



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 06:21 PM GMT

PDB ID : 4KZY  
Title : Rabbit 40S ribosomal subunit in complex with eIF1 and eIF1A.  
Authors : Lomakin, I.B.; Steitz, T.A.  
Deposited on : 2013-05-30  
Resolution : 7.01 Å(reported)

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

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

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

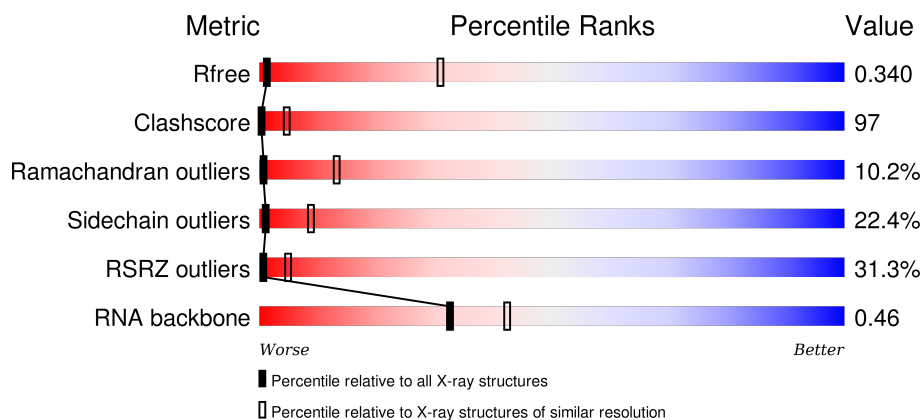
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

## *X-RAY DIFFRACTION*

The reported resolution of this entry is 7.01 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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	295	<div> <div>7%</div> <div>9% 39% 19% • 29%</div> </div>
2	B	264	<div> <div>42%</div> <div>14% 45% 19% • 19%</div> </div>
3	C	278	<div> <div>15%</div> <div>14% 46% 18% • 19%</div> </div>
4	D	243	<div> <div>71%</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>73%</div><div></div><div>66%</div><div></div><div>27%</div><div></div><div>5%</div></div>
31	e	133	<div><div></div><div>6%</div><div></div><div>18%</div><div></div><div>15%</div><div></div><div>10%</div><div></div><div>56%</div></div>
32	f	156	<div><div></div><div>2%</div><div></div><div>19%</div><div></div><div>17%</div><div></div><div>8%</div><div></div><div>54%</div></div>
33	g	317	<div><div></div><div>7%</div><div></div><div>74%</div><div></div><div>20%</div><div></div><div>• •</div></div>
34	i	1863	<div><div></div><div>22%</div><div></div><div>8%</div><div></div><div>65%</div><div></div><div>25%</div><div></div><div>•</div></div>
35	l	113	<div><div></div><div>48%</div><div></div><div>46%</div><div></div><div>25%</div><div></div><div>•</div><div></div><div>25%</div></div>
36	n	144	<div><div></div><div>31%</div><div></div><div>43%</div><div></div><div>12%</div><div></div><div>•</div><div></div><div>43%</div></div>

## 2 Entry composition [i](#)

There are 36 unique types of molecules in this entry. The entry contains 78412 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
			951	594	169	179	9			

- 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
			468	290	102	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	1840	Total	C	N	O	P	0	0	0
			38071	16944	6695	12593	1839			

- Molecule 35 is a protein called human initiation factor eIF1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	l	85	Total	C	N	O	S	0	0	0
			691	438	125	126	2			

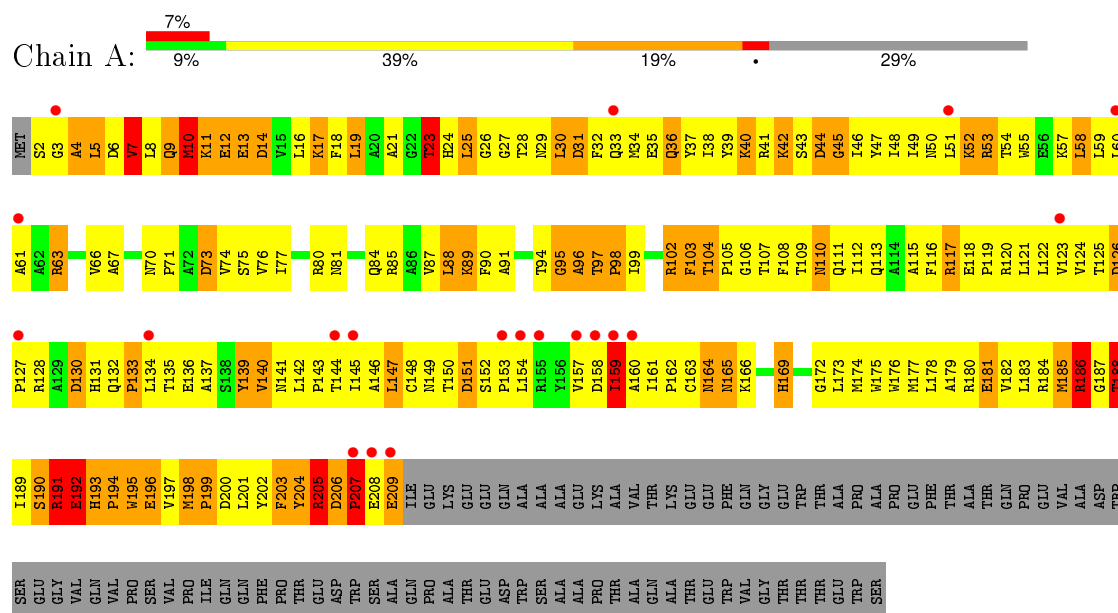
- Molecule 36 is a protein called human initiation factor eIF1A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	n	82	Total	C	N	O	S	0	0	0
			648	409	118	117	4			

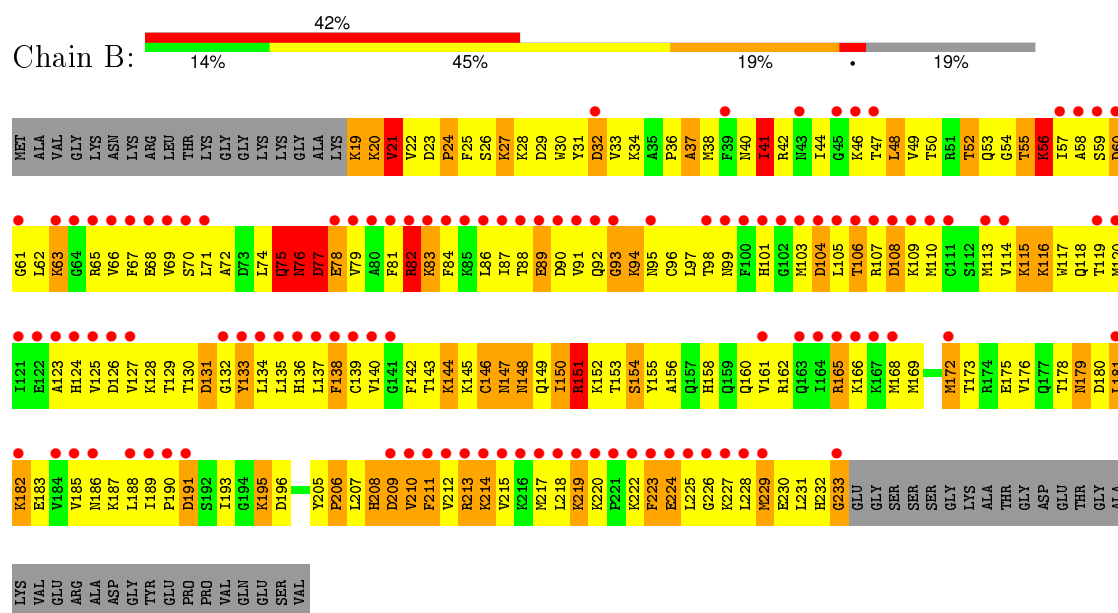
### 3 Residue-property plots

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 ( $RSRZ > 2$ ). 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.

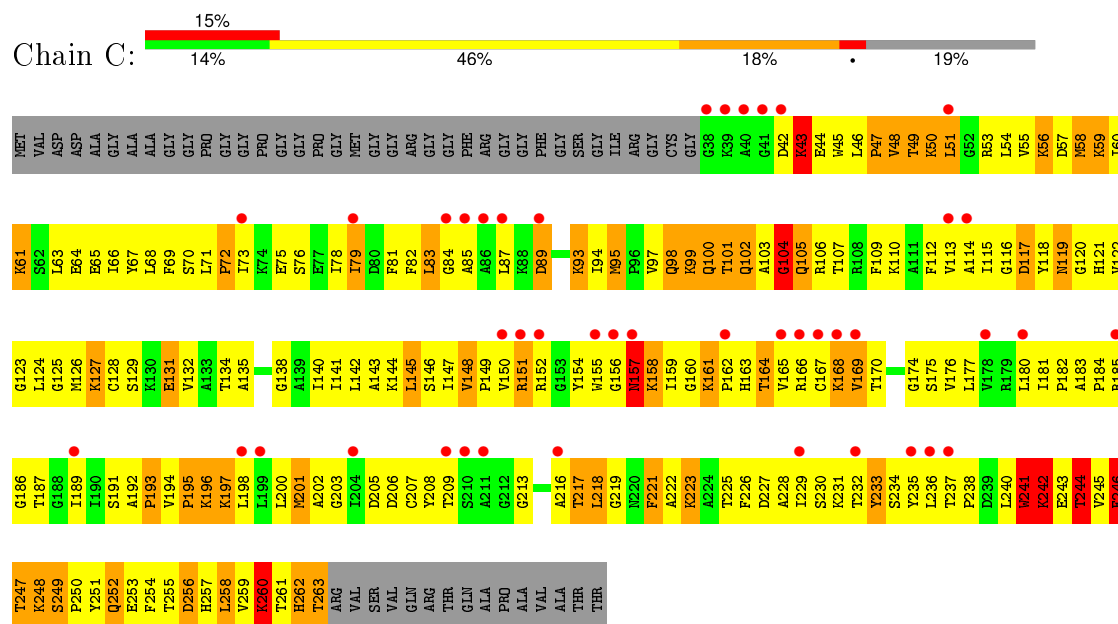
#### • Molecule 1: 40S Ribosomal Protein SA



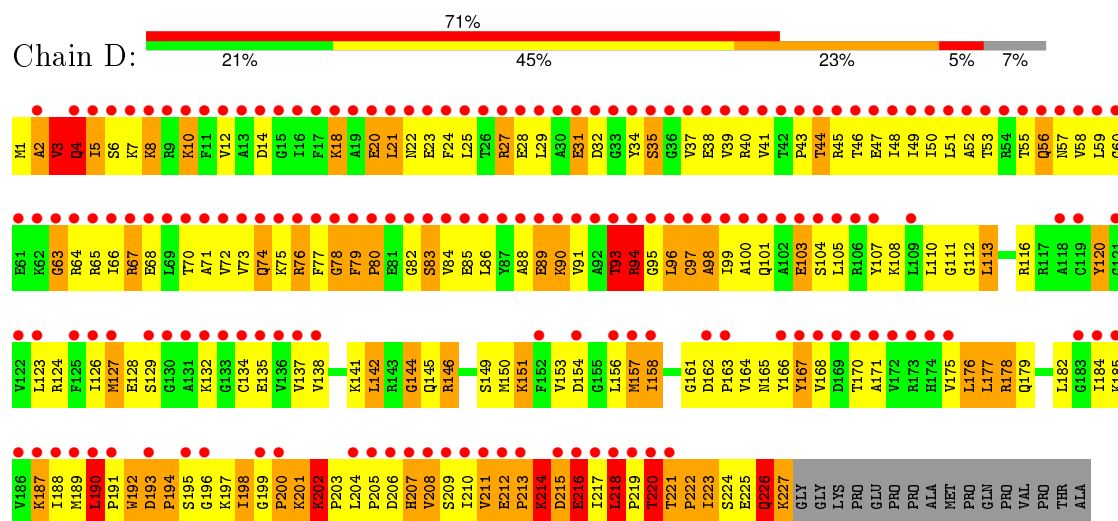
#### • Molecule 2: 40S Ribosomal Protein S3A



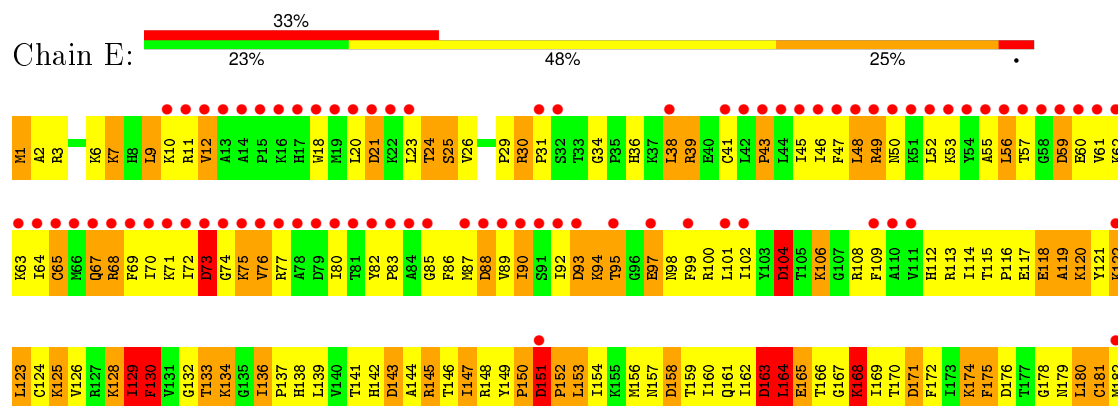
- Molecule 3: 40S Ribosomal Protein S2



- Molecule 4: 40S Ribosomal Protein S3

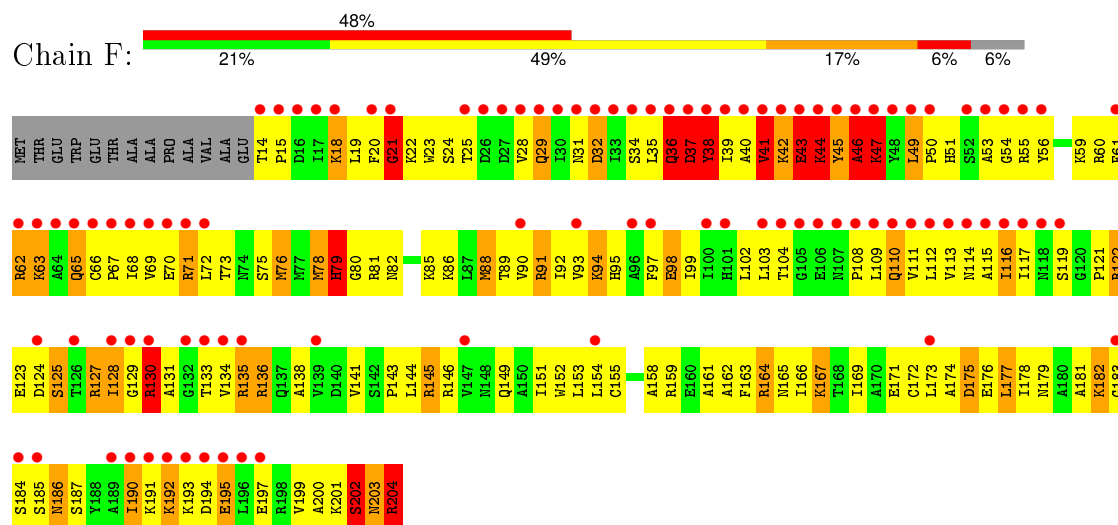


- Molecule 5: 40S Ribosomal Protein S4X

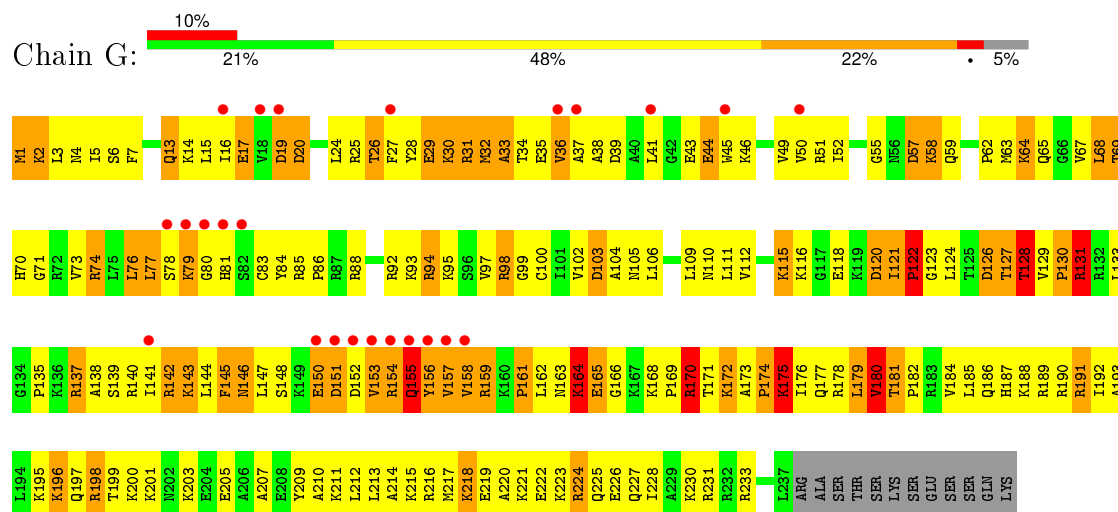




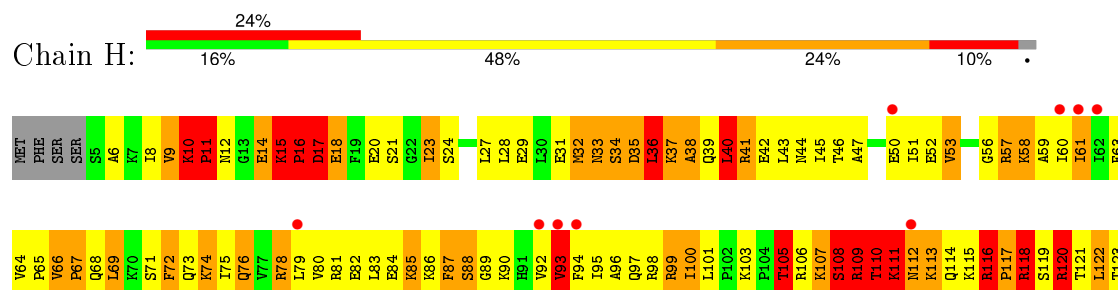
### • Molecule 6: 40S Ribosomal Protein S5

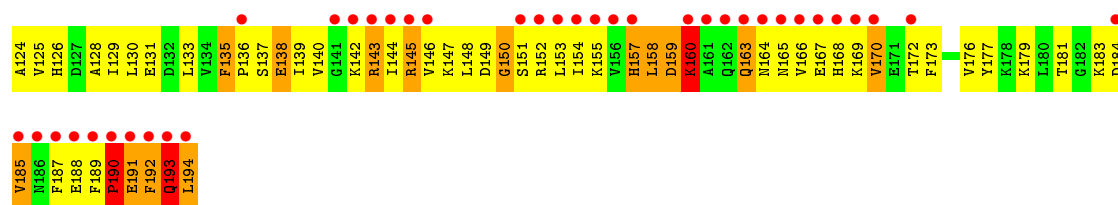


### • Molecule 7: 40S Ribosomal Protein S6

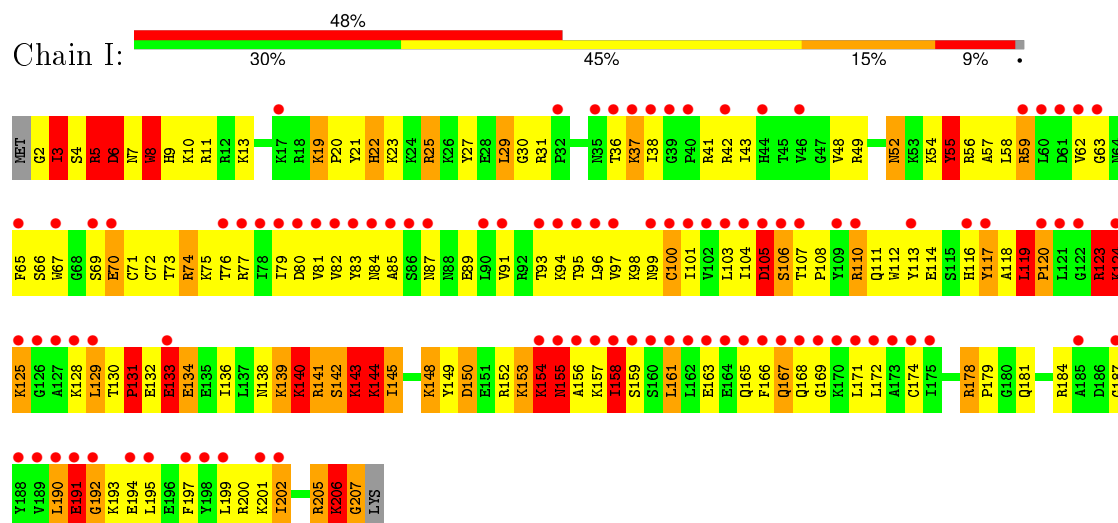


### • Molecule 8: 40S Ribosomal Protein S7

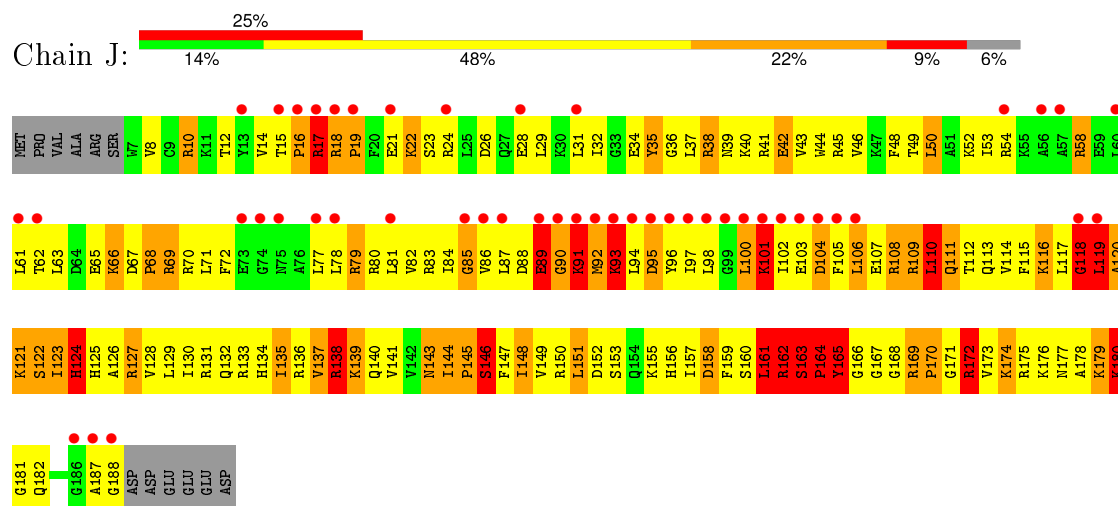




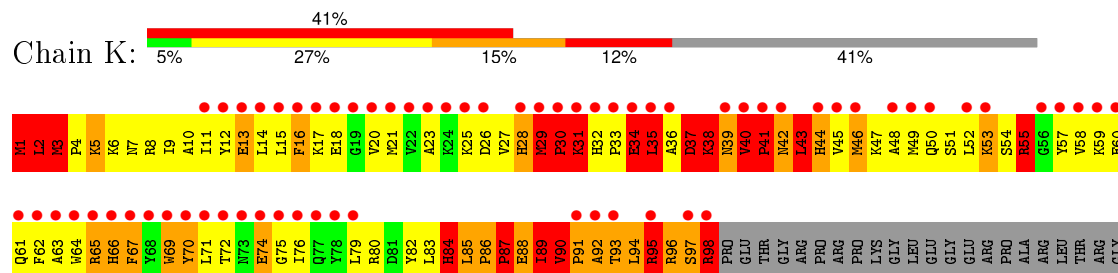
• Molecule 9: 40S Ribosomal Protein S8



• Molecule 10: 40S Ribosomal Protein S9

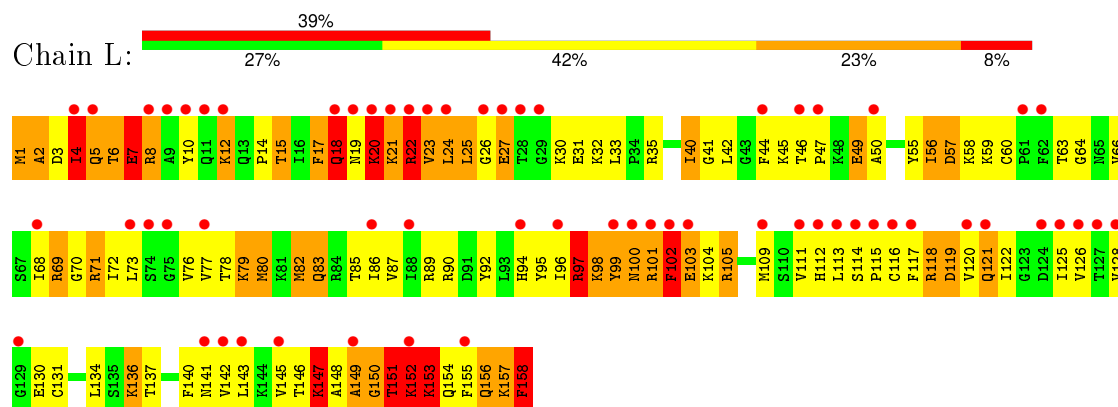


• Molecule 11: 40S Ribosomal Protein S10

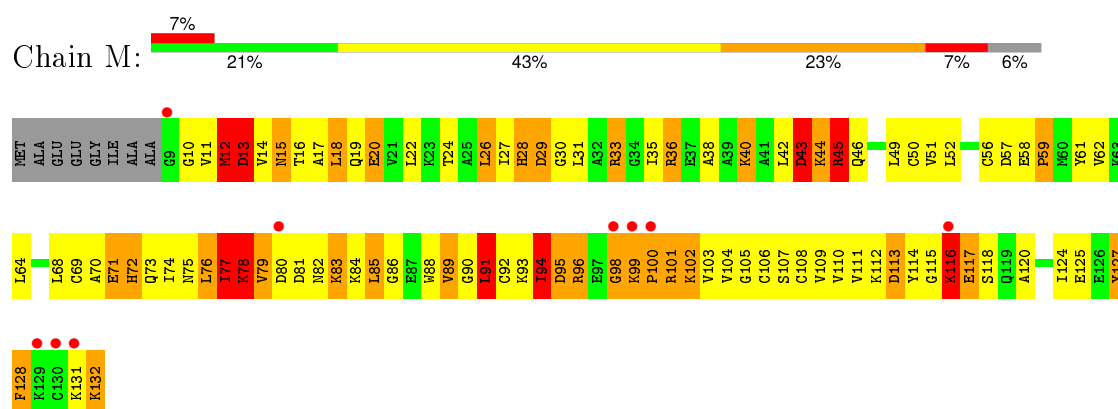


GLU	ALA	ASP	ARG	THR	TRP	TYR	ARG	ARG	SER	ALA	VAL	PRO	PRO	GLY	GLY	ASP	LYS	LYS	ALA	GLU	ALA	GLY	ALA	GLY	SER	ALA	THR	PHE	PHE	GLN	ARG	GLY	GLY	GLN	PRO	PRO	GLN
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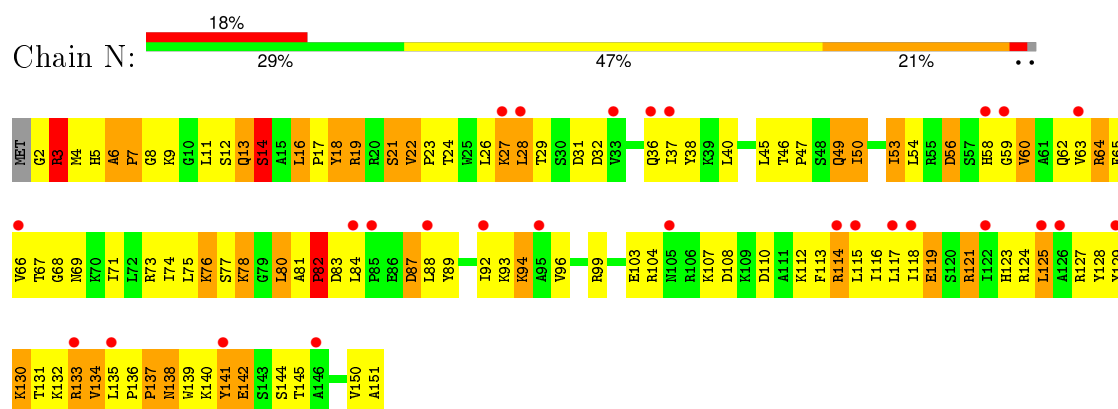
• Molecule 12: 40S Ribosomal Protein S11



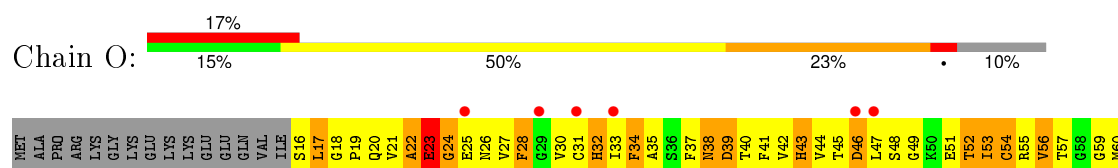
• Molecule 13: 40S Ribosomal Protein S12

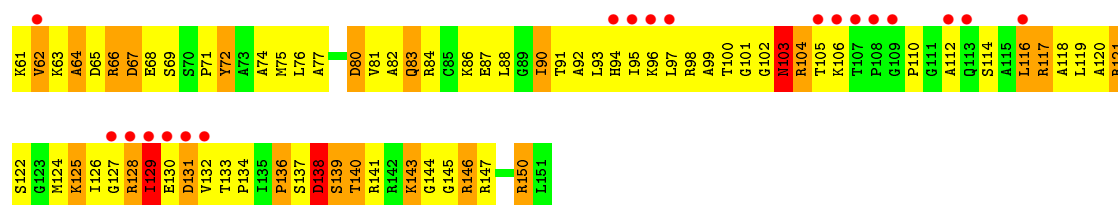


• Molecule 14: 40S Ribosomal Protein S13

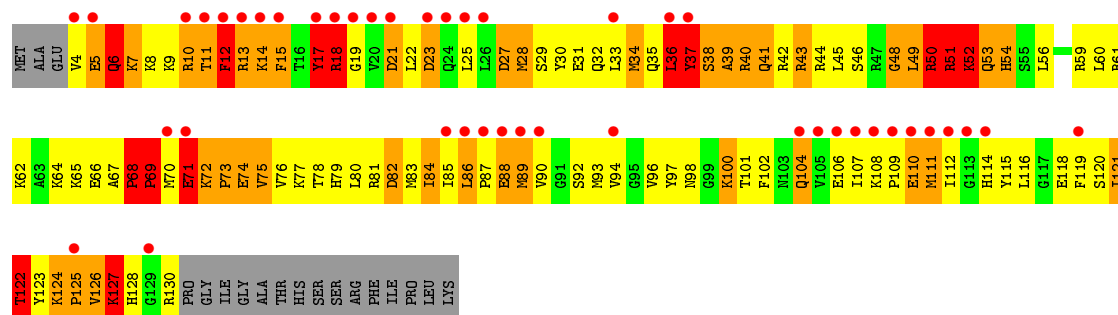


• Molecule 15: 40S Ribosomal Protein S14

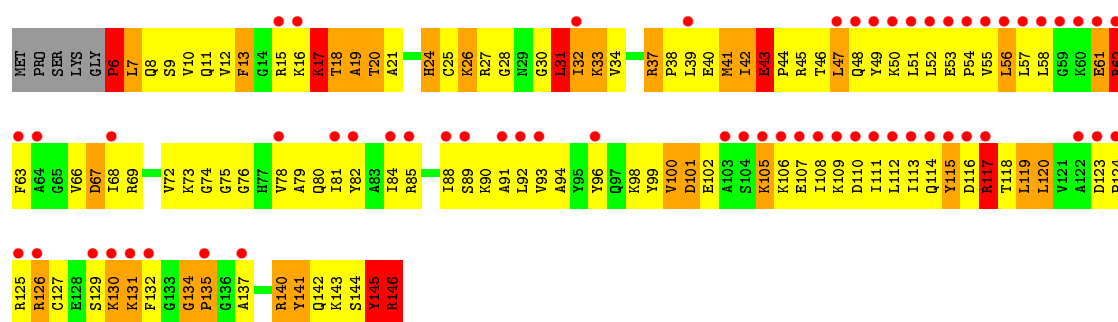
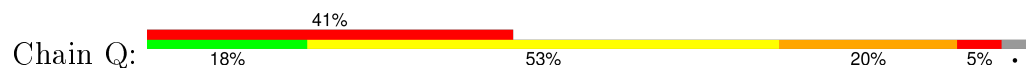




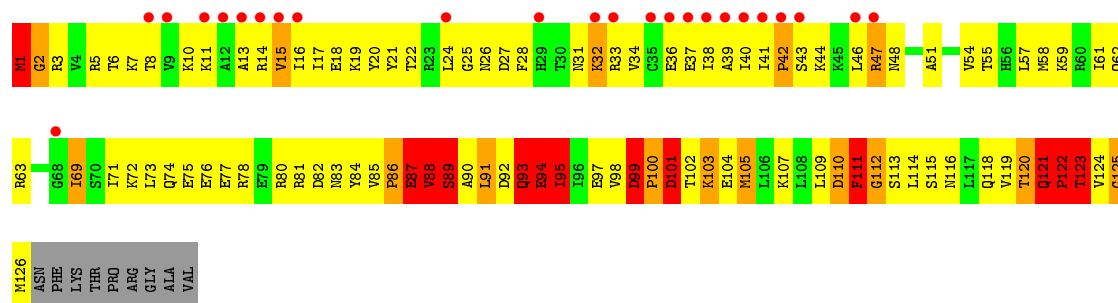
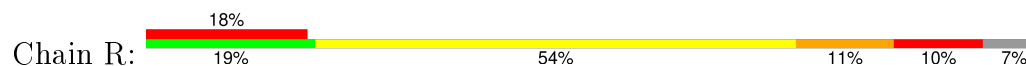
• Molecule 16: 40S Ribosomal Protein S15



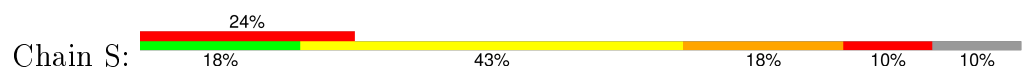
• Molecule 17: 40S Ribosomal Protein S16



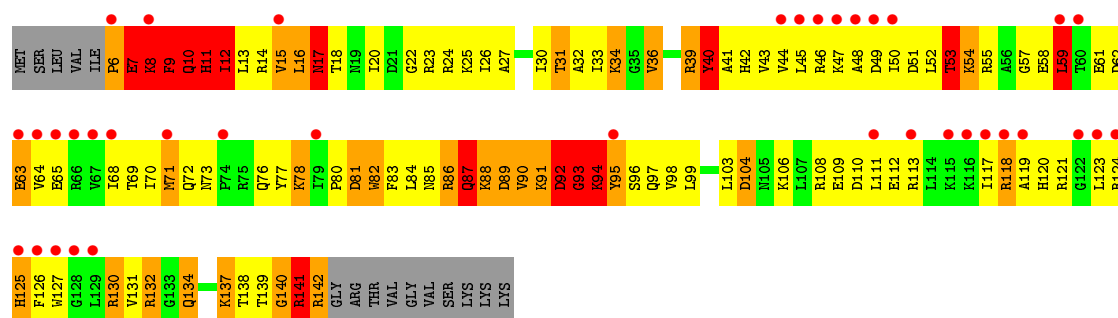
• Molecule 18: 40S Ribosomal Protein S17



• Molecule 19: 40S Ribosomal Protein S18

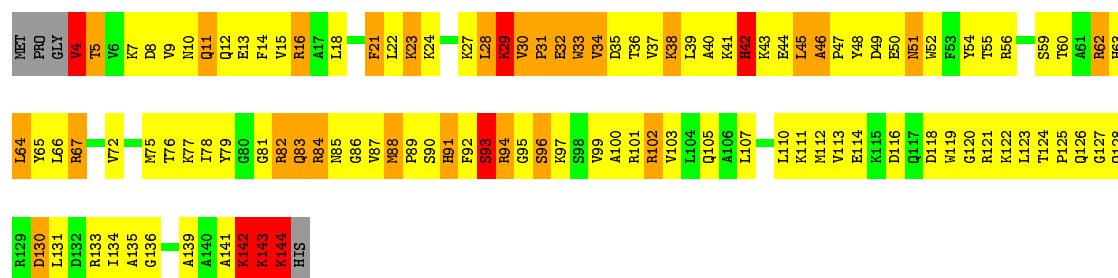






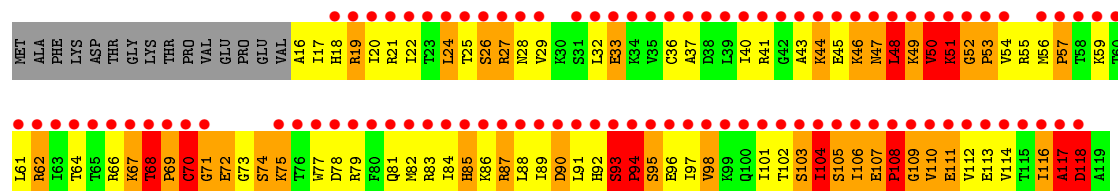
• Molecule 20: 40S Ribosomal Protein S19

Chain T: 20% 54% 19% 5%



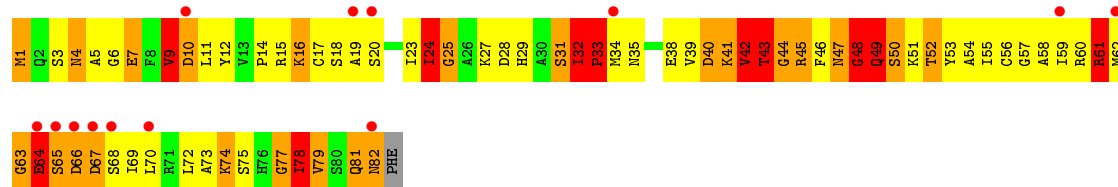
• Molecule 21: 40S Ribosomal Protein S20

Chain U: 15% 36% 27% 9% 13%



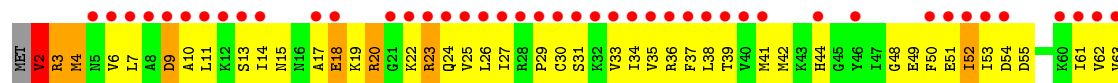
• Molecule 22: 40S Ribosomal Protein S21

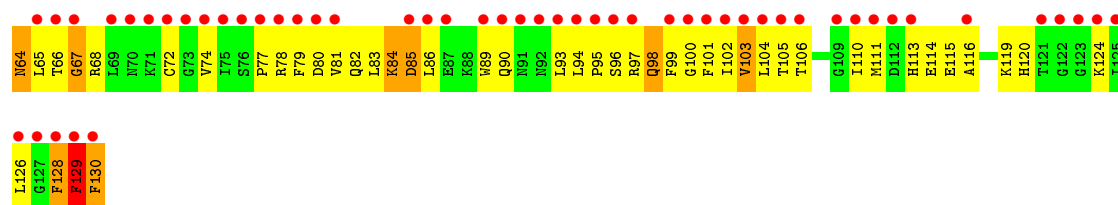
Chain V: 14% 43% 28% 13%



• Molecule 23: 40S Ribosomal Protein S15A

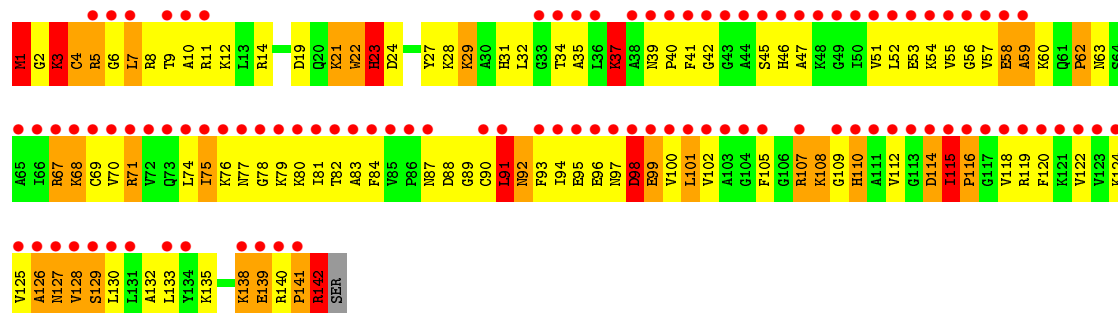
Chain W: 29% 57% 12% 2%





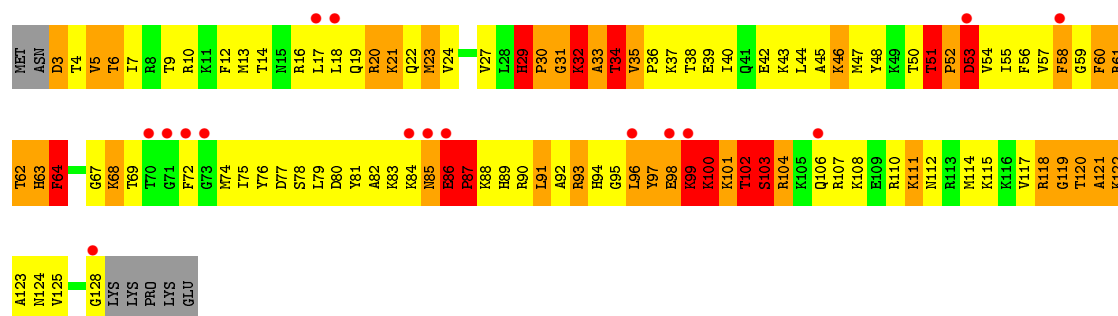
• Molecule 24: 40S Ribosomal Protein S23

Chain X: 70%



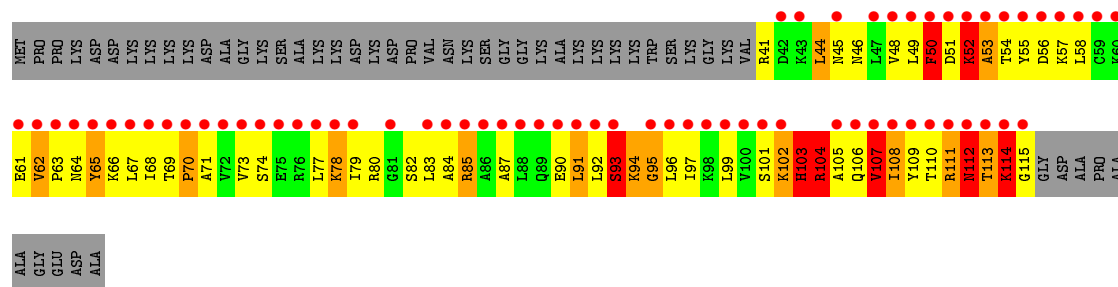
• Molecule 25: 40S Ribosomal Protein S24

Chain Y: 12%



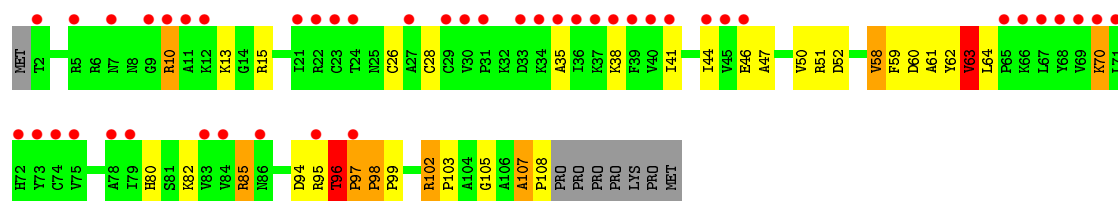
• Molecule 26: 40S Ribosomal Protein S25

Chain Z: 54%

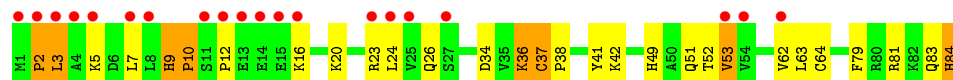


• Molecule 27: 40S Ribosomal Protein S26

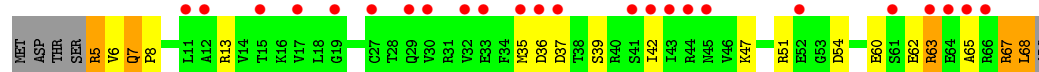
Chain a: 39%



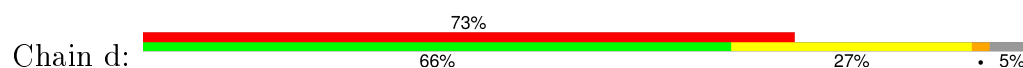
• Molecule 28: 40S Ribosomal Protein S27



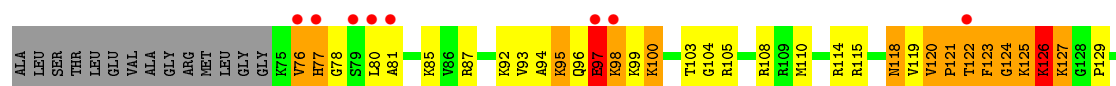
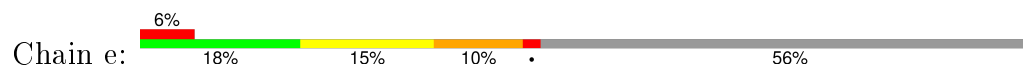
• Molecule 29: 40S Ribosomal Protein S28



• Molecule 30: 40S Ribosomal Protein S29

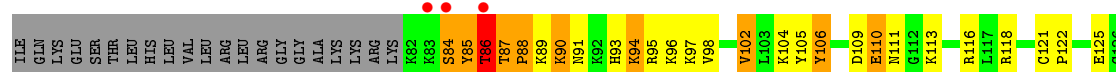
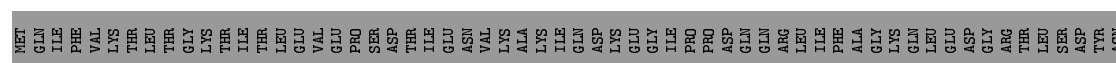
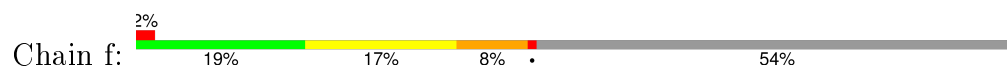


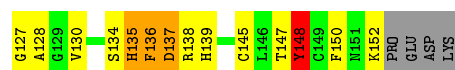
• Molecule 31: 40S Ribosomal Protein S30



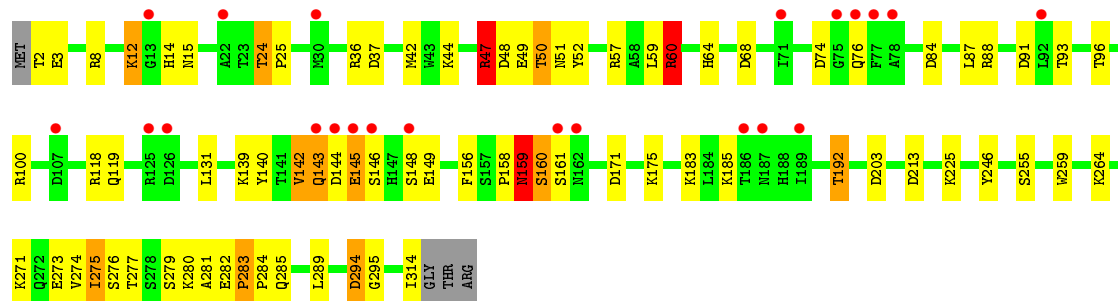
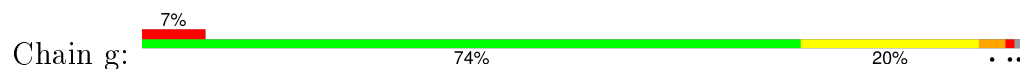
S133

• Molecule 32: 40S Ribosomal Protein S27A

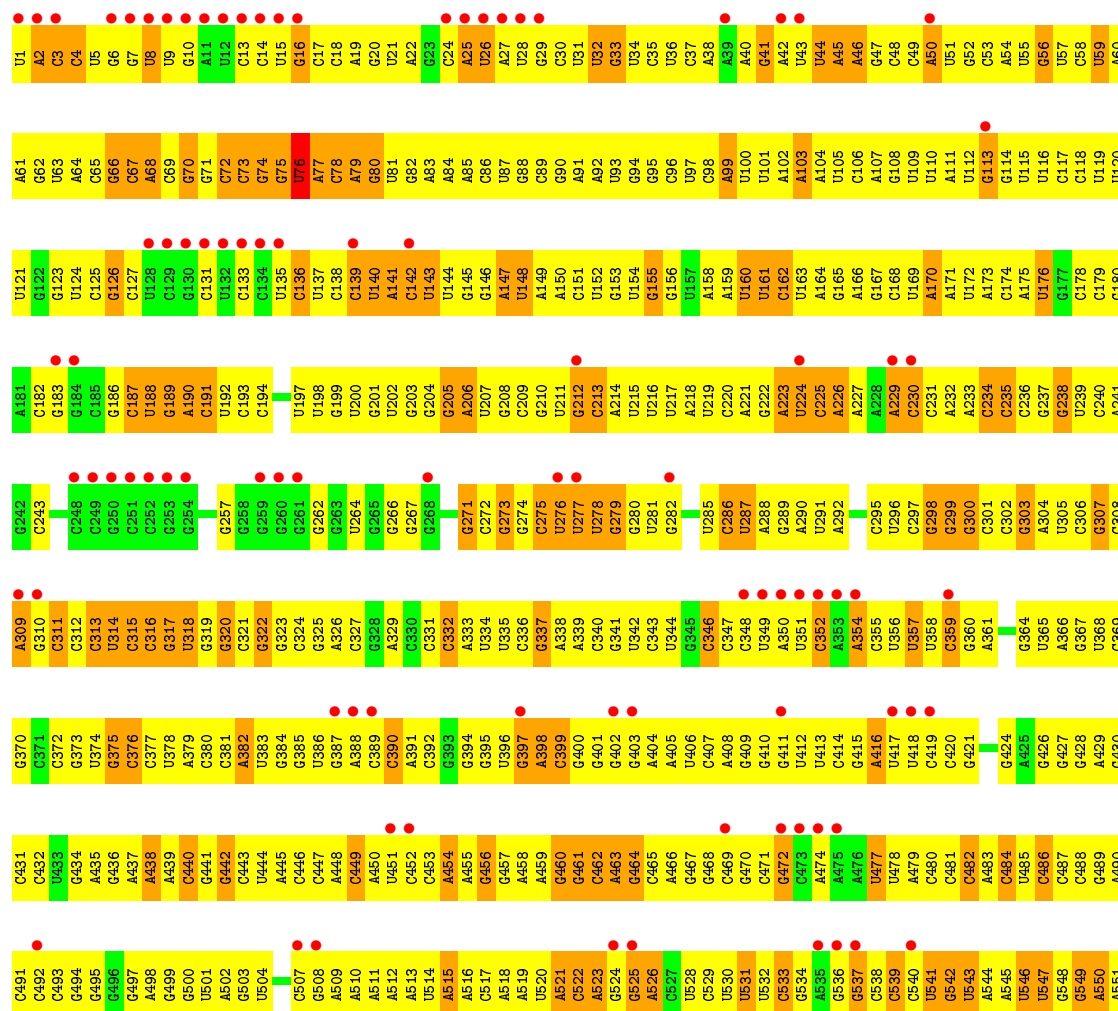
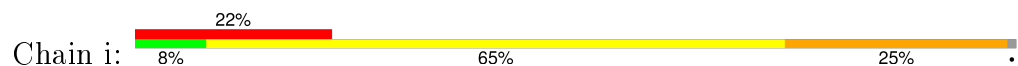




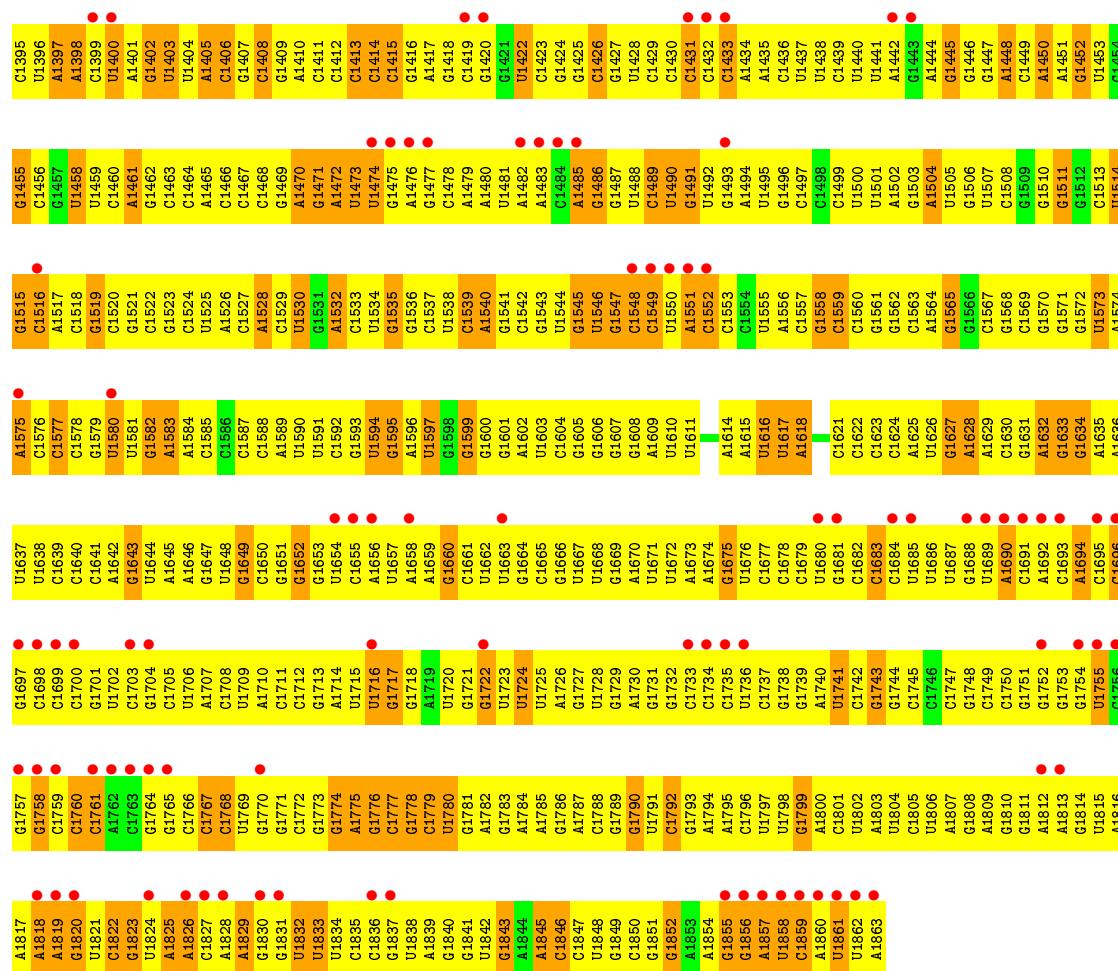
• Molecule 33: 40S Ribosomal Protein RACK1



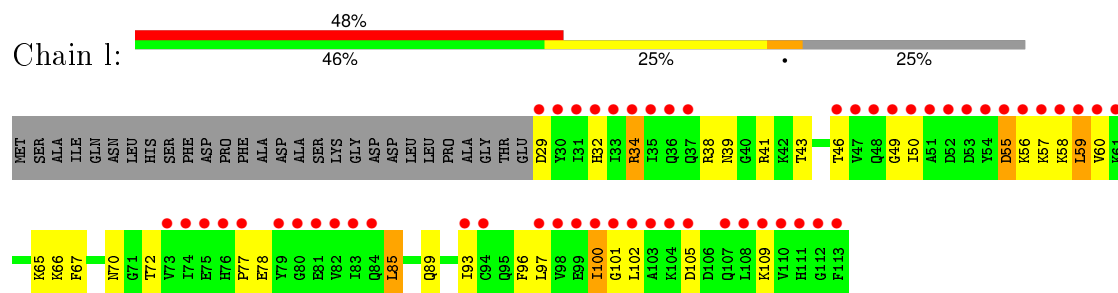
• Molecule 34: 18S Ribosomal RNA



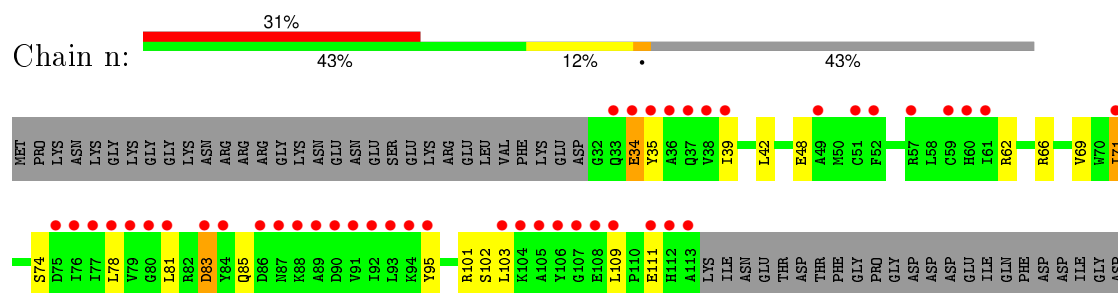
U1335	C1275	G1215	G1154	G1094	U1034	G974	U913	U853	G792	C732	U672	G612	U552
U1336	G1276	A1216	U1157	G1095	C1035	C975	U914	A854	C793	G733	G673	G613	G553
C1337	G1277	G1217	A1096	A1096	G1036	A976	A915	G855	G794	C734	G674	G614	A554
U1338	A1278	C1158	U1097	U1097	G1037	A977	A916	G856	U795	C735	A675	G615	G555
U1339	C1279	G1218	C1159	G1098	A1038	A978	A917	A857	U796	C736	U675	G616	U556
A1340	A1280	G1219	G1160	G1099	A1039	A979	A918	A858	U797	C	C677	U617	C557
G1341	U1281	U1221	G1161	G1100	G1040	C980	G919	U859	A798	U	U678	A618	C558
U1342	G1282	G1222	G1162	G1101	U1041	G981	G920	A860	C799	G739	U679	A619	A559
U1343	A1283	G1223	G1163	C1102	U1042	G982	G921	A861	U800	G740	G	U620	C560
G1344	U1284	A1224	G1164	G1103	C1043	A983	A922	U862	U801	C741	U	U621	U561
G1345	U1285	G1225	G1165	G1104	G1044	C984	C923	G863	U802	C742	G682	C622	U562
U1346	G1286	C1226	A1166	G1105	A1045	C985	G924	G864	A804	U743	G683	U563	U563
G1347	U1287	C1227	G1167	G1106	A1046	A986	C927	A865	A805	C744	A684	C623	U564
U1348	A1288	U1228	U1168	U1107	G1047	G987	G928	A866	A806	U745	G685	G624	A565
A1349	G1289	G1229	U1169	U1108	A1048	A988	G929	U867	A807	C746	G686	G625	A566
G1350	U1290	C1230	U1170	A109	C1049	G989	G930	A868	A808	U747	G687	C626	U567
C1351	A1291	G1231	G1171	U1110	G1050	C990	G931	G869	A809	G748	U688	C628	C568
G1352	U1292	C1232	G1172	U1111	A1051	G991	G932	G870	U810	G749	G689	C629	C569
A1353	U1293	C1233	U1173	C1112	U1052	A992	G933	A871	U811	G750	C690	A630	U570
U1354	G1294	U1234	U1174	C1113	C1053	A993	C934	G872	A812	C751	G691	A631	U571
U1355	A1295	U1235	G1175	C1114	A1054	A994	A934	C873	G813	C752	U692	C632	U572
U1356	U1296	A1236	A1176	A1115	G1055	G995	U935	G874	A814	C753	A693	A633	A573
G1357	A1297	A1237	A1177	U1116	A1056	C996	U936	C875	G815	C754	A694	A634	A574
U1358	G1298	U1238	A1178	G1117	U1057	A997	C937	G876	U816	C755	G695	C635	C575
C1359	U1299	U1239	U1179	A1118	A1058	U998	G938	G877	G817	U756	G696	G636	G576
U1360	U1300	U1240	G1180	G1119	C1059	U999	U939	U878	U818	C757	G697	U637	A577
G1361	C1301	G1241	C1181	C1120	U1060	U1000	A940	U879	U819	U758	G698	A638	G578
U1362	A1242	A1242	U1182	C1121	G1061	G1001	U941	C880	C820	A759	G699	U639	G579
U1363	C1243	C1243	G1183	C1122	U1062	C1002	U942	U881	A821	U760	G	A640	U581
U1364	A1304	U1244	A1184	C1123	C1063	C1003	G943	A882	A822	G761	U	U641	U581
A1365	C1305	C1245	A1185	C1124	U1064	A1004	C944	U883	A823	C762	U	U642	C582
U1366	A1246	A1246	A1186	G1125	U1065	A1005	G945	U884	G824	U763	C	A643	C583
U1367	C1307	U1247	C1187	G1126	A1066	U1006	C946	U885	C825	C764	C	A644	A584
C1368	G1248	U1248	U1188	G1127	U1067	A1007	C947	U886	A826	U765	G	A645	U585
U1369	A1249	U1249	U1189	C1128	U1068	A1008	C948	G887	G827	U766	C	G646	U586
C1370	U1310	G1250	A1190	A1129	U1069	U1009	U950	U888	C828	A767	C	U647	G587
G1371	U1311	G1251	A1191	G1130	C1070	G1010	A951	U889	C829	G768	C	U648	G588
A1372	C1312	G1252	A1192	C1131	C1071	U1011	A952	G890	C830	C769	C	U649	A589
U1373	U1313	G1253	G1193	U1132	G1072	U1012	G952	G891	C831	U770	G	C650	G590
A1374	G1314	A1254	G1194	U1133	A1073	U1013	A953	U892	G832	G771	A	U651	G591
U1375	U1315	A1255	A1195	C1134	C1074	U1014	G954	U893	A833	A772	G	G652	G592
C1376	G1316	A1256	A1196	C1135	C1075	C1015	G955	U894	G834	G773	G	C653	C593
G1377	C1257	C1257	U1197	G1136	A1076	U1016	U956	U895	C835	U774	C	A654	A594
U1378	U1258	C1258	U1198	G1137	U1077	A1017	G957	C896	C836	G775	C	G655	A595
A1379	U1259	U1259	G1199	G1138	A1078	U1018	A958	G897	G837	U776	A	U656	G596
C1380	G1320	C1260	A1200	A1139	A1079	A1019	A959	G898	C838	C777	C	U657	U597
G1381	C1201	A1261	C1201	A1140	A1080	A1020	A960	G899	C839	C778	C	A658	C598
A1382	G1202	C1262	G1202	A1141	C1081	U1021	U961	A900	U840	C779	G	A659	U599
G1383	G1203	C1263	G1203	C1142	G1082	C1022	U962	A901	G841	U780	A720	A660	G600
A1384	A1204	C1264	A1204	C1143	A1083	A1023	C963	U902	G842	C781	C721	A661	G601
C1385	U1205	G1265	A1205	A1144	U1084	A1024	U964	G903	U843	G782	C722	A662	U602
U1386	G1206	C1266	G1206	A1145	G1085	A1025	U965	A904	U844	G783	G723	G663	C603
C1387	U1207	C1267	G1207	A1146	C1086	A1026	G966	G905	A845	U784	C724	C664	G604
U1388	G1208	A1268	G1208	G1147	C1087	A1027	G967	G906	C846	G785	C725	U665	C605
G1389	C1209	C1269	U1209	U1148	U1088	C1028	A968	G907	C847	C786	C726	C666	G606
C1390	A1210	G1270	A1210	U1149	A1089	G1029	C969	C908	U848	C787	G727	G667	A607
U1391	G1271	G1271	C1211	U1150	C1090	A1030	C970	C909	C849	C788	U728	U668	C608
A1392	U1272	A1272	C1212	U1151	U1091	A1031	G971	U910	A850	G789	C729	A669	A609
U1393	C1273	C1273	A1213	U1152	G1092	A1032	G972	U911	G851	A790	C730	G670	G610
G1394	A1274	A1274	C1214	G1153	G1093	A1033	C973	A912	C852	A791	C731	U671	C611



• Molecule 35: human initiation factor eIF1



• Molecule 36: human initiation factor eIF1A



ASP
ASP
GLU
ASP
ILE
ASP
ASP
ILE

## 4 Data and refinement statistics

Property	Value	Source
Space group	P 31 2 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	296.90Å 296.90Å 478.31Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	113.24 – 7.01 113.24 – 7.01	Depositor EDS
% Data completeness (in resolution range)	98.0 (113.24-7.01) 98.1 (113.24-7.01)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.05 (at 6.73Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.7.3_928)	Depositor
R, $R_{free}$	0.366 , 0.348 0.347 , 0.340	Depositor DCC
$R_{free}$ test set	1920 reflections (5.03%)	DCC
Wilson B-factor (Å <sup>2</sup> )	494.7	Xtriage
Anisotropy	0.354	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.21 , 83.5	EDS
Estimated twinning fraction	0.094 for -h,-k,l	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.36$ , $\langle L^2 \rangle = 0.20$	Xtriage
Outliers	1 of 38261 reflections (0.003%)	Xtriage
$F_o, F_c$ correlation	0.89	EDS
Total number of atoms	78412	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	235.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.79% of the height of the origin peak. No significant pseudotranslation is detected.*

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

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



## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	A	0.76	3/1679 (0.2%)	1.05	17/2283 (0.7%)
2	B	0.79	6/1769 (0.3%)	1.08	20/2367 (0.8%)
3	C	0.97	7/1778 (0.4%)	1.19	19/2399 (0.8%)
4	D	1.03	6/1792 (0.3%)	1.30	22/2412 (0.9%)
5	E	0.76	4/2125 (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%)	2.20	29/2079 (1.4%)
9	I	1.11	7/1708 (0.4%)	1.51	34/2278 (1.5%)
10	J	1.27	19/1522 (1.2%)	1.51	42/2031 (2.1%)
11	K	1.21	7/851 (0.8%)	1.78	32/1147 (2.8%)
12	L	1.10	6/1319 (0.5%)	1.40	17/1761 (1.0%)
13	M	1.00	3/961 (0.3%)	1.23	7/1288 (0.5%)
14	N	0.83	3/1232 (0.2%)	1.01	13/1656 (0.8%)
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	0.70	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	11/1157 (1.0%)	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%)	1.40	15/839 (1.8%)
23	W	0.85	4/1051 (0.4%)	0.86	9/1406 (0.6%)
24	X	0.99	9/1124 (0.8%)	1.25	21/1500 (1.4%)
25	Y	0.93	3/1038 (0.3%)	1.42	22/1380 (1.6%)
26	Z	1.04	6/604 (1.0%)	1.35	16/810 (2.0%)
27	a	0.89	5/860 (0.6%)	1.60	21/1156 (1.8%)
28	b	1.03	2/673 (0.3%)	1.36	12/902 (1.3%)
29	c	0.80	1/508 (0.2%)	1.17	8/680 (1.2%)
30	d	0.90	2/455 (0.4%)	0.79	3/603 (0.5%)
31	e	1.48	5/472 (1.1%)	1.43	11/620 (1.8%)
32	f	1.10	4/593 (0.7%)	1.49	14/786 (1.8%)
33	g	0.92	1/2493 (0.0%)	1.29	25/3394 (0.7%)
34	i	2.41	1879/42474 (4.4%)	2.22	2609/66043 (4.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
35	l	1.18	5/700 (0.7%)	1.29	8/933 (0.9%)
36	n	0.40	0/657	0.38	0/881
All	All	1.85	2054/83496 (2.5%)	1.87	3278/121049 (2.7%)

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
34	i	6	0
All	All	13	183

All (2054) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1322	U	C2'-C1'	-25.25	1.25	1.53
34	i	66	G	C2'-C1'	-24.54	1.26	1.53
34	i	858	A	C2'-C1'	-23.80	1.27	1.53
34	i	652	G	C2'-C1'	-23.70	1.27	1.53
34	i	1307	C	C2'-C1'	-22.32	1.28	1.53
34	i	521	A	C2'-C1'	-22.17	1.28	1.53
34	i	1037	G	C2'-C1'	-21.94	1.29	1.53
34	i	1233	C	C2'-C1'	-21.75	1.29	1.53
34	i	145	G	C2'-C1'	-21.50	1.29	1.53
34	i	287	U	C2'-C1'	-21.33	1.29	1.53
4	D	5	ILE	C-N	21.23	1.82	1.34
34	i	299	G	C2'-C1'	-20.69	1.30	1.53
34	i	1393	U	C2'-C1'	-20.56	1.30	1.53
34	i	1327	C	C2'-C1'	-20.46	1.30	1.53
34	i	1503	G	O4'-C1'	-20.01	1.15	1.41
34	i	215	U	C2'-C1'	-19.94	1.31	1.53
34	i	343	C	C2'-C1'	-19.63	1.31	1.53
34	i	630	A	C2'-C1'	-19.59	1.31	1.53
34	i	1308	G	C2'-C1'	-19.48	1.31	1.53
34	i	612	C	C2'-C1'	-19.45	1.31	1.53
34	i	1407	G	C2'-C1'	-19.32	1.32	1.53
34	i	1855	G	C2'-C1'	-19.28	1.32	1.53
34	i	1738	G	C2'-C1'	-19.26	1.32	1.53
34	i	956	U	C2'-C1'	-19.25	1.32	1.53
34	i	684	A	C2'-C1'	-19.13	1.32	1.53
34	i	1496	G	C2'-C1'	-19.00	1.32	1.53
34	i	1159	C	C2'-C1'	-18.66	1.32	1.53
34	i	1227	C	C2'-C1'	-18.60	1.32	1.53
31	e	95	LYS	C-N	18.46	1.76	1.34
34	i	518	A	C2'-C1'	-18.41	1.33	1.53
34	i	1194	G	C2'-C1'	-18.38	1.33	1.53
34	i	1222	G	C2'-C1'	-18.05	1.33	1.53
34	i	859	U	C2'-C1'	-17.97	1.33	1.53
34	i	1774	G	C2'-C1'	-17.80	1.33	1.53
34	i	443	C	C2'-C1'	-17.76	1.33	1.53
34	i	1226	C	C2'-C1'	-17.72	1.33	1.53
34	i	1199	G	C2'-C1'	-17.50	1.34	1.53
34	i	1279	C	O4'-C1'	17.43	1.64	1.41
34	i	41	G	C2'-C1'	-17.43	1.34	1.53
34	i	606	A	C2'-C1'	-17.36	1.34	1.53
34	i	1214	C	C2'-C1'	-17.34	1.34	1.53
34	i	1472	A	O4'-C1'	-17.32	1.19	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	389	C	O4'-C1'	17.28	1.64	1.41
34	i	1010	G	C2'-C1'	-17.23	1.34	1.53
34	i	984	C	O4'-C1'	17.20	1.64	1.41
10	J	118	GLY	C-N	17.05	1.73	1.34
34	i	838	C	C2'-C1'	-16.84	1.34	1.53
34	i	1732	G	C2'-C1'	-16.82	1.34	1.53
34	i	1348	G	C2'-C1'	-16.81	1.34	1.53
34	i	1044	G	C2'-C1'	-16.81	1.34	1.53
34	i	1233	C	O4'-C1'	16.76	1.63	1.41
34	i	1258	C	C2'-C1'	-16.72	1.34	1.53
34	i	626	C	O4'-C1'	16.69	1.63	1.41
10	J	85	GLY	C-N	-16.66	0.95	1.34
34	i	1467	C	O4'-C1'	16.64	1.63	1.41
34	i	92	A	C2'-C1'	-16.59	1.35	1.53
34	i	929	G	C2'-C1'	-16.54	1.35	1.53
34	i	94	G	C2'-C1'	-16.52	1.35	1.53
34	i	435	A	C2'-C1'	-16.49	1.35	1.53
34	i	1308	G	O4'-C1'	16.43	1.63	1.41
34	i	604	G	O4'-C1'	16.41	1.62	1.41
34	i	844	U	C2'-C1'	-16.41	1.35	1.53
34	i	611	C	O4'-C1'	16.39	1.62	1.41
18	R	1	MET	N-CA	16.35	1.79	1.46
34	i	604	G	C2'-C1'	-16.34	1.35	1.53
34	i	1733	C	O4'-C1'	16.32	1.62	1.41
34	i	1325	U	C2'-C1'	-16.25	1.35	1.53
34	i	689	G	O4'-C1'	16.19	1.62	1.41
34	i	390	C	O4'-C1'	16.19	1.62	1.41
34	i	1571	G	C2'-C1'	-16.11	1.35	1.53
34	i	1043	C	O4'-C1'	16.10	1.62	1.41
34	i	277	U	O4'-C1'	16.07	1.62	1.41
34	i	1666	G	C2'-C1'	-16.06	1.35	1.53
34	i	1563	C	C2'-C1'	-15.96	1.35	1.53
34	i	1012	U	O4'-C1'	15.96	1.62	1.41
34	i	143	U	C2'-C1'	-15.93	1.35	1.53
34	i	446	C	C2'-C1'	-15.92	1.35	1.53
34	i	225	C	O4'-C1'	15.80	1.62	1.41
34	i	446	C	O4'-C1'	15.79	1.62	1.41
34	i	1847	C	C2'-C1'	-15.78	1.35	1.53
34	i	788	C	C2'-C1'	-15.77	1.36	1.53
34	i	581	U	C2'-C1'	-15.74	1.36	1.53
34	i	1305	C	O4'-C1'	15.74	1.62	1.41
34	i	830	C	C2'-C1'	-15.71	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1736	U	C2'-C1'	-15.72	1.36	1.53
34	i	792	G	C2'-C1'	-15.71	1.36	1.53
34	i	1683	C	C2'-C1'	-15.71	1.36	1.53
34	i	1660	G	C2'-C1'	-15.67	1.36	1.53
34	i	179	C	C2'-C1'	-15.65	1.36	1.53
34	i	286	C	O4'-C1'	15.64	1.61	1.41
34	i	794	G	O4'-C1'	15.63	1.61	1.41
34	i	1432	C	O4'-C1'	15.60	1.61	1.41
34	i	1688	G	C2'-C1'	-15.57	1.36	1.53
34	i	594	A	O4'-C1'	15.55	1.61	1.41
34	i	909	A	O4'-C1'	15.55	1.61	1.41
34	i	1227	C	O4'-C1'	15.53	1.61	1.41
34	i	541	U	C2'-C1'	-15.45	1.36	1.53
34	i	1452	G	C2'-C1'	-15.44	1.36	1.53
34	i	1659	A	C2'-C1'	-15.38	1.36	1.53
34	i	1524	C	O4'-C1'	15.37	1.61	1.41
34	i	741	C	O4'-C1'	15.37	1.61	1.41
34	i	730	C	O4'-C1'	15.36	1.61	1.41
34	i	222	G	C2'-C1'	-15.35	1.36	1.53
34	i	877	G	C2'-C1'	-15.35	1.36	1.53
34	i	1766	C	O4'-C1'	15.34	1.61	1.41
18	R	1	MET	CA-CB	15.33	1.87	1.53
34	i	1288	C	O4'-C1'	15.32	1.61	1.41
34	i	657	U	C2'-C1'	-15.30	1.36	1.53
34	i	1393	U	O4'-C1'	15.27	1.61	1.41
34	i	179	C	O4'-C1'	15.25	1.61	1.41
34	i	186	G	C2'-C1'	-15.23	1.36	1.53
34	i	1012	U	C2'-C1'	-15.23	1.36	1.53
34	i	1018	U	C2'-C1'	-15.22	1.36	1.53
34	i	1171	G	C2'-C1'	-15.21	1.36	1.53
34	i	1237	A	O4'-C1'	15.21	1.61	1.41
34	i	1615	A	C2'-C1'	-15.20	1.36	1.53
34	i	986	A	C2'-C1'	-15.16	1.36	1.53
34	i	214	A	O4'-C1'	15.13	1.61	1.41
34	i	62	G	C2'-C1'	-15.11	1.36	1.53
34	i	164	A	C2'-C1'	-15.11	1.36	1.53
34	i	225	C	C2'-C1'	-15.10	1.36	1.53
34	i	408	A	C2'-C1'	-15.09	1.36	1.53
34	i	734	C	C2'-C1'	-15.09	1.36	1.53
34	i	1406	C	O4'-C1'	14.92	1.61	1.41
34	i	205	G	C2'-C1'	-14.86	1.37	1.53
34	i	838	C	O4'-C1'	14.84	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1307	C	O4'-C1'	14.84	1.60	1.41
34	i	1610	U	C2'-C1'	-14.84	1.37	1.53
34	i	538	C	O4'-C1'	14.83	1.60	1.41
34	i	1413	C	O4'-C1'	14.81	1.60	1.41
34	i	4	C	C2'-C1'	-14.80	1.37	1.53
34	i	970	C	O4'-C1'	14.79	1.60	1.41
34	i	1494	A	C2'-C1'	-14.77	1.37	1.53
34	i	728	U	C2'-C1'	-14.74	1.37	1.53
10	J	188	GLY	C-O	-14.70	1.00	1.23
34	i	188	U	C2'-C1'	-14.68	1.37	1.53
34	i	1587	C	O4'-C1'	14.68	1.60	1.41
34	i	1703	C	O4'-C1'	14.66	1.60	1.41
34	i	1090	C	O4'-C1'	14.66	1.60	1.41
34	i	1828	A	C2'-C1'	-14.66	1.37	1.53
34	i	1656	A	C2'-C1'	-14.65	1.37	1.53
34	i	1142	C	C2'-C1'	-14.61	1.37	1.53
34	i	873	C	O4'-C1'	14.59	1.60	1.41
34	i	81	U	C2'-C1'	-14.57	1.37	1.53
9	I	207	GLY	C-O	-14.56	1.00	1.23
25	Y	128	GLY	C-O	-14.56	1.00	1.23
34	i	1230	C	O4'-C1'	14.55	1.60	1.41
34	i	1216	A	C2'-C1'	-14.54	1.37	1.53
34	i	845	A	C2'-C1'	-14.51	1.37	1.53
34	i	1289	A	O4'-C1'	14.48	1.60	1.41
26	Z	115	GLY	C-O	-14.46	1.00	1.23
34	i	431	C	O4'-C1'	14.45	1.60	1.41
2	B	233	GLY	C-O	-14.43	1.00	1.23
34	i	431	C	C2'-C1'	-14.43	1.37	1.53
34	i	1699	C	O4'-C1'	14.42	1.60	1.41
34	i	914	U	C2'-C1'	-14.42	1.37	1.53
5	E	263	GLY	C-O	-14.40	1.00	1.23
34	i	1014	U	C2'-C1'	-14.40	1.37	1.53
21	U	93	SER	C-N	14.39	1.61	1.34
34	i	1144	A	O4'-C1'	-14.35	1.23	1.41
34	i	1229	G	C2'-C1'	-14.34	1.37	1.53
34	i	1263	C	C2'-C1'	-14.33	1.37	1.53
34	i	1376	C	O4'-C1'	14.33	1.60	1.41
34	i	438	A	O4'-C1'	-14.33	1.23	1.41
9	I	43	ILE	C-N	14.30	1.67	1.34
34	i	144	U	O4'-C1'	14.30	1.60	1.41
34	i	804	A	C2'-C1'	-14.28	1.37	1.53
34	i	1416	G	C2'-C1'	-14.27	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1214	C	O4'-C1'	14.26	1.60	1.41
34	i	1611	U	C2'-C1'	-14.25	1.37	1.53
34	i	215	U	O4'-C1'	14.24	1.60	1.41
34	i	1755	U	C2'-C1'	-14.19	1.37	1.53
34	i	1738	G	O4'-C1'	14.16	1.60	1.41
34	i	1691	C	O4'-C1'	14.15	1.60	1.41
18	R	1	MET	CA-C	-14.13	1.16	1.52
34	i	35	C	O4'-C1'	14.11	1.59	1.41
34	i	1140	A	C2'-C1'	-14.11	1.37	1.53
34	i	1184	A	O4'-C1'	14.10	1.59	1.41
34	i	852	C	O4'-C1'	14.06	1.59	1.41
34	i	1801	C	C2'-C1'	-14.06	1.37	1.53
34	i	1520	C	O4'-C1'	14.01	1.59	1.41
34	i	1587	C	C2'-C1'	-14.01	1.38	1.53
34	i	187	C	O4'-C1'	13.99	1.59	1.41
34	i	915	A	C2'-C1'	-13.99	1.38	1.53
34	i	616	G	O4'-C1'	13.98	1.59	1.41
34	i	1793	G	C2'-C1'	-13.98	1.38	1.53
34	i	1602	A	C2'-C1'	-13.98	1.38	1.53
34	i	623	C	C2'-C1'	-13.94	1.38	1.53
34	i	1736	U	O4'-C1'	13.93	1.59	1.41
34	i	1003	C	O4'-C1'	13.92	1.59	1.41
34	i	1557	C	C2'-C1'	-13.91	1.38	1.53
34	i	830	C	O4'-C1'	13.91	1.59	1.41
34	i	1251	G	C2'-C1'	-13.91	1.38	1.53
34	i	947	C	O4'-C1'	13.90	1.59	1.41
34	i	168	C	O4'-C1'	13.84	1.59	1.41
34	i	735	C	O4'-C1'	13.81	1.59	1.41
34	i	1617	U	O4'-C1'	13.79	1.59	1.41
34	i	1693	C	O4'-C1'	13.78	1.59	1.41
34	i	1433	C	O4'-C1'	13.76	1.59	1.41
34	i	801	U	O4'-C1'	13.76	1.59	1.41
34	i	312	C	O4'-C1'	13.75	1.59	1.41
34	i	1427	G	C2'-C1'	-13.74	1.38	1.53
34	i	1002	C	O4'-C1'	13.71	1.59	1.41
34	i	1419	C	O4'-C1'	13.71	1.59	1.41
34	i	605	C	O4'-C1'	13.71	1.59	1.41
34	i	1765	G	C2'-C1'	-13.70	1.38	1.53
34	i	887	G	C2'-C1'	-13.69	1.38	1.53
34	i	734	C	O4'-C1'	13.68	1.59	1.41
34	i	564	A	O4'-C1'	13.67	1.59	1.41
34	i	852	C	C2'-C1'	-13.66	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1400	U	O4'-C1'	13.65	1.59	1.41
34	i	884	U	C2'-C1'	-13.65	1.38	1.53
34	i	1411	C	O4'-C1'	13.63	1.59	1.41
34	i	1263	C	O4'-C1'	13.62	1.59	1.41
34	i	13	C	O4'-C1'	13.57	1.59	1.41
34	i	402	G	O4'-C1'	13.57	1.59	1.41
34	i	1666	G	O4'-C1'	13.53	1.59	1.41
34	i	377	C	O4'-C1'	13.53	1.59	1.41
34	i	340	C	O4'-C1'	13.53	1.59	1.41
34	i	728	U	O4'-C1'	13.51	1.59	1.41
34	i	1805	C	O4'-C1'	13.50	1.59	1.41
34	i	903	G	C2'-C1'	-13.48	1.38	1.53
34	i	1241	G	C2'-C1'	-13.48	1.38	1.53
34	i	1270	G	C2'-C1'	-13.48	1.38	1.53
34	i	1436	C	O4'-C1'	13.46	1.59	1.41
34	i	1471	G	C2'-C1'	-13.45	1.38	1.53
34	i	1404	U	O4'-C1'	13.44	1.59	1.41
34	i	1639	C	C2'-C1'	-13.43	1.38	1.53
34	i	538	C	C2'-C1'	-13.41	1.38	1.53
34	i	548	G	C2'-C1'	-13.39	1.38	1.53
34	i	1777	C	O4'-C1'	13.39	1.59	1.41
34	i	980	C	C2'-C1'	-13.38	1.38	1.53
34	i	1091	U	C2'-C1'	-13.36	1.38	1.53
34	i	858	A	O4'-C1'	13.35	1.59	1.41
34	i	1577	C	C2'-C1'	-13.33	1.38	1.53
34	i	54	A	O4'-C1'	13.33	1.58	1.41
34	i	1022	C	O4'-C1'	13.33	1.58	1.41
34	i	568	C	O4'-C1'	13.32	1.58	1.41
34	i	1847	C	O4'-C1'	13.32	1.58	1.41
34	i	1267	C	O4'-C1'	13.32	1.58	1.41
34	i	1063	C	O4'-C1'	13.31	1.58	1.41
34	i	1406	C	C2'-C1'	-13.30	1.38	1.53
34	i	1623	C	C2'-C1'	-13.30	1.38	1.53
34	i	144	U	C2'-C1'	-13.29	1.38	1.53
34	i	510	A	C2'-C1'	-13.28	1.38	1.53
34	i	1074	C	C2'-C1'	-13.26	1.38	1.53
34	i	287	U	O4'-C1'	13.21	1.58	1.41
34	i	1015	C	O4'-C1'	13.21	1.58	1.41
34	i	826	A	O4'-C1'	-13.20	1.24	1.41
34	i	1433	C	C2'-C1'	-13.19	1.38	1.53
34	i	1455	G	C2'-C1'	-13.18	1.38	1.53
34	i	1583	A	C2'-C1'	-13.18	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	786	C	O4'-C1'	13.14	1.58	1.41
34	i	986	A	O4'-C1'	13.13	1.58	1.41
34	i	1128	C	C2'-C1'	-13.12	1.39	1.53
34	i	1232	G	O4'-C1'	-13.10	1.24	1.41
34	i	174	C	O4'-C1'	13.09	1.58	1.41
34	i	565	A	O4'-C1'	13.08	1.58	1.41
34	i	1542	C	O4'-C1'	13.06	1.58	1.41
34	i	1257	C	O4'-C1'	13.04	1.58	1.41
34	i	1447	G	O4'-C1'	13.04	1.58	1.41
34	i	1600	G	C2'-C1'	-13.01	1.39	1.53
34	i	542	G	C2'-C1'	-13.00	1.39	1.53
34	i	1771	G	C2'-C1'	-12.98	1.39	1.53
34	i	1683	C	O4'-C1'	12.95	1.58	1.41
34	i	1690	A	O4'-C1'	12.94	1.58	1.41
34	i	274	G	C2'-C1'	-12.91	1.39	1.53
34	i	1122	G	C2'-C1'	-12.91	1.39	1.53
34	i	1160	G	C2'-C1'	-12.90	1.39	1.53
34	i	1546	U	C2'-C1'	-12.90	1.39	1.53
34	i	1539	C	O4'-C1'	12.88	1.58	1.41
34	i	687	G	O4'-C1'	12.88	1.58	1.41
34	i	1075	C	O4'-C1'	12.82	1.58	1.41
34	i	1856	G	O4'-C1'	12.82	1.58	1.41
34	i	1515	G	C2'-C1'	-12.82	1.39	1.53
34	i	1563	C	O4'-C1'	12.79	1.58	1.41
34	i	1715	U	C2'-C1'	12.79	1.67	1.53
34	i	1390	G	C2'-C1'	-12.77	1.39	1.53
34	i	546	U	C2'-C1'	-12.76	1.39	1.53
34	i	646	G	C2'-C1'	-12.75	1.39	1.53
34	i	1792	C	C2'-C1'	-12.74	1.39	1.53
34	i	282	G	C2'-C1'	-12.73	1.39	1.53
34	i	853	U	C2'-C1'	-12.72	1.39	1.53
34	i	1837	G	C2'-C1'	-12.72	1.39	1.53
34	i	539	C	O4'-C1'	12.71	1.58	1.41
34	i	726	C	C2'-C1'	-12.71	1.39	1.53
34	i	788	C	O4'-C1'	12.70	1.58	1.41
34	i	973	C	O4'-C1'	12.69	1.58	1.41
34	i	985	C	O4'-C1'	12.68	1.58	1.41
34	i	484	C	O4'-C1'	12.65	1.58	1.41
34	i	731	C	O4'-C1'	12.65	1.58	1.41
34	i	1451	A	O4'-C1'	12.64	1.58	1.41
34	i	193	C	O4'-C1'	12.62	1.58	1.41
34	i	1113	C	O4'-C1'	-12.61	1.25	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1677	C	O4'-C1'	12.60	1.58	1.41
34	i	981	G	C2'-C1'	-12.59	1.39	1.53
34	i	1087	C	O4'-C1'	12.58	1.58	1.41
34	i	324	C	O4'-C1'	12.56	1.57	1.41
34	i	1786	G	C2'-C1'	-12.53	1.39	1.53
34	i	1326	G	C2'-C1'	-12.52	1.39	1.53
34	i	1079	A	C2'-C1'	-12.49	1.39	1.53
34	i	80	G	O4'-C1'	12.47	1.57	1.41
34	i	155	G	C2'-C1'	-12.46	1.39	1.53
34	i	1165	G	C2'-C1'	-12.45	1.39	1.53
34	i	482	C	O4'-C1'	12.45	1.57	1.41
34	i	1376	C	C2'-C1'	-12.45	1.39	1.53
34	i	798	A	C2'-C1'	-12.44	1.39	1.53
34	i	48	C	O4'-C1'	12.44	1.57	1.41
34	i	907	C	C2'-C1'	-12.41	1.39	1.53
34	i	1436	C	C2'-C1'	-12.41	1.39	1.53
34	i	1300	U	C2'-C1'	-12.40	1.39	1.53
34	i	638	A	C2'-C1'	-12.40	1.39	1.53
34	i	1063	C	C2'-C1'	-12.38	1.39	1.53
34	i	369	C	C2'-C1'	-12.38	1.39	1.53
34	i	1632	A	C2'-C1'	12.38	1.67	1.53
34	i	1261	A	C2'-C1'	-12.38	1.39	1.53
34	i	1003	C	C2'-C1'	-12.37	1.39	1.53
34	i	1259	U	O4'-C1'	12.36	1.57	1.41
34	i	741	C	C2'-C1'	-12.36	1.39	1.53
34	i	1338	U	O4'-C1'	12.36	1.57	1.41
34	i	1262	C	C2'-C1'	-12.35	1.39	1.53
34	i	1579	G	C2'-C1'	-12.35	1.39	1.53
34	i	34	U	C2'-C1'	-12.35	1.39	1.53
34	i	622	C	C2'-C1'	-12.34	1.39	1.53
34	i	1711	C	O4'-C1'	12.33	1.57	1.41
34	i	746	C	O4'-C1'	12.33	1.57	1.41
13	M	132	LYS	C-OXT	-12.30	0.99	1.23
34	i	744	C	O4'-C1'	12.29	1.57	1.41
34	i	748	G	C2'-C1'	-12.29	1.39	1.53
34	i	1322	U	O4'-C1'	12.29	1.57	1.41
34	i	751	C	O4'-C1'	12.28	1.57	1.41
34	i	611	C	C2'-C1'	-12.24	1.39	1.53
34	i	650	C	O4'-C1'	12.23	1.57	1.41
34	i	1002	C	C2'-C1'	-12.21	1.40	1.53
34	i	1542	C	C2'-C1'	-12.18	1.40	1.53
34	i	1801	C	O4'-C1'	12.18	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	869	G	C2'-C1'	-12.17	1.40	1.53
31	e	133	SER	C-OXT	-12.16	1.00	1.23
34	i	1524	C	C2'-C1'	-12.15	1.40	1.53
34	i	1116	U	C2'-C1'	-12.15	1.40	1.53
14	N	151	ALA	C-OXT	-12.15	1.00	1.23
23	W	130	PHE	C-O	-12.14	1.00	1.23
34	i	1262	C	O4'-C1'	12.14	1.57	1.41
34	i	1734	C	O4'-C1'	12.14	1.57	1.41
20	T	144	LYS	C-O	-12.13	1.00	1.23
34	i	62	G	O4'-C1'	12.13	1.57	1.41
34	i	64	A	O4'-C1'	-12.12	1.25	1.41
34	i	522	C	O4'-C1'	12.12	1.57	1.41
30	d	56	ASP	C-O	-12.11	1.00	1.23
32	f	152	LYS	C-O	-12.10	1.00	1.23
34	i	1548	C	O4'-C1'	-12.10	1.25	1.41
13	M	132	LYS	C-O	-12.09	1.00	1.23
3	C	263	THR	C-O	-12.07	1.00	1.23
8	H	194	LEU	C-O	-12.07	1.00	1.23
34	i	970	C	C2'-C1'	-12.07	1.40	1.53
28	b	84	HIS	C-OXT	-12.07	1.00	1.23
34	i	1532	A	O4'-C1'	12.06	1.57	1.41
34	i	1222	G	O4'-C1'	12.05	1.57	1.41
30	d	56	ASP	C-OXT	-12.04	1.00	1.23
14	N	151	ALA	C-O	-12.04	1.00	1.23
34	i	598	C	O4'-C1'	12.04	1.57	1.41
4	D	227	LYS	C-O	-12.03	1.00	1.23
31	e	133	SER	C-O	-12.03	1.00	1.23
11	K	98	ARG	C-O	-12.03	1.00	1.23
5	E	263	GLY	C-OXT	-12.02	1.00	1.23
34	i	1737	C	C2'-C1'	-12.02	1.40	1.53
34	i	623	C	O4'-C1'	12.02	1.57	1.41
34	i	1312	C	C2'-C1'	-12.02	1.40	1.53
33	g	314	ILE	C-O	-12.02	1.00	1.23
34	i	56	G	C2'-C1'	-12.02	1.40	1.53
6	F	204	ARG	C-O	-12.01	1.00	1.23
12	L	158	PHE	C-O	-12.01	1.00	1.23
24	X	142	ARG	C-O	-12.01	1.00	1.23
34	i	1066	A	C2'-C1'	-12.01	1.40	1.53
34	i	1428	U	O4'-C1'	12.00	1.57	1.41
34	i	299	G	O4'-C1'	11.98	1.57	1.41
34	i	1009	U	C2'-C1'	-11.98	1.40	1.53
12	L	158	PHE	C-OXT	-11.98	1.00	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	F	204	ARG	C-OXT	-11.98	1.00	1.23
23	W	130	PHE	C-OXT	-11.97	1.00	1.23
8	H	194	LEU	C-OXT	-11.96	1.00	1.23
34	i	465	C	O4 <sup>1</sup> -C1 <sup>1</sup>	11.96	1.57	1.41
29	c	68	LEU	C-O	-11.94	1.00	1.23
34	i	583	C	O4 <sup>1</sup> -C1 <sup>1</sup>	11.94	1.57	1.41
1	A	209	GLU	C-O	-11.93	1.00	1.23
34	i	302	C	O4 <sup>1</sup> -C1 <sup>1</sup>	11.93	1.57	1.41
34	i	1650	C	O4 <sup>1</sup> -C1 <sup>1</sup>	11.91	1.57	1.41
34	i	553	G	O4 <sup>1</sup> -C1 <sup>1</sup>	11.90	1.57	1.41
34	i	1114	C	C2 <sup>1</sup> -C1 <sup>1</sup>	11.90	1.66	1.53
28	b	84	HIS	C-O	-11.89	1.00	1.23
34	i	1060	C	O4 <sup>1</sup> -C1 <sup>1</sup>	11.87	1.57	1.41
34	i	67	C	C2 <sup>1</sup> -C1 <sup>1</sup>	11.86	1.66	1.53
34	i	664	C	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.86	1.40	1.53
34	i	1628	A	O4 <sup>1</sup> -C1 <sup>1</sup>	11.86	1.57	1.41
10	J	146	SER	C-N	11.84	1.61	1.34
34	i	276	U	O4 <sup>1</sup> -C1 <sup>1</sup>	11.82	1.57	1.41
34	i	727	G	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.82	1.40	1.53
34	i	667	G	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.81	1.40	1.53
34	i	833	A	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.79	1.40	1.53
34	i	1195	A	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.80	1.40	1.53
34	i	1573	U	C2 <sup>1</sup> -C1 <sup>1</sup>	11.79	1.66	1.53
34	i	612	C	O4 <sup>1</sup> -C1 <sup>1</sup>	11.79	1.56	1.41
34	i	18	C	O4 <sup>1</sup> -C1 <sup>1</sup>	11.79	1.56	1.41
34	i	1404	U	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.78	1.40	1.53
34	i	569	C	O4 <sup>1</sup> -C1 <sup>1</sup>	11.76	1.56	1.41
34	i	670	G	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.75	1.40	1.53
34	i	906	G	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.74	1.40	1.53
34	i	1387	C	O4 <sup>1</sup> -C1 <sup>1</sup>	11.74	1.56	1.41
34	i	971	G	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.73	1.40	1.53
34	i	864	G	O4 <sup>1</sup> -C1 <sup>1</sup>	11.72	1.56	1.41
34	i	639	U	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.70	1.40	1.53
34	i	907	C	O4 <sup>1</sup> -C1 <sup>1</sup>	11.69	1.56	1.41
34	i	318	U	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.69	1.40	1.53
34	i	549	G	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.68	1.40	1.53
34	i	396	U	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.68	1.40	1.53
34	i	325	G	O4 <sup>1</sup> -C1 <sup>1</sup>	-11.67	1.26	1.41
34	i	471	C	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.66	1.40	1.53
34	i	668	U	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.66	1.40	1.53
34	i	682	G	C2 <sup>1</sup> -C1 <sup>1</sup>	-11.66	1.40	1.53
34	i	1788	C	O4 <sup>1</sup> -C1 <sup>1</sup>	11.65	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1537	C	O4'-C1'	11.64	1.56	1.41
34	i	539	C	C2'-C1'	-11.61	1.40	1.53
34	i	746	C	C2'-C1'	-11.59	1.40	1.53
34	i	606	A	O4'-C1'	11.58	1.56	1.41
34	i	1260	C	C2'-C1'	-11.58	1.40	1.53
34	i	622	C	O4'-C1'	11.57	1.56	1.41
34	i	745	U	O4'-C1'	11.56	1.56	1.41
34	i	589	A	C2'-C1'	-11.55	1.40	1.53
34	i	1181	C	O4'-C1'	11.54	1.56	1.41
34	i	1323	G	C2'-C1'	-11.53	1.40	1.53
34	i	48	C	C2'-C1'	-11.53	1.40	1.53
34	i	407	C	O4'-C1'	11.50	1.56	1.41
34	i	851	G	C2'-C1'	-11.50	1.40	1.53
34	i	545	A	O4'-C1'	11.49	1.56	1.41
34	i	887	G	O4'-C1'	11.49	1.56	1.41
34	i	1698	C	O4'-C1'	11.49	1.56	1.41
19	S	141	ARG	C-N	11.47	1.60	1.34
34	i	1074	C	O4'-C1'	11.47	1.56	1.41
34	i	805	A	C2'-C1'	-11.44	1.40	1.53
34	i	1124	C	O4'-C1'	11.44	1.56	1.41
34	i	976	A	C2'-C1'	-11.44	1.40	1.53
34	i	436	G	C2'-C1'	-11.43	1.40	1.53
34	i	436	G	O4'-C1'	11.43	1.56	1.41
34	i	1114	C	O4'-C1'	-11.41	1.26	1.41
34	i	936	U	C2'-C1'	-11.39	1.40	1.53
34	i	947	C	C2'-C1'	-11.38	1.40	1.53
25	Y	86	GLU	C-N	11.38	1.55	1.34
34	i	900	A	O4'-C1'	11.37	1.56	1.41
34	i	521	A	O4'-C1'	11.36	1.56	1.41
34	i	559	A	C2'-C1'	-11.36	1.40	1.53
34	i	1202	G	C2'-C1'	-11.35	1.40	1.53
34	i	1732	G	O4'-C1'	11.34	1.56	1.41
34	i	1025	G	C2'-C1'	-11.33	1.40	1.53
34	i	754	C	O4'-C1'	11.30	1.56	1.41
34	i	1015	C	C2'-C1'	-11.29	1.41	1.53
34	i	335	U	C2'-C1'	-11.28	1.41	1.53
34	i	288	A	C2'-C1'	-11.27	1.41	1.53
34	i	414	C	O4'-C1'	11.27	1.56	1.41
34	i	500	G	C2'-C1'	-11.27	1.41	1.53
34	i	1044	G	O4'-C1'	11.25	1.56	1.41
34	i	964	U	O4'-C1'	11.25	1.56	1.41
34	i	1101	G	C2'-C1'	-11.24	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1792	C	O4'-C1'	11.23	1.56	1.41
34	i	938	G	C2'-C1'	-11.23	1.41	1.53
34	i	1669	G	O4'-C1'	11.22	1.56	1.41
34	i	635	C	O4'-C1'	11.21	1.56	1.41
34	i	395	G	C2'-C1'	-11.21	1.41	1.53
34	i	1220	G	C2'-C1'	-11.21	1.41	1.53
34	i	1775	A	C2'-C1'	-11.20	1.41	1.53
34	i	323	G	C2'-C1'	-11.19	1.41	1.53
34	i	839	C	O4'-C1'	11.19	1.56	1.41
34	i	84	A	O4'-C1'	11.19	1.56	1.41
7	G	131	ARG	CG-CD	11.19	1.79	1.51
34	i	1653	G	C2'-C1'	-11.18	1.41	1.53
34	i	736	C	O4'-C1'	11.17	1.56	1.41
34	i	452	C	C2'-C1'	-11.16	1.41	1.53
23	W	2	VAL	C-N	11.16	1.59	1.34
34	i	479	A	O4'-C1'	11.15	1.56	1.41
7	G	131	ARG	C-N	11.14	1.59	1.34
34	i	360	G	C2'-C1'	-11.14	1.41	1.53
34	i	1448	A	O4'-C1'	11.13	1.56	1.41
34	i	402	G	C2'-C1'	-11.09	1.41	1.53
34	i	347	C	C2'-C1'	-11.08	1.41	1.53
34	i	77	A	C2'-C1'	11.05	1.65	1.53
34	i	1238	U	C2'-C1'	-11.05	1.41	1.53
34	i	4	C	O4'-C1'	11.04	1.55	1.41
34	i	1585	C	O4'-C1'	11.02	1.55	1.41
34	i	1289	A	C2'-C1'	-10.99	1.41	1.53
34	i	871	A	O4'-C1'	10.98	1.55	1.41
34	i	462	C	O4'-C1'	10.97	1.55	1.41
34	i	691	G	C2'-C1'	-10.97	1.41	1.53
34	i	1120	C	C2'-C1'	-10.96	1.41	1.53
18	R	1	MET	C-N	-10.95	1.13	1.33
34	i	1226	C	O4'-C1'	10.94	1.55	1.41
34	i	1568	G	C2'-C1'	-10.94	1.41	1.53
34	i	432	C	O4'-C1'	10.93	1.55	1.41
34	i	414	C	C2'-C1'	-10.92	1.41	1.53
34	i	633	A	O4'-C1'	10.92	1.55	1.41
34	i	483	A	C2'-C1'	-10.90	1.41	1.53
34	i	582	C	O4'-C1'	-10.90	1.27	1.41
34	i	751	C	C2'-C1'	-10.90	1.41	1.53
34	i	1369	C	O4'-C1'	10.90	1.55	1.41
34	i	1403	U	C2'-C1'	-10.89	1.41	1.53
34	i	1048	A	O4'-C1'	10.89	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	547	U	C2'-C1'	-10.89	1.41	1.53
34	i	1496	G	O4'-C1'	10.88	1.55	1.41
34	i	1813	A	C2'-C1'	-10.88	1.41	1.53
34	i	488	C	O4'-C1'	10.87	1.55	1.41
34	i	640	A	O4'-C1'	10.86	1.55	1.41
34	i	916	A	C2'-C1'	-10.86	1.41	1.53
34	i	1603	U	O4'-C1'	10.86	1.55	1.41
34	i	1527	C	C2'-C1'	-10.84	1.41	1.53
34	i	901	C	O4'-C1'	10.83	1.55	1.41
34	i	1159	C	O4'-C1'	10.83	1.55	1.41
34	i	870	G	C2'-C1'	-10.82	1.41	1.53
34	i	286	C	C2'-C1'	-10.82	1.41	1.53
34	i	1050	G	C2'-C1'	-10.81	1.41	1.53
34	i	664	C	O4'-C1'	10.81	1.55	1.41
34	i	480	C	O4'-C1'	10.80	1.55	1.41
34	i	1400	U	C2'-C1'	-10.79	1.41	1.53
34	i	1259	U	C2'-C1'	-10.79	1.41	1.53
34	i	1547	G	C2'-C1'	10.79	1.65	1.53
34	i	1807	A	C2'-C1'	-10.79	1.41	1.53
34	i	327	C	C2'-C1'	-10.77	1.41	1.53
34	i	1208	G	C2'-C1'	-10.77	1.41	1.53
34	i	1209	C	O4'-C1'	10.76	1.55	1.41
34	i	308	C	O4'-C1'	10.76	1.55	1.41
34	i	507	C	C2'-C1'	-10.74	1.41	1.53
34	i	1176	C	O4'-C1'	10.74	1.55	1.41
34	i	1578	C	O4'-C1'	10.74	1.55	1.41
34	i	1834	U	C2'-C1'	-10.71	1.41	1.53
34	i	1481	U	O4'-C1'	10.71	1.55	1.41
34	i	1684	C	C2'-C1'	-10.71	1.41	1.53
34	i	1716	U	C2'-C1'	10.70	1.65	1.53
34	i	975	C	O4'-C1'	10.70	1.55	1.41
34	i	839	C	C2'-C1'	-10.69	1.41	1.53
34	i	812	A	O4'-C1'	10.69	1.55	1.41
34	i	1729	G	C2'-C1'	-10.69	1.41	1.53
34	i	1708	C	O4'-C1'	10.68	1.55	1.41
34	i	529	C	O4'-C1'	10.65	1.55	1.41
34	i	352	C	O4'-C1'	10.65	1.55	1.41
34	i	1624	C	C2'-C1'	-10.63	1.41	1.53
34	i	143	U	O4'-C1'	10.62	1.55	1.41
34	i	54	A	C2'-C1'	-10.59	1.41	1.53
34	i	1258	C	O4'-C1'	10.59	1.55	1.41
34	i	1280	A	O4'-C1'	10.58	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	547	U	O4'-C1'	10.58	1.55	1.41
19	S	54	LYS	N-CA	10.57	1.67	1.46
34	i	16	G	C2'-C1'	-10.57	1.41	1.53
34	i	933	C	O4'-C1'	10.57	1.55	1.41
34	i	1301	C	C2'-C1'	-10.56	1.41	1.53
9	I	43	ILE	CA-C	-10.54	1.25	1.52
34	i	1257	C	C2'-C1'	-10.54	1.41	1.53
34	i	1755	U	O4'-C1'	10.54	1.55	1.41
19	S	40	TYR	C-N	-10.54	1.09	1.34
34	i	1207	G	C2'-C1'	-10.54	1.41	1.53
34	i	1481	U	C2'-C1'	-10.53	1.41	1.53
34	i	1200	A	O4'-C1'	10.53	1.55	1.41
34	i	230	C	O4'-C1'	10.51	1.55	1.41
34	i	1778	G	O4'-C1'	10.51	1.55	1.41
34	i	605	C	C2'-C1'	-10.50	1.41	1.53
34	i	416	A	O4'-C1'	10.50	1.55	1.41
34	i	385	G	C2'-C1'	-10.50	1.41	1.53
34	i	449	C	O4'-C1'	10.48	1.55	1.41
34	i	487	C	O4'-C1'	10.47	1.55	1.41
34	i	1617	U	C2'-C1'	-10.47	1.41	1.53
34	i	50	A	C2'-C1'	-10.46	1.41	1.53
34	i	1411	C	C2'-C1'	-10.45	1.41	1.53
34	i	316	C	O4'-C1'	10.45	1.55	1.41
34	i	875	C	C2'-C1'	-10.44	1.41	1.53
34	i	382	A	O4'-C1'	10.42	1.55	1.41
34	i	984	C	C2'-C1'	-10.42	1.41	1.53
34	i	560	C	O4'-C1'	10.42	1.55	1.41
34	i	729	C	O4'-C1'	10.40	1.55	1.41
34	i	1105	C	O4'-C1'	-10.40	1.28	1.41
34	i	1230	C	C2'-C1'	-10.40	1.42	1.53
34	i	355	C	O4'-C1'	10.39	1.55	1.41
34	i	178	C	C2'-C1'	-10.38	1.42	1.53
34	i	1578	C	C2'-C1'	-10.38	1.42	1.53
34	i	1682	C	C2'-C1'	-10.38	1.42	1.53
34	i	170	A	O4'-C1'	-10.38	1.28	1.41
34	i	868	A	O4'-C1'	-10.37	1.28	1.41
34	i	1576	C	O4'-C1'	10.36	1.55	1.41
34	i	1128	C	O4'-C1'	10.36	1.55	1.41
34	i	1700	C	O4'-C1'	10.33	1.55	1.41
34	i	1835	C	O4'-C1'	10.33	1.55	1.41
34	i	1165	G	O4'-C1'	10.32	1.55	1.41
34	i	1752	G	C2'-C1'	-10.32	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1398	A	O4'-C1'	10.31	1.55	1.41
34	i	1181	C	C2'-C1'	-10.30	1.42	1.53
34	i	825	C	O4'-C1'	10.27	1.54	1.41
34	i	1783	G	O4'-C1'	10.26	1.54	1.41
34	i	1309	A	C2'-C1'	-10.26	1.42	1.53
34	i	84	A	C2'-C1'	-10.25	1.42	1.53
34	i	683	G	C2'-C1'	-10.25	1.42	1.53
34	i	120	U	C2'-C1'	-10.24	1.42	1.53
34	i	1375	A	C2'-C1'	-10.24	1.42	1.53
34	i	653	C	C2'-C1'	-10.23	1.42	1.53
34	i	1410	A	C2'-C1'	-10.23	1.42	1.53
34	i	241	A	O4'-C1'	10.22	1.54	1.41
34	i	563	U	C2'-C1'	-10.22	1.42	1.53
34	i	52	G	C2'-C1'	-10.21	1.42	1.53
34	i	1076	A	O4'-C1'	-10.20	1.28	1.41
34	i	1827	C	O4'-C1'	10.20	1.54	1.41
34	i	1682	C	O4'-C1'	10.20	1.54	1.41
34	i	558	C	O4'-C1'	10.19	1.54	1.41
34	i	79	A	C2'-C1'	10.19	1.64	1.53
34	i	956	U	O4'-C1'	10.19	1.54	1.41
34	i	1139	A	C2'-C1'	-10.18	1.42	1.53
34	i	823	A	C2'-C1'	-10.18	1.42	1.53
34	i	352	C	C2'-C1'	-10.17	1.42	1.53
34	i	410	G	C2'-C1'	-10.16	1.42	1.53
34	i	313	C	O4'-C1'	10.16	1.54	1.41
34	i	1271	G	C2'-C1'	-10.15	1.42	1.53
34	i	1486	G	C2'-C1'	-10.15	1.42	1.53
34	i	1098	G	C2'-C1'	-10.15	1.42	1.53
34	i	1324	G	C2'-C1'	-10.14	1.42	1.53
34	i	209	C	O4'-C1'	10.14	1.54	1.41
34	i	1272	A	O4'-C1'	10.14	1.54	1.41
34	i	82	G	C2'-C1'	10.12	1.64	1.53
34	i	977	A	O4'-C1'	10.10	1.54	1.41
34	i	1133	U	O4'-C1'	10.10	1.54	1.41
34	i	1377	G	O4'-C1'	-10.10	1.28	1.41
34	i	1573	U	O4'-C1'	-10.09	1.28	1.41
34	i	76	U	O4'-C1'	10.08	1.54	1.41
34	i	809	A	O4'-C1'	10.08	1.54	1.41
34	i	428	G	C2'-C1'	10.07	1.64	1.53
34	i	1316	G	O4'-C1'	-10.07	1.28	1.41
34	i	1651	G	C2'-C1'	-10.06	1.42	1.53
34	i	1096	A	O4'-C1'	10.06	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1312	C	O4'-C1'	10.05	1.54	1.41
34	i	1594	U	C2'-C1'	10.05	1.64	1.53
34	i	1071	C	C2'-C1'	-10.04	1.42	1.53
34	i	1787	A	O4'-C1'	10.04	1.54	1.41
34	i	311	C	C2'-C1'	-10.03	1.42	1.53
34	i	855	G	C2'-C1'	-10.03	1.42	1.53
34	i	1740	A	C2'-C1'	10.03	1.64	1.53
34	i	142	C	O4'-C1'	-10.02	1.28	1.41
34	i	437	A	C2'-C1'	10.02	1.64	1.53
34	i	149	A	O4'-C1'	10.01	1.54	1.41
34	i	1209	C	C2'-C1'	-10.01	1.42	1.53
34	i	75	G	C2'-C1'	-10.00	1.42	1.53
34	i	588	G	C2'-C1'	-9.99	1.42	1.53
34	i	315	C	C2'-C1'	9.98	1.64	1.53
34	i	1359	C	O4'-C1'	9.96	1.54	1.41
34	i	1006	G	O4'-C1'	-9.96	1.28	1.41
34	i	1600	G	O4'-C1'	9.95	1.54	1.41
34	i	1559	C	O4'-C1'	9.95	1.54	1.41
34	i	1766	C	C2'-C1'	-9.95	1.42	1.53
34	i	85	A	C2'-C1'	-9.93	1.42	1.53
34	i	1428	U	C2'-C1'	-9.93	1.42	1.53
34	i	1678	C	O4'-C1'	9.93	1.54	1.41
34	i	946	C	O4'-C1'	9.92	1.54	1.41
34	i	1779	C	C2'-C1'	9.91	1.64	1.53
34	i	544	A	C2'-C1'	-9.91	1.42	1.53
34	i	1819	A	C2'-C1'	9.90	1.64	1.53
34	i	486	C	O4'-C1'	9.89	1.54	1.41
34	i	111	A	O4'-C1'	-9.89	1.28	1.41
34	i	96	C	O4'-C1'	9.88	1.54	1.41
34	i	1504	A	C2'-C1'	9.87	1.64	1.53
34	i	66	G	O4'-C1'	9.86	1.54	1.41
34	i	392	C	O4'-C1'	9.86	1.54	1.41
34	i	1329	U	C2'-C1'	9.83	1.64	1.53
34	i	359	C	C2'-C1'	-9.83	1.42	1.53
34	i	560	C	C2'-C1'	-9.83	1.42	1.53
34	i	1338	U	C2'-C1'	-9.83	1.42	1.53
34	i	1822	C	O4'-C1'	9.82	1.54	1.41
34	i	1201	C	C2'-C1'	-9.82	1.42	1.53
34	i	533	C	O4'-C1'	9.82	1.54	1.41
34	i	1055	G	C2'-C1'	-9.81	1.42	1.53
34	i	193	C	C2'-C1'	-9.81	1.42	1.53
34	i	645	A	C2'-C1'	-9.80	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1467	C	C2'-C1'	-9.80	1.42	1.53
34	i	1536	G	C2'-C1'	-9.78	1.42	1.53
34	i	88	G	C2'-C1'	-9.78	1.42	1.53
34	i	1029	G	C2'-C1'	-9.78	1.42	1.53
34	i	932	G	C2'-C1'	-9.76	1.42	1.53
34	i	1585	C	C2'-C1'	-9.76	1.42	1.53
34	i	298	G	O4'-C1'	-9.75	1.28	1.41
34	i	1099	C	C2'-C1'	-9.75	1.42	1.53
34	i	564	A	C2'-C1'	-9.74	1.42	1.53
34	i	1031	A	C2'-C1'	-9.74	1.42	1.53
34	i	487	C	C2'-C1'	-9.73	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	507	C	O4'-C1'	9.71	1.54	1.41
34	i	829	C	C2'-C1'	-9.71	1.42	1.53
34	i	1669	G	C2'-C1'	-9.71	1.42	1.53
34	i	150	A	O4'-C1'	9.70	1.54	1.41
34	i	654	A	C2'-C1'	-9.69	1.42	1.53
34	i	1784	A	C2'-C1'	-9.69	1.42	1.53
34	i	31	U	C2'-C1'	9.68	1.64	1.53
34	i	448	A	O4'-C1'	9.65	1.54	1.41
34	i	1120	C	O4'-C1'	9.65	1.54	1.41
34	i	481	C	C2'-C1'	-9.65	1.42	1.53
34	i	1572	G	O4'-C1'	9.64	1.54	1.41
34	i	1742	C	O3'-P	-9.64	1.49	1.61
34	i	1337	C	O4'-C1'	9.63	1.54	1.41
34	i	1432	C	C2'-C1'	-9.63	1.42	1.53
34	i	1320	G	C2'-C1'	-9.63	1.42	1.53
34	i	1296	U	O4'-C1'	-9.62	1.29	1.41
34	i	67	C	O4'-C1'	-9.61	1.29	1.41
34	i	743	U	O4'-C1'	9.61	1.54	1.41
34	i	1464	C	O4'-C1'	9.61	1.54	1.41
34	i	419	C	O4'-C1'	9.61	1.54	1.41
34	i	511	A	C2'-C1'	-9.60	1.42	1.53
34	i	1503	G	C2'-C1'	-9.60	1.42	1.53
34	i	1707	A	C2'-C1'	-9.60	1.42	1.53
34	i	311	C	O4'-C1'	9.58	1.54	1.41
34	i	657	U	O4'-C1'	9.58	1.54	1.41
34	i	1781	G	C2'-C1'	-9.58	1.42	1.53
34	i	675	A	C2'-C1'	-9.57	1.42	1.53
34	i	445	A	O4'-C1'	9.57	1.54	1.41
34	i	1251	G	O4'-C1'	9.55	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	13	C	C2'-C1'	-9.55	1.42	1.53
34	i	457	G	O4'-C1'	9.55	1.54	1.41
34	i	1790	G	C2'-C1'	-9.53	1.42	1.53
34	i	285	U	O4'-C1'	9.51	1.54	1.41
34	i	166	A	C2'-C1'	-9.51	1.42	1.53
10	J	35	TYR	CD1-CE1	-9.50	1.25	1.39
34	i	888	U	C2'-C1'	-9.49	1.43	1.53
34	i	1328	A	O4'-C1'	9.49	1.53	1.41
34	i	1437	U	C2'-C1'	9.48	1.63	1.53
34	i	927	C	O4'-C1'	9.48	1.53	1.41
34	i	1808	G	C2'-C1'	-9.47	1.43	1.53
34	i	1534	U	C2'-C1'	9.47	1.63	1.53
34	i	1440	U	C2'-C1'	-9.46	1.43	1.53
34	i	1548	C	C2'-C1'	9.46	1.63	1.53
19	S	6	PRO	CA-C	9.44	1.71	1.52
34	i	884	U	O4'-C1'	9.44	1.53	1.41
34	i	1301	C	O4'-C1'	9.44	1.53	1.41
34	i	726	C	O4'-C1'	9.41	1.53	1.41
34	i	1339	U	O4'-C1'	9.41	1.53	1.41
34	i	1402	G	C2'-C1'	-9.41	1.43	1.53
34	i	944	C	O4'-C1'	9.41	1.53	1.41
34	i	1029	G	O4'-C1'	9.40	1.53	1.41
34	i	1744	G	C2'-C1'	-9.40	1.43	1.53
34	i	173	A	O4'-C1'	9.39	1.53	1.41
34	i	1112	C	O4'-C1'	-9.38	1.29	1.41
34	i	1460	C	O4'-C1'	9.38	1.53	1.41
34	i	1729	G	O4'-C1'	9.37	1.53	1.41
34	i	53	C	O4'-C1'	9.37	1.53	1.41
34	i	1849	G	C2'-C1'	-9.37	1.43	1.53
34	i	1607	G	C2'-C1'	9.35	1.63	1.53
34	i	614	C	O4'-C1'	9.35	1.53	1.41
34	i	980	C	O4'-C1'	9.35	1.53	1.41
34	i	298	G	C2'-C1'	9.34	1.63	1.53
34	i	1211	C	C2'-C1'	9.33	1.63	1.53
34	i	1025	G	O4'-C1'	9.32	1.53	1.41
34	i	1177	A	C2'-C1'	-9.31	1.43	1.53
34	i	1365	A	C2'-C1'	-9.31	1.43	1.53
34	i	1713	G	C2'-C1'	-9.30	1.43	1.53
34	i	1101	G	O4'-C1'	9.28	1.53	1.41
34	i	332	C	O4'-C1'	9.27	1.53	1.41
34	i	440	C	C2'-C1'	9.27	1.63	1.53
34	i	1618	A	C2'-C1'	9.27	1.63	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1477	G	C2'-C1'	-9.26	1.43	1.53
34	i	212	G	O4'-C1'	9.26	1.53	1.41
34	i	666	C	O4'-C1'	9.25	1.53	1.41
34	i	939	U	O4'-C1'	9.23	1.53	1.41
34	i	650	C	C2'-C1'	-9.23	1.43	1.53
34	i	1335	U	P-O5'	-9.23	1.50	1.59
4	D	96	LEU	C-N	9.22	1.55	1.34
34	i	234	C	C2'-C1'	9.22	1.63	1.53
34	i	1385	C	C2'-C1'	-9.22	1.43	1.53
34	i	790	A	O4'-C1'	9.22	1.53	1.41
34	i	799	C	C2'-C1'	-9.22	1.43	1.53
34	i	1861	U	C2'-C1'	9.21	1.63	1.53
34	i	481	C	O4'-C1'	9.21	1.53	1.41
34	i	49	C	C2'-C1'	-9.21	1.43	1.53
34	i	1735	C	O4'-C1'	9.20	1.53	1.41
34	i	1559	C	C2'-C1'	-9.19	1.43	1.53
34	i	1049	C	O4'-C1'	9.19	1.53	1.41
19	S	40	TYR	CA-C	-9.19	1.29	1.52
34	i	827	G	C2'-C1'	-9.19	1.43	1.53
34	i	367	G	C2'-C1'	-9.18	1.43	1.53
34	i	1028	C	C2'-C1'	-9.18	1.43	1.53
34	i	1557	C	O4'-C1'	9.18	1.53	1.41
34	i	1118	A	C2'-C1'	9.17	1.63	1.53
34	i	1565	G	O4'-C1'	-9.15	1.29	1.41
34	i	678	U	O4'-C1'	-9.15	1.29	1.41
34	i	1622	C	O4'-C1'	9.15	1.53	1.41
34	i	42	A	C2'-C1'	-9.14	1.43	1.53
34	i	618	A	O4'-C1'	-9.14	1.29	1.41
27	a	10	ARG	CD-NE	9.14	1.61	1.46
34	i	895	U	O4'-C1'	9.13	1.53	1.41
34	i	1040	G	C2'-C1'	-9.13	1.43	1.53
34	i	804	A	O4'-C1'	9.12	1.53	1.41
34	i	405	A	C2'-C1'	9.12	1.63	1.53
34	i	1850	C	O4'-C1'	9.12	1.53	1.41
3	C	47	PRO	N-CD	9.10	1.60	1.47
34	i	1341	G	O4'-C1'	9.10	1.53	1.41
34	i	1275	C	C2'-C1'	9.08	1.63	1.53
8	H	109	ARG	CA-CB	-9.07	1.33	1.53
34	i	653	C	O4'-C1'	9.05	1.53	1.41
34	i	1780	U	O4'-C1'	9.03	1.53	1.41
34	i	69	C	O4'-C1'	9.03	1.53	1.41
34	i	1647	G	C2'-C1'	-9.02	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	683	G	O4'-C1'	9.00	1.53	1.41
34	i	1054	A	O4'-C1'	9.00	1.53	1.41
34	i	900	A	C2'-C1'	-9.00	1.43	1.53
34	i	211	U	O4'-C1'	8.99	1.53	1.41
34	i	1829	A	O4'-C1'	8.99	1.53	1.41
34	i	171	A	O4'-C1'	-8.99	1.29	1.41
34	i	69	C	C2'-C1'	-8.97	1.43	1.53
34	i	1533	C	O4'-C1'	8.97	1.53	1.41
34	i	1225	G	C2'-C1'	-8.96	1.43	1.53
34	i	373	G	O4'-C1'	8.94	1.53	1.41
34	i	510	A	O4'-C1'	8.94	1.53	1.41
34	i	972	G	C2'-C1'	-8.94	1.43	1.53
34	i	292	A	C2'-C1'	8.92	1.63	1.53
27	a	97	PRO	C-N	8.91	1.51	1.34
34	i	106	C	O4'-C1'	8.91	1.53	1.41
34	i	666	C	C2'-C1'	-8.90	1.43	1.53
2	B	155	TYR	CB-CG	-8.90	1.38	1.51
34	i	1646	A	C2'-C1'	8.90	1.63	1.53
34	i	1288	C	C2'-C1'	-8.89	1.43	1.53
34	i	1791	U	O4'-C1'	8.89	1.53	1.41
34	i	204	G	C2'-C1'	8.88	1.63	1.53
34	i	380	C	O4'-C1'	8.88	1.53	1.41
34	i	1142	C	O4'-C1'	8.88	1.53	1.41
34	i	178	C	O4'-C1'	8.87	1.53	1.41
34	i	1678	C	C2'-C1'	-8.87	1.43	1.53
34	i	1018	U	O4'-C1'	8.87	1.53	1.41
34	i	1336	U	C2'-C1'	8.86	1.63	1.53
34	i	574	A	C2'-C1'	-8.85	1.43	1.53
34	i	1692	A	C2'-C1'	8.85	1.63	1.53
34	i	1478	C	O4'-C1'	8.84	1.53	1.41
34	i	853	U	O4'-C1'	8.84	1.53	1.41
34	i	220	C	O4'-C1'	8.83	1.53	1.41
34	i	1176	C	C2'-C1'	-8.83	1.43	1.53
34	i	41	G	O4'-C1'	8.82	1.53	1.41
34	i	688	U	C2'-C1'	-8.81	1.43	1.53
34	i	194	C	O4'-C1'	8.81	1.53	1.41
34	i	677	C	C2'-C1'	-8.80	1.43	1.53
34	i	1813	A	O4'-C1'	8.80	1.53	1.41
7	G	36	VAL	CB-CG1	-8.79	1.34	1.52
34	i	1385	C	O4'-C1'	8.78	1.53	1.41
34	i	170	A	C2'-C1'	-8.78	1.43	1.53
34	i	813	G	C2'-C1'	-8.77	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1039	G	C2'-C1'	-8.77	1.43	1.53
34	i	17	C	O4'-C1'	8.77	1.53	1.41
34	i	1104	G	O4'-C1'	-8.76	1.30	1.41
34	i	883	U	O4'-C1'	-8.76	1.30	1.41
34	i	1221	U	O4'-C1'	8.75	1.53	1.41
19	S	54	LYS	CA-C	8.74	1.75	1.52
34	i	1370	C	O4'-C1'	8.74	1.53	1.41
34	i	1218	G	C2'-C1'	-8.73	1.43	1.53
34	i	1407	G	O4'-C1'	8.73	1.52	1.41
34	i	575	C	O4'-C1'	8.73	1.52	1.41
34	i	1212	C	O4'-C1'	8.72	1.52	1.41
34	i	936	U	O4'-C1'	8.72	1.52	1.41
34	i	97	U	O4'-C1'	8.71	1.52	1.41
34	i	1706	U	C2'-C1'	-8.71	1.43	1.53
34	i	26	U	O4'-C1'	8.71	1.52	1.41
34	i	989	G	C2'-C1'	-8.70	1.43	1.53
34	i	1571	G	O4'-C1'	8.70	1.52	1.41
34	i	1221	U	C2'-C1'	-8.70	1.43	1.53
34	i	1185	A	O4'-C1'	8.69	1.52	1.41
34	i	939	U	C2'-C1'	-8.67	1.43	1.53
34	i	441	G	C2'-C1'	-8.66	1.43	1.53
34	i	1440	U	O4'-C1'	8.66	1.52	1.41
34	i	1465	A	O4'-C1'	8.65	1.52	1.41
34	i	432	C	C2'-C1'	-8.63	1.43	1.53
34	i	1085	G	C2'-C1'	-8.62	1.43	1.53
34	i	649	G	O4'-C1'	-8.62	1.30	1.41
34	i	324	C	C2'-C1'	-8.62	1.43	1.53
34	i	807	A	C2'-C1'	-8.61	1.43	1.53
34	i	1331	G	C2'-C1'	-8.61	1.43	1.53
34	i	824	G	O4'-C1'	-8.60	1.30	1.41
34	i	50	A	O4'-C1'	8.60	1.52	1.41
34	i	1434	A	O4'-C1'	8.60	1.52	1.41
34	i	1414	C	C2'-C1'	-8.60	1.43	1.53
34	i	1672	U	C2'-C1'	8.60	1.62	1.53
34	i	376	C	C2'-C1'	-8.59	1.44	1.53
34	i	537	G	C2'-C1'	-8.59	1.44	1.53
34	i	1822	C	C2'-C1'	-8.59	1.44	1.53
34	i	189	G	O4'-C1'	8.58	1.52	1.41
34	i	1223	G	O4'-C1'	8.58	1.52	1.41
34	i	844	U	O4'-C1'	8.57	1.52	1.41
34	i	1158	C	O4'-C1'	8.57	1.52	1.41
34	i	30	C	O4'-C1'	8.57	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	33	G	C2'-C1'	-8.56	1.44	1.53
34	i	1611	U	O4'-C1'	8.55	1.52	1.41
34	i	540	C	O4'-C1'	8.55	1.52	1.41
34	i	235	C	O4'-C1'	8.55	1.52	1.41
34	i	1532	A	C2'-C1'	8.54	1.62	1.53
34	i	107	A	C2'-C1'	8.54	1.62	1.53
34	i	1560	C	O4'-C1'	8.54	1.52	1.41
34	i	1345	G	O4'-C1'	8.54	1.52	1.41
34	i	1456	C	O4'-C1'	8.54	1.52	1.41
34	i	661	A	C2'-C1'	-8.53	1.44	1.53
34	i	990	C	C2'-C1'	-8.52	1.44	1.53
34	i	1624	C	O4'-C1'	8.52	1.52	1.41
34	i	1825	A	O4'-C1'	8.51	1.52	1.41
34	i	165	G	C2'-C1'	8.50	1.62	1.53
34	i	443	C	O4'-C1'	8.50	1.52	1.41
34	i	1168	U	C2'-C1'	8.50	1.62	1.53
34	i	1401	A	C2'-C1'	-8.49	1.44	1.53
34	i	1476	A	O4'-C1'	8.49	1.52	1.41
34	i	753	C	O4'-C1'	8.48	1.52	1.41
34	i	1138	G	C2'-C1'	8.48	1.62	1.53
34	i	902	U	O4'-C1'	8.47	1.52	1.41
34	i	1775	A	O4'-C1'	8.47	1.52	1.41
34	i	543	U	O4'-C1'	8.46	1.52	1.41
34	i	670	G	O4'-C1'	8.46	1.52	1.41
34	i	236	C	O4'-C1'	8.46	1.52	1.41
34	i	593	C	O4'-C1'	8.46	1.52	1.41
34	i	908	C	O4'-C1'	8.46	1.52	1.41
34	i	168	C	C2'-C1'	-8.45	1.44	1.53
34	i	1495	U	C2'-C1'	-8.44	1.44	1.53
34	i	528	U	O4'-C1'	8.43	1.52	1.41
34	i	1527	C	O4'-C1'	8.43	1.52	1.41
34	i	1569	C	C2'-C1'	-8.43	1.44	1.53
34	i	923	C	O4'-C1'	8.42	1.52	1.41
34	i	409	G	O4'-C1'	8.42	1.52	1.41
4	D	4	GLN	N-CA	-8.42	1.29	1.46
34	i	53	C	C2'-C1'	8.41	1.62	1.53
34	i	1068	U	C2'-C1'	8.41	1.62	1.53
34	i	965	U	O4'-C1'	8.41	1.52	1.41
34	i	453	C	O4'-C1'	8.40	1.52	1.41
34	i	72	C	C2'-C1'	8.40	1.62	1.53
34	i	1861	U	O4'-C1'	-8.40	1.30	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	313	C	C2'-C1'	-8.39	1.44	1.53
34	i	361	A	C2'-C1'	-8.38	1.44	1.53
34	i	1267	C	C2'-C1'	-8.37	1.44	1.53
34	i	625	G	O4'-C1'	8.37	1.52	1.41
34	i	1264	C	O4'-C1'	8.37	1.52	1.41
34	i	1367	U	O4'-C1'	8.37	1.52	1.41
34	i	1490	U	C2'-C1'	8.36	1.62	1.53
34	i	148	U	C2'-C1'	8.36	1.62	1.53
34	i	1630	C	O4'-C1'	8.36	1.52	1.41
34	i	941	U	C2'-C1'	-8.35	1.44	1.53
34	i	354	A	C2'-C1'	-8.34	1.44	1.53
34	i	557	C	O4'-C1'	8.34	1.52	1.41
34	i	1059	C	C2'-C1'	-8.34	1.44	1.53
34	i	1661	C	O4'-C1'	8.34	1.52	1.41
34	i	1292	U	C2'-C1'	-8.32	1.44	1.53
34	i	1577	C	O4'-C1'	8.32	1.52	1.41
34	i	937	C	O4'-C1'	8.32	1.52	1.41
34	i	303	G	C2'-C1'	8.32	1.62	1.53
34	i	1325	U	O4'-C1'	8.32	1.52	1.41
34	i	1699	C	C2'-C1'	-8.31	1.44	1.53
34	i	943	G	C2'-C1'	-8.30	1.44	1.53
34	i	625	G	C2'-C1'	-8.30	1.44	1.53
34	i	1200	A	C2'-C1'	-8.29	1.44	1.53
35	l	67	PHE	CD2-CE2	-8.29	1.22	1.39
34	i	187	C	C2'-C1'	-8.29	1.44	1.53
34	i	1807	A	O4'-C1'	8.29	1.52	1.41
34	i	596	G	O4'-C1'	-8.28	1.30	1.41
34	i	1304	U	O4'-C1'	-8.28	1.30	1.41
34	i	1480	A	O4'-C1'	8.28	1.52	1.41
34	i	159	A	O4'-C1'	8.27	1.52	1.41
34	i	1075	C	C2'-C1'	-8.27	1.44	1.53
34	i	1295	A	C2'-C1'	8.27	1.62	1.53
34	i	875	C	O4'-C1'	8.27	1.52	1.41
34	i	465	C	C2'-C1'	-8.25	1.44	1.53
34	i	1086	C	O4'-C1'	8.25	1.52	1.41
34	i	1079	A	O4'-C1'	8.25	1.52	1.41
34	i	164	A	O4'-C1'	8.25	1.52	1.41
34	i	1309	A	O4'-C1'	8.23	1.52	1.41
34	i	1390	G	O4'-C1'	8.23	1.52	1.41
34	i	1785	A	O4'-C1'	8.23	1.52	1.41
34	i	18	C	C2'-C1'	-8.23	1.44	1.53
34	i	1028	C	O4'-C1'	8.22	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1840	G	C2'-C1'	-8.22	1.44	1.53
34	i	462	C	C2'-C1'	-8.22	1.44	1.53
34	i	147	A	C2'-C1'	8.21	1.62	1.53
34	i	348	C	O4'-C1'	8.20	1.52	1.41
34	i	1252	G	O4'-C1'	8.20	1.52	1.41
34	i	1019	A	C2'-C1'	8.20	1.62	1.53
34	i	1425	G	O3'-P	-8.20	1.51	1.61
34	i	727	G	O4'-C1'	8.19	1.52	1.41
34	i	219	U	O4'-C1'	8.18	1.52	1.41
34	i	782	G	O4'-C1'	8.18	1.52	1.41
34	i	1001	G	C2'-C1'	-8.18	1.44	1.53
34	i	176	U	O4'-C1'	8.17	1.52	1.41
34	i	1446	G	C2'-C1'	-8.17	1.44	1.53
34	i	1679	C	O4'-C1'	8.16	1.52	1.41
34	i	1201	C	O4'-C1'	8.16	1.52	1.41
34	i	739	U	O4'-C1'	8.15	1.52	1.41
34	i	1304	U	C2'-C1'	8.15	1.62	1.53
34	i	86	C	C2'-C1'	-8.15	1.44	1.53
34	i	1046	A	C2'-C1'	-8.15	1.44	1.53
3	C	193	PRO	N-CD	8.14	1.59	1.47
34	i	1663	U	P-O5'	-8.14	1.51	1.59
34	i	1140	A	O4'-C1'	8.14	1.52	1.41
34	i	676	U	C2'-C1'	8.14	1.62	1.53
20	T	4	VAL	C-N	8.13	1.52	1.34
34	i	1183	G	O4'-C1'	8.13	1.52	1.41
34	i	57	U	C2'-C1'	8.12	1.62	1.53
34	i	1487	G	C2'-C1'	-8.12	1.44	1.53
34	i	832	G	C2'-C1'	8.11	1.62	1.53
34	i	955	G	C2'-C1'	-8.11	1.44	1.53
34	i	736	C	C2'-C1'	-8.10	1.44	1.53
34	i	918	A	C2'-C1'	8.10	1.62	1.53
34	i	1261	A	O4'-C1'	8.09	1.52	1.41
34	i	824	G	C2'-C1'	-8.09	1.44	1.53
34	i	1579	G	O4'-C1'	8.09	1.52	1.41
34	i	1327	C	O4'-C1'	8.08	1.52	1.41
34	i	1824	U	O4'-C1'	8.07	1.52	1.41
34	i	537	G	O4'-C1'	8.07	1.52	1.41
34	i	338	A	C2'-C1'	-8.07	1.44	1.53
34	i	754	C	C2'-C1'	-8.06	1.44	1.53
7	G	36	VAL	CA-CB	-8.06	1.37	1.54
34	i	1623	C	O4'-C1'	8.05	1.52	1.41
34	i	1061	G	C2'-C1'	-8.05	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	741	C	O3'-P	-8.05	1.51	1.61
34	i	40	A	C2'-C1'	8.04	1.62	1.53
34	i	369	C	O4'-C1'	8.02	1.52	1.41
34	i	1537	C	C2'-C1'	-8.02	1.44	1.53
34	i	607	G	C2'-C1'	-8.01	1.44	1.53
34	i	1818	A	O4'-C1'	-8.01	1.31	1.41
34	i	463	A	O4'-C1'	8.01	1.52	1.41
34	i	599	U	O4'-C1'	8.01	1.52	1.41
34	i	835	C	C2'-C1'	-8.01	1.44	1.53
34	i	924	G	C2'-C1'	-8.00	1.44	1.53
34	i	1450	A	O4'-C1'	8.00	1.52	1.41
34	i	1150	U	O4'-C1'	-8.00	1.31	1.41
34	i	26	U	C2'-C1'	-8.00	1.44	1.53
34	i	336	C	O4'-C1'	7.99	1.52	1.41
34	i	1102	C	C2'-C1'	7.99	1.62	1.53
34	i	1558	G	C2'-C1'	-7.99	1.44	1.53
18	R	89	SER	CA-C	7.98	1.73	1.52
34	i	1447	G	C2'-C1'	-7.98	1.44	1.53
34	i	988	A	O4'-C1'	7.98	1.52	1.41
34	i	618	A	C2'-C1'	7.97	1.62	1.53
34	i	536	G	O4'-C1'	7.97	1.52	1.41
34	i	829	C	O4'-C1'	7.96	1.51	1.41
34	i	1107	U	O4'-C1'	7.96	1.51	1.41
19	S	95	TYR	CD1-CE1	-7.95	1.27	1.39
34	i	959	A	O4'-C1'	-7.95	1.31	1.41
34	i	624	A	O4'-C1'	7.95	1.51	1.41
34	i	1800	A	C2'-C1'	-7.95	1.44	1.53
34	i	302	C	C2'-C1'	-7.95	1.44	1.53
34	i	1394	G	C2'-C1'	-7.95	1.44	1.53
34	i	152	U	C2'-C1'	-7.94	1.44	1.53
7	G	131	ARG	N-CA	-7.94	1.30	1.46
34	i	1705	C	O4'-C1'	7.94	1.51	1.41
34	i	864	G	C2'-C1'	-7.93	1.44	1.53
34	i	1794	A	O4'-C1'	7.93	1.51	1.41
34	i	1482	A	P-O5'	-7.92	1.51	1.59
34	i	1522	C	O4'-C1'	7.92	1.51	1.41
34	i	492	C	O4'-C1'	7.92	1.51	1.41
34	i	317	G	O4'-C1'	-7.91	1.31	1.41
34	i	969	C	O4'-C1'	7.91	1.51	1.41
34	i	1604	C	O4'-C1'	7.91	1.51	1.41
34	i	486	C	C2'-C1'	-7.90	1.44	1.53
34	i	1652	G	C2'-C1'	-7.90	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1126	G	O4'-C1'	-7.90	1.31	1.41
34	i	1857	A	C2'-C1'	7.89	1.62	1.53
34	i	275	C	O4'-C1'	7.89	1.51	1.41
34	i	1592	C	C2'-C1'	-7.89	1.44	1.53
34	i	1733	C	C2'-C1'	-7.89	1.44	1.53
34	i	211	U	O3'-P	-7.86	1.51	1.61
34	i	1386	U	C2'-C1'	-7.86	1.44	1.53
34	i	1535	G	C2'-C1'	-7.85	1.44	1.53
34	i	786	C	C2'-C1'	-7.85	1.44	1.53
34	i	566	A	C2'-C1'	-7.85	1.44	1.53
34	i	1279	C	C2'-C1'	-7.84	1.44	1.53
34	i	863	G	O4'-C1'	7.84	1.51	1.41
34	i	37	C	C2'-C1'	-7.83	1.44	1.53
34	i	874	G	C2'-C1'	-7.83	1.44	1.53
34	i	1796	C	O4'-C1'	7.83	1.51	1.41
34	i	953	A	C2'-C1'	-7.83	1.44	1.53
34	i	876	G	C2'-C1'	7.82	1.61	1.53
34	i	119	U	C2'-C1'	-7.82	1.44	1.53
34	i	447	C	O4'-C1'	7.82	1.51	1.41
34	i	1385	C	P-O5'	-7.81	1.51	1.59
34	i	189	G	C2'-C1'	-7.81	1.44	1.53
34	i	399	C	O4'-C1'	7.81	1.51	1.41
34	i	1027	A	O4'-C1'	7.80	1.51	1.41
34	i	1321	G	O4'-C1'	7.80	1.51	1.41
34	i	190	A	O4'-C1'	7.79	1.51	1.41
34	i	948	G	C2'-C1'	-7.79	1.44	1.53
34	i	604	G	C1'-N9	-7.78	1.35	1.46
34	i	563	U	O4'-C1'	7.78	1.51	1.41
34	i	1403	U	O4'-C1'	7.77	1.51	1.41
34	i	630	A	O4'-C1'	7.76	1.51	1.41
34	i	880	C	O4'-C1'	7.75	1.51	1.41
7	G	130	PRO	C-N	-7.75	1.16	1.34
34	i	557	C	C2'-C1'	-7.75	1.44	1.53
34	i	1480	A	C2'-C1'	-7.75	1.44	1.53
34	i	60	A	O4'-C1'	-7.75	1.31	1.41
34	i	37	C	O4'-C1'	7.73	1.51	1.41
34	i	846	C	C2'-C1'	-7.72	1.44	1.53
34	i	226	A	C2'-C1'	-7.71	1.44	1.53
34	i	271	G	O3'-P	-7.71	1.51	1.61
34	i	846	C	O4'-C1'	7.71	1.51	1.41
34	i	200	U	C2'-C1'	-7.71	1.44	1.53
34	i	859	U	O4'-C1'	7.69	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1382	A	O4'-C1'	7.69	1.51	1.41
34	i	49	C	O4'-C1'	7.68	1.51	1.41
34	i	1123	C	O4'-C1'	7.68	1.51	1.41
34	i	930	G	C2'-C1'	-7.68	1.44	1.53
34	i	938	G	O4'-C1'	7.68	1.51	1.41
34	i	29	G	C2'-C1'	-7.67	1.45	1.53
19	S	82	TRP	CA-CB	-7.67	1.37	1.53
34	i	521	A	O3'-P	-7.67	1.51	1.61
34	i	1392	A	C2'-C1'	7.67	1.61	1.53
34	i	151	C	P-O5'	-7.66	1.52	1.59
34	i	377	C	C2'-C1'	-7.66	1.45	1.53
34	i	1850	C	C2'-C1'	-7.66	1.45	1.53
34	i	194	C	C2'-C1'	-7.65	1.45	1.53
34	i	1299	C	O4'-C1'	-7.65	1.31	1.41
34	i	1638	U	O4'-C1'	7.65	1.51	1.41
34	i	725	C	O4'-C1'	7.65	1.51	1.41
34	i	171	A	C2'-C1'	7.64	1.61	1.53
34	i	449	C	C2'-C1'	-7.63	1.45	1.53
34	i	689	G	C1'-N9	-7.63	1.36	1.46
34	i	1045	A	O4'-C1'	-7.63	1.31	1.41
34	i	1633	G	O4'-C1'	7.63	1.51	1.41
34	i	872	C	O4'-C1'	7.63	1.51	1.41
34	i	820	C	O4'-C1'	7.63	1.51	1.41
34	i	1384	A	O4'-C1'	7.63	1.51	1.41
34	i	1332	C	O4'-C1'	7.62	1.51	1.41
34	i	95	G	C2'-C1'	-7.62	1.45	1.53
34	i	544	A	O4'-C1'	-7.61	1.31	1.41
34	i	1444	A	C2'-C1'	-7.61	1.45	1.53
34	i	1041	U	O4'-C1'	7.61	1.51	1.41
34	i	1071	C	O4'-C1'	7.60	1.51	1.41
34	i	337	G	O4'-C1'	7.60	1.51	1.41
34	i	1823	G	O4'-C1'	7.60	1.51	1.41
34	i	452	C	O4'-C1'	7.60	1.51	1.41
10	J	35	TYR	CD2-CE2	-7.59	1.27	1.39
34	i	1465	A	C2'-C1'	-7.59	1.45	1.53
34	i	1187	C	O4'-C1'	7.59	1.51	1.41
34	i	750	G	C2'-C1'	-7.58	1.45	1.53
34	i	386	U	O4'-C1'	7.58	1.51	1.41
34	i	685	G	C1'-N9	-7.58	1.36	1.46
34	i	1006	G	C2'-C1'	7.58	1.61	1.53
34	i	1423	C	C2'-C1'	7.58	1.61	1.53
34	i	342	U	O4'-C1'	7.57	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1343	U	O4'-C1'	7.57	1.51	1.41
34	i	442	G	O4'-C1'	7.56	1.51	1.41
34	i	1687	U	C2'-C1'	-7.56	1.45	1.53
34	i	355	C	C2'-C1'	-7.56	1.45	1.53
34	i	38	A	C2'-C1'	7.55	1.61	1.53
34	i	1664	G	C2'-C1'	-7.54	1.45	1.53
34	i	368	U	C2'-C1'	-7.53	1.45	1.53
34	i	428	G	O4'-C1'	-7.53	1.31	1.41
34	i	1835	C	C2'-C1'	-7.53	1.45	1.53
34	i	518	A	O4'-C1'	7.52	1.51	1.41
10	J	164	PRO	N-CA	-7.52	1.34	1.47
34	i	3	C	C2'-C1'	7.51	1.61	1.53
34	i	1839	A	C2'-C1'	-7.51	1.45	1.53
34	i	1340	A	O4'-C1'	7.51	1.51	1.41
34	i	1245	C	O4'-C1'	7.50	1.51	1.41
34	i	1137	G	O4'-C1'	-7.50	1.31	1.41
34	i	1814	G	C2'-C1'	-7.50	1.45	1.53
34	i	278	U	O4'-C1'	7.50	1.51	1.41
34	i	460	G	C2'-C1'	-7.49	1.45	1.53
34	i	1423	C	O4'-C1'	7.48	1.51	1.41
7	G	170	ARG	CA-CB	7.48	1.70	1.53
34	i	1398	A	C2'-C1'	-7.48	1.45	1.53
34	i	621	U	C2'-C1'	-7.47	1.45	1.53
34	i	1799	G	O4'-C1'	7.47	1.51	1.41
34	i	1151	U	O4'-C1'	7.47	1.51	1.41
34	i	1493	G	O4'-C1'	7.47	1.51	1.41
34	i	343	C	O4'-C1'	7.47	1.51	1.41
34	i	818	U	O4'-C1'	7.46	1.51	1.41
34	i	1292	U	O4'-C1'	7.46	1.51	1.41
34	i	1345	G	C2'-C1'	-7.46	1.45	1.53
34	i	1489	C	C2'-C1'	7.43	1.61	1.53
34	i	399	C	C2'-C1'	-7.42	1.45	1.53
34	i	1472	A	C2'-C1'	7.42	1.61	1.53
34	i	1123	C	C2'-C1'	-7.42	1.45	1.53
34	i	1091	U	O4'-C1'	7.41	1.51	1.41
34	i	493	C	O4'-C1'	7.41	1.51	1.41
34	i	1568	G	O4'-C1'	7.41	1.51	1.41
34	i	1778	G	C2'-C1'	-7.40	1.45	1.53
34	i	223	A	O4'-C1'	7.40	1.51	1.41
34	i	1676	U	C2'-C1'	-7.40	1.45	1.53
34	i	86	C	O4'-C1'	7.39	1.51	1.41
34	i	202	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	485	U	C2'-C1'	-7.39	1.45	1.53
34	i	1138	G	O4'-C1'	-7.38	1.32	1.41
34	i	456	G	C4'-C3'	7.38	1.61	1.53
34	i	1313	U	O4'-C1'	7.38	1.51	1.41
34	i	360	G	O4'-C1'	7.38	1.51	1.41
34	i	1260	C	O4'-C1'	7.38	1.51	1.41
34	i	743	U	O3'-P	-7.37	1.52	1.61
9	I	3	ILE	CA-CB	-7.37	1.37	1.54
34	i	120	U	O4'-C1'	7.37	1.51	1.41
34	i	225	C	O3'-P	-7.37	1.52	1.61
34	i	488	C	C2'-C1'	-7.37	1.45	1.53
34	i	933	C	C2'-C1'	-7.36	1.45	1.53
34	i	1145	A	C2'-C1'	-7.36	1.45	1.53
34	i	596	G	C2'-C1'	-7.36	1.45	1.53
34	i	840	U	O4'-C1'	7.36	1.51	1.41
34	i	982	G	C2'-C1'	-7.35	1.45	1.53
34	i	404	A	C2'-C1'	7.35	1.61	1.53
34	i	1096	A	C2'-C1'	-7.35	1.45	1.53
34	i	1186	A	O4'-C1'	7.34	1.51	1.41
34	i	1808	G	O4'-C1'	7.34	1.51	1.41
34	i	798	A	O4'-C1'	7.34	1.51	1.41
34	i	1008	A	C2'-C1'	-7.34	1.45	1.53
34	i	1434	A	C2'-C1'	7.34	1.61	1.53
34	i	1626	U	C2'-C1'	-7.33	1.45	1.53
34	i	820	C	C2'-C1'	-7.33	1.45	1.53
34	i	1758	G	C5'-C4'	7.33	1.60	1.51
34	i	485	U	O4'-C1'	7.32	1.51	1.41
34	i	515	A	C2'-C1'	-7.32	1.45	1.53
34	i	856	G	O4'-C1'	7.31	1.51	1.41
34	i	652	G	O4'-C1'	7.29	1.51	1.41
34	i	845	A	O4'-C1'	7.29	1.51	1.41
34	i	960	A	C2'-C1'	7.29	1.61	1.53
16	P	122	THR	CA-CB	7.29	1.72	1.53
34	i	85	A	O4'-C1'	7.28	1.51	1.41
34	i	86	C	P-O5'	-7.28	1.52	1.59
34	i	347	C	O4'-C1'	7.27	1.51	1.41
10	J	91	LYS	C-O	-7.27	1.09	1.23
34	i	1798	U	O4'-C1'	7.27	1.51	1.41
34	i	327	C	O4'-C1'	7.25	1.51	1.41
34	i	686	G	C2'-C1'	-7.25	1.45	1.53
34	i	937	C	C2'-C1'	-7.25	1.45	1.53
34	i	6	G	C2'-C1'	-7.25	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	576	G	O4'-C1'	7.25	1.51	1.41
34	i	656	U	O4'-C1'	7.25	1.51	1.41
34	i	74	G	O4'-C1'	7.25	1.51	1.41
34	i	897	G	C2'-C1'	-7.24	1.45	1.53
34	i	1054	A	C2'-C1'	-7.24	1.45	1.53
34	i	42	A	O4'-C1'	7.23	1.51	1.41
34	i	216	U	O4'-C1'	7.23	1.51	1.41
6	F	108	PRO	N-CD	7.23	1.57	1.47
34	i	660	A	O4'-C1'	-7.22	1.32	1.41
34	i	1668	U	C2'-C1'	-7.22	1.45	1.53
34	i	1424	G	C2'-C1'	7.22	1.61	1.53
34	i	1405	A	O4'-C1'	7.22	1.51	1.41
34	i	1387	C	C2'-C1'	-7.21	1.45	1.53
14	N	137	PRO	N-CD	7.21	1.57	1.47
34	i	1223	G	C2'-C1'	-7.21	1.45	1.53
34	i	1363	U	O4'-C1'	7.19	1.50	1.41
34	i	1059	C	O4'-C1'	7.18	1.50	1.41
34	i	514	U	O4'-C1'	7.17	1.50	1.41
34	i	1259	U	C5'-C4'	7.17	1.59	1.51
34	i	1045	A	C2'-C1'	7.17	1.61	1.53
34	i	916	A	O4'-C1'	7.16	1.50	1.41
34	i	632	U	O4'-C1'	7.16	1.50	1.41
34	i	213	C	O4'-C1'	7.15	1.50	1.41
34	i	361	A	O4'-C1'	7.14	1.50	1.41
34	i	1460	C	C2'-C1'	-7.14	1.45	1.53
34	i	1519	G	O4'-C1'	-7.14	1.32	1.41
34	i	516	A	C2'-C1'	-7.13	1.45	1.53
34	i	871	A	C2'-C1'	-7.13	1.45	1.53
8	H	111	LYS	CA-C	-7.13	1.34	1.52
34	i	632	U	C2'-C1'	-7.13	1.45	1.53
25	Y	91	LEU	C-N	7.11	1.50	1.34
34	i	1293	U	C2'-C1'	7.10	1.61	1.53
34	i	742	C	C2'-C1'	-7.09	1.45	1.53
34	i	470	G	C2'-C1'	-7.09	1.45	1.53
3	C	93	LYS	C-N	-7.08	1.17	1.34
34	i	876	G	O4'-C1'	-7.08	1.32	1.41
34	i	1741	U	O3'-P	7.07	1.69	1.61
7	G	131	ARG	CB-CG	7.06	1.71	1.52
34	i	860	A	C2'-C1'	-7.05	1.45	1.53
24	X	24	ASP	CA-C	-7.04	1.34	1.52
34	i	1256	A	C2'-C1'	-7.04	1.45	1.53
34	i	35	C	C2'-C1'	-7.04	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1395	C	O4'-C1'	7.04	1.50	1.41
34	i	1283	A	C2'-C1'	7.02	1.61	1.53
34	i	783	G	O4'-C1'	7.01	1.50	1.41
34	i	1175	G	C2'-C1'	-7.01	1.45	1.53
34	i	390	C	C2'-C1'	-7.01	1.45	1.53
34	i	655	G	C2'-C1'	-7.01	1.45	1.53
34	i	1043	C	C2'-C1'	-7.00	1.45	1.53
34	i	1174	U	C2'-C1'	-7.00	1.45	1.53
34	i	1033	G	C2'-C1'	-7.00	1.45	1.53
34	i	1303	U	C2'-C1'	7.00	1.61	1.53
34	i	118	C	O4'-C1'	6.99	1.50	1.41
34	i	880	C	C2'-C1'	-6.99	1.45	1.53
34	i	1355	U	C2'-C1'	6.99	1.61	1.53
34	i	601	G	O4'-C1'	6.98	1.50	1.41
34	i	959	A	C2'-C1'	-6.97	1.45	1.53
34	i	1782	A	O4'-C1'	6.97	1.50	1.41
34	i	1784	A	O4'-C1'	6.96	1.50	1.41
34	i	1255	A	O4'-C1'	-6.96	1.32	1.41
34	i	231	C	C2'-C1'	-6.96	1.45	1.53
34	i	735	C	C2'-C1'	-6.95	1.45	1.53
34	i	1528	A	C2'-C1'	-6.95	1.45	1.53
34	i	1021	U	C2'-C1'	6.95	1.60	1.53
34	i	464	G	C2'-C1'	-6.94	1.45	1.53
34	i	823	A	O4'-C1'	6.94	1.50	1.41
34	i	81	U	O4'-C1'	6.92	1.50	1.41
34	i	899	A	O4'-C1'	-6.92	1.32	1.41
34	i	1654	U	O3'-P	-6.92	1.52	1.61
34	i	1583	A	O4'-C1'	6.92	1.50	1.41
34	i	988	A	C2'-C1'	-6.92	1.45	1.53
34	i	1211	C	O4'-C1'	6.91	1.50	1.41
34	i	489	G	C2'-C1'	-6.91	1.45	1.53
34	i	1717	G	O4'-C1'	6.91	1.50	1.41
34	i	1244	U	C2'-C1'	-6.90	1.45	1.53
34	i	1250	C	O4'-C1'	6.90	1.50	1.41
34	i	104	A	O4'-C1'	6.90	1.50	1.41
34	i	609	A	C2'-C1'	6.89	1.60	1.53
34	i	1696	C	O4'-C1'	6.89	1.50	1.41
34	i	812	A	C2'-C1'	-6.89	1.45	1.53
34	i	668	U	O4'-C1'	6.88	1.50	1.41
34	i	1125	G	C2'-C1'	-6.88	1.45	1.53
34	i	941	U	O4'-C1'	6.87	1.50	1.41
34	i	1419	C	C2'-C1'	-6.87	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	133	TYR	CB-CG	-6.87	1.41	1.51
34	i	556	U	C2'-C1'	6.87	1.60	1.53
34	i	818	U	C2'-C1'	-6.87	1.45	1.53
34	i	969	C	C5'-C4'	6.87	1.59	1.51
34	i	1681	G	C2'-C1'	-6.87	1.45	1.53
34	i	382	A	C2'-C1'	-6.87	1.45	1.53
34	i	418	U	C2'-C1'	6.87	1.60	1.53
34	i	1670	A	O4'-C1'	-6.86	1.32	1.41
34	i	1044	G	C5'-C4'	6.85	1.59	1.51
34	i	1072	G	C2'-C1'	-6.85	1.45	1.53
34	i	1723	U	O4'-C1'	6.85	1.50	1.41
34	i	434	G	O4'-C1'	-6.85	1.32	1.41
34	i	1039	G	O4'-C1'	6.85	1.50	1.41
34	i	46	A	C2'-C1'	-6.85	1.45	1.53
34	i	811	U	O4'-C1'	6.84	1.50	1.41
34	i	628	C	O4'-C1'	6.84	1.50	1.41
34	i	1378	A	O4'-C1'	6.84	1.50	1.41
24	X	126	ALA	CA-CB	-6.83	1.38	1.52
19	S	95	TYR	CE1-CZ	-6.83	1.29	1.38
34	i	1051	A	C5'-C4'	6.83	1.59	1.51
34	i	903	G	O4'-C1'	6.83	1.50	1.41
34	i	1734	C	C2'-C1'	-6.83	1.45	1.53
10	J	35	TYR	CE1-CZ	-6.82	1.29	1.38
34	i	172	U	O4'-C1'	6.82	1.50	1.41
34	i	320	G	C2'-C1'	-6.82	1.45	1.53
34	i	325	G	C2'-C1'	6.82	1.60	1.53
34	i	348	C	C2'-C1'	-6.82	1.45	1.53
34	i	1149	C	O4'-C1'	-6.81	1.32	1.41
34	i	913	U	C2'-C1'	6.81	1.60	1.53
34	i	983	A	O4'-C1'	6.81	1.50	1.41
34	i	147	A	O4'-C1'	-6.81	1.32	1.41
34	i	1707	A	O4'-C1'	6.81	1.50	1.41
34	i	59	U	C2'-C1'	6.80	1.60	1.53
24	X	128	VAL	CA-CB	-6.80	1.40	1.54
34	i	1018	U	O3'-P	-6.79	1.52	1.61
34	i	1843	G	C2'-C1'	-6.79	1.45	1.53
34	i	435	A	O4'-C1'	6.79	1.50	1.41
34	i	65	C	C2'-C1'	6.79	1.60	1.53
34	i	1051	A	O4'-C1'	6.79	1.50	1.41
34	i	1144	A	C2'-C1'	6.77	1.60	1.53
34	i	1691	C	C2'-C1'	-6.77	1.46	1.53
34	i	1514	U	C2'-C1'	6.76	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	470	G	O4'-C1'	6.76	1.50	1.41
34	i	674	G	C2'-C1'	-6.76	1.46	1.53
34	i	1805	C	C2'-C1'	-6.76	1.46	1.53
34	i	597	U	C2'-C1'	-6.75	1.46	1.53
34	i	264	U	O3'-P	-6.74	1.53	1.61
34	i	1232	G	C3'-C2'	6.74	1.60	1.52
10	J	163	SER	C-N	-6.74	1.21	1.34
34	i	1032	A	C2'-C1'	-6.73	1.46	1.53
34	i	1810	G	C2'-C1'	-6.73	1.46	1.53
7	G	157	VAL	CA-CB	-6.72	1.40	1.54
34	i	1031	A	O4'-C1'	6.72	1.50	1.41
34	i	896	C	O4'-C1'	6.72	1.50	1.41
34	i	9	U	O4'-C1'	6.72	1.50	1.41
34	i	30	C	C2'-C1'	-6.72	1.46	1.53
34	i	619	A	C2'-C1'	6.72	1.60	1.53
34	i	1842	U	C2'-C1'	-6.71	1.46	1.53
34	i	1452	G	O4'-C1'	6.71	1.50	1.41
34	i	996	C	O4'-C1'	6.70	1.50	1.41
34	i	1525	U	O4'-C1'	6.70	1.50	1.41
34	i	1797	U	O4'-C1'	6.69	1.50	1.41
34	i	314	U	O4'-C1'	-6.68	1.32	1.41
34	i	411	G	O3'-P	-6.67	1.53	1.61
34	i	1621	C	O4'-C1'	6.67	1.50	1.41
34	i	1735	C	C2'-C1'	-6.67	1.46	1.53
34	i	965	U	C2'-C1'	-6.66	1.46	1.53
34	i	467	G	C2'-C1'	-6.65	1.46	1.53
34	i	1836	C	C2'-C1'	-6.65	1.46	1.53
34	i	165	G	O4'-C1'	-6.65	1.33	1.41
34	i	1842	U	O4'-C1'	6.65	1.50	1.41
34	i	699	C	C5'-C4'	6.64	1.59	1.51
34	i	1737	C	O4'-C1'	6.64	1.50	1.41
34	i	438	A	C2'-C1'	6.64	1.60	1.53
34	i	1391	C	O4'-C1'	6.63	1.50	1.41
34	i	1702	U	C2'-C1'	-6.62	1.46	1.53
34	i	103	A	O4'-C1'	-6.62	1.33	1.41
34	i	946	C	C2'-C1'	-6.62	1.46	1.53
34	i	806	A	O4'-C1'	6.62	1.50	1.41
34	i	273	G	O4'-C1'	6.61	1.50	1.41
34	i	14	C	O4'-C1'	6.61	1.50	1.41
34	i	118	C	C2'-C1'	-6.61	1.46	1.53
34	i	1731	G	C2'-C1'	-6.60	1.46	1.53
34	i	1538	U	P-O5'	-6.60	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	513	A	O4'-C1'	6.59	1.50	1.41
34	i	442	G	C2'-C1'	-6.59	1.46	1.53
34	i	160	U	O4'-C1'	6.58	1.50	1.41
34	i	1311	U	C5'-C4'	6.58	1.59	1.51
34	i	928	G	C2'-C1'	-6.57	1.46	1.53
34	i	1667	U	C2'-C1'	-6.57	1.46	1.53
34	i	338	A	O4'-C1'	6.57	1.50	1.41
34	i	227	A	O4'-C1'	6.57	1.50	1.41
34	i	300	G	C2'-C1'	-6.57	1.46	1.53
34	i	1836	C	O4'-C1'	6.57	1.50	1.41
34	i	1712	C	O4'-C1'	6.56	1.50	1.41
34	i	205	G	O4'-C1'	6.56	1.50	1.41
34	i	1234	U	C2'-C1'	-6.56	1.46	1.53
34	i	1414	C	O4'-C1'	-6.56	1.33	1.41
3	C	72	PRO	N-CD	6.54	1.57	1.47
34	i	1203	G	O4'-C1'	6.54	1.50	1.41
34	i	1243	C	O4'-C1'	6.54	1.50	1.41
34	i	1121	C	O4'-C1'	6.53	1.50	1.41
34	i	397	G	C2'-C1'	6.52	1.60	1.53
34	i	494	G	C2'-C1'	-6.52	1.46	1.53
34	i	879	U	C5'-C4'	6.52	1.59	1.51
34	i	504	U	C2'-C1'	-6.52	1.46	1.53
19	S	95	TYR	CD2-CE2	-6.51	1.29	1.39
34	i	201	G	C2'-C1'	6.51	1.60	1.53
34	i	733	G	C2'-C1'	6.51	1.60	1.53
34	i	1479	A	C2'-C1'	6.51	1.60	1.53
34	i	1035	C	O4'-C1'	6.51	1.50	1.41
9	I	8	TRP	CD2-CE3	-6.51	1.30	1.40
34	i	799	C	O4'-C1'	6.51	1.50	1.41
34	i	1061	G	O4'-C1'	6.50	1.50	1.41
34	i	101	U	C2'-C1'	6.50	1.60	1.53
34	i	1392	A	O4'-C1'	-6.49	1.33	1.41
34	i	663	G	P-O5'	-6.48	1.53	1.59
34	i	1256	A	O3'-P	-6.48	1.53	1.61
34	i	1626	U	O4'-C1'	6.48	1.50	1.41
34	i	100	U	O4'-C1'	6.48	1.50	1.41
34	i	388	A	O4'-C1'	6.47	1.50	1.41
34	i	1610	U	O4'-C1'	6.46	1.50	1.41
34	i	421	G	C2'-C1'	-6.46	1.46	1.53
34	i	1797	U	C2'-C1'	-6.45	1.46	1.53
34	i	1840	G	O4'-C1'	6.45	1.50	1.41
34	i	1603	U	C2'-C1'	-6.45	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	958	A	C2'-C1'	6.44	1.60	1.53
26	Z	104	ARG	CD-NE	-6.44	1.35	1.46
34	i	1173	U	O4'-C1'	6.44	1.50	1.41
34	i	94	G	O4'-C1'	6.44	1.50	1.41
34	i	678	U	C2'-C1'	6.44	1.60	1.53
34	i	1278	A	O4'-C1'	6.43	1.50	1.41
34	i	1743	G	C2'-C1'	-6.43	1.46	1.53
34	i	471	C	O4'-C1'	6.43	1.50	1.41
34	i	892	U	O4'-C1'	6.42	1.50	1.41
34	i	1499	C	O4'-C1'	6.42	1.50	1.41
34	i	962	U	C2'-C1'	-6.42	1.46	1.53
34	i	1138	G	P-O5'	-6.42	1.53	1.59
18	R	89	SER	C-N	6.41	1.48	1.34
34	i	1121	C	C2'-C1'	-6.41	1.46	1.53
34	i	1233	C	P-O5'	-6.40	1.53	1.59
34	i	639	U	O4'-C1'	6.40	1.50	1.41
34	i	461	G	O4'-C1'	-6.39	1.33	1.41
34	i	1622	C	C2'-C1'	-6.39	1.46	1.53
34	i	139	C	C2'-C1'	6.39	1.60	1.53
34	i	1463	C	O4'-C1'	6.39	1.50	1.41
34	i	627	U	C2'-C1'	6.38	1.60	1.53
34	i	1047	G	C2'-C1'	-6.38	1.46	1.53
34	i	1569	C	O4'-C1'	6.37	1.50	1.41
34	i	1584	A	C2'-C1'	6.37	1.60	1.53
34	i	1634	G	O4'-C1'	6.37	1.50	1.41
34	i	1090	C	C2'-C1'	-6.37	1.46	1.53
34	i	469	C	O4'-C1'	6.37	1.50	1.41
34	i	273	G	C2'-C1'	-6.36	1.46	1.53
34	i	637	U	O4'-C1'	6.34	1.49	1.41
34	i	954	G	O4'-C1'	-6.34	1.33	1.41
34	i	583	C	C2'-C1'	-6.34	1.46	1.53
34	i	1030	A	C2'-C1'	6.34	1.60	1.53
34	i	1032	A	C5'-C4'	6.34	1.58	1.51
34	i	1102	C	O4'-C1'	6.33	1.49	1.41
34	i	795	U	C2'-C1'	-6.32	1.46	1.53
10	J	144	ILE	CA-CB	-6.32	1.40	1.54
34	i	349	U	C2'-C1'	-6.32	1.46	1.53
34	i	406	U	C2'-C1'	6.32	1.60	1.53
7	G	170	ARG	CA-C	-6.32	1.36	1.52
34	i	1799	G	C2'-C1'	-6.32	1.46	1.53
7	G	156	TYR	CB-CG	-6.31	1.42	1.51
34	i	404	A	O4'-C1'	6.31	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	997	A	C2'-C1'	6.31	1.60	1.53
34	i	826	A	C2'-C1'	6.31	1.60	1.53
17	Q	145	TYR	CD2-CE2	-6.30	1.29	1.39
34	i	567	U	O4'-C1'	6.30	1.49	1.41
34	i	370	G	O4'-C1'	-6.30	1.33	1.41
34	i	806	A	C2'-C1'	-6.30	1.46	1.53
34	i	1103	G	C2'-C1'	-6.29	1.46	1.53
10	J	101	LYS	N-CA	6.29	1.58	1.46
34	i	1280	A	C2'-C1'	-6.28	1.46	1.53
34	i	1444	A	O4'-C1'	6.28	1.49	1.41
34	i	528	U	C2'-C1'	-6.28	1.46	1.53
34	i	364	G	C2'-C1'	-6.27	1.46	1.53
34	i	1615	A	O4'-C1'	-6.27	1.33	1.41
34	i	1167	G	C5'-C4'	6.27	1.58	1.51
34	i	337	G	C2'-C1'	-6.27	1.46	1.53
5	E	150	PRO	N-CD	6.26	1.56	1.47
34	i	920	G	P-O5'	-6.26	1.53	1.59
34	i	1215	C	O4'-C1'	6.26	1.49	1.41
34	i	1684	C	O4'-C1'	6.26	1.49	1.41
34	i	1334	G	O4'-C1'	6.25	1.49	1.41
34	i	458	A	C2'-C1'	-6.25	1.46	1.53
34	i	1042	U	O4'-C1'	6.25	1.49	1.41
34	i	945	G	C2'-C1'	-6.24	1.46	1.53
34	i	969	C	C2'-C1'	-6.24	1.46	1.53
34	i	898	G	C2'-C1'	-6.24	1.46	1.53
34	i	1167	G	C2'-C1'	6.24	1.60	1.53
34	i	408	A	O4'-C1'	6.23	1.49	1.41
34	i	1427	G	O4'-C1'	6.22	1.49	1.41
34	i	994	A	C2'-C1'	6.22	1.60	1.53
4	D	20	GLU	CG-CD	6.22	1.61	1.51
34	i	1402	G	O4'-C1'	6.21	1.49	1.41
34	i	1085	G	O4'-C1'	6.21	1.49	1.41
34	i	1426	C	C2'-C1'	6.20	1.60	1.53
34	i	1657	U	O4'-C1'	6.20	1.49	1.41
34	i	1415	C	O4'-C1'	6.20	1.49	1.41
34	i	974	G	C2'-C1'	-6.20	1.46	1.53
34	i	1078	A	O4'-C1'	6.20	1.49	1.41
34	i	629	C	C2'-C1'	-6.18	1.46	1.53
34	i	793	C	O3'-P	-6.18	1.53	1.61
34	i	220	C	C2'-C1'	-6.18	1.46	1.53
34	i	1015	C	C4'-C3'	6.18	1.59	1.53
24	X	116	PRO	CA-C	6.18	1.65	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	195	PRO	N-CD	6.17	1.56	1.47
34	i	889	U	C2'-C1'	6.17	1.60	1.53
34	i	1476	A	C2'-C1'	-6.17	1.46	1.53
34	i	290	A	C2'-C1'	6.17	1.60	1.53
34	i	1710	A	O4'-C1'	6.17	1.49	1.41
34	i	1284	U	C5'-C4'	6.17	1.58	1.51
34	i	627	U	C5'-C4'	6.17	1.58	1.51
34	i	665	U	O4'-C1'	6.17	1.49	1.41
34	i	601	G	C2'-C1'	-6.17	1.46	1.53
34	i	33	G	O4'-C1'	6.16	1.49	1.41
34	i	1119	C	C5'-C4'	6.16	1.58	1.51
34	i	1739	G	C2'-C1'	6.16	1.60	1.53
34	i	1097	U	C2'-C1'	-6.15	1.46	1.53
34	i	342	U	C4'-C3'	-6.15	1.46	1.53
34	i	1628	A	C2'-C1'	-6.14	1.46	1.53
34	i	656	U	C2'-C1'	6.14	1.60	1.53
34	i	1093	G	O4'-C1'	-6.14	1.33	1.41
34	i	1426	C	P-O5'	-6.14	1.53	1.59
34	i	930	G	O4'-C1'	6.14	1.49	1.41
34	i	1652	G	P-O5'	-6.13	1.53	1.59
7	G	36	VAL	CB-CG2	-6.13	1.40	1.52
34	i	370	G	P-O5'	-6.13	1.53	1.59
34	i	1740	A	O4'-C1'	-6.13	1.33	1.41
34	i	1774	G	O4'-C1'	6.13	1.49	1.41
34	i	1845	A	O4'-C1'	6.13	1.49	1.41
34	i	335	U	O4'-C1'	6.12	1.49	1.41
34	i	494	G	C3'-C2'	-6.12	1.46	1.52
34	i	1852	G	C2'-C1'	-6.12	1.46	1.53
34	i	1032	A	O4'-C1'	6.11	1.49	1.41
34	i	175	A	O4'-C1'	6.11	1.49	1.41
34	i	749	C	C5'-C4'	6.11	1.58	1.51
34	i	934	A	C2'-C1'	-6.11	1.46	1.53
34	i	1753	G	C2'-C1'	-6.11	1.46	1.53
34	i	1652	G	C4'-C3'	6.11	1.59	1.53
34	i	1700	C	C2'-C1'	-6.10	1.46	1.53
34	i	1037	G	O4'-C1'	6.09	1.49	1.41
34	i	1791	U	P-O5'	-6.09	1.53	1.59
34	i	389	C	C2'-C1'	-6.09	1.46	1.53
34	i	477	U	C4'-C3'	6.07	1.59	1.53
34	i	1172	G	O4'-C1'	6.06	1.49	1.41
17	Q	145	TYR	CD1-CE1	-6.04	1.30	1.39
34	i	593	C	C2'-C1'	-6.04	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	356	U	O4'-C1'	6.04	1.49	1.41
34	i	545	A	C2'-C1'	-6.02	1.46	1.53
18	R	86	PRO	N-CD	6.02	1.56	1.47
18	R	111	PHE	CB-CG	-6.01	1.41	1.51
6	F	45	TYR	CB-CG	-6.01	1.42	1.51
34	i	1397	A	C2'-C1'	6.01	1.59	1.53
10	J	188	GLY	CA-C	6.00	1.61	1.51
34	i	656	U	O3'-P	-6.00	1.53	1.61
34	i	891	G	C2'-C1'	-6.00	1.46	1.53
34	i	351	U	C2'-C1'	6.00	1.59	1.53
34	i	1402	G	C5'-C4'	6.00	1.58	1.51
34	i	301	C	C2'-C1'	6.00	1.59	1.53
34	i	8	U	C2'-C1'	5.99	1.59	1.53
34	i	742	C	C5'-C4'	5.99	1.58	1.51
34	i	867	U	O4'-C1'	-5.98	1.33	1.41
34	i	1591	U	O4'-C1'	5.98	1.49	1.41
34	i	1564	A	C2'-C1'	5.98	1.59	1.53
34	i	1800	A	O4'-C1'	5.98	1.49	1.41
34	i	1502	A	O4'-C1'	5.97	1.49	1.41
34	i	155	G	P-O5'	-5.97	1.53	1.59
34	i	396	U	O4'-C1'	5.97	1.49	1.41
34	i	1804	U	O4'-C1'	5.97	1.49	1.41
34	i	146	G	C3'-O3'	5.97	1.50	1.42
34	i	472	G	C2'-C1'	-5.97	1.46	1.53
34	i	391	A	C2'-C1'	5.96	1.59	1.53
34	i	155	G	O4'-C1'	5.96	1.49	1.41
27	a	10	ARG	NE-CZ	5.96	1.40	1.33
34	i	170	A	O3'-P	-5.96	1.54	1.61
34	i	1604	C	P-O5'	-5.95	1.53	1.59
8	H	111	LYS	N-CA	5.95	1.58	1.46
34	i	1040	G	O4'-C1'	5.95	1.49	1.41
34	i	1332	C	P-O5'	-5.95	1.53	1.59
34	i	1066	A	O4'-C1'	5.95	1.49	1.41
34	i	529	C	C2'-C1'	-5.95	1.46	1.53
34	i	1016	A	C5'-C4'	5.94	1.58	1.51
34	i	1582	G	O4'-C1'	-5.94	1.33	1.41
32	f	85	TYR	CE2-CZ	-5.93	1.30	1.38
34	i	797	U	P-O5'	-5.93	1.53	1.59
34	i	804	A	O3'-P	-5.93	1.54	1.61
7	G	131	ARG	C-O	-5.93	1.12	1.23
34	i	565	A	C2'-C1'	-5.92	1.46	1.53
34	i	1311	U	O4'-C1'	-5.92	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1667	U	P-O5'	-5.92	1.53	1.59
10	J	187	ALA	CA-C	5.92	1.68	1.52
34	i	83	A	C2'-C1'	-5.92	1.46	1.53
4	D	4	GLN	C-N	-5.92	1.20	1.34
34	i	1641	C	C4'-O4'	-5.91	1.37	1.45
34	i	214	A	C2'-C1'	-5.91	1.46	1.53
34	i	410	G	O4'-C1'	-5.91	1.33	1.41
34	i	439	A	C5'-C4'	5.91	1.58	1.51
34	i	1132	U	O4'-C1'	5.91	1.49	1.41
34	i	279	G	C2'-C1'	5.91	1.59	1.53
34	i	1161	G	C2'-C1'	5.91	1.59	1.53
34	i	1730	A	O4'-C1'	5.90	1.49	1.41
34	i	990	C	O4'-C1'	5.90	1.49	1.41
34	i	1373	U	C2'-C1'	-5.89	1.46	1.53
34	i	1809	A	O4'-C1'	5.89	1.49	1.41
5	E	130	PHE	CB-CG	-5.88	1.41	1.51
34	i	106	C	C2'-C1'	-5.88	1.46	1.53
34	i	1415	C	O3'-P	-5.88	1.54	1.61
34	i	68	A	O4'-C1'	5.88	1.49	1.41
34	i	1246	A	C2'-C1'	5.88	1.59	1.53
34	i	449	C	C5'-C4'	5.87	1.58	1.51
34	i	1264	C	C2'-C1'	-5.87	1.46	1.53
35	l	100	ILE	CA-CB	5.87	1.68	1.54
34	i	210	G	C2'-C1'	5.87	1.59	1.53
34	i	1556	A	O4'-C1'	5.86	1.49	1.41
34	i	795	U	C3'-C2'	5.85	1.59	1.52
24	X	23	HIS	N-CA	-5.85	1.34	1.46
34	i	566	A	O4'-C1'	5.85	1.49	1.41
34	i	343	C	O3'-P	-5.85	1.54	1.61
34	i	1296	U	C2'-C1'	5.85	1.59	1.53
34	i	819	U	O4'-C1'	-5.85	1.34	1.41
34	i	1633	G	C2'-C1'	-5.84	1.47	1.53
34	i	1523	G	O4'-C1'	-5.84	1.34	1.41
34	i	1048	A	O3'-P	-5.84	1.54	1.61
34	i	649	G	C2'-C1'	5.83	1.59	1.53
34	i	1577	C	C5'-C4'	5.83	1.58	1.51
34	i	1650	C	C2'-C1'	-5.83	1.47	1.53
34	i	647	U	O4'-C1'	5.83	1.49	1.41
34	i	1821	U	O4'-C1'	5.83	1.49	1.41
34	i	1414	C	O3'-P	-5.82	1.54	1.61
34	i	1599	G	C3'-C2'	-5.82	1.46	1.52
34	i	1845	A	C2'-C1'	5.82	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	231	C	O4'-C1'	5.82	1.49	1.41
34	i	602	U	C2'-C1'	-5.82	1.47	1.53
34	i	1515	G	C4'-C3'	5.82	1.59	1.53
34	i	1830	G	C2'-C1'	-5.81	1.47	1.53
34	i	1544	U	O4'-C1'	5.81	1.49	1.41
23	W	129	PHE	CB-CG	-5.81	1.41	1.51
34	i	318	U	O4'-C1'	5.80	1.49	1.41
34	i	825	C	O3'-P	-5.80	1.54	1.61
34	i	787	C	C5'-C4'	5.80	1.58	1.51
34	i	1412	C	C2'-C1'	-5.80	1.47	1.53
34	i	366	A	C2'-C1'	-5.80	1.47	1.53
34	i	306	C	O4'-C1'	5.79	1.49	1.41
34	i	1776	G	C2'-C1'	-5.79	1.47	1.53
34	i	1232	G	C2'-C1'	-5.79	1.47	1.53
34	i	1439	C	O4'-C1'	5.79	1.49	1.41
34	i	1073	A	O4'-C1'	5.78	1.49	1.41
34	i	1567	C	C2'-C1'	-5.78	1.47	1.53
34	i	1639	C	O4'-C1'	5.78	1.49	1.41
34	i	1567	C	O4'-C1'	5.78	1.49	1.41
34	i	1647	G	O4'-C1'	5.78	1.49	1.41
34	i	2	A	O4'-C1'	5.77	1.49	1.41
34	i	224	U	C5'-C4'	5.77	1.58	1.51
34	i	1014	U	O4'-C1'	5.77	1.49	1.41
34	i	805	A	O4'-C1'	5.77	1.49	1.41
34	i	1324	G	O4'-C1'	5.76	1.49	1.41
31	e	77	HIS	C-N	5.76	1.43	1.33
34	i	1394	G	O4'-C1'	5.76	1.49	1.41
34	i	314	U	O3'-P	-5.76	1.54	1.61
34	i	589	A	O4'-C1'	5.75	1.49	1.41
34	i	1777	C	C2'-C1'	-5.75	1.47	1.53
34	i	834	G	C2'-C1'	-5.75	1.47	1.53
34	i	1487	G	O4'-C1'	5.74	1.49	1.41
34	i	1618	A	O4'-C1'	-5.74	1.34	1.41
34	i	97	U	C2'-C1'	-5.74	1.47	1.53
34	i	550	A	C2'-C1'	-5.74	1.47	1.53
34	i	54	A	C5'-C4'	5.72	1.58	1.51
34	i	1658	A	O4'-C1'	5.72	1.49	1.41
34	i	1335	U	C2'-C1'	-5.72	1.47	1.53
34	i	282	G	O4'-C1'	5.71	1.49	1.41
34	i	1662	U	C2'-C1'	-5.71	1.47	1.53
34	i	911	G	O4'-C1'	-5.71	1.34	1.41
34	i	18	C	O3'-P	-5.71	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	285	U	C2'-C1'	-5.71	1.47	1.53
12	L	103	GLU	CG-CD	5.71	1.60	1.51
34	i	1379	A	O4'-C1'	5.71	1.49	1.41
34	i	743	U	C2'-C1'	-5.70	1.47	1.53
34	i	1310	U	O4'-C1'	-5.70	1.34	1.41
34	i	883	U	C5'-C4'	5.69	1.58	1.51
34	i	721	C	P-O5'	5.69	1.65	1.59
34	i	1494	A	C4'-C3'	-5.69	1.46	1.52
34	i	1473	U	O4'-C1'	5.69	1.49	1.41
34	i	1609	A	C2'-C1'	-5.69	1.47	1.53
34	i	1727	G	C2'-C1'	-5.69	1.47	1.53
34	i	319	G	C2'-C1'	-5.68	1.47	1.53
34	i	1799	G	C5'-C4'	5.68	1.58	1.51
32	f	136	PHE	CB-CG	-5.68	1.41	1.51
34	i	1272	A	P-O5'	-5.68	1.54	1.59
34	i	98	C	O4'-C1'	5.68	1.49	1.41
34	i	1760	C	C4'-C3'	5.68	1.59	1.53
34	i	211	U	C2'-C1'	-5.67	1.47	1.53
34	i	1789	G	C2'-C1'	-5.67	1.47	1.53
9	I	6	ASP	N-CA	-5.66	1.35	1.46
11	K	40	VAL	CB-CG1	-5.66	1.41	1.52
34	i	428	G	O3'-P	-5.66	1.54	1.61
31	e	97	GLU	CG-CD	-5.65	1.43	1.51
34	i	77	A	C4'-C3'	5.65	1.59	1.53
34	i	415	G	P-O5'	-5.64	1.54	1.59
34	i	796	U	P-O5'	-5.64	1.54	1.59
34	i	1725	U	O4'-C1'	5.64	1.49	1.41
34	i	562	U	C2'-C1'	5.64	1.59	1.53
34	i	1641	C	C5'-C4'	5.64	1.58	1.51
34	i	1564	A	P-O5'	-5.64	1.54	1.59
34	i	644	A	O4'-C1'	5.64	1.49	1.41
34	i	152	U	C5'-C4'	5.64	1.58	1.51
34	i	1038	A	O4'-C1'	5.63	1.49	1.41
34	i	854	A	O4'-C1'	5.63	1.49	1.41
34	i	1711	C	C2'-C1'	-5.63	1.47	1.53
10	J	188	GLY	N-CA	5.63	1.54	1.46
34	i	336	C	P-O5'	-5.63	1.54	1.59
8	H	67	PRO	N-CD	5.62	1.55	1.47
34	i	654	A	O4'-C1'	5.62	1.49	1.41
34	i	1696	C	C5'-C4'	5.62	1.58	1.51
34	i	818	U	C4'-C3'	5.62	1.59	1.53
32	f	148	TYR	CD1-CE1	-5.62	1.30	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	l	67	PHE	CB-CG	-5.62	1.41	1.51
34	i	1712	C	C2'-C1'	-5.61	1.47	1.53
34	i	1833	U	O3'-P	-5.61	1.54	1.61
12	L	102	PHE	C-O	5.61	1.34	1.23
17	Q	145	TYR	CB-CG	-5.61	1.43	1.51
34	i	1415	C	C2'-C1'	5.60	1.59	1.53
34	i	1680	U	C5'-C4'	5.60	1.58	1.51
34	i	794	G	O3'-P	-5.60	1.54	1.61
34	i	1702	U	O4'-C1'	5.60	1.49	1.41
34	i	374	U	O4'-C1'	5.60	1.49	1.41
34	i	99	A	P-O5'	-5.60	1.54	1.59
34	i	731	C	C2'-C1'	-5.60	1.47	1.53
34	i	325	G	C4'-C3'	5.59	1.59	1.53
34	i	669	A	C2'-C1'	-5.59	1.47	1.53
34	i	21	U	C2'-C1'	5.59	1.59	1.53
34	i	1356	U	C2'-C1'	-5.59	1.47	1.53
34	i	408	A	C5'-C4'	5.58	1.58	1.51
34	i	910	U	C2'-C1'	5.58	1.59	1.53
34	i	1424	G	O4'-C1'	-5.58	1.34	1.41
34	i	574	A	O4'-C1'	5.58	1.49	1.41
34	i	586	U	C2'-C1'	-5.58	1.47	1.53
34	i	1366	A	O4'-C1'	5.58	1.48	1.41
34	i	402	G	C5'-C4'	5.57	1.58	1.51
34	i	914	U	O4'-C1'	5.57	1.48	1.41
34	i	1218	G	O4'-C1'	5.57	1.48	1.41
34	i	307	G	C2'-C1'	-5.57	1.47	1.53
34	i	189	G	C3'-C2'	-5.57	1.46	1.52
34	i	1529	C	O4'-C1'	5.57	1.48	1.41
34	i	272	C	O3'-P	-5.56	1.54	1.61
10	J	187	ALA	N-CA	5.56	1.57	1.46
34	i	36	U	O4'-C1'	5.56	1.48	1.41
34	i	1780	U	C2'-C1'	-5.56	1.47	1.53
34	i	753	C	C2'-C1'	-5.55	1.47	1.53
34	i	1196	A	C2'-C1'	-5.55	1.47	1.53
34	i	93	U	C2'-C1'	5.55	1.59	1.53
34	i	1726	A	O4'-C1'	5.55	1.48	1.41
34	i	312	C	C2'-C1'	-5.55	1.47	1.53
34	i	1026	A	C2'-C1'	5.55	1.59	1.53
34	i	469	C	C2'-C1'	-5.54	1.47	1.53
34	i	472	G	O4'-C1'	-5.54	1.34	1.41
34	i	962	U	O4'-C1'	5.54	1.48	1.41
34	i	1248	C	O4'-C1'	5.53	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	976	A	O4'-C1'	5.53	1.48	1.41
34	i	1332	C	C2'-C1'	-5.53	1.47	1.53
34	i	390	C	C5'-C4'	5.53	1.57	1.51
34	i	45	A	C2'-C1'	-5.52	1.47	1.53
34	i	73	C	O4'-C1'	5.52	1.48	1.41
34	i	497	G	C5'-C4'	5.52	1.57	1.51
34	i	1419	C	C5'-C4'	5.52	1.57	1.51
34	i	401	G	C2'-C1'	-5.51	1.47	1.53
34	i	1390	G	C4'-O4'	5.51	1.52	1.45
34	i	281	U	O3'-P	-5.51	1.54	1.61
34	i	317	G	C5'-C4'	5.51	1.57	1.51
18	R	42	PRO	N-CD	5.50	1.55	1.47
34	i	1821	U	C2'-C1'	-5.50	1.47	1.53
34	i	112	U	O3'-P	-5.50	1.54	1.61
34	i	44	U	C2'-C1'	-5.48	1.47	1.53
34	i	94	G	O3'-P	-5.48	1.54	1.61
34	i	1812	A	C5'-C4'	5.48	1.57	1.51
34	i	1829	A	C2'-C1'	-5.48	1.47	1.53
34	i	1375	A	O4'-C1'	5.48	1.48	1.41
34	i	1373	U	O4'-C1'	5.48	1.48	1.41
34	i	343	C	P-O5'	-5.47	1.54	1.59
34	i	585	U	C2'-C1'	-5.46	1.47	1.53
34	i	1533	C	O3'-P	-5.46	1.54	1.61
34	i	1665	C	O4'-C1'	5.46	1.48	1.41
34	i	87	U	O4'-C1'	5.46	1.48	1.41
34	i	188	U	O4'-C1'	5.46	1.48	1.41
34	i	1730	A	C2'-C1'	-5.46	1.47	1.53
34	i	221	A	O4'-C1'	5.46	1.48	1.41
34	i	387	G	O4'-C1'	5.46	1.48	1.41
34	i	1124	C	O3'-P	-5.45	1.54	1.61
34	i	1523	G	P-O5'	-5.45	1.54	1.59
11	K	89	ILE	N-CA	-5.45	1.35	1.46
34	i	32	U	C2'-C1'	5.45	1.59	1.53
34	i	112	U	C5'-C4'	5.45	1.57	1.51
34	i	430	G	C2'-C1'	-5.45	1.47	1.53
34	i	817	G	O3'-P	-5.45	1.54	1.61
34	i	1334	G	P-O5'	-5.45	1.54	1.59
34	i	1412	C	O3'-P	-5.45	1.54	1.61
9	I	8	TRP	CB-CG	5.45	1.60	1.50
34	i	360	G	C4'-C3'	5.45	1.59	1.53
34	i	1709	U	O4'-C1'	5.44	1.48	1.41
34	i	955	G	O4'-C1'	5.44	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	34	U	C5'-C4'	5.44	1.57	1.51
34	i	1172	G	C2'-C1'	-5.44	1.47	1.53
34	i	1382	A	C5'-C4'	5.44	1.57	1.51
34	i	457	G	C2'-C1'	-5.44	1.47	1.53
34	i	403	G	C2'-C1'	-5.44	1.47	1.53
34	i	186	G	O4'-C1'	5.43	1.48	1.41
34	i	1370	C	C2'-C1'	-5.43	1.47	1.53
34	i	267	G	O3'-P	-5.43	1.54	1.61
34	i	418	U	O4'-C1'	-5.43	1.34	1.41
34	i	1673	A	O4'-C1'	-5.43	1.34	1.41
34	i	217	U	P-O5'	-5.43	1.54	1.59
34	i	1302	U	C2'-C1'	-5.43	1.47	1.53
34	i	1764	G	C5'-C4'	5.43	1.57	1.51
34	i	1847	C	P-O5'	-5.43	1.54	1.59
34	i	1718	G	O4'-C1'	-5.42	1.34	1.41
35	l	100	ILE	N-CA	5.42	1.57	1.46
34	i	965	U	C5'-C4'	5.42	1.57	1.51
34	i	978	G	C2'-C1'	-5.42	1.47	1.53
34	i	1445	G	O4'-C1'	5.42	1.48	1.41
34	i	427	G	C2'-C1'	-5.41	1.47	1.53
7	G	180	VAL	CA-CB	-5.41	1.43	1.54
34	i	577	A	C2'-C1'	-5.41	1.47	1.53
34	i	687	G	C2'-C1'	-5.41	1.47	1.53
10	J	144	ILE	C-N	5.41	1.44	1.34
34	i	145	G	O4'-C1'	5.40	1.48	1.41
34	i	1848	U	C2'-C1'	5.40	1.59	1.53
34	i	290	A	C3'-C2'	-5.39	1.46	1.52
34	i	752	C	C2'-C1'	-5.39	1.47	1.53
34	i	1862	U	C4'-C3'	5.39	1.59	1.53
34	i	395	G	O4'-C1'	5.39	1.48	1.41
34	i	573	A	O4'-C1'	5.39	1.48	1.41
34	i	82	G	O3'-P	-5.38	1.54	1.61
34	i	308	C	P-O5'	-5.38	1.54	1.59
34	i	346	C	C2'-C1'	-5.38	1.47	1.53
34	i	1167	G	O3'-P	-5.38	1.54	1.61
35	l	66	LYS	CB-CG	-5.38	1.38	1.52
11	K	37	ASP	CB-CG	5.38	1.63	1.51
34	i	1523	G	C5'-C4'	-5.38	1.44	1.51
34	i	979	A	O4'-C1'	5.37	1.48	1.41
34	i	1400	U	C4'-C3'	5.37	1.59	1.53
34	i	867	U	C3'-O3'	5.37	1.49	1.42
34	i	1819	A	O4'-C1'	-5.37	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	942	U	C2'-C1'	-5.37	1.47	1.53
34	i	1076	A	O3'-P	-5.37	1.54	1.61
34	i	645	A	C5'-C4'	5.36	1.57	1.51
34	i	460	G	O4'-C1'	5.36	1.48	1.41
34	i	1405	A	C5'-C4'	5.36	1.57	1.51
34	i	1365	A	O4'-C1'	5.35	1.48	1.41
34	i	1636	A	O3'-P	-5.35	1.54	1.61
34	i	782	G	C2'-C1'	-5.35	1.47	1.53
34	i	1064	G	C2'-C1'	-5.35	1.47	1.53
34	i	520	U	O3'-P	-5.35	1.54	1.61
34	i	1637	U	C2'-C1'	5.35	1.59	1.53
26	Z	104	ARG	N-CA	-5.34	1.35	1.46
34	i	1416	G	O4'-C1'	5.34	1.48	1.41
34	i	629	C	O4'-C1'	5.34	1.48	1.41
34	i	1503	G	O3'-P	-5.34	1.54	1.61
2	B	155	TYR	CD1-CE1	-5.34	1.31	1.39
34	i	1708	C	C2'-C1'	-5.33	1.47	1.53
34	i	1395	C	C2'-C1'	-5.33	1.47	1.53
34	i	1068	U	O4'-C1'	5.33	1.48	1.41
34	i	1287	A	C2'-C1'	5.33	1.59	1.53
34	i	1795	A	C5'-C4'	5.33	1.57	1.51
12	L	20	LYS	N-CA	-5.32	1.35	1.46
7	G	169	PRO	N-CD	5.32	1.55	1.47
8	H	111	LYS	CA-CB	5.32	1.65	1.53
34	i	98	C	C4'-C3'	5.32	1.58	1.53
34	i	1009	U	O4'-C1'	5.31	1.48	1.41
34	i	626	C	P-O5'	-5.30	1.54	1.59
34	i	1439	C	O3'-P	-5.30	1.54	1.61
34	i	1070	C	O4'-C1'	5.30	1.48	1.41
34	i	801	U	C2'-C1'	-5.30	1.47	1.53
34	i	1130	G	C2'-C1'	-5.30	1.47	1.53
34	i	1462	G	O3'-P	-5.29	1.54	1.61
34	i	78	C	C3'-C2'	5.29	1.58	1.52
34	i	662	A	C4'-C3'	5.29	1.58	1.53
34	i	1146	A	C5'-C4'	5.29	1.57	1.51
34	i	1418	G	C2'-C1'	5.29	1.59	1.53
34	i	839	C	O3'-P	-5.28	1.54	1.61
34	i	1667	U	O4'-C1'	5.28	1.48	1.41
34	i	1504	A	O4'-C1'	-5.28	1.34	1.41
13	M	116	LYS	N-CA	5.27	1.56	1.46
27	a	97	PRO	CA-C	5.27	1.63	1.52
34	i	935	U	C5'-C4'	5.26	1.57	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1056	A	C2'-C1'	-5.26	1.47	1.53
34	i	266	G	C5'-C4'	5.26	1.57	1.51
34	i	1119	C	O4'-C1'	5.26	1.48	1.41
34	i	1260	C	O3'-P	-5.26	1.54	1.61
34	i	1704	G	C2'-C1'	-5.25	1.47	1.53
34	i	241	A	C2'-C1'	5.25	1.59	1.53
34	i	1372	A	C3'-C2'	-5.25	1.47	1.52
34	i	730	C	O3'-P	-5.25	1.54	1.61
34	i	1341	G	C2'-C1'	-5.25	1.47	1.53
34	i	1638	U	C2'-C1'	-5.25	1.47	1.53
34	i	1363	U	C2'-C1'	-5.24	1.47	1.53
34	i	139	C	O3'-P	-5.24	1.54	1.61
34	i	1088	G	O4'-C1'	5.24	1.48	1.41
34	i	1649	G	C2'-C1'	-5.24	1.47	1.53
34	i	667	G	O4'-C1'	5.24	1.48	1.41
34	i	1027	A	C2'-C1'	-5.24	1.47	1.53
34	i	1311	U	C2'-C1'	5.24	1.59	1.53
34	i	978	G	C5'-C4'	5.23	1.57	1.51
34	i	553	G	C5'-C4'	5.23	1.57	1.51
34	i	1627	G	O4'-C1'	-5.23	1.34	1.41
34	i	1818	A	C3'-C2'	5.23	1.58	1.52
34	i	1314	G	C2'-C1'	-5.23	1.47	1.53
11	K	35	LEU	N-CA	-5.23	1.35	1.46
34	i	102	A	O3'-P	-5.22	1.54	1.61
34	i	411	G	C2'-C1'	-5.22	1.47	1.53
34	i	643	A	C2'-C1'	-5.21	1.47	1.53
34	i	1264	C	P-O5'	-5.21	1.54	1.59
34	i	828	G	C2'-C1'	-5.21	1.47	1.53
34	i	1346	U	O4'-C1'	5.21	1.48	1.41
34	i	394	G	C5'-C4'	5.21	1.57	1.51
34	i	288	A	C5'-C4'	5.20	1.57	1.51
34	i	308	C	C2'-C1'	-5.20	1.47	1.53
34	i	901	C	C2'-C1'	-5.20	1.47	1.53
24	X	139	GLU	CB-CG	5.20	1.62	1.52
34	i	484	C	C5'-C4'	5.20	1.57	1.51
34	i	1141	A	C2'-C1'	5.20	1.59	1.53
34	i	1695	C	C2'-C1'	5.20	1.59	1.53
34	i	742	C	O4'-C1'	5.19	1.48	1.41
6	F	130	ARG	N-CA	5.19	1.56	1.46
34	i	1406	C	C4'-O4'	-5.19	1.38	1.45
34	i	1768	C	O4'-C1'	5.19	1.48	1.41
34	i	1543	G	C4'-C3'	-5.19	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	542	G	O4'-C1'	5.18	1.48	1.41
34	i	861	A	C5'-C4'	5.18	1.57	1.51
34	i	1657	U	C2'-C1'	-5.18	1.47	1.53
34	i	1766	C	C3'-C2'	-5.18	1.47	1.52
34	i	1380	C	O4'-C1'	5.18	1.48	1.41
34	i	1689	U	C5'-C4'	5.17	1.57	1.51
34	i	51	U	P-O5'	-5.17	1.54	1.59
34	i	766	U	C5'-C4'	5.17	1.57	1.51
34	i	151	C	C2'-C1'	-5.17	1.47	1.53
34	i	1094	C	O4'-C1'	5.17	1.48	1.41
34	i	1775	A	C5'-C4'	5.17	1.57	1.51
11	K	93	THR	CA-C	5.17	1.66	1.52
34	i	1563	C	C5'-C4'	5.17	1.57	1.51
3	C	182	PRO	N-CD	5.16	1.55	1.47
34	i	1549	C	O3'-P	-5.16	1.54	1.61
34	i	116	U	O4'-C1'	5.16	1.48	1.41
34	i	1339	U	C2'-C1'	-5.16	1.47	1.53
34	i	1858	U	P-O5'	-5.16	1.54	1.59
26	Z	104	ARG	CG-CD	5.16	1.64	1.51
34	i	597	U	O4'-C1'	5.16	1.48	1.41
34	i	672	U	P-O5'	-5.16	1.54	1.59
34	i	1695	C	O4'-C1'	5.16	1.48	1.41
34	i	90	G	O4'-C1'	5.15	1.48	1.41
34	i	83	A	O4'-C1'	5.15	1.48	1.41
34	i	1039	G	C5'-C4'	5.15	1.57	1.51
34	i	216	U	C5'-C4'	5.14	1.57	1.51
24	X	115	ILE	CA-C	-5.14	1.39	1.52
34	i	1199	G	O4'-C1'	5.14	1.48	1.41
34	i	1148	U	O4'-C1'	5.14	1.48	1.41
34	i	1574	A	P-O5'	-5.14	1.54	1.59
34	i	113	G	C4'-C3'	5.14	1.58	1.53
34	i	1420	G	C5'-C4'	5.14	1.57	1.51
34	i	683	G	C4'-O4'	5.13	1.52	1.45
34	i	1609	A	P-O5'	-5.13	1.54	1.59
34	i	394	G	O4'-C1'	-5.13	1.34	1.41
11	K	31	LYS	N-CA	-5.13	1.36	1.46
34	i	176	U	P-O5'	-5.13	1.54	1.59
34	i	659	A	C2'-C1'	5.13	1.58	1.53
34	i	21	U	O4'-C1'	5.13	1.48	1.41
2	B	41	ILE	N-CA	-5.12	1.36	1.46
26	Z	104	ARG	CB-CG	-5.12	1.38	1.52
34	i	917	G	O4'-C1'	5.12	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1235	U	O3'-P	-5.12	1.55	1.61
34	i	1540	A	C2'-C1'	-5.12	1.47	1.53
34	i	1168	U	O3'-P	-5.12	1.55	1.61
34	i	790	A	C2'-C1'	-5.12	1.47	1.53
19	S	6	PRO	N-CA	5.12	1.55	1.47
34	i	1808	G	C5'-C4'	5.12	1.57	1.51
34	i	1713	G	P-O5'	-5.11	1.54	1.59
34	i	1538	U	O4'-C1'	5.11	1.48	1.41
2	B	155	TYR	CD2-CE2	-5.11	1.31	1.39
34	i	281	U	C2'-C1'	5.11	1.58	1.53
34	i	878	U	C4'-C3'	5.11	1.58	1.53
34	i	140	U	C2'-C1'	-5.11	1.47	1.53
34	i	1242	A	C2'-C1'	-5.10	1.47	1.53
34	i	1761	C	C4'-C3'	5.10	1.58	1.53
20	T	82	ARG	CD-NE	5.10	1.55	1.46
34	i	659	A	O3'-P	-5.10	1.55	1.61
34	i	1029	G	O3'-P	-5.10	1.55	1.61
34	i	1466	C	C2'-C1'	-5.10	1.47	1.53
34	i	1546	U	O3'-P	-5.10	1.55	1.61
12	L	152	LYS	C-N	5.10	1.45	1.34
34	i	543	U	P-O5'	-5.09	1.54	1.59
34	i	1339	U	O3'-P	-5.09	1.55	1.61
34	i	95	G	O4'-C1'	5.09	1.48	1.41
34	i	1358	U	O4'-C1'	-5.09	1.35	1.41
34	i	1570	G	O4'-C1'	-5.09	1.35	1.41
34	i	853	U	P-O5'	5.09	1.64	1.59
34	i	1477	G	O3'-P	-5.08	1.55	1.61
34	i	1618	A	C4'-C3'	-5.08	1.47	1.52
34	i	1328	A	P-O5'	-5.08	1.54	1.59
34	i	16	G	P-O5'	-5.07	1.54	1.59
27	a	108	PRO	N-CD	5.07	1.54	1.47
34	i	1680	U	C2'-C1'	-5.07	1.47	1.53
34	i	1776	G	C5'-C4'	5.07	1.57	1.51
10	J	89	GLU	CG-CD	-5.07	1.44	1.51
34	i	910	U	O4'-C1'	5.06	1.48	1.41
1	A	53	ARG	CA-CB	-5.06	1.42	1.53
34	i	1157	U	C2'-C1'	5.06	1.58	1.53
24	X	128	VAL	CB-CG1	-5.06	1.42	1.52
34	i	1279	C	O3'-P	-5.06	1.55	1.61
34	i	1075	C	C5'-C4'	5.06	1.57	1.51
18	R	89	SER	N-CA	5.06	1.56	1.46
34	i	34	U	O4'-C1'	5.05	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	931	G	C2'-C1'	5.05	1.58	1.53
22	V	33	PRO	N-CD	5.05	1.54	1.47
34	i	1417	A	O4'-C1'	5.04	1.48	1.41
34	i	1792	C	C5'-C4'	5.04	1.57	1.51
34	i	1846	C	C2'-C1'	-5.04	1.47	1.53
34	i	1602	A	O4'-C1'	5.04	1.48	1.41
34	i	411	G	O4'-C1'	-5.03	1.35	1.41
34	i	1592	C	C4'-O4'	-5.03	1.39	1.45
34	i	1643	G	O3'-P	-5.03	1.55	1.61
34	i	1575	A	C2'-C1'	-5.03	1.47	1.53
34	i	665	U	C2'-C1'	-5.03	1.47	1.53
34	i	735	C	O3'-P	-5.03	1.55	1.61
34	i	79	A	C5'-C4'	5.03	1.57	1.51
34	i	461	G	C2'-C1'	5.03	1.58	1.53
34	i	741	C	C5'-C4'	5.03	1.57	1.51
34	i	851	G	O3'-P	-5.03	1.55	1.61
34	i	1344	G	C2'-C1'	5.03	1.58	1.53
34	i	1084	U	C4'-C3'	5.02	1.58	1.53
34	i	1429	C	O3'-P	5.02	1.67	1.61
34	i	349	U	C5'-C4'	5.02	1.57	1.51
34	i	1232	G	C4'-C3'	-5.02	1.47	1.52
34	i	1601	G	O4'-C1'	-5.02	1.35	1.41
34	i	1391	C	C5'-C4'	5.02	1.57	1.51
34	i	1541	G	O4'-C1'	-5.02	1.35	1.41
34	i	951	A	C5'-C4'	5.01	1.57	1.51
1	A	200	ASP	CA-C	-5.01	1.40	1.52
34	i	600	G	P-O5'	-5.01	1.54	1.59
34	i	1206	G	O4'-C1'	-5.01	1.35	1.41
34	i	1397	A	C5'-C4'	5.01	1.57	1.51
34	i	689	G	C2'-C1'	-5.01	1.47	1.53
34	i	1223	G	C5'-C4'	5.01	1.57	1.51
34	i	651	U	C5'-C4'	5.01	1.57	1.51
34	i	1102	C	C5'-C4'	5.01	1.57	1.51
34	i	178	C	C3'-O3'	5.01	1.49	1.42
26	Z	103	HIS	C-N	-5.00	1.22	1.34
34	i	384	G	C2'-C1'	-5.00	1.47	1.53
34	i	1344	G	O3'-P	-5.00	1.55	1.61
34	i	278	U	C5'-C4'	5.00	1.57	1.51

