



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 06:20 PM GMT

PDB ID : 4KZX  
Title : Rabbit 40S ribosomal subunit in complex with eIF1.  
Authors : Lomakin, I.B.; Steitz, T.A.  
Deposited on : 2013-05-30  
Resolution : 7.81 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

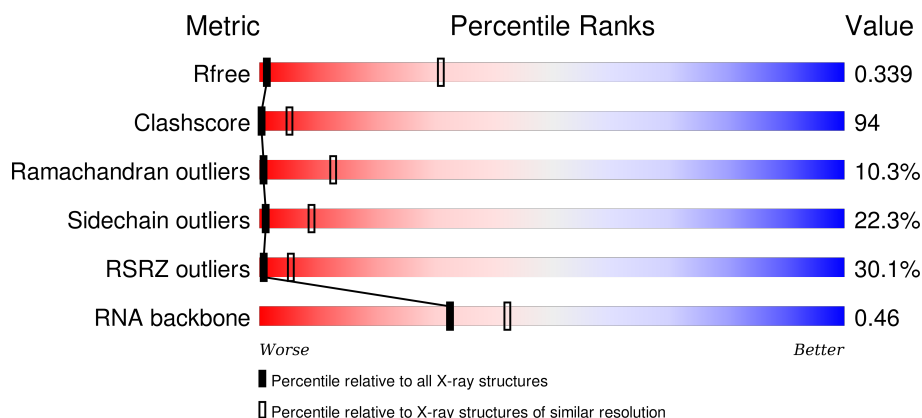
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 7.81 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	91344	1015 (11.50-3.66)
Clashscore	102246	1064 (11.50-3.70)
Ramachandran outliers	100387	1036 (11.50-3.66)
Sidechain outliers	100360	1006 (11.50-3.66)
RSRZ outliers	91569	1014 (11.50-3.66)
RNA backbone	2183	1106 (11.50-2.80)

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

Mol	Chain	Length	Quality of chain
1	A	295	
2	B	264	
3	C	278	
4	D	243	

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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	<p>20% 66% 27% 5%</p>
31	e	133	<p>8% 18% 16% 9% 56%</p>
32	f	156	<p>15% 19% 17% 8% 54%</p>
33	g	317	<p>14% 74% 20% 2% 2%</p>
34	i	1863	<p>28% 7% 64% 25% 2%</p>
35	l	113	<p>3% 47% 25% 25%</p>

## 2 Entry composition [i](#)

There are 35 unique types of molecules in this entry. The entry contains 77211 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 40S ribosomal protein SA.

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

- Molecule 2 is a protein called 40S ribosomal protein S3a.

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

- Molecule 3 is a protein called 40S ribosomal protein S2.

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

- Molecule 4 is a protein called 40S ribosomal protein S3.

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

- Molecule 5 is a protein called 40S ribosomal protein S4X.

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

- Molecule 6 is a protein called 40S ribosomal protein S5.

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

- Molecule 7 is a protein called 40S ribosomal protein S6.

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

- Molecule 8 is a protein called 40S ribosomal protein S7.

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

- Molecule 9 is a protein called 40S ribosomal protein S8.

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

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

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

- Molecule 11 is a protein called 40S ribosomal protein S10.

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

- Molecule 12 is a protein called 40S ribosomal protein S11.

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

- Molecule 13 is a protein called 40S ribosomal protein S12.

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

- Molecule 14 is a protein called 40S ribosomal protein S13.

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

- Molecule 15 is a protein called 40S ribosomal protein S14.

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

- Molecule 16 is a protein called 40S ribosomal protein S15.

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

- Molecule 17 is a protein called 40S ribosomal protein S16.

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

- Molecule 18 is a protein called 40S ribosomal protein S17.

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

- Molecule 19 is a protein called 40S ribosomal protein S18.

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

- Molecule 20 is a protein called 40S ribosomal protein S19.

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

- Molecule 21 is a protein called 40S ribosomal protein S20.

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

- Molecule 22 is a protein called 40S ribosomal protein S21.

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

- Molecule 23 is a protein called 40S ribosomal protein S15A.

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

- Molecule 24 is a protein called 40S ribosomal protein S23.

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

There is a discrepancy between the modelled and reference sequences:

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

- Molecule 25 is a protein called 40S ribosomal protein S24.

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

- Molecule 26 is a protein called 40S ribosomal protein S25.

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

- Molecule 27 is a protein called 40S ribosomal protein S26.



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

- Molecule 28 is a protein called 40S ribosomal protein S27.

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

- Molecule 29 is a protein called 40S ribosomal protein S28.

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

- Molecule 30 is a protein called 40S ribosomal protein S29.

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

- Molecule 31 is a protein called 40S ribosomal protein S30.

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

- Molecule 32 is a protein called 40S ribosomal protein S27A.

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

- Molecule 33 is a protein called 40S ribosomal protein RACK1.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	i	1797	Total	C	N	O	P	0	0	0
			37514	16712	6633	12373	1796			

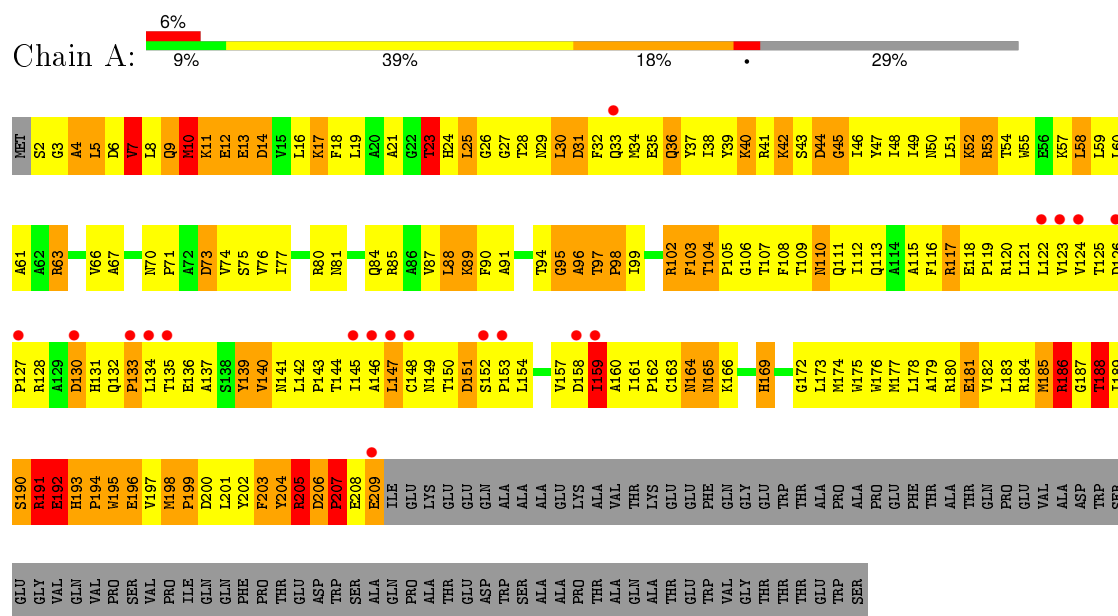
- Molecule 35 is a protein called Eukaryotic translation initiation factor 1.

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

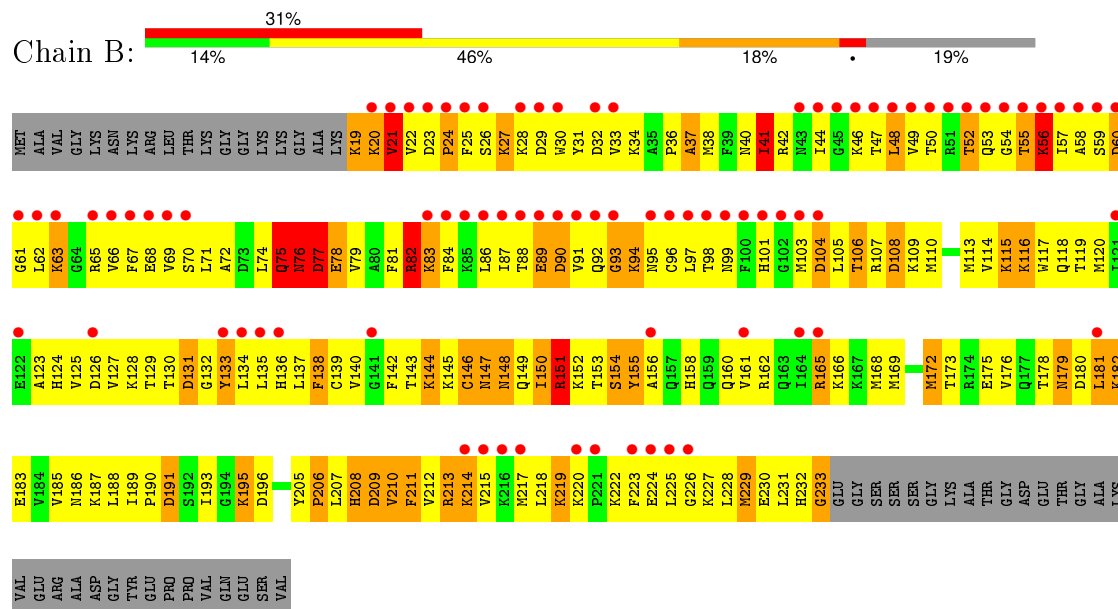
### 3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ( $\text{RSRZ} > 2$ ). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

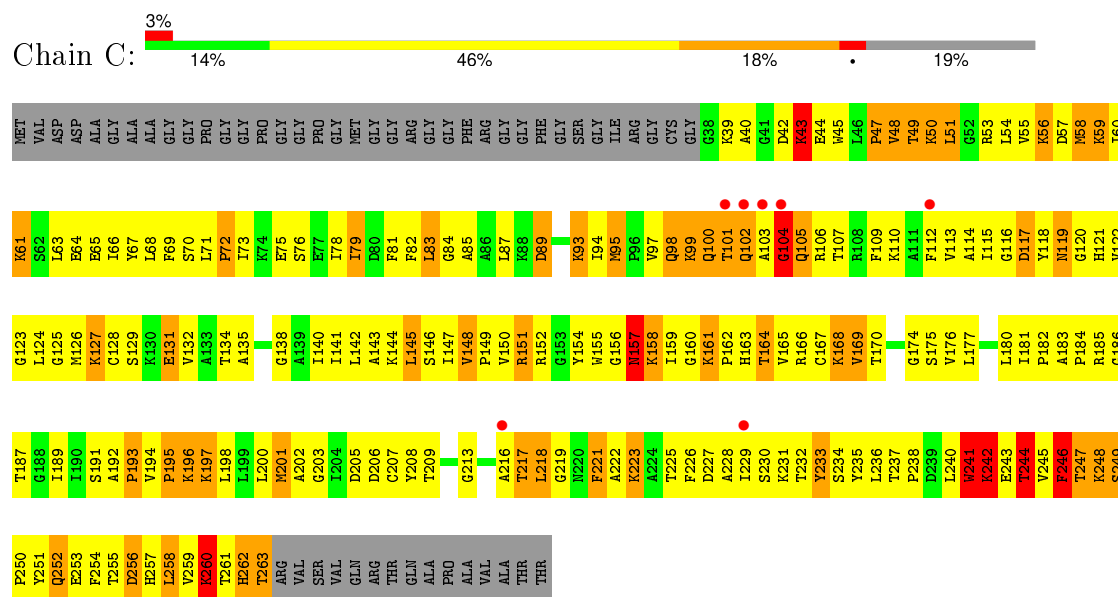
- Molecule 1: 40S ribosomal protein SA



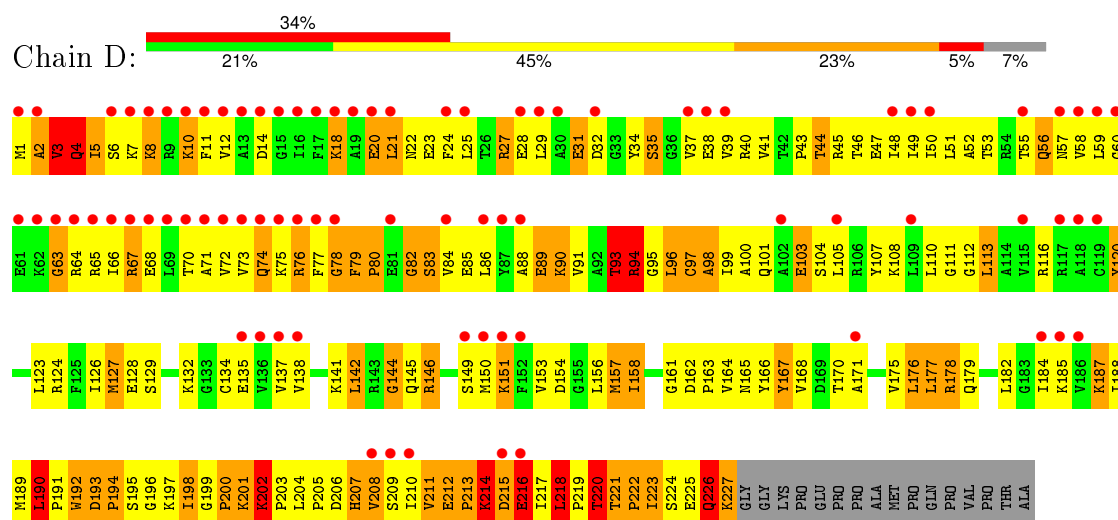
- Molecule 2: 40S ribosomal protein S3a



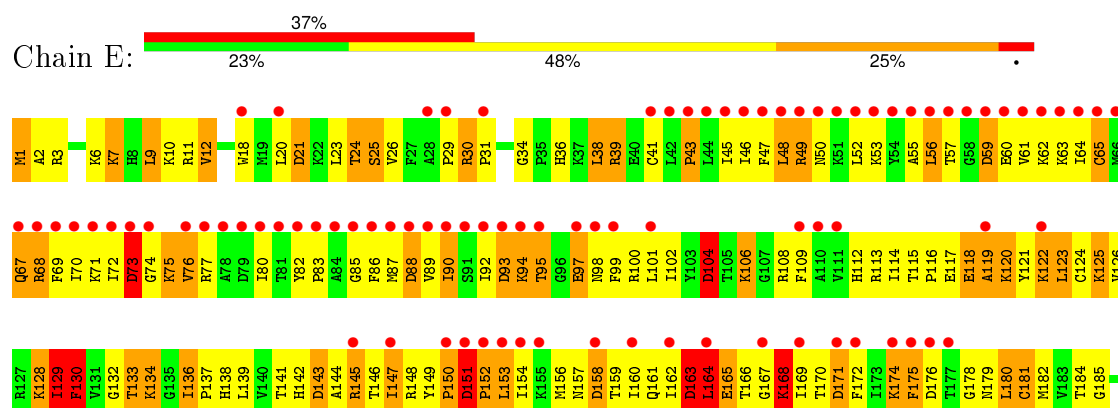
• Molecule 3: 40S ribosomal protein S2

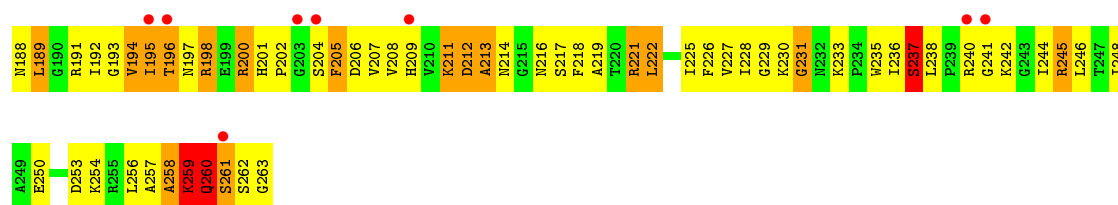


• Molecule 4: 40S ribosomal protein S3

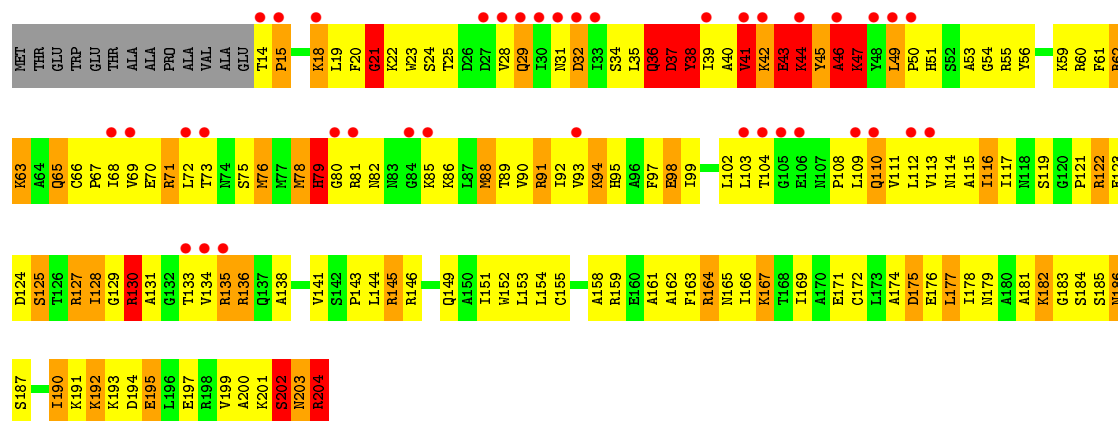
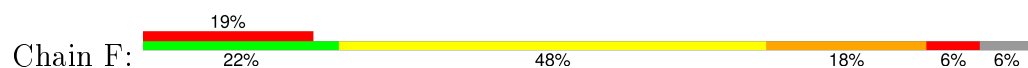


• Molecule 5: 40S ribosomal protein S4X

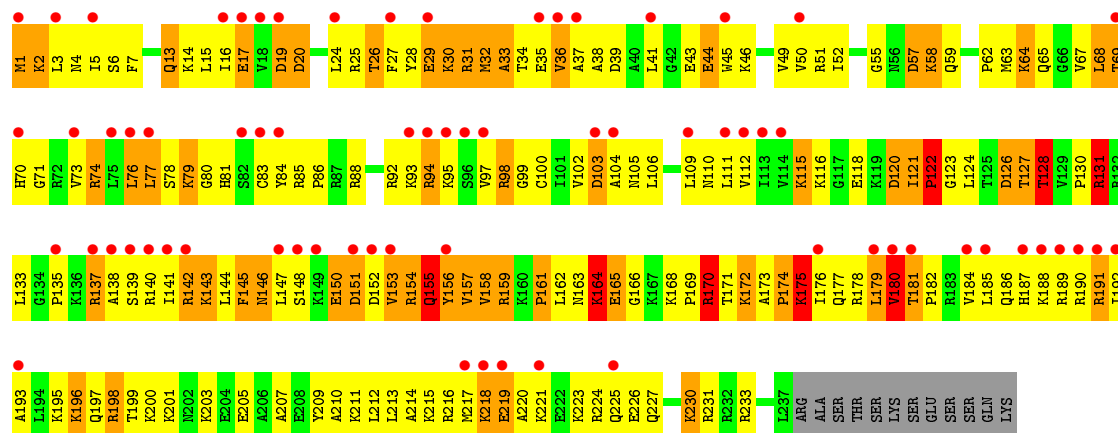
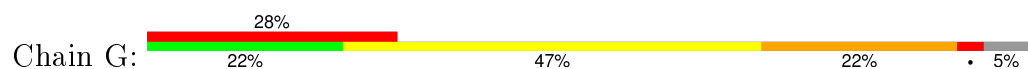




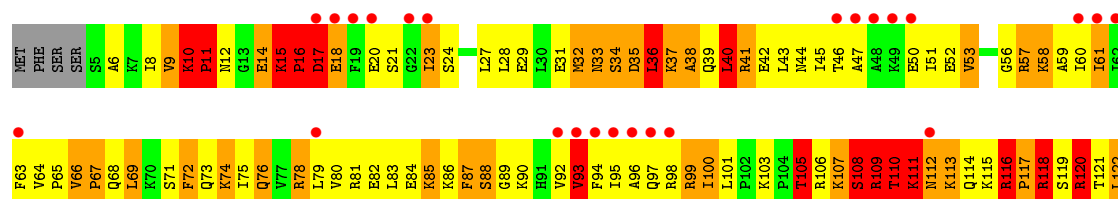
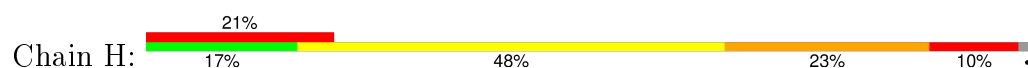
• Molecule 6: 40S ribosomal protein S5

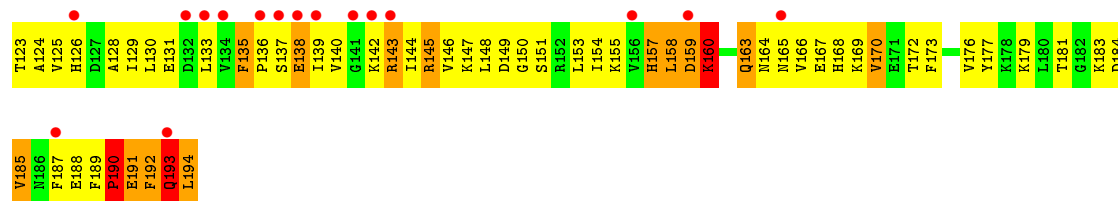


• Molecule 7: 40S ribosomal protein S6

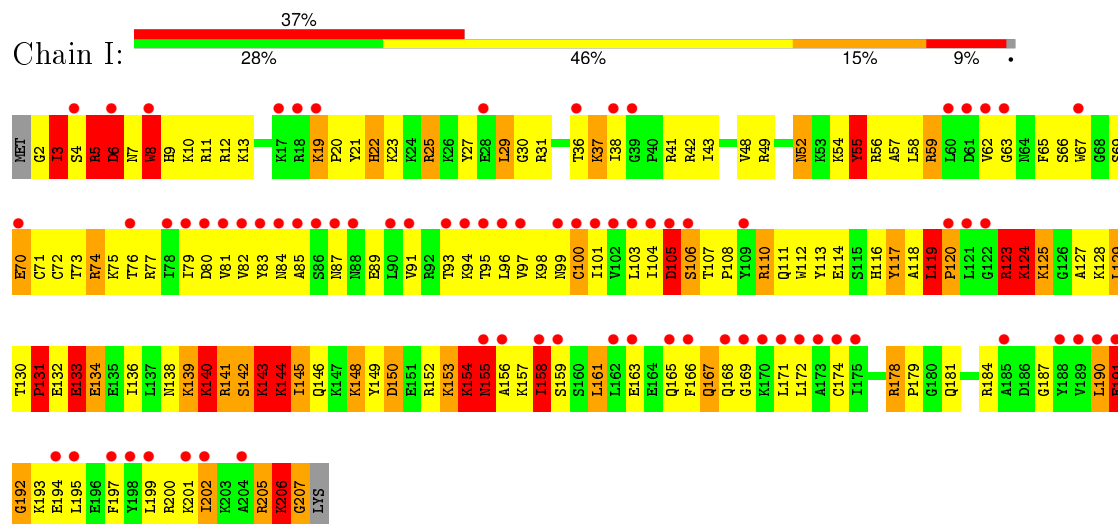


• Molecule 8: 40S ribosomal protein S7

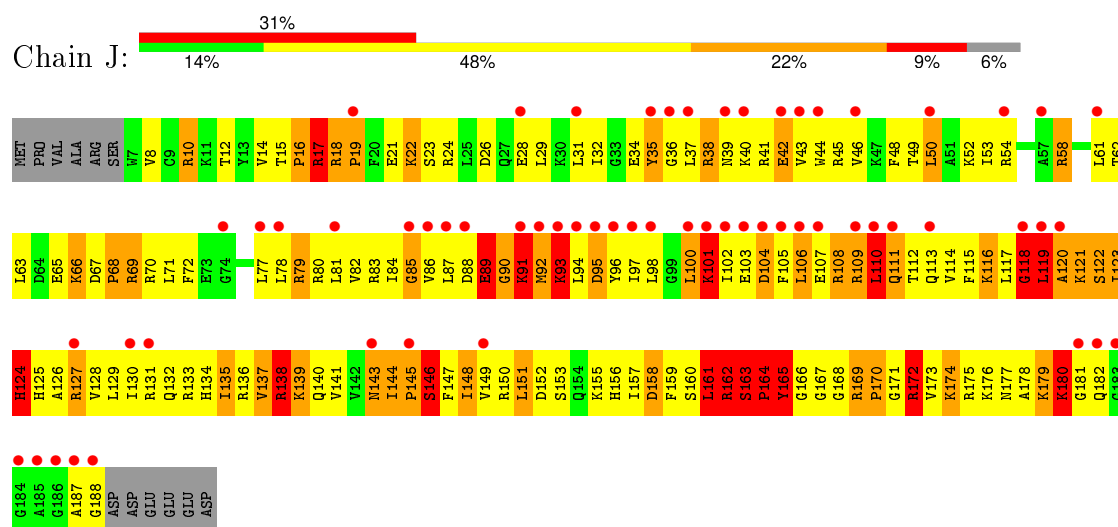




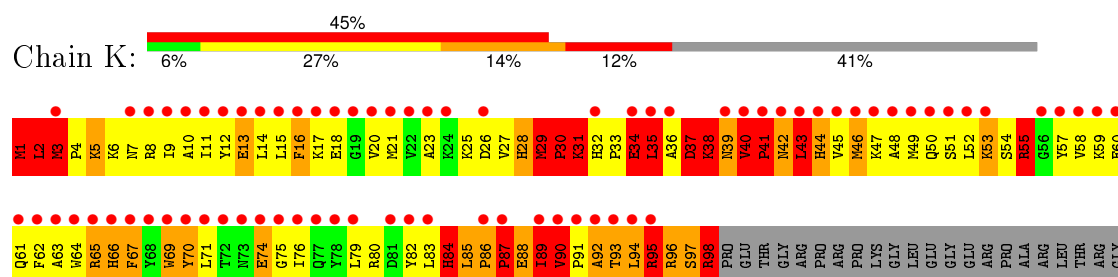
• Molecule 9: 40S ribosomal protein S8



• Molecule 10: 40S Ribosomal protein S9

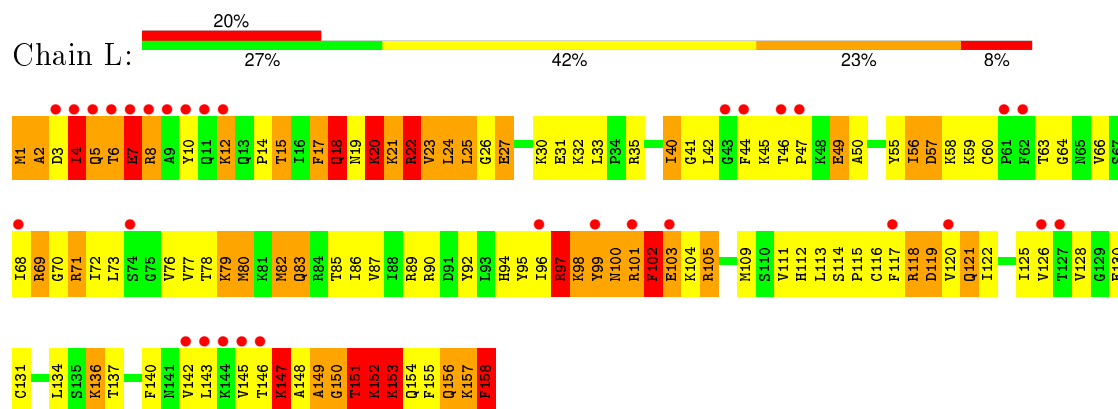


• Molecule 11: 40S ribosomal protein S10

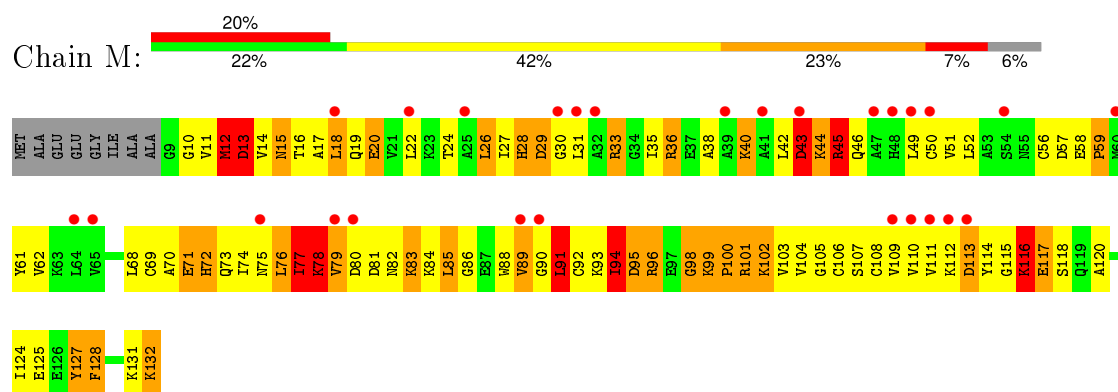


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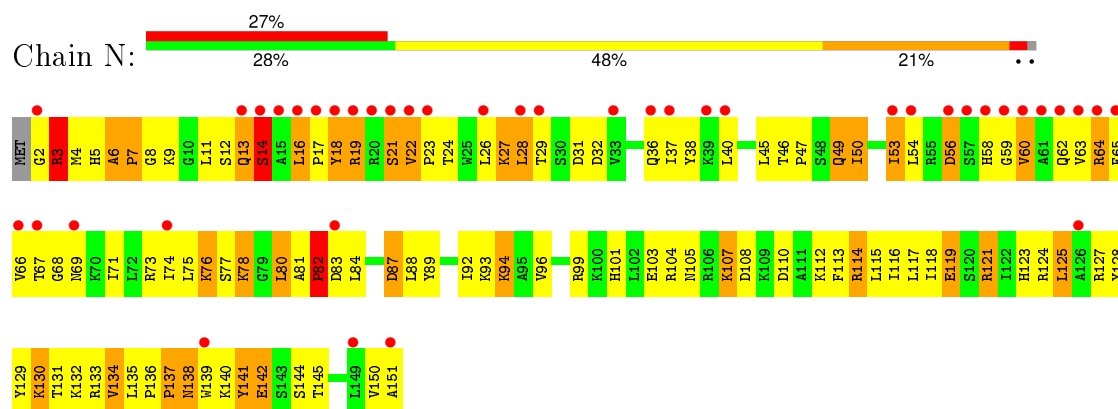
• Molecule 12: 40S ribosomal protein S11



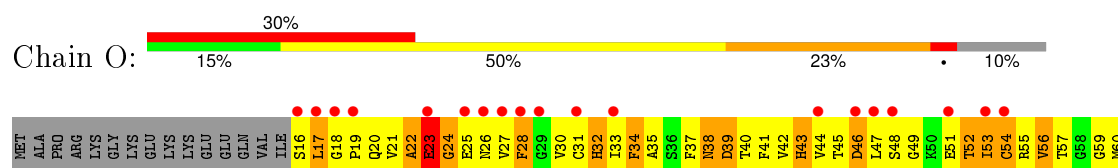
• Molecule 13: 40S ribosomal protein S12

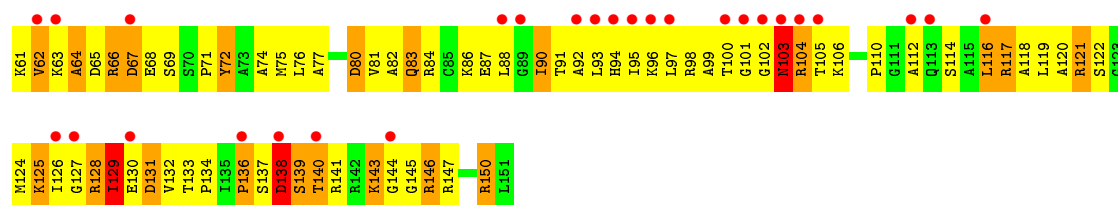


• Molecule 14: 40S ribosomal protein S13

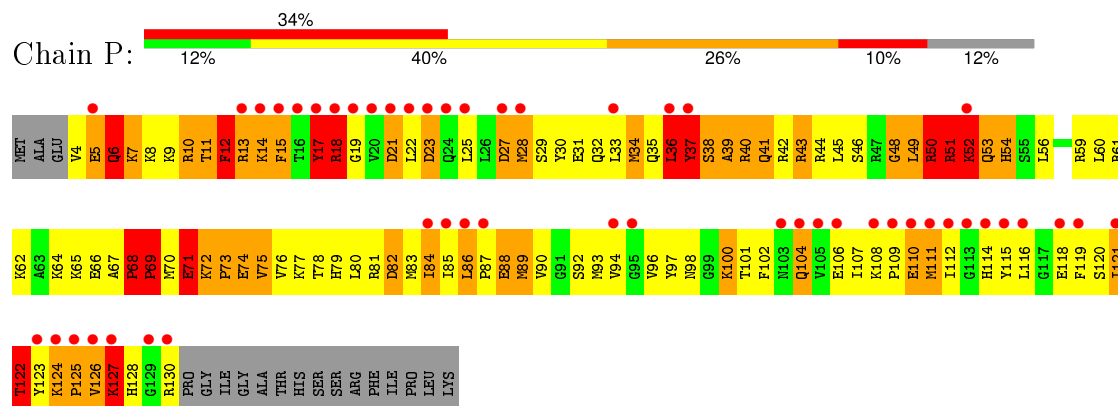


• Molecule 15: 40S ribosomal protein S14

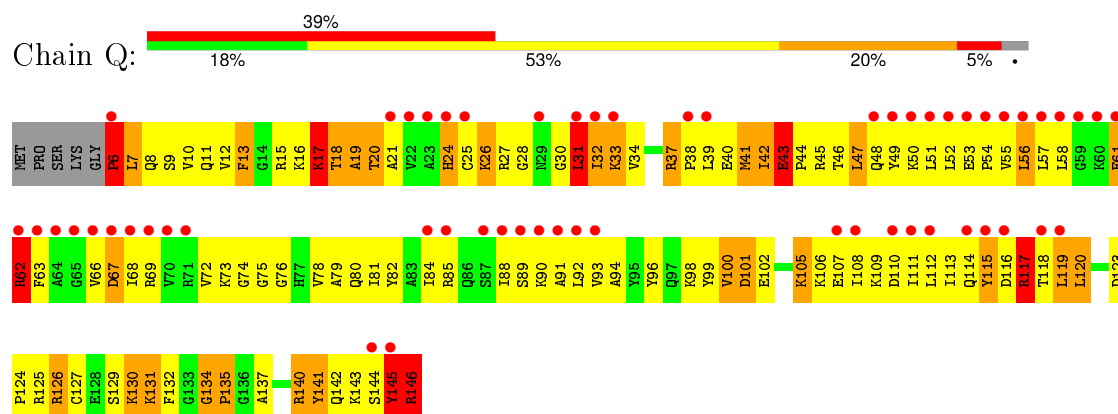




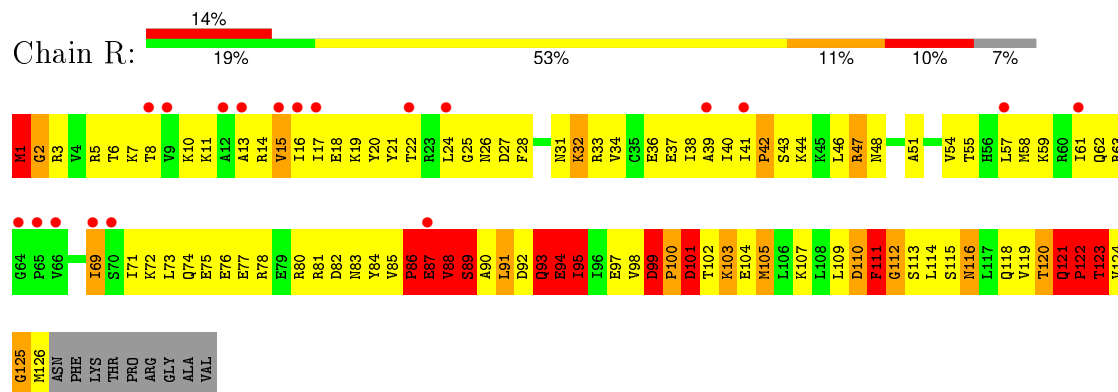
• Molecule 16: 40S ribosomal protein S15



• Molecule 17: 40S ribosomal protein S16

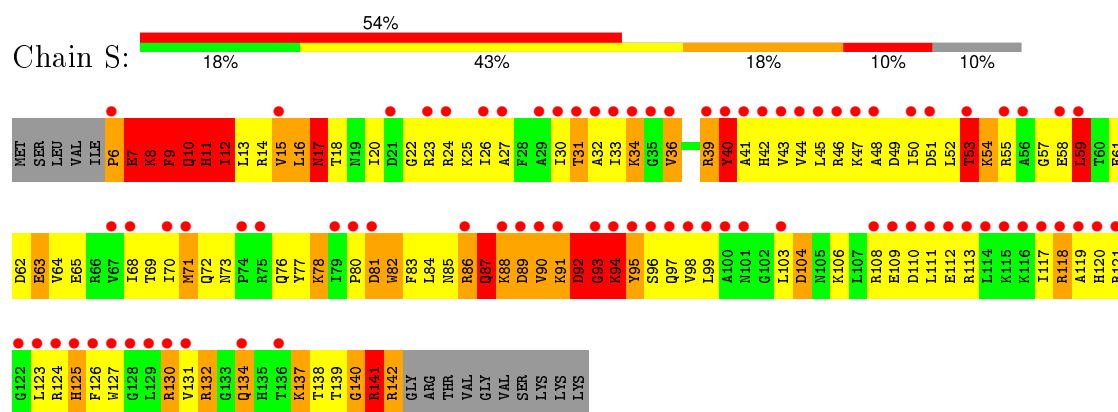


• Molecule 18: 40S ribosomal protein S17

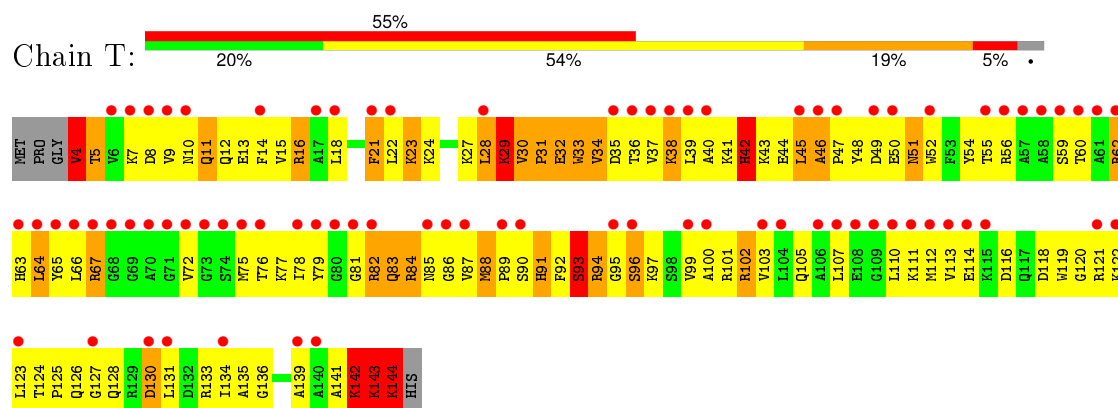


• Molecule 19: 40S ribosomal protein S18

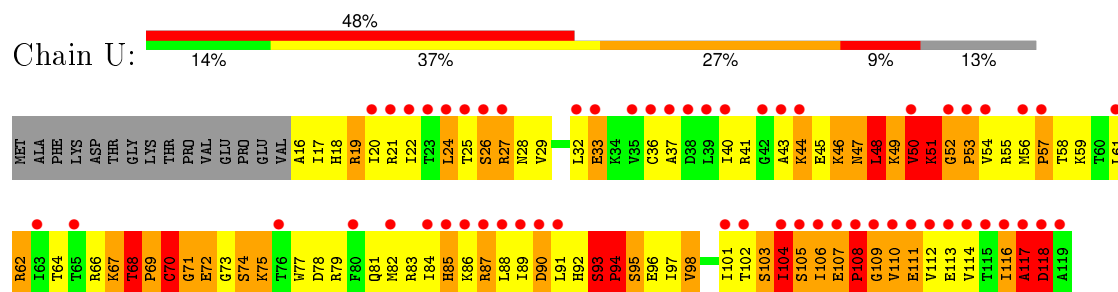




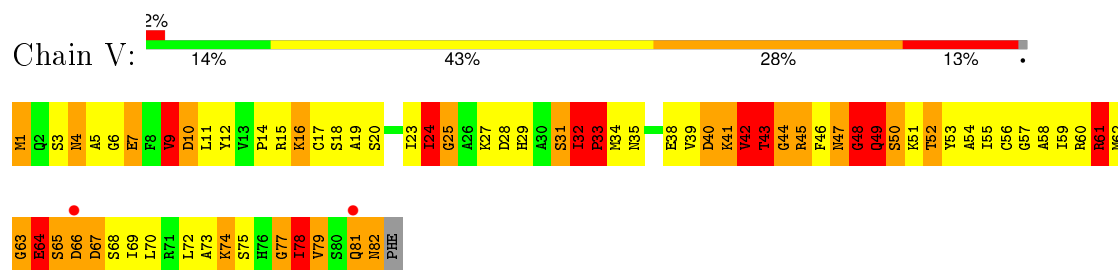
• Molecule 20: 40S ribosomal protein S19



• Molecule 21: 40S ribosomal protein S20

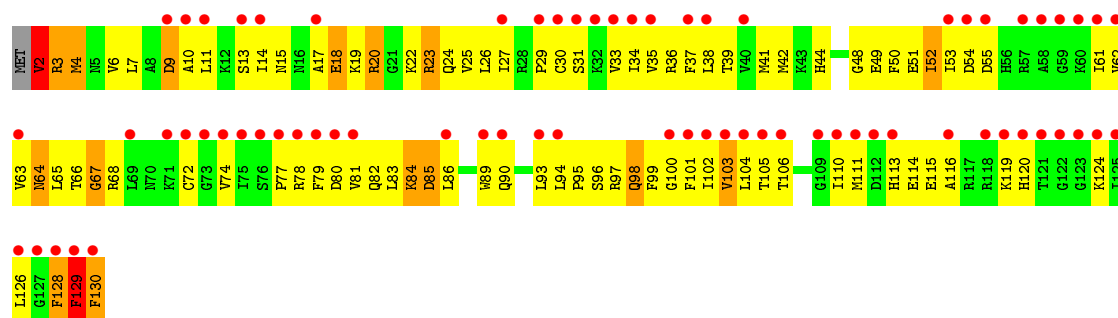


• Molecule 22: 40S ribosomal protein S21

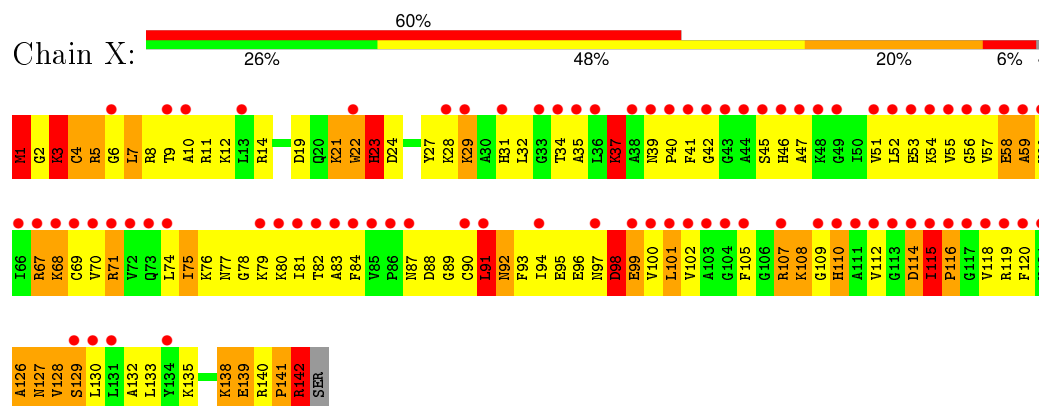


• Molecule 23: 40S ribosomal protein S15A

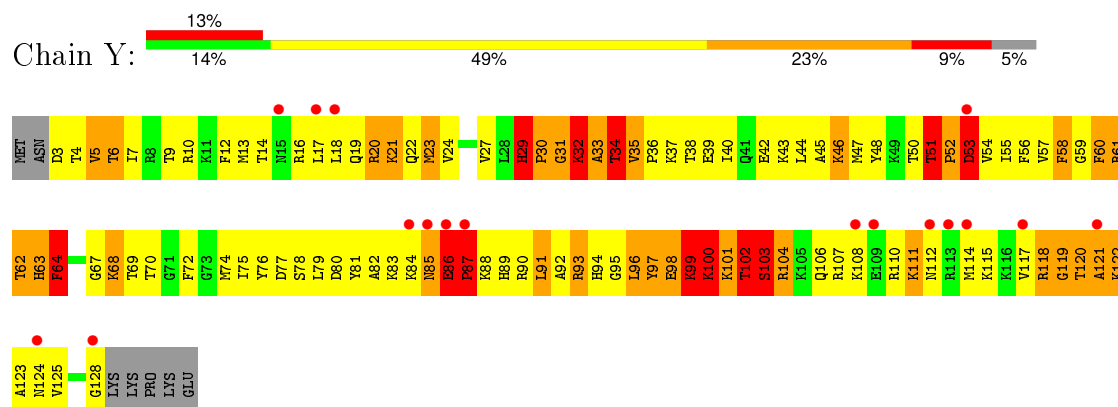




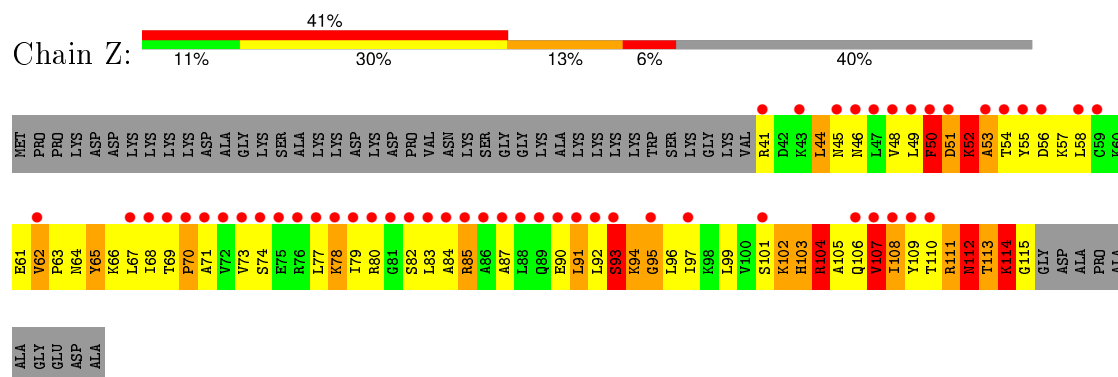
• Molecule 24: 40S ribosomal protein S23



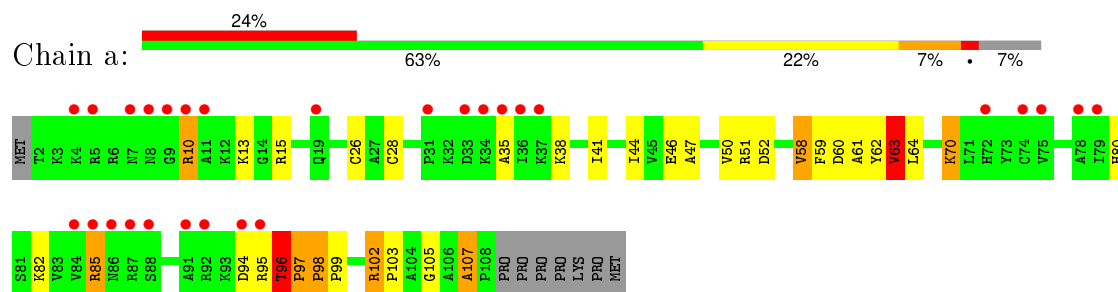
• Molecule 25: 40S ribosomal protein S24



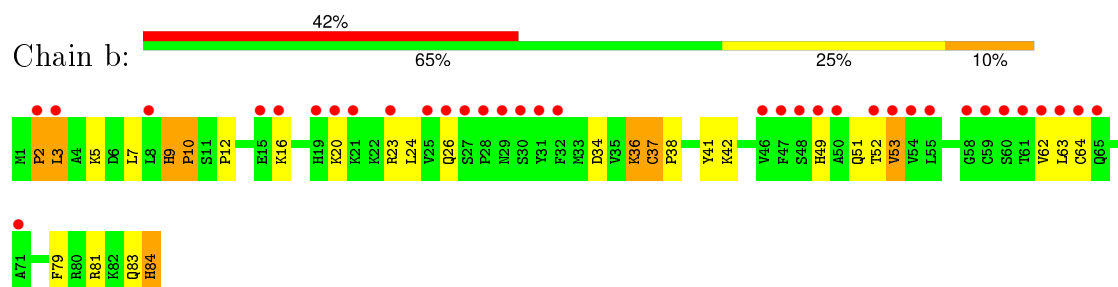
• Molecule 26: 40S ribosomal protein S25



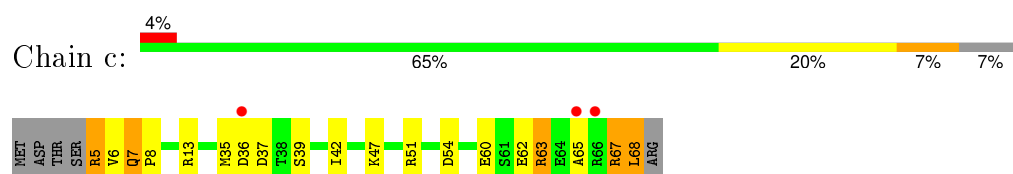
- Molecule 27: 40S ribosomal protein S26



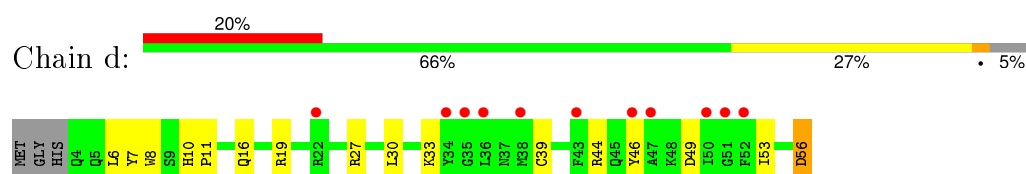
- Molecule 28: 40S ribosomal protein S27



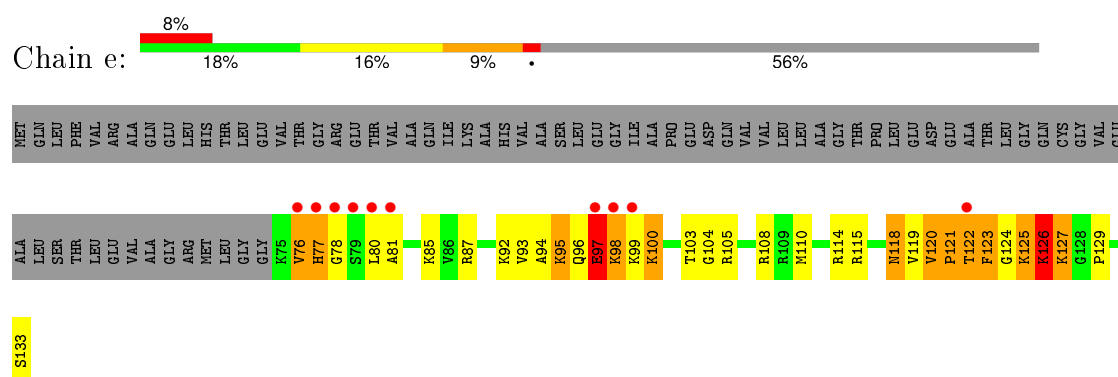
- Molecule 29: 40S ribosomal protein S28



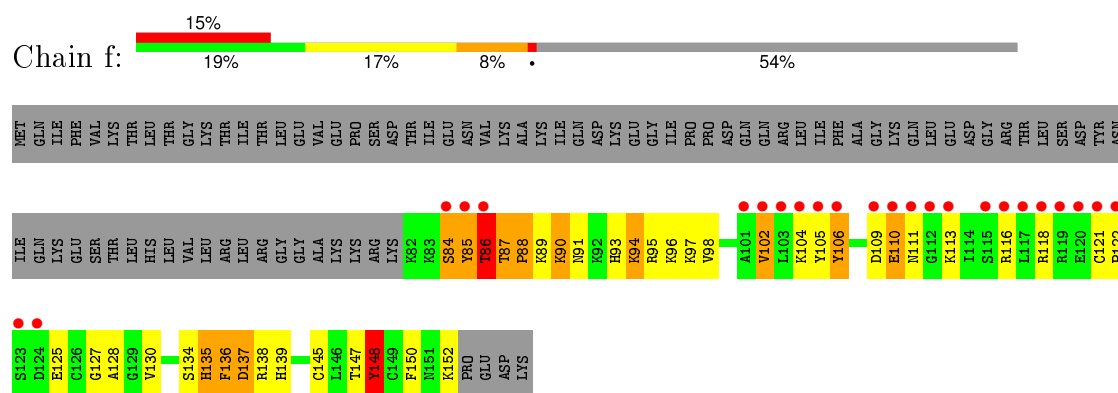
- Molecule 30: 40S ribosomal protein S29



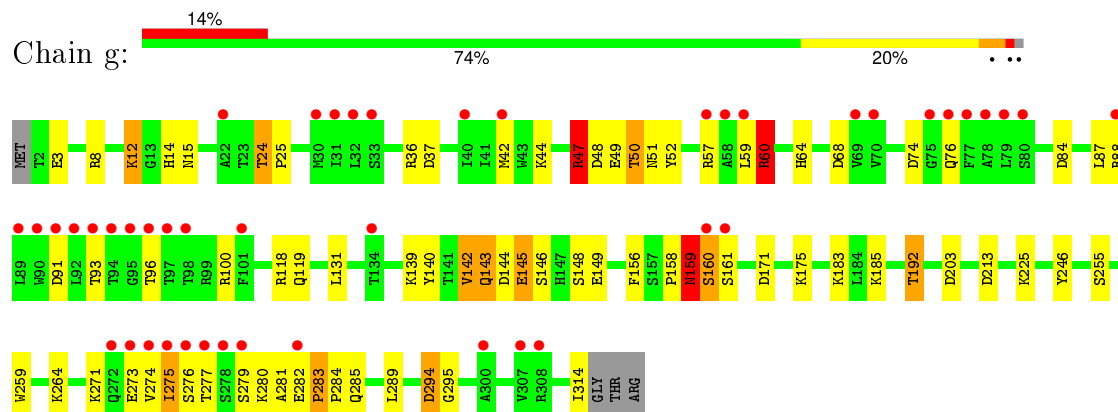
- Molecule 31: 40S ribosomal protein S30



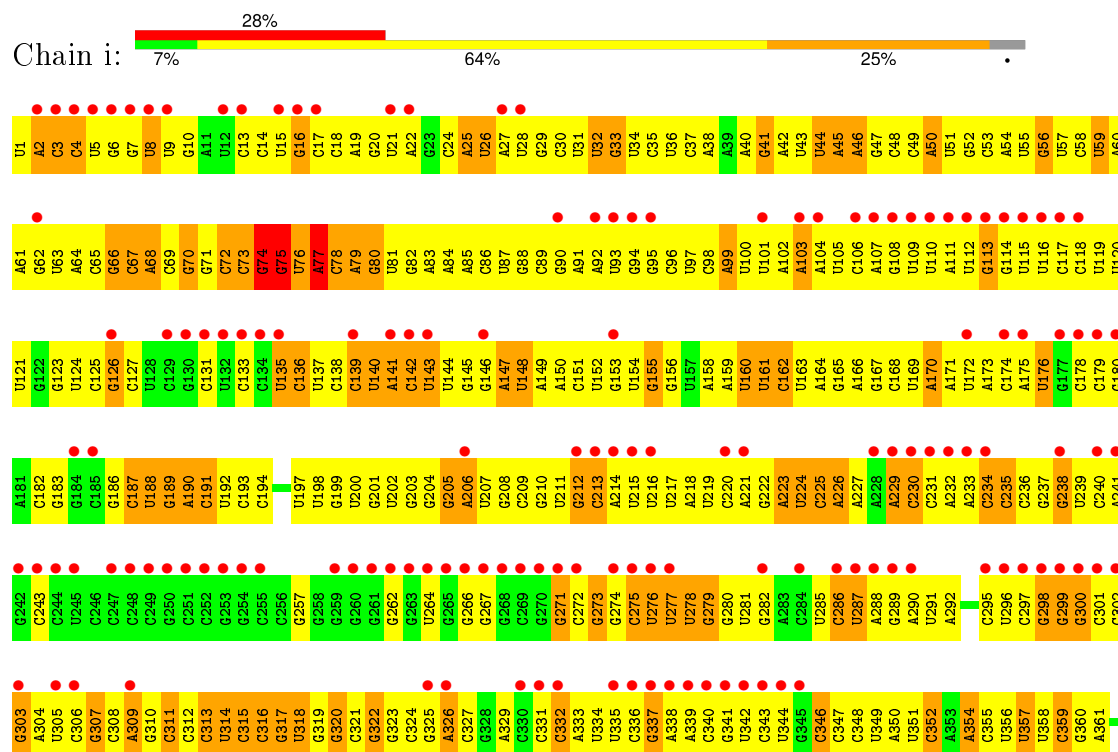
- Molecule 32: 40S ribosomal protein S27A



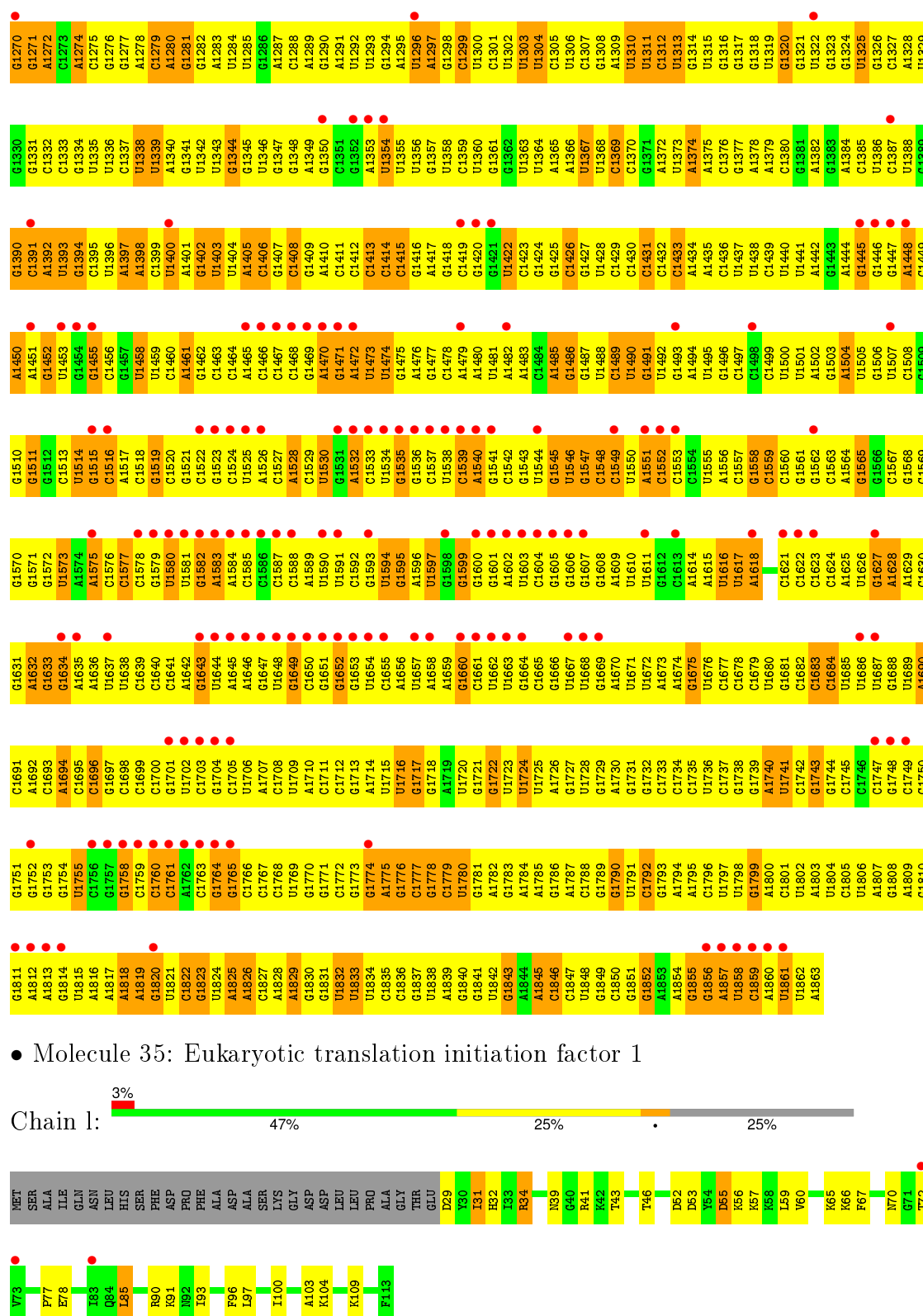
• Molecule 33: 40S ribosomal protein RACK1



• Molecule 34: 18S ribosomal RNA



A1210	U1148	G1088	G1028	G967	G905	A845	G	C725	U665	C605	A545	U485	G364
C1211	C1149	A1089	G1029	A988	G906	C846	C	C726	C666	A606	U546	C486	U365
C1212	U1150	C1090	A1030	C969	C907	C847	C	G727	C667	C607	U547	C487	U366
A1213	U1151	U1091	A1031	C970	C908	C848	C	U728	C668	C608	G548	C488	G367
C1214	U1152	G1092	A1032	G971	C909	C849	C	G729	A609	A609	A550	A489	U368
C1215	U1153	G1093	G1033	G972	U910	A850	C	C730	C670	C610	A551	A490	C369
A1216	G1154	C1094	U1034	C973	G911	C851	C	C731	U671	C611	U552	C491	G370
G1217	U1155	G1095	C1035	G974	A912	C852	C	C732	U672	C612	U553	C492	C371
G1218	U1156	A1096	G1036	C975	U913	U853	C	G733	C673	C613	G553	C493	C372
A1219	C1158	U1097	G1037	A976	U914	A854	C	C734	C674	C614	A554	G494	U374
G1220	C1159	G1098	A1038	A977	U915	G855	C	C735	A675	U615	G555	A495	A375
U1221	G1160	G1099	G1039	G978	A916	G856	C	C	U676	U616	U556	G496	G375
G1161	G1161	G1100	G1040	A979	G917	A857	C	C	C677	U617	C557	C497	C376
G1162	U1162	G1101	U1041	C980	A918	A858	C	U738	U678	A618	C558	A498	C377
G1163	G1163	C1102	U1042	G981	G919	U859	C	U739	U679	A619	A559	G499	U378
G1164	G1164	G1103	C1043	G982	G920	A860	C	G740	C680	U620	C560	G500	A379
G1165	G1165	G1104	G1044	A983	C923	A861	C	C741	U	C621	U561	U501	C380
C1226	A1166	C1105	A1045	G984	G924	U862	C	C742	G	C622	U562	A502	C381
G1167	G1167	G1106	A1046	C985	G924	G863	C	U743	G683	C623	U563	G503	A382
G1168	U1168	U1107	G1047	A986	C927	G864	C	C744	A684	A624	A564	U504	A383
A1169	A1169	U1108	A1048	G987	C927	A865	C	U	C685	C625	A565	G505	G384
U1170	U1170	A1109	C1049	A988	G928	A866	C	C	G686	C626	A566	A506	G385
G1171	G1171	U1110	G1050	G989	G929	U867	C	C	G687	U627	U567	C507	U386
G1172	U1172	C1111	A1051	C990	G930	A868	C	G	U688	C628	C568	G508	A448
U1173	U1173	C1112	U1052	G991	G931	G869	C	C	G689	C629	C569	A509	A388
U1174	U1174	C1113	C1053	G992	G932	G870	C	C	C690	A630	U570	A510	C389
G1175	G1175	C1114	A1054	A994	C933	A871	C	C	G691	A631	U571	A511	C390
C1176	C1176	A1115	G1055	G995	A934	C872	C	C	U692	U632	U572	A512	A391
A1177	A1177	U1116	A1056	C996	U935	C873	C	C	A693	A633	A573	C452	C392
U1238	U1238	G1117	U1057	A997	U936	G874	C	C	G694	G634	A574	U514	A393
U1239	U1239	G1118	A1058	U998	C937	C875	C	U	C695	C635	C575	A515	A394
U1240	U1240	C1119	C1059	U999	G938	C876	C	U	G696	C636	G576	A516	G395
G1241	G1181	C1120	C1060	U1000	U939	C877	C	C	C697	U637	A577	C517	G396
A1242	U1182	G1121	U1061	U1001	A940	U878	C	C	G698	A638	G578	A518	G397
C1243	A1183	G1122	G1062	C1002	U941	U879	C	A	C699	U639	G579	A519	A398
C1244	A1184	C1123	C1063	C1003	U942	C880	C	U	G	A640	A580	U520	C399
C1245	A1185	C1124	G1064	A1004	G943	U881	C	U	C	U641	U581	A521	G400
A1246	A1186	G1125	U1065	A1005	C944	A882	C	C	U	U642	C582	C522	G401
A1247	C1187	G1126	A1066	G1006	G945	U883	C	U	C	A643	C583	A523	G402
C1248	U1188	G1127	G1067	A1007	C946	U884	C	U	C	A644	A584	G524	G403
A1249	U1189	C1128	U1068	A1008	C947	U885	C	U	C	A645	U585	G525	A404
C1250	A1190	A1129	U1069	U1009	G948	U886	C	U	C	U646	U586	A526	A405
G1251	A1191	G1130	C1070	G1010	C949	G887	C	A	C	U647	G587	C527	U406
G1252	A1192	C1131	C1071	U1011	U950	U888	C	U	C	U648	G588	U528	C407
A1254	G1193	U1132	G1072	U1012	A951	U889	C	C	C	C649	A589	C529	A408
A1255	G1194	U1133	A1073	U1013	G952	C890	C	U	G	C650	G590	U530	G409
A1256	A1195	C1134	C1074	U1014	A953	G891	C	C	A	U651	G591	U531	G410
C1257	U1197	C1135	C1075	C1015	G954	U892	C	A	G	G652	G592	U532	G411
C1258	U1198	G1136	A1076	A1016	G955	U893	C	G	C	C653	C593	G533	G412
U1259	G1199	G1137	U1077	U1017	U956	U894	C	U	C	A654	A594	G534	U413
C1260	A1200	G1138	A1078	U1018	G957	U895	C	G	C	C655	A595	A535	C414
A1261	C1201	A1139	A1079	U1019	G958	C896	C	U	A	U656	G596	A476	G415
C1262	G1202	A1140	A1080	A1020	A959	G897	C	C	C	U657	U597	U477	A416
C1263	C1203	A1141	C1081	U1021	A960	G898	C	C	C	A658	C598	U478	U418
C1264	A1204	C1142	G1082	C1022	U961	A899	C	C	C	A659	U599	C539	C419
G1265	A1205	C1143	A1083	U962	U962	A900	C	G	C719	A660	C601	C540	C420
G1266	G1206	A1144	U1084	A1024	C963	C901	C	C	A720	A661	G601	U541	C421
C1267	G1207	A1145	G1085	U1025	U964	U902	C	G	C721	A662	U602	G542	G421
C1268	G1208	A1146	C1086	A1026	U965	G903	C	G	C722	C663	C603	A483	C484
C1269	C1209	G1147	C1087	A1027	G966	A904	C	G	C724	C664	G604	A544	G424



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 31 2 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	292.12Å 292.12Å 477.67Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	58.11 – 7.81 64.21 – 7.81	Depositor EDS
% Data completeness (in resolution range)	94.8 (58.11-7.81) 94.9 (64.21-7.81)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	0.96 (at 7.40Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.7.3_928)	Depositor
R, $R_{free}$	0.347 , 0.347 0.331 , 0.339	Depositor DCC
$R_{free}$ test set	1303 reflections (5.03%)	DCC
Wilson B-factor (Å <sup>2</sup> )	667.2	Xtriage
Anisotropy	0.309	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.22 , 117.6	EDS
Estimated twinning fraction	0.120 for -h,-k,l	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.34$ , $\langle L^2 \rangle = 0.17$	Xtriage
Outliers	0 of 25975 reflections	Xtriage
$F_o, F_c$ correlation	0.86	EDS
Total number of atoms	77211	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	216.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.66% 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	2/1679 (0.1%)	1.06	16/2283 (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	1.00	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	9/1553 (0.6%)	2.19	29/2079 (1.4%)
9	I	1.11	7/1708 (0.4%)	1.51	33/2278 (1.4%)
10	J	1.27	19/1522 (1.2%)	1.51	42/2031 (2.1%)
11	K	1.21	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	3/960 (0.3%)	1.23	7/1287 (0.5%)
14	N	0.83	3/1232 (0.2%)	1.00	12/1656 (0.7%)
15	O	0.61	0/1029	1.05	12/1380 (0.9%)
16	P	0.75	1/1079 (0.1%)	1.43	32/1437 (2.2%)
17	Q	0.70	3/1142 (0.3%)	1.12	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%)	1.25	13/1517 (0.9%)
21	U	0.96	1/832 (0.1%)	1.59	28/1117 (2.5%)
22	V	0.75	1/626 (0.2%)	1.39	15/839 (1.8%)
23	W	0.85	4/1051 (0.4%)	0.86	9/1406 (0.6%)
24	X	1.00	8/1124 (0.7%)	1.24	21/1500 (1.4%)
25	Y	0.93	3/1038 (0.3%)	1.42	20/1380 (1.4%)
26	Z	1.04	5/604 (0.8%)	1.35	17/810 (2.1%)
27	a	0.89	4/860 (0.5%)	1.60	21/1156 (1.8%)
28	b	1.02	2/673 (0.3%)	1.36	12/902 (1.3%)
29	c	0.80	1/508 (0.2%)	1.18	8/680 (1.2%)
30	d	0.89	2/455 (0.4%)	0.79	3/603 (0.5%)
31	e	1.46	5/478 (1.0%)	1.43	11/628 (1.8%)
32	f	1.10	4/593 (0.7%)	1.49	15/786 (1.9%)
33	g	0.91	1/2493 (0.0%)	1.29	26/3394 (0.8%)
34	i	2.42	1848/41880 (4.4%)	2.22	2570/65161 (3.9%)



Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
35	l	1.00	3/701 (0.4%)	1.11	4/936 (0.4%)
All	All	1.85	2019/82251 (2.5%)	1.87	3232/119296 (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 (2019) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1683	C	O3'-P	41.12	2.10	1.61
34	i	1322	U	C2'-C1'	-25.29	1.25	1.53
34	i	66	G	C2'-C1'	-24.37	1.26	1.53
34	i	858	A	C2'-C1'	-23.82	1.27	1.53
34	i	652	G	C2'-C1'	-23.61	1.27	1.53
34	i	1307	C	C2'-C1'	-22.42	1.28	1.53
34	i	521	A	C2'-C1'	-22.15	1.28	1.53
34	i	1037	G	C2'-C1'	-22.11	1.29	1.53
34	i	1233	C	C2'-C1'	-21.69	1.29	1.53
34	i	145	G	C2'-C1'	-21.58	1.29	1.53
34	i	287	U	C2'-C1'	-21.30	1.29	1.53
4	D	5	ILE	C-N	21.20	1.82	1.34
34	i	299	G	C2'-C1'	-20.69	1.30	1.53
34	i	1327	C	C2'-C1'	-20.61	1.30	1.53
34	i	1393	U	C2'-C1'	-20.40	1.30	1.53
34	i	215	U	C2'-C1'	-20.23	1.31	1.53
34	i	1503	G	O4'-C1'	-19.92	1.15	1.41
34	i	630	A	C2'-C1'	-19.79	1.31	1.53
34	i	343	C	C2'-C1'	-19.71	1.31	1.53
34	i	612	C	C2'-C1'	-19.64	1.31	1.53
34	i	1407	G	C2'-C1'	-19.57	1.31	1.53
34	i	956	U	C2'-C1'	-19.55	1.31	1.53
34	i	1738	G	C2'-C1'	-19.51	1.31	1.53
34	i	1308	G	C2'-C1'	-19.43	1.31	1.53
34	i	1855	G	C2'-C1'	-19.39	1.32	1.53
34	i	684	A	C2'-C1'	-19.05	1.32	1.53
34	i	1496	G	C2'-C1'	-18.95	1.32	1.53
34	i	1159	C	C2'-C1'	-18.78	1.32	1.53
34	i	1227	C	C2'-C1'	-18.64	1.32	1.53
31	e	95	LYS	C-N	18.45	1.76	1.34
34	i	518	A	C2'-C1'	-18.33	1.33	1.53
34	i	1194	G	C2'-C1'	-18.31	1.33	1.53
34	i	1222	G	C2'-C1'	-17.92	1.33	1.53
34	i	1774	G	C2'-C1'	-17.84	1.33	1.53
34	i	443	C	C2'-C1'	-17.78	1.33	1.53
34	i	859	U	C2'-C1'	-17.74	1.33	1.53
34	i	1226	C	C2'-C1'	-17.63	1.33	1.53
34	i	606	A	C2'-C1'	-17.53	1.34	1.53
34	i	41	G	C2'-C1'	-17.44	1.34	1.53
34	i	389	C	O4'-C1'	17.42	1.64	1.41
34	i	1279	C	O4'-C1'	17.38	1.64	1.41
34	i	1472	A	O4'-C1'	-17.29	1.19	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1199	G	C2'-C1'	-17.26	1.34	1.53
34	i	984	C	O4'-C1'	17.11	1.63	1.41
34	i	1214	C	C2'-C1'	-17.09	1.34	1.53
34	i	1010	G	C2'-C1'	-17.07	1.34	1.53
10	J	118	GLY	C-N	17.00	1.73	1.34
34	i	1233	C	O4'-C1'	16.88	1.63	1.41
34	i	1258	C	C2'-C1'	-16.86	1.34	1.53
34	i	1348	G	C2'-C1'	-16.84	1.34	1.53
34	i	626	C	O4'-C1'	16.79	1.63	1.41
34	i	1044	G	C2'-C1'	-16.76	1.34	1.53
34	i	838	C	C2'-C1'	-16.71	1.34	1.53
34	i	1732	G	C2'-C1'	-16.66	1.35	1.53
34	i	929	G	C2'-C1'	-16.66	1.35	1.53
10	J	85	GLY	C-N	-16.65	0.95	1.34
34	i	94	G	C2'-C1'	-16.64	1.35	1.53
34	i	844	U	C2'-C1'	-16.55	1.35	1.53
34	i	1467	C	O4'-C1'	16.55	1.63	1.41
34	i	604	G	C2'-C1'	-16.52	1.35	1.53
34	i	92	A	C2'-C1'	-16.44	1.35	1.53
34	i	435	A	C2'-C1'	-16.42	1.35	1.53
34	i	1308	G	O4'-C1'	16.40	1.62	1.41
34	i	1325	U	C2'-C1'	-16.38	1.35	1.53
34	i	1733	C	O4'-C1'	16.38	1.62	1.41
34	i	1043	C	O4'-C1'	16.36	1.62	1.41
34	i	604	G	O4'-C1'	16.32	1.62	1.41
34	i	611	C	O4'-C1'	16.29	1.62	1.41
34	i	1571	G	C2'-C1'	-16.27	1.35	1.53
18	R	1	MET	N-CA	16.23	1.78	1.46
34	i	277	U	O4'-C1'	16.17	1.62	1.41
34	i	689	G	O4'-C1'	16.14	1.62	1.41
34	i	390	C	O4'-C1'	16.13	1.62	1.41
34	i	1847	C	C2'-C1'	-16.11	1.35	1.53
34	i	446	C	C2'-C1'	-16.06	1.35	1.53
34	i	1666	G	C2'-C1'	-16.04	1.35	1.53
34	i	1563	C	C2'-C1'	-16.00	1.35	1.53
34	i	143	U	C2'-C1'	-15.94	1.35	1.53
34	i	1012	U	O4'-C1'	15.94	1.62	1.41
34	i	792	G	C2'-C1'	-15.93	1.35	1.53
34	i	788	C	C2'-C1'	-15.91	1.35	1.53
34	i	446	C	O4'-C1'	15.86	1.62	1.41
34	i	1736	U	C2'-C1'	-15.79	1.35	1.53
34	i	1683	C	C2'-C1'	-15.75	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	581	U	C2'-C1'	-15.72	1.36	1.53
34	i	1305	C	O4'-C1'	15.72	1.62	1.41
34	i	286	C	O4'-C1'	15.70	1.62	1.41
34	i	1432	C	O4'-C1'	15.69	1.62	1.41
34	i	179	C	C2'-C1'	-15.69	1.36	1.53
34	i	225	C	O4'-C1'	15.66	1.62	1.41
34	i	794	G	O4'-C1'	15.66	1.62	1.41
34	i	594	A	O4'-C1'	15.66	1.62	1.41
34	i	830	C	C2'-C1'	-15.62	1.36	1.53
34	i	541	U	C2'-C1'	-15.57	1.36	1.53
34	i	1688	G	C2'-C1'	-15.55	1.36	1.53
34	i	909	A	O4'-C1'	15.54	1.61	1.41
34	i	1227	C	O4'-C1'	15.52	1.61	1.41
34	i	1660	G	C2'-C1'	-15.51	1.36	1.53
34	i	741	C	O4'-C1'	15.48	1.61	1.41
34	i	877	G	C2'-C1'	-15.46	1.36	1.53
34	i	1452	G	C2'-C1'	-15.46	1.36	1.53
34	i	1766	C	O4'-C1'	15.46	1.61	1.41
34	i	1288	C	O4'-C1'	15.43	1.61	1.41
34	i	1237	A	O4'-C1'	15.37	1.61	1.41
34	i	730	C	O4'-C1'	15.36	1.61	1.41
34	i	186	G	C2'-C1'	-15.35	1.36	1.53
18	R	1	MET	CA-CB	15.33	1.87	1.53
34	i	1393	U	O4'-C1'	15.31	1.61	1.41
34	i	1659	A	C2'-C1'	-15.29	1.36	1.53
34	i	657	U	C2'-C1'	-15.26	1.36	1.53
34	i	986	A	C2'-C1'	-15.22	1.36	1.53
34	i	1524	C	O4'-C1'	15.22	1.61	1.41
34	i	1012	U	C2'-C1'	-15.22	1.36	1.53
34	i	179	C	O4'-C1'	15.21	1.61	1.41
34	i	1018	U	C2'-C1'	-15.21	1.36	1.53
34	i	222	G	C2'-C1'	-15.18	1.36	1.53
34	i	62	G	C2'-C1'	-15.15	1.36	1.53
34	i	408	A	C2'-C1'	-15.13	1.36	1.53
34	i	1171	G	C2'-C1'	-15.10	1.36	1.53
34	i	1615	A	C2'-C1'	-15.09	1.36	1.53
34	i	225	C	C2'-C1'	-14.96	1.36	1.53
34	i	164	A	C2'-C1'	-14.96	1.36	1.53
34	i	4	C	C2'-C1'	-14.96	1.36	1.53
34	i	214	A	O4'-C1'	14.95	1.61	1.41
34	i	1307	C	O4'-C1'	14.95	1.61	1.41
34	i	1406	C	O4'-C1'	14.95	1.61	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1494	A	C2'-C1'	-14.85	1.37	1.53
34	i	538	C	O4'-C1'	14.82	1.60	1.41
34	i	1610	U	C2'-C1'	-14.81	1.37	1.53
34	i	205	G	C2'-C1'	-14.78	1.37	1.53
34	i	734	C	C2'-C1'	-14.78	1.37	1.53
34	i	838	C	O4'-C1'	14.77	1.60	1.41
34	i	188	U	C2'-C1'	-14.76	1.37	1.53
34	i	1587	C	O4'-C1'	14.75	1.60	1.41
34	i	970	C	O4'-C1'	14.73	1.60	1.41
34	i	914	U	C2'-C1'	-14.72	1.37	1.53
34	i	873	C	O4'-C1'	14.68	1.60	1.41
34	i	1413	C	O4'-C1'	14.68	1.60	1.41
34	i	1090	C	O4'-C1'	14.66	1.60	1.41
34	i	1703	C	O4'-C1'	14.66	1.60	1.41
34	i	728	U	C2'-C1'	-14.66	1.37	1.53
34	i	1142	C	C2'-C1'	-14.65	1.37	1.53
34	i	1216	A	C2'-C1'	-14.65	1.37	1.53
34	i	1289	A	O4'-C1'	14.62	1.60	1.41
10	J	188	GLY	C-O	-14.58	1.00	1.23
34	i	1656	A	C2'-C1'	-14.54	1.37	1.53
34	i	1699	C	O4'-C1'	14.54	1.60	1.41
34	i	1230	C	O4'-C1'	14.54	1.60	1.41
34	i	431	C	O4'-C1'	14.51	1.60	1.41
34	i	1263	C	C2'-C1'	-14.49	1.37	1.53
5	E	263	GLY	C-O	-14.49	1.00	1.23
34	i	1014	U	C2'-C1'	-14.49	1.37	1.53
25	Y	128	GLY	C-O	-14.49	1.00	1.23
34	i	81	U	C2'-C1'	-14.48	1.37	1.53
9	I	207	GLY	C-O	-14.46	1.00	1.23
21	U	93	SER	C-N	14.45	1.61	1.34
34	i	804	A	C2'-C1'	-14.43	1.37	1.53
26	Z	115	GLY	C-O	-14.42	1.00	1.23
34	i	1229	G	C2'-C1'	-14.40	1.37	1.53
9	I	43	ILE	C-N	14.38	1.67	1.34
2	B	233	GLY	C-O	-14.37	1.00	1.23
34	i	1611	U	C2'-C1'	-14.37	1.37	1.53
34	i	1828	A	C2'-C1'	-14.35	1.37	1.53
34	i	1376	C	O4'-C1'	14.34	1.60	1.41
34	i	845	A	C2'-C1'	-14.32	1.37	1.53
34	i	438	A	O4'-C1'	-14.31	1.23	1.41
34	i	1755	U	C2'-C1'	-14.29	1.37	1.53
34	i	144	U	O4'-C1'	14.29	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	215	U	O4'-C1'	14.28	1.60	1.41
34	i	1214	C	O4'-C1'	14.24	1.60	1.41
34	i	1416	G	C2'-C1'	-14.23	1.37	1.53
34	i	431	C	C2'-C1'	-14.21	1.37	1.53
34	i	1738	G	O4'-C1'	14.20	1.60	1.41
34	i	35	C	O4'-C1'	14.18	1.60	1.41
34	i	1144	A	O4'-C1'	-14.13	1.23	1.41
34	i	1691	C	O4'-C1'	14.10	1.59	1.41
34	i	1140	A	C2'-C1'	-14.09	1.37	1.53
34	i	1736	U	O4'-C1'	14.09	1.59	1.41
34	i	1602	A	C2'-C1'	-14.08	1.37	1.53
34	i	852	C	O4'-C1'	14.06	1.59	1.41
34	i	1801	C	C2'-C1'	-14.04	1.38	1.53
18	R	1	MET	CA-C	-14.03	1.16	1.52
34	i	1184	A	O4'-C1'	14.00	1.59	1.41
34	i	1520	C	O4'-C1'	14.00	1.59	1.41
34	i	187	C	O4'-C1'	13.98	1.59	1.41
34	i	830	C	O4'-C1'	13.95	1.59	1.41
34	i	1693	C	O4'-C1'	13.94	1.59	1.41
34	i	1251	G	C2'-C1'	-13.94	1.38	1.53
34	i	887	G	C2'-C1'	-13.93	1.38	1.53
34	i	1557	C	C2'-C1'	-13.91	1.38	1.53
34	i	1793	G	C2'-C1'	-13.91	1.38	1.53
34	i	1003	C	O4'-C1'	13.89	1.59	1.41
34	i	1587	C	C2'-C1'	-13.88	1.38	1.53
34	i	915	A	C2'-C1'	-13.88	1.38	1.53
34	i	168	C	O4'-C1'	13.88	1.59	1.41
34	i	947	C	O4'-C1'	13.86	1.59	1.41
34	i	623	C	C2'-C1'	-13.85	1.38	1.53
34	i	616	G	O4'-C1'	13.85	1.59	1.41
34	i	735	C	O4'-C1'	13.80	1.59	1.41
34	i	801	U	O4'-C1'	13.79	1.59	1.41
34	i	852	C	C2'-C1'	-13.79	1.38	1.53
34	i	1400	U	O4'-C1'	13.78	1.59	1.41
34	i	1617	U	O4'-C1'	13.78	1.59	1.41
34	i	1002	C	O4'-C1'	13.77	1.59	1.41
34	i	884	U	C2'-C1'	-13.74	1.38	1.53
34	i	1765	G	C2'-C1'	-13.74	1.38	1.53
34	i	1433	C	O4'-C1'	13.73	1.59	1.41
34	i	605	C	O4'-C1'	13.72	1.59	1.41
34	i	1427	G	C2'-C1'	-13.71	1.38	1.53
34	i	1419	C	O4'-C1'	13.70	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1263	C	O4'-C1'	13.68	1.59	1.41
34	i	340	C	O4'-C1'	13.65	1.59	1.41
34	i	377	C	O4'-C1'	13.62	1.59	1.41
34	i	564	A	O4'-C1'	13.61	1.59	1.41
34	i	1241	G	C2'-C1'	-13.60	1.38	1.53
34	i	1022	C	O4'-C1'	13.57	1.59	1.41
34	i	734	C	O4'-C1'	13.57	1.59	1.41
34	i	312	C	O4'-C1'	13.56	1.59	1.41
34	i	1404	U	O4'-C1'	13.55	1.59	1.41
34	i	1805	C	O4'-C1'	13.52	1.59	1.41
34	i	568	C	O4'-C1'	13.52	1.59	1.41
34	i	1411	C	O4'-C1'	13.51	1.59	1.41
34	i	402	G	O4'-C1'	13.49	1.59	1.41
34	i	903	G	C2'-C1'	-13.48	1.38	1.53
34	i	13	C	O4'-C1'	13.47	1.59	1.41
34	i	858	A	O4'-C1'	13.46	1.59	1.41
34	i	1436	C	O4'-C1'	13.44	1.59	1.41
34	i	1471	G	C2'-C1'	-13.44	1.38	1.53
34	i	1777	C	O4'-C1'	13.44	1.59	1.41
34	i	1091	U	C2'-C1'	-13.41	1.38	1.53
34	i	728	U	O4'-C1'	13.41	1.59	1.41
34	i	1623	C	C2'-C1'	-13.39	1.38	1.53
34	i	1267	C	O4'-C1'	13.38	1.59	1.41
34	i	1577	C	C2'-C1'	-13.38	1.38	1.53
34	i	538	C	C2'-C1'	-13.36	1.38	1.53
34	i	1847	C	O4'-C1'	13.36	1.59	1.41
34	i	548	G	C2'-C1'	-13.35	1.38	1.53
34	i	287	U	O4'-C1'	13.35	1.59	1.41
34	i	1063	C	O4'-C1'	13.31	1.58	1.41
34	i	1270	G	C2'-C1'	-13.31	1.38	1.53
34	i	1666	G	O4'-C1'	13.31	1.58	1.41
34	i	980	C	C2'-C1'	-13.31	1.38	1.53
34	i	1406	C	C2'-C1'	-13.30	1.38	1.53
34	i	1639	C	C2'-C1'	-13.29	1.38	1.53
34	i	144	U	C2'-C1'	-13.28	1.38	1.53
34	i	54	A	O4'-C1'	13.27	1.58	1.41
34	i	1074	C	C2'-C1'	-13.27	1.38	1.53
34	i	510	A	C2'-C1'	-13.26	1.38	1.53
34	i	1455	G	C2'-C1'	-13.23	1.38	1.53
34	i	1433	C	C2'-C1'	-13.21	1.38	1.53
34	i	1583	A	C2'-C1'	-13.20	1.38	1.53
34	i	1257	C	O4'-C1'	13.20	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1128	C	C2'-C1'	-13.18	1.38	1.53
34	i	1232	G	O4'-C1'	-13.17	1.24	1.41
34	i	174	C	O4'-C1'	13.14	1.58	1.41
34	i	986	A	O4'-C1'	13.13	1.58	1.41
34	i	1447	G	O4'-C1'	13.12	1.58	1.41
34	i	826	A	O4'-C1'	-13.11	1.24	1.41
34	i	542	G	C2'-C1'	-13.10	1.39	1.53
34	i	1683	C	O4'-C1'	13.07	1.58	1.41
34	i	1690	A	O4'-C1'	13.06	1.58	1.41
34	i	1546	U	C2'-C1'	-13.05	1.39	1.53
34	i	1771	G	C2'-C1'	-13.02	1.39	1.53
34	i	1390	G	C2'-C1'	-13.00	1.39	1.53
34	i	1015	C	O4'-C1'	12.98	1.58	1.41
34	i	565	A	O4'-C1'	12.98	1.58	1.41
34	i	1515	G	C2'-C1'	-12.97	1.39	1.53
34	i	1075	C	O4'-C1'	12.96	1.58	1.41
34	i	1600	G	C2'-C1'	-12.94	1.39	1.53
34	i	1122	G	C2'-C1'	-12.92	1.39	1.53
34	i	1715	U	C2'-C1'	12.91	1.67	1.53
34	i	1542	C	O4'-C1'	12.89	1.58	1.41
34	i	1792	C	C2'-C1'	-12.87	1.39	1.53
34	i	973	C	O4'-C1'	12.83	1.58	1.41
34	i	1539	C	O4'-C1'	12.81	1.58	1.41
34	i	687	G	O4'-C1'	12.80	1.58	1.41
34	i	274	G	C2'-C1'	-12.78	1.39	1.53
34	i	726	C	C2'-C1'	-12.78	1.39	1.53
34	i	1563	C	O4'-C1'	12.77	1.58	1.41
34	i	646	G	C2'-C1'	-12.74	1.39	1.53
34	i	981	G	C2'-C1'	-12.73	1.39	1.53
34	i	1087	C	O4'-C1'	12.73	1.58	1.41
34	i	539	C	O4'-C1'	12.72	1.58	1.41
34	i	853	U	C2'-C1'	-12.71	1.39	1.53
34	i	1160	G	C2'-C1'	-12.70	1.39	1.53
34	i	1856	G	O4'-C1'	12.70	1.58	1.41
34	i	1837	G	C2'-C1'	-12.69	1.39	1.53
34	i	282	G	C2'-C1'	-12.66	1.39	1.53
34	i	741	C	C2'-C1'	-12.66	1.39	1.53
34	i	324	C	O4'-C1'	12.64	1.58	1.41
34	i	1326	G	C2'-C1'	-12.63	1.39	1.53
34	i	788	C	O4'-C1'	12.62	1.58	1.41
34	i	193	C	O4'-C1'	12.62	1.58	1.41
34	i	985	C	O4'-C1'	12.61	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1786	G	C2'-C1'	-12.61	1.39	1.53
34	i	1079	A	C2'-C1'	-12.61	1.39	1.53
34	i	80	G	O4'-C1'	12.60	1.58	1.41
34	i	731	C	O4'-C1'	12.60	1.58	1.41
34	i	798	A	C2'-C1'	-12.57	1.39	1.53
34	i	546	U	C2'-C1'	-12.54	1.39	1.53
34	i	1677	C	O4'-C1'	12.52	1.57	1.41
34	i	1113	C	O4'-C1'	-12.50	1.25	1.41
34	i	1436	C	C2'-C1'	-12.47	1.39	1.53
34	i	484	C	O4'-C1'	12.46	1.57	1.41
34	i	1711	C	O4'-C1'	12.46	1.57	1.41
34	i	1063	C	C2'-C1'	-12.46	1.39	1.53
34	i	1579	G	C2'-C1'	-12.45	1.39	1.53
34	i	1003	C	C2'-C1'	-12.44	1.39	1.53
34	i	155	G	C2'-C1'	-12.44	1.39	1.53
34	i	48	C	O4'-C1'	12.44	1.57	1.41
34	i	1165	G	C2'-C1'	-12.43	1.39	1.53
34	i	1451	A	O4'-C1'	12.43	1.57	1.41
34	i	622	C	C2'-C1'	-12.43	1.39	1.53
34	i	1300	U	C2'-C1'	-12.42	1.39	1.53
34	i	907	C	C2'-C1'	-12.42	1.39	1.53
34	i	1632	A	C2'-C1'	12.41	1.67	1.53
34	i	1338	U	O4'-C1'	12.40	1.57	1.41
34	i	482	C	O4'-C1'	12.39	1.57	1.41
34	i	34	U	C2'-C1'	-12.36	1.39	1.53
34	i	1376	C	C2'-C1'	-12.36	1.39	1.53
34	i	1259	U	O4'-C1'	12.34	1.57	1.41
34	i	1261	A	C2'-C1'	-12.33	1.39	1.53
34	i	650	C	O4'-C1'	12.32	1.57	1.41
34	i	744	C	O4'-C1'	12.29	1.57	1.41
34	i	1002	C	C2'-C1'	-12.27	1.39	1.53
34	i	522	C	O4'-C1'	12.26	1.57	1.41
34	i	1322	U	O4'-C1'	12.26	1.57	1.41
34	i	64	A	O4'-C1'	-12.24	1.25	1.41
34	i	62	G	O4'-C1'	12.23	1.57	1.41
34	i	611	C	C2'-C1'	-12.23	1.40	1.53
34	i	1312	C	C2'-C1'	-12.21	1.40	1.53
34	i	1262	C	O4'-C1'	12.20	1.57	1.41
34	i	1222	G	O4'-C1'	12.20	1.57	1.41
13	M	132	LYS	C-OXT	-12.18	1.00	1.23
34	i	1116	U	C2'-C1'	-12.18	1.40	1.53
6	F	204	ARG	C-OXT	-12.17	1.00	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	H	194	LEU	C-O	-12.17	1.00	1.23
34	i	638	A	C2'-C1'	-12.16	1.40	1.53
34	i	970	C	C2'-C1'	-12.15	1.40	1.53
34	i	1066	A	C2'-C1'	-12.14	1.40	1.53
24	X	142	ARG	C-O	-12.13	1.00	1.23
28	b	84	HIS	C-OXT	-12.13	1.00	1.23
20	T	144	LYS	C-O	-12.13	1.00	1.23
34	i	1262	C	C2'-C1'	-12.12	1.40	1.53
14	N	151	ALA	C-OXT	-12.12	1.00	1.23
34	i	598	C	O4'-C1'	12.12	1.57	1.41
34	i	1734	C	O4'-C1'	12.12	1.57	1.41
34	i	1542	C	C2'-C1'	-12.11	1.40	1.53
4	D	227	LYS	C-O	-12.10	1.00	1.23
14	N	151	ALA	C-O	-12.09	1.00	1.23
34	i	1532	A	O4'-C1'	12.09	1.57	1.41
13	M	132	LYS	C-O	-12.08	1.00	1.23
23	W	130	PHE	C-OXT	-12.08	1.00	1.23
31	e	133	SER	C-OXT	-12.07	1.00	1.23
5	E	263	GLY	C-OXT	-12.07	1.00	1.23
23	W	130	PHE	C-O	-12.07	1.00	1.23
32	f	152	LYS	C-O	-12.07	1.00	1.23
34	i	369	C	C2'-C1'	-12.07	1.40	1.53
34	i	56	G	C2'-C1'	-12.06	1.40	1.53
34	i	1548	C	O4'-C1'	-12.05	1.25	1.41
34	i	1650	C	O4'-C1'	12.05	1.57	1.41
34	i	299	G	O4'-C1'	12.04	1.57	1.41
34	i	623	C	O4'-C1'	12.04	1.57	1.41
34	i	869	G	C2'-C1'	-12.03	1.40	1.53
3	C	263	THR	C-O	-12.02	1.00	1.23
31	e	133	SER	C-O	-12.02	1.00	1.23
33	g	314	ILE	C-O	-12.01	1.00	1.23
11	K	98	ARG	C-O	-12.01	1.00	1.23
30	d	56	ASP	C-O	-12.01	1.00	1.23
34	i	465	C	O4'-C1'	12.01	1.57	1.41
29	c	68	LEU	C-O	-12.00	1.00	1.23
34	i	1404	U	C2'-C1'	-12.00	1.40	1.53
34	i	1801	C	O4'-C1'	12.00	1.57	1.41
34	i	1524	C	C2'-C1'	-11.99	1.40	1.53
8	H	194	LEU	C-OXT	-11.99	1.00	1.23
1	A	209	GLU	C-O	-11.98	1.00	1.23
30	d	56	ASP	C-OXT	-11.97	1.00	1.23
12	L	158	PHE	C-OXT	-11.97	1.00	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	276	U	O4'-C1'	11.96	1.57	1.41
34	i	1737	C	C2'-C1'	-11.96	1.40	1.53
12	L	158	PHE	C-O	-11.96	1.00	1.23
34	i	1114	C	C2'-C1'	11.94	1.66	1.53
34	i	67	C	C2'-C1'	11.91	1.66	1.53
6	F	204	ARG	C-O	-11.90	1.00	1.23
34	i	971	G	C2'-C1'	-11.89	1.40	1.53
34	i	583	C	O4'-C1'	11.88	1.57	1.41
34	i	727	G	C2'-C1'	-11.88	1.40	1.53
34	i	1009	U	C2'-C1'	-11.88	1.40	1.53
28	b	84	HIS	C-O	-11.87	1.00	1.23
10	J	146	SER	C-N	11.87	1.61	1.34
34	i	1428	U	O4'-C1'	11.86	1.57	1.41
34	i	1788	C	O4'-C1'	11.86	1.57	1.41
34	i	396	U	C2'-C1'	-11.85	1.40	1.53
34	i	302	C	O4'-C1'	11.84	1.57	1.41
34	i	1628	A	O4'-C1'	11.84	1.57	1.41
34	i	1195	A	C2'-C1'	-11.83	1.40	1.53
34	i	1573	U	C2'-C1'	11.81	1.66	1.53
34	i	612	C	O4'-C1'	11.81	1.57	1.41
34	i	864	G	O4'-C1'	11.81	1.57	1.41
34	i	670	G	C2'-C1'	-11.80	1.40	1.53
34	i	664	C	C2'-C1'	-11.75	1.40	1.53
34	i	569	C	O4'-C1'	11.74	1.56	1.41
34	i	325	G	O4'-C1'	-11.73	1.26	1.41
34	i	318	U	C2'-C1'	-11.73	1.40	1.53
34	i	18	C	O4'-C1'	11.73	1.56	1.41
34	i	907	C	O4'-C1'	11.70	1.56	1.41
34	i	1387	C	O4'-C1'	11.67	1.56	1.41
34	i	1060	C	O4'-C1'	11.66	1.56	1.41
34	i	805	A	C2'-C1'	-11.65	1.40	1.53
34	i	1537	C	O4'-C1'	11.64	1.56	1.41
34	i	553	G	O4'-C1'	11.63	1.56	1.41
34	i	545	A	O4'-C1'	11.63	1.56	1.41
34	i	639	U	C2'-C1'	-11.62	1.40	1.53
34	i	906	G	C2'-C1'	-11.62	1.40	1.53
34	i	833	A	C2'-C1'	-11.61	1.40	1.53
34	i	667	G	C2'-C1'	-11.58	1.40	1.53
34	i	589	A	C2'-C1'	-11.55	1.40	1.53
34	i	549	G	C2'-C1'	-11.55	1.40	1.53
34	i	1114	C	O4'-C1'	-11.55	1.26	1.41
34	i	1732	G	O4'-C1'	11.55	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	471	C	C2'-C1'	-11.54	1.40	1.53
34	i	606	A	O4'-C1'	11.54	1.56	1.41
34	i	1698	C	O4'-C1'	11.54	1.56	1.41
34	i	668	U	C2'-C1'	-11.53	1.40	1.53
19	S	141	ARG	C-N	11.53	1.60	1.34
34	i	539	C	C2'-C1'	-11.52	1.40	1.53
34	i	559	A	C2'-C1'	-11.51	1.40	1.53
34	i	1260	C	C2'-C1'	-11.47	1.40	1.53
34	i	1074	C	O4'-C1'	11.46	1.56	1.41
34	i	48	C	C2'-C1'	-11.45	1.40	1.53
34	i	407	C	O4'-C1'	11.45	1.56	1.41
34	i	1101	G	C2'-C1'	-11.45	1.40	1.53
34	i	436	G	O4'-C1'	11.44	1.56	1.41
34	i	976	A	C2'-C1'	-11.44	1.40	1.53
34	i	500	G	C2'-C1'	-11.42	1.40	1.53
34	i	622	C	O4'-C1'	11.41	1.56	1.41
34	i	851	G	C2'-C1'	-11.40	1.40	1.53
34	i	1124	C	O4'-C1'	11.39	1.56	1.41
34	i	1323	G	C2'-C1'	-11.39	1.40	1.53
34	i	1202	G	C2'-C1'	-11.37	1.40	1.53
34	i	887	G	O4'-C1'	11.36	1.56	1.41
34	i	77	A	C2'-C1'	11.36	1.65	1.53
25	Y	86	GLU	C-N	11.36	1.55	1.34
34	i	1181	C	O4'-C1'	11.36	1.56	1.41
34	i	839	C	O4'-C1'	11.33	1.56	1.41
34	i	360	G	C2'-C1'	-11.32	1.40	1.53
34	i	947	C	C2'-C1'	-11.31	1.41	1.53
34	i	1025	G	C2'-C1'	-11.31	1.41	1.53
34	i	1669	G	O4'-C1'	11.31	1.56	1.41
34	i	1044	G	O4'-C1'	11.31	1.56	1.41
34	i	414	C	O4'-C1'	11.30	1.56	1.41
34	i	1775	A	C2'-C1'	-11.30	1.41	1.53
34	i	288	A	C2'-C1'	-11.28	1.41	1.53
23	W	2	VAL	C-N	11.26	1.59	1.34
34	i	900	A	O4'-C1'	11.26	1.56	1.41
34	i	1015	C	C2'-C1'	-11.25	1.41	1.53
34	i	521	A	O4'-C1'	11.24	1.56	1.41
34	i	1653	G	C2'-C1'	-11.24	1.41	1.53
34	i	323	G	C2'-C1'	-11.23	1.41	1.53
34	i	335	U	C2'-C1'	-11.23	1.41	1.53
34	i	436	G	C2'-C1'	-11.23	1.41	1.53
34	i	936	U	C2'-C1'	-11.20	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	479	A	O4'-C1'	11.20	1.56	1.41
34	i	395	G	C2'-C1'	-11.19	1.41	1.53
7	G	131	ARG	C-N	11.17	1.59	1.34
34	i	1792	C	O4'-C1'	11.16	1.56	1.41
34	i	964	U	O4'-C1'	11.16	1.56	1.41
7	G	131	ARG	CG-CD	11.15	1.79	1.51
34	i	1120	C	C2'-C1'	-11.15	1.41	1.53
34	i	871	A	O4'-C1'	11.15	1.56	1.41
34	i	452	C	C2'-C1'	-11.13	1.41	1.53
34	i	938	G	C2'-C1'	-11.13	1.41	1.53
34	i	1220	G	C2'-C1'	-11.13	1.41	1.53
34	i	635	C	O4'-C1'	11.12	1.56	1.41
34	i	402	G	C2'-C1'	-11.12	1.41	1.53
34	i	84	A	O4'-C1'	11.11	1.56	1.41
34	i	1238	U	C2'-C1'	-11.11	1.41	1.53
34	i	1448	A	O4'-C1'	11.08	1.56	1.41
34	i	347	C	C2'-C1'	-11.04	1.41	1.53
34	i	691	G	C2'-C1'	-11.04	1.41	1.53
34	i	1289	A	C2'-C1'	-11.03	1.41	1.53
34	i	4	C	O4'-C1'	11.00	1.55	1.41
34	i	1369	C	O4'-C1'	10.98	1.55	1.41
34	i	1585	C	O4'-C1'	10.97	1.55	1.41
34	i	1813	A	C2'-C1'	-10.97	1.41	1.53
18	R	1	MET	C-N	-10.96	1.13	1.33
34	i	1403	U	C2'-C1'	-10.96	1.41	1.53
34	i	1226	C	O4'-C1'	10.95	1.55	1.41
34	i	1834	U	C2'-C1'	-10.95	1.41	1.53
34	i	462	C	O4'-C1'	10.94	1.55	1.41
34	i	901	C	O4'-C1'	10.94	1.55	1.41
34	i	870	G	C2'-C1'	-10.92	1.41	1.53
34	i	547	U	C2'-C1'	-10.91	1.41	1.53
34	i	1048	A	O4'-C1'	10.90	1.55	1.41
34	i	1568	G	C2'-C1'	-10.89	1.41	1.53
34	i	432	C	O4'-C1'	10.87	1.55	1.41
34	i	839	C	C2'-C1'	-10.87	1.41	1.53
34	i	812	A	O4'-C1'	10.86	1.55	1.41
34	i	1729	G	C2'-C1'	-10.87	1.41	1.53
34	i	1716	U	C2'-C1'	10.86	1.65	1.53
34	i	308	C	O4'-C1'	10.85	1.55	1.41
34	i	483	A	C2'-C1'	-10.85	1.41	1.53
34	i	414	C	C2'-C1'	-10.84	1.41	1.53
34	i	664	C	O4'-C1'	10.84	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	640	A	O4'-C1'	10.83	1.55	1.41
34	i	1603	U	O4'-C1'	10.83	1.55	1.41
34	i	582	C	O4'-C1'	-10.83	1.27	1.41
34	i	1708	C	O4'-C1'	10.83	1.55	1.41
34	i	1050	G	C2'-C1'	-10.81	1.41	1.53
34	i	488	C	O4'-C1'	10.80	1.55	1.41
34	i	1208	G	C2'-C1'	-10.79	1.41	1.53
34	i	1527	C	C2'-C1'	-10.79	1.41	1.53
34	i	1176	C	O4'-C1'	10.78	1.55	1.41
34	i	975	C	O4'-C1'	10.76	1.55	1.41
34	i	1578	C	O4'-C1'	10.76	1.55	1.41
34	i	1159	C	O4'-C1'	10.76	1.55	1.41
34	i	1496	G	O4'-C1'	10.76	1.55	1.41
34	i	352	C	O4'-C1'	10.75	1.55	1.41
34	i	633	A	O4'-C1'	10.75	1.55	1.41
34	i	54	A	C2'-C1'	-10.72	1.41	1.53
34	i	507	C	C2'-C1'	-10.72	1.41	1.53
34	i	1207	G	C2'-C1'	-10.72	1.41	1.53
34	i	916	A	C2'-C1'	-10.72	1.41	1.53
34	i	1547	G	C2'-C1'	10.71	1.65	1.53
34	i	1209	C	O4'-C1'	10.71	1.55	1.41
34	i	1684	C	C2'-C1'	-10.70	1.41	1.53
34	i	1807	A	C2'-C1'	-10.70	1.41	1.53
34	i	1400	U	C2'-C1'	-10.68	1.41	1.53
34	i	605	C	C2'-C1'	-10.68	1.41	1.53
34	i	1257	C	C2'-C1'	-10.68	1.41	1.53
34	i	1301	C	C2'-C1'	-10.68	1.41	1.53
34	i	286	C	C2'-C1'	-10.66	1.41	1.53
34	i	1105	C	O4'-C1'	-10.65	1.27	1.41
34	i	1259	U	C2'-C1'	-10.63	1.41	1.53
34	i	1481	U	C2'-C1'	-10.63	1.41	1.53
19	S	54	LYS	N-CA	10.60	1.67	1.46
34	i	327	C	C2'-C1'	-10.60	1.41	1.53
34	i	143	U	O4'-C1'	10.60	1.55	1.41
34	i	1481	U	O4'-C1'	10.60	1.55	1.41
9	I	43	ILE	CA-C	-10.56	1.25	1.52
34	i	1280	A	O4'-C1'	10.55	1.55	1.41
34	i	1258	C	O4'-C1'	10.53	1.55	1.41
34	i	560	C	O4'-C1'	10.53	1.55	1.41
34	i	449	C	O4'-C1'	10.53	1.55	1.41
34	i	1700	C	O4'-C1'	10.53	1.55	1.41
34	i	875	C	C2'-C1'	-10.51	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1375	A	C2'-C1'	-10.50	1.41	1.53
34	i	1778	G	O4'-C1'	10.50	1.55	1.41
34	i	529	C	O4'-C1'	10.49	1.55	1.41
34	i	487	C	O4'-C1'	10.49	1.55	1.41
34	i	868	A	O4'-C1'	-10.49	1.28	1.41
34	i	825	C	O4'-C1'	10.49	1.55	1.41
34	i	1230	C	C2'-C1'	-10.49	1.41	1.53
34	i	416	A	O4'-C1'	10.48	1.55	1.41
34	i	50	A	C2'-C1'	-10.48	1.41	1.53
34	i	1752	G	C2'-C1'	-10.48	1.41	1.53
34	i	480	C	O4'-C1'	10.48	1.55	1.41
19	S	40	TYR	C-N	-10.47	1.09	1.34
34	i	984	C	C2'-C1'	-10.47	1.41	1.53
34	i	933	C	O4'-C1'	10.45	1.55	1.41
34	i	1835	C	O4'-C1'	10.45	1.55	1.41
34	i	1324	G	C2'-C1'	-10.45	1.41	1.53
34	i	1200	A	O4'-C1'	10.44	1.55	1.41
34	i	355	C	O4'-C1'	10.43	1.55	1.41
34	i	1578	C	C2'-C1'	-10.42	1.41	1.53
34	i	1617	U	C2'-C1'	-10.42	1.41	1.53
34	i	316	C	O4'-C1'	10.41	1.55	1.41
34	i	1624	C	C2'-C1'	-10.40	1.42	1.53
34	i	16	G	C2'-C1'	-10.39	1.42	1.53
34	i	729	C	O4'-C1'	10.39	1.55	1.41
34	i	547	U	O4'-C1'	10.39	1.55	1.41
34	i	1128	C	O4'-C1'	10.39	1.55	1.41
34	i	1486	G	C2'-C1'	-10.39	1.42	1.53
34	i	230	C	O4'-C1'	10.37	1.55	1.41
34	i	558	C	O4'-C1'	10.37	1.55	1.41
34	i	1309	A	C2'-C1'	-10.37	1.42	1.53
34	i	385	G	C2'-C1'	-10.36	1.42	1.53
34	i	170	A	O4'-C1'	-10.35	1.28	1.41
34	i	352	C	C2'-C1'	-10.35	1.42	1.53
34	i	178	C	C2'-C1'	-10.32	1.42	1.53
34	i	410	G	C2'-C1'	-10.32	1.42	1.53
34	i	1398	A	O4'-C1'	10.31	1.55	1.41
34	i	382	A	O4'-C1'	10.31	1.55	1.41
34	i	1755	U	O4'-C1'	10.29	1.55	1.41
34	i	52	G	C2'-C1'	-10.29	1.42	1.53
34	i	653	C	C2'-C1'	-10.29	1.42	1.53
34	i	1411	C	C2'-C1'	-10.28	1.42	1.53
34	i	1271	G	C2'-C1'	-10.26	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1576	C	O4'-C1'	10.23	1.54	1.41
34	i	1076	A	O4'-C1'	-10.22	1.28	1.41
34	i	1783	G	O4'-C1'	10.22	1.54	1.41
34	i	977	A	O4'-C1'	10.21	1.54	1.41
34	i	241	A	O4'-C1'	10.21	1.54	1.41
34	i	1682	C	O4'-C1'	10.21	1.54	1.41
34	i	1098	G	C2'-C1'	-10.21	1.42	1.53
34	i	1410	A	C2'-C1'	-10.20	1.42	1.53
34	i	1165	G	O4'-C1'	10.20	1.54	1.41
34	i	1377	G	O4'-C1'	-10.20	1.28	1.41
34	i	209	C	O4'-C1'	10.19	1.54	1.41
34	i	1272	A	O4'-C1'	10.19	1.54	1.41
34	i	315	C	C2'-C1'	10.19	1.64	1.53
34	i	823	A	C2'-C1'	-10.18	1.42	1.53
34	i	84	A	C2'-C1'	-10.18	1.42	1.53
34	i	79	A	C2'-C1'	10.17	1.64	1.53
34	i	683	G	C2'-C1'	-10.16	1.42	1.53
34	i	1827	C	O4'-C1'	10.15	1.54	1.41
34	i	1682	C	C2'-C1'	-10.15	1.42	1.53
34	i	75	G	C2'-C1'	-10.14	1.42	1.53
34	i	563	U	C2'-C1'	-10.12	1.42	1.53
34	i	1181	C	C2'-C1'	-10.12	1.42	1.53
34	i	1600	G	O4'-C1'	10.12	1.54	1.41
34	i	311	C	C2'-C1'	-10.09	1.42	1.53
34	i	76	U	O4'-C1'	10.08	1.54	1.41
34	i	1133	U	O4'-C1'	10.07	1.54	1.41
34	i	1740	A	C2'-C1'	10.05	1.64	1.53
34	i	1071	C	C2'-C1'	-10.05	1.42	1.53
34	i	1139	A	C2'-C1'	-10.04	1.42	1.53
34	i	82	G	C2'-C1'	10.04	1.64	1.53
34	i	1359	C	O4'-C1'	10.04	1.54	1.41
34	i	1312	C	O4'-C1'	10.03	1.54	1.41
34	i	1573	U	O4'-C1'	-10.03	1.28	1.41
34	i	1651	G	C2'-C1'	-10.02	1.42	1.53
34	i	313	C	O4'-C1'	10.02	1.54	1.41
34	i	1819	A	C2'-C1'	10.02	1.64	1.53
34	i	956	U	O4'-C1'	10.02	1.54	1.41
34	i	1779	C	C2'-C1'	10.01	1.64	1.53
34	i	1467	C	C2'-C1'	-10.00	1.42	1.53
34	i	1338	U	C2'-C1'	-10.00	1.42	1.53
34	i	809	A	O4'-C1'	10.00	1.54	1.41
34	i	149	A	O4'-C1'	10.00	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	193	C	C2'-C1'	-9.99	1.42	1.53
34	i	1766	C	C2'-C1'	-9.99	1.42	1.53
34	i	1787	A	O4'-C1'	9.99	1.54	1.41
34	i	120	U	C2'-C1'	-9.99	1.42	1.53
34	i	1504	A	C2'-C1'	9.99	1.64	1.53
34	i	1594	U	C2'-C1'	9.97	1.64	1.53
34	i	1209	C	C2'-C1'	-9.94	1.42	1.53
34	i	111	A	O4'-C1'	-9.93	1.28	1.41
34	i	855	G	C2'-C1'	-9.93	1.42	1.53
34	i	588	G	C2'-C1'	-9.93	1.42	1.53
34	i	946	C	O4'-C1'	9.92	1.54	1.41
34	i	1029	G	C2'-C1'	-9.92	1.42	1.53
34	i	1559	C	O4'-C1'	9.92	1.54	1.41
34	i	533	C	O4'-C1'	9.90	1.54	1.41
34	i	1096	A	O4'-C1'	9.90	1.54	1.41
34	i	428	G	C2'-C1'	9.90	1.64	1.53
34	i	1822	C	O4'-C1'	9.90	1.54	1.41
34	i	142	C	O4'-C1'	-9.89	1.28	1.41
34	i	560	C	C2'-C1'	-9.89	1.42	1.53
34	i	437	A	C2'-C1'	9.89	1.64	1.53
34	i	1006	G	O4'-C1'	-9.89	1.28	1.41
34	i	486	C	O4'-C1'	9.88	1.54	1.41
34	i	1201	C	C2'-C1'	-9.87	1.42	1.53
34	i	1316	G	O4'-C1'	-9.87	1.28	1.41
34	i	1428	U	C2'-C1'	-9.86	1.42	1.53
34	i	66	G	O4'-C1'	9.85	1.54	1.41
34	i	1678	C	O4'-C1'	9.84	1.54	1.41
34	i	392	C	O4'-C1'	9.83	1.54	1.41
34	i	1055	G	C2'-C1'	-9.82	1.42	1.53
34	i	85	A	C2'-C1'	-9.81	1.42	1.53
34	i	96	C	O4'-C1'	9.81	1.54	1.41
34	i	564	A	C2'-C1'	-9.79	1.42	1.53
34	i	1585	C	C2'-C1'	-9.75	1.42	1.53
34	i	1329	U	C2'-C1'	9.75	1.64	1.53
34	i	1320	G	C2'-C1'	-9.74	1.42	1.53
34	i	932	G	C2'-C1'	-9.74	1.42	1.53
34	i	1204	A	C2'-C1'	9.73	1.64	1.53
34	i	481	C	C2'-C1'	-9.72	1.42	1.53
34	i	654	A	C2'-C1'	-9.72	1.42	1.53
34	i	507	C	O4'-C1'	9.71	1.54	1.41
34	i	359	C	C2'-C1'	-9.71	1.42	1.53
34	i	1503	G	C2'-C1'	-9.71	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	298	G	O4'-C1'	-9.70	1.29	1.41
34	i	645	A	C2'-C1'	-9.70	1.42	1.53
34	i	888	U	C2'-C1'	-9.69	1.42	1.53
34	i	487	C	C2'-C1'	-9.66	1.42	1.53
34	i	1462	G	C2'-C1'	-9.65	1.42	1.53
34	i	511	A	C2'-C1'	-9.65	1.42	1.53
34	i	743	U	O4'-C1'	9.65	1.54	1.41
34	i	1120	C	O4'-C1'	9.64	1.54	1.41
34	i	1432	C	C2'-C1'	-9.64	1.42	1.53
34	i	1572	G	O4'-C1'	9.64	1.54	1.41
34	i	1808	G	C2'-C1'	-9.64	1.42	1.53
34	i	544	A	C2'-C1'	-9.62	1.42	1.53
34	i	1031	A	C2'-C1'	-9.62	1.42	1.53
34	i	88	G	C2'-C1'	-9.61	1.42	1.53
34	i	799	C	C2'-C1'	-9.61	1.42	1.53
34	i	419	C	O4'-C1'	9.61	1.54	1.41
34	i	13	C	C2'-C1'	-9.61	1.42	1.53
34	i	1251	G	O4'-C1'	9.60	1.54	1.41
34	i	448	A	O4'-C1'	9.59	1.54	1.41
34	i	1784	A	C2'-C1'	-9.58	1.42	1.53
34	i	67	C	O4'-C1'	-9.56	1.29	1.41
34	i	445	A	O4'-C1'	9.56	1.54	1.41
34	i	150	A	O4'-C1'	9.55	1.54	1.41
34	i	1707	A	C2'-C1'	-9.54	1.42	1.53
34	i	829	C	C2'-C1'	-9.54	1.42	1.53
34	i	31	U	C2'-C1'	9.54	1.63	1.53
34	i	457	G	O4'-C1'	9.53	1.54	1.41
34	i	1536	G	C2'-C1'	-9.53	1.42	1.53
34	i	1099	C	C2'-C1'	-9.53	1.42	1.53
34	i	1781	G	C2'-C1'	-9.53	1.42	1.53
34	i	1337	C	O4'-C1'	9.53	1.54	1.41
34	i	1742	C	O3'-P	-9.53	1.49	1.61
34	i	1296	U	O4'-C1'	-9.51	1.29	1.41
34	i	1790	G	C2'-C1'	-9.51	1.42	1.53
34	i	657	U	O4'-C1'	9.50	1.54	1.41
34	i	298	G	C2'-C1'	9.48	1.63	1.53
34	i	1548	C	C2'-C1'	9.47	1.63	1.53
34	i	1534	U	C2'-C1'	9.47	1.63	1.53
10	J	35	TYR	CD1-CE1	-9.46	1.25	1.39
19	S	6	PRO	CA-C	9.46	1.71	1.52
34	i	1464	C	O4'-C1'	9.46	1.53	1.41
34	i	1669	G	C2'-C1'	-9.45	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	884	U	O4'-C1'	9.45	1.53	1.41
34	i	1402	G	C2'-C1'	-9.45	1.43	1.53
34	i	1112	C	O4'-C1'	-9.43	1.29	1.41
34	i	1437	U	C2'-C1'	9.43	1.63	1.53
34	i	166	A	C2'-C1'	-9.42	1.43	1.53
34	i	1339	U	O4'-C1'	9.42	1.53	1.41
34	i	675	A	C2'-C1'	-9.42	1.43	1.53
34	i	285	U	O4'-C1'	9.42	1.53	1.41
34	i	1301	C	O4'-C1'	9.41	1.53	1.41
34	i	1440	U	C2'-C1'	-9.41	1.43	1.53
34	i	440	C	C2'-C1'	9.40	1.63	1.53
34	i	1029	G	O4'-C1'	9.40	1.53	1.41
34	i	1101	G	O4'-C1'	9.40	1.53	1.41
34	i	234	C	C2'-C1'	9.39	1.63	1.53
34	i	173	A	O4'-C1'	9.39	1.53	1.41
34	i	311	C	O4'-C1'	9.37	1.53	1.41
34	i	1713	G	C2'-C1'	-9.37	1.43	1.53
34	i	212	G	O4'-C1'	9.35	1.53	1.41
34	i	1025	G	O4'-C1'	9.35	1.53	1.41
34	i	614	C	O4'-C1'	9.33	1.53	1.41
34	i	927	C	O4'-C1'	9.33	1.53	1.41
34	i	726	C	O4'-C1'	9.33	1.53	1.41
34	i	980	C	O4'-C1'	9.33	1.53	1.41
34	i	1328	A	O4'-C1'	9.33	1.53	1.41
34	i	1118	A	C2'-C1'	9.30	1.63	1.53
34	i	1477	G	C2'-C1'	-9.30	1.43	1.53
34	i	944	C	O4'-C1'	9.29	1.53	1.41
4	D	96	LEU	C-N	9.28	1.55	1.34
34	i	1861	U	C2'-C1'	9.27	1.63	1.53
34	i	1335	U	P-O5'	-9.26	1.50	1.59
34	i	1622	C	O4'-C1'	9.24	1.53	1.41
34	i	939	U	O4'-C1'	9.24	1.53	1.41
34	i	1735	C	O4'-C1'	9.24	1.53	1.41
34	i	618	A	O4'-C1'	-9.24	1.29	1.41
34	i	1275	C	C2'-C1'	9.24	1.63	1.53
34	i	1365	A	C2'-C1'	-9.23	1.43	1.53
34	i	1557	C	O4'-C1'	9.23	1.53	1.41
34	i	481	C	O4'-C1'	9.23	1.53	1.41
34	i	790	A	O4'-C1'	9.22	1.53	1.41
34	i	1211	C	C2'-C1'	9.21	1.63	1.53
34	i	1618	A	C2'-C1'	9.20	1.63	1.53
34	i	1849	G	C2'-C1'	-9.19	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	367	G	C2'-C1'	-9.19	1.43	1.53
34	i	53	C	O4'-C1'	9.19	1.53	1.41
34	i	1729	G	O4'-C1'	9.19	1.53	1.41
34	i	1607	G	C2'-C1'	9.18	1.63	1.53
34	i	1460	C	O4'-C1'	9.18	1.53	1.41
34	i	666	C	O4'-C1'	9.16	1.53	1.41
34	i	678	U	O4'-C1'	-9.16	1.29	1.41
34	i	42	A	C2'-C1'	-9.15	1.43	1.53
34	i	332	C	O4'-C1'	9.14	1.53	1.41
34	i	666	C	C2'-C1'	-9.14	1.43	1.53
34	i	827	G	C2'-C1'	-9.14	1.43	1.53
34	i	405	A	C2'-C1'	9.14	1.63	1.53
19	S	40	TYR	CA-C	-9.14	1.29	1.52
34	i	650	C	C2'-C1'	-9.13	1.43	1.53
34	i	49	C	C2'-C1'	-9.11	1.43	1.53
34	i	683	G	O4'-C1'	9.11	1.53	1.41
34	i	1559	C	C2'-C1'	-9.11	1.43	1.53
34	i	1385	C	C2'-C1'	-9.11	1.43	1.53
34	i	1744	G	C2'-C1'	-9.10	1.43	1.53
34	i	895	U	O4'-C1'	9.09	1.53	1.41
2	B	155	TYR	CB-CG	-9.08	1.38	1.51
34	i	1040	G	C2'-C1'	-9.08	1.43	1.53
34	i	1177	A	C2'-C1'	-9.08	1.43	1.53
27	a	10	ARG	CD-NE	9.07	1.61	1.46
34	i	1565	G	O4'-C1'	-9.07	1.29	1.41
34	i	171	A	O4'-C1'	-9.06	1.29	1.41
34	i	804	A	O4'-C1'	9.06	1.53	1.41
34	i	1850	C	O4'-C1'	9.06	1.53	1.41
34	i	1780	U	O4'-C1'	9.04	1.53	1.41
3	C	47	PRO	N-CD	9.04	1.60	1.47
34	i	1028	C	C2'-C1'	-9.04	1.43	1.53
34	i	1341	G	O4'-C1'	9.04	1.53	1.41
8	H	109	ARG	CA-CB	-9.03	1.34	1.53
34	i	106	C	O4'-C1'	9.04	1.53	1.41
34	i	1049	C	O4'-C1'	9.03	1.53	1.41
34	i	972	G	C2'-C1'	-9.02	1.43	1.53
34	i	373	G	O4'-C1'	9.02	1.53	1.41
34	i	1018	U	O4'-C1'	9.02	1.53	1.41
34	i	69	C	O4'-C1'	9.01	1.53	1.41
34	i	653	C	O4'-C1'	9.00	1.53	1.41
34	i	1646	A	C2'-C1'	9.00	1.63	1.53
34	i	211	U	O4'-C1'	8.98	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1647	G	C2'-C1'	-8.97	1.43	1.53
34	i	41	G	O4'-C1'	8.96	1.53	1.41
34	i	677	C	C2'-C1'	-8.96	1.43	1.53
34	i	900	A	C2'-C1'	-8.95	1.43	1.53
34	i	1533	C	O4'-C1'	8.95	1.53	1.41
34	i	204	G	C2'-C1'	8.93	1.63	1.53
34	i	1385	C	O4'-C1'	8.92	1.53	1.41
34	i	170	A	C2'-C1'	-8.90	1.43	1.53
34	i	1791	U	O4'-C1'	8.90	1.53	1.41
34	i	292	A	C2'-C1'	8.88	1.63	1.53
27	a	97	PRO	C-N	8.88	1.51	1.34
34	i	1288	C	C2'-C1'	-8.87	1.43	1.53
34	i	1829	A	O4'-C1'	8.87	1.53	1.41
34	i	939	U	C2'-C1'	-8.85	1.43	1.53
34	i	1336	U	C2'-C1'	8.85	1.63	1.53
34	i	1176	C	C2'-C1'	-8.85	1.43	1.53
34	i	883	U	O4'-C1'	-8.84	1.30	1.41
34	i	1142	C	O4'-C1'	8.84	1.53	1.41
34	i	178	C	O4'-C1'	8.83	1.53	1.41
34	i	220	C	O4'-C1'	8.83	1.53	1.41
34	i	1039	G	C2'-C1'	-8.83	1.43	1.53
34	i	1678	C	C2'-C1'	-8.82	1.43	1.53
34	i	1407	G	O4'-C1'	8.81	1.53	1.41
34	i	69	C	C2'-C1'	-8.81	1.43	1.53
34	i	1054	A	O4'-C1'	8.81	1.53	1.41
34	i	1571	G	O4'-C1'	8.81	1.53	1.41
34	i	853	U	O4'-C1'	8.80	1.53	1.41
34	i	1478	C	O4'-C1'	8.80	1.53	1.41
7	G	36	VAL	CB-CG1	-8.79	1.34	1.52
34	i	1465	A	O4'-C1'	8.80	1.53	1.41
34	i	510	A	O4'-C1'	8.79	1.53	1.41
34	i	380	C	O4'-C1'	8.78	1.53	1.41
34	i	97	U	O4'-C1'	8.77	1.53	1.41
19	S	54	LYS	CA-C	8.76	1.75	1.52
34	i	1218	G	C2'-C1'	-8.76	1.43	1.53
34	i	1706	U	C2'-C1'	-8.76	1.43	1.53
34	i	1692	A	C2'-C1'	8.76	1.62	1.53
34	i	1104	G	O4'-C1'	-8.76	1.30	1.41
34	i	1370	C	O4'-C1'	8.75	1.53	1.41
34	i	575	C	O4'-C1'	8.75	1.53	1.41
34	i	1456	C	O4'-C1'	8.74	1.53	1.41
34	i	813	G	C2'-C1'	-8.74	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	432	C	C2'-C1'	-8.73	1.43	1.53
34	i	574	A	C2'-C1'	-8.73	1.43	1.53
34	i	194	C	O4'-C1'	8.73	1.52	1.41
34	i	936	U	O4'-C1'	8.71	1.52	1.41
34	i	26	U	O4'-C1'	8.71	1.52	1.41
34	i	1221	U	O4'-C1'	8.70	1.52	1.41
34	i	1225	G	C2'-C1'	-8.70	1.43	1.53
34	i	1221	U	C2'-C1'	-8.69	1.43	1.53
34	i	324	C	C2'-C1'	-8.68	1.43	1.53
34	i	1434	A	O4'-C1'	8.67	1.52	1.41
34	i	189	G	O4'-C1'	8.66	1.52	1.41
34	i	540	C	O4'-C1'	8.66	1.52	1.41
34	i	1560	C	O4'-C1'	8.66	1.52	1.41
34	i	844	U	O4'-C1'	8.66	1.52	1.41
34	i	1775	A	O4'-C1'	8.66	1.52	1.41
34	i	1813	A	O4'-C1'	8.65	1.52	1.41
34	i	670	G	O4'-C1'	8.64	1.52	1.41
34	i	1158	C	O4'-C1'	8.63	1.52	1.41
34	i	989	G	C2'-C1'	-8.62	1.43	1.53
34	i	354	A	C2'-C1'	-8.62	1.43	1.53
34	i	807	A	C2'-C1'	-8.62	1.43	1.53
34	i	30	C	O4'-C1'	8.61	1.52	1.41
34	i	50	A	O4'-C1'	8.61	1.52	1.41
34	i	1822	C	C2'-C1'	-8.61	1.43	1.53
34	i	1085	G	C2'-C1'	-8.60	1.43	1.53
34	i	168	C	C2'-C1'	-8.59	1.44	1.53
34	i	688	U	C2'-C1'	-8.58	1.44	1.53
34	i	1068	U	C2'-C1'	8.58	1.62	1.53
34	i	235	C	O4'-C1'	8.58	1.52	1.41
34	i	441	G	C2'-C1'	-8.58	1.44	1.53
34	i	1611	U	O4'-C1'	8.57	1.52	1.41
34	i	1414	C	C2'-C1'	-8.57	1.44	1.53
34	i	107	A	C2'-C1'	8.57	1.62	1.53
34	i	376	C	C2'-C1'	-8.57	1.44	1.53
34	i	147	A	C2'-C1'	8.56	1.62	1.53
34	i	1267	C	C2'-C1'	-8.56	1.44	1.53
34	i	17	C	O4'-C1'	8.56	1.52	1.41
34	i	543	U	O4'-C1'	8.56	1.52	1.41
34	i	1345	G	O4'-C1'	8.56	1.52	1.41
34	i	1825	A	O4'-C1'	8.55	1.52	1.41
34	i	1212	C	O4'-C1'	8.55	1.52	1.41
34	i	661	A	C2'-C1'	-8.55	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1624	C	O4'-C1'	8.54	1.52	1.41
34	i	453	C	O4'-C1'	8.54	1.52	1.41
34	i	33	G	C2'-C1'	-8.53	1.44	1.53
34	i	1630	C	O4'-C1'	8.53	1.52	1.41
34	i	990	C	C2'-C1'	-8.52	1.44	1.53
34	i	148	U	C2'-C1'	8.51	1.62	1.53
34	i	409	G	O4'-C1'	8.51	1.52	1.41
34	i	1440	U	O4'-C1'	8.50	1.52	1.41
34	i	443	C	O4'-C1'	8.49	1.52	1.41
34	i	649	G	O4'-C1'	-8.49	1.30	1.41
34	i	1185	A	O4'-C1'	8.49	1.52	1.41
34	i	1331	G	C2'-C1'	-8.49	1.44	1.53
34	i	1532	A	C2'-C1'	8.48	1.62	1.53
34	i	1527	C	O4'-C1'	8.48	1.52	1.41
34	i	1325	U	O4'-C1'	8.48	1.52	1.41
34	i	1495	U	C2'-C1'	-8.46	1.44	1.53
34	i	1490	U	C2'-C1'	8.46	1.62	1.53
34	i	1223	G	O4'-C1'	8.45	1.52	1.41
34	i	1264	C	O4'-C1'	8.44	1.52	1.41
34	i	824	G	O4'-C1'	-8.44	1.30	1.41
34	i	1569	C	C2'-C1'	-8.43	1.44	1.53
34	i	313	C	C2'-C1'	-8.43	1.44	1.53
34	i	1304	U	O4'-C1'	-8.43	1.30	1.41
10	J	164	PRO	C-N	8.43	1.53	1.34
34	i	625	G	C2'-C1'	-8.42	1.44	1.53
34	i	1200	A	C2'-C1'	-8.41	1.44	1.53
4	D	4	GLN	N-CA	-8.40	1.29	1.46
34	i	165	G	C2'-C1'	8.40	1.62	1.53
34	i	361	A	C2'-C1'	-8.40	1.44	1.53
34	i	1577	C	O4'-C1'	8.40	1.52	1.41
34	i	236	C	O4'-C1'	8.39	1.52	1.41
34	i	965	U	O4'-C1'	8.38	1.52	1.41
34	i	1807	A	O4'-C1'	8.38	1.52	1.41
34	i	937	C	O4'-C1'	8.37	1.52	1.41
34	i	1476	A	O4'-C1'	8.37	1.52	1.41
34	i	625	G	O4'-C1'	8.36	1.52	1.41
34	i	537	G	C2'-C1'	-8.36	1.44	1.53
34	i	923	C	O4'-C1'	8.36	1.52	1.41
34	i	1138	G	C2'-C1'	8.35	1.62	1.53
34	i	1295	A	C2'-C1'	8.35	1.62	1.53
34	i	1309	A	O4'-C1'	8.35	1.52	1.41
34	i	528	U	O4'-C1'	8.35	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	941	U	C2'-C1'	-8.35	1.44	1.53
34	i	1661	C	O4'-C1'	8.35	1.52	1.41
34	i	72	C	C2'-C1'	8.34	1.62	1.53
34	i	176	U	O4'-C1'	8.34	1.52	1.41
34	i	824	G	C2'-C1'	-8.34	1.44	1.53
34	i	832	G	C2'-C1'	8.33	1.62	1.53
34	i	596	G	O4'-C1'	-8.33	1.30	1.41
34	i	902	U	O4'-C1'	8.32	1.52	1.41
34	i	1292	U	C2'-C1'	-8.32	1.44	1.53
34	i	159	A	O4'-C1'	8.31	1.52	1.41
34	i	1079	A	O4'-C1'	8.31	1.52	1.41
34	i	219	U	O4'-C1'	8.31	1.52	1.41
34	i	1672	U	C2'-C1'	8.30	1.62	1.53
34	i	187	C	C2'-C1'	-8.29	1.44	1.53
34	i	1679	C	O4'-C1'	8.29	1.52	1.41
34	i	53	C	C2'-C1'	8.29	1.62	1.53
34	i	1304	U	C2'-C1'	8.29	1.62	1.53
34	i	1183	G	O4'-C1'	8.28	1.52	1.41
34	i	348	C	O4'-C1'	8.27	1.52	1.41
34	i	462	C	C2'-C1'	-8.27	1.44	1.53
34	i	1168	U	C2'-C1'	8.27	1.62	1.53
34	i	908	C	O4'-C1'	8.26	1.52	1.41
34	i	593	C	O4'-C1'	8.25	1.52	1.41
34	i	676	U	C2'-C1'	8.25	1.62	1.53
34	i	1785	A	O4'-C1'	8.25	1.52	1.41
34	i	557	C	O4'-C1'	8.24	1.52	1.41
34	i	1252	G	O4'-C1'	8.24	1.52	1.41
34	i	1367	U	O4'-C1'	8.24	1.52	1.41
34	i	1861	U	O4'-C1'	-8.23	1.30	1.41
34	i	40	A	C2'-C1'	8.22	1.62	1.53
34	i	1019	A	C2'-C1'	8.22	1.62	1.53
34	i	465	C	C2'-C1'	-8.22	1.44	1.53
34	i	918	A	C2'-C1'	8.21	1.62	1.53
34	i	875	C	O4'-C1'	8.20	1.52	1.41
34	i	18	C	C2'-C1'	-8.19	1.44	1.53
34	i	1102	C	C2'-C1'	8.19	1.62	1.53
34	i	1001	G	C2'-C1'	-8.18	1.44	1.53
35	l	67	PHE	CD2-CE2	-8.18	1.22	1.39
34	i	1401	A	C2'-C1'	-8.18	1.44	1.53
34	i	1075	C	C2'-C1'	-8.18	1.44	1.53
34	i	1480	A	O4'-C1'	8.18	1.52	1.41
34	i	1086	C	O4'-C1'	8.17	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	741	C	O3'-P	-8.16	1.51	1.61
34	i	943	G	C2'-C1'	-8.16	1.44	1.53
34	i	303	G	C2'-C1'	8.16	1.62	1.53
34	i	1699	C	C2'-C1'	-8.16	1.44	1.53
34	i	164	A	O4'-C1'	8.16	1.52	1.41
34	i	57	U	C2'-C1'	8.16	1.62	1.53
34	i	1140	A	O4'-C1'	8.16	1.52	1.41
34	i	1824	U	O4'-C1'	8.16	1.52	1.41
34	i	1394	G	C2'-C1'	-8.15	1.44	1.53
34	i	1425	G	O3'-P	-8.15	1.51	1.61
34	i	835	C	C2'-C1'	-8.14	1.44	1.53
34	i	955	G	C2'-C1'	-8.14	1.44	1.53
34	i	739	U	O4'-C1'	8.12	1.52	1.41
34	i	537	G	O4'-C1'	8.12	1.52	1.41
34	i	727	G	O4'-C1'	8.12	1.52	1.41
34	i	1447	G	C2'-C1'	-8.12	1.44	1.53
34	i	1261	A	O4'-C1'	8.11	1.52	1.41
34	i	1840	G	C2'-C1'	-8.11	1.44	1.53
34	i	1059	C	C2'-C1'	-8.11	1.44	1.53
34	i	1390	G	O4'-C1'	8.11	1.52	1.41
34	i	1028	C	O4'-C1'	8.09	1.52	1.41
34	i	317	G	O4'-C1'	-8.08	1.31	1.41
3	C	193	PRO	N-CD	8.08	1.59	1.47
34	i	1558	G	C2'-C1'	-8.08	1.44	1.53
34	i	1487	G	C2'-C1'	-8.07	1.44	1.53
34	i	1663	U	P-O5'	-8.07	1.51	1.59
34	i	618	A	C2'-C1'	8.06	1.62	1.53
34	i	1794	A	O4'-C1'	8.06	1.52	1.41
34	i	1450	A	O4'-C1'	8.06	1.52	1.41
34	i	1201	C	O4'-C1'	8.06	1.52	1.41
34	i	1279	C	C2'-C1'	-8.06	1.44	1.53
19	S	95	TYR	CD1-CE1	-8.05	1.27	1.39
34	i	463	A	O4'-C1'	8.05	1.52	1.41
34	i	948	G	C2'-C1'	-8.04	1.44	1.53
34	i	152	U	C2'-C1'	-8.04	1.44	1.53
34	i	1522	C	O4'-C1'	8.04	1.52	1.41
34	i	959	A	O4'-C1'	-8.04	1.31	1.41
34	i	1386	U	C2'-C1'	-8.03	1.44	1.53
34	i	624	A	O4'-C1'	8.03	1.52	1.41
34	i	86	C	C2'-C1'	-8.02	1.44	1.53
34	i	492	C	O4'-C1'	8.02	1.52	1.41
34	i	924	G	C2'-C1'	-8.02	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1705	C	O4'-C1'	8.02	1.52	1.41
20	T	4	VAL	C-N	8.01	1.52	1.34
34	i	1733	C	C2'-C1'	-8.01	1.44	1.53
34	i	1537	C	C2'-C1'	-8.01	1.44	1.53
34	i	1800	A	C2'-C1'	-8.01	1.44	1.53
34	i	1061	G	C2'-C1'	-8.01	1.44	1.53
34	i	863	G	O4'-C1'	8.00	1.52	1.41
34	i	369	C	O4'-C1'	8.00	1.52	1.41
34	i	1046	A	C2'-C1'	-8.00	1.44	1.53
34	i	1107	U	O4'-C1'	8.00	1.52	1.41
7	G	36	VAL	CA-CB	-7.99	1.38	1.54
34	i	26	U	C2'-C1'	-7.99	1.44	1.53
34	i	953	A	C2'-C1'	-7.99	1.44	1.53
34	i	302	C	C2'-C1'	-7.99	1.44	1.53
34	i	1623	C	O4'-C1'	7.99	1.52	1.41
18	R	89	SER	CA-C	7.99	1.73	1.52
34	i	37	C	C2'-C1'	-7.99	1.44	1.53
34	i	599	U	O4'-C1'	7.98	1.52	1.41
34	i	607	G	C2'-C1'	-7.98	1.44	1.53
34	i	1327	C	O4'-C1'	7.98	1.52	1.41
34	i	1150	U	O4'-C1'	-7.97	1.31	1.41
34	i	1535	G	C2'-C1'	-7.97	1.44	1.53
34	i	486	C	C2'-C1'	-7.97	1.44	1.53
34	i	1579	G	O4'-C1'	7.97	1.52	1.41
34	i	630	A	O4'-C1'	7.96	1.52	1.41
34	i	829	C	O4'-C1'	7.95	1.51	1.41
34	i	988	A	O4'-C1'	7.95	1.51	1.41
34	i	1818	A	O4'-C1'	-7.95	1.31	1.41
34	i	338	A	C2'-C1'	-7.93	1.44	1.53
34	i	1482	A	P-O5'	-7.93	1.51	1.59
34	i	557	C	C2'-C1'	-7.92	1.44	1.53
34	i	1604	C	O4'-C1'	7.92	1.51	1.41
34	i	1446	G	C2'-C1'	-7.91	1.44	1.53
34	i	536	G	O4'-C1'	7.90	1.51	1.41
34	i	189	G	C2'-C1'	-7.90	1.44	1.53
34	i	1652	G	C2'-C1'	-7.90	1.44	1.53
7	G	131	ARG	N-CA	-7.88	1.30	1.46
34	i	1857	A	C2'-C1'	7.88	1.62	1.53
34	i	399	C	O4'-C1'	7.87	1.51	1.41
34	i	336	C	O4'-C1'	7.87	1.51	1.41
34	i	930	G	C2'-C1'	-7.87	1.44	1.53
34	i	1123	C	O4'-C1'	7.87	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1592	C	C2'-C1'	-7.86	1.44	1.53
34	i	1403	U	O4'-C1'	7.86	1.51	1.41
34	i	969	C	O4'-C1'	7.85	1.51	1.41
34	i	1321	G	O4'-C1'	7.85	1.51	1.41
34	i	1480	A	C2'-C1'	-7.84	1.44	1.53
34	i	190	A	O4'-C1'	7.83	1.51	1.41
34	i	1126	G	O4'-C1'	-7.83	1.31	1.41
34	i	337	G	O4'-C1'	7.81	1.51	1.41
34	i	447	C	O4'-C1'	7.79	1.51	1.41
34	i	1664	G	C2'-C1'	-7.77	1.44	1.53
34	i	1027	A	O4'-C1'	7.76	1.51	1.41
34	i	521	A	O3'-P	-7.76	1.51	1.61
34	i	211	U	O3'-P	-7.76	1.51	1.61
34	i	1687	U	C2'-C1'	-7.75	1.44	1.53
34	i	880	C	O4'-C1'	7.75	1.51	1.41
34	i	1638	U	O4'-C1'	7.75	1.51	1.41
34	i	29	G	C2'-C1'	-7.75	1.44	1.53
34	i	275	C	O4'-C1'	7.74	1.51	1.41
34	i	1071	C	O4'-C1'	7.74	1.51	1.41
34	i	1796	C	O4'-C1'	7.74	1.51	1.41
34	i	1444	A	C2'-C1'	-7.73	1.44	1.53
34	i	685	G	C1'-N9	-7.73	1.36	1.46
34	i	563	U	O4'-C1'	7.73	1.51	1.41
34	i	452	C	O4'-C1'	7.72	1.51	1.41
7	G	130	PRO	C-N	-7.72	1.16	1.34
34	i	200	U	C2'-C1'	-7.72	1.44	1.53
34	i	566	A	C2'-C1'	-7.72	1.44	1.53
34	i	37	C	O4'-C1'	7.71	1.51	1.41
34	i	49	C	O4'-C1'	7.71	1.51	1.41
34	i	119	U	C2'-C1'	-7.70	1.44	1.53
34	i	171	A	C2'-C1'	7.70	1.61	1.53
34	i	355	C	C2'-C1'	-7.70	1.44	1.53
34	i	876	G	C2'-C1'	7.70	1.61	1.53
34	i	368	U	C2'-C1'	-7.69	1.44	1.53
34	i	846	C	C2'-C1'	-7.69	1.44	1.53
34	i	1392	A	C2'-C1'	7.69	1.61	1.53
34	i	1385	C	P-O5'	-7.69	1.52	1.59
34	i	1332	C	O4'-C1'	7.69	1.51	1.41
34	i	874	G	C2'-C1'	-7.67	1.45	1.53
34	i	1187	C	O4'-C1'	7.67	1.51	1.41
34	i	872	C	O4'-C1'	7.67	1.51	1.41
34	i	60	A	O4'-C1'	-7.66	1.31	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1299	C	O4'-C1'	-7.65	1.31	1.41
34	i	544	A	O4'-C1'	-7.64	1.31	1.41
34	i	1245	C	O4'-C1'	7.64	1.51	1.41
34	i	1382	A	O4'-C1'	7.64	1.51	1.41
10	J	35	TYR	CD2-CE2	-7.63	1.27	1.39
34	i	725	C	O4'-C1'	7.63	1.51	1.41
34	i	1423	C	O4'-C1'	7.63	1.51	1.41
19	S	82	TRP	CA-CB	-7.63	1.37	1.53
34	i	1398	A	C2'-C1'	-7.62	1.45	1.53
34	i	226	A	C2'-C1'	-7.62	1.45	1.53
34	i	864	G	C2'-C1'	-7.62	1.45	1.53
34	i	460	G	C2'-C1'	-7.61	1.45	1.53
34	i	820	C	O4'-C1'	7.61	1.51	1.41
34	i	938	G	O4'-C1'	7.60	1.51	1.41
34	i	194	C	C2'-C1'	-7.60	1.45	1.53
34	i	1823	G	O4'-C1'	7.60	1.51	1.41
34	i	604	G	C1'-N9	-7.59	1.36	1.46
34	i	1633	G	O4'-C1'	7.59	1.51	1.41
34	i	449	C	C2'-C1'	-7.59	1.45	1.53
34	i	151	C	P-O5'	-7.58	1.52	1.59
34	i	377	C	C2'-C1'	-7.58	1.45	1.53
34	i	518	A	O4'-C1'	7.58	1.51	1.41
34	i	1045	A	O4'-C1'	-7.58	1.31	1.41
34	i	859	U	O4'-C1'	7.58	1.51	1.41
34	i	1343	U	O4'-C1'	7.58	1.51	1.41
34	i	271	G	O3'-P	-7.57	1.52	1.61
34	i	689	G	C1'-N9	-7.57	1.36	1.46
34	i	818	U	O4'-C1'	7.56	1.51	1.41
34	i	515	A	C2'-C1'	-7.56	1.45	1.53
34	i	202	U	C2'-C1'	-7.55	1.45	1.53
34	i	1493	G	O4'-C1'	7.55	1.51	1.41
34	i	278	U	O4'-C1'	7.55	1.51	1.41
34	i	1814	G	C2'-C1'	-7.55	1.45	1.53
34	i	1384	A	O4'-C1'	7.54	1.51	1.41
34	i	1041	U	O4'-C1'	7.54	1.51	1.41
34	i	1423	C	C2'-C1'	7.54	1.61	1.53
34	i	38	A	C2'-C1'	7.53	1.61	1.53
34	i	846	C	O4'-C1'	7.53	1.51	1.41
34	i	442	G	O4'-C1'	7.51	1.51	1.41
34	i	1292	U	O4'-C1'	7.50	1.51	1.41
7	G	170	ARG	CA-CB	7.50	1.70	1.53
34	i	1676	U	C2'-C1'	-7.49	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1799	G	O4'-C1'	7.49	1.51	1.41
34	i	1145	A	C2'-C1'	-7.49	1.45	1.53
34	i	386	U	O4'-C1'	7.48	1.51	1.41
34	i	1472	A	C2'-C1'	7.47	1.61	1.53
34	i	933	C	C2'-C1'	-7.47	1.45	1.53
34	i	95	G	C2'-C1'	-7.47	1.45	1.53
34	i	342	U	O4'-C1'	7.47	1.51	1.41
34	i	485	U	C2'-C1'	-7.46	1.45	1.53
34	i	1808	G	O4'-C1'	7.46	1.51	1.41
34	i	1138	G	O4'-C1'	-7.46	1.31	1.41
34	i	514	U	O4'-C1'	7.45	1.51	1.41
34	i	1835	C	C2'-C1'	-7.45	1.45	1.53
34	i	1626	U	C2'-C1'	-7.45	1.45	1.53
34	i	1260	C	O4'-C1'	7.45	1.51	1.41
34	i	621	U	C2'-C1'	-7.44	1.45	1.53
34	i	845	A	O4'-C1'	7.44	1.51	1.41
34	i	1345	G	C2'-C1'	-7.44	1.45	1.53
34	i	1123	C	C2'-C1'	-7.43	1.45	1.53
34	i	1778	G	C2'-C1'	-7.43	1.45	1.53
34	i	360	G	O4'-C1'	7.43	1.51	1.41
34	i	1137	G	O4'-C1'	-7.43	1.31	1.41
34	i	1006	G	C2'-C1'	7.43	1.61	1.53
34	i	399	C	C2'-C1'	-7.42	1.45	1.53
34	i	485	U	O4'-C1'	7.42	1.51	1.41
34	i	686	G	C2'-C1'	-7.41	1.45	1.53
34	i	493	C	O4'-C1'	7.41	1.51	1.41
34	i	656	U	O4'-C1'	7.41	1.51	1.41
34	i	1186	A	O4'-C1'	7.41	1.51	1.41
34	i	1151	U	O4'-C1'	7.40	1.51	1.41
10	J	164	PRO	N-CA	-7.40	1.34	1.47
34	i	1465	A	C2'-C1'	-7.40	1.45	1.53
34	i	343	C	O4'-C1'	7.39	1.51	1.41
34	i	1568	G	O4'-C1'	7.39	1.51	1.41
34	i	428	G	O4'-C1'	-7.39	1.32	1.41
34	i	1091	U	O4'-C1'	7.38	1.51	1.41
34	i	1850	C	C2'-C1'	-7.38	1.45	1.53
34	i	1340	A	O4'-C1'	7.37	1.51	1.41
34	i	3	C	C2'-C1'	7.36	1.61	1.53
34	i	982	G	C2'-C1'	-7.36	1.45	1.53
34	i	1313	U	O4'-C1'	7.36	1.51	1.41
34	i	1758	G	C5'-C4'	7.36	1.60	1.51
34	i	840	U	O4'-C1'	7.36	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	798	A	O4'-C1'	7.35	1.51	1.41
34	i	213	C	O4'-C1'	7.34	1.51	1.41
34	i	86	C	O4'-C1'	7.34	1.51	1.41
34	i	1798	U	O4'-C1'	7.34	1.51	1.41
34	i	347	C	O4'-C1'	7.33	1.51	1.41
34	i	1434	A	C2'-C1'	7.32	1.61	1.53
34	i	516	A	C2'-C1'	-7.30	1.45	1.53
34	i	743	U	O3'-P	-7.30	1.52	1.61
34	i	596	G	C2'-C1'	-7.30	1.45	1.53
34	i	1424	G	C2'-C1'	7.30	1.61	1.53
34	i	488	C	C2'-C1'	-7.30	1.45	1.53
10	J	91	LYS	C-O	-7.29	1.09	1.23
34	i	327	C	O4'-C1'	7.29	1.51	1.41
34	i	1363	U	O4'-C1'	7.29	1.51	1.41
34	i	86	C	P-O5'	-7.29	1.52	1.59
34	i	652	G	O4'-C1'	7.28	1.51	1.41
34	i	120	U	O4'-C1'	7.28	1.51	1.41
6	F	108	PRO	N-CD	7.27	1.58	1.47
34	i	1045	A	C2'-C1'	7.27	1.61	1.53
34	i	223	A	O4'-C1'	7.27	1.51	1.41
34	i	361	A	O4'-C1'	7.27	1.51	1.41
34	i	820	C	C2'-C1'	-7.27	1.45	1.53
14	N	137	PRO	N-CD	7.26	1.58	1.47
34	i	1059	C	O4'-C1'	7.26	1.51	1.41
16	P	122	THR	CA-CB	7.26	1.72	1.53
34	i	404	A	C2'-C1'	7.25	1.61	1.53
34	i	960	A	C2'-C1'	7.25	1.61	1.53
34	i	856	G	O4'-C1'	7.25	1.51	1.41
34	i	1293	U	C2'-C1'	7.25	1.61	1.53
9	I	3	ILE	CA-CB	-7.25	1.38	1.54
34	i	871	A	C2'-C1'	-7.24	1.45	1.53
34	i	85	A	O4'-C1'	7.24	1.51	1.41
34	i	456	G	C4'-C3'	7.23	1.61	1.53
34	i	225	C	O3'-P	-7.22	1.52	1.61
34	i	897	G	C2'-C1'	-7.22	1.45	1.53
34	i	1839	A	C2'-C1'	-7.22	1.45	1.53
34	i	1096	A	C2'-C1'	-7.22	1.45	1.53
34	i	216	U	O4'-C1'	7.21	1.51	1.41
34	i	470	G	C2'-C1'	-7.21	1.45	1.53
34	i	1223	G	C2'-C1'	-7.20	1.45	1.53
34	i	632	U	O4'-C1'	7.19	1.51	1.41
34	i	74	G	O4'-C1'	7.19	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	576	G	O4'-C1'	7.19	1.50	1.41
34	i	1668	U	C2'-C1'	-7.18	1.45	1.53
34	i	1008	A	C2'-C1'	-7.18	1.45	1.53
34	i	42	A	O4'-C1'	7.17	1.50	1.41
34	i	1405	A	O4'-C1'	7.17	1.50	1.41
34	i	660	A	O4'-C1'	-7.16	1.32	1.41
34	i	1387	C	C2'-C1'	-7.16	1.45	1.53
34	i	1489	C	C2'-C1'	7.16	1.61	1.53
34	i	916	A	O4'-C1'	7.14	1.50	1.41
34	i	1460	C	C2'-C1'	-7.14	1.45	1.53
34	i	632	U	C2'-C1'	-7.14	1.45	1.53
34	i	1355	U	C2'-C1'	7.14	1.61	1.53
34	i	937	C	C2'-C1'	-7.13	1.45	1.53
34	i	1259	U	C5'-C4'	7.13	1.59	1.51
25	Y	91	LEU	C-N	7.13	1.50	1.34
34	i	35	C	C2'-C1'	-7.12	1.45	1.53
34	i	1033	G	C2'-C1'	-7.12	1.45	1.53
7	G	131	ARG	CB-CG	7.11	1.71	1.52
34	i	818	U	C2'-C1'	-7.10	1.45	1.53
34	i	6	G	C2'-C1'	-7.10	1.45	1.53
34	i	382	A	C2'-C1'	-7.08	1.45	1.53
34	i	1583	A	O4'-C1'	7.08	1.50	1.41
34	i	1741	U	O3'-P	7.07	1.69	1.61
34	i	742	C	C2'-C1'	-7.07	1.45	1.53
8	H	111	LYS	CA-C	-7.07	1.34	1.52
34	i	735	C	C2'-C1'	-7.07	1.45	1.53
34	i	1654	U	O3'-P	-7.06	1.52	1.61
34	i	880	C	C2'-C1'	-7.05	1.45	1.53
34	i	860	A	C2'-C1'	-7.05	1.45	1.53
34	i	609	A	C2'-C1'	7.04	1.61	1.53
34	i	1717	G	O4'-C1'	7.04	1.50	1.41
34	i	104	A	O4'-C1'	7.03	1.50	1.41
34	i	390	C	C2'-C1'	-7.03	1.45	1.53
34	i	1250	C	O4'-C1'	7.03	1.50	1.41
34	i	1723	U	O4'-C1'	7.03	1.50	1.41
34	i	655	G	C2'-C1'	-7.02	1.45	1.53
34	i	418	U	C2'-C1'	7.01	1.61	1.53
24	X	24	ASP	CA-C	-7.01	1.34	1.52
2	B	133	TYR	CB-CG	-7.00	1.41	1.51
34	i	1043	C	C2'-C1'	-7.00	1.45	1.53
34	i	1125	G	C2'-C1'	-6.99	1.45	1.53
34	i	1256	A	C2'-C1'	-6.99	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1395	C	O4'-C1'	6.99	1.50	1.41
10	J	35	TYR	CE1-CZ	-6.98	1.29	1.38
34	i	959	A	C2'-C1'	-6.98	1.45	1.53
34	i	81	U	O4'-C1'	6.97	1.50	1.41
34	i	1021	U	C2'-C1'	6.97	1.61	1.53
34	i	983	A	O4'-C1'	6.97	1.50	1.41
34	i	668	U	O4'-C1'	6.97	1.50	1.41
34	i	1670	A	O4'-C1'	-6.96	1.32	1.41
34	i	556	U	C2'-C1'	6.95	1.60	1.53
34	i	876	G	O4'-C1'	-6.95	1.32	1.41
34	i	1174	U	C2'-C1'	-6.94	1.45	1.53
34	i	1681	G	C2'-C1'	-6.94	1.45	1.53
34	i	988	A	C2'-C1'	-6.93	1.45	1.53
34	i	1419	C	C2'-C1'	-6.93	1.45	1.53
34	i	1303	U	C2'-C1'	6.93	1.60	1.53
34	i	172	U	O4'-C1'	6.92	1.50	1.41
3	C	93	LYS	C-N	-6.92	1.18	1.34
34	i	1211	C	O4'-C1'	6.92	1.50	1.41
34	i	601	G	O4'-C1'	6.92	1.50	1.41
34	i	1175	G	C2'-C1'	-6.92	1.45	1.53
34	i	118	C	O4'-C1'	6.92	1.50	1.41
34	i	325	G	C2'-C1'	6.92	1.60	1.53
34	i	1519	G	O4'-C1'	-6.91	1.32	1.41
34	i	1836	C	C2'-C1'	-6.91	1.45	1.53
34	i	1054	A	C2'-C1'	-6.91	1.45	1.53
34	i	264	U	O3'-P	-6.91	1.52	1.61
34	i	619	A	C2'-C1'	6.91	1.60	1.53
34	i	231	C	C2'-C1'	-6.90	1.45	1.53
34	i	1255	A	O4'-C1'	-6.90	1.32	1.41
34	i	1044	G	C5'-C4'	6.90	1.59	1.51
34	i	1805	C	C2'-C1'	-6.90	1.45	1.53
34	i	1528	A	C2'-C1'	-6.89	1.45	1.53
34	i	1784	A	O4'-C1'	6.89	1.50	1.41
34	i	899	A	O4'-C1'	-6.89	1.32	1.41
34	i	1514	U	C2'-C1'	6.89	1.60	1.53
34	i	1731	G	C2'-C1'	-6.88	1.45	1.53
24	X	128	VAL	CA-CB	-6.88	1.40	1.54
34	i	674	G	C2'-C1'	-6.87	1.45	1.53
34	i	811	U	O4'-C1'	6.87	1.50	1.41
34	i	1696	C	O4'-C1'	6.87	1.50	1.41
34	i	812	A	C2'-C1'	-6.87	1.45	1.53
34	i	1782	A	O4'-C1'	6.87	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1691	C	C2'-C1'	-6.86	1.45	1.53
34	i	46	A	C2'-C1'	-6.86	1.45	1.53
34	i	823	A	O4'-C1'	6.85	1.50	1.41
34	i	464	G	C2'-C1'	-6.84	1.45	1.53
34	i	1843	G	C2'-C1'	-6.84	1.45	1.53
34	i	1039	G	O4'-C1'	6.84	1.50	1.41
34	i	59	U	C2'-C1'	6.83	1.60	1.53
34	i	969	C	C5'-C4'	6.83	1.59	1.51
34	i	996	C	O4'-C1'	6.83	1.50	1.41
34	i	489	G	C2'-C1'	-6.82	1.45	1.53
34	i	903	G	O4'-C1'	6.82	1.50	1.41
24	X	126	ALA	CA-CB	-6.81	1.38	1.52
34	i	1525	U	O4'-C1'	6.81	1.50	1.41
34	i	1391	C	O4'-C1'	6.80	1.50	1.41
34	i	434	G	O4'-C1'	-6.80	1.32	1.41
34	i	1032	A	C2'-C1'	-6.80	1.45	1.53
34	i	1621	C	O4'-C1'	6.80	1.50	1.41
34	i	1734	C	C2'-C1'	-6.80	1.45	1.53
34	i	435	A	O4'-C1'	6.79	1.50	1.41
19	S	95	TYR	CE1-CZ	-6.79	1.29	1.38
34	i	65	C	C2'-C1'	6.79	1.60	1.53
34	i	946	C	C2'-C1'	-6.79	1.45	1.53
34	i	1283	A	C2'-C1'	6.78	1.60	1.53
34	i	14	C	O4'-C1'	6.78	1.50	1.41
34	i	438	A	C2'-C1'	6.78	1.60	1.53
34	i	442	G	C2'-C1'	-6.76	1.46	1.53
34	i	470	G	O4'-C1'	6.75	1.50	1.41
34	i	941	U	O4'-C1'	6.75	1.50	1.41
34	i	1842	U	O4'-C1'	6.75	1.50	1.41
34	i	1452	G	O4'-C1'	6.74	1.50	1.41
34	i	1018	U	O3'-P	-6.73	1.53	1.61
34	i	1203	G	O4'-C1'	6.73	1.50	1.41
34	i	467	G	C2'-C1'	-6.72	1.46	1.53
34	i	314	U	O4'-C1'	-6.72	1.32	1.41
34	i	699	C	C5'-C4'	6.72	1.59	1.51
34	i	320	G	C2'-C1'	-6.72	1.46	1.53
34	i	1842	U	C2'-C1'	-6.72	1.46	1.53
34	i	118	C	C2'-C1'	-6.71	1.46	1.53
34	i	1051	A	C5'-C4'	6.71	1.59	1.51
34	i	147	A	O4'-C1'	-6.71	1.32	1.41
34	i	628	C	O4'-C1'	6.71	1.50	1.41
34	i	1743	G	C2'-C1'	-6.70	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1712	C	O4'-C1'	6.69	1.50	1.41
34	i	1810	G	C2'-C1'	-6.68	1.46	1.53
34	i	273	G	O4'-C1'	6.67	1.50	1.41
34	i	597	U	C2'-C1'	-6.67	1.46	1.53
7	G	157	VAL	CA-CB	-6.67	1.40	1.54
10	J	163	SER	C-N	-6.65	1.21	1.34
34	i	348	C	C2'-C1'	-6.65	1.46	1.53
34	i	513	A	O4'-C1'	6.65	1.50	1.41
34	i	1707	A	O4'-C1'	6.65	1.50	1.41
34	i	896	C	O4'-C1'	6.65	1.50	1.41
34	i	1538	U	P-O5'	-6.65	1.53	1.59
34	i	965	U	C2'-C1'	-6.64	1.46	1.53
34	i	1149	C	O4'-C1'	-6.64	1.33	1.41
34	i	1836	C	O4'-C1'	6.64	1.50	1.41
34	i	1797	U	O4'-C1'	6.64	1.50	1.41
34	i	397	G	C2'-C1'	6.63	1.60	1.53
34	i	1414	C	O4'-C1'	-6.63	1.33	1.41
34	i	1378	A	O4'-C1'	6.63	1.50	1.41
34	i	338	A	O4'-C1'	6.63	1.50	1.41
34	i	1244	U	C2'-C1'	-6.63	1.46	1.53
34	i	101	U	C2'-C1'	6.63	1.60	1.53
34	i	504	U	C2'-C1'	-6.62	1.46	1.53
34	i	1735	C	C2'-C1'	-6.62	1.46	1.53
34	i	201	G	C2'-C1'	6.62	1.60	1.53
34	i	1144	A	C2'-C1'	6.62	1.60	1.53
34	i	103	A	O4'-C1'	-6.61	1.33	1.41
34	i	370	G	O4'-C1'	-6.61	1.33	1.41
34	i	1626	U	O4'-C1'	6.61	1.50	1.41
34	i	411	G	O3'-P	-6.61	1.53	1.61
34	i	1072	G	C2'-C1'	-6.61	1.46	1.53
34	i	165	G	O4'-C1'	-6.60	1.33	1.41
34	i	913	U	C2'-C1'	6.59	1.60	1.53
34	i	1102	C	O4'-C1'	6.59	1.50	1.41
34	i	1243	C	O4'-C1'	6.58	1.50	1.41
34	i	9	U	O4'-C1'	6.58	1.50	1.41
19	S	95	TYR	CD2-CE2	-6.57	1.29	1.39
34	i	421	G	C2'-C1'	-6.56	1.46	1.53
34	i	1702	U	C2'-C1'	-6.56	1.46	1.53
34	i	1051	A	O4'-C1'	6.55	1.50	1.41
34	i	205	G	O4'-C1'	6.55	1.50	1.41
34	i	1035	C	O4'-C1'	6.55	1.50	1.41
34	i	799	C	O4'-C1'	6.52	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1234	U	C2'-C1'	-6.52	1.46	1.53
34	i	1031	A	O4'-C1'	6.52	1.50	1.41
34	i	1311	U	C5'-C4'	6.52	1.59	1.51
34	i	663	G	P-O5'	-6.51	1.53	1.59
34	i	958	A	C2'-C1'	6.51	1.60	1.53
34	i	928	G	C2'-C1'	-6.51	1.46	1.53
34	i	227	A	O4'-C1'	6.51	1.50	1.41
34	i	1797	U	C2'-C1'	-6.51	1.46	1.53
34	i	1667	U	C2'-C1'	-6.50	1.46	1.53
34	i	1737	C	O4'-C1'	6.50	1.50	1.41
34	i	1232	G	C3'-C2'	6.50	1.60	1.52
34	i	1061	G	O4'-C1'	6.50	1.50	1.41
34	i	1121	C	O4'-C1'	6.50	1.50	1.41
34	i	1634	G	O4'-C1'	6.50	1.50	1.41
34	i	1280	A	C2'-C1'	-6.49	1.46	1.53
34	i	300	G	C2'-C1'	-6.49	1.46	1.53
34	i	806	A	O4'-C1'	6.49	1.50	1.41
34	i	639	U	O4'-C1'	6.48	1.50	1.41
34	i	1603	U	C2'-C1'	-6.47	1.46	1.53
34	i	637	U	O4'-C1'	6.47	1.50	1.41
34	i	471	C	O4'-C1'	6.47	1.50	1.41
34	i	30	C	C2'-C1'	-6.47	1.46	1.53
34	i	1610	U	O4'-C1'	6.47	1.50	1.41
9	I	8	TRP	CD2-CE3	-6.47	1.30	1.40
3	C	72	PRO	N-CD	6.46	1.56	1.47
34	i	1463	C	O4'-C1'	6.46	1.50	1.41
34	i	1479	A	C2'-C1'	6.46	1.60	1.53
34	i	100	U	O4'-C1'	6.45	1.50	1.41
34	i	1173	U	O4'-C1'	6.44	1.50	1.41
34	i	1444	A	O4'-C1'	6.44	1.50	1.41
34	i	273	G	C2'-C1'	-6.44	1.46	1.53
34	i	1499	C	O4'-C1'	6.43	1.50	1.41
34	i	1622	C	C2'-C1'	-6.43	1.46	1.53
34	i	388	A	O4'-C1'	6.43	1.50	1.41
34	i	1392	A	O4'-C1'	-6.43	1.33	1.41
34	i	962	U	C2'-C1'	-6.42	1.46	1.53
34	i	94	G	O4'-C1'	6.42	1.50	1.41
34	i	1256	A	O3'-P	-6.41	1.53	1.61
34	i	406	U	C2'-C1'	6.40	1.60	1.53
34	i	139	C	C2'-C1'	6.40	1.60	1.53
34	i	627	U	C2'-C1'	6.39	1.60	1.53
34	i	898	G	C2'-C1'	-6.39	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1278	A	O4'-C1'	6.37	1.50	1.41
4	D	20	GLU	CG-CD	6.37	1.61	1.51
34	i	160	U	O4'-C1'	6.37	1.50	1.41
34	i	733	G	C2'-C1'	6.36	1.60	1.53
34	i	892	U	O4'-C1'	6.36	1.50	1.41
34	i	458	A	C2'-C1'	-6.36	1.46	1.53
34	i	461	G	O4'-C1'	-6.35	1.33	1.41
34	i	1103	G	C2'-C1'	-6.34	1.46	1.53
34	i	1215	C	O4'-C1'	6.34	1.49	1.41
34	i	494	G	C2'-C1'	-6.33	1.46	1.53
34	i	1569	C	O4'-C1'	6.33	1.49	1.41
34	i	1840	G	O4'-C1'	6.33	1.49	1.41
34	i	879	U	C5'-C4'	6.32	1.58	1.51
34	i	33	G	O4'-C1'	6.32	1.49	1.41
26	Z	104	ARG	CD-NE	-6.31	1.35	1.46
34	i	567	U	O4'-C1'	6.31	1.49	1.41
34	i	1334	G	O4'-C1'	6.30	1.49	1.41
34	i	1684	C	O4'-C1'	6.30	1.49	1.41
34	i	795	U	C2'-C1'	-6.30	1.46	1.53
34	i	826	A	C2'-C1'	6.30	1.60	1.53
34	i	1090	C	C2'-C1'	-6.30	1.46	1.53
34	i	1138	G	P-O5'	-6.30	1.53	1.59
10	J	101	LYS	N-CA	6.30	1.58	1.46
7	G	156	TYR	CB-CG	-6.29	1.42	1.51
34	i	1615	A	O4'-C1'	-6.29	1.33	1.41
34	i	290	A	C2'-C1'	6.29	1.60	1.53
34	i	1047	G	C2'-C1'	-6.29	1.46	1.53
34	i	408	A	O4'-C1'	6.28	1.49	1.41
34	i	1753	G	C2'-C1'	-6.28	1.46	1.53
34	i	1402	G	O4'-C1'	6.28	1.49	1.41
10	J	144	ILE	CA-CB	-6.27	1.40	1.54
5	E	150	PRO	N-CD	6.27	1.56	1.47
34	i	1426	C	C2'-C1'	6.27	1.60	1.53
34	i	1426	C	P-O5'	-6.26	1.53	1.59
34	i	974	G	C2'-C1'	-6.26	1.46	1.53
7	G	170	ARG	CA-C	-6.25	1.36	1.52
34	i	934	A	C2'-C1'	-6.25	1.46	1.53
34	i	954	G	O4'-C1'	-6.25	1.33	1.41
34	i	1085	G	O4'-C1'	6.25	1.49	1.41
18	R	89	SER	C-N	6.25	1.48	1.34
34	i	220	C	C2'-C1'	-6.25	1.46	1.53
34	i	1397	A	C2'-C1'	6.24	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1233	C	P-O5'	-6.24	1.53	1.59
34	i	1167	G	C5'-C4'	6.23	1.58	1.51
34	i	793	C	O3'-P	-6.23	1.53	1.61
34	i	469	C	O4'-C1'	6.22	1.49	1.41
34	i	945	G	C2'-C1'	-6.22	1.46	1.53
34	i	997	A	C2'-C1'	6.22	1.60	1.53
34	i	1030	A	C2'-C1'	6.22	1.60	1.53
34	i	1799	G	C2'-C1'	-6.22	1.46	1.53
34	i	920	G	P-O5'	-6.22	1.53	1.59
34	i	1032	A	C5'-C4'	6.22	1.58	1.51
34	i	528	U	C2'-C1'	-6.21	1.46	1.53
34	i	349	U	C2'-C1'	-6.21	1.46	1.53
34	i	1584	A	C2'-C1'	6.21	1.60	1.53
34	i	364	G	C2'-C1'	-6.20	1.46	1.53
34	i	1739	G	C2'-C1'	6.20	1.60	1.53
34	i	494	G	C3'-C2'	-6.19	1.46	1.52
34	i	806	A	C2'-C1'	-6.19	1.46	1.53
34	i	994	A	C2'-C1'	6.19	1.60	1.53
34	i	1121	C	C2'-C1'	-6.19	1.46	1.53
34	i	1415	C	O4'-C1'	6.19	1.49	1.41
34	i	1700	C	C2'-C1'	-6.19	1.46	1.53
17	Q	145	TYR	CD2-CE2	-6.18	1.30	1.39
34	i	889	U	C2'-C1'	6.18	1.60	1.53
34	i	1774	G	O4'-C1'	6.18	1.49	1.41
34	i	583	C	C2'-C1'	-6.18	1.46	1.53
34	i	337	G	C2'-C1'	-6.18	1.46	1.53
34	i	969	C	C2'-C1'	-6.17	1.46	1.53
34	i	389	C	C2'-C1'	-6.17	1.46	1.53
34	i	1740	A	O4'-C1'	-6.17	1.33	1.41
34	i	1791	U	P-O5'	-6.17	1.53	1.59
34	i	170	A	O3'-P	-6.17	1.53	1.61
34	i	404	A	O4'-C1'	6.17	1.49	1.41
34	i	678	U	C2'-C1'	6.17	1.60	1.53
34	i	1032	A	O4'-C1'	6.16	1.49	1.41
34	i	665	U	O4'-C1'	6.15	1.49	1.41
34	i	1078	A	O4'-C1'	6.15	1.49	1.41
34	i	1800	A	O4'-C1'	6.15	1.49	1.41
34	i	1167	G	C2'-C1'	6.14	1.60	1.53
34	i	1852	G	C2'-C1'	-6.14	1.46	1.53
34	i	1093	G	O4'-C1'	-6.14	1.33	1.41
34	i	370	G	P-O5'	-6.14	1.53	1.59
34	i	1657	U	O4'-C1'	6.13	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	G	36	VAL	CB-CG2	-6.13	1.40	1.52
34	i	1097	U	C2'-C1'	-6.13	1.46	1.53
34	i	629	C	C2'-C1'	-6.12	1.46	1.53
34	i	342	U	C4'-C3'	-6.12	1.46	1.53
34	i	1476	A	C2'-C1'	-6.12	1.46	1.53
24	X	116	PRO	CA-C	6.12	1.65	1.52
34	i	83	A	C2'-C1'	-6.11	1.46	1.53
34	i	477	U	C4'-C3'	6.11	1.59	1.53
34	i	356	U	O4'-C1'	6.11	1.49	1.41
34	i	1042	U	O4'-C1'	6.10	1.49	1.41
34	i	318	U	O4'-C1'	6.09	1.49	1.41
34	i	1284	U	C5'-C4'	6.09	1.58	1.51
34	i	656	U	C2'-C1'	6.09	1.60	1.53
34	i	1650	C	C2'-C1'	-6.09	1.46	1.53
18	R	86	PRO	N-CD	6.08	1.56	1.47
34	i	891	G	C2'-C1'	-6.08	1.46	1.53
34	i	396	U	O4'-C1'	6.08	1.49	1.41
34	i	1037	G	O4'-C1'	6.07	1.49	1.41
17	Q	145	TYR	CD1-CE1	-6.07	1.30	1.39
34	i	1132	U	O4'-C1'	6.06	1.49	1.41
34	i	1066	A	O4'-C1'	6.06	1.49	1.41
34	i	301	C	C2'-C1'	6.06	1.60	1.53
34	i	1016	A	C5'-C4'	6.06	1.58	1.51
34	i	529	C	C2'-C1'	-6.05	1.46	1.53
34	i	1119	C	C5'-C4'	6.05	1.58	1.51
34	i	1633	G	C2'-C1'	-6.05	1.46	1.53
34	i	472	G	C2'-C1'	-6.04	1.46	1.53
34	i	627	U	C5'-C4'	6.04	1.58	1.51
34	i	1628	A	C2'-C1'	-6.04	1.46	1.53
34	i	1804	U	O4'-C1'	6.04	1.49	1.41
7	G	131	ARG	C-O	-6.04	1.11	1.23
34	i	656	U	O3'-P	-6.03	1.53	1.61
34	i	335	U	O4'-C1'	6.03	1.49	1.41
18	R	111	PHE	CB-CG	-6.02	1.41	1.51
27	a	10	ARG	NE-CZ	6.02	1.40	1.33
3	C	195	PRO	N-CD	6.02	1.56	1.47
34	i	1040	G	O4'-C1'	6.02	1.49	1.41
34	i	1515	G	C4'-C3'	6.00	1.59	1.53
34	i	1710	A	O4'-C1'	6.00	1.49	1.41
34	i	351	U	C2'-C1'	6.00	1.59	1.53
34	i	1015	C	C4'-C3'	5.99	1.59	1.53
6	F	45	TYR	CB-CG	-5.99	1.42	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	867	U	O4'-C1'	-5.99	1.33	1.41
8	H	111	LYS	N-CA	5.99	1.58	1.46
34	i	1652	G	P-O5'	-5.99	1.53	1.59
34	i	1523	G	O4'-C1'	-5.99	1.33	1.41
34	i	797	U	P-O5'	-5.98	1.53	1.59
34	i	68	A	O4'-C1'	5.97	1.49	1.41
34	i	8	U	C2'-C1'	5.97	1.59	1.53
32	f	85	TYR	CE2-CZ	-5.96	1.30	1.38
34	i	601	G	C2'-C1'	-5.96	1.46	1.53
34	i	1311	U	O4'-C1'	-5.96	1.33	1.41
34	i	1427	G	O4'-C1'	5.96	1.49	1.41
34	i	1641	C	C4'-O4'	-5.96	1.37	1.45
34	i	1652	G	C4'-C3'	5.96	1.59	1.53
34	i	175	A	O4'-C1'	5.95	1.49	1.41
34	i	742	C	C5'-C4'	5.95	1.58	1.51
34	i	1296	U	C2'-C1'	5.95	1.59	1.53
34	i	805	A	O4'-C1'	5.94	1.49	1.41
34	i	1830	G	C2'-C1'	-5.94	1.46	1.53
34	i	146	G	C3'-O3'	5.93	1.50	1.42
34	i	1172	G	O4'-C1'	5.93	1.49	1.41
34	i	545	A	C2'-C1'	-5.93	1.46	1.53
4	D	4	GLN	C-N	-5.92	1.20	1.34
34	i	1845	A	C2'-C1'	5.92	1.59	1.53
34	i	565	A	C2'-C1'	-5.92	1.46	1.53
34	i	1161	G	C2'-C1'	5.91	1.59	1.53
34	i	1415	C	O3'-P	-5.91	1.54	1.61
34	i	1845	A	O4'-C1'	5.91	1.49	1.41
34	i	210	G	C2'-C1'	5.91	1.59	1.53
34	i	439	A	C5'-C4'	5.91	1.58	1.51
10	J	188	GLY	CA-C	5.91	1.61	1.51
34	i	54	A	C5'-C4'	5.91	1.58	1.51
34	i	415	G	P-O5'	-5.90	1.53	1.59
34	i	1373	U	C2'-C1'	-5.90	1.46	1.53
34	i	1639	C	O4'-C1'	5.90	1.49	1.41
34	i	930	G	O4'-C1'	5.90	1.49	1.41
34	i	155	G	O4'-C1'	5.89	1.49	1.41
34	i	214	A	C2'-C1'	-5.89	1.46	1.53
10	J	187	ALA	CA-C	5.89	1.68	1.52
34	i	279	G	C2'-C1'	5.89	1.59	1.53
34	i	566	A	O4'-C1'	5.89	1.49	1.41
34	i	449	C	C5'-C4'	5.88	1.58	1.51
34	i	602	U	C2'-C1'	-5.88	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	W	129	PHE	CB-CG	-5.88	1.41	1.51
34	i	795	U	C3'-C2'	5.88	1.59	1.52
34	i	1809	A	O4'-C1'	5.88	1.49	1.41
34	i	593	C	C2'-C1'	-5.87	1.46	1.53
34	i	1582	G	O4'-C1'	-5.87	1.34	1.41
24	X	23	HIS	N-CA	-5.86	1.34	1.46
34	i	990	C	O4'-C1'	5.86	1.49	1.41
34	i	391	A	C2'-C1'	5.86	1.59	1.53
34	i	1567	C	O4'-C1'	5.86	1.49	1.41
34	i	1073	A	O4'-C1'	5.85	1.49	1.41
34	i	1264	C	C2'-C1'	-5.85	1.47	1.53
34	i	1412	C	C2'-C1'	-5.85	1.47	1.53
35	l	67	PHE	CB-CG	-5.84	1.41	1.51
34	i	343	C	O3'-P	-5.84	1.54	1.61
34	i	1502	A	O4'-C1'	5.84	1.49	1.41
34	i	1048	A	O3'-P	-5.84	1.54	1.61
34	i	1777	C	C2'-C1'	-5.83	1.47	1.53
34	i	647	U	O4'-C1'	5.83	1.49	1.41
34	i	155	G	P-O5'	-5.82	1.53	1.59
34	i	1599	G	C3'-C2'	-5.82	1.46	1.52
34	i	1667	U	P-O5'	-5.82	1.53	1.59
34	i	106	C	C2'-C1'	-5.82	1.47	1.53
34	i	1394	G	O4'-C1'	5.82	1.49	1.41
34	i	1324	G	O4'-C1'	5.82	1.49	1.41
34	i	1730	A	O4'-C1'	5.82	1.49	1.41
5	E	130	PHE	CB-CG	-5.81	1.41	1.51
34	i	1473	U	O4'-C1'	5.81	1.49	1.41
34	i	1591	U	O4'-C1'	5.81	1.49	1.41
34	i	1776	G	C2'-C1'	-5.81	1.47	1.53
34	i	1564	A	C2'-C1'	5.81	1.59	1.53
34	i	1821	U	O4'-C1'	5.80	1.49	1.41
34	i	2	A	O4'-C1'	5.80	1.49	1.41
34	i	804	A	O3'-P	-5.79	1.54	1.61
8	H	67	PRO	N-CD	5.79	1.55	1.47
34	i	307	G	C2'-C1'	-5.79	1.47	1.53
34	i	1246	A	C2'-C1'	5.79	1.59	1.53
34	i	1711	C	C2'-C1'	-5.79	1.47	1.53
34	i	231	C	O4'-C1'	5.78	1.49	1.41
34	i	366	A	C2'-C1'	-5.78	1.47	1.53
34	i	649	G	C2'-C1'	5.78	1.59	1.53
34	i	1604	C	P-O5'	-5.78	1.53	1.59
34	i	306	C	O4'-C1'	5.77	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1402	G	C5'-C4'	5.77	1.58	1.51
34	i	1618	A	O4'-C1'	-5.77	1.34	1.41
34	i	1658	A	O4'-C1'	5.76	1.49	1.41
34	i	1544	U	O4'-C1'	5.76	1.49	1.41
32	f	136	PHE	CB-CG	-5.76	1.41	1.51
34	i	211	U	C2'-C1'	-5.76	1.47	1.53
34	i	1487	G	O4'-C1'	5.75	1.49	1.41
34	i	589	A	O4'-C1'	5.74	1.49	1.41
34	i	282	G	O4'-C1'	5.74	1.49	1.41
34	i	1760	C	C4'-C3'	5.74	1.59	1.53
34	i	1419	C	C5'-C4'	5.73	1.58	1.51
34	i	410	G	O4'-C1'	-5.73	1.34	1.41
34	i	99	A	P-O5'	-5.73	1.54	1.59
34	i	408	A	C5'-C4'	5.72	1.58	1.51
34	i	1647	G	O4'-C1'	5.72	1.49	1.41
34	i	1712	C	C2'-C1'	-5.71	1.47	1.53
34	i	1556	A	O4'-C1'	5.71	1.49	1.41
34	i	285	U	C2'-C1'	-5.71	1.47	1.53
34	i	1014	U	O4'-C1'	5.71	1.49	1.41
12	L	103	GLU	CG-CD	5.71	1.60	1.51
34	i	834	G	C2'-C1'	-5.71	1.47	1.53
34	i	721	C	P-O5'	5.71	1.65	1.59
34	i	1218	G	O4'-C1'	5.70	1.49	1.41
34	i	1727	G	C2'-C1'	-5.70	1.47	1.53
34	i	743	U	C2'-C1'	-5.69	1.47	1.53
34	i	1232	G	C2'-C1'	-5.69	1.47	1.53
34	i	550	A	C2'-C1'	-5.69	1.47	1.53
34	i	914	U	O4'-C1'	5.69	1.49	1.41
11	K	40	VAL	CB-CG1	-5.69	1.41	1.52
34	i	654	A	O4'-C1'	5.69	1.49	1.41
34	i	1680	U	C5'-C4'	5.68	1.58	1.51
34	i	97	U	C2'-C1'	-5.68	1.47	1.53
34	i	819	U	O4'-C1'	-5.68	1.34	1.41
34	i	1038	A	O4'-C1'	5.68	1.49	1.41
34	i	1799	G	C5'-C4'	5.68	1.58	1.51
34	i	319	G	C2'-C1'	-5.67	1.47	1.53
10	J	187	ALA	N-CA	5.67	1.57	1.46
34	i	1445	G	O4'-C1'	5.67	1.49	1.41
34	i	911	G	O4'-C1'	-5.67	1.34	1.41
34	i	1609	A	C2'-C1'	-5.67	1.47	1.53
34	i	1725	U	O4'-C1'	5.66	1.49	1.41
34	i	1272	A	P-O5'	-5.66	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1789	G	C2'-C1'	-5.66	1.47	1.53
34	i	1375	A	O4'-C1'	5.66	1.49	1.41
34	i	1414	C	O3'-P	-5.65	1.54	1.61
34	i	1577	C	C5'-C4'	5.65	1.58	1.51
34	i	430	G	C2'-C1'	-5.64	1.47	1.53
34	i	1366	A	O4'-C1'	5.64	1.49	1.41
34	i	1696	C	C5'-C4'	5.64	1.58	1.51
34	i	644	A	O4'-C1'	5.64	1.49	1.41
34	i	472	G	O4'-C1'	-5.64	1.34	1.41
34	i	1335	U	C2'-C1'	-5.63	1.47	1.53
34	i	794	G	O3'-P	-5.63	1.54	1.61
34	i	825	C	O3'-P	-5.63	1.54	1.61
31	e	77	HIS	C-N	5.63	1.43	1.33
34	i	965	U	C5'-C4'	5.62	1.58	1.51
34	i	1494	A	C4'-C3'	-5.62	1.47	1.52
10	J	188	GLY	N-CA	5.62	1.54	1.46
12	L	102	PHE	C-O	5.62	1.34	1.23
34	i	1310	U	O4'-C1'	-5.62	1.34	1.41
9	I	6	ASP	N-CA	-5.61	1.35	1.46
34	i	224	U	C5'-C4'	5.61	1.58	1.51
34	i	374	U	O4'-C1'	5.61	1.49	1.41
34	i	402	G	C5'-C4'	5.61	1.58	1.51
34	i	562	U	C2'-C1'	5.61	1.59	1.53
34	i	497	G	C5'-C4'	5.61	1.58	1.51
34	i	1332	C	P-O5'	-5.61	1.54	1.59
34	i	77	A	C4'-C3'	5.60	1.59	1.53
34	i	1718	G	O4'-C1'	-5.60	1.34	1.41
34	i	817	G	O3'-P	-5.60	1.54	1.61
32	f	148	TYR	CD1-CE1	-5.59	1.30	1.39
34	i	18	C	O3'-P	-5.59	1.54	1.61
34	i	36	U	O4'-C1'	5.59	1.49	1.41
34	i	1833	U	O3'-P	-5.59	1.54	1.61
34	i	93	U	C2'-C1'	5.59	1.59	1.53
34	i	1415	C	C2'-C1'	5.59	1.59	1.53
34	i	428	G	O3'-P	-5.58	1.54	1.61
34	i	98	C	O4'-C1'	5.58	1.49	1.41
31	e	97	GLU	CG-CD	-5.58	1.43	1.51
34	i	221	A	O4'-C1'	5.58	1.49	1.41
34	i	883	U	C5'-C4'	5.58	1.58	1.51
34	i	314	U	O3'-P	-5.57	1.54	1.61
17	Q	145	TYR	CB-CG	-5.57	1.43	1.51
34	i	1026	A	C2'-C1'	5.56	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1662	U	C2'-C1'	-5.56	1.47	1.53
34	i	1862	U	C4'-C3'	5.56	1.59	1.53
11	K	89	ILE	N-CA	-5.56	1.35	1.46
34	i	189	G	C3'-C2'	-5.56	1.46	1.52
34	i	586	U	C2'-C1'	-5.56	1.47	1.53
34	i	962	U	O4'-C1'	5.56	1.48	1.41
34	i	1379	A	O4'-C1'	5.56	1.48	1.41
34	i	1382	A	C5'-C4'	5.55	1.58	1.51
34	i	325	G	C4'-C3'	5.55	1.59	1.53
34	i	1356	U	C2'-C1'	-5.55	1.47	1.53
34	i	910	U	C2'-C1'	5.55	1.59	1.53
34	i	1567	C	C2'-C1'	-5.54	1.47	1.53
34	i	21	U	C2'-C1'	5.54	1.59	1.53
34	i	1372	A	C3'-C2'	-5.54	1.46	1.52
34	i	152	U	C5'-C4'	5.53	1.57	1.51
34	i	1395	C	C2'-C1'	-5.53	1.47	1.53
34	i	520	U	O3'-P	-5.53	1.54	1.61
34	i	94	G	O3'-P	-5.53	1.54	1.61
34	i	312	C	C2'-C1'	-5.53	1.47	1.53
34	i	317	G	C5'-C4'	5.53	1.57	1.51
34	i	839	C	O3'-P	-5.53	1.54	1.61
34	i	1780	U	C2'-C1'	-5.52	1.47	1.53
34	i	112	U	C5'-C4'	5.52	1.57	1.51
34	i	731	C	C2'-C1'	-5.51	1.47	1.53
34	i	574	A	O4'-C1'	5.51	1.48	1.41
34	i	1764	G	C5'-C4'	5.51	1.57	1.51
34	i	1829	A	C2'-C1'	-5.51	1.47	1.53
34	i	976	A	O4'-C1'	5.50	1.48	1.41
34	i	1412	C	O3'-P	-5.50	1.54	1.61
34	i	1439	C	O4'-C1'	5.50	1.48	1.41
34	i	1641	C	C5'-C4'	5.50	1.57	1.51
34	i	32	U	C2'-C1'	5.50	1.59	1.53
34	i	1702	U	O4'-C1'	5.50	1.48	1.41
34	i	390	C	C5'-C4'	5.50	1.57	1.51
34	i	343	C	P-O5'	-5.49	1.54	1.59
34	i	1302	U	C2'-C1'	-5.49	1.47	1.53
18	R	42	PRO	N-CD	5.49	1.55	1.47
34	i	577	A	C2'-C1'	-5.49	1.47	1.53
34	i	1821	U	C2'-C1'	-5.49	1.47	1.53
34	i	457	G	C2'-C1'	-5.48	1.47	1.53
34	i	1334	G	P-O5'	-5.48	1.54	1.59
34	i	418	U	O4'-C1'	-5.48	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1726	A	O4'-C1'	5.48	1.48	1.41
34	i	1649	G	C2'-C1'	-5.48	1.47	1.53
34	i	145	G	O4'-C1'	5.48	1.48	1.41
34	i	643	A	C2'-C1'	-5.48	1.47	1.53
34	i	186	G	O4'-C1'	5.47	1.48	1.41
34	i	1665	C	O4'-C1'	5.47	1.48	1.41
34	i	1564	A	P-O5'	-5.47	1.54	1.59
34	i	308	C	P-O5'	-5.47	1.54	1.59
35	l	66	LYS	CB-CG	-5.47	1.37	1.52
34	i	469	C	C2'-C1'	-5.46	1.47	1.53
34	i	411	G	C2'-C1'	-5.46	1.47	1.53
34	i	669	A	C2'-C1'	-5.46	1.47	1.53
34	i	1370	C	C2'-C1'	-5.46	1.47	1.53
34	i	272	C	O3'-P	-5.46	1.54	1.61
34	i	818	U	C4'-C3'	5.46	1.59	1.53
34	i	401	G	C2'-C1'	-5.46	1.47	1.53
34	i	854	A	O4'-C1'	5.46	1.48	1.41
34	i	979	A	O4'-C1'	5.46	1.48	1.41
34	i	1400	U	C4'-C3'	5.45	1.59	1.53
34	i	281	U	O3'-P	-5.45	1.54	1.61
34	i	112	U	O3'-P	-5.45	1.54	1.61
34	i	1332	C	C2'-C1'	-5.45	1.47	1.53
34	i	427	G	C2'-C1'	-5.44	1.47	1.53
34	i	1196	A	C2'-C1'	-5.44	1.47	1.53
34	i	460	G	O4'-C1'	5.44	1.48	1.41
34	i	730	C	O3'-P	-5.44	1.54	1.61
34	i	1424	G	O4'-C1'	-5.44	1.34	1.41
34	i	1076	A	O3'-P	-5.44	1.54	1.61
34	i	1248	C	O4'-C1'	5.44	1.48	1.41
34	i	34	U	C5'-C4'	5.43	1.57	1.51
34	i	45	A	C2'-C1'	-5.43	1.47	1.53
34	i	1124	C	O3'-P	-5.43	1.54	1.61
9	I	8	TRP	CB-CG	5.43	1.60	1.50
34	i	955	G	O4'-C1'	5.43	1.48	1.41
34	i	267	G	O3'-P	-5.43	1.54	1.61
34	i	1390	G	C4'-O4'	5.43	1.52	1.45
34	i	336	C	P-O5'	-5.43	1.54	1.59
34	i	867	U	C3'-O3'	5.42	1.49	1.42
34	i	1529	C	O4'-C1'	5.42	1.48	1.41
34	i	1673	A	O4'-C1'	-5.42	1.34	1.41
34	i	188	U	O4'-C1'	5.42	1.48	1.41
34	i	1819	A	O4'-C1'	-5.42	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	395	G	O4'-C1'	5.41	1.48	1.41
34	i	360	G	C4'-C3'	5.41	1.59	1.53
34	i	140	U	C2'-C1'	-5.41	1.47	1.53
34	i	1172	G	C2'-C1'	-5.41	1.47	1.53
34	i	1636	A	O3'-P	-5.41	1.54	1.61
34	i	1704	G	C2'-C1'	-5.41	1.47	1.53
34	i	796	U	P-O5'	-5.41	1.54	1.59
34	i	629	C	O4'-C1'	5.41	1.48	1.41
34	i	403	G	C2'-C1'	-5.40	1.47	1.53
34	i	1339	U	C2'-C1'	-5.40	1.47	1.53
34	i	1533	C	O3'-P	-5.40	1.54	1.61
26	Z	104	ARG	N-CA	-5.40	1.35	1.46
34	i	1418	G	C2'-C1'	5.40	1.59	1.53
34	i	573	A	O4'-C1'	5.39	1.48	1.41
34	i	1130	G	C2'-C1'	-5.39	1.47	1.53
34	i	1462	G	O3'-P	-5.39	1.54	1.61
34	i	290	A	C3'-C2'	-5.39	1.46	1.52
34	i	1657	U	C2'-C1'	-5.39	1.47	1.53
34	i	1373	U	O4'-C1'	5.39	1.48	1.41
10	J	144	ILE	C-N	5.38	1.44	1.34
34	i	1068	U	O4'-C1'	5.38	1.48	1.41
34	i	1847	C	P-O5'	-5.38	1.54	1.59
2	B	155	TYR	CD1-CE1	-5.38	1.31	1.39
34	i	82	G	O3'-P	-5.38	1.54	1.61
34	i	1027	A	C2'-C1'	-5.38	1.47	1.53
34	i	1088	G	O4'-C1'	5.37	1.48	1.41
34	i	73	C	O4'-C1'	5.37	1.48	1.41
7	G	180	VAL	CA-CB	-5.37	1.43	1.54
11	K	37	ASP	CB-CG	5.36	1.63	1.51
34	i	585	U	C2'-C1'	-5.36	1.47	1.53
34	i	1405	A	C5'-C4'	5.36	1.57	1.51
34	i	687	G	C2'-C1'	-5.36	1.47	1.53
34	i	216	U	C5'-C4'	5.36	1.57	1.51
34	i	346	C	C2'-C1'	-5.36	1.47	1.53
34	i	901	C	C2'-C1'	-5.36	1.47	1.53
34	i	1708	C	C2'-C1'	-5.35	1.47	1.53
34	i	98	C	C4'-C3'	5.35	1.59	1.53
8	H	111	LYS	CA-CB	5.34	1.65	1.53
34	i	1311	U	C2'-C1'	5.34	1.59	1.53
34	i	87	U	O4'-C1'	5.34	1.48	1.41
34	i	1638	U	C2'-C1'	-5.34	1.47	1.53
11	K	35	LEU	N-CA	-5.34	1.35	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1141	A	C2'-C1'	5.33	1.59	1.53
34	i	1056	A	C2'-C1'	-5.32	1.47	1.53
3	C	182	PRO	N-CD	5.32	1.55	1.47
34	i	1365	A	O4'-C1'	5.32	1.48	1.41
34	i	1812	A	C5'-C4'	5.32	1.57	1.51
12	L	20	LYS	N-CA	-5.32	1.35	1.46
34	i	1009	U	O4'-C1'	5.32	1.48	1.41
34	i	44	U	C2'-C1'	-5.31	1.47	1.53
34	i	1695	C	O4'-C1'	5.31	1.48	1.41
34	i	626	C	P-O5'	-5.31	1.54	1.59
34	i	1260	C	O3'-P	-5.30	1.54	1.61
34	i	1503	G	O3'-P	-5.30	1.54	1.61
34	i	1563	C	C5'-C4'	5.30	1.57	1.51
34	i	942	U	C2'-C1'	-5.29	1.47	1.53
34	i	1713	G	P-O5'	-5.29	1.54	1.59
34	i	1167	G	O3'-P	-5.28	1.54	1.61
34	i	484	C	C5'-C4'	5.28	1.57	1.51
34	i	542	G	O4'-C1'	5.27	1.48	1.41
34	i	1416	G	O4'-C1'	5.27	1.48	1.41
34	i	1523	G	P-O5'	-5.27	1.54	1.59
34	i	387	G	O4'-C1'	5.27	1.48	1.41
34	i	1119	C	O4'-C1'	5.27	1.48	1.41
34	i	1264	C	P-O5'	-5.27	1.54	1.59
34	i	1667	U	O4'-C1'	5.27	1.48	1.41
34	i	1795	A	C5'-C4'	5.27	1.57	1.51
24	X	139	GLU	CB-CG	5.26	1.62	1.52
34	i	1792	C	C5'-C4'	5.26	1.57	1.51
34	i	1730	A	C2'-C1'	-5.26	1.47	1.53
34	i	1637	U	C2'-C1'	5.26	1.59	1.53
34	i	1709	U	O4'-C1'	5.25	1.48	1.41
34	i	90	G	O4'-C1'	5.25	1.48	1.41
34	i	1848	U	C2'-C1'	5.25	1.59	1.53
34	i	1609	A	P-O5'	-5.25	1.54	1.59
34	i	217	U	P-O5'	-5.25	1.54	1.59
34	i	281	U	C2'-C1'	5.25	1.59	1.53
34	i	1543	G	C4'-C3'	-5.25	1.47	1.52
34	i	517	C	O4'-C1'	5.24	1.48	1.41
34	i	543	U	P-O5'	-5.24	1.54	1.59
13	M	116	LYS	N-CA	5.24	1.56	1.46
34	i	1146	A	C5'-C4'	5.23	1.57	1.51
6	F	130	ARG	N-CA	5.23	1.56	1.46
34	i	349	U	C5'-C4'	5.23	1.57	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	G	169	PRO	N-CD	5.23	1.55	1.47
34	i	1363	U	C2'-C1'	-5.22	1.47	1.53
34	i	1549	C	O3'-P	-5.22	1.54	1.61
34	i	83	A	O4'-C1'	5.21	1.48	1.41
34	i	1339	U	O3'-P	-5.21	1.54	1.61
34	i	266	G	C5'-C4'	5.21	1.57	1.51
34	i	1070	C	O4'-C1'	5.21	1.48	1.41
34	i	645	A	C5'-C4'	5.21	1.57	1.51
34	i	1346	U	O4'-C1'	5.21	1.48	1.41
34	i	659	A	C2'-C1'	5.21	1.59	1.53
34	i	1232	G	C4'-C3'	-5.21	1.47	1.52
34	i	1538	U	O4'-C1'	5.21	1.48	1.41
34	i	1808	G	C5'-C4'	5.20	1.57	1.51
34	i	1064	G	C2'-C1'	-5.20	1.47	1.53
34	i	1504	A	O4'-C1'	-5.20	1.34	1.41
34	i	683	G	C4'-O4'	5.20	1.52	1.45
34	i	1689	U	C5'-C4'	5.20	1.57	1.51
34	i	1287	A	C2'-C1'	5.19	1.59	1.53
34	i	917	G	O4'-C1'	5.19	1.48	1.41
34	i	1380	C	O4'-C1'	5.19	1.48	1.41
27	a	97	PRO	CA-C	5.19	1.63	1.52
34	i	139	C	O3'-P	-5.19	1.54	1.61
34	i	1341	G	C2'-C1'	-5.18	1.47	1.53
34	i	1344	G	C2'-C1'	5.18	1.59	1.53
34	i	1439	C	O3'-P	-5.18	1.54	1.61
34	i	1148	U	O4'-C1'	5.18	1.48	1.41
34	i	619	A	C5'-C4'	5.18	1.57	1.51
34	i	1344	G	O3'-P	-5.18	1.54	1.61
34	i	1776	G	C5'-C4'	5.18	1.57	1.51
34	i	1523	G	C5'-C4'	-5.18	1.45	1.51
34	i	861	A	C5'-C4'	5.17	1.57	1.51
34	i	662	A	C4'-C3'	5.17	1.58	1.53
34	i	78	C	C3'-C2'	5.17	1.58	1.52
2	B	41	ILE	N-CA	-5.16	1.36	1.46
34	i	603	C	C2'-C1'	5.16	1.59	1.53
34	i	978	G	C2'-C1'	-5.16	1.47	1.53
34	i	1546	U	O3'-P	-5.16	1.54	1.61
34	i	1766	C	C3'-C2'	-5.15	1.47	1.52
34	i	553	G	C5'-C4'	5.15	1.57	1.51
34	i	1858	U	P-O5'	-5.15	1.54	1.59
34	i	801	U	C2'-C1'	-5.15	1.47	1.53
24	X	115	ILE	CA-C	-5.14	1.39	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	176	U	P-O5'	-5.14	1.54	1.59
34	i	394	G	C5'-C4'	5.14	1.57	1.51
34	i	1279	C	O3'-P	-5.14	1.54	1.61
18	R	89	SER	N-CA	5.14	1.56	1.46
26	Z	104	ARG	CG-CD	5.14	1.64	1.51
34	i	1094	C	O4'-C1'	5.14	1.48	1.41
10	J	89	GLU	CG-CD	-5.14	1.44	1.51
34	i	116	U	O4'-C1'	5.14	1.48	1.41
34	i	241	A	C2'-C1'	5.13	1.58	1.53
34	i	1592	C	C4'-O4'	-5.13	1.38	1.45
34	i	597	U	O4'-C1'	5.13	1.48	1.41
22	V	33	PRO	N-CD	5.12	1.55	1.47
34	i	1618	A	C4'-C3'	-5.12	1.47	1.52
34	i	951	A	C5'-C4'	5.12	1.57	1.51
34	i	978	G	C5'-C4'	5.12	1.57	1.51
34	i	1543	G	C5'-C4'	5.12	1.57	1.51
34	i	1680	U	C2'-C1'	-5.12	1.47	1.53
34	i	1822	C	C3'-C2'	-5.12	1.47	1.52
34	i	1621	C	C2'-C1'	-5.11	1.47	1.53
34	i	1627	G	O4'-C1'	-5.11	1.35	1.41
34	i	1029	G	O3'-P	-5.11	1.55	1.61
34	i	659	A	O3'-P	-5.11	1.55	1.61
34	i	1177	A	C5'-C4'	5.11	1.57	1.51
34	i	665	U	C2'-C1'	-5.10	1.47	1.53
12	L	152	LYS	C-N	5.10	1.45	1.34
34	i	1206	G	O4'-C1'	-5.10	1.35	1.41
34	i	1417	A	O4'-C1'	5.10	1.48	1.41
11	K	93	THR	CA-C	5.10	1.66	1.52
34	i	113	G	C4'-C3'	5.10	1.58	1.53
34	i	326	A	C2'-C1'	5.10	1.58	1.53
34	i	288	A	C5'-C4'	5.09	1.57	1.51
34	i	1420	G	C5'-C4'	5.09	1.57	1.51
34	i	1039	G	C5'-C4'	5.09	1.57	1.51
34	i	421	G	C4'-C3'	-5.09	1.47	1.52
34	i	672	U	P-O5'	-5.08	1.54	1.59
34	i	95	G	O4'-C1'	5.08	1.48	1.41
34	i	674	G	C4'-C3'	5.08	1.58	1.53
34	i	791	A	O4'-C1'	5.08	1.48	1.41
2	B	155	TYR	CD2-CE2	-5.08	1.31	1.39
34	i	1168	U	O3'-P	-5.08	1.55	1.61
34	i	1199	G	O4'-C1'	5.08	1.48	1.41
34	i	1203	G	C2'-C1'	-5.08	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	790	A	C2'-C1'	-5.07	1.47	1.53
34	i	878	U	C4'-C3'	5.07	1.58	1.53
19	S	6	PRO	N-CA	5.07	1.55	1.47
34	i	853	U	P-O5'	5.07	1.64	1.59
34	i	1466	C	C2'-C1'	-5.07	1.47	1.53
34	i	1695	C	C2'-C1'	5.07	1.58	1.53
34	i	308	C	C2'-C1'	-5.07	1.47	1.53
34	i	1768	C	O4'-C1'	5.07	1.48	1.41
34	i	1314	G	C2'-C1'	-5.06	1.47	1.53
34	i	1558	G	C4'-C3'	5.06	1.58	1.53
34	i	1429	C	O3'-P	5.06	1.67	1.61
34	i	21	U	O4'-C1'	5.06	1.48	1.41
34	i	935	U	C5'-C4'	5.06	1.57	1.51
34	i	1328	A	P-O5'	-5.06	1.54	1.59
8	H	110	THR	CA-C	-5.05	1.39	1.52
34	i	667	G	O4'-C1'	5.05	1.48	1.41
26	Z	104	ARG	CB-CG	-5.05	1.39	1.52
34	i	112	U	C2'-C1'	5.05	1.58	1.53
34	i	102	A	O3'-P	-5.05	1.55	1.61
34	i	655	G	O4'-C1'	5.04	1.48	1.41
34	i	742	C	O4'-C1'	5.04	1.48	1.41
34	i	808	A	C2'-C1'	-5.04	1.47	1.53
34	i	1397	A	C5'-C4'	5.04	1.57	1.51
34	i	79	A	C5'-C4'	5.04	1.57	1.51
34	i	1703	C	P-O5'	-5.04	1.54	1.59
34	i	1364	U	O4'-C1'	5.03	1.48	1.41
34	i	1540	A	C2'-C1'	-5.03	1.47	1.53
8	H	118	ARG	CA-CB	-5.03	1.42	1.53
34	i	1235	U	O3'-P	-5.03	1.55	1.61
34	i	1157	U	C2'-C1'	5.03	1.58	1.53
34	i	1399	C	O4'-C1'	-5.03	1.35	1.41
34	i	1432	C	O3'-P	-5.03	1.55	1.61
34	i	1761	C	C4'-C3'	5.03	1.58	1.53
34	i	411	G	O4'-C1'	-5.03	1.35	1.41
1	A	200	ASP	CA-C	-5.02	1.39	1.52
34	i	1358	U	O4'-C1'	-5.02	1.35	1.41
34	i	1460	C	O3'-P	-5.02	1.55	1.61
34	i	1775	A	C5'-C4'	5.02	1.57	1.51
34	i	828	G	C2'-C1'	-5.02	1.47	1.53
20	T	82	ARG	CD-NE	5.02	1.54	1.46
11	K	31	LYS	N-CA	-5.01	1.36	1.46
34	i	298	G	O3'-P	-5.01	1.55	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	i	1084	U	C4'-C3'	5.01	1.58	1.53
34	i	1602	A	O4'-C1'	5.01	1.48	1.41
34	i	1223	G	C5'-C4'	5.00	1.57	1.51

