51:ARG:N	16:P:51:ARG:HD2	1.77	0.99
5:E:47:PHE:CE2	5:E:52:LEU:CD1	2.46	0.99
2:B:179:ASN:OD1	2:B:183:GLU:OE1	1.80	0.99
1:A:119:PRO:HG2	1:A:142:LEU:HD13	1.44	0.99
1:A:43:SER:C	1:A:44:ASP:OD1	1.99	0.99
4:D:18:LYS:HZ3	4:D:37:VAL:HG23	1.20	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:10:TYR:HE2	12:L:12:LYS:HE3	1.27	0.99
1:A:57:LYS:CE	22:V:70:LEU:CD1	2.41	0.99
17:Q:58:LEU:HD13	17:Q:108:ILE:HG23	1.44	0.99
26:Z:99:LEU:CD1	26:Z:102:LYS:CE	2.14	0.99
16:P:52:LYS:H	16:P:54:HIS:CD2	1.81	0.99
2:B:205:TYR:CG	2:B:206:PRO:HD2	1.98	0.99
24:X:114:ASP:O	24:X:116:PRO:CD	2.10	0.99
24:X:60:LYS:CE	24:X:116:PRO:HG3	1.92	0.99
24:X:29:LYS:CD	24:X:34:THR:OG1	2.11	0.99
2:B:19:LYS:HB2	2:B:19:LYS:HZ3	1.22	0.99
18:R:100:PRO:HB2	18:R:119:VAL:CG2	1.91	0.99
20:T:103:VAL:O	20:T:107:LEU:HG	1.62	0.99
16:P:9:LYS:O	16:P:10:ARG:CG	2.10	0.99
21:U:50:VAL:HG13	21:U:51:LYS:N	1.74	0.99
16:P:62:LYS:HG3	16:P:65:LYS:HE2	1.40	0.99
3:C:234:SER:CA	22:V:23:ILE:CD1	2.41	0.99
1:A:66:VAL:CG1	1:A:186:ARG:HB3	1.92	0.99
1:A:118:GLU:OE1	3:C:50:LYS:HE2	1.62	0.99
5:E:248:ILE:CD1	10:J:72:PHE:CD1	2.44	0.99
7:G:188:LYS:HA	7:G:191:ARG:HD3	1.44	0.99
19:S:31:THR:HA	19:S:36:VAL:HG22	1.44	0.99
19:S:8:LYS:HD3	19:S:9:PHE:HE1	0.84	0.99
25:Y:36:PRO:HG2	25:Y:39:GLU:CB	1.91	0.99
18:R:13:ALA:CB	18:R:54:VAL:HG22	1.92	0.99
25:Y:13:MET:HE2	25:Y:14:THR:C	1.83	0.99
16:P:118:GLU:O	19:S:119:ALA:CB	2.11	0.99
17:Q:42:ILE:HD13	17:Q:51:LEU:CG	1.93	0.98
16:P:127:LYS:HZ2	16:P:127:LYS:C	1.65	0.98
5:E:49:ARG:CD	5:E:49:ARG:C	2.30	0.98
6:F:122:ARG:NE	6:F:193:LYS:NZ	2.10	0.98
2:B:67:PHE:CE1	15:O:47:LEU:C	2.37	0.98
6:F:91:ARG:NH1	6:F:94:LYS:HB3	1.76	0.98
16:P:41:GLN:NE2	16:P:84:ILE:CB	2.19	0.98
16:P:44:ARG:NH2	16:P:84:ILE:N	2.09	0.98
2:B:160:GLN:NE2	2:B:205:TYR:HD1	1.58	0.98
2:B:68:GLU:OE2	2:B:83:LYS:HE2	1.64	0.98
10:J:39:ASN:H	10:J:42:GLU:HG2	1.26	0.98
15:O:19:PRO:HG2	15:O:27:VAL:HG21	1.01	0.98
16:P:84:ILE:O	16:P:86:LEU:HD23	1.59	0.98
23:W:11:LEU:HD12	23:W:74:VAL:HB	1.45	0.98
4:D:126:ILE:CD1	4:D:134:CYS:SG	2.52	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:145:ILE:HD13	1:A:159:ILE:HG21	1.40	0.98
17:Q:9:SER:HB2	17:Q:26:LYS:HE3	1.02	0.98
1:A:185:MET:O	1:A:186:ARG:C	2.01	0.98
12:L:7:GLU:HG3	12:L:8:ARG:HG3	1.45	0.98
25:Y:114:MET:CA	25:Y:124:ASN:ND2	2.25	0.98
17:Q:93:VAL:HG13	17:Q:105:LYS:HD3	1.41	0.98
4:D:67:ARG:HG3	4:D:67:ARG:HH11	1.28	0.98
11:K:98:ARG:HH11	11:K:98:ARG:HG2	1.26	0.98
11:K:62:PHE:HD1	11:K:67:PHE:CE2	1.76	0.98
17:Q:7:LEU:CD2	17:Q:8:GLN:OE1	2.12	0.98
4:D:105:LEU:HD23	4:D:184:ILE:CD1	1.93	0.98
5:E:248:ILE:C	10:J:72:PHE:HE1	1.67	0.98
5:E:61:VAL:O	5:E:65:CYS:SG	2.22	0.98
17:Q:8:GLN:HG2	17:Q:99:TYR:CE1	1.84	0.98
24:X:71:ARG:HE	24:X:82:THR:CG2	1.75	0.98
25:Y:48:TYR:O	25:Y:50:THR:HG23	1.61	0.98
23:W:85:ASP:O	23:W:89:TRP:HD1	1.47	0.98
10:J:117:LEU:O	10:J:119:LEU:HD23	1.62	0.98
11:K:65:ARG:HH11	11:K:65:ARG:CB	1.76	0.98
12:L:22:ARG:NH1	12:L:22:ARG:HB3	1.79	0.98
16:P:111:MET:O	16:P:114:HIS:CD2	2.15	0.98
20:T:75:MET:CE	20:T:79:TYR:HE2	1.77	0.98
4:D:21:LEU:CD1	4:D:48:ILE:CD1	2.42	0.98
6:F:73:THR:HG22	6:F:93:VAL:CG2	1.93	0.98
7:G:84:TYR:CE2	7:G:86:PRO:HG3	1.99	0.98
4:D:158:ILE:HD13	4:D:189:MET:HE2	1.25	0.98
19:S:42:HIS:HD2	20:T:45:LEU:CD1	1.52	0.98
9:I:5:ARG:HH11	9:I:5:ARG:HG2	1.28	0.98
19:S:137:LYS:O	19:S:141:ARG:NH2	1.96	0.98
21:U:51:LYS:HB2	21:U:90:ASP:HB2	1.41	0.98
12:L:7:GLU:HG3	12:L:8:ARG:H	1.26	0.98
20:T:143:LYS:HD2	20:T:144:LYS:H	1.26	0.98
7:G:50:VAL:HG13	7:G:111:LEU:HB3	1.45	0.97
8:H:144:ILE:HD12	23:W:52:ILE:HD13	1.42	0.97
9:I:161:LEU:CD1	9:I:199:LEU:HD12	1.85	0.97
16:P:46:SER:O	16:P:49:LEU:CD2	2.11	0.97
2:B:113:MET:HE3	2:B:209:ASP:CG	1.83	0.97
3:C:55:VAL:CG2	3:C:82:PHE:CE2	2.46	0.97
4:D:192:TRP:CE3	4:D:196:GLY:HA2	1.72	0.97
24:X:60:LYS:HG3	24:X:116:PRO:HG3	1.44	0.97
20:T:143:LYS:O	20:T:144:LYS:HB3	1.62	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:75:MET:HE3	20:T:79:TYR:CE2	1.99	0.97
5:E:70:ILE:CG1	5:E:92:ILE:HD11	1.83	0.97
22:V:11:LEU:HD12	22:V:12:TYR:HD2	0.93	0.97
21:U:40:ILE:HD11	21:U:53:PRO:CB	1.94	0.97
10:J:170:PRO:CB	10:J:174:LYS:HE2	1.94	0.97
14:N:22:VAL:CB	14:N:23:PRO:HA	1.95	0.97
16:P:53:GLN:HE21	16:P:80:LEU:HD13	1.26	0.97
3:C:195:PRO:CB	3:C:221:PHE:CZ	2.36	0.97
2:B:36:PRO:HB3	2:B:231:LEU:HD21	1.00	0.97
2:B:77:ASP:O	2:B:79:VAL:HG22	1.64	0.97
1:A:118:GLU:HB3	3:C:50:LYS:HZ1	0.82	0.97
9:I:139:LYS:CB	9:I:145:ILE:HD11	1.93	0.97
11:K:2:LEU:O	11:K:3:MET:HB3	1.58	0.97
17:Q:21:ALA:HB2	17:Q:72:VAL:HG22	1.45	0.97
16:P:9:LYS:C	16:P:10:ARG:HG3	1.82	0.97
10:J:110:LEU:HD12	10:J:130:ILE:CG1	1.87	0.97
10:J:165:TYR:N	10:J:165:TYR:HD1	1.60	0.97
8:H:83:LEU:HD11	8:H:92:VAL:CB	1.92	0.97
25:Y:63:HIS:CB	25:Y:64:PHE:CE1	2.47	0.97
13:M:76:LEU:O	13:M:128:PHE:CZ	2.18	0.97
9:I:10:LYS:HG3	9:I:11:ARG:N	1.78	0.97
7:G:76:LEU:CD2	7:G:92:ARG:CG	2.41	0.97
22:V:18:SER:OG	22:V:72:LEU:CD1	2.13	0.97
20:T:77:LYS:HA	20:T:94:ARG:HG2	1.47	0.97
12:L:80:MET:SD	12:L:120:VAL:HG12	2.04	0.97
13:M:124:ILE:HA	13:M:127:TYR:HD2	1.28	0.97
10:J:138:ARG:NH1	10:J:156:HIS:CG	2.31	0.97
4:D:59:LEU:HD12	4:D:60:GLY:H	1.26	0.97
22:V:19:ALA:HB3	22:V:59:ILE:CD1	1.95	0.97
24:X:51:VAL:HG13	24:X:70:VAL:HG13	1.47	0.97
26:Z:44:LEU:CD1	26:Z:44:LEU:C	2.30	0.97
26:Z:48:VAL:O	26:Z:83:LEU:CD1	2.12	0.97
13:M:13:ASP:O	13:M:16:THR:N	1.98	0.97
16:P:123:TYR:OH	19:S:124:ARG:CZ	2.11	0.97
22:V:9:VAL:HG12	22:V:10:ASP:N	1.76	0.97
8:H:93:VAL:HG22	8:H:94:PHE:H	1.28	0.97
26:Z:94:LYS:HD3	26:Z:94:LYS:C	1.84	0.97
2:B:137:LEU:HD23	2:B:215:VAL:HG13	1.44	0.97
8:H:163:GLN:OE1	8:H:189:PHE:HE2	1.38	0.97
11:K:62:PHE:CD1	11:K:67:PHE:CZ	2.51	0.97
19:S:85:ASN:OD1	19:S:97:GLN:HA	1.65	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:84:ARG:HH21	20:T:84:ARG:CB	1.77	0.97
14:N:12:SER:O	14:N:13:GLN:HG3	1.65	0.97
11:K:83:LEU:HD12	11:K:85:LEU:HD21	1.45	0.96
15:O:31:CYS:CB	15:O:95:ILE:HG12	1.92	0.96
8:H:144:ILE:O	23:W:51:GLU:HA	1.65	0.96
25:Y:18:LEU:CG	25:Y:20:ARG:HH11	1.76	0.96
2:B:125:VAL:HG11	2:B:173:THR:CG2	1.95	0.96
3:C:138:GLY:O	3:C:141:ILE:CG2	2.14	0.96
4:D:46:THR:OG1	4:D:79:PHE:HZ	1.30	0.96
7:G:176:ILE:HB	7:G:179:LEU:HD23	1.00	0.96
6:F:14:THR:CB	17:Q:56:LEU:CB	2.42	0.96
6:F:103:LEU:CD2	6:F:178:ILE:CD1	2.22	0.96
12:L:99:TYR:HH	24:X:14:ARG:HA	1.16	0.96
1:A:186:ARG:CG	1:A:186:ARG:HH11	1.78	0.96
5:E:122:LYS:CG	5:E:164:LEU:HD21	1.95	0.96
7:G:212:LEU:HA	7:G:215:LYS:CE	1.96	0.96
12:L:20:LYS:O	12:L:21:LYS:HB2	1.62	0.96
26:Z:112:ASN:O	26:Z:113:THR:CG2	2.13	0.96
18:R:120:THR:O	18:R:121:GLN:HB2	1.61	0.96
19:S:14:ARG:HH12	19:S:17:ASN:HA	0.84	0.96
3:C:244:THR:CG2	3:C:246:PHE:CA	2.43	0.96
2:B:87:ILE:HD13	2:B:101:HIS:HD2	0.80	0.96
9:I:161:LEU:HD11	9:I:199:LEU:HD12	0.99	0.96
12:L:97:ARG:O	12:L:99:TYR:N	1.97	0.96
17:Q:92:LEU:CG	17:Q:96:TYR:HE2	1.77	0.96
2:B:20:LYS:O	2:B:21:VAL:CG1	2.12	0.96
1:A:103:PHE:HE2	1:A:136:GLU:CD	1.68	0.96
26:Z:92:LEU:HD11	26:Z:109:TYR:CE1	2.00	0.96
6:F:112:LEU:HD23	6:F:116:ILE:HD11	1.45	0.96
7:G:32:MET:HE2	7:G:63:MET:SD	2.04	0.96
17:Q:42:ILE:HG21	17:Q:51:LEU:HD23	1.47	0.96
7:G:41:LEU:CD2	7:G:45:TRP:HZ3	1.37	0.96
9:I:136:ILE:HG22	9:I:139:LYS:HE3	1.48	0.96
6:F:42:LYS:C	6:F:42:LYS:CD	2.29	0.96
8:H:36:LEU:C	8:H:36:LEU:CD1	2.29	0.96
8:H:122:LEU:HD13	8:H:123:THR:CA	1.95	0.96
18:R:22:THR:HG22	18:R:73:LEU:CD1	1.95	0.96
13:M:12:MET:CG	13:M:16:THR:HG23	1.95	0.96
24:X:29:LYS:CD	24:X:34:THR:HG21	1.94	0.96
21:U:18:HIS:ND1	21:U:93:SER:O	1.98	0.96
8:H:147:LYS:HE2	8:H:153:LEU:HD12	1.47	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:48:ILE:HD11	18:R:105:MET:HE1	1.43	0.96
3:C:149:PRO:HB2	3:C:233:TYR:CE2	2.00	0.96
4:D:48:ILE:CG2	4:D:86:LEU:HG	1.95	0.96
11:K:84:HIS:CE1	11:K:85:LEU:HA	2.01	0.96
17:Q:19:ALA:HB1	17:Q:80:GLN:HE21	1.31	0.96
25:Y:36:PRO:HG3	25:Y:39:GLU:CD	1.86	0.96
4:D:197:LYS:CB	4:D:198:ILE:CG2	2.30	0.96
6:F:103:LEU:HD23	6:F:103:LEU:O	4.25	0.96
5:E:130:PHE:HB3	5:E:138:HIS:CE1	2.00	0.96
1:A:34:MET:HE1	1:A:37:TYR:CE2	2.00	0.96
7:G:162:LEU:HD12	7:G:162:LEU:O	1.65	0.96
17:Q:50:LYS:HA	17:Q:53:GLU:CD	1.85	0.96
17:Q:50:LYS:NZ	17:Q:85:ARG:HH22	1.58	0.96
8:H:8:ILE:HG23	8:H:9:VAL:HG22	0.98	0.96
3:C:101:THR:HG22	3:C:104:GLY:C	1.84	0.96
7:G:157:VAL:CG1	7:G:159:ARG:HG2	1.96	0.96
11:K:15:LEU:HD13	11:K:21:MET:CE	1.96	0.96
12:L:7:GLU:HG3	12:L:8:ARG:N	1.78	0.96
14:N:115:LEU:O	14:N:119:GLU:CG	2.13	0.96
24:X:52:LEU:CD2	24:X:71:ARG:HB3	1.94	0.96
25:Y:122:LYS:HD3	25:Y:123:ALA:N	1.79	0.96
20:T:77:LYS:HB2	20:T:94:ARG:CG	1.95	0.96
19:S:94:LYS:HE3	19:S:95:TYR:O	1.66	0.96
25:Y:7:ILE:CD1	25:Y:43:LYS:HG2	1.94	0.96
17:Q:9:SER:CB	17:Q:26:LYS:CE	2.43	0.95
19:S:137:LYS:C	19:S:141:ARG:HH21	1.69	0.95
1:A:58:LEU:CD2	1:A:178:LEU:HD21	1.94	0.95
2:B:57:ILE:O	2:B:57:ILE:HG23	1.62	0.95
4:D:70:THR:CG2	4:D:86:LEU:HD13	1.96	0.95
7:G:64:LYS:CD	7:G:67:VAL:HG13	1.94	0.95
9:I:62:VAL:CG2	9:I:75:LYS:CE	2.45	0.95
10:J:61:LEU:HD13	10:J:94:LEU:HD13	1.48	0.95
21:U:67:LYS:CG	21:U:78:ASP:OD2	2.13	0.95
22:V:24:ILE:C	22:V:24:ILE:CD1	2.29	0.95
3:C:93:LYS:HD2	3:C:218:LEU:HD22	0.95	0.95
20:T:77:LYS:CA	20:T:94:ARG:HG2	1.96	0.95
9:I:7:ASN:O	9:I:9:HIS:N	2.00	0.95
4:D:3:VAL:O	4:D:3:VAL:HG12	1.65	0.95
21:U:103:SER:O	21:U:106:ILE:HG23	1.66	0.95
19:S:42:HIS:HE2	20:T:45:LEU:HD21	1.26	0.95
25:Y:62:THR:HG22	25:Y:69:THR:HG22	1.45	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:99:LYS:CE	25:Y:99:LYS:N	2.29	0.95
24:X:142:ARG:CB	24:X:142:ARG:NH1	2.29	0.95
20:T:84:ARG:NH2	20:T:84:ARG:CB	2.29	0.95
1:A:76:VAL:HG21	1:A:90:PHE:HD2	1.31	0.95
3:C:115:ILE:HD11	3:C:140:ILE:HG23	1.45	0.95
3:C:50:LYS:HD3	3:C:251:TYR:HE1	1.29	0.95
4:D:76:ARG:HD3	11:K:66:HIS:HE1	1.25	0.95
5:E:166:THR:O	5:E:168:LYS:HD3	1.65	0.95
8:H:144:ILE:CG1	23:W:52:ILE:HG23	1.97	0.95
9:I:155:ASN:C	12:L:22:ARG:HD2	1.87	0.95
10:J:37:LEU:CG	10:J:42:GLU:CB	2.44	0.95
10:J:70:ARG:NH2	10:J:94:LEU:HD21	1.80	0.95
11:K:34:GLU:O	11:K:35:LEU:CB	2.11	0.95
17:Q:72:VAL:HG21	17:Q:84:ILE:CG2	1.96	0.95
8:H:10:LYS:HZ1	8:H:17:ASP:N	1.65	0.95
13:M:94:ILE:CG2	13:M:95:ASP:N	2.18	0.95
5:E:86:PHE:HZ	5:E:182:MET:CE	1.79	0.95
7:G:142:ARG:CG	7:G:142:ARG:HH11	1.79	0.95
9:I:194:GLU:HG2	12:L:12:LYS:HZ1	0.80	0.95
16:P:41:GLN:HE22	16:P:45:LEU:HG	0.81	0.95
20:T:102:ARG:NH2	20:T:105:GLN:OE1	2.00	0.95
2:B:20:LYS:C	2:B:21:VAL:HG13	1.87	0.95
23:W:7:LEU:HD11	23:W:33:VAL:HG11	1.46	0.95
8:H:115:LYS:O	8:H:116:ARG:HB3	1.65	0.95
1:A:17:LYS:N	1:A:17:LYS:HE2	1.79	0.95
1:A:176:TRP:HZ2	1:A:195:TRP:HE3	1.12	0.95
9:I:141:ARG:O	9:I:143:LYS:HB3	1.65	0.95
10:J:127:ARG:HG3	10:J:127:ARG:HH11	0.79	0.95
10:J:134:HIS:CE1	10:J:163:SER:CB	2.41	0.95
10:J:16:PRO:HD2	10:J:44:TRP:CZ2	2.02	0.95
10:J:37:LEU:CD2	10:J:42:GLU:HB2	1.96	0.95
17:Q:135:PRO:CG	17:Q:141:TYR:HE1	1.78	0.95
25:Y:12:PHE:CZ	25:Y:21:LYS:CB	2.49	0.95
16:P:114:HIS:NE2	19:S:113:ARG:NH1	2.13	0.95
3:C:110:LYS:HE2	3:C:112:PHE:HZ	1.15	0.95
4:D:70:THR:HG22	4:D:86:LEU:CD1	1.97	0.95
10:J:46:VAL:HG11	10:J:106:LEU:CD1	1.97	0.95
10:J:28:GLU:OE1	10:J:40:LYS:CD	2.13	0.95
5:E:108:ARG:HG2	10:J:32:ILE:HG21	49.06	0.95
16:P:41:GLN:HE21	16:P:84:ILE:HB	0.78	0.95
12:L:149:ALA:CA	12:L:156:GLN:HE21	1.79	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:127:LYS:NZ	16:P:127:LYS:CB	2.30	0.95
19:S:46:ARG:CZ	20:T:50:GLU:CG	2.44	0.95
2:B:153:THR:HG23	2:B:154:SER:N	1.79	0.95
9:I:107:THR:OG1	9:I:108:PRO:HD3	1.66	0.95
4:D:212:GLU:CB	18:R:19:LYS:HD2	1.95	0.95
12:L:35:ARG:HH21	12:L:63:THR:HG21	1.26	0.95
1:A:177:MET:HE1	1:A:180:ARG:HH22	1.31	0.95
1:A:76:VAL:CG2	1:A:90:PHE:CD2	2.48	0.95
4:D:55:THR:O	4:D:58:VAL:CG2	2.15	0.95
7:G:157:VAL:HG13	7:G:158:VAL:N	1.63	0.95
9:I:114:GLU:OE1	9:I:133:GLU:CD	1.93	0.95
9:I:62:VAL:HG21	9:I:75:LYS:NZ	1.82	0.95
10:J:169:ARG:CB	10:J:170:PRO:HD2	1.96	0.95
22:V:18:SER:OG	22:V:72:LEU:HD11	1.67	0.95
8:H:37:LYS:HE2	8:H:41:ARG:NH1	1.81	0.95
24:X:115:ILE:HG22	24:X:115:ILE:O	1.65	0.95
1:A:186:ARG:HG2	1:A:186:ARG:NH1	1.67	0.95
9:I:154:LYS:HG3	9:I:155:ASN:N	1.80	0.95
5:E:248:ILE:C	10:J:72:PHE:CE1	2.39	0.95
24:X:51:VAL:CG1	24:X:70:VAL:HG11	1.96	0.95
17:Q:47:LEU:HD23	17:Q:81:ILE:CD1	1.95	0.95
18:R:20:TYR:CE1	18:R:38:ILE:CG2	2.37	0.95
13:M:89:VAL:HG21	13:M:109:VAL:HG11	1.46	0.95
5:E:38:LEU:C	5:E:38:LEU:CD1	2.33	0.95
25:Y:7:ILE:CD1	25:Y:43:LYS:CB	2.44	0.95
1:A:34:MET:CE	1:A:37:TYR:CD2	2.49	0.95
7:G:157:VAL:CG1	7:G:159:ARG:CG	2.45	0.95
9:I:139:LYS:O	9:I:140:LYS:HB3	1.67	0.95
3:C:186:GLY:HA3	10:J:54:ARG:NH2	1.82	0.95
15:O:44:VAL:HG21	15:O:93:LEU:HD13	1.45	0.95
22:V:64:GLU:O	22:V:66:ASP:N	1.99	0.95
8:H:10:LYS:CE	8:H:17:ASP:N	2.28	0.95
21:U:67:LYS:CE	21:U:78:ASP:OD1	2.13	0.94
9:I:69:SER:HB2	12:L:19:ASN:HD21	0.87	0.94
26:Z:77:LEU:O	26:Z:78:LYS:HG2	1.66	0.94
6:F:185:SER:CA	6:F:190:ILE:HG21	1.95	0.94
24:X:74:LEU:HD11	24:X:81:ILE:HD12	1.47	0.94
1:A:5:LEU:HD22	1:A:5:LEU:C	1.87	0.94
10:J:170:PRO:CG	10:J:175:ARG:HG2	1.93	0.94
10:J:48:PHE:HE1	10:J:52:LYS:HE3	1.24	0.94
14:N:22:VAL:HB	14:N:23:PRO:CA	1.97	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:76:THR:CB	20:T:95:GLY:O	2.16	0.94
18:R:13:ALA:CA	18:R:54:VAL:HG22	1.97	0.94
17:Q:24:HIS:CD2	17:Q:69:ARG:HB2	2.03	0.94
5:E:48:LEU:HD21	5:E:70:ILE:CD1	1.96	0.94
9:I:154:LYS:C	9:I:154:LYS:HE2	1.86	0.94
17:Q:8:GLN:HB3	17:Q:99:TYR:CE1	2.01	0.94
21:U:41:ARG:O	21:U:45:GLU:HB2	1.65	0.94
4:D:210:ILE:HD12	18:R:15:VAL:HG11	0.96	0.94
4:D:212:GLU:CG	18:R:19:LYS:HD3	1.90	0.94
8:H:57:ARG:HD2	8:H:89:GLY:O	1.67	0.94
3:C:260:LYS:CD	3:C:261:THR:HG22	1.97	0.94
1:A:94:THR:HG21	1:A:182:VAL:HG21	1.45	0.94
2:B:57:ILE:O	2:B:60:ASP:N	1.99	0.94
6:F:20:PHE:O	6:F:21:GLY:C	2.06	0.94
6:F:25:THR:HG22	6:F:42:LYS:HD2	0.97	0.94
12:L:17:PHE:CE1	12:L:18:GLN:HB2	2.01	0.94
2:B:113:MET:CE	2:B:211:PHE:CZ	2.40	0.94
4:D:157:MET:HE3	4:D:187:LYS:CD	1.96	0.94
13:M:98:GLY:O	13:M:100:PRO:CD	2.13	0.94
9:I:154:LYS:C	9:I:154:LYS:CD	2.30	0.94
10:J:115:PHE:CD1	10:J:122:SER:N	2.35	0.94
10:J:122:SER:OG	10:J:124:HIS:CB	2.16	0.94
16:P:10:ARG:NH2	16:P:11:THR:CG2	2.30	0.94
19:S:33:ILE:HB	19:S:36:VAL:HG11	1.49	0.94
21:U:50:VAL:CG2	21:U:51:LYS:C	2.34	0.94
18:R:44:LYS:CG	18:R:47:ARG:CZ	2.44	0.94
4:D:212:GLU:CB	4:D:213:PRO:HD2	1.98	0.94
2:B:30:TRP:HE1	15:O:17:LEU:CD2	1.79	0.94
2:B:36:PRO:HB3	2:B:231:LEU:CD2	1.96	0.94
7:G:63:MET:HE3	7:G:106:LEU:HD13	1.50	0.94
7:G:155:GLN:O	7:G:156:TYR:CD1	2.21	0.94
9:I:154:LYS:CD	9:I:155:ASN:N	2.29	0.94
17:Q:16:LYS:HD2	17:Q:17:LYS:N	1.82	0.94
16:P:33:LEU:HD21	16:P:87:PRO:HD3	0.97	0.94
26:Z:92:LEU:HD21	26:Z:109:TYR:CE1	2.01	0.94
24:X:105:PHE:HE2	24:X:119:ARG:HA	0.86	0.94
23:W:104:LEU:HD11	23:W:106:THR:CG2	1.97	0.94
23:W:3:ARG:NH2	23:W:9:ASP:OD2	2.01	0.94
1:A:104:THR:O	1:A:107:THR:CG2	2.14	0.94
7:G:67:VAL:HG21	7:G:99:GLY:HA2	1.45	0.94
11:K:11:ILE:CG2	11:K:49:MET:HE2	1.76	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:99:ARG:HH21	14:N:115:LEU:HD21	1.27	0.94
3:C:197:LYS:HA	3:C:200:LEU:HD21	0.96	0.94
13:M:61:TYR:HE1	13:M:108:CYS:HG	1.15	0.94
4:D:27:ARG:HB2	4:D:27:ARG:NH1	4.75	0.94
2:B:137:LEU:CB	2:B:172:MET:HE1	1.98	0.94
3:C:142:LEU:CA	3:C:145:LEU:HD21	1.94	0.94
3:C:244:THR:CG2	3:C:246:PHE:N	2.31	0.94
5:E:98:ASN:HD21	5:E:119:ALA:CB	1.81	0.94
7:G:33:ALA:H	7:G:52:ILE:HG23	1.30	0.94
8:H:145:ARG:HH11	8:H:155:LYS:HZ2	1.14	0.94
10:J:127:ARG:NH1	10:J:145:PRO:HB2	1.81	0.94
3:C:67:TYR:HE1	22:V:27:LYS:HZ3	0.98	0.94
1:A:21:ALA:HB1	1:A:173:LEU:HD12	1.49	0.94
9:I:142:SER:CA	9:I:143:LYS:HB2	1.97	0.94
13:M:35:ILE:HD13	13:M:61:TYR:CZ	2.02	0.94
12:L:125:ILE:HB	12:L:146:THR:HG21	1.48	0.94
20:T:63:HIS:O	20:T:67:ARG:HD2	1.67	0.94
23:W:129:PHE:C	23:W:129:PHE:HD1	1.71	0.94
2:B:57:ILE:CD1	2:B:60:ASP:CG	2.33	0.94
3:C:63:LEU:HD13	3:C:67:TYR:OH	1.68	0.94
11:K:3:MET:HE1	11:K:8:ARG:HH22	1.19	0.94
13:M:28:HIS:CD2	13:M:115:GLY:CA	2.51	0.94
17:Q:57:LEU:HD13	17:Q:115:TYR:CE2	2.02	0.94
19:S:81:ASP:O	19:S:87:GLN:NE2	2.00	0.94
2:B:209:ASP:OD1	2:B:211:PHE:CZ	2.21	0.94
5:E:128:LYS:HD3	5:E:130:PHE:CD1	2.03	0.94
3:C:241:TRP:CD2	23:W:68:ARG:HD3	2.02	0.94
5:E:36:HIS:HB2	5:E:41:CYS:SG	2.08	0.94
5:E:153:LEU:HD23	7:G:216:ARG:NH2	1.81	0.94
10:J:127:ARG:NH1	10:J:145:PRO:CB	2.31	0.94
11:K:3:MET:SD	11:K:8:ARG:NH2	2.34	0.94
19:S:26:ILE:HD11	19:S:59:LEU:HD21	1.47	0.94
12:L:99:TYR:OH	24:X:14:ARG:CB	2.16	0.94
22:V:1:MET:HE1	22:V:10:ASP:HB2	1.50	0.94
1:A:21:ALA:HB3	1:A:173:LEU:CD1	1.78	0.93
2:B:137:LEU:HD21	2:B:215:VAL:HG13	0.95	0.93
7:G:27:PHE:CZ	7:G:41:LEU:CD1	2.51	0.93
17:Q:42:ILE:HG21	17:Q:51:LEU:HD21	1.46	0.93
19:S:58:GLU:O	19:S:59:LEU:CD2	2.17	0.93
16:P:49:LEU:CA	16:P:51:ARG:HG3	1.96	0.93
12:L:96:ILE:O	12:L:100:ASN:HA	1.67	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:132:ARG:CB	19:S:134:GLN:OE1	2.14	0.93
1:A:133:PRO:HD2	1:A:134:LEU:N	1.83	0.93
1:A:183:LEU:HB2	1:A:189:ILE:HD11	1.51	0.93
10:J:37:LEU:CD1	10:J:42:GLU:CB	2.42	0.93
10:J:37:LEU:CG	10:J:42:GLU:HB3	1.96	0.93
15:O:31:CYS:SG	15:O:93:LEU:HB3	2.07	0.93
17:Q:109:LYS:HG3	17:Q:113:ILE:HD11	1.48	0.93
17:Q:76:GLY:O	17:Q:80:GLN:CG	2.16	0.93
20:T:76:THR:HG22	20:T:96:SER:O	1.68	0.93
16:P:59:ARG:HD3	16:P:76:VAL:HG13	1.46	0.93
3:C:234:SER:CA	22:V:23:ILE:HD11	1.97	0.93
18:R:84:TYR:O	18:R:85:VAL:HG23	1.69	0.93
3:C:51:LEU:CD1	3:C:78:ILE:HD13	1.99	0.93
9:I:67:TRP:HZ2	9:I:158:ILE:HD11	1.33	0.93
6:F:21:GLY:O	6:F:22:LYS:HG3	1.67	0.93
25:Y:52:PRO:HD2	25:Y:53:ASP:H	1.32	0.93
23:W:42:MET:CE	23:W:50:PHE:CD2	2.51	0.93
25:Y:27:VAL:HG11	25:Y:35:VAL:HG21	1.47	0.93
3:C:169:VAL:HG21	3:C:228:ALA:O	1.68	0.93
1:A:11:LYS:HG2	1:A:13:GLU:HG2	0.94	0.93
1:A:30:LEU:HD11	1:A:38:ILE:CD1	1.91	0.93
4:D:226:GLN:O	4:D:227:LYS:HG3	1.67	0.93
4:D:56:GLN:HA	4:D:59:LEU:HD23	1.50	0.93
6:F:71:ARG:HH21	6:F:71:ARG:CG	1.80	0.93
7:G:162:LEU:HD23	7:G:172:LYS:HE2	1.46	0.93
9:I:110:ARG:NH2	9:I:124:LYS:HD3	1.84	0.93
10:J:10:ARG:NH1	10:J:10:ARG:CB	2.31	0.93
21:U:111:GLU:HA	21:U:111:GLU:OE1	1.65	0.93
24:X:99:GLU:O	24:X:100:VAL:CG1	2.15	0.93
20:T:77:LYS:CB	20:T:94:ARG:HG2	1.98	0.93
16:P:127:LYS:C	16:P:127:LYS:CE	2.36	0.93
16:P:127:LYS:HE3	16:P:127:LYS:C	1.89	0.93
4:D:112:GLY:O	4:D:113:LEU:HG	1.68	0.93
2:B:105:LEU:CD1	2:B:110:MET:HE1	1.99	0.93
1:A:17:LYS:N	1:A:17:LYS:CE	2.31	0.93
1:A:45:GLY:O	1:A:46:ILE:CG1	2.17	0.93
2:B:25:PHE:HE2	15:O:88:LEU:HD11	1.29	0.93
25:Y:55:ILE:CG1	25:Y:75:ILE:CG1	2.15	0.93
12:L:77:VAL:HG11	12:L:80:MET:SD	2.07	0.93
3:C:156:GLY:O	3:C:157:ASN:ND2	2.00	0.93
15:O:56:VAL:HG11	15:O:81:VAL:HG23	1.48	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:234:SER:C	22:V:23:ILE:CD1	2.37	0.93
2:B:139:CYS:HB2	2:B:168:MET:SD	2.08	0.93
3:C:50:LYS:HD3	3:C:251:TYR:CE1	1.97	0.93
7:G:5:ILE:HD12	7:G:16:ILE:HD12	1.50	0.93
10:J:165:TYR:N	10:J:165:TYR:CD1	2.27	0.93
15:O:31:CYS:HB2	15:O:95:ILE:HG12	1.51	0.93
9:I:19:LYS:HE2	9:I:20:PRO:CD	1.98	0.93
20:T:143:LYS:CD	20:T:144:LYS:N	2.31	0.93
1:A:43:SER:OG	18:R:101:ASP:CG	2.06	0.93
5:E:248:ILE:HG13	10:J:72:PHE:CE1	1.99	0.93
11:K:65:ARG:NH1	11:K:65:ARG:CB	2.31	0.93
15:O:44:VAL:HG21	15:O:93:LEU:CD1	1.99	0.93
25:Y:114:MET:O	25:Y:124:ASN:ND2	2.02	0.93
6:F:42:LYS:O	6:F:44:LYS:HA	1.67	0.93
24:X:67:ARG:C	24:X:68:LYS:HG3	1.86	0.93
2:B:126:ASP:OD1	2:B:136:HIS:CD2	2.21	0.93
3:C:148:VAL:HB	3:C:149:PRO:HD2	1.51	0.93
3:C:244:THR:CG2	3:C:246:PHE:HA	1.99	0.93
9:I:141:ARG:HB3	9:I:144:LYS:HB2	1.48	0.93
9:I:37:LYS:O	9:I:59:ARG:CA	2.17	0.93
10:J:17:ARG:HB3	10:J:18:ARG:CG	1.99	0.93
15:O:52:THR:O	15:O:53:ILE:CG2	2.15	0.93
15:O:95:ILE:HD13	15:O:116:LEU:CD2	1.98	0.93
17:Q:135:PRO:HD3	17:Q:141:TYR:CD1	2.02	0.93
17:Q:19:ALA:CB	17:Q:74:GLY:O	2.17	0.93
21:U:62:ARG:HH12	21:U:64:THR:HG21	1.00	0.93
25:Y:62:THR:HG22	25:Y:69:THR:HG21	1.49	0.93
9:I:21:TYR:CE2	9:I:22:HIS:HD2	1.85	0.93
4:D:157:MET:HE1	4:D:187:LYS:CD	1.93	0.93
3:C:55:VAL:CG1	3:C:82:PHE:HE2	1.77	0.93
8:H:145:ARG:CD	23:W:51:GLU:HG2	1.99	0.93
14:N:115:LEU:O	14:N:119:GLU:HG2	1.68	0.93
25:Y:114:MET:HA	25:Y:124:ASN:CG	1.88	0.93
6:F:14:THR:HG23	17:Q:56:LEU:HD22	1.50	0.93
4:D:212:GLU:HB3	18:R:19:LYS:CD	1.96	0.93
5:E:208:VAL:HG21	5:E:225:ILE:CD1	1.93	0.93
7:G:25:ARG:CG	7:G:28:TYR:CD2	2.51	0.93
17:Q:34:VAL:HG23	17:Q:39:LEU:HD23	0.95	0.93
17:Q:50:LYS:HZ1	17:Q:117:ARG:HD2	0.79	0.93
25:Y:102:THR:HG21	25:Y:107:ARG:CD	1.98	0.93
18:R:22:THR:CG2	18:R:73:LEU:HD11	1.99	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:13:ASP:CB	13:M:16:THR:CB	2.27	0.93
1:A:34:MET:CE	1:A:37:TYR:CE2	2.51	0.92
1:A:39:TYR:CA	1:A:50:ASN:HD21	1.81	0.92
3:C:244:THR:HG23	3:C:246:PHE:H	1.20	0.92
4:D:226:GLN:HE21	4:D:226:GLN:CA	1.80	0.92
10:J:50:LEU:HD12	10:J:102:ILE:HD13	1.45	0.92
14:N:125:LEU:CD1	14:N:129:TYR:CE2	2.52	0.92
18:R:99:ASP:HA	18:R:119:VAL:HG13	1.49	0.92
8:H:15:LYS:CB	8:H:16:PRO:HD2	1.97	0.92
16:P:93:MET:SD	16:P:106:GLU:HB2	2.08	0.92
26:Z:69:THR:CB	26:Z:70:PRO:HD3	1.99	0.92
26:Z:74:SER:HA	26:Z:79:ILE:HG22	1.50	0.92
5:E:86:PHE:HZ	5:E:182:MET:HE3	1.32	0.92
7:G:65:GLN:CA	7:G:100:CYS:SG	2.57	0.92
10:J:48:PHE:HZ	10:J:52:LYS:NZ	1.57	0.92
18:R:99:ASP:HA	18:R:119:VAL:HG12	1.49	0.92
16:P:4:VAL:HA	16:P:10:ARG:HD2	1.46	0.92
19:S:16:LEU:O	19:S:17:ASN:ND2	2.02	0.92
18:R:5:ARG:CB	18:R:10:LYS:NZ	2.22	0.92
1:A:140:VAL:O	1:A:140:VAL:HG12	1.70	0.92
6:F:110:GLN:O	6:F:113:VAL:HG12	1.68	0.92
16:P:56:LEU:CD1	16:P:80:LEU:HD12	1.98	0.92
8:H:23:ILE:CD1	8:H:27:LEU:CD2	2.47	0.92
16:P:15:PHE:CE1	19:S:91:LYS:HD2	2.05	0.92
19:S:8:LYS:O	26:Z:49:LEU:HD22	1.67	0.92
26:Z:48:VAL:C	26:Z:83:LEU:CD1	2.38	0.92
4:D:195:SER:C	4:D:197:LYS:CA	2.34	0.92
10:J:89:GLU:N	10:J:92:MET:CG	2.32	0.92
10:J:89:GLU:N	10:J:92:MET:HG3	1.83	0.92
13:M:18:LEU:HD22	13:M:22:LEU:HG	1.48	0.92
2:B:19:LYS:NZ	2:B:19:LYS:CB	2.29	0.92
21:U:73:GLY:O	21:U:74:SER:C	2.08	0.92
4:D:94:ARG:HG2	4:D:95:GLY:N	1.83	0.92
3:C:99:LYS:HD2	3:C:100:GLN:N	1.84	0.92
3:C:248:LYS:NZ	3:C:253:GLU:OE1	2.02	0.92
6:F:73:THR:HG22	6:F:93:VAL:HG21	0.96	0.92
25:Y:92:ALA:CA	25:Y:97:TYR:O	2.17	0.92
4:D:51:LEU:HG	4:D:91:VAL:HG22	1.51	0.92
5:E:98:ASN:HD21	5:E:119:ALA:HB2	1.34	0.92
5:E:21:ASP:CG	5:E:24:THR:HG21	1.87	0.92
7:G:157:VAL:HG11	7:G:159:ARG:CB	1.99	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:42:LYS:HD3	6:F:42:LYS:H	0.88	0.92
17:Q:47:LEU:CD2	17:Q:81:ILE:HD13	1.97	0.92
24:X:27:TYR:CZ	24:X:31:HIS:CD2	2.57	0.92
10:J:79:ARG:O	10:J:83:ARG:HG3	1.70	0.92
13:M:13:ASP:O	13:M:16:THR:CB	2.16	0.92
16:P:68:PRO:HB3	16:P:69:PRO:HD3	1.51	0.92
1:A:180:ARG:HH11	1:A:184:ARG:NH1	1.68	0.92
2:B:49:VAL:HG22	2:B:65:ARG:NH2	1.83	0.92
9:I:62:VAL:HB	9:I:75:LYS:HE2	1.49	0.92
10:J:170:PRO:HA	10:J:174:LYS:HZ1	1.32	0.92
13:M:116:LYS:O	13:M:117:GLU:CB	2.17	0.92
12:L:113:LEU:HD11	12:L:120:VAL:CG2	1.98	0.92
4:D:112:GLY:N	4:D:113:LEU:CD1	2.33	0.92
2:B:72:ALA:CA	2:B:79:VAL:HG23	1.99	0.92
8:H:157:HIS:C	8:H:158:LEU:HD23	1.89	0.92
10:J:110:LEU:HD13	10:J:130:ILE:HD11	0.92	0.92
4:D:166:TYR:CD1	4:D:200:PRO:CB	2.52	0.92
26:Z:99:LEU:CD2	26:Z:109:TYR:HE1	1.77	0.92
23:W:104:LEU:CD1	23:W:106:THR:CG2	2.47	0.92
3:C:123:GLY:HA2	3:C:226:PHE:HZ	1.33	0.92
3:C:55:VAL:HG11	3:C:82:PHE:CE2	2.03	0.92
7:G:32:MET:CE	7:G:100:CYS:C	2.38	0.92
7:G:50:VAL:CG1	7:G:111:LEU:HB3	1.99	0.92
10:J:17:ARG:HB3	10:J:18:ARG:HG2	1.49	0.92
25:Y:21:LYS:N	25:Y:21:LYS:CD	2.30	0.92
20:T:31:PRO:HB2	20:T:33:TRP:CE2	2.04	0.92
16:P:59:ARG:CD	16:P:76:VAL:HG13	2.00	0.92
4:D:197:LYS:HB2	4:D:198:ILE:CB	1.99	0.92
4:D:74:GLN:HE22	4:D:75:LYS:HE2	1.33	0.92
7:G:85:ARG:NE	25:Y:118:ARG:CZ	2.33	0.92
11:K:30:PRO:C	11:K:31:LYS:HG3	1.73	0.92
11:K:84:HIS:ND1	11:K:85:LEU:HA	1.85	0.92
21:U:97:ILE:HG23	21:U:101:ILE:HD11	1.50	0.92
25:Y:29:HIS:HE1	25:Y:68:LYS:H	0.96	0.92
16:P:49:LEU:HA	16:P:51:ARG:CG	1.99	0.92
3:C:241:TRP:CB	23:W:68:ARG:NH1	2.32	0.92
18:R:91:LEU:HD13	18:R:92:ASP:CA	2.00	0.92
4:D:177:LEU:CD2	4:D:182:LEU:CD2	2.43	0.92
2:B:52:THR:HG21	14:N:53:ILE:HD13	83.43	0.92
5:E:153:LEU:HD13	5:E:172:PHE:HZ	1.32	0.92
10:J:171:GLY:O	10:J:173:VAL:N	2.03	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:44:VAL:CG2	15:O:93:LEU:HD13	2.00	0.92
25:Y:87:PRO:HB2	25:Y:89:HIS:CE1	2.03	0.92
4:D:158:ILE:HD12	4:D:189:MET:CE	1.98	0.92
16:P:33:LEU:HD23	16:P:87:PRO:HD2	1.51	0.92
24:X:29:LYS:HD3	24:X:34:THR:HG21	1.51	0.92
4:D:212:GLU:HB3	18:R:19:LYS:HD2	1.45	0.92
4:D:177:LEU:HD23	4:D:182:LEU:HD21	1.51	0.92
4:D:226:GLN:NE2	4:D:226:GLN:CA	2.32	0.91
7:G:227:GLN:HA	7:G:230:LYS:HD2	1.49	0.91
11:K:83:LEU:O	11:K:84:HIS:ND1	2.02	0.91
14:N:16:LEU:HD22	14:N:17:PRO:HD2	1.51	0.91
22:V:32:ILE:HG22	22:V:33:PRO:HD2	1.52	0.91
24:X:98:ASP:O	24:X:99:GLU:HB2	1.70	0.91
9:I:206:LYS:CD	9:I:207:GLY:H	1.83	0.91
14:N:137:PRO:O	14:N:138:ASN:CG	2.07	0.91
3:C:60:ILE:O	3:C:82:PHE:HE1	1.44	0.91
9:I:139:LYS:HB3	9:I:145:ILE:HD13	1.51	0.91
9:I:194:GLU:CD	12:L:12:LYS:NZ	2.22	0.91
14:N:92:ILE:HG22	14:N:150:VAL:CG2	2.00	0.91
6:F:91:ARG:HH12	6:F:94:LYS:HG3	1.33	0.91
17:Q:85:ARG:HH22	17:Q:117:ARG:CG	1.82	0.91
25:Y:44:LEU:HD11	25:Y:48:TYR:CD2	2.04	0.91
19:S:59:LEU:HD13	19:S:59:LEU:N	1.85	0.91
25:Y:36:PRO:HG2	25:Y:39:GLU:CD	1.83	0.91
6:F:167:LYS:CD	6:F:171:GLU:HG3	1.99	0.91
2:B:105:LEU:CD1	2:B:110:MET:HE2	1.96	0.91
2:B:67:PHE:CD1	15:O:47:LEU:C	2.44	0.91
3:C:87:LEU:CD2	3:C:115:ILE:HG23	1.99	0.91
4:D:43:PRO:C	4:D:44:THR:HG23	1.88	0.91
5:E:139:LEU:HD13	5:E:154:ILE:HG21	1.48	0.91
6:F:122:ARG:NE	6:F:193:LYS:HZ1	1.65	0.91
7:G:162:LEU:HD23	7:G:172:LYS:CE	2.01	0.91
7:G:32:MET:SD	7:G:100:CYS:HA	1.99	0.91
14:N:46:THR:OG1	14:N:49:GLN:HG3	1.68	0.91
16:P:53:GLN:CG	16:P:80:LEU:HD11	1.88	0.91
23:W:101:PHE:HA	23:W:113:HIS:HE1	1.33	0.91
6:F:36:GLN:CG	6:F:37:ASP:CG	2.38	0.91
12:L:82:MET:HB2	12:L:85:THR:CG2	2.00	0.91
20:T:89:PRO:O	20:T:91:HIS:CD2	2.24	0.91
5:E:205:PHE:CE1	5:E:221:ARG:NH1	2.39	0.91
3:C:60:ILE:O	3:C:82:PHE:CZ	2.22	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:54:VAL:HG22	25:Y:79:LEU:HD23	1.49	0.91
16:P:49:LEU:C	16:P:51:ARG:HD2	1.90	0.91
4:D:212:GLU:H	4:D:212:GLU:CD	1.71	0.91
5:E:48:LEU:HD21	5:E:70:ILE:HD12	1.51	0.91
7:G:162:LEU:HG	7:G:170:ARG:HB2	1.53	0.91
5:E:76:VAL:HG12	24:X:56:GLY:O	91.30	0.91
19:S:121:ARG:HG2	19:S:131:VAL:HG13	1.48	0.91
18:R:122:PRO:HB2	18:R:123:THR:OG1	1.69	0.91
25:Y:7:ILE:HD11	25:Y:43:LYS:CD	2.00	0.91
10:J:37:LEU:CD2	10:J:42:GLU:CB	2.49	0.91
17:Q:7:LEU:HD23	17:Q:8:GLN:OE1	1.69	0.91
25:Y:44:LEU:HD11	25:Y:48:TYR:HE2	1.06	0.91
25:Y:9:THR:OG1	25:Y:48:TYR:OH	1.80	0.91
4:D:132:LYS:N	4:D:191:PRO:CG	2.33	0.91
12:L:147:LYS:HG3	12:L:148:ALA:HA	1.24	0.91
18:R:121:GLN:C	18:R:121:GLN:HE21	1.74	0.91
24:X:74:LEU:CD1	24:X:81:ILE:HD12	2.00	0.91
23:W:104:LEU:HD11	23:W:106:THR:HG23	1.52	0.91
21:U:22:ILE:HG12	21:U:114:VAL:HG22	1.52	0.91
21:U:108:PRO:O	21:U:110:VAL:HG23	1.70	0.91
17:Q:78:VAL:CG1	17:Q:82:TYR:HE2	1.83	0.91
16:P:84:ILE:O	16:P:86:LEU:HD21	1.68	0.91
2:B:113:MET:HE3	2:B:211:PHE:CE2	1.83	0.91
16:P:127:LYS:HZ2	16:P:128:HIS:N	1.69	0.91
5:E:130:PHE:CG	5:E:138:HIS:NE2	2.38	0.91
23:W:35:VAL:O	23:W:39:THR:HG23	1.70	0.91
2:B:72:ALA:HB2	2:B:79:VAL:O	1.70	0.91
7:G:32:MET:HE3	7:G:100:CYS:C	1.89	0.91
6:F:167:LYS:HD3	6:F:171:GLU:HG2	1.52	0.91
2:B:208:HIS:O	2:B:209:ASP:HB2	1.66	0.91
2:B:21:VAL:HG23	2:B:21:VAL:O	1.70	0.91
1:A:52:LYS:HB3	1:A:52:LYS:NZ	1.86	0.91
3:C:63:LEU:HG	3:C:83:LEU:HD13	1.51	0.91
10:J:115:PHE:HD1	10:J:122:SER:H	0.97	0.91
18:R:99:ASP:O	18:R:119:VAL:HG21	1.71	0.91
1:A:205:ARG:CG	1:A:206:ASP:N	2.23	0.91
2:B:49:VAL:HG22	2:B:65:ARG:HH22	1.36	0.91
3:C:55:VAL:CB	3:C:82:PHE:CE2	2.54	0.91
22:V:32:ILE:HG22	22:V:33:PRO:CD	2.00	0.91
6:F:76:MET:HE2	6:F:169:ILE:HG21	1.49	0.91
1:A:106:GLY:C	1:A:113:GLN:OE1	2.08	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:77:PRO:HD3	24:X:5:ARG:O	1.71	0.91
25:Y:10:ARG:CG	25:Y:24:VAL:HB	2.00	0.91
5:E:208:VAL:CB	5:E:225:ILE:HD13	2.01	0.90
9:I:141:ARG:CG	9:I:144:LYS:CB	2.37	0.90
10:J:39:ASN:OD1	10:J:42:GLU:N	2.03	0.90
13:M:61:TYR:HE1	13:M:108:CYS:SG	1.94	0.90
20:T:23:LYS:CD	20:T:54:TYR:CE2	2.54	0.90
5:E:62:LYS:HA	5:E:65:CYS:SG	2.11	0.90
7:G:64:LYS:O	7:G:64:LYS:HD2	1.69	0.90
10:J:35:TYR:O	10:J:37:LEU:N	2.04	0.90
16:P:44:ARG:HH21	16:P:84:ILE:CB	1.83	0.90
8:H:6:ALA:HB1	8:H:10:LYS:HZ3	1.37	0.90
16:P:49:LEU:HD12	16:P:51:ARG:HE	0.75	0.90
2:B:113:MET:HE3	2:B:211:PHE:HZ	1.34	0.90
4:D:218:LEU:CB	4:D:220:THR:HG23	1.98	0.90
16:P:70:MET:O	16:P:71:GLU:HB2	1.68	0.90
7:G:157:VAL:CG1	7:G:159:ARG:N	2.09	0.90
10:J:130:ILE:HG12	10:J:135:ILE:CD1	1.99	0.90
11:K:41:PRO:O	11:K:41:PRO:HD2	1.70	0.90
17:Q:135:PRO:CD	17:Q:141:TYR:CD1	2.54	0.90
16:P:41:GLN:CD	16:P:84:ILE:CG2	2.20	0.90
16:P:125:PRO:O	16:P:126:VAL:HG23	1.70	0.90
18:R:13:ALA:HA	18:R:54:VAL:CG2	2.01	0.90
7:G:41:LEU:HD22	7:G:45:TRP:HE3	1.33	0.90
9:I:157:LYS:HB3	12:L:22:ARG:HH12	1.37	0.90
17:Q:49:TYR:O	17:Q:53:GLU:HG3	1.71	0.90
21:U:25:THR:HG22	21:U:86:LYS:HG2	1.54	0.90
11:K:16:PHE:HD2	11:K:79:LEU:HB3	1.29	0.90
19:S:95:TYR:CD1	19:S:95:TYR:N	2.28	0.90
12:L:149:ALA:HB1	12:L:156:GLN:CG	1.77	0.90
23:W:4:MET:SD	23:W:4:MET:N	2.44	0.90
1:A:141:ASN:HA	22:V:32:ILE:HG13	1.53	0.90
3:C:50:LYS:CE	3:C:251:TYR:HE1	1.83	0.90
3:C:73:ILE:HD11	3:C:78:ILE:HB	1.53	0.90
7:G:176:ILE:CG2	7:G:179:LEU:CB	2.49	0.90
5:E:145:ARG:HH11	5:E:145:ARG:HG2	1.36	0.90
1:A:66:VAL:HG13	1:A:186:ARG:CG	2.01	0.90
22:V:55:ILE:CD1	22:V:68:SER:OG	2.17	0.90
25:Y:18:LEU:HB3	25:Y:20:ARG:HH11	0.74	0.90
19:S:120:HIS:NE2	19:S:124:ARG:NH2	2.20	0.90
12:L:17:PHE:CE2	12:L:18:GLN:O	2.25	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:5:LEU:O	1:A:5:LEU:HD22	1.70	0.90
2:B:57:ILE:CD1	2:B:60:ASP:OD2	2.19	0.90
4:D:59:LEU:HD12	4:D:60:GLY:CA	2.02	0.90
5:E:208:VAL:CG1	5:E:225:ILE:CD1	2.48	0.90
25:Y:12:PHE:HZ	25:Y:21:LYS:HB3	1.33	0.90
17:Q:24:HIS:NE2	17:Q:69:ARG:HB2	1.86	0.90
3:C:55:VAL:HG22	3:C:82:PHE:CE2	2.06	0.90
15:O:19:PRO:HG3	15:O:27:VAL:CB	2.01	0.90
16:P:107:ILE:CA	16:P:111:MET:SD	2.60	0.90
12:L:125:ILE:HB	12:L:146:THR:CG2	2.01	0.90
12:L:76:VAL:HG12	12:L:125:ILE:HD13	1.53	0.90
3:C:155:TRP:CZ3	23:W:97:ARG:NH1	2.20	0.90
3:C:49:THR:HG23	3:C:75:GLU:OE1	1.72	0.90
1:A:5:LEU:CB	22:V:41:LYS:CE	2.50	0.90
8:H:143:ARG:NE	23:W:53:ILE:HG23	1.86	0.90
18:R:44:LYS:HE2	18:R:47:ARG:NH2	1.86	0.90
4:D:221:THR:HB	4:D:222:PRO:HD2	1.54	0.90
3:C:67:TYR:CE1	22:V:27:LYS:NZ	2.40	0.89
6:F:71:ARG:HG2	6:F:71:ARG:HH21	1.35	0.89
17:Q:42:ILE:CD1	17:Q:51:LEU:CD1	2.49	0.89
17:Q:72:VAL:HG21	17:Q:84:ILE:HG23	1.52	0.89
24:X:29:LYS:HD2	24:X:34:THR:CB	2.00	0.89
18:R:11:LYS:O	18:R:15:VAL:HG23	1.72	0.89
5:E:75:LYS:O	5:E:76:VAL:HG22	5.39	0.89
16:P:41:GLN:CG	16:P:84:ILE:CG1	2.15	0.89
19:S:58:GLU:O	19:S:59:LEU:HD13	1.72	0.89
19:S:8:LYS:CD	19:S:9:PHE:CE1	2.43	0.89
19:S:8:LYS:HE3	19:S:9:PHE:CE1	2.07	0.89
24:X:60:LYS:HE2	24:X:116:PRO:CG	2.02	0.89
18:R:91:LEU:CD1	18:R:91:LEU:H	1.85	0.89
17:Q:92:LEU:HD11	17:Q:96:TYR:CZ	2.07	0.89
3:C:260:LYS:CG	3:C:261:THR:N	2.30	0.89
2:B:33:VAL:HG12	2:B:44:ILE:HD12	1.53	0.89
8:H:158:LEU:HD21	8:H:187:PHE:CE1	2.07	0.89
10:J:119:LEU:CD2	10:J:119:LEU:N	2.29	0.89
5:E:248:ILE:CB	10:J:72:PHE:CZ	2.47	0.89
25:Y:122:LYS:HD3	25:Y:122:LYS:N	1.85	0.89
6:F:91:ARG:CA	6:F:91:ARG:HE	1.85	0.89
19:S:11:HIS:HD2	19:S:23:ARG:HH21	1.16	0.89
25:Y:34:THR:CG2	25:Y:35:VAL:N	2.33	0.89
12:L:149:ALA:HB1	12:L:156:GLN:HB3	0.89	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:241:TRP:CB	23:W:68:ARG:HH11	1.84	0.89
3:C:195:PRO:CD	3:C:221:PHE:CZ	2.55	0.89
6:F:116:ILE:H	6:F:116:ILE:HD13	1.30	0.89
23:W:30:CYS:SG	23:W:61:ILE:HD11	2.13	0.89
8:H:101:LEU:HG	8:H:120:ARG:HG2	1.54	0.89
15:O:39:ASP:OD1	15:O:40:THR:N	2.05	0.89
2:B:72:ALA:HA	2:B:79:VAL:CG2	2.02	0.89
5:E:182:MET:HE2	5:E:228:ILE:HG21	1.55	0.89
9:I:62:VAL:CG2	9:I:75:LYS:HE2	2.03	0.89
9:I:76:THR:HG22	9:I:77:ARG:N	1.87	0.89
25:Y:78:SER:HB2	25:Y:81:TYR:CE2	2.06	0.89
19:S:46:ARG:CZ	20:T:50:GLU:HG2	2.01	0.89
23:W:128:PHE:CE1	23:W:130:PHE:CD2	2.61	0.89
21:U:67:LYS:HE2	21:U:78:ASP:OD1	1.73	0.89
17:Q:105:LYS:C	17:Q:105:LYS:HD2	1.92	0.89
3:C:93:LYS:HD3	3:C:218:LEU:HD21	0.90	0.89
26:Z:44:LEU:HD13	26:Z:45:ASN:N	1.87	0.89
16:P:49:LEU:HD13	16:P:51:ARG:HE	1.34	0.89
25:Y:98:GLU:C	25:Y:98:GLU:CD	2.31	0.89
13:M:85:LEU:HA	13:M:88:TRP:HE3	1.24	0.89
14:N:132:LYS:CE	14:N:132:LYS:CA	2.28	0.89
10:J:138:ARG:NH1	10:J:156:HIS:ND1	2.11	0.89
26:Z:85:ARG:HB3	26:Z:85:ARG:CZ	2.01	0.89
3:C:260:LYS:HD2	3:C:261:THR:CG2	2.03	0.89
14:N:142:GLU:CG	14:N:144:SER:OG	2.20	0.89
2:B:175:GLU:HG2	2:B:193:ILE:CD1	2.03	0.89
1:A:177:MET:HE3	1:A:180:ARG:CZ	2.02	0.89
3:C:54:LEU:HD11	3:C:258:LEU:CD1	2.01	0.89
1:A:43:SER:HG	18:R:101:ASP:CG	1.75	0.89
21:U:18:HIS:CE1	21:U:98:VAL:HG21	2.05	0.89
3:C:71:LEU:C	22:V:29:HIS:CE1	2.45	0.89
6:F:122:ARG:CZ	6:F:193:LYS:HZ1	1.85	0.89
7:G:64:LYS:CD	7:G:64:LYS:C	2.40	0.89
11:K:40:VAL:HG13	11:K:41:PRO:N	1.86	0.89
11:K:59:LYS:HD2	11:K:60:GLU:N	1.88	0.89
25:Y:12:PHE:HZ	25:Y:21:LYS:CB	1.85	0.89
19:S:36:VAL:HG22	19:S:36:VAL:O	1.71	0.89
19:S:46:ARG:HH22	20:T:50:GLU:HB3	1.37	0.89
25:Y:92:ALA:HA	25:Y:97:TYR:HB3	1.54	0.89
25:Y:37:LYS:O	25:Y:40:ILE:CG2	2.20	0.89
1:A:133:PRO:CD	1:A:134:LEU:H	1.86	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:191:ARG:HG3	1:A:193:HIS:HB2	1.55	0.89
9:I:153:LYS:O	9:I:154:LYS:CB	2.20	0.89
21:U:64:THR:CG2	21:U:79:ARG:HG2	1.99	0.89
8:H:43:LEU:HD13	8:H:72:PHE:CE1	2.07	0.89
10:J:91:LYS:HA	10:J:96:TYR:CG	2.08	0.89
3:C:241:TRP:HB3	23:W:68:ARG:HH11	1.30	0.89
12:L:153:LYS:CG	14:N:131:THR:O	2.20	0.89
3:C:234:SER:C	22:V:23:ILE:HD11	1.93	0.89
8:H:121:THR:HG23	8:H:124:ALA:H	1.37	0.89
3:C:148:VAL:HB	3:C:149:PRO:CD	2.02	0.89
7:G:85:ARG:HD2	25:Y:118:ARG:HH22	1.35	0.89
9:I:154:LYS:CG	9:I:155:ASN:N	2.30	0.89
11:K:33:PRO:O	11:K:34:GLU:HB3	1.73	0.89
6:F:18:LYS:HE3	17:Q:115:TYR:HD1	1.34	0.89
25:Y:9:THR:HG1	25:Y:48:TYR:HH	1.07	0.89
16:P:83:MET:CE	16:P:116:LEU:HD11	2.02	0.89
6:F:14:THR:OG1	17:Q:56:LEU:HB3	1.71	0.89
25:Y:29:HIS:ND1	25:Y:67:GLY:HA2	1.87	0.89
15:O:20:GLN:HG2	15:O:21:VAL:O	1.73	0.89
6:F:112:LEU:HA	6:F:177:LEU:HD11	1.55	0.89
3:C:64:GLU:OE1	22:V:11:LEU:HD13	1.73	0.89
7:G:77:LEU:HD11	7:G:95:LYS:HB2	1.50	0.89
9:I:62:VAL:CB	9:I:75:LYS:HE2	2.02	0.89
24:X:91:LEU:O	24:X:93:PHE:N	2.05	0.89
19:S:8:LYS:CB	19:S:9:PHE:CD1	2.37	0.89
19:S:9:PHE:N	19:S:9:PHE:CD1	2.37	0.89
13:M:12:MET:HE3	13:M:120:ALA:HB2	1.55	0.89
7:G:41:LEU:CD2	7:G:45:TRP:CE3	2.27	0.88
7:G:57:ASP:OD2	7:G:98:ARG:CG	2.21	0.88
10:J:127:ARG:HH12	10:J:145:PRO:CB	1.85	0.88
10:J:17:ARG:CB	10:J:18:ARG:CG	2.48	0.88
2:B:32:ASP:OD1	2:B:46:LYS:HD2	1.73	0.88
3:C:71:LEU:O	22:V:29:HIS:CE1	2.26	0.88
16:P:41:GLN:HG2	16:P:84:ILE:HG12	0.89	0.88
19:S:31:THR:HA	19:S:36:VAL:CG2	2.02	0.88
26:Z:99:LEU:HD21	26:Z:109:TYR:CE1	2.07	0.88
4:D:221:THR:HB	4:D:222:PRO:CD	2.03	0.88
3:C:241:TRP:CG	23:W:68:ARG:HD3	2.08	0.88
8:H:93:VAL:HG22	8:H:94:PHE:N	1.84	0.88
9:I:140:LYS:HG3	9:I:141:ARG:N	1.83	0.88
14:N:28:LEU:CD1	14:N:58:HIS:NE2	2.36	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:154:LEU:CD1	22:V:63:GLY:C	2.35	0.88
17:Q:115:TYR:CD2	17:Q:116:ASP:N	2.42	0.88
19:S:39:ARG:HD3	20:T:38:LYS:HE2	1.53	0.88
19:S:34:LYS:CB	19:S:103:LEU:CD2	2.01	0.88
3:C:43:LYS:HE3	3:C:43:LYS:HA	1.55	0.88
6:F:63:LYS:CD	6:F:71:ARG:HH12	1.86	0.88
18:R:100:PRO:CG	18:R:119:VAL:HG22	2.02	0.88
25:Y:54:VAL:HG12	25:Y:76:TYR:N	1.89	0.88
8:H:146:VAL:HG11	23:W:42:MET:SD	2.14	0.88
19:S:33:ILE:HB	19:S:36:VAL:CG1	2.03	0.88
8:H:93:VAL:HG23	8:H:94:PHE:N	1.83	0.88
5:E:133:THR:O	5:E:134:LYS:HB2	1.74	0.88
1:A:141:ASN:OD1	22:V:31:SER:O	1.92	0.88
10:J:15:THR:CG2	10:J:44:TRP:HZ3	1.80	0.88
25:Y:20:ARG:HD2	25:Y:74:MET:CE	2.02	0.88
19:S:30:ILE:HD11	19:S:45:LEU:HD21	1.54	0.88
4:D:18:LYS:HZ3	4:D:37:VAL:CG2	1.87	0.88
4:D:97:CYS:SG	4:D:99:ILE:HG12	2.13	0.88
25:Y:44:LEU:CD1	25:Y:48:TYR:CE2	2.53	0.88
20:T:77:LYS:HB2	20:T:94:ARG:HD3	0.90	0.88
16:P:53:GLN:HE21	16:P:80:LEU:CD1	1.84	0.88
19:S:11:HIS:HD2	19:S:23:ARG:HH22	1.15	0.88
26:Z:92:LEU:HD23	26:Z:97:ILE:HG13	1.54	0.88
4:D:211:VAL:CG2	18:R:38:ILE:O	2.21	0.88
3:C:102:GLN:HG3	3:C:103:ALA:N	1.87	0.88
24:X:105:PHE:CG	24:X:112:VAL:HG23	2.09	0.88
3:C:195:PRO:HD3	3:C:221:PHE:CZ	2.08	0.88
26:Z:85:ARG:CB	26:Z:85:ARG:NH1	2.35	0.88
5:E:124:CYS:SG	5:E:162:ILE:HD13	2.14	0.88
7:G:157:VAL:CG1	7:G:158:VAL:N	2.29	0.88
7:G:164:LYS:O	7:G:165:GLU:C	2.12	0.88
7:G:4:ASN:HA	7:G:15:LEU:HD23	1.56	0.88
10:J:110:LEU:CD1	10:J:130:ILE:HD11	1.78	0.88
5:E:248:ILE:CG1	10:J:72:PHE:CG	2.52	0.88
13:M:115:GLY:O	13:M:116:LYS:HB2	1.73	0.88
2:B:67:PHE:CE1	15:O:47:LEU:HB2	2.08	0.88
17:Q:85:ARG:NH1	17:Q:117:ARG:CG	2.26	0.88
17:Q:117:ARG:O	17:Q:118:THR:OG1	1.92	0.88
16:P:111:MET:O	16:P:114:HIS:HD2	1.54	0.88
12:L:147:LYS:CG	12:L:148:ALA:N	2.29	0.88
18:R:17:ILE:HG21	18:R:69:ILE:HD13	1.54	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:135:GLU:CB	4:D:153:VAL:HG22	2.03	0.88
20:T:11:GLN:NE2	20:T:62:ARG:NH2	2.20	0.88
1:A:125:THR:HG22	1:A:175:TRP:HE1	1.39	0.88
2:B:137:LEU:HB2	2:B:172:MET:CE	2.03	0.88
6:F:47:LYS:CG	17:Q:117:ARG:NH2	2.31	0.88
3:C:218:LEU:HD12	3:C:219:GLY:N	1.88	0.88
8:H:14:GLU:OE1	8:H:16:PRO:HG2	1.74	0.88
24:X:5:ARG:CB	24:X:5:ARG:HH21	1.86	0.88
3:C:151:ARG:NH1	3:C:240:LEU:CD1	2.25	0.88
3:C:55:VAL:CG1	3:C:82:PHE:CZ	2.37	0.88
10:J:134:HIS:O	10:J:135:ILE:CG2	2.22	0.88
11:K:60:GLU:OE1	11:K:67:PHE:HD1	1.36	0.88
11:K:83:LEU:HD13	11:K:85:LEU:CD2	2.02	0.88
1:A:57:LYS:HE2	22:V:70:LEU:HD11	1.51	0.88
16:P:123:TYR:CZ	19:S:120:HIS:CE1	2.62	0.88
20:T:23:LYS:HD3	20:T:54:TYR:CE2	2.08	0.88
23:W:90:GLN:HA	23:W:102:ILE:CD1	2.04	0.88
17:Q:61:GLU:O	17:Q:63:PHE:N	2.07	0.88
7:G:41:LEU:HD21	7:G:45:TRP:HZ3	1.09	0.88
10:J:170:PRO:CA	10:J:174:LYS:NZ	2.37	0.88
11:K:60:GLU:OE2	11:K:67:PHE:CD1	2.21	0.88
11:K:71:LEU:HD23	11:K:76:ILE:HD11	1.54	0.88
6:F:91:ARG:HH12	6:F:94:LYS:CB	1.79	0.88
26:Z:103:HIS:CD2	26:Z:105:ALA:CB	2.57	0.88
25:Y:61:ARG:CD	25:Y:61:ARG:N	2.35	0.88
19:S:103:LEU:HD12	19:S:104:ASP:N	1.87	0.88
19:S:54:LYS:N	19:S:54:LYS:HA	1.89	0.88
25:Y:32:LYS:HG2	25:Y:33:ALA:N	1.86	0.88
23:W:85:ASP:O	23:W:89:TRP:CD1	2.26	0.88
12:L:118:ARG:C	12:L:118:ARG:CD	2.31	0.88
14:N:28:LEU:C	14:N:29:THR:HG23	1.95	0.87
21:U:27:ARG:HG3	21:U:83:ARG:O	1.74	0.87
8:H:29:GLU:OE2	8:H:86:LYS:CE	2.22	0.87
23:W:42:MET:HE2	23:W:49:GLU:HA	1.56	0.87
18:R:13:ALA:HA	18:R:54:VAL:HG22	1.51	0.87
9:I:142:SER:HB2	9:I:143:LYS:HZ3	1.33	0.87
6:F:42:LYS:HB2	6:F:45:TYR:CA	2.04	0.87
12:L:147:LYS:CG	12:L:148:ALA:CA	2.29	0.87
21:U:50:VAL:CG1	21:U:51:LYS:H	1.85	0.87
4:D:123:LEU:CD2	4:D:154:ASP:HB3	2.03	0.87
10:J:138:ARG:NH1	10:J:156:HIS:CD2	2.43	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:111:LYS:CB	20:T:126:GLN:HE22	1.84	0.87
7:G:213:LEU:HD12	7:G:214:ALA:N	1.90	0.87
21:U:62:ARG:NH1	21:U:64:THR:HG23	1.87	0.87
9:I:25:ARG:HD2	9:I:27:TYR:CD2	2.08	0.87
12:L:157:LYS:O	12:L:158:PHE:CD2	2.25	0.87
16:P:51:ARG:H	16:P:51:ARG:HD2	1.38	0.87
10:J:89:GLU:CA	10:J:92:MET:CB	2.37	0.87
2:B:113:MET:HE1	2:B:211:PHE:CE2	1.87	0.87
18:R:44:LYS:HE3	18:R:47:ARG:HH22	0.71	0.87
3:C:167:CYS:SG	23:W:95:PRO:CB	2.62	0.87
2:B:135:LEU:CD2	2:B:217:MET:SD	2.62	0.87
20:T:124:THR:HG23	20:T:126:GLN:N	1.89	0.87
1:A:11:LYS:CD	1:A:13:GLU:HG3	2.03	0.87
3:C:142:LEU:CA	3:C:145:LEU:HD23	2.04	0.87
3:C:50:LYS:CD	3:C:251:TYR:CD1	2.38	0.87
4:D:76:ARG:NE	11:K:66:HIS:ND1	2.22	0.87
6:F:201:LYS:HE3	6:F:204:ARG:NH2	1.88	0.87
7:G:36:VAL:HG12	7:G:37:ALA:H	1.36	0.87
8:H:158:LEU:HD21	8:H:187:PHE:HE1	1.37	0.87
17:Q:21:ALA:CB	17:Q:72:VAL:HG22	2.03	0.87
16:P:52:LYS:N	16:P:54:HIS:CD2	2.43	0.87
13:M:13:ASP:O	13:M:16:THR:HG22	0.96	0.87
3:C:260:LYS:HG3	3:C:261:THR:N	1.89	0.87
24:X:107:ARG:O	24:X:110:HIS:ND1	2.05	0.87
4:D:70:THR:HA	4:D:86:LEU:CD1	2.04	0.87
8:H:145:ARG:HD2	23:W:51:GLU:CD	1.94	0.87
14:N:80:LEU:O	14:N:82:PRO:CD	2.23	0.87
22:V:32:ILE:CD1	22:V:60:ARG:HH12	1.88	0.87
25:Y:122:LYS:N	25:Y:122:LYS:CD	2.36	0.87
26:Z:48:VAL:HG12	26:Z:48:VAL:O	1.72	0.87
19:S:47:LYS:NZ	19:S:78:LYS:CB	2.38	0.87
1:A:36:GLN:OE1	1:A:36:GLN:HA	1.74	0.87
9:I:197:PHE:CE2	12:L:5:GLN:HG3	2.10	0.87
11:K:40:VAL:HG22	11:K:41:PRO:HD2	1.54	0.87
12:L:80:MET:CE	12:L:121:GLN:CA	2.51	0.87
4:D:218:LEU:HB2	4:D:220:THR:HG21	1.53	0.87
20:T:4:VAL:HA	20:T:8:ASP:OD2	1.72	0.87
25:Y:111:LYS:HZ3	25:Y:115:LYS:HZ1	1.21	0.87
1:A:191:ARG:HG3	1:A:191:ARG:O	1.73	0.87
1:A:48:ILE:CG1	18:R:105:MET:HE3	1.91	0.87
11:K:84:HIS:ND1	11:K:84:HIS:C	2.28	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:14:THR:HG23	17:Q:56:LEU:CD2	1.99	0.87
4:D:196:GLY:N	4:D:197:LYS:CA	2.38	0.87
24:X:105:PHE:CE2	24:X:118:VAL:O	2.27	0.87
25:Y:7:ILE:HG13	25:Y:43:LYS:HD3	1.57	0.87
1:A:125:THR:HA	1:A:147:LEU:HB2	1.55	0.87
8:H:144:ILE:CD1	23:W:52:ILE:CG2	2.47	0.87
10:J:37:LEU:HD21	10:J:42:GLU:HB2	1.49	0.87
5:E:248:ILE:HD11	10:J:72:PHE:CB	2.03	0.87
11:K:14:LEU:CD2	11:K:35:LEU:HD21	1.96	0.87
12:L:10:TYR:HD2	12:L:12:LYS:HZ2	1.19	0.87
22:V:65:SER:O	22:V:69:ILE:HG12	1.74	0.87
16:P:4:VAL:CA	16:P:10:ARG:CD	1.99	0.87
12:L:147:LYS:HD2	12:L:148:ALA:C	1.95	0.87
13:M:78:LYS:C	13:M:79:VAL:HG23	1.94	0.87
3:C:260:LYS:CD	3:C:261:THR:H	1.88	0.87
6:F:71:ARG:HG2	6:F:71:ARG:NH2	1.90	0.87
11:K:11:ILE:HG23	11:K:49:MET:HE1	1.44	0.87
3:C:67:TYR:HE1	22:V:27:LYS:NZ	1.71	0.87
22:V:17:CYS:HG	22:V:56:CYS:HB3	1.06	0.87
17:Q:112:LEU:O	17:Q:116:ASP:N	2.08	0.87
16:P:84:ILE:HD11	16:P:115:TYR:CE1	2.10	0.87
4:D:132:LYS:HA	4:D:191:PRO:HG2	1.55	0.87
4:D:158:ILE:CD1	4:D:189:MET:SD	2.62	0.87
21:U:36:CYS:SG	21:U:53:PRO:CB	2.62	0.87
18:R:91:LEU:CD1	18:R:92:ASP:CA	2.53	0.87
18:R:91:LEU:HD12	18:R:92:ASP:HA	1.56	0.87
19:S:65:GLU:O	19:S:69:THR:HG23	1.75	0.87
3:C:123:GLY:CA	3:C:226:PHE:HZ	1.87	0.87
2:B:137:LEU:CD2	2:B:215:VAL:CG2	2.47	0.86
7:G:50:VAL:HG11	7:G:111:LEU:CG	2.04	0.86
10:J:32:ILE:O	10:J:35:TYR:O	1.91	0.86
25:Y:122:LYS:CD	25:Y:123:ALA:H	1.87	0.86
17:Q:12:VAL:HG12	17:Q:13:PHE:N	1.88	0.86
4:D:200:PRO:O	4:D:201:LYS:HG2	1.74	0.86
17:Q:43:GLU:HA	17:Q:45:ARG:N	1.90	0.86
17:Q:42:ILE:CG2	17:Q:51:LEU:CD2	2.54	0.86
21:U:62:ARG:HH12	21:U:64:THR:CG2	1.76	0.86
16:P:41:GLN:HG3	16:P:84:ILE:HG23	1.57	0.86
19:S:117:ILE:C	19:S:118:ARG:HG2	1.94	0.86
16:P:108:LYS:NZ	19:S:118:ARG:HH12	1.72	0.86
18:R:37:GLU:OE1	18:R:38:ILE:HG23	1.75	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:97:THR:HG22	1:A:98:PRO:CD	2.02	0.86
5:E:23:LEU:O	5:E:24:THR:CG2	2.24	0.86
7:G:57:ASP:HA	7:G:106:LEU:HA	1.56	0.86
15:O:101:GLY:O	15:O:104:ARG:HB2	1.74	0.86
8:H:43:LEU:HD13	8:H:72:PHE:CD1	2.10	0.86
19:S:8:LYS:HA	26:Z:49:LEU:HD23	1.57	0.86
10:J:82:VAL:HG11	10:J:92:MET:CE	2.05	0.86
4:D:218:LEU:HD12	4:D:220:THR:CG2	2.04	0.86
7:G:185:LEU:HA	7:G:188:LYS:HE3	1.55	0.86
7:G:227:GLN:HA	7:G:230:LYS:CD	2.06	0.86
7:G:64:LYS:HG3	7:G:67:VAL:CG1	2.06	0.86
10:J:102:ILE:HG22	10:J:106:LEU:HD13	1.56	0.86
11:K:11:ILE:HG22	11:K:49:MET:HE1	1.57	0.86
14:N:54:LEU:O	14:N:58:HIS:O	1.93	0.86
25:Y:122:LYS:H	25:Y:122:LYS:CD	1.87	0.86
17:Q:111:ILE:O	17:Q:114:GLN:HG2	1.74	0.86
8:H:10:LYS:NZ	8:H:17:ASP:N	2.23	0.86
4:D:157:MET:HE3	4:D:187:LYS:HD2	1.55	0.86
24:X:108:LYS:HB3	24:X:110:HIS:NE2	1.89	0.86
9:I:141:ARG:CD	9:I:144:LYS:HB2	1.88	0.86
10:J:177:ASN:O	10:J:180:LYS:HG3	1.76	0.86
13:M:12:MET:CG	13:M:16:THR:CG2	2.52	0.86
24:X:114:ASP:C	24:X:116:PRO:HD3	1.94	0.86
3:C:241:TRP:HB3	23:W:68:ARG:HH12	1.38	0.86
3:C:154:TYR:OH	3:C:162:PRO:CD	2.24	0.86
1:A:30:LEU:HG	1:A:31:ASP:O	1.75	0.86
2:B:53:GLN:O	2:B:56:LYS:O	1.93	0.86
7:G:64:LYS:HG3	7:G:67:VAL:HG13	1.55	0.86
9:I:139:LYS:HB2	9:I:145:ILE:HD11	1.56	0.86
9:I:154:LYS:HA	9:I:154:LYS:HE2	1.58	0.86
11:K:14:LEU:HD22	11:K:35:LEU:CG	2.04	0.86
12:L:4:ILE:CD1	12:L:4:ILE:N	2.30	0.86
17:Q:25:CYS:SG	17:Q:91:ALA:CB	2.63	0.86
13:M:124:ILE:O	13:M:127:TYR:CD2	2.28	0.86
26:Z:70:PRO:HD2	26:Z:71:ALA:N	1.90	0.86
15:O:20:GLN:CG	15:O:21:VAL:N	2.39	0.86
4:D:18:LYS:HD2	4:D:18:LYS:O	1.74	0.86
5:E:11:ARG:NH1	5:E:20:LEU:HB3	1.90	0.86
25:Y:45:ALA:HA	25:Y:55:ILE:HD12	1.58	0.86
19:S:59:LEU:CD1	19:S:59:LEU:N	2.37	0.86
10:J:177:ASN:O	10:J:180:LYS:CB	2.23	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:36:HIS:CB	5:E:41:CYS:SG	2.63	0.86
21:U:24:LEU:HD23	21:U:112:VAL:HG22	1.55	0.86
8:H:107:LYS:C	8:H:109:ARG:HA	1.96	0.86
13:M:28:HIS:HD2	13:M:113:ASP:OD2	1.59	0.86
13:M:28:HIS:CD2	13:M:113:ASP:OD2	2.29	0.86
14:N:27:LYS:HD2	14:N:28:LEU:N	1.91	0.86
15:O:62:VAL:HG22	15:O:72:TYR:OH	1.75	0.86
25:Y:63:HIS:CB	25:Y:64:PHE:CD1	2.59	0.86
5:E:128:LYS:HD3	5:E:130:PHE:HE1	0.96	0.86
23:W:93:LEU:CD2	23:W:128:PHE:CD2	2.57	0.86
18:R:91:LEU:H	18:R:92:ASP:HA	1.39	0.86
20:T:64:LEU:N	20:T:64:LEU:HD23	1.90	0.86
2:B:139:CYS:SG	2:B:212:VAL:HG12	2.16	0.86
4:D:21:LEU:O	4:D:25:LEU:HD23	1.76	0.86
6:F:28:VAL:HG22	6:F:110:GLN:HG2	1.57	0.86
24:X:126:ALA:O	24:X:128:VAL:HB	1.75	0.86
4:D:193:ASP:OD1	4:D:203:PRO:HA	1.76	0.86
25:Y:10:ARG:HE	25:Y:24:VAL:HG11	0.75	0.86
15:O:105:THR:O	15:O:106:LYS:CG	2.24	0.86
6:F:59:LYS:HD2	6:F:62:ARG:HH22	1.41	0.86
7:G:147:LEU:O	7:G:148:SER:OG	1.93	0.86
11:K:39:ASN:O	11:K:40:VAL:HG12	1.75	0.86
4:D:76:ARG:HE	11:K:66:HIS:CE1	1.90	0.86
15:O:54:CYS:SG	15:O:84:ARG:HB2	2.16	0.86
16:P:33:LEU:HD22	16:P:87:PRO:HG3	1.58	0.86
3:C:102:GLN:CG	3:C:103:ALA:H	1.88	0.86
14:N:12:SER:O	14:N:13:GLN:HG2	1.73	0.86
20:T:18:LEU:CD1	20:T:134:ILE:HD13	2.05	0.86
6:F:53:ALA:O	17:Q:125:ARG:NH2	2.08	0.86
1:A:76:VAL:CG1	1:A:175:TRP:CH2	2.56	0.85
1:A:66:VAL:HG22	1:A:186:ARG:CD	2.03	0.85
3:C:142:LEU:HA	3:C:145:LEU:HD23	1.56	0.85
3:C:79:ILE:HD11	3:C:147:ILE:CD1	2.04	0.85
4:D:46:THR:HG1	4:D:79:PHE:HZ	0.93	0.85
21:U:27:ARG:O	21:U:28:ASN:C	2.11	0.85
16:P:52:LYS:HA	16:P:54:HIS:CD2	2.09	0.85
20:T:28:LEU:HD22	20:T:28:LEU:C	1.90	0.85
1:A:57:LYS:HE2	22:V:70:LEU:CD1	2.04	0.85
4:D:70:THR:HA	4:D:86:LEU:HD13	1.56	0.85
8:H:144:ILE:CG1	23:W:52:ILE:CG2	2.53	0.85
16:P:41:GLN:CG	16:P:84:ILE:HG23	2.03	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:186:ARG:NH1	1:A:186:ARG:C	2.30	0.85
5:E:180:LEU:HD22	5:E:181:CYS:H	1.41	0.85
9:I:142:SER:CB	9:I:143:LYS:NZ	2.38	0.85
11:K:27:VAL:HG13	11:K:43:LEU:HD23	1.51	0.85
25:Y:120:THR:O	25:Y:122:LYS:HD2	1.74	0.85
19:S:26:ILE:HD11	19:S:59:LEU:CD2	2.05	0.85
12:L:102:PHE:CD1	12:L:102:PHE:N	2.40	0.85
2:B:31:TYR:HE1	2:B:94:LYS:H	1.20	0.85
5:E:151:ASP:HB3	7:G:212:LEU:CD2	2.06	0.85
7:G:63:MET:HE1	7:G:106:LEU:CD1	1.89	0.85
9:I:85:ALA:HB1	12:L:8:ARG:NH1	1.89	0.85
15:O:95:ILE:CD1	15:O:116:LEU:CD2	2.54	0.85
9:I:161:LEU:HD13	9:I:199:LEU:HD11	1.55	0.85
10:J:92:MET:C	10:J:93:LYS:HE3	1.96	0.85
23:W:90:GLN:CA	23:W:102:ILE:HD11	2.06	0.85
15:O:55:ARG:O	15:O:56:VAL:CG1	2.23	0.85
12:L:151:THR:O	12:L:153:LYS:N	2.10	0.85
4:D:27:ARG:CB	4:D:27:ARG:NH1	4.51	0.85
15:O:94:HIS:ND1	15:O:127:GLY:O	2.09	0.85
9:I:84:ASN:ND2	9:I:100:CYS:SG	2.48	0.85
4:D:35:SER:OG	4:D:97:CYS:SG	2.34	0.85
18:R:100:PRO:HA	18:R:103:LYS:CB	2.03	0.85
24:X:125:VAL:O	24:X:128:VAL:N	2.10	0.85
25:Y:20:ARG:HG3	25:Y:74:MET:HE3	0.88	0.85
16:P:51:ARG:O	16:P:52:LYS:CB	2.22	0.85
12:L:80:MET:CE	12:L:121:GLN:HA	2.06	0.85
3:C:156:GLY:C	3:C:157:ASN:ND2	2.30	0.85
26:Z:85:ARG:HH11	26:Z:85:ARG:CG	1.90	0.85
1:A:180:ARG:HH11	1:A:184:ARG:CZ	1.90	0.85
9:I:191:GLU:O	9:I:192:GLY:C	2.14	0.85
21:U:97:ILE:HG23	21:U:101:ILE:CD1	2.07	0.85
4:D:132:LYS:CA	4:D:191:PRO:HG2	2.04	0.85
1:A:145:ILE:HD13	1:A:159:ILE:CG2	2.06	0.85
2:B:28:LYS:CE	15:O:51:GLU:OE2	2.25	0.85
2:B:62:LEU:HD23	2:B:91:VAL:HG21	1.58	0.85
6:F:121:PRO:HA	6:F:193:LYS:HE3	1.58	0.85
6:F:119:SER:O	6:F:193:LYS:HG3	1.75	0.85
15:O:61:LYS:O	15:O:62:VAL:CG2	2.23	0.85
22:V:78:ILE:CD1	22:V:79:VAL:H	1.89	0.85
25:Y:119:GLY:O	25:Y:121:ALA:N	2.10	0.85
16:P:127:LYS:HZ2	16:P:127:LYS:CA	1.90	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:149:GLN:HE21	2:B:151:ARG:HG2	1.40	0.85
8:H:100:ILE:HG12	8:H:125:VAL:HG21	1.58	0.85
2:B:25:PHE:HD2	15:O:88:LEU:CD2	1.87	0.85
10:J:46:VAL:CG1	10:J:102:ILE:HG23	2.07	0.85
17:Q:105:LYS:NZ	17:Q:109:LYS:HB2	1.90	0.85
25:Y:22:GLN:HB2	25:Y:74:MET:SD	2.14	0.85
16:P:68:PRO:CB	16:P:69:PRO:CD	2.53	0.85
6:F:122:ARG:NH2	6:F:193:LYS:HZ1	1.74	0.85
7:G:27:PHE:HE2	7:G:41:LEU:HD12	1.37	0.85
9:I:62:VAL:HG21	9:I:75:LYS:CE	2.05	0.85
10:J:17:ARG:C	10:J:18:ARG:HG2	1.88	0.85
11:K:11:ILE:HG22	11:K:49:MET:CE	2.04	0.85
15:O:16:SER:HA	15:O:87:GLU:O	1.77	0.85
24:X:94:ILE:CG1	24:X:125:VAL:HG21	2.07	0.85
25:Y:114:MET:CA	25:Y:124:ASN:HD22	1.87	0.85
17:Q:42:ILE:CD1	17:Q:51:LEU:HD11	2.07	0.85
4:D:197:LYS:CB	4:D:198:ILE:CB	2.55	0.85
18:R:121:GLN:C	18:R:121:GLN:NE2	2.30	0.85
20:T:11:GLN:HE22	20:T:62:ARG:NH2	1.74	0.85
25:Y:7:ILE:HD12	25:Y:43:LYS:CB	2.05	0.85
8:H:147:LYS:HE2	8:H:153:LEU:CD1	2.06	0.85
5:E:191:ARG:CZ	5:E:245:ARG:HD3	2.07	0.85
2:B:75:GLN:NE2	2:B:75:GLN:HA	1.90	0.85
11:K:74:GLU:HA	11:K:74:GLU:OE1	1.77	0.85
4:D:97:CYS:SG	4:D:99:ILE:CG1	2.65	0.85
6:F:201:LYS:CE	6:F:204:ARG:NH2	2.39	0.85
14:N:99:ARG:NH2	14:N:115:LEU:CD2	2.39	0.85
6:F:25:THR:CG2	6:F:41:VAL:CG2	2.54	0.85
26:Z:103:HIS:CD2	26:Z:105:ALA:N	2.45	0.85
16:P:41:GLN:HA	16:P:84:ILE:CD1	2.07	0.85
19:S:94:LYS:CD	19:S:96:SER:OG	2.24	0.85
2:B:113:MET:HE2	2:B:209:ASP:CG	1.97	0.85
19:S:138:THR:N	19:S:141:ARG:HH21	1.74	0.85
4:D:218:LEU:CB	4:D:220:THR:HG21	1.99	0.85
18:R:92:ASP:O	18:R:93:GLN:HB3	1.74	0.85
1:A:180:ARG:HD3	1:A:184:ARG:CZ	2.06	0.84
9:I:155:ASN:O	12:L:22:ARG:NE	2.10	0.84
22:V:74:LYS:HG3	22:V:75:SER:N	1.89	0.84
8:H:29:GLU:OE2	8:H:86:LYS:HE3	1.77	0.84
4:D:198:ILE:O	4:D:198:ILE:HD12	1.77	0.84
6:F:167:LYS:HD3	6:F:171:GLU:HB3	1.57	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:102:VAL:CG1	24:X:120:PHE:HB3	2.07	0.84
3:C:120:GLY:HA2	3:C:150:VAL:CG2	2.07	0.84
7:G:68:LEU:O	7:G:69:THR:OG1	1.95	0.84
10:J:65:GLU:O	10:J:66:LYS:HB2	1.75	0.84
24:X:95:GLU:HG3	24:X:140:ARG:HH22	1.41	0.84
17:Q:9:SER:HB3	17:Q:26:LYS:CD	2.06	0.84
19:S:6:PRO:CA	26:Z:50:PHE:HB2	2.03	0.84
3:C:244:THR:HG22	3:C:246:PHE:HD2	1.41	0.84
5:E:126:VAL:HG21	5:E:129:ILE:HD11	1.58	0.84
5:E:124:CYS:HB3	5:E:141:THR:HB	1.59	0.84
5:E:159:THR:HG21	5:E:227:VAL:HG23	1.56	0.84
7:G:27:PHE:CE2	7:G:41:LEU:CD1	2.60	0.84
10:J:48:PHE:HZ	10:J:52:LYS:HZ2	1.24	0.84
16:P:89:MET:HB3	16:P:107:ILE:CD1	2.07	0.84
4:D:212:GLU:HB2	4:D:213:PRO:CD	2.08	0.84
1:A:164:ASN:O	1:A:166:LYS:N	2.10	0.84
4:D:226:GLN:HA	4:D:226:GLN:HE21	1.34	0.84
7:G:52:ILE:HA	7:G:111:LEU:HD23	1.59	0.84
9:I:70:GLU:OE2	9:I:117:TYR:OH	1.95	0.84
21:U:67:LYS:HE3	21:U:78:ASP:OD1	1.77	0.84
19:S:58:GLU:O	19:S:59:LEU:CG	2.25	0.84
10:J:180:LYS:HG3	10:J:181:GLY:N	1.91	0.84
13:M:91:LEU:HD22	13:M:104:VAL:CG1	2.06	0.84
15:O:56:VAL:HG11	15:O:81:VAL:CG2	2.04	0.84
26:Z:69:THR:HB	26:Z:70:PRO:CD	2.05	0.84
21:U:18:HIS:CE1	21:U:98:VAL:CG2	2.60	0.84
4:D:56:GLN:O	4:D:59:LEU:CG	2.25	0.84
8:H:31:GLU:CD	8:H:41:ARG:CD	2.45	0.84
4:D:192:TRP:HE3	4:D:196:GLY:HA2	1.39	0.84
16:P:49:LEU:O	16:P:50:ARG:C	2.08	0.84
10:J:87:LEU:HD11	10:J:91:LYS:CB	2.06	0.84
25:Y:93:ARG:HG2	25:Y:93:ARG:NH1	1.71	0.84
1:A:42:LYS:HG3	18:R:105:MET:SD	2.17	0.84
5:E:87:MET:HE2	5:E:182:MET:HE1	1.60	0.84
3:C:55:VAL:HB	6:F:34:SER:HB3	88.05	0.84
4:D:76:ARG:NE	11:K:66:HIS:HE1	1.55	0.84
13:M:117:GLU:O	13:M:118:SER:OG	1.93	0.84
17:Q:42:ILE:HD13	17:Q:51:LEU:HD21	0.86	0.84
25:Y:59:GLY:O	25:Y:60:PHE:HB2	1.77	0.84
7:G:215:LYS:O	7:G:218:LYS:HG3	1.78	0.84
24:X:94:ILE:HD11	24:X:122:VAL:HG11	1.60	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:54:VAL:HG12	25:Y:76:TYR:H	1.43	0.84
25:Y:29:HIS:ND1	25:Y:67:GLY:CA	2.37	0.84
4:D:123:LEU:CD2	4:D:154:ASP:CB	2.54	0.84
10:J:138:ARG:O	10:J:138:ARG:HG2	1.77	0.84
11:K:26:ASP:OD2	11:K:29:MET:HG3	1.77	0.84
1:A:32:PHE:CE1	1:A:33:GLN:CG	2.61	0.84
11:K:6:LYS:O	11:K:9:ILE:HG22	1.77	0.84
14:N:38:TYR:HE2	14:N:74:ILE:HG23	1.43	0.84
21:U:67:LYS:HE2	21:U:78:ASP:CG	1.98	0.84
25:Y:54:VAL:CG1	25:Y:76:TYR:N	2.40	0.84
4:D:202:LYS:HB2	4:D:203:PRO:CD	2.08	0.84
21:U:49:LYS:O	21:U:50:VAL:CG1	2.24	0.84
4:D:212:GLU:O	4:D:213:PRO:O	1.94	0.84
7:G:98:ARG:HD3	7:G:98:ARG:C	1.93	0.84
15:O:119:LEU:HD12	15:O:120:ALA:N	1.91	0.84
6:F:91:ARG:NH1	6:F:94:LYS:CG	2.37	0.84
17:Q:114:GLN:HG3	17:Q:115:TYR:N	1.93	0.84
17:Q:34:VAL:CG2	17:Q:39:LEU:HD21	2.06	0.84
25:Y:36:PRO:CG	25:Y:39:GLU:OE1	2.23	0.84
4:D:197:LYS:N	4:D:198:ILE:C	2.30	0.84
12:L:147:LYS:HG3	12:L:148:ALA:N	1.91	0.84
16:P:127:LYS:C	16:P:127:LYS:NZ	2.29	0.84
3:C:260:LYS:CD	3:C:261:THR:N	2.41	0.84
7:G:212:LEU:HA	7:G:215:LYS:CD	2.07	0.84
18:R:32:LYS:HE2	18:R:33:ARG:HE	1.41	0.84
25:Y:50:THR:HG21	25:Y:75:ILE:HG21	1.60	0.84
16:P:97:TYR:HB2	16:P:102:PHE:CE1	2.13	0.84
16:P:4:VAL:O	16:P:4:VAL:HG12	1.76	0.84
8:H:122:LEU:CD1	8:H:123:THR:HG23	2.07	0.84
24:X:142:ARG:HG3	24:X:142:ARG:NH1	1.91	0.84
13:M:92:CYS:HB2	13:M:101:ARG:HG3	1.60	0.84
20:T:4:VAL:HG12	20:T:8:ASP:HB3	1.59	0.84
3:C:229:ILE:HG13	3:C:230:SER:N	1.91	0.84
3:C:69:PHE:CZ	3:C:249:SER:HA	2.12	0.83
3:C:51:LEU:HD22	3:C:51:LEU:C	1.95	0.83
5:E:21:ASP:OD1	5:E:24:THR:HG21	1.76	0.83
6:F:63:LYS:HD3	6:F:71:ARG:HH22	1.41	0.83
7:G:84:TYR:HE2	7:G:86:PRO:HG3	1.43	0.83
11:K:84:HIS:ND1	11:K:85:LEU:N	2.25	0.83
18:R:100:PRO:CB	18:R:119:VAL:HG21	2.06	0.83
3:C:93:LYS:CE	3:C:218:LEU:CD2	2.48	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:55:ARG:HG3	26:Z:48:VAL:HG11	1.60	0.83
4:D:126:ILE:HD12	4:D:134:CYS:CB	2.08	0.83
1:A:11:LYS:HD3	1:A:13:GLU:CG	2.08	0.83
1:A:177:MET:HE3	1:A:180:ARG:NH2	1.90	0.83
8:H:143:ARG:HD3	23:W:53:ILE:HG12	0.86	0.83
10:J:31:LEU:O	10:J:35:TYR:HB2	1.77	0.83
17:Q:44:PRO:CG	17:Q:81:ILE:HD11	2.06	0.83
25:Y:55:ILE:CG1	25:Y:75:ILE:CD1	2.46	0.83
26:Z:99:LEU:HD22	26:Z:102:LYS:CD	2.04	0.83
24:X:105:PHE:CD1	24:X:112:VAL:HG21	2.13	0.83
3:C:192:ALA:C	3:C:195:PRO:HD2	1.99	0.83
1:A:54:THR:OG1	1:A:162:PRO:HG2	1.77	0.83
7:G:67:VAL:O	7:G:68:LEU:HB2	1.77	0.83
9:I:140:LYS:CG	9:I:141:ARG:N	2.37	0.83
17:Q:12:VAL:HG12	17:Q:13:PHE:H	1.40	0.83
13:M:61:TYR:CE1	13:M:108:CYS:SG	2.70	0.83
20:T:63:HIS:O	20:T:67:ARG:CD	2.26	0.83
1:A:23:THR:O	1:A:25:LEU:N	2.11	0.83
1:A:39:TYR:CB	1:A:50:ASN:ND2	2.40	0.83
2:B:94:LYS:N	2:B:94:LYS:CD	2.39	0.83
3:C:58:MET:HE3	3:C:81:PHE:HZ	1.42	0.83
7:G:195:LYS:O	7:G:199:THR:HG23	1.78	0.83
7:G:32:MET:HE1	7:G:100:CYS:CA	1.95	0.83
7:G:64:LYS:CG	7:G:67:VAL:CG1	2.55	0.83
17:Q:114:GLN:CG	17:Q:115:TYR:H	1.91	0.83
17:Q:44:PRO:O	17:Q:45:ARG:HG2	1.79	0.83
20:T:39:LEU:HD12	20:T:99:VAL:HG21	1.61	0.83
16:P:10:ARG:CZ	16:P:11:THR:HB	2.09	0.83
19:S:26:ILE:HG22	19:S:45:LEU:HD11	1.60	0.83
3:C:156:GLY:HA2	23:W:98:GLN:HE22	1.43	0.83
18:R:91:LEU:HB2	18:R:92:ASP:CA	2.08	0.83
1:A:103:PHE:HZ	1:A:136:GLU:OE1	1.61	0.83
1:A:5:LEU:HD13	1:A:6:ASP:H	1.41	0.83
25:Y:78:SER:CB	25:Y:81:TYR:CE2	2.61	0.83
2:B:153:THR:CG2	2:B:154:SER:H	1.92	0.83
4:D:141:LYS:HD2	4:D:179:GLN:CG	2.07	0.83
6:F:122:ARG:CZ	6:F:193:LYS:NZ	2.40	0.83
6:F:39:ILE:CG2	6:F:68:ILE:HG21	2.05	0.83
7:G:181:THR:OG1	7:G:182:PRO:CD	2.26	0.83
12:L:59:LYS:HD3	12:L:112:HIS:CD2	2.12	0.83
17:Q:58:LEU:HD22	17:Q:111:ILE:CD1	2.09	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:72:VAL:CG2	17:Q:84:ILE:CG2	2.56	0.83
25:Y:54:VAL:CG1	25:Y:76:TYR:H	1.91	0.83
8:H:15:LYS:CB	8:H:16:PRO:CD	2.53	0.83
13:M:12:MET:CE	13:M:120:ALA:HB2	2.09	0.83
23:W:129:PHE:O	23:W:129:PHE:CD1	2.30	0.83
25:Y:13:MET:CE	25:Y:14:THR:N	2.41	0.83
1:A:42:LYS:CG	18:R:105:MET:SD	2.67	0.83
5:E:70:ILE:CG1	5:E:92:ILE:HD12	1.88	0.83
8:H:145:ARG:HD2	23:W:51:GLU:OE1	1.78	0.83
10:J:61:LEU:HD22	10:J:98:LEU:HD12	1.60	0.83
11:K:36:ALA:C	11:K:38:LYS:N	2.30	0.83
21:U:104:ILE:O	21:U:105:SER:C	2.13	0.83
17:Q:135:PRO:HD2	17:Q:141:TYR:CE1	2.11	0.83
6:F:14:THR:CB	17:Q:56:LEU:CD1	2.55	0.83
19:S:8:LYS:O	26:Z:49:LEU:HD23	1.76	0.83
24:X:69:CYS:SG	24:X:84:PHE:HA	2.19	0.83
4:D:212:GLU:CB	18:R:19:LYS:HD3	2.03	0.83
3:C:192:ALA:O	3:C:195:PRO:HD2	1.79	0.83
3:C:98:GLN:CB	3:C:106:ARG:O	2.27	0.83
2:B:130:THR:HG21	2:B:179:ASN:H	1.43	0.83
5:E:198:ARG:HG2	5:E:198:ARG:O	1.75	0.83
9:I:103:LEU:HD23	9:I:172:LEU:HD13	1.59	0.83
14:N:38:TYR:CE2	14:N:74:ILE:HG22	2.07	0.83
17:Q:8:GLN:HB3	17:Q:99:TYR:CZ	2.12	0.83
25:Y:34:THR:HG22	25:Y:35:VAL:H	1.40	0.83
26:Z:91:LEU:HD22	26:Z:96:LEU:HD12	1.59	0.83
10:J:90:GLY:C	10:J:96:TYR:CE2	2.50	0.83
24:X:74:LEU:HD11	24:X:81:ILE:CD1	2.08	0.83
3:C:244:THR:HG21	3:C:246:PHE:HA	1.59	0.83
15:O:44:VAL:HG12	15:O:53:ILE:HD11	1.58	0.83
17:Q:7:LEU:HD23	17:Q:8:GLN:H	1.44	0.83
24:X:126:ALA:HB3	24:X:128:VAL:CG1	2.08	0.83
17:Q:58:LEU:HD23	17:Q:111:ILE:CD1	1.95	0.83
24:X:27:TYR:CE1	24:X:31:HIS:CE1	2.67	0.83
10:J:90:GLY:C	10:J:96:TYR:CD2	2.52	0.83
3:C:155:TRP:HH2	23:W:97:ARG:NH1	1.39	0.83
20:T:11:GLN:HE21	20:T:62:ARG:CZ	1.89	0.83
13:M:50:CYS:O	13:M:77:ILE:HG22	1.78	0.83
6:F:161:ALA:HB3	6:F:172:CYS:SG	2.18	0.83
10:J:15:THR:CB	10:J:44:TRP:CZ3	2.62	0.83
17:Q:105:LYS:HZ3	17:Q:109:LYS:HB2	1.41	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:195:GLU:OE1	6:F:195:GLU:HA	1.77	0.83
5:E:86:PHE:CZ	5:E:182:MET:CE	2.62	0.82
22:V:60:ARG:HG2	22:V:65:SER:HB3	1.58	0.82
1:A:2:SER:O	22:V:78:ILE:HD11	1.79	0.82
24:X:95:GLU:CD	24:X:140:ARG:NH2	2.31	0.82
6:F:20:PHE:O	6:F:22:LYS:HA	1.78	0.82
6:F:91:ARG:HD2	17:Q:46:THR:HG21	1.60	0.82
19:S:34:LYS:HB3	19:S:103:LEU:HD23	1.53	0.82
12:L:40:ILE:HD11	12:L:68:ILE:CB	2.09	0.82
16:P:68:PRO:HB2	16:P:69:PRO:CD	2.09	0.82
4:D:55:THR:C	4:D:58:VAL:HG22	1.98	0.82
4:D:56:GLN:HA	4:D:59:LEU:CD2	2.09	0.82
4:D:76:ARG:HD3	11:K:66:HIS:CE1	2.05	0.82
4:D:70:THR:HG22	4:D:86:LEU:HB2	1.61	0.82
5:E:129:ILE:HG13	5:E:139:LEU:HD23	1.44	0.82
10:J:48:PHE:CE1	10:J:52:LYS:NZ	2.42	0.82
17:Q:90:LYS:HD3	17:Q:120:LEU:HA	1.61	0.82
8:H:40:LEU:HD21	8:H:43:LEU:HD12	0.84	0.82
1:A:141:ASN:HD21	22:V:29:HIS:CB	1.92	0.82
2:B:72:ALA:HB3	15:O:128:ARG:HH22	1.42	0.82
3:C:120:GLY:HA2	3:C:150:VAL:HG22	1.60	0.82
3:C:244:THR:HG22	3:C:244:THR:O	1.77	0.82
5:E:43:PRO:CG	5:E:46:ILE:HD12	2.09	0.82
7:G:176:ILE:CG2	7:G:179:LEU:HD22	1.95	0.82
10:J:45:ARG:O	10:J:49:THR:HG23	1.78	0.82
11:K:84:HIS:ND1	11:K:85:LEU:CA	2.42	0.82
15:O:17:LEU:HD23	15:O:18:GLY:N	1.94	0.82
22:V:32:ILE:HD12	22:V:60:ARG:HH12	1.42	0.82
22:V:55:ILE:CD1	22:V:65:SER:HA	2.08	0.82
6:F:41:VAL:HG22	6:F:42:LYS:H	0.72	0.82
25:Y:55:ILE:HG22	25:Y:55:ILE:O	1.78	0.82
3:C:93:LYS:HE3	3:C:95:MET:HB3	1.60	0.82
4:D:158:ILE:HD11	4:D:189:MET:SD	2.19	0.82
16:P:53:GLN:HB3	16:P:56:LEU:HD12	1.61	0.82
19:S:139:THR:O	19:S:141:ARG:HG2	1.75	0.82
10:J:138:ARG:HB2	10:J:156:HIS:HB3	1.61	0.82
16:P:118:GLU:O	19:S:119:ALA:CA	2.27	0.82
13:M:71:GLU:O	13:M:72:HIS:O	1.98	0.82
8:H:147:LYS:CE	8:H:153:LEU:HD12	2.08	0.82
2:B:55:THR:O	2:B:56:LYS:CD	2.26	0.82
3:C:142:LEU:O	3:C:145:LEU:CD2	2.26	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:141:ARG:O	9:I:143:LYS:CE	2.27	0.82
22:V:32:ILE:CD1	22:V:60:ARG:NH1	2.42	0.82
17:Q:58:LEU:HD22	17:Q:111:ILE:HD12	1.61	0.82
25:Y:22:GLN:HB3	25:Y:74:MET:CE	2.09	0.82
13:M:76:LEU:O	13:M:128:PHE:CE1	2.32	0.82
25:Y:7:ILE:CD1	25:Y:43:LYS:CD	2.55	0.82
11:K:96:ARG:CG	11:K:97:SER:H	1.91	0.82
7:G:38:ALA:HB1	7:G:45:TRP:O	1.78	0.82
14:N:16:LEU:HD21	14:N:62:GLN:CD	1.99	0.82
16:P:108:LYS:N	16:P:111:MET:HE3	1.94	0.82
4:D:193:ASP:OD1	4:D:203:PRO:CA	2.28	0.82
26:Z:99:LEU:HD13	26:Z:102:LYS:CD	2.09	0.82
2:B:105:LEU:HD21	2:B:213:ARG:HA	1.59	0.82
6:F:122:ARG:HE	6:F:193:LYS:HZ1	1.25	0.82
10:J:39:ASN:OD1	10:J:42:GLU:CD	2.17	0.82
16:P:51:ARG:H	16:P:51:ARG:CD	1.92	0.82
24:X:105:PHE:CG	24:X:112:VAL:CG2	2.62	0.82
21:U:18:HIS:CE1	21:U:93:SER:O	2.33	0.82
18:R:110:ASP:O	18:R:111:PHE:HD2	1.62	0.82
1:A:76:VAL:HG21	1:A:90:PHE:CE2	2.15	0.82
4:D:74:GLN:HE21	4:D:75:LYS:HD3	1.45	0.82
7:G:147:LEU:O	7:G:151:ASP:OD2	1.98	0.82
18:R:99:ASP:CB	18:R:119:VAL:CG1	2.56	0.82
21:U:97:ILE:CG2	21:U:101:ILE:CD1	2.58	0.82
17:Q:113:ILE:HG13	17:Q:120:LEU:HD11	1.60	0.82
17:Q:39:LEU:O	17:Q:42:ILE:CD1	2.28	0.82
25:Y:50:THR:O	25:Y:51:THR:OG1	1.97	0.82
8:H:36:LEU:C	8:H:36:LEU:HD12	1.95	0.82
16:P:14:LYS:O	16:P:22:LEU:HD23	1.78	0.82
12:L:97:ARG:O	12:L:99:TYR:CA	2.26	0.82
6:F:75:SER:O	6:F:78:MET:HG3	1.78	0.82
7:G:29:GLU:O	7:G:29:GLU:HG2	1.78	0.82
10:J:10:ARG:CZ	10:J:10:ARG:CB	2.58	0.82
21:U:108:PRO:O	21:U:108:PRO:HG2	1.80	0.82
4:D:34:TYR:CE1	21:U:61:LEU:HD21	27.38	0.82
1:A:141:ASN:ND2	22:V:29:HIS:HB3	1.94	0.82
6:F:42:LYS:CA	6:F:45:TYR:H	1.91	0.82
20:T:31:PRO:C	20:T:33:TRP:H	1.82	0.82
12:L:125:ILE:O	12:L:146:THR:HG22	1.79	0.82
16:P:39:ALA:HA	16:P:42:ARG:HE	1.43	0.82
6:F:179:ASN:O	6:F:182:LYS:O	1.97	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:10:GLN:HB3	19:S:13:LEU:HD21	1.62	0.82
1:A:159:ILE:CG2	1:A:159:ILE:O	2.28	0.82
2:B:72:ALA:HA	2:B:79:VAL:HG23	1.61	0.82
10:J:134:HIS:ND1	10:J:163:SER:HB3	1.94	0.82
22:V:40:ASP:HB2	22:V:47:ASN:ND2	1.94	0.82
22:V:79:VAL:CG1	22:V:82:ASN:OD1	2.28	0.82
17:Q:58:LEU:HD11	17:Q:108:ILE:HG23	1.60	0.82
17:Q:72:VAL:CG2	17:Q:84:ILE:HG22	2.10	0.82
16:P:41:GLN:NE2	16:P:84:ILE:CG2	2.43	0.82
9:I:21:TYR:CD2	9:I:22:HIS:CD2	2.67	0.82
2:B:153:THR:O	2:B:154:SER:OG	1.95	0.82
20:T:87:VAL:HG13	20:T:88:MET:HG3	1.61	0.82
15:O:37:PHE:O	15:O:38:ASN:HB2	1.78	0.82
1:A:202:TYR:O	1:A:203:PHE:CG	2.33	0.82
4:D:47:GLU:CD	4:D:85:GLU:OE2	2.18	0.82
9:I:155:ASN:ND2	9:I:156:ALA:HA	1.95	0.82
22:V:19:ALA:HB3	22:V:59:ILE:HD13	1.59	0.82
6:F:44:LYS:O	6:F:44:LYS:HE3	1.80	0.82
20:T:31:PRO:CG	20:T:102:ARG:HG3	2.10	0.82
8:H:83:LEU:CD2	8:H:92:VAL:CG1	2.57	0.82
13:M:124:ILE:CA	13:M:127:TYR:CD2	2.62	0.82
23:W:7:LEU:HD11	23:W:33:VAL:CG1	2.10	0.82
1:A:127:PRO:HA	1:A:134:LEU:HD11	1.61	0.81
18:R:100:PRO:C	18:R:103:LYS:H	1.82	0.81
6:F:45:TYR:N	6:F:45:TYR:CD1	2.42	0.81
16:P:33:LEU:HD23	16:P:87:PRO:CD	1.97	0.81
16:P:123:TYR:OH	19:S:124:ARG:HG2	1.78	0.81
20:T:23:LYS:CE	20:T:54:TYR:CD2	2.63	0.81
4:D:112:GLY:O	4:D:113:LEU:CG	2.28	0.81
2:B:128:LYS:HG3	2:B:132:GLY:O	1.79	0.81
2:B:130:THR:CG2	2:B:179:ASN:H	1.93	0.81
18:R:51:ALA:O	18:R:55:THR:HG23	1.80	0.81
6:F:201:LYS:CD	6:F:204:ARG:NH2	2.39	0.81
7:G:147:LEU:HD21	7:G:156:TYR:CE2	2.15	0.81
8:H:145:ARG:HH11	8:H:155:LYS:NZ	1.77	0.81
10:J:170:PRO:HG2	10:J:175:ARG:HG3	0.83	0.81
14:N:16:LEU:HD11	14:N:62:GLN:NE2	1.95	0.81
8:H:23:ILE:HD11	8:H:27:LEU:HD21	1.62	0.81
19:S:23:ARG:HD3	26:Z:48:VAL:HB	1.62	0.81
25:Y:29:HIS:CE1	25:Y:68:LYS:CA	2.62	0.81
26:Z:94:LYS:NZ	26:Z:95:GLY:H	1.78	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:48:LEU:O	15:O:51:GLU:OE1	1.97	0.81
18:R:103:LYS:O	18:R:107:LYS:HG3	1.80	0.81
5:E:126:VAL:CG2	5:E:129:ILE:HD11	2.10	0.81
7:G:187:HIS:O	7:G:191:ARG:HG2	1.81	0.81
7:G:57:ASP:OD2	7:G:98:ARG:HG3	1.80	0.81
9:I:136:ILE:CG2	9:I:139:LYS:CE	2.43	0.81
18:R:99:ASP:CB	18:R:119:VAL:HG11	2.09	0.81
21:U:67:LYS:HE2	21:U:78:ASP:OD2	1.78	0.81
17:Q:116:ASP:O	17:Q:117:ARG:HB2	1.78	0.81
17:Q:85:ARG:HH12	17:Q:117:ARG:CB	1.93	0.81
6:F:44:LYS:HD2	6:F:44:LYS:O	1.80	0.81
4:D:158:ILE:HD12	4:D:189:MET:HE2	1.60	0.81
16:P:4:VAL:HA	16:P:10:ARG:CG	2.10	0.81
8:H:122:LEU:CD1	8:H:123:THR:H	1.93	0.81
10:J:89:GLU:CB	10:J:92:MET:SD	2.68	0.81
12:L:94:HIS:HB2	12:L:105:ARG:CD	2.10	0.81
2:B:151:ARG:HD2	2:B:153:THR:HG22	1.61	0.81
5:E:130:PHE:CB	5:E:138:HIS:CE1	2.63	0.81
4:D:135:GLU:HB2	4:D:153:VAL:HG22	1.61	0.81
25:Y:46:LYS:O	25:Y:46:LYS:HD2	1.80	0.81
11:K:97:SER:OG	11:K:98:ARG:N	2.10	0.81
3:C:122:VAL:HG13	3:C:202:ALA:HA	1.61	0.81
2:B:26:SER:O	2:B:27:LYS:CG	2.28	0.81
6:F:134:VAL:CG1	6:F:136:ARG:NH2	2.43	0.81
14:N:59:GLY:O	14:N:60:VAL:HG13	1.80	0.81
20:T:52:TRP:O	20:T:55:THR:HG22	1.80	0.81
17:Q:9:SER:CA	17:Q:26:LYS:HG3	2.10	0.81
4:D:202:LYS:CB	4:D:203:PRO:CD	2.57	0.81
10:J:89:GLU:O	10:J:92:MET:CB	2.28	0.81
25:Y:99:LYS:O	25:Y:99:LYS:CD	2.28	0.81
13:M:33:ARG:HH11	13:M:33:ARG:HG3	1.45	0.81
26:Z:69:THR:CB	26:Z:70:PRO:CD	2.58	0.81
9:I:206:LYS:CG	9:I:207:GLY:N	2.42	0.81
5:E:175:PHE:HD2	5:E:175:PHE:O	1.63	0.81
4:D:78:GLY:O	4:D:80:PRO:HD3	1.79	0.81
7:G:85:ARG:NE	25:Y:118:ARG:NE	2.28	0.81
16:P:14:LYS:O	16:P:22:LEU:CD2	2.28	0.81
19:S:95:TYR:N	19:S:95:TYR:HD1	1.72	0.81
4:D:123:LEU:HD21	4:D:154:ASP:CG	2.00	0.81
17:Q:92:LEU:HD12	17:Q:96:TYR:CE2	2.14	0.81
13:M:26:LEU:HD11	13:M:89:VAL:C	1.99	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:18:LYS:NZ	4:D:37:VAL:CG2	2.44	0.81
5:E:11:ARG:O	5:E:12:VAL:HG23	1.80	0.81
6:F:122:ARG:HE	6:F:193:LYS:NZ	1.75	0.81
6:F:39:ILE:CG2	6:F:68:ILE:HD13	2.11	0.81
9:I:118:ALA:HB2	9:I:149:TYR:CE1	2.15	0.81
10:J:114:VAL:CG1	10:J:119:LEU:O	2.27	0.81
11:K:4:PRO:HG2	11:K:7:ASN:CB	2.11	0.81
11:K:84:HIS:HD2	13:M:27:ILE:HG13	1.44	0.81
16:P:41:GLN:CG	16:P:84:ILE:CB	2.31	0.81
25:Y:18:LEU:HD13	25:Y:20:ARG:HH12	0.66	0.81
16:P:10:ARG:HE	16:P:11:THR:H	1.27	0.81
12:L:149:ALA:HB2	12:L:156:GLN:HE21	1.00	0.81
18:R:20:TYR:OH	18:R:38:ILE:HB	1.74	0.81
4:D:108:LYS:CB	4:D:113:LEU:HD22	2.10	0.81
24:X:29:LYS:HD3	24:X:34:THR:CG2	2.11	0.81
3:C:70:SER:O	22:V:29:HIS:CE1	2.33	0.81
7:G:162:LEU:CD2	7:G:172:LYS:NZ	2.44	0.81
9:I:128:LYS:C	9:I:131:PRO:HD2	2.01	0.81
1:A:57:LYS:HZ1	22:V:70:LEU:HD11	0.95	0.81
24:X:126:ALA:O	24:X:128:VAL:CB	2.29	0.81
6:F:46:ALA:C	6:F:47:LYS:HD2	2.00	0.81
25:Y:17:LEU:HD12	25:Y:18:LEU:HG	1.61	0.81
24:X:105:PHE:CD1	24:X:112:VAL:CG2	2.64	0.81
4:D:105:LEU:HD21	4:D:184:ILE:HD12	1.62	0.81
21:U:19:ARG:HA	21:U:92:HIS:ND1	1.95	0.81
21:U:73:GLY:O	21:U:74:SER:O	1.99	0.81
2:B:72:ALA:HB3	15:O:128:ARG:NH2	1.95	0.81
4:D:97:CYS:SG	4:D:97:CYS:O	2.38	0.81
7:G:155:GLN:O	7:G:156:TYR:HD1	1.64	0.81
10:J:170:PRO:HB2	10:J:174:LYS:HB3	1.62	0.81
22:V:24:ILE:HD13	22:V:25:GLY:H	1.42	0.81
19:S:94:LYS:CE	19:S:95:TYR:O	2.29	0.81
25:Y:32:LYS:HG2	25:Y:33:ALA:H	1.42	0.81
26:Z:62:VAL:CG1	26:Z:68:ILE:HD13	2.05	0.81
10:J:88:ASP:O	10:J:92:MET:HG3	1.81	0.81
17:Q:92:LEU:HD11	17:Q:96:TYR:OH	1.81	0.81
1:A:43:SER:O	1:A:44:ASP:OD1	1.97	0.81
3:C:79:ILE:HG12	3:C:144:LYS:HB3	1.63	0.81
6:F:40:ALA:H	6:F:68:ILE:HG23	1.43	0.81
7:G:27:PHE:HZ	7:G:41:LEU:CD1	1.92	0.81
18:R:122:PRO:CA	18:R:123:THR:CB	2.58	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:1:MET:CE	22:V:10:ASP:CB	2.56	0.81
23:W:6:VAL:HG13	23:W:29:PRO:HD2	1.63	0.81
2:B:57:ILE:CG2	2:B:57:ILE:O	2.29	0.81
3:C:82:PHE:C	3:C:83:LEU:HD12	2.00	0.81
22:V:67:ASP:O	22:V:70:LEU:N	2.14	0.81
25:Y:114:MET:CE	25:Y:125:VAL:HG23	2.11	0.81
19:S:8:LYS:CE	19:S:9:PHE:CE1	2.63	0.81
4:D:195:SER:O	4:D:197:LYS:HA	1.80	0.81
12:L:101:ARG:HH12	24:X:5:ARG:HA	1.46	0.81
25:Y:99:LYS:O	25:Y:99:LYS:CE	2.29	0.81
3:C:195:PRO:CD	3:C:221:PHE:HZ	1.92	0.81
26:Z:70:PRO:CD	26:Z:71:ALA:H	1.93	0.81
1:A:131:HIS:O	1:A:135:THR:HG23	1.79	0.81
3:C:84:GLY:CA	3:C:87:LEU:HB3	2.10	0.80
9:I:128:LYS:HE2	9:I:133:GLU:OE1	1.81	0.80
14:N:46:THR:HG1	14:N:49:GLN:HG2	1.42	0.80
14:N:38:TYR:CE2	14:N:74:ILE:HG23	2.13	0.80
21:U:108:PRO:O	21:U:108:PRO:CD	2.29	0.80
17:Q:112:LEU:CD2	17:Q:119:LEU:HD13	2.00	0.80
16:P:44:ARG:NH2	16:P:84:ILE:HB	1.93	0.80
21:U:40:ILE:HD11	21:U:53:PRO:HG3	0.81	0.80
8:H:15:LYS:HB3	8:H:16:PRO:HD2	1.61	0.80
17:Q:9:SER:CB	17:Q:26:LYS:CD	2.59	0.80
13:M:12:MET:HE1	13:M:120:ALA:HB1	1.62	0.80
25:Y:7:ILE:HD11	25:Y:43:LYS:CB	2.11	0.80
25:Y:108:LYS:O	25:Y:111:LYS:HG3	1.82	0.80
3:C:177:LEU:HD12	3:C:177:LEU:O	1.81	0.80
7:G:14:LYS:HZ1	7:G:123:GLY:CA	1.92	0.80
10:J:134:HIS:CE1	10:J:164:PRO:HD3	2.16	0.80
14:N:23:PRO:HD2	14:N:26:LEU:HD23	1.62	0.80
15:O:30:VAL:HG13	15:O:47:LEU:HD23	1.63	0.80
18:R:99:ASP:O	18:R:119:VAL:CB	2.29	0.80
6:F:25:THR:CB	6:F:42:LYS:HG3	2.11	0.80
26:Z:62:VAL:HA	26:Z:65:TYR:CE2	2.16	0.80
25:Y:101:LYS:O	25:Y:102:THR:CG2	2.29	0.80
24:X:67:ARG:C	24:X:68:LYS:CG	2.48	0.80
16:P:62:LYS:HG3	16:P:65:LYS:CE	2.11	0.80
4:D:67:ARG:HH11	4:D:67:ARG:CG	1.92	0.80
5:E:97:GLU:OE1	5:E:97:GLU:CA	4.27	0.80
6:F:122:ARG:O	6:F:141:VAL:CG1	2.22	0.80
7:G:184:VAL:HG12	7:G:188:LYS:CE	2.09	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:37:LEU:HD21	10:J:42:GLU:C	2.01	0.80
10:J:16:PRO:CD	10:J:44:TRP:CZ2	2.64	0.80
18:R:99:ASP:CA	18:R:119:VAL:HG12	2.03	0.80
6:F:46:ALA:C	6:F:47:LYS:CD	2.50	0.80
19:S:34:LYS:CG	19:S:103:LEU:HD21	2.10	0.80
25:Y:99:LYS:CG	25:Y:99:LYS:O	2.29	0.80
1:A:60:LEU:HD13	1:A:60:LEU:O	1.81	0.80
4:D:59:LEU:CD1	4:D:60:GLY:H	1.86	0.80
9:I:155:ASN:O	12:L:22:ARG:HD3	1.80	0.80
10:J:114:VAL:HG12	10:J:120:ALA:CB	2.07	0.80
10:J:170:PRO:CB	10:J:174:LYS:CE	2.60	0.80
10:J:37:LEU:HD11	10:J:42:GLU:HB3	0.81	0.80
15:O:34:PHE:HZ	15:O:100:THR:HA	1.44	0.80
21:U:46:LYS:HZ1	21:U:97:ILE:HG12	1.46	0.80
24:X:52:LEU:HD12	24:X:53:GLU:CB	2.11	0.80
25:Y:9:THR:CB	25:Y:48:TYR:OH	2.29	0.80
16:P:49:LEU:CD1	16:P:51:ARG:HH21	1.95	0.80
23:W:101:PHE:HA	23:W:113:HIS:CE1	2.16	0.80
5:E:241:GLY:O	5:E:244:ILE:HG13	1.81	0.80
25:Y:3:ASP:O	25:Y:4:THR:OG1	1.98	0.80
14:N:113:PHE:CE2	14:N:117:LEU:HD11	2.17	0.80
2:B:72:ALA:HB1	2:B:77:ASP:OD2	1.80	0.80
11:K:36:ALA:O	11:K:38:LYS:CG	2.29	0.80
11:K:39:ASN:O	11:K:40:VAL:CG1	2.29	0.80
21:U:108:PRO:CG	21:U:108:PRO:O	2.30	0.80
25:Y:114:MET:HG2	25:Y:124:ASN:HB3	1.62	0.80
25:Y:45:ALA:HA	25:Y:55:ILE:CD1	2.12	0.80
8:H:100:ILE:CG1	8:H:125:VAL:HG21	2.11	0.80
5:E:244:ILE:O	5:E:245:ARG:HB3	1.82	0.80
6:F:138:ALA:HB2	6:F:200:ALA:O	1.81	0.80
9:I:138:ASN:O	9:I:139:LYS:O	1.99	0.80
10:J:35:TYR:C	10:J:37:LEU:H	1.85	0.80
19:S:39:ARG:CZ	20:T:38:LYS:CD	2.59	0.80
2:B:66:VAL:HG22	2:B:87:ILE:CB	2.10	0.80
19:S:55:ARG:HH11	26:Z:80:ARG:HE	1.26	0.80
4:D:112:GLY:O	4:D:113:LEU:CD1	2.30	0.80
12:L:103:GLU:OE1	24:X:11:ARG:CZ	2.29	0.80
13:M:100:PRO:O	13:M:101:ARG:CD	2.30	0.80
20:T:84:ARG:HB2	20:T:84:ARG:HH21	1.37	0.80
17:Q:30:GLY:O	17:Q:31:LEU:CD1	2.29	0.80
1:A:4:ALA:HB1	22:V:39:VAL:HG21	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:54:LEU:CD2	3:C:254:PHE:HB3	2.12	0.80
4:D:48:ILE:HG21	4:D:86:LEU:HG	1.63	0.80
9:I:197:PHE:HE2	12:L:5:GLN:HG3	1.47	0.80
2:B:70:SER:HB2	15:O:128:ARG:HD3	1.60	0.80
1:A:48:ILE:HD13	18:R:105:MET:HE3	1.60	0.80
25:Y:120:THR:C	25:Y:122:LYS:HD2	2.02	0.80
6:F:42:LYS:CE	6:F:42:LYS:O	2.28	0.80
17:Q:50:LYS:HZ2	17:Q:85:ARG:HH21	0.81	0.80
20:T:31:PRO:HB3	20:T:33:TRP:CD2	2.17	0.80
26:Z:44:LEU:CD1	26:Z:44:LEU:O	2.30	0.80
25:Y:7:ILE:CG1	25:Y:43:LYS:HD3	2.11	0.80
23:W:36:ARG:O	23:W:39:THR:OG1	1.99	0.80
6:F:19:LEU:HD22	6:F:24:SER:HA	1.61	0.80
20:T:114:GLU:OE2	20:T:122:LYS:HE3	1.81	0.80
12:L:78:THR:HG22	12:L:87:VAL:O	1.82	0.80
9:I:3:ILE:O	9:I:3:ILE:CG2	2.29	0.80
1:A:21:ALA:HB1	1:A:173:LEU:CD1	2.05	0.80
4:D:226:GLN:O	4:D:227:LYS:CG	2.30	0.80
5:E:126:VAL:CG1	5:E:158:ASP:O	2.25	0.80
7:G:142:ARG:CD	7:G:147:LEU:CB	2.59	0.80
10:J:130:ILE:CG1	10:J:135:ILE:HD13	2.10	0.80
22:V:78:ILE:HD13	22:V:79:VAL:N	1.95	0.80
16:P:5:GLU:N	16:P:10:ARG:NH1	2.30	0.80
25:Y:36:PRO:HG2	25:Y:39:GLU:HB2	1.64	0.80
8:H:122:LEU:HD12	8:H:123:THR:HG23	1.63	0.80
18:R:21:TYR:HB3	18:R:71:ILE:HG21	1.62	0.80
24:X:29:LYS:CD	24:X:34:THR:CG2	2.58	0.80
2:B:94:LYS:HD2	2:B:94:LYS:N	1.95	0.80
9:I:157:LYS:HB2	12:L:22:ARG:HD3	0.82	0.80
10:J:109:ARG:O	10:J:110:LEU:O	1.97	0.80
14:N:139:TRP:CZ3	14:N:140:LYS:C	2.55	0.80
1:A:48:ILE:HG13	18:R:105:MET:HE1	1.63	0.80
22:V:42:VAL:O	22:V:43:THR:CG2	2.30	0.80
24:X:71:ARG:HE	24:X:82:THR:HG23	1.46	0.80
6:F:44:LYS:CD	6:F:44:LYS:O	2.29	0.80
17:Q:44:PRO:HG2	17:Q:81:ILE:CD1	2.10	0.80
8:H:65:PRO:CD	8:H:68:GLN:OE1	2.28	0.80
19:S:94:LYS:CD	19:S:95:TYR:O	2.30	0.80
4:D:197:LYS:CB	4:D:198:ILE:HG13	2.03	0.80
26:Z:96:LEU:O	26:Z:112:ASN:HB3	1.80	0.80
2:B:209:ASP:O	2:B:210:VAL:HG23	1.82	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:102:ILE:H	23:W:113:HIS:CE1	1.98	0.80
23:W:93:LEU:HD21	23:W:128:PHE:HD2	1.38	0.80
3:C:154:TYR:CE1	3:C:162:PRO:CG	2.64	0.80
25:Y:7:ILE:HD11	25:Y:43:LYS:CG	2.11	0.80
3:C:234:SER:HA	22:V:23:ILE:HD11	1.57	0.80
20:T:91:HIS:N	20:T:91:HIS:CD2	2.50	0.80
15:O:143:LYS:O	15:O:143:LYS:HG2	1.81	0.80
3:C:50:LYS:HD2	3:C:251:TYR:HD1	1.39	0.80
9:I:140:LYS:O	9:I:141:ARG:HG3	1.82	0.80
19:S:12:ILE:O	19:S:12:ILE:CG2	2.30	0.80
21:U:48:LEU:N	21:U:48:LEU:CD2	2.29	0.80
6:F:36:GLN:CG	6:F:37:ASP:OD2	2.30	0.80
17:Q:92:LEU:HG	17:Q:96:TYR:HE2	1.46	0.80
2:B:21:VAL:O	2:B:21:VAL:CG2	2.30	0.80
5:E:208:VAL:HB	5:E:225:ILE:HD11	0.80	0.79
5:E:49:ARG:HB3	5:E:55:ALA:HB3	1.62	0.79
10:J:110:LEU:HD11	10:J:130:ILE:HG12	1.62	0.79
11:K:83:LEU:HB2	11:K:85:LEU:CD2	2.12	0.79
22:V:19:ALA:O	23:W:23:ARG:NH2	2.15	0.79
6:F:44:LYS:O	6:F:44:LYS:CE	2.30	0.79
17:Q:38:PRO:O	17:Q:41:MET:HG2	1.82	0.79
8:H:9:VAL:C	8:H:11:PRO:CD	2.51	0.79
8:H:83:LEU:HD12	8:H:84:GLU:N	1.96	0.79
19:S:36:VAL:CG2	19:S:36:VAL:O	2.30	0.79
25:Y:29:HIS:HE1	25:Y:67:GLY:C	1.58	0.79
12:L:147:LYS:CD	12:L:148:ALA:N	2.44	0.79
23:W:129:PHE:C	23:W:129:PHE:CD1	2.45	0.79
17:Q:6:PRO:O	17:Q:6:PRO:CG	2.29	0.79
20:T:65:TYR:HA	20:T:123:LEU:HD13	1.64	0.79
1:A:16:LEU:C	1:A:17:LYS:HE2	2.02	0.79
3:C:51:LEU:CD2	3:C:51:LEU:O	2.30	0.79
17:Q:34:VAL:HG23	17:Q:39:LEU:HD21	1.60	0.79
8:H:23:ILE:CD1	8:H:27:LEU:HD21	2.10	0.79
8:H:75:ILE:HG23	8:H:76:GLN:H	1.46	0.79
4:D:214:LYS:CG	4:D:215:ASP:OD2	2.28	0.79
3:C:154:TYR:HH	3:C:161:LYS:HA	1.45	0.79
9:I:29:LEU:HG	9:I:30:GLY:H	1.45	0.79
2:B:61:GLY:O	2:B:65:ARG:NE	2.16	0.79
5:E:100:ARG:CD	5:E:102:ILE:HD11	2.08	0.79
6:F:127:ARG:CD	6:F:127:ARG:O	2.31	0.79
15:O:64:ALA:O	15:O:66:ARG:N	2.15	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:144:ILE:CD1	23:W:52:ILE:HD13	2.12	0.79
3:C:93:LYS:HD3	3:C:218:LEU:CD2	1.75	0.79
8:H:12:ASN:CB	8:H:46:THR:OG1	2.29	0.79
4:D:198:ILE:O	4:D:198:ILE:CG1	2.30	0.79
18:R:44:LYS:HG3	18:R:47:ARG:NH1	1.96	0.79
5:E:128:LYS:CD	5:E:130:PHE:CD1	2.63	0.79
5:E:130:PHE:CB	5:E:138:HIS:NE2	2.45	0.79
13:M:93:LYS:O	13:M:94:ILE:CG2	2.25	0.79
6:F:112:LEU:HA	6:F:177:LEU:CD1	2.11	0.79
1:A:97:THR:HG23	1:A:98:PRO:CD	2.06	0.79
2:B:62:LEU:HD21	2:B:96:CYS:SG	2.23	0.79
3:C:55:VAL:HA	3:C:82:PHE:HZ	1.48	0.79
5:E:120:LYS:O	5:E:164:LEU:CB	2.30	0.79
7:G:33:ALA:N	7:G:52:ILE:HG23	1.97	0.79
11:K:36:ALA:O	11:K:38:LYS:CD	2.29	0.79
19:S:34:LYS:HB3	19:S:103:LEU:CG	2.11	0.79
5:E:130:PHE:CG	5:E:138:HIS:CE1	2.70	0.79
13:M:124:ILE:HA	13:M:127:TYR:CE2	2.17	0.79
18:R:42:PRO:HD2	18:R:43:SER:N	1.97	0.79
20:T:75:MET:CE	20:T:79:TYR:CE2	2.61	0.79
4:D:94:ARG:O	4:D:101:GLN:NE2	2.16	0.79
8:H:98:ARG:CZ	8:H:128:ALA:HB1	2.11	0.79
1:A:103:PHE:CE2	1:A:136:GLU:CD	2.50	0.79
1:A:3:GLY:HA3	22:V:78:ILE:HG12	1.65	0.79
5:E:117:GLU:HG3	5:E:118:GLU:H	1.46	0.79
24:X:52:LEU:HD11	24:X:71:ARG:HB2	1.64	0.79
17:Q:109:LYS:HG2	17:Q:113:ILE:HD12	1.63	0.79
17:Q:85:ARG:NH1	17:Q:117:ARG:HB3	1.97	0.79
8:H:14:GLU:OE1	8:H:16:PRO:CB	2.29	0.79
8:H:14:GLU:OE1	8:H:16:PRO:CG	2.30	0.79
18:R:1:MET:O	18:R:1:MET:N	2.15	0.79
12:L:158:PHE:N	12:L:158:PHE:CD2	2.29	0.79
21:U:50:VAL:HG22	21:U:52:GLY:N	1.97	0.79
4:D:217:ILE:O	4:D:218:LEU:HD22	1.82	0.79
10:J:100:LEU:HG	10:J:101:LYS:H	1.44	0.79
9:I:206:LYS:HG3	9:I:207:GLY:N	1.97	0.79
15:O:94:HIS:CG	15:O:127:GLY:O	2.35	0.79
3:C:244:THR:HG23	3:C:246:PHE:CA	2.10	0.79
14:N:125:LEU:HD11	14:N:129:TYR:OH	1.83	0.79
14:N:38:TYR:CD1	14:N:78:LYS:CD	2.65	0.79
21:U:97:ILE:HG22	21:U:101:ILE:HD12	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:54:LYS:HD2	24:X:91:LEU:CD1	2.13	0.79
25:Y:20:ARG:CD	25:Y:74:MET:CE	2.52	0.79
16:P:5:GLU:O	16:P:6:GLN:CG	2.30	0.79
26:Z:48:VAL:HG21	26:Z:80:ARG:HD3	1.65	0.79
13:M:31:LEU:HD12	13:M:33:ARG:HB3	1.64	0.79
20:T:143:LYS:CD	20:T:144:LYS:H	1.95	0.79
10:J:179:LYS:CG	10:J:182:GLN:OE1	2.30	0.79
24:X:40:PRO:CB	24:X:81:ILE:HD11	2.13	0.79
3:C:48:VAL:HG23	3:C:75:GLU:CD	2.03	0.79
4:D:70:THR:CB	4:D:86:LEU:HD13	2.12	0.79
13:M:28:HIS:O	13:M:29:ASP:HB2	1.82	0.79
25:Y:36:PRO:CG	25:Y:39:GLU:HG3	2.10	0.79
10:J:180:LYS:CD	10:J:180:LYS:C	2.50	0.79
25:Y:98:GLU:OE2	25:Y:99:LYS:N	2.15	0.79
9:I:206:LYS:HD2	9:I:207:GLY:N	1.98	0.79
15:O:75:MET:SD	15:O:118:ALA:HB2	2.22	0.79
1:A:186:ARG:CD	1:A:186:ARG:O	2.31	0.79
1:A:76:VAL:CG2	1:A:90:PHE:CE2	2.66	0.79
5:E:159:THR:HG23	5:E:227:VAL:HG23	1.25	0.79
7:G:16:ILE:HD13	7:G:45:TRP:HZ2	0.70	0.79
9:I:157:LYS:CG	12:L:22:ARG:NH1	2.45	0.79
14:N:21:SER:O	14:N:22:VAL:CG1	2.30	0.79
25:Y:55:ILE:CB	25:Y:75:ILE:HG12	2.12	0.79
24:X:27:TYR:CE2	24:X:31:HIS:CD2	2.70	0.79
25:Y:32:LYS:HG3	25:Y:33:ALA:N	1.80	0.79
4:D:195:SER:CA	4:D:197:LYS:O	2.30	0.79
6:F:103:LEU:CD2	6:F:103:LEU:O	4.02	0.79
12:L:76:VAL:HG12	12:L:125:ILE:HD12	1.64	0.79
18:R:17:ILE:HG21	18:R:69:ILE:HD11	1.38	0.79
13:M:77:ILE:HG23	13:M:78:LYS:N	1.97	0.79
1:A:149:ASN:HB2	1:A:165:ASN:ND2	1.98	0.79
1:A:66:VAL:HG13	1:A:186:ARG:HD2	1.65	0.79
7:G:137:ARG:HD2	7:G:140:ARG:HE	1.48	0.79
1:A:48:ILE:CD1	18:R:105:MET:HE1	1.87	0.79
19:S:94:LYS:CB	19:S:95:TYR:O	2.30	0.79
4:D:195:SER:O	4:D:197:LYS:CG	2.30	0.79
23:W:7:LEU:HD23	23:W:34:ILE:CG1	2.13	0.79
4:D:47:GLU:OE2	4:D:85:GLU:OE2	1.99	0.79
7:G:162:LEU:CG	7:G:170:ARG:HB2	2.12	0.79
7:G:36:VAL:HG12	7:G:37:ALA:N	1.94	0.79
11:K:71:LEU:HD21	11:K:76:ILE:CD1	1.93	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:27:TYR:CE1	24:X:31:HIS:CD2	2.69	0.79
19:S:80:PRO:HB2	19:S:82:TRP:CD1	2.18	0.79
16:P:52:LYS:HA	16:P:54:HIS:HD2	1.47	0.79
23:W:38:LEU:HA	23:W:41:MET:CE	2.12	0.79
3:C:169:VAL:CG2	3:C:228:ALA:O	2.31	0.79
8:H:149:ASP:O	8:H:151:SER:N	2.16	0.79
3:C:255:THR:HG23	3:C:256:ASP:OD1	1.82	0.79
9:I:139:LYS:HB2	9:I:145:ILE:CD1	2.08	0.78
10:J:170:PRO:HA	10:J:174:LYS:HZ3	1.46	0.78
11:K:65:ARG:CZ	11:K:65:ARG:HB3	2.12	0.78
2:B:67:PHE:CD1	15:O:47:LEU:CB	2.66	0.78
20:T:76:THR:OG1	20:T:94:ARG:HB3	1.83	0.78
8:H:9:VAL:C	8:H:11:PRO:HD3	2.02	0.78
4:D:197:LYS:N	4:D:199:GLY:N	2.30	0.78
13:M:12:MET:CE	13:M:120:ALA:CB	2.61	0.78
18:R:5:ARG:N	18:R:10:LYS:HZ1	1.81	0.78
13:M:31:LEU:HD11	13:M:109:VAL:HB	1.63	0.78
13:M:94:ILE:O	13:M:101:ARG:NH1	2.16	0.78
25:Y:37:LYS:O	25:Y:40:ILE:HG23	1.82	0.78
18:R:88:VAL:O	18:R:88:VAL:CG1	2.31	0.78
7:G:164:LYS:O	7:G:166:GLY:N	2.16	0.78
24:X:52:LEU:CD1	24:X:53:GLU:HG2	2.13	0.78
6:F:49:LEU:HD12	6:F:50:PRO:CD	2.12	0.78
4:D:132:LYS:HA	4:D:191:PRO:CG	2.10	0.78
10:J:180:LYS:CD	10:J:180:LYS:O	2.30	0.78
5:E:128:LYS:CD	5:E:130:PHE:HE1	1.85	0.78
19:S:61:GLU:C	19:S:64:VAL:HG22	2.02	0.78
13:M:51:VAL:HA	13:M:77:ILE:CG2	2.13	0.78
26:Z:94:LYS:HD3	26:Z:95:GLY:N	1.99	0.78
2:B:134:LEU:HD12	2:B:219:LYS:HB2	1.65	0.78
1:A:143:PRO:HB3	22:V:34:MET:SD	2.22	0.78
2:B:52:THR:HG22	2:B:58:ALA:CB	2.12	0.78
3:C:70:SER:C	22:V:29:HIS:CE1	2.57	0.78
7:G:32:MET:CE	7:G:63:MET:SD	2.72	0.78
3:C:197:LYS:O	3:C:200:LEU:CG	2.30	0.78
19:S:39:ARG:NH2	20:T:38:LYS:CD	2.45	0.78
4:D:198:ILE:O	4:D:198:ILE:CD1	2.32	0.78
26:Z:92:LEU:HD21	26:Z:109:TYR:CD1	2.18	0.78
17:Q:6:PRO:O	17:Q:6:PRO:HG2	1.81	0.78
9:I:145:ILE:HA	9:I:148:LYS:HG3	1.63	0.78
22:V:79:VAL:HG12	22:V:82:ASN:OD1	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:54:PRO:HG3	17:Q:88:ILE:HD12	1.66	0.78
13:M:35:ILE:HB	13:M:61:TYR:CE2	2.19	0.78
18:R:122:PRO:CB	18:R:123:THR:OG1	2.30	0.78
24:X:67:ARG:HG2	24:X:115:ILE:HG12	1.66	0.78
25:Y:13:MET:HE2	25:Y:14:THR:N	1.98	0.78
5:E:145:ARG:NH1	5:E:145:ARG:HG2	1.94	0.78
4:D:209:SER:OG	18:R:40:ILE:HB	1.83	0.78
1:A:60:LEU:HD13	1:A:60:LEU:C	2.04	0.78
6:F:127:ARG:O	6:F:127:ARG:CG	2.32	0.78
9:I:140:LYS:CD	9:I:141:ARG:H	1.96	0.78
12:L:5:GLN:NE2	12:L:10:TYR:CD1	2.52	0.78
18:R:98:VAL:HG13	18:R:102:THR:OG1	1.83	0.78
22:V:24:ILE:CG2	22:V:24:ILE:O	2.30	0.78
24:X:139:GLU:O	24:X:141:PRO:CD	2.30	0.78
12:L:97:ARG:O	12:L:98:LYS:C	2.22	0.78
18:R:5:ARG:C	18:R:10:LYS:HE2	2.02	0.78
4:D:218:LEU:CD2	4:D:218:LEU:O	2.30	0.78
12:L:1:MET:O	12:L:2:ALA:HB3	1.84	0.78
1:A:14:ASP:HB3	1:A:18:PHE:HE2	1.46	0.78
1:A:59:LEU:HD23	1:A:181:GLU:HG2	1.63	0.78
10:J:117:LEU:O	10:J:119:LEU:N	2.15	0.78
14:N:21:SER:O	14:N:22:VAL:CG2	2.30	0.78
21:U:69:PRO:CD	21:U:69:PRO:O	2.30	0.78
26:Z:103:HIS:O	26:Z:106:GLN:N	2.12	0.78
20:T:99:VAL:O	20:T:103:VAL:HG23	1.82	0.78
16:P:10:ARG:HE	16:P:11:THR:N	1.81	0.78
16:P:15:PHE:CZ	19:S:91:LYS:HD2	2.18	0.78
19:S:8:LYS:CA	26:Z:49:LEU:HD23	2.13	0.78
25:Y:36:PRO:HD2	25:Y:39:GLU:OE1	1.83	0.78
26:Z:77:LEU:O	26:Z:78:LYS:CG	2.31	0.78
3:C:158:LYS:O	3:C:158:LYS:CE	2.30	0.78
1:A:183:LEU:HB2	1:A:189:ILE:CD1	2.13	0.78
5:E:97:GLU:OE1	5:E:97:GLU:HA	5.13	0.78
6:F:204:ARG:OXT	15:O:72:TYR:CB	2.32	0.78
8:H:166:VAL:CG2	8:H:173:PHE:CE2	2.67	0.78
11:K:4:PRO:HB2	11:K:7:ASN:H	1.49	0.78
25:Y:44:LEU:CD1	25:Y:48:TYR:CD2	2.66	0.78
16:P:77:LYS:O	16:P:78:THR:CG2	2.31	0.78
16:P:49:LEU:CD1	16:P:51:ARG:CZ	2.61	0.78
12:L:71:ARG:HD3	12:L:73:LEU:HD21	0.79	0.78
5:E:229:GLY:HA2	5:E:235:TRP:CD1	2.18	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:217:MET:O	7:G:221:LYS:N	2.11	0.78
15:O:62:VAL:CG2	15:O:72:TYR:OH	2.32	0.78
17:Q:109:LYS:CG	17:Q:113:ILE:CD1	2.48	0.78
16:P:44:ARG:HD3	16:P:115:TYR:HE1	1.47	0.78
4:D:158:ILE:HD13	4:D:189:MET:SD	2.24	0.78
16:P:127:LYS:O	16:P:127:LYS:CE	2.30	0.78
24:X:60:LYS:CG	24:X:116:PRO:CG	2.58	0.78
13:M:89:VAL:HG12	13:M:90:GLY:H	1.47	0.78
1:A:177:MET:CE	1:A:180:ARG:HH21	1.95	0.78
2:B:81:PHE:O	2:B:82:ARG:HB2	1.83	0.78
7:G:153:VAL:O	7:G:155:GLN:N	2.16	0.78
24:X:126:ALA:C	24:X:128:VAL:HB	2.04	0.78
17:Q:19:ALA:HB2	17:Q:75:GLY:CA	2.13	0.78
25:Y:29:HIS:CD2	25:Y:34:THR:H	2.02	0.78
7:G:32:MET:HE3	7:G:100:CYS:O	1.83	0.78
9:I:154:LYS:C	9:I:154:LYS:HD3	2.01	0.78
14:N:115:LEU:O	14:N:119:GLU:HG3	1.84	0.78
1:A:185:MET:HE2	22:V:39:VAL:HG12	1.63	0.78
6:F:14:THR:HG23	17:Q:56:LEU:CB	2.00	0.78
20:T:11:GLN:HE21	20:T:62:ARG:NH1	1.80	0.78
3:C:192:ALA:O	3:C:195:PRO:CD	2.31	0.78
20:T:84:ARG:NH2	20:T:84:ARG:HG3	1.97	0.78
20:T:18:LEU:HB2	20:T:134:ILE:CD1	2.14	0.78
6:F:112:LEU:O	6:F:116:ILE:CD1	2.31	0.78
12:L:40:ILE:O	12:L:40:ILE:HD13	1.84	0.78
1:A:190:SER:O	1:A:191:ARG:CG	2.30	0.77
5:E:129:ILE:HG12	5:E:139:LEU:HD22	1.08	0.77
7:G:181:THR:CB	7:G:182:PRO:HD2	2.13	0.77
10:J:12:THR:O	10:J:48:PHE:CD2	2.37	0.77
18:R:98:VAL:CG1	18:R:102:THR:OG1	2.32	0.77
7:G:85:ARG:CZ	25:Y:118:ARG:NE	2.47	0.77
8:H:8:ILE:HG23	8:H:9:VAL:N	1.98	0.77
4:D:200:PRO:O	4:D:201:LYS:CG	2.33	0.77
16:P:46:SER:C	16:P:49:LEU:HB2	2.05	0.77
2:B:105:LEU:O	2:B:106:THR:CG2	2.30	0.77
10:J:138:ARG:NH1	10:J:156:HIS:NE2	2.31	0.77
9:I:82:VAL:HG11	9:I:202:ILE:HD11	1.64	0.77
3:C:43:LYS:CA	3:C:43:LYS:HE3	2.14	0.77
7:G:142:ARG:HH21	7:G:152:ASP:H	1.31	0.77
7:G:50:VAL:CG1	7:G:111:LEU:CD2	2.61	0.77
11:K:36:ALA:O	11:K:38:LYS:HG3	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:4:PRO:HG3	11:K:7:ASN:ND2	1.99	0.77
12:L:7:GLU:CG	12:L:8:ARG:HG3	2.14	0.77
25:Y:122:LYS:HD2	25:Y:122:LYS:H	1.48	0.77
17:Q:42:ILE:HD13	17:Q:51:LEU:CD1	2.12	0.77
20:T:77:LYS:HD2	20:T:94:ARG:NH1	2.00	0.77
6:F:15:PRO:HD3	17:Q:56:LEU:HB3	1.67	0.77
23:W:14:ILE:HG13	23:W:15:ASN:N	1.98	0.77
12:L:109:MET:SD	12:L:140:PHE:CD1	2.77	0.77
15:O:56:VAL:HG13	15:O:81:VAL:CG2	2.14	0.77
6:F:154:LEU:HD11	6:F:155:CYS:SG	2.24	0.77
1:A:202:TYR:O	1:A:203:PHE:CD1	2.37	0.77
5:E:165:GLU:OE2	5:E:165:GLU:CA	2.29	0.77
3:C:87:LEU:HD21	3:C:115:ILE:CG2	2.09	0.77
5:E:100:ARG:CD	5:E:102:ILE:CD1	2.59	0.77
8:H:191:GLU:C	8:H:192:PHE:CD1	2.58	0.77
26:Z:62:VAL:CG1	26:Z:68:ILE:CD1	2.62	0.77
3:C:155:TRP:CZ2	23:W:97:ARG:HD3	2.18	0.77
24:X:35:ALA:HA	24:X:39:ASN:ND2	1.98	0.77
1:A:39:TYR:HA	1:A:50:ASN:HD21	1.48	0.77
1:A:28:THR:O	1:A:47:TYR:HE2	1.67	0.77
10:J:10:ARG:HB3	10:J:10:ARG:HH11	1.44	0.77
10:J:94:LEU:HD12	10:J:95:ASP:N	2.00	0.77
15:O:32:HIS:CE1	15:O:96:LYS:HD2	2.20	0.77
8:H:52:GLU:HG3	8:H:58:LYS:HB3	1.67	0.77
8:H:147:LYS:CE	8:H:153:LEU:CD1	2.61	0.77
1:A:198:MET:SD	1:A:198:MET:N	2.57	0.77
1:A:13:GLU:O	1:A:17:LYS:CE	2.29	0.77
4:D:34:TYR:CE2	21:U:61:LEU:CD2	26.69	0.77
4:D:22:ASN:OD1	4:D:37:VAL:HG22	1.84	0.77
4:D:74:GLN:NE2	4:D:75:LYS:HE2	1.99	0.77
5:E:139:LEU:HD11	5:E:154:ILE:HG21	1.64	0.77
5:E:180:LEU:HD13	5:E:228:ILE:CG1	2.15	0.77
8:H:145:ARG:CD	23:W:51:GLU:CG	2.60	0.77
17:Q:9:SER:HB2	17:Q:26:LYS:HG3	1.35	0.77
16:P:75:VAL:HG21	16:P:104:GLN:CD	2.04	0.77
23:W:38:LEU:HD23	23:W:41:MET:CE	2.14	0.77
24:X:29:LYS:CE	24:X:34:THR:HG21	2.14	0.77
18:R:27:ASP:O	18:R:31:ASN:ND2	2.18	0.77
7:G:188:LYS:HA	7:G:191:ARG:CD	2.13	0.77
9:I:112:TRP:HH2	9:I:117:TYR:OH	1.68	0.77
25:Y:120:THR:HB	25:Y:122:LYS:HE3	1.62	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:32:ILE:O	17:Q:39:LEU:HG	1.85	0.77
4:D:197:LYS:H	4:D:199:GLY:N	1.82	0.77
5:E:174:LYS:O	5:E:179:ASN:ND2	2.18	0.77
1:A:39:TYR:CA	1:A:50:ASN:ND2	2.47	0.77
2:B:137:LEU:CD2	2:B:215:VAL:CB	2.63	0.77
7:G:5:ILE:HG22	7:G:124:LEU:HD21	1.66	0.77
1:A:158:ASP:HB3	22:V:65:SER:CB	2.15	0.77
24:X:129:SER:OG	24:X:132:ALA:HB3	1.83	0.77
24:X:133:LEU:CD2	24:X:139:GLU:O	2.33	0.77
25:Y:120:THR:CG2	25:Y:122:LYS:HE2	2.14	0.77
25:Y:117:VAL:HG21	25:Y:124:ASN:OD1	1.85	0.77
26:Z:58:LEU:HD23	26:Z:77:LEU:HD11	1.66	0.77
24:X:142:ARG:HB2	24:X:142:ARG:NH1	1.93	0.77
13:M:124:ILE:CA	13:M:127:TYR:HD2	1.97	0.77
25:Y:84:LYS:O	25:Y:84:LYS:CD	2.31	0.77
20:T:124:THR:HG23	20:T:126:GLN:H	1.47	0.77
11:K:95:ARG:HA	11:K:95:ARG:HE	1.49	0.77
1:A:5:LEU:HB2	22:V:41:LYS:CE	2.14	0.77
3:C:244:THR:O	3:C:244:THR:CG2	2.29	0.77
1:A:118:GLU:HB2	3:C:50:LYS:NZ	1.98	0.77
11:K:39:ASN:O	11:K:40:VAL:CB	2.32	0.77
15:O:26:ASN:HB3	15:O:91:THR:OG1	1.84	0.77
24:X:51:VAL:CG1	24:X:70:VAL:CG1	2.52	0.77
25:Y:52:PRO:HD2	25:Y:53:ASP:N	2.00	0.77
9:I:25:ARG:NE	9:I:27:TYR:HE2	1.83	0.77
16:P:50:ARG:N	16:P:51:ARG:HD2	1.99	0.77
16:P:125:PRO:O	16:P:126:VAL:CG2	2.32	0.77
21:U:48:LEU:C	21:U:49:LYS:HG3	2.05	0.77
2:B:149:GLN:NE2	2:B:151:ARG:HG2	1.99	0.77
3:C:56:LYS:HD2	3:C:57:ASP:OD1	1.85	0.77
24:X:138:LYS:C	24:X:139:GLU:CD	2.43	0.77
17:Q:105:LYS:CD	17:Q:105:LYS:O	2.30	0.77
16:P:89:MET:C	16:P:107:ILE:HD11	2.05	0.77
26:Z:92:LEU:HD11	26:Z:99:LEU:HD21	1.66	0.77
8:H:122:LEU:CD1	8:H:123:THR:CG2	2.62	0.77
19:S:139:THR:O	19:S:141:ARG:N	2.17	0.77
2:B:148:ASN:O	18:R:124:VAL:HA	1.85	0.77
18:R:17:ILE:HG22	18:R:69:ILE:CD1	2.04	0.77
5:E:38:LEU:O	5:E:38:LEU:CD1	2.30	0.77
9:I:82:VAL:CG1	9:I:202:ILE:CD1	2.62	0.77
2:B:57:ILE:O	2:B:59:SER:N	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:248:ILE:O	10:J:72:PHE:CE1	2.34	0.77
9:I:141:ARG:HB2	9:I:144:LYS:N	2.00	0.77
21:U:62:ARG:HH11	21:U:64:THR:CG2	1.92	0.77
20:T:39:LEU:CD1	20:T:99:VAL:HG21	2.14	0.77
16:P:127:LYS:NZ	16:P:128:HIS:N	2.33	0.77
5:E:204:SER:O	5:E:205:PHE:HB2	1.84	0.77
25:Y:37:LYS:O	25:Y:40:ILE:HG22	1.83	0.77
24:X:22:TRP:O	24:X:23:HIS:C	2.12	0.77
1:A:58:LEU:HD23	1:A:178:LEU:HD21	1.57	0.76
2:B:123:ALA:HB2	2:B:165:ARG:HG2	1.67	0.76
3:C:50:LYS:HB2	3:C:258:LEU:HB3	1.68	0.76
4:D:226:GLN:O	4:D:227:LYS:CB	2.31	0.76
4:D:70:THR:CA	4:D:86:LEU:HD13	2.14	0.76
5:E:139:LEU:HG	5:E:150:PRO:HG3	1.67	0.76
7:G:64:LYS:CD	7:G:64:LYS:O	2.33	0.76
10:J:39:ASN:O	10:J:42:GLU:HB2	1.84	0.76
10:J:39:ASN:N	10:J:42:GLU:HG2	2.00	0.76
10:J:66:LYS:CA	10:J:71:LEU:HD11	2.15	0.76
12:L:10:TYR:CD2	12:L:12:LYS:CE	2.66	0.76
18:R:99:ASP:O	18:R:119:VAL:CG2	2.32	0.76
23:W:42:MET:HE1	23:W:50:PHE:CE2	2.21	0.76
25:Y:34:THR:C	25:Y:35:VAL:HG22	1.98	0.76
13:M:13:ASP:HB2	13:M:16:THR:HB	0.81	0.76
23:W:38:LEU:HA	23:W:41:MET:HE2	1.66	0.76
25:Y:99:LYS:C	25:Y:99:LYS:CE	2.54	0.76
18:R:91:LEU:CB	18:R:92:ASP:CA	2.61	0.76
20:T:75:MET:HE3	20:T:79:TYR:HE2	1.38	0.76
5:E:126:VAL:CG2	5:E:156:MET:HA	2.16	0.76
8:H:169:LYS:CB	8:H:173:PHE:CE2	2.67	0.76
14:N:21:SER:C	14:N:22:VAL:HG13	2.04	0.76
14:N:62:GLN:CB	14:N:65:PHE:CD2	2.64	0.76
9:I:97:VAL:HG22	9:I:100:CYS:SG	2.25	0.76
1:A:27:GLY:O	1:A:47:TYR:HD2	1.69	0.76
3:C:127:LYS:HD3	3:C:142:LEU:HD11	1.65	0.76
4:D:70:THR:HG22	4:D:86:LEU:CB	2.15	0.76
18:R:100:PRO:CB	18:R:119:VAL:CG2	2.61	0.76
6:F:91:ARG:CA	6:F:91:ARG:NE	2.33	0.76
25:Y:87:PRO:HG2	25:Y:90:ARG:HB2	1.68	0.76
26:Z:48:VAL:C	26:Z:83:LEU:HD12	2.04	0.76
23:W:93:LEU:HD21	23:W:128:PHE:CE2	2.20	0.76
3:C:241:TRP:CD2	23:W:68:ARG:CD	2.69	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:116:ILE:N	6:F:116:ILE:CD1	2.39	0.76
1:A:11:LYS:CD	1:A:13:GLU:CG	2.62	0.76
1:A:177:MET:CE	1:A:180:ARG:CZ	2.61	0.76
5:E:98:ASN:HD22	5:E:119:ALA:HB2	1.47	0.76
6:F:204:ARG:OXT	15:O:72:TYR:CG	2.39	0.76
8:H:157:HIS:O	8:H:158:LEU:HD23	1.84	0.76
10:J:46:VAL:HG11	10:J:106:LEU:HD11	1.66	0.76
22:V:53:TYR:CE2	22:V:72:LEU:HB3	2.20	0.76
8:H:8:ILE:HG23	8:H:9:VAL:H	1.49	0.76
16:P:5:GLU:O	16:P:6:GLN:CB	2.33	0.76
25:Y:32:LYS:HG2	25:Y:33:ALA:O	1.85	0.76
26:Z:92:LEU:HD11	26:Z:109:TYR:CZ	2.20	0.76
2:B:105:LEU:CD1	2:B:213:ARG:HB2	2.09	0.76
26:Z:85:ARG:HH11	26:Z:85:ARG:HG2	1.50	0.76
25:Y:93:ARG:CG	25:Y:93:ARG:HH11	1.87	0.76
15:O:20:GLN:CG	15:O:21:VAL:O	2.34	0.76
11:K:96:ARG:HG3	11:K:97:SER:N	2.00	0.76
1:A:37:TYR:OH	1:A:160:ALA:HB3	1.85	0.76
3:C:149:PRO:CG	3:C:149:PRO:O	2.30	0.76
3:C:244:THR:CG2	3:C:246:PHE:CD2	2.65	0.76
16:P:86:LEU:N	16:P:86:LEU:HD23	2.01	0.76
16:P:4:VAL:C	16:P:10:ARG:HD3	2.03	0.76
16:P:10:ARG:NE	16:P:11:THR:HB	2.01	0.76
13:M:94:ILE:HG23	13:M:95:ASP:H	0.67	0.76
4:D:175:VAL:CG1	4:D:182:LEU:HB2	2.16	0.76
9:I:29:LEU:HG	9:I:30:GLY:N	2.01	0.76
3:C:253:GLU:HG3	3:C:254:PHE:CD2	2.21	0.76
5:E:86:PHE:O	5:E:87:MET:HB2	1.86	0.76
7:G:157:VAL:HG22	7:G:158:VAL:H	1.50	0.76
7:G:58:LYS:O	7:G:59:GLN:HB2	1.85	0.76
24:X:95:GLU:CG	24:X:140:ARG:NH2	2.49	0.76
17:Q:19:ALA:CB	17:Q:74:GLY:C	2.52	0.76
8:H:10:LYS:N	8:H:11:PRO:CD	2.47	0.76
8:H:36:LEU:O	8:H:36:LEU:CD1	2.28	0.76
24:X:115:ILE:CG2	24:X:115:ILE:O	2.29	0.76
16:P:118:GLU:O	19:S:119:ALA:HA	1.86	0.76
18:R:97:GLU:HA	18:R:116:ASN:HB2	1.67	0.76
3:C:115:ILE:HD13	3:C:144:LYS:HG3	1.67	0.76
1:A:120:ARG:CG	3:C:251:TYR:HE2	1.98	0.76
5:E:62:LYS:CD	5:E:80:ILE:CD1	2.45	0.76
11:K:45:VAL:O	11:K:49:MET:HG2	1.84	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:10:TYR:CE2	12:L:12:LYS:CE	2.67	0.76
14:N:16:LEU:HD21	14:N:62:GLN:NE2	2.01	0.76
1:A:43:SER:OG	18:R:101:ASP:OD2	2.03	0.76
6:F:42:LYS:CG	6:F:42:LYS:O	2.28	0.76
17:Q:85:ARG:O	17:Q:88:ILE:HG12	1.86	0.76
19:S:39:ARG:HD3	20:T:38:LYS:NZ	1.99	0.76
2:B:66:VAL:HG22	2:B:87:ILE:HG22	0.76	0.76
19:S:33:ILE:O	19:S:36:VAL:HG13	1.85	0.76
4:D:112:GLY:O	4:D:113:LEU:HD12	1.86	0.76
5:E:184:THR:C	5:E:189:LEU:HD13	2.06	0.76
4:D:45:ARG:HA	4:D:83:SER:OG	1.86	0.76
5:E:49:ARG:HD3	5:E:50:ASN:N	2.00	0.76
12:L:5:GLN:O	12:L:7:GLU:N	2.19	0.76
9:I:85:ALA:CB	12:L:8:ARG:NH1	2.46	0.76
16:P:77:LYS:O	16:P:78:THR:HG23	1.85	0.76
25:Y:62:THR:CG2	25:Y:69:THR:HG22	2.14	0.76
2:B:113:MET:SD	2:B:211:PHE:CZ	2.79	0.76
9:I:202:ILE:O	9:I:206:LYS:HB3	1.86	0.76
3:C:142:LEU:C	3:C:145:LEU:HD23	2.07	0.76
7:G:142:ARG:NH2	7:G:152:ASP:H	1.84	0.76
7:G:181:THR:CB	7:G:182:PRO:CD	2.63	0.76
7:G:98:ARG:HD3	7:G:99:GLY:H	1.50	0.76
14:N:125:LEU:CD1	14:N:129:TYR:HE2	1.92	0.76
14:N:16:LEU:CD2	14:N:17:PRO:HD2	2.15	0.76
21:U:102:THR:O	21:U:104:ILE:O	2.04	0.76
26:Z:91:LEU:CD2	26:Z:96:LEU:HD12	2.16	0.76
16:P:52:LYS:CD	16:P:52:LYS:O	2.30	0.76
12:L:80:MET:HE3	12:L:120:VAL:C	1.84	0.76
18:R:13:ALA:HB1	18:R:54:VAL:HG22	1.67	0.76
1:A:85:ARG:NH2	1:A:201:LEU:HD12	2.00	0.76
2:B:67:PHE:HE1	15:O:48:SER:N	1.84	0.76
3:C:115:ILE:HD12	3:C:143:ALA:HB3	1.69	0.76
7:G:85:ARG:HD3	25:Y:118:ARG:CZ	2.16	0.76
12:L:134:LEU:HD23	12:L:134:LEU:O	1.86	0.76
24:X:90:CYS:O	24:X:91:LEU:C	2.24	0.76
17:Q:12:VAL:CG1	17:Q:13:PHE:H	1.99	0.76
19:S:120:HIS:CE1	19:S:124:ARG:HH21	2.01	0.76
20:T:77:LYS:CB	20:T:94:ARG:CG	2.60	0.76
21:U:50:VAL:CG2	21:U:52:GLY:CA	2.58	0.76
13:M:85:LEU:HD22	13:M:106:CYS:SG	2.25	0.76
25:Y:13:MET:HE3	25:Y:14:THR:H	1.51	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:198:LEU:HD11	3:C:226:PHE:HD1	1.50	0.76
7:G:63:MET:HE2	7:G:106:LEU:HD21	1.65	0.75
11:K:27:VAL:CG1	11:K:43:LEU:HD21	2.02	0.75
11:K:84:HIS:CD2	13:M:27:ILE:HD11	2.21	0.75
18:R:105:MET:O	18:R:109:LEU:HD12	1.84	0.75
1:A:141:ASN:O	22:V:32:ILE:HG21	1.85	0.75
25:Y:114:MET:HE3	25:Y:125:VAL:CG2	2.16	0.75
25:Y:44:LEU:CD1	25:Y:48:TYR:HE2	1.93	0.75
18:R:16:ILE:HG22	18:R:24:LEU:HD11	1.68	0.75
4:D:105:LEU:CD2	4:D:184:ILE:CD1	2.56	0.75
11:K:98:ARG:HG2	11:K:98:ARG:NH1	1.92	0.75
2:B:152:LYS:HD2	18:R:126:MET:CE	2.15	0.75
19:S:39:ARG:NH2	20:T:38:LYS:HG2	2.02	0.75
6:F:187:SER:O	6:F:190:ILE:HG22	1.85	0.75
3:C:262:HIS:CG	3:C:263:THR:H	2.02	0.75
2:B:30:TRP:HE1	15:O:17:LEU:HD21	1.49	0.75
2:B:71:LEU:CG	2:B:84:PHE:HE2	1.99	0.75
21:U:46:LYS:NZ	21:U:97:ILE:HG12	1.99	0.75
17:Q:78:VAL:CG1	17:Q:82:TYR:CE2	2.68	0.75
16:P:53:GLN:NE2	16:P:80:LEU:CD1	2.43	0.75
16:P:74:GLU:O	16:P:75:VAL:HB	1.86	0.75
19:S:11:HIS:CD2	19:S:23:ARG:HH21	1.95	0.75
19:S:54:LYS:C	19:S:54:LYS:HA	1.99	0.75
16:P:46:SER:O	16:P:49:LEU:CG	2.35	0.75
21:U:50:VAL:O	21:U:51:LYS:CD	2.30	0.75
18:R:121:GLN:NE2	18:R:122:PRO:N	2.34	0.75
13:M:49:LEU:HD13	13:M:50:CYS:N	2.00	0.75
9:I:9:HIS:O	9:I:10:LYS:HG2	1.86	0.75
20:T:90:SER:C	20:T:91:HIS:CD2	2.60	0.75
24:X:76:LYS:O	24:X:77:ASN:OD1	2.04	0.75
1:A:66:VAL:CG1	1:A:186:ARG:CB	2.63	0.75
2:B:57:ILE:O	2:B:58:ALA:C	2.21	0.75
4:D:188:ILE:HG22	4:D:190:LEU:HD22	1.68	0.75
4:D:97:CYS:O	4:D:98:ALA:C	2.23	0.75
15:O:34:PHE:CZ	15:O:100:THR:HA	2.20	0.75
22:V:55:ILE:HD13	22:V:65:SER:CA	2.14	0.75
24:X:52:LEU:HD11	24:X:53:GLU:HG2	1.68	0.75
17:Q:135:PRO:HD2	17:Q:141:TYR:CD1	2.21	0.75
20:T:39:LEU:HD11	20:T:56:ARG:NH2	2.01	0.75
25:Y:29:HIS:HD1	25:Y:67:GLY:C	1.87	0.75
18:R:20:TYR:CE2	18:R:38:ILE:HD13	2.22	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:167:CYS:SG	3:C:168:LYS:N	2.58	0.75
25:Y:99:LYS:C	25:Y:99:LYS:HE3	2.07	0.75
14:N:12:SER:C	14:N:13:GLN:HG3	2.07	0.75
5:E:185:GLY:N	5:E:189:LEU:HD13	2.01	0.75
1:A:24:HIS:O	1:A:25:LEU:C	2.24	0.75
4:D:70:THR:CG2	4:D:86:LEU:HB2	2.15	0.75
5:E:21:ASP:CG	5:E:24:THR:CG2	2.51	0.75
9:I:165:GLN:OE1	9:I:172:LEU:HD23	1.87	0.75
26:Z:103:HIS:NE2	26:Z:105:ALA:HB3	2.00	0.75
19:S:121:ARG:HG2	19:S:131:VAL:CG1	2.17	0.75
13:M:14:VAL:O	13:M:15:ASN:OD1	2.04	0.75
4:D:218:LEU:CD1	4:D:220:THR:CG2	2.47	0.75
20:T:75:MET:O	20:T:78:ILE:HG22	1.87	0.75
17:Q:6:PRO:O	17:Q:6:PRO:CD	2.28	0.75
6:F:32:ASP:HB2	6:F:117:ILE:HG21	1.67	0.75
1:A:94:THR:HG21	1:A:182:VAL:CG2	2.17	0.75
3:C:49:THR:HG23	3:C:75:GLU:CD	2.06	0.75
5:E:166:THR:OG1	5:E:168:LYS:HG3	1.86	0.75
7:G:179:LEU:HD12	7:G:179:LEU:C	2.07	0.75
9:I:136:ILE:C	9:I:139:LYS:HG3	2.04	0.75
14:N:23:PRO:HD2	14:N:26:LEU:CD2	2.16	0.75
17:Q:112:LEU:CD1	17:Q:120:LEU:HD21	2.16	0.75
25:Y:54:VAL:HG13	25:Y:76:TYR:O	1.87	0.75
16:P:107:ILE:HB	16:P:111:MET:SD	2.26	0.75
19:S:26:ILE:CD1	19:S:59:LEU:HD21	2.17	0.75
26:Z:92:LEU:HD11	26:Z:109:TYR:HE1	1.51	0.75
25:Y:102:THR:HG21	25:Y:107:ARG:CZ	2.12	0.75
13:M:85:LEU:CA	13:M:88:TRP:CE3	2.67	0.75
5:E:31:PRO:HG2	5:E:38:LEU:HD13	1.69	0.75
1:A:185:MET:SD	22:V:44:GLY:HA2	2.25	0.75
2:B:31:TYR:CD1	2:B:94:LYS:CA	2.68	0.75
5:E:94:LYS:O	5:E:95:THR:HG23	1.87	0.75
7:G:162:LEU:CD2	7:G:170:ARG:HB2	2.17	0.75
7:G:16:ILE:HG21	7:G:45:TRP:CZ2	2.22	0.75
9:I:104:ILE:O	9:I:105:ASP:CG	2.25	0.75
14:N:80:LEU:C	14:N:82:PRO:HD3	2.05	0.75
21:U:69:PRO:CG	21:U:69:PRO:O	2.29	0.75
1:A:154:LEU:HD12	22:V:63:GLY:CA	2.16	0.75
4:D:123:LEU:HD11	4:D:154:ASP:HB2	1.68	0.75
4:D:21:LEU:HD13	4:D:48:ILE:CD1	2.15	0.75
6:F:134:VAL:HG11	6:F:136:ARG:HH21	1.52	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:141:ARG:HB2	9:I:144:LYS:CA	2.16	0.75
15:O:31:CYS:SG	15:O:93:LEU:CB	2.75	0.75
21:U:97:ILE:CG2	21:U:101:ILE:HD11	2.17	0.75
6:F:41:VAL:CG2	6:F:42:LYS:CD	2.64	0.75
6:F:45:TYR:N	6:F:45:TYR:HD1	1.85	0.75
6:F:102:LEU:HD13	26:Z:110:THR:CG2	2.17	0.75
13:M:35:ILE:HB	13:M:61:TYR:HE2	1.52	0.75
9:I:8:TRP:HZ3	9:I:20:PRO:HA	1.51	0.75
21:U:44:LYS:O	21:U:47:ASN:HA	1.87	0.75
25:Y:99:LYS:HG2	25:Y:99:LYS:O	1.86	0.75
4:D:53:THR:HG22	4:D:91:VAL:HG23	1.68	0.75
10:J:16:PRO:HD3	10:J:44:TRP:CE2	2.22	0.75
12:L:112:HIS:HB2	12:L:134:LEU:HD13	1.68	0.75
1:A:141:ASN:HD21	22:V:29:HIS:HB3	1.49	0.75
17:Q:19:ALA:HB2	17:Q:75:GLY:HA3	1.67	0.75
16:P:18:ARG:HD2	16:P:37:TYR:HB3	1.66	0.75
12:L:17:PHE:CD1	12:L:18:GLN:N	2.54	0.75
12:L:80:MET:HG3	12:L:86:ILE:HG22	1.68	0.75
24:X:60:LYS:CG	24:X:116:PRO:HG2	2.11	0.75
13:M:33:ARG:O	13:M:33:ARG:HD2	1.87	0.75
16:P:39:ALA:HA	16:P:42:ARG:CD	2.17	0.75
5:E:43:PRO:CD	5:E:46:ILE:HD12	2.17	0.74
6:F:63:LYS:CD	6:F:71:ARG:NH2	2.35	0.74
7:G:77:LEU:O	7:G:92:ARG:HG3	1.86	0.74
9:I:142:SER:CB	9:I:143:LYS:HZ2	2.00	0.74
15:O:100:THR:HG22	15:O:104:ARG:HG3	1.68	0.74
15:O:19:PRO:HG3	15:O:27:VAL:HG21	0.75	0.74
22:V:40:ASP:O	22:V:42:VAL:HG23	1.87	0.74
8:H:11:PRO:HG2	8:H:12:ASN:N	2.02	0.74
16:P:15:PHE:CE1	19:S:91:LYS:CD	2.70	0.74
12:L:113:LEU:CD1	12:L:120:VAL:HG21	2.13	0.74
18:R:20:TYR:CD2	18:R:38:ILE:HD13	2.22	0.74
10:J:89:GLU:HB3	10:J:92:MET:SD	2.26	0.74
23:W:128:PHE:HE1	23:W:130:PHE:CD2	2.01	0.74
4:D:212:GLU:O	4:D:213:PRO:C	2.25	0.74
2:B:19:LYS:HZ3	2:B:19:LYS:CB	1.97	0.74
20:T:144:LYS:HZ3	20:T:144:LYS:HB2	1.52	0.74
21:U:19:ARG:HG3	21:U:92:HIS:ND1	2.01	0.74
8:H:135:PHE:HD2	8:H:136:PRO:HD3	1.51	0.74
2:B:31:TYR:HD1	2:B:94:LYS:CA	1.99	0.74
4:D:44:THR:O	4:D:45:ARG:HD3	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:73:ASP:OD2	5:E:122:LYS:NZ	2.20	0.74
17:Q:47:LEU:HD23	17:Q:81:ILE:HD12	1.62	0.74
6:F:14:THR:CG2	17:Q:56:LEU:HD13	2.16	0.74
19:S:34:LYS:CA	19:S:103:LEU:HD21	2.15	0.74
4:D:200:PRO:O	4:D:201:LYS:CB	2.34	0.74
6:F:103:LEU:HD23	6:F:103:LEU:C	4.31	0.74
13:M:94:ILE:N	13:M:101:ARG:HD3	2.02	0.74
10:J:155:LYS:HE3	10:J:156:HIS:CE1	2.22	0.74
3:C:181:ILE:HB	3:C:208:TYR:HB2	1.68	0.74
1:A:147:LEU:HD22	1:A:163:CYS:SG	2.27	0.74
7:G:71:GLY:HA2	7:G:98:ARG:NH2	2.02	0.74
10:J:17:ARG:HG2	10:J:18:ARG:HD3	0.75	0.74
10:J:37:LEU:CG	10:J:42:GLU:HB2	2.13	0.74
11:K:83:LEU:HB2	11:K:85:LEU:HD21	1.63	0.74
16:P:107:ILE:CB	16:P:111:MET:SD	2.75	0.74
4:D:193:ASP:O	4:D:194:PRO:O	2.05	0.74
19:S:16:LEU:C	19:S:17:ASN:CG	2.43	0.74
3:C:234:SER:O	22:V:23:ILE:HD13	1.86	0.74
15:O:20:GLN:CD	15:O:21:VAL:O	2.26	0.74
19:S:111:LEU:CD2	19:S:125:HIS:CE1	2.71	0.74
3:C:55:VAL:CB	3:C:82:PHE:HE2	1.92	0.74
9:I:76:THR:CG2	9:I:77:ARG:N	2.51	0.74
26:Z:103:HIS:O	26:Z:105:ALA:N	2.20	0.74
8:H:80:VAL:HA	8:H:83:LEU:CD2	2.17	0.74
16:P:51:ARG:N	16:P:51:ARG:CD	2.50	0.74
3:C:241:TRP:CE2	23:W:68:ARG:CD	2.70	0.74
19:S:47:LYS:HZ2	19:S:78:LYS:CB	1.92	0.74
25:Y:7:ILE:CD1	25:Y:43:LYS:HD3	2.17	0.74
9:I:36:THR:HG21	9:I:179:PRO:HB2	1.68	0.74
1:A:57:LYS:NZ	22:V:70:LEU:CG	2.50	0.74
7:G:32:MET:SD	7:G:100:CYS:O	2.46	0.74
9:I:130:THR:HB	9:I:131:PRO:HD3	1.67	0.74
14:N:92:ILE:O	14:N:96:VAL:HG23	1.88	0.74
15:O:16:SER:O	15:O:88:LEU:O	2.05	0.74
17:Q:130:LYS:HD2	17:Q:135:PRO:O	1.88	0.74
25:Y:51:THR:HB	25:Y:52:PRO:CD	2.14	0.74
8:H:6:ALA:O	8:H:10:LYS:HG3	1.85	0.74
16:P:108:LYS:O	16:P:111:MET:CG	2.34	0.74
25:Y:29:HIS:HD1	25:Y:67:GLY:HA2	1.51	0.74
12:L:17:PHE:CD1	12:L:18:GLN:HB2	2.21	0.74
16:P:49:LEU:CD1	16:P:51:ARG:NH2	2.51	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:124:LYS:O	16:P:124:LYS:HG3	1.84	0.74
21:U:41:ARG:O	21:U:45:GLU:CB	2.36	0.74
2:B:146:CYS:O	2:B:147:ASN:C	2.21	0.74
1:A:125:THR:CG2	1:A:175:TRP:HE1	1.99	0.74
1:A:174:MET:O	1:A:178:LEU:HG	1.86	0.74
3:C:63:LEU:HB3	3:C:67:TYR:CZ	2.23	0.74
5:E:122:LYS:HG2	5:E:164:LEU:HD21	1.70	0.74
15:O:64:ALA:HB1	15:O:66:ARG:HE	1.53	0.74
3:C:168:LYS:HE3	23:W:95:PRO:HA	1.69	0.74
21:U:66:ARG:NH2	21:U:75:LYS:HA	2.02	0.74
5:E:23:LEU:C	5:E:24:THR:HG23	2.05	0.74
10:J:37:LEU:HD23	10:J:43:VAL:HG23	1.70	0.74
2:B:52:THR:CG2	14:N:53:ILE:HD13	83.73	0.74
25:Y:9:THR:HB	25:Y:23:MET:HG3	1.69	0.74
16:P:53:GLN:HE21	16:P:80:LEU:HD22	1.52	0.74
8:H:23:ILE:CD1	8:H:27:LEU:HD23	2.12	0.74
6:F:14:THR:HG23	6:F:15:PRO:CD	2.16	0.74
19:S:87:GLN:O	19:S:88:LYS:C	2.21	0.74
16:P:49:LEU:C	16:P:50:ARG:HG3	2.06	0.74
2:B:151:ARG:HD2	2:B:153:THR:CG2	2.17	0.74
3:C:192:ALA:O	3:C:195:PRO:HG2	1.87	0.74
14:N:131:THR:C	14:N:132:LYS:HD2	2.08	0.74
16:P:69:PRO:HD2	16:P:70:MET:N	2.01	0.74
15:O:41:PHE:CD1	15:O:57:THR:HG22	2.23	0.74
1:A:145:ILE:CD1	1:A:159:ILE:CG2	2.55	0.74
6:F:122:ARG:NE	6:F:193:LYS:HZ3	1.83	0.74
10:J:169:ARG:HB3	10:J:175:ARG:HH11	1.53	0.74
17:Q:48:GLN:O	17:Q:51:LEU:HG	1.87	0.74
25:Y:62:THR:HA	25:Y:69:THR:HG22	1.68	0.74
23:W:11:LEU:CD1	23:W:74:VAL:HB	2.17	0.74
12:L:97:ARG:C	12:L:99:TYR:N	2.33	0.74
22:V:1:MET:HE1	22:V:10:ASP:CB	2.17	0.74
10:J:138:ARG:HH12	10:J:156:HIS:CD2	2.05	0.74
10:J:46:VAL:HG11	10:J:102:ILE:HG23	1.68	0.74
12:L:6:THR:O	12:L:7:GLU:O	2.06	0.74
15:O:19:PRO:HG3	15:O:27:VAL:CG1	2.17	0.74
22:V:40:ASP:CB	22:V:47:ASN:HD21	1.98	0.74
1:A:158:ASP:HB3	22:V:65:SER:HB2	1.68	0.74
5:E:76:VAL:CG1	24:X:56:GLY:O	91.99	0.74
19:S:6:PRO:O	19:S:7:GLU:HB2	1.84	0.74
3:C:156:GLY:HA2	23:W:98:GLN:NE2	2.03	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:104:ASP:OD1	2:B:105:LEU:N	2.21	0.74
12:L:151:THR:O	12:L:153:LYS:CD	2.33	0.74
1:A:34:MET:HE1	1:A:37:TYR:HE2	1.47	0.74
1:A:66:VAL:HG11	1:A:186:ARG:CB	2.17	0.74
10:J:131:ARG:HH11	10:J:143:ASN:HD21	1.36	0.74
10:J:28:GLU:OE1	10:J:40:LYS:NZ	2.20	0.74
11:K:83:LEU:HB2	11:K:85:LEU:CG	2.18	0.74
12:L:95:TYR:HA	12:L:102:PHE:CG	2.22	0.74
24:X:67:ARG:O	24:X:68:LYS:CG	2.32	0.74
17:Q:92:LEU:HG	17:Q:96:TYR:CE2	2.23	0.74
20:T:144:LYS:HZ2	20:T:144:LYS:HB2	1.51	0.74
1:A:45:GLY:O	1:A:46:ILE:CD1	2.36	0.73
7:G:32:MET:O	7:G:33:ALA:HB3	1.87	0.73
9:I:104:ILE:HG13	9:I:105:ASP:H	1.52	0.73
22:V:19:ALA:CB	22:V:59:ILE:HD13	2.17	0.73
24:X:52:LEU:HG	24:X:71:ARG:O	1.88	0.73
17:Q:50:LYS:HA	17:Q:53:GLU:OE2	1.87	0.73
13:M:71:GLU:N	13:M:71:GLU:CD	2.39	0.73
2:B:225:LEU:O	2:B:229:MET:HG2	1.87	0.73
12:L:47:PRO:HG2	12:L:116:CYS:SG	2.27	0.73
2:B:49:VAL:HG22	2:B:65:ARG:CZ	2.18	0.73
10:J:48:PHE:CZ	10:J:52:LYS:CE	2.66	0.73
21:U:109:GLY:O	21:U:110:VAL:HG22	1.86	0.73
25:Y:20:ARG:CG	25:Y:74:MET:HE2	2.12	0.73
12:L:80:MET:CE	12:L:120:VAL:HG12	2.18	0.73
21:U:50:VAL:CG2	21:U:52:GLY:N	2.52	0.73
13:M:12:MET:O	13:M:13:ASP:OD1	2.05	0.73
13:M:98:GLY:C	13:M:100:PRO:HD3	2.08	0.73
18:R:84:TYR:O	18:R:85:VAL:CG2	2.35	0.73
13:M:38:ALA:O	13:M:42:LEU:HD23	1.87	0.73
1:A:180:ARG:NH1	1:A:184:ARG:NH1	2.37	0.73
4:D:10:LYS:CE	4:D:14:ASP:OD2	2.35	0.73
5:E:180:LEU:HD13	5:E:228:ILE:HD11	1.70	0.73
10:J:114:VAL:CG1	10:J:120:ALA:HB2	2.13	0.73
17:Q:39:LEU:O	17:Q:42:ILE:HD11	1.88	0.73
4:D:162:ASP:CG	4:D:166:TYR:HE2	1.92	0.73
2:B:150:ILE:HA	18:R:124:VAL:HG13	1.69	0.73
21:U:19:ARG:O	21:U:116:ILE:O	2.05	0.73
23:W:6:VAL:HG12	23:W:34:ILE:HD11	1.68	0.73
18:R:115:SER:O	18:R:116:ASN:CG	2.27	0.73
10:J:147:PHE:O	10:J:148:ILE:HB	1.87	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:90:ASP:CG	2:B:91:VAL:H	1.91	0.73
5:E:229:GLY:CA	5:E:235:TRP:CD1	2.71	0.73
7:G:63:MET:HA	7:G:98:ARG:O	1.88	0.73
7:G:64:LYS:HD3	7:G:64:LYS:C	2.09	0.73
11:K:47:LYS:O	11:K:50:GLN:HG2	1.88	0.73
14:N:28:LEU:O	14:N:29:THR:HG22	1.88	0.73
15:O:44:VAL:CG1	15:O:53:ILE:HD11	2.18	0.73
22:V:31:SER:O	22:V:32:ILE:HG13	1.87	0.73
20:T:31:PRO:HB3	20:T:33:TRP:CZ3	2.22	0.73
24:X:105:PHE:CD2	24:X:119:ARG:HA	2.21	0.73
1:A:58:LEU:HD21	1:A:178:LEU:HD23	0.74	0.73
5:E:180:LEU:HD22	5:E:181:CYS:N	2.04	0.73
10:J:127:ARG:NH1	10:J:145:PRO:HB3	2.03	0.73
19:S:82:TRP:HA	19:S:87:GLN:HE22	1.52	0.73
12:L:80:MET:HE2	12:L:121:GLN:HA	1.70	0.73
13:M:11:VAL:O	13:M:12:MET:CB	2.36	0.73
20:T:63:HIS:O	20:T:67:ARG:NE	2.22	0.73
3:C:154:TYR:CZ	3:C:162:PRO:CD	2.71	0.73
20:T:124:THR:CG2	20:T:127:GLY:H	2.02	0.73
3:C:222:ALA:O	3:C:225:THR:HG22	1.89	0.73
2:B:52:THR:HG22	2:B:58:ALA:HB3	1.71	0.73
7:G:93:LYS:HD3	7:G:95:LYS:HD2	1.70	0.73
10:J:61:LEU:CD1	10:J:94:LEU:CD1	2.61	0.73
25:Y:9:THR:CB	25:Y:48:TYR:HH	2.01	0.73
8:H:9:VAL:HG13	8:H:44:ASN:OD1	1.86	0.73
6:F:14:THR:CG2	17:Q:56:LEU:CD1	2.56	0.73
23:W:11:LEU:C	23:W:14:ILE:HG12	2.07	0.73
23:W:15:ASN:ND2	23:W:19:LYS:HE3	2.03	0.73
24:X:105:PHE:CE2	24:X:119:ARG:C	2.62	0.73
23:W:90:GLN:CA	23:W:102:ILE:CD1	2.64	0.73
3:C:154:TYR:CZ	3:C:162:PRO:HD3	2.23	0.73
3:C:126:MET:HE1	3:C:223:LYS:CD	2.16	0.73
10:J:138:ARG:O	10:J:138:ARG:CG	2.36	0.73
15:O:97:LEU:HD11	15:O:112:ALA:HB1	1.70	0.73
10:J:100:LEU:CG	10:J:101:LYS:H	2.01	0.73
1:A:143:PRO:CB	22:V:34:MET:SD	2.76	0.73
4:D:2:ALA:CB	4:D:3:VAL:HA	1.96	0.73
4:D:40:ARG:CZ	21:U:107:GLU:OE2	2.36	0.73
5:E:125:LYS:HB3	5:E:226:PHE:CE1	2.23	0.73
7:G:157:VAL:HG11	7:G:159:ARG:HG3	1.62	0.73
8:H:164:ASN:OD1	8:H:167:GLU:CD	2.26	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:61:LEU:HD13	10:J:94:LEU:HD11	1.70	0.73
14:N:139:TRP:CE3	14:N:140:LYS:N	2.57	0.73
25:Y:114:MET:C	25:Y:124:ASN:ND2	2.41	0.73
6:F:20:PHE:C	6:F:22:LYS:N	2.40	0.73
4:D:161:GLY:O	4:D:164:VAL:HG12	1.88	0.73
1:A:193:HIS:ND1	1:A:194:PRO:CD	2.51	0.73
2:B:139:CYS:CB	2:B:168:MET:SD	2.76	0.73
10:J:50:LEU:HD22	10:J:54:ARG:HG3	1.68	0.73
14:N:54:LEU:CB	14:N:60:VAL:HG21	2.18	0.73
17:Q:19:ALA:HB2	17:Q:75:GLY:N	2.03	0.73
19:S:42:HIS:CD2	20:T:45:LEU:HG	2.23	0.73
16:P:80:LEU:O	16:P:116:LEU:HD12	1.89	0.73
12:L:147:LYS:HG3	12:L:148:ALA:CB	2.17	0.73
21:U:51:LYS:CB	21:U:90:ASP:HB2	2.18	0.73
18:R:44:LYS:CG	18:R:47:ARG:NH2	2.50	0.73
10:J:100:LEU:CG	10:J:101:LYS:N	2.50	0.73
20:T:75:MET:HE2	20:T:79:TYR:HE2	1.50	0.73
8:H:119:SER:O	8:H:120:ARG:NE	2.22	0.73
4:D:74:GLN:HB2	4:D:84:VAL:CG1	2.19	0.73
8:H:164:ASN:HA	8:H:167:GLU:HG3	1.71	0.73
9:I:141:ARG:O	9:I:143:LYS:CB	2.36	0.73
5:E:108:ARG:CG	10:J:32:ILE:HG21	48.86	0.73
15:O:30:VAL:HG23	15:O:32:HIS:CD2	2.23	0.73
16:P:10:ARG:HE	16:P:11:THR:HB	1.52	0.73
19:S:11:HIS:CD2	19:S:23:ARG:HH22	1.96	0.73
19:S:94:LYS:HD3	19:S:95:TYR:O	1.89	0.73
10:J:100:LEU:HD11	10:J:104:ASP:OD2	1.85	0.73
7:G:162:LEU:HD23	7:G:172:LYS:NZ	2.04	0.73
9:I:157:LYS:CB	12:L:22:ARG:CZ	2.42	0.73
10:J:134:HIS:HE1	10:J:164:PRO:HD3	1.53	0.73
14:N:27:LYS:H	14:N:27:LYS:CD	1.96	0.73
15:O:119:LEU:O	15:O:122:SER:OG	2.07	0.73
26:Z:103:HIS:HD2	26:Z:105:ALA:N	1.87	0.73
19:S:42:HIS:CB	20:T:45:LEU:HD11	2.17	0.73
8:H:66:VAL:HG22	8:H:96:ALA:HB1	1.70	0.73
8:H:71:SER:O	8:H:74:LYS:HB2	1.88	0.73
26:Z:96:LEU:O	26:Z:112:ASN:CB	2.37	0.73
10:J:180:LYS:HD2	10:J:180:LYS:O	1.88	0.73
3:C:154:TYR:HE1	3:C:162:PRO:HG3	1.46	0.73
1:A:30:LEU:CD2	1:A:35:GLU:CG	2.51	0.72
2:B:72:ALA:N	2:B:79:VAL:HG23	2.03	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:151:ASP:HB3	7:G:212:LEU:HD21	1.69	0.72
9:I:62:VAL:CG2	9:I:75:LYS:NZ	2.52	0.72
19:S:42:HIS:HD2	20:T:45:LEU:HD11	1.01	0.72
20:T:77:LYS:HA	20:T:94:ARG:HA	1.71	0.72
16:P:53:GLN:HE21	16:P:80:LEU:CD2	2.02	0.72
5:E:92:ILE:CB	5:E:97:GLU:OE1	2.34	0.72
15:O:32:HIS:HE1	15:O:96:LYS:HD2	1.53	0.72
6:F:86:LYS:O	6:F:89:THR:HG22	1.88	0.72
20:T:30:VAL:O	20:T:32:GLU:N	2.22	0.72
16:P:93:MET:SD	16:P:106:GLU:CB	2.77	0.72
9:I:4:SER:O	9:I:6:ASP:N	2.22	0.72
8:H:122:LEU:HD12	8:H:123:THR:N	2.00	0.72
10:J:87:LEU:HD11	10:J:91:LYS:HB2	1.70	0.72
21:U:56:MET:CE	21:U:88:LEU:HD23	2.18	0.72
6:F:166:ILE:H	6:F:166:ILE:HD12	1.54	0.72
9:I:48:VAL:CG2	9:I:52:ASN:HB3	2.19	0.72
9:I:54:LYS:HG2	9:I:181:GLN:O	1.89	0.72
6:F:44:LYS:C	6:F:45:TYR:CD1	2.62	0.72
16:P:44:ARG:NE	16:P:84:ILE:CD1	2.14	0.72
25:Y:56:PHE:CB	25:Y:58:PHE:HE2	2.02	0.72
16:P:49:LEU:HA	16:P:51:ARG:CD	2.19	0.72
25:Y:102:THR:HB	25:Y:104:ARG:N	2.04	0.72
3:C:155:TRP:CH2	23:W:97:ARG:CZ	2.71	0.72
25:Y:7:ILE:HD11	25:Y:43:LYS:HB3	1.71	0.72
10:J:101:LYS:HG2	10:J:103:GLU:OE1	1.89	0.72
16:P:69:PRO:HD2	16:P:70:MET:H	1.52	0.72
19:S:111:LEU:HD21	19:S:125:HIS:CE1	2.24	0.72
1:A:34:MET:CE	1:A:37:TYR:HE2	2.02	0.72
22:V:31:SER:C	22:V:32:ILE:HG13	2.08	0.72
20:T:29:LYS:HE3	20:T:29:LYS:CA	2.10	0.72
4:D:198:ILE:O	4:D:198:ILE:HG13	1.89	0.72
23:W:14:ILE:HG13	23:W:15:ASN:H	1.54	0.72
16:P:125:PRO:O	16:P:126:VAL:CB	2.37	0.72
25:Y:92:ALA:HA	25:Y:97:TYR:CB	2.19	0.72
21:U:59:LYS:HB2	21:U:84:ILE:HG23	1.70	0.72
24:X:108:LYS:CB	24:X:110:HIS:CE1	2.72	0.72
5:E:191:ARG:HD3	5:E:245:ARG:HB2	1.71	0.72
1:A:32:PHE:HE1	1:A:33:GLN:HE21	0.84	0.72
5:E:18:TRP:CE3	5:E:46:ILE:HD11	2.24	0.72
11:K:38:LYS:O	11:K:39:ASN:HB2	1.90	0.72
14:N:92:ILE:HG22	14:N:150:VAL:HG21	1.68	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:25:PHE:CE1	15:O:88:LEU:HD13	2.24	0.72
17:Q:78:VAL:HG13	17:Q:82:TYR:HE2	1.54	0.72
25:Y:56:PHE:CD2	25:Y:86:GLU:OE2	2.43	0.72
3:C:195:PRO:HG3	3:C:221:PHE:CZ	2.23	0.72
2:B:126:ASP:OD1	2:B:136:HIS:CG	2.41	0.72
3:C:131:GLU:O	3:C:134:THR:HG22	1.90	0.72
19:S:106:LYS:HD2	19:S:109:GLU:OE1	1.90	0.72
1:A:154:LEU:HD22	1:A:157:VAL:HG23	1.72	0.72
5:E:248:ILE:HD12	10:J:72:PHE:CD1	2.16	0.72
5:E:92:ILE:HG22	5:E:95:THR:OG1	1.89	0.72
11:K:18:GLU:O	11:K:92:ALA:HB2	1.89	0.72
11:K:41:PRO:O	11:K:41:PRO:CD	2.31	0.72
2:B:25:PHE:HE1	15:O:53:ILE:HG22	1.54	0.72
15:O:72:TYR:HE1	15:O:76:LEU:HD11	1.54	0.72
24:X:89:GLY:O	24:X:92:ASN:HB2	1.89	0.72
17:Q:105:LYS:C	17:Q:105:LYS:CD	2.54	0.72
17:Q:108:ILE:HA	17:Q:111:ILE:HD12	1.70	0.72
17:Q:85:ARG:HH22	17:Q:117:ARG:CD	2.03	0.72
26:Z:48:VAL:C	26:Z:83:LEU:HD11	2.06	0.72
13:M:14:VAL:C	13:M:16:THR:H	1.93	0.72
20:T:11:GLN:NE2	20:T:62:ARG:NH1	2.36	0.72
13:M:86:GLY:CA	13:M:106:CYS:HB2	2.20	0.72
20:T:110:LEU:O	20:T:111:LYS:HB2	1.90	0.72
23:W:3:ARG:CZ	23:W:9:ASP:OD2	2.37	0.72
14:N:6:ALA:HB1	14:N:7:PRO:HD3	1.71	0.72
3:C:54:LEU:HD21	3:C:254:PHE:HB3	1.71	0.72
5:E:229:GLY:CA	5:E:235:TRP:HD1	2.03	0.72
5:E:23:LEU:O	5:E:24:THR:OG1	2.08	0.72
5:E:98:ASN:HD21	5:E:119:ALA:CA	2.02	0.72
10:J:162:ARG:HG2	10:J:162:ARG:O	1.88	0.72
10:J:170:PRO:CA	10:J:174:LYS:HZ3	2.01	0.72
15:O:95:ILE:HD12	15:O:116:LEU:HD21	1.71	0.72
20:T:77:LYS:HG2	20:T:92:PHE:CZ	2.24	0.72
8:H:36:LEU:C	8:H:36:LEU:HD13	2.03	0.72
4:D:166:TYR:HD1	4:D:200:PRO:CB	2.02	0.72
9:I:25:ARG:NE	9:I:27:TYR:CE2	2.57	0.72
10:J:90:GLY:C	10:J:91:LYS:O	2.24	0.72
25:Y:102:THR:CB	25:Y:107:ARG:HE	2.02	0.72
23:W:90:GLN:HB2	23:W:94:LEU:HD12	1.71	0.72
16:P:68:PRO:HB2	16:P:69:PRO:HD3	1.70	0.72
18:R:88:VAL:HG13	18:R:88:VAL:O	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:115:SER:O	18:R:116:ASN:OD1	2.08	0.72
1:A:39:TYR:CB	1:A:50:ASN:HD21	2.01	0.72
2:B:63:LYS:C	2:B:63:LYS:HD3	2.10	0.72
2:B:67:PHE:CE1	15:O:47:LEU:CB	2.72	0.72
4:D:2:ALA:HB3	4:D:3:VAL:C	2.04	0.72
5:E:248:ILE:HD12	10:J:72:PHE:CZ	2.22	0.72
9:I:112:TRP:CZ3	9:I:117:TYR:HE2	2.08	0.72
2:B:30:TRP:NE1	15:O:17:LEU:HD21	2.05	0.72
17:Q:98:LYS:HE3	17:Q:99:TYR:CZ	2.24	0.72
6:F:41:VAL:HG22	6:F:42:LYS:HD2	1.69	0.72
25:Y:78:SER:HB3	25:Y:81:TYR:HD2	0.57	0.72
16:P:5:GLU:H	16:P:10:ARG:HH11	1.35	0.72
19:S:138:THR:HA	19:S:141:ARG:HH22	1.43	0.72
20:T:42:HIS:CE1	20:T:83:GLN:HB3	2.25	0.72
16:P:119:PHE:HA	19:S:119:ALA:HA	1.72	0.72
2:B:228:LEU:HD13	2:B:232:HIS:HD2	1.55	0.72
8:H:148:LEU:HD23	8:H:148:LEU:O	1.89	0.72
1:A:149:ASN:OD1	1:A:150:THR:N	2.20	0.72
3:C:79:ILE:HD13	3:C:147:ILE:HD12	0.79	0.72
8:H:143:ARG:HA	23:W:52:ILE:O	1.90	0.72
10:J:171:GLY:C	10:J:173:VAL:H	1.92	0.72
10:J:37:LEU:HG	10:J:42:GLU:CB	2.20	0.72
14:N:26:LEU:HD21	14:N:66:VAL:CG2	2.20	0.72
15:O:64:ALA:HB1	15:O:66:ARG:NE	2.04	0.72
22:V:78:ILE:HG23	22:V:79:VAL:N	2.04	0.72
23:W:22:LYS:O	23:W:65:LEU:HD11	1.89	0.72
25:Y:18:LEU:HB2	25:Y:20:ARG:NH1	2.00	0.72
16:P:121:ILE:HG22	19:S:120:HIS:CB	2.20	0.72
8:H:31:GLU:OE2	8:H:41:ARG:NE	2.22	0.72
8:H:83:LEU:HD22	8:H:92:VAL:CG1	2.05	0.72
4:D:123:LEU:HD21	4:D:154:ASP:HB2	1.71	0.72
23:W:101:PHE:HB2	23:W:129:PHE:CE1	2.25	0.72
20:T:111:LYS:HB2	20:T:126:GLN:NE2	2.03	0.72
16:P:39:ALA:O	16:P:42:ARG:HG3	1.89	0.72
25:Y:111:LYS:NZ	25:Y:115:LYS:HZ1	1.88	0.72
7:G:157:VAL:HG13	7:G:158:VAL:C	2.10	0.72
7:G:24:LEU:O	7:G:26:THR:N	2.23	0.72
9:I:155:ASN:C	9:I:157:LYS:H	1.93	0.72
9:I:106:SER:OG	9:I:171:LEU:HG	1.90	0.72
10:J:164:PRO:HA	10:J:167:GLY:O	1.90	0.72
23:W:17:ALA:HB2	23:W:25:VAL:CG1	2.20	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:85:ARG:CZ	25:Y:118:ARG:HE	2.03	0.72
20:T:38:LYS:HD2	20:T:45:LEU:C	2.10	0.72
16:P:121:ILE:HG22	19:S:120:HIS:HA	1.71	0.72
8:H:32:MET:O	8:H:33:ASN:CB	2.38	0.72
8:H:31:GLU:CD	8:H:41:ARG:HD2	2.02	0.72
23:W:42:MET:CE	23:W:50:PHE:CE2	2.73	0.72
16:P:107:ILE:HA	16:P:111:MET:HE3	1.69	0.72
10:J:84:ILE:HG13	10:J:86:VAL:HG23	1.72	0.72
13:M:12:MET:HE1	13:M:120:ALA:CB	2.18	0.72
23:W:128:PHE:CD1	23:W:129:PHE:N	2.58	0.72
1:A:169:HIS:HB3	1:A:203:PHE:CZ	2.24	0.72
2:B:114:VAL:HG22	2:B:120:MET:HE3	1.70	0.72
1:A:127:PRO:HG3	1:A:152:SER:HB3	1.72	0.71
1:A:28:THR:HG22	1:A:46:ILE:HD13	1.72	0.71
7:G:142:ARG:CD	7:G:147:LEU:HB2	2.07	0.71
8:H:157:HIS:NE2	8:H:188:GLU:OE1	2.23	0.71
21:U:97:ILE:CG2	21:U:101:ILE:HD12	2.18	0.71
24:X:126:ALA:C	24:X:128:VAL:N	2.40	0.71
3:C:200:LEU:HD12	3:C:201:MET:SD	2.30	0.71
17:Q:12:VAL:HG11	17:Q:90:LYS:HB2	1.70	0.71
17:Q:58:LEU:HD21	17:Q:111:ILE:HD12	1.70	0.71
16:P:84:ILE:HG22	16:P:86:LEU:HD22	1.71	0.71
8:H:10:LYS:HB3	8:H:20:GLU:OE1	1.90	0.71
18:R:13:ALA:CB	18:R:54:VAL:CG2	2.68	0.71
9:I:82:VAL:HG11	9:I:202:ILE:HD13	1.69	0.71
7:G:180:VAL:O	7:G:181:THR:CG2	2.30	0.71
7:G:227:GLN:O	7:G:230:LYS:HG3	1.90	0.71
10:J:110:LEU:HB3	10:J:130:ILE:HD13	1.73	0.71
8:H:140:VAL:O	14:N:18:TYR:CD2	2.43	0.71
22:V:24:ILE:C	22:V:24:ILE:HD12	2.11	0.71
24:X:54:LYS:HD2	24:X:91:LEU:HD12	1.72	0.71
20:T:16:ARG:CG	20:T:16:ARG:HH11	2.03	0.71
4:D:222:PRO:C	4:D:223:ILE:HD12	2.09	0.71
15:O:38:ASN:O	15:O:68:GLU:OE1	2.07	0.71
4:D:21:LEU:HD13	4:D:48:ILE:HD11	1.71	0.71
6:F:93:VAL:O	6:F:97:PHE:CE1	2.43	0.71
11:K:62:PHE:HE1	11:K:67:PHE:CE2	2.07	0.71
18:R:101:ASP:O	18:R:105:MET:N	2.24	0.71
22:V:18:SER:OG	22:V:72:LEU:HD13	1.90	0.71
17:Q:53:GLU:OE1	17:Q:85:ARG:NH2	2.24	0.71
20:T:77:LYS:CA	20:T:94:ARG:CG	2.68	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:52:LEU:HD12	19:S:53:THR:N	2.05	0.71
12:L:71:ARG:CD	12:L:73:LEU:CD2	2.41	0.71
24:X:2:GLY:O	24:X:3:LYS:CB	2.35	0.71
23:W:128:PHE:CZ	23:W:130:PHE:CE2	2.78	0.71
3:C:241:TRP:CE2	23:W:68:ARG:HD3	2.25	0.71
5:E:36:HIS:O	5:E:41:CYS:SG	2.47	0.71
25:Y:54:VAL:O	25:Y:54:VAL:HG12	1.89	0.71
19:S:34:LYS:C	19:S:103:LEU:HD23	2.10	0.71
24:X:142:ARG:CG	24:X:142:ARG:NH1	2.30	0.71
22:V:9:VAL:CG1	22:V:10:ASP:N	2.52	0.71
6:F:79:HIS:O	6:F:80:GLY:C	2.29	0.71
1:A:127:PRO:CG	1:A:152:SER:HB3	2.19	0.71
9:I:70:GLU:HB3	9:I:72:CYS:SG	2.30	0.71
11:K:83:LEU:O	11:K:84:HIS:CB	2.34	0.71
19:S:84:LEU:HD22	19:S:97:GLN:HB2	1.73	0.71
4:D:197:LYS:HB3	4:D:198:ILE:HG23	0.77	0.71
16:P:126:VAL:HG12	16:P:127:LYS:H	0.60	0.71
19:S:137:LYS:HG2	19:S:138:THR:CG2	2.17	0.71
12:L:97:ARG:HG2	12:L:98:LYS:N	2.05	0.71
23:W:93:LEU:O	23:W:93:LEU:HG	1.88	0.71
4:D:176:LEU:O	4:D:177:LEU:HD13	1.90	0.71
12:L:40:ILE:CG2	12:L:44:PHE:HB2	2.21	0.71
23:W:27:ILE:CG1	23:W:61:ILE:HB	2.19	0.71
4:D:53:THR:CG2	4:D:91:VAL:HB	2.19	0.71
5:E:124:CYS:HB2	5:E:162:ILE:HD11	1.71	0.71
5:E:153:LEU:HD11	5:E:172:PHE:CZ	2.20	0.71
5:E:112:HIS:NE2	5:E:237:SER:HB2	2.05	0.71
5:E:74:GLY:C	5:E:75:LYS:HG2	2.10	0.71
11:K:83:LEU:CB	11:K:85:LEU:CG	2.68	0.71
2:B:83:LYS:NZ	15:O:130:GLU:CD	2.43	0.71
18:R:1:MET:HB3	18:R:2:GLY:N	2.05	0.71
10:J:84:ILE:HD12	10:J:86:VAL:HG21	1.70	0.71
24:X:1:MET:O	24:X:2:GLY:C	2.29	0.71
18:R:91:LEU:CB	18:R:92:ASP:HA	2.17	0.71
2:B:38:MET:CE	2:B:186:ASN:HD21	1.75	0.71
1:A:118:GLU:HB2	3:C:50:LYS:HZ3	1.55	0.71
1:A:154:LEU:HD22	1:A:157:VAL:CG2	2.21	0.71
1:A:32:PHE:CD1	1:A:33:GLN:HG2	2.26	0.71
4:D:98:ALA:H	4:D:188:ILE:HD12	1.55	0.71
5:E:11:ARG:O	5:E:12:VAL:CB	2.38	0.71
7:G:71:GLY:CA	7:G:98:ARG:NH2	2.54	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:148:LYS:O	9:I:152:ARG:HG3	1.90	0.71
10:J:15:THR:CG2	10:J:44:TRP:CE3	2.56	0.71
11:K:11:ILE:CG2	11:K:49:MET:HE3	2.13	0.71
15:O:30:VAL:HB	15:O:32:HIS:NE2	2.06	0.71
22:V:53:TYR:CZ	22:V:72:LEU:HB3	2.26	0.71
25:Y:13:MET:HE1	25:Y:14:THR:O	1.87	0.71
18:R:95:ILE:HA	18:R:114:LEU:HD13	1.73	0.71
1:A:180:ARG:CD	1:A:184:ARG:NH2	2.53	0.71
3:C:84:GLY:HA2	3:C:87:LEU:CB	2.16	0.71
7:G:50:VAL:CG1	7:G:111:LEU:HD13	2.11	0.71
10:J:114:VAL:HG13	10:J:119:LEU:O	1.90	0.71
11:K:43:LEU:O	11:K:44:HIS:C	2.28	0.71
26:Z:102:LYS:HA	26:Z:107:VAL:HA	1.72	0.71
19:S:15:VAL:HG13	19:S:68:ILE:CD1	2.20	0.71
18:R:77:GLU:O	18:R:81:ARG:HG3	1.90	0.71
14:N:5:HIS:CD2	14:N:121:ARG:HE	2.08	0.71
1:A:111:GLN:HB3	3:C:48:VAL:HG11	1.73	0.71
1:A:123:VAL:HG22	1:A:145:ILE:HB	1.71	0.71
1:A:125:THR:HG22	1:A:175:TRP:NE1	2.05	0.71
4:D:2:ALA:C	4:D:4:GLN:H	1.94	0.71
7:G:71:GLY:HA2	7:G:98:ARG:HH21	1.55	0.71
15:O:16:SER:O	15:O:17:LEU:HB3	1.90	0.71
15:O:17:LEU:HG	15:O:18:GLY:H	1.55	0.71
19:S:58:GLU:O	19:S:59:LEU:CD1	2.32	0.71
16:P:62:LYS:CG	16:P:65:LYS:HE2	2.18	0.71
15:O:136:PRO:C	15:O:138:ASP:N	2.44	0.71
10:J:178:ALA:O	10:J:182:GLN:CG	2.34	0.71
2:B:195:LYS:HA	2:B:195:LYS:HE2	1.73	0.71
8:H:172:THR:O	8:H:176:VAL:HG23	1.91	0.71
16:P:44:ARG:HE	16:P:84:ILE:HD12	0.55	0.71
16:P:100:LYS:HD2	16:P:101:THR:HG23	1.72	0.71
6:F:167:LYS:CE	6:F:171:GLU:HG3	2.21	0.71
23:W:11:LEU:O	23:W:14:ILE:HG13	1.89	0.71
16:P:48:GLY:O	16:P:50:ARG:HD2	1.91	0.71
10:J:87:LEU:HD11	10:J:91:LYS:HB3	1.72	0.71
3:C:238:PRO:HA	3:C:241:TRP:CD1	2.26	0.71
25:Y:93:ARG:O	25:Y:93:ARG:HD2	1.91	0.71
23:W:36:ARG:CD	23:W:110:ILE:HD12	2.13	0.71
20:T:42:HIS:CE1	20:T:93:SER:CA	2.73	0.71
3:C:123:GLY:HA2	3:C:226:PHE:CZ	2.24	0.71
5:E:143:ASP:CG	5:E:145:ARG:HD2	2.11	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:2:ALA:O	5:E:3:ARG:HG2	1.90	0.71
1:A:158:ASP:HB3	22:V:65:SER:OG	1.91	0.70
5:E:99:PHE:CD1	5:E:113:ARG:HG3	2.19	0.70
5:E:11:ARG:O	5:E:12:VAL:CG2	2.39	0.70
7:G:78:SER:OG	7:G:81:HIS:CD2	2.44	0.70
16:P:84:ILE:CD1	16:P:115:TYR:CE1	2.74	0.70
16:P:11:THR:O	16:P:12:PHE:CB	2.33	0.70
25:Y:29:HIS:NE2	25:Y:69:THR:HG23	2.06	0.70
26:Z:99:LEU:HD21	26:Z:109:TYR:HE1	1.47	0.70
18:R:90:ALA:CA	18:R:91:LEU:HD12	2.21	0.70
9:I:82:VAL:CG1	9:I:202:ILE:HD13	2.21	0.70
6:F:53:ALA:HB1	17:Q:125:ARG:HH21	1.56	0.70
1:A:186:ARG:O	1:A:186:ARG:CZ	2.38	0.70
5:E:166:THR:OG1	5:E:168:LYS:CG	2.38	0.70
8:H:166:VAL:HG22	8:H:173:PHE:HE2	1.55	0.70
11:K:2:LEU:HD13	11:K:3:MET:CA	2.21	0.70
17:Q:112:LEU:HD13	17:Q:120:LEU:CD2	2.21	0.70
16:P:44:ARG:HH22	16:P:84:ILE:H	1.38	0.70
19:S:42:HIS:HE2	20:T:45:LEU:CD2	1.86	0.70
8:H:40:LEU:HD23	8:H:43:LEU:CG	2.21	0.70
9:I:69:SER:HB3	12:L:19:ASN:CG	2.10	0.70
2:B:209:ASP:O	2:B:210:VAL:CB	2.39	0.70
3:C:236:LEU:HD23	3:C:237:THR:O	1.90	0.70
10:J:138:ARG:CB	10:J:156:HIS:HB3	2.21	0.70
2:B:79:VAL:O	2:B:79:VAL:HG23	1.90	0.70
4:D:97:CYS:SG	4:D:99:ILE:HG13	2.30	0.70
5:E:152:PRO:HG3	7:G:209:TYR:CE1	2.27	0.70
5:E:85:GLY:N	5:E:88:ASP:OD2	2.21	0.70
9:I:191:GLU:O	9:I:192:GLY:O	2.09	0.70
10:J:130:ILE:HG23	10:J:135:ILE:CD1	2.17	0.70
10:J:37:LEU:HD21	10:J:43:VAL:N	2.05	0.70
6:F:204:ARG:O	15:O:72:TYR:CD2	2.44	0.70
1:A:57:LYS:CE	22:V:70:LEU:HD21	2.21	0.70
24:X:125:VAL:O	24:X:126:ALA:HB3	1.90	0.70
25:Y:18:LEU:HB3	25:Y:20:ARG:CZ	2.21	0.70
4:D:202:LYS:HB2	4:D:203:PRO:HD2	1.72	0.70
8:H:122:LEU:HD12	8:H:123:THR:H	1.56	0.70
18:R:91:LEU:CG	18:R:92:ASP:HA	2.21	0.70
3:C:149:PRO:O	3:C:149:PRO:HG2	1.92	0.70
9:I:105:ASP:O	9:I:169:GLY:O	2.09	0.70
11:K:16:PHE:HD2	11:K:79:LEU:CB	1.86	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:32:ILE:HD12	22:V:60:ARG:HH11	1.55	0.70
20:T:30:VAL:O	20:T:31:PRO:C	2.29	0.70
25:Y:33:ALA:C	25:Y:34:THR:OG1	2.28	0.70
25:Y:35:VAL:HG12	25:Y:36:PRO:CD	2.21	0.70
24:X:142:ARG:HH11	24:X:142:ARG:HG3	1.49	0.70
23:W:36:ARG:HD3	23:W:110:ILE:CD1	2.16	0.70
2:B:131:ASP:CG	2:B:180:ASP:HB2	2.11	0.70
6:F:66:CYS:SG	6:F:67:PRO:HD2	2.31	0.70
2:B:77:ASP:O	2:B:79:VAL:CG2	2.27	0.70
1:A:120:ARG:CG	3:C:251:TYR:CE2	2.74	0.70
5:E:123:LEU:HD12	5:E:161:GLN:HA	1.72	0.70
24:X:95:GLU:O	24:X:98:ASP:HB2	1.92	0.70
17:Q:50:LYS:HG3	17:Q:85:ARG:HH21	1.57	0.70
25:Y:29:HIS:HD1	25:Y:67:GLY:CA	2.02	0.70
26:Z:65:TYR:HD2	26:Z:68:ILE:HG12	1.55	0.70
21:U:25:THR:CG2	21:U:86:LYS:HG2	2.21	0.70
20:T:116:ASP:HB3	20:T:120:GLY:O	1.92	0.70
3:C:186:GLY:CA	10:J:54:ARG:NH2	2.55	0.70
3:C:244:THR:O	3:C:245:VAL:C	2.28	0.70
3:C:66:ILE:HG23	3:C:71:LEU:HB2	1.74	0.70
10:J:37:LEU:CD2	10:J:43:VAL:HG23	2.22	0.70
11:K:60:GLU:OE1	11:K:67:PHE:HE1	1.68	0.70
15:O:99:ALA:N	15:O:133:THR:CG2	2.38	0.70
25:Y:114:MET:HA	25:Y:124:ASN:HD22	1.43	0.70
17:Q:85:ARG:NH1	17:Q:117:ARG:CB	2.51	0.70
20:T:101:ARG:HG2	20:T:105:GLN:NE2	2.07	0.70
26:Z:44:LEU:HD12	26:Z:44:LEU:O	1.91	0.70
10:J:82:VAL:HG11	10:J:92:MET:HE2	1.73	0.70
19:S:15:VAL:HG13	19:S:68:ILE:HD11	1.73	0.70
4:D:212:GLU:HG3	18:R:19:LYS:HD2	1.72	0.70
12:L:82:MET:HB2	12:L:85:THR:HG23	1.74	0.70
16:P:70:MET:O	16:P:71:GLU:CB	2.40	0.70
6:F:35:LEU:HD12	6:F:117:ILE:HG23	1.72	0.70
13:M:131:LYS:O	13:M:132:LYS:HG3	1.90	0.70
9:I:142:SER:HB3	9:I:143:LYS:CG	2.20	0.70
11:K:21:MET:SD	11:K:49:MET:SD	2.90	0.70
8:H:145:ARG:CD	23:W:51:GLU:CD	2.59	0.70
24:X:128:VAL:HG11	24:X:133:LEU:HD21	1.73	0.70
17:Q:112:LEU:O	17:Q:116:ASP:CA	2.40	0.70
8:H:32:MET:O	8:H:33:ASN:CG	2.30	0.70
16:P:110:GLU:CD	16:P:110:GLU:H	1.94	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:7:GLU:CA	19:S:7:GLU:OE2	2.39	0.70
16:P:49:LEU:C	16:P:51:ARG:N	2.45	0.70
8:H:169:LYS:HB2	8:H:173:PHE:HE2	1.51	0.70
8:H:190:PRO:HB2	8:H:191:GLU:CG	2.22	0.70
9:I:144:LYS:O	9:I:145:ILE:HG23	1.91	0.70
10:J:15:THR:HB	10:J:44:TRP:CZ3	2.27	0.70
10:J:46:VAL:HG12	10:J:102:ILE:HG23	1.72	0.70