All (3278) bond angle outliers are listed below:

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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	42.64	141.62	120.30
34	i	1774	G	P-O3'-C3'	38.29	165.65	119.70
34	i	1114	C	O4'-C1'-N1	35.27	136.41	108.20
34	i	582	C	O4'-C1'-N1	32.57	134.25	108.20
34	i	67	C	O4'-C1'-N1	31.31	133.25	108.20
34	i	72	C	O4'-C1'-N1	30.29	132.43	108.20
8	H	118	ARG	NE-CZ-NH1	29.62	135.11	120.30
34	i	678	U	O4'-C1'-N1	29.21	131.57	108.20
34	i	1548	C	O4'-C1'-N1	28.75	131.20	108.20
34	i	883	U	P-O3'-C3'	28.32	153.68	119.70
34	i	793	C	O4'-C1'-N1	28.23	130.78	108.20
34	i	1299	C	O4'-C1'-N1	27.78	130.43	108.20
34	i	1113	C	O4'-C1'-N1	27.55	130.24	108.20
34	i	1080	A	P-O3'-C3'	27.24	152.39	119.70
34	i	418	U	O4'-C1'-N1	27.23	129.99	108.20
34	i	1817	A	P-O3'-C3'	27.21	152.35	119.70
34	i	521	A	P-O3'-C3'	26.70	151.74	119.70
34	i	746	C	P-O3'-C3'	26.22	151.16	119.70
34	i	1105	C	O4'-C1'-N1	25.58	128.66	108.20
34	i	1311	U	O4'-C1'-N1	25.24	128.39	108.20
34	i	1392	A	O4'-C1'-N9	24.84	128.07	108.20
34	i	1627	G	P-O3'-C3'	24.28	148.84	119.70
34	i	867	U	O4'-C1'-N1	24.19	127.55	108.20
34	i	730	C	P-O3'-C3'	23.87	148.34	119.70
34	i	317	G	P-O3'-C3'	23.76	148.22	119.70
34	i	1470	A	P-O3'-C3'	23.71	148.15	119.70
34	i	1564	A	O4'-C1'-N9	23.47	126.98	108.20
34	i	165	G	O4'-C1'-N9	23.24	126.79	108.20
34	i	1150	U	O4'-C1'-N1	23.19	126.75	108.20
34	i	66	G	P-O3'-C3'	23.06	147.37	119.70
34	i	1472	A	O4'-C1'-N9	23.00	126.60	108.20
34	i	211	U	P-O3'-C3'	22.86	147.14	119.70
34	i	1304	U	O4'-C1'-N1	22.80	126.44	108.20
34	i	793	C	P-O3'-C3'	22.69	146.93	119.70
10	J	146	SER	O-C-N	-22.62	86.51	122.70
34	i	544	A	O4'-C1'-N9	22.55	126.24	108.20
34	i	140	U	P-O3'-C3'	22.53	146.73	119.70
34	i	314	U	O4'-C1'-N1	22.37	126.10	108.20
34	i	836	C	P-O3'-C3'	22.21	146.35	119.70
8	H	118	ARG	NE-CZ-NH2	-22.00	109.30	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	876	G	O4'-C1'-N9	21.93	125.74	108.20
34	i	1573	U	O4'-C1'-N1	21.90	125.72	108.20
34	i	1552	C	O4'-C1'-N1	21.88	125.70	108.20
34	i	1776	G	O4'-C1'-N9	21.86	125.69	108.20
34	i	685	G	P-O3'-C3'	21.64	145.67	119.70
34	i	750	G	P-O3'-C3'	21.62	145.64	119.70
34	i	1516	C	P-O3'-C3'	21.54	145.55	119.70
34	i	1296	U	O4'-C1'-N1	21.49	125.39	108.20
34	i	743	U	P-O3'-C3'	21.46	145.45	119.70
34	i	298	G	O4'-C1'-N9	21.36	125.29	108.20
34	i	1562	G	O4'-C1'-N9	21.34	125.27	108.20
34	i	1664	G	P-O5'-C5'	21.28	154.94	120.90
34	i	722	C	P-O3'-C3'	21.20	145.14	119.70
34	i	1473	U	P-O3'-C3'	20.91	144.79	119.70
34	i	264	U	P-O3'-C3'	20.74	144.58	119.70
34	i	1391	C	P-O3'-C3'	20.70	144.53	119.70
34	i	1503	G	O4'-C1'-C2'	20.65	126.45	105.80
34	i	1819	A	O4'-C1'-N9	20.42	124.54	108.20
34	i	325	G	O4'-C1'-N9	20.19	124.35	108.20
34	i	1414	C	C3'-C2'-C1'	-19.99	85.51	101.50
34	i	618	A	O4'-C1'-N9	19.92	124.13	108.20
34	i	1392	A	P-O3'-C3'	19.91	143.60	119.70
34	i	1112	C	O4'-C1'-N1	19.89	124.11	108.20
34	i	1716	U	O4'-C1'-N1	19.86	124.09	108.20
34	i	1426	C	O4'-C1'-N1	19.72	123.98	108.20
34	i	319	G	P-O3'-C3'	19.64	143.26	119.70
34	i	1819	A	P-O3'-C3'	19.54	143.14	119.70
18	R	1	MET	CA-C-N	-19.42	77.37	116.20
34	i	317	G	O4'-C1'-N9	19.36	123.68	108.20
34	i	1471	G	P-O3'-C3'	19.23	142.78	119.70
34	i	225	C	P-O3'-C3'	19.21	142.75	119.70
34	i	1358	U	O4'-C1'-N1	18.99	123.39	108.20
34	i	1151	U	N1-C1'-C2'	18.85	138.50	114.00
34	i	142	C	O4'-C1'-N1	18.84	123.27	108.20
34	i	697	G	P-O3'-C3'	18.79	142.25	119.70
34	i	954	G	O4'-C1'-N9	18.65	123.12	108.20
34	i	78	C	P-O3'-C3'	18.64	142.07	119.70
34	i	126	G	P-O3'-C3'	18.63	142.06	119.70
34	i	688	U	P-O3'-C3'	18.61	142.03	119.70
34	i	747	G	P-O3'-C3'	18.61	142.03	119.70
34	i	180	G	P-O3'-C3'	-18.55	97.44	119.70
34	i	1673	A	O4'-C1'-N9	18.51	123.01	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	749	C	P-O5'-C5'	18.46	150.44	120.90
34	i	911	G	O4'-C1'-N9	18.37	122.90	108.20
34	i	899	A	O4'-C1'-N9	18.29	122.83	108.20
34	i	72	C	P-O3'-C3'	18.18	141.52	119.70
34	i	883	U	O4'-C1'-N1	18.18	122.75	108.20
34	i	1393	U	N1-C1'-C2'	18.18	137.63	114.00
34	i	1133	U	P-O3'-C3'	18.06	141.37	119.70
34	i	1544	U	P-O3'-C3'	18.01	141.31	119.70
34	i	1226	C	N1-C1'-C2'	18.00	137.40	114.00
34	i	1740	A	O4'-C1'-N9	17.88	122.50	108.20
34	i	1316	G	O4'-C1'-N9	17.79	122.43	108.20
34	i	1377	G	O4'-C1'-N9	17.77	122.42	108.20
34	i	428	G	O4'-C1'-N9	17.75	122.40	108.20
34	i	727	G	P-O3'-C3'	17.72	140.97	119.70
27	a	10	ARG	NE-CZ-NH2	17.58	129.09	120.30
34	i	1012	U	N1-C1'-C2'	17.57	136.84	114.00
34	i	257	G	P-O3'-C3'	17.57	140.78	119.70
34	i	346	C	O4'-C1'-N1	17.45	122.16	108.20
7	G	131	ARG	CB-CA-C	17.44	145.29	110.40
34	i	524	G	P-O3'-C3'	17.36	140.54	119.70
34	i	189	G	P-O3'-C3'	17.36	140.53	119.70
34	i	1045	A	O4'-C1'-N9	17.22	121.97	108.20
18	R	1	MET	N-CA-CB	17.14	141.46	110.60
34	i	135	U	P-O3'-C3'	17.12	140.24	119.70
34	i	1322	U	N1-C1'-C2'	17.11	136.25	114.00
34	i	1399	C	O4'-C1'-N1	17.08	121.86	108.20
34	i	819	U	O4'-C1'-N1	17.05	121.84	108.20
34	i	1149	C	O4'-C1'-N1	17.03	121.82	108.20
34	i	885	U	O4'-C1'-N1	17.02	121.82	108.20
22	V	61	ARG	NE-CZ-NH2	-17.02	111.79	120.30
34	i	1618	A	O4'-C1'-N9	16.97	121.78	108.20
34	i	136	C	P-O3'-C3'	16.95	140.04	119.70
34	i	222	G	P-O3'-C3'	16.89	139.97	119.70
34	i	74	G	O4'-C1'-N9	16.87	121.70	108.20
34	i	826	A	O4'-C1'-N9	16.87	121.70	108.20
34	i	1470	A	O4'-C1'-N9	16.76	121.61	108.20
34	i	239	U	P-O3'-C3'	16.73	139.78	119.70
34	i	868	A	O4'-C1'-N9	16.71	121.57	108.20
34	i	1563	C	N1-C1'-C2'	16.69	135.69	114.00
7	G	131	ARG	CB-CG-CD	16.63	154.83	111.60
34	i	1294	G	O4'-C1'-N9	16.61	121.49	108.20
16	P	37	TYR	N-CA-CB	-16.43	81.03	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	171	A	O4'-C1'-N9	16.38	121.31	108.20
34	i	358	U	P-O3'-C3'	16.38	139.35	119.70
34	i	748	G	P-O3'-C3'	16.21	139.15	119.70
34	i	299	G	N9-C1'-C2'	16.15	134.99	114.00
34	i	1144	A	O4'-C1'-N9	15.94	120.95	108.20
34	i	1233	C	N1-C1'-C2'	15.91	134.68	114.00
34	i	141	A	P-O3'-C3'	15.83	138.69	119.70
34	i	73	C	O4'-C1'-N1	15.83	120.86	108.20
9	I	134	GLU	N-CA-CB	15.80	139.04	110.60
34	i	1006	G	O4'-C1'-N9	15.61	120.69	108.20
4	D	5	ILE	O-C-N	-15.61	97.73	122.70
34	i	138	C	P-O3'-C3'	15.58	138.39	119.70
34	i	1327	C	N1-C1'-C2'	15.58	134.25	114.00
34	i	620	U	O4'-C1'-N1	15.57	120.66	108.20
34	i	1425	G	P-O3'-C3'	15.49	138.29	119.70
25	Y	86	GLU	C-N-CD	-15.47	86.57	120.60
34	i	1056	A	O4'-C1'-N9	15.42	120.53	108.20
34	i	64	A	O4'-C1'-N9	15.36	120.49	108.20
34	i	295	C	P-O3'-C3'	15.36	138.13	119.70
34	i	79	A	O4'-C1'-C2'	-15.31	90.49	105.80
10	J	146	SER	CA-C-N	15.24	150.72	117.20
34	i	1607	G	O4'-C1'-N9	15.23	120.39	108.20
27	a	102	ARG	C-N-CD	-15.22	87.12	120.60
34	i	396	U	P-O3'-C3'	15.20	137.93	119.70
34	i	60	A	O4'-C1'-N9	15.17	120.34	108.20
34	i	1279	C	P-O3'-C3'	15.16	137.90	119.70
34	i	1663	U	O4'-C1'-N1	15.12	120.30	108.20
34	i	1543	G	O4'-C1'-N9	15.06	120.25	108.20
9	I	43	ILE	O-C-N	-14.99	98.72	122.70
34	i	734	C	P-O3'-C3'	14.88	137.56	119.70
8	H	109	ARG	CD-NE-CZ	14.85	144.39	123.60
34	i	857	A	O4'-C1'-N9	14.82	120.06	108.20
34	i	1670	A	O4'-C1'-N9	14.81	120.05	108.20
34	i	781	C	P-O3'-C3'	14.81	137.47	119.70
27	a	97	PRO	N-CA-C	14.80	150.59	112.10
34	i	478	U	P-O3'-C3'	14.78	137.44	119.70
34	i	1492	U	P-O3'-C3'	14.75	137.40	119.70
34	i	835	C	N1-C1'-C2'	14.71	133.12	114.00
34	i	835	C	C3'-C2'-C1'	-14.70	89.74	101.50
34	i	215	U	N1-C1'-C2'	14.66	133.06	114.00
34	i	111	A	O4'-C1'-N9	14.65	119.92	108.20
34	i	1010	G	O4'-C1'-C2'	14.64	120.78	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1424	G	O4'-C1'-N9	14.64	119.91	108.20
34	i	1594	U	O4'-C1'-N1	14.60	119.88	108.20
34	i	538	C	P-O3'-C3'	14.59	137.20	119.70
34	i	720	A	P-O3'-C3'	14.54	137.15	119.70
20	T	93	SER	N-CA-CB	14.49	132.23	110.50
34	i	786	C	P-O3'-C3'	14.49	137.08	119.70
34	i	1412	C	O4'-C1'-N1	14.48	119.78	108.20
34	i	543	U	O4'-C1'-N1	14.47	119.78	108.20
34	i	1390	G	P-O3'-C3'	14.44	137.03	119.70
34	i	1773	G	O4'-C1'-N9	14.43	119.75	108.20
9	I	184	ARG	NE-CZ-NH1	-14.40	113.10	120.30
34	i	1475	G	O4'-C1'-N9	14.40	119.72	108.20
34	i	133	C	P-O3'-C3'	14.38	136.95	119.70
34	i	1227	C	N1-C1'-C2'	14.34	132.64	114.00
34	i	383	U	O4'-C1'-N1	14.33	119.66	108.20
34	i	581	U	O4'-C1'-N1	14.32	119.65	108.20
34	i	1344	G	O4'-C1'-N9	14.29	119.63	108.20
34	i	1412	C	P-O3'-C3'	14.29	136.84	119.70
34	i	210	G	O4'-C1'-N9	14.25	119.60	108.20
34	i	682	G	P-O3'-C3'	14.24	136.79	119.70
25	Y	103	SER	O-C-N	-14.21	99.96	122.70
34	i	1235	U	P-O3'-C3'	-14.20	102.66	119.70
34	i	1637	U	O4'-C1'-N1	14.19	119.55	108.20
34	i	677	C	O4'-C1'-N1	14.19	119.55	108.20
14	N	81	ALA	C-N-CD	-14.16	89.44	120.60
7	G	170	ARG	CA-CB-CG	14.16	144.56	113.40
34	i	1414	C	O4'-C1'-N1	14.15	119.52	108.20
34	i	1824	U	P-O3'-C3'	14.12	136.65	119.70
19	S	40	TYR	CB-CG-CD1	14.10	129.46	121.00
34	i	1818	A	O4'-C1'-N9	14.10	119.48	108.20
34	i	1293	U	O4'-C1'-N1	14.07	119.46	108.20
25	Y	86	GLU	N-CA-C	14.07	148.98	111.00
34	i	1861	U	O4'-C1'-N1	13.98	119.38	108.20
34	i	295	C	C4'-C3'-O3'	-13.96	80.07	109.40
34	i	649	G	O4'-C1'-N9	13.96	119.37	108.20
34	i	912	A	O4'-C1'-N9	13.89	119.32	108.20
34	i	794	G	P-O3'-C3'	13.89	136.37	119.70
34	i	1413	C	O4'-C1'-C2'	-13.85	91.95	105.80
34	i	240	C	P-O3'-C3'	13.78	136.24	119.70
34	i	1018	U	N1-C1'-C2'	13.77	131.90	114.00
19	S	141	ARG	O-C-N	-13.75	100.69	122.70
34	i	276	U	P-O3'-C3'	13.73	136.17	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1721	G	O4'-C1'-N9	13.72	119.18	108.20
34	i	1754	G	O4'-C1'-N9	13.71	119.17	108.20
28	b	36	LYS	C-N-CA	13.69	155.91	121.70
34	i	454	A	P-O3'-C3'	-13.68	103.28	119.70
34	i	313	C	P-O3'-C3'	13.65	136.08	119.70
34	i	1773	G	P-O3'-C3'	13.62	136.04	119.70
34	i	287	U	N1-C1'-C2'	13.61	131.69	114.00
34	i	1393	U	O4'-C1'-N1	-13.58	97.34	108.20
34	i	478	U	O4'-C1'-N1	13.55	119.04	108.20
34	i	1862	U	P-O3'-C3'	13.51	135.91	119.70
34	i	1011	U	O4'-C1'-N1	13.51	119.00	108.20
34	i	1510	G	O4'-C1'-N9	13.49	118.99	108.20
34	i	829	C	P-O3'-C3'	13.46	135.85	119.70
20	T	4	VAL	N-CA-C	13.45	147.32	111.00
34	i	548	G	O4'-C1'-N9	13.44	118.95	108.20
34	i	1741	U	P-O3'-C3'	13.43	135.81	119.70
34	i	438	A	O4'-C1'-N9	13.40	118.92	108.20
34	i	556	U	O4'-C1'-N1	13.38	118.91	108.20
34	i	519	A	P-O3'-C3'	-13.37	103.66	119.70
34	i	889	U	O4'-C1'-N1	13.36	118.89	108.20
34	i	960	A	O4'-C1'-N9	13.33	118.86	108.20
34	i	830	C	N1-C1'-C2'	13.31	131.30	114.00
7	G	131	ARG	CA-CB-CG	13.30	142.67	113.40
34	i	1449	C	O4'-C1'-N1	13.31	118.84	108.20
34	i	1769	U	O4'-C1'-N1	13.30	118.84	108.20
34	i	530	U	O4'-C1'-N1	13.26	118.81	108.20
34	i	24	C	P-O3'-C3'	13.26	135.61	119.70
34	i	837	G	O4'-C1'-N9	13.26	118.81	108.20
34	i	627	U	O4'-C1'-N1	13.26	118.81	108.20
34	i	748	G	O4'-C1'-N9	13.24	118.79	108.20
34	i	768	G	P-O3'-C3'	13.23	135.58	119.70
27	a	97	PRO	CB-CA-C	-13.22	78.96	112.00
34	i	742	C	P-O3'-C3'	13.21	135.55	119.70
34	i	1514	U	O4'-C1'-N1	13.18	118.74	108.20
34	i	1616	U	O4'-C1'-N1	13.17	118.74	108.20
34	i	1715	U	P-O3'-C3'	13.17	135.50	119.70
34	i	1841	G	O4'-C1'-N9	13.16	118.73	108.20
11	K	55	ARG	CG-CD-NE	13.14	139.39	111.80
34	i	1482	A	O4'-C1'-N9	13.14	118.71	108.20
34	i	1261	A	N9-C1'-C2'	13.11	131.04	114.00
34	i	1548	C	C3'-C2'-C1'	-13.11	91.01	101.50
34	i	406	U	O4'-C1'-N1	13.07	118.66	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	277	U	O4'-C1'-N1	-13.07	97.75	108.20
34	i	1257	C	N1-C1'-C2'	13.06	130.98	114.00
34	i	415	G	O4'-C1'-N9	13.06	118.65	108.20
34	i	147	A	O4'-C1'-N9	13.00	118.60	108.20
34	i	1459	U	C4'-C3'-O3'	-12.98	82.13	109.40
34	i	1523	G	O4'-C1'-N9	12.95	118.56	108.20
34	i	1	U	O4'-C1'-N1	12.94	118.55	108.20
34	i	456	G	O4'-C1'-N9	12.91	118.53	108.20
34	i	1565	G	O4'-C1'-N9	12.91	118.53	108.20
34	i	876	G	P-O3'-C3'	12.90	135.18	119.70
34	i	1503	G	O4'-C1'-N9	12.89	118.52	108.20
34	i	1307	C	N1-C1'-C2'	12.88	130.74	114.00
34	i	594	A	P-O3'-C3'	12.87	135.14	119.70
34	i	747	G	O4'-C1'-N9	12.85	118.48	108.20
34	i	869	G	P-O3'-C3'	12.85	135.12	119.70
34	i	721	C	P-O3'-C3'	12.85	135.12	119.70
34	i	1406	C	N1-C1'-C2'	12.84	130.69	114.00
34	i	1533	C	P-O3'-C3'	12.82	135.08	119.70
34	i	622	C	N1-C1'-C2'	12.81	130.66	114.00
34	i	1240	U	O4'-C1'-N1	12.81	118.45	108.20
34	i	75	G	O4'-C1'-N9	12.80	118.44	108.20
34	i	1429	C	O3'-P-O5'	-12.78	79.71	104.00
34	i	126	G	C4'-C3'-O3'	-12.78	82.56	109.40
34	i	1402	G	P-O3'-C3'	12.75	135.00	119.70
34	i	123	G	O4'-C1'-N9	12.74	118.39	108.20
34	i	139	C	P-O3'-C3'	12.74	134.99	119.70
34	i	1249	A	O4'-C1'-N9	12.73	118.39	108.20
34	i	1238	U	N1-C1'-C2'	12.69	130.50	114.00
17	Q	18	THR	N-CA-CB	12.66	134.35	110.30
18	R	88	VAL	O-C-N	-12.64	102.47	122.70
24	X	23	HIS	O-C-N	-12.63	102.49	122.70
34	i	59	U	O4'-C1'-N1	12.62	118.30	108.20
34	i	170	A	O4'-C1'-C2'	12.61	118.95	107.60
34	i	38	A	O4'-C1'-N9	12.61	118.28	108.20
34	i	1168	U	O4'-C1'-N1	12.59	118.27	108.20
34	i	1145	A	O4'-C1'-N9	12.57	118.26	108.20
18	R	89	SER	N-CA-C	12.57	144.93	111.00
34	i	1588	C	P-O3'-C3'	12.56	134.77	119.70
34	i	24	C	C1'-C2'-O2'	-12.54	72.98	110.60
34	i	1104	G	O4'-C1'-N9	12.52	118.22	108.20
34	i	816	U	O4'-C1'-N1	12.50	118.20	108.20
7	G	170	ARG	N-CA-CB	12.45	133.01	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	616	G	C3'-C2'-C1'	12.43	111.44	101.50
34	i	881	U	O4'-C1'-N1	12.42	118.14	108.20
34	i	66	G	C1'-O4'-C4'	-12.42	99.96	109.90
34	i	785	G	O4'-C1'-N9	12.41	118.13	108.20
34	i	77	A	P-O3'-C3'	12.41	134.59	119.70
34	i	831	C	P-O5'-C5'	12.38	140.71	120.90
34	i	1753	G	O4'-C1'-N9	12.35	118.08	108.20
34	i	542	G	P-O3'-C3'	12.33	134.50	119.70
34	i	696	G	P-O3'-C3'	12.33	134.50	119.70
34	i	1167	G	O4'-C1'-N9	12.32	118.06	108.20
34	i	20	G	O4'-C1'-N9	12.31	118.05	108.20
34	i	1044	G	N9-C1'-C2'	12.31	130.01	114.00
34	i	1414	C	O4'-C1'-C2'	12.30	118.67	107.60
34	i	1097	U	O4'-C1'-N1	12.27	118.02	108.20
16	P	17	TYR	CB-CG-CD2	-12.25	113.65	121.00
34	i	1126	G	O4'-C1'-N9	12.24	117.99	108.20
4	D	4	GLN	CG-CD-OE1	-12.23	97.15	121.60
34	i	280	G	O4'-C1'-N9	12.19	117.95	108.20
34	i	329	A	C4'-C3'-O3'	-12.19	83.81	109.40
34	i	1430	C	P-O3'-C3'	12.17	134.31	119.70
34	i	866	A	O4'-C1'-N9	12.17	117.93	108.20
34	i	986	A	N9-C1'-C2'	12.17	129.82	114.00
34	i	1081	C	P-O5'-C5'	-12.15	101.45	120.90
34	i	359	C	O4'-C1'-N1	12.14	117.92	108.20
34	i	1469	G	O3'-P-O5'	12.13	127.06	104.00
34	i	1716	U	N1-C1'-C2'	-12.13	98.23	114.00
34	i	4	C	N1-C1'-C2'	12.12	129.76	114.00
34	i	1188	U	O4'-C1'-N1	12.12	117.90	108.20
33	g	24	THR	C-N-CD	-12.10	93.98	120.60
34	i	1562	G	C3'-C2'-C1'	-12.09	91.83	101.50
34	i	520	U	O4'-C1'-N1	12.07	117.86	108.20
25	Y	86	GLU	CA-C-O	-12.07	94.75	120.10
34	i	1255	A	O4'-C1'-N9	12.06	117.85	108.20
34	i	1310	U	O4'-C1'-N1	12.05	117.84	108.20
17	Q	146	ARG	NE-CZ-NH2	12.05	126.32	120.30
34	i	237	G	P-O3'-C3'	12.05	134.16	119.70
34	i	224	U	O4'-C1'-N1	12.03	117.82	108.20
34	i	1397	A	P-O3'-C3'	12.03	134.13	119.70
34	i	146	G	O4'-C1'-N9	12.03	117.82	108.20
34	i	531	U	O4'-C1'-N1	12.02	117.81	108.20
34	i	426	G	O4'-C1'-N9	12.02	117.81	108.20
34	i	1372	A	O4'-C1'-N9	12.00	117.80	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	857	A	N9-C1'-C2'	-11.99	98.41	114.00
31	e	95	LYS	O-C-N	-11.97	103.54	122.70
34	i	1550	U	O4'-C1'-N1	11.97	117.78	108.20
34	i	412	U	O4'-C1'-N1	11.96	117.77	108.20
34	i	1659	A	P-O3'-C3'	11.96	134.05	119.70
34	i	1838	U	O4'-C1'-N1	11.95	117.76	108.20
11	K	1	MET	N-CA-CB	-11.94	89.10	110.60
34	i	1231	G	O4'-C1'-N9	11.94	117.75	108.20
34	i	915	A	P-O3'-C3'	11.94	134.03	119.70
34	i	868	A	P-O3'-C3'	11.93	134.02	119.70
34	i	1538	U	P-O3'-C3'	11.90	133.98	119.70
34	i	1607	G	N9-C1'-C2'	-11.88	98.55	114.00
34	i	278	U	P-O3'-C3'	11.88	133.95	119.70
34	i	179	C	N1-C1'-C2'	11.87	129.43	114.00
34	i	1549	C	O3'-P-O5'	-11.87	81.45	104.00
34	i	835	C	O4'-C1'-N1	11.87	117.69	108.20
34	i	1355	U	O4'-C1'-N1	11.87	117.69	108.20
34	i	807	A	P-O3'-C3'	11.86	133.93	119.70
34	i	1103	G	O4'-C1'-N9	11.83	117.66	108.20
34	i	736	C	N1-C1'-C2'	11.81	129.35	114.00
4	D	4	GLN	N-CA-CB	-11.81	89.34	110.60
34	i	596	G	O4'-C1'-N9	11.81	117.65	108.20
34	i	734	C	N1-C1'-C2'	11.79	129.33	114.00
34	i	1671	U	O4'-C1'-N1	11.77	117.62	108.20
18	R	1	MET	C-N-CA	-11.76	97.61	122.30
34	i	1670	A	N9-C1'-C2'	-11.76	98.71	114.00
34	i	1418	G	O4'-C1'-N9	11.73	117.58	108.20
34	i	1515	G	N9-C1'-C2'	11.72	129.24	114.00
2	B	41	ILE	CB-CA-C	11.71	135.02	111.60
34	i	1494	A	C1'-O4'-C4'	-11.70	100.54	109.90
34	i	1157	U	O4'-C1'-N1	11.67	117.54	108.20
34	i	1233	C	C1'-O4'-C4'	-11.67	100.56	109.90
34	i	817	G	O4'-C1'-N9	11.67	117.54	108.20
9	I	134	GLU	CB-CA-C	-11.67	87.06	110.40
34	i	1007	A	O4'-C1'-N9	11.66	117.53	108.20
34	i	225	C	C3'-C2'-C1'	11.66	110.83	101.50
34	i	365	U	O4'-C1'-N1	11.66	117.53	108.20
34	i	461	G	O4'-C1'-N9	11.65	117.52	108.20
13	M	99	LYS	C-N-CD	-11.65	94.98	120.60
34	i	1315	U	O4'-C1'-N1	11.64	117.51	108.20
34	i	1828	A	N9-C1'-C2'	11.64	129.13	114.00
34	i	1319	U	O4'-C1'-N1	11.63	117.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	570	U	P-O3'-C3'	-11.62	105.75	119.70
34	i	796	U	O4'-C1'-N1	11.61	117.49	108.20
34	i	672	U	O4'-C1'-N1	11.61	117.49	108.20
18	R	1	MET	N-CA-C	-11.59	79.71	111.00
34	i	1833	U	O4'-C1'-N1	11.56	117.45	108.20
34	i	31	U	O4'-C1'-N1	11.55	117.44	108.20
34	i	277	U	C3'-C2'-C1'	11.55	110.74	101.50
34	i	1446	G	O4'-C1'-N9	11.54	117.43	108.20
34	i	1552	C	P-O3'-C3'	11.54	133.55	119.70
34	i	1718	G	O4'-C1'-N9	11.54	117.43	108.20
34	i	526	A	P-O3'-C3'	-11.53	105.86	119.70
34	i	368	U	O4'-C1'-N1	11.53	117.42	108.20
34	i	800	U	O4'-C1'-N1	11.52	117.42	108.20
34	i	1437	U	O4'-C1'-N1	11.51	117.41	108.20
34	i	1000	U	O4'-C1'-N1	11.51	117.41	108.20
12	L	153	LYS	O-C-N	-11.50	104.30	122.70
34	i	413	U	O4'-C1'-N1	11.50	117.40	108.20
34	i	417	U	O4'-C1'-N1	11.49	117.40	108.20
34	i	1806	U	O4'-C1'-N1	11.49	117.39	108.20
34	i	728	U	P-O3'-C3'	11.48	133.47	119.70
34	i	929	G	C1'-O4'-C4'	-11.46	100.73	109.90
34	i	358	U	O4'-C1'-N1	11.45	117.36	108.20
10	J	146	SER	C-N-CA	11.44	150.30	121.70
34	i	1206	G	O4'-C1'-N9	11.39	117.31	108.20
34	i	536	G	P-O3'-C3'	11.37	133.34	119.70
34	i	728	U	P-O5'-C5'	11.35	139.05	120.90
34	i	1643	G	C4'-C3'-O3'	11.32	135.65	113.00
34	i	861	A	O4'-C1'-N9	11.29	117.24	108.20
34	i	474	A	P-O3'-C3'	11.27	133.22	119.70
34	i	1815	U	O4'-C1'-N1	11.23	117.19	108.20
34	i	1405	A	P-O3'-C3'	11.22	133.16	119.70
34	i	145	G	C1'-O4'-C4'	-11.21	100.93	109.90
4	D	5	ILE	CA-C-N	11.20	141.84	117.20
34	i	1237	A	C3'-C2'-C1'	11.20	110.46	101.50
12	L	20	LYS	N-CA-CB	-11.19	90.47	110.60
34	i	749	C	O4'-C1'-N1	11.19	117.15	108.20
27	a	98	PRO	C-N-CD	-11.17	96.02	120.60
34	i	411	G	O4'-C1'-N9	11.17	117.14	108.20
9	I	6	ASP	CB-CG-OD2	-11.16	108.25	118.30
34	i	1742	C	P-O3'-C3'	11.16	133.09	119.70
34	i	1414	C	P-O3'-C3'	11.15	133.09	119.70
34	i	1496	G	N9-C1'-C2'	11.14	128.49	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1062	U	O4'-C1'-N1	11.14	117.11	108.20
34	i	947	C	C3'-C2'-C1'	11.13	110.41	101.50
34	i	170	A	C1'-O4'-C4'	-11.12	101.00	109.90
34	i	948	G	O4'-C1'-N9	11.12	117.09	108.20
34	i	520	U	C4'-C3'-O3'	-11.11	86.07	109.40
34	i	385	G	O4'-C1'-N9	11.10	117.08	108.20
34	i	1500	U	O4'-C1'-N1	11.10	117.08	108.20
34	i	913	U	O4'-C1'-N1	11.09	117.07	108.20
34	i	1414	C	C1'-O4'-C4'	-11.09	101.03	109.90
34	i	1848	U	O4'-C1'-N1	11.05	117.04	108.20
34	i	1348	G	C1'-O4'-C4'	-11.05	101.06	109.90
34	i	1024	A	P-O3'-C3'	-11.03	106.46	119.70
34	i	1194	G	O4'-C1'-C2'	11.02	117.52	107.60
34	i	1648	U	O4'-C1'-N1	11.02	117.02	108.20
34	i	1715	U	O4'-C1'-N1	11.01	117.00	108.20
34	i	340	C	O4'-C1'-C2'	-11.00	94.80	105.80
34	i	918	A	O4'-C1'-N9	10.97	116.97	108.20
34	i	1672	U	O4'-C1'-N1	10.96	116.97	108.20
34	i	207	U	P-O3'-C3'	10.95	132.84	119.70
34	i	1772	C	O4'-C1'-N1	10.95	116.96	108.20
34	i	1290	G	O4'-C1'-N9	10.94	116.95	108.20
34	i	1154	G	O4'-C1'-N9	10.94	116.95	108.20
34	i	1193	G	O4'-C1'-N9	10.94	116.95	108.20
34	i	103	A	O4'-C1'-N9	10.93	116.94	108.20
34	i	1432	C	C3'-C2'-C1'	10.92	110.23	101.50
34	i	1255	A	O4'-C1'-C2'	10.91	117.42	107.60
34	i	1738	G	N9-C1'-C2'	10.91	128.19	114.00
24	X	91	LEU	CA-CB-CG	10.88	140.32	115.30
34	i	1408	C	P-O3'-C3'	10.87	132.75	119.70
34	i	61	A	O4'-C1'-N9	10.86	116.89	108.20
34	i	862	U	O4'-C1'-N1	10.86	116.89	108.20
34	i	684	A	O4'-C1'-N9	10.85	116.88	108.20
26	Z	107	VAL	N-CA-CB	-10.84	87.64	111.50
34	i	200	U	O4'-C1'-N1	10.82	116.86	108.20
34	i	671	U	O4'-C1'-N1	10.82	116.86	108.20
34	i	1138	G	O4'-C1'-N9	10.82	116.85	108.20
34	i	676	U	O4'-C1'-N1	10.81	116.85	108.20
34	i	684	A	O4'-C1'-C2'	10.81	117.33	107.60
34	i	991	G	O4'-C1'-N9	10.81	116.85	108.20
18	R	86	PRO	CA-N-CD	-10.81	96.37	111.50
34	i	832	G	O4'-C1'-N9	10.81	116.84	108.20
34	i	436	G	N9-C1'-C2'	10.80	128.04	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	405	A	O4'-C1'-N9	10.80	116.84	108.20
34	i	1037	G	C1'-O4'-C4'	-10.79	101.27	109.90
34	i	1329	U	O4'-C1'-N1	10.77	116.82	108.20
34	i	878	U	O4'-C1'-N1	10.77	116.82	108.20
34	i	631	A	O4'-C1'-N9	10.75	116.80	108.20
18	R	89	SER	CA-C-N	10.74	140.83	117.20
34	i	1632	A	P-O3'-C3'	10.74	132.59	119.70
34	i	827	G	O4'-C1'-N9	10.73	116.79	108.20
34	i	907	C	P-O5'-C5'	10.72	138.06	120.90
34	i	477	U	P-O3'-C3'	10.72	132.57	119.70
34	i	1743	G	O4'-C1'-N9	10.72	116.78	108.20
34	i	522	C	O4'-C1'-C2'	-10.70	95.10	105.80
34	i	592	G	O4'-C1'-N9	10.69	116.75	108.20
34	i	521	A	C1'-O4'-C4'	-10.69	101.34	109.90
34	i	1111	U	O4'-C1'-N1	10.68	116.75	108.20
34	i	57	U	O4'-C1'-N1	10.66	116.72	108.20
34	i	835	C	C1'-O4'-C4'	-10.65	101.38	109.90
34	i	1354	U	O4'-C1'-N1	10.64	116.71	108.20
34	i	1615	A	N9-C1'-C2'	10.63	127.82	114.00
19	S	87	GLN	O-C-N	-10.63	105.70	122.70
34	i	1724	U	O4'-C1'-N1	10.62	116.70	108.20
34	i	1856	G	O4'-C1'-C2'	-10.62	95.18	105.80
19	S	40	TYR	CB-CG-CD2	-10.61	114.63	121.00
34	i	915	A	N9-C1'-C2'	10.61	127.80	114.00
34	i	1570	G	O4'-C1'-N9	10.60	116.68	108.20
34	i	1021	U	O4'-C1'-N1	10.60	116.68	108.20
34	i	858	A	N9-C1'-C2'	10.58	127.75	114.00
19	S	88	LYS	CB-CA-C	10.58	131.55	110.40
27	a	10	ARG	CD-NE-CZ	10.57	138.40	123.60
34	i	739	U	O4'-C1'-N1	10.57	116.65	108.20
34	i	1546	U	O4'-C1'-C2'	10.57	117.11	107.60
34	i	143	U	N1-C1'-C2'	10.56	127.73	114.00
34	i	1536	G	O4'-C1'-N9	10.56	116.64	108.20
34	i	154	U	O4'-C1'-N1	10.55	116.64	108.20
34	i	894	U	P-O3'-C3'	10.54	132.35	119.70
34	i	1308	G	O4'-C1'-N9	-10.53	99.78	108.20
34	i	19	A	O4'-C1'-N9	10.51	116.61	108.20
34	i	1555	U	O4'-C1'-N1	10.51	116.61	108.20
34	i	1079	A	C1'-O4'-C4'	-10.50	101.50	109.90
34	i	1674	A	P-O3'-C3'	10.50	132.30	119.70
34	i	1346	U	O4'-C1'-N1	10.49	116.59	108.20
9	I	6	ASP	CB-CG-OD1	10.48	127.73	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	93	U	O4'-C1'-N1	10.47	116.58	108.20
34	i	815	G	O4'-C1'-N9	10.47	116.58	108.20
34	i	1299	C	C3'-C2'-C1'	-10.45	93.14	101.50
34	i	1255	A	C3'-C2'-C1'	-10.45	93.14	101.50
34	i	682	G	O4'-C1'-N9	10.44	116.55	108.20
34	i	204	G	O4'-C1'-N9	10.44	116.55	108.20
34	i	79	A	O4'-C1'-N9	10.43	116.55	108.20
34	i	1295	A	O4'-C1'-N9	10.42	116.53	108.20
34	i	794	G	O4'-C1'-C2'	-10.41	95.39	105.80
34	i	490	A	O3'-P-O5'	-10.41	84.22	104.00
7	G	170	ARG	CB-CG-CD	10.40	138.64	111.60
34	i	1584	A	O4'-C1'-N9	10.40	116.52	108.20
34	i	1479	A	O4'-C1'-N9	10.39	116.52	108.20
34	i	322	G	O4'-C1'-N9	10.39	116.51	108.20
34	i	1288	C	C3'-C2'-C1'	10.39	109.81	101.50
34	i	1407	G	C1'-O4'-C4'	-10.39	101.59	109.90
34	i	1170	U	O4'-C1'-N1	10.39	116.51	108.20
34	i	385	G	C1'-O4'-C4'	-10.38	101.59	109.90
34	i	542	G	O4'-C1'-N9	10.37	116.50	108.20
34	i	1210	A	P-O3'-C3'	10.37	132.15	119.70
34	i	1074	C	N1-C1'-C2'	10.36	127.47	114.00
34	i	170	A	C3'-C2'-C1'	-10.35	93.22	101.50
34	i	1012	U	C3'-C2'-C1'	10.34	109.77	101.50
34	i	1811	G	O4'-C1'-N9	10.33	116.47	108.20
15	O	129	ILE	CB-CA-C	-10.33	90.94	111.60
34	i	1404	U	N1-C1'-C2'	10.33	127.43	114.00
11	K	55	ARG	NE-CZ-NH1	10.30	125.45	120.30
10	J	138	ARG	N-CA-C	10.29	138.78	111.00
34	i	517	C	O4'-C1'-N1	10.27	116.42	108.20
34	i	1774	G	C1'-O4'-C4'	-10.27	101.69	109.90
34	i	168	C	N1-C1'-C2'	10.26	127.34	114.00
34	i	65	C	P-O3'-C3'	10.26	132.01	119.70
34	i	971	G	O4'-C1'-N9	10.26	116.40	108.20
34	i	546	U	P-O5'-C5'	10.23	137.27	120.90
34	i	1857	A	O4'-C1'-C2'	-10.23	95.57	105.80
34	i	792	G	O4'-C1'-N9	10.22	116.38	108.20
34	i	74	G	C3'-C2'-C1'	10.21	109.67	101.50
34	i	141	A	O4'-C1'-C2'	-10.21	95.59	105.80
34	i	1232	G	O4'-C1'-C2'	10.21	116.79	107.60
34	i	789	G	O4'-C1'-N9	10.21	116.37	108.20
5	E	171	ASP	N-CA-C	10.20	138.54	111.00
34	i	1722	G	O4'-C1'-N9	10.19	116.35	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	K	43	LEU	CA-CB-CG	10.18	138.71	115.30
34	i	1662	U	O4'-C1'-N1	10.18	116.34	108.20
34	i	167	G	O4'-C1'-N9	10.17	116.34	108.20
34	i	1416	G	C1'-O4'-C4'	-10.17	101.76	109.90
34	i	349	U	O4'-C1'-N1	10.15	116.32	108.20
18	R	2	GLY	O-C-N	-10.15	106.46	122.70
34	i	749	C	P-O3'-C3'	10.14	131.87	119.70
34	i	1075	C	C3'-C2'-C1'	10.14	109.61	101.50
21	U	71	GLY	N-CA-C	10.14	138.45	113.10
34	i	662	A	O4'-C1'-N9	10.14	116.31	108.20
34	i	590	G	O4'-C1'-N9	10.13	116.31	108.20
34	i	1551	A	P-O3'-C3'	10.13	131.86	119.70
34	i	102	A	P-O3'-C3'	10.12	131.85	119.70
34	i	1281	G	C4'-C3'-O3'	10.12	133.25	113.00
34	i	585	U	O4'-C1'-N1	10.12	116.29	108.20
34	i	1303	U	P-O3'-C3'	10.11	131.83	119.70
34	i	1408	C	O3'-P-O5'	-10.10	84.81	104.00
34	i	300	G	O4'-C1'-N9	10.10	116.28	108.20
34	i	1414	C	P-O5'-C5'	10.08	137.03	120.90
34	i	344	U	O4'-C1'-N1	10.07	116.26	108.20
34	i	1010	G	C1'-O4'-C4'	-10.07	101.84	109.90
34	i	1532	A	O4'-C1'-C2'	-10.06	95.74	105.80
34	i	865	A	P-O3'-C3'	10.06	131.77	119.70
34	i	1276	G	O4'-C1'-N9	10.05	116.24	108.20
4	D	4	GLN	CG-CD-NE2	10.04	140.79	116.70
34	i	287	U	C1'-O4'-C4'	-10.04	101.87	109.90
34	i	1615	A	O4'-C1'-N9	10.03	116.22	108.20
34	i	31	U	P-O3'-C3'	10.03	131.73	119.70
34	i	935	U	O4'-C1'-N1	10.03	116.22	108.20
34	i	1258	C	N1-C1'-C2'	10.02	127.03	114.00
34	i	1010	G	O4'-C1'-N9	9.98	116.18	108.20
8	H	110	THR	CA-C-O	-9.97	99.16	120.10
11	K	1	MET	CB-CG-SD	9.97	142.32	112.40
34	i	547	U	N1-C1'-C2'	9.97	126.97	114.00
34	i	1072	G	O4'-C1'-N9	9.97	116.18	108.20
34	i	1397	A	O4'-C1'-N9	9.96	116.17	108.20
34	i	1771	G	C3'-C2'-C1'	-9.96	93.53	101.50
34	i	1643	G	P-O3'-C3'	9.96	131.66	119.70
24	X	23	HIS	CB-CA-C	9.96	130.32	110.40
34	i	73	C	O4'-C1'-C2'	-9.96	95.84	105.80
34	i	795	U	O4'-C1'-N1	9.96	116.17	108.20
34	i	204	G	N9-C1'-C2'	-9.95	101.05	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	546	U	C4'-C3'-C2'	-9.94	92.66	102.60
34	i	1472	A	N9-C1'-C2'	-9.92	101.08	112.00
34	i	663	G	O4'-C1'-N9	9.91	116.13	108.20
7	G	180	VAL	CB-CA-C	-9.90	92.58	111.40
9	I	43	ILE	CA-C-O	9.90	140.89	120.10
34	i	1798	U	O4'-C1'-N1	9.89	116.11	108.20
34	i	616	G	O4'-C1'-C2'	-9.89	95.91	105.80
34	i	1435	A	O4'-C1'-N9	9.87	116.09	108.20
34	i	92	A	N9-C1'-C2'	9.86	126.82	114.00
34	i	665	U	O4'-C1'-N1	9.86	116.09	108.20
34	i	1036	G	O4'-C1'-N9	9.86	116.09	108.20
34	i	1211	C	O4'-C1'-C2'	-9.86	95.94	105.80
34	i	1151	U	O4'-C1'-N1	9.84	116.07	108.20
34	i	914	U	N1-C1'-C2'	9.83	126.78	114.00
34	i	1194	G	C1'-O4'-C4'	-9.83	102.04	109.90
34	i	1715	U	C1'-O4'-C4'	9.83	117.76	109.90
34	i	810	U	O4'-C1'-N1	9.81	116.05	108.20
34	i	748	G	C3'-C2'-C1'	-9.81	93.65	101.50
34	i	520	U	O4'-C4'-C3'	-9.80	94.20	104.00
18	R	42	PRO	CA-N-CD	-9.79	97.79	111.50
19	S	91	LYS	CG-CD-CE	9.79	141.26	111.90
34	i	189	G	C1'-O4'-C4'	-9.78	102.08	109.90
34	i	1716	U	P-O3'-C3'	9.77	131.43	119.70
34	i	1004	A	P-O3'-C3'	9.77	131.42	119.70
34	i	381	C	O4'-C1'-N1	9.77	116.01	108.20
34	i	1413	C	C3'-C2'-C1'	9.77	109.31	101.50
34	i	105	U	O4'-C1'-N1	9.76	116.01	108.20
34	i	1333	C	O4'-C1'-N1	9.76	116.01	108.20
34	i	394	G	O4'-C1'-N9	9.76	116.01	108.20
34	i	879	U	O4'-C1'-N1	9.76	116.00	108.20
34	i	1503	G	C1'-O4'-C4'	-9.75	102.10	109.90
34	i	1115	A	O4'-C1'-N9	9.75	116.00	108.20
34	i	626	C	C3'-C2'-C1'	9.74	109.29	101.50
34	i	1328	A	O4'-C1'-C2'	-9.74	96.06	105.80
34	i	1803	A	O4'-C1'-N9	9.74	115.99	108.20
34	i	1249	A	P-O3'-C3'	9.73	131.38	119.70
21	U	104	ILE	N-CA-C	-9.73	84.72	111.00
34	i	121	U	O4'-C1'-N1	9.73	115.99	108.20
34	i	1659	A	N9-C1'-C2'	9.73	126.65	114.00
34	i	5	U	O4'-C1'-N1	9.72	115.98	108.20
34	i	743	U	O4'-C1'-N1	9.72	115.98	108.20
34	i	1234	U	O4'-C1'-N1	9.72	115.98	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	R	1	MET	CA-C-O	9.71	140.49	120.10
28	b	36	LYS	N-CA-C	9.71	137.22	111.00
33	g	142	VAL	CA-C-N	-9.70	95.86	117.20
3	C	93	LYS	C-N-CA	9.69	145.93	121.70
1	A	200	ASP	CB-CA-C	-9.68	91.03	110.40
34	i	928	G	O4'-C1'-N9	9.68	115.95	108.20
34	i	1599	G	O4'-C1'-N9	9.68	115.94	108.20
34	i	824	G	O4'-C1'-C2'	9.68	116.31	107.60
34	i	838	C	C3'-C2'-C1'	9.67	109.23	101.50
34	i	1432	C	P-O3'-C3'	9.67	131.30	119.70
34	i	434	G	O4'-C1'-N9	9.65	115.92	108.20
34	i	1551	A	O4'-C1'-N9	9.65	115.92	108.20
33	g	159	ASN	N-CA-C	9.64	137.04	111.00
34	i	1126	G	N9-C1'-C2'	-9.64	101.39	112.00
34	i	80	G	C3'-C2'-C1'	9.64	109.21	101.50
18	R	3	ARG	N-CA-CB	9.63	127.94	110.60
34	i	1490	U	P-O3'-C3'	9.63	131.26	119.70
10	J	89	GLU	N-CA-C	9.63	137.00	111.00
34	i	830	C	C1'-O4'-C4'	-9.62	102.20	109.90
34	i	1771	G	O4'-C1'-N9	9.62	115.90	108.20
34	i	1077	U	O4'-C1'-N1	9.62	115.89	108.20
34	i	787	C	O4'-C1'-N1	9.62	115.89	108.20
34	i	468	G	O4'-C1'-N9	9.61	115.89	108.20
34	i	321	C	O4'-C1'-N1	9.59	115.87	108.20
34	i	1132	U	O4'-C1'-N1	9.59	115.88	108.20
34	i	1197	U	O4'-C1'-N1	9.59	115.87	108.20
19	S	54	LYS	N-CA-C	9.59	136.89	111.00
34	i	66	G	N9-C1'-C2'	9.59	126.46	114.00
34	i	1288	C	O4'-C1'-N1	-9.57	100.54	108.20
34	i	1291	A	O4'-C1'-N9	9.56	115.85	108.20
4	D	193	ASP	N-CA-C	-9.56	85.19	111.00
34	i	1232	G	O4'-C1'-N9	9.54	115.83	108.20
34	i	1546	U	O4'-C1'-N1	9.54	115.83	108.20
34	i	1163	G	O4'-C1'-N9	9.53	115.83	108.20
34	i	1215	C	O4'-C1'-N1	9.53	115.82	108.20
34	i	1251	G	C1'-O4'-C4'	-9.52	102.29	109.90
34	i	826	A	C3'-C2'-C1'	-9.52	93.89	101.50
34	i	397	G	O4'-C1'-N9	9.51	115.81	108.20
34	i	1530	U	P-O3'-C3'	9.51	131.11	119.70
34	i	999	U	O4'-C1'-N1	9.51	115.80	108.20
34	i	504	U	O4'-C1'-N1	9.48	115.79	108.20
34	i	1125	G	O4'-C1'-N9	9.48	115.79	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1140	A	N9-C1'-C2'	9.47	126.32	114.00
34	i	1585	C	N1-C1'-C2'	9.47	126.31	114.00
34	i	1802	U	O4'-C1'-N1	9.47	115.78	108.20
9	I	105	ASP	CB-CG-OD2	9.46	126.82	118.30
34	i	1490	U	O4'-C1'-N1	9.46	115.77	108.20
34	i	160	U	P-O3'-C3'	9.45	131.04	119.70
34	i	545	A	P-O3'-C3'	9.45	131.04	119.70
22	V	61	ARG	NE-CZ-NH1	9.45	125.03	120.30
34	i	728	U	N1-C1'-C2'	9.45	126.28	114.00
34	i	1204	A	O4'-C1'-N9	9.45	115.76	108.20
27	a	63	VAL	C-N-CA	9.45	145.31	121.70
34	i	431	C	N1-C1'-C2'	9.45	126.28	114.00
34	i	1582	G	O4'-C1'-N9	9.45	115.76	108.20
34	i	951	A	O4'-C1'-N9	9.44	115.75	108.20
34	i	67	C	C3'-C2'-C1'	-9.44	93.95	101.50
27	a	10	ARG	CB-CG-CD	9.43	136.11	111.60
34	i	883	U	P-O5'-C5'	9.43	135.98	120.90
34	i	647	U	O4'-C1'-N1	9.42	115.73	108.20
34	i	1266	G	O4'-C1'-N9	9.41	115.73	108.20
34	i	1845	A	O4'-C1'-C2'	-9.41	96.39	105.80
25	Y	103	SER	CA-C-N	9.40	137.88	117.20
8	H	111	LYS	N-CA-CB	9.39	127.51	110.60
34	i	909	A	C3'-C2'-C1'	9.39	109.01	101.50
34	i	1444	A	P-O3'-C3'	9.39	130.96	119.70
34	i	424	G	C4'-C3'-O3'	-9.38	89.69	109.40
34	i	961	U	O4'-C1'-N1	9.38	115.71	108.20
34	i	51	U	O4'-C1'-N1	9.38	115.70	108.20
34	i	642	U	O4'-C1'-N1	9.37	115.69	108.20
34	i	207	U	C4'-C3'-O3'	9.37	131.73	113.00
34	i	1810	G	O4'-C1'-N9	9.36	115.69	108.20
34	i	651	U	O4'-C1'-N1	9.36	115.69	108.20
7	G	122	PRO	CA-N-CD	-9.36	98.39	111.50
34	i	793	C	C3'-C2'-C1'	9.36	108.99	101.50
34	i	987	G	O4'-C1'-N9	9.36	115.69	108.20
34	i	1564	A	O5'-P-OP2	-9.36	97.28	105.70
34	i	107	A	O4'-C1'-N9	9.35	115.68	108.20
34	i	1037	G	O4'-C1'-C2'	9.35	116.01	107.60
34	i	660	A	O4'-C1'-N9	9.34	115.68	108.20
34	i	53	C	O4'-C1'-C2'	-9.33	96.47	105.80
4	D	82	GLY	C-N-CA	-9.33	98.39	121.70
34	i	1013	U	O4'-C1'-N1	9.30	115.64	108.20
34	i	79	A	C5'-C4'-O4'	9.30	120.26	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1068	U	O4'-C1'-N1	9.30	115.64	108.20
34	i	905	G	O3'-P-O5'	9.29	121.66	104.00
34	i	1617	U	O4'-C1'-N1	-9.29	100.77	108.20
34	i	1786	G	O4'-C1'-C2'	9.29	115.96	107.60
34	i	408	A	N9-C1'-C2'	9.29	126.08	114.00
34	i	524	G	O3'-P-O5'	-9.28	86.36	104.00
19	S	40	TYR	N-CA-C	9.28	136.05	111.00
34	i	1153	G	O4'-C1'-N9	9.27	115.62	108.20
34	i	855	G	O4'-C1'-N9	9.27	115.61	108.20
26	Z	104	ARG	CD-NE-CZ	-9.26	110.63	123.60
34	i	1317	G	O4'-C1'-N9	9.25	115.60	108.20
34	i	892	U	O4'-C1'-N1	9.24	115.59	108.20
34	i	1065	U	P-O3'-C3'	9.24	130.79	119.70
34	i	840	U	O4'-C1'-N1	9.24	115.59	108.20
34	i	1288	C	N1-C1'-C2'	9.23	126.00	114.00
33	g	274	VAL	O-C-N	-9.23	107.94	122.70
2	B	40	ASN	C-N-CA	-9.22	98.65	121.70
7	G	157	VAL	N-CA-C	9.21	135.86	111.00
21	U	94	PRO	CA-N-CD	-9.20	98.62	111.50
34	i	214	A	C3'-C2'-C1'	9.19	108.86	101.50
34	i	551	A	C4'-C3'-O3'	-9.19	90.11	109.40
34	i	147	A	N9-C1'-C2'	-9.18	101.90	112.00
34	i	619	A	O4'-C1'-N9	9.18	115.54	108.20
34	i	1228	U	O4'-C1'-N1	9.18	115.54	108.20
12	L	17	PHE	O-C-N	9.17	137.37	122.70
34	i	1360	U	O3'-P-O5'	9.17	121.43	104.00
21	U	53	PRO	CA-N-CD	-9.17	98.66	111.50
34	i	1199	G	N9-C1'-C2'	9.16	125.91	114.00
34	i	641	U	O4'-C1'-N1	9.15	115.52	108.20
34	i	1102	C	O4'-C1'-N1	9.15	115.52	108.20
34	i	824	G	C3'-C2'-C1'	-9.15	94.18	101.50
34	i	1261	A	C3'-C2'-C1'	9.13	108.81	101.50
34	i	1642	A	O4'-C1'-N9	9.13	115.50	108.20
34	i	1736	U	N1-C1'-C2'	9.13	125.87	114.00
34	i	995	G	O4'-C1'-N9	9.12	115.50	108.20
34	i	446	C	N1-C1'-C2'	9.11	125.85	114.00
34	i	640	A	C3'-C2'-C1'	9.11	108.79	101.50
34	i	1403	U	N1-C1'-C2'	9.11	125.84	114.00
34	i	1129	A	O4'-C1'-N9	9.11	115.49	108.20
34	i	56	G	O4'-C1'-N9	9.09	115.47	108.20
34	i	1076	A	O4'-C1'-N9	9.09	115.47	108.20
16	P	37	TYR	CB-CG-CD2	-9.09	115.55	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	89	C	O4'-C1'-N1	9.08	115.47	108.20
34	i	99	A	O4'-C1'-N9	9.07	115.46	108.20
34	i	24	C	O3'-P-O5'	-9.07	86.77	104.00
34	i	910	U	O4'-C1'-N1	9.07	115.45	108.20
34	i	414	C	N1-C1'-C2'	9.06	125.78	114.00
4	D	5	ILE	C-N-CA	9.06	144.34	121.70
34	i	484	C	C3'-C2'-C1'	9.06	108.75	101.50
34	i	1743	G	P-O5'-C5'	9.06	135.39	120.90
19	S	53	THR	O-C-N	-9.05	108.21	122.70
34	i	776	U	P-O3'-C3'	9.05	130.56	119.70
34	i	1189	U	O4'-C1'-N1	9.05	115.44	108.20
34	i	561	U	O4'-C1'-N1	9.05	115.44	108.20
34	i	60	A	C3'-C2'-C1'	-9.04	94.27	101.50
34	i	437	A	O4'-C1'-C2'	-9.04	96.76	105.80
34	i	1022	C	C3'-C2'-C1'	9.04	108.73	101.50
34	i	1455	G	C1'-O4'-C4'	-9.04	102.67	109.90
12	L	17	PHE	CA-C-N	-9.03	97.33	117.20
27	a	10	ARG	NH1-CZ-NH2	-9.03	109.47	119.40
34	i	1469	G	P-O3'-C3'	9.03	130.53	119.70
34	i	482	C	O4'-C1'-C2'	-9.02	96.78	105.80
34	i	652	G	N9-C1'-C2'	9.02	125.73	114.00
34	i	1631	G	O4'-C1'-N9	9.02	115.42	108.20
34	i	1214	C	N1-C1'-C2'	9.02	125.73	114.00
9	I	105	ASP	CB-CG-OD1	-9.02	110.18	118.30
34	i	201	G	O4'-C1'-N9	9.02	115.41	108.20
34	i	405	A	N9-C1'-C2'	-9.01	102.08	112.00
34	i	1335	U	O4'-C1'-N1	9.01	115.41	108.20
34	i	114	G	O4'-C1'-N9	9.01	115.40	108.20
34	i	730	C	O4'-C1'-C2'	-9.00	96.80	105.80
34	i	735	C	N1-C1'-C2'	8.99	125.68	114.00
27	a	97	PRO	N-CA-CB	-8.98	92.52	103.30
34	i	25	A	N9-C1'-C2'	-8.97	102.13	112.00
34	i	956	U	N1-C1'-C2'	8.97	125.66	114.00
34	i	298	G	C3'-C2'-C1'	-8.97	94.33	101.50
34	i	1523	G	C3'-C2'-C1'	-8.97	94.33	101.50
34	i	733	G	C1'-O4'-C4'	8.96	117.07	109.90
34	i	1515	G	C1'-O4'-C4'	-8.96	102.73	109.90
34	i	152	U	O4'-C1'-N1	8.96	115.37	108.20
34	i	653	C	N1-C1'-C2'	8.96	125.65	114.00
21	U	93	SER	C-N-CD	8.96	147.21	128.40
34	i	1405	A	P-O5'-C5'	8.95	135.22	120.90
34	i	1687	U	O4'-C1'-N1	8.95	115.36	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1775	A	P-O3'-C3'	8.94	130.43	119.70
34	i	1824	U	C3'-C2'-C1'	8.94	108.66	101.50
34	i	1473	U	P-O5'-C5'	8.93	135.19	120.90
34	i	1184	A	O4'-C1'-C2'	-8.93	96.87	105.80
34	i	542	G	P-O5'-C5'	8.93	135.19	120.90
34	i	1191	A	O4'-C1'-N9	8.93	115.34	108.20
34	i	1501	U	O4'-C1'-N1	8.93	115.34	108.20
10	J	165	TYR	CB-CA-C	8.92	128.23	110.40
24	X	62	PRO	CA-N-CD	-8.91	99.02	111.50
34	i	1272	A	N9-C1'-C2'	-8.91	102.20	112.00
34	i	444	U	O4'-C1'-N1	8.91	115.33	108.20
34	i	543	U	O4'-C1'-C2'	-8.90	96.90	105.80
34	i	1596	A	P-O3'-C3'	8.90	130.38	119.70
34	i	1847	C	N1-C1'-C2'	8.89	125.56	114.00
34	i	847	C	O3'-P-O5'	-8.89	87.10	104.00
34	i	325	G	N9-C1'-C2'	-8.89	102.22	112.00
34	i	224	U	N1-C1'-C2'	-8.88	102.23	112.00
34	i	108	G	O4'-C1'-N9	8.88	115.31	108.20
34	i	583	C	C3'-C2'-C1'	8.88	108.61	101.50
34	i	609	A	O4'-C1'-N9	8.88	115.31	108.20
34	i	689	G	P-O3'-C3'	8.88	130.35	119.70
19	S	142	ARG	CB-CA-C	-8.87	92.66	110.40
34	i	501	U	O4'-C1'-N1	8.87	115.30	108.20
34	i	189	G	N9-C1'-C2'	8.87	125.53	114.00
34	i	947	C	P-O5'-C5'	8.86	135.08	120.90
25	Y	52	PRO	CA-N-CD	-8.86	99.10	111.50
34	i	1427	G	O4'-C1'-N9	8.86	115.29	108.20
34	i	1436	C	C3'-C2'-C1'	8.86	108.59	101.50
34	i	1676	U	O4'-C1'-N1	8.86	115.29	108.20
34	i	1159	C	N1-C1'-C2'	8.85	125.51	114.00
19	S	94	LYS	CA-C-N	-8.85	97.74	117.20
34	i	1425	G	O4'-C1'-N9	8.83	115.26	108.20
34	i	1716	U	O4'-C1'-C2'	-8.82	96.98	105.80
34	i	1855	G	O4'-C1'-C2'	8.82	115.54	107.60
19	S	88	LYS	C-N-CA	-8.82	99.66	121.70
33	g	145	GLU	N-CA-C	-8.82	87.19	111.00
34	i	951	A	P-O3'-C3'	8.82	130.28	119.70
34	i	1472	A	C1'-O4'-C4'	8.81	116.95	109.90
34	i	1466	C	O4'-C1'-N1	8.81	115.25	108.20
34	i	1546	U	C1'-O4'-C4'	-8.81	102.85	109.90
34	i	872	C	O4'-C1'-N1	8.81	115.25	108.20
28	b	12	PRO	CA-N-CD	-8.81	99.17	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	V	67	ASP	CB-CA-C	8.79	127.98	110.40
34	i	1861	U	C3'-C2'-C1'	-8.79	94.47	101.50
34	i	1388	U	O4'-C1'-N1	8.78	115.22	108.20
6	F	130	ARG	NE-CZ-NH1	8.78	124.69	120.30
34	i	1222	G	N9-C1'-C2'	8.78	125.41	114.00
34	i	611	C	N1-C1'-C2'	8.77	125.40	114.00
34	i	1428	U	C3'-C2'-C1'	8.77	108.52	101.50
34	i	1104	G	P-O3'-C3'	8.76	130.21	119.70
34	i	140	U	O4'-C1'-N1	8.76	115.21	108.20
34	i	963	C	O4'-C1'-N1	8.76	115.20	108.20
34	i	472	G	O4'-C1'-N9	8.75	115.20	108.20
34	i	564	A	C3'-C2'-C1'	8.75	108.50	101.50
34	i	1706	U	O4'-C1'-N1	8.75	115.20	108.20
34	i	1068	U	C1'-O4'-C4'	8.75	116.90	109.90
34	i	837	G	C1'-C2'-O2'	-8.74	84.36	110.60
34	i	222	G	C1'-O4'-C4'	-8.74	102.91	109.90
34	i	929	G	O4'-C1'-N9	8.73	115.19	108.20
34	i	212	G	O4'-C1'-N9	8.73	115.18	108.20
34	i	1776	G	C3'-C2'-C1'	-8.73	94.52	101.50
3	C	104	GLY	N-CA-C	8.72	134.91	113.10
34	i	299	G	C1'-O4'-C4'	-8.72	102.92	109.90
25	Y	86	GLU	CB-CA-C	-8.71	92.98	110.40
34	i	455	A	P-O3'-C3'	8.71	130.15	119.70
34	i	161	U	O4'-C1'-C2'	-8.70	97.10	105.80
34	i	1208	G	N9-C1'-C2'	8.69	125.30	114.00
34	i	1576	C	O4'-C1'-C2'	-8.70	97.11	105.80
17	Q	134	GLY	C-N-CD	-8.69	101.49	120.60
34	i	1601	G	O4'-C1'-N9	8.68	115.15	108.20
21	U	67	LYS	C-N-CA	-8.68	100.01	121.70
34	i	548	G	C3'-C2'-C1'	-8.66	94.57	101.50
10	J	118	GLY	O-C-N	-8.65	108.86	122.70
34	i	1272	A	O4'-C1'-C2'	-8.65	97.15	105.80
34	i	1770	G	O4'-C1'-N9	8.65	115.12	108.20
34	i	58	C	O4'-C1'-N1	8.65	115.12	108.20
34	i	604	G	C3'-C2'-C1'	8.65	108.42	101.50
8	H	111	LYS	N-CA-C	-8.64	87.67	111.00
34	i	234	C	O4'-C1'-C2'	-8.64	97.16	105.80
34	i	1108	U	O4'-C1'-N1	8.64	115.11	108.20
34	i	1131	C	O4'-C1'-N1	8.63	115.11	108.20
34	i	21	U	O4'-C1'-N1	8.63	115.11	108.20
34	i	43	U	O4'-C1'-N1	8.63	115.11	108.20
34	i	153	G	O4'-C1'-N9	8.63	115.11	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1198	U	N1-C1'-C2'	-8.63	102.51	112.00
34	i	849	C	O3'-P-O5'	8.62	120.38	104.00
34	i	835	C	P-O3'-C3'	8.62	130.04	119.70
32	f	122	PRO	CA-N-CD	-8.61	99.45	111.50
34	i	234	C	C1'-O4'-C4'	8.61	116.78	109.90
34	i	792	G	P-O3'-C3'	8.61	130.03	119.70
8	H	36	LEU	CA-CB-CG	-8.60	95.51	115.30
9	I	184	ARG	N-CA-CB	8.60	126.08	110.60
34	i	972	G	P-O5'-C5'	8.60	134.65	120.90
34	i	1232	G	C3'-C2'-C1'	-8.60	94.62	101.50
16	P	17	TYR	CB-CA-C	8.59	127.59	110.40
34	i	959	A	O4'-C1'-N9	8.59	115.07	108.20
34	i	79	A	C4'-C3'-C2'	-8.59	94.01	102.60
34	i	1002	C	N1-C1'-C2'	8.59	125.16	114.00
34	i	180	G	C4'-C3'-O3'	8.58	130.17	113.00
34	i	518	A	C1'-O4'-C4'	-8.58	103.04	109.90
34	i	1548	C	P-O3'-C3'	8.58	130.00	119.70
34	i	1205	A	O4'-C1'-N9	8.58	115.06	108.20
34	i	25	A	O4'-C1'-C2'	-8.57	97.23	105.80
6	F	45	TYR	CA-CB-CG	-8.56	97.13	113.40
34	i	1316	G	C3'-C2'-C1'	-8.56	94.65	101.50
34	i	903	G	N9-C1'-C2'	8.56	125.13	114.00
34	i	669	A	O4'-C1'-N9	8.55	115.04	108.20
34	i	1199	G	C1'-O4'-C4'	-8.55	103.06	109.90
34	i	1109	A	O4'-C1'-N9	8.55	115.04	108.20
34	i	159	A	O4'-C1'-N9	8.54	115.03	108.20
34	i	1517	A	O4'-C1'-N9	8.54	115.03	108.20
34	i	296	U	P-O3'-C3'	-8.54	109.46	119.70
34	i	1229	G	C1'-O4'-C4'	-8.54	103.07	109.90
34	i	824	G	O4'-C1'-N9	8.53	115.03	108.20
34	i	1655	C	O4'-C1'-N1	8.53	115.03	108.20
34	i	234	C	O4'-C1'-N1	8.52	115.02	108.20
34	i	442	G	C3'-C2'-C1'	8.52	108.32	101.50
34	i	1118	A	O4'-C1'-C2'	-8.52	97.28	105.80
27	a	80	HIS	N-CA-CB	-8.52	95.27	110.60
34	i	1726	A	O4'-C1'-N9	8.52	115.01	108.20
10	J	161	LEU	O-C-N	-8.51	109.08	122.70
34	i	859	U	C1'-O4'-C4'	-8.51	103.09	109.90
34	i	1442	A	P-O3'-C3'	8.51	129.91	119.70
11	K	87	PRO	C-N-CA	8.51	142.97	121.70
34	i	144	U	N1-C1'-C2'	8.51	125.06	114.00
34	i	343	C	C5'-C4'-C3'	8.51	129.62	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1646	A	N9-C1'-C2'	-8.51	102.64	112.00
34	i	602	U	O4'-C1'-N1	8.50	115.00	108.20
34	i	1425	G	N9-C1'-C2'	-8.50	102.65	112.00
28	b	10	PRO	CA-N-CD	-8.49	99.61	111.50
34	i	1411	C	N1-C1'-C2'	8.49	125.04	114.00
34	i	795	U	N1-C1'-C2'	8.49	125.03	114.00
16	P	69	PRO	CA-N-CD	-8.48	99.62	111.50
34	i	1272	A	C3'-C2'-C1'	8.48	108.28	101.50
34	i	739	U	O4'-C1'-C2'	-8.47	97.33	105.80
34	i	1581	U	O4'-C1'-N1	8.47	114.98	108.20
34	i	1198	U	O4'-C1'-N1	8.46	114.97	108.20
34	i	28	U	O4'-C1'-N1	8.46	114.97	108.20
34	i	639	U	C1'-O4'-C4'	-8.45	103.14	109.90
34	i	1067	G	O4'-C1'-N9	8.45	114.96	108.20
34	i	1458	U	C4'-C3'-O3'	8.45	129.90	113.00
34	i	848	G	P-O3'-C3'	8.44	129.83	119.70
34	i	1110	U	O4'-C1'-N1	8.44	114.95	108.20
34	i	1003	C	C3'-C2'-C1'	8.43	108.25	101.50
34	i	543	U	C4'-C3'-C2'	-8.42	94.18	102.60
34	i	727	G	O3'-P-O5'	8.42	120.00	104.00
34	i	1685	U	O4'-C1'-N1	8.42	114.94	108.20
17	Q	18	THR	CA-CB-OG1	8.42	126.67	109.00
34	i	1082	G	O3'-P-O5'	-8.42	88.01	104.00
19	S	95	TYR	N-CA-CB	-8.41	95.46	110.60
31	e	95	LYS	CA-C-N	8.41	135.70	117.20
34	i	849	C	P-O3'-C3'	-8.41	109.61	119.70
34	i	1014	U	N1-C1'-C2'	8.41	124.93	114.00
34	i	313	C	C3'-C2'-C1'	8.40	108.22	101.50
34	i	929	G	O4'-C1'-C2'	8.40	115.16	107.60
34	i	1504	A	N9-C1'-C2'	-8.40	102.76	112.00
8	H	108	SER	N-CA-CB	8.40	123.10	110.50
4	D	193	ASP	C-N-CD	8.39	146.02	128.40
7	G	170	ARG	CB-CA-C	-8.38	93.63	110.40
34	i	1529	C	O4'-C1'-C2'	-8.38	97.42	105.80
34	i	1474	U	O4'-C1'-N1	8.38	114.90	108.20
34	i	1292	U	O4'-C1'-N1	8.37	114.90	108.20
34	i	964	U	O4'-C1'-C2'	-8.37	97.43	105.80
10	J	180	LYS	C-N-CA	8.37	139.87	122.30
34	i	1468	C	C4'-C3'-O3'	8.36	129.72	113.00
34	i	1026	A	O4'-C1'-N9	8.36	114.88	108.20
34	i	1513	C	O4'-C1'-N1	8.36	114.89	108.20
34	i	131	C	P-O3'-C3'	8.35	129.72	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1434	A	O4'-C1'-C2'	-8.35	97.45	105.80
34	i	1325	U	C1'-O4'-C4'	-8.34	103.22	109.90
21	U	70	CYS	C-N-CA	8.34	139.81	122.30
34	i	1137	G	O4'-C1'-N9	8.34	114.87	108.20
34	i	389	C	C3'-C2'-C1'	8.34	108.17	101.50
34	i	520	U	P-O3'-C3'	8.34	129.71	119.70
34	i	1010	G	C3'-C2'-C1'	-8.33	94.83	101.50
34	i	546	U	N1-C1'-C2'	8.33	124.82	114.00
34	i	1044	G	C1'-O4'-C4'	-8.32	103.24	109.90
34	i	1322	U	C3'-C2'-C1'	8.32	108.16	101.50
1	A	133	PRO	CA-N-CD	-8.32	99.86	111.50
5	E	43	PRO	CA-N-CD	-8.31	99.86	111.50
34	i	1660	G	O4'-C1'-C2'	8.31	115.08	107.60
34	i	1691	C	N1-C1'-C2'	8.31	124.81	114.00
34	i	1688	G	C1'-O4'-C4'	-8.31	103.25	109.90
34	i	451	U	O4'-C1'-N1	8.31	114.85	108.20
34	i	1226	C	C1'-O4'-C4'	-8.30	103.26	109.90
34	i	1728	U	O4'-C1'-N1	8.30	114.84	108.20
12	L	147	LYS	N-CA-C	8.30	133.41	111.00
34	i	691	G	P-O3'-C3'	8.30	129.66	119.70
34	i	1526	A	O4'-C1'-N9	8.30	114.84	108.20
34	i	1208	G	C1'-O4'-C4'	-8.29	103.27	109.90
34	i	276	U	C3'-C2'-C1'	8.29	108.13	101.50
34	i	291	U	O4'-C1'-N1	8.29	114.83	108.20
34	i	1014	U	C1'-O4'-C4'	-8.29	103.27	109.90
19	S	6	PRO	N-CA-C	8.28	133.63	112.10
34	i	281	U	O4'-C1'-N1	8.28	114.83	108.20
34	i	38	A	N9-C1'-C2'	-8.28	102.89	112.00
34	i	276	U	O4'-C1'-N1	-8.28	101.58	108.20
34	i	97	U	N1-C1'-C2'	8.27	124.76	114.00
14	N	7	PRO	CA-N-CD	-8.27	99.92	111.50
27	a	58	VAL	CB-CA-C	-8.27	95.68	111.40
34	i	103	A	C3'-C2'-C1'	-8.27	94.88	101.50
34	i	966	G	P-O3'-C3'	8.27	129.62	119.70
34	i	733	G	N9-C1'-C2'	-8.27	102.91	112.00
9	I	5	ARG	O-C-N	-8.26	109.48	122.70
34	i	1464	C	O4'-C1'-N1	8.26	114.81	108.20
26	Z	104	ARG	NE-CZ-NH1	-8.26	116.17	120.30
34	i	1618	A	C3'-C2'-C1'	-8.26	94.89	101.50
34	i	82	G	O4'-C1'-C2'	-8.25	97.55	105.80
34	i	303	G	O4'-C1'-N9	8.25	114.80	108.20
34	i	385	G	C3'-C2'-C1'	-8.25	94.90	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	36	U	O4'-C1'-N1	8.24	114.80	108.20
34	i	546	U	O4'-C1'-N1	8.24	114.80	108.20
34	i	1151	U	C5'-C4'-O4'	8.24	118.99	109.10
34	i	1804	U	O4'-C1'-N1	8.23	114.79	108.20
34	i	512	A	O4'-C1'-N9	8.23	114.78	108.20
34	i	1836	C	O4'-C1'-N1	8.23	114.78	108.20
34	i	357	U	O4'-C1'-N1	8.23	114.78	108.20
34	i	1233	C	C3'-C2'-C1'	8.23	108.08	101.50
34	i	905	G	P-O3'-C3'	-8.22	109.83	119.70
34	i	80	G	P-O5'-C5'	8.22	134.05	120.90
34	i	186	G	C1'-O4'-C4'	-8.22	103.32	109.90
34	i	435	A	C1'-O4'-C4'	-8.22	103.32	109.90
34	i	544	A	C3'-C2'-C1'	-8.22	94.92	101.50
34	i	1344	G	N9-C1'-C2'	-8.22	102.96	112.00
32	f	87	THR	N-CA-C	-8.21	88.82	111.00
34	i	1376	C	C3'-C2'-C1'	8.21	108.07	101.50
34	i	376	C	N1-C1'-C2'	8.21	124.67	114.00
34	i	156	G	P-O3'-C3'	-8.20	109.86	119.70
34	i	837	G	O4'-C4'-C3'	-8.20	95.80	104.00
34	i	887	G	C1'-O4'-C4'	-8.20	103.34	109.90
34	i	1632	A	O4'-C1'-N9	8.20	114.76	108.20
34	i	1336	U	O4'-C1'-N1	8.20	114.76	108.20
34	i	1006	G	C3'-C2'-C1'	-8.19	94.95	101.50
34	i	578	G	O3'-P-O5'	-8.18	88.45	104.00
34	i	1178	A	O4'-C1'-N9	8.18	114.75	108.20
34	i	334	U	O4'-C1'-N1	8.18	114.74	108.20
34	i	1777	C	O4'-C1'-C2'	-8.18	97.62	105.80
34	i	1332	C	O4'-C1'-N1	8.17	114.74	108.20
11	K	55	ARG	NE-CZ-NH2	-8.17	116.22	120.30
34	i	315	C	P-O3'-C3'	8.17	129.50	119.70
34	i	495	G	O4'-C1'-N9	8.16	114.73	108.20
34	i	1307	C	C1'-O4'-C4'	-8.15	103.38	109.90
3	C	93	LYS	O-C-N	-8.15	109.66	122.70
34	i	162	C	P-O3'-C3'	8.15	129.48	119.70
21	U	93	SER	CA-C-N	-8.15	94.29	117.10
34	i	1615	A	C1'-O4'-C4'	-8.14	103.39	109.90
34	i	909	A	O4'-C1'-C2'	-8.14	97.66	105.80
34	i	908	C	C3'-C2'-C1'	8.13	108.01	101.50
25	Y	87	PRO	CA-N-CD	-8.13	100.11	111.50
34	i	1305	C	O4'-C1'-C2'	-8.13	97.67	105.80
12	L	153	LYS	C-N-CA	8.13	142.03	121.70
34	i	1651	G	O4'-C1'-N9	8.13	114.70	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1715	U	O4'-C1'-C2'	-8.13	97.67	105.80
16	P	37	TYR	CB-CG-CD1	8.12	125.87	121.00
34	i	1133	U	C2'-C3'-O3'	8.12	127.37	109.50
34	i	851	G	O4'-C1'-N9	8.12	114.69	108.20
34	i	854	A	O4'-C1'-C2'	-8.12	97.68	105.80
21	U	57	PRO	CA-N-CD	-8.11	100.14	111.50
34	i	605	C	N1-C1'-C2'	8.11	124.55	114.00
34	i	238	G	O4'-C1'-N9	8.11	114.69	108.20
34	i	562	U	O4'-C1'-N1	8.11	114.69	108.20
34	i	927	C	C5'-C4'-C3'	-8.11	103.02	116.00
34	i	1030	A	O4'-C1'-N9	8.10	114.68	108.20
34	i	351	U	O4'-C1'-N1	8.08	114.67	108.20
21	U	103	SER	C-N-CA	-8.08	101.50	121.70
34	i	311	C	C3'-C2'-C1'	8.08	107.96	101.50
34	i	1191	A	O4'-C4'-C3'	-8.08	95.92	104.00
21	U	93	SER	O-C-N	8.08	136.45	121.10
34	i	1034	U	O4'-C1'-N1	8.08	114.66	108.20
34	i	939	U	O4'-C1'-N1	8.07	114.66	108.20
34	i	1786	G	C3'-C2'-C1'	-8.07	95.04	101.50
34	i	570	U	C4'-C3'-O3'	8.07	129.14	113.00
34	i	630	A	C1'-O4'-C4'	-8.07	103.45	109.90
34	i	366	A	O4'-C1'-N9	8.06	114.65	108.20
34	i	1359	C	C3'-C2'-C1'	8.06	107.95	101.50
34	i	1714	A	C1'-O4'-C4'	8.06	116.35	109.90
34	i	619	A	O4'-C1'-C2'	-8.06	97.74	105.80
34	i	145	G	N9-C1'-C2'	8.05	124.47	114.00
11	K	84	HIS	CB-CA-C	-8.05	94.30	110.40
34	i	217	U	O4'-C1'-N1	8.05	114.64	108.20
34	i	205	G	N9-C1'-C2'	8.05	124.46	114.00
34	i	342	U	C3'-C2'-C1'	8.05	107.94	101.50
34	i	1322	U	C1'-O4'-C4'	-8.04	103.47	109.90
34	i	1303	U	O4'-C1'-N1	8.04	114.63	108.20
34	i	744	C	C3'-C2'-C1'	8.04	107.93	101.50
34	i	1660	G	C1'-O4'-C4'	-8.04	103.47	109.90
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	1537	C	C1'-O4'-C4'	-8.03	103.48	109.90
34	i	1677	C	O4'-C1'-C2'	-8.03	97.77	105.80
34	i	917	G	O4'-C1'-N9	8.02	114.62	108.20
34	i	1060	C	O4'-C1'-C2'	-8.01	97.79	105.80
34	i	1095	G	O4'-C1'-N9	8.01	114.61	108.20
34	i	1534	U	O4'-C1'-C2'	-8.01	97.79	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	429	A	N9-C1'-C2'	-8.01	103.19	112.00
17	Q	31	LEU	N-CA-C	8.01	132.62	111.00
34	i	960	A	C1'-O4'-C4'	8.01	116.31	109.90
34	i	491	C	P-O3'-C3'	8.01	129.31	119.70
34	i	520	U	P-O5'-C5'	-8.01	108.09	120.90
34	i	1289	A	N9-C1'-C2'	8.00	124.39	114.00
34	i	1312	C	N1-C1'-C2'	7.98	124.38	114.00
34	i	1485	A	O4'-C1'-N9	7.98	114.58	108.20
34	i	520	U	N1-C1'-C2'	-7.98	103.23	112.00
34	i	333	A	O4'-C1'-N9	7.97	114.58	108.20
34	i	1467	C	N1-C1'-C2'	7.97	124.37	114.00
34	i	1068	U	O4'-C1'-C2'	-7.97	97.83	105.80
7	G	131	ARG	C-N-CA	-7.97	101.78	121.70
34	i	1741	U	C4'-C3'-O3'	7.97	128.94	113.00
34	i	435	A	N9-C1'-C2'	7.95	124.34	114.00
34	i	598	C	C3'-C2'-C1'	7.95	107.86	101.50
9	I	184	ARG	CB-CA-C	-7.95	94.50	110.40
34	i	41	G	O4'-C1'-N9	-7.94	101.85	108.20
34	i	525	G	P-O3'-C3'	7.94	129.22	119.70
34	i	844	U	N1-C1'-C2'	7.93	124.31	114.00
34	i	1650	C	N1-C1'-C2'	7.93	124.31	114.00
34	i	222	G	O4'-C1'-C2'	7.93	114.74	107.60
34	i	1655	C	P-O3'-C3'	-7.93	110.19	119.70
34	i	1707	A	O4'-C1'-N9	7.92	114.54	108.20
34	i	1850	C	O4'-C1'-N1	7.92	114.54	108.20
34	i	872	C	O4'-C1'-C2'	-7.92	97.89	105.80
34	i	147	A	C1'-O4'-C4'	7.91	116.23	109.90
34	i	650	C	N1-C1'-C2'	7.91	124.28	114.00
34	i	1229	G	O4'-C1'-C2'	7.91	114.72	107.60
34	i	1420	G	O4'-C1'-N9	7.91	114.53	108.20
26	Z	70	PRO	CA-N-CD	-7.91	100.43	111.50
34	i	1709	U	O4'-C1'-N1	7.91	114.52	108.20
34	i	207	U	O3'-P-O5'	-7.90	88.99	104.00
34	i	1524	C	N1-C1'-C2'	7.90	124.27	114.00
34	i	1117	G	O4'-C1'-N9	7.90	114.52	108.20
34	i	1091	U	N1-C1'-C2'	7.89	124.26	114.00
34	i	1297	A	C4'-C3'-O3'	7.89	128.78	113.00
34	i	626	C	P-O5'-C5'	7.89	133.53	120.90
34	i	169	U	P-O3'-C3'	7.89	129.17	119.70
34	i	1369	C	C3'-C2'-C1'	7.89	107.81	101.50
34	i	316	C	O4'-C1'-C2'	-7.89	97.91	105.80
34	i	1136	G	O4'-C1'-N9	7.89	114.51	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	467	G	O4'-C1'-N9	7.88	114.51	108.20
34	i	1653	G	O4'-C1'-C2'	7.88	114.70	107.60
34	i	490	A	P-O3'-C3'	7.88	129.16	119.70
34	i	1725	U	O4'-C1'-N1	7.88	114.50	108.20
34	i	1111	U	P-O3'-C3'	7.88	129.16	119.70
34	i	1515	G	O3'-P-O5'	7.87	118.96	104.00
34	i	905	G	C4'-C3'-O3'	7.87	128.74	113.00
34	i	791	A	O4'-C1'-N9	7.87	114.50	108.20
34	i	1093	G	O4'-C1'-N9	7.86	114.49	108.20
34	i	690	C	O4'-C1'-N1	7.86	114.49	108.20
26	Z	104	ARG	N-CA-CB	-7.86	96.45	110.60
34	i	1666	G	N9-C1'-C2'	7.86	124.22	114.00
34	i	1449	C	N1-C1'-C2'	7.86	124.22	114.00
34	i	329	A	C2'-C3'-O3'	7.86	126.79	109.50
34	i	890	G	O4'-C1'-N9	7.86	114.48	108.20
34	i	735	C	O4'-C1'-C2'	-7.85	97.95	105.80
34	i	1539	C	C3'-C2'-C1'	7.85	107.78	101.50
34	i	77	A	N9-C1'-C2'	-7.85	103.36	112.00
34	i	986	A	C3'-C2'-C1'	7.85	107.78	101.50
34	i	1046	A	O4'-C1'-N9	7.85	114.48	108.20
34	i	1655	C	C5'-C4'-C3'	-7.84	103.45	116.00
34	i	817	G	P-O3'-C3'	7.84	129.11	119.70
34	i	1386	U	O4'-C1'-N1	7.84	114.47	108.20
34	i	594	A	O4'-C1'-C2'	-7.83	97.97	105.80
7	G	161	PRO	CA-N-CD	-7.83	100.54	111.50
34	i	987	G	O4'-C1'-C2'	7.83	114.65	107.60
34	i	40	A	O4'-C1'-N9	7.83	114.46	108.20
34	i	80	G	O4'-C1'-C2'	-7.83	97.97	105.80
34	i	117	C	O4'-C1'-N1	7.83	114.46	108.20
34	i	549	G	O4'-C1'-N9	7.83	114.46	108.20
34	i	821	A	P-O3'-C3'	-7.83	110.31	119.70
34	i	541	U	N1-C1'-C2'	7.82	124.17	114.00
34	i	429	A	O4'-C1'-N9	7.82	114.46	108.20
34	i	1786	G	C1'-O4'-C4'	-7.82	103.64	109.90
34	i	33	G	O4'-C1'-N9	7.82	114.45	108.20
34	i	96	C	N1-C1'-C2'	7.82	124.17	114.00
34	i	1686	U	O4'-C1'-N1	7.81	114.44	108.20
11	K	35	LEU	CA-CB-CG	-7.80	97.35	115.30
34	i	1632	A	N9-C1'-C2'	-7.80	103.42	112.00
34	i	164	A	C1'-O4'-C4'	-7.80	103.66	109.90
34	i	1860	A	P-O3'-C3'	7.80	129.06	119.70
34	i	907	C	N1-C1'-C2'	7.80	124.14	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	X	23	HIS	CA-C-N	7.79	134.34	117.20
34	i	342	U	O4'-C1'-C2'	-7.79	98.01	105.80
34	i	612	C	N1-C1'-C2'	7.79	124.13	114.00
25	Y	51	THR	C-N-CD	-7.79	103.47	120.60
34	i	1471	G	P-O5'-C5'	7.79	133.36	120.90
9	I	178	ARG	CG-CD-NE	-7.78	95.47	111.80
34	i	1348	G	O4'-C1'-C2'	7.78	114.60	107.60
34	i	1003	C	N1-C1'-C2'	7.77	124.11	114.00
34	i	1606	G	O4'-C1'-N9	7.77	114.42	108.20
34	i	1405	A	C5'-C4'-C3'	7.77	128.43	116.00
8	H	15	LYS	C-N-CD	-7.77	103.51	120.60
34	i	904	A	O3'-P-O5'	-7.77	89.24	104.00
9	I	5	ARG	C-N-CA	7.76	141.11	121.70
16	P	36	LEU	CA-C-N	-7.76	100.13	117.20
7	G	155	GLN	O-C-N	-7.76	110.29	122.70
34	i	296	U	O4'-C1'-N1	7.75	114.40	108.20
18	R	89	SER	O-C-N	-7.74	110.32	122.70
34	i	1678	C	N1-C1'-C2'	7.74	124.06	114.00
34	i	1841	G	N9-C1'-C2'	-7.74	103.49	112.00
34	i	82	G	O4'-C1'-N9	7.73	114.39	108.20
34	i	1696	C	O4'-C1'-C2'	-7.73	98.07	105.80
34	i	1779	C	O4'-C1'-C2'	-7.73	98.07	105.80
34	i	3	C	O4'-C1'-C2'	-7.72	98.08	105.80
34	i	524	G	C4'-C3'-O3'	7.72	128.44	113.00
2	B	37	ALA	C-N-CA	-7.72	102.40	121.70
20	T	42	HIS	CB-CA-C	-7.71	94.97	110.40
34	i	1215	C	C3'-C2'-C1'	7.71	107.67	101.50
34	i	191	C	C4'-C3'-O3'	7.71	128.42	113.00
34	i	1771	G	C1'-O4'-C4'	-7.71	103.73	109.90
34	i	171	A	N9-C1'-C2'	-7.71	103.52	112.00
34	i	977	A	C3'-C2'-C1'	7.70	107.66	101.50
34	i	368	U	C1'-O4'-C4'	-7.70	103.74	109.90
34	i	959	A	O4'-C1'-C2'	7.70	114.53	107.60
35	l	67	PHE	CB-CG-CD2	-7.70	115.41	120.80
34	i	522	C	O4'-C1'-N1	7.70	114.36	108.20
10	J	166	GLY	C-N-CA	-7.69	106.15	122.30
19	S	6	PRO	CA-C-N	7.68	134.10	117.20
3	C	148	VAL	C-N-CD	-7.68	103.70	120.60
34	i	645	A	O4'-C1'-N9	7.68	114.34	108.20
34	i	1056	A	N9-C1'-C2'	7.68	123.98	114.00
34	i	1632	A	C1'-O4'-C4'	7.67	116.04	109.90
34	i	1499	C	O4'-C1'-N1	7.67	114.34	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1448	A	C3'-C2'-C1'	7.67	107.64	101.50
31	e	77	HIS	C-N-CA	7.66	138.39	122.30
34	i	784	G	O4'-C1'-N9	7.66	114.33	108.20
34	i	1270	G	C3'-C2'-C1'	7.66	107.62	101.50
5	E	259	LYS	N-CA-C	7.66	131.67	111.00
34	i	1771	G	O4'-C1'-C2'	7.65	114.49	107.60
34	i	446	C	C3'-C2'-C1'	7.65	107.62	101.50
34	i	1597	U	O3'-P-O5'	-7.65	89.46	104.00
17	Q	146	ARG	NE-CZ-NH1	-7.64	116.48	120.30
34	i	484	C	O4'-C1'-C2'	-7.64	98.16	105.80
34	i	521	A	O4'-C4'-C3'	-7.64	96.36	104.00
34	i	931	G	O4'-C1'-N9	7.64	114.31	108.20
34	i	227	A	C1'-O4'-C4'	7.64	116.01	109.90
34	i	400	G	O4'-C1'-N9	7.63	114.31	108.20
10	J	93	LYS	C-N-CA	7.63	140.78	121.70
34	i	1692	A	O4'-C1'-N9	7.63	114.31	108.20
34	i	2	A	P-O3'-C3'	7.63	128.85	119.70
34	i	1134	C	O3'-P-O5'	7.63	118.50	104.00
34	i	514	U	O4'-C1'-N1	7.63	114.30	108.20
34	i	595	A	O4'-C1'-N9	7.62	114.30	108.20
34	i	1113	C	C3'-C2'-C1'	-7.62	95.40	101.50
34	i	385	G	O4'-C1'-C2'	7.62	114.46	107.60
34	i	76	U	O4'-C1'-N1	7.62	114.29	108.20
34	i	1859	C	C4'-C3'-O3'	7.62	128.23	113.00
34	i	733	G	O4'-C1'-N9	7.61	114.29	108.20
34	i	837	G	P-O5'-C5'	7.60	133.06	120.90
34	i	604	G	N9-C1'-C2'	7.60	123.88	114.00
34	i	1289	A	C3'-C2'-C1'	7.60	107.58	101.50
34	i	526	A	C4'-C3'-O3'	7.59	128.18	113.00
34	i	848	G	C4'-C3'-O3'	-7.59	93.47	109.40
34	i	1182	U	O4'-C1'-N1	7.59	114.27	108.20
34	i	1517	A	C5'-C4'-O4'	7.59	118.20	109.10
33	g	274	VAL	C-N-CA	-7.58	102.74	121.70
34	i	301	C	O4'-C1'-N1	7.58	114.27	108.20
13	M	10	GLY	N-CA-C	7.58	132.05	113.10
34	i	436	G	C3'-C2'-C1'	7.58	107.56	101.50
34	i	689	G	O4'-C1'-C2'	-7.58	98.22	105.80
12	L	153	LYS	CA-C-N	7.57	133.86	117.20
9	I	55	TYR	CA-CB-CG	-7.57	99.01	113.40
34	i	1092	G	O4'-C1'-N9	7.57	114.26	108.20
34	i	1828	A	O4'-C1'-N9	7.57	114.26	108.20
34	i	1591	U	O4'-C1'-N1	7.56	114.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	F	131	ALA	C-N-CA	-7.55	106.43	122.30
34	i	78	C	N1-C1'-C2'	-7.55	103.69	112.00
34	i	902	U	O4'-C1'-N1	7.55	114.24	108.20
34	i	1488	U	O4'-C1'-N1	7.55	114.24	108.20
34	i	1043	C	C3'-C2'-C1'	7.55	107.54	101.50
34	i	1263	C	N1-C1'-C2'	7.54	123.81	114.00
16	P	52	LYS	C-N-CA	-7.54	102.85	121.70
34	i	594	A	C3'-C2'-C1'	7.54	107.53	101.50
34	i	1447	G	C3'-C2'-C1'	7.54	107.53	101.50
6	F	36	GLN	N-CA-C	-7.53	90.67	111.00
34	i	1559	C	N1-C1'-C2'	7.53	123.79	114.00
34	i	1028	C	N1-C1'-C2'	7.53	123.78	114.00
34	i	630	A	N9-C1'-C2'	7.52	123.78	114.00
34	i	1720	U	O4'-C1'-N1	7.52	114.22	108.20
34	i	296	U	P-O5'-C5'	7.52	132.93	120.90
34	i	865	A	O4'-C1'-N9	7.51	114.21	108.20
4	D	94	ARG	CB-CA-C	-7.51	95.37	110.40
34	i	927	C	O4'-C1'-C2'	-7.51	98.29	105.80
34	i	1406	C	C3'-C2'-C1'	7.51	107.51	101.50
34	i	554	A	O4'-C1'-N9	7.51	114.20	108.20
34	i	1689	U	O4'-C1'-N1	7.51	114.20	108.20
8	H	106	ARG	NE-CZ-NH1	-7.50	116.55	120.30
34	i	1530	U	O3'-P-O5'	-7.50	89.74	104.00
34	i	218	A	O4'-C1'-N9	7.50	114.20	108.20
34	i	1505	U	C4'-C3'-O3'	-7.50	93.65	109.40
34	i	35	C	C3'-C2'-C1'	7.50	107.50	101.50
34	i	1690	A	O4'-C1'-C2'	-7.50	98.30	105.80
34	i	1269	C	P-O3'-C3'	-7.50	110.70	119.70
34	i	1664	G	O4'-C1'-N9	7.50	114.20	108.20
34	i	529	C	O4'-C1'-N1	7.49	114.19	108.20
21	U	104	ILE	N-CA-CB	7.49	128.02	110.80
34	i	34	U	C1'-O4'-C4'	-7.49	103.91	109.90
34	i	1504	A	C1'-O4'-C4'	7.48	115.89	109.90
34	i	795	U	P-O3'-C3'	7.48	128.68	119.70
34	i	794	G	P-O5'-C5'	7.48	132.87	120.90
34	i	1396	U	O4'-C1'-N1	7.48	114.18	108.20
34	i	659	A	O4'-C1'-N9	7.47	114.18	108.20
34	i	1055	G	P-O3'-C3'	7.47	128.67	119.70
34	i	1127	G	O4'-C1'-N9	7.47	114.18	108.20
10	J	161	LEU	C-N-CA	-7.46	103.04	121.70
34	i	628	C	O4'-C1'-N1	7.46	114.17	108.20
34	i	825	C	O4'-C1'-C2'	-7.46	98.34	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	188	U	O4'-C1'-N1	7.46	114.17	108.20
34	i	1410	A	O4'-C1'-N9	7.46	114.17	108.20
34	i	230	C	O4'-C1'-N1	7.46	114.17	108.20
34	i	798	A	C1'-O4'-C4'	-7.46	103.93	109.90
34	i	606	A	N9-C1'-C2'	7.46	123.69	114.00
34	i	639	U	N1-C1'-C2'	7.45	123.69	114.00
8	H	109	ARG	CA-CB-CG	-7.45	97.02	113.40
34	i	170	A	O4'-C1'-N9	7.44	114.16	108.20
34	i	210	G	N9-C1'-C2'	-7.44	103.81	112.00
18	R	1	MET	CB-CA-C	7.44	125.28	110.40
34	i	1776	G	C5'-C4'-C3'	7.44	127.91	116.00
34	i	35	C	O4'-C1'-C2'	-7.44	98.36	105.80
34	i	808	A	O4'-C1'-N9	7.44	114.15	108.20
34	i	976	A	C1'-O4'-C4'	-7.44	103.95	109.90
34	i	1424	G	N9-C1'-C2'	-7.43	103.82	112.00
34	i	689	G	C3'-C2'-C1'	7.43	107.44	101.50
10	J	17	ARG	CB-CA-C	-7.43	95.55	110.40
34	i	547	U	O4'-C1'-C2'	-7.43	98.37	105.80
19	S	9	PHE	N-CA-C	7.42	131.04	111.00
34	i	1451	A	O4'-C1'-C2'	-7.42	98.38	105.80
34	i	450	A	O4'-C1'-N9	7.42	114.13	108.20
34	i	1667	U	O4'-C1'-N1	7.41	114.13	108.20
34	i	14	C	O4'-C1'-N1	7.41	114.12	108.20
34	i	1068	U	P-O3'-C3'	7.40	128.58	119.70
34	i	1459	U	P-O5'-C5'	7.40	132.74	120.90
34	i	797	U	O4'-C1'-N1	7.40	114.12	108.20
32	f	148	TYR	CA-CB-CG	-7.39	99.35	113.40
34	i	1845	A	P-O3'-C3'	7.39	128.57	119.70
34	i	608	C	O4'-C1'-N1	7.39	114.11	108.20
34	i	1818	A	P-O3'-C3'	7.39	128.57	119.70
34	i	76	U	P-O5'-C5'	7.39	132.72	120.90
34	i	420	C	O4'-C1'-N1	7.38	114.11	108.20
34	i	798	A	O4'-C1'-N9	7.38	114.11	108.20
34	i	1043	C	O4'-C1'-C2'	-7.38	98.42	105.80
5	E	75	LYS	N-CA-C	7.38	130.92	111.00
34	i	17	C	O4'-C1'-N1	7.38	114.10	108.20
34	i	534	G	O4'-C1'-N9	7.38	114.10	108.20
34	i	542	G	C3'-C2'-C1'	-7.38	95.60	101.50
34	i	1433	C	C1'-O4'-C4'	-7.38	104.00	109.90
24	X	115	ILE	N-CA-C	-7.38	91.09	111.00
23	W	100	GLY	N-CA-C	-7.37	94.67	113.10
9	I	133	GLU	O-C-N	-7.37	110.91	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1413	C	C1'-O4'-C4'	7.37	115.80	109.90
10	J	144	ILE	CA-CB-CG1	-7.37	97.01	111.00
34	i	1194	G	C3'-C2'-C1'	-7.36	95.61	101.50
34	i	1648	U	P-O3'-C3'	7.36	128.54	119.70
34	i	27	A	O4'-C1'-N9	7.36	114.09	108.20
34	i	168	C	C3'-C2'-C1'	7.36	107.39	101.50
34	i	1630	C	O4'-C1'-N1	7.36	114.09	108.20
34	i	1184	A	C3'-C2'-C1'	7.36	107.39	101.50
34	i	187	C	O4'-C1'-C2'	-7.35	98.45	105.80
34	i	743	U	O4'-C1'-C2'	-7.35	98.45	105.80
34	i	1590	U	N1-C1'-C2'	-7.35	103.91	112.00
34	i	1600	G	C1'-O4'-C4'	-7.35	104.02	109.90
33	g	50	THR	C-N-CA	-7.35	103.33	121.70
34	i	106	C	O4'-C1'-N1	7.35	114.08	108.20
28	b	9	HIS	C-N-CD	-7.35	104.44	120.60
34	i	432	C	C3'-C2'-C1'	7.34	107.38	101.50
10	J	180	LYS	CB-CA-C	-7.34	95.72	110.40
34	i	1325	U	N1-C1'-C2'	7.34	123.54	114.00
34	i	1355	U	C1'-O4'-C4'	7.34	115.77	109.90
34	i	893	U	O3'-P-O5'	-7.34	90.06	104.00
9	I	3	ILE	N-CA-C	7.34	130.81	111.00
18	R	3	ARG	NE-CZ-NH2	7.33	123.97	120.30
34	i	225	C	N1-C1'-C2'	7.33	123.53	114.00
34	i	1301	C	O4'-C1'-N1	7.33	114.06	108.20
34	i	1533	C	C4'-C3'-C2'	-7.33	95.27	102.60
34	i	1717	G	P-O5'-C5'	7.32	132.62	120.90
34	i	997	A	O4'-C1'-C2'	-7.32	98.48	105.80
34	i	1204	A	N9-C1'-C2'	-7.32	103.95	112.00
34	i	1237	A	P-O3'-C3'	7.32	128.49	119.70
34	i	1258	C	C1'-O4'-C4'	-7.32	104.04	109.90
24	X	23	HIS	C-N-CA	7.32	139.99	121.70
34	i	332	C	C3'-C2'-C1'	7.32	107.36	101.50
21	U	93	SER	C-N-CA	-7.30	91.32	122.00
34	i	1019	A	C1'-O4'-C4'	7.30	115.74	109.90
34	i	1766	C	C3'-C2'-C1'	7.30	107.34	101.50
34	i	841	G	P-O3'-C3'	-7.30	110.94	119.70
34	i	853	U	C1'-O4'-C4'	-7.30	104.06	109.90
34	i	980	C	N1-C1'-C2'	7.30	123.49	114.00
34	i	1557	C	N1-C1'-C2'	7.30	123.49	114.00
34	i	498	A	O4'-C1'-N9	7.29	114.03	108.20
34	i	1059	C	C3'-C2'-C1'	7.29	107.33	101.50
34	i	359	C	N1-C1'-C2'	7.28	123.47	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	81	U	N1-C1'-C2'	7.28	123.46	114.00
34	i	656	U	O4'-C1'-C2'	-7.28	98.52	105.80
25	Y	64	PHE	C-N-CA	-7.28	107.02	122.30
34	i	684	A	C3'-C2'-C1'	-7.28	95.68	101.50
34	i	985	C	O4'-C1'-C2'	-7.27	98.53	105.80
34	i	1675	G	O4'-C1'-N9	7.27	114.01	108.20
34	i	1773	G	C3'-C2'-C1'	-7.27	95.69	101.50
34	i	1773	G	N9-C1'-C2'	-7.27	104.00	112.00
4	D	82	GLY	O-C-N	-7.26	111.08	122.70
34	i	1060	C	C3'-C2'-C1'	7.26	107.31	101.50
34	i	431	C	C1'-O4'-C4'	-7.26	104.09	109.90
34	i	1186	A	O4'-C1'-C2'	-7.26	98.54	105.80
18	R	89	SER	C-N-CA	-7.26	103.56	121.70
18	R	1	MET	O-C-N	7.25	135.53	123.20
34	i	541	U	P-O5'-C5'	7.25	132.50	120.90
34	i	1041	U	O4'-C1'-N1	7.25	114.00	108.20
34	i	1237	A	O4'-C1'-C2'	-7.25	98.55	105.80
34	i	673	G	O4'-C1'-N9	7.25	114.00	108.20
34	i	942	U	O4'-C1'-N1	7.25	114.00	108.20
34	i	57	U	C1'-O4'-C4'	7.24	115.70	109.90
34	i	1244	U	O4'-C1'-N1	7.24	114.00	108.20
14	N	19	ARG	N-CA-C	-7.24	91.45	111.00
34	i	1663	U	O5'-P-OP2	-7.24	99.18	105.70
34	i	1527	C	C3'-C2'-C1'	7.23	107.29	101.50
34	i	574	A	P-O5'-C5'	7.23	132.47	120.90
34	i	791	A	O4'-C1'-C2'	-7.23	98.57	105.80
34	i	1305	C	C3'-C2'-C1'	7.23	107.28	101.50
34	i	277	U	O4'-C1'-C2'	-7.23	98.57	105.80
34	i	873	C	O4'-C1'-C2'	-7.22	98.58	105.80
34	i	740	G	C3'-C2'-C1'	7.22	107.27	101.50
33	g	275	ILE	N-CA-C	7.22	130.49	111.00
34	i	1045	A	C4'-C3'-C2'	-7.21	95.39	102.60
34	i	1459	U	O4'-C1'-N1	7.21	113.97	108.20
18	R	1	MET	CA-CB-CG	7.21	125.56	113.30
34	i	149	A	C3'-C2'-C1'	7.21	107.27	101.50
34	i	1404	U	C1'-O4'-C4'	-7.21	104.13	109.90
34	i	1175	G	O4'-C1'-N9	7.21	113.97	108.20
34	i	1015	C	N1-C1'-C2'	7.21	123.37	114.00
34	i	503	G	O4'-C1'-N9	7.21	113.97	108.20
35	l	102	LEU	CA-CB-CG	7.21	131.87	115.30
4	D	52	ALA	C-N-CA	-7.20	103.69	121.70
10	J	91	LYS	O-C-N	-7.20	111.17	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	H	110	THR	CA-C-N	7.20	133.03	117.20
10	J	35	TYR	CA-C-N	-7.20	101.81	116.20
18	R	111	PHE	N-CA-C	7.19	130.42	111.00
32	f	88	PRO	O-C-N	-7.19	111.19	122.70
34	i	1001	G	O4'-C1'-N9	7.19	113.95	108.20
34	i	454	A	O3'-P-O5'	7.19	117.66	104.00
34	i	1672	U	N1-C1'-C2'	-7.18	104.10	112.00
34	i	1504	A	O4'-C1'-N9	7.18	113.94	108.20
34	i	32	U	O4'-C1'-N1	7.18	113.94	108.20
34	i	170	A	C5'-C4'-C3'	-7.17	104.52	116.00
34	i	279	G	N9-C1'-C2'	-7.17	104.11	112.00
34	i	1767	C	O4'-C1'-N1	7.17	113.94	108.20
8	H	191	GLU	O-C-N	-7.17	111.22	122.70
34	i	827	G	C3'-C2'-C1'	-7.17	95.76	101.50
34	i	1666	G	C1'-O4'-C4'	-7.17	104.16	109.90
34	i	1161	G	O4'-C1'-N9	7.17	113.93	108.20
34	i	1637	U	C1'-O4'-C4'	7.17	115.64	109.90
34	i	1693	C	C3'-C2'-C1'	7.17	107.23	101.50
34	i	53	C	C3'-C2'-C1'	7.17	107.23	101.50
34	i	364	G	O4'-C1'-N9	7.17	113.93	108.20
34	i	830	C	P-O3'-C3'	7.17	128.30	119.70
34	i	1116	U	N1-C1'-C2'	7.17	123.32	114.00
16	P	49	LEU	CA-C-N	7.16	132.95	117.20
34	i	510	A	C1'-O4'-C4'	-7.16	104.17	109.90
34	i	162	C	C4'-C3'-O3'	7.16	127.31	113.00
34	i	906	G	O4'-C1'-N9	7.16	113.92	108.20
11	K	35	LEU	N-CA-C	-7.15	91.69	111.00
34	i	49	C	N1-C1'-C2'	7.15	123.30	114.00
34	i	1656	A	C1'-O4'-C4'	-7.15	104.18	109.90
34	i	1781	G	O4'-C1'-N9	7.15	113.92	108.20
27	a	97	PRO	CA-CB-CG	7.15	118.38	104.80
34	i	1668	U	O4'-C1'-N1	7.15	113.92	108.20
34	i	1560	C	O4'-C1'-C2'	-7.14	98.66	105.80
34	i	227	A	C3'-C2'-C1'	7.14	107.21	101.50
34	i	1363	U	O4'-C1'-N1	7.14	113.91	108.20
34	i	299	G	P-O3'-C3'	7.14	128.26	119.70
34	i	1517	A	P-O3'-C3'	-7.14	111.14	119.70
34	i	1578	C	C3'-C2'-C1'	7.14	107.21	101.50
24	X	22	TRP	C-N-CA	-7.13	103.87	121.70
34	i	64	A	N9-C1'-C2'	-7.13	104.15	112.00
34	i	567	U	O4'-C1'-N1	7.13	113.91	108.20
34	i	1210	A	O4'-C1'-N9	7.13	113.90	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1326	G	C1'-O4'-C4'	-7.13	104.20	109.90
2	B	147	ASN	C-N-CA	-7.13	103.88	121.70
14	N	14	SER	CB-CA-C	-7.13	96.55	110.10
34	i	970	C	N1-C1'-C2'	7.13	123.27	114.00
34	i	1311	U	C3'-C2'-C1'	-7.13	95.80	101.50
34	i	53	C	C1'-O4'-C4'	7.13	115.60	109.90
34	i	1287	A	P-O3'-C3'	7.13	128.25	119.70
34	i	1452	G	C1'-O4'-C4'	-7.13	104.20	109.90
34	i	635	C	C3'-C2'-C1'	7.12	107.20	101.50
8	H	109	ARG	O-C-N	7.12	134.10	122.70
34	i	894	U	P-O5'-C5'	7.12	132.30	120.90
34	i	684	A	C1'-O4'-C4'	-7.12	104.20	109.90
34	i	60	A	O4'-C1'-C2'	7.12	114.01	107.60
34	i	58	C	N1-C1'-C2'	-7.12	104.17	112.00
34	i	1288	C	P-O5'-C5'	-7.11	109.52	120.90
34	i	145	G	O4'-C1'-C2'	7.11	114.00	107.60
34	i	1755	U	P-O5'-C5'	7.11	132.28	120.90
34	i	1634	G	C3'-C2'-C1'	7.11	107.19	101.50
34	i	91	A	O4'-C1'-N9	7.11	113.89	108.20
34	i	306	C	O4'-C1'-N1	7.10	113.88	108.20
34	i	834	G	O4'-C1'-N9	7.10	113.88	108.20
34	i	1019	A	N9-C1'-C2'	-7.10	104.19	112.00
34	i	241	A	O4'-C1'-C2'	-7.10	98.70	105.80
34	i	981	G	O4'-C1'-N9	7.09	113.88	108.20
34	i	997	A	C1'-O4'-C4'	7.09	115.58	109.90
34	i	410	G	C1'-O4'-C4'	-7.09	104.23	109.90
34	i	731	C	O4'-C1'-N1	7.09	113.87	108.20
34	i	545	A	O4'-C1'-C2'	-7.09	98.71	105.80
20	T	4	VAL	N-CA-CB	-7.09	95.91	111.50
19	S	93	GLY	CA-C-N	-7.09	101.61	117.20
34	i	1118	A	N9-C1'-C2'	-7.08	104.21	112.00
34	i	908	C	O4'-C1'-N1	7.08	113.86	108.20
10	J	164	PRO	N-CA-CB	-7.08	94.81	103.30
11	K	37	ASP	CB-CG-OD2	7.08	124.67	118.30
34	i	290	A	O4'-C1'-N9	7.07	113.86	108.20
15	O	145	GLY	N-CA-C	7.07	130.78	113.10
34	i	166	A	O4'-C1'-N9	7.07	113.86	108.20
34	i	262	G	P-O3'-C3'	7.07	128.18	119.70
34	i	956	U	C1'-O4'-C4'	-7.07	104.24	109.90
34	i	286	C	N1-C1'-C2'	7.06	123.18	114.00
34	i	1546	U	C3'-C2'-C1'	-7.06	95.85	101.50
34	i	167	G	N9-C1'-C2'	-7.05	104.24	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	860	A	O4'-C1'-N9	7.05	113.84	108.20
34	i	1671	U	P-O3'-C3'	-7.05	111.23	119.70
19	S	142	ARG	N-CA-CB	-7.05	97.91	110.60
34	i	518	A	N9-C1'-C2'	7.05	123.17	114.00
34	i	1339	U	O4'-C1'-N1	7.05	113.84	108.20
34	i	1661	C	O4'-C1'-N1	7.05	113.84	108.20
34	i	945	G	O4'-C1'-N9	7.05	113.84	108.20
34	i	1827	C	C3'-C2'-C1'	7.05	107.14	101.50
34	i	1858	U	P-O5'-C5'	7.05	132.18	120.90
34	i	1275	C	O4'-C1'-C2'	-7.04	98.76	105.80
34	i	1651	G	C1'-O4'-C4'	-7.04	104.27	109.90
34	i	1425	G	P-O5'-C5'	7.04	132.16	120.90
11	K	1	MET	N-CA-C	7.04	130.00	111.00
34	i	368	U	C4'-C3'-C2'	-7.04	95.56	102.60
34	i	899	A	C3'-C2'-C1'	-7.03	95.88	101.50
34	i	100	U	O4'-C1'-N1	7.03	113.82	108.20
34	i	279	G	O4'-C1'-N9	7.03	113.82	108.20
34	i	792	G	C3'-C2'-C1'	-7.03	95.88	101.50
34	i	1503	G	C1'-C2'-O2'	7.03	131.68	110.60
34	i	1852	G	O4'-C1'-N9	7.03	113.82	108.20
34	i	275	C	C3'-C2'-C1'	7.03	107.12	101.50
18	R	2	GLY	CA-C-N	7.02	132.65	117.20
34	i	1788	C	O4'-C1'-C2'	-7.02	98.78	105.80
34	i	389	C	O4'-C1'-C2'	-7.02	98.78	105.80
34	i	127	C	P-O3'-C3'	7.02	128.12	119.70
34	i	1438	U	O4'-C1'-N1	7.01	113.81	108.20
34	i	1837	G	C1'-O4'-C4'	-7.01	104.29	109.90
34	i	1738	G	C1'-O4'-C4'	-7.01	104.29	109.90
34	i	1128	C	O4'-C1'-N1	7.01	113.81	108.20
20	T	4	VAL	CA-C-N	7.00	132.61	117.20
34	i	369	C	C3'-C2'-C1'	7.00	107.10	101.50
34	i	409	G	O4'-C1'-C2'	-7.00	98.80	105.80
34	i	31	U	C1'-O4'-C4'	7.00	115.50	109.90
3	C	258	LEU	CB-CG-CD2	6.99	122.89	111.00
34	i	499	G	O4'-C1'-N9	6.99	113.80	108.20
20	T	82	ARG	NE-CZ-NH1	6.99	123.80	120.30
34	i	1693	C	P-O3'-C3'	6.99	128.09	119.70
34	i	342	U	O4'-C1'-N1	6.99	113.79	108.20
34	i	1042	U	O4'-C1'-N1	6.99	113.79	108.20
34	i	1118	A	C1'-O4'-C4'	6.99	115.49	109.90
4	D	83	SER	N-CA-CB	6.98	120.97	110.50
34	i	1093	G	C5'-C4'-O4'	6.98	117.47	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1373	U	O4'-C1'-N1	6.98	113.78	108.20
34	i	1783	G	O4'-C1'-C2'	-6.98	98.82	105.80
34	i	587	G	O4'-C1'-N9	6.97	113.78	108.20
32	f	148	TYR	N-CA-C	6.97	129.82	111.00
34	i	267	G	P-O3'-C3'	6.97	128.06	119.70
34	i	790	A	C3'-C2'-C1'	6.97	107.08	101.50
34	i	315	C	O4'-C1'-C2'	-6.97	98.83	105.80
34	i	1205	A	N9-C1'-C2'	-6.97	104.33	112.00
34	i	637	U	O4'-C1'-N1	6.97	113.77	108.20
34	i	839	C	O4'-C1'-N1	6.97	113.77	108.20
34	i	1053	C	O4'-C1'-N1	6.96	113.77	108.20
11	K	55	ARG	CB-CG-CD	6.96	129.70	111.60
34	i	1426	C	O4'-C1'-C2'	-6.96	98.84	105.80
34	i	877	G	C1'-O4'-C4'	-6.96	104.33	109.90
34	i	1105	C	C3'-C2'-C1'	-6.96	95.93	101.50
10	J	123	ILE	CB-CA-C	6.96	125.51	111.60
20	T	82	ARG	NE-CZ-NH2	6.96	123.78	120.30
34	i	597	U	N1-C1'-C2'	6.96	123.04	114.00
34	i	1405	A	O4'-C1'-C2'	-6.96	98.84	105.80
34	i	1584	A	N9-C1'-C2'	-6.96	104.35	112.00
34	i	636	G	O4'-C1'-N9	6.95	113.76	108.20
34	i	47	G	O4'-C1'-N9	6.95	113.76	108.20
34	i	465	C	C3'-C2'-C1'	6.95	107.06	101.50
34	i	1047	G	O4'-C1'-N9	6.95	113.76	108.20
34	i	1478	C	O4'-C1'-N1	6.95	113.76	108.20
20	T	82	ARG	NH1-CZ-NH2	-6.94	111.76	119.40
34	i	1052	U	P-O3'-C3'	-6.94	111.37	119.70
34	i	1328	A	C3'-C2'-C1'	6.94	107.05	101.50
28	b	79	PHE	N-CA-C	6.93	129.72	111.00
34	i	275	C	O4'-C1'-C2'	-6.93	98.87	105.80
34	i	1640	C	P-O3'-C3'	6.93	128.02	119.70
34	i	1329	U	N1-C1'-C2'	-6.92	104.38	112.00
34	i	1479	A	N9-C1'-C2'	-6.92	104.38	112.00
11	K	2	LEU	CA-CB-CG	-6.92	99.38	115.30
34	i	1693	C	O4'-C1'-C2'	-6.92	98.88	105.80
2	B	77	ASP	CB-CG-OD1	6.92	124.53	118.30
34	i	312	C	C3'-C2'-C1'	6.92	107.03	101.50
34	i	1402	G	N9-C1'-C2'	6.92	122.99	114.00
34	i	1503	G	C3'-C2'-C1'	-6.91	95.97	101.50
34	i	1542	C	C3'-C2'-C1'	6.91	107.03	101.50
34	i	1648	U	N1-C1'-C2'	-6.91	104.40	112.00
34	i	93	U	O4'-C1'-C2'	-6.91	98.89	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	729	C	O4'-C1'-C2'	-6.90	98.90	105.80
34	i	374	U	N1-C1'-C2'	6.90	122.97	114.00
24	X	128	VAL	N-CA-C	6.90	129.63	111.00
25	Y	31	GLY	N-CA-C	6.90	130.35	113.10
34	i	74	G	P-O3'-C3'	6.89	127.97	119.70
34	i	726	C	P-O3'-C3'	6.89	127.97	119.70
34	i	741	C	C3'-C2'-C1'	6.89	107.02	101.50
34	i	365	U	P-O5'-C5'	6.89	131.93	120.90
34	i	63	U	O4'-C1'-N1	6.89	113.71	108.20
34	i	571	U	P-O3'-C3'	-6.89	111.43	119.70
34	i	1545	G	P-O3'-C3'	6.89	127.96	119.70
34	i	769	C	P-O3'-C3'	6.88	127.96	119.70
18	R	123	THR	CB-CA-C	-6.88	93.02	111.60
34	i	862	U	C3'-C2'-C1'	-6.88	95.99	101.50
34	i	274	G	O4'-C1'-C2'	6.88	113.79	107.60
34	i	1497	C	O3'-P-O5'	-6.88	90.93	104.00
19	S	93	GLY	O-C-N	6.88	133.71	122.70
34	i	725	C	O4'-C1'-C2'	-6.88	98.92	105.80
11	K	2	LEU	N-CA-C	6.87	129.55	111.00
21	U	118	ASP	CB-CG-OD1	6.87	124.48	118.30
8	H	110	THR	CA-CB-CG2	6.87	122.02	112.40
34	i	1681	G	O4'-C1'-N9	6.87	113.69	108.20
34	i	1647	G	O4'-C1'-N9	6.87	113.69	108.20
34	i	507	C	N1-C1'-C2'	6.86	122.92	114.00
34	i	1533	C	O4'-C1'-C2'	-6.86	98.94	105.80
34	i	1199	G	O4'-C1'-C2'	6.86	113.77	107.60
34	i	1114	C	C1'-O4'-C4'	6.85	115.38	109.90
34	i	278	U	O4'-C1'-N1	-6.85	102.72	108.20
34	i	609	A	N9-C1'-C2'	-6.85	104.47	112.00
34	i	1777	C	C3'-C2'-C1'	6.84	106.97	101.50
34	i	900	A	C1'-O4'-C4'	-6.84	104.43	109.90
34	i	1847	C	C1'-O4'-C4'	-6.84	104.43	109.90
34	i	1171	G	C1'-O4'-C4'	-6.84	104.43	109.90
34	i	65	C	C1'-O4'-C4'	6.83	115.37	109.90
34	i	193	C	N1-C1'-C2'	6.83	122.88	114.00
34	i	369	C	P-O3'-C3'	6.83	127.90	119.70
3	C	105	GLN	N-CA-C	6.83	129.44	111.00
27	a	58	VAL	CG1-CB-CG2	-6.83	99.97	110.90
3	C	242	LYS	N-CA-C	6.83	129.43	111.00
34	i	1530	U	C4'-C3'-O3'	6.82	126.64	113.00
34	i	1633	G	C3'-C2'-C1'	6.82	106.96	101.50
34	i	1638	U	C3'-C2'-C1'	6.82	106.96	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1350	G	C2'-C3'-O3'	6.82	124.61	113.70
34	i	343	C	N1-C1'-C2'	6.82	122.86	114.00
34	i	377	C	N1-C1'-C2'	6.82	122.86	114.00
34	i	1642	A	C3'-C2'-C1'	-6.82	96.05	101.50
34	i	850	A	P-O5'-C5'	6.81	131.80	120.90
34	i	407	C	C3'-C2'-C1'	6.81	106.95	101.50
34	i	299	G	O4'-C1'-C2'	6.81	113.73	107.60
34	i	31	U	N1-C1'-C2'	-6.80	104.52	112.00
34	i	227	A	O4'-C1'-C2'	-6.80	99.00	105.80
34	i	509	A	O4'-C1'-C2'	-6.80	99.00	105.80
34	i	1038	A	O4'-C1'-N9	6.80	113.64	108.20
34	i	1573	U	C1'-O4'-C4'	6.80	115.34	109.90
13	M	13	ASP	CB-CG-OD1	-6.80	112.18	118.30
34	i	1782	A	O4'-C1'-N9	6.80	113.64	108.20
1	A	53	ARG	NE-CZ-NH1	-6.79	116.90	120.30
18	R	87	GLU	CB-CA-C	-6.79	96.81	110.40
34	i	1603	U	O4'-C1'-N1	6.79	113.64	108.20
31	e	122	THR	O-C-N	-6.79	111.83	122.70
33	g	159	ASN	C-N-CA	-6.79	104.72	121.70
34	i	15	U	O4'-C1'-N1	6.79	113.63	108.20
34	i	540	C	O3'-P-O5'	-6.79	91.10	104.00
34	i	1423	C	O4'-C1'-C2'	-6.79	99.01	105.80
34	i	1786	G	O4'-C1'-N9	6.79	113.63	108.20
34	i	1024	A	C5'-C4'-C3'	-6.79	105.14	116.00
6	F	37	ASP	N-CA-C	6.78	129.31	111.00
34	i	1167	G	O4'-C1'-C2'	-6.78	99.02	105.80
34	i	657	U	C1'-O4'-C4'	-6.78	104.47	109.90
34	i	989	G	O4'-C1'-N9	6.78	113.62	108.20
34	i	1859	C	C2'-C3'-O3'	-6.78	94.58	109.50
34	i	683	G	O4'-C4'-C3'	-6.78	97.22	104.00
34	i	318	U	O4'-C1'-N1	6.78	113.62	108.20
34	i	612	C	C1'-O4'-C4'	-6.78	104.48	109.90
34	i	1099	C	O4'-C1'-N1	6.78	113.62	108.20
34	i	41	G	C1'-O4'-C4'	-6.77	104.48	109.90
2	B	133	TYR	N-CA-CB	-6.77	98.42	110.60
21	U	48	LEU	CA-CB-CG	-6.77	99.73	115.30
34	i	1216	A	C1'-O4'-C4'	-6.77	104.48	109.90
34	i	321	C	O4'-C1'-C2'	-6.77	99.03	105.80
34	i	1251	G	N9-C1'-C2'	6.77	122.80	114.00
34	i	125	C	O3'-P-O5'	6.76	116.85	104.00
34	i	1831	G	O4'-C1'-N9	6.76	113.61	108.20
34	i	449	C	C5'-C4'-O4'	6.76	117.21	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1239	U	O4'-C1'-N1	6.76	113.60	108.20
34	i	1511	G	O4'-C1'-N9	6.75	113.60	108.20
34	i	1727	G	O4'-C1'-N9	6.75	113.60	108.20
34	i	1774	G	O3'-P-O5'	6.75	116.82	104.00
34	i	438	A	C3'-C2'-C1'	-6.75	96.10	101.50
34	i	1173	U	O4'-C1'-N1	6.74	113.59	108.20
34	i	312	C	P-O3'-C3'	6.74	127.79	119.70
34	i	978	G	O4'-C1'-N9	6.74	113.59	108.20
34	i	1857	A	C1'-O4'-C4'	6.74	115.29	109.90
34	i	1779	C	P-O3'-C3'	6.74	127.78	119.70
34	i	1418	G	N9-C1'-C2'	-6.73	104.59	112.00
34	i	1739	G	C1'-O4'-C4'	6.73	115.29	109.90
34	i	1277	G	O4'-C1'-N9	6.73	113.58	108.20
34	i	736	C	O4'-C1'-N1	6.72	113.58	108.20
34	i	845	A	O4'-C1'-N9	6.72	113.58	108.20
34	i	1778	G	N9-C1'-C2'	6.72	122.74	114.00
22	V	67	ASP	CB-CG-OD2	6.72	124.34	118.30
33	g	142	VAL	O-C-N	6.72	133.44	122.70
34	i	959	A	C3'-C2'-C1'	-6.72	96.13	101.50
34	i	550	A	O4'-C1'-N9	6.71	113.57	108.20
27	a	63	VAL	CB-CA-C	6.71	124.15	111.40
34	i	1652	G	C1'-O4'-C4'	-6.71	104.53	109.90
10	J	179	LYS	C-N-CA	6.71	138.47	121.70
34	i	622	C	C3'-C2'-C1'	6.71	106.86	101.50
34	i	1604	C	O4'-C1'-N1	6.71	113.56	108.20
10	J	144	ILE	CB-CA-C	6.71	125.01	111.60
34	i	1285	U	P-O3'-C3'	6.70	127.74	119.70
34	i	447	C	O4'-C1'-N1	6.70	113.56	108.20
34	i	920	G	O4'-C1'-N9	6.70	113.56	108.20
34	i	1775	A	C3'-C2'-C1'	6.70	106.86	101.50
34	i	373	G	C3'-C2'-C1'	6.69	106.86	101.50
34	i	1243	C	O4'-C1'-C2'	-6.69	99.11	105.80
7	G	157	VAL	CA-C-N	-6.69	102.48	117.20
23	W	2	VAL	C-N-CA	-6.69	104.97	121.70
34	i	432	C	N1-C1'-C2'	6.69	122.70	114.00
34	i	471	C	N1-C1'-C2'	6.68	122.69	114.00
34	i	512	A	P-O5'-C5'	6.68	131.59	120.90
34	i	1222	G	C1'-O4'-C4'	-6.68	104.55	109.90
6	F	130	ARG	N-CA-C	6.68	129.04	111.00
18	R	121	GLN	C-N-CD	-6.68	105.90	120.60
34	i	906	G	C1'-O4'-C4'	-6.68	104.56	109.90
19	S	16	LEU	CB-CG-CD2	-6.68	99.64	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	202	U	O4'-C1'-N1	6.68	113.54	108.20
2	B	41	ILE	CG1-CB-CG2	-6.68	96.71	111.40
34	i	1525	U	O4'-C1'-N1	6.68	113.54	108.20
34	i	243	C	P-O3'-C3'	6.67	127.71	119.70
34	i	1656	A	C3'-C2'-C1'	-6.67	96.16	101.50
34	i	421	G	O4'-C1'-N9	6.67	113.53	108.20
34	i	616	G	O4'-C1'-N9	-6.67	102.86	108.20
2	B	155	TYR	CB-CA-C	-6.67	97.07	110.40
11	K	89	ILE	CA-CB-CG1	-6.67	98.33	111.00
34	i	1673	A	C3'-C2'-C1'	-6.66	96.17	101.50
34	i	94	G	C1'-O4'-C4'	-6.66	104.57	109.90
34	i	158	A	O4'-C1'-N9	6.66	113.53	108.20
34	i	1280	A	O4'-C1'-C2'	-6.66	99.14	105.80
10	J	91	LYS	N-CA-C	-6.65	93.03	111.00
34	i	853	U	N1-C1'-C2'	6.65	122.65	114.00
34	i	876	G	C3'-C2'-C1'	-6.65	96.18	101.50
34	i	1455	G	N9-C1'-C2'	6.65	122.65	114.00
34	i	190	A	O4'-C1'-C2'	-6.65	99.15	105.80
34	i	1519	G	O4'-C1'-N9	6.65	113.52	108.20
34	i	307	G	P-O5'-C5'	6.64	131.53	120.90
34	i	1816	A	O3'-P-O5'	-6.64	91.37	104.00
34	i	548	G	C1'-O4'-C4'	-6.64	104.59	109.90
34	i	144	U	C1'-O4'-C4'	-6.64	104.59	109.90
34	i	1385	C	P-O5'-C5'	6.64	131.52	120.90
34	i	1754	G	N9-C1'-C2'	-6.64	104.70	112.00
34	i	983	A	P-O5'-C5'	-6.63	110.28	120.90
34	i	1088	G	O4'-C1'-N9	6.63	113.51	108.20
34	i	1251	G	P-O3'-C3'	-6.63	111.74	119.70
34	i	1861	U	P-O3'-C3'	6.63	127.66	119.70
34	i	553	G	O4'-C1'-C2'	-6.63	99.17	105.80
34	i	1284	U	O4'-C1'-N1	6.63	113.50	108.20
19	S	87	GLN	CA-C-N	6.63	131.78	117.20
35	l	100	ILE	N-CA-C	6.63	128.90	111.00
34	i	1859	C	P-O3'-C3'	-6.62	111.75	119.70
34	i	1664	G	O5'-P-OP2	6.62	118.64	110.70
11	K	42	ASN	CA-C-N	6.62	131.76	117.20
34	i	807	A	O4'-C1'-N9	6.62	113.49	108.20
34	i	1202	G	O4'-C1'-N9	6.62	113.49	108.20
34	i	437	A	C1'-O4'-C4'	6.61	115.19	109.90
34	i	1366	A	O4'-C1'-C2'	-6.61	99.19	105.80
34	i	1266	G	N9-C1'-C2'	-6.61	104.73	112.00
34	i	1639	C	P-O3'-C3'	6.61	127.63	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	V	64	GLU	N-CA-C	6.61	128.83	111.00
34	i	285	U	C3'-C2'-C1'	6.61	106.78	101.50
34	i	305	U	P-O3'-C3'	-6.61	111.77	119.70
33	g	160	SER	N-CA-C	6.60	128.83	111.00
34	i	534	G	C1'-O4'-C4'	6.60	115.18	109.90
34	i	70	G	O3'-P-O5'	-6.60	91.46	104.00
34	i	1071	C	C1'-O4'-C4'	-6.60	104.62	109.90
34	i	1541	G	O4'-C1'-N9	6.60	113.48	108.20
34	i	550	A	C3'-C2'-C1'	-6.60	96.22	101.50
34	i	1105	C	O4'-C1'-C2'	6.59	113.53	107.60
34	i	190	A	O3'-P-O5'	6.59	116.53	104.00
34	i	286	C	O4'-C1'-C2'	-6.59	99.21	105.80
34	i	1250	C	O4'-C1'-N1	6.59	113.47	108.20
34	i	1254	A	O4'-C1'-N9	6.59	113.47	108.20
34	i	272	C	O3'-P-O5'	6.59	116.52	104.00
33	g	274	VAL	CA-C-N	6.59	131.69	117.20
34	i	1082	G	P-O3'-C3'	6.59	127.60	119.70
34	i	1695	C	O4'-C1'-C2'	-6.58	99.22	105.80
34	i	1169	A	O4'-C1'-N9	6.58	113.47	108.20
16	P	36	LEU	N-CA-C	-6.58	93.23	111.00
34	i	1144	A	O4'-C1'-C2'	6.58	113.52	107.60
34	i	1682	C	C3'-C2'-C1'	6.58	106.77	101.50
11	K	42	ASN	CA-C-O	-6.58	106.29	120.10
34	i	1775	A	P-O5'-C5'	6.58	131.42	120.90
34	i	1819	A	C3'-C2'-C1'	-6.57	96.24	101.50
17	Q	18	THR	N-CA-C	-6.57	93.25	111.00
34	i	1550	U	O4'-C4'-C3'	-6.57	97.43	104.00
34	i	391	A	O4'-C1'-C2'	-6.57	99.23	105.80
34	i	40	A	C1'-O4'-C4'	6.57	115.15	109.90
34	i	728	U	C1'-O4'-C4'	-6.57	104.65	109.90
34	i	459	A	O4'-C1'-C2'	-6.56	99.24	105.80
34	i	957	G	O4'-C1'-N9	6.56	113.45	108.20
34	i	428	G	N9-C1'-C2'	-6.56	104.78	112.00
34	i	984	C	C3'-C2'-C1'	6.56	106.75	101.50
34	i	823	A	N9-C1'-C2'	6.55	122.52	114.00
34	i	164	A	N9-C1'-C2'	6.55	122.52	114.00
34	i	541	U	O4'-C1'-C2'	6.55	113.50	107.60
34	i	882	A	C3'-C2'-C1'	6.55	106.74	101.50
34	i	1387	C	O4'-C1'-N1	6.55	113.44	108.20
34	i	554	A	P-O3'-C3'	6.55	127.56	119.70
34	i	1490	U	C2'-C3'-O3'	6.55	124.18	113.70
34	i	1702	U	N1-C1'-C2'	6.55	122.51	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	208	G	P-O5'-C5'	6.54	131.37	120.90
34	i	1513	C	P-O3'-C3'	-6.54	111.85	119.70
34	i	62	G	C1'-O4'-C4'	-6.54	104.67	109.90
34	i	746	C	C1'-O4'-C4'	-6.54	104.67	109.90
34	i	1204	A	O4'-C1'-C2'	-6.54	99.26	105.80
15	O	43	HIS	N-CA-C	6.54	128.65	111.00
34	i	390	C	O4'-C1'-C2'	-6.54	99.26	105.80
34	i	611	C	C3'-C2'-C1'	6.54	106.73	101.50
34	i	685	G	O4'-C1'-C2'	-6.54	99.26	105.80
24	X	91	LEU	N-CA-C	-6.53	93.36	111.00
10	J	101	LYS	N-CA-C	6.53	128.64	111.00
34	i	1656	A	O4'-C1'-N9	6.53	113.42	108.20
34	i	538	C	N1-C1'-C2'	6.53	122.48	114.00
34	i	1816	A	C4'-C3'-O3'	-6.52	95.70	109.40
26	Z	115	GLY	CA-C-O	-6.52	108.86	120.60
34	i	192	U	P-O5'-C5'	6.52	131.34	120.90
34	i	1646	A	C1'-O4'-C4'	6.52	115.12	109.90
34	i	837	G	C5'-C4'-O4'	6.52	116.92	109.10
9	I	207	GLY	CA-C-O	-6.52	108.87	120.60
34	i	443	C	C3'-C2'-C1'	6.52	106.71	101.50
34	i	147	A	O4'-C1'-C2'	-6.51	99.28	105.80
34	i	1342	U	O4'-C1'-N1	6.51	113.41	108.20
26	Z	107	VAL	CA-CB-CG2	6.51	120.67	110.90
34	i	53	C	O4'-C1'-N1	6.51	113.41	108.20
34	i	1151	U	C3'-C2'-C1'	6.51	106.71	101.50
9	I	8	TRP	CB-CG-CD1	6.51	135.46	127.00
34	i	289	G	N9-C1'-C2'	-6.51	104.84	112.00
34	i	1790	G	O4'-C1'-N9	6.51	113.40	108.20
34	i	1347	G	O4'-C1'-N9	6.50	113.40	108.20
34	i	8	U	O4'-C1'-N1	6.50	113.40	108.20
34	i	1837	G	O4'-C1'-C2'	6.50	113.45	107.60
3	C	217	THR	C-N-CA	6.50	137.96	121.70
34	i	342	U	C5'-C4'-C3'	-6.50	105.60	116.00
34	i	82	G	C1'-O4'-C4'	6.50	115.10	109.90
34	i	1369	C	O4'-C1'-C2'	-6.50	99.30	105.80
34	i	211	U	O4'-C1'-N1	6.50	113.40	108.20
34	i	1154	G	N9-C1'-C2'	-6.50	104.86	112.00
34	i	1521	G	O4'-C1'-N9	6.49	113.39	108.20
34	i	1158	C	O4'-C1'-N1	6.49	113.39	108.20
34	i	340	C	C3'-C2'-C1'	6.49	106.69	101.50
34	i	1540	A	C5'-C4'-O4'	6.49	116.88	109.10
2	B	77	ASP	N-CA-C	6.49	128.51	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	729	C	C3'-C2'-C1'	6.49	106.69	101.50
27	a	96	THR	O-C-N	6.48	133.42	121.10
34	i	837	G	C2'-C3'-O3'	-6.48	95.24	109.50
34	i	282	G	N9-C1'-C2'	6.48	122.43	114.00
3	C	157	ASN	N-CA-C	6.48	128.50	111.00
34	i	486	C	O4'-C1'-C2'	-6.48	99.32	105.80
9	I	8	TRP	CG-CD2-CE3	-6.48	128.07	133.90
34	i	840	U	P-O3'-C3'	-6.48	111.93	119.70
34	i	1785	A	O4'-C1'-C2'	-6.48	99.32	105.80
34	i	1496	G	C1'-O4'-C4'	-6.47	104.72	109.90
21	U	70	CYS	O-C-N	-6.47	112.20	123.20
34	i	581	U	P-O3'-C3'	6.47	127.47	119.70
34	i	1861	U	O4'-C1'-C2'	-6.47	99.33	105.80
34	i	1376	C	N1-C1'-C2'	6.47	122.41	114.00
34	i	192	U	O4'-C1'-N1	6.46	113.37	108.20
34	i	947	C	N1-C1'-C2'	6.46	122.40	114.00
34	i	685	G	O3'-P-O5'	6.46	116.28	104.00
34	i	205	G	O4'-C1'-N9	6.46	113.37	108.20
34	i	236	C	O4'-C1'-N1	6.46	113.37	108.20
19	S	49	ASP	O-C-N	-6.46	112.37	122.70
34	i	1071	C	N1-C1'-C2'	6.45	122.39	114.00
34	i	962	U	O4'-C1'-N1	6.45	113.36	108.20
34	i	10	G	P-O3'-C3'	-6.45	111.96	119.70
34	i	79	A	O5'-C5'-C4'	6.45	123.96	111.70
34	i	903	G	C1'-O4'-C4'	-6.45	104.74	109.90
34	i	870	G	O4'-C1'-N9	6.45	113.36	108.20
34	i	274	G	C1'-O4'-C4'	-6.45	104.74	109.90
9	I	119	LEU	C-N-CD	-6.44	106.42	120.60
34	i	1214	C	C3'-C2'-C1'	6.44	106.65	101.50
34	i	1801	C	N1-C1'-C2'	6.44	122.37	114.00
34	i	1455	G	O4'-C1'-C2'	6.44	113.39	107.60
34	i	1353	A	O4'-C1'-N9	6.44	113.35	108.20
34	i	1467	C	C3'-C2'-C1'	6.44	106.65	101.50
34	i	155	G	C5'-C4'-C3'	6.44	126.30	116.00
34	i	1545	G	O4'-C1'-N9	6.44	113.35	108.20
10	J	188	GLY	CA-C-O	-6.43	109.02	120.60
11	K	46	MET	N-CA-CB	6.43	122.18	110.60
34	i	1656	A	N9-C1'-C2'	6.43	122.36	114.00
29	c	7	GLN	C-N-CD	-6.43	106.45	120.60
34	i	310	G	C4'-C3'-O3'	6.43	125.86	113.00
34	i	1284	U	N1-C1'-C2'	6.43	122.36	114.00
34	i	1377	G	N9-C1'-C2'	-6.43	104.93	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1390	G	C1'-O4'-C4'	-6.43	104.76	109.90
34	i	277	U	P-O3'-C3'	6.42	127.41	119.70
34	i	1361	G	C4'-C3'-O3'	-6.42	95.91	109.40
34	i	634	G	O4'-C1'-N9	6.42	113.34	108.20
34	i	1461	A	C1'-O4'-C4'	6.42	115.04	109.90
34	i	1537	C	O5'-C5'-C4'	6.42	123.90	111.70
26	Z	112	ASN	N-CA-CB	-6.42	99.04	110.60
33	g	284	PRO	N-CA-C	-6.42	95.41	112.10
34	i	1135	C	O4'-C1'-N1	6.42	113.34	108.20
34	i	1202	G	C1'-O4'-C4'	-6.42	104.77	109.90
34	i	1297	A	P-O3'-C3'	6.42	127.40	119.70
34	i	1384	A	O4'-C1'-N9	6.42	113.33	108.20
34	i	1422	U	O4'-C1'-N1	6.42	113.33	108.20
34	i	70	G	N9-C1'-C2'	-6.42	104.94	112.00
34	i	372	C	P-O3'-C3'	-6.42	112.00	119.70
34	i	1206	G	C3'-C2'-C1'	-6.42	96.37	101.50
3	C	83	LEU	C-N-CA	-6.41	108.84	122.30
22	V	81	GLN	O-C-N	-6.41	112.44	122.70
34	i	150	A	O4'-C1'-C2'	-6.41	99.39	105.80
34	i	523	A	C2'-C3'-O3'	6.41	123.96	113.70
34	i	1502	A	P-O3'-C3'	6.41	127.39	119.70
34	i	1510	G	N9-C1'-C2'	-6.41	104.95	112.00
34	i	974	G	O4'-C1'-N9	6.41	113.33	108.20
34	i	994	A	C1'-O4'-C4'	6.41	115.03	109.90
34	i	1521	G	N9-C1'-C2'	-6.41	104.95	112.00
34	i	1779	C	C1'-O4'-C4'	6.41	115.03	109.90
34	i	814	A	O4'-C1'-N9	6.41	113.33	108.20
34	i	1360	U	P-O3'-C3'	-6.40	112.02	119.70
25	Y	128	GLY	CA-C-O	-6.40	109.08	120.60
34	i	1807	A	C1'-O4'-C4'	-6.40	104.78	109.90
34	i	1794	A	C3'-C2'-C1'	6.40	106.62	101.50
34	i	1348	G	C3'-C2'-C1'	-6.40	96.38	101.50
34	i	401	G	O4'-C1'-N9	6.40	113.32	108.20
34	i	1089	A	O4'-C1'-N9	6.40	113.32	108.20
34	i	1202	G	N9-C1'-C2'	6.39	122.31	114.00
34	i	1337	C	O4'-C1'-C2'	-6.39	99.41	105.80
34	i	1377	G	C3'-C2'-C1'	-6.39	96.39	101.50
16	P	18	ARG	NE-CZ-NH1	6.39	123.49	120.30
34	i	1534	U	C1'-O4'-C4'	6.38	115.01	109.90
34	i	882	A	P-O3'-C3'	6.38	127.35	119.70
19	S	92	ASP	CB-CG-OD2	-6.37	112.56	118.30
34	i	1405	A	C1'-O4'-C4'	6.37	115.00	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	b	53	VAL	N-CA-C	-6.37	93.80	111.00
34	i	577	A	P-O3'-C3'	-6.37	112.06	119.70
2	B	233	GLY	CA-C-O	-6.36	109.14	120.60
34	i	639	U	O4'-C1'-N1	6.36	113.29	108.20
34	i	541	U	C1'-O4'-C4'	-6.36	104.81	109.90
34	i	1122	G	C1'-O4'-C4'	-6.36	104.81	109.90
34	i	1480	A	P-O3'-C3'	6.36	127.33	119.70
7	G	128	THR	N-CA-CB	-6.36	98.22	110.30
34	i	1232	G	P-O3'-C3'	6.36	127.33	119.70
34	i	749	C	C5'-C4'-C3'	6.36	126.17	116.00
34	i	752	C	O4'-C1'-N1	6.36	113.29	108.20
5	E	258	ALA	C-N-CA	-6.36	105.81	121.70
34	i	29	G	O4'-C1'-N9	6.36	113.28	108.20
34	i	752	C	C4'-C3'-C2'	-6.36	96.24	102.60
34	i	1515	G	O4'-C1'-N9	6.35	113.28	108.20
34	i	806	A	C3'-C2'-C1'	6.35	106.58	101.50
34	i	1151	U	P-O5'-C5'	6.35	131.06	120.90
5	E	263	GLY	CA-C-O	-6.35	109.17	120.60
18	R	99	ASP	C-N-CD	-6.35	106.64	120.60
34	i	9	U	O4'-C1'-N1	6.35	113.28	108.20
34	i	1594	U	P-O5'-C5'	6.35	131.06	120.90
19	S	92	ASP	N-CA-C	6.34	128.13	111.00
8	H	106	ARG	CD-NE-CZ	6.34	132.48	123.60
34	i	626	C	O4'-C1'-C2'	-6.34	99.46	105.80
34	i	1858	U	O4'-C1'-N1	6.34	113.27	108.20
10	J	162	ARG	N-CA-C	6.33	128.10	111.00
34	i	1039	G	C3'-C2'-C1'	6.33	106.57	101.50
34	i	62	G	N9-C1'-C2'	6.33	122.23	114.00
2	B	76	ASN	N-CA-C	6.33	128.09	111.00
34	i	794	G	C3'-C2'-C1'	6.33	106.56	101.50
34	i	1084	U	O4'-C1'-N1	6.33	113.26	108.20
34	i	1486	G	C3'-C2'-C1'	-6.33	96.44	101.50
22	V	47	ASN	N-CA-C	-6.32	93.92	111.00
34	i	1256	A	N9-C1'-C2'	6.32	122.22	114.00
34	i	1486	G	O4'-C1'-N9	6.32	113.26	108.20
16	P	18	ARG	N-CA-CB	6.32	121.97	110.60
34	i	341	G	N9-C1'-C2'	-6.32	105.05	112.00
34	i	1337	C	C3'-C2'-C1'	6.32	106.55	101.50
34	i	1339	U	C3'-C2'-C1'	6.32	106.55	101.50
34	i	887	G	N9-C1'-C2'	6.31	122.21	114.00
34	i	1411	C	O4'-C1'-N1	6.31	113.25	108.20
34	i	1196	A	O4'-C1'-N9	6.31	113.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	e	120	VAL	C-N-CD	-6.31	106.73	120.60
34	i	1207	G	N9-C1'-C2'	6.31	122.20	114.00
16	P	68	PRO	C-N-CD	-6.30	106.73	120.60
34	i	1404	U	P-O3'-C3'	6.30	127.26	119.70
34	i	190	A	C5'-C4'-C3'	-6.30	105.92	116.00
34	i	1111	U	O4'-C1'-C2'	6.30	113.27	107.60
34	i	1202	G	C3'-C2'-C1'	-6.30	96.46	101.50
34	i	38	A	C1'-O4'-C4'	6.30	114.94	109.90
34	i	341	G	O4'-C1'-N9	6.30	113.24	108.20
16	P	37	TYR	CB-CA-C	6.29	122.99	110.40
34	i	1774	G	N9-C1'-C2'	6.29	122.18	114.00
34	i	582	C	N1-C1'-C2'	-6.29	105.08	112.00
34	i	176	U	N1-C1'-C2'	6.29	122.17	114.00
34	i	205	G	C1'-O4'-C4'	-6.29	104.87	109.90
34	i	1425	G	O3'-P-O5'	-6.29	92.05	104.00
34	i	1436	C	N1-C1'-C2'	6.29	122.18	114.00
34	i	1015	C	C3'-C2'-C1'	6.29	106.53	101.50
34	i	825	C	P-O3'-C3'	6.29	127.24	119.70
34	i	1030	A	C1'-O4'-C4'	6.29	114.93	109.90
34	i	794	G	N9-C1'-C2'	6.28	122.17	114.00
34	i	1636	A	C3'-C2'-C1'	6.28	106.53	101.50
34	i	597	U	P-O3'-C3'	6.28	127.24	119.70
34	i	568	C	C3'-C2'-C1'	6.28	106.52	101.50
34	i	74	G	C4'-C3'-C2'	-6.28	96.33	102.60
34	i	1304	U	P-O3'-C3'	6.28	127.23	119.70
34	i	1489	C	N1-C1'-C2'	-6.28	105.10	112.00
34	i	635	C	O4'-C1'-C2'	-6.27	99.53	105.80
34	i	1076	A	P-O3'-C3'	6.27	127.23	119.70
34	i	1665	C	O4'-C1'-N1	6.27	113.22	108.20
34	i	313	C	O4'-C1'-N1	6.27	113.22	108.20
35	l	85	LEU	CA-CB-CG	-6.27	100.89	115.30
34	i	824	G	C1'-O4'-C4'	-6.27	104.89	109.90
34	i	1514	U	N1-C1'-C2'	-6.27	105.11	112.00
34	i	1519	G	O4'-C4'-C3'	-6.27	97.73	104.00
34	i	605	C	C1'-O4'-C4'	-6.26	104.89	109.90
34	i	678	U	P-O3'-C3'	6.26	127.22	119.70
34	i	1623	C	C1'-O4'-C4'	-6.26	104.89	109.90
34	i	831	C	P-O3'-C3'	6.26	127.22	119.70
34	i	1214	C	C1'-O4'-C4'	-6.26	104.89	109.90
7	G	173	ALA	C-N-CD	-6.26	106.83	120.60
34	i	796	U	C5'-C4'-C3'	-6.26	105.99	116.00
34	i	1784	A	N9-C1'-C2'	6.25	122.13	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	509	A	N9-C1'-C2'	-6.25	105.12	112.00
34	i	1167	G	C3'-C2'-C1'	-6.25	96.50	101.50
34	i	1495	U	O4'-C1'-N1	6.25	113.20	108.20
34	i	1657	U	O4'-C1'-N1	6.25	113.20	108.20
16	P	18	ARG	CB-CG-CD	6.25	127.86	111.60
34	i	424	G	C2'-C3'-O3'	6.25	123.70	113.70
34	i	733	G	O4'-C1'-C2'	-6.25	99.55	105.80
34	i	1729	G	C3'-C2'-C1'	6.25	106.50	101.50
15	O	102	GLY	C-N-CA	-6.25	106.08	121.70
34	i	1348	G	O4'-C1'-N9	6.25	113.20	108.20
1	A	186	ARG	C-N-CA	6.24	135.41	122.30
34	i	1487	G	O4'-C1'-N9	6.24	113.19	108.20
34	i	343	C	C4'-C3'-C2'	6.24	108.84	102.60
9	I	6	ASP	N-CA-CB	-6.24	99.37	110.60
34	i	489	G	C1'-O4'-C4'	-6.24	104.91	109.90
34	i	840	U	O4'-C1'-C2'	-6.24	99.56	105.80
34	i	220	C	O4'-C1'-N1	6.23	113.19	108.20
34	i	1610	U	C1'-O4'-C4'	-6.23	104.92	109.90
34	i	279	G	P-O5'-C5'	6.23	130.87	120.90
33	g	47	ARG	N-CA-C	-6.23	94.19	111.00
34	i	1587	C	C1'-O4'-C4'	-6.23	104.92	109.90
34	i	837	G	P-O3'-C3'	6.23	127.17	119.70
34	i	1364	U	O4'-C1'-N1	6.22	113.18	108.20
10	J	164	PRO	N-CD-CG	-6.22	93.86	103.20
34	i	522	C	P-O3'-C3'	6.22	127.17	119.70
34	i	542	G	C1'-O4'-C4'	-6.22	104.92	109.90
34	i	958	A	N9-C1'-C2'	-6.22	105.16	112.00
34	i	1654	U	O3'-P-O5'	6.22	115.82	104.00
3	C	258	LEU	CA-CB-CG	6.21	129.60	115.30
34	i	1135	C	P-O5'-C5'	-6.21	110.96	120.90
34	i	1533	C	P-O5'-C5'	-6.21	110.96	120.90
34	i	1849	G	O4'-C1'-C2'	6.21	113.19	107.60
34	i	109	U	C4'-C3'-O3'	-6.21	96.36	109.40
34	i	174	C	O4'-C1'-C2'	-6.21	99.59	105.80
34	i	493	C	O4'-C1'-C2'	-6.21	99.59	105.80
34	i	544	A	C1'-O4'-C4'	-6.21	104.94	109.90
34	i	424	G	O3'-P-O5'	-6.21	92.21	104.00
34	i	295	C	O3'-P-O5'	6.20	115.79	104.00
34	i	486	C	O4'-C1'-N1	6.20	113.16	108.20
34	i	792	G	C1'-O4'-C4'	-6.20	104.94	109.90
34	i	1563	C	C1'-O4'-C4'	-6.20	104.94	109.90
31	e	120	VAL	CB-CA-C	-6.20	99.62	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	F	130	ARG	N-CA-CB	6.20	121.76	110.60
34	i	110	U	P-O3'-C3'	-6.20	112.26	119.70
34	i	940	A	C3'-C2'-C1'	6.20	106.46	101.50
9	I	178	ARG	CD-NE-CZ	6.20	132.28	123.60
34	i	1395	C	C5'-C4'-C3'	-6.20	106.09	116.00
34	i	1621	C	O4'-C1'-N1	6.20	113.16	108.20
19	S	82	TRP	CB-CA-C	-6.19	98.02	110.40
13	M	116	LYS	N-CA-C	6.19	127.70	111.00
34	i	209	C	P-O5'-C5'	6.19	130.80	120.90
34	i	741	C	O4'-C1'-C2'	-6.19	99.61	105.80
34	i	973	C	O4'-C1'-N1	6.19	113.15	108.20
34	i	1562	G	P-O3'-C3'	-6.19	112.28	119.70
6	F	46	ALA	C-N-CA	-6.18	106.24	121.70
34	i	1415	C	O4'-C1'-C2'	-6.18	99.62	105.80
34	i	1588	C	O4'-C1'-N1	6.18	113.15	108.20
34	i	1855	G	C1'-O4'-C4'	-6.18	104.95	109.90
34	i	1514	U	O4'-C1'-C2'	-6.18	99.62	105.80
34	i	730	C	C3'-C2'-C1'	6.18	106.44	101.50
34	i	1415	C	C3'-C2'-C1'	6.18	106.44	101.50
34	i	445	A	C3'-C2'-C1'	6.17	106.44	101.50
34	i	1187	C	O4'-C1'-N1	6.17	113.14	108.20
10	J	93	LYS	O-C-N	-6.17	112.82	122.70
12	L	152	LYS	CA-C-O	-6.17	107.14	120.10
19	S	9	PHE	C-N-CA	-6.17	106.27	121.70
34	i	549	G	N9-C1'-C2'	6.17	122.02	114.00
34	i	2	A	O4'-C1'-N9	6.17	113.14	108.20
34	i	272	C	O5'-P-OP1	-6.17	100.15	105.70
19	S	6	PRO	CA-C-O	-6.16	105.41	120.20
27	a	85	ARG	NE-CZ-NH2	6.16	123.38	120.30
34	i	903	G	C3'-C2'-C1'	-6.16	96.57	101.50
34	i	1445	G	P-O3'-C3'	6.16	127.09	119.70
15	O	143	LYS	CB-CA-C	-6.16	98.09	110.40
34	i	1066	A	N9-C1'-C2'	6.15	122.00	114.00
10	J	180	LYS	N-CA-C	6.15	127.61	111.00
34	i	1293	U	C1'-O4'-C4'	6.15	114.82	109.90
34	i	1118	A	C4'-C3'-C2'	-6.15	96.45	102.60
19	S	10	GLN	C-N-CA	6.15	137.07	121.70
33	g	50	THR	CB-CA-C	6.15	128.20	111.60
34	i	795	U	C1'-O4'-C4'	-6.15	104.98	109.90
34	i	1148	U	O4'-C1'-N1	6.14	113.12	108.20
34	i	1255	A	C1'-O4'-C4'	-6.14	104.98	109.90
34	i	1227	C	C3'-C2'-C1'	6.14	106.41	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1723	U	O4'-C1'-N1	6.14	113.11	108.20
34	i	1570	G	C4'-C3'-C2'	-6.14	96.46	102.60
10	J	145	PRO	N-CA-C	-6.14	96.14	112.10
12	L	102	PHE	N-CA-C	-6.13	94.44	111.00
34	i	201	G	O4'-C1'-C2'	-6.13	99.67	105.80
34	i	356	U	O4'-C1'-N1	6.13	113.10	108.20
34	i	395	G	C1'-O4'-C4'	-6.13	105.00	109.90
34	i	1462	G	O4'-C1'-N9	6.13	113.10	108.20
34	i	1181	C	N1-C1'-C2'	6.12	121.96	114.00
34	i	1796	C	O4'-C1'-N1	6.12	113.10	108.20
16	P	17	TYR	N-CA-CB	6.12	121.62	110.60
34	i	1663	U	C3'-C2'-C1'	-6.12	96.60	101.50
34	i	4	C	C1'-O4'-C4'	-6.12	105.01	109.90
34	i	685	G	C5'-C4'-C3'	6.12	125.78	116.00
34	i	1141	A	O4'-C1'-N9	6.12	113.09	108.20
6	F	41	VAL	N-CA-C	-6.11	94.49	111.00
11	K	40	VAL	C-N-CD	-6.11	107.15	120.60
34	i	126	G	O3'-P-O5'	6.11	115.61	104.00
34	i	1361	G	P-O5'-C5'	6.11	130.68	120.90
34	i	1425	G	OP1-P-O3'	6.11	118.64	105.20
34	i	854	A	C3'-C2'-C1'	6.11	106.39	101.50
4	D	4	GLN	CA-C-O	6.11	132.92	120.10
26	Z	104	ARG	CA-C-N	-6.11	103.77	117.20
34	i	1644	U	P-O3'-C3'	-6.11	112.37	119.70
34	i	1658	A	C3'-C2'-C1'	6.11	106.38	101.50
34	i	456	G	O4'-C1'-C2'	6.10	113.09	107.60
34	i	880	C	O4'-C1'-N1	6.10	113.08	108.20
31	e	121	PRO	CA-N-CD	-6.10	102.97	111.50
34	i	954	G	C3'-C2'-C1'	-6.10	96.62	101.50
34	i	210	G	P-O3'-C3'	-6.09	112.39	119.70
34	i	623	C	C3'-C2'-C1'	6.09	106.37	101.50
34	i	1489	C	O4'-C1'-N1	6.09	113.08	108.20
34	i	1300	U	C1'-O4'-C4'	-6.09	105.03	109.90
34	i	1486	G	O4'-C1'-C2'	6.09	113.08	107.60
11	K	89	ILE	CA-CB-CG2	6.09	123.07	110.90
34	i	1743	G	O5'-C5'-C4'	6.09	123.27	111.70
32	f	134	SER	O-C-N	6.08	132.43	122.70
34	i	410	G	O4'-C1'-N9	6.08	113.06	108.20
34	i	786	C	O4'-C1'-C2'	-6.08	99.72	105.80
34	i	1036	G	C3'-C2'-C1'	-6.08	96.64	101.50
34	i	1238	U	C1'-O4'-C4'	-6.08	105.04	109.90
9	I	29	LEU	C-N-CA	6.07	135.05	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	844	U	C1'-O4'-C4'	-6.07	105.05	109.90
34	i	1535	G	C1'-O4'-C4'	-6.07	105.05	109.90
34	i	1774	G	C3'-C2'-C1'	-6.07	96.65	101.50
33	g	15	ASN	C-N-CA	-6.07	109.56	122.30
34	i	24	C	O4'-C1'-N1	6.07	113.05	108.20
34	i	1431	C	C5'-C4'-C3'	6.06	125.70	116.00
12	L	151	THR	C-N-CA	6.06	136.85	121.70
34	i	1355	U	O4'-C1'-C2'	-6.06	99.74	105.80
34	i	986	A	C1'-O4'-C4'	-6.06	105.05	109.90
34	i	1050	G	C1'-O4'-C4'	-6.06	105.05	109.90
34	i	1391	C	O4'-C1'-N1	6.06	113.05	108.20
11	K	38	LYS	N-CA-C	-6.05	94.66	111.00
27	a	107	ALA	C-N-CD	6.05	141.11	128.40
34	i	410	G	O4'-C1'-C2'	6.05	113.05	107.60
34	i	960	A	N9-C1'-C2'	-6.05	105.34	112.00
34	i	1776	G	O4'-C4'-C3'	-6.05	97.95	104.00
34	i	272	C	O5'-P-OP2	-6.05	100.26	105.70
34	i	1186	A	C3'-C2'-C1'	6.05	106.34	101.50
34	i	973	C	O4'-C1'-C2'	-6.05	99.75	105.80
34	i	1300	U	O4'-C1'-N1	6.04	113.03	108.20
34	i	1543	G	C3'-C2'-C1'	-6.04	96.67	101.50
34	i	194	C	O4'-C1'-N1	6.04	113.03	108.20
34	i	352	C	N1-C1'-C2'	6.03	121.84	114.00
34	i	906	G	O4'-C1'-C2'	6.03	113.03	107.60
34	i	7	G	O4'-C1'-N9	6.03	113.03	108.20
34	i	584	A	P-O3'-C3'	6.03	126.94	119.70
34	i	1549	C	C2'-C3'-O3'	-6.03	96.23	109.50
2	B	151	ARG	C-N-CA	-6.03	106.63	121.70
12	L	150	GLY	N-CA-C	-6.03	98.03	113.10
25	Y	64	PHE	N-CA-CB	-6.03	99.75	110.60
25	Y	96	LEU	N-CA-CB	6.03	122.45	110.40
34	i	430	G	O4'-C1'-N9	6.03	113.02	108.20
34	i	460	G	O4'-C1'-N9	6.03	113.02	108.20
34	i	1571	G	C1'-O4'-C4'	-6.03	105.08	109.90
21	U	117	ALA	O-C-N	6.02	132.34	122.70
34	i	327	C	O4'-C1'-N1	6.02	113.02	108.20
34	i	1172	G	O4'-C1'-N9	6.02	113.02	108.20
34	i	1395	C	O4'-C1'-N1	6.02	113.02	108.20
16	P	49	LEU	C-N-CA	-6.02	106.65	121.70
16	P	130	ARG	NE-CZ-NH1	6.02	123.31	120.30
29	c	6	VAL	N-CA-C	6.02	127.26	111.00
34	i	1393	U	C3'-C2'-C1'	6.02	106.32	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	F	135	ARG	CB-CA-C	6.02	122.44	110.40
34	i	952	G	O4'-C1'-N9	6.02	113.01	108.20
34	i	1535	G	O4'-C1'-N9	6.02	113.01	108.20
3	C	262	HIS	CB-CA-C	-6.01	98.37	110.40
34	i	563	U	N1-C1'-C2'	6.01	121.82	114.00
34	i	853	U	P-O5'-C5'	-6.01	111.28	120.90
34	i	1112	C	O4'-C1'-C2'	6.01	113.01	107.60
34	i	1547	G	O4'-C1'-C2'	-6.01	99.79	105.80
34	i	924	G	O4'-C1'-N9	6.01	113.01	108.20
34	i	1433	C	N1-C1'-C2'	6.01	121.81	114.00
32	f	88	PRO	N-CA-C	-6.01	96.48	112.10
34	i	970	C	C1'-O4'-C4'	-6.01	105.09	109.90
34	i	830	C	C3'-C2'-C1'	-6.01	96.69	101.50
34	i	223	A	O4'-C1'-C2'	-6.01	99.79	105.80
34	i	193	C	C3'-C2'-C1'	6.00	106.30	101.50
9	I	132	GLU	CA-C-N	6.00	130.40	117.20
34	i	1118	A	C3'-C2'-C1'	6.00	106.30	101.50
34	i	1403	U	O4'-C1'-N1	6.00	113.00	108.20
34	i	848	G	O4'-C1'-N9	6.00	113.00	108.20
6	F	38	TYR	C-N-CA	-6.00	106.71	121.70
34	i	1678	C	C3'-C2'-C1'	6.00	106.30	101.50
34	i	1846	C	N1-C1'-C2'	6.00	121.80	114.00
9	I	55	TYR	CB-CG-CD1	6.00	124.60	121.00
34	i	623	C	N1-C1'-C2'	6.00	121.79	114.00
34	i	1742	C	C5'-C4'-O4'	6.00	116.29	109.10
16	P	121	ILE	O-C-N	-5.99	113.11	122.70
34	i	1694	A	P-O3'-C3'	-5.99	112.51	119.70
34	i	1705	C	C3'-C2'-C1'	5.99	106.29	101.50
34	i	858	A	C1'-O4'-C4'	-5.99	105.11	109.90
34	i	1547	G	P-O5'-C5'	5.99	130.48	120.90
26	Z	112	ASN	N-CA-C	5.99	127.16	111.00
34	i	1394	G	P-O3'-C3'	-5.99	112.52	119.70
34	i	1834	U	O4'-C1'-N1	5.99	112.99	108.20
21	U	109	GLY	N-CA-C	-5.98	98.14	113.10
34	i	1701	G	O4'-C1'-N9	5.98	112.98	108.20
34	i	1702	U	O4'-C1'-N1	5.98	112.99	108.20
34	i	1102	C	O4'-C1'-C2'	-5.98	99.82	105.80
34	i	872	C	C3'-C2'-C1'	5.98	106.28	101.50
34	i	684	A	P-O5'-C5'	5.98	130.46	120.90
11	K	41	PRO	N-CA-C	-5.98	96.56	112.10
11	K	90	VAL	N-CA-C	5.97	127.13	111.00
34	i	1416	G	N9-C1'-C2'	5.97	121.77	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	90	G	O4'-C1'-N9	5.97	112.98	108.20
25	Y	86	GLU	CA-C-N	5.97	133.82	117.10
34	i	367	G	O4'-C1'-N9	5.97	112.98	108.20
34	i	1440	U	O4'-C1'-N1	5.97	112.98	108.20
34	i	204	G	O4'-C1'-C2'	-5.97	99.83	105.80
33	g	213	ASP	CB-CG-OD2	-5.97	112.93	118.30
34	i	1400	U	N1-C1'-C2'	5.97	121.76	114.00
22	V	66	ASP	C-N-CA	-5.96	106.79	121.70
34	i	1087	C	O4'-C1'-C2'	-5.96	99.84	105.80
34	i	1431	C	C3'-C2'-C1'	5.96	106.27	101.50
34	i	1230	C	C1'-O4'-C4'	-5.96	105.13	109.90
18	R	88	VAL	C-N-CA	-5.96	106.80	121.70
34	i	1441	U	C4'-C3'-O3'	-5.96	96.89	109.40
34	i	1801	C	C1'-O4'-C4'	-5.96	105.13	109.90
34	i	546	U	C5'-C4'-C3'	5.95	125.53	116.00
34	i	192	U	O5'-C5'-C4'	-5.95	100.40	111.70
34	i	1441	U	P-O3'-C3'	-5.95	112.56	119.70
34	i	1114	C	C3'-C2'-C1'	-5.94	96.75	101.50
34	i	373	G	O4'-C1'-N9	5.94	112.95	108.20
34	i	292	A	O4'-C1'-N9	5.94	112.95	108.20
34	i	1204	A	C1'-O4'-C4'	5.94	114.65	109.90
34	i	1219	A	O4'-C1'-C2'	-5.94	99.86	105.80
34	i	743	U	O3'-P-O5'	-5.94	92.72	104.00
34	i	1121	C	O4'-C1'-N1	5.94	112.95	108.20
34	i	1138	G	C3'-C2'-C1'	-5.94	96.75	101.50
22	V	32	ILE	C-N-CD	5.93	140.86	128.40
34	i	278	U	P-O5'-C5'	5.93	130.40	120.90
34	i	1051	A	C3'-C2'-C1'	5.93	106.25	101.50
8	H	16	PRO	O-C-N	-5.93	113.21	122.70
34	i	959	A	P-O5'-C5'	-5.93	111.41	120.90
21	U	69	PRO	N-CA-C	-5.93	96.69	112.10
34	i	998	U	O4'-C1'-N1	5.93	112.94	108.20
34	i	1408	C	C4'-C3'-O3'	5.93	124.85	113.00
34	i	115	U	O4'-C1'-N1	5.92	112.94	108.20
34	i	1534	U	C3'-C2'-C1'	5.92	106.24	101.50
34	i	1199	G	C3'-C2'-C1'	-5.92	96.76	101.50
34	i	581	U	N1-C1'-C2'	5.92	121.70	114.00
34	i	793	C	P-O5'-C5'	5.92	130.37	120.90
34	i	163	U	O4'-C4'-C3'	-5.92	98.08	104.00
7	G	173	ALA	O-C-N	-5.91	109.86	121.10
34	i	1698	C	O4'-C1'-C2'	-5.91	99.89	105.80
34	i	21	U	O4'-C1'-C2'	-5.91	99.89	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1019	A	O4'-C1'-C2'	-5.91	99.89	105.80
34	i	1547	G	C1'-O4'-C4'	5.91	114.63	109.90
34	i	558	C	C3'-C2'-C1'	5.91	106.23	101.50
34	i	1434	A	C3'-C2'-C1'	5.91	106.23	101.50
34	i	1485	A	P-O3'-C3'	5.91	126.79	119.70
34	i	1558	G	C1'-O4'-C4'	-5.90	105.18	109.90
34	i	1698	C	C3'-C2'-C1'	5.90	106.22	101.50
34	i	1058	A	C3'-C2'-C1'	5.90	106.22	101.50
34	i	1343	U	O4'-C1'-C2'	-5.90	99.90	105.80
35	l	97	LEU	CA-CB-CG	5.90	128.87	115.30
34	i	54	A	N9-C1'-C2'	5.90	121.67	114.00
34	i	64	A	C3'-C2'-C1'	-5.90	96.78	101.50
34	i	1091	U	C1'-O4'-C4'	-5.90	105.18	109.90
34	i	1426	C	C1'-O4'-C4'	5.90	114.62	109.90
33	g	12	LYS	C-N-CA	5.89	134.68	122.30
34	i	603	C	C1'-O4'-C4'	5.89	114.61	109.90
34	i	1174	U	O4'-C1'-N1	5.89	112.92	108.20
34	i	617	U	O4'-C1'-C2'	-5.89	99.91	105.80
34	i	849	C	O4'-C1'-N1	5.89	112.92	108.20
34	i	1413	C	OP1-P-OP2	-5.89	110.76	119.60
21	U	68	THR	N-CA-CB	-5.89	99.11	110.30
34	i	163	U	O4'-C1'-N1	5.89	112.91	108.20
34	i	1303	U	N1-C1'-C2'	-5.89	105.52	112.00
34	i	1733	C	C3'-C2'-C1'	5.89	106.21	101.50
34	i	1605	G	O4'-C1'-N9	5.89	112.91	108.20
27	a	96	THR	CA-C-N	-5.89	100.61	117.10
34	i	1367	U	C3'-C2'-C1'	5.89	106.21	101.50
34	i	541	U	P-O3'-C3'	5.88	126.76	119.70
34	i	1022	C	O4'-C1'-C2'	-5.88	99.92	105.80
34	i	402	G	C3'-C2'-C1'	5.88	106.20	101.50
34	i	1428	U	N1-C1'-C2'	5.88	121.64	114.00
34	i	923	C	O4'-C1'-N1	5.88	112.90	108.20
34	i	1349	A	O3'-P-O5'	-5.88	92.83	104.00
1	A	193	HIS	C-N-CD	-5.88	107.67	120.60
34	i	1367	U	O4'-C1'-N1	5.88	112.90	108.20
34	i	1497	C	P-O3'-C3'	5.88	126.75	119.70
34	i	727	G	C5'-C4'-O4'	-5.87	102.05	109.10
34	i	1110	U	C1'-O4'-C4'	5.87	114.60	109.90
34	i	1282	G	C4'-C3'-O3'	-5.87	97.07	109.40
29	c	5	ARG	N-CA-C	5.87	126.84	111.00
34	i	1407	G	C3'-C2'-C1'	-5.87	96.81	101.50
34	i	1127	G	C5'-C4'-C3'	-5.86	106.63	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	544	A	O4'-C1'-C2'	5.86	112.87	107.60
34	i	139	C	C1'-O4'-C4'	5.86	114.58	109.90
34	i	946	C	C3'-C2'-C1'	5.86	106.18	101.50
28	b	53	VAL	C-N-CA	-5.85	107.07	121.70
34	i	1527	C	N1-C1'-C2'	5.85	121.61	114.00
34	i	528	U	C3'-C2'-C1'	5.85	106.18	101.50
34	i	730	C	O3'-P-O5'	5.85	115.11	104.00
34	i	392	C	O4'-C1'-C2'	-5.84	99.95	105.80
34	i	1318	G	O4'-C1'-N9	5.84	112.88	108.20
34	i	1532	A	C3'-C2'-C1'	5.84	106.17	101.50
34	i	1134	C	C4'-C3'-O3'	-5.84	97.13	109.40
1	A	10	MET	N-CA-C	5.84	126.76	111.00
34	i	788	C	N1-C1'-C2'	5.84	121.59	114.00
34	i	1380	C	O4'-C1'-N1	5.84	112.87	108.20
34	i	1471	G	O4'-C1'-N9	5.84	112.87	108.20
34	i	826	A	O4'-C1'-C2'	5.84	112.85	107.60
34	i	1345	G	N9-C1'-C2'	5.83	121.58	114.00
34	i	1577	C	N1-C1'-C2'	5.83	121.58	114.00
34	i	633	A	O4'-C1'-C2'	-5.83	99.97	105.80
34	i	1740	A	C4'-C3'-C2'	-5.83	96.77	102.60
33	g	159	ASN	O-C-N	-5.83	113.38	122.70
34	i	1732	G	C1'-O4'-C4'	-5.83	105.24	109.90
34	i	1065	U	P-O5'-C5'	-5.83	111.58	120.90
34	i	1251	G	C3'-C2'-C1'	-5.83	96.84	101.50
34	i	368	U	N1-C1'-C2'	5.82	121.57	114.00
34	i	98	C	N1-C1'-C2'	-5.82	105.60	112.00
34	i	119	U	O4'-C1'-N1	5.82	112.86	108.20
34	i	1100	G	O4'-C1'-N9	5.82	112.86	108.20
34	i	376	C	C1'-O4'-C4'	-5.82	105.25	109.90
34	i	875	C	O4'-C1'-N1	5.82	112.85	108.20
34	i	876	G	N9-C1'-C2'	-5.82	105.60	112.00
20	T	30	VAL	N-CA-C	5.82	126.70	111.00
34	i	215	U	C1'-O4'-C4'	-5.82	105.25	109.90
34	i	1845	A	C1'-O4'-C4'	5.81	114.55	109.90
34	i	340	C	C1'-O4'-C4'	5.81	114.55	109.90
34	i	1047	G	C3'-C2'-C1'	-5.81	96.85	101.50
34	i	1633	G	O4'-C1'-N9	-5.81	103.55	108.20
34	i	1663	U	P-O3'-C3'	5.81	126.67	119.70
8	H	192	PHE	N-CA-C	5.81	126.68	111.00
34	i	516	A	C3'-C2'-C1'	-5.81	96.86	101.50
34	i	730	C	N1-C1'-C2'	5.81	121.55	114.00
17	Q	146	ARG	CA-CB-CG	5.80	126.16	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	190	A	O5'-P-OP2	-5.80	100.48	105.70
34	i	1752	G	C1'-O4'-C4'	-5.80	105.26	109.90
34	i	172	U	O4'-C1'-C2'	-5.80	100.00	105.80
6	F	131	ALA	N-CA-C	5.80	126.65	111.00
34	i	55	U	O4'-C1'-N1	5.80	112.84	108.20
34	i	213	C	C3'-C2'-C1'	5.80	106.14	101.50
34	i	839	C	C3'-C2'-C1'	5.80	106.14	101.50
34	i	1142	C	C1'-O4'-C4'	-5.80	105.26	109.90
34	i	1459	U	P-O3'-C3'	-5.79	112.75	119.70
34	i	1501	U	C1'-O4'-C4'	5.79	114.53	109.90
34	i	1571	G	N9-C1'-C2'	5.79	121.53	114.00
34	i	610	G	C1'-O4'-C4'	5.79	114.53	109.90
34	i	1646	A	O4'-C1'-N9	5.79	112.83	108.20
34	i	652	G	C1'-O4'-C4'	-5.79	105.27	109.90
34	i	1542	C	N1-C1'-C2'	5.79	121.52	114.00
34	i	611	C	C1'-O4'-C4'	-5.79	105.27	109.90
34	i	190	A	C5'-C4'-O4'	5.78	116.04	109.10
34	i	1135	C	C4'-C3'-O3'	-5.78	97.26	109.40
20	T	4	VAL	O-C-N	-5.78	113.45	122.70
4	D	96	LEU	O-C-N	-5.78	113.45	122.70
13	M	99	LYS	N-CA-C	5.78	126.60	111.00
17	Q	17	LYS	O-C-N	-5.78	113.46	122.70
22	V	42	VAL	CB-CA-C	-5.78	100.43	111.40
24	X	98	ASP	N-CA-C	5.78	126.59	111.00
34	i	1417	A	O4'-C1'-N9	5.78	112.82	108.20
34	i	750	G	N9-C1'-C2'	5.77	121.51	114.00
34	i	103	A	O4'-C1'-C2'	5.77	112.80	107.60
34	i	1800	A	N9-C1'-C2'	5.77	121.50	114.00
5	E	170	THR	C-N-CA	5.77	136.12	121.70
34	i	1602	A	O4'-C1'-C2'	5.77	112.79	107.60
34	i	188	U	C1'-O4'-C4'	-5.76	105.29	109.90
34	i	784	G	C1'-O4'-C4'	-5.76	105.29	109.90
34	i	1274	A	P-O5'-C5'	5.76	130.12	120.90
34	i	1532	A	C5'-C4'-C3'	-5.76	106.78	116.00
7	G	155	GLN	C-N-CA	-5.76	107.30	121.70
34	i	1774	G	O4'-C1'-N9	5.76	112.81	108.20
12	L	151	THR	CB-CA-C	5.75	127.13	111.60
34	i	86	C	C3'-C2'-C1'	5.75	106.10	101.50
34	i	970	C	C3'-C2'-C1'	5.75	106.10	101.50
34	i	461	G	C5'-C4'-O4'	5.75	116.00	109.10
34	i	1414	C	N1-C1'-C2'	5.75	121.48	114.00
34	i	1771	G	P-O3'-C3'	-5.75	112.80	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	G	131	ARG	CG-CD-NE	5.75	123.88	111.80
34	i	1450	A	O4'-C1'-C2'	-5.75	100.05	105.80
34	i	77	A	O4'-C1'-N9	5.75	112.80	108.20
34	i	1262	C	N1-C1'-C2'	5.74	121.47	114.00
34	i	1790	G	C5'-C4'-O4'	5.74	115.99	109.10
3	C	241	TRP	C-N-CA	-5.74	107.34	121.70
34	i	332	C	O4'-C1'-N1	5.74	112.79	108.20
11	K	29	MET	C-N-CD	-5.74	107.97	120.60
34	i	539	C	O4'-C1'-N1	5.74	112.79	108.20
34	i	820	C	O4'-C1'-N1	5.74	112.79	108.20
34	i	1138	G	N9-C1'-C2'	-5.74	105.69	112.00
8	H	40	LEU	CA-CB-CG	-5.74	102.10	115.30
12	L	4	ILE	N-CA-C	-5.74	95.51	111.00
34	i	969	C	C3'-C2'-C1'	5.74	106.09	101.50
34	i	1437	U	O4'-C1'-C2'	-5.74	100.06	105.80
34	i	151	C	C3'-C2'-C1'	5.74	106.09	101.50
34	i	331	C	P-O3'-C3'	-5.74	112.82	119.70
34	i	1501	U	O4'-C1'-C2'	-5.74	100.06	105.80
34	i	597	U	C3'-C2'-C1'	5.73	106.09	101.50
34	i	897	G	O4'-C1'-N9	5.73	112.79	108.20
11	K	40	VAL	CB-CA-C	-5.73	100.51	111.40
34	i	884	U	P-O5'-C5'	5.73	130.07	120.90
34	i	625	G	C5'-C4'-C3'	5.73	125.17	116.00
34	i	987	G	C3'-C2'-C1'	-5.73	96.92	101.50
34	i	965	U	P-O3'-C3'	5.73	126.57	119.70
34	i	787	C	N1-C1'-C2'	5.72	121.44	114.00
34	i	290	A	N9-C1'-C2'	-5.72	105.70	112.00
34	i	1552	C	C2'-C3'-O3'	5.72	122.86	113.70
26	Z	104	ARG	N-CA-C	5.72	126.44	111.00
34	i	804	A	N9-C1'-C2'	5.72	121.43	114.00
34	i	1779	C	O4'-C1'-N1	5.72	112.77	108.20
26	Z	107	VAL	C-N-CA	5.71	135.98	121.70
34	i	114	G	C1'-O4'-C4'	5.71	114.47	109.90
34	i	314	U	C3'-C2'-C1'	-5.71	96.93	101.50
34	i	1672	U	C1'-O4'-C4'	5.71	114.47	109.90
34	i	832	G	C1'-O4'-C4'	5.71	114.47	109.90
34	i	1246	A	C1'-O4'-C4'	5.71	114.47	109.90
34	i	441	G	P-O5'-C5'	5.71	130.03	120.90
34	i	79	A	O3'-P-O5'	-5.70	93.17	104.00
34	i	1309	A	O4'-C1'-C2'	-5.70	100.10	105.80
11	K	41	PRO	CA-N-CD	-5.70	103.52	111.50
34	i	962	U	C5'-C4'-O4'	5.70	115.94	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	495	G	P-O3'-C3'	-5.70	112.86	119.70
34	i	818	U	O4'-C1'-N1	5.70	112.76	108.20
34	i	1168	U	N1-C1'-C2'	-5.70	105.73	112.00
34	i	225	C	C1'-O4'-C4'	-5.70	105.34	109.90
34	i	827	G	O4'-C1'-C2'	5.70	112.73	107.60
34	i	1515	G	C5'-C4'-C3'	5.70	125.11	116.00
21	U	108	PRO	CA-N-CD	-5.69	103.53	111.50
34	i	241	A	O4'-C1'-N9	5.69	112.75	108.20
34	i	1817	A	C5'-C4'-O4'	-5.69	102.27	109.10
34	i	141	A	C2'-C3'-O3'	5.69	122.80	113.70
34	i	176	U	O4'-C1'-N1	5.69	112.75	108.20
34	i	741	C	C5'-C4'-C3'	5.69	125.10	116.00
34	i	1057	U	O4'-C1'-N1	5.69	112.75	108.20
34	i	1144	A	C3'-C2'-C1'	-5.69	96.95	101.50
34	i	1842	U	O4'-C1'-N1	5.69	112.75	108.20
34	i	206	A	O3'-P-O5'	5.69	114.80	104.00
34	i	1411	C	C3'-C2'-C1'	5.69	106.05	101.50
34	i	1779	C	N1-C1'-C2'	-5.69	105.75	112.00
16	P	49	LEU	O-C-N	-5.68	113.60	122.70
34	i	1795	A	O4'-C1'-N9	5.68	112.75	108.20
34	i	148	U	O4'-C1'-N1	5.68	112.75	108.20
34	i	1078	A	C3'-C2'-C1'	5.68	106.05	101.50
34	i	277	U	N1-C1'-C2'	5.68	121.38	114.00
34	i	871	A	O4'-C1'-C2'	-5.68	100.12	105.80
34	i	1411	C	O4'-C1'-C2'	-5.68	100.12	105.80
34	i	1589	A	C5'-C4'-C3'	5.68	125.09	116.00
34	i	1467	C	O4'-C1'-C2'	-5.68	100.12	105.80
34	i	1587	C	C3'-C2'-C1'	5.68	106.04	101.50
34	i	645	A	C5'-C4'-O4'	5.67	115.91	109.10
34	i	763	U	P-O3'-C3'	5.67	126.51	119.70
34	i	1706	U	N1-C1'-C2'	5.67	121.38	114.00
34	i	856	G	N9-C1'-C2'	5.67	121.37	114.00
8	H	111	LYS	CA-CB-CG	5.67	125.87	113.40
34	i	274	G	N9-C1'-C2'	5.67	121.37	114.00
34	i	1361	G	P-O3'-C3'	-5.67	112.90	119.70
34	i	1587	C	N1-C1'-C2'	5.67	121.37	114.00
11	K	42	ASN	N-CA-C	-5.67	95.69	111.00
34	i	658	A	O4'-C1'-N9	5.67	112.73	108.20
34	i	1518	C	P-O5'-C5'	-5.67	111.83	120.90
34	i	143	U	C1'-O4'-C4'	-5.67	105.37	109.90
34	i	1227	C	O4'-C1'-N1	-5.67	103.67	108.20
34	i	1390	G	C2'-C3'-O3'	5.67	122.77	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	3	C	C1'-O4'-C4'	5.66	114.43	109.90
34	i	419	C	C3'-C2'-C1'	5.66	106.03	101.50
34	i	864	G	O4'-C1'-N9	-5.66	103.67	108.20
34	i	1220	G	N9-C1'-C2'	5.66	121.36	114.00
34	i	1327	C	C1'-O4'-C4'	-5.66	105.37	109.90
34	i	1753	G	C3'-C2'-C1'	-5.66	96.97	101.50
12	L	98	LYS	N-CA-C	-5.66	95.71	111.00
20	T	51	ASN	C-N-CA	5.66	135.85	121.70
34	i	386	U	O4'-C1'-N1	5.66	112.73	108.20
34	i	1471	G	C4'-C3'-C2'	-5.66	96.94	102.60
34	i	1608	G	C3'-C2'-C1'	-5.66	96.97	101.50
34	i	1013	U	C1'-O4'-C4'	5.66	114.43	109.90
34	i	1271	G	C5'-C4'-C3'	5.66	125.05	116.00
34	i	1323	G	C1'-O4'-C4'	-5.66	105.37	109.90
34	i	78	C	O4'-C1'-N1	5.66	112.72	108.20
34	i	504	U	N1-C1'-C2'	5.66	121.35	114.00
34	i	726	C	O4'-C1'-N1	5.66	112.72	108.20
34	i	789	G	C4'-C3'-C2'	-5.65	96.95	102.60
34	i	286	C	C3'-C2'-C1'	5.65	106.02	101.50
34	i	1045	A	P-O3'-C3'	5.65	126.48	119.70
5	E	151	ASP	CB-CA-C	5.65	121.70	110.40
34	i	1705	C	O4'-C1'-C2'	-5.65	100.15	105.80
34	i	895	U	O4'-C1'-N1	5.64	112.72	108.20
34	i	895	U	O4'-C1'-C2'	-5.64	100.16	105.80
34	i	958	A	O4'-C1'-C2'	-5.64	100.16	105.80
34	i	1646	A	O4'-C1'-C2'	-5.64	100.16	105.80
34	i	1020	A	O4'-C1'-N9	5.64	112.71	108.20
34	i	1390	G	N9-C1'-C2'	5.64	121.34	114.00
34	i	91	A	C1'-O4'-C4'	5.64	114.41	109.90
19	S	53	THR	CA-C-N	5.64	129.61	117.20
34	i	374	U	C1'-O4'-C4'	-5.64	105.39	109.90
34	i	750	G	O4'-C1'-C2'	5.64	112.67	107.60
34	i	1407	G	O4'-C1'-C2'	5.64	112.67	107.60
34	i	1692	A	N9-C1'-C2'	-5.64	105.80	112.00
34	i	1018	U	C1'-O4'-C4'	-5.63	105.39	109.90
34	i	1343	U	O4'-C1'-N1	5.63	112.70	108.20
34	i	1407	G	N9-C1'-C2'	5.63	121.32	114.00
34	i	225	C	C2'-C3'-O3'	5.63	122.71	113.70
20	T	45	LEU	O-C-N	-5.63	113.70	122.70
24	X	58	GLU	N-CA-C	5.63	126.19	111.00
34	i	397	G	P-O3'-C3'	5.63	126.45	119.70
34	i	780	G	O3'-P-O5'	-5.63	93.31	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	914	U	C1'-O4'-C4'	-5.63	105.40	109.90
34	i	1821	U	O4'-C1'-N1	5.63	112.70	108.20
31	e	100	LYS	N-CA-C	-5.62	95.81	111.00
34	i	1618	A	N9-C1'-C2'	-5.62	105.81	112.00
27	a	70	LYS	CD-CE-NZ	5.62	124.63	111.70
34	i	1413	C	C5'-C4'-C3'	5.62	124.99	116.00
34	i	648	U	O4'-C1'-N1	5.62	112.70	108.20
34	i	1283	A	N9-C1'-C2'	-5.62	105.82	112.00
34	i	1044	G	P-O5'-C5'	5.62	129.89	120.90
34	i	805	A	P-O3'-C3'	5.62	126.44	119.70
34	i	13	C	O4'-C1'-N1	5.62	112.69	108.20
34	i	817	G	C2'-C3'-O3'	5.62	122.69	113.70
34	i	469	C	C3'-C2'-C1'	5.61	105.99	101.50
34	i	1826	A	P-O5'-C5'	5.61	129.88	120.90
29	c	60	GLU	N-CA-C	-5.61	95.85	111.00
34	i	341	G	C4'-C3'-C2'	-5.61	96.99	102.60
34	i	434	G	C3'-C2'-C1'	-5.61	97.01	101.50
34	i	996	C	C3'-C2'-C1'	5.61	105.99	101.50
34	i	1639	C	C3'-C2'-C1'	5.61	105.99	101.50
34	i	1661	C	C3'-C2'-C1'	5.61	105.98	101.50
19	S	10	GLN	N-CA-C	5.60	126.13	111.00
34	i	516	A	C5'-C4'-C3'	5.60	124.97	116.00
34	i	621	U	O4'-C1'-N1	5.60	112.68	108.20
21	U	68	THR	CB-CA-C	5.60	126.73	111.60
34	i	1181	C	C3'-C2'-C1'	5.60	105.98	101.50
34	i	308	C	C3'-C2'-C1'	5.60	105.98	101.50
34	i	1042	U	O4'-C1'-C2'	-5.60	100.20	105.80
9	I	5	ARG	CA-C-N	5.60	129.51	117.20
34	i	1370	C	O4'-C1'-N1	5.60	112.68	108.20
34	i	1439	C	O4'-C1'-N1	5.60	112.68	108.20
34	i	549	G	C3'-C2'-C1'	-5.60	97.02	101.50
34	i	346	C	O4'-C1'-C2'	5.59	112.63	107.60
34	i	503	G	C1'-O4'-C4'	-5.59	105.42	109.90
34	i	676	U	P-O3'-C3'	-5.59	112.99	119.70
34	i	1198	U	C3'-C2'-C1'	5.59	105.97	101.50
34	i	822	A	P-O3'-C3'	-5.59	112.99	119.70
34	i	597	U	O4'-C1'-N1	5.59	112.67	108.20
34	i	1639	C	C1'-O4'-C4'	-5.59	105.43	109.90
34	i	171	A	C1'-O4'-C4'	5.59	114.37	109.90
34	i	927	C	C5'-C4'-O4'	5.59	115.80	109.10
33	g	294	ASP	N-CA-CB	-5.58	100.55	110.60
32	f	125	GLU	CB-CA-C	5.58	121.57	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	569	C	O4'-C1'-C2'	-5.58	100.22	105.80
34	i	1409	G	P-O3'-C3'	-5.58	113.00	119.70
34	i	1448	A	O4'-C1'-C2'	-5.58	100.22	105.80
6	F	47	LYS	CD-CE-NZ	-5.58	98.86	111.70
34	i	400	G	N9-C1'-C2'	-5.58	105.86	112.00
34	i	1819	A	C2'-C3'-O3'	5.58	122.63	113.70
24	X	37	LYS	N-CA-C	5.58	126.06	111.00
34	i	355	C	C3'-C2'-C1'	5.58	105.96	101.50
16	P	53	GLN	CB-CA-C	5.58	121.55	110.40
34	i	1240	U	P-O3'-C3'	5.58	126.39	119.70
34	i	58	C	C1'-O4'-C4'	5.57	114.36	109.90
34	i	1538	U	O4'-C1'-N1	5.57	112.66	108.20
34	i	437	A	O4'-C1'-N9	5.57	112.66	108.20
34	i	1561	G	N9-C1'-C2'	-5.57	105.87	112.00
34	i	1625	A	O4'-C1'-N9	5.57	112.66	108.20
8	H	105	THR	CB-CA-C	5.57	126.63	111.60
34	i	93	U	N1-C1'-C2'	-5.57	105.88	112.00
34	i	378	U	O4'-C1'-N1	5.57	112.65	108.20
34	i	1160	G	N9-C1'-C2'	5.57	121.24	114.00
34	i	86	C	O4'-C1'-N1	5.56	112.65	108.20
34	i	1494	A	O4'-C1'-C2'	5.56	112.61	107.60
4	D	3	VAL	C-N-CA	5.56	135.61	121.70
34	i	1458	U	O4'-C1'-N1	5.56	112.65	108.20
34	i	1705	C	O4'-C1'-N1	5.56	112.65	108.20
34	i	388	A	C1'-O4'-C4'	5.56	114.35	109.90
34	i	1079	A	C3'-C2'-C1'	5.56	105.95	101.50
34	i	1259	U	C3'-C2'-C1'	5.56	105.94	101.50
34	i	1280	A	C5'-C4'-O4'	5.56	115.77	109.10
34	i	1781	G	C3'-C2'-C1'	-5.56	97.05	101.50
34	i	230	C	O4'-C1'-C2'	-5.56	100.24	105.80
34	i	870	G	P-O3'-C3'	5.56	126.37	119.70
1	A	159	ILE	CA-CB-CG1	-5.55	100.45	111.00
33	g	143	GLN	N-CA-C	-5.55	96.00	111.00
34	i	235	C	O4'-C1'-C2'	-5.55	100.25	105.80
34	i	292	A	O4'-C1'-C2'	-5.55	100.25	105.80
34	i	329	A	P-O3'-C3'	-5.55	113.03	119.70
34	i	746	C	N1-C1'-C2'	5.55	121.22	114.00
34	i	1366	A	C1'-O4'-C4'	5.55	114.34	109.90
34	i	459	A	O4'-C1'-N9	5.55	112.64	108.20
34	i	734	C	C3'-C2'-C1'	5.55	105.94	101.50
21	U	70	CYS	CA-C-N	5.55	127.30	116.20
34	i	1219	A	C3'-C2'-C1'	5.55	105.94	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1143	C	O4'-C1'-N1	5.55	112.64	108.20
34	i	1854	A	P-O3'-C3'	-5.55	113.04	119.70
34	i	667	G	C1'-O4'-C4'	-5.54	105.46	109.90
34	i	1557	C	C3'-C2'-C1'	5.54	105.94	101.50
34	i	314	U	O4'-C1'-C2'	5.54	112.59	107.60
34	i	49	C	C1'-O4'-C4'	-5.54	105.47	109.90
32	f	148	TYR	C-N-CA	5.54	135.54	121.70
34	i	278	U	C3'-C2'-C1'	5.54	105.93	101.50
34	i	1106	G	O4'-C1'-C2'	-5.54	100.26	105.80
34	i	1740	A	C3'-C2'-C1'	-5.54	97.07	101.50
34	i	819	U	O4'-C1'-C2'	5.53	112.58	107.60
34	i	874	G	C1'-O4'-C4'	-5.53	105.47	109.90
34	i	1070	C	O4'-C1'-N1	5.53	112.63	108.20
9	I	105	ASP	CB-CA-C	5.53	121.46	110.40
34	i	964	U	O4'-C1'-N1	5.53	112.62	108.20
22	V	67	ASP	N-CA-CB	-5.53	100.65	110.60
15	O	103	ASN	N-CA-CB	5.53	120.55	110.60
16	P	36	LEU	C-N-CA	5.53	135.51	121.70
34	i	224	U	P-O5'-C5'	5.53	129.74	120.90
34	i	742	C	C4'-C3'-C2'	-5.53	97.07	102.60
34	i	536	G	O4'-C1'-N9	5.52	112.62	108.20
34	i	1063	C	C1'-O4'-C4'	-5.52	105.48	109.90
34	i	1667	U	C1'-O4'-C4'	-5.52	105.48	109.90
4	D	142	LEU	CB-CG-CD1	5.52	120.38	111.00
34	i	619	A	C1'-O4'-C4'	5.52	114.32	109.90
34	i	1166	A	C3'-C2'-C1'	-5.52	97.08	101.50
34	i	1191	A	N9-C1'-C2'	-5.52	105.93	112.00
17	Q	145	TYR	C-N-CA	5.52	135.49	121.70
34	i	586	U	O4'-C1'-N1	5.52	112.61	108.20
34	i	350	A	O4'-C1'-N9	5.52	112.61	108.20
34	i	1528	A	O4'-C1'-N9	5.51	112.61	108.20
34	i	1691	C	C3'-C2'-C1'	5.51	105.91	101.50
16	P	130	ARG	NE-CZ-NH2	-5.51	117.55	120.30
17	Q	6	PRO	CB-CA-C	-5.51	98.23	112.00
34	i	80	G	O4'-C1'-N9	5.51	112.61	108.20
34	i	101	U	O4'-C1'-N1	5.51	112.61	108.20
34	i	116	U	O4'-C1'-N1	5.51	112.61	108.20
34	i	949	C	P-O3'-C3'	-5.51	113.09	119.70
34	i	398	A	O4'-C1'-C2'	-5.51	100.29	105.80
34	i	606	A	C1'-O4'-C4'	-5.51	105.50	109.90
34	i	640	A	O4'-C1'-C2'	-5.51	100.29	105.80
34	i	396	U	N1-C1'-C2'	5.50	121.16	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	167	TYR	CA-CB-CG	-5.50	102.95	113.40
34	i	994	A	O4'-C1'-C2'	-5.50	100.30	105.80
34	i	1739	G	O4'-C1'-N9	5.50	112.60	108.20
34	i	15	U	O4'-C1'-C2'	-5.50	100.30	105.80
3	C	241	TRP	O-C-N	-5.50	113.90	122.70
34	i	226	A	O4'-C1'-N9	5.50	112.60	108.20
34	i	1460	C	C3'-C2'-C1'	5.50	105.90	101.50
34	i	560	C	C5'-C4'-O4'	5.50	115.69	109.10
34	i	1370	C	N1-C1'-C2'	5.49	121.14	114.00
34	i	675	A	O4'-C1'-N9	5.49	112.59	108.20
34	i	1556	A	O4'-C1'-C2'	-5.49	100.31	105.80
34	i	1152	U	O4'-C1'-N1	5.49	112.59	108.20
34	i	218	A	C3'-C2'-C1'	-5.49	97.11	101.50
34	i	508	G	O4'-C1'-N9	5.49	112.59	108.20
34	i	1446	G	C3'-C2'-C1'	-5.49	97.11	101.50
34	i	462	C	C3'-C2'-C1'	5.49	105.89	101.50
34	i	1382	A	O4'-C1'-C2'	-5.49	100.31	105.80
34	i	656	U	C3'-C2'-C1'	5.49	105.89	101.50
34	i	38	A	C5'-C4'-C3'	-5.48	107.23	116.00
34	i	125	C	C4'-C3'-O3'	5.48	123.97	113.00
19	S	81	ASP	CB-CG-OD2	5.48	123.23	118.30
34	i	536	G	O4'-C1'-C2'	-5.48	100.32	105.80
34	i	790	A	O4'-C1'-C2'	-5.48	100.32	105.80
34	i	1814	G	O4'-C1'-N9	5.47	112.58	108.20
34	i	1823	G	O4'-C1'-C2'	-5.47	100.33	105.80
34	i	489	G	P-O5'-C5'	-5.47	112.14	120.90
34	i	1432	C	O4'-C1'-C2'	-5.47	100.33	105.80
34	i	376	C	P-O5'-C5'	-5.47	112.15	120.90
34	i	1027	A	C5'-C4'-O4'	5.47	115.66	109.10
34	i	1279	C	C1'-O4'-C4'	-5.47	105.53	109.90
34	i	522	C	C4'-C3'-C2'	-5.46	97.14	102.60
34	i	1318	G	C1'-O4'-C4'	5.46	114.27	109.90
34	i	391	A	C3'-C2'-C1'	5.46	105.87	101.50
34	i	852	C	C1'-O4'-C4'	-5.46	105.53	109.90
34	i	57	U	C3'-C2'-C1'	5.46	105.87	101.50
34	i	456	G	C3'-C2'-C1'	-5.46	97.13	101.50
14	N	87	ASP	CB-CG-OD2	5.46	123.21	118.30
34	i	404	A	O4'-C1'-C2'	-5.46	100.34	105.80
34	i	1595	G	P-O3'-C3'	-5.46	113.15	119.70
34	i	440	C	O4'-C1'-N1	5.46	112.56	108.20
34	i	1716	U	O3'-P-O5'	5.46	114.36	104.00
22	V	28	ASP	CB-CG-OD2	5.45	123.21	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1110	U	O4'-C1'-C2'	-5.45	100.35	105.80
34	i	1313	U	O4'-C1'-N1	5.45	112.56	108.20
9	I	132	GLU	CA-C-O	-5.45	108.65	120.10
2	B	63	LYS	N-CA-C	5.45	125.72	111.00
34	i	1037	G	C3'-C2'-C1'	-5.45	97.14	101.50
34	i	1058	A	O4'-C1'-N9	5.45	112.56	108.20
34	i	1608	G	O4'-C1'-N9	5.45	112.56	108.20
34	i	1837	G	P-O3'-C3'	-5.45	113.16	119.70
34	i	229	A	O4'-C1'-N9	5.45	112.56	108.20
17	Q	18	THR	C-N-CA	5.44	135.31	121.70
34	i	101	U	O4'-C1'-C2'	-5.44	100.36	105.80
34	i	1823	G	C5'-C4'-O4'	5.44	115.63	109.10
34	i	516	A	O4'-C1'-N9	5.44	112.55	108.20
34	i	614	C	C5'-C4'-C3'	-5.44	107.30	116.00
19	S	89	ASP	CB-CA-C	-5.44	99.53	110.40
34	i	1123	C	O4'-C1'-N1	5.43	112.55	108.20
34	i	188	U	P-O3'-C3'	-5.43	113.18	119.70
34	i	1164	G	O4'-C1'-N9	5.43	112.54	108.20
34	i	1638	U	O4'-C1'-N1	5.43	112.54	108.20
34	i	443	C	N1-C1'-C2'	5.43	121.06	114.00
21	U	118	ASP	N-CA-C	-5.43	96.35	111.00
34	i	1274	A	O4'-C1'-N9	5.43	112.54	108.20
34	i	94	G	N9-C1'-C2'	5.42	121.05	114.00
34	i	1227	C	C1'-O4'-C4'	-5.42	105.56	109.90
34	i	332	C	O4'-C1'-C2'	-5.42	100.38	105.80
34	i	560	C	N1-C1'-C2'	5.42	121.04	114.00
29	c	36	ASP	CB-CG-OD2	5.42	123.17	118.30
34	i	297	C	O4'-C1'-N1	5.42	112.53	108.20
34	i	1848	U	N1-C1'-C2'	-5.42	106.04	112.00
34	i	1859	C	O4'-C1'-N1	5.42	112.53	108.20
34	i	820	C	N1-C1'-C2'	5.42	121.04	114.00
34	i	960	A	O4'-C1'-C2'	-5.42	100.39	105.80
34	i	1013	U	O4'-C1'-C2'	-5.42	100.39	105.80
34	i	1356	U	O4'-C1'-N1	5.41	112.53	108.20
34	i	1271	G	O4'-C1'-N9	5.41	112.53	108.20
34	i	1437	U	C1'-O4'-C4'	5.41	114.23	109.90
34	i	882	A	O3'-P-O5'	5.41	114.28	104.00
34	i	906	G	O5'-P-OP1	-5.41	100.83	105.70
34	i	1283	A	O4'-C1'-N9	5.41	112.53	108.20
34	i	40	A	N9-C1'-C2'	-5.41	106.05	112.00
34	i	139	C	C3'-C2'-C1'	5.41	105.83	101.50
34	i	462	C	P-O3'-C3'	5.40	126.18	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	918	A	N9-C1'-C2'	-5.40	106.06	112.00
34	i	1035	C	O4'-C1'-N1	5.40	112.52	108.20
34	i	1473	U	O4'-C1'-N1	5.40	112.52	108.20
34	i	1703	C	C3'-C2'-C1'	5.40	105.82	101.50
22	V	82	ASN	CB-CA-C	-5.40	99.60	110.40
34	i	71	G	C4'-C3'-O3'	5.40	123.80	113.00
34	i	323	G	C1'-O4'-C4'	-5.40	105.58	109.90
34	i	889	U	C1'-O4'-C4'	5.40	114.22	109.90
34	i	1374	A	O4'-C1'-C2'	-5.40	100.40	105.80
1	A	14	ASP	CB-CG-OD2	5.40	123.16	118.30
34	i	502	A	O4'-C1'-N9	5.40	112.52	108.20
34	i	540	C	C3'-C2'-C1'	5.40	105.82	101.50
34	i	642	U	C1'-O4'-C4'	5.40	114.22	109.90
34	i	1455	G	C3'-C2'-C1'	-5.40	97.18	101.50
34	i	276	U	P-O5'-C5'	-5.40	112.27	120.90
10	J	100	LEU	N-CA-C	5.39	125.56	111.00
34	i	859	U	O4'-C1'-C2'	5.39	112.46	107.60
34	i	901	C	O4'-C1'-N1	5.39	112.52	108.20
34	i	1122	G	O4'-C1'-N9	5.39	112.51	108.20
34	i	1708	C	N1-C1'-C2'	5.39	121.01	114.00
34	i	835	C	O3'-P-O5'	-5.39	93.76	104.00
34	i	929	G	C3'-C2'-C1'	-5.39	97.19	101.50
30	d	49	ASP	CB-CG-OD2	5.39	123.15	118.30
34	i	550	A	O5'-C5'-C4'	5.39	121.94	111.70
34	i	1094	C	O4'-C1'-N1	5.39	112.51	108.20
34	i	1695	C	O4'-C1'-N1	5.39	112.51	108.20
25	Y	53	ASP	CB-CG-OD2	5.39	123.15	118.30
34	i	682	G	C1'-O4'-C4'	-5.39	105.59	109.90
34	i	1229	G	O4'-C1'-N9	5.39	112.51	108.20
34	i	1423	C	O4'-C1'-N1	5.39	112.51	108.20
34	i	139	C	O4'-C1'-N1	5.38	112.51	108.20
34	i	1357	G	C3'-C2'-C1'	5.38	105.81	101.50
10	J	35	TYR	C-N-CA	5.38	133.60	122.30
28	b	34	ASP	CB-CG-OD2	5.38	123.14	118.30
34	i	76	U	N1-C1'-C2'	5.38	121.00	114.00
34	i	146	G	O4'-C1'-C2'	-5.38	100.42	105.80
34	i	745	U	O4'-C1'-C2'	-5.38	100.42	105.80
34	i	1209	C	N1-C1'-C2'	5.38	121.00	114.00
25	Y	62	THR	C-N-CA	-5.38	108.25	121.70
34	i	370	G	C1'-O4'-C4'	5.38	114.20	109.90
33	g	14	HIS	C-N-CA	-5.37	108.27	121.70
34	i	67	C	N1-C1'-C2'	-5.37	106.09	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	564	A	N9-C1'-C2'	5.37	120.99	114.00
34	i	727	G	N9-C1'-C2'	5.37	120.98	114.00
34	i	1607	G	C3'-C2'-C1'	-5.37	97.20	101.50
34	i	1819	A	C5'-C4'-O4'	5.37	115.55	109.10
6	F	46	ALA	O-C-N	-5.37	114.11	122.70
8	H	16	PRO	CA-N-CD	-5.37	103.98	111.50
10	J	104	ASP	CB-CG-OD2	5.37	123.13	118.30
34	i	534	G	O4'-C1'-C2'	-5.37	100.43	105.80
34	i	1233	C	C4'-C3'-C2'	-5.37	97.23	102.60
34	i	1832	U	O4'-C1'-N1	5.37	112.50	108.20
11	K	43	LEU	CB-CG-CD1	5.37	120.12	111.00
34	i	427	G	N9-C1'-C2'	5.37	120.97	114.00
18	R	89	SER	CA-C-O	-5.36	108.84	120.10
34	i	282	G	C1'-O4'-C4'	-5.36	105.61	109.90
34	i	1384	A	P-O3'-C3'	-5.36	113.27	119.70
6	F	21	GLY	N-CA-C	-5.36	99.70	113.10
34	i	78	C	C1'-O4'-C4'	-5.36	105.61	109.90
34	i	613	G	O4'-C1'-N9	5.36	112.49	108.20
16	P	71	GLU	CA-C-N	-5.36	105.41	117.20
34	i	1158	C	O4'-C1'-C2'	-5.36	100.44	105.80
34	i	1491	G	O4'-C1'-N9	5.36	112.49	108.20
34	i	1846	C	O4'-C1'-N1	5.36	112.49	108.20
34	i	66	G	O4'-C1'-C2'	5.36	112.42	107.60
15	O	129	ILE	CG1-CB-CG2	5.35	123.18	111.40
34	i	461	G	N9-C1'-C2'	-5.35	106.11	112.00
34	i	1256	A	O4'-C1'-N9	5.35	112.48	108.20
3	C	216	ALA	O-C-N	-5.35	114.14	122.70
34	i	685	G	C1'-O4'-C4'	5.35	114.18	109.90
34	i	1486	G	C1'-O4'-C4'	-5.35	105.62	109.90
34	i	1280	A	N9-C1'-C2'	5.35	120.96	114.00
34	i	1137	G	O4'-C1'-C2'	5.35	112.42	107.60
34	i	1535	G	P-O5'-C5'	-5.35	112.34	120.90
34	i	1557	C	P-O3'-C3'	5.35	126.12	119.70
14	N	151	ALA	CA-C-O	-5.35	108.87	120.10
17	Q	67	ASP	CB-CG-OD2	5.35	123.11	118.30
23	W	54	ASP	CB-CG-OD2	5.34	123.11	118.30
34	i	1053	C	P-O3'-C3'	-5.34	113.29	119.70
3	C	233	TYR	CA-CB-CG	-5.34	103.25	113.40
24	X	142	ARG	CA-C-O	-5.34	108.88	120.10
34	i	994	A	N9-C1'-C2'	-5.34	106.12	112.00
34	i	1129	A	O5'-C5'-C4'	-5.34	101.55	111.70
35	l	101	GLY	N-CA-C	5.34	126.45	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	H	16	PRO	C-N-CA	5.34	135.05	121.70
34	i	1267	C	N1-C1'-C2'	5.34	120.94	114.00
34	i	1635	A	N9-C1'-C2'	-5.34	106.13	112.00
22	V	24	ILE	CB-CA-C	-5.33	100.93	111.60
14	N	6	ALA	C-N-CD	5.33	139.60	128.40
4	D	193	ASP	C-N-CA	-5.33	99.61	122.00
14	N	110	ASP	CB-CG-OD2	5.33	123.10	118.30
34	i	462	C	N1-C1'-C2'	5.33	120.93	114.00
34	i	109	U	C2'-C3'-O3'	5.33	122.23	113.70
34	i	77	A	C5'-C4'-C3'	5.33	124.52	116.00
34	i	1624	C	O4'-C4'-C3'	-5.33	98.67	104.00
34	i	1326	G	O4'-C1'-C2'	5.33	112.39	107.60
34	i	84	A	C5'-C4'-O4'	5.33	115.49	109.10
34	i	1024	A	C4'-C3'-O3'	-5.33	98.22	109.40
34	i	1150	U	C4'-C3'-C2'	-5.33	97.28	102.60
34	i	1078	A	O4'-C1'-C2'	-5.32	100.48	105.80
34	i	396	U	O4'-C1'-N1	5.32	112.46	108.20
34	i	786	C	C3'-C2'-C1'	5.32	105.76	101.50
34	i	1127	G	O4'-C1'-C2'	-5.32	100.48	105.80
34	i	1341	G	O4'-C1'-C2'	-5.32	100.48	105.80
34	i	1618	A	C1'-O4'-C4'	5.32	114.16	109.90
5	E	170	THR	O-C-N	5.32	131.21	122.70
34	i	235	C	N1-C1'-C2'	5.32	120.91	114.00
34	i	1717	G	C5'-C4'-C3'	-5.32	107.49	116.00
16	P	82	ASP	CB-CG-OD2	5.32	123.08	118.30
33	g	314	ILE	CA-C-O	-5.32	108.94	120.10
34	i	102	A	C1'-O4'-C4'	-5.32	105.65	109.90
34	i	895	U	C3'-C2'-C1'	5.32	105.75	101.50
34	i	1301	C	N1-C1'-C2'	5.32	120.91	114.00
34	i	1695	C	N1-C1'-C2'	-5.32	106.15	112.00
34	i	1344	G	P-O3'-C3'	5.31	126.08	119.70
7	G	170	ARG	CA-C-N	-5.31	105.51	117.20
34	i	1037	G	N9-C1'-C2'	5.31	120.91	114.00
34	i	1851	G	O4'-C1'-C2'	5.31	112.38	107.60
5	E	88	ASP	CB-CG-OD2	5.31	123.08	118.30
34	i	868	A	O4'-C1'-C2'	5.31	112.38	107.60
34	i	1635	A	C3'-C2'-C1'	5.31	105.75	101.50
34	i	323	G	O4'-C1'-N9	5.31	112.45	108.20
34	i	729	C	C4'-C3'-C2'	-5.31	97.29	102.60
14	N	133	ARG	NE-CZ-NH1	5.31	122.95	120.30
34	i	725	C	C1'-O4'-C4'	5.31	114.14	109.90
12	L	158	PHE	CA-C-O	-5.30	108.96	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	e	95	LYS	C-N-CA	5.30	134.96	121.70
34	i	88	G	O4'-C1'-N9	5.30	112.44	108.20
34	i	509	A	C1'-O4'-C4'	5.30	114.14	109.90
34	i	1338	U	C3'-C2'-C1'	5.30	105.74	101.50
8	H	118	ARG	CB-CA-C	-5.30	99.79	110.40
2	B	108	ASP	CB-CG-OD2	5.30	123.07	118.30
8	H	56	GLY	N-CA-C	5.30	126.35	113.10
11	K	98	ARG	CA-C-O	-5.30	108.97	120.10
34	i	480	C	O4'-C1'-C2'	-5.30	100.50	105.80
34	i	748	G	O4'-C4'-C3'	-5.30	98.70	104.00
34	i	786	C	N1-C1'-C2'	5.30	120.89	114.00
34	i	971	G	O4'-C4'-C3'	-5.30	98.70	104.00
34	i	1348	G	N9-C1'-C2'	5.30	120.89	114.00
34	i	1820	G	O4'-C1'-N9	5.30	112.44	108.20
3	C	244	THR	N-CA-C	5.30	125.31	111.00
34	i	1130	G	O4'-C1'-N9	5.30	112.44	108.20
34	i	375	G	O4'-C1'-N9	5.30	112.44	108.20
15	O	46	ASP	CB-CG-OD2	5.30	123.07	118.30
24	X	114	ASP	CB-CG-OD2	5.30	123.07	118.30
1	A	209	GLU	CA-C-O	-5.29	108.98	120.10
1	A	53	ARG	CD-NE-CZ	-5.29	116.19	123.60
9	I	191	GLU	CB-CA-C	-5.29	99.81	110.40
13	M	132	LYS	CA-C-O	-5.29	108.98	120.10
34	i	313	C	C2'-C3'-O3'	5.29	122.17	113.70
34	i	746	C	C4'-C3'-C2'	-5.29	97.31	102.60
34	i	1003	C	O4'-C1'-C2'	-5.29	100.51	105.80
1	A	205	ARG	NE-CZ-NH1	5.29	122.94	120.30
34	i	988	A	C1'-O4'-C4'	-5.29	105.67	109.90
23	W	9	ASP	CB-CG-OD2	5.28	123.06	118.30
34	i	107	A	C1'-O4'-C4'	5.28	114.13	109.90
34	i	1221	U	O4'-C1'-N1	5.28	112.43	108.20
34	i	782	G	O4'-C1'-N9	5.28	112.43	108.20
34	i	1234	U	C3'-C2'-C1'	-5.28	97.27	101.50
34	i	1300	U	N1-C1'-C2'	5.28	120.87	114.00
34	i	1807	A	O4'-C1'-N9	5.28	112.43	108.20
7	G	57	ASP	CB-CG-OD2	5.28	123.05	118.30
10	J	95	ASP	CB-CG-OD2	5.28	123.05	118.30
34	i	416	A	C3'-C2'-C1'	5.28	105.72	101.50
28	b	3	LEU	CB-CG-CD2	5.28	119.97	111.00
34	i	25	A	O4'-C1'-N9	5.28	112.42	108.20
34	i	655	G	N9-C1'-C2'	5.28	120.86	114.00
5	E	73	ASP	CB-CG-OD2	5.28	123.05	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	O	39	ASP	CB-CG-OD2	5.28	123.05	118.30
14	N	32	ASP	CB-CG-OD2	5.27	123.05	118.30
34	i	84	A	P-O5'-C5'	-5.27	112.46	120.90
5	E	158	ASP	CB-CG-OD2	5.27	123.05	118.30
34	i	74	G	C1'-O4'-C4'	-5.27	105.68	109.90
34	i	550	A	C1'-O4'-C4'	-5.27	105.68	109.90
34	i	1036	G	O4'-C1'-C2'	5.27	112.34	107.60
34	i	120	U	C3'-C2'-C1'	5.27	105.72	101.50
34	i	516	A	C1'-O4'-C4'	-5.27	105.69	109.90
4	D	227	LYS	CA-C-O	-5.27	109.04	120.10
34	i	1331	G	N9-C1'-C2'	5.27	120.85	114.00
34	i	306	C	P-O5'-C5'	-5.27	112.47	120.90
34	i	542	G	O4'-C1'-C2'	5.27	112.34	107.60
34	i	103	A	P-O3'-C3'	5.26	126.02	119.70
10	J	137	VAL	C-N-CA	5.26	134.85	121.70
34	i	69	C	O4'-C1'-N1	5.26	112.41	108.20
34	i	1298	G	C2'-C3'-O3'	-5.26	97.93	109.50
3	C	263	THR	CA-C-O	-5.26	109.06	120.10
34	i	911	G	O4'-C1'-C2'	5.26	112.33	107.60
5	E	143	ASP	CB-CG-OD2	5.26	123.03	118.30
5	E	163	ASP	CB-CG-OD2	5.25	123.03	118.30
34	i	459	A	C1'-O4'-C4'	5.25	114.10	109.90
10	J	124	HIS	N-CA-C	-5.25	96.82	111.00
34	i	923	C	C3'-C2'-C1'	5.25	105.70	101.50
15	O	67	ASP	CB-CG-OD2	5.25	123.02	118.30
34	i	1539	C	O4'-C1'-C2'	-5.25	100.55	105.80
34	i	178	C	N1-C1'-C2'	5.25	120.82	114.00
4	D	93	THR	C-N-CA	5.25	134.81	121.70
34	i	308	C	O4'-C1'-C2'	-5.24	100.56	105.80
34	i	1544	U	N1-C1'-C2'	5.24	120.82	114.00
8	H	194	LEU	CA-C-O	-5.24	109.09	120.10
31	e	133	SER	CA-C-O	-5.24	109.09	120.10
34	i	346	C	C3'-C2'-C1'	-5.24	97.31	101.50
1	A	130	ASP	CB-CG-OD2	5.24	123.02	118.30
34	i	378	U	N1-C1'-C2'	5.24	120.81	114.00
34	i	783	G	O3'-P-O5'	5.24	113.96	104.00
34	i	850	A	P-O3'-C3'	5.24	125.99	119.70
34	i	1048	A	C3'-C2'-C1'	5.24	105.69	101.50
34	i	1217	G	C3'-C2'-C1'	-5.24	97.31	101.50
18	R	94	GLU	N-CA-C	-5.24	96.86	111.00
30	d	56	ASP	CA-C-O	-5.24	109.10	120.10
34	i	1039	G	O4'-C1'-N9	5.24	112.39	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1479	A	C4'-C3'-C2'	-5.24	97.36	102.60
34	i	1482	A	O5'-C5'-C4'	-5.24	101.75	111.70
34	i	530	U	N1-C1'-C2'	-5.23	106.24	112.00
23	W	130	PHE	CA-C-O	-5.23	109.11	120.10
29	c	68	LEU	CA-C-O	-5.23	109.11	120.10
34	i	554	A	N9-C1'-C2'	-5.23	106.24	112.00
34	i	919	G	O4'-C1'-N9	5.23	112.39	108.20
34	i	1308	G	N9-C1'-C2'	5.23	120.80	114.00
14	N	31	ASP	CB-CG-OD2	5.23	123.01	118.30
21	U	90	ASP	CB-CG-OD2	5.23	123.01	118.30
25	Y	80	ASP	CB-CG-OD2	5.23	123.01	118.30
34	i	652	G	C3'-C2'-C1'	5.23	105.69	101.50
34	i	660	A	C1'-O4'-C4'	5.23	114.08	109.90
34	i	1018	U	P-O3'-C3'	5.23	125.98	119.70
34	i	1737	C	N1-C1'-C2'	5.23	120.80	114.00
34	i	1461	A	C3'-C2'-C1'	5.23	105.68	101.50
34	i	65	C	O4'-C1'-C2'	-5.23	100.57	105.80
34	i	71	G	C2'-C3'-O3'	-5.23	98.00	109.50
34	i	1419	C	O4'-C1'-N1	5.23	112.38	108.20
34	i	1424	G	C3'-C2'-C1'	-5.23	97.32	101.50
34	i	32	U	C5'-C4'-O4'	5.22	115.37	109.10
34	i	165	G	N9-C1'-C2'	-5.22	106.25	112.00
34	i	209	C	C3'-C2'-C1'	5.22	105.68	101.50
34	i	895	U	P-O5'-C5'	5.22	129.26	120.90
34	i	1201	C	O4'-C1'-N1	5.22	112.38	108.20
34	i	1833	U	C5'-C4'-O4'	5.22	115.37	109.10
6	F	204	ARG	CA-C-O	-5.22	109.13	120.10
16	P	27	ASP	CB-CG-OD2	5.22	123.00	118.30
17	Q	110	ASP	CB-CG-OD2	5.22	123.00	118.30
33	g	213	ASP	CB-CG-OD1	5.22	123.00	118.30
34	i	189	G	O5'-C5'-C4'	5.22	121.62	111.70
10	J	152	ASP	CB-CG-OD2	5.22	123.00	118.30
23	W	80	ASP	CB-CG-OD2	5.22	123.00	118.30
34	i	551	A	C2'-C3'-O3'	5.22	122.05	113.70
34	i	1397	A	N9-C1'-C2'	-5.22	106.26	112.00
34	i	516	A	O4'-C1'-C2'	5.22	112.30	107.60
6	F	43	GLU	N-CA-C	-5.22	96.91	111.00
26	Z	52	LYS	N-CA-C	-5.22	96.91	111.00
34	i	1340	A	P-O3'-C3'	5.22	125.96	119.70
19	S	104	ASP	CB-CG-OD2	5.21	122.99	118.30
27	a	52	ASP	CB-CG-OD2	5.21	122.99	118.30
34	i	142	C	O4'-C1'-C2'	5.21	112.29	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	I	133	GLU	CA-C-N	5.21	128.67	117.20
34	i	1130	G	C5'-C4'-O4'	5.21	115.36	109.10
34	i	1602	A	C1'-O4'-C4'	-5.21	105.73	109.90
34	i	1714	A	C3'-C2'-C1'	5.21	105.67	101.50
2	B	60	ASP	CB-CG-OD2	5.21	122.99	118.30
7	G	151	ASP	CB-CG-OD2	5.21	122.99	118.30
12	L	18	GLN	C-N-CA	-5.21	108.68	121.70
16	P	21	ASP	CB-CG-OD2	5.21	122.99	118.30
24	X	139	GLU	CB-CA-C	5.21	120.82	110.40
34	i	382	A	C5'-C4'-O4'	5.21	115.35	109.10
34	i	1208	G	O4'-C1'-N9	5.21	112.37	108.20
34	i	1255	A	C5'-C4'-O4'	5.21	115.35	109.10
34	i	1308	G	C3'-C2'-C1'	5.21	105.67	101.50
34	i	1645	A	P-O5'-C5'	-5.21	112.56	120.90
34	i	932	G	O4'-C1'-N9	5.21	112.36	108.20
1	A	53	ARG	CB-CG-CD	-5.20	98.07	111.60
34	i	317	G	C5'-C4'-O4'	5.20	115.34	109.10
34	i	1858	U	C5'-C4'-O4'	5.20	115.34	109.10
34	i	540	C	O4'-C1'-C2'	-5.20	100.60	105.80
34	i	608	C	C1'-O4'-C4'	5.20	114.06	109.90
34	i	1119	C	O4'-C1'-N1	5.20	112.36	108.20
7	G	39	ASP	CB-CG-OD2	5.20	122.98	118.30
18	R	110	ASP	CB-CG-OD2	5.20	122.98	118.30
34	i	33	G	C5'-C4'-O4'	5.20	115.34	109.10
34	i	271	G	OP1-P-O3'	5.20	116.64	105.20
34	i	783	G	O4'-C1'-C2'	-5.20	100.60	105.80
34	i	599	U	O4'-C1'-C2'	-5.20	100.60	105.80
34	i	795	U	C4'-C3'-C2'	-5.20	97.40	102.60
34	i	1161	G	C5'-C4'-O4'	5.20	115.34	109.10
34	i	1683	C	C5'-C4'-O4'	5.20	115.34	109.10
1	A	53	ARG	N-CA-CB	-5.20	101.25	110.60
14	N	108	ASP	CB-CG-OD2	5.20	122.97	118.30
15	O	80	ASP	CB-CG-OD2	5.20	122.98	118.30
34	i	750	G	C1'-O4'-C4'	-5.20	105.74	109.90
2	B	196	ASP	CB-CG-OD2	5.19	122.97	118.30
34	i	201	G	C1'-O4'-C4'	5.19	114.06	109.90
34	i	1688	G	O4'-C1'-C2'	5.19	112.28	107.60
24	X	115	ILE	C-N-CD	-5.19	109.18	120.60
34	i	22	A	O4'-C1'-N9	5.19	112.35	108.20
34	i	621	U	N1-C1'-C2'	5.19	120.75	114.00
34	i	1165	G	C1'-O4'-C4'	-5.19	105.75	109.90
34	i	1379	A	O4'-C1'-N9	5.19	112.35	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1651	G	C3'-C2'-C1'	-5.19	97.35	101.50
19	S	110	ASP	CB-CG-OD2	5.19	122.97	118.30
32	f	152	LYS	CA-C-O	-5.19	109.20	120.10
34	i	906	G	C3'-C2'-C1'	-5.19	97.35	101.50
16	P	71	GLU	C-N-CA	5.19	134.67	121.70
19	S	62	ASP	CB-CG-OD2	5.19	122.97	118.30
34	i	22	A	C1'-O4'-C4'	5.19	114.05	109.90
18	R	25	GLY	O-C-N	5.19	131.00	122.70
34	i	458	A	P-O5'-C5'	-5.19	112.60	120.90
34	i	1408	C	O5'-P-OP1	5.19	116.92	110.70
19	S	16	LEU	CA-C-N	-5.18	105.80	117.20
34	i	549	G	O4'-C4'-C3'	-5.18	98.82	104.00
23	W	2	VAL	O-C-N	-5.18	114.41	122.70
29	c	54	ASP	CB-CG-OD2	5.18	122.96	118.30
34	i	207	U	N1-C1'-C2'	5.18	120.74	114.00
34	i	1306	U	O4'-C1'-N1	5.18	112.34	108.20
34	i	370	G	O4'-C1'-N9	5.18	112.34	108.20
34	i	729	C	O4'-C1'-N1	5.18	112.34	108.20
5	E	104	ASP	CB-CG-OD2	5.18	122.96	118.30
34	i	22	A	O4'-C1'-C2'	-5.18	100.62	105.80
34	i	581	U	O4'-C1'-C2'	5.18	112.26	107.60
34	i	1603	U	N1-C1'-C2'	5.18	120.73	114.00
21	U	27	ARG	O-C-N	-5.18	114.42	122.70
28	b	52	THR	O-C-N	5.18	130.98	122.70
34	i	503	G	O4'-C1'-C2'	5.18	112.26	107.60
34	i	682	G	O4'-C1'-C2'	5.18	112.26	107.60
20	T	144	LYS	CA-C-O	-5.17	109.23	120.10
34	i	1001	G	O4'-C1'-C2'	5.17	112.26	107.60
24	X	138	LYS	O-C-N	-5.17	114.42	122.70
34	i	1335	U	C5'-C4'-O4'	5.17	115.31	109.10
5	E	21	ASP	CB-CG-OD2	5.17	122.95	118.30
32	f	137	ASP	CB-CG-OD2	5.17	122.95	118.30
34	i	410	G	P-O3'-C3'	-5.17	113.50	119.70
34	i	1862	U	O4'-C1'-N1	5.17	112.33	108.20
34	i	1560	C	O4'-C1'-N1	5.17	112.33	108.20
16	P	51	ARG	N-CA-C	5.16	124.94	111.00
34	i	1246	A	O4'-C1'-C2'	-5.16	100.64	105.80
5	E	258	ALA	O-C-N	-5.16	114.44	122.70
10	J	26	ASP	CB-CG-OD2	5.16	122.95	118.30
10	J	91	LYS	CA-C-N	5.16	128.56	117.20
34	i	1493	G	C3'-C2'-C1'	5.16	105.63	101.50
5	E	164	LEU	C-N-CA	-5.16	108.80	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	411	G	O4'-C1'-C2'	5.16	112.25	107.60
34	i	1137	G	P-O5'-C5'	5.16	129.16	120.90
28	b	84	HIS	CA-C-O	-5.16	109.27	120.10
34	i	1021	U	C1'-O4'-C4'	5.16	114.03	109.90
34	i	1580	U	O4'-C1'-N1	5.16	112.33	108.20
34	i	1645	A	C1'-O4'-C4'	5.16	114.03	109.90
34	i	1823	G	C3'-C2'-C1'	5.16	105.63	101.50
15	O	131	ASP	CB-CG-OD2	5.16	122.94	118.30
23	W	55	ASP	CB-CG-OD2	5.16	122.94	118.30
34	i	1006	G	N9-C1'-C2'	-5.16	106.33	112.00
34	i	1090	C	N1-C1'-C2'	5.16	120.70	114.00
34	i	1513	C	O4'-C4'-C3'	-5.16	98.84	104.00
34	i	1645	A	O4'-C1'-C2'	-5.16	100.64	105.80
34	i	1579	G	C3'-C2'-C1'	5.15	105.62	101.50
34	i	216	U	C3'-C2'-C1'	5.15	105.62	101.50
34	i	1323	G	N9-C1'-C2'	5.15	120.70	114.00
5	E	253	ASP	CB-CG-OD2	5.15	122.94	118.30
16	P	37	TYR	CA-CB-CG	5.15	123.19	113.40
34	i	1246	A	N9-C1'-C2'	-5.15	106.33	112.00
34	i	1784	A	C1'-O4'-C4'	-5.15	105.78	109.90
34	i	109	U	P-O3'-C3'	-5.15	113.52	119.70
34	i	624	A	C3'-C2'-C1'	5.15	105.62	101.50
24	X	88	ASP	CB-CG-OD2	5.14	122.93	118.30
34	i	1051	A	C1'-O4'-C4'	5.14	114.02	109.90
34	i	1427	G	N9-C1'-C2'	5.14	120.69	114.00
34	i	1614	A	P-O3'-C3'	5.14	125.87	119.70
34	i	1742	C	C5'-C4'-C3'	5.14	124.23	116.00
34	i	1765	G	P-O3'-C3'	5.14	125.87	119.70
34	i	15	U	C1'-O4'-C4'	5.14	114.01	109.90
34	i	742	C	O4'-C1'-N1	5.14	112.31	108.20
1	A	126	ASP	CB-CG-OD2	5.14	122.93	118.30
12	L	24	LEU	C-N-CA	5.14	134.55	121.70
34	i	1416	G	O4'-C1'-C2'	5.14	112.23	107.60
18	R	101	ASP	CB-CG-OD2	5.14	122.92	118.30
26	Z	50	PHE	CB-CA-C	-5.14	100.12	110.40
26	Z	104	ARG	CB-CA-C	-5.14	100.12	110.40
34	i	231	C	O4'-C1'-N1	5.14	112.31	108.20
34	i	235	C	O4'-C1'-N1	5.14	112.31	108.20
34	i	1656	A	O4'-C1'-C2'	5.14	112.22	107.60
34	i	125	C	C5'-C4'-O4'	-5.14	102.94	109.10
34	i	1328	A	N9-C1'-C2'	-5.14	106.35	112.00
24	X	126	ALA	N-CA-C	-5.13	97.14	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	596	G	P-O3'-C3'	5.13	125.86	119.70
34	i	819	U	C3'-C2'-C1'	-5.13	97.39	101.50
16	P	28	MET	CA-C-N	-5.13	105.92	117.20
34	i	410	G	C4'-C3'-C2'	-5.13	97.47	102.60
34	i	581	U	C1'-O4'-C4'	-5.13	105.80	109.90
34	i	1302	U	O4'-C1'-N1	5.13	112.30	108.20
10	J	158	ASP	CB-CG-OD2	5.13	122.91	118.30
16	P	23	ASP	CB-CG-OD2	5.13	122.91	118.30
9	I	8	TRP	CE3-CZ3-CH2	5.12	126.84	121.20
25	Y	29	HIS	C-N-CD	-5.12	109.32	120.60
34	i	799	C	C3'-C2'-C1'	5.12	105.60	101.50
34	i	859	U	N1-C1'-C2'	5.12	120.66	114.00
34	i	880	C	C3'-C2'-C1'	5.12	105.60	101.50
34	i	888	U	O4'-C1'-N1	5.12	112.30	108.20
34	i	1501	U	C3'-C2'-C1'	5.12	105.60	101.50
34	i	1611	U	C3'-C2'-C1'	5.12	105.60	101.50
34	i	750	G	O4'-C1'-N9	5.12	112.30	108.20
34	i	1186	A	O4'-C1'-N9	5.12	112.30	108.20
34	i	136	C	C5'-C4'-C3'	5.12	124.19	116.00
2	B	104	ASP	CB-CG-OD2	5.12	122.91	118.30
34	i	318	U	C5'-C4'-C3'	5.12	124.19	116.00
34	i	1555	U	C4'-C3'-C2'	-5.12	97.48	102.60
34	i	603	C	O4'-C1'-C2'	-5.12	100.69	105.80
34	i	1235	U	O3'-P-O5'	5.12	113.72	104.00
34	i	1270	G	N9-C1'-C2'	5.12	120.65	114.00
34	i	1473	U	C1'-O4'-C4'	-5.12	105.81	109.90
34	i	984	C	O4'-C1'-N1	-5.11	104.11	108.20
34	i	1133	U	O4'-C1'-N1	5.11	112.29	108.20
34	i	1730	A	N9-C1'-C2'	5.11	120.64	114.00
34	i	125	C	P-O3'-C3'	5.11	125.83	119.70
34	i	896	C	P-O5'-C5'	5.11	129.08	120.90
34	i	1280	A	C5'-C4'-C3'	-5.11	107.82	116.00
34	i	1558	G	O4'-C1'-C2'	5.11	112.20	107.60
35	l	59	LEU	CA-CB-CG	5.11	127.05	115.30
34	i	1453	U	P-O3'-C3'	-5.11	113.57	119.70
11	K	43	LEU	N-CA-C	-5.11	97.22	111.00
34	i	660	A	P-O3'-C3'	5.11	125.83	119.70
34	i	1262	C	C1'-O4'-C4'	-5.11	105.82	109.90
34	i	1375	A	C5'-C4'-C3'	-5.11	107.83	116.00
33	g	12	LYS	CB-CA-C	-5.10	100.19	110.40
34	i	677	C	P-O3'-C3'	5.10	125.82	119.70
34	i	911	G	C3'-C2'-C1'	-5.10	97.42	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1423	C	C3'-C2'-C1'	5.10	105.58	101.50
34	i	1541	G	C3'-C2'-C1'	-5.10	97.42	101.50
2	B	191	ASP	CB-CG-OD2	5.10	122.89	118.30
34	i	1019	A	O4'-C1'-N9	5.10	112.28	108.20
34	i	1272	A	C1'-O4'-C4'	5.10	113.98	109.90
1	A	151	ASP	CB-CG-OD2	5.10	122.89	118.30
34	i	419	C	N1-C1'-C2'	5.10	120.63	114.00
34	i	1334	G	C4'-C3'-C2'	-5.10	97.50	102.60
34	i	1776	G	O5'-C5'-C4'	5.10	121.38	111.70
34	i	1742	C	C4'-C3'-O3'	-5.10	98.70	109.40
4	D	52	ALA	O-C-N	-5.09	114.55	122.70
10	J	89	GLU	N-CA-CB	-5.09	101.43	110.60
34	i	740	G	O3'-P-O5'	-5.09	94.32	104.00
34	i	1490	U	C3'-C2'-C1'	-5.09	97.42	101.50
34	i	832	G	N9-C1'-C2'	-5.09	106.40	112.00
2	B	32	ASP	CB-CG-OD2	5.09	122.88	118.30
32	f	134	SER	CA-C-N	-5.09	106.00	117.20
34	i	73	C	P-O3'-C3'	-5.09	113.59	119.70
34	i	455	A	O3'-P-O5'	-5.09	94.33	104.00
34	i	753	C	O4'-C4'-C3'	-5.09	98.91	104.00
34	i	1078	A	C1'-O4'-C4'	5.09	113.97	109.90
34	i	1328	A	C4'-C3'-C2'	-5.09	97.51	102.60
34	i	1562	G	O4'-C4'-C3'	-5.09	98.91	104.00
34	i	1106	G	C1'-O4'-C4'	5.09	113.97	109.90
34	i	1470	A	O3'-P-O5'	5.09	113.67	104.00
9	I	55	TYR	CB-CG-CD2	-5.09	117.95	121.00
34	i	1267	C	O4'-C1'-C2'	-5.09	100.71	105.80
5	E	59	ASP	CB-CG-OD2	5.09	122.88	118.30
34	i	830	C	O4'-C1'-N1	5.09	112.27	108.20
34	i	1629	A	O4'-C1'-N9	5.09	112.27	108.20
8	H	191	GLU	C-N-CA	-5.08	108.99	121.70
34	i	428	G	C1'-O4'-C4'	5.08	113.97	109.90
2	B	152	LYS	CB-CA-C	5.08	120.57	110.40
25	Y	3	ASP	CB-CG-OD2	5.08	122.88	118.30
34	i	689	G	N9-C1'-C2'	5.08	120.61	114.00
34	i	839	C	C5'-C4'-O4'	5.08	115.20	109.10
11	K	55	ARG	CD-NE-CZ	5.08	130.71	123.60
34	i	1551	A	C5'-C4'-C3'	-5.08	107.87	116.00
34	i	1658	A	O4'-C1'-C2'	-5.08	100.72	105.80
5	E	237	SER	N-CA-CB	-5.08	102.88	110.50
34	i	71	G	N9-C1'-C2'	-5.08	106.41	112.00
34	i	871	A	C3'-C2'-C1'	5.08	105.56	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1609	A	O4'-C1'-N9	5.08	112.26	108.20
7	G	180	VAL	N-CA-CB	-5.08	100.33	111.50
34	i	77	A	C4'-C3'-C2'	-5.08	97.52	102.60
34	i	916	A	P-O3'-C3'	5.08	125.79	119.70
34	i	376	C	C5'-C4'-C3'	-5.07	107.88	116.00
34	i	753	C	C3'-C2'-C1'	5.07	105.56	101.50
34	i	1298	G	C5'-C4'-O4'	5.07	115.19	109.10
34	i	1663	U	C4'-C3'-C2'	-5.07	97.53	102.60
34	i	43	U	C5'-C4'-O4'	5.07	115.18	109.10
34	i	1361	G	O4'-C1'-N9	5.07	112.25	108.20
34	i	1483	A	C4'-C3'-O3'	-5.07	98.76	109.40
10	J	85	GLY	CA-C-N	-5.07	106.05	117.20
32	f	106	TYR	N-CA-C	-5.07	97.32	111.00
34	i	610	G	O4'-C1'-C2'	-5.07	100.73	105.80
34	i	629	C	O4'-C1'-N1	5.07	112.25	108.20
34	i	79	A	C1'-O4'-C4'	5.06	113.95	109.90
34	i	586	U	P-O3'-C3'	5.06	125.78	119.70
34	i	596	G	O4'-C1'-C2'	5.06	112.16	107.60
34	i	638	A	C1'-O4'-C4'	-5.06	105.85	109.90
21	U	48	LEU	CB-CG-CD2	-5.06	102.40	111.00
24	X	19	ASP	CB-CG-OD2	5.06	122.85	118.30
31	e	118	ASN	N-CA-C	5.06	124.66	111.00
34	i	539	C	C3'-C2'-C1'	5.06	105.55	101.50
34	i	1248	C	P-O3'-C3'	-5.06	113.63	119.70
22	V	66	ASP	CB-CG-OD2	5.06	122.85	118.30
34	i	1711	C	N1-C1'-C2'	5.06	120.57	114.00
21	U	103	SER	O-C-N	-5.06	114.61	122.70
34	i	13	C	C3'-C2'-C1'	5.06	105.55	101.50
34	i	1023	A	O3'-P-O5'	5.06	113.61	104.00
13	M	43	ASP	CB-CG-OD2	5.05	122.85	118.30
34	i	321	C	N1-C1'-C2'	-5.05	106.44	112.00
29	c	37	ASP	CB-CG-OD2	5.05	122.85	118.30
30	d	6	LEU	N-CA-C	-5.05	97.37	111.00
34	i	1452	G	N9-C1'-C2'	5.05	120.56	114.00
5	E	129	ILE	CA-C-N	-5.04	106.11	117.20
17	Q	31	LEU	C-N-CA	5.04	134.31	121.70
34	i	88	G	O4'-C1'-C2'	5.04	112.14	107.60
3	C	98	GLN	N-CA-C	5.04	124.61	111.00
5	E	93	ASP	CB-CG-OD2	5.04	122.84	118.30
34	i	72	C	P-O5'-C5'	5.04	128.97	120.90
34	i	292	A	N9-C1'-C2'	-5.04	106.45	112.00
34	i	439	A	O4'-C1'-N9	5.04	112.23	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	l	67	PHE	N-CA-C	-5.04	97.39	111.00
1	A	193	HIS	N-CA-C	5.04	124.60	111.00
32	f	86	THR	N-CA-C	-5.04	97.39	111.00
34	i	124	U	O3'-P-O5'	-5.04	94.43	104.00
34	i	933	C	O4'-C1'-N1	5.04	112.23	108.20
34	i	1568	G	O4'-C1'-N9	5.04	112.23	108.20
34	i	180	G	O3'-P-O5'	5.03	113.56	104.00
34	i	279	G	C1'-O4'-C4'	5.03	113.93	109.90
34	i	657	U	C3'-C2'-C1'	5.03	105.53	101.50
34	i	677	C	N1-C1'-C2'	5.03	120.54	114.00
34	i	1753	G	C1'-O4'-C4'	-5.03	105.88	109.90
34	i	8	U	O4'-C1'-C2'	-5.03	100.77	105.80
34	i	1157	U	N1-C1'-C2'	-5.03	106.47	112.00
25	Y	34	THR	N-CA-C	5.03	124.58	111.00
34	i	160	U	O4'-C1'-N1	5.03	112.22	108.20
34	i	1442	A	C4'-C3'-O3'	5.03	123.05	113.00
26	Z	56	ASP	CB-CG-OD2	5.03	122.82	118.30
34	i	1367	U	O4'-C1'-C2'	-5.03	100.77	105.80
34	i	1333	C	C2'-C3'-O3'	5.02	121.74	113.70
34	i	1568	G	C4'-C3'-C2'	-5.02	97.58	102.60
21	U	52	GLY	C-N-CD	-5.02	109.56	120.60
34	i	309	A	O4'-C1'-N9	5.02	112.21	108.20
34	i	825	C	O5'-P-OP1	5.02	116.72	110.70
14	N	82	PRO	CA-C-N	-5.01	106.17	117.20
34	i	645	A	C3'-C2'-C1'	5.01	105.51	101.50
34	i	1573	U	C5'-C4'-O4'	5.01	115.12	109.10
34	i	1386	U	N1-C1'-C2'	5.01	120.52	114.00
10	J	188	GLY	N-CA-C	5.01	125.63	113.10
34	i	1540	A	O4'-C1'-N9	5.01	112.21	108.20
7	G	103	ASP	CB-CG-OD2	5.01	122.81	118.30
34	i	1021	U	N1-C1'-C2'	-5.01	106.49	112.00
34	i	1346	U	O4'-C1'-C2'	-5.01	100.79	105.80
34	i	1400	U	C3'-C2'-C1'	5.01	105.51	101.50
34	i	1385	C	O5'-P-OP2	-5.01	101.19	105.70
34	i	1575	A	O4'-C1'-N9	5.01	112.21	108.20
34	i	1014	U	O4'-C1'-N1	5.00	112.20	108.20
23	W	85	ASP	CB-CG-OD2	5.00	122.80	118.30
34	i	78	C	O4'-C1'-C2'	-5.00	100.80	105.80
34	i	994	A	C3'-C2'-C1'	5.00	105.50	101.50
34	i	1009	U	O4'-C1'-N1	5.00	112.20	108.20
34	i	1036	G	C1'-O4'-C4'	-5.00	105.90	109.90
34	i	1343	U	C3'-C2'-C1'	5.00	105.50	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	I	178	ARG	NE-CZ-NH2	-5.00	117.80	120.30
25	Y	103	SER	C-N-CA	5.00	134.20	121.70
34	i	1320	G	C3'-C2'-C1'	5.00	105.50	101.50