All (3232) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	H	109	ARG	NE-CZ-NH2	-53.46	93.57	120.30
34	i	1683	C	P-O3'-C3'	-46.88	63.44	119.70
8	H	109	ARG	NE-CZ-NH1	42.70	141.65	120.30
34	i	1774	G	P-O3'-C3'	38.10	165.42	119.70
34	i	1114	C	O4'-C1'-N1	35.28	136.42	108.20
34	i	582	C	O4'-C1'-N1	32.42	134.14	108.20
34	i	67	C	O4'-C1'-N1	31.30	133.24	108.20
34	i	72	C	O4'-C1'-N1	30.38	132.50	108.20
34	i	1683	C	OP1-P-O3'	-29.73	39.79	105.20
8	H	118	ARG	NE-CZ-NH1	29.45	135.02	120.30
34	i	678	U	O4'-C1'-N1	29.23	131.58	108.20
34	i	1548	C	O4'-C1'-N1	28.80	131.24	108.20
34	i	738	U	O4'-C1'-N1	28.36	130.89	108.20
34	i	793	C	O4'-C1'-N1	28.25	130.80	108.20
34	i	883	U	P-O3'-C3'	28.19	153.53	119.70
34	i	1299	C	O4'-C1'-N1	27.80	130.44	108.20
34	i	418	U	O4'-C1'-N1	27.45	130.16	108.20
34	i	1113	C	O4'-C1'-N1	27.32	130.06	108.20
34	i	1080	A	P-O3'-C3'	27.24	152.39	119.70
34	i	1817	A	P-O3'-C3'	27.21	152.35	119.70
34	i	521	A	P-O3'-C3'	26.65	151.68	119.70
34	i	1105	C	O4'-C1'-N1	25.72	128.78	108.20
34	i	1311	U	O4'-C1'-N1	25.30	128.44	108.20
34	i	1392	A	O4'-C1'-N9	24.85	128.08	108.20
34	i	1627	G	P-O3'-C3'	24.25	148.81	119.70
34	i	867	U	O4'-C1'-N1	24.18	127.55	108.20
34	i	730	C	P-O3'-C3'	23.88	148.35	119.70
34	i	1470	A	P-O3'-C3'	23.77	148.22	119.70
34	i	317	G	P-O3'-C3'	23.73	148.17	119.70
34	i	1564	A	O4'-C1'-N9	23.41	126.93	108.20
34	i	165	G	O4'-C1'-N9	23.31	126.85	108.20
34	i	1150	U	O4'-C1'-N1	23.14	126.72	108.20
34	i	66	G	P-O3'-C3'	23.07	147.38	119.70
34	i	1472	A	O4'-C1'-N9	23.01	126.61	108.20
34	i	1304	U	O4'-C1'-N1	22.99	126.59	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	211	U	P-O3'-C3'	22.84	147.10	119.70
34	i	793	C	P-O3'-C3'	22.76	147.02	119.70
34	i	544	A	O4'-C1'-N9	22.74	126.39	108.20
10	J	146	SER	O-C-N	-22.66	86.44	122.70
34	i	140	U	P-O3'-C3'	22.41	146.59	119.70
34	i	314	U	O4'-C1'-N1	22.37	126.10	108.20
34	i	836	C	P-O3'-C3'	22.28	146.44	119.70
34	i	876	G	O4'-C1'-N9	22.12	125.90	108.20
34	i	1552	C	O4'-C1'-N1	21.95	125.76	108.20
34	i	1776	G	O4'-C1'-N9	21.91	125.72	108.20
34	i	1573	U	O4'-C1'-N1	21.80	125.64	108.20
8	H	118	ARG	NE-CZ-NH2	-21.79	109.41	120.30
34	i	685	G	P-O3'-C3'	21.71	145.75	119.70
34	i	1516	C	P-O3'-C3'	21.53	145.54	119.70
34	i	298	G	O4'-C1'-N9	21.46	125.37	108.20
34	i	743	U	P-O3'-C3'	21.45	145.44	119.70
34	i	1296	U	O4'-C1'-N1	21.43	125.34	108.20
34	i	1664	G	P-O5'-C5'	21.35	155.07	120.90
34	i	722	C	P-O3'-C3'	21.23	145.18	119.70
34	i	1562	G	O4'-C1'-N9	21.17	125.14	108.20
34	i	1473	U	P-O3'-C3'	20.95	144.83	119.70
34	i	264	U	P-O3'-C3'	20.74	144.59	119.70
34	i	1391	C	P-O3'-C3'	20.70	144.54	119.70
34	i	1503	G	O4'-C1'-C2'	20.62	126.42	105.80
34	i	1819	A	O4'-C1'-N9	20.39	124.51	108.20
34	i	325	G	O4'-C1'-N9	20.21	124.37	108.20
34	i	1414	C	C3'-C2'-C1'	-20.12	85.40	101.50
34	i	618	A	O4'-C1'-N9	20.10	124.28	108.20
34	i	1112	C	O4'-C1'-N1	19.98	124.19	108.20
34	i	1392	A	P-O3'-C3'	19.93	143.61	119.70
34	i	1716	U	O4'-C1'-N1	19.89	124.11	108.20
34	i	1426	C	O4'-C1'-N1	19.68	123.94	108.20
34	i	319	G	P-O3'-C3'	19.55	143.16	119.70
34	i	1819	A	P-O3'-C3'	19.51	143.12	119.70
18	R	1	MET	CA-C-N	-19.45	77.31	116.20
34	i	317	G	O4'-C1'-N9	19.24	123.59	108.20
34	i	225	C	P-O3'-C3'	19.21	142.75	119.70
34	i	1471	G	P-O3'-C3'	19.12	142.64	119.70
34	i	1358	U	O4'-C1'-N1	18.98	123.38	108.20
34	i	697	G	P-O3'-C3'	18.88	142.36	119.70
34	i	78	C	P-O3'-C3'	18.81	142.28	119.70
34	i	1151	U	N1-C1'-C2'	18.80	138.44	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	142	C	O4'-C1'-N1	18.78	123.22	108.20
34	i	954	G	O4'-C1'-N9	18.66	123.13	108.20
34	i	126	G	P-O3'-C3'	18.64	142.07	119.70
34	i	688	U	P-O3'-C3'	18.63	142.06	119.70
34	i	180	G	P-O3'-C3'	-18.54	97.46	119.70
34	i	911	G	O4'-C1'-N9	18.45	122.96	108.20
34	i	883	U	O4'-C1'-N1	18.34	122.87	108.20
34	i	1673	A	O4'-C1'-N9	18.32	122.85	108.20
34	i	72	C	P-O3'-C3'	18.22	141.56	119.70
34	i	899	A	O4'-C1'-N9	18.21	122.77	108.20
34	i	1393	U	N1-C1'-C2'	18.07	137.49	114.00
34	i	1544	U	P-O3'-C3'	18.03	141.34	119.70
34	i	1226	C	N1-C1'-C2'	18.02	137.43	114.00
34	i	1133	U	P-O3'-C3'	18.00	141.30	119.70
34	i	1740	A	O4'-C1'-N9	17.85	122.48	108.20
34	i	727	G	P-O3'-C3'	17.82	141.09	119.70
34	i	1377	G	O4'-C1'-N9	17.73	122.38	108.20
34	i	1012	U	N1-C1'-C2'	17.65	136.95	114.00
34	i	428	G	O4'-C1'-N9	17.57	122.26	108.20
34	i	1316	G	O4'-C1'-N9	17.56	122.25	108.20
34	i	257	G	P-O3'-C3'	17.53	140.74	119.70
27	a	10	ARG	NE-CZ-NH2	17.45	129.02	120.30
7	G	131	ARG	CB-CA-C	17.42	145.24	110.40
34	i	189	G	P-O3'-C3'	17.41	140.59	119.70
34	i	346	C	O4'-C1'-N1	17.40	122.12	108.20
34	i	524	G	P-O3'-C3'	17.39	140.57	119.70
34	i	1045	A	O4'-C1'-N9	17.34	122.07	108.20
18	R	1	MET	N-CA-CB	17.23	141.62	110.60
34	i	1149	C	O4'-C1'-N1	17.21	121.97	108.20
34	i	1399	C	O4'-C1'-N1	17.15	121.92	108.20
34	i	1322	U	N1-C1'-C2'	17.13	136.27	114.00
34	i	135	U	P-O3'-C3'	17.11	140.23	119.70
34	i	819	U	O4'-C1'-N1	17.05	121.84	108.20
34	i	136	C	P-O3'-C3'	17.03	140.14	119.70
34	i	885	U	O4'-C1'-N1	16.98	121.79	108.20
34	i	74	G	O4'-C1'-N9	16.94	121.75	108.20
34	i	868	A	O4'-C1'-N9	16.92	121.74	108.20
34	i	1618	A	O4'-C1'-N9	16.90	121.72	108.20
22	V	61	ARG	NE-CZ-NH2	-16.89	111.85	120.30
34	i	239	U	P-O3'-C3'	16.80	139.87	119.70
34	i	1470	A	O4'-C1'-N9	16.79	121.63	108.20
34	i	826	A	O4'-C1'-N9	16.75	121.60	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	222	G	P-O3'-C3'	16.75	139.79	119.70
34	i	1563	C	N1-C1'-C2'	16.75	135.77	114.00
7	G	131	ARG	CB-CG-CD	16.66	154.91	111.60
34	i	1294	G	O4'-C1'-N9	16.57	121.46	108.20
16	P	37	TYR	N-CA-CB	-16.50	80.90	110.60
34	i	171	A	O4'-C1'-N9	16.39	121.31	108.20
34	i	358	U	P-O3'-C3'	16.34	139.31	119.70
34	i	299	G	N9-C1'-C2'	16.24	135.11	114.00
34	i	1233	C	N1-C1'-C2'	16.08	134.90	114.00
9	I	134	GLU	N-CA-CB	15.89	139.21	110.60
34	i	73	C	O4'-C1'-N1	15.88	120.90	108.20
34	i	141	A	P-O3'-C3'	15.87	138.74	119.70
34	i	1144	A	O4'-C1'-N9	15.83	120.86	108.20
34	i	620	U	O4'-C1'-N1	15.76	120.81	108.20
4	D	5	ILE	O-C-N	-15.63	97.69	122.70
34	i	138	C	P-O3'-C3'	15.55	138.36	119.70
25	Y	86	GLU	C-N-CD	-15.52	86.46	120.60
34	i	1425	G	P-O3'-C3'	15.52	138.32	119.70
34	i	1006	G	O4'-C1'-N9	15.50	120.60	108.20
34	i	1056	A	O4'-C1'-N9	15.48	120.58	108.20
34	i	295	C	P-O3'-C3'	15.46	138.26	119.70
34	i	1327	C	N1-C1'-C2'	15.45	134.08	114.00
34	i	64	A	O4'-C1'-N9	15.31	120.45	108.20
34	i	79	A	O4'-C1'-C2'	-15.27	90.53	105.80
10	J	146	SER	CA-C-N	15.24	150.74	117.20
27	a	102	ARG	C-N-CD	-15.22	87.12	120.60
34	i	396	U	P-O3'-C3'	15.20	137.94	119.70
34	i	1279	C	P-O3'-C3'	15.15	137.89	119.70
34	i	1663	U	O4'-C1'-N1	15.10	120.28	108.20
34	i	1543	G	O4'-C1'-N9	15.08	120.26	108.20
34	i	1607	G	O4'-C1'-N9	15.05	120.24	108.20
9	I	43	ILE	O-C-N	-15.05	98.62	122.70
34	i	60	A	O4'-C1'-N9	15.00	120.20	108.20
34	i	1670	A	O4'-C1'-N9	14.99	120.19	108.20
34	i	734	C	P-O3'-C3'	14.94	137.63	119.70
8	H	109	ARG	CD-NE-CZ	14.87	144.41	123.60
27	a	97	PRO	N-CA-C	14.82	150.64	112.10
34	i	1492	U	P-O3'-C3'	14.77	137.43	119.70
34	i	835	C	N1-C1'-C2'	14.72	133.14	114.00
34	i	857	A	O4'-C1'-N9	14.72	119.97	108.20
34	i	111	A	O4'-C1'-N9	14.71	119.97	108.20
34	i	478	U	P-O3'-C3'	14.68	137.32	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	215	U	N1-C1'-C2'	14.66	133.06	114.00
34	i	538	C	P-O3'-C3'	14.61	137.23	119.70
34	i	1773	G	O4'-C1'-N9	14.60	119.88	108.20
34	i	835	C	C3'-C2'-C1'	-14.55	89.86	101.50
34	i	1424	G	O4'-C1'-N9	14.54	119.84	108.20
34	i	1594	U	O4'-C1'-N1	14.54	119.83	108.20
34	i	1390	G	P-O3'-C3'	14.53	137.14	119.70
34	i	1475	G	O4'-C1'-N9	14.51	119.81	108.20
34	i	133	C	P-O3'-C3'	14.48	137.08	119.70
34	i	720	A	P-O3'-C3'	14.46	137.05	119.70
34	i	1344	G	O4'-C1'-N9	14.46	119.77	108.20
34	i	383	U	O4'-C1'-N1	14.44	119.75	108.20
34	i	543	U	O4'-C1'-N1	14.42	119.73	108.20
34	i	1227	C	N1-C1'-C2'	14.39	132.71	114.00
34	i	581	U	O4'-C1'-N1	14.39	119.71	108.20
20	T	93	SER	N-CA-CB	14.39	132.08	110.50
34	i	1412	C	O4'-C1'-N1	14.34	119.67	108.20
34	i	1412	C	P-O3'-C3'	14.27	136.82	119.70
34	i	1637	U	O4'-C1'-N1	14.27	119.61	108.20
25	Y	103	SER	O-C-N	-14.26	99.88	122.70
34	i	1010	G	O4'-C1'-C2'	14.24	120.41	107.60
34	i	1235	U	P-O3'-C3'	-14.23	102.63	119.70
34	i	210	G	O4'-C1'-N9	14.21	119.57	108.20
14	N	81	ALA	C-N-CD	-14.16	89.45	120.60
34	i	1824	U	P-O3'-C3'	14.14	136.67	119.70
7	G	170	ARG	CA-CB-CG	14.12	144.46	113.40
34	i	1818	A	O4'-C1'-N9	14.10	119.48	108.20
34	i	1861	U	O4'-C1'-N1	14.07	119.46	108.20
34	i	1414	C	O4'-C1'-N1	14.07	119.45	108.20
34	i	1293	U	O4'-C1'-N1	14.06	119.44	108.20
25	Y	86	GLU	N-CA-C	14.03	148.89	111.00
9	I	184	ARG	NE-CZ-NH1	-14.03	113.28	120.30
34	i	677	C	O4'-C1'-N1	13.99	119.39	108.20
34	i	912	A	O4'-C1'-N9	13.99	119.39	108.20
34	i	295	C	C4'-C3'-O3'	-13.96	80.09	109.40
19	S	40	TYR	CB-CG-CD1	13.95	129.37	121.00
34	i	649	G	O4'-C1'-N9	13.92	119.34	108.20
34	i	1018	U	N1-C1'-C2'	13.91	132.09	114.00
34	i	1721	G	O4'-C1'-N9	13.90	119.32	108.20
34	i	240	C	P-O3'-C3'	13.85	136.32	119.70
34	i	1413	C	O4'-C1'-C2'	-13.81	91.99	105.80
34	i	794	G	P-O3'-C3'	13.77	136.22	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	276	U	P-O3'-C3'	13.75	136.20	119.70
34	i	454	A	P-O3'-C3'	-13.74	103.21	119.70
34	i	1773	G	P-O3'-C3'	13.72	136.16	119.70
19	S	141	ARG	O-C-N	-13.70	100.78	122.70
28	b	36	LYS	C-N-CA	13.70	155.94	121.70
34	i	313	C	P-O3'-C3'	13.67	136.10	119.70
34	i	1754	G	O4'-C1'-N9	13.66	119.13	108.20
34	i	287	U	N1-C1'-C2'	13.61	131.70	114.00
34	i	556	U	O4'-C1'-N1	13.57	119.06	108.20
34	i	1862	U	P-O3'-C3'	13.55	135.96	119.70
34	i	1449	C	O4'-C1'-N1	13.50	119.00	108.20
34	i	1510	G	O4'-C1'-N9	13.49	118.99	108.20
34	i	548	G	O4'-C1'-N9	13.46	118.97	108.20
20	T	4	VAL	N-CA-C	13.45	147.32	111.00
34	i	1393	U	O4'-C1'-N1	-13.45	97.44	108.20
34	i	829	C	P-O3'-C3'	13.44	135.82	119.70
34	i	530	U	O4'-C1'-N1	13.41	118.93	108.20
34	i	478	U	O4'-C1'-N1	13.41	118.92	108.20
34	i	960	A	O4'-C1'-N9	13.40	118.92	108.20
34	i	889	U	O4'-C1'-N1	13.38	118.90	108.20
34	i	1769	U	O4'-C1'-N1	13.37	118.90	108.20
34	i	519	A	P-O3'-C3'	-13.36	103.67	119.70
34	i	1741	U	P-O3'-C3'	13.35	135.72	119.70
34	i	1011	U	O4'-C1'-N1	13.35	118.88	108.20
34	i	830	C	N1-C1'-C2'	13.34	131.34	114.00
34	i	1548	C	C3'-C2'-C1'	-13.32	90.84	101.50
7	G	131	ARG	CA-CB-CG	13.30	142.66	113.40
34	i	1257	C	N1-C1'-C2'	13.25	131.23	114.00
34	i	837	G	O4'-C1'-N9	13.23	118.78	108.20
34	i	406	U	O4'-C1'-N1	13.21	118.77	108.20
34	i	24	C	P-O3'-C3'	13.21	135.56	119.70
27	a	97	PRO	CB-CA-C	-13.20	78.99	112.00
34	i	438	A	O4'-C1'-N9	13.20	118.76	108.20
34	i	1482	A	O4'-C1'-N9	13.19	118.75	108.20
34	i	277	U	O4'-C1'-N1	-13.16	97.67	108.20
11	K	55	ARG	CG-CD-NE	13.16	139.44	111.80
34	i	742	C	P-O3'-C3'	13.15	135.48	119.70
34	i	1261	A	N9-C1'-C2'	13.14	131.08	114.00
34	i	1514	U	O4'-C1'-N1	13.14	118.71	108.20
34	i	627	U	O4'-C1'-N1	13.13	118.70	108.20
34	i	1616	U	O4'-C1'-N1	13.12	118.69	108.20
34	i	1523	G	O4'-C1'-N9	13.04	118.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1841	G	O4'-C1'-N9	13.03	118.62	108.20
34	i	147	A	O4'-C1'-N9	13.02	118.61	108.20
34	i	1715	U	P-O3'-C3'	13.01	135.31	119.70
34	i	1503	G	O4'-C1'-N9	12.99	118.59	108.20
34	i	1459	U	C4'-C3'-O3'	-12.99	82.13	109.40
34	i	1307	C	N1-C1'-C2'	12.98	130.87	114.00
34	i	876	G	P-O3'-C3'	12.96	135.26	119.70
34	i	415	G	O4'-C1'-N9	12.92	118.54	108.20
34	i	869	G	P-O3'-C3'	12.92	135.20	119.70
34	i	1406	C	N1-C1'-C2'	12.89	130.76	114.00
34	i	721	C	P-O3'-C3'	12.88	135.16	119.70
34	i	1402	G	P-O3'-C3'	12.88	135.15	119.70
34	i	594	A	P-O3'-C3'	12.85	135.12	119.70
34	i	456	G	O4'-C1'-N9	12.85	118.48	108.20
34	i	123	G	O4'-C1'-N9	12.84	118.47	108.20
34	i	1	U	O4'-C1'-N1	12.80	118.44	108.20
34	i	1429	C	O3'-P-O5'	-12.80	79.68	104.00
34	i	1249	A	O4'-C1'-N9	12.79	118.43	108.20
34	i	1240	U	O4'-C1'-N1	12.78	118.43	108.20
34	i	622	C	N1-C1'-C2'	12.75	130.58	114.00
34	i	1168	U	O4'-C1'-N1	12.75	118.40	108.20
34	i	126	G	C4'-C3'-O3'	-12.74	82.64	109.40
34	i	38	A	O4'-C1'-N9	12.73	118.38	108.20
34	i	59	U	O4'-C1'-N1	12.73	118.38	108.20
34	i	1533	C	P-O3'-C3'	12.73	134.97	119.70
34	i	1565	G	O4'-C1'-N9	12.69	118.35	108.20
34	i	139	C	P-O3'-C3'	12.67	134.90	119.70
34	i	1238	U	N1-C1'-C2'	12.66	130.46	114.00
24	X	23	HIS	O-C-N	-12.65	102.46	122.70
18	R	88	VAL	O-C-N	-12.62	102.51	122.70
34	i	170	A	O4'-C1'-C2'	12.61	118.95	107.60
17	Q	18	THR	N-CA-CB	12.60	134.23	110.30
18	R	89	SER	N-CA-C	12.55	144.89	111.00
34	i	24	C	C1'-C2'-O2'	-12.53	73.02	110.60
34	i	1145	A	O4'-C1'-N9	12.53	118.22	108.20
34	i	75	G	O4'-C1'-N9	12.53	118.22	108.20
34	i	816	U	O4'-C1'-N1	12.51	118.21	108.20
34	i	1104	G	O4'-C1'-N9	12.49	118.19	108.20
34	i	1588	C	P-O3'-C3'	12.48	134.68	119.70
34	i	616	G	C3'-C2'-C1'	12.47	111.48	101.50
34	i	77	A	P-O3'-C3'	12.46	134.65	119.70
7	G	170	ARG	N-CA-CB	12.44	133.00	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	831	C	P-O5'-C5'	12.39	140.72	120.90
34	i	881	U	O4'-C1'-N1	12.38	118.10	108.20
34	i	66	G	C1'-O4'-C4'	-12.36	100.01	109.90
34	i	696	G	P-O3'-C3'	12.33	134.50	119.70
34	i	1044	G	N9-C1'-C2'	12.32	130.01	114.00
34	i	1097	U	O4'-C1'-N1	12.31	118.05	108.20
16	P	17	TYR	CB-CG-CD2	-12.31	113.62	121.00
34	i	280	G	O4'-C1'-N9	12.29	118.03	108.20
34	i	20	G	O4'-C1'-N9	12.28	118.03	108.20
34	i	866	A	O4'-C1'-N9	12.27	118.02	108.20
34	i	1414	C	O4'-C1'-C2'	12.27	118.64	107.60
34	i	1753	G	O4'-C1'-N9	12.25	118.00	108.20
34	i	1430	C	P-O3'-C3'	12.25	134.40	119.70
34	i	542	G	P-O3'-C3'	12.23	134.38	119.70
34	i	359	C	O4'-C1'-N1	12.23	117.98	108.20
17	Q	146	ARG	NE-CZ-NH2	12.21	126.41	120.30
34	i	986	A	N9-C1'-C2'	12.20	129.86	114.00
4	D	4	GLN	CG-CD-OE1	-12.19	97.22	121.60
34	i	1081	C	P-O5'-C5'	-12.19	101.40	120.90
34	i	329	A	C4'-C3'-O3'	-12.18	83.82	109.40
34	i	4	C	N1-C1'-C2'	12.18	129.83	114.00
34	i	1126	G	O4'-C1'-N9	12.14	117.91	108.20
34	i	1167	G	O4'-C1'-N9	12.13	117.91	108.20
34	i	1716	U	N1-C1'-C2'	-12.13	98.23	114.00
34	i	1469	G	O3'-P-O5'	12.13	127.04	104.00
34	i	146	G	O4'-C1'-N9	12.11	117.89	108.20
34	i	426	G	O4'-C1'-N9	12.11	117.89	108.20
34	i	1188	U	O4'-C1'-N1	12.11	117.88	108.20
34	i	1397	A	P-O3'-C3'	12.11	134.23	119.70
34	i	1550	U	O4'-C1'-N1	12.10	117.88	108.20
33	g	24	THR	C-N-CD	-12.10	93.99	120.60
34	i	531	U	O4'-C1'-N1	12.09	117.88	108.20
34	i	237	G	P-O3'-C3'	12.08	134.19	119.70
25	Y	86	GLU	CA-C-O	-12.08	94.74	120.10
34	i	224	U	O4'-C1'-N1	12.06	117.85	108.20
34	i	1562	G	C3'-C2'-C1'	-12.04	91.87	101.50
34	i	412	U	O4'-C1'-N1	12.03	117.82	108.20
34	i	1838	U	O4'-C1'-N1	12.01	117.81	108.20
34	i	1310	U	O4'-C1'-N1	11.98	117.78	108.20
34	i	857	A	N9-C1'-C2'	-11.97	98.43	114.00
31	e	95	LYS	O-C-N	-11.95	103.57	122.70
34	i	915	A	P-O3'-C3'	11.95	134.04	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	K	1	MET	N-CA-CB	-11.93	89.12	110.60
34	i	520	U	O4'-C1'-N1	11.93	117.75	108.20
34	i	1372	A	O4'-C1'-N9	11.93	117.74	108.20
34	i	596	G	O4'-C1'-N9	11.92	117.74	108.20
34	i	1659	A	P-O3'-C3'	11.91	134.00	119.70
34	i	1607	G	N9-C1'-C2'	-11.88	98.56	114.00
34	i	1231	G	O4'-C1'-N9	11.87	117.70	108.20
34	i	807	A	P-O3'-C3'	11.87	133.94	119.70
34	i	1549	C	O3'-P-O5'	-11.86	81.47	104.00
34	i	1255	A	O4'-C1'-N9	11.85	117.68	108.20
34	i	1355	U	O4'-C1'-N1	11.85	117.68	108.20
34	i	868	A	P-O3'-C3'	11.85	133.92	119.70
34	i	179	C	N1-C1'-C2'	11.85	129.40	114.00
34	i	278	U	P-O3'-C3'	11.83	133.90	119.70
34	i	1538	U	P-O3'-C3'	11.82	133.88	119.70
34	i	1671	U	O4'-C1'-N1	11.82	117.65	108.20
34	i	1418	G	O4'-C1'-N9	11.80	117.64	108.20
18	R	1	MET	C-N-CA	-11.79	97.54	122.30
34	i	1446	G	O4'-C1'-N9	11.79	117.63	108.20
34	i	1315	U	O4'-C1'-N1	11.78	117.63	108.20
34	i	1494	A	C1'-O4'-C4'	-11.78	100.47	109.90
34	i	796	U	O4'-C1'-N1	11.78	117.62	108.20
4	D	4	GLN	N-CA-CB	-11.77	89.41	110.60
34	i	1233	C	C1'-O4'-C4'	-11.76	100.49	109.90
34	i	835	C	O4'-C1'-N1	11.76	117.61	108.20
34	i	1670	A	N9-C1'-C2'	-11.74	98.73	114.00
2	B	41	ILE	CB-CA-C	11.73	135.06	111.60
34	i	1806	U	O4'-C1'-N1	11.72	117.58	108.20
34	i	1103	G	O4'-C1'-N9	11.71	117.57	108.20
34	i	1515	G	N9-C1'-C2'	11.69	129.20	114.00
34	i	570	U	P-O3'-C3'	-11.67	105.69	119.70
34	i	461	G	O4'-C1'-N9	11.67	117.54	108.20
34	i	1833	U	O4'-C1'-N1	11.67	117.54	108.20
9	I	134	GLU	CB-CA-C	-11.66	87.08	110.40
13	M	99	LYS	C-N-CD	-11.65	94.97	120.60
34	i	1828	A	N9-C1'-C2'	11.62	129.10	114.00
34	i	1319	U	O4'-C1'-N1	11.61	117.49	108.20
34	i	734	C	N1-C1'-C2'	11.61	129.09	114.00
34	i	526	A	P-O3'-C3'	-11.60	105.78	119.70
34	i	1157	U	O4'-C1'-N1	11.59	117.47	108.20
34	i	1007	A	O4'-C1'-N9	11.59	117.47	108.20
18	R	1	MET	N-CA-C	-11.57	79.77	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	417	U	O4'-C1'-N1	11.56	117.45	108.20
34	i	817	G	O4'-C1'-N9	11.56	117.45	108.20
12	L	153	LYS	O-C-N	-11.55	104.22	122.70
34	i	225	C	C3'-C2'-C1'	11.54	110.73	101.50
34	i	929	G	C1'-O4'-C4'	-11.51	100.69	109.90
34	i	277	U	C3'-C2'-C1'	11.51	110.70	101.50
34	i	1437	U	O4'-C1'-N1	11.50	117.40	108.20
34	i	672	U	O4'-C1'-N1	11.50	117.40	108.20
10	J	146	SER	C-N-CA	11.49	150.43	121.70
34	i	1718	G	O4'-C1'-N9	11.49	117.39	108.20
34	i	800	U	O4'-C1'-N1	11.49	117.39	108.20
34	i	31	U	O4'-C1'-N1	11.46	117.37	108.20
34	i	1552	C	P-O3'-C3'	11.47	133.46	119.70
34	i	728	U	P-O3'-C3'	11.44	133.43	119.70
34	i	365	U	O4'-C1'-N1	11.43	117.34	108.20
34	i	368	U	O4'-C1'-N1	11.40	117.32	108.20
9	I	6	ASP	CB-CG-OD2	-11.40	108.04	118.30
34	i	385	G	O4'-C1'-N9	11.39	117.31	108.20
34	i	536	G	P-O3'-C3'	11.39	133.37	119.70
34	i	1000	U	O4'-C1'-N1	11.38	117.31	108.20
34	i	728	U	P-O5'-C5'	11.36	139.08	120.90
34	i	358	U	O4'-C1'-N1	11.36	117.29	108.20
34	i	1643	G	C4'-C3'-O3'	11.33	135.65	113.00
34	i	413	U	O4'-C1'-N1	11.31	117.25	108.20
34	i	1206	G	O4'-C1'-N9	11.29	117.23	108.20
34	i	1237	A	C3'-C2'-C1'	11.29	110.53	101.50
34	i	474	A	P-O3'-C3'	11.27	133.23	119.70
34	i	1414	C	P-O3'-C3'	11.27	133.22	119.70
34	i	1500	U	O4'-C1'-N1	11.25	117.20	108.20
34	i	1405	A	P-O3'-C3'	11.24	133.19	119.70
34	i	145	G	C1'-O4'-C4'	-11.24	100.91	109.90
34	i	411	G	O4'-C1'-N9	11.24	117.19	108.20
34	i	861	A	O4'-C1'-N9	11.23	117.19	108.20
4	D	5	ILE	CA-C-N	11.23	141.91	117.20
34	i	1496	G	N9-C1'-C2'	11.21	128.57	114.00
12	L	20	LYS	N-CA-CB	-11.20	90.44	110.60
34	i	1815	U	O4'-C1'-N1	11.20	117.16	108.20
34	i	1742	C	P-O3'-C3'	11.17	133.10	119.70
34	i	1348	G	C1'-O4'-C4'	-11.15	100.98	109.90
27	a	98	PRO	C-N-CD	-11.14	96.09	120.60
34	i	947	C	C3'-C2'-C1'	11.12	110.40	101.50
34	i	520	U	C4'-C3'-O3'	-11.11	86.07	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	170	A	C1'-O4'-C4'	-11.11	101.01	109.90
34	i	1848	U	O4'-C1'-N1	11.05	117.04	108.20
34	i	1715	U	O4'-C1'-N1	11.04	117.03	108.20
34	i	1414	C	C1'-O4'-C4'	-11.02	101.08	109.90
34	i	1648	U	O4'-C1'-N1	11.01	117.01	108.20
34	i	207	U	P-O3'-C3'	11.00	132.90	119.70
34	i	340	C	O4'-C1'-C2'	-10.99	94.81	105.80
34	i	913	U	O4'-C1'-N1	10.99	116.99	108.20
34	i	1255	A	O4'-C1'-C2'	10.98	117.48	107.60
34	i	1024	A	P-O3'-C3'	-10.97	106.53	119.70
34	i	948	G	O4'-C1'-N9	10.96	116.97	108.20
34	i	1738	G	N9-C1'-C2'	10.96	128.25	114.00
34	i	1432	C	C3'-C2'-C1'	10.92	110.24	101.50
34	i	1194	G	O4'-C1'-C2'	10.92	117.43	107.60
34	i	1154	G	O4'-C1'-N9	10.92	116.93	108.20
34	i	1772	C	O4'-C1'-N1	10.91	116.93	108.20
34	i	1290	G	O4'-C1'-N9	10.91	116.93	108.20
34	i	918	A	O4'-C1'-N9	10.90	116.92	108.20
34	i	1062	U	O4'-C1'-N1	10.90	116.92	108.20
34	i	61	A	O4'-C1'-N9	10.88	116.91	108.20
18	R	86	PRO	CA-N-CD	-10.88	96.27	111.50
34	i	832	G	O4'-C1'-N9	10.88	116.91	108.20
24	X	91	LEU	CA-CB-CG	10.87	140.30	115.30
34	i	1138	G	O4'-C1'-N9	10.87	116.89	108.20
34	i	103	A	O4'-C1'-N9	10.86	116.89	108.20
34	i	827	G	O4'-C1'-N9	10.85	116.88	108.20
26	Z	107	VAL	N-CA-CB	-10.85	87.64	111.50
34	i	684	A	O4'-C1'-N9	10.85	116.88	108.20
34	i	862	U	O4'-C1'-N1	10.84	116.87	108.20
34	i	1408	C	P-O3'-C3'	10.84	132.70	119.70
34	i	671	U	O4'-C1'-N1	10.82	116.86	108.20
34	i	676	U	O4'-C1'-N1	10.82	116.85	108.20
34	i	684	A	O4'-C1'-C2'	10.81	117.33	107.60
34	i	1672	U	O4'-C1'-N1	10.80	116.84	108.20
34	i	1193	G	O4'-C1'-N9	10.80	116.84	108.20
34	i	631	A	O4'-C1'-N9	10.78	116.83	108.20
18	R	89	SER	CA-C-N	10.78	140.91	117.20
34	i	907	C	P-O5'-C5'	10.76	138.12	120.90
34	i	1037	G	C1'-O4'-C4'	-10.75	101.30	109.90
34	i	405	A	O4'-C1'-N9	10.74	116.80	108.20
34	i	477	U	P-O3'-C3'	10.73	132.57	119.70
34	i	200	U	O4'-C1'-N1	10.72	116.78	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	436	G	N9-C1'-C2'	10.70	127.91	114.00
19	S	87	GLN	O-C-N	-10.70	105.59	122.70
34	i	1546	U	O4'-C1'-C2'	10.69	117.22	107.60
34	i	592	G	O4'-C1'-N9	10.68	116.75	108.20
34	i	991	G	O4'-C1'-N9	10.68	116.74	108.20
34	i	1632	A	P-O3'-C3'	10.66	132.49	119.70
34	i	858	A	N9-C1'-C2'	10.66	127.86	114.00
34	i	835	C	C1'-O4'-C4'	-10.66	101.38	109.90
19	S	40	TYR	CB-CG-CD2	-10.65	114.61	121.00
34	i	522	C	O4'-C1'-C2'	-10.65	95.15	105.80
34	i	1021	U	O4'-C1'-N1	10.65	116.72	108.20
34	i	57	U	O4'-C1'-N1	10.64	116.71	108.20
34	i	1536	G	O4'-C1'-N9	10.64	116.71	108.20
34	i	1111	U	O4'-C1'-N1	10.63	116.70	108.20
34	i	521	A	C1'-O4'-C4'	-10.61	101.41	109.90
34	i	1743	G	O4'-C1'-N9	10.60	116.68	108.20
34	i	878	U	O4'-C1'-N1	10.60	116.68	108.20
9	I	6	ASP	CB-CG-OD1	10.57	127.81	118.30
34	i	1354	U	O4'-C1'-N1	10.57	116.66	108.20
34	i	1329	U	O4'-C1'-N1	10.57	116.65	108.20
34	i	1615	A	N9-C1'-C2'	10.56	127.73	114.00
34	i	1724	U	O4'-C1'-N1	10.56	116.65	108.20
19	S	88	LYS	CB-CA-C	10.56	131.51	110.40
27	a	10	ARG	CD-NE-CZ	10.56	138.38	123.60
34	i	143	U	N1-C1'-C2'	10.56	127.72	114.00
34	i	1555	U	O4'-C1'-N1	10.54	116.63	108.20
34	i	1407	G	C1'-O4'-C4'	-10.54	101.47	109.90
34	i	154	U	O4'-C1'-N1	10.53	116.62	108.20
34	i	894	U	P-O3'-C3'	10.53	132.34	119.70
34	i	915	A	N9-C1'-C2'	10.53	127.69	114.00
34	i	1012	U	C3'-C2'-C1'	10.53	109.92	101.50
34	i	1308	G	O4'-C1'-N9	-10.52	99.78	108.20
34	i	204	G	O4'-C1'-N9	10.52	116.61	108.20
34	i	1346	U	O4'-C1'-N1	10.51	116.61	108.20
34	i	1674	A	P-O3'-C3'	10.50	132.31	119.70
34	i	1299	C	C3'-C2'-C1'	-10.50	93.10	101.50
34	i	1170	U	O4'-C1'-N1	10.49	116.59	108.20
34	i	739	U	O4'-C1'-N1	10.48	116.59	108.20
34	i	1079	A	C1'-O4'-C4'	-10.47	101.52	109.90
34	i	1210	A	P-O3'-C3'	10.46	132.26	119.70
34	i	1570	G	O4'-C1'-N9	10.46	116.57	108.20
34	i	1295	A	O4'-C1'-N9	10.46	116.57	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1856	G	O4'-C1'-C2'	-10.44	95.36	105.80
34	i	93	U	O4'-C1'-N1	10.44	116.55	108.20
34	i	794	G	O4'-C1'-C2'	-10.44	95.36	105.80
34	i	490	A	O3'-P-O5'	-10.42	84.21	104.00
34	i	1479	A	O4'-C1'-N9	10.40	116.52	108.20
34	i	19	A	O4'-C1'-N9	10.39	116.51	108.20
34	i	1255	A	C3'-C2'-C1'	-10.39	93.19	101.50
34	i	1074	C	N1-C1'-C2'	10.39	127.50	114.00
34	i	1404	U	N1-C1'-C2'	10.38	127.49	114.00
34	i	1584	A	O4'-C1'-N9	10.38	116.50	108.20
7	G	170	ARG	CB-CG-CD	10.37	138.56	111.60
34	i	789	G	O4'-C1'-N9	10.37	116.49	108.20
34	i	542	G	O4'-C1'-N9	10.36	116.49	108.20
34	i	1288	C	C3'-C2'-C1'	10.36	109.78	101.50
34	i	79	A	O4'-C1'-N9	10.35	116.48	108.20
15	O	129	ILE	CB-CA-C	-10.35	90.91	111.60
34	i	1010	G	O4'-C1'-N9	10.31	116.45	108.20
34	i	385	G	C1'-O4'-C4'	-10.30	101.66	109.90
34	i	322	G	O4'-C1'-N9	10.28	116.42	108.20
34	i	170	A	C3'-C2'-C1'	-10.26	93.29	101.50
10	J	138	ARG	N-CA-C	10.25	138.69	111.00
18	R	2	GLY	O-C-N	-10.25	106.30	122.70
34	i	167	G	O4'-C1'-N9	10.25	116.40	108.20
34	i	141	A	O4'-C1'-C2'	-10.24	95.56	105.80
34	i	815	G	O4'-C1'-N9	10.24	116.39	108.20
34	i	585	U	O4'-C1'-N1	10.23	116.39	108.20
34	i	1551	A	P-O3'-C3'	10.23	131.98	119.70
34	i	792	G	O4'-C1'-N9	10.23	116.38	108.20
34	i	65	C	P-O3'-C3'	10.22	131.97	119.70
34	i	1774	G	C1'-O4'-C4'	-10.21	101.74	109.90
5	E	171	ASP	N-CA-C	10.20	138.53	111.00
34	i	1075	C	C3'-C2'-C1'	10.20	109.66	101.50
34	i	935	U	O4'-C1'-N1	10.19	116.36	108.20
34	i	74	G	C3'-C2'-C1'	10.19	109.65	101.50
34	i	517	C	O4'-C1'-N1	10.19	116.35	108.20
34	i	168	C	N1-C1'-C2'	10.17	127.22	114.00
34	i	349	U	O4'-C1'-N1	10.17	116.34	108.20
34	i	1072	G	O4'-C1'-N9	10.17	116.34	108.20
34	i	1857	A	O4'-C1'-C2'	-10.17	95.63	105.80
34	i	1683	C	OP2-P-O3'	10.17	127.57	105.20
11	K	43	LEU	CA-CB-CG	10.16	138.68	115.30
11	K	55	ARG	NE-CZ-NH1	10.16	125.38	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1662	U	O4'-C1'-N1	10.15	116.32	108.20
34	i	1811	G	O4'-C1'-N9	10.15	116.32	108.20
34	i	1615	A	O4'-C1'-N9	10.14	116.31	108.20
34	i	102	A	P-O3'-C3'	10.14	131.87	119.70
34	i	546	U	P-O5'-C5'	10.14	137.12	120.90
34	i	1416	G	C1'-O4'-C4'	-10.14	101.79	109.90
34	i	1303	U	P-O3'-C3'	10.13	131.86	119.70
34	i	287	U	C1'-O4'-C4'	-10.12	101.80	109.90
21	U	71	GLY	N-CA-C	10.11	138.38	113.10
34	i	865	A	P-O3'-C3'	10.11	131.83	119.70
34	i	1408	C	O3'-P-O5'	-10.11	84.80	104.00
34	i	300	G	O4'-C1'-N9	10.08	116.26	108.20
34	i	662	A	O4'-C1'-N9	10.08	116.26	108.20
34	i	1414	C	P-O5'-C5'	10.08	137.03	120.90
34	i	1397	A	O4'-C1'-N9	10.06	116.25	108.20
34	i	1643	G	P-O3'-C3'	10.05	131.76	119.70
34	i	1722	G	O4'-C1'-N9	10.05	116.24	108.20
34	i	1232	G	O4'-C1'-C2'	10.04	116.64	107.60
34	i	1281	G	C4'-C3'-O3'	10.04	133.09	113.00
34	i	1258	C	N1-C1'-C2'	10.04	127.05	114.00
34	i	73	C	O4'-C1'-C2'	-10.03	95.77	105.80
34	i	795	U	O4'-C1'-N1	10.03	116.22	108.20
34	i	590	G	O4'-C1'-N9	10.02	116.22	108.20
34	i	971	G	O4'-C1'-N9	10.02	116.21	108.20
34	i	1472	A	N9-C1'-C2'	-10.02	100.98	114.00
34	i	204	G	N9-C1'-C2'	-10.01	100.99	114.00
34	i	546	U	C4'-C3'-C2'	-10.00	92.60	102.60
4	D	4	GLN	CG-CD-NE2	9.98	140.66	116.70
8	H	110	THR	CA-C-O	-9.98	99.14	120.10
11	K	1	MET	CB-CG-SD	9.98	142.33	112.40
34	i	31	U	P-O3'-C3'	9.98	131.67	119.70
34	i	1532	A	O4'-C1'-C2'	-9.98	95.82	105.80
34	i	663	G	O4'-C1'-N9	9.96	116.17	108.20
34	i	1435	A	O4'-C1'-N9	9.96	116.17	108.20
24	X	23	HIS	CB-CA-C	9.95	130.30	110.40
34	i	547	U	N1-C1'-C2'	9.95	126.93	114.00
34	i	1276	G	O4'-C1'-N9	9.93	116.15	108.20
7	G	180	VAL	CB-CA-C	-9.93	92.54	111.40
9	I	43	ILE	CA-C-O	9.92	140.94	120.10
34	i	914	U	N1-C1'-C2'	9.91	126.88	114.00
34	i	1715	U	C1'-O4'-C4'	9.90	117.82	109.90
34	i	1211	C	O4'-C1'-C2'	-9.89	95.91	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	5	U	O4'-C1'-N1	9.89	116.11	108.20
34	i	1771	G	C3'-C2'-C1'	-9.88	93.59	101.50
34	i	1798	U	O4'-C1'-N1	9.88	116.10	108.20
34	i	121	U	O4'-C1'-N1	9.87	116.09	108.20
34	i	665	U	O4'-C1'-N1	9.86	116.09	108.20
34	i	344	U	O4'-C1'-N1	9.86	116.09	108.20
34	i	105	U	O4'-C1'-N1	9.85	116.08	108.20
34	i	189	G	C1'-O4'-C4'	-9.83	102.03	109.90
34	i	616	G	O4'-C1'-C2'	-9.83	95.97	105.80
34	i	1234	U	O4'-C1'-N1	9.83	116.06	108.20
34	i	92	A	N9-C1'-C2'	9.82	126.77	114.00
34	i	879	U	O4'-C1'-N1	9.82	116.06	108.20
34	i	1232	G	O4'-C1'-N9	9.82	116.06	108.20
34	i	1151	U	O4'-C1'-N1	9.80	116.04	108.20
34	i	1004	A	P-O3'-C3'	9.79	131.45	119.70
33	g	142	VAL	CA-C-N	-9.79	95.66	117.20
18	R	42	PRO	CA-N-CD	-9.78	97.80	111.50
34	i	1551	A	O4'-C1'-N9	9.78	116.03	108.20
34	i	1251	G	C1'-O4'-C4'	-9.77	102.08	109.90
34	i	1803	A	O4'-C1'-N9	9.76	116.01	108.20
34	i	1036	G	O4'-C1'-N9	9.76	116.00	108.20
34	i	1659	A	N9-C1'-C2'	9.75	126.68	114.00
19	S	91	LYS	CG-CD-CE	9.74	141.13	111.90
34	i	1194	G	C1'-O4'-C4'	-9.74	102.11	109.90
34	i	1413	C	C3'-C2'-C1'	9.74	109.29	101.50
28	b	36	LYS	N-CA-C	9.73	137.27	111.00
34	i	468	G	O4'-C1'-N9	9.72	115.97	108.20
34	i	810	U	O4'-C1'-N1	9.71	115.97	108.20
34	i	1010	G	C1'-O4'-C4'	-9.70	102.14	109.90
21	U	104	ILE	N-CA-C	-9.70	84.80	111.00
34	i	1503	G	C1'-O4'-C4'	-9.70	102.14	109.90
34	i	1249	A	P-O3'-C3'	9.69	131.33	119.70
34	i	520	U	O4'-C4'-C3'	-9.69	94.31	104.00
34	i	80	G	C3'-C2'-C1'	9.69	109.25	101.50
1	A	200	ASP	CB-CA-C	-9.68	91.03	110.40
34	i	743	U	O4'-C1'-N1	9.68	115.95	108.20
3	C	93	LYS	C-N-CA	9.67	145.87	121.70
34	i	626	C	C3'-C2'-C1'	9.67	109.24	101.50
34	i	1771	G	O4'-C1'-N9	9.67	115.94	108.20
34	i	381	C	O4'-C1'-N1	9.67	115.93	108.20
33	g	159	ASN	N-CA-C	9.66	137.08	111.00
34	i	1126	G	N9-C1'-C2'	-9.66	101.37	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	928	G	O4'-C1'-N9	9.66	115.93	108.20
34	i	1163	G	O4'-C1'-N9	9.66	115.93	108.20
34	i	1716	U	P-O3'-C3'	9.66	131.29	119.70
34	i	1132	U	O4'-C1'-N1	9.65	115.92	108.20
34	i	1328	A	O4'-C1'-C2'	-9.64	96.16	105.80
10	J	89	GLU	N-CA-C	9.64	137.03	111.00
34	i	397	G	O4'-C1'-N9	9.64	115.91	108.20
34	i	1115	A	O4'-C1'-N9	9.64	115.91	108.20
34	i	1490	U	P-O3'-C3'	9.62	131.24	119.70
34	i	321	C	O4'-C1'-N1	9.62	115.89	108.20
34	i	647	U	O4'-C1'-N1	9.62	115.89	108.20
34	i	1333	C	O4'-C1'-N1	9.62	115.89	108.20
34	i	1432	C	P-O3'-C3'	9.61	131.23	119.70
34	i	830	C	C1'-O4'-C4'	-9.60	102.22	109.90
18	R	1	MET	CA-C-O	9.60	140.25	120.10
34	i	1530	U	P-O3'-C3'	9.59	131.21	119.70
34	i	1077	U	O4'-C1'-N1	9.59	115.87	108.20
34	i	66	G	N9-C1'-C2'	9.58	126.46	114.00
19	S	54	LYS	N-CA-C	9.58	136.87	111.00
34	i	1288	C	O4'-C1'-N1	-9.57	100.54	108.20
34	i	1599	G	O4'-C1'-N9	9.57	115.86	108.20
34	i	824	G	O4'-C1'-C2'	9.55	116.20	107.60
34	i	545	A	P-O3'-C3'	9.55	131.16	119.70
18	R	3	ARG	N-CA-CB	9.54	127.77	110.60
4	D	193	ASP	N-CA-C	-9.54	85.25	111.00
34	i	394	G	O4'-C1'-N9	9.53	115.83	108.20
34	i	999	U	O4'-C1'-N1	9.52	115.81	108.20
34	i	1490	U	O4'-C1'-N1	9.51	115.81	108.20
34	i	67	C	C3'-C2'-C1'	-9.51	93.89	101.50
34	i	826	A	C3'-C2'-C1'	-9.51	93.89	101.50
34	i	160	U	P-O3'-C3'	9.50	131.10	119.70
9	I	105	ASP	CB-CG-OD2	9.50	126.85	118.30
34	i	838	C	C3'-C2'-C1'	9.48	109.08	101.50
34	i	1291	A	O4'-C1'-N9	9.47	115.77	108.20
27	a	63	VAL	C-N-CA	9.46	145.36	121.70
34	i	434	G	O4'-C1'-N9	9.46	115.77	108.20
34	i	1140	A	N9-C1'-C2'	9.46	126.29	114.00
34	i	1564	A	O5'-P-OP2	-9.46	97.19	105.70
25	Y	103	SER	CA-C-N	9.45	138.00	117.20
34	i	1546	U	O4'-C1'-N1	9.45	115.76	108.20
34	i	987	G	O4'-C1'-N9	9.44	115.75	108.20
34	i	1215	C	O4'-C1'-N1	9.43	115.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1585	C	N1-C1'-C2'	9.43	126.26	114.00
34	i	951	A	O4'-C1'-N9	9.43	115.74	108.20
34	i	909	A	C3'-C2'-C1'	9.43	109.04	101.50
34	i	883	U	P-O5'-C5'	9.42	135.98	120.90
34	i	961	U	O4'-C1'-N1	9.42	115.74	108.20
34	i	1802	U	O4'-C1'-N1	9.41	115.73	108.20
34	i	207	U	C4'-C3'-O3'	9.41	131.82	113.00
34	i	1204	A	O4'-C1'-N9	9.41	115.73	108.20
8	H	111	LYS	N-CA-CB	9.40	127.53	110.60
34	i	1845	A	O4'-C1'-C2'	-9.40	96.40	105.80
34	i	504	U	O4'-C1'-N1	9.39	115.72	108.20
34	i	642	U	O4'-C1'-N1	9.39	115.72	108.20
27	a	10	ARG	CB-CG-CD	9.39	136.02	111.60
34	i	1125	G	O4'-C1'-N9	9.39	115.71	108.20
34	i	1266	G	O4'-C1'-N9	9.39	115.71	108.20
34	i	431	C	N1-C1'-C2'	9.39	126.20	114.00
34	i	1013	U	O4'-C1'-N1	9.39	115.71	108.20
34	i	1582	G	O4'-C1'-N9	9.39	115.71	108.20
34	i	651	U	O4'-C1'-N1	9.38	115.71	108.20
34	i	1317	G	O4'-C1'-N9	9.38	115.70	108.20
34	i	424	G	C4'-C3'-O3'	-9.35	89.77	109.40
34	i	1197	U	O4'-C1'-N1	9.35	115.68	108.20
4	D	82	GLY	C-N-CA	-9.34	98.34	121.70
34	i	51	U	O4'-C1'-N1	9.34	115.67	108.20
34	i	892	U	O4'-C1'-N1	9.34	115.67	108.20
34	i	1068	U	O4'-C1'-N1	9.33	115.66	108.20
34	i	1153	G	O4'-C1'-N9	9.32	115.66	108.20
34	i	1444	A	P-O3'-C3'	9.32	130.88	119.70
26	Z	104	ARG	CD-NE-CZ	-9.31	110.57	123.60
34	i	840	U	O4'-C1'-N1	9.30	115.64	108.20
34	i	793	C	C3'-C2'-C1'	9.30	108.94	101.50
34	i	561	U	O4'-C1'-N1	9.30	115.64	108.20
34	i	728	U	N1-C1'-C2'	9.30	126.09	114.00
22	V	61	ARG	NE-CZ-NH1	9.29	124.95	120.30
34	i	79	A	C5'-C4'-O4'	9.29	120.24	109.10
33	g	274	VAL	O-C-N	-9.28	107.86	122.70
7	G	122	PRO	CA-N-CD	-9.27	98.52	111.50
34	i	408	A	N9-C1'-C2'	9.27	126.05	114.00
34	i	1642	A	O4'-C1'-N9	9.27	115.61	108.20
34	i	524	G	O3'-P-O5'	-9.27	86.39	104.00
34	i	905	G	O3'-P-O5'	9.27	121.61	104.00
34	i	1228	U	O4'-C1'-N1	9.27	115.61	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1037	G	O4'-C1'-C2'	9.26	115.94	107.60
34	i	1288	C	N1-C1'-C2'	9.26	126.03	114.00
34	i	1736	U	N1-C1'-C2'	9.25	126.03	114.00
7	G	157	VAL	N-CA-C	9.25	135.97	111.00
34	i	1786	G	O4'-C1'-C2'	9.25	115.92	107.60
21	U	94	PRO	CA-N-CD	-9.24	98.56	111.50
34	i	660	A	O4'-C1'-N9	9.24	115.59	108.20
34	i	1810	G	O4'-C1'-N9	9.24	115.59	108.20
34	i	619	A	O4'-C1'-N9	9.23	115.59	108.20
34	i	551	A	C4'-C3'-O3'	-9.22	90.04	109.40
34	i	1617	U	O4'-C1'-N1	-9.22	100.83	108.20
2	B	40	ASN	C-N-CA	-9.21	98.66	121.70
19	S	40	TYR	N-CA-C	9.21	135.87	111.00
34	i	107	A	O4'-C1'-N9	9.21	115.57	108.20
34	i	1199	G	N9-C1'-C2'	9.21	125.97	114.00
21	U	53	PRO	CA-N-CD	-9.20	98.61	111.50
12	L	17	PHE	O-C-N	9.20	137.42	122.70
34	i	446	C	N1-C1'-C2'	9.20	125.96	114.00
34	i	147	A	N9-C1'-C2'	-9.19	101.90	112.00
34	i	995	G	O4'-C1'-N9	9.18	115.55	108.20
34	i	152	U	O4'-C1'-N1	9.18	115.54	108.20
34	i	1065	U	P-O3'-C3'	9.18	130.72	119.70
34	i	1403	U	N1-C1'-C2'	9.18	125.93	114.00
34	i	1129	A	O4'-C1'-N9	9.17	115.54	108.20
34	i	1360	U	O3'-P-O5'	9.17	121.43	104.00
34	i	910	U	O4'-C1'-N1	9.16	115.53	108.20
34	i	855	G	O4'-C1'-N9	9.15	115.52	108.20
34	i	214	A	C3'-C2'-C1'	9.13	108.81	101.50
34	i	1076	A	O4'-C1'-N9	9.13	115.51	108.20
34	i	1261	A	C3'-C2'-C1'	9.13	108.80	101.50
16	P	37	TYR	CB-CG-CD2	-9.12	115.53	121.00
34	i	53	C	O4'-C1'-C2'	-9.12	96.68	105.80
34	i	1102	C	O4'-C1'-N1	9.12	115.50	108.20
34	i	1743	G	P-O5'-C5'	9.11	135.47	120.90
34	i	1022	C	C3'-C2'-C1'	9.10	108.78	101.50
34	i	641	U	O4'-C1'-N1	9.09	115.47	108.20
34	i	414	C	N1-C1'-C2'	9.07	125.80	114.00
4	D	5	ILE	C-N-CA	9.07	144.36	121.70
34	i	99	A	O4'-C1'-N9	9.06	115.45	108.20
34	i	735	C	N1-C1'-C2'	9.05	125.77	114.00
34	i	730	C	O4'-C1'-C2'	-9.05	96.75	105.80
12	L	17	PHE	CA-C-N	-9.04	97.31	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1189	U	O4'-C1'-N1	9.04	115.43	108.20
34	i	1523	G	C3'-C2'-C1'	-9.04	94.27	101.50
9	I	105	ASP	CB-CG-OD1	-9.04	110.17	118.30
34	i	824	G	C3'-C2'-C1'	-9.04	94.27	101.50
34	i	114	G	O4'-C1'-N9	9.03	115.43	108.20
34	i	437	A	O4'-C1'-C2'	-9.03	96.77	105.80
34	i	24	C	O3'-P-O5'	-9.03	86.85	104.00
34	i	298	G	C3'-C2'-C1'	-9.03	94.28	101.50
34	i	89	C	O4'-C1'-N1	9.02	115.42	108.20
34	i	60	A	C3'-C2'-C1'	-9.02	94.29	101.50
19	S	53	THR	O-C-N	-9.01	108.28	122.70
27	a	10	ARG	NH1-CZ-NH2	-9.01	109.49	119.40
34	i	56	G	O4'-C1'-N9	9.01	115.41	108.20
34	i	609	A	O4'-C1'-N9	9.01	115.41	108.20
34	i	1472	A	C1'-O4'-C4'	9.01	117.10	109.90
34	i	1515	G	C1'-O4'-C4'	-9.00	102.70	109.90
34	i	1469	G	P-O3'-C3'	9.00	130.50	119.70
21	U	93	SER	C-N-CD	8.99	147.28	128.40
34	i	1455	G	C1'-O4'-C4'	-8.98	102.71	109.90
34	i	1847	C	N1-C1'-C2'	8.98	125.68	114.00
34	i	1683	C	O3'-P-O5'	8.98	121.06	104.00
34	i	1427	G	O4'-C1'-N9	8.97	115.38	108.20
34	i	652	G	N9-C1'-C2'	8.97	125.66	114.00
34	i	1272	A	N9-C1'-C2'	-8.96	102.14	112.00
34	i	1824	U	C3'-C2'-C1'	8.96	108.67	101.50
34	i	640	A	C3'-C2'-C1'	8.95	108.66	101.50
34	i	482	C	O4'-C1'-C2'	-8.95	96.85	105.80
34	i	484	C	C3'-C2'-C1'	8.95	108.66	101.50
34	i	1214	C	N1-C1'-C2'	8.94	125.62	114.00
24	X	62	PRO	CA-N-CD	-8.93	99.00	111.50
34	i	201	G	O4'-C1'-N9	8.93	115.34	108.20
34	i	653	C	N1-C1'-C2'	8.93	125.61	114.00
27	a	97	PRO	N-CA-CB	-8.92	92.60	103.30
34	i	1631	G	O4'-C1'-N9	8.92	115.33	108.20
10	J	165	TYR	CB-CA-C	8.91	128.23	110.40
34	i	405	A	N9-C1'-C2'	-8.91	102.19	112.00
34	i	1405	A	P-O5'-C5'	8.91	135.16	120.90
34	i	689	G	P-O3'-C3'	8.91	130.39	119.70
34	i	733	G	C1'-O4'-C4'	8.91	117.03	109.90
34	i	947	C	P-O5'-C5'	8.91	135.15	120.90
28	b	12	PRO	CA-N-CD	-8.90	99.04	111.50
34	i	1473	U	P-O5'-C5'	8.90	135.15	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1687	U	O4'-C1'-N1	8.90	115.32	108.20
34	i	1855	G	O4'-C1'-C2'	8.90	115.61	107.60
34	i	956	U	N1-C1'-C2'	8.90	125.57	114.00
34	i	1546	U	C1'-O4'-C4'	-8.89	102.78	109.90
19	S	142	ARG	CB-CA-C	-8.89	92.61	110.40
34	i	542	G	P-O5'-C5'	8.89	135.13	120.90
34	i	1184	A	O4'-C1'-C2'	-8.89	96.91	105.80
34	i	1716	U	O4'-C1'-C2'	-8.89	96.91	105.80
34	i	325	G	N9-C1'-C2'	-8.89	102.22	112.00
34	i	543	U	O4'-C1'-C2'	-8.89	96.91	105.80
34	i	1861	U	C3'-C2'-C1'	-8.89	94.39	101.50
34	i	501	U	O4'-C1'-N1	8.87	115.30	108.20
34	i	444	U	O4'-C1'-N1	8.87	115.30	108.20
34	i	847	C	O3'-P-O5'	-8.87	87.15	104.00
34	i	189	G	N9-C1'-C2'	8.87	125.53	114.00
34	i	1191	A	O4'-C1'-N9	8.87	115.29	108.20
34	i	25	A	N9-C1'-C2'	-8.86	102.26	112.00
34	i	1068	U	C1'-O4'-C4'	8.86	116.99	109.90
19	S	88	LYS	C-N-CA	-8.85	99.59	121.70
34	i	234	C	C1'-O4'-C4'	8.84	116.97	109.90
34	i	234	C	O4'-C1'-C2'	-8.84	96.96	105.80
19	S	94	LYS	CA-C-N	-8.84	97.75	117.20
34	i	1776	G	C3'-C2'-C1'	-8.84	94.43	101.50
34	i	212	G	O4'-C1'-N9	8.84	115.27	108.20
34	i	738	U	P-O3'-C3'	8.84	130.30	119.70
34	i	1335	U	O4'-C1'-N1	8.84	115.27	108.20
34	i	1596	A	P-O3'-C3'	8.83	130.30	119.70
34	i	1775	A	P-O3'-C3'	8.83	130.29	119.70
22	V	67	ASP	CB-CA-C	8.82	128.05	110.40
34	i	548	G	C3'-C2'-C1'	-8.82	94.44	101.50
34	i	1159	C	N1-C1'-C2'	8.82	125.46	114.00
34	i	108	G	O4'-C1'-N9	8.81	115.25	108.20
25	Y	52	PRO	CA-N-CD	-8.81	99.17	111.50
33	g	145	GLU	N-CA-C	-8.80	87.23	111.00
34	i	58	C	O4'-C1'-N1	8.80	115.24	108.20
34	i	583	C	C3'-C2'-C1'	8.80	108.54	101.50
34	i	1436	C	C3'-C2'-C1'	8.80	108.54	101.50
34	i	963	C	O4'-C1'-N1	8.80	115.24	108.20
34	i	1501	U	O4'-C1'-N1	8.80	115.24	108.20
34	i	1428	U	C3'-C2'-C1'	8.79	108.53	101.50
34	i	1222	G	N9-C1'-C2'	8.79	125.42	114.00
34	i	224	U	N1-C1'-C2'	-8.79	102.33	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	104	GLY	N-CA-C	8.78	135.04	113.10
34	i	299	G	C1'-O4'-C4'	-8.76	102.90	109.90
6	F	130	ARG	NE-CZ-NH1	8.75	124.68	120.30
34	i	959	A	O4'-C1'-N9	8.75	115.20	108.20
34	i	472	G	O4'-C1'-N9	8.75	115.20	108.20
34	i	1706	U	O4'-C1'-N1	8.74	115.19	108.20
34	i	951	A	P-O3'-C3'	8.73	130.18	119.70
34	i	1104	G	P-O3'-C3'	8.73	130.18	119.70
34	i	837	G	C1'-C2'-O2'	-8.73	84.41	110.60
34	i	611	C	N1-C1'-C2'	8.72	125.34	114.00
34	i	1676	U	O4'-C1'-N1	8.72	115.18	108.20
34	i	222	G	C1'-O4'-C4'	-8.72	102.92	109.90
34	i	455	A	P-O3'-C3'	8.72	130.16	119.70
25	Y	86	GLU	CB-CA-C	-8.71	92.98	110.40
34	i	1232	G	C3'-C2'-C1'	-8.71	94.53	101.50
34	i	1388	U	O4'-C1'-N1	8.71	115.17	108.20
17	Q	134	GLY	C-N-CD	-8.71	101.44	120.60
34	i	564	A	C3'-C2'-C1'	8.70	108.46	101.50
34	i	1770	G	O4'-C1'-N9	8.69	115.15	108.20
34	i	1131	C	O4'-C1'-N1	8.68	115.15	108.20
34	i	1576	C	O4'-C1'-C2'	-8.68	97.12	105.80
34	i	140	U	O4'-C1'-N1	8.67	115.14	108.20
34	i	1208	G	N9-C1'-C2'	8.67	125.27	114.00
34	i	1466	C	O4'-C1'-N1	8.67	115.13	108.20
34	i	1425	G	O4'-C1'-N9	8.66	115.13	108.20
21	U	67	LYS	C-N-CA	-8.66	100.05	121.70
8	H	111	LYS	N-CA-C	-8.65	87.64	111.00
34	i	1548	C	P-O3'-C3'	8.65	130.08	119.70
34	i	669	A	O4'-C1'-N9	8.64	115.11	108.20
34	i	872	C	O4'-C1'-N1	8.64	115.11	108.20
34	i	1003	C	C3'-C2'-C1'	8.64	108.41	101.50
34	i	903	G	N9-C1'-C2'	8.64	125.23	114.00
34	i	1108	U	O4'-C1'-N1	8.64	115.11	108.20
34	i	835	C	P-O3'-C3'	8.63	130.06	119.70
34	i	1601	G	O4'-C1'-N9	8.64	115.11	108.20
34	i	1272	A	O4'-C1'-C2'	-8.63	97.17	105.80
34	i	21	U	O4'-C1'-N1	8.63	115.10	108.20
10	J	118	GLY	O-C-N	-8.62	108.91	122.70
34	i	43	U	O4'-C1'-N1	8.62	115.10	108.20
34	i	929	G	O4'-C1'-N9	8.62	115.10	108.20
34	i	79	A	C4'-C3'-C2'	-8.61	93.99	102.60
34	i	159	A	O4'-C1'-N9	8.61	115.09	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	161	U	O4'-C1'-C2'	-8.59	97.21	105.80
34	i	1229	G	C1'-O4'-C4'	-8.59	103.03	109.90
34	i	792	G	P-O3'-C3'	8.58	130.00	119.70
6	F	45	TYR	CA-CB-CG	-8.58	97.10	113.40
9	I	184	ARG	N-CA-CB	8.57	126.03	110.60
34	i	1646	A	N9-C1'-C2'	-8.57	102.57	112.00
34	i	1726	A	O4'-C1'-N9	8.57	115.06	108.20
34	i	972	G	P-O5'-C5'	8.57	134.61	120.90
34	i	1067	G	O4'-C1'-N9	8.57	115.06	108.20
28	b	10	PRO	CA-N-CD	-8.57	99.50	111.50
34	i	1199	G	C1'-O4'-C4'	-8.56	103.05	109.90
34	i	180	G	C4'-C3'-O3'	8.56	130.12	113.00
32	f	122	PRO	CA-N-CD	-8.56	99.52	111.50
34	i	296	U	P-O3'-C3'	-8.56	109.43	119.70
34	i	849	C	O3'-P-O5'	8.55	120.25	104.00
34	i	1044	G	C1'-O4'-C4'	-8.54	103.06	109.90
8	H	36	LEU	CA-CB-CG	-8.54	95.65	115.30
34	i	1198	U	N1-C1'-C2'	-8.54	102.61	112.00
16	P	17	TYR	CB-CA-C	8.53	127.47	110.40
34	i	153	G	O4'-C1'-N9	8.53	115.03	108.20
34	i	929	G	O4'-C1'-C2'	8.53	115.28	107.60
34	i	1517	A	O4'-C1'-N9	8.53	115.02	108.20
34	i	1109	A	O4'-C1'-N9	8.53	115.02	108.20
34	i	234	C	O4'-C1'-N1	8.53	115.02	108.20
11	K	87	PRO	C-N-CA	8.52	143.01	121.70
16	P	69	PRO	CA-N-CD	-8.52	99.58	111.50
34	i	795	U	N1-C1'-C2'	8.52	125.07	114.00
34	i	1325	U	C1'-O4'-C4'	-8.52	103.09	109.90
34	i	604	G	C3'-C2'-C1'	8.51	108.31	101.50
10	J	161	LEU	O-C-N	-8.51	109.08	122.70
34	i	1655	C	O4'-C1'-N1	8.51	115.01	108.20
34	i	1581	U	O4'-C1'-N1	8.51	115.00	108.20
27	a	80	HIS	N-CA-CB	-8.48	95.33	110.60
34	i	442	G	C3'-C2'-C1'	8.48	108.28	101.50
34	i	1442	A	P-O3'-C3'	8.47	129.87	119.70
34	i	544	A	C3'-C2'-C1'	-8.47	94.72	101.50
34	i	848	G	P-O3'-C3'	8.46	129.85	119.70
34	i	1458	U	C4'-C3'-O3'	8.46	129.92	113.00
34	i	343	C	C5'-C4'-C3'	8.46	129.53	116.00
34	i	1272	A	C3'-C2'-C1'	8.46	108.26	101.50
34	i	1425	G	N9-C1'-C2'	-8.45	102.70	112.00
34	i	1118	A	O4'-C1'-C2'	-8.45	97.35	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1205	A	O4'-C1'-N9	8.45	114.96	108.20
34	i	25	A	O4'-C1'-C2'	-8.44	97.36	105.80
34	i	1002	C	N1-C1'-C2'	8.44	124.97	114.00
34	i	1685	U	O4'-C1'-N1	8.44	114.95	108.20
34	i	727	G	O3'-P-O5'	8.43	120.02	104.00
31	e	95	LYS	CA-C-N	8.43	135.75	117.20
34	i	1504	A	N9-C1'-C2'	-8.43	102.73	112.00
34	i	276	U	C3'-C2'-C1'	8.42	108.24	101.50
34	i	849	C	P-O3'-C3'	-8.42	109.59	119.70
34	i	602	U	O4'-C1'-N1	8.42	114.93	108.20
34	i	1208	G	C1'-O4'-C4'	-8.41	103.17	109.90
8	H	108	SER	N-CA-CB	8.41	123.12	110.50
19	S	95	TYR	N-CA-CB	-8.41	95.47	110.60
34	i	131	C	P-O3'-C3'	8.40	129.78	119.70
34	i	144	U	N1-C1'-C2'	8.40	124.92	114.00
34	i	385	G	C3'-C2'-C1'	-8.40	94.78	101.50
34	i	1728	U	O4'-C1'-N1	8.40	114.92	108.20
34	i	1411	C	N1-C1'-C2'	8.39	124.91	114.00
34	i	1014	U	N1-C1'-C2'	8.39	124.90	114.00
34	i	1082	G	O3'-P-O5'	-8.38	88.07	104.00
4	D	193	ASP	C-N-CD	8.38	146.00	128.40
21	U	70	CYS	C-N-CA	8.38	139.90	122.30
34	i	276	U	O4'-C1'-N1	-8.38	101.50	108.20
34	i	518	A	C1'-O4'-C4'	-8.38	103.20	109.90
34	i	1178	A	O4'-C1'-N9	8.38	114.90	108.20
34	i	28	U	O4'-C1'-N1	8.38	114.90	108.20
5	E	43	PRO	CA-N-CD	-8.37	99.78	111.50
7	G	170	ARG	CB-CA-C	-8.37	93.66	110.40
34	i	546	U	O4'-C1'-N1	8.37	114.89	108.20
34	i	966	G	P-O3'-C3'	8.37	129.74	119.70
34	i	1322	U	C3'-C2'-C1'	8.36	108.19	101.50
34	i	1434	A	O4'-C1'-C2'	-8.36	97.44	105.80
17	Q	18	THR	CA-CB-OG1	8.36	126.56	109.00
34	i	739	U	O4'-C1'-C2'	-8.35	97.45	105.80
34	i	859	U	C1'-O4'-C4'	-8.35	103.22	109.90
34	i	512	A	O4'-C1'-N9	8.35	114.88	108.20
34	i	1316	G	C3'-C2'-C1'	-8.35	94.82	101.50
34	i	1292	U	O4'-C1'-N1	8.35	114.88	108.20
34	i	97	U	N1-C1'-C2'	8.34	124.84	114.00
34	i	1529	C	O4'-C1'-C2'	-8.34	97.46	105.80
34	i	1198	U	O4'-C1'-N1	8.34	114.87	108.20
34	i	1526	A	O4'-C1'-N9	8.33	114.87	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	824	G	O4'-C1'-N9	8.33	114.86	108.20
34	i	1464	C	O4'-C1'-N1	8.32	114.86	108.20
34	i	1714	A	C1'-O4'-C4'	8.32	116.56	109.90
34	i	1804	U	O4'-C1'-N1	8.32	114.86	108.20
34	i	691	G	P-O3'-C3'	8.31	129.68	119.70
34	i	1468	C	C4'-C3'-O3'	8.31	129.62	113.00
34	i	1474	U	O4'-C1'-N1	8.31	114.85	108.20
34	i	543	U	C4'-C3'-C2'	-8.31	94.29	102.60
34	i	1110	U	O4'-C1'-N1	8.31	114.85	108.20
34	i	1151	U	C5'-C4'-O4'	8.31	119.07	109.10
34	i	103	A	C3'-C2'-C1'	-8.30	94.86	101.50
34	i	733	G	N9-C1'-C2'	-8.30	102.87	112.00
34	i	964	U	O4'-C1'-C2'	-8.29	97.51	105.80
34	i	1513	C	O4'-C1'-N1	8.29	114.83	108.20
34	i	376	C	N1-C1'-C2'	8.29	124.77	114.00
34	i	1014	U	C1'-O4'-C4'	-8.29	103.27	109.90
26	Z	104	ARG	NE-CZ-NH1	-8.28	116.16	120.30
34	i	639	U	C1'-O4'-C4'	-8.28	103.27	109.90
34	i	1226	C	C1'-O4'-C4'	-8.28	103.27	109.90
34	i	1376	C	C3'-C2'-C1'	8.28	108.13	101.50
34	i	1137	G	O4'-C1'-N9	8.28	114.83	108.20
27	a	58	VAL	CB-CA-C	-8.28	95.68	111.40
34	i	82	G	O4'-C1'-C2'	-8.27	97.53	105.80
34	i	1688	G	C1'-O4'-C4'	-8.27	103.28	109.90
10	J	180	LYS	C-N-CA	8.27	139.67	122.30
34	i	887	G	C1'-O4'-C4'	-8.26	103.29	109.90
1	A	133	PRO	CA-N-CD	-8.26	99.93	111.50
12	L	147	LYS	N-CA-C	8.26	133.29	111.00
32	f	87	THR	N-CA-C	-8.25	88.72	111.00
34	i	80	G	P-O5'-C5'	8.25	134.10	120.90
34	i	389	C	C3'-C2'-C1'	8.25	108.10	101.50
34	i	520	U	P-O3'-C3'	8.25	129.60	119.70
34	i	1336	U	O4'-C1'-N1	8.25	114.80	108.20
34	i	1691	C	N1-C1'-C2'	8.25	124.72	114.00
14	N	7	PRO	CA-N-CD	-8.24	99.96	111.50
19	S	6	PRO	N-CA-C	8.24	133.52	112.10
34	i	156	G	P-O3'-C3'	-8.24	109.82	119.70
34	i	315	C	P-O3'-C3'	8.24	129.58	119.70
34	i	1332	C	O4'-C1'-N1	8.24	114.79	108.20
34	i	546	U	N1-C1'-C2'	8.23	124.70	114.00
34	i	1344	G	N9-C1'-C2'	-8.23	102.94	112.00
34	i	1618	A	C3'-C2'-C1'	-8.23	94.91	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	P	37	TYR	CB-CG-CD1	8.23	125.94	121.00
34	i	837	G	O4'-C4'-C3'	-8.23	95.77	104.00
34	i	1010	G	C3'-C2'-C1'	-8.23	94.92	101.50
34	i	291	U	O4'-C1'-N1	8.22	114.78	108.20
34	i	1777	C	O4'-C1'-C2'	-8.22	97.58	105.80
34	i	451	U	O4'-C1'-N1	8.21	114.77	108.20
34	i	1307	C	C1'-O4'-C4'	-8.21	103.33	109.90
34	i	36	U	O4'-C1'-N1	8.21	114.77	108.20
34	i	1233	C	C3'-C2'-C1'	8.20	108.06	101.50
21	U	93	SER	CA-C-N	-8.20	94.15	117.10
34	i	905	G	P-O3'-C3'	-8.19	109.87	119.70
34	i	313	C	C3'-C2'-C1'	8.19	108.06	101.50
34	i	186	G	C1'-O4'-C4'	-8.19	103.35	109.90
3	C	93	LYS	O-C-N	-8.19	109.60	122.70
34	i	38	A	N9-C1'-C2'	-8.19	102.99	112.00
34	i	908	C	C3'-C2'-C1'	8.19	108.05	101.50
34	i	1305	C	O4'-C1'-C2'	-8.19	97.61	105.80
9	I	5	ARG	O-C-N	-8.18	109.61	122.70
34	i	1715	U	O4'-C1'-C2'	-8.18	97.62	105.80
34	i	578	G	O3'-P-O5'	-8.18	88.46	104.00
34	i	303	G	O4'-C1'-N9	8.17	114.74	108.20
34	i	605	C	N1-C1'-C2'	8.17	124.62	114.00
34	i	311	C	C3'-C2'-C1'	8.17	108.03	101.50
34	i	1660	G	O4'-C1'-C2'	8.16	114.95	107.60
34	i	1850	C	O4'-C1'-N1	8.15	114.72	108.20
25	Y	87	PRO	CA-N-CD	-8.15	100.09	111.50
34	i	1006	G	C3'-C2'-C1'	-8.15	94.98	101.50
21	U	103	SER	C-N-CA	-8.14	101.34	121.70
34	i	162	C	P-O3'-C3'	8.14	129.47	119.70
34	i	1632	A	O4'-C1'-N9	8.14	114.71	108.20
21	U	57	PRO	CA-N-CD	-8.14	100.11	111.50
34	i	435	A	C1'-O4'-C4'	-8.14	103.39	109.90
34	i	927	C	C5'-C4'-C3'	-8.13	102.99	116.00
34	i	334	U	O4'-C1'-N1	8.13	114.70	108.20
34	i	630	A	C1'-O4'-C4'	-8.13	103.39	109.90
34	i	909	A	O4'-C1'-C2'	-8.13	97.67	105.80
12	L	153	LYS	C-N-CA	8.13	142.02	121.70
34	i	851	G	O4'-C1'-N9	8.12	114.70	108.20
34	i	1026	A	O4'-C1'-N9	8.12	114.70	108.20
34	i	520	U	N1-C1'-C2'	-8.12	103.07	112.00
34	i	679	U	P-O3'-C3'	-8.12	109.96	119.70
21	U	93	SER	O-C-N	8.12	136.52	121.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1034	U	O4'-C1'-N1	8.11	114.69	108.20
34	i	357	U	O4'-C1'-N1	8.11	114.69	108.20
34	i	351	U	O4'-C1'-N1	8.11	114.69	108.20
11	K	55	ARG	NE-CZ-NH2	-8.10	116.25	120.30
34	i	1191	A	O4'-C4'-C3'	-8.10	95.90	104.00
34	i	1615	A	C1'-O4'-C4'	-8.08	103.44	109.90
34	i	1836	C	O4'-C1'-N1	8.08	114.66	108.20
34	i	281	U	O4'-C1'-N1	8.07	114.66	108.20
34	i	1068	U	O4'-C1'-C2'	-8.07	97.73	105.80
34	i	1534	U	O4'-C1'-C2'	-8.07	97.73	105.80
34	i	1133	U	C2'-C3'-O3'	8.07	127.25	109.50
34	i	1467	C	N1-C1'-C2'	8.06	124.48	114.00
34	i	1651	G	O4'-C1'-N9	8.06	114.65	108.20
34	i	939	U	O4'-C1'-N1	8.06	114.65	108.20
34	i	854	A	O4'-C1'-C2'	-8.06	97.74	105.80
34	i	1322	U	C1'-O4'-C4'	-8.06	103.45	109.90
11	K	84	HIS	CB-CA-C	-8.05	94.29	110.40
34	i	217	U	O4'-C1'-N1	8.05	114.64	108.20
34	i	495	G	O4'-C1'-N9	8.05	114.64	108.20
34	i	145	G	N9-C1'-C2'	8.04	124.45	114.00
34	i	333	A	O4'-C1'-N9	8.04	114.63	108.20
34	i	429	A	N9-C1'-C2'	-8.04	103.16	112.00
34	i	1093	G	O4'-C1'-N9	8.04	114.63	108.20
34	i	205	G	N9-C1'-C2'	8.03	124.44	114.00
34	i	491	C	P-O3'-C3'	8.03	129.34	119.70
34	i	844	U	N1-C1'-C2'	8.03	124.44	114.00
34	i	238	G	O4'-C1'-N9	8.02	114.62	108.20
34	i	562	U	O4'-C1'-N1	8.02	114.61	108.20
34	i	1161	G	N9-C1'-C2'	-8.02	103.18	112.00
17	Q	31	LEU	N-CA-C	8.01	132.64	111.00
34	i	490	A	P-O3'-C3'	8.01	129.31	119.70
34	i	1229	G	O4'-C1'-C2'	8.01	114.81	107.60
34	i	41	G	O4'-C1'-N9	-8.00	101.80	108.20
34	i	1655	C	P-O3'-C3'	-8.00	110.10	119.70
34	i	570	U	C4'-C3'-O3'	8.00	128.99	113.00
34	i	1660	G	C1'-O4'-C4'	-8.00	103.50	109.90
34	i	744	C	C3'-C2'-C1'	7.99	107.89	101.50
34	i	619	A	O4'-C1'-C2'	-7.99	97.81	105.80
34	i	1060	C	O4'-C1'-C2'	-7.99	97.81	105.80
34	i	520	U	P-O5'-C5'	-7.98	108.13	120.90
34	i	435	A	N9-C1'-C2'	7.97	124.36	114.00
34	i	1650	C	N1-C1'-C2'	7.97	124.36	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1786	G	C3'-C2'-C1'	-7.97	95.12	101.50
34	i	366	A	O4'-C1'-N9	7.97	114.58	108.20
34	i	1046	A	O4'-C1'-N9	7.97	114.57	108.20
34	i	464	G	N9-C1'-C2'	7.96	124.36	114.00
34	i	598	C	C3'-C2'-C1'	7.96	107.87	101.50
34	i	1095	G	O4'-C1'-N9	7.96	114.57	108.20
34	i	1686	U	O4'-C1'-N1	7.96	114.57	108.20
34	i	645	A	O4'-C1'-N9	7.96	114.57	108.20
34	i	890	G	O4'-C1'-N9	7.96	114.56	108.20
34	i	1030	A	O4'-C1'-N9	7.96	114.56	108.20
34	i	1741	U	C4'-C3'-O3'	7.95	128.91	113.00
34	i	1289	A	N9-C1'-C2'	7.95	124.34	114.00
34	i	1359	C	C3'-C2'-C1'	7.95	107.86	101.50
34	i	80	G	O4'-C1'-C2'	-7.95	97.85	105.80
7	G	131	ARG	C-N-CA	-7.95	101.83	121.70
34	i	1537	C	C1'-O4'-C4'	-7.95	103.54	109.90
34	i	1707	A	O4'-C1'-N9	7.95	114.56	108.20
34	i	1786	G	C1'-O4'-C4'	-7.94	103.55	109.90
34	i	1117	G	O4'-C1'-N9	7.94	114.55	108.20
34	i	960	A	C1'-O4'-C4'	7.94	116.25	109.90
34	i	1303	U	O4'-C1'-N1	7.93	114.55	108.20
34	i	1312	C	N1-C1'-C2'	7.93	124.31	114.00
34	i	1515	G	O3'-P-O5'	7.93	119.06	104.00
34	i	549	G	O4'-C1'-N9	7.92	114.54	108.20
34	i	872	C	O4'-C1'-C2'	-7.92	97.88	105.80
34	i	467	G	O4'-C1'-N9	7.92	114.53	108.20
34	i	525	G	P-O3'-C3'	7.92	129.20	119.70
34	i	207	U	O3'-P-O5'	-7.92	88.96	104.00
34	i	650	C	N1-C1'-C2'	7.91	124.29	114.00
34	i	1111	U	P-O3'-C3'	7.91	129.19	119.70
34	i	1369	C	C3'-C2'-C1'	7.91	107.83	101.50
34	i	77	A	N9-C1'-C2'	-7.91	103.30	112.00
34	i	905	G	C4'-C3'-O3'	7.91	128.82	113.00
34	i	1653	G	O4'-C1'-C2'	7.91	114.72	107.60
34	i	117	C	O4'-C1'-N1	7.91	114.52	108.20
34	i	33	G	O4'-C1'-N9	7.90	114.52	108.20
34	i	96	C	N1-C1'-C2'	7.89	124.26	114.00
34	i	986	A	C3'-C2'-C1'	7.89	107.81	101.50
26	Z	104	ARG	N-CA-CB	-7.89	96.40	110.60
26	Z	70	PRO	CA-N-CD	-7.89	100.45	111.50
9	I	184	ARG	CB-CA-C	-7.89	94.62	110.40
34	i	342	U	C3'-C2'-C1'	7.88	107.81	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	917	G	O4'-C1'-N9	7.88	114.50	108.20
34	i	316	C	O4'-C1'-C2'	-7.88	97.92	105.80
34	i	1677	C	O4'-C1'-C2'	-7.88	97.92	105.80
34	i	626	C	P-O5'-C5'	7.87	133.50	120.90
34	i	1297	A	C4'-C3'-O3'	7.87	128.75	113.00
34	i	40	A	O4'-C1'-N9	7.87	114.50	108.20
34	i	1348	G	O4'-C1'-C2'	7.87	114.69	107.60
34	i	147	A	C1'-O4'-C4'	7.87	116.19	109.90
34	i	368	U	C1'-O4'-C4'	-7.86	103.61	109.90
34	i	1860	A	P-O3'-C3'	7.86	129.13	119.70
34	i	791	A	O4'-C1'-N9	7.86	114.48	108.20
34	i	1471	G	P-O5'-C5'	7.85	133.47	120.90
34	i	1678	C	N1-C1'-C2'	7.85	124.21	114.00
34	i	222	G	O4'-C1'-C2'	7.85	114.66	107.60
34	i	1091	U	N1-C1'-C2'	7.84	124.20	114.00
34	i	329	A	C2'-C3'-O3'	7.84	126.75	109.50
7	G	161	PRO	CA-N-CD	-7.84	100.52	111.50
34	i	342	U	O4'-C1'-C2'	-7.84	97.96	105.80
34	i	817	G	P-O3'-C3'	7.84	129.11	119.70
34	i	821	A	P-O3'-C3'	-7.83	110.30	119.70
34	i	541	U	N1-C1'-C2'	7.83	124.18	114.00
34	i	1136	G	O4'-C1'-N9	7.83	114.47	108.20
34	i	1779	C	O4'-C1'-C2'	-7.83	97.97	105.80
8	H	15	LYS	C-N-CD	-7.83	103.38	120.60
34	i	977	A	C3'-C2'-C1'	7.82	107.76	101.50
34	i	1725	U	O4'-C1'-N1	7.82	114.46	108.20
11	K	35	LEU	CA-CB-CG	-7.82	97.33	115.30
34	i	1386	U	O4'-C1'-N1	7.82	114.45	108.20
34	i	1449	C	N1-C1'-C2'	7.81	124.16	114.00
34	i	1666	G	N9-C1'-C2'	7.81	124.16	114.00
34	i	1539	C	C3'-C2'-C1'	7.81	107.75	101.50
34	i	429	A	O4'-C1'-N9	7.81	114.45	108.20
34	i	1524	C	N1-C1'-C2'	7.81	124.15	114.00
34	i	1420	G	O4'-C1'-N9	7.81	114.44	108.20
34	i	1655	C	C5'-C4'-C3'	-7.80	103.52	116.00
34	i	1632	A	N9-C1'-C2'	-7.80	103.42	112.00
34	i	733	G	O4'-C1'-N9	7.80	114.44	108.20
34	i	1485	A	O4'-C1'-N9	7.80	114.44	108.20
25	Y	51	THR	C-N-CD	-7.79	103.45	120.60
34	i	612	C	N1-C1'-C2'	7.79	124.13	114.00
34	i	1709	U	O4'-C1'-N1	7.79	114.43	108.20
34	i	594	A	O4'-C1'-C2'	-7.79	98.01	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	735	C	O4'-C1'-C2'	-7.79	98.01	105.80
34	i	82	G	O4'-C1'-N9	7.78	114.42	108.20
16	P	36	LEU	CA-C-N	-7.77	100.10	117.20
24	X	23	HIS	CA-C-N	7.77	134.30	117.20
7	G	155	GLN	O-C-N	-7.76	110.28	122.70
34	i	169	U	P-O3'-C3'	7.76	129.01	119.70
34	i	907	C	N1-C1'-C2'	7.76	124.08	114.00
34	i	1696	C	O4'-C1'-C2'	-7.75	98.05	105.80
9	I	5	ARG	C-N-CA	7.75	141.07	121.70
34	i	904	A	O3'-P-O5'	-7.75	89.28	104.00
34	i	1841	G	N9-C1'-C2'	-7.74	103.49	112.00
9	I	178	ARG	CG-CD-NE	-7.73	95.56	111.80
34	i	301	C	O4'-C1'-N1	7.73	114.39	108.20
34	i	690	C	O4'-C1'-N1	7.73	114.39	108.20
34	i	1692	A	O4'-C1'-N9	7.72	114.38	108.20
34	i	227	A	C1'-O4'-C4'	7.72	116.08	109.90
34	i	76	U	O4'-C1'-N1	7.72	114.38	108.20
17	Q	146	ARG	NE-CZ-NH1	-7.71	116.44	120.30
34	i	1405	A	C5'-C4'-C3'	7.71	128.33	116.00
34	i	1003	C	N1-C1'-C2'	7.71	124.02	114.00
34	i	1771	G	C1'-O4'-C4'	-7.70	103.74	109.90
31	e	77	HIS	C-N-CA	7.70	138.47	122.30
3	C	148	VAL	C-N-CD	-7.70	103.67	120.60
10	J	166	GLY	C-N-CA	-7.70	106.14	122.30
20	T	42	HIS	CB-CA-C	-7.70	95.01	110.40
34	i	164	A	C1'-O4'-C4'	-7.69	103.75	109.90
34	i	1606	G	O4'-C1'-N9	7.69	114.36	108.20
34	i	3	C	O4'-C1'-C2'	-7.69	98.11	105.80
34	i	524	G	C4'-C3'-O3'	7.69	128.38	113.00
34	i	2	A	P-O3'-C3'	7.69	128.93	119.70
2	B	37	ALA	C-N-CA	-7.68	102.49	121.70
34	i	1092	G	O4'-C1'-N9	7.68	114.34	108.20
34	i	902	U	O4'-C1'-N1	7.67	114.34	108.20
34	i	171	A	N9-C1'-C2'	-7.67	103.56	112.00
34	i	191	C	C4'-C3'-O3'	7.67	128.34	113.00
34	i	296	U	O4'-C1'-N1	7.67	114.34	108.20
34	i	1182	U	O4'-C1'-N1	7.67	114.33	108.20
34	i	987	G	O4'-C1'-C2'	7.67	114.50	107.60
34	i	218	A	O4'-C1'-N9	7.66	114.33	108.20
34	i	595	A	O4'-C1'-N9	7.66	114.33	108.20
34	i	1828	A	O4'-C1'-N9	7.66	114.33	108.20
34	i	659	A	O4'-C1'-N9	7.66	114.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	J	93	LYS	C-N-CA	7.66	140.84	121.70
18	R	89	SER	O-C-N	-7.66	110.45	122.70
34	i	1056	A	N9-C1'-C2'	7.65	123.95	114.00
34	i	1448	A	C3'-C2'-C1'	7.65	107.62	101.50
34	i	931	G	O4'-C1'-N9	7.65	114.32	108.20
5	E	259	LYS	N-CA-C	7.64	131.64	111.00
34	i	594	A	C3'-C2'-C1'	7.64	107.61	101.50
34	i	959	A	O4'-C1'-C2'	7.63	114.47	107.60
34	i	1215	C	C3'-C2'-C1'	7.63	107.60	101.50
34	i	1289	A	C3'-C2'-C1'	7.63	107.60	101.50
19	S	6	PRO	CA-C-N	7.63	133.98	117.20
34	i	446	C	C3'-C2'-C1'	7.63	107.60	101.50
34	i	1859	C	C4'-C3'-O3'	7.63	128.25	113.00
34	i	521	A	O4'-C4'-C3'	-7.62	96.38	104.00
34	i	554	A	O4'-C1'-N9	7.62	114.30	108.20
34	i	1134	C	O3'-P-O5'	7.62	118.48	104.00
34	i	1597	U	O3'-P-O5'	-7.62	89.53	104.00
34	i	630	A	N9-C1'-C2'	7.61	123.90	114.00
34	i	526	A	C4'-C3'-O3'	7.61	128.22	113.00
34	i	1447	G	C3'-C2'-C1'	7.61	107.59	101.50
34	i	1263	C	N1-C1'-C2'	7.59	123.86	114.00
33	g	274	VAL	C-N-CA	-7.58	102.74	121.70
12	L	153	LYS	CA-C-N	7.58	133.88	117.20
34	i	1632	A	C1'-O4'-C4'	7.58	115.96	109.90
34	i	78	C	N1-C1'-C2'	-7.57	103.67	112.00
34	i	1771	G	O4'-C1'-C2'	7.57	114.41	107.60
34	i	35	C	C3'-C2'-C1'	7.57	107.55	101.50
34	i	825	C	O4'-C1'-C2'	-7.57	98.23	105.80
34	i	1043	C	C3'-C2'-C1'	7.57	107.55	101.50
34	i	1488	U	O4'-C1'-N1	7.56	114.25	108.20
34	i	1591	U	O4'-C1'-N1	7.56	114.25	108.20
34	i	848	G	C4'-C3'-O3'	-7.56	93.52	109.40
34	i	400	G	O4'-C1'-N9	7.56	114.25	108.20
6	F	36	GLN	N-CA-C	-7.55	90.61	111.00
34	i	1517	A	C5'-C4'-O4'	7.55	118.16	109.10
34	i	689	G	O4'-C1'-C2'	-7.55	98.25	105.80
4	D	94	ARG	CB-CA-C	-7.54	95.31	110.40
13	M	10	GLY	N-CA-C	7.54	131.96	113.10
34	i	1720	U	O4'-C1'-N1	7.54	114.23	108.20
34	i	837	G	P-O5'-C5'	7.54	132.96	120.90
34	i	1530	U	O3'-P-O5'	-7.54	89.68	104.00
9	I	55	TYR	CA-CB-CG	-7.53	99.08	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1689	U	O4'-C1'-N1	7.53	114.23	108.20
34	i	628	C	O4'-C1'-N1	7.53	114.23	108.20
34	i	450	A	O4'-C1'-N9	7.53	114.22	108.20
34	i	639	U	N1-C1'-C2'	7.53	123.79	114.00
34	i	1406	C	C3'-C2'-C1'	7.53	107.52	101.50
34	i	1690	A	O4'-C1'-C2'	-7.52	98.28	105.80
34	i	1270	G	C3'-C2'-C1'	7.51	107.51	101.50
34	i	385	G	O4'-C1'-C2'	7.51	114.36	107.60
16	P	52	LYS	C-N-CA	-7.51	102.92	121.70
34	i	1269	C	P-O3'-C3'	-7.51	110.69	119.70
34	i	522	C	O4'-C1'-N1	7.51	114.21	108.20
34	i	1113	C	C3'-C2'-C1'	-7.51	95.49	101.50
34	i	1028	C	N1-C1'-C2'	7.50	123.76	114.00
6	F	131	ALA	C-N-CA	-7.50	106.54	122.30
10	J	161	LEU	C-N-CA	-7.50	102.94	121.70
34	i	606	A	N9-C1'-C2'	7.50	123.75	114.00
34	i	529	C	O4'-C1'-N1	7.50	114.20	108.20
8	H	109	ARG	CA-CB-CG	-7.49	96.92	113.40
34	i	865	A	O4'-C1'-N9	7.49	114.19	108.20
34	i	1505	U	C4'-C3'-O3'	-7.49	93.67	109.40
34	i	296	U	P-O5'-C5'	7.49	132.88	120.90
34	i	1055	G	P-O3'-C3'	7.49	128.69	119.70
34	i	1499	C	O4'-C1'-N1	7.49	114.19	108.20
21	U	104	ILE	N-CA-CB	7.48	128.01	110.80
34	i	976	A	C1'-O4'-C4'	-7.48	103.92	109.90
34	i	794	G	P-O5'-C5'	7.48	132.86	120.90
34	i	1396	U	O4'-C1'-N1	7.48	114.18	108.20
34	i	1413	C	C1'-O4'-C4'	7.48	115.88	109.90
34	i	168	C	C3'-C2'-C1'	7.48	107.48	101.50
34	i	420	C	O4'-C1'-N1	7.47	114.18	108.20
34	i	188	U	O4'-C1'-N1	7.47	114.17	108.20
34	i	1410	A	O4'-C1'-N9	7.47	114.17	108.20
34	i	1258	C	C1'-O4'-C4'	-7.46	103.93	109.90
34	i	1424	G	N9-C1'-C2'	-7.46	103.79	112.00
34	i	795	U	P-O3'-C3'	7.46	128.65	119.70
34	i	484	C	O4'-C1'-C2'	-7.45	98.35	105.80
34	i	1237	A	P-O3'-C3'	7.45	128.64	119.70
34	i	853	U	C1'-O4'-C4'	-7.45	103.94	109.90
10	J	17	ARG	CB-CA-C	-7.44	95.52	110.40
34	i	436	G	C3'-C2'-C1'	7.44	107.45	101.50
34	i	76	U	P-O5'-C5'	7.44	132.80	120.90
34	i	1776	G	C5'-C4'-C3'	7.44	127.90	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1043	C	O4'-C1'-C2'	-7.43	98.36	105.80
5	E	75	LYS	N-CA-C	7.43	131.07	111.00
34	i	170	A	O4'-C1'-N9	7.43	114.15	108.20
34	i	1630	C	O4'-C1'-N1	7.43	114.15	108.20
34	i	1648	U	P-O3'-C3'	7.43	128.62	119.70
34	i	927	C	O4'-C1'-C2'	-7.43	98.37	105.80
34	i	1600	G	C1'-O4'-C4'	-7.43	103.96	109.90
32	f	148	TYR	CA-CB-CG	-7.42	99.30	113.40
34	i	1559	C	N1-C1'-C2'	7.42	123.65	114.00
34	i	1504	A	C1'-O4'-C4'	7.42	115.83	109.90
34	i	797	U	O4'-C1'-N1	7.42	114.13	108.20
8	H	106	ARG	NE-CZ-NH1	-7.41	116.60	120.30
34	i	230	C	O4'-C1'-N1	7.41	114.13	108.20
34	i	798	A	C1'-O4'-C4'	-7.41	103.97	109.90
19	S	9	PHE	N-CA-C	7.41	130.99	111.00
34	i	604	G	N9-C1'-C2'	7.41	123.63	114.00
34	i	1194	G	C3'-C2'-C1'	-7.41	95.58	101.50
34	i	1533	C	C4'-C3'-C2'	-7.40	95.20	102.60
34	i	35	C	O4'-C1'-C2'	-7.40	98.40	105.80
34	i	210	G	N9-C1'-C2'	-7.39	103.86	112.00
34	i	1664	G	O4'-C1'-N9	7.39	114.11	108.20
34	i	1244	U	O4'-C1'-N1	7.39	114.11	108.20
34	i	1667	U	O4'-C1'-N1	7.39	114.11	108.20
34	i	534	G	O4'-C1'-N9	7.39	114.11	108.20
34	i	743	U	O4'-C1'-C2'	-7.39	98.41	105.80
10	J	144	ILE	CA-CB-CG1	-7.38	96.97	111.00
18	R	3	ARG	NE-CZ-NH2	7.38	123.99	120.30
18	R	1	MET	O-C-N	7.38	135.74	123.20
33	g	50	THR	C-N-CA	-7.38	103.26	121.70
34	i	514	U	O4'-C1'-N1	7.38	114.10	108.20
34	i	841	G	P-O3'-C3'	-7.37	110.85	119.70
34	i	1186	A	O4'-C1'-C2'	-7.37	98.43	105.80
23	W	100	GLY	N-CA-C	-7.37	94.67	113.10
24	X	115	ILE	N-CA-C	-7.37	91.10	111.00
28	b	9	HIS	C-N-CD	-7.37	104.39	120.60
34	i	1237	A	O4'-C1'-C2'	-7.37	98.43	105.80
34	i	81	U	N1-C1'-C2'	7.36	123.57	114.00
18	R	1	MET	CB-CA-C	7.36	125.12	110.40
10	J	180	LYS	CB-CA-C	-7.35	95.70	110.40
34	i	1773	G	N9-C1'-C2'	-7.35	103.91	112.00
34	i	1773	G	C3'-C2'-C1'	-7.35	95.62	101.50
25	Y	64	PHE	C-N-CA	-7.35	106.87	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	34	U	C1'-O4'-C4'	-7.35	104.02	109.90
9	I	3	ILE	N-CA-C	7.34	130.83	111.00
34	i	1504	A	O4'-C1'-N9	7.34	114.07	108.20
34	i	1404	U	C1'-O4'-C4'	-7.34	104.03	109.90
34	i	656	U	O4'-C1'-C2'	-7.34	98.46	105.80
4	D	82	GLY	O-C-N	-7.33	110.97	122.70
34	i	17	C	O4'-C1'-N1	7.33	114.07	108.20
34	i	1305	C	C3'-C2'-C1'	7.33	107.36	101.50
9	I	133	GLU	O-C-N	-7.33	110.97	122.70
21	U	93	SER	C-N-CA	-7.33	91.22	122.00
34	i	893	U	O3'-P-O5'	-7.33	90.08	104.00
34	i	1433	C	C1'-O4'-C4'	-7.33	104.04	109.90
34	i	432	C	C3'-C2'-C1'	7.33	107.36	101.50
34	i	1459	U	P-O5'-C5'	7.33	132.62	120.90
34	i	997	A	O4'-C1'-C2'	-7.32	98.48	105.80
34	i	187	C	O4'-C1'-C2'	-7.32	98.48	105.80
34	i	873	C	O4'-C1'-C2'	-7.32	98.48	105.80
34	i	1325	U	N1-C1'-C2'	7.32	123.51	114.00
34	i	1355	U	C1'-O4'-C4'	7.32	115.75	109.90
34	i	942	U	O4'-C1'-N1	7.32	114.05	108.20
34	i	1818	A	P-O3'-C3'	7.32	128.48	119.70
34	i	14	C	O4'-C1'-N1	7.31	114.05	108.20
34	i	980	C	N1-C1'-C2'	7.30	123.50	114.00
34	i	1019	A	C1'-O4'-C4'	7.30	115.74	109.90
34	i	547	U	O4'-C1'-C2'	-7.30	98.50	105.80
24	X	23	HIS	C-N-CA	7.30	139.95	121.70
34	i	985	C	O4'-C1'-C2'	-7.30	98.50	105.80
34	i	1560	C	O4'-C1'-C2'	-7.30	98.50	105.80
34	i	1527	C	C3'-C2'-C1'	7.30	107.34	101.50
34	i	277	U	O4'-C1'-C2'	-7.29	98.51	105.80
34	i	410	G	C1'-O4'-C4'	-7.29	104.07	109.90
34	i	798	A	O4'-C1'-N9	7.29	114.03	108.20
34	i	1068	U	P-O3'-C3'	7.29	128.44	119.70
34	i	608	C	O4'-C1'-N1	7.28	114.02	108.20
34	i	731	C	O4'-C1'-N1	7.28	114.02	108.20
35	l	67	PHE	CB-CG-CD2	-7.27	115.71	120.80
34	i	1845	A	P-O3'-C3'	7.27	128.43	119.70
34	i	27	A	O4'-C1'-N9	7.27	114.02	108.20
34	i	689	G	C3'-C2'-C1'	7.27	107.31	101.50
34	i	574	A	P-O5'-C5'	7.27	132.53	120.90
34	i	1204	A	N9-C1'-C2'	-7.27	104.00	112.00
34	i	684	A	C3'-C2'-C1'	-7.26	95.69	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1127	G	O4'-C1'-N9	7.26	114.01	108.20
34	i	1637	U	C1'-O4'-C4'	7.26	115.71	109.90
34	i	791	A	O4'-C1'-C2'	-7.26	98.54	105.80
34	i	1015	C	N1-C1'-C2'	7.25	123.43	114.00
33	g	275	ILE	N-CA-C	7.25	130.57	111.00
34	i	64	A	N9-C1'-C2'	-7.25	104.03	112.00
32	f	88	PRO	O-C-N	-7.25	111.10	122.70
34	i	1675	G	O4'-C1'-N9	7.25	114.00	108.20
14	N	19	ARG	N-CA-C	-7.25	91.43	111.00
34	i	1451	A	O4'-C1'-C2'	-7.25	98.56	105.80
34	i	503	G	O4'-C1'-N9	7.24	113.99	108.20
34	i	1041	U	O4'-C1'-N1	7.24	113.99	108.20
34	i	1666	G	C1'-O4'-C4'	-7.24	104.11	109.90
34	i	1717	G	P-O5'-C5'	7.24	132.49	120.90
34	i	1557	C	N1-C1'-C2'	7.24	123.41	114.00
18	R	89	SER	C-N-CA	-7.24	103.61	121.70
34	i	225	C	N1-C1'-C2'	7.24	123.41	114.00
34	i	359	C	N1-C1'-C2'	7.23	123.40	114.00
34	i	542	G	C3'-C2'-C1'	-7.23	95.72	101.50
34	i	57	U	C1'-O4'-C4'	7.23	115.68	109.90
8	H	110	THR	CA-C-N	7.23	133.10	117.20
34	i	454	A	O3'-P-O5'	7.23	117.73	104.00
34	i	1590	U	N1-C1'-C2'	-7.23	104.05	112.00
34	i	170	A	C5'-C4'-C3'	-7.22	104.44	116.00
34	i	808	A	O4'-C1'-N9	7.22	113.98	108.20
34	i	306	C	O4'-C1'-N1	7.22	113.98	108.20
34	i	498	A	O4'-C1'-N9	7.22	113.98	108.20
34	i	1175	G	O4'-C1'-N9	7.22	113.97	108.20
34	i	1059	C	C3'-C2'-C1'	7.22	107.27	101.50
8	H	191	GLU	O-C-N	-7.21	111.16	122.70
34	i	545	A	O4'-C1'-C2'	-7.21	98.58	105.80
34	i	1311	U	C3'-C2'-C1'	-7.21	95.73	101.50
34	i	740	G	C3'-C2'-C1'	7.21	107.27	101.50
11	K	37	ASP	CB-CG-OD2	7.21	124.79	118.30
34	i	1301	C	O4'-C1'-N1	7.21	113.97	108.20
34	i	673	G	O4'-C1'-N9	7.20	113.96	108.20
34	i	1672	U	N1-C1'-C2'	-7.20	104.08	112.00
34	i	1001	G	O4'-C1'-N9	7.20	113.96	108.20
10	J	35	TYR	CA-C-N	-7.20	101.80	116.20
34	i	290	A	O4'-C1'-N9	7.20	113.96	108.20
34	i	364	G	O4'-C1'-N9	7.20	113.96	108.20
34	i	106	C	O4'-C1'-N1	7.20	113.96	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	J	164	PRO	N-CA-CB	-7.20	94.67	103.30
18	R	1	MET	CA-CB-CG	7.19	125.52	113.30
34	i	162	C	C4'-C3'-O3'	7.19	127.38	113.00
34	i	60	A	O4'-C1'-C2'	7.19	114.07	107.60
34	i	1738	G	C1'-O4'-C4'	-7.19	104.15	109.90
34	i	279	G	N9-C1'-C2'	-7.18	104.10	112.00
34	i	1326	G	C1'-O4'-C4'	-7.18	104.15	109.90
34	i	567	U	O4'-C1'-N1	7.18	113.94	108.20
34	i	431	C	C1'-O4'-C4'	-7.18	104.16	109.90
34	i	1184	A	C3'-C2'-C1'	7.18	107.24	101.50
34	i	1693	C	C3'-C2'-C1'	7.17	107.24	101.50
34	i	1161	G	O4'-C1'-N9	7.17	113.94	108.20
34	i	166	A	O4'-C1'-N9	7.17	113.94	108.20
34	i	827	G	C3'-C2'-C1'	-7.17	95.77	101.50
34	i	332	C	C3'-C2'-C1'	7.17	107.23	101.50
34	i	834	G	O4'-C1'-N9	7.17	113.93	108.20
34	i	541	U	P-O5'-C5'	7.17	132.37	120.90
34	i	1767	C	O4'-C1'-N1	7.16	113.93	108.20
34	i	1781	G	O4'-C1'-N9	7.16	113.93	108.20
34	i	1827	C	C3'-C2'-C1'	7.16	107.23	101.50
34	i	1852	G	O4'-C1'-N9	7.16	113.93	108.20
4	D	52	ALA	C-N-CA	-7.16	103.81	121.70
34	i	1287	A	P-O3'-C3'	7.16	128.29	119.70
11	K	35	LEU	N-CA-C	-7.16	91.68	111.00
34	i	1452	G	C1'-O4'-C4'	-7.16	104.17	109.90
34	i	1517	A	P-O3'-C3'	-7.16	111.11	119.70
34	i	1656	A	C1'-O4'-C4'	-7.16	104.17	109.90
34	i	830	C	P-O3'-C3'	7.15	128.28	119.70
18	R	111	PHE	N-CA-C	7.15	130.31	111.00
34	i	1766	C	C3'-C2'-C1'	7.15	107.22	101.50
34	i	1210	A	O4'-C1'-N9	7.15	113.92	108.20
34	i	368	U	C4'-C3'-C2'	-7.14	95.45	102.60
34	i	49	C	N1-C1'-C2'	7.14	123.29	114.00
34	i	1116	U	N1-C1'-C2'	7.14	123.28	114.00
34	i	1060	C	C3'-C2'-C1'	7.14	107.21	101.50
34	i	1275	C	O4'-C1'-C2'	-7.14	98.66	105.80
34	i	1634	G	C3'-C2'-C1'	7.14	107.21	101.50
2	B	147	ASN	C-N-CA	-7.14	103.86	121.70
14	N	14	SER	CB-CA-C	-7.14	96.54	110.10
34	i	1118	A	N9-C1'-C2'	-7.13	104.15	112.00
19	S	93	GLY	CA-C-N	-7.13	101.52	117.20
34	i	1668	U	O4'-C1'-N1	7.13	113.90	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	53	ARG	NE-CZ-NH1	-7.13	116.74	120.30
34	i	342	U	O4'-C1'-N1	7.13	113.90	108.20
10	J	91	LYS	O-C-N	-7.12	111.30	122.70
34	i	1661	C	O4'-C1'-N1	7.12	113.90	108.20
34	i	1045	A	C4'-C3'-C2'	-7.12	95.48	102.60
18	R	2	GLY	CA-C-N	7.11	132.85	117.20
27	a	97	PRO	CA-CB-CG	7.11	118.31	104.80
34	i	145	G	O4'-C1'-C2'	7.11	114.00	107.60
34	i	1459	U	O4'-C1'-N1	7.11	113.89	108.20
34	i	894	U	P-O5'-C5'	7.11	132.28	120.90
34	i	1438	U	O4'-C1'-N1	7.11	113.89	108.20
34	i	1663	U	O5'-P-OP2	-7.11	99.30	105.70
20	T	4	VAL	N-CA-CB	-7.10	95.87	111.50
34	i	1052	U	P-O3'-C3'	-7.10	111.17	119.70
34	i	684	A	C1'-O4'-C4'	-7.10	104.22	109.90
34	i	91	A	O4'-C1'-N9	7.10	113.88	108.20
34	i	241	A	O4'-C1'-C2'	-7.10	98.70	105.80
34	i	299	G	P-O3'-C3'	7.09	128.21	119.70
34	i	997	A	C1'-O4'-C4'	7.09	115.57	109.90
16	P	49	LEU	CA-C-N	7.09	132.79	117.20
34	i	286	C	N1-C1'-C2'	7.09	123.21	114.00
24	X	22	TRP	C-N-CA	-7.09	103.98	121.70
34	i	635	C	C3'-C2'-C1'	7.09	107.17	101.50
34	i	956	U	C1'-O4'-C4'	-7.09	104.23	109.90
34	i	1288	C	P-O5'-C5'	-7.09	109.56	120.90
34	i	1578	C	C3'-C2'-C1'	7.09	107.17	101.50
34	i	1019	A	N9-C1'-C2'	-7.08	104.21	112.00
19	S	142	ARG	N-CA-CB	-7.08	97.85	110.60
34	i	970	C	N1-C1'-C2'	7.08	123.21	114.00
15	O	145	GLY	N-CA-C	7.08	130.80	113.10
34	i	149	A	C3'-C2'-C1'	7.08	107.16	101.50
34	i	409	G	O4'-C1'-C2'	-7.08	98.72	105.80
34	i	32	U	O4'-C1'-N1	7.07	113.86	108.20
34	i	227	A	C3'-C2'-C1'	7.07	107.16	101.50
34	i	1755	U	P-O5'-C5'	7.07	132.22	120.90
34	i	167	G	N9-C1'-C2'	-7.07	104.22	112.00
34	i	906	G	O4'-C1'-N9	7.07	113.86	108.20
11	K	1	MET	N-CA-C	7.06	130.07	111.00
34	i	279	G	O4'-C1'-N9	7.06	113.85	108.20
34	i	100	U	O4'-C1'-N1	7.06	113.85	108.20
34	i	267	G	P-O3'-C3'	7.06	128.17	119.70
34	i	1783	G	O4'-C1'-C2'	-7.06	98.74	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	899	A	C3'-C2'-C1'	-7.06	95.85	101.50
34	i	1858	U	P-O5'-C5'	7.06	132.19	120.90
34	i	58	C	N1-C1'-C2'	-7.06	104.24	112.00
34	i	1503	G	C1'-C2'-O2'	7.05	131.76	110.60
34	i	53	C	C1'-O4'-C4'	7.05	115.54	109.90
34	i	53	C	C3'-C2'-C1'	7.05	107.14	101.50
34	i	1425	G	P-O5'-C5'	7.05	132.18	120.90
34	i	1239	U	O4'-C1'-N1	7.04	113.83	108.20
34	i	1788	C	O4'-C1'-C2'	-7.04	98.76	105.80
34	i	981	G	O4'-C1'-N9	7.04	113.83	108.20
34	i	1478	C	O4'-C1'-N1	7.04	113.83	108.20
34	i	127	C	P-O3'-C3'	7.04	128.14	119.70
34	i	1042	U	O4'-C1'-N1	7.03	113.82	108.20
34	i	1847	C	C1'-O4'-C4'	-7.03	104.28	109.90
20	T	82	ARG	NE-CZ-NH1	7.03	123.81	120.30
34	i	518	A	N9-C1'-C2'	7.03	123.13	114.00
34	i	587	G	O4'-C1'-N9	7.02	113.82	108.20
3	C	258	LEU	CB-CG-CD2	7.02	122.94	111.00
34	i	47	G	O4'-C1'-N9	7.02	113.82	108.20
34	i	275	C	O4'-C1'-C2'	-7.02	98.78	105.80
8	H	109	ARG	O-C-N	7.02	133.93	122.70
34	i	1671	U	P-O3'-C3'	-7.01	111.28	119.70
34	i	275	C	C3'-C2'-C1'	7.01	107.11	101.50
10	J	123	ILE	CB-CA-C	7.01	125.62	111.60
34	i	1542	C	C3'-C2'-C1'	7.01	107.11	101.50
34	i	1546	U	C3'-C2'-C1'	-7.01	95.89	101.50
21	U	118	ASP	CB-CG-OD1	7.00	124.60	118.30
34	i	908	C	O4'-C1'-N1	7.00	113.80	108.20
34	i	31	U	C1'-O4'-C4'	7.00	115.50	109.90
34	i	1047	G	O4'-C1'-N9	7.00	113.80	108.20
34	i	1363	U	O4'-C1'-N1	7.00	113.80	108.20
34	i	637	U	O4'-C1'-N1	7.00	113.80	108.20
34	i	729	C	O4'-C1'-C2'	-7.00	98.80	105.80
34	i	315	C	O4'-C1'-C2'	-6.99	98.81	105.80
19	S	93	GLY	O-C-N	6.98	133.87	122.70
34	i	1837	G	C1'-O4'-C4'	-6.98	104.31	109.90
34	i	1105	C	C3'-C2'-C1'	-6.98	95.92	101.50
34	i	1651	G	C1'-O4'-C4'	-6.98	104.32	109.90
34	i	945	G	O4'-C1'-N9	6.98	113.78	108.20
34	i	1118	A	C1'-O4'-C4'	6.98	115.48	109.90
34	i	407	C	C3'-C2'-C1'	6.97	107.08	101.50
34	i	726	C	P-O3'-C3'	6.97	128.07	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	T	82	ARG	NH1-CZ-NH2	-6.97	111.73	119.40
34	i	1339	U	O4'-C1'-N1	6.97	113.78	108.20
34	i	1693	C	O4'-C1'-C2'	-6.97	98.83	105.80
34	i	93	U	O4'-C1'-C2'	-6.96	98.84	105.80
34	i	1329	U	N1-C1'-C2'	-6.96	104.34	112.00
34	i	1205	A	N9-C1'-C2'	-6.96	104.34	112.00
34	i	1093	G	C5'-C4'-O4'	6.96	117.45	109.10
34	i	1642	A	C3'-C2'-C1'	-6.96	95.93	101.50
20	T	82	ARG	NE-CZ-NH2	6.96	123.78	120.30
34	i	465	C	C3'-C2'-C1'	6.96	107.07	101.50
34	i	1405	A	O4'-C1'-C2'	-6.96	98.84	105.80
20	T	4	VAL	CA-C-N	6.96	132.50	117.20
34	i	499	G	O4'-C1'-N9	6.96	113.76	108.20
34	i	1503	G	C3'-C2'-C1'	-6.96	95.94	101.50
34	i	510	A	C1'-O4'-C4'	-6.95	104.34	109.90
4	D	83	SER	N-CA-CB	6.95	120.92	110.50
34	i	262	G	P-O3'-C3'	6.95	128.04	119.70
25	Y	31	GLY	N-CA-C	6.95	130.47	113.10
34	i	1739	G	C1'-O4'-C4'	6.95	115.46	109.90
34	i	41	G	C1'-O4'-C4'	-6.94	104.35	109.90
34	i	74	G	P-O3'-C3'	6.94	128.03	119.70
34	i	1328	A	C3'-C2'-C1'	6.94	107.05	101.50
34	i	1373	U	O4'-C1'-N1	6.94	113.75	108.20
34	i	1648	U	N1-C1'-C2'	-6.94	104.37	112.00
11	K	55	ARG	CB-CG-CD	6.94	129.64	111.60
34	i	1099	C	O4'-C1'-N1	6.94	113.75	108.20
34	i	1426	C	O4'-C1'-C2'	-6.94	98.86	105.80
34	i	1584	A	N9-C1'-C2'	-6.94	104.37	112.00
34	i	1640	C	P-O3'-C3'	6.93	128.02	119.70
34	i	1693	C	P-O3'-C3'	6.93	128.02	119.70
34	i	274	G	O4'-C1'-C2'	6.93	113.84	107.60
34	i	636	G	O4'-C1'-N9	6.93	113.74	108.20
34	i	792	G	C3'-C2'-C1'	-6.93	95.96	101.50
28	b	79	PHE	N-CA-C	6.93	129.70	111.00
34	i	507	C	N1-C1'-C2'	6.93	123.00	114.00
34	i	389	C	O4'-C1'-C2'	-6.92	98.88	105.80
32	f	148	TYR	N-CA-C	6.92	129.67	111.00
34	i	1782	A	O4'-C1'-N9	6.92	113.73	108.20
34	i	438	A	C3'-C2'-C1'	-6.91	95.97	101.50
34	i	1053	C	O4'-C1'-N1	6.91	113.73	108.20
34	i	725	C	O4'-C1'-C2'	-6.91	98.89	105.80
34	i	877	G	C1'-O4'-C4'	-6.91	104.37	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	860	A	O4'-C1'-N9	6.91	113.72	108.20
34	i	1638	U	C3'-C2'-C1'	6.90	107.02	101.50
34	i	373	G	C3'-C2'-C1'	6.89	107.02	101.50
11	K	2	LEU	CA-CB-CG	-6.89	99.46	115.30
34	i	369	C	P-O3'-C3'	6.89	127.96	119.70
34	i	63	U	O4'-C1'-N1	6.88	113.71	108.20
34	i	1402	G	N9-C1'-C2'	6.88	122.95	114.00
3	C	242	LYS	N-CA-C	6.88	129.58	111.00
34	i	374	U	N1-C1'-C2'	6.88	122.95	114.00
2	B	77	ASP	CB-CG-OD1	6.88	124.49	118.30
34	i	571	U	P-O3'-C3'	-6.88	111.44	119.70
22	V	67	ASP	CB-CG-OD2	6.88	124.49	118.30
34	i	1777	C	C3'-C2'-C1'	6.88	107.00	101.50
34	i	597	U	N1-C1'-C2'	6.88	122.94	114.00
34	i	377	C	N1-C1'-C2'	6.87	122.93	114.00
34	i	609	A	N9-C1'-C2'	-6.87	104.44	112.00
18	R	123	THR	CB-CA-C	-6.87	93.05	111.60
34	i	1647	G	O4'-C1'-N9	6.87	113.69	108.20
11	K	2	LEU	N-CA-C	6.87	129.54	111.00
34	i	343	C	N1-C1'-C2'	6.86	122.92	114.00
34	i	1604	C	O4'-C1'-N1	6.86	113.69	108.20
34	i	1128	C	O4'-C1'-N1	6.86	113.69	108.20
34	i	1497	C	O3'-P-O5'	-6.86	90.97	104.00
18	R	87	GLU	CB-CA-C	-6.86	96.68	110.40
34	i	989	G	O4'-C1'-N9	6.85	113.68	108.20
24	X	128	VAL	N-CA-C	6.85	129.50	111.00
34	i	1479	A	N9-C1'-C2'	-6.85	104.46	112.00
34	i	369	C	C3'-C2'-C1'	6.85	106.98	101.50
34	i	741	C	C3'-C2'-C1'	6.85	106.98	101.50
2	B	133	TYR	N-CA-CB	-6.84	98.28	110.60
34	i	509	A	O4'-C1'-C2'	-6.84	98.96	105.80
34	i	321	C	O4'-C1'-C2'	-6.84	98.96	105.80
34	i	978	G	O4'-C1'-N9	6.84	113.67	108.20
34	i	1533	C	O4'-C1'-C2'	-6.84	98.96	105.80
3	C	105	GLN	N-CA-C	6.83	129.45	111.00
34	i	365	U	P-O5'-C5'	6.83	131.83	120.90
34	i	1603	U	O4'-C1'-N1	6.83	113.66	108.20
34	i	1530	U	C4'-C3'-O3'	6.83	126.65	113.00
34	i	900	A	C1'-O4'-C4'	-6.83	104.44	109.90
34	i	227	A	O4'-C1'-C2'	-6.82	98.98	105.80
34	i	1633	G	C3'-C2'-C1'	6.82	106.96	101.50
34	i	1423	C	O4'-C1'-C2'	-6.82	98.98	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1114	C	C1'-O4'-C4'	6.82	115.36	109.90
34	i	1216	A	C1'-O4'-C4'	-6.81	104.45	109.90
34	i	845	A	O4'-C1'-N9	6.81	113.65	108.20
34	i	1173	U	O4'-C1'-N1	6.81	113.65	108.20
34	i	1774	G	O3'-P-O5'	6.81	116.93	104.00
8	H	110	THR	CA-CB-CG2	6.80	121.93	112.40
27	a	58	VAL	CG1-CB-CG2	-6.80	100.02	110.90
34	i	15	U	O4'-C1'-N1	6.80	113.64	108.20
34	i	31	U	N1-C1'-C2'	-6.80	104.53	112.00
34	i	125	C	O3'-P-O5'	6.79	116.91	104.00
34	i	1418	G	N9-C1'-C2'	-6.79	104.53	112.00
34	i	312	C	C3'-C2'-C1'	6.79	106.93	101.50
34	i	1171	G	C1'-O4'-C4'	-6.79	104.47	109.90
34	i	1656	A	C3'-C2'-C1'	-6.79	96.07	101.50
6	F	37	ASP	N-CA-C	6.78	129.32	111.00
33	g	142	VAL	O-C-N	6.78	133.54	122.70
34	i	65	C	C1'-O4'-C4'	6.78	115.32	109.90
34	i	850	A	P-O5'-C5'	6.77	131.74	120.90
34	i	312	C	P-O3'-C3'	6.77	127.83	119.70
34	i	862	U	C3'-C2'-C1'	-6.77	96.09	101.50
34	i	193	C	N1-C1'-C2'	6.76	122.79	114.00
34	i	540	C	O3'-P-O5'	-6.76	91.15	104.00
34	i	906	G	C1'-O4'-C4'	-6.76	104.49	109.90
34	i	1024	A	C5'-C4'-C3'	-6.76	105.18	116.00
34	i	1779	C	P-O3'-C3'	6.76	127.81	119.70
31	e	122	THR	O-C-N	-6.76	111.89	122.70
34	i	278	U	O4'-C1'-N1	-6.76	102.79	108.20
34	i	449	C	C5'-C4'-O4'	6.75	117.21	109.10
34	i	94	G	C1'-O4'-C4'	-6.75	104.50	109.90
34	i	1243	C	O4'-C1'-C2'	-6.75	99.05	105.80
13	M	13	ASP	CB-CG-OD1	-6.75	112.22	118.30
34	i	1754	G	N9-C1'-C2'	-6.75	104.57	112.00
34	i	53	C	O4'-C1'-N1	6.75	113.60	108.20
34	i	243	C	P-O3'-C3'	6.75	127.80	119.70
34	i	1775	A	C3'-C2'-C1'	6.75	106.90	101.50
34	i	790	A	C3'-C2'-C1'	6.75	106.90	101.50
34	i	1199	G	O4'-C1'-C2'	6.74	113.67	107.60
34	i	1859	C	C2'-C3'-O3'	-6.74	94.66	109.50
34	i	299	G	O4'-C1'-C2'	6.74	113.67	107.60
34	i	1366	A	O4'-C1'-C2'	-6.74	99.06	105.80
33	g	159	ASN	C-N-CA	-6.73	104.87	121.70
34	i	318	U	O4'-C1'-N1	6.73	113.58	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1202	G	O4'-C1'-N9	6.73	113.58	108.20
34	i	683	G	O4'-C4'-C3'	-6.73	97.27	104.00
23	W	2	VAL	C-N-CA	-6.73	104.89	121.70
21	U	48	LEU	CA-CB-CG	-6.72	99.83	115.30
34	i	1511	G	O4'-C1'-N9	6.72	113.58	108.20
34	i	1251	G	N9-C1'-C2'	6.72	122.74	114.00
34	i	1681	G	O4'-C1'-N9	6.72	113.58	108.20
34	i	1857	A	C1'-O4'-C4'	6.72	115.28	109.90
34	i	839	C	O4'-C1'-N1	6.72	113.58	108.20
10	J	179	LYS	C-N-CA	6.72	138.50	121.70
34	i	202	U	O4'-C1'-N1	6.72	113.58	108.20
27	a	85	ARG	NE-CZ-NH2	6.72	123.66	120.30
34	i	612	C	C1'-O4'-C4'	-6.72	104.53	109.90
2	B	41	ILE	CG1-CB-CG2	-6.71	96.63	111.40
2	B	155	TYR	CB-CA-C	-6.71	96.98	110.40
34	i	447	C	O4'-C1'-N1	6.71	113.57	108.20
34	i	471	C	N1-C1'-C2'	6.71	122.72	114.00
34	i	1545	G	P-O3'-C3'	6.71	127.75	119.70
34	i	1167	G	O4'-C1'-C2'	-6.70	99.10	105.80
6	F	130	ARG	N-CA-C	6.70	129.08	111.00
34	i	853	U	N1-C1'-C2'	6.70	122.70	114.00
34	i	657	U	C1'-O4'-C4'	-6.69	104.55	109.90
34	i	1778	G	N9-C1'-C2'	6.69	122.69	114.00
34	i	541	U	O4'-C1'-C2'	6.68	113.62	107.60
34	i	1277	G	O4'-C1'-N9	6.68	113.55	108.20
34	i	616	G	O4'-C1'-N9	-6.68	102.86	108.20
34	i	959	A	C3'-C2'-C1'	-6.68	96.16	101.50
34	i	550	A	O4'-C1'-N9	6.67	113.54	108.20
34	i	1656	A	O4'-C1'-N9	6.67	113.54	108.20
10	J	144	ILE	CB-CA-C	6.67	124.94	111.60
34	i	1251	G	P-O3'-C3'	-6.67	111.70	119.70
34	i	1350	G	C2'-C3'-O3'	6.67	124.37	113.70
34	i	443	C	C3'-C2'-C1'	6.67	106.83	101.50
34	i	1573	U	C1'-O4'-C4'	6.66	115.23	109.90
10	J	91	LYS	N-CA-C	-6.66	93.02	111.00
19	S	16	LEU	CB-CG-CD2	-6.66	99.69	111.00
34	i	1038	A	O4'-C1'-N9	6.65	113.52	108.20
34	i	1525	U	O4'-C1'-N1	6.65	113.52	108.20
34	i	1455	G	N9-C1'-C2'	6.65	122.64	114.00
18	R	121	GLN	C-N-CD	-6.65	105.97	120.60
34	i	307	G	P-O5'-C5'	6.65	131.53	120.90
34	i	1550	U	O4'-C4'-C3'	-6.64	97.36	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1727	G	O4'-C1'-N9	6.64	113.51	108.20
34	i	1496	G	C1'-O4'-C4'	-6.64	104.59	109.90
34	i	1652	G	C1'-O4'-C4'	-6.64	104.59	109.90
34	i	1682	C	C3'-C2'-C1'	6.64	106.81	101.50
34	i	1144	A	O4'-C1'-C2'	6.63	113.57	107.60
27	a	63	VAL	CB-CA-C	6.63	124.00	111.40
34	i	1819	A	C3'-C2'-C1'	-6.63	96.19	101.50
34	i	512	A	P-O5'-C5'	6.63	131.51	120.90
34	i	1280	A	O4'-C1'-C2'	-6.63	99.17	105.80
34	i	70	G	O3'-P-O5'	-6.63	91.40	104.00
34	i	1071	C	C1'-O4'-C4'	-6.63	104.60	109.90
11	K	89	ILE	CA-CB-CG1	-6.63	98.41	111.00
34	i	550	A	C3'-C2'-C1'	-6.62	96.20	101.50
34	i	920	G	O4'-C1'-N9	6.62	113.50	108.20
34	i	1266	G	N9-C1'-C2'	-6.62	104.71	112.00
7	G	157	VAL	CA-C-N	-6.62	102.63	117.20
34	i	1639	C	P-O3'-C3'	6.62	127.64	119.70
34	i	538	C	N1-C1'-C2'	6.62	122.61	114.00
34	i	1342	U	O4'-C1'-N1	6.62	113.49	108.20
34	i	823	A	N9-C1'-C2'	6.62	122.60	114.00
34	i	1222	G	C1'-O4'-C4'	-6.62	104.61	109.90
19	S	87	GLN	CA-C-N	6.61	131.75	117.20
34	i	1695	C	O4'-C1'-C2'	-6.61	99.19	105.80
34	i	534	G	C1'-O4'-C4'	6.61	115.18	109.90
16	P	36	LEU	N-CA-C	-6.60	93.17	111.00
34	i	1775	A	P-O5'-C5'	6.60	131.46	120.90
34	i	286	C	O4'-C1'-C2'	-6.60	99.20	105.80
34	i	548	G	C1'-O4'-C4'	-6.60	104.62	109.90
34	i	1541	G	O4'-C1'-N9	6.60	113.48	108.20
22	V	64	GLU	N-CA-C	6.60	128.82	111.00
34	i	40	A	C1'-O4'-C4'	6.60	115.18	109.90
34	i	158	A	O4'-C1'-N9	6.60	113.48	108.20
34	i	622	C	C3'-C2'-C1'	6.60	106.78	101.50
34	i	1387	C	O4'-C1'-N1	6.60	113.48	108.20
11	K	42	ASN	CA-C-N	6.59	131.71	117.20
34	i	1831	G	O4'-C1'-N9	6.59	113.47	108.20
34	i	190	A	O4'-C1'-C2'	-6.59	99.21	105.80
34	i	285	U	C3'-C2'-C1'	6.59	106.77	101.50
34	i	272	C	O3'-P-O5'	6.59	116.52	104.00
33	g	160	SER	N-CA-C	6.59	128.78	111.00
34	i	192	U	P-O5'-C5'	6.59	131.44	120.90
34	i	983	A	P-O5'-C5'	-6.59	110.36	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1154	G	N9-C1'-C2'	-6.58	104.76	112.00
34	i	305	U	P-O3'-C3'	-6.58	111.80	119.70
34	i	164	A	N9-C1'-C2'	6.58	122.56	114.00
34	i	432	C	N1-C1'-C2'	6.58	122.56	114.00
34	i	870	G	O4'-C1'-N9	6.58	113.46	108.20
34	i	1779	C	C1'-O4'-C4'	6.58	115.16	109.90
9	I	8	TRP	CG-CD2-CE3	-6.58	127.98	133.90
34	i	289	G	N9-C1'-C2'	-6.57	104.77	112.00
34	i	391	A	O4'-C1'-C2'	-6.57	99.23	105.80
10	J	101	LYS	N-CA-C	6.57	128.74	111.00
34	i	437	A	C1'-O4'-C4'	6.57	115.16	109.90
17	Q	18	THR	N-CA-C	-6.57	93.27	111.00
34	i	1861	U	P-O3'-C3'	6.57	127.58	119.70
34	i	1461	A	C1'-O4'-C4'	6.57	115.15	109.90
34	i	876	G	C3'-C2'-C1'	-6.56	96.25	101.50
34	i	1646	A	C1'-O4'-C4'	6.56	115.15	109.90
34	i	1664	G	O5'-P-OP2	6.56	118.58	110.70
34	i	1786	G	O4'-C1'-N9	6.56	113.45	108.20
34	i	1105	C	O4'-C1'-C2'	6.56	113.51	107.60
9	I	8	TRP	CB-CG-CD1	6.56	135.53	127.00
34	i	1467	C	C3'-C2'-C1'	6.56	106.75	101.50
15	O	43	HIS	N-CA-C	6.56	128.71	111.00
34	i	1816	A	O3'-P-O5'	-6.56	91.54	104.00
34	i	1250	C	O4'-C1'-N1	6.56	113.44	108.20
33	g	274	VAL	CA-C-N	6.55	131.62	117.20
34	i	390	C	O4'-C1'-C2'	-6.55	99.25	105.80
34	i	1385	C	P-O5'-C5'	6.55	131.39	120.90
3	C	217	THR	C-N-CA	6.55	138.08	121.70
34	i	1285	U	P-O3'-C3'	6.55	127.56	119.70
34	i	1861	U	O4'-C1'-C2'	-6.55	99.25	105.80
34	i	421	G	O4'-C1'-N9	6.54	113.43	108.20
34	i	459	A	O4'-C1'-C2'	-6.54	99.26	105.80
11	K	42	ASN	CA-C-O	-6.54	106.37	120.10
34	i	1519	G	O4'-C1'-N9	6.54	113.43	108.20
34	i	554	A	P-O3'-C3'	6.53	127.54	119.70
34	i	1071	C	N1-C1'-C2'	6.53	122.49	114.00
34	i	1816	A	C4'-C3'-O3'	-6.53	95.68	109.40
34	i	1859	C	P-O3'-C3'	-6.53	111.86	119.70
34	i	984	C	C3'-C2'-C1'	6.53	106.72	101.50
34	i	1376	C	N1-C1'-C2'	6.53	122.49	114.00
26	Z	107	VAL	CA-CB-CG2	6.53	120.69	110.90
34	i	1490	U	C2'-C3'-O3'	6.53	124.14	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	342	U	C5'-C4'-C3'	-6.52	105.56	116.00
34	i	541	U	C1'-O4'-C4'	-6.52	104.68	109.90
34	i	1673	A	C3'-C2'-C1'	-6.52	96.28	101.50
34	i	1088	G	O4'-C1'-N9	6.52	113.42	108.20
34	i	274	G	C1'-O4'-C4'	-6.52	104.68	109.90
34	i	340	C	C3'-C2'-C1'	6.52	106.72	101.50
34	i	553	G	O4'-C1'-C2'	-6.52	99.28	105.80
34	i	1513	C	P-O3'-C3'	-6.52	111.88	119.70
34	i	1794	A	C3'-C2'-C1'	6.52	106.71	101.50
34	i	190	A	O3'-P-O5'	6.52	116.38	104.00
34	i	62	G	C1'-O4'-C4'	-6.51	104.69	109.90
34	i	1135	C	O4'-C1'-N1	6.51	113.41	108.20
26	Z	115	GLY	CA-C-O	-6.51	108.88	120.60
34	i	1377	G	C3'-C2'-C1'	-6.51	96.29	101.50
9	I	207	GLY	CA-C-O	-6.51	108.88	120.60
34	i	581	U	P-O3'-C3'	6.51	127.51	119.70
34	i	728	U	C1'-O4'-C4'	-6.51	104.69	109.90
34	i	1785	A	O4'-C1'-C2'	-6.50	99.30	105.80
19	S	92	ASP	CB-CG-OD2	-6.50	112.45	118.30
34	i	837	G	C5'-C4'-O4'	6.50	116.90	109.10
34	i	1202	G	N9-C1'-C2'	6.50	122.45	114.00
34	i	1158	C	O4'-C1'-N1	6.50	113.40	108.20
34	i	1254	A	O4'-C1'-N9	6.50	113.40	108.20
34	i	211	U	O4'-C1'-N1	6.50	113.40	108.20
34	i	807	A	O4'-C1'-N9	6.50	113.40	108.20
34	i	208	G	P-O5'-C5'	6.50	131.29	120.90
34	i	882	A	C3'-C2'-C1'	6.49	106.69	101.50
34	i	1169	A	O4'-C1'-N9	6.49	113.40	108.20
22	V	81	GLN	O-C-N	-6.49	112.32	122.70
34	i	685	G	O3'-P-O5'	6.49	116.33	104.00
34	i	611	C	C3'-C2'-C1'	6.49	106.69	101.50
34	i	1082	G	P-O3'-C3'	6.48	127.48	119.70
34	i	401	G	O4'-C1'-N9	6.48	113.38	108.20
34	i	685	G	O4'-C1'-C2'	-6.48	99.32	105.80
34	i	1540	A	C5'-C4'-O4'	6.48	116.87	109.10
27	a	96	THR	O-C-N	6.47	133.40	121.10
21	U	70	CYS	O-C-N	-6.47	112.20	123.20
24	X	91	LEU	N-CA-C	-6.47	93.53	111.00
34	i	282	G	N9-C1'-C2'	6.47	122.41	114.00
34	i	837	G	C2'-C3'-O3'	-6.47	95.27	109.50
34	i	523	A	C2'-C3'-O3'	6.47	124.05	113.70
34	i	729	C	C3'-C2'-C1'	6.47	106.67	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	147	A	O4'-C1'-C2'	-6.46	99.33	105.80
34	i	1339	U	C3'-C2'-C1'	6.46	106.67	101.50
34	i	1369	C	O4'-C1'-C2'	-6.46	99.34	105.80
3	C	157	ASN	N-CA-C	6.46	128.44	111.00
9	I	119	LEU	C-N-CD	-6.46	106.39	120.60
16	P	18	ARG	NE-CZ-NH1	6.46	123.53	120.30
34	i	1702	U	N1-C1'-C2'	6.46	122.40	114.00
34	i	82	G	C1'-O4'-C4'	6.46	115.07	109.90
34	i	947	C	N1-C1'-C2'	6.46	122.39	114.00
34	i	1537	C	O5'-C5'-C4'	6.46	123.97	111.70
34	i	144	U	C1'-O4'-C4'	-6.46	104.74	109.90
34	i	957	G	O4'-C1'-N9	6.46	113.36	108.20
34	i	1202	G	C1'-O4'-C4'	-6.45	104.74	109.90
34	i	1502	A	P-O3'-C3'	6.45	127.44	119.70
10	J	188	GLY	CA-C-O	-6.45	108.99	120.60
34	i	310	G	C4'-C3'-O3'	6.45	125.90	113.00
34	i	79	A	O5'-C5'-C4'	6.45	123.96	111.70
34	i	1455	G	O4'-C1'-C2'	6.45	113.40	107.60
34	i	840	U	O4'-C1'-C2'	-6.45	99.35	105.80
34	i	639	U	O4'-C1'-N1	6.44	113.35	108.20
34	i	1284	U	O4'-C1'-N1	6.44	113.35	108.20
11	K	46	MET	N-CA-CB	6.44	122.19	110.60
34	i	840	U	P-O3'-C3'	-6.44	111.98	119.70
34	i	1284	U	N1-C1'-C2'	6.44	122.37	114.00
2	B	77	ASP	N-CA-C	6.44	128.38	111.00
34	i	1347	G	O4'-C1'-N9	6.44	113.35	108.20
34	i	428	G	N9-C1'-C2'	-6.43	104.92	112.00
34	i	1297	A	P-O3'-C3'	6.43	127.42	119.70
29	c	7	GLN	C-N-CD	-6.43	106.45	120.60
3	C	83	LEU	C-N-CA	-6.43	108.79	122.30
34	i	962	U	O4'-C1'-N1	6.43	113.34	108.20
34	i	277	U	P-O3'-C3'	6.42	127.41	119.70
34	i	1353	A	O4'-C1'-N9	6.42	113.34	108.20
26	Z	112	ASN	N-CA-CB	-6.42	99.04	110.60
34	i	372	C	P-O3'-C3'	-6.42	111.99	119.70
34	i	1151	U	P-O5'-C5'	6.42	131.18	120.90
34	i	794	G	C3'-C2'-C1'	6.42	106.64	101.50
34	i	155	G	C5'-C4'-C3'	6.42	126.27	116.00
34	i	176	U	N1-C1'-C2'	6.42	122.34	114.00
25	Y	128	GLY	CA-C-O	-6.41	109.05	120.60
34	i	1076	A	P-O3'-C3'	6.41	127.39	119.70
34	i	882	A	P-O3'-C3'	6.41	127.39	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1545	G	O4'-C1'-N9	6.41	113.33	108.20
33	g	284	PRO	N-CA-C	-6.41	95.44	112.10
34	i	236	C	O4'-C1'-N1	6.41	113.33	108.20
34	i	1656	A	N9-C1'-C2'	6.41	122.33	114.00
34	i	814	A	O4'-C1'-N9	6.40	113.32	108.20
5	E	263	GLY	CA-C-O	-6.40	109.07	120.60
34	i	1360	U	P-O3'-C3'	-6.40	112.02	119.70
34	i	1790	G	O4'-C1'-N9	6.40	113.32	108.20
34	i	10	G	P-O3'-C3'	-6.40	112.03	119.70
34	i	1204	A	O4'-C1'-C2'	-6.40	99.40	105.80
34	i	1510	G	N9-C1'-C2'	-6.39	104.97	112.00
34	i	1151	U	C3'-C2'-C1'	6.39	106.61	101.50
18	R	99	ASP	C-N-CD	-6.39	106.54	120.60
19	S	49	ASP	O-C-N	-6.39	112.48	122.70
34	i	192	U	O4'-C1'-N1	6.39	113.31	108.20
34	i	1422	U	O4'-C1'-N1	6.39	113.31	108.20
34	i	1534	U	C1'-O4'-C4'	6.39	115.01	109.90
34	i	1801	C	N1-C1'-C2'	6.39	122.31	114.00
34	i	1411	C	O4'-C1'-N1	6.39	113.31	108.20
34	i	1390	G	C1'-O4'-C4'	-6.38	104.79	109.90
34	i	8	U	O4'-C1'-N1	6.38	113.31	108.20
34	i	1206	G	C3'-C2'-C1'	-6.38	96.40	101.50
34	i	1361	G	C4'-C3'-O3'	-6.38	96.00	109.40
34	i	1377	G	N9-C1'-C2'	-6.38	104.98	112.00
34	i	1486	G	O4'-C1'-N9	6.38	113.30	108.20
34	i	1039	G	C3'-C2'-C1'	6.37	106.60	101.50
34	i	1521	G	O4'-C1'-N9	6.37	113.30	108.20
34	i	1405	A	C1'-O4'-C4'	6.37	115.00	109.90
34	i	29	G	O4'-C1'-N9	6.37	113.30	108.20
34	i	486	C	O4'-C1'-C2'	-6.37	99.43	105.80
34	i	150	A	O4'-C1'-C2'	-6.37	99.43	105.80
34	i	903	G	C1'-O4'-C4'	-6.37	104.81	109.90
28	b	53	VAL	N-CA-C	-6.36	93.82	111.00
34	i	70	G	N9-C1'-C2'	-6.36	105.00	112.00
34	i	1202	G	C3'-C2'-C1'	-6.36	96.41	101.50
34	i	1348	G	C3'-C2'-C1'	-6.36	96.41	101.50
34	i	38	A	C1'-O4'-C4'	6.36	114.99	109.90
34	i	1214	C	C3'-C2'-C1'	6.36	106.59	101.50
34	i	577	A	P-O3'-C3'	-6.36	112.07	119.70
34	i	1111	U	O4'-C1'-C2'	6.35	113.32	107.60
34	i	626	C	O4'-C1'-C2'	-6.35	99.45	105.80
2	B	76	ASN	N-CA-C	6.35	128.14	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	233	GLY	CA-C-O	-6.35	109.18	120.60
34	i	542	G	C1'-O4'-C4'	-6.34	104.82	109.90
34	i	1436	C	N1-C1'-C2'	6.34	122.25	114.00
7	G	128	THR	N-CA-CB	-6.34	98.25	110.30
34	i	9	U	O4'-C1'-N1	6.34	113.27	108.20
34	i	1122	G	C1'-O4'-C4'	-6.34	104.83	109.90
34	i	1141	A	O4'-C1'-N9	6.34	113.27	108.20
34	i	190	A	C5'-C4'-C3'	-6.34	105.86	116.00
34	i	1487	G	O4'-C1'-N9	6.34	113.27	108.20
34	i	522	C	P-O3'-C3'	6.33	127.30	119.70
34	i	597	U	P-O3'-C3'	6.33	127.30	119.70
34	i	1232	G	P-O3'-C3'	6.33	127.30	119.70
16	P	18	ARG	N-CA-CB	6.33	122.00	110.60
22	V	47	ASN	N-CA-C	-6.33	93.91	111.00
10	J	164	PRO	N-CD-CG	-6.33	93.71	103.20
34	i	1256	A	N9-C1'-C2'	6.33	122.23	114.00
34	i	1594	U	P-O5'-C5'	6.33	131.02	120.90
34	i	582	C	N1-C1'-C2'	-6.33	105.04	112.00
34	i	634	G	O4'-C1'-N9	6.33	113.26	108.20
34	i	1337	C	O4'-C1'-C2'	-6.32	99.48	105.80
10	J	162	ARG	N-CA-C	6.32	128.07	111.00
5	E	258	ALA	C-N-CA	-6.32	105.90	121.70
34	i	1665	C	O4'-C1'-N1	6.32	113.25	108.20
31	e	120	VAL	C-N-CD	-6.32	106.70	120.60
34	i	205	G	O4'-C1'-N9	6.32	113.25	108.20
19	S	92	ASP	N-CA-C	6.31	128.05	111.00
16	P	37	TYR	CB-CA-C	6.31	123.02	110.40
34	i	796	U	C5'-C4'-C3'	-6.31	105.90	116.00
16	P	68	PRO	C-N-CD	-6.31	106.72	120.60
34	i	1337	C	C3'-C2'-C1'	6.31	106.55	101.50
34	i	1384	A	O4'-C1'-N9	6.31	113.25	108.20
34	i	994	A	C1'-O4'-C4'	6.31	114.94	109.90
34	i	1514	U	N1-C1'-C2'	-6.30	105.07	112.00
34	i	1729	G	C3'-C2'-C1'	6.30	106.54	101.50
34	i	1774	G	N9-C1'-C2'	6.30	122.19	114.00
34	i	1858	U	O4'-C1'-N1	6.30	113.24	108.20
34	i	1089	A	O4'-C1'-N9	6.30	113.24	108.20
34	i	1837	G	O4'-C1'-C2'	6.30	113.27	107.60
34	i	635	C	O4'-C1'-C2'	-6.29	99.51	105.80
34	i	1425	G	O3'-P-O5'	-6.29	92.05	104.00
34	i	730	C	C3'-C2'-C1'	6.29	106.53	101.50
34	i	1293	U	C1'-O4'-C4'	6.29	114.93	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1480	A	P-O3'-C3'	6.29	127.24	119.70
34	i	62	G	N9-C1'-C2'	6.28	122.17	114.00
34	i	1657	U	O4'-C1'-N1	6.28	113.22	108.20
34	i	806	A	C3'-C2'-C1'	6.28	106.52	101.50
34	i	1207	G	N9-C1'-C2'	6.28	122.16	114.00
34	i	109	U	C4'-C3'-O3'	-6.28	96.22	109.40
34	i	1167	G	C3'-C2'-C1'	-6.28	96.48	101.50
31	e	120	VAL	CB-CA-C	-6.27	99.48	111.40
34	i	205	G	C1'-O4'-C4'	-6.27	104.88	109.90
34	i	341	G	O4'-C1'-N9	6.27	113.22	108.20
34	i	424	G	C2'-C3'-O3'	6.27	123.73	113.70
34	i	974	G	O4'-C1'-N9	6.27	113.22	108.20
34	i	1415	C	C3'-C2'-C1'	6.27	106.52	101.50
7	G	173	ALA	C-N-CD	-6.27	106.80	120.60
34	i	1563	C	C1'-O4'-C4'	-6.27	104.88	109.90
34	i	568	C	C3'-C2'-C1'	6.27	106.52	101.50
34	i	887	G	N9-C1'-C2'	6.27	122.15	114.00
34	i	341	G	N9-C1'-C2'	-6.26	105.11	112.00
34	i	486	C	O4'-C1'-N1	6.26	113.21	108.20
34	i	794	G	N9-C1'-C2'	6.26	122.14	114.00
34	i	1415	C	O4'-C1'-C2'	-6.26	99.54	105.80
15	O	102	GLY	C-N-CA	-6.26	106.05	121.70
34	i	509	A	N9-C1'-C2'	-6.26	105.11	112.00
34	i	1030	A	C1'-O4'-C4'	6.26	114.91	109.90
9	I	55	TYR	CB-CG-CD1	6.26	124.75	121.00
34	i	1636	A	C3'-C2'-C1'	6.26	106.51	101.50
1	A	186	ARG	C-N-CA	6.25	135.44	122.30
34	i	824	G	C1'-O4'-C4'	-6.25	104.90	109.90
35	l	85	LEU	CA-CB-CG	-6.25	100.92	115.30
34	i	958	A	N9-C1'-C2'	-6.25	105.12	112.00
34	i	1495	U	O4'-C1'-N1	6.25	113.20	108.20
16	P	18	ARG	CB-CG-CD	6.25	127.85	111.60
33	g	47	ARG	N-CA-C	-6.25	94.14	111.00
34	i	295	C	O3'-P-O5'	6.24	115.86	104.00
34	i	1445	G	P-O3'-C3'	6.24	127.19	119.70
34	i	1784	A	N9-C1'-C2'	6.24	122.11	114.00
8	H	106	ARG	CD-NE-CZ	6.24	132.33	123.60
34	i	831	C	P-O3'-C3'	6.24	127.18	119.70
34	i	1514	U	O4'-C1'-C2'	-6.24	99.56	105.80
34	i	174	C	O4'-C1'-C2'	-6.23	99.57	105.80
34	i	1807	A	C1'-O4'-C4'	-6.23	104.92	109.90
34	i	193	C	C3'-C2'-C1'	6.23	106.48	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	279	G	P-O5'-C5'	6.23	130.86	120.90
34	i	733	G	O4'-C1'-C2'	-6.22	99.58	105.80
3	C	258	LEU	CA-CB-CG	6.22	129.61	115.30
34	i	424	G	O3'-P-O5'	-6.22	92.18	104.00
34	i	1654	U	O3'-P-O5'	6.22	115.82	104.00
34	i	74	G	C4'-C3'-C2'	-6.22	96.38	102.60
34	i	1515	G	O4'-C1'-N9	6.21	113.17	108.20
34	i	940	A	C3'-C2'-C1'	6.21	106.47	101.50
34	i	1015	C	C3'-C2'-C1'	6.21	106.47	101.50
9	I	178	ARG	CD-NE-CZ	6.21	132.30	123.60
10	J	93	LYS	O-C-N	-6.21	112.76	122.70
34	i	825	C	P-O3'-C3'	6.21	127.16	119.70
34	i	1404	U	P-O3'-C3'	6.21	127.15	119.70
34	i	1486	G	C3'-C2'-C1'	-6.21	96.53	101.50
34	i	1658	A	C3'-C2'-C1'	6.21	106.47	101.50
34	i	1562	G	P-O3'-C3'	-6.21	112.25	119.70
34	i	1587	C	C1'-O4'-C4'	-6.21	104.93	109.90
34	i	356	U	O4'-C1'-N1	6.21	113.16	108.20
19	S	82	TRP	CB-CA-C	-6.20	97.99	110.40
33	g	50	THR	CB-CA-C	6.20	128.35	111.60
34	i	493	C	O4'-C1'-C2'	-6.20	99.60	105.80
34	i	1395	C	C5'-C4'-C3'	-6.20	106.08	116.00
34	i	1521	G	N9-C1'-C2'	-6.20	105.18	112.00
34	i	1663	U	C3'-C2'-C1'	-6.20	96.54	101.50
34	i	1196	A	O4'-C1'-N9	6.20	113.16	108.20
34	i	313	C	O4'-C1'-N1	6.19	113.15	108.20
34	i	1543	G	C3'-C2'-C1'	-6.19	96.55	101.50
34	i	954	G	C3'-C2'-C1'	-6.19	96.55	101.50
9	I	6	ASP	N-CA-CB	-6.19	99.46	110.60
6	F	130	ARG	N-CA-CB	6.19	121.73	110.60
6	F	46	ALA	C-N-CA	-6.18	106.24	121.70
34	i	837	G	P-O3'-C3'	6.18	127.12	119.70
34	i	1084	U	O4'-C1'-N1	6.18	113.15	108.20
34	i	544	A	C1'-O4'-C4'	-6.18	104.96	109.90
19	S	6	PRO	CA-C-O	-6.18	105.38	120.20
34	i	7	G	O4'-C1'-N9	6.18	113.14	108.20
34	i	343	C	C4'-C3'-C2'	6.17	108.78	102.60
34	i	1304	U	P-O3'-C3'	6.17	127.11	119.70
34	i	1796	C	O4'-C1'-N1	6.17	113.14	108.20
34	i	795	U	C1'-O4'-C4'	-6.17	104.96	109.90
34	i	1135	C	P-O5'-C5'	-6.17	111.03	120.90
34	i	1486	G	O4'-C1'-C2'	6.17	113.15	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	F	41	VAL	N-CA-C	-6.17	94.35	111.00
34	i	924	G	O4'-C1'-N9	6.17	113.13	108.20
34	i	1255	A	C1'-O4'-C4'	-6.17	104.97	109.90
15	O	143	LYS	CB-CA-C	-6.17	98.07	110.40
34	i	973	C	O4'-C1'-N1	6.16	113.13	108.20
12	L	152	LYS	CA-C-O	-6.16	107.16	120.10
34	i	1571	G	C1'-O4'-C4'	-6.16	104.97	109.90
34	i	1588	C	O4'-C1'-N1	6.16	113.13	108.20
34	i	445	A	C3'-C2'-C1'	6.16	106.43	101.50
10	J	145	PRO	N-CA-C	-6.16	96.09	112.10
31	e	121	PRO	CA-N-CD	-6.16	102.88	111.50
34	i	1238	U	C1'-O4'-C4'	-6.15	104.98	109.90
34	i	110	U	P-O3'-C3'	-6.15	112.32	119.70
34	i	1050	G	C1'-O4'-C4'	-6.15	104.98	109.90
34	i	1214	C	C1'-O4'-C4'	-6.15	104.98	109.90
13	M	116	LYS	N-CA-C	6.15	127.61	111.00
34	i	678	U	P-O3'-C3'	6.15	127.08	119.70
34	i	1855	G	C1'-O4'-C4'	-6.15	104.98	109.90
12	L	102	PHE	N-CA-C	-6.14	94.41	111.00
34	i	685	G	C5'-C4'-C3'	6.14	125.83	116.00
34	i	1570	G	C4'-C3'-C2'	-6.14	96.46	102.60
34	i	489	G	C1'-O4'-C4'	-6.14	104.99	109.90
34	i	210	G	P-O3'-C3'	-6.14	112.33	119.70
34	i	1227	C	C3'-C2'-C1'	6.14	106.41	101.50
34	i	1364	U	O4'-C1'-N1	6.14	113.11	108.20
34	i	1533	C	P-O5'-C5'	-6.13	111.08	120.90
10	J	180	LYS	N-CA-C	6.13	127.56	111.00
34	i	792	G	C1'-O4'-C4'	-6.13	105.00	109.90
34	i	1644	U	P-O3'-C3'	-6.13	112.34	119.70
34	i	126	G	O3'-P-O5'	6.13	115.65	104.00
34	i	272	C	O5'-P-OP1	-6.13	100.19	105.70
34	i	395	G	C1'-O4'-C4'	-6.13	105.00	109.90
34	i	1849	G	O4'-C1'-C2'	6.13	113.11	107.60
34	i	605	C	C1'-O4'-C4'	-6.12	105.00	109.90
34	i	1723	U	O4'-C1'-N1	6.12	113.09	108.20
19	S	9	PHE	C-N-CA	-6.12	106.41	121.70
16	P	17	TYR	N-CA-CB	6.12	121.61	110.60
34	i	1102	C	O4'-C1'-C2'	-6.11	99.69	105.80
34	i	1036	G	C3'-C2'-C1'	-6.11	96.61	101.50
34	i	1066	A	N9-C1'-C2'	6.11	121.94	114.00
34	i	1489	C	N1-C1'-C2'	-6.11	105.28	112.00
19	S	10	GLN	C-N-CA	6.11	136.97	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1361	G	P-O5'-C5'	6.11	130.67	120.90
34	i	1425	G	OP1-P-O3'	6.11	118.64	105.20
34	i	1646	A	O4'-C1'-N9	6.11	113.09	108.20
34	i	1433	C	N1-C1'-C2'	6.11	121.94	114.00
29	c	6	VAL	N-CA-C	6.10	127.48	111.00
34	i	1776	G	O4'-C4'-C3'	-6.10	97.90	104.00
34	i	1705	C	C3'-C2'-C1'	6.10	106.38	101.50
34	i	194	C	O4'-C1'-N1	6.10	113.08	108.20
34	i	2	A	O4'-C1'-N9	6.10	113.08	108.20
26	Z	104	ARG	CA-C-N	-6.10	103.79	117.20
34	i	1186	A	C3'-C2'-C1'	6.10	106.38	101.50
11	K	89	ILE	CA-CB-CG2	6.10	123.09	110.90
34	i	1698	C	C3'-C2'-C1'	6.09	106.38	101.50
34	i	903	G	C3'-C2'-C1'	-6.09	96.63	101.50
34	i	456	G	O4'-C1'-C2'	6.09	113.08	107.60
34	i	1440	U	O4'-C1'-N1	6.09	113.07	108.20
34	i	1621	C	O4'-C1'-N1	6.09	113.07	108.20
34	i	220	C	O4'-C1'-N1	6.09	113.07	108.20
34	i	352	C	N1-C1'-C2'	6.09	121.91	114.00
34	i	1519	G	O4'-C4'-C3'	-6.09	97.91	104.00
34	i	960	A	N9-C1'-C2'	-6.08	105.31	112.00
34	i	741	C	O4'-C1'-C2'	-6.08	99.72	105.80
2	B	151	ARG	C-N-CA	-6.08	106.50	121.70
34	i	410	G	O4'-C1'-C2'	6.08	113.07	107.60
34	i	549	G	N9-C1'-C2'	6.08	121.90	114.00
34	i	1181	C	N1-C1'-C2'	6.08	121.90	114.00
4	D	4	GLN	CA-C-O	6.08	132.86	120.10
32	f	134	SER	O-C-N	6.08	132.42	122.70
12	L	150	GLY	N-CA-C	-6.07	97.91	113.10
34	i	1300	U	C1'-O4'-C4'	-6.07	105.04	109.90
34	i	1148	U	O4'-C1'-N1	6.07	113.06	108.20
12	L	151	THR	C-N-CA	6.07	136.87	121.70
33	g	15	ASN	C-N-CA	-6.07	109.56	122.30
34	i	880	C	O4'-C1'-N1	6.07	113.05	108.20
34	i	1610	U	C1'-O4'-C4'	-6.07	105.05	109.90
25	Y	96	LEU	N-CA-CB	6.07	122.53	110.40
34	i	1187	C	O4'-C1'-N1	6.07	113.05	108.20
34	i	4	C	C1'-O4'-C4'	-6.06	105.05	109.90
34	i	973	C	O4'-C1'-C2'	-6.06	99.74	105.80
34	i	1623	C	C1'-O4'-C4'	-6.06	105.05	109.90
16	P	49	LEU	C-N-CA	-6.06	106.55	121.70
34	i	201	G	O4'-C1'-C2'	-6.06	99.74	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1489	C	O4'-C1'-N1	6.06	113.05	108.20
34	i	1355	U	O4'-C1'-C2'	-6.06	99.74	105.80
34	i	1743	G	O5'-C5'-C4'	6.06	123.21	111.70
34	i	581	U	N1-C1'-C2'	6.05	121.87	114.00
34	i	986	A	C1'-O4'-C4'	-6.05	105.06	109.90
34	i	327	C	O4'-C1'-N1	6.05	113.04	108.20
34	i	541	U	P-O3'-C3'	6.05	126.96	119.70
3	C	262	HIS	CB-CA-C	-6.05	98.31	110.40
34	i	1118	A	C4'-C3'-C2'	-6.04	96.56	102.60
34	i	209	C	P-O5'-C5'	6.04	130.57	120.90
34	i	563	U	N1-C1'-C2'	6.04	121.86	114.00
11	K	38	LYS	N-CA-C	-6.04	94.69	111.00
11	K	40	VAL	C-N-CD	-6.04	107.31	120.60
34	i	1702	U	O4'-C1'-N1	6.04	113.03	108.20
34	i	272	C	O5'-P-OP2	-6.04	100.27	105.70
34	i	410	G	O4'-C1'-N9	6.04	113.03	108.20
32	f	88	PRO	N-CA-C	-6.04	96.41	112.10
34	i	1547	G	P-O5'-C5'	6.04	130.56	120.90
34	i	1400	U	N1-C1'-C2'	6.03	121.84	114.00
27	a	107	ALA	C-N-CD	6.03	141.07	128.40
9	I	29	LEU	C-N-CA	6.03	134.96	122.30
33	g	213	ASP	CB-CG-OD2	-6.03	112.88	118.30
34	i	1534	U	C3'-C2'-C1'	6.03	106.32	101.50
34	i	1698	C	O4'-C1'-C2'	-6.03	99.77	105.80
34	i	204	G	O4'-C1'-C2'	-6.03	99.77	105.80
26	Z	112	ASN	N-CA-C	6.02	127.27	111.00
34	i	617	U	O4'-C1'-C2'	-6.02	99.78	105.80
34	i	1394	G	P-O3'-C3'	-6.02	112.48	119.70
34	i	826	A	O4'-C1'-C2'	6.02	113.02	107.60
34	i	1395	C	O4'-C1'-N1	6.02	113.01	108.20
34	i	1426	C	C1'-O4'-C4'	6.02	114.72	109.90
25	Y	86	GLU	CA-C-N	6.02	133.95	117.10
34	i	623	C	C3'-C2'-C1'	6.02	106.31	101.50
34	i	223	A	O4'-C1'-C2'	-6.01	99.79	105.80
34	i	1441	U	C4'-C3'-O3'	-6.01	96.77	109.40
25	Y	64	PHE	N-CA-CB	-6.01	99.78	110.60
7	G	173	ALA	O-C-N	-6.00	109.69	121.10
34	i	1172	G	O4'-C1'-N9	6.00	113.00	108.20
34	i	1845	A	C1'-O4'-C4'	6.00	114.70	109.90
18	R	88	VAL	C-N-CA	-6.00	106.70	121.70
34	i	1549	C	C2'-C3'-O3'	-6.00	96.30	109.50
6	F	135	ARG	CB-CA-C	6.00	122.39	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	K	41	PRO	N-CA-C	-6.00	96.51	112.10
21	U	117	ALA	O-C-N	6.00	132.29	122.70
34	i	858	A	C1'-O4'-C4'	-5.99	105.11	109.90
34	i	844	U	C1'-O4'-C4'	-5.99	105.11	109.90
34	i	853	U	P-O5'-C5'	-5.99	111.32	120.90
34	i	906	G	O4'-C1'-C2'	5.99	112.99	107.60
34	i	854	A	C3'-C2'-C1'	5.98	106.29	101.50
34	i	1846	C	N1-C1'-C2'	5.98	121.78	114.00
34	i	743	U	O3'-P-O5'	-5.98	92.64	104.00
34	i	1022	C	O4'-C1'-C2'	-5.98	99.82	105.80
9	I	132	GLU	CA-C-N	5.98	130.35	117.20
34	i	1441	U	P-O3'-C3'	-5.98	112.53	119.70
34	i	1535	G	O4'-C1'-N9	5.98	112.98	108.20
34	i	1535	G	C1'-O4'-C4'	-5.98	105.12	109.90
34	i	419	C	C3'-C2'-C1'	5.98	106.28	101.50
34	i	1547	G	O4'-C1'-C2'	-5.98	99.82	105.80
34	i	584	A	P-O3'-C3'	5.97	126.87	119.70
34	i	1348	G	O4'-C1'-N9	5.97	112.98	108.20
34	i	1558	G	C1'-O4'-C4'	-5.97	105.12	109.90
21	U	109	GLY	N-CA-C	-5.97	98.17	113.10
34	i	558	C	C3'-C2'-C1'	5.97	106.28	101.50
34	i	1114	C	C3'-C2'-C1'	-5.97	96.72	101.50
34	i	1678	C	C3'-C2'-C1'	5.97	106.28	101.50
34	i	1431	C	C5'-C4'-C3'	5.97	125.55	116.00
34	i	1834	U	O4'-C1'-N1	5.97	112.97	108.20
34	i	1112	C	O4'-C1'-C2'	5.96	112.97	107.60
34	i	1219	A	O4'-C1'-C2'	-5.96	99.84	105.80
34	i	848	G	O4'-C1'-N9	5.96	112.97	108.20
34	i	430	G	O4'-C1'-N9	5.96	112.97	108.20
34	i	1701	G	O4'-C1'-N9	5.96	112.97	108.20
34	i	970	C	C1'-O4'-C4'	-5.96	105.13	109.90
34	i	872	C	C3'-C2'-C1'	5.96	106.27	101.50
34	i	1403	U	O4'-C1'-N1	5.96	112.97	108.20
34	i	1431	C	C3'-C2'-C1'	5.96	106.27	101.50
34	i	1462	G	O4'-C1'-N9	5.96	112.97	108.20
34	i	1663	U	P-O3'-C3'	5.96	126.85	119.70
6	F	38	TYR	C-N-CA	-5.95	106.81	121.70
21	U	69	PRO	N-CA-C	-5.95	96.63	112.10
22	V	66	ASP	C-N-CA	-5.95	106.82	121.70
34	i	1367	U	O4'-C1'-N1	5.95	112.96	108.20
1	A	193	HIS	C-N-CD	-5.95	107.51	120.60
34	i	1577	C	N1-C1'-C2'	5.95	121.73	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	172	U	O4'-C1'-C2'	-5.95	99.85	105.80
34	i	946	C	C3'-C2'-C1'	5.95	106.26	101.50
22	V	32	ILE	C-N-CD	5.95	140.88	128.40
34	i	64	A	C3'-C2'-C1'	-5.95	96.74	101.50
34	i	139	C	C1'-O4'-C4'	5.95	114.66	109.90
34	i	959	A	P-O5'-C5'	-5.94	111.39	120.90
34	i	24	C	O4'-C1'-N1	5.94	112.95	108.20
34	i	115	U	O4'-C1'-N1	5.94	112.95	108.20
34	i	1740	A	C4'-C3'-C2'	-5.94	96.66	102.60
34	i	1742	C	C5'-C4'-O4'	5.94	116.23	109.10
11	K	90	VAL	N-CA-C	5.94	127.04	111.00
34	i	1087	C	O4'-C1'-C2'	-5.94	99.86	105.80
34	i	1138	G	C3'-C2'-C1'	-5.94	96.75	101.50
21	U	68	THR	N-CA-CB	-5.94	99.02	110.30
34	i	460	G	O4'-C1'-N9	5.94	112.95	108.20
34	i	1413	C	OP1-P-OP2	-5.94	110.69	119.60
34	i	392	C	O4'-C1'-C2'	-5.93	99.87	105.80
34	i	1391	C	O4'-C1'-N1	5.93	112.95	108.20
34	i	1571	G	N9-C1'-C2'	5.93	121.71	114.00
34	i	1408	C	C4'-C3'-O3'	5.93	124.86	113.00
34	i	1694	A	P-O3'-C3'	-5.93	112.58	119.70
34	i	1300	U	O4'-C1'-N1	5.93	112.94	108.20
34	i	1349	A	O3'-P-O5'	-5.93	92.73	104.00
34	i	1051	A	C3'-C2'-C1'	5.93	106.24	101.50
34	i	1019	A	O4'-C1'-C2'	-5.93	99.87	105.80
34	i	875	C	O4'-C1'-N1	5.92	112.94	108.20
34	i	278	U	P-O5'-C5'	5.92	130.37	120.90
34	i	788	C	N1-C1'-C2'	5.92	121.70	114.00
34	i	849	C	O4'-C1'-N1	5.92	112.94	108.20
35	l	97	LEU	CA-CB-CG	5.92	128.91	115.30
33	g	159	ASN	O-C-N	-5.92	113.23	122.70
34	i	684	A	P-O5'-C5'	5.91	130.36	120.90
34	i	793	C	P-O5'-C5'	5.91	130.36	120.90
34	i	1752	G	C1'-O4'-C4'	-5.91	105.17	109.90
34	i	832	G	C1'-O4'-C4'	5.91	114.62	109.90
34	i	1127	G	C5'-C4'-C3'	-5.91	106.55	116.00
34	i	1774	G	C3'-C2'-C1'	-5.90	96.78	101.50
34	i	1605	G	O4'-C1'-N9	5.90	112.92	108.20
34	i	402	G	C3'-C2'-C1'	5.89	106.21	101.50
34	i	623	C	N1-C1'-C2'	5.89	121.66	114.00
34	i	1091	U	C1'-O4'-C4'	-5.89	105.19	109.90
34	i	1393	U	C3'-C2'-C1'	5.89	106.21	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1527	C	N1-C1'-C2'	5.89	121.66	114.00
34	i	1733	C	C3'-C2'-C1'	5.89	106.21	101.50
34	i	192	U	O5'-C5'-C4'	-5.89	100.51	111.70
34	i	1118	A	C3'-C2'-C1'	5.89	106.21	101.50
34	i	1434	A	C3'-C2'-C1'	5.89	106.21	101.50
34	i	1134	C	C4'-C3'-O3'	-5.89	97.04	109.40
16	P	121	ILE	O-C-N	-5.88	113.29	122.70
34	i	544	A	O4'-C1'-C2'	5.88	112.90	107.60
34	i	611	C	C1'-O4'-C4'	-5.88	105.19	109.90
34	i	1303	U	N1-C1'-C2'	-5.88	105.53	112.00
34	i	603	C	C1'-O4'-C4'	5.88	114.61	109.90
34	i	1428	U	N1-C1'-C2'	5.88	121.64	114.00
34	i	77	A	O4'-C1'-N9	5.88	112.90	108.20
34	i	546	U	C5'-C4'-C3'	5.88	125.41	116.00
34	i	163	U	O4'-C4'-C3'	-5.88	98.12	104.00
34	i	730	C	O3'-P-O5'	5.88	115.17	104.00
34	i	1199	G	C3'-C2'-C1'	-5.88	96.80	101.50
34	i	1343	U	O4'-C1'-C2'	-5.88	99.92	105.80
34	i	1459	U	P-O3'-C3'	-5.88	112.65	119.70
8	H	16	PRO	O-C-N	-5.87	113.30	122.70
34	i	368	U	N1-C1'-C2'	5.87	121.63	114.00
34	i	528	U	C3'-C2'-C1'	5.87	106.20	101.50
27	a	96	THR	CA-C-N	-5.87	100.66	117.10
28	b	53	VAL	C-N-CA	-5.87	107.04	121.70
34	i	1732	G	C1'-O4'-C4'	-5.87	105.21	109.90
34	i	90	G	O4'-C1'-N9	5.86	112.89	108.20
34	i	830	C	C3'-C2'-C1'	-5.86	96.81	101.50
34	i	952	G	O4'-C1'-N9	5.86	112.89	108.20
34	i	1497	C	P-O3'-C3'	5.86	126.74	119.70
34	i	1800	A	N9-C1'-C2'	5.86	121.62	114.00
34	i	970	C	C3'-C2'-C1'	5.86	106.19	101.50
34	i	292	A	O4'-C1'-N9	5.86	112.89	108.20
34	i	1121	C	O4'-C1'-N1	5.85	112.88	108.20
34	i	54	A	N9-C1'-C2'	5.85	121.61	114.00
34	i	461	G	C5'-C4'-O4'	5.85	116.12	109.10
29	c	5	ARG	N-CA-C	5.85	126.80	111.00
34	i	163	U	O4'-C1'-N1	5.85	112.88	108.20
34	i	1251	G	C3'-C2'-C1'	-5.85	96.82	101.50
1	A	10	MET	N-CA-C	5.85	126.79	111.00
34	i	839	C	C3'-C2'-C1'	5.85	106.18	101.50
34	i	726	C	O4'-C1'-N1	5.85	112.88	108.20
34	i	1547	G	C1'-O4'-C4'	5.84	114.57	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	171	A	C1'-O4'-C4'	5.84	114.57	109.90
8	H	192	PHE	N-CA-C	5.84	126.76	111.00
34	i	190	A	O5'-P-OP2	-5.84	100.45	105.70
34	i	884	U	P-O5'-C5'	5.84	130.24	120.90
34	i	727	G	C5'-C4'-O4'	-5.83	102.10	109.10
20	T	30	VAL	N-CA-C	5.83	126.75	111.00
34	i	103	A	O4'-C1'-C2'	5.83	112.85	107.60
34	i	1047	G	C3'-C2'-C1'	-5.83	96.83	101.50
34	i	119	U	O4'-C1'-N1	5.83	112.86	108.20
34	i	1779	C	O4'-C1'-N1	5.83	112.86	108.20
34	i	897	G	O4'-C1'-N9	5.83	112.86	108.20
34	i	730	C	N1-C1'-C2'	5.83	121.57	114.00
34	i	1367	U	C3'-C2'-C1'	5.83	106.16	101.50
34	i	1230	C	C1'-O4'-C4'	-5.82	105.24	109.90
34	i	1343	U	O4'-C1'-N1	5.82	112.86	108.20
34	i	1345	G	N9-C1'-C2'	5.82	121.57	114.00
34	i	652	G	C1'-O4'-C4'	-5.82	105.24	109.90
34	i	1282	G	C4'-C3'-O3'	-5.82	97.18	109.40
33	g	12	LYS	C-N-CA	5.82	134.52	122.30
13	M	99	LYS	N-CA-C	5.81	126.69	111.00
34	i	621	U	O4'-C1'-N1	5.81	112.85	108.20
11	K	40	VAL	CB-CA-C	-5.81	100.36	111.40
34	i	1174	U	O4'-C1'-N1	5.81	112.84	108.20
34	i	1416	G	N9-C1'-C2'	5.81	121.55	114.00
34	i	1135	C	C4'-C3'-O3'	-5.81	97.21	109.40
34	i	21	U	O4'-C1'-C2'	-5.80	100.00	105.80
34	i	1414	C	N1-C1'-C2'	5.80	121.54	114.00
16	P	130	ARG	NE-CZ-NH1	5.80	123.20	120.30
34	i	610	G	C1'-O4'-C4'	5.80	114.54	109.90
34	i	633	A	O4'-C1'-C2'	-5.80	100.00	105.80
34	i	1065	U	P-O5'-C5'	-5.80	111.62	120.90
34	i	1485	A	P-O3'-C3'	5.80	126.66	119.70
4	D	96	LEU	O-C-N	-5.80	113.42	122.70
6	F	131	ALA	N-CA-C	5.80	126.65	111.00
34	i	1842	U	O4'-C1'-N1	5.79	112.84	108.20
34	i	1450	A	O4'-C1'-C2'	-5.79	100.01	105.80
34	i	277	U	N1-C1'-C2'	5.79	121.53	114.00
34	i	1020	A	O4'-C1'-N9	5.79	112.83	108.20
34	i	1494	A	O4'-C1'-C2'	5.79	112.81	107.60
34	i	1532	A	C3'-C2'-C1'	5.79	106.13	101.50
7	G	131	ARG	CG-CD-NE	5.78	123.95	111.80
34	i	914	U	C1'-O4'-C4'	-5.78	105.27	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	386	U	O4'-C1'-N1	5.78	112.82	108.20
34	i	1471	G	O4'-C1'-N9	5.78	112.82	108.20
12	L	4	ILE	N-CA-C	-5.78	95.40	111.00
34	i	1142	C	C1'-O4'-C4'	-5.78	105.28	109.90
34	i	1318	G	O4'-C1'-N9	5.78	112.82	108.20
11	K	29	MET	C-N-CD	-5.78	107.89	120.60
22	V	42	VAL	CB-CA-C	-5.78	100.42	111.40
34	i	148	U	O4'-C1'-N1	5.78	112.82	108.20
34	i	215	U	C1'-O4'-C4'	-5.78	105.28	109.90
34	i	1274	A	P-O5'-C5'	5.78	130.14	120.90
34	i	504	U	N1-C1'-C2'	5.78	121.51	114.00
34	i	1706	U	N1-C1'-C2'	5.77	121.50	114.00
5	E	170	THR	C-N-CA	5.77	136.13	121.70
8	H	40	LEU	CA-CB-CG	-5.77	102.03	115.30
34	i	1552	C	C2'-C3'-O3'	5.77	122.93	113.70
17	Q	17	LYS	O-C-N	-5.77	113.47	122.70
34	i	213	C	C3'-C2'-C1'	5.77	106.12	101.50
34	i	331	C	P-O3'-C3'	-5.77	112.78	119.70
34	i	55	U	O4'-C1'-N1	5.77	112.81	108.20
34	i	1407	G	C3'-C2'-C1'	-5.77	96.89	101.50
34	i	549	G	C3'-C2'-C1'	-5.77	96.89	101.50
34	i	1801	C	C1'-O4'-C4'	-5.77	105.29	109.90
7	G	155	GLN	C-N-CA	-5.76	107.29	121.70
34	i	998	U	O4'-C1'-N1	5.76	112.81	108.20
34	i	1532	A	C5'-C4'-C3'	-5.76	106.78	116.00
34	i	314	U	C3'-C2'-C1'	-5.76	96.89	101.50
34	i	820	C	O4'-C1'-N1	5.76	112.81	108.20
3	C	241	TRP	C-N-CA	-5.75	107.32	121.70
34	i	965	U	P-O3'-C3'	5.75	126.60	119.70
34	i	1058	A	C3'-C2'-C1'	5.75	106.10	101.50
34	i	1204	A	C1'-O4'-C4'	5.75	114.50	109.90
17	Q	146	ARG	CA-CB-CG	5.75	126.05	113.40
34	i	1589	A	C5'-C4'-C3'	5.75	125.20	116.00
34	i	1602	A	O4'-C1'-C2'	5.75	112.77	107.60
34	i	98	C	N1-C1'-C2'	-5.75	105.68	112.00
34	i	996	C	C3'-C2'-C1'	5.75	106.10	101.50
34	i	1790	G	C5'-C4'-O4'	5.75	115.99	109.10
34	i	923	C	O4'-C1'-N1	5.74	112.79	108.20
11	K	41	PRO	CA-N-CD	-5.74	103.47	111.50
24	X	98	ASP	N-CA-C	5.74	126.49	111.00
34	i	367	G	O4'-C1'-N9	5.74	112.79	108.20
34	i	1013	U	C1'-O4'-C4'	5.74	114.49	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1518	C	P-O5'-C5'	-5.74	111.72	120.90
34	i	1779	C	N1-C1'-C2'	-5.74	105.69	112.00
26	Z	104	ARG	N-CA-C	5.73	126.48	111.00
34	i	876	G	N9-C1'-C2'	-5.73	105.69	112.00
34	i	962	U	C5'-C4'-O4'	5.73	115.98	109.10
12	L	151	THR	CB-CA-C	5.73	127.07	111.60
34	i	332	C	O4'-C1'-N1	5.73	112.78	108.20
34	i	1227	C	O4'-C1'-N1	-5.73	103.62	108.20
34	i	1380	C	O4'-C1'-N1	5.73	112.78	108.20
34	i	1437	U	O4'-C1'-C2'	-5.73	100.07	105.80
34	i	597	U	O4'-C1'-N1	5.73	112.78	108.20
34	i	1110	U	C1'-O4'-C4'	5.73	114.48	109.90
34	i	373	G	O4'-C1'-N9	5.72	112.78	108.20
34	i	645	A	C5'-C4'-O4'	5.72	115.97	109.10
34	i	79	A	O3'-P-O5'	-5.72	93.13	104.00
34	i	1220	G	N9-C1'-C2'	5.72	121.44	114.00
34	i	434	G	C3'-C2'-C1'	-5.72	96.92	101.50
5	E	151	ASP	CB-CA-C	5.72	121.83	110.40
34	i	1390	G	C2'-C3'-O3'	5.72	122.85	113.70
34	i	206	A	O3'-P-O5'	5.71	114.86	104.00
34	i	274	G	N9-C1'-C2'	5.71	121.43	114.00
34	i	864	G	O4'-C1'-N9	-5.71	103.63	108.20
34	i	290	A	N9-C1'-C2'	-5.71	105.72	112.00
19	S	53	THR	CA-C-N	5.71	129.76	117.20
34	i	1771	G	P-O3'-C3'	-5.71	112.85	119.70
34	i	871	A	O4'-C1'-C2'	-5.71	100.09	105.80
34	i	1045	A	P-O3'-C3'	5.71	126.55	119.70
34	i	495	G	P-O3'-C3'	-5.70	112.86	119.70
34	i	78	C	O4'-C1'-N1	5.70	112.76	108.20
26	Z	107	VAL	C-N-CA	5.70	135.95	121.70
34	i	1826	A	P-O5'-C5'	5.70	130.02	120.90
20	T	4	VAL	O-C-N	-5.70	113.58	122.70
34	i	1705	C	O4'-C1'-C2'	-5.70	100.10	105.80
34	i	141	A	C2'-C3'-O3'	5.70	122.81	113.70
12	L	98	LYS	N-CA-C	-5.69	95.63	111.00
34	i	340	C	C1'-O4'-C4'	5.69	114.45	109.90
34	i	1309	A	O4'-C1'-C2'	-5.69	100.11	105.80
21	U	108	PRO	CA-N-CD	-5.69	103.53	111.50
34	i	151	C	C3'-C2'-C1'	5.69	106.05	101.50
34	i	376	C	C1'-O4'-C4'	-5.69	105.35	109.90
34	i	734	C	C3'-C2'-C1'	5.69	106.05	101.50
34	i	1018	U	C1'-O4'-C4'	-5.69	105.35	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1460	C	C3'-C2'-C1'	5.69	106.05	101.50
34	i	1753	G	C3'-C2'-C1'	-5.69	96.95	101.50
34	i	374	U	C1'-O4'-C4'	-5.69	105.35	109.90
11	K	42	ASN	N-CA-C	-5.68	95.66	111.00
20	T	51	ASN	C-N-CA	5.68	135.91	121.70
34	i	856	G	N9-C1'-C2'	5.68	121.39	114.00
34	i	1538	U	O4'-C1'-N1	5.68	112.75	108.20
8	H	111	LYS	CA-CB-CG	5.68	125.89	113.40
34	i	91	A	C1'-O4'-C4'	5.68	114.44	109.90
34	i	114	G	C1'-O4'-C4'	5.68	114.44	109.90
34	i	1417	A	O4'-C1'-N9	5.68	112.74	108.20
34	i	1057	U	O4'-C1'-N1	5.68	112.74	108.20
34	i	1100	G	O4'-C1'-N9	5.68	112.74	108.20
34	i	1407	G	O4'-C1'-C2'	5.67	112.71	107.60
34	i	1262	C	N1-C1'-C2'	5.67	121.37	114.00
34	i	1439	C	O4'-C1'-N1	5.67	112.74	108.20
34	i	1168	U	N1-C1'-C2'	-5.67	105.77	112.00
31	e	100	LYS	N-CA-C	-5.67	95.70	111.00
34	i	190	A	C5'-C4'-O4'	5.67	115.90	109.10
34	i	817	G	C2'-C3'-O3'	5.67	122.77	113.70
34	i	958	A	O4'-C1'-C2'	-5.67	100.13	105.80
34	i	1366	A	C1'-O4'-C4'	5.67	114.43	109.90
34	i	969	C	C3'-C2'-C1'	5.66	106.03	101.50
34	i	1327	C	C1'-O4'-C4'	-5.66	105.37	109.90
34	i	1633	G	O4'-C1'-N9	-5.66	103.67	108.20
34	i	1774	G	O4'-C1'-N9	5.66	112.73	108.20
34	i	895	U	O4'-C1'-N1	5.66	112.73	108.20
34	i	1528	A	O4'-C1'-N9	5.66	112.73	108.20
34	i	1608	G	C3'-C2'-C1'	-5.66	96.97	101.50
34	i	658	A	O4'-C1'-N9	5.66	112.73	108.20
34	i	1467	C	O4'-C1'-C2'	-5.66	100.14	105.80
34	i	1515	G	C5'-C4'-C3'	5.66	125.05	116.00
34	i	93	U	N1-C1'-C2'	-5.65	105.78	112.00
34	i	441	G	P-O5'-C5'	5.65	129.94	120.90
34	i	459	A	O4'-C1'-N9	5.65	112.72	108.20
34	i	1407	G	N9-C1'-C2'	5.65	121.35	114.00
34	i	516	A	C3'-C2'-C1'	-5.65	96.98	101.50
34	i	49	C	C1'-O4'-C4'	-5.65	105.38	109.90
34	i	1390	G	N9-C1'-C2'	5.65	121.34	114.00
34	i	625	G	C5'-C4'-C3'	5.65	125.03	116.00
34	i	1781	G	C3'-C2'-C1'	-5.64	96.98	101.50
34	i	597	U	C3'-C2'-C1'	5.64	106.01	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1413	C	C5'-C4'-C3'	5.64	125.02	116.00
34	i	388	A	C1'-O4'-C4'	5.64	114.41	109.90
34	i	927	C	C5'-C4'-O4'	5.64	115.86	109.10
24	X	58	GLU	N-CA-C	5.63	126.21	111.00
34	i	1501	U	O4'-C1'-C2'	-5.63	100.17	105.80
34	i	235	C	O4'-C1'-C2'	-5.63	100.17	105.80
34	i	742	C	C4'-C3'-C2'	-5.63	96.97	102.60
34	i	1198	U	C3'-C2'-C1'	5.62	106.00	101.50
34	i	469	C	C3'-C2'-C1'	5.62	106.00	101.50
34	i	804	A	N9-C1'-C2'	5.62	121.31	114.00
34	i	1219	A	C3'-C2'-C1'	5.62	106.00	101.50
34	i	1240	U	P-O3'-C3'	5.62	126.45	119.70
16	P	49	LEU	O-C-N	-5.62	113.71	122.70
34	i	1501	U	C1'-O4'-C4'	5.62	114.40	109.90
34	i	125	C	C4'-C3'-O3'	5.62	124.24	113.00
34	i	1271	G	C5'-C4'-C3'	5.62	124.99	116.00
34	i	805	A	P-O3'-C3'	5.62	126.44	119.70
8	H	105	THR	CB-CA-C	5.62	126.76	111.60
24	X	37	LYS	N-CA-C	5.62	126.16	111.00
33	g	294	ASP	N-CA-CB	-5.62	100.49	110.60
34	i	176	U	O4'-C1'-N1	5.62	112.69	108.20
34	i	1646	A	O4'-C1'-C2'	-5.62	100.18	105.80
34	i	308	C	C3'-C2'-C1'	5.61	105.99	101.50
34	i	741	C	C5'-C4'-C3'	5.61	124.98	116.00
34	i	818	U	O4'-C1'-N1	5.61	112.69	108.20
34	i	278	U	C3'-C2'-C1'	5.61	105.99	101.50
34	i	503	G	C1'-O4'-C4'	-5.61	105.41	109.90
34	i	1361	G	P-O3'-C3'	-5.61	112.97	119.70
34	i	188	U	C1'-O4'-C4'	-5.61	105.41	109.90
34	i	516	A	C5'-C4'-C3'	5.61	124.97	116.00
34	i	1817	A	C5'-C4'-O4'	-5.61	102.37	109.10
34	i	86	C	C3'-C2'-C1'	5.60	105.98	101.50
34	i	58	C	C1'-O4'-C4'	5.60	114.38	109.90
34	i	1691	C	C3'-C2'-C1'	5.60	105.98	101.50
34	i	1692	A	N9-C1'-C2'	-5.60	105.84	112.00
21	U	68	THR	CB-CA-C	5.60	126.72	111.60
33	g	143	GLN	N-CA-C	-5.60	95.88	111.00
34	i	1448	A	O4'-C1'-C2'	-5.60	100.20	105.80
34	i	1672	U	C1'-O4'-C4'	5.60	114.38	109.90
34	i	1821	U	O4'-C1'-N1	5.60	112.68	108.20
34	i	80	G	O4'-C1'-N9	5.60	112.68	108.20
34	i	1446	G	C3'-C2'-C1'	-5.60	97.02	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	P	53	GLN	CB-CA-C	5.60	121.59	110.40
34	i	1618	A	N9-C1'-C2'	-5.60	105.84	112.00
34	i	341	G	C4'-C3'-C2'	-5.59	97.00	102.60
34	i	667	G	C1'-O4'-C4'	-5.59	105.42	109.90
34	i	1152	U	O4'-C1'-N1	5.59	112.67	108.20
34	i	1411	C	O4'-C1'-C2'	-5.59	100.20	105.80
34	i	225	C	C2'-C3'-O3'	5.59	122.65	113.70
34	i	1042	U	O4'-C1'-C2'	-5.59	100.21	105.80
34	i	1739	G	O4'-C1'-N9	5.59	112.67	108.20
34	i	1144	A	C3'-C2'-C1'	-5.59	97.03	101.50
34	i	1246	A	C1'-O4'-C4'	5.59	114.37	109.90
34	i	286	C	C3'-C2'-C1'	5.59	105.97	101.50
34	i	1587	C	C3'-C2'-C1'	5.59	105.97	101.50
19	S	10	GLN	N-CA-C	5.58	126.08	111.00
34	i	569	C	O4'-C1'-C2'	-5.58	100.22	105.80
34	i	1078	A	C3'-C2'-C1'	5.58	105.97	101.50
34	i	398	A	O4'-C1'-C2'	-5.58	100.22	105.80
34	i	987	G	C3'-C2'-C1'	-5.58	97.03	101.50
34	i	1079	A	C3'-C2'-C1'	5.58	105.96	101.50
29	c	60	GLU	N-CA-C	-5.58	95.94	111.00
34	i	1138	G	N9-C1'-C2'	-5.58	105.86	112.00
32	f	148	TYR	C-N-CA	5.58	135.64	121.70
34	i	323	G	C1'-O4'-C4'	-5.57	105.44	109.90
34	i	1432	C	O4'-C1'-C2'	-5.57	100.23	105.80
34	i	1859	C	O4'-C1'-N1	5.57	112.66	108.20
34	i	789	G	C4'-C3'-C2'	-5.57	97.03	102.60
34	i	1044	G	P-O5'-C5'	5.57	129.82	120.90
34	i	143	U	C1'-O4'-C4'	-5.57	105.44	109.90
34	i	292	A	O4'-C1'-C2'	-5.57	100.23	105.80
34	i	648	U	O4'-C1'-N1	5.57	112.66	108.20
34	i	889	U	C1'-O4'-C4'	5.57	114.36	109.90
34	i	1313	U	O4'-C1'-N1	5.57	112.66	108.20
34	i	586	U	O4'-C1'-N1	5.57	112.66	108.20
34	i	1639	C	C3'-C2'-C1'	5.57	105.95	101.50
1	A	159	ILE	CA-CB-CG1	-5.57	100.42	111.00
32	f	125	GLU	CB-CA-C	5.56	121.53	110.40
34	i	86	C	O4'-C1'-N1	5.56	112.65	108.20
34	i	949	C	P-O3'-C3'	-5.56	113.02	119.70
34	i	1063	C	C1'-O4'-C4'	-5.56	105.45	109.90
34	i	1587	C	N1-C1'-C2'	5.56	121.23	114.00
21	U	70	CYS	CA-C-N	5.56	127.32	116.20
34	i	224	U	P-O5'-C5'	5.56	129.80	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	241	A	O4'-C1'-N9	5.56	112.65	108.20
34	i	895	U	O4'-C1'-C2'	-5.56	100.24	105.80
4	D	142	LEU	CB-CG-CD1	5.56	120.44	111.00
34	i	1542	C	N1-C1'-C2'	5.56	121.22	114.00
22	V	67	ASP	N-CA-CB	-5.55	100.60	110.60
34	i	1160	G	N9-C1'-C2'	5.55	121.22	114.00
34	i	391	A	C3'-C2'-C1'	5.55	105.94	101.50
34	i	1705	C	O4'-C1'-N1	5.55	112.64	108.20
27	a	70	LYS	CD-CE-NZ	5.55	124.47	111.70
6	F	47	LYS	CD-CE-NZ	-5.55	98.94	111.70
34	i	1409	G	P-O3'-C3'	-5.55	113.04	119.70
34	i	1471	G	C4'-C3'-C2'	-5.55	97.05	102.60
4	D	3	VAL	C-N-CA	5.54	135.56	121.70
34	i	230	C	O4'-C1'-C2'	-5.54	100.26	105.80
34	i	994	A	O4'-C1'-C2'	-5.54	100.26	105.80
34	i	1819	A	C2'-C3'-O3'	5.54	122.57	113.70
9	I	5	ARG	CA-C-N	5.54	129.39	117.20
20	T	45	LEU	O-C-N	-5.54	113.83	122.70
34	i	1070	C	O4'-C1'-N1	5.54	112.63	108.20
19	S	81	ASP	CB-CG-OD2	5.54	123.29	118.30
34	i	25	A	O4'-C1'-N9	5.54	112.63	108.20
34	i	539	C	O4'-C1'-N1	5.54	112.63	108.20
34	i	1851	G	O4'-C1'-C2'	5.54	112.58	107.60
34	i	350	A	O4'-C1'-N9	5.54	112.63	108.20
34	i	1058	A	O4'-C1'-N9	5.54	112.63	108.20
34	i	919	G	O4'-C1'-N9	5.53	112.63	108.20
34	i	1411	C	C3'-C2'-C1'	5.53	105.93	101.50
17	Q	6	PRO	CB-CA-C	-5.53	98.17	112.00
34	i	676	U	P-O3'-C3'	-5.53	113.06	119.70
34	i	329	A	P-O3'-C3'	-5.53	113.07	119.70
34	i	397	G	P-O3'-C3'	5.53	126.33	119.70
34	i	1382	A	O4'-C1'-C2'	-5.53	100.27	105.80
34	i	1716	U	O3'-P-O5'	5.53	114.50	104.00
15	O	103	ASN	N-CA-CB	5.52	120.54	110.60
34	i	874	G	C1'-O4'-C4'	-5.52	105.48	109.90
9	I	105	ASP	CB-CA-C	5.52	121.44	110.40
34	i	226	A	O4'-C1'-N9	5.52	112.62	108.20
34	i	606	A	C1'-O4'-C4'	-5.52	105.48	109.90
34	i	870	G	P-O3'-C3'	5.52	126.32	119.70
34	i	355	C	C3'-C2'-C1'	5.52	105.91	101.50
34	i	560	C	N1-C1'-C2'	5.52	121.17	114.00
34	i	1283	A	N9-C1'-C2'	-5.51	105.93	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	P	36	LEU	C-N-CA	5.51	135.48	121.70
34	i	1356	U	O4'-C1'-N1	5.51	112.61	108.20
34	i	13	C	O4'-C1'-N1	5.51	112.61	108.20
34	i	1370	C	O4'-C1'-N1	5.51	112.61	108.20
34	i	827	G	O4'-C1'-C2'	5.51	112.56	107.60
34	i	1837	G	P-O3'-C3'	-5.50	113.09	119.70
34	i	1639	C	C1'-O4'-C4'	-5.50	105.50	109.90
34	i	489	G	P-O5'-C5'	-5.50	112.10	120.90
34	i	1106	G	O4'-C1'-C2'	-5.50	100.30	105.80
34	i	1740	A	C3'-C2'-C1'	-5.50	97.10	101.50
34	i	540	C	C3'-C2'-C1'	5.50	105.90	101.50
34	i	679	U	O3'-P-O5'	-5.50	93.56	104.00
17	Q	145	TYR	C-N-CA	5.49	135.43	121.70
34	i	396	U	N1-C1'-C2'	5.49	121.14	114.00
34	i	522	C	C4'-C3'-C2'	-5.49	97.11	102.60
34	i	462	C	C3'-C2'-C1'	5.49	105.89	101.50
34	i	508	G	O4'-C1'-N9	5.49	112.59	108.20
34	i	1164	G	O4'-C1'-N9	5.49	112.59	108.20
34	i	101	U	O4'-C1'-N1	5.49	112.59	108.20
34	i	218	A	C3'-C2'-C1'	-5.49	97.11	101.50
25	Y	53	ASP	CB-CG-OD2	5.49	123.24	118.30
34	i	462	C	P-O3'-C3'	5.49	126.28	119.70
34	i	1274	A	O4'-C1'-N9	5.49	112.59	108.20
34	i	1854	A	P-O3'-C3'	-5.49	113.12	119.70
34	i	656	U	C3'-C2'-C1'	5.48	105.89	101.50
34	i	725	C	C1'-O4'-C4'	5.48	114.29	109.90
34	i	822	A	P-O3'-C3'	-5.48	113.12	119.70
34	i	929	G	C3'-C2'-C1'	-5.48	97.11	101.50
34	i	346	C	O4'-C1'-C2'	5.48	112.53	107.60
34	i	1370	C	N1-C1'-C2'	5.48	121.12	114.00
34	i	400	G	N9-C1'-C2'	-5.48	105.98	112.00
34	i	1323	G	C1'-O4'-C4'	-5.48	105.52	109.90
34	i	378	U	O4'-C1'-N1	5.47	112.58	108.20
17	Q	18	THR	C-N-CA	5.47	135.38	121.70
34	i	1638	U	O4'-C1'-N1	5.47	112.58	108.20
34	i	456	G	C3'-C2'-C1'	-5.47	97.12	101.50
34	i	560	C	C5'-C4'-O4'	5.47	115.66	109.10
34	i	1708	C	N1-C1'-C2'	5.47	121.11	114.00
34	i	964	U	O4'-C1'-N1	5.47	112.58	108.20
18	R	89	SER	CA-C-O	-5.47	108.62	120.10
34	i	1013	U	O4'-C1'-C2'	-5.47	100.33	105.80
34	i	1667	U	C1'-O4'-C4'	-5.47	105.53	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1259	U	C3'-C2'-C1'	5.46	105.87	101.50
34	i	1556	A	O4'-C1'-C2'	-5.46	100.34	105.80
34	i	1795	A	O4'-C1'-N9	5.46	112.57	108.20
34	i	146	G	O4'-C1'-C2'	-5.46	100.34	105.80
34	i	1035	C	O4'-C1'-N1	5.46	112.57	108.20
34	i	1094	C	O4'-C1'-N1	5.46	112.57	108.20
2	B	63	LYS	N-CA-C	5.46	125.73	111.00
34	i	1458	U	O4'-C1'-N1	5.46	112.57	108.20
34	i	1814	G	O4'-C1'-N9	5.46	112.57	108.20
3	C	241	TRP	O-C-N	-5.46	113.97	122.70
4	D	167	TYR	CA-CB-CG	-5.46	103.03	113.40
34	i	1848	U	N1-C1'-C2'	-5.45	106.00	112.00
34	i	1122	G	O4'-C1'-N9	5.45	112.56	108.20
34	i	1280	A	C5'-C4'-O4'	5.45	115.64	109.10
34	i	1661	C	C3'-C2'-C1'	5.45	105.86	101.50
29	c	36	ASP	CB-CG-OD2	5.45	123.20	118.30
34	i	314	U	O4'-C1'-C2'	5.44	112.50	107.60
34	i	225	C	C1'-O4'-C4'	-5.44	105.55	109.90
34	i	1271	G	O4'-C1'-N9	5.44	112.55	108.20
34	i	38	A	C5'-C4'-C3'	-5.44	107.30	116.00
19	S	89	ASP	CB-CA-C	-5.44	99.52	110.40
34	i	1437	U	C1'-O4'-C4'	5.44	114.25	109.90
34	i	1557	C	C3'-C2'-C1'	5.44	105.85	101.50
34	i	376	C	P-O5'-C5'	-5.44	112.20	120.90
34	i	536	G	O4'-C1'-C2'	-5.44	100.36	105.80
34	i	614	C	C5'-C4'-C3'	-5.44	107.30	116.00
34	i	1374	A	O4'-C1'-C2'	-5.44	100.36	105.80
34	i	619	A	C1'-O4'-C4'	5.43	114.25	109.90
34	i	882	A	O3'-P-O5'	5.43	114.33	104.00
34	i	1625	A	O4'-C1'-N9	5.43	112.55	108.20
34	i	3	C	C1'-O4'-C4'	5.43	114.25	109.90
34	i	404	A	O4'-C1'-C2'	-5.43	100.37	105.80
21	U	118	ASP	N-CA-C	-5.43	96.34	111.00
34	i	370	G	C1'-O4'-C4'	5.43	114.24	109.90
34	i	76	U	N1-C1'-C2'	5.43	121.06	114.00
34	i	1143	C	O4'-C1'-N1	5.43	112.54	108.20
34	i	1846	C	O4'-C1'-N1	5.43	112.54	108.20
34	i	101	U	O4'-C1'-C2'	-5.43	100.37	105.80
34	i	642	U	C1'-O4'-C4'	5.42	114.24	109.90
34	i	440	C	O4'-C1'-N1	5.42	112.54	108.20
34	i	94	G	N9-C1'-C2'	5.42	121.05	114.00
34	i	1561	G	N9-C1'-C2'	-5.42	106.03	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	116	U	O4'-C1'-N1	5.42	112.54	108.20
34	i	536	G	O4'-C1'-N9	5.42	112.54	108.20
34	i	1823	G	O4'-C1'-C2'	-5.42	100.38	105.80
34	i	282	G	C1'-O4'-C4'	-5.42	105.56	109.90
34	i	69	C	O4'-C1'-N1	5.42	112.53	108.20
34	i	71	G	C4'-C3'-O3'	5.41	123.83	113.00
34	i	139	C	O4'-C1'-N1	5.41	112.53	108.20
25	Y	62	THR	C-N-CA	-5.41	108.17	121.70
34	i	1166	A	C3'-C2'-C1'	-5.41	97.17	101.50
34	i	564	A	N9-C1'-C2'	5.41	121.03	114.00
34	i	819	U	O4'-C1'-C2'	5.41	112.47	107.60
34	i	1191	A	N9-C1'-C2'	-5.41	106.05	112.00
23	W	54	ASP	CB-CG-OD2	5.41	123.17	118.30
34	i	102	A	C1'-O4'-C4'	-5.41	105.57	109.90
34	i	727	G	N9-C1'-C2'	5.41	121.03	114.00
34	i	40	A	N9-C1'-C2'	-5.41	106.05	112.00
34	i	1344	G	P-O3'-C3'	5.41	126.19	119.70
34	i	1486	G	C1'-O4'-C4'	-5.41	105.57	109.90
34	i	502	A	O4'-C1'-N9	5.41	112.53	108.20
34	i	1181	C	C3'-C2'-C1'	5.41	105.82	101.50
34	i	1301	C	N1-C1'-C2'	5.41	121.03	114.00
3	C	216	ALA	O-C-N	-5.40	114.06	122.70
34	i	276	U	P-O5'-C5'	-5.40	112.26	120.90
34	i	188	U	P-O3'-C3'	-5.40	113.22	119.70
34	i	57	U	C3'-C2'-C1'	5.40	105.82	101.50
34	i	437	A	O4'-C1'-N9	5.40	112.52	108.20
34	i	1130	G	O4'-C1'-N9	5.40	112.52	108.20
34	i	790	A	O4'-C1'-C2'	-5.40	100.40	105.80
34	i	1384	A	P-O3'-C3'	-5.40	113.22	119.70
34	i	1423	C	O4'-C1'-N1	5.40	112.52	108.20
8	H	16	PRO	CA-N-CD	-5.39	103.95	111.50
28	b	34	ASP	CB-CG-OD2	5.39	123.16	118.30
34	i	960	A	O4'-C1'-C2'	-5.39	100.41	105.80
9	I	132	GLU	CA-C-O	-5.39	108.78	120.10
34	i	1165	G	C1'-O4'-C4'	-5.39	105.59	109.90
34	i	911	G	O4'-C1'-C2'	5.39	112.45	107.60
34	i	1280	A	N9-C1'-C2'	5.39	121.00	114.00
34	i	443	C	N1-C1'-C2'	5.39	121.00	114.00
34	i	516	A	C1'-O4'-C4'	-5.39	105.59	109.90
34	i	675	A	O4'-C1'-N9	5.39	112.51	108.20
34	i	1820	G	O4'-C1'-N9	5.39	112.51	108.20
34	i	640	A	O4'-C1'-C2'	-5.38	100.42	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	835	C	O3'-P-O5'	-5.38	93.77	104.00
34	i	1557	C	P-O3'-C3'	5.38	126.16	119.70
15	O	129	ILE	CG1-CB-CG2	5.38	123.24	111.40
34	i	427	G	N9-C1'-C2'	5.38	121.00	114.00
34	i	685	G	C1'-O4'-C4'	5.38	114.21	109.90
22	V	82	ASN	CB-CA-C	-5.38	99.64	110.40
34	i	742	C	O4'-C1'-N1	5.38	112.50	108.20
34	i	1819	A	C5'-C4'-O4'	5.38	115.56	109.10
34	i	1479	A	C4'-C3'-C2'	-5.38	97.22	102.60
10	J	35	TYR	C-N-CA	5.38	133.59	122.30
21	U	90	ASP	CB-CG-OD2	5.38	123.14	118.30
34	i	509	A	C1'-O4'-C4'	5.38	114.20	109.90
34	i	1624	C	O4'-C4'-C3'	-5.38	98.62	104.00
6	F	21	GLY	N-CA-C	-5.38	99.66	113.10
14	N	6	ALA	C-N-CD	5.38	139.69	128.40
34	i	1823	G	C5'-C4'-O4'	5.38	115.55	109.10
34	i	1003	C	O4'-C1'-C2'	-5.38	100.42	105.80
34	i	1608	G	O4'-C1'-N9	5.38	112.50	108.20
15	O	46	ASP	CB-CG-OD2	5.37	123.14	118.30
34	i	1535	G	P-O5'-C5'	-5.37	112.30	120.90
11	K	43	LEU	CB-CG-CD1	5.37	120.13	111.00
34	i	1036	G	O4'-C1'-C2'	5.37	112.43	107.60
34	i	1037	G	N9-C1'-C2'	5.37	120.98	114.00
34	i	1110	U	O4'-C1'-C2'	-5.37	100.43	105.80
10	J	100	LEU	N-CA-C	5.37	125.50	111.00
22	V	24	ILE	CB-CA-C	-5.37	100.86	111.60
34	i	906	G	O5'-P-OP1	-5.37	100.87	105.70
34	i	1318	G	C1'-O4'-C4'	5.37	114.19	109.90
34	i	459	A	C1'-O4'-C4'	5.37	114.19	109.90
34	i	1341	G	O4'-C1'-C2'	-5.37	100.44	105.80
34	i	1424	G	C3'-C2'-C1'	-5.37	97.21	101.50
14	N	151	ALA	CA-C-O	-5.36	108.84	120.10
23	W	9	ASP	CB-CG-OD2	5.36	123.13	118.30
34	i	139	C	C3'-C2'-C1'	5.36	105.79	101.50
34	i	1256	A	O4'-C1'-N9	5.36	112.49	108.20
34	i	1123	C	O4'-C1'-N1	5.36	112.49	108.20
34	i	1348	G	N9-C1'-C2'	5.36	120.97	114.00
34	i	1595	G	P-O3'-C3'	-5.36	113.27	119.70
16	P	82	ASP	CB-CG-OD2	5.36	123.12	118.30
24	X	114	ASP	CB-CG-OD2	5.36	123.12	118.30
34	i	820	C	N1-C1'-C2'	5.36	120.97	114.00
9	I	55	TYR	CB-CG-CD2	-5.36	117.79	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	370	G	O4'-C1'-N9	5.36	112.48	108.20
34	i	1419	C	O4'-C1'-N1	5.36	112.48	108.20
5	E	59	ASP	CB-CG-OD2	5.35	123.12	118.30
34	i	1539	C	O4'-C1'-C2'	-5.35	100.45	105.80
33	g	14	HIS	C-N-CA	-5.35	108.32	121.70
34	i	1127	G	O4'-C1'-C2'	-5.35	100.45	105.80
14	N	87	ASP	CB-CG-OD2	5.35	123.11	118.30
29	c	54	ASP	CB-CG-OD2	5.34	123.11	118.30
34	i	416	A	C3'-C2'-C1'	5.34	105.78	101.50
34	i	1027	A	C5'-C4'-O4'	5.34	115.51	109.10
34	i	1129	A	O5'-C5'-C4'	-5.34	101.55	111.70
34	i	1717	G	C5'-C4'-C3'	-5.34	107.45	116.00
3	C	244	THR	N-CA-C	5.34	125.42	111.00
7	G	170	ARG	CA-C-N	-5.34	105.45	117.20
34	i	306	C	P-O5'-C5'	-5.34	112.35	120.90
34	i	462	C	N1-C1'-C2'	5.34	120.94	114.00
34	i	1300	U	N1-C1'-C2'	5.34	120.94	114.00
34	i	540	C	O4'-C1'-C2'	-5.34	100.46	105.80
34	i	918	A	N9-C1'-C2'	-5.34	106.13	112.00
5	E	170	THR	O-C-N	5.33	131.24	122.70
34	i	103	A	P-O3'-C3'	5.33	126.10	119.70
22	V	28	ASP	CB-CG-OD2	5.33	123.10	118.30
31	e	95	LYS	C-N-CA	5.33	135.03	121.70
34	i	109	U	C2'-C3'-O3'	5.33	122.23	113.70
34	i	235	C	N1-C1'-C2'	5.33	120.93	114.00
34	i	1221	U	O4'-C1'-N1	5.33	112.47	108.20
34	i	77	A	C5'-C4'-C3'	5.33	124.53	116.00
34	i	1037	G	C3'-C2'-C1'	-5.33	97.24	101.50
34	i	1053	C	P-O3'-C3'	-5.33	113.31	119.70
34	i	613	G	O4'-C1'-N9	5.33	112.46	108.20
34	i	550	A	O5'-C5'-C4'	5.33	121.82	111.70
23	W	130	PHE	CA-C-O	-5.32	108.92	120.10
4	D	193	ASP	C-N-CA	-5.32	99.65	122.00
34	i	396	U	O4'-C1'-N1	5.32	112.46	108.20
34	i	852	C	C1'-O4'-C4'	-5.32	105.64	109.90
34	i	15	U	O4'-C1'-C2'	-5.32	100.48	105.80
15	O	39	ASP	CB-CG-OD2	5.32	123.09	118.30
34	i	317	G	C5'-C4'-O4'	5.32	115.48	109.10
34	i	1158	C	O4'-C1'-C2'	-5.32	100.48	105.80
34	i	1201	C	O4'-C1'-N1	5.32	112.45	108.20
34	i	1229	G	O4'-C1'-N9	5.32	112.45	108.20
8	H	16	PRO	C-N-CA	5.32	134.99	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	J	26	ASP	CB-CG-OD2	5.32	123.08	118.30
34	i	67	C	N1-C1'-C2'	-5.32	106.15	112.00
34	i	1233	C	C4'-C3'-C2'	-5.32	97.28	102.60
34	i	1473	U	C1'-O4'-C4'	-5.32	105.65	109.90
34	i	795	U	C4'-C3'-C2'	-5.31	97.29	102.60
34	i	1217	G	C3'-C2'-C1'	-5.31	97.25	101.50
23	W	80	ASP	CB-CG-OD2	5.31	123.08	118.30
34	i	1267	C	N1-C1'-C2'	5.31	120.90	114.00
34	i	901	C	O4'-C1'-N1	5.31	112.44	108.20
16	P	130	ARG	NE-CZ-NH2	-5.30	117.65	120.30
34	i	1150	U	C4'-C3'-C2'	-5.30	97.30	102.60
34	i	1611	U	C3'-C2'-C1'	5.30	105.74	101.50
6	F	46	ALA	O-C-N	-5.30	114.22	122.70
34	i	375	G	O4'-C1'-N9	5.30	112.44	108.20
10	J	124	HIS	N-CA-C	-5.30	96.69	111.00
34	i	235	C	O4'-C1'-N1	5.30	112.44	108.20
34	i	850	A	P-O3'-C3'	5.30	126.06	119.70
34	i	1209	C	N1-C1'-C2'	5.30	120.89	114.00
34	i	1635	A	N9-C1'-C2'	-5.30	106.17	112.00
4	D	93	THR	C-N-CA	5.30	134.94	121.70
34	i	923	C	C3'-C2'-C1'	5.30	105.74	101.50
34	i	1018	U	P-O3'-C3'	5.30	126.06	119.70
34	i	1416	G	O4'-C1'-C2'	5.30	112.37	107.60
12	L	158	PHE	CA-C-O	-5.29	108.98	120.10
34	i	1227	C	C1'-O4'-C4'	-5.29	105.66	109.90
24	X	142	ARG	CA-C-O	-5.29	108.99	120.10
34	i	516	A	O4'-C1'-N9	5.29	112.43	108.20
34	i	1279	C	C1'-O4'-C4'	-5.29	105.67	109.90
34	i	1338	U	C3'-C2'-C1'	5.29	105.73	101.50
34	i	994	A	N9-C1'-C2'	-5.29	106.18	112.00
34	i	1635	A	C3'-C2'-C1'	5.29	105.73	101.50
34	i	313	C	C2'-C3'-O3'	5.29	122.16	113.70
34	i	550	A	C1'-O4'-C4'	-5.29	105.67	109.90
34	i	1161	G	C5'-C4'-O4'	5.29	115.45	109.10
34	i	1357	G	C3'-C2'-C1'	5.29	105.73	101.50
3	C	233	TYR	CA-CB-CG	-5.29	103.36	113.40
34	i	88	G	O4'-C1'-N9	5.29	112.43	108.20
14	N	110	ASP	CB-CG-OD2	5.29	123.06	118.30
34	i	1234	U	C3'-C2'-C1'	-5.29	97.27	101.50
34	i	1453	U	P-O3'-C3'	-5.29	113.36	119.70
1	A	14	ASP	CB-CG-OD2	5.28	123.05	118.30
4	D	227	LYS	CA-C-O	-5.28	109.00	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	g	213	ASP	CB-CG-OD1	5.28	123.05	118.30
34	i	830	C	O4'-C1'-N1	5.28	112.43	108.20
10	J	104	ASP	CB-CG-OD2	5.28	123.05	118.30
34	i	655	G	N9-C1'-C2'	5.28	120.87	114.00
34	i	1695	C	O4'-C1'-N1	5.28	112.42	108.20
13	M	132	LYS	CA-C-O	-5.28	109.02	120.10
16	P	71	GLU	CA-C-N	-5.28	105.59	117.20
34	i	868	A	O4'-C1'-C2'	5.28	112.35	107.60
34	i	1340	A	P-O3'-C3'	5.28	126.03	119.70
34	i	142	C	O4'-C1'-C2'	5.28	112.35	107.60
34	i	1137	G	O4'-C1'-C2'	5.28	112.35	107.60
8	H	118	ARG	CB-CA-C	-5.27	99.86	110.40
16	P	71	GLU	C-N-CA	5.27	134.88	121.70
30	d	56	ASP	CA-C-O	-5.27	109.03	120.10
32	f	137	ASP	CB-CG-OD2	5.27	123.05	118.30
34	i	1423	C	C3'-C2'-C1'	5.27	105.72	101.50
1	A	53	ARG	CD-NE-CZ	-5.27	116.22	123.60
34	i	1807	A	O4'-C1'-N9	5.27	112.42	108.20
3	C	263	THR	CA-C-O	-5.27	109.03	120.10
1	A	53	ARG	N-CA-CB	-5.27	101.12	110.60
10	J	137	VAL	C-N-CA	5.27	134.87	121.70
34	i	332	C	O4'-C1'-C2'	-5.27	100.53	105.80
34	i	660	A	C1'-O4'-C4'	5.27	114.11	109.90
34	i	1024	A	C4'-C3'-O3'	-5.27	98.34	109.40
34	i	1255	A	C5'-C4'-O4'	5.27	115.42	109.10
34	i	1832	U	O4'-C1'-N1	5.27	112.41	108.20
34	i	1607	G	C3'-C2'-C1'	-5.27	97.29	101.50
34	i	859	U	O4'-C1'-C2'	5.26	112.34	107.60
34	i	1021	U	C1'-O4'-C4'	5.26	114.11	109.90
34	i	1455	G	C3'-C2'-C1'	-5.26	97.29	101.50
34	i	120	U	C3'-C2'-C1'	5.26	105.71	101.50
34	i	1695	C	N1-C1'-C2'	-5.26	106.21	112.00
34	i	66	G	O4'-C1'-C2'	5.26	112.33	107.60
34	i	109	U	P-O3'-C3'	-5.26	113.39	119.70
34	i	165	G	N9-C1'-C2'	-5.26	106.21	112.00
34	i	1208	G	O4'-C1'-N9	5.26	112.41	108.20
14	N	32	ASP	CB-CG-OD2	5.26	123.03	118.30
34	i	1714	A	C3'-C2'-C1'	5.26	105.71	101.50
34	i	1048	A	C3'-C2'-C1'	5.26	105.71	101.50
21	U	27	ARG	O-C-N	-5.26	114.29	122.70
34	i	1119	C	O4'-C1'-N1	5.25	112.40	108.20
1	A	130	ASP	CB-CG-OD2	5.25	123.03	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	I	191	GLU	CB-CA-C	-5.25	99.89	110.40
34	i	1298	G	C2'-C3'-O3'	-5.25	97.94	109.50
34	i	1703	C	C3'-C2'-C1'	5.25	105.70	101.50
34	i	65	C	O4'-C1'-C2'	-5.25	100.55	105.80
34	i	84	A	P-O5'-C5'	-5.25	112.50	120.90
34	i	1039	G	O4'-C1'-N9	5.25	112.40	108.20
34	i	1602	A	C1'-O4'-C4'	-5.25	105.70	109.90
1	A	209	GLU	CA-C-O	-5.25	109.08	120.10
6	F	43	GLU	N-CA-C	-5.25	96.83	111.00
7	G	57	ASP	CB-CG-OD2	5.25	123.02	118.30
17	Q	110	ASP	CB-CG-OD2	5.25	123.02	118.30
18	R	94	GLU	N-CA-C	-5.25	96.83	111.00
19	S	110	ASP	CB-CG-OD2	5.25	123.02	118.30
34	i	229	A	O4'-C1'-N9	5.25	112.40	108.20
34	i	542	G	O4'-C1'-C2'	5.25	112.32	107.60
34	i	895	U	P-O5'-C5'	5.25	129.30	120.90
5	E	258	ALA	O-C-N	-5.25	114.31	122.70
11	K	98	ARG	CA-C-O	-5.25	109.08	120.10
28	b	3	LEU	CB-CG-CD2	5.25	119.92	111.00
34	i	551	A	C2'-C3'-O3'	5.25	122.09	113.70
34	i	1001	G	O4'-C1'-C2'	5.25	112.32	107.60
34	i	1078	A	O4'-C1'-C2'	-5.25	100.55	105.80
34	i	1603	U	N1-C1'-C2'	5.25	120.82	114.00
6	F	204	ARG	CA-C-O	-5.24	109.09	120.10
34	i	71	G	C2'-C3'-O3'	-5.24	97.97	109.50
34	i	178	C	N1-C1'-C2'	5.24	120.82	114.00
34	i	189	G	O5'-C5'-C4'	5.24	121.66	111.70
34	i	988	A	C1'-O4'-C4'	-5.24	105.70	109.90
5	E	88	ASP	CB-CG-OD2	5.24	123.02	118.30
34	i	880	C	C3'-C2'-C1'	5.24	105.69	101.50
34	i	1688	G	O4'-C1'-C2'	5.24	112.32	107.60
19	S	104	ASP	CB-CG-OD2	5.24	123.02	118.30
29	c	68	LEU	CA-C-O	-5.24	109.10	120.10
34	i	22	A	C1'-O4'-C4'	5.24	114.09	109.90
27	a	52	ASP	CB-CG-OD2	5.24	123.01	118.30
34	i	297	C	O4'-C1'-N1	5.24	112.39	108.20
34	i	624	A	C3'-C2'-C1'	5.24	105.69	101.50
28	b	52	THR	O-C-N	5.24	131.08	122.70
34	i	1006	G	N9-C1'-C2'	-5.24	106.24	112.00
34	i	1491	G	O4'-C1'-N9	5.24	112.39	108.20
34	i	1683	C	C5'-C4'-O4'	5.24	115.38	109.10
34	i	33	G	C5'-C4'-O4'	5.23	115.38	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	108	ASP	CB-CG-OD2	5.23	123.01	118.30
34	i	382	A	C5'-C4'-O4'	5.23	115.38	109.10
5	E	73	ASP	CB-CG-OD2	5.23	123.01	118.30
16	P	21	ASP	CB-CG-OD2	5.23	123.01	118.30
34	i	1645	A	O4'-C1'-C2'	-5.23	100.57	105.80
7	G	151	ASP	CB-CG-OD2	5.23	123.01	118.30
34	i	78	C	C1'-O4'-C4'	-5.23	105.72	109.90
34	i	534	G	O4'-C1'-C2'	-5.23	100.57	105.80
34	i	1326	G	O4'-C1'-C2'	5.23	112.31	107.60
34	i	1580	U	O4'-C1'-N1	5.23	112.38	108.20
34	i	1742	C	C5'-C4'-C3'	5.23	124.37	116.00
5	E	253	ASP	CB-CG-OD2	5.23	123.00	118.30
8	H	56	GLY	N-CA-C	5.23	126.16	113.10
34	i	1645	A	P-O5'-C5'	-5.23	112.54	120.90
34	i	554	A	N9-C1'-C2'	-5.22	106.25	112.00
34	i	895	U	C3'-C2'-C1'	5.22	105.68	101.50
8	H	194	LEU	CA-C-O	-5.22	109.14	120.10
34	i	530	U	N1-C1'-C2'	-5.22	106.26	112.00
10	J	95	ASP	CB-CG-OD2	5.22	123.00	118.30
34	i	621	U	N1-C1'-C2'	5.22	120.78	114.00
34	i	1331	G	N9-C1'-C2'	5.22	120.78	114.00
34	i	1400	U	C3'-C2'-C1'	5.21	105.67	101.50
1	A	151	ASP	CB-CG-OD2	5.21	122.99	118.30
2	B	60	ASP	CB-CG-OD2	5.21	122.99	118.30
34	i	22	A	O4'-C1'-N9	5.21	112.37	108.20
34	i	271	G	OP1-P-O3'	5.21	116.66	105.20
34	i	906	G	C3'-C2'-C1'	-5.21	97.33	101.50
34	i	1473	U	O4'-C1'-N1	5.21	112.37	108.20
28	b	84	HIS	CA-C-O	-5.21	109.17	120.10
34	i	308	C	O4'-C1'-C2'	-5.21	100.59	105.80
34	i	1283	A	O4'-C1'-N9	5.21	112.37	108.20
34	i	1618	A	C1'-O4'-C4'	5.21	114.06	109.90
34	i	1051	A	C1'-O4'-C4'	5.20	114.06	109.90
26	Z	52	LYS	N-CA-C	-5.20	96.95	111.00
34	i	458	A	P-O5'-C5'	-5.20	112.58	120.90
34	i	1133	U	O4'-C1'-N1	5.20	112.36	108.20
34	i	1482	A	O5'-C5'-C4'	-5.20	101.82	111.70
24	X	138	LYS	O-C-N	-5.20	114.38	122.70
34	i	216	U	C3'-C2'-C1'	5.20	105.66	101.50
33	g	314	ILE	CA-C-O	-5.20	109.19	120.10
34	i	22	A	O4'-C1'-C2'	-5.20	100.60	105.80
34	i	207	U	N1-C1'-C2'	5.20	120.76	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	e	133	SER	CA-C-O	-5.20	109.19	120.10
34	i	1090	C	N1-C1'-C2'	5.20	120.75	114.00
34	i	1328	A	C4'-C3'-C2'	-5.20	97.40	102.60
34	i	1501	U	C3'-C2'-C1'	5.20	105.66	101.50
34	i	84	A	C5'-C4'-O4'	5.19	115.33	109.10
34	i	729	C	C4'-C3'-C2'	-5.19	97.41	102.60
32	f	152	LYS	CA-C-O	-5.19	109.19	120.10
34	i	323	G	O4'-C1'-N9	5.19	112.35	108.20
34	i	599	U	O4'-C1'-C2'	-5.19	100.61	105.80
24	X	88	ASP	CB-CG-OD2	5.19	122.97	118.30
26	Z	104	ARG	CB-CA-C	-5.19	100.02	110.40
34	i	1555	U	C4'-C3'-C2'	-5.19	97.41	102.60
34	i	461	G	N9-C1'-C2'	-5.19	106.29	112.00
34	i	516	A	O4'-C1'-C2'	5.19	112.27	107.60
34	i	1397	A	N9-C1'-C2'	-5.19	106.29	112.00
24	X	115	ILE	C-N-CD	-5.19	109.19	120.60
34	i	201	G	C1'-O4'-C4'	5.19	114.05	109.90
34	i	911	G	C3'-C2'-C1'	-5.19	97.35	101.50
34	i	1645	A	C1'-O4'-C4'	5.19	114.05	109.90
30	d	49	ASP	CB-CG-OD2	5.18	122.97	118.30
34	i	378	U	N1-C1'-C2'	5.18	120.74	114.00
34	i	1461	A	C3'-C2'-C1'	5.18	105.65	101.50
10	J	152	ASP	CB-CG-OD2	5.18	122.96	118.30
21	U	48	LEU	CB-CG-CD2	-5.18	102.19	111.00
34	i	1246	A	N9-C1'-C2'	-5.18	106.30	112.00
15	O	80	ASP	CB-CG-OD2	5.18	122.96	118.30
24	X	139	GLU	CB-CA-C	5.18	120.76	110.40
34	i	209	C	C3'-C2'-C1'	5.18	105.64	101.50
34	i	520	U	C4'-C3'-C2'	-5.18	97.42	102.60
34	i	1036	G	C1'-O4'-C4'	-5.18	105.76	109.90
34	i	1408	C	O5'-P-OP1	5.18	116.92	110.70
34	i	1427	G	N9-C1'-C2'	5.18	120.73	114.00
34	i	799	C	C3'-C2'-C1'	5.18	105.64	101.50
34	i	971	G	O4'-C4'-C3'	-5.18	98.82	104.00
34	i	1737	C	N1-C1'-C2'	5.18	120.73	114.00
34	i	346	C	C3'-C2'-C1'	-5.17	97.36	101.50
34	i	1130	G	C5'-C4'-O4'	5.17	115.31	109.10
9	I	133	GLU	CA-C-N	5.17	128.58	117.20
34	i	1308	G	N9-C1'-C2'	5.17	120.72	114.00
7	G	39	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	480	C	O4'-C1'-C2'	-5.17	100.63	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1280	A	C5'-C4'-C3'	-5.17	107.73	116.00
34	i	1765	G	P-O3'-C3'	5.17	125.90	119.70
10	J	91	LYS	CA-C-N	5.17	128.56	117.20
16	P	27	ASP	CB-CG-OD2	5.17	122.95	118.30
23	W	2	VAL	O-C-N	-5.17	114.44	122.70
34	i	1137	G	P-O5'-C5'	5.17	129.16	120.90
18	R	101	ASP	CB-CG-OD2	5.17	122.95	118.30
19	S	62	ASP	CB-CG-OD2	5.17	122.95	118.30
34	i	994	A	C3'-C2'-C1'	5.17	105.63	101.50
34	i	832	G	N9-C1'-C2'	-5.16	106.32	112.00
5	E	21	ASP	CB-CG-OD2	5.16	122.94	118.30
16	P	37	TYR	CA-CB-CG	5.16	123.21	113.40
23	W	55	ASP	CB-CG-OD2	5.16	122.94	118.30
34	i	549	G	O4'-C4'-C3'	-5.16	98.84	104.00
9	I	8	TRP	CE3-CZ3-CH2	5.16	126.87	121.20
12	L	18	GLN	C-N-CA	-5.16	108.80	121.70
15	O	67	ASP	CB-CG-OD2	5.16	122.94	118.30
34	i	411	G	O4'-C1'-C2'	5.16	112.24	107.60
34	i	729	C	O4'-C1'-N1	5.16	112.33	108.20
13	M	43	ASP	CB-CG-OD2	5.16	122.94	118.30
34	i	608	C	C1'-O4'-C4'	5.16	114.02	109.90
34	i	107	A	C1'-O4'-C4'	5.15	114.02	109.90
1	A	53	ARG	CB-CG-CD	-5.15	98.20	111.60
34	i	1629	A	O4'-C1'-N9	5.15	112.32	108.20
34	i	1558	G	O4'-C1'-C2'	5.15	112.23	107.60
34	i	1568	G	O4'-C1'-N9	5.15	112.32	108.20
34	i	1658	A	O4'-C1'-C2'	-5.15	100.65	105.80
34	i	1833	U	C5'-C4'-O4'	5.15	115.28	109.10
34	i	1246	A	O4'-C1'-C2'	-5.15	100.65	105.80
16	P	51	ARG	N-CA-C	5.15	124.89	111.00
34	i	539	C	C3'-C2'-C1'	5.14	105.62	101.50
34	i	916	A	P-O3'-C3'	5.14	125.87	119.70
34	i	1575	A	O4'-C1'-N9	5.14	112.32	108.20
18	R	25	GLY	O-C-N	5.14	130.93	122.70
34	i	125	C	C5'-C4'-O4'	-5.14	102.93	109.10
26	Z	50	PHE	CB-CA-C	-5.14	100.12	110.40
34	i	1858	U	C5'-C4'-O4'	5.14	115.27	109.10
19	S	16	LEU	CA-C-N	-5.14	105.89	117.20
33	g	12	LYS	CB-CA-C	-5.14	100.12	110.40
34	i	439	A	O4'-C1'-N9	5.14	112.31	108.20
34	i	1656	A	O4'-C1'-C2'	5.14	112.23	107.60
34	i	1742	C	C4'-C3'-O3'	-5.13	98.62	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	E	164	LEU	C-N-CA	-5.13	108.87	121.70
34	i	740	G	O3'-P-O5'	-5.13	94.25	104.00
34	i	1379	A	O4'-C1'-N9	5.13	112.31	108.20
34	i	1544	U	N1-C1'-C2'	5.13	120.67	114.00
5	E	237	SER	N-CA-CB	-5.13	102.80	110.50
20	T	144	LYS	CA-C-O	-5.13	109.32	120.10
34	i	32	U	C5'-C4'-O4'	5.13	115.26	109.10
29	c	37	ASP	CB-CG-OD2	5.13	122.92	118.30
34	i	652	G	C3'-C2'-C1'	5.13	105.60	101.50
34	i	1262	C	C1'-O4'-C4'	-5.13	105.80	109.90
34	i	1562	G	O4'-C4'-C3'	-5.13	98.87	104.00
12	L	24	LEU	C-N-CA	5.13	134.52	121.70
34	i	160	U	O4'-C1'-N1	5.13	112.30	108.20
34	i	1328	A	N9-C1'-C2'	-5.13	106.36	112.00
34	i	1513	C	O4'-C4'-C3'	-5.12	98.88	104.00
5	E	158	ASP	CB-CG-OD2	5.12	122.91	118.30
16	P	28	MET	CA-C-N	-5.12	105.93	117.20
34	i	376	C	O4'-C1'-N1	5.12	112.30	108.20
34	i	1302	U	O4'-C1'-N1	5.12	112.30	108.20
34	i	1490	U	C3'-C2'-C1'	-5.12	97.40	101.50
7	G	180	VAL	N-CA-CB	-5.12	100.23	111.50
34	i	125	C	P-O3'-C3'	5.12	125.84	119.70
34	i	1651	G	C3'-C2'-C1'	-5.12	97.40	101.50
34	i	859	U	N1-C1'-C2'	5.12	120.65	114.00
25	Y	80	ASP	CB-CG-OD2	5.12	122.91	118.30
26	Z	51	ASP	CB-CG-OD2	5.12	122.90	118.30
34	i	72	C	P-O5'-C5'	5.12	129.08	120.90
34	i	1776	G	O5'-C5'-C4'	5.12	121.42	111.70
34	i	1609	A	O4'-C1'-N9	5.11	112.29	108.20
11	K	55	ARG	CD-NE-CZ	5.11	130.76	123.60
2	B	196	ASP	CB-CG-OD2	5.11	122.90	118.30
34	i	871	A	C3'-C2'-C1'	5.11	105.59	101.50
5	E	163	ASP	CB-CG-OD2	5.11	122.90	118.30
4	D	52	ALA	O-C-N	-5.11	114.53	122.70
34	i	1267	C	O4'-C1'-C2'	-5.11	100.69	105.80
2	B	104	ASP	CB-CG-OD2	5.11	122.89	118.30
32	f	134	SER	CA-C-N	-5.11	105.97	117.20
34	i	13	C	C3'-C2'-C1'	5.11	105.58	101.50
34	i	74	G	C1'-O4'-C4'	-5.11	105.81	109.90
34	i	376	C	C5'-C4'-C3'	-5.11	107.83	116.00
34	i	1560	C	O4'-C1'-N1	5.11	112.28	108.20
34	i	136	C	C5'-C4'-C3'	5.10	124.17	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	932	G	O4'-C1'-N9	5.10	112.28	108.20
34	i	1235	U	O3'-P-O5'	5.10	113.70	104.00
24	X	126	ALA	N-CA-C	-5.10	97.22	111.00
34	i	503	G	O4'-C1'-C2'	5.10	112.19	107.60
34	i	1614	A	P-O3'-C3'	5.10	125.82	119.70
34	i	1385	C	O5'-P-OP2	-5.10	101.11	105.70
15	O	131	ASP	CB-CG-OD2	5.10	122.89	118.30
34	i	984	C	O4'-C1'-N1	-5.10	104.12	108.20
34	i	1248	C	P-O3'-C3'	-5.10	113.58	119.70
34	i	78	C	O4'-C1'-C2'	-5.10	100.70	105.80
34	i	677	C	P-O3'-C3'	5.10	125.81	119.70
34	i	1272	A	C1'-O4'-C4'	5.10	113.98	109.90
34	i	1675	G	C3'-C2'-C1'	5.10	105.58	101.50
2	B	90	ASP	CB-CG-OD2	5.09	122.88	118.30
34	i	603	C	O4'-C1'-C2'	-5.09	100.71	105.80
34	i	660	A	P-O3'-C3'	5.09	125.81	119.70
34	i	1375	A	C5'-C4'-C3'	-5.09	107.85	116.00
34	i	1551	A	C5'-C4'-C3'	-5.09	107.85	116.00
34	i	1298	G	C5'-C4'-O4'	5.09	115.21	109.10
34	i	1308	G	C3'-C2'-C1'	5.09	105.57	101.50
34	i	1335	U	C5'-C4'-O4'	5.09	115.21	109.10
11	K	43	LEU	N-CA-C	-5.09	97.26	111.00
34	i	1541	G	C3'-C2'-C1'	-5.09	97.43	101.50
10	J	85	GLY	CA-C-N	-5.09	106.01	117.20
34	i	1386	U	N1-C1'-C2'	5.09	120.61	114.00
34	i	43	U	C5'-C4'-O4'	5.08	115.20	109.10
34	i	231	C	O4'-C1'-N1	5.08	112.27	108.20
34	i	1021	U	N1-C1'-C2'	-5.08	106.41	112.00
17	Q	67	ASP	CB-CG-OD2	5.08	122.87	118.30
34	i	419	C	O4'-C1'-C2'	-5.08	100.72	105.80
34	i	1078	A	C1'-O4'-C4'	5.08	113.97	109.90
34	i	1753	G	C1'-O4'-C4'	-5.08	105.84	109.90
5	E	104	ASP	CB-CG-OD2	5.08	122.87	118.30
32	f	106	TYR	N-CA-C	-5.08	97.29	111.00
34	i	1568	G	C4'-C3'-C2'	-5.08	97.52	102.60
35	l	67	PHE	N-CA-C	-5.08	97.29	111.00
34	i	1157	U	N1-C1'-C2'	-5.08	106.42	112.00
25	Y	29	HIS	C-N-CD	-5.08	109.44	120.60
34	i	629	C	O4'-C1'-N1	5.08	112.26	108.20
34	i	1106	G	C1'-O4'-C4'	5.08	113.96	109.90
34	i	1361	G	O4'-C1'-N9	5.08	112.26	108.20
34	i	1483	A	C4'-C3'-O3'	-5.08	98.74	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	152	LYS	CB-CA-C	5.07	120.55	110.40
16	P	23	ASP	CB-CG-OD2	5.07	122.87	118.30
34	i	1186	A	O4'-C1'-N9	5.07	112.26	108.20
34	i	292	A	N9-C1'-C2'	-5.07	106.42	112.00
34	i	794	G	O4'-C1'-N9	-5.07	104.14	108.20
18	R	110	ASP	CB-CG-OD2	5.07	122.86	118.30
24	X	19	ASP	CB-CG-OD2	5.07	122.86	118.30
26	Z	56	ASP	CB-CG-OD2	5.07	122.86	118.30
34	i	318	U	C5'-C4'-C3'	5.07	124.11	116.00
14	N	108	ASP	CB-CG-OD2	5.07	122.86	118.30
34	i	677	C	O4'-C1'-C2'	5.07	112.16	107.60
10	J	89	GLU	N-CA-CB	-5.07	101.48	110.60
34	i	410	G	C4'-C3'-C2'	-5.07	97.53	102.60
34	i	812	A	C3'-C2'-C1'	5.07	105.55	101.50
34	i	896	C	P-O5'-C5'	5.07	129.01	120.90
34	i	1610	U	N1-C1'-C2'	5.07	120.59	114.00
1	A	193	HIS	N-CA-C	5.07	124.67	111.00
8	H	191	GLU	C-N-CA	-5.07	109.04	121.70
10	J	158	ASP	CB-CG-OD2	5.07	122.86	118.30
31	e	118	ASN	N-CA-C	5.06	124.67	111.00
10	J	188	GLY	N-CA-C	5.06	125.76	113.10
34	i	689	G	N9-C1'-C2'	5.06	120.58	114.00
34	i	455	A	O3'-P-O5'	-5.06	94.39	104.00
5	E	129	ILE	CA-C-N	-5.06	106.07	117.20
34	i	1270	G	N9-C1'-C2'	5.06	120.57	114.00
5	E	143	ASP	CB-CG-OD2	5.05	122.85	118.30
23	W	85	ASP	CB-CG-OD2	5.05	122.85	118.30
33	g	143	GLN	CB-CA-C	-5.05	100.29	110.40
34	i	73	C	P-O3'-C3'	-5.05	113.64	119.70
34	i	341	G	O4'-C4'-C3'	-5.05	98.94	104.00
1	A	205	ARG	NE-CZ-NH1	5.05	122.83	120.30
34	i	1413	C	O4'-C4'-C3'	-5.05	98.95	104.00
34	i	1385	C	O4'-C1'-N1	5.05	112.24	108.20
7	G	103	ASP	CB-CG-OD2	5.05	122.84	118.30
34	i	124	U	O3'-P-O5'	-5.05	94.41	104.00
34	i	680	G	O4'-C1'-N9	5.05	112.24	108.20
34	i	1663	U	C4'-C3'-C2'	-5.05	97.55	102.60
14	N	31	ASP	CB-CG-OD2	5.05	122.84	118.30
34	i	839	C	C5'-C4'-O4'	5.05	115.16	109.10
34	i	1275	C	C1'-O4'-C4'	5.04	113.93	109.90
34	i	1711	C	N1-C1'-C2'	5.04	120.56	114.00
34	i	1023	A	O3'-P-O5'	5.04	113.58	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1730	A	N9-C1'-C2'	5.04	120.55	114.00
21	U	52	GLY	C-N-CD	-5.04	109.51	120.60
34	i	888	U	O4'-C1'-N1	5.04	112.23	108.20
34	i	1323	G	N9-C1'-C2'	5.04	120.55	114.00
34	i	88	G	O4'-C1'-C2'	5.04	112.13	107.60
34	i	309	A	O4'-C1'-N9	5.04	112.23	108.20
2	B	191	ASP	CB-CG-OD2	5.04	122.83	118.30
32	f	86	THR	N-CA-C	-5.03	97.41	111.00
34	i	850	A	O5'-C5'-C4'	-5.03	102.14	111.70
34	i	677	C	N1-C1'-C2'	5.03	120.54	114.00
34	i	1009	U	O4'-C1'-N1	5.03	112.22	108.20
34	i	1442	A	C4'-C3'-O3'	5.03	123.06	113.00
34	i	8	U	O4'-C1'-C2'	-5.03	100.77	105.80
34	i	1784	A	C1'-O4'-C4'	-5.03	105.88	109.90
22	V	66	ASP	CB-CG-OD2	5.03	122.82	118.30
34	i	645	A	C3'-C2'-C1'	5.03	105.52	101.50
34	i	1275	C	C3'-C2'-C1'	5.03	105.52	101.50
17	Q	31	LEU	C-N-CA	5.02	134.26	121.70
34	i	79	A	C1'-O4'-C4'	5.02	113.92	109.90
25	Y	34	THR	N-CA-C	5.02	124.56	111.00
34	i	610	G	O4'-C1'-C2'	-5.02	100.78	105.80
5	E	93	ASP	CB-CG-OD2	5.02	122.82	118.30
34	i	825	C	O5'-P-OP1	5.02	116.72	110.70
34	i	1014	U	O4'-C1'-N1	5.02	112.21	108.20
14	N	82	PRO	CA-C-N	-5.01	106.17	117.20
34	i	1470	A	O3'-P-O5'	5.01	113.53	104.00
34	i	1334	G	C4'-C3'-C2'	-5.01	97.59	102.60
34	i	1475	G	N9-C1'-C2'	-5.01	106.49	112.00
30	d	6	LEU	N-CA-C	-5.01	97.47	111.00
34	i	1426	C	N1-C1'-C2'	-5.01	106.49	112.00
3	C	98	GLN	N-CA-C	5.01	124.53	111.00
34	i	180	G	O3'-P-O5'	5.01	113.52	104.00
34	i	468	G	P-O5'-C5'	5.01	128.91	120.90
34	i	57	U	N1-C1'-C2'	-5.01	106.49	112.00
34	i	981	G	O4'-C1'-C2'	5.01	112.11	107.60
34	i	1147	G	O4'-C1'-N9	5.01	112.20	108.20
34	i	1452	G	N9-C1'-C2'	5.01	120.51	114.00
34	i	1458	U	C2-N1-C1'	5.01	123.71	117.70
34	i	933	C	O4'-C1'-N1	5.00	112.20	108.20
34	i	955	G	C3'-C2'-C1'	5.00	105.50	101.50
34	i	1405	A	O4'-C4'-C3'	-5.00	99.00	104.00
32	f	148	TYR	CB-CG-CD1	-5.00	118.00	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	i	1135	C	C2-N1-C1'	5.00	124.31	118.80
34	i	1306	U	O4'-C1'-N1	5.00	112.20	108.20
34	i	1579	G	C3'-C2'-C1'	5.00	105.50	101.50
34	i	1862	U	O4'-C1'-N1	5.00	112.20	108.20
34	i	176	U	O4'-C1'-C2'	-5.00	100.80	105.80