11:K:39:ASN:O	11:K:40:VAL:HB	1.91	0.70
13:M:44:LYS:O	13:M:46:GLN:N	2.25	0.70
18:R:98:VAL:HG12	18:R:100:PRO:N	2.07	0.70
16:P:15:PHE:HE2	16:P:110:GLU:HB3	1.55	0.70
23:W:38:LEU:HD23	23:W:41:MET:HE3	1.72	0.70
1:A:42:LYS:HG3	18:R:105:MET:HE1	1.74	0.70
6:F:141:VAL:CG2	6:F:146:ARG:HG2	2.22	0.70
11:K:40:VAL:HG23	11:K:44:HIS:N	2.07	0.70
11:K:43:LEU:C	11:K:45:VAL:N	2.43	0.70
9:I:193:LYS:HG3	12:L:10:TYR:CE1	2.26	0.70
2:B:28:LYS:HD3	15:O:51:GLU:OE2	1.91	0.70
17:Q:8:GLN:CB	17:Q:99:TYR:CZ	2.71	0.70
4:D:132:LYS:CG	4:D:191:PRO:HG3	2.19	0.70
6:F:14:THR:HG23	6:F:15:PRO:HD3	1.73	0.70
19:S:8:LYS:HD3	19:S:8:LYS:N	2.07	0.70
16:P:52:LYS:CA	16:P:54:HIS:CD2	2.74	0.70
18:R:122:PRO:C	18:R:123:THR:OG1	2.27	0.70
4:D:217:ILE:O	4:D:218:LEU:CD2	2.38	0.70
20:T:4:VAL:HG12	20:T:8:ASP:CB	2.21	0.70
3:C:51:LEU:HD13	3:C:78:ILE:CD1	2.17	0.70
5:E:180:LEU:HD13	5:E:228:ILE:CD1	2.22	0.70
6:F:122:ARG:NH2	6:F:193:LYS:NZ	2.40	0.70
9:I:103:LEU:CD2	9:I:172:LEU:HD13	2.21	0.70
21:U:108:PRO:O	21:U:109:GLY:C	2.30	0.70
24:X:125:VAL:C	24:X:128:VAL:H	1.93	0.70
16:P:52:LYS:HD3	16:P:52:LYS:C	2.06	0.70
19:S:15:VAL:HG12	19:S:16:LEU:H	1.57	0.70
5:E:195:ILE:HG22	5:E:196:THR:N	2.06	0.70
5:E:62:LYS:HD3	5:E:80:ILE:HD11	0.80	0.69
10:J:66:LYS:HA	10:J:71:LEU:CD1	2.19	0.69
14:N:27:LYS:H	14:N:27:LYS:HE2	1.54	0.69
25:Y:114:MET:HE2	25:Y:124:ASN:HB2	1.73	0.69
6:F:18:LYS:HD2	17:Q:57:LEU:CD2	2.21	0.69
6:F:76:MET:CE	6:F:169:ILE:CG2	2.60	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:54:VAL:CG2	25:Y:79:LEU:CD2	2.70	0.69
26:Z:92:LEU:CD1	26:Z:99:LEU:HD21	2.21	0.69
10:J:87:LEU:CD1	10:J:91:LYS:CB	2.69	0.69
2:B:124:HIS:CD2	2:B:136:HIS:CE1	2.80	0.69
24:X:40:PRO:HB3	24:X:81:ILE:CD1	2.15	0.69
24:X:108:LYS:HB3	24:X:110:HIS:CE1	2.27	0.69
23:W:78:ARG:CD	23:W:126:LEU:HD23	2.22	0.69
1:A:172:GLY:HA3	1:A:203:PHE:CD1	2.27	0.69
3:C:122:VAL:CG1	3:C:202:ALA:HA	2.22	0.69
13:M:59:PRO:O	13:M:62:VAL:HG22	1.90	0.69
3:C:68:LEU:HB2	6:F:128:ILE:HD11	79.90	0.69
7:G:159:ARG:HH21	7:G:171:THR:HA	1.57	0.69
7:G:196:LYS:O	7:G:199:THR:OG1	2.08	0.69
10:J:15:THR:HG22	10:J:44:TRP:HE3	1.48	0.69
12:L:112:HIS:CD2	12:L:134:LEU:HD11	2.27	0.69
15:O:30:VAL:CG2	15:O:32:HIS:NE2	2.55	0.69
1:A:42:LYS:HG3	18:R:105:MET:CE	2.21	0.69
8:H:145:ARG:CD	23:W:51:GLU:OE1	2.40	0.69
17:Q:12:VAL:CG1	17:Q:13:PHE:N	2.55	0.69
16:P:108:LYS:H	16:P:111:MET:CE	2.03	0.69
4:D:197:LYS:CB	4:D:198:ILE:HG12	2.11	0.69
16:P:49:LEU:HD13	16:P:51:ARG:HH21	1.56	0.69
18:R:37:GLU:OE1	18:R:38:ILE:CG2	2.39	0.69
18:R:90:ALA:HA	18:R:91:LEU:HD12	1.74	0.69
10:J:179:LYS:HA	10:J:182:GLN:OE1	1.92	0.69
8:H:117:PRO:O	8:H:120:ARG:N	2.24	0.69
24:X:32:LEU:O	24:X:37:LYS:HE3	1.91	0.69
16:P:32:GLN:HA	16:P:35:GLN:OE1	1.92	0.69
3:C:142:LEU:C	3:C:145:LEU:CD2	2.59	0.69
3:C:50:LYS:CE	3:C:251:TYR:CE1	2.67	0.69
7:G:1:MET:HE1	7:G:106:LEU:O	1.85	0.69
18:R:102:THR:HA	18:R:105:MET:HB2	1.73	0.69
25:Y:55:ILE:CD1	25:Y:75:ILE:CD1	2.70	0.69
19:S:8:LYS:C	26:Z:49:LEU:HD23	2.12	0.69
12:L:147:LYS:HD2	12:L:149:ALA:N	2.07	0.69
10:J:91:LYS:O	10:J:93:LYS:N	2.25	0.69
13:M:13:ASP:O	13:M:16:THR:CA	2.41	0.69
6:F:19:LEU:HD22	6:F:24:SER:CA	2.21	0.69
16:P:98:ASN:O	16:P:122:THR:OG1	2.10	0.69
9:I:136:ILE:HG23	9:I:139:LYS:HE2	1.72	0.69
9:I:142:SER:HB2	9:I:143:LYS:HZ2	1.53	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:40:VAL:CG2	11:K:41:PRO:HD2	2.18	0.69
19:S:39:ARG:CD	20:T:38:LYS:HE3	2.05	0.69
8:H:12:ASN:HB3	8:H:46:THR:OG1	1.92	0.69
8:H:146:VAL:HG23	23:W:50:PHE:CE1	2.21	0.69
16:P:108:LYS:HZ2	19:S:118:ARG:HH12	1.37	0.69
19:S:8:LYS:C	26:Z:49:LEU:CD2	2.61	0.69
10:J:87:LEU:CD1	10:J:91:LYS:HB3	2.22	0.69
2:B:52:THR:HG22	14:N:53:ILE:CD1	82.84	0.69
3:C:141:ILE:HG23	3:C:142:LEU:N	2.06	0.69
3:C:43:LYS:CE	3:C:43:LYS:HA	2.17	0.69
5:E:180:LEU:HD13	5:E:228:ILE:HG13	1.74	0.69
5:E:18:TRP:CE3	5:E:46:ILE:CD1	2.75	0.69
6:F:122:ARG:HH21	6:F:193:LYS:HZ1	1.40	0.69
6:F:40:ALA:N	6:F:68:ILE:HG23	2.08	0.69
7:G:57:ASP:OD2	7:G:98:ARG:HG2	1.91	0.69
8:H:191:GLU:OE1	8:H:193:GLN:OE1	2.10	0.69
4:D:132:LYS:HB2	4:D:191:PRO:CD	2.19	0.69
8:H:6:ALA:HB1	8:H:10:LYS:NZ	2.07	0.69
16:P:8:LYS:O	16:P:11:THR:CG2	2.37	0.69
19:S:50:ILE:CG1	19:S:63:GLU:HG2	2.22	0.69
21:U:47:ASN:N	21:U:47:ASN:HD22	1.88	0.69
25:Y:97:TYR:HD1	25:Y:98:GLU:N	1.89	0.69
12:L:82:MET:HB2	12:L:85:THR:HG22	1.74	0.69
1:A:185:MET:CE	22:V:39:VAL:CG1	2.66	0.69
5:E:139:LEU:HD11	5:E:154:ILE:CG2	2.22	0.69
14:N:16:LEU:HD22	14:N:17:PRO:CD	2.21	0.69
16:P:121:ILE:HG22	19:S:120:HIS:HB2	1.74	0.69
16:P:49:LEU:C	16:P:51:ARG:CD	2.61	0.69
13:M:19:GLN:HG2	13:M:88:TRP:CD1	2.27	0.69
14:N:114:ARG:HG2	14:N:114:ARG:HH21	1.57	0.69
3:C:51:LEU:C	3:C:51:LEU:CD2	2.61	0.69
4:D:66:ILE:O	4:D:70:THR:HG23	1.92	0.69
5:E:126:VAL:HG22	5:E:157:ASN:H	1.57	0.69
5:E:163:ASP:O	5:E:164:LEU:HB2	1.91	0.69
6:F:28:VAL:HG13	6:F:110:GLN:CG	2.22	0.69
7:G:164:LYS:C	7:G:166:GLY:N	2.44	0.69
7:G:212:LEU:CA	7:G:215:LYS:HE2	2.18	0.69
10:J:133:ARG:HD3	10:J:141:VAL:HG11	1.73	0.69
10:J:21:GLU:O	10:J:22:LYS:C	2.31	0.69
11:K:40:VAL:CG2	11:K:41:PRO:O	2.38	0.69
11:K:46:MET:HA	11:K:69:TRP:CH2	2.28	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:40:ARG:NH1	21:U:107:GLU:OE2	2.26	0.69
25:Y:19:GLN:HG2	25:Y:81:TYR:HD1	1.53	0.69
25:Y:51:THR:CB	25:Y:52:PRO:HD3	2.17	0.69
16:P:52:LYS:N	16:P:54:HIS:NE2	2.41	0.69
4:D:211:VAL:HG23	18:R:38:ILE:CA	2.21	0.69
2:B:209:ASP:O	2:B:210:VAL:CG2	2.40	0.69
24:X:29:LYS:CD	24:X:34:THR:CB	2.69	0.69
4:D:215:ASP:O	4:D:216:GLU:HB2	1.93	0.69
20:T:28:LEU:CD2	20:T:28:LEU:C	2.61	0.69
8:H:135:PHE:HB3	8:H:136:PRO:CD	2.23	0.69
7:G:50:VAL:HG11	7:G:111:LEU:CD2	2.22	0.69
11:K:14:LEU:CD2	11:K:35:LEU:CD1	2.71	0.69
22:V:18:SER:HB3	22:V:54:ALA:O	1.93	0.69
1:A:118:GLU:CB	3:C:50:LYS:HZ3	1.90	0.69
5:E:74:GLY:O	5:E:75:LYS:HG2	1.93	0.69
7:G:64:LYS:CE	7:G:67:VAL:HG13	2.22	0.69
11:K:32:HIS:ND1	11:K:33:PRO:HD2	2.07	0.69
25:Y:54:VAL:HG22	25:Y:79:LEU:CD2	2.23	0.69
25:Y:52:PRO:CD	25:Y:53:ASP:H	2.04	0.69
4:D:132:LYS:HB2	4:D:191:PRO:HG3	0.70	0.69
8:H:6:ALA:CB	8:H:10:LYS:HD3	2.22	0.69
19:S:34:LYS:C	19:S:103:LEU:CD2	2.61	0.69
8:H:146:VAL:HB	23:W:42:MET:HE1	1.72	0.69
19:S:58:GLU:O	19:S:59:LEU:CB	2.40	0.69
26:Z:48:VAL:CG2	26:Z:80:ARG:CD	2.54	0.69
26:Z:48:VAL:CG1	26:Z:48:VAL:O	2.40	0.69
4:D:192:TRP:CE3	4:D:196:GLY:CA	2.65	0.69
18:R:21:TYR:CG	18:R:71:ILE:HD13	2.28	0.69
13:M:18:LEU:HD22	13:M:22:LEU:CG	2.22	0.69
16:P:67:ALA:CB	16:P:73:PRO:HB3	2.23	0.69
23:W:7:LEU:HD23	23:W:34:ILE:HG12	1.74	0.69
4:D:103:GLU:HA	4:D:103:GLU:OE2	1.91	0.69
1:A:186:ARG:O	1:A:186:ARG:HD3	1.92	0.69
3:C:69:PHE:CZ	3:C:247:THR:OG1	1.93	0.69
5:E:129:ILE:CB	5:E:139:LEU:HD23	2.22	0.69
10:J:125:HIS:CD2	10:J:129:LEU:CD1	2.70	0.69
9:I:155:ASN:CA	12:L:22:ARG:HD2	2.22	0.69
22:V:47:ASN:O	22:V:48:GLY:C	2.29	0.69
5:E:67:GLN:O	5:E:68:ARG:HG3	1.91	0.69
19:S:87:GLN:O	19:S:88:LYS:O	2.10	0.69
10:J:140:GLN:NE2	25:Y:64:PHE:HE2	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:205:TYR:CD2	2:B:206:PRO:CD	2.58	0.69
21:U:59:LYS:CB	21:U:84:ILE:HG22	2.12	0.69
8:H:57:ARG:CD	8:H:89:GLY:O	2.40	0.69
13:M:94:ILE:O	13:M:95:ASP:HB2	1.93	0.69
3:C:76:SER:O	3:C:79:ILE:CG2	2.38	0.69
10:J:110:LEU:HD13	10:J:130:ILE:CG1	2.04	0.69
15:O:117:ARG:O	15:O:121:ARG:HB2	1.92	0.69
25:Y:55:ILE:HG12	25:Y:75:ILE:HG12	0.70	0.69
25:Y:57:VAL:HG12	25:Y:60:PHE:HE2	1.58	0.69
19:S:39:ARG:CD	20:T:38:LYS:HE2	2.15	0.69
16:P:108:LYS:HB3	16:P:110:GLU:CD	2.13	0.69
19:S:58:GLU:CA	19:S:59:LEU:HD13	2.21	0.69
10:J:82:VAL:CG1	10:J:92:MET:HE3	2.23	0.69
21:U:47:ASN:O	21:U:47:ASN:CG	2.29	0.69
18:R:91:LEU:N	18:R:92:ASP:HA	2.01	0.69
3:C:148:VAL:CB	3:C:149:PRO:CD	2.67	0.68
7:G:161:PRO:O	7:G:161:PRO:HD2	1.93	0.68
7:G:180:VAL:C	7:G:181:THR:HG22	2.12	0.68
18:R:100:PRO:HG2	18:R:119:VAL:CG2	2.16	0.68
22:V:59:ILE:CG2	22:V:64:GLU:HB2	2.23	0.68
8:H:12:ASN:HD22	8:H:46:THR:CB	2.06	0.68
16:P:114:HIS:CE1	19:S:113:ARG:HH22	2.11	0.68
4:D:216:GLU:C	4:D:216:GLU:OE1	2.30	0.68
9:I:206:LYS:CD	9:I:207:GLY:N	2.56	0.68
23:W:30:CYS:HA	23:W:34:ILE:HD12	1.74	0.68
3:C:198:LEU:HD11	3:C:226:PHE:CD1	2.28	0.68
2:B:61:GLY:O	2:B:65:ARG:CZ	2.41	0.68
14:N:92:ILE:CG2	14:N:150:VAL:CG2	2.71	0.68
18:R:99:ASP:CB	18:R:119:VAL:HG12	2.22	0.68
24:X:133:LEU:HD21	24:X:139:GLU:O	1.91	0.68
17:Q:42:ILE:CG2	17:Q:51:LEU:HD21	2.19	0.68
2:B:66:VAL:HG21	2:B:87:ILE:CG2	2.02	0.68
16:P:19:GLY:N	19:S:92:ASP:HA	2.07	0.68
18:R:93:GLN:HG2	18:R:94:GLU:O	1.92	0.68
3:C:126:MET:CE	3:C:223:LYS:NZ	2.56	0.68
8:H:107:LYS:O	8:H:109:ARG:HA	1.94	0.68
16:P:31:GLU:O	16:P:35:GLN:HG3	1.92	0.68
1:A:66:VAL:CG1	1:A:186:ARG:CD	2.71	0.68
7:G:179:LEU:HD12	7:G:180:VAL:N	1.97	0.68
22:V:15:ARG:O	22:V:24:ILE:HG22	1.93	0.68
17:Q:43:GLU:HG2	17:Q:45:ARG:HB3	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:48:TYR:O	25:Y:50:THR:CG2	2.38	0.68
18:R:21:TYR:CB	18:R:71:ILE:HG21	2.23	0.68
17:Q:33:LYS:HG3	17:Q:69:ARG:HG2	1.76	0.68
14:N:142:GLU:HG2	14:N:144:SER:OG	1.94	0.68
18:R:72:LYS:O	18:R:76:GLU:HG2	1.93	0.68
4:D:18:LYS:CD	4:D:18:LYS:O	2.42	0.68
11:K:40:VAL:HG21	11:K:45:VAL:H	1.59	0.68
6:F:45:TYR:C	6:F:47:LYS:HE2	2.13	0.68
16:P:41:GLN:C	16:P:41:GLN:CD	2.52	0.68
8:H:10:LYS:CE	8:H:16:PRO:C	2.62	0.68
10:J:180:LYS:CG	10:J:181:GLY:N	2.56	0.68
15:O:22:ALA:C	15:O:24:GLY:H	1.93	0.68
3:C:244:THR:HG22	3:C:246:PHE:CG	2.26	0.68
3:C:69:PHE:CE1	3:C:249:SER:HA	2.28	0.68
9:I:117:TYR:N	9:I:117:TYR:CD2	2.62	0.68
10:J:102:ILE:CG2	10:J:106:LEU:HD13	2.23	0.68
8:H:14:GLU:CD	8:H:16:PRO:HB2	2.13	0.68
16:P:22:LEU:HA	16:P:25:LEU:HB2	1.76	0.68
19:S:51:ASP:OD2	19:S:53:THR:OG1	2.12	0.68
19:S:54:LYS:C	19:S:54:LYS:CB	2.61	0.68
6:F:99:ILE:HD13	6:F:171:GLU:OE1	1.93	0.68
26:Z:96:LEU:O	26:Z:112:ASN:ND2	2.27	0.68
2:B:105:LEU:C	2:B:106:THR:HG23	2.14	0.68
12:L:118:ARG:O	12:L:119:ASP:HB2	1.93	0.68
1:A:147:LEU:CD2	1:A:163:CYS:SG	2.82	0.68
1:A:76:VAL:CG1	1:A:87:VAL:HG12	2.23	0.68
2:B:61:GLY:O	2:B:65:ARG:NH2	2.27	0.68
4:D:10:LYS:HE2	4:D:14:ASP:OD2	1.94	0.68
9:I:141:ARG:HG3	9:I:144:LYS:O	1.93	0.68
11:K:36:ALA:C	11:K:38:LYS:H	1.95	0.68
14:N:50:ILE:O	14:N:54:LEU:HG	1.94	0.68
14:N:87:ASP:OD1	14:N:88:LEU:N	2.27	0.68
6:F:41:VAL:CG2	6:F:42:LYS:HD2	2.22	0.68
17:Q:57:LEU:HD11	17:Q:115:TYR:OH	1.93	0.68
19:S:42:HIS:CG	20:T:45:LEU:CD1	2.46	0.68
8:H:9:VAL:HG12	8:H:44:ASN:CG	2.13	0.68
18:R:122:PRO:CB	18:R:123:THR:CB	2.71	0.68
9:I:36:THR:O	9:I:95:THR:HG23	1.92	0.68
5:E:175:PHE:CD2	5:E:175:PHE:O	2.45	0.68
1:A:76:VAL:HG12	1:A:87:VAL:CG1	2.23	0.68
4:D:59:LEU:HD12	4:D:60:GLY:C	2.14	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:30:LYS:HD2	7:G:30:LYS:N	2.08	0.68
7:G:77:LEU:CD1	7:G:95:LYS:HD3	2.23	0.68
3:C:260:LYS:HD2	3:C:261:THR:N	2.08	0.68
5:E:175:PHE:C	5:E:175:PHE:CD2	2.67	0.68
3:C:138:GLY:C	3:C:141:ILE:HG22	2.14	0.68
5:E:139:LEU:CD1	5:E:154:ILE:CG2	2.69	0.68
5:E:87:MET:O	5:E:122:LYS:HE3	1.94	0.68
9:I:149:TYR:HD1	9:I:152:ARG:HH12	1.34	0.68
9:I:62:VAL:HG21	9:I:75:LYS:HZ3	1.57	0.68
10:J:14:VAL:HG23	10:J:48:PHE:CD1	2.29	0.68
10:J:61:LEU:CD1	10:J:94:LEU:HD13	2.22	0.68
19:S:39:ARG:CD	20:T:38:LYS:NZ	2.57	0.68
25:Y:34:THR:C	25:Y:35:VAL:CG2	2.53	0.68
20:T:42:HIS:CE1	20:T:93:SER:CB	2.76	0.68
23:W:7:LEU:HD23	23:W:34:ILE:HG13	1.75	0.68
4:D:43:PRO:O	4:D:44:THR:CG2	2.38	0.68
6:F:113:VAL:HG13	6:F:114:ASN:N	2.08	0.68
7:G:38:ALA:CB	7:G:45:TRP:O	2.42	0.68
9:I:112:TRP:CH2	9:I:117:TYR:OH	2.46	0.68
10:J:122:SER:HG	10:J:124:HIS:HB2	1.58	0.68
11:K:59:LYS:HD2	11:K:60:GLU:H	1.58	0.68
21:U:109:GLY:C	21:U:110:VAL:HG23	2.13	0.68
24:X:52:LEU:CD1	24:X:53:GLU:N	2.54	0.68
17:Q:78:VAL:HG12	17:Q:82:TYR:CE2	2.28	0.68
20:T:99:VAL:HG23	20:T:100:ALA:N	2.09	0.68
21:U:44:LYS:O	21:U:47:ASN:CA	2.42	0.68
21:U:50:VAL:CG2	21:U:51:LYS:O	2.38	0.68
13:M:49:LEU:HD13	13:M:50:CYS:H	1.58	0.68
15:O:41:PHE:CD1	15:O:57:THR:CG2	2.76	0.68
5:E:43:PRO:HG2	5:E:46:ILE:HD12	1.74	0.68
9:I:155:ASN:O	9:I:157:LYS:N	2.27	0.68
11:K:33:PRO:O	11:K:34:GLU:CB	2.42	0.68
8:H:35:ASP:OD1	8:H:36:LEU:N	2.27	0.68
8:H:40:LEU:O	8:H:42:GLU:N	2.26	0.68
26:Z:92:LEU:HD11	26:Z:109:TYR:OH	1.93	0.68
16:P:30:TYR:O	16:P:34:MET:HG3	1.94	0.68
4:D:211:VAL:O	18:R:38:ILE:O	2.12	0.68
16:P:126:VAL:O	16:P:127:LYS:HB3	1.93	0.68
13:M:79:VAL:HG12	13:M:80:ASP:N	2.09	0.68
2:B:19:LYS:CG	2:B:19:LYS:O	2.42	0.68
20:T:83:GLN:HE22	20:T:85:ASN:HA	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:143:PRO:HD3	22:V:32:ILE:HG21	1.76	0.67
2:B:31:TYR:CE1	2:B:94:LYS:HA	2.29	0.67
5:E:159:THR:OG1	5:E:227:VAL:HG23	1.93	0.67
6:F:127:ARG:HG2	6:F:127:ARG:O	1.94	0.67
7:G:14:LYS:HZ1	7:G:123:GLY:HA2	1.59	0.67
9:I:79:ILE:CG2	9:I:103:LEU:HB2	2.25	0.67
9:I:154:LYS:HD3	9:I:155:ASN:CA	2.22	0.67
13:M:24:THR:O	13:M:27:ILE:HG22	1.93	0.67
6:F:204:ARG:C	15:O:72:TYR:CG	2.67	0.67
15:O:84:ARG:HA	15:O:87:GLU:HB2	1.75	0.67
22:V:45:ARG:O	22:V:46:PHE:C	2.30	0.67
23:W:18:GLU:HG2	23:W:65:LEU:HD13	1.76	0.67
6:F:41:VAL:CG2	6:F:42:LYS:N	2.29	0.67
6:F:14:THR:OG1	17:Q:56:LEU:CD1	2.42	0.67
2:B:148:ASN:H	2:B:148:ASN:HD22	1.42	0.67
24:X:60:LYS:CG	24:X:116:PRO:HG3	2.19	0.67
24:X:105:PHE:CZ	24:X:118:VAL:O	2.46	0.67
4:D:127:MET:HG2	4:D:154:ASP:OD2	1.94	0.67
23:W:128:PHE:HD1	23:W:129:PHE:N	1.92	0.67
25:Y:91:LEU:C	25:Y:97:TYR:HB3	2.14	0.67
4:D:216:GLU:O	4:D:217:ILE:HG13	1.94	0.67
3:C:241:TRP:CE2	23:W:68:ARG:HD2	2.28	0.67
18:R:90:ALA:HA	18:R:91:LEU:CD1	2.24	0.67
20:T:85:ASN:HB3	20:T:88:MET:HB2	1.76	0.67
2:B:97:LEU:HB3	2:B:232:HIS:CD2	2.29	0.67
2:B:77:ASP:HA	2:B:79:VAL:HG22	1.75	0.67
5:E:100:ARG:HD3	5:E:102:ILE:HD12	1.72	0.67
9:I:197:PHE:CE2	12:L:5:GLN:CG	2.76	0.67
11:K:12:TYR:CD2	11:K:82:TYR:HD2	2.11	0.67
11:K:83:LEU:HB2	11:K:85:LEU:HG	1.76	0.67
12:L:5:GLN:O	12:L:6:THR:C	2.31	0.67
19:S:39:ARG:NH2	20:T:38:LYS:CG	2.57	0.67
21:U:40:ILE:HD11	21:U:53:PRO:HB3	1.74	0.67
16:P:56:LEU:HD22	16:P:78:THR:HG22	1.76	0.67
16:P:49:LEU:HD13	16:P:51:ARG:NE	1.97	0.67
13:M:12:MET:C	13:M:13:ASP:OD1	2.33	0.67
12:L:71:ARG:CG	12:L:73:LEU:HG	2.24	0.67
22:V:1:MET:HE2	22:V:10:ASP:CB	2.15	0.67
20:T:83:GLN:NE2	20:T:85:ASN:HA	2.09	0.67
11:K:94:LEU:HD23	11:K:95:ARG:H	1.59	0.67
13:M:70:ALA:CB	13:M:71:GLU:OE2	2.41	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:95:ILE:H	18:R:114:LEU:HD13	1.58	0.67
8:H:135:PHE:CD2	8:H:136:PRO:HD3	2.29	0.67
1:A:176:TRP:HE3	1:A:177:MET:SD	2.16	0.67
1:A:193:HIS:ND1	1:A:194:PRO:HD3	2.09	0.67
5:E:159:THR:CG2	5:E:227:VAL:HG22	2.04	0.67
14:N:46:THR:O	14:N:50:ILE:HD12	1.93	0.67
15:O:63:LYS:O	15:O:64:ALA:HB2	1.94	0.67
22:V:40:ASP:CB	22:V:47:ASN:HD22	2.06	0.67
17:Q:113:ILE:HG13	17:Q:120:LEU:CD1	2.24	0.67
5:E:64:ILE:HG12	25:Y:17:LEU:HD13	1.77	0.67
16:P:109:PRO:O	16:P:112:ILE:HG13	1.93	0.67
12:L:18:GLN:HE21	12:L:20:LYS:HD2	1.58	0.67
10:J:84:ILE:CD1	10:J:86:VAL:HG21	2.24	0.67
10:J:177:ASN:HA	10:J:180:LYS:HB3	1.76	0.67
26:Z:73:VAL:HG12	26:Z:79:ILE:CG2	2.18	0.67
6:F:112:LEU:HD23	6:F:116:ILE:CD1	2.22	0.67
3:C:123:GLY:C	3:C:226:PHE:CZ	2.67	0.67
4:D:141:LYS:HD2	4:D:179:GLN:CD	2.15	0.67
1:A:84:GLN:O	1:A:88:LEU:HD23	1.93	0.67
5:E:102:ILE:CD1	5:E:236:ILE:HD12	2.24	0.67
7:G:135:PRO:HG2	7:G:144:LEU:HD23	1.76	0.67
7:G:85:ARG:HD2	25:Y:118:ARG:HH21	1.53	0.67
9:I:144:LYS:C	9:I:145:ILE:HG23	2.15	0.67
10:J:170:PRO:CA	10:J:174:LYS:HZ1	2.06	0.67
11:K:84:HIS:HD2	13:M:27:ILE:CG1	2.07	0.67
15:O:116:LEU:HD23	15:O:119:LEU:HD21	1.76	0.67
2:B:72:ALA:CB	15:O:128:ARG:HH22	2.08	0.67
8:H:64:VAL:HG13	8:H:68:GLN:OE1	1.94	0.67
16:P:51:ARG:O	16:P:52:LYS:HB3	1.92	0.67
18:R:5:ARG:CA	18:R:10:LYS:HZ1	2.08	0.67
9:I:108:PRO:O	9:I:111:GLN:HG2	1.94	0.67
8:H:53:VAL:HG22	8:H:57:ARG:C	2.05	0.67
2:B:152:LYS:HD2	18:R:126:MET:HE2	1.76	0.67
24:X:32:LEU:O	24:X:37:LYS:CE	2.42	0.67
3:C:48:VAL:HG23	3:C:75:GLU:CG	2.24	0.67
3:C:50:LYS:O	3:C:258:LEU:HD22	1.94	0.67
4:D:23:GLU:HG2	11:K:64:TRP:HE1	1.60	0.67
7:G:131:ARG:HG2	7:G:131:ARG:CD	2.15	0.67
10:J:15:THR:HG21	10:J:44:TRP:HZ3	1.58	0.67
14:N:26:LEU:HD12	14:N:27:LYS:HE3	1.76	0.67
16:P:41:GLN:O	16:P:41:GLN:CD	2.33	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:4:SER:O	9:I:5:ARG:C	2.32	0.67
9:I:5:ARG:NH1	9:I:5:ARG:HG2	2.05	0.67
20:T:112:MET:SD	20:T:127:GLY:HA2	2.34	0.67
2:B:120:MET:HE3	2:B:142:PHE:HZ	1.58	0.67
5:E:194:VAL:HG22	5:E:211:LYS:O	1.95	0.67
4:D:145:GLN:HG3	4:D:146:ARG:N	2.10	0.67
5:E:192:ILE:CD1	5:E:238:LEU:HD22	2.25	0.67
14:N:26:LEU:HD21	14:N:66:VAL:HG21	1.76	0.67
25:Y:114:MET:HA	25:Y:124:ASN:CB	2.24	0.67
20:T:77:LYS:CD	20:T:92:PHE:CE2	2.77	0.67
8:H:52:GLU:HA	8:H:58:LYS:HA	1.77	0.67
19:S:6:PRO:O	26:Z:49:LEU:HD11	1.94	0.67
12:L:99:TYR:HD2	12:L:99:TYR:O	1.78	0.67
13:M:51:VAL:HA	13:M:77:ILE:HG22	1.76	0.67
2:B:125:VAL:HG21	2:B:169:MET:HG3	1.76	0.67
17:Q:129:SER:O	17:Q:131:LYS:NZ	2.28	0.67
5:E:260:GLN:N	5:E:260:GLN:OE1	2.28	0.67
1:A:191:ARG:CG	1:A:193:HIS:HB2	2.24	0.67
4:D:48:ILE:HG23	4:D:86:LEU:HG	1.75	0.67
6:F:28:VAL:CG2	6:F:110:GLN:HG2	2.24	0.67
9:I:104:ILE:O	9:I:105:ASP:CB	2.42	0.67
11:K:36:ALA:O	11:K:38:LYS:HD2	1.95	0.67
22:V:74:LYS:HG3	22:V:75:SER:H	1.58	0.67
24:X:52:LEU:HD12	24:X:53:GLU:CA	2.24	0.67
6:F:76:MET:HE2	6:F:169:ILE:CG2	2.24	0.67
17:Q:112:LEU:CD1	17:Q:120:LEU:CD2	2.72	0.67
17:Q:134:GLY:HA2	17:Q:141:TYR:CD1	2.30	0.67
25:Y:54:VAL:O	25:Y:75:ILE:CA	2.37	0.67
8:H:146:VAL:O	23:W:49:GLU:HB2	1.94	0.67
23:W:42:MET:HE3	23:W:50:PHE:CD2	2.28	0.67
4:D:217:ILE:CG2	4:D:218:LEU:N	2.57	0.67
23:W:104:LEU:HD12	23:W:106:THR:HG23	1.76	0.67
6:F:154:LEU:CD1	6:F:155:CYS:SG	2.83	0.67
8:H:121:THR:O	8:H:125:VAL:HG23	1.94	0.67
1:A:183:LEU:CB	1:A:189:ILE:HD11	2.23	0.67
3:C:49:THR:CG2	3:C:75:GLU:HG3	2.25	0.67
7:G:157:VAL:HG13	7:G:158:VAL:CA	2.25	0.67
7:G:3:LEU:HD11	7:G:41:LEU:HD11	1.77	0.67
11:K:36:ALA:O	11:K:38:LYS:N	2.28	0.67
11:K:9:ILE:O	11:K:13:GLU:HG2	1.94	0.67
18:R:98:VAL:HG12	18:R:99:ASP:N	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:25:THR:HG21	6:F:42:LYS:HG3	0.67	0.67
25:Y:54:VAL:CG2	25:Y:79:LEU:HD23	2.23	0.67
19:S:42:HIS:CE1	20:T:45:LEU:CD2	2.54	0.67
19:S:81:ASP:OD2	19:S:95:TYR:CD2	2.48	0.67
26:Z:48:VAL:HA	26:Z:83:LEU:HD12	1.76	0.67
1:A:109:THR:O	1:A:110:ASN:HB2	1.95	0.67
24:X:29:LYS:HE3	24:X:34:THR:HG21	1.75	0.67
18:R:7:LYS:HB2	18:R:11:LYS:HE3	1.77	0.67
4:D:216:GLU:O	4:D:217:ILE:CG1	2.43	0.67
14:N:13:GLN:CB	14:N:14:SER:O	2.43	0.67
24:X:108:LYS:HB2	24:X:110:HIS:CE1	2.30	0.67
2:B:179:ASN:CB	2:B:183:GLU:OE1	2.43	0.67
23:W:7:LEU:HD12	23:W:78:ARG:HH21	1.60	0.67
2:B:25:PHE:CG	15:O:88:LEU:HD22	2.30	0.67
6:F:109:LEU:HD23	6:F:109:LEU:O	1.94	0.67
7:G:138:ALA:HB2	7:G:179:LEU:HB2	1.77	0.67
9:I:110:ARG:NH2	9:I:124:LYS:CD	2.58	0.67
9:I:118:ALA:HB2	9:I:149:TYR:CZ	2.29	0.67
10:J:17:ARG:CG	10:J:17:ARG:O	2.29	0.67
2:B:52:THR:CG2	14:N:53:ILE:HD12	83.71	0.67
15:O:101:GLY:O	15:O:104:ARG:CB	2.43	0.67
1:A:141:ASN:HD21	22:V:29:HIS:CA	2.07	0.67
24:X:52:LEU:CG	24:X:71:ARG:HB3	2.24	0.67
24:X:71:ARG:CG	24:X:82:THR:HG22	2.16	0.67
16:P:56:LEU:HD11	16:P:80:LEU:HD12	1.76	0.67
8:H:75:ILE:HG23	8:H:76:GLN:N	2.10	0.67
4:D:162:ASP:CG	4:D:166:TYR:CE2	2.68	0.67
20:T:85:ASN:HB2	20:T:88:MET:O	1.95	0.67
8:H:177:TYR:HE2	8:H:183:LYS:HB2	1.59	0.67
2:B:48:LEU:HD12	2:B:48:LEU:N	1.98	0.67
8:H:140:VAL:O	14:N:18:TYR:CE2	2.47	0.67
9:I:142:SER:CA	9:I:143:LYS:CB	2.70	0.67
22:V:59:ILE:HG23	22:V:64:GLU:HB2	1.75	0.67
22:V:77:GLY:HA2	22:V:78:ILE:O	1.95	0.67
6:F:49:LEU:CD1	6:F:50:PRO:HD2	2.16	0.67
17:Q:50:LYS:CE	17:Q:117:ARG:HD2	2.25	0.67
8:H:60:ILE:CG2	8:H:92:VAL:HG22	2.25	0.67
4:D:202:LYS:CB	4:D:203:PRO:HD3	2.25	0.67
12:L:100:ASN:OD1	12:L:100:ASN:N	2.28	0.67
2:B:148:ASN:H	2:B:148:ASN:ND2	1.93	0.67
18:R:21:TYR:CD2	18:R:73:LEU:HD12	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:3:LYS:O	24:X:4:CYS:O	2.13	0.67
3:C:126:MET:HE3	3:C:223:LYS:HZ1	1.59	0.67
26:Z:85:ARG:HH11	26:Z:85:ARG:CB	2.03	0.67
20:T:85:ASN:ND2	20:T:91:HIS:CD2	2.63	0.67
16:P:98:ASN:OD1	16:P:120:SER:CB	2.43	0.67
2:B:115:LYS:O	2:B:118:GLN:HG3	1.95	0.67
1:A:140:VAL:O	1:A:140:VAL:CG1	2.43	0.66
4:D:74:GLN:HE21	4:D:75:LYS:CD	2.08	0.66
5:E:153:LEU:CD1	5:E:172:PHE:CE2	2.77	0.66
7:G:212:LEU:HA	7:G:215:LYS:HD3	1.76	0.66
17:Q:8:GLN:HG2	17:Q:99:TYR:HD1	1.53	0.66
19:S:26:ILE:HG22	19:S:45:LEU:CD1	2.24	0.66
19:S:6:PRO:O	19:S:7:GLU:CB	2.41	0.66
9:I:10:LYS:HG3	9:I:11:ARG:H	1.60	0.66
3:C:51:LEU:O	3:C:55:VAL:HG23	1.94	0.66
5:E:102:ILE:HD13	5:E:236:ILE:HD12	1.75	0.66
10:J:110:LEU:HD11	10:J:135:ILE:HD12	1.77	0.66
15:O:19:PRO:CG	15:O:27:VAL:HG22	2.16	0.66
24:X:95:GLU:CD	24:X:140:ARG:HH22	1.96	0.66
17:Q:50:LYS:HA	17:Q:53:GLU:CG	2.26	0.66
17:Q:19:ALA:CB	17:Q:80:GLN:HE21	2.06	0.66
16:P:41:GLN:CD	16:P:84:ILE:CB	2.61	0.66
19:S:88:LYS:H	19:S:95:TYR:HD1	1.42	0.66
3:C:161:LYS:HD2	3:C:162:PRO:HD2	1.77	0.66
18:R:92:ASP:O	18:R:93:GLN:CB	2.43	0.66
12:L:82:MET:CE	12:L:85:THR:HG21	2.23	0.66
20:T:42:HIS:HE1	20:T:93:SER:CB	2.08	0.66
19:S:106:LYS:CD	19:S:109:GLU:OE1	2.42	0.66
2:B:98:THR:O	2:B:232:HIS:CE1	2.48	0.66
6:F:67:PRO:HG2	6:F:70:GLU:HB3	1.76	0.66
5:E:9:LEU:HB2	5:E:30:ARG:HB2	1.76	0.66
5:E:250:GLU:O	5:E:254:LYS:HG2	1.95	0.66
1:A:185:MET:O	1:A:187:GLY:N	2.28	0.66
4:D:226:GLN:O	4:D:227:LYS:HB2	1.94	0.66
5:E:48:LEU:HD11	5:E:70:ILE:CD1	2.26	0.66
25:Y:114:MET:HE1	25:Y:125:VAL:HG23	1.78	0.66
6:F:42:LYS:CB	6:F:46:ALA:N	2.59	0.66
8:H:65:PRO:C	8:H:67:PRO:HD2	2.15	0.66
3:C:155:TRP:CE2	23:W:97:ARG:CD	2.78	0.66
20:T:85:ASN:O	20:T:88:MET:CE	2.43	0.66
5:E:191:ARG:HD3	5:E:245:ARG:CB	2.25	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:49:GLU:HB2	12:L:116:CYS:SG	2.36	0.66
13:M:20:GLU:HA	13:M:20:GLU:OE1	1.96	0.66
1:A:133:PRO:CD	1:A:134:LEU:N	2.51	0.66
1:A:76:VAL:HG13	1:A:175:TRP:CZ3	2.25	0.66
2:B:188:LEU:HD22	2:B:212:VAL:HG21	1.77	0.66
2:B:31:TYR:HE1	2:B:94:LYS:N	1.92	0.66
5:E:94:LYS:C	5:E:95:THR:HG23	2.15	0.66
7:G:16:ILE:HG21	7:G:45:TRP:CH2	2.30	0.66
9:I:67:TRP:CZ2	9:I:158:ILE:HD11	2.24	0.66
11:K:40:VAL:CG2	11:K:41:PRO:HD3	2.24	0.66
24:X:90:CYS:HA	24:X:93:PHE:HD2	1.61	0.66
26:Z:103:HIS:HD2	26:Z:105:ALA:HB3	1.58	0.66
20:T:94:ARG:HG3	20:T:94:ARG:NH1	2.10	0.66
6:F:167:LYS:CD	6:F:171:GLU:HB3	2.24	0.66
26:Z:99:LEU:HD23	26:Z:109:TYR:CD1	2.27	0.66
2:B:160:GLN:CD	2:B:205:TYR:CD1	2.67	0.66
25:Y:37:LYS:C	25:Y:40:ILE:HG22	2.15	0.66
12:L:58:LYS:O	12:L:64:GLY:HA3	1.95	0.66
3:C:69:PHE:CZ	3:C:247:THR:CG2	2.79	0.66
7:G:4:ASN:HA	7:G:15:LEU:CD2	2.24	0.66
9:I:191:GLU:N	9:I:195:LEU:HB2	2.11	0.66
2:B:28:LYS:HE2	15:O:51:GLU:OE2	1.95	0.66
4:D:193:ASP:O	4:D:194:PRO:C	2.28	0.66
4:D:201:LYS:O	4:D:202:LYS:HB2	1.96	0.66
26:Z:99:LEU:HD11	26:Z:102:LYS:CE	2.23	0.66
9:I:5:ARG:CG	9:I:5:ARG:HH11	2.04	0.66
4:D:219:PRO:O	4:D:220:THR:O	2.13	0.66
20:T:40:ALA:CB	20:T:43:LYS:CG	2.58	0.66
6:F:154:LEU:HD12	6:F:155:CYS:CA	2.25	0.66
21:U:117:ALA:C	21:U:118:ASP:O	2.28	0.66
19:S:111:LEU:HD22	19:S:125:HIS:ND1	2.09	0.66
2:B:63:LYS:O	2:B:63:LYS:HD3	1.95	0.66
2:B:76:ASN:O	2:B:76:ASN:ND2	2.29	0.66
3:C:57:ASP:O	3:C:58:MET:HB2	1.94	0.66
4:D:97:CYS:C	4:D:99:ILE:N	2.45	0.66
5:E:248:ILE:CD1	10:J:72:PHE:CE2	2.45	0.66
14:N:129:TYR:O	14:N:134:VAL:HG13	1.96	0.66
25:Y:54:VAL:HG23	25:Y:79:LEU:HD21	1.77	0.66
16:P:10:ARG:NE	16:P:11:THR:N	2.34	0.66
17:Q:92:LEU:CG	17:Q:96:TYR:CE2	2.69	0.66
13:M:51:VAL:HB	13:M:77:ILE:HG21	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:13:GLN:HB2	14:N:14:SER:O	1.95	0.66
20:T:42:HIS:CE1	20:T:93:SER:HB3	2.30	0.66
25:Y:111:LYS:NZ	25:Y:115:LYS:NZ	2.43	0.66
4:D:53:THR:HG21	4:D:91:VAL:HB	1.78	0.66
5:E:117:GLU:O	5:E:119:ALA:N	2.26	0.66
5:E:75:LYS:C	5:E:76:VAL:CG2	4.26	0.66
7:G:120:ASP:O	7:G:121:ILE:HD13	1.95	0.66
10:J:171:GLY:O	10:J:174:LYS:N	2.28	0.66
14:N:125:LEU:CD2	14:N:129:TYR:CZ	2.78	0.66
2:B:107:ARG:CZ	15:O:133:THR:O	2.43	0.66
8:H:6:ALA:CB	8:H:10:LYS:NZ	2.59	0.66
8:H:44:ASN:HB3	8:H:68:GLN:HE22	1.60	0.66
2:B:87:ILE:HG21	2:B:101:HIS:CG	2.31	0.66
23:W:26:LEU:O	23:W:26:LEU:CD1	2.39	0.66
4:D:226:GLN:HE21	4:D:226:GLN:C	1.99	0.66
4:D:2:ALA:HB1	4:D:4:GLN:N	2.09	0.66
5:E:152:PRO:HD2	7:G:212:LEU:HD21	1.78	0.66
9:I:139:LYS:HB3	9:I:145:ILE:HD11	1.57	0.66
11:K:2:LEU:O	11:K:3:MET:CB	2.40	0.66
11:K:14:LEU:HD21	11:K:35:LEU:CD1	2.26	0.66
11:K:16:PHE:CE2	11:K:79:LEU:C	2.69	0.66
11:K:18:GLU:C	11:K:92:ALA:CB	2.64	0.66
23:W:17:ALA:CB	23:W:25:VAL:CG1	2.74	0.66
6:F:42:LYS:CB	6:F:46:ALA:H	2.09	0.66
20:T:31:PRO:CG	20:T:102:ARG:CG	2.73	0.66
4:D:193:ASP:CA	4:D:202:LYS:O	2.37	0.66
4:D:196:GLY:O	4:D:199:GLY:CA	2.44	0.66
6:F:102:LEU:HD13	26:Z:110:THR:HG22	1.78	0.66
19:S:46:ARG:NE	20:T:50:GLU:CG	2.58	0.66
12:L:118:ARG:O	12:L:119:ASP:CB	2.43	0.66
12:L:40:ILE:HG21	12:L:44:PHE:HB2	1.78	0.66
20:T:85:ASN:HD21	20:T:91:HIS:CD2	2.14	0.66
8:H:117:PRO:HG2	8:H:120:ARG:NE	2.11	0.66
23:W:3:ARG:C	23:W:4:MET:SD	2.74	0.66
15:O:41:PHE:CE1	15:O:57:THR:HG21	2.31	0.66
2:B:49:VAL:HG22	2:B:65:ARG:NH1	2.11	0.66
4:D:45:ARG:HG3	4:D:83:SER:O	1.95	0.66
4:D:74:GLN:NE2	4:D:75:LYS:CE	2.57	0.66
10:J:50:LEU:CD1	10:J:102:ILE:HD13	2.22	0.66
10:J:35:TYR:C	10:J:37:LEU:N	2.41	0.66
18:R:99:ASP:HB3	18:R:119:VAL:CG1	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:52:LEU:CD1	24:X:53:GLU:CG	2.74	0.66
8:H:6:ALA:CB	8:H:10:LYS:HZ3	2.07	0.66
19:S:58:GLU:OE2	26:Z:49:LEU:HD13	1.96	0.66
6:F:36:GLN:O	6:F:37:ASP:CB	2.43	0.66
16:P:98:ASN:OD1	16:P:120:SER:HB2	1.96	0.66
20:T:21:PHE:CD1	20:T:21:PHE:C	2.70	0.66
1:A:180:ARG:HD3	1:A:184:ARG:HH21	1.57	0.66
4:D:59:LEU:CD1	4:D:60:GLY:O	2.44	0.66
5:E:21:ASP:OD2	5:E:24:THR:HG23	1.94	0.66
5:E:182:MET:CE	5:E:228:ILE:HG21	2.26	0.66
7:G:32:MET:SD	7:G:100:CYS:C	2.74	0.66
6:F:42:LYS:NZ	6:F:42:LYS:O	2.29	0.66
8:H:122:LEU:HD11	8:H:123:THR:CG2	2.26	0.66
16:P:49:LEU:HD13	16:P:51:ARG:NH2	2.11	0.66
10:J:180:LYS:HD2	10:J:180:LYS:C	2.15	0.66
4:D:112:GLY:H	4:D:113:LEU:CD1	2.08	0.66
5:E:130:PHE:CD2	5:E:138:HIS:CE1	2.84	0.66
6:F:79:HIS:O	6:F:81:ARG:N	2.29	0.66
1:A:205:ARG:NH1	18:R:82:ASP:O	2.29	0.66
10:J:158:ASP:OD1	10:J:159:PHE:N	2.27	0.66
3:C:146:SER:O	3:C:148:VAL:HG13	1.97	0.65
5:E:159:THR:CB	5:E:227:VAL:HG23	2.24	0.65
5:E:43:PRO:HD2	5:E:43:PRO:O	1.96	0.65
7:G:163:ASN:O	7:G:164:LYS:HB3	1.94	0.65
7:G:50:VAL:CG1	7:G:111:LEU:CB	2.73	0.65
10:J:130:ILE:HA	10:J:135:ILE:CD1	2.26	0.65
10:J:131:ARG:HH11	10:J:143:ASN:ND2	1.93	0.65
15:O:119:LEU:CD1	15:O:126:ILE:HD11	2.26	0.65
15:O:62:VAL:HG21	15:O:72:TYR:CZ	2.30	0.65
17:Q:144:SER:O	17:Q:145:TYR:HB2	1.96	0.65
17:Q:98:LYS:HE3	17:Q:99:TYR:CE2	2.30	0.65
8:H:10:LYS:N	8:H:11:PRO:HD3	2.11	0.65
16:P:22:LEU:HD12	16:P:23:ASP:N	2.11	0.65
19:S:7:GLU:OE2	19:S:7:GLU:N	2.29	0.65
26:Z:99:LEU:CD1	26:Z:102:LYS:CD	2.72	0.65
12:L:147:LYS:O	12:L:147:LYS:HD3	1.94	0.65
20:T:11:GLN:NE2	20:T:62:ARG:NE	2.44	0.65
3:C:192:ALA:O	3:C:195:PRO:CG	2.43	0.65
1:A:172:GLY:HA3	1:A:203:PHE:CE1	2.31	0.65
16:P:98:ASN:HD21	16:P:120:SER:HB2	1.60	0.65
5:E:258:ALA:O	5:E:259:LYS:HB2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:259:LYS:NZ	5:E:260:GLN:OE1	2.29	0.65
1:A:141:ASN:HA	22:V:32:ILE:CD1	2.25	0.65
3:C:61:LYS:HA	3:C:82:PHE:HE1	1.62	0.65
7:G:147:LEU:HD21	7:G:156:TYR:HE2	1.58	0.65
11:K:16:PHE:HE2	11:K:79:LEU:CA	2.09	0.65
11:K:38:LYS:O	11:K:39:ASN:CB	2.45	0.65
15:O:53:ILE:HG13	15:O:53:ILE:O	1.94	0.65
17:Q:72:VAL:HG23	17:Q:84:ILE:HG22	1.77	0.65
25:Y:87:PRO:O	25:Y:87:PRO:HD2	1.95	0.65
4:D:192:TRP:C	4:D:196:GLY:H	1.90	0.65
2:B:147:ASN:O	2:B:149:GLN:N	2.29	0.65
15:O:55:ARG:C	15:O:56:VAL:HG12	2.16	0.65
25:Y:13:MET:HE3	25:Y:14:THR:N	2.10	0.65
5:E:258:ALA:O	5:E:259:LYS:CB	2.33	0.65
17:Q:15:ARG:HH12	17:Q:20:THR:HG21	1.61	0.65
1:A:193:HIS:CB	1:A:194:PRO:HD2	2.26	0.65
1:A:75:SER:HB2	1:A:122:LEU:HD23	1.76	0.65
7:G:19:ASP:O	7:G:20:ASP:CB	2.43	0.65
10:J:114:VAL:HG12	10:J:119:LEU:O	1.96	0.65
10:J:130:ILE:CG2	10:J:135:ILE:HD11	2.21	0.65
14:N:16:LEU:CD2	14:N:17:PRO:CD	2.75	0.65
20:T:49:ASP:OD2	20:T:51:ASN:HB2	1.96	0.65
16:P:4:VAL:CA	16:P:10:ARG:CG	2.60	0.65
16:P:13:ARG:C	16:P:14:LYS:HG2	2.16	0.65
16:P:75:VAL:HG12	16:P:76:VAL:N	2.10	0.65
13:M:89:VAL:HG12	13:M:90:GLY:N	2.11	0.65
18:R:31:ASN:ND2	18:R:55:THR:HG22	2.11	0.65
16:P:98:ASN:ND2	16:P:120:SER:HB2	2.12	0.65
20:T:21:PHE:CD1	20:T:22:LEU:HD23	2.30	0.65
2:B:49:VAL:CG2	2:B:65:ARG:HH12	2.09	0.65
2:B:49:VAL:CG2	2:B:65:ARG:NH1	2.59	0.65
2:B:70:SER:CB	15:O:128:ARG:HD3	2.26	0.65
5:E:72:ILE:CD1	5:E:82:TYR:CD2	2.80	0.65
10:J:34:GLU:HB2	10:J:35:TYR:HD2	1.61	0.65
15:O:30:VAL:CG2	15:O:32:HIS:CD2	2.80	0.65
3:C:147:ILE:O	22:V:27:LYS:HE3	1.96	0.65
24:X:138:LYS:C	24:X:139:GLU:OE2	2.35	0.65
20:T:77:LYS:CB	20:T:94:ARG:CD	2.48	0.65
16:P:53:GLN:O	16:P:56:LEU:HB2	1.97	0.65
9:I:69:SER:HB2	12:L:19:ASN:HD22	1.53	0.65
12:L:17:PHE:CD1	12:L:18:GLN:O	2.49	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:99:TYR:C	12:L:100:ASN:OD1	2.35	0.65
21:U:49:LYS:C	21:U:50:VAL:HG12	2.16	0.65
6:F:36:GLN:HG3	6:F:37:ASP:OD2	1.95	0.65
20:T:124:THR:HG21	20:T:126:GLN:HB3	1.76	0.65
5:E:165:GLU:N	5:E:165:GLU:OE2	2.29	0.65
4:D:55:THR:CA	4:D:58:VAL:HG22	2.27	0.65
5:E:72:ILE:HD13	5:E:82:TYR:CE2	2.32	0.65
7:G:185:LEU:HB3	7:G:189:ARG:NH1	2.12	0.65
8:H:193:GLN:H	8:H:193:GLN:CD	2.00	0.65
10:J:169:ARG:CB	10:J:170:PRO:CD	2.45	0.65
18:R:119:VAL:HG23	18:R:119:VAL:O	1.96	0.65
20:T:77:LYS:HA	20:T:94:ARG:CG	2.26	0.65
26:Z:99:LEU:CD1	26:Z:102:LYS:NZ	2.59	0.65
3:C:155:TRP:CH2	23:W:97:ARG:HD3	2.32	0.65
22:V:9:VAL:HG12	22:V:10:ASP:H	1.60	0.65
26:Z:70:PRO:CD	26:Z:71:ALA:N	2.55	0.65
6:F:115:ALA:CB	6:F:177:LEU:HD22	2.26	0.65
2:B:42:ARG:HH22	2:B:232:HIS:HA	1.60	0.65
3:C:60:ILE:C	3:C:82:PHE:CE1	2.69	0.65
7:G:162:LEU:HD22	7:G:172:LYS:NZ	2.12	0.65
7:G:32:MET:O	7:G:33:ALA:CB	2.44	0.65
8:H:51:ILE:CD1	8:H:176:VAL:HA	2.26	0.65
9:I:119:LEU:O	9:I:120:PRO:O	2.15	0.65
9:I:145:ILE:HA	9:I:148:LYS:HD3	1.78	0.65
11:K:4:PRO:CG	11:K:7:ASN:ND2	2.60	0.65
17:Q:39:LEU:O	17:Q:42:ILE:HD12	1.96	0.65
16:P:41:GLN:HA	16:P:84:ILE:HD11	1.78	0.65
16:P:41:GLN:HB2	16:P:84:ILE:HG12	1.77	0.65
16:P:53:GLN:CB	16:P:56:LEU:HD12	2.26	0.65
16:P:13:ARG:O	16:P:14:LYS:HG3	1.97	0.65
4:D:163:PRO:HA	4:D:166:TYR:HD2	1.60	0.65
19:S:46:ARG:NH1	20:T:50:GLU:HG2	2.12	0.65
21:U:47:ASN:O	21:U:47:ASN:ND2	2.29	0.65
24:X:60:LYS:HE2	24:X:116:PRO:CB	2.26	0.65
21:U:56:MET:HE3	21:U:88:LEU:CD2	2.27	0.65
10:J:137:VAL:HG22	10:J:157:ILE:HG12	1.79	0.65
1:A:159:ILE:HG22	1:A:159:ILE:O	1.96	0.65
1:A:39:TYR:N	1:A:50:ASN:ND2	2.44	0.65
7:G:102:VAL:HG22	7:G:109:LEU:HD21	1.79	0.65
7:G:142:ARG:HH21	7:G:152:ASP:N	1.95	0.65
7:G:142:ARG:NH1	7:G:142:ARG:CG	2.47	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:50:LEU:CD1	10:J:102:ILE:CD1	2.72	0.65
14:N:76:LYS:HD2	14:N:77:SER:N	2.11	0.65
24:X:52:LEU:HD21	24:X:71:ARG:HD3	1.79	0.65
16:P:44:ARG:CZ	16:P:84:ILE:HD12	2.24	0.65
19:S:46:ARG:HH12	20:T:50:GLU:HA	1.62	0.65
19:S:46:ARG:NE	20:T:50:GLU:HG2	2.10	0.65
5:E:130:PHE:HB2	5:E:138:HIS:CD2	2.31	0.65
13:M:12:MET:CE	13:M:17:ALA:C	2.41	0.65
14:N:142:GLU:CD	14:N:144:SER:OG	2.34	0.65
8:H:149:ASP:CG	8:H:149:ASP:O	2.34	0.65
18:R:77:GLU:HG3	18:R:80:ARG:HH21	1.60	0.65
1:A:42:LYS:CD	18:R:105:MET:CG	2.24	0.65
1:A:98:PRO:O	1:A:99:ILE:HG13	1.97	0.65
2:B:32:ASP:OD1	2:B:46:LYS:CD	2.44	0.65
2:B:67:PHE:CD1	15:O:47:LEU:HB2	2.30	0.65
3:C:115:ILE:CD1	3:C:144:LYS:HG3	2.27	0.65
5:E:159:THR:HG21	5:E:227:VAL:CG2	2.21	0.65
5:E:98:ASN:ND2	5:E:114:ILE:HG13	2.12	0.65
7:G:227:GLN:O	7:G:231:ARG:HG3	1.96	0.65
9:I:194:GLU:HG2	12:L:10:TYR:CD2	2.32	0.65
15:O:43:HIS:CG	15:O:43:HIS:O	2.47	0.65
2:B:25:PHE:CG	15:O:88:LEU:HD13	2.32	0.65
1:A:141:ASN:O	22:V:32:ILE:CG2	2.44	0.65
22:V:40:ASP:O	22:V:40:ASP:CG	2.33	0.65
16:P:44:ARG:HD2	16:P:82:ASP:O	1.97	0.65
25:Y:87:PRO:CB	25:Y:89:HIS:CE1	2.80	0.65
25:Y:63:HIS:ND1	25:Y:64:PHE:CD1	2.65	0.65
10:J:78:LEU:HD13	10:J:92:MET:O	1.96	0.65
4:D:112:GLY:C	4:D:113:LEU:CG	2.65	0.65
18:R:5:ARG:CA	18:R:10:LYS:NZ	2.59	0.65
4:D:212:GLU:HG2	18:R:19:LYS:NZ	2.11	0.65
11:K:96:ARG:CG	11:K:97:SER:N	2.57	0.65
4:D:141:LYS:HD2	4:D:179:GLN:HG2	1.77	0.65
1:A:186:ARG:NE	1:A:186:ARG:O	2.30	0.65
6:F:39:ILE:HG23	6:F:68:ILE:HD13	1.79	0.65
7:G:64:LYS:HE2	7:G:67:VAL:CG1	2.27	0.65
8:H:166:VAL:HG22	8:H:173:PHE:CE2	2.30	0.65
9:I:157:LYS:O	9:I:158:ILE:O	2.14	0.65
9:I:167:GLN:HG3	9:I:168:GLN:N	2.12	0.65
22:V:67:ASP:O	22:V:68:SER:C	2.35	0.65
26:Z:103:HIS:NE2	26:Z:105:ALA:CB	2.58	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:23:MET:HE3	25:Y:44:LEU:HD21	1.78	0.65
8:H:16:PRO:O	8:H:20:GLU:CD	2.36	0.65
4:D:201:LYS:CE	4:D:201:LYS:HA	2.14	0.65
25:Y:101:LYS:C	25:Y:102:THR:OG1	2.29	0.65
13:M:14:VAL:C	13:M:16:THR:N	2.49	0.65
25:Y:99:LYS:NZ	25:Y:99:LYS:O	2.29	0.65
25:Y:10:ARG:NE	25:Y:24:VAL:CG1	2.40	0.65
4:D:179:GLN:NE2	4:D:179:GLN:O	2.30	0.65
1:A:66:VAL:HG13	1:A:186:ARG:CB	2.27	0.65
2:B:30:TRP:HE1	15:O:17:LEU:HD22	1.59	0.65
2:B:93:GLY:C	2:B:94:LYS:CD	2.65	0.65
3:C:54:LEU:HD22	3:C:254:PHE:HB3	1.79	0.65
5:E:98:ASN:ND2	5:E:114:ILE:CD1	2.60	0.65
7:G:50:VAL:HG11	7:G:111:LEU:HD22	1.73	0.65
9:I:104:ILE:O	9:I:105:ASP:OD2	2.15	0.65
10:J:170:PRO:HD2	10:J:175:ARG:HH11	1.61	0.65
11:K:18:GLU:C	11:K:92:ALA:HB2	2.17	0.65
9:I:85:ALA:HB1	12:L:8:ARG:CD	2.26	0.65
1:A:7:VAL:HG22	22:V:43:THR:HG21	1.79	0.65
6:F:20:PHE:HB3	6:F:23:TRP:HB2	1.78	0.65
6:F:51:HIS:ND1	17:Q:82:TYR:OH	2.30	0.65
20:T:31:PRO:CG	20:T:33:TRP:CZ2	2.79	0.65
12:L:71:ARG:HG2	12:L:73:LEU:HG	1.78	0.65
21:U:33:GLU:OE1	21:U:55:ARG:NH2	2.29	0.65
24:X:108:LYS:HB3	24:X:110:HIS:HE2	1.60	0.65
3:C:198:LEU:HD13	3:C:225:THR:HG23	1.77	0.65
1:A:119:PRO:O	1:A:142:LEU:CD2	2.45	0.64
1:A:32:PHE:CD1	1:A:33:GLN:NE2	2.64	0.64
2:B:77:ASP:O	2:B:79:VAL:HG13	1.97	0.64
7:G:162:LEU:CD2	7:G:172:LYS:HZ3	2.07	0.64
8:H:163:GLN:O	8:H:166:VAL:HG12	1.97	0.64
14:N:139:TRP:CE3	14:N:140:LYS:CA	2.80	0.64
14:N:28:LEU:C	14:N:29:THR:CG2	2.61	0.64
21:U:27:ARG:CG	21:U:83:ARG:O	2.45	0.64
24:X:99:GLU:C	24:X:100:VAL:HG13	2.18	0.64
24:X:93:PHE:O	24:X:140:ARG:NH1	2.30	0.64
17:Q:47:LEU:HD23	17:Q:81:ILE:HD13	1.64	0.64
19:S:92:ASP:OD2	19:S:92:ASP:N	2.30	0.64
13:M:85:LEU:HD13	13:M:106:CYS:SG	2.38	0.64
19:S:47:LYS:CE	19:S:78:LYS:HB2	2.26	0.64
5:E:259:LYS:HG2	5:E:260:GLN:OE1	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:58:MET:CE	3:C:81:PHE:HZ	2.10	0.64
5:E:151:ASP:OD2	5:E:151:ASP:N	2.30	0.64
5:E:49:ARG:CB	5:E:55:ALA:HB3	2.28	0.64
10:J:48:PHE:HE1	10:J:52:LYS:CE	1.86	0.64
6:F:76:MET:HE1	6:F:169:ILE:CG2	2.15	0.64
12:L:80:MET:HE2	12:L:120:VAL:O	1.87	0.64
10:J:91:LYS:CA	10:J:96:TYR:CG	2.80	0.64
2:B:209:ASP:O	2:B:210:VAL:HB	1.97	0.64
3:C:241:TRP:CD1	23:W:68:ARG:HD3	2.32	0.64
8:H:85:LYS:CD	8:H:85:LYS:O	2.35	0.64
16:P:39:ALA:CA	16:P:42:ARG:HE	2.09	0.64
1:A:89:LYS:HB3	1:A:202:TYR:CZ	2.31	0.64
1:A:40:LYS:HD3	1:A:41:ARG:H	1.62	0.64
5:E:55:ALA:C	5:E:56:LEU:HD23	2.17	0.64
5:E:71:LYS:HE3	5:E:75:LYS:HA	1.78	0.64
6:F:110:GLN:O	6:F:113:VAL:CG1	2.44	0.64
7:G:142:ARG:CD	7:G:147:LEU:HB3	2.26	0.64
10:J:35:TYR:CE1	10:J:112:THR:HG21	2.33	0.64
11:K:53:LYS:HG3	11:K:54:SER:N	2.11	0.64
11:K:71:LEU:CG	11:K:76:ILE:HD13	2.25	0.64
14:N:139:TRP:CZ3	14:N:141:TYR:N	2.65	0.64
14:N:89:TYR:CE1	14:N:150:VAL:HG13	2.32	0.64
14:N:54:LEU:HB3	14:N:60:VAL:CG2	2.20	0.64
15:O:30:VAL:CG2	15:O:45:THR:OG1	2.46	0.64
1:A:48:ILE:HG12	18:R:105:MET:HE3	1.58	0.64
21:U:106:ILE:HG12	21:U:106:ILE:O	1.98	0.64
24:X:52:LEU:HD11	24:X:71:ARG:CB	2.28	0.64
25:Y:114:MET:CE	25:Y:125:VAL:CG2	2.73	0.64
20:T:95:GLY:O	20:T:96:SER:O	2.14	0.64
19:S:54:LYS:HD3	19:S:58:GLU:OE1	1.98	0.64
25:Y:62:THR:CB	25:Y:69:THR:HG22	2.27	0.64
2:B:116:LYS:O	2:B:117:TRP:HB2	1.95	0.64
4:D:215:ASP:O	4:D:216:GLU:CB	2.45	0.64
4:D:222:PRO:O	4:D:223:ILE:HB	1.98	0.64
13:M:18:LEU:CD2	13:M:22:LEU:HG	2.25	0.64
20:T:111:LYS:O	20:T:124:THR:HG21	1.97	0.64
20:T:124:THR:HG22	20:T:127:GLY:H	1.61	0.64
15:O:37:PHE:O	15:O:38:ASN:CB	2.46	0.64
4:D:207:HIS:O	4:D:208:VAL:HG23	1.97	0.64
1:A:180:ARG:NH1	1:A:184:ARG:HH12	1.95	0.64
2:B:28:LYS:CD	15:O:51:GLU:OE2	2.45	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:142:LEU:O	3:C:145:LEU:HD23	1.96	0.64
3:C:245:VAL:O	3:C:246:PHE:HB2	1.96	0.64
7:G:145:PHE:HB3	7:G:147:LEU:HD13	1.77	0.64
14:N:94:LYS:HG2	14:N:118:ILE:HD13	1.78	0.64
25:Y:54:VAL:HG13	25:Y:76:TYR:CA	2.27	0.64
4:D:158:ILE:HD12	4:D:189:MET:HE1	1.65	0.64
19:S:20:ILE:HD11	19:S:33:ILE:HD11	1.79	0.64
13:M:35:ILE:HD13	13:M:61:TYR:CE2	2.32	0.64
23:W:101:PHE:HD2	23:W:129:PHE:HE1	1.46	0.64
23:W:90:GLN:N	23:W:102:ILE:CD1	2.60	0.64
3:C:236:LEU:CD2	3:C:237:THR:O	2.45	0.64
4:D:67:ARG:NH1	4:D:67:ARG:CG	2.56	0.64
9:I:206:LYS:CG	9:I:207:GLY:H	2.07	0.64
21:U:19:ARG:CG	21:U:92:HIS:CE1	2.76	0.64
9:I:3:ILE:HG22	9:I:3:ILE:O	1.97	0.64
5:E:259:LYS:O	5:E:260:GLN:CG	2.45	0.64
3:C:164:THR:HG23	3:C:165:VAL:H	1.63	0.64
1:A:16:LEU:HB2	1:A:17:LYS:CE	2.28	0.64
1:A:193:HIS:ND1	1:A:194:PRO:HD2	2.12	0.64
7:G:162:LEU:HG	7:G:170:ARG:CB	2.25	0.64
9:I:144:LYS:O	9:I:145:ILE:CB	2.45	0.64
10:J:143:ASN:C	10:J:144:ILE:HG13	2.13	0.64
11:K:50:GLN:O	11:K:53:LYS:HG2	1.98	0.64
11:K:64:TRP:C	11:K:65:ARG:CG	2.66	0.64
2:B:25:PHE:CD2	15:O:88:LEU:HD21	2.30	0.64
17:Q:115:TYR:HD2	17:Q:116:ASP:H	1.44	0.64
17:Q:34:VAL:HG21	17:Q:39:LEU:CD2	2.22	0.64
16:P:41:GLN:NE2	16:P:45:LEU:CG	2.40	0.64
13:M:35:ILE:HG23	13:M:36:ARG:N	2.13	0.64
2:B:105:LEU:HD11	2:B:213:ARG:CG	2.27	0.64
8:H:117:PRO:HD2	8:H:120:ARG:HD2	1.80	0.64
3:C:123:GLY:CA	3:C:226:PHE:CZ	2.76	0.64
8:H:110:THR:O	8:H:110:THR:CG2	2.46	0.64
16:P:98:ASN:OD1	16:P:120:SER:OG	2.14	0.64
5:E:126:VAL:HG21	5:E:129:ILE:CD1	2.27	0.64
11:K:3:MET:HG2	11:K:4:PRO:O	1.97	0.64
14:N:59:GLY:O	14:N:60:VAL:CG1	2.45	0.64
19:S:39:ARG:HH22	20:T:38:LYS:HG2	1.60	0.64
2:B:87:ILE:CG2	2:B:101:HIS:CD2	2.77	0.64
16:P:10:ARG:HH21	16:P:11:THR:HG21	1.61	0.64
19:S:8:LYS:CA	26:Z:49:LEU:CD2	2.75	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:84:ILE:HD12	10:J:86:VAL:CG2	2.28	0.64
25:Y:98:GLU:C	25:Y:98:GLU:OE2	2.35	0.64
13:M:91:LEU:CD2	13:M:104:VAL:HG13	2.21	0.64
3:C:234:SER:C	22:V:23:ILE:HD13	2.18	0.64
13:M:56:CYS:SG	13:M:57:ASP:N	2.71	0.64
1:A:186:ARG:HH11	1:A:186:ARG:C	1.99	0.64
2:B:71:LEU:HB2	2:B:84:PHE:CE2	2.33	0.64
7:G:76:LEU:HD21	7:G:92:ARG:CG	2.19	0.64
11:K:84:HIS:O	11:K:84:HIS:CG	2.39	0.64
14:N:40:LEU:HB3	14:N:45:LEU:HD12	1.79	0.64
3:C:217:THR:O	3:C:219:GLY:N	2.31	0.64
20:T:77:LYS:CG	20:T:92:PHE:HZ	2.03	0.64
16:P:108:LYS:NZ	19:S:118:ARG:NH1	2.43	0.64
19:S:8:LYS:HB2	19:S:9:PHE:HD1	0.65	0.64
20:T:144:LYS:CB	20:T:144:LYS:NZ	2.55	0.64
2:B:181:LEU:O	2:B:185:VAL:HG23	1.97	0.64
25:Y:111:LYS:HZ3	25:Y:115:LYS:NZ	1.95	0.64
1:A:176:TRP:CD1	1:A:199:PRO:HA	2.33	0.64
3:C:55:VAL:CG1	3:C:82:PHE:CD2	2.74	0.64
4:D:3:VAL:O	4:D:3:VAL:CG1	2.37	0.64
4:D:74:GLN:HE22	4:D:75:LYS:CE	2.10	0.64
5:E:86:PHE:O	5:E:142:HIS:HE1	1.81	0.64
9:I:154:LYS:NZ	9:I:154:LYS:O	2.30	0.64
6:F:91:ARG:CD	17:Q:46:THR:HG21	2.26	0.64
8:H:87:PHE:O	8:H:88:SER:O	2.15	0.64
16:P:10:ARG:HE	16:P:11:THR:CB	2.11	0.64
16:P:110:GLU:N	16:P:110:GLU:OE2	2.30	0.64
26:Z:65:TYR:HD2	26:Z:68:ILE:CG1	2.11	0.64
10:J:84:ILE:CD1	10:J:86:VAL:CG2	2.75	0.64
2:B:178:THR:O	2:B:179:ASN:HB2	1.95	0.64
14:N:137:PRO:O	14:N:138:ASN:ND2	2.31	0.64
5:E:133:THR:O	5:E:134:LYS:CB	2.46	0.64
6:F:19:LEU:CD2	6:F:24:SER:HA	2.28	0.64
3:C:255:THR:CG2	3:C:256:ASP:OD1	2.45	0.64
1:A:196:GLU:OE2	1:A:196:GLU:HA	1.97	0.64
4:D:43:PRO:C	4:D:44:THR:CG2	2.60	0.64
11:K:57:TYR:CD1	11:K:75:GLY:HA2	2.33	0.64
12:L:5:GLN:NE2	12:L:10:TYR:CE1	2.59	0.64
14:N:76:LYS:C	14:N:76:LYS:HD2	2.18	0.64
22:V:40:ASP:HB3	22:V:47:ASN:HD21	1.60	0.64
16:P:59:ARG:HD3	16:P:76:VAL:CG1	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:166:TYR:HD1	4:D:200:PRO:HB2	1.53	0.64
12:L:113:LEU:HD11	12:L:120:VAL:CB	2.27	0.64
10:J:82:VAL:CG1	10:J:92:MET:CE	2.76	0.64
4:D:123:LEU:HD21	4:D:154:ASP:OD2	1.97	0.64
4:D:216:GLU:O	4:D:217:ILE:HD12	1.97	0.64
4:D:63:GLY:O	4:D:67:ARG:NH1	2.31	0.64
9:I:82:VAL:CG1	9:I:202:ILE:HD11	2.25	0.64
25:Y:5:VAL:HG12	25:Y:6:THR:N	2.12	0.64
1:A:52:LYS:HB3	1:A:52:LYS:HZ1	1.61	0.64
1:A:120:ARG:NH2	3:C:252:GLN:OE1	2.31	0.64
3:C:51:LEU:HD23	3:C:60:ILE:HD12	1.79	0.64
3:C:54:LEU:CD1	3:C:258:LEU:CD1	2.60	0.64
3:C:58:MET:CE	3:C:81:PHE:CZ	2.81	0.64
4:D:74:GLN:HB2	4:D:84:VAL:HG12	1.80	0.64
7:G:210:ALA:O	7:G:213:LEU:HG	1.98	0.64
7:G:64:LYS:HE2	7:G:67:VAL:HG13	1.79	0.64
8:H:138:GLU:OE2	14:N:19:ARG:CA	2.46	0.64
10:J:61:LEU:HD23	10:J:98:LEU:HD11	1.74	0.64
12:L:22:ARG:CZ	12:L:22:ARG:HB3	2.27	0.64
17:Q:50:LYS:NZ	17:Q:85:ARG:HH21	1.69	0.64
20:T:31:PRO:CB	20:T:33:TRP:CD2	2.77	0.64
16:P:83:MET:HB3	16:P:116:LEU:CD1	2.28	0.64
16:P:5:GLU:O	16:P:6:GLN:HB2	1.97	0.64
19:S:94:LYS:HD3	19:S:96:SER:HG	1.58	0.64
13:M:13:ASP:OD1	13:M:13:ASP:N	2.30	0.64
25:Y:92:ALA:HA	25:Y:97:TYR:CA	2.27	0.64
12:L:103:GLU:CD	24:X:11:ARG:CZ	2.66	0.64
6:F:112:LEU:O	6:F:116:ILE:HD11	1.97	0.64
5:E:191:ARG:NE	5:E:245:ARG:HD3	2.13	0.64
6:F:195:GLU:O	6:F:199:VAL:HG23	1.97	0.64
1:A:149:ASN:HB2	1:A:165:ASN:CG	2.18	0.63
3:C:233:TYR:CE1	22:V:12:TYR:CZ	2.86	0.63
4:D:38:GLU:OE1	4:D:40:ARG:NH2	2.28	0.63
4:D:53:THR:HG22	4:D:91:VAL:CG2	2.27	0.63
6:F:28:VAL:HG13	6:F:110:GLN:OE1	1.97	0.63
8:H:190:PRO:HB2	8:H:191:GLU:HG2	1.79	0.63
10:J:37:LEU:HG	10:J:42:GLU:HB2	1.78	0.63
12:L:112:HIS:HB2	12:L:134:LEU:CD1	2.28	0.63
14:N:28:LEU:HD13	14:N:58:HIS:CE1	2.33	0.63
14:N:38:TYR:CE1	14:N:78:LYS:CG	2.82	0.63
6:F:44:LYS:HD2	6:F:44:LYS:C	2.10	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:123:TYR:CZ	19:S:120:HIS:NE2	2.66	0.63
9:I:8:TRP:CZ3	9:I:20:PRO:HA	2.32	0.63
16:P:124:LYS:O	16:P:125:PRO:C	2.35	0.63
18:R:71:ILE:O	18:R:75:GLU:HG3	1.97	0.63
18:R:44:LYS:HE3	18:R:47:ARG:CZ	2.22	0.63
3:C:161:LYS:HD3	22:V:9:VAL:HG21	1.80	0.63
13:M:124:ILE:CA	13:M:127:TYR:CE2	2.80	0.63
25:Y:111:LYS:HD2	25:Y:115:LYS:HE3	1.80	0.63
2:B:75:GLN:NE2	2:B:75:GLN:CA	2.61	0.63
14:N:6:ALA:HB1	14:N:7:PRO:CD	2.28	0.63
1:A:17:LYS:H	1:A:17:LYS:CE	2.08	0.63
1:A:193:HIS:HB3	1:A:194:PRO:HD2	1.80	0.63
3:C:120:GLY:CA	3:C:150:VAL:HG22	2.29	0.63
10:J:170:PRO:HB3	10:J:174:LYS:CE	2.27	0.63
11:K:11:ILE:HG23	11:K:49:MET:HE3	1.77	0.63
25:Y:56:PHE:HB3	25:Y:58:PHE:HE2	1.63	0.63
8:H:10:LYS:CB	8:H:20:GLU:OE1	2.46	0.63
3:C:237:THR:OG1	3:C:240:LEU:HD13	1.97	0.63
13:M:78:LYS:O	13:M:79:VAL:CB	2.47	0.63
20:T:84:ARG:HB2	20:T:84:ARG:CZ	2.27	0.63
1:A:205:ARG:O	1:A:206:ASP:HB2	1.97	0.63
18:R:84:TYR:C	18:R:85:VAL:HG23	2.18	0.63
21:U:56:MET:CE	21:U:88:LEU:CD2	2.77	0.63
20:T:21:PHE:CE1	20:T:22:LEU:HD23	2.33	0.63
2:B:31:TYR:CE2	2:B:62:LEU:HD22	2.33	0.63
4:D:29:LEU:CB	4:D:34:TYR:HB2	2.28	0.63
5:E:11:ARG:O	5:E:12:VAL:HB	1.96	0.63
6:F:28:VAL:HA	6:F:110:GLN:OE1	1.99	0.63
7:G:32:MET:CE	7:G:100:CYS:O	2.43	0.63
8:H:163:GLN:HG2	8:H:164:ASN:N	2.12	0.63
8:H:193:GLN:C	8:H:194:LEU:O	2.31	0.63
9:I:112:TRP:CZ3	9:I:117:TYR:CE2	2.86	0.63
10:J:134:HIS:C	10:J:135:ILE:HG23	2.17	0.63
10:J:16:PRO:HD2	10:J:44:TRP:CH2	2.32	0.63
14:N:21:SER:O	14:N:22:VAL:CB	2.46	0.63
14:N:60:VAL:HG23	14:N:60:VAL:O	1.97	0.63
2:B:67:PHE:CD1	15:O:47:LEU:O	2.51	0.63
18:R:32:LYS:HE2	18:R:33:ARG:NE	2.11	0.63
1:A:66:VAL:HG11	22:V:46:PHE:CB	2.28	0.63
24:X:122:VAL:HG12	24:X:130:LEU:HD11	1.79	0.63
6:F:42:LYS:HE3	6:F:43:GLU:CA	2.27	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:112:LEU:O	17:Q:116:ASP:HA	1.99	0.63
25:Y:57:VAL:C	25:Y:58:PHE:CD2	2.72	0.63
8:H:64:VAL:HG13	8:H:65:PRO:HD2	1.79	0.63
2:B:113:MET:SD	2:B:211:PHE:HE2	2.06	0.63
13:M:124:ILE:HG13	13:M:125:GLU:N	2.13	0.63
6:F:59:LYS:CD	6:F:62:ARG:HD3	2.23	0.63
8:H:143:ARG:HE	23:W:53:ILE:CG2	1.99	0.63
9:I:140:LYS:O	9:I:144:LYS:O	2.14	0.63
9:I:141:ARG:C	9:I:143:LYS:HB3	2.19	0.63
9:I:145:ILE:CA	9:I:148:LYS:HG3	2.29	0.63
15:O:19:PRO:CD	15:O:27:VAL:HG21	2.12	0.63
15:O:98:ARG:HG3	15:O:133:THR:HA	1.81	0.63
25:Y:117:VAL:CG2	25:Y:124:ASN:OD1	2.46	0.63
17:Q:42:ILE:HD11	17:Q:51:LEU:CD1	2.29	0.63
19:S:39:ARG:HD3	20:T:38:LYS:HZ1	1.61	0.63
6:F:165:ASN:OD1	6:F:167:LYS:HB2	1.98	0.63
12:L:113:LEU:HD21	12:L:117:PHE:HB2	1.79	0.63
2:B:113:MET:HE3	2:B:209:ASP:CB	2.29	0.63
4:D:126:ILE:CD1	4:D:134:CYS:CB	2.75	0.63
12:L:40:ILE:HG23	12:L:41:GLY:O	1.99	0.63
14:N:5:HIS:CD2	14:N:121:ARG:NE	2.66	0.63
3:C:59:LYS:CG	3:C:254:PHE:CE1	2.77	0.63
4:D:59:LEU:HD12	4:D:60:GLY:O	1.99	0.63
5:E:167:GLY:C	5:E:168:LYS:HG2	2.19	0.63
6:F:129:GLY:O	6:F:134:VAL:HG22	1.97	0.63
7:G:179:LEU:N	7:G:179:LEU:HD23	4.82	0.63
9:I:112:TRP:CH2	9:I:117:TYR:CE2	2.86	0.63
19:S:85:ASN:HD21	19:S:98:VAL:H	1.47	0.63
19:S:91:LYS:C	19:S:92:ASP:OD2	2.37	0.63
21:U:50:VAL:HG23	21:U:89:ILE:HG23	1.79	0.63
3:C:164:THR:HG23	3:C:165:VAL:N	2.12	0.63
5:E:115:THR:HB	5:E:116:PRO:HD2	1.81	0.63
5:E:75:LYS:O	5:E:76:VAL:O	2.17	0.63
8:H:158:LEU:HD11	8:H:187:PHE:CE1	2.33	0.63
9:I:145:ILE:HA	9:I:148:LYS:CG	2.28	0.63
6:F:46:ALA:O	6:F:47:LYS:CD	2.39	0.63
5:E:64:ILE:HG13	25:Y:18:LEU:HD21	1.80	0.63
26:Z:99:LEU:HD11	26:Z:102:LYS:NZ	2.13	0.63
25:Y:101:LYS:O	25:Y:102:THR:CB	2.44	0.63
16:P:65:LYS:HG3	16:P:66:GLU:N	2.13	0.63
10:J:103:GLU:O	10:J:107:GLU:HG3	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:20:GLN:NE2	15:O:21:VAL:O	2.31	0.63
9:I:36:THR:HB	9:I:57:ALA:O	1.97	0.63
6:F:204:ARG:C	15:O:72:TYR:CD2	2.72	0.63
7:G:80:GLY:O	7:G:81:HIS:CG	2.52	0.63
9:I:80:ASP:OD1	9:I:94:LYS:HG2	1.98	0.63
10:J:16:PRO:O	10:J:18:ARG:N	2.32	0.63
11:K:48:ALA:O	11:K:52:LEU:HD23	1.98	0.63
14:N:27:LYS:HD2	14:N:28:LEU:H	1.64	0.63
22:V:53:TYR:OH	22:V:72:LEU:O	2.08	0.63
3:C:196:LYS:O	3:C:200:LEU:HD23	1.97	0.63
6:F:42:LYS:HB2	6:F:46:ALA:H	1.64	0.63
16:P:83:MET:HE3	16:P:116:LEU:CD1	2.18	0.63
19:S:34:LYS:CA	19:S:103:LEU:CD2	2.73	0.63
19:S:80:PRO:CG	19:S:82:TRP:CE2	2.82	0.63
21:U:48:LEU:HD12	21:U:91:LEU:HD22	1.79	0.63
13:M:89:VAL:CG2	13:M:109:VAL:HG11	2.26	0.63
8:H:85:LYS:C	8:H:85:LYS:CD	2.51	0.63
1:A:23:THR:O	1:A:24:HIS:C	2.36	0.63
3:C:149:PRO:O	3:C:149:PRO:CD	2.45	0.63
10:J:135:ILE:O	10:J:135:ILE:HG13	1.99	0.63
11:K:14:LEU:HD21	11:K:35:LEU:HD13	1.81	0.63
18:R:99:ASP:HB3	18:R:119:VAL:HG12	1.80	0.63
24:X:126:ALA:CA	24:X:128:VAL:HB	2.28	0.63
6:F:46:ALA:C	6:F:47:LYS:HD3	2.18	0.63
17:Q:12:VAL:HG11	17:Q:90:LYS:CB	2.28	0.63
17:Q:76:GLY:H	17:Q:79:ALA:HB3	1.64	0.63
25:Y:58:PHE:CE1	25:Y:72:PHE:CD2	2.87	0.63
16:P:10:ARG:NH2	16:P:11:THR:HG21	2.10	0.63
9:I:25:ARG:HD2	9:I:27:TYR:HE2	0.79	0.63
10:J:80:ARG:HA	10:J:83:ARG:CD	2.29	0.63
13:M:13:ASP:C	13:M:16:THR:CB	2.49	0.63
6:F:112:LEU:CA	6:F:177:LEU:HD11	2.28	0.63
24:X:35:ALA:HA	24:X:39:ASN:HD22	1.60	0.63
1:A:125:THR:O	1:A:147:LEU:HD12	1.98	0.63
7:G:74:ARG:HD3	7:G:94:ARG:CD	2.22	0.63
10:J:118:GLY:O	10:J:120:ALA:N	2.29	0.63
10:J:171:GLY:C	10:J:173:VAL:N	2.48	0.63
6:F:45:TYR:O	6:F:47:LYS:HE3	1.94	0.63
16:P:44:ARG:HD3	16:P:115:TYR:CE1	2.33	0.63
5:E:67:GLN:HG2	5:E:69:PHE:CE2	2.33	0.63
8:H:14:GLU:CG	8:H:16:PRO:HB2	2.29	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:21:ASP:O	16:P:25:LEU:N	2.29	0.63
3:C:155:TRP:CE2	23:W:97:ARG:HD3	2.34	0.63
2:B:151:ARG:CD	2:B:153:THR:HG22	2.27	0.63
25:Y:92:ALA:O	25:Y:97:TYR:O	2.15	0.63
17:Q:30:GLY:CA	17:Q:66:VAL:O	2.40	0.63
14:N:114:ARG:NH2	14:N:114:ARG:HG2	2.11	0.63
5:E:260:GLN:CA	5:E:260:GLN:OE1	2.47	0.63
1:A:145:ILE:HA	1:A:159:ILE:HG21	1.78	0.62
1:A:17:LYS:H	1:A:17:LYS:HE3	1.64	0.62
1:A:120:ARG:HG2	3:C:251:TYR:CE2	2.34	0.62
4:D:70:THR:HG22	4:D:86:LEU:CG	2.29	0.62
5:E:62:LYS:HD2	5:E:80:ILE:CG1	2.28	0.62
5:E:98:ASN:ND2	5:E:114:ILE:HD11	2.13	0.62
7:G:25:ARG:O	7:G:27:PHE:N	2.31	0.62
8:H:145:ARG:NE	23:W:51:GLU:CD	2.52	0.62
11:K:3:MET:HG2	11:K:4:PRO:N	2.13	0.62
22:V:66:ASP:O	22:V:67:ASP:C	2.30	0.62
8:H:66:VAL:CG2	8:H:97:GLN:O	2.47	0.62
16:P:10:ARG:HE	16:P:11:THR:CA	2.11	0.62
26:Z:51:ASP:O	26:Z:53:ALA:N	2.32	0.62
12:L:113:LEU:CD1	12:L:120:VAL:HG11	2.29	0.62
19:S:46:ARG:NH1	20:T:50:GLU:HA	2.14	0.62
3:C:158:LYS:HE2	3:C:158:LYS:C	2.18	0.62
3:C:255:THR:HG23	3:C:256:ASP:N	2.13	0.62
22:V:62:MET:HG3	22:V:62:MET:O	1.98	0.62
1:A:185:MET:HE2	22:V:39:VAL:CG1	2.26	0.62
1:A:85:ARG:O	1:A:85:ARG:HG2	2.86	0.62
5:E:87:MET:O	5:E:122:LYS:CE	2.47	0.62
6:F:134:VAL:CG1	6:F:136:ARG:HH21	2.09	0.62
7:G:217:MET:O	7:G:221:LYS:HB2	1.98	0.62
15:O:31:CYS:HB2	15:O:95:ILE:CG1	2.27	0.62
15:O:72:TYR:CE1	15:O:76:LEU:HD11	2.33	0.62
23:W:65:LEU:O	23:W:65:LEU:HD12	1.98	0.62
6:F:44:LYS:CA	6:F:45:TYR:HD1	2.12	0.62
17:Q:50:LYS:HZ1	17:Q:85:ARG:HH22	1.42	0.62
5:E:64:ILE:HG12	25:Y:17:LEU:CD1	2.29	0.62
16:P:121:ILE:HG22	19:S:120:HIS:CA	2.29	0.62
12:L:94:HIS:HB3	12:L:105:ARG:HD2	1.75	0.62
20:T:91:HIS:N	20:T:91:HIS:HD2	1.96	0.62
8:H:147:LYS:HE3	8:H:153:LEU:HD11	1.81	0.62
24:X:41:PHE:HZ	24:X:102:VAL:HG12	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:5:LEU:CD1	1:A:6:ASP:N	2.51	0.62
5:E:75:LYS:C	5:E:76:VAL:HG22	4.63	0.62
7:G:135:PRO:CG	7:G:144:LEU:CD2	2.76	0.62
7:G:62:PRO:HG2	7:G:83:CYS:SG	2.38	0.62
11:K:40:VAL:HG23	11:K:41:PRO:CD	2.28	0.62
6:F:204:ARG:OXT	15:O:72:TYR:HB2	1.99	0.62
18:R:100:PRO:CG	18:R:119:VAL:CG2	2.73	0.62
17:Q:112:LEU:HD13	17:Q:120:LEU:HD21	1.80	0.62
25:Y:21:LYS:HE2	25:Y:77:ASP:CG	2.17	0.62
19:S:85:ASN:HD21	19:S:98:VAL:HB	1.64	0.62
26:Z:48:VAL:CA	26:Z:83:LEU:HD12	2.29	0.62
24:X:5:ARG:HH21	24:X:5:ARG:CG	2.12	0.62
1:A:206:ASP:O	1:A:207:PRO:O	2.17	0.62
16:P:39:ALA:CA	16:P:42:ARG:NE	2.56	0.62
4:D:74:GLN:HG3	4:D:79:PHE:O	2.00	0.62
7:G:31:ARG:O	7:G:34:THR:HG23	1.99	0.62
8:H:170:VAL:HA	8:H:173:PHE:HD2	1.64	0.62
8:H:51:ILE:HD11	8:H:176:VAL:HA	1.81	0.62
8:H:160:LYS:HB2	8:H:192:PHE:HZ	1.64	0.62
9:I:152:ARG:O	9:I:153:LYS:HB3	1.99	0.62
11:K:2:LEU:HD13	11:K:3:MET:H	0.53	0.62
22:V:56:CYS:SG	22:V:59:ILE:HG13	2.38	0.62
8:H:143:ARG:NE	23:W:53:ILE:HG12	2.11	0.62
10:J:81:LEU:CD1	10:J:97:ILE:HD13	2.29	0.62
4:D:135:GLU:HB3	4:D:153:VAL:HG22	1.81	0.62
15:O:77:ALA:O	15:O:81:VAL:HG23	1.98	0.62
1:A:177:MET:HE1	1:A:180:ARG:HH21	1.51	0.62
4:D:53:THR:HG22	4:D:91:VAL:H	1.64	0.62
5:E:93:ASP:O	5:E:95:THR:N	2.32	0.62
6:F:136:ARG:O	6:F:203:ASN:CB	2.45	0.62
10:J:110:LEU:O	10:J:112:THR:N	2.32	0.62
12:L:7:GLU:CG	12:L:8:ARG:N	2.41	0.62
2:B:30:TRP:NE1	15:O:17:LEU:CD2	2.56	0.62
15:O:17:LEU:CD2	15:O:18:GLY:N	2.63	0.62
6:F:42:LYS:HB2	6:F:45:TYR:H	0.82	0.62
16:P:85:ILE:C	16:P:86:LEU:HD23	2.19	0.62
16:P:77:LYS:C	16:P:78:THR:HG23	2.20	0.62
26:Z:62:VAL:HG11	26:Z:91:LEU:CD1	2.30	0.62
2:B:150:ILE:HG23	2:B:150:ILE:O	1.97	0.62
13:M:11:VAL:O	13:M:12:MET:HB3	1.99	0.62
12:L:118:ARG:CG	12:L:119:ASP:N	2.62	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:69:PRO:CD	16:P:70:MET:N	2.61	0.62
2:B:228:LEU:CD1	2:B:232:HIS:HD2	2.12	0.62
5:E:259:LYS:O	5:E:260:GLN:CD	2.38	0.62
17:Q:15:ARG:NH1	17:Q:20:THR:CG2	2.63	0.62
12:L:10:TYR:CD2	12:L:12:LYS:HE3	2.28	0.62
25:Y:22:GLN:CA	25:Y:74:MET:SD	2.88	0.62
8:H:12:ASN:CG	8:H:46:THR:OG1	2.38	0.62
16:P:13:ARG:C	16:P:14:LYS:CG	2.68	0.62
16:P:19:GLY:H	19:S:92:ASP:HA	1.64	0.62
19:S:30:ILE:CD1	19:S:45:LEU:HD21	2.29	0.62
19:S:58:GLU:HB2	19:S:59:LEU:HD13	1.80	0.62
25:Y:27:VAL:HG11	25:Y:35:VAL:CG2	2.25	0.62
13:M:13:ASP:C	13:M:16:THR:HB	2.13	0.62
3:C:154:TYR:CZ	3:C:162:PRO:N	2.68	0.62
23:W:29:PRO:O	23:W:30:CYS:HB3	1.99	0.62
23:W:30:CYS:HA	23:W:34:ILE:CD1	2.29	0.62
8:H:110:THR:O	8:H:110:THR:HG23	1.99	0.62
5:E:176:ASP:O	5:E:195:ILE:HD12	2.00	0.62
1:A:103:PHE:CZ	1:A:107:THR:OG1	2.53	0.62
1:A:141:ASN:C	22:V:32:ILE:CD1	2.68	0.62
1:A:24:HIS:HB3	1:A:51:LEU:HD21	1.82	0.62
5:E:49:ARG:NH2	5:E:50:ASN:HD21	1.96	0.62
24:X:71:ARG:HE	24:X:82:THR:HG22	1.62	0.62
8:H:65:PRO:HG2	8:H:68:GLN:CD	2.19	0.62
8:H:64:VAL:HG22	8:H:72:PHE:HE2	1.65	0.62
19:S:89:ASP:O	19:S:90:VAL:CB	2.47	0.62
25:Y:34:THR:CG2	25:Y:35:VAL:H	2.07	0.62
2:B:156:ALA:HB1	2:B:160:GLN:OE1	1.98	0.62
23:W:41:MET:HG2	23:W:129:PHE:HD2	1.63	0.62
1:A:149:ASN:CB	1:A:165:ASN:HD21	2.12	0.62
5:E:75:LYS:HG2	5:E:75:LYS:O	4.58	0.62
5:E:86:PHE:CE2	5:E:87:MET:HG2	2.34	0.62
21:U:69:PRO:HD2	21:U:69:PRO:O	1.98	0.62
6:F:42:LYS:O	6:F:42:LYS:HG2	1.99	0.62
6:F:76:MET:HB3	6:F:89:THR:OG1	2.00	0.62
17:Q:85:ARG:HH22	17:Q:117:ARG:HD2	1.63	0.62
6:F:91:ARG:HH21	17:Q:46:THR:CG2	2.13	0.62
17:Q:76:GLY:O	17:Q:80:GLN:HG2	2.00	0.62
26:Z:103:HIS:O	26:Z:104:ARG:C	2.35	0.62
20:T:31:PRO:HB3	20:T:33:TRP:CE3	2.34	0.62
20:T:77:LYS:CD	20:T:92:PHE:HE2	2.11	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:23:LYS:HD3	20:T:54:TYR:CD1	2.33	0.62
10:J:177:ASN:O	10:J:180:LYS:HB3	1.96	0.62
12:L:94:HIS:ND1	12:L:96:ILE:HD11	2.14	0.62
6:F:36:GLN:HG2	6:F:37:ASP:OD2	1.99	0.62
18:R:42:PRO:CD	18:R:43:SER:H	2.07	0.62
26:Z:63:PRO:O	26:Z:111:ARG:NH1	2.33	0.62
1:A:169:HIS:HD2	1:A:203:PHE:CE2	2.17	0.62
20:T:130:ASP:OD2	20:T:131:LEU:CD2	2.48	0.62
19:S:108:ARG:NH1	19:S:112:GLU:OE2	2.32	0.62
9:I:62:VAL:HG21	9:I:75:LYS:HE2	1.70	0.62
11:K:62:PHE:HE1	11:K:67:PHE:HE2	1.48	0.62
11:K:87:PRO:C	11:K:89:ILE:H	2.03	0.62
14:N:93:LYS:HG3	14:N:150:VAL:HG11	1.81	0.62
25:Y:58:PHE:CE1	25:Y:72:PHE:HD2	2.17	0.62
26:Z:80:ARG:CG	26:Z:82:SER:OG	2.40	0.62
21:U:59:LYS:HE3	21:U:86:LYS:HE2	1.82	0.62
6:F:186:ASN:O	6:F:191:LYS:NZ	2.31	0.62
3:C:259:VAL:HG12	3:C:259:VAL:O	1.97	0.62
13:M:71:GLU:O	13:M:72:HIS:C	2.38	0.62
26:Z:94:LYS:CD	26:Z:94:LYS:C	2.63	0.62
8:H:135:PHE:HD2	8:H:136:PRO:CD	2.12	0.62
2:B:62:LEU:HD23	2:B:91:VAL:CG2	2.28	0.62
7:G:162:LEU:HD22	7:G:172:LYS:HZ1	1.65	0.62
11:K:83:LEU:CB	11:K:85:LEU:HG	2.30	0.62
22:V:33:PRO:O	22:V:34:MET:HG2	2.00	0.62
2:B:87:ILE:CD1	2:B:220:LYS:NZ	2.63	0.62
19:S:54:LYS:N	19:S:54:LYS:CB	2.57	0.62
4:D:200:PRO:O	4:D:201:LYS:HB2	1.98	0.62
18:R:36:GLU:OE2	18:R:47:ARG:HD2	2.00	0.62
20:T:85:ASN:O	20:T:88:MET:HE3	2.00	0.62
17:Q:63:PHE:HD1	17:Q:68:ILE:HD11	1.65	0.62
2:B:38:MET:CE	2:B:186:ASN:ND2	2.52	0.62
20:T:27:LYS:HG3	20:T:27:LYS:O	2.00	0.62
9:I:190:LEU:HB2	9:I:195:LEU:HD13	1.82	0.61
10:J:35:TYR:CD1	10:J:112:THR:HG21	2.34	0.61
24:X:90:CYS:HA	24:X:93:PHE:CD2	2.34	0.61
6:F:42:LYS:O	6:F:42:LYS:CD	2.48	0.61
19:S:94:LYS:HB3	19:S:95:TYR:C	2.19	0.61
12:L:148:ALA:C	12:L:150:GLY:H	2.01	0.61
5:E:128:LYS:HG3	5:E:130:PHE:HD1	1.65	0.61
5:E:130:PHE:CB	5:E:138:HIS:CD2	2.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:57:VAL:O	24:X:67:ARG:HB2	2.00	0.61
15:O:23:GLU:O	15:O:23:GLU:CG	2.33	0.61
1:A:176:TRP:HZ2	1:A:195:TRP:CE3	1.94	0.61
3:C:115:ILE:HD13	3:C:144:LYS:CG	2.29	0.61
5:E:98:ASN:CG	5:E:119:ALA:HB2	2.15	0.61
7:G:177:GLN:HG2	7:G:178:ARG:H	1.66	0.61
10:J:12:THR:O	10:J:48:PHE:CE2	2.53	0.61
13:M:45:ARG:H	13:M:45:ARG:HE	1.47	0.61
18:R:100:PRO:HD2	18:R:119:VAL:HG13	1.82	0.61
17:Q:58:LEU:HD13	17:Q:108:ILE:CG2	2.26	0.61
26:Z:103:HIS:HD2	26:Z:105:ALA:CA	2.13	0.61
25:Y:76:TYR:CG	25:Y:82:ALA:HB2	2.35	0.61
19:S:58:GLU:HB2	19:S:59:LEU:CD1	2.30	0.61
19:S:8:LYS:N	19:S:8:LYS:CD	2.63	0.61
19:S:90:VAL:HG12	19:S:91:LYS:HG2	1.82	0.61
26:Z:65:TYR:N	26:Z:65:TYR:CD1	2.67	0.61
12:L:86:ILE:HG21	12:L:113:LEU:HD12	1.82	0.61
21:U:59:LYS:CB	21:U:84:ILE:CG2	2.61	0.61
6:F:154:LEU:CD1	6:F:155:CYS:N	2.55	0.61
16:P:69:PRO:CD	16:P:70:MET:H	2.11	0.61
18:R:28:PHE:HA	18:R:55:THR:HG21	1.82	0.61
2:B:152:LYS:HD2	18:R:126:MET:HE3	1.80	0.61
21:U:71:GLY:O	21:U:72:GLU:C	2.37	0.61
1:A:30:LEU:O	1:A:31:ASP:CB	2.48	0.61
2:B:67:PHE:HE1	15:O:47:LEU:C	1.97	0.61
5:E:48:LEU:HD11	5:E:70:ILE:HD11	1.82	0.61
2:B:67:PHE:HD1	15:O:47:LEU:HB3	1.64	0.61
25:Y:120:THR:CA	25:Y:122:LYS:HE2	2.29	0.61
8:H:80:VAL:HA	8:H:83:LEU:HD21	1.82	0.61
8:H:83:LEU:HD13	8:H:92:VAL:HG21	0.62	0.61
4:D:221:THR:CB	4:D:222:PRO:CD	2.77	0.61
13:M:51:VAL:HG13	13:M:109:VAL:CG2	2.30	0.61
20:T:134:ILE:HG13	20:T:135:ALA:N	2.14	0.61
9:I:7:ASN:C	9:I:9:HIS:H	2.02	0.61
15:O:41:PHE:HD1	15:O:57:THR:HG22	1.63	0.61
5:E:259:LYS:C	5:E:260:GLN:OE1	2.39	0.61
2:B:25:PHE:CD2	15:O:88:LEU:CG	2.84	0.61
3:C:250:PRO:O	3:C:254:PHE:HB2	2.00	0.61
5:E:43:PRO:HA	5:E:82:TYR:O	2.00	0.61
7:G:211:LYS:C	7:G:215:LYS:HD3	2.21	0.61
7:G:227:GLN:CA	7:G:230:LYS:HD2	2.29	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:62:PRO:CG	7:G:83:CYS:SG	2.89	0.61
11:K:25:LYS:HD2	11:K:62:PHE:HE1	1.65	0.61
14:N:62:GLN:HB2	14:N:65:PHE:CE2	2.32	0.61
15:O:17:LEU:CG	15:O:18:GLY:H	2.12	0.61
17:Q:57:LEU:CD1	17:Q:115:TYR:CZ	2.60	0.61
17:Q:42:ILE:CG1	17:Q:51:LEU:HD21	2.28	0.61
20:T:45:LEU:HG	20:T:46:ALA:N	2.15	0.61
16:P:62:LYS:C	16:P:65:LYS:HG2	2.14	0.61
26:Z:73:VAL:CG1	26:Z:79:ILE:HG21	2.23	0.61
6:F:78:MET:HB2	6:F:159:ARG:CZ	2.30	0.61
18:R:87:GLU:O	18:R:88:VAL:HG12	2.00	0.61
1:A:149:ASN:HB2	1:A:165:ASN:HD21	1.65	0.61
1:A:158:ASP:O	1:A:159:ILE:HB	2.00	0.61
1:A:186:ARG:H	22:V:46:PHE:H	1.48	0.61
2:B:188:LEU:CD2	2:B:212:VAL:HG21	2.31	0.61
4:D:29:LEU:HB2	4:D:34:TYR:HB2	1.81	0.61
5:E:104:ASP:HB2	5:E:108:ARG:H	1.65	0.61
5:E:163:ASP:O	5:E:164:LEU:CB	2.48	0.61
5:E:70:ILE:CD1	5:E:92:ILE:HD11	2.29	0.61
5:E:87:MET:HG3	5:E:123:LEU:O	2.01	0.61
5:E:94:LYS:O	5:E:95:THR:CG2	2.48	0.61
9:I:144:LYS:O	9:I:145:ILE:CG2	2.49	0.61
9:I:76:THR:HG21	9:I:105:ASP:HB2	1.81	0.61
10:J:125:HIS:NE2	10:J:129:LEU:HD11	2.15	0.61
10:J:136:ARG:HG3	10:J:160:SER:HB3	1.82	0.61
17:Q:88:ILE:HG13	17:Q:89:SER:N	2.15	0.61
25:Y:57:VAL:CG1	25:Y:60:PHE:HE2	2.12	0.61
19:S:26:ILE:O	19:S:30:ILE:HG13	2.01	0.61
25:Y:34:THR:HG22	25:Y:35:VAL:CA	2.30	0.61
26:Z:65:TYR:CD2	26:Z:68:ILE:HD11	2.35	0.61
20:T:11:GLN:CD	20:T:62:ARG:NE	2.53	0.61
3:C:151:ARG:CZ	3:C:240:LEU:HD11	2.28	0.61
2:B:105:LEU:HD21	2:B:213:ARG:CA	2.28	0.61
6:F:154:LEU:HD12	6:F:154:LEU:C	2.19	0.61
5:E:174:LYS:NZ	5:E:176:ASP:OD2	2.33	0.61
1:A:148:CYS:O	1:A:162:PRO:HA	2.00	0.61
4:D:47:GLU:HG2	4:D:85:GLU:HG3	1.78	0.61
7:G:176:ILE:CG2	7:G:179:LEU:CG	2.78	0.61
7:G:227:GLN:HG2	7:G:230:LYS:HZ3	1.64	0.61
11:K:90:VAL:HG13	11:K:90:VAL:O	1.99	0.61
21:U:103:SER:O	21:U:106:ILE:HG21	1.96	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:138:LYS:CA	24:X:139:GLU:OE2	2.49	0.61
19:S:121:ARG:CG	19:S:131:VAL:HG13	2.25	0.61
19:S:40:TYR:CA	19:S:83:PHE:HZ	2.14	0.61
4:D:177:LEU:HD12	4:D:178:ARG:NH2	2.15	0.61
20:T:40:ALA:HB3	20:T:43:LYS:CD	2.30	0.61
25:Y:7:ILE:HD11	25:Y:43:LYS:HD3	1.78	0.61
10:J:100:LEU:CD1	10:J:101:LYS:H	2.13	0.61
20:T:90:SER:C	20:T:91:HIS:HD2	2.03	0.61
12:L:32:LYS:O	12:L:33:LEU:HD23	2.01	0.61
6:F:65:GLN:NE2	6:F:65:GLN:HA	2.16	0.61
1:A:14:ASP:OD2	1:A:55:TRP:CH2	2.53	0.61
3:C:87:LEU:HG	3:C:116:GLY:C	2.20	0.61
3:C:148:VAL:CB	3:C:149:PRO:HD2	2.26	0.61
10:J:17:ARG:HG3	10:J:18:ARG:HG2	1.77	0.61
14:N:125:LEU:HD21	14:N:129:TYR:CZ	2.35	0.61
14:N:84:LEU:HD11	14:N:89:TYR:HB2	1.83	0.61
21:U:108:PRO:HD2	21:U:108:PRO:O	2.00	0.61
16:P:41:GLN:HE21	16:P:44:ARG:HH21	1.47	0.61
20:T:94:ARG:HH11	20:T:94:ARG:CG	2.14	0.61
19:S:89:ASP:O	19:S:90:VAL:HB	1.98	0.61
16:P:127:LYS:HZ2	16:P:127:LYS:CB	2.05	0.61
2:B:117:TRP:HE3	2:B:153:THR:HB	1.65	0.61
13:M:86:GLY:N	13:M:106:CYS:HB2	2.16	0.61
26:Z:64:ASN:O	26:Z:111:ARG:CZ	2.48	0.61
14:N:142:GLU:OE2	14:N:144:SER:OG	2.19	0.61
1:A:127:PRO:CB	1:A:153:PRO:HG2	2.22	0.61
1:A:30:LEU:HD21	1:A:35:GLU:HG2	1.77	0.61
1:A:84:GLN:O	1:A:88:LEU:CD2	2.49	0.61
2:B:67:PHE:CD1	15:O:47:LEU:HB3	2.34	0.61
5:E:122:LYS:HG3	5:E:164:LEU:HD21	1.81	0.61
9:I:155:ASN:OD1	9:I:155:ASN:C	2.36	0.61
10:J:37:LEU:HD21	10:J:42:GLU:CA	2.31	0.61
24:X:71:ARG:NE	24:X:82:THR:CG2	2.58	0.61
20:T:94:ARG:HH11	20:T:94:ARG:HG3	1.63	0.61
8:H:37:LYS:NZ	8:H:41:ARG:HG3	2.16	0.61
19:S:27:ALA:O	19:S:31:THR:HG23	2.01	0.61
6:F:103:LEU:HD22	6:F:178:ILE:CD1	2.23	0.61
22:V:9:VAL:HG12	22:V:10:ASP:CA	2.31	0.61
3:C:161:LYS:HD3	22:V:9:VAL:CG2	2.31	0.61
9:I:87:ASN:OD1	9:I:89:GLU:HG2	2.00	0.61
1:A:180:ARG:CD	1:A:184:ARG:CZ	2.78	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:14:ASP:O	1:A:18:PHE:HD2	1.84	0.61
4:D:31:GLU:HA	4:D:107:TYR:OH	2.00	0.61
4:D:55:THR:HA	4:D:58:VAL:HG22	1.83	0.61
5:E:74:GLY:C	5:E:75:LYS:CG	2.69	0.61
10:J:124:HIS:O	10:J:126:ALA:N	2.33	0.61
13:M:115:GLY:O	13:M:116:LYS:CB	2.44	0.61
1:A:158:ASP:OD2	22:V:34:MET:HG3	2.01	0.61
6:F:44:LYS:HB3	6:F:45:TYR:CD1	2.32	0.61
16:P:41:GLN:HE22	16:P:45:LEU:CD1	2.12	0.61
25:Y:19:GLN:HG2	25:Y:81:TYR:CG	2.32	0.61
8:H:122:LEU:HD11	8:H:123:THR:HG22	1.83	0.61
24:X:105:PHE:CG	24:X:112:VAL:HG21	2.33	0.61
24:X:1:MET:O	24:X:3:LYS:HB2	2.01	0.61
4:D:218:LEU:HB2	4:D:220:THR:HG22	1.78	0.61
3:C:248:LYS:HD2	3:C:253:GLU:HB3	1.82	0.61
3:C:87:LEU:C	3:C:87:LEU:HD23	2.21	0.61
7:G:63:MET:CE	7:G:106:LEU:CD2	2.78	0.61
8:H:169:LYS:HD2	8:H:173:PHE:HZ	1.66	0.61
10:J:10:ARG:CZ	10:J:10:ARG:HB2	2.29	0.61
10:J:124:HIS:O	10:J:125:HIS:C	2.38	0.61
14:N:94:LYS:HE3	14:N:118:ILE:HD11	1.81	0.61
14:N:18:TYR:O	14:N:19:ARG:C	2.39	0.61
22:V:53:TYR:CG	22:V:72:LEU:HD13	2.36	0.61
23:W:20:ARG:HB3	23:W:22:LYS:HD3	1.82	0.61
6:F:25:THR:HG21	6:F:42:LYS:CB	2.19	0.61
20:T:29:LYS:C	20:T:30:VAL:CG1	2.70	0.61
8:H:29:GLU:CD	8:H:86:LYS:HE3	2.20	0.61
16:P:114:HIS:HE1	19:S:113:ARG:HH22	1.47	0.61
26:Z:44:LEU:HD21	26:Z:46:ASN:OD1	2.00	0.61
26:Z:80:ARG:HB3	26:Z:83:LEU:H	1.66	0.61
4:D:166:TYR:CE1	4:D:200:PRO:CB	2.83	0.61
2:B:117:TRP:HE3	2:B:153:THR:CB	2.14	0.61
11:K:95:ARG:HD3	11:K:96:ARG:O	2.01	0.61
12:L:35:ARG:HH21	12:L:63:THR:CG2	2.10	0.61
3:C:124:LEU:HD13	3:C:125:GLY:N	2.16	0.61
3:C:256:ASP:OD1	3:C:256:ASP:N	2.33	0.61
10:J:147:PHE:HE2	10:J:149:VAL:HA	1.64	0.61
1:A:14:ASP:HB3	1:A:18:PHE:CE2	2.34	0.60
2:B:57:ILE:HD12	2:B:60:ASP:OD2	1.99	0.60
7:G:131:ARG:HG3	7:G:131:ARG:CD	2.15	0.60
7:G:197:GLN:O	7:G:201:LYS:HG2	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:122:SER:OG	10:J:124:HIS:HB3	1.98	0.60
10:J:130:ILE:HA	10:J:135:ILE:HD13	1.81	0.60
10:J:17:ARG:HB3	10:J:18:ARG:HG3	1.79	0.60
11:K:12:TYR:CD2	11:K:82:TYR:CD2	2.89	0.60
17:Q:8:GLN:HA	17:Q:99:TYR:OH	2.01	0.60
17:Q:140:ARG:O	17:Q:141:TYR:O	2.19	0.60
25:Y:54:VAL:CG1	25:Y:76:TYR:C	2.68	0.60
9:I:6:ASP:OD2	9:I:8:TRP:CD1	2.54	0.60
4:D:216:GLU:O	4:D:217:ILE:CD1	2.49	0.60
25:Y:10:ARG:HG2	25:Y:24:VAL:CB	2.20	0.60
18:R:91:LEU:CD1	18:R:91:LEU:N	2.29	0.60
16:P:28:MET:HB3	16:P:32:GLN:OE1	2.01	0.60
2:B:93:GLY:C	2:B:94:LYS:CG	2.69	0.60
1:A:118:GLU:CD	3:C:50:LYS:HZ3	2.04	0.60
5:E:23:LEU:O	5:E:24:THR:CB	2.49	0.60
8:H:166:VAL:HG23	8:H:173:PHE:CE2	2.35	0.60
8:H:192:PHE:O	8:H:193:GLN:C	2.40	0.60
9:I:48:VAL:HG23	9:I:52:ASN:HB3	1.82	0.60
10:J:10:ARG:HH11	10:J:10:ARG:CB	2.06	0.60
2:B:25:PHE:HD2	15:O:88:LEU:HD22	1.44	0.60
21:U:69:PRO:HG2	21:U:69:PRO:O	2.02	0.60
25:Y:110:ARG:O	25:Y:114:MET:HG3	2.01	0.60
21:U:62:ARG:HH11	21:U:79:ARG:HD3	1.67	0.60
2:B:206:PRO:O	2:B:207:LEU:HB2	2.01	0.60
10:J:79:ARG:HD2	10:J:83:ARG:HD2	1.82	0.60
13:M:76:LEU:HD22	13:M:77:ILE:H	1.66	0.60
25:Y:7:ILE:HD12	25:Y:43:LYS:HB3	1.66	0.60
12:L:152:LYS:C	12:L:154:GLN:H	2.05	0.60
1:A:125:THR:CA	1:A:147:LEU:HB2	2.27	0.60
1:A:66:VAL:O	1:A:67:ALA:HB3	2.01	0.60
4:D:53:THR:O	4:D:90:LYS:HE2	2.01	0.60
5:E:180:LEU:CD1	5:E:228:ILE:HD11	2.32	0.60
5:E:56:LEU:HD23	5:E:56:LEU:N	2.16	0.60
5:E:62:LYS:HD2	5:E:80:ILE:HG13	1.83	0.60
5:E:62:LYS:CA	5:E:65:CYS:SG	2.88	0.60
24:X:126:ALA:CB	24:X:128:VAL:CB	2.57	0.60
6:F:91:ARG:HH21	17:Q:46:THR:HG22	1.65	0.60
16:P:83:MET:CE	16:P:116:LEU:CD1	2.78	0.60
8:H:23:ILE:O	8:H:23:ILE:HD13	2.02	0.60
8:H:6:ALA:HA	8:H:10:LYS:HD3	0.72	0.60
16:P:15:PHE:CE2	16:P:110:GLU:HB3	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:49:LEU:CA	16:P:51:ARG:CG	2.68	0.60
10:J:77:LEU:O	10:J:81:LEU:HG	2.02	0.60
3:C:155:TRP:CH2	23:W:97:ARG:CD	2.83	0.60
1:A:127:PRO:HA	1:A:134:LEU:CD1	2.31	0.60
2:B:161:VAL:HG12	2:B:165:ARG:NH1	2.15	0.60
5:E:122:LYS:CD	5:E:164:LEU:HD21	2.31	0.60
10:J:16:PRO:CD	10:J:44:TRP:CE2	2.83	0.60
11:K:12:TYR:CZ	11:K:52:LEU:HD21	2.37	0.60
20:T:38:LYS:HD2	20:T:46:ALA:N	2.17	0.60
21:U:40:ILE:HD13	21:U:53:PRO:CG	2.07	0.60
4:D:166:TYR:CE1	4:D:200:PRO:HB3	2.36	0.60
12:L:148:ALA:C	12:L:150:GLY:N	2.50	0.60
10:J:87:LEU:CD1	10:J:91:LYS:HB2	2.29	0.60
16:P:125:PRO:O	16:P:126:VAL:HB	2.00	0.60
12:L:101:ARG:O	24:X:10:ALA:HB1	1.96	0.60
23:W:128:PHE:CD1	23:W:129:PHE:CA	2.84	0.60
25:Y:13:MET:HE2	25:Y:14:THR:CA	2.31	0.60
3:C:148:VAL:HB	3:C:149:PRO:HD3	1.83	0.60
3:C:63:LEU:CD1	3:C:67:TYR:OH	2.47	0.60
3:C:69:PHE:CZ	3:C:247:THR:CB	2.83	0.60
4:D:98:ALA:N	4:D:188:ILE:HD12	2.17	0.60
5:E:154:ILE:HG21	5:E:160:ILE:HD11	1.83	0.60
6:F:28:VAL:HG13	6:F:110:GLN:NE2	2.16	0.60
7:G:213:LEU:C	7:G:213:LEU:HD12	2.21	0.60
11:K:65:ARG:HH11	11:K:65:ARG:HB2	1.63	0.60
22:V:41:LYS:C	22:V:43:THR:N	2.52	0.60
17:Q:42:ILE:CD1	17:Q:51:LEU:HD22	2.03	0.60
16:P:7:LYS:O	16:P:9:LYS:N	2.31	0.60
10:J:92:MET:O	10:J:93:LYS:NZ	2.34	0.60
10:J:81:LEU:HD12	10:J:97:ILE:HD11	1.83	0.60
12:L:101:ARG:HB2	24:X:10:ALA:N	2.17	0.60
12:L:96:ILE:O	12:L:99:TYR:O	2.20	0.60
24:X:5:ARG:HB2	24:X:5:ARG:HH21	1.65	0.60
6:F:36:GLN:O	6:F:37:ASP:HB2	2.00	0.60
12:L:118:ARG:HG2	12:L:119:ASP:N	2.14	0.60
8:H:117:PRO:C	8:H:119:SER:N	2.54	0.60
2:B:225:LEU:O	2:B:229:MET:CG	2.48	0.60
1:A:119:PRO:HG2	1:A:142:LEU:CD1	2.27	0.60
1:A:80:ARG:NH1	1:A:165:ASN:O	2.32	0.60
6:F:128:ILE:O	6:F:134:VAL:HG13	2.02	0.60
6:F:59:LYS:HD3	6:F:62:ARG:CD	2.23	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:192:ILE:HG13	7:G:193:ALA:N	2.17	0.60
9:I:157:LYS:O	9:I:158:ILE:HG22	2.00	0.60
12:L:59:LYS:HE2	12:L:134:LEU:HD21	1.83	0.60
14:N:62:GLN:CB	14:N:65:PHE:CE2	2.82	0.60
25:Y:114:MET:HE3	25:Y:125:VAL:HG23	1.75	0.60
25:Y:48:TYR:C	25:Y:50:THR:HG23	2.21	0.60
8:H:50:GLU:OE2	8:H:90:LYS:HE2	2.02	0.60
25:Y:63:HIS:CG	25:Y:64:PHE:CD1	2.88	0.60
6:F:103:LEU:HG	6:F:103:LEU:O	2.00	0.60
26:Z:51:ASP:O	26:Z:52:LYS:CB	2.49	0.60
25:Y:102:THR:CG2	25:Y:107:ARG:CD	2.68	0.60
2:B:113:MET:CE	2:B:209:ASP:CB	2.79	0.60
23:W:96:SER:OG	23:W:98:GLN:HG2	2.01	0.60
12:L:118:ARG:HG2	12:L:119:ASP:H	1.67	0.60
25:Y:46:LYS:CD	25:Y:46:LYS:O	2.50	0.60
2:B:42:ARG:NH2	2:B:232:HIS:HA	2.17	0.60
1:A:119:PRO:HG3	1:A:122:LEU:HD21	1.84	0.60
5:E:100:ARG:CD	5:E:102:ILE:HD12	2.31	0.60
7:G:1:MET:SD	7:G:106:LEU:O	2.60	0.60
8:H:143:ARG:CD	23:W:53:ILE:CG1	2.50	0.60
8:H:166:VAL:HG23	8:H:173:PHE:CZ	2.37	0.60
9:I:112:TRP:CH2	9:I:117:TYR:HE2	2.19	0.60
9:I:140:LYS:O	9:I:141:ARG:CG	2.49	0.60
10:J:106:LEU:O	10:J:109:ARG:HG3	2.02	0.60
10:J:109:ARG:O	10:J:110:LEU:C	2.34	0.60
11:K:84:HIS:CD2	13:M:27:ILE:CD1	2.84	0.60
21:U:67:LYS:CE	21:U:78:ASP:OD2	2.49	0.60
17:Q:16:LYS:HE3	17:Q:17:LYS:HD2	1.83	0.60
17:Q:42:ILE:CG1	17:Q:51:LEU:CD2	2.79	0.60
2:B:87:ILE:CG2	2:B:101:HIS:CG	2.84	0.60
19:S:8:LYS:HA	26:Z:49:LEU:CD2	2.30	0.60
3:C:155:TRP:CE2	23:W:97:ARG:HD2	2.37	0.60
26:Z:85:ARG:CG	26:Z:85:ARG:NH1	2.55	0.60
1:A:202:TYR:O	1:A:203:PHE:CB	2.50	0.60
1:A:42:LYS:HD3	18:R:105:MET:SD	2.39	0.60
1:A:42:LYS:NZ	18:R:105:MET:HG3	2.17	0.60
1:A:6:ASP:O	1:A:8:LEU:N	2.35	0.60
5:E:100:ARG:HG2	5:E:102:ILE:HD12	1.83	0.60
5:E:124:CYS:SG	5:E:162:ILE:CD1	2.88	0.60
7:G:142:ARG:HE	7:G:147:LEU:HB3	1.67	0.60
7:G:186:GLN:O	7:G:190:ARG:HG3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:19:PRO:HG3	15:O:27:VAL:HG11	1.81	0.60
17:Q:109:LYS:NZ	17:Q:113:ILE:HD11	2.17	0.60
16:P:13:ARG:O	16:P:14:LYS:CG	2.50	0.60
14:N:128:TYR:O	14:N:132:LYS:HG2	2.02	0.60
3:C:141:ILE:O	3:C:145:LEU:HD23	2.02	0.60
3:C:79:ILE:HD11	3:C:147:ILE:HD11	1.83	0.60
7:G:64:LYS:HG3	7:G:67:VAL:HG11	1.84	0.60
9:I:105:ASP:O	9:I:106:SER:HB2	2.02	0.60
10:J:10:ARG:CG	10:J:10:ARG:HH11	2.15	0.60
16:P:108:LYS:CB	16:P:110:GLU:OE1	2.45	0.60
4:D:196:GLY:O	4:D:199:GLY:HA3	2.02	0.60
2:B:137:LEU:HD23	2:B:215:VAL:HA	1.84	0.60
2:B:49:VAL:HG12	2:B:50:THR:N	2.16	0.60
3:C:58:MET:HE3	3:C:81:PHE:CZ	2.30	0.60
10:J:12:THR:C	10:J:48:PHE:CE2	2.75	0.60
13:M:28:HIS:HD2	13:M:115:GLY:HA3	1.53	0.60
25:Y:12:PHE:HD1	25:Y:23:MET:HB3	1.67	0.60
25:Y:9:THR:HG21	25:Y:48:TYR:HE2	1.67	0.60
19:S:50:ILE:HG12	19:S:63:GLU:HG2	1.83	0.60
19:S:138:THR:HA	19:S:141:ARG:HH21	0.92	0.60
2:B:148:ASN:HB2	18:R:123:THR:OG1	1.92	0.60
23:W:128:PHE:CE1	23:W:130:PHE:HE2	2.17	0.60
3:C:154:TYR:OH	3:C:161:LYS:C	2.40	0.60
20:T:85:ASN:H	20:T:85:ASN:HD22	1.49	0.60
8:H:117:PRO:HD2	8:H:120:ARG:HB2	1.84	0.60
12:L:78:THR:HG23	12:L:79:LYS:N	2.17	0.60
19:S:111:LEU:HD22	19:S:125:HIS:CE1	2.37	0.60
23:W:37:PHE:CE1	23:W:103:VAL:HG11	2.37	0.60
1:A:27:GLY:O	1:A:47:TYR:CD2	2.54	0.59
1:A:58:LEU:HD21	1:A:178:LEU:CG	2.29	0.59
10:J:122:SER:HG	10:J:124:HIS:CB	2.14	0.59
10:J:34:GLU:HB2	10:J:35:TYR:CD2	2.35	0.59
11:K:84:HIS:CD2	13:M:27:ILE:CG1	2.85	0.59
24:X:139:GLU:CD	24:X:139:GLU:N	2.55	0.59
16:P:53:GLN:NE2	16:P:80:LEU:HD22	2.16	0.59
8:H:6:ALA:HB3	8:H:15:LYS:HE2	1.84	0.59
8:H:50:GLU:OE2	8:H:58:LYS:CD	2.44	0.59
16:P:49:LEU:HA	16:P:51:ARG:NE	2.17	0.59
2:B:148:ASN:O	18:R:124:VAL:CA	2.50	0.59
18:R:21:TYR:HD2	18:R:73:LEU:HD12	1.67	0.59
19:S:47:LYS:HZ1	19:S:78:LYS:CB	2.15	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:82:GLN:O	23:W:83:LEU:HB3	2.02	0.59
1:A:14:ASP:O	1:A:18:PHE:CD2	2.55	0.59
3:C:108:ARG:NH2	3:C:128:CYS:SG	2.75	0.59
3:C:42:ASP:OD1	3:C:43:LYS:N	2.35	0.59
7:G:28:TYR:OH	7:G:104:ALA:HB2	2.01	0.59
8:H:158:LEU:N	8:H:158:LEU:HD23	2.17	0.59
9:I:141:ARG:O	9:I:142:SER:CB	2.50	0.59
11:K:90:VAL:HG22	11:K:90:VAL:O	2.02	0.59
15:O:90:ILE:HG22	15:O:124:MET:HE2	1.84	0.59
3:C:197:LYS:N	3:C:200:LEU:HD23	2.17	0.59
25:Y:62:THR:CA	25:Y:69:THR:HG22	2.32	0.59
20:T:28:LEU:CD2	20:T:28:LEU:O	2.44	0.59
1:A:5:LEU:CD2	1:A:5:LEU:C	2.61	0.59
5:E:129:ILE:CG2	5:E:139:LEU:CD2	2.79	0.59
5:E:166:THR:HB	5:E:168:LYS:NZ	2.17	0.59
5:E:86:PHE:CE1	5:E:182:MET:SD	2.95	0.59
5:E:49:ARG:NH2	5:E:50:ASN:ND2	2.50	0.59
7:G:70:HIS:CB	7:G:103:ASP:OD2	2.42	0.59
7:G:142:ARG:NE	7:G:147:LEU:HB3	2.17	0.59
7:G:7:PHE:HB2	7:G:124:LEU:HG	1.84	0.59
9:I:155:ASN:C	9:I:157:LYS:N	2.56	0.59
10:J:46:VAL:HG12	10:J:102:ILE:HD12	1.82	0.59
13:M:45:ARG:H	13:M:45:ARG:NE	2.00	0.59
25:Y:55:ILE:HG13	25:Y:75:ILE:HG12	1.65	0.59
19:S:88:LYS:N	19:S:94:LYS:O	2.35	0.59
26:Z:48:VAL:HG22	26:Z:80:ARG:HD2	1.79	0.59
23:W:41:MET:HG2	23:W:129:PHE:CD2	2.36	0.59
25:Y:98:GLU:OE2	25:Y:99:LYS:HA	2.02	0.59
3:C:158:LYS:NZ	22:V:4:ASN:HA	2.16	0.59
24:X:107:ARG:O	24:X:108:LYS:HB2	2.03	0.59
5:E:204:SER:O	5:E:205:PHE:CB	2.50	0.59
8:H:190:PRO:HG2	8:H:192:PHE:CZ	2.38	0.59
9:I:128:LYS:O	9:I:131:PRO:HD2	2.02	0.59
11:K:42:ASN:O	11:K:43:LEU:HD23	2.03	0.59
11:K:84:HIS:CD2	13:M:27:ILE:HG13	2.32	0.59
14:N:23:PRO:O	14:N:24:THR:HB	2.03	0.59
22:V:40:ASP:OD2	22:V:45:ARG:HB2	2.02	0.59
24:X:95:GLU:CB	24:X:140:ARG:HH22	2.15	0.59
7:G:85:ARG:HD3	25:Y:118:ARG:NH1	2.16	0.59
17:Q:58:LEU:HD21	17:Q:111:ILE:HB	1.83	0.59
16:P:53:GLN:HE21	16:P:80:LEU:CG	2.14	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:44:LEU:HD13	26:Z:44:LEU:O	1.95	0.59
10:J:79:ARG:O	10:J:83:ARG:CG	2.47	0.59
24:X:67:ARG:CG	24:X:115:ILE:HG12	2.32	0.59
17:Q:63:PHE:CD1	17:Q:68:ILE:HD11	2.37	0.59
9:I:3:ILE:HG23	9:I:3:ILE:O	1.97	0.59
5:E:184:THR:C	5:E:189:LEU:CD1	2.70	0.59
1:A:122:LEU:CD1	1:A:137:ALA:HB2	2.32	0.59
6:F:61:PHE:O	6:F:63:LYS:N	2.35	0.59
7:G:145:PHE:CB	7:G:147:LEU:CD1	2.65	0.59
9:I:76:THR:CG2	9:I:105:ASP:HB2	2.33	0.59
14:N:119:GLU:O	14:N:123:HIS:CD2	2.55	0.59
6:F:44:LYS:C	6:F:45:TYR:HD1	2.05	0.59
17:Q:116:ASP:O	17:Q:117:ARG:CB	2.50	0.59
25:Y:50:THR:OG1	25:Y:55:ILE:HD11	2.03	0.59
16:P:75:VAL:CG1	16:P:76:VAL:N	2.64	0.59
6:F:104:THR:HG22	6:F:104:THR:O	2.03	0.59
13:M:14:VAL:O	13:M:16:THR:N	2.35	0.59
23:W:90:GLN:N	23:W:102:ILE:HD11	2.17	0.59
3:C:154:TYR:CD2	3:C:158:LYS:HA	2.37	0.59
19:S:10:GLN:CB	19:S:13:LEU:HD21	2.32	0.59
2:B:92:GLN:O	2:B:95:ASN:HB2	2.02	0.59
1:A:61:ALA:HB2	1:A:161:ILE:HD11	1.83	0.59
3:C:71:LEU:O	22:V:29:HIS:HE1	1.82	0.59
7:G:14:LYS:HZ2	7:G:123:GLY:HA3	0.66	0.59
8:H:168:HIS:CE1	8:H:169:LYS:HG2	2.37	0.59
21:U:67:LYS:O	21:U:68:THR:C	2.34	0.59
24:X:100:VAL:HG12	24:X:125:VAL:CG2	2.20	0.59
3:C:196:LYS:C	3:C:200:LEU:HD23	2.23	0.59
17:Q:116:ASP:CG	17:Q:117:ARG:H	2.04	0.59
17:Q:85:ARG:NH2	17:Q:117:ARG:CG	2.47	0.59
5:E:67:GLN:OE1	5:E:67:GLN:HA	2.03	0.59
5:E:67:GLN:O	5:E:68:ARG:CG	2.50	0.59
25:Y:20:ARG:C	25:Y:21:LYS:HD3	2.22	0.59
3:C:93:LYS:HE3	3:C:95:MET:CB	2.30	0.59
8:H:37:LYS:HZ3	8:H:38:ALA:HA	1.67	0.59
8:H:37:LYS:CE	8:H:41:ARG:HH11	2.04	0.59
23:W:42:MET:HE3	23:W:50:PHE:HD2	1.65	0.59
16:P:74:GLU:O	16:P:75:VAL:CB	2.50	0.59
25:Y:103:SER:O	25:Y:104:ARG:HB3	2.03	0.59
25:Y:88:LYS:HE3	25:Y:97:TYR:OH	2.03	0.59
25:Y:98:GLU:O	25:Y:99:LYS:HB3	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:236:LEU:HD23	3:C:237:THR:N	2.17	0.59
20:T:87:VAL:HG13	20:T:88:MET:N	2.18	0.59
18:R:14:ARG:O	18:R:18:GLU:HG3	2.03	0.59
9:I:141:ARG:HD3	9:I:144:LYS:CG	2.33	0.59
9:I:55:TYR:CD2	9:I:55:TYR:N	2.68	0.59
9:I:62:VAL:HB	9:I:75:LYS:CE	2.29	0.59
10:J:28:GLU:CD	10:J:40:LYS:HD2	2.20	0.59
25:Y:56:PHE:CG	25:Y:86:GLU:OE2	2.56	0.59
3:C:93:LYS:CE	3:C:95:MET:HG2	2.31	0.59
20:T:77:LYS:HG2	20:T:92:PHE:HZ	1.65	0.59
19:S:80:PRO:HG3	19:S:82:TRP:CE2	2.38	0.59
25:Y:33:ALA:O	25:Y:34:THR:CB	2.49	0.59
9:I:19:LYS:HE2	9:I:20:PRO:HD3	1.83	0.59
2:B:145:LYS:HA	2:B:149:GLN:OE1	2.02	0.59
4:D:113:LEU:HD12	4:D:113:LEU:N	2.16	0.59
4:D:108:LYS:CA	4:D:113:LEU:HD22	2.33	0.59
3:C:154:TYR:HH	3:C:162:PRO:HD3	1.65	0.59
12:L:118:ARG:CD	12:L:119:ASP:N	2.66	0.59
13:M:95:ASP:HB2	13:M:101:ARG:NH1	2.17	0.59
24:X:74:LEU:CD1	24:X:81:ILE:CD1	2.71	0.59
4:D:67:ARG:NH1	11:K:95:ARG:HG3	2.17	0.59
2:B:225:LEU:HB3	2:B:229:MET:HE1	1.85	0.59
6:F:194:ASP:O	6:F:194:ASP:OD1	2.21	0.59
7:G:13:GLN:O	7:G:14:LYS:HG2	2.02	0.59
10:J:162:ARG:O	10:J:163:SER:C	2.41	0.59
22:V:20:SER:HA	23:W:23:ARG:HH22	1.68	0.59
20:T:4:VAL:HG11	20:T:139:ALA:HB2	1.84	0.59
26:Z:94:LYS:HZ3	26:Z:95:GLY:H	1.49	0.59
5:E:36:HIS:HB3	5:E:41:CYS:SG	2.42	0.59
25:Y:37:LYS:HA	25:Y:40:ILE:CG2	2.32	0.59
15:O:75:MET:CE	15:O:118:ALA:HB2	2.33	0.59
24:X:22:TRP:O	24:X:23:HIS:O	2.20	0.59
13:M:42:LEU:CD2	13:M:110:VAL:HG21	2.32	0.59
6:F:166:ILE:N	6:F:166:ILE:HD12	2.16	0.59
5:E:260:GLN:O	5:E:261:SER:OG	2.13	0.59
15:O:46:ASP:O	15:O:49:GLY:N	2.33	0.59
5:E:256:LEU:HD12	5:E:257:ALA:N	2.16	0.59
1:A:74:VAL:HG22	1:A:121:LEU:HB3	1.84	0.59
1:A:125:THR:O	1:A:147:LEU:HB2	2.00	0.59
1:A:180:ARG:NH1	1:A:184:ARG:NH2	2.50	0.59
2:B:52:THR:HG22	2:B:58:ALA:HB2	1.82	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:79:ILE:CD1	3:C:147:ILE:HD11	2.27	0.59
5:E:159:THR:HG21	5:E:227:VAL:O	2.02	0.59
10:J:16:PRO:O	10:J:17:ARG:C	2.33	0.59
11:K:1:MET:N	11:K:2:LEU:O	2.33	0.59
24:X:87:ASN:HB2	24:X:90:CYS:SG	2.43	0.59
17:Q:54:PRO:CG	17:Q:88:ILE:HD12	2.32	0.59
16:P:33:LEU:HD21	16:P:87:PRO:CD	1.90	0.59
8:H:43:LEU:HD21	8:H:71:SER:OG	2.03	0.59
4:D:192:TRP:N	4:D:192:TRP:CD1	2.67	0.59
6:F:167:LYS:CD	6:F:171:GLU:HG2	2.20	0.59
20:T:16:ARG:CG	20:T:16:ARG:NH1	2.65	0.59
25:Y:98:GLU:CD	25:Y:98:GLU:O	2.41	0.59
21:U:57:PRO:HD2	21:U:57:PRO:O	2.01	0.59
17:Q:28:GLY:HA3	17:Q:67:ASP:CG	2.23	0.59
6:F:32:ASP:HB2	6:F:117:ILE:CG2	2.33	0.59
4:D:170:THR:HG22	4:D:171:ALA:N	2.18	0.59
3:C:243:GLU:O	3:C:244:THR:CB	2.48	0.59
4:D:40:ARG:HD3	21:U:107:GLU:OE2	2.02	0.59
4:D:48:ILE:HG23	4:D:48:ILE:O	2.03	0.59
5:E:86:PHE:HE1	5:E:182:MET:SD	2.26	0.59
7:G:135:PRO:HG2	7:G:144:LEU:CD2	2.32	0.59
11:K:89:ILE:O	11:K:90:VAL:HG12	2.02	0.59
15:O:30:VAL:HG23	15:O:32:HIS:HD2	1.68	0.59
22:V:55:ILE:CG2	22:V:60:ARG:CG	2.81	0.59
22:V:55:ILE:CG2	22:V:60:ARG:HG3	2.32	0.59
10:J:177:ASN:C	10:J:180:LYS:HB3	2.24	0.59
18:R:91:LEU:H	18:R:92:ASP:CA	2.15	0.59
3:C:117:ASP:CG	3:C:119:ASN:H	2.05	0.59
1:A:111:GLN:OE1	3:C:48:VAL:HB	2.03	0.58
1:A:21:ALA:HB2	1:A:173:LEU:HD11	0.61	0.58
4:D:71:ALA:O	4:D:75:LYS:HG2	2.01	0.58
4:D:74:GLN:NE2	4:D:75:LYS:CD	2.66	0.58
9:I:154:LYS:O	12:L:22:ARG:HG3	2.02	0.58
15:O:98:ARG:HG3	15:O:133:THR:HG22	1.85	0.58
24:X:128:VAL:CG1	24:X:133:LEU:HD21	2.32	0.58
24:X:52:LEU:HD12	24:X:53:GLU:HB3	1.86	0.58
17:Q:85:ARG:O	17:Q:88:ILE:CG1	2.50	0.58
25:Y:76:TYR:CB	25:Y:82:ALA:HB2	2.33	0.58
8:H:83:LEU:C	8:H:83:LEU:HD12	2.23	0.58
19:S:34:LYS:CB	19:S:103:LEU:HD23	2.20	0.58
3:C:158:LYS:HZ3	22:V:4:ASN:HA	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:85:ARG:CB	26:Z:85:ARG:CZ	2.70	0.58
3:C:185:ARG:HA	3:C:206:ASP:OD2	2.02	0.58
7:G:50:VAL:CG1	7:G:111:LEU:CG	2.78	0.58
23:W:23:ARG:HG2	23:W:23:ARG:HH11	1.66	0.58
8:H:144:ILE:HG13	23:W:52:ILE:HG23	1.83	0.58
24:X:126:ALA:O	24:X:128:VAL:CG2	2.51	0.58
25:Y:119:GLY:O	25:Y:120:THR:C	2.42	0.58
25:Y:9:THR:HG21	25:Y:48:TYR:CE2	2.37	0.58
4:D:132:LYS:H	4:D:191:PRO:CD	1.88	0.58
19:S:8:LYS:HB2	19:S:9:PHE:CE1	2.26	0.58
26:Z:52:LYS:O	26:Z:54:THR:N	2.35	0.58
20:T:40:ALA:N	20:T:43:LYS:HG3	2.18	0.58
6:F:158:ALA:HA	6:F:172:CYS:SG	2.43	0.58
2:B:119:THR:HB	2:B:143:THR:HG23	1.83	0.58
6:F:56:TYR:CE1	6:F:66:CYS:HB2	2.38	0.58
1:A:57:LYS:HE2	22:V:70:LEU:CD2	2.31	0.58
1:A:2:SER:OG	1:A:5:LEU:O	2.16	0.58
5:E:86:PHE:CD2	5:E:87:MET:HG2	2.38	0.58
7:G:179:LEU:C	7:G:180:VAL:HG23	2.24	0.58
8:H:145:ARG:NH1	8:H:155:LYS:HZ2	1.95	0.58
17:Q:118:THR:O	17:Q:120:LEU:N	2.36	0.58
16:P:53:GLN:HG2	16:P:56:LEU:HD12	1.85	0.58
8:H:46:THR:HG23	8:H:47:ALA:N	2.18	0.58
8:H:80:VAL:O	8:H:83:LEU:HG	2.03	0.58
20:T:23:LYS:CE	20:T:54:TYR:CE2	2.85	0.58
18:R:120:THR:O	18:R:121:GLN:CB	2.44	0.58
2:B:150:ILE:CG1	18:R:124:VAL:HG13	2.22	0.58
3:C:241:TRP:C	3:C:242:LYS:HG3	2.17	0.58
15:O:56:VAL:HG13	15:O:81:VAL:HG23	1.78	0.58
20:T:111:LYS:O	20:T:124:THR:CG2	2.51	0.58
23:W:3:ARG:NE	23:W:9:ASP:OD2	2.35	0.58
2:B:108:ASP:OD1	2:B:109:LYS:N	2.36	0.58
3:C:50:LYS:HB2	3:C:258:LEU:CB	2.34	0.58
5:E:129:ILE:CB	5:E:139:LEU:CD2	2.73	0.58
5:E:229:GLY:HA3	5:E:235:TRP:CD1	2.39	0.58
10:J:170:PRO:HG3	10:J:175:ARG:HG2	1.81	0.58
10:J:37:LEU:CD2	10:J:42:GLU:HB3	2.25	0.58
10:J:65:GLU:O	10:J:66:LYS:CB	2.51	0.58
18:R:100:PRO:CA	18:R:103:LYS:HB2	2.09	0.58
3:C:70:SER:C	22:V:29:HIS:HE1	2.07	0.58
25:Y:114:MET:C	25:Y:124:ASN:HD22	2.06	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:51:HIS:CD2	6:F:86:LYS:HD3	2.38	0.58
12:L:55:TYR:CD1	12:L:115:PRO:HG2	2.38	0.58
17:Q:92:LEU:O	17:Q:96:TYR:CD2	2.56	0.58
13:M:79:VAL:CG1	13:M:80:ASP:N	2.66	0.58
2:B:133:TYR:CZ	2:B:181:LEU:HD12	2.38	0.58
2:B:136:HIS:ND1	2:B:138:PHE:CZ	2.72	0.58
5:E:36:HIS:C	5:E:41:CYS:SG	2.82	0.58
1:A:139:TYR:C	1:A:140:VAL:HG23	2.23	0.58
7:G:19:ASP:O	7:G:20:ASP:CG	2.42	0.58
10:J:120:ALA:HA	10:J:125:HIS:HD2	1.68	0.58
11:K:27:VAL:HG11	11:K:43:LEU:HD22	1.67	0.58
14:N:28:LEU:CD1	14:N:58:HIS:CE1	2.85	0.58
2:B:25:PHE:CE1	15:O:53:ILE:HG22	2.38	0.58
24:X:90:CYS:O	24:X:91:LEU:O	2.22	0.58
16:P:10:ARG:NH2	16:P:11:THR:CB	2.30	0.58
12:L:86:ILE:HG13	12:L:111:VAL:HG13	1.84	0.58
2:B:160:GLN:NE2	2:B:205:TYR:CE1	2.55	0.58
4:D:212:GLU:N	4:D:212:GLU:CD	2.48	0.58
4:D:212:GLU:HG2	18:R:19:LYS:CE	2.34	0.58
23:W:96:SER:OG	23:W:99:PHE:CE2	2.56	0.58
18:R:93:GLN:O	18:R:94:GLU:C	2.40	0.58
26:Z:94:LYS:CE	26:Z:95:GLY:H	2.16	0.58
1:A:183:LEU:CB	1:A:189:ILE:CD1	2.81	0.58
1:A:60:LEU:CD1	1:A:60:LEU:C	2.71	0.58
2:B:36:PRO:CB	2:B:231:LEU:CD2	2.71	0.58
4:D:35:SER:HA	4:D:99:ILE:HD11	0.73	0.58
7:G:32:MET:SD	7:G:100:CYS:SG	3.01	0.58
7:G:137:ARG:HG3	7:G:140:ARG:HB3	1.85	0.58
7:G:32:MET:HA	7:G:52:ILE:HG23	1.86	0.58
8:H:143:ARG:NE	23:W:53:ILE:CG2	2.62	0.58
8:H:190:PRO:CB	8:H:191:GLU:HG2	2.33	0.58
9:I:149:TYR:HA	9:I:152:ARG:NH1	2.19	0.58
11:K:53:LYS:CA	11:K:58:VAL:HG13	2.34	0.58
25:Y:55:ILE:HD11	25:Y:75:ILE:HD13	1.85	0.58
6:F:14:THR:HG23	6:F:15:PRO:HD2	1.85	0.58
4:D:202:LYS:HB2	4:D:203:PRO:HD3	1.82	0.58
10:J:84:ILE:CG1	10:J:86:VAL:HG23	2.32	0.58
9:I:29:LEU:HD21	9:I:31:ARG:HH12	1.69	0.58
12:L:46:THR:HG23	12:L:46:THR:O	2.04	0.58
9:I:129:LEU:O	9:I:134:GLU:HB2	2.03	0.58
8:H:154:ILE:HG22	8:H:185:VAL:CG2	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:52:LYS:HB3	1:A:52:LYS:HZ2	1.67	0.58
2:B:93:GLY:C	2:B:94:LYS:HD3	2.23	0.58
7:G:135:PRO:CG	7:G:144:LEU:HD23	2.33	0.58
7:G:27:PHE:HZ	7:G:41:LEU:HD13	1.68	0.58
9:I:145:ILE:HA	9:I:148:LYS:CD	2.33	0.58
11:K:71:LEU:CG	11:K:76:ILE:CD1	2.80	0.58
9:I:85:ALA:HB1	12:L:8:ARG:HD2	1.85	0.58
14:N:16:LEU:CD1	14:N:62:GLN:HE22	2.03	0.58
26:Z:51:ASP:O	26:Z:52:LYS:HB2	2.02	0.58
10:J:84:ILE:O	10:J:108:ARG:CD	2.51	0.58
10:J:84:ILE:O	10:J:108:ARG:HD3	2.04	0.58
12:L:71:ARG:HD2	12:L:73:LEU:HD11	1.84	0.58
4:D:218:LEU:C	4:D:220:THR:HG23	2.24	0.58
1:A:195:TRP:CE2	1:A:197:VAL:HB	2.39	0.58
1:A:2:SER:OG	1:A:3:GLY:N	2.37	0.58
2:B:53:GLN:HG2	2:B:56:LYS:HB2	1.86	0.58
4:D:32:ASP:OD1	4:D:57:ASN:HB2	2.03	0.58
5:E:152:PRO:HG3	7:G:209:TYR:CZ	2.39	0.58
6:F:119:SER:O	6:F:121:PRO:HD3	2.04	0.58
7:G:176:ILE:HG21	7:G:179:LEU:CB	2.28	0.58
10:J:110:LEU:HB3	10:J:130:ILE:CD1	2.33	0.58
11:K:13:GLU:HG3	11:K:14:LEU:N	2.19	0.58
11:K:2:LEU:CG	11:K:3:MET:H	2.07	0.58
14:N:27:LYS:N	14:N:27:LYS:CD	2.63	0.58
18:R:98:VAL:O	18:R:100:PRO:HD2	2.04	0.58
20:T:39:LEU:HD11	20:T:56:ARG:HH21	1.67	0.58
19:S:120:HIS:CD2	19:S:124:ARG:HG3	2.39	0.58
2:B:66:VAL:CB	2:B:87:ILE:HG22	2.25	0.58
1:A:45:GLY:C	1:A:46:ILE:HG12	2.22	0.58
3:C:55:VAL:HA	3:C:82:PHE:CZ	2.34	0.58
5:E:62:LYS:CD	5:E:80:ILE:CG1	2.81	0.58
8:H:144:ILE:O	23:W:51:GLU:CA	2.47	0.58
10:J:10:ARG:CZ	10:J:10:ARG:HB3	2.24	0.58
10:J:170:PRO:CB	10:J:174:LYS:NZ	2.67	0.58
11:K:89:ILE:O	11:K:89:ILE:HD13	2.03	0.58
1:A:157:VAL:O	22:V:66:ASP:CG	2.42	0.58
6:F:25:THR:CG2	6:F:41:VAL:HG22	2.32	0.58
17:Q:93:VAL:HG11	17:Q:105:LYS:HE2	0.58	0.58
20:T:31:PRO:HG2	20:T:102:ARG:CG	2.33	0.58
16:P:111:MET:C	16:P:114:HIS:HD2	2.07	0.58
12:L:17:PHE:HZ	12:L:19:ASN:OD1	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:117:TRP:CE3	2:B:153:THR:HB	2.37	0.58
3:C:154:TYR:OH	3:C:161:LYS:N	2.34	0.58
3:C:154:TYR:CZ	3:C:161:LYS:CA	2.86	0.58
13:M:77:ILE:CG2	13:M:78:LYS:H	2.06	0.58
5:E:156:MET:O	5:E:157:ASN:HB2	2.03	0.58
7:G:191:ARG:O	7:G:195:LYS:HG3	2.04	0.58
9:I:76:THR:CG2	9:I:77:ARG:H	2.17	0.58
2:B:70:SER:HB3	15:O:128:ARG:NH1	2.18	0.58
1:A:48:ILE:CD1	18:R:105:MET:SD	2.75	0.58
21:U:83:ARG:HB3	21:U:85:HIS:HE1	1.68	0.58
16:P:41:GLN:NE2	16:P:45:LEU:CD1	2.67	0.58
25:Y:21:LYS:H	25:Y:21:LYS:HD3	1.61	0.58
6:F:15:PRO:HD3	17:Q:56:LEU:CB	2.34	0.58
10:J:81:LEU:CD1	10:J:97:ILE:CD1	2.81	0.58
2:B:144:LYS:HG3	2:B:144:LYS:O	2.03	0.58
20:T:11:GLN:CD	20:T:62:ARG:CZ	2.70	0.58
2:B:105:LEU:O	2:B:106:THR:CB	2.52	0.58
7:G:185:LEU:O	7:G:189:ARG:HG3	2.04	0.57
22:V:74:LYS:HA	22:V:78:ILE:O	2.04	0.57
24:X:95:GLU:OE1	24:X:140:ARG:NH2	2.36	0.57
6:F:42:LYS:HB2	6:F:46:ALA:N	2.19	0.57
17:Q:18:THR:O	17:Q:75:GLY:HA3	2.04	0.57
3:C:93:LYS:CD	3:C:218:LEU:HD22	1.83	0.57
19:S:80:PRO:CG	19:S:82:TRP:NE1	2.67	0.57
26:Z:92:LEU:CD1	26:Z:109:TYR:CE1	2.84	0.57
26:Z:92:LEU:CD2	26:Z:97:ILE:HG13	2.30	0.57
9:I:22:HIS:CD2	9:I:25:ARG:HH11	2.22	0.57
16:P:49:LEU:N	16:P:51:ARG:HG3	2.18	0.57
21:U:47:ASN:H	21:U:47:ASN:HD22	1.51	0.57
24:X:109:GLY:O	24:X:119:ARG:CD	2.42	0.57
2:B:129:THR:OG1	2:B:133:TYR:HB2	2.03	0.57
8:H:154:ILE:O	8:H:154:ILE:CG2	2.51	0.57
2:B:226:GLY:O	2:B:230:GLU:HG3	2.05	0.57
12:L:130:GLU:HG2	12:L:131:CYS:N	2.19	0.57
19:S:73:ASN:HB3	19:S:76:GLN:OE1	2.04	0.57
1:A:141:ASN:O	22:V:32:ILE:CG1	2.41	0.57
1:A:59:LEU:HD23	1:A:181:GLU:CG	2.33	0.57
1:A:24:HIS:HB2	1:A:49:ILE:O	2.04	0.57
1:A:76:VAL:CG1	1:A:175:TRP:CZ3	2.83	0.57
4:D:76:ARG:CD	11:K:66:HIS:ND1	2.67	0.57
5:E:117:GLU:HG3	5:E:118:GLU:N	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:185:LEU:HD23	7:G:188:LYS:HE3	1.86	0.57
5:E:248:ILE:CA	10:J:72:PHE:CE1	2.86	0.57
13:M:28:HIS:O	13:M:29:ASP:CB	2.53	0.57
15:O:128:ARG:C	15:O:129:ILE:HG12	2.18	0.57
18:R:98:VAL:CG1	18:R:99:ASP:N	2.68	0.57
25:Y:18:LEU:HD12	25:Y:20:ARG:NH1	2.08	0.57
20:T:76:THR:CG2	20:T:95:GLY:O	2.52	0.57
19:S:58:GLU:CB	19:S:59:LEU:HD13	2.34	0.57
23:W:77:PRO:HD2	23:W:79:PHE:CZ	2.39	0.57
23:W:128:PHE:CZ	23:W:130:PHE:HE2	2.22	0.57
3:C:98:GLN:HB3	3:C:107:THR:HA	1.85	0.57
2:B:125:VAL:CG2	2:B:169:MET:HG3	2.34	0.57
2:B:67:PHE:HE1	15:O:47:LEU:CA	2.16	0.57
5:E:43:PRO:HG2	5:E:46:ILE:CD1	2.34	0.57
7:G:155:GLN:C	7:G:156:TYR:CD1	2.78	0.57
7:G:177:GLN:O	7:G:178:ARG:HB2	2.03	0.57
7:G:3:LEU:CD1	7:G:41:LEU:HD11	2.33	0.57
10:J:16:PRO:C	10:J:18:ARG:N	2.52	0.57
2:B:28:LYS:NZ	15:O:51:GLU:OE2	2.37	0.57
17:Q:47:LEU:O	17:Q:49:TYR:N	2.38	0.57
8:H:60:ILE:HG21	8:H:92:VAL:HG22	1.86	0.57
19:S:89:ASP:HB2	19:S:94:LYS:HB2	1.85	0.57
13:M:61:TYR:OH	13:M:108:CYS:SG	2.61	0.57
20:T:23:LYS:CD	20:T:54:TYR:CG	2.62	0.57
10:J:89:GLU:O	10:J:91:LYS:O	2.23	0.57
12:L:97:ARG:HG2	12:L:98:LYS:CA	2.34	0.57
2:B:136:HIS:CE1	2:B:138:PHE:HZ	2.20	0.57
14:N:142:GLU:HG2	14:N:145:THR:HG23	1.86	0.57
16:P:32:GLN:HA	16:P:35:GLN:CD	2.24	0.57
7:G:159:ARG:HH22	7:G:161:PRO:CA	2.17	0.57
7:G:174:PRO:O	7:G:175:LYS:HB2	2.02	0.57
10:J:65:GLU:HA	10:J:70:ARG:HD3	1.87	0.57
11:K:61:GLN:O	11:K:67:PHE:HA	2.05	0.57
11:K:64:TRP:C	11:K:65:ARG:HG2	2.24	0.57
12:L:109:MET:SD	12:L:140:PHE:CE1	2.97	0.57
10:J:87:LEU:HD12	10:J:91:LYS:HD3	1.87	0.57
16:P:127:LYS:HE3	16:P:128:HIS:CA	2.34	0.57
19:S:15:VAL:CG1	19:S:68:ILE:HD11	2.33	0.57
24:X:105:PHE:HB3	24:X:112:VAL:HG21	1.86	0.57
11:K:95:ARG:NE	11:K:95:ARG:HA	2.17	0.57
15:O:39:ASP:N	15:O:69:SER:HB3	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:143:LYS:CG	15:O:144:GLY:N	2.64	0.57
17:Q:15:ARG:NH1	17:Q:20:THR:HG21	2.19	0.57
18:R:61:ILE:HG23	18:R:74:GLN:HE22	1.70	0.57
2:B:31:TYR:CE1	2:B:94:LYS:N	2.68	0.57
5:E:98:ASN:HD21	5:E:119:ALA:HA	1.68	0.57
7:G:63:MET:CE	7:G:106:LEU:HD21	2.32	0.57
7:G:159:ARG:HA	7:G:172:LYS:O	2.04	0.57
9:I:142:SER:HB3	9:I:143:LYS:CD	2.34	0.57
10:J:15:THR:HB	10:J:44:TRP:CH2	2.39	0.57
22:V:42:VAL:O	22:V:43:THR:CB	2.52	0.57
24:X:126:ALA:O	24:X:128:VAL:N	2.37	0.57
6:F:44:LYS:CB	6:F:45:TYR:CE1	2.69	0.57
17:Q:47:LEU:CB	17:Q:81:ILE:HD13	2.34	0.57
17:Q:50:LYS:CA	17:Q:53:GLU:HG3	2.34	0.57
19:S:40:TYR:HA	19:S:83:PHE:HZ	1.68	0.57
18:R:20:TYR:CE2	18:R:38:ILE:CB	2.73	0.57
17:Q:92:LEU:O	17:Q:96:TYR:HD2	1.87	0.57
3:C:192:ALA:HB3	3:C:195:PRO:CD	2.35	0.57
13:M:85:LEU:O	13:M:89:VAL:HG23	2.05	0.57
20:T:18:LEU:HD13	20:T:134:ILE:CD1	2.16	0.57
6:F:195:GLU:OE1	6:F:195:GLU:CA	2.49	0.57
20:T:65:TYR:CE2	20:T:128:GLN:HG3	2.39	0.57
2:B:225:LEU:HB3	2:B:229:MET:CE	2.34	0.57
8:H:188:GLU:HG2	8:H:189:PHE:H	1.69	0.57
9:I:142:SER:HB3	9:I:143:LYS:CE	2.34	0.57
10:J:17:ARG:CA	10:J:18:ARG:HG2	2.35	0.57
15:O:17:LEU:CG	15:O:18:GLY:N	2.67	0.57
22:V:19:ALA:CB	22:V:59:ILE:CD1	2.76	0.57
17:Q:54:PRO:CG	17:Q:88:ILE:CD1	2.70	0.57
25:Y:55:ILE:CD1	25:Y:75:ILE:HD13	2.35	0.57
12:L:17:PHE:CD1	12:L:18:GLN:CB	2.87	0.57
10:J:91:LYS:C	10:J:93:LYS:H	2.08	0.57
19:S:46:ARG:NE	20:T:50:GLU:CD	2.58	0.57
12:L:102:PHE:HD1	12:L:102:PHE:N	1.95	0.57
3:C:161:LYS:CD	3:C:162:PRO:HD2	2.35	0.57
13:M:124:ILE:C	13:M:127:TYR:CD2	2.77	0.57
16:P:67:ALA:HB2	16:P:73:PRO:CB	2.35	0.57
23:W:30:CYS:CA	23:W:34:ILE:HD12	2.35	0.57
8:H:109:ARG:O	8:H:110:THR:HB	2.04	0.57
12:L:1:MET:O	12:L:2:ALA:CB	2.52	0.57
2:B:67:PHE:CE1	15:O:47:LEU:CA	2.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:193:LYS:HE2	6:F:197:GLU:CD	2.25	0.57
7:G:188:LYS:O	7:G:191:ARG:HG3	2.05	0.57
9:I:141:ARG:HD2	9:I:144:LYS:CB	1.99	0.57
9:I:148:LYS:HE2	9:I:152:ARG:NH2	2.20	0.57
9:I:48:VAL:HG11	9:I:54:LYS:HB2	1.86	0.57
10:J:50:LEU:HD12	10:J:102:ILE:CG1	2.35	0.57
6:F:47:LYS:CB	17:Q:117:ARG:HH22	2.16	0.57
25:Y:55:ILE:HA	25:Y:74:MET:O	2.04	0.57
16:P:8:LYS:C	16:P:11:THR:HG22	2.24	0.57
4:D:194:PRO:O	4:D:197:LYS:O	2.23	0.57
16:P:49:LEU:HD11	16:P:51:ARG:HH21	1.70	0.57
20:T:124:THR:CG2	20:T:126:GLN:HB3	2.35	0.57
15:O:75:MET:SD	15:O:114:SER:O	2.63	0.57
18:R:77:GLU:HG3	18:R:80:ARG:NH2	2.20	0.57
1:A:57:LYS:HE2	22:V:70:LEU:HD21	1.85	0.57
9:I:155:ASN:CG	9:I:156:ALA:N	2.57	0.57
9:I:62:VAL:HG23	9:I:75:LYS:CE	2.32	0.57
25:Y:52:PRO:CD	25:Y:53:ASP:N	2.64	0.57
3:C:93:LYS:HE3	3:C:95:MET:HG2	1.86	0.57
2:B:87:ILE:CD1	2:B:220:LYS:HZ3	2.18	0.57
16:P:5:GLU:HG2	16:P:9:LYS:HE2	1.85	0.57
12:L:147:LYS:HE2	12:L:156:GLN:HE22	1.70	0.57
12:L:102:PHE:O	24:X:8:ARG:O	2.22	0.57
2:B:110:MET:CE	2:B:213:ARG:HD2	2.35	0.57
13:M:99:LYS:N	13:M:100:PRO:CD	2.68	0.57
21:U:56:MET:HE1	21:U:88:LEU:HD23	1.86	0.57
18:R:61:ILE:HG23	18:R:74:GLN:NE2	2.19	0.57
1:A:57:LYS:HZ3	22:V:70:LEU:CG	2.18	0.57
8:H:193:GLN:N	8:H:193:GLN:CD	2.57	0.57
8:H:192:PHE:O	8:H:193:GLN:O	2.22	0.57
25:Y:114:MET:HE2	25:Y:121:ALA:O	2.05	0.57
16:P:4:VAL:N	16:P:10:ARG:CD	2.51	0.57
4:D:162:ASP:HB3	4:D:163:PRO:HD3	1.86	0.57
9:I:5:ARG:CG	9:I:5:ARG:NH1	2.65	0.57
1:A:106:GLY:HA3	1:A:113:GLN:HE22	1.67	0.57
4:D:214:LYS:HE2	4:D:214:LYS:O	2.04	0.57
14:N:4:MET:HE2	14:N:124:ARG:HH22	1.70	0.57
20:T:5:THR:CG2	20:T:7:LYS:HB2	2.34	0.57
11:K:5:LYS:O	11:K:5:LYS:CG	2.31	0.57
1:A:102:ARG:O	1:A:104:THR:N	2.38	0.57
4:D:23:GLU:CG	11:K:64:TRP:HE1	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:59:LEU:CG	4:D:60:GLY:H	2.16	0.57
9:I:136:ILE:O	9:I:139:LYS:CD	2.52	0.57
9:I:142:SER:CB	9:I:143:LYS:CB	2.29	0.57
9:I:154:LYS:O	12:L:22:ARG:CD	2.53	0.57
17:Q:18:THR:HB	17:Q:75:GLY:H	1.70	0.57
26:Z:105:ALA:O	26:Z:106:GLN:HG3	2.05	0.57
25:Y:54:VAL:CG2	25:Y:79:LEU:HD21	2.35	0.57
8:H:10:LYS:HE3	8:H:16:PRO:C	2.22	0.57
25:Y:36:PRO:HD3	25:Y:39:GLU:OE1	1.98	0.57
26:Z:92:LEU:CD1	26:Z:109:TYR:HE1	2.18	0.57
26:Z:77:LEU:O	26:Z:78:LYS:CD	2.53	0.57
16:P:127:LYS:HE3	16:P:128:HIS:HA	1.86	0.57
4:D:218:LEU:CG	4:D:218:LEU:O	2.53	0.57
20:T:40:ALA:O	20:T:43:LYS:HB2	2.05	0.57
8:H:117:PRO:HD2	8:H:120:ARG:CD	2.35	0.57
1:A:119:PRO:O	1:A:142:LEU:HD22	2.04	0.56
1:A:189:ILE:O	1:A:190:SER:OG	2.22	0.56
1:A:4:ALA:O	1:A:8:LEU:HD22	2.05	0.56
2:B:71:LEU:HD13	2:B:84:PHE:HE2	0.85	0.56
3:C:49:THR:HG23	3:C:75:GLU:CG	2.36	0.56
3:C:68:LEU:HD22	3:C:247:THR:HG21	1.87	0.56
7:G:63:MET:HE3	7:G:106:LEU:CD2	2.35	0.56
21:U:103:SER:C	21:U:104:ILE:O	2.39	0.56
16:P:44:ARG:CD	16:P:82:ASP:O	2.52	0.56
16:P:107:ILE:HG13	16:P:107:ILE:O	2.03	0.56
19:S:33:ILE:CB	19:S:36:VAL:CG1	2.80	0.56
19:S:15:VAL:HG12	19:S:16:LEU:N	2.20	0.56
3:C:161:LYS:HD3	22:V:9:VAL:HG11	1.85	0.56
2:B:104:ASP:CG	2:B:105:LEU:H	2.07	0.56
13:M:33:ARG:CG	13:M:33:ARG:HH11	2.15	0.56
4:D:175:VAL:HG13	4:D:175:VAL:O	2.05	0.56
15:O:38:ASN:O	15:O:68:GLU:HB3	2.05	0.56
9:I:31:ARG:HG3	9:I:31:ARG:NH1	2.20	0.56
2:B:120:MET:HB2	2:B:142:PHE:HE1	1.70	0.56
4:D:149:SER:O	4:D:150:MET:SD	2.63	0.56
14:N:11:LEU:HD12	14:N:11:LEU:O	2.05	0.56
5:E:75:LYS:O	5:E:76:VAL:CG2	4.93	0.56
9:I:142:SER:HB3	9:I:143:LYS:HB2	0.62	0.56
11:K:71:LEU:CD2	11:K:76:ILE:HD11	2.13	0.56
15:O:44:VAL:HG22	15:O:93:LEU:HD13	1.84	0.56
21:U:101:ILE:O	21:U:105:SER:OG	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:52:LEU:HD12	24:X:53:GLU:CG	2.35	0.56
17:Q:105:LYS:NZ	17:Q:109:LYS:CB	2.66	0.56
4:D:168:VAL:CG1	4:D:189:MET:SD	2.93	0.56
20:T:76:THR:CA	20:T:95:GLY:O	2.53	0.56
19:S:55:ARG:HG3	26:Z:48:VAL:CG1	2.34	0.56
19:S:85:ASN:ND2	19:S:98:VAL:H	2.03	0.56
12:L:148:ALA:O	12:L:150:GLY:O	2.23	0.56
4:D:123:LEU:HD11	4:D:154:ASP:CB	2.35	0.56
3:C:229:ILE:CG1	3:C:230:SER:N	2.65	0.56
1:A:127:PRO:HG2	1:A:153:PRO:CD	2.27	0.56
2:B:44:ILE:HD11	2:B:86:LEU:HD13	1.86	0.56
4:D:97:CYS:O	4:D:100:ALA:N	2.36	0.56
7:G:19:ASP:O	7:G:20:ASP:HB2	2.05	0.56
8:H:144:ILE:HD12	23:W:52:ILE:CD1	2.25	0.56
9:I:140:LYS:C	9:I:141:ARG:CG	2.73	0.56
10:J:131:ARG:NH1	10:J:143:ASN:HD21	2.01	0.56
10:J:136:ARG:HG3	10:J:160:SER:CB	2.35	0.56
10:J:61:LEU:CD1	10:J:94:LEU:HD11	2.33	0.56
11:K:65:ARG:HH11	11:K:65:ARG:HB3	1.29	0.56
8:H:145:ARG:CG	23:W:51:GLU:HG2	2.34	0.56
1:A:108:PHE:CE2	1:A:122:LEU:HD11	2.41	0.56
3:C:250:PRO:HA	3:C:253:GLU:HG2	1.88	0.56
3:C:60:ILE:O	3:C:82:PHE:HZ	1.86	0.56
5:E:129:ILE:CG2	5:E:139:LEU:HD23	2.35	0.56
11:K:1:MET:HB3	11:K:47:LYS:HB3	1.87	0.56
11:K:8:ARG:O	11:K:12:TYR:HD1	1.88	0.56
12:L:6:THR:HG23	12:L:7:GLU:N	2.19	0.56
22:V:39:VAL:O	22:V:41:LYS:N	2.34	0.56
17:Q:58:LEU:HD21	17:Q:111:ILE:CD1	2.28	0.56
17:Q:90:LYS:HD3	17:Q:120:LEU:CA	2.32	0.56
25:Y:54:VAL:CG1	25:Y:76:TYR:CA	2.84	0.56
16:P:56:LEU:CD1	16:P:80:LEU:CD1	2.79	0.56
25:Y:35:VAL:CG1	25:Y:36:PRO:HD2	2.28	0.56
16:P:49:LEU:CA	16:P:51:ARG:CD	2.83	0.56
16:P:49:LEU:HD12	16:P:50:ARG:N	2.20	0.56
13:M:12:MET:CE	13:M:17:ALA:O	2.40	0.56
3:C:166:ARG:O	23:W:96:SER:HB3	2.04	0.56
3:C:195:PRO:HD3	3:C:221:PHE:CE2	2.40	0.56
6:F:81:ARG:HE	6:F:82:ASN:HD21	1.52	0.56
12:L:40:ILE:HG13	12:L:68:ILE:HG13	1.88	0.56
8:H:99:ARG:O	8:H:100:ILE:O	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:226:PHE:O	3:C:229:ILE:HG12	2.05	0.56
4:D:141:LYS:HE3	4:D:179:GLN:NE2	2.20	0.56
22:V:49:GLN:O	22:V:50:SER:O	2.23	0.56
3:C:55:VAL:CB	3:C:82:PHE:CZ	2.84	0.56
4:D:53:THR:HG22	4:D:91:VAL:CB	2.36	0.56
7:G:162:LEU:O	7:G:162:LEU:CD1	2.49	0.56
7:G:67:VAL:O	7:G:68:LEU:CB	2.50	0.56
9:I:165:GLN:HE21	9:I:171:LEU:HD22	1.70	0.56
10:J:110:LEU:HD12	10:J:130:ILE:HG12	1.55	0.56
11:K:43:LEU:H	11:K:46:MET:CB	2.18	0.56
12:L:5:GLN:OE1	12:L:10:TYR:HA	2.06	0.56
1:A:142:LEU:N	22:V:32:ILE:CD1	2.69	0.56
25:Y:117:VAL:HB	25:Y:124:ASN:HD21	1.69	0.56
16:P:53:GLN:HG3	16:P:80:LEU:HD11	1.84	0.56
8:H:15:LYS:HB3	8:H:16:PRO:HD3	1.82	0.56
24:X:105:PHE:HB3	24:X:112:VAL:CG2	2.36	0.56
18:R:42:PRO:CD	18:R:43:SER:N	2.67	0.56
16:P:67:ALA:HB2	16:P:73:PRO:HB3	1.87	0.56
20:T:85:ASN:HB3	20:T:88:MET:SD	2.46	0.56
8:H:135:PHE:HB3	8:H:136:PRO:HD3	1.87	0.56
3:C:183:ALA:HB2	3:C:208:TYR:CD2	2.40	0.56
1:A:115:ALA:O	1:A:117:ARG:HG2	2.05	0.56
1:A:180:ARG:NH1	1:A:184:ARG:CZ	2.64	0.56
3:C:69:PHE:CZ	3:C:247:THR:HG21	2.40	0.56
4:D:55:THR:HA	4:D:58:VAL:CG2	2.35	0.56
6:F:134:VAL:HG12	6:F:136:ARG:NH2	2.19	0.56
6:F:122:ARG:C	6:F:141:VAL:HG13	2.18	0.56
9:I:154:LYS:CE	9:I:154:LYS:O	2.53	0.56
11:K:64:TRP:O	11:K:65:ARG:HG3	2.04	0.56
14:N:58:HIS:CD2	14:N:59:GLY:H	2.23	0.56
6:F:44:LYS:CA	6:F:45:TYR:CD1	2.88	0.56
25:Y:44:LEU:HG	25:Y:75:ILE:HD11	1.87	0.56
8:H:9:VAL:CA	8:H:11:PRO:HD3	2.36	0.56
16:P:90:VAL:HG11	16:P:109:PRO:HG3	1.88	0.56
19:S:81:ASP:OD2	19:S:95:TYR:HD2	1.88	0.56
19:S:55:ARG:CG	26:Z:48:VAL:HG11	2.33	0.56
20:T:23:LYS:HE2	20:T:54:TYR:CE2	2.41	0.56
21:U:50:VAL:HG22	21:U:51:LYS:N	2.19	0.56
23:W:128:PHE:HE1	23:W:130:PHE:CE2	2.09	0.56
6:F:176:GLU:CD	6:F:187:SER:OG	2.40	0.56
15:O:20:GLN:HG2	15:O:21:VAL:C	2.25	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:114:ARG:HD3	14:N:117:LEU:HD12	1.86	0.56
4:D:116:ARG:O	4:D:120:TYR:HB2	2.04	0.56
11:K:47:LYS:HD3	11:K:50:GLN:CD	2.26	0.56
12:L:56:ILE:CG2	12:L:57:ASP:N	2.68	0.56
14:N:125:LEU:CD1	14:N:129:TYR:CZ	2.89	0.56
24:X:91:LEU:O	24:X:92:ASN:C	2.43	0.56
3:C:200:LEU:CD1	3:C:201:MET:SD	2.94	0.56
4:D:211:VAL:CG2	18:R:39:ALA:N	2.69	0.56
20:T:85:ASN:CB	20:T:88:MET:HB2	2.35	0.56
3:C:177:LEU:HD12	3:C:177:LEU:C	2.25	0.56
17:Q:10:VAL:HG12	17:Q:11:GLN:N	2.21	0.56
3:C:63:LEU:HB3	3:C:67:TYR:CE2	2.40	0.56
9:I:157:LYS:HB2	12:L:22:ARG:NE	2.19	0.56
10:J:168:GLY:O	10:J:169:ARG:C	2.43	0.56
10:J:67:ASP:O	10:J:70:ARG:N	2.38	0.56
14:N:67:THR:O	14:N:69:ASN:N	2.36	0.56
17:Q:19:ALA:CB	17:Q:75:GLY:HA3	2.33	0.56
17:Q:50:LYS:HA	17:Q:53:GLU:HG3	1.87	0.56
25:Y:20:ARG:HD3	25:Y:76:TYR:CE2	2.40	0.56
19:S:30:ILE:HG22	19:S:36:VAL:HG21	1.88	0.56
4:D:153:VAL:HG12	4:D:154:ASP:N	2.21	0.56
13:M:100:PRO:O	13:M:101:ARG:NH1	2.39	0.56
2:B:179:ASN:HB3	2:B:183:GLU:HB2	1.88	0.56
24:X:41:PHE:HZ	24:X:102:VAL:CG1	2.19	0.56
1:A:77:ILE:HG12	1:A:99:ILE:HB	1.87	0.56
3:C:43:LYS:HG3	3:C:44:GLU:H	1.70	0.56
10:J:170:PRO:HD2	10:J:175:ARG:HD2	1.88	0.56
15:O:30:VAL:CB	15:O:32:HIS:NE2	2.69	0.56
4:D:10:LYS:NZ	21:U:111:GLU:HG2	2.21	0.56
22:V:18:SER:O	22:V:72:LEU:HD21	2.05	0.56
19:S:26:ILE:CG1	19:S:59:LEU:HD21	2.36	0.56
10:J:177:ASN:CA	10:J:180:LYS:HB3	2.35	0.56
10:J:80:ARG:HA	10:J:83:ARG:HD3	1.86	0.56
20:T:18:LEU:HB2	20:T:134:ILE:HD12	1.87	0.56
20:T:4:VAL:CG2	20:T:136:GLY:HA2	2.35	0.56
26:Z:94:LYS:HA	26:Z:94:LYS:HE2	1.88	0.56
8:H:109:ARG:CZ	8:H:111:LYS:HD2	2.35	0.56
7:G:73:VAL:HG12	7:G:74:ARG:N	2.20	0.56
8:H:158:LEU:HG	8:H:187:PHE:HD1	1.71	0.56
9:I:141:ARG:HD3	9:I:144:LYS:HB3	1.62	0.56
15:O:44:VAL:HG21	15:O:93:LEU:HD11	1.85	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:54:VAL:HG13	25:Y:76:TYR:N	2.18	0.56
16:P:56:LEU:HD22	16:P:78:THR:CG2	2.34	0.56
16:P:77:LYS:O	16:P:78:THR:HG22	2.06	0.56
16:P:56:LEU:HD12	16:P:80:LEU:HD12	1.87	0.56
8:H:8:ILE:CG2	8:H:9:VAL:H	2.19	0.56
16:P:30:TYR:O	16:P:34:MET:CG	2.54	0.56
10:J:88:ASP:O	10:J:91:LYS:CB	2.41	0.56
3:C:163:HIS:O	3:C:205:ASP:HB2	2.06	0.56
16:P:127:LYS:O	16:P:127:LYS:CG	2.54	0.56
13:M:77:ILE:HD12	13:M:79:VAL:HG23	1.88	0.56
5:E:38:LEU:HD12	5:E:39:ARG:N	2.15	0.56
14:N:4:MET:CE	14:N:124:ARG:NH2	2.68	0.56
20:T:4:VAL:CB	20:T:8:ASP:HB2	2.36	0.56
5:E:205:PHE:CD1	5:E:221:ARG:CZ	2.89	0.56
17:Q:124:PRO:CG	17:Q:125:ARG:N	2.69	0.56
25:Y:5:VAL:O	25:Y:6:THR:OG1	2.19	0.56
1:A:159:ILE:O	1:A:159:ILE:HG23	2.04	0.56
3:C:149:PRO:CB	3:C:233:TYR:CD2	2.80	0.56
7:G:211:LYS:O	7:G:215:LYS:HD3	2.06	0.56
7:G:35:GLU:O	7:G:36:VAL:HG22	2.05	0.56
10:J:17:ARG:CD	10:J:18:ARG:HD3	2.35	0.56
11:K:41:PRO:CD	11:K:43:LEU:HG	2.36	0.56
11:K:43:LEU:O	11:K:45:VAL:CA	2.51	0.56
19:S:121:ARG:CG	19:S:131:VAL:CG1	2.82	0.56
8:H:6:ALA:HA	8:H:10:LYS:CG	2.34	0.56
2:B:87:ILE:HD12	2:B:220:LYS:HZ3	1.70	0.56
18:R:1:MET:O	18:R:2:GLY:C	2.40	0.56
4:D:212:GLU:CB	4:D:213:PRO:CD	2.76	0.56
20:T:40:ALA:CA	20:T:43:LYS:HG2	2.35	0.56
4:D:141:LYS:CE	4:D:179:GLN:NE2	2.69	0.56
6:F:182:LYS:NZ	6:F:182:LYS:CB	2.69	0.56
1:A:7:VAL:HG22	1:A:8:LEU:HD12	1.88	0.55
3:C:141:ILE:CG2	3:C:142:LEU:N	2.69	0.55
6:F:130:ARG:HH11	6:F:135:ARG:HG3	1.71	0.55
7:G:120:ASP:N	7:G:120:ASP:OD1	2.38	0.55
7:G:226:GLU:C	7:G:230:LYS:HZ2	2.00	0.55
7:G:50:VAL:HG11	7:G:111:LEU:CB	2.35	0.55
9:I:83:TYR:HB3	9:I:101:ILE:HB	1.88	0.55
9:I:48:VAL:HG11	9:I:54:LYS:HE3	1.87	0.55
2:B:52:THR:HG22	14:N:53:ILE:HD11	81.94	0.55
24:X:125:VAL:O	24:X:128:VAL:CA	2.53	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:120:HIS:CD2	19:S:124:ARG:CD	2.89	0.55
20:T:76:THR:C	20:T:95:GLY:H	1.98	0.55
19:S:89:ASP:O	19:S:90:VAL:HG23	2.06	0.55
9:I:98:LYS:HD3	9:I:178:ARG:NE	2.21	0.55
12:L:149:ALA:O	12:L:150:GLY:O	2.24	0.55
10:J:78:LEU:HD23	10:J:97:ILE:HD11	1.86	0.55
2:B:113:MET:CE	2:B:209:ASP:HB3	2.36	0.55
23:W:128:PHE:C	23:W:128:PHE:CD1	2.78	0.55
23:W:93:LEU:CG	23:W:93:LEU:O	2.54	0.55
3:C:161:LYS:HD3	22:V:9:VAL:CG1	2.35	0.55
6:F:36:GLN:C	6:F:37:ASP:CG	2.63	0.55
1:A:145:ILE:HG23	1:A:159:ILE:CG2	2.36	0.55
1:A:94:THR:CG2	1:A:182:VAL:CG2	2.84	0.55
5:E:72:ILE:CD1	5:E:82:TYR:CE2	2.88	0.55
8:H:169:LYS:CB	8:H:173:PHE:CZ	2.89	0.55
11:K:53:LYS:HA	11:K:58:VAL:CG1	2.36	0.55
17:Q:7:LEU:HD22	17:Q:27:ARG:HD2	1.88	0.55
25:Y:120:THR:O	25:Y:122:LYS:N	2.37	0.55
3:C:218:LEU:HD12	3:C:219:GLY:CA	2.36	0.55
25:Y:63:HIS:HB2	25:Y:68:LYS:HD3	1.88	0.55
16:P:126:VAL:HG12	16:P:127:LYS:CA	2.33	0.55
12:L:153:LYS:HA	14:N:131:THR:O	2.06	0.55
9:I:9:HIS:O	9:I:10:LYS:CG	2.52	0.55
25:Y:37:LYS:CA	25:Y:40:ILE:HG22	2.36	0.55
1:A:186:ARG:O	1:A:186:ARG:NH1	2.39	0.55
4:D:59:LEU:CG	4:D:60:GLY:N	2.69	0.55
6:F:143:PRO:HA	6:F:146:ARG:HG3	1.88	0.55
7:G:141:ILE:HG21	7:G:153:VAL:HG13	1.87	0.55
11:K:12:TYR:OH	11:K:52:LEU:HD21	2.06	0.55
14:N:71:ILE:O	14:N:75:LEU:HD13	2.07	0.55
17:Q:7:LEU:CD2	17:Q:8:GLN:H	2.17	0.55
22:V:55:ILE:HG22	22:V:60:ARG:HG3	1.87	0.55
25:Y:120:THR:HG22	25:Y:122:LYS:HE2	1.89	0.55
8:H:11:PRO:HG2	8:H:12:ASN:H	1.71	0.55
8:H:31:GLU:CD	8:H:41:ARG:HD3	2.26	0.55
16:P:22:LEU:HA	16:P:25:LEU:HD12	1.87	0.55
23:W:93:LEU:CD2	23:W:128:PHE:HD2	2.10	0.55
3:C:157:ASN:HD22	3:C:157:ASN:N	1.99	0.55
4:D:93:THR:HG23	4:D:93:THR:O	2.05	0.55
1:A:5:LEU:HB2	22:V:41:LYS:NZ	2.22	0.55
4:D:58:VAL:HG23	4:D:59:LEU:N	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:123:LEU:CD1	5:E:161:GLN:HA	2.37	0.55
5:E:126:VAL:CG2	5:E:129:ILE:CD1	2.84	0.55
5:E:129:ILE:HG23	5:E:139:LEU:HD23	1.88	0.55
5:E:181:CYS:SG	5:E:225:ILE:HG23	2.46	0.55
9:I:85:ALA:C	12:L:8:ARG:NH1	2.59	0.55
11:K:27:VAL:CB	11:K:43:LEU:CD2	2.82	0.55
15:O:52:THR:C	15:O:53:ILE:HG23	2.16	0.55
3:C:196:LYS:HD2	3:C:200:LEU:CD2	2.37	0.55
16:P:123:TYR:CD2	19:S:120:HIS:CE1	2.55	0.55
12:L:111:VAL:HG23	12:L:140:PHE:C	2.27	0.55
25:Y:46:LYS:CG	25:Y:46:LYS:O	2.55	0.55
16:P:70:MET:HG3	16:P:71:GLU:OE2	2.07	0.55
1:A:169:HIS:CD2	1:A:203:PHE:CE2	2.95	0.55
18:R:62:GLN:HG3	18:R:62:GLN:O	2.06	0.55
1:A:139:TYR:O	1:A:140:VAL:CG2	2.54	0.55
4:D:4:GLN:O	4:D:5:ILE:HG13	2.07	0.55
5:E:100:ARG:CG	5:E:102:ILE:CD1	2.85	0.55
3:C:55:VAL:CB	6:F:34:SER:HB3	88.81	0.55
5:E:153:LEU:CD2	7:G:216:ARG:NH2	2.65	0.55
9:I:48:VAL:HG22	9:I:52:ASN:C	2.25	0.55
10:J:164:PRO:C	10:J:165:TYR:HD1	2.10	0.55
17:Q:109:LYS:NZ	17:Q:113:ILE:CD1	2.69	0.55
17:Q:111:ILE:C	17:Q:114:GLN:HG2	2.25	0.55
4:D:222:PRO:C	4:D:223:ILE:CD1	2.74	0.55
2:B:124:HIS:HD2	2:B:136:HIS:CE1	2.19	0.55
3:C:262:HIS:ND1	3:C:263:THR:N	2.54	0.55
1:A:122:LEU:HD12	1:A:137:ALA:HB2	1.88	0.55
6:F:122:ARG:HB2	6:F:123:GLU:OE1	2.05	0.55
7:G:135:PRO:CG	7:G:144:LEU:HD22	2.36	0.55
7:G:176:ILE:CG2	7:G:179:LEU:HB2	2.32	0.55
11:K:53:LYS:HA	11:K:58:VAL:HG13	1.88	0.55
17:Q:115:TYR:HE2	17:Q:119:LEU:HD11	1.72	0.55
17:Q:53:GLU:O	17:Q:57:LEU:HG	2.07	0.55
8:H:50:GLU:OE2	8:H:90:LYS:CE	2.55	0.55
24:X:27:TYR:CD2	24:X:31:HIS:CD2	2.94	0.55
16:P:89:MET:O	16:P:107:ILE:HD11	2.05	0.55
19:S:18:THR:OG1	19:S:33:ILE:HG12	2.07	0.55
26:Z:99:LEU:HD21	26:Z:102:LYS:HD3	1.80	0.55
9:I:21:TYR:O	9:I:22:HIS:O	2.25	0.55
4:D:214:LYS:O	4:D:214:LYS:HG3	2.07	0.55
14:N:4:MET:CE	14:N:124:ARG:HH22	2.19	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:22:GLY:O	19:S:57:GLY:N	2.35	0.55
13:M:59:PRO:HB2	13:M:62:VAL:HG22	1.89	0.55
4:D:77:PHE:O	4:D:79:PHE:N	2.40	0.55
5:E:71:LYS:HG2	5:E:76:VAL:N	2.21	0.55
7:G:135:PRO:CD	7:G:144:LEU:CD2	2.85	0.55
7:G:188:LYS:HA	7:G:191:ARG:CG	2.37	0.55
7:G:227:GLN:HA	7:G:230:LYS:NZ	2.21	0.55
7:G:36:VAL:CG1	7:G:37:ALA:H	2.14	0.55
7:G:67:VAL:CG2	7:G:100:CYS:H	2.20	0.55
17:Q:18:THR:C	17:Q:75:GLY:CA	2.76	0.55
8:H:12:ASN:ND2	8:H:46:THR:CB	2.67	0.55
18:R:16:ILE:O	18:R:20:TYR:HB2	2.07	0.55
6:F:78:MET:HB2	6:F:159:ARG:NH2	2.22	0.55
3:C:198:LEU:HD13	3:C:225:THR:CG2	2.37	0.55
3:C:198:LEU:O	3:C:198:LEU:HD23	2.06	0.55
20:T:65:TYR:HE2	20:T:128:GLN:HG3	1.72	0.55
9:I:191:GLU:CG	9:I:192:GLY:N	2.70	0.55
14:N:76:LYS:C	14:N:76:LYS:CD	2.76	0.55
2:B:107:ARG:NH1	15:O:133:THR:O	2.40	0.55
1:A:42:LYS:CE	18:R:105:MET:HG2	2.25	0.55
4:D:212:GLU:HG2	18:R:19:LYS:HZ3	1.72	0.55
3:C:240:LEU:HD12	3:C:240:LEU:N	2.21	0.55
13:M:89:VAL:HG21	13:M:109:VAL:CG1	2.27	0.55
5:E:230:LYS:O	5:E:233:LYS:N	2.36	0.55
14:N:2:GLY:O	14:N:3:ARG:CB	2.55	0.55
1:A:71:PRO:HB2	1:A:95:GLY:HA3	1.88	0.55
5:E:153:LEU:CD1	5:E:172:PHE:CE1	2.72	0.55
7:G:159:ARG:HH22	7:G:161:PRO:N	2.05	0.55
7:G:170:ARG:HD2	7:G:172:LYS:HG2	1.88	0.55
7:G:25:ARG:O	7:G:26:THR:C	2.46	0.55
10:J:34:GLU:CB	10:J:35:TYR:CD2	2.89	0.55
11:K:14:LEU:CG	11:K:35:LEU:HD21	2.36	0.55
14:N:139:TRP:HZ3	14:N:141:TYR:N	2.03	0.55
3:C:197:LYS:HG3	3:C:200:LEU:HD21	1.89	0.55
16:P:4:VAL:O	16:P:4:VAL:CG1	2.50	0.55
16:P:9:LYS:O	16:P:10:ARG:CZ	2.54	0.55
19:S:54:LYS:HB3	19:S:55:ARG:H	1.72	0.55
9:I:25:ARG:HB3	9:I:27:TYR:CE2	2.41	0.55
1:A:106:GLY:O	1:A:110:ASN:HB2	2.07	0.55
2:B:125:VAL:CG1	2:B:173:THR:HG22	2.28	0.55
20:T:75:MET:HA	20:T:78:ILE:HG22	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:37:LYS:HA	25:Y:40:ILE:HG22	1.89	0.55
24:X:28:LYS:CE	24:X:32:LEU:HD11	2.37	0.55
4:D:5:ILE:O	4:D:6:SER:N	2.33	0.55
9:I:63:GLY:O	9:I:75:LYS:HG2	2.06	0.55
11:K:85:LEU:HD13	11:K:89:ILE:CG1	2.37	0.55
5:E:69:PHE:CZ	25:Y:17:LEU:HA	2.42	0.55
6:F:15:PRO:HD3	17:Q:56:LEU:HA	1.88	0.55
6:F:15:PRO:HD3	17:Q:56:LEU:CA	2.36	0.55
16:P:17:TYR:H	16:P:25:LEU:HD11	1.71	0.55
16:P:18:ARG:CZ	19:S:90:VAL:HG23	2.37	0.55
26:Z:61:GLU:HB3	26:Z:65:TYR:OH	2.07	0.55
2:B:205:TYR:CG	2:B:206:PRO:CD	2.82	0.55
18:R:91:LEU:HB2	18:R:93:GLN:H	1.66	0.55
18:R:87:GLU:O	18:R:88:VAL:CB	2.55	0.55
2:B:120:MET:CE	2:B:142:PHE:HZ	2.20	0.55
20:T:9:VAL:CG1	20:T:13:GLU:HG3	2.37	0.55
2:B:25:PHE:HD2	15:O:88:LEU:HD21	1.66	0.54
7:G:164:LYS:O	7:G:164:LYS:HG3	2.07	0.54
7:G:176:ILE:HG21	7:G:179:LEU:CG	2.32	0.54
9:I:148:LYS:CE	9:I:152:ARG:NH2	2.70	0.54
12:L:59:LYS:CE	12:L:134:LEU:HD21	2.37	0.54
20:T:39:LEU:HD11	20:T:56:ARG:CZ	2.36	0.54
16:P:53:GLN:CG	16:P:56:LEU:HD12	2.37	0.54
19:S:23:ARG:HD3	26:Z:48:VAL:CB	2.34	0.54
25:Y:10:ARG:CD	25:Y:24:VAL:HG11	2.34	0.54
21:U:86:LYS:C	21:U:87:ARG:HG2	2.27	0.54
14:N:124:ARG:O	14:N:127:ARG:HG2	2.06	0.54
16:P:39:ALA:HA	16:P:42:ARG:CG	2.37	0.54
20:T:14:PHE:CZ	20:T:131:LEU:HD12	2.42	0.54
22:V:35:ASN:OD1	22:V:52:THR:HB	2.07	0.54
6:F:192:LYS:HD2	6:F:192:LYS:O	2.08	0.54
1:A:141:ASN:HA	22:V:32:ILE:HD11	1.89	0.54
1:A:54:THR:HG1	1:A:162:PRO:HG2	1.70	0.54
2:B:26:SER:C	2:B:27:LYS:HG3	2.22	0.54
7:G:24:LEU:O	7:G:25:ARG:C	2.45	0.54
7:G:64:LYS:HD2	7:G:67:VAL:HG13	1.87	0.54
9:I:117:TYR:HE1	9:I:155:ASN:ND2	2.05	0.54
14:N:116:ILE:CA	14:N:119:GLU:HG3	2.37	0.54
24:X:125:VAL:C	24:X:127:ASN:N	2.54	0.54
16:P:107:ILE:CA	16:P:111:MET:CE	2.72	0.54
12:L:17:PHE:CZ	12:L:19:ASN:OD1	2.61	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:49:LEU:HD12	16:P:50:ARG:H	1.71	0.54
2:B:105:LEU:HG	2:B:213:ARG:O	2.06	0.54
6:F:53:ALA:C	17:Q:125:ARG:HH22	2.08	0.54
5:E:136:ILE:N	5:E:136:ILE:CD1	2.70	0.54
4:D:39:VAL:O	4:D:39:VAL:HG13	2.07	0.54
23:W:10:ALA:O	23:W:13:SER:OG	2.22	0.54
3:C:55:VAL:HG21	3:C:82:PHE:HE2	1.63	0.54
5:E:46:ILE:O	5:E:50:ASN:HB2	2.07	0.54
8:H:157:HIS:O	8:H:158:LEU:CD2	2.54	0.54
9:I:54:LYS:CG	9:I:181:GLN:O	2.54	0.54
14:N:139:TRP:CE3	14:N:140:LYS:C	2.81	0.54
3:C:197:LYS:CG	3:C:200:LEU:HD21	2.36	0.54
6:F:18:LYS:NZ	6:F:18:LYS:CB	2.68	0.54
17:Q:44:PRO:O	17:Q:45:ARG:CG	2.54	0.54
6:F:14:THR:OG1	17:Q:56:LEU:HD13	2.07	0.54
8:H:83:LEU:HD21	8:H:92:VAL:HG11	1.81	0.54
19:S:36:VAL:HA	19:S:40:TYR:CD2	2.42	0.54
10:J:81:LEU:HD12	10:J:97:ILE:CD1	2.37	0.54
2:B:138:PHE:CD2	2:B:138:PHE:N	2.74	0.54
5:E:143:ASP:OD2	5:E:145:ARG:HD2	2.08	0.54
18:R:95:ILE:N	18:R:114:LEU:HD13	2.23	0.54
21:U:54:VAL:O	21:U:56:MET:SD	2.65	0.54
1:A:14:ASP:CG	1:A:180:ARG:HH22	2.11	0.54
1:A:149:ASN:N	1:A:165:ASN:ND2	2.56	0.54
1:A:18:PHE:CZ	1:A:55:TRP:CZ3	2.96	0.54
1:A:193:HIS:CB	1:A:194:PRO:CD	2.84	0.54
1:A:5:LEU:HD13	1:A:5:LEU:C	2.27	0.54
3:C:50:LYS:HG3	3:C:258:LEU:HD13	1.89	0.54
7:G:122:PRO:HD2	7:G:123:GLY:N	2.22	0.54
7:G:64:LYS:CD	7:G:65:GLN:O	2.56	0.54
7:G:76:LEU:HD13	7:G:92:ARG:HD2	1.90	0.54
10:J:134:HIS:CE1	10:J:163:SER:HB3	2.33	0.54
4:D:23:GLU:CB	11:K:64:TRP:HE1	2.20	0.54
17:Q:144:SER:O	17:Q:145:TYR:CB	2.56	0.54
4:D:50:ILE:HG22	21:U:82:MET:HE1	22.01	0.54
24:X:128:VAL:O	24:X:129:SER:OG	2.24	0.54
20:T:38:LYS:HD2	20:T:46:ALA:CA	2.37	0.54
3:C:236:LEU:HD23	3:C:236:LEU:C	2.28	0.54
18:R:90:ALA:C	18:R:91:LEU:HD12	2.26	0.54
13:M:101:ARG:O	13:M:103:VAL:HG23	2.08	0.54
15:O:74:ALA:HB3	15:O:114:SER:OG	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:195:LYS:CA	2:B:195:LYS:HE2	2.37	0.54
4:D:28:GLU:HA	4:D:28:GLU:OE1	2.07	0.54
12:L:83:GLN:O	12:L:83:GLN:HG2	2.06	0.54
1:A:32:PHE:HA	1:A:35:GLU:OE1	2.07	0.54
2:B:76:ASN:O	2:B:76:ASN:CG	2.39	0.54
14:N:92:ILE:HG22	14:N:150:VAL:HG23	1.86	0.54
15:O:28:PHE:CE1	15:O:92:ALA:HB1	2.43	0.54
20:T:39:LEU:HD21	20:T:56:ARG:HH21	1.72	0.54
8:H:37:LYS:O	8:H:38:ALA:HB3	2.08	0.54
6:F:14:THR:CB	17:Q:56:LEU:CG	2.73	0.54
12:L:20:LYS:O	12:L:21:LYS:CB	2.45	0.54
26:Z:99:LEU:CD1	26:Z:102:LYS:HD3	2.36	0.54
12:L:101:ARG:NH1	24:X:5:ARG:HA	2.18	0.54
2:B:153:THR:O	2:B:154:SER:CB	2.54	0.54
4:D:126:ILE:HD12	4:D:134:CYS:HB2	1.87	0.54
23:W:128:PHE:HD1	23:W:129:PHE:CA	2.20	0.54
23:W:101:PHE:CD2	23:W:129:PHE:HE1	2.25	0.54
25:Y:46:LYS:O	25:Y:47:MET:HG2	2.07	0.54
5:E:205:PHE:CE1	5:E:221:ARG:CZ	2.90	0.54
2:B:98:THR:O	2:B:232:HIS:HE1	1.91	0.54
2:B:31:TYR:CE1	2:B:94:LYS:CA	2.90	0.54
3:C:59:LYS:HD2	3:C:254:PHE:HE1	1.72	0.54
6:F:68:ILE:HG13	6:F:69:VAL:N	2.21	0.54
7:G:177:GLN:CG	7:G:178:ARG:H	2.21	0.54
7:G:55:GLY:HA2	7:G:110:ASN:ND2	2.23	0.54
10:J:16:PRO:C	10:J:18:ARG:H	2.09	0.54
2:B:67:PHE:HD1	15:O:47:LEU:CB	2.19	0.54
15:O:31:CYS:SG	15:O:95:ILE:CG1	2.95	0.54
17:Q:43:GLU:HG2	17:Q:45:ARG:CB	2.37	0.54
19:S:34:LYS:HD3	19:S:34:LYS:N	2.22	0.54
24:X:27:TYR:CD1	24:X:31:HIS:CD2	2.94	0.54
16:P:51:ARG:O	16:P:52:LYS:HB2	2.07	0.54
5:E:130:PHE:HB3	5:E:138:HIS:ND1	2.23	0.54
25:Y:99:LYS:O	25:Y:100:LYS:O	2.25	0.54
13:M:77:ILE:CG2	13:M:78:LYS:N	2.68	0.54
20:T:111:LYS:CG	20:T:126:GLN:HE22	2.20	0.54
14:N:7:PRO:HD2	14:N:8:GLY:N	2.23	0.54
1:A:154:LEU:CD1	22:V:63:GLY:CA	2.85	0.54
1:A:149:ASN:CB	1:A:165:ASN:ND2	2.69	0.54
1:A:173:LEU:O	1:A:177:MET:HG2	2.07	0.54
1:A:179:ALA:HA	1:A:182:VAL:HG22	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:68:GLU:OE2	2:B:83:LYS:CE	2.45	0.54
2:B:72:ALA:CA	2:B:79:VAL:CG2	2.69	0.54
5:E:71:LYS:HG2	5:E:76:VAL:H	1.72	0.54
9:I:201:LYS:NZ	12:L:8:ARG:HA	2.23	0.54
9:I:66:SER:HA	9:I:73:THR:HA	1.89	0.54
10:J:110:LEU:HD11	10:J:135:ILE:CD1	2.38	0.54
10:J:164:PRO:HB2	10:J:165:TYR:CD1	2.43	0.54
14:N:38:TYR:CE1	14:N:78:LYS:NZ	2.76	0.54
22:V:24:ILE:CD1	22:V:25:GLY:CA	2.85	0.54
1:A:141:ASN:HD21	22:V:29:HIS:HA	1.72	0.54
20:T:38:LYS:O	20:T:39:LEU:HB3	2.07	0.54
8:H:16:PRO:HA	8:H:17:ASP:CB	2.26	0.54
16:P:93:MET:SD	16:P:106:GLU:CA	2.95	0.54
6:F:167:LYS:HE3	6:F:171:GLU:HG3	1.89	0.54
8:H:122:LEU:HD13	8:H:123:THR:HA	1.87	0.54
16:P:49:LEU:HD13	16:P:51:ARG:CZ	2.33	0.54
6:F:152:TRP:O	6:F:153:LEU:C	2.45	0.54
18:R:42:PRO:HD3	18:R:46:LEU:HD23	1.89	0.54
5:E:143:ASP:OD2	5:E:145:ARG:CD	2.55	0.54
17:Q:124:PRO:CD	17:Q:125:ARG:H	2.21	0.54
8:H:149:ASP:C	8:H:151:SER:N	2.61	0.54
5:E:165:GLU:OE2	5:E:165:GLU:HA	2.06	0.54
25:Y:5:VAL:O	25:Y:6:THR:CB	2.56	0.54
5:E:97:GLU:HB2	5:E:99:PHE:CE2	2.43	0.54
13:M:44:LYS:C	13:M:46:GLN:H	2.12	0.54
24:X:52:LEU:CD1	24:X:71:ARG:HB2	2.37	0.54
6:F:18:LYS:O	6:F:46:ALA:HB1	2.08	0.54
6:F:95:HIS:NE2	26:Z:103:HIS:CB	2.71	0.54
4:D:177:LEU:HD22	4:D:182:LEU:CD2	2.25	0.54
3:C:174:GLY:O	3:C:175:SER:CB	2.55	0.54
1:A:132:GLN:N	1:A:133:PRO:HD3	2.22	0.54
3:C:43:LYS:HE3	3:C:43:LYS:C	2.28	0.54
4:D:79:PHE:CE1	4:D:83:SER:HB3	2.42	0.54
9:I:174:CYS:HB2	9:I:190:LEU:HD21	1.90	0.54
15:O:31:CYS:SG	15:O:95:ILE:HG12	2.48	0.54
16:P:84:ILE:HG22	16:P:86:LEU:CD2	2.36	0.54
12:L:86:ILE:CG2	12:L:113:LEU:HD12	2.38	0.54
10:J:82:VAL:HG13	10:J:92:MET:HE3	1.89	0.54
10:J:138:ARG:HD3	10:J:156:HIS:ND1	2.22	0.54
13:M:71:GLU:C	13:M:72:HIS:O	2.42	0.54
6:F:53:ALA:C	17:Q:125:ARG:NH2	2.61	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:161:ALA:HB3	6:F:172:CYS:HG	1.72	0.54
5:E:150:PRO:C	5:E:151:ASP:OD2	2.47	0.54
9:I:48:VAL:CG1	9:I:54:LYS:HE3	2.38	0.54
11:K:16:PHE:CE2	11:K:79:LEU:CA	2.88	0.54
11:K:43:LEU:H	11:K:46:MET:HB3	1.73	0.54
17:Q:98:LYS:CE	17:Q:99:TYR:CE2	2.91	0.54
20:T:77:LYS:O	20:T:92:PHE:HZ	1.91	0.54
2:B:160:GLN:HE22	2:B:205:TYR:HE1	1.49	0.54
12:L:96:ILE:HD13	12:L:102:PHE:HA	1.89	0.54
12:L:97:ARG:O	12:L:99:TYR:C	2.47	0.54
2:B:178:THR:O	2:B:179:ASN:CB	2.56	0.54
17:Q:63:PHE:CD1	17:Q:68:ILE:CD1	2.91	0.54
3:C:89:ASP:HB3	3:C:115:ILE:CG1	2.39	0.53
4:D:34:TYR:OH	4:D:37:VAL:HG13	2.08	0.53
4:D:46:THR:O	4:D:85:GLU:N	2.39	0.53
6:F:133:THR:O	6:F:135:ARG:HG2	2.08	0.53
14:N:64:ARG:O	14:N:67:THR:O	2.25	0.53
14:N:71:ILE:HA	14:N:94:LYS:HD2	23.44	0.53
21:U:104:ILE:O	21:U:106:ILE:HG22	2.08	0.53
22:V:40:ASP:HB2	22:V:47:ASN:HD21	1.61	0.53
22:V:55:ILE:HG21	22:V:60:ARG:HG2	1.90	0.53
24:X:126:ALA:O	24:X:128:VAL:HG23	2.08	0.53
25:Y:82:ALA:O	25:Y:86:GLU:HB2	2.08	0.53
20:T:76:THR:OG1	20:T:94:ARG:HD2	2.08	0.53
26:Z:46:ASN:HB3	26:Z:80:ARG:HA	1.90	0.53
4:D:199:GLY:O	4:D:201:LYS:N	2.37	0.53
4:D:166:TYR:CE1	4:D:200:PRO:HB2	2.41	0.53
26:Z:66:LYS:O	26:Z:110:THR:HA	2.08	0.53
4:D:210:ILE:HD11	18:R:15:VAL:CG1	2.29	0.53
1:A:149:ASN:H	1:A:165:ASN:HD21	1.57	0.53
1:A:180:ARG:O	1:A:184:ARG:HG3	2.06	0.53
5:E:100:ARG:NH2	5:E:122:LYS:HA	2.23	0.53
5:E:153:LEU:CD1	5:E:172:PHE:HZ	1.94	0.53
7:G:43:GLU:O	7:G:44:GLU:C	2.46	0.53
9:I:155:ASN:ND2	9:I:156:ALA:CA	2.70	0.53
11:K:14:LEU:CD1	11:K:35:LEU:HD11	2.38	0.53
11:K:83:LEU:HB3	11:K:85:LEU:CG	2.31	0.53
2:B:67:PHE:CZ	15:O:48:SER:HB3	2.43	0.53
19:S:120:HIS:CD2	19:S:120:HIS:C	2.81	0.53
16:P:90:VAL:HA	16:P:107:ILE:HG13	1.90	0.53
3:C:154:TYR:CE1	3:C:162:PRO:CD	2.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:83:GLN:NE2	20:T:85:ASN:CA	2.72	0.53
1:A:193:HIS:CG	1:A:194:PRO:HD2	2.42	0.53
1:A:66:VAL:HG11	22:V:46:PHE:HB3	1.90	0.53
7:G:153:VAL:HG12	7:G:154:ARG:N	2.23	0.53
7:G:35:GLU:C	7:G:36:VAL:CG2	2.77	0.53
9:I:144:LYS:CD	9:I:144:LYS:H	2.22	0.53
9:I:149:TYR:HD1	9:I:152:ARG:NH1	2.05	0.53
15:O:34:PHE:CE1	15:O:99:ALA:C	2.81	0.53
25:Y:117:VAL:HB	25:Y:124:ASN:ND2	2.24	0.53
2:B:140:VAL:O	2:B:210:VAL:HA	2.08	0.53
21:U:48:LEU:C	21:U:49:LYS:CG	2.74	0.53
20:T:16:ARG:NH1	20:T:16:ARG:HG2	2.23	0.53
6:F:166:ILE:H	6:F:166:ILE:CD1	2.19	0.53
16:P:98:ASN:CG	16:P:120:SER:HB2	2.29	0.53
5:E:124:CYS:HB2	5:E:162:ILE:CD1	2.39	0.53
5:E:166:THR:OG1	5:E:168:LYS:HG2	2.07	0.53
6:F:138:ALA:CB	6:F:200:ALA:O	2.54	0.53
7:G:3:LEU:CD2	7:G:109:LEU:HB2	2.38	0.53
7:G:64:LYS:HE3	7:G:65:GLN:O	2.08	0.53
9:I:117:TYR:HD2	9:I:117:TYR:H	1.57	0.53
13:M:27:ILE:HG23	13:M:28:HIS:N	2.23	0.53
15:O:28:PHE:HB3	15:O:47:LEU:HD11	1.89	0.53
20:T:45:LEU:HD23	20:T:48:TYR:HE1	1.73	0.53
8:H:60:ILE:HG23	8:H:60:ILE:O	2.06	0.53
23:W:42:MET:CE	23:W:50:PHE:HD2	2.11	0.53
4:D:162:ASP:O	4:D:162:ASP:OD1	2.27	0.53
9:I:6:ASP:OD2	9:I:8:TRP:CG	2.62	0.53
12:L:157:LYS:O	12:L:158:PHE:CG	2.61	0.53
19:S:46:ARG:NH1	20:T:50:GLU:CB	2.70	0.53
25:Y:91:LEU:C	25:Y:97:TYR:CB	2.77	0.53
6:F:36:GLN:CG	6:F:37:ASP:OD1	2.30	0.53
21:U:18:HIS:CE1	21:U:98:VAL:HG22	2.39	0.53
8:H:100:ILE:HG13	8:H:125:VAL:HG21	1.87	0.53
20:T:14:PHE:HZ	20:T:131:LEU:CD1	2.21	0.53
4:D:45:ARG:CA	4:D:83:SER:OG	2.56	0.53
5:E:154:ILE:CG2	5:E:160:ILE:HD11	2.39	0.53
7:G:142:ARG:NH1	7:G:142:ARG:HG3	2.08	0.53
9:I:141:ARG:HB3	9:I:144:LYS:HG2	1.90	0.53
10:J:37:LEU:HG	10:J:38:ARG:H	1.73	0.53
15:O:30:VAL:HG21	15:O:32:HIS:NE2	2.23	0.53
24:X:91:LEU:O	24:X:94:ILE:N	2.31	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:50:THR:CG2	25:Y:75:ILE:HG21	2.36	0.53
8:H:35:ASP:C	8:H:37:LYS:H	2.09	0.53
2:B:87:ILE:HD12	2:B:220:LYS:NZ	2.22	0.53
16:P:4:VAL:HG22	16:P:10:ARG:HD2	1.91	0.53
26:Z:92:LEU:CD2	26:Z:109:TYR:CE1	2.84	0.53
3:C:101:THR:HG22	3:C:103:ALA:O	1.93	0.53
4:D:214:LYS:O	4:D:215:ASP:CG	2.46	0.53
12:L:40:ILE:CD1	12:L:68:ILE:HB	2.22	0.53
8:H:135:PHE:CD2	8:H:136:PRO:CD	2.92	0.53
2:B:232:HIS:O	2:B:233:GLY:O	2.27	0.53
5:E:259:LYS:CG	5:E:260:GLN:OE1	2.56	0.53
1:A:76:VAL:HG12	1:A:87:VAL:HB	1.90	0.53
2:B:49:VAL:HG22	2:B:65:ARG:HH12	1.72	0.53
5:E:180:LEU:CD1	5:E:228:ILE:HG13	2.39	0.53
14:N:135:LEU:HD22	14:N:139:TRP:CD1	2.43	0.53
14:N:27:LYS:N	14:N:27:LYS:CE	2.57	0.53
22:V:19:ALA:O	23:W:23:ARG:CZ	2.57	0.53
23:W:17:ALA:HB2	23:W:25:VAL:HG11	1.89	0.53
24:X:51:VAL:CG1	24:X:70:VAL:HG13	2.31	0.53
8:H:31:GLU:O	8:H:37:LYS:HB2	2.08	0.53
26:Z:65:TYR:HD2	26:Z:68:ILE:CD1	2.22	0.53
8:H:147:LYS:CE	8:H:153:LEU:HD11	2.36	0.53
20:T:123:LEU:H	20:T:123:LEU:CD2	2.22	0.53
2:B:37:ALA:O	2:B:38:MET:C	2.42	0.53
2:B:120:MET:HB2	2:B:142:PHE:CE1	2.44	0.53
6:F:130:ARG:HB3	6:F:135:ARG:H	1.74	0.53
7:G:58:LYS:HG2	7:G:105:ASN:O	2.09	0.53
7:G:162:LEU:HD21	7:G:170:ARG:HB2	1.88	0.53
9:I:157:LYS:CB	12:L:22:ARG:NE	2.71	0.53
11:K:60:GLU:HG3	11:K:69:TRP:NE1	2.24	0.53
14:N:84:LEU:HB2	14:N:88:LEU:HD23	1.91	0.53
25:Y:120:THR:C	25:Y:122:LYS:CD	2.76	0.53
17:Q:34:VAL:HG21	17:Q:39:LEU:HD23	1.76	0.53
25:Y:61:ARG:CG	25:Y:61:ARG:NH2	2.38	0.53
20:T:72:VAL:O	20:T:76:THR:HG23	2.09	0.53
20:T:77:LYS:O	20:T:92:PHE:CZ	2.61	0.53
8:H:40:LEU:HD11	8:H:75:ILE:HD13	1.90	0.53
2:B:87:ILE:CD1	2:B:101:HIS:CD2	2.62	0.53
19:S:11:HIS:O	19:S:12:ILE:HB	2.08	0.53
3:C:101:THR:HG23	3:C:103:ALA:C	2.28	0.53
17:Q:6:PRO:O	17:Q:6:PRO:HD2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:123:LEU:N	20:T:123:LEU:HD23	2.24	0.53
6:F:32:ASP:OD2	6:F:117:ILE:HG23	2.08	0.53
3:C:55:VAL:HG22	3:C:82:PHE:CZ	2.42	0.53
4:D:46:THR:CB	4:D:79:PHE:CZ	2.89	0.53
4:D:47:GLU:CG	4:D:85:GLU:CG	2.71	0.53
5:E:45:ILE:HG23	5:E:46:ILE:N	2.24	0.53
5:E:98:ASN:ND2	5:E:114:ILE:CG1	2.72	0.53
9:I:138:ASN:O	9:I:139:LYS:C	2.47	0.53
14:N:27:LYS:C	14:N:27:LYS:HD2	2.25	0.53
6:F:18:LYS:HB3	6:F:18:LYS:NZ	2.18	0.53
17:Q:84:ILE:HG13	17:Q:85:ARG:N	2.24	0.53
16:P:97:TYR:OH	16:P:100:LYS:HA	2.08	0.53
16:P:15:PHE:HD2	16:P:110:GLU:OE2	1.91	0.53
24:X:105:PHE:CD2	24:X:119:ARG:C	2.82	0.53
13:M:77:ILE:HD12	13:M:78:LYS:O	2.09	0.53
3:C:126:MET:HE3	3:C:223:LYS:NZ	2.22	0.53
6:F:79:HIS:O	6:F:82:ASN:N	2.41	0.53
10:J:179:LYS:HA	10:J:182:GLN:CD	2.29	0.53
20:T:83:GLN:NE2	20:T:85:ASN:N	2.56	0.53
20:T:64:LEU:H	20:T:64:LEU:HD23	1.69	0.53
10:J:147:PHE:CE2	10:J:149:VAL:HA	2.44	0.53
5:E:206:ASP:O	5:E:222:LEU:N	2.41	0.53
24:X:62:PRO:HD2	24:X:63:ASN:N	2.23	0.53
4:D:167:TYR:CE2	4:D:204:LEU:CD2	2.92	0.53
1:A:159:ILE:HD12	1:A:160:ALA:N	2.24	0.53
2:B:214:LYS:HG2	2:B:215:VAL:N	2.23	0.53
3:C:73:ILE:HG23	3:C:73:ILE:O	2.08	0.53
5:E:87:MET:CE	5:E:182:MET:HE1	2.37	0.53
5:E:192:ILE:HD13	5:E:238:LEU:HD22	1.91	0.53
6:F:113:VAL:CG1	6:F:114:ASN:N	2.72	0.53
7:G:28:TYR:C	7:G:30:LYS:H	2.13	0.53
7:G:57:ASP:CG	7:G:98:ARG:HG3	2.29	0.53
11:K:50:GLN:HG3	11:K:51:SER:N	2.24	0.53
6:F:20:PHE:CD2	6:F:23:TRP:HD1	2.27	0.53
17:Q:114:GLN:CG	17:Q:115:TYR:N	2.60	0.53
8:H:122:LEU:CD1	8:H:123:THR:CA	2.71	0.53
12:L:80:MET:CG	12:L:86:ILE:HG22	2.36	0.53
25:Y:103:SER:O	25:Y:104:ARG:CB	2.53	0.53
25:Y:92:ALA:C	25:Y:97:TYR:O	2.47	0.53
16:P:39:ALA:O	16:P:42:ARG:CG	2.56	0.53
8:H:73:GLN:NE2	8:H:135:PHE:CE1	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:134:THR:HG23	3:C:135:ALA:N	2.24	0.53
5:E:260:GLN:O	5:E:261:SER:CB	2.57	0.53
12:L:31:GLU:HG2	12:L:32:LYS:N	2.23	0.53
3:C:49:THR:HG23	3:C:75:GLU:HG3	1.90	0.53
4:D:29:LEU:O	4:D:32:ASP:HB2	2.08	0.53
11:K:39:ASN:C	11:K:40:VAL:HG12	2.28	0.53
17:Q:143:LYS:HG2	17:Q:145:TYR:H	1.74	0.53
25:Y:44:LEU:CD1	25:Y:48:TYR:HD2	2.18	0.53
19:S:39:ARG:HH21	20:T:38:LYS:HZ2	0.55	0.53
20:T:102:ARG:CD	20:T:105:GLN:OE1	2.57	0.53
20:T:29:LYS:C	20:T:30:VAL:HG13	2.29	0.53
26:Z:62:VAL:HG13	26:Z:68:ILE:HD11	1.83	0.53
12:L:156:GLN:OE1	12:L:158:PHE:CZ	2.58	0.53
8:H:57:ARG:HD2	8:H:89:GLY:C	2.29	0.53
13:M:93:LYS:O	13:M:95:ASP:OD1	2.27	0.53
2:B:130:THR:CG2	2:B:179:ASN:N	2.67	0.53
4:D:208:VAL:O	4:D:208:VAL:HG12	2.08	0.53
5:E:163:ASP:HB3	5:E:167:GLY:O	2.10	0.52
5:E:71:LYS:O	5:E:90:ILE:HA	2.09	0.52
9:I:69:SER:HB3	12:L:19:ASN:OD1	2.08	0.52
26:Z:58:LEU:CD2	26:Z:77:LEU:HD11	2.38	0.52
4:D:217:ILE:HG23	4:D:218:LEU:N	2.24	0.52
13:M:95:ASP:O	13:M:96:ARG:HG2	2.09	0.52
4:D:177:LEU:HD12	4:D:178:ARG:HH21	1.72	0.52
18:R:61:ILE:CG2	18:R:74:GLN:NE2	2.72	0.52
2:B:137:LEU:HD12	2:B:176:VAL:HG21	1.91	0.52
3:C:187:THR:OG1	3:C:206:ASP:HB3	2.09	0.52
4:D:79:PHE:O	4:D:80:PRO:C	2.47	0.52
5:E:122:LYS:CG	5:E:164:LEU:CD2	2.80	0.52
7:G:135:PRO:CD	7:G:144:LEU:HD23	2.38	0.52
10:J:32:ILE:O	10:J:35:TYR:C	2.48	0.52
11:K:3:MET:SD	11:K:8:ARG:CZ	2.91	0.52
11:K:49:MET:HB2	11:K:69:TRP:CZ2	2.44	0.52
11:K:47:LYS:CD	11:K:50:GLN:NE2	2.72	0.52
3:C:72:PRO:HA	22:V:29:HIS:NE2	2.25	0.52
17:Q:52:LEU:C	17:Q:54:PRO:HD2	2.30	0.52
20:T:46:ALA:CB	20:T:47:PRO:CD	2.44	0.52
16:P:18:ARG:C	19:S:93:GLY:HA3	2.30	0.52
18:R:22:THR:CG2	18:R:73:LEU:CD1	2.72	0.52
23:W:128:PHE:CD1	23:W:129:PHE:HA	2.43	0.52
13:M:51:VAL:CG1	13:M:109:VAL:HG23	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:4:MET:SD	14:N:124:ARG:NH1	2.82	0.52
13:M:72:HIS:O	13:M:73:GLN:HB3	2.10	0.52
3:C:250:PRO:O	3:C:254:PHE:HD2	1.93	0.52
5:E:100:ARG:HG2	5:E:102:ILE:CD1	2.39	0.52
6:F:38:TYR:N	6:F:38:TYR:CD2	2.75	0.52
7:G:191:ARG:HB3	7:G:191:ARG:NH1	2.25	0.52
11:K:1:MET:HB3	11:K:47:LYS:CB	2.39	0.52
20:T:31:PRO:HG3	20:T:102:ARG:HG3	1.91	0.52
19:S:124:ARG:HB2	19:S:131:VAL:HG22	1.90	0.52
19:S:23:ARG:O	19:S:55:ARG:HD2	2.09	0.52
20:T:62:ARG:HG3	20:T:63:HIS:N	2.24	0.52
20:T:123:LEU:H	20:T:123:LEU:HD23	1.75	0.52
6:F:175:ASP:C	6:F:175:ASP:OD1	2.47	0.52
7:G:161:PRO:CD	7:G:161:PRO:O	2.57	0.52
7:G:226:GLU:O	7:G:230:LYS:HG2	2.08	0.52
8:H:61:ILE:HG12	8:H:95:ILE:HD12	1.91	0.52
10:J:102:ILE:HG22	10:J:106:LEU:CD1	2.35	0.52
12:L:112:HIS:CG	12:L:134:LEU:HD11	2.45	0.52
25:Y:51:THR:CB	25:Y:52:PRO:CD	2.82	0.52
25:Y:54:VAL:O	25:Y:54:VAL:CG1	2.57	0.52
8:H:15:LYS:O	8:H:16:PRO:HB2	2.10	0.52
8:H:64:VAL:CG1	8:H:65:PRO:HD2	2.39	0.52
26:Z:107:VAL:HB	26:Z:109:TYR:CE2	2.44	0.52
12:L:147:LYS:CE	12:L:156:GLN:HE22	2.23	0.52
25:Y:88:LYS:HG3	25:Y:97:TYR:CZ	2.45	0.52
3:C:192:ALA:N	3:C:195:PRO:HG2	2.25	0.52
1:A:202:TYR:C	1:A:203:PHE:CD1	2.82	0.52
21:U:16:ALA:O	21:U:94:PRO:HG3	2.10	0.52
1:A:190:SER:O	1:A:191:ARG:CB	2.58	0.52
3:C:60:ILE:C	3:C:82:PHE:HE1	2.09	0.52
5:E:86:PHE:CZ	5:E:182:MET:HE3	2.25	0.52
9:I:191:GLU:CG	9:I:192:GLY:H	2.23	0.52
10:J:125:HIS:NE2	10:J:129:LEU:HD21	2.25	0.52
11:K:62:PHE:CE1	11:K:67:PHE:HE2	2.17	0.52
3:C:68:LEU:O	22:V:15:ARG:NE	2.39	0.52
22:V:79:VAL:HG11	22:V:82:ASN:OD1	2.06	0.52
25:Y:20:ARG:CD	25:Y:76:TYR:CZ	2.84	0.52
25:Y:87:PRO:CG	25:Y:90:ARG:HB2	2.39	0.52
3:C:93:LYS:HE3	3:C:95:MET:CG	2.40	0.52