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
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

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
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
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

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Mol	Chain	Res	Type	Group
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
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

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
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
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

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Mol	Chain	Res	Type	Group
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	1640	607	0
2	B	1741	0	1809	557	1
3	C	1742	0	1830	590	0
4	D	1764	0	1857	600	0
5	E	2083	0	2189	525	0
6	F	1509	0	1557	475	0
7	G	1923	0	2084	503	10
8	H	1530	0	1624	477	0
9	I	1679	0	1762	432	4
10	J	1498	0	1598	540	0
11	K	827	0	853	353	18

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
12	L	1296	0	1370	397	0
13	M	951	0	972	247	0
14	N	1208	0	1294	258	0
15	O	1016	0	1036	285	0
16	P	1060	0	1120	486	1
17	Q	1124	0	1193	445	0
18	R	1019	0	1070	394	0
19	S	1139	0	1187	434	10
20	T	1112	0	1149	392	0
21	U	822	0	886	209	0
22	V	619	0	620	284	0
23	W	1034	0	1079	259	0
24	X	1106	0	1177	309	0
25	Y	1021	0	1083	491	0
26	Z	598	0	652	208	0
27	a	844	0	895	0	0
28	b	659	0	680	0	0
29	c	506	0	536	0	0
30	d	445	0	441	0	0
31	e	468	0	514	0	46
32	f	581	0	598	0	0
33	g	2436	0	2388	0	0
34	i	38071	0	19021	0	110
35	l	691	0	702	0	1
36	n	648	0	654	0	0
All	All	78412	0	61120	9868	121

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 97.

All (9868) 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)
17:Q:135:PRO:HD3	17:Q:141:TYR:CE1	1.16	1.68
3:C:50:LYS:HD2	3:C:251:TYR:CE1	1.20	1.67
19:S:42:HIS:CD2	20:T:45:LEU:HD11	1.21	1.67
4:D:132:LYS:CB	4:D:191:PRO:HG3	1.23	1.66
3:C:197:LYS:HA	3:C:200:LEU:CD2	1.22	1.66
9:I:141:ARG:CB	9:I:144:LYS:HB2	1.24	1.65
16:P:53:GLN:HG2	16:P:80:LEU:CD1	1.23	1.65
25:Y:78:SER:HB3	25:Y:81:TYR:CD2	1.32	1.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:41:GLN:CG	16:P:84:ILE:HG21	1.18	1.64
19:S:34:LYS:CB	19:S:103:LEU:HD21	1.17	1.64
5:E:129:ILE:HG12	5:E:139:LEU:CD2	1.25	1.63
16:P:4:VAL:CA	16:P:10:ARG:HD3	1.19	1.63
11:K:16:PHE:CE2	11:K:79:LEU:HB2	1.24	1.63
20:T:77:LYS:HG3	20:T:92:PHE:CE2	1.13	1.63
3:C:93:LYS:HD2	3:C:218:LEU:CD2	1.27	1.63
21:U:40:ILE:CD1	21:U:53:PRO:HG3	1.19	1.62
2:B:66:VAL:CG2	2:B:87:ILE:HG22	1.23	1.62
8:H:40:LEU:CD2	8:H:43:LEU:HD12	1.14	1.62
8:H:83:LEU:HD13	8:H:92:VAL:CG2	1.25	1.61
11:K:27:VAL:CG1	11:K:43:LEU:HD22	1.28	1.61
16:P:123:TYR:CE2	19:S:120:HIS:CE1	1.85	1.61
1:A:58:LEU:CD2	1:A:178:LEU:HD23	1.28	1.60
16:P:41:GLN:HG2	16:P:84:ILE:CG1	1.29	1.59
7:G:41:LEU:HD22	7:G:45:TRP:CE3	1.37	1.59
1:A:30:LEU:HD13	1:A:38:ILE:CD1	1.32	1.59
25:Y:78:SER:CB	25:Y:81:TYR:HD2	1.15	1.58
7:G:131:ARG:CG	7:G:131:ARG:CD	1.79	1.58
3:C:55:VAL:HG13	3:C:82:PHE:CE2	1.34	1.58
8:H:146:VAL:HG21	23:W:50:PHE:CZ	1.37	1.58
6:F:14:THR:HG21	17:Q:56:LEU:CG	1.32	1.58
2:B:71:LEU:HD13	2:B:84:PHE:CE2	1.39	1.58
17:Q:93:VAL:CG1	17:Q:105:LYS:HE2	1.10	1.58
24:X:27:TYR:CE1	24:X:31:HIS:NE2	1.70	1.57
11:K:14:LEU:HD22	11:K:35:LEU:CD2	1.22	1.57
16:P:33:LEU:CD2	16:P:87:PRO:HD3	1.20	1.57
22:V:11:LEU:CD1	22:V:12:TYR:HD2	1.13	1.57
4:D:34:TYR:CZ	21:U:61:LEU:CD2	26.29	1.57
6:F:25:THR:HG21	6:F:42:LYS:CG	1.21	1.57
25:Y:55:ILE:HG12	25:Y:75:ILE:CG1	1.22	1.57
17:Q:9:SER:CB	17:Q:26:LYS:HG3	1.34	1.57
1:A:21:ALA:CB	1:A:173:LEU:CD1	1.77	1.56
7:G:41:LEU:CD2	7:G:45:TRP:CZ3	1.80	1.56
25:Y:29:HIS:CE1	25:Y:68:LYS:N	1.74	1.56
16:P:41:GLN:CG	16:P:84:ILE:CG2	1.79	1.55
9:I:69:SER:CB	12:L:19:ASN:HD21	1.17	1.55
5:E:70:ILE:HG12	5:E:92:ILE:CD1	1.12	1.55
17:Q:42:ILE:HD13	17:Q:51:LEU:CD2	1.16	1.55
3:C:93:LYS:CD	3:C:218:LEU:HD21	1.12	1.55
17:Q:9:SER:HB3	17:Q:26:LYS:CG	1.36	1.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:142:SER:CB	9:I:143:LYS:HB2	1.34	1.54
5:E:129:ILE:CG1	5:E:139:LEU:CD2	1.80	1.54
7:G:121:ILE:HG23	7:G:122:PRO:CD	1.38	1.54
6:F:14:THR:CG2	17:Q:56:LEU:HD22	1.07	1.54
5:E:248:ILE:CD1	10:J:72:PHE:CG	1.89	1.54
4:D:158:ILE:CD1	4:D:189:MET:CE	1.81	1.54
4:D:34:TYR:CE2	21:U:61:LEU:HD22	26.59	1.54
5:E:248:ILE:HD12	10:J:72:PHE:CD2	1.02	1.54
1:A:30:LEU:CD1	1:A:38:ILE:HD11	1.06	1.53
19:S:54:LYS:C	19:S:54:LYS:CA	1.75	1.53
22:V:17:CYS:SG	22:V:56:CYS:HB3	1.44	1.53
19:S:34:LYS:HB3	19:S:103:LEU:CD2	1.08	1.53
10:J:17:ARG:HG2	10:J:18:ARG:CD	1.33	1.53
25:Y:55:ILE:CG1	25:Y:75:ILE:HG12	1.35	1.53
6:F:14:THR:HG21	17:Q:56:LEU:CD2	1.05	1.53
1:A:21:ALA:HB2	1:A:173:LEU:CD1	1.33	1.53
2:B:25:PHE:CE2	15:O:88:LEU:CD1	1.91	1.52
3:C:50:LYS:CD	3:C:251:TYR:CE1	1.89	1.52
17:Q:135:PRO:CD	17:Q:141:TYR:HE1	1.19	1.52
9:I:25:ARG:HD2	9:I:27:TYR:CE2	1.42	1.52
25:Y:18:LEU:CB	25:Y:20:ARG:HH11	1.21	1.52
5:E:99:PHE:CE1	5:E:113:ARG:HG3	1.45	1.52
6:F:103:LEU:CD2	6:F:178:ILE:HD13	1.38	1.51
3:C:55:VAL:CG1	3:C:82:PHE:CE2	1.93	1.51
18:R:1:MET:CA	18:R:1:MET:CB	1.87	1.51
3:C:50:LYS:CD	3:C:251:TYR:HE1	1.19	1.51
15:O:19:PRO:CG	15:O:27:VAL:CG2	1.86	1.51
4:D:34:TYR:CZ	21:U:61:LEU:HD22	26.22	1.51
3:C:93:LYS:CD	3:C:218:LEU:CD2	1.78	1.51
4:D:76:ARG:NE	11:K:66:HIS:CE1	1.76	1.51
4:D:197:LYS:HB2	4:D:198:ILE:CG1	1.35	1.51
19:S:54:LYS:N	19:S:54:LYS:CA	1.67	1.50
18:R:99:ASP:CA	18:R:119:VAL:HG11	1.40	1.50
19:S:39:ARG:CZ	20:T:38:LYS:CE	1.83	1.50
16:P:33:LEU:CD2	16:P:87:PRO:CD	1.82	1.50
26:Z:99:LEU:HD13	26:Z:102:LYS:CE	1.35	1.50
9:I:157:LYS:CB	12:L:22:ARG:NH1	1.71	1.50
16:P:4:VAL:HA	16:P:10:ARG:CD	1.07	1.49
19:S:42:HIS:CD2	20:T:45:LEU:CD1	1.91	1.49
20:T:23:LYS:HD3	20:T:54:TYR:CD2	1.47	1.49
8:H:144:ILE:HB	23:W:52:ILE:CG2	1.38	1.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:11:LEU:CD1	22:V:12:TYR:CD2	1.95	1.49
3:C:50:LYS:HD2	3:C:251:TYR:CD1	1.43	1.49
19:S:39:ARG:NE	20:T:38:LYS:HE3	1.27	1.49
6:F:42:LYS:HB2	6:F:45:TYR:N	1.21	1.48
6:F:63:LYS:HD3	6:F:71:ARG:CZ	1.41	1.48
16:P:79:HIS:CE1	16:P:102:PHE:HZ	1.32	1.48
26:Z:99:LEU:CD1	26:Z:102:LYS:HE2	1.43	1.48
12:L:149:ALA:CB	12:L:156:GLN:CG	1.89	1.47
3:C:155:TRP:CH2	23:W:97:ARG:NH1	1.73	1.47
12:L:149:ALA:HB2	12:L:156:GLN:NE2	1.17	1.47
2:B:148:ASN:CA	18:R:124:VAL:HG23	1.45	1.47
7:G:41:LEU:HD22	7:G:45:TRP:CZ3	1.34	1.47
11:K:3:MET:CE	11:K:8:ARG:NH2	1.74	1.47
3:C:55:VAL:HG13	3:C:82:PHE:CZ	1.49	1.47
16:P:49:LEU:CD1	16:P:51:ARG:HE	1.25	1.47
1:A:141:ASN:C	22:V:32:ILE:HG12	1.27	1.46
2:B:150:ILE:CD1	18:R:126:MET:N	1.75	1.46
15:O:19:PRO:HG3	15:O:27:VAL:CG2	1.39	1.46
19:S:39:ARG:NH2	20:T:38:LYS:CE	1.76	1.46
11:K:27:VAL:HG13	11:K:43:LEU:CD2	1.02	1.46
17:Q:93:VAL:CG1	17:Q:105:LYS:CE	1.94	1.46
25:Y:29:HIS:HE1	25:Y:68:LYS:N	1.03	1.46
19:S:8:LYS:HB2	19:S:9:PHE:CD1	1.46	1.46
9:I:142:SER:HB3	9:I:143:LYS:CB	1.44	1.46
16:P:123:TYR:CE2	19:S:120:HIS:HE1	1.24	1.46
5:E:248:ILE:CD1	10:J:72:PHE:CD2	1.89	1.46
5:E:248:ILE:HG13	10:J:72:PHE:CD1	1.48	1.46
18:R:1:MET:N	18:R:1:MET:CA	1.79	1.46
23:W:14:ILE:CD1	23:W:72:CYS:SG	2.01	1.46
25:Y:102:THR:HG21	25:Y:107:ARG:NE	1.16	1.46
12:L:149:ALA:HB1	12:L:156:GLN:CB	1.46	1.45
18:R:99:ASP:C	18:R:119:VAL:HG11	1.08	1.45
9:I:161:LEU:HD11	9:I:199:LEU:CD1	1.43	1.45
5:E:159:THR:HG23	5:E:227:VAL:CG2	1.43	1.45
5:E:208:VAL:HB	5:E:225:ILE:CD1	1.46	1.45
17:Q:135:PRO:CD	17:Q:141:TYR:CE1	1.92	1.45
7:G:176:ILE:CB	7:G:179:LEU:HD23	1.47	1.44
12:L:149:ALA:HB2	12:L:156:GLN:CD	1.37	1.44
16:P:33:LEU:HD22	16:P:87:PRO:CD	1.41	1.44
18:R:99:ASP:CA	18:R:119:VAL:CG1	1.92	1.44
7:G:16:ILE:HD13	7:G:45:TRP:CZ2	1.51	1.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:146:VAL:HG21	23:W:50:PHE:CE1	1.50	1.44
19:S:58:GLU:C	19:S:59:LEU:HD13	1.35	1.44
10:J:79:ARG:NH1	10:J:83:ARG:NH1	1.62	1.44
5:E:98:ASN:ND2	5:E:119:ALA:HB2	1.28	1.44
11:K:11:ILE:CG2	11:K:49:MET:CE	1.94	1.44
7:G:85:ARG:HD2	25:Y:118:ARG:NH2	1.25	1.43
2:B:137:LEU:CD2	2:B:215:VAL:HG13	1.45	1.43
2:B:150:ILE:HG13	18:R:125:GLY:N	1.30	1.43
7:G:157:VAL:CG1	7:G:159:ARG:H	1.28	1.43
1:A:58:LEU:HD21	1:A:178:LEU:CD2	1.47	1.43
12:L:80:MET:HE3	12:L:120:VAL:C	1.13	1.43
10:J:89:GLU:HA	10:J:92:MET:CG	1.45	1.43
10:J:170:PRO:HG2	10:J:175:ARG:CG	1.46	1.43
25:Y:18:LEU:CD1	25:Y:20:ARG:HH12	1.31	1.43
16:P:44:ARG:HE	16:P:84:ILE:CD1	1.28	1.43
10:J:110:LEU:CD1	10:J:130:ILE:CD1	1.96	1.43
6:F:25:THR:CG2	6:F:42:LYS:HG3	1.46	1.43
2:B:113:MET:CE	2:B:211:PHE:CE2	2.02	1.43
17:Q:8:GLN:CG	17:Q:99:TYR:CE1	2.01	1.42
16:P:41:GLN:CG	16:P:84:ILE:HG12	1.46	1.42
19:S:120:HIS:NE2	19:S:124:ARG:NE	1.62	1.42
1:A:57:LYS:NZ	22:V:70:LEU:HD11	1.34	1.42
10:J:118:GLY:C	10:J:119:LEU:N	1.73	1.42
5:E:153:LEU:HD13	5:E:172:PHE:CZ	1.52	1.42
15:O:19:PRO:CG	15:O:27:VAL:HG21	0.97	1.42
21:U:40:ILE:HD11	21:U:53:PRO:CG	1.47	1.42
6:F:167:LYS:HD3	6:F:171:GLU:CG	1.47	1.42
18:R:20:TYR:CE1	18:R:38:ILE:HG21	1.52	1.42
18:R:20:TYR:CZ	18:R:38:ILE:CG2	2.03	1.42
7:G:76:LEU:CD2	7:G:92:ARG:HG2	1.44	1.42
4:D:211:VAL:HG23	18:R:38:ILE:C	1.38	1.42
1:A:176:TRP:CZ3	1:A:177:MET:SD	2.14	1.41
10:J:134:HIS:ND1	10:J:163:SER:HB2	1.30	1.41
11:K:2:LEU:HD13	11:K:3:MET:N	1.32	1.41
6:F:103:LEU:HD23	6:F:178:ILE:CD1	1.49	1.41
18:R:20:TYR:OH	18:R:38:ILE:CG2	1.67	1.41
16:P:41:GLN:CD	16:P:84:ILE:HG21	1.38	1.41
19:S:39:ARG:HH21	20:T:38:LYS:NZ	1.17	1.41
8:H:122:LEU:HD13	8:H:123:THR:N	1.20	1.41
12:L:80:MET:CE	12:L:120:VAL:O	1.65	1.41
7:G:157:VAL:HG11	7:G:159:ARG:CG	1.51	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:89:GLU:HA	10:J:92:MET:CB	1.48	1.40
3:C:101:THR:CG2	3:C:103:ALA:O	1.69	1.40
10:J:37:LEU:CD1	10:J:42:GLU:HB3	1.51	1.40
4:D:132:LYS:HB2	4:D:191:PRO:CG	1.52	1.40
5:E:208:VAL:CB	5:E:225:ILE:CD1	1.99	1.39
9:I:69:SER:HB2	12:L:19:ASN:ND2	1.32	1.39
5:E:248:ILE:HD12	10:J:72:PHE:CE2	1.55	1.39
10:J:90:GLY:O	10:J:96:TYR:CD2	1.73	1.39
1:A:48:ILE:HG12	18:R:105:MET:CE	1.52	1.39
19:S:39:ARG:CZ	20:T:38:LYS:HE3	0.92	1.39
6:F:91:ARG:NH1	6:F:94:LYS:CB	1.85	1.39
10:J:177:ASN:O	10:J:180:LYS:CG	1.69	1.39
19:S:46:ARG:NH2	20:T:50:GLU:HB3	1.16	1.39
1:A:58:LEU:CD2	1:A:178:LEU:CD2	1.95	1.39
12:L:99:TYR:OH	24:X:14:ARG:CA	1.70	1.39
4:D:59:LEU:HD12	4:D:60:GLY:N	1.37	1.39
6:F:45:TYR:O	6:F:47:LYS:CE	1.71	1.39
7:G:32:MET:SD	7:G:100:CYS:HB3	1.63	1.39
6:F:45:TYR:O	6:F:47:LYS:CD	1.71	1.39
1:A:97:THR:CG2	1:A:98:PRO:HD2	1.52	1.38
25:Y:20:ARG:HG3	25:Y:74:MET:CE	1.53	1.38
8:H:31:GLU:OE2	8:H:41:ARG:CD	1.71	1.38
18:R:44:LYS:CE	18:R:47:ARG:HH22	1.34	1.38
16:P:44:ARG:NE	16:P:84:ILE:HD12	1.34	1.38
18:R:122:PRO:CA	18:R:123:THR:HG23	1.51	1.38
2:B:150:ILE:CD1	18:R:126:MET:H	1.33	1.38
19:S:138:THR:CA	19:S:141:ARG:NH2	1.86	1.38
1:A:21:ALA:CB	1:A:173:LEU:HD12	1.42	1.38
16:P:79:HIS:HE1	16:P:102:PHE:CZ	1.40	1.38
7:G:25:ARG:HG2	7:G:28:TYR:CD2	1.60	1.37
1:A:176:TRP:HZ3	1:A:177:MET:SD	1.46	1.37
11:K:2:LEU:CD1	11:K:3:MET:H	1.37	1.37
25:Y:36:PRO:HG2	25:Y:39:GLU:CG	1.52	1.37
10:J:110:LEU:HD13	10:J:130:ILE:CD1	1.48	1.37
19:S:42:HIS:NE2	20:T:45:LEU:CD2	1.84	1.37
20:T:77:LYS:CG	20:T:92:PHE:CE2	2.07	1.37
12:L:80:MET:CE	12:L:120:VAL:C	1.93	1.37
18:R:99:ASP:HA	18:R:119:VAL:CG1	1.53	1.37
1:A:57:LYS:CE	22:V:70:LEU:HD11	1.55	1.37
10:J:48:PHE:CE1	10:J:52:LYS:HE3	1.57	1.37
8:H:143:ARG:CD	23:W:53:ILE:HG12	1.53	1.37

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:14:ILE:HD11	23:W:72:CYS:SG	1.64	1.37
9:I:155:ASN:O	12:L:22:ARG:CD	1.71	1.36
2:B:66:VAL:HG22	2:B:87:ILE:CG2	1.55	1.36
4:D:195:SER:C	4:D:197:LYS:HA	1.41	1.36
10:J:90:GLY:O	10:J:96:TYR:CE2	1.77	1.36
19:S:46:ARG:HG2	20:T:50:GLU:OE2	1.19	1.36
1:A:76:VAL:HG21	1:A:90:PHE:CD2	1.60	1.36
6:F:25:THR:CG2	6:F:42:LYS:HD2	1.55	1.36
5:E:248:ILE:HB	10:J:72:PHE:CZ	1.59	1.36
2:B:113:MET:CE	2:B:211:PHE:HE2	1.34	1.36
6:F:59:LYS:HD2	6:F:62:ARG:NH2	1.03	1.36
10:J:61:LEU:HD22	10:J:98:LEU:CD1	1.56	1.36
11:K:16:PHE:CE2	11:K:79:LEU:CB	2.07	1.36
19:S:14:ARG:NH1	19:S:17:ASN:HA	1.37	1.36
25:Y:18:LEU:HD13	25:Y:20:ARG:NH1	1.41	1.36
11:K:60:GLU:CD	11:K:67:PHE:HD1	1.26	1.36
11:K:83:LEU:HB3	11:K:85:LEU:CD2	1.56	1.36
7:G:32:MET:CE	7:G:100:CYS:HA	1.56	1.35
5:E:248:ILE:HD12	10:J:72:PHE:CG	1.49	1.35
18:R:21:TYR:CB	18:R:71:ILE:HD13	1.53	1.35
18:R:17:ILE:CG2	18:R:69:ILE:HD11	1.54	1.35
4:D:112:GLY:C	4:D:113:LEU:HD12	1.46	1.35
7:G:157:VAL:HG13	7:G:159:ARG:N	1.39	1.35
6:F:59:LYS:CD	6:F:62:ARG:HH21	1.38	1.35
16:P:41:GLN:HG2	16:P:84:ILE:CB	1.54	1.35
17:Q:34:VAL:HG23	17:Q:39:LEU:CD2	1.56	1.35
5:E:128:LYS:HD3	5:E:130:PHE:CE1	1.60	1.35
1:A:48:ILE:CG1	18:R:105:MET:HE2	1.56	1.34
6:F:122:ARG:O	6:F:141:VAL:HG13	1.26	1.34
6:F:63:LYS:HD3	6:F:71:ARG:NH2	1.39	1.34
9:I:141:ARG:CG	9:I:144:LYS:HB2	1.57	1.34
12:L:147:LYS:CD	12:L:148:ALA:HA	1.55	1.34
8:H:83:LEU:CD1	8:H:92:VAL:HG21	1.52	1.34
13:M:13:ASP:O	13:M:16:THR:CG2	1.72	1.34
2:B:25:PHE:CE2	15:O:88:LEU:HD11	1.52	1.34
3:C:142:LEU:HA	3:C:145:LEU:CD2	1.56	1.34
10:J:39:ASN:ND2	10:J:42:GLU:OE2	1.57	1.34
16:P:9:LYS:O	16:P:10:ARG:HG3	1.19	1.34
21:U:50:VAL:HG22	21:U:51:LYS:C	1.43	1.34
20:T:77:LYS:HB2	20:T:94:ARG:CD	1.57	1.34
16:P:49:LEU:HD12	16:P:51:ARG:NE	1.41	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:105:PHE:CE2	24:X:119:ARG:HA	1.60	1.34
7:G:14:LYS:NZ	7:G:123:GLY:HA3	1.36	1.34
5:E:153:LEU:CD1	5:E:172:PHE:CZ	2.11	1.34
11:K:3:MET:HE3	11:K:8:ARG:NH2	1.37	1.34
17:Q:42:ILE:CD1	17:Q:51:LEU:HD21	1.58	1.34
25:Y:29:HIS:CE1	25:Y:67:GLY:C	1.99	1.34
7:G:63:MET:CE	7:G:106:LEU:HD11	1.56	1.33
9:I:69:SER:CB	12:L:19:ASN:ND2	1.83	1.33
5:E:159:THR:CG2	5:E:227:VAL:HG23	1.58	1.33
19:S:42:HIS:CG	20:T:45:LEU:HD11	1.62	1.33
10:J:39:ASN:CG	10:J:42:GLU:OE2	1.67	1.33
16:P:4:VAL:N	16:P:10:ARG:HG2	1.39	1.33
2:B:205:TYR:CD2	2:B:206:PRO:HD2	1.62	1.33
1:A:205:ARG:HH22	18:R:82:ASP:CA	1.25	1.33
12:L:71:ARG:CD	12:L:73:LEU:HD21	1.57	1.33
18:R:99:ASP:C	18:R:119:VAL:CG1	1.94	1.33
20:T:77:LYS:HG3	20:T:92:PHE:CZ	1.64	1.33
10:J:15:THR:HG22	10:J:44:TRP:CE3	1.64	1.33
11:K:21:MET:CE	11:K:49:MET:SD	2.17	1.32
2:B:148:ASN:C	18:R:124:VAL:CG2	1.94	1.32
14:N:38:TYR:HE2	14:N:74:ILE:CG2	1.43	1.32
13:M:28:HIS:CD2	13:M:115:GLY:HA3	1.62	1.32
17:Q:38:PRO:HG2	17:Q:41:MET:SD	1.69	1.32
25:Y:99:LYS:HE3	25:Y:99:LYS:N	1.45	1.32
7:G:32:MET:SD	7:G:100:CYS:CB	2.17	1.32
22:V:55:ILE:HD11	22:V:68:SER:OG	1.27	1.32
19:S:42:HIS:CE1	20:T:45:LEU:HD21	1.62	1.32
25:Y:44:LEU:HD11	25:Y:48:TYR:CE2	1.63	1.32
21:U:62:ARG:NH1	21:U:64:THR:HG21	1.42	1.31
8:H:6:ALA:CA	8:H:10:LYS:HD3	1.58	1.31
24:X:114:ASP:O	24:X:116:PRO:HD3	1.16	1.31
1:A:76:VAL:HG13	1:A:175:TRP:CH2	1.65	1.31
7:G:1:MET:CE	7:G:106:LEU:O	1.77	1.31
25:Y:18:LEU:CD1	25:Y:20:ARG:NH1	1.90	1.31
4:D:5:ILE:C	4:D:6:SER:N	1.82	1.31
18:R:5:ARG:HB2	18:R:10:LYS:NZ	1.39	1.31
22:V:11:LEU:HD11	22:V:12:TYR:CD2	1.58	1.31
4:D:197:LYS:HB3	4:D:198:ILE:CG2	1.57	1.31
18:R:21:TYR:HB2	18:R:71:ILE:CD1	1.59	1.31
20:T:11:GLN:NE2	20:T:62:ARG:CZ	1.93	1.31
3:C:79:ILE:HD13	3:C:147:ILE:CD1	1.59	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:149:ALA:CB	12:L:156:GLN:HG2	1.55	1.31
16:P:53:GLN:CG	16:P:80:LEU:CD1	2.08	1.31
4:D:210:ILE:CD1	18:R:15:VAL:CG1	2.09	1.31
12:L:147:LYS:CG	12:L:148:ALA:HA	1.61	1.30
16:P:79:HIS:CE1	16:P:102:PHE:CZ	2.18	1.30
11:K:83:LEU:CD1	11:K:85:LEU:HD21	1.60	1.30
9:I:25:ARG:CD	9:I:27:TYR:HE2	1.43	1.30
4:D:157:MET:CE	4:D:187:LYS:HD3	1.59	1.30
24:X:2:GLY:O	24:X:3:LYS:HG3	1.23	1.30
5:E:70:ILE:CG1	5:E:92:ILE:CD1	2.07	1.30
7:G:1:MET:HE2	7:G:106:LEU:O	1.25	1.30
24:X:51:VAL:HG13	24:X:70:VAL:CG1	1.60	1.30
17:Q:50:LYS:HZ2	17:Q:85:ARG:NH2	1.28	1.30
3:C:131:GLU:HG3	4:D:116:ARG:NH2	1.45	1.30
1:A:16:LEU:HD21	18:R:111:PHE:CZ	1.66	1.30
12:L:101:ARG:O	24:X:10:ALA:HB2	1.29	1.30
2:B:87:ILE:HD13	2:B:101:HIS:CD2	1.66	1.30
19:S:120:HIS:NE2	19:S:124:ARG:CZ	1.93	1.30
20:T:23:LYS:HD3	20:T:54:TYR:CG	1.65	1.30
3:C:167:CYS:SG	23:W:95:PRO:HB3	1.72	1.30
18:R:99:ASP:O	18:R:119:VAL:HG11	1.30	1.29
8:H:83:LEU:CD1	8:H:92:VAL:CG2	2.06	1.29
25:Y:99:LYS:CA	25:Y:99:LYS:HE3	1.47	1.29
21:U:62:ARG:NH1	21:U:64:THR:CG2	1.96	1.29
17:Q:93:VAL:HG11	17:Q:105:LYS:CE	1.52	1.29
18:R:20:TYR:CZ	18:R:38:ILE:HG21	1.62	1.29
18:R:20:TYR:OH	18:R:38:ILE:HG22	1.20	1.29
7:G:176:ILE:HG21	7:G:179:LEU:CD2	1.60	1.29
9:I:136:ILE:CG2	9:I:139:LYS:HE3	1.60	1.29
4:D:7:LYS:NZ	21:U:113:GLU:OE2	1.60	1.29
9:I:37:LYS:O	9:I:59:ARG:HA	1.27	1.29
8:H:6:ALA:HA	8:H:10:LYS:CD	1.62	1.29
8:H:122:LEU:CD1	8:H:123:THR:N	1.94	1.29
4:D:210:ILE:HD12	18:R:15:VAL:CG1	1.61	1.29
4:D:123:LEU:HD21	4:D:154:ASP:CB	1.63	1.29
20:T:141:ALA:O	20:T:142:LYS:HG3	1.13	1.29
4:D:218:LEU:CG	4:D:220:THR:CG2	2.10	1.29
7:G:176:ILE:CG2	7:G:179:LEU:CD2	2.10	1.29
15:O:52:THR:O	15:O:53:ILE:HG23	1.28	1.29
11:K:60:GLU:OE1	11:K:67:PHE:CD1	1.84	1.29
8:H:40:LEU:CD2	8:H:43:LEU:CD1	2.09	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:15:THR:HG22	10:J:44:TRP:CZ3	1.66	1.29
19:S:132:ARG:HB2	19:S:134:GLN:OE1	1.17	1.29
24:X:142:ARG:HH11	24:X:142:ARG:CB	1.44	1.29
3:C:101:THR:HG22	3:C:104:GLY:O	1.13	1.28
10:J:134:HIS:ND1	10:J:163:SER:CB	1.96	1.28
6:F:14:THR:CG2	17:Q:56:LEU:HB3	1.64	1.28
4:D:197:LYS:CB	4:D:198:ILE:HG23	1.63	1.28
3:C:154:TYR:OH	3:C:161:LYS:CA	1.81	1.28
9:I:116:HIS:O	9:I:152:ARG:NH1	1.67	1.28
11:K:43:LEU:O	11:K:45:VAL:N	1.65	1.28
26:Z:99:LEU:HD23	26:Z:109:TYR:CE1	1.68	1.28
3:C:241:TRP:HB3	23:W:68:ARG:NH1	1.48	1.28
3:C:110:LYS:HE2	3:C:112:PHE:CZ	1.66	1.28
8:H:138:GLU:OE2	14:N:19:ARG:HB3	1.29	1.27
1:A:177:MET:CE	1:A:180:ARG:NH2	1.95	1.27
13:M:13:ASP:HB2	13:M:16:THR:CB	1.58	1.27
4:D:105:LEU:CD2	4:D:184:ILE:HD12	1.63	1.27
1:A:176:TRP:CZ2	1:A:195:TRP:HE3	1.06	1.27
5:E:129:ILE:CG1	5:E:139:LEU:HD22	1.45	1.27
7:G:176:ILE:CG2	7:G:179:LEU:HD23	1.65	1.27
6:F:63:LYS:CD	6:F:71:ARG:NH1	1.98	1.27
20:T:31:PRO:O	20:T:33:TRP:N	1.63	1.27
4:D:97:CYS:O	4:D:99:ILE:N	1.67	1.27
25:Y:102:THR:CG2	25:Y:107:ARG:HE	1.46	1.27
18:R:44:LYS:HG3	18:R:47:ARG:CZ	1.63	1.27
25:Y:18:LEU:CB	25:Y:20:ARG:NH1	1.94	1.27
6:F:14:THR:CG2	17:Q:56:LEU:CD2	1.76	1.27
6:F:14:THR:OG1	17:Q:56:LEU:CB	1.83	1.27
17:Q:42:ILE:CD1	17:Q:51:LEU:CD2	2.10	1.27
24:X:29:LYS:HD2	24:X:34:THR:OG1	1.31	1.27
18:R:91:LEU:CD1	18:R:92:ASP:HA	1.64	1.27
22:V:24:ILE:HD13	22:V:25:GLY:N	1.45	1.27
19:S:42:HIS:CD2	20:T:45:LEU:HD21	1.68	1.27
19:S:11:HIS:HD2	19:S:23:ARG:NH2	1.31	1.27
1:A:177:MET:HE1	1:A:180:ARG:NH2	1.42	1.26
4:D:2:ALA:HB3	4:D:3:VAL:CA	1.65	1.26
11:K:30:PRO:O	11:K:31:LYS:HG3	1.13	1.26
26:Z:112:ASN:O	26:Z:113:THR:HG23	1.23	1.26
18:R:5:ARG:O	18:R:10:LYS:HE2	1.27	1.26
4:D:46:THR:OG1	4:D:79:PHE:CZ	1.82	1.26
6:F:25:THR:CG2	6:F:42:LYS:CD	2.12	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:25:CYS:SG	17:Q:91:ALA:HB1	1.74	1.26
19:S:117:ILE:O	19:S:118:ARG:HG2	1.12	1.26
16:P:62:LYS:O	16:P:65:LYS:HG2	1.21	1.26
4:D:35:SER:CA	4:D:99:ILE:HD11	1.63	1.26
6:F:14:THR:OG1	17:Q:56:LEU:HB2	1.35	1.26
10:J:17:ARG:CG	10:J:18:ARG:HD3	1.64	1.26
16:P:49:LEU:O	16:P:51:ARG:HA	1.31	1.26
12:L:80:MET:HE3	12:L:121:GLN:N	1.48	1.26
1:A:24:HIS:NE2	18:R:105:MET:HE3	1.49	1.26
19:S:8:LYS:HD3	19:S:9:PHE:CE1	1.69	1.26
9:I:161:LEU:CD1	9:I:199:LEU:CD1	2.12	1.26
1:A:176:TRP:CZ2	1:A:195:TRP:CE3	1.94	1.26
3:C:138:GLY:O	3:C:141:ILE:HG22	1.32	1.25
7:G:25:ARG:HG2	7:G:28:TYR:CE2	1.71	1.25
1:A:154:LEU:HD12	22:V:63:GLY:C	1.54	1.25
8:H:40:LEU:HD21	8:H:43:LEU:CD1	1.64	1.25
6:F:42:LYS:CB	6:F:45:TYR:H	1.48	1.25
17:Q:57:LEU:HD11	17:Q:115:TYR:CZ	1.71	1.25
19:S:39:ARG:NH2	20:T:38:LYS:HE3	1.43	1.25
5:E:248:ILE:CG1	10:J:72:PHE:CD1	2.16	1.25
23:W:14:ILE:HD12	23:W:72:CYS:SG	1.67	1.25
2:B:113:MET:HE3	2:B:209:ASP:OD1	1.21	1.25
3:C:151:ARG:NH1	3:C:240:LEU:HD11	1.51	1.25
2:B:137:LEU:HD21	2:B:215:VAL:CG1	1.65	1.25
9:I:157:LYS:HB2	12:L:22:ARG:CD	1.64	1.25
12:L:147:LYS:HG3	12:L:148:ALA:CA	1.65	1.25
19:S:42:HIS:NE2	20:T:45:LEU:HD21	0.94	1.25
17:Q:38:PRO:CG	17:Q:41:MET:SD	2.23	1.25
6:F:91:ARG:HH11	6:F:94:LYS:CB	1.41	1.25
16:P:46:SER:O	16:P:49:LEU:HB2	1.11	1.25
18:R:44:LYS:HE3	18:R:47:ARG:NH2	1.48	1.25
21:U:59:LYS:HB2	21:U:84:ILE:CG2	1.67	1.25
25:Y:78:SER:CB	25:Y:81:TYR:CD2	1.98	1.25
11:K:83:LEU:CB	11:K:85:LEU:CD2	2.15	1.25
2:B:113:MET:HE3	2:B:211:PHE:CZ	1.71	1.25
9:I:144:LYS:O	9:I:145:ILE:HG12	1.30	1.25
2:B:150:ILE:HG13	18:R:125:GLY:CA	1.65	1.25
18:R:44:LYS:CE	18:R:47:ARG:NH2	1.98	1.25
3:C:244:THR:HG23	3:C:246:PHE:N	1.51	1.24
12:L:71:ARG:HD3	12:L:73:LEU:CD2	1.66	1.24
3:C:79:ILE:CD1	3:C:147:ILE:HD12	1.66	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:55:ILE:HG12	25:Y:75:ILE:CD1	1.67	1.24
10:J:88:ASP:C	10:J:92:MET:HG3	1.58	1.24
5:E:62:LYS:HD3	5:E:80:ILE:CD1	1.67	1.24
19:S:42:HIS:CD2	20:T:45:LEU:CG	2.19	1.24
11:K:83:LEU:CB	11:K:85:LEU:HD21	1.66	1.24
17:Q:109:LYS:HG3	17:Q:113:ILE:CD1	1.66	1.24
17:Q:34:VAL:CG2	17:Q:39:LEU:HD23	1.65	1.24
8:H:122:LEU:HD13	8:H:122:LEU:C	1.57	1.24
16:P:126:VAL:CG1	16:P:127:LYS:H	1.47	1.24
25:Y:10:ARG:NE	25:Y:24:VAL:HG11	1.50	1.24
1:A:145:ILE:CD1	1:A:159:ILE:HG21	1.64	1.24
9:I:141:ARG:CD	9:I:144:LYS:CB	2.15	1.24
2:B:52:THR:HG21	14:N:53:ILE:CD1	83.28	1.24
5:E:126:VAL:HG13	5:E:158:ASP:O	1.35	1.24
5:E:208:VAL:CG2	5:E:225:ILE:HD12	1.66	1.24
10:J:17:ARG:CG	10:J:18:ARG:HG2	1.66	1.24
3:C:195:PRO:HB3	3:C:221:PHE:CZ	1.73	1.24
1:A:30:LEU:CD1	1:A:38:ILE:CD1	1.96	1.24
14:N:46:THR:OG1	14:N:49:GLN:HG2	1.35	1.24
15:O:95:ILE:CD1	15:O:116:LEU:HD21	1.67	1.24
2:B:25:PHE:CE2	15:O:88:LEU:HD13	1.62	1.24
25:Y:22:GLN:HB3	25:Y:74:MET:SD	1.78	1.24
19:S:138:THR:HA	19:S:141:ARG:NH2	0.93	1.24
9:I:194:GLU:HG2	12:L:12:LYS:NZ	1.53	1.24
11:K:65:ARG:NH1	11:K:65:ARG:HB3	1.51	1.24
3:C:69:PHE:HZ	3:C:247:THR:OG1	1.03	1.23
5:E:62:LYS:CD	5:E:80:ILE:HD11	1.68	1.23
9:I:157:LYS:HB3	12:L:22:ARG:CZ	1.68	1.23
19:S:94:LYS:HD3	19:S:96:SER:OG	1.38	1.23
10:J:89:GLU:C	10:J:92:MET:HB2	1.57	1.23
19:S:46:ARG:CZ	20:T:50:GLU:HB3	1.66	1.23
17:Q:8:GLN:HG2	17:Q:99:TYR:CD1	1.73	1.23
10:J:61:LEU:CD2	10:J:98:LEU:HD11	1.68	1.23
25:Y:114:MET:HA	25:Y:124:ASN:ND2	1.54	1.23
17:Q:38:PRO:HD2	17:Q:41:MET:SD	1.76	1.23
22:V:1:MET:CE	22:V:10:ASP:HB2	1.68	1.23
17:Q:92:LEU:CD1	17:Q:96:TYR:HE2	1.50	1.23
25:Y:120:THR:HB	25:Y:122:LYS:CE	1.67	1.23
16:P:10:ARG:HH21	16:P:11:THR:CB	1.51	1.23
11:K:71:LEU:CD2	11:K:76:ILE:HD13	1.67	1.23
17:Q:34:VAL:CG2	17:Q:39:LEU:CD2	2.15	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:28:GLU:OE1	10:J:40:LYS:HD2	1.32	1.23
9:I:161:LEU:CD1	9:I:199:LEU:HD11	1.67	1.23
2:B:105:LEU:HD12	2:B:110:MET:CE	1.66	1.23
13:M:78:LYS:O	13:M:79:VAL:HG23	1.06	1.23
11:K:27:VAL:CG1	11:K:43:LEU:CD2	1.94	1.23
11:K:40:VAL:HG22	11:K:41:PRO:CD	1.69	1.23
17:Q:93:VAL:HG13	17:Q:105:LYS:CD	1.69	1.23
25:Y:34:THR:O	25:Y:35:VAL:HG22	1.09	1.23
3:C:197:LYS:CA	3:C:200:LEU:CD2	2.15	1.22
25:Y:54:VAL:HG11	25:Y:76:TYR:O	1.35	1.22
5:E:47:PHE:CE2	5:E:52:LEU:HD11	1.74	1.22
14:N:46:THR:OG1	14:N:49:GLN:CG	1.86	1.22
2:B:57:ILE:CD1	2:B:60:ASP:OD1	1.87	1.22
13:M:13:ASP:CB	13:M:16:THR:HB	1.62	1.22
24:X:60:LYS:HG3	24:X:116:PRO:CG	1.68	1.22
23:W:18:GLU:OE2	23:W:67:GLY:HA2	1.37	1.22
11:K:14:LEU:CD2	11:K:35:LEU:CD2	2.18	1.22
12:L:118:ARG:O	12:L:118:ARG:HD2	1.38	1.22
1:A:154:LEU:HD12	22:V:63:GLY:O	1.09	1.22
7:G:63:MET:CE	7:G:106:LEU:CD1	2.17	1.22
17:Q:85:ARG:HH12	17:Q:117:ARG:CG	1.53	1.22
6:F:36:GLN:HG3	6:F:37:ASP:OD1	1.36	1.22
19:S:61:GLU:O	19:S:64:VAL:HG22	1.33	1.22
9:I:141:ARG:CD	9:I:144:LYS:HB3	1.67	1.22
4:D:201:LYS:O	4:D:203:PRO:HD2	1.08	1.22
2:B:150:ILE:CG1	18:R:124:VAL:HG13	1.69	1.22
4:D:211:VAL:HG23	18:R:38:ILE:O	1.37	1.22
9:I:141:ARG:CB	9:I:144:LYS:CB	2.18	1.21
4:D:47:GLU:CG	4:D:85:GLU:OE2	1.85	1.21
11:K:71:LEU:CD2	11:K:76:ILE:CD1	2.16	1.21
8:H:53:VAL:CG2	8:H:57:ARG:O	1.86	1.21
9:I:136:ILE:O	9:I:139:LYS:HG3	1.04	1.21
8:H:146:VAL:CG2	23:W:50:PHE:CE1	2.22	1.21
6:F:18:LYS:NZ	6:F:46:ALA:O	1.73	1.21
17:Q:50:LYS:NZ	17:Q:85:ARG:NH2	1.88	1.21
2:B:113:MET:CE	2:B:209:ASP:OD1	1.86	1.21
7:G:85:ARG:CD	25:Y:118:ARG:NH2	2.03	1.21
6:F:63:LYS:CD	6:F:71:ARG:CZ	2.19	1.21
16:P:41:GLN:HE21	16:P:84:ILE:CB	1.54	1.21
10:J:17:ARG:CB	10:J:18:ARG:HG2	1.71	1.21
5:E:49:ARG:HD3	5:E:49:ARG:C	1.41	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:16:PHE:CD2	11:K:79:LEU:CB	2.23	1.21
4:D:35:SER:HA	4:D:99:ILE:CD1	1.69	1.21
6:F:76:MET:CE	6:F:169:ILE:HG21	1.68	1.21
25:Y:22:GLN:CB	25:Y:74:MET:SD	2.29	1.21
10:J:15:THR:CG2	10:J:44:TRP:CZ3	2.23	1.21
10:J:89:GLU:CA	10:J:92:MET:SD	2.28	1.21
3:C:195:PRO:CB	3:C:221:PHE:HZ	1.54	1.21
12:L:156:GLN:OE1	12:L:158:PHE:CE2	1.92	1.20
18:R:105:MET:O	18:R:109:LEU:HG	1.40	1.20
24:X:27:TYR:CZ	24:X:31:HIS:NE2	2.09	1.20
2:B:148:ASN:HA	18:R:124:VAL:CG2	1.71	1.20
4:D:218:LEU:CG	4:D:220:THR:HG23	1.69	1.20
5:E:21:ASP:OD2	5:E:24:THR:CG2	1.90	1.20
14:N:99:ARG:NH2	14:N:115:LEU:HD21	1.56	1.20
21:U:50:VAL:O	21:U:51:LYS:HD2	1.39	1.20
25:Y:32:LYS:CG	25:Y:33:ALA:H	1.55	1.20
5:E:212:ASP:OD1	5:E:216:ASN:HB2	1.41	1.20
9:I:136:ILE:HG23	9:I:139:LYS:CE	1.70	1.20
25:Y:19:GLN:HG2	25:Y:81:TYR:CD1	1.75	1.20
2:B:66:VAL:CG2	2:B:87:ILE:CG2	2.15	1.20
6:F:44:LYS:HB3	6:F:45:TYR:CE1	1.76	1.20
16:P:126:VAL:HG12	16:P:127:LYS:N	1.34	1.20
9:I:157:LYS:HB3	12:L:22:ARG:NH1	0.87	1.20
1:A:118:GLU:HB3	3:C:50:LYS:NZ	1.57	1.20
1:A:11:LYS:CG	1:A:13:GLU:HG2	1.70	1.20
25:Y:18:LEU:HB3	25:Y:20:ARG:NH1	1.51	1.20
8:H:83:LEU:CD2	8:H:92:VAL:HG11	1.71	1.20
13:M:98:GLY:O	13:M:100:PRO:HD3	1.36	1.20
24:X:126:ALA:CB	24:X:128:VAL:HB	1.71	1.19
6:F:28:VAL:HG13	6:F:110:GLN:CD	1.60	1.19
19:S:8:LYS:CB	19:S:9:PHE:HD1	1.53	1.19
26:Z:48:VAL:O	26:Z:83:LEU:HD11	1.36	1.19
10:J:177:ASN:O	10:J:180:LYS:HG2	1.22	1.19
4:D:218:LEU:CD1	4:D:220:THR:HG21	1.71	1.19
15:O:56:VAL:CG1	15:O:81:VAL:CG2	2.18	1.19
24:X:51:VAL:HG13	24:X:70:VAL:HG11	1.22	1.19
12:L:147:LYS:HD2	12:L:148:ALA:CA	1.71	1.19
25:Y:12:PHE:CZ	25:Y:21:LYS:HB3	1.75	1.19
21:U:40:ILE:CD1	21:U:53:PRO:CG	2.13	1.19
8:H:93:VAL:CG2	8:H:94:PHE:H	1.43	1.19
26:Z:99:LEU:CD2	26:Z:109:TYR:CE1	2.26	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:79:ILE:CD1	3:C:147:ILE:CD1	2.19	1.19
1:A:16:LEU:CD2	18:R:111:PHE:CZ	2.23	1.19
12:L:103:GLU:OE1	24:X:11:ARG:HB2	1.07	1.19
4:D:158:ILE:CD1	4:D:189:MET:HE1	1.54	1.19
12:L:17:PHE:CZ	12:L:18:GLN:O	1.94	1.19
10:J:17:ARG:HG2	10:J:18:ARG:CG	1.73	1.19
25:Y:102:THR:CG2	25:Y:107:ARG:NE	2.04	1.19
4:D:218:LEU:HG	4:D:220:THR:CG2	1.69	1.19
13:M:85:LEU:HA	13:M:88:TRP:CE3	1.77	1.19
16:P:41:GLN:NE2	16:P:84:ILE:HB	1.56	1.19
11:K:60:GLU:CD	11:K:67:PHE:CD1	2.15	1.19
16:P:123:TYR:OH	19:S:124:ARG:NH1	1.76	1.19
6:F:14:THR:CG2	17:Q:56:LEU:CB	2.21	1.19
17:Q:92:LEU:CD1	17:Q:96:TYR:CE2	2.25	1.19
1:A:30:LEU:HD21	1:A:35:GLU:CG	1.73	1.19
12:L:149:ALA:CB	12:L:156:GLN:NE2	2.05	1.19
7:G:32:MET:SD	7:G:100:CYS:CA	2.31	1.19
3:C:156:GLY:C	3:C:157:ASN:HD22	1.45	1.19
13:M:78:LYS:O	13:M:79:VAL:CG2	1.91	1.19
25:Y:84:LYS:O	25:Y:84:LYS:HD2	1.43	1.19
2:B:71:LEU:CD1	2:B:84:PHE:HE2	1.55	1.18
10:J:134:HIS:CE1	10:J:163:SER:HB2	1.77	1.18
14:N:22:VAL:HB	14:N:23:PRO:HA	1.21	1.18
17:Q:9:SER:CB	17:Q:26:LYS:HE3	1.72	1.18
3:C:158:LYS:O	3:C:158:LYS:HE2	1.42	1.18
7:G:27:PHE:CE2	7:G:41:LEU:HD12	1.79	1.18
12:L:149:ALA:HB2	12:L:156:GLN:CG	1.60	1.18
17:Q:47:LEU:CD2	17:Q:81:ILE:CD1	2.21	1.18
18:R:1:MET:C	18:R:1:MET:N	1.95	1.18
12:L:118:ARG:HD2	12:L:118:ARG:C	1.57	1.18
8:H:85:LYS:C	8:H:85:LYS:HD2	1.62	1.18
8:H:163:GLN:OE1	8:H:189:PHE:CE2	1.97	1.18
5:E:159:THR:CG2	5:E:227:VAL:CG2	2.16	1.18
2:B:150:ILE:HD12	18:R:126:MET:N	1.37	1.18
1:A:13:GLU:O	1:A:17:LYS:HE3	1.42	1.18
14:N:62:GLN:HB2	14:N:65:PHE:CD2	1.78	1.18
12:L:149:ALA:CB	12:L:156:GLN:HE21	1.55	1.18
19:S:42:HIS:CD2	20:T:45:LEU:CD2	2.25	1.18
16:P:84:ILE:O	16:P:86:LEU:CD2	1.92	1.18
8:H:31:GLU:OE2	8:H:41:ARG:HD2	1.01	1.18
17:Q:38:PRO:CD	17:Q:41:MET:SD	2.32	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:92:MET:O	10:J:93:LYS:HE3	1.40	1.18
4:D:210:ILE:CD1	18:R:15:VAL:HG11	1.73	1.18
22:V:11:LEU:HD12	22:V:12:TYR:CD2	1.65	1.18
17:Q:58:LEU:CD2	17:Q:111:ILE:CD1	2.22	1.18
1:A:48:ILE:HD11	18:R:105:MET:SD	1.84	1.17
2:B:137:LEU:CD2	2:B:215:VAL:CG1	2.20	1.17
1:A:120:ARG:HD2	3:C:251:TYR:HE2	1.02	1.17
11:K:16:PHE:HE2	11:K:79:LEU:CB	1.51	1.17
17:Q:47:LEU:HD22	17:Q:81:ILE:CD1	1.72	1.17
19:S:8:LYS:O	26:Z:49:LEU:CD2	1.92	1.17
20:T:23:LYS:CD	20:T:54:TYR:CD2	2.26	1.17
16:P:52:LYS:O	16:P:52:LYS:HD3	1.44	1.17
19:S:47:LYS:NZ	19:S:78:LYS:HB2	1.59	1.17
1:A:21:ALA:CB	1:A:173:LEU:HD11	1.49	1.17
15:O:95:ILE:HD13	15:O:116:LEU:HD21	1.18	1.17
18:R:100:PRO:HB2	18:R:119:VAL:HG21	1.24	1.17
15:O:61:LYS:HE3	15:O:80:ASP:OD2	1.03	1.17
19:S:39:ARG:NH2	20:T:38:LYS:HZ2	1.34	1.17
6:F:91:ARG:NH1	6:F:94:LYS:HB2	1.45	1.17
17:Q:47:LEU:CD2	17:Q:81:ILE:HD12	1.72	1.17
23:W:11:LEU:O	23:W:14:ILE:HG12	1.38	1.17
25:Y:92:ALA:N	25:Y:97:TYR:HB3	1.59	1.17
9:I:141:ARG:HB2	9:I:144:LYS:CB	1.75	1.17
25:Y:120:THR:CB	25:Y:122:LYS:HE2	1.73	1.17
7:G:145:PHE:HB3	7:G:147:LEU:CD1	1.73	1.17
11:K:3:MET:HE1	11:K:8:ARG:CZ	1.73	1.17
16:P:46:SER:O	16:P:49:LEU:CB	1.91	1.17
19:S:47:LYS:HE3	19:S:77:TYR:O	0.99	1.17
11:K:18:GLU:O	11:K:92:ALA:CB	1.92	1.17
10:J:10:ARG:NH1	10:J:10:ARG:HB3	1.57	1.17
7:G:180:VAL:O	7:G:181:THR:HG22	1.41	1.17
3:C:54:LEU:CD1	3:C:258:LEU:HD11	1.69	1.17
14:N:80:LEU:O	14:N:82:PRO:HD3	1.43	1.17
8:H:144:ILE:CB	23:W:52:ILE:CG2	2.22	1.17
4:D:132:LYS:CB	4:D:191:PRO:CG	2.16	1.17
11:K:83:LEU:HB3	11:K:85:LEU:HD23	1.20	1.17
1:A:104:THR:O	1:A:107:THR:HG23	1.38	1.17
1:A:154:LEU:CD1	22:V:63:GLY:O	1.91	1.17
9:I:136:ILE:O	9:I:139:LYS:CG	1.92	1.17
22:V:11:LEU:HD11	22:V:12:TYR:CE2	1.80	1.17
25:Y:120:THR:HB	25:Y:122:LYS:HE2	1.20	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:20:ARG:CG	25:Y:74:MET:CE	2.23	1.17
4:D:55:THR:O	4:D:58:VAL:HG22	1.41	1.17
25:Y:63:HIS:CG	25:Y:64:PHE:CE1	2.31	1.17
25:Y:63:HIS:CG	25:Y:64:PHE:HE1	1.62	1.17
25:Y:92:ALA:HA	25:Y:97:TYR:O	1.45	1.17
10:J:138:ARG:NH1	10:J:156:HIS:CE1	2.13	1.17
4:D:226:GLN:HA	4:D:226:GLN:NE2	1.59	1.16
12:L:113:LEU:HD11	12:L:120:VAL:HG21	1.25	1.16
10:J:143:ASN:O	10:J:145:PRO:HD3	1.41	1.16
20:T:84:ARG:NH2	20:T:84:ARG:HB2	1.59	1.16
1:A:118:GLU:CB	3:C:50:LYS:HZ1	1.56	1.16
9:I:116:HIS:O	9:I:152:ARG:CZ	1.93	1.16
4:D:56:GLN:O	4:D:59:LEU:HG	1.41	1.16
20:T:77:LYS:CG	20:T:92:PHE:HE2	1.47	1.16
26:Z:62:VAL:HG13	26:Z:68:ILE:HD13	1.17	1.16
2:B:150:ILE:HG12	18:R:124:VAL:CG1	1.75	1.16
19:S:138:THR:HA	19:S:141:ARG:CZ	1.75	1.16
3:C:195:PRO:CG	3:C:221:PHE:HZ	1.57	1.16
8:H:53:VAL:HG22	8:H:57:ARG:O	0.98	1.16
25:Y:7:ILE:HD12	25:Y:43:LYS:HG2	1.19	1.16
1:A:57:LYS:HZ1	22:V:70:LEU:CD1	1.59	1.16
1:A:141:ASN:CA	22:V:32:ILE:HG12	1.75	1.16
10:J:110:LEU:CD1	10:J:130:ILE:CG1	2.22	1.16
1:A:125:THR:O	1:A:147:LEU:HB3	1.41	1.16
4:D:21:LEU:CD1	4:D:48:ILE:HD12	1.74	1.16
4:D:76:ARG:CD	11:K:66:HIS:CE1	2.27	1.16
18:R:122:PRO:HB3	18:R:123:THR:CG2	1.75	1.16
5:E:38:LEU:HD12	5:E:38:LEU:C	1.56	1.16
26:Z:85:ARG:HB3	26:Z:85:ARG:NH1	1.60	1.16
1:A:103:PHE:CE2	1:A:136:GLU:OE1	1.99	1.16
5:E:70:ILE:HG12	5:E:92:ILE:HD12	1.24	1.16
4:D:158:ILE:HD11	4:D:189:MET:CE	1.54	1.16
16:P:41:GLN:HE22	16:P:45:LEU:CG	1.56	1.16
16:P:10:ARG:HH21	16:P:11:THR:HB	1.06	1.16
21:U:109:GLY:O	21:U:110:VAL:HG23	1.45	1.16
17:Q:42:ILE:HG21	17:Q:51:LEU:CD2	1.75	1.16
10:J:17:ARG:O	10:J:17:ARG:HG3	1.41	1.16
26:Z:99:LEU:CD2	26:Z:102:LYS:HD3	1.73	1.16
18:R:17:ILE:HG21	18:R:69:ILE:CD1	1.74	1.16
3:C:154:TYR:OH	3:C:161:LYS:HA	1.00	1.16
3:C:151:ARG:HH12	3:C:240:LEU:CD1	1.57	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:40:ALA:HB3	20:T:43:LYS:CG	1.73	1.16
4:D:177:LEU:CD2	4:D:182:LEU:HD23	1.72	1.16
7:G:32:MET:HE1	7:G:100:CYS:CA	1.76	1.15
8:H:143:ARG:HD3	23:W:53:ILE:CG1	1.75	1.15
24:X:52:LEU:HD21	24:X:71:ARG:HB3	1.26	1.15
6:F:59:LYS:CD	6:F:62:ARG:NH2	1.98	1.15
6:F:63:LYS:HD2	6:F:71:ARG:NH1	1.59	1.15
11:K:62:PHE:HD1	11:K:67:PHE:CZ	1.65	1.15
5:E:248:ILE:HB	10:J:72:PHE:CE1	1.81	1.15
3:C:54:LEU:HD11	3:C:258:LEU:HD11	1.19	1.15
6:F:201:LYS:CE	6:F:204:ARG:HH21	1.58	1.15
7:G:98:ARG:HD3	7:G:99:GLY:N	1.61	1.15
10:J:110:LEU:CD1	10:J:130:ILE:HG12	1.74	1.15
12:L:10:TYR:CD2	12:L:12:LYS:NZ	2.14	1.15
16:P:53:GLN:HG2	16:P:80:LEU:HD11	1.26	1.15
17:Q:50:LYS:NZ	17:Q:117:ARG:HD2	1.60	1.15
25:Y:36:PRO:CG	25:Y:39:GLU:CD	2.15	1.15
2:B:113:MET:HE1	2:B:211:PHE:HE2	0.99	1.15
10:J:48:PHE:CE1	10:J:52:LYS:CE	2.29	1.15
4:D:126:ILE:HD11	4:D:134:CYS:SG	1.86	1.15
15:O:105:THR:O	15:O:106:LYS:HG2	1.45	1.15
15:O:61:LYS:O	15:O:62:VAL:HG23	1.41	1.15
11:K:16:PHE:CD2	11:K:79:LEU:HB2	1.80	1.15
11:K:23:ALA:O	11:K:66:HIS:O	1.64	1.15
6:F:25:THR:CG2	6:F:42:LYS:CG	2.06	1.15
19:S:139:THR:O	19:S:141:ARG:HG3	1.46	1.15
13:M:93:LYS:O	13:M:94:ILE:HG22	1.42	1.15
25:Y:7:ILE:HD12	25:Y:43:LYS:CG	1.76	1.15
2:B:20:LYS:O	2:B:21:VAL:HG12	1.43	1.15
11:K:5:LYS:O	11:K:5:LYS:HG3	1.44	1.15
3:C:82:PHE:O	3:C:83:LEU:HD12	1.43	1.15
7:G:16:ILE:CD1	7:G:45:TRP:HZ2	1.60	1.15
14:N:87:ASP:OD2	14:N:129:TYR:OH	1.64	1.15
25:Y:122:LYS:HD3	25:Y:123:ALA:H	1.05	1.15
4:D:132:LYS:CA	4:D:191:PRO:CG	2.25	1.15
11:K:40:VAL:HG22	11:K:41:PRO:N	1.59	1.15
21:U:67:LYS:HG2	21:U:78:ASP:OD2	1.45	1.15
8:H:93:VAL:HG23	8:H:94:PHE:H	1.11	1.15
26:Z:44:LEU:C	26:Z:44:LEU:HD13	1.65	1.15
18:R:17:ILE:CG2	18:R:69:ILE:CD1	2.25	1.15
13:M:94:ILE:HG23	13:M:95:ASP:N	1.45	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:137:LEU:HD22	2:B:215:VAL:CG2	1.77	1.15
3:C:244:THR:HG22	3:C:246:PHE:CD2	1.81	1.15
24:X:126:ALA:HB3	24:X:128:VAL:HB	1.15	1.15
2:B:26:SER:O	2:B:27:LYS:HG3	1.44	1.15
3:C:70:SER:O	22:V:29:HIS:ND1	1.78	1.15
24:X:71:ARG:HG2	24:X:82:THR:HG22	1.29	1.15
4:D:47:GLU:HG2	4:D:85:GLU:OE2	1.41	1.15
11:K:30:PRO:O	11:K:31:LYS:CG	1.94	1.15
10:J:89:GLU:CA	10:J:92:MET:HB2	1.77	1.15
10:J:169:ARG:HB3	10:J:170:PRO:CD	1.77	1.14
14:N:28:LEU:O	14:N:29:THR:HG23	1.45	1.14
12:L:101:ARG:O	24:X:10:ALA:CB	1.92	1.14
16:P:44:ARG:NH2	16:P:84:ILE:H	1.45	1.14
6:F:39:ILE:HG23	6:F:68:ILE:HG21	1.20	1.14
20:T:77:LYS:CB	20:T:94:ARG:HD3	1.75	1.14
16:P:123:TYR:CD2	19:S:120:HIS:HE1	1.65	1.14
1:A:5:LEU:HD13	1:A:6:ASP:N	1.59	1.14
5:E:98:ASN:ND2	5:E:119:ALA:CB	2.10	1.14
2:B:25:PHE:CD2	15:O:88:LEU:HD22	1.83	1.14
20:T:46:ALA:HB1	20:T:47:PRO:CD	1.76	1.14
6:F:42:LYS:O	6:F:44:LYS:N	1.77	1.14
4:D:210:ILE:CD1	18:R:15:VAL:HG12	1.74	1.14
4:D:218:LEU:CB	4:D:220:THR:CG2	2.25	1.14
13:M:94:ILE:CG2	13:M:95:ASP:H	1.56	1.14
1:A:34:MET:HE3	1:A:37:TYR:CD2	1.83	1.14
5:E:208:VAL:HG21	5:E:225:ILE:HD12	1.24	1.14
1:A:5:LEU:HB3	22:V:41:LYS:HE2	1.18	1.14
1:A:141:ASN:C	22:V:32:ILE:CG1	2.16	1.14
2:B:57:ILE:HD13	2:B:60:ASP:OD1	0.96	1.14
5:E:100:ARG:HD3	5:E:102:ILE:CD1	1.78	1.14
14:N:125:LEU:HD13	14:N:129:TYR:CE2	1.83	1.14
11:K:60:GLU:OE1	11:K:67:PHE:CE1	1.98	1.14
17:Q:50:LYS:HZ1	17:Q:117:ARG:CD	1.60	1.14
17:Q:58:LEU:HD23	17:Q:111:ILE:HD13	1.25	1.14
19:S:139:THR:O	19:S:141:ARG:CG	1.95	1.14
8:H:85:LYS:HD2	8:H:85:LYS:O	1.43	1.14
4:D:176:LEU:H	4:D:176:LEU:HD12	1.13	1.14
10:J:125:HIS:CD2	10:J:129:LEU:HD11	1.81	1.14
12:L:76:VAL:HG12	12:L:125:ILE:CD1	1.78	1.14
21:U:109:GLY:O	21:U:110:VAL:CG2	1.95	1.14
17:Q:85:ARG:NH1	17:Q:117:ARG:HG2	1.62	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:109:LYS:CG	17:Q:113:ILE:HD12	1.76	1.14
10:J:48:PHE:CZ	10:J:52:LYS:NZ	2.16	1.14
6:F:176:GLU:OE1	6:F:187:SER:OG	1.63	1.14
1:A:34:MET:HE3	1:A:37:TYR:HD2	1.09	1.14
3:C:55:VAL:HB	6:F:34:SER:CB	86.97	1.14
1:A:103:PHE:CZ	1:A:136:GLU:OE1	2.00	1.14
2:B:137:LEU:HB2	2:B:172:MET:HE1	1.28	1.14
7:G:181:THR:OG1	7:G:182:PRO:HD2	1.48	1.14
16:P:53:GLN:NE2	16:P:80:LEU:HD13	1.60	1.14
11:K:62:PHE:CD1	11:K:67:PHE:CE2	2.36	1.14
6:F:93:VAL:O	6:F:97:PHE:CD1	2.01	1.14
8:H:65:PRO:HD2	8:H:68:GLN:OE1	1.42	1.14
19:S:8:LYS:CD	19:S:9:PHE:HE1	1.60	1.14
12:L:153:LYS:HG3	14:N:131:THR:O	1.40	1.14
10:J:61:LEU:HD13	10:J:94:LEU:CD1	1.76	1.13
24:X:99:GLU:O	24:X:100:VAL:HG13	1.45	1.13
1:A:57:LYS:NZ	22:V:70:LEU:CD1	2.11	1.13
7:G:41:LEU:HD21	7:G:45:TRP:CZ3	1.62	1.13
7:G:85:ARG:CD	25:Y:118:ARG:CZ	2.25	1.13
10:J:170:PRO:CG	10:J:175:ARG:CG	2.26	1.13
25:Y:54:VAL:CG1	25:Y:76:TYR:O	1.95	1.13
4:D:34:TYR:OH	21:U:61:LEU:CD2	24.94	1.13
16:P:33:LEU:HD22	16:P:87:PRO:CG	1.78	1.13
25:Y:13:MET:HE2	25:Y:14:THR:O	1.47	1.13
10:J:37:LEU:HD11	10:J:42:GLU:CB	1.77	1.13
2:B:25:PHE:CZ	15:O:88:LEU:HD13	1.83	1.13
21:U:36:CYS:SG	21:U:53:PRO:HB3	1.89	1.13
6:F:47:LYS:HG3	17:Q:117:ARG:NH2	1.63	1.13
10:J:91:LYS:HA	10:J:96:TYR:CB	1.78	1.13
4:D:212:GLU:CG	18:R:19:LYS:CD	2.25	1.13
7:G:157:VAL:HG11	7:G:159:ARG:HG2	1.17	1.13
15:O:19:PRO:HG2	15:O:27:VAL:CG2	1.62	1.13
4:D:70:THR:HG22	4:D:86:LEU:HD13	1.31	1.13
4:D:76:ARG:CZ	11:K:66:HIS:CE1	2.30	1.13
26:Z:48:VAL:CG2	26:Z:80:ARG:HD3	1.77	1.13
18:R:122:PRO:HA	18:R:123:THR:HG23	1.13	1.13
10:J:89:GLU:HA	10:J:92:MET:HB2	1.21	1.13
25:Y:93:ARG:HH11	25:Y:93:ARG:HG2	1.02	1.13
1:A:32:PHE:CE1	1:A:33:GLN:HG2	1.83	1.13
5:E:129:ILE:HG12	5:E:139:LEU:HD21	1.19	1.13
5:E:129:ILE:HG13	5:E:139:LEU:CD2	1.70	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:194:GLU:CD	12:L:12:LYS:HZ3	1.52	1.13
12:L:80:MET:HE2	12:L:120:VAL:O	1.42	1.13
5:E:100:ARG:HD3	5:E:102:ILE:HD11	1.20	1.13
8:H:8:ILE:CG2	8:H:9:VAL:HG22	1.79	1.13
2:B:150:ILE:HD11	18:R:126:MET:N	1.54	1.13
9:I:157:LYS:CB	12:L:22:ARG:HD3	1.78	1.13
7:G:14:LYS:NZ	7:G:123:GLY:CA	2.11	1.12
8:H:12:ASN:ND2	8:H:46:THR:OG1	1.81	1.13
3:C:51:LEU:HD13	3:C:78:ILE:HD13	1.30	1.12
18:R:100:PRO:HG2	18:R:119:VAL:HG22	1.28	1.12
4:D:158:ILE:HD13	4:D:189:MET:CE	1.73	1.12
6:F:42:LYS:C	6:F:44:LYS:N	1.88	1.12
17:Q:57:LEU:HD11	17:Q:115:TYR:CE2	1.83	1.12
4:D:195:SER:HA	4:D:197:LYS:O	1.49	1.13
3:C:260:LYS:HD2	3:C:261:THR:HG22	1.18	1.13
19:S:46:ARG:NH2	20:T:50:GLU:CB	2.12	1.12
3:C:154:TYR:OH	3:C:162:PRO:HD3	1.49	1.12
3:C:197:LYS:O	3:C:200:LEU:HG	1.48	1.12
17:Q:57:LEU:CD1	17:Q:115:TYR:CE2	2.31	1.12
17:Q:85:ARG:NH2	17:Q:117:ARG:HG2	1.63	1.12
18:R:1:MET:HA	18:R:1:MET:CB	1.68	1.12
19:S:47:LYS:CE	19:S:77:TYR:O	1.95	1.12
4:D:166:TYR:CD1	4:D:200:PRO:HB2	1.84	1.12
23:W:36:ARG:HD3	23:W:110:ILE:HD12	1.28	1.12
12:L:101:ARG:C	24:X:10:ALA:HB2	1.70	1.12
15:O:99:ALA:H	15:O:133:THR:CG2	1.60	1.12
1:A:48:ILE:CD1	18:R:105:MET:SD	2.37	1.12
4:D:158:ILE:CD1	4:D:189:MET:HE2	1.64	1.12
11:K:11:ILE:HG21	11:K:49:MET:HE2	1.20	1.12
13:M:116:LYS:O	13:M:117:GLU:HB2	1.43	1.12
6:F:14:THR:HG22	17:Q:56:LEU:HD22	1.15	1.12
26:Z:62:VAL:HG13	26:Z:68:ILE:CD1	1.78	1.12
24:X:105:PHE:HE2	24:X:119:ARG:CA	1.61	1.12
18:R:91:LEU:H	18:R:91:LEU:HD12	1.10	1.12
2:B:105:LEU:HD12	2:B:110:MET:HE2	1.14	1.12
3:C:260:LYS:CG	3:C:261:THR:H	1.56	1.12
1:A:186:ARG:HG2	1:A:186:ARG:HH11	1.01	1.12
7:G:32:MET:CE	7:G:100:CYS:CA	2.27	1.12
10:J:169:ARG:HB3	10:J:170:PRO:HD2	1.17	1.12
3:C:60:ILE:O	3:C:82:PHE:CE1	2.03	1.12
5:E:153:LEU:HD23	7:G:216:ARG:HH22	1.08	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:144:ILE:CD1	23:W:52:ILE:HG21	1.79	1.12
4:D:132:LYS:CA	4:D:191:PRO:HG3	1.80	1.12
6:F:14:THR:HG23	17:Q:56:LEU:HB3	1.28	1.12
5:E:248:ILE:HD11	10:J:72:PHE:CG	1.79	1.12
16:P:49:LEU:HA	16:P:51:ARG:HG3	1.29	1.12
4:D:212:GLU:HG2	18:R:19:LYS:CD	1.80	1.12
1:A:120:ARG:HD2	3:C:251:TYR:CE2	1.84	1.11
1:A:133:PRO:HD2	1:A:134:LEU:H	1.03	1.11
1:A:5:LEU:CB	22:V:41:LYS:HE2	1.79	1.11
9:I:194:GLU:CG	12:L:12:LYS:NZ	2.13	1.11
10:J:114:VAL:HG12	10:J:120:ALA:HB2	1.23	1.11
12:L:4:ILE:HD12	12:L:4:ILE:N	1.60	1.11
16:P:41:GLN:NE2	16:P:45:LEU:HG	1.65	1.11
8:H:83:LEU:CD1	8:H:92:VAL:CB	2.27	1.11
6:F:49:LEU:HD12	6:F:50:PRO:HD2	1.29	1.11
25:Y:34:THR:O	25:Y:35:VAL:CG2	1.97	1.11
5:E:248:ILE:CB	10:J:72:PHE:CE1	2.33	1.11
19:S:58:GLU:O	19:S:59:LEU:HD22	1.50	1.11
4:D:195:SER:O	4:D:197:LYS:HG2	1.48	1.11
2:B:148:ASN:C	18:R:124:VAL:HG22	1.64	1.11
15:O:136:PRO:O	15:O:138:ASP:N	1.81	1.11
23:W:93:LEU:HD21	23:W:128:PHE:CD2	1.84	1.11
3:C:234:SER:HA	22:V:23:ILE:CD1	1.78	1.11
10:J:70:ARG:HH21	10:J:94:LEU:HD21	1.02	1.11
5:E:89:VAL:O	5:E:99:PHE:O	1.68	1.11
25:Y:20:ARG:HD2	25:Y:74:MET:HE2	1.15	1.11
4:D:47:GLU:HG2	4:D:85:GLU:CD	1.71	1.11
17:Q:109:LYS:HG3	17:Q:113:ILE:HD12	1.23	1.11
4:D:197:LYS:H	4:D:198:ILE:C	1.53	1.11
3:C:101:THR:HG21	3:C:103:ALA:O	1.42	1.11
7:G:184:VAL:HG12	7:G:188:LYS:HE2	1.33	1.11
9:I:154:LYS:HG3	9:I:155:ASN:H	1.16	1.11
10:J:170:PRO:CG	10:J:175:ARG:HG3	1.80	1.11
12:L:147:LYS:HD2	12:L:148:ALA:HA	1.12	1.11
22:V:32:ILE:HD12	22:V:60:ARG:NH1	1.66	1.11
20:T:31:PRO:HB3	20:T:33:TRP:CZ2	1.83	1.11
25:Y:20:ARG:CG	25:Y:74:MET:HE3	1.79	1.11
17:Q:85:ARG:HD3	17:Q:119:LEU:HD23	1.24	1.11
25:Y:92:ALA:HA	25:Y:97:TYR:C	1.71	1.11
4:D:218:LEU:HD12	4:D:220:THR:HG21	1.19	1.11
6:F:36:GLN:HG3	6:F:37:ASP:CG	1.71	1.11