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

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

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

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

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

## 5.2 Too-close contacts [i](#)

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	1642	609	0
2	B	1741	0	1809	516	3
3	C	1742	0	1829	579	6
4	D	1764	0	1857	601	9
5	E	2083	0	2189	521	0
6	F	1509	0	1558	474	0
7	G	1923	0	2085	498	33
8	H	1530	0	1624	476	0
9	I	1679	0	1762	438	31

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	J	1498	0	1595	542	0
11	K	827	0	853	349	34
12	L	1296	0	1370	401	0
13	M	950	0	969	247	0
14	N	1208	0	1294	261	0
15	O	1016	0	1039	288	0
16	P	1060	0	1120	479	0
17	Q	1124	0	1193	439	0
18	R	1019	0	1070	346	0
19	S	1139	0	1188	428	23
20	T	1112	0	1149	387	0
21	U	822	0	886	211	0
22	V	619	0	620	282	0
23	W	1034	0	1079	262	0
24	X	1106	0	1177	312	0
25	Y	1021	0	1083	486	0
26	Z	598	0	652	209	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	473	0	521	0	32
32	f	581	0	598	0	0
33	g	2436	0	2388	0	0
34	i	37514	0	18810	0	116
35	l	691	0	704	0	19
All	All	77211	0	60265	9802	168

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 94.