12:L:86:ILE:CG1	12:L:111:VAL:HG13	2.39	0.52
12:L:117:PHE:CD2	12:L:145:VAL:HG23	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:83:ARG:CZ	10:J:150:ARG:HH21	2.22	0.52
10:J:79:ARG:NH1	10:J:83:ARG:HD2	2.25	0.52
10:J:83:ARG:NH2	10:J:150:ARG:NH2	2.57	0.52
20:T:11:GLN:OE1	20:T:62:ARG:HD3	2.09	0.52
3:C:126:MET:HE1	3:C:223:LYS:NZ	2.24	0.52
2:B:19:LYS:HG3	2:B:19:LYS:O	2.09	0.52
3:C:99:LYS:NZ	3:C:100:GLN:O	2.38	0.52
3:C:109:PHE:CD2	3:C:132:VAL:CG2	2.93	0.52
1:A:145:ILE:HG23	1:A:159:ILE:HG21	1.91	0.52
1:A:16:LEU:CB	1:A:17:LYS:HE2	2.39	0.52
2:B:57:ILE:CG1	2:B:60:ASP:OD1	2.52	0.52
9:I:140:LYS:O	9:I:141:ARG:CB	2.56	0.52
9:I:37:LYS:H	9:I:59:ARG:H	1.57	0.52
14:N:26:LEU:HD21	14:N:66:VAL:HG22	1.91	0.52
17:Q:45:ARG:CG	17:Q:46:THR:N	2.72	0.52
21:U:64:THR:HG22	21:U:79:ARG:CD	2.39	0.52
3:C:93:LYS:HE2	3:C:218:LEU:HD21	1.83	0.52
19:S:90:VAL:CG1	19:S:91:LYS:CE	2.87	0.52
25:Y:30:PRO:O	25:Y:67:GLY:HA3	2.09	0.52
3:C:155:TRP:H	3:C:163:HIS:CE1	2.27	0.52
3:C:101:THR:CG2	3:C:103:ALA:C	2.68	0.52
2:B:150:ILE:CA	18:R:124:VAL:HG13	2.40	0.52
13:M:12:MET:CG	13:M:17:ALA:N	2.71	0.52
23:W:81:VAL:HG22	23:W:89:TRP:NE1	2.25	0.52
13:M:85:LEU:HA	13:M:88:TRP:CZ3	2.39	0.52
13:M:103:VAL:HG12	13:M:103:VAL:O	2.09	0.52
8:H:118:ARG:C	8:H:120:ARG:H	2.11	0.52
17:Q:124:PRO:HD2	17:Q:125:ARG:H	1.75	0.52
8:H:149:ASP:C	8:H:151:SER:H	2.13	0.52
20:T:14:PHE:HZ	20:T:131:LEU:HD12	1.75	0.52
1:A:30:LEU:HD13	1:A:38:ILE:HD13	1.68	0.52
1:A:42:LYS:NZ	18:R:105:MET:CG	2.73	0.52
3:C:142:LEU:O	3:C:145:LEU:HG	2.10	0.52
6:F:93:VAL:C	6:F:97:PHE:CE1	2.82	0.52
7:G:64:LYS:HD3	7:G:65:GLN:O	2.10	0.52
8:H:61:ILE:HD13	8:H:176:VAL:HG11	1.92	0.52
8:H:51:ILE:HD11	8:H:176:VAL:HG22	1.91	0.52
9:I:141:ARG:HB3	9:I:144:LYS:CG	2.40	0.52
10:J:117:LEU:O	10:J:119:LEU:CD2	2.49	0.52
15:O:43:HIS:NE2	15:O:45:THR:CG2	2.73	0.52
20:T:38:LYS:O	20:T:39:LEU:CB	2.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:29:GLU:OE2	8:H:86:LYS:HE2	2.07	0.52
8:H:37:LYS:NZ	8:H:38:ALA:HA	2.24	0.52
19:S:71:MET:HG3	19:S:99:LEU:HD13	1.91	0.52
23:W:15:ASN:CG	23:W:19:LYS:HE3	2.29	0.52
24:X:105:PHE:HE2	24:X:118:VAL:C	2.13	0.52
23:W:102:ILE:H	23:W:113:HIS:HD1	1.58	0.52
3:C:236:LEU:CD2	3:C:236:LEU:C	2.78	0.52
20:T:85:ASN:ND2	20:T:90:SER:HA	2.24	0.52
5:E:248:ILE:CG1	10:J:72:PHE:CZ	2.89	0.52
7:G:143:LYS:HA	7:G:143:LYS:CE	2.39	0.52
7:G:227:GLN:HA	7:G:230:LYS:CG	2.40	0.52
9:I:140:LYS:C	9:I:141:ARG:HG3	2.29	0.52
11:K:46:MET:HA	11:K:69:TRP:HH2	1.74	0.52
17:Q:8:GLN:CG	17:Q:99:TYR:CD1	2.47	0.52
24:X:54:LYS:CD	24:X:91:LEU:HD12	2.38	0.52
3:C:197:LYS:C	3:C:200:LEU:HG	2.26	0.52
20:T:31:PRO:CD	20:T:102:ARG:HG3	2.38	0.52
20:T:39:LEU:O	20:T:39:LEU:HG	2.09	0.52
16:P:83:MET:HB3	16:P:116:LEU:HD12	1.91	0.52
8:H:146:VAL:CG2	23:W:50:PHE:CD1	2.89	0.52
16:P:127:LYS:CE	16:P:128:HIS:N	2.73	0.52
19:S:137:LYS:O	19:S:141:ARG:CZ	2.56	0.52
24:X:5:ARG:NH2	24:X:5:ARG:CG	2.72	0.52
25:Y:99:LYS:NZ	25:Y:99:LYS:C	2.64	0.52
25:Y:10:ARG:CD	25:Y:24:VAL:CG1	2.88	0.52
13:M:124:ILE:HB	13:M:127:TYR:HE2	1.75	0.52
13:M:52:LEU:O	13:M:85:LEU:HD12	2.10	0.52
9:I:31:ARG:HH11	9:I:31:ARG:HG3	1.75	0.52
12:L:25:LEU:O	12:L:27:GLU:HA	2.09	0.52
1:A:154:LEU:O	1:A:154:LEU:CD1	2.43	0.52
3:C:47:PRO:HA	3:C:75:GLU:OE2	2.09	0.52
5:E:122:LYS:HG2	5:E:164:LEU:CD2	2.40	0.52
6:F:134:VAL:HG12	6:F:136:ARG:CZ	2.39	0.52
7:G:35:GLU:O	7:G:36:VAL:CG2	2.58	0.52
8:H:166:VAL:CG2	8:H:173:PHE:HE2	2.14	0.52
9:I:158:ILE:O	12:L:22:ARG:NH2	2.43	0.52
14:N:125:LEU:HD22	14:N:129:TYR:CE2	2.45	0.52
1:A:141:ASN:CA	22:V:32:ILE:HG13	2.19	0.52
6:F:162:ALA:CB	6:F:169:ILE:HD13	2.40	0.52
16:P:41:GLN:C	16:P:41:GLN:OE1	2.48	0.52
16:P:41:GLN:O	16:P:41:GLN:NE2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:54:VAL:O	25:Y:76:TYR:N	2.42	0.52
18:R:17:ILE:CG2	18:R:71:ILE:HD11	2.40	0.52
2:B:175:GLU:HG2	2:B:193:ILE:HD12	1.87	0.52
2:B:81:PHE:O	2:B:82:ARG:CB	2.56	0.52
5:E:108:ARG:O	5:E:109:PHE:C	2.49	0.52
7:G:157:VAL:HG13	7:G:159:ARG:H	0.73	0.52
11:K:41:PRO:O	11:K:43:LEU:O	2.28	0.52
11:K:85:LEU:HD13	11:K:89:ILE:HD11	1.90	0.52
12:L:59:LYS:CD	12:L:112:HIS:NE2	2.72	0.52
15:O:33:ILE:HG12	15:O:42:VAL:HG22	1.90	0.52
15:O:27:VAL:N	15:O:91:THR:OG1	2.43	0.52
18:R:99:ASP:CA	18:R:119:VAL:HG13	2.13	0.52
26:Z:105:ALA:C	26:Z:106:GLN:HG3	2.30	0.52
25:Y:18:LEU:CB	25:Y:20:ARG:CZ	2.79	0.52
20:T:76:THR:HA	20:T:95:GLY:O	2.10	0.52
16:P:56:LEU:HD11	16:P:80:LEU:CD1	2.39	0.52
12:L:147:LYS:HZ3	12:L:149:ALA:H	1.56	0.52
12:L:101:ARG:HD2	24:X:6:GLY:O	2.10	0.52
13:M:76:LEU:C	13:M:128:PHE:CZ	2.82	0.52
13:M:92:CYS:CB	13:M:101:ARG:HG3	2.37	0.52
3:C:99:LYS:C	3:C:99:LYS:HD2	2.29	0.52
5:E:143:ASP:O	5:E:144:ALA:HB3	2.09	0.52
1:A:184:ARG:N	1:A:189:ILE:HD12	2.25	0.51
1:A:57:LYS:CE	22:V:70:LEU:CD2	2.89	0.51
1:A:76:VAL:HG13	1:A:175:TRP:CZ2	2.37	0.51
4:D:70:THR:HA	4:D:86:LEU:HD11	1.87	0.51
9:I:73:THR:O	9:I:74:ARG:HD2	2.09	0.51
14:N:22:VAL:CG2	14:N:23:PRO:HA	2.40	0.51
6:F:42:LYS:HB3	6:F:46:ALA:N	2.25	0.51
25:Y:50:THR:O	25:Y:51:THR:HG23	2.09	0.51
19:S:54:LYS:HB3	19:S:55:ARG:N	2.25	0.51
16:P:37:TYR:HA	19:S:88:LYS:CD	2.40	0.51
12:L:17:PHE:CD2	12:L:18:GLN:O	2.63	0.51
4:D:123:LEU:O	4:D:123:LEU:HD23	2.10	0.51
4:D:176:LEU:C	4:D:177:LEU:HD13	2.30	0.51
5:E:29:PRO:O	5:E:30:ARG:HB3	2.10	0.51
2:B:57:ILE:C	2:B:59:SER:N	2.63	0.51
5:E:21:ASP:OD1	5:E:24:THR:CG2	2.54	0.51
5:E:248:ILE:CD1	10:J:72:PHE:CZ	2.90	0.51
6:F:138:ALA:CB	6:F:204:ARG:HB3	2.39	0.51
7:G:33:ALA:H	7:G:52:ILE:CG2	2.14	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:93:LYS:HG2	7:G:95:LYS:HG3	1.92	0.51
8:H:142:LYS:C	8:H:143:ARG:HG2	2.30	0.51
14:N:134:VAL:HG22	14:N:135:LEU:HG	1.91	0.51
8:H:138:GLU:CD	14:N:19:ARG:HB3	2.22	0.51
14:N:38:TYR:CZ	14:N:78:LYS:HG3	2.46	0.51
24:X:94:ILE:CD1	24:X:125:VAL:HG21	2.40	0.51
26:Z:103:HIS:CD2	26:Z:105:ALA:CA	2.90	0.51
8:H:64:VAL:HG21	8:H:72:PHE:CD2	2.45	0.51
19:S:52:LEU:HD12	19:S:52:LEU:C	2.31	0.51
4:D:192:TRP:O	4:D:196:GLY:N	2.36	0.51
19:S:139:THR:O	19:S:140:GLY:C	2.49	0.51
19:S:46:ARG:CD	20:T:50:GLU:HG2	2.40	0.51
13:M:13:ASP:HB2	13:M:16:THR:OG1	2.04	0.51
15:O:20:GLN:HG2	15:O:21:VAL:CA	2.38	0.51
1:A:39:TYR:CD2	1:A:40:LYS:HB2	2.46	0.51
1:A:24:HIS:HB3	1:A:51:LEU:CD2	2.40	0.51
3:C:185:ARG:O	10:J:54:ARG:NH2	2.43	0.51
3:C:253:GLU:HG3	3:C:254:PHE:CE2	2.46	0.51
3:C:50:LYS:HA	3:C:53:ARG:HD2	1.91	0.51
4:D:47:GLU:HG3	4:D:85:GLU:OE2	1.98	0.51
5:E:123:LEU:HD21	5:E:235:TRP:HB2	1.93	0.51
6:F:124:ASP:CG	6:F:125:SER:H	2.14	0.51
6:F:134:VAL:HG11	6:F:136:ARG:NH2	2.12	0.51
11:K:14:LEU:HD22	11:K:35:LEU:CD1	2.37	0.51
11:K:3:MET:SD	11:K:8:ARG:NE	2.84	0.51
14:N:141:TYR:O	14:N:141:TYR:CD2	2.63	0.51
14:N:47:PRO:HG3	14:N:75:LEU:HD22	1.93	0.51
3:C:196:LYS:HD2	3:C:200:LEU:HD23	1.93	0.51
17:Q:42:ILE:HD11	17:Q:51:LEU:HD13	1.91	0.51
8:H:12:ASN:HB3	8:H:46:THR:HG1	1.73	0.51
8:H:23:ILE:O	8:H:27:LEU:HD23	2.09	0.51
26:Z:44:LEU:HD13	26:Z:45:ASN:CA	2.40	0.51
12:L:147:LYS:HG3	12:L:148:ALA:HB2	1.91	0.51
20:T:85:ASN:HD21	20:T:91:HIS:HD2	1.56	0.51
20:T:75:MET:O	20:T:79:TYR:HD2	1.94	0.51
15:O:41:PHE:CD1	15:O:57:THR:HG21	2.45	0.51
6:F:72:LEU:HD23	6:F:72:LEU:O	2.11	0.51
1:A:45:GLY:O	1:A:46:ILE:HD13	2.10	0.51
1:A:98:PRO:HG2	1:A:98:PRO:O	2.11	0.51
2:B:137:LEU:HD23	2:B:215:VAL:CB	2.39	0.51
2:B:53:GLN:C	2:B:55:THR:N	2.63	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:184:PRO:O	3:C:187:THR:HG23	2.11	0.51
5:E:153:LEU:HD12	5:E:172:PHE:CZ	2.36	0.51
7:G:63:MET:CE	7:G:106:LEU:HD13	2.12	0.51
11:K:16:PHE:CE2	11:K:80:ARG:N	2.78	0.51
11:K:27:VAL:O	11:K:28:HIS:CG	2.63	0.51
15:O:30:VAL:O	15:O:44:VAL:HA	2.10	0.51
17:Q:112:LEU:CD2	17:Q:119:LEU:CD1	2.72	0.51
8:H:32:MET:O	8:H:33:ASN:HB2	2.09	0.51
18:R:1:MET:HA	18:R:1:MET:CG	2.38	0.51
24:X:69:CYS:HB3	24:X:83:ALA:O	2.11	0.51
1:A:164:ASN:C	1:A:166:LYS:H	2.07	0.51
8:H:135:PHE:CD2	8:H:136:PRO:N	2.78	0.51
16:P:29:SER:OG	16:P:31:GLU:HB2	2.10	0.51
5:E:230:LYS:O	5:E:231:GLY:C	2.48	0.51
1:A:139:TYR:O	1:A:140:VAL:HG23	2.11	0.51
3:C:44:GLU:O	3:C:45:TRP:C	2.48	0.51
3:C:55:VAL:HG13	3:C:82:PHE:CD2	2.21	0.51
3:C:61:LYS:HA	3:C:82:PHE:CE1	2.44	0.51
4:D:18:LYS:CD	4:D:18:LYS:C	2.78	0.51
5:E:159:THR:C	5:E:160:ILE:HG13	2.30	0.51
5:E:248:ILE:HD12	10:J:72:PHE:CE1	2.46	0.51
9:I:101:ILE:HD12	9:I:190:LEU:HD11	1.92	0.51
10:J:21:GLU:O	10:J:24:ARG:N	2.42	0.51
15:O:63:LYS:O	15:O:64:ALA:CB	2.58	0.51
24:X:138:LYS:N	24:X:139:GLU:OE2	2.44	0.51
6:F:162:ALA:HB1	6:F:169:ILE:HD13	1.92	0.51
5:E:64:ILE:CG1	25:Y:17:LEU:HD13	2.41	0.51
21:U:53:PRO:O	21:U:53:PRO:HD2	2.08	0.51
4:D:192:TRP:N	4:D:192:TRP:HD1	2.07	0.51
12:L:101:ARG:CB	24:X:7:LEU:O	2.43	0.51
24:X:67:ARG:HE	24:X:67:ARG:HA	1.75	0.51
23:W:38:LEU:HA	23:W:41:MET:HE3	1.89	0.51
19:S:64:VAL:HG23	19:S:65:GLU:N	2.26	0.51
13:M:86:GLY:C	13:M:91:LEU:HD11	2.31	0.51
20:T:5:THR:HG23	20:T:7:LYS:HB2	1.91	0.51
6:F:115:ALA:HB2	6:F:177:LEU:HD22	1.92	0.51
12:L:44:PHE:CD2	12:L:143:LEU:HD23	2.45	0.51
12:L:82:MET:HE1	12:L:85:THR:HG21	1.91	0.51
3:C:124:LEU:C	3:C:124:LEU:HD13	2.31	0.51
20:T:64:LEU:N	20:T:64:LEU:CD2	2.63	0.51
20:T:130:ASP:OD2	20:T:131:LEU:HD23	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:70:ASN:HB2	1:A:73:ASP:OD2	2.10	0.51
1:A:30:LEU:CD1	1:A:38:ILE:HD12	2.24	0.51
4:D:24:PHE:HD2	4:D:25:LEU:HD22	1.76	0.51
5:E:43:PRO:HD2	5:E:46:ILE:HB	1.92	0.51
6:F:39:ILE:HG21	6:F:113:VAL:HG23	1.92	0.51
9:I:157:LYS:O	9:I:158:ILE:C	2.47	0.51
10:J:50:LEU:HB2	10:J:102:ILE:CD1	2.40	0.51
10:J:169:ARG:HB3	10:J:170:PRO:HD3	1.85	0.51
11:K:25:LYS:HD2	11:K:62:PHE:CE1	2.46	0.51
22:V:73:ALA:O	22:V:77:GLY:N	2.44	0.51
24:X:122:VAL:CG1	24:X:130:LEU:HD11	2.40	0.51
6:F:14:THR:OG1	17:Q:56:LEU:CG	2.56	0.51
18:R:5:ARG:HB2	18:R:10:LYS:CE	2.35	0.51
24:X:55:VAL:HG12	24:X:57:VAL:HG23	1.92	0.51
24:X:105:PHE:CB	24:X:112:VAL:CG2	2.89	0.51
24:X:105:PHE:HE2	24:X:119:ARG:N	2.06	0.51
23:W:102:ILE:N	23:W:113:HIS:ND1	2.57	0.51
23:W:90:GLN:CA	23:W:102:ILE:HD12	2.40	0.51
4:D:178:ARG:HE	4:D:178:ARG:H	1.58	0.51
20:T:124:THR:HG23	20:T:127:GLY:H	1.74	0.51
5:E:181:CYS:SG	5:E:225:ILE:CG2	2.99	0.51
7:G:148:SER:C	7:G:150:GLU:H	2.14	0.51
7:G:184:VAL:O	7:G:188:LYS:HE2	2.11	0.51
7:G:203:LYS:HE2	7:G:207:ALA:HB2	1.92	0.51
9:I:148:LYS:HB2	9:I:152:ARG:NH2	2.26	0.51
15:O:90:ILE:HG22	15:O:124:MET:CE	2.41	0.51
22:V:43:THR:O	22:V:44:GLY:C	2.49	0.51
24:X:126:ALA:HB1	24:X:128:VAL:HB	1.83	0.51
16:P:86:LEU:N	16:P:86:LEU:CD2	2.72	0.51
16:P:33:LEU:HD22	16:P:87:PRO:HD3	1.16	0.51
8:H:65:PRO:HG2	8:H:68:GLN:NE2	2.25	0.51
19:S:40:TYR:O	19:S:44:VAL:HG23	2.11	0.51
16:P:18:ARG:NH1	19:S:88:LYS:HB3	2.26	0.51
10:J:83:ARG:NH2	10:J:150:ARG:HH21	2.09	0.51
6:F:36:GLN:HG2	6:F:37:ASP:CG	2.25	0.51
12:L:49:GLU:OE1	12:L:49:GLU:HA	2.10	0.51
1:A:119:PRO:O	1:A:142:LEU:HD21	2.10	0.51
1:A:30:LEU:O	1:A:31:ASP:HB2	2.11	0.51
2:B:63:LYS:C	2:B:63:LYS:CD	2.79	0.51
7:G:41:LEU:HD21	7:G:45:TRP:CH2	2.36	0.51
9:I:148:LYS:HE3	9:I:152:ARG:HH21	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:85:ALA:C	12:L:8:ARG:HH11	2.15	0.51
25:Y:12:PHE:CD1	25:Y:23:MET:HB3	2.45	0.51
8:H:83:LEU:HD21	8:H:92:VAL:CG1	2.38	0.51
25:Y:36:PRO:CG	25:Y:39:GLU:HB2	2.36	0.51
12:L:80:MET:HG3	12:L:86:ILE:CG2	2.39	0.51
13:M:12:MET:HG3	13:M:17:ALA:N	2.25	0.51
3:C:194:VAL:N	3:C:195:PRO:HD2	2.25	0.51
13:M:94:ILE:H	13:M:101:ARG:HD3	1.73	0.51
12:L:40:ILE:HG23	12:L:41:GLY:N	2.25	0.51
2:B:195:LYS:HA	2:B:195:LYS:CE	2.30	0.51
2:B:29:ASP:C	2:B:29:ASP:OD1	2.49	0.51
3:C:68:LEU:CB	6:F:128:ILE:HD11	79.45	0.51
4:D:3:VAL:O	4:D:4:GLN:O	2.29	0.51
5:E:49:ARG:O	5:E:49:ARG:CD	2.42	0.51
5:E:86:PHE:CZ	5:E:182:MET:HE1	2.43	0.51
7:G:225:GLN:C	7:G:227:GLN:H	2.14	0.51
8:H:158:LEU:O	8:H:190:PRO:HD3	2.10	0.51
9:I:139:LYS:O	9:I:140:LYS:CB	2.46	0.51
9:I:79:ILE:HG23	9:I:80:ASP:N	2.26	0.51
10:J:58:ARG:O	10:J:62:THR:HG23	2.10	0.51
13:M:46:GLN:HB3	13:M:112:LYS:HG2	1.93	0.51
21:U:67:LYS:CG	21:U:78:ASP:CG	2.78	0.51
1:A:158:ASP:CB	22:V:65:SER:OG	2.58	0.51
6:F:21:GLY:C	6:F:22:LYS:HG3	2.25	0.51
17:Q:57:LEU:O	17:Q:111:ILE:HG21	2.11	0.51
25:Y:12:PHE:CZ	25:Y:21:LYS:HB2	2.44	0.51
13:M:31:LEU:HD11	13:M:109:VAL:CB	2.38	0.51
13:M:76:LEU:C	13:M:128:PHE:HZ	2.15	0.51
17:Q:55:VAL:HG22	17:Q:63:PHE:CE2	2.45	0.51
2:B:99:ASN:HD22	2:B:228:LEU:HD23	1.76	0.51
5:E:207:VAL:CG1	5:E:219:ALA:HB1	2.41	0.51
1:A:122:LEU:HD12	1:A:137:ALA:CB	2.40	0.51
1:A:125:THR:O	1:A:147:LEU:CD1	2.59	0.51
5:E:72:ILE:HD12	5:E:82:TYR:CD2	2.45	0.51
11:K:53:LYS:CB	11:K:58:VAL:HG13	2.41	0.51
25:Y:114:MET:HE3	25:Y:125:VAL:N	2.25	0.51
25:Y:114:MET:HG2	25:Y:124:ASN:CB	2.37	0.51
5:E:67:GLN:O	5:E:68:ARG:CB	2.59	0.51
25:Y:58:PHE:HE1	25:Y:72:PHE:CE2	2.28	0.51
25:Y:19:GLN:CD	25:Y:85:ASN:HD21	2.13	0.51
19:S:85:ASN:HD21	19:S:98:VAL:N	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:147:LYS:NZ	12:L:156:GLN:NE2	2.59	0.51
20:T:23:LYS:HD2	20:T:54:TYR:CE2	2.45	0.51
13:M:26:LEU:HD11	13:M:89:VAL:O	2.11	0.51
15:O:56:VAL:HG12	15:O:81:VAL:CG2	2.03	0.51
20:T:87:VAL:HG12	20:T:88:MET:HE3	1.93	0.51
18:R:31:ASN:ND2	18:R:55:THR:CG2	2.74	0.51
24:X:77:ASN:O	24:X:79:LYS:N	2.44	0.51
23:W:105:THR:O	23:W:105:THR:HG23	2.10	0.51
1:A:149:ASN:N	1:A:165:ASN:HD21	2.09	0.50
1:A:157:VAL:O	1:A:157:VAL:HG23	2.12	0.50
1:A:18:PHE:CZ	1:A:55:TRP:CE3	2.99	0.50
2:B:47:THR:CG2	2:B:67:PHE:CZ	2.81	0.50
4:D:76:ARG:CZ	11:K:66:HIS:NE2	2.69	0.50
7:G:102:VAL:HG11	7:G:109:LEU:HD11	1.93	0.50
9:I:76:THR:HG22	9:I:77:ARG:H	1.71	0.50
11:K:40:VAL:HG22	11:K:41:PRO:C	2.30	0.50
12:L:59:LYS:HB2	12:L:112:HIS:CE1	2.46	0.50
2:B:30:TRP:CE3	15:O:19:PRO:HB3	2.46	0.50
24:X:52:LEU:CG	24:X:71:ARG:CB	2.88	0.50
17:Q:51:LEU:HD12	17:Q:52:LEU:N	2.26	0.50
25:Y:55:ILE:CD1	25:Y:75:ILE:HD11	2.41	0.50
25:Y:53:ASP:O	25:Y:79:LEU:CD2	2.59	0.50
20:T:45:LEU:HG	20:T:46:ALA:H	1.76	0.50
19:S:90:VAL:HG12	19:S:91:LYS:N	2.25	0.50
18:R:17:ILE:HD11	18:R:54:VAL:HG13	1.94	0.50
5:E:130:PHE:O	5:E:137:PRO:HA	2.10	0.50
23:W:27:ILE:HG13	23:W:61:ILE:HB	1.93	0.50
3:C:99:LYS:HD2	3:C:100:GLN:H	1.72	0.50
1:A:120:ARG:CD	3:C:251:TYR:CE2	2.61	0.50
3:C:69:PHE:CE1	3:C:249:SER:CA	2.94	0.50
3:C:54:LEU:N	3:C:258:LEU:HD22	2.27	0.50
6:F:110:GLN:C	6:F:113:VAL:HG12	2.28	0.50
7:G:212:LEU:CA	7:G:215:LYS:HD3	2.41	0.50
7:G:79:LYS:O	7:G:81:HIS:CD2	2.65	0.50
14:N:26:LEU:CD2	14:N:66:VAL:CG2	2.89	0.50
2:B:25:PHE:CD1	15:O:88:LEU:HD13	2.45	0.50
22:V:42:VAL:O	22:V:43:THR:OG1	2.29	0.50
6:F:91:ARG:CD	17:Q:46:THR:CG2	2.89	0.50
25:Y:76:TYR:CD1	25:Y:82:ALA:HA	2.46	0.50
20:T:31:PRO:HG3	20:T:102:ARG:CG	2.41	0.50
19:S:88:LYS:N	19:S:95:TYR:CD1	2.72	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:55:ARG:NH1	26:Z:80:ARG:HE	2.03	0.50
4:D:162:ASP:OD1	4:D:166:TYR:CE2	2.65	0.50
26:Z:99:LEU:CD2	26:Z:109:TYR:CZ	2.89	0.50
18:R:13:ALA:HB1	18:R:57:LEU:HD12	1.92	0.50
4:D:135:GLU:HG2	4:D:187:LYS:HB3	1.93	0.50
10:J:155:LYS:HE3	10:J:156:HIS:NE2	2.26	0.50
3:C:183:ALA:CB	3:C:208:TYR:CE2	2.94	0.50
3:C:115:ILE:HD11	3:C:140:ILE:CG2	2.30	0.50
4:D:35:SER:C	4:D:99:ILE:HD11	2.29	0.50
5:E:192:ILE:HD11	5:E:238:LEU:HD22	1.92	0.50
10:J:42:GLU:OE1	10:J:42:GLU:HA	2.11	0.50
10:J:63:LEU:O	10:J:70:ARG:NH1	2.44	0.50
11:K:11:ILE:HG21	11:K:49:MET:HE3	1.81	0.50
12:L:10:TYR:HD2	12:L:12:LYS:CE	2.14	0.50
6:F:43:GLU:O	6:F:44:LYS:HB2	2.10	0.50
17:Q:45:ARG:O	17:Q:46:THR:C	2.49	0.50
19:S:90:VAL:CG1	19:S:91:LYS:HE3	2.41	0.50
12:L:17:PHE:CG	12:L:18:GLN:N	2.79	0.50
10:J:90:GLY:O	10:J:91:LYS:O	2.29	0.50
12:L:92:TYR:CE2	12:L:105:ARG:HB2	2.46	0.50
23:W:86:LEU:HD11	23:W:113:HIS:HB2	1.93	0.50
12:L:118:ARG:NH1	12:L:119:ASP:OD2	2.43	0.50
21:U:25:THR:HG22	21:U:86:LYS:CG	2.34	0.50
13:M:124:ILE:O	13:M:127:TYR:CE2	2.63	0.50
20:T:4:VAL:HG21	20:T:135:ALA:O	2.11	0.50
2:B:136:HIS:CE1	2:B:138:PHE:CE1	2.99	0.50
8:H:73:GLN:HE21	8:H:135:PHE:HE1	1.59	0.50
25:Y:5:VAL:CG1	25:Y:6:THR:N	2.74	0.50
19:S:72:GLN:O	19:S:72:GLN:HG2	2.11	0.50
3:C:244:THR:CG2	3:C:246:PHE:CG	2.94	0.50
3:C:68:LEU:CD2	3:C:247:THR:HG21	2.40	0.50
8:H:158:LEU:HG	8:H:187:PHE:CD1	2.46	0.50
9:I:141:ARG:CB	9:I:144:LYS:CG	2.87	0.50
12:L:59:LYS:CD	12:L:112:HIS:CD2	2.90	0.50
9:I:201:LYS:CE	12:L:8:ARG:HA	2.42	0.50
3:C:243:GLU:HA	22:V:16:LYS:NZ	2.27	0.50
17:Q:85:ARG:CD	17:Q:119:LEU:CD2	2.72	0.50
25:Y:23:MET:CE	25:Y:44:LEU:HD21	2.40	0.50
8:H:10:LYS:HZ1	8:H:17:ASP:CA	2.23	0.50
18:R:20:TYR:CE2	18:R:38:ILE:CD1	2.92	0.50
10:J:91:LYS:HA	10:J:96:TYR:CD2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:145:LYS:HG3	2:B:149:GLN:HB3	1.93	0.50
13:M:33:ARG:CG	13:M:33:ARG:NH1	2.74	0.50
13:M:83:LYS:HG3	13:M:103:VAL:HG12	1.93	0.50
12:L:40:ILE:CG1	12:L:68:ILE:HG13	2.41	0.50
3:C:129:SER:HB2	3:C:134:THR:HG23	1.92	0.50
3:C:109:PHE:CD2	3:C:132:VAL:HG22	2.47	0.50
9:I:150:ASP:C	9:I:150:ASP:OD2	2.50	0.50
2:B:53:GLN:CG	2:B:56:LYS:HB2	2.41	0.50
3:C:79:ILE:CD1	3:C:147:ILE:HD13	2.33	0.50
4:D:77:PHE:O	4:D:78:GLY:C	2.50	0.50
4:D:51:LEU:HD12	4:D:89:GLU:O	2.11	0.50
7:G:197:GLN:O	7:G:200:LYS:HG2	2.11	0.50
7:G:35:GLU:C	7:G:36:VAL:HG23	2.32	0.50
10:J:143:ASN:O	10:J:143:ASN:CG	2.49	0.50
11:K:60:GLU:HG2	11:K:69:TRP:CD1	2.46	0.50
14:N:22:VAL:HB	14:N:23:PRO:C	2.32	0.50
6:F:91:ARG:NH1	6:F:94:LYS:HG3	2.11	0.50
25:Y:54:VAL:HG13	25:Y:76:TYR:H	1.71	0.50
16:P:93:MET:SD	16:P:106:GLU:HA	2.51	0.50
25:Y:29:HIS:HE1	25:Y:67:GLY:CA	2.06	0.50
4:D:197:LYS:N	4:D:198:ILE:HG13	2.27	0.50
4:D:196:GLY:O	4:D:199:GLY:HA2	2.12	0.50
18:R:34:VAL:HG12	18:R:38:ILE:HG12	1.94	0.50
10:J:89:GLU:C	10:J:91:LYS:O	2.50	0.50
21:U:50:VAL:HG22	21:U:51:LYS:CA	2.35	0.50
18:R:44:LYS:CD	18:R:47:ARG:NH2	2.70	0.50
4:D:123:LEU:CG	4:D:154:ASP:HB3	2.42	0.50
3:C:168:LYS:HE3	23:W:95:PRO:CA	2.39	0.50
3:C:154:TYR:CZ	3:C:161:LYS:C	2.84	0.50
12:L:103:GLU:OE1	24:X:11:ARG:NE	2.45	0.50
5:E:212:ASP:OD2	5:E:214:ASN:HB2	2.12	0.50
6:F:151:ILE:O	6:F:154:LEU:HG	2.10	0.50
5:E:136:ILE:N	5:E:136:ILE:HD12	2.26	0.50
1:A:111:GLN:NE2	1:A:116:PHE:CZ	2.79	0.50
1:A:149:ASN:HB2	1:A:165:ASN:OD1	2.12	0.50
1:A:16:LEU:CB	1:A:17:LYS:CE	2.89	0.50
1:A:118:GLU:CD	3:C:50:LYS:HE2	2.29	0.50
7:G:147:LEU:CD2	7:G:156:TYR:HE2	2.24	0.50
11:K:62:PHE:CD1	11:K:67:PHE:CD2	2.96	0.50
11:K:71:LEU:HG	11:K:76:ILE:CD1	2.42	0.50
15:O:44:VAL:HG11	15:O:93:LEU:CD2	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:106:GLN:O	25:Y:110:ARG:HG3	2.12	0.50
3:C:193:PRO:O	3:C:196:LYS:HG3	2.12	0.50
17:Q:12:VAL:HG21	17:Q:91:ALA:HA	1.92	0.50
17:Q:85:ARG:HD3	17:Q:119:LEU:HD21	1.81	0.50
25:Y:20:ARG:HD3	25:Y:76:TYR:CE1	2.44	0.50
19:S:8:LYS:CE	19:S:9:PHE:HE1	2.05	0.50
12:L:17:PHE:CD1	12:L:18:GLN:CA	2.94	0.50
16:P:49:LEU:H	16:P:51:ARG:HG3	1.77	0.50
2:B:149:GLN:HE21	2:B:151:ARG:CG	2.18	0.50
4:D:213:PRO:O	4:D:214:LYS:CB	2.37	0.50
23:W:27:ILE:HD11	23:W:61:ILE:HD12	1.93	0.50
8:H:154:ILE:CG2	8:H:185:VAL:CG2	2.89	0.50
3:C:48:VAL:HG23	3:C:75:GLU:OE2	2.11	0.50
5:E:121:TYR:HA	5:E:163:ASP:O	2.12	0.50
7:G:64:LYS:CD	7:G:65:GLN:C	2.80	0.50
15:O:62:VAL:CG2	15:O:72:TYR:CZ	2.92	0.50
21:U:67:LYS:CE	21:U:78:ASP:CG	2.68	0.50
23:W:17:ALA:HB2	23:W:25:VAL:HG12	1.92	0.50
10:J:78:LEU:HD11	10:J:93:LYS:HA	1.92	0.50
10:J:88:ASP:C	10:J:92:MET:CG	2.49	0.50
16:P:127:LYS:HE3	16:P:128:HIS:N	2.25	0.50
13:M:15:ASN:OD1	13:M:15:ASN:C	2.50	0.50
25:Y:92:ALA:N	25:Y:97:TYR:CB	2.52	0.50
18:R:90:ALA:C	18:R:91:LEU:HG	2.29	0.50
13:M:79:VAL:CG1	13:M:80:ASP:H	2.25	0.50
13:M:98:GLY:C	13:M:100:PRO:CD	2.74	0.50
20:T:84:ARG:O	20:T:86:GLY:N	2.45	0.50
11:K:97:SER:HG	11:K:98:ARG:H	1.57	0.50
8:H:135:PHE:CB	8:H:136:PRO:CD	2.88	0.50
1:A:32:PHE:CE1	1:A:33:GLN:CD	2.85	0.50
10:J:136:ARG:HG2	10:J:141:VAL:HA	1.94	0.50
24:X:51:VAL:HG21	24:X:94:ILE:CG2	2.41	0.50
17:Q:112:LEU:CB	17:Q:120:LEU:HD21	2.42	0.50
8:H:37:LYS:HZ3	8:H:41:ARG:HG3	1.77	0.50
16:P:107:ILE:HA	16:P:111:MET:HE1	1.84	0.50
16:P:75:VAL:HG21	16:P:104:GLN:NE2	2.27	0.50
21:U:47:ASN:N	21:U:47:ASN:ND2	2.59	0.50
18:R:17:ILE:O	18:R:71:ILE:HD11	2.11	0.50
4:D:219:PRO:O	4:D:220:THR:C	2.50	0.50
5:E:47:PHE:CE2	5:E:52:LEU:HD12	2.42	0.50
14:N:4:MET:HE1	14:N:124:ARG:NH2	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:85:ASN:ND2	20:T:91:HIS:HD2	2.06	0.50
5:E:259:LYS:O	5:E:260:GLN:OE1	2.29	0.50
1:A:140:VAL:HG13	3:C:72:PRO:HG3	1.94	0.50
1:A:125:THR:C	1:A:147:LEU:HB2	2.32	0.50
1:A:179:ALA:O	1:A:183:LEU:HG	2.12	0.50
2:B:36:PRO:HA	2:B:231:LEU:HD23	1.92	0.50
4:D:21:LEU:HD22	4:D:25:LEU:HD21	1.94	0.50
11:K:27:VAL:HA	11:K:43:LEU:CD2	2.41	0.50
22:V:11:LEU:HD12	22:V:12:TYR:CG	2.38	0.50
22:V:33:PRO:HB2	22:V:53:TYR:O	2.11	0.50
6:F:42:LYS:O	6:F:44:LYS:C	2.50	0.50
17:Q:111:ILE:O	17:Q:114:GLN:CG	2.54	0.50
17:Q:112:LEU:HD12	17:Q:120:LEU:CD2	2.42	0.50
17:Q:112:LEU:HD12	17:Q:120:LEU:HD21	1.94	0.50
19:S:124:ARG:CD	19:S:130:ARG:O	2.43	0.50
8:H:66:VAL:HG21	8:H:97:GLN:O	2.12	0.50
19:S:26:ILE:CD1	19:S:59:LEU:CD2	2.81	0.50
23:W:38:LEU:HD23	23:W:41:MET:HE1	1.93	0.50
25:Y:100:LYS:CG	25:Y:100:LYS:O	2.55	0.50
13:M:76:LEU:CA	13:M:128:PHE:HZ	2.25	0.50
21:U:18:HIS:HE1	21:U:98:VAL:HG22	1.63	0.50
14:N:142:GLU:HG3	14:N:144:SER:OG	2.08	0.50
12:L:72:ILE:N	12:L:72:ILE:HD12	2.26	0.50
23:W:120:HIS:O	23:W:120:HIS:CG	2.63	0.50
1:A:125:THR:HA	1:A:147:LEU:CB	2.35	0.49
2:B:71:LEU:HD13	2:B:84:PHE:CZ	2.26	0.49
5:E:151:ASP:HB3	7:G:212:LEU:HD22	1.94	0.49
9:I:152:ARG:O	9:I:153:LYS:CB	2.59	0.49
11:K:16:PHE:HE2	11:K:79:LEU:HB2	0.74	0.49
22:V:18:SER:O	22:V:18:SER:OG	2.29	0.49
16:P:123:TYR:OH	19:S:124:ARG:CG	2.57	0.49
16:P:79:HIS:ND1	16:P:102:PHE:CZ	2.74	0.49
8:H:9:VAL:O	8:H:45:ILE:HG13	2.12	0.49
8:H:79:LEU:HD23	8:H:79:LEU:O	2.12	0.49
19:S:80:PRO:CB	19:S:82:TRP:NE1	2.75	0.49
26:Z:44:LEU:HD11	26:Z:46:ASN:CG	2.32	0.49
13:M:50:CYS:N	13:M:75:ASN:HD22	2.10	0.49
20:T:111:LYS:HB3	20:T:126:GLN:HE21	1.68	0.49
2:B:228:LEU:CD1	2:B:232:HIS:CD2	2.94	0.49
12:L:152:LYS:O	12:L:154:GLN:N	2.44	0.49
5:E:136:ILE:HG13	5:E:149:TYR:CZ	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:220:ALA:O	7:G:223:LYS:HB2	2.12	0.49
1:A:58:LEU:HD23	1:A:58:LEU:O	2.12	0.49
2:B:82:ARG:NH1	2:B:191:ASP:OD1	2.45	0.49
4:D:21:LEU:HD22	4:D:25:LEU:CD2	2.42	0.49
5:E:124:CYS:HB3	5:E:141:THR:CB	2.36	0.49
5:E:129:ILE:CG2	5:E:139:LEU:HD21	2.42	0.49
7:G:137:ARG:HG3	7:G:140:ARG:CB	2.41	0.49
9:I:110:ARG:NH2	9:I:124:LYS:NZ	2.60	0.49
11:K:40:VAL:HG23	11:K:41:PRO:HD3	1.94	0.49
14:N:116:ILE:HA	14:N:119:GLU:HG3	1.93	0.49
22:V:12:TYR:CE1	22:V:14:PRO:HG3	2.46	0.49
25:Y:87:PRO:O	25:Y:87:PRO:CD	2.60	0.49
4:D:132:LYS:N	4:D:191:PRO:HG2	2.17	0.49
6:F:15:PRO:CD	17:Q:56:LEU:HB3	2.41	0.49
25:Y:101:LYS:C	25:Y:102:THR:HG1	2.16	0.49
24:X:8:ARG:O	24:X:10:ALA:N	2.42	0.49
19:S:16:LEU:C	19:S:17:ASN:OD1	2.50	0.49
23:W:101:PHE:HD2	23:W:129:PHE:CE1	2.28	0.49
4:D:220:THR:O	4:D:221:THR:O	2.30	0.49
3:C:166:ARG:HG2	3:C:237:THR:HG21	1.95	0.49
15:O:55:ARG:O	15:O:81:VAL:HG22	2.12	0.49
12:L:1:MET:O	12:L:2:ALA:O	2.29	0.49
14:N:5:HIS:HD2	14:N:121:ARG:NE	2.09	0.49
1:A:29:ASN:O	1:A:151:ASP:HB3	2.12	0.49
2:B:36:PRO:CA	2:B:231:LEU:HD21	2.42	0.49
2:B:93:GLY:CA	2:B:94:LYS:HD3	2.41	0.49
7:G:162:LEU:CD2	7:G:170:ARG:HG3	2.42	0.49
7:G:184:VAL:C	7:G:188:LYS:HE2	2.33	0.49
9:I:144:LYS:CD	9:I:144:LYS:N	2.75	0.49
9:I:154:LYS:HD3	9:I:155:ASN:HA	1.94	0.49
10:J:50:LEU:HD12	10:J:102:ILE:HD11	1.85	0.49
12:L:134:LEU:HD23	12:L:134:LEU:C	2.33	0.49
15:O:92:ALA:HB2	15:O:125:LYS:HB2	1.94	0.49
22:V:78:ILE:HG23	22:V:79:VAL:H	1.77	0.49
24:X:52:LEU:HD12	24:X:53:GLU:HG2	1.91	0.49
21:U:62:ARG:HD2	21:U:79:ARG:HD3	1.94	0.49
20:T:101:ARG:CG	20:T:105:GLN:NE2	2.75	0.49
8:H:45:ILE:O	8:H:45:ILE:HG13	2.11	0.49
16:P:21:ASP:O	16:P:25:LEU:HG	2.12	0.49
26:Z:99:LEU:HD13	26:Z:102:LYS:HE2	0.55	0.49
10:J:87:LEU:HD12	10:J:88:ASP:H	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:100:VAL:CG1	17:Q:101:ASP:N	2.44	0.49
20:T:78:ILE:HG23	20:T:79:TYR:N	2.27	0.49
5:E:191:ARG:NE	5:E:245:ARG:CD	2.75	0.49
19:S:111:LEU:CD2	19:S:125:HIS:ND1	2.75	0.49
4:D:164:VAL:HG13	4:D:165:ASN:N	2.27	0.49
2:B:137:LEU:HD21	2:B:215:VAL:HG11	1.78	0.49
2:B:67:PHE:HD1	15:O:47:LEU:O	1.95	0.49
2:B:71:LEU:CB	2:B:84:PHE:HE2	2.25	0.49
2:B:90:ASP:CG	2:B:91:VAL:N	2.62	0.49
4:D:46:THR:HB	4:D:84:VAL:HG23	1.93	0.49
7:G:67:VAL:CG2	7:G:99:GLY:HA2	2.32	0.49
8:H:169:LYS:O	8:H:172:THR:HG22	2.13	0.49
9:I:148:LYS:HE2	9:I:152:ARG:HH22	1.76	0.49
9:I:194:GLU:CG	12:L:12:LYS:CE	2.88	0.49
10:J:127:ARG:HH11	10:J:145:PRO:HB3	1.75	0.49
15:O:72:TYR:C	15:O:72:TYR:CD1	2.86	0.49
21:U:108:PRO:O	21:U:110:VAL:CG2	2.53	0.49
6:F:95:HIS:NE2	26:Z:103:HIS:HB3	2.27	0.49
25:Y:54:VAL:HG13	25:Y:76:TYR:HB2	1.95	0.49
20:T:30:VAL:O	20:T:30:VAL:CG2	2.30	0.49
20:T:77:LYS:HG3	20:T:92:PHE:HE2	0.73	0.49
24:X:27:TYR:CD2	24:X:31:HIS:HD2	2.30	0.49
19:S:81:ASP:C	19:S:87:GLN:HE22	2.16	0.49
12:L:17:PHE:HE1	12:L:18:GLN:HB2	1.68	0.49
20:T:59:SER:O	20:T:62:ARG:HG2	2.12	0.49
2:B:105:LEU:HD11	2:B:213:ARG:HG3	1.93	0.49
8:H:114:GLN:O	8:H:115:LYS:C	2.49	0.49
4:D:141:LYS:CD	4:D:179:GLN:CG	2.87	0.49
24:X:102:VAL:HG11	24:X:120:PHE:HB3	1.91	0.49
1:A:44:ASP:OD1	18:R:101:ASP:OD2	2.31	0.49
3:C:55:VAL:HG11	3:C:82:PHE:CD2	2.45	0.49
5:E:129:ILE:HG23	5:E:139:LEU:CD2	2.42	0.49
5:E:129:ILE:CD1	5:E:139:LEU:HD22	2.32	0.49
7:G:27:PHE:HE2	7:G:41:LEU:CD1	2.12	0.49
15:O:62:VAL:HG12	15:O:63:LYS:N	2.28	0.49
18:R:98:VAL:HG11	18:R:103:LYS:N	2.28	0.49
22:V:53:TYR:CD2	22:V:72:LEU:HB3	2.47	0.49
24:X:51:VAL:HG22	24:X:70:VAL:HG11	1.95	0.49
8:H:50:GLU:CD	8:H:58:LYS:HD3	2.29	0.49
25:Y:29:HIS:CD2	25:Y:34:THR:N	2.78	0.49
18:R:24:LEU:HB2	18:R:58:MET:HE3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:105:PHE:CE2	24:X:118:VAL:C	2.85	0.49
20:T:16:ARG:HH11	20:T:16:ARG:HG3	1.77	0.49
2:B:105:LEU:HD11	2:B:110:MET:HE1	1.87	0.49
2:B:131:ASP:N	2:B:131:ASP:OD1	2.38	0.49
5:E:185:GLY:CA	5:E:189:LEU:HD13	2.43	0.49
20:T:14:PHE:CZ	20:T:131:LEU:CD1	2.95	0.49
22:V:5:ALA:O	22:V:7:GLU:N	2.45	0.49
5:E:188:ASN:ND2	5:E:218:PHE:CD1	2.80	0.49
4:D:188:ILE:HG22	4:D:190:LEU:CD2	2.41	0.49
7:G:63:MET:HE2	7:G:106:LEU:HD11	1.77	0.49
7:G:163:ASN:O	7:G:163:ASN:OD1	2.30	0.49
14:N:26:LEU:CD2	14:N:66:VAL:HG22	2.42	0.49
14:N:54:LEU:C	14:N:60:VAL:HG22	2.32	0.49
22:V:43:THR:O	22:V:44:GLY:O	2.29	0.49
22:V:68:SER:O	22:V:72:LEU:HG	2.13	0.49
3:C:196:LYS:HG3	3:C:197:LYS:N	2.28	0.49
17:Q:116:ASP:CG	17:Q:117:ARG:N	2.65	0.49
16:P:41:GLN:HA	16:P:84:ILE:HD13	1.88	0.49
19:S:8:LYS:CA	19:S:9:PHE:CD1	2.95	0.49
2:B:148:ASN:ND2	2:B:148:ASN:N	2.61	0.49
3:C:154:TYR:OH	3:C:162:PRO:N	2.45	0.49
3:C:183:ALA:HB2	3:C:208:TYR:CE2	2.48	0.49
4:D:207:HIS:O	4:D:208:VAL:CG2	2.60	0.49
1:A:39:TYR:HB3	1:A:48:ILE:O	2.12	0.49
1:A:98:PRO:O	1:A:99:ILE:CG1	2.60	0.49
2:B:49:VAL:HG23	2:B:65:ARG:HH12	1.76	0.49
3:C:142:LEU:O	3:C:145:LEU:HD21	2.11	0.49
4:D:70:THR:N	4:D:86:LEU:HD22	2.27	0.49
5:E:100:ARG:CG	5:E:102:ILE:HD12	2.42	0.49
5:E:11:ARG:CZ	5:E:20:LEU:HB3	2.42	0.49
5:E:45:ILE:HG13	5:E:61:VAL:HG21	1.94	0.49
6:F:136:ARG:HD2	6:F:136:ARG:N	2.28	0.49
7:G:163:ASN:O	7:G:164:LYS:CB	2.59	0.49
22:V:79:VAL:HG12	22:V:82:ASN:CG	2.33	0.49
24:X:71:ARG:NE	24:X:82:THR:HG23	2.23	0.49
17:Q:16:LYS:HD2	17:Q:17:LYS:H	1.74	0.49
4:D:168:VAL:HG13	4:D:189:MET:SD	2.53	0.49
20:T:31:PRO:HG2	20:T:102:ARG:HG3	1.91	0.49
16:P:10:ARG:O	16:P:11:THR:O	2.30	0.49
16:P:90:VAL:HA	16:P:107:ILE:CD1	2.42	0.49
19:S:117:ILE:C	19:S:118:ARG:CG	2.66	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:89:ASP:O	19:S:90:VAL:CG2	2.61	0.49
10:J:84:ILE:HG13	10:J:86:VAL:CG2	2.42	0.49
12:L:99:TYR:OH	24:X:14:ARG:CG	2.61	0.49
2:B:153:THR:CG2	2:B:154:SER:N	2.53	0.49
18:R:122:PRO:CA	18:R:123:THR:OG1	2.61	0.49
18:R:21:TYR:HB2	18:R:71:ILE:HD13	0.64	0.49
4:D:157:MET:SD	4:D:187:LYS:HD3	2.50	0.49
12:L:71:ARG:CD	12:L:73:LEU:CG	2.91	0.49
13:M:19:GLN:NE2	13:M:88:TRP:CD1	2.81	0.49
4:D:141:LYS:HE3	4:D:179:GLN:HE21	1.76	0.49
5:E:145:ARG:HH11	5:E:145:ARG:CG	2.10	0.49
1:A:44:ASP:OD1	1:A:44:ASP:N	2.43	0.49
1:A:66:VAL:O	1:A:67:ALA:CB	2.60	0.49
4:D:53:THR:HG22	4:D:91:VAL:HB	1.95	0.49
7:G:147:LEU:HD21	7:G:156:TYR:CD2	2.46	0.49
8:H:190:PRO:HG2	8:H:192:PHE:CE1	2.48	0.49
10:J:164:PRO:HB2	10:J:165:TYR:CE1	2.48	0.49
10:J:170:PRO:HB3	10:J:174:LYS:HE2	1.83	0.49
21:U:68:THR:CG2	21:U:70:CYS:O	2.61	0.49
25:Y:33:ALA:O	25:Y:34:THR:OG1	2.29	0.49
12:L:113:LEU:HD11	12:L:120:VAL:HG11	1.93	0.49
10:J:93:LYS:HE3	10:J:93:LYS:N	2.26	0.49
2:B:148:ASN:C	18:R:124:VAL:CA	2.80	0.49
13:M:33:ARG:HG3	13:M:33:ARG:NH1	2.21	0.49
13:M:93:LYS:H	13:M:101:ARG:CD	2.26	0.49
1:A:205:ARG:O	1:A:206:ASP:CB	2.61	0.49
4:D:27:ARG:HB3	4:D:27:ARG:NH1	5.00	0.49
8:H:149:ASP:O	8:H:149:ASP:OD1	2.31	0.49
17:Q:62:ARG:HD3	17:Q:62:ARG:HA	1.47	0.49
2:B:48:LEU:N	2:B:48:LEU:CD1	2.71	0.49
2:B:72:ALA:O	2:B:76:ASN:HA	2.13	0.49
5:E:99:PHE:CZ	5:E:113:ARG:CG	2.93	0.49
7:G:154:ARG:HG2	7:G:155:GLN:N	2.28	0.49
7:G:33:ALA:N	7:G:52:ILE:CG2	2.74	0.49
9:I:139:LYS:CD	9:I:145:ILE:HD12	2.43	0.49
10:J:168:GLY:O	10:J:169:ARG:O	2.30	0.49
11:K:37:ASP:C	11:K:38:LYS:HD3	2.33	0.49
24:X:70:VAL:HG12	24:X:71:ARG:N	2.27	0.49
3:C:197:LYS:CB	3:C:200:LEU:HD21	2.42	0.49
17:Q:111:ILE:HA	17:Q:114:GLN:CD	2.33	0.49
25:Y:56:PHE:CD2	25:Y:86:GLU:CD	2.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:9:SER:HB2	17:Q:26:LYS:CG	2.10	0.49
12:L:113:LEU:HD12	12:L:120:VAL:HG11	1.93	0.49
16:P:127:LYS:O	16:P:127:LYS:HG3	2.12	0.49
21:U:48:LEU:H	21:U:48:LEU:CD2	2.11	0.49
1:A:208:GLU:HG2	1:A:209:GLU:N	2.27	0.49
21:U:73:GLY:C	21:U:74:SER:O	2.51	0.49
25:Y:3:ASP:C	25:Y:4:THR:HG1	2.10	0.49
12:L:69:ARG:O	12:L:130:GLU:HB3	2.13	0.49
6:F:192:LYS:CD	6:F:192:LYS:O	2.61	0.49
24:X:96:GLU:O	24:X:97:ASN:HB2	2.12	0.49
13:M:58:GLU:O	13:M:58:GLU:HG3	2.13	0.49
2:B:137:LEU:CB	2:B:172:MET:CE	2.78	0.49
4:D:79:PHE:HE1	4:D:83:SER:HB3	1.78	0.49
5:E:43:PRO:CD	5:E:43:PRO:O	2.60	0.49
7:G:142:ARG:NH2	7:G:152:ASP:N	2.54	0.49
10:J:125:HIS:CE1	10:J:129:LEU:HD21	2.48	0.49
11:K:27:VAL:HA	11:K:43:LEU:HD23	1.95	0.49
14:N:87:ASP:CG	14:N:129:TYR:OH	2.45	0.49
22:V:53:TYR:HB3	22:V:72:LEU:HD13	1.95	0.49
8:H:28:LEU:O	8:H:31:GLU:HB2	2.13	0.49
25:Y:68:LYS:O	25:Y:69:THR:CG2	2.61	0.49
23:W:15:ASN:HD21	23:W:19:LYS:HE3	1.77	0.49
18:R:16:ILE:O	18:R:20:TYR:N	2.46	0.49
10:J:177:ASN:C	10:J:180:LYS:HG2	2.19	0.49
8:H:147:LYS:HE3	8:H:153:LEU:CD1	2.39	0.49
5:E:178:GLY:H	5:E:195:ILE:HB	1.78	0.49
14:N:11:LEU:C	14:N:11:LEU:HD12	2.33	0.49
3:C:94:ILE:O	3:C:94:ILE:HG22	2.13	0.49
1:A:76:VAL:HG12	1:A:87:VAL:HG12	1.86	0.48
1:A:118:GLU:CD	3:C:50:LYS:NZ	2.61	0.48
6:F:59:LYS:HD2	6:F:62:ARG:HH21	0.66	0.48
7:G:170:ARG:HD2	7:G:171:THR:O	2.13	0.48
8:H:164:ASN:HA	8:H:167:GLU:CG	2.39	0.48
9:I:158:ILE:C	12:L:22:ARG:NH2	2.67	0.48
9:I:193:LYS:HG3	12:L:10:TYR:HE1	1.77	0.48
10:J:37:LEU:HG	10:J:38:ARG:N	2.28	0.48
11:K:1:MET:H2	11:K:2:LEU:C	2.14	0.48
11:K:4:PRO:CG	11:K:7:ASN:HB2	2.26	0.48
14:N:125:LEU:HD11	14:N:129:TYR:CZ	2.47	0.48
14:N:37:ILE:HD11	14:N:63:VAL:HG11	1.95	0.48
2:B:70:SER:HB3	15:O:128:ARG:HH11	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:34:PHE:HE1	15:O:99:ALA:C	2.15	0.48
25:Y:118:ARG:O	25:Y:119:GLY:C	2.51	0.48
17:Q:109:LYS:HZ1	17:Q:113:ILE:CD1	2.26	0.48
20:T:77:LYS:HE3	20:T:92:PHE:CE2	2.48	0.48
8:H:37:LYS:O	8:H:38:ALA:CB	2.61	0.48
4:D:108:LYS:CA	4:D:113:LEU:CD2	2.91	0.48
25:Y:98:GLU:O	25:Y:98:GLU:OE1	2.30	0.48
9:I:7:ASN:C	9:I:9:HIS:N	2.59	0.48
18:R:95:ILE:HA	18:R:114:LEU:HB3	1.95	0.48
12:L:152:LYS:C	12:L:154:GLN:N	2.67	0.48
1:A:14:ASP:OD2	1:A:55:TRP:HH2	1.96	0.48
1:A:30:LEU:HD13	1:A:38:ILE:HD11	0.49	0.48
4:D:1:MET:O	4:D:2:ALA:O	2.30	0.48
4:D:22:ASN:OD1	4:D:34:TYR:OH	2.30	0.48
7:G:16:ILE:HD13	7:G:45:TRP:CE2	2.34	0.48
7:G:176:ILE:HG21	7:G:179:LEU:HB2	1.94	0.48
14:N:38:TYR:CE2	14:N:78:LYS:HG3	2.47	0.48
17:Q:51:LEU:C	17:Q:51:LEU:HD12	2.33	0.48
17:Q:54:PRO:CG	17:Q:88:ILE:HD11	2.25	0.48
19:S:90:VAL:HG12	19:S:91:LYS:CE	2.42	0.48
19:S:90:VAL:HG12	19:S:91:LYS:CG	2.43	0.48
9:I:8:TRP:O	9:I:8:TRP:CE3	2.66	0.48
25:Y:97:TYR:HD1	25:Y:98:GLU:H	1.58	0.48
16:P:65:LYS:HG3	16:P:66:GLU:H	1.78	0.48
16:P:71:GLU:HB3	16:P:72:LYS:HG3	1.93	0.48
3:C:124:LEU:N	3:C:226:PHE:CZ	2.81	0.48
17:Q:124:PRO:HG2	17:Q:125:ARG:N	2.28	0.48
1:A:89:LYS:HB3	1:A:202:TYR:CE2	2.48	0.48
3:C:129:SER:CB	3:C:134:THR:HG23	2.43	0.48
2:B:120:MET:HE3	2:B:142:PHE:CZ	2.44	0.48
23:W:115:GLU:HG2	23:W:119:LYS:HE3	1.95	0.48
7:G:227:GLN:HA	7:G:230:LYS:HZ3	1.78	0.48
14:N:21:SER:C	14:N:22:VAL:CG1	2.75	0.48
24:X:139:GLU:C	24:X:141:PRO:CD	2.66	0.48
25:Y:22:GLN:HA	25:Y:74:MET:SD	2.52	0.48
20:T:76:THR:HG22	20:T:95:GLY:O	2.13	0.48
8:H:9:VAL:C	8:H:11:PRO:HD2	2.32	0.48
26:Z:102:LYS:HA	26:Z:107:VAL:CA	2.40	0.48
20:T:11:GLN:O	20:T:15:VAL:HG13	2.12	0.48
14:N:114:ARG:CG	14:N:114:ARG:HH21	2.26	0.48
3:C:131:GLU:HB3	4:D:116:ARG:HH12	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:57:GLY:O	22:V:61:ARG:HG3	2.13	0.48
1:A:97:THR:HG22	1:A:98:PRO:N	2.28	0.48
2:B:68:GLU:CD	2:B:83:LYS:HE2	2.32	0.48
4:D:76:ARG:CG	11:K:66:HIS:ND1	2.77	0.48
10:J:21:GLU:C	10:J:23:SER:N	2.58	0.48
14:N:38:TYR:CG	14:N:78:LYS:HD2	2.43	0.48
22:V:42:VAL:C	22:V:43:THR:OG1	2.51	0.48
17:Q:130:LYS:HA	17:Q:137:ALA:HA	1.95	0.48
25:Y:17:LEU:C	25:Y:17:LEU:HD12	2.34	0.48
19:S:7:GLU:O	26:Z:50:PHE:O	2.31	0.48
19:S:8:LYS:CA	19:S:9:PHE:HD1	2.23	0.48
26:Z:44:LEU:HD11	26:Z:46:ASN:ND2	2.29	0.48
9:I:6:ASP:OD2	9:I:8:TRP:N	2.46	0.48
16:P:127:LYS:CD	16:P:127:LYS:O	2.61	0.48
18:R:13:ALA:HA	18:R:54:VAL:HG21	1.89	0.48
4:D:123:LEU:CD2	4:D:154:ASP:OD2	2.61	0.48
23:W:102:ILE:N	23:W:113:HIS:HD1	2.12	0.48
3:C:169:VAL:HG11	3:C:232:THR:HG22	1.95	0.48
19:S:111:LEU:HD22	19:S:125:HIS:CG	2.49	0.48
10:J:147:PHE:O	10:J:148:ILE:CB	2.55	0.48
2:B:119:THR:HB	2:B:143:THR:CG2	2.42	0.48
24:X:28:LYS:HE3	24:X:32:LEU:HD11	1.95	0.48
1:A:127:PRO:HG2	1:A:152:SER:HB3	1.94	0.48
2:B:53:GLN:O	2:B:55:THR:N	2.47	0.48
4:D:10:LYS:HZ2	21:U:111:GLU:HG2	1.77	0.48
5:E:97:GLU:OE1	5:E:97:GLU:C	4.80	0.48
8:H:169:LYS:HB2	8:H:173:PHE:CZ	2.47	0.48
8:H:160:LYS:CB	8:H:192:PHE:HZ	2.27	0.48
9:I:104:ILE:HG13	9:I:105:ASP:N	2.26	0.48
9:I:144:LYS:HD3	9:I:144:LYS:H	1.78	0.48
10:J:164:PRO:HB3	10:J:170:PRO:O	2.12	0.48
11:K:40:VAL:HA	11:K:41:PRO:HD3	1.65	0.48
11:K:47:LYS:HD2	11:K:50:GLN:NE2	2.28	0.48
12:L:5:GLN:NE2	12:L:10:TYR:HD1	2.10	0.48
22:V:11:LEU:HD12	22:V:12:TYR:N	2.29	0.48
1:A:158:ASP:CB	22:V:65:SER:HB2	2.42	0.48
24:X:128:VAL:O	24:X:128:VAL:CG1	2.29	0.48
17:Q:45:ARG:HG2	17:Q:46:THR:H	1.78	0.48
25:Y:55:ILE:CG1	25:Y:75:ILE:HD13	2.41	0.48
20:T:40:ALA:O	20:T:43:LYS:CG	2.62	0.48
20:T:42:HIS:NE2	20:T:83:GLN:HB3	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:241:GLY:O	5:E:244:ILE:CG1	2.58	0.48
12:L:130:GLU:HG2	12:L:131:CYS:H	1.78	0.48
8:H:126:HIS:NE2	8:H:181:THR:HG22	2.28	0.48
13:M:82:ASN:HD22	13:M:107:SER:HA	1.77	0.48
1:A:161:ILE:CG2	1:A:174:MET:CE	2.91	0.48
3:C:54:LEU:N	3:C:258:LEU:CD2	2.77	0.48
12:L:59:LYS:HD2	12:L:112:HIS:NE2	2.29	0.48
14:N:116:ILE:C	14:N:119:GLU:HG3	2.34	0.48
14:N:38:TYR:CD1	14:N:78:LYS:CG	2.95	0.48
15:O:16:SER:O	15:O:17:LEU:CB	2.61	0.48
20:T:33:TRP:CD1	20:T:37:VAL:HG21	2.48	0.48
20:T:33:TRP:O	20:T:34:VAL:HB	2.13	0.48
16:P:108:LYS:HZ1	19:S:118:ARG:NH1	2.11	0.48
4:D:201:LYS:C	4:D:203:PRO:HD2	2.13	0.48
16:P:49:LEU:C	16:P:50:ARG:CG	2.75	0.48
25:Y:98:GLU:OE2	25:Y:99:LYS:CA	2.61	0.48
13:M:51:VAL:HG13	13:M:109:VAL:HG22	1.93	0.48
13:M:51:VAL:HG13	13:M:109:VAL:HG23	1.94	0.48
6:F:184:SER:O	6:F:185:SER:HB2	2.13	0.48
9:I:31:ARG:HH11	9:I:31:ARG:CG	2.26	0.48
2:B:120:MET:CE	2:B:142:PHE:CZ	2.96	0.48
8:H:126:HIS:HA	8:H:129:ILE:HD12	1.96	0.48
1:A:39:TYR:HB2	1:A:50:ASN:HD21	1.58	0.48
2:B:49:VAL:CG1	2:B:50:THR:N	2.77	0.48
3:C:142:LEU:O	3:C:145:LEU:CG	2.61	0.48
5:E:48:LEU:CD2	5:E:70:ILE:CD1	2.81	0.48
8:H:158:LEU:HD21	8:H:187:PHE:CD1	2.48	0.48
8:H:169:LYS:HD2	8:H:173:PHE:CZ	2.48	0.48
9:I:117:TYR:HE1	9:I:155:ASN:HD21	1.60	0.48
9:I:154:LYS:O	12:L:22:ARG:CG	2.61	0.48
14:N:71:ILE:N	14:N:71:ILE:HD12	4.30	0.48
14:N:84:LEU:C	14:N:84:LEU:HD12	2.34	0.48
18:R:101:ASP:HA	18:R:104:GLU:HB2	1.95	0.48
17:Q:37:ARG:HB2	17:Q:38:PRO:HD2	1.95	0.48
17:Q:41:MET:O	17:Q:43:GLU:HG3	2.14	0.48
8:H:29:GLU:HA	8:H:32:MET:SD	2.54	0.48
16:P:59:ARG:NE	16:P:76:VAL:HG13	2.29	0.48
19:S:26:ILE:HD11	19:S:59:LEU:CG	2.42	0.48
26:Z:91:LEU:HB3	26:Z:97:ILE:HG12	1.95	0.48
18:R:24:LEU:HD12	18:R:58:MET:HE2	1.96	0.48
18:R:24:LEU:HD12	18:R:58:MET:CE	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:90:GLY:O	10:J:96:TYR:HD2	1.77	0.48
3:C:126:MET:CE	3:C:223:LYS:HZ2	2.26	0.48
23:W:111:MET:HE3	23:W:116:ALA:HA	1.95	0.48
6:F:116:ILE:H	6:F:116:ILE:CD1	2.00	0.48
20:T:42:HIS:CD2	20:T:81:GLY:O	2.67	0.48
8:H:121:THR:HG22	8:H:124:ALA:CB	2.43	0.48
9:I:38:ILE:HD11	9:I:96:LEU:HD21	1.96	0.48
19:S:10:GLN:NE2	19:S:57:GLY:O	2.44	0.48
14:N:114:ARG:CD	14:N:117:LEU:HD12	2.43	0.48
20:T:65:TYR:CD2	20:T:123:LEU:CD1	2.97	0.48
3:C:255:THR:CG2	3:C:256:ASP:N	2.76	0.48
22:V:57:GLY:O	22:V:61:ARG:CG	2.61	0.48
1:A:184:ARG:HD3	1:A:192:GLU:HG2	1.96	0.48
1:A:18:PHE:CE2	1:A:55:TRP:CZ3	3.02	0.48
1:A:75:SER:HA	1:A:97:THR:O	2.13	0.48
5:E:180:LEU:CD1	5:E:228:ILE:CD1	2.91	0.48
6:F:201:LYS:O	6:F:202:SER:O	2.32	0.48
10:J:121:LYS:HA	10:J:121:LYS:HD3	1.65	0.48
10:J:48:PHE:HZ	10:J:52:LYS:HZ1	1.36	0.48
11:K:40:VAL:HG21	11:K:45:VAL:HG23	1.95	0.48
14:N:116:ILE:O	14:N:119:GLU:HG3	2.13	0.48
15:O:66:ARG:HG2	15:O:67:ASP:N	2.27	0.48
23:W:23:ARG:HG2	23:W:23:ARG:NH1	2.29	0.48
17:Q:50:LYS:CE	17:Q:85:ARG:NH2	2.72	0.48
16:P:121:ILE:CG2	19:S:123:LEU:CD1	2.64	0.48
16:P:22:LEU:C	16:P:22:LEU:HD12	2.34	0.48
26:Z:58:LEU:CD2	26:Z:77:LEU:CD1	2.91	0.48
25:Y:104:ARG:HA	25:Y:107:ARG:NH2	2.29	0.48
4:D:223:ILE:HG22	4:D:224:SER:N	2.28	0.48
13:M:124:ILE:CB	13:M:127:TYR:HE2	2.27	0.48
26:Z:74:SER:HA	26:Z:79:ILE:CG2	2.34	0.48
3:C:259:VAL:O	3:C:260:LYS:O	2.30	0.48
24:X:41:PHE:CZ	24:X:120:PHE:CD1	3.02	0.48
15:O:71:PRO:HB3	15:O:114:SER:HB3	1.94	0.48
5:E:256:LEU:HD12	5:E:256:LEU:C	2.34	0.48
1:A:12:GLU:O	1:A:16:LEU:HG	2.14	0.48
2:B:25:PHE:HA	2:B:28:LYS:HD2	1.96	0.48
2:B:36:PRO:HA	2:B:231:LEU:CD2	2.44	0.48
3:C:54:LEU:H	3:C:258:LEU:HD22	1.79	0.48
4:D:29:LEU:HB3	4:D:34:TYR:HB2	1.94	0.48
5:E:48:LEU:HD11	5:E:70:ILE:HD13	1.93	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:227:GLN:C	7:G:230:LYS:HG3	2.34	0.48
7:G:98:ARG:CD	7:G:98:ARG:C	2.76	0.48
9:I:157:LYS:C	9:I:158:ILE:O	2.51	0.48
10:J:110:LEU:CD1	10:J:135:ILE:HD12	2.42	0.48
2:B:67:PHE:HD1	15:O:47:LEU:C	2.10	0.48
22:V:12:TYR:HE1	22:V:14:PRO:HG3	1.79	0.48
22:V:64:GLU:O	22:V:65:SER:C	2.52	0.48
20:T:31:PRO:O	20:T:33:TRP:CA	2.54	0.48
2:B:87:ILE:HG23	2:B:101:HIS:HB2	1.94	0.48
16:P:8:LYS:O	16:P:9:LYS:C	2.50	0.48
19:S:52:LEU:O	19:S:54:LYS:N	2.46	0.48
16:P:37:TYR:CA	19:S:88:LYS:HD3	2.44	0.48
12:L:101:ARG:HB2	24:X:10:ALA:HB2	1.95	0.48
13:M:12:MET:CE	13:M:120:ALA:HB1	2.32	0.48
23:W:104:LEU:C	23:W:104:LEU:HD12	2.34	0.48
17:Q:24:HIS:NE2	17:Q:69:ARG:CB	2.68	0.48
4:D:110:LEU:O	4:D:110:LEU:HD23	2.12	0.48
2:B:55:THR:C	2:B:56:LYS:HD2	2.31	0.48
3:C:244:THR:O	3:C:246:PHE:N	2.47	0.48
3:C:59:LYS:HD2	3:C:254:PHE:CE1	2.48	0.48
3:C:48:VAL:CG2	3:C:75:GLU:OE2	2.61	0.48
3:C:54:LEU:CD2	3:C:254:PHE:CB	2.88	0.48
4:D:10:LYS:HE3	4:D:14:ASP:OD2	2.14	0.48
4:D:23:GLU:HG2	11:K:64:TRP:NE1	2.28	0.48
4:D:53:THR:CG2	4:D:91:VAL:CB	2.89	0.48
5:E:126:VAL:HG21	5:E:156:MET:HA	1.91	0.48
7:G:64:LYS:HD2	7:G:100:CYS:SG	2.53	0.48
7:G:80:GLY:O	7:G:81:HIS:ND1	2.47	0.48
9:I:138:ASN:C	9:I:139:LYS:O	2.53	0.48
12:L:57:ASP:OD1	12:L:59:LYS:HB2	2.14	0.48
13:M:46:GLN:HB3	13:M:112:LYS:CD	2.44	0.48
13:M:111:VAL:HG11	13:M:114:TYR:HB3	1.95	0.48
14:N:125:LEU:HD22	14:N:129:TYR:CZ	2.49	0.48
14:N:84:LEU:HD12	14:N:84:LEU:O	2.14	0.48
21:U:68:THR:HB	21:U:70:CYS:O	2.14	0.48
19:S:42:HIS:HD2	20:T:45:LEU:CG	1.91	0.48
20:T:33:TRP:CD1	20:T:34:VAL:N	2.82	0.48
8:H:14:GLU:CD	8:H:16:PRO:CB	2.77	0.48
8:H:34:SER:O	8:H:35:ASP:OD1	2.32	0.48
19:S:90:VAL:HG12	19:S:91:LYS:CD	2.44	0.48
19:S:55:ARG:HH12	26:Z:82:SER:CB	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:99:LEU:HD21	26:Z:109:TYR:CZ	2.48	0.48
18:R:17:ILE:HG22	18:R:71:ILE:HD11	1.94	0.48
18:R:91:LEU:HD13	18:R:92:ASP:CB	2.43	0.48
20:T:4:VAL:HB	20:T:8:ASP:HB2	1.94	0.48
24:X:40:PRO:CB	24:X:81:ILE:CD1	2.87	0.48
26:Z:94:LYS:CD	26:Z:95:GLY:N	2.73	0.48
25:Y:111:LYS:HG3	25:Y:112:ASN:N	2.29	0.48
12:L:78:THR:CG2	12:L:79:LYS:N	2.77	0.48
18:R:87:GLU:O	18:R:88:VAL:CG1	2.62	0.48
4:D:145:GLN:CG	4:D:146:ARG:N	2.77	0.48
5:E:132:GLY:N	5:E:136:ILE:O	2.47	0.48
19:S:126:PHE:HD2	19:S:127:TRP:CD1	2.32	0.48
3:C:148:VAL:CB	3:C:149:PRO:HD3	2.43	0.47
5:E:151:ASP:HB3	5:E:152:PRO:CD	2.43	0.47
5:E:152:PRO:HD2	7:G:212:LEU:CD2	2.42	0.47
6:F:138:ALA:HB3	6:F:204:ARG:HB3	1.96	0.47
7:G:157:VAL:HG11	7:G:159:ARG:CA	2.43	0.47
9:I:154:LYS:O	12:L:22:ARG:HD2	2.14	0.47
14:N:94:LYS:CG	14:N:118:ILE:HD13	2.42	0.47
17:Q:42:ILE:CB	17:Q:51:LEU:HD21	2.44	0.47
16:P:41:GLN:CA	16:P:84:ILE:HG12	2.43	0.47
19:S:39:ARG:HH22	20:T:38:LYS:CG	2.22	0.47
8:H:87:PHE:CE2	8:H:90:LYS:NZ	2.73	0.47
16:P:88:GLU:HG3	16:P:89:MET:N	2.27	0.47
19:S:30:ILE:O	19:S:32:ALA:N	2.47	0.47
13:M:35:ILE:CB	13:M:61:TYR:CE2	2.95	0.47
13:M:35:ILE:CG1	13:M:61:TYR:CE2	2.97	0.47
25:Y:102:THR:HB	25:Y:104:ARG:H	1.78	0.47
21:U:43:ALA:O	21:U:48:LEU:HG	2.14	0.47
18:R:5:ARG:O	18:R:10:LYS:NZ	2.46	0.47
2:B:105:LEU:O	2:B:106:THR:OG1	2.30	0.47
13:M:94:ILE:O	13:M:95:ASP:CB	2.62	0.47
6:F:185:SER:HA	6:F:190:ILE:HD12	1.96	0.47
8:H:154:ILE:HG22	8:H:185:VAL:HG23	1.95	0.47
3:C:175:SER:O	3:C:213:GLY:HA3	2.14	0.47
9:I:113:TYR:O	9:I:117:TYR:HD2	1.96	0.47
9:I:191:GLU:O	9:I:195:LEU:CB	2.62	0.47
10:J:28:GLU:OE1	10:J:40:LYS:CE	2.61	0.47
11:K:84:HIS:CE1	11:K:85:LEU:CA	2.85	0.47
2:B:83:LYS:NZ	15:O:130:GLU:OE2	2.46	0.47
25:Y:55:ILE:HG12	25:Y:75:ILE:HD11	1.81	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:79:LEU:O	25:Y:83:LYS:HG3	2.14	0.47
19:S:33:ILE:HB	19:S:36:VAL:HG13	1.90	0.47
21:U:44:LYS:HA	21:U:47:ASN:HA	1.96	0.47
18:R:21:TYR:CE2	18:R:73:LEU:HD12	2.48	0.47
20:T:40:ALA:O	20:T:43:LYS:CB	2.62	0.47
5:E:200:ARG:HG2	5:E:206:ASP:OD2	2.14	0.47
1:A:91:ALA:HA	1:A:96:ALA:HB3	1.96	0.47
12:L:14:PRO:HB2	12:L:15:THR:HG23	1.97	0.47
7:G:127:THR:C	7:G:128:THR:OG1	2.52	0.47
5:E:108:ARG:HG2	10:J:32:ILE:HD13	48.39	0.47
7:G:121:ILE:CG2	7:G:122:PRO:HD2	2.26	0.47
7:G:207:ALA:O	7:G:211:LYS:HG3	2.13	0.47
7:G:79:LYS:HD2	7:G:80:GLY:N	2.30	0.47
10:J:121:LYS:O	10:J:122:SER:HB2	2.14	0.47
10:J:124:HIS:HB3	10:J:125:HIS:H	1.15	0.47
11:K:2:LEU:O	11:K:3:MET:CE	2.63	0.47
17:Q:72:VAL:HG12	17:Q:80:GLN:NE2	2.29	0.47
25:Y:55:ILE:CA	25:Y:75:ILE:HG12	2.44	0.47
20:T:36:THR:HG23	20:T:37:VAL:N	2.29	0.47
19:S:42:HIS:CB	20:T:45:LEU:CD1	2.88	0.47
8:H:64:VAL:CG2	8:H:72:PHE:CE2	2.97	0.47
2:B:87:ILE:HG23	2:B:101:HIS:CB	2.43	0.47
16:P:107:ILE:CA	16:P:111:MET:HE3	2.42	0.47
19:S:88:LYS:N	19:S:95:TYR:HD1	2.10	0.47
13:M:104:VAL:HG22	13:M:105:GLY:N	2.28	0.47
14:N:13:GLN:C	14:N:14:SER:O	2.47	0.47
3:C:252:GLN:HB3	3:C:252:GLN:HE21	1.51	0.47
4:D:58:VAL:HG21	4:D:88:ALA:CB	2.44	0.47
7:G:25:ARG:HG3	7:G:28:TYR:CE2	2.47	0.47
7:G:73:VAL:CG1	7:G:74:ARG:N	2.78	0.47
22:V:41:LYS:O	22:V:42:VAL:C	2.50	0.47
24:X:58:GLU:CG	24:X:58:GLU:O	2.62	0.47
25:Y:58:PHE:CD1	25:Y:72:PHE:HD2	2.31	0.47
17:Q:9:SER:OG	17:Q:26:LYS:HE3	2.13	0.47
19:S:81:ASP:HA	19:S:84:LEU:HD12	1.95	0.47
19:S:15:VAL:CG1	19:S:68:ILE:CD1	2.91	0.47
24:X:3:LYS:O	24:X:4:CYS:C	2.50	0.47
3:C:241:TRP:CZ2	23:W:68:ARG:HD2	2.49	0.47
16:P:65:LYS:HG3	16:P:66:GLU:HG3	1.96	0.47
20:T:83:GLN:HE22	20:T:85:ASN:CA	2.26	0.47
6:F:53:ALA:HB1	17:Q:125:ARG:NH2	2.25	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:95:ILE:CG2	18:R:115:SER:O	2.62	0.47
21:U:16:ALA:O	21:U:17:ILE:HG13	2.14	0.47
4:D:137:VAL:HG22	4:D:151:LYS:HG3	1.95	0.47
1:A:124:VAL:HG21	1:A:134:LEU:CD2	2.44	0.47
2:B:72:ALA:N	2:B:79:VAL:CG2	2.75	0.47
6:F:63:LYS:CE	6:F:71:ARG:HH12	2.26	0.47
9:I:70:GLU:O	9:I:71:CYS:HB3	2.14	0.47
3:C:185:ARG:HB3	10:J:98:LEU:O	2.14	0.47
11:K:11:ILE:CD1	11:K:45:VAL:HG22	2.45	0.47
15:O:44:VAL:HG11	15:O:93:LEU:HD21	1.94	0.47
1:A:4:ALA:CB	22:V:39:VAL:HG21	2.39	0.47
17:Q:50:LYS:HG3	17:Q:85:ARG:NH2	2.26	0.47
19:S:103:LEU:HD12	19:S:103:LEU:C	2.33	0.47
16:P:17:TYR:CE1	16:P:18:ARG:HB2	2.49	0.47
12:L:125:ILE:HB	12:L:146:THR:HG22	1.92	0.47
16:P:49:LEU:O	16:P:50:ARG:CB	2.54	0.47
24:X:5:ARG:HB3	24:X:5:ARG:HH21	1.77	0.47
13:M:12:MET:CG	13:M:16:THR:HG22	2.40	0.47
13:M:93:LYS:N	13:M:101:ARG:HD3	2.28	0.47
4:D:178:ARG:NE	4:D:178:ARG:H	2.13	0.47
14:N:14:SER:OG	14:N:14:SER:O	2.31	0.47
2:B:183:GLU:O	2:B:187:LYS:HB2	2.13	0.47
15:O:37:PHE:CD1	15:O:110:PRO:HD3	2.49	0.47
4:D:68:GLU:O	4:D:72:VAL:HG23	2.15	0.47
12:L:136:LYS:HG2	12:L:137:THR:N	2.27	0.47
1:A:147:LEU:HD23	1:A:147:LEU:HA	1.64	0.47
1:A:59:LEU:CD2	1:A:181:GLU:CG	2.93	0.47
1:A:55:TRP:NE1	1:A:59:LEU:HD11	2.28	0.47
1:A:6:ASP:O	1:A:7:VAL:C	2.53	0.47
1:A:85:ARG:NE	1:A:201:LEU:O	2.47	0.47
4:D:40:ARG:CD	21:U:107:GLU:OE2	2.62	0.47
4:D:4:GLN:C	4:D:5:ILE:HG13	2.35	0.47
5:E:46:ILE:HA	5:E:50:ASN:HB2	1.97	0.47
9:I:155:ASN:CG	9:I:156:ALA:HA	2.35	0.47
9:I:76:THR:HG22	9:I:77:ARG:O	2.14	0.47
11:K:64:TRP:O	11:K:65:ARG:CG	2.63	0.47
12:L:12:LYS:O	12:L:56:ILE:HD11	2.15	0.47
13:M:44:LYS:HA	13:M:45:ARG:HH21	1.80	0.47
17:Q:116:ASP:CG	17:Q:118:THR:H	2.17	0.47
8:H:29:GLU:OE1	8:H:86:LYS:HE3	2.15	0.47
19:S:80:PRO:HG3	19:S:82:TRP:NE1	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:29:HIS:CE1	25:Y:67:GLY:HA2	2.30	0.47
25:Y:29:HIS:CE1	25:Y:67:GLY:N	2.82	0.47
18:R:13:ALA:CA	18:R:54:VAL:CG2	2.69	0.47
18:R:44:LYS:HG3	18:R:47:ARG:NE	2.19	0.47
24:X:1:MET:SD	24:X:1:MET:N	2.80	0.47
6:F:36:GLN:O	6:F:36:GLN:HG2	2.14	0.47
17:Q:10:VAL:HG11	17:Q:94:ALA:HB1	1.96	0.47
1:A:44:ASP:OD2	18:R:101:ASP:OD2	2.33	0.47
7:G:122:PRO:HD2	7:G:123:GLY:H	1.78	0.47
7:G:139:SER:O	7:G:143:LYS:HD2	2.14	0.47
7:G:185:LEU:CA	7:G:188:LYS:HE3	2.37	0.47
10:J:125:HIS:HD2	10:J:129:LEU:HD11	1.64	0.47
15:O:119:LEU:HD12	15:O:119:LEU:C	2.35	0.47
21:U:108:PRO:HG2	21:U:110:VAL:HG23	1.96	0.47
1:A:191:ARG:CD	1:A:193:HIS:HB2	2.45	0.47
1:A:66:VAL:HG13	1:A:186:ARG:HG3	1.94	0.47
2:B:137:LEU:HD23	2:B:215:VAL:CG1	2.18	0.47
2:B:137:LEU:HD23	2:B:215:VAL:CA	2.44	0.47
5:E:123:LEU:HA	5:E:123:LEU:HD12	1.77	0.47
9:I:123:ARG:HD3	9:I:123:ARG:O	2.14	0.47
11:K:59:LYS:HD2	11:K:59:LYS:C	2.34	0.47
11:K:83:LEU:O	11:K:84:HIS:HB3	2.14	0.47
15:O:31:CYS:SG	15:O:95:ILE:HG13	2.55	0.47
15:O:44:VAL:CG1	15:O:93:LEU:HD22	2.45	0.47
15:O:44:VAL:HG13	15:O:93:LEU:HD22	1.96	0.47
23:W:65:LEU:HD12	23:W:65:LEU:C	2.35	0.47
6:F:18:LYS:HB3	6:F:18:LYS:HZ3	1.78	0.47
16:P:44:ARG:CZ	16:P:82:ASP:O	2.62	0.47
5:E:64:ILE:CG1	25:Y:18:LEU:HD21	2.44	0.47
25:Y:20:ARG:C	25:Y:21:LYS:CD	2.82	0.47
20:T:99:VAL:CG2	20:T:100:ALA:N	2.76	0.47
16:P:83:MET:HB2	16:P:83:MET:HE2	1.78	0.47
16:P:10:ARG:CD	16:P:11:THR:H	2.24	0.47
12:L:18:GLN:NE2	12:L:20:LYS:HD2	2.27	0.47
26:Z:107:VAL:HG23	26:Z:108:ILE:H	1.80	0.47
26:Z:112:ASN:N	26:Z:112:ASN:OD1	2.28	0.47
12:L:149:ALA:CB	12:L:156:GLN:CD	2.26	0.47
2:B:209:ASP:C	2:B:210:VAL:HG23	2.34	0.47
20:T:66:LEU:HB2	20:T:67:ARG:HE	1.79	0.47
3:C:191:SER:OG	3:C:209:THR:HG21	2.15	0.47
20:T:84:ARG:C	20:T:86:GLY:N	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:104:LEU:HD13	23:W:106:THR:CG2	2.42	0.47
9:I:9:HIS:O	9:I:10:LYS:CB	2.62	0.47
6:F:149:GLN:O	6:F:153:LEU:HG	2.14	0.47
11:K:94:LEU:O	11:K:95:ARG:HB2	2.15	0.47
23:W:2:VAL:HG23	23:W:3:ARG:N	2.29	0.47
5:E:195:ILE:O	5:E:196:THR:CB	2.62	0.47
16:P:94:VAL:HG12	16:P:96:VAL:CG2	2.44	0.47
5:E:57:THR:HB	5:E:59:ASP:H	1.80	0.47
1:A:8:LEU:HD12	1:A:192:GLU:OE1	2.15	0.47
4:D:1:MET:HB3	4:D:2:ALA:H	1.54	0.47
5:E:11:ARG:C	5:E:12:VAL:HG23	2.35	0.47
10:J:94:LEU:C	10:J:94:LEU:HD12	2.34	0.47
14:N:62:GLN:CB	14:N:65:PHE:HD2	2.00	0.47
18:R:32:LYS:CE	18:R:33:ARG:HE	2.19	0.47
24:X:126:ALA:CB	24:X:128:VAL:CG1	2.88	0.47
17:Q:93:VAL:HG13	17:Q:105:LYS:CG	2.42	0.47
8:H:10:LYS:HZ1	8:H:16:PRO:C	2.18	0.47
8:H:37:LYS:HD2	8:H:41:ARG:HD3	1.97	0.47
8:H:9:VAL:O	8:H:45:ILE:O	2.33	0.47
6:F:98:GLU:O	6:F:102:LEU:HG	2.15	0.47
12:L:99:TYR:N	12:L:99:TYR:CD2	2.80	0.47
4:D:217:ILE:HG22	4:D:218:LEU:N	2.30	0.47
3:C:159:ILE:HG23	3:C:159:ILE:O	2.15	0.47
13:M:102:LYS:O	13:M:103:VAL:C	2.52	0.47
18:R:95:ILE:CA	18:R:114:LEU:HD13	2.42	0.47
21:U:88:LEU:HD12	21:U:88:LEU:C	2.35	0.47
10:J:113:GLN:OE1	10:J:116:LYS:HD3	2.15	0.47
2:B:83:LYS:O	2:B:103:MET:HA	2.14	0.47
3:C:55:VAL:CA	3:C:82:PHE:CZ	2.96	0.47
5:E:99:PHE:HE1	5:E:113:ARG:CG	2.02	0.47
7:G:210:ALA:HA	7:G:213:LEU:CD2	2.45	0.47
9:I:154:LYS:C	9:I:154:LYS:NZ	2.69	0.47
10:J:114:VAL:O	10:J:120:ALA:HB3	2.15	0.47
10:J:174:LYS:HE2	10:J:174:LYS:HB3	1.42	0.47
11:K:16:PHE:HE2	11:K:79:LEU:C	2.16	0.47
11:K:43:LEU:N	11:K:46:MET:H	2.13	0.47
15:O:43:HIS:CD2	15:O:43:HIS:O	2.68	0.47
22:V:69:ILE:O	22:V:73:ALA:N	2.45	0.47
17:Q:41:MET:O	17:Q:43:GLU:N	2.48	0.47
17:Q:88:ILE:HG13	17:Q:89:SER:H	1.78	0.47
20:T:55:THR:HG23	20:T:56:ARG:N	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:65:TYR:CD2	26:Z:68:ILE:CD1	2.97	0.47
12:L:149:ALA:C	12:L:150:GLY:O	2.44	0.47
25:Y:101:LYS:O	25:Y:102:THR:OG1	2.29	0.47
2:B:144:LYS:HB3	2:B:208:HIS:HB3	1.97	0.47
12:L:40:ILE:C	12:L:40:ILE:HD13	2.33	0.47
15:O:37:PHE:CE1	15:O:110:PRO:HD3	2.50	0.47
2:B:175:GLU:CG	2:B:193:ILE:CD1	2.84	0.47
5:E:259:LYS:O	5:E:260:GLN:HG2	2.13	0.47
12:L:31:GLU:N	12:L:31:GLU:OE1	2.42	0.47
1:A:132:GLN:N	1:A:133:PRO:CD	2.78	0.47
5:E:98:ASN:HD22	5:E:114:ILE:HG13	1.79	0.47
5:E:152:PRO:HD3	7:G:209:TYR:HE1	1.80	0.47
5:E:94:LYS:C	5:E:95:THR:CG2	2.83	0.47
7:G:5:ILE:CD1	7:G:16:ILE:HD12	2.36	0.47
8:H:190:PRO:HB2	8:H:191:GLU:HG3	1.96	0.47
9:I:140:LYS:CD	9:I:141:ARG:N	2.72	0.47
12:L:4:ILE:HB	12:L:5:GLN:H	1.56	0.47
14:N:16:LEU:HD23	14:N:17:PRO:CD	2.45	0.47
7:G:85:ARG:NE	25:Y:118:ARG:NH2	2.57	0.47
25:Y:120:THR:HB	25:Y:122:LYS:CD	2.42	0.47
17:Q:42:ILE:CG2	17:Q:51:LEU:HD23	2.30	0.47
4:D:158:ILE:HG12	4:D:158:ILE:O	2.15	0.47
8:H:37:LYS:HZ3	8:H:38:ALA:CA	2.28	0.47
19:S:40:TYR:CD1	19:S:44:VAL:CG2	2.98	0.47
19:S:80:PRO:HG3	19:S:82:TRP:CZ2	2.50	0.47
12:L:96:ILE:N	12:L:96:ILE:HD12	2.30	0.47
4:D:126:ILE:HD12	4:D:134:CYS:HB3	1.93	0.47
4:D:222:PRO:O	4:D:223:ILE:CD1	2.63	0.47
10:J:179:LYS:CA	10:J:182:GLN:OE1	2.61	0.47
4:D:142:LEU:O	4:D:144:GLY:N	2.48	0.47
2:B:36:PRO:CA	2:B:231:LEU:CD2	2.94	0.46
2:B:24:PRO:O	2:B:28:LYS:HG3	2.15	0.46
3:C:49:THR:HG21	3:C:75:GLU:HG3	1.97	0.46
5:E:21:ASP:OD2	5:E:24:THR:HG22	2.01	0.46
5:E:229:GLY:HA3	5:E:235:TRP:HD1	1.78	0.46
7:G:143:LYS:N	7:G:143:LYS:HE3	2.30	0.46
7:G:77:LEU:HD13	7:G:84:TYR:HB2	1.96	0.46
9:I:114:GLU:O	9:I:118:ALA:HA	2.16	0.46
13:M:117:GLU:C	13:M:118:SER:HG	2.02	0.46
14:N:141:TYR:C	14:N:141:TYR:CD2	2.88	0.46
17:Q:113:ILE:CG1	17:Q:120:LEU:CD1	2.92	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:34:VAL:HG22	17:Q:39:LEU:HD21	1.93	0.46
25:Y:50:THR:C	25:Y:51:THR:HG23	2.35	0.46
25:Y:54:VAL:HG13	25:Y:76:TYR:CB	2.45	0.46
16:P:17:TYR:CE2	16:P:25:LEU:CD2	2.98	0.46
19:S:117:ILE:HG22	19:S:117:ILE:O	2.15	0.46
10:J:91:LYS:CA	10:J:96:TYR:CD2	2.99	0.46
2:B:113:MET:HE3	2:B:209:ASP:HB3	1.97	0.46
4:D:182:LEU:HD22	4:D:182:LEU:N	2.30	0.46
3:C:122:VAL:CG1	3:C:202:ALA:CA	2.93	0.46
9:I:129:LEU:O	9:I:134:GLU:CB	2.63	0.46
7:G:6:SER:OG	7:G:112:VAL:HG22	2.15	0.46
24:X:124:LYS:HE2	24:X:124:LYS:HB3	1.65	0.46
1:A:57:LYS:NZ	22:V:70:LEU:HG	2.30	0.46
1:A:81:ASN:HA	1:A:84:GLN:OE1	2.15	0.46
2:B:71:LEU:HA	2:B:74:LEU:HB2	1.97	0.46
2:B:71:LEU:CB	2:B:84:PHE:CE2	2.99	0.46
3:C:54:LEU:HD22	3:C:254:PHE:CB	2.44	0.46
5:E:166:THR:O	5:E:168:LYS:CD	2.51	0.46
6:F:141:VAL:HG22	6:F:146:ARG:HD3	1.96	0.46
6:F:71:ARG:HG3	6:F:71:ARG:HH21	1.72	0.46
7:G:143:LYS:HA	7:G:143:LYS:HE3	1.97	0.46
7:G:68:LEU:N	7:G:68:LEU:HD22	2.31	0.46
10:J:124:HIS:C	10:J:126:ALA:N	2.66	0.46
10:J:67:ASP:O	10:J:68:PRO:C	2.53	0.46
11:K:30:PRO:HA	11:K:41:PRO:HB3	1.97	0.46
4:D:23:GLU:HB3	11:K:64:TRP:HE1	1.80	0.46
18:R:103:LYS:HG3	18:R:107:LYS:HE3	1.97	0.46
25:Y:54:VAL:HG13	25:Y:76:TYR:C	2.33	0.46
4:D:132:LYS:HB3	4:D:189:MET:HG3	1.96	0.46
8:H:40:LEU:HD23	8:H:43:LEU:HG	1.96	0.46
8:H:146:VAL:HG11	23:W:50:PHE:CE2	2.50	0.46
16:P:5:GLU:O	16:P:6:GLN:HG2	2.14	0.46
16:P:106:GLU:O	19:S:118:ARG:NH2	2.48	0.46
12:L:76:VAL:HG23	12:L:76:VAL:O	2.16	0.46
10:J:87:LEU:HD11	10:J:92:MET:H	1.80	0.46
15:O:35:ALA:HB2	15:O:112:ALA:CB	2.23	0.46
2:B:175:GLU:HG2	2:B:193:ILE:HD11	1.92	0.46
7:G:51:ARG:HH11	7:G:51:ARG:HG2	1.79	0.46
22:V:38:GLU:OE1	22:V:49:GLN:HB3	2.15	0.46
6:F:55:ARG:HG3	6:F:55:ARG:O	2.15	0.46
1:A:3:GLY:HA3	22:V:78:ILE:CG1	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:26:GLY:N	1:A:47:TYR:O	2.46	0.46
2:B:90:ASP:OD2	2:B:91:VAL:N	2.48	0.46
7:G:157:VAL:CG1	7:G:159:ARG:HG3	2.35	0.46
11:K:53:LYS:CA	11:K:58:VAL:CG1	2.94	0.46
11:K:4:PRO:CG	11:K:7:ASN:CG	2.83	0.46
12:L:112:HIS:CB	12:L:134:LEU:CD1	2.92	0.46
9:I:154:LYS:HZ3	12:L:22:ARG:HG3	1.79	0.46
21:U:27:ARG:CZ	21:U:82:MET:CG	2.94	0.46
22:V:41:LYS:C	22:V:43:THR:H	2.18	0.46
24:X:129:SER:OG	24:X:132:ALA:CB	2.60	0.46
6:F:45:TYR:O	6:F:47:LYS:HD2	1.96	0.46
17:Q:109:LYS:HZ2	17:Q:113:ILE:HD11	1.79	0.46
17:Q:47:LEU:O	17:Q:48:GLN:C	2.54	0.46
16:P:15:PHE:CD2	16:P:110:GLU:OE2	2.69	0.46
16:P:37:TYR:CB	19:S:88:LYS:HD3	2.44	0.46
19:S:40:TYR:CE1	19:S:44:VAL:HG21	2.50	0.46
19:S:80:PRO:HG2	19:S:82:TRP:CE2	2.48	0.46
4:D:197:LYS:C	4:D:198:ILE:HG23	2.35	0.46
12:L:128:VAL:HG12	12:L:142:VAL:HA	1.98	0.46
8:H:116:ARG:HA	8:H:117:PRO:HD3	1.50	0.46
9:I:29:LEU:CG	9:I:30:GLY:H	2.22	0.46
3:C:227:ASP:O	3:C:231:LYS:HG3	2.15	0.46
1:A:149:ASN:H	1:A:165:ASN:ND2	2.13	0.46
1:A:180:ARG:NH1	1:A:184:ARG:HH22	2.11	0.46
2:B:44:ILE:HG23	2:B:69:VAL:HG21	1.97	0.46
7:G:25:ARG:C	7:G:27:PHE:N	2.69	0.46
7:G:62:PRO:HB2	7:G:83:CYS:SG	2.56	0.46
9:I:119:LEU:N	9:I:120:PRO:CD	2.78	0.46
9:I:130:THR:N	9:I:131:PRO:CD	2.78	0.46
9:I:197:PHE:CD2	12:L:5:GLN:CG	2.99	0.46
22:V:11:LEU:HD12	22:V:11:LEU:C	2.35	0.46
22:V:55:ILE:HG22	22:V:60:ARG:CG	2.44	0.46
26:Z:104:ARG:C	26:Z:104:ARG:NH1	2.69	0.46
25:Y:19:GLN:CG	25:Y:81:TYR:CD1	2.71	0.46
19:S:103:LEU:CD1	19:S:104:ASP:N	2.72	0.46
16:P:75:VAL:HG22	16:P:93:MET:HB3	1.96	0.46
4:D:197:LYS:CA	4:D:198:ILE:HG23	2.41	0.46
26:Z:54:THR:O	26:Z:58:LEU:HG	2.14	0.46
2:B:208:HIS:C	2:B:208:HIS:CD2	2.88	0.46
24:X:60:LYS:CD	24:X:116:PRO:HG3	2.44	0.46
4:D:218:LEU:CA	4:D:220:THR:HG23	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:102:LYS:H	13:M:102:LYS:HG2	1.22	0.46
5:E:25:SER:OG	5:E:26:VAL:N	2.48	0.46
14:N:131:THR:O	14:N:132:LYS:HD2	2.16	0.46
8:H:153:LEU:CD2	8:H:184:ASP:HB2	2.46	0.46
8:H:118:ARG:O	8:H:121:THR:HG22	2.15	0.46
24:X:102:VAL:HG13	24:X:120:PHE:HB3	1.91	0.46
2:B:228:LEU:CD2	2:B:232:HIS:CD2	2.98	0.46
20:T:21:PHE:HD1	20:T:22:LEU:HD23	1.79	0.46
1:A:120:ARG:HG2	1:A:120:ARG:HH11	1.80	0.46
2:B:103:MET:O	2:B:214:LYS:HA	2.16	0.46
3:C:63:LEU:CB	3:C:67:TYR:CE2	2.98	0.46
7:G:145:PHE:C	7:G:147:LEU:HD12	2.36	0.46
7:G:181:THR:HA	7:G:182:PRO:HD3	1.23	0.46
7:G:185:LEU:HB3	7:G:189:ARG:HH12	1.80	0.46
7:G:71:GLY:O	7:G:98:ARG:NE	2.48	0.46
10:J:169:ARG:HG2	10:J:175:ARG:NH1	2.30	0.46
14:N:27:LYS:H	14:N:27:LYS:HE3	1.71	0.46
2:B:52:THR:OG1	14:N:56:ASP:OD1	86.34	0.46
14:N:38:TYR:CE1	14:N:78:LYS:HG3	2.50	0.46
21:U:26:SER:OG	21:U:27:ARG:N	2.49	0.46
22:V:24:ILE:CD1	22:V:25:GLY:C	2.84	0.46
6:F:45:TYR:CA	6:F:47:LYS:HE2	2.44	0.46
6:F:42:LYS:C	6:F:45:TYR:H	2.16	0.46
16:P:41:GLN:HE21	16:P:84:ILE:CG1	2.22	0.46
25:Y:19:GLN:CB	25:Y:81:TYR:HB3	2.46	0.46
20:T:45:LEU:HD23	20:T:48:TYR:CE1	2.49	0.46
19:S:55:ARG:HB2	19:S:58:GLU:HG3	1.96	0.46
16:P:49:LEU:C	16:P:51:ARG:CA	2.81	0.46
4:D:108:LYS:HA	4:D:113:LEU:HD21	1.97	0.46
4:D:212:GLU:HB3	18:R:19:LYS:CG	2.43	0.46
13:M:99:LYS:N	13:M:100:PRO:HD3	2.29	0.46
20:T:143:LYS:HA	20:T:143:LYS:HD3	1.21	0.46
9:I:97:VAL:O	9:I:100:CYS:HB2	2.15	0.46
2:B:189:ILE:HB	2:B:190:PRO:HD3	1.96	0.46
1:A:130:ASP:HB3	1:A:133:PRO:HG2	1.98	0.46
1:A:76:VAL:HG12	1:A:87:VAL:CB	2.44	0.46
4:D:38:GLU:CG	4:D:49:ILE:HB	2.46	0.46
5:E:72:ILE:HD13	5:E:82:TYR:CD2	2.49	0.46
7:G:162:LEU:HD21	7:G:170:ARG:HG3	1.97	0.46
7:G:77:LEU:HD11	7:G:95:LYS:CB	2.35	0.46
12:L:12:LYS:C	12:L:56:ILE:HD11	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:59:LYS:HD3	12:L:134:LEU:HD21	1.98	0.46
14:N:93:LYS:CG	14:N:150:VAL:HG11	2.46	0.46
14:N:16:LEU:HD23	14:N:16:LEU:HA	1.79	0.46
14:N:27:LYS:CD	14:N:28:LEU:H	2.29	0.46
14:N:82:PRO:O	14:N:83:ASP:C	2.52	0.46
6:F:204:ARG:O	15:O:72:TYR:CE2	2.68	0.46
4:D:34:TYR:CD2	21:U:61:LEU:HD13	25.41	0.46
22:V:40:ASP:O	22:V:40:ASP:OD1	2.34	0.46
3:C:197:LYS:C	3:C:200:LEU:CD2	2.80	0.46
17:Q:51:LEU:O	17:Q:54:PRO:HD2	2.16	0.46
25:Y:50:THR:O	25:Y:51:THR:CB	2.63	0.46
25:Y:78:SER:O	25:Y:79:LEU:C	2.48	0.46
19:S:58:GLU:O	19:S:59:LEU:HB2	2.16	0.46
19:S:80:PRO:HB2	19:S:82:TRP:NE1	2.31	0.46
10:J:86:VAL:HG11	10:J:105:PHE:CE1	2.51	0.46
21:U:47:ASN:H	21:U:47:ASN:ND2	2.14	0.46
22:V:9:VAL:HG12	22:V:10:ASP:HA	1.95	0.46
23:W:96:SER:OG	23:W:99:PHE:CD2	2.69	0.46
25:Y:43:LYS:O	25:Y:46:LYS:HG3	2.16	0.46
20:T:84:ARG:CB	20:T:84:ARG:CZ	2.82	0.46
20:T:87:VAL:CG1	20:T:88:MET:HG3	2.37	0.46
1:A:70:ASN:O	1:A:73:ASP:OD1	2.33	0.46
26:Z:90:GLU:O	26:Z:93:SER:N	2.43	0.46
5:E:146:THR:C	5:E:147:ILE:HD13	2.35	0.46
8:H:139:ILE:HD12	8:H:139:ILE:N	2.30	0.46
1:A:43:SER:OG	1:A:44:ASP:OD1	2.32	0.46
3:C:145:LEU:HG	3:C:146:SER:N	2.31	0.46
3:C:244:THR:HG22	3:C:246:PHE:CB	2.45	0.46
7:G:162:LEU:CD2	7:G:172:LYS:HE2	2.32	0.46
8:H:160:LYS:HB2	8:H:192:PHE:CZ	2.47	0.46
15:O:98:ARG:HD2	15:O:132:VAL:HG23	1.97	0.46
23:W:17:ALA:CB	23:W:25:VAL:HG11	2.45	0.46
17:Q:50:LYS:NZ	17:Q:117:ARG:HH11	2.14	0.46
4:D:132:LYS:HB3	4:D:189:MET:O	2.16	0.46
16:P:37:TYR:HA	19:S:88:LYS:HD2	1.98	0.46
4:D:202:LYS:HB3	4:D:203:PRO:HD3	1.94	0.46
2:B:148:ASN:OD1	18:R:122:PRO:HB2	2.15	0.46
24:X:67:ARG:NH2	24:X:114:ASP:OD2	2.49	0.46
12:L:71:ARG:HD2	12:L:73:LEU:HD21	1.77	0.46
16:P:62:LYS:HA	16:P:65:LYS:HE2	1.96	0.46
3:C:194:VAL:N	3:C:195:PRO:CD	2.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:74:SER:CA	26:Z:79:ILE:HG22	2.33	0.46
1:A:207:PRO:HB2	1:A:208:GLU:H	1.33	0.46
12:L:42:LEU:HB2	12:L:44:PHE:CE2	2.51	0.46
6:F:182:LYS:CB	6:F:182:LYS:HZ3	2.29	0.46
14:N:7:PRO:CD	14:N:8:GLY:N	2.78	0.46
8:H:154:ILE:CG2	8:H:185:VAL:HG23	2.46	0.46
19:S:73:ASN:O	19:S:76:GLN:OE1	2.34	0.46
2:B:29:ASP:O	2:B:29:ASP:OD1	2.34	0.46
3:C:118:TYR:O	3:C:203:GLY:HA3	2.15	0.46
15:O:82:ALA:O	15:O:86:LYS:HG2	2.15	0.46
1:A:158:ASP:CG	1:A:158:ASP:O	2.54	0.46
2:B:93:GLY:O	2:B:94:LYS:HG2	2.15	0.46
5:E:98:ASN:HD21	5:E:114:ILE:HD11	1.81	0.46
7:G:5:ILE:HG22	7:G:124:LEU:CD2	2.43	0.46
9:I:118:ALA:CB	9:I:149:TYR:CE1	2.94	0.46
10:J:41:ARG:HA	10:J:44:TRP:HB2	1.98	0.46
1:A:142:LEU:C	22:V:32:ILE:HD13	2.35	0.46
24:X:125:VAL:O	24:X:128:VAL:CB	2.64	0.46
6:F:47:LYS:N	6:F:47:LYS:HD3	2.30	0.46
20:T:31:PRO:HB2	20:T:33:TRP:NE1	2.28	0.46
20:T:38:LYS:HD2	20:T:46:ALA:HA	1.97	0.46
8:H:35:ASP:C	8:H:35:ASP:OD1	2.50	0.46
8:H:40:LEU:O	8:H:41:ARG:C	2.54	0.46
16:P:9:LYS:O	16:P:10:ARG:NE	2.49	0.46
12:L:114:SER:OG	12:L:115:PRO:HD2	2.16	0.46
2:B:148:ASN:HA	18:R:124:VAL:H	1.80	0.46
5:E:128:LYS:CG	5:E:130:PHE:HD1	2.27	0.46
24:X:105:PHE:HE2	24:X:118:VAL:O	1.77	0.46
25:Y:88:LYS:HE2	25:Y:99:LYS:HG3	1.97	0.46
2:B:19:LYS:HB2	2:B:19:LYS:HZ2	1.73	0.46
20:T:21:PHE:HD1	20:T:22:LEU:N	2.14	0.46
16:P:94:VAL:HG12	16:P:96:VAL:HG23	1.97	0.46
5:E:57:THR:OG1	5:E:60:GLU:N	2.41	0.46
6:F:163:PHE:CD2	6:F:164:ARG:HG2	2.50	0.46
1:A:11:LYS:CG	1:A:13:GLU:HG3	2.21	0.46
1:A:14:ASP:OD1	1:A:180:ARG:NH2	2.48	0.46
4:D:59:LEU:C	4:D:59:LEU:HD12	2.25	0.46
8:H:168:HIS:CE1	8:H:169:LYS:HE2	2.51	0.46
15:O:119:LEU:HD11	15:O:126:ILE:HD11	1.97	0.46
10:J:79:ARG:C	10:J:79:ARG:CD	2.83	0.46
18:R:5:ARG:C	18:R:10:LYS:CE	2.76	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:110:MET:HE3	2:B:213:ARG:HD2	1.97	0.46
21:U:59:LYS:HD2	21:U:84:ILE:HG21	1.97	0.46
2:B:131:ASP:OD1	2:B:180:ASP:HA	2.15	0.46
20:T:85:ASN:O	20:T:88:MET:HE1	2.13	0.46
21:U:116:ILE:O	21:U:117:ALA:HB2	2.16	0.46
23:W:27:ILE:HG12	23:W:61:ILE:HB	1.96	0.46
12:L:60:CYS:HB3	12:L:63:THR:OG1	2.16	0.46
2:B:228:LEU:HD21	2:B:232:HIS:NE2	2.31	0.46
4:D:34:TYR:O	4:D:99:ILE:HD12	2.16	0.46
7:G:145:PHE:O	7:G:147:LEU:HD12	2.16	0.46
7:G:214:ALA:O	7:G:217:MET:HG2	2.15	0.46
11:K:85:LEU:HD13	11:K:89:ILE:HG13	1.97	0.46
22:V:55:ILE:CD1	22:V:65:SER:O	2.64	0.46
22:V:78:ILE:C	22:V:79:VAL:HG23	2.36	0.46
6:F:88:MET:O	6:F:92:ILE:HG13	2.15	0.46
17:Q:45:ARG:O	17:Q:48:GLN:HB3	2.16	0.46
8:H:50:GLU:OE1	8:H:58:LYS:HE2	2.15	0.46
24:X:27:TYR:CZ	24:X:31:HIS:CE1	2.99	0.46
12:L:94:HIS:CB	12:L:105:ARG:CD	2.75	0.46
18:R:5:ARG:H	18:R:10:LYS:HZ1	1.62	0.46
24:X:105:PHE:CB	24:X:112:VAL:HG21	2.46	0.46
4:D:223:ILE:N	4:D:223:ILE:HD12	2.31	0.46
13:M:102:LYS:HG3	13:M:103:VAL:N	2.31	0.46
20:T:4:VAL:CA	20:T:8:ASP:OD2	2.54	0.46
23:W:30:CYS:SG	23:W:31:SER:N	2.89	0.46
8:H:119:SER:O	8:H:120:ARG:CZ	2.64	0.46
3:C:121:HIS:O	3:C:122:VAL:HG13	2.16	0.46
5:E:195:ILE:CG2	5:E:196:THR:N	2.73	0.46
1:A:59:LEU:CD2	1:A:181:GLU:HG2	2.42	0.45
4:D:74:GLN:HB2	4:D:84:VAL:HG11	1.98	0.45
9:I:37:LYS:NZ	9:I:93:THR:HB	2.32	0.45
11:K:15:LEU:CD1	11:K:21:MET:HE2	2.29	0.45
11:K:60:GLU:CG	11:K:69:TRP:NE1	2.80	0.45
14:N:134:VAL:HG22	14:N:135:LEU:N	2.31	0.45
4:D:40:ARG:NE	21:U:107:GLU:OE2	2.49	0.45
22:V:11:LEU:HD11	22:V:12:TYR:HE2	1.62	0.45
8:H:144:ILE:N	23:W:52:ILE:O	2.48	0.45
25:Y:114:MET:CE	25:Y:121:ALA:O	2.64	0.45
25:Y:122:LYS:CD	25:Y:123:ALA:N	2.62	0.45
16:P:44:ARG:HH21	16:P:84:ILE:CA	2.28	0.45
8:H:64:VAL:CG2	8:H:72:PHE:HE2	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:50:GLU:CD	8:H:58:LYS:HE2	2.36	0.45
16:P:17:TYR:C	19:S:90:VAL:O	2.55	0.45
19:S:88:LYS:O	19:S:89:ASP:O	2.34	0.45
26:Z:77:LEU:O	26:Z:78:LYS:HD3	2.16	0.45
12:L:147:LYS:NZ	12:L:156:GLN:HE22	2.14	0.45
12:L:126:VAL:CG2	12:L:142:VAL:HG13	2.47	0.45
10:J:93:LYS:HE3	10:J:93:LYS:CA	2.45	0.45
5:E:128:LYS:HE2	5:E:128:LYS:HB3	1.65	0.45
18:R:6:THR:O	18:R:10:LYS:HG2	2.15	0.45
20:T:12:GLN:O	20:T:16:ARG:HB2	2.17	0.45
3:C:241:TRP:HH2	23:W:44:HIS:O	1.98	0.45
13:M:85:LEU:HD23	13:M:85:LEU:O	2.16	0.45
10:J:179:LYS:HA	10:J:182:GLN:CG	2.46	0.45
9:I:38:ILE:HD11	9:I:81:VAL:HG23	1.97	0.45
18:R:87:GLU:O	18:R:88:VAL:HB	2.15	0.45
17:Q:10:VAL:CG1	17:Q:11:GLN:N	2.78	0.45
1:A:18:PHE:CZ	1:A:55:TRP:HZ3	2.34	0.45
2:B:53:GLN:O	2:B:56:LYS:N	2.49	0.45
6:F:28:VAL:HG22	6:F:110:GLN:CG	2.37	0.45
7:G:13:GLN:O	7:G:14:LYS:CG	2.63	0.45
8:H:163:GLN:O	8:H:165:ASN:N	2.49	0.45
9:I:155:ASN:CG	9:I:156:ALA:CA	2.85	0.45
14:N:50:ILE:HG23	14:N:54:LEU:HD11	1.98	0.45
2:B:72:ALA:CB	15:O:128:ARG:NH2	2.72	0.45
15:O:72:TYR:CE1	15:O:76:LEU:CD1	2.98	0.45
17:Q:8:GLN:CA	17:Q:99:TYR:CZ	2.99	0.45
25:Y:32:LYS:CG	25:Y:33:ALA:O	2.61	0.45
10:J:87:LEU:HG	10:J:88:ASP:N	2.30	0.45
21:U:47:ASN:C	21:U:48:LEU:HD23	2.34	0.45
4:D:217:ILE:O	4:D:218:LEU:HB3	2.15	0.45
4:D:212:GLU:CG	18:R:19:LYS:NZ	2.78	0.45
3:C:158:LYS:H	3:C:158:LYS:HG3	1.45	0.45
23:W:30:CYS:SG	23:W:61:ILE:CD1	2.97	0.45
1:A:161:ILE:HG22	1:A:174:MET:HE2	1.98	0.45
2:B:137:LEU:HB3	2:B:172:MET:HE1	1.94	0.45
3:C:65:GLU:O	3:C:69:PHE:HD2	1.99	0.45
7:G:142:ARG:NH1	7:G:142:ARG:HG2	2.30	0.45
8:H:188:GLU:HG2	8:H:189:PHE:N	2.30	0.45
9:I:141:ARG:O	9:I:143:LYS:NZ	2.49	0.45
6:F:133:THR:HG21	15:O:66:ARG:NH1	2.31	0.45
24:X:52:LEU:CD1	24:X:53:GLU:CB	2.88	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:41:GLN:NE2	16:P:84:ILE:CG1	2.79	0.45
8:H:16:PRO:O	8:H:20:GLU:OE1	2.34	0.45
8:H:84:GLU:O	8:H:88:SER:HA	2.16	0.45
23:W:49:GLU:OE1	23:W:64:ASN:ND2	2.49	0.45
16:P:108:LYS:HZ2	19:S:118:ARG:NH1	2.07	0.45
16:P:18:ARG:HD2	16:P:37:TYR:CB	2.41	0.45
19:S:28:PHE:O	19:S:31:THR:OG1	2.29	0.45
19:S:88:LYS:N	19:S:95:TYR:CE1	2.77	0.45
6:F:103:LEU:CG	6:F:103:LEU:O	2.64	0.45
18:R:5:ARG:HB2	18:R:10:LYS:HZ3	0.60	0.45
13:M:102:LYS:HG3	13:M:103:VAL:H	1.81	0.45
12:L:2:ALA:O	12:L:3:ASP:C	2.54	0.45
6:F:32:ASP:OD2	6:F:35:LEU:HD12	2.16	0.45
5:E:149:TYR:CD2	7:G:205:GLU:HB3	2.51	0.45
2:B:189:ILE:HB	2:B:190:PRO:CD	2.47	0.45
15:O:147:ARG:O	15:O:147:ARG:HG2	2.17	0.45
1:A:204:TYR:O	1:A:204:TYR:HD2	1.99	0.45
5:E:124:CYS:HG	5:E:162:ILE:HD13	1.81	0.45
8:H:191:GLU:CD	8:H:193:GLN:OE1	2.54	0.45
9:I:191:GLU:O	9:I:195:LEU:HB3	2.16	0.45
9:I:67:TRP:CD2	9:I:70:GLU:HG2	2.52	0.45
10:J:160:SER:O	10:J:162:ARG:N	2.50	0.45
11:K:2:LEU:HD22	11:K:2:LEU:HA	1.20	0.45
8:H:11:PRO:CG	8:H:12:ASN:H	2.26	0.45
16:P:17:TYR:CD2	16:P:25:LEU:HD21	2.51	0.45
16:P:14:LYS:C	16:P:22:LEU:HD23	2.37	0.45
4:D:193:ASP:HB3	4:D:194:PRO:HD3	1.98	0.45
23:W:15:ASN:ND2	23:W:19:LYS:CE	2.77	0.45
2:B:144:LYS:HG2	2:B:206:PRO:HB3	1.99	0.45
10:J:177:ASN:HA	10:J:180:LYS:CB	2.44	0.45
13:M:19:GLN:CG	13:M:88:TRP:CD1	2.98	0.45
9:I:36:THR:HG23	9:I:96:LEU:HB2	1.99	0.45
10:J:148:ILE:O	10:J:148:ILE:HG22	2.17	0.45
1:A:102:ARG:HH21	1:A:105:PRO:HD2	1.82	0.45
4:D:225:GLU:HG3	4:D:227:LYS:HE2	1.98	0.45
4:D:37:VAL:HG12	4:D:50:ILE:HD13	1.98	0.45
5:E:171:ASP:CG	5:E:172:PHE:HD2	2.20	0.45
7:G:13:GLN:HA	7:G:124:LEU:HD11	1.98	0.45
11:K:41:PRO:HD2	11:K:43:LEU:HG	1.97	0.45
11:K:83:LEU:HD12	11:K:85:LEU:CD2	2.23	0.45
12:L:12:LYS:HB3	12:L:12:LYS:HE3	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:94:LYS:HE3	14:N:118:ILE:CD1	2.46	0.45
15:O:64:ALA:CB	15:O:66:ARG:HE	2.28	0.45
15:O:83:GLN:NE2	15:O:87:GLU:OE2	2.50	0.45
1:A:141:ASN:CB	22:V:32:ILE:HG12	2.43	0.45
25:Y:56:PHE:CE1	25:Y:94:HIS:HE1	2.34	0.45
24:X:21:LYS:HD2	24:X:27:TYR:CG	2.51	0.45
19:S:50:ILE:O	19:S:52:LEU:N	2.49	0.45
2:B:144:LYS:CG	2:B:206:PRO:HB3	2.47	0.45
18:R:121:GLN:CA	18:R:121:GLN:NE2	2.76	0.45
10:J:179:LYS:HA	10:J:182:GLN:HB2	1.99	0.45
14:N:137:PRO:O	14:N:138:ASN:CB	2.65	0.45
9:I:81:VAL:HG11	9:I:91:VAL:HA	1.99	0.45
24:X:28:LYS:HE2	24:X:32:LEU:CD1	2.47	0.45
13:M:69:CYS:O	13:M:74:ILE:HD12	2.16	0.45
1:A:123:VAL:CG1	1:A:175:TRP:CH2	3.00	0.45
2:B:103:MET:HE3	2:B:212:VAL:O	2.16	0.45
5:E:152:PRO:HD3	7:G:209:TYR:CE1	2.51	0.45
7:G:16:ILE:HG21	7:G:45:TRP:HZ2	1.79	0.45
7:G:2:LYS:HG3	7:G:17:GLU:HG2	1.99	0.45
7:G:198:ARG:HH21	7:G:201:LYS:HG3	1.81	0.45
7:G:213:LEU:HD12	7:G:214:ALA:CA	2.47	0.45
7:G:58:LYS:O	7:G:59:GLN:CB	2.57	0.45
9:I:73:THR:O	9:I:74:ARG:CD	2.65	0.45
10:J:110:LEU:CB	10:J:130:ILE:HD13	2.43	0.45
14:N:36:GLN:HG3	14:N:54:LEU:HD21	1.99	0.45
1:A:57:LYS:HZ3	22:V:70:LEU:HG	1.81	0.45
8:H:14:GLU:CG	8:H:15:LYS:O	2.64	0.45
16:P:17:TYR:CD2	16:P:25:LEU:CD2	2.99	0.45
12:L:113:LEU:HD11	12:L:120:VAL:CG1	2.47	0.45
23:W:77:PRO:CD	24:X:5:ARG:O	2.54	0.45
2:B:150:ILE:CG1	18:R:124:VAL:HG12	2.30	0.45
24:X:67:ARG:NE	24:X:67:ARG:HA	2.31	0.45
3:C:221:PHE:C	3:C:221:PHE:CD2	2.90	0.45
13:M:51:VAL:CG1	13:M:109:VAL:CG2	2.94	0.45
5:E:213:ALA:O	5:E:214:ASN:OD1	2.33	0.45
6:F:112:LEU:HA	6:F:177:LEU:HD13	1.96	0.45
9:I:10:LYS:CG	9:I:11:ARG:H	2.27	0.45
4:D:138:VAL:O	4:D:149:SER:HA	2.16	0.45
6:F:175:ASP:OD1	6:F:175:ASP:O	2.35	0.45
24:X:45:SER:OG	24:X:46:HIS:HD2	2.00	0.45
5:E:151:ASP:O	5:E:153:LEU:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:89:VAL:O	5:E:90:ILE:HB	2.16	0.45
8:H:59:ALA:HB2	8:H:172:THR:OG1	2.17	0.45
9:I:118:ALA:CB	9:I:149:TYR:CD1	3.00	0.45
10:J:18:ARG:HA	10:J:19:PRO:HD3	1.48	0.45
18:R:103:LYS:HD2	18:R:103:LYS:HA	1.32	0.45
1:A:42:LYS:HZ2	18:R:105:MET:HG3	1.80	0.45
21:U:46:LYS:O	21:U:46:LYS:HG2	2.17	0.45
24:X:94:ILE:CD1	24:X:122:VAL:HG11	2.37	0.45
17:Q:16:LYS:CD	17:Q:17:LYS:N	2.68	0.45
17:Q:81:ILE:O	17:Q:84:ILE:HG12	2.16	0.45
25:Y:29:HIS:CE1	25:Y:68:LYS:H	1.82	0.45
25:Y:101:LYS:HB3	25:Y:102:THR:H	1.65	0.45
4:D:153:VAL:CG1	4:D:154:ASP:N	2.80	0.45
10:J:100:LEU:HD12	10:J:101:LYS:H	1.80	0.45
16:P:72:LYS:HA	16:P:73:PRO:HD3	1.83	0.45
24:X:107:ARG:HB3	24:X:110:HIS:O	2.17	0.45
23:W:7:LEU:HD21	23:W:33:VAL:HG12	1.99	0.45
6:F:32:ASP:CB	6:F:117:ILE:CG2	2.95	0.45
8:H:73:GLN:NE2	8:H:135:PHE:HE1	2.14	0.45
2:B:228:LEU:HD22	2:B:232:HIS:CD2	2.51	0.45
1:A:58:LEU:HA	1:A:161:ILE:HG12	1.98	0.45
4:D:48:ILE:CG2	4:D:86:LEU:CG	2.82	0.45
6:F:110:GLN:CA	6:F:110:GLN:HE21	2.29	0.45
6:F:204:ARG:O	15:O:72:TYR:CG	2.69	0.45
9:I:103:LEU:CD2	9:I:172:LEU:CD1	2.94	0.45
9:I:143:LYS:O	9:I:144:LYS:C	2.55	0.45
9:I:54:LYS:HD3	9:I:181:GLN:OE1	2.17	0.45
11:K:62:PHE:CZ	11:K:65:ARG:HA	2.52	0.45
14:N:125:LEU:CD2	14:N:129:TYR:CE2	3.00	0.45
14:N:18:TYR:C	14:N:19:ARG:O	2.48	0.45
1:A:7:VAL:CG2	22:V:43:THR:HG21	2.44	0.45
22:V:56:CYS:SG	22:V:59:ILE:CG1	3.04	0.45
24:X:52:LEU:CD1	24:X:71:ARG:CB	2.95	0.45
21:U:40:ILE:CD1	21:U:53:PRO:CD	2.88	0.45
23:W:42:MET:HE2	23:W:48:GLY:O	2.16	0.45
19:S:51:ASP:CG	19:S:53:THR:OG1	2.55	0.45
19:S:81:ASP:HA	19:S:84:LEU:CD1	2.47	0.45
12:L:71:ARG:CG	12:L:73:LEU:CG	2.94	0.45
25:Y:10:ARG:CG	25:Y:24:VAL:CB	2.85	0.45
18:R:92:ASP:O	18:R:93:GLN:CD	2.55	0.45
13:M:77:ILE:CD1	13:M:78:LYS:N	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:143:LYS:C	20:T:143:LYS:CD	2.53	0.45
20:T:9:VAL:HG12	20:T:10:ASN:N	2.32	0.45
1:A:36:GLN:NE2	1:A:53:ARG:HH12	2.14	0.45
5:E:153:LEU:HD21	7:G:216:ARG:NH1	2.32	0.45
8:H:172:THR:HG23	8:H:173:PHE:N	2.32	0.45
9:I:141:ARG:HB3	9:I:144:LYS:CB	2.22	0.45
10:J:118:GLY:C	10:J:120:ALA:H	2.20	0.45
10:J:143:ASN:C	10:J:145:PRO:HD3	2.28	0.45
22:V:32:ILE:CG2	22:V:33:PRO:CD	2.86	0.45
6:F:20:PHE:HZ	6:F:50:PRO:HG3	1.80	0.45
26:Z:103:HIS:C	26:Z:103:HIS:CD2	2.89	0.45
16:P:44:ARG:HH21	16:P:84:ILE:N	1.96	0.45
19:S:83:PHE:O	19:S:83:PHE:CG	2.70	0.45
26:Z:99:LEU:CG	26:Z:102:LYS:HD3	2.42	0.45
2:B:151:ARG:HD2	2:B:154:SER:H	1.82	0.45
3:C:241:TRP:CG	23:W:68:ARG:NH1	2.73	0.45
8:H:100:ILE:HG12	8:H:125:VAL:CG2	2.37	0.45
5:E:133:THR:O	5:E:133:THR:OG1	2.30	0.45
20:T:65:TYR:CD2	20:T:123:LEU:HD12	2.51	0.45
20:T:21:PHE:CD1	20:T:22:LEU:N	2.85	0.45
4:D:151:LYS:HE2	4:D:151:LYS:HB2	1.59	0.45
1:A:66:VAL:HA	1:A:186:ARG:HD2	1.98	0.45
1:A:98:PRO:C	1:A:99:ILE:HG13	2.36	0.45
2:B:53:GLN:C	2:B:55:THR:H	2.19	0.45
2:B:91:VAL:HG22	2:B:96:CYS:SG	2.57	0.45
3:C:144:LYS:O	3:C:147:ILE:HG13	2.17	0.45
3:C:142:LEU:C	3:C:145:LEU:HD21	2.33	0.45
3:C:69:PHE:CE1	3:C:247:THR:CG2	2.99	0.45
6:F:145:ARG:HA	6:F:145:ARG:HD2	1.39	0.45
7:G:219:GLU:H	7:G:219:GLU:HG3	1.65	0.45
15:O:16:SER:CA	15:O:87:GLU:O	2.56	0.45
21:U:104:ILE:C	21:U:105:SER:OG	2.56	0.45
17:Q:57:LEU:HD13	17:Q:115:TYR:CD2	2.49	0.45
20:T:31:PRO:O	20:T:33:TRP:CG	2.70	0.45
8:H:10:LYS:HB2	8:H:10:LYS:HE2	1.71	0.45
12:L:17:PHE:CE1	12:L:18:GLN:C	2.89	0.45
26:Z:52:LYS:HB3	26:Z:53:ALA:H	1.49	0.45
6:F:185:SER:OG	6:F:190:ILE:HD12	2.17	0.45
3:C:260:LYS:HD2	3:C:261:THR:H	1.67	0.45
5:E:9:LEU:HD12	5:E:30:ARG:HA	2.00	0.45
3:C:164:THR:CG2	3:C:165:VAL:H	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:154:ILE:CG2	8:H:185:VAL:HG22	2.47	0.45
8:H:154:ILE:HG22	8:H:185:VAL:HG22	1.99	0.45
1:A:158:ASP:O	1:A:159:ILE:CB	2.65	0.44
3:C:110:LYS:HA	3:C:128:CYS:HA	1.99	0.44
4:D:86:LEU:HD12	4:D:86:LEU:N	2.32	0.44
6:F:69:VAL:O	6:F:73:THR:HG23	2.16	0.44
7:G:67:VAL:HG22	7:G:100:CYS:SG	2.57	0.44
10:J:110:LEU:HB3	10:J:111:GLN:H	1.48	0.44
13:M:44:LYS:C	13:M:46:GLN:N	2.70	0.44
15:O:30:VAL:HG23	15:O:45:THR:OG1	2.15	0.44
15:O:61:LYS:C	15:O:62:VAL:HG23	2.28	0.44
23:W:25:VAL:O	23:W:62:VAL:HA	2.17	0.44
24:X:126:ALA:O	24:X:127:ASN:C	2.54	0.44
17:Q:135:PRO:CG	17:Q:141:TYR:CE1	2.71	0.44
8:H:44:ASN:HB3	8:H:68:GLN:NE2	2.29	0.44
4:D:197:LYS:H	4:D:198:ILE:HG13	1.80	0.44
13:M:35:ILE:HG23	13:M:36:ARG:H	1.83	0.44
4:D:112:GLY:N	4:D:113:LEU:HD11	2.29	0.44
23:W:89:TRP:HB3	23:W:102:ILE:HD13	1.99	0.44
4:D:223:ILE:CG2	4:D:224:SER:N	2.80	0.44
4:D:94:ARG:HB3	4:D:94:ARG:HE	1.40	0.44
2:B:72:ALA:CB	2:B:79:VAL:HG23	2.46	0.44
5:E:153:LEU:HD21	7:G:216:ARG:HH12	1.82	0.44
8:H:160:LYS:CB	8:H:192:PHE:CZ	3.00	0.44
10:J:67:ASP:O	10:J:69:ARG:N	2.50	0.44
17:Q:8:GLN:HB3	17:Q:99:TYR:CD1	2.48	0.44
21:U:67:LYS:CD	21:U:78:ASP:OD2	2.66	0.44
24:X:51:VAL:CG2	24:X:70:VAL:HG11	2.46	0.44
25:Y:86:GLU:O	25:Y:87:PRO:O	2.35	0.44
16:P:121:ILE:CG2	19:S:120:HIS:HA	2.44	0.44
19:S:85:ASN:HD21	19:S:98:VAL:CB	2.29	0.44
4:D:192:TRP:HE3	4:D:196:GLY:CA	2.15	0.44
10:J:91:LYS:CA	10:J:96:TYR:CB	2.71	0.44
18:R:17:ILE:CG1	18:R:54:VAL:HG13	2.46	0.44
23:W:89:TRP:C	23:W:102:ILE:HD11	2.38	0.44
13:M:51:VAL:CB	13:M:77:ILE:HG21	2.46	0.44
6:F:112:LEU:O	6:F:116:ILE:HG12	2.16	0.44
8:H:109:ARG:HB3	8:H:110:THR:H	1.14	0.44
15:O:71:PRO:O	15:O:74:ALA:HB3	2.18	0.44
3:C:180:LEU:O	3:C:181:ILE:HD13	2.18	0.44
15:O:147:ARG:HH21	15:O:150:ARG:NH2	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:139:SER:OG	15:O:140:THR:N	2.50	0.44
2:B:33:VAL:HG12	2:B:44:ILE:CD1	2.36	0.44
3:C:150:VAL:O	3:C:150:VAL:HG23	2.16	0.44
5:E:92:ILE:CG2	5:E:95:THR:OG1	2.63	0.44
10:J:124:HIS:O	10:J:127:ARG:N	2.49	0.44
10:J:131:ARG:HA	10:J:143:ASN:OD1	2.17	0.44
11:K:27:VAL:HG13	11:K:43:LEU:HD22	0.44	0.44
11:K:14:LEU:HD11	11:K:35:LEU:HD11	1.99	0.44
11:K:52:LEU:O	11:K:55:ARG:HG3	2.17	0.44
11:K:80:ARG:HA	11:K:85:LEU:HD11	1.98	0.44
11:K:85:LEU:CB	11:K:86:PRO:HD2	2.47	0.44
11:K:89:ILE:CG2	11:K:90:VAL:H	2.30	0.44
14:N:38:TYR:CZ	14:N:74:ILE:HG23	2.51	0.44
26:Z:105:ALA:O	26:Z:106:GLN:CG	2.65	0.44
16:P:97:TYR:CD1	16:P:102:PHE:CE2	3.04	0.44
8:H:8:ILE:O	8:H:11:PRO:HD3	2.16	0.44
19:S:82:TRP:HA	19:S:87:GLN:NE2	2.28	0.44
6:F:174:ALA:O	6:F:178:ILE:HG13	2.16	0.44
26:Z:96:LEU:C	26:Z:112:ASN:HD22	2.20	0.44
4:D:217:ILE:HG22	4:D:218:LEU:HB3	1.98	0.44
20:T:4:VAL:CG1	20:T:139:ALA:HB2	2.46	0.44
17:Q:28:GLY:H	17:Q:66:VAL:HA	1.82	0.44
6:F:151:ILE:O	6:F:152:TRP:C	2.52	0.44
26:Z:94:LYS:CE	26:Z:95:GLY:N	2.81	0.44
8:H:121:THR:CG2	8:H:124:ALA:CB	2.95	0.44
3:C:198:LEU:HD23	3:C:198:LEU:C	2.37	0.44
2:B:175:GLU:CG	2:B:193:ILE:HD11	2.46	0.44
18:R:72:LYS:HG2	18:R:72:LYS:H	1.58	0.44
5:E:188:ASN:HD21	5:E:218:PHE:HB2	1.82	0.44
4:D:137:VAL:HB	4:D:185:LYS:HB2	1.99	0.44
1:A:139:TYR:C	1:A:140:VAL:CG2	2.85	0.44
1:A:28:THR:CG2	1:A:46:ILE:HD13	2.45	0.44
1:A:76:VAL:HG13	1:A:175:TRP:HH2	1.62	0.44
2:B:53:GLN:O	2:B:54:GLY:C	2.55	0.44
2:B:89:GLU:O	2:B:90:ASP:HB2	2.17	0.44
3:C:89:ASP:HB3	3:C:115:ILE:HG12	2.00	0.44
4:D:21:LEU:HD23	4:D:21:LEU:HA	1.77	0.44
5:E:102:ILE:HG23	5:E:182:MET:SD	2.58	0.44
7:G:161:PRO:HA	7:G:170:ARG:O	2.17	0.44
7:G:172:LYS:HD3	7:G:172:LYS:O	6.03	0.44
7:G:186:GLN:HA	7:G:189:ARG:NH2	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:163:GLN:O	8:H:164:ASN:C	2.54	0.44
9:I:105:ASP:O	9:I:106:SER:CB	2.64	0.44
9:I:142:SER:CB	9:I:143:LYS:CE	2.93	0.44
10:J:35:TYR:N	10:J:35:TYR:CD2	2.85	0.44
10:J:61:LEU:HD23	10:J:98:LEU:CD1	2.36	0.44
14:N:26:LEU:HA	14:N:27:LYS:HE3	1.98	0.44
14:N:82:PRO:O	14:N:84:LEU:N	2.51	0.44
17:Q:126:ARG:CG	17:Q:127:CYS:N	2.81	0.44
20:T:33:TRP:C	20:T:35:ASP:H	2.21	0.44
8:H:36:LEU:HD23	8:H:78:ARG:HH11	1.82	0.44
16:P:37:TYR:CA	19:S:88:LYS:CD	2.95	0.44
19:S:23:ARG:HD3	26:Z:48:VAL:CG2	2.46	0.44
26:Z:51:ASP:HB2	26:Z:54:THR:HG23	1.98	0.44
12:L:146:THR:HG23	12:L:147:LYS:N	2.33	0.44
18:R:24:LEU:CD1	18:R:58:MET:HE2	2.48	0.44
21:U:50:VAL:CG1	21:U:51:LYS:N	2.45	0.44
18:R:122:PRO:HB3	18:R:123:THR:HG23	1.56	0.44
18:R:44:LYS:CE	18:R:47:ARG:CZ	2.88	0.44
3:C:157:ASN:O	3:C:159:ILE:N	2.50	0.44
2:B:19:LYS:HB3	2:B:19:LYS:HE2	1.46	0.44
25:Y:93:ARG:C	25:Y:93:ARG:CD	2.85	0.44
10:J:101:LYS:CG	10:J:103:GLU:OE1	2.61	0.44
24:X:41:PHE:CE1	24:X:47:ALA:HB3	2.51	0.44
5:E:174:LYS:HB2	5:E:174:LYS:HE3	1.87	0.44
5:E:2:ALA:O	5:E:3:ARG:CG	2.62	0.44
24:X:75:ILE:HA	24:X:75:ILE:HD13	1.73	0.44
2:B:123:ALA:HB3	2:B:168:MET:SD	2.58	0.44
2:B:23:ASP:HA	2:B:24:PRO:HD3	1.44	0.44
5:E:126:VAL:HG22	5:E:157:ASN:N	2.29	0.44
5:E:125:LYS:CB	5:E:226:PHE:CE1	2.96	0.44
9:I:112:TRP:CH2	9:I:117:TYR:CZ	3.06	0.44
9:I:197:PHE:CD2	12:L:5:GLN:CD	2.91	0.44
11:K:2:LEU:O	11:K:3:MET:HE3	2.18	0.44
11:K:43:LEU:O	11:K:46:MET:N	2.50	0.44
14:N:50:ILE:O	14:N:54:LEU:CG	2.64	0.44
15:O:98:ARG:NH1	15:O:98:ARG:HG2	2.32	0.44
21:U:106:ILE:O	21:U:107:GLU:CB	2.65	0.44
6:F:42:LYS:HB2	6:F:44:LYS:C	2.19	0.44
5:E:64:ILE:CD1	25:Y:17:LEU:CD1	2.95	0.44
25:Y:56:PHE:HB3	25:Y:58:PHE:CE2	2.47	0.44
20:T:76:THR:C	20:T:95:GLY:N	2.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:10:ARG:O	16:P:11:THR:C	2.54	0.44
26:Z:48:VAL:HG22	26:Z:80:ARG:HB2	1.99	0.44
12:L:20:LYS:CD	12:L:20:LYS:H	2.09	0.44
12:L:156:GLN:CD	12:L:158:PHE:HE2	2.12	0.44
10:J:84:ILE:O	10:J:108:ARG:HD2	2.16	0.44
12:L:113:LEU:HD23	12:L:114:SER:O	2.18	0.44
2:B:151:ARG:HG3	2:B:153:THR:H	1.82	0.44
18:R:21:TYR:CG	18:R:71:ILE:CD1	2.98	0.44
19:S:14:ARG:NH1	19:S:17:ASN:C	2.70	0.44
13:M:13:ASP:CB	13:M:16:THR:OG1	2.64	0.44
20:T:15:VAL:HG23	20:T:16:ARG:N	2.31	0.44
23:W:90:GLN:HB3	23:W:102:ILE:HD12	2.00	0.44
2:B:110:MET:HE1	2:B:213:ARG:HD2	1.99	0.44
15:O:105:THR:O	15:O:106:LYS:CB	2.64	0.44
6:F:151:ILE:HA	6:F:154:LEU:CD2	2.48	0.44
8:H:109:ARG:NH2	8:H:111:LYS:HD2	2.33	0.44
1:A:103:PHE:O	1:A:104:THR:HB	2.18	0.44
1:A:58:LEU:CD2	1:A:58:LEU:O	2.66	0.44
1:A:88:LEU:HD13	1:A:88:LEU:HA	1.79	0.44
3:C:51:LEU:CD2	3:C:60:ILE:HD12	2.48	0.44
4:D:59:LEU:HD13	4:D:60:GLY:O	2.17	0.44
6:F:128:ILE:O	6:F:129:GLY:C	2.55	0.44
7:G:58:LYS:H	7:G:58:LYS:HG2	1.51	0.44
9:I:144:LYS:HD2	9:I:144:LYS:N	2.33	0.44
10:J:132:GLN:O	10:J:133:ARG:HB2	2.16	0.44
11:K:8:ARG:HG2	11:K:12:TYR:CE1	2.53	0.44
22:V:77:GLY:HA2	22:V:78:ILE:C	2.38	0.44
25:Y:120:THR:C	25:Y:122:LYS:H	2.19	0.44
6:F:94:LYS:HA	6:F:94:LYS:HD3	2.55	0.44
17:Q:42:ILE:HD12	17:Q:51:LEU:HD11	1.95	0.44
16:P:44:ARG:NE	16:P:82:ASP:O	2.51	0.44
21:U:36:CYS:HG	21:U:53:PRO:HB3	1.79	0.44
16:P:59:ARG:HG2	16:P:76:VAL:HG22	1.99	0.44
16:P:75:VAL:CG1	16:P:76:VAL:H	2.31	0.44
3:C:163:HIS:CD2	3:C:163:HIS:H	2.36	0.44
16:P:127:LYS:CE	16:P:128:HIS:CA	2.95	0.44
2:B:151:ARG:HG3	2:B:153:THR:N	2.33	0.44
4:D:222:PRO:O	4:D:223:ILE:CB	2.65	0.44
2:B:19:LYS:O	2:B:21:VAL:HG11	2.06	0.44
23:W:104:LEU:CD1	23:W:106:THR:HG22	2.43	0.44
15:O:20:GLN:HE21	15:O:22:ALA:HB2	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:87:VAL:CG1	20:T:88:MET:N	2.80	0.44
23:W:37:PHE:CZ	23:W:103:VAL:HG11	2.53	0.44
8:H:154:ILE:HG22	8:H:154:ILE:O	2.17	0.44
18:R:112:GLY:O	18:R:113:SER:OG	2.32	0.44
19:S:48:ALA:HB2	19:S:70:ILE:HD12	1.98	0.44
20:T:24:LYS:HA	20:T:24:LYS:HD2	1.70	0.44
1:A:77:ILE:HD11	1:A:122:LEU:HD22	1.99	0.44
1:A:161:ILE:HG21	1:A:174:MET:CE	2.48	0.44
1:A:57:LYS:HD3	1:A:159:ILE:HD11	1.99	0.44
1:A:5:LEU:HD13	1:A:6:ASP:CB	2.48	0.44
2:B:31:TYR:CD2	2:B:62:LEU:HD22	2.52	0.44
2:B:77:ASP:C	2:B:79:VAL:HG22	2.34	0.44
3:C:244:THR:HG22	3:C:246:PHE:CA	2.43	0.44
4:D:99:ILE:HG13	4:D:100:ALA:N	2.33	0.44
7:G:191:ARG:H	7:G:191:ARG:HG2	1.56	0.44
7:G:85:ARG:NH1	25:Y:118:ARG:HH21	2.15	0.44
10:J:12:THR:C	10:J:48:PHE:CD2	2.90	0.44
14:N:92:ILE:CG2	14:N:150:VAL:HG23	2.45	0.44
17:Q:105:LYS:HZ3	17:Q:109:LYS:CB	2.20	0.44
26:Z:103:HIS:C	26:Z:105:ALA:N	2.69	0.44
4:D:132:LYS:HD3	4:D:191:PRO:CG	2.47	0.44
16:P:56:LEU:CD2	16:P:78:THR:HG22	2.44	0.44
8:H:46:THR:CG2	8:H:63:PHE:CB	2.95	0.44
25:Y:63:HIS:C	25:Y:64:PHE:CD1	2.89	0.44
12:L:149:ALA:CA	12:L:156:GLN:NE2	2.58	0.44
12:L:97:ARG:HG2	12:L:98:LYS:HA	2.00	0.44
18:R:17:ILE:O	18:R:71:ILE:CD1	2.66	0.44
19:S:15:VAL:HG11	19:S:68:ILE:HG12	1.99	0.44
6:F:115:ALA:HB3	6:F:177:LEU:HD22	1.99	0.44
9:I:205:ARG:O	9:I:206:LYS:O	2.35	0.44
5:E:59:ASP:OD1	5:E:63:LYS:HE3	2.18	0.44
3:C:231:LYS:HB3	3:C:231:LYS:HE3	1.46	0.44
1:A:49:ILE:CG2	1:A:50:ASN:N	2.81	0.44
3:C:69:PHE:CZ	3:C:249:SER:CA	2.94	0.44
4:D:85:GLU:C	4:D:86:LEU:HD12	2.37	0.44
5:E:152:PRO:HG3	7:G:209:TYR:OH	2.17	0.44
5:E:181:CYS:O	5:E:192:ILE:HG23	2.18	0.44
6:F:38:TYR:N	6:F:38:TYR:HD2	2.15	0.44
7:G:143:LYS:HE3	7:G:143:LYS:CA	2.48	0.44
8:H:170:VAL:HA	8:H:173:PHE:CD2	2.48	0.44
9:I:123:ARG:O	9:I:124:LYS:O	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:140:LYS:N	9:I:145:ILE:HD11	2.32	0.44
10:J:110:LEU:HD23	10:J:110:LEU:HA	1.83	0.44
12:L:59:LYS:CD	12:L:134:LEU:HD21	2.47	0.44
14:N:139:TRP:CE3	14:N:139:TRP:C	2.91	0.44
15:O:131:ASP:OD1	15:O:133:THR:HG23	2.18	0.44
24:X:91:LEU:C	24:X:93:PHE:H	2.20	0.44
3:C:189:ILE:HG21	3:C:196:LYS:HA	1.99	0.44
3:C:218:LEU:HD12	3:C:218:LEU:C	2.38	0.44
3:C:93:LYS:HG2	3:C:95:MET:H	1.83	0.44
8:H:38:ALA:H	8:H:41:ARG:HG2	1.82	0.44
8:H:65:PRO:C	8:H:67:PRO:CD	2.86	0.44
19:S:23:ARG:O	19:S:55:ARG:CD	2.66	0.44
12:L:148:ALA:O	12:L:150:GLY:N	2.51	0.44
10:J:78:LEU:HD13	10:J:92:MET:C	2.38	0.44
19:S:46:ARG:HD2	20:T:50:GLU:HG2	1.99	0.44
13:M:12:MET:HG2	13:M:16:THR:HG22	1.98	0.44
2:B:105:LEU:CD2	2:B:213:ARG:O	2.66	0.44
12:L:153:LYS:CB	14:N:131:THR:O	2.66	0.44
10:J:101:LYS:N	10:J:101:LYS:HD2	2.31	0.44
8:H:116:ARG:HG2	8:H:117:PRO:N	2.32	0.44
1:A:169:HIS:ND1	1:A:169:HIS:N	2.66	0.44
5:E:258:ALA:HA	5:E:262:SER:OG	2.18	0.44
19:S:73:ASN:C	19:S:76:GLN:OE1	2.56	0.44
4:D:98:ALA:CA	4:D:188:ILE:HD12	2.48	0.44
9:I:191:GLU:HG2	9:I:192:GLY:H	1.82	0.44
9:I:194:GLU:CD	12:L:12:LYS:CE	2.86	0.44
11:K:15:LEU:HD22	11:K:21:MET:HE1	1.99	0.44
11:K:40:VAL:CG2	11:K:44:HIS:N	2.77	0.44
15:O:17:LEU:CD2	15:O:18:GLY:H	2.27	0.44
15:O:31:CYS:CB	15:O:95:ILE:CG1	2.80	0.44
22:V:55:ILE:CD1	22:V:65:SER:CA	2.86	0.44
19:S:120:HIS:CD2	19:S:124:ARG:CG	3.01	0.44
8:H:46:THR:CG2	8:H:63:PHE:HB3	2.47	0.44
8:H:79:LEU:HD22	8:H:83:LEU:HD23	1.99	0.44
16:P:18:ARG:HB3	19:S:93:GLY:HA3	2.00	0.44
24:X:3:LYS:HB3	24:X:3:LYS:HE2	1.59	0.44
16:P:62:LYS:CA	16:P:65:LYS:HE2	2.48	0.44
13:M:49:LEU:HA	13:M:75:ASN:HB2	1.99	0.44
5:E:212:ASP:OD2	5:E:214:ASN:N	2.51	0.44
1:A:159:ILE:HD12	1:A:160:ALA:H	1.83	0.43
1:A:97:THR:HA	1:A:98:PRO:HD3	1.77	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:89:ASP:HB3	3:C:115:ILE:HG13	2.00	0.43
4:D:43:PRO:O	4:D:44:THR:CB	2.65	0.43
5:E:192:ILE:HG22	5:E:193:GLY:N	2.33	0.43
5:E:90:ILE:HD11	5:E:101:LEU:HD11	1.99	0.43
7:G:147:LEU:O	7:G:148:SER:CB	2.66	0.43
7:G:151:ASP:O	7:G:152:ASP:HB3	2.18	0.43
8:H:169:LYS:HB3	8:H:173:PHE:CZ	2.53	0.43
8:H:158:LEU:CG	8:H:187:PHE:CD1	3.00	0.43
10:J:136:ARG:HH12	10:J:161:LEU:HD12	1.81	0.43
11:K:21:MET:SD	11:K:49:MET:CE	3.06	0.43
14:N:125:LEU:O	14:N:125:LEU:HD22	2.19	0.43
21:U:32:LEU:HD22	21:U:85:HIS:HB2	2.00	0.43
23:W:24:GLN:HA	23:W:63:VAL:O	2.18	0.43
17:Q:17:LYS:HB3	17:Q:18:THR:H	1.70	0.43
6:F:49:LEU:HD21	17:Q:46:THR:O	2.18	0.43
17:Q:19:ALA:HB1	17:Q:74:GLY:O	2.13	0.43
20:T:38:LYS:HE2	20:T:45:LEU:HA	1.99	0.43
16:P:100:LYS:CD	16:P:101:THR:HG23	2.46	0.43
16:P:108:LYS:N	16:P:111:MET:CE	2.72	0.43
9:I:98:LYS:O	9:I:99:ASN:CB	2.66	0.43
12:L:149:ALA:HB2	12:L:156:GLN:CB	2.16	0.43
12:L:55:TYR:CG	12:L:115:PRO:HG2	2.53	0.43
21:U:57:PRO:CD	21:U:57:PRO:O	2.66	0.43
25:Y:93:ARG:C	25:Y:93:ARG:HD2	2.38	0.43
2:B:136:HIS:HB2	2:B:218:LEU:HD11	2.00	0.43
2:B:124:HIS:CG	2:B:136:HIS:NE2	2.83	0.43
26:Z:94:LYS:NZ	26:Z:95:GLY:N	2.56	0.43
5:E:205:PHE:CZ	5:E:221:ARG:NH1	2.86	0.43
4:D:141:LYS:HG3	4:D:141:LYS:O	2.18	0.43
17:Q:124:PRO:CD	17:Q:125:ARG:N	2.81	0.43
20:T:65:TYR:C	20:T:65:TYR:CD1	2.91	0.43
5:E:259:LYS:CG	5:E:260:GLN:N	2.79	0.43
22:V:58:ALA:HA	22:V:61:ARG:CD	2.47	0.43
24:X:101:LEU:HA	24:X:101:LEU:HD23	1.81	0.43
2:B:48:LEU:O	2:B:48:LEU:HD13	2.19	0.43
5:E:18:TRP:CD2	5:E:46:ILE:CD1	3.02	0.43
6:F:122:ARG:CB	6:F:123:GLU:OE1	2.66	0.43
8:H:158:LEU:CD2	8:H:187:PHE:CE1	2.93	0.43
9:I:155:ASN:HA	12:L:22:ARG:HD2	1.97	0.43
14:N:38:TYR:CE1	14:N:78:LYS:CD	3.01	0.43
22:V:39:VAL:C	22:V:41:LYS:H	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:144:ILE:O	23:W:52:ILE:N	2.51	0.43
25:Y:44:LEU:HD12	25:Y:48:TYR:HD2	1.81	0.43
19:S:39:ARG:O	19:S:43:VAL:HG23	2.18	0.43
8:H:14:GLU:HG3	8:H:15:LYS:C	2.38	0.43
16:P:22:LEU:HA	16:P:25:LEU:CB	2.47	0.43
26:Z:62:VAL:HA	26:Z:65:TYR:CD2	2.52	0.43
21:U:49:LYS:C	21:U:50:VAL:CG1	2.84	0.43
2:B:147:ASN:HA	2:B:147:ASN:HD22	1.58	0.43
4:D:216:GLU:OE1	4:D:217:ILE:N	2.51	0.43
15:O:138:ASP:O	15:O:138:ASP:OD1	2.36	0.43
6:F:112:LEU:HD23	6:F:112:LEU:O	2.18	0.43
20:T:85:ASN:OD1	20:T:91:HIS:NE2	2.51	0.43
24:X:107:ARG:O	24:X:108:LYS:CB	2.66	0.43
18:R:110:ASP:O	18:R:111:PHE:CD2	2.54	0.43
14:N:114:ARG:HD3	14:N:114:ARG:HA	1.44	0.43
18:R:88:VAL:HG12	18:R:88:VAL:O	2.15	0.43
2:B:182:LYS:HD3	2:B:182:LYS:HA	1.62	0.43
2:B:93:GLY:C	2:B:94:LYS:HG2	2.38	0.43
4:D:8:LYS:O	4:D:12:VAL:HG23	2.18	0.43
5:E:71:LYS:HE2	5:E:74:GLY:HA2	1.97	0.43
7:G:145:PHE:O	7:G:146:ASN:O	2.37	0.43
10:J:171:GLY:O	10:J:172:ARG:C	2.55	0.43
24:X:71:ARG:NE	24:X:82:THR:HG22	2.27	0.43
17:Q:18:THR:C	17:Q:75:GLY:HA3	2.37	0.43
25:Y:101:LYS:HG2	25:Y:101:LYS:HZ2	1.44	0.43
10:J:180:LYS:HD3	10:J:180:LYS:O	2.12	0.43
2:B:146:CYS:O	2:B:148:ASN:N	2.51	0.43
13:M:77:ILE:O	13:M:78:LYS:HB2	2.17	0.43
8:H:117:PRO:O	8:H:119:SER:N	2.50	0.43
2:B:37:ALA:HA	2:B:42:ARG:HE	1.83	0.43
23:W:105:THR:O	23:W:105:THR:CG2	2.66	0.43
1:A:127:PRO:HD3	1:A:147:LEU:O	2.18	0.43
3:C:244:THR:O	3:C:246:PHE:HD2	2.01	0.43
9:I:58:LEU:O	9:I:59:ARG:HB2	2.19	0.43
10:J:130:ILE:CG1	10:J:135:ILE:CD1	2.80	0.43
11:K:47:LYS:HA	11:K:50:GLN:HG2	2.00	0.43
12:L:23:VAL:HG22	12:L:24:LEU:H	1.84	0.43
14:N:21:SER:OG	14:N:22:VAL:N	2.49	0.43
18:R:104:GLU:OE2	18:R:107:LYS:HD2	2.18	0.43
22:V:55:ILE:HG21	22:V:60:ARG:CG	2.47	0.43
24:X:52:LEU:C	24:X:52:LEU:HD12	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:52:LEU:HG	24:X:71:ARG:C	2.37	0.43
26:Z:103:HIS:HD2	26:Z:105:ALA:CB	2.14	0.43
16:P:123:TYR:OH	19:S:120:HIS:NE2	2.51	0.43
8:H:28:LEU:HG	8:H:32:MET:CE	2.49	0.43
16:P:15:PHE:CE1	19:S:91:LYS:HD3	2.49	0.43
25:Y:29:HIS:O	25:Y:31:GLY:N	2.51	0.43
6:F:171:GLU:OE2	26:Z:67:LEU:HD23	2.18	0.43
26:Z:53:ALA:O	26:Z:57:LYS:HG3	2.18	0.43
26:Z:62:VAL:HA	26:Z:65:TYR:CZ	2.54	0.43
24:X:67:ARG:O	24:X:84:PHE:HE1	2.02	0.43
16:P:65:LYS:CG	16:P:66:GLU:N	2.79	0.43
20:T:5:THR:HG21	20:T:7:LYS:HB2	2.00	0.43
12:L:82:MET:SD	12:L:85:THR:HG23	2.59	0.43
17:Q:124:PRO:HG2	17:Q:125:ARG:HG3	2.00	0.43
24:X:28:LYS:HG2	24:X:32:LEU:HD12	2.00	0.43
20:T:9:VAL:HG13	20:T:13:GLU:OE2	2.18	0.43
3:C:109:PHE:CD2	3:C:132:VAL:HG23	2.54	0.43
8:H:126:HIS:CE1	8:H:181:THR:HG22	2.54	0.43
1:A:127:PRO:CG	1:A:153:PRO:HD2	2.31	0.43
5:E:11:ARG:NH1	5:E:21:ASP:OD1	2.51	0.43
7:G:64:LYS:HD3	7:G:65:GLN:N	2.33	0.43
9:I:172:LEU:HD22	9:I:172:LEU:N	2.34	0.43
12:L:10:TYR:CE2	12:L:12:LYS:HB3	2.53	0.43
14:N:140:LYS:HG2	14:N:141:TYR:N	2.32	0.43
15:O:116:LEU:HD23	15:O:116:LEU:HA	1.77	0.43
24:X:129:SER:HG	24:X:132:ALA:HB3	1.78	0.43
16:P:84:ILE:HD11	16:P:115:TYR:CZ	2.52	0.43
25:Y:18:LEU:HB3	25:Y:20:ARG:NE	2.33	0.43
5:E:64:ILE:HD11	25:Y:18:LEU:HD11	1.99	0.43
13:M:35:ILE:CB	13:M:61:TYR:HE2	2.28	0.43
26:Z:57:LYS:O	26:Z:61:GLU:HG3	2.19	0.43
4:D:108:LYS:HA	4:D:113:LEU:CD2	2.48	0.43
24:X:1:MET:O	24:X:3:LYS:N	2.51	0.43
3:C:166:ARG:CG	3:C:237:THR:HG21	2.49	0.43
6:F:190:ILE:HG23	6:F:191:LYS:N	2.33	0.43
12:L:1:MET:C	12:L:2:ALA:O	2.54	0.43
3:C:180:LEU:HB3	3:C:207:CYS:SG	2.58	0.43
2:B:99:ASN:ND2	2:B:228:LEU:HD23	2.32	0.43
4:D:207:HIS:C	4:D:208:VAL:HG23	2.38	0.43
19:S:72:GLN:O	19:S:73:ASN:OD1	2.35	0.43
24:X:62:PRO:HD2	24:X:63:ASN:H	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:103:LYS:HG3	8:H:103:LYS:O	2.18	0.43
1:A:145:ILE:HD12	1:A:159:ILE:CG2	2.27	0.43
2:B:54:GLY:C	2:B:56:LYS:H	2.22	0.43
3:C:110:LYS:CE	3:C:112:PHE:CZ	2.63	0.43
5:E:34:GLY:HA3	5:E:83:PRO:HG2	2.00	0.43
7:G:143:LYS:CA	7:G:143:LYS:CE	2.96	0.43
7:G:162:LEU:HD23	7:G:172:LYS:HZ3	1.76	0.43
5:E:152:PRO:CG	7:G:209:TYR:CE1	3.01	0.43
8:H:172:THR:CG2	8:H:173:PHE:N	2.81	0.43
11:K:89:ILE:HG23	11:K:90:VAL:H	1.83	0.43
16:P:77:LYS:C	16:P:78:THR:CG2	2.81	0.43
19:S:40:TYR:CE1	19:S:44:VAL:CG2	3.01	0.43
19:S:85:ASN:OD1	19:S:86:ARG:N	2.52	0.43
10:J:100:LEU:HD11	10:J:104:ASP:CB	2.49	0.43
4:D:67:ARG:CZ	11:K:95:ARG:HD2	2.48	0.43
21:U:19:ARG:HD2	21:U:19:ARG:N	2.33	0.43
20:T:118:ASP:O	20:T:119:TRP:HB2	2.18	0.43
15:O:147:ARG:HH21	15:O:150:ARG:HH21	1.65	0.43
16:P:43:ARG:HD3	16:P:43:ARG:HA	1.38	0.43
5:E:53:LYS:HA	5:E:53:LYS:HD3	1.80	0.43
2:B:52:THR:OG1	14:N:56:ASP:HB2	86.13	0.43
3:C:58:MET:N	3:C:58:MET:SD	2.92	0.43
4:D:84:VAL:HG22	4:D:85:GLU:N	2.33	0.43
6:F:133:THR:HG21	6:F:135:ARG:NH1	2.33	0.43
7:G:192:ILE:HG13	7:G:193:ALA:H	1.84	0.43
8:H:194:LEU:HD12	8:H:194:LEU:H	1.83	0.43
9:I:42:ARG:HB3	9:I:58:LEU:O	2.19	0.43
10:J:110:LEU:CD1	10:J:135:ILE:CD1	2.97	0.43
10:J:136:ARG:NE	10:J:160:SER:HB2	2.33	0.43
11:K:36:ALA:O	11:K:38:LYS:CA	2.66	0.43
11:K:66:HIS:O	11:K:67:PHE:HB2	2.18	0.43
14:N:54:LEU:O	14:N:60:VAL:HG22	2.18	0.43
22:V:41:LYS:HB3	22:V:42:VAL:H	1.55	0.43
6:F:91:ARG:HD2	17:Q:46:THR:CG2	2.40	0.43
20:T:102:ARG:HH21	20:T:105:GLN:CD	2.09	0.43
20:T:56:ARG:CD	20:T:103:VAL:HG21	2.48	0.43
8:H:64:VAL:CG1	8:H:68:GLN:HB2	2.48	0.43
19:S:33:ILE:CG2	19:S:36:VAL:CG1	2.97	0.43
12:L:21:LYS:HD3	12:L:21:LYS:HA	1.73	0.43
9:I:161:LEU:HA	9:I:161:LEU:HD22	1.77	0.43
25:Y:98:GLU:O	25:Y:99:LYS:CB	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:29:LYS:HA	24:X:29:LYS:HD3	1.30	0.43
20:T:84:ARG:C	20:T:86:GLY:H	2.22	0.43
20:T:5:THR:HG22	20:T:8:ASP:CG	2.39	0.43
6:F:112:LEU:HD23	6:F:116:ILE:CG1	2.49	0.43
24:X:41:PHE:CZ	24:X:102:VAL:HG12	2.48	0.43
2:B:97:LEU:HD22	2:B:232:HIS:CG	2.54	0.43
15:O:147:ARG:HH21	15:O:150:ARG:CD	2.31	0.43
25:Y:38:THR:O	25:Y:42:GLU:HG3	2.18	0.43
15:O:146:ARG:HG3	15:O:146:ARG:NH1	2.34	0.43
3:C:83:LEU:C	3:C:85:ALA:H	2.22	0.43
4:D:58:VAL:O	4:D:65:ARG:HB2	2.19	0.43
4:D:53:THR:CG2	4:D:91:VAL:CG2	2.95	0.43
5:E:118:GLU:C	5:E:120:LYS:N	2.70	0.43
6:F:127:ARG:O	6:F:127:ARG:HD2	2.16	0.43
10:J:128:VAL:O	10:J:132:GLN:HG3	2.19	0.43
11:K:1:MET:HG2	11:K:2:LEU:HB3	2.00	0.43
11:K:35:LEU:HB3	11:K:36:ALA:H	1.07	0.43
11:K:51:SER:O	11:K:55:ARG:HG2	2.19	0.43
15:O:30:VAL:HG13	15:O:47:LEU:HA	2.00	0.43
8:H:14:GLU:HG2	8:H:15:LYS:O	2.18	0.43
8:H:65:PRO:HB2	8:H:67:PRO:HD2	2.00	0.43
2:B:87:ILE:HG23	2:B:101:HIS:CG	2.53	0.43
19:S:88:LYS:O	19:S:89:ASP:C	2.46	0.43
4:D:196:GLY:C	4:D:199:GLY:CA	2.87	0.43
13:M:35:ILE:CG2	13:M:36:ARG:N	2.80	0.43
26:Z:51:ASP:O	26:Z:52:LYS:C	2.53	0.43
3:C:192:ALA:HB3	3:C:195:PRO:CG	2.48	0.43
19:S:77:TYR:O	19:S:78:LYS:HB2	2.19	0.43
25:Y:13:MET:CE	25:Y:14:THR:H	2.13	0.43
5:E:201:HIS:HB2	5:E:205:PHE:O	2.19	0.43
5:E:146:THR:HG23	5:E:146:THR:O	2.18	0.43
1:A:141:ASN:CA	22:V:32:ILE:CD1	2.91	0.43
1:A:143:PRO:HD3	22:V:32:ILE:CG2	2.48	0.43
3:C:68:LEU:O	22:V:15:ARG:NH2	2.52	0.43
5:E:49:ARG:CD	5:E:50:ASN:N	2.72	0.43
6:F:134:VAL:HB	6:F:136:ARG:NH2	2.34	0.43
7:G:70:HIS:HB2	7:G:103:ASP:CG	2.34	0.43
11:K:14:LEU:CB	11:K:35:LEU:HD21	2.49	0.43
14:N:130:LYS:HD3	14:N:139:TRP:HB3	2.01	0.43
14:N:60:VAL:O	14:N:60:VAL:CG2	2.66	0.43
15:O:31:CYS:SG	15:O:93:LEU:HB2	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:128:VAL:HG12	24:X:133:LEU:HD11	2.01	0.43
6:F:94:LYS:HD2	6:F:94:LYS:O	2.18	0.43
17:Q:132:PHE:HB2	21:U:77:TRP:CD1	2.54	0.43
16:P:17:TYR:CD1	16:P:18:ARG:HG3	2.54	0.43
4:D:123:LEU:C	4:D:123:LEU:HD23	2.39	0.43
9:I:108:PRO:HA	9:I:111:GLN:HG2	2.00	0.43
25:Y:46:LYS:O	25:Y:47:MET:CG	2.67	0.43
10:J:151:LEU:C	10:J:153:SER:H	2.20	0.43
4:D:6:SER:OG	4:D:8:LYS:HG3	2.19	0.43
4:D:97:CYS:C	4:D:99:ILE:H	2.12	0.43
5:E:106:LYS:HA	5:E:106:LYS:HD2	1.56	0.43
5:E:70:ILE:HG13	5:E:92:ILE:HD12	1.86	0.43
7:G:70:HIS:HA	7:G:98:ARG:HH12	1.83	0.43
10:J:102:ILE:CG2	10:J:106:LEU:CD1	2.93	0.43
10:J:34:GLU:O	10:J:123:ILE:HD12	2.19	0.43
11:K:9:ILE:CG2	11:K:10:ALA:N	2.82	0.43
11:K:52:LEU:HA	11:K:55:ARG:HD3	2.00	0.43
15:O:92:ALA:CB	15:O:125:LYS:HB2	2.48	0.43
6:F:91:ARG:HD3	17:Q:46:THR:CG2	2.49	0.43
17:Q:84:ILE:O	17:Q:88:ILE:HG23	2.19	0.43
25:Y:58:PHE:HE1	25:Y:72:PHE:CD2	2.33	0.43
24:X:27:TYR:CG	24:X:31:HIS:CD2	3.07	0.43
2:B:156:ALA:CB	2:B:160:GLN:OE1	2.65	0.43
24:X:67:ARG:O	24:X:68:LYS:CB	2.66	0.43
24:X:3:LYS:C	24:X:4:CYS:O	2.57	0.43
13:M:31:LEU:HG	13:M:89:VAL:HG13	2.00	0.43
12:L:42:LEU:HB2	12:L:44:PHE:CD2	2.54	0.43
13:M:71:GLU:OE1	13:M:71:GLU:N	2.52	0.43
9:I:81:VAL:CG1	9:I:91:VAL:HA	2.48	0.43
4:D:209:SER:O	18:R:40:ILE:N	2.45	0.43
4:D:124:ARG:NH1	4:D:128:GLU:OE1	2.51	0.43
1:A:111:GLN:HE22	1:A:116:PHE:HZ	1.67	0.42
7:G:46:LYS:HG2	7:G:118:GLU:OE1	2.19	0.42
7:G:79:LYS:HA	7:G:86:PRO:HG2	2.01	0.42
10:J:37:LEU:CD2	10:J:43:VAL:CG2	2.96	0.42
11:K:11:ILE:HG22	11:K:49:MET:HE2	1.81	0.42
11:K:71:LEU:HG	11:K:76:ILE:HD13	2.01	0.42
13:M:27:ILE:CG2	13:M:28:HIS:N	2.81	0.42
14:N:38:TYR:CD2	14:N:78:LYS:HG3	2.53	0.42
18:R:104:GLU:HA	18:R:107:LYS:HB2	2.00	0.42
6:F:42:LYS:CB	6:F:45:TYR:CA	2.81	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:50:ILE:O	19:S:51:ASP:C	2.52	0.42
23:W:11:LEU:CA	23:W:14:ILE:HG12	2.49	0.42
2:B:206:PRO:O	2:B:207:LEU:CB	2.67	0.42
12:L:99:TYR:CZ	24:X:14:ARG:CA	2.71	0.42
21:U:48:LEU:O	21:U:49:LYS:CB	2.66	0.42
20:T:141:ALA:O	20:T:142:LYS:CB	2.64	0.42
13:M:104:VAL:CG2	13:M:105:GLY:N	2.82	0.42
6:F:115:ALA:HB3	6:F:177:LEU:CD2	2.49	0.42
18:R:41:ILE:HG23	18:R:42:PRO:HD3	2.00	0.42
1:A:188:THR:OG1	1:A:188:THR:O	2.29	0.42
4:D:141:LYS:NZ	4:D:179:GLN:NE2	2.67	0.42
3:C:170:THR:O	3:C:231:LYS:HD3	2.19	0.42
17:Q:40:GLU:HA	17:Q:40:GLU:OE1	2.18	0.42
1:A:111:GLN:HB3	3:C:48:VAL:CG1	2.46	0.42
4:D:25:LEU:HD22	4:D:25:LEU:N	2.34	0.42
5:E:118:GLU:HA	5:E:121:TYR:CE2	2.54	0.42
6:F:124:ASP:O	6:F:200:ALA:CB	2.67	0.42
6:F:61:PHE:O	6:F:62:ARG:C	2.57	0.42
7:G:121:ILE:CB	7:G:122:PRO:HD3	2.48	0.42
9:I:140:LYS:HD3	9:I:141:ARG:N	2.33	0.42
9:I:143:LYS:HE2	9:I:143:LYS:HB3	1.83	0.42
11:K:1:MET:HG2	11:K:2:LEU:CB	2.49	0.42
24:X:95:GLU:HG3	24:X:140:ARG:NH2	2.20	0.42
17:Q:49:TYR:O	17:Q:53:GLU:N	2.50	0.42
26:Z:104:ARG:HH11	26:Z:104:ARG:C	2.23	0.42
8:H:37:LYS:HG3	8:H:38:ALA:N	2.29	0.42
8:H:80:VAL:HA	8:H:83:LEU:HG	2.00	0.42
4:D:162:ASP:OD2	4:D:166:TYR:CE2	2.71	0.42
21:U:48:LEU:O	21:U:49:LYS:CG	2.67	0.42
4:D:134:CYS:O	4:D:153:VAL:HG13	2.18	0.42
2:B:132:GLY:O	2:B:133:TYR:C	2.56	0.42
1:A:14:ASP:C	1:A:18:PHE:HD2	2.22	0.42
1:A:7:VAL:HG22	1:A:8:LEU:N	2.33	0.42
2:B:56:LYS:CE	2:B:56:LYS:HA	2.48	0.42
10:J:50:LEU:CG	10:J:102:ILE:HD13	2.49	0.42
11:K:10:ALA:HA	11:K:13:GLU:HG2	2.01	0.42
11:K:49:MET:CB	11:K:69:TRP:CE2	3.02	0.42
12:L:22:ARG:HB2	12:L:23:VAL:H	1.66	0.42
15:O:34:PHE:CD2	15:O:98:ARG:NH1	2.87	0.42
24:X:70:VAL:CG1	24:X:71:ARG:N	2.82	0.42
8:H:87:PHE:CD2	8:H:90:LYS:HD2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:40:TYR:CD1	19:S:97:GLN:NE2	2.84	0.42
24:X:105:PHE:CD2	24:X:112:VAL:HG23	2.51	0.42
23:W:98:GLN:HB3	23:W:98:GLN:HE21	1.63	0.42
26:Z:71:ALA:O	26:Z:74:SER:OG	2.24	0.42
8:H:126:HIS:O	8:H:130:LEU:HD22	2.19	0.42
16:P:40:ARG:HD2	16:P:40:ARG:O	2.19	0.42
1:A:123:VAL:HG12	1:A:175:TRP:CH2	2.55	0.42
1:A:16:LEU:HB2	1:A:17:LYS:NZ	2.35	0.42
1:A:75:SER:HB2	1:A:122:LEU:CD2	2.46	0.42
2:B:93:GLY:HA2	2:B:94:LYS:HD3	2.01	0.42
3:C:67:TYR:CD1	22:V:27:LYS:NZ	2.82	0.42
6:F:38:TYR:HD1	6:F:144:LEU:HD13	1.84	0.42
7:G:122:PRO:O	7:G:126:ASP:HB3	2.19	0.42
7:G:80:GLY:C	7:G:81:HIS:CG	2.92	0.42
10:J:50:LEU:CB	10:J:102:ILE:CD1	2.97	0.42
14:N:49:GLN:HG2	14:N:49:GLN:H	1.59	0.42
15:O:92:ALA:O	15:O:93:LEU:HD23	2.19	0.42
24:X:58:GLU:O	24:X:59:ALA:C	2.58	0.42
25:Y:44:LEU:HD12	25:Y:48:TYR:CD2	2.50	0.42
20:T:47:PRO:CG	20:T:52:TRP:CD1	3.02	0.42
4:D:101:GLN:O	4:D:104:SER:HB2	2.19	0.42
8:H:69:LEU:O	8:H:73:GLN:CG	2.66	0.42
1:A:5:LEU:CD1	1:A:6:ASP:CB	2.98	0.42
1:A:5:LEU:HD13	1:A:6:ASP:CA	2.46	0.42
1:A:90:PHE:HD1	1:A:179:ALA:HB2	1.83	0.42
3:C:51:LEU:HD23	3:C:60:ILE:CD1	2.46	0.42
9:I:149:TYR:CD1	9:I:152:ARG:NH1	2.68	0.42
11:K:2:LEU:CD1	11:K:3:MET:N	2.21	0.42
6:F:47:LYS:N	6:F:47:LYS:CD	2.78	0.42
17:Q:32:ILE:C	17:Q:39:LEU:HG	2.40	0.42
16:P:100:LYS:HD2	16:P:101:THR:N	2.35	0.42
8:H:83:LEU:CD1	8:H:92:VAL:CG1	2.94	0.42
19:S:41:ALA:O	19:S:45:LEU:HG	2.19	0.42
19:S:8:LYS:HG2	19:S:8:LYS:HZ2	1.42	0.42
9:I:69:SER:CB	12:L:19:ASN:CG	2.70	0.42
19:S:15:VAL:CG1	19:S:16:LEU:N	2.82	0.42
3:C:240:LEU:CD1	3:C:240:LEU:N	2.83	0.42
25:Y:93:ARG:O	25:Y:93:ARG:CD	2.65	0.42
6:F:112:LEU:O	6:F:116:ILE:CG1	2.67	0.42
6:F:154:LEU:HD12	6:F:155:CYS:SG	2.58	0.42
23:W:29:PRO:O	23:W:30:CYS:CB	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:121:THR:HG22	8:H:124:ALA:HB2	2.02	0.42
15:O:143:LYS:HG3	15:O:144:GLY:N	2.34	0.42
21:U:66:ARG:CZ	21:U:75:LYS:HA	2.49	0.42
3:C:134:THR:CG2	3:C:135:ALA:N	2.82	0.42
24:X:62:PRO:CD	24:X:63:ASN:N	2.83	0.42
8:H:18:GLU:O	8:H:21:SER:HB2	2.18	0.42
1:A:186:ARG:NH1	1:A:187:GLY:N	2.67	0.42
2:B:55:THR:O	2:B:56:LYS:CB	2.66	0.42
5:E:151:ASP:HA	5:E:152:PRO:HD3	1.44	0.42
5:E:166:THR:C	5:E:168:LYS:HG2	2.40	0.42
5:E:45:ILE:HD12	5:E:80:ILE:CG2	2.49	0.42
5:E:92:ILE:CG2	5:E:97:GLU:OE1	2.66	0.42
11:K:16:PHE:CZ	11:K:76:ILE:O	2.73	0.42
12:L:10:TYR:CE2	12:L:12:LYS:NZ	2.79	0.42
15:O:28:PHE:CE1	15:O:92:ALA:CB	3.02	0.42
22:V:45:ARG:HD2	22:V:45:ARG:HA	1.65	0.42
8:H:65:PRO:O	8:H:66:VAL:HB	2.20	0.42
19:S:36:VAL:HA	19:S:40:TYR:HD2	1.84	0.42
25:Y:33:ALA:O	25:Y:34:THR:HB	2.19	0.42
26:Z:91:LEU:HD21	26:Z:96:LEU:HD12	1.98	0.42
2:B:148:ASN:CA	18:R:124:VAL:N	2.83	0.42
18:R:13:ALA:HB2	18:R:54:VAL:CG2	2.48	0.42
23:W:96:SER:OG	23:W:98:GLN:CG	2.68	0.42
18:R:91:LEU:CB	18:R:92:ASP:C	2.67	0.42
12:L:82:MET:SD	12:L:85:THR:CG2	3.08	0.42
16:P:67:ALA:HB2	16:P:73:PRO:CG	2.50	0.42
20:T:28:LEU:HA	20:T:28:LEU:HD23	1.58	0.42
1:A:124:VAL:HG21	1:A:134:LEU:HD21	2.00	0.42
1:A:66:VAL:CG1	1:A:186:ARG:HD3	2.47	0.42
2:B:161:VAL:HG12	2:B:165:ARG:CZ	2.49	0.42
3:C:127:LYS:CD	3:C:142:LEU:HD11	2.42	0.42
3:C:61:LYS:CA	3:C:82:PHE:HE1	2.30	0.42
7:G:159:ARG:NH2	7:G:161:PRO:N	2.68	0.42
7:G:162:LEU:HD12	7:G:162:LEU:C	2.34	0.42
9:I:139:LYS:HD2	9:I:145:ILE:HD12	2.01	0.42
11:K:4:PRO:HG2	11:K:7:ASN:CG	2.39	0.42
9:I:197:PHE:HE1	12:L:8:ARG:O	2.03	0.42
13:M:113:ASP:C	13:M:115:GLY:H	2.23	0.42
15:O:98:ARG:HE	15:O:134:PRO:HD3	1.84	0.42
15:O:90:ILE:O	15:O:124:MET:HE1	2.19	0.42
21:U:61:LEU:O	21:U:81:GLN:HA	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:141:ASN:ND2	22:V:29:HIS:CA	2.78	0.42
22:V:46:PHE:O	22:V:46:PHE:CG	2.72	0.42
23:W:24:GLN:OE1	23:W:24:GLN:N	2.53	0.42
17:Q:42:ILE:CG1	17:Q:51:LEU:HD22	2.46	0.42
8:H:23:ILE:HG23	8:H:24:SER:N	2.35	0.42
8:H:31:GLU:O	8:H:37:LYS:CB	2.68	0.42
16:P:10:ARG:NH2	16:P:11:THR:HG22	2.26	0.42
16:P:92:SER:OG	16:P:93:MET:N	2.52	0.42
13:M:61:TYR:HH	13:M:108:CYS:CB	2.32	0.42
26:Z:92:LEU:HD21	26:Z:109:TYR:HE1	1.69	0.42
4:D:217:ILE:O	4:D:218:LEU:CB	2.67	0.42
2:B:130:THR:HG21	2:B:179:ASN:N	2.23	0.42
20:T:75:MET:CA	20:T:78:ILE:HG22	2.49	0.42
15:O:38:ASN:O	15:O:39:ASP:HB2	2.19	0.42
20:T:123:LEU:CD2	20:T:123:LEU:N	2.82	0.42
19:S:111:LEU:HD13	19:S:125:HIS:NE2	2.35	0.42
23:W:37:PHE:CE1	23:W:103:VAL:CG1	3.03	0.42
4:D:142:LEU:C	4:D:144:GLY:H	2.22	0.42
3:C:48:VAL:HG23	3:C:75:GLU:HG2	2.01	0.42
7:G:74:ARG:CD	7:G:94:ARG:HD2	2.27	0.42
8:H:145:ARG:NH1	8:H:155:LYS:NZ	2.57	0.42
9:I:139:LYS:CD	9:I:145:ILE:CD1	2.98	0.42
9:I:141:ARG:C	9:I:143:LYS:CB	2.85	0.42
9:I:144:LYS:HD2	9:I:144:LYS:HA	1.86	0.42
10:J:144:ILE:C	10:J:146:SER:N	2.72	0.42
11:K:18:GLU:O	11:K:92:ALA:HB1	2.04	0.42
11:K:40:VAL:HG23	11:K:44:HIS:H	1.84	0.42
11:K:49:MET:HB3	11:K:69:TRP:CE2	2.55	0.42
11:K:21:MET:SD	11:K:49:MET:HE1	2.60	0.42
14:N:36:GLN:O	14:N:40:LEU:HG	2.19	0.42
21:U:97:ILE:O	21:U:101:ILE:HD12	2.20	0.42
24:X:58:GLU:O	24:X:59:ALA:O	2.38	0.42
25:Y:114:MET:HE3	25:Y:125:VAL:HG22	1.94	0.42
8:H:16:PRO:O	8:H:20:GLU:OE2	2.37	0.42
8:H:43:LEU:HD13	8:H:72:PHE:HE1	1.72	0.42
19:S:51:ASP:CG	19:S:53:THR:HG1	2.21	0.42
19:S:71:MET:HG3	19:S:99:LEU:CD1	2.48	0.42
23:W:11:LEU:HA	23:W:14:ILE:CD1	2.50	0.42
1:A:106:GLY:O	1:A:109:THR:O	2.38	0.42
12:L:126:VAL:HG23	12:L:145:VAL:HA	2.02	0.42
2:B:104:ASP:CG	2:B:105:LEU:N	2.71	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:127:TYR:CG	13:M:128:PHE:N	2.88	0.42
23:W:106:THR:HG21	23:W:111:MET:HE2	2.02	0.42
6:F:112:LEU:CB	6:F:177:LEU:HD11	2.50	0.42
20:T:78:ILE:CG2	20:T:79:TYR:N	2.82	0.42
21:U:56:MET:HE3	21:U:88:LEU:HG	2.02	0.42
5:E:211:LYS:HE3	5:E:217:SER:OG	2.20	0.42
5:E:7:LYS:HD2	5:E:7:LYS:HA	1.38	0.42
3:C:149:PRO:HD2	3:C:149:PRO:O	2.19	0.42
4:D:226:GLN:HB3	4:D:227:LYS:H	1.59	0.42
4:D:58:VAL:CG2	4:D:59:LEU:N	2.83	0.42
5:E:117:GLU:C	5:E:119:ALA:N	2.73	0.42
5:E:153:LEU:HG	5:E:153:LEU:H	1.42	0.42
6:F:121:PRO:CA	6:F:193:LYS:HE3	2.39	0.42
7:G:122:PRO:CD	7:G:123:GLY:N	2.83	0.42
8:H:140:VAL:HG21	8:H:159:ASP:HA	2.01	0.42
9:I:191:GLU:HG2	9:I:192:GLY:N	2.34	0.42
11:K:9:ILE:HG23	11:K:10:ALA:N	2.35	0.42
11:K:14:LEU:HB2	11:K:35:LEU:HD21	2.02	0.42
11:K:85:LEU:HD13	11:K:89:ILE:CD1	2.48	0.42
11:K:85:LEU:HG	11:K:85:LEU:H	1.54	0.42
15:O:103:ASN:O	15:O:104:ARG:O	2.38	0.42
2:B:30:TRP:CD1	15:O:17:LEU:HD21	2.55	0.42
18:R:100:PRO:CD	18:R:119:VAL:HG13	2.48	0.42
3:C:72:PRO:N	22:V:29:HIS:CE1	2.87	0.42
6:F:20:PHE:HB3	6:F:23:TRP:CB	2.46	0.42
17:Q:76:GLY:C	17:Q:80:GLN:HG3	2.34	0.42
16:P:41:GLN:NE2	16:P:84:ILE:HD13	2.34	0.42
5:E:67:GLN:C	5:E:68:ARG:CG	2.88	0.42
20:T:77:LYS:HD2	20:T:94:ARG:HH11	1.77	0.42
19:S:53:THR:C	19:S:54:LYS:CA	2.72	0.42
19:S:88:LYS:H	19:S:95:TYR:HE1	1.61	0.42
2:B:208:HIS:NE2	2:B:209:ASP:OD2	2.53	0.42
20:T:124:THR:OG1	20:T:125:PRO:HD2	2.19	0.42
8:H:117:PRO:HD2	8:H:120:ARG:CB	2.50	0.42
24:X:32:LEU:O	24:X:37:LYS:NZ	2.52	0.42
9:I:163:GLU:O	9:I:166:PHE:HB2	2.20	0.42
3:C:113:VAL:HG12	3:C:114:ALA:N	2.35	0.42
3:C:53:ARG:NH1	3:C:258:LEU:O	2.51	0.42
3:C:63:LEU:HD12	3:C:83:LEU:HD22	2.02	0.42
4:D:41:VAL:HG13	4:D:41:VAL:O	2.19	0.42
7:G:170:ARG:CD	7:G:171:THR:O	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:99:ARG:O	14:N:103:GLU:HG2	2.20	0.42
14:N:71:ILE:O	14:N:71:ILE:CD1	5.80	0.42
22:V:41:LYS:HD2	22:V:41:LYS:HA	1.39	0.42
3:C:196:LYS:CD	3:C:196:LYS:C	2.88	0.42
6:F:86:LYS:O	6:F:90:VAL:HG23	2.19	0.42
17:Q:85:ARG:C	17:Q:88:ILE:HG12	2.39	0.42
20:T:47:PRO:HG2	20:T:52:TRP:CD1	2.55	0.42
16:P:60:LEU:HD13	16:P:89:MET:HG3	2.02	0.42
19:S:25:LYS:HG3	19:S:54:LYS:O	2.19	0.42
23:W:15:ASN:O	23:W:19:LYS:HG3	2.20	0.42
12:L:146:THR:CG2	12:L:147:LYS:N	2.81	0.42
3:C:154:TYR:CG	3:C:158:LYS:HB3	2.55	0.42
22:V:3:SER:O	22:V:4:ASN:C	2.58	0.42
13:M:26:LEU:HD11	13:M:90:GLY:N	2.33	0.42
13:M:76:LEU:HD23	13:M:76:LEU:HA	1.79	0.42
5:E:212:ASP:C	5:E:214:ASN:H	2.23	0.42
6:F:112:LEU:O	6:F:116:ILE:HD13	2.18	0.42
6:F:115:ALA:HB3	6:F:116:ILE:HD13	2.02	0.42
5:E:195:ILE:O	5:E:196:THR:OG1	2.36	0.42
12:L:45:LYS:O	12:L:47:PRO:HD3	2.20	0.42
16:P:28:MET:SD	16:P:32:GLN:OE1	2.78	0.42
12:L:14:PRO:C	12:L:15:THR:HG23	2.40	0.42
1:A:9:GLN:CB	1:A:10:MET:SD	2.90	0.41
1:A:57:LYS:HD2	1:A:160:ALA:O	2.20	0.41
4:D:226:GLN:C	4:D:227:LYS:HG3	2.38	0.41
4:D:29:LEU:CD2	4:D:65:ARG:NH2	2.83	0.41
4:D:98:ALA:HA	4:D:188:ILE:CD1	2.50	0.41
6:F:127:ARG:HD3	6:F:127:ARG:O	2.16	0.41
7:G:179:LEU:CD1	7:G:179:LEU:C	2.76	0.41
9:I:145:ILE:O	9:I:149:TYR:CD2	2.73	0.41
9:I:93:THR:O	9:I:94:LYS:HB2	2.20	0.41
11:K:31:LYS:HA	11:K:40:VAL:O	2.20	0.41
11:K:37:ASP:CA	11:K:38:LYS:HD3	2.50	0.41
14:N:38:TYR:CZ	14:N:78:LYS:CG	3.02	0.41
15:O:32:HIS:O	15:O:43:HIS:HB3	2.20	0.41
21:U:68:THR:HG22	21:U:69:PRO:HD2	2.01	0.41
6:F:20:PHE:CD2	6:F:23:TRP:CD1	3.07	0.41
6:F:44:LYS:CB	6:F:45:TYR:CD1	2.99	0.41
6:F:95:HIS:NE2	26:Z:103:HIS:HB2	2.35	0.41
19:S:39:ARG:CZ	20:T:38:LYS:HD3	2.49	0.41
20:T:33:TRP:HB2	20:T:36:THR:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:77:LYS:CE	20:T:92:PHE:CE2	3.03	0.41
2:B:87:ILE:O	2:B:87:ILE:HG13	2.19	0.41
16:P:5:GLU:O	16:P:6:GLN:HG3	2.16	0.41
16:P:15:PHE:HD1	16:P:15:PHE:HA	1.63	0.41
16:P:17:TYR:CE2	16:P:25:LEU:HD21	2.54	0.41
10:J:82:VAL:HG21	10:J:92:MET:HG2	2.02	0.41
10:J:79:ARG:CD	10:J:83:ARG:HD2	2.49	0.41
6:F:190:ILE:CG2	6:F:191:LYS:N	2.82	0.41
17:Q:123:ASP:HA	17:Q:124:PRO:HD3	1.87	0.41
10:J:139:LYS:HA	10:J:139:LYS:HD2	1.52	0.41
1:A:124:VAL:CG1	1:A:130:ASP:HB2	2.50	0.41
1:A:152:SER:HB3	1:A:153:PRO:HD2	2.01	0.41
2:B:79:VAL:O	2:B:79:VAL:CG2	2.62	0.41
5:E:167:GLY:C	5:E:168:LYS:CG	2.88	0.41
5:E:20:LEU:HD21	5:E:50:ASN:ND2	2.35	0.41
7:G:64:LYS:HB3	7:G:97:VAL:HG11	2.02	0.41
7:G:78:SER:OG	7:G:81:HIS:NE2	2.52	0.41
7:G:84:TYR:CE2	7:G:86:PRO:CG	2.88	0.41
10:J:136:ARG:NH1	10:J:161:LEU:HB2	2.35	0.41
10:J:40:LYS:O	10:J:41:ARG:C	2.53	0.41
10:J:66:LYS:C	10:J:71:LEU:CD1	2.89	0.41
14:N:130:LYS:HE2	14:N:130:LYS:HB2	1.78	0.41
17:Q:145:TYR:HD1	17:Q:145:TYR:HA	1.43	0.41
7:G:85:ARG:CZ	25:Y:118:ARG:CZ	2.92	0.41
19:S:42:HIS:NE2	20:T:45:LEU:CG	2.56	0.41
20:T:55:THR:CG2	20:T:56:ARG:N	2.82	0.41
8:H:50:GLU:CD	8:H:58:LYS:CE	2.88	0.41
16:P:17:TYR:CE1	16:P:18:ARG:HG3	2.55	0.41
16:P:34:MET:HB2	16:P:34:MET:HE2	1.97	0.41
10:J:180:LYS:HG3	10:J:181:GLY:H	1.78	0.41
21:U:37:ALA:O	21:U:41:ARG:HG3	2.20	0.41
12:L:71:ARG:CG	12:L:73:LEU:CD2	2.98	0.41
20:T:40:ALA:O	20:T:43:LYS:HG2	2.20	0.41
15:O:136:PRO:O	15:O:138:ASP:CA	2.63	0.41
6:F:112:LEU:HD23	6:F:112:LEU:C	2.39	0.41
21:U:117:ALA:O	21:U:118:ASP:O	2.39	0.41
8:H:121:THR:CG2	8:H:124:ALA:HB2	2.50	0.41
3:C:225:THR:HG23	3:C:226:PHE:N	2.35	0.41
1:A:6:ASP:C	1:A:8:LEU:N	2.73	0.41
2:B:24:PRO:O	2:B:27:LYS:HB2	2.20	0.41
4:D:65:ARG:HB3	4:D:65:ARG:HE	1.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:122:LYS:HD2	5:E:164:LEU:HD21	2.01	0.41
6:F:141:VAL:HG22	6:F:146:ARG:HG2	1.98	0.41
6:F:62:ARG:O	6:F:63:LYS:C	2.58	0.41
7:G:64:LYS:HD2	7:G:64:LYS:C	2.18	0.41
10:J:169:ARG:HB3	10:J:175:ARG:NH1	2.26	0.41
11:K:4:PRO:HD2	11:K:44:HIS:CE1	2.54	0.41
11:K:12:TYR:CD2	11:K:79:LEU:HD22	2.55	0.41
9:I:157:LYS:CB	12:L:22:ARG:CD	2.54	0.41
9:I:154:LYS:HZ3	12:L:22:ARG:CG	2.33	0.41
13:M:113:ASP:O	13:M:114:TYR:CG	2.73	0.41
22:V:33:PRO:CB	22:V:53:TYR:O	2.69	0.41
17:Q:44:PRO:CB	17:Q:81:ILE:HD11	2.50	0.41
25:Y:54:VAL:HG12	25:Y:75:ILE:HG23	2.02	0.41
25:Y:87:PRO:HB2	25:Y:89:HIS:ND1	2.30	0.41
8:H:23:ILE:C	8:H:23:ILE:HD13	2.40	0.41
10:J:84:ILE:CD1	10:J:86:VAL:HG23	2.49	0.41
25:Y:97:TYR:CD1	25:Y:98:GLU:N	2.79	0.41
6:F:37:ASP:OD1	6:F:37:ASP:N	2.53	0.41
5:E:31:PRO:CG	5:E:38:LEU:HD13	2.45	0.41
12:L:40:ILE:CG2	12:L:41:GLY:N	2.83	0.41
4:D:67:ARG:HG3	4:D:67:ARG:NH1	2.10	0.41
8:H:148:LEU:C	8:H:148:LEU:HD23	2.38	0.41
2:B:120:MET:CB	2:B:142:PHE:CE1	3.04	0.41
1:A:30:LEU:HD11	1:A:38:ILE:HD12	1.90	0.41
1:A:49:ILE:HG22	1:A:50:ASN:N	2.35	0.41
2:B:52:THR:CG2	14:N:56:ASP:OD1	84.59	0.41
2:B:55:THR:O	2:B:56:LYS:CG	2.66	0.41
3:C:59:LYS:HA	3:C:59:LYS:HD3	1.39	0.41
4:D:20:GLU:HG2	11:K:64:TRP:CE3	2.55	0.41
5:E:123:LEU:HD21	5:E:235:TRP:CB	2.51	0.41
5:E:248:ILE:HD11	10:J:72:PHE:HB3	1.97	0.41
7:G:70:HIS:CD2	7:G:103:ASP:OD2	2.73	0.41
7:G:64:LYS:HD2	7:G:65:GLN:C	2.40	0.41
11:K:4:PRO:HG2	11:K:7:ASN:ND2	2.36	0.41
15:O:31:CYS:HB3	15:O:95:ILE:HG12	1.92	0.41
21:U:26:SER:HB2	21:U:110:VAL:HA	2.02	0.41
22:V:66:ASP:O	22:V:67:ASP:O	2.39	0.41
20:T:37:VAL:HG12	20:T:39:LEU:N	2.35	0.41
8:H:6:ALA:HB2	8:H:10:LYS:NZ	2.36	0.41
8:H:80:VAL:HA	8:H:83:LEU:CG	2.50	0.41
4:D:166:TYR:HD1	4:D:200:PRO:CG	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:140:VAL:CG1	2:B:211:PHE:HD2	2.33	0.41
6:F:115:ALA:CB	6:F:177:LEU:CD2	2.96	0.41
2:B:41:ILE:HD12	2:B:41:ILE:HG21	1.77	0.41
24:X:77:ASN:C	24:X:79:LYS:N	2.73	0.41
2:B:71:LEU:C	2:B:79:VAL:HG21	2.40	0.41
3:C:69:PHE:CE1	3:C:247:THR:HG23	2.55	0.41
4:D:73:VAL:O	4:D:77:PHE:HD2	2.03	0.41
5:E:86:PHE:CZ	5:E:182:MET:SD	3.13	0.41
7:G:28:TYR:O	7:G:29:GLU:HB3	2.20	0.41
9:I:158:ILE:HG23	9:I:159:SER:N	2.36	0.41
9:I:191:GLU:O	9:I:195:LEU:N	2.42	0.41
10:J:170:PRO:CD	10:J:175:ARG:CG	2.94	0.41
10:J:34:GLU:HB3	10:J:35:TYR:CE2	2.55	0.41
17:Q:58:LEU:CD2	17:Q:111:ILE:HB	2.47	0.41
17:Q:19:ALA:CA	17:Q:74:GLY:C	2.89	0.41
17:Q:88:ILE:O	17:Q:91:ALA:HB3	2.20	0.41
25:Y:21:LYS:CE	25:Y:77:ASP:OD1	2.48	0.41
25:Y:68:LYS:C	25:Y:69:THR:HG23	2.41	0.41
6:F:103:LEU:HD23	6:F:178:ILE:HD13	0.52	0.41
25:Y:104:ARG:HA	25:Y:107:ARG:CZ	2.51	0.41
10:J:180:LYS:HD2	10:J:181:GLY:N	2.35	0.41
21:U:44:LYS:HB2	21:U:49:LYS:HA	2.03	0.41
19:S:61:GLU:O	19:S:64:VAL:HG23	2.10	0.41
17:Q:63:PHE:HD1	17:Q:68:ILE:CD1	2.27	0.41
5:E:169:ILE:HG13	5:E:169:ILE:O	2.21	0.41
1:A:161:ILE:CG2	1:A:174:MET:HE2	2.51	0.41
1:A:18:PHE:HZ	1:A:55:TRP:CZ3	2.37	0.41
3:C:245:VAL:O	3:C:246:PHE:CB	2.65	0.41
4:D:79:PHE:CG	4:D:84:VAL:HB	2.55	0.41
5:E:192:ILE:HD13	5:E:238:LEU:CD2	2.51	0.41
5:E:49:ARG:HD2	5:E:50:ASN:CG	2.40	0.41
5:E:45:ILE:HA	5:E:61:VAL:HG11	2.03	0.41
7:G:145:PHE:CB	7:G:147:LEU:HD13	2.47	0.41
9:I:141:ARG:O	9:I:142:SER:HB3	2.19	0.41
11:K:84:HIS:NE2	13:M:27:ILE:HD11	2.34	0.41
14:N:116:ILE:HA	14:N:119:GLU:OE1	2.20	0.41
14:N:129:TYR:HB2	14:N:135:LEU:HD12	2.03	0.41
22:V:43:THR:HB	22:V:44:GLY:H	1.71	0.41
23:W:18:GLU:HG2	23:W:65:LEU:CD1	2.47	0.41
24:X:95:GLU:HB2	24:X:140:ARG:HH22	1.84	0.41
6:F:89:THR:HG23	6:F:90:VAL:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:39:GLN:CG	8:H:40:LEU:N	2.83	0.41
24:X:21:LYS:HB3	24:X:27:TYR:CE2	2.55	0.41
16:P:36:LEU:HA	16:P:37:TYR:CG	2.56	0.41
19:S:52:LEU:HD12	19:S:53:THR:CA	2.51	0.41
9:I:199:LEU:HA	9:I:199:LEU:HD23	1.86	0.41
3:C:195:PRO:HG3	3:C:221:PHE:CE1	2.54	0.41
13:M:124:ILE:O	13:M:128:PHE:HB2	2.21	0.41
13:M:18:LEU:HD21	13:M:22:LEU:HD21	2.01	0.41
13:M:84:LYS:HB3	13:M:88:TRP:CZ2	2.55	0.41
6:F:176:GLU:CD	6:F:187:SER:HG	2.11	0.41
16:P:67:ALA:HB1	16:P:73:PRO:HB3	1.98	0.41
11:K:94:LEU:CD2	11:K:95:ARG:H	2.31	0.41
4:D:110:LEU:HD23	4:D:110:LEU:C	2.41	0.41
1:A:157:VAL:O	22:V:66:ASP:OD2	2.38	0.41
1:A:53:ARG:HH11	1:A:53:ARG:HD3	1.50	0.41
5:E:123:LEU:HD22	5:E:236:ILE:HG23	2.02	0.41
5:E:43:PRO:HD3	5:E:46:ILE:HD12	2.00	0.41
6:F:124:ASP:CA	6:F:200:ALA:HB2	2.51	0.41
7:G:65:GLN:C	7:G:100:CYS:SG	2.99	0.41
7:G:174:PRO:HB2	7:G:175:LYS:H	1.50	0.41
7:G:64:LYS:CE	7:G:65:GLN:O	2.69	0.41
9:I:155:ASN:HD21	9:I:156:ALA:HA	1.83	0.41
10:J:114:VAL:C	10:J:120:ALA:HB3	2.41	0.41
11:K:58:VAL:HG23	11:K:70:TYR:O	2.20	0.41
11:K:80:ARG:HA	11:K:85:LEU:CD1	2.50	0.41
14:N:37:ILE:HD11	14:N:63:VAL:CG1	2.51	0.41
15:O:62:VAL:HG21	15:O:72:TYR:OH	2.11	0.41
22:V:41:LYS:O	22:V:43:THR:CA	2.67	0.41
1:A:57:LYS:NZ	22:V:70:LEU:HD21	2.35	0.41
24:X:52:LEU:HG	24:X:71:ARG:CB	2.51	0.41
16:P:41:GLN:OE1	16:P:45:LEU:HD12	2.21	0.41
20:T:49:ASP:O	20:T:52:TRP:HD1	2.03	0.41
8:H:83:LEU:HD12	8:H:84:GLU:CA	2.51	0.41
8:H:146:VAL:HG23	23:W:50:PHE:CD1	2.52	0.41
25:Y:32:LYS:HG2	25:Y:33:ALA:C	2.40	0.41
13:M:35:ILE:CD1	13:M:61:TYR:CE2	3.02	0.41
26:Z:91:LEU:HA	26:Z:91:LEU:HD23	1.82	0.41
25:Y:99:LYS:HD2	25:Y:99:LYS:O	2.15	0.41
21:U:75:LYS:H	21:U:75:LYS:HG3	1.25	0.41
12:L:50:ALA:N	12:L:116:CYS:SG	2.94	0.41
5:E:260:GLN:OE1	5:E:260:GLN:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:122:ILE:O	12:L:122:ILE:HG13	2.21	0.41
14:N:107:LYS:HD2	14:N:107:LYS:HA	1.68	0.41
26:Z:84:ALA:O	26:Z:87:ALA:N	2.54	0.41
1:A:36:GLN:O	1:A:53:ARG:CZ	2.69	0.41
1:A:44:ASP:CG	18:R:101:ASP:OD2	2.59	0.41
3:C:246:PHE:HB3	3:C:247:THR:H	1.63	0.41
7:G:28:TYR:C	7:G:30:LYS:N	2.74	0.41
7:G:68:LEU:N	7:G:68:LEU:CD2	2.84	0.41
11:K:3:MET:CG	11:K:4:PRO:O	2.68	0.41
13:M:43:ASP:O	13:M:44:LYS:HG3	2.20	0.41
24:X:125:VAL:O	24:X:126:ALA:CB	2.61	0.41
6:F:44:LYS:CD	6:F:44:LYS:C	2.78	0.41
25:Y:55:ILE:HA	25:Y:75:ILE:HG12	2.02	0.41
20:T:102:ARG:HD3	20:T:105:GLN:OE1	2.21	0.41
2:B:87:ILE:CD1	2:B:220:LYS:HZ1	2.32	0.41
10:J:84:ILE:CG1	10:J:86:VAL:CG2	2.99	0.41
12:L:113:LEU:HD23	12:L:113:LEU:C	2.41	0.41
2:B:147:ASN:O	18:R:124:VAL:CB	2.60	0.41
4:D:111:GLY:CA	4:D:113:LEU:HD11	2.51	0.41
3:C:168:LYS:CG	23:W:95:PRO:HA	2.51	0.41
3:C:260:LYS:HD2	3:C:261:THR:CB	2.50	0.41
2:B:133:TYR:CD1	2:B:217:MET:HE1	2.55	0.41
2:B:130:THR:HG23	2:B:179:ASN:N	2.36	0.41
23:W:7:LEU:CD2	23:W:34:ILE:HG13	2.46	0.41
12:L:46:THR:HA	12:L:47:PRO:HD2	1.91	0.41
14:N:2:GLY:O	14:N:3:ARG:HB2	2.19	0.41
5:E:197:ASN:O	5:E:209:HIS:N	2.48	0.41
2:B:127:VAL:HG11	2:B:176:VAL:HB	2.02	0.41
4:D:53:THR:HG22	4:D:91:VAL:N	2.34	0.41
5:E:34:GLY:HA3	5:E:83:PRO:CG	2.51	0.41
7:G:16:ILE:HD12	7:G:45:TRP:CZ2	2.42	0.41
10:J:136:ARG:HG2	10:J:141:VAL:CA	2.51	0.41
10:J:131:ARG:NH1	10:J:143:ASN:ND2	2.63	0.41
15:O:84:ARG:HA	15:O:87:GLU:CB	2.47	0.41
18:R:105:MET:C	18:R:109:LEU:HD12	2.40	0.41
22:V:64:GLU:O	22:V:67:ASP:N	2.53	0.41
24:X:129:SER:O	24:X:133:LEU:HG	2.20	0.41
1:A:186:ARG:HH11	1:A:186:ARG:CA	2.33	0.41
2:B:103:MET:HE1	2:B:212:VAL:HG23	2.02	0.41
3:C:127:LYS:HA	3:C:127:LYS:HD2	1.34	0.41
4:D:29:LEU:CD1	4:D:50:ILE:HG21	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:32:MET:HA	7:G:52:ILE:CG2	2.51	0.41
7:G:64:LYS:CG	7:G:64:LYS:O	2.69	0.41
8:H:133:LEU:HD13	8:H:173:PHE:HA	2.02	0.41
8:H:159:ASP:O	8:H:160:LYS:CB	2.69	0.41
9:I:146:GLN:HA	9:I:149:TYR:HD2	1.86	0.41
9:I:191:GLU:CA	9:I:195:LEU:HB2	2.50	0.41
9:I:48:VAL:HG11	9:I:54:LYS:CE	2.50	0.41
11:K:3:MET:HA	11:K:4:PRO:HD2	1.66	0.41
12:L:56:ILE:HG22	12:L:57:ASP:N	2.35	0.41
14:N:136:PRO:HD2	14:N:139:TRP:HD1	1.86	0.41
21:U:68:THR:CB	21:U:70:CYS:O	2.69	0.41
6:F:47:LYS:HB3	17:Q:117:ARG:HH22	1.86	0.41
17:Q:43:GLU:HA	17:Q:45:ARG:H	1.81	0.41
17:Q:85:ARG:HH12	17:Q:117:ARG:HG3	1.68	0.41
6:F:42:LYS:O	6:F:45:TYR:N	2.53	0.41
17:Q:16:LYS:HD2	17:Q:16:LYS:C	2.41	0.41
8:H:75:ILE:CG2	8:H:76:GLN:H	2.25	0.41
8:H:8:ILE:CG2	8:H:9:VAL:N	2.67	0.41
8:H:58:LYS:O	8:H:90:LYS:HA	2.21	0.41
23:W:49:GLU:CD	23:W:64:ASN:HD22	2.24	0.41
10:J:53:ILE:HD13	10:J:105:PHE:CZ	2.55	0.41
4:D:123:LEU:CD1	4:D:154:ASP:HB2	2.46	0.41
23:W:94:LEU:HA	23:W:95:PRO:HD3	1.81	0.41
3:C:167:CYS:SG	3:C:168:LYS:HG3	2.60	0.41
4:D:214:LYS:C	4:D:215:ASP:CG	2.80	0.41
4:D:212:GLU:HB2	18:R:19:LYS:HD3	1.96	0.41
3:C:161:LYS:HA	3:C:162:PRO:HD3	1.55	0.41
13:M:76:LEU:N	13:M:128:PHE:CZ	2.88	0.41
13:M:22:LEU:HD12	13:M:88:TRP:HB3	2.02	0.41
13:M:89:VAL:CG1	13:M:90:GLY:H	2.24	0.41
11:K:97:SER:C	11:K:98:ARG:O	2.59	0.41
20:T:75:MET:HE3	20:T:79:TYR:CZ	2.50	0.41
5:E:185:GLY:HA2	5:E:189:LEU:HD13	2.03	0.41
4:D:164:VAL:CG1	4:D:165:ASN:N	2.83	0.41
4:D:146:ARG:HD3	4:D:146:ARG:HA	1.63	0.41
17:Q:15:ARG:NH1	17:Q:20:THR:HG22	2.35	0.41
13:M:82:ASN:ND2	13:M:107:SER:HA	2.36	0.41
2:B:223:PHE:HB3	2:B:224:GLU:H	1.39	0.41
1:A:145:ILE:CA	1:A:159:ILE:CG2	2.77	0.41
2:B:72:ALA:CB	2:B:79:VAL:O	2.57	0.41
2:B:88:THR:HG23	2:B:96:CYS:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:59:LYS:CD	3:C:254:PHE:CE1	3.04	0.41
3:C:83:LEU:C	3:C:85:ALA:N	2.74	0.41
7:G:121:ILE:CG1	7:G:122:PRO:HD3	2.51	0.41
9:I:139:LYS:HD2	9:I:149:TYR:OH	2.21	0.41
14:N:38:TYR:CD1	14:N:78:LYS:HG3	2.56	0.41
15:O:125:LYS:HB3	15:O:125:LYS:HE3	1.37	0.41
15:O:42:VAL:HG12	15:O:43:HIS:N	2.35	0.41
18:R:98:VAL:O	18:R:100:PRO:CD	2.69	0.41
17:Q:78:VAL:HG13	17:Q:82:TYR:CE2	2.43	0.41
16:P:78:THR:O	16:P:102:PHE:HE1	2.03	0.41
16:P:97:TYR:HA	16:P:101:THR:O	2.21	0.41
16:P:110:GLU:CD	16:P:110:GLU:N	2.70	0.41
16:P:89:MET:HB3	16:P:107:ILE:HD11	1.96	0.41
25:Y:35:VAL:HG12	25:Y:39:GLU:OE1	2.20	0.41
4:D:192:TRP:C	4:D:194:PRO:N	2.61	0.41
19:S:138:THR:CA	19:S:141:ARG:CZ	2.65	0.41
3:C:168:LYS:HG3	23:W:95:PRO:HA	2.03	0.41
13:M:31:LEU:CD1	13:M:33:ARG:HB3	2.43	0.41
20:T:40:ALA:HB3	20:T:43:LYS:HE3	2.02	0.41
20:T:40:ALA:CA	20:T:43:LYS:CG	2.98	0.41
15:O:106:LYS:HB2	15:O:106:LYS:HE2	1.96	0.41
5:E:143:ASP:OD1	5:E:145:ARG:HD2	2.21	0.41
15:O:94:HIS:NE2	15:O:127:GLY:HA3	2.36	0.41
20:T:116:ASP:CB	20:T:120:GLY:O	2.65	0.41
12:L:70:GLY:O	12:L:72:ILE:HD12	2.20	0.41
5:E:59:ASP:O	5:E:63:LYS:HG3	2.20	0.41
2:B:155:TYR:HD1	2:B:155:TYR:N	2.18	0.41
1:A:125:THR:HG22	1:A:175:TRP:CE2	2.56	0.40
1:A:180:ARG:HD3	1:A:184:ARG:NE	2.36	0.40
1:A:191:ARG:HD3	1:A:193:HIS:CD2	2.56	0.40
1:A:57:LYS:HZ3	22:V:70:LEU:HD21	1.87	0.40
3:C:127:LYS:HE3	3:C:128:CYS:H	1.86	0.40
4:D:76:ARG:O	4:D:76:ARG:HD2	2.21	0.40
7:G:176:ILE:HG22	7:G:179:LEU:HD23	1.83	0.40
7:G:200:LYS:HG3	7:G:201:LYS:N	2.35	0.40
7:G:213:LEU:CD1	7:G:214:ALA:N	2.73	0.40
7:G:27:PHE:CE1	7:G:111:LEU:HD11	2.56	0.40
8:H:159:ASP:O	8:H:190:PRO:HG3	2.21	0.40
9:I:157:LYS:HG2	12:L:22:ARG:NH1	2.34	0.40
14:N:18:TYR:O	14:N:19:ARG:O	2.39	0.40
15:O:98:ARG:NE	15:O:134:PRO:HD3	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:102:ARG:HA	20:T:102:ARG:HD2	1.70	0.40
6:F:167:LYS:CG	6:F:171:GLU:HG2	2.50	0.40
16:P:49:LEU:HA	16:P:51:ARG:HE	1.84	0.40
21:U:44:LYS:O	21:U:45:GLU:C	2.58	0.40
13:M:13:ASP:O	13:M:14:VAL:C	2.58	0.40
12:L:73:LEU:HD22	12:L:90:ARG:NH2	2.36	0.40
3:C:151:ARG:HH12	3:C:240:LEU:HD13	1.67	0.40
3:C:191:SER:HB3	3:C:195:PRO:HG2	2.03	0.40
3:C:176:VAL:HG11	3:C:221:PHE:HA	2.03	0.40
23:W:36:ARG:HE	23:W:110:ILE:HB	1.85	0.40
8:H:117:PRO:O	8:H:120:ARG:HB2	2.21	0.40
8:H:117:PRO:CD	8:H:120:ARG:HD2	2.49	0.40
9:I:29:LEU:HD21	9:I:31:ARG:NH1	2.34	0.40
20:T:21:PHE:HE1	20:T:22:LEU:HD23	1.85	0.40
4:D:170:THR:CG2	4:D:171:ALA:N	2.84	0.40
1:A:126:ASP:O	1:A:130:ASP:HB2	2.21	0.40
1:A:134:LEU:CD2	1:A:144:THR:HG21	2.51	0.40
3:C:54:LEU:HB3	3:C:60:ILE:HG13	2.02	0.40
5:E:164:LEU:HA	5:E:164:LEU:HD22	1.77	0.40
7:G:49:VAL:CG2	7:G:115:LYS:HE2	2.51	0.40
11:K:64:TRP:O	11:K:65:ARG:C	2.58	0.40
14:N:23:PRO:O	14:N:24:THR:CB	2.66	0.40
14:N:67:THR:C	14:N:69:ASN:H	2.24	0.40
17:Q:85:ARG:HA	17:Q:88:ILE:HG12	2.03	0.40
25:Y:61:ARG:HD3	25:Y:70:THR:O	2.22	0.40
8:H:20:GLU:O	8:H:23:ILE:HG22	2.21	0.40
8:H:87:PHE:HD2	8:H:90:LYS:HD2	1.86	0.40
12:L:18:GLN:HB3	12:L:18:GLN:HE21	1.44	0.40
4:D:197:LYS:N	4:D:199:GLY:CA	2.84	0.40
26:Z:62:VAL:HG11	26:Z:91:LEU:HD11	2.03	0.40
12:L:55:TYR:C	12:L:55:TYR:CD1	2.94	0.40
25:Y:102:THR:CG2	25:Y:107:ARG:HD3	2.50	0.40
19:S:46:ARG:NH1	20:T:50:GLU:CA	2.81	0.40
12:L:95:TYR:C	12:L:96:ILE:HD12	2.40	0.40
2:B:145:LYS:CA	2:B:149:GLN:OE1	2.68	0.40
2:B:148:ASN:OD1	18:R:123:THR:OG1	2.39	0.40
18:R:22:THR:HG22	18:R:73:LEU:HD12	1.92	0.40
4:D:123:LEU:HA	4:D:126:ILE:HG12	2.01	0.40
18:R:7:LYS:O	18:R:11:LYS:HG3	2.21	0.40
6:F:192:LYS:HA	6:F:192:LYS:HD3	1.69	0.40
23:W:8:ALA:O	23:W:12:LYS:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:159:ILE:HA	1:A:159:ILE:HD12	1.27	0.40
4:D:34:TYR:CE2	21:U:61:LEU:CG	25.45	0.40
5:E:18:TRP:CD2	5:E:46:ILE:HD13	2.56	0.40
6:F:121:PRO:HA	6:F:193:LYS:CE	2.41	0.40
7:G:176:ILE:CG1	7:G:179:LEU:CD2	2.98	0.40
9:I:62:VAL:CG2	9:I:75:LYS:HZ1	2.29	0.40
10:J:115:PHE:CD1	10:J:122:SER:CA	3.04	0.40
14:N:101:HIS:CE1	14:N:105:ASN:HD22	2.40	0.40
14:N:16:LEU:HA	14:N:17:PRO:HD3	1.87	0.40
22:V:33:PRO:HB2	22:V:34:MET:H	1.73	0.40
17:Q:109:LYS:HZ1	17:Q:113:ILE:HD13	1.86	0.40
20:T:99:VAL:HG23	20:T:100:ALA:H	1.83	0.40
9:I:8:TRP:CD1	9:I:22:HIS:HE1	2.40	0.40
18:R:17:ILE:HG13	18:R:54:VAL:HG13	2.03	0.40
5:E:47:PHE:CD2	5:E:52:LEU:HD12	2.57	0.40
9:I:7:ASN:O	9:I:9:HIS:C	2.51	0.40
13:M:71:GLU:OE1	13:M:71:GLU:CA	2.68	0.40
1:A:204:TYR:C	1:A:204:TYR:CD2	2.95	0.40
3:C:186:GLY:HA3	10:J:54:ARG:HH21	1.77	0.40
4:D:7:LYS:O	4:D:11:PHE:HD1	2.04	0.40
7:G:137:ARG:H	7:G:137:ARG:HG2	1.58	0.40
8:H:145:ARG:HD3	8:H:155:LYS:NZ	2.36	0.40
8:H:51:ILE:HG13	8:H:51:ILE:O	2.22	0.40
9:I:110:ARG:HE	9:I:128:LYS:NZ	2.18	0.40
15:O:17:LEU:HD23	15:O:18:GLY:CA	2.51	0.40
22:V:31:SER:C	22:V:32:ILE:CG1	2.86	0.40
1:A:57:LYS:CD	22:V:70:LEU:HD21	2.51	0.40
22:V:74:LYS:CA	22:V:79:VAL:HB	2.51	0.40
23:W:17:ALA:O	23:W:22:LYS:HB2	2.22	0.40
6:F:41:VAL:HG13	6:F:42:LYS:N	2.35	0.40
17:Q:117:ARG:O	17:Q:118:THR:CB	2.68	0.40
17:Q:18:THR:O	17:Q:79:ALA:HB1	2.22	0.40
17:Q:21:ALA:HB2	17:Q:72:VAL:CG2	2.32	0.40
25:Y:57:VAL:CA	25:Y:58:PHE:CD2	3.04	0.40
2:B:66:VAL:HG22	2:B:87:ILE:CA	2.51	0.40
23:W:49:GLU:H	23:W:64:ASN:HD22	1.69	0.40
16:P:7:LYS:C	16:P:9:LYS:H	2.19	0.40
19:S:40:TYR:OH	19:S:99:LEU:HD21	2.21	0.40
25:Y:29:HIS:HA	25:Y:30:PRO:HD2	1.97	0.40
25:Y:64:PHE:N	25:Y:64:PHE:HD1	2.09	0.40
25:Y:99:LYS:H	25:Y:99:LYS:CE	2.25	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:238:PRO:HA	3:C:241:TRP:NE1	2.35	0.40
3:C:151:ARG:NH2	22:V:1:MET:SD	2.94	0.40
19:S:47:LYS:HZ1	19:S:78:LYS:HB3	1.86	0.40
26:Z:111:ARG:HH11	26:Z:114:LYS:NZ	2.18	0.40
8:H:152:ARG:O	8:H:153:LEU:HD23	2.21	0.40
20:T:64:LEU:HD12	20:T:113:VAL:HG11	2.03	0.40
12:L:45:LYS:HA	12:L:45:LYS:HD2	1.90	0.40
2:B:119:THR:O	2:B:142:PHE:HA	2.21	0.40
17:Q:106:LYS:HA	17:Q:106:LYS:HD3	1.90	0.40
7:G:129:VAL:HG13	7:G:130:PRO:HD2	2.03	0.40
1:A:158:ASP:CA	22:V:65:SER:OG	2.70	0.40
1:A:193:HIS:CG	1:A:194:PRO:CD	3.03	0.40
3:C:150:VAL:C	3:C:233:TYR:CE2	2.94	0.40
3:C:120:GLY:C	3:C:150:VAL:HG22	2.42	0.40
3:C:254:PHE:O	3:C:257:HIS:CB	2.70	0.40
3:C:50:LYS:HG2	3:C:51:LEU:N	2.36	0.40
4:D:47:GLU:HA	4:D:85:GLU:HG2	2.04	0.40
5:E:23:LEU:C	5:E:24:THR:CG2	2.77	0.40
5:E:85:GLY:HA2	5:E:109:PHE:CZ	2.57	0.40
7:G:26:THR:HG21	7:G:40:ALA:HB1	2.02	0.40
11:K:57:TYR:O	11:K:71:LEU:HD12	2.21	0.40
13:M:113:ASP:O	13:M:114:TYR:CD2	2.74	0.40
15:O:34:PHE:HE1	15:O:100:THR:N	2.19	0.40
26:Z:104:ARG:HD2	26:Z:104:ARG:HA	1.38	0.40
19:S:131:VAL:HG12	19:S:131:VAL:O	2.21	0.40
21:U:40:ILE:HD13	21:U:53:PRO:CD	2.50	0.40
16:P:89:MET:HB3	16:P:107:ILE:HD13	1.98	0.40
16:P:30:TYR:OH	16:P:51:ARG:NH1	2.54	0.40
24:X:55:VAL:HG12	24:X:57:VAL:CG2	2.52	0.40
13:M:127:TYR:C	13:M:127:TYR:CD1	2.93	0.40
13:M:78:LYS:HD2	13:M:79:VAL:H	1.86	0.40
20:T:40:ALA:C	20:T:43:LYS:HG2	2.41	0.40
15:O:97:LEU:CD1	15:O:112:ALA:HB1	2.45	0.40
20:T:87:VAL:HG12	20:T:88:MET:CE	2.52	0.40
8:H:117:PRO:HG2	8:H:120:ARG:HE	1.81	0.40