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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	1.11
7:G:16:ILE:CD1	7:G:45:TRP:CZ2	2.33	1.11
1:A:66:VAL:HG22	1:A:186:ARG:HD3	1.14	1.11
16:P:41:GLN:CB	16:P:84:ILE:HG12	1.80	1.11
16:P:11:THR:O	16:P:12:PHE:HB2	1.47	1.11
17:Q:44:PRO:HG2	17:Q:81:ILE:HD11	1.27	1.11
6:F:167:LYS:HD3	6:F:171:GLU:HG3	1.30	1.11
24:X:60:LYS:HG3	24:X:116:PRO:HG2	1.26	1.11
24:X:67:ARG:O	24:X:68:LYS:HG3	1.50	1.11
4:D:214:LYS:HG3	4:D:215:ASP:OD2	1.48	1.11
1:A:106:GLY:O	1:A:113:GLN:OE1	1.67	1.11
1:A:118:GLU:CB	3:C:50:LYS:NZ	2.11	1.11
1:A:30:LEU:CD2	1:A:35:GLU:HG3	1.80	1.11
5:E:99:PHE:CE1	5:E:113:ARG:CG	2.34	1.11
6:F:42:LYS:O	6:F:44:LYS:CA	1.98	1.11
2:B:160:GLN:NE2	2:B:205:TYR:CD1	2.18	1.11
18:R:17:ILE:HG22	18:R:69:ILE:HD11	1.14	1.11
3:C:55:VAL:CG2	3:C:82:PHE:HE2	1.63	1.10
7:G:142:ARG:HD3	7:G:147:LEU:HB2	1.15	1.10
2:B:83:LYS:NZ	15:O:130:GLU:OE1	1.82	1.10
22:V:17:CYS:SG	22:V:56:CYS:CB	2.37	1.10
16:P:10:ARG:NH2	16:P:11:THR:HB	1.66	1.10
18:R:1:MET:CB	18:R:2:GLY:N	2.13	1.10
18:R:122:PRO:CB	18:R:123:THR:CG2	2.29	1.10
3:C:260:LYS:HG3	3:C:261:THR:H	1.09	1.10
6:F:116:ILE:N	6:F:116:ILE:HD13	1.64	1.10
5:E:208:VAL:HG11	5:E:225:ILE:HD13	1.27	1.10
14:N:38:TYR:CD1	14:N:78:LYS:HD2	1.86	1.10
8:H:143:ARG:HE	23:W:53:ILE:HG23	1.10	1.10
14:N:125:LEU:HD13	14:N:129:TYR:HE2	1.11	1.10
8:H:8:ILE:HG23	8:H:9:VAL:CG2	1.80	1.10
8:H:146:VAL:CG2	23:W:50:PHE:CZ	2.32	1.10
17:Q:85:ARG:CZ	17:Q:117:ARG:HG2	1.82	1.10
6:F:41:VAL:HG22	6:F:42:LYS:CD	1.80	1.10
17:Q:92:LEU:HD11	17:Q:96:TYR:CE2	1.85	1.10
20:T:143:LYS:HD2	20:T:144:LYS:N	1.65	1.10
15:O:35:ALA:HB2	15:O:112:ALA:HB2	1.33	1.10
5:E:208:VAL:CB	5:E:225:ILE:HD11	1.68	1.10
7:G:41:LEU:CD2	7:G:45:TRP:HZ3	1.37	1.10
12:L:157:LYS:C	12:L:158:PHE:CD2	2.25	1.10
14:N:28:LEU:O	14:N:29:THR:CG2	1.99	1.10