All (9802) 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)
9:I:141:ARG:CB	9:I:144:LYS:HB2	1.24	1.68
3:C:197:LYS:HA	3:C:200:LEU:CD2	1.22	1.66
17:Q:135:PRO:HD3	17:Q:141:TYR:CE1	1.16	1.66
16:P:41:GLN:CG	16:P:84:ILE:HG21	1.18	1.65
11:K:16:PHE:CE2	11:K:79:LEU:HB2	1.24	1.65
21:U:40:ILE:CD1	21:U:53:PRO:HG3	1.19	1.64
3:C:50:LYS:HD2	3:C:251:TYR:CE1	1.20	1.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:78:SER:HB3	25:Y:81:TYR:CD2	1.32	1.64
7:G:41:LEU:CD2	7:G:45:TRP:CZ3	1.80	1.63
20:T:77:LYS:HG3	20:T:92:PHE:CE2	1.13	1.63
1:A:58:LEU:CD2	1:A:178:LEU:HD23	1.28	1.62
5:E:129:ILE:HG12	5:E:139:LEU:CD2	1.25	1.62
3:C:93:LYS:HD2	3:C:218:LEU:CD2	1.27	1.62
19:S:42:HIS:CD2	20:T:45:LEU:HD11	1.21	1.62
16:P:4:VAL:CA	16:P:10:ARG:HD3	1.18	1.62
11:K:27:VAL:CG1	11:K:43:LEU:HD22	1.29	1.61
19:S:34:LYS:CB	19:S:103:LEU:HD21	1.17	1.61
16:P:53:GLN:HG2	16:P:80:LEU:CD1	1.23	1.61
22:V:11:LEU:CD1	22:V:12:TYR:HD2	1.12	1.61
16:P:123:TYR:CE2	19:S:120:HIS:CE1	1.85	1.61
3:C:55:VAL:HG13	3:C:82:PHE:CE2	1.34	1.60
16:P:41:GLN:HG2	16:P:84:ILE:CG1	1.29	1.60
6:F:25:THR:HG21	6:F:42:LYS:CG	1.22	1.60
16:P:33:LEU:CD2	16:P:87:PRO:HD3	1.20	1.60
5:E:129:ILE:CG1	5:E:139:LEU:CD2	1.80	1.60
4:D:132:LYS:CB	4:D:191:PRO:HG3	1.23	1.60
5:E:70:ILE:HG12	5:E:92:ILE:CD1	1.12	1.59
25:Y:78:SER:CB	25:Y:81:TYR:HD2	1.16	1.59
4:D:34:TYR:CZ	21:U:61:LEU:CD2	26.29	1.59
8:H:40:LEU:CD2	8:H:43:LEU:HD12	1.14	1.58
17:Q:9:SER:CB	17:Q:26:LYS:HG3	1.34	1.58
7:G:41:LEU:HD22	7:G:45:TRP:CZ3	1.34	1.58
24:X:27:TYR:CE1	24:X:31:HIS:NE2	1.70	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	1.57
2:B:66:VAL:CG2	2:B:87:ILE:HG22	1.23	1.57
22:V:17:CYS:SG	22:V:56:CYS:HB3	1.44	1.57
8:H:146:VAL:HG21	23:W:50:PHE:CZ	1.37	1.57
11:K:14:LEU:HD22	11:K:35:LEU:CD2	1.22	1.56
8:H:83:LEU:HD13	8:H:92:VAL:CG2	1.25	1.56
25:Y:55:ILE:HG12	25:Y:75:ILE:CG1	1.22	1.56
1:A:21:ALA:HB2	1:A:173:LEU:CD1	1.34	1.56
17:Q:93:VAL:CG1	17:Q:105:LYS:HE2	1.10	1.56
17:Q:42:ILE:HD13	17:Q:51:LEU:CD2	1.16	1.56
16:P:41:GLN:CG	16:P:84:ILE:CG2	1.79	1.56
1:A:21:ALA:CB	1:A:173:LEU:CD1	1.78	1.55
3:C:93:LYS:CD	3:C:218:LEU:HD21	1.12	1.55
7:G:131:ARG:CG	7:G:131:ARG:CD	1.79	1.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:9:SER:HB3	17:Q:26:LYS:CG	1.35	1.54
1:A:30:LEU:HD13	1:A:38:ILE:CD1	1.32	1.54
25:Y:29:HIS:CE1	25:Y:68:LYS:N	1.74	1.54
3:C:50:LYS:CD	3:C:251:TYR:CE1	1.90	1.54
5:E:248:ILE:HD12	10:J:72:PHE:CD2	1.02	1.54
7:G:121:ILE:HG23	7:G:122:PRO:CD	1.38	1.54
7:G:41:LEU:HD22	7:G:45:TRP:CE3	1.37	1.54
6:F:14:THR:CG2	17:Q:56:LEU:HD22	1.07	1.54
19:S:54:LYS:C	19:S:54:LYS:CA	1.75	1.54
19:S:39:ARG:CZ	20:T:38:LYS:CE	1.83	1.53
5:E:248:ILE:CD1	10:J:72:PHE:CG	1.89	1.53
17:Q:135:PRO:CD	17:Q:141:TYR:HE1	1.19	1.53
4:D:34:TYR:CE2	21:U:61:LEU:HD22	26.59	1.53
6:F:103:LEU:CD2	6:F:178:ILE:HD13	1.38	1.53
16:P:4:VAL:HA	16:P:10:ARG:CD	1.07	1.53
6:F:14:THR:HG21	17:Q:56:LEU:CD2	1.05	1.53
9:I:142:SER:CB	9:I:143:LYS:HB2	1.35	1.52
10:J:17:ARG:HG2	10:J:18:ARG:CD	1.33	1.52
18:R:1:MET:CA	18:R:1:MET:CB	1.87	1.52
3:C:50:LYS:CD	3:C:251:TYR:HE1	1.19	1.52
9:I:69:SER:CB	12:L:19:ASN:HD21	1.17	1.52
25:Y:55:ILE:CG1	25:Y:75:ILE:HG12	1.35	1.52
5:E:99:PHE:CE1	5:E:113:ARG:HG3	1.45	1.52
2:B:25:PHE:CE2	15:O:88:LEU:CD1	1.91	1.51
16:P:33:LEU:CD2	16:P:87:PRO:CD	1.82	1.51
4:D:158:ILE:CD1	4:D:189:MET:CE	1.81	1.51
19:S:54:LYS:N	19:S:54:LYS:CA	1.67	1.51
3:C:55:VAL:CG1	3:C:82:PHE:CE2	1.93	1.51
9:I:25:ARG:HD2	9:I:27:TYR:CE2	1.42	1.51
3:C:50:LYS:HD2	3:C:251:TYR:CD1	1.43	1.51
26:Z:99:LEU:HD13	26:Z:102:LYS:CE	1.35	1.50
1:A:30:LEU:CD1	1:A:38:ILE:HD11	1.06	1.50
4:D:34:TYR:CZ	21:U:61:LEU:HD22	26.22	1.50
19:S:34:LYS:HB3	19:S:103:LEU:CD2	1.08	1.50
9:I:157:LYS:CB	12:L:22:ARG:NH1	1.71	1.50
15:O:19:PRO:CG	15:O:27:VAL:CG2	1.86	1.50
4:D:76:ARG:NE	11:K:66:HIS:CE1	1.76	1.50
25:Y:18:LEU:CB	25:Y:20:ARG:HH11	1.22	1.50
4:D:197:LYS:HB2	4:D:198:ILE:CG1	1.35	1.49
18:R:99:ASP:CA	18:R:119:VAL:HG11	1.40	1.49
11:K:3:MET:CE	11:K:8:ARG:NH2	1.74	1.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:93:LYS:CD	3:C:218:LEU:CD2	1.78	1.49
19:S:39:ARG:NE	20:T:38:LYS:HE3	1.26	1.49
26:Z:99:LEU:CD1	26:Z:102:LYS:HE2	1.43	1.48
1:A:141:ASN:C	22:V:32:ILE:HG12	1.27	1.48
8:H:144:ILE:HB	23:W:52:ILE:CG2	1.38	1.47
5:E:248:ILE:HG13	10:J:72:PHE:CD1	1.48	1.47
22:V:11:LEU:CD1	22:V:12:TYR:CD2	1.94	1.47
19:S:42:HIS:CD2	20:T:45:LEU:CD1	1.92	1.47
23:W:14:ILE:CD1	23:W:72:CYS:SG	2.01	1.47
12:L:149:ALA:CB	12:L:156:GLN:CG	1.89	1.47
11:K:27:VAL:HG13	11:K:43:LEU:CD2	1.02	1.47
5:E:248:ILE:CD1	10:J:72:PHE:CD2	1.89	1.46
19:S:8:LYS:HB2	19:S:9:PHE:CD1	1.46	1.46
9:I:161:LEU:HD11	9:I:199:LEU:CD1	1.43	1.46
8:H:122:LEU:HD13	8:H:123:THR:N	1.21	1.46
16:P:79:HIS:CE1	16:P:102:PHE:HZ	1.32	1.46
6:F:63:LYS:HD3	6:F:71:ARG:CZ	1.41	1.46
17:Q:93:VAL:CG1	17:Q:105:LYS:CE	1.94	1.46
18:R:99:ASP:C	18:R:119:VAL:HG11	1.08	1.46
18:R:99:ASP:CA	18:R:119:VAL:CG1	1.92	1.46
5:E:248:ILE:HD12	10:J:72:PHE:CG	1.49	1.46
7:G:157:VAL:CG1	7:G:159:ARG:H	1.28	1.45
20:T:23:LYS:HD3	20:T:54:TYR:CD2	1.47	1.45
12:L:149:ALA:HB2	12:L:156:GLN:NE2	1.17	1.45
12:L:80:MET:HE1	12:L:120:VAL:C	1.12	1.45
3:C:55:VAL:HG13	3:C:82:PHE:CZ	1.49	1.45
6:F:42:LYS:HB2	6:F:45:TYR:N	1.21	1.45
25:Y:29:HIS:HE1	25:Y:68:LYS:N	1.03	1.45
5:E:159:THR:HG23	5:E:227:VAL:CG2	1.43	1.45
3:C:155:TRP:CH2	23:W:97:ARG:NH1	1.73	1.45
7:G:76:LEU:CD2	7:G:92:ARG:HG2	1.44	1.44
19:S:120:HIS:NE2	19:S:124:ARG:NE	1.62	1.44
16:P:49:LEU:CD1	16:P:51:ARG:HE	1.25	1.44
9:I:142:SER:HB3	9:I:143:LYS:CB	1.44	1.44
7:G:176:ILE:CB	7:G:179:LEU:HD23	1.47	1.44
12:L:149:ALA:HB1	12:L:156:GLN:CB	1.46	1.44
10:J:89:GLU:HA	10:J:92:MET:CG	1.45	1.44
5:E:208:VAL:HB	5:E:225:ILE:CD1	1.46	1.44
15:O:19:PRO:CG	15:O:27:VAL:HG21	0.97	1.44
11:K:11:ILE:CG2	11:K:49:MET:CE	1.95	1.44
18:R:1:MET:CA	18:R:1:MET:N	1.78	1.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:110:LEU:HD13	10:J:130:ILE:CD1	1.47	1.44
8:H:146:VAL:HG21	23:W:50:PHE:CE1	1.50	1.44
2:B:137:LEU:CD2	2:B:215:VAL:HG13	1.45	1.43
16:P:41:GLN:CD	16:P:84:ILE:HG21	1.39	1.43
5:E:153:LEU:HD13	5:E:172:PHE:CZ	1.51	1.43
12:L:80:MET:CE	12:L:120:VAL:O	1.65	1.43
1:A:57:LYS:NZ	22:V:70:LEU:HD11	1.34	1.43
16:P:33:LEU:HD22	16:P:87:PRO:CD	1.41	1.43
7:G:16:ILE:HD13	7:G:45:TRP:CZ2	1.51	1.43
1:A:58:LEU:CD2	1:A:178:LEU:CD2	1.95	1.43
18:R:20:TYR:CE1	18:R:38:ILE:HG21	1.52	1.43
6:F:167:LYS:HD3	6:F:171:GLU:CG	1.47	1.42
12:L:149:ALA:HB2	12:L:156:GLN:CD	1.37	1.42
1:A:58:LEU:HD21	1:A:178:LEU:CD2	1.47	1.42
16:P:123:TYR:CE2	19:S:120:HIS:HE1	1.24	1.42
10:J:90:GLY:O	10:J:96:TYR:CD2	1.73	1.42
25:Y:18:LEU:CD1	25:Y:20:ARG:HH12	1.32	1.42
19:S:58:GLU:C	19:S:59:LEU:HD13	1.35	1.42
4:D:211:VAL:HG23	18:R:38:ILE:C	1.38	1.42
17:Q:8:GLN:CG	17:Q:99:TYR:CE1	2.01	1.42
10:J:170:PRO:HG2	10:J:175:ARG:CG	1.46	1.42
1:A:176:TRP:CZ3	1:A:177:MET:SD	2.13	1.41
16:P:41:GLN:CG	16:P:84:ILE:HG12	1.47	1.41
16:P:44:ARG:HE	16:P:84:ILE:CD1	1.28	1.41
21:U:40:ILE:HD11	21:U:53:PRO:CG	1.47	1.41
2:B:113:MET:CE	2:B:211:PHE:CE2	2.03	1.41
9:I:69:SER:HB2	12:L:19:ASN:ND2	1.32	1.41
18:R:20:TYR:OH	18:R:38:ILE:CG2	1.67	1.41
25:Y:102:THR:HG21	25:Y:107:ARG:NE	1.16	1.41
17:Q:50:LYS:HZ2	17:Q:85:ARG:NH2	1.10	1.41
6:F:25:THR:CG2	6:F:42:LYS:HG3	1.47	1.41
10:J:134:HIS:ND1	10:J:163:SER:HB2	1.29	1.41
6:F:103:LEU:HD23	6:F:178:ILE:CD1	1.49	1.41
5:E:208:VAL:CB	5:E:225:ILE:CD1	1.99	1.40
5:E:98:ASN:ND2	5:E:119:ALA:HB2	1.28	1.40
10:J:118:GLY:C	10:J:119:LEU:N	1.73	1.40
19:S:39:ARG:NH2	20:T:38:LYS:CE	1.76	1.40
10:J:177:ASN:O	10:J:180:LYS:CG	1.69	1.40
7:G:157:VAL:HG11	7:G:159:ARG:CG	1.51	1.40
7:G:85:ARG:HD2	25:Y:118:ARG:NH2	1.25	1.40
18:R:20:TYR:CZ	18:R:38:ILE:CG2	2.03	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:59:LEU:HD12	4:D:60:GLY:N	1.37	1.40
16:P:44:ARG:NE	16:P:84:ILE:HD12	1.34	1.40
10:J:89:GLU:HA	10:J:92:MET:CB	1.48	1.40
19:S:46:ARG:NH2	20:T:50:GLU:HB3	1.16	1.40
17:Q:135:PRO:CD	17:Q:141:TYR:CE1	1.92	1.40
19:S:39:ARG:HH21	20:T:38:LYS:NZ	1.16	1.40
2:B:113:MET:CE	2:B:211:PHE:HE2	1.34	1.39
7:G:32:MET:SD	7:G:100:CYS:HB3	1.63	1.39
11:K:3:MET:HE3	11:K:8:ARG:NH2	1.24	1.39
11:K:2:LEU:HD13	11:K:3:MET:N	1.32	1.39
4:D:132:LYS:HB2	4:D:191:PRO:CG	1.52	1.39
10:J:110:LEU:CD1	10:J:130:ILE:CD1	1.96	1.39
3:C:101:THR:CG2	3:C:103:ALA:O	1.69	1.39
15:O:19:PRO:HG3	15:O:27:VAL:CG2	1.39	1.39
19:S:39:ARG:CZ	20:T:38:LYS:HE3	0.92	1.39
25:Y:36:PRO:HG2	25:Y:39:GLU:CG	1.51	1.39
10:J:37:LEU:CD1	10:J:42:GLU:HB3	1.51	1.39
1:A:97:THR:CG2	1:A:98:PRO:HD2	1.52	1.38
9:I:155:ASN:O	12:L:22:ARG:CD	1.71	1.38
8:H:143:ARG:CD	23:W:53:ILE:HG12	1.53	1.38
6:F:45:TYR:O	6:F:47:LYS:CE	1.71	1.38
10:J:79:ARG:NH1	10:J:83:ARG:NH1	1.62	1.38
12:L:99:TYR:OH	24:X:14:ARG:CA	1.69	1.38
6:F:45:TYR:O	6:F:47:LYS:CD	1.70	1.38
19:S:138:THR:CA	19:S:141:ARG:NH2	1.86	1.38
18:R:99:ASP:HA	18:R:119:VAL:CG1	1.53	1.38
5:E:248:ILE:HD12	10:J:72:PHE:CE2	1.55	1.38
10:J:48:PHE:CE1	10:J:52:LYS:HE3	1.57	1.38
16:P:79:HIS:HE1	16:P:102:PHE:CZ	1.40	1.38
19:S:42:HIS:NE2	20:T:45:LEU:CD2	1.84	1.37
4:D:195:SER:C	4:D:197:LYS:HA	1.41	1.37
12:L:80:MET:CE	12:L:120:VAL:C	1.93	1.37
7:G:25:ARG:HG2	7:G:28:TYR:CD2	1.60	1.37
1:A:57:LYS:CE	22:V:70:LEU:HD11	1.55	1.37
8:H:31:GLU:OE2	8:H:41:ARG:CD	1.71	1.37
18:R:44:LYS:CE	18:R:47:ARG:HH22	1.34	1.37
20:T:77:LYS:CG	20:T:92:PHE:CE2	2.07	1.37
18:R:122:PRO:CA	18:R:123:THR:HG23	1.51	1.37
6:F:25:THR:CG2	6:F:42:LYS:HD2	1.55	1.36
6:F:91:ARG:NH1	6:F:94:LYS:CB	1.85	1.36
25:Y:20:ARG:HG3	25:Y:74:MET:CE	1.53	1.36

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:83:LEU:CD1	8:H:92:VAL:HG21	1.52	1.36
9:I:69:SER:CB	12:L:19:ASN:ND2	1.83	1.36
1:A:76:VAL:HG21	1:A:90:PHE:CD2	1.60	1.36
7:G:32:MET:CE	7:G:100:CYS:HA	1.56	1.36
1:A:176:TRP:HZ3	1:A:177:MET:SD	1.46	1.36
1:A:177:MET:HE1	1:A:180:ARG:NH2	1.39	1.36
11:K:83:LEU:HB3	11:K:85:LEU:CD2	1.56	1.36
10:J:61:LEU:HD22	10:J:98:LEU:CD1	1.56	1.36
2:B:66:VAL:HG22	2:B:87:ILE:CG2	1.55	1.36
18:R:17:ILE:CG2	18:R:69:ILE:HD11	1.54	1.36
7:G:14:LYS:NZ	7:G:123:GLY:HA3	1.36	1.36
16:P:41:GLN:HG2	16:P:84:ILE:CB	1.54	1.36
25:Y:29:HIS:CE1	25:Y:67:GLY:C	1.99	1.36
4:D:112:GLY:C	4:D:113:LEU:HD12	1.46	1.36
11:K:2:LEU:CD1	11:K:3:MET:H	1.37	1.35
22:V:11:LEU:HD11	22:V:12:TYR:CD2	1.58	1.35
6:F:59:LYS:HD2	6:F:62:ARG:NH2	1.03	1.35
11:K:60:GLU:CD	11:K:67:PHE:HD1	1.26	1.35
18:R:21:TYR:CB	18:R:71:ILE:HD13	1.53	1.35
1:A:21:ALA:CB	1:A:173:LEU:HD12	1.42	1.35
11:K:16:PHE:CE2	11:K:79:LEU:CB	2.07	1.35
25:Y:78:SER:CB	25:Y:81:TYR:CD2	1.98	1.35
6:F:59:LYS:CD	6:F:62:ARG:HH21	1.38	1.35
5:E:248:ILE:HB	10:J:72:PHE:CZ	1.60	1.35
10:J:90:GLY:O	10:J:96:TYR:CE2	1.77	1.35
5:E:128:LYS:HD3	5:E:130:PHE:CE1	1.60	1.35
3:C:142:LEU:HA	3:C:145:LEU:CD2	1.56	1.34
17:Q:34:VAL:HG23	17:Q:39:LEU:CD2	1.56	1.34
20:T:77:LYS:HB2	20:T:94:ARG:CD	1.57	1.34
19:S:14:ARG:NH1	19:S:17:ASN:HA	1.37	1.34
19:S:46:ARG:HG2	20:T:50:GLU:OE2	1.19	1.34
13:M:13:ASP:O	13:M:16:THR:CG2	1.72	1.34
24:X:114:ASP:O	24:X:116:PRO:HD3	1.16	1.34
1:A:48:ILE:HD13	18:R:105:MET:SD	1.65	1.34
21:U:50:VAL:HG22	21:U:51:LYS:C	1.43	1.34
23:W:14:ILE:HD11	23:W:72:CYS:SG	1.64	1.34
12:L:147:LYS:CD	12:L:148:ALA:HA	1.55	1.34
6:F:63:LYS:HD3	6:F:71:ARG:NH2	1.39	1.34
17:Q:42:ILE:CD1	17:Q:51:LEU:HD21	1.58	1.34
24:X:105:PHE:CE2	24:X:119:ARG:HA	1.60	1.34
9:I:141:ARG:CG	9:I:144:LYS:HB2	1.57	1.33

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:4:VAL:N	16:P:10:ARG:HG2	1.40	1.33
18:R:99:ASP:C	18:R:119:VAL:CG1	1.94	1.33
7:G:157:VAL:HG13	7:G:159:ARG:N	1.39	1.33
7:G:63:MET:CE	7:G:106:LEU:HD11	1.56	1.33
2:B:25:PHE:CE2	15:O:88:LEU:HD11	1.52	1.33
10:J:39:ASN:CG	10:J:42:GLU:OE2	1.66	1.33
25:Y:44:LEU:HD11	25:Y:48:TYR:CE2	1.63	1.33
16:P:49:LEU:HD12	16:P:51:ARG:NE	1.40	1.33
5:E:153:LEU:CD1	5:E:172:PHE:CZ	2.11	1.33
19:S:42:HIS:CG	20:T:45:LEU:HD11	1.62	1.33
24:X:2:GLY:O	24:X:3:LYS:HG3	1.23	1.33
5:E:159:THR:CG2	5:E:227:VAL:HG23	1.59	1.32
10:J:15:THR:HG22	10:J:44:TRP:CE3	1.64	1.32
7:G:1:MET:CE	7:G:106:LEU:O	1.77	1.32
17:Q:38:PRO:HG2	17:Q:41:MET:SD	1.69	1.32
25:Y:18:LEU:HD13	25:Y:20:ARG:NH1	1.41	1.32
4:D:197:LYS:HB3	4:D:198:ILE:CG2	1.57	1.32
5:E:70:ILE:CG1	5:E:92:ILE:CD1	2.07	1.32
6:F:91:ARG:HH11	6:F:94:LYS:CB	1.41	1.32
10:J:39:ASN:ND2	10:J:42:GLU:OE2	1.58	1.32
20:T:77:LYS:HG3	20:T:92:PHE:CZ	1.63	1.32
7:G:176:ILE:HG21	7:G:179:LEU:CD2	1.60	1.32
13:M:28:HIS:CD2	13:M:115:GLY:HA3	1.62	1.32
14:N:38:TYR:HE2	14:N:74:ILE:CG2	1.43	1.32
9:I:136:ILE:CG2	9:I:139:LYS:HE3	1.60	1.31
6:F:122:ARG:O	6:F:141:VAL:HG13	1.26	1.31
4:D:5:ILE:C	4:D:6:SER:N	1.82	1.31
19:S:42:HIS:CE1	20:T:45:LEU:HD21	1.62	1.31
2:B:205:TYR:CD2	2:B:206:PRO:HD2	1.62	1.31
11:K:21:MET:CE	11:K:49:MET:SD	2.17	1.31
12:L:147:LYS:CG	12:L:148:ALA:HA	1.61	1.31
12:L:71:ARG:CD	12:L:73:LEU:HD21	1.57	1.31
8:H:6:ALA:CA	8:H:10:LYS:HD3	1.58	1.31
26:Z:112:ASN:O	26:Z:113:THR:HG23	1.23	1.31
18:R:21:TYR:HB2	18:R:71:ILE:CD1	1.59	1.31
18:R:5:ARG:HB2	18:R:10:LYS:NZ	1.39	1.31
11:K:83:LEU:CD1	11:K:85:LEU:HD21	1.60	1.31
13:M:13:ASP:HB2	13:M:16:THR:CB	1.58	1.31
8:H:40:LEU:CD2	8:H:43:LEU:CD1	2.09	1.31
8:H:122:LEU:CD1	8:H:123:THR:N	1.94	1.31
4:D:157:MET:CE	4:D:187:LYS:HD3	1.59	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:7:LYS:NZ	21:U:113:GLU:OE2	1.60	1.30
11:K:60:GLU:OE1	11:K:67:PHE:CD1	1.84	1.30
21:U:62:ARG:NH1	21:U:64:THR:HG21	1.42	1.30
1:A:76:VAL:HG13	1:A:175:TRP:CH2	1.65	1.30
16:P:53:GLN:CG	16:P:80:LEU:CD1	2.08	1.30
4:D:210:ILE:CD1	18:R:15:VAL:CG1	2.09	1.30
20:T:11:GLN:NE2	20:T:62:ARG:CZ	1.93	1.30
25:Y:18:LEU:CD1	25:Y:20:ARG:NH1	1.90	1.30
3:C:101:THR:HG22	3:C:104:GLY:O	1.13	1.30
3:C:167:CYS:SG	23:W:95:PRO:HB3	1.72	1.30
22:V:24:ILE:HD13	22:V:25:GLY:N	1.45	1.30
16:P:79:HIS:CE1	16:P:102:PHE:CZ	2.18	1.30
19:S:120:HIS:NE2	19:S:124:ARG:CZ	1.93	1.30
9:I:25:ARG:CD	9:I:27:TYR:HE2	1.43	1.30
12:L:149:ALA:CB	12:L:156:GLN:HG2	1.55	1.30
25:Y:18:LEU:CB	25:Y:20:ARG:NH1	1.94	1.30
24:X:29:LYS:HD2	24:X:34:THR:OG1	1.31	1.30
7:G:32:MET:SD	7:G:100:CYS:CB	2.17	1.29
22:V:55:ILE:HD11	22:V:68:SER:OG	1.26	1.29
3:C:79:ILE:HD13	3:C:147:ILE:CD1	1.59	1.29
21:U:62:ARG:NH1	21:U:64:THR:CG2	1.95	1.29
18:R:20:TYR:OH	18:R:38:ILE:HG22	1.20	1.29
18:R:5:ARG:O	18:R:10:LYS:HE2	1.27	1.29
19:S:11:HIS:HD2	19:S:23:ARG:NH2	1.31	1.29
3:C:110:LYS:HE2	3:C:112:PHE:CZ	1.66	1.29
2:B:87:ILE:HD13	2:B:101:HIS:CD2	1.66	1.29
23:W:14:ILE:HD12	23:W:72:CYS:SG	1.67	1.29
4:D:123:LEU:HD21	4:D:154:ASP:CB	1.63	1.29
11:K:43:LEU:O	11:K:45:VAL:N	1.65	1.29
20:T:23:LYS:HD3	20:T:54:TYR:CG	1.65	1.29
3:C:241:TRP:HB3	23:W:68:ARG:NH1	1.47	1.29
4:D:218:LEU:CG	4:D:220:THR:CG2	2.10	1.29
9:I:37:LYS:O	9:I:59:ARG:HA	1.27	1.29
16:P:9:LYS:O	16:P:10:ARG:HG3	1.19	1.29
4:D:197:LYS:CB	4:D:198:ILE:HG23	1.63	1.29
25:Y:99:LYS:HE3	25:Y:99:LYS:N	1.45	1.29
7:G:176:ILE:CG2	7:G:179:LEU:CD2	2.10	1.28
8:H:138:GLU:OE2	14:N:19:ARG:HB3	1.29	1.28
18:R:20:TYR:CZ	18:R:38:ILE:HG21	1.63	1.28
4:D:210:ILE:HD12	18:R:15:VAL:CG1	1.62	1.28
8:H:6:ALA:HA	8:H:10:LYS:CD	1.62	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:21:ALA:CB	1:A:173:LEU:HD11	1.49	1.28
18:R:99:ASP:O	18:R:119:VAL:HG11	1.30	1.28
20:T:31:PRO:O	20:T:33:TRP:N	1.63	1.28
3:C:154:TYR:OH	3:C:161:LYS:CA	1.81	1.28
24:X:142:ARG:HH11	24:X:142:ARG:CB	1.44	1.28
17:Q:42:ILE:CD1	17:Q:51:LEU:CD2	2.10	1.28
19:S:42:HIS:CD2	20:T:45:LEU:HD21	1.68	1.28
6:F:14:THR:CG2	17:Q:56:LEU:HB3	1.64	1.28
8:H:83:LEU:CD1	8:H:92:VAL:CG2	2.06	1.28
19:S:132:ARG:HB2	19:S:134:GLN:OE1	1.18	1.28
19:S:117:ILE:O	19:S:118:ARG:HG2	1.12	1.28
10:J:15:THR:HG22	10:J:44:TRP:CZ3	1.66	1.28
25:Y:102:THR:CG2	25:Y:107:ARG:HE	1.46	1.28
10:J:134:HIS:ND1	10:J:163:SER:CB	1.96	1.27
24:X:51:VAL:HG13	24:X:70:VAL:CG1	1.60	1.27
6:F:14:THR:CG2	17:Q:56:LEU:CD2	1.76	1.27
18:R:44:LYS:HG3	18:R:47:ARG:CZ	1.63	1.27
1:A:177:MET:CE	1:A:180:ARG:NH2	1.95	1.27
2:B:113:MET:HE3	2:B:209:ASP:OD1	1.22	1.27
9:I:144:LYS:O	9:I:145:ILE:HG12	1.30	1.27
17:Q:93:VAL:HG11	17:Q:105:LYS:CE	1.52	1.27
4:D:2:ALA:HB3	4:D:3:VAL:CA	1.65	1.27
10:J:17:ARG:CG	10:J:18:ARG:HD3	1.64	1.27
26:Z:99:LEU:HD23	26:Z:109:TYR:CE1	1.68	1.27
6:F:63:LYS:CD	6:F:71:ARG:NH1	1.98	1.27
3:C:69:PHE:HZ	3:C:247:THR:OG1	1.03	1.27
20:T:141:ALA:O	20:T:142:LYS:HG3	1.13	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
4:D:97:CYS:O	4:D:99:ILE:N	1.67	1.27
6:F:25:THR:CG2	6:F:42:LYS:CD	2.12	1.27
1:A:145:ILE:CD1	1:A:159:ILE:HG21	1.65	1.26
1:A:154:LEU:HD12	22:V:63:GLY:C	1.54	1.26
17:Q:25:CYS:SG	17:Q:91:ALA:HB1	1.74	1.26
18:R:44:LYS:HE3	18:R:47:ARG:NH2	1.48	1.26
25:Y:10:ARG:NE	25:Y:24:VAL:HG11	1.50	1.26
11:K:30:PRO:O	11:K:31:LYS:HG3	1.13	1.26
3:C:151:ARG:NH1	3:C:240:LEU:HD11	1.50	1.26
18:R:91:LEU:CD1	18:R:92:ASP:HA	1.64	1.26
7:G:176:ILE:CG2	7:G:179:LEU:HD23	1.65	1.26
3:C:138:GLY:O	3:C:141:ILE:HG22	1.32	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:14:THR:OG1	17:Q:56:LEU:CB	1.83	1.26
12:L:71:ARG:HD3	12:L:73:LEU:CD2	1.66	1.26
19:S:42:HIS:NE2	20:T:45:LEU:HD21	0.94	1.26
5:E:208:VAL:CG2	5:E:225:ILE:HD12	1.66	1.26
3:C:244:THR:HG23	3:C:246:PHE:N	1.51	1.26
4:D:35:SER:CA	4:D:99:ILE:HD11	1.63	1.26
16:P:62:LYS:O	16:P:65:LYS:HG2	1.21	1.26
14:N:46:THR:OG1	14:N:49:GLN:HG2	1.35	1.25
17:Q:57:LEU:HD11	17:Q:115:TYR:CZ	1.71	1.25
5:E:49:ARG:HD3	5:E:49:ARG:C	1.40	1.25
19:S:8:LYS:HD3	19:S:9:PHE:CE1	1.69	1.25
2:B:113:MET:HE3	2:B:211:PHE:CZ	1.70	1.25
7:G:1:MET:HE2	7:G:106:LEU:O	1.27	1.25
17:Q:34:VAL:CG2	17:Q:39:LEU:HD23	1.65	1.25
9:I:161:LEU:CD1	9:I:199:LEU:CD1	2.12	1.25
9:I:157:LYS:HB2	12:L:22:ARG:CD	1.64	1.25
12:L:101:ARG:O	24:X:10:ALA:HB2	1.29	1.25
12:L:147:LYS:HG3	12:L:148:ALA:CA	1.65	1.25
17:Q:38:PRO:CG	17:Q:41:MET:SD	2.23	1.25
7:G:25:ARG:HG2	7:G:28:TYR:CE2	1.72	1.25
15:O:52:THR:O	15:O:53:ILE:HG23	1.28	1.25
3:C:79:ILE:CD1	3:C:147:ILE:HD12	1.65	1.25
19:S:42:HIS:CD2	20:T:45:LEU:CG	2.19	1.25
5:E:248:ILE:CG1	10:J:72:PHE:CD1	2.17	1.25
12:L:80:MET:HE1	12:L:121:GLN:N	1.50	1.25
2:B:137:LEU:HD21	2:B:215:VAL:CG1	1.65	1.25
17:Q:109:LYS:HG3	17:Q:113:ILE:CD1	1.66	1.25
8:H:122:LEU:C	8:H:122:LEU:HD13	1.57	1.25
19:S:46:ARG:CZ	20:T:50:GLU:HB3	1.66	1.25
9:I:141:ARG:CD	9:I:144:LYS:CB	2.15	1.24
9:I:116:HIS:O	9:I:152:ARG:NH1	1.67	1.24
11:K:83:LEU:CB	11:K:85:LEU:HD21	1.66	1.24
6:F:42:LYS:CB	6:F:45:TYR:H	1.48	1.24
18:R:44:LYS:CE	18:R:47:ARG:NH2	1.98	1.24
2:B:105:LEU:HD12	2:B:110:MET:CE	1.66	1.24
5:E:129:ILE:CG1	5:E:139:LEU:HD22	1.45	1.24
2:B:52:THR:HG21	14:N:53:ILE:CD1	83.28	1.24
11:K:27:VAL:CG1	11:K:43:LEU:CD2	1.94	1.24
10:J:17:ARG:CG	10:J:18:ARG:HG2	1.66	1.24
10:J:88:ASP:C	10:J:92:MET:HG3	1.58	1.24
21:U:59:LYS:HB2	21:U:84:ILE:CG2	1.67	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:92:LEU:CD1	17:Q:96:TYR:HE2	1.49	1.24
5:E:62:LYS:CD	5:E:80:ILE:HD11	1.68	1.24
25:Y:34:THR:O	25:Y:35:VAL:HG22	1.09	1.24
19:S:138:THR:HA	19:S:141:ARG:NH2	0.92	1.24
9:I:194:GLU:HG2	12:L:12:LYS:NZ	1.53	1.24
1:A:176:TRP:CZ2	1:A:195:TRP:CE3	1.94	1.24
17:Q:38:PRO:HD2	17:Q:41:MET:SD	1.76	1.24
17:Q:34:VAL:CG2	17:Q:39:LEU:CD2	2.15	1.24
10:J:28:GLU:OE1	10:J:40:LYS:HD2	1.33	1.24
22:V:1:MET:CE	22:V:10:ASP:HB2	1.68	1.24
3:C:195:PRO:HB3	3:C:221:PHE:CZ	1.73	1.24
8:H:40:LEU:HD21	8:H:43:LEU:CD1	1.64	1.24
19:S:94:LYS:HD3	19:S:96:SER:OG	1.38	1.24
2:B:25:PHE:CE2	15:O:88:LEU:HD13	1.62	1.23
15:O:95:ILE:CD1	15:O:116:LEU:HD21	1.67	1.23
11:K:71:LEU:CD2	11:K:76:ILE:HD13	1.67	1.23
11:K:83:LEU:CB	11:K:85:LEU:CD2	2.15	1.23
25:Y:55:ILE:HG12	25:Y:75:ILE:CD1	1.66	1.23
25:Y:22:GLN:HB3	25:Y:74:MET:SD	1.78	1.23
24:X:60:LYS:HG3	24:X:116:PRO:CG	1.68	1.23
25:Y:18:LEU:HB3	25:Y:20:ARG:NH1	1.51	1.23
12:L:118:ARG:O	12:L:118:ARG:HD2	1.38	1.23
25:Y:114:MET:HA	25:Y:124:ASN:ND2	1.54	1.23
22:V:11:LEU:HD12	22:V:12:TYR:CD2	1.65	1.23
1:A:154:LEU:HD12	22:V:63:GLY:O	1.09	1.23
11:K:65:ARG:NH1	11:K:65:ARG:HB3	1.51	1.23
16:P:10:ARG:HH21	16:P:11:THR:CB	1.50	1.23
4:D:201:LYS:O	4:D:203:PRO:HD2	1.08	1.23
4:D:211:VAL:HG23	18:R:38:ILE:O	1.37	1.23
19:S:61:GLU:O	19:S:64:VAL:HG22	1.33	1.23
5:E:126:VAL:HG13	5:E:158:ASP:O	1.35	1.23
9:I:157:LYS:HB3	12:L:22:ARG:CZ	1.68	1.23
25:Y:120:THR:HB	25:Y:122:LYS:CE	1.67	1.23
17:Q:8:GLN:HG2	17:Q:99:TYR:CD1	1.73	1.23
8:H:53:VAL:CG2	8:H:57:ARG:O	1.86	1.23
9:I:141:ARG:CD	9:I:144:LYS:HB3	1.67	1.22
11:K:40:VAL:HG22	11:K:41:PRO:CD	1.69	1.22
16:P:49:LEU:O	16:P:51:ARG:HA	1.31	1.22
5:E:47:PHE:CE2	5:E:52:LEU:HD11	1.73	1.22
6:F:36:GLN:HG3	6:F:37:ASP:OD1	1.36	1.22
14:N:46:THR:OG1	14:N:49:GLN:CG	1.86	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:197:LYS:CA	3:C:200:LEU:CD2	2.15	1.22
4:D:47:GLU:CG	4:D:85:GLU:OE2	1.85	1.22
4:D:46:THR:OG1	4:D:79:PHE:CZ	1.82	1.22
10:J:89:GLU:C	10:J:92:MET:HB2	1.57	1.22
25:Y:99:LYS:CA	25:Y:99:LYS:HE3	1.47	1.22
7:G:85:ARG:CD	25:Y:118:ARG:NH2	2.03	1.22
13:M:78:LYS:O	13:M:79:VAL:HG23	1.06	1.22
9:I:136:ILE:O	9:I:139:LYS:HG3	1.04	1.22
5:E:62:LYS:HD3	5:E:80:ILE:CD1	1.67	1.22
2:B:113:MET:CE	2:B:209:ASP:OD1	1.86	1.22
16:P:126:VAL:CG1	16:P:127:LYS:H	1.47	1.22
2:B:57:ILE:CD1	2:B:60:ASP:OD1	1.87	1.22
11:K:71:LEU:CD2	11:K:76:ILE:CD1	2.17	1.22
17:Q:85:ARG:HH12	17:Q:117:ARG:CG	1.53	1.22
10:J:61:LEU:CD2	10:J:98:LEU:HD11	1.68	1.22
6:F:14:THR:OG1	17:Q:56:LEU:HB2	1.35	1.22
26:Z:48:VAL:O	26:Z:83:LEU:HD11	1.36	1.22
6:F:18:LYS:NZ	6:F:46:ALA:O	1.73	1.21
25:Y:54:VAL:HG11	25:Y:76:TYR:O	1.35	1.21
11:K:14:LEU:CD2	11:K:35:LEU:CD2	2.18	1.21
10:J:17:ARG:CB	10:J:18:ARG:HG2	1.70	1.21
16:P:46:SER:O	16:P:49:LEU:HB2	1.11	1.21
10:J:89:GLU:CA	10:J:92:MET:SD	2.28	1.21
7:G:63:MET:CE	7:G:106:LEU:CD1	2.17	1.21
16:P:41:GLN:HE21	16:P:84:ILE:CB	1.54	1.21
8:H:83:LEU:CD2	8:H:92:VAL:HG11	1.71	1.21
8:H:93:VAL:CG2	8:H:94:PHE:H	1.43	1.21
6:F:76:MET:CE	6:F:169:ILE:HG21	1.68	1.21
2:B:66:VAL:CG2	2:B:87:ILE:CG2	2.15	1.21
10:J:15:THR:CG2	10:J:44:TRP:CZ3	2.22	1.21
13:M:13:ASP:CB	13:M:16:THR:HB	1.62	1.21
12:L:156:GLN:OE1	12:L:158:PHE:CE2	1.92	1.21
1:A:11:LYS:CG	1:A:13:GLU:HG2	1.70	1.21
6:F:63:LYS:CD	6:F:71:ARG:CZ	2.19	1.21
4:D:35:SER:HA	4:D:99:ILE:CD1	1.69	1.21
19:S:8:LYS:CB	19:S:9:PHE:HD1	1.53	1.21
25:Y:12:PHE:CZ	25:Y:21:LYS:HB3	1.76	1.21
17:Q:93:VAL:HG13	17:Q:105:LYS:CD	1.69	1.20
8:H:146:VAL:CG2	23:W:50:PHE:CE1	2.22	1.20
9:I:161:LEU:CD1	9:I:199:LEU:HD11	1.67	1.20
10:J:177:ASN:O	10:J:180:LYS:HG2	1.22	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:103:GLU:OE1	24:X:11:ARG:HB2	1.06	1.20
18:R:105:MET:O	18:R:109:LEU:HG	1.40	1.20
6:F:25:THR:CG2	6:F:42:LYS:CG	2.07	1.20
6:F:44:LYS:HB3	6:F:45:TYR:CE1	1.76	1.20
25:Y:19:GLN:HG2	25:Y:81:TYR:CD1	1.76	1.20
12:L:149:ALA:HB2	12:L:156:GLN:CG	1.60	1.20
25:Y:120:THR:HB	25:Y:122:LYS:HE2	1.20	1.20
25:Y:32:LYS:CG	25:Y:33:ALA:H	1.55	1.20
3:C:195:PRO:CB	3:C:221:PHE:HZ	1.54	1.20
13:M:98:GLY:O	13:M:100:PRO:HD3	1.36	1.20
11:K:16:PHE:CD2	11:K:79:LEU:CB	2.23	1.20
17:Q:50:LYS:NZ	17:Q:85:ARG:NH2	1.89	1.20
6:F:28:VAL:HG13	6:F:110:GLN:CD	1.60	1.20
12:L:17:PHE:CZ	12:L:18:GLN:O	1.94	1.20
4:D:218:LEU:CG	4:D:220:THR:HG23	1.69	1.20
15:O:56:VAL:CG1	15:O:81:VAL:CG2	2.18	1.20
9:I:157:LYS:HB3	12:L:22:ARG:NH1	0.87	1.20
9:I:141:ARG:CB	9:I:144:LYS:CB	2.18	1.20
12:L:149:ALA:CB	12:L:156:GLN:NE2	2.05	1.20
10:J:134:HIS:CE1	10:J:163:SER:HB2	1.76	1.20
24:X:27:TYR:CZ	24:X:31:HIS:NE2	2.09	1.20
10:J:17:ARG:O	10:J:17:ARG:HG3	1.41	1.20
16:P:41:GLN:NE2	16:P:84:ILE:HB	1.56	1.19
25:Y:22:GLN:CB	25:Y:74:MET:SD	2.29	1.19
23:W:11:LEU:O	23:W:14:ILE:HG12	1.38	1.19
10:J:10:ARG:HB3	10:J:10:ARG:NH1	1.57	1.19
9:I:136:ILE:HG23	9:I:139:LYS:CE	1.70	1.19
3:C:101:THR:HG21	3:C:103:ALA:O	1.43	1.19
5:E:212:ASP:OD1	5:E:216:ASN:HB2	1.41	1.19
1:A:104:THR:O	1:A:107:THR:HG23	1.38	1.19
16:P:123:TYR:OH	19:S:124:ARG:NH1	1.76	1.19
21:U:50:VAL:O	21:U:51:LYS:HD2	1.39	1.19
14:N:99:ARG:NH2	14:N:115:LEU:HD21	1.56	1.19
2:B:71:LEU:CD1	2:B:84:PHE:HE2	1.54	1.19
10:J:17:ARG:HG2	10:J:18:ARG:CG	1.73	1.19
4:D:218:LEU:CD1	4:D:220:THR:HG21	1.71	1.19
25:Y:84:LYS:O	25:Y:84:LYS:HD2	1.43	1.19
1:A:13:GLU:O	1:A:17:LYS:HE3	1.41	1.19
4:D:158:ILE:HD11	4:D:189:MET:CE	1.54	1.19
17:Q:92:LEU:CD1	17:Q:96:TYR:CE2	2.25	1.19
3:C:79:ILE:CD1	3:C:147:ILE:CD1	2.19	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:47:LEU:CD2	17:Q:81:ILE:CD1	2.22	1.18
6:F:14:THR:CG2	17:Q:56:LEU:CB	2.21	1.18
18:R:1:MET:C	18:R:1:MET:N	1.95	1.18
3:C:158:LYS:O	3:C:158:LYS:HE2	1.42	1.18
7:G:32:MET:SD	7:G:100:CYS:CA	2.31	1.18
6:F:59:LYS:CD	6:F:62:ARG:NH2	1.98	1.18
11:K:83:LEU:HB3	11:K:85:LEU:HD23	1.20	1.18
5:E:21:ASP:OD2	5:E:24:THR:CG2	1.90	1.18
13:M:85:LEU:HA	13:M:88:TRP:CE3	1.77	1.18
1:A:125:THR:O	1:A:147:LEU:HB3	1.42	1.18
6:F:42:LYS:O	6:F:44:LYS:N	1.77	1.18
11:K:60:GLU:CD	11:K:67:PHE:CD1	2.14	1.18
23:W:18:GLU:OE2	23:W:67:GLY:HA2	1.36	1.18
17:Q:9:SER:CB	17:Q:26:LYS:HE3	1.72	1.18
25:Y:120:THR:CB	25:Y:122:LYS:HE2	1.72	1.18
1:A:30:LEU:CD1	1:A:38:ILE:CD1	1.96	1.18
26:Z:99:LEU:CD2	26:Z:102:LYS:HD3	1.73	1.18
13:M:78:LYS:O	13:M:79:VAL:CG2	1.91	1.18
12:L:147:LYS:HD2	12:L:148:ALA:CA	1.71	1.18
1:A:5:LEU:HB3	22:V:41:LYS:HE2	1.18	1.18
16:P:84:ILE:O	16:P:86:LEU:CD2	1.92	1.18
26:Z:99:LEU:CD2	26:Z:109:TYR:CE1	2.26	1.18
12:L:118:ARG:HD2	12:L:118:ARG:C	1.57	1.18
11:K:18:GLU:O	11:K:92:ALA:CB	1.92	1.18
7:G:180:VAL:O	7:G:181:THR:HG22	1.41	1.17
1:A:118:GLU:HB3	3:C:50:LYS:NZ	1.57	1.17
2:B:137:LEU:CD2	2:B:215:VAL:CG1	2.20	1.17
6:F:42:LYS:C	6:F:44:LYS:N	1.88	1.17
16:P:46:SER:O	16:P:49:LEU:CB	1.91	1.17
4:D:210:ILE:CD1	18:R:15:VAL:HG11	1.73	1.17
1:A:30:LEU:HD21	1:A:35:GLU:CG	1.73	1.17
15:O:61:LYS:HE3	15:O:80:ASP:OD2	1.03	1.17
8:H:163:GLN:OE1	8:H:189:PHE:CE2	1.97	1.17
17:Q:58:LEU:CD2	17:Q:111:ILE:CD1	2.22	1.17
4:D:56:GLN:O	4:D:59:LEU:HG	1.41	1.17
16:P:41:GLN:HG2	16:P:84:ILE:CG2	1.57	1.17
19:S:39:ARG:NH2	20:T:38:LYS:HZ2	1.36	1.17
20:T:23:LYS:CD	20:T:54:TYR:CD2	2.26	1.17
19:S:47:LYS:HE3	19:S:77:TYR:O	0.99	1.17
12:L:153:LYS:HG3	14:N:131:THR:O	1.41	1.17
4:D:226:GLN:HA	4:D:226:GLN:NE2	1.58	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:62:GLN:HB2	14:N:65:PHE:CD2	1.78	1.17
4:D:76:ARG:CD	11:K:66:HIS:CE1	2.27	1.17
17:Q:47:LEU:HD22	17:Q:81:ILE:CD1	1.73	1.17
24:X:52:LEU:HD21	24:X:71:ARG:HB3	1.26	1.17
4:D:158:ILE:CD1	4:D:189:MET:HE1	1.53	1.17
25:Y:63:HIS:CG	25:Y:64:PHE:CE1	2.32	1.17
3:C:154:TYR:OH	3:C:161:LYS:HA	1.01	1.17
3:C:156:GLY:C	3:C:157:ASN:HD22	1.44	1.17
4:D:177:LEU:CD2	4:D:182:LEU:HD23	1.72	1.17
1:A:120:ARG:HD2	3:C:251:TYR:HE2	1.03	1.17
1:A:154:LEU:CD1	22:V:63:GLY:O	1.91	1.17
17:Q:47:LEU:CD2	17:Q:81:ILE:HD12	1.72	1.17
4:D:47:GLU:HG2	4:D:85:GLU:OE2	1.41	1.17
24:X:51:VAL:HG13	24:X:70:VAL:HG11	1.23	1.17
19:S:8:LYS:O	26:Z:49:LEU:CD2	1.93	1.17
7:G:27:PHE:CE2	7:G:41:LEU:HD12	1.79	1.17
9:I:141:ARG:HB2	9:I:144:LYS:CB	1.75	1.17
8:H:144:ILE:CB	23:W:52:ILE:CG2	2.22	1.17
24:X:126:ALA:CB	24:X:128:VAL:HB	1.71	1.17
16:P:52:LYS:O	16:P:52:LYS:HD3	1.44	1.17
25:Y:102:THR:CG2	25:Y:107:ARG:NE	2.04	1.17
18:R:122:PRO:HB3	18:R:123:THR:CG2	1.75	1.17
3:C:151:ARG:HH12	3:C:240:LEU:CD1	1.56	1.17
8:H:53:VAL:HG22	8:H:57:ARG:O	0.99	1.17
10:J:138:ARG:NH1	10:J:156:HIS:CE1	2.13	1.17
5:E:38:LEU:HD12	5:E:38:LEU:C	1.56	1.17
5:E:129:ILE:HG13	5:E:139:LEU:CD2	1.70	1.16
1:A:5:LEU:HD13	1:A:6:ASP:N	1.59	1.16
6:F:201:LYS:CE	6:F:204:ARG:HH21	1.58	1.16
18:R:100:PRO:HB2	18:R:119:VAL:HG21	1.24	1.16
1:A:141:ASN:CA	22:V:32:ILE:HG12	1.75	1.16
4:D:55:THR:O	4:D:58:VAL:HG22	1.41	1.16
4:D:218:LEU:HG	4:D:220:THR:CG2	1.69	1.16
9:I:136:ILE:O	9:I:139:LYS:CG	1.92	1.16
12:L:101:ARG:O	24:X:10:ALA:CB	1.92	1.16
12:L:149:ALA:CB	12:L:156:GLN:HE21	1.55	1.16
6:F:42:LYS:C	6:F:44:LYS:H	1.32	1.16
20:T:77:LYS:CG	20:T:92:PHE:HE2	1.48	1.16
19:S:138:THR:HA	19:S:141:ARG:CZ	1.75	1.16
25:Y:92:ALA:N	25:Y:97:TYR:HB3	1.59	1.16
7:G:145:PHE:HB3	7:G:147:LEU:CD1	1.73	1.16

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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	1.16
8:H:31:GLU:OE2	8:H:41:ARG:HD2	1.01	1.16
17:Q:50:LYS:NZ	17:Q:117:ARG:HD2	1.59	1.16
16:P:41:GLN:HE22	16:P:45:LEU:CG	1.56	1.16
10:J:143:ASN:O	10:J:145:PRO:HD3	1.41	1.16
4:D:158:ILE:HD13	4:D:189:MET:CE	1.73	1.16
25:Y:63:HIS:CG	25:Y:64:PHE:HE1	1.62	1.16
1:A:57:LYS:HZ1	22:V:70:LEU:CD1	1.59	1.16
3:C:244:THR:HG22	3:C:246:PHE:CD2	1.81	1.16
3:C:82:PHE:O	3:C:83:LEU:HD12	1.44	1.16
15:O:61:LYS:O	15:O:62:VAL:HG23	1.41	1.16
8:H:143:ARG:HD3	23:W:53:ILE:CG1	1.75	1.16
10:J:110:LEU:CD1	10:J:130:ILE:CG1	2.22	1.16
5:E:248:ILE:HB	10:J:72:PHE:CE1	1.81	1.16
26:Z:62:VAL:HG13	26:Z:68:ILE:HD13	1.17	1.16
3:C:195:PRO:CG	3:C:221:PHE:HZ	1.57	1.16
14:N:87:ASP:OD2	14:N:129:TYR:OH	1.64	1.16
8:H:85:LYS:O	8:H:85:LYS:HD2	1.43	1.16
8:H:65:PRO:HD2	8:H:68:GLN:OE1	1.41	1.16
4:D:21:LEU:CD1	4:D:48:ILE:HD12	1.74	1.16
17:Q:58:LEU:HD23	17:Q:111:ILE:HD13	1.25	1.16
11:K:16:PHE:CD2	11:K:79:LEU:HB2	1.80	1.16
17:Q:38:PRO:CD	17:Q:41:MET:SD	2.32	1.16
16:P:10:ARG:HH21	16:P:11:THR:HB	1.05	1.16
16:P:123:TYR:CD2	19:S:120:HIS:HE1	1.64	1.16
11:K:14:LEU:HD22	11:K:35:LEU:HD21	1.17	1.16
26:Z:44:LEU:C	26:Z:44:LEU:HD13	1.64	1.16
10:J:92:MET:O	10:J:93:LYS:HE3	1.40	1.16
18:R:5:ARG:CB	18:R:10:LYS:HZ3	1.56	1.16
25:Y:92:ALA:HA	25:Y:97:TYR:O	1.45	1.16
19:S:47:LYS:NZ	19:S:78:LYS:HB2	1.59	1.16
20:T:84:ARG:NH2	20:T:84:ARG:HB2	1.59	1.16
25:Y:7:ILE:HD12	25:Y:43:LYS:CG	1.76	1.16
1:A:103:PHE:CE2	1:A:136:GLU:OE1	1.99	1.15
11:K:16:PHE:HE2	11:K:79:LEU:CB	1.51	1.15
11:K:23:ALA:O	11:K:66:HIS:O	1.64	1.15
11:K:71:LEU:HD21	11:K:76:ILE:HD13	1.18	1.15
25:Y:20:ARG:CG	25:Y:74:MET:CE	2.23	1.15
25:Y:36:PRO:CG	25:Y:39:GLU:CD	2.14	1.15
2:B:113:MET:HE1	2:B:211:PHE:HE2	1.00	1.15
18:R:17:ILE:HG21	18:R:69:ILE:CD1	1.74	1.15

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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	1.15
7:G:16:ILE:CD1	7:G:45:TRP:HZ2	1.60	1.15
9:I:194:GLU:CD	12:L:12:LYS:HZ3	1.50	1.15
20:T:77:LYS:CB	20:T:94:ARG:HD3	1.75	1.15
13:M:94:ILE:HG23	13:M:95:ASP:N	1.45	1.15
8:H:85:LYS:C	8:H:85:LYS:HD2	1.61	1.15
9:I:116:HIS:O	9:I:152:ARG:CZ	1.93	1.15
7:G:157:VAL:HG11	7:G:159:ARG:HG2	1.16	1.15
15:O:95:ILE:HD13	15:O:116:LEU:HD21	1.18	1.15
10:J:61:LEU:HD13	10:J:94:LEU:CD1	1.76	1.15
4:D:132:LYS:CB	4:D:191:PRO:CG	2.16	1.15
19:S:139:THR:O	19:S:141:ARG:HG3	1.46	1.15
18:R:17:ILE:CG2	18:R:69:ILE:CD1	2.25	1.15
7:G:98:ARG:HD3	7:G:99:GLY:N	1.61	1.15
5:E:100:ARG:HD3	5:E:102:ILE:HD11	1.19	1.15
5:E:208:VAL:HG21	5:E:225:ILE:HD12	1.24	1.15
22:V:11:LEU:HD11	22:V:12:TYR:CE2	1.80	1.15
2:B:137:LEU:HD22	2:B:215:VAL:CG2	1.77	1.15
17:Q:42:ILE:HG21	17:Q:51:LEU:CD2	1.75	1.15
4:D:132:LYS:CA	4:D:191:PRO:CG	2.25	1.15
4:D:126:ILE:HD11	4:D:134:CYS:SG	1.86	1.15
13:M:94:ILE:CG2	13:M:95:ASP:H	1.56	1.15
12:L:10:TYR:CD2	12:L:12:LYS:NZ	2.14	1.15
2:B:26:SER:O	2:B:27:LYS:HG3	1.44	1.15
3:C:54:LEU:CD1	3:C:258:LEU:HD11	1.69	1.15
4:D:76:ARG:CZ	11:K:66:HIS:CE1	2.30	1.15
10:J:110:LEU:CD1	10:J:130:ILE:HG12	1.74	1.15
10:J:48:PHE:CE1	10:J:52:LYS:CE	2.29	1.15
25:Y:93:ARG:HH11	25:Y:93:ARG:HG2	1.02	1.15
26:Z:85:ARG:HB3	26:Z:85:ARG:NH1	1.60	1.15
2:B:57:ILE:HD13	2:B:60:ASP:OD1	0.96	1.14
6:F:91:ARG:NH1	6:F:94:LYS:HB2	1.46	1.14
21:U:67:LYS:HG2	21:U:78:ASP:OD2	1.45	1.14
10:J:125:HIS:CD2	10:J:129:LEU:HD11	1.80	1.14
10:J:169:ARG:HB3	10:J:170:PRO:CD	1.77	1.14
19:S:8:LYS:CD	19:S:9:PHE:HE1	1.60	1.14
13:M:93:LYS:O	13:M:94:ILE:HG22	1.42	1.14
14:N:125:LEU:HD13	14:N:129:TYR:CE2	1.82	1.14
14:N:80:LEU:O	14:N:82:PRO:HD3	1.43	1.14
2:B:20:LYS:O	2:B:21:VAL:HG12	1.43	1.14
1:A:186:ARG:HG2	1:A:186:ARG:HH11	1.01	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:30:PRO:O	11:K:31:LYS:CG	1.94	1.14
11:K:62:PHE:HD1	11:K:67:PHE:CZ	1.64	1.14
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
4:D:218:LEU:CB	4:D:220:THR:CG2	2.25	1.14
15:O:105:THR:O	15:O:106:LYS:HG2	1.45	1.14
7:G:85:ARG:CD	25:Y:118:ARG:CZ	2.25	1.14
18:R:100:PRO:HG2	18:R:119:VAL:HG22	1.29	1.14
1:A:32:PHE:CE1	1:A:33:GLN:HG2	1.83	1.14
3:C:70:SER:O	22:V:29:HIS:ND1	1.78	1.14
21:U:109:GLY:O	21:U:110:VAL:HG23	1.45	1.14
21:U:109:GLY:O	21:U:110:VAL:CG2	1.95	1.14
16:P:44:ARG:HH21	16:P:84:ILE:HB	1.10	1.14
19:S:42:HIS:CD2	20:T:45:LEU:CD2	2.25	1.14
19:S:139:THR:O	19:S:141:ARG:CG	1.95	1.14
4:D:210:ILE:CD1	18:R:15:VAL:HG12	1.75	1.14
4:D:176:LEU:H	4:D:176:LEU:HD12	1.13	1.14
7:G:32:MET:HE1	7:G:100:CYS:CA	1.77	1.14
2:B:25:PHE:CZ	15:O:88:LEU:HD13	1.83	1.14
6:F:63:LYS:HD2	6:F:71:ARG:NH1	1.59	1.14
1:A:57:LYS:NZ	22:V:70:LEU:CD1	2.11	1.14
8:H:12:ASN:ND2	8:H:46:THR:OG1	1.80	1.14
14:N:62:GLN:HB2	14:N:65:PHE:HD2	1.07	1.14
17:Q:85:ARG:NH1	17:Q:117:ARG:HG2	1.62	1.14
25:Y:20:ARG:HD2	25:Y:74:MET:HE2	1.16	1.14
16:P:53:GLN:HG2	16:P:80:LEU:HD11	1.26	1.14
10:J:89:GLU:CA	10:J:92:MET:HB2	1.77	1.14
2:B:105:LEU:HD11	2:B:213:ARG:HB2	1.17	1.14
3:C:260:LYS:HG3	3:C:261:THR:H	1.08	1.14
25:Y:122:LYS:HD3	25:Y:123:ALA:H	1.05	1.14
7:G:181:THR:OG1	7:G:182:PRO:HD2	1.47	1.14
1:A:141:ASN:C	22:V:32:ILE:CG1	2.16	1.14
1:A:103:PHE:CZ	1:A:136:GLU:OE1	2.00	1.14
16:P:44:ARG:NH2	16:P:84:ILE:H	1.45	1.14
24:X:71:ARG:HG2	24:X:82:THR:HG22	1.29	1.14
20:T:46:ALA:HB1	20:T:47:PRO:CD	1.76	1.14
22:V:1:MET:HE2	22:V:10:ASP:HB2	1.22	1.14
7:G:50:VAL:HG11	7:G:111:LEU:HD13	1.19	1.13
14:N:28:LEU:O	14:N:29:THR:HG23	1.45	1.13
6:F:93:VAL:O	6:F:97:PHE:CD1	2.01	1.13
11:K:11:ILE:HG21	11:K:49:MET:HE2	1.20	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:60:GLU:OE1	11:K:67:PHE:CE1	1.99	1.13
24:X:126:ALA:HB3	24:X:128:VAL:HB	1.15	1.13
21:U:36:CYS:SG	21:U:53:PRO:HB3	1.89	1.13
25:Y:54:VAL:CG1	25:Y:76:TYR:O	1.95	1.13
9:I:25:ARG:CD	9:I:27:TYR:CE2	2.24	1.13
26:Z:62:VAL:HG13	26:Z:68:ILE:CD1	1.78	1.13
4:D:212:GLU:CG	18:R:19:LYS:CD	2.25	1.13
5:E:159:THR:CG2	5:E:227:VAL:CG2	2.16	1.13
7:G:14:LYS:HZ2	7:G:123:GLY:CA	1.61	1.13
7:G:14:LYS:NZ	7:G:123:GLY:CA	2.11	1.13
5:E:129:ILE:HG12	5:E:139:LEU:HD21	1.19	1.13
12:L:113:LEU:HD11	12:L:120:VAL:HG21	1.24	1.13
2:B:25:PHE:CD2	15:O:88:LEU:HD22	1.83	1.13
15:O:99:ALA:H	15:O:133:THR:CG2	1.60	1.13
4:D:70:THR:HG22	4:D:86:LEU:HD13	1.31	1.13
17:Q:85:ARG:NH2	17:Q:117:ARG:HG2	1.63	1.13
10:J:114:VAL:HG12	10:J:120:ALA:HB2	1.23	1.13
26:Z:48:VAL:CG2	26:Z:80:ARG:HD3	1.77	1.13
10:J:91:LYS:HA	10:J:96:TYR:CB	1.77	1.13
21:U:59:LYS:HB2	21:U:84:ILE:HG22	1.21	1.13
5:E:100:ARG:HD3	5:E:102:ILE:CD1	1.78	1.13
9:I:154:LYS:CA	9:I:154:LYS:HE2	1.66	1.13
17:Q:57:LEU:HD11	17:Q:115:TYR:CE2	1.82	1.13
3:C:197:LYS:CA	3:C:200:LEU:HD21	1.78	1.13
11:K:62:PHE:CD1	11:K:67:PHE:CE2	2.36	1.13
10:J:170:PRO:CG	10:J:175:ARG:CG	2.26	1.13
21:U:40:ILE:HD13	21:U:53:PRO:HG3	1.27	1.13
20:T:31:PRO:HB3	20:T:33:TRP:CZ2	1.83	1.13
16:P:53:GLN:NE2	16:P:80:LEU:HD13	1.60	1.13
6:F:167:LYS:HD3	6:F:171:GLU:HG3	1.29	1.13
19:S:46:ARG:NH2	20:T:50:GLU:CB	2.12	1.13
5:E:98:ASN:ND2	5:E:119:ALA:CB	2.10	1.13
9:I:141:ARG:HD2	9:I:144:LYS:HB3	1.20	1.13
9:I:153:LYS:O	9:I:154:LYS:HB3	1.40	1.13
7:G:32:MET:CE	7:G:100:CYS:CA	2.27	1.13
12:L:80:MET:HE3	12:L:120:VAL:O	1.42	1.13
12:L:76:VAL:HG12	12:L:125:ILE:CD1	1.78	1.13
3:C:55:VAL:HB	6:F:34:SER:CB	85.97	1.13
6:F:47:LYS:HG3	17:Q:117:ARG:NH2	1.63	1.13
17:Q:85:ARG:HD3	17:Q:119:LEU:HD23	1.24	1.13
17:Q:57:LEU:CD1	17:Q:115:TYR:CE2	2.31	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:99:GLU:O	24:X:100:VAL:HG13	1.44	1.13
16:P:33:LEU:HD22	16:P:87:PRO:CG	1.78	1.13
6:F:14:THR:HG23	17:Q:56:LEU:HB3	1.28	1.13
18:R:122:PRO:HA	18:R:123:THR:HG23	1.13	1.13
5:E:208:VAL:HG11	5:E:225:ILE:HD13	1.27	1.13
3:C:197:LYS:O	3:C:200:LEU:HG	1.48	1.13
4:D:34:TYR:OH	21:U:61:LEU:CD2	24.94	1.13
5:E:129:ILE:CG1	5:E:139:LEU:HD23	1.73	1.12
1:A:118:GLU:CB	3:C:50:LYS:NZ	2.11	1.12
1:A:66:VAL:HG22	1:A:186:ARG:HD3	1.13	1.12
19:S:39:ARG:NH2	20:T:38:LYS:HE3	1.43	1.12
4:D:157:MET:HE1	4:D:187:LYS:HD3	1.16	1.13
3:C:260:LYS:CG	3:C:261:THR:H	1.56	1.12
3:C:234:SER:HA	22:V:23:ILE:CD1	1.78	1.13
6:F:176:GLU:OE1	6:F:187:SER:OG	1.63	1.12
14:N:22:VAL:HB	14:N:23:PRO:HA	1.21	1.12
6:F:25:THR:HG22	6:F:42:LYS:CD	1.78	1.12
10:J:170:PRO:CG	10:J:175:ARG:HG3	1.79	1.12
4:D:158:ILE:CD1	4:D:189:MET:HE2	1.64	1.12
3:C:154:TYR:OH	3:C:162:PRO:HD3	1.49	1.12
19:S:47:LYS:CE	19:S:77:TYR:O	1.95	1.12
11:K:5:LYS:O	11:K:5:LYS:HG3	1.44	1.12
3:C:87:LEU:HD21	3:C:115:ILE:HG23	1.16	1.12
1:A:106:GLY:O	1:A:113:GLN:OE1	1.67	1.12
8:H:144:ILE:CD1	23:W:52:ILE:HG21	1.79	1.12
8:H:8:ILE:CG2	8:H:9:VAL:HG22	1.79	1.12
10:J:70:ARG:HH21	10:J:94:LEU:HD21	1.02	1.12
16:P:11:THR:O	16:P:12:PHE:HB2	1.47	1.12
16:P:83:MET:HE3	16:P:116:LEU:HD11	1.22	1.12
4:D:197:LYS:H	4:D:198:ILE:C	1.53	1.12
24:X:105:PHE:HE2	24:X:119:ARG:CA	1.60	1.12
23:W:93:LEU:HD21	23:W:128:PHE:CD2	1.84	1.12
23:W:36:ARG:HD3	23:W:110:ILE:HD12	1.28	1.12
15:O:136:PRO:O	15:O:138:ASP:N	1.81	1.12
9:I:194:GLU:CG	12:L:12:LYS:NZ	2.13	1.12
1:A:5:LEU:CB	22:V:41:LYS:HE2	1.79	1.12
4:D:132:LYS:CA	4:D:191:PRO:HG3	1.80	1.12
4:D:214:LYS:HG3	4:D:215:ASP:OD2	1.48	1.12
12:L:4:ILE:HD12	12:L:4:ILE:N	1.60	1.12
1:A:24:HIS:NE2	18:R:105:MET:HG3	1.64	1.12
16:P:41:GLN:NE2	16:P:45:LEU:HG	1.65	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:41:GLN:CB	16:P:84:ILE:HG12	1.80	1.12
10:J:61:LEU:CD2	10:J:98:LEU:CD1	2.27	1.12
5:E:248:ILE:CB	10:J:72:PHE:CE1	2.33	1.12
19:S:58:GLU:O	19:S:59:LEU:HD22	1.50	1.12
4:D:166:TYR:CD1	4:D:200:PRO:HB2	1.84	1.12
2:B:160:GLN:NE2	2:B:205:TYR:CD1	2.18	1.12
24:X:60:LYS:HG3	24:X:116:PRO:HG2	1.26	1.12
17:Q:92:LEU:HD11	17:Q:96:TYR:CE2	1.85	1.12
9:I:114:GLU:OE1	9:I:133:GLU:HG3	1.50	1.11
22:V:55:ILE:HD13	22:V:65:SER:HA	1.25	1.11
22:V:32:ILE:HD12	22:V:60:ARG:NH1	1.65	1.11
1:A:120:ARG:HD2	3:C:251:TYR:CE2	1.84	1.11
6:F:39:ILE:HG23	6:F:68:ILE:HG21	1.20	1.11
17:Q:44:PRO:HG2	17:Q:81:ILE:HD11	1.28	1.11
11:K:21:MET:HE3	11:K:49:MET:SD	1.81	1.11
16:P:126:VAL:HG12	16:P:127:LYS:N	1.34	1.11
1:A:97:THR:HG23	1:A:98:PRO:HD2	1.21	1.11
3:C:60:ILE:O	3:C:82:PHE:CE1	2.03	1.11
10:J:37:LEU:HD11	10:J:42:GLU:CB	1.77	1.11
18:R:20:TYR:CZ	18:R:38:ILE:CB	2.33	1.11
6:F:36:GLN:HG3	6:F:37:ASP:CG	1.71	1.11
26:Z:69:THR:HB	26:Z:70:PRO:HD3	1.24	1.11
5:E:70:ILE:HG12	5:E:92:ILE:HD12	1.24	1.11
9:I:155:ASN:O	12:L:22:ARG:HD2	1.31	1.11
8:H:8:ILE:HG23	8:H:9:VAL:CG2	1.80	1.11
3:C:126:MET:HE1	3:C:223:LYS:NZ	1.66	1.11
10:J:110:LEU:HD12	10:J:130:ILE:CD1	1.74	1.11
16:P:53:GLN:CG	16:P:80:LEU:HD13	1.74	1.11
25:Y:34:THR:O	25:Y:35:VAL:CG2	1.97	1.11
16:P:49:LEU:HA	16:P:51:ARG:HG3	1.30	1.11
21:U:50:VAL:HG13	21:U:51:LYS:H	0.99	1.11
4:D:218:LEU:HD12	4:D:220:THR:HG21	1.19	1.11
26:Z:70:PRO:HD2	26:Z:71:ALA:H	1.14	1.11
20:T:143:LYS:HD2	20:T:144:LYS:N	1.65	1.11
15:O:35:ALA:HB2	15:O:112:ALA:HB2	1.33	1.11
7:G:50:VAL:HG12	7:G:111:LEU:HD22	1.31	1.11
2:B:71:LEU:CD1	2:B:84:PHE:CE2	2.31	1.11
17:Q:47:LEU:HD22	17:Q:81:ILE:HD12	1.26	1.11
4:D:195:SER:O	4:D:197:LYS:HG2	1.48	1.11
24:X:67:ARG:O	24:X:68:LYS:HG3	1.51	1.11
5:E:208:VAL:CB	5:E:225:ILE:HD11	1.68	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:89:VAL:O	5:E:99:PHE:O	1.68	1.11
7:G:176:ILE:HG21	7:G:179:LEU:HD22	1.12	1.11
9:I:85:ALA:HB1	12:L:8:ARG:HH11	1.11	1.11
14:N:28:LEU:O	14:N:29:THR:CG2	1.99	1.11
3:C:142:LEU:HA	3:C:145:LEU:HD21	1.27	1.11
2:B:83:LYS:NZ	15:O:130:GLU:OE1	1.82	1.11
22:V:17:CYS:SG	22:V:56:CYS:CB	2.37	1.11
10:J:169:ARG:HB3	10:J:170:PRO:HD2	1.17	1.11
25:Y:20:ARG:CG	25:Y:74:MET:HE3	1.80	1.11
16:P:53:GLN:HG2	16:P:80:LEU:HD13	1.23	1.11
8:H:83:LEU:CD1	8:H:92:VAL:CB	2.27	1.11
4:D:27:ARG:HB2	4:D:27:ARG:HH11	4.43	1.11
5:E:99:PHE:CE1	5:E:113:ARG:CG	2.34	1.10
7:G:16:ILE:CD1	7:G:45:TRP:CZ2	2.33	1.10
9:I:157:LYS:CB	12:L:22:ARG:HD3	1.78	1.10
16:P:10:ARG:NH2	16:P:11:THR:HB	1.66	1.10
25:Y:62:THR:HG22	25:Y:69:THR:CG2	1.80	1.10
18:R:1:MET:HA	18:R:1:MET:CB	1.68	1.10
18:R:122:PRO:CB	18:R:123:THR:CG2	2.29	1.10
12:L:147:LYS:HD2	12:L:148:ALA:HA	1.13	1.10
12:L:149:ALA:CB	12:L:156:GLN:HB3	1.79	1.10
1:A:30:LEU:CD2	1:A:35:GLU:HG3	1.79	1.10
6:F:42:LYS:O	6:F:44:LYS:CA	1.98	1.10
11:K:11:ILE:CG2	11:K:49:MET:HE1	1.69	1.10
26:Z:103:HIS:CD2	26:Z:105:ALA:HB3	1.86	1.10
17:Q:85:ARG:CZ	17:Q:117:ARG:HG2	1.82	1.10
6:F:14:THR:CG2	17:Q:56:LEU:CG	2.10	1.10
16:P:108:LYS:O	16:P:111:MET:HG3	1.51	1.10
10:J:89:GLU:HA	10:J:92:MET:HB2	1.21	1.10
4:D:212:GLU:HG2	18:R:19:LYS:CD	1.80	1.10
14:N:125:LEU:HD13	14:N:129:TYR:HE2	1.11	1.10
12:L:101:ARG:C	24:X:10:ALA:HB2	1.70	1.10
12:L:157:LYS:C	12:L:158:PHE:CD2	2.25	1.10
9:I:154:LYS:HG3	9:I:155:ASN:H	1.15	1.10
3:C:55:VAL:CG2	3:C:82:PHE:HE2	1.63	1.10
8:H:37:LYS:HE2	8:H:41:ARG:HH11	1.16	1.10
25:Y:51:THR:HB	25:Y:52:PRO:HD3	1.34	1.10
14:N:132:LYS:HE3	14:N:132:LYS:CA	1.70	1.10
2:B:135:LEU:HD21	2:B:217:MET:SD	1.91	1.10
7:G:176:ILE:CB	7:G:179:LEU:CD2	2.29	1.10
9:I:140:LYS:CG	9:I:141:ARG:H	1.64	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:25:PHE:CD2	15:O:88:LEU:CD2	2.34	1.10
8:H:144:ILE:HD12	23:W:52:ILE:CG2	1.82	1.10
4:D:47:GLU:HG2	4:D:85:GLU:CD	1.71	1.10
17:Q:50:LYS:HZ1	17:Q:117:ARG:CD	1.63	1.10
18:R:1:MET:CB	18:R:2:GLY:N	2.13	1.10
9:I:69:SER:HB3	12:L:19:ASN:HD21	1.11	1.10
26:Z:99:LEU:HD22	26:Z:102:LYS:HD3	1.19	1.10
10:J:89:GLU:CA	10:J:92:MET:CG	2.29	1.10
4:D:218:LEU:HB2	4:D:220:THR:CG2	1.82	1.10
9:I:139:LYS:HB3	9:I:145:ILE:CD1	1.82	1.10
1:A:185:MET:CE	22:V:39:VAL:HG12	1.82	1.10
1:A:24:HIS:CD2	18:R:105:MET:CE	2.34	1.10
6:F:116:ILE:N	6:F:116:ILE:HD13	1.64	1.10
17:Q:105:LYS:HD2	17:Q:105:LYS:O	1.49	1.10
17:Q:19:ALA:HB2	17:Q:74:GLY:O	1.50	1.10
17:Q:85:ARG:HD3	17:Q:119:LEU:CD2	1.81	1.10
21:U:64:THR:HG22	21:U:79:ARG:HG2	1.10	1.10
10:J:115:PHE:HD1	10:J:122:SER:N	1.48	1.10
10:J:179:LYS:HG2	10:J:182:GLN:OE1	1.50	1.10
1:A:34:MET:HE3	1:A:37:TYR:HD2	1.12	1.09
8:H:36:LEU:HD12	8:H:36:LEU:O	1.51	1.09
18:R:100:PRO:HA	18:R:103:LYS:HB2	1.13	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
16:P:107:ILE:HA	16:P:111:MET:CE	1.80	1.09
4:D:195:SER:HA	4:D:197:LYS:O	1.49	1.09
3:C:102:GLN:HG3	3:C:103:ALA:H	1.05	1.09
18:R:91:LEU:N	18:R:91:LEU:HD12	1.66	1.09
25:Y:7:ILE:HD12	25:Y:43:LYS:HG2	1.20	1.09
3:C:260:LYS:HD2	3:C:261:THR:HG22	1.18	1.09
20:T:111:LYS:HB3	20:T:126:GLN:NE2	1.67	1.09
7:G:176:ILE:HG22	7:G:179:LEU:HB3	1.25	1.09
7:G:76:LEU:HD21	7:G:92:ARG:HG2	1.32	1.09
15:O:99:ALA:N	15:O:133:THR:HG22	1.68	1.09
1:A:34:MET:HE3	1:A:37:TYR:CD2	1.87	1.09
21:U:103:SER:O	21:U:106:ILE:CG2	1.99	1.09
11:K:71:LEU:HD23	11:K:76:ILE:CD1	1.81	1.09
17:Q:54:PRO:HG3	17:Q:88:ILE:CD1	1.82	1.09
5:E:49:ARG:O	5:E:49:ARG:HD3	1.52	1.09
16:P:121:ILE:CG2	19:S:123:LEU:HD12	1.80	1.09
8:H:93:VAL:HG23	8:H:94:PHE:H	1.11	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:49:LEU:O	16:P:51:ARG:CA	1.99	1.09
16:P:127:LYS:HB2	16:P:127:LYS:NZ	1.64	1.09
18:R:122:PRO:CA	18:R:123:THR:CG2	2.30	1.09
14:N:38:TYR:CE2	14:N:74:ILE:CG2	2.34	1.09
4:D:210:ILE:HD13	18:R:15:VAL:HG12	1.33	1.09
5:E:47:PHE:CZ	5:E:52:LEU:HD11	1.86	1.09
24:X:40:PRO:HB3	24:X:81:ILE:HD11	1.30	1.09
12:L:80:MET:HE2	12:L:121:GLN:HA	1.33	1.09
1:A:45:GLY:O	1:A:46:ILE:HG12	1.50	1.09
8:H:143:ARG:HE	23:W:53:ILE:HG23	1.10	1.09
1:A:133:PRO:HD2	1:A:134:LEU:H	1.03	1.09
1:A:141:ASN:HA	22:V:32:ILE:CG1	1.82	1.09
2:B:137:LEU:HB2	2:B:172:MET:HE1	1.34	1.09
19:S:124:ARG:HD3	19:S:130:ARG:O	1.52	1.09
23:W:11:LEU:O	23:W:14:ILE:CG1	1.99	1.09
19:S:46:ARG:CZ	20:T:50:GLU:CB	2.30	1.09
18:R:17:ILE:HG22	18:R:69:ILE:HD11	1.14	1.09
14:N:38:TYR:CD1	14:N:78:LYS:HD2	1.86	1.09
25:Y:10:ARG:HG2	25:Y:24:VAL:HB	1.31	1.09
6:F:185:SER:HA	6:F:190:ILE:HG21	1.11	1.09
4:D:47:GLU:HG2	4:D:85:GLU:CG	1.82	1.09
11:K:3:MET:CE	11:K:8:ARG:CZ	2.31	1.09
5:E:21:ASP:OD2	5:E:24:THR:HG21	1.52	1.09
24:X:128:VAL:HG13	24:X:128:VAL:O	1.51	1.09
24:X:52:LEU:HD12	24:X:53:GLU:N	1.68	1.09
25:Y:63:HIS:HB3	25:Y:64:PHE:CD1	1.86	1.09
26:Z:48:VAL:HG22	26:Z:80:ARG:CD	1.82	1.09
24:X:2:GLY:O	24:X:3:LYS:CG	2.01	1.09
18:R:91:LEU:H	18:R:91:LEU:HD12	1.10	1.09
13:M:124:ILE:HA	13:M:127:TYR:CD2	1.88	1.09
25:Y:7:ILE:CD1	25:Y:43:LYS:CG	2.30	1.09
20:T:18:LEU:HD13	20:T:134:ILE:HD13	1.22	1.09
9:I:141:ARG:O	9:I:143:LYS:HE2	1.50	1.09
17:Q:8:GLN:HG3	17:Q:99:TYR:HE1	0.97	1.09
17:Q:8:GLN:CB	17:Q:99:TYR:CE1	2.35	1.09
2:B:137:LEU:CD2	2:B:215:VAL:HG22	1.83	1.09
2:B:36:PRO:CB	2:B:231:LEU:HD21	1.82	1.09
11:K:40:VAL:CG2	11:K:41:PRO:CD	2.30	1.09
6:F:47:LYS:HG3	17:Q:117:ARG:HH22	1.12	1.09
8:H:146:VAL:CG2	23:W:50:PHE:CZ	2.32	1.09
19:S:138:THR:CA	19:S:141:ARG:HH21	1.53	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:12:MET:HE1	13:M:17:ALA:O	1.53	1.09
25:Y:92:ALA:HA	25:Y:97:TYR:C	1.71	1.09
5:E:38:LEU:HD12	5:E:38:LEU:O	1.53	1.09
20:T:84:ARG:HH21	20:T:84:ARG:CG	1.66	1.09
1:A:205:ARG:CG	1:A:206:ASP:H	1.65	1.09
23:W:26:LEU:O	23:W:26:LEU:HD12	1.53	1.09
12:L:157:LYS:C	12:L:158:PHE:HD2	1.56	1.08
12:L:40:ILE:HD11	12:L:68:ILE:HB	1.30	1.08
1:A:58:LEU:HD23	1:A:178:LEU:CD2	1.74	1.08
15:O:61:LYS:CE	15:O:80:ASP:OD2	2.00	1.08
6:F:41:VAL:HG22	6:F:42:LYS:CD	1.80	1.08
10:J:127:ARG:CG	10:J:127:ARG:HH11	1.66	1.08
25:Y:63:HIS:HB3	25:Y:64:PHE:CE1	1.88	1.08
6:F:167:LYS:HD3	6:F:171:GLU:CB	1.83	1.08
15:O:56:VAL:HG12	15:O:81:VAL:HG22	1.30	1.08
2:B:124:HIS:HD2	2:B:136:HIS:NE2	1.50	1.08
10:J:100:LEU:CD1	10:J:104:ASP:OD2	2.01	1.08
23:W:104:LEU:CD1	23:W:106:THR:HG23	1.83	1.08
7:G:76:LEU:HD22	7:G:92:ARG:CG	1.84	1.08
9:I:114:GLU:OE1	9:I:133:GLU:CG	2.00	1.08
9:I:141:ARG:HB2	9:I:144:LYS:HB2	1.09	1.08
13:M:116:LYS:O	13:M:117:GLU:HB2	1.43	1.08
11:K:40:VAL:HG22	11:K:41:PRO:N	1.59	1.08
4:D:197:LYS:CB	4:D:198:ILE:CG1	2.30	1.08
4:D:201:LYS:HA	4:D:201:LYS:HE2	1.35	1.08
7:G:142:ARG:HD3	7:G:147:LEU:CB	1.84	1.08
5:E:153:LEU:HD23	7:G:216:ARG:HH22	1.14	1.08
12:L:147:LYS:CD	12:L:148:ALA:CA	2.30	1.08
1:A:66:VAL:HG11	1:A:186:ARG:HB3	1.35	1.08
3:C:51:LEU:HD22	3:C:51:LEU:O	1.54	1.08
6:F:49:LEU:HD12	6:F:50:PRO:HD2	1.29	1.08
4:D:34:TYR:OH	21:U:61:LEU:HD23	25.71	1.08
10:J:130:ILE:HG23	10:J:135:ILE:HD11	1.35	1.08
20:T:31:PRO:CB	20:T:33:TRP:CE2	2.37	1.08
4:D:132:LYS:H	4:D:191:PRO:HD3	1.06	1.08
19:S:137:LYS:HG2	19:S:138:THR:HG23	1.34	1.08
17:Q:30:GLY:O	17:Q:31:LEU:HD12	1.52	1.08
7:G:184:VAL:HG12	7:G:188:LYS:HE2	1.33	1.08
7:G:67:VAL:HG23	7:G:68:LEU:O	1.54	1.08
7:G:50:VAL:CG1	7:G:111:LEU:HD22	1.84	1.08
8:H:10:LYS:HE3	8:H:17:ASP:H	1.00	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:45:TYR:O	6:F:47:LYS:HD3	1.44	1.08
17:Q:74:GLY:O	17:Q:80:GLN:NE2	1.87	1.08
10:J:119:LEU:HD23	10:J:119:LEU:N	1.64	1.08
10:J:134:HIS:O	10:J:135:ILE:HG23	1.54	1.08
6:F:14:THR:HG22	17:Q:56:LEU:HD22	1.15	1.08
11:K:14:LEU:HD22	11:K:35:LEU:HD22	1.09	1.08
8:H:83:LEU:HD11	8:H:92:VAL:HB	1.16	1.08
21:U:48:LEU:HD23	21:U:48:LEU:N	1.65	1.08
4:D:157:MET:CE	4:D:187:LYS:CD	2.31	1.08
19:S:47:LYS:HZ2	19:S:78:LYS:HB2	1.11	1.08
26:Z:73:VAL:HG12	26:Z:79:ILE:HG21	1.35	1.08
6:F:78:MET:O	6:F:79:HIS:HB2	1.44	1.08
1:A:141:ASN:O	22:V:32:ILE:HG12	1.50	1.08
8:H:9:VAL:HG12	8:H:44:ASN:OD1	1.53	1.08
14:N:28:LEU:HD11	14:N:58:HIS:NE2	1.69	1.08
26:Z:103:HIS:CD2	26:Z:105:ALA:H	1.72	1.08
21:U:40:ILE:CD1	21:U:53:PRO:CG	2.13	1.08
4:D:158:ILE:HD13	4:D:189:MET:HE2	1.28	1.08
16:P:126:VAL:CG1	16:P:127:LYS:N	2.06	1.08
18:R:122:PRO:CB	18:R:123:THR:HG23	1.83	1.08
24:X:105:PHE:CE2	24:X:119:ARG:CA	2.36	1.08
4:D:27:ARG:CB	4:D:27:ARG:HH11	4.03	1.08
2:B:124:HIS:CD2	2:B:136:HIS:NE2	2.22	1.08
7:G:63:MET:HE1	7:G:106:LEU:HD11	1.11	1.07
1:A:176:TRP:CE3	1:A:177:MET:SD	2.46	1.07
2:B:57:ILE:HD13	2:B:60:ASP:CG	1.65	1.07
3:C:197:LYS:HA	3:C:200:LEU:HD23	1.10	1.07
6:F:41:VAL:HG22	6:F:42:LYS:HD3	1.25	1.07
19:S:94:LYS:HB3	19:S:95:TYR:O	1.54	1.07
4:D:197:LYS:HB2	4:D:198:ILE:HG12	1.30	1.07
18:R:20:TYR:CZ	18:R:38:ILE:HB	1.89	1.07
18:R:22:THR:HG22	18:R:73:LEU:HD11	1.30	1.07
4:D:212:GLU:HB2	4:D:213:PRO:HD2	1.28	1.07
3:C:154:TYR:CE1	3:C:162:PRO:HG3	1.89	1.07
16:P:62:LYS:O	16:P:65:LYS:CG	2.01	1.07
2:B:150:ILE:HG13	18:R:124:VAL:HG13	1.36	1.07
15:O:22:ALA:O	15:O:24:GLY:N	1.85	1.07
25:Y:13:MET:CE	25:Y:14:THR:O	2.02	1.07
7:G:142:ARG:HD3	7:G:147:LEU:HB2	1.15	1.07
5:E:92:ILE:HB	5:E:97:GLU:OE1	1.52	1.07
3:C:84:GLY:HA2	3:C:87:LEU:HB3	1.30	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:201:LYS:HE3	6:F:204:ARG:HH21	1.17	1.07
2:B:52:THR:CG2	14:N:53:ILE:CD1	83.58	1.07
15:O:19:PRO:HG2	15:O:27:VAL:CG2	1.62	1.07
18:R:105:MET:O	18:R:109:LEU:CG	2.00	1.07
3:C:51:LEU:HD13	3:C:78:ILE:HD13	1.30	1.07
16:P:8:LYS:O	16:P:11:THR:HG22	1.54	1.07
6:F:14:THR:CB	17:Q:56:LEU:HD13	1.82	1.07
4:D:197:LYS:HB2	4:D:198:ILE:HG13	1.16	1.07
10:J:91:LYS:HA	10:J:96:TYR:HB2	1.29	1.07
4:D:123:LEU:HD21	4:D:154:ASP:HB3	1.29	1.07
3:C:234:SER:O	22:V:23:ILE:HD11	1.55	1.07
2:B:150:ILE:HD11	18:R:126:MET:HB2	1.36	1.07
3:C:98:GLN:HB2	3:C:106:ARG:O	1.55	1.07
12:L:103:GLU:OE1	24:X:11:ARG:CB	2.02	1.07
12:L:147:LYS:HD3	12:L:147:LYS:C	1.73	1.07
12:L:99:TYR:CZ	24:X:14:ARG:HA	1.89	1.07
14:N:16:LEU:HD11	14:N:62:GLN:HE22	1.12	1.07
1:A:154:LEU:HD13	1:A:154:LEU:O	1.53	1.07
1:A:39:TYR:HB2	1:A:50:ASN:ND2	1.70	1.07
3:C:54:LEU:HD11	3:C:258:LEU:HD11	1.19	1.07
6:F:76:MET:HE1	6:F:169:ILE:HG21	1.31	1.07
11:K:11:ILE:HG21	11:K:49:MET:CE	1.71	1.07
24:X:126:ALA:HB3	24:X:128:VAL:CB	1.84	1.07
20:T:30:VAL:O	20:T:30:VAL:HG23	1.53	1.07
5:E:248:ILE:HD11	10:J:72:PHE:CG	1.79	1.07
10:J:17:ARG:CG	10:J:18:ARG:CG	2.30	1.07
20:T:141:ALA:O	20:T:142:LYS:CG	2.01	1.07
14:N:132:LYS:CE	14:N:132:LYS:HA	1.69	1.07
10:J:138:ARG:HH11	10:J:156:HIS:CG	1.72	1.07
14:N:12:SER:O	14:N:13:GLN:CG	2.02	1.07
15:O:20:GLN:HG2	15:O:21:VAL:N	1.61	1.07
12:L:94:HIS:HB2	12:L:105:ARG:HD2	1.33	1.07
1:A:141:ASN:CA	22:V:32:ILE:CG1	2.31	1.07
22:V:17:CYS:HG	22:V:56:CYS:CB	1.68	1.07
8:H:144:ILE:HB	23:W:52:ILE:HG23	1.34	1.07
5:E:23:LEU:O	5:E:24:THR:HG23	1.52	1.07
10:J:170:PRO:HA	10:J:174:LYS:NZ	1.70	1.07
3:C:93:LYS:CE	3:C:218:LEU:HD21	1.84	1.07
6:F:14:THR:CB	17:Q:56:LEU:HB3	1.83	1.07
25:Y:34:THR:HG22	25:Y:35:VAL:N	1.60	1.07
4:D:112:GLY:N	4:D:113:LEU:HD12	1.69	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:60:LYS:HE2	24:X:116:PRO:HG3	1.29	1.07
2:B:105:LEU:HD12	2:B:110:MET:HE2	1.12	1.07
9:I:136:ILE:HG23	9:I:139:LYS:HE3	1.14	1.07
9:I:85:ALA:CB	12:L:8:ARG:HH11	1.66	1.07
17:Q:9:SER:CB	17:Q:26:LYS:CG	2.08	1.07
8:H:40:LEU:HD23	8:H:43:LEU:HD12	1.16	1.07
6:F:44:LYS:HB3	6:F:45:TYR:HE1	1.09	1.07
17:Q:42:ILE:HD13	17:Q:51:LEU:HD22	1.33	1.07
25:Y:19:GLN:OE1	25:Y:85:ASN:ND2	1.88	1.07
4:D:212:GLU:HG2	18:R:19:LYS:HD3	1.30	1.07
12:L:101:ARG:HB3	24:X:7:LEU:O	1.55	1.06
12:L:99:TYR:OH	24:X:14:ARG:HA	0.90	1.06
7:G:74:ARG:HD3	7:G:94:ARG:HD2	1.36	1.06
1:A:180:ARG:HD3	1:A:184:ARG:NH2	1.70	1.06
1:A:11:LYS:HG2	1:A:13:GLU:CG	1.84	1.06
17:Q:109:LYS:HG3	17:Q:113:ILE:HD12	1.22	1.06
6:F:46:ALA:O	6:F:47:LYS:HD2	1.53	1.06
19:S:39:ARG:NH2	20:T:38:LYS:NZ	1.80	1.06
20:T:46:ALA:CB	20:T:47:PRO:HD2	1.85	1.06
26:Z:48:VAL:HG22	26:Z:80:ARG:HD3	1.27	1.06
9:I:69:SER:HB3	12:L:19:ASN:ND2	1.66	1.06
16:P:49:LEU:CD1	16:P:51:ARG:NE	2.02	1.06
10:J:89:GLU:O	10:J:92:MET:HB2	1.51	1.06
12:L:151:THR:O	12:L:153:LYS:HD3	1.53	1.06
10:J:178:ALA:O	10:J:182:GLN:HG3	1.52	1.06
2:B:153:THR:HG23	2:B:154:SER:H	1.16	1.06
16:P:68:PRO:CB	16:P:69:PRO:HD3	1.84	1.06
7:G:50:VAL:HG11	7:G:111:LEU:CD1	1.84	1.06
7:G:41:LEU:HD21	7:G:45:TRP:CZ3	1.61	1.06
2:B:31:TYR:CD1	2:B:94:LYS:HA	1.90	1.06
2:B:63:LYS:O	2:B:88:THR:O	1.71	1.06
8:H:10:LYS:CE	8:H:17:ASP:H	1.67	1.06
1:A:125:THR:O	1:A:147:LEU:CB	2.02	1.06
1:A:145:ILE:HA	1:A:159:ILE:CG2	1.84	1.06
2:B:25:PHE:CD2	15:O:88:LEU:HD13	1.91	1.06
2:B:25:PHE:CZ	15:O:88:LEU:CD1	2.36	1.06
3:C:55:VAL:HB	6:F:34:SER:HB2	85.04	1.06
8:H:145:ARG:HD2	23:W:51:GLU:HG2	1.30	1.06
4:D:76:ARG:CD	11:K:66:HIS:HE1	1.63	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:41:GLN:HG3	16:P:84:ILE:HG21	1.13	1.06
10:J:50:LEU:HD12	10:J:102:ILE:CD1	1.85	1.06
25:Y:54:VAL:O	25:Y:75:ILE:HA	1.55	1.06
19:S:39:ARG:CD	20:T:38:LYS:CE	2.33	1.06
20:T:46:ALA:HB1	20:T:47:PRO:HD2	1.08	1.06
16:P:4:VAL:N	16:P:10:ARG:CG	2.19	1.06
16:P:121:ILE:HG21	19:S:123:LEU:HD12	1.11	1.06
11:K:34:GLU:O	11:K:35:LEU:HB2	1.31	1.06
20:T:40:ALA:CB	20:T:43:LYS:HG2	1.84	1.06
9:I:140:LYS:HG3	9:I:141:ARG:H	1.16	1.06
9:I:110:ARG:HH21	9:I:124:LYS:HD3	1.20	1.06
8:H:164:ASN:OD1	8:H:167:GLU:OE2	1.74	1.06
8:H:191:GLU:O	8:H:192:PHE:CD1	2.08	1.06
1:A:21:ALA:HB3	1:A:173:LEU:HD12	1.21	1.06
1:A:97:THR:HG22	1:A:98:PRO:HD2	1.31	1.06
8:H:191:GLU:O	8:H:192:PHE:CG	2.08	1.06
6:F:41:VAL:HG22	6:F:42:LYS:N	1.53	1.06
11:K:16:PHE:CD2	11:K:79:LEU:HB3	1.88	1.06
19:S:120:HIS:CD2	19:S:124:ARG:NE	2.23	1.06
25:Y:32:LYS:CG	25:Y:33:ALA:N	2.13	1.06
19:S:58:GLU:C	19:S:59:LEU:CD1	2.22	1.06
12:L:17:PHE:CE1	12:L:18:GLN:O	2.08	1.06
16:P:39:ALA:HA	16:P:42:ARG:NE	1.70	1.06
7:G:121:ILE:CG2	7:G:122:PRO:CD	2.33	1.06
7:G:145:PHE:HB3	7:G:147:LEU:HD11	1.30	1.06
12:L:146:THR:O	12:L:147:LYS:HB3	1.28	1.06
2:B:67:PHE:CE1	15:O:48:SER:N	2.22	1.06
6:F:41:VAL:CG2	6:F:42:LYS:H	1.62	1.06
24:X:139:GLU:C	24:X:141:PRO:HD3	1.76	1.06
16:P:121:ILE:HG21	19:S:123:LEU:CD1	1.86	1.06
4:D:132:LYS:N	4:D:191:PRO:HD3	1.70	1.06
16:P:49:LEU:O	16:P:51:ARG:N	1.89	1.06
18:R:20:TYR:OH	18:R:38:ILE:CB	2.02	1.06
19:S:14:ARG:HH12	19:S:17:ASN:CA	1.68	1.06
4:D:177:LEU:HD23	4:D:182:LEU:CD2	1.84	1.06
6:F:154:LEU:HD12	6:F:155:CYS:N	1.71	1.06
7:G:212:LEU:HA	7:G:215:LYS:HE2	1.35	1.06
12:L:149:ALA:HB3	12:L:156:GLN:HG2	1.33	1.06
12:L:95:TYR:HA	12:L:102:PHE:HB3	1.14	1.06
4:D:34:TYR:CE1	21:U:61:LEU:CD2	27.28	1.06
4:D:2:ALA:HB3	4:D:3:VAL:HA	1.09	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:94:ILE:HG12	24:X:125:VAL:HG21	1.32	1.06
10:J:66:LYS:HA	10:J:71:LEU:HD11	1.37	1.06
2:B:66:VAL:HG21	2:B:87:ILE:HG22	1.35	1.06
25:Y:32:LYS:HG3	25:Y:33:ALA:H	1.11	1.06
5:E:248:ILE:CG1	10:J:72:PHE:CE1	2.39	1.06
19:S:6:PRO:HA	26:Z:50:PHE:HB2	1.11	1.06
4:D:201:LYS:O	4:D:203:PRO:CD	2.04	1.06
14:N:38:TYR:HE2	14:N:74:ILE:HG22	1.21	1.06
23:W:90:GLN:HA	23:W:102:ILE:HD11	1.37	1.06
2:B:19:LYS:HB2	2:B:19:LYS:NZ	1.69	1.06
7:G:121:ILE:HG23	7:G:122:PRO:HD3	1.09	1.05
2:B:107:ARG:NH2	15:O:133:THR:O	1.86	1.05
17:Q:54:PRO:HG3	17:Q:88:ILE:HD11	1.37	1.05
10:J:39:ASN:OD1	10:J:42:GLU:OE2	1.73	1.05
25:Y:61:ARG:HD2	25:Y:61:ARG:N	1.70	1.05
25:Y:101:LYS:O	25:Y:102:THR:HG23	1.56	1.05
25:Y:10:ARG:HE	25:Y:24:VAL:CG1	1.68	1.05
20:T:144:LYS:HB2	20:T:144:LYS:NZ	1.71	1.05
15:O:35:ALA:CB	15:O:112:ALA:HB2	1.84	1.05
15:O:23:GLU:O	15:O:23:GLU:HG2	1.52	1.05
9:I:139:LYS:CB	9:I:145:ILE:CD1	2.34	1.05
5:E:159:THR:HG23	5:E:227:VAL:HG22	1.30	1.05
7:G:64:LYS:CG	7:G:67:VAL:HG13	1.86	1.05
12:L:94:HIS:CB	12:L:105:ARG:HD2	1.86	1.05
1:A:190:SER:O	1:A:191:ARG:HG2	1.56	1.05
1:A:118:GLU:CB	3:C:50:LYS:HZ1	1.66	1.05
3:C:142:LEU:CA	3:C:145:LEU:CD2	2.34	1.05
3:C:76:SER:O	3:C:79:ILE:HG23	1.54	1.05
24:X:100:VAL:HG12	24:X:125:VAL:HG22	1.36	1.05
25:Y:61:ARG:HH21	25:Y:61:ARG:CG	1.66	1.05
8:H:83:LEU:CD1	8:H:92:VAL:HB	1.86	1.05
4:D:218:LEU:CG	4:D:220:THR:HG21	1.79	1.05
13:M:91:LEU:HD22	13:M:104:VAL:HG13	1.33	1.05
20:T:89:PRO:O	20:T:91:HIS:NE2	1.90	1.05
7:G:70:HIS:HB2	7:G:103:ASP:OD2	1.55	1.05
1:A:185:MET:HE1	22:V:39:VAL:HG12	1.36	1.05
11:K:60:GLU:OE2	11:K:67:PHE:HD1	1.38	1.05
10:J:131:ARG:HD2	10:J:143:ASN:OD1	1.56	1.05
10:J:21:GLU:O	10:J:23:SER:N	1.88	1.05
26:Z:99:LEU:CD1	26:Z:102:LYS:CE	2.14	1.05
4:D:211:VAL:CG2	18:R:38:ILE:C	2.24	1.05