All (81) 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)
31:e:123:PHE:CD1	34:i:1759:C:C4'[3_564]	0.62	1.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:123:PHE:CE1	34:i:1759:C:C5'[3_564]	0.70	1.50
34:i:531:U:O2'	34:i:1767:C:O4'[3_564]	0.72	1.48
31:e:125:LYS:CE	34:i:1761:C:OP1[3_564]	0.73	1.47
11:K:97:SER:O	34:i:76:U:OP1[3_564]	0.95	1.25
31:e:123:PHE:O	34:i:1760:C:OP1[3_564]	1.07	1.13
31:e:123:PHE:C	34:i:1760:C:OP1[3_564]	1.13	1.07
34:i:137:U:OP2	34:i:531:U:O4[2_665]	1.16	1.04
11:K:97:SER:O	34:i:76:U:P[3_564]	1.16	1.04
31:e:123:PHE:CB	34:i:1759:C:O3'[3_564]	1.25	0.95
11:K:97:SER:C	34:i:76:U:OP1[3_564]	1.29	0.91
11:K:96:ARG:NH1	34:i:76:U:N1[3_564]	1.29	0.91
34:i:531:U:O2'	34:i:1767:C:C1'[3_564]	1.30	0.90
34:i:533:C:OP1	34:i:1755:U:C4'[3_564]	1.31	0.89
31:e:123:PHE:O	34:i:1760:C:P[3_564]	1.32	0.88
31:e:123:PHE:CD2	34:i:1760:C:OP2[3_564]	1.33	0.87
31:e:123:PHE:CD1	34:i:1759:C:C5'[3_564]	1.39	0.81
9:I:200:ARG:NH2	34:i:1036:G:OP2[4_555]	1.43	0.77
34:i:531:U:O2	34:i:1767:C:O2'[3_564]	1.44	0.76
19:S:112:GLU:OE2	34:i:725:C:OP1[5_664]	1.49	0.71
31:e:123:PHE:CG	34:i:1759:C:C3'[3_564]	1.52	0.68
11:K:96:ARG:NH1	34:i:76:U:C2[3_564]	1.53	0.67
34:i:533:C:OP1	34:i:1755:U:C3'[3_564]	1.54	0.66
34:i:533:C:OP1	34:i:1755:U:O3'[3_564]	1.56	0.64
31:e:123:PHE:CG	34:i:1759:C:O3'[3_564]	1.58	0.62
31:e:123:PHE:CD1	34:i:1759:C:C3'[3_564]	1.59	0.61
11:K:96:ARG:CD	34:i:76:U:C6[3_564]	1.60	0.60
11:K:96:ARG:CZ	34:i:76:U:C1'[3_564]	1.61	0.59
34:i:137:U:OP2	34:i:531:U:C4[2_665]	1.67	0.53
31:e:123:PHE:C	34:i:1760:C:P[3_564]	1.67	0.53
9:I:200:ARG:NH2	34:i:1036:G:P[4_555]	1.68	0.52
31:e:123:PHE:CE1	34:i:1759:C:C4'[3_564]	1.68	0.52
11:K:97:SER:O	34:i:76:U:OP2[3_564]	1.69	0.51
34:i:531:U:C2	34:i:1767:C:O2'[3_564]	1.70	0.50
31:e:123:PHE:CG	34:i:1759:C:C4'[3_564]	1.71	0.49
34:i:137:U:P	34:i:531:U:O4[2_665]	1.72	0.48
11:K:96:ARG:NE	34:i:76:U:O4'[3_564]	1.75	0.45
31:e:123:PHE:CB	34:i:1760:C:P[3_564]	1.76	0.44
31:e:123:PHE:CG	34:i:1760:C:OP2[3_564]	1.78	0.42
31:e:123:PHE:CD2	34:i:1760:C:P[3_564]	1.80	0.40
31:e:123:PHE:O	34:i:1760:C:O5'[3_564]	1.80	0.40
31:e:125:LYS:CD	34:i:1761:C:OP1[3_564]	1.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:531:U:C1'	34:i:1767:C:C4'[3_564]	1.82	0.38
31:e:123:PHE:CA	34:i:1760:C:OP1[3_564]	1.83	0.37
34:i:531:U:O2'	34:i:1767:C:C4'[3_564]	1.87	0.33
11:K:96:ARG:CZ	34:i:76:U:N1[3_564]	1.88	0.32
31:e:123:PHE:C	34:i:1760:C:OP2[3_564]	1.90	0.30
34:i:531:U:C2'	34:i:1767:C:O4'[3_564]	1.91	0.29
7:G:154:ARG:CD	11:K:96:ARG:NH2[2_665]	1.92	0.28
31:e:123:PHE:CA	34:i:1760:C:OP2[3_564]	1.93	0.27
34:i:531:U:C1'	34:i:1767:C:O2'[3_564]	1.93	0.27
31:e:123:PHE:CA	34:i:1760:C:P[3_564]	1.93	0.27
31:e:123:PHE:CE1	34:i:1759:C:O5'[3_564]	1.93	0.27
11:K:96:ARG:NH1	34:i:76:U:C1'[3_564]	1.94	0.26
34:i:531:U:N1	34:i:1767:C:O2'[3_564]	1.94	0.26
34:i:532:U:O3'	34:i:1755:U:O4'[3_564]	1.95	0.25
31:e:123:PHE:CG	34:i:1760:C:P[3_564]	1.95	0.25
11:K:96:ARG:NE	34:i:76:U:C1'[3_564]	1.96	0.24
7:G:155:GLN:CD	11:K:98:ARG:O[2_665]	1.96	0.24
7:G:155:GLN:NE2	11:K:98:ARG:O[2_665]	1.96	0.24
34:i:533:C:OP2	34:i:1755:U:O2'[3_564]	1.97	0.23
34:i:137:U:OP1	34:i:531:U:O4[2_665]	1.98	0.22
34:i:531:U:O2	34:i:1767:C:C2'[3_564]	1.99	0.21
9:I:200:ARG:NH2	34:i:1036:G:O5'[4_555]	2.00	0.20
31:e:123:PHE:CZ	34:i:1759:C:C5'[3_564]	2.01	0.19
34:i:531:U:O4'	34:i:1767:C:C4'[3_564]	2.04	0.16
34:i:531:U:C2'	34:i:1767:C:O2'[3_564]	2.05	0.15
34:i:533:C:P	34:i:1755:U:C4'[3_564]	2.05	0.15
31:e:125:LYS:NZ	34:i:1761:C:OP1[3_564]	2.06	0.14
34:i:532:U:O3'	34:i:1755:U:O2'[3_564]	2.08	0.12
11:K:97:SER:CA	34:i:76:U:OP1[3_564]	2.09	0.11
34:i:533:C:P	34:i:1755:U:O2'[3_564]	2.09	0.11
34:i:531:U:O2	34:i:1768:C:C5'[3_564]	2.10	0.10
34:i:137:U:OP2	34:i:531:U:N3[2_665]	2.13	0.07
31:e:123:PHE:CB	34:i:1760:C:OP2[3_564]	2.13	0.07
11:K:96:ARG:NH1	34:i:76:U:O2[3_564]	2.13	0.07
31:e:123:PHE:CD2	34:i:1760:C:O5'[3_564]	2.13	0.07
31:e:123:PHE:O	34:i:1760:C:OP2[3_564]	2.16	0.04
11:K:96:ARG:NH1	34:i:76:U:C6[3_564]	2.18	0.02
34:i:136:C:O3'	34:i:532:U:N3[2_665]	2.18	0.02
34:i:531:U:C2'	34:i:1767:C:C4'[3_564]	2.18	0.02