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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	1.10
21:U:50:VAL:HG13	21:U:51:LYS:H	0.99	1.10
8:H:10:LYS:HE3	8:H:17:ASP:H	1.00	1.10
26:Z:103:HIS:CD2	26:Z:105:ALA:HB3	1.86	1.10
4:D:157:MET:HE1	4:D:187:LYS:CD	1.80	1.10
4:D:218:LEU:HB2	4:D:220:THR:CG2	1.82	1.10
18:R:91:LEU:N	18:R:91:LEU:HD12	1.66	1.10
5:E:47:PHE:CZ	5:E:52:LEU:HD11	1.86	1.10
15:O:56:VAL:HG12	15:O:81:VAL:HG22	1.31	1.10
2:B:135:LEU:HD21	2:B:217:MET:SD	1.91	1.10
10:J:110:LEU:HD12	10:J:130:ILE:CD1	1.74	1.10
1:A:48:ILE:CG1	18:R:105:MET:CE	2.19	1.10
11:K:11:ILE:CG2	11:K:49:MET:HE1	1.70	1.10
11:K:11:ILE:HG21	11:K:49:MET:CE	1.71	1.10
19:S:124:ARG:HD3	19:S:130:ARG:O	1.52	1.10
25:Y:62:THR:HG22	25:Y:69:THR:CG2	1.80	1.10
16:P:107:ILE:HA	16:P:111:MET:CE	1.80	1.10
18:R:122:PRO:CA	18:R:123:THR:CG2	2.29	1.10
18:R:20:TYR:CZ	18:R:38:ILE:CB	2.33	1.10
19:S:138:THR:CA	19:S:141:ARG:HH21	1.53	1.10
20:T:18:LEU:HD13	20:T:134:ILE:HD13	1.22	1.10
7:G:50:VAL:HG11	7:G:111:LEU:HD13	1.19	1.10
9:I:114:GLU:OE1	9:I:133:GLU:HG3	1.50	1.10
4:D:158:ILE:HD13	4:D:189:MET:HE2	1.28	1.10
4:D:47:GLU:HG2	4:D:85:GLU:CG	1.82	1.10
17:Q:85:ARG:HD3	17:Q:119:LEU:CD2	1.81	1.10
9:I:69:SER:HB3	12:L:19:ASN:HD21	1.11	1.10
26:Z:99:LEU:CD1	26:Z:102:LYS:CE	2.14	1.10
3:C:102:GLN:HG3	3:C:103:ALA:H	1.04	1.10
19:S:46:ARG:CZ	20:T:50:GLU:CB	2.30	1.10
21:U:59:LYS:HB2	21:U:84:ILE:HG22	1.21	1.10
25:Y:10:ARG:HG2	25:Y:24:VAL:HB	1.31	1.10
25:Y:7:ILE:CD1	25:Y:43:LYS:CG	2.30	1.10
6:F:185:SER:HA	6:F:190:ILE:HG21	1.11	1.10
15:O:20:GLN:HG2	15:O:21:VAL:N	1.61	1.10
3:C:142:LEU:HA	3:C:145:LEU:HD21	1.26	1.09
7:G:176:ILE:HG22	7:G:179:LEU:HB3	1.25	1.09
8:H:144:ILE:HD12	23:W:52:ILE:CG2	1.82	1.09
2:B:25:PHE:CD2	15:O:88:LEU:CD2	2.34	1.09
16:P:53:GLN:CG	16:P:80:LEU:HD13	1.74	1.09
11:K:21:MET:HE3	11:K:49:MET:SD	1.83	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:103:SER:O	21:U:106:ILE:CG2	1.99	1.09
16:P:108:LYS:O	16:P:111:MET:HG3	1.51	1.09
10:J:91:LYS:HA	10:J:96:TYR:HB2	1.29	1.09
4:D:212:GLU:HB2	4:D:213:PRO:HD2	1.28	1.09
10:J:179:LYS:HG2	10:J:182:GLN:OE1	1.50	1.09
5:E:129:ILE:CG1	5:E:139:LEU:HD23	1.73	1.09
9:I:141:ARG:HD2	9:I:144:LYS:HB3	1.19	1.09
9:I:85:ALA:HB1	12:L:8:ARG:HH11	1.11	1.09
17:Q:8:GLN:CB	17:Q:99:TYR:CE1	2.35	1.09
22:V:55:ILE:HD13	22:V:65:SER:HA	1.25	1.09
9:I:136:ILE:HG23	9:I:139:LYS:HE3	1.14	1.09
10:J:119:LEU:HD23	10:J:119:LEU:N	1.64	1.09
4:D:132:LYS:H	4:D:191:PRO:HD3	1.06	1.09
16:P:44:ARG:HH21	16:P:84:ILE:HB	1.10	1.09
16:P:121:ILE:CG2	19:S:123:LEU:HD12	1.80	1.09
17:Q:105:LYS:HD2	17:Q:105:LYS:O	1.50	1.09
17:Q:54:PRO:HG3	17:Q:88:ILE:CD1	1.81	1.09
26:Z:48:VAL:HG22	26:Z:80:ARG:CD	1.82	1.09
1:A:185:MET:CE	22:V:39:VAL:HG12	1.82	1.09
7:G:176:ILE:HG21	7:G:179:LEU:HD22	1.12	1.09
15:O:99:ALA:N	15:O:133:THR:HG22	1.68	1.09
1:A:48:ILE:CD1	18:R:105:MET:CE	2.29	1.09
2:B:36:PRO:CB	2:B:231:LEU:HD21	1.82	1.09
5:E:92:ILE:HB	5:E:97:GLU:OE1	1.52	1.09
10:J:115:PHE:HD1	10:J:122:SER:N	1.48	1.09
22:V:11:LEU:HD12	22:V:12:TYR:HD2	0.94	1.09
11:K:71:LEU:HD21	11:K:76:ILE:HD13	1.18	1.09
6:F:76:MET:HE1	6:F:169:ILE:HG21	1.32	1.09
17:Q:19:ALA:HB2	17:Q:74:GLY:O	1.50	1.09
25:Y:63:HIS:HB3	25:Y:64:PHE:CD1	1.86	1.09
9:I:25:ARG:CD	9:I:27:TYR:CE2	2.24	1.09
16:P:126:VAL:CG1	16:P:127:LYS:N	2.06	1.09
2:B:105:LEU:HD11	2:B:213:ARG:HB2	1.17	1.09
17:Q:30:GLY:O	17:Q:31:LEU:HD12	1.52	1.09
4:D:27:ARG:CB	4:D:27:ARG:HH11	4.03	1.09
6:F:78:MET:O	6:F:79:HIS:HB2	1.44	1.09
1:A:45:GLY:O	1:A:46:ILE:HG12	1.49	1.09
5:E:208:VAL:CG2	5:E:225:ILE:CD1	2.28	1.09
14:N:62:GLN:HB2	14:N:65:PHE:HD2	1.07	1.09
9:I:141:ARG:O	9:I:143:LYS:HE2	1.50	1.09
9:I:141:ARG:HB2	9:I:144:LYS:HB2	1.09	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:149:ALA:CB	12:L:156:GLN:CB	2.17	1.09
14:N:38:TYR:CE2	14:N:74:ILE:CG2	2.34	1.09
21:U:64:THR:HG22	21:U:79:ARG:HG2	1.09	1.09
25:Y:51:THR:HB	25:Y:52:PRO:HD3	1.34	1.09
8:H:36:LEU:HD12	8:H:36:LEU:O	1.51	1.09
8:H:83:LEU:HD11	8:H:92:VAL:HB	1.16	1.09
4:D:197:LYS:HB2	4:D:198:ILE:HG13	1.15	1.09
2:B:150:ILE:CG1	18:R:125:GLY:N	2.14	1.09
16:P:49:LEU:CD1	16:P:51:ARG:NE	2.03	1.09
23:W:11:LEU:O	23:W:14:ILE:CG1	1.99	1.09
10:J:89:GLU:CA	10:J:92:MET:CG	2.29	1.09
9:I:114:GLU:OE1	9:I:133:GLU:CG	2.00	1.09
1:A:58:LEU:HD23	1:A:178:LEU:CD2	1.74	1.09
2:B:137:LEU:CD2	2:B:215:VAL:HG22	1.83	1.09
9:I:154:LYS:CA	9:I:154:LYS:HE2	1.66	1.09
12:L:147:LYS:CD	12:L:148:ALA:CA	2.29	1.09
16:P:41:GLN:HG3	16:P:84:ILE:HG21	1.13	1.09
11:K:71:LEU:HD23	11:K:76:ILE:CD1	1.81	1.09
4:D:2:ALA:CB	4:D:3:VAL:CA	2.29	1.09
11:K:40:VAL:CG2	11:K:41:PRO:CD	2.30	1.09
4:D:34:TYR:OH	21:U:61:LEU:HD23	25.71	1.09
6:F:20:PHE:O	6:F:22:LYS:N	1.83	1.09
6:F:91:ARG:HA	6:F:91:ARG:NE	1.42	1.09
4:D:197:LYS:CB	4:D:198:ILE:CG1	2.30	1.09
26:Z:99:LEU:HD22	26:Z:102:LYS:HD3	1.19	1.09
13:M:124:ILE:HA	13:M:127:TYR:CD2	1.88	1.09
20:T:84:ARG:HH21	20:T:84:ARG:CG	1.66	1.09
23:W:104:LEU:CD1	23:W:106:THR:HG23	1.83	1.09
3:C:87:LEU:HD21	3:C:115:ILE:HG23	1.16	1.08
10:J:17:ARG:CG	10:J:18:ARG:CG	2.30	1.08
16:P:49:LEU:O	16:P:51:ARG:CA	1.99	1.08
10:J:89:GLU:O	10:J:92:MET:HB2	1.51	1.08
24:X:2:GLY:O	24:X:3:LYS:CG	2.01	1.08
22:V:1:MET:HE2	22:V:10:ASP:HB2	1.18	1.08
20:T:111:LYS:HB3	20:T:126:GLN:NE2	1.67	1.08
12:L:146:THR:O	12:L:147:LYS:HB3	1.28	1.08
24:X:52:LEU:HD12	24:X:53:GLU:N	1.68	1.08
1:A:21:ALA:HB3	1:A:173:LEU:HD12	1.20	1.08
9:I:139:LYS:HB3	9:I:145:ILE:CD1	1.82	1.08
18:R:22:THR:HG22	18:R:73:LEU:HD11	1.30	1.08
13:M:91:LEU:HD22	13:M:104:VAL:HG13	1.33	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:47:LYS:HZ2	19:S:78:LYS:HB2	1.08	1.08
15:O:22:ALA:O	15:O:24:GLY:N	1.85	1.08
1:A:97:THR:HG23	1:A:98:PRO:HD2	1.21	1.08
18:R:105:MET:O	18:R:109:LEU:CG	2.00	1.08
1:A:176:TRP:CE3	1:A:177:MET:SD	2.46	1.08
7:G:145:PHE:HB3	7:G:147:LEU:HD11	1.30	1.08
7:G:212:LEU:HA	7:G:215:LYS:HE2	1.34	1.08
16:P:8:LYS:O	16:P:11:THR:HG22	1.54	1.08
8:H:9:VAL:HG12	8:H:44:ASN:OD1	1.53	1.08
6:F:167:LYS:HD3	6:F:171:GLU:CB	1.83	1.08
4:D:201:LYS:HA	4:D:201:LYS:HE2	1.35	1.08
4:D:210:ILE:HD13	18:R:15:VAL:HG12	1.33	1.08
20:T:141:ALA:O	20:T:142:LYS:CG	2.01	1.08
14:N:132:LYS:CE	14:N:132:LYS:HA	1.69	1.08
15:O:23:GLU:O	15:O:23:GLU:HG2	1.52	1.08
7:G:142:ARG:HD3	7:G:147:LEU:CB	1.84	1.08
1:A:141:ASN:HA	22:V:32:ILE:CG1	1.82	1.08
1:A:66:VAL:HG11	1:A:186:ARG:HB3	1.35	1.08
7:G:63:MET:HE1	7:G:106:LEU:HD11	1.11	1.08
7:G:76:LEU:HD22	7:G:92:ARG:CG	1.84	1.08
3:C:197:LYS:HA	3:C:200:LEU:HD23	1.10	1.08
11:K:14:LEU:HD22	11:K:35:LEU:HD21	1.17	1.08
8:H:40:LEU:HD23	8:H:43:LEU:HD12	1.16	1.08
6:F:14:THR:CG2	17:Q:56:LEU:CG	2.10	1.08
16:P:62:LYS:O	16:P:65:LYS:CG	2.01	1.08
10:J:100:LEU:CD1	10:J:104:ASP:OD2	2.02	1.08
7:G:176:ILE:CB	7:G:179:LEU:CD2	2.29	1.08
7:G:76:LEU:HD21	7:G:92:ARG:HG2	1.32	1.08
18:R:100:PRO:HA	18:R:103:LYS:HB2	1.13	1.08
24:X:100:VAL:HG12	24:X:125:VAL:HG22	1.36	1.08
8:H:144:ILE:HB	23:W:52:ILE:HG23	1.33	1.08
12:L:147:LYS:HD3	12:L:147:LYS:C	1.73	1.08
1:A:141:ASN:CA	22:V:32:ILE:CG1	2.31	1.08
6:F:41:VAL:HG22	6:F:42:LYS:HD3	1.26	1.08
17:Q:74:GLY:O	17:Q:80:GLN:NE2	1.86	1.08
18:R:20:TYR:CZ	18:R:38:ILE:HB	1.89	1.08
9:I:140:LYS:HG3	9:I:141:ARG:H	1.16	1.07
9:I:140:LYS:CG	9:I:141:ARG:H	1.64	1.07
10:J:130:ILE:HG23	10:J:135:ILE:HD11	1.35	1.07
11:K:14:LEU:HD22	11:K:35:LEU:HD22	1.09	1.07
6:F:41:VAL:HG22	6:F:42:LYS:N	1.53	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:112:GLY:N	4:D:113:LEU:HD12	1.69	1.07
1:A:205:ARG:CG	1:A:206:ASP:H	1.65	1.07
24:X:60:LYS:HE2	24:X:116:PRO:HG3	1.29	1.07
24:X:40:PRO:HB3	24:X:81:ILE:HD11	1.31	1.07
23:W:26:LEU:O	23:W:26:LEU:HD12	1.53	1.07
1:A:30:LEU:HD11	1:A:38:ILE:HD11	1.35	1.07
7:G:50:VAL:CG1	7:G:111:LEU:HD22	1.84	1.07
12:L:149:ALA:CB	12:L:156:GLN:HB3	1.79	1.07
3:C:51:LEU:HD22	3:C:51:LEU:O	1.54	1.07
12:L:101:ARG:HB3	24:X:7:LEU:O	1.55	1.07
20:T:31:PRO:CB	20:T:33:TRP:CE2	2.37	1.07
2:B:66:VAL:HG21	2:B:87:ILE:HG22	1.35	1.07
4:D:123:LEU:HD21	4:D:154:ASP:HB3	1.29	1.07
4:D:212:GLU:HG2	18:R:19:LYS:HD3	1.30	1.07
3:C:154:TYR:CE1	3:C:162:PRO:HG3	1.89	1.07
3:C:195:PRO:CB	3:C:221:PHE:CZ	2.36	1.07
10:J:138:ARG:HH11	10:J:156:HIS:CG	1.72	1.07
26:Z:70:PRO:HD2	26:Z:71:ALA:H	1.14	1.07
1:A:125:THR:O	1:A:147:LEU:CB	2.02	1.07
1:A:141:ASN:O	22:V:32:ILE:HG12	1.51	1.07
15:O:61:LYS:CE	15:O:80:ASP:OD2	2.00	1.07
21:U:40:ILE:HD13	21:U:53:PRO:HG3	1.27	1.07
8:H:37:LYS:HE2	8:H:41:ARG:HH11	1.16	1.07
25:Y:63:HIS:HB3	25:Y:64:PHE:CE1	1.88	1.07
25:Y:13:MET:CE	25:Y:14:THR:O	2.02	1.07
10:J:178:ALA:O	10:J:182:GLN:HG3	1.52	1.07
2:B:124:HIS:HD2	2:B:136:HIS:NE2	1.51	1.07
10:J:39:ASN:OD1	10:J:42:GLU:OE2	1.73	1.07
9:I:194:GLU:CG	12:L:12:LYS:HZ1	1.65	1.07
2:B:71:LEU:CD1	2:B:84:PHE:CE2	2.32	1.07
8:H:191:GLU:O	8:H:192:PHE:CG	2.08	1.07
14:N:28:LEU:HD11	14:N:58:HIS:NE2	1.69	1.07
6:F:41:VAL:CG2	6:F:42:LYS:H	1.62	1.07
26:Z:48:VAL:HG22	26:Z:80:ARG:HD3	1.27	1.07
18:R:122:PRO:CB	18:R:123:THR:HG23	1.83	1.07
5:E:38:LEU:HD12	5:E:38:LEU:O	1.53	1.07
3:C:234:SER:O	22:V:23:ILE:HD11	1.55	1.07
4:D:27:ARG:HB2	4:D:27:ARG:HH11	4.43	1.07
1:A:39:TYR:HB2	1:A:50:ASN:ND2	1.70	1.07
10:J:170:PRO:HA	10:J:174:LYS:NZ	1.70	1.07
24:X:94:ILE:HG12	24:X:125:VAL:HG21	1.32	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:63:LYS:O	2:B:88:THR:O	1.71	1.07
5:E:159:THR:HG23	5:E:227:VAL:HG22	1.31	1.07
12:L:103:GLU:OE1	24:X:11:ARG:CB	2.02	1.07
9:I:155:ASN:O	12:L:22:ARG:HD2	1.31	1.07
2:B:52:THR:CG2	14:N:53:ILE:CD1	83.58	1.07
25:Y:54:VAL:O	25:Y:75:ILE:HA	1.55	1.07
6:F:14:THR:CB	17:Q:56:LEU:HD13	1.82	1.07
26:Z:103:HIS:CD2	26:Z:105:ALA:H	1.72	1.07
17:Q:93:VAL:HG13	17:Q:105:LYS:CE	1.70	1.07
4:D:177:LEU:HD23	4:D:182:LEU:CD2	1.84	1.07
14:N:132:LYS:HE3	14:N:132:LYS:CA	1.70	1.07
26:Z:73:VAL:HG12	26:Z:79:ILE:HG21	1.35	1.07
2:B:124:HIS:CD2	2:B:136:HIS:NE2	2.22	1.07
3:C:98:GLN:HB2	3:C:106:ARG:O	1.55	1.07
1:A:154:LEU:HD13	1:A:154:LEU:O	1.53	1.06
1:A:97:THR:HG22	1:A:98:PRO:HD2	1.31	1.06
2:B:57:ILE:HD13	2:B:60:ASP:CG	1.65	1.06
6:F:14:THR:CB	17:Q:56:LEU:HB3	1.83	1.06
19:S:58:GLU:C	19:S:59:LEU:CD1	2.22	1.06
2:B:153:THR:HG23	2:B:154:SER:H	1.16	1.06
10:J:61:LEU:CD2	10:J:98:LEU:CD1	2.27	1.06
17:Q:8:GLN:HG3	17:Q:99:TYR:HE1	0.97	1.06
12:L:99:TYR:CZ	24:X:14:ARG:HA	1.90	1.06
12:L:80:MET:HE1	12:L:121:GLN:HA	1.35	1.06
19:S:39:ARG:CD	20:T:38:LYS:CE	2.33	1.06
20:T:46:ALA:CB	20:T:47:PRO:HD2	1.85	1.06
20:T:46:ALA:HB1	20:T:47:PRO:HD2	1.08	1.06
3:C:197:LYS:CA	3:C:200:LEU:HD21	1.78	1.06
16:P:121:ILE:HG21	19:S:123:LEU:HD12	1.11	1.06
19:S:137:LYS:HG2	19:S:138:THR:HG23	1.35	1.06
16:P:68:PRO:CB	16:P:69:PRO:HD3	1.84	1.06
7:G:67:VAL:HG23	7:G:68:LEU:O	1.54	1.06
12:L:95:TYR:HA	12:L:102:PHE:HB3	1.14	1.06
24:X:126:ALA:HB3	24:X:128:VAL:CB	1.84	1.06
2:B:107:ARG:NH2	15:O:133:THR:O	1.86	1.06
9:I:153:LYS:O	9:I:154:LYS:HB3	1.40	1.06
16:P:53:GLN:HG2	16:P:80:LEU:HD13	1.23	1.06
25:Y:19:GLN:OE1	25:Y:85:ASN:ND2	1.88	1.06
4:D:2:ALA:HB3	4:D:3:VAL:HA	1.09	1.06
21:U:48:LEU:HD23	21:U:48:LEU:N	1.65	1.06
4:D:34:TYR:CE1	21:U:61:LEU:CD2	27.28	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:93:LYS:CE	3:C:218:LEU:HD21	1.84	1.06
16:P:121:ILE:HG21	19:S:123:LEU:CD1	1.86	1.06
6:F:25:THR:HG21	6:F:42:LYS:CD	1.78	1.06
17:Q:58:LEU:CD2	17:Q:111:ILE:HD12	1.85	1.06
17:Q:58:LEU:CD1	17:Q:108:ILE:HG23	1.86	1.06
25:Y:34:THR:HG22	25:Y:35:VAL:N	1.61	1.06
19:S:14:ARG:HH12	19:S:17:ASN:CA	1.68	1.06
24:X:105:PHE:CE2	24:X:119:ARG:CA	2.36	1.06
1:A:205:ARG:HG2	1:A:206:ASP:H	0.93	1.06
4:D:213:PRO:O	4:D:214:LYS:HB3	1.50	1.06
2:B:19:LYS:HB2	2:B:19:LYS:NZ	1.69	1.06
14:N:12:SER:O	14:N:13:GLN:CG	2.02	1.06
16:P:39:ALA:HA	16:P:42:ARG:NE	1.71	1.06
3:C:84:GLY:HA2	3:C:87:LEU:HB3	1.30	1.06
5:E:49:ARG:O	5:E:49:ARG:HD3	1.52	1.06
10:J:50:LEU:HD12	10:J:102:ILE:CD1	1.85	1.06
10:J:161:LEU:O	10:J:162:ARG:HB2	1.52	1.06
1:A:145:ILE:HD12	1:A:159:ILE:HG21	1.36	1.06
2:B:25:PHE:CZ	15:O:88:LEU:CD1	2.36	1.06
8:H:191:GLU:O	8:H:192:PHE:CD1	2.09	1.06
22:V:42:VAL:O	22:V:43:THR:HG23	1.54	1.06
25:Y:78:SER:HB2	25:Y:81:TYR:CD2	1.90	1.06
11:K:34:GLU:O	11:K:35:LEU:HB2	1.31	1.06
8:H:83:LEU:CD1	8:H:92:VAL:HB	1.86	1.06
6:F:25:THR:HG22	6:F:42:LYS:CD	1.78	1.06
10:J:21:GLU:O	10:J:23:SER:N	1.88	1.06
4:D:157:MET:CE	4:D:187:LYS:CD	2.31	1.06
12:L:151:THR:O	12:L:153:LYS:HD3	1.53	1.06
15:O:35:ALA:CB	15:O:112:ALA:HB2	1.84	1.06
6:F:154:LEU:HD12	6:F:155:CYS:N	1.71	1.06
8:H:164:ASN:OD1	8:H:167:GLU:OE2	1.74	1.06
8:H:145:ARG:HD2	23:W:51:GLU:HG2	1.30	1.06
1:A:30:LEU:HD21	1:A:35:GLU:HG3	1.06	1.06
5:E:23:LEU:O	5:E:24:THR:HG23	1.52	1.06
12:L:146:THR:O	12:L:147:LYS:CB	2.04	1.06
12:L:99:TYR:OH	24:X:14:ARG:HA	0.90	1.06
19:S:39:ARG:NE	20:T:38:LYS:CE	2.06	1.06
4:D:132:LYS:N	4:D:191:PRO:HD3	1.69	1.06
8:H:93:VAL:CG2	8:H:94:PHE:N	2.13	1.06
6:F:45:TYR:O	6:F:47:LYS:HD3	1.44	1.06
19:S:6:PRO:HA	26:Z:50:PHE:HB2	1.11	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:201:LYS:O	4:D:203:PRO:CD	2.04	1.06
4:D:218:LEU:CG	4:D:220:THR:HG21	1.79	1.06
20:T:40:ALA:CB	20:T:43:LYS:HG2	1.84	1.06
1:A:190:SER:O	1:A:191:ARG:HG2	1.56	1.05
6:F:122:ARG:NE	6:F:193:LYS:HZ1	1.51	1.05
7:G:121:ILE:CG2	7:G:122:PRO:CD	2.33	1.05
10:J:134:HIS:O	10:J:135:ILE:HG23	1.54	1.05
9:I:85:ALA:CB	12:L:8:ARG:HH11	1.66	1.05
12:L:94:HIS:HB2	12:L:105:ARG:HD2	1.33	1.05
1:A:11:LYS:HG2	1:A:13:GLU:CG	1.84	1.05
2:B:25:PHE:CD2	15:O:88:LEU:HD13	1.91	1.05
7:G:50:VAL:HG11	7:G:111:LEU:CD1	1.84	1.05
10:J:67:ASP:OD1	10:J:68:PRO:HD2	1.56	1.05
2:B:67:PHE:CE1	15:O:48:SER:N	2.22	1.05
16:P:4:VAL:N	16:P:10:ARG:CG	2.19	1.05
8:H:15:LYS:HB3	8:H:16:PRO:CD	1.84	1.05
17:Q:54:PRO:HG3	17:Q:88:ILE:HD11	1.37	1.05
25:Y:36:PRO:CD	25:Y:39:GLU:OE1	2.04	1.05
12:L:17:PHE:CE1	12:L:18:GLN:O	2.08	1.05
16:P:49:LEU:O	16:P:51:ARG:N	1.89	1.05
25:Y:10:ARG:HE	25:Y:24:VAL:CG1	1.68	1.05
1:A:127:PRO:HB2	1:A:153:PRO:HG2	1.37	1.05
7:G:64:LYS:CG	7:G:67:VAL:HG13	1.87	1.05
14:N:16:LEU:HD11	14:N:62:GLN:HE22	1.12	1.05
1:A:145:ILE:HA	1:A:159:ILE:CG2	1.84	1.05
1:A:180:ARG:HD3	1:A:184:ARG:NH2	1.70	1.05
6:F:201:LYS:HE3	6:F:204:ARG:HH21	1.17	1.05
7:G:74:ARG:HD3	7:G:94:ARG:HD2	1.36	1.05
11:K:16:PHE:CD2	11:K:79:LEU:HB3	1.88	1.05
8:H:10:LYS:CE	8:H:17:ASP:H	1.67	1.05
6:F:46:ALA:O	6:F:47:LYS:HD2	1.54	1.05
25:Y:32:LYS:HG3	25:Y:33:ALA:H	1.11	1.05
19:S:11:HIS:CD2	19:S:23:ARG:NH2	2.24	1.05
10:J:89:GLU:N	10:J:92:MET:SD	2.29	1.05
18:R:20:TYR:OH	18:R:38:ILE:CB	2.02	1.05
8:H:23:ILE:HD13	8:H:27:LEU:HD23	1.34	1.05
22:V:24:ILE:CD1	22:V:25:GLY:N	2.18	1.05
25:Y:61:ARG:HH21	25:Y:61:ARG:CG	1.66	1.05
4:D:76:ARG:CD	11:K:66:HIS:HE1	1.63	1.05
19:S:120:HIS:CE1	19:S:124:ARG:NH2	2.25	1.05
17:Q:42:ILE:HD13	17:Q:51:LEU:HD22	1.33	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:211:VAL:CG2	18:R:38:ILE:C	2.24	1.05
4:D:176:LEU:HD12	4:D:176:LEU:N	1.68	1.05
11:K:96:ARG:HG3	11:K:97:SER:H	1.21	1.05
3:C:55:VAL:HB	6:F:34:SER:HB2	86.03	1.05
9:I:139:LYS:CB	9:I:145:ILE:CD1	2.34	1.05
24:X:139:GLU:C	24:X:141:PRO:HD3	1.76	1.05
2:B:31:TYR:CD1	2:B:94:LYS:HA	1.90	1.05
16:P:83:MET:HE3	16:P:116:LEU:HD11	1.38	1.05
16:P:10:ARG:HH21	16:P:11:THR:CG2	1.69	1.05
4:D:18:LYS:NZ	4:D:37:VAL:HG23	1.71	1.05
19:S:120:HIS:CD2	19:S:124:ARG:NE	2.23	1.05
6:F:42:LYS:HD3	6:F:42:LYS:N	1.39	1.05
17:Q:9:SER:CB	17:Q:26:LYS:CG	2.08	1.05
18:R:122:PRO:HA	18:R:123:THR:CG2	1.86	1.05
24:X:142:ARG:HH11	24:X:142:ARG:CG	1.64	1.05
13:M:94:ILE:CG2	13:M:95:ASP:N	2.17	1.05
25:Y:7:ILE:CD1	25:Y:43:LYS:HB3	1.86	1.05
20:T:89:PRO:O	20:T:91:HIS:NE2	1.90	1.05
22:V:78:ILE:HD13	22:V:79:VAL:H	1.14	1.05
1:A:11:LYS:CG	1:A:13:GLU:CG	2.35	1.05
3:C:76:SER:O	3:C:79:ILE:HG23	1.54	1.05
5:E:208:VAL:CG1	5:E:225:ILE:HD13	1.86	1.05
7:G:176:ILE:HB	7:G:179:LEU:CD2	1.86	1.05
19:S:39:ARG:NH2	20:T:38:LYS:NZ	1.80	1.05
25:Y:61:ARG:HG3	25:Y:61:ARG:HH21	0.91	1.05
11:K:14:LEU:CD2	11:K:35:LEU:HD22	1.80	1.05
16:P:123:TYR:CE2	19:S:120:HIS:NE2	2.25	1.05
19:S:120:HIS:CD2	19:S:124:ARG:HE	1.73	1.05
17:Q:9:SER:HB2	17:Q:26:LYS:CE	1.86	1.05
5:E:248:ILE:CG1	10:J:72:PHE:CE1	2.39	1.05
19:S:94:LYS:HB3	19:S:95:TYR:O	1.54	1.05
18:R:5:ARG:O	18:R:10:LYS:CE	2.05	1.05
3:C:142:LEU:CA	3:C:145:LEU:CD2	2.33	1.04
5:E:21:ASP:OD2	5:E:24:THR:HG21	1.52	1.04
12:L:10:TYR:CE2	12:L:12:LYS:HE3	1.92	1.04
12:L:40:ILE:HD11	12:L:68:ILE:HB	1.30	1.04
12:L:94:HIS:CB	12:L:105:ARG:HD2	1.86	1.04
24:X:128:VAL:HG13	24:X:128:VAL:O	1.51	1.04
10:J:37:LEU:HD21	10:J:42:GLU:CB	1.87	1.04
25:Y:21:LYS:HE2	25:Y:77:ASP:OD1	1.57	1.04
16:P:41:GLN:HG2	16:P:84:ILE:CG2	1.57	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:209:ASP:OD1	2:B:211:PHE:HZ	1.37	1.04
13:M:12:MET:HE1	13:M:17:ALA:O	1.57	1.04
2:B:19:LYS:O	2:B:21:VAL:CG1	2.05	1.04
23:W:90:GLN:HA	23:W:102:ILE:HD11	1.37	1.04
20:T:111:LYS:CB	20:T:126:GLN:NE2	2.20	1.04
21:U:18:HIS:HE1	21:U:98:VAL:CG2	1.69	1.04
9:I:110:ARG:HH21	9:I:124:LYS:HD3	1.20	1.04
9:I:142:SER:HB2	9:I:143:LYS:NZ	1.72	1.04
10:J:127:ARG:CG	10:J:127:ARG:HH11	1.66	1.04
12:L:149:ALA:HB3	12:L:156:GLN:HG2	1.33	1.04
25:Y:61:ARG:HD2	25:Y:61:ARG:N	1.70	1.04
25:Y:20:ARG:CD	25:Y:74:MET:HE2	1.86	1.04
11:K:3:MET:CE	11:K:8:ARG:CZ	2.30	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
6:F:47:LYS:HG3	17:Q:117:ARG:HH22	1.12	1.04
17:Q:58:LEU:CD2	17:Q:111:ILE:HD13	1.84	1.04
4:D:197:LYS:HB2	4:D:198:ILE:HG12	1.30	1.04
24:X:109:GLY:O	24:X:119:ARG:HD3	1.57	1.04
2:B:105:LEU:O	2:B:106:THR:HG23	1.57	1.04
3:C:149:PRO:HB2	3:C:233:TYR:CD2	1.93	1.04
9:I:48:VAL:HG22	9:I:52:ASN:O	1.57	1.04
24:X:95:GLU:CG	24:X:140:ARG:HH22	1.69	1.04
1:A:120:ARG:CD	3:C:251:TYR:HE2	1.68	1.04
10:J:110:LEU:HD12	10:J:130:ILE:CG1	1.87	1.04
12:L:157:LYS:C	12:L:158:PHE:HD2	1.56	1.04
12:L:4:ILE:H	12:L:4:ILE:CD1	1.68	1.04
14:N:38:TYR:HE2	14:N:74:ILE:HG22	1.21	1.04
4:D:34:TYR:CE1	21:U:61:LEU:HD22	27.23	1.04
17:Q:112:LEU:HD22	17:Q:119:LEU:CD1	1.85	1.04
15:O:55:ARG:O	15:O:56:VAL:HG12	1.57	1.04
12:L:158:PHE:N	12:L:158:PHE:HD2	1.56	1.04
22:V:17:CYS:HG	22:V:56:CYS:CB	1.70	1.04
20:T:31:PRO:HB3	20:T:33:TRP:CE2	1.91	1.04
11:K:40:VAL:HG22	11:K:41:PRO:O	1.56	1.04
21:U:50:VAL:HG21	21:U:52:GLY:CA	1.87	1.04
20:T:76:THR:O	20:T:95:GLY:N	1.90	1.04
6:F:45:TYR:O	6:F:47:LYS:HE2	1.56	1.04
17:Q:85:ARG:HH22	17:Q:117:ARG:HG2	1.19	1.04
25:Y:29:HIS:CE1	25:Y:67:GLY:CA	2.39	1.04
2:B:113:MET:SD	2:B:211:PHE:CE2	2.49	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:91:LEU:HB2	18:R:92:ASP:C	1.77	1.04
2:B:105:LEU:CD1	2:B:110:MET:CE	2.36	1.04
6:F:185:SER:HA	6:F:190:ILE:CG2	1.88	1.04
3:C:59:LYS:HG3	3:C:254:PHE:CD1	1.92	1.04
10:J:66:LYS:HA	10:J:71:LEU:HD11	1.37	1.04
7:G:70:HIS:HB2	7:G:103:ASP:OD2	1.56	1.04
8:H:145:ARG:HD2	23:W:51:GLU:CG	1.87	1.04
10:J:131:ARG:HD2	10:J:143:ASN:OD1	1.56	1.04
18:R:99:ASP:O	18:R:119:VAL:CG1	2.03	1.04
20:T:29:LYS:HA	20:T:29:LYS:HE3	1.38	1.04
16:P:123:TYR:CZ	19:S:124:ARG:NH1	2.11	1.04
10:J:88:ASP:O	10:J:91:LYS:HB2	1.56	1.04
15:O:56:VAL:CG1	15:O:81:VAL:HG22	1.83	1.04
14:N:127:ARG:O	14:N:131:THR:HG23	1.58	1.04
20:T:28:LEU:O	20:T:28:LEU:HD22	1.58	1.04
16:P:118:GLU:O	19:S:119:ALA:HB1	1.58	1.04
1:A:32:PHE:HE1	1:A:33:GLN:NE2	1.56	1.03
8:H:144:ILE:HB	23:W:52:ILE:HG22	1.09	1.03
18:R:105:MET:O	18:R:109:LEU:CD1	2.05	1.03
22:V:40:ASP:CB	22:V:47:ASN:ND2	2.21	1.03
8:H:83:LEU:HD22	8:H:92:VAL:HG11	1.09	1.03
10:J:18:ARG:HB2	10:J:21:GLU:OE2	1.57	1.03
25:Y:101:LYS:O	25:Y:102:THR:HG23	1.56	1.03
6:F:201:LYS:HD2	6:F:204:ARG:NH2	1.73	1.03
6:F:201:LYS:CD	6:F:204:ARG:HH21	1.71	1.03
7:G:121:ILE:HG23	7:G:122:PRO:HD3	1.09	1.03
10:J:110:LEU:HD12	10:J:130:ILE:HD13	1.36	1.03
10:J:122:SER:OG	10:J:124:HIS:HB2	1.57	1.03
2:B:25:PHE:CD2	15:O:88:LEU:CD1	2.40	1.03
21:U:50:VAL:HG21	21:U:52:GLY:HA2	1.05	1.03
8:H:146:VAL:CG1	23:W:42:MET:SD	2.46	1.03
8:H:146:VAL:HG12	23:W:42:MET:SD	1.98	1.03
6:F:42:LYS:HD3	6:F:42:LYS:H	0.88	1.03
6:F:42:LYS:C	6:F:44:LYS:H	1.32	1.03
9:I:21:TYR:CE2	9:I:22:HIS:CD2	2.47	1.03
3:C:126:MET:HE1	3:C:223:LYS:HD2	1.37	1.03
16:P:127:LYS:HZ2	16:P:128:HIS:N	1.55	1.03
4:D:218:LEU:HG	4:D:220:THR:HG23	1.05	1.03
19:S:61:GLU:O	19:S:64:VAL:CG2	2.05	1.03
20:T:84:ARG:HH21	20:T:84:ARG:HG3	1.22	1.03
17:Q:100:VAL:HG12	17:Q:101:ASP:N	1.68	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:107:ARG:O	24:X:110:HIS:CE1	2.12	1.03
18:R:42:PRO:HD2	18:R:43:SER:H	1.22	1.03
6:F:59:LYS:HD3	6:F:62:ARG:HD3	1.36	1.03
10:J:130:ILE:HG12	10:J:135:ILE:HD13	1.36	1.03
11:K:60:GLU:OE2	11:K:67:PHE:HD1	1.38	1.03
8:H:10:LYS:HE3	8:H:17:ASP:N	1.72	1.03
6:F:14:THR:HG21	17:Q:56:LEU:CD1	1.88	1.03
17:Q:112:LEU:HD22	17:Q:119:LEU:HD13	1.04	1.03
17:Q:76:GLY:O	17:Q:80:GLN:HG3	1.56	1.03
23:W:129:PHE:HD1	23:W:129:PHE:O	1.40	1.03
2:B:47:THR:HG21	2:B:67:PHE:CZ	1.94	1.03
7:G:27:PHE:CZ	7:G:41:LEU:HD12	1.94	1.03
7:G:65:GLN:HA	7:G:100:CYS:SG	1.98	1.03
11:K:4:PRO:HG2	11:K:7:ASN:HB2	1.37	1.03
19:S:117:ILE:O	19:S:118:ARG:CG	2.07	1.03
4:D:196:GLY:N	4:D:197:LYS:HA	1.58	1.03
10:J:89:GLU:HA	10:J:92:MET:SD	1.95	1.03
3:C:101:THR:CG2	3:C:104:GLY:O	2.06	1.03
1:A:205:ARG:HG2	1:A:206:ASP:N	1.71	1.03
17:Q:30:GLY:HA2	17:Q:66:VAL:O	1.55	1.03
26:Z:64:ASN:O	26:Z:111:ARG:NH2	1.89	1.03
9:I:154:LYS:HD3	9:I:155:ASN:N	1.72	1.03
14:N:54:LEU:HB3	14:N:60:VAL:HG21	1.39	1.03
21:U:49:LYS:O	21:U:50:VAL:HG12	1.56	1.03
17:Q:85:ARG:HH12	17:Q:117:ARG:HG2	1.18	1.03
25:Y:36:PRO:CG	25:Y:39:GLU:CG	2.36	1.03
6:F:167:LYS:CD	6:F:171:GLU:CG	2.37	1.03
2:B:147:ASN:O	18:R:124:VAL:HG21	1.57	1.03
24:X:142:ARG:HH11	24:X:142:ARG:HB2	1.18	1.03
23:W:128:PHE:CE1	23:W:130:PHE:CE2	2.45	1.03
3:C:234:SER:O	22:V:23:ILE:CD1	2.06	1.03
1:A:145:ILE:HA	1:A:159:ILE:HG22	1.41	1.02
7:G:121:ILE:HG23	7:G:122:PRO:HD2	1.39	1.02
16:P:10:ARG:NE	16:P:11:THR:H	1.57	1.02
20:T:77:LYS:CG	20:T:92:PHE:CZ	2.33	1.02
8:H:40:LEU:HD23	8:H:43:LEU:CD1	1.81	1.02
6:F:25:THR:HG23	6:F:41:VAL:CG2	1.89	1.02
16:P:33:LEU:CD2	16:P:87:PRO:HD2	1.84	1.02
18:R:122:PRO:HB3	18:R:123:THR:HG21	1.40	1.02
4:D:112:GLY:CA	4:D:113:LEU:HD12	1.89	1.02
13:M:12:MET:HG3	13:M:16:THR:HG23	1.10	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:105:LEU:HD23	4:D:184:ILE:HD12	1.04	1.02
18:R:90:ALA:HB1	18:R:92:ASP:OD2	1.57	1.02
20:T:144:LYS:HB2	20:T:144:LYS:NZ	1.71	1.02
17:Q:100:VAL:CG1	17:Q:101:ASP:H	1.72	1.02
2:B:131:ASP:OD2	2:B:180:ASP:HB2	1.57	1.02
10:J:110:LEU:CD1	10:J:130:ILE:HD13	1.84	1.02
22:V:40:ASP:HB3	22:V:47:ASN:ND2	1.74	1.02
8:H:144:ILE:CB	23:W:52:ILE:HG23	1.86	1.02
10:J:127:ARG:HH12	10:J:145:PRO:HB2	1.23	1.02
16:P:53:GLN:HG2	16:P:80:LEU:HD12	1.38	1.02
17:Q:19:ALA:HB2	17:Q:74:GLY:C	1.78	1.02
17:Q:47:LEU:HD22	17:Q:81:ILE:HD12	1.26	1.02
26:Z:80:ARG:HG2	26:Z:82:SER:OG	1.56	1.02
3:C:101:THR:HG23	3:C:103:ALA:O	1.59	1.02
16:P:127:LYS:HB2	16:P:127:LYS:NZ	1.64	1.02
25:Y:92:ALA:CA	25:Y:97:TYR:HB3	1.89	1.02
5:E:120:LYS:O	5:E:164:LEU:HB2	1.60	1.02
5:E:70:ILE:HG12	5:E:92:ILE:HD13	1.37	1.02
16:P:41:GLN:HG3	16:P:84:ILE:CG2	1.65	1.02
6:F:42:LYS:C	6:F:42:LYS:HE3	1.78	1.02
2:B:137:LEU:HD22	2:B:215:VAL:HG22	1.04	1.02
7:G:63:MET:HE3	7:G:106:LEU:CD1	1.89	1.02
15:O:99:ALA:H	15:O:133:THR:HG22	0.85	1.02
19:S:39:ARG:HD3	20:T:38:LYS:CE	1.88	1.02
16:P:5:GLU:N	16:P:10:ARG:HH11	1.56	1.02
11:K:11:ILE:HG23	11:K:49:MET:CE	1.84	1.02
8:H:83:LEU:HD13	8:H:92:VAL:CB	1.86	1.02
6:F:44:LYS:HB3	6:F:45:TYR:HE1	1.09	1.02
6:F:91:ARG:HH12	6:F:94:LYS:CG	1.72	1.02
25:Y:32:LYS:CG	25:Y:33:ALA:N	2.13	1.02
25:Y:63:HIS:ND1	25:Y:64:PHE:HE1	1.58	1.02
5:E:248:ILE:O	10:J:72:PHE:HE1	1.42	1.02
3:C:155:TRP:CZ2	23:W:97:ARG:HD2	1.95	1.02
4:D:212:GLU:CB	18:R:19:LYS:CD	2.37	1.02
18:R:91:LEU:HB2	18:R:93:GLN:N	1.74	1.02
16:P:62:LYS:HG3	16:P:65:LYS:HE2	1.40	1.02
8:H:169:LYS:HB2	8:H:173:PHE:CE2	1.94	1.02
16:P:53:GLN:CD	16:P:80:LEU:HD13	1.79	1.02
4:D:21:LEU:HD11	4:D:48:ILE:CD1	1.90	1.02
8:H:16:PRO:HA	8:H:17:ASP:HB2	1.39	1.02
25:Y:29:HIS:ND1	25:Y:67:GLY:C	2.13	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:103:LEU:CD2	6:F:178:ILE:CD1	2.23	1.02
5:E:128:LYS:HD3	5:E:130:PHE:HE1	0.95	1.02
3:C:151:ARG:HH12	3:C:240:LEU:HD11	0.88	1.02
18:R:91:LEU:HD13	18:R:92:ASP:HA	1.38	1.02
15:O:56:VAL:CG1	15:O:81:VAL:HG23	1.87	1.02
1:A:118:GLU:OE1	3:C:50:LYS:NZ	1.91	1.01
2:B:52:THR:HG21	14:N:53:ILE:HD12	83.41	1.01
1:A:85:ARG:HH21	1:A:201:LEU:HD12	1.21	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
20:T:30:VAL:O	20:T:30:VAL:HG23	1.54	1.01
19:S:12:ILE:O	19:S:12:ILE:HG22	1.60	1.01
16:P:108:LYS:HB3	16:P:110:GLU:OE1	1.60	1.01
9:I:7:ASN:O	9:I:9:HIS:O	1.78	1.01
1:A:188:THR:HG23	1:A:188:THR:O	1.57	1.01
1:A:145:ILE:HD13	1:A:159:ILE:HG21	1.40	1.01
7:G:32:MET:SD	7:G:100:CYS:HA	1.99	1.01
14:N:27:LYS:H	14:N:27:LYS:CE	1.73	1.01
24:X:139:GLU:O	24:X:141:PRO:HD3	1.60	1.01
1:A:66:VAL:HG13	1:A:186:ARG:CD	1.91	1.01
2:B:48:LEU:HD12	2:B:48:LEU:H	1.22	1.01
2:B:87:ILE:HG21	2:B:101:HIS:CD2	1.95	1.01
17:Q:93:VAL:HG13	17:Q:105:LYS:HE2	1.31	1.01
25:Y:36:PRO:HG2	25:Y:39:GLU:HG3	1.36	1.01
10:J:79:ARG:NH1	10:J:83:ARG:CZ	2.23	1.01
4:D:218:LEU:HD23	4:D:218:LEU:O	1.59	1.01
21:U:18:HIS:HE1	21:U:98:VAL:HG21	1.23	1.01
2:B:179:ASN:CG	2:B:183:GLU:OE1	1.98	1.01
1:A:118:GLU:OE1	3:C:50:LYS:CE	2.08	1.01
1:A:11:LYS:HD3	1:A:13:GLU:HG3	1.42	1.01
6:F:63:LYS:HD3	6:F:71:ARG:NH1	1.67	1.01
7:G:76:LEU:HD22	7:G:92:ARG:HG2	1.05	1.01
11:K:83:LEU:O	11:K:84:HIS:CG	2.12	1.01
6:F:47:LYS:CG	17:Q:117:ARG:HH22	1.72	1.01
4:D:112:GLY:C	4:D:113:LEU:CD1	2.28	1.01
3:C:195:PRO:CG	3:C:221:PHE:CZ	2.44	1.01
8:H:23:ILE:HD13	8:H:27:LEU:CD2	1.89	1.01
8:H:144:ILE:HD12	23:W:52:ILE:HG21	1.05	1.01
12:L:95:TYR:HA	12:L:102:PHE:CB	1.89	1.01
1:A:10:MET:SD	1:A:10:MET:N	2.30	1.01
12:L:7:GLU:CG	12:L:8:ARG:H	1.71	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:20:ARG:HD3	25:Y:76:TYR:CZ	1.95	1.01
6:F:42:LYS:CE	6:F:42:LYS:C	2.29	1.01
2:B:113:MET:CE	2:B:209:ASP:CG	2.29	1.01
18:R:5:ARG:CB	18:R:10:LYS:HZ3	1.72	1.01
2:B:105:LEU:HD11	2:B:213:ARG:CB	1.89	1.01
10:J:100:LEU:HG	10:J:101:LYS:N	1.73	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
3:C:59:LYS:HG3	3:C:254:PHE:CE1	1.94	1.01
5:E:70:ILE:HG12	5:E:92:ILE:HD11	1.03	1.01
1:A:66:VAL:CG2	1:A:186:ARG:HD3	1.90	1.01
11:K:15:LEU:HD13	11:K:21:MET:HE2	1.39	1.01
17:Q:114:GLN:HG3	17:Q:115:TYR:H	1.20	1.01
10:J:89:GLU:CA	10:J:92:MET:CB	2.36	1.01
13:M:12:MET:HG3	13:M:16:THR:CG2	1.90	1.01
18:R:5:ARG:CB	18:R:10:LYS:NZ	2.22	1.01
4:D:212:GLU:CG	18:R:19:LYS:HD3	1.90	1.01
1:A:24:HIS:HD2	1:A:48:ILE:HG23	1.25	1.00
1:A:97:THR:CG2	1:A:98:PRO:CD	2.37	1.00
15:O:54:CYS:SG	15:O:84:ARG:HB3	2.01	1.00
11:K:83:LEU:CD1	11:K:85:LEU:CD2	2.38	1.00
17:Q:93:VAL:HG13	17:Q:105:LYS:HD3	1.41	1.00
19:S:46:ARG:CG	20:T:50:GLU:OE2	2.09	1.00
4:D:212:GLU:CG	18:R:19:LYS:HD2	1.88	1.00
3:C:234:SER:HA	22:V:23:ILE:HD12	1.38	1.00
17:Q:100:VAL:HG12	17:Q:101:ASP:H	0.86	1.00
1:A:24:HIS:CD2	1:A:48:ILE:HG23	1.95	1.00
12:L:4:ILE:H	12:L:4:ILE:HD12	1.12	1.00
5:E:139:LEU:CD1	5:E:154:ILE:HG21	1.90	1.00
7:G:121:ILE:CG2	7:G:122:PRO:HD3	1.91	1.00
14:N:21:SER:O	14:N:22:VAL:HG22	1.61	1.00
16:P:53:GLN:HE21	16:P:80:LEU:HD13	1.26	1.00
16:P:44:ARG:NH2	16:P:84:ILE:N	2.09	1.00
11:K:2:LEU:O	11:K:3:MET:HB3	1.58	1.00
6:F:42:LYS:H	6:F:42:LYS:CD	1.73	1.00
25:Y:36:PRO:HG2	25:Y:39:GLU:CB	1.91	1.00
5:E:128:LYS:CD	5:E:130:PHE:CE1	2.45	1.00
4:D:157:MET:HE1	4:D:187:LYS:HD3	1.01	1.00
3:C:131:GLU:HG3	4:D:116:ARG:HH22	1.21	1.00
4:D:176:LEU:CD1	4:D:176:LEU:H	1.72	1.00
14:N:132:LYS:HE3	14:N:132:LYS:HA	1.01	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:186:ARG:HG2	1:A:186:ARG:NH1	1.67	1.00
4:D:76:ARG:HD3	11:K:66:HIS:HE1	1.25	1.00
21:U:50:VAL:HG22	21:U:51:LYS:O	1.60	1.00
16:P:111:MET:O	16:P:114:HIS:CD2	2.15	1.00
25:Y:99:LYS:CA	25:Y:99:LYS:CE	2.39	1.00
13:M:100:PRO:O	13:M:101:ARG:HD2	1.61	1.00
20:T:40:ALA:HB3	20:T:43:LYS:HG2	1.01	1.00
13:M:70:ALA:HB3	13:M:71:GLU:OE2	1.61	1.00
7:G:142:ARG:HG3	7:G:142:ARG:HH11	1.26	1.00
9:I:144:LYS:O	9:I:145:ILE:CG1	2.09	1.00
12:L:95:TYR:CA	12:L:102:PHE:HB3	1.89	1.00
22:V:41:LYS:O	22:V:43:THR:N	1.94	1.00
20:T:31:PRO:CB	20:T:33:TRP:CZ2	2.42	1.00
4:D:43:PRO:O	4:D:44:THR:HG23	1.58	1.00
11:K:83:LEU:CG	11:K:85:LEU:HD21	1.90	1.00
4:D:192:TRP:CE3	4:D:196:GLY:HA2	1.72	1.00
26:Z:52:LYS:O	26:Z:55:TYR:N	1.94	1.00
16:P:127:LYS:HZ3	16:P:127:LYS:HB2	0.87	1.00
19:S:16:LEU:O	19:S:17:ASN:CG	2.00	1.00
2:B:19:LYS:O	2:B:21:VAL:HG13	1.61	1.00
2:B:125:VAL:HG11	2:B:173:THR:HG22	1.43	1.00
21:U:64:THR:HG22	21:U:79:ARG:CG	1.91	1.00
16:P:84:ILE:O	16:P:86:LEU:HD23	1.59	1.00
4:D:2:ALA:CB	4:D:3:VAL:C	2.29	1.00
4:D:177:LEU:HD22	4:D:182:LEU:HD23	1.43	1.00
12:L:147:LYS:CG	12:L:148:ALA:CA	2.29	1.00
25:Y:18:LEU:CG	25:Y:20:ARG:NH1	2.25	1.00
4:D:59:LEU:CD1	4:D:60:GLY:N	2.23	1.00
11:K:21:MET:HE1	11:K:49:MET:SD	1.95	1.00
11:K:62:PHE:HD1	11:K:67:PHE:CE2	1.76	1.00
18:R:13:ALA:CB	18:R:54:VAL:HG22	1.92	1.00
21:U:19:ARG:HG3	21:U:92:HIS:CE1	1.95	1.00
1:A:43:SER:C	1:A:44:ASP:OD1	1.99	1.00
8:H:163:GLN:OE1	8:H:189:PHE:HE2	1.38	1.00
10:J:39:ASN:H	10:J:42:GLU:HG2	1.26	1.00
20:T:103:VAL:O	20:T:107:LEU:HG	1.62	1.00
3:C:197:LYS:CA	3:C:200:LEU:HD23	1.81	1.00
25:Y:60:PHE:C	25:Y:61:ARG:HD2	1.82	1.00
24:X:114:ASP:O	24:X:116:PRO:CD	2.10	1.00
2:B:136:HIS:CE1	2:B:138:PHE:CZ	2.49	1.00
2:B:55:THR:O	2:B:56:LYS:HD2	1.62	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:185:MET:HE1	22:V:39:VAL:HG12	1.41	0.99
22:V:9:VAL:HG12	22:V:10:ASP:N	1.77	0.99
7:G:14:LYS:HZ2	7:G:123:GLY:CA	1.71	0.99
10:J:127:ARG:HG3	10:J:127:ARG:NH1	1.55	0.99
10:J:170:PRO:HB2	10:J:174:LYS:HE2	1.42	0.99
12:L:7:GLU:HG3	12:L:8:ARG:H	1.26	0.99
22:V:24:ILE:HG23	22:V:24:ILE:O	1.59	0.99
16:P:9:LYS:C	16:P:10:ARG:HG3	1.82	0.99
11:K:62:PHE:CE1	11:K:67:PHE:CE2	2.50	0.99
17:Q:9:SER:HB3	17:Q:26:LYS:HG2	1.40	0.99
16:P:46:SER:O	16:P:49:LEU:HD22	1.61	0.99
9:I:161:LEU:CD1	9:I:199:LEU:HD12	1.85	0.99
5:E:49:ARG:CD	5:E:49:ARG:C	2.30	0.99
9:I:154:LYS:C	9:I:154:LYS:CE	2.29	0.99
25:Y:21:LYS:N	25:Y:21:LYS:HD3	1.74	0.99
4:D:2:ALA:HB1	4:D:3:VAL:C	1.82	0.99
16:P:127:LYS:HZ3	16:P:127:LYS:CB	1.74	0.99
24:X:60:LYS:CE	24:X:116:PRO:HG3	1.92	0.99
7:G:25:ARG:CG	7:G:28:TYR:CE2	2.45	0.99
15:O:19:PRO:HG2	15:O:27:VAL:HG21	1.01	0.99
24:X:71:ARG:HE	24:X:82:THR:CG2	1.75	0.99
17:Q:50:LYS:NZ	17:Q:85:ARG:HH22	1.58	0.99
3:C:155:TRP:CZ2	23:W:97:ARG:CD	2.45	0.99
9:I:79:ILE:HG22	9:I:103:LEU:O	1.62	0.99
10:J:117:LEU:O	10:J:119:LEU:HD23	1.62	0.99
14:N:21:SER:O	14:N:22:VAL:HG13	1.61	0.99
1:A:57:LYS:CE	22:V:70:LEU:CD1	2.41	0.99
16:P:9:LYS:O	16:P:10:ARG:CG	2.11	0.99
25:Y:35:VAL:HG12	25:Y:36:PRO:HD2	1.42	0.99
25:Y:64:PHE:N	25:Y:64:PHE:CD1	2.29	0.99
2:B:205:TYR:CG	2:B:206:PRO:HD2	1.98	0.99
18:R:20:TYR:CE2	18:R:38:ILE:HB	1.96	0.99
9:I:206:LYS:HD2	9:I:207:GLY:H	1.24	0.99
12:L:10:TYR:HE2	12:L:12:LYS:HE3	1.27	0.99
8:H:138:GLU:OE2	14:N:19:ARG:CB	2.09	0.99
16:P:46:SER:O	16:P:49:LEU:CD2	2.11	0.99
25:Y:13:MET:HE2	25:Y:14:THR:C	1.83	0.99
1:A:118:GLU:OE1	3:C:50:LYS:HE2	1.62	0.99
7:G:176:ILE:HG22	7:G:179:LEU:CB	1.91	0.99
9:I:139:LYS:CB	9:I:145:ILE:HD11	1.93	0.99
15:O:54:CYS:SG	15:O:84:ARG:CB	2.51	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:14:ARG:HH12	19:S:17:ASN:HA	0.84	0.99
1:A:127:PRO:HG2	1:A:153:PRO:HD2	1.42	0.99
1:A:24:HIS:NE2	18:R:105:MET:CE	2.24	0.99
8:H:144:ILE:HD12	23:W:52:ILE:HD13	1.42	0.99
12:L:147:LYS:HG3	12:L:148:ALA:HA	1.23	0.99
18:R:100:PRO:HB2	18:R:119:VAL:CG2	1.91	0.99
25:Y:48:TYR:O	25:Y:50:THR:HG23	1.61	0.99
21:U:50:VAL:HG13	21:U:51:LYS:N	1.74	0.99
21:U:50:VAL:CG2	21:U:52:GLY:HA2	1.91	0.99
24:X:27:TYR:CD1	24:X:31:HIS:NE2	2.30	0.99
16:P:107:ILE:HA	16:P:111:MET:SD	2.01	0.99
16:P:127:LYS:HE3	16:P:127:LYS:O	1.61	0.99
6:F:73:THR:CG2	6:F:93:VAL:HG21	1.92	0.99
21:U:51:LYS:HB2	21:U:90:ASP:HB2	1.41	0.99
16:P:123:TYR:OH	19:S:124:ARG:CZ	2.11	0.99
24:X:29:LYS:CD	24:X:34:THR:OG1	2.11	0.99
5:E:70:ILE:CG1	5:E:92:ILE:HD11	1.84	0.99
7:G:63:MET:HE1	7:G:106:LEU:CD1	1.87	0.99
15:O:31:CYS:CB	15:O:95:ILE:HG12	1.92	0.99
1:A:205:ARG:CG	1:A:206:ASP:N	2.23	0.99
7:G:216:ARG:O	7:G:220:ALA:N	1.95	0.98
7:G:50:VAL:HG13	7:G:111:LEU:HB3	1.45	0.98
17:Q:7:LEU:CD2	17:Q:8:GLN:OE1	2.11	0.98
4:D:132:LYS:N	4:D:191:PRO:CD	2.24	0.98
6:F:20:PHE:O	6:F:22:LYS:CA	2.10	0.98
16:P:52:LYS:H	16:P:54:HIS:CD2	1.81	0.98
10:J:92:MET:O	10:J:93:LYS:CE	2.10	0.98
1:A:205:ARG:NH2	18:R:82:ASP:CA	1.90	0.98
2:B:20:LYS:C	2:B:21:VAL:CG1	2.29	0.98
9:I:141:ARG:HD3	9:I:144:LYS:CB	1.92	0.98
25:Y:114:MET:CA	25:Y:124:ASN:ND2	2.25	0.98
6:F:93:VAL:O	6:F:97:PHE:HD1	1.41	0.98
17:Q:9:SER:HB2	17:Q:26:LYS:HE3	1.01	0.98
19:S:8:LYS:HD3	19:S:9:PHE:HE1	0.84	0.98
2:B:113:MET:HE3	2:B:209:ASP:CG	1.82	0.98
1:A:32:PHE:CE1	1:A:33:GLN:NE2	2.28	0.98
3:C:55:VAL:CG2	3:C:82:PHE:CE2	2.46	0.98
12:L:10:TYR:HD2	12:L:12:LYS:NZ	1.54	0.98
4:D:21:LEU:HD11	4:D:48:ILE:HD12	1.01	0.98
20:T:76:THR:HB	20:T:95:GLY:O	1.61	0.98
6:F:91:ARG:HH11	6:F:94:LYS:HB2	1.06	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:20:LYS:O	12:L:21:LYS:HB2	1.62	0.98
19:S:6:PRO:HA	26:Z:50:PHE:CB	1.93	0.98
11:K:18:GLU:O	11:K:92:ALA:HB3	1.60	0.98
2:B:137:LEU:HD23	2:B:215:VAL:HG13	1.44	0.98
7:G:32:MET:HE2	7:G:63:MET:SD	2.03	0.98
26:Z:48:VAL:O	26:Z:83:LEU:CD1	2.12	0.98
19:S:14:ARG:NH1	19:S:17:ASN:CA	2.25	0.98
2:B:137:LEU:CB	2:B:172:MET:HE1	1.94	0.98
12:L:35:ARG:HH21	12:L:63:THR:HG21	1.26	0.98
6:F:14:THR:HB	17:Q:56:LEU:HD13	1.43	0.98
6:F:42:LYS:C	6:F:42:LYS:CD	2.29	0.98
25:Y:63:HIS:ND1	25:Y:64:PHE:CE1	2.30	0.98
2:B:179:ASN:OD1	2:B:183:GLU:OE1	1.80	0.98
6:F:122:ARG:NE	6:F:193:LYS:NZ	2.10	0.98
9:I:141:ARG:CG	9:I:144:LYS:CB	2.37	0.98
10:J:165:TYR:N	10:J:165:TYR:HD1	1.60	0.98
8:H:93:VAL:HG22	8:H:94:PHE:H	1.28	0.98
17:Q:21:ALA:HB2	17:Q:72:VAL:HG22	1.45	0.98
10:J:138:ARG:HH11	10:J:156:HIS:CE1	1.79	0.98
3:C:234:SER:CA	22:V:23:ILE:CD1	2.41	0.98
20:T:143:LYS:HD2	20:T:144:LYS:H	1.26	0.98
1:A:185:MET:O	1:A:186:ARG:C	2.01	0.98
9:I:118:ALA:O	9:I:119:LEU:HD23	1.61	0.98
12:L:22:ARG:NH1	12:L:22:ARG:HB3	1.79	0.98
2:B:67:PHE:CE1	15:O:47:LEU:C	2.37	0.98
23:W:11:LEU:HD12	23:W:74:VAL:HB	1.45	0.98
5:E:47:PHE:CE2	5:E:52:LEU:CD1	2.46	0.98
6:F:112:LEU:HD23	6:F:116:ILE:HD11	1.45	0.98
2:B:57:ILE:O	2:B:57:ILE:HG23	1.62	0.98
5:E:61:VAL:O	5:E:65:CYS:SG	2.22	0.98
20:T:31:PRO:HB3	20:T:33:TRP:CH2	1.97	0.98
6:F:42:LYS:HE3	6:F:43:GLU:N	1.78	0.98
4:D:193:ASP:HA	4:D:202:LYS:O	1.61	0.98
4:D:105:LEU:HD23	4:D:184:ILE:CD1	1.92	0.98
23:W:85:ASP:O	23:W:89:TRP:HD1	1.47	0.98
9:I:19:LYS:HE2	9:I:20:PRO:HD2	1.39	0.98
2:B:68:GLU:OE2	2:B:83:LYS:HE2	1.64	0.98
5:E:153:LEU:HD23	7:G:216:ARG:NH2	1.77	0.98
7:G:41:LEU:CD2	7:G:45:TRP:CE3	2.27	0.98
7:G:84:TYR:CE2	7:G:86:PRO:HG3	1.99	0.98
12:L:156:GLN:OE1	12:L:158:PHE:HE2	1.35	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:34:GLU:O	11:K:35:LEU:CB	2.11	0.98
10:J:138:ARG:NH1	10:J:156:HIS:CG	2.31	0.98
6:F:136:ARG:O	6:F:203:ASN:HB3	1.62	0.98
6:F:18:LYS:HE3	17:Q:115:TYR:CD1	1.96	0.98
6:F:91:ARG:HH11	6:F:94:LYS:HB3	1.23	0.98
17:Q:42:ILE:HD13	17:Q:51:LEU:CG	1.93	0.98
1:A:66:VAL:CG1	1:A:186:ARG:HB3	1.92	0.97
4:D:158:ILE:HD11	4:D:189:MET:HE1	0.99	0.97
16:P:41:GLN:HE22	16:P:45:LEU:HG	0.81	0.97
2:B:87:ILE:CD1	2:B:101:HIS:HD2	1.74	0.97
13:M:13:ASP:O	13:M:16:THR:N	1.97	0.97
1:A:17:LYS:N	1:A:17:LYS:HE2	1.79	0.97
2:B:36:PRO:HB3	2:B:231:LEU:HD21	1.00	0.97
10:J:161:LEU:O	10:J:162:ARG:CB	1.96	0.97
10:J:165:TYR:N	10:J:165:TYR:CD1	2.27	0.97
12:L:80:MET:SD	12:L:120:VAL:HG12	2.04	0.97
19:S:31:THR:HA	19:S:36:VAL:HG22	1.44	0.97
4:D:108:LYS:HB3	4:D:113:LEU:HD22	1.41	0.97
7:G:176:ILE:HB	7:G:179:LEU:HD23	1.00	0.97
13:M:89:VAL:HG21	13:M:109:VAL:HG11	1.46	0.97
7:G:64:LYS:CD	7:G:67:VAL:HG13	1.94	0.97
12:L:97:ARG:O	12:L:99:TYR:N	1.97	0.97
1:A:43:SER:OG	18:R:101:ASP:OD2	1.82	0.97
16:P:41:GLN:CG	16:P:84:ILE:CG1	2.15	0.97
4:D:48:ILE:CG2	4:D:86:LEU:HG	1.94	0.97
2:B:20:LYS:O	2:B:21:VAL:CG1	2.12	0.97
20:T:143:LYS:O	20:T:144:LYS:HB3	1.62	0.97
10:J:100:LEU:HD12	10:J:104:ASP:OD2	1.62	0.97
1:A:16:LEU:HD22	18:R:111:PHE:CE1	1.98	0.97
4:D:21:LEU:CD1	4:D:48:ILE:CD1	2.42	0.97
4:D:46:THR:OG1	4:D:79:PHE:HZ	1.29	0.97
5:E:248:ILE:C	10:J:72:PHE:HE1	1.67	0.97
26:Z:44:LEU:CD1	26:Z:44:LEU:C	2.30	0.97
1:A:205:ARG:NH2	18:R:82:ASP:HA	1.32	0.97
4:D:126:ILE:CD1	4:D:134:CYS:SG	2.52	0.97
3:C:110:LYS:HE2	3:C:112:PHE:HZ	1.15	0.97
22:V:18:SER:OG	22:V:72:LEU:CD1	2.13	0.97
19:S:85:ASN:OD1	19:S:97:GLN:HA	1.65	0.97
14:N:22:VAL:CB	14:N:23:PRO:HA	1.95	0.97
22:V:19:ALA:HB3	22:V:59:ILE:CD1	1.95	0.97
25:Y:63:HIS:CB	25:Y:64:PHE:CE1	2.47	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:120:THR:O	18:R:121:GLN:HB2	1.61	0.97
13:M:12:MET:CG	13:M:16:THR:HG23	1.95	0.97
21:U:18:HIS:ND1	21:U:93:SER:O	1.98	0.97
2:B:31:TYR:HD1	2:B:94:LYS:HA	1.26	0.97
5:E:86:PHE:HZ	5:E:182:MET:HE3	1.25	0.97
9:I:154:LYS:C	9:I:154:LYS:CD	2.30	0.97
24:X:51:VAL:HG13	24:X:70:VAL:HG13	1.47	0.97
11:K:27:VAL:HG13	11:K:43:LEU:HD21	1.43	0.97
21:U:40:ILE:HD11	21:U:53:PRO:CB	1.94	0.97
17:Q:50:LYS:HA	17:Q:53:GLU:CD	1.85	0.97
16:P:118:GLU:O	19:S:119:ALA:CB	2.11	0.97
1:A:94:THR:HG21	1:A:182:VAL:HG21	1.45	0.97
3:C:115:ILE:HD11	3:C:140:ILE:HG23	1.45	0.97
3:C:50:LYS:HD3	3:C:251:TYR:CE1	1.97	0.97
6:F:122:ARG:HE	6:F:193:LYS:HZ1	1.10	0.97
25:Y:18:LEU:CG	25:Y:20:ARG:HH11	1.76	0.97
17:Q:92:LEU:CG	17:Q:96:TYR:HE2	1.77	0.97
10:J:110:LEU:CD1	10:J:130:ILE:HD11	1.78	0.97
8:H:83:LEU:HD11	8:H:92:VAL:CB	1.92	0.97
6:F:25:THR:HG23	6:F:41:VAL:HG23	1.41	0.97
5:E:248:ILE:CD1	10:J:72:PHE:CD1	2.44	0.97
25:Y:7:ILE:CD1	25:Y:43:LYS:HG2	1.94	0.97
8:H:147:LYS:HE2	8:H:153:LEU:HD12	1.46	0.97
7:G:188:LYS:HA	7:G:191:ARG:HD3	1.44	0.96
9:I:141:ARG:CD	9:I:144:LYS:HB2	1.88	0.96
4:D:18:LYS:HZ2	4:D:37:VAL:HG23	1.21	0.96
11:K:65:ARG:HH11	11:K:65:ARG:CB	1.76	0.96
19:S:26:ILE:HD11	19:S:59:LEU:HD21	1.46	0.96
19:S:46:ARG:CZ	20:T:50:GLU:CG	2.44	0.96
13:M:76:LEU:O	13:M:128:PHE:CZ	2.18	0.96
20:T:75:MET:CE	20:T:79:TYR:HE2	1.77	0.96
8:H:36:LEU:C	8:H:36:LEU:CD1	2.29	0.96
6:F:42:LYS:N	6:F:42:LYS:CD	2.28	0.96
11:K:98:ARG:HH11	11:K:98:ARG:HG2	1.26	0.96
1:A:119:PRO:HG2	1:A:142:LEU:HD13	1.44	0.96
7:G:32:MET:HE1	7:G:100:CYS:HA	0.99	0.96
9:I:142:SER:HB2	9:I:143:LYS:HZ3	1.26	0.96
24:X:52:LEU:CD2	24:X:71:ARG:HB3	1.94	0.96
6:F:73:THR:HG22	6:F:93:VAL:CG2	1.93	0.96
8:H:10:LYS:HZ1	8:H:17:ASP:N	1.63	0.96
8:H:122:LEU:HD13	8:H:123:THR:CA	1.95	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:29:LYS:CD	24:X:34:THR:HG21	1.94	0.96
6:F:185:SER:CA	6:F:190:ILE:HG21	1.95	0.96
9:I:136:ILE:HG22	9:I:139:LYS:HE3	1.48	0.96
10:J:170:PRO:CG	10:J:175:ARG:HG2	1.93	0.96
12:L:7:GLU:HG3	12:L:8:ARG:N	1.78	0.96
17:Q:8:GLN:HG2	17:Q:99:TYR:CE1	1.84	0.96
8:H:8:ILE:HG23	8:H:9:VAL:HG22	0.98	0.96
17:Q:58:LEU:HD13	17:Q:108:ILE:HG23	1.45	0.96
16:P:59:ARG:HD3	16:P:76:VAL:HG13	1.47	0.96
26:Z:92:LEU:HD11	26:Z:109:TYR:CE1	2.00	0.96
5:E:130:PHE:HB3	5:E:138:HIS:CE1	2.00	0.96
13:M:77:ILE:HG23	13:M:78:LYS:H	1.27	0.96
20:T:84:ARG:HH21	20:T:84:ARG:CB	1.77	0.96
25:Y:7:ILE:CD1	25:Y:43:LYS:CB	2.44	0.96
4:D:67:ARG:HG3	4:D:67:ARG:HH11	1.28	0.96
21:U:67:LYS:CE	21:U:78:ASP:OD1	2.13	0.96
6:F:25:THR:HG22	6:F:42:LYS:HD2	0.97	0.96
2:B:153:THR:HG23	2:B:154:SER:N	1.79	0.96
9:I:161:LEU:HD11	9:I:199:LEU:HD12	0.99	0.96
18:R:22:THR:HG22	18:R:73:LEU:CD1	1.95	0.96
24:X:74:LEU:HD11	24:X:81:ILE:HD12	1.47	0.96
3:C:138:GLY:O	3:C:141:ILE:CG2	2.14	0.96
10:J:134:HIS:CE1	10:J:163:SER:CB	2.41	0.96
20:T:77:LYS:CA	20:T:94:ARG:HG2	1.96	0.96
8:H:37:LYS:HE2	8:H:41:ARG:NH1	1.81	0.96
16:P:114:HIS:NE2	19:S:113:ARG:NH1	2.13	0.96
16:P:51:ARG:N	16:P:51:ARG:HD2	1.77	0.96
24:X:142:ARG:CB	24:X:142:ARG:NH1	2.28	0.96
1:A:34:MET:CE	1:A:37:TYR:CD2	2.49	0.96
2:B:77:ASP:O	2:B:79:VAL:HG22	1.64	0.96
12:L:7:GLU:HG3	12:L:8:ARG:HG3	1.46	0.96
25:Y:99:LYS:CE	25:Y:99:LYS:N	2.29	0.96
4:D:212:GLU:CB	18:R:19:LYS:HD2	1.96	0.96
7:G:212:LEU:HA	7:G:215:LYS:CE	1.95	0.96
10:J:70:ARG:NH2	10:J:94:LEU:HD21	1.80	0.96
15:O:44:VAL:HG21	15:O:93:LEU:HD13	1.45	0.96
25:Y:61:ARG:HG3	25:Y:61:ARG:NH2	1.63	0.96
11:K:83:LEU:HD12	11:K:85:LEU:HD21	1.46	0.96
6:F:76:MET:HE2	6:F:169:ILE:HG21	1.43	0.96
21:U:111:GLU:HA	21:U:111:GLU:OE1	1.65	0.96
10:J:170:PRO:CB	10:J:174:LYS:HE2	1.95	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:248:ILE:C	10:J:72:PHE:CE1	2.38	0.96
10:J:17:ARG:CG	10:J:18:ARG:CD	2.29	0.96
2:B:150:ILE:CG1	18:R:125:GLY:CA	2.44	0.96
24:X:105:PHE:HE2	24:X:119:ARG:HA	0.86	0.96
26:Z:94:LYS:HD3	26:Z:94:LYS:C	1.84	0.96
1:A:186:ARG:CG	1:A:186:ARG:HH11	1.79	0.96
7:G:162:LEU:HD23	7:G:172:LYS:HE2	1.46	0.96
9:I:141:ARG:O	9:I:143:LYS:HB3	1.65	0.96
14:N:115:LEU:O	14:N:119:GLU:CG	2.13	0.96
21:U:67:LYS:CG	21:U:78:ASP:OD2	2.13	0.96
20:T:77:LYS:HA	20:T:94:ARG:HG2	1.47	0.96
4:D:177:LEU:CD2	4:D:182:LEU:CD2	2.43	0.96
14:N:12:SER:O	14:N:13:GLN:HG3	1.65	0.96
7:G:162:LEU:HD12	7:G:162:LEU:O	1.65	0.95
16:P:41:GLN:NE2	16:P:84:ILE:CB	2.19	0.95
13:M:98:GLY:O	13:M:100:PRO:CD	2.13	0.95
5:E:48:LEU:HD21	5:E:70:ILE:CD1	1.96	0.95
8:H:144:ILE:O	23:W:51:GLU:HA	1.65	0.95
16:P:53:GLN:CG	16:P:80:LEU:HD11	1.87	0.95
25:Y:12:PHE:CZ	25:Y:21:LYS:CB	2.49	0.95
21:U:50:VAL:CG2	21:U:51:LYS:C	2.34	0.95
20:T:77:LYS:HB2	20:T:94:ARG:CG	1.96	0.95
25:Y:62:THR:HG22	25:Y:69:THR:HG22	1.45	0.95
5:E:248:ILE:HG13	10:J:72:PHE:CE1	1.99	0.95
3:C:101:THR:HG22	3:C:104:GLY:C	1.84	0.95
19:S:137:LYS:C	19:S:141:ARG:HH21	1.69	0.95
2:B:125:VAL:HG11	2:B:173:THR:CG2	1.95	0.95
7:G:157:VAL:CG1	7:G:159:ARG:N	2.09	0.95
10:J:37:LEU:CD1	10:J:42:GLU:CB	2.42	0.95
17:Q:8:GLN:HG3	17:Q:99:TYR:CE1	1.76	0.95
22:V:24:ILE:C	22:V:24:ILE:CD1	2.29	0.95
16:P:4:VAL:HA	16:P:10:ARG:HD2	1.46	0.95
3:C:93:LYS:HD2	3:C:218:LEU:HD22	0.96	0.95
19:S:94:LYS:HE3	19:S:95:TYR:O	1.66	0.95
2:B:208:HIS:O	2:B:209:ASP:HB2	1.66	0.95
2:B:30:TRP:HE1	15:O:17:LEU:CD2	1.79	0.95
3:C:149:PRO:HB2	3:C:233:TYR:CE2	2.00	0.95
6:F:71:ARG:HH21	6:F:71:ARG:CG	1.80	0.95
7:G:67:VAL:HG21	7:G:99:GLY:HA2	1.45	0.95
10:J:115:PHE:HD1	10:J:122:SER:H	0.97	0.95
17:Q:135:PRO:CG	17:Q:141:TYR:HE1	1.78	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:4:VAL:CA	16:P:10:ARG:CD	1.99	0.95
21:U:41:ARG:O	21:U:45:GLU:HB2	1.65	0.95
6:F:103:LEU:HD23	6:F:103:LEU:O	4.25	0.95
2:B:148:ASN:C	18:R:124:VAL:HG23	1.70	0.95
1:A:58:LEU:CD2	1:A:178:LEU:HD21	1.94	0.95
3:C:142:LEU:CA	3:C:145:LEU:HD21	1.94	0.95
10:J:127:ARG:HG3	10:J:127:ARG:HH11	0.79	0.95
3:C:186:GLY:HA3	10:J:54:ARG:NH2	1.81	0.95
12:L:17:PHE:CE1	12:L:18:GLN:HB2	2.01	0.95
2:B:150:ILE:HG12	18:R:124:VAL:HG13	0.96	0.95
2:B:150:ILE:HB	18:R:125:GLY:H	1.32	0.95
9:I:62:VAL:CG2	9:I:75:LYS:CE	2.45	0.95
10:J:169:ARG:CB	10:J:170:PRO:HD2	1.96	0.95
4:D:70:THR:CG2	4:D:86:LEU:HD13	1.96	0.95
6:F:42:LYS:CB	6:F:45:TYR:N	2.14	0.95
2:B:148:ASN:HA	18:R:124:VAL:HG23	0.99	0.95
2:B:36:PRO:HB3	2:B:231:LEU:CD2	1.96	0.95
3:C:244:THR:CG2	3:C:246:PHE:CA	2.43	0.95
7:G:76:LEU:CD2	7:G:92:ARG:CG	2.41	0.95
10:J:115:PHE:CD1	10:J:122:SER:N	2.34	0.95
5:E:108:ARG:HG2	10:J:32:ILE:HG21	49.06	0.95
10:J:37:LEU:CD2	10:J:42:GLU:HB2	1.95	0.95
24:X:51:VAL:CG1	24:X:70:VAL:HG11	1.96	0.95
25:Y:122:LYS:HD3	25:Y:123:ALA:N	1.79	0.95
4:D:70:THR:HG22	4:D:86:LEU:CD1	1.97	0.95
11:K:11:ILE:CG2	11:K:49:MET:HE2	1.78	0.95
11:K:15:LEU:HD13	11:K:21:MET:CE	1.96	0.95
19:S:33:ILE:HB	19:S:36:VAL:HG11	1.49	0.95
16:P:49:LEU:CA	16:P:51:ARG:HG3	1.96	0.95
16:P:127:LYS:NZ	16:P:127:LYS:CB	2.30	0.95
9:I:5:ARG:HG2	9:I:5:ARG:HH11	1.28	0.95
1:A:176:TRP:HZ2	1:A:195:TRP:HE3	1.12	0.95
7:G:142:ARG:CG	7:G:142:ARG:HH11	1.79	0.95
8:H:144:ILE:CG1	23:W:52:ILE:HG23	1.97	0.95
9:I:114:GLU:OE1	9:I:133:GLU:CD	1.93	0.95
18:R:44:LYS:CG	18:R:47:ARG:CZ	2.44	0.95
13:M:18:LEU:HD22	13:M:22:LEU:HG	1.49	0.95
2:B:19:LYS:HB2	2:B:19:LYS:HZ3	1.26	0.95
1:A:76:VAL:CG2	1:A:90:PHE:CD2	2.48	0.95
5:E:122:LYS:CG	5:E:164:LEU:HD21	1.96	0.95
9:I:154:LYS:C	9:I:154:LYS:HE2	1.87	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:9:SER:CB	17:Q:26:LYS:CE	2.43	0.95
19:S:8:LYS:O	26:Z:49:LEU:HD22	1.67	0.95
3:C:155:TRP:CZ3	23:W:97:ARG:NH1	2.20	0.95
5:E:86:PHE:HZ	5:E:182:MET:CE	1.79	0.95
10:J:46:VAL:HG11	10:J:106:LEU:CD1	1.96	0.95
18:R:100:PRO:O	18:R:103:LYS:N	1.90	0.95
22:V:18:SER:OG	22:V:72:LEU:HD11	1.67	0.95
20:T:102:ARG:NH2	20:T:105:GLN:OE1	2.00	0.95
19:S:8:LYS:CB	19:S:9:PHE:CD1	2.37	0.95
26:Z:77:LEU:O	26:Z:78:LYS:HG2	1.65	0.95
3:C:260:LYS:CD	3:C:261:THR:HG22	1.97	0.95
10:J:127:ARG:NH1	10:J:145:PRO:HB2	1.81	0.94
17:Q:135:PRO:HD3	17:Q:141:TYR:CD1	2.02	0.94
17:Q:72:VAL:HG21	17:Q:84:ILE:CG2	1.96	0.94
24:X:60:LYS:HG3	24:X:116:PRO:HG3	1.45	0.94
23:W:104:LEU:HD11	23:W:106:THR:CG2	1.97	0.94
9:I:7:ASN:O	9:I:9:HIS:N	2.00	0.94
23:W:3:ARG:NH2	23:W:9:ASP:OD2	2.01	0.94
9:I:154:LYS:CD	9:I:155:ASN:N	2.29	0.94
9:I:62:VAL:HG21	9:I:75:LYS:NZ	1.82	0.94
12:L:149:ALA:HB1	12:L:156:GLN:CG	1.77	0.94
12:L:149:ALA:CA	12:L:156:GLN:HE21	1.79	0.94
4:D:55:THR:O	4:D:58:VAL:CG2	2.15	0.94
6:F:20:PHE:O	6:F:21:GLY:C	2.06	0.94
25:Y:27:VAL:HG11	25:Y:35:VAL:HG21	1.47	0.94
2:B:113:MET:HE3	2:B:211:PHE:CE2	1.84	0.94
1:A:103:PHE:HE2	1:A:136:GLU:CD	1.68	0.94
2:B:57:ILE:O	2:B:60:ASP:N	1.99	0.94
7:G:157:VAL:CG1	7:G:159:ARG:CG	2.45	0.94
17:Q:50:LYS:HZ1	17:Q:117:ARG:HD2	0.80	0.94
17:Q:42:ILE:HG21	17:Q:51:LEU:HD21	1.46	0.94
17:Q:42:ILE:HG21	17:Q:51:LEU:HD23	1.47	0.94
10:J:28:GLU:OE1	10:J:40:LYS:CD	2.13	0.94
2:B:160:GLN:NE2	2:B:205:TYR:HD1	1.58	0.94
9:I:10:LYS:HG3	9:I:11:ARG:N	1.78	0.94
4:D:226:GLN:O	4:D:227:LYS:HG3	1.67	0.94
7:G:157:VAL:CG1	7:G:159:ARG:HG2	1.96	0.94
9:I:107:THR:OG1	9:I:108:PRO:HD3	1.67	0.94
10:J:37:LEU:CG	10:J:42:GLU:CB	2.44	0.94
3:C:197:LYS:HA	3:C:200:LEU:HD21	0.97	0.94
4:D:56:GLN:HA	4:D:59:LEU:HD23	1.50	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:62:PHE:CD1	11:K:67:PHE:CZ	2.51	0.94
6:F:14:THR:HG23	17:Q:56:LEU:HD22	1.50	0.94
17:Q:76:GLY:O	17:Q:80:GLN:CG	2.16	0.94
26:Z:92:LEU:HD21	26:Z:109:TYR:CE1	2.01	0.94
20:T:63:HIS:O	20:T:67:ARG:HD2	1.68	0.94
9:I:155:ASN:C	12:L:22:ARG:HD2	1.87	0.94
10:J:169:ARG:CB	10:J:170:PRO:CD	2.45	0.94
10:J:37:LEU:CG	10:J:42:GLU:HB3	1.96	0.94
15:O:31:CYS:SG	15:O:93:LEU:HB3	2.07	0.94
22:V:64:GLU:O	22:V:66:ASP:N	1.99	0.94
11:K:84:HIS:CE1	11:K:85:LEU:HA	2.01	0.94
17:Q:34:VAL:HG23	17:Q:39:LEU:HD23	0.95	0.94
17:Q:19:ALA:HB1	17:Q:80:GLN:HE21	1.31	0.94
19:S:137:LYS:O	19:S:141:ARG:NH2	1.96	0.94
20:T:84:ARG:NH2	20:T:84:ARG:CB	2.29	0.94
23:W:7:LEU:HD11	23:W:33:VAL:HG11	1.46	0.94
1:A:133:PRO:HD2	1:A:134:LEU:N	1.83	0.94
5:E:153:LEU:HD13	5:E:172:PHE:HZ	1.32	0.94
7:G:33:ALA:H	7:G:52:ILE:HG23	1.30	0.94
16:P:33:LEU:HD21	16:P:87:PRO:HD3	0.97	0.94
24:X:67:ARG:C	24:X:68:LYS:HG3	1.86	0.94
1:A:104:THR:O	1:A:107:THR:CG2	2.14	0.94
1:A:5:LEU:HD22	1:A:5:LEU:C	1.87	0.94
5:E:208:VAL:HG21	5:E:225:ILE:CD1	1.93	0.94
9:I:194:GLU:HG2	12:L:12:LYS:HZ1	0.79	0.94
10:J:122:SER:OG	10:J:124:HIS:CB	2.15	0.94
11:K:3:MET:HE3	11:K:8:ARG:HH22	1.25	0.94
2:B:105:LEU:CD1	2:B:110:MET:HE1	1.97	0.94
3:C:169:VAL:HG21	3:C:228:ALA:O	1.68	0.94
1:A:17:LYS:N	1:A:17:LYS:CE	2.30	0.94
5:E:166:THR:O	5:E:168:LYS:HD3	1.66	0.94
2:B:139:CYS:HB2	2:B:168:MET:SD	2.08	0.94
9:I:154:LYS:CG	9:I:155:ASN:N	2.30	0.94
14:N:115:LEU:O	14:N:119:GLU:HG2	1.68	0.94
4:D:43:PRO:C	4:D:44:THR:HG23	1.88	0.94
6:F:110:GLN:O	6:F:113:VAL:HG12	1.68	0.94
19:S:121:ARG:HG2	19:S:131:VAL:HG13	1.48	0.94
17:Q:47:LEU:HD23	17:Q:81:ILE:CD1	1.95	0.94
16:P:33:LEU:HD23	16:P:87:PRO:CD	1.97	0.94
25:Y:36:PRO:HG2	25:Y:39:GLU:CD	1.83	0.94
16:P:108:LYS:H	16:P:111:MET:HE3	1.30	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:35:ILE:HD13	13:M:61:TYR:CZ	2.03	0.94
26:Z:112:ASN:O	26:Z:113:THR:CG2	2.13	0.94
16:P:127:LYS:C	16:P:127:LYS:CE	2.36	0.94
13:M:13:ASP:O	13:M:16:THR:HG22	0.96	0.94
19:S:132:ARG:CB	19:S:134:GLN:OE1	2.14	0.94
20:T:143:LYS:CD	20:T:144:LYS:N	2.31	0.94
8:H:115:LYS:O	8:H:116:ARG:HB3	1.65	0.94
3:C:123:GLY:HA2	3:C:226:PHE:HZ	1.33	0.94
5:E:182:MET:HE2	5:E:228:ILE:HG21	1.50	0.94
6:F:14:THR:CB	17:Q:56:LEU:CB	2.42	0.94
19:S:81:ASP:O	19:S:87:GLN:NE2	2.00	0.94
9:I:21:TYR:CE2	9:I:22:HIS:HD2	1.84	0.94
4:D:112:GLY:O	4:D:113:LEU:HG	1.68	0.94
8:H:57:ARG:HD2	8:H:89:GLY:O	1.67	0.94
5:E:36:HIS:HB2	5:E:41:CYS:SG	2.08	0.94
17:Q:24:HIS:CD2	17:Q:69:ARG:HB2	2.03	0.94
2:B:137:LEU:HD21	2:B:215:VAL:HG13	0.95	0.94
3:C:50:LYS:HD3	3:C:251:TYR:HE1	1.30	0.94
3:C:63:LEU:HD13	3:C:67:TYR:OH	1.68	0.94
4:D:226:GLN:HE21	4:D:226:GLN:CA	1.80	0.94
5:E:99:PHE:HE1	5:E:113:ARG:HG3	1.20	0.94
7:G:27:PHE:CZ	7:G:41:LEU:CD1	2.51	0.94
15:O:52:THR:O	15:O:53:ILE:CG2	2.15	0.94
12:L:99:TYR:OH	24:X:14:ARG:CB	2.16	0.94
24:X:99:GLU:O	24:X:100:VAL:CG1	2.16	0.94
19:S:42:HIS:HD2	20:T:45:LEU:CD1	1.52	0.94
25:Y:21:LYS:N	25:Y:21:LYS:CD	2.30	0.94
16:P:41:GLN:HE21	16:P:84:ILE:HB	0.78	0.94
16:P:10:ARG:NH2	16:P:11:THR:CG2	2.30	0.94
8:H:10:LYS:CE	8:H:17:ASP:N	2.28	0.94
23:W:42:MET:CE	23:W:50:PHE:CD2	2.51	0.94
16:P:93:MET:SD	16:P:106:GLU:HB2	2.08	0.94
10:J:16:PRO:HD2	10:J:44:TRP:CZ2	2.02	0.94
3:C:241:TRP:HB3	23:W:68:ARG:HH11	1.30	0.94
1:A:11:LYS:HG2	1:A:13:GLU:HG2	0.94	0.93
1:A:39:TYR:CA	1:A:50:ASN:HD21	1.80	0.93
3:C:51:LEU:CD1	3:C:78:ILE:HD13	1.98	0.93
5:E:21:ASP:CG	5:E:24:THR:HG21	1.87	0.93
7:G:155:GLN:O	7:G:156:TYR:CD1	2.21	0.93
8:H:145:ARG:HH11	8:H:155:LYS:HZ2	1.14	0.93
9:I:110:ARG:NH2	9:I:124:LYS:HD3	1.84	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:154:LYS:HG3	9:I:155:ASN:N	1.80	0.93
9:I:62:VAL:HB	9:I:75:LYS:HE2	1.49	0.93
11:K:30:PRO:C	11:K:31:LYS:HG3	1.73	0.93
6:F:21:GLY:O	6:F:22:LYS:HG3	1.67	0.93
2:B:209:ASP:OD1	2:B:211:PHE:CZ	2.21	0.93
18:R:13:ALA:CA	18:R:54:VAL:HG22	1.97	0.93
1:A:34:MET:CE	1:A:37:TYR:CE2	2.51	0.93
14:N:46:THR:OG1	14:N:49:GLN:HG3	1.68	0.93
4:D:195:SER:C	4:D:197:LYS:CA	2.34	0.93
8:H:157:HIS:C	8:H:158:LEU:HD23	1.89	0.93
12:L:77:VAL:HG11	12:L:80:MET:SD	2.07	0.93
17:Q:16:LYS:HD2	17:Q:17:LYS:N	1.83	0.93
6:F:47:LYS:CG	17:Q:117:ARG:NH2	2.30	0.93
2:B:113:MET:CE	2:B:211:PHE:CZ	2.39	0.93
19:S:16:LEU:O	19:S:17:ASN:ND2	2.02	0.93
4:D:212:GLU:CB	4:D:213:PRO:HD2	1.97	0.93
3:C:156:GLY:O	3:C:157:ASN:ND2	2.00	0.93
8:H:23:ILE:CD1	8:H:27:LEU:CD2	2.47	0.93
1:A:45:GLY:O	1:A:46:ILE:CG1	2.17	0.93
5:E:139:LEU:HD13	5:E:154:ILE:HG21	1.48	0.93
10:J:50:LEU:HD12	10:J:102:ILE:HD13	1.44	0.93
15:O:95:ILE:HD13	15:O:116:LEU:CD2	1.98	0.93
18:R:99:ASP:HA	18:R:119:VAL:HG13	1.49	0.93
21:U:64:THR:CG2	21:U:79:ARG:HG2	1.98	0.93
11:K:3:MET:SD	11:K:8:ARG:NH2	2.34	0.93
21:U:103:SER:O	21:U:106:ILE:HG23	1.66	0.93
6:F:42:LYS:O	6:F:44:LYS:HA	1.68	0.93
17:Q:57:LEU:HD13	17:Q:115:TYR:CE2	2.02	0.93
2:B:150:ILE:HD11	18:R:126:MET:CB	1.98	0.93
5:E:128:LYS:HD3	5:E:130:PHE:CD1	2.03	0.93
4:D:212:GLU:HB3	18:R:19:LYS:HD2	1.45	0.93
9:I:19:LYS:HE2	9:I:20:PRO:CD	1.98	0.93
3:C:244:THR:CG2	3:C:246:PHE:N	2.31	0.93
10:J:119:LEU:CD2	10:J:119:LEU:N	2.30	0.93
10:J:61:LEU:HD13	10:J:94:LEU:HD13	1.48	0.93
8:H:15:LYS:CB	8:H:16:PRO:HD2	1.97	0.93
6:F:91:ARG:NH1	6:F:94:LYS:HB3	1.76	0.93
10:J:17:ARG:HB3	10:J:18:ARG:CG	1.99	0.93
3:C:241:TRP:CD2	23:W:68:ARG:HD3	2.02	0.93
3:C:234:SER:CA	22:V:23:ILE:HD11	1.97	0.93
2:B:52:THR:HG21	14:N:53:ILE:HD13	83.44	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:76:THR:CB	20:T:95:GLY:O	2.15	0.93
4:D:197:LYS:CB	4:D:198:ILE:CG2	2.30	0.93
3:C:99:LYS:HD2	3:C:100:GLN:N	1.84	0.93
1:A:183:LEU:HB2	1:A:189:ILE:HD11	1.51	0.93
25:Y:114:MET:O	25:Y:124:ASN:ND2	2.02	0.93
25:Y:62:THR:HG22	25:Y:69:THR:HG21	1.49	0.93
10:J:89:GLU:N	10:J:92:MET:HG3	1.83	0.93
1:A:177:MET:HE1	1:A:180:ARG:HH22	1.31	0.93
5:E:248:ILE:CB	10:J:72:PHE:CZ	2.48	0.93
16:P:127:LYS:HE3	16:P:127:LYS:C	1.89	0.93
16:P:127:LYS:HZ2	16:P:127:LYS:C	1.72	0.93
18:R:22:THR:CG2	18:R:73:LEU:HD11	1.99	0.93
18:R:84:TYR:O	18:R:85:VAL:HG23	1.69	0.93
2:B:49:VAL:HG22	2:B:65:ARG:NH2	1.83	0.93
12:L:96:ILE:O	12:L:100:ASN:HA	1.67	0.93
16:P:84:ILE:O	16:P:86:LEU:HD21	1.68	0.93
4:D:74:GLN:HE22	4:D:75:LYS:HE2	1.33	0.93
24:X:27:TYR:CZ	24:X:31:HIS:CD2	2.57	0.93
13:M:13:ASP:O	13:M:16:THR:CB	2.16	0.93
10:J:10:ARG:CB	10:J:10:ARG:NH1	2.31	0.93
2:B:20:LYS:C	2:B:21:VAL:HG13	1.87	0.93
2:B:126:ASP:OD1	2:B:136:HIS:CD2	2.21	0.93
14:N:137:PRO:O	14:N:138:ASN:CG	2.07	0.93
7:G:5:ILE:HD12	7:G:16:ILE:HD12	1.50	0.93
18:R:122:PRO:HB2	18:R:123:THR:OG1	1.69	0.93
10:J:48:PHE:HE1	10:J:52:LYS:HE3	1.24	0.93
25:Y:92:ALA:CA	25:Y:97:TYR:O	2.17	0.93
4:D:212:GLU:HB3	18:R:19:LYS:CD	1.96	0.93
23:W:104:LEU:CD1	23:W:106:THR:CG2	2.46	0.93
8:H:145:ARG:CD	23:W:51:GLU:HG2	1.99	0.92
22:V:32:ILE:HG22	22:V:33:PRO:HD2	1.51	0.92
12:L:99:TYR:HH	24:X:14:ARG:HA	1.12	0.92
11:K:83:LEU:O	11:K:84:HIS:ND1	2.02	0.92
6:F:14:THR:HG23	17:Q:56:LEU:CD2	1.99	0.92
4:D:112:GLY:N	4:D:113:LEU:CD1	2.33	0.92
16:P:70:MET:O	16:P:71:GLU:HB2	1.68	0.92
3:C:87:LEU:CD2	3:C:115:ILE:HG23	1.99	0.92
5:E:70:ILE:CG1	5:E:92:ILE:HD12	1.88	0.92
7:G:14:LYS:HZ1	7:G:123:GLY:CA	1.81	0.92
7:G:157:VAL:HG11	7:G:159:ARG:CB	1.99	0.92
14:N:22:VAL:HB	14:N:23:PRO:CA	1.97	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:99:ARG:HH21	14:N:115:LEU:HD21	1.26	0.92
1:A:16:LEU:CD2	18:R:111:PHE:CE1	2.53	0.92
25:Y:52:PRO:HD2	25:Y:53:ASP:H	1.32	0.92
4:D:3:VAL:O	4:D:3:VAL:HG12	1.65	0.92
13:M:116:LYS:O	13:M:117:GLU:CB	2.17	0.92
17:Q:19:ALA:CB	17:Q:74:GLY:O	2.17	0.92
13:M:61:TYR:HE1	13:M:108:CYS:HG	1.15	0.92
3:C:241:TRP:CB	23:W:68:ARG:NH1	2.32	0.92
13:M:85:LEU:HA	13:M:88:TRP:HE3	1.24	0.92
2:B:21:VAL:HG23	2:B:21:VAL:O	1.69	0.92
6:F:36:GLN:CG	6:F:37:ASP:CG	2.38	0.92
7:G:85:ARG:NE	25:Y:118:ARG:CZ	2.32	0.92
9:I:67:TRP:HZ2	9:I:158:ILE:HD11	1.32	0.92
10:J:130:ILE:HG12	10:J:135:ILE:CD1	2.00	0.92
10:J:127:ARG:NH1	10:J:145:PRO:CB	2.31	0.92
14:N:125:LEU:CD1	14:N:129:TYR:CE2	2.53	0.92
17:Q:8:GLN:HB3	17:Q:99:TYR:CE1	2.01	0.92
4:D:158:ILE:HD12	4:D:189:MET:CE	1.98	0.92
4:D:59:LEU:HD12	4:D:60:GLY:H	1.26	0.92
13:M:28:HIS:CD2	13:M:115:GLY:CA	2.51	0.92
4:D:210:ILE:HD12	18:R:15:VAL:HG11	0.96	0.92
23:W:101:PHE:HA	23:W:113:HIS:HE1	1.33	0.92
7:G:25:ARG:CG	7:G:28:TYR:CD2	2.51	0.92
12:L:82:MET:HB2	12:L:85:THR:CG2	2.00	0.92
15:O:44:VAL:HG21	15:O:93:LEU:CD1	1.99	0.92
18:R:99:ASP:HA	18:R:119:VAL:HG12	1.49	0.92
17:Q:47:LEU:CD2	17:Q:81:ILE:HD13	1.97	0.92
1:A:140:VAL:O	1:A:140:VAL:HG12	1.70	0.92
3:C:244:THR:CG2	3:C:246:PHE:HA	1.98	0.92
3:C:60:ILE:O	3:C:82:PHE:CZ	2.22	0.92
7:G:50:VAL:CG1	7:G:111:LEU:HB3	2.00	0.92
9:I:142:SER:CA	9:I:143:LYS:HB2	1.97	0.92
16:P:15:PHE:CE1	19:S:91:LYS:HD2	2.05	0.92
25:Y:10:ARG:CG	25:Y:24:VAL:HB	1.99	0.92
10:J:138:ARG:NH1	10:J:156:HIS:ND1	2.11	0.92
3:C:234:SER:C	22:V:23:ILE:CD1	2.37	0.92
3:C:63:LEU:HG	3:C:83:LEU:HD13	1.51	0.92
7:G:32:MET:CE	7:G:100:CYS:C	2.38	0.92
9:I:37:LYS:O	9:I:59:ARG:CA	2.17	0.92
16:P:56:LEU:CD1	16:P:80:LEU:HD12	1.98	0.92
4:D:51:LEU:HG	4:D:91:VAL:HG22	1.51	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:77:LYS:CB	20:T:94:ARG:HG2	1.98	0.92
19:S:58:GLU:O	19:S:59:LEU:CD2	2.16	0.92
25:Y:102:THR:HG21	25:Y:107:ARG:CD	1.98	0.92
18:R:20:TYR:CE1	18:R:38:ILE:CG2	2.37	0.92
26:Z:69:THR:CB	26:Z:70:PRO:HD3	1.99	0.92
4:D:27:ARG:HB2	4:D:27:ARG:NH1	4.75	0.92
1:A:21:ALA:HB1	1:A:173:LEU:HD12	1.49	0.92
3:C:148:VAL:HB	3:C:149:PRO:HD2	1.51	0.92
3:C:55:VAL:HG11	3:C:82:PHE:CE2	2.03	0.92
9:I:139:LYS:HB3	9:I:145:ILE:HD13	1.51	0.92
10:J:171:GLY:O	10:J:173:VAL:N	2.03	0.92
15:O:31:CYS:HB2	15:O:95:ILE:HG12	1.51	0.92
6:F:91:ARG:CA	6:F:91:ARG:NE	2.33	0.92
16:P:49:LEU:HA	16:P:51:ARG:CG	1.99	0.92
5:E:130:PHE:CG	5:E:138:HIS:NE2	2.38	0.92
23:W:129:PHE:C	23:W:129:PHE:HD1	1.71	0.92
9:I:139:LYS:O	9:I:140:LYS:HB3	1.67	0.92
25:Y:114:MET:HA	25:Y:124:ASN:CG	1.88	0.92
25:Y:44:LEU:CD1	25:Y:48:TYR:CE2	2.53	0.92
18:R:91:LEU:HD13	18:R:92:ASP:CA	2.00	0.92
7:G:41:LEU:HD22	7:G:45:TRP:HE3	1.33	0.92
25:Y:87:PRO:HB2	25:Y:89:HIS:CE1	2.03	0.92
17:Q:109:LYS:HG3	17:Q:113:ILE:HD11	1.48	0.92
26:Z:48:VAL:C	26:Z:83:LEU:CD1	2.38	0.92
6:F:167:LYS:HD3	6:F:171:GLU:HG2	1.52	0.92
26:Z:99:LEU:CD2	26:Z:109:TYR:HE1	1.76	0.92
12:L:10:TYR:HD2	12:L:12:LYS:HZ2	1.17	0.91
4:D:132:LYS:N	4:D:191:PRO:CG	2.33	0.91
25:Y:44:LEU:HD11	25:Y:48:TYR:CD2	2.03	0.91
25:Y:44:LEU:HD11	25:Y:48:TYR:HE2	1.06	0.91
1:A:106:GLY:C	1:A:113:GLN:OE1	2.08	0.91
2:B:72:ALA:CA	2:B:79:VAL:HG23	1.99	0.91
17:Q:7:LEU:HD23	17:Q:8:GLN:OE1	1.69	0.91
25:Y:9:THR:OG1	25:Y:48:TYR:OH	1.80	0.91
17:Q:85:ARG:HH22	17:Q:117:ARG:CG	1.82	0.91
10:J:89:GLU:N	10:J:92:MET:CG	2.32	0.91
20:T:89:PRO:O	20:T:91:HIS:CD2	2.24	0.91
3:C:244:THR:HG23	3:C:246:PHE:H	1.20	0.91
7:G:162:LEU:HG	7:G:170:ARG:HB2	1.53	0.91
7:G:77:LEU:HD11	7:G:95:LYS:HB2	1.51	0.91
22:V:32:ILE:HG22	22:V:33:PRO:CD	2.00	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
2:B:87:ILE:HD13	2:B:101:HIS:HD2	0.80	0.91
6:F:91:ARG:HH12	6:F:94:LYS:HG3	1.33	0.91
10:J:48:PHE:HZ	10:J:52:LYS:NZ	1.57	0.91
18:R:13:ALA:HA	18:R:54:VAL:CG2	2.00	0.91
6:F:122:ARG:CZ	6:F:193:LYS:HZ1	1.83	0.91
9:I:140:LYS:HG3	9:I:141:ARG:N	1.83	0.91
12:L:113:LEU:HD11	12:L:120:VAL:CG2	1.99	0.91
11:K:40:VAL:HG13	11:K:41:PRO:N	1.86	0.91
24:X:115:ILE:HG22	24:X:115:ILE:O	1.65	0.91
21:U:22:ILE:HG12	21:U:114:VAL:HG22	1.52	0.91
7:G:162:LEU:HD23	7:G:172:LYS:CE	2.01	0.91
7:G:64:LYS:O	7:G:64:LYS:HD2	1.69	0.91
12:L:125:ILE:HB	12:L:146:THR:HG21	1.48	0.91
23:W:35:VAL:O	23:W:39:THR:HG23	1.70	0.91
5:E:205:PHE:CE1	5:E:221:ARG:NH1	2.39	0.91
7:G:63:MET:HE3	7:G:106:LEU:HD13	1.53	0.91
20:T:76:THR:HG22	20:T:96:SER:O	1.68	0.91
16:P:33:LEU:HD23	16:P:87:PRO:HD2	1.51	0.91
25:Y:36:PRO:HG3	25:Y:39:GLU:CD	1.86	0.91
16:P:49:LEU:HD12	16:P:51:ARG:HE	0.75	0.91
2:B:105:LEU:CD1	2:B:110:MET:HE2	1.97	0.91
13:M:124:ILE:HA	13:M:127:TYR:HD2	1.28	0.91
3:C:60:ILE:O	3:C:82:PHE:HE1	1.44	0.91
5:E:76:VAL:HG12	24:X:56:GLY:O	91.30	0.91
21:U:97:ILE:HG23	21:U:101:ILE:HD11	1.50	0.91
2:B:150:ILE:CB	18:R:125:GLY:H	1.83	0.91
10:J:79:ARG:O	10:J:83:ARG:HG3	1.70	0.91
3:C:248:LYS:NZ	3:C:253:GLU:OE1	2.02	0.91
5:E:62:LYS:HA	5:E:65:CYS:SG	2.11	0.91
10:J:37:LEU:CD2	10:J:42:GLU:CB	2.49	0.91
18:R:99:ASP:O	18:R:119:VAL:HG21	1.71	0.91
16:P:59:ARG:CD	16:P:76:VAL:HG13	2.00	0.91
4:D:197:LYS:HB2	4:D:198:ILE:CB	1.99	0.91
15:O:56:VAL:HG11	15:O:81:VAL:HG23	1.48	0.91
2:B:57:ILE:CD1	2:B:60:ASP:OD2	2.19	0.91
2:B:67:PHE:CD1	15:O:47:LEU:C	2.44	0.91
5:E:75:LYS:O	5:E:76:VAL:HG22	5.39	0.91
9:I:194:GLU:CD	12:L:12:LYS:NZ	2.22	0.91
15:O:19:PRO:HG3	15:O:27:VAL:CB	2.01	0.91
11:K:84:HIS:ND1	11:K:85:LEU:HA	1.85	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:113:MET:HE3	2:B:211:PHE:HZ	1.34	0.91
25:Y:7:ILE:HD11	25:Y:43:LYS:CD	2.00	0.91
21:U:18:HIS:CE1	21:U:98:VAL:HG21	2.06	0.91
5:E:208:VAL:CB	5:E:225:ILE:HD13	2.01	0.91
24:X:98:ASP:O	24:X:99:GLU:HB2	1.70	0.91
6:F:167:LYS:CD	6:F:171:GLU:HG3	1.99	0.91
13:M:61:TYR:HE1	13:M:108:CYS:SG	1.94	0.91
4:D:166:TYR:CD1	4:D:200:PRO:CB	2.52	0.91
23:W:4:MET:SD	23:W:4:MET:N	2.44	0.91
1:A:66:VAL:HG13	1:A:186:ARG:CG	2.01	0.90
3:C:73:ILE:HD11	3:C:78:ILE:HB	1.53	0.90
14:N:16:LEU:HD22	14:N:17:PRO:HD2	1.51	0.90
25:Y:54:VAL:HG22	25:Y:79:LEU:HD23	1.49	0.90
16:P:111:MET:O	16:P:114:HIS:HD2	1.54	0.90
20:T:23:LYS:CD	20:T:54:TYR:CE2	2.54	0.90
1:A:34:MET:HE1	1:A:37:TYR:CE2	2.06	0.90
3:C:50:LYS:CE	3:C:251:TYR:HE1	1.83	0.90
12:L:147:LYS:CD	12:L:147:LYS:C	2.30	0.90
17:Q:105:LYS:C	17:Q:105:LYS:HD2	1.92	0.90
23:W:104:LEU:HD11	23:W:106:THR:HG23	1.52	0.90
24:X:74:LEU:CD1	24:X:81:ILE:HD12	2.00	0.90
25:Y:37:LYS:O	25:Y:40:ILE:CG2	2.20	0.90
2:B:72:ALA:HB2	2:B:79:VAL:O	1.70	0.90
3:C:55:VAL:CB	3:C:82:PHE:CE2	2.54	0.90
10:J:110:LEU:HD13	10:J:130:ILE:HD11	0.92	0.90
19:S:120:HIS:NE2	19:S:124:ARG:NH2	2.20	0.90
9:I:206:LYS:CD	9:I:207:GLY:H	1.83	0.90
14:N:142:GLU:CG	14:N:144:SER:OG	2.19	0.90
1:A:180:ARG:HH11	1:A:184:ARG:NH1	1.68	0.90
1:A:76:VAL:HG21	1:A:90:PHE:HD2	1.31	0.90
5:E:48:LEU:HD21	5:E:70:ILE:HD12	1.51	0.90
9:I:141:ARG:HB3	9:I:144:LYS:HB2	1.49	0.90
10:J:39:ASN:OD1	10:J:42:GLU:N	2.03	0.90
12:L:125:ILE:HB	12:L:146:THR:CG2	2.01	0.90
2:B:25:PHE:HE2	15:O:88:LEU:HD11	1.29	0.90
15:O:44:VAL:CG2	15:O:93:LEU:HD13	2.00	0.90
1:A:57:LYS:HE2	22:V:70:LEU:HD11	1.51	0.90
18:R:121:GLN:C	18:R:121:GLN:HE21	1.74	0.90
5:E:38:LEU:C	5:E:38:LEU:CD1	2.33	0.90
1:A:141:ASN:HA	22:V:32:ILE:HG13	1.53	0.90
25:Y:18:LEU:HB3	25:Y:20:ARG:HH11	0.74	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:36:VAL:HG22	19:S:36:VAL:O	1.71	0.90
20:T:111:LYS:CB	20:T:126:GLN:HE22	1.84	0.90
3:C:55:VAL:HG22	3:C:82:PHE:CE2	2.06	0.90
3:C:67:TYR:CE1	22:V:27:LYS:NZ	2.40	0.90
10:J:35:TYR:O	10:J:37:LEU:N	2.04	0.90
22:V:55:ILE:CD1	22:V:68:SER:OG	2.17	0.90
11:K:40:VAL:HG22	11:K:41:PRO:HD2	1.54	0.90
17:Q:78:VAL:CG1	17:Q:82:TYR:HE2	1.83	0.90
9:I:69:SER:HB2	12:L:19:ASN:HD21	0.87	0.90
16:P:125:PRO:O	16:P:126:VAL:HG23	1.70	0.90
24:X:60:LYS:HE2	24:X:116:PRO:CG	2.02	0.90
24:X:29:LYS:HD3	24:X:34:THR:HG21	1.51	0.90
26:Z:74:SER:HA	26:Z:79:ILE:HG22	1.50	0.90
8:H:101:LEU:HG	8:H:120:ARG:HG2	1.54	0.90
1:A:5:LEU:O	1:A:5:LEU:HD22	1.70	0.90
1:A:118:GLU:HB3	3:C:50:LYS:HZ1	0.77	0.90
12:L:76:VAL:HG12	12:L:125:ILE:HD13	1.52	0.90
17:Q:49:TYR:O	17:Q:53:GLU:HG3	1.71	0.90
17:Q:72:VAL:HG21	17:Q:84:ILE:HG23	1.52	0.90
19:S:59:LEU:HD13	19:S:59:LEU:N	1.85	0.90
18:R:13:ALA:HA	18:R:54:VAL:HG22	1.51	0.90
25:Y:92:ALA:HA	25:Y:97:TYR:HB3	1.54	0.90
17:Q:92:LEU:HD11	17:Q:96:TYR:CZ	2.07	0.90
1:A:52:LYS:HB3	1:A:52:LYS:NZ	1.86	0.90
8:H:158:LEU:HD21	8:H:187:PHE:HE1	1.36	0.90
1:A:5:LEU:CB	22:V:41:LYS:CE	2.49	0.90
8:H:143:ARG:NE	23:W:53:ILE:HG23	1.86	0.90
8:H:43:LEU:HD13	8:H:72:PHE:CE1	2.07	0.90
17:Q:42:ILE:CD1	17:Q:51:LEU:CD1	2.50	0.90
19:S:30:ILE:HD11	19:S:45:LEU:HD21	1.54	0.90
26:Z:44:LEU:HD13	26:Z:45:ASN:N	1.87	0.90
16:P:68:PRO:HB3	16:P:69:PRO:HD3	1.51	0.90
2:B:72:ALA:HA	2:B:79:VAL:CG2	2.02	0.90
21:U:62:ARG:HH12	21:U:64:THR:HG21	1.00	0.90
16:P:44:ARG:HH21	16:P:84:ILE:CB	1.83	0.90
21:U:108:PRO:O	21:U:110:VAL:HG23	1.70	0.90
19:S:11:HIS:HD2	19:S:23:ARG:HH21	1.16	0.90
19:S:8:LYS:HE3	19:S:9:PHE:CE1	2.07	0.90
4:D:212:GLU:H	4:D:212:GLU:CD	1.71	0.90
4:D:177:LEU:HD23	4:D:182:LEU:HD21	1.51	0.90
3:C:260:LYS:CG	3:C:261:THR:N	2.30	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:157:VAL:HG13	7:G:158:VAL:N	1.64	0.90
6:F:91:ARG:CA	6:F:91:ARG:HE	1.85	0.90
2:B:19:LYS:CB	2:B:19:LYS:NZ	2.30	0.90
23:W:30:CYS:SG	23:W:61:ILE:HD11	2.12	0.90
4:D:94:ARG:HG2	4:D:95:GLY:N	1.84	0.90
6:F:71:ARG:HG2	6:F:71:ARG:HH21	1.34	0.89
7:G:176:ILE:CG2	7:G:179:LEU:CB	2.49	0.89
9:I:62:VAL:CB	9:I:75:LYS:HE2	2.02	0.89
21:U:62:ARG:NH1	21:U:64:THR:HG23	1.87	0.89
20:T:31:PRO:HB2	20:T:33:TRP:CE2	2.04	0.89
4:D:59:LEU:HD12	4:D:60:GLY:CA	2.02	0.89
11:K:40:VAL:CG2	11:K:41:PRO:N	2.29	0.89
26:Z:92:LEU:HD23	26:Z:97:ILE:HG13	1.54	0.89
16:P:49:LEU:C	16:P:51:ARG:HD2	1.91	0.89
16:P:49:LEU:HD13	16:P:51:ARG:HE	1.34	0.89
12:L:157:LYS:O	12:L:158:PHE:CD2	2.25	0.89
4:D:18:LYS:HZ2	4:D:37:VAL:CG2	1.85	0.89
11:K:83:LEU:HD13	11:K:85:LEU:CD2	2.02	0.89
12:L:17:PHE:CE2	12:L:18:GLN:O	2.25	0.89
19:S:58:GLU:O	19:S:59:LEU:HD13	1.72	0.89
3:C:102:GLN:HG3	3:C:103:ALA:N	1.87	0.89
2:B:137:LEU:CD2	2:B:215:VAL:CG2	2.47	0.89
14:N:92:ILE:HG22	14:N:150:VAL:CG2	2.01	0.89
18:R:100:PRO:CG	18:R:119:VAL:HG22	2.02	0.89
24:X:91:LEU:O	24:X:93:PHE:N	2.05	0.89
16:P:83:MET:CE	16:P:116:LEU:HD11	2.02	0.89
25:Y:9:THR:HG1	25:Y:48:TYR:HH	1.06	0.89
6:F:73:THR:HG22	6:F:93:VAL:HG21	0.96	0.89
25:Y:29:HIS:HE1	25:Y:68:LYS:H	0.96	0.89
19:S:11:HIS:HD2	19:S:23:ARG:HH22	1.15	0.89
26:Z:85:ARG:HB3	26:Z:85:ARG:CZ	2.01	0.89
26:Z:85:ARG:CB	26:Z:85:ARG:NH1	2.36	0.89
5:E:145:ARG:HH11	5:E:145:ARG:HG2	1.37	0.89
5:E:208:VAL:CG1	5:E:225:ILE:CD1	2.48	0.89
17:Q:135:PRO:CD	17:Q:141:TYR:CD1	2.54	0.89
25:Y:78:SER:HB2	25:Y:81:TYR:CE2	2.07	0.89
17:Q:85:ARG:NH1	17:Q:117:ARG:CG	2.26	0.89
26:Z:99:LEU:HD21	26:Z:109:TYR:CE1	2.07	0.89
3:C:195:PRO:CD	3:C:221:PHE:CZ	2.55	0.89
12:L:118:ARG:C	12:L:118:ARG:CD	2.31	0.89
15:O:39:ASP:OD1	15:O:40:THR:N	2.05	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:30:LEU:HD11	1:A:38:ILE:CD1	1.91	0.89
6:F:63:LYS:CD	6:F:71:ARG:HH12	1.85	0.89
7:G:85:ARG:HD2	25:Y:118:ARG:HH22	1.35	0.89
14:N:28:LEU:CD1	14:N:58:HIS:NE2	2.36	0.89
11:K:65:ARG:NH1	11:K:65:ARG:CB	2.31	0.89
6:F:116:ILE:H	6:F:116:ILE:HD13	1.29	0.89
20:T:28:LEU:HD22	20:T:28:LEU:C	1.90	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
7:G:157:VAL:CG1	7:G:158:VAL:N	2.30	0.89
7:G:64:LYS:CD	7:G:64:LYS:C	2.40	0.89
25:Y:122:LYS:HD3	25:Y:122:LYS:N	1.85	0.89
11:K:16:PHE:HD2	11:K:79:LEU:HB3	1.30	0.89
16:P:107:ILE:CA	16:P:111:MET:SD	2.60	0.89
3:C:241:TRP:CB	23:W:68:ARG:HH11	1.84	0.89
3:C:234:SER:C	22:V:23:ILE:HD11	1.93	0.89
17:Q:24:HIS:NE2	17:Q:69:ARG:HB2	1.86	0.89
1:A:133:PRO:CD	1:A:134:LEU:H	1.86	0.89
3:C:148:VAL:HB	3:C:149:PRO:CD	2.03	0.89
3:C:71:LEU:C	22:V:29:HIS:CE1	2.46	0.89
8:H:158:LEU:HD21	8:H:187:PHE:CE1	2.07	0.89
25:Y:32:LYS:HG2	25:Y:33:ALA:N	1.86	0.89
24:X:29:LYS:HD2	24:X:34:THR:CB	2.01	0.89
20:T:4:VAL:HA	20:T:8:ASP:OD2	1.72	0.89
7:G:57:ASP:OD2	7:G:98:ARG:CG	2.21	0.89
21:U:50:VAL:CG1	21:U:51:LYS:H	1.86	0.89
23:W:42:MET:HE1	23:W:50:PHE:CD2	2.08	0.89
19:S:95:TYR:CD1	19:S:95:TYR:N	2.28	0.89
6:F:112:LEU:HA	6:F:177:LEU:HD11	1.55	0.89
24:X:107:ARG:O	24:X:110:HIS:ND1	2.05	0.89
2:B:137:LEU:HB2	2:B:172:MET:CE	2.03	0.89
1:A:154:LEU:CD1	22:V:63:GLY:C	2.35	0.89
11:K:65:ARG:HH11	11:K:65:ARG:HB3	1.29	0.89
11:K:71:LEU:HD23	11:K:76:ILE:HD11	1.54	0.89
25:Y:29:HIS:ND1	25:Y:67:GLY:HA2	1.87	0.89
20:T:23:LYS:HD3	20:T:54:TYR:CE2	2.08	0.89
2:B:113:MET:HE1	2:B:211:PHE:CE2	1.85	0.89
18:R:44:LYS:HE3	18:R:47:ARG:HH22	0.72	0.89
20:T:11:GLN:NE2	20:T:62:ARG:NH2	2.20	0.89
12:L:153:LYS:CG	14:N:131:THR:O	2.20	0.89
14:N:132:LYS:CE	14:N:132:LYS:CA	2.28	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:85:ASP:O	23:W:89:TRP:CD1	2.26	0.89
12:L:149:ALA:HB1	12:L:156:GLN:HB3	0.89	0.89
16:P:53:GLN:HE21	16:P:80:LEU:CD1	1.85	0.89
25:Y:61:ARG:CD	25:Y:61:ARG:N	2.34	0.89
4:D:97:CYS:SG	4:D:99:ILE:HG12	2.13	0.89
8:H:93:VAL:HG23	8:H:94:PHE:N	1.83	0.89
19:S:33:ILE:HB	19:S:36:VAL:CG1	2.03	0.89
3:C:151:ARG:NH1	3:C:240:LEU:CD1	2.25	0.89
3:C:260:LYS:HD2	3:C:261:THR:CG2	2.03	0.89
23:W:128:PHE:CE1	23:W:130:PHE:CD2	2.60	0.89
9:I:76:THR:HG22	9:I:77:ARG:N	1.87	0.88
25:Y:20:ARG:HD2	25:Y:74:MET:CE	2.02	0.88
16:P:107:ILE:HA	16:P:111:MET:HE3	1.53	0.88
14:N:12:SER:O	14:N:13:GLN:HG2	1.73	0.88
18:R:44:LYS:HE2	18:R:47:ARG:NH2	1.86	0.88
20:T:75:MET:HE3	20:T:79:TYR:CE2	2.07	0.88
5:E:98:ASN:HD21	5:E:119:ALA:CB	1.81	0.88
7:G:65:GLN:CA	7:G:100:CYS:SG	2.57	0.88
21:U:67:LYS:HE2	21:U:78:ASP:OD1	1.73	0.88
17:Q:115:TYR:CD2	17:Q:116:ASP:N	2.42	0.88
4:D:200:PRO:O	4:D:201:LYS:HG2	1.74	0.88
8:H:121:THR:HG23	8:H:124:ALA:H	1.37	0.88
1:A:191:ARG:HG3	1:A:193:HIS:HB2	1.55	0.88
3:C:49:THR:HG23	3:C:75:GLU:OE1	1.72	0.88
7:G:36:VAL:HG12	7:G:37:ALA:H	1.36	0.88
9:I:153:LYS:O	9:I:154:LYS:CB	2.20	0.88
9:I:62:VAL:CG2	9:I:75:LYS:HE2	2.03	0.88
2:B:67:PHE:CE1	15:O:47:LEU:HB2	2.08	0.88
16:P:41:GLN:HG2	16:P:84:ILE:HG12	0.89	0.88
11:K:60:GLU:OE2	11:K:67:PHE:CD1	2.21	0.88
19:S:31:THR:HA	19:S:36:VAL:CG2	2.02	0.88
10:J:15:THR:CG2	10:J:44:TRP:HZ3	1.80	0.88
25:Y:98:GLU:C	25:Y:98:GLU:CD	2.31	0.88
4:D:123:LEU:CD2	4:D:154:ASP:HB3	2.03	0.88
3:C:167:CYS:SG	23:W:95:PRO:CB	2.62	0.88
18:R:91:LEU:CD1	18:R:91:LEU:H	1.85	0.88
25:Y:10:ARG:HE	25:Y:24:VAL:HG11	0.75	0.88
21:U:24:LEU:HD23	21:U:112:VAL:HG22	1.54	0.88
22:V:65:SER:O	22:V:69:ILE:HG12	1.74	0.88
4:D:70:THR:HA	4:D:86:LEU:HD13	1.56	0.88
8:H:29:GLU:OE2	8:H:86:LYS:CE	2.22	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:46:ARG:CZ	20:T:50:GLU:HG2	2.01	0.88
18:R:17:ILE:HG21	18:R:69:ILE:HD13	1.54	0.88
15:O:20:GLN:HG2	15:O:21:VAL:O	1.73	0.88
3:C:54:LEU:HD11	3:C:258:LEU:CD1	2.01	0.88
10:J:32:ILE:O	10:J:35:TYR:O	1.91	0.88
19:S:34:LYS:CB	19:S:103:LEU:CD2	2.01	0.88
11:K:59:LYS:HD2	11:K:60:GLU:N	1.88	0.88
3:C:93:LYS:HD3	3:C:218:LEU:HD21	0.90	0.88
10:J:91:LYS:HA	10:J:96:TYR:CG	2.08	0.88
18:R:11:LYS:O	18:R:15:VAL:HG23	1.72	0.88
21:U:25:THR:HG22	21:U:86:LYS:HG2	1.54	0.88
6:F:201:LYS:HE3	6:F:204:ARG:NH2	1.88	0.88
7:G:64:LYS:HG3	7:G:67:VAL:HG13	1.55	0.88
19:S:39:ARG:HD3	20:T:38:LYS:HE2	1.54	0.88
8:H:14:GLU:OE1	8:H:16:PRO:HG2	1.74	0.88
19:S:8:LYS:CD	19:S:9:PHE:CE1	2.42	0.88
1:A:205:ARG:HH22	18:R:82:ASP:HA	0.75	0.88
18:R:91:LEU:HD12	18:R:92:ASP:HA	1.56	0.88
1:A:141:ASN:OD1	22:V:31:SER:O	1.92	0.88
24:X:5:ARG:CB	24:X:5:ARG:HH21	1.86	0.88
20:T:77:LYS:HB2	20:T:94:ARG:HD3	0.89	0.88
9:I:69:SER:HB3	12:L:19:ASN:ND2	1.66	0.88
2:B:148:ASN:CA	18:R:124:VAL:CG2	2.22	0.88
24:X:114:ASP:C	24:X:116:PRO:HD3	1.94	0.88
9:I:157:LYS:HB3	12:L:22:ARG:HH12	1.37	0.88
22:V:17:CYS:HG	22:V:56:CYS:HB3	1.06	0.88
11:K:41:PRO:O	11:K:41:PRO:HD2	1.70	0.88
3:C:64:GLU:OE1	22:V:11:LEU:HD13	1.73	0.88
11:K:11:ILE:HG22	11:K:49:MET:HE1	1.54	0.88
16:P:123:TYR:CZ	19:S:120:HIS:CE1	2.62	0.88
24:X:105:PHE:CE2	24:X:118:VAL:O	2.27	0.88
24:X:105:PHE:CG	24:X:112:VAL:HG23	2.09	0.88
4:D:135:GLU:CB	4:D:153:VAL:HG22	2.03	0.88
4:D:218:LEU:HD12	4:D:220:THR:CG2	2.04	0.88
10:J:127:ARG:HH12	10:J:145:PRO:CB	1.85	0.87
10:J:170:PRO:HA	10:J:174:LYS:HZ1	1.35	0.87
12:L:80:MET:CE	12:L:121:GLN:CA	2.51	0.87
3:C:67:TYR:HE1	22:V:27:LYS:HZ3	0.92	0.87
11:K:14:LEU:HD22	11:K:35:LEU:CG	2.04	0.87
16:P:108:LYS:NZ	19:S:118:ARG:HH12	1.72	0.87
2:B:148:ASN:O	18:R:124:VAL:HG22	1.73	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:123:GLY:CA	3:C:226:PHE:HZ	1.87	0.87
2:B:32:ASP:OD1	2:B:46:LYS:HD2	1.73	0.87
14:N:28:LEU:C	14:N:29:THR:HG23	1.95	0.87
25:Y:20:ARG:CD	25:Y:74:MET:CE	2.51	0.87
25:Y:12:PHE:HZ	25:Y:21:LYS:HB3	1.33	0.87
17:Q:21:ALA:CB	17:Q:72:VAL:HG22	2.03	0.87
17:Q:43:GLU:HA	17:Q:45:ARG:N	1.89	0.87
19:S:117:ILE:C	19:S:118:ARG:HG2	1.94	0.87
26:Z:48:VAL:HG12	26:Z:48:VAL:O	1.72	0.87
10:J:17:ARG:HB3	10:J:18:ARG:HG2	1.49	0.87
23:W:90:GLN:HA	23:W:102:ILE:CD1	2.04	0.87
5:E:133:THR:O	5:E:134:LYS:HB2	1.74	0.87
1:A:57:LYS:HE2	22:V:70:LEU:CD1	2.04	0.87
2:B:57:ILE:CD1	2:B:60:ASP:CG	2.33	0.87
14:N:80:LEU:O	14:N:82:PRO:CD	2.23	0.87
18:R:100:PRO:HA	18:R:103:LYS:CB	2.02	0.87
19:S:103:LEU:HD12	19:S:104:ASP:N	1.87	0.87
17:Q:117:ARG:O	17:Q:118:THR:OG1	1.92	0.87
26:Z:103:HIS:CD2	26:Z:105:ALA:CB	2.57	0.87
9:I:25:ARG:HD2	9:I:27:TYR:CD2	2.08	0.87
3:C:195:PRO:HD3	3:C:221:PHE:CZ	2.08	0.87
7:G:4:ASN:HA	7:G:15:LEU:HD23	1.56	0.87
25:Y:122:LYS:CD	25:Y:123:ALA:H	1.87	0.87
13:M:115:GLY:O	13:M:116:LYS:HB2	1.73	0.87
21:U:36:CYS:SG	21:U:53:PRO:CB	2.62	0.87
6:F:18:LYS:HE3	17:Q:115:TYR:HD1	1.34	0.87
10:J:177:ASN:O	10:J:180:LYS:CB	2.23	0.87
19:S:46:ARG:HH22	20:T:50:GLU:HB3	1.37	0.87
4:D:221:THR:HB	4:D:222:PRO:CD	2.03	0.87
6:F:53:ALA:O	17:Q:125:ARG:NH2	2.08	0.87
3:C:142:LEU:HA	3:C:145:LEU:HD23	1.56	0.87
8:H:146:VAL:HG11	23:W:42:MET:SD	2.13	0.87
25:Y:29:HIS:ND1	25:Y:67:GLY:CA	2.37	0.87
5:E:248:ILE:HD11	10:J:72:PHE:CB	2.03	0.87
22:V:1:MET:HE1	22:V:10:ASP:HB2	1.56	0.87
3:C:260:LYS:CD	3:C:261:THR:H	1.88	0.87
8:H:145:ARG:HD2	23:W:51:GLU:CD	1.94	0.87
9:I:197:PHE:CE2	12:L:5:GLN:HG3	2.10	0.87
10:J:134:HIS:O	10:J:135:ILE:CG2	2.21	0.87
3:C:71:LEU:O	22:V:29:HIS:CE1	2.26	0.87
10:J:82:VAL:HG11	10:J:92:MET:CE	2.04	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:12:MET:HE3	13:M:120:ALA:HB2	1.56	0.87
1:A:36:GLN:OE1	1:A:36:GLN:HA	1.74	0.87
2:B:33:VAL:HG12	2:B:44:ILE:HD12	1.53	0.87
3:C:43:LYS:HE3	3:C:43:LYS:HA	1.55	0.87
6:F:119:SER:O	6:F:193:LYS:HG3	1.75	0.87
7:G:27:PHE:HE2	7:G:41:LEU:HD12	1.37	0.87
16:P:41:GLN:CG	16:P:84:ILE:HG23	2.03	0.87
17:Q:12:VAL:HG12	17:Q:13:PHE:N	1.89	0.87
4:D:221:THR:HB	4:D:222:PRO:HD2	1.54	0.87
10:J:138:ARG:NH1	10:J:156:HIS:CD2	2.43	0.87
24:X:108:LYS:HB3	24:X:110:HIS:NE2	1.89	0.87
1:A:11:LYS:CD	1:A:13:GLU:HG3	2.03	0.87
1:A:125:THR:HA	1:A:147:LEU:HB2	1.55	0.87
1:A:76:VAL:CG1	1:A:175:TRP:CH2	2.56	0.87
1:A:21:ALA:HB3	1:A:173:LEU:CD1	1.78	0.87
1:A:97:THR:HG22	1:A:98:PRO:CD	2.02	0.87
21:U:27:ARG:HG3	21:U:83:ARG:O	1.74	0.87
17:Q:112:LEU:CD2	17:Q:119:LEU:HD13	2.00	0.87
3:C:241:TRP:CG	23:W:68:ARG:HD3	2.08	0.87
19:S:65:GLU:O	19:S:69:THR:HG23	1.75	0.87
19:S:47:LYS:NZ	19:S:78:LYS:CB	2.38	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
20:T:64:LEU:N	20:T:64:LEU:HD23	1.90	0.87
5:E:124:CYS:SG	5:E:162:ILE:HD13	2.14	0.87
7:G:185:LEU:HA	7:G:188:LYS:HE3	1.55	0.87
10:J:170:PRO:CA	10:J:174:LYS:NZ	2.37	0.87
10:J:170:PRO:HG2	10:J:175:ARG:HG2	1.53	0.87
25:Y:122:LYS:N	25:Y:122:LYS:CD	2.36	0.87
4:D:70:THR:HA	4:D:86:LEU:CD1	2.04	0.87
8:H:43:LEU:HD13	8:H:72:PHE:CD1	2.10	0.87
3:C:260:LYS:HG3	3:C:261:THR:N	1.89	0.87
4:D:27:ARG:CB	4:D:27:ARG:NH1	4.51	0.87
17:Q:61:GLU:O	17:Q:63:PHE:N	2.07	0.87
1:A:30:LEU:HG	1:A:31:ASP:O	1.74	0.86
4:D:158:ILE:CD1	4:D:189:MET:SD	2.62	0.86
16:P:41:GLN:CD	16:P:84:ILE:CG2	2.20	0.86
6:F:28:VAL:HG22	6:F:110:GLN:HG2	1.57	0.86
11:K:33:PRO:O	11:K:34:GLU:HB3	1.72	0.86
3:C:218:LEU:HD12	3:C:219:GLY:N	1.88	0.86
17:Q:12:VAL:HG12	17:Q:13:PHE:H	1.40	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:196:GLY:N	4:D:197:LYS:CA	2.38	0.86
2:B:150:ILE:HG13	18:R:125:GLY:H	1.36	0.86
18:R:92:ASP:O	18:R:93:GLN:HB3	1.73	0.86
3:C:67:TYR:HE1	22:V:27:LYS:NZ	1.71	0.86
16:P:84:ILE:HD11	16:P:115:TYR:CE1	2.10	0.86
8:H:6:ALA:HB1	8:H:10:LYS:HZ3	1.40	0.86
9:I:84:ASN:ND2	9:I:100:CYS:SG	2.48	0.86
6:F:121:PRO:HA	6:F:193:LYS:HE3	1.57	0.86
9:I:85:ALA:HB1	12:L:8:ARG:NH1	1.89	0.86
15:O:101:GLY:O	15:O:104:ARG:HB2	1.74	0.86
15:O:62:VAL:HG22	15:O:72:TYR:OH	1.75	0.86
8:H:10:LYS:NZ	8:H:17:ASP:N	2.22	0.86
17:Q:111:ILE:O	17:Q:114:GLN:HG2	1.74	0.86
19:S:8:LYS:HA	26:Z:49:LEU:HD23	1.57	0.86
4:D:218:LEU:CB	4:D:220:THR:HG21	1.99	0.86
1:A:125:THR:HG22	1:A:175:TRP:HE1	1.39	0.86
2:B:53:GLN:O	2:B:56:LYS:O	1.93	0.86
3:C:55:VAL:HB	6:F:34:SER:HB3	87.28	0.86
10:J:102:ILE:HG22	10:J:106:LEU:HD13	1.56	0.86
25:Y:12:PHE:HZ	25:Y:21:LYS:CB	1.85	0.86
11:K:39:ASN:O	11:K:40:VAL:HG12	1.74	0.86
17:Q:105:LYS:NZ	17:Q:109:LYS:HB2	1.90	0.86
16:P:51:ARG:O	16:P:52:LYS:CB	2.22	0.86
18:R:37:GLU:OE1	18:R:38:ILE:HG23	1.75	0.86
10:J:177:ASN:O	10:J:180:LYS:HG3	1.76	0.86
23:W:129:PHE:CD1	23:W:129:PHE:C	2.45	0.86
5:E:23:LEU:O	5:E:24:THR:CG2	2.24	0.86
25:Y:54:VAL:HG12	25:Y:76:TYR:N	1.89	0.86
13:M:124:ILE:O	13:M:127:TYR:CD2	2.28	0.86
13:M:78:LYS:C	13:M:79:VAL:HG23	1.94	0.86
15:O:20:GLN:CG	15:O:21:VAL:N	2.39	0.86
15:O:94:HIS:ND1	15:O:127:GLY:O	2.09	0.86
2:B:49:VAL:HG22	2:B:65:ARG:HH22	1.36	0.86
5:E:98:ASN:HD21	5:E:119:ALA:HB2	1.34	0.86
7:G:50:VAL:HG11	7:G:111:LEU:CG	2.05	0.86
7:G:64:LYS:HG3	7:G:67:VAL:CG1	2.06	0.86
7:G:98:ARG:HD3	7:G:98:ARG:C	1.93	0.86
22:V:74:LYS:HG3	22:V:75:SER:N	1.89	0.86
4:D:18:LYS:HD2	4:D:18:LYS:O	1.74	0.86
4:D:76:ARG:NE	11:K:66:HIS:ND1	2.22	0.86
19:S:26:ILE:HD11	19:S:59:LEU:CD2	2.05	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:6:PRO:CA	26:Z:50:PHE:HB2	2.03	0.86
13:M:12:MET:CG	13:M:16:THR:CG2	2.52	0.86
18:R:91:LEU:CD1	18:R:92:ASP:CA	2.53	0.86
15:O:56:VAL:HG11	15:O:81:VAL:CG2	2.04	0.86
5:E:11:ARG:NH1	5:E:20:LEU:HB3	1.90	0.86
4:D:21:LEU:O	4:D:25:LEU:HD23	1.76	0.86
17:Q:42:ILE:CG2	17:Q:51:LEU:CD2	2.53	0.86
19:S:9:PHE:N	19:S:9:PHE:CD1	2.37	0.86
4:D:218:LEU:HB2	4:D:220:THR:HG21	1.53	0.86
23:W:90:GLN:CA	23:W:102:ILE:HD11	2.06	0.86
7:G:213:LEU:HD12	7:G:214:ALA:N	1.89	0.86
12:L:147:LYS:HD2	12:L:148:ALA:C	1.95	0.86
22:V:78:ILE:CD1	22:V:79:VAL:H	1.88	0.86
8:H:143:ARG:HD3	23:W:53:ILE:HG12	0.86	0.86
13:M:28:HIS:CD2	13:M:113:ASP:OD2	2.29	0.86
6:F:42:LYS:HB2	6:F:45:TYR:CA	2.04	0.86
18:R:91:LEU:H	18:R:92:ASP:HA	1.39	0.86
25:Y:7:ILE:HG13	25:Y:43:LYS:HD3	1.57	0.86
7:G:147:LEU:O	7:G:148:SER:OG	1.93	0.86
9:I:154:LYS:HA	9:I:154:LYS:HE2	1.58	0.86
22:V:32:ILE:CD1	22:V:60:ARG:HH12	1.88	0.86
25:Y:55:ILE:CG1	25:Y:75:ILE:CD1	2.46	0.86
6:F:25:THR:CG2	6:F:41:VAL:CG2	2.54	0.86
9:I:161:LEU:HD13	9:I:199:LEU:HD11	1.55	0.86
5:E:36:HIS:CB	5:E:41:CYS:SG	2.63	0.86
4:D:132:LYS:HA	4:D:191:PRO:HG2	1.54	0.86
2:B:149:GLN:HE21	2:B:151:ARG:HG2	1.41	0.86
10:J:48:PHE:HZ	10:J:52:LYS:HZ2	1.22	0.86
23:W:93:LEU:CD2	23:W:128:PHE:CD2	2.57	0.86
1:A:180:ARG:HD3	1:A:184:ARG:CZ	2.06	0.85
2:B:25:PHE:HD2	15:O:88:LEU:CD2	1.87	0.85
6:F:201:LYS:CE	6:F:204:ARG:NH2	2.39	0.85
9:I:140:LYS:CG	9:I:141:ARG:N	2.37	0.85
25:Y:120:THR:O	25:Y:122:LYS:HD2	1.74	0.85
6:F:91:ARG:HA	6:F:91:ARG:HE	1.03	0.85
16:P:52:LYS:HA	16:P:54:HIS:CD2	2.10	0.85
1:A:5:LEU:HD13	1:A:6:ASP:H	1.41	0.85
17:Q:58:LEU:HD23	17:Q:111:ILE:CD1	1.96	0.85
16:P:52:LYS:N	16:P:54:HIS:CD2	2.43	0.85
20:T:75:MET:HE2	20:T:79:TYR:HE2	1.41	0.85
10:J:37:LEU:HD21	10:J:42:GLU:HB2	1.49	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:54:LEU:O	14:N:58:HIS:O	1.93	0.85
19:S:34:LYS:HB3	19:S:103:LEU:HD23	1.54	0.85
17:Q:44:PRO:CG	17:Q:81:ILE:HD11	2.06	0.85
6:F:167:LYS:HD3	6:F:171:GLU:HB3	1.57	0.85
10:J:92:MET:C	10:J:93:LYS:HE3	1.96	0.85
3:C:102:GLN:CG	3:C:103:ALA:H	1.88	0.85
19:S:138:THR:N	19:S:141:ARG:HH21	1.73	0.85
24:X:142:ARG:HG3	24:X:142:ARG:NH1	1.91	0.85
3:C:241:TRP:HB3	23:W:68:ARG:HH12	1.38	0.85
24:X:102:VAL:CG1	24:X:120:PHE:HB3	2.07	0.85
5:E:159:THR:HG21	5:E:227:VAL:HG23	1.55	0.85
9:I:62:VAL:HG21	9:I:75:LYS:CE	2.05	0.85
12:L:80:MET:CE	12:L:121:GLN:HA	2.06	0.85
18:R:32:LYS:HE2	18:R:33:ARG:HE	1.41	0.85
24:X:126:ALA:O	24:X:128:VAL:HB	1.75	0.85
25:Y:114:MET:CA	25:Y:124:ASN:HD22	1.87	0.85
6:F:39:ILE:CG2	6:F:68:ILE:HG21	2.05	0.85
19:S:54:LYS:N	19:S:54:LYS:HA	1.90	0.85
26:Z:69:THR:HB	26:Z:70:PRO:CD	2.05	0.85
21:U:73:GLY:O	21:U:74:SER:C	2.07	0.85
8:H:107:LYS:C	8:H:109:ARG:HA	1.97	0.85
1:A:186:ARG:NH1	1:A:186:ARG:C	2.30	0.85
5:E:129:ILE:HG13	5:E:139:LEU:HD23	1.44	0.85
5:E:180:LEU:HD22	5:E:181:CYS:H	1.41	0.85
7:G:57:ASP:HA	7:G:106:LEU:HA	1.55	0.85
7:G:68:LEU:O	7:G:69:THR:OG1	1.95	0.85
9:I:142:SER:CB	9:I:143:LYS:NZ	2.38	0.85
11:K:84:HIS:ND1	11:K:84:HIS:C	2.28	0.85
16:P:49:LEU:O	16:P:50:ARG:C	2.08	0.85
3:C:154:TYR:OH	3:C:162:PRO:CD	2.24	0.85
26:Z:70:PRO:HD2	26:Z:71:ALA:N	1.90	0.85
7:G:164:LYS:O	7:G:165:GLU:C	2.12	0.85
15:O:119:LEU:HD12	15:O:120:ALA:N	1.91	0.85
13:M:117:GLU:O	13:M:118:SER:OG	1.94	0.85
8:H:29:GLU:OE2	8:H:86:LYS:HE3	1.77	0.85
17:Q:50:LYS:HZ1	17:Q:85:ARG:HH22	1.23	0.85
3:C:155:TRP:HH2	23:W:97:ARG:NH1	1.39	0.85
16:P:51:ARG:H	16:P:51:ARG:HD2	1.38	0.85
16:P:127:LYS:C	16:P:127:LYS:NZ	2.29	0.85
12:L:151:THR:O	12:L:153:LYS:N	2.10	0.85
8:H:144:ILE:CD1	23:W:52:ILE:CG2	2.47	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:119:GLY:O	25:Y:121:ALA:N	2.10	0.85
17:Q:112:LEU:O	17:Q:116:ASP:N	2.08	0.85
25:Y:7:ILE:HD12	25:Y:43:LYS:CB	2.05	0.85
2:B:139:CYS:SG	2:B:212:VAL:HG12	2.16	0.85
5:E:126:VAL:HG21	5:E:129:ILE:HD11	1.58	0.85
14:N:27:LYS:HD2	14:N:28:LEU:N	1.91	0.85
25:Y:54:VAL:CG1	25:Y:76:TYR:N	2.40	0.85
4:D:212:GLU:CB	18:R:19:LYS:HD3	2.04	0.85
20:T:18:LEU:CD1	20:T:134:ILE:HD13	2.05	0.85
1:A:164:ASN:O	1:A:166:LYS:N	2.10	0.85
2:B:28:LYS:CE	15:O:51:GLU:OE2	2.24	0.85
9:I:70:GLU:OE2	9:I:117:TYR:OH	1.95	0.85
25:Y:122:LYS:H	25:Y:122:LYS:CD	1.87	0.85
25:Y:45:ALA:HA	25:Y:55:ILE:HD12	1.58	0.85
6:F:41:VAL:HG22	6:F:42:LYS:H	0.72	0.85
13:M:91:LEU:HD22	13:M:104:VAL:CG1	2.06	0.85
15:O:55:ARG:O	15:O:56:VAL:CG1	2.23	0.85
5:E:198:ARG:HG2	5:E:198:ARG:O	1.75	0.85
2:B:62:LEU:HD23	2:B:91:VAL:HG21	1.58	0.85
15:O:61:LYS:O	15:O:62:VAL:CG2	2.23	0.85
18:R:99:ASP:CA	18:R:119:VAL:HG12	2.02	0.85
4:D:97:CYS:SG	4:D:99:ILE:CG1	2.65	0.85
17:Q:42:ILE:CD1	17:Q:51:LEU:HD11	2.07	0.85
19:S:59:LEU:CD1	19:S:59:LEU:N	2.37	0.85
5:E:151:ASP:HB3	7:G:212:LEU:CD2	2.06	0.84
9:I:139:LYS:HB2	9:I:145:ILE:HD11	1.57	0.84
10:J:46:VAL:CG1	10:J:102:ILE:HG23	2.07	0.84
10:J:65:GLU:O	10:J:66:LYS:HB2	1.75	0.84
15:O:16:SER:HA	15:O:87:GLU:O	1.77	0.84
4:D:193:ASP:OD1	4:D:203:PRO:HA	1.76	0.84
10:J:87:LEU:HD11	10:J:91:LYS:CB	2.06	0.84
4:D:212:GLU:O	4:D:213:PRO:O	1.94	0.84
6:F:75:SER:O	6:F:78:MET:HG3	1.77	0.84
11:K:6:LYS:O	11:K:9:ILE:HG22	1.77	0.84
21:U:49:LYS:O	21:U:50:VAL:CG1	2.24	0.84
21:U:97:ILE:HG23	21:U:101:ILE:CD1	2.07	0.84
26:Z:103:HIS:CD2	26:Z:105:ALA:N	2.45	0.84
16:P:33:LEU:HD22	16:P:87:PRO:HG3	1.58	0.84
4:D:212:GLU:HB2	4:D:213:PRO:CD	2.07	0.84
20:T:4:VAL:HG12	20:T:8:ASP:HB3	1.59	0.84
15:O:54:CYS:SG	15:O:84:ARG:HB2	2.17	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:22:GLN:HB2	25:Y:74:MET:SD	2.14	0.84
13:M:28:HIS:HD2	13:M:113:ASP:OD2	1.59	0.84
21:U:67:LYS:HE3	21:U:78:ASP:OD1	1.77	0.84
25:Y:34:THR:CG2	25:Y:35:VAL:N	2.33	0.84
19:S:94:LYS:CD	19:S:96:SER:OG	2.24	0.84
4:D:197:LYS:N	4:D:198:ILE:C	2.30	0.84
10:J:180:LYS:HG3	10:J:181:GLY:N	1.90	0.84
3:C:131:GLU:CG	4:D:116:ARG:NH2	2.36	0.84
13:M:50:CYS:O	13:M:77:ILE:HG22	1.78	0.84
26:Z:85:ARG:HH11	26:Z:85:ARG:CG	1.90	0.84
1:A:191:ARG:HG3	1:A:191:ARG:O	1.73	0.84
12:L:147:LYS:HG3	12:L:148:ALA:N	1.91	0.84
1:A:48:ILE:HD13	18:R:105:MET:SD	2.16	0.84
25:Y:20:ARG:HG3	25:Y:74:MET:HE3	0.85	0.84
18:R:121:GLN:C	18:R:121:GLN:NE2	2.30	0.84
1:A:205:ARG:HH22	18:R:82:ASP:N	1.76	0.84
4:D:141:LYS:HD2	4:D:179:GLN:CG	2.07	0.84
2:B:75:GLN:NE2	2:B:75:GLN:HA	1.90	0.84
7:G:41:LEU:HD21	7:G:45:TRP:HZ3	1.09	0.84
10:J:31:LEU:O	10:J:35:TYR:HB2	1.77	0.84
11:K:16:PHE:HD2	11:K:79:LEU:CB	1.86	0.84
8:H:31:GLU:CD	8:H:41:ARG:CD	2.45	0.84
25:Y:63:HIS:CB	25:Y:64:PHE:CD1	2.59	0.84
19:S:58:GLU:O	19:S:59:LEU:CG	2.25	0.84
10:J:90:GLY:C	10:J:96:TYR:CE2	2.50	0.84
23:W:93:LEU:HD21	23:W:128:PHE:HD2	1.38	0.84
3:C:69:PHE:CZ	3:C:249:SER:HA	2.12	0.84
6:F:122:ARG:CZ	6:F:193:LYS:NZ	2.40	0.84
7:G:64:LYS:CG	7:G:67:VAL:CG1	2.55	0.84
10:J:170:PRO:HA	10:J:174:LYS:HZ3	1.43	0.84
17:Q:8:GLN:HB3	17:Q:99:TYR:CZ	2.12	0.84
4:D:132:LYS:CA	4:D:191:PRO:HG2	2.04	0.84
16:P:97:TYR:HB2	16:P:102:PHE:CE1	2.13	0.84
11:K:27:VAL:CG1	11:K:43:LEU:HD21	2.02	0.84
2:B:150:ILE:HG21	18:R:125:GLY:HA3	1.58	0.84
18:R:5:ARG:N	18:R:10:LYS:HZ1	1.75	0.84
23:W:129:PHE:CD1	23:W:129:PHE:O	2.30	0.84
8:H:147:LYS:HE2	8:H:153:LEU:CD1	2.06	0.84
3:C:229:ILE:HG13	3:C:230:SER:N	1.90	0.84
2:B:31:TYR:HE1	2:B:94:LYS:H	1.20	0.84
8:H:145:ARG:HD2	23:W:51:GLU:OE1	1.78	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:59:LYS:HD3	12:L:112:HIS:CD2	2.12	0.84
15:O:95:ILE:CD1	15:O:116:LEU:CD2	2.54	0.84
20:T:11:GLN:HE22	20:T:62:ARG:NH2	1.74	0.84
4:D:126:ILE:HD12	4:D:134:CYS:CB	2.08	0.84
5:E:191:ARG:CZ	5:E:245:ARG:HD3	2.07	0.84
2:B:72:ALA:HB3	15:O:128:ARG:HH22	1.42	0.84
3:C:120:GLY:HA2	3:C:150:VAL:CG2	2.07	0.84
9:I:191:GLU:O	9:I:192:GLY:C	2.14	0.84
16:P:4:VAL:O	16:P:4:VAL:HG12	1.76	0.84
25:Y:32:LYS:HG3	25:Y:33:ALA:N	1.80	0.84
15:O:105:THR:O	15:O:106:LYS:CG	2.24	0.84
6:F:161:ALA:HB3	6:F:172:CYS:SG	2.18	0.84
2:B:94:LYS:N	2:B:94:LYS:CD	2.39	0.84
5:E:21:ASP:OD1	5:E:24:THR:HG21	1.76	0.84
7:G:27:PHE:CE2	7:G:41:LEU:CD1	2.60	0.84
9:I:103:LEU:HD23	9:I:172:LEU:HD13	1.59	0.84
9:I:155:ASN:O	12:L:22:ARG:NE	2.10	0.84
14:N:99:ARG:NH2	14:N:115:LEU:CD2	2.39	0.84
4:D:76:ARG:HE	11:K:66:HIS:CE1	1.90	0.84
4:D:197:LYS:CB	4:D:198:ILE:CB	2.55	0.84
4:D:198:ILE:O	4:D:198:ILE:HD12	1.77	0.84
26:Z:62:VAL:CG1	26:Z:68:ILE:HD13	2.05	0.84
2:B:153:THR:O	2:B:154:SER:OG	1.95	0.84
1:A:11:LYS:HD3	1:A:13:GLU:CG	2.08	0.84
3:C:79:ILE:HD11	3:C:147:ILE:CD1	2.04	0.84
6:F:71:ARG:HG2	6:F:71:ARG:NH2	1.90	0.84
12:L:102:PHE:CD1	12:L:102:PHE:N	2.40	0.84
18:R:100:PRO:CB	18:R:119:VAL:HG21	2.06	0.84
16:P:41:GLN:HA	16:P:84:ILE:CD1	2.07	0.84
6:F:20:PHE:O	6:F:22:LYS:HA	1.78	0.84
4:D:202:LYS:HB2	4:D:203:PRO:CD	2.08	0.84
19:S:47:LYS:HZ2	19:S:78:LYS:CB	1.90	0.84
3:C:142:LEU:CA	3:C:145:LEU:HD23	2.04	0.83
6:F:63:LYS:HD3	6:F:71:ARG:HH22	1.41	0.83
17:Q:135:PRO:HD2	17:Q:141:TYR:CE1	2.11	0.83
4:D:55:THR:C	4:D:58:VAL:HG22	1.98	0.83
6:F:14:THR:CB	17:Q:56:LEU:CD1	2.55	0.83
17:Q:114:GLN:HG3	17:Q:115:TYR:N	1.93	0.83
25:Y:34:THR:C	25:Y:35:VAL:HG22	1.98	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:105:LEU:HD21	2:B:213:ARG:HA	1.59	0.83
16:P:68:PRO:CB	16:P:69:PRO:CD	2.53	0.83
11:K:26:ASP:OD2	11:K:29:MET:HG3	1.77	0.83
1:A:145:ILE:HD13	1:A:159:ILE:CG2	2.06	0.83
1:A:23:THR:O	1:A:25:LEU:N	2.12	0.83
12:L:80:MET:HE1	12:L:121:GLN:CA	2.08	0.83
24:X:94:ILE:HD11	24:X:122:VAL:HG11	1.60	0.83
25:Y:78:SER:CB	25:Y:81:TYR:CE2	2.61	0.83
21:U:67:LYS:HE2	21:U:78:ASP:CG	1.98	0.83
6:F:14:THR:HG23	17:Q:56:LEU:CB	2.00	0.83
17:Q:34:VAL:CG2	17:Q:39:LEU:HD21	2.06	0.83
17:Q:42:ILE:HD13	17:Q:51:LEU:HD21	0.86	0.83
17:Q:9:SER:HB3	17:Q:26:LYS:CD	2.06	0.83
19:S:55:ARG:HG3	26:Z:48:VAL:HG11	1.60	0.83
25:Y:7:ILE:CD1	25:Y:43:LYS:CD	2.55	0.83
1:A:180:ARG:HH11	1:A:184:ARG:CZ	1.90	0.83
3:C:51:LEU:HD22	3:C:51:LEU:C	1.95	0.83
7:G:195:LYS:O	7:G:199:THR:HG23	1.78	0.83
19:S:39:ARG:CD	20:T:38:LYS:HE3	2.05	0.83
25:Y:50:THR:HG21	25:Y:75:ILE:HG21	1.60	0.83
11:K:84:HIS:ND1	11:K:85:LEU:N	2.25	0.83
6:F:42:LYS:CA	6:F:45:TYR:H	1.91	0.83
17:Q:113:ILE:HG13	17:Q:120:LEU:HD11	1.60	0.83
17:Q:9:SER:HB2	17:Q:26:LYS:HG3	1.35	0.83
11:K:96:ARG:CG	11:K:97:SER:H	1.91	0.83
1:A:21:ALA:HB1	1:A:173:LEU:CD1	2.05	0.83
8:H:144:ILE:CG1	23:W:52:ILE:CG2	2.53	0.83
14:N:38:TYR:CE2	14:N:74:ILE:HG22	2.06	0.83
24:X:94:ILE:CG1	24:X:125:VAL:HG21	2.07	0.83
24:X:126:ALA:HB3	24:X:128:VAL:CG1	2.07	0.83
24:X:95:GLU:CD	24:X:140:ARG:NH2	2.31	0.83
16:P:53:GLN:HB3	16:P:56:LEU:HD12	1.61	0.83
16:P:41:GLN:HG3	16:P:84:ILE:HG23	1.57	0.83
13:M:13:ASP:CB	13:M:16:THR:CB	2.28	0.83
18:R:5:ARG:CA	18:R:10:LYS:HZ1	1.92	0.83
20:T:63:HIS:O	20:T:67:ARG:CD	2.26	0.83
1:A:54:THR:OG1	1:A:162:PRO:HG2	1.77	0.83
7:G:220:ALA:HA	7:G:223:LYS:HE3	1.60	0.83
22:V:60:ARG:HG2	22:V:65:SER:HB3	1.58	0.83
3:C:93:LYS:CE	3:C:218:LEU:CD2	2.48	0.83
17:Q:58:LEU:HD22	17:Q:111:ILE:CD1	2.08	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:8:LYS:O	26:Z:49:LEU:HD23	1.76	0.83
4:D:197:LYS:CB	4:D:198:ILE:HG13	2.02	0.83
20:T:11:GLN:HE21	20:T:62:ARG:CZ	1.90	0.83
3:C:156:GLY:C	3:C:157:ASN:ND2	2.30	0.83
13:M:93:LYS:O	13:M:94:ILE:CG2	2.25	0.83
7:G:52:ILE:HA	7:G:111:LEU:HD23	1.59	0.83
7:G:67:VAL:O	7:G:68:LEU:HB2	1.76	0.83
12:L:97:ARG:O	12:L:99:TYR:CA	2.27	0.83
24:X:125:VAL:O	24:X:128:VAL:N	2.10	0.83
11:K:71:LEU:HD21	11:K:76:ILE:CD1	1.93	0.83
17:Q:50:LYS:HZ2	17:Q:85:ARG:HH21	0.83	0.83
2:B:150:ILE:HD11	18:R:126:MET:CA	2.09	0.83
2:B:153:THR:CG2	2:B:154:SER:H	1.91	0.83
3:C:192:ALA:C	3:C:195:PRO:HD2	1.99	0.83
25:Y:93:ARG:HG2	25:Y:93:ARG:NH1	1.71	0.83
3:C:98:GLN:CB	3:C:106:ARG:O	2.27	0.83
5:E:129:ILE:HG12	5:E:139:LEU:HD22	1.08	0.83
7:G:181:THR:OG1	7:G:182:PRO:CD	2.26	0.83
7:G:212:LEU:HA	7:G:215:LYS:CD	2.09	0.83
18:R:99:ASP:CB	18:R:119:VAL:CG1	2.56	0.83
22:V:19:ALA:HB3	22:V:59:ILE:HD13	1.59	0.83
24:X:95:GLU:HG3	24:X:140:ARG:HH22	1.41	0.83
25:Y:50:THR:O	25:Y:51:THR:OG1	1.97	0.83
25:Y:54:VAL:HG12	25:Y:76:TYR:H	1.43	0.83
21:U:67:LYS:HE2	21:U:78:ASP:OD2	1.78	0.83
6:F:91:ARG:HD2	17:Q:46:THR:HG21	1.60	0.83
16:P:89:MET:HB3	16:P:107:ILE:CD1	2.07	0.83
25:Y:13:MET:CE	25:Y:14:THR:N	2.42	0.83
3:C:260:LYS:CD	3:C:261:THR:N	2.41	0.83
1:A:141:ASN:HD21	22:V:29:HIS:CB	1.92	0.83
1:A:32:PHE:CE1	1:A:33:GLN:CG	2.61	0.83
2:B:55:THR:O	2:B:56:LYS:CD	2.26	0.83
12:L:40:ILE:HD11	12:L:68:ILE:CB	2.09	0.83
15:O:44:VAL:HG12	15:O:53:ILE:HD11	1.58	0.83
25:Y:59:GLY:O	25:Y:60:PHE:HB2	1.77	0.83
11:K:14:LEU:CD2	11:K:35:LEU:HD21	1.96	0.83
8:H:40:LEU:HD21	8:H:43:LEU:HD12	0.84	0.83
17:Q:58:LEU:HD11	17:Q:108:ILE:HG23	1.60	0.83
26:Z:99:LEU:HD22	26:Z:102:LYS:CD	2.05	0.83
18:R:20:TYR:OH	18:R:38:ILE:HB	1.74	0.83
19:S:139:THR:O	19:S:141:ARG:HG2	1.76	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:105:PHE:CD1	24:X:112:VAL:HG21	2.13	0.83
8:H:100:ILE:HG12	8:H:125:VAL:HG21	1.58	0.83
3:C:244:THR:HG22	3:C:244:THR:O	1.77	0.83
19:S:42:HIS:HD2	20:T:45:LEU:HD11	1.01	0.83
21:U:104:ILE:O	21:U:105:SER:C	2.13	0.83
26:Z:91:LEU:HD22	26:Z:96:LEU:HD12	1.59	0.83
16:P:51:ARG:H	16:P:51:ARG:CD	1.92	0.83
2:B:113:MET:HE2	2:B:209:ASP:CG	1.99	0.83
4:D:211:VAL:CG2	18:R:38:ILE:O	2.21	0.83
17:Q:7:LEU:HD23	17:Q:8:GLN:H	1.44	0.83
25:Y:54:VAL:CG1	25:Y:76:TYR:H	1.91	0.83
8:H:36:LEU:C	8:H:36:LEU:HD12	1.95	0.83
25:Y:32:LYS:HG2	25:Y:33:ALA:H	1.41	0.83
13:M:12:MET:CE	13:M:120:ALA:HB2	2.09	0.83
6:F:195:GLU:OE1	6:F:195:GLU:HA	1.77	0.83
3:C:142:LEU:O	3:C:145:LEU:CD2	2.26	0.82
11:K:27:VAL:HG13	11:K:43:LEU:HD23	1.52	0.82
11:K:84:HIS:ND1	11:K:85:LEU:CA	2.42	0.82
17:Q:114:GLN:CG	17:Q:115:TYR:H	1.91	0.82
17:Q:116:ASP:O	17:Q:117:ARG:HB2	1.78	0.82
4:D:135:GLU:HB2	4:D:153:VAL:HG22	1.61	0.82
10:J:138:ARG:HB2	10:J:156:HIS:HB3	1.61	0.82
11:K:74:GLU:HA	11:K:74:GLU:OE1	1.77	0.82
1:A:131:HIS:O	1:A:135:THR:HG23	1.79	0.82
3:C:244:THR:HG21	3:C:246:PHE:HA	1.59	0.82
3:C:55:VAL:CB	3:C:82:PHE:HE2	1.92	0.82
5:E:159:THR:HG23	5:E:227:VAL:HG23	1.25	0.82
7:G:84:TYR:HE2	7:G:86:PRO:HG3	1.42	0.82
10:J:134:HIS:ND1	10:J:163:SER:HB3	1.94	0.82
1:A:185:MET:HE2	22:V:39:VAL:HG12	1.58	0.82
16:P:10:ARG:CZ	16:P:11:THR:HB	2.09	0.82
3:C:93:LYS:HE3	3:C:95:MET:HB3	1.60	0.82
8:H:93:VAL:HG22	8:H:94:PHE:N	1.84	0.82
17:Q:72:VAL:CG2	17:Q:84:ILE:CG2	2.56	0.82
25:Y:29:HIS:CE1	25:Y:68:LYS:CA	2.62	0.82
6:F:19:LEU:HD22	6:F:24:SER:HA	1.60	0.82
3:C:122:VAL:HG13	3:C:202:ALA:HA	1.61	0.82
1:A:145:ILE:CD1	1:A:159:ILE:CG2	2.55	0.82
1:A:66:VAL:HG22	1:A:186:ARG:CD	2.03	0.82
2:B:48:LEU:O	15:O:51:GLU:OE1	1.97	0.82
8:H:145:ARG:HH11	8:H:155:LYS:NZ	1.77	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
10:J:39:ASN:OD1	10:J:42:GLU:CD	2.17	0.82
13:M:124:ILE:CA	13:M:127:TYR:CD2	2.62	0.82
2:B:128:LYS:HG3	2:B:132:GLY:O	1.79	0.82
1:A:159:ILE:CG2	1:A:159:ILE:O	2.27	0.82
1:A:39:TYR:CB	1:A:50:ASN:ND2	2.40	0.82
7:G:226:GLU:O	7:G:230:LYS:HG2	1.78	0.82
20:T:39:LEU:HD12	20:T:99:VAL:HG21	1.61	0.82
4:D:56:GLN:HA	4:D:59:LEU:CD2	2.09	0.82
11:K:84:HIS:HD2	13:M:27:ILE:HG13	1.43	0.82
17:Q:58:LEU:HD22	17:Q:111:ILE:HD12	1.61	0.82
10:J:15:THR:CB	10:J:44:TRP:CZ3	2.62	0.82
4:D:193:ASP:OD1	4:D:203:PRO:CA	2.27	0.82
24:X:69:CYS:SG	24:X:84:PHE:HA	2.19	0.82
24:X:74:LEU:HD11	24:X:81:ILE:CD1	2.08	0.82
21:U:18:HIS:CE1	21:U:98:VAL:CG2	2.60	0.82
16:P:118:GLU:O	19:S:119:ALA:CA	2.27	0.82
9:I:206:LYS:CG	9:I:207:GLY:N	2.42	0.82
10:J:170:PRO:HG2	10:J:175:ARG:HG3	0.83	0.82
12:L:147:LYS:CG	12:L:148:ALA:N	2.29	0.82
15:O:17:LEU:HD23	15:O:18:GLY:N	1.95	0.82
16:P:44:ARG:NH2	16:P:84:ILE:HB	1.93	0.82
4:D:74:GLN:HE21	4:D:75:LYS:HD3	1.45	0.82
11:K:36:ALA:C	11:K:38:LYS:N	2.30	0.82
16:P:123:TYR:OH	19:S:124:ARG:HG2	1.78	0.82
6:F:91:ARG:NH1	6:F:94:LYS:CG	2.37	0.82
19:S:95:TYR:N	19:S:95:TYR:HD1	1.72	0.82
13:M:92:CYS:HB2	13:M:101:ARG:HG3	1.60	0.82
6:F:116:ILE:N	6:F:116:ILE:CD1	2.39	0.82
8:H:147:LYS:CE	8:H:153:LEU:HD12	2.08	0.82
1:A:76:VAL:HG21	1:A:90:PHE:CE2	2.15	0.82
3:C:70:SER:O	22:V:29:HIS:CE1	2.33	0.82
5:E:43:PRO:CG	5:E:46:ILE:HD12	2.09	0.82
14:N:38:TYR:CE2	14:N:74:ILE:HG23	2.13	0.82
22:V:79:VAL:CG1	22:V:82:ASN:OD1	2.28	0.82
7:G:85:ARG:NE	25:Y:118:ARG:NE	2.28	0.82
25:Y:17:LEU:HD12	25:Y:18:LEU:HG	1.61	0.82
21:U:27:ARG:O	21:U:28:ASN:C	2.12	0.82
17:Q:25:CYS:SG	17:Q:91:ALA:CB	2.63	0.82
19:S:26:ILE:HG22	19:S:45:LEU:HD11	1.60	0.82
9:I:21:TYR:CD2	9:I:22:HIS:CD2	2.66	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:202:LYS:CB	4:D:203:PRO:CD	2.57	0.82
2:B:151:ARG:HD2	2:B:153:THR:HG22	1.62	0.82
13:M:26:LEU:HD11	13:M:89:VAL:C	1.99	0.82
25:Y:93:ARG:CG	25:Y:93:ARG:HH11	1.88	0.82
21:U:18:HIS:CE1	21:U:93:SER:O	2.33	0.82
10:J:114:VAL:CG1	10:J:119:LEU:O	2.27	0.82
10:J:114:VAL:HG12	10:J:120:ALA:CB	2.07	0.82
4:D:158:ILE:HD11	4:D:189:MET:SD	2.19	0.82
16:P:14:LYS:O	16:P:22:LEU:HD23	1.78	0.82
4:D:192:TRP:HE3	4:D:196:GLY:HA2	1.38	0.82
10:J:48:PHE:CE1	10:J:52:LYS:NZ	2.42	0.82
3:C:192:ALA:O	3:C:195:PRO:HD2	1.79	0.82
10:J:45:ARG:O	10:J:49:THR:HG23	1.78	0.82
6:F:179:ASN:O	6:F:182:LYS:O	1.97	0.82
7:G:147:LEU:O	7:G:151:ASP:OD2	1.98	0.82
7:G:184:VAL:HG12	7:G:188:LYS:CE	2.09	0.82
14:N:16:LEU:HD21	14:N:62:GLN:CD	1.99	0.82
4:D:56:GLN:O	4:D:59:LEU:CG	2.25	0.82
6:F:44:LYS:O	6:F:44:LYS:HE3	1.80	0.82
17:Q:105:LYS:HZ3	17:Q:109:LYS:HB2	1.45	0.82
8:H:122:LEU:CD1	8:H:123:THR:HG23	2.08	0.82
3:C:82:PHE:C	3:C:83:LEU:HD12	2.00	0.82
5:E:126:VAL:CG2	5:E:129:ILE:HD11	2.09	0.82
7:G:27:PHE:HZ	7:G:41:LEU:CD1	1.92	0.82
1:A:2:SER:O	22:V:78:ILE:HD11	1.79	0.82
21:U:108:PRO:O	21:U:108:PRO:HG2	1.79	0.82
23:W:42:MET:HE3	23:W:50:PHE:CD2	2.14	0.82
10:J:89:GLU:O	10:J:92:MET:CB	2.28	0.82
4:D:108:LYS:CB	4:D:113:LEU:HD22	2.10	0.82
17:Q:92:LEU:HD12	17:Q:96:TYR:CE2	2.14	0.82
10:J:10:ARG:CZ	10:J:10:ARG:CB	2.58	0.82
18:R:51:ALA:O	18:R:55:THR:HG23	1.80	0.82
5:E:175:PHE:HD2	5:E:175:PHE:O	1.63	0.82
1:A:43:SER:O	1:A:44:ASP:OD1	1.97	0.82
1:A:97:THR:HG23	1:A:98:PRO:CD	2.06	0.82
5:E:124:CYS:HB3	5:E:141:THR:HB	1.59	0.82
7:G:147:LEU:HD21	7:G:156:TYR:CE2	2.15	0.82
9:I:118:ALA:HB2	9:I:149:TYR:CE1	2.15	0.82
9:I:155:ASN:O	12:L:22:ARG:HD3	1.80	0.82
9:I:155:ASN:ND2	9:I:156:ALA:HA	1.95	0.82
4:D:132:LYS:HA	4:D:191:PRO:CG	2.10	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:8:LYS:CE	19:S:9:PHE:CE1	2.63	0.82
26:Z:99:LEU:HD13	26:Z:102:LYS:CD	2.09	0.82
4:D:123:LEU:HD21	4:D:154:ASP:CG	2.00	0.82
7:G:29:GLU:O	7:G:29:GLU:HG2	1.78	0.82
3:C:50:LYS:HD2	3:C:251:TYR:HD1	1.39	0.81
7:G:38:ALA:HB1	7:G:45:TRP:O	1.78	0.81
18:R:110:ASP:O	18:R:111:PHE:HD2	1.62	0.81
6:F:42:LYS:CE	6:F:42:LYS:O	2.28	0.81
24:X:105:PHE:CG	24:X:112:VAL:CG2	2.62	0.81
3:C:154:TYR:HH	3:C:161:LYS:HA	1.45	0.81
3:C:195:PRO:CD	3:C:221:PHE:HZ	1.92	0.81
15:O:37:PHE:O	15:O:38:ASN:HB2	1.78	0.81
2:B:72:ALA:HB1	2:B:77:ASP:OD2	1.80	0.81
5:E:87:MET:HE2	5:E:182:MET:HE1	1.62	0.81
22:V:24:ILE:HD13	22:V:25:GLY:H	1.41	0.81
4:D:48:ILE:HG21	4:D:86:LEU:HG	1.62	0.81
4:D:78:GLY:O	4:D:80:PRO:HD3	1.79	0.81
17:Q:44:PRO:O	17:Q:45:ARG:HG2	1.78	0.81
17:Q:72:VAL:CG2	17:Q:84:ILE:HG22	2.10	0.81
16:P:14:LYS:O	16:P:22:LEU:CD2	2.28	0.81
4:D:195:SER:O	4:D:197:LYS:HA	1.80	0.81
10:J:90:GLY:C	10:J:96:TYR:CD2	2.52	0.81
18:R:21:TYR:HB3	18:R:71:ILE:HG21	1.62	0.81
1:A:58:LEU:HD23	1:A:178:LEU:HD21	1.57	0.81
1:A:141:ASN:ND2	22:V:29:HIS:HB3	1.94	0.81
1:A:16:LEU:HD22	18:R:111:PHE:CZ	2.09	0.81
5:E:86:PHE:CZ	5:E:182:MET:CE	2.62	0.81
12:L:149:ALA:HB2	12:L:156:GLN:HE21	1.00	0.81
22:V:32:ILE:HD12	22:V:60:ARG:HH12	1.43	0.81
25:Y:22:GLN:HB3	25:Y:74:MET:CE	2.09	0.81
4:D:34:TYR:CE1	21:U:61:LEU:HD21	27.38	0.81
4:D:70:THR:HG22	4:D:86:LEU:HB2	1.62	0.81
17:Q:90:LYS:HD3	17:Q:120:LEU:HA	1.61	0.81
25:Y:34:THR:HG22	25:Y:35:VAL:H	1.40	0.81
26:Z:96:LEU:O	26:Z:112:ASN:HB3	1.80	0.81
10:J:88:ASP:O	10:J:92:MET:HG3	1.81	0.81
24:X:105:PHE:CD1	24:X:112:VAL:CG2	2.64	0.81
24:X:67:ARG:C	24:X:68:LYS:CG	2.48	0.81
13:M:76:LEU:O	13:M:128:PHE:CE1	2.32	0.81
13:M:33:ARG:HH11	13:M:33:ARG:HG3	1.46	0.81
8:H:23:ILE:CD1	8:H:27:LEU:HD21	2.10	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:97:SER:OG	11:K:98:ARG:N	2.10	0.81
4:D:67:ARG:HH11	4:D:67:ARG:CG	1.92	0.81
2:B:130:THR:HG21	2:B:179:ASN:H	1.43	0.81
13:M:71:GLU:O	13:M:72:HIS:O	1.98	0.81
26:Z:94:LYS:NZ	26:Z:95:GLY:H	1.78	0.81
1:A:202:TYR:O	1:A:203:PHE:CG	2.33	0.81
1:A:48:ILE:HD13	18:R:105:MET:CE	2.09	0.81
3:C:120:GLY:HA2	3:C:150:VAL:HG22	1.60	0.81
3:C:79:ILE:HG12	3:C:144:LYS:HB3	1.62	0.81
7:G:57:ASP:OD2	7:G:98:ARG:HG3	1.80	0.81
10:J:170:PRO:HB2	10:J:174:LYS:HB3	1.62	0.81
10:J:37:LEU:HD21	10:J:42:GLU:C	2.01	0.81
12:L:125:ILE:O	12:L:146:THR:HG22	1.79	0.81
18:R:100:PRO:C	18:R:103:LYS:H	1.82	0.81
6:F:39:ILE:CG2	6:F:68:ILE:HD13	2.11	0.81
26:Z:69:THR:CB	26:Z:70:PRO:CD	2.58	0.81
16:P:68:PRO:HB2	16:P:69:PRO:CD	2.09	0.81
5:E:11:ARG:O	5:E:12:VAL:HG23	1.80	0.81
2:B:70:SER:HB2	15:O:128:ARG:HD3	1.61	0.81
21:U:62:ARG:HH11	21:U:64:THR:CG2	1.92	0.81
25:Y:18:LEU:HD13	25:Y:20:ARG:HH12	0.66	0.81
21:U:46:LYS:HZ1	21:U:97:ILE:HG12	1.44	0.81
5:E:128:LYS:CD	5:E:130:PHE:CD1	2.63	0.81
5:E:130:PHE:CB	5:E:138:HIS:CE1	2.63	0.81
13:M:12:MET:HE1	13:M:120:ALA:HB1	1.61	0.81
4:D:218:LEU:CB	4:D:220:THR:HG23	1.97	0.81
10:J:138:ARG:O	10:J:138:ARG:HG2	1.77	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
19:S:10:GLN:HB3	19:S:13:LEU:HD21	1.62	0.81
7:G:142:ARG:CD	7:G:147:LEU:HB2	2.07	0.81
12:L:94:HIS:HB2	12:L:105:ARG:CD	2.10	0.81
25:Y:114:MET:HG2	25:Y:124:ASN:HB3	1.62	0.81
20:T:31:PRO:CG	20:T:102:ARG:HG3	2.10	0.81
25:Y:55:ILE:CG1	25:Y:75:ILE:CG1	2.15	0.81
19:S:34:LYS:CG	19:S:103:LEU:HD21	2.10	0.81
4:D:47:GLU:CD	4:D:85:GLU:OE2	2.19	0.81
21:U:97:ILE:CG2	21:U:101:ILE:CD1	2.58	0.81
8:H:83:LEU:CD2	8:H:92:VAL:CG1	2.57	0.81
17:Q:85:ARG:HH12	17:Q:117:ARG:CB	1.93	0.81
13:M:31:LEU:HD11	13:M:109:VAL:HB	1.63	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:7:ILE:CG1	25:Y:43:LYS:HD3	2.11	0.81
25:Y:111:LYS:HZ3	25:Y:115:LYS:HZ1	1.29	0.81
5:E:49:ARG:HB3	5:E:55:ALA:HB3	1.62	0.81
9:I:128:LYS:HE2	9:I:133:GLU:OE1	1.81	0.81
22:V:55:ILE:CD1	22:V:65:SER:HA	2.08	0.81
22:V:67:ASP:O	22:V:70:LEU:N	2.14	0.81
24:X:71:ARG:HE	24:X:82:THR:HG23	1.46	0.81
11:K:4:PRO:HG2	11:K:7:ASN:CB	2.11	0.81
17:Q:9:SER:CB	17:Q:26:LYS:CD	2.59	0.81
25:Y:36:PRO:CG	25:Y:39:GLU:OE1	2.24	0.81
4:D:112:GLY:O	4:D:113:LEU:CG	2.28	0.81
23:W:102:ILE:H	23:W:113:HIS:CE1	1.98	0.81
20:T:75:MET:CE	20:T:79:TYR:CE2	2.61	0.81
2:B:26:SER:O	2:B:27:LYS:CG	2.28	0.81
4:D:226:GLN:HA	4:D:226:GLN:HE21	1.34	0.81
7:G:142:ARG:CD	7:G:147:LEU:CB	2.59	0.81
12:L:103:GLU:OE1	24:X:11:ARG:CZ	2.29	0.81
15:O:34:PHE:HZ	15:O:100:THR:HA	1.45	0.81
20:T:52:TRP:O	20:T:55:THR:HG22	1.80	0.81
2:B:150:ILE:CG1	18:R:124:VAL:CG1	2.47	0.81
24:X:29:LYS:HD3	24:X:34:THR:CG2	2.11	0.81
16:P:62:LYS:HG3	16:P:65:LYS:CE	2.11	0.81
20:T:87:VAL:HG13	20:T:88:MET:HG3	1.61	0.81
23:W:7:LEU:HD11	23:W:33:VAL:CG1	2.10	0.81
5:E:241:GLY:O	5:E:244:ILE:HG13	1.81	0.81
3:C:244:THR:HG22	3:C:246:PHE:HD2	1.41	0.81
6:F:59:LYS:HD2	6:F:62:ARG:HH22	1.41	0.81
7:G:224:ARG:O	7:G:228:ILE:HG13	1.80	0.81
9:I:128:LYS:C	9:I:131:PRO:HD2	2.01	0.81
12:L:71:ARG:CD	12:L:73:LEU:CD2	2.41	0.81
14:N:46:THR:HG1	14:N:49:GLN:HG2	1.42	0.81
19:S:39:ARG:CZ	20:T:38:LYS:CD	2.59	0.81
8:H:9:VAL:C	8:H:11:PRO:HD3	2.02	0.81
17:Q:34:VAL:HG23	17:Q:39:LEU:HD21	1.60	0.81
17:Q:39:LEU:O	17:Q:42:ILE:CD1	2.28	0.81
17:Q:9:SER:CA	17:Q:26:LYS:HG3	2.10	0.81
26:Z:62:VAL:HA	26:Z:65:TYR:CE2	2.16	0.81
8:H:23:ILE:HD11	8:H:27:LEU:HD21	1.62	0.81
1:A:103:PHE:CE2	1:A:136:GLU:CD	2.50	0.81
1:A:60:LEU:HD13	1:A:60:LEU:O	1.81	0.81
2:B:57:ILE:CG2	2:B:57:ILE:O	2.30	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:16:LEU:HD11	14:N:62:GLN:NE2	1.95	0.81
18:R:99:ASP:CB	18:R:119:VAL:HG11	2.09	0.81
20:T:31:PRO:C	20:T:33:TRP:H	1.82	0.81
4:D:59:LEU:CD1	4:D:60:GLY:H	1.87	0.81
2:B:150:ILE:HG13	18:R:125:GLY:C	2.00	0.81
10:J:89:GLU:CB	10:J:92:MET:SD	2.68	0.81
24:X:142:ARG:CG	24:X:142:ARG:NH1	2.30	0.81
3:C:154:TYR:HE1	3:C:162:PRO:HG3	1.46	0.81
6:F:134:VAL:CG1	6:F:136:ARG:NH2	2.44	0.80
9:I:138:ASN:O	9:I:139:LYS:O	2.00	0.80
10:J:130:ILE:CG1	10:J:135:ILE:HD13	2.10	0.80
18:R:103:LYS:O	18:R:107:LYS:HG3	1.80	0.80
8:H:65:PRO:CD	8:H:68:GLN:OE1	2.28	0.80
6:F:44:LYS:CD	6:F:44:LYS:O	2.29	0.80
19:S:23:ARG:HD3	26:Z:48:VAL:HB	1.62	0.80
10:J:180:LYS:CD	10:J:180:LYS:C	2.50	0.80
25:Y:46:LYS:HD2	25:Y:46:LYS:O	1.81	0.80
6:F:201:LYS:CD	6:F:204:ARG:NH2	2.39	0.80
10:J:109:ARG:O	10:J:110:LEU:O	1.98	0.80
10:J:134:HIS:CE1	10:J:164:PRO:HD3	2.15	0.80
4:D:35:SER:HG	4:D:97:CYS:HG	1.21	0.80
6:F:40:ALA:H	6:F:68:ILE:HG23	1.43	0.80
2:B:66:VAL:HG22	2:B:87:ILE:CB	2.10	0.80
8:H:12:ASN:CB	8:H:46:THR:OG1	2.29	0.80
26:Z:103:HIS:O	26:Z:106:GLN:N	2.13	0.80
19:S:55:ARG:HH11	26:Z:80:ARG:HE	1.26	0.80
25:Y:99:LYS:CD	25:Y:99:LYS:O	2.28	0.80
1:A:127:PRO:HA	1:A:134:LEU:HD11	1.62	0.80
2:B:72:ALA:HB3	15:O:128:ARG:NH2	1.95	0.80
12:L:101:ARG:HH12	24:X:5:ARG:HA	1.46	0.80
19:S:34:LYS:HB3	19:S:103:LEU:CG	2.11	0.80
11:K:11:ILE:HG22	11:K:49:MET:CE	2.04	0.80
8:H:14:GLU:OE1	8:H:16:PRO:CG	2.30	0.80
6:F:44:LYS:O	6:F:44:LYS:HD2	1.80	0.80
24:X:60:LYS:CG	24:X:116:PRO:HG2	2.11	0.80
23:W:6:VAL:HG13	23:W:29:PRO:HD2	1.63	0.80
25:Y:3:ASP:O	25:Y:4:THR:OG1	1.98	0.80
3:C:55:VAL:CG1	3:C:82:PHE:CZ	2.37	0.80
11:K:36:ALA:O	11:K:38:LYS:CG	2.29	0.80
19:S:94:LYS:CE	19:S:95:TYR:O	2.29	0.80
12:L:78:THR:HG22	12:L:87:VAL:O	1.82	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:139:TRP:CZ3	14:N:140:LYS:C	2.55	0.80
22:V:78:ILE:HD13	22:V:79:VAL:N	1.95	0.80
16:P:41:GLN:NE2	16:P:84:ILE:CG2	2.43	0.80
11:K:11:ILE:HG23	11:K:49:MET:HE1	1.46	0.80
20:T:23:LYS:CE	20:T:54:TYR:CD2	2.64	0.80
25:Y:7:ILE:HD11	25:Y:43:LYS:CB	2.11	0.80
10:J:179:LYS:CG	10:J:182:GLN:OE1	2.30	0.80
17:Q:30:GLY:O	17:Q:31:LEU:CD1	2.29	0.80
2:B:130:THR:CG2	2:B:179:ASN:H	1.93	0.80
25:Y:108:LYS:O	25:Y:111:LYS:HG3	1.81	0.80
1:A:103:PHE:HZ	1:A:136:GLU:OE1	1.61	0.80
2:B:94:LYS:HD2	2:B:94:LYS:N	1.95	0.80
9:I:140:LYS:O	9:I:141:ARG:HG3	1.82	0.80
22:V:40:ASP:HB2	22:V:47:ASN:ND2	1.94	0.80
16:P:4:VAL:HA	16:P:10:ARG:CG	2.09	0.80
21:U:40:ILE:HD11	21:U:53:PRO:HG3	0.81	0.80
5:E:128:LYS:CD	5:E:130:PHE:HE1	1.84	0.80
24:X:29:LYS:CD	24:X:34:THR:CG2	2.58	0.80
1:A:14:ASP:HB3	1:A:18:PHE:HE2	1.46	0.80
3:C:244:THR:HG23	3:C:246:PHE:CA	2.10	0.80
5:E:100:ARG:CD	5:E:102:ILE:HD11	2.08	0.80
22:V:24:ILE:CG2	22:V:24:ILE:O	2.30	0.80
25:Y:114:MET:CE	25:Y:125:VAL:HG23	2.11	0.80
20:T:31:PRO:HB3	20:T:33:TRP:CD2	2.17	0.80
25:Y:55:ILE:HG22	25:Y:55:ILE:O	1.78	0.80
25:Y:55:ILE:CB	25:Y:75:ILE:HG12	2.12	0.80
4:D:34:TYR:CE2	21:U:61:LEU:CD2	26.69	0.80
8:H:14:GLU:OE1	8:H:16:PRO:CB	2.29	0.80
13:M:61:TYR:CE1	13:M:108:CYS:SG	2.70	0.80
22:V:1:MET:CE	22:V:10:ASP:CB	2.55	0.80
13:M:124:ILE:HA	13:M:127:TYR:CE2	2.17	0.80
13:M:100:PRO:O	13:M:101:ARG:CD	2.30	0.80
5:E:38:LEU:O	5:E:38:LEU:CD1	2.30	0.80
7:G:36:VAL:HG12	7:G:37:ALA:N	1.95	0.80
14:N:23:PRO:HD2	14:N:26:LEU:HD23	1.62	0.80
14:N:59:GLY:O	14:N:60:VAL:HG13	1.80	0.80
22:V:19:ALA:O	23:W:23:ARG:NH2	2.15	0.80
24:X:126:ALA:O	24:X:128:VAL:CB	2.29	0.80
4:D:47:GLU:OE2	4:D:85:GLU:OE2	2.00	0.80
6:F:46:ALA:C	6:F:47:LYS:HD2	2.00	0.80
17:Q:85:ARG:NH1	17:Q:117:ARG:HB3	1.97	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:127:LYS:O	16:P:127:LYS:CE	2.30	0.80
4:D:112:GLY:O	4:D:113:LEU:CD1	2.29	0.80
5:E:130:PHE:CG	5:E:138:HIS:CE1	2.70	0.80
13:M:31:LEU:HD12	13:M:33:ARG:HB3	1.64	0.80
6:F:112:LEU:HA	6:F:177:LEU:CD1	2.11	0.80
9:I:206:LYS:HG3	9:I:207:GLY:N	1.97	0.80
20:T:114:GLU:OE2	20:T:122:LYS:HE3	1.81	0.80
7:G:162:LEU:CD2	7:G:172:LYS:NZ	2.44	0.80
18:R:99:ASP:O	18:R:119:VAL:CB	2.29	0.80
21:U:62:ARG:HH12	21:U:64:THR:CG2	1.76	0.80
19:S:39:ARG:NH2	20:T:38:LYS:CD	2.45	0.80
11:K:36:ALA:O	11:K:38:LYS:CD	2.29	0.80
11:K:83:LEU:HB2	11:K:85:LEU:HD21	1.63	0.80
17:Q:44:PRO:HG2	17:Q:81:ILE:CD1	2.10	0.80
19:S:12:ILE:O	19:S:12:ILE:CG2	2.30	0.80
19:S:94:LYS:CD	19:S:95:TYR:O	2.30	0.80
6:F:103:LEU:CD2	6:F:103:LEU:O	4.02	0.80
25:Y:101:LYS:O	25:Y:102:THR:CG2	2.29	0.80
25:Y:99:LYS:O	25:Y:99:LYS:CE	2.29	0.80
8:H:100:ILE:CG1	8:H:125:VAL:HG21	2.12	0.80
20:T:65:TYR:HA	20:T:123:LEU:HD13	1.64	0.80
25:Y:9:THR:CB	25:Y:48:TYR:OH	2.29	0.80
3:C:154:TYR:CE1	3:C:162:PRO:CG	2.64	0.80
19:S:61:GLU:C	19:S:64:VAL:HG22	2.02	0.80
10:J:100:LEU:HG	10:J:101:LYS:H	1.44	0.80
3:C:54:LEU:CD2	3:C:254:PHE:HB3	2.12	0.79
5:E:129:ILE:HG13	5:E:139:LEU:HD22	1.34	0.79
9:I:139:LYS:HB2	9:I:145:ILE:CD1	2.08	0.79
22:V:32:ILE:CD1	22:V:60:ARG:NH1	2.42	0.79
25:Y:120:THR:C	25:Y:122:LYS:HD2	2.02	0.79
4:D:97:CYS:SG	4:D:97:CYS:O	2.38	0.79
11:K:39:ASN:O	11:K:40:VAL:CG1	2.29	0.79
17:Q:38:PRO:O	17:Q:41:MET:HG2	1.82	0.79
10:J:16:PRO:CD	10:J:44:TRP:CZ2	2.65	0.79
26:Z:77:LEU:O	26:Z:78:LYS:CG	2.30	0.79
23:W:36:ARG:O	23:W:39:THR:OG1	1.99	0.79
23:W:101:PHE:HA	23:W:113:HIS:CE1	2.16	0.79
8:H:98:ARG:CZ	8:H:128:ALA:HB1	2.11	0.79
3:C:255:THR:HG23	3:C:256:ASP:OD1	1.82	0.79
1:A:16:LEU:C	1:A:17:LYS:HE2	2.02	0.79
3:C:48:VAL:HG23	3:C:75:GLU:CD	2.03	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:84:GLY:CA	3:C:87:LEU:HB3	2.10	0.79
7:G:155:GLN:O	7:G:156:TYR:HD1	1.64	0.79
7:G:187:HIS:O	7:G:191:ARG:HG2	1.81	0.79
10:J:170:PRO:CB	10:J:174:LYS:CE	2.60	0.79
20:T:99:VAL:O	20:T:103:VAL:HG23	1.82	0.79
8:H:83:LEU:HD12	8:H:84:GLU:N	1.96	0.79
17:Q:19:ALA:HB2	17:Q:75:GLY:CA	2.13	0.79
19:S:36:VAL:CG2	19:S:36:VAL:O	2.30	0.79
18:R:1:MET:O	18:R:1:MET:N	2.15	0.79
4:D:197:LYS:N	4:D:199:GLY:N	2.30	0.79
2:B:150:ILE:CD1	18:R:125:GLY:C	2.49	0.79
23:W:128:PHE:HE1	23:W:130:PHE:CD2	2.00	0.79
9:I:82:VAL:HG11	9:I:202:ILE:HD11	1.64	0.79
25:Y:37:LYS:O	25:Y:40:ILE:HG23	1.82	0.79
24:X:52:LEU:HD12	24:X:53:GLU:CB	2.11	0.79
25:Y:45:ALA:HA	25:Y:55:ILE:CD1	2.12	0.79
4:D:70:THR:CB	4:D:86:LEU:HD13	2.12	0.79
6:F:49:LEU:HD12	6:F:50:PRO:CD	2.11	0.79
20:T:91:HIS:N	20:T:91:HIS:CD2	2.50	0.79
9:I:206:LYS:HD2	9:I:207:GLY:N	1.97	0.79
9:I:29:LEU:HG	9:I:30:GLY:H	1.45	0.79
2:B:77:ASP:O	2:B:79:VAL:CG2	2.27	0.79
5:E:97:GLU:OE1	5:E:97:GLU:CA	4.26	0.79
1:A:57:LYS:HZ1	22:V:70:LEU:HD11	1.00	0.79
26:Z:44:LEU:CD1	26:Z:44:LEU:O	2.30	0.79
4:D:198:ILE:O	4:D:198:ILE:CG1	2.30	0.79
18:R:5:ARG:C	18:R:10:LYS:HE2	2.03	0.79
20:T:11:GLN:HE21	20:T:62:ARG:NH1	1.81	0.79
24:X:142:ARG:HB2	24:X:142:ARG:NH1	1.92	0.79
4:D:105:LEU:HD21	4:D:184:ILE:HD12	1.62	0.79
3:C:234:SER:HA	22:V:23:ILE:HD11	1.57	0.79
1:A:4:ALA:HB1	22:V:39:VAL:HG21	1.63	0.79
3:C:51:LEU:CD2	3:C:51:LEU:O	2.30	0.79
9:I:136:ILE:CG2	9:I:139:LYS:CE	2.43	0.79
14:N:21:SER:O	14:N:22:VAL:CG2	2.30	0.79
15:O:64:ALA:O	15:O:66:ARG:N	2.15	0.79
25:Y:44:LEU:CD1	25:Y:48:TYR:CD2	2.66	0.79
24:X:27:TYR:CE2	24:X:31:HIS:CD2	2.70	0.79
25:Y:36:PRO:HG2	25:Y:39:GLU:HB2	1.64	0.79
25:Y:99:LYS:CG	25:Y:99:LYS:O	2.29	0.79
13:M:89:VAL:HG12	13:M:90:GLY:H	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:36:GLN:CG	6:F:37:ASP:OD2	2.30	0.79
16:P:39:ALA:HA	16:P:42:ARG:HE	1.43	0.79
18:R:42:PRO:HD2	18:R:43:SER:N	1.97	0.79
3:C:177:LEU:HD12	3:C:177:LEU:O	1.81	0.79
5:E:120:LYS:O	5:E:164:LEU:CB	2.31	0.79
17:Q:109:LYS:HG2	17:Q:113:ILE:HD12	1.62	0.79
19:S:80:PRO:HB2	19:S:82:TRP:CD1	2.18	0.79
4:D:214:LYS:CG	4:D:215:ASP:OD2	2.28	0.79
17:Q:92:LEU:HD11	17:Q:96:TYR:OH	1.81	0.79
2:B:21:VAL:O	2:B:21:VAL:CG2	2.30	0.79
26:Z:70:PRO:CD	26:Z:71:ALA:H	1.94	0.79
22:V:42:VAL:O	22:V:43:THR:CG2	2.30	0.79
24:X:54:LYS:HD2	24:X:91:LEU:CD1	2.13	0.79
21:U:108:PRO:CD	21:U:108:PRO:O	2.29	0.79
18:R:44:LYS:HG3	18:R:47:ARG:NH1	1.96	0.79
15:O:94:HIS:CG	15:O:127:GLY:O	2.35	0.79
15:O:75:MET:SD	15:O:118:ALA:HB2	2.22	0.79
4:D:209:SER:OG	18:R:40:ILE:HB	1.83	0.79
4:D:226:GLN:O	4:D:227:LYS:CG	2.30	0.79
5:E:208:VAL:HB	5:E:225:ILE:HD11	0.80	0.79
7:G:162:LEU:CG	7:G:170:ARG:HB2	2.12	0.79
15:O:30:VAL:HG13	15:O:47:LEU:HD23	1.63	0.79
8:H:144:ILE:CD1	23:W:52:ILE:HD13	2.12	0.79
16:P:44:ARG:HD3	16:P:115:TYR:HE1	1.47	0.79
21:U:108:PRO:CG	21:U:108:PRO:O	2.30	0.79
21:U:69:PRO:O	21:U:69:PRO:CD	2.30	0.79
6:F:25:THR:CB	6:F:42:LYS:HG3	2.11	0.79
24:X:27:TYR:CE1	24:X:31:HIS:CE1	2.67	0.79
25:Y:29:HIS:HE1	25:Y:67:GLY:C	1.58	0.79
4:D:218:LEU:CD2	4:D:218:LEU:O	2.30	0.79
3:C:192:ALA:O	3:C:195:PRO:CD	2.31	0.79
23:W:38:LEU:HA	23:W:41:MET:CE	2.12	0.79
23:W:7:LEU:HD23	23:W:34:ILE:CG1	2.13	0.79
1:A:186:ARG:CD	1:A:186:ARG:O	2.31	0.79
1:A:3:GLY:HA3	22:V:78:ILE:HG12	1.64	0.79
1:A:76:VAL:CG2	1:A:90:PHE:CE2	2.65	0.79
3:C:244:THR:O	3:C:244:THR:CG2	2.29	0.79
3:C:55:VAL:HA	3:C:82:PHE:HZ	1.48	0.79
10:J:61:LEU:HD22	10:J:98:LEU:HD12	1.60	0.79
8:H:9:VAL:C	8:H:11:PRO:CD	2.50	0.79
2:B:148:ASN:CG	18:R:122:PRO:O	2.21	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:49:LEU:CD1	16:P:51:ARG:HH21	1.95	0.79
10:J:180:LYS:CD	10:J:180:LYS:O	2.30	0.79
2:B:105:LEU:O	2:B:106:THR:CG2	2.30	0.79
1:A:59:LEU:HD23	1:A:181:GLU:HG2	1.64	0.79
1:A:118:GLU:HB2	3:C:50:LYS:NZ	1.98	0.79
5:E:139:LEU:HD11	5:E:154:ILE:HG21	1.64	0.79
7:G:33:ALA:N	7:G:52:ILE:HG23	1.97	0.79
14:N:21:SER:O	14:N:22:VAL:CG1	2.30	0.79
14:N:38:TYR:CD1	14:N:78:LYS:CD	2.65	0.79
25:Y:120:THR:HB	25:Y:122:LYS:HE3	1.62	0.79
16:P:5:GLU:O	16:P:6:GLN:CG	2.30	0.79
8:H:75:ILE:HG23	8:H:76:GLN:H	1.46	0.79
10:J:88:ASP:C	10:J:92:MET:CG	2.48	0.79
5:E:130:PHE:CB	5:E:138:HIS:NE2	2.45	0.79
4:D:94:ARG:O	4:D:101:GLN:NE2	2.16	0.79
1:A:149:ASN:HB2	1:A:165:ASN:ND2	1.98	0.78
2:B:62:LEU:HD21	2:B:96:CYS:SG	2.23	0.78
5:E:126:VAL:CG1	5:E:158:ASP:O	2.25	0.78
6:F:138:ALA:HB2	6:F:200:ALA:O	1.82	0.78
7:G:181:THR:HG1	7:G:182:PRO:HD2	1.46	0.78
3:C:197:LYS:O	3:C:200:LEU:CG	2.30	0.78
11:K:65:ARG:CZ	11:K:65:ARG:HB3	2.12	0.78
21:U:50:VAL:HG22	21:U:52:GLY:N	1.97	0.78
6:F:44:LYS:O	6:F:44:LYS:CE	2.30	0.78
6:F:46:ALA:C	6:F:47:LYS:CD	2.50	0.78
17:Q:42:ILE:HD13	17:Q:51:LEU:CD1	2.12	0.78
17:Q:54:PRO:HG3	17:Q:88:ILE:HD12	1.65	0.78
25:Y:98:GLU:OE2	25:Y:99:LYS:N	2.15	0.78
14:N:113:PHE:CE2	14:N:117:LEU:HD11	2.17	0.78
1:A:143:PRO:HB3	22:V:34:MET:SD	2.22	0.78
1:A:60:LEU:HD13	1:A:60:LEU:C	2.04	0.78
7:G:153:VAL:O	7:G:155:GLN:N	2.16	0.78
7:G:164:LYS:O	7:G:166:GLY:N	2.16	0.78
7:G:188:LYS:HA	7:G:191:ARG:CD	2.13	0.78
15:O:62:VAL:CG2	15:O:72:TYR:OH	2.32	0.78
24:X:52:LEU:CD1	24:X:53:GLU:HG2	2.13	0.78
25:Y:51:THR:HB	25:Y:52:PRO:CD	2.14	0.78
18:R:122:PRO:CB	18:R:123:THR:OG1	2.30	0.78
16:P:52:LYS:HA	16:P:54:HIS:HD2	1.47	0.78
17:Q:92:LEU:HG	17:Q:96:TYR:HE2	1.46	0.78
2:B:30:TRP:HE1	15:O:17:LEU:HD21	1.49	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:127:LYS:HD3	3:C:142:LEU:HD11	1.65	0.78
7:G:142:ARG:HH21	7:G:152:ASP:H	1.31	0.78
7:G:157:VAL:HG11	7:G:159:ARG:HG3	1.62	0.78
10:J:61:LEU:CD1	10:J:94:LEU:CD1	2.61	0.78
2:B:67:PHE:CD1	15:O:47:LEU:CB	2.66	0.78
24:X:129:SER:OG	24:X:132:ALA:HB3	1.83	0.78
24:X:139:GLU:O	24:X:141:PRO:CD	2.30	0.78
11:K:4:PRO:HB2	11:K:7:ASN:H	1.49	0.78
20:T:76:THR:OG1	20:T:94:ARG:HB3	1.84	0.78
3:C:93:LYS:HD3	3:C:218:LEU:CD2	1.75	0.78
8:H:8:ILE:HG23	8:H:9:VAL:N	1.98	0.78
16:P:15:PHE:CZ	19:S:91:LYS:HD2	2.18	0.78
2:B:209:ASP:O	2:B:210:VAL:HG23	1.82	0.78
4:D:217:ILE:O	4:D:218:LEU:HD22	1.82	0.78
10:J:10:ARG:HH11	10:J:10:ARG:HB3	1.43	0.78
8:H:149:ASP:O	8:H:151:SER:N	2.16	0.78
3:C:70:SER:C	22:V:29:HIS:CE1	2.57	0.78
6:F:127:ARG:CD	6:F:127:ARG:O	2.31	0.78
9:I:145:ILE:HA	9:I:148:LYS:HG3	1.64	0.78
18:R:98:VAL:HG13	18:R:102:THR:OG1	1.83	0.78
16:P:5:GLU:N	16:P:10:ARG:NH1	2.30	0.78
18:R:122:PRO:CA	18:R:123:THR:CB	2.58	0.78
26:Z:94:LYS:HD3	26:Z:95:GLY:N	1.99	0.78
9:I:3:ILE:O	9:I:3:ILE:CG2	2.29	0.78
2:B:81:PHE:O	2:B:82:ARG:HB2	1.84	0.78
9:I:157:LYS:CB	12:L:22:ARG:CZ	2.42	0.78
16:P:4:VAL:C	16:P:10:ARG:HD3	2.03	0.78
4:D:74:GLN:NE2	4:D:75:LYS:HE2	1.99	0.78
13:M:28:HIS:O	13:M:29:ASP:HB2	1.82	0.78
4:D:195:SER:CA	4:D:197:LYS:O	2.30	0.78
24:X:67:ARG:HG2	24:X:115:ILE:HG12	1.66	0.78
2:B:105:LEU:CD1	2:B:213:ARG:HB2	2.09	0.78
13:M:51:VAL:HA	13:M:77:ILE:CG2	2.13	0.78
13:M:94:ILE:O	13:M:101:ARG:NH1	2.16	0.78
3:C:169:VAL:CG2	3:C:228:ALA:O	2.31	0.78
17:Q:6:PRO:O	17:Q:6:PRO:HG2	1.81	0.78
17:Q:6:PRO:O	17:Q:6:PRO:CD	2.28	0.78
1:A:190:SER:O	1:A:191:ARG:CG	2.30	0.78
2:B:52:THR:HG22	2:B:58:ALA:CB	2.12	0.78
2:B:61:GLY:O	2:B:65:ARG:NE	2.16	0.78
5:E:98:ASN:HD22	5:E:119:ALA:HB2	1.47	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:137:ARG:HD2	7:G:140:ARG:HE	1.48	0.78
7:G:32:MET:CE	7:G:63:MET:SD	2.72	0.78
9:I:157:LYS:CG	12:L:22:ARG:NH1	2.45	0.78
18:R:98:VAL:CG1	18:R:102:THR:OG1	2.32	0.78
19:S:39:ARG:HD3	20:T:38:LYS:NZ	1.99	0.78
16:P:77:LYS:O	16:P:78:THR:CG2	2.31	0.78
16:P:75:VAL:HG21	16:P:104:GLN:CD	2.04	0.78
8:H:122:LEU:HD12	8:H:123:THR:HG23	1.63	0.78
19:S:139:THR:O	19:S:141:ARG:N	2.17	0.78
13:M:12:MET:CE	13:M:120:ALA:CB	2.61	0.78
6:F:112:LEU:O	6:F:116:ILE:CD1	2.31	0.78
5:E:244:ILE:O	5:E:245:ARG:HB3	1.82	0.78
1:A:183:LEU:HB2	1:A:189:ILE:CD1	2.13	0.78
7:G:50:VAL:CG1	7:G:111:LEU:CD2	2.61	0.78
7:G:5:ILE:HG22	7:G:124:LEU:HD21	1.66	0.78
12:L:147:LYS:CD	12:L:148:ALA:N	2.44	0.78
14:N:125:LEU:HD11	14:N:129:TYR:OH	1.83	0.78
4:D:35:SER:OG	4:D:97:CYS:SG	2.34	0.78
4:D:157:MET:HE3	4:D:187:LYS:CD	2.10	0.78
4:D:218:LEU:CD1	4:D:220:THR:CG2	2.47	0.78
18:R:91:LEU:CB	18:R:92:ASP:CA	2.61	0.78
20:T:124:THR:HG23	20:T:126:GLN:H	1.47	0.78
18:R:88:VAL:CG1	18:R:88:VAL:O	2.31	0.78
1:A:177:MET:CE	1:A:180:ARG:HH21	1.95	0.78
5:E:117:GLU:HG3	5:E:118:GLU:H	1.46	0.78
18:R:99:ASP:O	18:R:119:VAL:CG2	2.32	0.78
25:Y:62:THR:CG2	25:Y:69:THR:HG22	2.13	0.78
26:Z:58:LEU:HD23	26:Z:77:LEU:HD11	1.66	0.78
10:J:48:PHE:CZ	10:J:52:LYS:CE	2.66	0.78
25:Y:13:MET:HE3	25:Y:14:THR:H	1.48	0.78
5:E:97:GLU:OE1	5:E:97:GLU:HA	5.13	0.78
12:L:158:PHE:N	12:L:158:PHE:CD2	2.29	0.78
11:K:45:VAL:O	11:K:49:MET:HG2	1.84	0.78
8:H:36:LEU:O	8:H:36:LEU:CD1	2.29	0.78
16:P:18:ARG:HD2	16:P:37:TYR:HB3	1.66	0.78
26:Z:48:VAL:C	26:Z:83:LEU:HD12	2.04	0.78
19:S:8:LYS:CA	26:Z:49:LEU:HD23	2.13	0.78
4:D:195:SER:O	4:D:197:LYS:CG	2.30	0.78
4:D:197:LYS:H	4:D:199:GLY:N	1.82	0.78
4:D:123:LEU:CD2	4:D:154:ASP:CB	2.54	0.78
23:W:38:LEU:HD23	23:W:41:MET:CE	2.14	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:154:LEU:HD11	6:F:155:CYS:SG	2.24	0.78
5:E:100:ARG:CD	5:E:102:ILE:CD1	2.59	0.78
9:I:197:PHE:HE2	12:L:5:GLN:HG3	1.47	0.78
10:J:117:LEU:O	10:J:119:LEU:N	2.15	0.78
12:L:76:VAL:HG12	12:L:125:ILE:HD12	1.64	0.78
14:N:27:LYS:H	14:N:27:LYS:CD	1.96	0.78
24:X:52:LEU:HD11	24:X:71:ARG:HB2	1.64	0.78
8:H:8:ILE:HG23	8:H:9:VAL:H	1.49	0.78
6:F:15:PRO:HD3	17:Q:56:LEU:HB3	1.67	0.78
17:Q:105:LYS:CD	17:Q:105:LYS:O	2.30	0.78
24:X:29:LYS:CE	24:X:34:THR:HG21	2.13	0.78
3:C:149:PRO:CG	3:C:149:PRO:O	2.30	0.77
8:H:166:VAL:CG2	8:H:173:PHE:CE2	2.67	0.77
12:L:7:GLU:CG	12:L:8:ARG:HG3	2.14	0.77
9:I:85:ALA:CB	12:L:8:ARG:NH1	2.46	0.77
24:X:51:VAL:CG1	24:X:70:VAL:CG1	2.53	0.77
16:P:44:ARG:NE	16:P:84:ILE:CD1	2.14	0.77
16:P:10:ARG:HE	16:P:11:THR:N	1.81	0.77
25:Y:29:HIS:CD2	25:Y:34:THR:H	2.02	0.77
8:H:122:LEU:CD1	8:H:123:THR:CG2	2.62	0.77
10:J:12:THR:O	10:J:48:PHE:CD2	2.37	0.77
24:X:115:ILE:CG2	24:X:115:ILE:O	2.29	0.77
9:I:82:VAL:CG1	9:I:202:ILE:CD1	2.62	0.77
5:E:204:SER:O	5:E:205:PHE:HB2	1.83	0.77
2:B:134:LEU:HD12	2:B:219:LYS:HB2	1.66	0.77
1:A:5:LEU:HB2	22:V:41:LYS:CE	2.14	0.77
2:B:72:ALA:HA	2:B:79:VAL:HG23	1.61	0.77
3:C:56:LYS:HD2	3:C:57:ASP:OD1	1.85	0.77
18:R:100:PRO:CB	18:R:119:VAL:CG2	2.62	0.77
19:S:42:HIS:CG	20:T:45:LEU:CD1	2.45	0.77
25:Y:18:LEU:HB2	25:Y:20:ARG:NH1	2.00	0.77
11:K:60:GLU:OE1	11:K:67:PHE:HE1	1.68	0.77
21:U:97:ILE:HG22	21:U:101:ILE:HD12	1.63	0.77
19:S:11:HIS:CD2	19:S:23:ARG:HH21	1.95	0.77
19:S:94:LYS:CB	19:S:95:TYR:O	2.30	0.77
4:D:198:ILE:O	4:D:198:ILE:CD1	2.32	0.77
16:P:49:LEU:CD1	16:P:51:ARG:CZ	2.61	0.77
23:W:14:ILE:HG13	23:W:15:ASN:N	1.98	0.77
8:H:147:LYS:CE	8:H:153:LEU:CD1	2.61	0.77
4:D:226:GLN:O	4:D:227:LYS:CB	2.31	0.77
5:E:180:LEU:HD13	5:E:228:ILE:CG1	2.15	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:58:LYS:O	7:G:59:GLN:HB2	1.84	0.77
9:I:140:LYS:CD	9:I:141:ARG:H	1.96	0.77
22:V:79:VAL:HG12	22:V:82:ASN:OD1	1.83	0.77
24:X:138:LYS:C	24:X:139:GLU:CD	2.43	0.77
4:D:22:ASN:OD1	4:D:37:VAL:HG22	1.84	0.77
13:M:35:ILE:HB	13:M:61:TYR:CE2	2.19	0.77
26:Z:62:VAL:CG1	26:Z:68:ILE:CD1	2.61	0.77
16:P:124:LYS:O	16:P:124:LYS:HG3	1.84	0.77
13:M:13:ASP:HB2	13:M:16:THR:HB	0.81	0.77
15:O:56:VAL:HG13	15:O:81:VAL:CG2	2.14	0.77
1:A:202:TYR:O	1:A:203:PHE:CD1	2.37	0.77
1:A:66:VAL:HG13	1:A:186:ARG:HD2	1.65	0.77
1:A:28:THR:O	1:A:47:TYR:HE2	1.67	0.77
2:B:137:LEU:CD2	2:B:215:VAL:CB	2.63	0.77
7:G:180:VAL:O	7:G:181:THR:CG2	2.30	0.77
16:P:5:GLU:O	16:P:6:GLN:CB	2.33	0.77
4:D:70:THR:CA	4:D:86:LEU:HD13	2.14	0.77
5:E:145:ARG:NH1	5:E:145:ARG:HG2	1.95	0.77
1:A:39:TYR:CA	1:A:50:ASN:ND2	2.47	0.77
10:J:110:LEU:HD11	10:J:130:ILE:HG12	1.63	0.77
12:L:10:TYR:CD2	12:L:12:LYS:CE	2.66	0.77
12:L:109:MET:SD	12:L:140:PHE:CD1	2.77	0.77
25:Y:44:LEU:CD1	25:Y:48:TYR:HE2	1.93	0.77
11:K:39:ASN:O	11:K:40:VAL:CB	2.32	0.77
11:K:83:LEU:HB2	11:K:85:LEU:CD2	2.12	0.77
8:H:10:LYS:N	8:H:11:PRO:CD	2.47	0.77
26:Z:92:LEU:HD21	26:Z:109:TYR:CD1	2.18	0.77
16:P:52:LYS:CD	16:P:52:LYS:O	2.30	0.77
25:Y:7:ILE:HD11	25:Y:43:LYS:CG	2.11	0.77
24:X:35:ALA:HA	24:X:39:ASN:ND2	1.98	0.77
12:L:1:MET:O	12:L:2:ALA:HB3	1.84	0.77
1:A:198:MET:SD	1:A:198:MET:N	2.57	0.77
6:F:127:ARG:O	6:F:127:ARG:CG	2.32	0.77
7:G:157:VAL:HG22	7:G:158:VAL:H	1.50	0.77
11:K:4:PRO:HG3	11:K:7:ASN:ND2	1.99	0.77
19:S:120:HIS:CE1	19:S:124:ARG:HH21	2.00	0.77
3:C:155:TRP:CZ2	23:W:97:ARG:HD3	2.18	0.77
3:C:43:LYS:CA	3:C:43:LYS:HE3	2.14	0.77
6:F:122:ARG:HE	6:F:193:LYS:NZ	1.75	0.77
6:F:122:ARG:O	6:F:141:VAL:CG1	2.21	0.77
12:L:71:ARG:HD3	12:L:73:LEU:HD21	0.79	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:115:LEU:O	14:N:119:GLU:HG3	1.84	0.77
1:A:48:ILE:CG1	18:R:105:MET:HE1	2.15	0.77
1:A:158:ASP:HB3	22:V:65:SER:CB	2.15	0.77
24:X:126:ALA:C	24:X:128:VAL:HB	2.04	0.77
21:U:48:LEU:C	21:U:49:LYS:HG3	2.05	0.77
8:H:52:GLU:HG3	8:H:58:LYS:HB3	1.67	0.77
16:P:125:PRO:O	16:P:126:VAL:CG2	2.32	0.77
26:Z:85:ARG:HH11	26:Z:85:ARG:HG2	1.50	0.77
23:W:36:ARG:CD	23:W:110:ILE:HD12	2.14	0.77
2:B:38:MET:CE	2:B:186:ASN:HD21	1.75	0.77
3:C:262:HIS:CG	3:C:263:THR:H	2.02	0.77
7:G:85:ARG:CZ	25:Y:118:ARG:NE	2.47	0.77
21:U:46:LYS:NZ	21:U:97:ILE:HG12	1.99	0.77
13:M:85:LEU:HD22	13:M:106:CYS:SG	2.25	0.77
5:E:229:GLY:HA2	5:E:235:TRP:CD1	2.18	0.77
7:G:181:THR:CB	7:G:182:PRO:HD2	2.13	0.77
10:J:39:ASN:O	10:J:42:GLU:HB2	1.84	0.77
14:N:21:SER:C	14:N:22:VAL:HG13	2.04	0.77
22:V:53:TYR:CE2	22:V:72:LEU:HB3	2.20	0.77
4:D:18:LYS:NZ	4:D:37:VAL:CG2	2.44	0.77
25:Y:32:LYS:HG2	25:Y:33:ALA:O	1.85	0.77
2:B:150:ILE:HD11	18:R:126:MET:HB2	1.67	0.77
19:S:16:LEU:C	19:S:17:ASN:CG	2.43	0.77
20:T:18:LEU:HB2	20:T:134:ILE:CD1	2.14	0.77
9:I:9:HIS:O	9:I:10:LYS:HG2	1.85	0.77
8:H:191:GLU:C	8:H:192:PHE:CD1	2.57	0.77
10:J:37:LEU:HD11	10:J:42:GLU:HB3	0.81	0.77
10:J:94:LEU:HD12	10:J:95:ASP:N	2.00	0.77
26:Z:48:VAL:HG21	26:Z:80:ARG:HD3	1.64	0.77
13:M:77:ILE:HG23	13:M:78:LYS:N	1.97	0.77
10:J:138:ARG:NH1	10:J:156:HIS:NE2	2.31	0.77
2:B:57:ILE:O	2:B:59:SER:N	2.18	0.76
5:E:62:LYS:CD	5:E:80:ILE:CD1	2.45	0.76
9:I:112:TRP:HH2	9:I:117:TYR:OH	1.68	0.76
10:J:46:VAL:HG11	10:J:106:LEU:HD11	1.66	0.76
12:L:10:TYR:CE2	12:L:12:LYS:CE	2.67	0.76
15:O:32:HIS:CE1	15:O:96:LYS:HD2	2.19	0.76
4:D:97:CYS:O	4:D:98:ALA:C	2.23	0.76
23:W:42:MET:HE2	23:W:49:GLU:HA	1.65	0.76
2:B:148:ASN:CB	18:R:122:PRO:O	2.33	0.76
17:Q:6:PRO:O	17:Q:6:PRO:CG	2.29	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:174:LYS:O	5:E:179:ASN:ND2	2.18	0.76
2:B:123:ALA:HB2	2:B:165:ARG:HG2	1.67	0.76
7:G:16:ILE:HD13	7:G:45:TRP:HZ2	0.70	0.76
14:N:80:LEU:C	14:N:82:PRO:HD3	2.05	0.76
4:D:76:ARG:HD3	11:K:66:HIS:CE1	2.05	0.76
4:D:70:THR:HG22	4:D:86:LEU:CB	2.16	0.76
4:D:200:PRO:O	4:D:201:LYS:CG	2.33	0.76
16:P:46:SER:C	16:P:49:LEU:HB2	2.05	0.76
3:C:241:TRP:CD2	23:W:68:ARG:CD	2.69	0.76
6:F:32:ASP:HB2	6:F:117:ILE:HG21	1.67	0.76
1:A:27:GLY:O	1:A:47:TYR:HD2	1.69	0.76
2:B:71:LEU:CG	2:B:84:PHE:HE2	1.99	0.76
3:C:50:LYS:CD	3:C:251:TYR:CD1	2.38	0.76
5:E:126:VAL:CG2	5:E:156:MET:HA	2.16	0.76
15:O:26:ASN:HB3	15:O:91:THR:OG1	1.84	0.76
25:Y:122:LYS:HD2	25:Y:122:LYS:H	1.48	0.76
20:T:39:LEU:CD1	20:T:99:VAL:HG21	2.14	0.76
25:Y:52:PRO:HD2	25:Y:53:ASP:N	2.00	0.76
11:K:36:ALA:O	11:K:38:LYS:HG3	1.84	0.76
6:F:45:TYR:N	6:F:45:TYR:CD1	2.42	0.76
9:I:25:ARG:NE	9:I:27:TYR:HE2	1.83	0.76
2:B:149:GLN:NE2	2:B:151:ARG:HG2	2.00	0.76
16:P:50:ARG:N	16:P:51:ARG:HD2	1.99	0.76
1:A:85:ARG:NH2	1:A:201:LEU:HD12	2.00	0.76
1:A:39:TYR:HA	1:A:50:ASN:HD21	1.48	0.76
6:F:63:LYS:CD	6:F:71:ARG:NH2	2.35	0.76
7:G:64:LYS:CD	7:G:64:LYS:O	2.33	0.76
9:I:130:THR:HB	9:I:131:PRO:HD3	1.67	0.76
9:I:141:ARG:HB2	9:I:144:LYS:N	2.00	0.76
12:L:97:ARG:O	12:L:98:LYS:C	2.22	0.76
14:N:16:LEU:HD21	14:N:62:GLN:NE2	2.01	0.76
14:N:16:LEU:CD2	14:N:17:PRO:HD2	2.15	0.76
25:Y:117:VAL:HG21	25:Y:124:ASN:OD1	1.85	0.76
4:D:158:ILE:HD13	4:D:189:MET:SD	2.24	0.76
16:P:10:ARG:NE	16:P:11:THR:N	2.34	0.76
8:H:31:GLU:CD	8:H:41:ARG:HD2	2.02	0.76
26:Z:92:LEU:HD11	26:Z:99:LEU:HD21	1.66	0.76
13:M:14:VAL:O	13:M:15:ASN:OD1	2.04	0.76
18:R:27:ASP:O	18:R:31:ASN:ND2	2.18	0.76
24:X:22:TRP:O	24:X:23:HIS:C	2.12	0.76
18:R:97:GLU:HA	18:R:116:ASN:HB2	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:177:MET:CE	1:A:180:ARG:CZ	2.61	0.76
5:E:23:LEU:C	5:E:24:THR:HG23	2.05	0.76
15:O:100:THR:HG22	15:O:104:ARG:HG3	1.67	0.76
15:O:34:PHE:CZ	15:O:100:THR:HA	2.20	0.76
11:K:41:PRO:O	11:K:41:PRO:CD	2.31	0.76
21:U:102:THR:O	21:U:104:ILE:O	2.03	0.76
20:T:77:LYS:HD2	20:T:94:ARG:NH1	2.00	0.76
17:Q:78:VAL:CG1	17:Q:82:TYR:CE2	2.68	0.76
26:Z:103:HIS:NE2	26:Z:105:ALA:HB3	2.00	0.76
15:O:23:GLU:O	15:O:23:GLU:CG	2.33	0.76
3:C:198:LEU:HD11	3:C:226:PHE:HD1	1.50	0.76
25:Y:37:LYS:O	25:Y:40:ILE:HG22	1.83	0.76
9:I:97:VAL:HG22	9:I:100:CYS:SG	2.25	0.76
1:A:37:TYR:OH	1:A:160:ALA:HB3	1.85	0.76
3:C:50:LYS:HB2	3:C:258:LEU:HB3	1.67	0.76
12:L:40:ILE:O	12:L:40:ILE:HD13	1.84	0.76
16:P:10:ARG:NE	16:P:11:THR:HB	2.01	0.76
19:S:58:GLU:O	19:S:59:LEU:CD1	2.32	0.76
4:D:157:MET:HE3	4:D:187:LYS:HD2	1.67	0.76
4:D:175:VAL:CG1	4:D:182:LEU:HB2	2.16	0.76
23:W:90:GLN:CA	23:W:102:ILE:CD1	2.64	0.76
15:O:20:GLN:CG	15:O:21:VAL:O	2.34	0.76
16:P:69:PRO:HD2	16:P:70:MET:N	2.01	0.76
2:B:57:ILE:O	2:B:58:ALA:C	2.21	0.76
3:C:142:LEU:C	3:C:145:LEU:HD23	2.06	0.76
5:E:139:LEU:HG	5:E:150:PRO:HG3	1.67	0.76
8:H:146:VAL:HB	23:W:42:MET:HE1	1.68	0.76
17:Q:32:ILE:O	17:Q:39:LEU:HG	1.85	0.76
19:S:54:LYS:C	19:S:54:LYS:HA	2.00	0.76
19:S:6:PRO:O	19:S:7:GLU:HB2	1.84	0.76
19:S:94:LYS:HD3	19:S:96:SER:HG	1.48	0.76
1:A:11:LYS:CD	1:A:13:GLU:CG	2.62	0.76
11:K:84:HIS:CD2	13:M:27:ILE:HD11	2.21	0.76
25:Y:36:PRO:HD2	25:Y:39:GLU:OE1	1.83	0.76
25:Y:29:HIS:HD1	25:Y:67:GLY:HA2	1.51	0.76
2:B:146:CYS:O	2:B:147:ASN:C	2.21	0.76
10:J:48:PHE:HE1	10:J:52:LYS:CE	1.86	0.76
9:I:141:ARG:HB2	9:I:144:LYS:CA	2.16	0.76
14:N:62:GLN:CB	14:N:65:PHE:CD2	2.65	0.76
24:X:133:LEU:CD2	24:X:139:GLU:O	2.33	0.76
17:Q:12:VAL:CG1	17:Q:13:PHE:H	1.99	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:76:LYS:O	24:X:77:ASN:OD1	2.04	0.76
1:A:66:VAL:CG1	1:A:186:ARG:CB	2.63	0.76
8:H:145:ARG:CD	23:W:51:GLU:CG	2.60	0.76
8:H:157:HIS:O	8:H:158:LEU:HD23	1.84	0.76
25:Y:120:THR:CG2	25:Y:122:LYS:HE2	2.14	0.76
16:P:10:ARG:HE	16:P:11:THR:H	1.27	0.76
21:U:44:LYS:O	21:U:47:ASN:HA	1.86	0.76
6:F:14:THR:CG2	17:Q:56:LEU:HD13	2.16	0.76
6:F:41:VAL:HG22	6:F:42:LYS:HD2	1.69	0.76
17:Q:85:ARG:O	17:Q:88:ILE:HG12	1.86	0.76
16:P:49:LEU:C	16:P:50:ARG:HG3	2.06	0.76
18:R:16:ILE:HG22	18:R:24:LEU:HD11	1.68	0.76
8:H:122:LEU:CD1	8:H:123:THR:H	1.92	0.76
16:P:127:LYS:NZ	16:P:128:HIS:N	2.33	0.76
24:X:60:LYS:CG	24:X:116:PRO:CG	2.58	0.76
9:I:29:LEU:HG	9:I:30:GLY:N	2.01	0.76
5:E:166:THR:OG1	5:E:168:LYS:HG3	1.86	0.75
10:J:39:ASN:N	10:J:42:GLU:HG2	2.00	0.75
12:L:112:HIS:HB2	12:L:134:LEU:HD13	1.68	0.75
19:S:39:ARG:NH2	20:T:38:LYS:HG2	2.02	0.75
20:T:39:LEU:HD11	20:T:56:ARG:NH2	2.01	0.75
4:D:158:ILE:HD12	4:D:189:MET:HE2	1.63	0.75
16:P:77:LYS:O	16:P:78:THR:HG23	1.86	0.75
25:Y:87:PRO:HG2	25:Y:90:ARG:HB2	1.68	0.75
4:D:21:LEU:HD13	4:D:48:ILE:CD1	2.16	0.75
4:D:70:THR:CG2	4:D:86:LEU:HB2	2.16	0.75
16:P:108:LYS:N	16:P:111:MET:HE3	2.01	0.75
18:R:121:GLN:NE2	18:R:122:PRO:N	2.34	0.75
8:H:23:ILE:CD1	8:H:27:LEU:HD23	2.12	0.75
5:E:185:GLY:N	5:E:189:LEU:HD13	2.01	0.75
1:A:13:GLU:O	1:A:17:LYS:CE	2.29	0.75
8:H:169:LYS:CB	8:H:173:PHE:CE2	2.67	0.75
12:L:134:LEU:HD23	12:L:134:LEU:O	1.87	0.75
25:Y:99:LYS:C	25:Y:99:LYS:CE	2.54	0.75
25:Y:84:LYS:CD	25:Y:84:LYS:O	2.31	0.75
8:H:85:LYS:C	8:H:85:LYS:CD	2.51	0.75
7:G:142:ARG:NH2	7:G:152:ASP:H	1.84	0.75
10:J:66:LYS:CA	10:J:71:LEU:HD11	2.15	0.75
8:H:6:ALA:O	8:H:10:LYS:HG3	1.85	0.75
17:Q:105:LYS:C	17:Q:105:LYS:CD	2.54	0.75
25:Y:36:PRO:CG	25:Y:39:GLU:HG3	2.10	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:92:LEU:HD11	26:Z:109:TYR:HE1	1.52	0.75
3:C:126:MET:HE3	3:C:223:LYS:HZ1	1.51	0.75
25:Y:99:LYS:C	25:Y:99:LYS:HE3	2.07	0.75
13:M:49:LEU:HD13	13:M:50:CYS:N	2.00	0.75
14:N:12:SER:C	14:N:13:GLN:HG3	2.06	0.75
23:W:93:LEU:HD21	23:W:128:PHE:CE2	2.20	0.75
3:C:181:ILE:HB	3:C:208:TYR:HB2	1.67	0.75
1:A:120:ARG:CG	3:C:251:TYR:HE2	1.98	0.75
12:L:5:GLN:O	12:L:7:GLU:N	2.19	0.75
11:K:83:LEU:O	11:K:84:HIS:CB	2.34	0.75
6:F:76:MET:HE2	6:F:169:ILE:CG2	2.17	0.75
25:Y:29:HIS:HD1	25:Y:67:GLY:C	1.87	0.75
16:P:15:PHE:CE1	19:S:91:LYS:CD	2.70	0.75
26:Z:91:LEU:CD2	26:Z:96:LEU:HD12	2.16	0.75
18:R:20:TYR:CE2	18:R:38:ILE:HD13	2.22	0.75
20:T:90:SER:C	20:T:91:HIS:CD2	2.60	0.75
3:C:49:THR:HG23	3:C:75:GLU:CD	2.06	0.75
1:A:141:ASN:O	22:V:32:ILE:HG21	1.86	0.75
16:P:107:ILE:CB	16:P:111:MET:SD	2.74	0.75
18:R:20:TYR:CD2	18:R:38:ILE:HD13	2.22	0.75
3:C:167:CYS:SG	3:C:168:LYS:N	2.58	0.75
1:A:66:VAL:HG11	1:A:186:ARG:CB	2.17	0.75
1:A:94:THR:HG21	1:A:182:VAL:CG2	2.17	0.75
3:C:115:ILE:HD12	3:C:143:ALA:HB3	1.68	0.75
5:E:99:PHE:CD1	5:E:113:ARG:HG3	2.19	0.75
7:G:179:LEU:HD12	7:G:179:LEU:C	2.07	0.75
7:G:16:ILE:HG21	7:G:45:TRP:CZ2	2.22	0.75
7:G:77:LEU:O	7:G:92:ARG:HG3	1.86	0.75
1:A:154:LEU:HD12	22:V:63:GLY:CA	2.16	0.75
21:U:50:VAL:O	21:U:51:LYS:CD	2.30	0.75
16:P:74:GLU:O	16:P:75:VAL:HB	1.86	0.75
23:W:11:LEU:CD1	23:W:74:VAL:HB	2.17	0.75
25:Y:102:THR:HG21	25:Y:107:ARG:CZ	2.12	0.75
3:C:158:LYS:O	3:C:158:LYS:CE	2.30	0.75
11:K:95:ARG:HA	11:K:95:ARG:HE	1.49	0.75
1:A:185:MET:SD	22:V:44:GLY:HA2	2.26	0.75
1:A:34:MET:HE1	1:A:37:TYR:HE2	1.52	0.75
3:C:79:ILE:HD13	3:C:147:ILE:HD12	0.79	0.75
3:C:69:PHE:CZ	3:C:247:THR:OG1	1.93	0.75
16:P:89:MET:C	16:P:107:ILE:HD11	2.06	0.75
13:M:124:ILE:CA	13:M:127:TYR:HD2	1.97	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:187:SER:O	6:F:190:ILE:HG22	1.85	0.75
3:C:87:LEU:HD21	3:C:115:ILE:CG2	2.09	0.75
9:I:104:ILE:HG13	9:I:105:ASP:H	1.52	0.75
12:L:97:ARG:C	12:L:99:TYR:N	2.33	0.75
14:N:23:PRO:HD2	14:N:26:LEU:CD2	2.17	0.75
18:R:105:MET:O	18:R:109:LEU:HD12	1.84	0.75
22:V:19:ALA:CB	22:V:59:ILE:HD13	2.17	0.75
4:D:45:ARG:HA	4:D:83:SER:OG	1.86	0.75
2:B:66:VAL:HG22	2:B:87:ILE:HG22	0.76	0.75
6:F:45:TYR:N	6:F:45:TYR:HD1	1.85	0.75
13:M:12:MET:HE1	13:M:120:ALA:CB	2.17	0.75
3:C:192:ALA:O	3:C:195:PRO:HG2	1.86	0.75
13:M:94:ILE:HG23	13:M:95:ASP:H	0.67	0.75
10:J:100:LEU:CG	10:J:101:LYS:N	2.50	0.75
5:E:184:THR:C	5:E:189:LEU:HD13	2.06	0.75
19:S:111:LEU:CD2	19:S:125:HIS:CE1	2.70	0.75
21:U:66:ARG:NH2	21:U:75:LYS:HA	2.02	0.75
3:C:253:GLU:HG3	3:C:254:PHE:CD2	2.21	0.75
5:E:94:LYS:O	5:E:95:THR:HG23	1.87	0.75
10:J:170:PRO:CA	10:J:174:LYS:HZ3	1.99	0.75
22:V:40:ASP:CB	22:V:47:ASN:HD21	1.98	0.75
24:X:52:LEU:HD11	24:X:53:GLU:HG2	1.67	0.75
4:D:53:THR:HG22	4:D:91:VAL:HG23	1.68	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
13:M:33:ARG:O	13:M:33:ARG:HD2	1.87	0.75
11:K:5:LYS:CG	11:K:5:LYS:O	2.31	0.75
21:U:19:ARG:O	21:U:116:ILE:O	2.04	0.75
10:J:114:VAL:CG1	10:J:120:ALA:HB2	2.13	0.74
16:P:10:ARG:HE	16:P:11:THR:HB	1.52	0.74
4:D:44:THR:O	4:D:45:ARG:HD3	1.87	0.74
21:U:109:GLY:O	21:U:110:VAL:HG22	1.86	0.74
12:L:17:PHE:CD1	12:L:18:GLN:N	2.54	0.74
5:E:248:ILE:HD12	10:J:72:PHE:CD1	2.16	0.74
19:S:87:GLN:O	19:S:88:LYS:C	2.21	0.74
10:J:17:ARG:C	10:J:18:ARG:HG2	1.88	0.74
26:Z:92:LEU:HD11	26:Z:109:TYR:CZ	2.20	0.74
5:E:31:PRO:HG2	5:E:38:LEU:HD13	1.69	0.74
9:I:8:TRP:HZ3	9:I:20:PRO:HA	1.51	0.74
20:T:75:MET:O	20:T:78:ILE:HG22	1.87	0.74
18:R:84:TYR:O	18:R:85:VAL:CG2	2.35	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:135:PHE:HD2	8:H:136:PRO:HD3	1.51	0.74
1:A:147:LEU:HD22	1:A:163:CYS:SG	2.27	0.74
2:B:31:TYR:CD1	2:B:94:LYS:CA	2.68	0.74
6:F:134:VAL:HG11	6:F:136:ARG:HH21	1.52	0.74
12:L:147:LYS:HG3	12:L:148:ALA:CB	2.16	0.74
14:N:125:LEU:CD1	14:N:129:TYR:HE2	1.92	0.74
16:P:86:LEU:N	16:P:86:LEU:HD23	2.01	0.74
8:H:9:VAL:HG13	8:H:44:ASN:OD1	1.86	0.74
17:Q:112:LEU:CD1	17:Q:120:LEU:HD21	2.17	0.74
19:S:33:ILE:O	19:S:36:VAL:HG13	1.85	0.74
4:D:193:ASP:O	4:D:194:PRO:O	2.05	0.74
10:J:89:GLU:HB3	10:J:92:MET:SD	2.26	0.74
24:X:105:PHE:CD2	24:X:119:ARG:HA	2.21	0.74
16:P:118:GLU:O	19:S:119:ALA:HA	1.86	0.74
5:E:43:PRO:CD	5:E:46:ILE:HD12	2.16	0.74
5:E:49:ARG:HD3	5:E:50:ASN:N	2.00	0.74
5:E:86:PHE:O	5:E:87:MET:HB2	1.86	0.74
7:G:32:MET:SD	7:G:100:CYS:O	2.46	0.74
7:G:162:LEU:CD2	7:G:170:ARG:HB2	2.17	0.74
20:T:31:PRO:HB3	20:T:33:TRP:CZ3	2.22	0.74
2:B:148:ASN:O	18:R:124:VAL:CG2	2.31	0.74
13:M:12:MET:O	13:M:13:ASP:OD1	2.06	0.74
10:J:138:ARG:HH12	10:J:156:HIS:CD2	2.05	0.74
25:Y:13:MET:HE2	25:Y:14:THR:N	2.02	0.74
16:P:39:ALA:HA	16:P:42:ARG:CD	2.17	0.74
13:M:71:GLU:N	13:M:71:GLU:CD	2.39	0.74
1:A:174:MET:O	1:A:178:LEU:HG	1.86	0.74
1:A:32:PHE:HE1	1:A:33:GLN:HE21	0.84	0.74
1:A:57:LYS:NZ	22:V:70:LEU:CG	2.50	0.74
6:F:14:THR:HG23	6:F:15:PRO:CD	2.17	0.74
17:Q:48:GLN:O	17:Q:51:LEU:HG	1.87	0.74
26:Z:103:HIS:O	26:Z:105:ALA:N	2.20	0.74
25:Y:62:THR:HA	25:Y:69:THR:HG22	1.68	0.74
12:L:17:PHE:CD1	12:L:18:GLN:HB2	2.21	0.74
26:Z:48:VAL:CG2	26:Z:80:ARG:CD	2.54	0.74
2:B:150:ILE:HD12	18:R:126:MET:H	0.59	0.74
16:P:49:LEU:CD1	16:P:51:ARG:NH2	2.51	0.74
25:Y:99:LYS:HG2	25:Y:99:LYS:O	1.86	0.74
2:B:104:ASP:OD1	2:B:105:LEU:N	2.21	0.74
11:K:96:ARG:HG3	11:K:97:SER:N	2.00	0.74
23:W:6:VAL:HG12	23:W:34:ILE:HD11	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:244:THR:CG2	3:C:246:PHE:CD2	2.65	0.74
3:C:55:VAL:CG1	3:C:82:PHE:HE2	1.77	0.74
6:F:201:LYS:HD2	6:F:204:ARG:HH21	1.36	0.74
9:I:136:ILE:C	9:I:139:LYS:HG3	2.04	0.74
22:V:40:ASP:O	22:V:42:VAL:HG23	1.87	0.74
21:U:97:ILE:CG2	21:U:101:ILE:HD11	2.17	0.74
8:H:11:PRO:HG2	8:H:12:ASN:N	2.02	0.74
8:H:80:VAL:HA	8:H:83:LEU:CD2	2.17	0.74
6:F:14:THR:OG1	17:Q:56:LEU:HB3	1.71	0.74
19:S:82:TRP:HA	19:S:87:GLN:HE22	1.52	0.74
23:W:11:LEU:C	23:W:14:ILE:HG12	2.07	0.74
4:D:123:LEU:HD11	4:D:154:ASP:HB2	1.69	0.74
3:C:241:TRP:CE2	23:W:68:ARG:CD	2.70	0.74
20:T:85:ASN:O	20:T:88:MET:HE3	1.87	0.74
5:E:21:ASP:CG	5:E:24:THR:CG2	2.51	0.74
21:U:48:LEU:N	21:U:48:LEU:CD2	2.29	0.74
21:U:69:PRO:O	21:U:69:PRO:CG	2.29	0.74
17:Q:19:ALA:HB2	17:Q:75:GLY:HA3	1.67	0.74
6:F:102:LEU:HD13	26:Z:110:THR:CG2	2.17	0.74
10:J:87:LEU:HD11	10:J:91:LYS:HB2	1.70	0.74
15:O:20:GLN:CD	15:O:21:VAL:O	2.26	0.74
9:I:202:ILE:O	9:I:206:LYS:HB3	1.86	0.74
9:I:36:THR:HG21	9:I:179:PRO:HB2	1.68	0.74
15:O:41:PHE:CD1	15:O:57:THR:HG22	2.23	0.74
1:A:125:THR:CG2	1:A:175:TRP:HE1	2.00	0.74
7:G:181:THR:CB	7:G:182:PRO:CD	2.63	0.74
10:J:169:ARG:HB3	10:J:175:ARG:HH11	1.53	0.74
14:N:92:ILE:O	14:N:96:VAL:HG23	1.87	0.74
16:P:5:GLU:H	16:P:10:ARG:HH11	1.34	0.74
10:J:17:ARG:HG2	10:J:18:ARG:HD3	0.75	0.74
4:D:166:TYR:HD1	4:D:200:PRO:HB2	1.53	0.74
2:B:113:MET:SD	2:B:211:PHE:CZ	2.79	0.74
4:D:10:LYS:CE	4:D:14:ASP:OD2	2.36	0.74
25:Y:7:ILE:CD1	25:Y:43:LYS:HD3	2.17	0.74
20:T:144:LYS:HZ2	20:T:144:LYS:HB2	1.53	0.74
21:U:19:ARG:HG3	21:U:92:HIS:ND1	2.01	0.74
1:A:143:PRO:CB	22:V:34:MET:SD	2.76	0.74
1:A:58:LEU:HD21	1:A:178:LEU:HD23	0.74	0.74
3:C:63:LEU:HB3	3:C:67:TYR:CZ	2.23	0.74
7:G:85:ARG:HD3	25:Y:118:ARG:CZ	2.16	0.74
9:I:165:GLN:OE1	9:I:172:LEU:HD23	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:76:THR:CG2	9:I:77:ARG:N	2.51	0.74
15:O:19:PRO:HG3	15:O:27:VAL:HG21	0.75	0.74
5:E:76:VAL:CG1	24:X:56:GLY:O	92.00	0.74
19:S:42:HIS:CB	20:T:45:LEU:HD11	2.17	0.74
8:H:36:LEU:C	8:H:36:LEU:HD13	2.03	0.74
18:R:44:LYS:CG	18:R:47:ARG:NH2	2.51	0.74
10:J:155:LYS:HE3	10:J:156:HIS:CE1	2.22	0.74
12:L:151:THR:O	12:L:153:LYS:CD	2.33	0.74
5:E:165:GLU:OE2	5:E:165:GLU:CA	2.29	0.74
6:F:122:ARG:NH2	6:F:193:LYS:HZ1	1.84	0.74
9:I:104:ILE:O	9:I:105:ASP:CG	2.25	0.74
10:J:50:LEU:HD22	10:J:54:ARG:HG3	1.68	0.74
25:Y:114:MET:HE3	25:Y:125:VAL:CG2	2.18	0.74
16:P:53:GLN:HE21	16:P:80:LEU:HD22	1.52	0.74
10:J:15:THR:HG22	10:J:44:TRP:HE3	1.48	0.74
10:J:16:PRO:HD3	10:J:44:TRP:CE2	2.23	0.74
13:M:35:ILE:HB	13:M:61:TYR:HE2	1.52	0.74
3:C:168:LYS:HE3	23:W:95:PRO:HA	1.69	0.74
4:D:212:GLU:O	4:D:213:PRO:C	2.25	0.74
3:C:234:SER:O	22:V:23:ILE:HD13	1.86	0.74
13:M:38:ALA:O	13:M:42:LEU:HD23	1.87	0.74
2:B:67:PHE:HE1	15:O:48:SER:N	1.84	0.74
5:E:122:LYS:HG2	5:E:164:LEU:HD21	1.70	0.74
5:E:151:ASP:HB3	7:G:212:LEU:HD21	1.68	0.74
10:J:134:HIS:HE1	10:J:164:PRO:HD3	1.53	0.74
12:L:95:TYR:HA	12:L:102:PHE:CG	2.22	0.74
15:O:19:PRO:HG3	15:O:27:VAL:CG1	2.17	0.74
22:V:31:SER:O	22:V:32:ILE:HG13	1.87	0.74
1:A:158:ASP:HB3	22:V:65:SER:HB2	1.68	0.74
25:Y:54:VAL:HG13	25:Y:76:TYR:O	1.87	0.74
23:W:11:LEU:O	23:W:14:ILE:HG13	1.88	0.74
4:D:112:GLY:O	4:D:113:LEU:HD12	1.86	0.74
3:C:154:TYR:CZ	3:C:162:PRO:HD3	2.23	0.74
14:N:131:THR:C	14:N:132:LYS:HD2	2.08	0.74
1:A:34:MET:CE	1:A:37:TYR:HE2	2.01	0.73
3:C:115:ILE:HD13	3:C:144:LYS:HG3	1.67	0.73
9:I:141:ARG:O	9:I:143:LYS:CB	2.36	0.73
12:L:47:PRO:HG2	12:L:116:CYS:SG	2.27	0.73
12:L:80:MET:CE	12:L:120:VAL:HG12	2.18	0.73
15:O:19:PRO:CG	15:O:27:VAL:HG22	2.15	0.73
15:O:44:VAL:CG1	15:O:53:ILE:HD11	2.18	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:52:LEU:HG	24:X:71:ARG:O	1.88	0.73
24:X:90:CYS:O	24:X:91:LEU:C	2.24	0.73
4:D:188:ILE:HG22	4:D:190:LEU:HD22	1.68	0.73
4:D:40:ARG:CZ	21:U:107:GLU:OE2	2.36	0.73
21:U:97:ILE:CG2	21:U:101:ILE:HD12	2.18	0.73
17:Q:19:ALA:CB	17:Q:74:GLY:C	2.52	0.73
3:C:126:MET:HE3	3:C:223:LYS:NZ	2.01	0.73
19:S:138:THR:HA	19:S:141:ARG:HH22	1.43	0.73
3:C:154:TYR:CZ	3:C:162:PRO:CD	2.71	0.73
3:C:156:GLY:HA2	23:W:98:GLN:NE2	2.03	0.73
17:Q:92:LEU:HG	17:Q:96:TYR:CE2	2.23	0.73
2:B:31:TYR:HD1	2:B:94:LYS:CA	1.99	0.73
7:G:63:MET:HA	7:G:98:ARG:O	1.88	0.73
10:J:131:ARG:HH11	10:J:143:ASN:HD21	1.36	0.73
10:J:37:LEU:CG	10:J:42:GLU:HB2	2.13	0.73
10:J:37:LEU:HD23	10:J:43:VAL:HG23	1.70	0.73
12:L:113:LEU:CD1	12:L:120:VAL:HG21	2.13	0.73
14:N:54:LEU:CB	14:N:60:VAL:HG21	2.18	0.73
1:A:141:ASN:HD21	22:V:29:HIS:HB3	1.49	0.73
11:K:11:ILE:CG2	11:K:49:MET:HE3	2.12	0.73
17:Q:12:VAL:HG11	17:Q:90:LYS:HB2	1.70	0.73
17:Q:47:LEU:HD23	17:Q:81:ILE:HD13	1.64	0.73
2:B:151:ARG:HD2	2:B:153:THR:CG2	2.17	0.73
13:M:11:VAL:O	13:M:12:MET:CB	2.36	0.73
21:U:59:LYS:CB	21:U:84:ILE:HG22	2.12	0.73
15:O:97:LEU:HD11	15:O:112:ALA:HB1	1.70	0.73
11:K:98:ARG:HG2	11:K:98:ARG:NH1	1.91	0.73
6:F:103:LEU:HD23	6:F:103:LEU:C	4.31	0.73
16:P:46:SER:O	16:P:49:LEU:CG	2.35	0.73
22:V:1:MET:HE2	22:V:10:ASP:CB	2.09	0.73
13:M:94:ILE:N	13:M:101:ARG:HD3	2.02	0.73
24:X:40:PRO:CB	24:X:81:ILE:HD11	2.13	0.73
2:B:225:LEU:O	2:B:229:MET:HG2	1.87	0.73
1:A:149:ASN:OD1	1:A:150:THR:N	2.20	0.73
5:E:125:LYS:HB3	5:E:226:PHE:CE1	2.23	0.73
5:E:153:LEU:HD11	5:E:172:PHE:CZ	2.20	0.73
5:E:73:ASP:OD2	5:E:122:LYS:NZ	2.20	0.73
7:G:71:GLY:HA2	7:G:98:ARG:NH2	2.03	0.73
12:L:6:THR:O	12:L:7:GLU:O	2.06	0.73
8:H:66:VAL:HG22	8:H:96:ALA:HB1	1.71	0.73
4:D:200:PRO:O	4:D:201:LYS:CB	2.34	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:124:THR:CG2	20:T:127:GLY:H	2.02	0.73
10:J:100:LEU:HD11	10:J:104:ASP:OD2	1.85	0.73
5:E:229:GLY:CA	5:E:235:TRP:CD1	2.71	0.73
10:J:46:VAL:HG11	10:J:102:ILE:HG23	1.68	0.73
15:O:30:VAL:HG23	15:O:32:HIS:CD2	2.23	0.73
17:Q:98:LYS:HE3	17:Q:99:TYR:CZ	2.24	0.73
21:U:41:ARG:O	21:U:45:GLU:CB	2.36	0.73
21:U:51:LYS:CB	21:U:90:ASP:HB2	2.18	0.73
6:F:20:PHE:C	6:F:22:LYS:N	2.39	0.73
17:Q:39:LEU:O	17:Q:42:ILE:HD11	1.88	0.73
17:Q:19:ALA:HB2	17:Q:75:GLY:N	2.03	0.73
18:R:13:ALA:HB1	18:R:54:VAL:HG22	1.67	0.73
13:M:98:GLY:C	13:M:100:PRO:HD3	2.08	0.73
10:J:138:ARG:O	10:J:138:ARG:CG	2.36	0.73
23:W:93:LEU:O	23:W:93:LEU:HG	1.88	0.73
9:I:82:VAL:HG11	9:I:202:ILE:HD13	1.69	0.73
10:J:147:PHE:O	10:J:148:ILE:HB	1.87	0.73
2:B:90:ASP:CG	2:B:91:VAL:H	1.92	0.73
7:G:14:LYS:HZ1	7:G:123:GLY:HA2	1.52	0.73
7:G:98:ARG:HD3	7:G:99:GLY:H	1.50	0.73
12:L:5:GLN:NE2	12:L:10:TYR:CD1	2.52	0.73
17:Q:108:ILE:HA	17:Q:111:ILE:HD12	1.70	0.73
10:J:28:GLU:OE1	10:J:40:LYS:NZ	2.20	0.73
20:T:144:LYS:HZ3	20:T:144:LYS:HB2	1.51	0.73
2:B:114:VAL:HG22	2:B:120:MET:HE3	1.69	0.73
4:D:161:GLY:O	4:D:164:VAL:HG12	1.88	0.73
2:B:67:PHE:CE1	15:O:47:LEU:CB	2.72	0.73
7:G:32:MET:O	7:G:33:ALA:HB3	1.86	0.73
7:G:63:MET:HE2	7:G:106:LEU:HD21	1.69	0.73
15:O:16:SER:O	15:O:88:LEU:O	2.05	0.73
4:D:74:GLN:HB2	4:D:84:VAL:CG1	2.19	0.73
6:F:86:LYS:O	6:F:89:THR:HG22	1.88	0.73
20:T:63:HIS:O	20:T:67:ARG:NE	2.21	0.73
1:A:45:GLY:O	1:A:46:ILE:CD1	2.37	0.73
5:E:98:ASN:HD21	5:E:119:ALA:CA	2.02	0.73
10:J:171:GLY:C	10:J:173:VAL:H	1.92	0.73
12:L:80:MET:HG3	12:L:86:ILE:HG22	1.68	0.73
15:O:31:CYS:SG	15:O:93:LEU:CB	2.75	0.73
2:B:25:PHE:CE1	15:O:88:LEU:HD13	2.24	0.73
11:K:47:LYS:O	11:K:50:GLN:HG2	1.88	0.73
10:J:84:ILE:HD12	10:J:86:VAL:HG21	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:24:HIS:O	1:A:25:LEU:C	2.24	0.73
7:G:50:VAL:CG1	7:G:111:LEU:HD13	2.11	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
19:S:121:ARG:HG2	19:S:131:VAL:CG1	2.17	0.73
24:X:27:TYR:CE1	24:X:31:HIS:CD2	2.70	0.73
4:D:166:TYR:HD1	4:D:200:PRO:CB	2.02	0.73
2:B:150:ILE:CG1	18:R:125:GLY:H	1.85	0.73
4:D:222:PRO:C	4:D:223:ILE:HD12	2.09	0.73
21:U:59:LYS:HB2	21:U:84:ILE:HG23	1.70	0.73
10:J:101:LYS:HG2	10:J:103:GLU:OE1	1.89	0.73
15:O:38:ASN:O	15:O:68:GLU:OE1	2.07	0.73
21:U:56:MET:CE	21:U:88:LEU:HD23	2.18	0.73
5:E:124:CYS:HB2	5:E:162:ILE:HD11	1.71	0.73
8:H:164:ASN:HA	8:H:167:GLU:HG3	1.71	0.73
14:N:27:LYS:HE2	14:N:27:LYS:H	1.54	0.73
22:V:31:SER:C	22:V:32:ILE:HG13	2.08	0.73
16:P:84:ILE:HG22	16:P:86:LEU:HD22	1.71	0.73
4:D:162:ASP:CG	4:D:166:TYR:HE2	1.92	0.73
18:R:122:PRO:C	18:R:123:THR:OG1	2.27	0.73
2:B:149:GLN:O	18:R:124:VAL:HG22	1.88	0.73
10:J:100:LEU:CG	10:J:101:LYS:H	2.01	0.73
2:B:52:THR:HG22	2:B:58:ALA:HB3	1.71	0.72
7:G:14:LYS:HZ2	7:G:123:GLY:HA3	0.75	0.72
7:G:93:LYS:HD3	7:G:95:LYS:HD2	1.71	0.72
10:J:35:TYR:C	10:J:37:LEU:H	1.85	0.72
22:V:78:ILE:HG23	22:V:79:VAL:N	2.04	0.72
13:M:85:LEU:CA	13:M:88:TRP:CE3	2.67	0.72
5:E:191:ARG:HD3	5:E:245:ARG:HB2	1.71	0.72
1:A:193:HIS:ND1	1:A:194:PRO:CD	2.51	0.72
5:E:180:LEU:HD13	5:E:228:ILE:HD11	1.70	0.72
12:L:80:MET:CE	12:L:121:GLN:N	2.32	0.72
2:B:25:PHE:HE1	15:O:53:ILE:HG22	1.54	0.72
15:O:64:ALA:HB1	15:O:66:ARG:NE	2.04	0.72
23:W:17:ALA:HB2	23:W:25:VAL:CG1	2.19	0.72
25:Y:9:THR:HB	25:Y:23:MET:HG3	1.69	0.72
16:P:44:ARG:HH22	16:P:84:ILE:H	1.38	0.72
16:P:125:PRO:O	16:P:126:VAL:CB	2.38	0.72
2:B:126:ASP:OD1	2:B:136:HIS:CG	2.41	0.72
1:A:30:LEU:CD2	1:A:35:GLU:CG	2.51	0.72
2:B:139:CYS:CB	2:B:168:MET:SD	2.76	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:39:ARG:HD3	20:T:38:LYS:HZ1	1.52	0.72
20:T:30:VAL:O	20:T:32:GLU:N	2.22	0.72
16:P:62:LYS:CG	16:P:65:LYS:HE2	2.18	0.72
9:I:4:SER:O	9:I:6:ASP:N	2.22	0.72
8:H:119:SER:O	8:H:120:ARG:NE	2.22	0.72
2:B:49:VAL:HG22	2:B:65:ARG:CZ	2.18	0.72
5:E:92:ILE:HG22	5:E:95:THR:OG1	1.89	0.72
8:H:143:ARG:HA	23:W:52:ILE:O	1.89	0.72
9:I:54:LYS:HG2	9:I:181:GLN:O	1.89	0.72
9:I:70:GLU:HB3	9:I:72:CYS:SG	2.30	0.72
17:Q:135:PRO:HD2	17:Q:141:TYR:CD1	2.21	0.72
17:Q:85:ARG:NH1	17:Q:117:ARG:CB	2.51	0.72
26:Z:96:LEU:O	26:Z:112:ASN:CB	2.37	0.72
18:R:44:LYS:HE2	18:R:47:ARG:HH22	1.45	0.72
24:X:105:PHE:CE2	24:X:119:ARG:C	2.62	0.72
20:T:111:LYS:HB2	20:T:126:GLN:NE2	2.03	0.72
18:R:115:SER:O	18:R:116:ASN:CG	2.27	0.72
19:S:111:LEU:HD21	19:S:125:HIS:CE1	2.24	0.72
7:G:1:MET:HE1	7:G:106:LEU:O	1.85	0.72
8:H:169:LYS:HB2	8:H:173:PHE:HE2	1.51	0.72
10:J:164:PRO:HA	10:J:167:GLY:O	1.90	0.72
15:O:72:TYR:HE1	15:O:76:LEU:HD11	1.54	0.72
17:Q:8:GLN:CB	17:Q:99:TYR:CZ	2.72	0.72
24:X:89:GLY:O	24:X:92:ASN:HB2	1.89	0.72
17:Q:130:LYS:HD2	17:Q:135:PRO:O	1.88	0.72
19:S:94:LYS:HD3	19:S:95:TYR:O	1.89	0.72
18:R:17:ILE:HG22	18:R:69:ILE:CD1	2.04	0.72
24:X:67:ARG:O	24:X:68:LYS:CG	2.33	0.72
20:T:143:LYS:CD	20:T:144:LYS:H	1.94	0.72
5:E:180:LEU:HD22	5:E:181:CYS:N	2.04	0.72
7:G:64:LYS:HD3	7:G:64:LYS:C	2.09	0.72
10:J:127:ARG:NH1	10:J:145:PRO:HB3	2.03	0.72
20:T:30:VAL:O	20:T:30:VAL:CG2	2.30	0.72
25:Y:56:PHE:CB	25:Y:58:PHE:HE2	2.02	0.72
25:Y:78:SER:HB3	25:Y:81:TYR:HD2	0.57	0.72
8:H:71:SER:O	8:H:74:LYS:HB2	1.88	0.72
6:F:41:VAL:CG2	6:F:42:LYS:CD	2.64	0.72
16:P:69:PRO:HD2	16:P:70:MET:H	1.53	0.72
3:C:222:ALA:O	3:C:225:THR:HG22	1.89	0.72
18:R:88:VAL:HG13	18:R:88:VAL:O	1.89	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:166:THR:OG1	5:E:168:LYS:CG	2.38	0.72
5:E:18:TRP:CE3	5:E:46:ILE:HD11	2.24	0.72
5:E:23:LEU:O	5:E:24:THR:OG1	2.08	0.72
9:I:112:TRP:CZ3	9:I:117:TYR:HE2	2.08	0.72
20:T:38:LYS:HD2	20:T:45:LEU:C	2.10	0.72
6:F:93:VAL:O	6:F:97:PHE:CE1	2.42	0.72
6:F:44:LYS:C	6:F:45:TYR:CD1	2.62	0.72
23:W:15:ASN:ND2	23:W:19:LYS:HE3	2.03	0.72
10:J:87:LEU:HD11	10:J:91:LYS:HB3	1.72	0.72
10:J:180:LYS:HD2	10:J:180:LYS:O	1.88	0.72
3:C:236:LEU:HD23	3:C:237:THR:O	1.90	0.72
16:P:68:PRO:HB2	16:P:69:PRO:HD3	1.70	0.72
16:P:119:PHE:HA	19:S:119:ALA:HA	1.71	0.72
5:E:36:HIS:O	5:E:41:CYS:SG	2.47	0.72
1:A:127:PRO:CG	1:A:152:SER:HB3	2.19	0.72
5:E:74:GLY:C	5:E:75:LYS:HG2	2.10	0.72
5:E:92:ILE:CB	5:E:97:GLU:OE1	2.34	0.72
7:G:24:LEU:O	7:G:26:THR:N	2.23	0.72
10:J:37:LEU:HD21	10:J:43:VAL:N	2.05	0.72
4:D:53:THR:CG2	4:D:91:VAL:HB	2.19	0.72
11:K:83:LEU:HB2	11:K:85:LEU:CG	2.18	0.72
16:P:121:ILE:HG22	19:S:120:HIS:HA	1.72	0.72
23:W:42:MET:HE3	23:W:50:PHE:HD2	1.55	0.72
25:Y:102:THR:CB	25:Y:107:ARG:HE	2.02	0.72
13:M:86:GLY:CA	13:M:106:CYS:HB2	2.20	0.72
23:W:22:LYS:O	23:W:65:LEU:HD11	1.89	0.72
2:B:228:LEU:HD13	2:B:232:HIS:HD2	1.55	0.72
1:A:125:THR:HG22	1:A:175:TRP:NE1	2.05	0.72
1:A:180:ARG:NH1	1:A:184:ARG:NH1	2.37	0.72
2:B:79:VAL:O	2:B:79:VAL:HG23	1.90	0.72
7:G:162:LEU:HD23	7:G:172:LYS:NZ	2.03	0.72
9:I:157:LYS:HB2	12:L:22:ARG:HD3	0.82	0.72
9:I:48:VAL:CG2	9:I:52:ASN:HB3	2.19	0.72
10:J:66:LYS:HA	10:J:71:LEU:CD1	2.19	0.72
6:F:49:LEU:CD1	6:F:50:PRO:HD2	2.16	0.72
17:Q:50:LYS:HA	17:Q:53:GLU:OE2	1.87	0.72
17:Q:78:VAL:HG13	17:Q:82:TYR:HE2	1.55	0.72
23:W:101:PHE:HB2	23:W:129:PHE:CE1	2.25	0.72
20:T:42:HIS:CE1	20:T:83:GLN:HB3	2.25	0.72
1:A:169:HIS:HB3	1:A:203:PHE:CZ	2.23	0.72
14:N:5:HIS:CD2	14:N:121:ARG:HE	2.08	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:229:GLY:CA	5:E:235:TRP:HD1	2.03	0.72
14:N:92:ILE:HG22	14:N:150:VAL:HG21	1.69	0.72
25:Y:56:PHE:CD2	25:Y:86:GLU:OE2	2.43	0.72
16:P:4:VAL:N	16:P:10:ARG:CD	2.52	0.72
11:K:43:LEU:C	11:K:45:VAL:N	2.43	0.72
20:T:77:LYS:HG2	20:T:92:PHE:CZ	2.24	0.72
8:H:146:VAL:HG23	23:W:50:PHE:CE1	2.21	0.72
17:Q:58:LEU:HD21	17:Q:111:ILE:HD12	1.70	0.72
17:Q:85:ARG:HH22	17:Q:117:ARG:CD	2.03	0.72
19:S:52:LEU:HD12	19:S:53:THR:N	2.05	0.72
25:Y:102:THR:HB	25:Y:104:ARG:N	2.04	0.72
13:M:13:ASP:C	13:M:16:THR:CB	2.49	0.72
23:W:90:GLN:HB2	23:W:94:LEU:HD12	1.71	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	0.71
7:G:196:LYS:O	7:G:199:THR:OG1	2.08	0.71
8:H:164:ASN:OD1	8:H:167:GLU:CD	2.26	0.71
9:I:142:SER:HB3	9:I:143:LYS:CG	2.20	0.71
16:P:80:LEU:O	16:P:116:LEU:HD12	1.89	0.71
9:I:69:SER:HB3	12:L:19:ASN:CG	2.09	0.71
4:D:202:LYS:HB2	4:D:203:PRO:HD2	1.72	0.71
16:P:48:GLY:O	16:P:50:ARG:HD2	1.90	0.71
24:X:108:LYS:CB	24:X:110:HIS:CE1	2.72	0.71
6:F:166:ILE:H	6:F:166:ILE:HD12	1.54	0.71
10:J:110:LEU:HB3	10:J:130:ILE:HD13	1.72	0.71
15:O:32:HIS:HE1	15:O:96:LYS:HD2	1.53	0.71
24:X:125:VAL:O	24:X:126:ALA:HB3	1.90	0.71
4:D:21:LEU:HD13	4:D:48:ILE:HD11	1.71	0.71
11:K:83:LEU:CB	11:K:85:LEU:CG	2.68	0.71
21:U:50:VAL:CG2	21:U:52:GLY:N	2.51	0.71
19:S:11:HIS:CD2	19:S:23:ARG:HH22	1.96	0.71
20:T:16:ARG:CG	20:T:16:ARG:HH11	2.03	0.71
20:T:42:HIS:CE1	20:T:93:SER:CA	2.73	0.71
23:W:3:ARG:CZ	23:W:9:ASP:OD2	2.37	0.71
6:F:35:LEU:HD12	6:F:117:ILE:HG23	1.72	0.71
15:O:143:LYS:O	15:O:143:LYS:HG2	1.82	0.71
13:M:131:LYS:O	13:M:132:LYS:HG3	1.90	0.71
15:O:17:LEU:HG	15:O:18:GLY:H	1.55	0.71
16:P:53:GLN:HE21	16:P:80:LEU:CD2	2.02	0.71
20:T:77:LYS:HA	20:T:94:ARG:HA	1.70	0.71
8:H:10:LYS:HB3	8:H:20:GLU:OE1	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:42:LYS:CG	6:F:42:LYS:O	2.28	0.71
5:E:248:ILE:HD12	10:J:72:PHE:CZ	2.22	0.71
24:X:60:LYS:CG	24:X:116:PRO:HG3	2.19	0.71
3:C:241:TRP:CE2	23:W:68:ARG:HD3	2.25	0.71
23:W:27:ILE:CG1	23:W:61:ILE:HB	2.19	0.71
13:M:59:PRO:O	13:M:62:VAL:HG22	1.90	0.71
5:E:258:ALA:O	5:E:259:LYS:CB	2.33	0.71
1:A:76:VAL:HG13	1:A:175:TRP:CZ3	2.26	0.71
2:B:63:LYS:C	2:B:63:LYS:HD3	2.10	0.71
9:I:148:LYS:O	9:I:152:ARG:HG3	1.90	0.71
9:I:106:SER:OG	9:I:171:LEU:HG	1.90	0.71
10:J:125:HIS:CD2	10:J:129:LEU:CD1	2.70	0.71
14:N:26:LEU:HD21	14:N:66:VAL:CG2	2.20	0.71
3:C:200:LEU:HD12	3:C:201:MET:SD	2.30	0.71
25:Y:18:LEU:HB3	25:Y:20:ARG:CZ	2.21	0.71
16:P:108:LYS:O	16:P:111:MET:CG	2.34	0.71
4:D:105:LEU:CD2	4:D:184:ILE:CD1	2.56	0.71
10:J:138:ARG:CB	10:J:156:HIS:HB3	2.21	0.71
25:Y:93:ARG:O	25:Y:93:ARG:HD2	1.90	0.71
9:I:139:LYS:HB3	9:I:145:ILE:HD11	1.57	0.71
2:B:52:THR:CG2	14:N:53:ILE:HD13	83.73	0.71
26:Z:103:HIS:HD2	26:Z:105:ALA:N	1.87	0.71
16:P:49:LEU:HA	16:P:51:ARG:CD	2.20	0.71
4:D:176:LEU:O	4:D:177:LEU:HD13	1.90	0.71
9:I:82:VAL:CG1	9:I:202:ILE:HD13	2.21	0.71
7:G:157:VAL:HG13	7:G:158:VAL:C	2.10	0.71
8:H:166:VAL:HG22	8:H:173:PHE:HE2	1.55	0.71
10:J:162:ARG:HG2	10:J:162:ARG:O	1.88	0.71
8:H:140:VAL:O	14:N:18:TYR:CD2	2.43	0.71
22:V:53:TYR:CZ	22:V:72:LEU:HB3	2.26	0.71
7:G:85:ARG:CZ	25:Y:118:ARG:HE	2.03	0.71
4:D:2:ALA:HB3	4:D:3:VAL:C	2.04	0.71
4:D:97:CYS:SG	4:D:99:ILE:HG13	2.30	0.71
11:K:38:LYS:O	11:K:39:ASN:HB2	1.90	0.71
6:F:18:LYS:HD2	17:Q:57:LEU:CD2	2.21	0.71
17:Q:112:LEU:HD13	17:Q:120:LEU:CD2	2.21	0.71
2:B:209:ASP:O	2:B:210:VAL:CB	2.39	0.71
3:C:238:PRO:HA	3:C:241:TRP:CD1	2.26	0.71
6:F:66:CYS:SG	6:F:67:PRO:HD2	2.31	0.71
7:G:212:LEU:CA	7:G:215:LYS:HE2	2.17	0.71
10:J:61:LEU:HD13	10:J:94:LEU:HD11	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:64:ALA:HB1	15:O:66:ARG:HE	1.53	0.71
19:S:34:LYS:C	19:S:103:LEU:HD23	2.10	0.71
11:K:43:LEU:O	11:K:44:HIS:C	2.28	0.71
5:E:248:ILE:CG1	10:J:72:PHE:CG	2.52	0.71
16:P:93:MET:SD	16:P:106:GLU:CB	2.77	0.71
9:I:25:ARG:NE	9:I:27:TYR:CE2	2.57	0.71
26:Z:102:LYS:HA	26:Z:107:VAL:HA	1.72	0.71
8:H:122:LEU:HD12	8:H:123:THR:N	2.00	0.71
13:M:14:VAL:C	13:M:16:THR:H	1.93	0.71
25:Y:92:ALA:HA	25:Y:97:TYR:CB	2.19	0.71
14:N:6:ALA:HB1	14:N:7:PRO:HD3	1.71	0.71
1:A:111:GLN:HB3	3:C:48:VAL:HG11	1.73	0.71
1:A:48:ILE:HD13	18:R:105:MET:HE1	1.73	0.71
5:E:11:ARG:O	5:E:12:VAL:CG2	2.39	0.71
12:L:97:ARG:HG2	12:L:98:LYS:N	2.06	0.71
22:V:18:SER:OG	22:V:72:LEU:HD13	1.90	0.71
20:T:30:VAL:O	20:T:31:PRO:C	2.29	0.71
4:D:132:LYS:CG	4:D:191:PRO:HG3	2.19	0.71
11:K:40:VAL:CG2	11:K:41:PRO:O	2.38	0.71
21:U:50:VAL:CG2	21:U:52:GLY:CA	2.58	0.71
8:H:32:MET:O	8:H:33:ASN:CB	2.38	0.71
18:R:13:ALA:CB	18:R:54:VAL:CG2	2.68	0.71
18:R:90:ALA:CA	18:R:91:LEU:HD12	2.21	0.71
23:W:128:PHE:CZ	23:W:130:PHE:CE2	2.78	0.71
18:R:95:ILE:HA	18:R:114:LEU:HD13	1.73	0.71
9:I:191:GLU:O	9:I:192:GLY:O	2.08	0.71
12:L:40:ILE:CG2	12:L:44:PHE:HB2	2.21	0.71
15:O:16:SER:O	15:O:17:LEU:HB3	1.90	0.71
2:B:30:TRP:NE1	15:O:17:LEU:HD21	2.05	0.71
22:V:55:ILE:HD13	22:V:65:SER:CA	2.14	0.71
8:H:145:ARG:CD	23:W:51:GLU:CD	2.59	0.71
25:Y:9:THR:CB	25:Y:48:TYR:HH	2.04	0.71
25:Y:54:VAL:HG12	25:Y:54:VAL:O	1.89	0.71
16:P:44:ARG:HE	16:P:84:ILE:HD12	0.55	0.71
16:P:4:VAL:CA	16:P:10:ARG:CG	2.60	0.71
20:T:77:LYS:CA	20:T:94:ARG:CG	2.68	0.71
16:P:121:ILE:HG22	19:S:120:HIS:CB	2.20	0.71
5:E:248:ILE:O	10:J:72:PHE:CE1	2.34	0.71
2:B:147:ASN:O	18:R:124:VAL:CG2	2.37	0.71
8:H:148:LEU:HD23	8:H:148:LEU:O	1.89	0.71
1:A:28:THR:HG22	1:A:46:ILE:HD13	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:141:ILE:HG23	3:C:142:LEU:N	2.06	0.71
1:A:118:GLU:CB	3:C:50:LYS:HZ3	1.99	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
8:H:157:HIS:NE2	8:H:188:GLU:OE1	2.23	0.71
9:I:62:VAL:HG21	9:I:75:LYS:HE2	1.70	0.71
18:R:100:PRO:HG2	18:R:119:VAL:CG2	2.16	0.71
19:S:42:HIS:CD2	20:T:45:LEU:HG	2.23	0.71
16:P:84:ILE:CD1	16:P:115:TYR:CE1	2.74	0.71
6:F:41:VAL:CG2	6:F:42:LYS:N	2.29	0.71
17:Q:42:ILE:CG2	17:Q:51:LEU:HD21	2.19	0.71
25:Y:29:HIS:HD1	25:Y:67:GLY:CA	2.02	0.71
19:S:84:LEU:HD22	19:S:97:GLN:HB2	1.73	0.71
3:C:131:GLU:O	3:C:134:THR:HG22	1.90	0.71
4:D:217:ILE:O	4:D:218:LEU:CD2	2.39	0.71
16:P:39:ALA:O	16:P:42:ARG:HG3	1.90	0.71
10:J:84:ILE:HG13	10:J:86:VAL:HG23	1.72	0.71
1:A:133:PRO:CD	1:A:134:LEU:N	2.51	0.70
1:A:186:ARG:O	1:A:186:ARG:CZ	2.38	0.70
9:I:62:VAL:CG2	9:I:75:LYS:NZ	2.53	0.70
10:J:46:VAL:HG12	10:J:102:ILE:HG23	1.72	0.70
9:I:193:LYS:HG3	12:L:10:TYR:CE1	2.26	0.70
14:N:28:LEU:O	14:N:29:THR:HG22	1.87	0.70
18:R:101:ASP:O	18:R:105:MET:N	2.24	0.70
25:Y:48:TYR:O	25:Y:50:THR:CG2	2.38	0.70
19:S:58:GLU:CA	19:S:59:LEU:HD13	2.21	0.70
2:B:150:ILE:CD1	18:R:126:MET:CA	2.66	0.70
25:Y:7:ILE:HD11	25:Y:43:LYS:HB3	1.71	0.70
23:W:128:PHE:CD1	23:W:129:PHE:N	2.58	0.70
5:E:2:ALA:O	5:E:3:ARG:HG2	1.90	0.70
3:C:149:PRO:O	3:C:149:PRO:HG2	1.92	0.70
3:C:51:LEU:HD13	3:C:78:ILE:CD1	2.17	0.70
5:E:152:PRO:HG3	7:G:209:TYR:CE1	2.27	0.70
7:G:63:MET:CE	7:G:106:LEU:HD13	2.12	0.70
7:G:217:MET:O	7:G:221:LYS:HB3	1.90	0.70
2:B:83:LYS:NZ	15:O:130:GLU:CD	2.43	0.70
22:V:24:ILE:C	22:V:24:ILE:HD12	2.11	0.70
25:Y:29:HIS:NE2	25:Y:69:THR:HG23	2.06	0.70
18:R:37:GLU:OE1	18:R:38:ILE:CG2	2.39	0.70
16:P:70:MET:O	16:P:71:GLU:CB	2.39	0.70
1:A:154:LEU:HD22	1:A:157:VAL:CG2	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:112:HIS:NE2	5:E:237:SER:HB2	2.05	0.70
6:F:122:ARG:NH2	6:F:193:LYS:NZ	2.39	0.70
15:O:119:LEU:O	15:O:122:SER:OG	2.07	0.70
15:O:30:VAL:HB	15:O:32:HIS:NE2	2.06	0.70
11:K:62:PHE:HE1	11:K:67:PHE:CE2	2.07	0.70
8:H:31:GLU:OE2	8:H:41:ARG:NE	2.22	0.70
19:S:15:VAL:HG13	19:S:68:ILE:CD1	2.20	0.70
20:T:84:ARG:NH2	20:T:84:ARG:HG3	1.97	0.70
2:B:131:ASP:CG	2:B:180:ASP:HB2	2.12	0.70
6:F:19:LEU:HD22	6:F:24:SER:CA	2.21	0.70
1:A:39:TYR:CB	1:A:50:ASN:HD21	2.01	0.70
1:A:120:ARG:CG	3:C:251:TYR:CE2	2.75	0.70
9:I:112:TRP:HH2	9:I:117:TYR:HH	1.31	0.70
4:D:43:PRO:C	4:D:44:THR:CG2	2.60	0.70
4:D:98:ALA:H	4:D:188:ILE:HD12	1.55	0.70
23:W:42:MET:CE	23:W:50:PHE:CE2	2.73	0.70
19:S:137:LYS:HG2	19:S:138:THR:CG2	2.17	0.70
8:H:117:PRO:O	8:H:120:ARG:N	2.24	0.70
1:A:127:PRO:HG3	1:A:152:SER:HB3	1.72	0.70
1:A:32:PHE:CD1	1:A:33:GLN:HG2	2.26	0.70
22:V:45:ARG:O	22:V:46:PHE:C	2.30	0.70
24:X:126:ALA:C	24:X:128:VAL:N	2.40	0.70
6:F:14:THR:HG23	6:F:15:PRO:HD3	1.73	0.70
4:D:192:TRP:CE3	4:D:196:GLY:CA	2.65	0.70
4:D:211:VAL:HG23	18:R:38:ILE:CA	2.21	0.70
21:U:25:THR:CG2	21:U:86:LYS:HG2	2.22	0.70
3:C:195:PRO:HG3	3:C:221:PHE:CZ	2.23	0.70
20:T:116:ASP:HB3	20:T:120:GLY:O	1.92	0.70
2:B:195:LYS:HA	2:B:195:LYS:HE2	1.73	0.70
2:B:52:THR:HG22	14:N:53:ILE:CD1	82.84	0.70
7:G:78:SER:OG	7:G:81:HIS:CD2	2.44	0.70
8:H:172:THR:O	8:H:176:VAL:HG23	1.91	0.70
12:L:147:LYS:HD2	12:L:149:ALA:N	2.07	0.70
22:V:47:ASN:O	22:V:48:GLY:C	2.29	0.70
24:X:54:LYS:HD2	24:X:91:LEU:HD12	1.72	0.70
17:Q:112:LEU:O	17:Q:116:ASP:CA	2.40	0.70
17:Q:42:ILE:CD1	17:Q:51:LEU:HD22	2.03	0.70
17:Q:53:GLU:OE1	17:Q:85:ARG:NH2	2.24	0.70
25:Y:33:ALA:C	25:Y:34:THR:OG1	2.28	0.70
16:P:110:GLU:CD	16:P:110:GLU:H	1.94	0.70
6:F:167:LYS:CE	6:F:171:GLU:HG3	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:92:LEU:CD1	26:Z:99:LEU:HD21	2.22	0.70
16:P:51:ARG:O	16:P:52:LYS:HB3	1.91	0.70
10:J:87:LEU:CD1	10:J:91:LYS:CB	2.69	0.70
18:R:5:ARG:HB2	18:R:10:LYS:HZ1	1.55	0.70
3:C:131:GLU:HG3	4:D:116:ARG:CZ	2.21	0.70
5:E:108:ARG:CG	10:J:32:ILE:HG21	48.86	0.70
10:J:37:LEU:HG	10:J:42:GLU:CB	2.20	0.70
2:B:28:LYS:HD3	15:O:51:GLU:OE2	1.91	0.70
1:A:48:ILE:HG12	18:R:105:MET:HE2	0.77	0.70
11:K:21:MET:SD	11:K:49:MET:SD	2.90	0.70
4:D:198:ILE:O	4:D:198:ILE:HG13	1.90	0.70
20:T:11:GLN:NE2	20:T:62:ARG:NH1	2.36	0.70
2:B:124:HIS:CD2	2:B:136:HIS:CE1	2.80	0.70
3:C:122:VAL:CG1	3:C:202:ALA:HA	2.22	0.70
5:E:195:ILE:HG22	5:E:196:THR:N	2.05	0.70
3:C:142:LEU:C	3:C:145:LEU:CD2	2.59	0.70
7:G:159:ARG:HH21	7:G:171:THR:HA	1.57	0.70
10:J:133:ARG:HD3	10:J:141:VAL:HG11	1.74	0.70
15:O:95:ILE:HD12	15:O:116:LEU:HD21	1.71	0.70
15:O:99:ALA:N	15:O:133:THR:CG2	2.39	0.70
24:X:125:VAL:C	24:X:128:VAL:H	1.94	0.70
8:H:40:LEU:HD23	8:H:43:LEU:CG	2.21	0.70
17:Q:12:VAL:CG1	17:Q:13:PHE:N	2.55	0.70
19:S:58:GLU:O	19:S:59:LEU:CB	2.40	0.70
16:P:19:GLY:N	19:S:92:ASP:HA	2.07	0.70
26:Z:44:LEU:HD12	26:Z:44:LEU:O	1.91	0.70
23:W:14:ILE:HG13	23:W:15:ASN:H	1.54	0.70
10:J:87:LEU:CD1	10:J:91:LYS:HB3	2.22	0.70
24:X:29:LYS:CD	24:X:34:THR:CB	2.69	0.70
23:W:128:PHE:HE1	23:W:130:PHE:CE2	2.08	0.70
6:F:79:HIS:O	6:F:80:GLY:C	2.29	0.70
24:X:40:PRO:HB3	24:X:81:ILE:CD1	2.15	0.70
1:A:180:ARG:CD	1:A:184:ARG:NH2	2.53	0.70
3:C:186:GLY:CA	10:J:54:ARG:NH2	2.54	0.70
3:C:244:THR:HG22	3:C:246:PHE:CG	2.26	0.70
5:E:163:ASP:O	5:E:164:LEU:HB2	1.91	0.70
7:G:164:LYS:C	7:G:166:GLY:N	2.44	0.70
7:G:71:GLY:HA2	7:G:98:ARG:HH21	1.55	0.70
7:G:57:ASP:OD2	7:G:98:ARG:HG2	1.91	0.70
10:J:114:VAL:HG13	10:J:119:LEU:O	1.90	0.70
18:R:98:VAL:HG12	18:R:100:PRO:N	2.07	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:102:THR:HA	18:R:105:MET:HB2	1.73	0.70
4:D:158:ILE:HD12	4:D:189:MET:HE1	1.62	0.70
21:U:47:ASN:N	21:U:47:ASN:HD22	1.88	0.70
6:F:41:VAL:CG2	6:F:42:LYS:HD2	2.22	0.70
25:Y:34:THR:C	25:Y:35:VAL:CG2	2.53	0.70
19:S:8:LYS:C	26:Z:49:LEU:CD2	2.60	0.70
2:B:149:GLN:N	18:R:124:VAL:CG2	2.54	0.70
8:H:122:LEU:HD12	8:H:123:THR:H	1.56	0.70
5:E:143:ASP:CG	5:E:145:ARG:HD2	2.11	0.70
3:C:54:LEU:HD21	3:C:254:PHE:HB3	1.71	0.70
9:I:144:LYS:O	9:I:145:ILE:HG23	1.92	0.70
10:J:37:LEU:CD2	10:J:43:VAL:HG23	2.22	0.70
1:A:57:LYS:CE	22:V:70:LEU:HD21	2.21	0.70
25:Y:114:MET:HE2	25:Y:124:ASN:HB2	1.74	0.70
16:P:100:LYS:HD2	16:P:101:THR:HG23	1.72	0.70
25:Y:55:ILE:CD1	25:Y:75:ILE:CD1	2.70	0.70
18:R:1:MET:HB3	18:R:2:GLY:N	2.05	0.70
16:P:52:LYS:CA	16:P:54:HIS:CD2	2.74	0.70
10:J:82:VAL:HG11	10:J:92:MET:HE2	1.73	0.70
13:M:18:LEU:HD22	13:M:22:LEU:CG	2.22	0.70
8:H:57:ARG:CD	8:H:89:GLY:O	2.40	0.70
18:R:77:GLU:O	18:R:81:ARG:HG3	1.90	0.70
7:G:50:VAL:HG11	7:G:111:LEU:CD2	2.22	0.69
9:I:103:LEU:CD2	9:I:172:LEU:HD13	2.21	0.69
4:D:132:LYS:HB2	4:D:191:PRO:HG3	0.70	0.69
26:Z:73:VAL:HG12	26:Z:79:ILE:CG2	2.18	0.69
6:F:112:LEU:HD23	6:F:116:ILE:CD1	2.22	0.69
8:H:190:PRO:HB2	8:H:191:GLU:CG	2.22	0.69
10:J:110:LEU:HD13	10:J:130:ILE:CG1	2.04	0.69
11:K:32:HIS:ND1	11:K:33:PRO:HD2	2.07	0.69
17:Q:50:LYS:HG3	17:Q:85:ARG:HH21	1.57	0.69
16:P:108:LYS:H	16:P:111:MET:CE	2.03	0.69
16:P:15:PHE:HE2	16:P:110:GLU:HB3	1.55	0.69
24:X:2:GLY:O	24:X:3:LYS:CB	2.35	0.69
15:O:136:PRO:C	15:O:138:ASP:N	2.44	0.69
10:J:179:LYS:HA	10:J:182:GLN:OE1	1.92	0.69
24:X:32:LEU:O	24:X:37:LYS:HE3	1.92	0.69
4:D:103:GLU:HA	4:D:103:GLU:OE2	1.92	0.69
1:A:123:VAL:HG22	1:A:145:ILE:HB	1.72	0.69
1:A:158:ASP:HB3	22:V:65:SER:OG	1.91	0.69
5:E:126:VAL:HG22	5:E:157:ASN:H	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:123:LEU:HD12	5:E:161:GLN:HA	1.72	0.69
5:E:18:TRP:CE3	5:E:46:ILE:CD1	2.76	0.69
9:I:149:TYR:HD1	9:I:152:ARG:HH12	1.35	0.69
9:I:155:ASN:CA	12:L:22:ARG:HD2	2.22	0.69
25:Y:54:VAL:CG2	25:Y:79:LEU:CD2	2.71	0.69
24:X:105:PHE:CZ	24:X:118:VAL:O	2.46	0.69
4:D:216:GLU:C	4:D:216:GLU:OE1	2.30	0.69
1:A:48:ILE:CD1	18:R:105:MET:HE1	2.21	0.69
5:E:180:LEU:HD13	5:E:228:ILE:CD1	2.22	0.69
6:F:141:VAL:CG2	6:F:146:ARG:HG2	2.22	0.69
22:V:18:SER:HB3	22:V:54:ALA:O	1.93	0.69
20:T:101:ARG:HG2	20:T:105:GLN:NE2	2.07	0.69
25:Y:54:VAL:O	25:Y:75:ILE:CA	2.37	0.69
19:S:34:LYS:CA	19:S:103:LEU:HD21	2.15	0.69
11:K:40:VAL:HG23	11:K:44:HIS:N	2.07	0.69
4:D:197:LYS:HB3	4:D:198:ILE:HG23	0.77	0.69
16:P:49:LEU:C	16:P:51:ARG:N	2.45	0.69
18:R:91:LEU:CB	18:R:92:ASP:HA	2.17	0.69
20:T:4:VAL:HG12	20:T:8:ASP:CB	2.21	0.69
20:T:110:LEU:O	20:T:111:LYS:HB2	1.90	0.69
24:X:108:LYS:HB3	24:X:110:HIS:CE1	2.27	0.69
8:H:135:PHE:HB3	8:H:136:PRO:CD	2.23	0.69
15:O:30:VAL:CG2	15:O:32:HIS:NE2	2.55	0.69
4:D:97:CYS:C	4:D:99:ILE:N	2.45	0.69
8:H:6:ALA:CB	8:H:10:LYS:HD3	2.22	0.69
18:R:5:ARG:CB	18:R:10:LYS:HZ1	2.05	0.69
18:R:91:LEU:CG	18:R:92:ASP:HA	2.21	0.69
26:Z:85:ARG:CB	26:Z:85:ARG:CZ	2.70	0.69
6:F:53:ALA:HB1	17:Q:125:ARG:HH21	1.56	0.69
18:R:115:SER:O	18:R:116:ASN:OD1	2.08	0.69
3:C:50:LYS:CE	3:C:251:TYR:CE1	2.67	0.69
7:G:64:LYS:CE	7:G:67:VAL:HG13	2.22	0.69
9:I:105:ASP:O	9:I:169:GLY:O	2.09	0.69
12:L:112:HIS:CD2	12:L:134:LEU:HD11	2.27	0.69
14:N:54:LEU:HB3	14:N:60:VAL:CG2	2.19	0.69
24:X:95:GLU:O	24:X:98:ASP:HB2	1.92	0.69
5:E:67:GLN:O	5:E:68:ARG:HG3	1.91	0.69
25:Y:55:ILE:HG12	25:Y:75:ILE:HG12	0.69	0.69
11:K:46:MET:HA	11:K:69:TRP:CH2	2.28	0.69
21:U:50:VAL:CG2	21:U:51:LYS:O	2.38	0.69
21:U:40:ILE:HD11	21:U:53:PRO:HB3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:140:GLN:NE2	25:Y:64:PHE:HE2	1.90	0.69
18:R:44:LYS:HE3	18:R:47:ARG:CZ	2.23	0.69
19:S:15:VAL:HG13	19:S:68:ILE:HD11	1.73	0.69
14:N:114:ARG:HG2	14:N:114:ARG:HH21	1.57	0.69
16:P:32:GLN:HA	16:P:35:GLN:OE1	1.92	0.69
3:C:66:ILE:HG23	3:C:71:LEU:HB2	1.74	0.69
5:E:62:LYS:HD3	5:E:80:ILE:HD11	0.79	0.69
9:I:136:ILE:HG23	9:I:139:LYS:HE2	1.73	0.69
12:L:82:MET:HB2	12:L:85:THR:HG23	1.73	0.69
4:D:66:ILE:O	4:D:70:THR:HG23	1.92	0.69
11:K:2:LEU:HD13	11:K:3:MET:CA	2.21	0.69
8:H:15:LYS:CB	8:H:16:PRO:CD	2.54	0.69
26:Z:65:TYR:HD2	26:Z:68:ILE:HG12	1.55	0.69
16:P:49:LEU:HD13	16:P:51:ARG:HH21	1.56	0.69
16:P:52:LYS:N	16:P:54:HIS:NE2	2.41	0.69
10:J:90:GLY:C	10:J:91:LYS:O	2.24	0.69
18:R:21:TYR:CB	18:R:71:ILE:HG21	2.23	0.69
24:X:1:MET:O	24:X:2:GLY:C	2.29	0.69
1:A:172:GLY:HA3	1:A:203:PHE:CD1	2.28	0.69
5:E:86:PHE:CZ	5:E:182:MET:HE3	2.17	0.69
5:E:85:GLY:N	5:E:88:ASP:OD2	2.21	0.69
3:C:68:LEU:HB2	6:F:128:ILE:HD11	79.52	0.69
13:M:44:LYS:O	13:M:46:GLN:N	2.25	0.69
15:O:117:ARG:O	15:O:121:ARG:HB2	1.92	0.69
8:H:145:ARG:CD	23:W:51:GLU:OE1	2.40	0.69
1:A:186:ARG:O	1:A:186:ARG:HD3	1.93	0.69
3:C:69:PHE:CE1	3:C:249:SER:HA	2.28	0.69
3:C:76:SER:O	3:C:79:ILE:CG2	2.38	0.69
7:G:161:PRO:O	7:G:161:PRO:HD2	1.93	0.69
7:G:30:LYS:HD2	7:G:30:LYS:N	2.08	0.69
12:L:5:GLN:O	12:L:6:THR:C	2.31	0.69
24:X:100:VAL:HG12	24:X:125:VAL:CG2	2.20	0.69
25:Y:54:VAL:HG22	25:Y:79:LEU:CD2	2.23	0.69
6:F:40:ALA:N	6:F:68:ILE:HG23	2.08	0.69
21:U:47:ASN:O	21:U:47:ASN:CG	2.29	0.69
8:H:9:VAL:HG12	8:H:44:ASN:CG	2.13	0.69
13:M:94:ILE:O	13:M:95:ASP:HB2	1.93	0.69
5:E:175:PHE:CD2	5:E:175:PHE:O	2.45	0.69
1:A:185:MET:HE2	22:V:39:VAL:CG1	2.21	0.69
7:G:180:VAL:C	7:G:181:THR:HG22	2.13	0.69
7:G:227:GLN:HA	7:G:230:LYS:HZ3	1.58	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:191:GLU:OE1	8:H:193:GLN:OE1	2.10	0.69
9:I:154:LYS:C	9:I:154:LYS:HD3	2.01	0.69
22:V:15:ARG:O	22:V:24:ILE:HG22	1.93	0.69
22:V:32:ILE:HD12	22:V:60:ARG:HH11	1.55	0.69
19:S:34:LYS:C	19:S:103:LEU:CD2	2.62	0.69
21:U:108:PRO:O	21:U:109:GLY:C	2.30	0.69
16:P:121:ILE:HG22	19:S:120:HIS:HB2	1.75	0.69
17:Q:78:VAL:HG12	17:Q:82:TYR:CE2	2.28	0.69
19:S:50:ILE:CG1	19:S:63:GLU:HG2	2.22	0.69
10:J:15:THR:HB	10:J:44:TRP:CZ3	2.27	0.69
18:R:122:PRO:CB	18:R:123:THR:CB	2.71	0.69
18:R:93:GLN:HG2	18:R:94:GLU:O	1.92	0.69
23:W:30:CYS:HA	23:W:34:ILE:HD12	1.75	0.69
1:A:16:LEU:HD21	18:R:111:PHE:CE2	2.27	0.69
2:B:61:GLY:O	2:B:65:ARG:CZ	2.41	0.69
2:B:77:ASP:HA	2:B:79:VAL:HG22	1.74	0.69
3:C:244:THR:O	3:C:245:VAL:C	2.28	0.69
7:G:77:LEU:CD1	7:G:95:LYS:HD3	2.23	0.69
6:F:99:ILE:HD13	6:F:171:GLU:OE1	1.93	0.69
4:D:201:LYS:CE	4:D:201:LYS:HA	2.13	0.69
4:D:193:ASP:CA	4:D:202:LYS:O	2.37	0.69
2:B:209:ASP:O	2:B:210:VAL:CG2	2.40	0.69
25:Y:97:TYR:HD1	25:Y:98:GLU:N	1.89	0.69
23:W:7:LEU:HD23	23:W:34:ILE:HG13	1.75	0.69
16:P:31:GLU:O	16:P:35:GLN:HG3	1.92	0.69
1:A:76:VAL:CG1	1:A:87:VAL:HG12	2.23	0.68
16:P:108:LYS:HB3	16:P:110:GLU:CD	2.13	0.68
3:C:155:TRP:CH2	23:W:97:ARG:CZ	2.71	0.68
18:R:21:TYR:CG	18:R:71:ILE:HD13	2.28	0.68
13:M:19:GLN:HG2	13:M:88:TRP:CD1	2.27	0.68
25:Y:13:MET:HE3	25:Y:14:THR:N	2.07	0.68
20:T:42:HIS:CE1	20:T:93:SER:CB	2.76	0.68
9:I:36:THR:O	9:I:95:THR:HG23	1.92	0.68
18:R:95:ILE:H	18:R:114:LEU:HD13	1.58	0.68
3:C:51:LEU:C	3:C:51:LEU:CD2	2.61	0.68
5:E:139:LEU:CD1	5:E:154:ILE:CG2	2.69	0.68
9:I:117:TYR:N	9:I:117:TYR:CD2	2.62	0.68
9:I:154:LYS:HD3	9:I:155:ASN:CA	2.22	0.68
2:B:30:TRP:NE1	15:O:17:LEU:CD2	2.56	0.68
24:X:128:VAL:HG11	24:X:133:LEU:HD21	1.73	0.68
25:Y:57:VAL:HG12	25:Y:60:PHE:HE2	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:2:ALA:C	4:D:4:GLN:H	1.94	0.68
6:F:28:VAL:HG13	6:F:110:GLN:CG	2.22	0.68
4:D:40:ARG:NH1	21:U:107:GLU:OE2	2.26	0.68
8:H:6:ALA:HB1	8:H:10:LYS:NZ	2.07	0.68
19:S:87:GLN:O	19:S:88:LYS:O	2.10	0.68
26:Z:99:LEU:HD23	26:Z:109:TYR:CD1	2.27	0.68
3:C:126:MET:CE	3:C:223:LYS:NZ	2.56	0.68
23:W:78:ARG:CD	23:W:126:LEU:HD23	2.22	0.68
7:G:131:ARG:HG2	7:G:131:ARG:CD	2.15	0.68
7:G:157:VAL:HG13	7:G:159:ARG:H	0.73	0.68
7:G:222:GLU:HG2	7:G:225:GLN:OE1	1.92	0.68
14:N:87:ASP:OD1	14:N:88:LEU:N	2.27	0.68
16:P:8:LYS:O	16:P:11:THR:CG2	2.37	0.68
11:K:14:LEU:CD2	11:K:35:LEU:CD1	2.71	0.68
8:H:10:LYS:CE	8:H:16:PRO:C	2.61	0.68
8:H:83:LEU:HD22	8:H:92:VAL:CG1	2.05	0.68
16:P:114:HIS:CE1	19:S:113:ARG:HH22	2.11	0.68
16:P:108:LYS:HZ2	19:S:118:ARG:HH12	1.39	0.68
19:S:8:LYS:C	26:Z:49:LEU:HD23	2.12	0.68
26:Z:48:VAL:CG1	26:Z:48:VAL:O	2.40	0.68
4:D:193:ASP:O	4:D:194:PRO:C	2.28	0.68
10:J:91:LYS:O	10:J:93:LYS:N	2.25	0.68
4:D:123:LEU:HD21	4:D:154:ASP:HB2	1.72	0.68
8:H:121:THR:O	8:H:125:VAL:HG23	1.93	0.68
15:O:41:PHE:CD1	15:O:57:THR:CG2	2.76	0.68
1:A:147:LEU:CD2	1:A:163:CYS:SG	2.82	0.68
9:I:197:PHE:CE2	12:L:5:GLN:CG	2.76	0.68
15:O:19:PRO:CD	15:O:27:VAL:HG21	2.12	0.68
4:D:132:LYS:HB2	4:D:191:PRO:CD	2.20	0.68
25:Y:52:PRO:CD	25:Y:53:ASP:H	2.04	0.68
16:P:41:GLN:C	16:P:41:GLN:CD	2.52	0.68
16:P:98:ASN:O	16:P:122:THR:OG1	2.10	0.68
6:F:14:THR:OG1	17:Q:56:LEU:CD1	2.42	0.68
3:C:131:GLU:CG	4:D:116:ARG:HH22	2.02	0.68
23:W:38:LEU:HA	23:W:41:MET:HE2	1.74	0.68
20:T:85:ASN:HB3	20:T:88:MET:HB2	1.76	0.68
5:E:139:LEU:HD11	5:E:154:ILE:CG2	2.22	0.68
12:L:82:MET:CE	12:L:85:THR:HG21	2.23	0.68
16:P:56:LEU:HD22	16:P:78:THR:HG22	1.76	0.68
11:K:12:TYR:CD2	11:K:82:TYR:HD2	2.11	0.68
13:M:24:THR:O	13:M:27:ILE:HG22	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:77:LYS:CB	20:T:94:ARG:CG	2.61	0.68
8:H:35:ASP:OD1	8:H:36:LEU:N	2.27	0.68
9:I:69:SER:HB2	12:L:19:ASN:HD22	1.52	0.68
19:S:6:PRO:O	19:S:7:GLU:CB	2.41	0.68
10:J:21:GLU:O	10:J:22:LYS:C	2.31	0.68
26:Z:92:LEU:HD11	26:Z:109:TYR:OH	1.93	0.68
10:J:82:VAL:CG1	10:J:92:MET:HE3	2.23	0.68
23:W:128:PHE:HD1	23:W:129:PHE:N	1.91	0.68
6:F:154:LEU:CD1	6:F:155:CYS:N	2.55	0.68
11:K:94:LEU:HD23	11:K:95:ARG:H	1.59	0.68
9:I:5:ARG:CG	9:I:5:ARG:HH11	2.04	0.68
16:P:67:ALA:CB	16:P:73:PRO:HB3	2.23	0.68
1:A:52:LYS:HB3	1:A:52:LYS:HZ1	1.57	0.68
5:E:129:ILE:CB	5:E:139:LEU:HD23	2.22	0.68
7:G:147:LEU:HD21	7:G:156:TYR:HE2	1.58	0.68
7:G:179:LEU:HD12	7:G:180:VAL:N	1.97	0.68
9:I:141:ARG:HG3	9:I:144:LYS:O	1.93	0.68
15:O:63:LYS:O	15:O:64:ALA:HB2	1.94	0.68
11:K:39:ASN:O	11:K:40:VAL:HB	1.92	0.68
11:K:84:HIS:O	11:K:84:HIS:CG	2.39	0.68
8:H:32:MET:O	8:H:33:ASN:CG	2.30	0.68
17:Q:43:GLU:HG2	17:Q:45:ARG:HB3	1.74	0.68
19:S:8:LYS:HD3	19:S:8:LYS:N	2.07	0.68
3:C:260:LYS:HD2	3:C:261:THR:N	2.08	0.68
23:W:36:ARG:HD3	23:W:110:ILE:CD1	2.16	0.68
10:J:178:ALA:O	10:J:182:GLN:CG	2.34	0.68
5:E:175:PHE:C	5:E:175:PHE:CD2	2.67	0.68
2:B:97:LEU:HB3	2:B:232:HIS:CD2	2.29	0.68
8:H:135:PHE:CD2	8:H:136:PRO:HD3	2.29	0.68
5:E:100:ARG:HD3	5:E:102:ILE:HD12	1.71	0.68
5:E:74:GLY:O	5:E:75:LYS:HG2	1.93	0.68
1:A:141:ASN:HD21	22:V:29:HIS:CA	2.07	0.68
24:X:133:LEU:HD21	24:X:139:GLU:O	1.92	0.68
19:S:39:ARG:NH2	20:T:38:LYS:CG	2.56	0.68
6:F:109:LEU:HD23	6:F:109:LEU:O	1.94	0.68
20:T:77:LYS:CG	20:T:92:PHE:HZ	2.03	0.68
6:F:45:TYR:C	6:F:47:LYS:HE2	2.13	0.68
18:R:91:LEU:N	18:R:92:ASP:HA	2.01	0.68
9:I:4:SER:O	9:I:5:ARG:C	2.32	0.68
17:Q:33:LYS:HG3	17:Q:69:ARG:HG2	1.75	0.68
18:R:72:LYS:O	18:R:76:GLU:HG2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:185:MET:CE	22:V:39:VAL:CG1	2.66	0.68
25:Y:114:MET:HE1	25:Y:125:VAL:HG23	1.76	0.68
11:K:9:ILE:O	11:K:13:GLU:HG2	1.94	0.68
8:H:12:ASN:HB3	8:H:46:THR:OG1	1.92	0.68
6:F:14:THR:CG2	17:Q:56:LEU:CD1	2.56	0.68
16:P:49:LEU:C	16:P:51:ARG:CD	2.62	0.68
16:P:126:VAL:O	16:P:127:LYS:HB3	1.93	0.68
13:M:13:ASP:O	13:M:16:THR:CA	2.41	0.68
4:D:127:MET:HG2	4:D:154:ASP:OD2	1.94	0.68
3:C:241:TRP:CE2	23:W:68:ARG:HD2	2.28	0.68
13:M:79:VAL:HG12	13:M:80:ASP:N	2.09	0.68
23:W:18:GLU:HG2	23:W:65:LEU:HD13	1.76	0.68
12:L:118:ARG:O	12:L:119:ASP:HB2	1.92	0.68
25:Y:13:MET:HE1	25:Y:14:THR:O	1.90	0.68
3:C:123:GLY:C	3:C:226:PHE:CZ	2.67	0.68
1:A:127:PRO:CB	1:A:153:PRO:HG2	2.22	0.68
3:C:138:GLY:C	3:C:141:ILE:HG22	2.14	0.68
3:C:51:LEU:O	3:C:55:VAL:HG23	1.94	0.68
5:E:180:LEU:HD13	5:E:228:ILE:HG13	1.74	0.68
9:I:67:TRP:CZ2	9:I:158:ILE:HD11	2.23	0.68
14:N:26:LEU:HD21	14:N:66:VAL:HG21	1.75	0.68
17:Q:8:GLN:CG	17:Q:99:TYR:HE1	1.60	0.68
19:S:6:PRO:O	26:Z:49:LEU:HD11	1.94	0.68
19:S:15:VAL:HG12	19:S:16:LEU:H	1.57	0.68
18:R:90:ALA:HA	18:R:91:LEU:HD12	1.73	0.68
21:U:117:ALA:C	21:U:118:ASP:O	2.28	0.68
3:C:198:LEU:HD11	3:C:226:PHE:CD1	2.28	0.68
24:X:32:LEU:O	24:X:37:LYS:CE	2.42	0.68
1:A:143:PRO:HD3	22:V:32:ILE:HG21	1.76	0.68
3:C:48:VAL:HG23	3:C:75:GLU:CG	2.24	0.68
5:E:87:MET:O	5:E:122:LYS:HE3	1.94	0.68
14:N:16:LEU:HD22	14:N:17:PRO:CD	2.21	0.68
14:N:46:THR:O	14:N:50:ILE:HD12	1.93	0.68
22:V:59:ILE:CG2	22:V:64:GLU:HB2	2.23	0.68
19:S:26:ILE:HG22	19:S:45:LEU:CD1	2.24	0.68
2:B:19:LYS:CB	2:B:19:LYS:HZ3	2.01	0.68
8:H:107:LYS:O	8:H:109:ARG:HA	1.93	0.68
10:J:84:ILE:CD1	10:J:86:VAL:HG21	2.24	0.68
8:H:177:TYR:HE2	8:H:183:LYS:HB2	1.59	0.68
1:A:76:VAL:HG12	1:A:87:VAL:CG1	2.23	0.67
5:E:102:ILE:HD13	5:E:236:ILE:HD12	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:135:PRO:HG2	7:G:144:LEU:HD23	1.76	0.67
10:J:50:LEU:CD1	10:J:102:ILE:HD13	2.22	0.67
10:J:122:SER:HG	10:J:124:HIS:HB2	1.57	0.67
24:X:71:ARG:CG	24:X:82:THR:HG22	2.16	0.67
4:D:43:PRO:O	4:D:44:THR:CG2	2.38	0.67
21:U:44:LYS:O	21:U:47:ASN:CA	2.42	0.67
6:F:25:THR:HG21	6:F:42:LYS:CB	2.19	0.67
19:S:51:ASP:OD2	19:S:53:THR:OG1	2.11	0.67
19:S:7:GLU:CA	19:S:7:GLU:OE2	2.39	0.67
6:F:103:LEU:HD22	6:F:178:ILE:CD1	2.23	0.67
2:B:148:ASN:H	2:B:148:ASN:HD22	1.42	0.67
4:D:212:GLU:HG3	18:R:19:LYS:HD2	1.72	0.67
24:X:29:LYS:HE3	24:X:34:THR:HG21	1.75	0.67
8:H:85:LYS:CD	8:H:85:LYS:O	2.34	0.67
20:T:83:GLN:NE2	20:T:85:ASN:HA	2.10	0.67
19:S:106:LYS:CD	19:S:109:GLU:OE1	2.42	0.67
7:G:162:LEU:CD2	7:G:172:LYS:HZ3	2.05	0.67
9:I:79:ILE:CG2	9:I:103:LEU:HB2	2.24	0.67
10:J:130:ILE:CG2	10:J:135:ILE:HD11	2.21	0.67
22:V:40:ASP:CB	22:V:47:ASN:HD22	2.06	0.67
4:D:18:LYS:CD	4:D:18:LYS:O	2.41	0.67
4:D:74:GLN:NE2	4:D:75:LYS:CE	2.57	0.67
11:K:40:VAL:HG21	11:K:45:VAL:H	1.59	0.67
11:K:59:LYS:HD2	11:K:60:GLU:H	1.57	0.67
8:H:52:GLU:HA	8:H:58:LYS:HA	1.76	0.67
13:M:12:MET:C	13:M:13:ASP:OD1	2.33	0.67
20:T:124:THR:HG21	20:T:126:GLN:HB3	1.76	0.67
20:T:85:ASN:ND2	20:T:91:HIS:CD2	2.63	0.67
2:B:61:GLY:O	2:B:65:ARG:NH2	2.26	0.67
5:E:159:THR:OG1	5:E:227:VAL:HG23	1.93	0.67
9:I:155:ASN:O	9:I:157:LYS:N	2.27	0.67
10:J:102:ILE:CG2	10:J:106:LEU:HD13	2.23	0.67
11:K:2:LEU:O	11:K:3:MET:CB	2.40	0.67
8:H:64:VAL:HG13	8:H:68:GLN:OE1	1.94	0.67
17:Q:50:LYS:NZ	17:Q:85:ARG:HH21	1.69	0.67
12:L:18:GLN:HE21	12:L:20:LYS:HD2	1.58	0.67
26:Z:96:LEU:O	26:Z:112:ASN:ND2	2.27	0.67
16:P:30:TYR:O	16:P:34:MET:HG3	1.94	0.67
10:J:14:VAL:HG23	10:J:48:PHE:CD1	2.29	0.67
2:B:19:LYS:CG	2:B:19:LYS:O	2.42	0.67
5:E:43:PRO:HG2	5:E:46:ILE:HD12	1.74	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:130:ILE:HG23	10:J:135:ILE:CD1	2.17	0.67
10:J:61:LEU:CD1	10:J:94:LEU:HD13	2.22	0.67
15:O:101:GLY:O	15:O:104:ARG:CB	2.43	0.67
2:B:30:TRP:HE1	15:O:17:LEU:HD22	1.59	0.67
17:Q:8:GLN:CG	17:Q:99:TYR:CD1	2.47	0.67
20:T:31:PRO:CG	20:T:102:ARG:CG	2.73	0.67
6:F:28:VAL:CG2	6:F:110:GLN:HG2	2.24	0.67
6:F:113:VAL:HG13	6:F:114:ASN:N	2.09	0.67
17:Q:112:LEU:CD1	17:Q:120:LEU:CD2	2.73	0.67
16:P:109:PRO:O	16:P:112:ILE:HG13	1.94	0.67
2:B:160:GLN:CD	2:B:205:TYR:CD1	2.67	0.67
4:D:211:VAL:O	18:R:38:ILE:O	2.12	0.67
13:M:51:VAL:HA	13:M:77:ILE:HG22	1.76	0.67
6:F:67:PRO:HG2	6:F:70:GLU:HB3	1.76	0.67
2:B:52:THR:CG2	14:N:53:ILE:HD12	83.72	0.67
8:H:14:GLU:CD	8:H:16:PRO:HB2	2.13	0.67
19:S:81:ASP:OD2	19:S:95:TYR:CD2	2.48	0.67
10:J:17:ARG:CG	10:J:17:ARG:O	2.29	0.67
25:Y:101:LYS:C	25:Y:102:THR:OG1	2.30	0.67
2:B:179:ASN:CB	2:B:183:GLU:OE1	2.43	0.67
5:E:194:VAL:HG22	5:E:211:LYS:O	1.95	0.67
1:A:185:MET:O	1:A:187:GLY:N	2.28	0.67
1:A:193:HIS:ND1	1:A:194:PRO:HD3	2.09	0.67
9:I:144:LYS:C	9:I:145:ILE:HG23	2.15	0.67
12:L:147:LYS:O	12:L:147:LYS:HD3	1.94	0.67
2:B:107:ARG:CZ	15:O:133:THR:O	2.43	0.67
22:V:77:GLY:HA2	22:V:78:ILE:O	1.95	0.67
4:D:45:ARG:HG3	4:D:83:SER:O	1.95	0.67
21:U:109:GLY:C	21:U:110:VAL:HG23	2.13	0.67
8:H:44:ASN:HB3	8:H:68:GLN:HE22	1.60	0.67
8:H:146:VAL:O	23:W:49:GLU:HB2	1.95	0.67
6:F:25:THR:HG21	6:F:42:LYS:HG3	0.67	0.67
6:F:76:MET:CE	6:F:169:ILE:CG2	2.61	0.67
3:C:161:LYS:HD2	3:C:162:PRO:HD2	1.77	0.67
18:R:90:ALA:HA	18:R:91:LEU:CD1	2.24	0.67
7:G:145:PHE:CB	7:G:147:LEU:CD1	2.65	0.67
9:I:155:ASN:C	9:I:157:LYS:H	1.93	0.67
12:L:58:LYS:O	12:L:64:GLY:HA3	1.95	0.67
14:N:26:LEU:HD12	14:N:27:LYS:HE3	1.76	0.67
15:O:84:ARG:HA	15:O:87:GLU:HB2	1.75	0.67
25:Y:114:MET:HA	25:Y:124:ASN:CB	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:64:ILE:HG12	25:Y:17:LEU:HD13	1.77	0.67
8:H:40:LEU:O	8:H:42:GLU:N	2.27	0.67
18:R:21:TYR:CD2	18:R:73:LEU:HD12	2.30	0.67
3:C:192:ALA:O	3:C:195:PRO:CG	2.43	0.67
23:W:104:LEU:HD12	23:W:106:THR:HG23	1.75	0.67
14:N:142:GLU:HG2	14:N:144:SER:OG	1.93	0.67
1:A:84:GLN:O	1:A:88:LEU:HD23	1.93	0.67
7:G:157:VAL:HG13	7:G:158:VAL:CA	2.25	0.67
12:L:82:MET:HB2	12:L:85:THR:HG22	1.74	0.67
2:B:72:ALA:CB	15:O:128:ARG:HH22	2.08	0.67
15:O:53:ILE:HG13	15:O:53:ILE:O	1.95	0.67
24:X:52:LEU:HD12	24:X:53:GLU:CA	2.24	0.67
20:T:99:VAL:HG23	20:T:100:ALA:N	2.09	0.67
4:D:74:GLN:HE21	4:D:75:LYS:CD	2.08	0.67
17:Q:113:ILE:HG13	17:Q:120:LEU:CD1	2.24	0.67
16:P:49:LEU:HD13	16:P:51:ARG:NE	1.97	0.67
22:V:1:MET:HE1	22:V:10:ASP:CB	2.22	0.67
2:B:125:VAL:HG21	2:B:169:MET:HG3	1.76	0.67
23:W:3:ARG:C	23:W:4:MET:SD	2.74	0.67
19:S:111:LEU:HD22	19:S:125:HIS:ND1	2.09	0.67
5:E:250:GLU:O	5:E:254:LYS:HG2	1.95	0.67
1:A:57:LYS:HZ3	22:V:70:LEU:CG	2.07	0.67
3:C:43:LYS:CE	3:C:43:LYS:HA	2.17	0.67
3:C:49:THR:CG2	3:C:75:GLU:HG3	2.25	0.67
7:G:32:MET:HE3	7:G:100:CYS:C	2.15	0.67
7:G:38:ALA:CB	7:G:45:TRP:O	2.42	0.67
9:I:104:ILE:O	9:I:105:ASP:CB	2.42	0.67
18:R:99:ASP:CB	18:R:119:VAL:HG12	2.22	0.67
19:S:42:HIS:CE1	20:T:45:LEU:CD2	2.54	0.67
19:S:39:ARG:CD	20:T:38:LYS:NZ	2.57	0.67
4:D:2:ALA:HB1	4:D:4:GLN:N	2.09	0.67
11:K:36:ALA:O	11:K:38:LYS:N	2.28	0.67
11:K:84:HIS:HD2	13:M:27:ILE:CG1	2.07	0.67
17:Q:57:LEU:CD1	17:Q:115:TYR:CZ	2.60	0.67
17:Q:34:VAL:HG21	17:Q:39:LEU:CD2	2.22	0.67
26:Z:103:HIS:NE2	26:Z:105:ALA:CB	2.58	0.67
16:P:33:LEU:HD22	16:P:87:PRO:HD3	1.16	0.67
19:S:54:LYS:C	19:S:54:LYS:CB	2.61	0.67
25:Y:91:LEU:C	25:Y:97:TYR:HB3	2.14	0.67
24:X:3:LYS:O	24:X:4:CYS:O	2.13	0.67
4:D:215:ASP:O	4:D:216:GLU:HB2	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:79:HIS:O	6:F:81:ARG:N	2.28	0.67
20:T:112:MET:SD	20:T:127:GLY:HA2	2.34	0.67
20:T:85:ASN:HB2	20:T:88:MET:O	1.95	0.67
2:B:178:THR:O	2:B:179:ASN:HB2	1.95	0.67
23:W:7:LEU:HD23	23:W:34:ILE:HG12	1.74	0.67
3:C:123:GLY:HA2	3:C:226:PHE:CZ	2.24	0.67
4:D:141:LYS:HD2	4:D:179:GLN:CD	2.15	0.67
3:C:262:HIS:CG	3:C:263:THR:N	2.63	0.67
7:G:120:ASP:O	7:G:121:ILE:HD13	1.95	0.67
7:G:19:ASP:O	7:G:20:ASP:CB	2.43	0.67
9:I:118:ALA:HB2	9:I:149:TYR:CZ	2.28	0.67
12:L:71:ARG:CG	12:L:73:LEU:HG	2.24	0.67
20:T:77:LYS:CD	20:T:92:PHE:CE2	2.77	0.67
17:Q:57:LEU:HD11	17:Q:115:TYR:OH	1.93	0.67
6:F:167:LYS:CD	6:F:171:GLU:HB3	2.24	0.67
2:B:205:TYR:CD2	2:B:206:PRO:CD	2.58	0.67
1:A:109:THR:O	1:A:110:ASN:HB2	1.95	0.67
14:N:13:GLN:CB	14:N:14:SER:O	2.43	0.67
6:F:154:LEU:CD1	6:F:155:CYS:SG	2.83	0.67
24:X:108:LYS:HB2	24:X:110:HIS:CE1	2.30	0.67
5:E:260:GLN:N	5:E:260:GLN:OE1	2.28	0.67
2:B:115:LYS:O	2:B:118:GLN:HG3	1.95	0.67
4:D:226:GLN:O	4:D:227:LYS:HB2	1.94	0.66
5:E:159:THR:CB	5:E:227:VAL:HG23	2.24	0.66
8:H:140:VAL:O	14:N:18:TYR:CE2	2.47	0.66
10:J:110:LEU:HD11	10:J:135:ILE:HD12	1.77	0.66
12:L:94:HIS:HB3	12:L:105:ARG:HD2	1.75	0.66
17:Q:19:ALA:CB	17:Q:80:GLN:HE21	2.06	0.66
10:J:15:THR:CG2	10:J:44:TRP:CE3	2.56	0.66
2:B:105:LEU:C	2:B:106:THR:HG23	2.14	0.66
14:N:13:GLN:HB2	14:N:14:SER:O	1.95	0.66
20:T:83:GLN:HE22	20:T:85:ASN:HA	1.59	0.66
20:T:21:PHE:CD1	20:T:22:LEU:HD23	2.30	0.66
1:A:183:LEU:CB	1:A:189:ILE:HD11	2.23	0.66
2:B:31:TYR:CE1	2:B:94:LYS:HA	2.29	0.66
5:E:94:LYS:C	5:E:95:THR:HG23	2.15	0.66
6:F:127:ARG:HG2	6:F:127:ARG:O	1.94	0.66
9:I:191:GLU:N	9:I:195:LEU:HB2	2.11	0.66
12:L:99:TYR:HD2	12:L:99:TYR:O	1.78	0.66
14:N:50:ILE:O	14:N:54:LEU:HG	1.94	0.66
15:O:116:LEU:HD23	15:O:119:LEU:HD21	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:59:ILE:HG23	22:V:64:GLU:HB2	1.75	0.66
11:K:71:LEU:CG	11:K:76:ILE:HD13	2.25	0.66
20:T:94:ARG:HG3	20:T:94:ARG:NH1	2.10	0.66
8:H:75:ILE:HG23	8:H:76:GLN:N	2.10	0.66
16:P:22:LEU:HA	16:P:25:LEU:HB2	1.76	0.66
3:C:155:TRP:CE2	23:W:97:ARG:CD	2.78	0.66
18:R:92:ASP:O	18:R:93:GLN:CB	2.43	0.66
13:M:49:LEU:HD13	13:M:50:CYS:H	1.58	0.66
2:B:188:LEU:HD22	2:B:212:VAL:HG21	1.77	0.66
5:E:102:ILE:CD1	5:E:236:ILE:HD12	2.24	0.66
5:E:48:LEU:HD11	5:E:70:ILE:CD1	2.26	0.66
5:E:75:LYS:C	5:E:76:VAL:CG2	4.26	0.66
7:G:162:LEU:HG	7:G:170:ARG:CB	2.25	0.66
7:G:16:ILE:HG21	7:G:45:TRP:CH2	2.30	0.66
9:I:142:SER:CB	9:I:143:LYS:HZ2	2.06	0.66
10:J:15:THR:HG21	10:J:44:TRP:HZ3	1.58	0.66
16:P:126:VAL:HG12	16:P:127:LYS:H	0.60	0.66
4:D:216:GLU:O	4:D:217:ILE:CG1	2.43	0.66
4:D:217:ILE:CG2	4:D:218:LEU:N	2.57	0.66
25:Y:10:ARG:NE	25:Y:24:VAL:CG1	2.40	0.66
11:K:18:GLU:O	11:K:92:ALA:HB2	1.89	0.66
25:Y:111:LYS:NZ	25:Y:115:LYS:NZ	2.43	0.66
2:B:48:LEU:HD12	2:B:48:LEU:N	1.98	0.66
3:C:84:GLY:HA2	3:C:87:LEU:CB	2.16	0.66
7:G:131:ARG:HG3	7:G:131:ARG:CD	2.15	0.66
9:I:108:PRO:O	9:I:111:GLN:HG2	1.95	0.66
10:J:131:ARG:HH11	10:J:143:ASN:ND2	1.93	0.66
24:X:52:LEU:CG	24:X:71:ARG:HB3	2.24	0.66
17:Q:134:GLY:HA2	17:Q:141:TYR:CD1	2.30	0.66
4:D:3:VAL:O	4:D:3:VAL:CG1	2.37	0.66
4:D:59:LEU:HD12	4:D:60:GLY:C	2.14	0.66
17:Q:50:LYS:CE	17:Q:117:ARG:HD2	2.25	0.66
17:Q:50:LYS:HA	17:Q:53:GLU:CG	2.26	0.66
4:D:162:ASP:CG	4:D:166:TYR:CE2	2.69	0.66
9:I:10:LYS:HG3	9:I:11:ARG:H	1.60	0.66
20:T:42:HIS:CE1	20:T:93:SER:HB3	2.30	0.66
5:E:9:LEU:HB2	5:E:30:ARG:HB2	1.76	0.66
12:L:100:ASN:OD1	12:L:100:ASN:N	2.28	0.66
17:Q:98:LYS:HE3	17:Q:99:TYR:CE2	2.30	0.66
24:X:52:LEU:CD1	24:X:53:GLU:CG	2.74	0.66
4:D:23:GLU:HG2	11:K:64:TRP:HE1	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:14:LEU:HD21	11:K:35:LEU:CD1	2.26	0.66
13:M:28:HIS:HD2	13:M:115:GLY:HA3	1.53	0.66
8:H:60:ILE:CG2	8:H:92:VAL:HG22	2.25	0.66
6:F:42:LYS:NZ	6:F:42:LYS:O	2.29	0.66
16:P:22:LEU:HD12	16:P:23:ASP:N	2.10	0.66
26:Z:48:VAL:HA	26:Z:83:LEU:HD12	1.76	0.66
10:J:16:PRO:O	10:J:17:ARG:C	2.33	0.66
4:D:202:LYS:CB	4:D:203:PRO:HD3	2.25	0.66
26:Z:99:LEU:HD11	26:Z:102:LYS:CE	2.23	0.66
5:E:130:PHE:CD2	5:E:138:HIS:CE1	2.84	0.66
4:D:216:GLU:O	4:D:217:ILE:HG13	1.94	0.66
20:T:85:ASN:O	20:T:88:MET:CE	2.44	0.66
1:A:140:VAL:O	1:A:140:VAL:CG1	2.43	0.66
3:C:245:VAL:O	3:C:246:PHE:HB2	1.96	0.66
7:G:32:MET:HE3	7:G:100:CYS:O	1.96	0.66
7:G:50:VAL:HG11	7:G:111:LEU:HD22	1.73	0.66
7:G:4:ASN:HA	7:G:15:LEU:CD2	2.24	0.66
10:J:171:GLY:O	10:J:174:LYS:N	2.29	0.66
9:I:85:ALA:HB1	12:L:8:ARG:CD	2.26	0.66
14:N:125:LEU:CD2	14:N:129:TYR:CZ	2.78	0.66
8:H:12:ASN:HD22	8:H:46:THR:CB	2.06	0.66
6:F:42:LYS:CB	6:F:46:ALA:N	2.59	0.66
4:D:163:PRO:HA	4:D:166:TYR:HD2	1.60	0.66
10:J:180:LYS:HD2	10:J:180:LYS:C	2.14	0.66
19:S:46:ARG:NE	20:T:50:GLU:CG	2.58	0.66
3:C:123:GLY:CA	3:C:226:PHE:CZ	2.76	0.66
2:B:120:MET:HE3	2:B:142:PHE:HZ	1.60	0.66
1:A:191:ARG:CG	1:A:193:HIS:HB2	2.24	0.66
2:B:25:PHE:CG	15:O:88:LEU:HD22	2.30	0.66
7:G:32:MET:CE	7:G:100:CYS:O	2.43	0.66
7:G:138:ALA:HB2	7:G:179:LEU:HB2	1.77	0.66
9:I:112:TRP:CH2	9:I:117:TYR:OH	2.46	0.66
14:N:92:ILE:CG2	14:N:150:VAL:CG2	2.72	0.66
15:O:62:VAL:HG21	15:O:72:TYR:CZ	2.30	0.66
25:Y:114:MET:HA	25:Y:124:ASN:HD22	1.43	0.66
20:T:31:PRO:CB	20:T:33:TRP:CD2	2.77	0.66
20:T:49:ASP:OD2	20:T:51:ASN:HB2	1.96	0.66
25:Y:54:VAL:CG2	25:Y:79:LEU:HD23	2.23	0.66
16:P:41:GLN:O	16:P:41:GLN:CD	2.33	0.66
4:D:53:THR:HG21	4:D:91:VAL:HB	1.78	0.66
11:K:36:ALA:O	11:K:38:LYS:HD2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:65:PRO:C	8:H:67:PRO:HD2	2.16	0.66
4:D:219:PRO:O	4:D:220:THR:O	2.12	0.66
15:O:22:ALA:C	15:O:24:GLY:H	1.93	0.66
20:T:42:HIS:HE1	20:T:93:SER:CB	2.08	0.66
25:Y:37:LYS:C	25:Y:40:ILE:HG22	2.15	0.66
1:A:172:GLY:HA3	1:A:203:PHE:CE1	2.31	0.66
2:B:31:TYR:HE1	2:B:94:LYS:N	1.93	0.66
5:E:153:LEU:CD1	5:E:172:PHE:CE2	2.77	0.66
7:G:74:ARG:HD3	7:G:94:ARG:CD	2.22	0.66
8:H:51:ILE:CD1	8:H:176:VAL:HA	2.26	0.66
9:I:142:SER:HB2	9:I:143:LYS:HZ2	1.60	0.66
23:W:17:ALA:CB	23:W:25:VAL:CG1	2.74	0.66
2:B:87:ILE:HG21	2:B:101:HIS:CG	2.31	0.66
8:H:10:LYS:N	8:H:11:PRO:HD3	2.11	0.66
6:F:14:THR:CB	17:Q:56:LEU:CG	2.73	0.66
17:Q:39:LEU:O	17:Q:42:ILE:HD12	1.96	0.66
10:J:177:ASN:HA	10:J:180:LYS:HB3	1.76	0.66
10:J:180:LYS:CG	10:J:181:GLY:N	2.56	0.66
26:Z:85:ARG:HH11	26:Z:85:ARG:CB	2.03	0.66
23:W:7:LEU:HD12	23:W:78:ARG:HH21	1.60	0.66
3:C:198:LEU:HD13	3:C:225:THR:HG23	1.77	0.66
1:A:17:LYS:CE	1:A:17:LYS:H	2.08	0.66
2:B:63:LYS:O	2:B:63:LYS:HD3	1.95	0.66
5:E:117:GLU:O	5:E:119:ALA:N	2.26	0.66
5:E:129:ILE:CB	5:E:139:LEU:CD2	2.73	0.66
5:E:152:PRO:HD2	7:G:212:LEU:HD21	1.78	0.66
10:J:35:TYR:C	10:J:37:LEU:N	2.41	0.66
25:Y:87:PRO:O	25:Y:87:PRO:HD2	1.95	0.66
11:K:36:ALA:C	11:K:38:LYS:H	1.94	0.66
2:B:87:ILE:CG2	2:B:101:HIS:CD2	2.77	0.66
17:Q:115:TYR:HD2	17:Q:116:ASP:H	1.44	0.66
4:D:212:GLU:HG2	18:R:19:LYS:NZ	2.11	0.66
1:A:141:ASN:HA	22:V:32:ILE:CD1	2.25	0.66
5:E:98:ASN:CG	5:E:119:ALA:HB2	2.15	0.66
5:E:11:ARG:O	5:E:12:VAL:HB	1.96	0.66
7:G:163:ASN:O	7:G:164:LYS:HB3	1.94	0.66
14:N:129:TYR:O	14:N:134:VAL:HG13	1.96	0.66
2:B:28:LYS:HE2	15:O:51:GLU:OE2	1.95	0.66
25:Y:21:LYS:H	25:Y:21:LYS:HD3	1.61	0.66
16:P:98:ASN:HD21	16:P:120:SER:HB2	1.61	0.66
11:K:40:VAL:CG2	11:K:41:PRO:HD3	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:83:LEU:HB2	11:K:85:LEU:HG	1.76	0.66
6:F:42:LYS:CB	6:F:46:ALA:H	2.09	0.66
17:Q:72:VAL:HG23	17:Q:84:ILE:HG22	1.77	0.66
19:S:58:GLU:OE2	26:Z:49:LEU:HD13	1.96	0.66
4:D:197:LYS:CB	4:D:198:ILE:HG12	2.11	0.66
10:J:78:LEU:HD13	10:J:92:MET:O	1.96	0.66
16:P:124:LYS:O	16:P:125:PRO:C	2.35	0.66
15:O:41:PHE:CE1	15:O:57:THR:HG21	2.31	0.66
4:D:145:GLN:HG3	4:D:146:ARG:N	2.10	0.66
1:A:75:SER:HB2	1:A:122:LEU:HD23	1.77	0.65
3:C:60:ILE:C	3:C:82:PHE:CE1	2.69	0.65
7:G:32:MET:SD	7:G:100:CYS:C	2.74	0.65
10:J:118:GLY:O	10:J:120:ALA:N	2.29	0.65
3:C:147:ILE:O	22:V:27:LYS:HE3	1.96	0.65
25:Y:114:MET:CE	25:Y:125:VAL:CG2	2.73	0.65
16:P:98:ASN:OD1	16:P:120:SER:CB	2.43	0.65
4:D:48:ILE:HG23	4:D:86:LEU:HG	1.75	0.65
26:Z:99:LEU:CD1	26:Z:102:LYS:NZ	2.59	0.65
2:B:116:LYS:O	2:B:117:TRP:HB2	1.95	0.65
2:B:150:ILE:CG1	18:R:125:GLY:C	2.64	0.65
25:Y:99:LYS:NZ	25:Y:99:LYS:O	2.29	0.65
15:O:55:ARG:C	15:O:56:VAL:HG12	2.16	0.65
11:K:18:GLU:C	11:K:92:ALA:CB	2.64	0.65
17:Q:30:GLY:CA	17:Q:66:VAL:O	2.40	0.65
20:T:124:THR:HG22	20:T:127:GLY:H	1.61	0.65
6:F:154:LEU:HD12	6:F:155:CYS:CA	2.25	0.65
5:E:191:ARG:HD3	5:E:245:ARG:CB	2.25	0.65
1:A:193:HIS:CB	1:A:194:PRO:HD2	2.26	0.65
2:B:49:VAL:HG22	2:B:65:ARG:NH1	2.11	0.65
2:B:67:PHE:CD1	15:O:47:LEU:HB2	2.30	0.65
3:C:50:LYS:O	3:C:258:LEU:HD22	1.94	0.65
3:C:57:ASP:O	3:C:58:MET:HB2	1.94	0.65
5:E:192:ILE:CD1	5:E:238:LEU:HD22	2.25	0.65
10:J:130:ILE:HA	10:J:135:ILE:CD1	2.26	0.65
12:L:40:ILE:HG21	12:L:44:PHE:HB2	1.78	0.65
2:B:25:PHE:CD2	15:O:88:LEU:HD21	2.30	0.65
18:R:100:PRO:CG	18:R:119:VAL:CG2	2.73	0.65
22:V:74:LYS:HG3	22:V:75:SER:H	1.58	0.65
16:P:41:GLN:HA	16:P:84:ILE:HD11	1.78	0.65
11:K:3:MET:HG2	11:K:4:PRO:O	1.97	0.65
25:Y:62:THR:CB	25:Y:69:THR:HG22	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:46:ARG:NE	20:T:50:GLU:HG2	2.10	0.65
18:R:7:LYS:HB2	18:R:11:LYS:HE3	1.77	0.65
6:F:115:ALA:CB	6:F:177:LEU:HD22	2.26	0.65
18:R:77:GLU:HG3	18:R:80:ARG:HH21	1.61	0.65
2:B:93:GLY:C	2:B:94:LYS:CD	2.65	0.65
3:C:55:VAL:CG1	3:C:82:PHE:CD2	2.74	0.65
3:C:61:LYS:HA	3:C:82:PHE:HE1	1.61	0.65
5:E:43:PRO:HD2	5:E:43:PRO:O	1.96	0.65
5:E:98:ASN:ND2	5:E:114:ILE:HG13	2.12	0.65
12:L:49:GLU:HB2	12:L:116:CYS:SG	2.36	0.65
14:N:16:LEU:CD2	14:N:17:PRO:CD	2.74	0.65
14:N:76:LYS:HD2	14:N:77:SER:N	2.10	0.65
17:Q:8:GLN:HG2	17:Q:99:TYR:HD1	1.53	0.65
24:X:52:LEU:HD21	24:X:71:ARG:HD3	1.78	0.65
6:F:20:PHE:HB3	6:F:23:TRP:HB2	1.79	0.65
6:F:91:ARG:CD	17:Q:46:THR:HG21	2.26	0.65
19:S:7:GLU:OE2	19:S:7:GLU:N	2.29	0.65
2:B:147:ASN:O	2:B:149:GLN:N	2.29	0.65
8:H:53:VAL:HG22	8:H:57:ARG:C	2.05	0.65
4:D:141:LYS:HD2	4:D:179:GLN:HG2	1.78	0.65
1:A:159:ILE:HG22	1:A:159:ILE:O	1.95	0.65
1:A:39:TYR:N	1:A:50:ASN:ND2	2.44	0.65
7:G:32:MET:O	7:G:33:ALA:CB	2.44	0.65
9:I:145:ILE:HA	9:I:148:LYS:HD3	1.77	0.65
15:O:119:LEU:CD1	15:O:126:ILE:HD11	2.26	0.65
18:R:32:LYS:HE2	18:R:33:ARG:NE	2.12	0.65
19:S:39:ARG:CD	20:T:38:LYS:HE2	2.15	0.65
11:K:16:PHE:CE2	11:K:79:LEU:C	2.69	0.65
4:D:196:GLY:O	4:D:199:GLY:CA	2.44	0.65
16:P:49:LEU:HD13	16:P:51:ARG:NH2	2.11	0.65
18:R:91:LEU:CD1	18:R:91:LEU:N	2.29	0.65
14:N:142:GLU:CD	14:N:144:SER:OG	2.34	0.65
5:E:259:LYS:NZ	5:E:260:GLN:OE1	2.29	0.65
3:C:142:LEU:O	3:C:145:LEU:HD23	1.96	0.65
10:J:34:GLU:HB2	10:J:35:TYR:HD2	1.61	0.65
24:X:93:PHE:O	24:X:140:ARG:NH1	2.30	0.65
16:P:10:ARG:HH21	16:P:11:THR:HG21	1.61	0.65
4:D:59:LEU:CD1	4:D:60:GLY:O	2.44	0.65
11:K:2:LEU:CG	11:K:3:MET:H	2.07	0.65
20:T:77:LYS:HA	20:T:94:ARG:CG	2.26	0.65
8:H:6:ALA:CB	8:H:10:LYS:NZ	2.59	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:102:LEU:HD13	26:Z:110:THR:HG22	1.78	0.65
3:C:155:TRP:CH2	23:W:97:ARG:HD3	2.32	0.65
24:X:60:LYS:HE2	24:X:116:PRO:CB	2.26	0.65
13:M:89:VAL:HG12	13:M:90:GLY:N	2.11	0.65
12:L:118:ARG:O	12:L:119:ASP:CB	2.43	0.65
1:A:89:LYS:HB3	1:A:202:TYR:CZ	2.31	0.65
2:B:98:THR:O	2:B:232:HIS:CE1	2.48	0.65
13:M:20:GLU:HA	13:M:20:GLU:OE1	1.96	0.65
2:B:28:LYS:CD	15:O:51:GLU:OE2	2.45	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	2.27	0.65
2:B:77:ASP:O	2:B:79:VAL:HG13	1.97	0.65
3:C:51:LEU:HD23	3:C:60:ILE:HD12	1.79	0.65
5:E:71:LYS:HE3	5:E:75:LYS:HA	1.78	0.65
8:H:143:ARG:HE	23:W:53:ILE:CG2	1.99	0.65
9:I:119:LEU:O	9:I:120:PRO:O	2.15	0.65
12:L:102:PHE:HD1	12:L:102:PHE:N	1.95	0.65
8:H:143:ARG:NE	23:W:53:ILE:HG12	2.10	0.65
24:X:95:GLU:CD	24:X:140:ARG:HH22	1.95	0.65
24:X:90:CYS:HA	24:X:93:PHE:HD2	1.61	0.65
16:P:98:ASN:OD1	16:P:120:SER:HB2	1.97	0.65
19:S:34:LYS:CA	19:S:103:LEU:CD2	2.73	0.65
11:K:53:LYS:HG3	11:K:54:SER:N	2.11	0.65
2:B:66:VAL:HG21	2:B:87:ILE:CG2	2.02	0.65
26:Z:99:LEU:HD21	26:Z:109:TYR:HE1	1.47	0.65
2:B:148:ASN:H	2:B:148:ASN:ND2	1.93	0.65
5:E:130:PHE:HB2	5:E:138:HIS:CD2	2.31	0.65
4:D:123:LEU:HD21	4:D:154:ASP:OD2	1.97	0.65
8:H:117:PRO:HG2	8:H:120:ARG:NE	2.11	0.65
17:Q:15:ARG:HH12	17:Q:20:THR:HG21	1.61	0.65
3:C:58:MET:HE3	3:C:81:PHE:HZ	1.60	0.65
3:C:69:PHE:CZ	3:C:247:THR:CG2	2.79	0.65
7:G:142:ARG:CD	7:G:147:LEU:HB3	2.26	0.65
10:J:114:VAL:HG12	10:J:119:LEU:O	1.96	0.65
18:R:98:VAL:HG12	18:R:99:ASP:N	2.10	0.65
24:X:138:LYS:C	24:X:139:GLU:OE2	2.35	0.65
19:S:39:ARG:HH22	20:T:38:LYS:HG2	1.60	0.65
25:Y:54:VAL:HG23	25:Y:79:LEU:HD21	1.78	0.65
11:K:4:PRO:CG	11:K:7:ASN:ND2	2.60	0.65
16:P:13:ARG:C	16:P:14:LYS:HG2	2.16	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:54:LYS:N	19:S:54:LYS:CB	2.57	0.65
18:R:122:PRO:HB3	18:R:123:THR:HG23	1.56	0.65
4:D:112:GLY:H	4:D:113:LEU:CD1	2.08	0.65
13:M:51:VAL:HB	13:M:77:ILE:HG21	1.78	0.65
21:U:19:ARG:CG	21:U:92:HIS:CE1	2.76	0.65
20:T:21:PHE:CD1	20:T:21:PHE:C	2.70	0.65
1:A:186:ARG:NE	1:A:186:ARG:O	2.30	0.65
2:B:67:PHE:HE1	15:O:47:LEU:C	1.97	0.65
8:H:163:GLN:O	8:H:166:VAL:HG12	1.97	0.65
10:J:61:LEU:HD23	10:J:98:LEU:HD11	1.74	0.65
12:L:99:TYR:C	12:L:100:ASN:OD1	2.35	0.65
2:B:25:PHE:CG	15:O:88:LEU:HD13	2.32	0.65
16:P:5:GLU:O	16:P:6:GLN:HB2	1.97	0.65
11:K:71:LEU:CD2	11:K:76:ILE:HD11	2.13	0.65
4:D:216:GLU:O	4:D:217:ILE:HD12	1.97	0.65
3:C:255:THR:CG2	3:C:256:ASP:OD1	2.45	0.65
5:E:165:GLU:N	5:E:165:GLU:OE2	2.30	0.65
2:B:76:ASN:O	2:B:76:ASN:ND2	2.29	0.65
3:C:146:SER:O	3:C:148:VAL:HG13	1.97	0.65
4:D:226:GLN:HE21	4:D:226:GLN:C	1.98	0.65
9:I:167:GLN:HG3	9:I:168:GLN:N	2.12	0.65
10:J:170:PRO:HD2	10:J:175:ARG:HH11	1.61	0.65
12:L:71:ARG:HG2	12:L:73:LEU:HG	1.79	0.65
18:R:99:ASP:HB3	18:R:119:VAL:CG1	2.26	0.65
16:P:10:ARG:NH2	16:P:11:THR:HG21	2.10	0.65
6:F:28:VAL:HG13	6:F:110:GLN:OE1	1.97	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
2:B:149:GLN:O	18:R:124:VAL:CG2	2.45	0.65
2:B:150:ILE:HG23	2:B:150:ILE:O	1.97	0.65
4:D:10:LYS:HE2	4:D:14:ASP:OD2	1.94	0.65
13:M:124:ILE:CA	13:M:127:TYR:CE2	2.80	0.65
20:T:85:ASN:HD21	20:T:91:HIS:CD2	2.14	0.65
13:M:70:ALA:CB	13:M:71:GLU:OE2	2.41	0.65
4:D:179:GLN:NE2	4:D:179:GLN:O	2.30	0.65
5:E:259:LYS:O	5:E:260:GLN:CG	2.45	0.65
10:J:137:VAL:HG22	10:J:157:ILE:HG12	1.79	0.65
10:J:158:ASP:OD1	10:J:159:PHE:N	2.27	0.65
1:A:196:GLU:HA	1:A:196:GLU:OE2	1.97	0.65
3:C:54:LEU:HD22	3:C:254:PHE:HB3	1.79	0.65
7:G:162:LEU:HD22	7:G:172:LYS:NZ	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:212:LEU:HA	7:G:215:LYS:HD3	1.78	0.65
7:G:3:LEU:HD11	7:G:41:LEU:HD11	1.76	0.65
7:G:64:LYS:HE2	7:G:67:VAL:CG1	2.26	0.65
8:H:193:GLN:H	8:H:193:GLN:CD	2.00	0.65
10:J:134:HIS:C	10:J:135:ILE:HG23	2.17	0.65
14:N:94:LYS:HG2	14:N:118:ILE:HD13	1.78	0.65
20:T:31:PRO:CG	20:T:33:TRP:CZ2	2.79	0.65
4:D:55:THR:CA	4:D:58:VAL:HG22	2.27	0.65
21:U:49:LYS:C	21:U:50:VAL:HG12	2.16	0.65
6:F:42:LYS:HE3	6:F:43:GLU:CA	2.27	0.65
19:S:88:LYS:H	19:S:95:TYR:HD1	1.42	0.65
8:H:122:LEU:HD11	8:H:123:THR:CG2	2.26	0.65
19:S:46:ARG:HH12	20:T:50:GLU:HA	1.62	0.65
2:B:42:ARG:HH22	2:B:232:HIS:HA	1.60	0.65
3:C:164:THR:HG23	3:C:165:VAL:N	2.12	0.65
2:B:32:ASP:OD1	2:B:46:LYS:CD	2.45	0.64
5:E:98:ASN:ND2	5:E:114:ILE:CD1	2.61	0.64
5:E:72:ILE:CD1	5:E:82:TYR:CD2	2.80	0.64
10:J:143:ASN:C	10:J:144:ILE:HG13	2.13	0.64
12:L:10:TYR:CD2	12:L:12:LYS:HE3	2.28	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
15:O:43:HIS:CG	15:O:43:HIS:O	2.47	0.64
1:A:141:ASN:O	22:V:32:ILE:CG2	2.44	0.64
17:Q:54:PRO:CG	17:Q:88:ILE:CD1	2.70	0.64
16:P:75:VAL:HG12	16:P:76:VAL:N	2.10	0.64
19:S:8:LYS:CA	26:Z:49:LEU:CD2	2.74	0.64
4:D:201:LYS:O	4:D:202:LYS:HB2	1.96	0.64
10:J:91:LYS:CA	10:J:96:TYR:CG	2.80	0.64
1:A:176:TRP:HE3	1:A:177:MET:SD	2.16	0.64
2:B:31:TYR:CE2	2:B:62:LEU:HD22	2.32	0.64
15:O:30:VAL:CG2	15:O:32:HIS:CD2	2.80	0.64
24:X:52:LEU:HD11	24:X:71:ARG:CB	2.27	0.64
12:L:17:PHE:CD1	12:L:18:GLN:O	2.49	0.64
2:B:150:ILE:CD1	18:R:126:MET:HB2	2.26	0.64
18:R:71:ILE:O	18:R:75:GLU:HG3	1.97	0.64
3:C:241:TRP:CD1	23:W:68:ARG:HD3	2.32	0.64
15:O:37:PHE:O	15:O:38:ASN:CB	2.46	0.64
18:R:31:ASN:ND2	18:R:55:THR:HG22	2.11	0.64
10:J:84:ILE:CD1	10:J:86:VAL:CG2	2.75	0.64
7:G:102:VAL:HG22	7:G:109:LEU:HD21	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:185:LEU:HB3	7:G:189:ARG:NH1	2.11	0.64
9:I:141:ARG:HD2	9:I:144:LYS:CB	1.99	0.64
9:I:194:GLU:HG2	12:L:10:TYR:CD2	2.32	0.64
14:N:139:TRP:CE3	14:N:140:LYS:CA	2.80	0.64
1:A:7:VAL:HG22	22:V:43:THR:HG21	1.79	0.64
16:P:56:LEU:HD11	16:P:80:LEU:HD12	1.76	0.64
25:Y:54:VAL:HG13	25:Y:76:TYR:CA	2.27	0.64
11:K:50:GLN:O	11:K:53:LYS:HG2	1.98	0.64
8:H:16:PRO:O	8:H:20:GLU:CD	2.36	0.64
25:Y:101:LYS:O	25:Y:102:THR:CB	2.44	0.64
26:Z:94:LYS:CD	26:Z:94:LYS:C	2.63	0.64
5:E:133:THR:O	5:E:134:LYS:CB	2.46	0.64
5:E:55:ALA:C	5:E:56:LEU:HD23	2.18	0.64
22:V:40:ASP:O	22:V:40:ASP:CG	2.33	0.64
11:K:33:PRO:O	11:K:34:GLU:CB	2.42	0.64
11:K:65:ARG:HH11	11:K:65:ARG:HB2	1.63	0.64
8:H:64:VAL:HG13	8:H:65:PRO:HD2	1.78	0.64
6:F:51:HIS:ND1	17:Q:82:TYR:OH	2.30	0.64
3:C:237:THR:OG1	3:C:240:LEU:HD13	1.97	0.64
13:M:85:LEU:HD13	13:M:106:CYS:SG	2.37	0.64
23:W:90:GLN:N	23:W:102:ILE:CD1	2.60	0.64
25:Y:3:ASP:C	25:Y:4:THR:HG1	1.99	0.64
10:J:84:ILE:HD12	10:J:86:VAL:CG2	2.28	0.64
8:H:166:VAL:HG22	8:H:173:PHE:CE2	2.30	0.64
9:I:110:ARG:NH2	9:I:124:LYS:CD	2.58	0.64
15:O:30:VAL:CG2	15:O:45:THR:OG1	2.46	0.64
18:R:119:VAL:HG23	18:R:119:VAL:O	1.96	0.64
3:C:196:LYS:O	3:C:200:LEU:HD23	1.97	0.64
16:P:53:GLN:CB	16:P:56:LEU:HD12	2.26	0.64
4:D:53:THR:HG22	4:D:91:VAL:CG2	2.27	0.64
6:F:46:ALA:C	6:F:47:LYS:HD3	2.18	0.64
5:E:248:ILE:CD1	10:J:72:PHE:CE2	2.45	0.64
16:P:13:ARG:O	16:P:14:LYS:HG3	1.97	0.64
2:B:209:ASP:O	2:B:210:VAL:HB	1.97	0.64
20:T:11:GLN:NE2	20:T:62:ARG:NE	2.45	0.64
2:B:105:LEU:HD11	2:B:213:ARG:CG	2.27	0.64
13:M:18:LEU:CD2	13:M:22:LEU:HG	2.25	0.64
3:C:234:SER:C	22:V:23:ILE:HD13	2.18	0.64
4:D:63:GLY:O	4:D:67:ARG:NH1	2.31	0.64
24:X:108:LYS:HB3	24:X:110:HIS:HE2	1.60	0.64
9:I:36:THR:HB	9:I:57:ALA:O	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:164:THR:HG23	3:C:165:VAL:H	1.63	0.64
1:A:40:LYS:HD3	1:A:41:ARG:H	1.62	0.64
3:C:115:ILE:CD1	3:C:144:LYS:HG3	2.27	0.64
5:E:62:LYS:HD2	5:E:80:ILE:CG1	2.28	0.64
6:F:129:GLY:O	6:F:134:VAL:HG22	1.97	0.64
9:I:157:LYS:O	9:I:158:ILE:O	2.14	0.64
10:J:35:TYR:CE1	10:J:112:THR:HG21	2.33	0.64
12:L:22:ARG:CZ	12:L:22:ARG:HB3	2.27	0.64
22:V:67:ASP:O	22:V:68:SER:C	2.35	0.64
16:P:53:GLN:O	16:P:56:LEU:HB2	1.97	0.64
16:P:44:ARG:HD2	16:P:82:ASP:O	1.97	0.64
20:T:95:GLY:O	20:T:96:SER:O	2.14	0.64
16:P:108:LYS:NZ	19:S:118:ARG:NH1	2.43	0.64
26:Z:99:LEU:HD11	26:Z:102:LYS:NZ	2.13	0.64
2:B:151:ARG:CD	2:B:153:THR:HG22	2.27	0.64
2:B:156:ALA:HB1	2:B:160:GLN:OE1	1.98	0.64
10:J:177:ASN:O	10:J:180:LYS:HB3	1.96	0.64
11:K:18:GLU:C	11:K:92:ALA:HB2	2.17	0.64
26:Z:70:PRO:CD	26:Z:71:ALA:N	2.56	0.64
20:T:111:LYS:O	20:T:124:THR:HG21	1.98	0.64
2:B:75:GLN:NE2	2:B:75:GLN:CA	2.61	0.64
6:F:19:LEU:CD2	6:F:24:SER:HA	2.28	0.64
25:Y:111:LYS:HZ3	25:Y:115:LYS:NZ	1.95	0.64
5:E:258:ALA:O	5:E:259:LYS:HB2	1.96	0.64
17:Q:144:SER:O	17:Q:145:TYR:HB2	1.96	0.64
1:A:119:PRO:O	1:A:142:LEU:CD2	2.45	0.64
7:G:64:LYS:HE2	7:G:67:VAL:HG13	1.79	0.64
9:I:154:LYS:NZ	9:I:154:LYS:O	2.30	0.64
22:V:53:TYR:OH	22:V:72:LEU:O	2.08	0.64
16:P:98:ASN:ND2	16:P:120:SER:HB2	2.12	0.64
11:K:48:ALA:O	11:K:52:LEU:HD23	1.98	0.64
11:K:64:TRP:C	11:K:65:ARG:CG	2.66	0.64
21:U:50:VAL:HG23	21:U:89:ILE:HG23	1.79	0.64
3:C:217:THR:O	3:C:219:GLY:N	2.31	0.64
25:Y:98:GLU:C	25:Y:98:GLU:OE2	2.35	0.64
21:U:33:GLU:OE1	21:U:55:ARG:NH2	2.29	0.64
23:W:101:PHE:HD2	23:W:129:PHE:HE1	1.46	0.64
1:A:149:ASN:HB2	1:A:165:ASN:CG	2.18	0.64
1:A:180:ARG:HD3	1:A:184:ARG:HH21	1.57	0.64
1:A:66:VAL:CG1	1:A:186:ARG:CD	2.71	0.64
1:A:98:PRO:O	1:A:99:ILE:HG13	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:182:MET:CE	5:E:228:ILE:HG21	2.26	0.64
5:E:72:ILE:HD13	5:E:82:TYR:CE2	2.32	0.64
7:G:142:ARG:HH21	7:G:152:ASP:N	1.95	0.64
16:P:83:MET:HB3	16:P:116:LEU:CD1	2.28	0.64
25:Y:21:LYS:HE2	25:Y:77:ASP:CG	2.17	0.64
21:U:47:ASN:O	21:U:47:ASN:ND2	2.30	0.64
8:H:10:LYS:CB	8:H:20:GLU:OE1	2.46	0.64
25:Y:63:HIS:ND1	25:Y:64:PHE:CD1	2.65	0.64
4:D:222:PRO:O	4:D:223:ILE:HB	1.97	0.64
15:O:20:GLN:NE2	15:O:21:VAL:O	2.31	0.64
5:E:126:VAL:HG21	5:E:129:ILE:CD1	2.27	0.64
7:G:50:VAL:CG1	7:G:111:LEU:CB	2.74	0.64
9:I:104:ILE:O	9:I:105:ASP:OD2	2.14	0.64
9:I:145:ILE:HA	9:I:148:LYS:CG	2.28	0.64
12:L:113:LEU:HD21	12:L:117:PHE:HB2	1.79	0.64
15:O:128:ARG:C	15:O:129:ILE:HG12	2.17	0.64
25:Y:114:MET:HE3	25:Y:125:VAL:HG23	1.77	0.64
25:Y:19:GLN:HG2	25:Y:81:TYR:HD1	1.53	0.64
25:Y:56:PHE:HB3	25:Y:58:PHE:HE2	1.63	0.64
16:P:44:ARG:CZ	16:P:84:ILE:HD12	2.24	0.64
25:Y:35:VAL:HG12	25:Y:36:PRO:CD	2.21	0.64
16:P:65:LYS:HG3	16:P:66:GLU:N	2.13	0.64
23:W:38:LEU:HD23	23:W:41:MET:HE3	1.78	0.64
9:I:8:TRP:CZ3	9:I:20:PRO:HA	2.32	0.64
5:E:259:LYS:HG2	5:E:260:GLN:OE1	1.96	0.64
2:B:71:LEU:HB2	2:B:84:PHE:CE2	2.33	0.64
8:H:158:LEU:HD11	8:H:187:PHE:CE1	2.33	0.64
24:X:52:LEU:CD1	24:X:53:GLU:N	2.54	0.64
26:Z:48:VAL:CA	26:Z:83:LEU:HD12	2.28	0.64
6:F:167:LYS:CD	6:F:171:GLU:HG2	2.20	0.64
13:M:13:ASP:OD1	13:M:13:ASP:N	2.30	0.64
4:D:215:ASP:O	4:D:216:GLU:CB	2.45	0.64
19:S:47:LYS:CE	19:S:78:LYS:HB2	2.27	0.64
8:H:110:THR:O	8:H:110:THR:CG2	2.46	0.64
1:A:193:HIS:HB3	1:A:194:PRO:HD2	1.80	0.63
5:E:159:THR:CG2	5:E:227:VAL:HG22	2.04	0.63
8:H:193:GLN:C	8:H:194:LEU:O	2.32	0.63
14:N:59:GLY:O	14:N:60:VAL:CG1	2.45	0.63
18:R:99:ASP:CA	18:R:119:VAL:HG13	2.13	0.63
24:X:99:GLU:C	24:X:100:VAL:HG13	2.18	0.63
16:P:41:GLN:HB2	16:P:84:ILE:HG12	1.77	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:74:GLN:HE22	4:D:75:LYS:CE	2.10	0.63
20:T:94:ARG:HH11	20:T:94:ARG:HG3	1.63	0.63
19:S:54:LYS:HD3	19:S:58:GLU:OE1	1.97	0.63
19:S:8:LYS:HB2	19:S:9:PHE:HD1	0.65	0.63
10:J:16:PRO:HD2	10:J:44:TRP:CH2	2.32	0.63
4:D:112:GLY:C	4:D:113:LEU:CG	2.65	0.63
16:P:69:PRO:CD	16:P:70:MET:N	2.61	0.63
9:I:3:ILE:HG22	9:I:3:ILE:O	1.97	0.63
2:B:38:MET:CE	2:B:186:ASN:ND2	2.52	0.63
13:M:56:CYS:SG	13:M:57:ASP:N	2.71	0.63
1:A:16:LEU:HB2	1:A:17:LYS:CE	2.28	0.63
1:A:186:ARG:HH11	1:A:186:ARG:C	1.99	0.63
1:A:176:TRP:CD1	1:A:199:PRO:HA	2.32	0.63
3:C:149:PRO:O	3:C:149:PRO:CD	2.45	0.63
6:F:59:LYS:CD	6:F:62:ARG:HD3	2.23	0.63
7:G:145:PHE:HB3	7:G:147:LEU:HD13	1.77	0.63
9:I:112:TRP:CZ3	9:I:117:TYR:CE2	2.86	0.63
14:N:38:TYR:CE1	14:N:78:LYS:CG	2.81	0.63
14:N:76:LYS:C	14:N:76:LYS:HD2	2.18	0.63
21:U:48:LEU:HD12	21:U:91:LEU:HD22	1.79	0.63
8:H:87:PHE:O	8:H:88:SER:O	2.14	0.63
6:F:44:LYS:CB	6:F:45:TYR:CE1	2.69	0.63
6:F:165:ASN:OD1	6:F:167:LYS:HB2	1.98	0.63
13:M:35:ILE:HG23	13:M:36:ARG:N	2.13	0.63
3:C:236:LEU:CD2	3:C:237:THR:O	2.45	0.63
6:F:36:GLN:O	6:F:37:ASP:CB	2.43	0.63
20:T:21:PHE:CE1	20:T:22:LEU:HD23	2.33	0.63
4:D:207:HIS:O	4:D:208:VAL:HG23	1.98	0.63
8:H:163:GLN:HG2	8:H:164:ASN:N	2.12	0.63
9:I:112:TRP:CH2	9:I:117:TYR:CE2	2.86	0.63
15:O:72:TYR:CE1	15:O:76:LEU:HD11	2.33	0.63
16:P:10:ARG:HE	16:P:11:THR:CA	2.11	0.63
6:F:42:LYS:HB2	6:F:45:TYR:H	0.82	0.63
17:Q:112:LEU:O	17:Q:116:ASP:HA	1.99	0.63
19:S:58:GLU:HB2	19:S:59:LEU:HD13	1.80	0.63
19:S:80:PRO:CG	19:S:82:TRP:CE2	2.82	0.63
13:M:35:ILE:HD13	13:M:61:TYR:CE2	2.32	0.63
10:J:103:GLU:O	10:J:107:GLU:HG3	1.98	0.63
8:H:149:ASP:CG	8:H:149:ASP:O	2.34	0.63
14:N:6:ALA:HB1	14:N:7:PRO:CD	2.27	0.63
3:C:233:TYR:CE1	22:V:12:TYR:CZ	2.86	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:75:LYS:C	5:E:76:VAL:HG22	4.62	0.63
7:G:210:ALA:O	7:G:213:LEU:HG	1.98	0.63
9:I:80:ASP:OD1	9:I:94:LYS:HG2	1.98	0.63
12:L:101:ARG:O	24:X:10:ALA:HB1	1.96	0.63
4:D:47:GLU:CG	4:D:85:GLU:CG	2.71	0.63
19:S:121:ARG:CG	19:S:131:VAL:HG13	2.25	0.63
15:O:77:ALA:O	15:O:81:VAL:HG23	1.98	0.63
9:I:5:ARG:HG2	9:I:5:ARG:NH1	2.06	0.63
23:W:29:PRO:O	23:W:30:CYS:HB3	1.99	0.63
8:H:117:PRO:HD2	8:H:120:ARG:HD2	1.79	0.63
14:N:137:PRO:O	14:N:138:ASN:ND2	2.31	0.63
24:X:41:PHE:HZ	24:X:102:VAL:HG12	1.63	0.63
6:F:195:GLU:O	6:F:199:VAL:HG23	1.97	0.63
11:K:57:TYR:CD1	11:K:75:GLY:HA2	2.33	0.63
1:A:180:ARG:NH1	1:A:184:ARG:HH12	1.95	0.63
1:A:23:THR:O	1:A:24:HIS:C	2.36	0.63
3:C:120:GLY:CA	3:C:150:VAL:HG22	2.29	0.63
3:C:58:MET:CE	3:C:81:PHE:HZ	2.10	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	2.16	0.63
7:G:142:ARG:NH1	7:G:142:ARG:CG	2.47	0.63
7:G:62:PRO:HG2	7:G:83:CYS:SG	2.38	0.63
10:J:130:ILE:HA	10:J:135:ILE:HD13	1.80	0.63
12:L:103:GLU:CD	24:X:11:ARG:CZ	2.66	0.63
24:X:95:GLU:CG	24:X:140:ARG:NH2	2.48	0.63
25:Y:58:PHE:CE1	25:Y:72:PHE:CD2	2.87	0.63
4:D:70:THR:HG22	4:D:86:LEU:CG	2.29	0.63
13:M:14:VAL:C	13:M:16:THR:N	2.49	0.63
20:T:84:ARG:HB2	20:T:84:ARG:CZ	2.27	0.63
20:T:40:ALA:CB	20:T:43:LYS:CG	2.58	0.63
3:C:259:VAL:HG12	3:C:259:VAL:O	1.97	0.63
24:X:35:ALA:HA	24:X:39:ASN:HD22	1.60	0.63
15:O:41:PHE:HD1	15:O:57:THR:HG22	1.63	0.63
1:A:125:THR:O	1:A:147:LEU:HD12	1.98	0.63
1:A:176:TRP:HZ2	1:A:195:TRP:CE3	1.94	0.63
8:H:138:GLU:OE2	14:N:19:ARG:CA	2.46	0.63
8:H:190:PRO:HB2	8:H:191:GLU:HG2	1.79	0.63
9:I:144:LYS:O	9:I:145:ILE:CB	2.45	0.63
14:N:28:LEU:HD13	14:N:58:HIS:CE1	2.33	0.63
14:N:40:LEU:HB3	14:N:45:LEU:HD12	1.79	0.63
22:V:41:LYS:C	22:V:43:THR:N	2.52	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:67:GLN:HG2	5:E:69:PHE:CE2	2.33	0.63
6:F:110:GLN:O	6:F:113:VAL:CG1	2.44	0.63
19:S:20:ILE:HD11	19:S:33:ILE:HD11	1.79	0.63
25:Y:92:ALA:HA	25:Y:97:TYR:CA	2.27	0.63
25:Y:92:ALA:O	25:Y:97:TYR:O	2.15	0.63
3:C:161:LYS:HD3	22:V:9:VAL:HG21	1.80	0.63
13:M:124:ILE:HG13	13:M:125:GLU:N	2.13	0.63
9:I:82:VAL:CG1	9:I:202:ILE:HD11	2.25	0.63
1:A:66:VAL:HG13	1:A:186:ARG:CB	2.27	0.63
1:A:5:LEU:CD1	1:A:6:ASP:N	2.51	0.63
1:A:120:ARG:NH2	3:C:252:GLN:OE1	2.31	0.63
6:F:59:LYS:HD3	6:F:62:ARG:CD	2.23	0.63
7:G:31:ARG:O	7:G:34:THR:HG23	1.99	0.63
7:G:76:LEU:HD21	7:G:92:ARG:CG	2.19	0.63
9:I:140:LYS:O	9:I:144:LYS:O	2.14	0.63
12:L:113:LEU:HD11	12:L:120:VAL:CB	2.27	0.63
14:N:60:VAL:HG23	14:N:60:VAL:O	1.98	0.63
15:O:31:CYS:HB2	15:O:95:ILE:CG1	2.27	0.63
24:X:90:CYS:HA	24:X:93:PHE:CD2	2.34	0.63
25:Y:117:VAL:CG2	25:Y:124:ASN:OD1	2.46	0.63
25:Y:57:VAL:C	25:Y:58:PHE:CD2	2.72	0.63
4:D:29:LEU:CB	4:D:34:TYR:HB2	2.28	0.63
4:D:59:LEU:HD12	4:D:60:GLY:O	1.99	0.63
6:F:39:ILE:HG23	6:F:68:ILE:HD13	1.79	0.63
17:Q:85:ARG:HH22	17:Q:117:ARG:HD2	1.63	0.63
26:Z:73:VAL:CG1	26:Z:79:ILE:HG21	2.23	0.63
6:F:112:LEU:O	6:F:116:ILE:HD11	1.97	0.63
16:P:39:ALA:CA	16:P:42:ARG:HE	2.09	0.63
5:E:145:ARG:HH11	5:E:145:ARG:CG	2.10	0.63
25:Y:5:VAL:HG12	25:Y:6:THR:N	2.12	0.63
1:A:32:PHE:CD1	1:A:33:GLN:NE2	2.64	0.63
5:E:98:ASN:ND2	5:E:114:ILE:HD11	2.13	0.63
7:G:135:PRO:CG	7:G:144:LEU:CD2	2.76	0.63
10:J:37:LEU:CD2	10:J:42:GLU:HB3	2.25	0.63
16:P:44:ARG:HH21	16:P:84:ILE:N	1.96	0.63
6:F:28:VAL:HA	6:F:110:GLN:OE1	1.99	0.63
17:Q:42:ILE:HD11	17:Q:51:LEU:CD1	2.29	0.63
19:S:89:ASP:O	19:S:90:VAL:CB	2.47	0.63
4:D:135:GLU:HB3	4:D:153:VAL:HG22	1.81	0.63
22:V:9:VAL:HG12	22:V:10:ASP:H	1.60	0.63
13:M:78:LYS:O	13:M:79:VAL:CB	2.47	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:41:MET:HG2	23:W:129:PHE:HD2	1.63	0.63
6:F:154:LEU:HD12	6:F:154:LEU:C	2.19	0.63
23:W:30:CYS:HA	23:W:34:ILE:CD1	2.29	0.63
25:Y:111:LYS:NZ	25:Y:115:LYS:HZ1	1.97	0.63
21:U:56:MET:CE	21:U:88:LEU:CD2	2.76	0.63
5:E:260:GLN:OE1	5:E:260:GLN:CA	2.47	0.63
1:A:85:ARG:O	1:A:85:ARG:HG2	2.86	0.63
3:C:148:VAL:CB	3:C:149:PRO:CD	2.67	0.63
5:E:86:PHE:O	5:E:142:HIS:HE1	1.81	0.63
8:H:51:ILE:HD11	8:H:176:VAL:HA	1.81	0.63
8:H:160:LYS:HB2	8:H:192:PHE:HZ	1.64	0.63
9:I:155:ASN:OD1	9:I:155:ASN:C	2.36	0.63
12:L:112:HIS:HB2	12:L:134:LEU:CD1	2.28	0.63
12:L:40:ILE:HG23	12:L:41:GLY:O	1.99	0.63
14:N:93:LYS:HG3	14:N:150:VAL:HG11	1.81	0.63
14:N:21:SER:O	14:N:22:VAL:CB	2.46	0.63
2:B:67:PHE:CD1	15:O:47:LEU:O	2.51	0.63
22:V:56:CYS:SG	22:V:59:ILE:HG13	2.39	0.63
5:E:64:ILE:HG13	25:Y:18:LEU:HD21	1.80	0.63
6:F:44:LYS:CA	6:F:45:TYR:HD1	2.12	0.63
16:P:33:LEU:HD21	16:P:87:PRO:CD	1.90	0.63
10:J:82:VAL:CG1	10:J:92:MET:CE	2.76	0.63
2:B:113:MET:HE3	2:B:209:ASP:CB	2.28	0.63
19:S:46:ARG:NH1	20:T:50:GLU:HG2	2.12	0.63
6:F:36:GLN:HG3	6:F:37:ASP:OD2	1.96	0.63
16:P:69:PRO:CD	16:P:70:MET:H	2.11	0.63
1:A:169:HIS:HD2	1:A:203:PHE:CE2	2.17	0.63
25:Y:111:LYS:HD2	25:Y:115:LYS:HE3	1.80	0.63
3:C:255:THR:HG23	3:C:256:ASP:N	2.14	0.63
3:C:58:MET:CE	3:C:81:PHE:CZ	2.81	0.62
8:H:145:ARG:NE	23:W:51:GLU:CD	2.52	0.62
10:J:170:PRO:HB3	10:J:174:LYS:CE	2.28	0.62
1:A:66:VAL:HG11	22:V:46:PHE:CB	2.28	0.62
25:Y:57:VAL:CG1	25:Y:60:PHE:HE2	2.12	0.62
25:Y:87:PRO:CB	25:Y:89:HIS:CE1	2.80	0.62
16:P:41:GLN:HE21	16:P:44:ARG:HH21	1.47	0.62
11:K:3:MET:CE	11:K:8:ARG:HH21	1.79	0.62
21:U:106:ILE:HG12	21:U:106:ILE:O	1.98	0.62
3:C:93:LYS:CD	3:C:218:LEU:HD22	1.84	0.62
16:P:110:GLU:N	16:P:110:GLU:OE2	2.30	0.62
16:P:107:ILE:CA	16:P:111:MET:HE3	2.28	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:11:VAL:O	13:M:12:MET:HB3	1.99	0.62
1:A:205:ARG:O	1:A:206:ASP:HB2	1.97	0.62
5:E:191:ARG:NE	5:E:245:ARG:HD3	2.13	0.62
7:G:227:GLN:HA	7:G:230:LYS:NZ	2.13	0.62
7:G:80:GLY:O	7:G:81:HIS:CG	2.52	0.62
12:L:148:ALA:C	12:L:150:GLY:H	2.01	0.62
14:N:62:GLN:HB2	14:N:65:PHE:CE2	2.32	0.62
16:P:10:ARG:HE	16:P:11:THR:CB	2.11	0.62
17:Q:42:ILE:CG1	17:Q:51:LEU:HD21	2.28	0.62
18:R:13:ALA:CA	18:R:54:VAL:CG2	2.69	0.62
3:C:158:LYS:C	3:C:158:LYS:HE2	2.18	0.62
3:C:241:TRP:C	3:C:242:LYS:HG3	2.17	0.62
2:B:181:LEU:O	2:B:185:VAL:HG23	1.97	0.62
8:H:110:THR:O	8:H:110:THR:HG23	1.99	0.62
7:G:179:LEU:N	7:G:179:LEU:HD23	4.82	0.62
9:I:142:SER:CB	9:I:143:LYS:CB	2.29	0.62
24:X:122:VAL:HG12	24:X:130:LEU:HD11	1.79	0.62
24:X:5:ARG:HH21	24:X:5:ARG:CG	2.12	0.62
11:K:3:MET:HG2	11:K:4:PRO:N	2.13	0.62
11:K:87:PRO:C	11:K:89:ILE:H	2.03	0.62
21:U:69:PRO:O	21:U:69:PRO:HD2	1.98	0.62
16:P:15:PHE:CE2	16:P:110:GLU:HB3	2.34	0.62
26:Z:51:ASP:O	26:Z:53:ALA:N	2.32	0.62
10:J:80:ARG:HA	10:J:83:ARG:CD	2.28	0.62
24:X:109:GLY:O	24:X:119:ARG:CD	2.42	0.62
18:R:5:ARG:CA	18:R:10:LYS:NZ	2.59	0.62
12:L:118:ARG:CG	12:L:119:ASP:N	2.62	0.62
23:W:38:LEU:HA	23:W:41:MET:HE3	1.80	0.62
1:A:14:ASP:OD2	1:A:55:TRP:CH2	2.53	0.62
10:J:37:LEU:HG	10:J:42:GLU:HB2	1.78	0.62
12:L:86:ILE:HG21	12:L:113:LEU:HD12	1.82	0.62
1:A:48:ILE:CG2	18:R:105:MET:HE1	2.29	0.62
16:P:11:THR:O	16:P:12:PHE:CB	2.33	0.62
4:D:53:THR:HG22	4:D:91:VAL:H	1.64	0.62
8:H:14:GLU:CG	8:H:16:PRO:HB2	2.29	0.62
16:P:121:ILE:HG22	19:S:120:HIS:CA	2.29	0.62
6:F:42:LYS:HB2	6:F:46:ALA:H	1.64	0.62
19:S:8:LYS:N	19:S:8:LYS:CD	2.63	0.62
4:D:192:TRP:N	4:D:192:TRP:CD1	2.68	0.62
10:J:87:LEU:CD1	10:J:91:LYS:HB2	2.29	0.62
19:S:46:ARG:NH1	20:T:50:GLU:HA	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:112:LEU:CA	6:F:177:LEU:HD11	2.28	0.62
6:F:78:MET:HB2	6:F:159:ARG:CZ	2.30	0.62
23:W:26:LEU:O	23:W:26:LEU:CD1	2.39	0.62
9:I:206:LYS:CG	9:I:207:GLY:H	2.07	0.62
14:N:5:HIS:CD2	14:N:121:ARG:NE	2.66	0.62
4:D:226:GLN:NE2	4:D:226:GLN:CA	2.32	0.62
5:E:122:LYS:HG3	5:E:164:LEU:HD21	1.82	0.62
10:J:122:SER:OG	10:J:124:HIS:HB3	1.98	0.62
12:L:113:LEU:CD1	12:L:120:VAL:HG11	2.29	0.62
14:N:27:LYS:HD2	14:N:28:LEU:H	1.64	0.62
14:N:62:GLN:CB	14:N:65:PHE:CE2	2.82	0.62
15:O:17:LEU:CD2	15:O:18:GLY:N	2.63	0.62
2:B:67:PHE:HD1	15:O:47:LEU:HB3	1.64	0.62
25:Y:55:ILE:HG13	25:Y:75:ILE:HG12	1.65	0.62
4:D:74:GLN:HB2	4:D:84:VAL:HG12	1.80	0.62
13:M:115:GLY:O	13:M:116:LYS:CB	2.45	0.62
17:Q:109:LYS:CG	17:Q:113:ILE:CD1	2.47	0.62
4:D:166:TYR:CE1	4:D:200:PRO:CB	2.83	0.62
26:Z:99:LEU:CD1	26:Z:102:LYS:CD	2.72	0.62
26:Z:65:TYR:HD2	26:Z:68:ILE:CG1	2.11	0.62
2:B:149:GLN:N	18:R:124:VAL:HG22	2.12	0.62
25:Y:102:THR:CG2	25:Y:107:ARG:CD	2.68	0.62
16:P:127:LYS:HZ2	16:P:127:LYS:CA	2.11	0.62
24:X:74:LEU:CD1	24:X:81:ILE:CD1	2.71	0.62
5:E:176:ASP:O	5:E:195:ILE:HD12	2.00	0.62
21:U:56:MET:HE3	21:U:88:LEU:CD2	2.29	0.62
1:A:158:ASP:O	1:A:159:ILE:HB	2.00	0.62
1:A:149:ASN:CB	1:A:165:ASN:HD21	2.12	0.62
2:B:67:PHE:CD1	15:O:47:LEU:HB3	2.34	0.62
5:E:167:GLY:C	5:E:168:LYS:HG2	2.19	0.62
5:E:86:PHE:CE2	5:E:87:MET:HG2	2.34	0.62
5:E:87:MET:O	5:E:122:LYS:CE	2.47	0.62
10:J:110:LEU:O	10:J:112:THR:N	2.32	0.62
12:L:94:HIS:ND1	12:L:96:ILE:HD11	2.15	0.62
13:M:45:ARG:H	13:M:45:ARG:HE	1.48	0.62
15:O:98:ARG:HG3	15:O:133:THR:HA	1.81	0.62
25:Y:18:LEU:HD12	25:Y:20:ARG:NH1	2.08	0.62
11:K:90:VAL:HG13	11:K:90:VAL:O	1.99	0.62
8:H:12:ASN:CG	8:H:46:THR:OG1	2.38	0.62
8:H:64:VAL:HG22	8:H:72:PHE:HE2	1.65	0.62
10:J:16:PRO:O	10:J:18:ARG:N	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:12:THR:O	10:J:48:PHE:CE2	2.53	0.62
3:C:154:TYR:CZ	3:C:162:PRO:N	2.68	0.62
26:Z:85:ARG:NH1	26:Z:85:ARG:CG	2.55	0.62
20:T:40:ALA:HB3	20:T:43:LYS:CD	2.29	0.62
18:R:84:TYR:C	18:R:85:VAL:HG23	2.18	0.62
18:R:87:GLU:O	18:R:88:VAL:HG12	2.00	0.62
1:A:30:LEU:HD21	1:A:35:GLU:HG2	1.77	0.62
1:A:30:LEU:O	1:A:31:ASP:CB	2.48	0.62
5:E:49:ARG:NH2	5:E:50:ASN:HD21	1.97	0.62
7:G:176:ILE:CG2	7:G:179:LEU:CG	2.78	0.62
7:G:25:ARG:O	7:G:27:PHE:N	2.31	0.62
9:I:141:ARG:C	9:I:143:LYS:HB3	2.19	0.62
9:I:76:THR:HG21	9:I:105:ASP:HB2	1.81	0.62
12:L:148:ALA:C	12:L:150:GLY:N	2.50	0.62
15:O:17:LEU:CG	15:O:18:GLY:H	2.12	0.62
16:P:83:MET:CE	16:P:116:LEU:CD1	2.78	0.62
5:E:64:ILE:HG12	25:Y:17:LEU:CD1	2.29	0.62
4:D:74:GLN:HG3	4:D:79:PHE:O	2.00	0.62
8:H:66:VAL:CG2	8:H:97:GLN:O	2.47	0.62
8:H:80:VAL:HA	8:H:83:LEU:HD21	1.81	0.62
17:Q:12:VAL:HG11	17:Q:90:LYS:CB	2.28	0.62
25:Y:34:THR:CG2	25:Y:35:VAL:H	2.07	0.62
19:S:85:ASN:HD21	19:S:98:VAL:H	1.47	0.62
19:S:85:ASN:HD21	19:S:98:VAL:HB	1.64	0.62
3:C:155:TRP:CE2	23:W:97:ARG:HD3	2.33	0.62
18:R:120:THR:O	18:R:121:GLN:CB	2.44	0.62
1:A:193:HIS:ND1	1:A:194:PRO:HD2	2.12	0.62
2:B:72:ALA:CA	2:B:79:VAL:CG2	2.69	0.62
6:F:134:VAL:CG1	6:F:136:ARG:HH21	2.09	0.62
10:J:171:GLY:C	10:J:173:VAL:N	2.48	0.62
16:P:98:ASN:OD1	16:P:120:SER:OG	2.14	0.62
16:P:7:LYS:O	16:P:9:LYS:N	2.31	0.62
11:K:14:LEU:HD21	11:K:35:LEU:HD13	1.81	0.62
8:H:65:PRO:HG2	8:H:68:GLN:CD	2.19	0.62
25:Y:27:VAL:HG11	25:Y:35:VAL:CG2	2.25	0.62
19:S:91:LYS:C	19:S:92:ASP:OD2	2.37	0.62
19:S:92:ASP:OD2	19:S:92:ASP:N	2.30	0.62
26:Z:65:TYR:N	26:Z:65:TYR:CD1	2.67	0.62
2:B:105:LEU:HD21	2:B:213:ARG:CA	2.28	0.62
9:I:7:ASN:C	9:I:9:HIS:H	2.03	0.62
17:Q:15:ARG:NH1	17:Q:20:THR:CG2	2.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:27:LYS:O	20:T:27:LYS:HG3	2.00	0.62
1:A:125:THR:CA	1:A:147:LEU:HB2	2.27	0.62
1:A:186:ARG:H	22:V:46:PHE:H	1.48	0.62
3:C:63:LEU:HD13	3:C:67:TYR:HH	1.62	0.62
5:E:104:ASP:HB2	5:E:108:ARG:H	1.65	0.62
8:H:170:VAL:HA	8:H:173:PHE:HD2	1.65	0.62
9:I:145:ILE:CA	9:I:148:LYS:HG3	2.29	0.62
9:I:152:ARG:O	9:I:153:LYS:HB3	1.99	0.62
10:J:124:HIS:O	10:J:126:ALA:N	2.33	0.62
1:A:42:LYS:HD2	18:R:101:ASP:HB3	1.80	0.62
18:R:99:ASP:HB3	18:R:119:VAL:HG12	1.81	0.62
24:X:126:ALA:CA	24:X:128:VAL:HB	2.28	0.62
20:T:31:PRO:HB3	20:T:33:TRP:CE3	2.34	0.62
16:P:85:ILE:C	16:P:86:LEU:HD23	2.19	0.62
2:B:87:ILE:CD1	2:B:220:LYS:NZ	2.63	0.62
10:J:81:LEU:CD1	10:J:97:ILE:HD13	2.29	0.62
18:R:17:ILE:HG21	18:R:69:ILE:HD11	1.38	0.62
16:P:39:ALA:CA	16:P:42:ARG:NE	2.56	0.62
2:B:228:LEU:CD1	2:B:232:HIS:HD2	2.12	0.62
20:T:130:ASP:OD2	20:T:131:LEU:CD2	2.48	0.62
1:A:141:ASN:C	22:V:32:ILE:CD1	2.68	0.62
3:C:250:PRO:O	3:C:254:PHE:HB2	1.99	0.62
17:Q:76:GLY:H	17:Q:79:ALA:HB3	1.64	0.62
10:J:17:ARG:HB3	10:J:18:ARG:HG3	1.79	0.62
1:A:206:ASP:O	1:A:207:PRO:O	2.17	0.62
13:M:51:VAL:HG13	13:M:109:VAL:CG2	2.30	0.62
23:W:65:LEU:O	23:W:65:LEU:HD12	1.98	0.62
5:E:259:LYS:O	5:E:260:GLN:CD	2.38	0.62
2:B:62:LEU:HD23	2:B:91:VAL:CG2	2.28	0.61
3:C:87:LEU:HG	3:C:116:GLY:C	2.20	0.61
3:C:59:LYS:CG	3:C:254:PHE:CE1	2.77	0.61
5:E:163:ASP:O	5:E:164:LEU:CB	2.48	0.61
7:G:50:VAL:CG1	7:G:111:LEU:CG	2.78	0.61
7:G:62:PRO:CG	7:G:83:CYS:SG	2.88	0.61
14:N:125:LEU:HD21	14:N:129:TYR:CZ	2.35	0.61
22:V:33:PRO:O	22:V:34:MET:HG2	2.00	0.61
8:H:6:ALA:CB	8:H:10:LYS:HZ3	2.11	0.61
21:U:59:LYS:CB	21:U:84:ILE:CG2	2.61	0.61
20:T:91:HIS:N	20:T:91:HIS:HD2	1.96	0.61
26:Z:63:PRO:O	26:Z:111:ARG:NH1	2.33	0.61
5:E:75:LYS:HG2	5:E:75:LYS:O	4.58	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:35:TYR:CD1	10:J:112:THR:HG21	2.34	0.61
25:Y:120:THR:CA	25:Y:122:LYS:HE2	2.29	0.61
20:T:45:LEU:HG	20:T:46:ALA:N	2.16	0.61
16:P:77:LYS:C	16:P:78:THR:HG23	2.20	0.61
6:F:42:LYS:O	6:F:42:LYS:HG2	1.99	0.61
6:F:76:MET:HB3	6:F:89:THR:OG1	2.00	0.61
17:Q:112:LEU:HD13	17:Q:120:LEU:HD21	1.80	0.61
17:Q:88:ILE:HG13	17:Q:89:SER:N	2.14	0.61
26:Z:103:HIS:HD2	26:Z:105:ALA:HB3	1.58	0.61
16:P:13:ARG:C	16:P:14:LYS:CG	2.68	0.61
19:S:89:ASP:O	19:S:90:VAL:HB	1.98	0.61
19:S:90:VAL:HG12	19:S:91:LYS:HG2	1.83	0.61
16:P:125:PRO:O	16:P:126:VAL:HB	2.00	0.61
22:V:62:MET:HG3	22:V:62:MET:O	1.98	0.61
1:A:14:ASP:HB3	1:A:18:PHE:CE2	2.34	0.61
1:A:148:CYS:O	1:A:162:PRO:HA	2.00	0.61
5:E:49:ARG:CB	5:E:55:ALA:HB3	2.28	0.61
9:I:55:TYR:CD2	9:I:55:TYR:N	2.68	0.61
10:J:124:HIS:O	10:J:125:HIS:C	2.38	0.61
10:J:170:PRO:HG3	10:J:175:ARG:HG2	1.81	0.61
14:N:94:LYS:HE3	14:N:118:ILE:HD11	1.81	0.61
25:Y:22:GLN:CA	25:Y:74:MET:SD	2.88	0.61
21:U:103:SER:O	21:U:106:ILE:HG21	1.96	0.61
21:U:27:ARG:CG	21:U:83:ARG:O	2.46	0.61
8:H:83:LEU:HD13	8:H:92:VAL:HG21	0.62	0.61
17:Q:47:LEU:HD23	17:Q:81:ILE:HD12	1.63	0.61
5:E:130:PHE:CB	5:E:138:HIS:CD2	2.84	0.61
25:Y:10:ARG:HG2	25:Y:24:VAL:CB	2.20	0.61
6:F:36:GLN:HG2	6:F:37:ASP:OD2	1.99	0.61
8:H:147:LYS:HE3	8:H:153:LEU:HD11	1.81	0.61
5:E:259:LYS:C	5:E:260:GLN:OE1	2.39	0.61
1:A:120:ARG:HG2	3:C:251:TYR:CE2	2.35	0.61
5:E:151:ASP:OD2	5:E:151:ASP:N	2.30	0.61
10:J:135:ILE:O	10:J:135:ILE:HG13	1.99	0.61
18:R:100:PRO:HD2	18:R:119:VAL:HG13	1.82	0.61
24:X:71:ARG:HE	24:X:82:THR:HG22	1.62	0.61
4:D:38:GLU:OE1	4:D:40:ARG:NH2	2.28	0.61
11:K:25:LYS:HD2	11:K:62:PHE:HE1	1.65	0.61
8:H:6:ALA:HA	8:H:10:LYS:HD3	0.72	0.61
26:Z:44:LEU:HD21	26:Z:46:ASN:OD1	2.00	0.61
6:F:103:LEU:HG	6:F:103:LEU:O	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:200:PRO:O	4:D:201:LYS:HB2	1.98	0.61
26:Z:62:VAL:HG11	26:Z:91:LEU:CD1	2.30	0.61
8:H:122:LEU:HD11	8:H:123:THR:HG22	1.82	0.61
20:T:11:GLN:CD	20:T:62:ARG:NE	2.53	0.61
12:L:118:ARG:HG2	12:L:119:ASP:N	2.14	0.61
10:J:10:ARG:CZ	10:J:10:ARG:HB2	2.29	0.61
23:W:128:PHE:CE1	23:W:130:PHE:HE2	2.16	0.61
9:I:6:ASP:OD2	9:I:8:TRP:CD1	2.54	0.61
14:N:114:ARG:NH2	14:N:114:ARG:HG2	2.11	0.61
9:I:87:ASN:OD1	9:I:89:GLU:HG2	2.00	0.61
17:Q:129:SER:O	17:Q:131:LYS:NZ	2.28	0.61
2:B:25:PHE:CD2	15:O:88:LEU:CG	2.84	0.61
3:C:69:PHE:CZ	3:C:247:THR:CB	2.83	0.61
8:H:166:VAL:HG23	8:H:173:PHE:CE2	2.35	0.61
9:I:144:LYS:O	9:I:145:ILE:CG2	2.49	0.61
10:J:125:HIS:NE2	10:J:129:LEU:HD11	2.15	0.61
24:X:5:ARG:HH21	24:X:5:ARG:HB2	1.65	0.61
25:Y:58:PHE:CE1	25:Y:72:PHE:HD2	2.17	0.61
4:D:29:LEU:HB2	4:D:34:TYR:HB2	1.82	0.61
11:K:2:LEU:HD13	11:K:3:MET:H	0.53	0.61
8:H:37:LYS:NZ	8:H:41:ARG:HG3	2.16	0.61
26:Z:65:TYR:CD2	26:Z:68:ILE:HD11	2.35	0.61
3:C:256:ASP:OD1	3:C:256:ASP:N	2.33	0.61
2:B:225:LEU:O	2:B:229:MET:CG	2.48	0.61
15:O:46:ASP:O	15:O:49:GLY:N	2.33	0.61
3:C:115:ILE:HD13	3:C:144:LYS:CG	2.29	0.61
5:E:43:PRO:HA	5:E:82:TYR:O	2.00	0.61
5:E:94:LYS:O	5:E:95:THR:CG2	2.48	0.61
7:G:177:GLN:HG2	7:G:178:ARG:H	1.66	0.61
10:J:34:GLU:HB2	10:J:35:TYR:CD2	2.35	0.61
25:Y:19:GLN:HG2	25:Y:81:TYR:CG	2.32	0.61
4:D:177:LEU:HD12	4:D:178:ARG:NH2	2.15	0.61
3:C:124:LEU:HD13	3:C:125:GLY:N	2.16	0.61
1:A:17:LYS:HE3	1:A:17:LYS:H	1.64	0.61
2:B:188:LEU:CD2	2:B:212:VAL:HG21	2.31	0.61
3:C:87:LEU:C	3:C:87:LEU:HD23	2.21	0.61
5:E:48:LEU:HD11	5:E:70:ILE:HD11	1.82	0.61
9:I:48:VAL:HG23	9:I:52:ASN:HB3	1.81	0.61
15:O:19:PRO:HG3	15:O:27:VAL:HG11	1.81	0.61
25:Y:54:VAL:CG1	25:Y:76:TYR:C	2.68	0.61
16:P:41:GLN:HE22	16:P:45:LEU:CD1	2.12	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:44:ARG:HD3	16:P:115:TYR:CE1	2.33	0.61
21:U:108:PRO:HD2	21:U:108:PRO:O	2.00	0.61
6:F:91:ARG:HH21	17:Q:46:THR:CG2	2.12	0.61
26:Z:103:HIS:HD2	26:Z:105:ALA:CA	2.13	0.61
26:Z:80:ARG:HB3	26:Z:83:LEU:H	1.66	0.61
10:J:16:PRO:CD	10:J:44:TRP:CE2	2.83	0.61
2:B:117:TRP:HE3	2:B:153:THR:HB	1.65	0.61
2:B:113:MET:SD	2:B:211:PHE:HE2	2.05	0.61
24:X:57:VAL:O	24:X:67:ARG:HB2	2.01	0.61
3:C:161:LYS:HD3	22:V:9:VAL:CG2	2.31	0.61
23:W:96:SER:OG	23:W:98:GLN:HG2	2.01	0.61
20:T:134:ILE:HG13	20:T:135:ALA:N	2.14	0.61
8:H:135:PHE:HD2	8:H:136:PRO:CD	2.12	0.61
19:S:108:ARG:NH1	19:S:112:GLU:OE2	2.32	0.61
1:A:24:HIS:HB3	1:A:51:LEU:HD21	1.81	0.61
5:E:129:ILE:CG2	5:E:139:LEU:CD2	2.79	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
9:I:157:LYS:O	9:I:158:ILE:HG22	2.00	0.61
22:V:40:ASP:HB3	22:V:47:ASN:HD21	1.60	0.61
25:Y:76:TYR:CG	25:Y:82:ALA:HB2	2.35	0.61
11:K:83:LEU:CB	11:K:85:LEU:HG	2.30	0.61
6:F:44:LYS:HB3	6:F:45:TYR:CD1	2.32	0.61
17:Q:85:ARG:HD3	17:Q:119:LEU:HD21	1.81	0.61
10:J:88:ASP:O	10:J:91:LYS:CB	2.42	0.61
16:P:127:LYS:CA	16:P:127:LYS:NZ	2.63	0.61
3:C:151:ARG:CZ	3:C:240:LEU:HD11	2.29	0.61
16:P:62:LYS:C	16:P:65:LYS:HG2	2.14	0.61
21:U:59:LYS:HE3	21:U:86:LYS:HE2	1.82	0.61
5:E:174:LYS:NZ	5:E:176:ASP:OD2	2.33	0.61
3:C:79:ILE:CD1	3:C:147:ILE:HD11	2.27	0.61
5:E:62:LYS:CA	5:E:65:CYS:SG	2.88	0.61
7:G:186:GLN:O	7:G:190:ARG:HG3	2.01	0.61
7:G:85:ARG:HD2	25:Y:118:ARG:HH21	1.53	0.61
9:I:62:VAL:HG21	9:I:75:LYS:HZ3	1.64	0.61
12:L:32:LYS:O	12:L:33:LEU:HD23	2.01	0.61
6:F:133:THR:HG21	15:O:66:ARG:HH11	1.65	0.61
22:V:53:TYR:CG	22:V:72:LEU:HD13	2.36	0.61
4:D:31:GLU:HA	4:D:107:TYR:OH	2.00	0.61
3:C:93:LYS:HE3	3:C:95:MET:CB	2.30	0.61
18:R:20:TYR:CE2	18:R:38:ILE:CB	2.73	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:128:LYS:HG3	5:E:130:PHE:HD1	1.65	0.61
6:F:186:ASN:O	6:F:191:LYS:NZ	2.31	0.61
23:W:128:PHE:CD1	23:W:129:PHE:CA	2.84	0.61
26:Z:94:LYS:HZ3	26:Z:95:GLY:H	1.47	0.61
10:J:147:PHE:HE2	10:J:149:VAL:HA	1.64	0.61
1:A:48:ILE:HG12	18:R:105:MET:HE1	1.72	0.61
2:B:161:VAL:HG12	2:B:165:ARG:NH1	2.16	0.61
3:C:79:ILE:HD11	3:C:147:ILE:HD11	1.83	0.61
5:E:62:LYS:HD2	5:E:80:ILE:HG13	1.83	0.61
5:E:93:ASP:O	5:E:95:THR:N	2.31	0.61
7:G:28:TYR:OH	7:G:104:ALA:HB2	2.01	0.61
1:A:158:ASP:OD2	22:V:34:MET:HG3	2.01	0.61
19:S:39:ARG:HH21	20:T:38:LYS:HZ2	0.61	0.61
4:D:47:GLU:HG2	4:D:85:GLU:HG3	1.78	0.61
4:D:55:THR:HA	4:D:58:VAL:HG22	1.83	0.61
16:P:123:TYR:CZ	19:S:120:HIS:NE2	2.66	0.61
19:S:58:GLU:HB2	19:S:59:LEU:CD1	2.30	0.61
4:D:166:TYR:CE1	4:D:200:PRO:HB3	2.36	0.61
3:C:155:TRP:CH2	23:W:97:ARG:CD	2.83	0.61
25:Y:102:THR:HG21	25:Y:107:ARG:HE	0.92	0.61
17:Q:92:LEU:CG	17:Q:96:TYR:CE2	2.69	0.61
10:J:10:ARG:CB	10:J:10:ARG:HH11	2.06	0.61
25:Y:7:ILE:HD12	25:Y:43:LYS:HB3	1.66	0.61
1:A:84:GLN:O	1:A:88:LEU:CD2	2.49	0.60
2:B:25:PHE:HD2	15:O:88:LEU:HD21	1.66	0.60
3:C:248:LYS:HD2	3:C:253:GLU:HB3	1.82	0.60
5:E:122:LYS:CD	5:E:164:LEU:HD21	2.31	0.60
5:E:74:GLY:C	5:E:75:LYS:CG	2.70	0.60
6:F:134:VAL:HG11	6:F:136:ARG:NH2	2.12	0.60
9:I:190:LEU:HB2	9:I:195:LEU:HD13	1.83	0.60
17:Q:140:ARG:O	17:Q:141:TYR:O	2.19	0.60
11:K:84:HIS:CD2	13:M:27:ILE:CD1	2.84	0.60
17:Q:54:PRO:CG	17:Q:88:ILE:HD12	2.31	0.60
19:S:26:ILE:O	19:S:30:ILE:HG13	2.01	0.60
19:S:94:LYS:HB3	19:S:95:TYR:C	2.19	0.60
10:J:92:MET:O	10:J:93:LYS:NZ	2.34	0.60
3:C:158:LYS:NZ	22:V:4:ASN:HA	2.16	0.60
13:M:76:LEU:HD22	13:M:77:ILE:H	1.66	0.60
11:K:95:ARG:HD3	11:K:96:ARG:O	2.01	0.60
26:Z:64:ASN:O	26:Z:111:ARG:CZ	2.48	0.60
17:Q:63:PHE:HD1	17:Q:68:ILE:HD11	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:202:TYR:O	1:A:203:PHE:CB	2.49	0.60
6:F:65:GLN:NE2	6:F:65:GLN:HA	2.16	0.60
9:I:140:LYS:O	9:I:141:ARG:CG	2.49	0.60
12:L:96:ILE:O	12:L:99:TYR:O	2.20	0.60
14:N:27:LYS:N	14:N:27:LYS:CD	2.62	0.60
17:Q:116:ASP:CG	17:Q:117:ARG:H	2.04	0.60
25:Y:33:ALA:O	25:Y:34:THR:CB	2.49	0.60
10:J:81:LEU:HD12	10:J:97:ILE:HD11	1.83	0.60
6:F:176:GLU:CD	6:F:187:SER:OG	2.40	0.60
18:R:28:PHE:HA	18:R:55:THR:HG21	1.82	0.60
1:A:61:ALA:HB2	1:A:161:ILE:HD11	1.83	0.60
1:A:76:VAL:CG1	1:A:175:TRP:CZ3	2.84	0.60
2:B:93:GLY:C	2:B:94:LYS:CG	2.69	0.60
7:G:63:MET:CE	7:G:106:LEU:CD2	2.78	0.60
7:G:211:LYS:C	7:G:215:LYS:HD3	2.21	0.60
8:H:169:LYS:HD2	8:H:173:PHE:HZ	1.66	0.60
10:J:136:ARG:HG3	10:J:160:SER:HB3	1.82	0.60
12:L:5:GLN:NE2	12:L:10:TYR:CE1	2.59	0.60
22:V:66:ASP:O	22:V:67:ASP:C	2.30	0.60
11:K:12:TYR:CD2	11:K:82:TYR:CD2	2.89	0.60
25:Y:36:PRO:HD3	25:Y:39:GLU:OE1	1.98	0.60
16:P:114:HIS:HE1	19:S:113:ARG:HH22	1.47	0.60
13:M:89:VAL:CG2	13:M:109:VAL:HG11	2.26	0.60
20:T:144:LYS:CB	20:T:144:LYS:NZ	2.54	0.60
20:T:85:ASN:HD22	20:T:85:ASN:H	1.49	0.60
20:T:90:SER:C	20:T:91:HIS:HD2	2.04	0.60
13:M:71:GLU:O	13:M:72:HIS:C	2.38	0.60
5:E:260:GLN:O	5:E:261:SER:OG	2.13	0.60
1:A:103:PHE:CZ	1:A:107:THR:OG1	2.53	0.60
1:A:127:PRO:HA	1:A:134:LEU:CD1	2.32	0.60
1:A:66:VAL:O	1:A:67:ALA:HB3	2.01	0.60
10:J:106:LEU:O	10:J:109:ARG:HG3	2.02	0.60
14:N:84:LEU:HD11	14:N:89:TYR:HB2	1.83	0.60
17:Q:16:LYS:HE3	17:Q:17:LYS:HD2	1.84	0.60
21:U:67:LYS:O	21:U:68:THR:C	2.34	0.60
25:Y:34:THR:HG22	25:Y:35:VAL:CA	2.29	0.60
19:S:30:ILE:CD1	19:S:45:LEU:HD21	2.29	0.60
26:Z:80:ARG:CG	26:Z:82:SER:OG	2.40	0.60
24:X:105:PHE:HE2	24:X:118:VAL:O	1.77	0.60
13:M:86:GLY:N	13:M:106:CYS:HB2	2.16	0.60
14:N:142:GLU:OE2	14:N:144:SER:OG	2.19	0.60