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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	1.05
9:I:142:SER:HB2	9:I:143:LYS:NZ	1.72	1.05
7:G:176:ILE:HB	7:G:179:LEU:CD2	1.87	1.05
1:A:11:LYS:CG	1:A:13:GLU:CG	2.35	1.05
6:F:25:THR:HG21	6:F:42:LYS:CD	1.78	1.05
10:J:122:SER:OG	10:J:124:HIS:HB2	1.57	1.05
10:J:37:LEU:HD21	10:J:42:GLU:CB	1.87	1.05
25:Y:20:ARG:CD	25:Y:74:MET:HE2	1.86	1.05
20:T:29:LYS:HA	20:T:29:LYS:HE3	1.37	1.05
8:H:83:LEU:HD22	8:H:92:VAL:HG11	1.09	1.05
4:D:196:GLY:N	4:D:197:LYS:HA	1.58	1.05
2:B:209:ASP:OD1	2:B:211:PHE:HZ	1.37	1.05
18:R:5:ARG:O	18:R:10:LYS:CE	2.05	1.05
4:D:213:PRO:O	4:D:214:LYS:HB3	1.50	1.05
12:L:10:TYR:CE2	12:L:12:LYS:HE3	1.92	1.05
17:Q:9:SER:HB2	17:Q:26:LYS:CE	1.86	1.05
3:C:59:LYS:HG3	3:C:254:PHE:CD1	1.92	1.05
6:F:122:ARG:NE	6:F:193:LYS:HZ1	1.54	1.05
25:Y:36:PRO:CD	25:Y:39:GLU:OE1	2.04	1.05
10:J:88:ASP:O	10:J:91:LYS:HB2	1.55	1.05
21:U:50:VAL:HG21	21:U:52:GLY:CA	1.87	1.05
17:Q:30:GLY:HA2	17:Q:66:VAL:O	1.55	1.05
2:B:131:ASP:OD2	2:B:180:ASP:HB2	1.57	1.05
9:I:48:VAL:HG22	9:I:52:ASN:O	1.57	1.04
1:A:30:LEU:HD11	1:A:38:ILE:HD11	1.35	1.04
1:A:120:ARG:CD	3:C:251:TYR:HE2	1.68	1.04
17:Q:112:LEU:HD22	17:Q:119:LEU:CD1	1.85	1.04
17:Q:85:ARG:HH12	17:Q:117:ARG:HG2	1.18	1.04
4:D:34:TYR:CE1	21:U:61:LEU:HD22	27.23	1.04
16:P:41:GLN:HG3	16:P:84:ILE:CG2	1.65	1.04
16:P:10:ARG:HH21	16:P:11:THR:CG2	1.69	1.04
10:J:89:GLU:N	10:J:92:MET:SD	2.29	1.04
25:Y:7:ILE:CD1	25:Y:43:LYS:HB3	1.86	1.04
1:A:205:ARG:HG2	1:A:206:ASP:H	0.93	1.04
11:K:96:ARG:HG3	11:K:97:SER:H	1.21	1.04
26:Z:64:ASN:O	26:Z:111:ARG:NH2	1.88	1.04
7:G:157:VAL:HG13	7:G:158:VAL:N	1.64	1.04
22:V:24:ILE:CD1	22:V:25:GLY:N	2.18	1.04
8:H:15:LYS:HB3	8:H:16:PRO:CD	1.84	1.04
8:H:40:LEU:HD23	8:H:43:LEU:CD1	1.81	1.04
4:D:18:LYS:NZ	4:D:37:VAL:HG23	1.71	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:61:ARG:HG3	25:Y:61:ARG:NH2	1.63	1.04
25:Y:21:LYS:HE2	25:Y:77:ASP:OD1	1.57	1.04
25:Y:36:PRO:HG2	25:Y:39:GLU:HG3	1.36	1.04
10:J:18:ARG:HB2	10:J:21:GLU:OE2	1.57	1.04
18:R:122:PRO:HA	18:R:123:THR:CG2	1.86	1.04
24:X:109:GLY:O	24:X:119:ARG:HD3	1.56	1.04
19:S:61:GLU:O	19:S:64:VAL:CG2	2.05	1.04
1:A:205:ARG:HG2	1:A:206:ASP:N	1.72	1.04
1:A:188:THR:HG23	1:A:188:THR:O	1.56	1.04
7:G:226:GLU:O	7:G:230:LYS:NZ	1.91	1.04
12:L:158:PHE:N	12:L:158:PHE:HD2	1.56	1.04
1:A:85:ARG:HH21	1:A:201:LEU:HD12	1.22	1.04
8:H:9:VAL:CG1	8:H:44:ASN:OD1	2.05	1.04
11:K:3:MET:HE1	11:K:8:ARG:CZ	1.86	1.04
10:J:110:LEU:HD12	10:J:130:ILE:HD13	1.36	1.04
10:J:130:ILE:HG12	10:J:135:ILE:HD13	1.36	1.04
20:T:31:PRO:HB3	20:T:33:TRP:CE2	1.91	1.04
8:H:50:GLU:OE2	8:H:58:LYS:HD3	1.57	1.04
21:U:50:VAL:HG21	21:U:52:GLY:HA2	1.05	1.04
2:B:105:LEU:CD1	2:B:110:MET:CE	2.36	1.04
13:M:94:ILE:CG2	13:M:95:ASP:N	2.17	1.04
2:B:19:LYS:O	2:B:21:VAL:CG1	2.05	1.04
7:G:63:MET:HE3	7:G:106:LEU:CD1	1.88	1.04
1:A:32:PHE:HE1	1:A:33:GLN:NE2	1.56	1.04
3:C:149:PRO:HB2	3:C:233:TYR:CD2	1.93	1.04
8:H:145:ARG:HD2	23:W:51:GLU:CG	1.88	1.04
22:V:78:ILE:HD13	22:V:79:VAL:H	1.14	1.04
22:V:40:ASP:CB	22:V:47:ASN:ND2	2.20	1.04
17:Q:93:VAL:HG13	17:Q:105:LYS:CE	1.71	1.04
25:Y:61:ARG:HG3	25:Y:61:ARG:HH21	0.91	1.04
20:T:77:LYS:CG	20:T:92:PHE:CZ	2.34	1.04
25:Y:29:HIS:CE1	25:Y:67:GLY:CA	2.39	1.04
25:Y:36:PRO:CG	25:Y:39:GLU:CG	2.36	1.04
2:B:105:LEU:O	2:B:106:THR:HG23	1.58	1.04
4:D:176:LEU:HD12	4:D:176:LEU:N	1.68	1.04
20:T:111:LYS:CB	20:T:126:GLN:NE2	2.20	1.04
20:T:28:LEU:O	20:T:28:LEU:HD22	1.58	1.04
5:E:208:VAL:CG1	5:E:225:ILE:HD13	1.86	1.04
9:I:194:GLU:CG	12:L:12:LYS:HZ1	1.68	1.04
8:H:144:ILE:HB	23:W:52:ILE:HG22	1.09	1.04
18:R:105:MET:O	18:R:109:LEU:CD1	2.05	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:2:ALA:CB	4:D:3:VAL:CA	2.29	1.04
10:J:67:ASP:OD1	10:J:68:PRO:HD2	1.56	1.04
16:P:123:TYR:CE2	19:S:120:HIS:NE2	2.25	1.04
19:S:120:HIS:CE1	19:S:124:ARG:NH2	2.25	1.04
8:H:146:VAL:CG1	23:W:42:MET:SD	2.46	1.04
2:B:113:MET:SD	2:B:211:PHE:CE2	2.49	1.04
6:F:185:SER:HA	6:F:190:ILE:CG2	1.88	1.04
21:U:18:HIS:HE1	21:U:98:VAL:CG2	1.69	1.04
9:I:154:LYS:HD3	9:I:155:ASN:N	1.72	1.03
8:H:23:ILE:HD13	8:H:27:LEU:HD23	1.34	1.03
11:K:40:VAL:HG22	11:K:41:PRO:O	1.56	1.03
17:Q:58:LEU:CD2	17:Q:111:ILE:HD13	1.84	1.03
6:F:42:LYS:HD3	6:F:42:LYS:N	1.39	1.03
10:J:110:LEU:HD12	10:J:130:ILE:CG1	1.87	1.03
24:X:95:GLU:CG	24:X:140:ARG:HH22	1.70	1.03
16:P:33:LEU:CD2	16:P:87:PRO:HD2	1.84	1.03
23:W:129:PHE:HD1	23:W:129:PHE:O	1.40	1.03
24:X:142:ARG:HH11	24:X:142:ARG:CG	1.65	1.03
14:N:127:ARG:O	14:N:131:THR:HG23	1.58	1.03
3:C:234:SER:O	22:V:23:ILE:CD1	2.06	1.03
18:R:42:PRO:HD2	18:R:43:SER:H	1.22	1.03
12:L:4:ILE:H	12:L:4:ILE:HD12	1.12	1.03
6:F:201:LYS:HD2	6:F:204:ARG:NH2	1.74	1.03
22:V:42:VAL:O	22:V:43:THR:HG23	1.55	1.03
1:A:30:LEU:HD21	1:A:35:GLU:HG3	1.06	1.03
2:B:25:PHE:CD2	15:O:88:LEU:CD1	2.40	1.03
11:K:11:ILE:HG23	11:K:49:MET:CE	1.84	1.03
17:Q:76:GLY:O	17:Q:80:GLN:HG3	1.56	1.03
16:P:53:GLN:HG2	16:P:80:LEU:HD12	1.39	1.03
11:K:14:LEU:CD2	11:K:35:LEU:HD22	1.80	1.03
8:H:93:VAL:CG2	8:H:94:PHE:N	2.13	1.03
19:S:11:HIS:CD2	19:S:23:ARG:NH2	2.23	1.03
26:Z:80:ARG:HG2	26:Z:82:SER:OG	1.56	1.03
9:I:21:TYR:CE2	9:I:22:HIS:CD2	2.47	1.03
17:Q:100:VAL:CG1	17:Q:101:ASP:H	1.72	1.03
5:E:70:ILE:HG12	5:E:92:ILE:HD13	1.37	1.03
16:P:127:LYS:HZ3	16:P:127:LYS:HB2	0.88	1.03
21:U:49:LYS:O	21:U:50:VAL:HG12	1.57	1.03
4:D:218:LEU:HG	4:D:220:THR:HG23	1.05	1.03
16:P:118:GLU:O	19:S:119:ALA:HB1	1.58	1.03
22:V:24:ILE:HG23	22:V:24:ILE:O	1.58	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:45:TYR:O	6:F:47:LYS:HE2	1.56	1.03
6:F:42:LYS:C	6:F:42:LYS:HE3	1.78	1.03
6:F:91:ARG:HH12	6:F:94:LYS:CG	1.72	1.03
25:Y:78:SER:HB2	25:Y:81:TYR:CD2	1.90	1.03
19:S:120:HIS:CD2	19:S:124:ARG:HE	1.73	1.03
6:F:14:THR:HG21	17:Q:56:LEU:CD1	1.88	1.03
13:M:12:MET:HG3	13:M:16:THR:HG23	1.10	1.03
15:O:55:ARG:O	15:O:56:VAL:HG12	1.57	1.03
24:X:107:ARG:O	24:X:110:HIS:CE1	2.12	1.03
7:G:121:ILE:HG23	7:G:122:PRO:HD2	1.39	1.03
7:G:27:PHE:CZ	7:G:41:LEU:HD12	1.94	1.03
8:H:144:ILE:CB	23:W:52:ILE:HG23	1.87	1.03
1:A:118:GLU:OE1	3:C:50:LYS:NZ	1.91	1.03
8:H:23:ILE:HD13	8:H:27:LEU:CD2	1.89	1.03
3:C:197:LYS:CA	3:C:200:LEU:HD23	1.81	1.03
10:J:161:LEU:O	10:J:162:ARG:CB	1.96	1.03
20:T:76:THR:O	20:T:95:GLY:N	1.90	1.03
5:E:248:ILE:O	10:J:72:PHE:HE1	1.42	1.03
19:S:117:ILE:O	19:S:118:ARG:CG	2.07	1.03
23:W:128:PHE:CE1	23:W:130:PHE:CE2	2.45	1.03
18:R:91:LEU:HD13	18:R:92:ASP:HA	1.38	1.03
1:A:145:ILE:HA	1:A:159:ILE:HG22	1.41	1.02
8:H:10:LYS:HE3	8:H:17:ASP:N	1.72	1.02
8:H:144:ILE:HD12	23:W:52:ILE:HG21	1.05	1.02
8:H:16:PRO:HA	8:H:17:ASP:HB2	1.39	1.02
6:F:42:LYS:CB	6:F:45:TYR:N	2.14	1.02
6:F:25:THR:HG23	6:F:41:VAL:CG2	1.89	1.02
17:Q:112:LEU:HD22	17:Q:119:LEU:HD13	1.04	1.02
10:J:127:ARG:HG3	10:J:127:ARG:NH1	1.55	1.02
25:Y:21:LYS:N	25:Y:21:LYS:HD3	1.74	1.02
4:D:112:GLY:CA	4:D:113:LEU:HD12	1.89	1.02
18:R:90:ALA:HB1	18:R:92:ASP:OD2	1.57	1.02
12:L:147:LYS:CG	12:L:148:ALA:CA	2.29	1.02
12:L:4:ILE:H	12:L:4:ILE:CD1	1.68	1.02
1:A:24:HIS:CD2	18:R:105:MET:HE3	1.94	1.02
8:H:146:VAL:HG12	23:W:42:MET:SD	1.99	1.02
3:C:101:THR:CG2	3:C:104:GLY:O	2.06	1.02
17:Q:100:VAL:HG12	17:Q:101:ASP:N	1.68	1.02
5:E:208:VAL:CG2	5:E:225:ILE:CD1	2.28	1.02
2:B:47:THR:HG21	2:B:67:PHE:CZ	1.94	1.02
10:J:161:LEU:O	10:J:162:ARG:HB2	1.52	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:10:ARG:NE	16:P:11:THR:H	1.57	1.02
25:Y:29:HIS:ND1	25:Y:67:GLY:C	2.13	1.02
18:R:122:PRO:HB3	18:R:123:THR:HG21	1.40	1.02
3:C:151:ARG:HH12	3:C:240:LEU:HD11	0.88	1.02
4:D:105:LEU:HD23	4:D:184:ILE:HD12	1.04	1.02
18:R:91:LEU:HB2	18:R:93:GLN:N	1.74	1.02
15:O:56:VAL:CG1	15:O:81:VAL:HG22	1.83	1.02
9:I:7:ASN:O	9:I:9:HIS:O	1.78	1.02
6:F:63:LYS:HD3	6:F:71:ARG:NH1	1.67	1.02
1:A:66:VAL:HG13	1:A:186:ARG:CD	1.90	1.02
3:C:59:LYS:HG3	3:C:254:PHE:CE1	1.94	1.02
6:F:201:LYS:CD	6:F:204:ARG:HH21	1.72	1.02
6:F:42:LYS:HD3	6:F:42:LYS:H	0.88	1.02
11:K:83:LEU:O	11:K:84:HIS:CG	2.12	1.02
17:Q:114:GLN:HG3	17:Q:115:TYR:H	1.20	1.02
17:Q:19:ALA:HB2	17:Q:74:GLY:C	1.78	1.02
3:C:101:THR:HG23	3:C:103:ALA:O	1.59	1.02
4:D:218:LEU:HD23	4:D:218:LEU:O	1.59	1.02
2:B:105:LEU:HD11	2:B:213:ARG:CB	1.89	1.02
20:T:84:ARG:HG3	20:T:84:ARG:HH21	1.22	1.02
3:C:234:SER:HA	22:V:23:ILE:HD12	1.38	1.02
1:A:97:THR:CG2	1:A:98:PRO:CD	2.37	1.02
1:A:66:VAL:CG2	1:A:186:ARG:HD3	1.90	1.02
2:B:52:THR:HG21	14:N:53:ILE:HD12	83.40	1.02
11:K:4:PRO:HG2	11:K:7:ASN:HB2	1.37	1.02
4:D:21:LEU:HD11	4:D:48:ILE:CD1	1.90	1.02
25:Y:63:HIS:ND1	25:Y:64:PHE:HE1	1.58	1.02
19:S:12:ILE:O	19:S:12:ILE:HG22	1.60	1.02
6:F:167:LYS:CD	6:F:171:GLU:CG	2.37	1.02
5:E:153:LEU:HD13	5:E:172:PHE:CE1	1.94	1.01
5:E:70:ILE:HG12	5:E:92:ILE:HD11	1.04	1.01
2:B:48:LEU:HD12	2:B:48:LEU:H	1.22	1.01
15:O:99:ALA:H	15:O:133:THR:HG22	0.85	1.01
22:V:40:ASP:HB3	22:V:47:ASN:ND2	1.74	1.01
10:J:61:LEU:HD22	10:J:98:LEU:HD11	1.02	1.01
25:Y:20:ARG:HD3	25:Y:76:TYR:CZ	1.95	1.01
19:S:39:ARG:HD3	20:T:38:LYS:CE	1.88	1.01
16:P:5:GLU:N	16:P:10:ARG:HH11	1.56	1.01
16:P:53:GLN:CD	16:P:80:LEU:HD13	1.79	1.01
2:B:87:ILE:HG21	2:B:101:HIS:CD2	1.95	1.01
16:P:108:LYS:HB3	16:P:110:GLU:OE1	1.60	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:56:VAL:CG1	15:O:81:VAL:HG23	1.88	1.01
7:G:32:MET:SD	7:G:100:CYS:HA	1.99	1.01
1:A:9:GLN:HB3	1:A:10:MET:SD	2.00	1.01
1:A:11:LYS:HD3	1:A:13:GLU:HG3	1.42	1.01
6:F:59:LYS:HD3	6:F:62:ARG:HD3	1.36	1.01
14:N:27:LYS:H	14:N:27:LYS:CE	1.73	1.01
4:D:112:GLY:C	4:D:113:LEU:CD1	2.28	1.01
4:D:212:GLU:CB	18:R:19:LYS:CD	2.37	1.01
25:Y:92:ALA:CA	25:Y:97:TYR:HB3	1.89	1.01
25:Y:99:LYS:CA	25:Y:99:LYS:CE	2.39	1.01
1:A:24:HIS:HD2	1:A:48:ILE:HG23	1.25	1.01
15:O:54:CYS:SG	15:O:84:ARG:HB3	2.01	1.01
4:D:43:PRO:O	4:D:44:THR:HG23	1.58	1.01
6:F:47:LYS:CG	17:Q:117:ARG:HH22	1.72	1.01
10:J:110:LEU:CD1	10:J:130:ILE:HD13	1.84	1.01
20:T:31:PRO:CB	20:T:33:TRP:CZ2	2.42	1.01
4:D:212:GLU:CG	18:R:19:LYS:HD3	1.90	1.01
4:D:176:LEU:CD1	4:D:176:LEU:H	1.72	1.01
5:E:99:PHE:HE1	5:E:113:ARG:HG3	1.20	1.01
7:G:65:GLN:HA	7:G:100:CYS:SG	1.99	1.01
12:L:7:GLU:CG	12:L:8:ARG:H	1.71	1.01
12:L:95:TYR:CA	12:L:102:PHE:HB3	1.89	1.01
1:A:145:ILE:HD12	1:A:159:ILE:HG21	1.36	1.01
10:J:89:GLU:HA	10:J:92:MET:SD	1.95	1.01
2:B:113:MET:CE	2:B:209:ASP:CG	2.29	1.01
13:M:12:MET:HG3	13:M:16:THR:CG2	1.90	1.01
4:D:212:GLU:CG	18:R:19:LYS:HD2	1.87	1.01
16:P:62:LYS:HG3	16:P:65:LYS:HE2	1.40	1.01
14:N:132:LYS:HE3	14:N:132:LYS:HA	1.02	1.01
20:T:40:ALA:HB3	20:T:43:LYS:HG2	1.01	1.01
2:B:150:ILE:CD1	18:R:126:MET:HB2	1.89	1.01
9:I:82:VAL:HG11	9:I:202:ILE:CD1	1.91	1.01
7:G:76:LEU:HD22	7:G:92:ARG:HG2	1.05	1.01
5:E:139:LEU:CD1	5:E:154:ILE:HG21	1.90	1.01
1:A:127:PRO:HB2	1:A:153:PRO:HG2	1.38	1.01
1:A:127:PRO:HG2	1:A:153:PRO:HD2	1.42	1.01
2:B:137:LEU:HD22	2:B:215:VAL:HG22	1.04	1.01
8:H:138:GLU:OE2	14:N:19:ARG:CB	2.09	1.01
17:Q:85:ARG:HH22	17:Q:117:ARG:HG2	1.19	1.01
24:X:139:GLU:O	24:X:141:PRO:HD3	1.60	1.01
16:P:108:LYS:H	16:P:111:MET:HE3	1.20	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:17:ARG:CG	10:J:18:ARG:CD	2.29	1.01
3:C:155:TRP:CZ2	23:W:97:ARG:HD2	1.95	1.01
4:D:177:LEU:HD22	4:D:182:LEU:HD23	1.43	1.01
9:I:154:LYS:C	9:I:154:LYS:CE	2.29	1.00
12:L:95:TYR:HA	12:L:102:PHE:CB	1.89	1.00
5:E:120:LYS:O	5:E:164:LEU:HB2	1.60	1.00
12:L:156:GLN:OE1	12:L:158:PHE:HE2	1.35	1.00
22:V:41:LYS:O	22:V:43:THR:N	1.94	1.00
25:Y:64:PHE:N	25:Y:64:PHE:CD1	2.29	1.00
13:M:100:PRO:O	13:M:101:ARG:HD2	1.61	1.00
9:I:144:LYS:O	9:I:145:ILE:CG1	2.10	1.00
1:A:118:GLU:OE1	3:C:50:LYS:CE	2.08	1.00
11:K:83:LEU:CD1	11:K:85:LEU:CD2	2.38	1.00
4:D:59:LEU:CD1	4:D:60:GLY:N	2.23	1.00
10:J:170:PRO:HB2	10:J:174:LYS:HE2	1.42	1.00
25:Y:35:VAL:HG12	25:Y:36:PRO:HD2	1.42	1.00
26:Z:52:LYS:O	26:Z:55:TYR:N	1.93	1.00
16:P:127:LYS:HZ2	16:P:128:HIS:N	1.56	1.00
5:E:129:ILE:HG13	5:E:139:LEU:HD22	1.34	1.00
12:L:147:LYS:CD	12:L:147:LYS:C	2.30	1.00
17:Q:9:SER:HB2	17:Q:26:LYS:HG3	1.35	1.00
8:H:169:LYS:HB2	8:H:173:PHE:CE2	1.95	1.00
1:A:32:PHE:CE1	1:A:33:GLN:NE2	2.28	1.00
14:N:54:LEU:HB3	14:N:60:VAL:HG21	1.39	1.00
6:F:42:LYS:CE	6:F:42:LYS:C	2.29	1.00
6:F:42:LYS:H	6:F:42:LYS:CD	1.73	1.00
11:K:62:PHE:CE1	11:K:67:PHE:CE2	2.50	1.00
6:F:91:ARG:HH11	6:F:94:LYS:HB3	1.23	1.00
11:K:83:LEU:CG	11:K:85:LEU:HD21	1.90	1.00
24:X:27:TYR:CD1	24:X:31:HIS:NE2	2.30	1.00
10:J:79:ARG:NH1	10:J:83:ARG:CZ	2.23	1.00
5:E:128:LYS:CD	5:E:130:PHE:CE1	2.44	1.00
21:U:50:VAL:HG22	21:U:51:LYS:O	1.60	1.00
24:X:142:ARG:HH11	24:X:142:ARG:HB2	1.19	1.00
3:C:195:PRO:CG	3:C:221:PHE:CZ	2.44	1.00
13:M:77:ILE:HG23	13:M:78:LYS:H	1.27	1.00
10:J:100:LEU:HG	10:J:101:LYS:N	1.73	1.00
17:Q:100:VAL:HG12	17:Q:101:ASP:H	0.86	1.00
2:B:125:VAL:HG11	2:B:173:THR:HG22	1.43	1.00
4:D:76:ARG:HD3	11:K:66:HIS:HE1	1.25	1.00
11:K:2:LEU:O	11:K:3:MET:HB3	1.58	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:127:ARG:HH12	10:J:145:PRO:HB2	1.23	1.00
25:Y:60:PHE:C	25:Y:61:ARG:HD2	1.82	1.00
9:I:206:LYS:HD2	9:I:207:GLY:H	1.24	1.00
7:G:176:ILE:HG22	7:G:179:LEU:CB	1.91	1.00
21:U:64:THR:HG22	21:U:79:ARG:CG	1.91	1.00
25:Y:18:LEU:CG	25:Y:20:ARG:NH1	2.25	1.00
8:H:83:LEU:HD13	8:H:92:VAL:CB	1.86	1.00
10:J:100:LEU:HD12	10:J:104:ASP:OD2	1.62	1.00
2:B:179:ASN:CG	2:B:183:GLU:OE1	1.99	1.00
9:I:118:ALA:O	9:I:119:LEU:HD23	1.61	1.00
9:I:141:ARG:HD3	9:I:144:LYS:CB	1.92	1.00
14:N:21:SER:O	14:N:22:VAL:HG22	1.61	1.00
10:J:92:MET:O	10:J:93:LYS:CE	2.10	1.00
4:D:2:ALA:HB1	4:D:3:VAL:C	1.82	1.00
11:K:21:MET:HE1	11:K:49:MET:SD	1.99	1.00
20:T:103:VAL:O	20:T:107:LEU:HG	1.62	1.00
16:P:53:GLN:HE21	16:P:80:LEU:HD13	1.26	1.00
16:P:46:SER:O	16:P:49:LEU:HD22	1.61	1.00
9:I:79:ILE:HG22	9:I:103:LEU:O	1.63	0.99
12:L:10:TYR:HD2	12:L:12:LYS:NZ	1.54	0.99
18:R:100:PRO:HB2	18:R:119:VAL:CG2	1.91	0.99
19:S:39:ARG:NE	20:T:38:LYS:CE	2.06	0.99
9:I:19:LYS:HE2	9:I:20:PRO:HD2	1.39	0.99
18:R:13:ALA:CB	18:R:54:VAL:HG22	1.92	0.99
14:N:21:SER:O	14:N:22:VAL:HG13	1.61	0.99
17:Q:93:VAL:HG13	17:Q:105:LYS:HD3	1.41	0.99
16:P:44:ARG:NH2	16:P:84:ILE:N	2.09	0.99
25:Y:36:PRO:HG2	25:Y:39:GLU:CB	1.91	0.99
16:P:111:MET:O	16:P:114:HIS:CD2	2.15	0.99
11:K:98:ARG:HH11	11:K:98:ARG:HG2	1.26	0.99
21:U:18:HIS:HE1	21:U:98:VAL:HG21	1.23	0.99
7:G:188:LYS:HA	7:G:191:ARG:HD3	1.44	0.99
2:B:55:THR:O	2:B:56:LYS:HD2	1.62	0.99
15:O:54:CYS:SG	15:O:84:ARG:CB	2.51	0.99
6:F:14:THR:HB	17:Q:56:LEU:HD13	1.43	0.99
16:P:46:SER:O	16:P:49:LEU:CD2	2.11	0.99
13:M:70:ALA:HB3	13:M:71:GLU:OE2	1.61	0.99
2:B:31:TYR:HD1	2:B:94:LYS:HA	1.27	0.99
5:E:49:ARG:CD	5:E:49:ARG:C	2.30	0.99
2:B:87:ILE:CD1	2:B:101:HIS:HD2	1.74	0.99
19:S:46:ARG:CG	20:T:50:GLU:OE2	2.09	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:19:ARG:HG3	21:U:92:HIS:CE1	1.95	0.99
7:G:25:ARG:CG	7:G:28:TYR:CE2	2.45	0.99
1:A:24:HIS:CD2	18:R:105:MET:HE2	1.95	0.99
3:C:155:TRP:CZ2	23:W:97:ARG:CD	2.45	0.99
7:G:32:MET:HE2	7:G:63:MET:SD	2.03	0.99
7:G:63:MET:HE1	7:G:106:LEU:CD1	1.89	0.99
12:L:104:LYS:HE2	12:L:104:LYS:HA	4.48	0.99
1:A:43:SER:C	1:A:44:ASP:OD1	1.99	0.99
25:Y:63:HIS:ND1	25:Y:64:PHE:CE1	2.30	0.99
18:R:20:TYR:CE2	18:R:38:ILE:HB	1.96	0.99
24:X:114:ASP:O	24:X:116:PRO:CD	2.10	0.99
21:U:50:VAL:HG13	21:U:51:LYS:N	1.74	0.99
7:G:142:ARG:HG3	7:G:142:ARG:HH11	1.26	0.99
12:L:146:THR:O	12:L:147:LYS:CB	2.04	0.99
1:A:24:HIS:CD2	1:A:48:ILE:HG23	1.95	0.99
1:A:118:GLU:HB3	3:C:50:LYS:HZ1	0.83	0.99
4:D:21:LEU:HD11	4:D:48:ILE:HD12	1.01	0.99
6:F:73:THR:CG2	6:F:93:VAL:HG21	1.91	0.99
17:Q:93:VAL:HG13	17:Q:105:LYS:HE2	1.31	0.99
16:P:84:ILE:O	16:P:86:LEU:HD23	1.59	0.99
24:X:29:LYS:CD	24:X:34:THR:OG1	2.11	0.99
10:J:138:ARG:HH11	10:J:156:HIS:CE1	1.78	0.99
2:B:20:LYS:C	2:B:21:VAL:CG1	2.29	0.99
11:K:65:ARG:HH11	11:K:65:ARG:CB	1.75	0.99
10:J:39:ASN:H	10:J:42:GLU:HG2	1.26	0.99
16:P:9:LYS:C	16:P:10:ARG:HG3	1.82	0.99
16:P:123:TYR:OH	19:S:124:ARG:CZ	2.11	0.99
16:P:127:LYS:HE3	16:P:127:LYS:O	1.61	0.99
21:U:51:LYS:HB2	21:U:90:ASP:HB2	1.40	0.99
3:C:195:PRO:CB	3:C:221:PHE:CZ	2.36	0.99
5:E:47:PHE:CE2	5:E:52:LEU:CD1	2.46	0.99
3:C:234:SER:CA	22:V:23:ILE:CD1	2.41	0.99
2:B:136:HIS:CE1	2:B:138:PHE:CZ	2.50	0.99
1:A:119:PRO:HG2	1:A:142:LEU:HD13	1.44	0.99
1:A:57:LYS:CE	22:V:70:LEU:CD1	2.41	0.99
6:F:18:LYS:HE3	17:Q:115:TYR:CD1	1.96	0.99
16:P:9:LYS:O	16:P:10:ARG:CG	2.11	0.99
16:P:107:ILE:HA	16:P:111:MET:SD	2.01	0.99
2:B:205:TYR:CG	2:B:206:PRO:HD2	1.98	0.99
19:S:16:LEU:O	19:S:17:ASN:CG	2.00	0.99
21:U:50:VAL:CG2	21:U:52:GLY:HA2	1.91	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:9:SER:HB3	17:Q:26:LYS:HG2	1.40	0.99
1:A:10:MET:SD	1:A:10:MET:N	2.30	0.99
18:R:99:ASP:O	18:R:119:VAL:CG1	2.03	0.99
4:D:132:LYS:N	4:D:191:PRO:CD	2.25	0.99
16:P:52:LYS:H	16:P:54:HIS:CD2	1.81	0.99
2:B:150:ILE:HG13	18:R:124:VAL:CG1	1.93	0.99
4:D:67:ARG:HG3	4:D:67:ARG:HH11	1.28	0.99
2:B:179:ASN:OD1	2:B:183:GLU:OE1	1.80	0.99
9:I:139:LYS:CB	9:I:145:ILE:HD11	1.92	0.98
24:X:71:ARG:HE	24:X:82:THR:CG2	1.75	0.98
17:Q:7:LEU:CD2	17:Q:8:GLN:OE1	2.12	0.98
2:B:68:GLU:OE2	2:B:83:LYS:HE2	1.64	0.98
19:S:6:PRO:HA	26:Z:50:PHE:CB	1.93	0.98
15:O:19:PRO:HG2	15:O:27:VAL:HG21	1.01	0.98
4:D:2:ALA:CB	4:D:3:VAL:C	2.29	0.98
5:E:248:ILE:CD1	10:J:72:PHE:CD1	2.44	0.98
19:S:14:ARG:HH12	19:S:17:ASN:HA	0.85	0.98
25:Y:114:MET:CA	25:Y:124:ASN:ND2	2.25	0.98
1:A:66:VAL:CG1	1:A:186:ARG:HB3	1.92	0.98
1:A:118:GLU:OE1	3:C:50:LYS:HE2	1.62	0.98
6:F:136:ARG:O	6:F:203:ASN:HB3	1.62	0.98
19:S:31:THR:HA	19:S:36:VAL:HG22	1.44	0.98
26:Z:48:VAL:O	26:Z:83:LEU:CD1	2.12	0.98
9:I:161:LEU:CD1	9:I:199:LEU:HD12	1.85	0.98
24:X:60:LYS:CE	24:X:116:PRO:HG3	1.92	0.98
4:D:105:LEU:HD23	4:D:184:ILE:CD1	1.92	0.98
6:F:42:LYS:C	6:F:42:LYS:CD	2.29	0.98
4:D:158:ILE:HD11	4:D:189:MET:HE1	0.99	0.98
19:S:8:LYS:HD3	19:S:9:PHE:HE1	0.84	0.98
17:Q:42:ILE:HD13	17:Q:51:LEU:CG	1.93	0.98
2:B:113:MET:HE3	2:B:209:ASP:CG	1.83	0.98
7:G:50:VAL:HG13	7:G:111:LEU:HB3	1.45	0.98
12:L:22:ARG:NH1	12:L:22:ARG:HB3	1.79	0.98
3:C:55:VAL:CG2	3:C:82:PHE:CE2	2.46	0.98
2:B:67:PHE:CE1	15:O:47:LEU:C	2.37	0.98
11:K:27:VAL:HG13	11:K:43:LEU:HD21	1.43	0.98
5:E:61:VAL:O	5:E:65:CYS:SG	2.22	0.98
16:P:123:TYR:CZ	19:S:124:ARG:NH1	2.11	0.98
23:W:11:LEU:HD12	23:W:74:VAL:HB	1.45	0.98
16:P:127:LYS:HZ3	16:P:127:LYS:CB	1.75	0.98
23:W:85:ASP:O	23:W:89:TRP:HD1	1.47	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:185:MET:O	1:A:186:ARG:C	2.01	0.98
2:B:77:ASP:O	2:B:79:VAL:HG22	1.64	0.98
20:T:76:THR:HB	20:T:95:GLY:O	1.62	0.98
4:D:193:ASP:HA	4:D:202:LYS:O	1.61	0.98
11:K:18:GLU:O	11:K:92:ALA:HB3	1.60	0.98
7:G:76:LEU:CD2	7:G:92:ARG:CG	2.41	0.98
7:G:84:TYR:CE2	7:G:86:PRO:HG3	1.99	0.98
17:Q:9:SER:HB2	17:Q:26:LYS:HE3	1.01	0.98
6:F:122:ARG:NE	6:F:193:LYS:NZ	2.10	0.98
20:T:31:PRO:HB3	20:T:33:TRP:CH2	1.97	0.98
4:D:197:LYS:CB	4:D:198:ILE:CG2	2.30	0.98
20:T:75:MET:HE3	20:T:79:TYR:CE2	1.98	0.98
4:D:48:ILE:CG2	4:D:86:LEU:HG	1.94	0.98
17:Q:21:ALA:HB2	17:Q:72:VAL:HG22	1.45	0.98
8:H:93:VAL:HG22	8:H:94:PHE:H	1.28	0.98
2:B:160:GLN:NE2	2:B:205:TYR:HD1	1.58	0.98
2:B:137:LEU:HD23	2:B:215:VAL:HG13	1.44	0.97
8:H:144:ILE:HD12	23:W:52:ILE:HD13	1.42	0.97
12:L:10:TYR:HE2	12:L:12:LYS:HE3	1.27	0.97
12:L:7:GLU:HG3	12:L:8:ARG:HG3	1.46	0.97
12:L:7:GLU:HG3	12:L:8:ARG:H	1.26	0.97
15:O:31:CYS:CB	15:O:95:ILE:HG12	1.92	0.97
6:F:20:PHE:O	6:F:22:LYS:CA	2.10	0.97
11:K:34:GLU:O	11:K:35:LEU:CB	2.11	0.97
19:S:8:LYS:CB	19:S:9:PHE:CD1	2.37	0.97
6:F:112:LEU:HD23	6:F:116:ILE:HD11	1.45	0.97
6:F:73:THR:HG22	6:F:93:VAL:CG2	1.93	0.97
11:K:15:LEU:HD13	11:K:21:MET:HE2	1.42	0.97
4:D:126:ILE:CD1	4:D:134:CYS:SG	2.52	0.97
2:B:19:LYS:HB2	2:B:19:LYS:HZ3	1.23	0.97
25:Y:13:MET:HE2	25:Y:14:THR:O	1.63	0.97
14:N:22:VAL:CB	14:N:23:PRO:HA	1.95	0.97
6:F:91:ARG:HH11	6:F:94:LYS:HB2	1.07	0.97
11:K:62:PHE:CD1	11:K:67:PHE:CZ	2.51	0.97
5:E:248:ILE:C	10:J:72:PHE:HE1	1.67	0.97
4:D:108:LYS:HB3	4:D:113:LEU:HD22	1.41	0.97
2:B:36:PRO:HB3	2:B:231:LEU:HD21	1.00	0.97
22:V:11:LEU:HD12	22:V:12:TYR:HD2	0.93	0.97
10:J:170:PRO:CB	10:J:174:LYS:HE2	1.95	0.97
8:H:83:LEU:HD11	8:H:92:VAL:CB	1.92	0.97
19:S:14:ARG:NH1	19:S:17:ASN:CA	2.25	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:60:LYS:HG3	24:X:116:PRO:HG3	1.44	0.97
17:Q:92:LEU:CG	17:Q:96:TYR:HE2	1.76	0.97
12:L:80:MET:SD	12:L:120:VAL:HG12	2.04	0.97
1:A:145:ILE:HD13	1:A:159:ILE:HG21	1.41	0.97
22:V:19:ALA:HB3	22:V:59:ILE:CD1	1.95	0.97
17:Q:58:LEU:HD13	17:Q:108:ILE:HG23	1.44	0.97
25:Y:63:HIS:CB	25:Y:64:PHE:CE1	2.47	0.97
4:D:192:TRP:CE3	4:D:196:GLY:HA2	1.72	0.97
16:P:51:ARG:N	16:P:51:ARG:HD2	1.77	0.97
18:R:120:THR:O	18:R:121:GLN:HB2	1.61	0.97
10:J:138:ARG:NH1	10:J:156:HIS:CG	2.31	0.97
16:P:118:GLU:O	19:S:119:ALA:CB	2.11	0.97
6:F:25:THR:HG23	6:F:41:VAL:HG23	1.41	0.97
6:F:42:LYS:HE3	6:F:43:GLU:N	1.78	0.97
25:Y:48:TYR:O	25:Y:50:THR:HG23	1.61	0.97
3:C:126:MET:HE1	3:C:223:LYS:HZ2	1.30	0.97
8:H:163:GLN:OE1	8:H:189:PHE:HE2	1.38	0.97
17:Q:50:LYS:HA	17:Q:53:GLU:CD	1.85	0.97
26:Z:44:LEU:CD1	26:Z:44:LEU:C	2.30	0.97
9:I:5:ARG:HH11	9:I:5:ARG:HG2	1.28	0.97
13:M:13:ASP:O	13:M:16:THR:N	1.97	0.97
13:M:76:LEU:O	13:M:128:PHE:CZ	2.18	0.97
10:J:165:TYR:N	10:J:165:TYR:HD1	1.60	0.97
24:X:51:VAL:HG13	24:X:70:VAL:HG13	1.47	0.97
12:L:20:LYS:O	12:L:21:LYS:HB2	1.62	0.97
2:B:19:LYS:O	2:B:21:VAL:HG13	1.61	0.97
20:T:143:LYS:O	20:T:144:LYS:HB3	1.62	0.97
7:G:176:ILE:HB	7:G:179:LEU:HD23	1.00	0.97
7:G:212:LEU:HA	7:G:215:LYS:CE	1.95	0.97
22:V:18:SER:OG	22:V:72:LEU:CD1	2.13	0.97
10:J:117:LEU:O	10:J:119:LEU:HD23	1.62	0.97
13:M:89:VAL:HG21	13:M:109:VAL:HG11	1.45	0.97
21:U:18:HIS:ND1	21:U:93:SER:O	1.98	0.97
2:B:125:VAL:HG11	2:B:173:THR:CG2	1.95	0.97
12:L:147:LYS:HG3	12:L:148:ALA:HA	1.23	0.96
19:S:85:ASN:OD1	19:S:97:GLN:HA	1.65	0.96
19:S:46:ARG:CZ	20:T:50:GLU:CG	2.43	0.96
13:M:12:MET:CG	13:M:16:THR:HG23	1.95	0.96
2:B:20:LYS:O	2:B:21:VAL:CG1	2.12	0.96
12:L:97:ARG:O	12:L:99:TYR:N	1.97	0.96
1:A:42:LYS:CD	18:R:101:ASP:CB	2.42	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:138:GLY:O	3:C:141:ILE:CG2	2.13	0.96
25:Y:62:THR:HG22	25:Y:69:THR:HG22	1.46	0.96
9:I:161:LEU:HD11	9:I:199:LEU:HD12	0.98	0.96
13:M:98:GLY:O	13:M:100:PRO:CD	2.13	0.96
6:F:185:SER:CA	6:F:190:ILE:HG21	1.95	0.96
5:E:122:LYS:CG	5:E:164:LEU:HD21	1.95	0.96
17:Q:8:GLN:HG3	17:Q:99:TYR:CE1	1.76	0.96
1:A:186:ARG:CG	1:A:186:ARG:HH11	1.78	0.96
6:F:122:ARG:HE	6:F:193:LYS:HZ1	1.12	0.96
8:H:36:LEU:C	8:H:36:LEU:CD1	2.29	0.96
6:F:76:MET:HE2	6:F:169:ILE:HG21	1.44	0.96
18:R:22:THR:HG22	18:R:73:LEU:CD1	1.95	0.96
24:X:29:LYS:CD	24:X:34:THR:HG21	1.94	0.96
4:D:212:GLU:CB	18:R:19:LYS:HD2	1.95	0.96
9:I:10:LYS:HG3	9:I:11:ARG:N	1.78	0.96
20:T:75:MET:CE	20:T:79:TYR:HE2	1.77	0.96
8:H:144:ILE:O	23:W:51:GLU:HA	1.65	0.96
11:K:84:HIS:CE1	11:K:85:LEU:HA	2.01	0.96
16:P:41:GLN:HE22	16:P:45:LEU:HG	0.81	0.96
20:T:77:LYS:CA	20:T:94:ARG:HG2	1.96	0.96
8:H:122:LEU:HD13	8:H:123:THR:CA	1.95	0.96
9:I:114:GLU:OE1	9:I:133:GLU:CD	1.93	0.96
3:C:244:THR:CG2	3:C:246:PHE:CA	2.43	0.96
4:D:21:LEU:CD1	4:D:48:ILE:CD1	2.42	0.96
26:Z:92:LEU:HD11	26:Z:109:TYR:CE1	2.00	0.96
23:W:7:LEU:HD11	23:W:33:VAL:HG11	1.46	0.96
12:L:7:GLU:HG3	12:L:8:ARG:N	1.79	0.96
1:A:103:PHE:HE2	1:A:136:GLU:CD	1.68	0.96
2:B:57:ILE:O	2:B:57:ILE:HG23	1.62	0.96
17:Q:42:ILE:HG21	17:Q:51:LEU:HD21	1.46	0.96
25:Y:18:LEU:CG	25:Y:20:ARG:HH11	1.76	0.96
6:F:14:THR:CB	17:Q:56:LEU:CB	2.42	0.96
16:P:59:ARG:HD3	16:P:76:VAL:HG13	1.47	0.96
5:E:70:ILE:CG1	5:E:92:ILE:HD11	1.84	0.96
7:G:64:LYS:CD	7:G:67:VAL:HG13	1.94	0.96
1:A:17:LYS:N	1:A:17:LYS:HE2	1.79	0.96
3:C:142:LEU:CA	3:C:145:LEU:HD21	1.94	0.96
21:U:67:LYS:CE	21:U:78:ASP:OD1	2.13	0.96
8:H:147:LYS:HE2	8:H:153:LEU:HD12	1.46	0.96
5:E:159:THR:HG23	5:E:227:VAL:HG23	1.25	0.96
9:I:194:GLU:HG2	12:L:12:LYS:HZ1	0.81	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:50:LEU:HD12	10:J:102:ILE:HD13	1.45	0.96
24:X:52:LEU:CD2	24:X:71:ARG:HB3	1.95	0.96
21:U:40:ILE:HD11	21:U:53:PRO:CB	1.94	0.96
14:N:12:SER:O	14:N:13:GLN:HG3	1.65	0.96
9:I:136:ILE:HG22	9:I:139:LYS:HE3	1.48	0.96
3:C:149:PRO:HB2	3:C:233:TYR:CE2	2.00	0.96
6:F:93:VAL:O	6:F:97:PHE:HD1	1.41	0.96
11:K:62:PHE:HD1	11:K:67:PHE:CE2	1.77	0.96
20:T:143:LYS:HD2	20:T:144:LYS:H	1.26	0.96
5:E:166:THR:O	5:E:168:LYS:HD3	1.66	0.96
6:F:25:THR:HG22	6:F:42:LYS:HD2	0.97	0.96
10:J:61:LEU:HD13	10:J:94:LEU:HD13	1.48	0.96
19:S:26:ILE:HD11	19:S:59:LEU:HD21	1.46	0.96
21:U:50:VAL:CG2	21:U:51:LYS:C	2.34	0.96
7:G:157:VAL:CG1	7:G:159:ARG:HG2	1.96	0.95
9:I:154:LYS:HG3	9:I:155:ASN:N	1.80	0.95
4:D:70:THR:CG2	4:D:86:LEU:HD13	1.96	0.95
17:Q:72:VAL:HG21	17:Q:84:ILE:CG2	1.96	0.95
21:U:67:LYS:CG	21:U:78:ASP:OD2	2.13	0.95
25:Y:36:PRO:HG3	25:Y:39:GLU:CD	1.86	0.95
5:E:130:PHE:HB3	5:E:138:HIS:CE1	2.00	0.95
25:Y:99:LYS:CE	25:Y:99:LYS:N	2.29	0.95
24:X:142:ARG:CB	24:X:142:ARG:NH1	2.29	0.95
14:N:115:LEU:O	14:N:119:GLU:CG	2.13	0.95
5:E:38:LEU:C	5:E:38:LEU:CD1	2.33	0.95
20:T:84:ARG:HH21	20:T:84:ARG:CB	1.77	0.95
5:E:86:PHE:HZ	5:E:182:MET:CE	1.79	0.95
7:G:157:VAL:CG1	7:G:159:ARG:CG	2.44	0.95
7:G:162:LEU:HD12	7:G:162:LEU:O	1.66	0.95
17:Q:8:GLN:HG2	17:Q:99:TYR:CE1	1.84	0.95
11:K:83:LEU:HD12	11:K:85:LEU:HD21	1.45	0.95
20:T:77:LYS:HA	20:T:94:ARG:HG2	1.47	0.95
3:C:93:LYS:HD2	3:C:218:LEU:HD22	0.95	0.95
19:S:33:ILE:HB	19:S:36:VAL:HG11	1.49	0.95
6:F:103:LEU:HD23	6:F:103:LEU:O	4.25	0.95
9:I:62:VAL:CG2	9:I:75:LYS:CE	2.45	0.95
1:A:176:TRP:HZ2	1:A:195:TRP:HE3	1.12	0.95
1:A:94:THR:HG21	1:A:182:VAL:HG21	1.45	0.95
8:H:144:ILE:CG1	23:W:52:ILE:HG23	1.97	0.95
22:V:24:ILE:C	22:V:24:ILE:CD1	2.29	0.95
22:V:18:SER:OG	22:V:72:LEU:HD11	1.66	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:37:LEU:CD2	10:J:42:GLU:HB2	1.95	0.95
5:E:248:ILE:C	10:J:72:PHE:CE1	2.39	0.95
26:Z:92:LEU:HD21	26:Z:109:TYR:CE1	2.02	0.95
22:V:9:VAL:HG12	22:V:10:ASP:N	1.76	0.95
9:I:7:ASN:O	9:I:9:HIS:N	2.00	0.95
7:G:121:ILE:CG2	7:G:122:PRO:HD3	1.91	0.95
7:G:67:VAL:HG21	7:G:99:GLY:HA2	1.45	0.95
9:I:155:ASN:C	12:L:22:ARG:HD2	1.87	0.95
25:Y:122:LYS:HD3	25:Y:123:ALA:N	1.79	0.95
1:A:34:MET:CE	1:A:37:TYR:CD2	2.49	0.95
4:D:59:LEU:HD12	4:D:60:GLY:H	1.27	0.95
17:Q:50:LYS:HZ1	17:Q:117:ARG:HD2	0.80	0.95
10:J:127:ARG:HG3	10:J:127:ARG:HH11	0.79	0.95
26:Z:77:LEU:O	26:Z:78:LYS:HG2	1.66	0.95
2:B:113:MET:CE	2:B:211:PHE:CZ	2.39	0.95
24:X:74:LEU:HD11	24:X:81:ILE:HD12	1.47	0.95
7:G:32:MET:HE1	7:G:100:CYS:HA	0.99	0.95
8:H:8:ILE:HG23	8:H:9:VAL:HG22	0.98	0.95
17:Q:135:PRO:CG	17:Q:141:TYR:HE1	1.78	0.95
2:B:20:LYS:C	2:B:21:VAL:HG13	1.87	0.95
9:I:141:ARG:O	9:I:143:LYS:HB3	1.65	0.95
11:K:3:MET:SD	11:K:8:ARG:NH2	2.34	0.95
10:J:169:ARG:CB	10:J:170:PRO:HD2	1.96	0.95
19:S:42:HIS:HD2	20:T:45:LEU:CD1	1.52	0.95
10:J:28:GLU:OE1	10:J:40:LYS:CD	2.14	0.95
26:Z:112:ASN:O	26:Z:113:THR:CG2	2.13	0.95
16:P:49:LEU:CA	16:P:51:ARG:HG3	1.96	0.95
3:C:101:THR:HG22	3:C:104:GLY:C	1.84	0.95
20:T:84:ARG:NH2	20:T:84:ARG:CB	2.29	0.95
5:E:48:LEU:HD21	5:E:70:ILE:CD1	1.95	0.95
7:G:142:ARG:CG	7:G:142:ARG:HH11	1.79	0.95
3:C:110:LYS:HE2	3:C:112:PHE:HZ	1.15	0.95
3:C:50:LYS:HD3	3:C:251:TYR:HE1	1.30	0.95
18:R:99:ASP:HA	18:R:119:VAL:HG12	1.49	0.95
22:V:64:GLU:O	22:V:66:ASP:N	1.99	0.95
10:J:70:ARG:NH2	10:J:94:LEU:HD21	1.80	0.95
4:D:157:MET:HE3	4:D:187:LYS:CD	1.94	0.95
4:D:177:LEU:CD2	4:D:182:LEU:CD2	2.42	0.95
4:D:226:GLN:O	4:D:227:LYS:HG3	1.67	0.95
9:I:154:LYS:CG	9:I:155:ASN:N	2.30	0.95
1:A:76:VAL:HG21	1:A:90:PHE:HD2	1.31	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:55:THR:O	4:D:58:VAL:CG2	2.15	0.95
10:J:115:PHE:CD1	10:J:122:SER:N	2.34	0.95
10:J:37:LEU:CG	10:J:42:GLU:CB	2.44	0.95
25:Y:7:ILE:CD1	25:Y:43:LYS:HG2	1.95	0.95
26:Z:94:LYS:HD3	26:Z:94:LYS:C	1.84	0.95
8:H:115:LYS:O	8:H:116:ARG:HB3	1.65	0.95
12:L:149:ALA:CA	12:L:156:GLN:HE21	1.79	0.95
12:L:35:ARG:HH21	12:L:63:THR:HG21	1.26	0.95
1:A:186:ARG:HG2	1:A:186:ARG:NH1	1.67	0.95
2:B:57:ILE:O	2:B:60:ASP:N	1.99	0.95
6:F:71:ARG:HH21	6:F:71:ARG:CG	1.80	0.95
15:O:44:VAL:HG21	15:O:93:LEU:HD13	1.45	0.95
3:C:197:LYS:HA	3:C:200:LEU:HD21	0.96	0.95
17:Q:42:ILE:HG21	17:Q:51:LEU:HD23	1.48	0.95
16:P:41:GLN:NE2	16:P:84:ILE:CB	2.19	0.95
18:R:44:LYS:CG	18:R:47:ARG:CZ	2.44	0.95
24:X:115:ILE:HG22	24:X:115:ILE:O	1.65	0.95
13:M:18:LEU:HD22	13:M:22:LEU:HG	1.49	0.95
25:Y:7:ILE:CD1	25:Y:43:LYS:CB	2.43	0.95
7:G:41:LEU:CD2	7:G:45:TRP:HZ3	1.36	0.95
9:I:154:LYS:C	9:I:154:LYS:CD	2.30	0.95
3:C:115:ILE:HD11	3:C:140:ILE:HG23	1.45	0.95
8:H:37:LYS:HE2	8:H:41:ARG:NH1	1.81	0.95
17:Q:135:PRO:HD3	17:Q:141:TYR:CD1	2.02	0.95
10:J:170:PRO:CG	10:J:175:ARG:HG2	1.93	0.95
3:C:186:GLY:HA3	10:J:54:ARG:NH2	1.82	0.95
20:T:77:LYS:HB2	20:T:94:ARG:CG	1.96	0.95
20:T:102:ARG:NH2	20:T:105:GLN:OE1	2.00	0.95
10:J:16:PRO:HD2	10:J:44:TRP:CZ2	2.01	0.95
9:I:69:SER:HB2	12:L:19:ASN:HD21	0.87	0.95
19:S:137:LYS:C	19:S:141:ARG:HH21	1.69	0.95
20:T:63:HIS:O	20:T:67:ARG:HD2	1.67	0.95
2:B:153:THR:HG23	2:B:154:SER:N	1.79	0.95
25:Y:13:MET:HE2	25:Y:14:THR:N	1.80	0.95
1:A:34:MET:HE1	1:A:37:TYR:CE2	2.01	0.94
4:D:3:VAL:O	4:D:3:VAL:HG12	1.65	0.94
21:U:111:GLU:HA	21:U:111:GLU:OE1	1.65	0.94
10:J:46:VAL:HG11	10:J:106:LEU:CD1	1.97	0.94
16:P:33:LEU:HD21	16:P:87:PRO:HD3	0.97	0.94
18:R:5:ARG:CB	18:R:10:LYS:NZ	2.22	0.94
1:A:30:LEU:HD11	1:A:38:ILE:CD1	1.91	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:22:VAL:HB	14:N:23:PRO:CA	1.97	0.94
4:D:70:THR:HG22	4:D:86:LEU:CD1	1.97	0.94
17:Q:19:ALA:HB1	17:Q:80:GLN:HE21	1.31	0.94
10:J:127:ARG:NH1	10:J:145:PRO:HB2	1.81	0.94
10:J:165:TYR:N	10:J:165:TYR:CD1	2.27	0.94
25:Y:12:PHE:CZ	25:Y:21:LYS:CB	2.49	0.94
19:S:8:LYS:O	26:Z:49:LEU:HD22	1.67	0.94
12:L:118:ARG:C	12:L:118:ARG:CD	2.31	0.94
8:H:57:ARG:HD2	8:H:89:GLY:O	1.67	0.94
3:C:260:LYS:CD	3:C:261:THR:HG22	1.97	0.94
25:Y:13:MET:HE2	25:Y:14:THR:C	1.87	0.94
9:I:107:THR:OG1	9:I:108:PRO:HD3	1.66	0.94
17:Q:9:SER:CB	17:Q:26:LYS:CE	2.43	0.94
2:B:36:PRO:HB3	2:B:231:LEU:CD2	1.96	0.94
18:R:100:PRO:O	18:R:103:LYS:N	1.90	0.94
16:P:33:LEU:HD23	16:P:87:PRO:CD	1.98	0.94
12:L:17:PHE:CE1	12:L:18:GLN:HB2	2.01	0.94
21:U:41:ARG:O	21:U:45:GLU:HB2	1.65	0.94
24:X:105:PHE:HE2	24:X:119:ARG:HA	0.86	0.94
3:C:50:LYS:HD3	3:C:251:TYR:CE1	1.98	0.94
8:H:10:LYS:CE	8:H:17:ASP:N	2.28	0.94
10:J:122:SER:OG	10:J:124:HIS:CB	2.15	0.94
10:J:37:LEU:CD1	10:J:42:GLU:CB	2.42	0.94
16:P:114:HIS:NE2	19:S:113:ARG:NH1	2.13	0.94
13:M:12:MET:HE3	13:M:120:ALA:HB2	1.49	0.94
14:N:99:ARG:HH21	14:N:115:LEU:HD21	1.26	0.94
23:W:104:LEU:HD11	23:W:106:THR:CG2	1.97	0.94
23:W:3:ARG:NH2	23:W:9:ASP:OD2	2.01	0.94
7:G:155:GLN:O	7:G:156:TYR:CD1	2.21	0.94
9:I:62:VAL:HG21	9:I:75:LYS:NZ	1.82	0.94
2:B:30:TRP:HE1	15:O:17:LEU:CD2	1.79	0.94
6:F:47:LYS:CG	17:Q:117:ARG:NH2	2.30	0.94
10:J:134:HIS:CE1	10:J:163:SER:CB	2.41	0.94
24:X:51:VAL:CG1	24:X:70:VAL:HG11	1.96	0.94
6:F:14:THR:HG23	17:Q:56:LEU:HD22	1.50	0.94
16:P:127:LYS:C	16:P:127:LYS:CE	2.36	0.94
9:I:139:LYS:O	9:I:140:LYS:HB3	1.67	0.94
9:I:154:LYS:CD	9:I:155:ASN:N	2.29	0.94
1:A:76:VAL:CG2	1:A:90:PHE:CD2	2.48	0.94
2:B:137:LEU:HD21	2:B:215:VAL:HG13	0.95	0.94
17:Q:47:LEU:HD23	17:Q:81:ILE:CD1	1.95	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:27:VAL:HG11	25:Y:35:VAL:HG21	1.47	0.94
9:I:154:LYS:C	9:I:154:LYS:HE2	1.86	0.94
12:L:125:ILE:HB	12:L:146:THR:HG21	1.48	0.94
12:L:99:TYR:HH	24:X:14:ARG:HA	1.14	0.94
1:A:21:ALA:HB1	1:A:173:LEU:HD12	1.49	0.94
8:H:10:LYS:HZ1	8:H:17:ASP:N	1.65	0.94
3:C:67:TYR:HE1	22:V:27:LYS:HZ3	1.06	0.94
25:Y:52:PRO:HD2	25:Y:53:ASP:H	1.33	0.94
16:P:10:ARG:NH2	16:P:11:THR:CG2	2.30	0.94
9:I:67:TRP:HZ2	9:I:158:ILE:HD11	1.32	0.94
5:E:98:ASN:HD21	5:E:119:ALA:CB	1.81	0.94
3:C:55:VAL:CG1	3:C:82:PHE:HE2	1.77	0.94
15:O:31:CYS:SG	15:O:93:LEU:HB3	2.07	0.94
4:D:56:GLN:HA	4:D:59:LEU:HD23	1.50	0.94
17:Q:16:LYS:HD2	17:Q:17:LYS:N	1.83	0.94
17:Q:76:GLY:O	17:Q:80:GLN:CG	2.16	0.94
10:J:127:ARG:NH1	10:J:145:PRO:CB	2.31	0.94
5:E:108:ARG:HG2	10:J:32:ILE:HG21	49.06	0.94
16:P:4:VAL:HA	16:P:10:ARG:HD2	1.46	0.94
16:P:93:MET:SD	16:P:106:GLU:HB2	2.08	0.94
19:S:81:ASP:O	19:S:87:GLN:NE2	2.00	0.94
2:B:209:ASP:OD1	2:B:211:PHE:CZ	2.21	0.94
18:R:13:ALA:CA	18:R:54:VAL:HG22	1.97	0.94
23:W:129:PHE:C	23:W:129:PHE:HD1	1.71	0.94
4:D:212:GLU:HB3	18:R:19:LYS:HD2	1.45	0.94
5:E:36:HIS:HB2	5:E:41:CYS:SG	2.08	0.94
5:E:153:LEU:HD23	7:G:216:ARG:NH2	1.82	0.94
3:C:244:THR:CG2	3:C:246:PHE:N	2.31	0.94
4:D:43:PRO:C	4:D:44:THR:HG23	1.87	0.94
4:D:74:GLN:HE22	4:D:75:LYS:HE2	1.33	0.94
11:K:11:ILE:CG2	11:K:49:MET:HE2	1.78	0.94
11:K:15:LEU:HD13	11:K:21:MET:CE	1.96	0.94
21:U:103:SER:O	21:U:106:ILE:HG23	1.66	0.94
16:P:53:GLN:CG	16:P:80:LEU:HD11	1.87	0.94
18:R:20:TYR:CE1	18:R:38:ILE:CG2	2.37	0.94
4:D:112:GLY:O	4:D:113:LEU:HG	1.68	0.94
20:T:143:LYS:CD	20:T:144:LYS:N	2.31	0.94
7:G:33:ALA:H	7:G:52:ILE:HG23	1.30	0.94
9:I:142:SER:CA	9:I:143:LYS:HB2	1.98	0.94
12:L:99:TYR:OH	24:X:14:ARG:CB	2.16	0.94
1:A:183:LEU:HB2	1:A:189:ILE:HD11	1.51	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:34:VAL:HG23	17:Q:39:LEU:HD23	0.94	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
23:W:42:MET:CE	23:W:50:PHE:CD2	2.51	0.94
4:D:195:SER:C	4:D:197:LYS:CA	2.35	0.94
16:P:127:LYS:HE3	16:P:127:LYS:C	1.88	0.94
3:C:241:TRP:CD2	23:W:68:ARG:HD3	2.02	0.94
1:A:11:LYS:HG2	1:A:13:GLU:HG2	0.94	0.93
1:A:17:LYS:N	1:A:17:LYS:CE	2.31	0.93
1:A:58:LEU:CD2	1:A:178:LEU:HD21	1.94	0.93
3:C:63:LEU:HD13	3:C:67:TYR:OH	1.68	0.93
6:F:110:GLN:O	6:F:113:VAL:HG12	1.68	0.93
6:F:21:GLY:O	6:F:22:LYS:HG3	1.67	0.93
16:P:127:LYS:HZ2	16:P:127:LYS:C	1.71	0.93
5:E:128:LYS:HD3	5:E:130:PHE:CD1	2.03	0.93
19:S:16:LEU:O	19:S:17:ASN:ND2	2.01	0.93
3:C:156:GLY:O	3:C:157:ASN:ND2	2.00	0.93
19:S:132:ARG:CB	19:S:134:GLN:OE1	2.14	0.93
1:A:133:PRO:HD2	1:A:134:LEU:N	1.83	0.93
1:A:5:LEU:HD22	1:A:5:LEU:C	1.87	0.93
3:C:51:LEU:CD1	3:C:78:ILE:HD13	1.98	0.93
8:H:15:LYS:CB	8:H:16:PRO:HD2	1.97	0.93
17:Q:50:LYS:NZ	17:Q:85:ARG:HH22	1.58	0.93
16:P:41:GLN:CG	16:P:84:ILE:CG1	2.15	0.93
25:Y:62:THR:HG22	25:Y:69:THR:HG21	1.49	0.93
19:S:94:LYS:HE3	19:S:95:TYR:O	1.66	0.93
3:C:234:SER:C	22:V:23:ILE:CD1	2.37	0.93
7:G:162:LEU:HD23	7:G:172:LYS:HE2	1.46	0.93
7:G:5:ILE:HD12	7:G:16:ILE:HD12	1.50	0.93
9:I:110:ARG:NH2	9:I:124:LYS:HD3	1.83	0.93
1:A:104:THR:O	1:A:107:THR:CG2	2.14	0.93
1:A:34:MET:CE	1:A:37:TYR:CE2	2.51	0.93
6:F:42:LYS:N	6:F:42:LYS:CD	2.28	0.93
10:J:48:PHE:HZ	10:J:52:LYS:NZ	1.57	0.93
17:Q:24:HIS:CD2	17:Q:69:ARG:HB2	2.03	0.93
12:L:96:ILE:O	12:L:100:ASN:HA	1.67	0.93
12:L:77:VAL:HG11	12:L:80:MET:SD	2.07	0.93
2:B:137:LEU:CB	2:B:172:MET:HE1	1.99	0.93
11:K:3:MET:HE3	11:K:8:ARG:HH22	1.15	0.93
24:X:99:GLU:O	24:X:100:VAL:CG1	2.16	0.93
20:T:76:THR:CB	20:T:95:GLY:O	2.16	0.93