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	
1	A	206/295 (70%)	156 (76%)	23 (11%)	27 (13%)	0	7
2	B	213/264 (81%)	174 (82%)	24 (11%)	15 (7%)	1	22
3	C	224/278 (81%)	199 (89%)	14 (6%)	11 (5%)	3	31
4	D	225/243 (93%)	180 (80%)	23 (10%)	22 (10%)	1	14
5	E	261/263 (99%)	210 (80%)	27 (10%)	24 (9%)	1	16
6	F	189/204 (93%)	162 (86%)	15 (8%)	12 (6%)	2	25
7	G	235/249 (94%)	201 (86%)	19 (8%)	15 (6%)	2	25
8	H	188/194 (97%)	146 (78%)	11 (6%)	31 (16%)	0	5
9	I	204/208 (98%)	169 (83%)	13 (6%)	22 (11%)	0	11
10	J	180/194 (93%)	138 (77%)	18 (10%)	24 (13%)	0	7
11	K	96/165 (58%)	67 (70%)	11 (12%)	18 (19%)	0	3
12	L	156/158 (99%)	132 (85%)	10 (6%)	14 (9%)	1	17
13	M	122/132 (92%)	85 (70%)	16 (13%)	21 (17%)	0	4
14	N	148/151 (98%)	123 (83%)	19 (13%)	6 (4%)	3	35
15	O	134/151 (89%)	101 (75%)	14 (10%)	19 (14%)	0	6
16	P	125/145 (86%)	92 (74%)	16 (13%)	17 (14%)	0	6
17	Q	139/146 (95%)	110 (79%)	19 (14%)	10 (7%)	1	22
18	R	124/135 (92%)	97 (78%)	13 (10%)	14 (11%)	0	10
19	S	135/152 (89%)	106 (78%)	20 (15%)	9 (7%)	1	24
20	T	139/145 (96%)	119 (86%)	10 (7%)	10 (7%)	1	22
21	U	102/119 (86%)	76 (74%)	10 (10%)	16 (16%)	0	5
22	V	80/83 (96%)	55 (69%)	11 (14%)	14 (18%)	0	4
23	W	127/130 (98%)	111 (87%)	14 (11%)	2 (2%)	12	56
24	X	140/143 (98%)	121 (86%)	11 (8%)	8 (6%)	2	27
25	Y	124/133 (93%)	91 (73%)	15 (12%)	18 (14%)	0	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
26	Z	73/125 (58%)	52 (71%)	12 (16%)	9 (12%)	0	8
27	a	105/115 (91%)	72 (69%)	14 (13%)	19 (18%)	0	4
28	b	82/84 (98%)	57 (70%)	14 (17%)	11 (13%)	0	7
29	c	62/69 (90%)	44 (71%)	13 (21%)	5 (8%)	1	19
30	d	51/56 (91%)	46 (90%)	3 (6%)	2 (4%)	4	36
31	e	57/133 (43%)	37 (65%)	7 (12%)	13 (23%)	0	2
32	f	69/156 (44%)	38 (55%)	13 (19%)	18 (26%)	0	1
33	g	311/317 (98%)	271 (87%)	23 (7%)	17 (6%)	2	29
37	n	80/144 (56%)	61 (76%)	15 (19%)	4 (5%)	3	31
All	All	4906/5679 (86%)	3899 (80%)	510 (10%)	497 (10%)	1	14