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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	0.60
5:E:124:CYS:SG	5:E:162:ILE:CD1	2.88	0.60
5:E:154:ILE:HG21	5:E:160:ILE:HD11	1.83	0.60
5:E:180:LEU:CD1	5:E:228:ILE:HD11	2.32	0.60
10:J:109:ARG:O	10:J:110:LEU:C	2.34	0.60
10:J:170:PRO:HB3	10:J:174:LYS:HE2	1.84	0.60
10:J:46:VAL:HG12	10:J:102:ILE:HD12	1.82	0.60
25:Y:48:TYR:C	25:Y:50:THR:HG23	2.21	0.60
8:H:29:GLU:CD	8:H:86:LYS:HE3	2.20	0.60
17:Q:42:ILE:CG1	17:Q:51:LEU:CD2	2.79	0.60
19:S:27:ALA:O	19:S:31:THR:HG23	2.01	0.60
2:B:206:PRO:O	2:B:207:LEU:HB2	2.00	0.60
13:M:13:ASP:C	13:M:16:THR:HB	2.13	0.60
22:V:9:VAL:HG12	22:V:10:ASP:CA	2.31	0.60
13:M:91:LEU:CD2	13:M:104:VAL:HG13	2.21	0.60
10:J:100:LEU:CD1	10:J:101:LYS:H	2.14	0.60
1:A:145:ILE:HA	1:A:159:ILE:HG21	1.78	0.60
1:A:149:ASN:HB2	1:A:165:ASN:HD21	1.66	0.60
2:B:49:VAL:HG12	2:B:50:THR:N	2.16	0.60
5:E:166:THR:HB	5:E:168:LYS:NZ	2.17	0.60
5:E:23:LEU:O	5:E:24:THR:CB	2.49	0.60
7:G:142:ARG:HE	7:G:147:LEU:HB3	1.67	0.60
7:G:162:LEU:HD22	7:G:172:LYS:HZ1	1.67	0.60
24:X:138:LYS:CA	24:X:139:GLU:OE2	2.49	0.60
25:Y:52:PRO:CD	25:Y:53:ASP:N	2.64	0.60
4:D:98:ALA:N	4:D:188:ILE:HD12	2.17	0.60
11:K:12:TYR:CZ	11:K:52:LEU:HD21	2.37	0.60
11:K:71:LEU:CG	11:K:76:ILE:CD1	2.80	0.60
20:T:94:ARG:HH11	20:T:94:ARG:CG	2.14	0.60
19:S:50:ILE:HG12	19:S:63:GLU:HG2	1.83	0.60
2:B:150:ILE:CG2	18:R:125:GLY:HA3	2.29	0.60
23:W:20:ARG:HB3	23:W:22:LYS:HD3	1.82	0.60
2:B:119:THR:HB	2:B:143:THR:HG23	1.83	0.60
3:C:117:ASP:CG	3:C:119:ASN:H	2.05	0.60
3:C:141:ILE:O	3:C:145:LEU:HD23	2.02	0.60
5:E:100:ARG:HG2	5:E:102:ILE:HD12	1.84	0.60
5:E:153:LEU:CD1	5:E:172:PHE:HZ	1.94	0.60
5:E:21:ASP:OD2	5:E:24:THR:HG23	1.94	0.60
24:X:139:GLU:CD	24:X:139:GLU:N	2.55	0.60
4:D:53:THR:O	4:D:90:LYS:HE2	2.01	0.60
11:K:62:PHE:HE1	11:K:67:PHE:HE2	1.48	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:50:GLU:OE2	8:H:90:LYS:HE2	2.02	0.60
6:F:46:ALA:O	6:F:47:LYS:CD	2.39	0.60
6:F:91:ARG:HH21	17:Q:46:THR:HG22	1.65	0.60
16:P:21:ASP:O	16:P:25:LEU:N	2.29	0.60
16:P:74:GLU:O	16:P:75:VAL:CB	2.50	0.60
3:C:155:TRP:CE2	23:W:97:ARG:HD2	2.37	0.60
2:B:117:TRP:HE3	2:B:153:THR:CB	2.14	0.60
10:J:77:LEU:O	10:J:81:LEU:HG	2.02	0.60
24:X:105:PHE:CG	24:X:112:VAL:HG21	2.32	0.60
4:D:216:GLU:O	4:D:217:ILE:CD1	2.49	0.60
13:M:89:VAL:HG21	13:M:109:VAL:CG1	2.27	0.60
10:J:10:ARG:CG	10:J:10:ARG:HH11	2.15	0.60
25:Y:46:LYS:CD	25:Y:46:LYS:O	2.50	0.60
20:T:28:LEU:CD2	20:T:28:LEU:O	2.44	0.60
19:S:111:LEU:HD22	19:S:125:HIS:CE1	2.37	0.60
21:U:71:GLY:O	21:U:72:GLU:C	2.37	0.60
1:A:119:PRO:HG3	1:A:122:LEU:HD21	1.84	0.60
5:E:86:PHE:CE1	5:E:182:MET:SD	2.95	0.60
5:E:159:THR:HG21	5:E:227:VAL:O	2.02	0.60
7:G:1:MET:SD	7:G:106:LEU:O	2.60	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
10:J:37:LEU:HD21	10:J:42:GLU:CA	2.31	0.60
12:L:101:ARG:HB2	24:X:10:ALA:N	2.17	0.60
2:B:25:PHE:HD2	15:O:88:LEU:HD22	1.44	0.60
21:U:67:LYS:CE	21:U:78:ASP:OD2	2.49	0.60
2:B:113:MET:CE	2:B:209:ASP:CB	2.79	0.60
18:R:36:GLU:OE2	18:R:47:ARG:HD2	2.00	0.60
24:X:67:ARG:CG	24:X:115:ILE:HG12	2.32	0.60
12:L:118:ARG:HG2	12:L:119:ASP:H	1.66	0.60
23:W:37:PHE:CE1	23:W:103:VAL:HG11	2.37	0.60
3:C:42:ASP:OD1	3:C:43:LYS:N	2.35	0.60
6:F:122:ARG:NE	6:F:193:LYS:HZ3	1.99	0.60
7:G:63:MET:CE	7:G:106:LEU:HD21	2.32	0.60
17:Q:8:GLN:HA	17:Q:99:TYR:OH	2.01	0.60
4:D:71:ALA:O	4:D:75:LYS:HG2	2.02	0.60
3:C:93:LYS:CE	3:C:95:MET:HG2	2.32	0.60
2:B:87:ILE:CG2	2:B:101:HIS:CG	2.84	0.60
17:Q:109:LYS:NZ	17:Q:113:ILE:HD11	2.17	0.60
26:Z:103:HIS:O	26:Z:104:ARG:C	2.35	0.60
16:P:19:GLY:H	19:S:92:ASP:HA	1.64	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:79:ARG:HD2	10:J:83:ARG:HD2	1.82	0.60
10:J:12:THR:C	10:J:48:PHE:CE2	2.75	0.60
2:B:137:LEU:HD23	2:B:215:VAL:HA	1.84	0.60
7:G:213:LEU:C	7:G:213:LEU:HD12	2.21	0.60
13:M:45:ARG:H	13:M:45:ARG:NE	2.00	0.60
14:N:23:PRO:O	14:N:24:THR:HB	2.02	0.60
20:T:29:LYS:C	20:T:30:VAL:CG1	2.70	0.60
4:D:40:ARG:HD3	21:U:107:GLU:OE2	2.02	0.60
17:Q:58:LEU:HD21	17:Q:111:ILE:HB	1.83	0.60
16:P:59:ARG:HD3	16:P:76:VAL:CG1	2.27	0.60
6:F:36:GLN:O	6:F:37:ASP:HB2	2.00	0.60
25:Y:37:LYS:HA	25:Y:40:ILE:CG2	2.32	0.60
6:F:166:ILE:N	6:F:166:ILE:HD12	2.16	0.60
5:E:256:LEU:HD12	5:E:257:ALA:N	2.16	0.60
1:A:111:GLN:OE1	3:C:48:VAL:HB	2.02	0.59
1:A:122:LEU:CD1	1:A:137:ALA:HB2	2.32	0.59
1:A:180:ARG:NH1	1:A:184:ARG:NH2	2.50	0.59
7:G:135:PRO:HG2	7:G:144:LEU:CD2	2.32	0.59
7:G:7:PHE:HB2	7:G:124:LEU:HG	1.84	0.59
8:H:144:ILE:HD12	23:W:52:ILE:CD1	2.25	0.59
9:I:128:LYS:O	9:I:131:PRO:HD2	2.02	0.59
9:I:141:ARG:O	9:I:142:SER:CB	2.50	0.59
24:X:128:VAL:CG1	24:X:133:LEU:HD21	2.32	0.59
2:B:66:VAL:CB	2:B:87:ILE:HG22	2.25	0.59
25:Y:63:HIS:CG	25:Y:64:PHE:CD1	2.88	0.59
16:P:75:VAL:CG1	16:P:76:VAL:N	2.64	0.59
4:D:196:GLY:O	4:D:199:GLY:HA3	2.01	0.59
13:M:12:MET:HE1	13:M:17:ALA:C	1.94	0.59
24:X:1:MET:O	24:X:3:LYS:HB2	2.02	0.59
1:A:74:VAL:HG22	1:A:121:LEU:HB3	1.84	0.59
5:E:56:LEU:HD23	5:E:56:LEU:N	2.16	0.59
6:F:128:ILE:O	6:F:134:VAL:HG13	2.02	0.59
5:E:153:LEU:CD2	7:G:216:ARG:NH2	2.59	0.59
24:X:95:GLU:OE1	24:X:140:ARG:NH2	2.35	0.59
25:Y:110:ARG:O	25:Y:114:MET:HG3	2.01	0.59
25:Y:9:THR:HG21	25:Y:48:TYR:HE2	1.67	0.59
20:T:76:THR:C	20:T:95:GLY:H	1.98	0.59
8:H:6:ALA:HB3	8:H:15:LYS:HE2	1.84	0.59
6:F:25:THR:CG2	6:F:41:VAL:HG22	2.32	0.59
20:T:23:LYS:CE	20:T:54:TYR:CE2	2.85	0.59
25:Y:103:SER:O	25:Y:104:ARG:HB3	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:98:GLU:OE2	25:Y:99:LYS:HA	2.01	0.59
17:Q:63:PHE:CD1	17:Q:68:ILE:HD11	2.37	0.59
1:A:14:ASP:O	1:A:18:PHE:CD2	2.56	0.59
7:G:13:GLN:O	7:G:14:LYS:HG2	2.02	0.59
8:H:143:ARG:NE	23:W:53:ILE:CG2	2.62	0.59
8:H:190:PRO:HG2	8:H:192:PHE:CZ	2.37	0.59
14:N:119:GLU:O	14:N:123:HIS:CD2	2.55	0.59
7:G:85:ARG:HD3	25:Y:118:ARG:NH1	2.16	0.59
16:P:53:GLN:NE2	16:P:80:LEU:HD22	2.16	0.59
16:P:41:GLN:NE2	16:P:45:LEU:CG	2.40	0.59
19:S:88:LYS:N	19:S:94:LYS:O	2.35	0.59
26:Z:92:LEU:CD2	26:Z:97:ILE:HG13	2.30	0.59
13:M:14:VAL:O	13:M:16:THR:N	2.35	0.59
13:M:95:ASP:HB2	13:M:101:ARG:NH1	2.17	0.59
14:N:128:TYR:O	14:N:132:LYS:HG2	2.02	0.59
8:H:23:ILE:HD13	8:H:23:ILE:O	2.02	0.59
5:E:204:SER:O	5:E:205:PHE:CB	2.50	0.59
21:U:56:MET:HE1	21:U:88:LEU:HD23	1.84	0.59
7:G:64:LYS:HG3	7:G:67:VAL:HG11	1.84	0.59
9:I:62:VAL:HG23	9:I:75:LYS:CE	2.32	0.59
22:V:20:SER:HA	23:W:23:ARG:HH22	1.68	0.59
3:C:196:LYS:C	3:C:200:LEU:HD23	2.23	0.59
25:Y:20:ARG:C	25:Y:21:LYS:HD3	2.22	0.59
25:Y:9:THR:HG21	25:Y:48:TYR:CE2	2.37	0.59
11:K:89:ILE:O	11:K:90:VAL:HG12	2.02	0.59
8:H:83:LEU:C	8:H:83:LEU:HD12	2.23	0.59
19:S:40:TYR:CA	19:S:83:PHE:HZ	2.14	0.59
26:Z:52:LYS:O	26:Z:54:THR:N	2.35	0.59
18:R:5:ARG:HB2	18:R:10:LYS:HZ3	0.75	0.59
21:U:57:PRO:HD2	21:U:57:PRO:O	2.02	0.59
23:W:41:MET:HG2	23:W:129:PHE:CD2	2.36	0.59
8:H:117:PRO:HD2	8:H:120:ARG:HB2	1.84	0.59
13:M:42:LEU:CD2	13:M:110:VAL:HG21	2.32	0.59
2:B:52:THR:HG22	2:B:58:ALA:HB2	1.83	0.59
3:C:148:VAL:HB	3:C:149:PRO:HD3	1.84	0.59
6:F:61:PHE:O	6:F:63:LYS:N	2.35	0.59
22:V:55:ILE:CG2	22:V:60:ARG:HG3	2.32	0.59
3:C:197:LYS:N	3:C:200:LEU:HD23	2.17	0.59
16:P:53:GLN:HE21	16:P:80:LEU:CG	2.14	0.59
5:E:67:GLN:OE1	5:E:67:GLN:HA	2.03	0.59
4:D:32:ASP:OD1	4:D:57:ASN:HB2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:49:LEU:HA	16:P:51:ARG:NE	2.17	0.59
4:D:67:ARG:NH1	4:D:67:ARG:CG	2.57	0.59
2:B:42:ARG:NH2	2:B:232:HIS:HA	2.17	0.59
5:E:184:THR:C	5:E:189:LEU:CD1	2.70	0.59
16:P:28:MET:HB3	16:P:32:GLN:OE1	2.01	0.59
2:B:92:GLN:O	2:B:95:ASN:HB2	2.02	0.59
2:B:93:GLY:C	2:B:94:LYS:HD3	2.23	0.59
8:H:168:HIS:CE1	8:H:169:LYS:HG2	2.38	0.59
8:H:192:PHE:O	8:H:193:GLN:C	2.40	0.59
12:L:78:THR:HG23	12:L:79:LYS:N	2.17	0.59
22:V:55:ILE:CG2	22:V:60:ARG:CG	2.80	0.59
25:Y:62:THR:CA	25:Y:69:THR:HG22	2.32	0.59
16:P:107:ILE:O	16:P:107:ILE:HG13	2.03	0.59
4:D:108:LYS:CA	4:D:113:LEU:HD22	2.33	0.59
23:W:90:GLN:N	23:W:102:ILE:HD11	2.16	0.59
24:X:107:ARG:O	24:X:108:LYS:HB2	2.03	0.59
23:W:3:ARG:NE	23:W:9:ASP:OD2	2.35	0.59
8:H:117:PRO:C	8:H:119:SER:N	2.53	0.59
6:F:56:TYR:CE1	6:F:66:CYS:HB2	2.38	0.59
1:A:57:LYS:HE2	22:V:70:LEU:CD2	2.31	0.59
2:B:31:TYR:CE1	2:B:94:LYS:N	2.69	0.59
7:G:63:MET:HE3	7:G:106:LEU:CD2	2.32	0.59
8:H:145:ARG:NH1	8:H:155:LYS:HZ2	1.95	0.59
9:I:141:ARG:HD3	9:I:144:LYS:CG	2.33	0.59
12:L:71:ARG:HD2	12:L:73:LEU:HD11	1.84	0.59
24:X:126:ALA:CB	24:X:128:VAL:CB	2.57	0.59
20:T:29:LYS:CA	20:T:29:LYS:CE	2.79	0.59
25:Y:23:MET:HE3	25:Y:44:LEU:HD21	1.84	0.59
16:P:13:ARG:O	16:P:14:LYS:CG	2.50	0.59
3:C:126:MET:CE	3:C:223:LYS:HZ2	2.16	0.59
4:D:218:LEU:HB2	4:D:220:THR:HG22	1.78	0.59
3:C:236:LEU:HD23	3:C:237:THR:N	2.17	0.59
12:L:118:ARG:CD	12:L:119:ASP:N	2.66	0.59
2:B:133:TYR:CZ	2:B:181:LEU:HD12	2.38	0.59
12:L:152:LYS:C	12:L:154:GLN:H	2.04	0.59
9:I:105:ASP:O	9:I:106:SER:HB2	2.02	0.59
12:L:59:LYS:HE2	12:L:134:LEU:HD21	1.83	0.59
14:N:28:LEU:CD1	14:N:58:HIS:CE1	2.85	0.59
25:Y:50:THR:OG1	25:Y:55:ILE:HD11	2.02	0.59
8:H:46:THR:HG23	8:H:47:ALA:N	2.18	0.59
6:F:44:LYS:C	6:F:45:TYR:HD1	2.05	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:58:LEU:HD13	17:Q:108:ILE:CG2	2.26	0.59
19:S:89:ASP:HB2	19:S:94:LYS:HB2	1.85	0.59
18:R:21:TYR:HD2	18:R:73:LEU:HD12	1.67	0.59
25:Y:88:LYS:HE3	25:Y:97:TYR:OH	2.03	0.59
22:V:9:VAL:CG1	22:V:10:ASP:N	2.52	0.59
2:B:76:ASN:O	2:B:76:ASN:CG	2.39	0.59
5:E:86:PHE:CD2	5:E:87:MET:HG2	2.38	0.59
7:G:142:ARG:NE	7:G:147:LEU:HB3	2.17	0.59
7:G:197:GLN:O	7:G:201:LYS:HG2	2.01	0.59
10:J:120:ALA:HA	10:J:125:HIS:HD2	1.68	0.59
22:V:40:ASP:OD2	22:V:45:ARG:HB2	2.02	0.59
11:K:84:HIS:CD2	13:M:27:ILE:CG1	2.85	0.59
8:H:37:LYS:HZ3	8:H:41:ARG:HG3	1.68	0.59
17:Q:90:LYS:HD3	17:Q:120:LEU:CA	2.33	0.59
26:Z:48:VAL:HG22	26:Z:80:ARG:HD2	1.79	0.59
10:J:16:PRO:C	10:J:18:ARG:N	2.52	0.59
18:R:24:LEU:HB2	18:R:58:MET:HE3	1.84	0.59
4:D:67:ARG:NH1	11:K:95:ARG:HG3	2.17	0.59
9:I:129:LEU:O	9:I:134:GLU:HB2	2.03	0.59
1:A:6:ASP:O	1:A:8:LEU:N	2.35	0.59
3:C:185:ARG:HA	3:C:206:ASP:OD2	2.02	0.59
6:F:122:ARG:C	6:F:141:VAL:HG13	2.18	0.59
7:G:174:PRO:O	7:G:175:LYS:HB2	2.02	0.59
12:L:86:ILE:HG13	12:L:111:VAL:HG13	1.84	0.59
15:O:90:ILE:HG22	15:O:124:MET:HE2	1.85	0.59
23:W:23:ARG:HG2	23:W:23:ARG:HH11	1.66	0.59
24:X:87:ASN:HB2	24:X:90:CYS:SG	2.43	0.59
21:U:62:ARG:HH11	21:U:79:ARG:HD3	1.67	0.59
6:F:104:THR:HG22	6:F:104:THR:O	2.03	0.59
3:C:126:MET:HE1	3:C:223:LYS:CD	2.25	0.59
25:Y:98:GLU:CD	25:Y:98:GLU:O	2.41	0.59
20:T:143:LYS:C	20:T:143:LYS:CD	2.53	0.59
24:X:22:TRP:O	24:X:23:HIS:O	2.20	0.59
18:R:14:ARG:O	18:R:18:GLU:HG3	2.03	0.59
1:A:180:ARG:CD	1:A:184:ARG:CZ	2.78	0.58
2:B:57:ILE:HD12	2:B:60:ASP:OD2	1.98	0.58
2:B:71:LEU:HD13	2:B:84:PHE:HE2	0.85	0.58
5:E:49:ARG:NH2	5:E:50:ASN:ND2	2.51	0.58
7:G:192:ILE:HG13	7:G:193:ALA:N	2.17	0.58
7:G:227:GLN:O	7:G:230:LYS:HG3	2.03	0.58
7:G:32:MET:SD	7:G:100:CYS:SG	3.01	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:27:PHE:HZ	7:G:41:LEU:HD13	1.68	0.58
9:I:85:ALA:HB1	12:L:8:ARG:HD2	1.85	0.58
14:N:18:TYR:O	14:N:19:ARG:C	2.39	0.58
25:Y:114:MET:C	25:Y:124:ASN:HD22	2.06	0.58
20:T:31:PRO:HG2	20:T:102:ARG:CG	2.33	0.58
20:T:38:LYS:HD2	20:T:46:ALA:N	2.17	0.58
25:Y:56:PHE:CG	25:Y:86:GLU:OE2	2.56	0.58
11:K:42:ASN:O	11:K:43:LEU:HD23	2.02	0.58
13:M:61:TYR:OH	13:M:108:CYS:SG	2.61	0.58
4:D:202:LYS:HB2	4:D:203:PRO:HD3	1.82	0.58
20:T:23:LYS:HD3	20:T:54:TYR:CD1	2.33	0.58
16:P:49:LEU:N	16:P:51:ARG:HG3	2.18	0.58
17:Q:92:LEU:O	17:Q:96:TYR:CD2	2.56	0.58
5:E:38:LEU:HD12	5:E:39:ARG:N	2.15	0.58
17:Q:28:GLY:HA3	17:Q:67:ASP:CG	2.24	0.58
6:F:195:GLU:OE1	6:F:195:GLU:CA	2.49	0.58
23:W:82:GLN:O	23:W:83:LEU:HB3	2.02	0.58
1:A:119:PRO:HG2	1:A:142:LEU:CD1	2.27	0.58
1:A:80:ARG:NH1	1:A:165:ASN:O	2.32	0.58
10:J:50:LEU:CD1	10:J:102:ILE:CD1	2.72	0.58
15:O:98:ARG:HG3	15:O:133:THR:HG22	1.85	0.58
5:E:67:GLN:O	5:E:68:ARG:CG	2.50	0.58
11:K:90:VAL:HG22	11:K:90:VAL:O	2.02	0.58
2:B:117:TRP:CE3	2:B:153:THR:HB	2.38	0.58
25:Y:98:GLU:O	25:Y:99:LYS:HB3	2.03	0.58
3:C:154:TYR:CD2	3:C:158:LYS:HA	2.37	0.58
10:J:84:ILE:O	10:J:108:ARG:CD	2.51	0.58
7:G:19:ASP:O	7:G:20:ASP:CG	2.42	0.58
8:H:158:LEU:N	8:H:158:LEU:HD23	2.17	0.58
9:I:145:ILE:HA	9:I:148:LYS:CD	2.33	0.58
9:I:155:ASN:C	9:I:157:LYS:N	2.56	0.58
15:O:30:VAL:HG23	15:O:32:HIS:HD2	1.68	0.58
24:X:126:ALA:O	24:X:128:VAL:CG2	2.51	0.58
24:X:95:GLU:CB	24:X:140:ARG:HH22	2.14	0.58
25:Y:114:MET:HE2	25:Y:121:ALA:O	2.04	0.58
4:D:97:CYS:O	4:D:100:ALA:N	2.36	0.58
17:Q:118:THR:O	17:Q:120:LEU:N	2.36	0.58
19:S:80:PRO:HG3	19:S:82:TRP:CE2	2.38	0.58
2:B:129:THR:OG1	2:B:133:TYR:HB2	2.03	0.58
6:F:158:ALA:HA	6:F:172:CYS:SG	2.43	0.58
6:F:32:ASP:HB2	6:F:117:ILE:CG2	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:27:GLY:O	1:A:47:TYR:CD2	2.54	0.58
1:A:24:HIS:HB2	1:A:49:ILE:O	2.04	0.58
3:C:55:VAL:CB	3:C:82:PHE:CZ	2.84	0.58
7:G:70:HIS:CB	7:G:103:ASP:OD2	2.42	0.58
7:G:3:LEU:CD1	7:G:41:LEU:HD11	2.33	0.58
8:H:188:GLU:HG2	8:H:189:PHE:H	1.69	0.58
10:J:110:LEU:HB3	10:J:130:ILE:CD1	2.33	0.58
24:X:90:CYS:O	24:X:91:LEU:O	2.22	0.58
11:K:89:ILE:O	11:K:89:ILE:HD13	2.03	0.58
20:T:77:LYS:CD	20:T:92:PHE:HE2	2.11	0.58
19:S:51:ASP:CG	19:S:53:THR:HG1	2.06	0.58
4:D:201:LYS:C	4:D:203:PRO:HD2	2.13	0.58
26:Z:51:ASP:O	26:Z:52:LYS:CB	2.49	0.58
2:B:145:LYS:HA	2:B:149:GLN:OE1	2.02	0.58
23:W:96:SER:OG	23:W:99:PHE:CE2	2.56	0.58
20:T:84:ARG:CB	20:T:84:ARG:CZ	2.82	0.58
20:T:4:VAL:HG11	20:T:139:ALA:HB2	1.84	0.58
2:B:136:HIS:ND1	2:B:138:PHE:CZ	2.72	0.58
1:A:139:TYR:C	1:A:140:VAL:HG23	2.24	0.58
3:C:148:VAL:CB	3:C:149:PRO:HD2	2.26	0.58
5:E:100:ARG:CD	5:E:102:ILE:HD12	2.30	0.58
5:E:86:PHE:HE1	5:E:182:MET:SD	2.26	0.58
8:H:143:ARG:CD	23:W:53:ILE:CG1	2.50	0.58
20:T:29:LYS:HE3	20:T:29:LYS:CA	2.10	0.58
25:Y:55:ILE:HD11	25:Y:75:ILE:HD13	1.86	0.58
23:W:42:MET:HE2	23:W:48:GLY:O	2.04	0.58
16:P:111:MET:C	16:P:114:HIS:HD2	2.06	0.58
2:B:149:GLN:C	18:R:124:VAL:HG22	2.24	0.58
3:C:154:TYR:CZ	3:C:161:LYS:CA	2.86	0.58
18:R:91:LEU:H	18:R:92:ASP:CA	2.15	0.58
9:I:3:ILE:HG23	9:I:3:ILE:O	1.97	0.58
10:J:84:ILE:CG1	10:J:86:VAL:HG23	2.32	0.58
2:B:108:ASP:OD1	2:B:109:LYS:N	2.36	0.58
6:F:194:ASP:O	6:F:194:ASP:OD1	2.21	0.58
1:A:45:GLY:C	1:A:46:ILE:HG12	2.22	0.58
3:C:50:LYS:HB2	3:C:258:LEU:CB	2.34	0.58
5:E:229:GLY:HA3	5:E:235:TRP:CD1	2.39	0.58
7:G:137:ARG:HG3	7:G:140:ARG:HB3	1.85	0.58
7:G:185:LEU:O	7:G:189:ARG:HG3	2.04	0.58
9:I:76:THR:CG2	9:I:105:ASP:HB2	2.33	0.58
9:I:149:TYR:HA	9:I:152:ARG:NH1	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:55:TYR:CD1	12:L:115:PRO:HG2	2.38	0.58
3:C:71:LEU:O	22:V:29:HIS:HE1	1.83	0.58
16:P:53:GLN:HG2	16:P:56:LEU:HD12	1.85	0.58
11:K:83:LEU:HB3	11:K:85:LEU:CG	2.31	0.58
6:F:51:HIS:CD2	6:F:86:LYS:HD3	2.38	0.58
26:Z:103:HIS:HD2	26:Z:105:ALA:CB	2.14	0.58
12:L:17:PHE:HZ	12:L:19:ASN:OD1	1.86	0.58
16:P:49:LEU:CA	16:P:51:ARG:CG	2.68	0.58
10:J:177:ASN:C	10:J:180:LYS:HB3	2.24	0.58
19:S:15:VAL:CG1	19:S:68:ILE:HD11	2.34	0.58
4:D:212:GLU:HG2	18:R:19:LYS:CE	2.34	0.58
13:M:33:ARG:CG	13:M:33:ARG:HH11	2.15	0.58
13:M:79:VAL:CG1	13:M:80:ASP:N	2.66	0.58
20:T:111:LYS:O	20:T:124:THR:CG2	2.51	0.58
11:K:96:ARG:CG	11:K:97:SER:N	2.57	0.58
4:D:170:THR:HG22	4:D:171:ALA:N	2.18	0.58
1:A:59:LEU:HD23	1:A:181:GLU:CG	2.33	0.58
8:H:190:PRO:CB	8:H:191:GLU:HG2	2.33	0.58
2:B:70:SER:HB3	15:O:128:ARG:NH1	2.19	0.58
18:R:98:VAL:O	18:R:100:PRO:HD2	2.04	0.58
1:A:157:VAL:O	22:V:66:ASP:CG	2.42	0.58
19:S:40:TYR:HA	19:S:83:PHE:HZ	1.68	0.58
8:H:154:ILE:O	8:H:154:ILE:CG2	2.51	0.58
1:A:118:GLU:HB2	3:C:50:LYS:HZ3	1.60	0.58
1:A:16:LEU:HD21	18:R:111:PHE:HZ	1.55	0.58
5:E:98:ASN:HD21	5:E:119:ALA:HA	1.68	0.58
25:Y:12:PHE:HD1	25:Y:23:MET:HB3	1.67	0.58
16:P:41:GLN:NE2	16:P:45:LEU:CD1	2.67	0.58
3:C:93:LYS:HE3	3:C:95:MET:HG2	1.86	0.58
8:H:43:LEU:HD21	8:H:71:SER:OG	2.03	0.58
26:Z:51:ASP:O	26:Z:52:LYS:HB2	2.02	0.58
24:X:142:ARG:HH11	24:X:142:ARG:HG3	1.49	0.58
25:Y:13:MET:HE2	25:Y:14:THR:CA	2.33	0.58
15:O:75:MET:CE	15:O:118:ALA:HB2	2.33	0.58
8:H:154:ILE:HG22	8:H:185:VAL:CG2	2.34	0.58
1:A:57:LYS:HE2	22:V:70:LEU:HD21	1.85	0.58
2:B:67:PHE:HE1	15:O:47:LEU:CA	2.16	0.58
7:G:32:MET:HA	7:G:52:ILE:HG23	1.86	0.58
9:I:142:SER:HB3	9:I:143:LYS:CD	2.33	0.58
4:D:74:GLN:NE2	4:D:75:LYS:CD	2.67	0.58
8:H:10:LYS:HE3	8:H:16:PRO:C	2.22	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:79:ARG:O	10:J:83:ARG:CG	2.47	0.58
10:J:81:LEU:CD1	10:J:97:ILE:CD1	2.81	0.58
16:P:127:LYS:HE3	16:P:128:HIS:HA	1.85	0.58
3:C:161:LYS:HD3	22:V:9:VAL:HG11	1.85	0.58
3:C:243:GLU:O	3:C:244:THR:CB	2.48	0.58
3:C:55:VAL:HA	3:C:82:PHE:CZ	2.34	0.58
6:F:193:LYS:HE2	6:F:197:GLU:CD	2.25	0.58
9:I:154:LYS:O	12:L:22:ARG:HG3	2.03	0.58
10:J:131:ARG:NH1	10:J:143:ASN:HD21	2.01	0.58
12:L:109:MET:SD	12:L:140:PHE:CE1	2.97	0.58
15:O:44:VAL:HG22	15:O:93:LEU:HD13	1.84	0.58
21:U:83:ARG:HB3	21:U:85:HIS:HE1	1.69	0.58
8:H:37:LYS:HZ3	8:H:38:ALA:HA	1.69	0.58
17:Q:93:VAL:HG11	17:Q:105:LYS:HE2	0.58	0.58
6:F:47:LYS:CB	17:Q:117:ARG:HH22	2.16	0.58
17:Q:50:LYS:CA	17:Q:53:GLU:HG3	2.34	0.58
17:Q:18:THR:O	17:Q:75:GLY:HA3	2.04	0.58
10:J:17:ARG:CB	10:J:18:ARG:CG	2.48	0.58
26:Z:112:ASN:OD1	26:Z:112:ASN:N	2.28	0.58
16:P:127:LYS:HE3	16:P:128:HIS:CA	2.34	0.58
3:C:154:TYR:OH	3:C:161:LYS:C	2.40	0.58
1:A:106:GLY:HA3	1:A:113:GLN:HE22	1.68	0.58
13:M:124:ILE:C	13:M:127:TYR:CD2	2.77	0.58
2:B:67:PHE:CE1	15:O:47:LEU:CA	2.87	0.57
8:H:193:GLN:N	8:H:193:GLN:CD	2.56	0.57
9:I:48:VAL:HG11	9:I:54:LYS:HB2	1.86	0.57
25:Y:119:GLY:O	25:Y:120:THR:C	2.42	0.57
6:F:28:VAL:HG13	6:F:110:GLN:NE2	2.16	0.57
11:K:64:TRP:C	11:K:65:ARG:HG2	2.24	0.57
20:T:76:THR:CG2	20:T:95:GLY:O	2.52	0.57
19:S:46:ARG:NE	20:T:50:GLU:CD	2.58	0.57
25:Y:7:ILE:HD11	25:Y:43:LYS:HD3	1.78	0.57
23:W:38:LEU:HD23	23:W:41:MET:HE1	1.86	0.57
3:C:98:GLN:HB3	3:C:107:THR:HA	1.85	0.57
26:Z:94:LYS:CE	26:Z:95:GLY:H	2.16	0.57
5:E:36:HIS:HB3	5:E:41:CYS:SG	2.42	0.57
1:A:2:SER:OG	1:A:3:GLY:N	2.37	0.57
2:B:68:GLU:OE2	2:B:83:LYS:CE	2.45	0.57
5:E:117:GLU:HG3	5:E:118:GLU:N	2.18	0.57
5:E:152:PRO:HG3	7:G:209:TYR:CZ	2.38	0.57
6:F:136:ARG:O	6:F:203:ASN:CB	2.45	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:135:PRO:CG	7:G:144:LEU:HD23	2.33	0.57
10:J:170:PRO:CB	10:J:174:LYS:NZ	2.67	0.57
25:Y:55:ILE:HA	25:Y:74:MET:O	2.04	0.57
25:Y:76:TYR:CB	25:Y:82:ALA:HB2	2.33	0.57
11:K:40:VAL:HG23	11:K:41:PRO:CD	2.28	0.57
20:T:77:LYS:CB	20:T:94:ARG:CD	2.48	0.57
6:F:42:LYS:HB2	6:F:46:ALA:N	2.19	0.57
19:S:80:PRO:CG	19:S:82:TRP:NE1	2.67	0.57
2:B:160:GLN:NE2	2:B:205:TYR:CE1	2.55	0.57
25:Y:92:ALA:N	25:Y:97:TYR:CB	2.52	0.57
4:D:214:LYS:HE2	4:D:214:LYS:O	2.04	0.57
20:T:40:ALA:N	20:T:43:LYS:HG3	2.18	0.57
2:B:125:VAL:CG2	2:B:169:MET:HG3	2.35	0.57
14:N:114:ARG:HD3	14:N:117:LEU:HD12	1.85	0.57
7:G:159:ARG:HH22	7:G:161:PRO:CA	2.17	0.57
7:G:159:ARG:HA	7:G:172:LYS:O	2.04	0.57
7:G:185:LEU:HD23	7:G:188:LYS:HE3	1.86	0.57
8:H:144:ILE:O	23:W:51:GLU:CA	2.47	0.57
14:N:27:LYS:N	14:N:27:LYS:CE	2.57	0.57
15:O:17:LEU:CG	15:O:18:GLY:N	2.68	0.57
2:B:28:LYS:NZ	15:O:51:GLU:OE2	2.37	0.57
22:V:74:LYS:HA	22:V:78:ILE:O	2.04	0.57
25:Y:117:VAL:HB	25:Y:124:ASN:HD21	1.69	0.57
16:P:44:ARG:CD	16:P:82:ASP:O	2.52	0.57
11:K:53:LYS:CA	11:K:58:VAL:HG13	2.34	0.57
6:F:15:PRO:HD3	17:Q:56:LEU:CB	2.34	0.57
17:Q:85:ARG:O	17:Q:88:ILE:CG1	2.51	0.57
17:Q:92:LEU:O	17:Q:96:TYR:HD2	1.87	0.57
19:S:47:LYS:HZ1	19:S:78:LYS:CB	2.17	0.57
20:T:40:ALA:O	20:T:43:LYS:HB2	2.05	0.57
1:A:159:ILE:O	1:A:159:ILE:HG23	2.04	0.57
2:B:44:ILE:HD11	2:B:86:LEU:HD13	1.86	0.57
3:C:55:VAL:HG21	3:C:82:PHE:HE2	1.63	0.57
5:E:43:PRO:HG2	5:E:46:ILE:CD1	2.34	0.57
9:I:155:ASN:CG	9:I:156:ALA:N	2.57	0.57
9:I:76:THR:CG2	9:I:77:ARG:H	2.17	0.57
10:J:67:ASP:O	10:J:70:ARG:N	2.38	0.57
24:X:52:LEU:HD12	24:X:53:GLU:HB3	1.86	0.57
4:D:48:ILE:HG23	4:D:48:ILE:O	2.03	0.57
19:S:121:ARG:CG	19:S:131:VAL:CG1	2.82	0.57
19:S:120:HIS:CD2	19:S:124:ARG:HG3	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:14:THR:HG23	6:F:15:PRO:HD2	1.85	0.57
17:Q:76:GLY:O	17:Q:80:GLN:HG2	2.00	0.57
5:E:248:ILE:CA	10:J:72:PHE:CE1	2.86	0.57
3:C:161:LYS:CD	3:C:162:PRO:HD2	2.34	0.57
2:B:105:LEU:O	2:B:106:THR:CB	2.52	0.57
16:P:32:GLN:HA	16:P:35:GLN:CD	2.24	0.57
3:C:54:LEU:CD1	3:C:258:LEU:CD1	2.60	0.57
5:E:156:MET:O	5:E:157:ASN:HB2	2.03	0.57
7:G:176:ILE:HG21	7:G:179:LEU:CB	2.28	0.57
12:L:46:THR:HG23	12:L:46:THR:O	2.04	0.57
12:L:6:THR:HG23	12:L:7:GLU:N	2.19	0.57
12:L:97:ARG:HG2	12:L:98:LYS:CA	2.34	0.57
16:P:41:GLN:CD	16:P:84:ILE:CB	2.61	0.57
4:D:59:LEU:CG	4:D:60:GLY:H	2.16	0.57
2:B:87:ILE:CD1	2:B:101:HIS:CD2	2.62	0.57
8:H:80:VAL:O	8:H:83:LEU:HG	2.03	0.57
23:W:42:MET:CE	23:W:50:PHE:HD2	2.10	0.57
6:F:42:LYS:O	6:F:42:LYS:CD	2.48	0.57
17:Q:116:ASP:O	17:Q:117:ARG:CB	2.50	0.57
12:L:17:PHE:CD1	12:L:18:GLN:CB	2.88	0.57
19:S:8:LYS:HB2	19:S:9:PHE:CE1	2.27	0.57
10:J:87:LEU:HD12	10:J:91:LYS:HD3	1.87	0.57
3:C:154:TYR:OH	3:C:161:LYS:N	2.34	0.57
4:D:177:LEU:HD22	4:D:182:LEU:CD2	2.25	0.57
9:I:29:LEU:HD21	9:I:31:ARG:HH12	1.69	0.57
4:D:149:SER:O	4:D:150:MET:SD	2.62	0.57
1:A:177:MET:HE1	1:A:180:ARG:HH21	1.51	0.57
2:B:53:GLN:HG2	2:B:56:LYS:HB2	1.85	0.57
5:E:62:LYS:CD	5:E:80:ILE:CG1	2.81	0.57
10:J:162:ARG:O	10:J:163:SER:C	2.41	0.57
12:L:80:MET:HE1	12:L:120:VAL:O	1.92	0.57
8:H:145:ARG:CG	23:W:51:GLU:HG2	2.34	0.57
24:X:126:ALA:O	24:X:128:VAL:N	2.37	0.57
11:K:84:HIS:CD2	13:M:27:ILE:HG13	2.33	0.57
19:S:58:GLU:CB	19:S:59:LEU:HD13	2.34	0.57
4:D:218:LEU:C	4:D:220:THR:HG23	2.24	0.57
18:R:93:GLN:O	18:R:94:GLU:C	2.40	0.57
9:I:9:HIS:O	9:I:10:LYS:CG	2.52	0.57
16:P:67:ALA:HB2	16:P:73:PRO:CB	2.35	0.57
2:B:226:GLY:O	2:B:230:GLU:HG3	2.04	0.57
2:B:71:LEU:HD13	2:B:84:PHE:CZ	2.26	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:43:LYS:HG3	3:C:44:GLU:H	1.70	0.57
3:C:55:VAL:CB	6:F:34:SER:HB3	88.04	0.57
10:J:65:GLU:HA	10:J:70:ARG:HD3	1.87	0.57
10:J:61:LEU:CD1	10:J:94:LEU:HD11	2.33	0.57
12:L:130:GLU:HG2	12:L:131:CYS:N	2.19	0.57
12:L:147:LYS:HE2	12:L:156:GLN:HE22	1.70	0.57
14:N:67:THR:O	14:N:69:ASN:N	2.36	0.57
3:C:70:SER:C	22:V:29:HIS:HE1	2.07	0.57
24:X:71:ARG:NE	24:X:82:THR:CG2	2.58	0.57
16:P:5:GLU:HG2	16:P:9:LYS:HE2	1.85	0.57
4:D:23:GLU:CG	11:K:64:TRP:HE1	2.18	0.57
25:Y:29:HIS:CE1	25:Y:68:LYS:H	1.82	0.57
9:I:22:HIS:CD2	9:I:25:ARG:HH11	2.22	0.57
11:K:95:ARG:NE	11:K:95:ARG:HA	2.17	0.57
20:T:87:VAL:HG13	20:T:88:MET:N	2.18	0.57
8:H:99:ARG:O	8:H:100:ILE:O	2.23	0.57
3:C:229:ILE:CG1	3:C:230:SER:N	2.64	0.57
15:O:39:ASP:N	15:O:69:SER:HB3	2.20	0.57
17:Q:15:ARG:NH1	17:Q:20:THR:HG21	2.19	0.57
25:Y:5:VAL:O	25:Y:6:THR:OG1	2.19	0.57
5:E:230:LYS:O	5:E:233:LYS:N	2.36	0.57
1:A:21:ALA:HB2	1:A:173:LEU:HD11	0.61	0.57
6:F:119:SER:O	6:F:121:PRO:HD3	2.04	0.57
7:G:191:ARG:O	7:G:195:LYS:HG3	2.04	0.57
10:J:50:LEU:HD12	10:J:102:ILE:CG1	2.35	0.57
18:R:98:VAL:CG1	18:R:99:ASP:N	2.68	0.57
22:V:18:SER:O	22:V:72:LEU:HD21	2.05	0.57
12:L:102:PHE:O	24:X:8:ARG:O	2.22	0.57
16:P:56:LEU:CD1	16:P:80:LEU:CD1	2.79	0.57
16:P:56:LEU:HD22	16:P:78:THR:CG2	2.34	0.57
8:H:60:ILE:HG21	8:H:92:VAL:HG22	1.87	0.57
6:F:21:GLY:C	6:F:22:LYS:HG3	2.25	0.57
19:S:85:ASN:ND2	19:S:98:VAL:H	2.03	0.57
10:J:89:GLU:O	10:J:91:LYS:O	2.23	0.57
10:J:91:LYS:C	10:J:93:LYS:H	2.08	0.57
10:J:78:LEU:HD23	10:J:97:ILE:HD11	1.87	0.57
6:F:36:GLN:HG2	6:F:37:ASP:CG	2.24	0.57
23:W:30:CYS:CA	23:W:34:ILE:HD12	2.35	0.57
15:O:75:MET:SD	15:O:114:SER:O	2.63	0.57
10:J:84:ILE:O	10:J:108:ARG:HD3	2.03	0.57
1:A:125:THR:O	1:A:147:LEU:HB2	1.99	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:195:TRP:CE2	1:A:197:VAL:HB	2.39	0.57
7:G:227:GLN:O	7:G:231:ARG:HG3	2.05	0.57
7:G:227:GLN:HA	7:G:230:LYS:HG2	1.87	0.57
9:I:136:ILE:O	9:I:139:LYS:CD	2.52	0.57
8:H:144:ILE:HG13	23:W:52:ILE:HG23	1.83	0.57
24:X:128:VAL:O	24:X:128:VAL:CG1	2.30	0.57
24:X:52:LEU:HD12	24:X:53:GLU:CG	2.35	0.57
25:Y:54:VAL:CG2	25:Y:79:LEU:HD21	2.35	0.57
21:U:101:ILE:O	21:U:105:SER:OG	2.23	0.57
16:P:123:TYR:CD2	19:S:120:HIS:CE1	2.55	0.57
6:F:18:LYS:HB3	6:F:18:LYS:NZ	2.18	0.57
16:P:49:LEU:HD12	16:P:50:ARG:N	2.20	0.57
16:P:49:LEU:HD11	16:P:51:ARG:HH21	1.70	0.57
25:Y:10:ARG:CD	25:Y:24:VAL:HG11	2.33	0.57
2:B:110:MET:CE	2:B:213:ARG:HD2	2.35	0.57
20:T:5:THR:CG2	20:T:7:LYS:HB2	2.34	0.57
6:F:81:ARG:HE	6:F:82:ASN:HD21	1.52	0.57
14:N:142:GLU:HG2	14:N:145:THR:HG23	1.86	0.57
15:O:38:ASN:O	15:O:68:GLU:HB3	2.04	0.57
20:T:65:TYR:CE2	20:T:128:GLN:HG3	2.40	0.57
1:A:60:LEU:CD1	1:A:60:LEU:C	2.71	0.57
5:E:72:ILE:CD1	5:E:82:TYR:CE2	2.88	0.57
9:I:142:SER:HB3	9:I:143:LYS:CE	2.34	0.57
9:I:148:LYS:HE2	9:I:152:ARG:NH2	2.20	0.57
10:J:134:HIS:CE1	10:J:163:SER:HB3	2.33	0.57
14:N:58:HIS:CD2	14:N:59:GLY:H	2.23	0.57
23:W:77:PRO:HD2	23:W:79:PHE:CZ	2.39	0.57
11:K:3:MET:SD	11:K:8:ARG:CZ	2.91	0.57
11:K:43:LEU:H	11:K:46:MET:CB	2.18	0.57
11:K:61:GLN:O	11:K:67:PHE:HA	2.05	0.57
11:K:64:TRP:O	11:K:65:ARG:HG3	2.04	0.57
8:H:31:GLU:CD	8:H:41:ARG:HD3	2.25	0.57
6:F:44:LYS:CA	6:F:45:TYR:CD1	2.88	0.57
17:Q:47:LEU:CB	17:Q:81:ILE:HD13	2.34	0.57
19:S:8:LYS:HA	26:Z:49:LEU:CD2	2.30	0.57
25:Y:103:SER:O	25:Y:104:ARG:CB	2.53	0.57
8:H:109:ARG:CZ	8:H:111:LYS:HD2	2.35	0.57
16:P:67:ALA:HB2	16:P:73:PRO:HB3	1.87	0.57
19:S:73:ASN:HB3	19:S:76:GLN:OE1	2.04	0.57
1:A:183:LEU:CB	1:A:189:ILE:CD1	2.81	0.56
1:A:4:ALA:O	1:A:8:LEU:HD22	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:162:LEU:O	7:G:162:LEU:CD1	2.49	0.56
9:I:140:LYS:C	9:I:141:ARG:CG	2.73	0.56
12:L:104:LYS:HE2	12:L:104:LYS:HA	4.48	0.56
14:N:139:TRP:HZ3	14:N:141:TYR:N	2.03	0.56
8:H:138:GLU:CD	14:N:19:ARG:HB3	2.22	0.56
24:X:128:VAL:O	24:X:129:SER:OG	2.23	0.56
20:T:39:LEU:HD11	20:T:56:ARG:HH21	1.68	0.56
4:D:47:GLU:HG3	4:D:85:GLU:OE2	1.98	0.56
8:H:50:GLU:OE2	8:H:58:LYS:CD	2.44	0.56
17:Q:47:LEU:O	17:Q:49:TYR:N	2.38	0.56
10:J:17:ARG:HG3	10:J:18:ARG:HG2	1.77	0.56
3:C:192:ALA:HB3	3:C:195:PRO:CD	2.35	0.56
20:T:124:THR:CG2	20:T:126:GLN:HB3	2.35	0.56
2:B:131:ASP:N	2:B:131:ASP:OD1	2.38	0.56
5:E:36:HIS:C	5:E:41:CYS:SG	2.82	0.56
2:B:120:MET:HB2	2:B:142:PHE:HE1	1.70	0.56
5:E:75:LYS:O	5:E:76:VAL:CG2	4.93	0.56
7:G:120:ASP:N	7:G:120:ASP:OD1	2.38	0.56
7:G:142:ARG:NH1	7:G:142:ARG:HG3	2.08	0.56
7:G:176:ILE:CG2	7:G:179:LEU:HD22	1.95	0.56
9:I:154:LYS:O	12:L:22:ARG:CD	2.53	0.56
22:V:42:VAL:O	22:V:43:THR:CB	2.52	0.56
4:D:55:THR:HA	4:D:58:VAL:CG2	2.35	0.56
8:H:11:PRO:HG2	8:H:12:ASN:H	1.71	0.56
8:H:15:LYS:HB3	8:H:16:PRO:HD3	1.82	0.56
17:Q:111:ILE:C	17:Q:114:GLN:HG2	2.25	0.56
17:Q:19:ALA:CB	17:Q:75:GLY:HA3	2.33	0.56
10:J:15:THR:HB	10:J:44:TRP:CH2	2.39	0.56
18:R:61:ILE:HG23	18:R:74:GLN:HE22	1.70	0.56
3:C:250:PRO:HA	3:C:253:GLU:HG2	1.87	0.56
6:F:134:VAL:HG12	6:F:136:ARG:NH2	2.19	0.56
7:G:73:VAL:HG12	7:G:74:ARG:N	2.19	0.56
12:L:35:ARG:HH21	12:L:63:THR:CG2	2.10	0.56
12:L:56:ILE:CG2	12:L:57:ASP:N	2.68	0.56
2:B:52:THR:HG22	14:N:53:ILE:HD11	81.94	0.56
17:Q:7:LEU:HD22	17:Q:27:ARG:HD2	1.88	0.56
1:A:142:LEU:N	22:V:32:ILE:CD1	2.69	0.56
24:X:125:VAL:O	24:X:128:VAL:CA	2.53	0.56
12:L:101:ARG:NH1	24:X:5:ARG:HA	2.18	0.56
1:A:102:ARG:O	1:A:104:THR:N	2.38	0.56
3:C:49:THR:HG23	3:C:75:GLU:CG	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:176:ILE:CG2	7:G:179:LEU:HB2	2.33	0.56
9:I:85:ALA:C	12:L:8:ARG:NH1	2.59	0.56
12:L:148:ALA:O	12:L:150:GLY:O	2.23	0.56
24:X:125:VAL:C	24:X:127:ASN:N	2.54	0.56
16:P:8:LYS:C	16:P:11:THR:HG22	2.24	0.56
11:K:1:MET:HB3	11:K:47:LYS:HB3	1.88	0.56
4:D:5:ILE:O	4:D:6:SER:N	2.33	0.56
11:K:8:ARG:O	11:K:12:TYR:HD1	1.88	0.56
21:U:103:SER:C	21:U:104:ILE:O	2.39	0.56
21:U:50:VAL:HG22	21:U:51:LYS:N	2.19	0.56
23:W:42:MET:HE1	23:W:50:PHE:CE2	2.37	0.56
26:Z:77:LEU:O	26:Z:78:LYS:CD	2.53	0.56
26:Z:92:LEU:CD1	26:Z:109:TYR:HE1	2.19	0.56
2:B:144:LYS:O	2:B:144:LYS:HG3	2.03	0.56
24:X:105:PHE:HB3	24:X:112:VAL:CG2	2.36	0.56
24:X:105:PHE:HB3	24:X:112:VAL:HG21	1.86	0.56
20:T:11:GLN:CD	20:T:62:ARG:CZ	2.70	0.56
4:D:123:LEU:HD11	4:D:154:ASP:CB	2.35	0.56
3:C:158:LYS:HZ3	22:V:4:ASN:HA	1.70	0.56
13:M:85:LEU:O	13:M:89:VAL:HG23	2.05	0.56
20:T:18:LEU:HB2	20:T:134:ILE:HD12	1.87	0.56
15:O:20:GLN:HG2	15:O:21:VAL:C	2.25	0.56
20:T:85:ASN:HB3	20:T:88:MET:SD	2.45	0.56
2:B:130:THR:CG2	2:B:179:ASN:N	2.67	0.56
2:B:125:VAL:CG1	2:B:173:THR:HG22	2.28	0.56
8:H:117:PRO:HD2	8:H:120:ARG:CD	2.35	0.56
4:D:141:LYS:HE3	4:D:179:GLN:NE2	2.20	0.56
6:F:182:LYS:NZ	6:F:182:LYS:CB	2.69	0.56
2:B:225:LEU:HB3	2:B:229:MET:CE	2.34	0.56
1:A:115:ALA:O	1:A:117:ARG:HG2	2.05	0.56
18:R:62:GLN:HG3	18:R:62:GLN:O	2.06	0.56
3:C:69:PHE:CZ	3:C:247:THR:HG21	2.40	0.56
5:E:126:VAL:CG2	5:E:129:ILE:CD1	2.83	0.56
7:G:135:PRO:CG	7:G:144:LEU:HD22	2.36	0.56
7:G:141:ILE:HG21	7:G:153:VAL:HG13	1.87	0.56
7:G:155:GLN:C	7:G:156:TYR:CD1	2.78	0.56
7:G:19:ASP:O	7:G:20:ASP:HB2	2.05	0.56
25:Y:44:LEU:HG	25:Y:75:ILE:HD11	1.87	0.56
21:U:47:ASN:H	21:U:47:ASN:HD22	1.50	0.56
17:Q:18:THR:HB	17:Q:75:GLY:H	1.70	0.56
10:J:28:GLU:CD	10:J:40:LYS:HD2	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:166:ARG:O	23:W:96:SER:HB3	2.04	0.56
14:N:4:MET:CE	14:N:124:ARG:NH2	2.68	0.56
9:I:19:LYS:HE2	9:I:20:PRO:HD3	1.84	0.56
1:A:108:PHE:CE2	1:A:122:LEU:HD11	2.41	0.56
1:A:119:PRO:O	1:A:142:LEU:HD22	2.04	0.56
1:A:5:LEU:CD2	1:A:5:LEU:C	2.61	0.56
2:B:57:ILE:CG1	2:B:60:ASP:OD1	2.52	0.56
6:F:122:ARG:HB2	6:F:123:GLU:OE1	2.06	0.56
7:G:177:GLN:O	7:G:178:ARG:HB2	2.03	0.56
10:J:136:ARG:HG3	10:J:160:SER:CB	2.36	0.56
10:J:168:GLY:O	10:J:169:ARG:C	2.43	0.56
15:O:52:THR:C	15:O:53:ILE:HG23	2.16	0.56
19:S:42:HIS:HD2	20:T:45:LEU:CG	1.91	0.56
25:Y:55:ILE:CD1	25:Y:75:ILE:HD13	2.35	0.56
4:D:35:SER:HA	4:D:99:ILE:HD11	0.73	0.56
10:J:21:GLU:C	10:J:23:SER:N	2.58	0.56
2:B:150:ILE:CB	18:R:125:GLY:N	2.57	0.56
4:D:126:ILE:CD1	4:D:134:CYS:CB	2.75	0.56
4:D:153:VAL:HG12	4:D:154:ASP:N	2.21	0.56
18:R:90:ALA:C	18:R:91:LEU:HD12	2.25	0.56
20:T:4:VAL:CG2	20:T:136:GLY:HA2	2.35	0.56
8:H:109:ARG:O	8:H:110:THR:HB	2.04	0.56
3:C:183:ALA:HB2	3:C:208:TYR:CD2	2.40	0.56
7:G:188:LYS:O	7:G:191:ARG:HG3	2.05	0.56
12:L:5:GLN:OE1	12:L:10:TYR:HA	2.06	0.56
4:D:53:THR:HG22	4:D:91:VAL:CB	2.36	0.56
21:U:69:PRO:HG2	21:U:69:PRO:O	2.02	0.56
8:H:9:VAL:CA	8:H:11:PRO:HD3	2.35	0.56
19:S:120:HIS:CD2	19:S:124:ARG:CD	2.89	0.56
4:D:162:ASP:HB3	4:D:163:PRO:HD3	1.86	0.56
4:D:194:PRO:O	4:D:197:LYS:O	2.23	0.56
4:D:10:LYS:NZ	21:U:111:GLU:HG2	2.20	0.56
16:P:126:VAL:HG12	16:P:127:LYS:CA	2.33	0.56
4:D:218:LEU:CG	4:D:218:LEU:O	2.53	0.56
13:M:100:PRO:O	13:M:101:ARG:NH1	2.39	0.56
18:R:42:PRO:CD	18:R:43:SER:N	2.67	0.56
24:X:41:PHE:HZ	24:X:102:VAL:CG1	2.19	0.56
19:S:10:GLN:CB	19:S:13:LEU:HD21	2.32	0.56
1:A:77:ILE:HG12	1:A:99:ILE:HB	1.87	0.56
9:I:142:SER:HB3	9:I:143:LYS:HB2	0.62	0.56
9:I:154:LYS:CE	9:I:154:LYS:O	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:48:VAL:HG22	9:I:52:ASN:C	2.26	0.56
14:N:16:LEU:CD1	14:N:62:GLN:HE22	2.03	0.56
16:P:41:GLN:HA	16:P:84:ILE:HD13	1.88	0.56
20:T:76:THR:CA	20:T:95:GLY:O	2.53	0.56
8:H:8:ILE:CG2	8:H:9:VAL:H	2.19	0.56
17:Q:42:ILE:CG2	17:Q:51:LEU:HD23	2.30	0.56
16:P:90:VAL:HG11	16:P:109:PRO:HG3	1.87	0.56
19:S:33:ILE:CB	19:S:36:VAL:CG1	2.80	0.56
9:I:25:ARG:HB3	9:I:27:TYR:CE2	2.41	0.56
18:R:1:MET:O	18:R:2:GLY:C	2.40	0.56
26:Z:92:LEU:CD2	26:Z:109:TYR:CE1	2.84	0.56
26:Z:99:LEU:CD1	26:Z:102:LYS:HD3	2.35	0.56
3:C:163:HIS:O	3:C:205:ASP:HB2	2.06	0.56
4:D:116:ARG:O	4:D:120:TYR:HB2	2.04	0.56
3:C:161:LYS:HD3	22:V:9:VAL:CG1	2.35	0.56
3:C:195:PRO:HD3	3:C:221:PHE:CE2	2.40	0.56
12:L:153:LYS:HA	14:N:131:THR:O	2.06	0.56
18:R:61:ILE:HG23	18:R:74:GLN:NE2	2.19	0.56
4:D:93:THR:HG23	4:D:93:THR:O	2.05	0.56
1:A:71:PRO:HB2	1:A:95:GLY:HA3	1.88	0.56
7:G:211:LYS:O	7:G:215:LYS:HD3	2.05	0.56
7:G:220:ALA:CA	7:G:223:LYS:HE3	2.35	0.56
8:H:192:PHE:O	8:H:193:GLN:O	2.23	0.56
9:I:165:GLN:HE21	9:I:171:LEU:HD22	1.70	0.56
22:V:49:GLN:O	22:V:50:SER:O	2.23	0.56
22:V:55:ILE:HG22	22:V:60:ARG:HG3	1.87	0.56
11:K:53:LYS:HA	11:K:58:VAL:CG1	2.35	0.56
17:Q:50:LYS:HA	17:Q:53:GLU:HG3	1.88	0.56
19:S:30:ILE:HG22	19:S:36:VAL:HG21	1.88	0.56
10:J:177:ASN:CA	10:J:180:LYS:HB3	2.35	0.56
4:D:222:PRO:C	4:D:223:ILE:CD1	2.74	0.56
2:B:105:LEU:HG	2:B:213:ARG:O	2.06	0.56
20:T:4:VAL:CB	20:T:8:ASP:HB2	2.36	0.56
3:C:226:PHE:O	3:C:229:ILE:HG12	2.05	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
1:A:122:LEU:HD12	1:A:137:ALA:HB2	1.88	0.56
1:A:139:TYR:O	1:A:140:VAL:CG2	2.54	0.56
5:E:71:LYS:HG2	5:E:76:VAL:N	2.21	0.56
9:I:62:VAL:HB	9:I:75:LYS:CE	2.28	0.56
12:L:40:ILE:HG13	12:L:68:ILE:HG13	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:100:PRO:CA	18:R:103:LYS:HB2	2.08	0.56
16:P:56:LEU:HD12	16:P:80:LEU:HD12	1.87	0.56
16:P:9:LYS:O	16:P:10:ARG:CZ	2.54	0.56
25:Y:63:HIS:HB2	25:Y:68:LYS:HD3	1.88	0.56
12:L:20:LYS:O	12:L:21:LYS:CB	2.45	0.56
16:P:49:LEU:CA	16:P:51:ARG:CD	2.83	0.56
10:J:80:ARG:HA	10:J:83:ARG:HD3	1.86	0.56
13:M:12:MET:CE	13:M:17:ALA:C	2.41	0.56
6:F:36:GLN:C	6:F:37:ASP:CG	2.63	0.56
15:O:56:VAL:HG13	15:O:81:VAL:HG23	1.78	0.56
23:W:128:PHE:C	23:W:128:PHE:CD1	2.78	0.56
14:N:11:LEU:HD12	14:N:11:LEU:O	2.05	0.56
1:A:145:ILE:HG23	1:A:159:ILE:CG2	2.36	0.56
1:A:180:ARG:NH1	1:A:184:ARG:CZ	2.65	0.56
3:C:63:LEU:HB3	3:C:67:TYR:CE2	2.40	0.56
8:H:169:LYS:CB	8:H:173:PHE:CZ	2.89	0.56
10:J:34:GLU:CB	10:J:35:TYR:CD2	2.89	0.56
2:B:25:PHE:CE1	15:O:53:ILE:HG22	2.38	0.56
4:D:168:VAL:CG1	4:D:189:MET:SD	2.93	0.56
25:Y:54:VAL:HG13	25:Y:76:TYR:N	2.18	0.56
4:D:59:LEU:CG	4:D:60:GLY:N	2.69	0.56
4:D:58:VAL:HG23	4:D:59:LEU:N	2.20	0.56
11:K:14:LEU:CG	11:K:35:LEU:HD21	2.36	0.56
6:F:15:PRO:HD3	17:Q:56:LEU:CA	2.36	0.56
16:P:17:TYR:H	16:P:25:LEU:HD11	1.71	0.56
16:P:49:LEU:HD12	16:P:50:ARG:H	1.71	0.56
3:C:240:LEU:HD12	3:C:240:LEU:N	2.21	0.56
2:B:104:ASP:CG	2:B:105:LEU:H	2.07	0.56
1:A:189:ILE:O	1:A:190:SER:OG	2.22	0.55
1:A:5:LEU:HB2	22:V:41:LYS:NZ	2.22	0.55
7:G:170:ARG:HD2	7:G:172:LYS:HG2	1.88	0.55
7:G:214:ALA:O	7:G:217:MET:HG2	2.06	0.55
24:X:91:LEU:O	24:X:92:ASN:C	2.43	0.55
11:K:41:PRO:CD	11:K:43:LEU:HG	2.36	0.55
16:P:22:LEU:HA	16:P:25:LEU:HD12	1.87	0.55
19:S:89:ASP:O	19:S:90:VAL:HG23	2.06	0.55
4:D:211:VAL:CG2	18:R:39:ALA:N	2.69	0.55
13:M:77:ILE:HD12	13:M:79:VAL:HG23	1.88	0.55
14:N:4:MET:CE	14:N:124:ARG:HH22	2.19	0.55
20:T:85:ASN:CB	20:T:88:MET:HB2	2.35	0.55
26:Z:94:LYS:HA	26:Z:94:LYS:HE2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:124:PRO:CG	17:Q:125:ARG:N	2.69	0.55
9:I:31:ARG:HG3	9:I:31:ARG:NH1	2.20	0.55
1:A:44:ASP:OD1	18:R:101:ASP:OD2	2.23	0.55
5:E:181:CYS:SG	5:E:225:ILE:HG23	2.46	0.55
14:N:125:LEU:CD1	14:N:129:TYR:CZ	2.89	0.55
16:P:83:MET:HE3	16:P:116:LEU:CD1	2.24	0.55
11:K:40:VAL:CG2	11:K:41:PRO:HD2	2.18	0.55
21:U:40:ILE:HD13	21:U:53:PRO:CG	2.07	0.55
2:B:113:MET:CE	2:B:209:ASP:HB3	2.36	0.55
2:B:160:GLN:HE22	2:B:205:TYR:HE1	1.49	0.55
13:M:99:LYS:N	13:M:100:PRO:CD	2.68	0.55
14:N:124:ARG:O	14:N:127:ARG:HG2	2.06	0.55
6:F:53:ALA:C	17:Q:125:ARG:HH22	2.08	0.55
4:D:141:LYS:CE	4:D:179:GLN:NE2	2.69	0.55
6:F:182:LYS:CB	6:F:182:LYS:HZ3	2.19	0.55
5:E:165:GLU:OE2	5:E:165:GLU:HA	2.06	0.55
18:R:77:GLU:HG3	18:R:80:ARG:NH2	2.20	0.55
1:A:7:VAL:HG22	1:A:8:LEU:HD12	1.88	0.55
1:A:94:THR:CG2	1:A:182:VAL:CG2	2.84	0.55
5:E:123:LEU:CD1	5:E:161:GLN:HA	2.37	0.55
7:G:35:GLU:O	7:G:36:VAL:HG22	2.05	0.55
3:C:196:LYS:HD2	3:C:200:LEU:CD2	2.37	0.55
4:D:70:THR:HA	4:D:86:LEU:HD11	1.87	0.55
11:K:11:ILE:HG23	11:K:49:MET:HE3	1.74	0.55
11:K:53:LYS:HA	11:K:58:VAL:HG13	1.88	0.55
3:C:218:LEU:HD12	3:C:219:GLY:CA	2.36	0.55
8:H:6:ALA:HA	8:H:10:LYS:CG	2.34	0.55
17:Q:112:LEU:CD2	17:Q:119:LEU:CD1	2.72	0.55
17:Q:34:VAL:HG21	17:Q:39:LEU:HD23	1.76	0.55
24:X:27:TYR:CD2	24:X:31:HIS:CD2	2.95	0.55
8:H:100:ILE:HG13	8:H:125:VAL:HG21	1.87	0.55
5:E:136:ILE:N	5:E:136:ILE:CD1	2.69	0.55
1:A:186:ARG:O	1:A:186:ARG:NH1	2.39	0.55
5:E:129:ILE:CG2	5:E:139:LEU:HD23	2.35	0.55
9:I:48:VAL:HG11	9:I:54:LYS:HE3	1.87	0.55
9:I:66:SER:HA	9:I:73:THR:HA	1.89	0.55
15:O:30:VAL:CB	15:O:32:HIS:NE2	2.69	0.55
11:K:13:GLU:HG3	11:K:14:LEU:N	2.19	0.55
2:B:87:ILE:CD1	2:B:220:LYS:HZ3	2.20	0.55
8:H:12:ASN:ND2	8:H:46:THR:CB	2.67	0.55
6:F:18:LYS:NZ	6:F:18:LYS:CB	2.69	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:109:LYS:NZ	17:Q:113:ILE:CD1	2.69	0.55
26:Z:105:ALA:O	26:Z:106:GLN:HG3	2.05	0.55
16:P:89:MET:O	16:P:107:ILE:HD11	2.05	0.55
10:J:16:PRO:C	10:J:18:ARG:H	2.09	0.55
20:T:23:LYS:HE2	20:T:54:TYR:CE2	2.41	0.55
16:P:70:MET:HG3	16:P:71:GLU:OE2	2.07	0.55
20:T:65:TYR:HE2	20:T:128:GLN:HG3	1.72	0.55
3:C:262:HIS:ND1	3:C:263:THR:N	2.55	0.55
3:C:68:LEU:HD22	3:C:247:THR:HG21	1.87	0.55
9:I:83:TYR:HB3	9:I:101:ILE:HB	1.88	0.55
9:I:191:GLU:CG	9:I:192:GLY:N	2.70	0.55
9:I:54:LYS:CG	9:I:181:GLN:O	2.54	0.55
22:V:39:VAL:O	22:V:41:LYS:N	2.34	0.55
25:Y:120:THR:O	25:Y:122:LYS:N	2.37	0.55
16:P:84:ILE:HG22	16:P:86:LEU:CD2	2.36	0.55
19:S:81:ASP:OD2	19:S:95:TYR:HD2	1.88	0.55
9:I:98:LYS:HD3	9:I:178:ARG:NE	2.22	0.55
18:R:22:THR:CG2	18:R:73:LEU:CD1	2.72	0.55
20:T:40:ALA:CA	20:T:43:LYS:HG2	2.35	0.55
4:D:175:VAL:HG13	4:D:175:VAL:O	2.05	0.55
5:E:205:PHE:CD1	5:E:221:ARG:CZ	2.89	0.55
8:H:135:PHE:HB3	8:H:136:PRO:HD3	1.87	0.55
13:M:59:PRO:HB2	13:M:62:VAL:HG22	1.89	0.55
4:D:28:GLU:OE1	4:D:28:GLU:HA	2.07	0.55
1:A:127:PRO:HG2	1:A:153:PRO:CD	2.27	0.55
5:E:100:ARG:CG	5:E:102:ILE:CD1	2.85	0.55
6:F:130:ARG:HH11	6:F:135:ARG:HG3	1.72	0.55
9:I:157:LYS:HB2	12:L:22:ARG:NE	2.19	0.55
12:L:111:VAL:HG23	12:L:140:PHE:C	2.27	0.55
12:L:149:ALA:O	12:L:150:GLY:O	2.24	0.55
14:N:22:VAL:CB	14:N:23:PRO:CA	2.64	0.55
14:N:27:LYS:C	14:N:27:LYS:HD2	2.25	0.55
14:N:92:ILE:HG22	14:N:150:VAL:HG23	1.86	0.55
20:T:39:LEU:HD21	20:T:56:ARG:HH21	1.72	0.55
25:Y:51:THR:CB	25:Y:52:PRO:CD	2.82	0.55
25:Y:20:ARG:HD3	25:Y:76:TYR:CE2	2.40	0.55
11:K:47:LYS:HD3	11:K:50:GLN:CD	2.26	0.55
11:K:12:TYR:OH	11:K:52:LEU:HD21	2.06	0.55
8:H:60:ILE:HG23	8:H:60:ILE:O	2.06	0.55
8:H:50:GLU:OE2	8:H:90:LYS:CE	2.55	0.55
2:B:153:THR:O	2:B:154:SER:CB	2.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:49:LEU:HD13	16:P:51:ARG:CZ	2.33	0.55
10:J:81:LEU:HD12	10:J:97:ILE:CD1	2.37	0.55
3:C:198:LEU:HD13	3:C:225:THR:CG2	2.37	0.55
24:X:28:LYS:CE	24:X:32:LEU:HD11	2.37	0.55
1:A:154:LEU:O	1:A:154:LEU:CD1	2.43	0.55
7:G:220:ALA:HA	7:G:223:LYS:CE	2.35	0.55
1:A:24:HIS:CD2	18:R:105:MET:CE	2.90	0.55
3:C:200:LEU:CD1	3:C:201:MET:SD	2.94	0.55
16:P:10:ARG:NH2	16:P:11:THR:CB	2.30	0.55
2:B:87:ILE:HD12	2:B:220:LYS:HZ3	1.71	0.55
26:Z:99:LEU:HD21	26:Z:102:LYS:HD3	1.79	0.55
26:Z:92:LEU:CD1	26:Z:109:TYR:CE1	2.84	0.55
16:P:30:TYR:O	16:P:34:MET:CG	2.54	0.55
3:C:101:THR:HG22	3:C:103:ALA:O	1.93	0.55
13:M:12:MET:CE	13:M:17:ALA:O	2.40	0.55
10:J:170:PRO:HD2	10:J:175:ARG:HD2	1.88	0.55
1:A:141:ASN:HD21	22:V:29:HIS:HA	1.72	0.55
21:U:48:LEU:C	21:U:49:LYS:CG	2.74	0.55
17:Q:85:ARG:CD	17:Q:119:LEU:CD2	2.72	0.55
17:Q:53:GLU:O	17:Q:57:LEU:HG	2.07	0.55
16:P:108:LYS:CB	16:P:110:GLU:OE1	2.45	0.55
20:T:16:ARG:CG	20:T:16:ARG:NH1	2.65	0.55
15:O:56:VAL:HG12	15:O:81:VAL:CG2	2.03	0.55
23:W:128:PHE:HD1	23:W:129:PHE:CA	2.20	0.55
15:O:74:ALA:HB3	15:O:114:SER:OG	2.07	0.55
1:A:132:GLN:N	1:A:133:PRO:HD3	2.22	0.55
3:C:141:ILE:CG2	3:C:142:LEU:N	2.69	0.55
3:C:58:MET:HE1	3:C:81:PHE:CZ	2.42	0.55
5:E:129:ILE:HG23	5:E:139:LEU:HD23	1.87	0.55
7:G:135:PRO:CD	7:G:144:LEU:CD2	2.85	0.55
7:G:67:VAL:CG2	7:G:100:CYS:H	2.20	0.55
9:I:117:TYR:HE1	9:I:155:ASN:ND2	2.05	0.55
9:I:63:GLY:O	9:I:75:LYS:HG2	2.06	0.55
2:B:107:ARG:NH1	15:O:133:THR:O	2.40	0.55
4:D:79:PHE:CE1	4:D:83:SER:HB3	2.42	0.55
6:F:68:ILE:HG13	6:F:69:VAL:N	2.22	0.55
24:X:27:TYR:CD1	24:X:31:HIS:CD2	2.94	0.55
19:S:18:THR:OG1	19:S:33:ILE:HG12	2.06	0.55
19:S:26:ILE:CG1	19:S:59:LEU:HD21	2.36	0.55
16:P:18:ARG:CZ	19:S:90:VAL:HG23	2.37	0.55
9:I:21:TYR:O	9:I:22:HIS:O	2.25	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:157:ASN:HD22	3:C:157:ASN:N	1.99	0.55
13:M:101:ARG:O	13:M:103:VAL:HG23	2.07	0.55
23:W:93:LEU:CG	23:W:93:LEU:O	2.54	0.55
20:T:75:MET:HA	20:T:78:ILE:HG22	1.89	0.55
20:T:9:VAL:CG1	20:T:13:GLU:HG3	2.37	0.55
1:A:141:ASN:O	22:V:32:ILE:CG1	2.41	0.55
1:A:193:HIS:CB	1:A:194:PRO:CD	2.84	0.55
1:A:58:LEU:HD21	1:A:178:LEU:CG	2.29	0.55
7:G:159:ARG:HH22	7:G:161:PRO:N	2.05	0.55
8:H:158:LEU:HG	8:H:187:PHE:HD1	1.71	0.55
22:V:40:ASP:HB2	22:V:47:ASN:HD21	1.61	0.55
25:Y:120:THR:HG22	25:Y:122:LYS:HE2	1.88	0.55
5:E:69:PHE:CZ	25:Y:17:LEU:HA	2.42	0.55
4:D:76:ARG:CZ	11:K:66:HIS:NE2	2.69	0.55
6:F:15:PRO:HD3	17:Q:56:LEU:HA	1.88	0.55
25:Y:36:PRO:CG	25:Y:39:GLU:HB2	2.36	0.55
19:S:23:ARG:HD3	26:Z:48:VAL:CB	2.34	0.55
19:S:36:VAL:HA	19:S:40:TYR:CD2	2.43	0.55
26:Z:61:GLU:HB3	26:Z:65:TYR:OH	2.07	0.55
25:Y:46:LYS:O	25:Y:47:MET:HG2	2.07	0.55
2:B:138:PHE:CD2	2:B:138:PHE:N	2.74	0.55
2:B:179:ASN:HB3	2:B:183:GLU:HB2	1.88	0.55
3:C:198:LEU:O	3:C:198:LEU:HD23	2.06	0.55
1:A:169:HIS:CD2	1:A:203:PHE:CE2	2.94	0.55
7:G:24:LEU:O	7:G:25:ARG:C	2.45	0.54
7:G:67:VAL:O	7:G:68:LEU:CB	2.50	0.54
14:N:76:LYS:C	14:N:76:LYS:CD	2.75	0.54
15:O:31:CYS:SG	15:O:95:ILE:CG1	2.95	0.54
16:P:53:GLN:CG	16:P:56:LEU:HD12	2.37	0.54
25:Y:18:LEU:CB	25:Y:20:ARG:CZ	2.79	0.54
4:D:4:GLN:O	4:D:5:ILE:HG13	2.07	0.54
19:S:55:ARG:CG	26:Z:48:VAL:HG11	2.33	0.54
21:U:18:HIS:CE1	21:U:98:VAL:HG22	2.39	0.54
3:C:99:LYS:NZ	3:C:100:GLN:O	2.38	0.54
5:E:205:PHE:CE1	5:E:221:ARG:CZ	2.90	0.54
20:T:14:PHE:CZ	20:T:131:LEU:HD12	2.42	0.54
1:A:141:ASN:HA	22:V:32:ILE:HD11	1.89	0.54
1:A:30:LEU:CD1	1:A:38:ILE:HD12	2.24	0.54
10:J:164:PRO:C	10:J:165:TYR:HD1	2.10	0.54
14:N:64:ARG:O	14:N:67:THR:O	2.25	0.54
14:N:71:ILE:O	14:N:75:LEU:HD13	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:17:ALA:HB2	23:W:25:VAL:HG11	1.89	0.54
25:Y:54:VAL:CG1	25:Y:76:TYR:CA	2.84	0.54
17:Q:115:TYR:HE2	17:Q:119:LEU:HD11	1.72	0.54
1:A:106:GLY:O	1:A:110:ASN:HB2	2.07	0.54
23:W:101:PHE:CD2	23:W:129:PHE:HE1	2.26	0.54
20:T:14:PHE:HZ	20:T:131:LEU:CD1	2.21	0.54
3:C:59:LYS:HD2	3:C:254:PHE:HE1	1.73	0.54
3:C:55:VAL:HG13	3:C:82:PHE:CD2	2.21	0.54
5:E:97:GLU:HB2	5:E:99:PHE:CE2	2.43	0.54
7:G:122:PRO:HD2	7:G:123:GLY:N	2.22	0.54
7:G:227:GLN:HA	7:G:230:LYS:CG	2.38	0.54
12:L:86:ILE:CG2	12:L:113:LEU:HD12	2.37	0.54
3:C:197:LYS:CG	3:C:200:LEU:HD21	2.36	0.54
4:D:77:PHE:O	4:D:79:PHE:N	2.40	0.54
11:K:43:LEU:O	11:K:45:VAL:CA	2.51	0.54
17:Q:18:THR:C	17:Q:75:GLY:CA	2.75	0.54
19:S:54:LYS:HB3	19:S:55:ARG:H	1.72	0.54
4:D:199:GLY:O	4:D:201:LYS:N	2.37	0.54
25:Y:46:LYS:CG	25:Y:46:LYS:O	2.55	0.54
2:B:136:HIS:CE1	2:B:138:PHE:HZ	2.20	0.54
13:M:71:GLU:C	13:M:72:HIS:O	2.43	0.54
1:A:180:ARG:O	1:A:184:ARG:HG3	2.06	0.54
5:E:122:LYS:CG	5:E:164:LEU:CD2	2.80	0.54
7:G:176:ILE:HG21	7:G:179:LEU:CG	2.32	0.54
7:G:177:GLN:CG	7:G:178:ARG:H	2.21	0.54
7:G:36:VAL:CG1	7:G:37:ALA:H	2.14	0.54
10:J:110:LEU:HD12	10:J:130:ILE:HG12	1.54	0.54
12:L:83:GLN:O	12:L:83:GLN:HG2	2.06	0.54
14:N:116:ILE:CA	14:N:119:GLU:HG3	2.37	0.54
14:N:87:ASP:CG	14:N:129:TYR:OH	2.45	0.54
20:T:39:LEU:HD11	20:T:56:ARG:CZ	2.36	0.54
16:P:77:LYS:O	16:P:78:THR:HG22	2.06	0.54
8:H:83:LEU:HD21	8:H:92:VAL:HG11	1.81	0.54
23:W:42:MET:HE3	23:W:50:PHE:CE2	2.41	0.54
17:Q:105:LYS:NZ	17:Q:109:LYS:CB	2.66	0.54
19:S:88:LYS:N	19:S:95:TYR:CD1	2.72	0.54
10:J:82:VAL:HG13	10:J:92:MET:HE3	1.89	0.54
21:U:111:GLU:CA	21:U:111:GLU:OE1	2.49	0.54
25:Y:37:LYS:CA	25:Y:40:ILE:HG22	2.36	0.54
5:E:143:ASP:OD2	5:E:145:ARG:CD	2.55	0.54
10:J:147:PHE:O	10:J:148:ILE:CB	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:166:ILE:H	6:F:166:ILE:CD1	2.19	0.54
23:W:10:ALA:O	23:W:13:SER:OG	2.22	0.54
1:A:173:LEU:O	1:A:177:MET:HG2	2.07	0.54
1:A:193:HIS:CG	1:A:194:PRO:HD2	2.42	0.54
5:E:46:ILE:O	5:E:50:ASN:HB2	2.07	0.54
5:E:71:LYS:HG2	5:E:76:VAL:H	1.72	0.54
7:G:179:LEU:C	7:G:180:VAL:HG23	2.24	0.54
9:I:148:LYS:CE	9:I:152:ARG:NH2	2.71	0.54
12:L:96:ILE:HD13	12:L:102:PHE:HA	1.89	0.54
20:T:38:LYS:HD2	20:T:46:ALA:CA	2.37	0.54
4:D:23:GLU:CB	11:K:64:TRP:HE1	2.20	0.54
8:H:10:LYS:HZ1	8:H:17:ASP:CA	2.20	0.54
2:B:150:ILE:CG1	18:R:125:GLY:HA3	2.36	0.54
4:D:212:GLU:CB	4:D:213:PRO:CD	2.76	0.54
3:C:236:LEU:HD23	3:C:236:LEU:C	2.28	0.54
10:J:138:ARG:HD3	10:J:156:HIS:ND1	2.22	0.54
14:N:7:PRO:HD2	14:N:8:GLY:N	2.23	0.54
22:V:35:ASN:OD1	22:V:52:THR:HB	2.07	0.54
14:N:2:GLY:O	14:N:3:ARG:CB	2.55	0.54
1:A:2:SER:OG	1:A:5:LEU:O	2.16	0.54
6:F:122:ARG:HH21	6:F:193:LYS:HZ1	1.54	0.54
7:G:64:LYS:CD	7:G:65:GLN:O	2.56	0.54
10:J:122:SER:HG	10:J:124:HIS:CB	2.12	0.54
12:L:59:LYS:CE	12:L:134:LEU:HD21	2.38	0.54
14:N:135:LEU:HD22	14:N:139:TRP:CD1	2.43	0.54
14:N:139:TRP:CE3	14:N:140:LYS:C	2.81	0.54
15:O:62:VAL:CG2	15:O:72:TYR:CZ	2.91	0.54
6:F:18:LYS:O	6:F:46:ALA:HB1	2.08	0.54
16:P:93:MET:SD	16:P:106:GLU:CA	2.96	0.54
4:D:214:LYS:O	4:D:215:ASP:CG	2.46	0.54
20:T:83:GLN:NE2	20:T:85:ASN:N	2.55	0.54
17:Q:100:VAL:CG1	17:Q:101:ASP:N	2.43	0.54
3:C:63:LEU:CD1	3:C:67:TYR:OH	2.47	0.54
7:G:162:LEU:HD21	7:G:170:ARG:HB2	1.88	0.54
7:G:188:LYS:HA	7:G:191:ARG:CG	2.37	0.54
9:I:201:LYS:NZ	12:L:8:ARG:HA	2.23	0.54
14:N:71:ILE:HA	14:N:94:LYS:HD2	23.44	0.54
3:C:68:LEU:O	22:V:15:ARG:NE	2.39	0.54
25:Y:114:MET:HG2	25:Y:124:ASN:CB	2.37	0.54
2:B:87:ILE:HD12	2:B:220:LYS:NZ	2.22	0.54
2:B:178:THR:O	2:B:179:ASN:CB	2.56	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:124:PRO:CD	17:Q:125:ARG:H	2.21	0.54
2:B:37:ALA:O	2:B:38:MET:C	2.42	0.54
21:U:54:VAL:O	21:U:56:MET:SD	2.66	0.54
1:A:11:LYS:CG	1:A:13:GLU:HG3	2.21	0.54
9:I:141:ARG:HD3	9:I:144:LYS:HB3	1.62	0.54
9:I:155:ASN:ND2	9:I:156:ALA:CA	2.70	0.54
15:O:34:PHE:CE1	15:O:99:ALA:C	2.81	0.54
2:B:67:PHE:CZ	15:O:48:SER:HB3	2.43	0.54
22:V:24:ILE:CD1	22:V:25:GLY:CA	2.86	0.54
20:T:31:PRO:O	20:T:33:TRP:CA	2.54	0.54
19:S:34:LYS:CB	19:S:103:LEU:HD23	2.20	0.54
11:K:43:LEU:H	11:K:46:MET:HB3	1.73	0.54
20:T:76:THR:OG1	20:T:94:ARG:HD2	2.08	0.54
6:F:76:MET:HE1	6:F:169:ILE:CG2	2.22	0.54
26:Z:65:TYR:HD2	26:Z:68:ILE:CD1	2.21	0.54
3:C:154:TYR:HH	3:C:162:PRO:HD3	1.67	0.54
16:P:39:ALA:HA	16:P:42:ARG:CG	2.37	0.54
5:E:143:ASP:OD2	5:E:145:ARG:HD2	2.08	0.54
2:B:98:THR:O	2:B:232:HIS:HE1	1.91	0.54
25:Y:5:VAL:O	25:Y:6:THR:CB	2.56	0.54
5:E:150:PRO:C	5:E:151:ASP:OD2	2.46	0.54
12:L:157:LYS:O	12:L:158:PHE:CG	2.61	0.54
15:O:28:PHE:CE1	15:O:92:ALA:HB1	2.43	0.54
19:S:34:LYS:HD3	19:S:34:LYS:N	2.22	0.54
11:K:39:ASN:C	11:K:40:VAL:HG12	2.28	0.54
11:K:85:LEU:HD13	11:K:89:ILE:CG1	2.36	0.54
12:L:17:PHE:CZ	12:L:19:ASN:OD1	2.61	0.54
9:I:69:SER:HB3	12:L:19:ASN:OD1	2.08	0.54
19:S:55:ARG:HG3	26:Z:48:VAL:CG1	2.34	0.54
16:P:127:LYS:O	16:P:127:LYS:CG	2.55	0.54
13:M:13:ASP:HB2	13:M:16:THR:OG1	2.04	0.54
14:N:4:MET:HE2	14:N:124:ARG:HH22	1.73	0.54
20:T:111:LYS:CG	20:T:126:GLN:HE22	2.20	0.54
18:R:42:PRO:CD	18:R:43:SER:H	2.07	0.54
1:A:14:ASP:CG	1:A:180:ARG:HH22	2.10	0.54
1:A:149:ASN:N	1:A:165:ASN:ND2	2.56	0.54
1:A:179:ALA:HA	1:A:182:VAL:HG22	1.90	0.54
1:A:18:PHE:CZ	1:A:55:TRP:CZ3	2.96	0.54
1:A:32:PHE:HA	1:A:35:GLU:OE1	2.07	0.54
5:E:166:THR:OG1	5:E:168:LYS:HG2	2.07	0.54
7:G:63:MET:HE2	7:G:106:LEU:HD11	1.76	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:218:LYS:O	7:G:222:GLU:HB2	2.08	0.54
10:J:110:LEU:HD11	10:J:135:ILE:CD1	2.38	0.54
10:J:169:ARG:HB3	10:J:170:PRO:HD3	1.85	0.54
15:O:31:CYS:SG	15:O:95:ILE:HG12	2.47	0.54
12:L:101:ARG:CB	24:X:7:LEU:O	2.43	0.54
20:T:31:PRO:CD	20:T:102:ARG:HG3	2.38	0.54
16:P:97:TYR:OH	16:P:100:LYS:HA	2.08	0.54
20:T:77:LYS:HG2	20:T:92:PHE:HZ	1.65	0.54
26:Z:92:LEU:HD21	26:Z:109:TYR:HE1	1.69	0.54
5:E:130:PHE:HB3	5:E:138:HIS:ND1	2.23	0.54
21:U:86:LYS:C	21:U:87:ARG:HG2	2.28	0.54
23:W:128:PHE:CZ	23:W:130:PHE:HE2	2.23	0.54
2:B:124:HIS:HD2	2:B:136:HIS:CE1	2.20	0.54
16:P:39:ALA:O	16:P:42:ARG:CG	2.56	0.54
6:F:152:TRP:O	6:F:153:LEU:C	2.45	0.54
2:B:175:GLU:HG2	2:B:193:ILE:HD12	1.87	0.54
2:B:120:MET:CE	2:B:142:PHE:HZ	2.20	0.54
3:C:43:LYS:HE3	3:C:43:LYS:C	2.28	0.53
3:C:89:ASP:HB3	3:C:115:ILE:CG1	2.38	0.53
6:F:133:THR:O	6:F:135:ARG:HG2	2.08	0.53
6:F:143:PRO:HA	6:F:146:ARG:HG3	1.88	0.53
6:F:38:TYR:N	6:F:38:TYR:CD2	2.75	0.53
7:G:3:LEU:CD2	7:G:109:LEU:HB2	2.38	0.53
9:I:138:ASN:O	9:I:139:LYS:C	2.47	0.53
24:X:51:VAL:CG1	24:X:70:VAL:HG13	2.32	0.53
20:T:38:LYS:O	20:T:39:LEU:HB3	2.07	0.53
25:Y:82:ALA:O	25:Y:86:GLU:HB2	2.08	0.53
11:K:14:LEU:CD1	11:K:35:LEU:HD11	2.38	0.53
11:K:85:LEU:HD13	11:K:89:ILE:HD11	1.90	0.53
26:Z:46:ASN:HB3	26:Z:80:ARG:HA	1.90	0.53
8:H:122:LEU:CD1	8:H:123:THR:CA	2.71	0.53
25:Y:99:LYS:O	25:Y:100:LYS:O	2.25	0.53
13:M:93:LYS:O	13:M:95:ASP:OD1	2.26	0.53
23:W:93:LEU:CD2	23:W:128:PHE:HD2	2.10	0.53
6:F:79:HIS:O	6:F:82:ASN:N	2.41	0.53
5:E:98:ASN:ND2	5:E:114:ILE:CG1	2.72	0.53
7:G:50:VAL:HG11	7:G:111:LEU:CB	2.35	0.53
7:G:64:LYS:HE3	7:G:65:GLN:O	2.08	0.53
12:L:149:ALA:CB	12:L:156:GLN:CD	2.26	0.53
13:M:44:LYS:C	13:M:46:GLN:H	2.12	0.53
17:Q:7:LEU:CD2	17:Q:8:GLN:H	2.17	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:126:ALA:O	24:X:128:VAL:HG23	2.07	0.53
11:K:14:LEU:HD22	11:K:35:LEU:CD1	2.37	0.53
26:Z:103:HIS:CD2	26:Z:105:ALA:CA	2.90	0.53
19:S:26:ILE:CD1	19:S:59:LEU:CD2	2.81	0.53
20:T:23:LYS:CD	20:T:54:TYR:CG	2.62	0.53
3:C:134:THR:HG23	3:C:135:ALA:N	2.23	0.53
14:N:4:MET:SD	14:N:124:ARG:NH1	2.82	0.53
18:R:95:ILE:N	18:R:114:LEU:HD13	2.23	0.53
3:C:73:ILE:HG23	3:C:73:ILE:O	2.08	0.53
7:G:220:ALA:HB1	7:G:223:LYS:HZ2	1.73	0.53
7:G:35:GLU:C	7:G:36:VAL:CG2	2.77	0.53
9:I:117:TYR:HD2	9:I:117:TYR:H	1.57	0.53
9:I:174:CYS:HB2	9:I:190:LEU:HD21	1.90	0.53
25:Y:20:ARG:CD	25:Y:76:TYR:CZ	2.84	0.53
4:D:34:TYR:OH	4:D:37:VAL:HG13	2.08	0.53
4:D:45:ARG:HA	4:D:83:SER:HG	1.72	0.53
20:T:77:LYS:O	20:T:92:PHE:CZ	2.61	0.53
21:U:53:PRO:O	21:U:53:PRO:HD2	2.09	0.53
25:Y:91:LEU:C	25:Y:97:TYR:CB	2.77	0.53
10:J:10:ARG:CZ	10:J:10:ARG:HB3	2.24	0.53
20:T:5:THR:HG23	20:T:7:LYS:HB2	1.91	0.53
9:I:6:ASP:OD2	9:I:8:TRP:CG	2.62	0.53
17:Q:63:PHE:CD1	17:Q:68:ILE:CD1	2.91	0.53
2:B:232:HIS:O	2:B:233:GLY:O	2.27	0.53
4:D:39:VAL:O	4:D:39:VAL:HG13	2.07	0.53
1:A:52:LYS:HB3	1:A:52:LYS:HZ2	1.72	0.53
5:E:124:CYS:HB3	5:E:141:THR:CB	2.36	0.53
7:G:153:VAL:HG12	7:G:154:ARG:N	2.23	0.53
7:G:57:ASP:CG	7:G:98:ARG:HG3	2.29	0.53
7:G:76:LEU:HD13	7:G:92:ARG:HD2	1.90	0.53
10:J:164:PRO:HB2	10:J:165:TYR:CD1	2.43	0.53
22:V:24:ILE:HD12	22:V:25:GLY:N	2.20	0.53
11:K:15:LEU:CD1	11:K:21:MET:HE2	2.26	0.53
21:U:104:ILE:O	21:U:106:ILE:HG22	2.08	0.53
18:R:16:ILE:O	18:R:20:TYR:HB2	2.07	0.53
3:C:154:TYR:CE1	3:C:162:PRO:CD	2.92	0.53
2:B:19:LYS:HG3	2:B:19:LYS:O	2.09	0.53
6:F:78:MET:HB2	6:F:159:ARG:NH2	2.22	0.53
25:Y:37:LYS:HA	25:Y:40:ILE:HG22	1.89	0.53
3:C:174:GLY:O	3:C:175:SER:CB	2.55	0.53
1:A:149:ASN:H	1:A:165:ASN:HD21	1.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:70:ILE:HG13	5:E:92:ILE:HD12	1.86	0.53
7:G:58:LYS:HG2	7:G:105:ASN:O	2.09	0.53
9:I:141:ARG:HB3	9:I:144:LYS:HG2	1.90	0.53
9:I:157:LYS:CB	12:L:22:ARG:CD	2.54	0.53
15:O:30:VAL:HG21	15:O:32:HIS:NE2	2.23	0.53
6:F:133:THR:HG21	15:O:66:ARG:NH1	2.24	0.53
19:S:39:ARG:CD	20:T:38:LYS:HZ1	2.17	0.53
3:C:197:LYS:HG3	3:C:200:LEU:HD21	1.88	0.53
25:Y:54:VAL:O	25:Y:54:VAL:CG1	2.57	0.53
16:P:98:ASN:CG	16:P:120:SER:HB2	2.29	0.53
4:D:29:LEU:O	4:D:32:ASP:HB2	2.08	0.53
11:K:47:LYS:CD	11:K:50:GLN:NE2	2.72	0.53
20:T:77:LYS:O	20:T:92:PHE:HZ	1.91	0.53
8:H:37:LYS:O	8:H:38:ALA:HB3	2.08	0.53
4:D:162:ASP:O	4:D:162:ASP:OD1	2.27	0.53
4:D:113:LEU:HD12	4:D:113:LEU:N	2.16	0.53
13:M:98:GLY:C	13:M:100:PRO:CD	2.74	0.53
10:J:179:LYS:HA	10:J:182:GLN:CD	2.29	0.53
18:R:42:PRO:HD3	18:R:46:LEU:HD23	1.90	0.53
8:H:118:ARG:C	8:H:120:ARG:H	2.11	0.53
17:Q:144:SER:O	17:Q:145:TYR:CB	2.55	0.53
2:B:137:LEU:HD21	2:B:215:VAL:HG11	1.78	0.53
3:C:55:VAL:HG22	3:C:82:PHE:CZ	2.42	0.53
5:E:100:ARG:NH2	5:E:122:LYS:HA	2.23	0.53
6:F:134:VAL:HG12	6:F:136:ARG:CZ	2.39	0.53
7:G:164:LYS:O	7:G:164:LYS:HG3	2.06	0.53
7:G:220:ALA:HB1	7:G:223:LYS:NZ	2.24	0.53
7:G:25:ARG:O	7:G:26:THR:C	2.46	0.53
14:N:84:LEU:HB2	14:N:88:LEU:HD23	1.91	0.53
22:V:19:ALA:O	23:W:23:ARG:CZ	2.57	0.53
25:Y:50:THR:O	25:Y:51:THR:HG23	2.09	0.53
11:K:16:PHE:CE2	11:K:79:LEU:CA	2.89	0.53
19:S:124:ARG:HB2	19:S:131:VAL:HG22	1.90	0.53
6:F:45:TYR:O	6:F:47:LYS:HE3	1.93	0.53
19:S:8:LYS:CE	19:S:9:PHE:HE1	2.05	0.53
26:Z:66:LYS:O	26:Z:110:THR:HA	2.08	0.53
2:B:205:TYR:CG	2:B:206:PRO:CD	2.82	0.53
13:M:51:VAL:CG1	13:M:109:VAL:HG23	2.39	0.53
14:N:4:MET:HE1	14:N:124:ARG:NH2	2.23	0.53
19:S:22:GLY:O	19:S:57:GLY:N	2.35	0.53
6:F:192:LYS:HD2	6:F:192:LYS:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:66:VAL:HG11	22:V:46:PHE:HB3	1.90	0.53
9:I:48:VAL:CG1	9:I:54:LYS:HE3	2.38	0.53
10:J:37:LEU:HG	10:J:38:ARG:H	1.73	0.53
12:L:147:LYS:HG3	12:L:148:ALA:HB2	1.90	0.53
14:N:38:TYR:CE1	14:N:78:LYS:NZ	2.76	0.53
17:Q:98:LYS:CE	17:Q:99:TYR:CE2	2.91	0.53
22:V:55:ILE:HG21	22:V:60:ARG:HG2	1.90	0.53
8:H:31:GLU:O	8:H:37:LYS:HB2	2.08	0.53
6:F:95:HIS:NE2	26:Z:103:HIS:CB	2.71	0.53
13:M:76:LEU:C	13:M:128:PHE:CZ	2.82	0.53
13:M:77:ILE:HD12	13:M:78:LYS:O	2.09	0.53
23:W:128:PHE:CD1	23:W:129:PHE:HA	2.43	0.53
20:T:123:LEU:N	20:T:123:LEU:HD23	2.24	0.53
4:D:167:TYR:CE2	4:D:204:LEU:CD2	2.92	0.53
2:B:137:LEU:HD12	2:B:176:VAL:HG21	1.91	0.53
2:B:26:SER:C	2:B:27:LYS:HG3	2.22	0.53
5:E:154:ILE:CG2	5:E:160:ILE:HD11	2.39	0.53
6:F:130:ARG:HB3	6:F:135:ARG:H	1.74	0.53
6:F:138:ALA:CB	6:F:204:ARG:HB3	2.39	0.53
12:L:147:LYS:HZ3	12:L:149:ALA:H	1.57	0.53
4:D:50:ILE:HG22	21:U:82:MET:HE1	21.87	0.53
17:Q:43:GLU:HG2	17:Q:45:ARG:CB	2.37	0.53
16:P:15:PHE:HD2	16:P:110:GLU:OE2	1.91	0.53
26:Z:58:LEU:CD2	26:Z:77:LEU:HD11	2.38	0.53
5:E:259:LYS:CG	5:E:260:GLN:OE1	2.56	0.53
18:R:61:ILE:CG2	18:R:74:GLN:NE2	2.72	0.53
1:A:159:ILE:HD12	1:A:160:ALA:N	2.24	0.53
7:G:55:GLY:HA2	7:G:110:ASN:ND2	2.23	0.53
1:A:57:LYS:HZ3	22:V:70:LEU:HG	1.71	0.53
25:Y:117:VAL:HB	25:Y:124:ASN:ND2	2.24	0.53
16:P:4:VAL:HG22	16:P:10:ARG:HD2	1.91	0.53
6:F:110:GLN:C	6:F:113:VAL:HG12	2.28	0.53
8:H:40:LEU:HD11	8:H:75:ILE:HD13	1.90	0.53
26:Z:107:VAL:HB	26:Z:109:TYR:CE2	2.44	0.53
25:Y:88:LYS:HG3	25:Y:97:TYR:CZ	2.44	0.53
13:M:31:LEU:HD11	13:M:109:VAL:CB	2.38	0.53
5:E:212:ASP:OD1	5:E:216:ASN:CB	2.35	0.53
4:D:177:LEU:HD12	4:D:178:ARG:HH21	1.72	0.53
23:W:102:ILE:H	23:W:113:HIS:HD1	1.57	0.53
20:T:18:LEU:HD13	20:T:134:ILE:CD1	2.16	0.53
8:H:23:ILE:O	8:H:27:LEU:HD23	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:53:ALA:C	17:Q:125:ARG:NH2	2.61	0.53
6:F:32:ASP:OD2	6:F:117:ILE:HG23	2.08	0.53
2:B:120:MET:HB2	2:B:142:PHE:CE1	2.44	0.53
1:A:145:ILE:HG23	1:A:159:ILE:HG21	1.91	0.53
3:C:50:LYS:HG3	3:C:258:LEU:HD13	1.90	0.53
9:I:140:LYS:C	9:I:141:ARG:HG3	2.29	0.53
12:L:97:ARG:O	12:L:99:TYR:C	2.47	0.53
16:P:41:GLN:CG	16:P:84:ILE:CB	2.31	0.53
13:M:27:ILE:HG23	13:M:28:HIS:N	2.22	0.53
21:U:108:PRO:O	21:U:110:VAL:CG2	2.53	0.53
20:T:72:VAL:O	20:T:76:THR:HG23	2.09	0.53
8:H:32:MET:O	8:H:33:ASN:HB2	2.09	0.53
25:Y:30:PRO:O	25:Y:67:GLY:HA3	2.10	0.53
10:J:21:GLU:O	10:J:24:ARG:N	2.42	0.53
23:W:15:ASN:CG	23:W:19:LYS:HE3	2.29	0.53
13:M:12:MET:CG	13:M:17:ALA:N	2.71	0.53
20:T:16:ARG:NH1	20:T:16:ARG:HG2	2.23	0.53
6:F:36:GLN:CG	6:F:37:ASP:OD1	2.30	0.53
20:T:83:GLN:NE2	20:T:85:ASN:CA	2.72	0.53
20:T:64:LEU:N	20:T:64:LEU:CD2	2.63	0.53
2:B:195:LYS:CA	2:B:195:LYS:HE2	2.37	0.53
2:B:214:LYS:HG2	2:B:215:VAL:N	2.23	0.52
9:I:73:THR:O	9:I:74:ARG:HD2	2.09	0.52
12:L:80:MET:CG	12:L:86:ILE:HG22	2.36	0.52
14:N:134:VAL:HG22	14:N:135:LEU:HG	1.91	0.52
24:X:52:LEU:HD12	24:X:53:GLU:HG2	1.91	0.52
8:H:37:LYS:CE	8:H:41:ARG:HH11	2.04	0.52
19:S:120:HIS:CD2	19:S:120:HIS:C	2.81	0.52
4:D:192:TRP:C	4:D:196:GLY:H	1.90	0.52
24:X:105:PHE:HE2	24:X:118:VAL:C	2.13	0.52
20:T:62:ARG:HG3	20:T:63:HIS:N	2.24	0.52
25:Y:10:ARG:CD	25:Y:24:VAL:CG1	2.87	0.52
26:Z:74:SER:CA	26:Z:79:ILE:HG22	2.33	0.52
15:O:20:GLN:HG2	15:O:21:VAL:CA	2.38	0.52
8:H:73:GLN:NE2	8:H:135:PHE:CE1	2.77	0.52
1:A:39:TYR:HB2	1:A:50:ASN:HD21	1.59	0.52
2:B:137:LEU:HD23	2:B:215:VAL:CG1	2.18	0.52
3:C:187:THR:OG1	3:C:206:ASP:HB3	2.09	0.52
5:E:100:ARG:HG2	5:E:102:ILE:CD1	2.40	0.52
8:H:164:ASN:HA	8:H:167:GLU:CG	2.39	0.52
9:I:37:LYS:H	9:I:59:ARG:H	1.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:125:HIS:NE2	10:J:129:LEU:HD21	2.25	0.52
12:L:147:LYS:CE	12:L:156:GLN:HE22	2.23	0.52
12:L:31:GLU:HG2	12:L:32:LYS:N	2.23	0.52
1:A:19:LEU:HD11	18:R:109:LEU:HD13	1.91	0.52
11:K:1:MET:H2	11:K:2:LEU:C	2.12	0.52
8:H:14:GLU:CD	8:H:16:PRO:CB	2.77	0.52
17:Q:85:ARG:NH2	17:Q:117:ARG:CG	2.47	0.52
25:Y:35:VAL:CG1	25:Y:36:PRO:HD2	2.28	0.52
19:S:11:HIS:O	19:S:12:ILE:HB	2.09	0.52
26:Z:62:VAL:HG13	26:Z:68:ILE:HD11	1.83	0.52
1:A:202:TYR:C	1:A:203:PHE:CD1	2.82	0.52
5:E:192:ILE:HD13	5:E:238:LEU:HD22	1.91	0.52
5:E:159:THR:HG21	5:E:227:VAL:CG2	2.21	0.52
7:G:191:ARG:HB3	7:G:191:ARG:NH1	2.24	0.52
7:G:64:LYS:HD2	7:G:67:VAL:HG13	1.88	0.52
7:G:93:LYS:HG2	7:G:95:LYS:HG3	1.92	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
20:T:31:PRO:HG2	20:T:102:ARG:HG3	1.90	0.52
4:D:76:ARG:CD	11:K:66:HIS:ND1	2.66	0.52
4:D:79:PHE:O	4:D:80:PRO:C	2.48	0.52
6:F:113:VAL:CG1	6:F:114:ASN:N	2.72	0.52
6:F:20:PHE:CD2	6:F:23:TRP:HD1	2.28	0.52
19:S:90:VAL:CG1	19:S:91:LYS:CE	2.87	0.52
10:J:79:ARG:NH1	10:J:83:ARG:HD2	2.25	0.52
2:B:140:VAL:O	2:B:210:VAL:HA	2.09	0.52
25:Y:92:ALA:C	25:Y:97:TYR:O	2.47	0.52
4:D:217:ILE:HG23	4:D:218:LEU:N	2.24	0.52
18:R:87:GLU:O	18:R:88:VAL:CB	2.56	0.52
24:X:62:PRO:HD2	24:X:63:ASN:N	2.23	0.52
6:F:175:ASP:C	6:F:175:ASP:OD1	2.47	0.52
1:A:119:PRO:O	1:A:142:LEU:HD21	2.10	0.52
2:B:49:VAL:HG22	2:B:65:ARG:HH12	1.72	0.52
3:C:115:ILE:HD11	3:C:140:ILE:CG2	2.30	0.52
5:E:72:ILE:HD12	5:E:82:TYR:CD2	2.45	0.52
12:L:117:PHE:CD2	12:L:145:VAL:HG23	2.45	0.52
25:Y:54:VAL:O	25:Y:76:TYR:N	2.42	0.52
17:Q:45:ARG:CG	17:Q:46:THR:N	2.72	0.52
17:Q:84:ILE:HG13	17:Q:85:ARG:N	2.24	0.52
6:F:167:LYS:HE3	6:F:171:GLU:HG3	1.89	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:137:LYS:O	19:S:141:ARG:CZ	2.57	0.52
4:D:212:GLU:N	4:D:212:GLU:CD	2.48	0.52
3:C:236:LEU:CD2	3:C:236:LEU:C	2.78	0.52
20:T:123:LEU:H	20:T:123:LEU:CD2	2.22	0.52
17:Q:143:LYS:HG2	17:Q:145:TYR:H	1.74	0.52
1:A:76:VAL:HG12	1:A:87:VAL:HB	1.91	0.52
2:B:31:TYR:CE1	2:B:94:LYS:CA	2.90	0.52
5:E:45:ILE:HG23	5:E:46:ILE:N	2.24	0.52
7:G:143:LYS:HA	7:G:143:LYS:CE	2.39	0.52
9:I:149:TYR:HD1	9:I:152:ARG:NH1	2.05	0.52
9:I:76:THR:HG22	9:I:77:ARG:H	1.71	0.52
10:J:102:ILE:HG22	10:J:106:LEU:CD1	2.36	0.52
12:L:112:HIS:CG	12:L:134:LEU:HD11	2.44	0.52
15:O:28:PHE:HB3	15:O:47:LEU:HD11	1.89	0.52
15:O:43:HIS:NE2	15:O:45:THR:CG2	2.73	0.52
15:O:44:VAL:HG21	15:O:93:LEU:HD11	1.85	0.52
22:V:11:LEU:HD12	22:V:12:TYR:CG	2.38	0.52
3:C:72:PRO:HA	22:V:29:HIS:NE2	2.25	0.52
24:X:54:LYS:CD	24:X:91:LEU:HD12	2.38	0.52
24:X:94:ILE:CD1	24:X:125:VAL:HG21	2.40	0.52
16:P:56:LEU:HD11	16:P:80:LEU:CD1	2.39	0.52
16:P:41:GLN:C	16:P:41:GLN:OE1	2.48	0.52
6:F:93:VAL:C	6:F:97:PHE:CE1	2.82	0.52
21:U:67:LYS:CG	21:U:78:ASP:CG	2.78	0.52
6:F:44:LYS:C	6:F:44:LYS:HD2	2.10	0.52
19:S:54:LYS:HB3	19:S:55:ARG:N	2.25	0.52
16:P:37:TYR:HA	19:S:88:LYS:CD	2.40	0.52
2:B:148:ASN:CB	18:R:124:VAL:HG23	2.30	0.52
18:R:17:ILE:CG2	18:R:71:ILE:HD11	2.40	0.52
24:X:105:PHE:HE2	24:X:119:ARG:N	2.06	0.52
13:M:95:ASP:O	13:M:96:ARG:HG2	2.09	0.52
20:T:14:PHE:HZ	20:T:131:LEU:HD12	1.74	0.52
1:A:16:LEU:CB	1:A:17:LYS:HE2	2.39	0.52
1:A:24:HIS:HB3	1:A:51:LEU:CD2	2.40	0.52
5:E:163:ASP:HB3	5:E:167:GLY:O	2.09	0.52
5:E:71:LYS:O	5:E:90:ILE:HA	2.09	0.52
7:G:35:GLU:O	7:G:36:VAL:CG2	2.58	0.52
9:I:144:LYS:CD	9:I:144:LYS:H	2.22	0.52
10:J:32:ILE:O	10:J:35:TYR:C	2.48	0.52
12:L:101:ARG:HD2	24:X:6:GLY:O	2.10	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)
4:D:45:ARG:CA	4:D:83:SER:OG	2.56	0.52
11:K:1:MET:HB3	11:K:47:LYS:CB	2.40	0.52
11:K:27:VAL:O	11:K:28:HIS:CG	2.63	0.52
11:K:1:MET:N	11:K:2:LEU:O	2.33	0.52
11:K:60:GLU:HG3	11:K:69:TRP:NE1	2.24	0.52
13:M:12:MET:CG	13:M:16:THR:HG22	2.40	0.52
20:T:11:GLN:OE1	20:T:62:ARG:HD3	2.09	0.52
4:D:126:ILE:HD12	4:D:134:CYS:HB2	1.87	0.52
3:C:185:ARG:O	10:J:54:ARG:NH2	2.43	0.52
1:A:118:GLU:CD	3:C:50:LYS:HE2	2.29	0.52
5:E:124:CYS:HB2	5:E:162:ILE:CD1	2.39	0.52
12:L:86:ILE:CG1	12:L:111:VAL:HG13	2.39	0.52
1:A:141:ASN:CA	22:V:32:ILE:HG13	2.19	0.52
22:V:79:VAL:HG11	22:V:82:ASN:OD1	2.06	0.52
24:X:122:VAL:CG1	24:X:130:LEU:HD11	2.40	0.52
24:X:52:LEU:CD1	24:X:71:ARG:HB2	2.36	0.52
16:P:83:MET:HB3	16:P:116:LEU:HD12	1.91	0.52
25:Y:87:PRO:CG	25:Y:90:ARG:HB2	2.39	0.52
6:F:39:ILE:HG21	6:F:113:VAL:HG23	1.92	0.52
8:H:35:ASP:C	8:H:37:LYS:H	2.09	0.52
17:Q:42:ILE:HD11	17:Q:51:LEU:HD13	1.91	0.52
16:P:18:ARG:C	19:S:93:GLY:HA3	2.30	0.52
19:S:23:ARG:O	19:S:55:ARG:HD2	2.10	0.52
19:S:71:MET:HG3	19:S:99:LEU:HD13	1.91	0.52
26:Z:102:LYS:HA	26:Z:107:VAL:CA	2.40	0.52
2:B:149:GLN:HE21	2:B:151:ARG:CG	2.19	0.52
16:P:51:ARG:O	16:P:52:LYS:HB2	2.07	0.52
4:D:123:LEU:O	4:D:123:LEU:HD23	2.10	0.52
5:E:143:ASP:O	5:E:144:ALA:HB3	2.09	0.52
4:D:208:VAL:O	4:D:208:VAL:HG12	2.08	0.52
1:A:154:LEU:CD1	22:V:63:GLY:CA	2.85	0.52
1:A:149:ASN:CB	1:A:165:ASN:ND2	2.69	0.52
1:A:76:VAL:HG13	1:A:175:TRP:CZ2	2.37	0.52
3:C:49:THR:HG23	3:C:75:GLU:HG3	1.91	0.52
3:C:47:PRO:HA	3:C:75:GLU:OE2	2.09	0.52
7:G:162:LEU:CD2	7:G:172:LYS:HE2	2.32	0.52
8:H:61:ILE:HD13	8:H:176:VAL:HG11	1.92	0.52
9:I:158:ILE:O	12:L:22:ARG:NH2	2.43	0.52
20:T:76:THR:HA	20:T:95:GLY:O	2.10	0.52
8:H:15:LYS:O	8:H:16:PRO:HB2	2.10	0.52
16:P:90:VAL:HA	16:P:107:ILE:HG13	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:149:GLN:O	18:R:124:VAL:HG13	2.10	0.52
10:J:83:ARG:CZ	10:J:150:ARG:HH21	2.22	0.52
19:S:46:ARG:NH1	20:T:50:GLU:CB	2.71	0.52
13:M:72:HIS:O	13:M:73:GLN:HB3	2.09	0.52
3:C:99:LYS:C	3:C:99:LYS:HD2	2.29	0.52
20:T:123:LEU:H	20:T:123:LEU:HD23	1.75	0.52
12:L:25:LEU:O	12:L:27:GLU:HA	2.10	0.52
3:C:149:PRO:CB	3:C:233:TYR:CD2	2.80	0.52
3:C:50:LYS:HA	3:C:53:ARG:HD2	1.91	0.52
5:E:159:THR:C	5:E:160:ILE:HG13	2.30	0.52
7:G:135:PRO:CD	7:G:144:LEU:HD23	2.38	0.52
7:G:161:PRO:CD	7:G:161:PRO:O	2.57	0.52
8:H:61:ILE:HG12	8:H:95:ILE:HD12	1.91	0.52
9:I:142:SER:CA	9:I:143:LYS:CB	2.71	0.52
1:A:158:ASP:CB	22:V:65:SER:OG	2.58	0.52
11:K:49:MET:HB2	11:K:69:TRP:CZ2	2.44	0.52
8:H:37:LYS:NZ	8:H:38:ALA:HA	2.24	0.52
8:H:65:PRO:HG2	8:H:68:GLN:NE2	2.25	0.52
17:Q:52:LEU:C	17:Q:54:PRO:HD2	2.29	0.52
19:S:90:VAL:HG12	19:S:91:LYS:N	2.25	0.52
10:J:83:ARG:NH2	10:J:150:ARG:NH2	2.57	0.52
19:S:15:VAL:HG12	19:S:16:LEU:N	2.19	0.52
24:X:55:VAL:HG12	24:X:57:VAL:HG23	1.92	0.52
4:D:210:ILE:HD11	18:R:15:VAL:CG1	2.29	0.52
18:R:91:LEU:HB2	18:R:93:GLN:H	1.66	0.52
13:M:92:CYS:CB	13:M:101:ARG:HG3	2.37	0.52
15:O:143:LYS:CG	15:O:144:GLY:N	2.64	0.52
21:U:16:ALA:O	21:U:94:PRO:HG3	2.10	0.52
3:C:60:ILE:C	3:C:82:PHE:HE1	2.09	0.52
7:G:64:LYS:HD3	7:G:65:GLN:O	2.10	0.52
9:I:139:LYS:O	9:I:140:LYS:CB	2.46	0.52
10:J:65:GLU:O	10:J:66:LYS:CB	2.51	0.52
14:N:125:LEU:HD22	14:N:129:TYR:CE2	2.45	0.52
15:O:30:VAL:O	15:O:44:VAL:HA	2.10	0.52
15:O:63:LYS:O	15:O:64:ALA:CB	2.57	0.52
20:T:39:LEU:O	20:T:39:LEU:HG	2.10	0.52
20:T:45:LEU:HD23	20:T:48:TYR:HE1	1.74	0.52
25:Y:58:PHE:HE1	25:Y:72:PHE:CE2	2.28	0.52
11:K:46:MET:HA	11:K:69:TRP:HH2	1.74	0.52
3:C:155:TRP:H	3:C:163:HIS:CE1	2.28	0.52
24:X:105:PHE:CD2	24:X:119:ARG:C	2.83	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:194:VAL:N	3:C:195:PRO:HD2	2.25	0.52
13:M:103:VAL:HG12	13:M:103:VAL:O	2.09	0.52
4:D:178:ARG:HE	4:D:178:ARG:H	1.59	0.52
15:O:35:ALA:HB2	15:O:112:ALA:CB	2.23	0.52
9:I:7:ASN:C	9:I:9:HIS:N	2.59	0.52
6:F:151:ILE:O	6:F:154:LEU:HG	2.10	0.52
9:I:31:ARG:HH11	9:I:31:ARG:HG3	1.75	0.52
5:E:260:GLN:O	5:E:261:SER:CB	2.57	0.52
5:E:230:LYS:O	5:E:231:GLY:C	2.48	0.52
1:A:5:LEU:HD13	1:A:5:LEU:C	2.26	0.51
2:B:81:PHE:O	2:B:82:ARG:CB	2.57	0.51
1:A:118:GLU:CD	3:C:50:LYS:NZ	2.61	0.51
5:E:153:LEU:CD1	5:E:172:PHE:CE1	2.72	0.51
7:G:220:ALA:O	7:G:223:LYS:HE3	2.10	0.51
9:I:191:GLU:CG	9:I:192:GLY:H	2.23	0.51
12:L:44:PHE:CD2	12:L:143:LEU:HD23	2.45	0.51
25:Y:50:THR:CG2	25:Y:75:ILE:HG21	2.36	0.51
11:K:16:PHE:CE2	11:K:80:ARG:N	2.78	0.51
11:K:83:LEU:HD12	11:K:85:LEU:CD2	2.24	0.51
6:F:162:ALA:HB1	6:F:169:ILE:HD13	1.92	0.51
20:T:23:LYS:HD2	20:T:54:TYR:CE2	2.45	0.51
18:R:20:TYR:CE2	18:R:38:ILE:CD1	2.92	0.51
3:C:131:GLU:CG	4:D:116:ARG:CZ	2.85	0.51
23:W:81:VAL:HG22	23:W:89:TRP:NE1	2.24	0.51
20:T:75:MET:O	20:T:79:TYR:HD2	1.94	0.51
17:Q:55:VAL:HG22	17:Q:63:PHE:CE2	2.46	0.51
17:Q:6:PRO:O	17:Q:6:PRO:HD2	2.10	0.51
8:H:135:PHE:CB	8:H:136:PRO:CD	2.88	0.51
23:W:120:HIS:O	23:W:120:HIS:CG	2.63	0.51
3:C:142:LEU:O	3:C:145:LEU:HG	2.11	0.51
3:C:250:PRO:O	3:C:254:PHE:HD2	1.93	0.51
9:I:141:ARG:CB	9:I:144:LYS:CG	2.87	0.51
14:N:141:TYR:O	14:N:141:TYR:CD2	2.63	0.51
18:R:100:PRO:CB	18:R:119:VAL:HG22	2.37	0.51
20:T:102:ARG:CD	20:T:105:GLN:OE1	2.57	0.51
4:D:46:THR:CB	4:D:79:PHE:CZ	2.89	0.51
24:X:67:ARG:HE	24:X:67:ARG:HA	1.75	0.51
13:M:85:LEU:HA	13:M:88:TRP:CZ3	2.39	0.51
1:A:98:PRO:HG2	1:A:98:PRO:O	2.11	0.51
2:B:47:THR:CG2	2:B:67:PHE:CZ	2.81	0.51
7:G:217:MET:O	7:G:221:LYS:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:141:ARG:HB3	9:I:144:LYS:CG	2.40	0.51
12:L:156:GLN:OE1	12:L:158:PHE:CZ	2.58	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
25:Y:114:MET:HE3	25:Y:125:VAL:N	2.24	0.51
17:Q:109:LYS:HZ1	17:Q:113:ILE:CD1	2.23	0.51
19:S:139:THR:O	19:S:140:GLY:C	2.49	0.51
18:R:13:ALA:HB1	18:R:57:LEU:HD12	1.92	0.51
13:M:52:LEU:O	13:M:85:LEU:HD12	2.10	0.51
26:Z:74:SER:HA	26:Z:79:ILE:CG2	2.34	0.51
20:T:85:ASN:ND2	20:T:91:HIS:HD2	2.06	0.51
8:H:149:ASP:C	8:H:151:SER:N	2.61	0.51
3:C:109:PHE:CD2	3:C:132:VAL:CG2	2.93	0.51
5:E:206:ASP:O	5:E:222:LEU:N	2.41	0.51
23:W:105:THR:O	23:W:105:THR:HG23	2.10	0.51
5:E:181:CYS:SG	5:E:225:ILE:CG2	2.99	0.51
7:G:28:TYR:C	7:G:30:LYS:H	2.13	0.51
8:H:157:HIS:O	8:H:158:LEU:CD2	2.55	0.51
16:P:41:GLN:O	16:P:41:GLN:NE2	2.43	0.51
4:D:3:VAL:O	4:D:4:GLN:O	2.29	0.51
11:K:27:VAL:CB	11:K:43:LEU:CD2	2.82	0.51
11:K:16:PHE:HE2	11:K:79:LEU:HB2	0.74	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:78:LEU:HD11	10:J:93:LYS:HA	1.93	0.51
18:R:90:ALA:C	18:R:91:LEU:HG	2.29	0.51
2:B:136:HIS:CE1	2:B:138:PHE:CE1	2.99	0.51
20:T:85:ASN:ND2	20:T:90:SER:HA	2.24	0.51
8:H:149:ASP:C	8:H:151:SER:H	2.14	0.51
1:A:54:THR:HG1	1:A:162:PRO:HG2	1.72	0.51
1:A:184:ARG:N	1:A:189:ILE:HD12	2.25	0.51
3:C:253:GLU:HG3	3:C:254:PHE:CE2	2.46	0.51
3:C:44:GLU:O	3:C:45:TRP:C	2.48	0.51
3:C:48:VAL:HG23	3:C:75:GLU:OE2	2.11	0.51
12:L:71:ARG:HD2	12:L:73:LEU:HD21	1.77	0.51
14:N:26:LEU:HD21	14:N:66:VAL:HG22	1.91	0.51
20:T:29:LYS:C	20:T:30:VAL:HG13	2.29	0.51
5:E:64:ILE:CG1	25:Y:17:LEU:HD13	2.41	0.51
25:Y:53:ASP:O	25:Y:79:LEU:CD2	2.59	0.51
4:D:51:LEU:HD12	4:D:89:GLU:O	2.11	0.51
3:C:93:LYS:HE3	3:C:95:MET:CG	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:64:VAL:HG21	8:H:72:PHE:CD2	2.46	0.51
8:H:83:LEU:HD21	8:H:92:VAL:CG1	2.38	0.51
8:H:146:VAL:CG2	23:W:50:PHE:CD1	2.89	0.51
6:F:162:ALA:CB	6:F:169:ILE:HD13	2.40	0.51
17:Q:50:LYS:CE	17:Q:85:ARG:NH2	2.72	0.51
12:L:17:PHE:CG	12:L:18:GLN:N	2.79	0.51
19:S:33:ILE:HB	19:S:36:VAL:HG13	1.90	0.51
26:Z:44:LEU:HD13	26:Z:45:ASN:CA	2.40	0.51
2:B:145:LYS:HG3	2:B:149:GLN:HB3	1.93	0.51
2:B:150:ILE:HG13	18:R:124:VAL:CG1	2.37	0.51
10:J:90:GLY:O	10:J:91:LYS:O	2.29	0.51
5:E:130:PHE:O	5:E:137:PRO:HA	2.10	0.51
24:X:69:CYS:HB3	24:X:83:ALA:O	2.11	0.51
3:C:192:ALA:N	3:C:195:PRO:HG2	2.25	0.51
20:T:4:VAL:CA	20:T:8:ASP:OD2	2.54	0.51
10:J:58:ARG:O	10:J:62:THR:HG23	2.10	0.51
6:F:72:LEU:HD23	6:F:72:LEU:O	2.11	0.51
2:B:57:ILE:C	2:B:59:SER:N	2.64	0.51
2:B:90:ASP:CG	2:B:91:VAL:N	2.62	0.51
5:E:139:LEU:HD13	5:E:154:ILE:CG2	2.33	0.51
7:G:43:GLU:O	7:G:44:GLU:C	2.46	0.51
10:J:50:LEU:HB2	10:J:102:ILE:CD1	2.40	0.51
14:N:22:VAL:CG2	14:N:23:PRO:HA	2.40	0.51
2:B:67:PHE:HD1	15:O:47:LEU:C	2.10	0.51
15:O:44:VAL:HG11	15:O:93:LEU:CD2	2.41	0.51
21:U:62:ARG:HH11	21:U:64:THR:HG21	1.53	0.51
25:Y:44:LEU:CD1	25:Y:48:TYR:HD2	2.18	0.51
11:K:3:MET:SD	11:K:8:ARG:NE	2.84	0.51
6:F:18:LYS:HB3	6:F:18:LYS:HZ3	1.75	0.51
17:Q:12:VAL:HG21	17:Q:91:ALA:HA	1.92	0.51
12:L:17:PHE:CD2	12:L:18:GLN:O	2.63	0.51
19:S:46:ARG:CD	20:T:50:GLU:HG2	2.40	0.51
25:Y:99:LYS:NZ	25:Y:99:LYS:C	2.64	0.51
13:M:124:ILE:HB	13:M:127:TYR:HE2	1.76	0.51
23:W:101:PHE:HD2	23:W:129:PHE:CE1	2.28	0.51
23:W:27:ILE:HG13	23:W:61:ILE:HB	1.93	0.51
5:E:207:VAL:CG1	5:E:219:ALA:HB1	2.41	0.51
2:B:29:ASP:C	2:B:29:ASP:OD1	2.49	0.51
5:E:122:LYS:HG2	5:E:164:LEU:CD2	2.40	0.51
6:F:124:ASP:CG	6:F:125:SER:H	2.13	0.51
9:I:62:VAL:CG2	9:I:75:LYS:HZ1	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:138:LYS:N	24:X:139:GLU:OE2	2.44	0.51
24:X:91:LEU:O	24:X:94:ILE:N	2.31	0.51
20:T:46:ALA:CB	20:T:47:PRO:CD	2.43	0.51
16:P:53:GLN:NE2	16:P:80:LEU:CD1	2.43	0.51
25:Y:23:MET:CE	25:Y:44:LEU:HD21	2.40	0.51
11:K:41:PRO:O	11:K:43:LEU:O	2.29	0.51
8:H:12:ASN:HB3	8:H:46:THR:HG1	1.74	0.51
19:S:85:ASN:HD21	19:S:98:VAL:N	2.09	0.51
10:J:83:ARG:NH2	10:J:150:ARG:HH21	2.09	0.51
10:J:91:LYS:HA	10:J:96:TYR:CD2	2.45	0.51
10:J:177:ASN:C	10:J:180:LYS:HG2	2.19	0.51
1:A:139:TYR:O	1:A:140:VAL:HG23	2.11	0.51
1:A:190:SER:O	1:A:191:ARG:CB	2.58	0.51
5:E:123:LEU:HD21	5:E:235:TRP:HB2	1.93	0.51
9:I:79:ILE:HG23	9:I:80:ASP:N	2.26	0.51
22:V:33:PRO:HB2	22:V:53:TYR:O	2.11	0.51
22:V:73:ALA:O	22:V:77:GLY:N	2.44	0.51
19:S:52:LEU:HD12	19:S:52:LEU:C	2.31	0.51
13:M:12:MET:HG3	13:M:17:ALA:N	2.25	0.51
13:M:94:ILE:H	13:M:101:ARG:HD3	1.73	0.51
20:T:130:ASP:OD2	20:T:131:LEU:HD23	2.11	0.51
6:F:138:ALA:CB	6:F:200:ALA:O	2.55	0.51
7:G:197:GLN:O	7:G:200:LYS:HG2	2.11	0.51
9:I:148:LYS:HE3	9:I:152:ARG:HH21	1.76	0.51
10:J:63:LEU:O	10:J:70:ARG:NH1	2.44	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
25:Y:12:PHE:CD1	25:Y:23:MET:HB3	2.45	0.51
4:D:24:PHE:HD2	4:D:25:LEU:HD22	1.76	0.51
4:D:46:THR:O	4:D:85:GLU:N	2.39	0.51
11:K:53:LYS:CB	11:K:58:VAL:HG13	2.41	0.51
6:F:91:ARG:CD	17:Q:46:THR:CG2	2.89	0.51
19:S:90:VAL:CG1	19:S:91:LYS:HE3	2.41	0.51
18:R:13:ALA:HA	18:R:54:VAL:HG21	1.89	0.51
13:M:124:ILE:O	13:M:127:TYR:CE2	2.63	0.51
13:M:83:LYS:HG3	13:M:103:VAL:HG12	1.93	0.51
4:D:176:LEU:C	4:D:177:LEU:HD13	2.30	0.51
20:T:4:VAL:HG21	20:T:135:ALA:O	2.11	0.51
1:A:122:LEU:HD12	1:A:137:ALA:CB	2.40	0.51
1:A:157:VAL:O	1:A:157:VAL:HG23	2.11	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)
7:G:50:VAL:HG11	7:G:111:LEU:HB3	1.88	0.51
10:J:143:ASN:O	10:J:143:ASN:CG	2.49	0.51
12:L:59:LYS:HB2	12:L:112:HIS:CE1	2.46	0.51
25:Y:55:ILE:CD1	25:Y:75:ILE:HD11	2.41	0.51
4:D:18:LYS:CD	4:D:18:LYS:C	2.78	0.51
11:K:50:GLN:HG3	11:K:51:SER:N	2.25	0.51
8:H:45:ILE:O	8:H:45:ILE:HG13	2.11	0.51
8:H:64:VAL:CG1	8:H:65:PRO:HD2	2.39	0.51
5:E:248:ILE:HD12	10:J:72:PHE:CE1	2.46	0.51
2:B:148:ASN:HB3	18:R:122:PRO:O	2.10	0.51
18:R:44:LYS:CD	18:R:47:ARG:NH2	2.70	0.51
23:W:86:LEU:HD11	23:W:113:HIS:HB2	1.93	0.51
2:B:36:PRO:HA	2:B:231:LEU:HD23	1.92	0.50
8:H:142:LYS:C	8:H:143:ARG:HG2	2.30	0.50
10:J:130:ILE:CG1	10:J:135:ILE:CD1	2.81	0.50
12:L:40:ILE:HG23	12:L:41:GLY:N	2.25	0.50
9:I:85:ALA:C	12:L:8:ARG:HH11	2.15	0.50
14:N:26:LEU:CD2	14:N:66:VAL:CG2	2.89	0.50
22:V:42:VAL:O	22:V:43:THR:OG1	2.30	0.50
4:D:132:LYS:N	4:D:191:PRO:HG2	2.17	0.50
6:F:43:GLU:O	6:F:44:LYS:HB2	2.10	0.50
17:Q:111:ILE:O	17:Q:114:GLN:CG	2.55	0.50
17:Q:57:LEU:O	17:Q:111:ILE:HG21	2.11	0.50
26:Z:105:ALA:C	26:Z:106:GLN:HG3	2.31	0.50
13:M:86:GLY:C	13:M:91:LEU:HD11	2.31	0.50
19:S:64:VAL:HG23	19:S:65:GLU:N	2.25	0.50
2:B:228:LEU:CD1	2:B:232:HIS:CD2	2.94	0.50
1:A:39:TYR:CD2	1:A:40:LYS:HB2	2.46	0.50
1:A:45:GLY:O	1:A:46:ILE:HD13	2.10	0.50
3:C:184:PRO:O	3:C:187:THR:HG23	2.11	0.50
3:C:60:ILE:O	3:C:82:PHE:HZ	1.86	0.50
3:C:68:LEU:CD2	3:C:247:THR:HG21	2.40	0.50
7:G:32:MET:HE1	7:G:100:CYS:C	2.19	0.50
8:H:158:LEU:O	8:H:190:PRO:HD3	2.09	0.50
9:I:148:LYS:HE2	9:I:152:ARG:HH22	1.76	0.50
2:B:25:PHE:CD1	15:O:88:LEU:HD13	2.45	0.50
21:U:64:THR:HG22	21:U:79:ARG:CD	2.39	0.50
25:Y:20:ARG:HD3	25:Y:76:TYR:CE1	2.44	0.50
24:X:3:LYS:O	24:X:4:CYS:C	2.50	0.50
13:M:51:VAL:HG13	13:M:109:VAL:HG22	1.93	0.50
23:W:90:GLN:CA	23:W:102:ILE:HD12	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:115:ALA:HB2	6:F:177:LEU:HD22	1.91	0.50
17:Q:124:PRO:HD2	17:Q:125:ARG:H	1.75	0.50
8:H:135:PHE:CD2	8:H:136:PRO:CD	2.91	0.50
8:H:135:PHE:CD2	8:H:136:PRO:N	2.78	0.50
3:C:68:LEU:CB	6:F:128:ILE:HD11	79.06	0.50
3:C:61:LYS:HA	3:C:82:PHE:CE1	2.43	0.50
5:E:180:LEU:CD1	5:E:228:ILE:HG13	2.39	0.50
10:J:164:PRO:HB3	10:J:170:PRO:O	2.12	0.50
14:N:116:ILE:HA	14:N:119:GLU:HG3	1.92	0.50
12:L:103:GLU:OE1	24:X:11:ARG:NE	2.45	0.50
16:P:41:GLN:HG2	16:P:84:ILE:HG23	1.77	0.50
16:P:4:VAL:O	16:P:4:VAL:CG1	2.49	0.50
4:D:192:TRP:N	4:D:192:TRP:HD1	2.08	0.50
16:P:49:LEU:O	16:P:50:ARG:CB	2.54	0.50
13:M:76:LEU:C	13:M:128:PHE:HZ	2.15	0.50
12:L:118:ARG:HD2	12:L:119:ASP:N	2.20	0.50
8:H:57:ARG:HD2	8:H:89:GLY:C	2.29	0.50
3:C:99:LYS:HD2	3:C:100:GLN:H	1.72	0.50
18:R:31:ASN:ND2	18:R:55:THR:CG2	2.73	0.50
16:P:29:SER:OG	16:P:31:GLU:HB2	2.10	0.50
19:S:72:GLN:O	19:S:72:GLN:HG2	2.11	0.50
1:A:70:ASN:HB2	1:A:73:ASP:OD2	2.10	0.50
1:A:149:ASN:HB2	1:A:165:ASN:OD1	2.12	0.50
1:A:179:ALA:O	1:A:183:LEU:HG	2.12	0.50
5:E:49:ARG:O	5:E:49:ARG:CD	2.42	0.50
7:G:203:LYS:HE2	7:G:207:ALA:HB2	1.93	0.50
7:G:217:MET:C	7:G:221:LYS:HB3	2.31	0.50
9:I:101:ILE:HD12	9:I:190:LEU:HD11	1.92	0.50
10:J:117:LEU:O	10:J:119:LEU:CD2	2.49	0.50
12:L:59:LYS:CD	12:L:112:HIS:CD2	2.90	0.50
14:N:38:TYR:CZ	14:N:78:LYS:HG3	2.46	0.50
16:P:79:HIS:ND1	16:P:102:PHE:CZ	2.74	0.50
4:D:21:LEU:HD22	4:D:25:LEU:HD21	1.93	0.50
6:F:42:LYS:HB3	6:F:46:ALA:N	2.25	0.50
25:Y:33:ALA:O	25:Y:34:THR:OG1	2.29	0.50
26:Z:44:LEU:HD13	26:Z:44:LEU:O	1.95	0.50
26:Z:44:LEU:HD11	26:Z:46:ASN:CG	2.32	0.50
3:C:129:SER:HB2	3:C:134:THR:HG23	1.92	0.50
8:H:114:GLN:O	8:H:115:LYS:C	2.49	0.50
22:V:5:ALA:O	22:V:7:GLU:N	2.44	0.50
1:A:125:THR:HA	1:A:147:LEU:CB	2.35	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:125:THR:O	1:A:147:LEU:CD1	2.59	0.50
1:A:18:PHE:CZ	1:A:55:TRP:CE3	3.00	0.50
2:B:93:GLY:CA	2:B:94:LYS:HD3	2.41	0.50
5:E:11:ARG:CZ	5:E:20:LEU:HB3	2.42	0.50
7:G:102:VAL:HG11	7:G:109:LEU:HD11	1.93	0.50
10:J:42:GLU:HA	10:J:42:GLU:OE1	2.11	0.50
12:L:113:LEU:HD11	12:L:120:VAL:HG11	1.93	0.50
9:I:194:GLU:CG	12:L:12:LYS:CE	2.88	0.50
9:I:201:LYS:CE	12:L:8:ARG:HA	2.42	0.50
24:X:52:LEU:CG	24:X:71:ARG:CB	2.88	0.50
25:Y:76:TYR:CD1	25:Y:82:ALA:HA	2.46	0.50
11:K:27:VAL:HA	11:K:43:LEU:CD2	2.41	0.50
12:L:17:PHE:CD1	12:L:18:GLN:CA	2.94	0.50
16:P:93:MET:SD	16:P:106:GLU:HA	2.52	0.50
16:P:108:LYS:HZ1	19:S:118:ARG:NH1	2.10	0.50
16:P:49:LEU:H	16:P:51:ARG:HG3	1.76	0.50
18:R:17:ILE:O	18:R:71:ILE:HD11	2.11	0.50
3:C:124:LEU:C	3:C:124:LEU:HD13	2.31	0.50
15:O:41:PHE:CD1	15:O:57:THR:HG21	2.45	0.50
14:N:5:HIS:HD2	14:N:121:ARG:NE	2.09	0.50
20:T:14:PHE:CZ	20:T:131:LEU:CD1	2.95	0.50
1:A:30:LEU:O	1:A:31:ASP:HB2	2.11	0.50
1:A:76:VAL:HG12	1:A:87:VAL:HG12	1.86	0.50
5:E:100:ARG:CG	5:E:102:ILE:HD12	2.42	0.50
5:E:108:ARG:O	5:E:109:PHE:C	2.49	0.50
7:G:163:ASN:O	7:G:164:LYS:CB	2.59	0.50
7:G:79:LYS:O	7:G:81:HIS:CD2	2.65	0.50
8:H:51:ILE:HD11	8:H:176:VAL:HG22	1.91	0.50
9:I:140:LYS:O	9:I:141:ARG:CB	2.57	0.50
20:T:31:PRO:HG3	20:T:102:ARG:CG	2.41	0.50
20:T:45:LEU:HG	20:T:46:ALA:H	1.76	0.50
16:P:8:LYS:O	16:P:9:LYS:C	2.50	0.50
8:H:29:GLU:OE2	8:H:86:LYS:HE2	2.06	0.50
17:Q:51:LEU:HD12	17:Q:52:LEU:N	2.26	0.50
9:I:25:ARG:HD2	9:I:27:TYR:HE2	0.78	0.50
8:H:122:LEU:HD13	8:H:123:THR:HA	1.87	0.50
18:R:17:ILE:HD11	18:R:54:VAL:HG13	1.93	0.50
24:X:105:PHE:CB	24:X:112:VAL:CG2	2.89	0.50
4:D:212:GLU:HG2	18:R:19:LYS:HZ3	1.77	0.50
20:T:84:ARG:O	20:T:86:GLY:N	2.45	0.50
4:D:27:ARG:HB3	4:D:27:ARG:NH1	5.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:1:MET:O	12:L:2:ALA:O	2.29	0.50
3:C:183:ALA:CB	3:C:208:TYR:CE2	2.94	0.50
3:C:109:PHE:CD2	3:C:132:VAL:HG22	2.47	0.50
1:A:111:GLN:NE2	1:A:116:PHE:CZ	2.79	0.50
2:B:82:ARG:NH1	2:B:191:ASP:OD1	2.45	0.50
2:B:71:LEU:CB	2:B:84:PHE:HE2	2.25	0.50
3:C:54:LEU:N	3:C:258:LEU:HD22	2.27	0.50
5:E:43:PRO:HD2	5:E:46:ILE:HB	1.92	0.50
12:L:113:LEU:HD12	12:L:120:VAL:HG11	1.93	0.50
22:V:12:TYR:CE1	22:V:14:PRO:HG3	2.46	0.50
25:Y:22:GLN:HA	25:Y:74:MET:SD	2.52	0.50
4:D:29:LEU:HB3	4:D:34:TYR:HB2	1.94	0.50
4:D:77:PHE:O	4:D:78:GLY:C	2.49	0.50
11:K:25:LYS:HD2	11:K:62:PHE:CE1	2.46	0.50
11:K:60:GLU:HG2	11:K:69:TRP:CD1	2.46	0.50
8:H:50:GLU:CD	8:H:58:LYS:HD3	2.29	0.50
16:P:90:VAL:HA	16:P:107:ILE:CD1	2.42	0.50
18:R:44:LYS:HG3	18:R:47:ARG:NE	2.19	0.50
8:H:154:ILE:CG2	8:H:185:VAL:CG2	2.89	0.50
1:A:140:VAL:HG13	3:C:72:PRO:HG3	1.94	0.50
1:A:98:PRO:O	1:A:99:ILE:CG1	2.60	0.50
2:B:103:MET:HE3	2:B:212:VAL:O	2.11	0.50
3:C:69:PHE:CE1	3:C:249:SER:CA	2.94	0.50
5:E:129:ILE:CG2	5:E:139:LEU:HD21	2.42	0.50
7:G:137:ARG:HG3	7:G:140:ARG:CB	2.41	0.50
7:G:64:LYS:CD	7:G:65:GLN:C	2.81	0.50
8:H:169:LYS:O	8:H:172:THR:HG22	2.12	0.50
9:I:148:LYS:HB2	9:I:152:ARG:NH2	2.26	0.50
10:J:169:ARG:HB3	10:J:175:ARG:NH1	2.26	0.50
12:L:49:GLU:OE1	12:L:49:GLU:HA	2.11	0.50
12:L:92:TYR:CE2	12:L:105:ARG:HB2	2.46	0.50
2:B:30:TRP:CE3	15:O:19:PRO:HB3	2.46	0.50
22:V:43:THR:O	22:V:44:GLY:O	2.29	0.50
23:W:17:ALA:HB2	23:W:25:VAL:HG12	1.92	0.50
24:X:5:ARG:NH2	24:X:5:ARG:CG	2.72	0.50
17:Q:135:PRO:CG	17:Q:141:TYR:CE1	2.71	0.50
3:C:197:LYS:CB	3:C:200:LEU:HD21	2.42	0.50
4:D:21:LEU:HD22	4:D:25:LEU:CD2	2.42	0.50
24:X:105:PHE:CE2	24:X:118:VAL:C	2.86	0.50
3:C:154:TYR:CZ	3:C:161:LYS:C	2.84	0.50
20:T:78:ILE:HG23	20:T:79:TYR:N	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:164:ASN:C	1:A:166:LYS:H	2.07	0.50
24:X:77:ASN:O	24:X:79:LYS:N	2.44	0.50
5:E:259:LYS:O	5:E:260:GLN:OE1	2.30	0.50
5:E:136:ILE:HG13	5:E:149:TYR:CZ	2.46	0.50
3:C:55:VAL:HG11	3:C:82:PHE:CD2	2.45	0.50
7:G:148:SER:C	7:G:150:GLU:H	2.14	0.50
7:G:163:ASN:O	7:G:163:ASN:OD1	2.30	0.50
9:I:144:LYS:CD	9:I:144:LYS:N	2.75	0.50
9:I:152:ARG:O	9:I:153:LYS:CB	2.59	0.50
12:L:69:ARG:O	12:L:130:GLU:HB3	2.12	0.50
12:L:149:ALA:C	12:L:150:GLY:O	2.44	0.50
12:L:72:ILE:N	12:L:72:ILE:HD12	2.26	0.50
11:K:40:VAL:HG22	11:K:41:PRO:C	2.30	0.50
3:C:93:LYS:HE2	3:C:218:LEU:HD21	1.83	0.50
8:H:9:VAL:C	8:H:11:PRO:HD2	2.32	0.50
8:H:79:LEU:HD23	8:H:79:LEU:O	2.12	0.50
6:F:42:LYS:O	6:F:44:LYS:C	2.50	0.50
16:P:21:ASP:O	16:P:25:LEU:HG	2.12	0.50
19:S:80:PRO:CB	19:S:82:TRP:NE1	2.75	0.50
2:B:105:LEU:HD11	2:B:110:MET:HE1	1.86	0.50
10:J:155:LYS:HE3	10:J:156:HIS:NE2	2.26	0.50
21:U:18:HIS:HE1	21:U:98:VAL:HG22	1.63	0.50
4:D:141:LYS:HE3	4:D:179:GLN:HE21	1.76	0.50
4:D:141:LYS:CD	4:D:179:GLN:CG	2.87	0.50
4:D:164:VAL:HG13	4:D:165:ASN:N	2.27	0.50
12:L:152:LYS:O	12:L:154:GLN:N	2.44	0.50
1:A:16:LEU:CB	1:A:17:LYS:CE	2.89	0.49
1:A:180:ARG:HH11	1:A:184:ARG:NH2	2.09	0.49
1:A:66:VAL:O	1:A:67:ALA:CB	2.60	0.49
7:G:147:LEU:CD2	7:G:156:TYR:HE2	2.24	0.49
7:G:162:LEU:CD2	7:G:170:ARG:HG3	2.42	0.49
7:G:35:GLU:C	7:G:36:VAL:HG23	2.32	0.49
13:M:46:GLN:HB3	13:M:112:LYS:HG2	1.94	0.49
14:N:54:LEU:C	14:N:60:VAL:HG22	2.32	0.49
19:S:39:ARG:HH22	20:T:38:LYS:CG	2.21	0.49
5:E:67:GLN:O	5:E:68:ARG:CB	2.59	0.49
16:P:10:ARG:O	16:P:11:THR:O	2.30	0.49
8:H:9:VAL:O	8:H:45:ILE:HG13	2.12	0.49
6:F:95:HIS:NE2	26:Z:103:HIS:HB3	2.27	0.49
4:D:162:ASP:OD1	4:D:166:TYR:CE2	2.65	0.49
10:J:180:LYS:HD3	10:J:180:LYS:O	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:16:LEU:C	19:S:17:ASN:OD1	2.50	0.49
25:Y:98:GLU:OE2	25:Y:99:LYS:CA	2.60	0.49
4:D:135:GLU:HG2	4:D:187:LYS:HB3	1.93	0.49
4:D:219:PRO:O	4:D:220:THR:C	2.50	0.49
13:M:51:VAL:HG13	13:M:109:VAL:HG23	1.94	0.49
13:M:76:LEU:CA	13:M:128:PHE:HZ	2.25	0.49
23:W:102:ILE:N	23:W:113:HIS:ND1	2.57	0.49
20:T:111:LYS:HB3	20:T:126:GLN:HE21	1.69	0.49
6:F:53:ALA:HB1	17:Q:125:ARG:NH2	2.25	0.49
1:A:125:THR:C	1:A:147:LEU:CB	2.79	0.49
3:C:244:THR:CG2	3:C:246:PHE:CG	2.94	0.49
8:H:190:PRO:HG2	8:H:192:PHE:CE1	2.47	0.49
10:J:50:LEU:HD12	10:J:102:ILE:HD11	1.85	0.49
12:L:147:LYS:NZ	12:L:156:GLN:NE2	2.59	0.49
12:L:31:GLU:N	12:L:31:GLU:OE1	2.42	0.49
3:C:193:PRO:O	3:C:196:LYS:HG3	2.12	0.49
25:Y:19:GLN:CD	25:Y:85:ASN:HD21	2.13	0.49
4:D:46:THR:HB	4:D:84:VAL:HG23	1.93	0.49
4:D:70:THR:N	4:D:86:LEU:HD22	2.27	0.49
8:H:66:VAL:HG21	8:H:97:GLN:O	2.12	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	2.15	0.49
19:S:88:LYS:N	19:S:95:TYR:HD1	2.10	0.49
10:J:17:ARG:CD	10:J:18:ARG:HD3	2.35	0.49
4:D:197:LYS:N	4:D:198:ILE:HG13	2.27	0.49
4:D:108:LYS:CA	4:D:113:LEU:CD2	2.91	0.49
20:T:4:VAL:HB	20:T:8:ASP:HB2	1.94	0.49
5:E:29:PRO:O	5:E:30:ARG:HB3	2.10	0.49
5:E:136:ILE:N	5:E:136:ILE:HD12	2.26	0.49
13:M:82:ASN:HD22	13:M:107:SER:HA	1.77	0.49
1:A:125:THR:C	1:A:147:LEU:HB2	2.32	0.49
2:B:53:GLN:CG	2:B:56:LYS:HB2	2.41	0.49
2:B:63:LYS:C	2:B:63:LYS:CD	2.79	0.49
2:B:68:GLU:CD	2:B:83:LYS:HE2	2.32	0.49
5:E:121:TYR:HA	5:E:163:ASP:O	2.11	0.49
7:G:184:VAL:C	7:G:188:LYS:HE2	2.33	0.49
7:G:184:VAL:O	7:G:188:LYS:HE2	2.11	0.49
9:I:117:TYR:HE1	9:I:155:ASN:HD21	1.60	0.49
12:L:80:MET:HG3	12:L:86:ILE:CG2	2.39	0.49
2:B:70:SER:HB3	15:O:128:ARG:HH11	1.77	0.49
22:V:68:SER:O	22:V:72:LEU:HG	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:51:VAL:HG22	24:X:70:VAL:HG11	1.94	0.49
24:X:51:VAL:HG21	24:X:94:ILE:CG2	2.41	0.49
3:C:197:LYS:C	3:C:200:LEU:HG	2.26	0.49
4:D:1:MET:O	4:D:2:ALA:O	2.30	0.49
17:Q:44:PRO:O	17:Q:45:ARG:CG	2.54	0.49
16:P:52:LYS:HD3	16:P:52:LYS:C	2.06	0.49
3:C:168:LYS:HE3	23:W:95:PRO:CA	2.38	0.49
13:M:26:LEU:HD11	13:M:89:VAL:O	2.11	0.49
5:E:212:ASP:OD2	5:E:214:ASN:HB2	2.12	0.49
20:T:124:THR:HG23	20:T:127:GLY:H	1.74	0.49
23:W:27:ILE:HD11	23:W:61:ILE:HD12	1.93	0.49
5:E:185:GLY:CA	5:E:189:LEU:HD13	2.43	0.49
10:J:147:PHE:CE2	10:J:149:VAL:HA	2.44	0.49
5:E:129:ILE:HG23	5:E:139:LEU:CD2	2.42	0.49
5:E:192:ILE:HD11	5:E:238:LEU:HD22	1.93	0.49
5:E:97:GLU:OE1	5:E:97:GLU:C	4.80	0.49
7:G:212:LEU:CA	7:G:215:LYS:HD3	2.43	0.49
9:I:157:LYS:O	9:I:158:ILE:C	2.47	0.49
3:C:243:GLU:HA	22:V:16:LYS:NZ	2.27	0.49
22:V:78:ILE:HG23	22:V:79:VAL:H	1.77	0.49
12:L:99:TYR:OH	24:X:14:ARG:CG	2.61	0.49
17:Q:112:LEU:CB	17:Q:120:LEU:HD21	2.42	0.49
17:Q:116:ASP:CG	17:Q:117:ARG:N	2.65	0.49
16:P:127:LYS:O	16:P:127:LYS:HG3	2.12	0.49
18:R:17:ILE:HG22	18:R:71:ILE:HD11	1.94	0.49
25:Y:98:GLU:O	25:Y:98:GLU:OE1	2.30	0.49
4:D:126:ILE:HD12	4:D:134:CYS:HB3	1.93	0.49
3:C:166:ARG:HG2	3:C:237:THR:HG21	1.95	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
8:H:158:LEU:HG	8:H:187:PHE:CD1	2.46	0.49
12:L:134:LEU:HD23	12:L:134:LEU:C	2.33	0.49
14:N:22:VAL:HB	14:N:23:PRO:C	2.32	0.49
15:O:72:TYR:C	15:O:72:TYR:CD1	2.86	0.49
18:R:101:ASP:HA	18:R:104:GLU:HB2	1.94	0.49
25:Y:120:THR:C	25:Y:122:LYS:CD	2.76	0.49
4:D:76:ARG:NE	11:K:66:HIS:HE1	1.55	0.49
11:K:71:LEU:HG	11:K:76:ILE:CD1	2.42	0.49
8:H:37:LYS:O	8:H:38:ALA:CB	2.61	0.49
16:P:127:LYS:HE3	16:P:128:HIS:N	2.25	0.49
20:T:59:SER:O	20:T:62:ARG:HG2	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:123:LEU:CG	4:D:154:ASP:HB3	2.42	0.49
4:D:157:MET:SD	4:D:187:LYS:HD3	2.50	0.49
13:M:33:ARG:CG	13:M:33:ARG:NH1	2.74	0.49
13:M:79:VAL:CG1	13:M:80:ASP:H	2.25	0.49
16:P:71:GLU:HB3	16:P:72:LYS:HG3	1.93	0.49
8:H:121:THR:HG22	8:H:124:ALA:CB	2.43	0.49
3:C:183:ALA:HB2	3:C:208:TYR:CE2	2.48	0.49
8:H:73:GLN:HE21	8:H:135:PHE:HE1	1.59	0.49
10:J:84:ILE:HG13	10:J:86:VAL:CG2	2.42	0.49
1:A:30:LEU:HD13	1:A:38:ILE:HD13	1.68	0.49
1:A:97:THR:HG22	1:A:98:PRO:N	2.28	0.49
2:B:137:LEU:HD23	2:B:215:VAL:CB	2.39	0.49
5:E:99:PHE:CZ	5:E:113:ARG:CG	2.93	0.49
10:J:37:LEU:HG	10:J:38:ARG:N	2.28	0.49
14:N:37:ILE:HD11	14:N:63:VAL:HG11	1.95	0.49
15:O:92:ALA:HB2	15:O:125:LYS:HB2	1.95	0.49
15:O:66:ARG:HG2	15:O:67:ASP:N	2.27	0.49
20:T:77:LYS:HE3	20:T:92:PHE:CE2	2.48	0.49
2:B:87:ILE:HG23	2:B:101:HIS:HB2	1.94	0.49
19:S:80:PRO:HG3	19:S:82:TRP:NE1	2.28	0.49
10:J:89:GLU:C	10:J:91:LYS:O	2.50	0.49
13:M:50:CYS:N	13:M:75:ASN:HD22	2.10	0.49
15:O:22:ALA:C	15:O:24:GLY:N	2.56	0.49
20:T:42:HIS:NE2	20:T:83:GLN:HB3	2.28	0.49
2:B:175:GLU:CG	2:B:193:ILE:CD1	2.84	0.49
18:R:95:ILE:HA	18:R:114:LEU:HB3	1.95	0.49
2:B:119:THR:HB	2:B:143:THR:CG2	2.42	0.49
13:M:58:GLU:O	13:M:58:GLU:HG3	2.13	0.49
7:G:170:ARG:HD2	7:G:171:THR:O	2.13	0.49
9:I:157:LYS:C	9:I:158:ILE:O	2.51	0.49
10:J:164:PRO:HB2	10:J:165:TYR:CE1	2.48	0.49
14:N:38:TYR:HE1	14:N:78:LYS:HZ3	1.52	0.49
25:Y:106:GLN:O	25:Y:110:ARG:HG3	2.12	0.49
3:C:196:LYS:HG3	3:C:197:LYS:N	2.28	0.49
11:K:62:PHE:CD1	11:K:67:PHE:CD2	2.96	0.49
8:H:16:PRO:HA	8:H:17:ASP:CB	2.26	0.49
10:J:87:LEU:HD12	10:J:88:ASP:H	1.77	0.49
13:M:15:ASN:OD1	13:M:15:ASN:C	2.50	0.49
20:T:11:GLN:O	20:T:15:VAL:HG13	2.12	0.49
3:C:129:SER:CB	3:C:134:THR:HG23	2.43	0.49
2:B:105:LEU:HD11	2:B:213:ARG:HG3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:99:ASN:HD22	2:B:228:LEU:HD23	1.76	0.49
5:E:188:ASN:ND2	5:E:218:PHE:CD1	2.80	0.49
24:X:96:GLU:O	24:X:97:ASN:HB2	2.12	0.49
1:A:208:GLU:HG2	1:A:209:GLU:N	2.27	0.49
9:I:150:ASP:C	9:I:150:ASP:OD2	2.50	0.49
5:E:48:LEU:CD2	5:E:70:ILE:CD1	2.81	0.49
9:I:110:ARG:NH2	9:I:124:LYS:NZ	2.60	0.49
10:J:168:GLY:O	10:J:169:ARG:O	2.30	0.49
14:N:125:LEU:HD11	14:N:129:TYR:CZ	2.48	0.49
14:N:26:LEU:CD2	14:N:66:VAL:HG22	2.42	0.49
15:O:34:PHE:HE1	15:O:99:ALA:C	2.15	0.49
13:M:28:HIS:O	13:M:29:ASP:CB	2.52	0.49
19:S:80:PRO:HG2	19:S:82:TRP:CE2	2.48	0.49
26:Z:91:LEU:HB3	26:Z:97:ILE:HG12	1.95	0.49
25:Y:101:LYS:C	25:Y:102:THR:HG1	2.14	0.49
25:Y:100:LYS:CG	25:Y:100:LYS:O	2.55	0.49
15:O:55:ARG:O	15:O:81:VAL:HG22	2.12	0.49
14:N:11:LEU:C	14:N:11:LEU:HD12	2.33	0.49
8:H:126:HIS:NE2	8:H:181:THR:HG22	2.28	0.49
4:D:110:LEU:O	4:D:110:LEU:HD23	2.13	0.49
2:B:72:ALA:N	2:B:79:VAL:CG2	2.75	0.49
3:C:54:LEU:CD2	3:C:254:PHE:CB	2.88	0.49
5:E:129:ILE:CD1	5:E:139:LEU:HD22	2.32	0.49
5:E:43:PRO:CD	5:E:43:PRO:O	2.60	0.49
7:G:33:ALA:H	7:G:52:ILE:CG2	2.14	0.49
12:L:125:ILE:HB	12:L:146:THR:HG22	1.92	0.49
12:L:40:ILE:CG1	12:L:68:ILE:HG13	2.41	0.49
14:N:38:TYR:CD1	14:N:78:LYS:CG	2.95	0.49
6:F:204:ARG:OXT	15:O:72:TYR:HB2	2.13	0.49
24:X:71:ARG:NE	24:X:82:THR:HG23	2.23	0.49
4:D:168:VAL:HG13	4:D:189:MET:SD	2.53	0.49
25:Y:56:PHE:CD2	25:Y:86:GLU:CD	2.76	0.49
16:P:10:ARG:CD	16:P:11:THR:H	2.25	0.49
11:K:27:VAL:HG11	11:K:43:LEU:HD22	1.67	0.49
25:Y:29:HIS:HE1	25:Y:67:GLY:CA	2.06	0.49
3:C:101:THR:HG23	3:C:103:ALA:C	2.28	0.49
4:D:214:LYS:O	4:D:214:LYS:HG3	2.06	0.49
3:C:169:VAL:HG11	3:C:232:THR:HG22	1.95	0.49
15:O:71:PRO:HB3	15:O:114:SER:HB3	1.94	0.49
1:A:145:ILE:HD12	1:A:159:ILE:CG2	2.27	0.49
5:E:151:ASP:HB3	5:E:152:PRO:CD	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:154:LYS:O	12:L:22:ARG:CG	2.61	0.49
12:L:130:GLU:HG2	12:L:131:CYS:H	1.78	0.49
20:T:33:TRP:CD1	20:T:37:VAL:HG21	2.48	0.49
4:D:22:ASN:OD1	4:D:34:TYR:OH	2.30	0.49
20:T:76:THR:HG22	20:T:95:GLY:O	2.13	0.49
17:Q:112:LEU:HD12	17:Q:120:LEU:CD2	2.42	0.49
18:R:16:ILE:O	18:R:20:TYR:N	2.46	0.49
4:D:220:THR:O	4:D:221:THR:O	2.30	0.49
13:M:104:VAL:HG22	13:M:105:GLY:N	2.28	0.49
12:L:118:ARG:NH1	12:L:119:ASP:OD2	2.43	0.49
3:C:259:VAL:O	3:C:260:LYS:O	2.30	0.49
23:W:111:MET:HE3	23:W:116:ALA:HA	1.94	0.49
14:N:114:ARG:CD	14:N:117:LEU:HD12	2.42	0.49
1:A:57:LYS:CE	22:V:70:LEU:CD2	2.89	0.48
1:A:91:ALA:HA	1:A:96:ALA:HB3	1.95	0.48
2:B:36:PRO:CB	2:B:231:LEU:CD2	2.71	0.48
6:F:71:ARG:HG3	6:F:71:ARG:HH21	1.72	0.48
7:G:122:PRO:HD2	7:G:123:GLY:H	1.78	0.48
7:G:147:LEU:HD21	7:G:156:TYR:CD2	2.46	0.48
8:H:160:LYS:HB2	8:H:192:PHE:CZ	2.47	0.48
9:I:139:LYS:CD	9:I:145:ILE:HD12	2.43	0.48
10:J:110:LEU:CD1	10:J:135:ILE:HD12	2.42	0.48
12:L:71:ARG:CD	12:L:73:LEU:CG	2.91	0.48
15:O:16:SER:CA	15:O:87:GLU:O	2.56	0.48
22:V:18:SER:O	22:V:18:SER:OG	2.29	0.48
6:F:14:THR:OG1	17:Q:56:LEU:CG	2.56	0.48
17:Q:37:ARG:HB2	17:Q:38:PRO:HD2	1.95	0.48
17:Q:45:ARG:O	17:Q:46:THR:C	2.49	0.48
25:Y:68:LYS:O	25:Y:69:THR:CG2	2.61	0.48
26:Z:65:TYR:CD2	26:Z:68:ILE:CD1	2.96	0.48
13:M:19:GLN:NE2	13:M:88:TRP:CD1	2.81	0.48
9:I:38:ILE:HD11	9:I:96:LEU:HD21	1.95	0.48
24:X:102:VAL:HG11	24:X:120:PHE:HB3	1.91	0.48
5:E:241:GLY:O	5:E:244:ILE:CG1	2.58	0.48
2:B:120:MET:CE	2:B:142:PHE:CZ	2.96	0.48
12:L:136:LYS:HG2	12:L:137:THR:N	2.27	0.48
1:A:32:PHE:CE1	1:A:33:GLN:CD	2.85	0.48
7:G:41:LEU:HD21	7:G:45:TRP:CH2	2.36	0.48
10:J:125:HIS:HD2	10:J:129:LEU:HD11	1.65	0.48
10:J:136:ARG:HG2	10:J:141:VAL:HA	1.94	0.48
14:N:27:LYS:H	14:N:27:LYS:HE3	1.71	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:38:TYR:CE2	14:N:78:LYS:HG3	2.48	0.48
15:O:62:VAL:HG12	15:O:63:LYS:N	2.28	0.48
22:V:53:TYR:CD2	22:V:72:LEU:HB3	2.47	0.48
22:V:53:TYR:HB3	22:V:72:LEU:HD13	1.95	0.48
22:V:79:VAL:HG12	22:V:82:ASN:CG	2.33	0.48
21:U:62:ARG:HD2	21:U:79:ARG:HD3	1.94	0.48
20:T:99:VAL:CG2	20:T:100:ALA:N	2.76	0.48
21:U:68:THR:CG2	21:U:70:CYS:O	2.61	0.48
17:Q:88:ILE:HG13	17:Q:89:SER:H	1.78	0.48
25:Y:29:HIS:CD2	25:Y:34:THR:N	2.78	0.48
12:L:17:PHE:HE1	12:L:18:GLN:HB2	1.68	0.48
19:S:55:ARG:NH1	26:Z:80:ARG:HE	2.03	0.48
26:Z:99:LEU:CD2	26:Z:109:TYR:CZ	2.89	0.48
18:R:24:LEU:HD12	18:R:58:MET:CE	2.43	0.48
18:R:5:ARG:O	18:R:10:LYS:NZ	2.46	0.48
9:I:8:TRP:O	9:I:8:TRP:CE3	2.66	0.48
18:R:95:ILE:CA	18:R:114:LEU:HD13	2.42	0.48
3:C:94:ILE:O	3:C:94:ILE:HG22	2.13	0.48
1:A:39:TYR:HB3	1:A:48:ILE:O	2.13	0.48
5:E:152:PRO:HD2	7:G:212:LEU:CD2	2.42	0.48
5:E:180:LEU:CD1	5:E:228:ILE:CD1	2.91	0.48
8:H:158:LEU:HD21	8:H:187:PHE:CD1	2.48	0.48
8:H:170:VAL:HA	8:H:173:PHE:CD2	2.48	0.48
12:L:5:GLN:NE2	12:L:10:TYR:HD1	2.10	0.48
18:R:98:VAL:HG11	18:R:103:LYS:N	2.28	0.48
25:Y:54:VAL:HG13	25:Y:76:TYR:HB2	1.95	0.48
18:R:34:VAL:HG12	18:R:38:ILE:HG12	1.94	0.48
3:C:101:THR:CG2	3:C:103:ALA:C	2.68	0.48
23:W:102:ILE:N	23:W:113:HIS:HD1	2.11	0.48
14:N:142:GLU:HG3	14:N:144:SER:OG	2.07	0.48
5:E:191:ARG:NE	5:E:245:ARG:CD	2.76	0.48
14:N:114:ARG:CG	14:N:114:ARG:HH21	2.26	0.48
5:E:178:GLY:H	5:E:195:ILE:HB	1.78	0.48
1:A:161:ILE:CG2	1:A:174:MET:CE	2.90	0.48
1:A:184:ARG:HD3	1:A:192:GLU:HG2	1.96	0.48
2:B:49:VAL:CG1	2:B:50:THR:N	2.77	0.48
3:C:55:VAL:CA	3:C:82:PHE:HZ	2.24	0.48
5:E:45:ILE:HG13	5:E:61:VAL:HG21	1.94	0.48
14:N:84:LEU:C	14:N:84:LEU:HD12	2.34	0.48
1:A:158:ASP:CB	22:V:65:SER:HB2	2.42	0.48
12:L:101:ARG:HB2	24:X:10:ALA:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:17:LEU:HD12	25:Y:17:LEU:C	2.34	0.48
6:F:91:ARG:NH1	6:F:94:LYS:HG3	2.11	0.48
17:Q:45:ARG:HG2	17:Q:46:THR:H	1.78	0.48
19:S:8:LYS:CA	19:S:9:PHE:CD1	2.95	0.48
23:W:15:ASN:HD21	23:W:19:LYS:HE3	1.77	0.48
8:H:147:LYS:CE	8:H:153:LEU:HD11	2.36	0.48
17:Q:24:HIS:NE2	17:Q:69:ARG:CB	2.68	0.48
20:T:64:LEU:H	20:T:64:LEU:HD23	1.70	0.48
1:A:89:LYS:HB3	1:A:202:TYR:CE2	2.48	0.48
9:I:31:ARG:HH11	9:I:31:ARG:CG	2.26	0.48
22:V:57:GLY:O	22:V:61:ARG:CG	2.62	0.48
1:A:58:LEU:HD23	1:A:58:LEU:O	2.12	0.48
2:B:72:ALA:O	2:B:76:ASN:HA	2.13	0.48
7:G:64:LYS:HD2	7:G:100:CYS:SG	2.53	0.48
9:I:140:LYS:CD	9:I:141:ARG:N	2.72	0.48
9:I:158:ILE:C	12:L:22:ARG:NH2	2.67	0.48
10:J:125:HIS:CE1	10:J:129:LEU:HD21	2.48	0.48
14:N:71:ILE:N	14:N:71:ILE:HD12	4.30	0.48
2:B:83:LYS:NZ	15:O:130:GLU:OE2	2.46	0.48
2:B:67:PHE:HD1	15:O:47:LEU:CB	2.19	0.48
22:V:41:LYS:O	22:V:42:VAL:C	2.50	0.48
24:X:70:VAL:HG12	24:X:71:ARG:N	2.27	0.48
25:Y:87:PRO:O	25:Y:87:PRO:CD	2.60	0.48
4:D:76:ARG:CG	11:K:66:HIS:ND1	2.77	0.48
11:K:47:LYS:HD2	11:K:50:GLN:NE2	2.28	0.48
8:H:29:GLU:HA	8:H:32:MET:SD	2.54	0.48
19:S:90:VAL:HG12	19:S:91:LYS:CE	2.43	0.48
26:Z:58:LEU:HD23	26:Z:77:LEU:CD1	2.42	0.48
4:D:10:LYS:HZ3	21:U:111:GLU:HG2	1.76	0.48
4:D:112:GLY:H	4:D:113:LEU:HD12	1.65	0.48
4:D:223:ILE:HG22	4:D:224:SER:N	2.28	0.48
3:C:154:TYR:OH	3:C:162:PRO:N	2.45	0.48
13:M:124:ILE:CB	13:M:127:TYR:HE2	2.27	0.48
20:T:40:ALA:O	20:T:43:LYS:CB	2.62	0.48
9:I:6:ASP:OD2	9:I:8:TRP:N	2.46	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:HG3	2.13	0.48
1:A:120:ARG:CD	3:C:251:TYR:CE2	2.61	0.48
1:A:127:PRO:HG2	1:A:152:SER:HB3	1.94	0.48
1:A:30:LEU:HD13	1:A:38:ILE:HD11	0.49	0.48
3:C:55:VAL:CA	3:C:82:PHE:CZ	2.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:136:ARG:HD2	6:F:136:ARG:N	2.28	0.48
6:F:63:LYS:CE	6:F:71:ARG:HH12	2.26	0.48
15:O:44:VAL:HG11	15:O:93:LEU:HD21	1.94	0.48
24:X:52:LEU:CD1	24:X:53:GLU:CB	2.88	0.48
24:X:71:ARG:NE	24:X:82:THR:HG22	2.27	0.48
20:T:101:ARG:CG	20:T:105:GLN:NE2	2.75	0.48
11:K:37:ASP:C	11:K:38:LYS:HD3	2.33	0.48
17:Q:51:LEU:C	17:Q:51:LEU:HD12	2.34	0.48
19:S:30:ILE:O	19:S:32:ALA:N	2.47	0.48
19:S:26:ILE:HD11	19:S:59:LEU:CG	2.42	0.48
16:P:127:LYS:CE	16:P:128:HIS:N	2.73	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	1.79	0.48
20:T:40:ALA:O	20:T:43:LYS:CG	2.62	0.48
2:B:182:LYS:HD3	2:B:182:LYS:HA	1.62	0.48
17:Q:124:PRO:HG2	17:Q:125:ARG:N	2.28	0.48
6:F:59:LYS:HD2	6:F:62:ARG:HH21	0.66	0.48
9:I:144:LYS:H	9:I:144:LYS:HD3	1.77	0.48
9:I:70:GLU:O	9:I:71:CYS:HB3	2.14	0.48
12:L:99:TYR:N	12:L:99:TYR:CD2	2.80	0.48
14:N:116:ILE:C	14:N:119:GLU:HG3	2.34	0.48
24:X:126:ALA:HB1	24:X:128:VAL:HB	1.83	0.48
23:W:77:PRO:CD	24:X:5:ARG:O	2.54	0.48
25:Y:56:PHE:HB3	25:Y:58:PHE:CE2	2.47	0.48
11:K:27:VAL:HA	11:K:43:LEU:HD23	1.95	0.48
13:M:117:GLU:C	13:M:118:SER:HG	2.04	0.48
21:U:67:LYS:CE	21:U:78:ASP:CG	2.68	0.48
21:U:68:THR:HB	21:U:70:CYS:O	2.13	0.48
8:H:28:LEU:O	8:H:31:GLU:HB2	2.13	0.48
8:H:34:SER:O	8:H:35:ASP:OD1	2.32	0.48
17:Q:42:ILE:CB	17:Q:51:LEU:HD21	2.44	0.48
17:Q:72:VAL:HG12	17:Q:80:GLN:NE2	2.29	0.48
17:Q:93:VAL:HG13	17:Q:105:LYS:CG	2.42	0.48
16:P:75:VAL:HG21	16:P:104:GLN:NE2	2.27	0.48
19:S:52:LEU:O	19:S:54:LYS:N	2.46	0.48
19:S:90:VAL:HG12	19:S:91:LYS:CG	2.43	0.48
10:J:28:GLU:OE1	10:J:40:LYS:CE	2.61	0.48
10:J:93:LYS:HE3	10:J:93:LYS:N	2.26	0.48
18:R:21:TYR:CE2	18:R:73:LEU:HD12	2.48	0.48
18:R:5:ARG:HB2	18:R:10:LYS:CE	2.35	0.48
24:X:41:PHE:CZ	24:X:120:PHE:CD1	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:111:LYS:HG3	25:Y:112:ASN:N	2.29	0.48
18:R:95:ILE:CG2	18:R:115:SER:O	2.62	0.48
8:H:154:ILE:HG22	8:H:185:VAL:HG23	1.95	0.48
1:A:149:ASN:N	1:A:165:ASN:HD21	2.10	0.48
1:A:180:ARG:NH1	1:A:184:ARG:HH22	2.11	0.48
1:A:85:ARG:NE	1:A:201:LEU:O	2.47	0.48
7:G:154:ARG:HG2	7:G:155:GLN:N	2.28	0.48
10:J:110:LEU:HB3	10:J:111:GLN:H	1.49	0.48
10:J:127:ARG:HH11	10:J:145:PRO:HB3	1.76	0.48
10:J:67:ASP:O	10:J:68:PRO:C	2.52	0.48
22:V:55:ILE:HG22	22:V:60:ARG:CG	2.44	0.48
23:W:23:ARG:HG2	23:W:23:ARG:NH1	2.29	0.48
24:X:8:ARG:O	24:X:10:ALA:N	2.42	0.48
17:Q:111:ILE:HA	17:Q:114:GLN:CD	2.34	0.48
17:Q:116:ASP:CG	17:Q:118:THR:H	2.17	0.48
16:P:22:LEU:C	16:P:22:LEU:HD12	2.34	0.48
19:S:89:ASP:O	19:S:90:VAL:CG2	2.61	0.48
18:R:122:PRO:CA	18:R:123:THR:OG1	2.61	0.48
20:T:84:ARG:C	20:T:86:GLY:N	2.67	0.48
20:T:65:TYR:CD2	20:T:123:LEU:CD1	2.97	0.48
19:S:111:LEU:CD2	19:S:125:HIS:ND1	2.75	0.48
4:D:146:ARG:HD3	4:D:146:ARG:HA	1.63	0.48
1:A:14:ASP:OD2	1:A:55:TRP:HH2	1.96	0.48
2:B:49:VAL:HG23	2:B:65:ARG:HH12	1.76	0.48
3:C:54:LEU:HD22	3:C:254:PHE:CB	2.44	0.48
3:C:54:LEU:N	3:C:258:LEU:CD2	2.77	0.48
3:C:48:VAL:CG2	3:C:75:GLU:OE2	2.61	0.48
9:I:193:LYS:HG3	12:L:10:TYR:HE1	1.77	0.48
15:O:125:LYS:HB3	15:O:125:LYS:HE3	1.37	0.48
25:Y:58:PHE:CD1	25:Y:72:PHE:HD2	2.31	0.48
4:D:35:SER:C	4:D:99:ILE:HD11	2.29	0.48
11:K:40:VAL:HA	11:K:41:PRO:HD3	1.65	0.48
11:K:40:VAL:HG23	11:K:41:PRO:HD3	1.94	0.48
11:K:83:LEU:O	11:K:84:HIS:HB3	2.14	0.48
16:P:121:ILE:CG2	19:S:123:LEU:CD1	2.64	0.48
19:S:7:GLU:O	26:Z:50:PHE:O	2.31	0.48
4:D:192:TRP:HE3	4:D:196:GLY:CA	2.15	0.48
18:R:91:LEU:HD13	18:R:92:ASP:CB	2.44	0.48
16:P:62:LYS:HA	16:P:65:LYS:HE2	1.96	0.48
2:B:110:MET:HE3	2:B:213:ARG:HD2	1.96	0.48
20:T:87:VAL:CG1	20:T:88:MET:HG3	2.37	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:124:LEU:N	3:C:226:PHE:CZ	2.81	0.48
15:O:37:PHE:CD1	15:O:110:PRO:HD3	2.49	0.48
5:E:132:GLY:N	5:E:136:ILE:O	2.47	0.48
2:B:36:PRO:HA	2:B:231:LEU:CD2	2.43	0.48
2:B:67:PHE:HD1	15:O:47:LEU:O	1.95	0.48
3:C:142:LEU:O	3:C:145:LEU:HD21	2.11	0.48
8:H:166:VAL:CG2	8:H:173:PHE:HE2	2.14	0.48
10:J:121:LYS:O	10:J:122:SER:HB2	2.14	0.48
12:L:78:THR:CG2	12:L:79:LYS:N	2.77	0.48
14:N:116:ILE:O	14:N:119:GLU:HG3	2.13	0.48
14:N:125:LEU:HD22	14:N:129:TYR:CZ	2.49	0.48
15:O:61:LYS:C	15:O:62:VAL:HG23	2.28	0.48
22:V:11:LEU:HD12	22:V:12:TYR:N	2.29	0.48
17:Q:16:LYS:CD	17:Q:17:LYS:N	2.68	0.48
22:V:9:VAL:HG12	22:V:10:ASP:HA	1.95	0.48
6:F:176:GLU:CD	6:F:187:SER:HG	2.11	0.48
2:B:183:GLU:O	2:B:187:LYS:HB2	2.14	0.48
21:U:73:GLY:C	21:U:74:SER:O	2.50	0.48
19:S:111:LEU:HD22	19:S:125:HIS:CG	2.48	0.48
4:D:207:HIS:O	4:D:208:VAL:CG2	2.60	0.48
5:E:256:LEU:HD12	5:E:256:LEU:C	2.34	0.48
12:L:152:LYS:C	12:L:154:GLN:N	2.67	0.48
6:F:192:LYS:CD	6:F:192:LYS:O	2.61	0.48
1:A:18:PHE:CE2	1:A:55:TRP:CZ3	3.02	0.47
2:B:48:LEU:N	2:B:48:LEU:CD1	2.71	0.47
2:B:53:GLN:O	2:B:55:THR:N	2.47	0.47
3:C:54:LEU:H	3:C:258:LEU:HD22	1.79	0.47
5:E:106:LYS:HA	5:E:106:LYS:HD2	1.55	0.47
7:G:139:SER:O	7:G:143:LYS:HD2	2.14	0.47
7:G:80:GLY:O	7:G:81:HIS:ND1	2.47	0.47
8:H:160:LYS:CB	8:H:192:PHE:HZ	2.27	0.47
9:I:155:ASN:HA	12:L:22:ARG:HD2	1.96	0.47
12:L:59:LYS:HD2	12:L:112:HIS:NE2	2.29	0.47
13:M:46:GLN:HB3	13:M:112:LYS:CD	2.44	0.47
15:O:31:CYS:CB	15:O:95:ILE:CG1	2.80	0.47
22:V:12:TYR:HE1	22:V:14:PRO:HG3	1.79	0.47
1:A:4:ALA:CB	22:V:39:VAL:HG21	2.39	0.47
25:Y:55:ILE:CG2	25:Y:55:ILE:O	2.51	0.47
16:P:5:GLU:O	16:P:6:GLN:HG2	2.14	0.47
4:D:79:PHE:HE1	4:D:83:SER:HB3	1.78	0.47
20:T:77:LYS:HG3	20:T:92:PHE:HE2	0.72	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:87:ILE:HG23	2:B:101:HIS:CB	2.44	0.47
16:P:88:GLU:HG3	16:P:89:MET:N	2.27	0.47
16:P:37:TYR:CA	19:S:88:LYS:HD3	2.44	0.47
19:S:55:ARG:HH12	26:Z:82:SER:CB	2.27	0.47
26:Z:99:LEU:CG	26:Z:102:LYS:HD3	2.42	0.47
26:Z:54:THR:O	26:Z:58:LEU:HG	2.14	0.47
25:Y:104:ARG:HA	25:Y:107:ARG:NH2	2.29	0.47
9:I:5:ARG:CG	9:I:5:ARG:NH1	2.65	0.47
8:H:149:ASP:OD1	8:H:149:ASP:O	2.31	0.47
4:D:145:GLN:CG	4:D:146:ARG:N	2.77	0.47
2:B:83:LYS:O	2:B:103:MET:HA	2.14	0.47
24:X:129:SER:OG	24:X:132:ALA:CB	2.60	0.47
20:T:36:THR:HG23	20:T:37:VAL:N	2.29	0.47
21:U:43:ALA:O	21:U:48:LEU:HG	2.13	0.47
8:H:64:VAL:CG2	8:H:72:PHE:CE2	2.97	0.47
19:S:81:ASP:HA	19:S:84:LEU:HD12	1.95	0.47
18:R:1:MET:HA	18:R:1:MET:CG	2.38	0.47
3:C:241:TRP:CZ2	23:W:68:ARG:HD2	2.49	0.47
23:W:104:LEU:C	23:W:104:LEU:HD12	2.35	0.47
20:T:42:HIS:CD2	20:T:81:GLY:O	2.67	0.47
17:Q:10:VAL:HG11	17:Q:94:ALA:HB1	1.96	0.47
8:H:126:HIS:HA	8:H:129:ILE:HD12	1.96	0.47
16:P:94:VAL:HG12	16:P:96:VAL:CG2	2.44	0.47
1:A:26:GLY:N	1:A:47:TYR:O	2.47	0.47
1:A:55:TRP:NE1	1:A:59:LEU:HD11	2.28	0.47
2:B:23:ASP:HA	2:B:24:PRO:HD3	1.44	0.47
5:E:126:VAL:HG21	5:E:156:MET:HA	1.91	0.47
7:G:157:VAL:HG11	7:G:159:ARG:CA	2.43	0.47
7:G:98:ARG:CD	7:G:98:ARG:C	2.76	0.47
9:I:155:ASN:CG	9:I:156:ALA:HA	2.35	0.47
12:L:112:HIS:CB	12:L:134:LEU:CD1	2.92	0.47
14:N:94:LYS:CG	14:N:118:ILE:HD13	2.43	0.47
14:N:38:TYR:CG	14:N:78:LYS:HD2	2.43	0.47
17:Q:130:LYS:HA	17:Q:137:ALA:HA	1.95	0.47
25:Y:79:LEU:O	25:Y:83:LYS:HG3	2.15	0.47
16:P:44:ARG:CZ	16:P:82:ASP:O	2.62	0.47
19:S:103:LEU:HD12	19:S:103:LEU:C	2.33	0.47
4:D:74:GLN:NE2	4:D:75:LYS:HD3	2.21	0.47
13:M:111:VAL:HG11	13:M:114:TYR:HB3	1.95	0.47
6:F:45:TYR:CA	6:F:47:LYS:HE2	2.44	0.47
16:P:59:ARG:NE	16:P:76:VAL:HG13	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:18:ARG:HA	10:J:19:PRO:HD3	1.48	0.47
4:D:196:GLY:O	4:D:199:GLY:HA2	2.12	0.47
26:Z:58:LEU:CD2	26:Z:77:LEU:CD1	2.91	0.47
2:B:149:GLN:O	18:R:124:VAL:CG1	2.62	0.47
3:C:126:MET:CE	3:C:223:LYS:HD2	2.27	0.47
25:Y:99:LYS:H	25:Y:99:LYS:CE	2.25	0.47
20:T:66:LEU:HB2	20:T:67:ARG:HE	1.80	0.47
4:D:123:LEU:CD2	4:D:154:ASP:OD2	2.61	0.47
13:M:93:LYS:H	13:M:101:ARG:CD	2.26	0.47
14:N:14:SER:OG	14:N:14:SER:O	2.31	0.47
6:F:184:SER:O	6:F:185:SER:HB2	2.13	0.47
20:T:85:ASN:HD21	20:T:91:HIS:HD2	1.56	0.47
21:U:16:ALA:O	21:U:17:ILE:HG13	2.14	0.47
12:L:14:PRO:HB2	12:L:15:THR:HG23	1.96	0.47
2:B:25:PHE:HA	2:B:28:LYS:HD2	1.96	0.47
5:E:21:ASP:OD1	5:E:24:THR:CG2	2.54	0.47
5:E:48:LEU:HD11	5:E:70:ILE:HD13	1.93	0.47
7:G:33:ALA:N	7:G:52:ILE:CG2	2.74	0.47
7:G:77:LEU:HD13	7:G:84:TYR:HB2	1.96	0.47
9:I:123:ARG:O	9:I:123:ARG:HD3	2.14	0.47
12:L:10:TYR:HD2	12:L:12:LYS:CE	2.14	0.47
9:I:154:LYS:O	12:L:22:ARG:HD2	2.14	0.47
22:V:42:VAL:C	22:V:43:THR:OG1	2.51	0.47
4:D:132:LYS:HB3	4:D:189:MET:HG3	1.96	0.47
16:P:77:LYS:C	16:P:78:THR:CG2	2.81	0.47
16:P:41:GLN:CA	16:P:84:ILE:HG12	2.43	0.47
11:K:16:PHE:HE2	11:K:79:LEU:C	2.16	0.47
25:Y:29:HIS:CE1	25:Y:67:GLY:N	2.82	0.47
16:P:37:TYR:CB	19:S:88:LYS:HD3	2.44	0.47
13:M:93:LYS:N	13:M:101:ARG:HD3	2.28	0.47
23:W:2:VAL:HG23	23:W:3:ARG:N	2.29	0.47
23:W:115:GLU:HG2	23:W:119:LYS:HE3	1.95	0.47
9:I:157:LYS:CB	12:L:22:ARG:NE	2.71	0.47
9:I:191:GLU:O	9:I:195:LEU:CB	2.62	0.47
10:J:170:PRO:CA	10:J:174:LYS:HZ1	2.09	0.47
25:Y:78:SER:O	25:Y:79:LEU:C	2.48	0.47
11:K:11:ILE:CD1	11:K:45:VAL:HG22	2.45	0.47
19:S:80:PRO:HG3	19:S:82:TRP:CZ2	2.50	0.47
19:S:8:LYS:CA	19:S:9:PHE:HD1	2.23	0.47
2:B:150:ILE:HD11	18:R:125:GLY:C	2.28	0.47
16:P:65:LYS:HG3	16:P:66:GLU:HG3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:106:GLY:HA3	1:A:113:GLN:NE2	2.29	0.47
17:Q:92:LEU:HD11	17:Q:96:TYR:HH	1.78	0.47
2:B:105:LEU:O	2:B:106:THR:OG1	2.30	0.47
6:F:149:GLN:O	6:F:153:LEU:HG	2.15	0.47
19:S:126:PHE:HD2	19:S:127:TRP:CD1	2.32	0.47
1:A:44:ASP:OD1	1:A:44:ASP:N	2.43	0.47
7:G:143:LYS:HE3	7:G:143:LYS:N	2.30	0.47
7:G:185:LEU:HB3	7:G:189:ARG:HH12	1.80	0.47
7:G:207:ALA:O	7:G:211:LYS:HG3	2.13	0.47
9:I:119:LEU:N	9:I:120:PRO:CD	2.78	0.47
12:L:40:ILE:C	12:L:40:ILE:HD13	2.33	0.47
12:L:12:LYS:O	12:L:56:ILE:HD11	2.15	0.47
12:L:57:ASP:OD1	12:L:59:LYS:HB2	2.14	0.47
15:O:44:VAL:CG1	15:O:93:LEU:HD22	2.44	0.47
25:Y:118:ARG:O	25:Y:119:GLY:C	2.51	0.47
16:P:41:GLN:HE21	16:P:84:ILE:CG1	2.22	0.47
16:P:44:ARG:HH21	16:P:84:ILE:CA	2.28	0.47
4:D:58:VAL:HG21	4:D:88:ALA:CB	2.44	0.47
11:K:41:PRO:HD2	11:K:43:LEU:HG	1.97	0.47
11:K:4:PRO:CG	11:K:7:ASN:CG	2.83	0.47
21:U:44:LYS:HA	21:U:47:ASN:HA	1.96	0.47
21:U:40:ILE:CD1	21:U:53:PRO:CD	2.88	0.47
17:Q:41:MET:O	17:Q:43:GLU:HG3	2.13	0.47
26:Z:44:LEU:HD11	26:Z:46:ASN:ND2	2.28	0.47
4:D:218:LEU:CA	4:D:220:THR:HG23	2.44	0.47
6:F:36:GLN:O	6:F:36:GLN:HG2	2.14	0.47
4:D:182:LEU:HD22	4:D:182:LEU:N	2.30	0.47
8:H:100:ILE:HG12	8:H:125:VAL:CG2	2.37	0.47
24:X:28:LYS:HE3	24:X:32:LEU:HD11	1.95	0.47
5:E:57:THR:HB	5:E:59:ASP:H	1.79	0.47
4:D:68:GLU:O	4:D:72:VAL:HG23	2.14	0.47
1:A:14:ASP:OD1	1:A:180:ARG:NH2	2.48	0.47
1:A:12:GLU:O	1:A:16:LEU:HG	2.14	0.47
1:A:75:SER:HA	1:A:97:THR:O	2.14	0.47
3:C:142:LEU:O	3:C:145:LEU:CG	2.62	0.47
3:C:244:THR:O	3:C:246:PHE:N	2.47	0.47
6:F:201:LYS:O	6:F:202:SER:O	2.32	0.47
10:J:124:HIS:C	10:J:126:ALA:N	2.66	0.47
24:X:129:SER:HG	24:X:132:ALA:HB3	1.76	0.47
1:A:132:GLN:N	1:A:133:PRO:CD	2.78	0.47
1:A:191:ARG:CD	1:A:193:HIS:HB2	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:137:LEU:HD23	2:B:215:VAL:CA	2.44	0.47
2:B:44:ILE:HG23	2:B:69:VAL:HG21	1.97	0.47
5:E:108:ARG:HG2	10:J:32:ILE:HD13	48.39	0.47
7:G:73:VAL:CG1	7:G:74:ARG:N	2.77	0.47
7:G:77:LEU:HD11	7:G:95:LYS:CB	2.35	0.47
9:I:113:TYR:O	9:I:117:TYR:HD2	1.96	0.47
9:I:76:THR:HG22	9:I:77:ARG:O	2.14	0.47
15:O:44:VAL:HG13	15:O:93:LEU:HD22	1.96	0.47
20:T:38:LYS:HD2	20:T:46:ALA:HA	1.97	0.47
4:D:158:ILE:O	4:D:158:ILE:HG12	2.15	0.47
25:Y:55:ILE:CA	25:Y:75:ILE:HG12	2.44	0.47
25:Y:54:VAL:HG13	25:Y:76:TYR:CB	2.45	0.47
11:K:59:LYS:HD2	11:K:59:LYS:C	2.34	0.47
4:D:23:GLU:HB3	11:K:64:TRP:HE1	1.79	0.47
21:U:108:PRO:HG2	21:U:110:VAL:HG23	1.96	0.47
21:U:50:VAL:HG22	21:U:51:LYS:CA	2.35	0.47
4:D:40:ARG:CD	21:U:107:GLU:OE2	2.62	0.47
11:K:64:TRP:O	11:K:65:ARG:CG	2.63	0.47
6:F:42:LYS:C	6:F:45:TYR:H	2.17	0.47
6:F:91:ARG:HD2	17:Q:46:THR:CG2	2.40	0.47
16:P:17:TYR:CE1	16:P:18:ARG:HB2	2.49	0.47
6:F:98:GLU:O	6:F:102:LEU:HG	2.14	0.47
26:Z:107:VAL:HG23	26:Z:108:ILE:H	1.80	0.47
25:Y:101:LYS:HG2	25:Y:101:LYS:HZ2	1.45	0.47
16:P:127:LYS:CD	16:P:127:LYS:O	2.62	0.47
19:S:138:THR:CA	19:S:141:ARG:CZ	2.65	0.47
4:D:212:GLU:HB3	18:R:19:LYS:CG	2.43	0.47
4:D:217:ILE:O	4:D:218:LEU:HB3	2.15	0.47
4:D:222:PRO:O	4:D:223:ILE:CD1	2.63	0.47
20:T:75:MET:HE2	20:T:79:TYR:CE2	2.32	0.47
15:O:37:PHE:CE1	15:O:110:PRO:HD3	2.50	0.47
5:E:195:ILE:O	5:E:196:THR:CB	2.63	0.47
2:B:225:LEU:HB3	2:B:229:MET:HE1	1.96	0.47
21:U:88:LEU:HD12	21:U:88:LEU:C	2.35	0.47
5:E:200:ARG:HG2	5:E:206:ASP:OD2	2.14	0.47
4:D:137:VAL:HG22	4:D:151:LYS:HG3	1.95	0.47
2:B:223:PHE:HB3	2:B:224:GLU:H	1.39	0.47
3:C:79:ILE:CD1	3:C:147:ILE:HD13	2.34	0.47
5:E:46:ILE:HA	5:E:50:ASN:HB2	1.97	0.47
6:F:138:ALA:HB3	6:F:204:ARG:HB3	1.97	0.47
8:H:169:LYS:HD2	8:H:173:PHE:CZ	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:43:HIS:CD2	15:O:43:HIS:O	2.68	0.47
8:H:144:ILE:N	23:W:52:ILE:O	2.48	0.47
24:X:58:GLU:CG	24:X:58:GLU:O	2.62	0.47
25:Y:20:ARG:C	25:Y:21:LYS:CD	2.82	0.47
25:Y:55:ILE:HG12	25:Y:75:ILE:HD11	1.81	0.47
11:K:40:VAL:HG21	11:K:45:VAL:HG23	1.95	0.47
6:F:42:LYS:CB	6:F:45:TYR:CA	2.81	0.47
6:F:20:PHE:HZ	6:F:50:PRO:HG3	1.80	0.47
4:D:202:LYS:HB3	4:D:203:PRO:HD3	1.95	0.47
10:J:79:ARG:C	10:J:79:ARG:CD	2.83	0.47
20:T:42:HIS:HE1	20:T:93:SER:HB3	1.74	0.47
26:Z:94:LYS:CD	26:Z:95:GLY:N	2.73	0.47
7:G:51:ARG:HH11	7:G:51:ARG:HG2	1.80	0.47
3:C:118:TYR:O	3:C:203:GLY:HA3	2.15	0.47
10:J:139:LYS:HA	10:J:139:LYS:HD2	1.52	0.47
1:A:124:VAL:HG21	1:A:134:LEU:CD2	2.44	0.47
1:A:76:VAL:HG12	1:A:87:VAL:CB	2.44	0.47
2:B:93:GLY:O	2:B:94:LYS:HG2	2.15	0.47
3:C:49:THR:HG21	3:C:75:GLU:HG3	1.97	0.47
10:J:94:LEU:C	10:J:94:LEU:HD12	2.34	0.47
13:M:44:LYS:HA	13:M:45:ARG:HH21	1.80	0.47
15:O:119:LEU:HD12	15:O:119:LEU:C	2.35	0.47
22:V:11:LEU:HD12	22:V:11:LEU:C	2.35	0.47
25:Y:114:MET:HE3	25:Y:125:VAL:HG22	1.97	0.47
17:Q:16:LYS:HD2	17:Q:17:LYS:H	1.74	0.47
20:T:31:PRO:HB2	20:T:33:TRP:NE1	2.29	0.47
4:D:4:GLN:C	4:D:5:ILE:HG13	2.35	0.47
4:D:76:ARG:CZ	11:K:66:HIS:HE1	2.07	0.47
11:K:2:LEU:O	11:K:3:MET:CE	2.63	0.47
17:Q:42:ILE:HD12	17:Q:51:LEU:HD11	1.95	0.47
19:S:86:ARG:NH1	19:S:89:ASP:OD2	2.33	0.47
19:S:90:VAL:HG12	19:S:91:LYS:CD	2.44	0.47
18:R:21:TYR:HB2	18:R:71:ILE:HD13	0.64	0.47
20:T:16:ARG:HH11	20:T:16:ARG:HG3	1.77	0.47
13:M:102:LYS:O	13:M:103:VAL:C	2.52	0.47
9:I:38:ILE:HD11	9:I:81:VAL:HG23	1.97	0.47
8:H:109:ARG:HB3	8:H:110:THR:H	1.14	0.47
1:A:161:ILE:HG22	1:A:174:MET:HE2	1.97	0.47
3:C:244:THR:HG22	3:C:246:PHE:CA	2.43	0.47
3:C:244:THR:HG22	3:C:246:PHE:CB	2.44	0.47
5:E:152:PRO:HD3	7:G:209:TYR:HE1	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:125:LYS:CB	5:E:226:PHE:CE1	2.96	0.47
6:F:141:VAL:HG22	6:F:146:ARG:HD3	1.97	0.47
7:G:210:ALA:HA	7:G:213:LEU:CD2	2.45	0.47
8:H:190:PRO:HB2	8:H:191:GLU:HG3	1.96	0.47
9:I:114:GLU:O	9:I:118:ALA:HA	2.15	0.47
10:J:114:VAL:O	10:J:120:ALA:HB3	2.15	0.47
3:C:185:ARG:HB3	10:J:98:LEU:O	2.14	0.47
18:R:103:LYS:HG3	18:R:107:LYS:HE3	1.97	0.47
20:T:55:THR:HG23	20:T:56:ARG:N	2.30	0.47
5:E:64:ILE:CG1	25:Y:18:LEU:HD21	2.44	0.47
25:Y:54:VAL:HG13	25:Y:76:TYR:C	2.33	0.47
4:D:23:GLU:HG2	11:K:64:TRP:NE1	2.28	0.47
21:U:104:ILE:HD13	21:U:104:ILE:HG21	1.71	0.47
6:F:14:THR:OG1	17:Q:56:LEU:HD13	2.07	0.47
17:Q:34:VAL:HG22	17:Q:39:LEU:HD21	1.93	0.47
13:M:35:ILE:CG1	13:M:61:TYR:CE2	2.98	0.47
26:Z:99:LEU:HD21	26:Z:109:TYR:CZ	2.49	0.47
25:Y:101:LYS:O	25:Y:102:THR:OG1	2.30	0.47
10:J:93:LYS:HE3	10:J:93:LYS:CA	2.45	0.47
3:C:241:TRP:HH2	23:W:44:HIS:O	1.98	0.47
25:Y:43:LYS:O	25:Y:46:LYS:HG3	2.16	0.47
4:D:178:ARG:NE	4:D:178:ARG:H	2.13	0.47
5:E:259:LYS:O	5:E:260:GLN:HG2	2.14	0.47
14:N:7:PRO:CD	14:N:8:GLY:N	2.78	0.47
17:Q:10:VAL:CG1	17:Q:11:GLN:N	2.78	0.47
5:E:146:THR:C	5:E:147:ILE:HD13	2.35	0.47
7:G:6:SER:OG	7:G:112:VAL:HG22	2.15	0.47
2:B:24:PRO:O	2:B:28:LYS:HG3	2.15	0.46
3:C:59:LYS:HD2	3:C:254:PHE:CE1	2.48	0.46
3:C:63:LEU:CB	3:C:67:TYR:CE2	2.98	0.46
7:G:162:LEU:HD23	7:G:172:LYS:HZ3	1.74	0.46
9:I:191:GLU:O	9:I:195:LEU:HB3	2.16	0.46
2:B:52:THR:OG1	14:N:56:ASP:OD1	86.34	0.46
14:N:84:LEU:HD12	14:N:84:LEU:O	2.14	0.46
24:X:94:ILE:CD1	24:X:122:VAL:HG11	2.37	0.46
20:T:33:TRP:O	20:T:34:VAL:HB	2.14	0.46
20:T:33:TRP:CD1	20:T:34:VAL:N	2.82	0.46
20:T:45:LEU:HD23	20:T:48:TYR:CE1	2.49	0.46
8:H:29:GLU:OE1	8:H:86:LYS:HE3	2.15	0.46
8:H:37:LYS:HD2	8:H:41:ARG:HD3	1.97	0.46
8:H:50:GLU:OE1	8:H:58:LYS:HE2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:115:TYR:CD2	17:Q:115:TYR:C	2.88	0.46
19:S:117:ILE:O	19:S:117:ILE:HG22	2.15	0.46
16:P:49:LEU:C	16:P:51:ARG:CA	2.82	0.46
5:E:47:PHE:CE2	5:E:52:LEU:HD12	2.42	0.46
23:W:65:LEU:HD12	23:W:65:LEU:C	2.35	0.46
18:R:87:GLU:O	18:R:88:VAL:CG1	2.62	0.46
2:B:228:LEU:CD2	2:B:232:HIS:CD2	2.98	0.46
3:C:175:SER:O	3:C:213:GLY:HA3	2.14	0.46
1:A:6:ASP:O	1:A:7:VAL:C	2.53	0.46
7:G:142:ARG:NH2	7:G:152:ASP:N	2.54	0.46
7:G:25:ARG:C	7:G:27:PHE:N	2.68	0.46
7:G:79:LYS:HD2	7:G:80:GLY:N	2.30	0.46
8:H:191:GLU:CD	8:H:193:GLN:OE1	2.54	0.46
22:V:69:ILE:O	22:V:73:ALA:N	2.45	0.46
16:P:53:GLN:HG3	16:P:80:LEU:HD11	1.84	0.46
16:P:10:ARG:NH2	16:P:11:THR:HG22	2.26	0.46
11:K:43:LEU:N	11:K:46:MET:H	2.13	0.46
16:P:17:TYR:CE2	16:P:25:LEU:CD2	2.98	0.46
19:S:55:ARG:HB2	19:S:58:GLU:HG3	1.97	0.46
4:D:193:ASP:HB3	4:D:194:PRO:HD3	1.98	0.46
2:B:150:ILE:HG13	18:R:124:VAL:HG13	1.83	0.46
10:J:91:LYS:CA	10:J:96:TYR:CD2	2.99	0.46
3:C:159:ILE:O	3:C:159:ILE:HG23	2.15	0.46
21:U:59:LYS:HD2	21:U:84:ILE:HG21	1.97	0.46
9:I:206:LYS:CD	9:I:207:GLY:N	2.56	0.46
23:W:27:ILE:HG12	23:W:61:ILE:HB	1.96	0.46
10:J:113:GLN:OE1	10:J:116:LYS:HD3	2.15	0.46
3:C:227:ASP:O	3:C:231:LYS:HG3	2.16	0.46
8:H:139:ILE:N	8:H:139:ILE:HD12	2.30	0.46
1:A:120:ARG:HG2	1:A:120:ARG:HH11	1.80	0.46
1:A:130:ASP:HB3	1:A:133:PRO:HG2	1.97	0.46
2:B:55:THR:C	2:B:56:LYS:HD2	2.31	0.46
5:E:126:VAL:HG22	5:E:157:ASN:N	2.29	0.46
7:G:162:LEU:HD21	7:G:170:ARG:HG3	1.97	0.46
12:L:42:LEU:HB2	12:L:44:PHE:CE2	2.50	0.46
15:O:16:SER:O	15:O:17:LEU:CB	2.61	0.46
15:O:31:CYS:SG	15:O:95:ILE:HG13	2.55	0.46
15:O:62:VAL:HG22	15:O:72:TYR:HH	1.78	0.46
8:H:40:LEU:O	8:H:41:ARG:C	2.54	0.46
8:H:9:VAL:O	8:H:45:ILE:O	2.33	0.46
19:S:40:TYR:CE1	19:S:44:VAL:HG21	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:58:GLU:O	19:S:59:LEU:HB2	2.15	0.46
19:S:80:PRO:HB2	19:S:82:TRP:NE1	2.31	0.46
25:Y:102:THR:HB	25:Y:104:ARG:H	1.78	0.46
1:A:205:ARG:NH1	18:R:82:ASP:C	2.60	0.46
6:F:185:SER:HA	6:F:190:ILE:HD12	1.96	0.46
15:O:82:ALA:O	15:O:86:LYS:HG2	2.15	0.46
1:A:8:LEU:HD12	1:A:192:GLU:OE1	2.15	0.46
5:E:11:ARG:C	5:E:12:VAL:HG23	2.35	0.46
7:G:13:GLN:O	7:G:14:LYS:CG	2.63	0.46
7:G:227:GLN:CA	7:G:230:LYS:HZ3	2.27	0.46
7:G:62:PRO:HB2	7:G:83:CYS:SG	2.56	0.46
9:I:154:LYS:HD3	9:I:155:ASN:HA	1.94	0.46
10:J:169:ARG:HG2	10:J:175:ARG:NH1	2.30	0.46
2:B:83:LYS:HZ1	15:O:130:GLU:CD	2.18	0.46
4:D:132:LYS:HB3	4:D:189:MET:O	2.15	0.46
25:Y:50:THR:C	25:Y:51:THR:HG23	2.35	0.46
6:F:88:MET:O	6:F:92:ILE:HG13	2.15	0.46
17:Q:81:ILE:O	17:Q:84:ILE:HG12	2.15	0.46
17:Q:9:SER:HB2	17:Q:26:LYS:CG	2.10	0.46
16:P:106:GLU:O	19:S:118:ARG:NH2	2.49	0.46
4:D:197:LYS:H	4:D:198:ILE:HG13	1.81	0.46
2:B:209:ASP:C	2:B:210:VAL:HG23	2.34	0.46
18:R:6:THR:O	18:R:10:LYS:HG2	2.15	0.46
13:M:33:ARG:HG3	13:M:33:ARG:NH1	2.21	0.46
13:M:77:ILE:CG2	13:M:78:LYS:H	2.06	0.46
8:H:153:LEU:CD2	8:H:184:ASP:HB2	2.46	0.46
19:S:73:ASN:O	19:S:76:GLN:OE1	2.34	0.46
6:F:55:ARG:HG3	6:F:55:ARG:O	2.15	0.46
1:A:59:LEU:CD2	1:A:181:GLU:CG	2.93	0.46
1:A:81:ASN:HA	1:A:84:GLN:OE1	2.15	0.46
7:G:143:LYS:HA	7:G:143:LYS:HE3	1.97	0.46
9:I:142:SER:CB	9:I:143:LYS:CE	2.93	0.46
12:L:128:VAL:HG12	12:L:142:VAL:HA	1.98	0.46
14:N:93:LYS:CG	14:N:150:VAL:HG11	2.46	0.46
14:N:21:SER:C	14:N:22:VAL:CG1	2.75	0.46
14:N:27:LYS:CD	14:N:28:LEU:H	2.29	0.46
22:V:24:ILE:CD1	22:V:25:GLY:C	2.84	0.46
1:A:142:LEU:C	22:V:32:ILE:HD13	2.35	0.46
24:X:5:ARG:HB3	24:X:5:ARG:HH21	1.77	0.46
25:Y:19:GLN:CB	25:Y:81:TYR:HB3	2.46	0.46
4:D:34:TYR:CD2	21:U:61:LEU:HD13	25.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:85:ARG:CZ	17:Q:117:ARG:CG	2.73	0.46
26:Z:103:HIS:C	26:Z:103:HIS:CD2	2.89	0.46
19:S:40:TYR:CD1	19:S:44:VAL:CG2	2.99	0.46
19:S:53:THR:C	19:S:54:LYS:CA	2.72	0.46
19:S:88:LYS:O	19:S:89:ASP:C	2.46	0.46
26:Z:52:LYS:HB3	26:Z:53:ALA:H	1.49	0.46
25:Y:88:LYS:HE2	25:Y:99:LYS:HG3	1.97	0.46
23:W:96:SER:OG	23:W:99:PHE:CD2	2.69	0.46
13:M:19:GLN:CG	13:M:88:TRP:CD1	2.97	0.46
5:E:213:ALA:O	5:E:214:ASN:OD1	2.33	0.46
10:J:179:LYS:HA	10:J:182:GLN:CG	2.45	0.46
9:I:9:HIS:O	9:I:10:LYS:CB	2.62	0.46
1:A:188:THR:CG2	1:A:188:THR:O	2.28	0.46
4:D:94:ARG:HB3	4:D:94:ARG:HE	1.40	0.46
4:D:142:LEU:O	4:D:144:GLY:N	2.48	0.46
2:B:36:PRO:CA	2:B:231:LEU:CD2	2.94	0.46
7:G:145:PHE:C	7:G:147:LEU:HD12	2.36	0.46
12:L:149:ALA:HB2	12:L:156:GLN:CB	2.16	0.46
14:N:16:LEU:HD23	14:N:17:PRO:CD	2.44	0.46
4:D:38:GLU:CG	4:D:49:ILE:HB	2.45	0.46
11:K:40:VAL:CG2	11:K:44:HIS:N	2.77	0.46
17:Q:113:ILE:CG1	17:Q:120:LEU:CD1	2.92	0.46
17:Q:41:MET:O	17:Q:43:GLU:N	2.48	0.46
16:P:75:VAL:HG22	16:P:93:MET:HB3	1.97	0.46
13:M:35:ILE:CB	13:M:61:TYR:CE2	2.95	0.46
10:J:87:LEU:HD11	10:J:92:MET:H	1.81	0.46
3:C:242:LYS:HE2	3:C:242:LYS:HB2	1.73	0.46
14:N:13:GLN:C	14:N:14:SER:O	2.47	0.46
10:J:100:LEU:HD12	10:J:101:LYS:H	1.80	0.46
18:R:87:GLU:O	18:R:88:VAL:HB	2.15	0.46
5:E:2:ALA:O	5:E:3:ARG:CG	2.62	0.46
20:T:21:PHE:HD1	20:T:22:LEU:N	2.14	0.46
17:Q:62:ARG:HD3	17:Q:62:ARG:HA	1.47	0.46
1:A:58:LEU:HA	1:A:161:ILE:HG12	1.98	0.46
5:E:166:THR:O	5:E:168:LYS:CD	2.52	0.46
7:G:71:GLY:O	7:G:98:ARG:NE	2.48	0.46
10:J:124:HIS:HB3	10:J:125:HIS:H	1.15	0.46
3:C:197:LYS:C	3:C:200:LEU:CD2	2.80	0.46
16:P:10:ARG:O	16:P:11:THR:C	2.54	0.46
21:U:27:ARG:CZ	21:U:82:MET:CG	2.94	0.46
8:H:10:LYS:HZ1	8:H:16:PRO:C	2.19	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:104:ARG:C	26:Z:104:ARG:NH1	2.69	0.46
19:S:50:ILE:O	19:S:52:LEU:N	2.49	0.46
10:J:41:ARG:HA	10:J:44:TRP:HB2	1.98	0.46
26:Z:99:LEU:HD13	26:Z:102:LYS:HE2	0.55	0.46
24:X:60:LYS:CD	24:X:116:PRO:HG3	2.44	0.46
21:U:25:THR:HG22	21:U:86:LYS:CG	2.34	0.46
13:M:51:VAL:CG1	13:M:109:VAL:CG2	2.93	0.46
8:H:119:SER:O	8:H:120:ARG:CZ	2.63	0.46
2:B:134:LEU:HD12	2:B:219:LYS:CB	2.43	0.46
5:E:53:LYS:HA	5:E:53:LYS:HD3	1.80	0.46
1:A:158:ASP:CG	1:A:158:ASP:O	2.54	0.46
5:E:124:CYS:HG	5:E:162:ILE:HD13	1.81	0.46
6:F:127:ARG:HD3	6:F:127:ARG:O	2.16	0.46
7:G:16:ILE:HD13	7:G:45:TRP:CE2	2.34	0.46
7:G:68:LEU:C	7:G:69:THR:HG1	2.06	0.46
14:N:82:PRO:O	14:N:83:ASP:C	2.53	0.46
18:R:32:LYS:CE	18:R:33:ARG:HE	2.19	0.46
1:A:7:VAL:CG2	22:V:43:THR:HG21	2.44	0.46
25:Y:19:GLN:CG	25:Y:81:TYR:CD1	2.71	0.46
11:K:30:PRO:HA	11:K:41:PRO:HB3	1.97	0.46
21:U:47:ASN:H	21:U:47:ASN:ND2	2.14	0.46
8:H:16:PRO:O	8:H:20:GLU:OE1	2.34	0.46
8:H:35:ASP:C	8:H:35:ASP:OD1	2.50	0.46
17:Q:45:ARG:O	17:Q:48:GLN:HB3	2.16	0.46
16:P:17:TYR:CD2	16:P:25:LEU:HD21	2.51	0.46
19:S:50:ILE:O	19:S:51:ASP:C	2.52	0.46
4:D:217:ILE:HG22	4:D:218:LEU:N	2.30	0.46
3:C:191:SER:OG	3:C:209:THR:HG21	2.15	0.46
13:M:102:LYS:HG3	13:M:103:VAL:H	1.81	0.46
11:K:94:LEU:O	11:K:95:ARG:HB2	2.15	0.46
23:W:30:CYS:SG	23:W:31:SER:N	2.89	0.46
9:I:97:VAL:O	9:I:100:CYS:HB2	2.15	0.46
2:B:53:GLN:C	2:B:55:THR:H	2.18	0.46
3:C:148:VAL:CB	3:C:149:PRO:HD3	2.43	0.46
9:I:130:THR:N	9:I:131:PRO:CD	2.78	0.46
10:J:67:ASP:O	10:J:69:ARG:N	2.49	0.46
12:L:59:LYS:HD3	12:L:134:LEU:HD21	1.98	0.46
14:N:141:TYR:C	14:N:141:TYR:CD2	2.88	0.46
24:X:51:VAL:CG2	24:X:70:VAL:HG11	2.46	0.46
4:D:2:ALA:C	4:D:4:GLN:N	2.64	0.46
8:H:146:VAL:HG11	23:W:50:PHE:CE2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:21:LYS:HD2	24:X:27:TYR:CG	2.51	0.46
16:P:17:TYR:CD2	16:P:25:LEU:CD2	2.99	0.46
19:S:88:LYS:O	19:S:89:ASP:O	2.34	0.46
6:F:174:ALA:O	6:F:178:ILE:HG13	2.16	0.46
18:R:17:ILE:CG1	18:R:54:VAL:HG13	2.46	0.46
24:X:67:ARG:NH2	24:X:114:ASP:OD2	2.49	0.46
24:X:3:LYS:HE2	24:X:3:LYS:HB3	1.59	0.46
16:P:65:LYS:CG	16:P:66:GLU:N	2.79	0.46
13:M:85:LEU:HD23	13:M:85:LEU:O	2.16	0.46
14:N:131:THR:O	14:N:132:LYS:HD2	2.16	0.46
9:I:7:ASN:O	9:I:9:HIS:C	2.51	0.46
21:U:116:ILE:O	21:U:117:ALA:HB2	2.16	0.46
3:C:121:HIS:O	3:C:122:VAL:HG13	2.16	0.46
9:I:29:LEU:CG	9:I:30:GLY:H	2.22	0.46
4:D:209:SER:O	18:R:40:ILE:N	2.45	0.46
2:B:228:LEU:HD22	2:B:232:HIS:CD2	2.51	0.46
16:P:67:ALA:HB1	16:P:73:PRO:HB3	1.98	0.46
6:F:163:PHE:CD2	6:F:164:ARG:HG2	2.50	0.46
26:Z:90:GLU:O	26:Z:93:SER:N	2.43	0.46
18:R:112:GLY:O	18:R:113:SER:OG	2.32	0.46
1:A:98:PRO:C	1:A:99:ILE:HG13	2.36	0.46
2:B:103:MET:O	2:B:214:LYS:HA	2.15	0.46
2:B:53:GLN:O	2:B:56:LYS:N	2.49	0.46
2:B:72:ALA:CB	2:B:79:VAL:HG23	2.46	0.46
7:G:121:ILE:CG2	7:G:122:PRO:HD2	2.26	0.46
7:G:172:LYS:HD3	7:G:172:LYS:O	6.03	0.46
12:L:126:VAL:CG2	12:L:142:VAL:HG13	2.46	0.46
12:L:12:LYS:HB3	12:L:12:LYS:HE3	1.80	0.46
9:I:197:PHE:CD2	12:L:5:GLN:CG	2.99	0.46
24:X:125:VAL:O	24:X:128:VAL:CB	2.64	0.46
16:P:9:LYS:O	16:P:10:ARG:NE	2.49	0.46
4:D:34:TYR:O	4:D:99:ILE:HD12	2.16	0.46
17:Q:112:LEU:HD12	17:Q:120:LEU:HD21	1.94	0.46
17:Q:18:THR:C	17:Q:75:GLY:HA3	2.37	0.46
17:Q:47:LEU:O	17:Q:48:GLN:C	2.54	0.46
26:Z:103:HIS:C	26:Z:105:ALA:N	2.69	0.46
17:Q:9:SER:OG	17:Q:26:LYS:HE3	2.13	0.46
10:J:87:LEU:HG	10:J:88:ASP:N	2.31	0.46
2:B:144:LYS:HB3	2:B:208:HIS:HB3	1.97	0.46
4:D:221:THR:CB	4:D:222:PRO:CD	2.77	0.46
3:C:158:LYS:H	3:C:158:LYS:HG3	1.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:92:ASP:O	18:R:93:GLN:CD	2.55	0.46
3:C:194:VAL:N	3:C:195:PRO:CD	2.79	0.46
6:F:151:ILE:O	6:F:152:TRP:C	2.53	0.46
24:X:102:VAL:HG13	24:X:120:PHE:HB3	1.91	0.46
12:L:1:MET:O	12:L:2:ALA:CB	2.52	0.46
9:I:129:LEU:O	9:I:134:GLU:CB	2.63	0.46
1:A:70:ASN:O	1:A:73:ASP:OD1	2.33	0.46
2:B:189:ILE:HB	2:B:190:PRO:HD3	1.96	0.46
1:A:36:GLN:NE2	1:A:53:ARG:HH12	2.14	0.45
2:B:71:LEU:CB	2:B:84:PHE:CE2	2.99	0.45
7:G:68:LEU:N	7:G:68:LEU:HD22	2.30	0.45
9:I:74:ARG:HD2	9:I:74:ARG:HA	1.48	0.45
12:L:149:ALA:HA	12:L:156:GLN:HE21	1.76	0.45
12:L:76:VAL:O	12:L:76:VAL:HG23	2.16	0.45
12:L:96:ILE:N	12:L:96:ILE:HD12	2.30	0.45
14:N:94:LYS:HE3	14:N:118:ILE:CD1	2.46	0.45
22:V:55:ILE:CD1	22:V:65:SER:O	2.64	0.45
22:V:78:ILE:C	22:V:79:VAL:HG23	2.36	0.45
4:D:59:LEU:C	4:D:59:LEU:HD12	2.25	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
12:L:18:GLN:NE2	12:L:20:LYS:HD2	2.27	0.45
16:P:17:TYR:C	19:S:90:VAL:O	2.55	0.45
26:Z:62:VAL:HA	26:Z:65:TYR:CD2	2.52	0.45
16:P:127:LYS:CE	16:P:128:HIS:CA	2.95	0.45
13:M:13:ASP:CB	13:M:16:THR:OG1	2.64	0.45
8:H:118:ARG:O	8:H:121:THR:HG22	2.15	0.45
12:L:2:ALA:O	12:L:3:ASP:C	2.54	0.45
20:T:21:PHE:CD1	20:T:22:LEU:N	2.85	0.45
16:P:94:VAL:HG12	16:P:96:VAL:HG23	1.97	0.45
1:A:123:VAL:CG1	1:A:175:TRP:CH2	3.00	0.45
5:E:98:ASN:HD21	5:E:114:ILE:HD11	1.81	0.45
7:G:218:LYS:H	7:G:218:LYS:HG3	1.52	0.45
7:G:224:ARG:HG2	7:G:224:ARG:H	1.59	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
10:J:110:LEU:HD23	10:J:110:LEU:HA	1.83	0.45
12:L:147:LYS:NZ	12:L:156:GLN:HE22	2.15	0.45
12:L:71:ARG:CG	12:L:73:LEU:CG	2.94	0.45
22:V:38:GLU:OE1	22:V:49:GLN:HB3	2.15	0.45
19:S:42:HIS:CB	20:T:45:LEU:CD1	2.88	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:85:LEU:HD13	11:K:89:ILE:HG13	1.97	0.45
21:U:46:LYS:HZ1	21:U:97:ILE:CG1	2.24	0.45
6:F:15:PRO:CD	17:Q:56:LEU:HB3	2.41	0.45
6:F:47:LYS:N	6:F:47:LYS:HD3	2.29	0.45
10:J:90:GLY:O	10:J:96:TYR:HD2	1.76	0.45
15:O:105:THR:O	15:O:106:LYS:CB	2.64	0.45
25:Y:93:ARG:CG	25:Y:93:ARG:NH1	2.53	0.45
10:J:179:LYS:HA	10:J:182:GLN:HB2	1.99	0.45
23:W:104:LEU:CD1	23:W:106:THR:HG22	2.43	0.45
23:W:7:LEU:HD21	23:W:33:VAL:HG12	1.99	0.45
9:I:36:THR:HG23	9:I:96:LEU:HB2	1.98	0.45
18:R:88:VAL:HG12	18:R:88:VAL:O	2.15	0.45
8:H:154:ILE:CG2	8:H:185:VAL:HG23	2.45	0.45
8:H:154:ILE:HG22	8:H:185:VAL:HG22	1.99	0.45
2:B:71:LEU:HA	2:B:74:LEU:HB2	1.97	0.45
3:C:69:PHE:CE1	3:C:247:THR:CG2	2.99	0.45
4:D:225:GLU:HG3	4:D:227:LYS:HE2	1.98	0.45
5:E:152:PRO:HD3	7:G:209:TYR:CE1	2.51	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	1.99	0.45
7:G:198:ARG:HH21	7:G:201:LYS:HG3	1.82	0.45
8:H:168:HIS:CE1	8:H:169:LYS:HE2	2.51	0.45
9:I:138:ASN:C	9:I:139:LYS:O	2.53	0.45
10:J:171:GLY:O	10:J:172:ARG:C	2.55	0.45
14:N:38:TYR:CE1	14:N:78:LYS:HG3	2.50	0.45
15:O:98:ARG:HD2	15:O:132:VAL:HG23	1.97	0.45
22:V:19:ALA:CB	22:V:59:ILE:CD1	2.76	0.45
24:X:126:ALA:CB	24:X:128:VAL:CG1	2.88	0.45
25:Y:114:MET:CE	25:Y:121:ALA:O	2.64	0.45
16:P:56:LEU:CD2	16:P:78:THR:HG22	2.44	0.45
16:P:86:LEU:N	16:P:86:LEU:CD2	2.72	0.45
11:K:53:LYS:CA	11:K:58:VAL:CG1	2.94	0.45
8:H:14:GLU:CG	8:H:15:LYS:O	2.64	0.45
17:Q:50:LYS:NZ	17:Q:117:ARG:HH11	2.14	0.45
19:S:15:VAL:CG1	19:S:68:ILE:CD1	2.91	0.45
1:A:205:ARG:O	1:A:206:ASP:CB	2.61	0.45
4:D:222:PRO:O	4:D:223:ILE:CB	2.65	0.45
6:F:32:ASP:OD2	6:F:35:LEU:HD12	2.16	0.45
15:O:147:ARG:O	15:O:147:ARG:HG2	2.17	0.45
1:A:127:PRO:CG	1:A:153:PRO:HD2	2.30	0.45
1:A:66:VAL:HA	1:A:186:ARG:HD2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:145:LEU:HG	3:C:146:SER:N	2.31	0.45
3:C:65:GLU:O	3:C:69:PHE:HD2	1.99	0.45
7:G:162:LEU:HD12	7:G:162:LEU:C	2.34	0.45
7:G:221:LYS:O	7:G:221:LYS:HG2	2.17	0.45
7:G:27:PHE:HE2	7:G:41:LEU:CD1	2.12	0.45
10:J:124:HIS:O	10:J:127:ARG:N	2.49	0.45
14:N:50:ILE:HG23	14:N:54:LEU:HD11	1.98	0.45
14:N:36:GLN:HG3	14:N:54:LEU:HD21	1.99	0.45
15:O:119:LEU:HD11	15:O:126:ILE:HD11	1.97	0.45
15:O:17:LEU:CD2	15:O:18:GLY:H	2.27	0.45
18:R:99:ASP:C	18:R:119:VAL:HG13	2.20	0.45
4:D:44:THR:C	4:D:83:SER:HG	2.18	0.45
11:K:62:PHE:CZ	11:K:65:ARG:HA	2.52	0.45
19:S:124:ARG:CD	19:S:130:ARG:O	2.43	0.45
4:D:166:TYR:CE1	4:D:200:PRO:HB2	2.41	0.45
24:X:105:PHE:CB	24:X:112:VAL:HG21	2.46	0.45
20:T:12:GLN:O	20:T:16:ARG:HB2	2.17	0.45
24:X:1:MET:SD	24:X:1:MET:N	2.80	0.45
3:C:241:TRP:CG	23:W:68:ARG:NH1	2.73	0.45
13:M:102:LYS:HG3	13:M:103:VAL:N	2.31	0.45
10:J:86:VAL:HG11	10:J:105:PHE:CE1	2.51	0.45
24:X:28:LYS:HE2	24:X:32:LEU:CD1	2.47	0.45
1:A:28:THR:CG2	1:A:46:ILE:HD13	2.45	0.45
5:E:153:LEU:HD21	7:G:216:ARG:NH1	2.32	0.45
6:F:122:ARG:HH21	6:F:193:LYS:NZ	2.11	0.45
6:F:38:TYR:N	6:F:38:TYR:HD2	2.15	0.45
7:G:161:PRO:HA	7:G:170:ARG:O	2.17	0.45
9:I:143:LYS:O	9:I:144:LYS:C	2.55	0.45
9:I:67:TRP:CD2	9:I:70:GLU:HG2	2.52	0.45
15:O:72:TYR:CE1	15:O:76:LEU:CD1	2.98	0.45
22:V:40:ASP:O	22:V:40:ASP:OD1	2.34	0.45
24:X:91:LEU:C	24:X:93:PHE:H	2.20	0.45
16:P:97:TYR:CD1	16:P:102:PHE:CE2	3.04	0.45
20:T:77:LYS:HD2	20:T:94:ARG:HH11	1.78	0.45
8:H:84:GLU:O	8:H:88:SER:HA	2.16	0.45
17:Q:51:LEU:O	17:Q:54:PRO:HD2	2.16	0.45
16:P:15:PHE:CD2	16:P:110:GLU:OE2	2.69	0.45
19:S:23:ARG:HD3	26:Z:48:VAL:CG2	2.46	0.45
26:Z:96:LEU:C	26:Z:112:ASN:HD22	2.19	0.45
4:D:223:ILE:N	4:D:223:ILE:HD12	2.31	0.45
3:C:221:PHE:C	3:C:221:PHE:CD2	2.90	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:260:LYS:HD2	3:C:261:THR:H	1.67	0.45
26:Z:94:LYS:NZ	26:Z:95:GLY:N	2.56	0.45
10:J:148:ILE:O	10:J:148:ILE:HG22	2.17	0.45
1:A:9:GLN:CB	1:A:10:MET:SD	2.90	0.45
1:A:57:LYS:HD3	1:A:159:ILE:HD11	1.98	0.45
2:B:90:ASP:OD2	2:B:91:VAL:N	2.48	0.45
5:E:123:LEU:HA	5:E:123:LEU:HD12	1.77	0.45
8:H:163:GLN:O	8:H:164:ASN:C	2.54	0.45
9:I:54:LYS:HD3	9:I:181:GLN:OE1	2.17	0.45
12:L:12:LYS:C	12:L:56:ILE:HD11	2.36	0.45
12:L:60:CYS:HB3	12:L:63:THR:OG1	2.16	0.45
1:A:186:ARG:HG3	22:V:46:PHE:CZ	2.49	0.45
20:T:38:LYS:HE2	20:T:45:LEU:HA	1.98	0.45
25:Y:50:THR:O	25:Y:51:THR:CB	2.63	0.45
11:K:4:PRO:CG	11:K:7:ASN:HB2	2.26	0.45
8:H:50:GLU:CD	8:H:58:LYS:HE2	2.36	0.45
26:Z:51:ASP:HB2	26:Z:54:THR:HG23	1.98	0.45
4:D:112:GLY:N	4:D:113:LEU:HD11	2.28	0.45
24:X:67:ARG:NE	24:X:67:ARG:HA	2.30	0.45
6:F:112:LEU:O	6:F:116:ILE:HG12	2.16	0.45
2:B:131:ASP:OD1	2:B:180:ASP:HA	2.15	0.45
20:T:65:TYR:CD2	20:T:123:LEU:HD12	2.51	0.45
2:B:228:LEU:HD21	2:B:232:HIS:NE2	2.31	0.45
6:F:175:ASP:O	6:F:175:ASP:OD1	2.35	0.45
15:O:147:ARG:HH21	15:O:150:ARG:NH2	2.15	0.45
19:S:48:ALA:HB2	19:S:70:ILE:HD12	1.98	0.45
1:A:149:ASN:H	1:A:165:ASN:ND2	2.14	0.45
3:C:150:VAL:HG23	3:C:150:VAL:O	2.15	0.45
7:G:176:ILE:HG21	7:G:179:LEU:HB2	1.94	0.45
7:G:1:MET:HB3	7:G:1:MET:HE2	1.89	0.45
8:H:172:THR:HG23	8:H:173:PHE:N	2.32	0.45
8:H:188:GLU:HG2	8:H:189:PHE:N	2.30	0.45
9:I:37:LYS:NZ	9:I:93:THR:HB	2.32	0.45
9:I:73:THR:O	9:I:74:ARG:CD	2.65	0.45
20:T:31:PRO:HG3	20:T:102:ARG:HG3	1.91	0.45
3:C:189:ILE:HG21	3:C:196:LYS:HA	1.99	0.45
8:H:8:ILE:O	8:H:11:PRO:HD3	2.16	0.45
8:H:33:ASN:HB3	8:H:34:SER:H	1.44	0.45
8:H:40:LEU:HD23	8:H:43:LEU:HG	1.96	0.45
17:Q:109:LYS:HZ2	17:Q:113:ILE:HD11	1.82	0.45
19:S:85:ASN:HD21	19:S:98:VAL:CB	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:121:GLN:CA	18:R:121:GLN:NE2	2.76	0.45
10:J:177:ASN:HA	10:J:180:LYS:CB	2.44	0.45
19:S:15:VAL:HG11	19:S:68:ILE:HG12	1.99	0.45
4:D:108:LYS:HA	4:D:113:LEU:HD21	1.98	0.45
2:B:19:LYS:HB2	2:B:19:LYS:HZ2	1.70	0.45
18:R:72:LYS:HG2	18:R:72:LYS:H	1.58	0.45
5:E:57:THR:OG1	5:E:60:GLU:N	2.41	0.45
2:B:189:ILE:HB	2:B:190:PRO:CD	2.47	0.45
3:C:110:LYS:HA	3:C:128:CYS:HA	1.99	0.45
7:G:2:LYS:HG3	7:G:17:GLU:HG2	1.99	0.45
7:G:213:LEU:HD12	7:G:214:ALA:CA	2.47	0.45
7:G:213:LEU:CD1	7:G:214:ALA:N	2.73	0.45
14:N:134:VAL:HG22	14:N:135:LEU:N	2.31	0.45
14:N:26:LEU:HA	14:N:27:LYS:HE3	1.99	0.45
3:C:243:GLU:HA	22:V:16:LYS:HZ3	1.81	0.45
23:W:25:VAL:O	23:W:62:VAL:HA	2.16	0.45
4:D:132:LYS:HD3	4:D:191:PRO:CG	2.46	0.45
4:D:59:LEU:HD13	4:D:60:GLY:O	2.17	0.45
4:D:86:LEU:HD12	4:D:86:LEU:N	2.32	0.45
23:W:49:GLU:OE1	23:W:64:ASN:ND2	2.49	0.45
16:P:37:TYR:HA	19:S:88:LYS:HD2	1.98	0.45
4:D:197:LYS:C	4:D:198:ILE:HG23	2.35	0.45
23:W:15:ASN:ND2	23:W:19:LYS:CE	2.77	0.45
10:J:101:LYS:HD2	10:J:101:LYS:N	2.31	0.45
25:Y:108:LYS:O	25:Y:111:LYS:CG	2.61	0.45
5:E:149:TYR:CD2	7:G:205:GLU:HB3	2.51	0.45
20:T:9:VAL:HG12	20:T:10:ASN:N	2.32	0.45
22:V:58:ALA:HA	22:V:61:ARG:CD	2.47	0.45
24:X:45:SER:OG	24:X:46:HIS:HD2	2.00	0.45
1:A:42:LYS:HD3	18:R:105:MET:HG2	1.98	0.45
2:B:89:GLU:O	2:B:90:ASP:HB2	2.17	0.45
9:I:141:ARG:O	9:I:143:LYS:NZ	2.49	0.45
15:O:64:ALA:CB	15:O:66:ARG:HE	2.28	0.45
22:V:11:LEU:HD11	22:V:12:TYR:HE2	1.62	0.45
22:V:45:ARG:HD2	22:V:45:ARG:HA	1.66	0.45
22:V:56:CYS:SG	22:V:59:ILE:CG1	3.04	0.45
25:Y:55:ILE:CG1	25:Y:75:ILE:HD13	2.41	0.45
4:D:53:THR:CG2	4:D:91:VAL:CG2	2.95	0.45
6:F:69:VAL:O	6:F:73:THR:HG23	2.16	0.45
4:D:40:ARG:NE	21:U:107:GLU:OE2	2.49	0.45
2:B:113:MET:HE3	2:B:209:ASP:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:185:SER:OG	6:F:190:ILE:HD12	2.17	0.45
15:O:20:GLN:HE21	15:O:22:ALA:HB2	1.82	0.45
24:X:41:PHE:CE1	24:X:47:ALA:HB3	2.51	0.45
2:B:29:ASP:O	2:B:29:ASP:OD1	2.34	0.45
1:A:147:LEU:HD23	1:A:147:LEU:HA	1.64	0.45
1:A:75:SER:HB2	1:A:122:LEU:CD2	2.46	0.45
7:G:85:ARG:NH1	25:Y:118:ARG:HH21	2.15	0.45
9:I:118:ALA:CB	9:I:149:TYR:CD1	3.00	0.45
10:J:136:ARG:HH12	10:J:161:LEU:HD12	1.81	0.45
17:Q:8:GLN:CA	17:Q:99:TYR:CZ	3.00	0.45
22:V:55:ILE:HG21	22:V:60:ARG:CG	2.46	0.45
24:X:52:LEU:C	24:X:52:LEU:HD12	2.34	0.45
25:Y:44:LEU:HD12	25:Y:48:TYR:CD2	2.50	0.45
6:F:110:GLN:CA	6:F:110:GLN:HE21	2.29	0.45
11:K:60:GLU:CG	11:K:69:TRP:NE1	2.79	0.45
11:K:80:ARG:HA	11:K:85:LEU:HD11	1.98	0.45
16:P:37:TYR:CA	19:S:88:LYS:CD	2.95	0.45
19:S:81:ASP:HA	19:S:84:LEU:CD1	2.47	0.45
2:B:151:ARG:HG3	2:B:153:THR:H	1.82	0.45
2:B:144:LYS:HG2	2:B:206:PRO:HB3	1.99	0.45
8:H:154:ILE:CG2	8:H:185:VAL:HG22	2.47	0.45
8:H:154:ILE:HG22	8:H:154:ILE:O	2.17	0.45
1:A:3:GLY:HA3	22:V:78:ILE:CG1	2.42	0.44
1:A:18:PHE:CZ	1:A:55:TRP:HZ3	2.35	0.44
2:B:77:ASP:C	2:B:79:VAL:HG22	2.34	0.44
7:G:5:ILE:CD1	7:G:16:ILE:HD12	2.36	0.44
7:G:191:ARG:H	7:G:191:ARG:HG2	1.56	0.44
10:J:131:ARG:HA	10:J:143:ASN:OD1	2.18	0.44
12:L:113:LEU:HD11	12:L:120:VAL:CG1	2.47	0.44
14:N:125:LEU:CD2	14:N:129:TYR:CE2	3.00	0.44
15:O:98:ARG:NH1	15:O:98:ARG:HG2	2.32	0.44
20:T:31:PRO:O	20:T:33:TRP:CG	2.70	0.44
25:Y:87:PRO:HB2	25:Y:89:HIS:ND1	2.30	0.44
25:Y:86:GLU:O	25:Y:87:PRO:O	2.35	0.44
6:F:28:VAL:HG22	6:F:110:GLN:CG	2.38	0.44
6:F:93:VAL:C	6:F:97:PHE:CD1	2.86	0.44
11:K:14:LEU:HD11	11:K:35:LEU:HD11	1.99	0.44
16:P:15:PHE:CE1	19:S:91:LYS:HD3	2.49	0.44
2:B:144:LYS:CG	2:B:206:PRO:HB3	2.47	0.44
5:E:128:LYS:CG	5:E:130:PHE:HD1	2.28	0.44
13:M:12:MET:HG2	13:M:16:THR:HG22	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:77:ILE:O	13:M:78:LYS:HB2	2.17	0.44
20:T:75:MET:HE3	20:T:79:TYR:CZ	2.52	0.44
8:H:117:PRO:HG2	8:H:120:ARG:HE	1.82	0.44
14:N:137:PRO:O	14:N:138:ASN:CB	2.65	0.44
17:Q:124:PRO:CD	17:Q:125:ARG:N	2.81	0.44
2:B:99:ASN:ND2	2:B:228:LEU:HD23	2.32	0.44
24:X:124:LYS:HE2	24:X:124:LYS:HB3	1.65	0.44
1:A:204:TYR:O	1:A:204:TYR:HD2	1.99	0.44
1:A:139:TYR:C	1:A:140:VAL:CG2	2.85	0.44
2:B:31:TYR:CD2	2:B:62:LEU:HD22	2.52	0.44
2:B:77:ASP:O	2:B:79:VAL:CG1	2.51	0.44
5:E:151:ASP:O	5:E:153:LEU:N	2.50	0.44
5:E:89:VAL:O	5:E:90:ILE:HB	2.16	0.44
7:G:145:PHE:O	7:G:147:LEU:HD12	2.17	0.44
8:H:158:LEU:CG	8:H:187:PHE:CD1	3.00	0.44
10:J:160:SER:O	10:J:162:ARG:N	2.49	0.44
14:N:18:TYR:C	14:N:19:ARG:O	2.48	0.44
15:O:30:VAL:HG23	15:O:45:THR:OG1	2.15	0.44
24:X:52:LEU:CD1	24:X:71:ARG:CB	2.95	0.44
24:X:95:GLU:HG3	24:X:140:ARG:NH2	2.20	0.44
11:K:89:ILE:CG2	11:K:90:VAL:H	2.30	0.44
8:H:37:LYS:HZ3	8:H:41:ARG:CG	2.30	0.44
17:Q:58:LEU:CD2	17:Q:111:ILE:HB	2.48	0.44
26:Z:48:VAL:HG22	26:Z:80:ARG:HB2	1.99	0.44
13:M:35:ILE:CG2	13:M:36:ARG:N	2.80	0.44
26:Z:77:LEU:O	26:Z:78:LYS:HD3	2.16	0.44
4:D:217:ILE:HG22	4:D:218:LEU:HB3	1.98	0.44
19:S:61:GLU:O	19:S:64:VAL:HG23	2.10	0.44
5:E:25:SER:OG	5:E:26:VAL:N	2.48	0.44
23:W:89:TRP:C	23:W:102:ILE:HD11	2.37	0.44
8:H:117:PRO:O	8:H:119:SER:N	2.50	0.44
19:S:10:GLN:NE2	19:S:57:GLY:O	2.44	0.44
3:C:180:LEU:O	3:C:181:ILE:HD13	2.18	0.44
4:D:138:VAL:O	4:D:149:SER:HA	2.16	0.44
5:E:59:ASP:OD1	5:E:63:LYS:HE3	2.18	0.44
15:O:147:ARG:HH21	15:O:150:ARG:HH21	1.64	0.44
13:M:69:CYS:O	13:M:74:ILE:HD12	2.16	0.44
20:T:24:LYS:HA	20:T:24:LYS:HD2	1.71	0.44
1:A:103:PHE:O	1:A:104:THR:HB	2.17	0.44
1:A:158:ASP:O	1:A:159:ILE:CB	2.65	0.44
1:A:16:LEU:CD2	18:R:111:PHE:HZ	2.12	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:89:ASP:HB3	3:C:115:ILE:HG13	1.99	0.44
5:E:98:ASN:HD22	5:E:114:ILE:HG13	1.79	0.44
5:E:152:PRO:HG3	7:G:209:TYR:OH	2.17	0.44
5:E:164:LEU:HA	5:E:164:LEU:HD22	1.76	0.44
6:F:133:THR:HG21	6:F:135:ARG:NH1	2.33	0.44
8:H:59:ALA:HB2	8:H:172:THR:OG1	2.17	0.44
9:I:197:PHE:CD2	12:L:5:GLN:CD	2.91	0.44
12:L:148:ALA:O	12:L:150:GLY:N	2.51	0.44
12:L:59:LYS:CD	12:L:134:LEU:HD21	2.47	0.44
14:N:130:LYS:HE2	14:N:130:LYS:HB2	1.78	0.44
15:O:83:GLN:NE2	15:O:87:GLU:OE2	2.50	0.44
22:V:39:VAL:C	22:V:41:LYS:H	2.18	0.44
25:Y:58:PHE:HE1	25:Y:72:PHE:CD2	2.32	0.44
4:D:188:ILE:HG22	4:D:190:LEU:CD2	2.41	0.44
8:H:46:THR:CG2	8:H:63:PHE:CB	2.95	0.44
17:Q:54:PRO:CG	17:Q:88:ILE:HD11	2.25	0.44
19:S:117:ILE:C	19:S:118:ARG:CG	2.66	0.44
2:B:208:HIS:C	2:B:208:HIS:CD2	2.88	0.44
19:S:139:THR:HB	19:S:140:GLY:H	1.23	0.44
19:S:14:ARG:NH1	19:S:17:ASN:C	2.70	0.44
5:E:128:LYS:CD	5:E:130:PHE:HD1	2.26	0.44
25:Y:93:ARG:C	25:Y:93:ARG:HD2	2.38	0.44
23:W:89:TRP:HB3	23:W:102:ILE:HD13	1.99	0.44
23:W:104:LEU:HD13	23:W:106:THR:CG2	2.42	0.44
24:X:107:ARG:HB3	24:X:110:HIS:O	2.17	0.44
8:H:121:THR:CG2	8:H:124:ALA:CB	2.95	0.44
5:E:57:THR:HG1	5:E:60:GLU:H	1.60	0.44
1:A:141:ASN:CA	22:V:32:ILE:CD1	2.91	0.44
1:A:161:ILE:HG21	1:A:174:MET:CE	2.47	0.44
2:B:33:VAL:HG12	2:B:44:ILE:CD1	2.36	0.44
2:B:93:GLY:C	2:B:94:LYS:HG2	2.38	0.44
8:H:160:LYS:CB	8:H:192:PHE:CZ	3.00	0.44
12:L:114:SER:OG	12:L:115:PRO:HD2	2.16	0.44
12:L:113:LEU:HD23	12:L:114:SER:O	2.18	0.44
12:L:40:ILE:CD1	12:L:68:ILE:HB	2.22	0.44
12:L:97:ARG:HG2	12:L:98:LYS:HA	2.00	0.44
13:M:44:LYS:C	13:M:46:GLN:N	2.70	0.44
15:O:30:VAL:HG13	15:O:47:LEU:HA	2.00	0.44
16:P:44:ARG:NE	16:P:82:ASP:O	2.51	0.44
4:D:85:GLU:C	4:D:86:LEU:HD12	2.37	0.44
11:K:8:ARG:HG2	11:K:12:TYR:CE1	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:27:VAL:HG13	11:K:43:LEU:HD22	0.44	0.44
11:K:47:LYS:HA	11:K:50:GLN:HG2	2.00	0.44
11:K:52:LEU:O	11:K:55:ARG:HG3	2.17	0.44
21:U:26:SER:OG	21:U:27:ARG:N	2.49	0.44
8:H:38:ALA:H	8:H:41:ARG:HG2	1.82	0.44
8:H:37:LYS:HG3	8:H:38:ALA:N	2.29	0.44
6:F:20:PHE:HB3	6:F:23:TRP:CB	2.46	0.44
16:P:59:ARG:HG2	16:P:76:VAL:HG22	1.99	0.44
6:F:103:LEU:CG	6:F:103:LEU:O	2.64	0.44
19:S:46:ARG:HD2	20:T:50:GLU:HG2	2.00	0.44
4:D:153:VAL:CG1	4:D:154:ASP:N	2.80	0.44
25:Y:93:ARG:C	25:Y:93:ARG:CD	2.85	0.44
6:F:115:ALA:HB3	6:F:177:LEU:HD22	1.99	0.44
10:J:179:LYS:CA	10:J:182:GLN:OE1	2.61	0.44
24:X:40:PRO:CB	24:X:81:ILE:CD1	2.86	0.44
20:T:28:LEU:HA	20:T:28:LEU:HD23	1.58	0.44
9:I:205:ARG:O	9:I:206:LYS:O	2.35	0.44
26:Z:94:LYS:CE	26:Z:95:GLY:N	2.81	0.44
3:C:198:LEU:HD23	3:C:198:LEU:C	2.37	0.44
9:I:81:VAL:HG11	9:I:91:VAL:HA	1.99	0.44
3:C:122:VAL:CG1	3:C:202:ALA:CA	2.93	0.44
5:E:9:LEU:HD12	5:E:30:ARG:HA	2.00	0.44
17:Q:145:TYR:HB3	17:Q:146:ARG:H	1.53	0.44
1:A:76:VAL:HG13	1:A:175:TRP:HH2	1.62	0.44
7:G:67:VAL:HG22	7:G:100:CYS:SG	2.57	0.44
9:I:191:GLU:HG2	9:I:192:GLY:H	1.82	0.44
14:N:38:TYR:CZ	14:N:74:ILE:HG23	2.51	0.44
14:N:82:PRO:O	14:N:84:LEU:N	2.51	0.44
5:E:64:ILE:CD1	25:Y:17:LEU:CD1	2.95	0.44
25:Y:56:PHE:CE1	25:Y:94:HIS:HE1	2.34	0.44
16:P:84:ILE:HD11	16:P:115:TYR:CZ	2.52	0.44
4:D:37:VAL:HG12	4:D:50:ILE:HD13	1.98	0.44
11:K:43:LEU:O	11:K:46:MET:N	2.51	0.44
8:H:36:LEU:HD23	8:H:78:ARG:HH11	1.81	0.44
8:H:46:THR:CG2	8:H:63:PHE:HB3	2.47	0.44
8:H:8:ILE:CG2	8:H:9:VAL:N	2.67	0.44
8:H:79:LEU:HD22	8:H:83:LEU:HD23	1.99	0.44
26:Z:105:ALA:O	26:Z:106:GLN:CG	2.65	0.44
19:S:40:TYR:CD1	19:S:97:GLN:NE2	2.84	0.44
2:B:151:ARG:HD2	2:B:154:SER:H	1.82	0.44
18:R:124:VAL:CG1	18:R:125:GLY:N	2.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:216:GLU:OE1	4:D:217:ILE:N	2.51	0.44
16:P:62:LYS:CA	16:P:65:LYS:HE2	2.48	0.44
6:F:151:ILE:HA	6:F:154:LEU:CD2	2.47	0.44
21:U:19:ARG:HD2	21:U:19:ARG:N	2.32	0.44
8:H:109:ARG:NH2	8:H:111:LYS:HD2	2.33	0.44
6:F:32:ASP:CB	6:F:117:ILE:CG2	2.95	0.44
10:J:151:LEU:C	10:J:153:SER:H	2.20	0.44
2:B:79:VAL:O	2:B:79:VAL:CG2	2.62	0.44
3:C:51:LEU:CD2	3:C:60:ILE:HD12	2.47	0.44
5:E:73:ASP:CG	5:E:122:LYS:HZ2	2.15	0.44
5:E:72:ILE:HD13	5:E:82:TYR:CD2	2.49	0.44
9:I:103:LEU:CD2	9:I:172:LEU:CD1	2.94	0.44
24:X:125:VAL:O	24:X:126:ALA:CB	2.61	0.44
4:D:132:LYS:H	4:D:191:PRO:CD	1.88	0.44
25:Y:54:VAL:HG13	25:Y:76:TYR:H	1.71	0.44
4:D:84:VAL:HG22	4:D:85:GLU:N	2.33	0.44
8:H:14:GLU:HG3	8:H:15:LYS:C	2.38	0.44
17:Q:93:VAL:CG1	17:Q:105:LYS:HD3	2.29	0.44
16:P:108:LYS:HZ2	19:S:118:ARG:NH1	2.08	0.44
16:P:18:ARG:HB3	19:S:93:GLY:HA3	2.00	0.44
19:S:82:TRP:HA	19:S:87:GLN:NE2	2.28	0.44
2:B:151:ARG:HG3	2:B:153:THR:N	2.33	0.44
20:T:15:VAL:HG23	20:T:16:ARG:N	2.31	0.44
4:D:212:GLU:CG	18:R:19:LYS:NZ	2.78	0.44
10:J:101:LYS:CG	10:J:103:GLU:OE1	2.61	0.44
24:X:107:ARG:O	24:X:108:LYS:CB	2.66	0.44
15:O:71:PRO:O	15:O:74:ALA:HB3	2.17	0.44
19:S:73:ASN:C	19:S:76:GLN:OE1	2.56	0.44
17:Q:40:GLU:HA	17:Q:40:GLU:OE1	2.18	0.44
2:B:123:ALA:HB3	2:B:168:MET:SD	2.58	0.44
2:B:91:VAL:HG22	2:B:96:CYS:SG	2.57	0.44
5:E:153:LEU:HD21	7:G:216:ARG:HH12	1.83	0.44
10:J:35:TYR:N	10:J:35:TYR:CD2	2.85	0.44
22:V:77:GLY:HA2	22:V:78:ILE:C	2.38	0.44
4:D:43:PRO:O	4:D:44:THR:CB	2.65	0.44
11:K:55:ARG:HG2	11:K:55:ARG:H	1.52	0.44
21:U:106:ILE:O	21:U:107:GLU:CB	2.65	0.44
25:Y:29:HIS:O	25:Y:31:GLY:N	2.51	0.44
25:Y:63:HIS:C	25:Y:64:PHE:CD1	2.89	0.44
19:S:83:PHE:CG	19:S:83:PHE:O	2.70	0.44
3:C:157:ASN:O	3:C:159:ILE:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:138:ASP:O	15:O:138:ASP:OD1	2.36	0.44
23:W:90:GLN:HB3	23:W:102:ILE:HD12	2.00	0.44
17:Q:124:PRO:HG2	17:Q:125:ARG:HG3	2.00	0.44
1:A:169:HIS:ND1	1:A:169:HIS:N	2.66	0.44
4:D:124:ARG:NH1	4:D:128:GLU:OE1	2.51	0.44
1:A:57:LYS:HZ3	22:V:70:LEU:CD2	2.30	0.44
3:C:89:ASP:HB3	3:C:115:ILE:HG12	1.99	0.44
5:E:102:ILE:HG23	5:E:182:MET:SD	2.58	0.44
5:E:152:PRO:CG	7:G:209:TYR:CE1	3.01	0.44
9:I:118:ALA:CB	9:I:149:TYR:CE1	2.94	0.44
10:J:37:LEU:CD2	10:J:43:VAL:N	2.79	0.44
14:N:139:TRP:CE3	14:N:139:TRP:C	2.91	0.44
14:N:140:LYS:HG2	14:N:141:TYR:N	2.32	0.44
14:N:23:PRO:O	14:N:24:THR:CB	2.66	0.44
17:Q:8:GLN:HB3	17:Q:99:TYR:CD1	2.48	0.44
17:Q:126:ARG:CG	17:Q:127:CYS:N	2.81	0.44
20:T:56:ARG:CD	20:T:103:VAL:HG21	2.48	0.44
11:K:89:ILE:HG23	11:K:90:VAL:H	1.83	0.44
8:H:65:PRO:HB2	8:H:67:PRO:HD2	2.00	0.44
17:Q:21:ALA:HB2	17:Q:72:VAL:CG2	2.32	0.44
25:Y:32:LYS:CG	25:Y:33:ALA:O	2.61	0.44
5:E:248:ILE:CG1	10:J:72:PHE:CZ	2.89	0.44
4:D:108:LYS:HA	4:D:113:LEU:CD2	2.48	0.44
6:F:190:ILE:HG23	6:F:191:LYS:N	2.33	0.44
23:W:37:PHE:CZ	23:W:103:VAL:HG11	2.53	0.44
15:O:139:SER:OG	15:O:140:THR:N	2.50	0.44
1:A:49:ILE:CG2	1:A:50:ASN:N	2.80	0.44
1:A:5:LEU:HD13	1:A:6:ASP:CB	2.48	0.44
3:C:144:LYS:O	3:C:147:ILE:HG13	2.17	0.44
3:C:245:VAL:O	3:C:246:PHE:CB	2.65	0.44
3:C:59:LYS:HA	3:C:59:LYS:HD3	1.39	0.44
10:J:132:GLN:O	10:J:133:ARG:HB2	2.17	0.44
23:W:24:GLN:HA	23:W:63:VAL:O	2.18	0.44
16:P:5:GLU:O	16:P:6:GLN:HG3	2.16	0.44
6:F:94:LYS:HD2	6:F:94:LYS:O	2.18	0.44
6:F:49:LEU:HD21	17:Q:46:THR:O	2.18	0.44
17:Q:50:LYS:HG3	17:Q:85:ARG:NH2	2.26	0.44
4:D:192:TRP:O	4:D:196:GLY:N	2.36	0.44
26:Z:65:TYR:CD2	26:Z:68:ILE:HG12	2.44	0.44
3:C:163:HIS:CD2	3:C:163:HIS:H	2.36	0.44
18:R:21:TYR:CG	18:R:71:ILE:CD1	2.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:12:MET:CE	13:M:120:ALA:HB1	2.32	0.44
2:B:105:LEU:CD2	2:B:213:ARG:O	2.66	0.44
13:M:49:LEU:HA	13:M:75:ASN:HB2	2.00	0.44
13:M:77:ILE:CD1	13:M:78:LYS:N	2.80	0.44
12:L:153:LYS:CB	14:N:131:THR:O	2.66	0.44
20:T:143:LYS:HD3	20:T:143:LYS:HA	1.21	0.44
12:L:1:MET:C	12:L:2:ALA:O	2.54	0.44
5:E:258:ALA:HA	5:E:262:SER:OG	2.18	0.44
5:E:146:THR:HG23	5:E:146:THR:O	2.17	0.44
3:C:244:THR:O	3:C:246:PHE:HD2	2.01	0.43
3:C:51:LEU:HD23	3:C:60:ILE:CD1	2.46	0.43
5:E:49:ARG:CD	5:E:50:ASN:N	2.72	0.43
5:E:90:ILE:HD11	5:E:101:LEU:HD11	1.99	0.43
7:G:143:LYS:HE3	7:G:143:LYS:CA	2.48	0.43
7:G:145:PHE:O	7:G:146:ASN:O	2.36	0.43
8:H:169:LYS:HB2	8:H:173:PHE:CZ	2.47	0.43
9:I:123:ARG:O	9:I:124:LYS:O	2.35	0.43
9:I:144:LYS:HD2	9:I:144:LYS:N	2.33	0.43
14:N:38:TYR:CE1	14:N:78:LYS:CD	3.01	0.43
25:Y:18:LEU:HB3	25:Y:20:ARG:NE	2.33	0.43
4:D:8:LYS:O	4:D:12:VAL:HG23	2.18	0.43
11:K:85:LEU:CB	11:K:86:PRO:HD2	2.47	0.43
21:U:67:LYS:CD	21:U:78:ASP:OD2	2.66	0.43
2:B:87:ILE:CD1	2:B:220:LYS:HZ1	2.31	0.43
8:H:14:GLU:HG2	8:H:15:LYS:O	2.18	0.43
13:M:26:LEU:HD11	13:M:90:GLY:N	2.33	0.43
6:F:112:LEU:O	6:F:116:ILE:HD13	2.18	0.43
4:D:67:ARG:CZ	11:K:95:ARG:HD2	2.48	0.43
20:T:87:VAL:CG1	20:T:88:MET:N	2.80	0.43
2:B:175:GLU:CG	2:B:193:ILE:HD11	2.46	0.43
9:I:81:VAL:CG1	9:I:91:VAL:HA	2.48	0.43
4:D:141:LYS:HG3	4:D:141:LYS:O	2.18	0.43
20:T:9:VAL:HG13	20:T:13:GLU:OE2	2.18	0.43
3:C:231:LYS:HB3	3:C:231:LYS:HE3	1.46	0.43
5:E:11:ARG:NH1	5:E:21:ASP:OD1	2.51	0.43
5:E:118:GLU:C	5:E:120:LYS:N	2.70	0.43
5:E:153:LEU:HD23	7:G:216:ARG:CZ	2.44	0.43
5:E:99:PHE:HE1	5:E:113:ARG:CG	2.02	0.43
6:F:141:VAL:HG22	6:F:146:ARG:HG2	1.98	0.43
7:G:151:ASP:O	7:G:152:ASP:HB3	2.18	0.43
7:G:64:LYS:HD2	7:G:64:LYS:C	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:118:GLY:C	10:J:120:ALA:H	2.20	0.43
12:L:82:MET:HE2	12:L:85:THR:HG21	1.96	0.43
14:N:38:TYR:CD2	14:N:78:LYS:HG3	2.53	0.43
18:R:104:GLU:OE2	18:R:107:LYS:HD2	2.19	0.43
22:V:32:ILE:CG2	22:V:33:PRO:CD	2.85	0.43
11:K:21:MET:SD	11:K:49:MET:CE	3.06	0.43
11:K:71:LEU:HD23	11:K:76:ILE:HD12	1.89	0.43
19:S:120:HIS:CD2	19:S:124:ARG:CG	3.01	0.43
6:F:18:LYS:HB3	6:F:18:LYS:HE2	1.77	0.43
6:F:42:LYS:HB2	6:F:44:LYS:C	2.20	0.43
5:E:248:ILE:CD1	10:J:72:PHE:CZ	2.90	0.43
19:S:23:ARG:O	19:S:55:ARG:CD	2.66	0.43
10:J:12:THR:C	10:J:48:PHE:CD2	2.90	0.43
4:D:223:ILE:CG2	4:D:224:SER:N	2.80	0.43
8:H:57:ARG:HA	8:H:57:ARG:HD3	1.69	0.43
2:B:37:ALA:HA	2:B:42:ARG:HE	1.83	0.43
3:C:180:LEU:HB3	3:C:207:CYS:SG	2.58	0.43
10:J:84:ILE:O	10:J:108:ARG:HD2	2.16	0.43
16:P:43:ARG:HD3	16:P:43:ARG:HA	1.38	0.43
7:G:122:PRO:O	7:G:126:ASP:HB3	2.19	0.43
7:G:157:VAL:CG1	7:G:159:ARG:HG3	2.34	0.43
7:G:58:LYS:O	7:G:59:GLN:CB	2.57	0.43
7:G:64:LYS:HD3	7:G:65:GLN:N	2.33	0.43
9:I:140:LYS:N	9:I:145:ILE:HD11	2.32	0.43
9:I:42:ARG:HB3	9:I:58:LEU:O	2.19	0.43
10:J:102:ILE:CG2	10:J:106:LEU:CD1	2.93	0.43
15:O:98:ARG:HE	15:O:134:PRO:HD3	1.84	0.43
15:O:92:ALA:CB	15:O:125:LYS:HB2	2.47	0.43
24:X:126:ALA:O	24:X:127:ASN:C	2.54	0.43
19:S:39:ARG:HA	19:S:39:ARG:HD2	1.40	0.43
4:D:98:ALA:CA	4:D:188:ILE:HD12	2.48	0.43
4:D:34:TYR:CE2	21:U:61:LEU:CG	25.45	0.43
11:K:85:LEU:HG	11:K:85:LEU:H	1.54	0.43
19:S:88:LYS:N	19:S:95:TYR:CE1	2.77	0.43
26:Z:53:ALA:O	26:Z:57:LYS:HG3	2.18	0.43
23:W:11:LEU:CA	23:W:14:ILE:HG12	2.49	0.43
2:B:110:MET:HE1	2:B:213:ARG:HD2	2.00	0.43
14:N:132:LYS:HB3	14:N:132:LYS:HE2	1.54	0.43
6:F:112:LEU:HD23	6:F:112:LEU:O	2.18	0.43
2:B:133:TYR:CD1	2:B:217:MET:HE1	2.53	0.43
20:T:4:VAL:CG1	20:T:139:ALA:HB2	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:41:ILE:HG23	18:R:42:PRO:HD3	2.00	0.43
21:U:19:ARG:CG	21:U:92:HIS:HE1	2.31	0.43
20:T:118:ASP:O	20:T:119:TRP:HB2	2.18	0.43
2:B:41:ILE:HG23	2:B:41:ILE:HD13	1.61	0.43
5:E:188:ASN:HD21	5:E:218:PHE:HB2	1.82	0.43
8:H:126:HIS:CE1	8:H:181:THR:HG22	2.54	0.43
1:A:159:ILE:HD12	1:A:160:ALA:H	1.83	0.43
1:A:191:ARG:O	1:A:191:ARG:CG	2.51	0.43
1:A:52:LYS:CB	1:A:52:LYS:NZ	2.61	0.43
2:B:48:LEU:O	2:B:48:LEU:HD13	2.18	0.43
5:E:18:TRP:CD2	5:E:46:ILE:CD1	3.01	0.43
6:F:121:PRO:CA	6:F:193:LYS:HE3	2.39	0.43
7:G:80:GLY:C	7:G:81:HIS:CG	2.92	0.43
7:G:70:HIS:HA	7:G:98:ARG:HH12	1.83	0.43
9:I:140:LYS:HD3	9:I:141:ARG:N	2.33	0.43
10:J:136:ARG:NE	10:J:160:SER:HB2	2.33	0.43
12:L:55:TYR:CG	12:L:115:PRO:HG2	2.53	0.43
12:L:4:ILE:HB	12:L:5:GLN:H	1.56	0.43
12:L:99:TYR:CZ	24:X:14:ARG:CA	2.72	0.43
14:N:125:LEU:O	14:N:125:LEU:HD22	2.19	0.43
14:N:54:LEU:O	14:N:60:VAL:HG22	2.18	0.43
18:R:104:GLU:HA	18:R:107:LYS:HB2	2.00	0.43
24:X:52:LEU:HG	24:X:71:ARG:C	2.37	0.43
5:E:64:ILE:HD11	25:Y:18:LEU:HD11	1.99	0.43
8:H:64:VAL:CG1	8:H:68:GLN:HB2	2.49	0.43
17:Q:57:LEU:HD13	17:Q:115:TYR:CD2	2.50	0.43
12:L:21:LYS:HD3	12:L:21:LYS:HA	1.74	0.43
16:P:75:VAL:CG1	16:P:76:VAL:H	2.31	0.43
4:D:157:MET:HE1	4:D:187:LYS:CG	2.44	0.43
2:B:132:GLY:O	2:B:133:TYR:C	2.56	0.43
3:C:229:ILE:HG13	3:C:230:SER:H	1.77	0.43
23:W:105:THR:O	23:W:105:THR:CG2	2.66	0.43
15:O:147:ARG:HH21	15:O:150:ARG:CD	2.31	0.43
7:G:127:THR:C	7:G:128:THR:OG1	2.52	0.43
3:C:58:MET:N	3:C:58:MET:SD	2.92	0.43
3:C:69:PHE:CZ	3:C:249:SER:CA	2.94	0.43
5:E:192:ILE:HG22	5:E:193:GLY:N	2.33	0.43
7:G:212:LEU:O	7:G:216:ARG:HG2	2.19	0.43
10:J:110:LEU:CD1	10:J:135:ILE:CD1	2.97	0.43
12:L:146:THR:HG23	12:L:147:LYS:N	2.33	0.43
14:N:92:ILE:CG2	14:N:150:VAL:HG23	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:131:ASP:OD1	15:O:133:THR:HG23	2.18	0.43
15:O:84:ARG:HA	15:O:87:GLU:CB	2.47	0.43
16:P:83:MET:HE2	16:P:116:LEU:CD1	2.47	0.43
25:Y:61:ARG:CG	25:Y:61:ARG:NH2	2.38	0.43
4:D:97:CYS:C	4:D:99:ILE:H	2.12	0.43
11:K:15:LEU:HD22	11:K:21:MET:HE1	2.01	0.43
11:K:3:MET:HA	11:K:4:PRO:HD2	1.66	0.43
21:U:104:ILE:C	21:U:105:SER:OG	2.56	0.43
2:B:87:ILE:HG23	2:B:101:HIS:CG	2.53	0.43
8:H:87:PHE:CE2	8:H:90:LYS:NZ	2.73	0.43
19:S:40:TYR:CE1	19:S:44:VAL:CG2	3.01	0.43
19:S:25:LYS:HG3	19:S:54:LYS:O	2.19	0.43
18:R:17:ILE:O	18:R:71:ILE:CD1	2.66	0.43
5:E:212:ASP:OD2	5:E:214:ASN:N	2.51	0.43
26:Z:71:ALA:O	26:Z:74:SER:OG	2.24	0.43
6:F:112:LEU:HD23	6:F:116:ILE:CG1	2.49	0.43
20:T:65:TYR:C	20:T:65:TYR:CD1	2.91	0.43
19:S:72:GLN:O	19:S:73:ASN:OD1	2.35	0.43
24:X:101:LEU:HA	24:X:101:LEU:HD23	1.82	0.43
1:A:11:LYS:HG3	1:A:13:GLU:CG	2.41	0.43
1:A:58:LEU:CD2	1:A:58:LEU:O	2.66	0.43
6:F:122:ARG:CB	6:F:123:GLU:OE1	2.66	0.43
7:G:186:GLN:HA	7:G:189:ARG:NH2	2.33	0.43
8:H:169:LYS:HB3	8:H:173:PHE:CZ	2.54	0.43
9:I:172:LEU:HD22	9:I:172:LEU:N	2.34	0.43
10:J:39:ASN:H	10:J:42:GLU:CG	2.14	0.43
14:N:21:SER:OG	14:N:22:VAL:N	2.49	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
8:H:80:VAL:HA	8:H:83:LEU:HG	2.00	0.43
16:P:123:TYR:OH	19:S:120:HIS:NE2	2.51	0.43
6:F:44:LYS:CD	6:F:44:LYS:C	2.78	0.43
17:Q:50:LYS:HZ3	17:Q:117:ARG:NH1	2.17	0.43
12:L:20:LYS:CD	12:L:20:LYS:H	2.09	0.43
16:P:14:LYS:C	16:P:22:LEU:HD23	2.37	0.43
19:S:85:ASN:OD1	19:S:86:ARG:N	2.51	0.43
10:J:78:LEU:HD13	10:J:92:MET:C	2.38	0.43
24:X:105:PHE:CD2	24:X:112:VAL:HG23	2.51	0.43
25:Y:98:GLU:O	25:Y:99:LYS:CB	2.67	0.43
6:F:112:LEU:HA	6:F:177:LEU:HD13	1.96	0.43
8:H:116:ARG:HA	8:H:117:PRO:HD3	1.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:114:ARG:HD3	14:N:114:ARG:HA	1.45	0.43
8:H:69:LEU:O	8:H:73:GLN:CG	2.66	0.43
20:T:21:PHE:HD1	20:T:22:LEU:HD23	1.79	0.43
8:H:103:LYS:HG3	8:H:103:LYS:O	2.18	0.43
8:H:18:GLU:O	8:H:21:SER:HB2	2.18	0.43
2:B:53:GLN:O	2:B:54:GLY:C	2.55	0.43
2:B:55:THR:O	2:B:56:LYS:CG	2.66	0.43
5:E:181:CYS:O	5:E:192:ILE:HG23	2.18	0.43
5:E:45:ILE:HD12	5:E:80:ILE:CG2	2.49	0.43
6:F:145:ARG:HD2	6:F:145:ARG:HA	1.39	0.43
8:H:172:THR:CG2	8:H:173:PHE:N	2.81	0.43
9:I:112:TRP:CH2	9:I:117:TYR:CZ	3.06	0.43
12:L:23:VAL:HG22	12:L:24:LEU:H	1.84	0.43
15:O:90:ILE:O	15:O:124:MET:HE1	2.19	0.43
1:A:141:ASN:CB	22:V:32:ILE:HG12	2.44	0.43
22:V:46:PHE:O	22:V:46:PHE:CG	2.72	0.43
4:D:58:VAL:O	4:D:65:ARG:HB2	2.19	0.43
11:K:14:LEU:HD23	11:K:35:LEU:HD22	1.88	0.43
21:U:46:LYS:O	21:U:46:LYS:HG2	2.18	0.43
8:H:28:LEU:HG	8:H:32:MET:CE	2.49	0.43
17:Q:85:ARG:C	17:Q:88:ILE:HG12	2.39	0.43
2:B:146:CYS:O	2:B:148:ASN:N	2.51	0.43
2:B:148:ASN:ND2	2:B:148:ASN:N	2.61	0.43
16:P:34:MET:H	16:P:34:MET:HG3	1.52	0.43
2:B:156:ALA:CB	2:B:160:GLN:OE1	2.65	0.43
24:X:1:MET:O	24:X:3:LYS:N	2.51	0.43
25:Y:13:MET:CE	25:Y:14:THR:CA	2.95	0.43
10:J:100:LEU:HD11	10:J:104:ASP:CB	2.49	0.43
20:T:75:MET:CA	20:T:78:ILE:HG22	2.49	0.43
8:H:116:ARG:HG2	8:H:117:PRO:N	2.32	0.43
1:A:102:ARG:HH21	1:A:105:PRO:HD2	1.82	0.43
1:A:77:ILE:HD11	1:A:122:LEU:HD22	2.00	0.43
1:A:127:PRO:HD3	1:A:147:LEU:O	2.18	0.43
1:A:90:PHE:HD1	1:A:179:ALA:HB2	1.83	0.43
3:C:61:LYS:CA	3:C:82:PHE:HE1	2.30	0.43
5:E:71:LYS:HE2	5:E:74:GLY:HA2	1.97	0.43
9:I:104:ILE:HG13	9:I:105:ASP:N	2.26	0.43
9:I:58:LEU:O	9:I:59:ARG:HB2	2.19	0.43
10:J:174:LYS:HE2	10:J:174:LYS:HB3	1.42	0.43
14:N:50:ILE:O	14:N:54:LEU:CG	2.64	0.43
17:Q:41:MET:H	17:Q:41:MET:HG2	1.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:27:TYR:CG	24:X:31:HIS:CD2	3.07	0.43
2:B:147:ASN:C	2:B:149:GLN:H	2.22	0.43
19:S:15:VAL:CG1	19:S:16:LEU:N	2.82	0.43
18:R:13:ALA:HB2	18:R:54:VAL:CG2	2.49	0.43
24:X:67:ARG:O	24:X:84:PHE:HE1	2.02	0.43
24:X:3:LYS:C	24:X:4:CYS:O	2.57	0.43
3:C:134:THR:CG2	3:C:135:ALA:N	2.82	0.43
18:R:91:LEU:CB	18:R:92:ASP:C	2.66	0.43
9:I:10:LYS:CG	9:I:11:ARG:H	2.26	0.43
4:D:141:LYS:NZ	4:D:179:GLN:NE2	2.67	0.43
2:B:225:LEU:HB3	2:B:229:MET:HE2	2.01	0.43
5:E:7:LYS:HD2	5:E:7:LYS:HA	1.37	0.43
1:A:186:ARG:NH1	1:A:187:GLY:N	2.67	0.43
1:A:57:LYS:HZ3	22:V:70:LEU:HD21	1.84	0.43
5:E:151:ASP:HB3	7:G:212:LEU:HD22	1.94	0.43
5:E:21:ASP:OD2	5:E:24:THR:HG22	2.01	0.43
5:E:92:ILE:CG2	5:E:97:GLU:OE1	2.67	0.43
6:F:61:PHE:O	6:F:62:ARG:C	2.57	0.43
8:H:194:LEU:HD12	8:H:194:LEU:H	1.83	0.43
9:I:141:ARG:C	9:I:143:LYS:CB	2.86	0.43
10:J:34:GLU:O	10:J:123:ILE:HD12	2.19	0.43
15:O:28:PHE:CE1	15:O:92:ALA:CB	3.02	0.43
18:R:100:PRO:CD	18:R:119:VAL:HG13	2.48	0.43
13:M:27:ILE:CG2	13:M:28:HIS:N	2.81	0.43
17:Q:42:ILE:CG1	17:Q:51:LEU:HD22	2.46	0.43
25:Y:33:ALA:O	25:Y:34:THR:HB	2.18	0.43
16:P:37:TYR:HA	19:S:88:LYS:HD3	2.01	0.43
10:J:40:LYS:O	10:J:41:ARG:C	2.53	0.43
24:X:67:ARG:O	24:X:68:LYS:CB	2.67	0.43
3:C:166:ARG:CG	3:C:237:THR:HG21	2.49	0.43
13:M:104:VAL:CG2	13:M:105:GLY:N	2.82	0.43
2:B:19:LYS:O	2:B:21:VAL:HG11	2.06	0.43
6:F:115:ALA:CB	6:F:177:LEU:CD2	2.96	0.43
6:F:115:ALA:HB3	6:F:177:LEU:CD2	2.49	0.43
17:Q:28:GLY:H	17:Q:66:VAL:HA	1.82	0.43
20:T:124:THR:OG1	20:T:125:PRO:HD2	2.19	0.43
2:B:136:HIS:HB2	2:B:218:LEU:HD11	2.00	0.43
20:T:85:ASN:OD1	20:T:91:HIS:NE2	2.51	0.43
13:M:71:GLU:OE1	13:M:71:GLU:N	2.52	0.43
2:B:97:LEU:HD22	2:B:232:HIS:CG	2.54	0.43
4:D:137:VAL:HB	4:D:185:LYS:HB2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:38:THR:O	25:Y:42:GLU:HG3	2.18	0.43
3:C:83:LEU:C	3:C:85:ALA:H	2.22	0.43
7:G:192:ILE:HG13	7:G:193:ALA:H	1.84	0.43
9:I:105:ASP:O	9:I:106:SER:CB	2.64	0.43
9:I:194:GLU:CD	12:L:12:LYS:CE	2.86	0.43
10:J:170:PRO:CD	10:J:175:ARG:CG	2.94	0.43
12:L:146:THR:CG2	12:L:147:LYS:N	2.80	0.43
12:L:82:MET:SD	12:L:85:THR:HG23	2.59	0.43
6:F:129:GLY:C	13:M:40:LYS:HZ3	111.62	0.43
18:R:98:VAL:HG12	18:R:102:THR:OG1	2.18	0.43
22:V:48:GLY:HA3	22:V:49:GLN:HA	1.84	0.43
25:Y:120:THR:C	25:Y:122:LYS:H	2.19	0.43
19:S:39:ARG:O	19:S:43:VAL:HG23	2.18	0.43
25:Y:78:SER:HB2	25:Y:81:TYR:HE2	1.75	0.43
16:P:81:ARG:HH12	16:P:120:SER:HG	1.66	0.43
11:K:10:ALA:HA	11:K:13:GLU:HG2	2.01	0.43
8:H:75:ILE:CG2	8:H:76:GLN:H	2.25	0.43
8:H:83:LEU:CD1	8:H:92:VAL:CG1	2.94	0.43
17:Q:84:ILE:O	17:Q:88:ILE:HG23	2.19	0.43
17:Q:9:SER:HA	17:Q:26:LYS:HG3	1.97	0.43
16:P:17:TYR:CD1	16:P:18:ARG:HG3	2.54	0.43
16:P:92:SER:OG	16:P:93:MET:N	2.52	0.43
19:S:50:ILE:HG13	19:S:63:GLU:HG2	2.00	0.43
19:S:7:GLU:OE2	19:S:7:GLU:HA	2.17	0.43
9:I:98:LYS:O	9:I:99:ASN:CB	2.66	0.43
25:Y:46:LYS:O	25:Y:47:MET:CG	2.67	0.43
15:O:38:ASN:O	15:O:39:ASP:HB2	2.19	0.43
24:X:32:LEU:O	24:X:37:LYS:NZ	2.52	0.43
16:P:40:ARG:HD2	16:P:40:ARG:O	2.19	0.43
1:A:143:PRO:HD3	22:V:32:ILE:CG2	2.48	0.42
1:A:49:ILE:HG22	1:A:50:ASN:N	2.34	0.42
1:A:7:VAL:HG22	1:A:8:LEU:N	2.33	0.42
2:B:188:LEU:HD22	2:B:212:VAL:CG2	2.49	0.42
5:E:151:ASP:HA	5:E:152:PRO:HD3	1.44	0.42
7:G:176:ILE:HG22	7:G:179:LEU:HD23	1.83	0.42
14:N:16:LEU:HD23	14:N:16:LEU:HA	1.79	0.42
11:K:85:LEU:HD13	11:K:89:ILE:CD1	2.48	0.42
8:H:43:LEU:HD13	8:H:72:PHE:HE1	1.72	0.42
6:F:91:ARG:HD3	17:Q:46:THR:CG2	2.49	0.42
19:S:71:MET:HG3	19:S:99:LEU:CD1	2.48	0.42
13:M:35:ILE:HG23	13:M:36:ARG:H	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:171:GLU:OE2	26:Z:67:LEU:HD23	2.19	0.42
4:D:10:LYS:HE3	4:D:14:ASP:OD2	2.14	0.42
18:R:5:ARG:H	18:R:10:LYS:HZ1	1.60	0.42
4:D:214:LYS:HG3	4:D:215:ASP:CG	2.33	0.42
4:D:217:ILE:O	4:D:218:LEU:CB	2.67	0.42
8:H:121:THR:HG22	8:H:124:ALA:HB2	2.02	0.42
24:X:41:PHE:CZ	24:X:102:VAL:HG12	2.48	0.42
1:A:89:LYS:HA	1:A:89:LYS:HD2	1.66	0.42
24:X:28:LYS:HG2	24:X:32:LEU:HD12	2.00	0.42
1:A:5:LEU:CD1	1:A:6:ASP:CB	2.97	0.42
2:B:54:GLY:C	2:B:56:LYS:H	2.22	0.42
3:C:252:GLN:HB3	3:C:252:GLN:HE21	1.51	0.42
7:G:143:LYS:CA	7:G:143:LYS:CE	2.96	0.42
7:G:78:SER:OG	7:G:81:HIS:HD2	2.01	0.42
8:H:140:VAL:HG21	8:H:159:ASP:HA	2.00	0.42
9:I:141:ARG:HB3	9:I:144:LYS:CB	2.22	0.42
10:J:50:LEU:CG	10:J:102:ILE:HD13	2.49	0.42
14:N:130:LYS:HD3	14:N:139:TRP:HB3	2.01	0.42
22:V:41:LYS:HD2	22:V:41:LYS:HA	1.39	0.42
20:T:33:TRP:C	20:T:35:ASP:H	2.21	0.42
4:D:99:ILE:HG13	4:D:100:ALA:N	2.33	0.42
11:K:4:PRO:HD2	11:K:44:HIS:CE1	2.54	0.42
20:T:77:LYS:CE	20:T:92:PHE:CE2	3.03	0.42
26:Z:104:ARG:HH11	26:Z:104:ARG:C	2.23	0.42
26:Z:104:ARG:HB3	26:Z:105:ALA:H	1.63	0.42
21:U:57:PRO:CD	21:U:57:PRO:O	2.66	0.42
13:M:18:LEU:HD21	13:M:22:LEU:HD21	2.01	0.42
13:M:31:LEU:HG	13:M:89:VAL:HG13	2.01	0.42
20:T:116:ASP:CB	20:T:120:GLY:O	2.65	0.42
17:Q:132:PHE:HB2	21:U:77:TRP:CD1	2.54	0.42
1:A:111:GLN:HE22	1:A:116:PHE:HZ	1.67	0.42
1:A:123:VAL:HG12	1:A:175:TRP:CH2	2.54	0.42
1:A:124:VAL:HG21	1:A:134:LEU:HD21	2.01	0.42
1:A:66:VAL:CG1	1:A:186:ARG:HD3	2.47	0.42
3:C:63:LEU:HD12	3:C:83:LEU:HD22	2.01	0.42
5:E:122:LYS:HD2	5:E:164:LEU:HD21	2.01	0.42
7:G:170:ARG:CD	7:G:171:THR:O	2.67	0.42
7:G:185:LEU:CA	7:G:188:LYS:HE3	2.37	0.42
7:G:79:LYS:HA	7:G:86:PRO:HG2	2.01	0.42
9:I:139:LYS:HD2	9:I:145:ILE:HD12	2.02	0.42
10:J:128:VAL:O	10:J:132:GLN:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:154:LYS:HZ3	12:L:22:ARG:HG3	1.84	0.42
25:Y:122:LYS:CD	25:Y:123:ALA:N	2.62	0.42
20:T:47:PRO:HG2	20:T:52:TRP:CD1	2.55	0.42
25:Y:44:LEU:HD12	25:Y:48:TYR:HD2	1.81	0.42
4:D:6:SER:OG	4:D:8:LYS:HG3	2.19	0.42
3:C:218:LEU:HD12	3:C:218:LEU:C	2.39	0.42
6:F:20:PHE:CD2	6:F:23:TRP:CD1	3.07	0.42
17:Q:78:VAL:HG13	17:Q:82:TYR:CE2	2.43	0.42
24:X:21:LYS:HB3	24:X:27:TYR:CE2	2.54	0.42
19:S:41:ALA:O	19:S:45:LEU:HG	2.19	0.42
4:D:134:CYS:O	4:D:153:VAL:HG13	2.18	0.42
13:M:51:VAL:CB	13:M:77:ILE:HG21	2.46	0.42
19:S:77:TYR:O	19:S:78:LYS:HB2	2.19	0.42
11:K:94:LEU:CD2	11:K:95:ARG:H	2.31	0.42
4:D:101:GLN:O	4:D:104:SER:HB2	2.19	0.42
24:X:62:PRO:HD2	24:X:63:ASN:H	1.84	0.42
15:O:146:ARG:HG3	15:O:146:ARG:NH1	2.34	0.42
1:A:6:ASP:C	1:A:8:LEU:N	2.73	0.42
2:B:52:THR:OG1	14:N:56:ASP:HB2	86.13	0.42
3:C:68:LEU:O	22:V:15:ARG:NH2	2.52	0.42
5:E:34:GLY:HA3	5:E:83:PRO:HG2	2.00	0.42
8:H:51:ILE:HD12	8:H:176:VAL:HA	2.01	0.42
9:I:191:GLU:HG2	9:I:192:GLY:N	2.34	0.42
10:J:110:LEU:CB	10:J:130:ILE:HD13	2.43	0.42
10:J:37:LEU:CD2	10:J:43:VAL:CG2	2.96	0.42
12:L:10:TYR:CE2	12:L:12:LYS:HB3	2.54	0.42
14:N:36:GLN:O	14:N:40:LEU:HG	2.20	0.42
18:R:105:MET:C	18:R:109:LEU:HD12	2.39	0.42
25:Y:12:PHE:CZ	25:Y:21:LYS:HB2	2.44	0.42
16:P:7:LYS:C	16:P:9:LYS:H	2.19	0.42
4:D:58:VAL:CG2	4:D:59:LEU:N	2.83	0.42
11:K:1:MET:HG2	11:K:2:LEU:HB3	2.01	0.42
11:K:30:PRO:C	11:K:31:LYS:CG	2.54	0.42
16:P:121:ILE:CG2	19:S:120:HIS:HA	2.44	0.42
6:F:45:TYR:O	6:F:47:LYS:HD2	1.96	0.42
19:S:33:ILE:CG2	19:S:36:VAL:CG1	2.97	0.42
4:D:162:ASP:OD2	4:D:166:TYR:CE2	2.72	0.42
26:Z:57:LYS:O	26:Z:61:GLU:HG3	2.19	0.42
2:B:148:ASN:OD1	18:R:122:PRO:O	2.37	0.42
2:B:206:PRO:O	2:B:207:LEU:CB	2.67	0.42
25:Y:97:TYR:CD1	25:Y:98:GLU:N	2.79	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:192:ALA:HB3	3:C:195:PRO:CG	2.49	0.42
13:M:76:LEU:N	13:M:128:PHE:CZ	2.88	0.42
13:M:78:LYS:C	13:M:79:VAL:CG2	2.67	0.42
6:F:112:LEU:HD23	6:F:112:LEU:C	2.40	0.42
2:B:124:HIS:CG	2:B:136:HIS:NE2	2.83	0.42
4:D:207:HIS:C	4:D:208:VAL:HG23	2.39	0.42
3:C:109:PHE:CD2	3:C:132:VAL:HG23	2.54	0.42
5:E:166:THR:C	5:E:168:LYS:HG2	2.40	0.42
7:G:70:HIS:HB2	7:G:103:ASP:CG	2.35	0.42
9:I:108:PRO:HA	9:I:111:GLN:HG2	2.00	0.42
9:I:93:THR:O	9:I:94:LYS:HB2	2.20	0.42
12:L:42:LEU:HB2	12:L:44:PHE:CD2	2.54	0.42
22:V:41:LYS:C	22:V:43:THR:H	2.18	0.42
20:T:99:VAL:HG23	20:T:100:ALA:H	1.83	0.42
4:D:97:CYS:O	4:D:99:ILE:CA	2.60	0.42
11:K:14:LEU:CD2	11:K:35:LEU:HD11	2.49	0.42
13:M:113:ASP:O	13:M:114:TYR:CG	2.73	0.42
21:U:97:ILE:O	21:U:101:ILE:HD12	2.20	0.42
3:C:93:LYS:HG2	3:C:95:MET:H	1.83	0.42
8:H:44:ASN:HB3	8:H:68:GLN:NE2	2.29	0.42
16:P:123:TYR:OH	19:S:124:ARG:CG	2.57	0.42
6:F:42:LYS:O	6:F:45:TYR:N	2.53	0.42
17:Q:105:LYS:HZ2	17:Q:109:LYS:CB	2.31	0.42
17:Q:49:TYR:O	17:Q:53:GLU:N	2.50	0.42
23:W:11:LEU:HA	23:W:14:ILE:CD1	2.50	0.42
3:C:240:LEU:CD1	3:C:240:LEU:N	2.82	0.42
24:X:39:ASN:HA	24:X:40:PRO:HD3	1.96	0.42
5:E:201:HIS:HB2	5:E:205:PHE:O	2.19	0.42
5:E:133:THR:O	5:E:133:THR:OG1	2.30	0.42
5:E:244:ILE:O	5:E:245:ARG:CB	2.58	0.42
1:A:30:LEU:CD2	1:A:35:GLU:HG2	2.41	0.42
6:F:128:ILE:O	6:F:129:GLY:C	2.55	0.42
6:F:134:VAL:HB	6:F:136:ARG:NH2	2.34	0.42
7:G:46:LYS:HG2	7:G:118:GLU:OE1	2.19	0.42
7:G:85:ARG:CZ	25:Y:118:ARG:CZ	2.92	0.42
9:I:191:GLU:O	9:I:195:LEU:N	2.42	0.42
9:I:197:PHE:HE1	12:L:8:ARG:O	2.03	0.42
15:O:92:ALA:O	15:O:93:LEU:HD23	2.20	0.42
11:K:31:LYS:HA	11:K:40:VAL:O	2.20	0.42
11:K:27:VAL:HG12	11:K:43:LEU:HD21	1.96	0.42
11:K:49:MET:CB	11:K:69:TRP:CE2	3.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:88:GLU:O	11:K:89:ILE:C	2.58	0.42
21:U:49:LYS:HB2	21:U:49:LYS:HE2	1.57	0.42
8:H:87:PHE:CD2	8:H:90:LYS:HD2	2.54	0.42
18:R:47:ARG:HG2	18:R:48:ASN:N	2.33	0.42
4:D:123:LEU:C	4:D:123:LEU:HD23	2.39	0.42
25:Y:84:LYS:C	25:Y:84:LYS:HD2	2.27	0.42
20:T:84:ARG:C	20:T:86:GLY:H	2.22	0.42
5:E:31:PRO:CG	5:E:38:LEU:HD13	2.45	0.42
20:T:40:ALA:O	20:T:43:LYS:HG2	2.20	0.42
6:F:116:ILE:H	6:F:116:ILE:CD1	2.00	0.42
20:T:5:THR:HG22	20:T:8:ASP:CG	2.39	0.42
20:T:5:THR:HG21	20:T:7:LYS:HB2	2.00	0.42
8:H:73:GLN:NE2	8:H:135:PHE:HE1	2.14	0.42
1:A:16:LEU:HB2	1:A:17:LYS:NZ	2.35	0.42
1:A:14:ASP:C	1:A:18:PHE:HD2	2.22	0.42
2:B:24:PRO:O	2:B:27:LYS:HB2	2.20	0.42
10:J:131:ARG:NH1	10:J:143:ASN:ND2	2.63	0.42
2:B:30:TRP:CD1	15:O:17:LEU:HD21	2.55	0.42
15:O:31:CYS:HB3	15:O:95:ILE:HG12	1.91	0.42
22:V:64:GLU:O	22:V:67:ASP:N	2.53	0.42
24:X:58:GLU:O	24:X:59:ALA:C	2.58	0.42
16:P:100:LYS:CD	16:P:101:THR:HG23	2.46	0.42
4:D:25:LEU:HD22	4:D:25:LEU:N	2.34	0.42
11:K:14:LEU:CB	11:K:35:LEU:HD21	2.49	0.42
11:K:52:LEU:HA	11:K:55:ARG:HD3	2.01	0.42
21:U:48:LEU:O	21:U:49:LYS:CG	2.67	0.42
21:U:32:LEU:HD22	21:U:85:HIS:HB2	2.00	0.42
8:H:50:GLU:CD	8:H:58:LYS:CE	2.88	0.42
6:F:94:LYS:HA	6:F:94:LYS:HD3	2.55	0.42
16:P:108:LYS:N	16:P:111:MET:CE	2.72	0.42
16:P:17:TYR:CE2	16:P:25:LEU:HD21	2.54	0.42
19:S:89:ASP:HB3	19:S:90:VAL:H	1.47	0.42
4:D:196:GLY:C	4:D:199:GLY:CA	2.87	0.42
16:P:49:LEU:HD12	16:P:51:ARG:CD	2.39	0.42
16:P:49:LEU:C	16:P:50:ARG:CG	2.75	0.42
23:W:15:ASN:O	23:W:19:LYS:HG3	2.20	0.42
5:E:128:LYS:HE2	5:E:128:LYS:HB3	1.64	0.42
22:V:3:SER:O	22:V:4:ASN:C	2.58	0.42
1:A:106:GLY:O	1:A:109:THR:O	2.38	0.42
13:M:76:LEU:HD23	13:M:76:LEU:HA	1.79	0.42
13:M:26:LEU:CD1	13:M:89:VAL:C	2.81	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:190:ILE:CG2	6:F:191:LYS:N	2.82	0.42
8:H:23:ILE:C	8:H:23:ILE:HD13	2.40	0.42
20:T:83:GLN:HE22	20:T:85:ASN:CA	2.27	0.42
20:T:123:LEU:CD2	20:T:123:LEU:N	2.82	0.42
4:D:145:GLN:HG3	4:D:146:ARG:H	1.84	0.42
8:H:126:HIS:O	8:H:130:LEU:HD22	2.19	0.42
3:C:244:THR:CG2	3:C:246:PHE:CB	2.98	0.42
5:E:86:PHE:CZ	5:E:182:MET:SD	3.13	0.42
7:G:217:MET:CA	7:G:221:LYS:HB3	2.50	0.42
8:H:145:ARG:NH1	8:H:155:LYS:NZ	2.57	0.42
9:I:62:VAL:HG23	9:I:75:LYS:HE3	2.02	0.42
12:L:71:ARG:CG	12:L:73:LEU:CD2	2.98	0.42
12:L:94:HIS:CB	12:L:105:ARG:CD	2.75	0.42
12:L:95:TYR:C	12:L:96:ILE:HD12	2.40	0.42
14:N:38:TYR:CZ	14:N:78:LYS:CG	3.02	0.42
1:A:141:ASN:ND2	22:V:29:HIS:CA	2.78	0.42
24:X:70:VAL:CG1	24:X:71:ARG:N	2.82	0.42
3:C:196:LYS:CD	3:C:196:LYS:C	2.88	0.42
16:P:41:GLN:NE2	16:P:84:ILE:HD13	2.34	0.42
11:K:9:ILE:CG2	11:K:10:ALA:N	2.82	0.42
11:K:1:MET:HG2	11:K:2:LEU:CB	2.49	0.42
11:K:12:TYR:CD2	11:K:79:LEU:HD22	2.55	0.42
11:K:84:HIS:NE2	13:M:27:ILE:HD11	2.34	0.42
6:F:44:LYS:CB	6:F:45:TYR:CD1	3.00	0.42
25:Y:33:ALA:C	25:Y:34:THR:HG1	2.19	0.42
13:M:61:TYR:HH	13:M:108:CYS:CB	2.32	0.42
3:C:167:CYS:SG	3:C:168:LYS:HG3	2.60	0.42
25:Y:10:ARG:CG	25:Y:24:VAL:CB	2.85	0.42
23:W:37:PHE:CE1	23:W:103:VAL:CG1	3.03	0.42
24:X:62:PRO:CD	24:X:63:ASN:N	2.83	0.42
4:D:142:LEU:C	4:D:144:GLY:H	2.22	0.42
24:X:75:ILE:HA	24:X:75:ILE:HD13	1.74	0.42
1:A:57:LYS:HD2	1:A:160:ALA:O	2.20	0.42
5:E:118:GLU:HA	5:E:121:TYR:CE2	2.54	0.42
5:E:21:ASP:CG	5:E:24:THR:HG23	2.39	0.42
6:F:124:ASP:O	6:F:200:ALA:CB	2.67	0.42
6:F:62:ARG:O	6:F:63:LYS:C	2.58	0.42
7:G:177:GLN:O	7:G:178:ARG:CB	2.68	0.42
10:J:50:LEU:CB	10:J:102:ILE:CD1	2.97	0.42
12:L:40:ILE:CG2	12:L:41:GLY:N	2.83	0.42
18:R:103:LYS:HD2	18:R:103:LYS:HA	1.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:40:ASP:O	22:V:42:VAL:CG2	2.63	0.42
24:X:128:VAL:HG12	24:X:133:LEU:HD11	2.00	0.42
11:K:51:SER:O	11:K:55:ARG:HG2	2.19	0.42
11:K:58:VAL:HG23	11:K:70:TYR:O	2.20	0.42
8:H:31:GLU:O	8:H:37:LYS:CB	2.67	0.42
26:Z:91:LEU:HD21	26:Z:96:LEU:HD12	1.98	0.42
2:B:145:LYS:CA	2:B:149:GLN:OE1	2.68	0.42
19:S:46:ARG:CD	20:T:50:GLU:OE2	2.68	0.42
23:W:106:THR:HG21	23:W:111:MET:HE2	2.01	0.42
12:L:14:PRO:C	12:L:15:THR:HG23	2.40	0.42
5:E:197:ASN:O	5:E:209:HIS:N	2.48	0.42
3:C:69:PHE:CE1	3:C:247:THR:HG23	2.55	0.42
5:E:86:PHE:CZ	5:E:182:MET:HE1	2.52	0.42
7:G:181:THR:HA	7:G:182:PRO:HD3	1.23	0.42
9:I:141:ARG:O	9:I:142:SER:HB3	2.19	0.42
9:I:149:TYR:CD1	9:I:152:ARG:NH1	2.68	0.42
12:L:22:ARG:HB2	12:L:23:VAL:H	1.66	0.42
22:V:74:LYS:HA	22:V:79:VAL:HB	2.02	0.42
20:T:102:ARG:HH21	20:T:105:GLN:CD	2.09	0.42
4:D:20:GLU:HG2	11:K:64:TRP:CE3	2.55	0.42
4:D:74:GLN:HB2	4:D:84:VAL:HG11	1.98	0.42
4:D:79:PHE:CG	4:D:84:VAL:HB	2.55	0.42
11:K:71:LEU:HG	11:K:76:ILE:HD13	2.01	0.42
21:U:44:LYS:O	21:U:45:GLU:C	2.58	0.42
2:B:87:ILE:O	2:B:87:ILE:HG13	2.19	0.42
8:H:16:PRO:O	8:H:20:GLU:OE2	2.37	0.42
8:H:72:PHE:HD1	8:H:72:PHE:HA	1.69	0.42
8:H:146:VAL:HG23	23:W:50:PHE:CD1	2.52	0.42
6:F:86:LYS:O	6:F:90:VAL:HG23	2.19	0.42
17:Q:117:ARG:O	17:Q:118:THR:CB	2.68	0.42
17:Q:43:GLU:HA	17:Q:45:ARG:H	1.81	0.42
26:Z:51:ASP:O	26:Z:52:LYS:C	2.53	0.42
1:A:205:ARG:NH2	18:R:82:ASP:N	2.51	0.42
23:W:30:CYS:SG	23:W:61:ILE:CD1	2.97	0.42
17:Q:123:ASP:HA	17:Q:124:PRO:HD3	1.87	0.42
19:S:111:LEU:HD13	19:S:125:HIS:NE2	2.35	0.42
4:D:164:VAL:CG1	4:D:165:ASN:N	2.83	0.42
8:H:148:LEU:C	8:H:148:LEU:HD23	2.39	0.42
14:N:2:GLY:O	14:N:3:ARG:HB2	2.19	0.42
2:B:52:THR:CG2	14:N:56:ASP:OD1	84.59	0.41
3:C:127:LYS:HA	3:C:127:LYS:HD2	1.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:49:ARG:HD2	5:E:50:ASN:CG	2.40	0.41
7:G:159:ARG:NH2	7:G:161:PRO:N	2.68	0.41
7:G:70:HIS:CD2	7:G:103:ASP:OD2	2.73	0.41
7:G:78:SER:OG	7:G:81:HIS:NE2	2.52	0.41
10:J:136:ARG:NH1	10:J:161:LEU:HB2	2.35	0.41
12:L:10:TYR:CE2	12:L:12:LYS:NZ	2.79	0.41
15:O:103:ASN:O	15:O:104:ARG:O	2.38	0.41
15:O:32:HIS:O	15:O:43:HIS:HB3	2.20	0.41
20:T:55:THR:CG2	20:T:56:ARG:N	2.82	0.41
16:P:100:LYS:HD2	16:P:101:THR:N	2.34	0.41
4:D:21:LEU:HD23	4:D:21:LEU:HA	1.77	0.41
4:D:73:VAL:O	4:D:77:PHE:HD2	2.03	0.41
11:K:37:ASP:CA	11:K:38:LYS:HD3	2.50	0.41
11:K:4:PRO:HG2	11:K:7:ASN:CG	2.39	0.41
11:K:16:PHE:CZ	11:K:76:ILE:O	2.73	0.41
13:M:113:ASP:C	13:M:115:GLY:H	2.23	0.41
21:U:48:LEU:O	21:U:49:LYS:CB	2.66	0.41
21:U:50:VAL:CG1	21:U:51:LYS:N	2.46	0.41
21:U:40:ILE:HD13	21:U:53:PRO:CD	2.50	0.41
8:H:14:GLU:HG3	8:H:15:LYS:N	2.32	0.41
8:H:65:PRO:O	8:H:66:VAL:HB	2.20	0.41
25:Y:29:HIS:CE1	25:Y:67:GLY:HA2	2.30	0.41
10:J:82:VAL:HG21	10:J:92:MET:HG2	2.02	0.41
20:T:141:ALA:O	20:T:142:LYS:CB	2.64	0.41
3:C:151:ARG:HH12	3:C:240:LEU:HD13	1.67	0.41
13:M:127:TYR:CG	13:M:128:PHE:N	2.88	0.41
2:B:181:LEU:HA	2:B:181:LEU:HD23	1.83	0.41
11:K:94:LEU:CG	11:K:95:ARG:N	2.82	0.41
11:K:97:SER:HG	11:K:98:ARG:H	1.57	0.41
20:T:60:THR:HG23	20:T:64:LEU:HD21	2.03	0.41
24:X:77:ASN:C	24:X:79:LYS:N	2.73	0.41
5:E:59:ASP:O	5:E:63:LYS:HG3	2.20	0.41
2:B:71:LEU:C	2:B:79:VAL:HG21	2.40	0.41
3:C:127:LYS:HE3	3:C:128:CYS:H	1.85	0.41
5:E:123:LEU:HD22	5:E:236:ILE:HG23	2.02	0.41
7:G:147:LEU:O	7:G:148:SER:CB	2.66	0.41
7:G:214:ALA:O	7:G:217:MET:CG	2.68	0.41
8:H:144:ILE:O	23:W:52:ILE:N	2.51	0.41
9:I:110:ARG:HE	9:I:128:LYS:NZ	2.18	0.41
14:N:116:ILE:HA	14:N:119:GLU:OE1	2.20	0.41
14:N:49:GLN:HG2	14:N:49:GLN:H	1.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:33:PRO:CB	22:V:53:TYR:O	2.68	0.41
20:T:37:VAL:HG12	20:T:39:LEU:N	2.35	0.41
25:Y:54:VAL:HG12	25:Y:75:ILE:HG23	2.02	0.41
11:K:11:ILE:HG21	11:K:49:MET:HE3	1.83	0.41
11:K:49:MET:HB3	11:K:69:TRP:CE2	2.55	0.41
21:U:26:SER:HB2	21:U:110:VAL:HA	2.02	0.41
6:F:41:VAL:HG13	6:F:42:LYS:N	2.35	0.41
10:J:83:ARG:H	10:J:83:ARG:HG3	1.58	0.41
13:M:86:GLY:HA2	13:M:106:CYS:HB2	2.00	0.41
23:W:20:ARG:HD3	23:W:20:ARG:HA	1.39	0.41
26:Z:111:ARG:HH11	26:Z:114:LYS:NZ	2.18	0.41
13:M:71:GLU:OE1	13:M:71:GLU:CA	2.68	0.41
1:A:124:VAL:CG1	1:A:130:ASP:HB2	2.50	0.41
6:F:38:TYR:HD1	6:F:144:LEU:HD13	1.84	0.41
9:I:62:VAL:HG21	9:I:75:LYS:HZ1	1.76	0.41
10:J:34:GLU:HB3	10:J:35:TYR:CE2	2.55	0.41
12:L:156:GLN:CD	12:L:158:PHE:HE2	2.12	0.41
12:L:82:MET:SD	12:L:85:THR:CG2	3.08	0.41
14:N:60:VAL:O	14:N:60:VAL:CG2	2.67	0.41
1:A:158:ASP:CB	22:V:65:SER:CB	2.92	0.41
24:X:129:SER:O	24:X:133:LEU:HG	2.20	0.41
16:P:78:THR:O	16:P:102:PHE:HE1	2.03	0.41
4:D:98:ALA:HA	4:D:188:ILE:CD1	2.51	0.41
21:U:68:THR:HG22	21:U:69:PRO:HD2	2.01	0.41
20:T:76:THR:C	20:T:95:GLY:N	2.64	0.41
6:F:89:THR:HG23	6:F:90:VAL:N	2.35	0.41
17:Q:88:ILE:O	17:Q:91:ALA:HB3	2.21	0.41
16:P:18:ARG:HD2	16:P:37:TYR:CB	2.41	0.41
19:S:40:TYR:OH	19:S:99:LEU:HD21	2.21	0.41
2:B:147:ASN:HA	2:B:147:ASN:HD22	1.58	0.41
9:I:161:LEU:HA	9:I:161:LEU:HD22	1.76	0.41
10:J:91:LYS:C	10:J:93:LYS:N	2.71	0.41
2:B:206:PRO:HB2	2:B:207:LEU:H	1.69	0.41
10:J:180:LYS:HD2	10:J:181:GLY:N	2.35	0.41
6:F:112:LEU:O	6:F:116:ILE:CG1	2.67	0.41
6:F:154:LEU:HD12	6:F:155:CYS:SG	2.58	0.41
8:H:23:ILE:HG23	8:H:24:SER:N	2.34	0.41
20:T:78:ILE:CG2	20:T:79:TYR:N	2.83	0.41
23:W:7:LEU:CD2	23:W:34:ILE:HG13	2.46	0.41
3:C:225:THR:HG23	3:C:226:PHE:N	2.35	0.41
5:E:211:LYS:HE3	5:E:217:SER:OG	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:163:GLU:O	9:I:166:PHE:HB2	2.20	0.41
1:A:161:ILE:CG2	1:A:174:MET:HE2	2.51	0.41
2:B:93:GLY:HA2	2:B:94:LYS:HD3	2.01	0.41
5:E:94:LYS:C	5:E:95:THR:CG2	2.83	0.41
7:G:200:LYS:HG3	7:G:201:LYS:N	2.35	0.41
7:G:64:LYS:HB3	7:G:97:VAL:HG11	2.03	0.41
7:G:68:LEU:N	7:G:68:LEU:CD2	2.84	0.41
10:J:61:LEU:HD23	10:J:98:LEU:CD1	2.35	0.41
14:N:99:ARG:O	14:N:103:GLU:HG2	2.20	0.41
23:W:17:ALA:CB	23:W:25:VAL:HG11	2.45	0.41
23:W:24:GLN:OE1	23:W:24:GLN:N	2.53	0.41
20:T:33:TRP:HB2	20:T:36:THR:HG22	2.02	0.41
25:Y:55:ILE:HA	25:Y:75:ILE:HG12	2.02	0.41
17:Q:109:LYS:HZ1	17:Q:113:ILE:HD13	1.85	0.41
17:Q:58:LEU:HD21	17:Q:111:ILE:CD1	2.28	0.41
25:Y:68:LYS:C	25:Y:69:THR:HG23	2.41	0.41
13:M:35:ILE:CB	13:M:61:TYR:HE2	2.28	0.41
23:W:96:SER:OG	23:W:98:GLN:CG	2.67	0.41
13:M:22:LEU:HD12	13:M:88:TRP:HB3	2.02	0.41
5:E:212:ASP:C	5:E:214:ASN:H	2.22	0.41
3:C:260:LYS:HD2	3:C:261:THR:CB	2.50	0.41
1:A:202:TYR:O	1:A:203:PHE:HB2	2.21	0.41
15:O:143:LYS:HG3	15:O:144:GLY:N	2.34	0.41
7:G:142:ARG:NH1	7:G:142:ARG:HG2	2.30	0.41
7:G:84:TYR:CE2	7:G:86:PRO:CG	2.88	0.41
8:H:159:ASP:O	8:H:190:PRO:HG3	2.21	0.41
12:L:46:THR:HA	12:L:47:PRO:HD2	1.91	0.41
14:N:16:LEU:HA	14:N:17:PRO:HD3	1.88	0.41
15:O:42:VAL:HG12	15:O:43:HIS:N	2.35	0.41
22:V:33:PRO:HB2	22:V:34:MET:H	1.73	0.41
4:D:41:VAL:HG13	4:D:41:VAL:O	2.19	0.41
11:K:2:LEU:CD1	11:K:3:MET:N	2.21	0.41
8:H:39:GLN:CG	8:H:40:LEU:N	2.84	0.41
1:A:205:ARG:HG3	1:A:206:ASP:N	2.27	0.41
3:C:176:VAL:HG11	3:C:221:PHE:HA	2.03	0.41
4:D:175:VAL:HG12	4:D:182:LEU:HB2	2.00	0.41
6:F:115:ALA:HB3	6:F:116:ILE:HD13	2.02	0.41
6:F:111:VAL:HG13	6:F:181:ALA:HB2	2.03	0.41
3:C:177:LEU:CD1	3:C:177:LEU:O	2.62	0.41
21:U:66:ARG:CZ	21:U:75:LYS:HA	2.49	0.41
2:B:120:MET:CB	2:B:142:PHE:CE1	3.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:259:LYS:CG	5:E:260:GLN:N	2.79	0.41
1:A:111:GLN:HB3	3:C:48:VAL:CG1	2.46	0.41
1:A:30:LEU:HD11	1:A:38:ILE:HD12	1.90	0.41
2:B:55:THR:O	2:B:56:LYS:CB	2.66	0.41
5:E:43:PRO:HD3	5:E:46:ILE:HD12	2.00	0.41
5:E:45:ILE:HA	5:E:61:VAL:HG11	2.03	0.41
9:I:143:LYS:HE2	9:I:143:LYS:HB3	1.83	0.41
12:L:126:VAL:HG23	12:L:145:VAL:HA	2.02	0.41
12:L:70:GLY:O	12:L:72:ILE:HD12	2.20	0.41
1:A:141:ASN:CB	22:V:32:ILE:CG1	2.97	0.41
22:V:64:GLU:O	22:V:65:SER:C	2.52	0.41
22:V:66:ASP:O	22:V:67:ASP:O	2.39	0.41
24:X:58:GLU:O	24:X:59:ALA:O	2.38	0.41
16:P:83:MET:HB2	16:P:83:MET:HE2	1.78	0.41
11:K:80:ARG:HA	11:K:85:LEU:CD1	2.50	0.41
17:Q:114:GLN:CG	17:Q:115:TYR:N	2.61	0.41
6:F:47:LYS:HB3	17:Q:117:ARG:HH22	1.86	0.41
17:Q:43:GLU:HA	17:Q:44:PRO:C	2.41	0.41
25:Y:32:LYS:HG2	25:Y:33:ALA:C	2.40	0.41
16:P:15:PHE:HD1	16:P:15:PHE:HA	1.63	0.41
16:P:60:LEU:HD13	16:P:89:MET:HG3	2.02	0.41
19:S:81:ASP:C	19:S:87:GLN:NE2	2.71	0.41
2:B:148:ASN:HB3	18:R:123:THR:N	2.36	0.41
2:B:208:HIS:NE2	2:B:209:ASP:OD2	2.53	0.41
18:R:17:ILE:HG13	18:R:54:VAL:HG13	2.03	0.41
13:M:84:LYS:HB3	13:M:88:TRP:CZ2	2.55	0.41
23:W:78:ARG:NE	23:W:126:LEU:HD23	2.35	0.41
25:Y:37:LYS:HA	25:Y:40:ILE:HG21	2.03	0.41
20:T:64:LEU:HD12	20:T:113:VAL:HG11	2.03	0.41
16:P:67:ALA:HB2	16:P:73:PRO:CG	2.50	0.41
3:C:170:THR:O	3:C:231:LYS:HD3	2.20	0.41
3:C:113:VAL:HG12	3:C:114:ALA:N	2.34	0.41
2:B:127:VAL:HG11	2:B:176:VAL:HB	2.02	0.41
3:C:244:THR:C	3:C:246:PHE:N	2.68	0.41
5:E:92:ILE:CG2	5:E:95:THR:OG1	2.63	0.41
7:G:49:VAL:CG2	7:G:115:LYS:HE2	2.51	0.41
7:G:16:ILE:HG21	7:G:45:TRP:HZ2	1.79	0.41
7:G:211:LYS:O	7:G:215:LYS:HB3	2.21	0.41
9:I:158:ILE:HG23	9:I:159:SER:N	2.36	0.41
10:J:115:PHE:CD1	10:J:122:SER:CA	3.04	0.41
10:J:144:ILE:C	10:J:146:SER:N	2.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:66:LYS:C	10:J:71:LEU:CD1	2.89	0.41
12:L:113:LEU:HD23	12:L:113:LEU:C	2.41	0.41
15:O:31:CYS:HB2	15:O:95:ILE:HA	2.03	0.41
18:R:102:THR:CA	18:R:105:MET:HB2	2.46	0.41
18:R:98:VAL:CG1	18:R:99:ASP:H	2.34	0.41
21:U:61:LEU:O	21:U:81:GLN:HA	2.19	0.41
8:H:83:LEU:HD12	8:H:84:GLU:CA	2.51	0.41
17:Q:58:LEU:CD1	17:Q:108:ILE:CG2	2.77	0.41
17:Q:76:GLY:C	17:Q:80:GLN:HG3	2.34	0.41
16:P:36:LEU:HA	16:P:37:TYR:CG	2.56	0.41
16:P:34:MET:HB2	16:P:34:MET:HE2	1.97	0.41
18:R:7:LYS:O	18:R:11:LYS:HG3	2.21	0.41
19:S:134:GLN:H	19:S:134:GLN:HG2	1.59	0.41
13:M:31:LEU:CD1	13:M:33:ARG:HB3	2.42	0.41
8:H:121:THR:CG2	8:H:124:ALA:HB2	2.50	0.41
1:A:152:SER:HB3	1:A:153:PRO:HD2	2.01	0.41
1:A:157:VAL:O	22:V:66:ASP:OD2	2.38	0.41
2:B:161:VAL:HG12	2:B:165:ARG:CZ	2.49	0.41
3:C:150:VAL:C	3:C:233:TYR:CE2	2.94	0.41
7:G:115:LYS:HE2	7:G:115:LYS:HB2	1.66	0.41
9:I:118:ALA:HB2	9:I:149:TYR:CD1	2.55	0.41
10:J:171:GLY:O	10:J:175:ARG:N	2.50	0.41
12:L:45:LYS:O	12:L:47:PRO:HD3	2.20	0.41
12:L:56:ILE:HG22	12:L:57:ASP:N	2.35	0.41
3:C:72:PRO:N	22:V:29:HIS:CE1	2.87	0.41
20:T:47:PRO:CG	20:T:52:TRP:CD1	3.02	0.41
5:E:248:ILE:HD11	10:J:72:PHE:CD2	2.15	0.41
16:P:17:TYR:CE1	16:P:18:ARG:HG3	2.56	0.41
16:P:89:MET:HB3	16:P:107:ILE:HD11	1.95	0.41
19:S:7:GLU:C	19:S:8:LYS:CD	2.89	0.41
6:F:167:LYS:CG	6:F:171:GLU:HG2	2.50	0.41
4:D:192:TRP:C	4:D:194:PRO:N	2.61	0.41
4:D:212:GLU:HB2	18:R:19:LYS:HD3	1.96	0.41
18:R:93:GLN:C	18:R:94:GLU:O	2.56	0.41
2:B:104:ASP:CG	2:B:105:LEU:N	2.71	0.41
13:M:124:ILE:O	13:M:128:PHE:HB2	2.21	0.41
19:S:61:GLU:CA	19:S:64:VAL:HG22	2.51	0.41
13:M:101:ARG:HA	13:M:101:ARG:NE	2.36	0.41
23:W:36:ARG:HE	23:W:110:ILE:HB	1.85	0.41
25:Y:111:LYS:HZ2	25:Y:115:LYS:HZ2	1.69	0.41
5:E:195:ILE:O	5:E:196:THR:OG1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:119:THR:O	2:B:142:PHE:HA	2.21	0.41
1:A:134:LEU:CD2	1:A:144:THR:HG21	2.51	0.41
3:C:48:VAL:HG23	3:C:75:GLU:HG2	2.01	0.41
3:C:67:TYR:CD1	22:V:27:LYS:NZ	2.81	0.41
5:E:153:LEU:CD2	7:G:216:ARG:HH12	2.34	0.41
5:E:20:LEU:HD21	5:E:50:ASN:ND2	2.35	0.41
7:G:212:LEU:O	7:G:216:ARG:CG	2.69	0.41
7:G:25:ARG:O	7:G:28:TYR:N	2.26	0.41
7:G:64:LYS:HD2	7:G:65:GLN:C	2.40	0.41
8:H:133:LEU:HD13	8:H:173:PHE:HA	2.02	0.41
9:I:145:ILE:O	9:I:149:TYR:CD2	2.73	0.41
10:J:121:LYS:HA	10:J:121:LYS:HD3	1.65	0.41
12:L:55:TYR:C	12:L:55:TYR:CD1	2.94	0.41
13:M:43:ASP:O	13:M:44:LYS:HG3	2.20	0.41
14:N:38:TYR:CD1	14:N:78:LYS:HG3	2.56	0.41
14:N:71:ILE:O	14:N:71:ILE:CD1	5.80	0.41
2:B:56:LYS:CE	2:B:56:LYS:HA	2.48	0.41
3:C:59:LYS:CD	3:C:254:PHE:CE1	3.04	0.41
5:E:167:GLY:C	5:E:168:LYS:CG	2.88	0.41
7:G:64:LYS:HE2	7:G:67:VAL:HG12	2.02	0.41
10:J:136:ARG:HG2	10:J:141:VAL:CA	2.51	0.41
12:L:73:LEU:HD22	12:L:90:ARG:NH2	2.36	0.41
15:O:34:PHE:CD2	15:O:98:ARG:NH1	2.87	0.41
15:O:83:GLN:O	15:O:87:GLU:HB2	2.21	0.41
24:X:95:GLU:HB2	24:X:140:ARG:HH22	1.84	0.41
20:T:49:ASP:O	20:T:52:TRP:HD1	2.03	0.41
25:Y:21:LYS:HD2	25:Y:21:LYS:N	2.30	0.41
11:K:14:LEU:HB2	11:K:35:LEU:HD21	2.02	0.41
8:H:6:ALA:HB2	8:H:10:LYS:NZ	2.36	0.41
8:H:10:LYS:NZ	8:H:16:PRO:C	2.74	0.41
8:H:80:VAL:HA	8:H:83:LEU:CG	2.50	0.41
16:P:121:ILE:HA	19:S:120:HIS:HB2	2.03	0.41
17:Q:44:PRO:CB	17:Q:81:ILE:HD11	2.50	0.41
17:Q:19:ALA:CA	17:Q:74:GLY:C	2.89	0.41
17:Q:85:ARG:HA	17:Q:88:ILE:HG12	2.03	0.41
25:Y:35:VAL:HG12	25:Y:39:GLU:OE1	2.20	0.41
10:J:91:LYS:O	10:J:92:MET:C	2.54	0.41
19:S:46:ARG:NH1	20:T:50:GLU:CA	2.82	0.41
3:C:168:LYS:CG	23:W:95:PRO:HA	2.51	0.41
3:C:151:ARG:NH2	22:V:1:MET:SD	2.94	0.41
22:V:1:MET:HE2	22:V:10:ASP:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:127:TYR:C	13:M:127:TYR:CD1	2.93	0.41
20:T:40:ALA:HB3	20:T:43:LYS:HE3	2.02	0.41
20:T:40:ALA:HB3	20:T:43:LYS:CE	2.51	0.41
8:H:115:LYS:O	8:H:116:ARG:CB	2.50	0.41
6:F:161:ALA:HB3	6:F:172:CYS:HG	1.82	0.41
15:O:75:MET:HE3	15:O:118:ALA:HB2	2.02	0.41
5:E:185:GLY:HA2	5:E:189:LEU:HD13	2.03	0.41
2:B:139:CYS:HB3	2:B:168:MET:SD	2.59	0.41
5:E:123:LEU:HD21	5:E:235:TRP:CB	2.51	0.41
5:E:18:TRP:CD2	5:E:46:ILE:HD13	2.56	0.41
5:E:34:GLY:HA3	5:E:83:PRO:CG	2.51	0.41
7:G:122:PRO:CD	7:G:123:GLY:N	2.83	0.41
7:G:180:VAL:C	7:G:181:THR:CG2	2.85	0.41
16:P:41:GLN:OE1	16:P:45:LEU:HD12	2.21	0.41
4:D:29:LEU:CD1	4:D:50:ILE:HG21	2.51	0.41
4:D:29:LEU:CD2	4:D:65:ARG:NH2	2.83	0.41
13:M:113:ASP:O	13:M:114:TYR:CD2	2.74	0.41
21:U:37:ALA:O	21:U:41:ARG:HG3	2.20	0.41
3:C:218:LEU:CD1	3:C:219:GLY:N	2.72	0.41
8:H:65:PRO:C	8:H:67:PRO:CD	2.86	0.41
8:H:58:LYS:O	8:H:90:LYS:HA	2.21	0.41
17:Q:37:ARG:HB2	17:Q:41:MET:HG3	2.03	0.41
17:Q:49:TYR:C	17:Q:53:GLU:HG3	2.40	0.41
16:P:111:MET:O	16:P:114:HIS:CG	2.70	0.41
16:P:49:LEU:HA	16:P:51:ARG:HE	1.84	0.41
25:Y:101:LYS:HB3	25:Y:102:THR:H	1.66	0.41
4:D:123:LEU:CD1	4:D:154:ASP:HB2	2.46	0.41
11:K:18:GLU:O	11:K:92:ALA:HB1	2.04	0.41
2:B:182:LYS:O	2:B:185:VAL:HB	2.21	0.41
1:A:191:ARG:HD3	1:A:193:HIS:CD2	2.56	0.40
1:A:193:HIS:CG	1:A:194:PRO:CD	3.03	0.40
3:C:127:LYS:CD	3:C:142:LEU:HD11	2.42	0.40
3:C:45:TRP:CD1	3:C:46:LEU:N	2.89	0.40
5:E:153:LEU:HG	5:E:153:LEU:H	1.42	0.40
5:E:192:ILE:HD13	5:E:238:LEU:CD2	2.51	0.40
5:E:85:GLY:HA2	5:E:109:PHE:CZ	2.56	0.40
8:H:145:ARG:HD3	8:H:155:LYS:NZ	2.36	0.40
9:I:139:LYS:CD	9:I:145:ILE:CD1	2.98	0.40
9:I:154:LYS:C	9:I:154:LYS:NZ	2.68	0.40
9:I:157:LYS:O	9:I:158:ILE:CG2	2.69	0.40
10:J:114:VAL:C	10:J:120:ALA:HB3	2.41	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:50:LEU:HD12	10:J:102:ILE:HG12	2.02	0.40
22:V:74:LYS:CA	22:V:79:VAL:HB	2.51	0.40
19:S:39:ARG:CZ	20:T:38:LYS:HD3	2.49	0.40
4:D:47:GLU:HA	4:D:85:GLU:HG2	2.03	0.40
21:U:48:LEU:H	21:U:48:LEU:HG	1.39	0.40
21:U:44:LYS:HB2	21:U:49:LYS:HA	2.02	0.40
3:C:93:LYS:CE	3:C:218:LEU:HD23	2.44	0.40
2:B:66:VAL:HG22	2:B:87:ILE:CA	2.51	0.40
23:W:49:GLU:CD	23:W:64:ASN:HD22	2.24	0.40
6:F:95:HIS:NE2	26:Z:103:HIS:HB2	2.35	0.40
12:L:17:PHE:CE1	12:L:18:GLN:C	2.89	0.40
16:P:22:LEU:HA	16:P:25:LEU:CB	2.47	0.40
19:S:88:LYS:H	19:S:95:TYR:HE1	1.62	0.40
6:F:103:LEU:CD2	6:F:178:ILE:HG21	2.51	0.40
2:B:151:ARG:HD2	2:B:153:THR:HG23	2.00	0.40
25:Y:104:ARG:HA	25:Y:107:ARG:CZ	2.51	0.40
2:B:140:VAL:CG1	2:B:211:PHE:HD2	2.34	0.40
18:R:22:THR:HG22	18:R:73:LEU:HD12	1.92	0.40
4:D:111:GLY:CA	4:D:113:LEU:HD11	2.51	0.40
4:D:123:LEU:HA	4:D:126:ILE:HG12	2.01	0.40
23:W:78:ARG:HD3	23:W:126:LEU:HD23	2.00	0.40
24:X:28:LYS:HE2	24:X:32:LEU:HD11	2.02	0.40
16:P:28:MET:SD	16:P:32:GLN:OE1	2.78	0.40
6:F:29:GLN:O	6:F:31:ASN:N	2.54	0.40
9:I:65:PHE:HA	9:I:187:GLY:O	2.21	0.40
5:E:169:ILE:HG13	5:E:169:ILE:O	2.21	0.40
15:O:59:GLY:O	15:O:60:MET:C	2.58	0.40
3:C:53:ARG:NH1	3:C:258:LEU:O	2.52	0.40
9:I:191:GLU:CA	9:I:195:LEU:HB2	2.50	0.40
9:I:48:VAL:HG11	9:I:54:LYS:CE	2.50	0.40
14:N:136:PRO:HD2	14:N:139:TRP:HD1	1.86	0.40
22:V:40:ASP:HB2	22:V:47:ASN:HD22	1.77	0.40
1:A:57:LYS:CD	22:V:70:LEU:HD21	2.51	0.40
25:Y:44:LEU:O	25:Y:45:ALA:C	2.60	0.40
4:D:48:ILE:CG2	4:D:86:LEU:CG	2.82	0.40
21:U:44:LYS:C	21:U:46:LYS:N	2.74	0.40
8:H:6:ALA:CA	8:H:10:LYS:CD	2.51	0.40
6:F:20:PHE:CZ	6:F:50:PRO:HG3	2.56	0.40
19:S:36:VAL:HA	19:S:40:TYR:HD2	1.84	0.40
19:S:24:ARG:C	19:S:55:ARG:HD2	2.42	0.40
2:B:210:VAL:C	2:B:211:PHE:CG	2.93	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:13:ASP:O	13:M:14:VAL:C	2.58	0.40
24:X:55:VAL:HG12	24:X:57:VAL:CG2	2.52	0.40
24:X:60:LYS:HE2	24:X:116:PRO:HB3	2.01	0.40
18:R:5:ARG:C	18:R:10:LYS:HZ1	2.25	0.40
3:C:154:TYR:CG	3:C:158:LYS:HB3	2.56	0.40
3:C:191:SER:HB3	3:C:195:PRO:HG2	2.03	0.40
23:W:18:GLU:HG2	23:W:65:LEU:CD1	2.47	0.40
20:T:87:VAL:HG12	20:T:88:MET:CE	2.52	0.40
8:H:152:ARG:O	8:H:153:LEU:HD23	2.21	0.40
8:H:117:PRO:O	8:H:120:ARG:HB2	2.21	0.40
5:E:143:ASP:OD1	5:E:145:ARG:HD2	2.21	0.40
25:Y:111:LYS:HZ2	25:Y:115:LYS:NZ	2.18	0.40
9:I:29:LEU:HD21	9:I:31:ARG:NH1	2.34	0.40
17:Q:106:LYS:HA	17:Q:106:LYS:HD3	1.90	0.40
1:A:186:ARG:HH11	1:A:186:ARG:CA	2.33	0.40
3:C:246:PHE:HB3	3:C:247:THR:H	1.63	0.40
3:C:254:PHE:O	3:C:257:HIS:CB	2.70	0.40
3:C:54:LEU:HB3	3:C:60:ILE:HG13	2.02	0.40
3:C:73:ILE:HD11	3:C:78:ILE:CB	2.37	0.40
5:E:117:GLU:C	5:E:119:ALA:N	2.73	0.40
5:E:153:LEU:CD2	7:G:216:ARG:NH1	2.85	0.40
6:F:127:ARG:O	6:F:127:ARG:HD2	2.16	0.40
10:J:130:ILE:CA	10:J:135:ILE:HD13	2.48	0.40
12:L:50:ALA:N	12:L:116:CYS:SG	2.94	0.40
12:L:66:VAL:HB	12:L:131:CYS:SG	2.62	0.40
12:L:77:VAL:CG1	12:L:80:MET:SD	2.96	0.40
14:N:18:TYR:O	14:N:19:ARG:O	2.39	0.40
14:N:58:HIS:CD2	14:N:59:GLY:N	2.89	0.40
22:V:18:SER:N	22:V:54:ALA:O	2.50	0.40
1:A:57:LYS:NZ	22:V:70:LEU:HD21	2.36	0.40
19:S:39:ARG:CG	20:T:38:LYS:HZ1	2.35	0.40
20:T:29:LYS:HE2	20:T:29:LYS:HB3	1.83	0.40
25:Y:22:GLN:HB3	25:Y:74:MET:HE1	1.97	0.40
16:P:44:ARG:CD	16:P:115:TYR:HE1	2.27	0.40
4:D:59:LEU:CD1	4:D:60:GLY:C	2.87	0.40
11:K:16:PHE:CD2	11:K:79:LEU:CD1	3.05	0.40
11:K:90:VAL:HA	11:K:91:PRO:HD2	1.82	0.40
4:D:192:TRP:O	4:D:193:ASP:C	2.51	0.40
4:D:197:LYS:CA	4:D:198:ILE:HG23	2.41	0.40
4:D:211:VAL:N	18:R:38:ILE:O	2.55	0.40
6:F:37:ASP:N	6:F:37:ASP:OD1	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:94:HIS:NE2	15:O:127:GLY:HA3	2.37	0.40
8:H:109:ARG:O	8:H:110:THR:CB	2.68	0.40
8:H:149:ASP:O	8:H:150:GLY:C	2.59	0.40
12:L:122:ILE:O	12:L:122:ILE:HG13	2.21	0.40
7:G:129:VAL:HG13	7:G:130:PRO:HD2	2.03	0.40
1:A:145:ILE:HG23	1:A:159:ILE:HG23	2.03	0.40
3:C:50:LYS:HG2	3:C:51:LEU:N	2.36	0.40
3:C:48:VAL:CG2	3:C:75:GLU:HG2	2.52	0.40
5:E:87:MET:CE	5:E:182:MET:HE1	2.40	0.40
7:G:121:ILE:CG1	7:G:122:PRO:HD3	2.51	0.40
8:H:159:ASP:O	8:H:160:LYS:CB	2.69	0.40
22:V:33:PRO:HB3	22:V:54:ALA:HA	2.02	0.40
6:F:28:VAL:HG13	6:F:110:GLN:HG2	2.03	0.40
11:K:35:LEU:HB3	11:K:36:ALA:H	1.07	0.40
11:K:47:LYS:HA	11:K:47:LYS:HD3	1.92	0.40
11:K:72:THR:O	11:K:76:ILE:HG12	2.22	0.40
12:L:17:PHE:CG	12:L:18:GLN:O	2.75	0.40
19:S:33:ILE:CB	19:S:36:VAL:HG11	2.36	0.40
19:S:82:TRP:CG	19:S:83:PHE:N	2.89	0.40
9:I:25:ARG:NE	9:I:27:TYR:OH	2.54	0.40
16:P:30:TYR:OH	16:P:51:ARG:NH1	2.54	0.40
10:J:82:VAL:CG2	10:J:92:MET:HG2	2.51	0.40
3:C:238:PRO:HA	3:C:241:TRP:NE1	2.35	0.40
13:M:85:LEU:HD21	13:M:109:VAL:HG22	2.03	0.40
15:O:97:LEU:CD1	15:O:112:ALA:HB1	2.45	0.40
21:U:117:ALA:O	21:U:118:ASP:O	2.39	0.40
10:J:53:ILE:HD13	10:J:105:PHE:CZ	2.56	0.40
10:J:84:ILE:CD1	10:J:86:VAL:HG23	2.49	0.40
5:E:259:LYS:HG2	5:E:259:LYS:HZ2	1.60	0.40
17:Q:145:TYR:HA	17:Q:145:TYR:HD1	1.42	0.40
4:D:110:LEU:HD23	4:D:110:LEU:C	2.41	0.40
1:A:204:TYR:C	1:A:204:TYR:CD2	2.95	0.40
13:M:68:LEU:HD23	13:M:68:LEU:HA	1.90	0.40
1:A:126:ASP:O	1:A:130:ASP:HB2	2.22	0.40
1:A:36:GLN:O	1:A:53:ARG:CZ	2.69	0.40
1:A:36:GLN:O	1:A:53:ARG:NH1	2.54	0.40
1:A:34:MET:SD	1:A:37:TYR:HE2	2.44	0.40
2:B:137:LEU:CB	2:B:172:MET:CE	2.78	0.40
2:B:88:THR:HG23	2:B:96:CYS:HB3	2.03	0.40
3:C:83:LEU:C	3:C:85:ALA:N	2.74	0.40
4:D:226:GLN:C	4:D:227:LYS:HG3	2.38	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:147:LEU:O	7:G:151:ASP:CG	2.60	0.40
9:I:157:LYS:O	9:I:158:ILE:CB	2.68	0.40
12:L:141:ASN:O	12:L:143:LEU:CD1	2.70	0.40
9:I:157:LYS:HG2	12:L:22:ARG:NH1	2.34	0.40
20:T:31:PRO:CG	20:T:102:ARG:HG2	2.51	0.40
16:P:81:ARG:NH1	16:P:120:SER:HG	2.19	0.40
4:D:4:GLN:O	4:D:5:ILE:CG1	2.69	0.40
4:D:53:THR:CG2	4:D:91:VAL:CB	2.89	0.40
8:H:92:VAL:O	8:H:93:VAL:HB	2.22	0.40
17:Q:45:ARG:HG2	17:Q:46:THR:N	2.36	0.40
13:M:64:LEU:HA	13:M:64:LEU:HD23	1.91	0.40
10:J:79:ARG:CD	10:J:83:ARG:HD2	2.49	0.40
13:M:78:LYS:HD2	13:M:79:VAL:H	1.87	0.40
14:N:132:LYS:HE3	14:N:132:LYS:C	2.36	0.40
25:Y:93:ARG:O	25:Y:93:ARG:CD	2.65	0.40
6:F:112:LEU:CB	6:F:177:LEU:HD11	2.50	0.40
20:T:85:ASN:H	20:T:85:ASN:ND2	2.18	0.40
20:T:83:GLN:HE21	20:T:85:ASN:ND2	2.20	0.40
21:U:95:SER:OG	21:U:96:GLU:N	2.55	0.40
26:Z:84:ALA:O	26:Z:87:ALA:N	2.54	0.40