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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	0.93
16:P:4:VAL:CA	16:P:10:ARG:CD	1.99	0.93
19:S:95:TYR:CD1	19:S:95:TYR:N	2.28	0.93
13:M:35:ILE:HD13	13:M:61:TYR:CZ	2.02	0.93
13:M:124:ILE:HA	13:M:127:TYR:HD2	1.28	0.93
13:M:85:LEU:HA	13:M:88:TRP:HE3	1.24	0.93
3:C:169:VAL:HG21	3:C:228:ALA:O	1.68	0.93
15:O:95:ILE:HD13	15:O:116:LEU:CD2	1.98	0.93
6:F:20:PHE:O	6:F:21:GLY:C	2.06	0.93
11:K:30:PRO:C	11:K:31:LYS:HG3	1.73	0.93
16:P:41:GLN:CD	16:P:84:ILE:CG2	2.20	0.93
19:S:121:ARG:HG2	19:S:131:VAL:HG13	1.48	0.93
7:G:27:PHE:CZ	7:G:41:LEU:CD1	2.51	0.93
1:A:177:MET:HE1	1:A:180:ARG:HH22	1.29	0.93
9:I:19:LYS:HE2	9:I:20:PRO:CD	1.98	0.93
18:R:84:TYR:O	18:R:85:VAL:HG23	1.68	0.93
2:B:139:CYS:HB2	2:B:168:MET:SD	2.08	0.93
8:H:145:ARG:HH11	8:H:155:LYS:HZ2	1.14	0.93
15:O:52:THR:O	15:O:53:ILE:CG2	2.15	0.93
15:O:44:VAL:HG21	15:O:93:LEU:CD1	1.99	0.93
14:N:115:LEU:O	14:N:119:GLU:HG2	1.68	0.93
3:C:234:SER:CA	22:V:23:ILE:HD11	1.97	0.93
5:E:208:VAL:HG21	5:E:225:ILE:CD1	1.93	0.93
9:I:37:LYS:O	9:I:59:ARG:CA	2.17	0.93
1:A:45:GLY:O	1:A:46:ILE:CG1	2.17	0.93
1:A:39:TYR:CA	1:A:50:ASN:HD21	1.80	0.93
3:C:148:VAL:HB	3:C:149:PRO:HD2	1.51	0.93
8:H:23:ILE:CD1	8:H:27:LEU:CD2	2.47	0.93
15:O:31:CYS:HB2	15:O:95:ILE:HG12	1.51	0.93
16:P:84:ILE:O	16:P:86:LEU:HD21	1.68	0.93
4:D:158:ILE:HD12	4:D:189:MET:CE	1.98	0.93
10:J:89:GLU:N	10:J:92:MET:HG3	1.83	0.93
2:B:208:HIS:O	2:B:209:ASP:HB2	1.66	0.93
4:D:212:GLU:CB	4:D:213:PRO:HD2	1.97	0.93
10:J:10:ARG:CB	10:J:10:ARG:NH1	2.31	0.93
4:D:226:GLN:HE21	4:D:226:GLN:CA	1.80	0.93
4:D:226:GLN:NE2	4:D:226:GLN:CA	2.32	0.93
3:C:244:THR:CG2	3:C:246:PHE:HA	1.99	0.93
5:E:248:ILE:HG13	10:J:72:PHE:CE1	1.99	0.93
19:S:58:GLU:O	19:S:59:LEU:CD2	2.17	0.93
10:J:17:ARG:HB3	10:J:18:ARG:CG	1.99	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:210:ILE:HD12	18:R:15:VAL:HG11	0.96	0.93
2:B:105:LEU:CD1	2:B:110:MET:HE2	1.95	0.93
7:G:63:MET:HE3	7:G:106:LEU:HD13	1.51	0.93
1:A:140:VAL:O	1:A:140:VAL:HG12	1.69	0.93
18:R:99:ASP:HA	18:R:119:VAL:HG13	1.49	0.93
25:Y:102:THR:HG21	25:Y:107:ARG:CD	1.98	0.93
7:G:157:VAL:HG11	7:G:159:ARG:CB	1.99	0.92
9:I:141:ARG:HB3	9:I:144:LYS:HB2	1.48	0.92
12:L:113:LEU:HD11	12:L:120:VAL:CG2	1.98	0.92
25:Y:114:MET:HA	25:Y:124:ASN:CG	1.88	0.92
25:Y:114:MET:O	25:Y:124:ASN:ND2	2.02	0.92
6:F:42:LYS:O	6:F:44:LYS:HA	1.68	0.92
17:Q:109:LYS:HG3	17:Q:113:ILE:HD11	1.48	0.92
17:Q:19:ALA:CB	17:Q:74:GLY:O	2.17	0.92
16:P:41:GLN:HE21	16:P:84:ILE:HB	0.78	0.92
5:E:21:ASP:CG	5:E:24:THR:HG21	1.87	0.92
16:P:56:LEU:CD1	16:P:80:LEU:HD12	1.98	0.92
6:F:167:LYS:HD3	6:F:171:GLU:HG2	1.51	0.92
22:V:1:MET:HE1	22:V:10:ASP:HB2	1.52	0.92
2:B:126:ASP:OD1	2:B:136:HIS:CD2	2.21	0.92
5:E:98:ASN:HD21	5:E:119:ALA:HB2	1.34	0.92
9:I:141:ARG:CG	9:I:144:LYS:CB	2.37	0.92
11:K:83:LEU:O	11:K:84:HIS:ND1	2.02	0.92
9:I:21:TYR:CE2	9:I:22:HIS:HD2	1.85	0.92
19:S:137:LYS:O	19:S:141:ARG:NH2	1.96	0.92
13:M:13:ASP:O	13:M:16:THR:CB	2.16	0.92
4:D:212:GLU:HB3	18:R:19:LYS:CD	1.96	0.92
4:D:27:ARG:HB2	4:D:27:ARG:NH1	4.75	0.92
3:C:248:LYS:NZ	3:C:253:GLU:OE1	2.02	0.92
8:H:145:ARG:CD	23:W:51:GLU:HG2	1.99	0.92
25:Y:21:LYS:N	25:Y:21:LYS:CD	2.30	0.92
18:R:22:THR:CG2	18:R:73:LEU:HD11	1.99	0.92
24:X:67:ARG:C	24:X:68:LYS:HG3	1.86	0.92
4:D:177:LEU:HD23	4:D:182:LEU:HD21	1.51	0.92
14:N:125:LEU:CD1	14:N:129:TYR:CE2	2.53	0.92
21:U:73:GLY:O	21:U:74:SER:C	2.07	0.92
3:C:99:LYS:HD2	3:C:100:GLN:N	1.84	0.92
4:D:51:LEU:HG	4:D:91:VAL:HG22	1.51	0.92
17:Q:85:ARG:NH1	17:Q:117:ARG:CG	2.26	0.92
25:Y:36:PRO:HG2	25:Y:39:GLU:CD	1.83	0.92
10:J:79:ARG:O	10:J:83:ARG:HG3	1.70	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:105:LEU:CD1	2:B:110:MET:HE1	2.00	0.92
23:W:104:LEU:CD1	23:W:106:THR:CG2	2.46	0.92
7:G:25:ARG:CG	7:G:28:TYR:CD2	2.51	0.92
7:G:65:GLN:CA	7:G:100:CYS:SG	2.57	0.92
1:A:42:LYS:CD	18:R:101:ASP:HB2	2.00	0.92
13:M:28:HIS:CD2	13:M:115:GLY:CA	2.51	0.92
17:Q:47:LEU:CD2	17:Q:81:ILE:HD13	1.97	0.92
13:M:13:ASP:O	13:M:16:THR:HG22	0.96	0.92
2:B:49:VAL:HG22	2:B:65:ARG:NH2	1.83	0.92
6:F:91:ARG:CA	6:F:91:ARG:NE	2.33	0.92
25:Y:9:THR:OG1	25:Y:48:TYR:OH	1.80	0.92
10:J:89:GLU:N	10:J:92:MET:CG	2.32	0.92
10:J:48:PHE:HE1	10:J:52:LYS:HE3	1.24	0.92
15:O:56:VAL:HG11	15:O:81:VAL:HG23	1.48	0.92
9:I:206:LYS:CD	9:I:207:GLY:H	1.82	0.92
12:L:149:ALA:HB1	12:L:156:GLN:CG	1.76	0.92
24:X:27:TYR:CZ	24:X:31:HIS:CD2	2.57	0.92
6:F:36:GLN:CG	6:F:37:ASP:CG	2.38	0.92
3:C:123:GLY:HA2	3:C:226:PHE:HZ	1.33	0.92
7:G:162:LEU:HG	7:G:170:ARG:HB2	1.52	0.92
15:O:44:VAL:CG2	15:O:93:LEU:HD13	2.00	0.92
11:K:60:GLU:OE2	11:K:67:PHE:CD1	2.21	0.92
17:Q:57:LEU:HD13	17:Q:115:TYR:CE2	2.02	0.92
25:Y:87:PRO:HB2	25:Y:89:HIS:CE1	2.03	0.92
14:N:132:LYS:CE	14:N:132:LYS:CA	2.28	0.92
2:B:19:LYS:CB	2:B:19:LYS:NZ	2.29	0.92
5:E:86:PHE:HZ	5:E:182:MET:HE3	1.32	0.92
7:G:227:GLN:HA	7:G:230:LYS:HD2	1.49	0.92
7:G:85:ARG:NE	25:Y:118:ARG:CZ	2.33	0.92
8:H:6:ALA:HB1	8:H:10:LYS:HZ3	1.35	0.92
8:H:157:HIS:C	8:H:158:LEU:HD23	1.89	0.92
13:M:116:LYS:O	13:M:117:GLU:CB	2.17	0.92
17:Q:85:ARG:HH22	17:Q:117:ARG:CG	1.82	0.92
20:T:76:THR:HG22	20:T:96:SER:O	1.68	0.92
6:F:14:THR:HG23	17:Q:56:LEU:CD2	1.99	0.92
16:P:15:PHE:CE1	19:S:91:LYS:HD2	2.05	0.92
26:Z:48:VAL:C	26:Z:83:LEU:CD1	2.38	0.92
4:D:157:MET:HE1	4:D:187:LYS:CD	1.95	0.92
14:N:92:ILE:HG22	14:N:150:VAL:CG2	2.00	0.92
7:G:162:LEU:HD23	7:G:172:LYS:CE	2.00	0.92
7:G:32:MET:CE	7:G:100:CYS:C	2.38	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:180:ARG:HH11	1:A:184:ARG:NH1	1.68	0.92
3:C:87:LEU:CD2	3:C:115:ILE:HG23	1.99	0.92
1:A:48:ILE:CD1	18:R:105:MET:SD	2.57	0.92
4:D:2:ALA:CB	4:D:3:VAL:HA	1.96	0.92
4:D:46:THR:OG1	4:D:79:PHE:HZ	1.30	0.92
21:U:62:ARG:HH12	21:U:64:THR:HG21	1.00	0.92
16:P:49:LEU:HA	16:P:51:ARG:CG	1.99	0.92
23:W:101:PHE:HA	23:W:113:HIS:HE1	1.33	0.92
25:Y:92:ALA:CA	25:Y:97:TYR:O	2.17	0.92
9:I:194:GLU:CD	12:L:12:LYS:NZ	2.22	0.91
9:I:62:VAL:HB	9:I:75:LYS:HE2	1.49	0.91
17:Q:78:VAL:CG1	17:Q:82:TYR:HE2	1.83	0.91
14:N:137:PRO:O	14:N:138:ASN:CG	2.07	0.91
7:G:50:VAL:CG1	7:G:111:LEU:HB3	2.00	0.91
22:V:32:ILE:HG22	22:V:33:PRO:HD2	1.52	0.91
18:R:13:ALA:HA	18:R:54:VAL:CG2	2.00	0.91
7:G:64:LYS:O	7:G:64:LYS:HD2	1.69	0.91
2:B:67:PHE:CD1	15:O:47:LEU:C	2.44	0.91
16:P:44:ARG:HH21	16:P:84:ILE:CB	1.83	0.91
10:J:110:LEU:HD13	10:J:130:ILE:HD11	0.92	0.91
10:J:171:GLY:O	10:J:173:VAL:N	2.03	0.91
25:Y:54:VAL:HG22	25:Y:79:LEU:HD23	1.49	0.91
3:C:155:TRP:CZ3	23:W:97:ARG:NH1	2.20	0.91
4:D:112:GLY:N	4:D:113:LEU:CD1	2.33	0.91
20:T:89:PRO:O	20:T:91:HIS:CD2	2.24	0.91
21:U:22:ILE:HG12	21:U:114:VAL:HG22	1.52	0.91
2:B:72:ALA:CA	2:B:79:VAL:HG23	1.99	0.91
10:J:115:PHE:HD1	10:J:122:SER:H	0.97	0.91
25:Y:44:LEU:HD11	25:Y:48:TYR:HE2	1.06	0.91
25:Y:44:LEU:HD11	25:Y:48:TYR:CD2	2.04	0.91
16:P:59:ARG:CD	16:P:76:VAL:HG13	2.00	0.91
16:P:125:PRO:O	16:P:126:VAL:HG23	1.70	0.91
3:C:241:TRP:CB	23:W:68:ARG:NH1	2.32	0.91
5:E:205:PHE:CE1	5:E:221:ARG:NH1	2.39	0.91
7:G:157:VAL:CG1	7:G:159:ARG:N	2.09	0.91
12:L:82:MET:HB2	12:L:85:THR:CG2	2.00	0.91
14:N:46:THR:OG1	14:N:49:GLN:HG3	1.68	0.91
25:Y:29:HIS:HE1	25:Y:68:LYS:H	0.96	0.91
13:M:61:TYR:HE1	13:M:108:CYS:SG	1.93	0.91
25:Y:10:ARG:CG	25:Y:24:VAL:HB	2.00	0.91
26:Z:69:THR:CB	26:Z:70:PRO:HD3	1.99	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:74:SER:HA	26:Z:79:ILE:HG22	1.50	0.91
17:Q:8:GLN:HB3	17:Q:99:TYR:CE1	2.01	0.91
3:C:55:VAL:HG11	3:C:82:PHE:CE2	2.03	0.91
11:K:16:PHE:HD2	11:K:79:LEU:HB3	1.29	0.91
10:J:37:LEU:CD2	10:J:42:GLU:CB	2.49	0.91
24:X:98:ASP:O	24:X:99:GLU:HB2	1.70	0.91
4:D:166:TYR:CD1	4:D:200:PRO:CB	2.52	0.91
24:X:29:LYS:HD3	24:X:34:THR:HG21	1.51	0.91
24:X:74:LEU:CD1	24:X:81:ILE:HD12	2.00	0.91
23:W:104:LEU:HD11	23:W:106:THR:HG23	1.52	0.91
5:E:139:LEU:HD13	5:E:154:ILE:HG21	1.49	0.91
5:E:153:LEU:HD13	5:E:172:PHE:HZ	1.32	0.91
2:B:72:ALA:HB2	2:B:79:VAL:O	1.70	0.91
22:V:32:ILE:HG22	22:V:33:PRO:CD	2.00	0.91
6:F:91:ARG:HH12	6:F:94:LYS:HG3	1.33	0.91
19:S:36:VAL:HG22	19:S:36:VAL:O	1.71	0.91
18:R:121:GLN:C	18:R:121:GLN:HE21	1.74	0.91
18:R:122:PRO:HB2	18:R:123:THR:OG1	1.69	0.91
16:P:68:PRO:HB3	16:P:69:PRO:HD3	1.51	0.91
5:E:48:LEU:HD21	5:E:70:ILE:HD12	1.51	0.91
1:A:106:GLY:C	1:A:113:GLN:OE1	2.08	0.91
2:B:52:THR:HG21	14:N:53:ILE:HD13	83.43	0.91
14:N:16:LEU:HD22	14:N:17:PRO:HD2	1.51	0.91
2:B:113:MET:HE3	2:B:211:PHE:HZ	1.34	0.91
26:Z:85:ARG:HB3	26:Z:85:ARG:CZ	2.01	0.91
9:I:139:LYS:HB3	9:I:145:ILE:HD13	1.51	0.91
1:A:42:LYS:CD	18:R:101:ASP:HB3	2.01	0.91
1:A:52:LYS:HB3	1:A:52:LYS:NZ	1.86	0.91
3:C:55:VAL:CB	3:C:82:PHE:CE2	2.54	0.91
18:R:99:ASP:O	18:R:119:VAL:HG21	1.71	0.91
21:U:97:ILE:HG23	21:U:101:ILE:HD11	1.50	0.91
10:J:170:PRO:HA	10:J:174:LYS:HZ1	1.33	0.91
16:P:111:MET:O	16:P:114:HIS:HD2	1.54	0.91
4:D:197:LYS:HB2	4:D:198:ILE:CB	1.99	0.91
25:Y:7:ILE:HD11	25:Y:43:LYS:CD	2.00	0.91
2:B:21:VAL:HG23	2:B:21:VAL:O	1.70	0.91
5:E:76:VAL:HG12	24:X:56:GLY:O	91.30	0.91
4:D:132:LYS:N	4:D:191:PRO:CG	2.33	0.91
1:A:205:ARG:CG	1:A:206:ASP:N	2.23	0.91
16:P:70:MET:O	16:P:71:GLU:HB2	1.68	0.91
3:C:244:THR:HG23	3:C:246:PHE:H	1.20	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:105:LYS:C	17:Q:105:LYS:HD2	1.92	0.90
10:J:130:ILE:HG12	10:J:135:ILE:CD1	1.99	0.90
10:J:17:ARG:HB3	10:J:18:ARG:HG2	1.49	0.90
18:R:91:LEU:HD13	18:R:92:ASP:CA	2.00	0.90
12:L:125:ILE:HB	12:L:146:THR:CG2	2.01	0.90
5:E:248:ILE:CB	10:J:72:PHE:CZ	2.48	0.90
5:E:130:PHE:CG	5:E:138:HIS:NE2	2.38	0.90
5:E:208:VAL:CG1	5:E:225:ILE:CD1	2.48	0.90
3:C:63:LEU:HG	3:C:83:LEU:HD13	1.51	0.90
6:F:167:LYS:CD	6:F:171:GLU:HG3	1.99	0.90
10:J:138:ARG:NH1	10:J:156:HIS:ND1	2.11	0.90
23:W:35:VAL:O	23:W:39:THR:HG23	1.70	0.90
12:L:76:VAL:HG12	12:L:125:ILE:HD13	1.53	0.90
23:W:77:PRO:HD3	24:X:5:ARG:O	1.71	0.90
3:C:60:ILE:O	3:C:82:PHE:CZ	2.22	0.90
4:D:76:ARG:NE	11:K:66:HIS:HE1	1.55	0.90
10:J:39:ASN:OD1	10:J:42:GLU:N	2.03	0.90
23:W:4:MET:SD	23:W:4:MET:N	2.44	0.90
17:Q:24:HIS:NE2	17:Q:69:ARG:HB2	1.86	0.90
9:I:142:SER:HB2	9:I:143:LYS:HZ3	1.31	0.90
1:A:21:ALA:HB3	1:A:173:LEU:CD1	1.79	0.90
3:C:50:LYS:CE	3:C:251:TYR:HE1	1.83	0.90
3:C:55:VAL:HG22	3:C:82:PHE:CE2	2.06	0.90
3:C:60:ILE:O	3:C:82:PHE:HE1	1.44	0.90
21:U:62:ARG:NH1	21:U:64:THR:HG23	1.87	0.90
10:J:35:TYR:O	10:J:37:LEU:N	2.04	0.90
19:S:59:LEU:HD13	19:S:59:LEU:N	1.85	0.90
16:P:49:LEU:C	16:P:51:ARG:HD2	1.91	0.90
16:P:49:LEU:HD12	16:P:51:ARG:HE	0.75	0.90
4:D:212:GLU:H	4:D:212:GLU:CD	1.71	0.90
3:C:73:ILE:HD11	3:C:78:ILE:HB	1.53	0.90
1:A:5:LEU:CB	22:V:41:LYS:CE	2.49	0.90
6:F:91:ARG:CA	6:F:91:ARG:HE	1.85	0.90
11:K:84:HIS:ND1	11:K:85:LEU:HA	1.85	0.90
5:E:62:LYS:HA	5:E:65:CYS:SG	2.11	0.90
26:Z:99:LEU:HD21	26:Z:109:TYR:CE1	2.07	0.90
20:T:28:LEU:HD22	20:T:28:LEU:C	1.90	0.90
5:E:208:VAL:CB	5:E:225:ILE:HD13	2.01	0.90
9:I:157:LYS:HB3	12:L:22:ARG:HH12	1.37	0.90
6:F:91:ARG:NH1	6:F:94:LYS:HB3	1.76	0.90
17:Q:92:LEU:HD11	17:Q:96:TYR:CZ	2.07	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:111:LYS:CB	20:T:126:GLN:HE22	1.84	0.90
5:E:75:LYS:O	5:E:76:VAL:HG22	5.39	0.90
7:G:41:LEU:HD22	7:G:45:TRP:HE3	1.33	0.90
2:B:57:ILE:CD1	2:B:60:ASP:OD2	2.19	0.90
8:H:158:LEU:HD21	8:H:187:PHE:CE1	2.07	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
25:Y:18:LEU:HB3	25:Y:20:ARG:HH11	0.74	0.90
12:L:17:PHE:CE2	12:L:18:GLN:O	2.25	0.90
24:X:60:LYS:HE2	24:X:116:PRO:CG	2.02	0.90
8:H:101:LEU:HG	8:H:120:ARG:HG2	1.54	0.90
5:E:145:ARG:HH11	5:E:145:ARG:HG2	1.37	0.90
7:G:176:ILE:CG2	7:G:179:LEU:CB	2.49	0.90
1:A:5:LEU:O	1:A:5:LEU:HD22	1.70	0.90
6:F:122:ARG:CZ	6:F:193:LYS:HZ1	1.83	0.90
15:O:19:PRO:HG3	15:O:27:VAL:CB	2.01	0.90
17:Q:42:ILE:CD1	17:Q:51:LEU:CD1	2.49	0.90
16:P:33:LEU:HD23	16:P:87:PRO:HD2	1.51	0.90
26:Z:99:LEU:CD2	26:Z:109:TYR:HE1	1.77	0.90
23:W:30:CYS:SG	23:W:61:ILE:HD11	2.12	0.90
15:O:39:ASP:OD1	15:O:40:THR:N	2.05	0.90
17:Q:7:LEU:HD23	17:Q:8:GLN:OE1	1.69	0.90
1:A:66:VAL:HG13	1:A:186:ARG:CG	2.01	0.90
3:C:49:THR:HG23	3:C:75:GLU:OE1	1.72	0.90
6:F:91:ARG:HH12	6:F:94:LYS:CB	1.79	0.90
2:B:87:ILE:HD13	2:B:101:HIS:HD2	0.80	0.90
19:S:30:ILE:HD11	19:S:45:LEU:HD21	1.54	0.90
20:T:23:LYS:CD	20:T:54:TYR:CE2	2.54	0.90
24:X:29:LYS:HD2	24:X:34:THR:CB	2.00	0.90
3:C:67:TYR:CE1	22:V:27:LYS:NZ	2.40	0.89
17:Q:72:VAL:HG21	17:Q:84:ILE:HG23	1.52	0.89
16:P:83:MET:CE	16:P:116:LEU:HD11	2.02	0.89
16:P:53:GLN:HE21	16:P:80:LEU:CD1	1.84	0.89
19:S:11:HIS:HD2	19:S:23:ARG:HH21	1.16	0.89
2:B:72:ALA:HA	2:B:79:VAL:CG2	2.02	0.89
4:D:59:LEU:HD12	4:D:60:GLY:CA	2.02	0.89
17:Q:135:PRO:CD	17:Q:141:TYR:CD1	2.54	0.89
19:S:8:LYS:HE3	19:S:9:PHE:CE1	2.07	0.89
25:Y:92:ALA:HA	25:Y:97:TYR:HB3	1.54	0.89
12:L:149:ALA:HB1	12:L:156:GLN:HB3	0.89	0.89
1:A:141:ASN:HA	22:V:32:ILE:HG13	1.53	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:83:LEU:HD13	11:K:85:LEU:CD2	2.03	0.89
25:Y:44:LEU:CD1	25:Y:48:TYR:CE2	2.53	0.89
16:P:107:ILE:CA	16:P:111:MET:SD	2.60	0.89
21:U:25:THR:HG22	21:U:86:LYS:HG2	1.54	0.89
4:D:94:ARG:HG2	4:D:95:GLY:N	1.84	0.89
14:N:142:GLU:CG	14:N:144:SER:OG	2.19	0.89
25:Y:37:LYS:O	25:Y:40:ILE:CG2	2.20	0.89
9:I:62:VAL:CG2	9:I:75:LYS:HE2	2.03	0.89
25:Y:12:PHE:HZ	25:Y:21:LYS:CB	1.85	0.89
26:Z:44:LEU:HD13	26:Z:45:ASN:N	1.87	0.89
19:S:46:ARG:CZ	20:T:50:GLU:HG2	2.01	0.89
23:W:128:PHE:CE1	23:W:130:PHE:CD2	2.61	0.89
2:B:175:GLU:HG2	2:B:193:ILE:CD1	2.03	0.89
7:G:41:LEU:CD2	7:G:45:TRP:CE3	2.27	0.89
7:G:64:LYS:CD	7:G:64:LYS:C	2.40	0.89
7:G:85:ARG:HD2	25:Y:118:ARG:HH22	1.35	0.89
7:G:77:LEU:HD11	7:G:95:LYS:HB2	1.51	0.89
8:H:143:ARG:NE	23:W:53:ILE:HG23	1.86	0.89
17:Q:49:TYR:O	17:Q:53:GLU:HG3	1.71	0.89
21:U:108:PRO:O	21:U:110:VAL:HG23	1.70	0.89
26:Z:92:LEU:HD23	26:Z:97:ILE:HG13	1.54	0.89
19:S:46:ARG:HH22	20:T:50:GLU:HB3	1.37	0.89
25:Y:98:GLU:C	25:Y:98:GLU:CD	2.31	0.89
9:I:153:LYS:O	9:I:154:LYS:CB	2.20	0.89
14:N:28:LEU:CD1	14:N:58:HIS:NE2	2.35	0.89
11:K:40:VAL:HG13	11:K:41:PRO:N	1.86	0.89
21:U:67:LYS:HE2	21:U:78:ASP:OD1	1.73	0.89
20:T:31:PRO:HB2	20:T:33:TRP:CE2	2.04	0.89
19:S:11:HIS:HD2	19:S:23:ARG:HH22	1.15	0.89
19:S:58:GLU:O	19:S:59:LEU:HD13	1.72	0.89
20:T:23:LYS:HD3	20:T:54:TYR:CE2	2.08	0.89
21:U:18:HIS:CE1	21:U:98:VAL:HG21	2.06	0.89
9:I:76:THR:HG22	9:I:77:ARG:N	1.88	0.89
1:A:191:ARG:HG3	1:A:193:HIS:HB2	1.55	0.89
2:B:113:MET:HE3	2:B:211:PHE:CE2	1.83	0.89
16:P:127:LYS:NZ	16:P:127:LYS:CB	2.30	0.89
3:C:241:TRP:HB3	23:W:68:ARG:HH11	1.30	0.89
3:C:241:TRP:CB	23:W:68:ARG:HH11	1.84	0.89
3:C:195:PRO:CD	3:C:221:PHE:CZ	2.55	0.89
26:Z:85:ARG:CB	26:Z:85:ARG:NH1	2.35	0.89
3:C:260:LYS:HD2	3:C:261:THR:CG2	2.03	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:182:MET:HE2	5:E:228:ILE:HG21	1.55	0.89
3:C:71:LEU:C	22:V:29:HIS:CE1	2.45	0.89
4:D:97:CYS:SG	4:D:99:ILE:HG12	2.13	0.89
10:J:119:LEU:CD2	10:J:119:LEU:N	2.30	0.89
10:J:127:ARG:HH12	10:J:145:PRO:CB	1.85	0.89
25:Y:34:THR:CG2	25:Y:35:VAL:N	2.33	0.89
3:C:260:LYS:CG	3:C:261:THR:N	2.30	0.89
1:A:133:PRO:CD	1:A:134:LEU:H	1.86	0.89
2:B:33:VAL:HG12	2:B:44:ILE:HD12	1.53	0.89
6:F:71:ARG:HG2	6:F:71:ARG:HH21	1.34	0.89
1:A:57:LYS:HE2	22:V:70:LEU:HD11	1.51	0.89
6:F:112:LEU:HA	6:F:177:LEU:HD11	1.55	0.89
3:C:93:LYS:HD3	3:C:218:LEU:HD21	0.90	0.89
8:H:93:VAL:HG22	8:H:94:PHE:N	1.84	0.89
19:S:31:THR:HA	19:S:36:VAL:CG2	2.02	0.89
10:J:17:ARG:CB	10:J:18:ARG:CG	2.48	0.89
3:C:234:SER:C	22:V:23:ILE:HD11	1.93	0.89
20:T:4:VAL:HA	20:T:8:ASP:OD2	1.72	0.89
8:H:121:THR:HG23	8:H:124:ALA:H	1.37	0.89
3:C:148:VAL:HB	3:C:149:PRO:CD	2.02	0.89
3:C:55:VAL:CG1	3:C:82:PHE:CZ	2.37	0.89
18:R:13:ALA:HA	18:R:54:VAL:HG22	1.51	0.89
4:D:221:THR:HB	4:D:222:PRO:CD	2.03	0.89
12:L:153:LYS:CG	14:N:131:THR:O	2.20	0.89
15:O:20:GLN:HG2	15:O:21:VAL:O	1.73	0.89
2:B:32:ASP:OD1	2:B:46:LYS:HD2	1.73	0.88
2:B:67:PHE:CE1	15:O:47:LEU:HB2	2.08	0.88
18:R:100:PRO:CG	18:R:119:VAL:HG22	2.02	0.88
11:K:11:ILE:HG22	11:K:49:MET:HE1	1.53	0.88
19:S:103:LEU:HD12	19:S:104:ASP:N	1.87	0.88
23:W:42:MET:HE1	23:W:50:PHE:CD2	2.08	0.88
10:J:91:LYS:HA	10:J:96:TYR:CG	2.08	0.88
3:C:151:ARG:NH1	3:C:240:LEU:CD1	2.25	0.88
12:L:147:LYS:CG	12:L:148:ALA:N	2.29	0.88
3:C:64:GLU:OE1	22:V:11:LEU:HD13	1.73	0.88
6:F:18:LYS:HE3	17:Q:115:TYR:HD1	1.34	0.88
11:K:41:PRO:O	11:K:41:PRO:HD2	1.70	0.88
11:K:59:LYS:HD2	11:K:60:GLU:N	1.88	0.88
17:Q:115:TYR:CD2	17:Q:116:ASP:N	2.42	0.88
8:H:93:VAL:HG23	8:H:94:PHE:N	1.83	0.88
25:Y:29:HIS:ND1	25:Y:67:GLY:HA2	1.87	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:62:VAL:CB	9:I:75:LYS:HE2	2.02	0.88
3:C:54:LEU:HD11	3:C:258:LEU:CD1	2.01	0.88
25:Y:78:SER:HB2	25:Y:81:TYR:CE2	2.07	0.88
19:S:120:HIS:NE2	19:S:124:ARG:NH2	2.20	0.88
19:S:8:LYS:CD	19:S:9:PHE:CE1	2.43	0.88
18:R:44:LYS:HE3	18:R:47:ARG:HH22	0.72	0.88
18:R:11:LYS:O	18:R:15:VAL:HG23	1.72	0.88
20:T:11:GLN:NE2	20:T:62:ARG:NH2	2.20	0.88
3:C:195:PRO:HD3	3:C:221:PHE:CZ	2.08	0.88
2:B:49:VAL:HG22	2:B:65:ARG:HH22	1.36	0.88
8:H:158:LEU:HD21	8:H:187:PHE:HE1	1.36	0.88
8:H:43:LEU:HD13	8:H:72:PHE:CE1	2.07	0.88
21:U:64:THR:CG2	21:U:79:ARG:HG2	1.99	0.88
24:X:91:LEU:O	24:X:93:PHE:N	2.05	0.88
25:Y:20:ARG:HD2	25:Y:74:MET:CE	2.02	0.88
20:T:77:LYS:HB2	20:T:94:ARG:HD3	0.90	0.88
4:D:200:PRO:O	4:D:201:LYS:HG2	1.73	0.88
3:C:241:TRP:CG	23:W:68:ARG:HD3	2.09	0.88
17:Q:61:GLU:O	17:Q:63:PHE:N	2.07	0.88
5:E:133:THR:O	5:E:134:LYS:HB2	1.74	0.88
6:F:201:LYS:HE3	6:F:204:ARG:NH2	1.88	0.88
13:M:115:GLY:O	13:M:116:LYS:HB2	1.73	0.88
25:Y:12:PHE:HZ	25:Y:21:LYS:HB3	1.33	0.88
25:Y:9:THR:HG1	25:Y:48:TYR:HH	1.07	0.88
19:S:39:ARG:HD3	20:T:38:LYS:HE2	1.54	0.88
7:G:57:ASP:OD2	7:G:98:ARG:CG	2.21	0.88
8:H:14:GLU:OE1	8:H:16:PRO:HG2	1.74	0.88
24:X:105:PHE:CG	24:X:112:VAL:HG23	2.09	0.88
5:E:124:CYS:SG	5:E:162:ILE:HD13	2.14	0.88
25:Y:122:LYS:HD3	25:Y:122:LYS:N	1.85	0.88
1:A:154:LEU:CD1	22:V:63:GLY:C	2.35	0.88
17:Q:112:LEU:CD2	17:Q:119:LEU:HD13	1.99	0.88
3:C:102:GLN:HG3	3:C:103:ALA:N	1.87	0.88
7:G:4:ASN:HA	7:G:15:LEU:HD23	1.56	0.88
1:A:125:THR:HG22	1:A:175:TRP:HE1	1.39	0.88
2:B:137:LEU:HB2	2:B:172:MET:CE	2.03	0.88
4:D:70:THR:HA	4:D:86:LEU:HD13	1.56	0.88
10:J:134:HIS:O	10:J:135:ILE:CG2	2.22	0.88
26:Z:48:VAL:HG12	26:Z:48:VAL:O	1.72	0.88
18:R:91:LEU:CD1	18:R:91:LEU:H	1.85	0.88
21:U:24:LEU:HD23	21:U:112:VAL:HG22	1.55	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:5:ARG:CB	24:X:5:ARG:HH21	1.86	0.88
1:A:141:ASN:OD1	22:V:31:SER:O	1.92	0.88
3:C:43:LYS:HE3	3:C:43:LYS:HA	1.56	0.88
3:C:71:LEU:O	22:V:29:HIS:CE1	2.26	0.88
6:F:73:THR:HG22	6:F:93:VAL:HG21	0.96	0.88
17:Q:21:ALA:CB	17:Q:72:VAL:HG22	2.03	0.88
10:J:110:LEU:CD1	10:J:130:ILE:HD11	1.78	0.88
4:D:135:GLU:CB	4:D:153:VAL:HG22	2.03	0.88
3:C:167:CYS:SG	23:W:95:PRO:CB	2.62	0.88
2:B:135:LEU:CD2	2:B:217:MET:SD	2.62	0.88
7:G:164:LYS:O	7:G:165:GLU:C	2.12	0.88
7:G:36:VAL:HG12	7:G:37:ALA:H	1.36	0.88
12:L:157:LYS:O	12:L:158:PHE:CD2	2.25	0.88
1:A:36:GLN:OE1	1:A:36:GLN:HA	1.74	0.88
3:C:142:LEU:CA	3:C:145:LEU:HD23	2.04	0.88
8:H:29:GLU:OE2	8:H:86:LYS:CE	2.22	0.88
14:N:28:LEU:C	14:N:29:THR:HG23	1.94	0.88
4:D:18:LYS:HZ3	4:D:37:VAL:HG23	1.36	0.88
11:K:65:ARG:NH1	11:K:65:ARG:CB	2.31	0.88
25:Y:54:VAL:HG12	25:Y:76:TYR:N	1.89	0.88
8:H:146:VAL:HG11	23:W:42:MET:SD	2.13	0.88
19:S:33:ILE:HB	19:S:36:VAL:CG1	2.03	0.88
23:W:85:ASP:O	23:W:89:TRP:CD1	2.26	0.88
18:R:91:LEU:H	18:R:92:ASP:HA	1.39	0.88
7:G:213:LEU:HD12	7:G:214:ALA:N	1.89	0.87
12:L:80:MET:CE	12:L:121:GLN:CA	2.51	0.87
1:A:42:LYS:HD2	18:R:101:ASP:HB2	1.55	0.87
11:K:11:ILE:HG22	11:K:49:MET:CE	2.04	0.87
11:K:71:LEU:HD23	11:K:76:ILE:HD11	1.55	0.87
16:P:41:GLN:CG	16:P:84:ILE:HG23	2.03	0.87
25:Y:32:LYS:HG2	25:Y:33:ALA:N	1.86	0.87
2:B:113:MET:HE1	2:B:211:PHE:CE2	1.86	0.87
4:D:123:LEU:CD2	4:D:154:ASP:HB3	2.03	0.87
4:D:157:MET:HE3	4:D:187:LYS:HD2	1.54	0.87
23:W:90:GLN:HA	23:W:102:ILE:CD1	2.05	0.87
4:D:221:THR:HB	4:D:222:PRO:HD2	1.54	0.87
25:Y:7:ILE:HG13	25:Y:43:LYS:HD3	1.56	0.87
2:B:137:LEU:CD2	2:B:215:VAL:CG2	2.47	0.87
17:Q:12:VAL:HG12	17:Q:13:PHE:N	1.89	0.87
10:J:89:GLU:CA	10:J:92:MET:CB	2.37	0.87
3:C:241:TRP:HB3	23:W:68:ARG:HH12	1.37	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:218:LEU:HD12	4:D:220:THR:CG2	2.04	0.87
3:C:260:LYS:HG3	3:C:261:THR:N	1.89	0.87
5:E:70:ILE:CG1	5:E:92:ILE:HD12	1.88	0.87
16:P:41:GLN:HG2	16:P:84:ILE:HG12	0.89	0.87
16:P:123:TYR:CZ	19:S:120:HIS:CE1	2.62	0.87
6:F:103:LEU:CD2	6:F:178:ILE:CD1	2.22	0.87
24:X:105:PHE:CE2	24:X:118:VAL:O	2.27	0.87
10:J:138:ARG:NH1	10:J:156:HIS:CD2	2.43	0.87
25:Y:122:LYS:N	25:Y:122:LYS:CD	2.36	0.87
22:V:65:SER:O	22:V:69:ILE:HG12	1.74	0.87
10:J:170:PRO:CA	10:J:174:LYS:NZ	2.38	0.87
4:D:132:LYS:CA	4:D:191:PRO:HG2	2.04	0.87
11:K:14:LEU:HD22	11:K:35:LEU:CG	2.04	0.87
18:R:17:ILE:HG21	18:R:69:ILE:HD13	1.54	0.87
5:E:128:LYS:HD3	5:E:130:PHE:HE1	0.95	0.87
9:I:140:LYS:HG3	9:I:141:ARG:N	1.83	0.87
1:A:11:LYS:CD	1:A:13:GLU:HG3	2.03	0.87
6:F:119:SER:O	6:F:193:LYS:HG3	1.75	0.87
10:J:32:ILE:O	10:J:35:TYR:O	1.92	0.87
9:I:197:PHE:CE2	12:L:5:GLN:HG3	2.10	0.87
4:D:70:THR:HA	4:D:86:LEU:CD1	2.05	0.87
4:D:132:LYS:HA	4:D:191:PRO:HG2	1.54	0.87
9:I:25:ARG:HD2	9:I:27:TYR:CD2	2.08	0.87
19:S:65:GLU:O	19:S:69:THR:HG23	1.75	0.87
3:C:260:LYS:CD	3:C:261:THR:H	1.88	0.87
1:A:97:THR:HG22	1:A:98:PRO:CD	2.02	0.87
17:Q:43:GLU:HA	17:Q:45:ARG:N	1.89	0.87
4:D:158:ILE:CD1	4:D:189:MET:SD	2.62	0.87
16:P:108:LYS:NZ	19:S:118:ARG:HH12	1.72	0.87
3:C:123:GLY:CA	3:C:226:PHE:HZ	1.87	0.87
12:L:147:LYS:HD2	12:L:148:ALA:C	1.96	0.87
25:Y:122:LYS:CD	25:Y:123:ALA:H	1.87	0.87
18:R:99:ASP:CA	18:R:119:VAL:HG12	2.02	0.87
22:V:32:ILE:CD1	22:V:60:ARG:HH12	1.88	0.87
17:Q:112:LEU:O	17:Q:116:ASP:N	2.08	0.87
21:U:36:CYS:SG	21:U:53:PRO:CB	2.62	0.87
25:Y:61:ARG:CD	25:Y:61:ARG:N	2.34	0.87
3:C:218:LEU:HD12	3:C:219:GLY:N	1.88	0.87
4:D:218:LEU:HB2	4:D:220:THR:HG21	1.53	0.87
14:N:12:SER:O	14:N:13:GLN:HG2	1.73	0.87
15:O:101:GLY:O	15:O:104:ARG:HB2	1.74	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:111:ILE:O	17:Q:114:GLN:HG2	1.74	0.87
10:J:82:VAL:HG11	10:J:92:MET:CE	2.05	0.87
19:S:47:LYS:NZ	19:S:78:LYS:CB	2.38	0.87
4:D:27:ARG:CB	4:D:27:ARG:NH1	4.50	0.87
24:X:107:ARG:O	24:X:110:HIS:ND1	2.05	0.87
12:L:10:TYR:HD2	12:L:12:LYS:HZ2	1.20	0.86
6:F:42:LYS:HB2	6:F:45:TYR:CA	2.04	0.86
17:Q:117:ARG:O	17:Q:118:THR:OG1	1.92	0.86
16:P:84:ILE:HD11	16:P:115:TYR:CE1	2.10	0.86
10:J:102:ILE:HG22	10:J:106:LEU:HD13	1.56	0.86
19:S:117:ILE:C	19:S:118:ARG:HG2	1.94	0.86
19:S:8:LYS:HA	26:Z:49:LEU:HD23	1.57	0.86
4:D:196:GLY:N	4:D:197:LYS:CA	2.38	0.86
13:M:124:ILE:O	13:M:127:TYR:CD2	2.28	0.86
14:N:80:LEU:O	14:N:82:PRO:CD	2.23	0.86
7:G:50:VAL:HG11	7:G:111:LEU:CG	2.04	0.86
7:G:227:GLN:HA	7:G:230:LYS:CD	2.05	0.86
1:A:125:THR:HA	1:A:147:LEU:HB2	1.55	0.86
20:T:124:THR:HG23	20:T:126:GLN:N	1.89	0.86
1:A:76:VAL:CG1	1:A:175:TRP:CH2	2.56	0.86
18:R:100:PRO:HA	18:R:103:LYS:CB	2.03	0.86
21:U:27:ARG:HG3	21:U:83:ARG:O	1.74	0.86
5:E:248:ILE:HD11	10:J:72:PHE:CB	2.03	0.86
16:P:49:LEU:HD13	16:P:51:ARG:HE	1.34	0.86
21:U:50:VAL:CG1	21:U:51:LYS:H	1.86	0.86
15:O:20:GLN:CG	15:O:21:VAL:N	2.39	0.86
24:X:108:LYS:HB3	24:X:110:HIS:NE2	1.89	0.86
7:G:147:LEU:O	7:G:148:SER:OG	1.93	0.86
7:G:64:LYS:HG3	7:G:67:VAL:CG1	2.06	0.86
9:I:62:VAL:HG21	9:I:75:LYS:CE	2.06	0.86
3:C:79:ILE:HD11	3:C:147:ILE:CD1	2.04	0.86
3:C:67:TYR:HE1	22:V:27:LYS:NZ	1.71	0.86
4:D:18:LYS:O	4:D:18:LYS:HD2	1.74	0.86
4:D:21:LEU:O	4:D:25:LEU:HD23	1.76	0.86
4:D:76:ARG:NE	11:K:66:HIS:ND1	2.22	0.86
26:Z:103:HIS:CD2	26:Z:105:ALA:CB	2.57	0.86
5:E:23:LEU:O	5:E:24:THR:CG2	2.24	0.86
10:J:15:THR:CG2	10:J:44:TRP:HZ3	1.80	0.86
16:P:51:ARG:H	16:P:51:ARG:HD2	1.38	0.86
18:R:37:GLU:OE1	18:R:38:ILE:HG23	1.75	0.86
4:D:218:LEU:CB	4:D:220:THR:HG21	1.99	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:70:PRO:HD2	26:Z:71:ALA:N	1.89	0.86
6:F:53:ALA:O	17:Q:125:ARG:NH2	2.08	0.86
7:G:57:ASP:HA	7:G:106:LEU:HA	1.55	0.86
12:L:102:PHE:CD1	12:L:102:PHE:N	2.39	0.86
1:A:191:ARG:HG3	1:A:191:ARG:O	1.73	0.86
18:R:44:LYS:HE2	18:R:47:ARG:NH2	1.86	0.86
24:X:114:ASP:C	24:X:116:PRO:HD3	1.94	0.86
8:H:10:LYS:NZ	8:H:17:ASP:N	2.23	0.86
8:H:145:ARG:HD2	23:W:51:GLU:CD	1.94	0.86
10:J:37:LEU:HD21	10:J:42:GLU:HB2	1.49	0.86
19:S:59:LEU:CD1	19:S:59:LEU:N	2.37	0.86
19:S:26:ILE:HD11	19:S:59:LEU:CD2	2.05	0.86
4:D:212:GLU:CB	18:R:19:LYS:HD3	2.04	0.86
2:B:150:ILE:CG1	18:R:124:VAL:HG13	2.05	0.86
20:T:64:LEU:N	20:T:64:LEU:HD23	1.90	0.86
7:G:157:VAL:CG1	7:G:158:VAL:N	2.30	0.86
9:I:154:LYS:HA	9:I:154:LYS:HE2	1.58	0.86
25:Y:120:THR:O	25:Y:122:LYS:HD2	1.74	0.86
2:B:53:GLN:O	2:B:56:LYS:O	1.93	0.86
6:F:28:VAL:HG22	6:F:110:GLN:HG2	1.57	0.86
17:Q:12:VAL:HG12	17:Q:13:PHE:H	1.40	0.86
3:C:154:TYR:OH	3:C:162:PRO:CD	2.24	0.86
15:O:105:THR:O	15:O:106:LYS:CG	2.24	0.86
7:G:41:LEU:HD21	7:G:45:TRP:HZ3	1.08	0.86
6:F:71:ARG:HG2	6:F:71:ARG:NH2	1.90	0.86
8:H:43:LEU:HD13	8:H:72:PHE:CD1	2.10	0.86
6:F:39:ILE:CG2	6:F:68:ILE:HG21	2.05	0.86
25:Y:45:ALA:HA	25:Y:55:ILE:HD12	1.58	0.86
11:K:33:PRO:O	11:K:34:GLU:HB3	1.73	0.86
25:Y:63:HIS:CB	25:Y:64:PHE:CD1	2.59	0.86
19:S:54:LYS:N	19:S:54:LYS:HA	1.90	0.86
10:J:177:ASN:O	10:J:180:LYS:HG3	1.76	0.86
13:M:78:LYS:C	13:M:79:VAL:HG23	1.94	0.86
5:E:36:HIS:CB	5:E:41:CYS:SG	2.63	0.86
7:G:185:LEU:HA	7:G:188:LYS:HE3	1.54	0.86
9:I:85:ALA:HB1	12:L:8:ARG:NH1	1.89	0.86
1:A:30:LEU:HG	1:A:31:ASP:O	1.75	0.86
3:C:55:VAL:HB	6:F:34:SER:HB3	86.27	0.86
14:N:27:LYS:HD2	14:N:28:LEU:N	1.91	0.86
6:F:25:THR:CG2	6:F:41:VAL:CG2	2.54	0.86
11:K:39:ASN:O	11:K:40:VAL:HG12	1.74	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:122:LYS:H	25:Y:122:LYS:CD	1.88	0.86
1:A:57:LYS:HE2	22:V:70:LEU:CD1	2.04	0.86
3:C:142:LEU:HA	3:C:145:LEU:HD23	1.56	0.86
6:F:121:PRO:HA	6:F:193:LYS:HE3	1.58	0.86
14:N:54:LEU:O	14:N:58:HIS:O	1.93	0.86
6:F:41:VAL:HG22	6:F:42:LYS:H	0.72	0.86
17:Q:135:PRO:HD2	17:Q:141:TYR:CE1	2.11	0.86
24:X:126:ALA:O	24:X:128:VAL:HB	1.75	0.86
23:W:90:GLN:CA	23:W:102:ILE:HD11	2.06	0.86
20:T:18:LEU:CD1	20:T:134:ILE:HD13	2.05	0.86
9:I:141:ARG:CD	9:I:144:LYS:HB2	1.88	0.85
1:A:177:MET:HE3	1:A:180:ARG:CZ	2.05	0.85
2:B:139:CYS:SG	2:B:212:VAL:HG12	2.16	0.85
2:B:25:PHE:HD2	15:O:88:LEU:CD2	1.87	0.85
8:H:144:ILE:CG1	23:W:52:ILE:CG2	2.53	0.85
16:P:52:LYS:HA	16:P:54:HIS:CD2	2.09	0.85
10:J:92:MET:C	10:J:93:LYS:HE3	1.96	0.85
10:J:177:ASN:O	10:J:180:LYS:CB	2.23	0.85
13:M:13:ASP:CB	13:M:16:THR:CB	2.28	0.85
23:W:93:LEU:CD2	23:W:128:PHE:CD2	2.57	0.85
25:Y:10:ARG:HE	25:Y:24:VAL:HG11	0.75	0.85
26:Z:69:THR:HB	26:Z:70:PRO:CD	2.05	0.85
9:I:139:LYS:HB2	9:I:145:ILE:HD11	1.56	0.85
22:V:24:ILE:HD13	22:V:24:ILE:C	1.94	0.85
22:V:78:ILE:CD1	22:V:79:VAL:H	1.88	0.85
5:E:11:ARG:NH1	5:E:20:LEU:HB3	1.90	0.85
13:M:12:MET:CG	13:M:16:THR:CG2	2.52	0.85
9:I:191:GLU:O	9:I:192:GLY:C	2.14	0.85
2:B:28:LYS:CE	15:O:51:GLU:OE2	2.24	0.85
6:F:63:LYS:CD	6:F:71:ARG:HH12	1.85	0.85
15:O:54:CYS:SG	15:O:84:ARG:HB2	2.17	0.85
6:F:116:ILE:H	6:F:116:ILE:HD13	1.29	0.85
10:J:17:ARG:C	10:J:18:ARG:HG2	1.88	0.85
18:R:91:LEU:HD12	18:R:92:ASP:HA	1.56	0.85
12:L:151:THR:O	12:L:153:LYS:N	2.10	0.85
2:B:149:GLN:HE21	2:B:151:ARG:HG2	1.41	0.85
25:Y:13:MET:HE1	25:Y:14:THR:O	1.72	0.85
9:I:84:ASN:ND2	9:I:100:CYS:SG	2.48	0.85
7:G:64:LYS:HG3	7:G:67:VAL:HG13	1.55	0.85
25:Y:119:GLY:O	25:Y:121:ALA:N	2.10	0.85
15:O:61:LYS:O	15:O:62:VAL:CG2	2.23	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:167:LYS:HD3	6:F:171:GLU:HB3	1.57	0.85
3:C:102:GLN:CG	3:C:103:ALA:H	1.88	0.85
3:C:156:GLY:C	3:C:157:ASN:ND2	2.29	0.85
16:P:68:PRO:CB	16:P:69:PRO:CD	2.53	0.85
5:E:180:LEU:HD22	5:E:181:CYS:H	1.41	0.85
5:E:151:ASP:HB3	7:G:212:LEU:CD2	2.06	0.85
9:I:142:SER:CB	9:I:143:LYS:NZ	2.39	0.85
1:A:186:ARG:NH1	1:A:186:ARG:C	2.30	0.85
3:C:244:THR:HG22	3:C:246:PHE:HD2	1.41	0.85
15:O:62:VAL:HG22	15:O:72:TYR:OH	1.75	0.85
11:K:84:HIS:ND1	11:K:84:HIS:C	2.28	0.85
17:Q:105:LYS:NZ	17:Q:109:LYS:HB2	1.90	0.85
17:Q:105:LYS:HZ3	17:Q:109:LYS:HB2	1.41	0.85
17:Q:44:PRO:CG	17:Q:81:ILE:HD11	2.06	0.85
16:P:52:LYS:N	16:P:54:HIS:CD2	2.43	0.85
18:R:121:GLN:C	18:R:121:GLN:NE2	2.30	0.85
20:T:11:GLN:HE22	20:T:62:ARG:NH2	1.74	0.85
8:H:107:LYS:C	8:H:109:ARG:HA	1.97	0.85
12:L:80:MET:CE	12:L:121:GLN:HA	2.06	0.85
2:B:25:PHE:HE2	15:O:88:LEU:HD11	1.29	0.85
13:M:28:HIS:CD2	13:M:113:ASP:OD2	2.29	0.85
17:Q:42:ILE:CG2	17:Q:51:LEU:CD2	2.54	0.85
21:U:97:ILE:HG23	21:U:101:ILE:CD1	2.06	0.85
25:Y:20:ARG:HG3	25:Y:74:MET:HE3	0.87	0.85
25:Y:55:ILE:CG1	25:Y:75:ILE:CD1	2.46	0.85
15:O:55:ARG:O	15:O:56:VAL:CG1	2.23	0.85
18:R:32:LYS:HE2	18:R:33:ARG:HE	1.41	0.85
1:A:145:ILE:HD13	1:A:159:ILE:CG2	2.07	0.85
4:D:97:CYS:SG	4:D:99:ILE:CG1	2.65	0.85
11:K:71:LEU:HD21	11:K:76:ILE:CD1	1.93	0.85
13:M:117:GLU:O	13:M:118:SER:OG	1.93	0.85
24:X:125:VAL:O	24:X:128:VAL:N	2.10	0.85
6:F:14:THR:HG23	17:Q:56:LEU:CB	2.00	0.85
19:S:95:TYR:N	19:S:95:TYR:HD1	1.73	0.85
8:H:147:LYS:HE2	8:H:153:LEU:CD1	2.06	0.85
17:Q:9:SER:HB3	17:Q:26:LYS:CD	2.06	0.85
1:A:180:ARG:HH11	1:A:184:ARG:CZ	1.90	0.85
1:A:66:VAL:HG22	1:A:186:ARG:CD	2.02	0.85
4:D:76:ARG:HE	11:K:66:HIS:CE1	1.90	0.85
17:Q:42:ILE:CD1	17:Q:51:LEU:HD11	2.07	0.85
19:S:94:LYS:CD	19:S:96:SER:OG	2.24	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:127:LYS:C	16:P:127:LYS:NZ	2.29	0.85
15:O:94:HIS:ND1	15:O:127:GLY:O	2.09	0.85
5:E:126:VAL:HG21	5:E:129:ILE:HD11	1.58	0.85
2:B:62:LEU:HD23	2:B:91:VAL:HG21	1.58	0.85
15:O:16:SER:HA	15:O:87:GLU:O	1.77	0.85
15:O:95:ILE:CD1	15:O:116:LEU:CD2	2.54	0.85
21:U:67:LYS:HE3	21:U:78:ASP:OD1	1.77	0.85
16:P:49:LEU:O	16:P:50:ARG:C	2.08	0.85
2:B:113:MET:HE2	2:B:209:ASP:CG	1.97	0.85
25:Y:7:ILE:HD12	25:Y:43:LYS:CB	2.05	0.85
20:T:4:VAL:HG12	20:T:8:ASP:HB3	1.58	0.85
7:G:27:PHE:HE2	7:G:41:LEU:HD12	1.37	0.85
7:G:68:LEU:O	7:G:69:THR:OG1	1.95	0.85
22:V:74:LYS:HG3	22:V:75:SER:N	1.89	0.85
24:X:94:ILE:CG1	24:X:125:VAL:HG21	2.07	0.85
16:P:33:LEU:HD22	16:P:87:PRO:HG3	1.58	0.85
19:S:9:PHE:N	19:S:9:PHE:CD1	2.37	0.85
18:R:92:ASP:O	18:R:93:GLN:HB3	1.73	0.85
1:A:164:ASN:O	1:A:166:LYS:N	2.10	0.85
25:Y:111:LYS:HZ3	25:Y:115:LYS:HZ1	1.25	0.85
5:E:191:ARG:CZ	5:E:245:ARG:HD3	2.07	0.85
9:I:155:ASN:O	12:L:22:ARG:NE	2.10	0.84
1:A:180:ARG:HD3	1:A:184:ARG:CZ	2.06	0.84
6:F:91:ARG:HA	6:F:91:ARG:HE	1.03	0.84
10:J:46:VAL:CG1	10:J:102:ILE:HG23	2.07	0.84
24:X:95:GLU:HG3	24:X:140:ARG:HH22	1.41	0.84
4:D:193:ASP:OD1	4:D:203:PRO:HA	1.76	0.84
3:C:155:TRP:HH2	23:W:97:ARG:NH1	1.39	0.84
19:S:138:THR:N	19:S:141:ARG:HH21	1.74	0.84
10:J:48:PHE:HZ	10:J:52:LYS:HZ2	1.22	0.84
13:M:91:LEU:HD22	13:M:104:VAL:CG1	2.06	0.84
26:Z:85:ARG:HH11	26:Z:85:ARG:CG	1.90	0.84
8:H:100:ILE:HG12	8:H:125:VAL:HG21	1.58	0.84
12:L:80:MET:HE2	12:L:121:GLN:CA	2.07	0.84
8:H:29:GLU:OE2	8:H:86:LYS:HE3	1.77	0.84
8:H:31:GLU:CD	8:H:41:ARG:CD	2.45	0.84
11:K:16:PHE:HD2	11:K:79:LEU:CB	1.86	0.84
10:J:65:GLU:O	10:J:66:LYS:HB2	1.75	0.84
9:I:161:LEU:HD13	9:I:199:LEU:HD11	1.55	0.84
9:I:70:GLU:OE2	9:I:117:TYR:OH	1.95	0.84
25:Y:114:MET:CA	25:Y:124:ASN:HD22	1.87	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:6:LYS:O	11:K:9:ILE:HG22	1.77	0.84
4:D:197:LYS:N	4:D:198:ILE:C	2.30	0.84
20:T:63:HIS:O	20:T:67:ARG:CD	2.26	0.84
3:C:229:ILE:HG13	3:C:230:SER:N	1.91	0.84
24:X:102:VAL:CG1	24:X:120:PHE:HB3	2.07	0.84
4:D:141:LYS:HD2	4:D:179:GLN:CG	2.07	0.84
2:B:75:GLN:HA	2:B:75:GLN:NE2	1.90	0.84
7:G:52:ILE:HA	7:G:111:LEU:HD23	1.59	0.84
25:Y:22:GLN:HB2	25:Y:74:MET:SD	2.15	0.84
4:D:197:LYS:CB	4:D:198:ILE:CB	2.55	0.84
13:M:50:CYS:O	13:M:77:ILE:HG22	1.78	0.84
14:N:99:ARG:NH2	14:N:115:LEU:CD2	2.39	0.84
5:E:87:MET:HE2	5:E:182:MET:HE1	1.60	0.84
7:G:27:PHE:CE2	7:G:41:LEU:CD1	2.60	0.84
7:G:98:ARG:HD3	7:G:98:ARG:C	1.93	0.84
6:F:20:PHE:O	6:F:22:LYS:HA	1.78	0.84
13:M:28:HIS:HD2	13:M:113:ASP:OD2	1.59	0.84
24:X:94:ILE:HD11	24:X:122:VAL:HG11	1.60	0.84
19:S:6:PRO:CA	26:Z:50:PHE:HB2	2.03	0.84
4:D:126:ILE:HD12	4:D:134:CYS:CB	2.08	0.84
25:Y:93:ARG:HG2	25:Y:93:ARG:NH1	1.71	0.84
7:G:212:LEU:HA	7:G:215:LYS:CD	2.07	0.84
2:B:31:TYR:HE1	2:B:94:LYS:H	1.20	0.84
3:C:120:GLY:HA2	3:C:150:VAL:CG2	2.07	0.84
22:V:17:CYS:HG	22:V:56:CYS:HB3	1.04	0.84
26:Z:103:HIS:CD2	26:Z:105:ALA:N	2.45	0.84
25:Y:50:THR:HG21	25:Y:75:ILE:HG21	1.60	0.84
25:Y:29:HIS:ND1	25:Y:67:GLY:CA	2.37	0.84
10:J:180:LYS:HG3	10:J:181:GLY:N	1.90	0.84
21:U:49:LYS:O	21:U:50:VAL:CG1	2.24	0.84
6:F:161:ALA:HB3	6:F:172:CYS:SG	2.18	0.84
9:I:140:LYS:CG	9:I:141:ARG:N	2.37	0.84
5:E:21:ASP:OD1	5:E:24:THR:HG21	1.76	0.84
16:P:97:TYR:HB2	16:P:102:PHE:CE1	2.13	0.84
4:D:212:GLU:O	4:D:213:PRO:O	1.94	0.84
24:X:142:ARG:HG3	24:X:142:ARG:NH1	1.91	0.84
6:F:75:SER:O	6:F:78:MET:HG3	1.78	0.84
5:E:159:THR:HG21	5:E:227:VAL:HG23	1.56	0.84
7:G:64:LYS:CG	7:G:67:VAL:CG1	2.55	0.84
12:L:147:LYS:HG3	12:L:148:ALA:N	1.92	0.84
1:A:103:PHE:HZ	1:A:136:GLU:OE1	1.61	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:97:THR:HG23	1:A:98:PRO:CD	2.06	0.84
3:C:69:PHE:CZ	3:C:249:SER:HA	2.11	0.84
10:J:138:ARG:O	10:J:138:ARG:HG2	1.77	0.84
5:E:124:CYS:HB3	5:E:141:THR:HB	1.59	0.84
7:G:215:LYS:O	7:G:218:LYS:HG3	1.78	0.84
7:G:67:VAL:O	7:G:68:LEU:HB2	1.76	0.84
17:Q:8:GLN:HB3	17:Q:99:TYR:CZ	2.13	0.84
1:A:32:PHE:CE1	1:A:33:GLN:CG	2.61	0.84
3:C:51:LEU:HD22	3:C:51:LEU:C	1.95	0.84
15:O:119:LEU:HD12	15:O:120:ALA:N	1.91	0.84
16:P:123:TYR:OH	19:S:124:ARG:HG2	1.78	0.84
19:S:58:GLU:O	19:S:59:LEU:CG	2.25	0.84
19:S:55:ARG:HG3	26:Z:48:VAL:HG11	1.60	0.84
8:H:122:LEU:CD1	8:H:123:THR:HG23	2.08	0.84
10:J:87:LEU:HD11	10:J:91:LYS:CB	2.06	0.84
19:S:139:THR:O	19:S:141:ARG:HG2	1.76	0.84
1:A:23:THR:O	1:A:25:LEU:N	2.11	0.84
1:A:54:THR:OG1	1:A:162:PRO:HG2	1.77	0.84
2:B:94:LYS:CD	2:B:94:LYS:N	2.39	0.84
6:F:122:ARG:CZ	6:F:193:LYS:NZ	2.40	0.84
15:O:44:VAL:HG12	15:O:53:ILE:HD11	1.58	0.84
21:U:67:LYS:HE2	21:U:78:ASP:CG	1.98	0.84
16:P:41:GLN:HA	16:P:84:ILE:CD1	2.07	0.84
4:D:202:LYS:HB2	4:D:203:PRO:CD	2.08	0.84
14:N:38:TYR:CE2	14:N:74:ILE:HG22	2.07	0.84
1:A:39:TYR:CB	1:A:50:ASN:ND2	2.40	0.83
24:X:105:PHE:CD1	24:X:112:VAL:HG21	2.13	0.83
14:N:38:TYR:HE2	14:N:74:ILE:HG23	1.43	0.83
23:W:129:PHE:CD1	23:W:129:PHE:C	2.45	0.83
12:L:59:LYS:HD3	12:L:112:HIS:CD2	2.11	0.83
17:Q:34:VAL:CG2	17:Q:39:LEU:HD21	2.06	0.83
25:Y:59:GLY:O	25:Y:60:PHE:HB2	1.77	0.83
16:P:89:MET:HB3	16:P:107:ILE:CD1	2.07	0.83
19:S:8:LYS:O	26:Z:49:LEU:HD23	1.76	0.83
10:J:90:GLY:C	10:J:96:TYR:CE2	2.50	0.83
18:R:91:LEU:HB2	18:R:92:ASP:CA	2.08	0.83
2:B:153:THR:CG2	2:B:154:SER:H	1.91	0.83
7:G:195:LYS:O	7:G:199:THR:HG23	1.78	0.83
18:R:99:ASP:CB	18:R:119:VAL:CG1	2.56	0.83
17:Q:42:ILE:HD13	17:Q:51:LEU:HD21	0.85	0.83
21:U:62:ARG:HH11	21:U:64:THR:CG2	1.92	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:34:THR:C	25:Y:35:VAL:HG22	1.98	0.83
16:P:51:ARG:O	16:P:52:LYS:CB	2.22	0.83
13:M:12:MET:CE	13:M:120:ALA:HB2	2.08	0.83
3:C:192:ALA:C	3:C:195:PRO:HD2	1.99	0.83
3:C:260:LYS:CD	3:C:261:THR:N	2.41	0.83
7:G:181:THR:OG1	7:G:182:PRO:CD	2.25	0.83
7:G:84:TYR:HE2	7:G:86:PRO:HG3	1.43	0.83
1:A:11:LYS:HD3	1:A:13:GLU:CG	2.08	0.83
8:H:143:ARG:HD3	23:W:53:ILE:HG12	0.86	0.83
11:K:27:VAL:CG1	11:K:43:LEU:HD21	2.02	0.83
11:K:27:VAL:HG13	11:K:43:LEU:HD23	1.52	0.83
10:J:31:LEU:O	10:J:35:TYR:HB2	1.77	0.83
10:J:61:LEU:HD22	10:J:98:LEU:HD12	1.60	0.83
25:Y:78:SER:CB	25:Y:81:TYR:CE2	2.61	0.83
3:C:93:LYS:CE	3:C:218:LEU:CD2	2.48	0.83
4:D:212:GLU:HB2	4:D:213:PRO:CD	2.07	0.83
13:M:124:ILE:CA	13:M:127:TYR:CD2	2.62	0.83
25:Y:54:VAL:CG1	25:Y:76:TYR:N	2.40	0.83
19:S:39:ARG:CD	20:T:38:LYS:HE3	2.05	0.83
16:P:53:GLN:HB3	16:P:56:LEU:HD12	1.61	0.83
3:C:156:GLY:HA2	23:W:98:GLN:HE22	1.43	0.83
3:C:244:THR:HG21	3:C:246:PHE:HA	1.59	0.83
22:V:60:ARG:HG2	22:V:65:SER:HB3	1.58	0.83
6:F:91:ARG:HD2	17:Q:46:THR:HG21	1.60	0.83
17:Q:58:LEU:HD22	17:Q:111:ILE:CD1	2.09	0.83
17:Q:72:VAL:CG2	17:Q:84:ILE:CG2	2.56	0.83
24:X:95:GLU:CD	24:X:140:ARG:NH2	2.31	0.83
25:Y:54:VAL:HG12	25:Y:76:TYR:H	1.43	0.83
19:S:42:HIS:HD2	20:T:45:LEU:HD11	1.01	0.83
25:Y:7:ILE:CD1	25:Y:43:LYS:CD	2.55	0.83
24:X:74:LEU:HD11	24:X:81:ILE:CD1	2.08	0.83
3:C:98:GLN:CB	3:C:106:ARG:O	2.27	0.83
11:K:74:GLU:HA	11:K:74:GLU:OE1	1.77	0.83
6:F:63:LYS:HD3	6:F:71:ARG:HH22	1.41	0.83
6:F:42:LYS:CA	6:F:45:TYR:H	1.91	0.83
11:K:84:HIS:ND1	11:K:85:LEU:N	2.26	0.83
25:Y:54:VAL:CG1	25:Y:76:TYR:H	1.92	0.83
25:Y:36:PRO:CG	25:Y:39:GLU:OE1	2.23	0.83
10:J:15:THR:CG2	10:J:44:TRP:CE3	2.56	0.83
4:D:198:ILE:O	4:D:198:ILE:HD12	1.77	0.83
23:W:129:PHE:CD1	23:W:129:PHE:O	2.30	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:67:ARG:HH11	4:D:67:ARG:CG	1.92	0.83
8:H:147:LYS:CE	8:H:153:LEU:HD12	2.08	0.83
10:J:45:ARG:O	10:J:49:THR:HG23	1.78	0.83
5:E:198:ARG:HG2	5:E:198:ARG:O	1.75	0.83
9:I:103:LEU:HD23	9:I:172:LEU:HD13	1.59	0.83
3:C:244:THR:O	3:C:244:THR:HG22	1.77	0.83
6:F:14:THR:CB	17:Q:56:LEU:CD1	2.55	0.83
19:S:26:ILE:HG22	19:S:45:LEU:HD11	1.60	0.83
10:J:138:ARG:HB2	10:J:156:HIS:HB3	1.61	0.83
11:K:96:ARG:CG	11:K:97:SER:H	1.91	0.83
2:B:130:THR:HG21	2:B:179:ASN:H	1.43	0.83
2:B:72:ALA:HB3	15:O:128:ARG:HH22	1.42	0.83
8:H:145:ARG:HD2	23:W:51:GLU:OE1	1.78	0.83
17:Q:113:ILE:HG13	17:Q:120:LEU:HD11	1.60	0.83
17:Q:114:GLN:CG	17:Q:115:TYR:H	1.91	0.83
20:T:39:LEU:HD12	20:T:99:VAL:HG21	1.61	0.83
16:P:10:ARG:CZ	16:P:11:THR:HB	2.09	0.83
26:Z:99:LEU:HD22	26:Z:102:LYS:CD	2.05	0.83
24:X:69:CYS:SG	24:X:84:PHE:HA	2.19	0.83
3:C:192:ALA:O	3:C:195:PRO:HD2	1.79	0.83
13:M:92:CYS:HB2	13:M:101:ARG:HG3	1.60	0.83
13:M:93:LYS:O	13:M:94:ILE:CG2	2.26	0.83
25:Y:13:MET:CE	25:Y:14:THR:N	2.42	0.83
15:O:37:PHE:O	15:O:38:ASN:HB2	1.78	0.83
11:K:26:ASP:OD2	11:K:29:MET:HG3	1.77	0.83
9:I:141:ARG:O	9:I:143:LYS:CE	2.27	0.83
1:A:141:ASN:HD21	22:V:29:HIS:CB	1.92	0.83
18:R:100:PRO:CB	18:R:119:VAL:HG21	2.06	0.83
17:Q:114:GLN:HG3	17:Q:115:TYR:N	1.93	0.83
17:Q:25:CYS:SG	17:Q:91:ALA:CB	2.63	0.83
21:U:108:PRO:O	21:U:108:PRO:HG2	1.79	0.83
19:S:34:LYS:CB	19:S:103:LEU:CD2	2.01	0.83
23:W:42:MET:HE3	23:W:50:PHE:CD2	2.14	0.83
16:P:51:ARG:H	16:P:51:ARG:CD	1.92	0.83
10:J:90:GLY:C	10:J:96:TYR:CD2	2.52	0.83
2:B:105:LEU:HD21	2:B:213:ARG:HA	1.59	0.83
7:G:14:LYS:HZ1	7:G:123:GLY:CA	1.91	0.82
9:I:136:ILE:CG2	9:I:139:LYS:CE	2.43	0.82
1:A:42:LYS:HD2	18:R:101:ASP:CB	2.09	0.82
22:V:19:ALA:HB3	22:V:59:ILE:HD13	1.59	0.82
22:V:55:ILE:CD1	22:V:65:SER:HA	2.08	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:36:ALA:C	11:K:38:LYS:N	2.30	0.82
11:K:84:HIS:ND1	11:K:85:LEU:CA	2.42	0.82
16:P:4:VAL:O	16:P:4:VAL:HG12	1.76	0.82
26:Z:91:LEU:HD22	26:Z:96:LEU:HD12	1.59	0.82
17:Q:92:LEU:HD12	17:Q:96:TYR:CE2	2.13	0.82
21:U:18:HIS:CE1	21:U:98:VAL:CG2	2.60	0.82
5:E:129:ILE:HG13	5:E:139:LEU:HD23	1.44	0.82
7:G:29:GLU:O	7:G:29:GLU:HG2	1.78	0.82
3:C:142:LEU:O	3:C:145:LEU:CD2	2.26	0.82
15:O:17:LEU:HD23	15:O:18:GLY:N	1.94	0.82
21:U:27:ARG:O	21:U:28:ASN:C	2.12	0.82
5:E:43:PRO:CG	5:E:46:ILE:HD12	2.09	0.82
26:Z:62:VAL:CG1	26:Z:68:ILE:HD13	2.05	0.82
4:D:202:LYS:CB	4:D:203:PRO:CD	2.57	0.82
2:B:153:THR:O	2:B:154:SER:OG	1.95	0.82
4:D:226:GLN:HA	4:D:226:GLN:HE21	1.34	0.82
5:E:86:PHE:CZ	5:E:182:MET:CE	2.62	0.82
1:A:5:LEU:HD13	1:A:6:ASP:H	1.41	0.82
18:R:100:PRO:C	18:R:103:LYS:H	1.82	0.82
24:X:105:PHE:CG	24:X:112:VAL:CG2	2.62	0.82
1:A:24:HIS:HD2	18:R:105:MET:HE2	1.34	0.82
6:F:201:LYS:CE	6:F:204:ARG:NH2	2.39	0.82
8:H:40:LEU:HD21	8:H:43:LEU:HD12	0.84	0.82
4:D:56:GLN:HA	4:D:59:LEU:CD2	2.09	0.82
17:Q:116:ASP:O	17:Q:117:ARG:HB2	1.78	0.82
21:U:67:LYS:HE2	21:U:78:ASP:OD2	1.78	0.82
20:T:31:PRO:CG	20:T:102:ARG:HG3	2.09	0.82
13:M:26:LEU:HD11	13:M:89:VAL:C	1.99	0.82
15:O:56:VAL:HG11	15:O:81:VAL:CG2	2.04	0.82
16:P:118:GLU:O	19:S:119:ALA:CA	2.27	0.82
12:L:125:ILE:O	12:L:146:THR:HG22	1.79	0.82
8:H:145:ARG:HH11	8:H:155:LYS:NZ	1.77	0.82
17:Q:90:LYS:HD3	17:Q:120:LEU:HA	1.61	0.82
24:X:126:ALA:HB3	24:X:128:VAL:CG1	2.08	0.82
16:P:14:LYS:O	16:P:22:LEU:HD23	1.78	0.82
4:D:211:VAL:CG2	18:R:38:ILE:O	2.21	0.82
6:F:179:ASN:O	6:F:182:LYS:O	1.97	0.82
12:L:40:ILE:HD11	12:L:68:ILE:CB	2.09	0.82
12:L:97:ARG:O	12:L:99:TYR:CA	2.26	0.82
17:Q:7:LEU:HD23	17:Q:8:GLN:H	1.44	0.82
3:C:120:GLY:HA2	3:C:150:VAL:HG22	1.60	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:144:ILE:CD1	23:W:52:ILE:CG2	2.47	0.82
16:P:108:LYS:N	16:P:111:MET:HE3	1.95	0.82
4:D:135:GLU:HB2	4:D:153:VAL:HG22	1.61	0.82
13:M:71:GLU:O	13:M:72:HIS:O	1.98	0.82
6:F:195:GLU:OE1	6:F:195:GLU:HA	1.77	0.82
1:A:159:ILE:CG2	1:A:159:ILE:O	2.28	0.82
1:A:76:VAL:HG21	1:A:90:PHE:CE2	2.15	0.82
8:H:15:LYS:CB	8:H:16:PRO:CD	2.54	0.82
14:N:16:LEU:HD21	14:N:62:GLN:CD	1.99	0.82
1:A:141:ASN:ND2	22:V:29:HIS:HB3	1.94	0.82
26:Z:99:LEU:HD13	26:Z:102:LYS:CD	2.09	0.82
10:J:48:PHE:CE1	10:J:52:LYS:NZ	2.42	0.82
9:I:206:LYS:CG	9:I:207:GLY:N	2.42	0.82
9:I:155:ASN:ND2	9:I:156:ALA:HA	1.95	0.82
2:B:48:LEU:O	15:O:51:GLU:OE1	1.97	0.82
18:R:103:LYS:O	18:R:107:LYS:HG3	1.80	0.82
17:Q:58:LEU:HD11	17:Q:108:ILE:HG23	1.60	0.82
10:J:39:ASN:OD1	10:J:42:GLU:CD	2.17	0.82
25:Y:50:THR:O	25:Y:51:THR:OG1	1.97	0.82
10:J:15:THR:CB	10:J:44:TRP:CZ3	2.62	0.82
5:E:126:VAL:CG2	5:E:129:ILE:HD11	2.10	0.82
7:G:147:LEU:HD21	7:G:156:TYR:CE2	2.15	0.82
17:Q:9:SER:CA	17:Q:26:LYS:HG3	2.10	0.82
2:B:55:THR:O	2:B:56:LYS:CD	2.26	0.82
1:A:2:SER:O	22:V:78:ILE:HD11	1.79	0.82
17:Q:58:LEU:HD22	17:Q:111:ILE:HD12	1.61	0.82
25:Y:22:GLN:HB3	25:Y:74:MET:CE	2.09	0.82
9:I:21:TYR:CD2	9:I:22:HIS:CD2	2.66	0.82
4:D:197:LYS:CB	4:D:198:ILE:HG13	2.03	0.82
4:D:123:LEU:HD21	4:D:154:ASP:CG	2.01	0.82
11:K:97:SER:OG	11:K:98:ARG:N	2.10	0.82
18:R:110:ASP:O	18:R:111:PHE:HD2	1.62	0.82
22:V:40:ASP:HB2	22:V:47:ASN:ND2	1.94	0.82
22:V:79:VAL:CG1	22:V:82:ASN:OD1	2.28	0.82
4:D:55:THR:C	4:D:58:VAL:HG22	1.98	0.82
4:D:47:GLU:CD	4:D:85:GLU:OE2	2.18	0.82
6:F:44:LYS:O	6:F:44:LYS:HE3	1.80	0.82
10:J:170:PRO:HG2	10:J:175:ARG:HG3	0.83	0.82
5:E:130:PHE:CB	5:E:138:HIS:CE1	2.63	0.82
18:R:91:LEU:CD1	18:R:91:LEU:N	2.29	0.82
13:M:76:LEU:O	13:M:128:PHE:CE1	2.32	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:7:LEU:HD11	23:W:33:VAL:CG1	2.10	0.82
18:R:51:ALA:O	18:R:55:THR:HG23	1.80	0.82
19:S:10:GLN:HB3	19:S:13:LEU:HD21	1.62	0.82
1:A:202:TYR:O	1:A:203:PHE:CG	2.33	0.82
7:G:147:LEU:O	7:G:151:ASP:OD2	1.98	0.81
7:G:57:ASP:OD2	7:G:98:ARG:HG3	1.80	0.81
8:H:15:LYS:HB3	8:H:16:PRO:HD2	1.60	0.81
8:H:23:ILE:HD11	8:H:27:LEU:HD21	1.62	0.81
22:V:24:ILE:HD13	22:V:25:GLY:H	1.42	0.81
4:D:70:THR:HG22	4:D:86:LEU:HB2	1.62	0.81
17:Q:34:VAL:HG23	17:Q:39:LEU:HD21	1.60	0.81
17:Q:44:PRO:O	17:Q:45:ARG:HG2	1.79	0.81
25:Y:55:ILE:HG22	25:Y:55:ILE:O	1.78	0.81
7:G:38:ALA:HB1	7:G:45:TRP:O	1.78	0.81
2:B:57:ILE:CD1	2:B:60:ASP:CG	2.33	0.81
4:D:78:GLY:O	4:D:80:PRO:HD3	1.80	0.81
6:F:42:LYS:CE	6:F:42:LYS:O	2.28	0.81
21:U:104:ILE:O	21:U:105:SER:C	2.13	0.81
5:E:11:ARG:O	5:E:12:VAL:HG23	1.80	0.81
10:J:134:HIS:ND1	10:J:163:SER:HB3	1.95	0.81
3:C:93:LYS:HE3	3:C:95:MET:HB3	1.61	0.81
26:Z:94:LYS:NZ	26:Z:95:GLY:H	1.78	0.81
3:C:122:VAL:HG13	3:C:202:ALA:HA	1.61	0.81
7:G:85:ARG:NE	25:Y:118:ARG:NE	2.28	0.81
1:A:43:SER:O	1:A:44:ASP:OD1	1.97	0.81
3:C:79:ILE:HG12	3:C:144:LYS:HB3	1.63	0.81
6:F:134:VAL:CG1	6:F:136:ARG:NH2	2.43	0.81
22:V:32:ILE:CD1	22:V:60:ARG:NH1	2.42	0.81
17:Q:85:ARG:HH12	17:Q:117:ARG:CB	1.93	0.81
4:D:56:GLN:O	4:D:59:LEU:CG	2.25	0.81
17:Q:72:VAL:CG2	17:Q:84:ILE:HG22	2.10	0.81
4:D:34:TYR:CE1	21:U:61:LEU:HD21	27.38	0.81
16:P:44:ARG:NH2	16:P:84:ILE:HB	1.93	0.81
10:J:114:VAL:CG1	10:J:119:LEU:O	2.27	0.81
4:D:132:LYS:HA	4:D:191:PRO:CG	2.10	0.81
8:H:83:LEU:CD2	8:H:92:VAL:CG1	2.57	0.81
25:Y:34:THR:HG22	25:Y:35:VAL:H	1.40	0.81
19:S:8:LYS:CE	19:S:9:PHE:CE1	2.63	0.81
26:Z:96:LEU:O	26:Z:112:ASN:HB3	1.80	0.81
4:D:193:ASP:OD1	4:D:203:PRO:CA	2.28	0.81
4:D:218:LEU:CB	4:D:220:THR:HG23	1.97	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:99:LYS:CD	25:Y:99:LYS:O	2.28	0.81
10:J:10:ARG:CZ	10:J:10:ARG:CB	2.58	0.81
19:S:47:LYS:HZ2	19:S:78:LYS:CB	1.93	0.81
2:B:151:ARG:HD2	2:B:153:THR:HG22	1.61	0.81
16:P:68:PRO:HB2	16:P:69:PRO:CD	2.09	0.81
2:B:130:THR:CG2	2:B:179:ASN:H	1.93	0.81
7:G:187:HIS:O	7:G:191:ARG:HG2	1.81	0.81
14:N:16:LEU:HD11	14:N:62:GLN:NE2	1.95	0.81
11:K:84:HIS:HD2	13:M:27:ILE:HG13	1.43	0.81
17:Q:39:LEU:O	17:Q:42:ILE:CD1	2.28	0.81
25:Y:18:LEU:HD13	25:Y:20:ARG:HH12	0.66	0.81
20:T:52:TRP:O	20:T:55:THR:HG22	1.80	0.81
25:Y:29:HIS:CE1	25:Y:68:LYS:CA	2.62	0.81
4:D:108:LYS:CB	4:D:113:LEU:HD22	2.10	0.81
23:W:93:LEU:HD21	23:W:128:PHE:HD2	1.39	0.81
2:B:128:LYS:HG3	2:B:132:GLY:O	1.79	0.81
21:U:18:HIS:CE1	21:U:93:SER:O	2.33	0.81
6:F:19:LEU:HD22	6:F:24:SER:HA	1.60	0.81
5:E:175:PHE:HD2	5:E:175:PHE:O	1.63	0.81
3:C:70:SER:O	22:V:29:HIS:CE1	2.33	0.81
6:F:39:ILE:CG2	6:F:68:ILE:HD13	2.11	0.81
24:X:67:ARG:C	24:X:68:LYS:CG	2.48	0.81
3:C:195:PRO:CD	3:C:221:PHE:HZ	1.92	0.81
21:U:73:GLY:O	21:U:74:SER:O	1.99	0.81
1:A:131:HIS:O	1:A:135:THR:HG23	1.79	0.81
2:B:26:SER:O	2:B:27:LYS:CG	2.28	0.81
2:B:72:ALA:HB3	15:O:128:ARG:NH2	1.95	0.81
22:V:32:ILE:HD12	22:V:60:ARG:HH12	1.42	0.81
16:P:41:GLN:HG3	16:P:84:ILE:HG23	1.57	0.81
10:J:170:PRO:HB2	10:J:174:LYS:HB3	1.62	0.81
25:Y:17:LEU:HD12	25:Y:18:LEU:HG	1.61	0.81
4:D:158:ILE:HD11	4:D:189:MET:SD	2.19	0.81
25:Y:32:LYS:HG2	25:Y:33:ALA:H	1.42	0.81
26:Z:62:VAL:HA	26:Z:65:TYR:CE2	2.16	0.81
10:J:89:GLU:CB	10:J:92:MET:SD	2.68	0.81
21:U:19:ARG:HA	21:U:92:HIS:ND1	1.95	0.81
9:I:155:ASN:O	12:L:22:ARG:HD3	1.80	0.81
12:L:101:ARG:HH12	24:X:5:ARG:HA	1.46	0.81
12:L:94:HIS:HB2	12:L:105:ARG:CD	2.10	0.81
25:Y:114:MET:CE	25:Y:125:VAL:HG23	2.11	0.81
3:C:82:PHE:C	3:C:83:LEU:HD12	2.00	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:34:LYS:CG	19:S:103:LEU:HD21	2.11	0.81
16:P:14:LYS:O	16:P:22:LEU:CD2	2.28	0.81
4:D:192:TRP:HE3	4:D:196:GLY:HA2	1.38	0.81
24:X:29:LYS:HD3	24:X:34:THR:CG2	2.11	0.81
25:Y:7:ILE:CG1	25:Y:43:LYS:HD3	2.11	0.81
7:G:184:VAL:HG12	7:G:188:LYS:CE	2.09	0.81
9:I:128:LYS:HE2	9:I:133:GLU:OE1	1.81	0.81
14:N:23:PRO:HD2	14:N:26:LEU:HD23	1.62	0.81
15:O:30:VAL:HG13	15:O:47:LEU:HD23	1.62	0.81
22:V:67:ASP:O	22:V:70:LEU:N	2.14	0.81
4:D:59:LEU:CD1	4:D:60:GLY:H	1.87	0.81
6:F:44:LYS:HD2	6:F:44:LYS:O	1.80	0.81
10:J:134:HIS:CE1	10:J:164:PRO:HD3	2.15	0.81
10:J:89:GLU:O	10:J:92:MET:CB	2.28	0.81
24:X:105:PHE:CD1	24:X:112:VAL:CG2	2.64	0.81
25:Y:99:LYS:O	25:Y:99:LYS:CE	2.29	0.81
25:Y:7:ILE:HD11	25:Y:43:LYS:CB	2.11	0.81
25:Y:46:LYS:O	25:Y:46:LYS:HD2	1.80	0.81
7:G:162:LEU:CD2	7:G:172:LYS:NZ	2.44	0.81
1:A:21:ALA:HB1	1:A:173:LEU:CD1	2.05	0.81
8:H:36:LEU:HD12	8:H:36:LEU:C	1.95	0.81
4:D:48:ILE:HG21	4:D:86:LEU:HG	1.63	0.81
19:S:39:ARG:CZ	20:T:38:LYS:CD	2.59	0.81
22:V:1:MET:CE	22:V:10:ASP:CB	2.55	0.81
13:M:33:ARG:HH11	13:M:33:ARG:HG3	1.45	0.81
26:Z:69:THR:CB	26:Z:70:PRO:CD	2.58	0.81
9:I:118:ALA:HB2	9:I:149:TYR:CE1	2.15	0.81
2:B:57:ILE:CG2	2:B:57:ILE:O	2.29	0.81
2:B:72:ALA:HB1	2:B:77:ASP:OD2	1.80	0.81
6:F:138:ALA:HB2	6:F:200:ALA:O	1.81	0.81
8:H:23:ILE:CD1	8:H:27:LEU:HD21	2.10	0.81
14:N:59:GLY:O	14:N:60:VAL:HG13	1.81	0.81
11:K:36:ALA:O	11:K:38:LYS:CG	2.29	0.81
21:U:97:ILE:CG2	21:U:101:ILE:CD1	2.58	0.81
10:J:88:ASP:O	10:J:92:MET:HG3	1.81	0.81
18:R:44:LYS:HG3	18:R:47:ARG:NH1	1.96	0.81
13:M:31:LEU:HD11	13:M:109:VAL:HB	1.63	0.81
9:I:128:LYS:C	9:I:131:PRO:HD2	2.01	0.80
1:A:127:PRO:HA	1:A:134:LEU:HD11	1.62	0.80
1:A:42:LYS:HD3	18:R:101:ASP:CB	2.11	0.80
18:R:99:ASP:CB	18:R:119:VAL:HG11	2.09	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:44:LYS:CD	6:F:44:LYS:O	2.29	0.80
16:P:41:GLN:NE2	16:P:84:ILE:CG2	2.43	0.80
10:J:114:VAL:HG12	10:J:120:ALA:CB	2.07	0.80
10:J:37:LEU:HD21	10:J:42:GLU:C	2.01	0.80
20:T:31:PRO:C	20:T:33:TRP:H	1.82	0.80
25:Y:32:LYS:HG3	25:Y:33:ALA:N	1.80	0.80
10:J:16:PRO:CD	10:J:44:TRP:CZ2	2.64	0.80
4:D:195:SER:O	4:D:197:LYS:HA	1.80	0.80
13:M:13:ASP:HB2	13:M:16:THR:HB	0.81	0.80
4:D:123:LEU:CD2	4:D:154:ASP:CB	2.54	0.80
23:W:6:VAL:HG13	23:W:29:PRO:HD2	1.63	0.80
12:L:103:GLU:OE1	24:X:11:ARG:CZ	2.29	0.80
12:L:158:PHE:N	12:L:158:PHE:CD2	2.29	0.80
4:D:34:TYR:CZ	21:U:61:LEU:HD21	26.43	0.80
6:F:46:ALA:C	6:F:47:LYS:HD2	2.00	0.80
10:J:37:LEU:HD11	10:J:42:GLU:HB3	0.81	0.80
24:X:126:ALA:O	24:X:128:VAL:CB	2.29	0.80
25:Y:114:MET:HG2	25:Y:124:ASN:HB3	1.62	0.80
4:D:97:CYS:SG	4:D:97:CYS:O	2.38	0.80
24:X:71:ARG:HE	24:X:82:THR:HG23	1.46	0.80
19:S:34:LYS:HB3	19:S:103:LEU:HD23	1.54	0.80
2:B:66:VAL:HG22	2:B:87:ILE:CB	2.10	0.80
25:Y:101:LYS:O	25:Y:102:THR:CG2	2.29	0.80
4:D:105:LEU:HD21	4:D:184:ILE:HD12	1.62	0.80
8:H:100:ILE:CG1	8:H:125:VAL:HG21	2.11	0.80
25:Y:108:LYS:O	25:Y:111:LYS:HG3	1.82	0.80
5:E:244:ILE:O	5:E:245:ARG:HB3	1.82	0.80
25:Y:120:THR:C	25:Y:122:LYS:HD2	2.02	0.80
1:A:103:PHE:CE2	1:A:136:GLU:CD	2.50	0.80
3:C:84:GLY:CA	3:C:87:LEU:HB3	2.10	0.80
25:Y:9:THR:CB	25:Y:48:TYR:OH	2.29	0.80
25:Y:45:ALA:HA	25:Y:55:ILE:CD1	2.12	0.80
16:P:127:LYS:O	16:P:127:LYS:CE	2.30	0.80
4:D:112:GLY:O	4:D:113:LEU:CG	2.28	0.80
24:X:29:LYS:CD	24:X:34:THR:CG2	2.58	0.80
25:Y:99:LYS:CG	25:Y:99:LYS:O	2.30	0.80
23:W:36:ARG:O	23:W:39:THR:OG1	1.99	0.80
17:Q:30:GLY:O	17:Q:31:LEU:CD1	2.29	0.80
5:E:126:VAL:CG1	5:E:158:ASP:O	2.25	0.80
9:I:140:LYS:O	9:I:141:ARG:HG3	1.82	0.80
1:A:60:LEU:HD13	1:A:60:LEU:O	1.81	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:18:LYS:NZ	4:D:37:VAL:CG2	2.44	0.80
4:D:74:GLN:HE21	4:D:75:LYS:HD3	1.45	0.80
6:F:116:ILE:N	6:F:116:ILE:CD1	2.39	0.80
17:Q:50:LYS:HZ2	17:Q:85:ARG:HH21	0.82	0.80
10:J:170:PRO:CB	10:J:174:LYS:CE	2.60	0.80
10:J:35:TYR:C	10:J:37:LEU:H	1.85	0.80
24:X:27:TYR:CE1	24:X:31:HIS:CE1	2.67	0.80
19:S:23:ARG:HD3	26:Z:48:VAL:HB	1.62	0.80
8:H:122:LEU:CD1	8:H:123:THR:H	1.92	0.80
13:M:100:PRO:O	13:M:101:ARG:CD	2.30	0.80
3:C:177:LEU:HD12	3:C:177:LEU:O	1.81	0.80
7:G:155:GLN:O	7:G:156:TYR:HD1	1.64	0.80
2:B:70:SER:HB2	15:O:128:ARG:HD3	1.60	0.80
22:V:78:ILE:HD13	22:V:79:VAL:N	1.95	0.80
4:D:47:GLU:OE2	4:D:85:GLU:OE2	1.99	0.80
11:K:65:ARG:CZ	11:K:65:ARG:HB3	2.12	0.80
26:Z:103:HIS:O	26:Z:106:GLN:N	2.12	0.80
5:E:49:ARG:HB3	5:E:55:ALA:HB3	1.62	0.80
10:J:109:ARG:O	10:J:110:LEU:O	1.98	0.80
24:X:52:LEU:HD12	24:X:53:GLU:CB	2.11	0.80
25:Y:36:PRO:HG2	25:Y:39:GLU:HB2	1.64	0.80
19:S:12:ILE:O	19:S:12:ILE:CG2	2.30	0.80
16:P:49:LEU:CD1	16:P:51:ARG:HH21	1.95	0.80
18:R:21:TYR:HB3	18:R:71:ILE:HG21	1.62	0.80
12:L:78:THR:HG22	12:L:87:VAL:O	1.82	0.80
20:T:87:VAL:HG13	20:T:88:MET:HG3	1.61	0.80
25:Y:3:ASP:O	25:Y:4:THR:OG1	1.98	0.80
3:C:54:LEU:CD2	3:C:254:PHE:HB3	2.12	0.80
10:J:130:ILE:CG1	10:J:135:ILE:HD13	2.10	0.80
20:T:31:PRO:HB3	20:T:33:TRP:CD2	2.17	0.80
25:Y:29:HIS:HE1	25:Y:67:GLY:C	1.57	0.80
19:S:94:LYS:CD	19:S:95:TYR:O	2.30	0.80
23:W:102:ILE:H	23:W:113:HIS:CE1	1.98	0.80
23:W:101:PHE:HA	23:W:113:HIS:CE1	2.16	0.80
16:P:62:LYS:HG3	16:P:65:LYS:CE	2.11	0.80
14:N:139:TRP:CZ3	14:N:140:LYS:C	2.55	0.80
20:T:144:LYS:HZ2	20:T:144:LYS:HB2	1.47	0.80
5:E:208:VAL:HB	5:E:225:ILE:HD11	0.80	0.80
5:E:97:GLU:OE1	5:E:97:GLU:CA	4.26	0.80
9:I:139:LYS:HB2	9:I:145:ILE:CD1	2.08	0.80
12:L:149:ALA:HB2	12:L:156:GLN:HE21	1.00	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:30:LEU:CD2	1:A:35:GLU:CG	2.51	0.80
1:A:3:GLY:HA3	22:V:78:ILE:HG12	1.64	0.80
1:A:4:ALA:HB1	22:V:39:VAL:HG21	1.63	0.80
8:H:9:VAL:C	8:H:11:PRO:CD	2.50	0.80
15:O:34:PHE:HZ	15:O:100:THR:HA	1.44	0.80
6:F:40:ALA:H	6:F:68:ILE:HG23	1.43	0.80
17:Q:38:PRO:O	17:Q:41:MET:HG2	1.82	0.80
21:U:108:PRO:CG	21:U:108:PRO:O	2.30	0.80
20:T:99:VAL:O	20:T:103:VAL:HG23	1.82	0.80
8:H:83:LEU:HD12	8:H:84:GLU:N	1.96	0.80
13:M:61:TYR:CE1	13:M:108:CYS:SG	2.70	0.80
4:D:195:SER:CA	4:D:197:LYS:O	2.30	0.80
8:H:122:LEU:HD12	8:H:123:THR:HG23	1.63	0.80
4:D:112:GLY:O	4:D:113:LEU:CD1	2.29	0.80
5:E:128:LYS:CD	5:E:130:PHE:CD1	2.63	0.80
13:M:31:LEU:HD12	13:M:33:ARG:HB3	1.64	0.80
3:C:234:SER:HA	22:V:23:ILE:HD11	1.57	0.80
8:H:98:ARG:CZ	8:H:128:ALA:HB1	2.11	0.80
8:H:12:ASN:CB	8:H:46:THR:OG1	2.29	0.80
13:M:124:ILE:HA	13:M:127:TYR:CE2	2.17	0.80
14:N:113:PHE:CE2	14:N:117:LEU:HD11	2.17	0.80
20:T:65:TYR:HA	20:T:123:LEU:HD13	1.64	0.80
17:Q:9:SER:CB	17:Q:26:LYS:CD	2.59	0.80
8:H:65:PRO:CD	8:H:68:GLN:OE1	2.28	0.80
22:V:19:ALA:O	23:W:23:ARG:NH2	2.15	0.80
22:V:42:VAL:O	22:V:43:THR:CG2	2.30	0.80
6:F:46:ALA:C	6:F:47:LYS:CD	2.50	0.80
19:S:39:ARG:NH2	20:T:38:LYS:CD	2.45	0.80
19:S:94:LYS:CE	19:S:95:TYR:O	2.29	0.80
26:Z:77:LEU:O	26:Z:78:LYS:CG	2.31	0.80
2:B:209:ASP:O	2:B:210:VAL:HG23	1.82	0.80
20:T:11:GLN:HE21	20:T:62:ARG:CZ	1.90	0.80
6:F:36:GLN:CG	6:F:37:ASP:OD2	2.30	0.80
26:Z:70:PRO:CD	26:Z:71:ALA:H	1.93	0.80
5:E:241:GLY:O	5:E:244:ILE:HG13	1.81	0.80
9:I:138:ASN:O	9:I:139:LYS:O	2.00	0.79
3:C:55:VAL:HA	3:C:82:PHE:HZ	1.47	0.79
14:N:46:THR:HG1	14:N:49:GLN:HG2	1.44	0.79
18:R:99:ASP:O	18:R:119:VAL:CB	2.29	0.79
11:K:4:PRO:HG2	11:K:7:ASN:CB	2.11	0.79
16:P:83:MET:HE3	16:P:116:LEU:CD1	2.09	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:55:ARG:HH11	26:Z:80:ARG:HE	1.26	0.79
14:N:38:TYR:CE2	14:N:74:ILE:HG23	2.13	0.79
2:B:21:VAL:O	2:B:21:VAL:CG2	2.30	0.79
9:I:206:LYS:HG3	9:I:207:GLY:N	1.97	0.79
7:G:142:ARG:CD	7:G:147:LEU:CB	2.59	0.79
12:L:76:VAL:HG12	12:L:125:ILE:HD12	1.64	0.79
1:A:16:LEU:C	1:A:17:LYS:HE2	2.02	0.79
3:C:51:LEU:CD2	3:C:51:LEU:O	2.30	0.79
1:A:57:LYS:HZ1	22:V:70:LEU:HD11	1.00	0.79
6:F:44:LYS:O	6:F:44:LYS:CE	2.30	0.79
17:Q:58:LEU:HD23	17:Q:111:ILE:CD1	1.96	0.79
26:Z:44:LEU:CD1	26:Z:44:LEU:O	2.30	0.79
3:C:154:TYR:CE1	3:C:162:PRO:CG	2.64	0.79
10:J:100:LEU:HG	10:J:101:LYS:H	1.44	0.79
5:E:129:ILE:HG12	5:E:139:LEU:HD22	1.08	0.79
2:B:94:LYS:HD2	2:B:94:LYS:N	1.95	0.79
3:C:244:THR:HG23	3:C:246:PHE:CA	2.10	0.79
3:C:48:VAL:HG23	3:C:75:GLU:CD	2.03	0.79
8:H:14:GLU:OE1	8:H:16:PRO:CG	2.29	0.79
1:A:42:LYS:CG	18:R:101:ASP:HB3	2.11	0.79
17:Q:109:LYS:HG2	17:Q:113:ILE:HD12	1.62	0.79
21:U:40:ILE:HD11	21:U:53:PRO:HG3	0.80	0.79
25:Y:36:PRO:CG	25:Y:39:GLU:HG3	2.10	0.79
20:T:23:LYS:CE	20:T:54:TYR:CD2	2.63	0.79
10:J:180:LYS:CD	10:J:180:LYS:C	2.50	0.79
10:J:180:LYS:CD	10:J:180:LYS:O	2.30	0.79
25:Y:98:GLU:OE2	25:Y:99:LYS:N	2.15	0.79
13:M:94:ILE:O	13:M:101:ARG:NH1	2.16	0.79
9:I:206:LYS:HD2	9:I:207:GLY:N	1.97	0.79
5:E:145:ARG:NH1	5:E:145:ARG:HG2	1.95	0.79
9:I:29:LEU:HG	9:I:30:GLY:H	1.46	0.79
9:I:3:ILE:CG2	9:I:3:ILE:O	2.29	0.79
7:G:33:ALA:N	7:G:52:ILE:HG23	1.97	0.79
2:B:61:GLY:O	2:B:65:ARG:NE	2.16	0.79
2:B:62:LEU:HD21	2:B:96:CYS:SG	2.23	0.79
8:H:75:ILE:HG23	8:H:76:GLN:H	1.46	0.79
11:K:36:ALA:O	11:K:38:LYS:CD	2.29	0.79
4:D:197:LYS:N	4:D:199:GLY:N	2.30	0.79
16:P:39:ALA:HA	16:P:42:ARG:HE	1.42	0.79
20:T:114:GLU:OE2	20:T:122:LYS:HE3	1.81	0.79
3:C:255:THR:HG23	3:C:256:ASP:OD1	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:120:LYS:O	5:E:164:LEU:CB	2.31	0.79
7:G:162:LEU:CG	7:G:170:ARG:HB2	2.12	0.79
9:I:197:PHE:HE2	12:L:5:GLN:HG3	1.47	0.79
1:A:149:ASN:HB2	1:A:165:ASN:ND2	1.98	0.79
1:A:42:LYS:HG2	18:R:101:ASP:HB3	1.62	0.79
15:O:64:ALA:O	15:O:66:ARG:N	2.15	0.79
4:D:70:THR:CB	4:D:86:LEU:HD13	2.12	0.79
11:K:39:ASN:O	11:K:40:VAL:CG1	2.29	0.79
13:M:28:HIS:O	13:M:29:ASP:HB2	1.82	0.79
17:Q:19:ALA:HB2	17:Q:75:GLY:CA	2.13	0.79
17:Q:42:ILE:HD13	17:Q:51:LEU:CD1	2.12	0.79
17:Q:44:PRO:HG2	17:Q:81:ILE:CD1	2.10	0.79
3:C:93:LYS:HD3	3:C:218:LEU:CD2	1.74	0.79
16:P:5:GLU:O	16:P:6:GLN:CG	2.30	0.79
18:R:5:ARG:C	18:R:10:LYS:HE2	2.02	0.79
7:G:1:MET:HE1	7:G:106:LEU:O	1.83	0.79
4:D:18:LYS:HZ2	4:D:37:VAL:CG2	1.95	0.79
6:F:112:LEU:HA	6:F:177:LEU:CD1	2.11	0.79
6:F:25:THR:CB	6:F:42:LYS:HG3	2.12	0.79
6:F:49:LEU:HD12	6:F:50:PRO:CD	2.11	0.79
10:J:110:LEU:HD11	10:J:130:ILE:HG12	1.63	0.79
10:J:17:ARG:CG	10:J:17:ARG:O	2.29	0.79
16:P:52:LYS:HA	16:P:54:HIS:HD2	1.47	0.79
17:Q:92:LEU:HD11	17:Q:96:TYR:OH	1.81	0.79
24:X:40:PRO:CB	24:X:81:ILE:HD11	2.13	0.79
15:O:94:HIS:CG	15:O:127:GLY:O	2.35	0.79
1:A:14:ASP:HB3	1:A:18:PHE:HE2	1.46	0.79
6:F:127:ARG:CD	6:F:127:ARG:O	2.31	0.79
8:H:14:GLU:OE1	8:H:16:PRO:CB	2.29	0.79
8:H:9:VAL:C	8:H:11:PRO:HD3	2.02	0.79
8:H:144:ILE:CD1	23:W:52:ILE:HD13	2.12	0.79
24:X:27:TYR:CE2	24:X:31:HIS:CD2	2.71	0.79
4:D:198:ILE:O	4:D:198:ILE:CG1	2.30	0.79
5:E:130:PHE:CG	5:E:138:HIS:CE1	2.70	0.79
23:W:38:LEU:HA	23:W:41:MET:CE	2.12	0.79
3:C:154:TYR:HH	3:C:161:LYS:HA	1.45	0.79
19:S:61:GLU:C	19:S:64:VAL:HG22	2.02	0.79
14:N:125:LEU:HD11	14:N:129:TYR:OH	1.83	0.79
10:J:179:LYS:CG	10:J:182:GLN:OE1	2.30	0.79
18:R:42:PRO:HD2	18:R:43:SER:N	1.98	0.79
7:G:157:VAL:HG11	7:G:159:ARG:HG3	1.62	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:147:LYS:CD	12:L:148:ALA:N	2.44	0.79
17:Q:85:ARG:NH1	17:Q:117:ARG:HB3	1.97	0.79
21:U:108:PRO:O	21:U:108:PRO:CD	2.29	0.79
10:J:61:LEU:CD1	10:J:94:LEU:CD1	2.61	0.79
24:X:52:LEU:HD11	24:X:71:ARG:HB2	1.64	0.79
24:X:54:LYS:HD2	24:X:91:LEU:CD1	2.13	0.79
25:Y:20:ARG:CD	25:Y:74:MET:CE	2.51	0.79
16:P:4:VAL:CA	16:P:10:ARG:CG	2.60	0.79
16:P:77:LYS:O	16:P:78:THR:CG2	2.31	0.79
16:P:15:PHE:CZ	19:S:91:LYS:HD2	2.18	0.79
18:R:91:LEU:CD1	18:R:92:ASP:CA	2.53	0.79
4:D:226:GLN:O	4:D:227:LYS:CG	2.30	0.79
7:G:36:VAL:HG12	7:G:37:ALA:N	1.94	0.79
3:C:70:SER:C	22:V:29:HIS:CE1	2.56	0.79
4:D:76:ARG:HD3	11:K:66:HIS:CE1	2.05	0.79
10:J:170:PRO:HA	10:J:174:LYS:HZ3	1.46	0.79
24:X:52:LEU:CD1	24:X:53:GLU:HG2	2.13	0.79
16:P:4:VAL:HA	16:P:10:ARG:CG	2.10	0.79
5:E:130:PHE:CB	5:E:138:HIS:NE2	2.45	0.79
20:T:11:GLN:HE21	20:T:62:ARG:NH1	1.81	0.79
25:Y:7:ILE:HD11	25:Y:43:LYS:CG	2.11	0.79
1:A:143:PRO:HB3	22:V:34:MET:SD	2.22	0.79
11:K:11:ILE:CG2	11:K:49:MET:HE3	2.13	0.79
10:J:117:LEU:O	10:J:119:LEU:N	2.16	0.79
19:S:36:VAL:CG2	19:S:36:VAL:O	2.30	0.79
6:F:103:LEU:CD2	6:F:103:LEU:O	4.02	0.79
18:R:122:PRO:CB	18:R:123:THR:OG1	2.30	0.79
14:N:38:TYR:CD1	14:N:78:LYS:CD	2.65	0.79
4:D:214:LYS:CG	4:D:215:ASP:OD2	2.28	0.79
23:W:7:LEU:HD23	23:W:34:ILE:CG1	2.13	0.79
7:G:27:PHE:HZ	7:G:41:LEU:CD1	1.92	0.78
1:A:76:VAL:CG2	1:A:90:PHE:CE2	2.66	0.78
3:C:50:LYS:HD2	3:C:251:TYR:HD1	1.39	0.78
14:N:21:SER:O	14:N:22:VAL:CG2	2.30	0.78
6:F:91:ARG:NH1	6:F:94:LYS:CG	2.37	0.78
21:U:69:PRO:O	21:U:69:PRO:CD	2.30	0.78
25:Y:44:LEU:CD1	25:Y:48:TYR:CD2	2.66	0.78
20:T:76:THR:OG1	20:T:94:ARG:HB3	1.83	0.78
3:C:169:VAL:CG2	3:C:228:ALA:O	2.31	0.78
4:D:94:ARG:O	4:D:101:GLN:NE2	2.15	0.78
5:E:100:ARG:CD	5:E:102:ILE:HD11	2.08	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:117:GLU:HG3	5:E:118:GLU:H	1.46	0.78
9:I:157:LYS:CG	12:L:22:ARG:NH1	2.45	0.78
6:F:59:LYS:HD2	6:F:62:ARG:HH22	1.41	0.78
14:N:21:SER:O	14:N:22:VAL:CG1	2.30	0.78
21:U:97:ILE:HG22	21:U:101:ILE:HD12	1.63	0.78
16:P:5:GLU:N	16:P:10:ARG:NH1	2.30	0.78
26:Z:48:VAL:C	26:Z:83:LEU:HD12	2.04	0.78
17:Q:92:LEU:HG	17:Q:96:TYR:HE2	1.46	0.78
25:Y:37:LYS:O	25:Y:40:ILE:HG23	1.82	0.78
8:H:149:ASP:O	8:H:151:SER:N	2.16	0.78
17:Q:6:PRO:O	17:Q:6:PRO:HG2	1.81	0.78
9:I:145:ILE:HA	9:I:148:LYS:HG3	1.64	0.78
9:I:154:LYS:C	9:I:154:LYS:HD3	2.01	0.78
17:Q:54:PRO:HG3	17:Q:88:ILE:HD12	1.66	0.78
25:Y:55:ILE:CB	25:Y:75:ILE:HG12	2.12	0.78
16:P:4:VAL:C	16:P:10:ARG:HD3	2.03	0.78
19:S:80:PRO:HB2	19:S:82:TRP:CD1	2.18	0.78
18:R:5:ARG:N	18:R:10:LYS:HZ1	1.80	0.78
13:M:51:VAL:HA	13:M:77:ILE:CG2	2.13	0.78
15:O:75:MET:SD	15:O:118:ALA:HB2	2.22	0.78
2:B:134:LEU:HD12	2:B:219:LYS:HB2	1.66	0.78
4:D:209:SER:OG	18:R:40:ILE:HB	1.83	0.78
12:L:1:MET:O	12:L:2:ALA:HB3	1.84	0.78
7:G:32:MET:CE	7:G:63:MET:SD	2.72	0.78
1:A:177:MET:CE	1:A:180:ARG:HH21	1.95	0.78
1:A:186:ARG:CD	1:A:186:ARG:O	2.31	0.78
2:B:52:THR:HG22	2:B:58:ALA:CB	2.12	0.78
2:B:67:PHE:CD1	15:O:47:LEU:CB	2.66	0.78
11:K:11:ILE:HG23	11:K:49:MET:HE1	1.46	0.78
19:S:8:LYS:CA	26:Z:49:LEU:HD23	2.13	0.78
18:R:122:PRO:CA	18:R:123:THR:CB	2.58	0.78
24:X:67:ARG:HG2	24:X:115:ILE:HG12	1.66	0.78
4:D:218:LEU:CD2	4:D:218:LEU:O	2.30	0.78
13:M:77:ILE:HG23	13:M:78:LYS:N	1.97	0.78
1:A:66:VAL:HG13	1:A:186:ARG:HD2	1.65	0.78
1:A:59:LEU:HD23	1:A:181:GLU:HG2	1.64	0.78
1:A:118:GLU:CB	3:C:50:LYS:HZ3	1.89	0.78
18:R:98:VAL:CG1	18:R:102:THR:OG1	2.32	0.78
4:D:35:SER:OG	4:D:97:CYS:SG	2.34	0.78
24:X:139:GLU:O	24:X:141:PRO:CD	2.30	0.78
24:X:27:TYR:CE1	24:X:31:HIS:CD2	2.69	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:195:SER:O	4:D:197:LYS:CG	2.30	0.78
5:E:229:GLY:HA2	5:E:235:TRP:CD1	2.18	0.78
7:G:137:ARG:HD2	7:G:140:ARG:HE	1.48	0.78
7:G:164:LYS:O	7:G:166:GLY:N	2.16	0.78
7:G:16:ILE:HD13	7:G:45:TRP:HZ2	0.70	0.78
9:I:140:LYS:CD	9:I:141:ARG:H	1.96	0.78
8:H:166:VAL:CG2	8:H:173:PHE:CE2	2.67	0.78
19:S:39:ARG:HD3	20:T:38:LYS:NZ	1.99	0.78
7:G:142:ARG:HH21	7:G:152:ASP:H	1.31	0.78
7:G:153:VAL:O	7:G:155:GLN:N	2.16	0.78
7:G:181:THR:CB	7:G:182:PRO:HD2	2.13	0.78
12:L:40:ILE:O	12:L:40:ILE:HD13	1.84	0.78
11:K:45:VAL:O	11:K:49:MET:HG2	1.84	0.78
21:U:50:VAL:HG22	21:U:52:GLY:N	1.97	0.78
2:B:105:LEU:O	2:B:106:THR:CG2	2.30	0.78
11:K:5:LYS:O	11:K:5:LYS:CG	2.31	0.78
20:T:91:HIS:N	20:T:91:HIS:CD2	2.51	0.78
1:A:60:LEU:HD13	1:A:60:LEU:C	2.04	0.78
2:B:81:PHE:O	2:B:82:ARG:HB2	1.84	0.78
24:X:126:ALA:C	24:X:128:VAL:HB	2.04	0.78
19:S:94:LYS:CB	19:S:95:TYR:O	2.30	0.78
4:D:217:ILE:O	4:D:218:LEU:HD22	1.82	0.78
4:D:74:GLN:NE2	4:D:75:LYS:HE2	1.99	0.78
24:X:129:SER:OG	24:X:132:ALA:HB3	1.83	0.78
25:Y:36:PRO:HD2	25:Y:39:GLU:OE1	1.83	0.78
16:P:49:LEU:CD1	16:P:51:ARG:CZ	2.61	0.78
13:M:12:MET:CE	13:M:120:ALA:CB	2.61	0.78
24:X:60:LYS:CG	24:X:116:PRO:CG	2.58	0.78
13:M:89:VAL:HG12	13:M:90:GLY:H	1.47	0.78
1:A:202:TYR:O	1:A:203:PHE:CD1	2.37	0.78
12:L:109:MET:SD	12:L:140:PHE:CD1	2.77	0.78
12:L:97:ARG:O	12:L:98:LYS:C	2.22	0.78
2:B:48:LEU:HD12	2:B:48:LEU:N	1.99	0.78
22:V:24:ILE:CG2	22:V:24:ILE:O	2.30	0.78
4:D:22:ASN:OD1	4:D:37:VAL:HG22	1.84	0.78
6:F:112:LEU:O	6:F:116:ILE:CD1	2.31	0.78
25:Y:29:HIS:CD2	25:Y:34:THR:H	2.02	0.78
26:Z:58:LEU:HD23	26:Z:77:LEU:HD11	1.66	0.78
4:D:198:ILE:O	4:D:198:ILE:CD1	2.32	0.78
23:W:14:ILE:HG13	23:W:15:ASN:N	1.98	0.78
19:S:139:THR:O	19:S:141:ARG:N	2.17	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:10:ARG:HB3	10:J:10:ARG:HH11	1.44	0.78
5:E:139:LEU:HD11	5:E:154:ILE:HG21	1.64	0.77
5:E:180:LEU:HD13	5:E:228:ILE:CG1	2.15	0.77
7:G:188:LYS:HA	7:G:191:ARG:CD	2.13	0.77
7:G:50:VAL:CG1	7:G:111:LEU:CD2	2.61	0.77
12:L:7:GLU:CG	12:L:8:ARG:HG3	2.14	0.77
1:A:58:LEU:HD23	1:A:178:LEU:HD21	1.58	0.77
8:H:191:GLU:C	8:H:192:PHE:CD1	2.57	0.77
14:N:62:GLN:CB	14:N:65:PHE:CD2	2.64	0.77
15:O:32:HIS:CE1	15:O:96:LYS:HD2	2.19	0.77
22:V:79:VAL:HG12	22:V:82:ASN:OD1	1.83	0.77
3:C:197:LYS:O	3:C:200:LEU:CG	2.30	0.77
11:K:65:ARG:HH11	11:K:65:ARG:HB3	1.28	0.77
17:Q:19:ALA:CB	17:Q:74:GLY:C	2.52	0.77
16:P:75:VAL:HG21	16:P:104:GLN:CD	2.04	0.77
13:M:35:ILE:HB	13:M:61:TYR:CE2	2.18	0.77
18:R:20:TYR:OH	18:R:38:ILE:HB	1.74	0.77
5:E:128:LYS:CD	5:E:130:PHE:HE1	1.84	0.77
7:G:5:ILE:HG22	7:G:124:LEU:HD21	1.65	0.77
1:A:183:LEU:HB2	1:A:189:ILE:CD1	2.13	0.77
6:F:127:ARG:CG	6:F:127:ARG:O	2.32	0.77
15:O:62:VAL:CG2	15:O:72:TYR:OH	2.32	0.77
6:F:15:PRO:HD3	17:Q:56:LEU:HB3	1.66	0.77
5:E:38:LEU:O	5:E:38:LEU:CD1	2.30	0.77
20:T:124:THR:HG23	20:T:126:GLN:H	1.47	0.77
6:F:154:LEU:HD11	6:F:155:CYS:SG	2.24	0.77
9:I:82:VAL:HG11	9:I:202:ILE:HD11	1.64	0.77
18:R:88:VAL:CG1	18:R:88:VAL:O	2.31	0.77
7:G:85:ARG:CZ	25:Y:118:ARG:NE	2.47	0.77
1:A:190:SER:O	1:A:191:ARG:CG	2.30	0.77
1:A:5:LEU:HB2	22:V:41:LYS:CE	2.14	0.77
3:C:43:LYS:CA	3:C:43:LYS:HE3	2.14	0.77
3:C:56:LYS:HD2	3:C:57:ASP:OD1	1.84	0.77
8:H:8:ILE:HG23	8:H:9:VAL:N	1.98	0.77
18:R:100:PRO:CB	18:R:119:VAL:CG2	2.62	0.77
11:K:41:PRO:O	11:K:41:PRO:CD	2.31	0.77
26:Z:48:VAL:HG21	26:Z:80:ARG:HD3	1.65	0.77
26:Z:92:LEU:HD21	26:Z:109:TYR:CD1	2.18	0.77
16:P:124:LYS:O	16:P:124:LYS:HG3	1.84	0.77
10:J:12:THR:O	10:J:48:PHE:CD2	2.37	0.77
3:C:192:ALA:O	3:C:195:PRO:CD	2.31	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:138:ARG:NH1	10:J:156:HIS:NE2	2.31	0.77
24:X:35:ALA:HA	24:X:39:ASN:ND2	1.98	0.77
5:E:97:GLU:OE1	5:E:97:GLU:HA	5.13	0.77
7:G:217:MET:O	7:G:221:LYS:N	2.11	0.77
12:L:10:TYR:CE2	12:L:12:LYS:CE	2.67	0.77
12:L:97:ARG:C	12:L:99:TYR:N	2.33	0.77
1:A:39:TYR:CA	1:A:50:ASN:ND2	2.47	0.77
1:A:118:GLU:HB2	3:C:50:LYS:NZ	1.98	0.77
4:D:70:THR:CA	4:D:86:LEU:HD13	2.15	0.77
21:U:46:LYS:NZ	21:U:97:ILE:HG12	1.99	0.77
3:C:158:LYS:O	3:C:158:LYS:CE	2.30	0.77
25:Y:120:THR:HB	25:Y:122:LYS:HE3	1.62	0.77
25:Y:120:THR:CG2	25:Y:122:LYS:HE2	2.14	0.77
2:B:137:LEU:CD2	2:B:215:VAL:CB	2.63	0.77
6:F:45:TYR:N	6:F:45:TYR:CD1	2.42	0.77
16:P:44:ARG:HD3	16:P:115:TYR:HE1	1.47	0.77
24:X:51:VAL:CG1	24:X:70:VAL:CG1	2.53	0.77
20:T:39:LEU:CD1	20:T:99:VAL:HG21	2.14	0.77
23:W:42:MET:HE2	23:W:49:GLU:HA	1.64	0.77
8:H:52:GLU:HG3	8:H:58:LYS:HB3	1.67	0.77
16:P:18:ARG:HD2	16:P:37:TYR:HB3	1.66	0.77
4:D:201:LYS:CE	4:D:201:LYS:HA	2.14	0.77
24:X:29:LYS:CE	24:X:34:THR:HG21	2.13	0.77
2:B:105:LEU:CD1	2:B:213:ARG:HB2	2.09	0.77
14:N:115:LEU:O	14:N:119:GLU:HG3	1.84	0.77
5:E:204:SER:O	5:E:205:PHE:HB2	1.83	0.77
18:R:27:ASP:O	18:R:31:ASN:ND2	2.17	0.77
25:Y:117:VAL:HG21	25:Y:124:ASN:OD1	1.85	0.77
1:A:28:THR:O	1:A:47:TYR:HE2	1.67	0.77
6:F:63:LYS:CD	6:F:71:ARG:NH2	2.35	0.77
18:R:99:ASP:O	18:R:119:VAL:CG2	2.32	0.77
11:K:4:PRO:HG3	11:K:7:ASN:ND2	1.99	0.77
24:X:133:LEU:CD2	24:X:139:GLU:O	2.33	0.77
19:S:34:LYS:CA	19:S:103:LEU:HD21	2.15	0.77
23:W:38:LEU:HD23	23:W:41:MET:CE	2.14	0.77
8:H:147:LYS:CE	8:H:153:LEU:CD1	2.61	0.77
25:Y:37:LYS:O	25:Y:40:ILE:HG22	1.83	0.77
1:A:198:MET:SD	1:A:198:MET:N	2.57	0.77
5:E:100:ARG:CD	5:E:102:ILE:CD1	2.59	0.77
25:Y:122:LYS:HD2	25:Y:122:LYS:H	1.48	0.77
1:A:13:GLU:O	1:A:17:LYS:CE	2.29	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:39:TYR:HA	1:A:50:ASN:HD21	1.48	0.77
11:K:83:LEU:HB2	11:K:85:LEU:HD21	1.63	0.77
10:J:94:LEU:HD12	10:J:95:ASP:N	2.00	0.77
16:P:10:ARG:HE	16:P:11:THR:N	1.81	0.77
5:E:248:ILE:O	10:J:72:PHE:CE1	2.34	0.77
16:P:125:PRO:O	16:P:126:VAL:CG2	2.32	0.77
13:M:85:LEU:HD22	13:M:106:CYS:SG	2.25	0.77
2:B:148:ASN:O	18:R:124:VAL:CG2	2.33	0.77
26:Z:94:LYS:HD3	26:Z:95:GLY:N	1.99	0.77
5:E:174:LYS:O	5:E:179:ASN:ND2	2.18	0.77
4:D:226:GLN:O	4:D:227:LYS:CB	2.31	0.77
7:G:98:ARG:HD3	7:G:99:GLY:H	1.49	0.77
9:I:112:TRP:HH2	9:I:117:TYR:OH	1.68	0.77
1:A:11:LYS:CD	1:A:13:GLU:CG	2.62	0.77
1:A:177:MET:CE	1:A:180:ARG:CZ	2.61	0.77
1:A:158:ASP:HB3	22:V:65:SER:CB	2.15	0.77
11:K:83:LEU:HB2	11:K:85:LEU:CD2	2.11	0.77
16:P:10:ARG:HE	16:P:11:THR:H	1.27	0.77
26:Z:48:VAL:CG2	26:Z:80:ARG:CD	2.54	0.77
24:X:142:ARG:HB2	24:X:142:ARG:NH1	1.93	0.77
8:H:36:LEU:O	8:H:36:LEU:CD1	2.29	0.77
1:A:185:MET:HE2	22:V:39:VAL:HG12	1.63	0.77
19:S:42:HIS:CG	20:T:45:LEU:CD1	2.46	0.77
9:I:25:ARG:NE	9:I:27:TYR:HE2	1.83	0.77
4:D:197:LYS:H	4:D:199:GLY:N	1.82	0.77
3:C:155:TRP:CZ2	23:W:97:ARG:HD3	2.18	0.77
25:Y:99:LYS:C	25:Y:99:LYS:CE	2.53	0.77
25:Y:84:LYS:CD	25:Y:84:LYS:O	2.31	0.77
20:T:18:LEU:HB2	20:T:134:ILE:CD1	2.14	0.77
17:Q:6:PRO:O	17:Q:6:PRO:CG	2.29	0.77
6:F:32:ASP:HB2	6:F:117:ILE:HG21	1.67	0.77
14:N:21:SER:C	14:N:22:VAL:HG13	2.04	0.77
18:R:98:VAL:HG13	18:R:102:THR:OG1	1.83	0.77
16:P:5:GLU:O	16:P:6:GLN:CB	2.33	0.77
26:Z:92:LEU:HD11	26:Z:99:LEU:HD21	1.66	0.77
4:D:200:PRO:O	4:D:201:LYS:CG	2.32	0.77
8:H:122:LEU:CD1	8:H:123:THR:CG2	2.62	0.77
16:P:52:LYS:CD	16:P:52:LYS:O	2.30	0.77
1:A:27:GLY:O	1:A:47:TYR:HD2	1.69	0.76
3:C:244:THR:O	3:C:244:THR:CG2	2.29	0.76
3:C:50:LYS:HB2	3:C:258:LEU:HB3	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:10:LYS:N	8:H:11:PRO:CD	2.47	0.76
10:J:39:ASN:O	10:J:42:GLU:HB2	1.84	0.76
10:J:39:ASN:N	10:J:42:GLU:HG2	2.00	0.76
16:P:46:SER:C	16:P:49:LEU:HB2	2.05	0.76
16:P:50:ARG:N	16:P:51:ARG:HD2	1.99	0.76
15:O:56:VAL:HG13	15:O:81:VAL:CG2	2.14	0.76
15:O:20:GLN:CG	15:O:21:VAL:O	2.33	0.76
18:R:97:GLU:HA	18:R:116:ASN:HB2	1.67	0.76
5:E:98:ASN:HD22	5:E:119:ALA:HB2	1.47	0.76
5:E:139:LEU:HG	5:E:150:PRO:HG3	1.67	0.76
12:L:10:TYR:CD2	12:L:12:LYS:CE	2.66	0.76
8:H:145:ARG:CD	23:W:51:GLU:CG	2.61	0.76
22:V:53:TYR:CE2	22:V:72:LEU:HB3	2.20	0.76
4:D:45:ARG:HA	4:D:83:SER:OG	1.86	0.76
17:Q:78:VAL:CG1	17:Q:82:TYR:CE2	2.68	0.76
16:P:86:LEU:N	16:P:86:LEU:HD23	2.01	0.76
8:H:83:LEU:HD22	8:H:92:VAL:CG1	2.05	0.76
21:U:48:LEU:N	21:U:48:LEU:CD2	2.29	0.76
23:W:128:PHE:HE1	23:W:130:PHE:CD2	2.00	0.76
2:B:149:GLN:NE2	2:B:151:ARG:HG2	2.00	0.76
9:I:97:VAL:HG22	9:I:100:CYS:SG	2.25	0.76
5:E:99:PHE:CD1	5:E:113:ARG:HG3	2.19	0.76
9:I:85:ALA:CB	12:L:8:ARG:NH1	2.46	0.76
2:B:123:ALA:HB2	2:B:165:ARG:HG2	1.67	0.76
15:O:26:ASN:HB3	15:O:91:THR:OG1	1.84	0.76
11:K:36:ALA:O	11:K:38:LYS:HG3	1.84	0.76
11:K:4:PRO:HB2	11:K:7:ASN:H	1.49	0.76
17:Q:105:LYS:CD	17:Q:105:LYS:O	2.30	0.76
5:E:49:ARG:HD3	5:E:50:ASN:N	2.00	0.76
19:S:54:LYS:C	19:S:54:LYS:HA	2.00	0.76
3:C:241:TRP:CD2	23:W:68:ARG:CD	2.69	0.76
7:G:157:VAL:HG22	7:G:158:VAL:H	1.50	0.76
7:G:64:LYS:CD	7:G:64:LYS:O	2.33	0.76
2:B:57:ILE:O	2:B:59:SER:N	2.18	0.76
1:A:120:ARG:CG	3:C:251:TYR:HE2	1.98	0.76
6:F:122:ARG:O	6:F:141:VAL:CG1	2.21	0.76
16:P:44:ARG:NE	16:P:84:ILE:CD1	2.14	0.76
25:Y:87:PRO:HG2	25:Y:90:ARG:HB2	1.68	0.76
16:P:10:ARG:NE	16:P:11:THR:N	2.34	0.76
25:Y:29:HIS:HD1	25:Y:67:GLY:C	1.87	0.76
16:P:89:MET:C	16:P:107:ILE:HD11	2.06	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:38:LEU:HA	23:W:41:MET:HE2	1.66	0.76
23:W:93:LEU:HD21	23:W:128:PHE:CE2	2.20	0.76
2:B:148:ASN:O	18:R:124:VAL:HG22	1.86	0.76
9:I:82:VAL:CG1	9:I:202:ILE:CD1	2.62	0.76
5:E:126:VAL:CG2	5:E:156:MET:HA	2.15	0.76
9:I:141:ARG:HB2	9:I:144:LYS:N	2.00	0.76
3:C:115:ILE:HD13	3:C:144:LYS:HG3	1.67	0.76
8:H:8:ILE:HG23	8:H:9:VAL:H	1.49	0.76
21:U:102:THR:O	21:U:104:ILE:O	2.04	0.76
24:X:138:LYS:C	24:X:139:GLU:CD	2.43	0.76
25:Y:52:PRO:HD2	25:Y:53:ASP:N	2.00	0.76
26:Z:85:ARG:HH11	26:Z:85:ARG:HG2	1.50	0.76
16:P:69:PRO:HD2	16:P:70:MET:N	2.01	0.76
13:M:71:GLU:CD	13:M:71:GLU:N	2.39	0.76
9:I:29:LEU:HG	9:I:30:GLY:N	2.01	0.76
5:E:86:PHE:O	5:E:87:MET:HB2	1.86	0.76
4:D:97:CYS:O	4:D:98:ALA:C	2.23	0.76
17:Q:32:ILE:O	17:Q:39:LEU:HG	1.85	0.76
10:J:46:VAL:HG11	10:J:106:LEU:HD11	1.67	0.76
25:Y:32:LYS:HG2	25:Y:33:ALA:O	1.85	0.76
19:S:6:PRO:O	19:S:7:GLU:HB2	1.84	0.76
16:P:49:LEU:C	16:P:50:ARG:HG3	2.06	0.76
4:D:218:LEU:CD1	4:D:220:THR:CG2	2.47	0.76
9:I:136:ILE:C	9:I:139:LYS:HG3	2.04	0.76
3:C:127:LYS:HD3	3:C:142:LEU:HD11	1.65	0.76
11:K:39:ASN:O	11:K:40:VAL:CB	2.32	0.76
17:Q:85:ARG:O	17:Q:88:ILE:HG12	1.86	0.76
20:T:77:LYS:HD2	20:T:94:ARG:NH1	2.00	0.76
13:M:14:VAL:O	13:M:15:ASN:OD1	2.04	0.76
4:D:175:VAL:CG1	4:D:182:LEU:HB2	2.16	0.76
24:X:22:TRP:O	24:X:23:HIS:C	2.12	0.76
12:L:5:GLN:O	12:L:7:GLU:N	2.19	0.76
2:B:57:ILE:O	2:B:58:ALA:C	2.21	0.76
3:C:253:GLU:HG3	3:C:254:PHE:CD2	2.21	0.76
14:N:16:LEU:HD21	14:N:62:GLN:NE2	2.01	0.76
16:P:10:ARG:NE	16:P:11:THR:HB	2.01	0.76
24:X:115:ILE:CG2	24:X:115:ILE:O	2.29	0.76
21:U:44:LYS:O	21:U:47:ASN:HA	1.86	0.76
2:B:150:ILE:HD11	18:R:126:MET:CB	2.13	0.76
7:G:181:THR:CB	7:G:182:PRO:CD	2.63	0.76
7:G:58:LYS:O	7:G:59:GLN:HB2	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:37:TYR:OH	1:A:160:ALA:HB3	1.85	0.76
2:B:67:PHE:HE1	15:O:48:SER:N	1.84	0.76
5:E:23:LEU:C	5:E:24:THR:HG23	2.05	0.76
24:X:90:CYS:O	24:X:91:LEU:C	2.24	0.76
24:X:95:GLU:CG	24:X:140:ARG:NH2	2.49	0.76
8:H:146:VAL:HB	23:W:42:MET:HE1	1.68	0.76
25:Y:62:THR:CG2	25:Y:69:THR:HG22	2.14	0.76
25:Y:99:LYS:C	25:Y:99:LYS:HE3	2.06	0.76
13:M:49:LEU:HD13	13:M:50:CYS:N	2.00	0.76
14:N:12:SER:C	14:N:13:GLN:HG3	2.06	0.76
9:I:9:HIS:O	9:I:10:LYS:HG2	1.86	0.76
7:G:142:ARG:NH2	7:G:152:ASP:H	1.84	0.76
2:B:30:TRP:HE1	15:O:17:LEU:HD21	1.49	0.76
3:C:115:ILE:HD12	3:C:143:ALA:HB3	1.68	0.76
8:H:157:HIS:O	8:H:158:LEU:HD23	1.84	0.76
14:N:16:LEU:CD2	14:N:17:PRO:HD2	2.15	0.76
15:O:34:PHE:CZ	15:O:100:THR:HA	2.20	0.76
18:R:105:MET:O	18:R:109:LEU:HD12	1.84	0.76
25:Y:44:LEU:CD1	25:Y:48:TYR:HE2	1.92	0.76
25:Y:93:ARG:CG	25:Y:93:ARG:HH11	1.87	0.76
3:C:142:LEU:C	3:C:145:LEU:HD23	2.07	0.75
8:H:169:LYS:CB	8:H:173:PHE:CE2	2.68	0.75
4:D:70:THR:HG22	4:D:86:LEU:CB	2.16	0.75
11:K:84:HIS:CD2	13:M:27:ILE:HD11	2.21	0.75
21:U:69:PRO:O	21:U:69:PRO:CG	2.29	0.75
20:T:39:LEU:HD11	20:T:56:ARG:NH2	2.01	0.75
2:B:66:VAL:HG22	2:B:87:ILE:HG22	0.76	0.75
18:R:16:ILE:HG22	18:R:24:LEU:HD11	1.68	0.75
18:R:121:GLN:NE2	18:R:122:PRO:N	2.34	0.75
3:C:167:CYS:SG	3:C:168:LYS:N	2.58	0.75
14:N:80:LEU:C	14:N:82:PRO:HD3	2.05	0.75
3:C:198:LEU:HD11	3:C:226:PHE:HD1	1.51	0.75
24:X:76:LYS:O	24:X:77:ASN:OD1	2.04	0.75
5:E:166:THR:OG1	5:E:168:LYS:HG3	1.86	0.75
1:A:24:HIS:O	1:A:25:LEU:C	2.24	0.75
25:Y:54:VAL:HG13	25:Y:76:TYR:O	1.86	0.75
6:F:14:THR:CG2	17:Q:56:LEU:HD13	2.16	0.75
18:R:20:TYR:CE2	18:R:38:ILE:HD13	2.22	0.75
13:M:94:ILE:HG23	13:M:95:ASP:H	0.67	0.75
14:N:125:LEU:CD1	14:N:129:TYR:HE2	1.92	0.75
6:F:187:SER:O	6:F:190:ILE:HG22	1.85	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:130:THR:HB	9:I:131:PRO:HD3	1.66	0.75
12:L:134:LEU:HD23	12:L:134:LEU:O	1.86	0.75
1:A:66:VAL:CG1	1:A:186:ARG:CB	2.63	0.75
2:B:71:LEU:CG	2:B:84:PHE:HE2	1.98	0.75
3:C:149:PRO:CG	3:C:149:PRO:O	2.30	0.75
22:V:55:ILE:HD13	22:V:65:SER:CA	2.14	0.75
17:Q:105:LYS:C	17:Q:105:LYS:CD	2.54	0.75
5:E:62:LYS:CD	5:E:80:ILE:CD1	2.45	0.75
24:X:52:LEU:HD11	24:X:53:GLU:HG2	1.67	0.75
16:P:107:ILE:CB	16:P:111:MET:SD	2.74	0.75
16:P:15:PHE:CE1	19:S:91:LYS:CD	2.70	0.75
18:R:91:LEU:CB	18:R:92:ASP:CA	2.61	0.75
5:E:185:GLY:N	5:E:189:LEU:HD13	2.01	0.75
12:L:112:HIS:HB2	12:L:134:LEU:HD13	1.68	0.75
3:C:49:THR:HG23	3:C:75:GLU:CD	2.06	0.75
6:F:134:VAL:HG11	6:F:136:ARG:HH21	1.52	0.75
6:F:122:ARG:NH2	6:F:193:LYS:HZ1	1.83	0.75
6:F:135:ARG:NH1	15:O:67:ASP:OD2	1.96	0.75
4:D:44:THR:O	4:D:45:ARG:HD3	1.87	0.75
17:Q:12:VAL:CG1	17:Q:13:PHE:H	1.99	0.75
26:Z:103:HIS:NE2	26:Z:105:ALA:HB3	2.00	0.75
19:S:11:HIS:CD2	19:S:23:ARG:HH22	1.96	0.75
19:S:94:LYS:HD3	19:S:96:SER:HG	1.48	0.75
19:S:138:THR:HA	19:S:141:ARG:HH22	1.43	0.75
24:X:60:LYS:CG	24:X:116:PRO:HG2	2.11	0.75
11:K:95:ARG:HA	11:K:95:ARG:HE	1.50	0.75
5:E:184:THR:C	5:E:189:LEU:HD13	2.06	0.75
7:G:16:ILE:HG21	7:G:45:TRP:CZ2	2.22	0.75
7:G:63:MET:HE2	7:G:106:LEU:HD21	1.66	0.75
9:I:104:ILE:O	9:I:105:ASP:CG	2.25	0.75
9:I:165:GLN:OE1	9:I:172:LEU:HD23	1.87	0.75
12:L:113:LEU:CD1	12:L:120:VAL:HG21	2.13	0.75
1:A:185:MET:SD	22:V:44:GLY:HA2	2.25	0.75
2:B:31:TYR:CD1	2:B:94:LYS:CA	2.68	0.75
4:D:21:LEU:HD13	4:D:48:ILE:CD1	2.16	0.75
6:F:41:VAL:HG22	6:F:42:LYS:HD2	1.69	0.75
19:S:120:HIS:CE1	19:S:124:ARG:HH21	2.01	0.75
19:S:11:HIS:CD2	19:S:23:ARG:HH21	1.95	0.75
26:Z:92:LEU:HD11	26:Z:109:TYR:CZ	2.20	0.75
21:U:48:LEU:C	21:U:49:LYS:HG3	2.05	0.75
20:T:90:SER:C	20:T:91:HIS:CD2	2.60	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:202:ILE:O	9:I:206:LYS:HB3	1.86	0.75
7:G:179:LEU:HD12	7:G:179:LEU:C	2.07	0.75
1:A:85:ARG:NH2	1:A:201:LEU:HD12	2.00	0.75
5:E:31:PRO:HG2	5:E:38:LEU:HD13	1.69	0.75
16:P:118:GLU:O	19:S:119:ALA:HA	1.86	0.75
5:E:94:LYS:O	5:E:95:THR:HG23	1.87	0.75
7:G:162:LEU:CD2	7:G:170:ARG:HB2	2.17	0.75
7:G:85:ARG:HD3	25:Y:118:ARG:CZ	2.16	0.75
1:A:94:THR:HG21	1:A:182:VAL:CG2	2.17	0.75
15:O:100:THR:HG22	15:O:104:ARG:HG3	1.67	0.75
1:A:141:ASN:O	22:V:32:ILE:HG21	1.85	0.75
16:P:77:LYS:O	16:P:78:THR:HG23	1.86	0.75
18:R:1:MET:O	18:R:1:MET:N	2.14	0.75
18:R:20:TYR:CD2	18:R:38:ILE:HD13	2.22	0.75
10:J:48:PHE:CZ	10:J:52:LYS:CE	2.66	0.75
9:I:141:ARG:HB2	9:I:144:LYS:CA	2.16	0.75
3:C:244:THR:CG2	3:C:246:PHE:CD2	2.65	0.75
5:E:21:ASP:CG	5:E:24:THR:CG2	2.51	0.75
20:T:29:LYS:HE3	20:T:29:LYS:CA	2.10	0.75
26:Z:62:VAL:CG1	26:Z:68:ILE:CD1	2.61	0.75
26:Z:91:LEU:CD2	26:Z:96:LEU:HD12	2.16	0.75
3:C:168:LYS:HE3	23:W:95:PRO:HA	1.68	0.75
13:M:33:ARG:O	13:M:33:ARG:HD2	1.87	0.75
16:P:39:ALA:HA	16:P:42:ARG:CD	2.17	0.75
11:K:96:ARG:HG3	11:K:97:SER:N	2.00	0.75
12:L:80:MET:HG3	12:L:86:ILE:HG22	1.68	0.75
15:O:19:PRO:HG3	15:O:27:VAL:HG21	0.75	0.75
22:V:40:ASP:O	22:V:42:VAL:HG23	1.87	0.75
4:D:70:THR:CG2	4:D:86:LEU:HB2	2.16	0.75
17:Q:48:GLN:O	17:Q:51:LEU:HG	1.87	0.75
19:S:82:TRP:HA	19:S:87:GLN:HE22	1.52	0.75
25:Y:102:THR:HG21	25:Y:107:ARG:CZ	2.12	0.75
2:B:151:ARG:HD2	2:B:153:THR:CG2	2.17	0.75
21:U:19:ARG:O	21:U:116:ILE:O	2.04	0.75
18:R:84:TYR:O	18:R:85:VAL:CG2	2.35	0.75
15:O:31:CYS:SG	15:O:93:LEU:CB	2.75	0.74
1:A:141:ASN:HD21	22:V:29:HIS:HB3	1.49	0.74
19:S:34:LYS:HB3	19:S:103:LEU:CG	2.11	0.74
12:L:17:PHE:CD1	12:L:18:GLN:N	2.54	0.74
16:P:46:SER:O	16:P:49:LEU:CG	2.35	0.74
13:M:12:MET:O	13:M:13:ASP:OD1	2.05	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:192:ALA:O	3:C:195:PRO:HG2	1.87	0.74
19:S:111:LEU:CD2	19:S:125:HIS:CE1	2.71	0.74
21:U:66:ARG:NH2	21:U:75:LYS:HA	2.02	0.74
7:G:71:GLY:HA2	7:G:98:ARG:NH2	2.02	0.74
8:H:11:PRO:HG2	8:H:12:ASN:N	2.03	0.74
14:N:23:PRO:HD2	14:N:26:LEU:CD2	2.16	0.74
21:U:97:ILE:CG2	21:U:101:ILE:HD11	2.17	0.74
19:S:39:ARG:NH2	20:T:38:LYS:HG2	2.02	0.74
19:S:121:ARG:HG2	19:S:131:VAL:CG1	2.17	0.74
16:P:107:ILE:HA	16:P:111:MET:HE3	1.66	0.74
16:P:74:GLU:O	16:P:75:VAL:HB	1.86	0.74
19:S:87:GLN:O	19:S:88:LYS:C	2.21	0.74
10:J:17:ARG:HG2	10:J:18:ARG:HD3	0.75	0.74
10:J:16:PRO:HD3	10:J:44:TRP:CE2	2.22	0.74
9:I:8:TRP:HZ3	9:I:20:PRO:HA	1.51	0.74
13:M:12:MET:HE1	13:M:120:ALA:HB1	1.67	0.74
3:C:241:TRP:CE2	23:W:68:ARG:CD	2.70	0.74
10:J:155:LYS:HE3	10:J:156:HIS:CE1	2.22	0.74
25:Y:7:ILE:HD12	25:Y:43:LYS:HB3	1.66	0.74
5:E:73:ASP:OD2	5:E:122:LYS:NZ	2.20	0.74
7:G:32:MET:SD	7:G:100:CYS:O	2.46	0.74
12:L:80:MET:HE1	12:L:121:GLN:CA	2.17	0.74
25:Y:114:MET:HE3	25:Y:125:VAL:CG2	2.17	0.74
1:A:177:MET:HE3	1:A:180:ARG:NH2	1.93	0.74
3:C:55:VAL:CB	3:C:82:PHE:HE2	1.92	0.74
15:O:16:SER:O	15:O:88:LEU:O	2.06	0.74
1:A:154:LEU:HD12	22:V:63:GLY:CA	2.15	0.74
21:U:109:GLY:O	21:U:110:VAL:HG22	1.86	0.74
5:E:43:PRO:CD	5:E:46:ILE:HD12	2.16	0.74
16:P:5:GLU:H	16:P:10:ARG:HH11	1.35	0.74
4:D:158:ILE:HD13	4:D:189:MET:SD	2.23	0.74
25:Y:29:HIS:HD1	25:Y:67:GLY:HA2	1.52	0.74
4:D:200:PRO:O	4:D:201:LYS:CB	2.34	0.74
19:S:16:LEU:C	19:S:17:ASN:CG	2.43	0.74
4:D:123:LEU:HD11	4:D:154:ASP:HB2	1.69	0.74
2:B:31:TYR:HD1	2:B:94:LYS:CA	1.99	0.74
8:H:6:ALA:O	8:H:10:LYS:HG3	1.85	0.74
11:K:83:LEU:O	11:K:84:HIS:CB	2.34	0.74
16:P:10:ARG:HE	16:P:11:THR:HB	1.52	0.74
6:F:14:THR:HG23	6:F:15:PRO:CD	2.16	0.74
6:F:14:THR:OG1	17:Q:56:LEU:HB3	1.71	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:89:GLU:HB3	10:J:92:MET:SD	2.26	0.74
18:R:13:ALA:HB1	18:R:54:VAL:HG22	1.67	0.74
15:O:20:GLN:CD	15:O:21:VAL:O	2.26	0.74
3:C:262:HIS:CG	3:C:263:THR:H	2.02	0.74
3:C:181:ILE:HB	3:C:208:TYR:HB2	1.67	0.74
9:I:76:THR:CG2	9:I:77:ARG:N	2.51	0.74
1:A:125:THR:CG2	1:A:175:TRP:HE1	1.99	0.74
1:A:147:LEU:HD22	1:A:163:CYS:SG	2.27	0.74
17:Q:112:LEU:CD1	17:Q:120:LEU:HD21	2.16	0.74
16:P:107:ILE:HB	16:P:111:MET:SD	2.26	0.74
4:D:193:ASP:O	4:D:194:PRO:O	2.06	0.74
23:W:90:GLN:CA	23:W:102:ILE:CD1	2.64	0.74
13:M:124:ILE:CA	13:M:127:TYR:HD2	1.97	0.74
20:T:143:LYS:CD	20:T:144:LYS:H	1.95	0.74
2:B:146:CYS:O	2:B:147:ASN:C	2.21	0.74
13:M:38:ALA:O	13:M:42:LEU:HD23	1.87	0.74
3:C:63:LEU:HB3	3:C:67:TYR:CZ	2.23	0.74
4:D:188:ILE:HG22	4:D:190:LEU:HD22	1.68	0.74
10:J:37:LEU:HD23	10:J:43:VAL:HG23	1.70	0.74
8:H:80:VAL:HA	8:H:83:LEU:CD2	2.17	0.74
25:Y:62:THR:HA	25:Y:69:THR:HG22	1.68	0.74
24:X:105:PHE:CD2	24:X:119:ARG:HA	2.21	0.74
8:H:135:PHE:HD2	8:H:136:PRO:HD3	1.51	0.74
5:E:122:LYS:HG2	5:E:164:LEU:HD21	1.70	0.74
7:G:77:LEU:O	7:G:92:ARG:HG3	1.86	0.74
9:I:104:ILE:HG13	9:I:105:ASP:H	1.52	0.74
9:I:157:LYS:CB	12:L:22:ARG:CZ	2.42	0.74
5:E:76:VAL:CG1	24:X:56:GLY:O	91.99	0.74
6:F:45:TYR:N	6:F:45:TYR:HD1	1.85	0.74
17:Q:135:PRO:HD2	17:Q:141:TYR:CD1	2.21	0.74
10:J:169:ARG:HB3	10:J:175:ARG:HH11	1.53	0.74
25:Y:9:THR:HB	25:Y:23:MET:HG3	1.69	0.74
19:S:33:ILE:O	19:S:36:VAL:HG13	1.85	0.74
6:F:102:LEU:HD13	26:Z:110:THR:CG2	2.17	0.74
6:F:103:LEU:HD23	6:F:103:LEU:C	4.31	0.74
12:L:17:PHE:CD1	12:L:18:GLN:HB2	2.21	0.74
21:U:41:ARG:O	21:U:45:GLU:CB	2.36	0.74
20:T:75:MET:O	20:T:78:ILE:HG22	1.87	0.74
15:O:41:PHE:CD1	15:O:57:THR:HG22	2.23	0.74
2:B:52:THR:CG2	14:N:53:ILE:HD13	83.73	0.74
15:O:64:ALA:HB1	15:O:66:ARG:HE	1.53	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:76:MET:HE2	6:F:169:ILE:CG2	2.18	0.74
17:Q:19:ALA:HB2	17:Q:75:GLY:HA3	1.68	0.74
19:S:58:GLU:O	19:S:59:LEU:CD1	2.32	0.74
16:P:49:LEU:CD1	16:P:51:ARG:NH2	2.51	0.74
21:U:19:ARG:HG3	21:U:92:HIS:ND1	2.02	0.74
7:G:32:MET:O	7:G:33:ALA:HB3	1.86	0.74
12:L:95:TYR:HA	12:L:102:PHE:CG	2.22	0.74
12:L:80:MET:CE	12:L:120:VAL:HG12	2.18	0.74
1:A:174:MET:O	1:A:178:LEU:HG	1.86	0.74
1:A:57:LYS:NZ	22:V:70:LEU:CG	2.50	0.74
15:O:19:PRO:HG3	15:O:27:VAL:CG1	2.17	0.74
10:J:114:VAL:CG1	10:J:120:ALA:HB2	2.13	0.74
10:J:131:ARG:HH11	10:J:143:ASN:HD21	1.36	0.74
20:T:31:PRO:HB3	20:T:33:TRP:CZ3	2.22	0.74
19:S:42:HIS:CB	20:T:45:LEU:HD11	2.17	0.74
23:W:11:LEU:C	23:W:14:ILE:HG12	2.07	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
21:U:59:LYS:CB	21:U:84:ILE:HG22	2.12	0.74
14:N:131:THR:C	14:N:132:LYS:HD2	2.08	0.74
25:Y:7:ILE:CD1	25:Y:43:LYS:HD3	2.17	0.74