All (497) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	9	GLN
1	A	31	ASP
1	A	45	GLY
1	A	103	PHE
1	A	164	ASN
1	A	165	ASN
1	A	188	THR
1	A	192	GLU
1	A	203	PHE
1	A	207	PRO
2	B	27	LYS
2	B	77	ASP
2	B	78	GLU
2	B	106	THR
2	B	154	SER
2	B	179	ASN
2	B	206	PRO
2	B	210	VAL
3	C	102	GLN
3	C	104	GLY
3	C	117	ASP
3	C	218	LEU
3	C	260	LYS
4	D	2	ALA
4	D	4	GLN

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Mol	Chain	Res	Type
4	D	93	THR
4	D	98	ALA
4	D	202	LYS
4	D	205	PRO
4	D	213	PRO
4	D	214	LYS
4	D	216	GLU
4	D	220	THR
4	D	221	THR
4	D	222	PRO
4	D	223	ILE
4	D	226	GLN
5	E	12	VAL
5	E	24	THR
5	E	76	VAL
5	E	95	THR
5	E	163	ASP
5	E	196	THR
5	E	260	GLN
5	E	261	SER
6	F	43	GLU
6	F	44	LYS
6	F	202	SER
6	F	203	ASN
7	G	20	ASP
7	G	154	ARG
7	G	164	LYS
7	G	174	PRO
7	G	175	LYS
7	G	180	VAL
7	G	181	THR
8	H	15	LYS
8	H	16	PRO
8	H	33	ASN
8	H	35	ASP
8	H	66	VAL
8	H	88	SER
8	H	108	SER
8	H	109	ARG
8	H	110	THR
8	H	116	ARG
8	H	135	PHE