All (121) 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)
11:K:97:SER:O	34:i:76:U:OP1[3_454]	0.42	1.78
31:e:125:LYS:CD	34:i:1761:C:P[3_454]	0.61	1.59
34:i:137:U:OP2	34:i:532:U:N3[2_565]	0.64	1.56
31:e:125:LYS:CE	34:i:1761:C:O5'[3_454]	0.72	1.48
31:e:125:LYS:CG	34:i:1761:C:OP2[3_454]	0.77	1.43
34:i:136:C:C3'	34:i:533:C:C2[2_565]	0.80	1.40
34:i:532:U:O4'	34:i:1767:C:O2'[3_454]	0.88	1.32
31:e:125:LYS:CE	34:i:1761:C:C5'[3_454]	0.89	1.31
34:i:136:C:C4'	34:i:533:C:N3[2_565]	1.03	1.17
31:e:123:PHE:C	34:i:1760:C:OP2[3_454]	1.03	1.17
11:K:97:SER:C	34:i:76:U:OP1[3_454]	1.04	1.16
31:e:123:PHE:CG	34:i:1759:C:C5'[3_454]	1.06	1.14
34:i:531:U:O2'	34:i:1767:C:C3'[3_454]	1.14	1.06
34:i:531:U:C2'	34:i:1767:C:O3'[3_454]	1.15	1.05
34:i:137:U:OP2	34:i:532:U:C2[2_565]	1.18	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:123:PHE:CD1	34:i:1759:C:O5'[3_454]	1.18	1.02
9:I:200:ARG:NH2	34:i:1036:G:OP2[6_555]	1.19	1.01
34:i:531:U:O2'	34:i:1767:C:C4'[3_454]	1.23	0.97
7:G:155:GLN:NE2	11:K:98:ARG:O[2_565]	1.25	0.95
31:e:123:PHE:CB	34:i:1759:C:C4'[3_454]	1.25	0.95
34:i:136:C:C3'	34:i:533:C:N3[2_565]	1.26	0.94
31:e:125:LYS:NZ	34:i:1761:C:C5'[3_454]	1.27	0.93
31:e:125:LYS:CG	34:i:1761:C:P[3_454]	1.27	0.93
34:i:531:U:O2	34:i:1768:C:OP1[3_454]	1.28	0.92
34:i:137:U:OP1	34:i:532:U:O4[2_565]	1.28	0.92
31:e:123:PHE:CB	34:i:1759:C:C5'[3_454]	1.29	0.91
31:e:125:LYS:CD	34:i:1761:C:O5'[3_454]	1.30	0.90
7:G:155:GLN:CG	11:K:98:ARG:C[2_565]	1.38	0.82
31:e:125:LYS:CB	34:i:1761:C:OP2[3_454]	1.39	0.81
11:K:96:ARG:CD	34:i:76:U:C6[3_454]	1.40	0.80
19:S:104:ASP:OD2	34:i:724:C:O5'[4_565]	1.42	0.78
7:G:155:GLN:CD	11:K:98:ARG:O[2_565]	1.42	0.78
31:e:125:LYS:CD	34:i:1761:C:OP1[3_454]	1.42	0.78
34:i:531:U:O2	34:i:1768:C:P[3_454]	1.45	0.75
31:e:123:PHE:O	34:i:1760:C:OP2[3_454]	1.45	0.75
11:K:97:SER:O	34:i:76:U:P[3_454]	1.45	0.75
19:S:104:ASP:OD2	34:i:724:C:C5'[4_565]	1.46	0.74
19:S:104:ASP:OD1	34:i:724:C:C5'[4_565]	1.48	0.72
31:e:123:PHE:CE1	34:i:1758:G:O3'[3_454]	1.49	0.71
31:e:123:PHE:CG	34:i:1759:C:O5'[3_454]	1.49	0.71
31:e:126:LYS:N	34:i:1760:C:OP1[3_454]	1.49	0.71
34:i:531:U:O2	34:i:1768:C:O5'[3_454]	1.49	0.71
31:e:124:GLY:N	34:i:1760:C:OP2[3_454]	1.50	0.70
34:i:137:U:P	34:i:532:U:N3[2_565]	1.50	0.70
31:e:123:PHE:CE1	34:i:1758:G:C3'[3_454]	1.53	0.67
31:e:125:LYS:CA	34:i:1760:C:O5'[3_454]	1.54	0.66
34:i:136:C:C4'	34:i:533:C:C2[2_565]	1.54	0.66
31:e:124:GLY:O	34:i:1761:C:OP2[3_454]	1.55	0.65
19:S:108:ARG:CG	34:i:725:C:OP1[4_565]	1.55	0.65
34:i:531:U:O2'	34:i:1767:C:O3'[3_454]	1.56	0.64
31:e:125:LYS:CA	34:i:1760:C:C5'[3_454]	1.56	0.64
19:S:104:ASP:OD2	34:i:724:C:P[4_565]	1.58	0.62
34:i:531:U:C2	34:i:1768:C:OP1[3_454]	1.59	0.61
7:G:155:GLN:CG	11:K:98:ARG:O[2_565]	1.61	0.59
31:e:123:PHE:CD1	34:i:1759:C:C5'[3_454]	1.62	0.58
34:i:136:C:C3'	34:i:533:C:N1[2_565]	1.62	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:125:LYS:N	34:i:1760:C:O5'[3_454]	1.63	0.57
19:S:104:ASP:CG	34:i:724:C:C5'[4_565]	1.63	0.57
7:G:154:ARG:NE	11:K:96:ARG:NH2[2_565]	1.66	0.54
34:i:531:U:C1'	34:i:1767:C:O3'[3_454]	1.66	0.54
31:e:125:LYS:N	34:i:1760:C:P[3_454]	1.67	0.53
31:e:125:LYS:CD	34:i:1761:C:OP2[3_454]	1.67	0.53
34:i:531:U:O2'	34:i:1767:C:C5'[3_454]	1.67	0.53
7:G:156:TYR:CD1	11:K:98:ARG:NH2[2_565]	1.70	0.50
34:i:136:C:C3'	34:i:533:C:O2[2_565]	1.71	0.49
7:G:156:TYR:CE1	11:K:98:ARG:NH2[2_565]	1.71	0.49
7:G:155:GLN:CD	11:K:98:ARG:C[2_565]	1.72	0.48
19:S:108:ARG:CB	34:i:725:C:OP1[4_565]	1.72	0.48
34:i:532:U:C1'	34:i:1767:C:O2'[3_454]	1.72	0.48
31:e:123:PHE:CD1	34:i:1758:G:O3'[3_454]	1.72	0.48
19:S:108:ARG:CD	34:i:725:C:OP1[4_565]	1.73	0.47
19:S:104:ASP:OD2	34:i:724:C:OP1[4_565]	1.75	0.45
31:e:123:PHE:CB	34:i:1759:C:O5'[3_454]	1.75	0.45
34:i:531:U:O2	34:i:1768:C:C5'[3_454]	1.76	0.44
34:i:137:U:OP2	34:i:532:U:O2[2_565]	1.76	0.44
34:i:531:U:C2'	34:i:1767:C:C3'[3_454]	1.77	0.43
34:i:136:C:C5'	34:i:533:C:N3[2_565]	1.79	0.41
31:e:125:LYS:CE	34:i:1761:C:P[3_454]	1.80	0.40
16:P:8:LYS:NZ	34:i:735:C:OP1[4_565]	1.82	0.38
31:e:123:PHE:CD1	34:i:1759:C:P[3_454]	1.82	0.38
34:i:136:C:C4'	34:i:533:C:O2[2_565]	1.83	0.37
31:e:125:LYS:N	34:i:1760:C:OP2[3_454]	1.84	0.36
34:i:531:U:O3'	34:i:1767:C:C4'[3_454]	1.85	0.35
34:i:526:A:OP1	34:i:1757:G:OP1[3_454]	1.86	0.34
34:i:137:U:OP1	34:i:532:U:C4[2_565]	1.87	0.33
34:i:531:U:C2'	34:i:1767:C:C4'[3_454]	1.88	0.32
31:e:125:LYS:C	34:i:1760:C:OP1[3_454]	1.92	0.28
9:I:200:ARG:NH2	34:i:1036:G:P[6_555]	1.93	0.27
34:i:532:U:O4'	34:i:1767:C:C2'[3_454]	1.94	0.26
2:B:55:THR:CG2	34:i:271:G:OP1[6_555]	1.96	0.24
31:e:125:LYS:CG	34:i:1761:C:O5'[3_454]	1.97	0.23
34:i:531:U:N1	34:i:1768:C:OP1[3_454]	1.99	0.21
34:i:137:U:OP2	34:i:532:U:C4[2_565]	2.00	0.20
31:e:125:LYS:CB	34:i:1761:C:P[3_454]	2.01	0.19
11:K:96:ARG:NH1	34:i:76:U:C2[3_454]	2.02	0.18
11:K:98:ARG:N	34:i:76:U:OP1[3_454]	2.02	0.18
31:e:125:LYS:CB	34:i:1760:C:O3'[3_454]	2.04	0.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:125:LYS:CG	34:i:1760:C:O3'[3_454]	2.06	0.14
31:e:123:PHE:O	34:i:1760:C:P[3_454]	2.06	0.14
9:I:125:LYS:NZ	35:l:55:ASP:CA[6_555]	2.06	0.14
34:i:136:C:O3'	34:i:533:C:C2[2_565]	2.08	0.12
9:I:200:ARG:CZ	34:i:1036:G:OP2[6_555]	2.09	0.11
7:G:155:GLN:NE2	11:K:98:ARG:C[2_565]	2.09	0.11
34:i:136:C:C3'	34:i:533:C:C4[2_565]	2.10	0.10
11:K:96:ARG:CD	34:i:76:U:C5[3_454]	2.10	0.10
31:e:125:LYS:CB	34:i:1760:C:C5'[3_454]	2.11	0.09
34:i:531:U:C1'	34:i:1768:C:OP1[3_454]	2.11	0.09
19:S:104:ASP:OD2	34:i:723:G:O3'[4_565]	2.11	0.09
31:e:125:LYS:N	34:i:1760:C:OP1[3_454]	2.13	0.07
31:e:125:LYS:CD	34:i:1760:C:O3'[3_454]	2.14	0.06
31:e:125:LYS:CA	34:i:1760:C:OP1[3_454]	2.14	0.06
34:i:137:U:P	34:i:532:U:C4[2_565]	2.14	0.06
11:K:96:ARG:CD	34:i:76:U:N1[3_454]	2.16	0.04
31:e:123:PHE:CD2	34:i:1759:C:C5'[3_454]	2.17	0.03
31:e:123:PHE:CA	34:i:1760:C:OP2[3_454]	2.17	0.03
7:G:154:ARG:CD	11:K:96:ARG:NH2[2_565]	2.17	0.03
34:i:137:U:OP1	34:i:532:U:N3[2_565]	2.18	0.02
31:e:125:LYS:CA	34:i:1760:C:P[3_454]	2.18	0.02
31:e:124:GLY:C	34:i:1761:C:OP2[3_454]	2.18	0.02
34:i:531:U:C2	34:i:1768:C:C5'[3_454]	2.18	0.02
34:i:531:U:O2'	34:i:1767:C:O5'[3_454]	2.19	0.01

## 5.3 Torsion angles ⓘ

### 5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
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%)	200 (89%)	13 (6%)	11 (5%)	3	31

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
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%)	202 (86%)	18 (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%)	124 (84%)	18 (12%)	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%)	109 (78%)	20 (14%)	10 (7%)	1	22
18	R	124/135 (92%)	96 (77%)	14 (11%)	14 (11%)	0	10
19	S	135/152 (89%)	107 (79%)	19 (14%)	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
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
35	l	82/113 (73%)	49 (60%)	22 (27%)	11 (13%)	0	7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
36	n	80/144 (56%)	61 (76%)	15 (19%)	4 (5%)	3	31
All	All	4988/5792 (86%)	3950 (79%)	530 (11%)	508 (10%)	1	13

All (508) 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
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

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Mol	Chain	Res	Type
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	54	GLY
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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
35	l	34	ARG
35	l	96	PHE
36	n	71	ILE

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Mol	Chain	Res	Type
36	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	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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
35	l	50	ILE
35	l	56	LYS
35	l	59	LEU
36	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
16	P	39	ALA
18	R	86	PRO
18	R	122	PRO
20	T	29	LYS
21	U	70	CYS
21	U	93	SER

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Mol	Chain	Res	Type
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
35	l	39	ASN
35	l	65	LYS
36	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	95	ARG
12	L	119	ASP
13	M	29	ASP
13	M	113	ASP
15	O	17	LEU
15	O	83	GLN
16	P	50	ARG
18	R	95	ILE

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Mol	Chain	Res	Type
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
25	Y	121	ALA
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
35	l	105	ASP
1	A	23	THR
3	C	164	THR
4	D	80	PRO
5	E	73	ASP
5	E	90	ILE
5	E	134	LYS
5	E	213	ALA
9	I	52	ASN
9	I	59	ARG
11	K	38	LYS
11	K	67	PHE
12	L	2	ALA
13	M	59	PRO
13	M	94	ILE
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
23	W	67	GLY

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Mol	Chain	Res	Type
24	X	78	GLY
24	X	99	GLU
25	Y	51	THR
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
35	l	41	ARG
1	A	110	ASN
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
32	f	87	THR
4	D	63	GLY
9	I	119	LEU
21	U	104	ILE
22	V	77	GLY
2	B	24	PRO
5	E	152	PRO
8	H	10	LYS
35	l	49	GLY
1	A	95	GLY
1	A	98	PRO
3	C	161	LYS
5	E	195	ILE
5	E	231	GLY
15	O	62	VAL
17	Q	42	ILE
27	a	96	THR

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Mol	Chain	Res	Type
28	b	37	CYS
30	d	11	PRO
8	H	93	VAL
13	M	30	GLY
28	b	9	HIS
2	B	21	VAL
4	D	200	PRO
18	R	15	VAL
21	U	29	VAL
35	l	77	PRO

### 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%)	140 (80%)	34 (20%)	2	12
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%)	117 (73%)	44 (27%)	0	4
7	G	207/218 (95%)	158 (76%)	49 (24%)	1	7
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	102/108 (94%)	79 (78%)	23 (22%)	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	48/106 (45%)	25 (52%)	23 (48%)	0	0
32	f	64/140 (46%)	43 (67%)	21 (33%)	0	2
33	g	272/275 (99%)	223 (82%)	49 (18%)	2	15
35	l	74/96 (77%)	56 (76%)	18 (24%)	1	6
36	n	66/123 (54%)	47 (71%)	19 (29%)	0	3
All	All	4348/4929 (88%)	3373 (78%)	975 (22%)	1	9

All (975) 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

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Mol	Chain	Res	Type
1	A	44	ASP
1	A	52	LYS
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	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

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Mol	Chain	Res	Type
2	B	138	PHE
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

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Mol	Chain	Res	Type
3	C	151	ARG
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

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Mol	Chain	Res	Type
4	D	129	SER
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

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Mol	Chain	Res	Type
5	E	120	LYS
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	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	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
8	H	158	LEU

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Mol	Chain	Res	Type
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
10	J	10	ARG

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Mol	Chain	Res	Type
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
11	K	53	LYS

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Mol	Chain	Res	Type
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
12	L	121	GLN

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Mol	Chain	Res	Type
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
14	N	73	ARG

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Mol	Chain	Res	Type
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
16	P	14	LYS

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Mol	Chain	Res	Type
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
17	Q	107	GLU

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Mol	Chain	Res	Type
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
19	S	34	LYS

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Mol	Chain	Res	Type
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
20	T	143	LYS

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Mol	Chain	Res	Type
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
23	W	20	ARG

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Mol	Chain	Res	Type
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
25	Y	58	PHE

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Mol	Chain	Res	Type
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
27	a	95	ARG

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Mol	Chain	Res	Type
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
31	e	95	LYS

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Mol	Chain	Res	Type
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	2	THR
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
35	l	29	ASP
35	l	32	HIS
35	l	34	ARG
35	l	38	ARG
35	l	43	THR
35	l	46	THR
35	l	55	ASP
35	l	57	LYS
35	l	58	LYS
35	l	60	VAL
35	l	70	ASN
35	l	72	THR
35	l	78	GLU
35	l	85	LEU
35	l	89	GLN
35	l	93	ILE
35	l	100	ILE
35	l	109	LYS
36	n	34	GLU
36	n	35	TYR
36	n	39	ILE
36	n	42	LEU
36	n	48	GLU
36	n	62	ARG
36	n	66	ARG
36	n	69	VAL
36	n	71	ILE
36	n	74	SER
36	n	78	LEU
36	n	81	LEU
36	n	83	ASP
36	n	85	GLN
36	n	95	TYR
36	n	101	ARG
36	n	102	SER
36	n	103	LEU
36	n	109	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (116) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	50	ASN
1	A	81	ASN
1	A	141	ASN
1	A	165	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
2	B	232	HIS
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
7	G	56	ASN
7	G	65	GLN
7	G	81	HIS
7	G	177	GLN
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
28	b	49	HIS
28	b	83	GLN
28	b	84	HIS
29	c	26	GLN
30	d	26	ASN
30	d	28	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
35	l	36	GLN
35	l	70	ASN
35	l	84	GLN
35	l	89	GLN
36	n	87	ASN
36	n	112	HIS

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
34	i	1735/1863 (93%)	503 (28%)	0

All (503) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
34	i	2	A

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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	747	G
34	i	748	G
34	i	749	C
34	i	750	G
34	i	751	C
34	i	784	G
34	i	787	C
34	i	793	C
34	i	794	G
34	i	795	U
34	i	806	A

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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, 95<sup>th</sup> percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	A	208/295 (70%)	0.28	20 (9%) 10 14	209, 304, 369, 385	0
2	B	215/264 (81%)	2.82	111 (51%) 0 4	170, 238, 290, 301	0
3	C	226/278 (81%)	0.95	43 (19%) 2 7	113, 192, 306, 337	0
4	D	227/243 (93%)	5.83	172 (75%) 0 2	186, 248, 328, 357	0
5	E	263/263 (100%)	2.06	88 (33%) 0 5	98, 185, 238, 251	0
6	F	191/204 (93%)	2.33	98 (51%) 0 4	228, 288, 316, 326	0
7	G	237/249 (95%)	0.34	24 (10%) 9 14	126, 225, 339, 361	0
8	H	190/194 (97%)	1.03	46 (24%) 1 6	177, 322, 371, 383	0
9	I	206/208 (99%)	2.91	99 (48%) 0 4	80, 224, 300, 314	0
10	J	182/194 (93%)	1.27	48 (26%) 1 5	119, 186, 238, 281	0
11	K	98/165 (59%)	5.02	67 (68%) 0 3	256, 329, 366, 374	0
12	L	158/158 (100%)	2.00	61 (38%) 0 4	89, 163, 283, 295	0
13	M	124/132 (93%)	0.26	9 (7%) 18 21	295, 428, 439, 441	0
14	N	150/151 (99%)	0.85	27 (18%) 2 7	111, 167, 276, 299	0
15	O	136/151 (90%)	1.00	25 (18%) 2 7	119, 235, 306, 339	0
16	P	127/145 (87%)	1.25	43 (33%) 0 4	274, 351, 387, 394	0
17	Q	141/146 (96%)	2.04	60 (42%) 0 4	198, 305, 333, 340	0
18	R	126/135 (93%)	0.80	24 (19%) 2 7	208, 271, 378, 382	0
19	S	137/152 (90%)	1.17	37 (27%) 1 5	253, 328, 349, 358	0
20	T	141/145 (97%)	-0.01	0 100 100	273, 331, 358, 363	0
21	U	104/119 (87%)	7.31	96 (92%) 0 1	197, 304, 340, 357	0
22	V	82/83 (98%)	0.51	13 (15%) 3 8	196, 246, 356, 365	0
23	W	129/130 (99%)	4.38	96 (74%) 0 2	116, 169, 214, 229	0
24	X	142/143 (99%)	4.78	100 (70%) 0 3	74, 101, 124, 133	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
25	Y	126/133 (94%)	0.65	16 (12%) 5 11	134, 185, 219, 236	0
26	Z	75/125 (60%)	4.28	67 (89%) 0 2	295, 323, 347, 353	0
27	a	107/115 (93%)	2.43	45 (42%) 0 4	115, 166, 278, 294	0
28	b	84/84 (100%)	1.27	20 (23%) 1 6	186, 244, 315, 338	0
29	c	64/69 (92%)	1.74	24 (37%) 0 4	210, 264, 310, 317	0
30	d	53/56 (94%)	5.46	41 (77%) 0 2	215, 248, 337, 357	0
31	e	59/133 (44%)	0.30	8 (13%) 4 10	112, 169, 214, 226	0
32	f	71/156 (45%)	-0.59	3 (4%) 40 38	243, 417, 429, 432	0
33	g	313/317 (98%)	0.34	22 (7%) 19 22	282, 330, 361, 377	0
34	i	1840/1863 (98%)	1.26	410 (22%) 1 6	70, 205, 399, 456	0
35	l	85/113 (75%)	3.16	54 (63%) 0 3	270, 272, 274, 274	0
36	n	82/144 (56%)	2.62	44 (53%) 0 3	257, 260, 262, 263	0
All	All	6899/7655 (90%)	1.77	2161 (31%) 1 5	70, 246, 379, 456	0

All (2161) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
34	i	721	C	33.5
34	i	722	C	31.6
34	i	250	G	29.7
34	i	720	A	29.3
21	U	36	CYS	26.7
34	i	761	G	25.6
4	D	15	GLY	24.1
4	D	71	ALA	23.7
4	D	52	ALA	23.6
34	i	249	C	23.5
34	i	697	G	23.4
24	X	83	ALA	23.3
11	K	19	GLY	21.0
21	U	37	ALA	20.5
34	i	694	G	20.3
4	D	70	THR	19.9
11	K	63	ALA	19.9
21	U	40	ILE	19.8
34	i	252	C	19.5
34	i	696	G	19.4
4	D	12	VAL	19.2

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Mol	Chain	Res	Type	RSRZ
2	B	215	VAL	19.0
34	i	762	C	19.0
24	X	69	CYS	18.6
11	K	20	VAL	18.3
34	i	251	C	18.2
21	U	42	GLY	18.0
21	U	43	ALA	17.9
30	d	51	GLY	17.8
21	U	82	MET	17.7
11	K	93	THR	17.7
34	i	763	U	17.5
11	K	21	MET	17.1
21	U	32	LEU	17.0
21	U	61	LEU	17.0
4	D	13	ALA	16.9
8	H	193	GLN	16.7
4	D	189	MET	16.7
21	U	84	ILE	16.6
24	X	111	ALA	16.5
4	D	66	ILE	16.5
21	U	65	THR	16.5
4	D	19	ALA	16.4
28	b	2	PRO	16.4
17	Q	123	ASP	16.0
34	i	693	A	16.0
4	D	20	GLU	15.8
21	U	64	THR	15.7
4	D	74	GLN	15.7
11	K	64	TRP	15.7
4	D	67	ARG	15.5
4	D	63	GLY	15.5
4	D	68	GLU	15.5
24	X	118	VAL	15.3
30	d	34	TYR	15.3
28	b	3	LEU	15.2
9	I	102	VAL	15.1
5	E	18	TRP	15.0
23	W	129	PHE	14.9
30	d	30	LEU	14.6
4	D	85	GLU	14.6
11	K	15	LEU	14.6
21	U	101	ILE	14.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
4	D	33	GLY	14.6
4	D	188	ILE	14.2
34	i	698	G	14.1
21	U	25	THR	14.0
4	D	8	LYS	13.9
4	D	58	VAL	13.8
4	D	55	THR	13.8
34	i	1762	A	13.7
9	I	80	ASP	13.7
4	D	36	GLY	13.6
9	I	173	ALA	13.6
2	B	103	MET	13.5
10	J	98	LEU	13.4
30	d	31	ILE	13.4
34	i	692	U	13.3
34	i	764	C	13.3
4	D	32	ASP	13.3
30	d	37	ASN	13.1
11	K	71	LEU	13.1
4	D	53	THR	13.0
24	X	115	ILE	13.0
2	B	100	PHE	12.9
9	I	101	ILE	12.9
4	D	60	GLY	12.9
24	X	70	VAL	12.9
23	W	103	VAL	12.9
4	D	50	ILE	12.8
2	B	217	MET	12.8
12	L	21	LYS	12.8
4	D	95	GLY	12.7
30	d	47	ALA	12.7
21	U	26	SER	12.7
21	U	39	LEU	12.5
4	D	134	CYS	12.4
4	D	84	VAL	12.3
34	i	723	G	12.3
34	i	768	G	12.3
26	Z	107	VAL	12.3
5	E	70	ILE	12.2
30	d	35	GLY	12.2
4	D	34	TYR	12.2
9	I	171	LEU	12.1

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Mol	Chain	Res	Type	RSRZ
4	D	64	ARG	12.0
24	X	82	THR	12.0
9	I	162	LEU	12.0
24	X	44	ALA	12.0
4	D	133	GLY	11.9
34	i	1763	C	11.8
9	I	83	TYR	11.8
9	I	84	ASN	11.8
4	D	86	LEU	11.7
21	U	85	HIS	11.7
21	U	66	ARG	11.7
9	I	190	LEU	11.7
34	i	1550	U	11.7
23	W	127	GLY	11.6
23	W	100	GLY	11.6
27	a	37	LYS	11.6
5	E	69	PHE	11.6
9	I	189	VAL	11.6
4	D	98	ALA	11.6
34	i	1551	A	11.6
27	a	35	ALA	11.5
23	W	9	ASP	11.5
35	l	102	LEU	11.5
24	X	85	VAL	11.4
24	X	122	VAL	11.4
34	i	1549	C	11.3
11	K	67	PHE	11.3
27	a	36	ILE	11.3
21	U	35	VAL	11.2
11	K	68	TYR	11.2
34	i	695	C	11.2
5	E	46	ILE	11.1
5	E	78	ALA	11.1
4	D	16	ILE	11.0
9	I	81	VAL	11.0
11	K	22	VAL	11.0
8	H	191	GLU	11.0
34	i	767	A	11.0
34	i	1252	G	11.0
24	X	41	PHE	10.9
11	K	66	HIS	10.9
11	K	62	PHE	10.9

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Mol	Chain	Res	Type	RSRZ
4	D	186	VAL	10.9
21	U	23	THR	10.8
4	D	75	LYS	10.7
2	B	101	HIS	10.7
4	D	72	VAL	10.6
30	d	52	PHE	10.6
2	B	214	LYS	10.6
30	d	29	GLY	10.5
11	K	69	TRP	10.5
4	D	11	PHE	10.5
9	I	169	GLY	10.5
11	K	65	ARG	10.4
21	U	24	LEU	10.4
24	X	102	VAL	10.4
4	D	131	ALA	10.3
24	X	100	VAL	10.3
21	U	81	GLN	10.3
24	X	84	PHE	10.3
4	D	88	ALA	10.2
5	E	14	ALA	10.2
9	I	158	ILE	10.2
27	a	84	VAL	10.2
11	K	92	ALA	10.1
4	D	47	GLU	10.1
34	i	719	C	10.0
2	B	223	PHE	10.0
2	B	102	GLY	9.9
28	b	4	ALA	9.9
11	K	18	GLU	9.9
21	U	21	ARG	9.9
4	D	49	ILE	9.8
36	n	35	TYR	9.8
21	U	90	ASP	9.8
4	D	102	ALA	9.8
4	D	57	ASN	9.8
5	E	15	PRO	9.8
30	d	50	ILE	9.8
13	M	9	GLY	9.8
23	W	102	ILE	9.7
9	I	172	LEU	9.7
4	D	48	ILE	9.7
24	X	43	GLY	9.7

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Mol	Chain	Res	Type	RSRZ
26	Z	69	THR	9.7
9	I	104	ILE	9.7
23	W	101	PHE	9.6
2	B	213	ARG	9.6
27	a	72	HIS	9.5
21	U	59	LYS	9.5
21	U	50	VAL	9.4
10	J	95	ASP	9.4
24	X	81	ILE	9.4
23	W	128	PHE	9.4
6	F	53	ALA	9.4
4	D	190	LEU	9.4
9	I	95	THR	9.4
5	E	45	ILE	9.4
21	U	78	ASP	9.3
10	J	97	ILE	9.3
24	X	42	GLY	9.3
9	I	78	ILE	9.3
11	K	72	THR	9.3
24	X	72	VAL	9.2
4	D	7	LYS	9.2
4	D	97	CYS	9.2
5	E	60	GLU	9.2
35	l	101	GLY	9.2
24	X	130	LEU	9.2
6	F	40	ALA	9.1
4	D	100	ALA	9.1
4	D	101	GLN	9.1
9	I	38	ILE	9.1
35	l	103	ALA	9.0
5	E	77	ARG	9.0
4	D	83	SER	9.0
4	D	22	ASN	9.0
6	F	68	ILE	9.0
24	X	67	ARG	9.0
4	D	46	THR	9.0
4	D	24	PHE	8.9
5	E	79	ASP	8.9
24	X	47	ALA	8.9
5	E	72	ILE	8.9
21	U	102	THR	8.9
21	U	97	ILE	8.9

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Mol	Chain	Res	Type	RSRZ
9	I	166	PHE	8.8
6	F	69	VAL	8.8
23	W	112	ASP	8.8
2	B	224	GLU	8.8
29	c	65	ALA	8.8
30	d	36	LEU	8.8
25	Y	17	LEU	8.8
26	Z	77	LEU	8.8
23	W	94	LEU	8.8
6	F	39	ILE	8.7
9	I	165	GLN	8.7
11	K	11	ILE	8.7
2	B	121	ILE	8.7
28	b	24	LEU	8.7
36	n	79	VAL	8.7
11	K	70	TYR	8.6
5	E	50	ASN	8.6
23	W	104	LEU	8.6
11	K	23	ALA	8.6
24	X	40	PRO	8.6
4	D	65	ARG	8.6
12	L	28	THR	8.6
35	l	97	LEU	8.5
23	W	111	MET	8.5
21	U	22	ILE	8.5
2	B	221	PRO	8.5
21	U	60	THR	8.5
2	B	136	HIS	8.5
11	K	61	GLN	8.5
5	E	64	ILE	8.5
23	W	27	ILE	8.5
4	D	29	LEU	8.4
34	i	253	G	8.4
27	a	70	LYS	8.4
4	D	25	LEU	8.4
5	E	54	TYR	8.4
34	i	1419	C	8.4
21	U	89	ILE	8.4
21	U	91	LEU	8.4
24	X	103	ALA	8.4
9	I	170	LYS	8.4
5	E	43	PRO	8.3

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Mol	Chain	Res	Type	RSRZ
30	d	20	SER	8.3
23	W	10	ALA	8.3
4	D	73	VAL	8.3
11	K	25	LYS	8.3
34	i	1757	G	8.3
21	U	62	ARG	8.3
21	U	38	ASP	8.3
5	E	44	LEU	8.3
9	I	105	ASP	8.3
24	X	123	VAL	8.2
5	E	80	ILE	8.2
34	i	1389	G	8.2
11	K	91	PRO	8.2
7	G	153	VAL	8.2
2	B	104	ASP	8.2
21	U	98	VAL	8.2
4	D	14	ASP	8.2
23	W	37	PHE	8.2
18	R	41	ILE	8.2
2	B	220	LYS	8.2
21	U	33	GLU	8.2
16	P	87	PRO	8.2
9	I	122	GLY	8.1
11	K	60	GLU	8.1
26	Z	109	TYR	8.1
4	D	35	SER	8.1
24	X	45	SER	8.1
21	U	63	ILE	8.1
5	E	90	ILE	8.1
4	D	136	VAL	8.1
5	E	17	HIS	8.0
24	X	46	HIS	8.0
30	d	38	MET	8.0
24	X	55	VAL	8.0
2	B	216	LYS	7.9
2	B	135	LEU	7.9
5	E	65	CYS	7.9
18	R	39	ALA	7.9
23	W	34	ILE	7.9
23	W	105	THR	7.9
30	d	46	TYR	7.9
4	D	76	ARG	7.9

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Mol	Chain	Res	Type	RSRZ
10	J	94	LEU	7.8
24	X	54	LYS	7.8
21	U	87	ARG	7.8
21	U	88	LEU	7.8
34	i	739	U	7.8
2	B	122	GLU	7.8
17	Q	124	PRO	7.8
6	F	32	ASP	7.8
21	U	83	ARG	7.8
24	X	49	GLY	7.8
24	X	112	VAL	7.8
24	X	117	GLY	7.8
4	D	208	VAL	7.7
23	W	110	ILE	7.7
9	I	96	LEU	7.7
23	W	124	LYS	7.7
36	n	76	ILE	7.7
23	W	72	CYS	7.7
4	D	17	PHE	7.7
21	U	117	ALA	7.7
11	K	58	VAL	7.7
4	D	9	ARG	7.7
2	B	137	LEU	7.6
4	D	21	LEU	7.6
4	D	10	LYS	7.6
9	I	198	TYR	7.6
5	E	55	ALA	7.6
27	a	69	VAL	7.6
12	L	142	VAL	7.6
4	D	191	PRO	7.6
5	E	42	LEU	7.6
4	D	184	ILE	7.6
23	W	73	GLY	7.6
4	D	69	LEU	7.6
9	I	174	CYS	7.6
21	U	110	VAL	7.6
6	F	106	GLU	7.5
21	U	44	LYS	7.5
26	Z	67	LEU	7.5
4	D	210	ILE	7.5
34	i	1858	U	7.5
2	B	225	LEU	7.5

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Mol	Chain	Res	Type	RSRZ
9	I	79	ILE	7.5
34	i	580	A	7.5
26	Z	73	VAL	7.5
5	E	82	TYR	7.5
34	i	473	C	7.5
4	D	59	LEU	7.5
5	E	71	LYS	7.5
4	D	135	GLU	7.4
23	W	69	LEU	7.4
23	W	130	PHE	7.4
11	K	26	ASP	7.4
6	F	54	GLY	7.4
4	D	168	VAL	7.4
21	U	105	SER	7.4
34	i	261	G	7.4
2	B	212	VAL	7.4
26	Z	87	ALA	7.4
2	B	99	ASN	7.4
12	L	22	ARG	7.4
21	U	58	THR	7.4
24	X	119	ARG	7.4
34	i	1387	C	7.4
24	X	101	LEU	7.4
23	W	61	ILE	7.4
8	H	194	LEU	7.3
34	i	1552	C	7.3
21	U	20	ILE	7.3
26	Z	70	PRO	7.3
24	X	10	ALA	7.3
2	B	138	PHE	7.3
21	U	111	GLU	7.3
6	F	64	ALA	7.2
24	X	68	LYS	7.2
6	F	41	VAL	7.2
34	i	863	G	7.2
30	d	22	ARG	7.2
27	a	39	PHE	7.2
26	Z	68	ILE	7.2
4	D	45	ARG	7.2
9	I	191	GLU	7.2
8	H	143	ARG	7.2
12	L	143	LEU	7.2

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Mol	Chain	Res	Type	RSRZ
24	X	116	PRO	7.2
35	I	55	ASP	7.2
5	E	47	PHE	7.1
24	X	94	ILE	7.1
11	K	24	LYS	7.1
9	I	103	LEU	7.1
23	W	125	ILE	7.1
21	U	19	ARG	7.1
5	E	92	ILE	7.1
34	i	1756	C	7.1
5	E	73	ASP	7.1
24	X	124	LYS	7.1
34	i	1548	C	7.0
8	H	192	PHE	7.0
9	I	100	CYS	7.0
23	W	25	VAL	7.0
21	U	103	SER	7.0
4	D	171	ALA	7.0
36	n	36	ALA	7.0
21	U	56	MET	7.0
24	X	74	LEU	7.0
15	O	130	GLU	6.9
12	L	20	LYS	6.9
23	W	8	ALA	6.9
2	B	124	HIS	6.9
5	E	67	GLN	6.9
34	i	1863	A	6.9
21	U	49	LYS	6.9
24	X	120	PHE	6.9
4	D	23	GLU	6.9
5	E	61	VAL	6.9
30	d	23	VAL	6.9
11	K	42	ASN	6.8
24	X	71	ARG	6.8
17	Q	108	ILE	6.8
4	D	126	ILE	6.8
6	F	67	PRO	6.8
23	W	29	PRO	6.8
23	W	126	LEU	6.7
24	X	56	GLY	6.7
23	W	40	VAL	6.7
27	a	7	ASN	6.7

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Mol	Chain	Res	Type	RSRZ
17	Q	55	VAL	6.7
5	E	20	LEU	6.7
2	B	89	GLU	6.7
11	K	14	LEU	6.7
34	i	1861	U	6.7
23	W	6	VAL	6.7
30	d	33	LYS	6.7
9	I	155	ASN	6.7
24	X	76	LYS	6.7
27	a	71	LEU	6.6
14	N	146	ALA	6.6
30	d	19	ARG	6.6
34	i	9	U	6.6
2	B	139	CYS	6.6
21	U	100	GLN	6.6
34	i	733	G	6.6
36	n	108	GLU	6.6
21	U	113	GLU	6.6
23	W	123	GLY	6.6
34	i	1153	G	6.6
34	i	1761	C	6.6
5	E	91	SER	6.6
17	Q	92	LEU	6.6
17	Q	54	PRO	6.6
16	P	110	GLU	6.6
17	Q	111	ILE	6.6
6	F	105	GLY	6.6
6	F	104	THR	6.5
21	U	80	PHE	6.5
11	K	49	MET	6.5
10	J	87	LEU	6.5
30	d	28	HIS	6.5
23	W	76	SER	6.5
4	D	132	LYS	6.5
21	U	77	TRP	6.5
4	D	26	THR	6.5
11	K	29	MET	6.5
4	D	87	TYR	6.5
1	A	209	GLU	6.5
9	I	159	SER	6.5
35	l	54	TYR	6.5
4	D	51	LEU	6.5

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Mol	Chain	Res	Type	RSRZ
2	B	140	VAL	6.5
21	U	27	ARG	6.5
21	U	76	THR	6.4
35	l	31	ILE	6.4
24	X	86	PRO	6.4
24	X	51	VAL	6.4
12	L	101	ARG	6.4
34	i	260	G	6.4
23	W	35	VAL	6.4
9	I	106	SER	6.4
11	K	32	HIS	6.4
4	D	157	MET	6.4
36	n	34	GLU	6.4
24	X	98	ASP	6.4
10	J	16	PRO	6.4
4	D	103	GLU	6.4
15	O	108	PRO	6.4
12	L	75	GLY	6.4
35	l	76	HIS	6.4
6	F	30	ILE	6.4
26	Z	88	LEU	6.3
23	W	38	LEU	6.3
27	a	79	ILE	6.3
2	B	84	PHE	6.3
24	X	79	LYS	6.3
36	n	78	LEU	6.3
30	d	43	PHE	6.3
35	l	52	ASP	6.3
4	D	158	ILE	6.3
35	l	48	GLN	6.3
34	i	1386	U	6.3
12	L	141	ASN	6.3
34	i	418	U	6.3
18	R	16	ILE	6.3
34	i	1388	U	6.3
34	i	1390	G	6.3
26	Z	66	LYS	6.2
2	B	68	GLU	6.2
30	d	27	ARG	6.2
26	Z	71	ALA	6.2
15	O	113	GLN	6.2
34	i	1860	A	6.2

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Mol	Chain	Res	Type	RSRZ
5	E	57	THR	6.2
7	G	152	ASP	6.2
4	D	18	LYS	6.2
21	U	86	LYS	6.2
9	I	163	GLU	6.2
4	D	77	PHE	6.2
5	E	48	LEU	6.2
26	Z	110	THR	6.2
23	W	53	ILE	6.2
5	E	97	GLU	6.2
35	l	59	LEU	6.2
4	D	30	ALA	6.2
5	E	51	LYS	6.2
9	I	124	LYS	6.2
34	i	760	U	6.2
35	l	79	TYR	6.1
34	i	1181	C	6.1
34	i	1699	C	6.1
9	I	156	ALA	6.1
15	O	131	ASP	6.1
34	i	691	G	6.1
6	F	49	LEU	6.1
21	U	112	VAL	6.1
30	d	40	ARG	6.1
2	B	105	LEU	6.1
4	D	209	SER	6.1
4	D	137	VAL	6.1
4	D	79	PHE	6.1
17	Q	129	SER	6.1
34	i	1859	C	6.1
5	E	52	LEU	6.1
26	Z	65	TYR	6.1
4	D	6	SER	6.1
11	K	57	TYR	6.1
23	W	33	VAL	6.0
11	K	75	GLY	6.0
26	Z	113	THR	6.0
4	D	96	LEU	6.0
6	F	66	CYS	6.0
15	O	112	ALA	6.0
4	D	28	GLU	6.0
12	L	103	GLU	6.0

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Mol	Chain	Res	Type	RSRZ
4	D	218	LEU	5.9
36	n	77	ILE	5.9
26	Z	84	ALA	5.9
2	B	83	LYS	5.9
17	Q	60	LYS	5.9
11	K	46	MET	5.9
18	R	12	ALA	5.9
4	D	42	THR	5.9
27	a	40	VAL	5.9
34	i	248	C	5.9
19	S	118	ARG	5.9
23	W	39	THR	5.9
34	i	1433	C	5.9
2	B	126	ASP	5.9
23	W	99	PHE	5.9
23	W	81	VAL	5.9
27	a	78	ALA	5.8
3	C	151	ARG	5.8
12	L	128	VAL	5.8
21	U	92	HIS	5.8
5	E	63	LYS	5.8
10	J	100	LEU	5.8
4	D	220	THR	5.8
35	l	74	ILE	5.8
4	D	37	VAL	5.8
4	D	206	ASP	5.8
35	l	46	THR	5.8
35	l	32	HIS	5.8
2	B	141	GLY	5.8
24	X	48	LYS	5.8
26	Z	72	VAL	5.8
7	G	41	LEU	5.8
10	J	86	VAL	5.7
12	L	126	VAL	5.7
9	I	85	ALA	5.7
36	n	71	ILE	5.7
4	D	167	TYR	5.7
24	X	99	GLU	5.7
26	Z	74	SER	5.7
26	Z	58	LEU	5.7
6	F	112	LEU	5.7
18	R	35	CYS	5.7

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Mol	Chain	Res	Type	RSRZ
35	l	51	ALA	5.7
24	X	78	GLY	5.7
12	L	117	PHE	5.7
24	X	96	GLU	5.7
34	i	1764	G	5.7
24	X	114	ASP	5.7
4	D	99	ILE	5.7
35	l	73	VAL	5.7
23	W	7	LEU	5.7
17	Q	110	ASP	5.6
6	F	15	PRO	5.6
23	W	77	PRO	5.6
21	U	48	LEU	5.6
8	H	155	LYS	5.6
12	L	19	ASN	5.6
26	Z	99	LEU	5.6
34	i	1197	U	5.6
2	B	123	ALA	5.6
17	Q	58	LEU	5.6
26	Z	86	ALA	5.6
5	E	19	MET	5.6
34	i	1172	G	5.6
23	W	95	PRO	5.6
34	i	397	G	5.6
6	F	93	VAL	5.6
21	U	46	LYS	5.6
6	F	72	LEU	5.6
12	L	77	VAL	5.6
10	J	102	ILE	5.6
21	U	31	SER	5.6
19	S	71	MET	5.6
24	X	104	GLY	5.6
24	X	53	GLU	5.5
2	B	81	PHE	5.5
21	U	79	ARG	5.5
5	E	58	GLY	5.5
21	U	115	THR	5.5
25	Y	85	ASN	5.5
12	L	127	THR	5.5
4	D	119	CYS	5.5
27	a	38	LYS	5.5
6	F	29	GLN	5.5

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Mol	Chain	Res	Type	RSRZ
5	E	74	GLY	5.5
23	W	90	GLN	5.4
34	i	1690	A	5.4
34	i	877	G	5.4
26	Z	75	GLU	5.4
34	i	276	U	5.4
34	i	1818	A	5.4
35	l	53	ASP	5.4
19	S	67	VAL	5.4
23	W	74	VAL	5.4
24	X	125	VAL	5.4
17	Q	88	ILE	5.4
30	d	21	CYS	5.4
6	F	50	PRO	5.4
23	W	51	GLU	5.4
10	J	104	ASP	5.4
11	K	95	ARG	5.4
28	b	12	PRO	5.4
5	E	76	VAL	5.4
24	X	97	ASN	5.4
7	G	156	TYR	5.4
34	i	1493	G	5.4
18	R	38	ILE	5.4
24	X	105	PHE	5.4
9	I	121	LEU	5.4
28	b	25	VAL	5.4
4	D	118	ALA	5.4
5	E	109	PHE	5.4
11	K	12	TYR	5.4
21	U	118	ASP	5.4
23	W	46	TYR	5.4
12	L	111	VAL	5.4
9	I	67	TRP	5.4
34	i	1167	G	5.4
19	S	123	LEU	5.3
6	F	33	ILE	5.3
19	S	48	ALA	5.3
34	i	507	C	5.3
24	X	91	LEU	5.3
23	W	75	ILE	5.3
4	D	122	VAL	5.3
24	X	73	GLN	5.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	E	59	ASP	5.3
26	Z	50	PHE	5.3
12	L	114	SER	5.3
12	L	152	LYS	5.3
28	b	1	MET	5.3
24	X	52	LEU	5.3
6	F	109	LEU	5.3
34	i	864	G	5.3
12	L	112	HIS	5.3
4	D	38	GLU	5.3
3	C	42	ASP	5.2
23	W	113	HIS	5.2
34	i	1180	G	5.2
4	D	187	LYS	5.2
35	l	81	GLU	5.2
35	l	50	ILE	5.2
29	c	45	ASN	5.2
4	D	91	VAL	5.2
36	n	80	GLY	5.2
34	i	1693	C	5.2
26	Z	76	ARG	5.2
2	B	85	LYS	5.2
24	X	121	LYS	5.2
36	n	91	VAL	5.2
9	I	194	GLU	5.2
17	Q	59	GLY	5.2
12	L	116	CYS	5.1
8	H	154	ILE	5.1
34	i	1475	G	5.1
34	i	1862	U	5.1
5	E	261	SER	5.1
7	G	80	GLY	5.1
26	Z	78	LYS	5.1
4	D	89	GLU	5.1
23	W	86	LEU	5.1
12	L	5	GLN	5.1
19	S	128	GLY	5.1
34	i	777	C	5.1
34	i	12	U	5.1
34	i	1353	A	5.1
3	C	232	THR	5.1
9	I	185	ALA	5.1

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Mol	Chain	Res	Type	RSRZ
26	Z	97	ILE	5.1
15	O	96	LYS	5.1
4	D	123	LEU	5.1
34	i	492	C	5.1
9	I	61	ASP	5.1
34	i	1025	G	5.1
6	F	56	TYR	5.0
18	R	8	THR	5.0
27	a	11	ALA	5.0
34	i	28	U	5.0
9	I	82	VAL	5.0
2	B	60	ASP	5.0
2	B	181	LEU	5.0
2	B	69	VAL	5.0
5	E	13	ALA	5.0
17	Q	62	ARG	5.0
34	i	1196	A	5.0
34	i	876	G	5.0
34	i	1352	G	5.0
6	F	16	ASP	5.0
34	i	690	C	5.0
26	Z	101	SER	5.0
34	i	862	U	5.0
6	F	47	LYS	5.0
2	B	125	VAL	5.0
4	D	61	GLU	5.0
34	i	10	G	5.0
34	i	662	A	5.0
34	i	1076	A	5.0
6	F	31	ASN	5.0
30	d	49	ASP	5.0
17	Q	61	GLU	4.9
35	l	33	ILE	4.9
26	Z	108	ILE	4.9
27	a	24	THR	4.9
36	n	33	GLN	4.9
23	W	22	LYS	4.9
2	B	86	LEU	4.9
24	X	126	ALA	4.9
23	W	93	LEU	4.9
24	X	39	ASN	4.9
23	W	62	VAL	4.9

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Mol	Chain	Res	Type	RSRZ
10	J	91	LYS	4.9
16	P	5	GLU	4.9
34	i	133	C	4.9
24	X	57	VAL	4.9
15	O	95	ILE	4.9
21	U	51	LYS	4.9
9	I	195	LEU	4.9
27	a	67	LEU	4.9
26	Z	61	GLU	4.9
23	W	30	CYS	4.9
34	i	351	U	4.9
5	E	49	ARG	4.8
9	I	128	LYS	4.8
10	J	90	GLY	4.8
12	L	29	GLY	4.8
26	Z	59	CYS	4.8
26	Z	112	ASN	4.8
9	I	93	THR	4.8
12	L	88	ILE	4.8
10	J	96	TYR	4.8
6	F	107	ASN	4.8
17	Q	117	ARG	4.8
34	i	778	C	4.8
35	l	34	ARG	4.8
24	X	113	GLY	4.8
2	B	90	ASP	4.8
35	l	56	LYS	4.8
23	W	24	GLN	4.8
26	Z	114	LYS	4.8
5	E	84	ALA	4.8
35	l	100	ILE	4.8
17	Q	115	TYR	4.8
2	B	92	GLN	4.8
9	I	62	VAL	4.8
15	O	97	LEU	4.7
2	B	133	TYR	4.7
10	J	93	LYS	4.7
24	X	110	HIS	4.7
34	i	795	U	4.7
12	L	94	HIS	4.7
30	d	56	ASP	4.7
16	P	109	PRO	4.7

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Mol	Chain	Res	Type	RSRZ
9	I	39	GLY	4.7
4	D	54	ARG	4.7
9	I	175	ILE	4.7
5	E	62	LYS	4.7
27	a	75	VAL	4.7
16	P	125	PRO	4.7
13	M	98	GLY	4.7
13	M	99	LYS	4.7
33	g	144	ASP	4.7
17	Q	52	LEU	4.7
34	i	765	U	4.7
21	U	109	GLY	4.7
10	J	106	LEU	4.7
2	B	82	ARG	4.7
21	U	18	HIS	4.7
26	Z	62	VAL	4.7
11	K	79	LEU	4.6
19	S	117	ILE	4.6
12	L	27	GLU	4.6
24	X	50	ILE	4.6
26	Z	95	GLY	4.6
6	F	52	SER	4.6
30	d	18	SER	4.6
4	D	105	LEU	4.6
26	Z	98	LYS	4.6
5	E	89	VAL	4.6
23	W	13	SER	4.6
3	C	84	GLY	4.6
4	D	205	PRO	4.6
23	W	80	ASP	4.6
6	F	14	THR	4.6
15	O	107	THR	4.6
30	d	44	ARG	4.6
21	U	95	SER	4.6
24	X	35	ALA	4.6
35	l	82	VAL	4.6
26	Z	92	LEU	4.6
6	F	65	GLN	4.6
34	i	1171	G	4.6
23	W	26	LEU	4.5
34	i	796	U	4.5
34	i	1355	U	4.5

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Mol	Chain	Res	Type	RSRZ
3	C	185	ARG	4.5
4	D	216	GLU	4.5
4	D	221	THR	4.5
34	i	26	U	4.5
26	Z	91	LEU	4.5
4	D	104	SER	4.5
18	R	40	ILE	4.5
5	E	66	MET	4.5
34	i	277	U	4.5
2	B	78	GLU	4.5
4	D	94	ARG	4.5
28	b	8	LEU	4.5
34	i	1105	C	4.5
34	i	1024	A	4.5
34	i	679	U	4.5
5	E	95	THR	4.5
34	i	1182	U	4.4
16	P	11	THR	4.4
27	a	9	GLY	4.4
34	i	11	A	4.4
2	B	164	ILE	4.4
27	a	30	VAL	4.4
34	i	659	A	4.4
15	O	106	LYS	4.4
35	l	111	HIS	4.4
16	P	33	LEU	4.4
6	F	63	LYS	4.4
34	i	1698	C	4.4
35	l	30	TYR	4.4
34	i	983	A	4.4
33	g	161	SER	4.4
34	i	725	C	4.4
34	i	1194	G	4.4
27	a	73	TYR	4.4
8	H	142	LYS	4.4
5	E	12	VAL	4.4
34	i	134	C	4.4
34	i	1359	C	4.4
30	d	17	GLY	4.4
23	W	41	MET	4.4
34	i	388	A	4.4
34	i	682	G	4.4

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Mol	Chain	Res	Type	RSRZ
34	i	1477	G	4.4
34	i	859	U	4.3
23	W	14	ILE	4.3
36	n	59	CYS	4.3
7	G	78	SER	4.3
6	F	37	ASP	4.3
6	F	113	VAL	4.3
12	L	10	TYR	4.3
4	D	78	GLY	4.3
18	R	43	SER	4.3
34	i	1420	G	4.3
9	I	127	ALA	4.3
19	S	68	ILE	4.3
34	i	1173	U	4.3
34	i	1658	A	4.3
19	S	127	TRP	4.3
4	D	138	VAL	4.3
35	l	36	GLN	4.3
3	C	211	ALA	4.3
34	i	7	G	4.3
34	i	688	U	4.3
9	I	37	LYS	4.3
3	C	235	TYR	4.3
8	H	186	ASN	4.3
34	i	758	G	4.3
1	A	158	ASP	4.3
19	S	125	HIS	4.3
4	D	152	PHE	4.3
34	i	13	C	4.3
34	i	1198	U	4.3
34	i	27	A	4.3
27	a	45	VAL	4.3
4	D	185	LYS	4.3
2	B	211	PHE	4.3
4	D	82	GLY	4.3
24	X	66	ILE	4.3
23	W	21	GLY	4.3
1	A	153	PRO	4.3
2	B	59	SER	4.3
34	i	353	A	4.3
9	I	91	VAL	4.3
11	K	76	ILE	4.2

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Mol	Chain	Res	Type	RSRZ
8	H	188	GLU	4.2
21	U	29	VAL	4.2
22	V	64	GLU	4.2
9	I	125	LYS	4.2
14	N	126	ALA	4.2
9	I	168	GLN	4.2
10	J	78	LEU	4.2
14	N	122	ILE	4.2
35	l	112	GLY	4.2
2	B	218	LEU	4.2
36	n	52	PHE	4.2
4	D	173	ARG	4.2
9	I	94	LYS	4.2
26	Z	79	ILE	4.2
16	P	105	VAL	4.2
1	A	33	GLN	4.2
16	P	71	GLU	4.2
19	S	119	ALA	4.2
34	i	757	C	4.2
24	X	127	ASN	4.2
12	L	9	ALA	4.2
23	W	31	SER	4.2
19	S	64	VAL	4.2
15	O	116	LEU	4.2
7	G	81	HIS	4.2
22	V	10	ASP	4.2
5	E	56	LEU	4.2
6	F	97	PHE	4.2
23	W	89	TRP	4.2
18	R	13	ALA	4.2
23	W	70	ASN	4.2
17	Q	112	LEU	4.2
35	l	57	LYS	4.2
28	b	16	LYS	4.2
9	I	90	LEU	4.2
17	Q	57	LEU	4.2
9	I	129	LEU	4.1
23	W	79	PHE	4.1
5	E	68	ARG	4.1
9	I	126	GLY	4.1
9	I	87	ASN	4.1
21	U	47	ASN	4.1

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Mol	Chain	Res	Type	RSRZ
34	i	987	G	4.1
27	a	44	ILE	4.1
7	G	158	VAL	4.1
34	i	689	G	4.1
18	R	47	ARG	4.1
34	i	1174	U	4.1
24	X	6	GLY	4.1
15	O	129	ILE	4.1
34	i	867	U	4.1
34	i	745	U	4.1
34	i	1183	G	4.1
11	K	78	TYR	4.1
4	D	219	PRO	4.1
16	P	10	ARG	4.1
17	Q	114	GLN	4.1
34	i	1765	G	4.1
21	U	41	ARG	4.1
34	i	660	A	4.1
9	I	120	PRO	4.1
29	c	64	GLU	4.1
34	i	766	U	4.1
34	i	1193	G	4.1
23	W	67	GLY	4.1
2	B	87	ILE	4.1
24	X	90	CYS	4.1
24	X	129	SER	4.1
5	E	110	ALA	4.1
11	K	45	VAL	4.1
34	i	658	A	4.1
2	B	168	MET	4.1
5	E	101	LEU	4.0
30	d	25	SER	4.0
34	i	310	G	4.0
35	l	47	VAL	4.0
16	P	106	GLU	4.0
35	l	77	PRO	4.0
34	i	25	A	4.0
16	P	108	LYS	4.0
35	l	60	VAL	4.0
17	Q	53	GLU	4.0
35	l	98	VAL	4.0
24	X	75	ILE	4.0

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Mol	Chain	Res	Type	RSRZ
34	i	1175	G	4.0
11	K	59	LYS	4.0
2	B	64	GLY	4.0
29	c	35	MET	4.0
4	D	199	GLY	4.0
28	b	23	ARG	4.0
2	B	120	MET	4.0
36	n	93	LEU	4.0
17	Q	39	LEU	4.0
5	E	111	VAL	4.0
16	P	4	VAL	4.0
1	A	134	LEU	4.0
23	W	11	LEU	4.0
19	S	63	GLU	4.0
17	Q	109	LYS	4.0
2	B	80	ALA	4.0
3	C	38	GLY	4.0
34	i	734	C	4.0
34	i	861	A	4.0
17	Q	51	LEU	4.0
23	W	60	LYS	4.0
26	Z	96	LEU	4.0
36	n	111	GLU	4.0
17	Q	107	GLU	3.9
9	I	17	LYS	3.9
9	I	188	TYR	3.9
34	i	685	G	3.9
17	Q	131	LYS	3.9
24	X	80	LYS	3.9
26	Z	111	ARG	3.9
8	H	153	LEU	3.9
9	I	70	GLU	3.9
36	n	81	LEU	3.9
27	a	10	ARG	3.9
34	i	1485	A	3.9
10	J	92	MET	3.9
27	a	21	ILE	3.9
4	D	41	VAL	3.9
10	J	57	ALA	3.9
24	X	128	VAL	3.9
34	i	1575	A	3.9
5	E	11	ARG	3.9

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Mol	Chain	Res	Type	RSRZ
24	X	93	PHE	3.9
16	P	112	ILE	3.9
27	a	41	ILE	3.9
23	W	50	PHE	3.9
26	Z	100	VAL	3.9
2	B	227	LYS	3.9
36	n	94	LYS	3.9
16	P	36	LEU	3.9
9	I	60	LEU	3.9
17	Q	91	ALA	3.9
27	a	68	TYR	3.9
34	i	1354	U	3.9
36	n	92	ILE	3.9
34	i	1086	C	3.9
36	n	95	TYR	3.9
2	B	106	THR	3.9
36	n	89	ALA	3.9
23	W	18	GLU	3.9
6	F	46	ALA	3.9
26	Z	64	ASN	3.9
35	l	80	GLY	3.9
8	H	144	ILE	3.9
17	Q	16	LYS	3.9
23	W	106	THR	3.9
3	C	167	CYS	3.9
2	B	226	GLY	3.8
34	i	724	C	3.8
7	G	45	TRP	3.8
9	I	76	THR	3.8
34	i	1351	C	3.8
12	L	47	PRO	3.8
8	H	189	PHE	3.8
11	K	35	LEU	3.8
27	a	33	ASP	3.8
7	G	155	GLN	3.8
12	L	113	LEU	3.8
8	H	165	ASN	3.8
4	D	215	ASP	3.8
22	V	19	ALA	3.8
34	i	1350	G	3.8
23	W	36	ARG	3.8
2	B	222	LYS	3.8

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Mol	Chain	Res	Type	RSRZ
11	K	30	PRO	3.8
34	i	1734	C	3.8
4	D	27	ARG	3.8
35	l	49	GLY	3.8
29	c	17	VAL	3.8
22	V	34	MET	3.8
34	i	8	U	3.8
34	i	1159	C	3.8
17	Q	47	LEU	3.8
4	D	44	THR	3.8
5	E	81	THR	3.8
6	F	116	ILE	3.8
12	L	86	ILE	3.8
2	B	63	LYS	3.8
21	U	57	PRO	3.8
2	B	127	VAL	3.8
12	L	124	ASP	3.8
17	Q	15	ARG	3.8
30	d	32	ARG	3.7
4	D	196	GLY	3.7
35	l	107	GLN	3.7
17	Q	50	LYS	3.7
4	D	40	ARG	3.7
23	W	52	ILE	3.7
2	B	110	MET	3.7
34	i	1082	G	3.7
34	i	1831	G	3.7
4	D	80	PRO	3.7
17	Q	56	LEU	3.7
9	I	197	PHE	3.7
17	Q	122	ALA	3.7
27	a	22	ARG	3.7
14	N	88	LEU	3.7
21	U	114	VAL	3.7
10	J	99	GLY	3.7
23	W	78	ARG	3.7
36	n	37	GLN	3.7
34	i	730	C	3.7
34	i	1089	A	3.7
5	E	204	SER	3.7
10	J	74	GLY	3.7
34	i	1344	G	3.7

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Mol	Chain	Res	Type	RSRZ
12	L	73	LEU	3.7
34	i	1026	A	3.7
36	n	86	ASP	3.7
36	n	112	HIS	3.7
29	c	29	GLN	3.7
34	i	508	G	3.7
34	i	1154	G	3.7
15	O	109	GLY	3.7
23	W	63	VAL	3.7
34	i	1476	A	3.6
26	Z	83	LEU	3.6
29	c	36	ASP	3.6
18	R	37	GLU	3.6
28	b	15	GLU	3.6
19	S	6	PRO	3.6
3	C	156	GLY	3.6
16	P	114	HIS	3.6
35	l	108	LEU	3.6
3	C	150	VAL	3.6
9	I	59	ARG	3.6
22	V	82	ASN	3.6
30	d	55	LEU	3.6
5	E	16	LYS	3.6
6	F	135	ARG	3.6
34	i	1179	A	3.6
4	D	169	ASP	3.6
6	F	183	GLY	3.6
12	L	109	MET	3.6
34	i	387	G	3.6
29	c	30	VAL	3.6
34	i	1083	A	3.6
2	B	88	THR	3.6
6	F	194	ASP	3.6
21	U	54	VAL	3.6
17	Q	82	TYR	3.6
19	S	116	LYS	3.6
23	W	5	ASN	3.6
16	P	17	TYR	3.6
17	Q	89	SER	3.6
17	Q	63	PHE	3.6
34	i	39	A	3.6
27	a	2	THR	3.6

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Mol	Chain	Res	Type	RSRZ
34	i	1087	C	3.6
34	i	1654	U	3.6
26	Z	102	LYS	3.6
27	a	74	CYS	3.6
8	H	190	PRO	3.6
34	i	282	G	3.6
27	a	34	LYS	3.6
36	n	106	TYR	3.6
34	i	1696	C	3.6
14	N	28	LEU	3.6
7	G	157	VAL	3.6
34	i	16	G	3.6
6	F	130	ARG	3.6
30	d	16	GLN	3.6
16	P	111	MET	3.6
8	H	92	VAL	3.5
9	I	202	ILE	3.5
26	Z	51	ASP	3.5
10	J	105	PHE	3.5
34	i	781	C	3.5
4	D	175	VAL	3.5
24	X	133	LEU	3.5
6	F	62	ARG	3.5
34	i	472	G	3.5
34	i	736	C	3.5
12	L	62	PHE	3.5
6	F	185	SER	3.5
6	F	45	TYR	3.5
34	i	1088	G	3.5
18	R	11	LYS	3.5
34	i	224	U	3.5
4	D	217	ILE	3.5
7	G	18	VAL	3.5
34	i	1075	C	3.5
17	Q	85	ARG	3.5
23	W	122	GLY	3.5
16	P	129	GLY	3.5
23	W	96	SER	3.5
10	J	19	PRO	3.5
23	W	23	ARG	3.5
30	d	42	CYS	3.5
3	C	89	ASP	3.5

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Mol	Chain	Res	Type	RSRZ
12	L	96	ILE	3.5
34	i	773	G	3.5
2	B	109	LYS	3.5
6	F	110	GLN	3.5
4	D	130	GLY	3.5
34	i	1190	A	3.5
17	Q	104	SER	3.5
1	A	159	ILE	3.4
8	H	187	PHE	3.4
15	O	132	VAL	3.4
21	U	71	GLY	3.4
21	U	67	LYS	3.4
34	i	687	G	3.4
12	L	155	PHE	3.4
16	P	113	GLY	3.4
34	i	50	A	3.4
8	H	145	ARG	3.4
34	i	139	C	3.4
4	D	129	SER	3.4
34	i	657	U	3.4
36	n	57	ARG	3.4
6	F	192	LYS	3.4
35	l	93	ILE	3.4
1	A	157	VAL	3.4
4	D	121	GLY	3.4
6	F	28	VAL	3.4
26	Z	56	ASP	3.4
19	S	129	LEU	3.4
34	i	1385	C	3.4
2	B	45	GLY	3.4
11	K	13	GLU	3.4
18	R	15	VAL	3.4
11	K	16	PHE	3.4
25	Y	99	LYS	3.4
16	P	20	VAL	3.4
4	D	156	LEU	3.4
34	i	653	C	3.4
9	I	40	PRO	3.4
14	N	66	VAL	3.4
31	e	76	VAL	3.4
34	i	309	A	3.4
6	F	42	LYS	3.4

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Mol	Chain	Res	Type	RSRZ
31	e	79	SER	3.4
4	D	39	VAL	3.4
34	i	1160	G	3.4
34	i	684	A	3.4
17	Q	106	LYS	3.4
34	i	452	C	3.4
34	i	1689	U	3.4
4	D	93	THR	3.4
24	X	87	ASN	3.4
34	i	1195	A	3.4
3	C	152	ARG	3.4
2	B	46	LYS	3.3
23	W	85	ASP	3.3
30	d	13	LYS	3.3
35	l	105	ASP	3.3
24	X	77	ASN	3.3
35	l	110	VAL	3.3
11	K	53	LYS	3.3
10	J	15	THR	3.3
21	U	93	SER	3.3
24	X	9	THR	3.3
34	i	1735	C	3.3
16	P	104	GLN	3.3
15	O	94	HIS	3.3
24	X	107	ARG	3.3
26	Z	45	ASN	3.3
27	a	86	ASN	3.3
6	F	27	ASP	3.3
17	Q	93	VAL	3.3
18	R	32	LYS	3.3
34	i	229	A	3.3
6	F	195	GLU	3.3
33	g	76	GLN	3.3
34	i	1474	U	3.3
34	i	113	G	3.3
34	i	130	G	3.3
17	Q	96	TYR	3.3
26	Z	89	GLN	3.3
36	n	90	ASP	3.3
6	F	134	VAL	3.3
8	H	62	ILE	3.3
34	i	974	G	3.3

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Mol	Chain	Res	Type	RSRZ
34	i	1203	G	3.3
3	C	114	ALA	3.3
16	P	15	PHE	3.3
4	D	211	VAL	3.3
34	i	1077	U	3.3
36	n	83	ASP	3.3
30	d	26	ASN	3.3
12	L	11	GLN	3.3
2	B	188	LEU	3.3
3	C	180	LEU	3.3
34	i	780	G	3.3
34	i	638	A	3.3
34	i	776	U	3.3
2	B	111	CYS	3.3
9	I	161	LEU	3.3
29	c	43	ILE	3.3
31	e	122	THR	3.3
6	F	25	THR	3.3
6	F	48	TYR	3.3
10	J	77	LEU	3.3
31	e	77	HIS	3.3
9	I	164	GLU	3.3
9	I	167	GLN	3.3
34	i	524	G	3.3
34	i	661	A	3.3
14	N	85	PRO	3.2
23	W	97	ARG	3.2
34	i	913	U	3.2
4	D	62	LYS	3.2
4	D	204	LEU	3.2
9	I	133	GLU	3.2
34	i	354	A	3.2
12	L	23	VAL	3.2
7	G	150	GLU	3.2
21	U	96	GLU	3.2
14	N	133	ARG	3.2
34	i	646	G	3.2
26	Z	63	PRO	3.2
34	i	350	A	3.2
24	X	134	TYR	3.2
2	B	182	LYS	3.2
6	F	35	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
9	I	77	ARG	3.2
24	X	141	PRO	3.2
34	i	132	U	3.2
8	H	166	VAL	3.2
6	F	133	THR	3.2
24	X	109	GLY	3.2
12	L	18	GLN	3.2
10	J	89	GLU	3.2
26	Z	47	LEU	3.2
34	i	24	C	3.2
7	G	36	VAL	3.2
3	C	178	VAL	3.2
35	l	35	ILE	3.2
9	I	97	VAL	3.2
11	K	56	GLY	3.2
30	d	39	CYS	3.2
19	S	115	LYS	3.2
34	i	254	G	3.2
9	I	160	SER	3.2
35	l	83	ILE	3.2
34	i	402	G	3.1
6	F	20	PHE	3.1
6	F	117	ILE	3.1
34	i	732	C	3.1
21	U	45	GLU	3.1
2	B	67	PHE	3.1
34	i	726	C	3.1
22	V	65	SER	3.1
26	Z	57	LYS	3.1
21	U	94	PRO	3.1
1	A	207	PRO	3.1
3	C	51	LEU	3.1
34	i	3	C	3.1
3	C	168	LYS	3.1
23	W	32	LYS	3.1
23	W	121	THR	3.1
34	i	735	C	3.1
4	D	125	PHE	3.1
34	i	893	U	3.1
33	g	143	GLN	3.1
30	d	12	ARG	3.1
34	i	655	G	3.1

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Mol	Chain	Res	Type	RSRZ
5	E	99	PHE	3.1
6	F	154	LEU	3.1
3	C	204	ILE	3.1
34	i	1700	C	3.1
23	W	71	LYS	3.1
6	F	18	LYS	3.1
36	n	61	ILE	3.1
34	i	772	A	3.1
17	Q	116	ASP	3.1
3	C	41	GLY	3.1
17	Q	103	ALA	3.1
22	V	20	SER	3.1
24	X	139	GLU	3.1
34	i	1199	G	3.1
5	E	88	ASP	3.1
23	W	92	ASN	3.1
34	i	1400	U	3.1
14	N	114	ARG	3.1
4	D	183	GLY	3.1
10	J	81	LEU	3.1
11	K	41	PRO	3.1
34	i	1158	C	3.1
16	P	24	GLN	3.1
12	L	50	ALA	3.0
34	i	727	G	3.0
34	i	1830	G	3.0
2	B	98	THR	3.0
22	V	62	MET	3.0
25	Y	18	LEU	3.0
34	i	1697	G	3.0
4	D	207	HIS	3.0
24	X	138	LYS	3.0
8	H	93	VAL	3.0
26	Z	54	THR	3.0
3	C	229	ILE	3.0
30	d	45	GLN	3.0
6	F	101	HIS	3.0
11	K	98	ARG	3.0
11	K	34	GLU	3.0
11	K	74	GLU	3.0
18	R	46	LEU	3.0
1	A	127	PRO	3.0

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Mol	Chain	Res	Type	RSRZ
17	Q	32	ILE	3.0
34	i	1192	A	3.0
6	F	34	SER	3.0
6	F	70	GLU	3.0
1	A	145	ILE	3.0
34	i	729	C	3.0
13	M	130	CYS	3.0
10	J	103	GLU	3.0
8	H	185	VAL	3.0
34	i	230	C	3.0
34	i	1836	C	3.0
34	i	855	G	3.0
3	C	209	THR	3.0
12	L	74	SER	3.0
24	X	59	ALA	3.0
35	l	29	ASP	3.0
36	n	109	LEU	3.0
5	E	31	PRO	3.0
15	O	25	GLU	3.0
8	H	184	ASP	3.0
36	n	75	ASP	3.0
31	e	81	ALA	3.0
14	N	63	VAL	3.0
10	J	18	ARG	3.0
7	G	151	ASP	3.0
4	D	31	GLU	2.9
5	E	203	GLY	2.9
5	E	75	LYS	2.9
6	F	114	ASN	2.9
2	B	134	LEU	2.9
36	n	105	ALA	2.9
9	I	36	THR	2.9
2	B	186	ASN	2.9
10	J	61	LEU	2.9
25	Y	128	GLY	2.9
33	g	75	GLY	2.9
9	I	154	LYS	2.9
27	a	29	CYS	2.9
34	i	1208	G	2.9
4	D	4	GLN	2.9
4	D	2	ALA	2.9
4	D	200	PRO	2.9

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Mol	Chain	Res	Type	RSRZ
25	Y	70	THR	2.9
34	i	1399	C	2.9
25	Y	72	PHE	2.9
34	i	663	G	2.9
34	i	1031	A	2.9
24	X	36	LEU	2.9
36	n	113	ALA	2.9
17	Q	78	VAL	2.9
12	L	12	LYS	2.9
36	n	88	LYS	2.9
16	P	88	GLU	2.9
21	U	68	THR	2.9
15	O	29	GLY	2.9
34	i	996	C	2.9
17	Q	48	GLN	2.9
23	W	91	ASN	2.9
34	i	1023	A	2.9
34	i	686	G	2.9
1	A	208	GLU	2.9
9	I	199	LEU	2.9
2	B	107	ARG	2.9
11	K	97	SER	2.9
3	C	199	LEU	2.9
34	i	1655	C	2.9
34	i	1005	A	2.9
6	F	26	ASP	2.9
17	Q	130	LYS	2.9
3	C	169	VAL	2.9
2	B	190	PRO	2.9
3	C	166	ARG	2.9
10	J	17	ARG	2.9
23	W	28	ARG	2.9
24	X	33	GLY	2.9
34	i	879	U	2.9
2	B	172	MET	2.9
10	J	188	GLY	2.9
24	X	11	ARG	2.8
8	H	61	ILE	2.8
12	L	149	ALA	2.8
14	N	141	TYR	2.8
21	U	104	ILE	2.8
2	B	43	ASN	2.8

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Mol	Chain	Res	Type	RSRZ
19	S	49	ASP	2.8
29	c	11	LEU	2.8
8	H	161	ALA	2.8
9	I	65	PHE	2.8
10	J	28	GLU	2.8
34	i	212	G	2.8
34	i	1085	G	2.8
34	i	1855	G	2.8
34	i	1078	A	2.8
34	i	1755	U	2.8
34	i	583	C	2.8
2	B	191	ASP	2.8
26	Z	49	LEU	2.8
5	E	10	LYS	2.8
6	F	44	LYS	2.8
27	a	27	ALA	2.8
29	c	12	ALA	2.8
8	H	94	PHE	2.8
12	L	46	THR	2.8
34	i	1827	C	2.8
2	B	93	GLY	2.8
7	G	79	LYS	2.8
26	Z	43	LYS	2.8
30	d	54	LYS	2.8
14	N	92	ILE	2.8
6	F	118	ASN	2.8
9	I	69	SER	2.8
25	Y	71	GLY	2.8
33	g	71	ILE	2.8
8	H	162	GLN	2.8
19	S	44	VAL	2.8
27	a	83	VAL	2.8
11	K	31	LYS	2.8
8	H	152	ARG	2.8
27	a	46	GLU	2.8
29	c	44	ARG	2.8
33	g	145	GLU	2.8
34	i	474	A	2.8
34	i	1685	U	2.8
35	l	75	GLU	2.8
34	i	1030	A	2.8
2	B	39	PHE	2.8

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Mol	Chain	Res	Type	RSRZ
26	Z	52	LYS	2.8
2	B	185	VAL	2.8
18	R	14	ARG	2.8
34	i	1484	C	2.8
21	U	75	LYS	2.8
21	U	108	PRO	2.8
12	L	102	PHE	2.8
12	L	129	GLY	2.8
8	H	156	VAL	2.8
16	P	25	LEU	2.8
13	M	100	PRO	2.8
2	B	219	LYS	2.8
32	f	84	SER	2.8
2	B	32	ASP	2.8
8	H	164	ASN	2.8
28	b	54	VAL	2.8
8	H	167	GLU	2.8
6	F	147	VAL	2.8
9	I	109	TYR	2.8
14	N	118	ILE	2.8
24	X	5	ARG	2.8
18	R	42	PRO	2.7
34	i	666	C	2.7
10	J	24	ARG	2.7
9	I	187	GLY	2.7
24	X	38	ALA	2.7
34	i	1692	A	2.7
16	P	21	ASP	2.7
19	S	122	GLY	2.7
34	i	1327	C	2.7
34	i	525	G	2.7
1	A	3	GLY	2.7
2	B	91	VAL	2.7
10	J	186	GLY	2.7
19	S	45	LEU	2.7
2	B	113	MET	2.7
12	L	26	GLY	2.7
23	W	17	ALA	2.7
4	D	174	HIS	2.7
34	i	1704	G	2.7
1	A	144	THR	2.7
2	B	47	THR	2.7

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Mol	Chain	Res	Type	RSRZ
3	C	87	LEU	2.7
3	C	155	TRP	2.7
34	i	1201	C	2.7
14	N	105	ASN	2.7
13	M	129	LYS	2.7
14	N	36	GLN	2.7
34	i	1362	G	2.7
11	K	39	ASN	2.7
5	E	83	PRO	2.7
35	l	109	LYS	2.7
5	E	238	LEU	2.7
34	i	1220	G	2.7
34	i	1432	C	2.7
31	e	80	LEU	2.7
4	D	170	THR	2.7
22	V	66	ASP	2.7
19	S	50	ILE	2.7
33	g	146	SER	2.7
34	i	728	U	2.7
10	J	118	GLY	2.7
34	i	42	A	2.7
1	A	154	LEU	2.7
29	c	15	THR	2.7
34	i	1691	C	2.7
16	P	37	TYR	2.7
8	H	169	LYS	2.7
16	P	70	MET	2.7
4	D	154	ASP	2.7
9	I	86	SER	2.7
6	F	190	ILE	2.6
34	i	673	G	2.6
6	F	108	PRO	2.6
11	K	33	PRO	2.6
21	U	69	PRO	2.6
6	F	21	GLY	2.6
6	F	189	ALA	2.6
10	J	187	ALA	2.6
15	O	105	THR	2.6
2	B	95	ASN	2.6
2	B	228	LEU	2.6
9	I	32	PRO	2.6
14	N	115	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
27	a	5	ARG	2.6
3	C	237	THR	2.6
9	I	192	GLY	2.6
25	Y	106	GLN	2.6
26	Z	90	GLU	2.6
6	F	124	ASP	2.6
7	G	19	ASP	2.6
34	i	1081	C	2.6
34	i	259	G	2.6
34	i	1837	G	2.6
34	i	1663	U	2.6
34	i	129	C	2.6
34	i	799	C	2.6
10	J	73	GLU	2.6
12	L	115	PRO	2.6
35	l	104	LYS	2.6
34	i	656	U	2.6
6	F	71	ARG	2.6
34	i	731	C	2.6
3	C	236	LEU	2.6
2	B	58	ALA	2.6
12	L	120	VAL	2.6
3	C	165	VAL	2.6
29	c	27	CYS	2.6
34	i	1084	U	2.6
6	F	139	VAL	2.6
34	i	403	G	2.6
2	B	79	VAL	2.6
27	a	31	PRO	2.6
6	F	17	ILE	2.6
2	B	66	VAL	2.6
26	Z	115	GLY	2.6
31	e	98	LYS	2.6
6	F	103	LEU	2.6
28	b	27	SER	2.6
34	i	775	G	2.6
4	D	163	PRO	2.6
26	Z	106	GLN	2.6
2	B	61	GLY	2.6
6	F	90	VAL	2.6
8	H	160	LYS	2.6
19	S	111	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
28	b	5	LYS	2.6
36	n	107	GLY	2.6
24	X	95	GLU	2.6
2	B	189	ILE	2.6
34	i	352	C	2.6
6	F	119	SER	2.6
14	N	95	ALA	2.6
2	B	167	LYS	2.6
8	H	168	HIS	2.6
17	Q	113	ILE	2.6
36	n	84	TYR	2.6
34	i	669	A	2.6
2	B	71	LEU	2.6
5	E	85	GLY	2.6
7	G	16	ILE	2.6
34	i	1754	G	2.6
10	J	62	THR	2.6
1	A	155	ARG	2.5
5	E	102	ILE	2.5
13	M	80	ASP	2.5
13	M	131	LYS	2.5
23	W	87	GLU	2.5
10	J	54	ARG	2.5
21	U	28	ASN	2.5
34	i	451	U	2.5
14	N	37	ILE	2.5
34	i	1442	A	2.5
6	F	55	ARG	2.5
36	n	87	ASN	2.5
34	i	1029	G	2.5
1	A	61	ALA	2.5
15	O	127	GLY	2.5
21	U	34	LYS	2.5
9	I	35	ASN	2.5
19	S	126	PHE	2.5
14	N	59	GLY	2.5
8	H	146	VAL	2.5
16	P	23	ASP	2.5
34	i	1856	G	2.5
8	H	163	GLN	2.5
34	i	1824	U	2.5
2	B	165	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
6	F	43	GLU	2.5
6	F	100	ILE	2.5
33	g	148	SER	2.5
23	W	44	HIS	2.5
3	C	79	ILE	2.5
28	b	13	GLU	2.5
34	i	654	A	2.5
7	G	27	PHE	2.5
19	S	65	GLU	2.5
2	B	229	MET	2.5
5	E	182	MET	2.5
34	i	921	G	2.5
34	i	1770	G	2.5
24	X	34	THR	2.5
34	i	1483	A	2.5
34	i	1812	A	2.5
15	O	31	CYS	2.5
26	Z	48	VAL	2.5
10	J	31	LEU	2.5
34	i	878	U	2.5
34	i	1358	U	2.5
34	i	1163	G	2.5
34	i	1758	G	2.5
6	F	36	GLN	2.5
21	U	53	PRO	2.5
11	K	36	ALA	2.5
15	O	47	LEU	2.5
34	i	535	A	2.5
34	i	1752	G	2.5
3	C	85	ALA	2.5
12	L	24	LEU	2.5
12	L	145	VAL	2.5
19	S	47	LYS	2.5
22	V	68	SER	2.5
33	g	107	ASP	2.5
32	f	86	THR	2.5
27	a	95	ARG	2.5
34	i	536	G	2.4
34	i	1070	C	2.4
34	i	1759	C	2.4
16	P	86	LEU	2.4
6	F	129	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
9	I	63	GLY	2.4
11	K	77	GLN	2.4
25	Y	98	GLU	2.4
19	S	124	ARG	2.4
17	Q	81	ILE	2.4
3	C	216	ALA	2.4
8	H	50	GLU	2.4
33	g	186	THR	2.4
35	l	94	CYS	2.4
33	g	22	ALA	2.4
2	B	119	THR	2.4
21	U	52	GLY	2.4
29	c	19	GLY	2.4
26	Z	105	ALA	2.4
35	l	61	LYS	2.4
34	i	645	A	2.4
34	i	779	C	2.4
34	i	1134	C	2.4
34	i	1209	C	2.4
16	P	119	PHE	2.4
34	i	6	G	2.4
34	i	637	U	2.4
34	i	875	C	2.4
4	D	106	ARG	2.4
36	n	103	LEU	2.4
18	R	36	GLU	2.4
33	g	30	MET	2.4
34	i	912	A	2.4
2	B	65	ARG	2.4
10	J	101	LYS	2.4
14	N	125	LEU	2.4
17	Q	125	ARG	2.4
3	C	73	ILE	2.4
6	F	38	TYR	2.4
6	F	191	LYS	2.4
7	G	154	ARG	2.4
29	c	63	ARG	2.4
8	H	60	ILE	2.4
34	i	537	G	2.4
34	i	1162	G	2.4
34	i	1443	G	2.4
34	i	808	A	2.4

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Mol	Chain	Res	Type	RSRZ
6	F	193	LYS	2.4
8	H	112	ASN	2.4
9	I	157	LYS	2.4
14	N	84	LEU	2.4
12	L	68	ILE	2.4
16	P	85	ILE	2.4
35	l	99	GLU	2.4
11	K	40	VAL	2.4
15	O	33	ILE	2.4
34	i	29	G	2.4
34	i	613	G	2.4
34	i	1001	G	2.4
34	i	349	U	2.4
34	i	1384	A	2.4
34	i	1516	C	2.4
34	i	1695	C	2.4
34	i	1580	U	2.4
8	H	170	VAL	2.4
33	g	187	ASN	2.4
9	I	99	ASN	2.4
14	N	129	TYR	2.4
11	K	48	ALA	2.4
17	Q	84	ILE	2.4
5	E	93	ASP	2.4
28	b	7	LEU	2.3
23	W	54	ASP	2.3
34	i	359	C	2.3
34	i	771	G	2.3
34	i	1482	A	2.3
4	D	127	MET	2.3
19	S	95	TYR	2.3
33	g	77	PHE	2.3
6	F	96	ALA	2.3
13	M	116	LYS	2.3
34	i	469	C	2.3
30	d	53	ILE	2.3
34	i	1200	A	2.3
11	K	28	HIS	2.3
19	S	59	LEU	2.3
35	l	84	GLN	2.3
27	a	97	PRO	2.3
11	K	73	ASN	2.3

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Mol	Chain	Res	Type	RSRZ
17	Q	105	LYS	2.3
33	g	162	ASN	2.3
24	X	140	ARG	2.3
12	L	61	PRO	2.3
34	i	934	A	2.3
34	i	1857	A	2.3
34	i	1361	G	2.3
21	U	106	ILE	2.3
2	B	184	VAL	2.3
29	c	61	SER	2.3
9	I	116	HIS	2.3
33	g	13	GLY	2.3
4	D	193	ASP	2.3
34	i	1703	C	2.3
2	B	161	VAL	2.3
3	C	210	SER	2.3
27	a	65	PRO	2.3
12	L	99	TYR	2.3
34	i	183	G	2.3
34	i	740	G	2.3
1	A	160	ALA	2.3
4	D	212	GLU	2.3
25	Y	73	GLY	2.3
36	n	60	HIS	2.3
2	B	210	VAL	2.3
3	C	162	PRO	2.3
5	E	21	ASP	2.3
7	G	37	ALA	2.3
33	g	126	ASP	2.3
34	i	860	A	2.3
17	Q	68	ILE	2.3
19	S	74	PRO	2.3
2	B	57	ILE	2.3
10	J	119	LEU	2.3
34	i	348	C	2.3
34	i	1146	A	2.3
26	Z	55	TYR	2.3
30	d	15	GLY	2.3
34	i	268	G	2.3
34	i	683	G	2.3
34	i	995	G	2.3
5	E	23	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
5	E	151	ASP	2.3
14	N	135	LEU	2.3
34	i	997	A	2.3
21	U	99	LYS	2.3
23	W	12	LYS	2.3
15	O	46	ASP	2.3
33	g	78	ALA	2.3
7	G	50	VAL	2.3
9	I	42	ARG	2.3
4	D	5	ILE	2.3
4	D	92	ALA	2.3
19	S	8	LYS	2.3
25	Y	86	GLU	2.3
31	e	97	GLU	2.3
4	D	81	GLU	2.3
34	i	847	C	2.3
34	i	920	G	2.3
34	i	2	A	2.3
34	i	1205	A	2.3
3	C	198	LEU	2.3
9	I	113	TYR	2.3
5	E	41	CYS	2.3
34	i	1733	C	2.3
18	R	24	LEU	2.2
34	i	759	A	2.2
4	D	43	PRO	2.2
12	L	4	ILE	2.2
34	i	1736	U	2.2
21	U	107	GLU	2.2
4	D	56	GLN	2.2
2	B	108	ASP	2.2
34	i	807	A	2.2
34	i	1202	G	2.2
4	D	90	LYS	2.2
25	Y	96	LEU	2.2
6	F	111	VAL	2.2
27	a	66	LYS	2.2
6	F	173	LEU	2.2
16	P	107	ILE	2.2
34	i	1027	A	2.2
34	i	1343	U	2.2
34	i	1372	A	2.2

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Mol	Chain	Res	Type	RSRZ
2	B	132	GLY	2.2
1	A	123	VAL	2.2
34	i	769	C	2.2
35	l	37	GLN	2.2
17	Q	135	PRO	2.2
18	R	29	HIS	2.2
10	J	21	GLU	2.2
29	c	37	ASP	2.2
4	D	107	TYR	2.2
14	N	33	VAL	2.2
19	S	15	VAL	2.2
33	g	125	ARG	2.2
4	D	213	PRO	2.2
28	b	53	VAL	2.2
34	i	15	U	2.2
34	i	892	U	2.2
16	P	19	GLY	2.2
6	F	126	THR	2.2
6	F	128	ILE	2.2
28	b	11	SER	2.2
6	F	61	PHE	2.2
5	E	262	SER	2.2
34	i	142	C	2.2
19	S	79	ILE	2.2
3	C	40	ALA	2.2
34	i	1681	G	2.2
34	i	1688	G	2.2
29	c	32	VAL	2.2
34	i	788	C	2.2
34	i	975	C	2.2
2	B	114	VAL	2.2
34	i	798	A	2.2
34	i	992	A	2.2
34	i	1	U	2.2
34	i	647	U	2.2
11	K	52	LEU	2.2
34	i	1345	G	2.2
34	i	540	C	2.2
34	i	873	C	2.2
34	i	1813	A	2.2
4	D	166	TYR	2.2
34	i	668	U	2.2

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Mol	Chain	Res	Type	RSRZ
34	i	1069	U	2.2
34	i	1680	U	2.2
12	L	44	PHE	2.2
4	D	162	ASP	2.2
8	H	157	HIS	2.2
34	i	14	C	2.2
34	i	131	C	2.2
33	g	92	LEU	2.2
34	i	1819	A	2.2
22	V	59	ILE	2.2
6	F	196	LEU	2.2
22	V	67	ASP	2.2
19	S	46	ARG	2.2
34	i	1716	U	2.2
34	i	1349	A	2.2
34	i	1826	A	2.2
11	K	44	HIS	2.2
5	E	219	ALA	2.1
17	Q	126	ARG	2.1
8	H	172	THR	2.1
24	X	65	ALA	2.1
26	Z	53	ALA	2.1
25	Y	84	LYS	2.1
26	Z	60	LYS	2.1
17	Q	64	ALA	2.1
18	R	33	ARG	2.1
24	X	58	GLU	2.1
11	K	17	LYS	2.1
6	F	115	ALA	2.1
26	Z	85	ARG	2.1
34	i	419	C	2.1
34	i	1391	C	2.1
4	D	172	VAL	2.1
2	B	209	ASP	2.1
5	E	38	LEU	2.1
12	L	100	ASN	2.1
16	P	18	ARG	2.1
34	i	1079	A	2.1
34	i	1820	G	2.1
22	V	70	LEU	2.1
17	Q	137	ALA	2.1
36	n	49	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
23	W	109	GLY	2.1
34	i	1357	G	2.1
34	i	1379	A	2.1
29	c	33	GLU	2.1
34	i	43	U	2.1
34	i	756	U	2.1
16	P	12	PHE	2.1
14	N	27	LYS	2.1
16	P	14	LYS	2.1
19	S	60	THR	2.1
19	S	113	ARG	2.1
34	i	1080	A	2.1
2	B	166	LYS	2.1
10	J	56	ALA	2.1
32	f	83	LYS	2.1
34	i	591	G	2.1
34	i	676	U	2.1
34	i	797	U	2.1
34	i	1356	U	2.1
8	H	151	SER	2.1
33	g	189	ILE	2.1
18	R	9	VAL	2.1
6	F	132	GLY	2.1
34	i	128	U	2.1
34	i	475	A	2.1
23	W	66	THR	2.1
9	I	201	LYS	2.1
12	L	8	ARG	2.1
12	L	121	GLN	2.1
3	C	189	ILE	2.1
5	E	236	ILE	2.1
2	B	70	SER	2.1
6	F	184	SER	2.1
34	i	618	A	2.1
21	U	116	ILE	2.1
34	i	411	G	2.1
5	E	22	LYS	2.1
10	J	13	TYR	2.1
10	J	85	GLY	2.1
18	R	68	GLY	2.1
35	l	58	LYS	2.1
36	n	39	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
7	G	82	SER	2.1
34	i	1191	A	2.1
9	I	46	VAL	2.1
9	I	107	THR	2.1
15	O	62	VAL	2.1
29	c	66	ARG	2.1
8	H	136	PRO	2.1
34	i	856	G	2.1
5	E	87	MET	2.1
16	P	89	MET	2.1
24	X	131	LEU	2.1
34	i	417	U	2.1
12	L	125	ILE	2.1
16	P	26	LEU	2.1
34	i	858	A	2.1
9	I	110	ARG	2.1
9	I	117	TYR	2.1
29	c	41	SER	2.1
4	D	109	LEU	2.1
29	c	52	GLU	2.1
19	S	66	ARG	2.1
25	Y	58	PHE	2.1
1	A	60	LEU	2.1
10	J	75	ASN	2.1
14	N	117	LEU	2.1
16	P	94	VAL	2.1
9	I	44	HIS	2.1
10	J	60	LEU	2.1
26	Z	81	GLY	2.1
34	i	184	G	2.1
34	i	389	C	2.1
4	D	195	SER	2.1
3	C	157	ASN	2.0
28	b	62	VAL	2.0
27	a	23	CYS	2.0
34	i	746	C	2.0
36	n	104	LYS	2.0
5	E	32	SER	2.0
16	P	13	ARG	2.0
16	P	90	VAL	2.0
34	i	1367	U	2.0
1	A	51	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
34	i	1431	C	2.0
8	H	141	GLY	2.0
24	X	7	LEU	2.0
27	a	12	LYS	2.0
3	C	113	VAL	2.0
25	Y	53	ASP	2.0
26	Z	42	ASP	2.0
34	i	135	U	2.0
34	i	1371	G	2.0
2	B	233	GLY	2.0
3	C	39	LYS	2.0
5	E	53	LYS	2.0
5	E	122	LYS	2.0
14	N	58	HIS	2.0
23	W	65	LEU	2.0
3	C	86	ALA	2.0
34	i	1684	C	2.0
8	H	79	LEU	2.0
5	E	198	ARG	2.0
21	U	70	CYS	2.0
29	c	42	ILE	2.0
34	i	1656	A	2.0
6	F	197	GLU	2.0
35	l	113	PHE	2.0
7	G	141	ILE	2.0
17	Q	49	TYR	2.0
26	Z	93	SER	2.0
34	i	984	C	2.0
17	Q	132	PHE	2.0
2	B	163	GLN	2.0
36	n	38	VAL	2.0
36	n	51	CYS	2.0
34	i	1722	G	2.0
34	i	1828	A	2.0
11	K	50	GLN	2.0
15	O	128	ARG	2.0
23	W	116	ALA	2.0
28	b	14	GLU	2.0
34	i	581	U	2.0
34	i	852	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.