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Mol	Chain	Res	Type
8	H	137	SER
8	H	138	GLU
8	H	160	LYS
8	H	190	PRO
9	I	8	TRP
9	I	120	PRO
9	I	124	LYS
9	I	131	PRO
9	I	133	GLU
9	I	139	LYS
9	I	140	LYS
9	I	142	SER
9	I	143	LYS
9	I	145	ILE
9	I	153	LYS
9	I	154	LYS
9	I	158	ILE
9	I	206	LYS
10	J	19	PRO
10	J	22	LYS
10	J	36	GLY
10	J	110	LEU
10	J	111	GLN
10	J	118	GLY
10	J	119	LEU
10	J	122	SER
10	J	138	ARG
10	J	161	LEU
10	J	163	SER
10	J	169	ARG
10	J	170	PRO
10	J	172	ARG
11	K	2	LEU
11	K	3	MET
11	K	30	PRO
11	K	35	LEU
11	K	39	ASN
11	K	40	VAL
11	K	41	PRO
11	K	44	HIS
11	K	63	ALA
11	K	88	GLU

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Mol	Chain	Res	Type
11	K	89	ILE
12	L	5	GLN
12	L	6	THR
12	L	7	GLU
12	L	20	LYS
12	L	23	VAL
12	L	147	LYS
12	L	152	LYS
12	L	153	LYS
13	M	12	MET
13	M	15	ASN
13	M	44	LYS
13	M	72	HIS
13	M	77	ILE
13	M	78	LYS
13	M	79	VAL
13	M	81	ASP
13	M	89	VAL
13	M	96	ARG
13	M	100	PRO
13	M	116	LYS
13	M	117	GLU
14	N	22	VAL
15	O	23	GLU
15	O	52	THR
15	O	53	ILE
15	O	64	ALA
15	O	104	ARG
15	O	137	SER
15	O	138	ASP
15	O	139	SER
15	O	140	THR
16	P	6	GLN
16	P	11	THR
16	P	12	PHE
16	P	37	TYR
16	P	38	SER
16	P	68	PRO
16	P	69	PRO
16	P	71	GLU
16	P	73	PRO
16	P	75	VAL

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Mol	Chain	Res	Type
16	P	125	PRO
16	P	126	VAL
16	P	127	LYS
17	Q	19	ALA
17	Q	61	GLU
17	Q	62	ARG
17	Q	117	ARG
17	Q	119	LEU
17	Q	141	TYR
18	R	88	VAL
18	R	89	SER
18	R	100	PRO
18	R	101	ASP
18	R	121	GLN
18	R	123	THR
19	S	11	HIS
19	S	53	THR
19	S	59	LEU
19	S	90	VAL
20	T	5	THR
20	T	31	PRO
20	T	32	GLU
20	T	33	TRP
20	T	34	VAL
20	T	96	SER
20	T	143	LYS
21	U	51	LYS
21	U	94	PRO
21	U	95	SER
21	U	107	GLU
21	U	118	ASP
22	V	4	ASN
22	V	10	ASP
22	V	42	VAL
22	V	43	THR
22	V	44	GLY
22	V	50	SER
22	V	65	SER
22	V	78	ILE
24	X	3	LYS
24	X	4	CYS
25	Y	6	THR

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Mol	Chain	Res	Type
25	Y	30	PRO
25	Y	34	THR
25	Y	86	GLU
25	Y	87	PRO
25	Y	100	LYS
25	Y	104	ARG
25	Y	120	THR
26	Z	93	SER
26	Z	104	ARG
26	Z	108	ILE
26	Z	113	THR
27	a	28	CYS
27	a	46	GLU
27	a	47	ALA
27	a	58	VAL
27	a	59	PHE
27	a	61	ALA
27	a	63	VAL
27	a	64	LEU
27	a	98	PRO
27	a	99	PRO
27	a	103	PRO
28	b	62	VAL
28	b	63	LEU
28	b	64	CYS
29	c	8	PRO
29	c	67	ARG
30	d	8	TRP
31	e	76	VAL
31	e	78	GLY
31	e	81	ALA
31	e	98	LYS
31	e	119	VAL
31	e	121	PRO
31	e	126	LYS
32	f	84	SER
32	f	85	TYR
32	f	86	THR
32	f	91	ASN
32	f	102	VAL
32	f	106	TYR
32	f	110	GLU

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Mol	Chain	Res	Type
32	f	128	ALA
33	g	3	GLU
33	g	48	ASP
33	g	52	TYR
33	g	96	THR
33	g	282	GLU
33	g	283	PRO
37	n	71	ILE
37	n	83	ASP
1	A	7	VAL
1	A	96	ALA
1	A	112	ILE
1	A	140	VAL
1	A	159	ILE
1	A	186	ARG
1	A	190	SER
1	A	191	ARG
2	B	93	GLY
2	B	209	ASP
3	C	43	LYS
3	C	246	PHE
4	D	78	GLY
4	D	194	PRO
4	D	201	LYS
4	D	208	VAL
5	E	104	ASP
5	E	164	LEU
6	F	21	GLY
6	F	32	ASP
6	F	41	VAL
6	F	54	GLY
6	F	79	HIS
7	G	26	THR
7	G	146	ASN
7	G	153	VAL
8	H	11	PRO
8	H	17	ASP
8	H	38	ALA
8	H	41	ARG
8	H	76	GLN
8	H	100	ILE
8	H	112	ASN

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Mol	Chain	Res	Type
8	H	120	ARG
8	H	159	ASP
8	H	193	GLN
9	I	22	HIS
9	I	192	GLY
10	J	106	LEU
10	J	120	ALA
10	J	124	HIS
10	J	135	ILE
10	J	148	ILE
11	K	34	GLU
11	K	91	PRO
12	L	4	ILE
12	L	21	LYS
12	L	22	ARG
12	L	57	ASP
13	M	45	ARG
14	N	68	GLY
15	O	54	CYS
15	O	56	VAL
16	P	54	HIS
17	Q	32	ILE
17	Q	100	VAL
18	R	93	GLN
18	R	112	GLY
18	R	125	GLY
19	S	17	ASN
19	S	31	THR
19	S	140	GLY
20	T	142	LYS
21	U	74	SER
21	U	98	VAL
22	V	6	GLY
22	V	33	PRO
22	V	48	GLY
23	W	66	THR
24	X	59	ALA
25	Y	95	GLY
25	Y	99	LYS
25	Y	119	GLY
26	Z	53	ALA
27	a	35	ALA

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Mol	Chain	Res	Type
28	b	2	PRO
28	b	38	PRO
28	b	81	ARG
31	e	77	HIS
31	e	104	GLY
31	e	124	GLY
32	f	98	VAL
32	f	127	GLY
32	f	148	TYR
33	g	49	GLU
33	g	60	ARG
33	g	144	ASP
33	g	159	ASN
33	g	171	ASP
33	g	281	ALA
33	g	295	GLY
37	n	111	GLU
1	A	11	LYS
1	A	30	LEU
1	A	194	PRO
1	A	205	ARG
2	B	56	LYS
2	B	82	ARG
4	D	218	LEU
5	E	25	SER
5	E	168	LYS
5	E	194	VAL
5	E	205	PHE
7	G	69	THR
8	H	18	GLU
8	H	117	PRO
8	H	150	GLY
9	I	105	ASP
9	I	106	SER
9	I	144	LYS
10	J	91	LYS
11	K	28	HIS
11	K	87	PRO
13	M	91	LEU
14	N	28	LEU
15	O	32	HIS
16	P	17	TYR

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Mol	Chain	Res	Type
16	P	39	ALA
18	R	86	PRO
18	R	122	PRO
20	T	29	LYS
21	U	70	CYS
21	U	93	SER
21	U	110	VAL
24	X	92	ASN
25	Y	5	VAL
25	Y	53	ASP
25	Y	60	PHE
25	Y	63	HIS
27	a	13	LYS
27	a	97	PRO
27	a	102	ARG
27	a	107	ALA
28	b	7	LEU
29	c	65	ALA
31	e	127	LYS
31	e	129	PRO
32	f	137	ASP
32	f	138	ARG
33	g	84	ASP
33	g	255	SER
33	g	285	GLN
37	n	34	GLU
1	A	104	THR
2	B	224	GLU
3	C	244	THR
3	C	249	SER
5	E	30	ARG
5	E	119	ALA
5	E	189	LEU
6	F	37	ASP
7	G	33	ALA
7	G	122	PRO
10	J	151	LEU
10	J	162	ARG
11	K	67	PHE
11	K	95	ARG
12	L	119	ASP
13	M	29	ASP

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Mol	Chain	Res	Type
13	M	94	ILE
13	M	113	ASP
15	O	17	LEU
15	O	83	GLN
16	P	50	ARG
18	R	95	ILE
19	S	12	ILE
20	T	46	ALA
21	U	50	VAL
21	U	116	ILE
22	V	79	VAL
24	X	9	THR
24	X	129	SER
25	Y	102	THR
26	Z	111	ARG
26	Z	114	LYS
27	a	62	TYR
28	b	24	LEU
29	c	63	ARG
32	f	145	CYS
33	g	37	ASP
1	A	23	THR
3	C	164	THR
4	D	80	PRO
5	E	90	ILE
5	E	134	LYS
5	E	213	ALA
9	I	52	ASN
9	I	59	ARG
11	K	38	LYS
12	L	2	ALA
13	M	59	PRO
13	M	95	ASP
14	N	3	ARG
14	N	138	ASN
15	O	22	ALA
15	O	38	ASN
17	Q	43	GLU
18	R	99	ASP
19	S	7	GLU
21	U	26	SER
21	U	117	ALA

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Mol	Chain	Res	Type
23	W	67	GLY
24	X	99	GLU
25	Y	51	THR
25	Y	121	ALA
26	Z	62	VAL
26	Z	78	LYS
27	a	105	GLY
28	b	10	PRO
29	c	39	SER
31	e	97	GLU
32	f	93	HIS
32	f	94	LYS
32	f	147	THR
1	A	110	ASN
5	E	73	ASP
6	F	46	ALA
6	F	183	GLY
7	G	68	LEU
7	G	165	GLU
8	H	170	VAL
10	J	68	PRO
10	J	116	LYS
14	N	60	VAL
15	O	24	GLY
15	O	136	PRO
22	V	9	VAL
24	X	78	GLY
4	D	63	GLY
9	I	119	LEU
21	U	104	ILE
22	V	77	GLY
32	f	87	THR
5	E	152	PRO
8	H	10	LYS
1	A	95	GLY
1	A	98	PRO
2	B	24	PRO
3	C	161	LYS
5	E	195	ILE
5	E	231	GLY
15	O	62	VAL
17	Q	42	ILE

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Mol	Chain	Res	Type
27	a	96	THR
28	b	37	CYS
30	d	11	PRO
2	B	21	VAL
8	H	93	VAL
13	M	30	GLY
28	b	9	HIS
4	D	200	PRO
18	R	15	VAL
21	U	29	VAL

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	
1	A	174/244 (71%)	139 (80%)	35 (20%)	1	11
2	B	196/231 (85%)	155 (79%)	41 (21%)	1	10
3	C	187/215 (87%)	147 (79%)	40 (21%)	1	9
4	D	190/202 (94%)	144 (76%)	46 (24%)	1	6
5	E	225/225 (100%)	173 (77%)	52 (23%)	1	7
6	F	161/170 (95%)	116 (72%)	45 (28%)	0	4
7	G	207/218 (95%)	157 (76%)	50 (24%)	1	6
8	H	170/174 (98%)	124 (73%)	46 (27%)	0	4
9	I	177/179 (99%)	142 (80%)	35 (20%)	1	12
10	J	157/168 (94%)	128 (82%)	29 (18%)	2	14
11	K	89/136 (65%)	61 (68%)	28 (32%)	0	2
12	L	142/142 (100%)	105 (74%)	37 (26%)	0	5
13	M	101/108 (94%)	78 (77%)	23 (23%)	1	8
14	N	130/131 (99%)	103 (79%)	27 (21%)	1	10
15	O	106/119 (89%)	87 (82%)	19 (18%)	2	15
16	P	116/130 (89%)	84 (72%)	32 (28%)	0	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
17	Q	117/121 (97%)	89 (76%)	28 (24%)	1	7
18	R	114/121 (94%)	90 (79%)	24 (21%)	1	9
19	S	119/132 (90%)	95 (80%)	24 (20%)	1	11
20	T	113/116 (97%)	87 (77%)	26 (23%)	1	7
21	U	94/107 (88%)	74 (79%)	20 (21%)	1	9
22	V	67/68 (98%)	50 (75%)	17 (25%)	1	6
23	W	112/113 (99%)	98 (88%)	14 (12%)	6	30
24	X	114/115 (99%)	91 (80%)	23 (20%)	1	11
25	Y	108/115 (94%)	85 (79%)	23 (21%)	1	9
26	Z	66/103 (64%)	53 (80%)	13 (20%)	1	12
27	a	91/99 (92%)	76 (84%)	15 (16%)	3	19
28	b	76/76 (100%)	63 (83%)	13 (17%)	2	17
29	c	57/62 (92%)	46 (81%)	11 (19%)	2	13
30	d	47/49 (96%)	35 (74%)	12 (26%)	1	6
31	e	49/106 (46%)	26 (53%)	23 (47%)	0	0
32	f	64/140 (46%)	43 (67%)	21 (33%)	0	2
33	g	272/275 (99%)	224 (82%)	48 (18%)	2	16
37	n	66/123 (54%)	48 (73%)	18 (27%)	0	4
All	All	4274/4833 (88%)	3316 (78%)	958 (22%)	1	9

All (958) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	5	LEU
1	A	7	VAL
1	A	10	MET
1	A	12	GLU
1	A	13	GLU
1	A	17	LYS
1	A	19	LEU
1	A	25	LEU
1	A	36	GLN
1	A	40	LYS
1	A	42	LYS
1	A	44	ASP
1	A	52	LYS

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Mol	Chain	Res	Type
1	A	58	LEU
1	A	63	ARG
1	A	73	ASP
1	A	88	LEU
1	A	89	LYS
1	A	102	ARG
1	A	117	ARG
1	A	128	ARG
1	A	139	TYR
1	A	147	LEU
1	A	155	ARG
1	A	159	ILE
1	A	169	HIS
1	A	181	GLU
1	A	186	ARG
1	A	188	THR
1	A	191	ARG
1	A	195	TRP
1	A	196	GLU
1	A	198	MET
1	A	204	TYR
1	A	207	PRO
2	B	19	LYS
2	B	20	LYS
2	B	21	VAL
2	B	22	VAL
2	B	34	LYS
2	B	41	ILE
2	B	48	LEU
2	B	52	THR
2	B	55	THR
2	B	56	LYS
2	B	75	GLN
2	B	78	GLU
2	B	82	ARG
2	B	83	LYS
2	B	89	GLU
2	B	94	LYS
2	B	115	LYS
2	B	116	LYS
2	B	131	ASP
2	B	138	PHE

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Mol	Chain	Res	Type
2	B	144	LYS
2	B	148	ASN
2	B	150	ILE
2	B	151	ARG
2	B	158	HIS
2	B	162	ARG
2	B	165	ARG
2	B	166	LYS
2	B	172	MET
2	B	181	LEU
2	B	182	LYS
2	B	195	LYS
2	B	208	HIS
2	B	211	PHE
2	B	213	ARG
2	B	214	LYS
2	B	219	LYS
2	B	222	LYS
2	B	223	PHE
2	B	227	LYS
2	B	229	MET
3	C	43	LYS
3	C	48	VAL
3	C	49	THR
3	C	50	LYS
3	C	51	LEU
3	C	56	LYS
3	C	58	MET
3	C	59	LYS
3	C	61	LYS
3	C	79	ILE
3	C	89	ASP
3	C	95	MET
3	C	99	LYS
3	C	100	GLN
3	C	101	THR
3	C	105	GLN
3	C	119	ASN
3	C	127	LYS
3	C	131	GLU
3	C	145	LEU
3	C	151	ARG

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Mol	Chain	Res	Type
3	C	152	ARG
3	C	157	ASN
3	C	158	LYS
3	C	168	LYS
3	C	169	VAL
3	C	196	LYS
3	C	197	LYS
3	C	201	MET
3	C	221	PHE
3	C	223	LYS
3	C	235	TYR
3	C	242	LYS
3	C	244	THR
3	C	246	PHE
3	C	247	THR
3	C	248	LYS
3	C	252	GLN
3	C	256	ASP
3	C	260	LYS
4	D	8	LYS
4	D	10	LYS
4	D	18	LYS
4	D	21	LEU
4	D	27	ARG
4	D	31	GLU
4	D	35	SER
4	D	44	THR
4	D	56	GLN
4	D	64	ARG
4	D	67	ARG
4	D	74	GLN
4	D	76	ARG
4	D	79	PHE
4	D	89	GLU
4	D	90	LYS
4	D	94	ARG
4	D	97	CYS
4	D	103	GLU
4	D	113	LEU
4	D	120	TYR
4	D	127	MET
4	D	129	SER

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Mol	Chain	Res	Type
4	D	146	ARG
4	D	151	LYS
4	D	156	LEU
4	D	157	MET
4	D	158	ILE
4	D	176	LEU
4	D	177	LEU
4	D	178	ARG
4	D	187	LYS
4	D	190	LEU
4	D	192	TRP
4	D	198	ILE
4	D	202	LYS
4	D	206	ASP
4	D	207	HIS
4	D	211	VAL
4	D	212	GLU
4	D	214	LYS
4	D	215	ASP
4	D	216	GLU
4	D	218	LEU
4	D	220	THR
4	D	226	GLN
5	E	1	MET
5	E	6	LYS
5	E	7	LYS
5	E	9	LEU
5	E	10	LYS
5	E	38	LEU
5	E	39	ARG
5	E	48	LEU
5	E	49	ARG
5	E	56	LEU
5	E	65	CYS
5	E	67	GLN
5	E	68	ARG
5	E	77	ARG
5	E	94	LYS
5	E	97	GLU
5	E	106	LYS
5	E	118	GLU
5	E	120	LYS

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Mol	Chain	Res	Type
5	E	122	LYS
5	E	123	LEU
5	E	125	LYS
5	E	128	LYS
5	E	130	PHE
5	E	133	THR
5	E	136	ILE
5	E	145	ARG
5	E	147	ILE
5	E	148	ARG
5	E	151	ASP
5	E	153	LEU
5	E	164	LEU
5	E	165	GLU
5	E	168	LYS
5	E	174	LYS
5	E	175	PHE
5	E	180	LEU
5	E	181	CYS
5	E	198	ARG
5	E	200	ARG
5	E	202	PRO
5	E	211	LYS
5	E	212	ASP
5	E	221	ARG
5	E	222	LEU
5	E	237	SER
5	E	240	ARG
5	E	242	LYS
5	E	245	ARG
5	E	246	LEU
5	E	259	LYS
5	E	260	GLN
6	F	15	PRO
6	F	18	LYS
6	F	29	GLN
6	F	36	GLN
6	F	37	ASP
6	F	38	TYR
6	F	41	VAL
6	F	42	LYS
6	F	43	GLU

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Mol	Chain	Res	Type
6	F	44	LYS
6	F	47	LYS
6	F	49	LEU
6	F	60	ARG
6	F	62	ARG
6	F	63	LYS
6	F	65	GLN
6	F	71	ARG
6	F	76	MET
6	F	78	MET
6	F	85	LYS
6	F	88	MET
6	F	91	ARG
6	F	94	LYS
6	F	98	GLU
6	F	110	GLN
6	F	116	ILE
6	F	122	ARG
6	F	125	SER
6	F	127	ARG
6	F	128	ILE
6	F	130	ARG
6	F	136	ARG
6	F	145	ARG
6	F	164	ARG
6	F	167	LYS
6	F	173	LEU
6	F	175	ASP
6	F	177	LEU
6	F	182	LYS
6	F	186	ASN
6	F	190	ILE
6	F	192	LYS
6	F	195	GLU
6	F	202	SER
6	F	204	ARG
7	G	1	MET
7	G	2	LYS
7	G	13	GLN
7	G	17	GLU
7	G	19	ASP
7	G	29	GLU

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Mol	Chain	Res	Type
7	G	30	LYS
7	G	31	ARG
7	G	32	MET
7	G	44	GLU
7	G	58	LYS
7	G	64	LYS
7	G	74	ARG
7	G	76	LEU
7	G	77	LEU
7	G	79	LYS
7	G	88	ARG
7	G	94	ARG
7	G	98	ARG
7	G	115	LYS
7	G	116	LYS
7	G	120	ASP
7	G	121	ILE
7	G	126	ASP
7	G	127	THR
7	G	128	THR
7	G	131	ARG
7	G	133	LEU
7	G	137	ARG
7	G	142	ARG
7	G	143	LYS
7	G	145	PHE
7	G	150	GLU
7	G	158	VAL
7	G	159	ARG
7	G	164	LYS
7	G	168	LYS
7	G	170	ARG
7	G	172	LYS
7	G	175	LYS
7	G	179	LEU
7	G	180	VAL
7	G	191	ARG
7	G	196	LYS
7	G	198	ARG
7	G	218	LYS
7	G	219	GLU
7	G	224	ARG

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Mol	Chain	Res	Type
7	G	230	LYS
7	G	233	ARG
8	H	9	VAL
8	H	10	LYS
8	H	11	PRO
8	H	14	GLU
8	H	15	LYS
8	H	16	PRO
8	H	17	ASP
8	H	23	ILE
8	H	32	MET
8	H	34	SER
8	H	36	LEU
8	H	37	LYS
8	H	40	LEU
8	H	57	ARG
8	H	58	LYS
8	H	61	ILE
8	H	69	LEU
8	H	72	PHE
8	H	74	LYS
8	H	78	ARG
8	H	81	ARG
8	H	82	GLU
8	H	85	LYS
8	H	87	PHE
8	H	93	VAL
8	H	99	ARG
8	H	105	THR
8	H	107	LYS
8	H	109	ARG
8	H	111	LYS
8	H	112	ASN
8	H	113	LYS
8	H	116	ARG
8	H	118	ARG
8	H	120	ARG
8	H	122	LEU
8	H	131	GLU
8	H	143	ARG
8	H	145	ARG
8	H	157	HIS

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Mol	Chain	Res	Type
8	H	158	LEU
8	H	160	LYS
8	H	163	GLN
8	H	179	LYS
8	H	185	VAL
8	H	193	GLN
9	I	3	ILE
9	I	5	ARG
9	I	6	ASP
9	I	13	LYS
9	I	19	LYS
9	I	23	LYS
9	I	25	ARG
9	I	37	LYS
9	I	41	ARG
9	I	49	ARG
9	I	56	ARG
9	I	70	GLU
9	I	74	ARG
9	I	100	CYS
9	I	110	ARG
9	I	117	TYR
9	I	119	LEU
9	I	123	ARG
9	I	124	LYS
9	I	125	LYS
9	I	140	LYS
9	I	141	ARG
9	I	143	LYS
9	I	144	LYS
9	I	148	LYS
9	I	150	ASP
9	I	154	LYS
9	I	155	ASN
9	I	158	ILE
9	I	161	LEU
9	I	167	GLN
9	I	191	GLU
9	I	202	ILE
9	I	205	ARG
9	I	206	LYS
10	J	8	VAL

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Mol	Chain	Res	Type
10	J	10	ARG
10	J	17	ARG
10	J	18	ARG
10	J	29	LEU
10	J	38	ARG
10	J	42	GLU
10	J	50	LEU
10	J	58	ARG
10	J	66	LYS
10	J	69	ARG
10	J	79	ARG
10	J	89	GLU
10	J	93	LYS
10	J	101	LYS
10	J	108	ARG
10	J	109	ARG
10	J	110	LEU
10	J	119	LEU
10	J	121	LYS
10	J	127	ARG
10	J	139	LYS
10	J	143	ASN
10	J	162	ARG
10	J	165	TYR
10	J	172	ARG
10	J	174	LYS
10	J	176	LYS
10	J	180	LYS
11	K	1	MET
11	K	2	LEU
11	K	3	MET
11	K	5	LYS
11	K	13	GLU
11	K	16	PHE
11	K	17	LYS
11	K	20	VAL
11	K	31	LYS
11	K	34	GLU
11	K	35	LEU
11	K	37	ASP
11	K	38	LYS
11	K	43	LEU

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Mol	Chain	Res	Type
11	K	53	LYS
11	K	55	ARG
11	K	65	ARG
11	K	66	HIS
11	K	69	TRP
11	K	74	GLU
11	K	84	HIS
11	K	85	LEU
11	K	89	ILE
11	K	93	THR
11	K	94	LEU
11	K	95	ARG
11	K	96	ARG
11	K	98	ARG
12	L	1	MET
12	L	4	ILE
12	L	7	GLU
12	L	8	ARG
12	L	12	LYS
12	L	15	THR
12	L	18	GLN
12	L	20	LYS
12	L	22	ARG
12	L	25	LEU
12	L	30	LYS
12	L	40	ILE
12	L	49	GLU
12	L	56	ILE
12	L	69	ARG
12	L	71	ARG
12	L	79	LYS
12	L	80	MET
12	L	82	MET
12	L	83	GLN
12	L	89	ARG
12	L	97	ARG
12	L	99	TYR
12	L	100	ASN
12	L	101	ARG
12	L	102	PHE
12	L	105	ARG
12	L	118	ARG

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Mol	Chain	Res	Type
12	L	121	GLN
12	L	136	LYS
12	L	147	LYS
12	L	151	THR
12	L	153	LYS
12	L	155	PHE
12	L	156	GLN
12	L	157	LYS
12	L	158	PHE
13	M	12	MET
13	M	13	ASP
13	M	18	LEU
13	M	20	GLU
13	M	26	LEU
13	M	28	HIS
13	M	33	ARG
13	M	36	ARG
13	M	40	LYS
13	M	43	ASP
13	M	45	ARG
13	M	71	GLU
13	M	76	LEU
13	M	77	ILE
13	M	78	LYS
13	M	83	LYS
13	M	85	LEU
13	M	91	LEU
13	M	94	ILE
13	M	101	ARG
13	M	102	LYS
13	M	127	TYR
13	M	128	PHE
14	N	3	ARG
14	N	9	LYS
14	N	16	LEU
14	N	21	SER
14	N	27	LYS
14	N	49	GLN
14	N	50	ILE
14	N	53	ILE
14	N	56	ASP
14	N	64	ARG

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Mol	Chain	Res	Type
14	N	73	ARG
14	N	76	LYS
14	N	78	LYS
14	N	80	LEU
14	N	94	LYS
14	N	104	ARG
14	N	107	LYS
14	N	112	LYS
14	N	114	ARG
14	N	119	GLU
14	N	121	ARG
14	N	125	LEU
14	N	130	LYS
14	N	133	ARG
14	N	134	VAL
14	N	141	TYR
14	N	142	GLU
15	O	23	GLU
15	O	25	GLU
15	O	28	PHE
15	O	34	PHE
15	O	65	ASP
15	O	66	ARG
15	O	72	TYR
15	O	90	ILE
15	O	103	ASN
15	O	116	LEU
15	O	117	ARG
15	O	121	ARG
15	O	125	LYS
15	O	128	ARG
15	O	129	ILE
15	O	138	ASP
15	O	141	ARG
15	O	146	ARG
15	O	150	ARG
16	P	5	GLU
16	P	6	GLN
16	P	7	LYS
16	P	10	ARG
16	P	12	PHE
16	P	13	ARG

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Mol	Chain	Res	Type
16	P	14	LYS
16	P	15	PHE
16	P	17	TYR
16	P	34	MET
16	P	40	ARG
16	P	41	GLN
16	P	43	ARG
16	P	50	ARG
16	P	51	ARG
16	P	52	LYS
16	P	61	ARG
16	P	64	LYS
16	P	71	GLU
16	P	72	LYS
16	P	74	GLU
16	P	84	ILE
16	P	86	LEU
16	P	88	GLU
16	P	89	MET
16	P	100	LYS
16	P	104	GLN
16	P	110	GLU
16	P	111	MET
16	P	122	THR
16	P	124	LYS
16	P	127	LYS
17	Q	6	PRO
17	Q	7	LEU
17	Q	13	PHE
17	Q	17	LYS
17	Q	20	THR
17	Q	24	HIS
17	Q	26	LYS
17	Q	33	LYS
17	Q	37	ARG
17	Q	41	MET
17	Q	56	LEU
17	Q	62	ARG
17	Q	73	LYS
17	Q	101	ASP
17	Q	102	GLU
17	Q	105	LYS

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Mol	Chain	Res	Type
17	Q	107	GLU
17	Q	115	TYR
17	Q	117	ARG
17	Q	120	LEU
17	Q	126	ARG
17	Q	130	LYS
17	Q	131	LYS
17	Q	135	PRO
17	Q	140	ARG
17	Q	142	GLN
17	Q	145	TYR
17	Q	146	ARG
18	R	1	MET
18	R	8	THR
18	R	26	ASN
18	R	32	LYS
18	R	47	ARG
18	R	59	LYS
18	R	63	ARG
18	R	69	ILE
18	R	78	ARG
18	R	83	ASN
18	R	87	GLU
18	R	88	VAL
18	R	89	SER
18	R	91	LEU
18	R	93	GLN
18	R	94	GLU
18	R	95	ILE
18	R	103	LYS
18	R	105	MET
18	R	111	PHE
18	R	118	GLN
18	R	120	THR
18	R	121	GLN
18	R	123	THR
19	S	7	GLU
19	S	8	LYS
19	S	9	PHE
19	S	11	HIS
19	S	12	ILE
19	S	17	ASN

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Mol	Chain	Res	Type
19	S	34	LYS
19	S	36	VAL
19	S	39	ARG
19	S	59	LEU
19	S	63	GLU
19	S	71	MET
19	S	78	LYS
19	S	86	ARG
19	S	87	GLN
19	S	92	ASP
19	S	94	LYS
19	S	118	ARG
19	S	125	HIS
19	S	130	ARG
19	S	132	ARG
19	S	134	GLN
19	S	137	LYS
19	S	142	ARG
20	T	11	GLN
20	T	16	ARG
20	T	21	PHE
20	T	23	LYS
20	T	28	LEU
20	T	29	LYS
20	T	38	LYS
20	T	41	LYS
20	T	42	HIS
20	T	44	GLU
20	T	62	ARG
20	T	64	LEU
20	T	67	ARG
20	T	83	GLN
20	T	84	ARG
20	T	88	MET
20	T	91	HIS
20	T	93	SER
20	T	94	ARG
20	T	97	LYS
20	T	102	ARG
20	T	121	ARG
20	T	130	ASP
20	T	133	ARG

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Mol	Chain	Res	Type
20	T	143	LYS
20	T	144	LYS
21	U	19	ARG
21	U	20	ILE
21	U	21	ARG
21	U	24	LEU
21	U	33	GLU
21	U	44	LYS
21	U	47	ASN
21	U	48	LEU
21	U	49	LYS
21	U	51	LYS
21	U	62	ARG
21	U	68	THR
21	U	72	GLU
21	U	75	LYS
21	U	85	HIS
21	U	87	ARG
21	U	104	ILE
21	U	106	ILE
21	U	108	PRO
21	U	111	GLU
22	V	1	MET
22	V	7	GLU
22	V	16	LYS
22	V	24	ILE
22	V	31	SER
22	V	32	ILE
22	V	40	ASP
22	V	41	LYS
22	V	43	THR
22	V	45	ARG
22	V	49	GLN
22	V	51	LYS
22	V	52	THR
22	V	61	ARG
22	V	64	GLU
22	V	74	LYS
22	V	78	ILE
23	W	3	ARG
23	W	4	MET
23	W	18	GLU

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Mol	Chain	Res	Type
23	W	20	ARG
23	W	23	ARG
23	W	52	ILE
23	W	64	ASN
23	W	84	LYS
23	W	98	GLN
23	W	103	VAL
23	W	114	GLU
23	W	124	LYS
23	W	128	PHE
23	W	129	PHE
24	X	1	MET
24	X	3	LYS
24	X	5	ARG
24	X	7	LEU
24	X	12	LYS
24	X	21	LYS
24	X	29	LYS
24	X	37	LYS
24	X	67	ARG
24	X	68	LYS
24	X	71	ARG
24	X	75	ILE
24	X	80	LYS
24	X	91	LEU
24	X	98	ASP
24	X	101	LEU
24	X	107	ARG
24	X	108	LYS
24	X	110	HIS
24	X	115	ILE
24	X	135	LYS
24	X	141	PRO
24	X	142	ARG
25	Y	16	ARG
25	Y	20	ARG
25	Y	21	LYS
25	Y	23	MET
25	Y	29	HIS
25	Y	32	LYS
25	Y	35	VAL
25	Y	46	LYS

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Mol	Chain	Res	Type
25	Y	58	PHE
25	Y	61	ARG
25	Y	64	PHE
25	Y	68	LYS
25	Y	93	ARG
25	Y	96	LEU
25	Y	97	TYR
25	Y	98	GLU
25	Y	99	LYS
25	Y	100	LYS
25	Y	101	LYS
25	Y	102	THR
25	Y	111	LYS
25	Y	118	ARG
25	Y	122	LYS
26	Z	44	LEU
26	Z	50	PHE
26	Z	52	LYS
26	Z	65	TYR
26	Z	85	ARG
26	Z	91	LEU
26	Z	94	LYS
26	Z	102	LYS
26	Z	103	HIS
26	Z	104	ARG
26	Z	107	VAL
26	Z	112	ASN
26	Z	114	LYS
27	a	10	ARG
27	a	15	ARG
27	a	26	CYS
27	a	38	LYS
27	a	41	ILE
27	a	44	ILE
27	a	50	VAL
27	a	51	ARG
27	a	60	ASP
27	a	63	VAL
27	a	70	LYS
27	a	82	LYS
27	a	85	ARG
27	a	94	ASP

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Mol	Chain	Res	Type
27	a	95	ARG
28	b	3	LEU
28	b	5	LYS
28	b	16	LYS
28	b	20	LYS
28	b	23	ARG
28	b	26	GLN
28	b	41	TYR
28	b	42	LYS
28	b	49	HIS
28	b	51	GLN
28	b	53	VAL
28	b	83	GLN
28	b	84	HIS
29	c	5	ARG
29	c	7	GLN
29	c	13	ARG
29	c	35	MET
29	c	42	ILE
29	c	47	LYS
29	c	51	ARG
29	c	62	GLU
29	c	63	ARG
29	c	67	ARG
29	c	68	LEU
30	d	7	TYR
30	d	10	HIS
30	d	16	GLN
30	d	19	ARG
30	d	27	ARG
30	d	30	LEU
30	d	33	LYS
30	d	39	CYS
30	d	44	ARG
30	d	46	TYR
30	d	53	ILE
30	d	56	ASP
31	e	76	VAL
31	e	80	LEU
31	e	85	LYS
31	e	87	ARG
31	e	92	LYS

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Mol	Chain	Res	Type
31	e	95	LYS
31	e	97	GLU
31	e	98	LYS
31	e	99	LYS
31	e	100	LYS
31	e	103	THR
31	e	105	ARG
31	e	108	ARG
31	e	110	MET
31	e	114	ARG
31	e	115	ARG
31	e	118	ASN
31	e	120	VAL
31	e	122	THR
31	e	123	PHE
31	e	125	LYS
31	e	126	LYS
31	e	127	LYS
32	f	86	THR
32	f	88	PRO
32	f	89	LYS
32	f	90	LYS
32	f	94	LYS
32	f	95	ARG
32	f	96	LYS
32	f	97	LYS
32	f	104	LYS
32	f	109	ASP
32	f	110	GLU
32	f	111	ASN
32	f	113	LYS
32	f	116	ARG
32	f	118	ARG
32	f	121	CYS
32	f	130	VAL
32	f	135	HIS
32	f	136	PHE
32	f	139	HIS
32	f	150	PHE
33	g	8	ARG
33	g	24	THR
33	g	25	PRO

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Mol	Chain	Res	Type
33	g	36	ARG
33	g	42	MET
33	g	44	LYS
33	g	47	ARG
33	g	50	THR
33	g	51	ASN
33	g	57	ARG
33	g	60	ARG
33	g	64	HIS
33	g	68	ASP
33	g	74	ASP
33	g	76	GLN
33	g	87	LEU
33	g	88	ARG
33	g	91	ASP
33	g	93	THR
33	g	100	ARG
33	g	118	ARG
33	g	119	GLN
33	g	131	LEU
33	g	139	LYS
33	g	140	TYR
33	g	143	GLN
33	g	145	GLU
33	g	146	SER
33	g	149	GLU
33	g	156	PHE
33	g	161	SER
33	g	175	LYS
33	g	183	LYS
33	g	185	LYS
33	g	192	THR
33	g	203	ASP
33	g	225	LYS
33	g	246	TYR
33	g	259	TRP
33	g	264	LYS
33	g	271	LYS
33	g	275	ILE
33	g	276	SER
33	g	277	THR
33	g	279	SER

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Mol	Chain	Res	Type
33	g	280	LYS
33	g	289	LEU
33	g	294	ASP
37	n	34	GLU
37	n	35	TYR
37	n	39	ILE
37	n	48	GLU
37	n	62	ARG
37	n	66	ARG
37	n	69	VAL
37	n	71	ILE
37	n	74	SER
37	n	78	LEU
37	n	81	LEU
37	n	83	ASP
37	n	85	GLN
37	n	95	TYR
37	n	101	ARG
37	n	102	SER
37	n	103	LEU
37	n	109	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (117) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	24	HIS
1	A	36	GLN
1	A	50	ASN
1	A	81	ASN
1	A	132	GLN
1	A	141	ASN
1	A	169	HIS
2	B	75	GLN
2	B	76	ASN
2	B	101	HIS
2	B	118	GLN
2	B	124	HIS
2	B	147	ASN
2	B	148	ASN
2	B	179	ASN
2	B	186	ASN
2	B	202	GLN

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Mol	Chain	Res	Type
2	B	232	HIS
3	C	100	GLN
3	C	157	ASN
4	D	74	GLN
4	D	179	GLN
4	D	226	GLN
5	E	50	ASN
5	E	98	ASN
5	E	142	HIS
5	E	188	ASN
5	E	209	HIS
6	F	29	GLN
6	F	65	GLN
6	F	83	ASN
6	F	186	ASN
6	F	203	ASN
7	G	56	ASN
7	G	65	GLN
7	G	81	HIS
7	G	187	HIS
8	H	12	ASN
8	H	73	GLN
8	H	163	GLN
8	H	168	HIS
9	I	22	HIS
9	I	84	ASN
9	I	99	ASN
9	I	165	GLN
11	K	7	ASN
11	K	28	HIS
11	K	39	ASN
11	K	44	HIS
11	K	50	GLN
11	K	66	HIS
12	L	18	GLN
12	L	19	ASN
12	L	65	ASN
12	L	121	GLN
12	L	156	GLN
13	M	19	GLN
13	M	28	HIS
13	M	75	ASN

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Mol	Chain	Res	Type
13	M	82	ASN
14	N	5	HIS
14	N	62	GLN
14	N	101	HIS
14	N	123	HIS
15	O	20	GLN
16	P	41	GLN
16	P	53	GLN
16	P	79	HIS
16	P	103	ASN
16	P	114	HIS
16	P	128	HIS
17	Q	80	GLN
18	R	74	GLN
18	R	121	GLN
19	S	11	HIS
19	S	42	HIS
19	S	87	GLN
20	T	11	GLN
20	T	42	HIS
20	T	63	HIS
20	T	83	GLN
20	T	85	ASN
20	T	126	GLN
20	T	128	GLN
21	U	18	HIS
21	U	47	ASN
22	V	47	ASN
22	V	76	HIS
23	W	15	ASN
23	W	44	HIS
23	W	64	ASN
23	W	98	GLN
24	X	39	ASN
24	X	46	HIS
25	Y	29	HIS
25	Y	85	ASN
25	Y	89	HIS
25	Y	94	HIS
26	Z	103	HIS
27	a	80	HIS
28	b	49	HIS

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Mol	Chain	Res	Type
28	b	83	GLN
28	b	84	HIS
29	c	26	GLN
30	d	26	ASN
30	d	28	HIS
31	e	77	HIS
32	f	151	ASN
33	g	20	GLN
33	g	64	HIS
33	g	76	GLN
33	g	119	GLN
33	g	143	GLN
33	g	162	ASN
33	g	226	HIS
33	g	237	ASN
37	n	112	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
34	i	1720/1863 (92%)	496 (28%)	0
35	j	74/75 (98%)	17 (22%)	0
36	k	12/24 (50%)	3 (25%)	0
All	All	1806/1962 (92%)	516 (28%)	0

All (516) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
34	i	2	A
34	i	3	C
34	i	4	C
34	i	8	U
34	i	16	G
34	i	25	A
34	i	26	U
34	i	32	U
34	i	33	G
34	i	41	G
34	i	44	U
34	i	45	A
34	i	46	A

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Mol	Chain	Res	Type
34	i	50	A
34	i	56	G
34	i	59	U
34	i	66	G
34	i	67	C
34	i	68	A
34	i	70	G
34	i	72	C
34	i	73	C
34	i	74	G
34	i	75	G
34	i	76	U
34	i	77	A
34	i	78	C
34	i	79	A
34	i	80	G
34	i	99	A
34	i	103	A
34	i	113	G
34	i	126	G
34	i	139	C
34	i	140	U
34	i	141	A
34	i	142	C
34	i	143	U
34	i	147	A
34	i	148	U
34	i	155	G
34	i	160	U
34	i	161	U
34	i	162	C
34	i	170	A
34	i	176	U
34	i	182	C
34	i	183	G
34	i	187	C
34	i	188	U
34	i	189	G
34	i	190	A
34	i	191	C
34	i	197	U
34	i	198	U

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Mol	Chain	Res	Type
34	i	199	G
34	i	203	G
34	i	205	G
34	i	206	A
34	i	212	G
34	i	213	C
34	i	223	A
34	i	224	U
34	i	225	C
34	i	226	A
34	i	229	A
34	i	230	C
34	i	232	A
34	i	233	A
34	i	234	C
34	i	235	C
34	i	238	G
34	i	273	G
34	i	275	C
34	i	276	U
34	i	277	U
34	i	278	U
34	i	279	G
34	i	286	C
34	i	287	U
34	i	298	G
34	i	299	G
34	i	300	G
34	i	303	G
34	i	304	A
34	i	307	G
34	i	309	A
34	i	311	C
34	i	313	C
34	i	314	U
34	i	315	C
34	i	316	C
34	i	317	G
34	i	318	U
34	i	320	G
34	i	322	G
34	i	326	A

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Mol	Chain	Res	Type
34	i	332	C
34	i	337	G
34	i	339	A
34	i	346	C
34	i	352	C
34	i	354	A
34	i	357	U
34	i	359	C
34	i	375	G
34	i	376	C
34	i	379	A
34	i	382	A
34	i	390	C
34	i	397	G
34	i	398	A
34	i	399	C
34	i	416	A
34	i	438	A
34	i	440	C
34	i	442	G
34	i	449	C
34	i	454	A
34	i	456	G
34	i	460	G
34	i	461	G
34	i	462	C
34	i	463	A
34	i	464	G
34	i	466	A
34	i	472	G
34	i	477	U
34	i	482	C
34	i	484	C
34	i	486	C
34	i	515	A
34	i	521	A
34	i	522	C
34	i	523	A
34	i	525	G
34	i	537	G
34	i	539	C
34	i	541	U

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Mol	Chain	Res	Type
34	i	542	G
34	i	543	U
34	i	546	U
34	i	547	U
34	i	549	G
34	i	550	A
34	i	554	A
34	i	555	G
34	i	566	A
34	i	574	A
34	i	576	G
34	i	578	G
34	i	580	A
34	i	581	U
34	i	582	C
34	i	583	C
34	i	586	U
34	i	590	G
34	i	595	A
34	i	596	G
34	i	597	U
34	i	598	C
34	i	600	G
34	i	604	G
34	i	609	A
34	i	610	G
34	i	618	A
34	i	619	A
34	i	624	A
34	i	631	A
34	i	632	U
34	i	633	A
34	i	634	G
34	i	645	A
34	i	658	A
34	i	659	A
34	i	660	A
34	i	661	A
34	i	662	A
34	i	669	A
34	i	678	U
34	i	679	U

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Mol	Chain	Res	Type
34	i	683	G
34	i	684	A
34	i	685	G
34	i	686	G
34	i	687	G
34	i	689	G
34	i	691	G
34	i	725	C
34	i	727	G
34	i	728	U
34	i	729	C
34	i	730	C
34	i	731	C
34	i	734	C
34	i	735	C
34	i	736	C
34	i	740	G
34	i	743	U
34	i	744	C
34	i	793	C
34	i	794	G
34	i	795	U
34	i	806	A
34	i	807	A
34	i	808	A
34	i	814	A
34	i	817	G
34	i	818	U
34	i	826	A
34	i	827	G
34	i	830	C
34	i	831	C
34	i	832	G
34	i	833	A
34	i	834	G
34	i	835	C
34	i	836	C
34	i	838	C
34	i	839	C
34	i	841	G
34	i	843	A
34	i	849	C

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Mol	Chain	Res	Type
34	i	860	A
34	i	864	G
34	i	865	A
34	i	866	A
34	i	867	U
34	i	869	G
34	i	870	G
34	i	871	A
34	i	872	C
34	i	873	C
34	i	874	G
34	i	877	G
34	i	882	A
34	i	883	U
34	i	884	U
34	i	886	U
34	i	890	G
34	i	891	G
34	i	893	U
34	i	899	A
34	i	900	A
34	i	907	C
34	i	909	A
34	i	910	U
34	i	916	A
34	i	917	G
34	i	929	G
34	i	947	C
34	i	951	A
34	i	962	U
34	i	965	U
34	i	966	G
34	i	967	G
34	i	972	G
34	i	974	G
34	i	986	A
34	i	988	A
34	i	995	G
34	i	997	A
34	i	1004	A
34	i	1013	U
34	i	1019	A

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Mol	Chain	Res	Type
34	i	1021	U
34	i	1027	A
34	i	1035	C
34	i	1041	U
34	i	1045	A
34	i	1046	A
34	i	1047	G
34	i	1048	A
34	i	1050	G
34	i	1056	A
34	i	1057	U
34	i	1058	A
34	i	1068	U
34	i	1069	U
34	i	1073	A
34	i	1074	C
34	i	1079	A
34	i	1092	G
34	i	1093	G
34	i	1105	C
34	i	1106	G
34	i	1107	U
34	i	1111	U
34	i	1112	C
34	i	1113	C
34	i	1114	C
34	i	1116	U
34	i	1119	C
34	i	1127	G
34	i	1132	U
34	i	1134	C
34	i	1136	G
34	i	1137	G
34	i	1139	A
34	i	1144	A
34	i	1145	A
34	i	1146	A
34	i	1149	C
34	i	1150	U
34	i	1151	U
34	i	1153	G
34	i	1154	G

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Mol	Chain	Res	Type
34	i	1157	U
34	i	1162	G
34	i	1164	G
34	i	1199	G
34	i	1202	G
34	i	1204	A
34	i	1205	A
34	i	1208	G
34	i	1210	A
34	i	1211	C
34	i	1212	C
34	i	1213	A
34	i	1217	G
34	i	1220	G
34	i	1232	G
34	i	1233	C
34	i	1238	U
34	i	1241	G
34	i	1247	A
34	i	1249	A
34	i	1250	C
34	i	1252	G
34	i	1253	G
34	i	1255	A
34	i	1256	A
34	i	1259	U
34	i	1260	C
34	i	1270	G
34	i	1271	G
34	i	1272	A
34	i	1274	A
34	i	1279	C
34	i	1280	A
34	i	1281	G
34	i	1296	U
34	i	1297	A
34	i	1299	C
34	i	1303	U
34	i	1304	U
34	i	1310	U
34	i	1311	U
34	i	1312	C

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Mol	Chain	Res	Type
34	i	1313	U
34	i	1320	G
34	i	1325	U
34	i	1338	U
34	i	1339	U
34	i	1344	G
34	i	1354	U
34	i	1367	U
34	i	1368	U
34	i	1369	C
34	i	1374	A
34	i	1390	G
34	i	1391	C
34	i	1392	A
34	i	1393	U
34	i	1394	G
34	i	1397	A
34	i	1398	A
34	i	1400	U
34	i	1402	G
34	i	1403	U
34	i	1405	A
34	i	1406	C
34	i	1408	C
34	i	1413	C
34	i	1414	C
34	i	1415	C
34	i	1422	U
34	i	1426	C
34	i	1431	C
34	i	1433	C
34	i	1445	G
34	i	1448	A
34	i	1450	A
34	i	1452	G
34	i	1455	G
34	i	1458	U
34	i	1461	A
34	i	1470	A
34	i	1471	G
34	i	1472	A
34	i	1473	U

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Mol	Chain	Res	Type
34	i	1474	U
34	i	1485	A
34	i	1486	G
34	i	1489	C
34	i	1490	U
34	i	1491	G
34	i	1504	A
34	i	1506	G
34	i	1507	U
34	i	1508	C
34	i	1511	G
34	i	1514	U
34	i	1515	G
34	i	1516	C
34	i	1519	G
34	i	1528	A
34	i	1530	U
34	i	1532	A
34	i	1535	G
34	i	1539	C
34	i	1540	A
34	i	1545	G
34	i	1546	U
34	i	1547	G
34	i	1548	C
34	i	1549	C
34	i	1551	A
34	i	1552	C
34	i	1553	C
34	i	1558	G
34	i	1559	C
34	i	1565	G
34	i	1573	U
34	i	1575	A
34	i	1577	C
34	i	1580	U
34	i	1582	G
34	i	1583	A
34	i	1593	G
34	i	1594	U
34	i	1595	G
34	i	1597	U

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Mol	Chain	Res	Type
34	i	1599	G
34	i	1616	U
34	i	1617	U
34	i	1618	A
34	i	1627	G
34	i	1628	A
34	i	1632	A
34	i	1633	G
34	i	1634	G
34	i	1643	G
34	i	1649	G
34	i	1652	G
34	i	1660	G
34	i	1675	G
34	i	1683	C
34	i	1690	A
34	i	1694	A
34	i	1696	C
34	i	1697	G
34	i	1716	U
34	i	1717	G
34	i	1722	G
34	i	1724	U
34	i	1741	U
34	i	1743	G
34	i	1745	C
34	i	1747	C
34	i	1748	G
34	i	1749	C
34	i	1750	C
34	i	1751	G
34	i	1755	U
34	i	1774	G
34	i	1775	A
34	i	1776	G
34	i	1777	C
34	i	1778	G
34	i	1779	C
34	i	1780	U
34	i	1790	G
34	i	1792	C
34	i	1799	G

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Mol	Chain	Res	Type
34	i	1818	A
34	i	1819	A
34	i	1820	G
34	i	1822	C
34	i	1823	G
34	i	1825	A
34	i	1826	A
34	i	1829	A
34	i	1832	U
34	i	1833	U
34	i	1843	G
34	i	1845	A
34	i	1846	C
34	i	1852	G
34	i	1855	G
34	i	1856	G
34	i	1857	A
34	i	1858	U
34	i	1859	C
34	i	1861	U
34	i	1863	A
35	j	4	A
35	j	5	G
35	j	8	U
35	j	16	C
35	j	17	G
35	j	18	G
35	j	19	A
35	j	20	A
35	j	46	U
35	j	47	C
35	j	48	G
35	j	52	G
35	j	66	U
35	j	70	C
35	j	72	A
35	j	74	C
35	j	75	A
36	k	14	A
36	k	15	A
36	k	22	C

There are no RNA pucker outliers to report.

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	208/295 (70%)	0.85	43 (20%) 1 7	188, 273, 325, 347	0
2	B	215/264 (81%)	1.54	78 (36%) 0 4	140, 249, 309, 321	0
3	C	226/278 (81%)	2.95	112 (49%) 0 4	76, 163, 267, 285	0
4	D	227/243 (93%)	5.03	166 (73%) 0 2	110, 175, 253, 280	0
5	E	263/263 (100%)	2.81	139 (52%) 0 3	38, 138, 196, 225	0
6	F	191/204 (93%)	5.32	154 (80%) 0 2	133, 175, 212, 224	0
7	G	237/249 (95%)	1.52	76 (32%) 1 5	68, 198, 289, 311	0
8	H	190/194 (97%)	0.13	24 (12%) 5 11	129, 278, 329, 340	0
9	I	206/208 (99%)	3.92	121 (58%) 0 3	17, 164, 268, 289	0
10	J	182/194 (93%)	0.78	35 (19%) 2 7	73, 158, 221, 259	0
11	K	98/165 (59%)	1.98	31 (31%) 1 5	167, 238, 289, 308	0
12	L	158/158 (100%)	1.80	65 (41%) 0 4	22, 90, 224, 255	0
13	M	124/132 (93%)	-0.13	5 (4%) 42 40	280, 347, 384, 417	0
14	N	150/151 (99%)	0.81	27 (18%) 2 7	46, 118, 251, 261	0
15	O	136/151 (90%)	2.14	52 (38%) 0 4	45, 205, 320, 353	0
16	P	127/145 (87%)	3.44	75 (59%) 0 3	163, 254, 297, 310	0
17	Q	141/146 (96%)	2.01	53 (37%) 0 4	108, 200, 225, 231	0
18	R	126/135 (93%)	0.12	14 (11%) 7 12	130, 194, 302, 306	0
19	S	137/152 (90%)	1.02	29 (21%) 1 6	151, 218, 239, 249	0
20	T	141/145 (97%)	0.15	7 (4%) 32 32	161, 214, 230, 234	0
21	U	104/119 (87%)	4.20	66 (63%) 0 3	116, 213, 258, 269	0
22	V	82/83 (98%)	0.73	14 (17%) 2 8	175, 237, 316, 328	0
23	W	129/130 (99%)	1.83	48 (37%) 0 4	75, 141, 196, 216	0
24	X	142/143 (99%)	2.57	63 (44%) 0 4	22, 54, 84, 93	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
25	Y	126/133 (94%)	0.32	10 (7%) 15 19	85, 153, 198, 218	0
26	Z	75/125 (60%)	0.90	14 (18%) 2 7	197, 207, 217, 225	0
27	a	107/115 (93%)	1.68	31 (28%) 1 5	55, 111, 285, 317	0
28	b	84/84 (100%)	0.09	6 (7%) 19 22	156, 236, 276, 286	0
29	c	64/69 (92%)	2.58	37 (57%) 0 3	125, 173, 216, 221	0
30	d	53/56 (94%)	1.87	21 (39%) 0 4	136, 159, 235, 256	0
31	e	59/133 (44%)	0.79	13 (22%) 1 6	63, 136, 177, 192	0
32	f	71/156 (45%)	-0.53	0 100 100	145, 320, 392, 408	0
33	g	313/317 (98%)	0.45	42 (13%) 4 10	190, 248, 277, 291	0
34	i	1797/1863 (96%)	1.63	562 (31%) 1 5	13, 142, 348, 527	0
35	j	75/75 (100%)	1.47	24 (32%) 1 5	308, 379, 421, 436	0
36	k	13/24 (54%)	4.04	12 (92%) 0 1	186, 317, 324, 325	0
37	n	82/144 (56%)	1.83	34 (41%) 0 4	212, 216, 222, 224	0
All	All	6859/7641 (89%)	1.78	2303 (33%) 0 4	13, 190, 328, 527	0

All (2303) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
34	i	697	G	38.6
34	i	698	G	35.9
34	i	695	C	25.7
4	D	95	GLY	25.1
34	i	696	G	25.1
9	I	58	LEU	21.0
24	X	69	CYS	18.6
34	i	694	G	18.1
4	D	88	ALA	16.9
6	F	189	ALA	16.8
11	K	21	MET	16.8
11	K	20	VAL	16.7
9	I	173	ALA	16.3
3	C	87	LEU	16.3
4	D	186	VAL	16.2
9	I	104	ILE	15.5
5	E	73	ASP	15.4
9	I	95	THR	15.0
6	F	39	ILE	14.8

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Mol	Chain	Res	Type	RSRZ
9	I	36	THR	14.8
4	D	50	ILE	14.5
4	D	35	SER	14.5
5	E	74	GLY	14.4
4	D	96	LEU	14.3
4	D	101	GLN	14.3
4	D	98	ALA	14.2
3	C	84	GLY	14.1
21	U	25	THR	14.0
16	P	105	VAL	13.8
17	Q	53	GLU	13.7
6	F	66	CYS	13.4
4	D	19	ALA	13.3
34	i	722	C	13.2
4	D	188	ILE	13.2
9	I	101	ILE	13.2
6	F	40	ALA	13.2
4	D	52	ALA	13.1
24	X	83	ALA	13.1
6	F	64	ALA	13.1
21	U	26	SER	13.1
6	F	41	VAL	12.9
6	F	157	GLY	12.9
9	I	57	ALA	12.9
4	D	36	GLY	12.8
3	C	149	PRO	12.8
4	D	97	CYS	12.7
6	F	108	PRO	12.7
21	U	110	VAL	12.6
17	Q	54	PRO	12.6
15	O	129	ILE	12.6
21	U	32	LEU	12.5
6	F	158	ALA	12.5
4	D	70	THR	12.4
16	P	87	PRO	12.4
6	F	68	ILE	12.3
21	U	24	LEU	12.2
4	D	32	ASP	12.1
6	F	109	LEU	12.0
9	I	100	CYS	11.9
6	F	155	CYS	11.9
9	I	81	VAL	11.8

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Mol	Chain	Res	Type	RSRZ
11	K	22	VAL	11.8
16	P	94	VAL	11.8
6	F	71	ARG	11.8
6	F	106	GLU	11.7
4	D	33	GLY	11.6
11	K	68	TYR	11.6
4	D	102	ALA	11.6
5	E	88	ASP	11.6
4	D	91	VAL	11.6
21	U	36	CYS	11.5
34	i	1419	C	11.5
4	D	136	VAL	11.5
6	F	154	LEU	11.5
9	I	63	GLY	11.5
3	C	147	ILE	11.5
3	C	121	HIS	11.4
6	F	111	VAL	11.4
5	E	91	SER	11.4
6	F	183	GLY	11.4
5	E	69	PHE	11.4
6	F	107	ASN	11.4
9	I	102	VAL	11.3
9	I	105	ASP	11.3
11	K	63	ALA	11.3
17	Q	50	LYS	11.2
7	G	36	VAL	11.1
4	D	71	ALA	11.1
6	F	73	THR	11.1
6	F	113	VAL	11.0
2	B	100	PHE	11.0
34	i	693	A	11.0
3	C	150	VAL	11.0
21	U	85	HIS	10.9
4	D	34	TYR	10.8
9	I	186	ASP	10.8
9	I	76	THR	10.8
16	P	76	VAL	10.8
16	P	95	GLY	10.8
6	F	119	SER	10.7
6	F	70	GLU	10.7
4	D	94	ARG	10.7
4	D	100	ALA	10.7

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Mol	Chain	Res	Type	RSRZ
34	i	249	C	10.6
9	I	133	GLU	10.6
6	F	190	ILE	10.6
9	I	174	CYS	10.5
3	C	120	GLY	10.5
9	I	60	LEU	10.5
5	E	89	VAL	10.4
21	U	87	ARG	10.4
6	F	115	ALA	10.4
34	i	1762	A	10.4
4	D	68	GLU	10.3
34	i	1758	G	10.3
34	i	720	A	10.3
37	n	71	ILE	10.2
34	i	1420	G	10.2
5	E	102	ILE	10.2
3	C	122	VAL	10.1
9	I	84	ASN	10.1
4	D	51	LEU	10.1
3	C	116	GLY	10.1
4	D	74	GLN	10.0
9	I	59	ARG	10.0
3	C	224	ALA	10.0
34	i	1580	U	10.0
6	F	18	LYS	10.0
5	E	86	PHE	9.9
3	C	148	VAL	9.9
5	E	87	MET	9.9
9	I	185	ALA	9.9
24	X	82	THR	9.9
16	P	88	GLU	9.9
6	F	63	LYS	9.9
4	D	184	ILE	9.9
6	F	50	PRO	9.8
21	U	112	VAL	9.8
6	F	181	ALA	9.8
15	O	116	LEU	9.8
15	O	95	ILE	9.7
34	i	723	G	9.7
21	U	39	LEU	9.7
6	F	29	GLN	9.6
6	F	110	GLN	9.6

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Mol	Chain	Res	Type	RSRZ
9	I	80	ASP	9.6
3	C	228	ALA	9.6
3	C	85	ALA	9.5
6	F	67	PRO	9.5
4	D	20	GLU	9.5
7	G	41	LEU	9.4
3	C	86	ALA	9.4
24	X	85	VAL	9.4
4	D	49	ILE	9.4
9	I	83	TYR	9.4
11	K	62	PHE	9.4
4	D	93	THR	9.4
21	U	22	ILE	9.3
9	I	190	LEU	9.3
9	I	96	LEU	9.3
6	F	178	ILE	9.3
34	i	1652	G	9.3
9	I	78	ILE	9.3
4	D	15	GLY	9.2
15	O	113	GLN	9.1
34	i	1653	G	9.1
6	F	75	SER	9.1
6	F	177	LEU	9.1
34	i	1651	G	9.1
3	C	123	GLY	9.1
4	D	66	ILE	9.1
6	F	112	LEU	9.1
6	F	150	ALA	9.1
21	U	23	THR	9.1
5	E	143	ASP	9.0
34	i	1421	G	9.0
21	U	40	ILE	9.0
4	D	53	THR	9.0
17	Q	57	LEU	9.0
34	i	125	C	8.9
6	F	48	TYR	8.9
4	D	175	VAL	8.9
4	D	72	VAL	8.9
4	D	75	LYS	8.9
9	I	129	LEU	8.9
3	C	169	VAL	8.9
6	F	31	ASN	8.8

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Mol	Chain	Res	Type	RSRZ
11	K	70	TYR	8.8
3	C	114	ALA	8.8
4	D	30	ALA	8.8
27	a	45	VAL	8.8
14	N	149	LEU	8.8
16	P	106	GLU	8.8
16	P	6	GLN	8.8
17	Q	112	LEU	8.8
15	O	130	GLU	8.8
21	U	111	GLU	8.7
17	Q	115	TYR	8.7
6	F	193	LYS	8.7
3	C	220	ASN	8.7
3	C	198	LEU	8.7
4	D	183	GLY	8.6
24	X	118	VAL	8.6
5	E	85	GLY	8.6
6	F	151	ILE	8.6
24	X	115	ILE	8.6
6	F	114	ASN	8.6
21	U	86	LYS	8.5
9	I	38	ILE	8.5
4	D	29	LEU	8.5
16	P	89	MET	8.5
3	C	232	THR	8.5
15	O	131	ASP	8.5
21	U	89	ILE	8.5
3	C	89	ASP	8.5
16	P	86	LEU	8.5
3	C	202	ALA	8.5
6	F	116	ILE	8.5
16	P	5	GLU	8.4
4	D	89	GLU	8.4
14	N	146	ALA	8.4
9	I	43	ILE	8.4
4	D	190	LEU	8.4
9	I	85	ALA	8.4
9	I	131	PRO	8.4
21	U	114	VAL	8.3
5	E	122	LYS	8.3
6	F	180	ALA	8.3
7	G	18	VAL	8.3

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Mol	Chain	Res	Type	RSRZ
5	E	71	LYS	8.3
9	I	171	LEU	8.3
9	I	189	VAL	8.2
4	D	86	LEU	8.2
25	Y	17	LEU	8.2
6	F	184	SER	8.2
5	E	72	ILE	8.2
17	Q	58	LEU	8.2
4	D	73	VAL	8.1
4	D	22	ASN	8.1
34	i	1759	C	8.1
24	X	70	VAL	8.1
34	i	1254	A	8.1
3	C	225	THR	8.1
24	X	67	ARG	8.1
3	C	226	PHE	8.1
3	C	203	GLY	8.0
9	I	39	GLY	8.0
5	E	237	SER	8.0
34	i	1760	C	8.0
19	S	67	VAL	8.0
4	D	87	TYR	8.0
21	U	35	VAL	8.0
3	C	201	MET	8.0
4	D	119	CYS	8.0
4	D	103	GLU	8.0
3	C	117	ASP	7.9
5	E	70	ILE	7.9
6	F	28	VAL	7.9
3	C	229	ILE	7.9
5	E	65	CYS	7.9
9	I	128	LYS	7.9
9	I	121	LEU	7.9
3	C	230	SER	7.9
6	F	187	SER	7.9
21	U	21	ARG	7.9
6	F	30	ILE	7.9
15	O	112	ALA	7.8
23	W	103	VAL	7.8
5	E	60	GLU	7.8
6	F	105	GLY	7.8
3	C	151	ARG	7.8

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Mol	Chain	Res	Type	RSRZ
6	F	118	ASN	7.8
9	I	65	PHE	7.8
6	F	46	ALA	7.8
24	X	130	LEU	7.8
15	O	127	GLY	7.8
9	I	61	ASP	7.8
5	E	238	LEU	7.8
6	F	69	VAL	7.7
15	O	20	GLN	7.7
34	i	1650	C	7.7
8	H	193	GLN	7.7
9	I	126	GLY	7.7
5	E	90	ILE	7.7
34	i	3	C	7.7
16	P	113	GLY	7.7
9	I	103	LEU	7.7
34	i	296	U	7.7
34	i	248	C	7.7
21	U	43	ALA	7.6
2	B	121	ILE	7.6
19	S	117	ILE	7.6
3	C	83	LEU	7.6
6	F	117	ILE	7.6
24	X	117	GLY	7.6
7	G	113	ILE	7.6
34	i	1493	G	7.6
2	B	156	ALA	7.6
5	E	100	ARG	7.6
24	X	10	ALA	7.6
4	D	137	VAL	7.6
7	G	95	LYS	7.6
5	E	145	ARG	7.6
4	D	24	PHE	7.6
7	G	50	VAL	7.5
29	c	65	ALA	7.5
6	F	176	GLU	7.5
4	D	104	SER	7.5
4	D	21	LEU	7.5
2	B	99	ASN	7.5
4	D	38	GLU	7.5
21	U	56	MET	7.5
34	i	1475	G	7.5

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Mol	Chain	Res	Type	RSRZ
21	U	101	ILE	7.5
24	X	55	VAL	7.5
27	a	49	ALA	7.4
11	K	64	TRP	7.4
16	P	10	ARG	7.4
4	D	180	GLY	7.4
9	I	97	VAL	7.4
7	G	37	ALA	7.4
5	E	43	PRO	7.4
4	D	152	PHE	7.4
35	j	31	C	7.4
4	D	122	VAL	7.4
21	U	118	ASP	7.3
16	P	93	MET	7.3
4	D	37	VAL	7.3
34	i	1582	G	7.3
21	U	105	SER	7.3
10	J	74	GLY	7.3
21	U	115	THR	7.3
6	F	153	LEU	7.3
4	D	135	GLU	7.2
4	D	118	ALA	7.2
9	I	172	LEU	7.2
6	F	76	MET	7.2
3	C	115	ILE	7.2
15	O	21	VAL	7.2
11	K	67	PHE	7.2
16	P	27	ASP	7.2
34	i	1761	C	7.2
33	g	32	LEU	7.1
9	I	184	ARG	7.1
24	X	84	PHE	7.1
17	Q	59	GLY	7.1
24	X	94	ILE	7.1
6	F	32	ASP	7.1
5	E	64	ILE	7.1
34	i	1662	U	7.1
6	F	72	LEU	7.1
3	C	119	ASN	7.1
4	D	222	PRO	7.0
6	F	123	GLU	7.0
34	i	1664	G	7.0

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Mol	Chain	Res	Type	RSRZ
4	D	69	LEU	7.0
34	i	1661	C	7.0
1	A	19	LEU	7.0
9	I	64	ASN	7.0
4	D	25	LEU	7.0
34	i	1579	G	7.0
4	D	6	SER	7.0
7	G	96	SER	6.9
5	E	101	LEU	6.9
5	E	84	ALA	6.9
34	i	1763	C	6.9
12	L	103	GLU	6.9
29	c	64	GLU	6.9
3	C	191	SER	6.9
21	U	117	ALA	6.9
4	D	58	VAL	6.9
16	P	26	LEU	6.9
6	F	104	THR	6.9
4	D	171	ALA	6.9
3	C	168	LYS	6.9
19	S	118	ARG	6.9
34	i	1252	G	6.8
16	P	114	HIS	6.8
27	a	36	ILE	6.8
6	F	174	ALA	6.8
29	c	46	VAL	6.8
10	J	72	PHE	6.8
4	D	189	MET	6.8
4	D	221	THR	6.8
3	C	233	TYR	6.8
9	I	37	LYS	6.8
11	K	66	HIS	6.8
6	F	38	TYR	6.8
6	F	49	LEU	6.8
34	i	1659	A	6.7
6	F	100	ILE	6.7
17	Q	51	LEU	6.7
6	F	74	ASN	6.7
5	E	54	TYR	6.7
11	K	61	GLN	6.7
34	i	1649	G	6.7
16	P	9	LYS	6.7

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Mol	Chain	Res	Type	RSRZ
23	W	129	PHE	6.7
2	B	80	ALA	6.7
3	C	167	CYS	6.7
21	U	84	ILE	6.7
7	G	97	VAL	6.7
4	D	48	ILE	6.7
5	E	182	MET	6.7
34	i	250	G	6.7
33	g	22	ALA	6.7
21	U	102	THR	6.7
3	C	204	ILE	6.6
6	F	194	ASP	6.7
24	X	116	PRO	6.6
34	i	1693	C	6.6
4	D	28	GLU	6.6
6	F	156	THR	6.6
3	C	207	CYS	6.6
17	Q	108	ILE	6.6
5	E	61	VAL	6.6
17	Q	55	VAL	6.6
5	E	236	ILE	6.6
16	P	4	VAL	6.6
5	E	92	ILE	6.6
9	I	175	ILE	6.6
7	G	45	TRP	6.6
16	P	112	ILE	6.6
36	k	18	G	6.6
8	H	192	PHE	6.6
34	i	721	C	6.5
4	D	67	ARG	6.5
10	J	76	ALA	6.5
6	F	124	ASP	6.5
9	I	183	GLY	6.5
10	J	94	LEU	6.5
7	G	38	ALA	6.5
4	D	65	ARG	6.5
24	X	122	VAL	6.5
15	O	115	ALA	6.5
16	P	53	GLN	6.5
34	i	824	G	6.5
11	K	69	TRP	6.5
7	G	35	GLU	6.4

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Mol	Chain	Res	Type	RSRZ
27	a	84	VAL	6.4
6	F	185	SER	6.4
34	i	1057	U	6.4
2	B	43	ASN	6.4
16	P	24	GLN	6.4
2	B	227	LYS	6.4
33	g	31	ILE	6.4
5	E	119	ALA	6.3
16	P	107	ILE	6.3
23	W	94	LEU	6.3
6	F	159	ARG	6.3
16	P	104	GLN	6.3
34	i	251	C	6.3
4	D	11	PHE	6.3
15	O	94	HIS	6.3
4	D	99	ILE	6.3
29	c	45	ASN	6.3
9	I	158	ILE	6.3
24	X	125	VAL	6.3
5	E	141	THR	6.3
9	I	99	ASN	6.3
16	P	103	ASN	6.2
4	D	220	THR	6.2
9	I	134	GLU	6.2
4	D	187	LYS	6.2
17	Q	111	ILE	6.2
3	C	195	PRO	6.2
6	F	182	LYS	6.2
21	U	90	ASP	6.2
34	i	133	C	6.2
4	D	105	LEU	6.2
4	D	16	ILE	6.2
6	F	121	PRO	6.2
4	D	12	VAL	6.2
18	R	111	PHE	6.2
8	H	191	GLU	6.2
17	Q	92	LEU	6.2
34	i	1663	U	6.2
5	E	124	CYS	6.2
24	X	100	VAL	6.1
34	i	253	G	6.1
4	D	131	ALA	6.1

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Mol	Chain	Res	Type	RSRZ
6	F	173	LEU	6.1
5	E	123	LEU	6.1
12	L	143	LEU	6.1
29	c	63	ARG	6.1
16	P	111	MET	6.1
12	L	142	VAL	6.1
5	E	110	ALA	6.1
16	P	11	THR	6.1
7	G	17	GLU	6.1
3	C	209	THR	6.1
34	i	4	C	6.1
27	a	44	ILE	6.1
34	i	1253	G	6.1
3	C	222	ALA	6.0
9	I	90	LEU	6.0
11	K	19	GLY	6.0
7	G	153	VAL	6.0
15	O	119	LEU	6.0
6	F	93	VAL	6.0
24	X	56	GLY	6.0
3	C	199	LEU	6.0
9	I	106	SER	6.0
11	K	71	LEU	6.0
21	U	88	LEU	6.0
9	I	86	SER	6.0
3	C	190	ILE	6.0
7	G	44	GLU	6.0
14	N	147	SER	6.0
15	O	25	GLU	6.0
5	E	42	LEU	5.9
4	D	191	PRO	5.9
4	D	179	GLN	5.9
16	P	119	PHE	5.9
34	i	299	G	5.9
34	i	397	G	5.9
9	I	130	THR	5.9
4	D	26	THR	5.9
16	P	25	LEU	5.9
1	A	61	ALA	5.9
11	K	60	GLU	5.9
4	D	138	VAL	5.9
4	D	76	ARG	5.9

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Mol	Chain	Res	Type	RSRZ
29	c	30	VAL	5.9
2	B	46	LYS	5.9
16	P	56	LEU	5.9
29	c	61	SER	5.9
34	i	739	U	5.9
10	J	95	ASP	5.9
24	X	9	THR	5.9
6	F	140	ASP	5.8
16	P	92	SER	5.8
21	U	82	MET	5.8
5	E	97	GLU	5.8
34	i	126	G	5.8
4	D	7	LYS	5.8
5	E	82	TYR	5.8
12	L	109	MET	5.8
34	i	1654	U	5.8
3	C	152	ARG	5.8
12	L	124	ASP	5.8
24	X	114	ASP	5.8
14	N	143	SER	5.8
30	d	47	ALA	5.8
23	W	102	ILE	5.8
30	d	51	GLY	5.8
16	P	85	ILE	5.8
34	i	1860	A	5.8
34	i	679	U	5.8
27	a	46	GLU	5.8
4	D	23	GLU	5.8
3	C	192	ALA	5.7
6	F	47	LYS	5.7
23	W	72	CYS	5.7
23	W	100	GLY	5.7
6	F	122	ARG	5.7
30	d	50	ILE	5.7
5	E	44	LEU	5.7
9	I	177	SER	5.7
9	I	127	ALA	5.7
16	P	96	VAL	5.7
5	E	164	LEU	5.7
2	B	217	MET	5.7
6	F	42	LYS	5.7
15	O	62	VAL	5.7

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Mol	Chain	Res	Type	RSRZ
8	H	161	ALA	5.7
34	i	298	G	5.7
5	E	45	ILE	5.7
29	c	50	VAL	5.6
3	C	180	LEU	5.6
5	E	160	ILE	5.6
9	I	79	ILE	5.6
7	G	16	ILE	5.6
12	L	120	VAL	5.6
12	L	128	VAL	5.6
4	D	185	LYS	5.6
34	i	1092	G	5.6
10	J	78	LEU	5.6
34	i	1655	C	5.6
24	X	54	LYS	5.6
5	E	139	LEU	5.6
34	i	1249	A	5.6
5	E	109	PHE	5.6
4	D	13	ALA	5.6
33	g	30	MET	5.6
6	F	27	ASP	5.6
24	X	68	LYS	5.6
23	W	95	PRO	5.6
34	i	1474	U	5.6
9	I	187	GLY	5.6
14	N	150	VAL	5.6
6	F	197	GLU	5.6
4	D	17	PHE	5.6
6	F	97	PHE	5.6
34	i	823	A	5.5
4	D	55	THR	5.5
24	X	86	PRO	5.5
5	E	99	PHE	5.5
4	D	158	ILE	5.5
9	I	162	LEU	5.5
34	i	1476	A	5.5
16	P	90	VAL	5.5
2	B	69	VAL	5.5
23	W	101	PHE	5.5
15	O	26	ASN	5.5
34	i	130	G	5.5
7	G	49	VAL	5.5

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Mol	Chain	Res	Type	RSRZ
34	i	1581	U	5.5
29	c	62	GLU	5.5
21	U	33	GLU	5.5
4	D	14	ASP	5.5
4	D	129	SER	5.5
27	a	47	ALA	5.5
4	D	130	GLY	5.4
24	X	57	VAL	5.4
16	P	91	GLY	5.4
34	i	1255	A	5.4
3	C	219	GLY	5.4
4	D	18	LYS	5.4
22	V	10	ASP	5.4
3	C	63	LEU	5.4
7	G	48	TYR	5.4
10	J	97	ILE	5.4
15	O	72	TYR	5.4
4	D	163	PRO	5.4
24	X	81	ILE	5.4
24	X	111	ALA	5.4
12	L	145	VAL	5.4
18	R	110	ASP	5.3
34	i	687	G	5.3
34	i	462	C	5.3
2	B	226	GLY	5.3
5	E	239	PRO	5.3
34	i	94	G	5.3
16	P	57	LEU	5.3
34	i	736	C	5.3
17	Q	85	ARG	5.3
9	I	42	ARG	5.3
11	K	23	ALA	5.3
21	U	113	GLU	5.3
6	F	25	THR	5.3
34	i	9	U	5.3
2	B	101	HIS	5.3
3	C	178	VAL	5.3
5	E	129	ILE	5.3
14	N	148	ALA	5.3
9	I	137	LEU	5.3
7	G	19	ASP	5.3
16	P	83	MET	5.3

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Mol	Chain	Res	Type	RSRZ
34	i	1736	U	5.3
11	K	65	ARG	5.3
34	i	441	G	5.3
23	W	127	GLY	5.3
34	i	1665	C	5.3
12	L	80	MET	5.3
5	E	147	ILE	5.2
4	D	134	CYS	5.2
34	i	295	C	5.2
4	D	10	LYS	5.2
24	X	126	ALA	5.2
7	G	191	ARG	5.2
16	P	108	LYS	5.2
2	B	44	ILE	5.2
34	i	1541	G	5.2
1	A	3	GLY	5.2
34	i	1251	G	5.2
3	C	223	LYS	5.2
5	E	35	PRO	5.2
6	F	17	ILE	5.2
6	F	20	PHE	5.2
27	a	37	LYS	5.2
12	L	126	VAL	5.2
27	a	79	ILE	5.2
7	G	83	CYS	5.2
34	i	1093	G	5.2
6	F	51	HIS	5.2
6	F	169	ILE	5.2
34	i	1530	U	5.2
9	I	120	PRO	5.2
7	G	121	ILE	5.2
7	G	84	TYR	5.2
3	C	170	THR	5.2
4	D	9	ARG	5.2
12	L	9	ALA	5.2
17	Q	144	SER	5.2
34	i	1390	G	5.2
11	K	15	LEU	5.2
9	I	139	LYS	5.2
16	P	23	ASP	5.2
9	I	109	TYR	5.1
15	O	117	ARG	5.1

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Mol	Chain	Res	Type	RSRZ
5	E	47	PHE	5.1
22	V	11	LEU	5.1
34	i	294	C	5.1
36	k	13	C	5.1
19	S	63	GLU	5.1
24	X	53	GLU	5.1
8	H	159	ASP	5.1
15	O	67	ASP	5.1
33	g	58	ALA	5.1
9	I	44	HIS	5.1
6	F	89	THR	5.1
4	D	126	ILE	5.1
34	i	22	A	5.1
19	S	64	VAL	5.1
2	B	223	PHE	5.1
4	D	167	TYR	5.1
34	i	2	A	5.1
4	D	182	LEU	5.1
16	P	84	ILE	5.1
24	X	90	CYS	5.1
34	i	1250	C	5.1
4	D	63	GLY	5.0
15	O	96	LYS	5.0
35	j	73	C	5.0
4	D	77	PHE	5.0
15	O	128	ARG	5.0
34	i	1544	U	5.0
34	i	23	G	5.0
1	A	65	ILE	5.0
2	B	45	GLY	5.0
5	E	95	THR	5.0
34	i	302	C	5.0
34	i	434	G	5.0
36	k	20	U	5.0
7	G	73	VAL	5.0
3	C	88	LYS	5.0
7	G	27	PHE	5.0
5	E	121	TYR	5.0
5	E	55	ALA	5.0
5	E	36	HIS	5.0
30	d	9	SER	5.0
16	P	28	MET	4.9

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Mol	Chain	Res	Type	RSRZ
3	C	113	VAL	4.9
36	k	11	A	4.9
34	i	129	C	4.9
6	F	139	VAL	4.9
34	i	375	G	4.9
3	C	171	GLY	4.9
6	F	120	GLY	4.9
4	D	121	GLY	4.9
34	i	1548	C	4.9
17	Q	89	SER	4.9
34	i	1666	G	4.9
5	E	118	GLU	4.9
21	U	116	ILE	4.9
4	D	181	VAL	4.9
6	F	148	ASN	4.9
34	i	1153	G	4.9
4	D	90	LYS	4.9
33	g	33	SER	4.9
34	i	1485	A	4.9
34	i	303	G	4.9
34	i	1543	G	4.9
34	i	1855	G	4.9
34	i	659	A	4.9
37	n	92	ILE	4.9
12	L	73	LEU	4.9
7	G	120	ASP	4.9
9	I	166	PHE	4.9
9	I	62	VAL	4.8
3	C	235	TYR	4.8
34	i	37	C	4.8
34	i	1746	C	4.8
36	k	10	C	4.8
7	G	114	VAL	4.8
18	R	89	SER	4.8
17	Q	117	ARG	4.8
21	U	50	VAL	4.8
34	i	1083	A	4.8
34	i	93	U	4.8
21	U	27	ARG	4.8
1	A	60	LEU	4.8
4	D	173	ARG	4.8
15	O	22	ALA	4.8

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Mol	Chain	Res	Type	RSRZ
27	a	78	ALA	4.8
3	C	221	PHE	4.8
7	G	42	GLY	4.8
14	N	141	TYR	4.8
6	F	170	ALA	4.8
34	i	206	A	4.8
34	i	177	G	4.8
16	P	110	GLU	4.8
9	I	122	GLY	4.8
14	N	144	SER	4.8
3	C	208	TYR	4.7
21	U	42	GLY	4.7
34	i	733	G	4.7
37	n	91	VAL	4.7
10	J	57	ALA	4.7
34	i	301	C	4.7
5	E	48	LEU	4.7
26	Z	87	ALA	4.7
5	E	83	PRO	4.7
5	E	157	ASN	4.7
5	E	77	ARG	4.7
5	E	226	PHE	4.7
6	F	204	ARG	4.7
9	I	124	LYS	4.7
16	P	78	THR	4.7
17	Q	6	PRO	4.7
27	a	48	ALA	4.7
6	F	191	LYS	4.7
9	I	94	LYS	4.7
12	L	7	GLU	4.7
34	i	1089	A	4.7
6	F	96	ALA	4.7
34	i	1757	G	4.7
34	i	509	A	4.7
17	Q	52	LEU	4.7
14	N	145	THR	4.7
34	i	1496	G	4.7
15	O	97	LEU	4.7
5	E	98	ASN	4.7
2	B	135	LEU	4.7
34	i	440	C	4.6
16	P	60	LEU	4.6

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Mol	Chain	Res	Type	RSRZ
16	P	116	LEU	4.6
34	i	212	G	4.6
34	i	1647	G	4.6
14	N	84	LEU	4.6
9	I	136	ILE	4.6
23	W	9	ASP	4.6
9	I	82	VAL	4.6
34	i	1540	A	4.6
6	F	90	VAL	4.6
34	i	132	U	4.6
23	W	61	ILE	4.6
15	O	31	CYS	4.6
34	i	1486	G	4.6
21	U	38	ASP	4.6
34	i	293	A	4.6
34	i	1088	G	4.6
6	F	15	PRO	4.6
1	A	63	ARG	4.6
20	T	35	ASP	4.6
7	G	34	THR	4.6
9	I	179	PRO	4.6
6	F	52	SER	4.6
24	X	124	LYS	4.6
34	i	378	U	4.6
3	C	173	CYS	4.6
34	i	657	U	4.6
34	i	734	C	4.6
7	G	82	SER	4.6
9	I	34	ALA	4.6
34	i	618	A	4.6
17	Q	48	GLN	4.6
6	F	24	SER	4.5
34	i	1573	U	4.5
4	D	169	ASP	4.5
34	i	1539	C	4.5
12	L	8	ARG	4.5
12	L	110	SER	4.5
4	D	107	TYR	4.5
10	J	73	GLU	4.5
29	c	60	GLU	4.5
4	D	108	LYS	4.5
6	F	92	ILE	4.5

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Mol	Chain	Res	Type	RSRZ
27	a	72	HIS	4.5
2	B	215	VAL	4.5
3	C	200	LEU	4.5
3	C	175	SER	4.5
8	H	163	GLN	4.5
34	i	366	A	4.5
29	c	56	LEU	4.5
5	E	117	GLU	4.5
16	P	109	PRO	4.5
3	C	156	GLY	4.5
7	G	3	LEU	4.5
21	U	108	PRO	4.5
23	W	10	ALA	4.5
35	j	32	C	4.5
34	i	50	A	4.5
6	F	186	ASN	4.5
12	L	141	ASN	4.5
34	i	688	U	4.5
34	i	367	G	4.5
2	B	81	PHE	4.5
7	G	75	LEU	4.5
4	D	92	ALA	4.5
7	G	152	ASP	4.4
37	n	47	LEU	4.4
5	E	144	ALA	4.4
19	S	71	MET	4.4
12	L	75	GLY	4.4
9	I	87	ASN	4.4
28	b	24	LEU	4.4
34	i	825	C	4.4
5	E	249	ALA	4.4
7	G	77	LEU	4.4
34	i	330	C	4.4
34	i	1542	C	4.4
6	F	147	VAL	4.4
9	I	145	ILE	4.4
21	U	37	ALA	4.4
23	W	112	ASP	4.4
5	E	248	ILE	4.4
31	e	76	VAL	4.4
4	D	64	ARG	4.4
12	L	140	PHE	4.4

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Mol	Chain	Res	Type	RSRZ
36	k	19	U	4.4
6	F	138	ALA	4.4
19	S	48	ALA	4.4
34	i	610	G	4.4
5	E	140	VAL	4.4
10	J	75	ASN	4.4
16	P	75	VAL	4.4
6	F	14	THR	4.4
6	F	21	GLY	4.4
8	H	189	PHE	4.4
3	C	111	ALA	4.4
6	F	161	ALA	4.4
31	e	87	ARG	4.4
34	i	1859	C	4.4
6	F	149	GLN	4.4
1	A	62	ALA	4.4
34	i	405	A	4.4
34	i	497	G	4.4
5	E	46	ILE	4.3
2	B	230	GLU	4.3
34	i	609	A	4.3
6	F	23	TRP	4.3
34	i	692	U	4.3
3	C	176	VAL	4.3
37	n	69	VAL	4.3
4	D	174	HIS	4.3
6	F	179	ASN	4.3
34	i	729	C	4.3
21	U	109	GLY	4.3
15	O	126	ILE	4.3
34	i	810	U	4.3
21	U	53	PRO	4.3
5	E	162	ILE	4.3
4	D	177	LEU	4.3
15	O	70	SER	4.3
29	c	44	ARG	4.3
34	i	411	G	4.3
4	D	54	ARG	4.3
4	D	84	VAL	4.3
6	F	172	CYS	4.3
5	E	159	THR	4.3
34	i	339	A	4.3

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Mol	Chain	Res	Type	RSRZ
7	G	180	VAL	4.3
37	n	70	TRP	4.3
5	E	63	LYS	4.3
5	E	67	GLN	4.3
3	C	182	PRO	4.3
37	n	94	LYS	4.3
6	F	33	ILE	4.3
34	i	438	A	4.3
4	D	8	LYS	4.3
23	W	128	PHE	4.2
1	A	57	LYS	4.2
6	F	141	VAL	4.2
34	i	252	C	4.2
4	D	168	VAL	4.2
34	i	365	U	4.2
34	i	1400	U	4.2
5	E	169	ILE	4.2
9	I	156	ALA	4.2
17	Q	88	ILE	4.2
24	X	66	ILE	4.2
24	X	134	TYR	4.2
5	E	155	LYS	4.2
5	E	154	ILE	4.2
17	Q	56	LEU	4.2
33	g	92	LEU	4.2
24	X	93	PHE	4.2
2	B	151	ARG	4.2
23	W	37	PHE	4.2
35	j	75	A	4.2
34	i	987	G	4.2
12	L	101	ARG	4.2
34	i	243	C	4.2
34	i	1082	G	4.2
37	n	93	LEU	4.2
1	A	94	THR	4.2
6	F	61	PHE	4.2
9	I	93	THR	4.2
5	E	259	LYS	4.2
23	W	126	LEU	4.2
34	i	1090	C	4.2
17	Q	119	LEU	4.2
24	X	113	GLY	4.2

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Mol	Chain	Res	Type	RSRZ
34	i	1861	U	4.2
9	I	165	GLN	4.2
8	H	190	PRO	4.2
34	i	1648	U	4.1
12	L	111	VAL	4.1
19	S	116	LYS	4.1
34	i	439	A	4.1
5	E	252	ARG	4.1
6	F	37	ASP	4.1
1	A	66	VAL	4.1
5	E	76	VAL	4.1
18	R	87	GLU	4.1
23	W	53	ILE	4.1
30	d	23	VAL	4.1
1	A	2	SER	4.1
34	i	1578	C	4.1
23	W	104	LEU	4.1
6	F	152	TRP	4.1
6	F	171	GLU	4.1
34	i	403	G	4.1
12	L	94	HIS	4.1
34	i	1586	C	4.1
22	V	82	ASN	4.1
34	i	1538	U	4.1
24	X	71	ARG	4.1
16	P	45	LEU	4.1
21	U	20	ILE	4.1
34	i	1523	G	4.1
4	D	79	PHE	4.1
34	i	1583	A	4.1
24	X	58	GLU	4.1
15	O	28	PHE	4.1
34	i	338	A	4.1
34	i	404	A	4.1
34	i	1482	A	4.1
3	C	112	PHE	4.1
8	H	162	GLN	4.1
6	F	56	TYR	4.1
3	C	79	ILE	4.1
34	i	1491	G	4.0
3	C	73	ILE	4.0
34	i	329	A	4.0

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Mol	Chain	Res	Type	RSRZ
34	i	660	A	4.0
5	E	52	LEU	4.0
12	L	129	GLY	4.0
34	i	1818	A	4.0
34	i	1549	C	4.0
12	L	86	ILE	4.0
28	b	23	ARG	4.0
34	i	1487	G	4.0
4	D	57	ASN	4.0
2	B	39	PHE	4.0
29	c	43	ILE	4.0
34	i	268	G	4.0
34	i	1138	G	4.0
35	j	70	C	4.0
5	E	18	TRP	4.0
34	i	813	G	4.0
34	i	1389	G	4.0
37	n	65	LEU	4.0
7	G	52	ILE	4.0
17	Q	135	PRO	4.0
15	O	27	VAL	4.0
12	L	68	ILE	4.0
27	a	12	LYS	4.0
34	i	682	G	4.0
9	I	188	TYR	4.0
34	i	208	G	4.0
6	F	35	LEU	4.0
16	P	71	GLU	4.0
34	i	1355	U	4.0
1	A	67	ALA	4.0
12	L	108	ASN	4.0
34	i	735	C	4.0
28	b	25	VAL	3.9
7	G	192	ILE	3.9
16	P	21	ASP	3.9
12	L	74	SER	3.9
34	i	658	A	3.9
34	i	814	A	3.9
2	B	102	GLY	3.9
6	F	78	MET	3.9
9	I	67	TRP	3.9
34	i	1445	G	3.9

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Mol	Chain	Res	Type	RSRZ
2	B	84	PHE	3.9
36	k	22	C	3.9
17	Q	93	VAL	3.9
37	n	59	CYS	3.9
4	D	4	GLN	3.9
21	U	91	LEU	3.9
19	S	50	ILE	3.9
34	i	258	G	3.9
34	i	1205	A	3.9
34	i	1745	C	3.9
7	G	179	LEU	3.9
34	i	1352	G	3.9
7	G	5	ILE	3.9
9	I	163	GLU	3.9
34	i	1134	C	3.9
36	k	12	A	3.9
2	B	32	ASP	3.9
9	I	159	SER	3.9
34	i	176	U	3.9
10	J	61	LEU	3.9
9	I	108	PRO	3.9
34	i	209	C	3.9
34	i	244	C	3.9
2	B	153	THR	3.9
17	Q	134	GLY	3.9
34	i	207	U	3.9
1	A	59	LEU	3.9
16	P	7	LYS	3.9
4	D	151	LYS	3.9
34	i	1081	C	3.9
4	D	157	MET	3.9
5	E	251	GLU	3.9
34	i	13	C	3.9
4	D	139	SER	3.9
8	H	137	SER	3.9
29	c	58	LEU	3.9
30	d	38	MET	3.9
34	i	364	G	3.8
33	g	257	LYS	3.8
2	B	133	TYR	3.8
5	E	112	HIS	3.8
8	H	142	LYS	3.8

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Mol	Chain	Res	Type	RSRZ
34	i	730	C	3.8
4	D	31	GLU	3.8
4	D	208	VAL	3.8
34	i	1418	G	3.8
12	L	105	ARG	3.8
17	Q	46	THR	3.8
33	g	55	PRO	3.8
15	O	114	SER	3.8
37	n	72	ASN	3.8
16	P	41	GLN	3.8
12	L	21	LYS	3.8
33	g	21	ILE	3.8
34	i	14	C	3.8
34	i	724	C	3.8
5	E	146	THR	3.8
16	P	20	VAL	3.8
12	L	88	ILE	3.8
29	c	42	ILE	3.8
34	i	297	C	3.8
7	G	74	ARG	3.8
21	U	107	GLU	3.8
34	i	1735	C	3.8
1	A	15	VAL	3.8
33	g	42	MET	3.8
7	G	1	MET	3.8
2	B	86	LEU	3.8
5	E	225	ILE	3.8
9	I	35	ASN	3.8
16	P	77	LYS	3.8
22	V	27	LYS	3.8
34	i	328	G	3.8
34	i	1484	C	3.8
29	c	57	THR	3.8
34	i	549	G	3.8
2	B	141	GLY	3.8
4	D	46	THR	3.8
34	i	996	C	3.8
34	i	53	C	3.8
34	i	1094	C	3.8
34	i	1658	A	3.8
34	i	21	U	3.7
34	i	385	G	3.7

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Mol	Chain	Res	Type	RSRZ
23	W	27	ILE	3.7
34	i	644	A	3.7
3	C	189	ILE	3.7
4	D	223	ILE	3.7
23	W	125	ILE	3.7
15	O	73	ALA	3.7
24	X	6	GLY	3.7
34	i	254	G	3.7
1	A	58	LEU	3.7
7	G	51	ARG	3.7
9	I	138	ASN	3.7
30	d	52	PHE	3.7
30	d	46	TYR	3.7
9	I	132	GLU	3.7
19	S	68	ILE	3.7
23	W	124	LYS	3.7
14	N	82	PRO	3.7
5	E	81	THR	3.7
24	X	133	LEU	3.7
34	i	1852	G	3.7
21	U	97	ILE	3.7
2	B	140	VAL	3.7
21	U	70	CYS	3.7
34	i	435	A	3.7
34	i	436	G	3.7
34	i	1392	A	3.7
12	L	119	ASP	3.7
30	d	37	ASN	3.7
34	i	997	A	3.7
10	J	87	LEU	3.7
34	i	636	G	3.7
4	D	39	VAL	3.7
34	i	1058	A	3.7
9	I	148	LYS	3.7
6	F	192	LYS	3.7
27	a	16	GLY	3.6
31	e	88	GLY	3.6
24	X	91	LEU	3.6
1	A	4	ALA	3.6
4	D	125	PHE	3.6
23	W	13	SER	3.6
5	E	120	LYS	3.6

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Mol	Chain	Res	Type	RSRZ
24	X	87	ASN	3.6
34	i	1483	A	3.6
16	P	33	LEU	3.6
15	O	93	LEU	3.6
34	i	467	G	3.6
28	b	16	LYS	3.6
21	U	31	SER	3.6
23	W	40	VAL	3.6
23	W	130	PHE	3.6
33	g	23	THR	3.6
34	i	175	A	3.6
13	M	95	ASP	3.6
3	C	174	GLY	3.6
16	P	70	MET	3.6
30	d	22	ARG	3.6
9	I	91	VAL	3.6
10	J	96	TYR	3.6
6	F	45	TYR	3.6
34	i	1817	A	3.6
5	E	228	ILE	3.6
14	N	142	GLU	3.6
15	O	120	ALA	3.6
34	i	1737	C	3.6
33	g	41	ILE	3.6
2	B	224	GLU	3.6
3	C	179	ARG	3.6
34	i	307	G	3.6
34	i	309	A	3.6
34	i	876	G	3.6
34	i	1191	A	3.6
9	I	155	ASN	3.6
2	B	92	GLN	3.6
15	O	19	PRO	3.6
34	i	1327	C	3.6
2	B	181	LEU	3.6
2	B	207	LEU	3.6
8	H	160	LYS	3.6
12	L	134	LEU	3.6
34	i	468	G	3.6
9	I	75	LYS	3.6
34	i	1228	U	3.6
37	n	90	ASP	3.6

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Mol	Chain	Res	Type	RSRZ
2	B	225	LEU	3.6
34	i	49	C	3.6
3	C	217	THR	3.5
5	E	142	HIS	3.5
5	E	161	GLN	3.5
1	A	18	PHE	3.5
17	Q	49	TYR	3.5
18	R	90	ALA	3.5
34	i	1190	A	3.5
34	i	1853	A	3.5
18	R	91	LEU	3.5
37	n	111	GLU	3.5
34	i	1858	U	3.5
6	F	175	ASP	3.5
20	T	36	THR	3.5
33	g	231	ASP	3.5
7	G	112	VAL	3.5
10	J	66	LYS	3.5
34	i	1151	U	3.5
3	C	124	LEU	3.5
9	I	140	LYS	3.5
34	i	10	G	3.5
17	Q	114	GLN	3.5
23	W	60	LYS	3.5
34	i	396	U	3.5
6	F	95	HIS	3.5
7	G	76	LEU	3.5
34	i	822	A	3.5
2	B	212	VAL	3.5
37	n	40	LYS	3.5
5	E	257	ALA	3.5
5	E	258	ALA	3.5
23	W	76	SER	3.5
1	A	178	LEU	3.5
34	i	331	C	3.5
9	I	169	GLY	3.5
2	B	73	ASP	3.5
15	O	40	THR	3.5
37	n	77	ILE	3.5
4	D	40	ARG	3.5
34	i	1497	C	3.5
3	C	181	ILE	3.5

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Mol	Chain	Res	Type	RSRZ
12	L	106	HIS	3.5
34	i	637	U	3.5
9	I	40	PRO	3.5
10	J	93	LYS	3.5
34	i	1587	C	3.5
34	i	662	A	3.4
4	D	123	LEU	3.4
29	c	14	VAL	3.4
29	c	47	LYS	3.4
34	i	1139	A	3.4
34	i	1470	A	3.4
1	A	161	ILE	3.4
34	i	1524	C	3.4
34	i	1585	C	3.4
8	H	165	ASN	3.4
33	g	56	GLN	3.4
2	B	78	GLU	3.4
4	D	81	GLU	3.4
10	J	16	PRO	3.4
17	Q	102	GLU	3.4
24	X	141	PRO	3.4
35	j	72	A	3.4
12	L	87	VAL	3.4
34	i	32	U	3.4
1	A	51	LEU	3.4
24	X	129	SER	3.4
34	i	1350	G	3.4
9	I	198	TYR	3.4
2	B	211	PHE	3.4
10	J	98	LEU	3.4
35	j	37	A	3.4
31	e	124	GLY	3.4
21	U	106	ILE	3.4
34	i	247	C	3.4
34	i	1764	G	3.4
6	F	44	LYS	3.4
29	c	66	ARG	3.4
34	i	1584	A	3.4
24	X	102	VAL	3.4
6	F	103	LEU	3.4
3	C	126	MET	3.4
19	S	123	LEU	3.4

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Mol	Chain	Res	Type	RSRZ
34	i	1843	G	3.4
34	i	202	U	3.4
34	i	944	C	3.4
33	g	272	GLN	3.4
34	i	1495	U	3.4
2	B	209	ASP	3.4
29	c	31	ARG	3.4
3	C	165	VAL	3.4
34	i	1324	G	3.4
29	c	59	LEU	3.4
31	e	123	PHE	3.4
6	F	43	GLU	3.4
7	G	109	LEU	3.4
6	F	130	ARG	3.4
23	W	34	ILE	3.4
24	X	112	VAL	3.4
34	i	548	G	3.4
17	Q	110	ASP	3.4
18	R	112	GLY	3.4
33	g	250	ALA	3.4
16	P	69	PRO	3.3
34	i	1477	G	3.3
29	c	8	PRO	3.3
5	E	21	ASP	3.3
34	i	1642	A	3.3
10	J	92	MET	3.3
34	i	995	G	3.3
2	B	154	SER	3.3
23	W	110	ILE	3.3
31	e	90	THR	3.3
6	F	188	TYR	3.3
1	A	64	ALA	3.3
33	g	57	ARG	3.3
34	i	1150	U	3.3
12	L	112	HIS	3.3
34	i	1212	C	3.3
35	j	55	C	3.3
10	J	71	LEU	3.3
1	A	145	ILE	3.3
34	i	410	G	3.3
34	i	1660	G	3.3
27	a	62	TYR	3.3

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Mol	Chain	Res	Type	RSRZ
4	D	141	LYS	3.3
8	H	143	ARG	3.3
34	i	1353	A	3.3
29	c	41	SER	3.3
31	e	122	THR	3.3
34	i	811	U	3.3
34	i	1447	G	3.3
8	H	187	PHE	3.3
34	i	1494	A	3.3
36	k	17	U	3.3
5	E	165	GLU	3.3
9	I	170	LYS	3.3
34	i	1547	G	3.3
34	i	379	A	3.3
34	i	1575	A	3.3
35	j	71	U	3.3
1	A	186	ARG	3.3
5	E	41	CYS	3.3
34	i	645	A	3.3
30	d	6	LEU	3.3
30	d	36	LEU	3.3
12	L	130	GLU	3.3
24	X	123	VAL	3.3
33	g	78	ALA	3.3
34	i	1657	U	3.3
21	U	57	PRO	3.3
2	B	143	THR	3.3
3	C	164	THR	3.3
17	Q	63	PHE	3.3
34	i	128	U	3.2
34	i	656	U	3.2
3	C	91	VAL	3.2
12	L	77	VAL	3.2
15	O	23	GLU	3.2
7	G	24	LEU	3.2
8	H	158	LEU	3.2
2	B	70	SER	3.2
2	B	82	ARG	3.2
2	B	122	GLU	3.2
6	F	57	ALA	3.2
9	I	135	GLU	3.2
14	N	81	ALA	3.2

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Mol	Chain	Res	Type	RSRZ
29	c	54	ASP	3.2
34	i	5	U	3.2
5	E	103	TYR	3.2
5	E	175	PHE	3.2
17	Q	103	ALA	3.2
3	C	227	ASP	3.2
5	E	253	ASP	3.2
23	W	38	LEU	3.2
29	c	7	GLN	3.2
34	i	877	G	3.2
15	O	58	GLY	3.2
34	i	982	G	3.2
34	i	1856	G	3.2
3	C	125	GLY	3.2
34	i	1354	U	3.2
5	E	138	HIS	3.2
3	C	197	LYS	3.2
5	E	126	VAL	3.2
7	G	117	GLY	3.2
34	i	300	G	3.2
9	I	56	ARG	3.2
24	X	119	ARG	3.2
34	i	1133	U	3.2
34	i	389	C	3.2
34	i	459	A	3.2
26	Z	108	ILE	3.2
12	L	113	LEU	3.2
16	P	17	TYR	3.2
34	i	43	U	3.2
2	B	229	MET	3.2
6	F	26	ASP	3.2
10	J	90	GLY	3.2
34	i	643	A	3.2
34	i	1135	C	3.2
4	D	27	ARG	3.2
4	D	106	ARG	3.2
9	I	114	GLU	3.2
4	D	5	ILE	3.2
34	i	832	G	3.2
34	i	269	C	3.2
7	G	116	LYS	3.2
34	i	100	U	3.2

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Mol	Chain	Res	Type	RSRZ
27	a	86	ASN	3.2
30	d	49	ASP	3.2
7	G	93	LYS	3.2
7	G	115	LYS	3.2
17	Q	39	LEU	3.2
9	I	110	ARG	3.2
3	C	205	ASP	3.2
33	g	43	TRP	3.2
34	i	1446	G	3.1
37	n	60	HIS	3.1
34	i	24	C	3.1
25	Y	50	THR	3.1
20	T	118	ASP	3.1
24	X	11	ARG	3.1
1	A	24	HIS	3.1
27	a	20	PRO	3.1
34	i	306	C	3.1
34	i	424	G	3.1
34	i	833	A	3.1
37	n	78	LEU	3.1
5	E	227	VAL	3.1
34	i	699	C	3.1
34	i	1522	C	3.1
34	i	1698	C	3.1
34	i	203	G	3.1
36	k	16	A	3.1
34	i	340	C	3.1
12	L	59	LYS	3.1
24	X	127	ASN	3.1
34	i	415	G	3.1
17	Q	47	LEU	3.1
25	Y	18	LEU	3.1
34	i	1422	U	3.1
26	Z	50	PHE	3.1
10	J	91	LYS	3.1
34	i	1161	G	3.1
34	i	117	C	3.1
11	K	25	LYS	3.1
34	i	62	G	3.1
33	g	290	ALA	3.1
34	i	506	A	3.1
1	A	159	ILE	3.1

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Mol	Chain	Res	Type	RSRZ
19	S	127	TRP	3.1
12	L	79	LYS	3.1
34	i	1744	G	3.1
33	g	249	CYS	3.1
34	i	118	C	3.1
14	N	139	TRP	3.1
9	I	41	ARG	3.1
34	i	204	G	3.1
34	i	855	G	3.1
4	D	59	LEU	3.1
35	j	38	C	3.1
6	F	36	GLN	3.1
10	J	70	ARG	3.1
29	c	32	VAL	3.1
31	e	75	LYS	3.1
14	N	20	ARG	3.1
15	O	111	GLY	3.0
17	Q	104	SER	3.0
9	I	182	CYS	3.0
24	X	128	VAL	3.0
23	W	96	SER	3.0
34	i	613	G	3.0
34	i	1154	G	3.0
4	D	164	VAL	3.0
19	S	6	PRO	3.0
21	U	29	VAL	3.0
24	X	120	PHE	3.0
10	J	77	LEU	3.0
12	L	127	THR	3.0
19	S	49	ASP	3.0
27	a	19	GLN	3.0
34	i	1537	C	3.0
36	k	14	A	3.0
2	B	36	PRO	3.0
4	D	109	LEU	3.0
27	a	95	ARG	3.0
11	K	42	ASN	3.0
4	D	61	GLU	3.0
23	W	6	VAL	3.0
23	W	11	LEU	3.0
34	i	578	G	3.0
6	F	146	ARG	3.0

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Mol	Chain	Res	Type	RSRZ
3	C	80	ASP	3.0
6	F	99	ILE	3.0
35	j	34	A	3.0
37	n	79	VAL	3.0
34	i	1344	G	3.0
27	a	65	PRO	3.0
21	U	54	VAL	3.0
26	Z	69	THR	3.0
12	L	22	ARG	3.0
34	i	377	C	3.0
37	n	73	THR	3.0
2	B	228	LEU	3.0
34	i	36	U	3.0
5	E	80	ILE	3.0
19	S	42	HIS	3.0
37	n	80	GLY	3.0
1	A	16	LEU	3.0
3	C	183	ALA	3.0
23	W	111	MET	3.0
34	i	1443	G	3.0
10	J	157	ILE	3.0
24	X	41	PHE	3.0
27	a	53	ILE	3.0
31	e	79	SER	3.0
34	i	1554	C	3.0
37	n	67	LYS	3.0
34	i	808	A	3.0
33	g	93	THR	3.0
34	i	1229	G	3.0
34	i	725	C	3.0
34	i	1351	C	3.0
14	N	83	ASP	3.0
4	D	170	THR	3.0
2	B	221	PRO	3.0
34	i	257	G	3.0
34	i	903	G	3.0
35	j	15	G	3.0
19	S	119	ALA	3.0
37	n	48	GLU	3.0
3	C	160	GLY	3.0
12	L	117	PHE	3.0
34	i	1091	U	3.0

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Mol	Chain	Res	Type	RSRZ
5	E	75	LYS	3.0
9	I	77	ARG	3.0
34	i	1708	C	2.9
21	U	100	GLN	2.9
34	i	11	A	2.9
24	X	99	GLU	2.9
5	E	66	MET	2.9
15	O	132	VAL	2.9
34	i	505	G	2.9
7	G	150	GLU	2.9
23	W	77	PRO	2.9
11	K	37	ASP	2.9
4	D	85	GLU	2.9
29	c	52	GLU	2.9
1	A	56	GLU	2.9
7	G	125	THR	2.9
11	K	59	LYS	2.9
34	i	220	C	2.9
34	i	1060	C	2.9
9	I	176	ALA	2.9
34	i	1454	G	2.9
6	F	201	LYS	2.9
15	O	24	GLY	2.9
3	C	196	LYS	2.9
5	E	158	ASP	2.9
34	i	1679	C	2.9
34	i	1846	C	2.9
16	P	30	TYR	2.9
5	E	167	GLY	2.9
34	i	260	G	2.9
4	D	62	LYS	2.9
24	X	139	GLU	2.9
10	J	19	PRO	2.9
34	i	131	C	2.9
7	G	78	SER	2.9
14	N	151	ALA	2.9
1	A	55	TRP	2.9
23	W	14	ILE	2.9
26	Z	101	SER	2.9
3	C	194	VAL	2.9
30	d	34	TYR	2.9
23	W	73	GLY	2.9

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Mol	Chain	Res	Type	RSRZ
34	i	77	A	2.9
24	X	142	ARG	2.9
15	O	61	LYS	2.9
21	U	51	LYS	2.9
20	T	37	VAL	2.9
20	T	90	SER	2.9
35	j	16	C	2.9
4	D	120	TYR	2.9
4	D	153	VAL	2.9
34	i	1160	G	2.9
2	B	95	ASN	2.9
34	i	1198	U	2.9
34	i	945	G	2.9
35	j	30	G	2.9
7	G	176	ILE	2.9
34	i	608	C	2.9
21	U	61	LEU	2.9
29	c	15	THR	2.8
33	g	71	ILE	2.8
18	R	88	VAL	2.8
5	E	183	VAL	2.8
6	F	34	SER	2.8
22	V	80	SER	2.8
34	i	376	C	2.8
34	i	487	C	2.8
34	i	92	A	2.8
34	i	292	A	2.8
12	L	146	THR	2.8
34	i	174	C	2.8
9	I	66	SER	2.8
34	i	494	G	2.8
27	a	71	LEU	2.8
31	e	77	HIS	2.8
34	i	1468	C	2.8
7	G	43	GLU	2.8
34	i	310	G	2.8
34	i	1854	A	2.8
4	D	132	LYS	2.8
34	i	1105	C	2.8
34	i	1577	C	2.8
21	U	44	LYS	2.8
34	i	341	G	2.8

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Mol	Chain	Res	Type	RSRZ
14	N	88	LEU	2.8
14	N	92	ILE	2.8
2	B	119	THR	2.8
9	I	23	LYS	2.8
12	L	147	LYS	2.8
4	D	117	ARG	2.8
15	O	71	PRO	2.8
34	i	221	A	2.8
34	i	428	G	2.8
34	i	510	A	2.8
34	i	929	G	2.8
2	B	74	LEU	2.8
6	F	19	LEU	2.8
34	i	612	C	2.8
17	Q	91	ALA	2.8
26	Z	43	LYS	2.8
33	g	13	GLY	2.8
5	E	255	ARG	2.8
34	i	425	A	2.8
17	Q	130	LYS	2.8
34	i	1039	G	2.8
2	B	103	MET	2.8
22	V	81	GLN	2.8
21	U	83	ARG	2.8
4	D	128	GLU	2.8
15	O	33	ILE	2.8
7	G	138	ALA	2.8
34	i	33	G	2.8
34	i	917	G	2.8
3	C	215	THR	2.8
12	L	85	THR	2.8
34	i	1747	C	2.8
24	X	98	ASP	2.8
5	E	262	SER	2.8
34	i	95	G	2.8
17	Q	136	GLY	2.7
27	a	64	LEU	2.7
3	C	82	PHE	2.7
34	i	1056	A	2.7
12	L	78	THR	2.7
33	g	255	SER	2.7
34	i	194	C	2.7

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Mol	Chain	Res	Type	RSRZ
34	i	719	C	2.7
4	D	114	ALA	2.7
34	i	580	A	2.7
2	B	98	THR	2.7
17	Q	96	TYR	2.7
34	i	1243	C	2.7
34	i	1391	C	2.7
16	P	80	LEU	2.7
34	i	395	G	2.7
34	i	508	G	2.7
34	i	674	G	2.7
7	G	188	LYS	2.7
10	J	137	VAL	2.7
14	N	41	ALA	2.7
29	c	16	LYS	2.7
3	C	118	TYR	2.7
25	Y	44	LEU	2.7
3	C	188	GLY	2.7
34	i	486	C	2.7
34	i	1395	C	2.7
2	B	47	THR	2.7
12	L	4	ILE	2.7
34	i	363	G	2.7
5	E	24	THR	2.7
34	i	54	A	2.7
34	i	1743	G	2.7
37	n	89	ALA	2.7
2	B	79	VAL	2.7
26	Z	49	LEU	2.7
27	a	35	ALA	2.7
5	E	125	LYS	2.7
7	G	195	LYS	2.7
22	V	79	VAL	2.7
4	D	219	PRO	2.7
5	E	163	ASP	2.7
22	V	12	TYR	2.7
19	S	44	VAL	2.7
19	S	78	LYS	2.7
5	E	57	THR	2.7
34	i	99	A	2.7
6	F	86	LYS	2.7
34	i	863	G	2.7

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Mol	Chain	Res	Type	RSRZ
6	F	142	SER	2.7
7	G	154	ARG	2.7
7	G	187	HIS	2.7
34	i	1336	U	2.7
25	Y	51	THR	2.7
34	i	943	G	2.7
34	i	1536	G	2.7
35	j	12	G	2.7
30	d	11	PRO	2.7
34	i	1142	C	2.7
2	B	231	LEU	2.7
25	Y	47	MET	2.7
34	i	1667	U	2.7
36	k	21	U	2.7
16	P	125	PRO	2.7
37	n	95	TYR	2.7
13	M	129	LYS	2.6
7	G	151	ASP	2.6
34	i	1643	G	2.6
35	j	13	C	2.6
26	Z	67	LEU	2.6
31	e	81	ALA	2.6
34	i	305	U	2.6
34	i	1836	C	2.6
7	G	39	ASP	2.6
34	i	1167	G	2.6
34	i	1330	G	2.6
34	i	1469	G	2.6
8	H	139	ILE	2.6
5	E	261	SER	2.6
23	W	123	GLY	2.6
34	i	1337	C	2.6
5	E	192	ILE	2.6
13	M	9	GLY	2.6
34	i	834	G	2.6
6	F	94	LYS	2.6
8	H	156	VAL	2.6
7	G	122	PRO	2.6
16	P	36	LEU	2.6
34	i	90	G	2.6
34	i	587	G	2.6
34	i	1137	G	2.6

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Mol	Chain	Res	Type	RSRZ
34	i	1722	G	2.6
34	i	386	U	2.6
34	i	879	U	2.6
34	i	826	A	2.6
34	i	1646	A	2.6
33	g	232	GLY	2.6
3	C	166	ARG	2.6
7	G	111	LEU	2.6
12	L	11	GLN	2.6
27	a	11	ALA	2.6
12	L	96	ILE	2.6
3	C	72	PRO	2.6
30	d	35	GLY	2.6
33	g	256	ILE	2.6
17	Q	107	GLU	2.6
18	R	92	ASP	2.6
3	C	210	SER	2.6
34	i	1678	C	2.6
35	j	33	C	2.6
22	V	70	LEU	2.6
37	n	74	SER	2.6
7	G	102	VAL	2.6
5	E	78	ALA	2.6
16	P	44	ARG	2.6
34	i	107	A	2.6
34	i	991	G	2.6
6	F	135	ARG	2.6
25	Y	52	PRO	2.6
27	a	75	VAL	2.6
3	C	211	ALA	2.6
2	B	139	CYS	2.6
21	U	58	THR	2.6
1	A	53	ARG	2.6
6	F	134	VAL	2.6
26	Z	100	VAL	2.6
29	c	17	VAL	2.6
34	i	360	G	2.6
34	i	891	G	2.6
4	D	2	ALA	2.6
1	A	174	MET	2.6
12	L	137	THR	2.6
34	i	8	U	2.6

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Mol	Chain	Res	Type	RSRZ
34	i	458	A	2.6
34	i	861	A	2.6
34	i	1079	A	2.6
1	A	52	LYS	2.6
2	B	105	LEU	2.6
34	i	492	C	2.6
34	i	966	G	2.6
11	K	49	MET	2.5
23	W	113	HIS	2.5
7	G	40	ALA	2.5
34	i	1084	U	2.5
34	i	1325	U	2.5
3	C	62	SER	2.5
5	E	111	VAL	2.5
2	B	93	GLY	2.5
34	i	946	C	2.5
1	A	175	TRP	2.5
16	P	118	GLU	2.5
10	J	79	ARG	2.5
29	c	29	GLN	2.5
18	R	86	PRO	2.5
33	g	40	ILE	2.5
34	i	545	A	2.5
34	i	1140	A	2.5
34	i	1087	C	2.5
6	F	196	LEU	2.5
34	i	579	G	2.5
34	i	817	G	2.5
34	i	1481	U	2.5
17	Q	81	ILE	2.5
37	n	61	ILE	2.5
5	E	115	THR	2.5
12	L	144	LYS	2.5
34	i	1835	C	2.5
33	g	299	PHE	2.5
34	i	267	G	2.5
34	i	1162	G	2.5
5	E	34	GLY	2.5
16	P	22	LEU	2.5
18	R	93	GLN	2.5
22	V	37	ALA	2.5
24	X	51	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
34	i	809	A	2.5
34	i	812	A	2.5
34	i	1707	A	2.5
34	i	1478	C	2.5
6	F	143	PRO	2.5
34	i	314	U	2.5
18	R	41	ILE	2.5
34	i	1040	G	2.5
3	C	144	LYS	2.5
9	I	180	GLY	2.5
16	P	115	TYR	2.5
34	i	1842	U	2.5
4	D	200	PRO	2.5
5	E	150	PRO	2.5
4	D	47	GLU	2.5
34	i	1399	C	2.5
15	O	121	ARG	2.5
6	F	101	HIS	2.5
17	Q	116	ASP	2.5
25	Y	53	ASP	2.5
34	i	282	G	2.5
34	i	1455	G	2.5
1	A	93	ALA	2.5
3	C	92	LEU	2.5
30	d	43	PHE	2.5
2	B	19	LYS	2.5
6	F	133	THR	2.5
11	K	11	ILE	2.5
15	O	92	ALA	2.5
19	S	115	LYS	2.5
34	i	1507	U	2.5
4	D	116	ARG	2.5
34	i	38	A	2.5
34	i	106	C	2.5
5	E	184	THR	2.5
11	K	72	THR	2.5
6	F	203	ASN	2.5
17	Q	105	LYS	2.5
15	O	35	ALA	2.4
19	S	65	GLU	2.4
24	X	101	LEU	2.4
30	d	31	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
34	i	124	U	2.4
34	i	1826	A	2.4
10	J	141	VAL	2.4
34	i	607	G	2.4
34	i	859	U	2.4
34	i	1721	G	2.4
2	B	77	ASP	2.4
24	X	140	ARG	2.4
23	W	105	THR	2.4
34	i	383	U	2.4
34	i	406	U	2.4
34	i	902	U	2.4
24	X	59	ALA	2.4
1	A	5	LEU	2.4
6	F	54	GLY	2.4
10	J	60	LEU	2.4
15	O	148	GLY	2.4
10	J	153	SER	2.4
33	g	289	LEU	2.4
34	i	12	U	2.4
37	n	66	ARG	2.4
23	W	29	PRO	2.4
28	b	4	ALA	2.4
34	i	201	G	2.4
29	c	28	THR	2.4
18	R	109	LEU	2.4
21	U	96	GLU	2.4
8	H	112	ASN	2.4
4	D	41	VAL	2.4
13	M	130	CYS	2.4
34	i	242	G	2.4
34	i	1571	G	2.4
17	Q	131	LYS	2.4
21	U	59	LYS	2.4
33	g	271	LYS	2.4
5	E	93	ASP	2.4
21	U	103	SER	2.4
37	n	62	ARG	2.4
5	E	31	PRO	2.4
7	G	156	TYR	2.4
3	C	214	CYS	2.4
34	i	1492	U	2.4

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Mol	Chain	Res	Type	RSRZ
16	P	59	ARG	2.4
34	i	400	G	2.4
27	a	67	LEU	2.4
2	B	210	VAL	2.4
34	i	1551	A	2.4
35	j	14	A	2.4
35	j	67	C	2.4
7	G	62	PRO	2.4
4	D	60	GLY	2.4
9	I	149	TYR	2.4
34	i	1334	G	2.4
10	J	86	VAL	2.4
23	W	41	MET	2.4
34	i	1444	A	2.4
20	T	32	GLU	2.4
9	I	113	TYR	2.4
9	I	117	TYR	2.4
34	i	261	G	2.4
34	i	1394	G	2.4
34	i	139	C	2.4
4	D	133	GLY	2.4
34	i	1242	A	2.4
34	i	1396	U	2.4
34	i	1479	A	2.4
34	i	1656	A	2.4
4	D	124	ARG	2.4
23	W	75	ILE	2.4
31	e	82	ARG	2.4
15	O	89	GLY	2.4
24	X	65	ALA	2.4
34	i	78	C	2.4
34	i	172	U	2.4
34	i	433	U	2.4
34	i	635	C	2.4
34	i	818	U	2.4
34	i	1553	C	2.4
15	O	91	THR	2.4
12	L	5	GLN	2.3
14	N	103	GLU	2.3
4	D	176	LEU	2.3
34	i	1163	G	2.3
34	i	1248	C	2.3

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Mol	Chain	Res	Type	RSRZ
35	j	49	A	2.3
15	O	29	GLY	2.3
4	D	172	VAL	2.3
7	G	85	ARG	2.3
3	C	193	PRO	2.3
3	C	90	LYS	2.3
8	H	141	GLY	2.3
12	L	70	GLY	2.3
3	C	107	THR	2.3
26	Z	58	LEU	2.3
34	i	1742	C	2.3
2	B	164	ILE	2.3
22	V	78	ILE	2.3
34	i	1857	A	2.3
9	I	107	THR	2.3
12	L	138	VAL	2.3
37	n	56	LYS	2.3
34	i	371	C	2.3
3	C	159	ILE	2.3
12	L	26	GLY	2.3
15	O	145	GLY	2.3
26	Z	88	LEU	2.3
34	i	634	G	2.3
12	L	83	GLN	2.3
34	i	1393	U	2.3
23	W	8	ALA	2.3
5	E	156	MET	2.3
3	C	130	LYS	2.3
1	A	68	ILE	2.3
34	i	1639	C	2.3
6	F	53	ALA	2.3
6	F	65	GLN	2.3
6	F	144	LEU	2.3
9	I	146	GLN	2.3
10	J	100	LEU	2.3
34	i	20	G	2.3
34	i	259	G	2.3
2	B	113	MET	2.3
29	c	12	ALA	2.3
2	B	205	TYR	2.3
22	V	69	ILE	2.3
34	i	414	C	2.3

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Mol	Chain	Res	Type	RSRZ
33	g	69	VAL	2.3
34	i	382	A	2.3
4	D	78	GLY	2.3
7	G	23	LYS	2.3
17	Q	42	ILE	2.3
29	c	55	VAL	2.3
18	R	94	GLU	2.3
34	i	337	G	2.3
16	P	8	LYS	2.3
9	I	141	ARG	2.3
34	i	1328	A	2.3
30	d	33	LYS	2.3
34	i	52	G	2.3
34	i	160	U	2.3
34	i	1104	G	2.3
3	C	146	SER	2.3
6	F	137	GLN	2.3
17	Q	34	VAL	2.3
17	Q	70	VAL	2.3
34	i	1146	A	2.3
35	j	36	A	2.3
4	D	218	LEU	2.3
5	E	29	PRO	2.3
5	E	250	GLU	2.3
34	i	216	U	2.3
34	i	1862	U	2.3
30	d	45	GLN	2.3
1	A	20	ALA	2.3
3	C	218	LEU	2.3
13	M	100	PRO	2.3
12	L	6	THR	2.3
19	S	62	ASP	2.3
33	g	70	VAL	2.3
11	K	79	LEU	2.2
34	i	91	A	2.2
34	i	1038	A	2.2
3	C	231	LYS	2.2
5	E	168	LYS	2.2
19	S	21	ASP	2.2
33	g	254	PRO	2.2
10	J	65	GLU	2.2
11	K	46	MET	2.2

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Mol	Chain	Res	Type	RSRZ
14	N	36	GLN	2.2
21	U	99	LYS	2.2
25	Y	40	ILE	2.2
6	F	162	ALA	2.2
34	i	493	C	2.2
4	D	150	MET	2.2
8	H	188	GLU	2.2
34	i	323	G	2.2
34	i	398	A	2.2
34	i	689	G	2.2
34	i	1331	G	2.2
34	i	1770	G	2.2
5	E	68	ARG	2.2
7	G	141	ILE	2.2
5	E	50	ASN	2.2
9	I	55	TYR	2.2
9	I	88	ASN	2.2
11	K	45	VAL	2.2
7	G	190	ARG	2.2
29	c	51	ARG	2.2
12	L	61	PRO	2.2
12	L	102	PHE	2.2
15	O	108	PRO	2.2
34	i	372	C	2.2
34	i	1227	C	2.2
34	i	1641	C	2.2
34	i	685	G	2.2
14	N	19	ARG	2.2
2	B	37	ALA	2.2
2	B	213	ARG	2.2
5	E	49	ARG	2.2
11	K	58	VAL	2.2
16	P	120	SER	2.2
17	Q	146	ARG	2.2
1	A	23	THR	2.2
5	E	232	ASN	2.2
34	i	1844	A	2.2
9	I	74	ARG	2.2
12	L	66	VAL	2.2
34	i	890	G	2.2
9	I	15	GLY	2.2
8	H	154	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
16	P	14	LYS	2.2
23	W	7	LEU	2.2
27	a	73	TYR	2.2
34	i	1692	A	2.2
9	I	152	ARG	2.2
19	S	45	LEU	2.2
19	S	46	ARG	2.2
23	W	54	ASP	2.2
5	E	2	ALA	2.2
34	i	1037	G	2.2
34	i	728	U	2.2
34	i	926	C	2.2
37	n	63	GLY	2.2
3	C	110	LYS	2.2
1	A	36	GLN	2.2
2	B	38	MET	2.2
34	i	1194	G	2.2
3	C	67	TYR	2.2
34	i	1467	C	2.2
34	i	1588	C	2.2
2	B	233	GLY	2.2
2	B	188	LEU	2.2
5	E	256	LEU	2.2
2	B	120	MET	2.2
2	B	71	LEU	2.2
34	i	401	G	2.2
30	d	42	CYS	2.2
34	i	324	C	2.2
20	T	99	VAL	2.2
26	Z	70	PRO	2.2
33	g	75	GLY	2.2
6	F	16	ASP	2.2
34	i	437	A	2.2
14	N	38	TYR	2.2
21	U	46	LYS	2.2
34	i	245	U	2.2
34	i	1152	U	2.2
35	j	50	U	2.2
37	n	75	ASP	2.2
1	A	160	ALA	2.2
15	O	42	VAL	2.2
3	C	206	ASP	2.2

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Mol	Chain	Res	Type	RSRZ
34	i	1627	G	2.2
21	U	71	GLY	2.2
34	i	116	U	2.2
34	i	478	U	2.2
34	i	1195	A	2.2
34	i	1825	A	2.2
1	A	182	VAL	2.2
34	i	1756	C	2.2
34	i	546	U	2.2
34	i	1453	U	2.2
5	E	116	PRO	2.2
2	B	109	LYS	2.2
12	L	135	SER	2.2
33	g	288	SER	2.2
6	F	91	ARG	2.1
28	b	12	PRO	2.1
21	U	104	ILE	2.1
34	i	1143	C	2.1
34	i	854	A	2.1
7	G	124	LEU	2.1
33	g	266	ILE	2.1
4	D	112	GLY	2.1
16	P	101	THR	2.1
34	i	134	C	2.1
34	i	731	C	2.1
34	i	1552	C	2.1
23	W	30	CYS	2.1
34	i	442	G	2.1
34	i	1345	G	2.1
7	G	181	THR	2.1
12	L	71	ARG	2.1
1	A	12	GLU	2.1
27	a	104	ALA	2.1
19	S	59	LEU	2.1
34	i	843	A	2.1
6	F	195	GLU	2.1
17	Q	82	TYR	2.1
17	Q	101	ASP	2.1
34	i	862	U	2.1
2	B	232	HIS	2.1
3	C	66	ILE	2.1
26	Z	59	CYS	2.1

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Mol	Chain	Res	Type	RSRZ
33	g	77	PHE	2.1
34	i	308	C	2.1
34	i	1086	C	2.1
1	A	74	VAL	2.1
34	i	146	G	2.1
33	g	258	ILE	2.1
2	B	83	LYS	2.1
12	L	81	LYS	2.1
34	i	847	C	2.1
2	B	68	GLU	2.1
3	C	177	LEU	2.1
37	n	58	LEU	2.1
5	E	215	GLY	2.1
22	V	77	GLY	2.1
34	i	479	A	2.1
12	L	121	GLN	2.1
34	i	495	G	2.1
6	F	125	SER	2.1
5	E	128	LYS	2.1
34	i	583	C	2.1
24	X	40	PRO	2.1
17	Q	43	GLU	2.1
24	X	72	VAL	2.1
34	i	325	G	2.1
34	i	422	G	2.1
34	i	1697	G	2.1
10	J	142	VAL	2.1
14	N	99	ARG	2.1
23	W	28	ARG	2.1
33	g	300	ALA	2.1
34	i	1128	C	2.1
34	i	1669	G	2.1
5	E	247	THR	2.1
7	G	33	ALA	2.1
11	K	12	TYR	2.1
16	P	29	SER	2.1
16	P	55	SER	2.1
34	i	1705	C	2.1
4	D	115	VAL	2.1
9	I	13	LYS	2.1
10	J	188	GLY	2.1
23	W	33	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
19	S	11	HIS	2.1
1	A	121	LEU	2.1
34	i	35	C	2.1
34	i	402	G	2.1
34	i	795	U	2.1
34	i	981	G	2.1
34	i	1257	C	2.1
34	i	1545	G	2.1
34	i	1704	G	2.1
35	j	48	G	2.1
5	E	4	GLY	2.1
7	G	31	ARG	2.1
37	n	49	ALA	2.1
9	I	125	LYS	2.1
12	L	131	CYS	2.1
16	P	19	GLY	2.1
29	c	10	LYS	2.1
19	S	114	LEU	2.1
34	i	496	G	2.1
34	i	827	G	2.1
14	N	40	LEU	2.0
8	H	164	ASN	2.0
16	P	52	LYS	2.0
19	S	66	ARG	2.0
31	e	78	GLY	2.0
9	I	73	THR	2.0
34	i	1387	C	2.0
5	E	62	LYS	2.0
14	N	37	ILE	2.0
27	a	8	ASN	2.0
8	H	166	VAL	2.0
34	i	1159	C	2.0
26	Z	86	ALA	2.0
33	g	144	ASP	2.0
34	i	31	U	2.0
34	i	661	A	2.0
34	i	1816	A	2.0
21	U	62	ARG	2.0
22	V	73	ALA	2.0
27	a	74	CYS	2.0
37	n	83	ASP	2.0
34	i	348	C	2.0

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Mol	Chain	Res	Type	RSRZ
34	i	975	C	2.0
35	j	39	C	2.0
2	B	160	GLN	2.0
34	i	1246	A	2.0
34	i	1452	G	2.0
2	B	85	LYS	2.0
29	c	48	GLY	2.0
11	K	34	GLU	2.0
5	E	79	ASP	2.0
9	I	14	THR	2.0
17	Q	133	GLY	2.0
34	i	1388	U	2.0
34	i	815	G	2.0
25	Y	49	LYS	2.0
19	S	74	PRO	2.0
34	i	1576	C	2.0

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

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.