3:C:234:SER:O	22:V:23:ILE:HD13	1.85	0.74
9:I:36:THR:HG21	9:I:179:PRO:HB2	1.68	0.74
12:L:71:ARG:CD	12:L:73:LEU:CD2	2.41	0.74
15:O:44:VAL:CG1	15:O:53:ILE:HD11	2.18	0.74
4:D:53:THR:HG22	4:D:91:VAL:HG23	1.68	0.74
10:J:37:LEU:CG	10:J:42:GLU:HB2	2.13	0.74
25:Y:51:THR:HB	25:Y:52:PRO:CD	2.14	0.74
2:B:113:MET:SD	2:B:211:PHE:CZ	2.79	0.74
18:R:44:LYS:CG	18:R:47:ARG:NH2	2.51	0.74
21:U:50:VAL:CG2	21:U:52:GLY:CA	2.58	0.74
12:L:151:THR:O	12:L:153:LYS:CD	2.33	0.74
20:T:111:LYS:HB2	20:T:126:GLN:NE2	2.03	0.74
10:J:147:PHE:O	10:J:148:ILE:HB	1.87	0.74
5:E:151:ASP:HB3	7:G:212:LEU:HD21	1.68	0.73
2:B:49:VAL:HG22	2:B:65:ARG:CZ	2.18	0.73
8:H:9:VAL:HG13	8:H:44:ASN:OD1	1.86	0.73
22:V:19:ALA:CB	22:V:59:ILE:HD13	2.17	0.73
10:J:46:VAL:HG11	10:J:102:ILE:HG23	1.69	0.73
9:I:157:LYS:HB2	12:L:22:ARG:HD3	0.82	0.73
1:A:45:GLY:O	1:A:46:ILE:CD1	2.36	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:90:ASP:CG	2:B:91:VAL:H	1.91	0.73
22:V:40:ASP:CB	22:V:47:ASN:HD21	1.98	0.73
4:D:40:ARG:CZ	21:U:107:GLU:OE2	2.36	0.73
17:Q:39:LEU:O	17:Q:42:ILE:HD11	1.88	0.73
21:U:97:ILE:CG2	21:U:101:ILE:HD12	2.18	0.73
26:Z:103:HIS:O	26:Z:105:ALA:N	2.21	0.73
24:X:52:LEU:HG	24:X:71:ARG:O	1.88	0.73
16:P:53:GLN:HE21	16:P:80:LEU:HD22	1.52	0.73
23:W:11:LEU:CD1	23:W:74:VAL:HB	2.17	0.73
16:P:127:LYS:NZ	16:P:128:HIS:N	2.33	0.73
4:D:212:GLU:O	4:D:213:PRO:C	2.24	0.73
14:N:92:ILE:O	14:N:96:VAL:HG23	1.88	0.73
23:W:6:VAL:HG12	23:W:34:ILE:HD11	1.68	0.73
17:Q:6:PRO:O	17:Q:6:PRO:CD	2.28	0.73
5:E:229:GLY:CA	5:E:235:TRP:CD1	2.71	0.73
7:G:64:LYS:HD3	7:G:64:LYS:C	2.09	0.73
9:I:142:SER:CB	9:I:143:LYS:HZ2	2.01	0.73
12:L:6:THR:O	12:L:7:GLU:O	2.06	0.73
1:A:66:VAL:HG11	1:A:186:ARG:CB	2.17	0.73
14:N:54:LEU:CB	14:N:60:VAL:HG21	2.18	0.73
1:A:158:ASP:HB3	22:V:65:SER:HB2	1.68	0.73
17:Q:108:ILE:HA	17:Q:111:ILE:HD12	1.70	0.73
17:Q:130:LYS:HD2	17:Q:135:PRO:O	1.88	0.73
3:C:154:TYR:CZ	3:C:162:PRO:HD3	2.23	0.73
3:C:156:GLY:HA2	23:W:98:GLN:NE2	2.03	0.73
13:M:85:LEU:CA	13:M:88:TRP:CE3	2.67	0.73
20:T:124:THR:CG2	20:T:127:GLY:H	2.02	0.73
25:Y:111:LYS:NZ	25:Y:115:LYS:HZ1	1.86	0.73
2:B:225:LEU:O	2:B:229:MET:HG2	1.87	0.73
5:E:92:ILE:CB	5:E:97:GLU:OE1	2.34	0.73
7:G:93:LYS:HD3	7:G:95:LYS:HD2	1.70	0.73
8:H:23:ILE:CD1	8:H:27:LEU:HD23	2.12	0.73
4:D:74:GLN:HB2	4:D:84:VAL:CG1	2.19	0.73
11:K:47:LYS:O	11:K:50:GLN:HG2	1.88	0.73
21:U:46:LYS:HZ1	21:U:97:ILE:HG12	1.51	0.73
10:J:50:LEU:HD22	10:J:54:ARG:HG3	1.68	0.73
11:K:14:LEU:CD2	11:K:35:LEU:HD21	1.96	0.73
26:Z:48:VAL:C	26:Z:83:LEU:HD11	2.06	0.73
3:C:154:TYR:CZ	3:C:162:PRO:CD	2.71	0.73
17:Q:92:LEU:HG	17:Q:96:TYR:CE2	2.23	0.73
12:L:47:PRO:HG2	12:L:116:CYS:SG	2.27	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:69:PRO:HD2	16:P:70:MET:H	1.53	0.73
5:E:125:LYS:HB3	5:E:226:PHE:CE1	2.23	0.73
12:L:147:LYS:HG3	12:L:148:ALA:CB	2.17	0.73
1:A:180:ARG:NH1	1:A:184:ARG:NH1	2.36	0.73
8:H:66:VAL:HG22	8:H:96:ALA:HB1	1.70	0.73
22:V:31:SER:O	22:V:32:ILE:HG13	1.87	0.73
4:D:10:LYS:CE	4:D:14:ASP:OD2	2.35	0.73
10:J:87:LEU:HD11	10:J:91:LYS:HB2	1.70	0.73
14:N:139:TRP:CE3	14:N:140:LYS:N	2.57	0.73
11:K:98:ARG:HG2	11:K:98:ARG:NH1	1.92	0.73
5:E:180:LEU:HD22	5:E:181:CYS:N	2.04	0.73
5:E:180:LEU:HD13	5:E:228:ILE:HD11	1.70	0.73
7:G:63:MET:HA	7:G:98:ARG:O	1.88	0.73
8:H:164:ASN:HA	8:H:167:GLU:HG3	1.71	0.73
14:N:28:LEU:O	14:N:29:THR:HG22	1.88	0.73
15:O:30:VAL:HG23	15:O:32:HIS:CD2	2.22	0.73
17:Q:50:LYS:HA	17:Q:53:GLU:OE2	1.87	0.73
25:Y:9:THR:CB	25:Y:48:TYR:HH	2.01	0.73
16:P:108:LYS:O	16:P:111:MET:CG	2.34	0.73
26:Z:92:LEU:HD11	26:Z:109:TYR:HE1	1.52	0.73
4:D:112:GLY:O	4:D:113:LEU:HD12	1.86	0.73
15:O:97:LEU:HD11	15:O:112:ALA:HB1	1.70	0.73
3:C:222:ALA:O	3:C:225:THR:HG22	1.89	0.73
7:G:162:LEU:HD23	7:G:172:LYS:NZ	2.03	0.73
9:I:141:ARG:O	9:I:143:LYS:CB	2.36	0.73
1:A:32:PHE:HE1	1:A:33:GLN:HE21	0.84	0.73
1:A:58:LEU:HD21	1:A:178:LEU:HD23	0.74	0.73
2:B:52:THR:HG22	2:B:58:ALA:HB3	1.71	0.73
6:F:44:LYS:C	6:F:45:TYR:CD1	2.62	0.73
21:U:62:ARG:HH12	21:U:64:THR:CG2	1.76	0.73
25:Y:18:LEU:HB2	25:Y:20:ARG:NH1	2.00	0.73
10:J:28:GLU:OE1	10:J:40:LYS:NZ	2.20	0.73
24:X:105:PHE:CE2	24:X:119:ARG:C	2.62	0.73
20:T:63:HIS:O	20:T:67:ARG:NE	2.22	0.73
18:R:115:SER:O	18:R:116:ASN:CG	2.27	0.73
25:Y:114:MET:C	25:Y:124:ASN:ND2	2.41	0.73
19:S:26:ILE:CD1	19:S:59:LEU:HD21	2.17	0.73
26:Z:96:LEU:O	26:Z:112:ASN:CB	2.37	0.73
4:D:166:TYR:HD1	4:D:200:PRO:HB2	1.53	0.73
17:Q:98:LYS:HE3	17:Q:99:TYR:CZ	2.24	0.73
16:P:84:ILE:HG22	16:P:86:LEU:HD22	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:35:ILE:HB	13:M:61:TYR:HE2	1.52	0.73
24:X:67:ARG:O	24:X:68:LYS:CG	2.32	0.73
13:M:94:ILE:N	13:M:101:ARG:HD3	2.03	0.73
10:J:100:LEU:HD11	10:J:104:ASP:OD2	1.85	0.73
8:H:119:SER:O	8:H:120:ARG:NE	2.22	0.73
4:D:161:GLY:O	4:D:164:VAL:HG12	1.88	0.73
5:E:258:ALA:O	5:E:259:LYS:CB	2.33	0.73
5:E:153:LEU:HD11	5:E:172:PHE:CZ	2.20	0.73
1:A:193:HIS:ND1	1:A:194:PRO:CD	2.51	0.73
1:A:34:MET:CE	1:A:37:TYR:HE2	2.02	0.73
2:B:72:ALA:HA	2:B:79:VAL:HG23	1.61	0.73
4:D:34:TYR:CE2	21:U:61:LEU:CD2	26.69	0.73
17:Q:12:VAL:HG11	17:Q:90:LYS:HB2	1.70	0.73
9:I:4:SER:O	9:I:6:ASP:N	2.22	0.73
23:W:15:ASN:ND2	23:W:19:LYS:HE3	2.03	0.73
14:N:92:ILE:HG22	14:N:150:VAL:HG21	1.69	0.73
10:J:100:LEU:CG	10:J:101:LYS:H	2.01	0.73
1:A:149:ASN:OD1	1:A:150:THR:N	2.20	0.72
11:K:83:LEU:HB2	11:K:85:LEU:CG	2.18	0.72
17:Q:78:VAL:HG13	17:Q:82:TYR:HE2	1.55	0.72
26:Z:103:HIS:HD2	26:Z:105:ALA:N	1.87	0.72
10:J:127:ARG:NH1	10:J:145:PRO:HB3	2.03	0.72
5:E:248:ILE:HD12	10:J:72:PHE:CZ	2.22	0.72
4:D:162:ASP:CG	4:D:166:TYR:HE2	1.92	0.72
21:U:51:LYS:CB	21:U:90:ASP:HB2	2.18	0.72
13:M:98:GLY:C	13:M:100:PRO:HD3	2.08	0.72
2:B:19:LYS:CB	2:B:19:LYS:HZ3	1.98	0.72
7:G:142:ARG:CD	7:G:147:LEU:HB2	2.07	0.72
9:I:54:LYS:HG2	9:I:181:GLN:O	1.89	0.72
1:A:145:ILE:CD1	1:A:159:ILE:CG2	2.55	0.72
2:B:67:PHE:CE1	15:O:47:LEU:CB	2.72	0.72
14:N:27:LYS:H	14:N:27:LYS:CD	1.96	0.72
22:V:31:SER:C	22:V:32:ILE:HG13	2.08	0.72
16:P:44:ARG:HH22	16:P:84:ILE:H	1.38	0.72
25:Y:7:ILE:HD11	25:Y:43:LYS:HB3	1.71	0.72
2:B:126:ASP:OD1	2:B:136:HIS:CG	2.41	0.72
10:J:100:LEU:CG	10:J:101:LYS:N	2.50	0.72
16:P:119:PHE:HA	19:S:119:ALA:HA	1.71	0.72
20:T:75:MET:HE2	20:T:79:TYR:HE2	1.52	0.72
12:L:5:GLN:NE2	12:L:10:TYR:CD1	2.52	0.72
2:B:139:CYS:CB	2:B:168:MET:SD	2.77	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:143:ARG:HA	23:W:52:ILE:O	1.89	0.72
15:O:119:LEU:O	15:O:122:SER:OG	2.07	0.72
2:B:25:PHE:HE1	15:O:53:ILE:HG22	1.54	0.72
2:B:25:PHE:CE1	15:O:88:LEU:HD13	2.24	0.72
6:F:49:LEU:CD1	6:F:50:PRO:HD2	2.16	0.72
6:F:86:LYS:O	6:F:89:THR:HG22	1.88	0.72
17:Q:19:ALA:HB2	17:Q:75:GLY:N	2.03	0.72
5:E:18:TRP:CE3	5:E:46:ILE:HD11	2.24	0.72
25:Y:54:VAL:O	25:Y:75:ILE:CA	2.37	0.72
25:Y:56:PHE:CB	25:Y:58:PHE:HE2	2.02	0.72
20:T:30:VAL:O	20:T:32:GLU:N	2.22	0.72
10:J:138:ARG:O	10:J:138:ARG:CG	2.36	0.72
19:S:111:LEU:HD21	19:S:125:HIS:CE1	2.24	0.72
9:I:48:VAL:CG2	9:I:52:ASN:HB3	2.19	0.72
1:A:143:PRO:CB	22:V:34:MET:SD	2.76	0.72
8:H:164:ASN:OD1	8:H:167:GLU:CD	2.26	0.72
8:H:71:SER:O	8:H:74:LYS:HB2	1.88	0.72
19:S:42:HIS:CD2	20:T:45:LEU:HG	2.23	0.72
16:P:125:PRO:O	16:P:126:VAL:CB	2.38	0.72
3:C:154:TYR:HE1	3:C:162:PRO:HG3	1.46	0.72
9:I:82:VAL:HG11	9:I:202:ILE:HD13	1.69	0.72
5:E:191:ARG:HD3	5:E:245:ARG:HB2	1.71	0.72
5:E:98:ASN:HD21	5:E:119:ALA:CA	2.02	0.72
3:C:50:LYS:CD	3:C:251:TYR:CD1	2.38	0.72
3:C:54:LEU:HD21	3:C:254:PHE:HB3	1.71	0.72
8:H:36:LEU:C	8:H:36:LEU:HD13	2.03	0.72
15:O:99:ALA:N	15:O:133:THR:CG2	2.39	0.72
23:W:14:ILE:HG13	23:W:15:ASN:H	1.54	0.72
25:Y:102:THR:HB	25:Y:104:ARG:N	2.05	0.72
10:J:180:LYS:HD2	10:J:180:LYS:O	1.88	0.72
18:R:122:PRO:C	18:R:123:THR:OG1	2.27	0.72
24:X:108:LYS:CB	24:X:110:HIS:CE1	2.72	0.72
1:A:169:HIS:HB3	1:A:203:PHE:CZ	2.23	0.72
2:B:114:VAL:HG22	2:B:120:MET:HE3	1.70	0.72
19:S:106:LYS:HD2	19:S:109:GLU:OE1	1.90	0.72
1:A:34:MET:HE1	1:A:37:TYR:HE2	1.48	0.72
15:O:64:ALA:HB1	15:O:66:ARG:NE	2.04	0.72
10:J:134:HIS:HE1	10:J:164:PRO:HD3	1.53	0.72
10:J:171:GLY:C	10:J:173:VAL:H	1.92	0.72
24:X:89:GLY:O	24:X:92:ASN:HB2	1.89	0.72
25:Y:56:PHE:CD2	25:Y:86:GLU:OE2	2.43	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:192:TRP:CE3	4:D:196:GLY:CA	2.65	0.72
24:X:60:LYS:CG	24:X:116:PRO:HG3	2.19	0.72
21:U:50:VAL:CG2	21:U:52:GLY:N	2.51	0.72
25:Y:92:ALA:HA	25:Y:97:TYR:CB	2.19	0.72
22:V:1:MET:HE1	22:V:10:ASP:CB	2.18	0.72
10:J:101:LYS:HG2	10:J:103:GLU:OE1	1.89	0.72
18:R:88:VAL:HG13	18:R:88:VAL:O	1.89	0.72
7:G:24:LEU:O	7:G:26:THR:N	2.23	0.72
1:A:154:LEU:HD22	1:A:157:VAL:HG23	1.72	0.72
8:H:31:GLU:CD	8:H:41:ARG:HD2	2.03	0.72
22:V:78:ILE:HG23	22:V:79:VAL:N	2.04	0.72
17:Q:85:ARG:HH22	17:Q:117:ARG:CD	2.03	0.72
5:E:23:LEU:O	5:E:24:THR:OG1	2.08	0.72
10:J:170:PRO:CA	10:J:174:LYS:HZ3	2.02	0.72
23:W:90:GLN:HB2	23:W:94:LEU:HD12	1.71	0.72
23:W:36:ARG:CD	23:W:110:ILE:HD12	2.13	0.72
20:T:85:ASN:O	20:T:88:MET:HE3	1.89	0.72
5:E:229:GLY:CA	5:E:235:TRP:HD1	2.03	0.72
7:G:157:VAL:HG13	7:G:158:VAL:C	2.10	0.72
9:I:155:ASN:C	9:I:157:LYS:H	1.93	0.72
1:A:127:PRO:HG3	1:A:152:SER:HB3	1.72	0.72
2:B:72:ALA:N	2:B:79:VAL:HG23	2.03	0.72
2:B:30:TRP:NE1	15:O:17:LEU:HD21	2.05	0.72
15:O:72:TYR:HE1	15:O:76:LEU:HD11	1.54	0.72
4:D:53:THR:CG2	4:D:91:VAL:HB	2.19	0.72
17:Q:58:LEU:HD21	17:Q:111:ILE:HD12	1.70	0.72
10:J:162:ARG:HG2	10:J:162:ARG:O	1.88	0.72
10:J:37:LEU:HD21	10:J:43:VAL:N	2.05	0.72
25:Y:78:SER:HB3	25:Y:81:TYR:HD2	0.57	0.72
3:C:195:PRO:HG3	3:C:221:PHE:CZ	2.23	0.72
23:W:22:LYS:O	23:W:65:LEU:HD11	1.89	0.72
21:U:56:MET:CE	21:U:88:LEU:HD23	2.18	0.72
3:C:131:GLU:O	3:C:134:THR:HG22	1.90	0.72
14:N:6:ALA:HB1	14:N:7:PRO:HD3	1.71	0.72
5:E:92:ILE:HG22	5:E:95:THR:OG1	1.89	0.72
9:I:112:TRP:CZ3	9:I:117:TYR:HE2	2.08	0.72
9:I:106:SER:OG	9:I:171:LEU:HG	1.90	0.72
1:A:28:THR:HG22	1:A:46:ILE:HD13	1.72	0.72
2:B:77:ASP:O	2:B:79:VAL:CG2	2.27	0.72
3:C:126:MET:HE2	3:C:223:LYS:HD2	1.72	0.72
14:N:26:LEU:HD21	14:N:66:VAL:CG2	2.20	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:121:ILE:HG22	19:S:120:HIS:HA	1.72	0.72
4:D:158:ILE:HD12	4:D:189:MET:HE1	1.62	0.72
6:F:14:THR:CG2	17:Q:56:LEU:CD1	2.56	0.72
10:J:15:THR:HG22	10:J:44:TRP:HE3	1.48	0.72
25:Y:102:THR:CB	25:Y:107:ARG:HE	2.02	0.72
13:M:14:VAL:C	13:M:16:THR:H	1.93	0.72
4:D:222:PRO:C	4:D:223:ILE:HD12	2.09	0.72
16:P:62:LYS:CG	16:P:65:LYS:HE2	2.18	0.72
6:F:166:ILE:H	6:F:166:ILE:HD12	1.54	0.72
1:A:39:TYR:CB	1:A:50:ASN:HD21	2.01	0.72
8:H:10:LYS:HB3	8:H:20:GLU:OE1	1.90	0.72
8:H:157:HIS:NE2	8:H:188:GLU:OE1	2.23	0.72
15:O:32:HIS:HE1	15:O:96:LYS:HD2	1.53	0.72
23:W:17:ALA:HB2	23:W:25:VAL:CG1	2.20	0.72
10:J:110:LEU:HB3	10:J:130:ILE:HD13	1.72	0.72
10:J:66:LYS:CA	10:J:71:LEU:HD11	2.15	0.72
16:P:53:GLN:HE21	16:P:80:LEU:CD2	2.02	0.72
16:P:93:MET:SD	16:P:106:GLU:CB	2.77	0.72
19:S:52:LEU:HD12	19:S:53:THR:N	2.05	0.72
18:R:17:ILE:HG22	18:R:69:ILE:CD1	2.04	0.72
23:W:128:PHE:CZ	23:W:130:PHE:CE2	2.78	0.72
23:W:3:ARG:CZ	23:W:9:ASP:OD2	2.37	0.72
2:B:38:MET:CE	2:B:186:ASN:HD21	1.75	0.72
1:A:118:GLU:HB2	3:C:50:LYS:HZ3	1.55	0.71
1:A:127:PRO:CG	1:A:152:SER:HB3	2.19	0.71
2:B:63:LYS:C	2:B:63:LYS:HD3	2.11	0.71
8:H:32:MET:O	8:H:33:ASN:CB	2.38	0.71
22:V:24:ILE:C	22:V:24:ILE:HD12	2.11	0.71
6:F:41:VAL:CG2	6:F:42:LYS:CD	2.64	0.71
11:K:43:LEU:C	11:K:45:VAL:N	2.43	0.71
23:W:42:MET:CE	23:W:50:PHE:CE2	2.73	0.71
23:W:101:PHE:HB2	23:W:129:PHE:CE1	2.25	0.71
23:W:128:PHE:CD1	23:W:129:PHE:N	2.58	0.71
23:W:93:LEU:O	23:W:93:LEU:HG	1.88	0.71
24:X:142:ARG:CG	24:X:142:ARG:NH1	2.30	0.71
13:M:86:GLY:CA	13:M:106:CYS:HB2	2.20	0.71
10:J:178:ALA:O	10:J:182:GLN:CG	2.34	0.71
16:P:39:ALA:O	16:P:42:ARG:HG3	1.89	0.71
20:T:42:HIS:CE1	20:T:83:GLN:HB3	2.25	0.71
2:B:228:LEU:HD13	2:B:232:HIS:HD2	1.55	0.71
10:J:84:ILE:HG13	10:J:86:VAL:HG23	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:124:CYS:HB2	5:E:162:ILE:HD11	1.71	0.71
15:O:95:ILE:HD12	15:O:116:LEU:HD21	1.70	0.71
18:R:100:PRO:HG2	18:R:119:VAL:CG2	2.16	0.71
4:D:2:ALA:HB3	4:D:3:VAL:C	2.04	0.71
11:K:62:PHE:HE1	11:K:67:PHE:CE2	2.07	0.71
17:Q:85:ARG:NH1	17:Q:117:ARG:CB	2.51	0.71
23:W:42:MET:HE3	23:W:50:PHE:HD2	1.55	0.71
16:P:49:LEU:HA	16:P:51:ARG:CD	2.19	0.71
3:C:241:TRP:CE2	23:W:68:ARG:HD3	2.25	0.71
4:D:176:LEU:O	4:D:177:LEU:HD13	1.90	0.71
15:O:38:ASN:O	15:O:68:GLU:OE1	2.07	0.71
6:F:35:LEU:HD12	6:F:117:ILE:HG23	1.72	0.71
14:N:5:HIS:CD2	14:N:121:ARG:HE	2.08	0.71
8:H:31:GLU:OE2	8:H:41:ARG:NE	2.22	0.71
3:C:200:LEU:HD12	3:C:201:MET:SD	2.30	0.71
10:J:164:PRO:HA	10:J:167:GLY:O	1.90	0.71
10:J:37:LEU:HG	10:J:42:GLU:CB	2.20	0.71
16:P:80:LEU:O	16:P:116:LEU:HD12	1.89	0.71
9:I:25:ARG:NE	9:I:27:TYR:CE2	2.57	0.71
23:W:36:ARG:HD3	23:W:110:ILE:CD1	2.16	0.71
7:G:85:ARG:CZ	25:Y:118:ARG:HE	2.03	0.71
15:O:16:SER:O	15:O:17:LEU:HB3	1.90	0.71
1:A:42:LYS:NZ	18:R:102:THR:CG2	2.54	0.71
11:K:38:LYS:O	11:K:39:ASN:HB2	1.90	0.71
11:K:83:LEU:CB	11:K:85:LEU:CG	2.68	0.71
19:S:94:LYS:HD3	19:S:95:TYR:O	1.89	0.71
4:D:212:GLU:HG3	18:R:19:LYS:HD2	1.72	0.71
22:V:9:VAL:CG1	22:V:10:ASP:N	2.52	0.71
10:J:138:ARG:HH12	10:J:156:HIS:CD2	2.05	0.71
5:E:36:HIS:O	5:E:41:CYS:SG	2.47	0.71
10:J:84:ILE:HD12	10:J:86:VAL:HG21	1.70	0.71
5:E:165:GLU:OE2	5:E:165:GLU:CA	2.29	0.71
8:H:148:LEU:HD23	8:H:148:LEU:O	1.89	0.71
7:G:227:GLN:O	7:G:230:LYS:HG3	1.90	0.71
9:I:70:GLU:HB3	9:I:72:CYS:SG	2.30	0.71
12:L:97:ARG:HG2	12:L:98:LYS:N	2.06	0.71
3:C:84:GLY:HA2	3:C:87:LEU:CB	2.16	0.71
17:Q:112:LEU:HD13	17:Q:120:LEU:CD2	2.21	0.71
10:J:130:ILE:HG23	10:J:135:ILE:CD1	2.17	0.71
25:Y:54:VAL:HG12	25:Y:54:VAL:O	1.89	0.71
20:T:38:LYS:HD2	20:T:45:LEU:C	2.10	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:132:LYS:HB2	4:D:191:PRO:CD	2.20	0.71
13:M:11:VAL:O	13:M:12:MET:CB	2.36	0.71
23:W:27:ILE:CG1	23:W:61:ILE:HB	2.19	0.71
18:R:77:GLU:O	18:R:81:ARG:HG3	1.90	0.71
13:M:59:PRO:O	13:M:62:VAL:HG22	1.90	0.71
7:G:71:GLY:CA	7:G:98:ARG:NH2	2.54	0.71
9:I:148:LYS:O	9:I:152:ARG:HG3	1.90	0.71
12:L:40:ILE:CG2	12:L:44:PHE:HB2	2.21	0.71
3:C:79:ILE:HD13	3:C:147:ILE:HD12	0.79	0.71
8:H:140:VAL:O	14:N:18:TYR:CD2	2.43	0.71
4:D:97:CYS:SG	4:D:99:ILE:HG13	2.29	0.71
6:F:18:LYS:HD2	17:Q:57:LEU:CD2	2.21	0.71
17:Q:42:ILE:CG2	17:Q:51:LEU:HD21	2.20	0.71
16:P:44:ARG:HE	16:P:84:ILE:HD12	0.55	0.71
24:X:54:LYS:HD2	24:X:91:LEU:HD12	1.72	0.71
20:T:77:LYS:CA	20:T:94:ARG:CG	2.68	0.71
8:H:146:VAL:HG23	23:W:50:PHE:CE1	2.21	0.71
16:P:51:ARG:N	16:P:51:ARG:CD	2.50	0.71
20:T:42:HIS:CE1	20:T:93:SER:CA	2.74	0.71
5:E:143:ASP:CG	5:E:145:ARG:HD2	2.11	0.71
5:E:2:ALA:O	5:E:3:ARG:HG2	1.90	0.71
5:E:74:GLY:C	5:E:75:LYS:HG2	2.10	0.71
1:A:111:GLN:HB3	3:C:48:VAL:HG11	1.73	0.71
1:A:123:VAL:HG22	1:A:145:ILE:HB	1.71	0.71
2:B:83:LYS:NZ	15:O:130:GLU:CD	2.43	0.71
22:V:18:SER:OG	22:V:72:LEU:HD13	1.90	0.71
4:D:98:ALA:H	4:D:188:ILE:HD12	1.55	0.71
16:P:15:PHE:HE2	16:P:110:GLU:HB3	1.55	0.71
4:D:166:TYR:HD1	4:D:200:PRO:CB	2.02	0.71
7:G:180:VAL:O	7:G:181:THR:CG2	2.30	0.71
7:G:71:GLY:HA2	7:G:98:ARG:HH21	1.55	0.71
15:O:17:LEU:HG	15:O:18:GLY:H	1.55	0.71
18:R:101:ASP:O	18:R:105:MET:N	2.24	0.71
11:K:43:LEU:O	11:K:44:HIS:C	2.28	0.71
20:T:77:LYS:HA	20:T:94:ARG:HA	1.71	0.71
20:T:30:VAL:O	20:T:30:VAL:CG2	2.30	0.71
19:S:34:LYS:C	19:S:103:LEU:HD23	2.10	0.71
8:H:122:LEU:HD12	8:H:123:THR:N	2.00	0.71
19:S:137:LYS:HG2	19:S:138:THR:CG2	2.17	0.71
20:T:110:LEU:O	20:T:111:LYS:HB2	1.90	0.71
18:R:95:ILE:HA	18:R:114:LEU:HD13	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:195:LYS:HA	2:B:195:LYS:HE2	1.73	0.71
12:L:80:MET:CE	12:L:121:GLN:N	2.33	0.71
1:A:154:LEU:HD22	1:A:157:VAL:CG2	2.21	0.71
4:D:43:PRO:C	4:D:44:THR:CG2	2.59	0.71
5:E:11:ARG:O	5:E:12:VAL:CB	2.38	0.71
5:E:248:ILE:HD12	10:J:72:PHE:CD1	2.16	0.71
9:I:69:SER:HB3	12:L:19:ASN:CG	2.09	0.71
24:X:2:GLY:O	24:X:3:LYS:CB	2.35	0.71
3:C:236:LEU:HD23	3:C:237:THR:O	1.90	0.71
6:F:66:CYS:SG	6:F:67:PRO:HD2	2.31	0.71
5:E:112:HIS:NE2	5:E:237:SER:HB2	2.05	0.71
1:A:186:ARG:O	1:A:186:ARG:CZ	2.38	0.71
3:C:51:LEU:HD13	3:C:78:ILE:CD1	2.17	0.71
3:C:69:PHE:CZ	3:C:247:THR:OG1	1.93	0.71
8:H:166:VAL:HG22	8:H:173:PHE:HE2	1.55	0.71
8:H:172:THR:O	8:H:176:VAL:HG23	1.91	0.71
15:O:30:VAL:HB	15:O:32:HIS:NE2	2.06	0.71
6:F:93:VAL:O	6:F:97:PHE:CE1	2.43	0.71
10:J:114:VAL:HG13	10:J:119:LEU:O	1.90	0.71
24:X:126:ALA:C	24:X:128:VAL:N	2.40	0.71
25:Y:18:LEU:HB3	25:Y:20:ARG:CZ	2.21	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
15:O:136:PRO:C	15:O:138:ASP:N	2.45	0.71
3:C:123:GLY:HA2	3:C:226:PHE:CZ	2.24	0.71
7:G:50:VAL:CG1	7:G:111:LEU:HD13	2.11	0.70
1:A:158:ASP:HB3	22:V:65:SER:OG	1.91	0.70
8:H:40:LEU:HD23	8:H:43:LEU:CG	2.21	0.70
22:V:53:TYR:CZ	22:V:72:LEU:HB3	2.26	0.70
4:D:21:LEU:HD13	4:D:48:ILE:HD11	1.71	0.70
6:F:76:MET:CE	6:F:169:ILE:CG2	2.60	0.70
5:E:11:ARG:O	5:E:12:VAL:CG2	2.39	0.70
25:Y:29:HIS:NE2	25:Y:69:THR:HG23	2.06	0.70
19:S:84:LEU:HD22	19:S:97:GLN:HB2	1.73	0.70
10:J:87:LEU:HD11	10:J:91:LYS:HB3	1.72	0.70
3:C:238:PRO:HA	3:C:241:TRP:CD1	2.26	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:78:SER:OG	7:G:81:HIS:CD2	2.44	0.70
9:I:142:SER:HB3	9:I:143:LYS:CG	2.20	0.70
12:L:71:ARG:HD3	12:L:73:LEU:HD21	0.79	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:32:PHE:CD1	1:A:33:GLN:HG2	2.26	0.70
6:F:122:ARG:HE	6:F:193:LYS:NZ	1.75	0.70
16:P:84:ILE:CD1	16:P:115:TYR:CE1	2.74	0.70
20:T:77:LYS:HG2	20:T:92:PHE:CZ	2.24	0.70
4:D:202:LYS:HB2	4:D:203:PRO:HD2	1.72	0.70
2:B:209:ASP:O	2:B:210:VAL:CB	2.39	0.70
23:W:38:LEU:HD23	23:W:41:MET:HE3	1.72	0.70
10:J:138:ARG:CB	10:J:156:HIS:HB3	2.21	0.70
25:Y:93:ARG:O	25:Y:93:ARG:HD2	1.91	0.70
7:G:196:LYS:O	7:G:199:THR:OG1	2.08	0.70
1:A:125:THR:HG22	1:A:175:TRP:NE1	2.05	0.70
16:P:19:GLY:N	19:S:92:ASP:HA	2.07	0.70
26:Z:102:LYS:HA	26:Z:107:VAL:HA	1.72	0.70
26:Z:65:TYR:HD2	26:Z:68:ILE:HG12	1.55	0.70
16:P:52:LYS:CA	16:P:54:HIS:CD2	2.74	0.70
4:D:211:VAL:HG23	18:R:38:ILE:CA	2.21	0.70
25:Y:13:MET:HE2	25:Y:14:THR:CA	2.21	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:180:ARG:CD	1:A:184:ARG:NH2	2.53	0.70
3:C:58:MET:HE3	3:C:81:PHE:HZ	1.54	0.70
6:F:122:ARG:NH2	6:F:193:LYS:NZ	2.40	0.70
17:Q:53:GLU:OE1	17:Q:85:ARG:NH2	2.24	0.70
16:P:100:LYS:HD2	16:P:101:THR:HG23	1.72	0.70
24:X:1:MET:O	24:X:2:GLY:C	2.29	0.70
9:I:144:LYS:O	9:I:145:ILE:HG23	1.91	0.70
9:I:191:GLU:O	9:I:192:GLY:O	2.09	0.70
12:L:82:MET:HB2	12:L:85:THR:HG23	1.73	0.70
17:Q:109:LYS:CG	17:Q:113:ILE:CD1	2.48	0.70
17:Q:50:LYS:HG3	17:Q:85:ARG:HH21	1.57	0.70
3:C:186:GLY:CA	10:J:54:ARG:NH2	2.54	0.70
10:J:37:LEU:CD2	10:J:43:VAL:HG23	2.22	0.70
16:P:121:ILE:HG22	19:S:120:HIS:CB	2.20	0.70
4:D:158:ILE:HD12	4:D:189:MET:HE2	1.63	0.70
25:Y:35:VAL:HG12	25:Y:36:PRO:CD	2.21	0.70
23:W:11:LEU:O	23:W:14:ILE:HG13	1.89	0.70
16:P:126:VAL:HG12	16:P:127:LYS:H	0.60	0.70
20:T:116:ASP:HB3	20:T:120:GLY:O	1.91	0.70
13:M:131:LYS:O	13:M:132:LYS:HG3	1.90	0.70
5:E:123:LEU:HD12	5:E:161:GLN:HA	1.72	0.70
9:I:105:ASP:O	9:I:169:GLY:O	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:98:VAL:HG12	18:R:100:PRO:N	2.07	0.70
6:F:14:THR:HG23	6:F:15:PRO:HD3	1.73	0.70
6:F:167:LYS:CE	6:F:171:GLU:HG3	2.21	0.70
10:J:82:VAL:CG1	10:J:92:MET:HE3	2.22	0.70
18:R:37:GLU:OE1	18:R:38:ILE:CG2	2.39	0.70
21:U:47:ASN:N	21:U:47:ASN:HD22	1.88	0.70
20:T:16:ARG:CG	20:T:16:ARG:HH11	2.03	0.70
9:I:82:VAL:CG1	9:I:202:ILE:HD13	2.21	0.70
23:W:78:ARG:CD	23:W:126:LEU:HD23	2.22	0.70
5:E:166:THR:OG1	5:E:168:LYS:CG	2.38	0.70
3:C:149:PRO:O	3:C:149:PRO:HG2	1.92	0.70
2:B:28:LYS:HD3	15:O:51:GLU:OE2	1.91	0.70
11:K:2:LEU:HD13	11:K:3:MET:CA	2.21	0.70
21:U:108:PRO:O	21:U:109:GLY:C	2.30	0.70
5:E:85:GLY:N	5:E:88:ASP:OD2	2.20	0.70
24:X:95:GLU:O	24:X:98:ASP:HB2	1.92	0.70
25:Y:51:THR:CB	25:Y:52:PRO:HD3	2.18	0.70
20:T:101:ARG:HG2	20:T:105:GLN:NE2	2.07	0.70
16:P:8:LYS:O	16:P:11:THR:CG2	2.37	0.70
25:Y:33:ALA:C	25:Y:34:THR:OG1	2.28	0.70
25:Y:29:HIS:HD1	25:Y:67:GLY:CA	2.02	0.70
19:S:58:GLU:CA	19:S:59:LEU:HD13	2.21	0.70
4:D:216:GLU:C	4:D:216:GLU:OE1	2.30	0.70
4:D:105:LEU:CD2	4:D:184:ILE:CD1	2.56	0.70
6:F:79:HIS:O	6:F:80:GLY:C	2.29	0.70
9:I:103:LEU:CD2	9:I:172:LEU:HD13	2.21	0.70
9:I:193:LYS:HG3	12:L:10:TYR:CE1	2.26	0.70
1:A:42:LYS:HD3	18:R:101:ASP:HB2	1.70	0.70
2:B:79:VAL:O	2:B:79:VAL:HG23	1.90	0.70
1:A:120:ARG:CG	3:C:251:TYR:CE2	2.74	0.70
8:H:145:ARG:CD	23:W:51:GLU:CD	2.59	0.70
26:Z:44:LEU:HD12	26:Z:44:LEU:O	1.91	0.70
16:P:51:ARG:O	16:P:52:LYS:HB3	1.91	0.70
13:M:13:ASP:C	13:M:16:THR:CB	2.49	0.70
4:D:217:ILE:O	4:D:218:LEU:CD2	2.39	0.70
20:T:4:VAL:HG12	20:T:8:ASP:CB	2.20	0.70
5:E:195:ILE:HG22	5:E:196:THR:N	2.06	0.70
7:G:212:LEU:CA	7:G:215:LYS:HE2	2.18	0.70
3:C:66:ILE:HG23	3:C:71:LEU:HB2	1.74	0.70
8:H:32:MET:O	8:H:33:ASN:CG	2.30	0.70
22:V:32:ILE:HD12	22:V:60:ARG:HH11	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:21:MET:SD	11:K:49:MET:SD	2.90	0.70
21:U:62:ARG:HH11	21:U:64:THR:HG21	1.53	0.70
10:J:122:SER:HG	10:J:124:HIS:HB2	1.57	0.70
24:X:128:VAL:HG11	24:X:133:LEU:HD21	1.72	0.70
8:H:122:LEU:HD12	8:H:123:THR:H	1.56	0.70
16:P:48:GLY:O	16:P:50:ARG:HD2	1.91	0.70
24:X:40:PRO:HB3	24:X:81:ILE:CD1	2.15	0.70
18:R:115:SER:O	18:R:116:ASN:OD1	2.08	0.70
12:L:112:HIS:CD2	12:L:134:LEU:HD11	2.27	0.70
14:N:27:LYS:H	14:N:27:LYS:HE2	1.54	0.70
1:A:57:LYS:CE	22:V:70:LEU:HD21	2.22	0.70
4:D:132:LYS:HB2	4:D:191:PRO:HG3	0.70	0.70
26:Z:48:VAL:CG1	26:Z:48:VAL:O	2.40	0.70
4:D:198:ILE:O	4:D:198:ILE:HG13	1.90	0.70
19:S:15:VAL:HG12	19:S:16:LEU:H	1.57	0.70
19:S:15:VAL:HG13	19:S:68:ILE:CD1	2.20	0.70
2:B:124:HIS:CD2	2:B:136:HIS:CE1	2.80	0.70
16:P:70:MET:O	16:P:71:GLU:CB	2.39	0.70
20:T:75:MET:CE	20:T:79:TYR:CE2	2.61	0.70
7:G:179:LEU:HD12	7:G:180:VAL:N	1.97	0.69
8:H:6:ALA:CB	8:H:10:LYS:HZ3	2.05	0.69
18:R:102:THR:HA	18:R:105:MET:HB2	1.73	0.69
4:D:2:ALA:C	4:D:4:GLN:H	1.94	0.69
6:F:41:VAL:CG2	6:F:42:LYS:HD2	2.22	0.69
10:J:110:LEU:HD13	10:J:130:ILE:CG1	2.04	0.69
16:P:49:LEU:HD13	16:P:51:ARG:HH21	1.56	0.69
10:J:87:LEU:CD1	10:J:91:LYS:CB	2.69	0.69
6:F:53:ALA:HB1	17:Q:125:ARG:HH21	1.56	0.69
3:C:122:VAL:CG1	3:C:202:ALA:HA	2.22	0.69
16:P:31:GLU:O	16:P:35:GLN:HG3	1.92	0.69
4:D:103:GLU:HA	4:D:103:GLU:OE2	1.91	0.69
5:E:180:LEU:HD13	5:E:228:ILE:CD1	2.22	0.69
9:I:62:VAL:CG2	9:I:75:LYS:NZ	2.52	0.69
25:Y:114:MET:HE2	25:Y:124:ASN:HB2	1.74	0.69
2:B:52:THR:HG22	14:N:53:ILE:CD1	82.84	0.69
3:C:244:THR:O	3:C:245:VAL:C	2.28	0.69
13:M:44:LYS:O	13:M:46:GLN:N	2.25	0.69
15:O:30:VAL:CG2	15:O:32:HIS:NE2	2.55	0.69
8:H:145:ARG:CD	23:W:51:GLU:OE1	2.40	0.69
25:Y:55:ILE:CD1	25:Y:75:ILE:CD1	2.70	0.69
25:Y:54:VAL:CG2	25:Y:79:LEU:CD2	2.71	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:121:ILE:HG22	19:S:120:HIS:HB2	1.74	0.69
11:K:32:HIS:ND1	11:K:33:PRO:HD2	2.07	0.69
26:Z:85:ARG:CB	26:Z:85:ARG:CZ	2.70	0.69
1:A:185:MET:CE	22:V:39:VAL:CG1	2.66	0.69
3:C:141:ILE:HG23	3:C:142:LEU:N	2.06	0.69
8:H:190:PRO:HB2	8:H:191:GLU:CG	2.22	0.69
10:J:125:HIS:CD2	10:J:129:LEU:CD1	2.70	0.69
19:S:58:GLU:O	19:S:59:LEU:CB	2.40	0.69
10:J:15:THR:HB	10:J:44:TRP:CZ3	2.27	0.69
10:J:87:LEU:CD1	10:J:91:LYS:HB3	2.22	0.69
24:X:142:ARG:HH11	24:X:142:ARG:HG3	1.49	0.69
18:R:91:LEU:CB	18:R:92:ASP:HA	2.17	0.69
21:U:25:THR:CG2	21:U:86:LYS:HG2	2.21	0.69
10:J:179:LYS:HA	10:J:182:GLN:OE1	1.92	0.69
7:G:32:MET:HE3	7:G:100:CYS:C	2.13	0.69
7:G:57:ASP:OD2	7:G:98:ARG:HG2	1.91	0.69
3:C:50:LYS:CE	3:C:251:TYR:CE1	2.67	0.69
6:F:141:VAL:CG2	6:F:146:ARG:HG2	2.22	0.69
5:E:18:TRP:CE3	5:E:46:ILE:CD1	2.75	0.69
10:J:66:LYS:HA	10:J:71:LEU:CD1	2.19	0.69
24:X:125:VAL:O	24:X:126:ALA:HB3	1.91	0.69
19:S:8:LYS:C	26:Z:49:LEU:CD2	2.61	0.69
18:R:1:MET:HB3	18:R:2:GLY:N	2.05	0.69
4:D:197:LYS:HB3	4:D:198:ILE:HG23	0.77	0.69
24:X:108:LYS:HB3	24:X:110:HIS:CE1	2.28	0.69
1:A:172:GLY:HA3	1:A:203:PHE:CD1	2.28	0.69
14:N:114:ARG:HG2	14:N:114:ARG:HH21	1.57	0.69
25:Y:114:MET:HA	25:Y:124:ASN:HD22	1.43	0.69
1:A:52:LYS:HB3	1:A:52:LYS:HZ1	1.55	0.69
8:H:6:ALA:HB1	8:H:10:LYS:NZ	2.07	0.69
6:F:28:VAL:HG13	6:F:110:GLN:CG	2.22	0.69
11:K:40:VAL:HG23	11:K:44:HIS:N	2.07	0.69
17:Q:112:LEU:O	17:Q:116:ASP:CA	2.40	0.69
10:J:46:VAL:HG12	10:J:102:ILE:HG23	1.72	0.69
24:X:125:VAL:C	24:X:128:VAL:H	1.94	0.69
18:R:44:LYS:HE3	18:R:47:ARG:CZ	2.23	0.69
4:D:123:LEU:HD21	4:D:154:ASP:HB2	1.71	0.69
20:T:11:GLN:NE2	20:T:62:ARG:NH1	2.37	0.69
8:H:117:PRO:O	8:H:120:ARG:N	2.24	0.69
5:E:180:LEU:HD13	5:E:228:ILE:HG13	1.74	0.69
7:G:159:ARG:HH21	7:G:171:THR:HA	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:50:VAL:HG11	7:G:111:LEU:CD2	2.22	0.69
12:L:82:MET:HB2	12:L:85:THR:HG22	1.74	0.69
3:C:43:LYS:CE	3:C:43:LYS:HA	2.18	0.69
1:A:12:GLU:HB3	18:R:111:PHE:CE2	2.28	0.69
4:D:97:CYS:C	4:D:99:ILE:N	2.45	0.69
17:Q:12:VAL:CG1	17:Q:13:PHE:N	2.55	0.69
25:Y:54:VAL:HG22	25:Y:79:LEU:CD2	2.23	0.69
25:Y:34:THR:C	25:Y:35:VAL:CG2	2.53	0.69
16:P:110:GLU:CD	16:P:110:GLU:H	1.94	0.69
16:P:52:LYS:N	16:P:54:HIS:NE2	2.41	0.69
21:U:47:ASN:O	21:U:47:ASN:CG	2.29	0.69
24:X:29:LYS:CD	24:X:34:THR:CB	2.69	0.69
18:R:91:LEU:CG	18:R:92:ASP:HA	2.21	0.69
8:H:57:ARG:CD	8:H:89:GLY:O	2.40	0.69
5:E:126:VAL:HG22	5:E:157:ASN:H	1.57	0.69
3:C:142:LEU:C	3:C:145:LEU:CD2	2.59	0.69
8:H:169:LYS:HB2	8:H:173:PHE:HE2	1.51	0.69
8:H:12:ASN:HB3	8:H:46:THR:OG1	1.92	0.69
22:V:18:SER:HB3	22:V:54:ALA:O	1.93	0.69
11:K:12:TYR:CD2	11:K:82:TYR:HD2	2.11	0.69
5:E:62:LYS:HD3	5:E:80:ILE:HD11	0.79	0.69
10:J:133:ARG:HD3	10:J:141:VAL:HG11	1.74	0.69
10:J:140:GLN:NE2	25:Y:64:PHE:HE2	1.90	0.69
6:F:99:ILE:HD13	6:F:171:GLU:OE1	1.93	0.69
10:J:91:LYS:O	10:J:93:LYS:N	2.25	0.69
8:H:135:PHE:HB3	8:H:136:PRO:CD	2.23	0.69
24:X:32:LEU:O	24:X:37:LYS:HE3	1.91	0.69
15:O:143:LYS:O	15:O:143:LYS:HG2	1.81	0.69
5:E:129:ILE:CB	5:E:139:LEU:HD23	2.22	0.69
5:E:139:LEU:HD11	5:E:154:ILE:CG2	2.22	0.69
7:G:161:PRO:O	7:G:161:PRO:HD2	1.93	0.69
7:G:64:LYS:CE	7:G:67:VAL:HG13	2.22	0.69
12:L:147:LYS:HD2	12:L:149:ALA:N	2.07	0.69
5:E:74:GLY:O	5:E:75:LYS:HG2	1.93	0.69
3:C:51:LEU:C	3:C:51:LEU:CD2	2.61	0.69
3:C:68:LEU:HB2	6:F:128:ILE:HD11	79.01	0.69
8:H:12:ASN:HD22	8:H:46:THR:CB	2.06	0.69
15:O:117:ARG:O	15:O:121:ARG:HB2	1.92	0.69
8:H:191:GLU:OE1	8:H:193:GLN:OE1	2.10	0.69
11:K:46:MET:HA	11:K:69:TRP:CH2	2.28	0.69
16:P:98:ASN:O	16:P:122:THR:OG1	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:67:GLN:O	5:E:68:ARG:HG3	1.91	0.69
19:S:34:LYS:C	19:S:103:LEU:CD2	2.61	0.69
19:S:50:ILE:CG1	19:S:63:GLU:HG2	2.22	0.69
19:S:8:LYS:HD3	19:S:8:LYS:N	2.07	0.69
26:Z:92:LEU:HD11	26:Z:109:TYR:OH	1.93	0.69
26:Z:92:LEU:CD1	26:Z:99:LEU:HD21	2.22	0.69
16:P:49:LEU:C	16:P:51:ARG:N	2.45	0.69
10:J:82:VAL:HG11	10:J:92:MET:HE2	1.74	0.69
18:R:21:TYR:CB	18:R:71:ILE:HG21	2.23	0.69
13:M:13:ASP:O	13:M:16:THR:CA	2.41	0.69
25:Y:97:TYR:HD1	25:Y:98:GLU:N	1.89	0.69
22:V:1:MET:HE2	22:V:10:ASP:CB	2.14	0.69
13:M:94:ILE:O	13:M:95:ASP:HB2	1.93	0.69
2:B:150:ILE:CG1	18:R:124:VAL:CG1	2.67	0.69
9:I:206:LYS:CD	9:I:207:GLY:N	2.56	0.69
23:W:7:LEU:HD23	23:W:34:ILE:HG12	1.74	0.69
16:P:32:GLN:HA	16:P:35:GLN:OE1	1.92	0.69
8:H:6:ALA:CB	8:H:10:LYS:HD3	2.22	0.69
14:N:16:LEU:HD22	14:N:17:PRO:CD	2.21	0.69
22:V:15:ARG:O	22:V:24:ILE:HG22	1.93	0.69
17:Q:78:VAL:HG12	17:Q:82:TYR:CE2	2.28	0.69
10:J:61:LEU:HD13	10:J:94:LEU:HD11	1.70	0.69
25:Y:52:PRO:CD	25:Y:53:ASP:H	2.05	0.69
20:T:77:LYS:CB	20:T:94:ARG:CG	2.61	0.69
20:T:30:VAL:O	20:T:31:PRO:C	2.29	0.69
2:B:209:ASP:O	2:B:210:VAL:CG2	2.40	0.69
26:Z:73:VAL:HG12	26:Z:79:ILE:CG2	2.18	0.69
18:R:95:ILE:H	18:R:114:LEU:HD13	1.58	0.69
16:P:67:ALA:CB	16:P:73:PRO:HB3	2.23	0.69
17:Q:8:GLN:CB	17:Q:99:TYR:CZ	2.72	0.69
2:B:61:GLY:O	2:B:65:ARG:CZ	2.41	0.69
15:O:19:PRO:CG	15:O:27:VAL:HG22	2.15	0.69
24:X:133:LEU:HD21	24:X:139:GLU:O	1.92	0.69
25:Y:55:ILE:HG12	25:Y:75:ILE:HG12	0.70	0.69
25:Y:57:VAL:HG12	25:Y:60:PHE:HE2	1.58	0.69
20:T:77:LYS:CG	20:T:92:PHE:HZ	2.03	0.69
10:J:21:GLU:O	10:J:22:LYS:C	2.31	0.69
19:S:15:VAL:HG13	19:S:68:ILE:HD11	1.73	0.69
21:U:50:VAL:CG2	21:U:51:LYS:O	2.38	0.69
18:R:93:GLN:HG2	18:R:94:GLU:O	1.92	0.69
21:U:59:LYS:HB2	21:U:84:ILE:HG23	1.70	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:84:ARG:HG3	20:T:84:ARG:NH2	1.97	0.69
8:H:107:LYS:O	8:H:109:ARG:HA	1.94	0.69
9:I:155:ASN:CA	12:L:22:ARG:HD2	2.22	0.68
3:C:87:LEU:HD21	3:C:115:ILE:CG2	2.09	0.68
18:R:99:ASP:CB	18:R:119:VAL:HG12	2.22	0.68
22:V:45:ARG:O	22:V:46:PHE:C	2.30	0.68
22:V:59:ILE:CG2	22:V:64:GLU:HB2	2.23	0.68
4:D:40:ARG:NH1	21:U:107:GLU:OE2	2.26	0.68
5:E:108:ARG:CG	10:J:32:ILE:HG21	48.86	0.68
21:U:40:ILE:HD11	21:U:53:PRO:HB3	1.74	0.68
19:S:87:GLN:O	19:S:88:LYS:O	2.10	0.68
18:R:90:ALA:HA	18:R:91:LEU:HD12	1.73	0.68
23:W:30:CYS:HA	23:W:34:ILE:HD12	1.74	0.68
5:E:139:LEU:CD1	5:E:154:ILE:CG2	2.69	0.68
7:G:180:VAL:C	7:G:181:THR:HG22	2.12	0.68
12:L:5:GLN:NE2	12:L:10:TYR:CE1	2.59	0.68
3:C:69:PHE:CE1	3:C:249:SER:HA	2.28	0.68
3:C:76:SER:O	3:C:79:ILE:CG2	2.38	0.68
4:D:66:ILE:O	4:D:70:THR:HG23	1.93	0.68
6:F:40:ALA:N	6:F:68:ILE:HG23	2.08	0.68
19:S:39:ARG:HD3	20:T:38:LYS:HZ1	1.59	0.68
11:K:14:LEU:CD2	11:K:35:LEU:CD1	2.71	0.68
16:P:49:LEU:C	16:P:51:ARG:CD	2.61	0.68
3:C:198:LEU:HD11	3:C:226:PHE:CD1	2.29	0.68
9:I:136:ILE:HG23	9:I:139:LYS:HE2	1.73	0.68
1:A:186:ARG:O	1:A:186:ARG:HD3	1.93	0.68
3:C:244:THR:HG22	3:C:246:PHE:CG	2.26	0.68
22:V:47:ASN:O	22:V:48:GLY:C	2.29	0.68
11:K:39:ASN:O	11:K:40:VAL:HB	1.92	0.68
10:J:61:LEU:CD1	10:J:94:LEU:HD13	2.22	0.68
25:Y:19:GLN:HG2	25:Y:81:TYR:HD1	1.53	0.68
19:S:8:LYS:C	26:Z:49:LEU:HD23	2.12	0.68
3:C:241:TRP:CE2	23:W:68:ARG:HD2	2.28	0.68
13:M:19:GLN:HG2	13:M:88:TRP:CD1	2.27	0.68
7:G:77:LEU:CD1	7:G:95:LYS:HD3	2.23	0.68
3:C:138:GLY:C	3:C:141:ILE:HG22	2.14	0.68
19:S:7:GLU:CA	19:S:7:GLU:OE2	2.39	0.68
24:X:105:PHE:CZ	24:X:118:VAL:O	2.46	0.68
18:R:91:LEU:N	18:R:92:ASP:HA	2.01	0.68
3:C:260:LYS:HD2	3:C:261:THR:N	2.08	0.68
17:Q:33:LYS:HG3	17:Q:69:ARG:HG2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:142:GLU:HG2	14:N:144:SER:OG	1.94	0.68
5:E:175:PHE:CD2	5:E:175:PHE:O	2.45	0.68
7:G:32:MET:HE3	7:G:100:CYS:O	1.94	0.68
12:L:5:GLN:O	12:L:6:THR:C	2.31	0.68
1:A:147:LEU:CD2	1:A:163:CYS:SG	2.82	0.68
1:A:57:LYS:HZ3	22:V:70:LEU:CG	2.07	0.68
8:H:9:VAL:HG12	8:H:44:ASN:CG	2.13	0.68
6:F:45:TYR:C	6:F:47:LYS:HE2	2.13	0.68
6:F:14:THR:OG1	17:Q:56:LEU:CD1	2.42	0.68
19:S:51:ASP:OD2	19:S:53:THR:OG1	2.12	0.68
20:T:42:HIS:CE1	20:T:93:SER:CB	2.76	0.68
5:E:163:ASP:O	5:E:164:LEU:HB2	1.91	0.68
7:G:14:LYS:HZ1	7:G:123:GLY:HA2	1.59	0.68
7:G:30:LYS:N	7:G:30:LYS:HD2	2.08	0.68
9:I:117:TYR:N	9:I:117:TYR:CD2	2.62	0.68
9:I:142:SER:HB2	9:I:143:LYS:HZ2	1.54	0.68
9:I:141:ARG:HG3	9:I:144:LYS:O	1.93	0.68
14:N:46:THR:O	14:N:50:ILE:HD12	1.93	0.68
11:K:9:ILE:O	11:K:13:GLU:HG2	1.93	0.68
16:P:108:LYS:HB3	16:P:110:GLU:CD	2.13	0.68
18:R:122:PRO:CB	18:R:123:THR:CB	2.71	0.68
2:B:61:GLY:O	2:B:65:ARG:NH2	2.27	0.68
16:P:108:LYS:H	16:P:111:MET:CE	2.03	0.68
21:U:44:LYS:O	21:U:47:ASN:CA	2.41	0.68
21:U:50:VAL:O	21:U:51:LYS:CD	2.30	0.68
11:K:94:LEU:HD23	11:K:95:ARG:H	1.58	0.68
9:I:36:THR:O	9:I:95:THR:HG23	1.92	0.68
7:G:164:LYS:C	7:G:166:GLY:N	2.44	0.68
9:I:197:PHE:CE2	12:L:5:GLN:CG	2.76	0.68
8:H:14:GLU:CD	8:H:16:PRO:HB2	2.13	0.68
14:N:26:LEU:HD21	14:N:66:VAL:HG21	1.75	0.68
6:F:113:VAL:HG13	6:F:114:ASN:N	2.09	0.68
10:J:102:ILE:CG2	10:J:106:LEU:HD13	2.23	0.68
25:Y:48:TYR:O	25:Y:50:THR:CG2	2.38	0.68
10:J:177:ASN:HA	10:J:180:LYS:HB3	1.75	0.68
10:J:180:LYS:CG	10:J:181:GLY:N	2.56	0.68
4:D:217:ILE:CG2	4:D:218:LEU:N	2.57	0.68
12:L:118:ARG:O	12:L:119:ASP:HB2	1.93	0.68
11:K:18:GLU:O	11:K:92:ALA:HB2	1.89	0.68
15:O:22:ALA:C	15:O:24:GLY:H	1.93	0.68
20:T:85:ASN:HB3	20:T:88:MET:HB2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:41:PHE:CD1	15:O:57:THR:CG2	2.76	0.68
2:B:120:MET:HE3	2:B:142:PHE:HZ	1.58	0.68
5:E:87:MET:O	5:E:122:LYS:HE3	1.94	0.68
1:A:76:VAL:HG12	1:A:87:VAL:CG1	2.23	0.68
2:B:77:ASP:HA	2:B:79:VAL:HG22	1.75	0.68
14:N:50:ILE:O	14:N:54:LEU:HG	1.94	0.68
6:F:20:PHE:C	6:F:22:LYS:N	2.40	0.68
11:K:40:VAL:CG2	11:K:41:PRO:O	2.38	0.68
16:P:41:GLN:C	16:P:41:GLN:CD	2.52	0.68
5:E:43:PRO:HG2	5:E:46:ILE:HD12	1.74	0.68
16:P:56:LEU:HD22	16:P:78:THR:HG22	1.76	0.68
9:I:4:SER:O	9:I:5:ARG:C	2.32	0.68
23:W:128:PHE:HD1	23:W:129:PHE:N	1.91	0.68
2:B:105:LEU:C	2:B:106:THR:HG23	2.14	0.68
14:N:87:ASP:OD1	14:N:88:LEU:N	2.27	0.68
2:B:19:LYS:CG	2:B:19:LYS:O	2.42	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
7:G:38:ALA:CB	7:G:45:TRP:O	2.42	0.68
7:G:85:ARG:HD2	25:Y:118:ARG:HH21	1.53	0.68
9:I:154:LYS:HD3	9:I:155:ASN:CA	2.22	0.68
9:I:155:ASN:O	9:I:157:LYS:N	2.27	0.68
1:A:76:VAL:CG1	1:A:87:VAL:HG12	2.24	0.68
8:H:10:LYS:CE	8:H:16:PRO:C	2.62	0.68
8:H:35:ASP:OD1	8:H:36:LEU:N	2.27	0.68
15:O:63:LYS:O	15:O:64:ALA:HB2	1.94	0.68
17:Q:112:LEU:CD1	17:Q:120:LEU:CD2	2.72	0.68
17:Q:43:GLU:HG2	17:Q:45:ARG:HB3	1.74	0.68
18:R:90:ALA:HA	18:R:91:LEU:CD1	2.24	0.68
19:S:106:LYS:CD	19:S:109:GLU:OE1	2.42	0.68
18:R:72:LYS:O	18:R:76:GLU:HG2	1.93	0.68
4:D:226:GLN:O	4:D:227:LYS:HB2	1.94	0.67
5:E:159:THR:OG1	5:E:227:VAL:HG23	1.93	0.67
7:G:162:LEU:CD2	7:G:172:LYS:HZ3	2.04	0.67
11:K:40:VAL:CG2	11:K:41:PRO:N	2.29	0.67
11:K:40:VAL:HG21	11:K:45:VAL:H	1.59	0.67
2:B:66:VAL:HG21	2:B:87:ILE:CG2	2.02	0.67
12:L:18:GLN:HE21	12:L:20:LYS:HD2	1.57	0.67
13:M:12:MET:C	13:M:13:ASP:OD1	2.33	0.67
20:T:112:MET:SD	20:T:127:GLY:HA2	2.34	0.67
20:T:83:GLN:NE2	20:T:85:ASN:HA	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:84:ILE:CD1	10:J:86:VAL:HG21	2.24	0.67
24:X:32:LEU:O	24:X:37:LYS:CE	2.42	0.67
1:A:143:PRO:HD3	22:V:32:ILE:HG21	1.76	0.67
4:D:18:LYS:CD	4:D:18:LYS:O	2.42	0.67
4:D:43:PRO:O	4:D:44:THR:CG2	2.38	0.67
6:F:109:LEU:HD23	6:F:109:LEU:O	1.94	0.67
6:F:25:THR:HG21	6:F:42:LYS:HG3	0.68	0.67
16:P:114:HIS:CE1	19:S:113:ARG:HH22	2.11	0.67
16:P:22:LEU:HA	16:P:25:LEU:HB2	1.76	0.67
4:D:197:LYS:CB	4:D:198:ILE:HG12	2.11	0.67
4:D:211:VAL:O	18:R:38:ILE:O	2.12	0.67
2:B:205:TYR:CD2	2:B:206:PRO:CD	2.59	0.67
18:R:21:TYR:CG	18:R:71:ILE:HD13	2.28	0.67
4:D:215:ASP:O	4:D:216:GLU:HB2	1.93	0.67
23:W:7:LEU:HD23	23:W:34:ILE:HG13	1.75	0.67
3:C:123:GLY:C	3:C:226:PHE:CZ	2.67	0.67
8:H:135:PHE:CD2	8:H:136:PRO:HD3	2.29	0.67
9:I:144:LYS:C	9:I:145:ILE:HG23	2.15	0.67
8:H:64:VAL:HG13	8:H:68:GLN:OE1	1.94	0.67
6:F:28:VAL:CG2	6:F:110:GLN:HG2	2.24	0.67
5:E:64:ILE:HG12	25:Y:17:LEU:HD13	1.77	0.67
8:H:52:GLU:HA	8:H:58:LYS:HA	1.76	0.67
3:C:155:TRP:CH2	23:W:97:ARG:CZ	2.72	0.67
25:Y:91:LEU:C	25:Y:97:TYR:HB3	2.14	0.67
20:T:85:ASN:ND2	20:T:91:HIS:CD2	2.63	0.67
9:I:79:ILE:CG2	9:I:103:LEU:HB2	2.25	0.67
1:A:191:ARG:CG	1:A:193:HIS:HB2	2.24	0.67
1:A:193:HIS:ND1	1:A:194:PRO:HD3	2.09	0.67
2:B:52:THR:CG2	14:N:53:ILE:HD12	83.71	0.67
4:D:74:GLN:NE2	4:D:75:LYS:CE	2.57	0.67
17:Q:50:LYS:CE	17:Q:117:ARG:HD2	2.25	0.67
20:T:31:PRO:CG	20:T:102:ARG:CG	2.73	0.67
16:P:109:PRO:O	16:P:112:ILE:HG13	1.94	0.67
26:Z:99:LEU:HD23	26:Z:109:TYR:CD1	2.27	0.67
10:J:14:VAL:HG23	10:J:48:PHE:CD1	2.29	0.67
4:D:216:GLU:O	4:D:217:ILE:HG13	1.94	0.67
6:F:36:GLN:CG	6:F:37:ASP:OD1	2.30	0.67
23:W:18:GLU:HG2	23:W:65:LEU:HD13	1.76	0.67
23:W:7:LEU:HD12	23:W:78:ARG:HH21	1.60	0.67
5:E:100:ARG:HD3	5:E:102:ILE:HD12	1.72	0.67
12:L:71:ARG:CG	12:L:73:LEU:HG	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:82:MET:CE	12:L:85:THR:HG21	2.23	0.67
25:Y:114:MET:HE1	25:Y:125:VAL:HG23	1.77	0.67
3:C:48:VAL:HG23	3:C:75:GLU:CG	2.24	0.67
8:H:40:LEU:O	8:H:42:GLU:N	2.27	0.67
26:Z:96:LEU:O	26:Z:112:ASN:ND2	2.27	0.67
18:R:5:ARG:CA	18:R:10:LYS:HZ1	2.08	0.67
13:M:18:LEU:HD22	13:M:22:LEU:CG	2.22	0.67
2:B:148:ASN:H	2:B:148:ASN:HD22	1.42	0.67
6:F:67:PRO:HG2	6:F:70:GLU:HB3	1.76	0.67
8:H:177:TYR:HE2	8:H:183:LYS:HB2	1.59	0.67
9:I:112:TRP:CH2	9:I:117:TYR:OH	2.46	0.67
2:B:31:TYR:CE1	2:B:94:LYS:HA	2.29	0.67
14:N:26:LEU:HD12	14:N:27:LYS:HE3	1.76	0.67
15:O:116:LEU:HD23	15:O:119:LEU:HD21	1.76	0.67
15:O:84:ARG:HA	15:O:87:GLU:HB2	1.75	0.67
22:V:59:ILE:HG23	22:V:64:GLU:HB2	1.75	0.67
22:V:74:LYS:HG3	22:V:75:SER:H	1.58	0.67
22:V:77:GLY:HA2	22:V:78:ILE:O	1.95	0.67
11:K:36:ALA:C	11:K:38:LYS:H	1.95	0.67
17:Q:113:ILE:HG13	17:Q:120:LEU:CD1	2.25	0.67
24:X:52:LEU:CG	24:X:71:ARG:HB3	2.24	0.67
19:S:6:PRO:O	26:Z:49:LEU:HD11	1.94	0.67
16:P:126:VAL:O	16:P:127:LYS:HB3	1.93	0.67
18:R:21:TYR:CD2	18:R:73:LEU:HD12	2.29	0.67
24:X:3:LYS:O	24:X:4:CYS:O	2.13	0.67
11:K:96:ARG:CG	11:K:97:SER:N	2.57	0.67
2:B:179:ASN:CB	2:B:183:GLU:OE1	2.43	0.67
8:H:121:THR:O	8:H:125:VAL:HG23	1.94	0.67
4:D:141:LYS:HD2	4:D:179:GLN:CD	2.15	0.67
5:E:102:ILE:HD13	5:E:236:ILE:HD12	1.75	0.67
5:E:192:ILE:CD1	5:E:238:LEU:HD22	2.25	0.67
9:I:104:ILE:O	9:I:105:ASP:CB	2.42	0.67
9:I:108:PRO:O	9:I:111:GLN:HG2	1.95	0.67
3:C:50:LYS:O	3:C:258:LEU:HD22	1.94	0.67
2:B:72:ALA:CB	15:O:128:ARG:HH22	2.08	0.67
1:A:141:ASN:HD21	22:V:29:HIS:CA	2.07	0.67
11:K:36:ALA:O	11:K:38:LYS:N	2.28	0.67
11:K:11:ILE:HG23	11:K:49:MET:HE3	1.74	0.67
13:M:24:THR:O	13:M:27:ILE:HG22	1.94	0.67
17:Q:57:LEU:CD1	17:Q:115:TYR:CZ	2.60	0.67
17:Q:134:GLY:HA2	17:Q:141:TYR:CD1	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:103:HIS:NE2	26:Z:105:ALA:CB	2.58	0.67
20:T:94:ARG:HG3	20:T:94:ARG:NH1	2.10	0.67
16:P:108:LYS:HZ2	19:S:118:ARG:HH12	1.43	0.67
19:S:26:ILE:HG22	19:S:45:LEU:CD1	2.24	0.67
9:I:5:ARG:CG	9:I:5:ARG:HH11	2.03	0.67
16:P:30:TYR:O	16:P:34:MET:HG3	1.94	0.67
4:D:216:GLU:O	4:D:217:ILE:CG1	2.43	0.67
3:C:161:LYS:HD2	3:C:162:PRO:HD2	1.77	0.67
20:T:42:HIS:HE1	20:T:93:SER:CB	2.08	0.67
20:T:85:ASN:HB2	20:T:88:MET:O	1.95	0.67
20:T:42:HIS:CE1	20:T:93:SER:HB3	2.30	0.67
2:B:125:VAL:HG21	2:B:169:MET:HG3	1.76	0.67
5:E:194:VAL:HG22	5:E:211:LYS:O	1.95	0.67
25:Y:114:MET:HA	25:Y:124:ASN:CB	2.25	0.67
8:H:140:VAL:O	14:N:18:TYR:CE2	2.47	0.67
4:D:3:VAL:O	4:D:3:VAL:CG1	2.37	0.67
4:D:45:ARG:HG3	4:D:83:SER:O	1.95	0.67
4:D:74:GLN:HE21	4:D:75:LYS:CD	2.08	0.67
11:K:2:LEU:O	11:K:3:MET:CB	2.40	0.67
11:K:83:LEU:HB2	11:K:85:LEU:HG	1.76	0.67
10:J:170:PRO:CA	10:J:174:LYS:HZ1	2.06	0.67
6:F:103:LEU:HD22	6:F:178:ILE:CD1	2.23	0.67
14:N:13:GLN:CB	14:N:14:SER:O	2.43	0.67
23:W:104:LEU:HD12	23:W:106:THR:HG23	1.76	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
7:G:135:PRO:HG2	7:G:144:LEU:HD23	1.77	0.67
9:I:118:ALA:HB2	9:I:149:TYR:CZ	2.29	0.67
1:A:176:TRP:HE3	1:A:177:MET:SD	2.16	0.67
1:A:185:MET:O	1:A:187:GLY:N	2.28	0.67
1:A:183:LEU:CB	1:A:189:ILE:HD11	2.23	0.67
1:A:84:GLN:O	1:A:88:LEU:HD23	1.93	0.67
8:H:75:ILE:HG23	8:H:76:GLN:N	2.10	0.67
11:K:36:ALA:O	11:K:38:LYS:HD2	1.95	0.67
11:K:84:HIS:HD2	13:M:27:ILE:CG1	2.07	0.67
24:X:52:LEU:CD1	24:X:53:GLU:N	2.54	0.67
19:S:39:ARG:NH2	20:T:38:LYS:CG	2.57	0.67
8:H:146:VAL:O	23:W:49:GLU:HB2	1.95	0.67
8:H:60:ILE:CG2	8:H:92:VAL:HG22	2.25	0.67
26:Z:48:VAL:HA	26:Z:83:LEU:HD12	1.75	0.67
6:F:167:LYS:CD	6:F:171:GLU:HB3	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:15:THR:HG21	10:J:44:TRP:HZ3	1.58	0.67
13:M:49:LEU:HD13	13:M:50:CYS:H	1.58	0.67
13:M:51:VAL:HA	13:M:77:ILE:HG22	1.76	0.67
24:X:108:LYS:HB2	24:X:110:HIS:CE1	2.30	0.67
5:E:102:ILE:CD1	5:E:236:ILE:HD12	2.24	0.67
7:G:138:ALA:HB2	7:G:179:LEU:HB2	1.77	0.67
7:G:157:VAL:HG13	7:G:158:VAL:CA	2.25	0.67
9:I:110:ARG:NH2	9:I:124:LYS:CD	2.58	0.67
9:I:62:VAL:HG21	9:I:75:LYS:HZ3	1.57	0.67
12:L:100:ASN:N	12:L:100:ASN:OD1	2.28	0.67
3:C:49:THR:CG2	3:C:75:GLU:HG3	2.25	0.67
4:D:10:LYS:HE2	4:D:14:ASP:OD2	1.94	0.67
4:D:2:ALA:HB1	4:D:4:GLN:N	2.09	0.67
4:D:59:LEU:HD12	4:D:60:GLY:C	2.14	0.67
17:Q:19:ALA:CB	17:Q:80:GLN:HE21	2.06	0.67
17:Q:50:LYS:NZ	17:Q:85:ARG:HH21	1.69	0.67
10:J:110:LEU:HD11	10:J:135:ILE:HD12	1.77	0.67
25:Y:54:VAL:CG2	25:Y:79:LEU:HD23	2.23	0.67
20:T:99:VAL:HG23	20:T:100:ALA:N	2.09	0.67
19:S:46:ARG:NE	20:T:50:GLU:CG	2.58	0.67
4:D:127:MET:HG2	4:D:154:ASP:OD2	1.94	0.67
24:X:29:LYS:HE3	24:X:34:THR:HG21	1.75	0.67
18:R:92:ASP:O	18:R:93:GLN:CB	2.43	0.67
2:B:98:THR:O	2:B:232:HIS:CE1	2.48	0.67
5:E:250:GLU:O	5:E:254:LYS:HG2	1.95	0.67
9:I:191:GLU:N	9:I:195:LEU:HB2	2.10	0.66
1:A:109:THR:O	1:A:110:ASN:HB2	1.95	0.66
1:A:140:VAL:O	1:A:140:VAL:CG1	2.43	0.66
3:C:51:LEU:O	3:C:55:VAL:HG23	1.94	0.66
4:D:48:ILE:HG23	4:D:86:LEU:HG	1.75	0.66
24:X:52:LEU:HD12	24:X:53:GLU:CA	2.24	0.66
26:Z:99:LEU:HD21	26:Z:109:TYR:HE1	1.46	0.66
8:H:53:VAL:HG22	8:H:57:ARG:C	2.05	0.66
13:M:79:VAL:HG12	13:M:80:ASP:N	2.09	0.66
14:N:13:GLN:HB2	14:N:14:SER:O	1.95	0.66
20:T:124:THR:HG21	20:T:126:GLN:HB3	1.76	0.66
7:G:3:LEU:HD11	7:G:41:LEU:HD11	1.77	0.66
7:G:4:ASN:HA	7:G:15:LEU:CD2	2.24	0.66
9:I:149:TYR:HD1	9:I:152:ARG:HH12	1.34	0.66
12:L:10:TYR:CD2	12:L:12:LYS:HE3	2.27	0.66
21:U:109:GLY:C	21:U:110:VAL:HG23	2.13	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:90:CYS:HA	24:X:93:PHE:HD2	1.60	0.66
4:D:162:ASP:CG	4:D:166:TYR:CE2	2.68	0.66
2:B:160:GLN:CD	2:B:205:TYR:CD1	2.67	0.66
12:L:49:GLU:HB2	12:L:116:CYS:SG	2.36	0.66
6:F:79:HIS:O	6:F:81:ARG:N	2.29	0.66
2:B:148:ASN:H	2:B:148:ASN:ND2	1.93	0.66
23:W:3:ARG:C	23:W:4:MET:SD	2.74	0.66
5:E:94:LYS:C	5:E:95:THR:HG23	2.15	0.66
7:G:131:ARG:HG2	7:G:131:ARG:CD	2.15	0.66
7:G:147:LEU:HD21	7:G:156:TYR:HE2	1.58	0.66
1:A:133:PRO:CD	1:A:134:LEU:N	2.51	0.66
2:B:188:LEU:HD22	2:B:212:VAL:HG21	1.77	0.66
3:C:57:ASP:O	3:C:58:MET:HB2	1.94	0.66
15:O:101:GLY:O	15:O:104:ARG:CB	2.43	0.66
2:B:28:LYS:HE2	15:O:51:GLU:OE2	1.95	0.66
22:V:40:ASP:CB	22:V:47:ASN:HD22	2.06	0.66
6:F:42:LYS:CG	6:F:42:LYS:O	2.28	0.66
11:K:59:LYS:HD2	11:K:60:GLU:H	1.58	0.66
19:S:81:ASP:OD2	19:S:95:TYR:CD2	2.48	0.66
3:C:155:TRP:CE2	23:W:97:ARG:CD	2.78	0.66
9:I:10:LYS:HG3	9:I:11:ARG:H	1.61	0.66
25:Y:37:LYS:C	25:Y:40:ILE:HG22	2.15	0.66
19:S:111:LEU:HD22	19:S:125:HIS:ND1	2.09	0.66
5:E:9:LEU:HB2	5:E:30:ARG:HB2	1.76	0.66
5:E:48:LEU:HD11	5:E:70:ILE:CD1	2.26	0.66
12:L:99:TYR:HD2	12:L:99:TYR:O	1.78	0.66
17:Q:8:GLN:HG2	17:Q:99:TYR:HD1	1.53	0.66
17:Q:8:GLN:CG	17:Q:99:TYR:HE1	1.60	0.66
2:B:25:PHE:CG	15:O:88:LEU:HD22	2.31	0.66
6:F:127:ARG:HG2	6:F:127:ARG:O	1.94	0.66
8:H:65:PRO:C	8:H:67:PRO:HD2	2.16	0.66
11:K:16:PHE:CE2	11:K:79:LEU:C	2.69	0.66
17:Q:57:LEU:HD11	17:Q:115:TYR:OH	1.93	0.66
16:P:41:GLN:O	16:P:41:GLN:CD	2.33	0.66
24:X:95:GLU:CD	24:X:140:ARG:HH22	1.96	0.66
16:P:10:ARG:NH2	16:P:11:THR:HG21	2.10	0.66
19:S:54:LYS:C	19:S:54:LYS:CB	2.61	0.66
4:D:112:GLY:H	4:D:113:LEU:CD1	2.08	0.66
17:Q:15:ARG:HH12	17:Q:20:THR:HG21	1.61	0.66
18:R:100:PRO:CG	18:R:119:VAL:CG2	2.73	0.66
6:F:42:LYS:CB	6:F:46:ALA:H	2.09	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:98:ASN:OD1	16:P:120:SER:CB	2.43	0.66
10:J:171:GLY:O	10:J:174:LYS:N	2.28	0.66
19:S:39:ARG:HH22	20:T:38:LYS:HG2	1.60	0.66
8:H:117:PRO:HG2	8:H:120:ARG:NE	2.11	0.66
7:G:32:MET:CE	7:G:100:CYS:O	2.43	0.66
7:G:212:LEU:HA	7:G:215:LYS:HD3	1.77	0.66
9:I:67:TRP:CZ2	9:I:158:ILE:HD11	2.24	0.66
1:A:141:ASN:HA	22:V:32:ILE:CD1	2.25	0.66
2:B:76:ASN:O	2:B:76:ASN:ND2	2.29	0.66
6:F:42:LYS:NZ	6:F:42:LYS:O	2.29	0.66
11:K:71:LEU:CG	11:K:76:ILE:HD13	2.25	0.66
11:K:84:HIS:O	11:K:84:HIS:CG	2.39	0.66
17:Q:50:LYS:HA	17:Q:53:GLU:CG	2.26	0.66
24:X:52:LEU:CD1	24:X:53:GLU:CG	2.74	0.66
11:K:33:PRO:O	11:K:34:GLU:CB	2.42	0.66
5:E:248:ILE:CD1	10:J:72:PHE:CE2	2.45	0.66
25:Y:10:ARG:NE	25:Y:24:VAL:CG1	2.40	0.66
20:T:83:GLN:HE22	20:T:85:ASN:HA	1.59	0.66
5:E:191:ARG:HD3	5:E:245:ARG:CB	2.25	0.66
5:E:159:THR:CG2	5:E:227:VAL:HG22	2.04	0.66
7:G:16:ILE:HG21	7:G:45:TRP:CH2	2.30	0.66
17:Q:98:LYS:HE3	17:Q:99:TYR:CE2	2.30	0.66
1:A:76:VAL:HG13	1:A:175:TRP:CZ3	2.25	0.66
2:B:49:VAL:HG22	2:B:65:ARG:NH1	2.11	0.66
2:B:83:LYS:HZ2	15:O:130:GLU:CD	1.96	0.66
8:H:10:LYS:N	8:H:11:PRO:HD3	2.11	0.66
15:O:53:ILE:HG13	15:O:53:ILE:O	1.94	0.66
6:F:25:THR:HG21	6:F:42:LYS:CB	2.19	0.66
6:F:42:LYS:CB	6:F:46:ALA:N	2.58	0.66
25:Y:55:ILE:CG1	25:Y:75:ILE:CG1	2.15	0.66
11:K:14:LEU:HD21	11:K:35:LEU:CD1	2.26	0.66
9:I:5:ARG:NH1	9:I:5:ARG:HG2	2.06	0.66
10:J:48:PHE:HE1	10:J:52:LYS:CE	1.86	0.66
14:N:125:LEU:CD2	14:N:129:TYR:CZ	2.78	0.66
20:T:85:ASN:HD21	20:T:91:HIS:CD2	2.14	0.66
25:Y:111:LYS:NZ	25:Y:115:LYS:NZ	2.43	0.66
15:O:41:PHE:CE1	15:O:57:THR:HG21	2.31	0.66
5:E:159:THR:CB	5:E:227:VAL:HG23	2.24	0.66
5:E:75:LYS:C	5:E:76:VAL:CG2	4.26	0.66
2:B:31:TYR:HE1	2:B:94:LYS:N	1.93	0.66
2:B:63:LYS:O	2:B:63:LYS:HD3	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:69:PHE:CZ	3:C:247:THR:CG2	2.79	0.66
4:D:23:GLU:HG2	11:K:64:TRP:HE1	1.60	0.66
6:F:20:PHE:HB3	6:F:23:TRP:HB2	1.78	0.66
17:Q:34:VAL:HG21	17:Q:39:LEU:CD2	2.22	0.66
17:Q:39:LEU:O	17:Q:42:ILE:HD12	1.96	0.66
16:P:41:GLN:NE2	16:P:45:LEU:CG	2.40	0.66
5:E:21:ASP:OD2	5:E:24:THR:HG23	1.94	0.66
2:B:87:ILE:HG21	2:B:101:HIS:CG	2.31	0.66
19:S:88:LYS:H	19:S:95:TYR:HD1	1.42	0.66
10:J:180:LYS:HD2	10:J:180:LYS:C	2.15	0.66
18:R:7:LYS:HB2	18:R:11:LYS:HE3	1.77	0.66
3:C:192:ALA:O	3:C:195:PRO:CG	2.43	0.66
14:N:92:ILE:CG2	14:N:150:VAL:CG2	2.72	0.66
6:F:154:LEU:CD1	6:F:155:CYS:SG	2.83	0.66
5:E:153:LEU:CD1	5:E:172:PHE:CE2	2.77	0.66
7:G:19:ASP:O	7:G:20:ASP:CB	2.43	0.66
5:E:152:PRO:HD2	7:G:212:LEU:HD21	1.78	0.66
9:I:142:SER:CA	9:I:143:LYS:CB	2.71	0.66
12:L:58:LYS:O	12:L:64:GLY:HA3	1.95	0.66
8:H:6:ALA:CB	8:H:10:LYS:NZ	2.59	0.66
23:W:17:ALA:CB	23:W:25:VAL:CG1	2.74	0.66
17:Q:115:TYR:HD2	17:Q:116:ASP:H	1.44	0.66
16:P:41:GLN:HA	16:P:84:ILE:HD11	1.78	0.66
24:X:71:ARG:CG	24:X:82:THR:HG22	2.16	0.66
25:Y:87:PRO:O	25:Y:87:PRO:HD2	1.95	0.66
20:T:77:LYS:CD	20:T:92:PHE:CE2	2.77	0.66
19:S:39:ARG:CD	20:T:38:LYS:HE2	2.16	0.66
20:T:49:ASP:OD2	20:T:51:ASN:HB2	1.96	0.66
14:N:129:TYR:O	14:N:134:VAL:HG13	1.96	0.66
6:F:154:LEU:CD1	6:F:155:CYS:N	2.55	0.66
7:G:32:MET:SD	7:G:100:CYS:C	2.74	0.66
12:L:40:ILE:HG21	12:L:44:PHE:HB2	1.78	0.66
25:Y:54:VAL:HG23	25:Y:79:LEU:HD21	1.78	0.66
20:T:31:PRO:CB	20:T:33:TRP:CD2	2.77	0.66
16:P:22:LEU:HD12	16:P:23:ASP:N	2.11	0.66
19:S:58:GLU:OE2	26:Z:49:LEU:HD13	1.96	0.66
19:S:7:GLU:OE2	19:S:7:GLU:N	2.29	0.66
5:E:130:PHE:CD2	5:E:138:HIS:CE1	2.84	0.66
13:M:12:MET:HE1	13:M:17:ALA:C	1.86	0.66
4:D:212:GLU:HG2	18:R:19:LYS:NZ	2.11	0.66
13:M:51:VAL:HB	13:M:77:ILE:HG21	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:55:ARG:C	15:O:56:VAL:HG12	2.16	0.66
11:K:18:GLU:C	11:K:92:ALA:CB	2.64	0.66
26:Z:85:ARG:HH11	26:Z:85:ARG:CB	2.03	0.66
2:B:148:ASN:HB2	18:R:124:VAL:HG23	1.78	0.66
6:F:154:LEU:HD12	6:F:155:CYS:CA	2.25	0.66
20:T:21:PHE:CD1	20:T:22:LEU:HD23	2.31	0.66
4:D:226:GLN:HE21	4:D:226:GLN:C	1.99	0.65
7:G:120:ASP:O	7:G:121:ILE:HD13	1.95	0.65
12:L:147:LYS:O	12:L:147:LYS:HD3	1.94	0.65
3:C:146:SER:O	3:C:148:VAL:HG13	1.96	0.65
8:H:51:ILE:CD1	8:H:176:VAL:HA	2.26	0.65
8:H:44:ASN:HB3	8:H:68:GLN:HE22	1.60	0.65
18:R:99:ASP:HB3	18:R:119:VAL:CG1	2.26	0.65
16:P:10:ARG:HH21	16:P:11:THR:HG21	1.61	0.65
19:S:8:LYS:CE	19:S:9:PHE:HE1	2.06	0.65
4:D:163:PRO:HA	4:D:166:TYR:HD2	1.60	0.65
4:D:196:GLY:O	4:D:199:GLY:CA	2.44	0.65
4:D:202:LYS:CB	4:D:203:PRO:HD3	2.25	0.65
8:H:122:LEU:HD11	8:H:123:THR:CG2	2.26	0.65
12:L:118:ARG:O	12:L:119:ASP:CB	2.44	0.65
7:G:163:ASN:O	7:G:164:LYS:HB3	1.94	0.65
7:G:227:GLN:O	7:G:231:ARG:HG3	1.96	0.65
7:G:32:MET:O	7:G:33:ALA:CB	2.44	0.65
1:A:159:ILE:HG22	1:A:159:ILE:O	1.96	0.65
2:B:49:VAL:CG2	2:B:65:ARG:HH12	2.09	0.65
3:C:60:ILE:C	3:C:82:PHE:CE1	2.69	0.65
2:B:107:ARG:CZ	15:O:133:THR:O	2.43	0.65
4:D:53:THR:HG21	4:D:91:VAL:HB	1.78	0.65
10:J:114:VAL:HG12	10:J:119:LEU:O	1.96	0.65
10:J:118:GLY:O	10:J:120:ALA:N	2.29	0.65
10:J:130:ILE:HA	10:J:135:ILE:CD1	2.26	0.65
10:J:130:ILE:CG2	10:J:135:ILE:HD11	2.21	0.65
19:S:6:PRO:O	19:S:7:GLU:CB	2.41	0.65
16:P:49:LEU:HD13	16:P:51:ARG:NH2	2.11	0.65
24:X:60:LYS:HE2	24:X:116:PRO:CB	2.26	0.65
4:D:219:PRO:O	4:D:220:THR:O	2.13	0.65
20:T:85:ASN:O	20:T:88:MET:CE	2.43	0.65
3:C:262:HIS:CG	3:C:263:THR:N	2.63	0.65
5:E:258:ALA:O	5:E:259:LYS:HB2	1.96	0.65
4:D:145:GLN:HG3	4:D:146:ARG:N	2.10	0.65
14:N:76:LYS:HD2	14:N:77:SER:N	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:177:MET:HE1	1:A:180:ARG:HH21	1.49	0.65
1:A:193:HIS:CB	1:A:194:PRO:HD2	2.26	0.65
1:A:75:SER:HB2	1:A:122:LEU:HD23	1.77	0.65
2:B:49:VAL:CG2	2:B:65:ARG:NH1	2.59	0.65
15:O:119:LEU:CD1	15:O:126:ILE:HD11	2.26	0.65
15:O:62:VAL:HG21	15:O:72:TYR:CZ	2.30	0.65
18:R:98:VAL:HG12	18:R:99:ASP:N	2.10	0.65
1:A:141:ASN:O	22:V:32:ILE:CG2	2.44	0.65
4:D:59:LEU:CD1	4:D:60:GLY:O	2.44	0.65
19:S:46:ARG:NE	20:T:50:GLU:HG2	2.10	0.65
16:P:124:LYS:O	16:P:125:PRO:C	2.35	0.65
20:T:144:LYS:HZ3	20:T:144:LYS:HB2	1.56	0.65
2:B:147:ASN:O	2:B:149:GLN:N	2.29	0.65
7:G:162:LEU:HG	7:G:170:ARG:CB	2.25	0.65
7:G:64:LYS:HE2	7:G:67:VAL:CG1	2.27	0.65
9:I:119:LEU:O	9:I:120:PRO:O	2.15	0.65
9:I:145:ILE:HA	9:I:148:LYS:HD3	1.77	0.65
18:R:32:LYS:HE2	18:R:33:ARG:NE	2.11	0.65
2:B:70:SER:CB	15:O:128:ARG:HD3	2.26	0.65
14:N:16:LEU:CD2	14:N:17:PRO:CD	2.75	0.65
6:F:115:ALA:CB	6:F:177:LEU:HD22	2.26	0.65
17:Q:72:VAL:HG23	17:Q:84:ILE:HG22	1.77	0.65
10:J:143:ASN:C	10:J:144:ILE:HG13	2.13	0.65
10:J:34:GLU:HB2	10:J:35:TYR:HD2	1.61	0.65
10:J:35:TYR:C	10:J:37:LEU:N	2.41	0.65
24:X:138:LYS:C	24:X:139:GLU:OE2	2.35	0.65
24:X:108:LYS:HB3	24:X:110:HIS:HE2	1.60	0.65
5:E:259:LYS:NZ	5:E:260:GLN:OE1	2.29	0.65
5:E:182:MET:CE	5:E:228:ILE:HG21	2.26	0.65
7:G:50:VAL:CG1	7:G:111:LEU:CB	2.73	0.65
2:B:67:PHE:CD1	15:O:47:LEU:HB2	2.30	0.65
3:C:61:LYS:HA	3:C:82:PHE:HE1	1.62	0.65
5:E:43:PRO:HD2	5:E:43:PRO:O	1.96	0.65
5:E:72:ILE:CD1	5:E:82:TYR:CD2	2.80	0.65
10:J:131:ARG:HH11	10:J:143:ASN:ND2	1.93	0.65
22:V:9:VAL:HG12	22:V:10:ASP:H	1.60	0.65
11:K:18:GLU:C	11:K:92:ALA:HB2	2.17	0.65
6:F:176:GLU:CD	6:F:187:SER:HG	2.00	0.65
3:C:123:GLY:CA	3:C:226:PHE:CZ	2.76	0.65
14:N:142:GLU:CD	14:N:144:SER:OG	2.34	0.65
4:D:141:LYS:HD2	4:D:179:GLN:HG2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:172:GLY:HA3	1:A:203:PHE:CE1	2.31	0.65
8:H:149:ASP:CG	8:H:149:ASP:O	2.34	0.65
5:E:117:GLU:O	5:E:119:ALA:N	2.26	0.65
7:G:185:LEU:HB3	7:G:189:ARG:NH1	2.11	0.65
3:C:115:ILE:CD1	3:C:144:LYS:HG3	2.27	0.65
3:C:245:VAL:O	3:C:246:PHE:HB2	1.96	0.65
15:O:30:VAL:CG2	15:O:32:HIS:CD2	2.80	0.65
3:C:147:ILE:O	22:V:27:LYS:HE3	1.96	0.65
11:K:2:LEU:CG	11:K:3:MET:H	2.07	0.65
5:E:72:ILE:HD13	5:E:82:TYR:CE2	2.32	0.65
10:J:61:LEU:HD23	10:J:98:LEU:HD11	1.74	0.65
24:X:93:PHE:O	24:X:140:ARG:NH1	2.30	0.65
25:Y:87:PRO:CB	25:Y:89:HIS:CE1	2.80	0.65
4:D:132:LYS:CG	4:D:191:PRO:HG3	2.19	0.65
19:S:8:LYS:CA	26:Z:49:LEU:CD2	2.74	0.65
26:Z:99:LEU:CD1	26:Z:102:LYS:NZ	2.59	0.65
10:J:78:LEU:HD13	10:J:92:MET:O	1.96	0.65
5:E:130:PHE:HB2	5:E:138:HIS:CD2	2.31	0.65
3:C:198:LEU:HD13	3:C:225:THR:HG23	1.77	0.65
10:J:137:VAL:HG22	10:J:157:ILE:HG12	1.79	0.65
13:M:20:GLU:HA	13:M:20:GLU:OE1	1.96	0.65
7:G:102:VAL:HG22	7:G:109:LEU:HD21	1.79	0.65
12:L:99:TYR:C	12:L:100:ASN:OD1	2.35	0.65
1:A:180:ARG:HD3	1:A:184:ARG:HH21	1.57	0.65
2:B:32:ASP:OD1	2:B:46:LYS:CD	2.44	0.65
8:H:166:VAL:HG22	8:H:173:PHE:CE2	2.30	0.65
14:N:54:LEU:HB3	14:N:60:VAL:CG2	2.20	0.65
2:B:25:PHE:CG	15:O:88:LEU:HD13	2.32	0.65
1:A:7:VAL:HG22	22:V:43:THR:HG21	1.79	0.65
6:F:112:LEU:HD23	6:F:116:ILE:CD1	2.22	0.65
17:Q:54:PRO:CG	17:Q:88:ILE:CD1	2.70	0.65
16:P:98:ASN:HD21	16:P:120:SER:HB2	1.61	0.65
19:S:39:ARG:CD	20:T:38:LYS:NZ	2.57	0.65
16:P:13:ARG:C	16:P:14:LYS:HG2	2.16	0.65
9:I:69:SER:HB2	12:L:19:ASN:HD22	1.53	0.65
16:P:49:LEU:CA	16:P:51:ARG:CG	2.68	0.65
25:Y:99:LYS:NZ	25:Y:99:LYS:O	2.29	0.65
26:Z:70:PRO:CD	26:Z:71:ALA:N	2.55	0.65
13:M:70:ALA:CB	13:M:71:GLU:OE2	2.41	0.65
21:U:19:ARG:CG	21:U:92:HIS:CE1	2.76	0.65
1:A:89:LYS:HB3	1:A:202:TYR:CZ	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:42:ARG:HH22	2:B:232:HIS:HA	1.60	0.65
5:E:165:GLU:N	5:E:165:GLU:OE2	2.30	0.65
10:J:158:ASP:OD1	10:J:159:PHE:N	2.27	0.65
9:I:194:GLU:HG2	12:L:10:TYR:CD2	2.32	0.65
1:A:98:PRO:O	1:A:99:ILE:HG13	1.97	0.65
16:P:98:ASN:ND2	16:P:120:SER:HB2	2.12	0.65
18:R:122:PRO:HB3	18:R:123:THR:HG23	1.56	0.65
23:W:26:LEU:O	23:W:26:LEU:CD1	2.39	0.65
20:T:28:LEU:CD2	20:T:28:LEU:C	2.61	0.65
18:R:77:GLU:HG3	18:R:80:ARG:HH21	1.61	0.65
5:E:71:LYS:HE3	5:E:75:LYS:HA	1.78	0.65
7:G:176:ILE:CG2	7:G:179:LEU:HD22	1.95	0.65
9:I:157:LYS:O	9:I:158:ILE:O	2.14	0.65
3:C:142:LEU:O	3:C:145:LEU:HD23	1.96	0.65
3:C:54:LEU:CD1	3:C:258:LEU:CD1	2.60	0.65
15:O:19:PRO:CD	15:O:27:VAL:HG21	2.12	0.65
22:V:67:ASP:O	22:V:68:SER:C	2.36	0.65
11:K:3:MET:HG2	11:K:4:PRO:O	1.97	0.65
17:Q:47:LEU:HD23	17:Q:81:ILE:HD13	1.63	0.65
10:J:50:LEU:CD1	10:J:102:ILE:HD13	2.22	0.65
20:T:31:PRO:CG	20:T:33:TRP:CZ2	2.79	0.65
25:Y:62:THR:CB	25:Y:69:THR:HG22	2.27	0.65
12:L:17:PHE:CD1	12:L:18:GLN:O	2.49	0.65
3:C:155:TRP:CH2	23:W:97:ARG:HD3	2.32	0.65
2:B:209:ASP:O	2:B:210:VAL:HB	1.97	0.65
20:T:11:GLN:NE2	20:T:62:ARG:NE	2.44	0.65
4:D:216:GLU:O	4:D:217:ILE:HD12	1.97	0.65
13:M:124:ILE:CA	13:M:127:TYR:CE2	2.80	0.65
14:N:139:TRP:CE3	14:N:140:LYS:CA	2.80	0.65
5:E:98:ASN:ND2	5:E:114:ILE:CD1	2.61	0.65
5:E:151:ASP:OD2	5:E:151:ASP:N	2.30	0.65
5:E:98:ASN:ND2	5:E:114:ILE:HG13	2.12	0.65
7:G:142:ARG:HH21	7:G:152:ASP:N	1.95	0.65
1:A:186:ARG:HH11	1:A:186:ARG:C	1.99	0.65
1:A:66:VAL:HG13	1:A:186:ARG:CB	2.27	0.65
1:A:39:TYR:N	1:A:50:ASN:ND2	2.44	0.65
2:B:28:LYS:CD	15:O:51:GLU:OE2	2.45	0.65
2:B:77:ASP:O	2:B:79:VAL:HG13	1.97	0.65
2:B:93:GLY:C	2:B:94:LYS:CD	2.65	0.65
8:H:16:PRO:O	8:H:20:GLU:CD	2.36	0.65
8:H:193:GLN:H	8:H:193:GLN:CD	2.00	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:91:ARG:CD	17:Q:46:THR:HG21	2.26	0.65
16:P:98:ASN:OD1	16:P:120:SER:HB2	1.97	0.65
16:P:53:GLN:CB	16:P:56:LEU:HD12	2.26	0.65
2:B:87:ILE:CG2	2:B:101:HIS:CD2	2.77	0.65
4:D:201:LYS:O	4:D:202:LYS:HB2	1.96	0.65
4:D:123:LEU:HD21	4:D:154:ASP:OD2	1.97	0.65
13:M:89:VAL:HG12	13:M:90:GLY:N	2.11	0.65
14:N:139:TRP:CZ3	14:N:141:TYR:N	2.64	0.65
14:N:89:TYR:CE1	14:N:150:VAL:HG13	2.32	0.65
15:O:37:PHE:O	15:O:38:ASN:CB	2.45	0.65
17:Q:144:SER:O	17:Q:145:TYR:HB2	1.96	0.65
9:I:139:LYS:HB3	9:I:145:ILE:HD11	1.57	0.64
12:L:71:ARG:HG2	12:L:73:LEU:HG	1.79	0.64
1:A:119:PRO:O	1:A:142:LEU:CD2	2.45	0.64
1:A:186:ARG:NE	1:A:186:ARG:O	2.30	0.64
22:V:40:ASP:O	22:V:40:ASP:CG	2.33	0.64
11:K:38:LYS:O	11:K:39:ASN:CB	2.45	0.64
5:E:49:ARG:CB	5:E:55:ALA:HB3	2.27	0.64
10:J:37:LEU:HG	10:J:42:GLU:HB2	1.77	0.64
24:X:52:LEU:HD21	24:X:71:ARG:HD3	1.79	0.64
18:R:71:ILE:O	18:R:75:GLU:HG3	1.97	0.64
25:Y:98:GLU:C	25:Y:98:GLU:OE2	2.35	0.64
8:H:85:LYS:C	8:H:85:LYS:CD	2.51	0.64
2:B:116:LYS:O	2:B:117:TRP:HB2	1.95	0.64
2:B:150:ILE:HD12	18:R:126:MET:HB2	1.76	0.64
2:B:178:THR:O	2:B:179:ASN:HB2	1.95	0.64
18:R:31:ASN:ND2	18:R:55:THR:HG22	2.11	0.64
3:C:164:THR:HG23	3:C:165:VAL:H	1.62	0.64
7:G:162:LEU:HD22	7:G:172:LYS:NZ	2.12	0.64
3:C:55:VAL:CG1	3:C:82:PHE:CD2	2.74	0.64
4:D:55:THR:CA	4:D:58:VAL:HG22	2.27	0.64
6:F:28:VAL:HG13	6:F:110:GLN:OE1	1.96	0.64
11:K:64:TRP:C	11:K:65:ARG:CG	2.66	0.64
10:J:170:PRO:HD2	10:J:175:ARG:HH11	1.61	0.64
24:X:99:GLU:C	24:X:100:VAL:HG13	2.18	0.64
10:J:91:LYS:CA	10:J:96:TYR:CG	2.80	0.64
13:M:12:MET:HE1	13:M:120:ALA:CB	2.24	0.64
20:T:124:THR:HG22	20:T:127:GLY:H	1.61	0.64
1:A:196:GLU:HA	1:A:196:GLU:OE2	1.97	0.64
25:Y:114:MET:CE	25:Y:125:VAL:CG2	2.73	0.64
6:F:129:GLY:O	6:F:134:VAL:HG22	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:43:HIS:CG	15:O:43:HIS:O	2.47	0.64
11:K:60:GLU:OE1	11:K:67:PHE:HE1	1.68	0.64
5:E:55:ALA:C	5:E:56:LEU:HD23	2.18	0.64
16:P:5:GLU:O	16:P:6:GLN:HB2	1.97	0.64
25:Y:63:HIS:ND1	25:Y:64:PHE:CD1	2.65	0.64
10:J:177:ASN:O	10:J:180:LYS:HB3	1.97	0.64
2:B:105:LEU:HD11	2:B:213:ARG:CG	2.27	0.64
9:I:104:ILE:O	9:I:105:ASP:OD2	2.15	0.64
12:L:113:LEU:HD11	12:L:120:VAL:CB	2.27	0.64
1:A:40:LYS:HD3	1:A:41:ARG:H	1.62	0.64
11:K:50:GLN:O	11:K:53:LYS:HG2	1.98	0.64
10:J:35:TYR:CE1	10:J:112:THR:HG21	2.33	0.64
25:Y:23:MET:HE3	25:Y:44:LEU:HD21	1.78	0.64
19:S:42:HIS:CE1	20:T:45:LEU:CD2	2.54	0.64
16:P:75:VAL:HG12	16:P:76:VAL:N	2.10	0.64
19:S:46:ARG:HH12	20:T:50:GLU:HA	1.62	0.64
23:W:90:GLN:N	23:W:102:ILE:CD1	2.60	0.64
4:D:215:ASP:O	4:D:216:GLU:CB	2.45	0.64
3:C:236:LEU:CD2	3:C:237:THR:O	2.45	0.64
8:H:110:THR:O	8:H:110:THR:CG2	2.46	0.64
9:I:167:GLN:HG3	9:I:168:GLN:N	2.12	0.64
9:I:85:ALA:HB1	12:L:8:ARG:CD	2.26	0.64
1:A:16:LEU:HB2	1:A:17:LYS:CE	2.28	0.64
1:A:180:ARG:NH1	1:A:184:ARG:HH12	1.95	0.64
3:C:54:LEU:HD22	3:C:254:PHE:HB3	1.79	0.64
8:H:163:GLN:O	8:H:166:VAL:HG12	1.97	0.64
1:A:42:LYS:HZ2	18:R:102:THR:CG2	2.08	0.64
18:R:119:VAL:HG23	18:R:119:VAL:O	1.96	0.64
4:D:53:THR:HG22	4:D:91:VAL:CG2	2.28	0.64
11:K:71:LEU:CD2	11:K:76:ILE:HD11	2.13	0.64
6:F:51:HIS:ND1	17:Q:82:TYR:OH	2.30	0.64
16:P:41:GLN:HB2	16:P:84:ILE:HG12	1.77	0.64
24:X:52:LEU:HD11	24:X:71:ARG:CB	2.28	0.64
9:I:25:ARG:HD2	9:I:27:TYR:HE2	0.78	0.64
10:J:82:VAL:CG1	10:J:92:MET:CE	2.76	0.64
21:U:49:LYS:C	21:U:50:VAL:HG12	2.16	0.64
9:I:82:VAL:CG1	9:I:202:ILE:HD11	2.25	0.64
9:I:206:LYS:CG	9:I:207:GLY:H	2.06	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	2.45	0.64
4:D:179:GLN:NE2	4:D:179:GLN:O	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:84:ILE:HD12	10:J:86:VAL:CG2	2.28	0.64
20:T:21:PHE:CD1	20:T:21:PHE:C	2.70	0.64
1:A:176:TRP:CD1	1:A:199:PRO:HA	2.33	0.64
2:B:71:LEU:HB2	2:B:84:PHE:CE2	2.33	0.64
2:B:72:ALA:CA	2:B:79:VAL:CG2	2.69	0.64
3:C:58:MET:CE	3:C:81:PHE:HZ	2.10	0.64
8:H:143:ARG:HE	23:W:53:ILE:CG2	1.99	0.64
1:A:66:VAL:HG11	22:V:46:PHE:CB	2.28	0.64
11:K:4:PRO:CG	11:K:7:ASN:ND2	2.60	0.64
16:P:44:ARG:HD2	16:P:82:ASP:O	1.97	0.64
25:Y:54:VAL:HG13	25:Y:76:TYR:CA	2.27	0.64
6:F:102:LEU:HD13	26:Z:110:THR:HG22	1.78	0.64
10:J:90:GLY:C	10:J:91:LYS:O	2.24	0.64
4:D:112:GLY:C	4:D:113:LEU:CG	2.65	0.64
23:W:101:PHE:HD2	23:W:129:PHE:HE1	1.46	0.64
3:C:161:LYS:HD3	22:V:9:VAL:HG21	1.80	0.64
13:M:18:LEU:CD2	13:M:22:LEU:HG	2.25	0.64
8:H:117:PRO:HD2	8:H:120:ARG:HD2	1.80	0.64
5:E:259:LYS:HG2	5:E:260:GLN:OE1	1.96	0.64
5:E:259:LYS:O	5:E:260:GLN:CG	2.45	0.64
7:G:145:PHE:HB3	7:G:147:LEU:HD13	1.77	0.64
9:I:144:LYS:O	9:I:145:ILE:CB	2.45	0.64
1:A:32:PHE:CD1	1:A:33:GLN:NE2	2.64	0.64
3:C:51:LEU:HD23	3:C:60:ILE:HD12	1.79	0.64
14:N:40:LEU:HB3	14:N:45:LEU:HD12	1.79	0.64
15:O:30:VAL:CG2	15:O:45:THR:OG1	2.46	0.64
11:K:16:PHE:HE2	11:K:79:LEU:CA	2.09	0.64
11:K:3:MET:HG2	11:K:4:PRO:N	2.13	0.64
21:U:106:ILE:HG12	21:U:106:ILE:O	1.98	0.64
19:S:34:LYS:CA	19:S:103:LEU:CD2	2.73	0.64
16:P:53:GLN:O	16:P:56:LEU:HB2	1.97	0.64
26:Z:99:LEU:HD11	26:Z:102:LYS:NZ	2.13	0.64
4:D:193:ASP:O	4:D:194:PRO:C	2.28	0.64
10:J:84:ILE:CD1	10:J:86:VAL:CG2	2.75	0.64
7:G:142:ARG:CD	7:G:147:LEU:HB3	2.26	0.64
5:E:11:ARG:O	5:E:12:VAL:HB	1.96	0.64
6:F:14:THR:CB	17:Q:56:LEU:CG	2.74	0.64
8:H:87:PHE:O	8:H:88:SER:O	2.15	0.64
16:P:13:ARG:O	16:P:14:LYS:HG3	1.97	0.64
19:S:20:ILE:HD11	19:S:33:ILE:HD11	1.79	0.64
13:M:35:ILE:HG23	13:M:36:ARG:N	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:241:TRP:CD1	23:W:68:ARG:HD3	2.32	0.64
13:M:85:LEU:HD13	13:M:106:CYS:SG	2.38	0.64
8:H:85:LYS:O	8:H:85:LYS:CD	2.34	0.64
6:F:19:LEU:CD2	6:F:24:SER:HA	2.28	0.64
9:I:3:ILE:HG22	9:I:3:ILE:O	1.96	0.64
14:N:76:LYS:HD2	14:N:76:LYS:C	2.18	0.64
5:E:126:VAL:HG21	5:E:129:ILE:CD1	2.27	0.64
7:G:50:VAL:HG11	7:G:111:LEU:HD22	1.73	0.64
12:L:103:GLU:CD	24:X:11:ARG:CZ	2.66	0.64
1:A:17:LYS:CE	1:A:17:LYS:H	2.08	0.64
1:A:193:HIS:ND1	1:A:194:PRO:HD2	2.12	0.64
6:F:59:LYS:CD	6:F:62:ARG:HD3	2.23	0.64
14:N:59:GLY:O	14:N:60:VAL:CG1	2.45	0.64
2:B:25:PHE:CD2	15:O:88:LEU:HD21	2.30	0.64
11:K:53:LYS:HG3	11:K:54:SER:N	2.11	0.64
13:M:28:HIS:HD2	13:M:115:GLY:HA3	1.53	0.64
13:M:115:GLY:O	13:M:116:LYS:CB	2.45	0.64
16:P:85:ILE:C	16:P:86:LEU:HD23	2.19	0.64
10:J:134:HIS:C	10:J:135:ILE:HG23	2.17	0.64
20:T:95:GLY:O	20:T:96:SER:O	2.14	0.64
3:C:217:THR:O	3:C:219:GLY:N	2.31	0.64
16:P:56:LEU:HD11	16:P:80:LEU:HD12	1.76	0.64
26:Z:48:VAL:CA	26:Z:83:LEU:HD12	2.28	0.64
21:U:47:ASN:O	21:U:47:ASN:ND2	2.29	0.64
21:U:33:GLU:OE1	21:U:55:ARG:NH2	2.30	0.64
1:A:205:ARG:O	1:A:206:ASP:HB2	1.97	0.64
18:R:84:TYR:C	18:R:85:VAL:HG23	2.18	0.64
14:N:137:PRO:O	14:N:138:ASN:ND2	2.30	0.64
14:N:6:ALA:HB1	14:N:7:PRO:CD	2.27	0.64
7:G:76:LEU:HD21	7:G:92:ARG:CG	2.19	0.64
2:B:30:TRP:HE1	15:O:17:LEU:HD22	1.59	0.64
3:C:233:TYR:CE1	22:V:12:TYR:CZ	2.86	0.64
8:H:138:GLU:OE2	14:N:19:ARG:CA	2.46	0.64
8:H:193:GLN:C	8:H:194:LEU:O	2.31	0.64
8:H:64:VAL:HG13	8:H:65:PRO:HD2	1.78	0.64
6:F:41:VAL:CG2	6:F:42:LYS:N	2.29	0.64
16:P:108:LYS:NZ	19:S:118:ARG:NH1	2.43	0.64
13:M:13:ASP:OD1	13:M:13:ASP:N	2.30	0.64
16:P:65:LYS:HG3	16:P:66:GLU:N	2.14	0.64
2:B:75:GLN:NE2	2:B:75:GLN:CA	2.61	0.64
20:T:21:PHE:CE1	20:T:22:LEU:HD23	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:94:LYS:HG2	14:N:118:ILE:HD13	1.78	0.64
5:E:159:THR:HG21	5:E:227:VAL:CG2	2.21	0.63
12:L:112:HIS:HB2	12:L:134:LEU:CD1	2.28	0.63
25:Y:117:VAL:CG2	25:Y:124:ASN:OD1	2.46	0.63
1:A:193:HIS:HB3	1:A:194:PRO:HD2	1.80	0.63
2:B:31:TYR:CE2	2:B:62:LEU:HD22	2.32	0.63
22:V:40:ASP:HB3	22:V:47:ASN:HD21	1.60	0.63
10:J:170:PRO:HB3	10:J:174:LYS:CE	2.27	0.63
26:Z:99:LEU:HD11	26:Z:102:LYS:CE	2.23	0.63
16:P:127:LYS:HZ2	16:P:127:LYS:CA	2.10	0.63
21:U:50:VAL:HG23	21:U:89:ILE:HG23	1.79	0.63
18:R:5:ARG:CA	18:R:10:LYS:NZ	2.59	0.63
25:Y:92:ALA:HA	25:Y:97:TYR:CA	2.27	0.63
3:C:234:SER:C	22:V:23:ILE:HD13	2.18	0.63
6:F:186:ASN:O	6:F:191:LYS:NZ	2.31	0.63
2:B:181:LEU:O	2:B:185:VAL:HG23	1.97	0.63
10:J:103:GLU:O	10:J:107:GLU:HG3	1.98	0.63
16:P:39:ALA:CA	16:P:42:ARG:HE	2.09	0.63
9:I:36:THR:HB	9:I:57:ALA:O	1.97	0.63
3:C:255:THR:CG2	3:C:256:ASP:OD1	2.45	0.63
5:E:86:PHE:O	5:E:142:HIS:HE1	1.81	0.63
9:I:112:TRP:CZ3	9:I:117:TYR:CE2	2.86	0.63
9:I:140:LYS:O	9:I:144:LYS:O	2.14	0.63
9:I:145:ILE:CA	9:I:148:LYS:HG3	2.29	0.63
22:V:53:TYR:OH	22:V:72:LEU:O	2.08	0.63
8:H:143:ARG:NE	23:W:53:ILE:HG12	2.10	0.63
6:F:46:ALA:C	6:F:47:LYS:HD3	2.18	0.63
17:Q:112:LEU:O	17:Q:116:ASP:HA	1.99	0.63
25:Y:56:PHE:HB3	25:Y:58:PHE:HE2	1.63	0.63
20:T:77:LYS:CD	20:T:92:PHE:HE2	2.11	0.63
16:P:83:MET:HB3	16:P:116:LEU:CD1	2.28	0.63
14:N:38:TYR:CE1	14:N:78:LYS:CG	2.82	0.63
15:O:20:GLN:NE2	15:O:21:VAL:O	2.31	0.63
7:G:142:ARG:NH1	7:G:142:ARG:CG	2.47	0.63
7:G:80:GLY:O	7:G:81:HIS:CG	2.52	0.63
9:I:112:TRP:CH2	9:I:117:TYR:CE2	2.86	0.63
12:L:22:ARG:CZ	12:L:22:ARG:HB3	2.27	0.63
1:A:149:ASN:HB2	1:A:165:ASN:CG	2.18	0.63
3:C:58:MET:CE	3:C:81:PHE:CZ	2.81	0.63
3:C:59:LYS:CG	3:C:254:PHE:CE1	2.77	0.63
8:H:163:GLN:HG2	8:H:164:ASN:N	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:21:SER:O	14:N:22:VAL:CB	2.46	0.63
3:C:196:LYS:O	3:C:200:LEU:HD23	1.97	0.63
6:F:39:ILE:HG23	6:F:68:ILE:HD13	1.79	0.63
24:X:122:VAL:HG12	24:X:130:LEU:HD11	1.78	0.63
16:P:10:ARG:HE	16:P:11:THR:CA	2.11	0.63
16:P:110:GLU:N	16:P:110:GLU:OE2	2.30	0.63
19:S:54:LYS:HD3	19:S:58:GLU:OE1	1.98	0.63
19:S:54:LYS:N	19:S:54:LYS:CB	2.57	0.63
9:I:8:TRP:CZ3	9:I:20:PRO:HA	2.32	0.63
19:S:46:ARG:NH1	20:T:50:GLU:HG2	2.12	0.63
18:R:120:THR:O	18:R:121:GLN:CB	2.44	0.63
13:M:14:VAL:C	13:M:16:THR:N	2.49	0.63
3:C:237:THR:OG1	3:C:240:LEU:HD13	1.97	0.63
20:T:111:LYS:O	20:T:124:THR:HG21	1.98	0.63
25:Y:111:LYS:HD2	25:Y:115:LYS:HE3	1.80	0.63
5:E:191:ARG:NE	5:E:245:ARG:HD3	2.13	0.63
3:C:164:THR:HG23	3:C:165:VAL:N	2.12	0.63
25:Y:5:VAL:HG12	25:Y:6:THR:N	2.12	0.63
5:E:115:THR:HB	5:E:116:PRO:HD2	1.81	0.63
7:G:131:ARG:HG3	7:G:131:ARG:CD	2.15	0.63
7:G:210:ALA:O	7:G:213:LEU:HG	1.98	0.63
9:I:141:ARG:C	9:I:143:LYS:HB3	2.19	0.63
9:I:154:LYS:NZ	9:I:154:LYS:O	2.30	0.63
8:H:10:LYS:CB	8:H:20:GLU:OE1	2.46	0.63
4:D:29:LEU:CB	4:D:34:TYR:HB2	2.28	0.63
6:F:42:LYS:HB2	6:F:45:TYR:H	0.82	0.63
6:F:42:LYS:HB2	6:F:46:ALA:H	1.64	0.63
11:K:40:VAL:CG2	11:K:41:PRO:HD3	2.24	0.63
20:T:94:ARG:HH11	20:T:94:ARG:HG3	1.63	0.63
16:P:10:ARG:HE	16:P:11:THR:CB	2.11	0.63
25:Y:101:LYS:C	25:Y:102:THR:OG1	2.29	0.63
13:M:78:LYS:O	13:M:79:VAL:CB	2.47	0.63
19:S:47:LYS:CE	19:S:78:LYS:HB2	2.27	0.63
4:D:67:ARG:NH1	4:D:67:ARG:CG	2.56	0.63
24:X:35:ALA:HA	24:X:39:ASN:HD22	1.60	0.63
5:E:167:GLY:C	5:E:168:LYS:HG2	2.19	0.63
7:G:64:LYS:HE2	7:G:67:VAL:HG13	1.79	0.63
3:C:126:MET:HE1	3:C:223:LYS:HZ3	1.58	0.63
14:N:28:LEU:HD13	14:N:58:HIS:CE1	2.33	0.63
2:B:67:PHE:CD1	15:O:47:LEU:O	2.51	0.63
4:D:59:LEU:HD12	4:D:60:GLY:O	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:70:THR:HG22	4:D:86:LEU:CG	2.29	0.63
17:Q:85:ARG:HH22	17:Q:117:ARG:HD2	1.63	0.63
17:Q:42:ILE:CD1	17:Q:51:LEU:HD22	2.03	0.63
5:E:62:LYS:HD2	5:E:80:ILE:CG1	2.28	0.63
25:Y:57:VAL:C	25:Y:58:PHE:CD2	2.72	0.63
25:Y:58:PHE:CE1	25:Y:72:PHE:CD2	2.87	0.63
19:S:89:ASP:O	19:S:90:VAL:HB	1.98	0.63
13:M:35:ILE:HD13	13:M:61:TYR:CE2	2.32	0.63
10:J:16:PRO:O	10:J:18:ARG:N	2.32	0.63
10:J:16:PRO:HD2	10:J:44:TRP:CH2	2.32	0.63
2:B:113:MET:HE3	2:B:209:ASP:CB	2.29	0.63
6:F:36:GLN:HG3	6:F:37:ASP:OD2	1.96	0.63
5:E:98:ASN:ND2	5:E:114:ILE:HD11	2.13	0.63
7:G:217:MET:O	7:G:221:LYS:HB2	1.98	0.63
7:G:25:ARG:O	7:G:27:PHE:N	2.31	0.63
3:C:126:MET:CE	3:C:223:LYS:HD2	2.27	0.63
6:F:110:GLN:O	6:F:113:VAL:CG1	2.44	0.63
6:F:112:LEU:O	6:F:116:ILE:HD11	1.97	0.63
6:F:42:LYS:HE3	6:F:43:GLU:CA	2.27	0.63
17:Q:42:ILE:HD11	17:Q:51:LEU:CD1	2.29	0.63
5:E:64:ILE:HG13	25:Y:18:LEU:HD21	1.80	0.63
19:S:58:GLU:HB2	19:S:59:LEU:HD13	1.80	0.63
10:J:80:ARG:HA	10:J:83:ARG:CD	2.28	0.63
6:F:36:GLN:O	6:F:37:ASP:CB	2.43	0.63
23:W:29:PRO:O	23:W:30:CYS:HB3	1.99	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
12:L:113:LEU:HD21	12:L:117:PHE:HB2	1.79	0.63
3:C:149:PRO:O	3:C:149:PRO:CD	2.45	0.63
1:A:120:ARG:NH2	3:C:252:GLN:OE1	2.31	0.63
8:H:66:VAL:CG2	8:H:97:GLN:O	2.47	0.63
6:F:28:VAL:HA	6:F:110:GLN:OE1	1.99	0.63
21:U:27:ARG:CG	21:U:83:ARG:O	2.45	0.63
4:D:63:GLY:O	4:D:67:ARG:NH1	2.31	0.63
18:R:42:PRO:CD	18:R:43:SER:H	2.07	0.63
21:U:56:MET:CE	21:U:88:LEU:CD2	2.76	0.63
5:E:75:LYS:O	5:E:76:VAL:O	2.17	0.63
12:L:113:LEU:CD1	12:L:120:VAL:HG11	2.29	0.63
12:L:40:ILE:HG23	12:L:41:GLY:O	1.99	0.63
1:A:23:THR:O	1:A:24:HIS:C	2.36	0.63
8:H:145:ARG:NE	23:W:51:GLU:CD	2.52	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:60:VAL:HG23	14:N:60:VAL:O	1.97	0.63
4:D:53:THR:HG22	4:D:91:VAL:H	1.64	0.63
4:D:74:GLN:HB2	4:D:84:VAL:HG12	1.80	0.63
11:K:65:ARG:HH11	11:K:65:ARG:HB2	1.63	0.63
16:P:44:ARG:HH21	16:P:84:ILE:N	1.96	0.63
24:X:126:ALA:CA	24:X:128:VAL:HB	2.28	0.63
5:E:64:ILE:HG12	25:Y:17:LEU:CD1	2.29	0.63
19:S:89:ASP:O	19:S:90:VAL:CB	2.47	0.63
19:S:85:ASN:HD21	19:S:98:VAL:HB	1.64	0.63
26:Z:51:ASP:O	26:Z:53:ALA:N	2.32	0.63
21:U:48:LEU:HD12	21:U:91:LEU:HD22	1.80	0.63
4:D:135:GLU:HB3	4:D:153:VAL:HG22	1.81	0.63
5:E:145:ARG:HH11	5:E:145:ARG:CG	2.10	0.63
5:E:260:GLN:CA	5:E:260:GLN:OE1	2.47	0.63
22:V:62:MET:HG3	22:V:62:MET:O	1.98	0.63
9:I:145:ILE:HA	9:I:148:LYS:CG	2.28	0.63
24:X:5:ARG:HH21	24:X:5:ARG:CG	2.12	0.63
8:H:14:GLU:CG	8:H:16:PRO:HB2	2.29	0.63
8:H:158:LEU:HD11	8:H:187:PHE:CE1	2.33	0.63
8:H:160:LYS:HB2	8:H:192:PHE:HZ	1.64	0.63
14:N:27:LYS:HD2	14:N:28:LEU:H	1.64	0.63
15:O:98:ARG:HG3	15:O:133:THR:HA	1.81	0.63
10:J:122:SER:HG	10:J:124:HIS:CB	2.11	0.63
10:J:135:ILE:O	10:J:135:ILE:HG13	1.99	0.63
19:S:121:ARG:CG	19:S:131:VAL:HG13	2.24	0.63
19:S:85:ASN:HD21	19:S:98:VAL:H	1.46	0.63
6:F:167:LYS:CD	6:F:171:GLU:HG2	2.20	0.63
26:Z:65:TYR:HD2	26:Z:68:ILE:CG1	2.11	0.63
20:T:143:LYS:C	20:T:143:LYS:CD	2.53	0.63
24:X:41:PHE:HZ	24:X:102:VAL:HG12	1.63	0.63
2:B:228:LEU:CD1	2:B:232:HIS:HD2	2.12	0.63
4:D:207:HIS:O	4:D:208:VAL:HG23	1.97	0.63
5:E:75:LYS:C	5:E:76:VAL:HG22	4.63	0.62
9:I:152:ARG:O	9:I:153:LYS:HB3	1.99	0.62
1:A:66:VAL:CG1	1:A:186:ARG:CD	2.71	0.62
6:F:122:ARG:NE	6:F:193:LYS:HZ3	1.96	0.62
11:K:40:VAL:CG2	11:K:41:PRO:HD2	2.18	0.62
17:Q:12:VAL:HG11	17:Q:90:LYS:CB	2.28	0.62
26:Z:103:HIS:HD2	26:Z:105:ALA:HB3	1.58	0.62
19:S:80:PRO:CG	19:S:82:TRP:CE2	2.82	0.62
19:S:94:LYS:HB3	19:S:95:TYR:C	2.19	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:5:HIS:CD2	14:N:121:ARG:NE	2.66	0.62
19:S:108:ARG:NH1	19:S:112:GLU:OE2	2.32	0.62
7:G:135:PRO:CG	7:G:144:LEU:CD2	2.76	0.62
7:G:31:ARG:O	7:G:34:THR:HG23	1.99	0.62
7:G:62:PRO:HG2	7:G:83:CYS:SG	2.38	0.62
9:I:80:ASP:OD1	9:I:94:LYS:HG2	1.98	0.62
6:F:134:VAL:CG1	6:F:136:ARG:HH21	2.09	0.62
15:O:31:CYS:HB2	15:O:95:ILE:CG1	2.27	0.62
22:V:56:CYS:SG	22:V:59:ILE:HG13	2.38	0.62
11:K:87:PRO:C	11:K:89:ILE:H	2.03	0.62
6:F:91:ARG:HH21	17:Q:46:THR:CG2	2.12	0.62
25:Y:21:LYS:HE2	25:Y:77:ASP:CG	2.17	0.62
16:P:121:ILE:HG22	19:S:120:HIS:CA	2.29	0.62
25:Y:101:LYS:O	25:Y:102:THR:CB	2.43	0.62
12:L:118:ARG:CG	12:L:119:ASP:N	2.62	0.62
20:T:84:ARG:HB2	20:T:84:ARG:CZ	2.27	0.62
3:C:259:VAL:HG12	3:C:259:VAL:O	1.97	0.62
20:T:134:ILE:HG13	20:T:135:ALA:N	2.14	0.62
16:P:39:ALA:CA	16:P:42:ARG:NE	2.56	0.62
6:F:154:LEU:HD12	6:F:154:LEU:C	2.19	0.62
20:T:91:HIS:N	20:T:91:HIS:HD2	1.97	0.62
13:M:56:CYS:SG	13:M:57:ASP:N	2.71	0.62
5:E:87:MET:O	5:E:122:LYS:CE	2.48	0.62
12:L:94:HIS:HB3	12:L:105:ARG:HD2	1.75	0.62
1:A:125:THR:CA	1:A:147:LEU:HB2	2.27	0.62
1:A:185:MET:HE2	22:V:39:VAL:CG1	2.26	0.62
1:A:5:LEU:CD1	1:A:6:ASP:N	2.51	0.62
1:A:85:ARG:O	1:A:85:ARG:HG2	2.86	0.62
1:A:120:ARG:HG2	3:C:251:TYR:CE2	2.34	0.62
8:H:190:PRO:HB2	8:H:191:GLU:HG2	1.80	0.62
15:O:90:ILE:HG22	15:O:124:MET:HE2	1.81	0.62
16:P:41:GLN:HE21	16:P:44:ARG:HH21	1.47	0.62
5:E:67:GLN:HG2	5:E:69:PHE:CE2	2.33	0.62
19:S:91:LYS:C	19:S:92:ASP:OD2	2.37	0.62
6:F:165:ASN:OD1	6:F:167:LYS:HB2	1.98	0.62
26:Z:99:LEU:CD1	26:Z:102:LYS:CD	2.72	0.62
3:C:155:TRP:CE2	23:W:97:ARG:HD3	2.34	0.62
23:W:41:MET:HG2	23:W:129:PHE:HD2	1.63	0.62
4:D:222:PRO:O	4:D:223:ILE:HB	1.98	0.62
23:W:65:LEU:O	23:W:65:LEU:HD12	1.98	0.62
1:A:169:HIS:HD2	1:A:203:PHE:CE2	2.17	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:50:VAL:CG1	7:G:111:LEU:CG	2.77	0.62
1:A:125:THR:O	1:A:147:LEU:HD12	1.98	0.62
8:H:51:ILE:HD11	8:H:176:VAL:HA	1.81	0.62
15:O:17:LEU:CD2	15:O:18:GLY:N	2.63	0.62
15:O:72:TYR:CE1	15:O:76:LEU:HD11	2.33	0.62
11:K:48:ALA:O	11:K:52:LEU:HD23	1.98	0.62
21:U:69:PRO:O	21:U:69:PRO:HD2	1.98	0.62
10:J:110:LEU:O	10:J:112:THR:N	2.32	0.62
4:D:166:TYR:CE1	4:D:200:PRO:CB	2.83	0.62
2:B:156:ALA:HB1	2:B:160:GLN:OE1	1.98	0.62
18:R:13:ALA:CA	18:R:54:VAL:CG2	2.69	0.62
25:Y:92:ALA:O	25:Y:97:TYR:O	2.15	0.62
13:M:124:ILE:HG13	13:M:125:GLU:N	2.13	0.62
15:O:77:ALA:O	15:O:81:VAL:HG23	1.98	0.62
1:A:206:ASP:O	1:A:207:PRO:O	2.17	0.62
2:B:150:ILE:HG23	2:B:150:ILE:O	1.97	0.62
5:E:259:LYS:O	5:E:260:GLN:CD	2.38	0.62
1:A:149:ASN:CB	1:A:165:ASN:HD21	2.12	0.62
8:H:170:VAL:HA	8:H:173:PHE:HD2	1.65	0.62
8:H:65:PRO:HG2	8:H:68:GLN:CD	2.19	0.62
17:Q:76:GLY:H	17:Q:79:ALA:HB3	1.64	0.62
16:P:44:ARG:HD3	16:P:115:TYR:CE1	2.33	0.62
10:J:35:TYR:CD1	10:J:112:THR:HG21	2.34	0.62
8:H:147:LYS:HE3	8:H:153:LEU:HD11	1.81	0.62
5:E:176:ASP:O	5:E:195:ILE:HD12	2.00	0.62
2:B:38:MET:CE	2:B:186:ASN:ND2	2.52	0.62
1:A:11:LYS:CG	1:A:13:GLU:HG3	2.21	0.62
1:A:145:ILE:HA	1:A:159:ILE:HG21	1.77	0.62
13:M:45:ARG:H	13:M:45:ARG:HE	1.47	0.62
26:Z:62:VAL:HG11	26:Z:91:LEU:CD1	2.30	0.62
14:N:93:LYS:HG3	14:N:150:VAL:HG11	1.81	0.62
2:B:151:ARG:CD	2:B:153:THR:HG22	2.27	0.62
26:Z:63:PRO:O	26:Z:111:ARG:NH1	2.33	0.62
20:T:130:ASP:OD2	20:T:131:LEU:CD2	2.48	0.62
8:H:12:ASN:CG	8:H:46:THR:OG1	2.38	0.62
22:V:66:ASP:O	22:V:67:ASP:C	2.30	0.62
17:Q:42:ILE:CG1	17:Q:51:LEU:HD21	2.28	0.62
26:Z:103:HIS:HD2	26:Z:105:ALA:CA	2.13	0.62
24:X:71:ARG:NE	24:X:82:THR:CG2	2.58	0.62
19:S:8:LYS:N	19:S:8:LYS:CD	2.63	0.62
4:D:200:PRO:O	4:D:201:LYS:HB2	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:81:LEU:CD1	10:J:97:ILE:HD13	2.29	0.62
6:F:78:MET:HB2	6:F:159:ARG:CZ	2.30	0.62
18:R:87:GLU:O	18:R:88:VAL:HG12	2.00	0.62
17:Q:15:ARG:NH1	17:Q:20:THR:CG2	2.63	0.62
5:E:86:PHE:CE2	5:E:87:MET:HG2	2.34	0.62
7:G:74:ARG:HD3	7:G:94:ARG:CD	2.22	0.62
16:P:98:ASN:OD1	16:P:120:SER:OG	2.14	0.62
5:E:49:ARG:NH2	5:E:50:ASN:HD21	1.97	0.62
24:X:90:CYS:HA	24:X:93:PHE:CD2	2.34	0.62
25:Y:22:GLN:CA	25:Y:74:MET:SD	2.88	0.62
19:S:8:LYS:HB2	19:S:9:PHE:HD1	0.65	0.62
8:H:110:THR:O	8:H:110:THR:HG23	1.99	0.62
14:N:114:ARG:NH2	14:N:114:ARG:HG2	2.11	0.62
5:E:75:LYS:HG2	5:E:75:LYS:O	4.58	0.62
5:E:93:ASP:O	5:E:95:THR:N	2.31	0.62
9:I:155:ASN:OD1	9:I:155:ASN:C	2.36	0.62
12:L:86:ILE:HG21	12:L:113:LEU:HD12	1.82	0.62
12:L:94:HIS:ND1	12:L:96:ILE:HD11	2.15	0.62
1:A:141:ASN:C	22:V:32:ILE:CD1	2.69	0.62
2:B:57:ILE:HD12	2:B:60:ASP:OD2	1.98	0.62
3:C:250:PRO:O	3:C:254:PHE:HB2	1.99	0.62
8:H:64:VAL:HG22	8:H:72:PHE:HE2	1.65	0.62
6:F:112:LEU:CA	6:F:177:LEU:HD11	2.28	0.62
6:F:44:LYS:CA	6:F:45:TYR:HD1	2.12	0.62
11:K:90:VAL:HG13	11:K:90:VAL:O	1.99	0.62
10:J:130:ILE:HA	10:J:135:ILE:HD13	1.80	0.62
25:Y:76:TYR:CG	25:Y:82:ALA:HB2	2.35	0.62
8:H:83:LEU:HD13	8:H:92:VAL:HG21	0.62	0.62
25:Y:27:VAL:HG11	25:Y:35:VAL:CG2	2.25	0.62
16:P:15:PHE:CE2	16:P:110:GLU:HB3	2.34	0.62
3:C:154:TYR:CZ	3:C:162:PRO:N	2.68	0.62
13:M:51:VAL:HG13	13:M:109:VAL:CG2	2.30	0.62
14:N:12:SER:C	14:N:13:GLN:CG	2.65	0.62
17:Q:30:GLY:CA	17:Q:66:VAL:O	2.40	0.62
9:I:7:ASN:C	9:I:9:HIS:H	2.02	0.62
15:O:41:PHE:HD1	15:O:57:THR:HG22	1.63	0.62
21:U:56:MET:HE3	21:U:88:LEU:CD2	2.30	0.62
9:I:190:LEU:HB2	9:I:195:LEU:HD13	1.82	0.62
2:B:62:LEU:HD23	2:B:91:VAL:CG2	2.28	0.62
2:B:67:PHE:CD1	15:O:47:LEU:HB3	2.34	0.62
2:B:30:TRP:NE1	15:O:17:LEU:CD2	2.57	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:33:PRO:O	22:V:34:MET:HG2	2.00	0.62
5:E:104:ASP:HB2	5:E:108:ARG:H	1.65	0.62
16:P:77:LYS:C	16:P:78:THR:HG23	2.20	0.62
26:Z:80:ARG:CG	26:Z:82:SER:OG	2.40	0.62
6:F:103:LEU:HG	6:F:103:LEU:O	2.00	0.62
3:C:158:LYS:C	3:C:158:LYS:HE2	2.18	0.62
6:F:36:GLN:HG2	6:F:37:ASP:OD2	1.99	0.62
25:Y:13:MET:CE	25:Y:14:THR:H	2.13	0.62
16:P:69:PRO:CD	16:P:70:MET:H	2.11	0.62
3:C:255:THR:HG23	3:C:256:ASP:N	2.13	0.62
1:A:158:ASP:O	1:A:159:ILE:HB	2.00	0.61
2:B:67:PHE:HD1	15:O:47:LEU:HB3	1.64	0.61
6:F:76:MET:HB3	6:F:89:THR:OG1	2.00	0.61
26:Z:103:HIS:O	26:Z:104:ARG:C	2.35	0.61
10:J:171:GLY:C	10:J:173:VAL:N	2.48	0.61
4:D:192:TRP:N	4:D:192:TRP:CD1	2.68	0.61
10:J:12:THR:O	10:J:48:PHE:CE2	2.53	0.61
24:X:105:PHE:CG	24:X:112:VAL:HG21	2.32	0.61
3:C:151:ARG:CZ	3:C:240:LEU:HD11	2.29	0.61
21:U:117:ALA:C	21:U:118:ASP:O	2.28	0.61
23:W:30:CYS:HA	23:W:34:ILE:CD1	2.29	0.61
8:H:135:PHE:HD2	8:H:136:PRO:CD	2.12	0.61
5:E:48:LEU:HD11	5:E:70:ILE:HD11	1.82	0.61
1:A:103:PHE:CZ	1:A:107:THR:OG1	2.53	0.61
1:A:127:PRO:CB	1:A:153:PRO:HG2	2.22	0.61
1:A:24:HIS:HB3	1:A:51:LEU:HD21	1.82	0.61
1:A:76:VAL:CG1	1:A:175:TRP:CZ3	2.83	0.61
3:C:115:ILE:HD13	3:C:144:LYS:CG	2.29	0.61
6:F:59:LYS:HD3	6:F:62:ARG:CD	2.23	0.61
18:R:100:PRO:HD2	18:R:119:VAL:HG13	1.82	0.61
2:B:87:ILE:CD1	2:B:220:LYS:NZ	2.63	0.61
25:Y:102:THR:CG2	25:Y:107:ARG:CD	2.68	0.61
24:X:57:VAL:O	24:X:67:ARG:HB2	2.00	0.61
20:T:11:GLN:CD	20:T:62:ARG:NE	2.53	0.61
20:T:40:ALA:HB3	20:T:43:LYS:CD	2.29	0.61
16:P:69:PRO:CD	16:P:70:MET:N	2.61	0.61
5:E:87:MET:HG3	5:E:123:LEU:O	2.01	0.61
7:G:62:PRO:CG	7:G:83:CYS:SG	2.89	0.61
9:I:144:LYS:O	9:I:145:ILE:CG2	2.49	0.61
2:B:25:PHE:CD2	15:O:88:LEU:CG	2.84	0.61
3:C:87:LEU:HG	3:C:116:GLY:C	2.20	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:47:GLU:HG2	4:D:85:GLU:HG3	1.78	0.61
4:D:74:GLN:HG3	4:D:79:PHE:O	2.00	0.61
17:Q:112:LEU:HD13	17:Q:120:LEU:HD21	1.80	0.61
16:P:41:GLN:HE22	16:P:45:LEU:CD1	2.12	0.61
25:Y:58:PHE:CE1	25:Y:72:PHE:HD2	2.17	0.61
25:Y:57:VAL:CG1	25:Y:60:PHE:HE2	2.12	0.61
20:T:31:PRO:HB3	20:T:33:TRP:CE3	2.34	0.61
16:P:7:LYS:O	16:P:9:LYS:N	2.31	0.61
25:Y:34:THR:HG22	25:Y:35:VAL:CA	2.29	0.61
19:S:58:GLU:HB2	19:S:59:LEU:CD1	2.30	0.61
19:S:46:ARG:NH1	20:T:50:GLU:HA	2.14	0.61
20:T:27:LYS:O	20:T:27:LYS:HG3	2.00	0.61
7:G:211:LYS:C	7:G:215:LYS:HD3	2.21	0.61
2:B:25:PHE:HD2	15:O:88:LEU:HD21	1.66	0.61
16:P:13:ARG:C	16:P:14:LYS:CG	2.68	0.61
19:S:90:VAL:HG12	19:S:91:LYS:HG2	1.82	0.61
19:S:92:ASP:OD2	19:S:92:ASP:N	2.30	0.61
26:Z:65:TYR:CD2	26:Z:68:ILE:HD11	2.35	0.61
5:E:130:PHE:CB	5:E:138:HIS:CD2	2.84	0.61
26:Z:85:ARG:NH1	26:Z:85:ARG:CG	2.55	0.61
14:N:142:GLU:OE2	14:N:144:SER:OG	2.19	0.61
5:E:259:LYS:C	5:E:260:GLN:OE1	2.39	0.61
5:E:70:ILE:CD1	5:E:92:ILE:HD11	2.29	0.61
5:E:94:LYS:O	5:E:95:THR:CG2	2.48	0.61
9:I:62:VAL:HG21	9:I:75:LYS:HE2	1.71	0.61
2:B:188:LEU:CD2	2:B:212:VAL:HG21	2.31	0.61
3:C:148:VAL:CB	3:C:149:PRO:HD2	2.26	0.61
4:D:31:GLU:HA	4:D:107:TYR:OH	2.00	0.61
4:D:29:LEU:HB2	4:D:34:TYR:HB2	1.82	0.61
10:J:122:SER:OG	10:J:124:HIS:HB3	1.98	0.61
25:Y:18:LEU:HD12	25:Y:20:ARG:NH1	2.08	0.61
11:K:14:LEU:HD21	11:K:35:LEU:HD13	1.81	0.61
16:P:114:HIS:HE1	19:S:113:ARG:HH22	1.47	0.61
9:I:6:ASP:OD2	9:I:8:TRP:CD1	2.54	0.61
26:Z:65:TYR:N	26:Z:65:TYR:CD1	2.67	0.61
2:B:105:LEU:HD21	2:B:213:ARG:CA	2.28	0.61
10:J:10:ARG:CZ	10:J:10:ARG:HB2	2.29	0.61
5:E:174:LYS:NZ	5:E:176:ASP:OD2	2.33	0.61
7:G:227:GLN:CA	7:G:230:LYS:HD2	2.29	0.61
1:A:14:ASP:OD2	1:A:55:TRP:CH2	2.53	0.61
1:A:186:ARG:H	22:V:46:PHE:H	1.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:42:LYS:NZ	18:R:102:THR:HG23	2.15	0.61
1:A:118:GLU:CD	3:C:50:LYS:HZ3	2.02	0.61
15:O:17:LEU:CG	15:O:18:GLY:H	2.12	0.61
1:A:158:ASP:OD2	22:V:34:MET:HG3	2.01	0.61
11:K:83:LEU:CB	11:K:85:LEU:HG	2.30	0.61
8:H:80:VAL:HA	8:H:83:LEU:HD21	1.81	0.61
25:Y:34:THR:CG2	25:Y:35:VAL:H	2.07	0.61
16:P:108:LYS:CB	16:P:110:GLU:OE1	2.45	0.61
26:Z:80:ARG:HB3	26:Z:83:LEU:H	1.66	0.61
8:H:122:LEU:HD11	8:H:123:THR:HG22	1.82	0.61
25:Y:10:ARG:HG2	25:Y:24:VAL:CB	2.20	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
13:M:89:VAL:CG2	13:M:109:VAL:HG11	2.26	0.61
3:C:124:LEU:HD13	3:C:125:GLY:N	2.16	0.61
7:G:70:HIS:CB	7:G:103:ASP:OD2	2.42	0.61
7:G:177:GLN:HG2	7:G:178:ARG:H	1.66	0.61
7:G:179:LEU:N	7:G:179:LEU:HD23	4.82	0.61
12:L:148:ALA:C	12:L:150:GLY:H	2.01	0.61
1:A:149:ASN:HB2	1:A:165:ASN:HD21	1.66	0.61
1:A:30:LEU:O	1:A:31:ASP:CB	2.48	0.61
4:D:38:GLU:OE1	4:D:40:ARG:NH2	2.28	0.61
6:F:42:LYS:O	6:F:42:LYS:HG2	1.99	0.61
17:Q:88:ILE:HG13	17:Q:89:SER:N	2.14	0.61
5:E:62:LYS:CA	5:E:65:CYS:SG	2.88	0.61
5:E:43:PRO:HA	5:E:82:TYR:O	2.00	0.61
10:J:37:LEU:HD21	10:J:42:GLU:CA	2.31	0.61
24:X:71:ARG:HE	24:X:82:THR:HG22	1.62	0.61
26:Z:44:LEU:HD21	26:Z:46:ASN:OD1	2.00	0.61
10:J:17:ARG:HB3	10:J:18:ARG:HG3	1.79	0.61
10:J:79:ARG:HD2	10:J:83:ARG:HD2	1.82	0.61
13:M:11:VAL:O	13:M:12:MET:HB3	1.99	0.61
11:K:95:ARG:HD3	11:K:96:ARG:O	2.01	0.61
18:R:28:PHE:HA	18:R:55:THR:HG21	1.82	0.61
3:C:256:ASP:OD1	3:C:256:ASP:N	2.33	0.61
5:E:74:GLY:C	5:E:75:LYS:CG	2.69	0.61
1:A:148:CYS:O	1:A:162:PRO:HA	2.00	0.61
1:A:30:LEU:HD21	1:A:35:GLU:HG2	1.77	0.61
18:R:99:ASP:HB3	18:R:119:VAL:HG12	1.81	0.61
17:Q:116:ASP:CG	17:Q:117:ARG:H	2.04	0.61
21:U:103:SER:O	21:U:106:ILE:HG21	1.96	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:125:HIS:NE2	10:J:129:LEU:HD11	2.15	0.61
25:Y:54:VAL:CG1	25:Y:76:TYR:C	2.67	0.61
5:E:128:LYS:HG3	5:E:130:PHE:HD1	1.65	0.61
22:V:9:VAL:HG12	22:V:10:ASP:CA	2.30	0.61
12:L:32:LYS:O	12:L:33:LEU:HD23	2.01	0.61
14:N:125:LEU:HD21	14:N:129:TYR:CZ	2.35	0.61
14:N:84:LEU:HD11	14:N:89:TYR:HB2	1.83	0.61
25:Y:7:ILE:HD11	25:Y:43:LYS:HD3	1.78	0.61
5:E:98:ASN:CG	5:E:119:ALA:HB2	2.15	0.61
7:G:213:LEU:C	7:G:213:LEU:HD12	2.21	0.61
9:I:76:THR:HG21	9:I:105:ASP:HB2	1.81	0.61
1:A:84:GLN:O	1:A:88:LEU:CD2	2.49	0.61
2:B:67:PHE:HE1	15:O:47:LEU:C	1.97	0.61
3:C:63:LEU:CD1	3:C:67:TYR:OH	2.47	0.61
8:H:169:LYS:HD2	8:H:173:PHE:HZ	1.66	0.61
8:H:37:LYS:NZ	8:H:41:ARG:HG3	2.16	0.61
14:N:18:TYR:O	14:N:19:ARG:C	2.39	0.61
26:Z:103:HIS:HD2	26:Z:105:ALA:CB	2.14	0.61
10:J:124:HIS:O	10:J:126:ALA:N	2.33	0.61
24:X:138:LYS:CA	24:X:139:GLU:OE2	2.48	0.61
25:Y:19:GLN:HG2	25:Y:81:TYR:CG	2.32	0.61
20:T:94:ARG:HH11	20:T:94:ARG:CG	2.14	0.61
16:P:21:ASP:O	16:P:25:LEU:N	2.29	0.61
19:S:30:ILE:CD1	19:S:45:LEU:HD21	2.29	0.61
16:P:125:PRO:O	16:P:126:VAL:HB	2.00	0.61
16:P:127:LYS:CA	16:P:127:LYS:NZ	2.63	0.61
3:C:161:LYS:HD3	22:V:9:VAL:CG2	2.31	0.61
17:Q:92:LEU:CG	17:Q:96:TYR:CE2	2.69	0.61
6:F:36:GLN:O	6:F:37:ASP:HB2	2.01	0.61
13:M:86:GLY:N	13:M:106:CYS:HB2	2.16	0.61
13:M:89:VAL:HG21	13:M:109:VAL:CG1	2.27	0.61
4:D:177:LEU:HD12	4:D:178:ARG:NH2	2.15	0.61
6:F:176:GLU:CD	6:F:187:SER:OG	2.40	0.61
5:E:124:CYS:SG	5:E:162:ILE:CD1	2.88	0.61
9:I:48:VAL:HG23	9:I:52:ASN:HB3	1.82	0.61
12:L:101:ARG:O	24:X:10:ALA:HB1	1.96	0.61
12:L:104:LYS:HA	12:L:104:LYS:CE	4.69	0.61
25:Y:120:THR:CA	25:Y:122:LYS:HE2	2.29	0.61
2:B:93:GLY:C	2:B:94:LYS:CG	2.69	0.61
3:C:248:LYS:HD2	3:C:253:GLU:HB3	1.82	0.61
4:D:55:THR:HA	4:D:58:VAL:HG22	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:59:ARG:HD3	16:P:76:VAL:CG1	2.27	0.61
10:J:77:LEU:O	10:J:81:LEU:HG	2.01	0.61
10:J:100:LEU:CD1	10:J:101:LYS:H	2.14	0.61
10:J:147:PHE:HE2	10:J:149:VAL:HA	1.64	0.61
21:U:71:GLY:O	21:U:72:GLU:C	2.37	0.61
12:L:152:LYS:C	12:L:154:GLN:H	2.04	0.61
5:E:122:LYS:HG3	5:E:164:LEU:HD21	1.81	0.60
7:G:176:ILE:CG2	7:G:179:LEU:CG	2.78	0.60
24:X:5:ARG:HH21	24:X:5:ARG:HB2	1.65	0.60
1:A:14:ASP:O	1:A:18:PHE:HD2	1.84	0.60
10:J:170:PRO:HB3	10:J:174:LYS:HE2	1.83	0.60
10:J:16:PRO:CD	10:J:44:TRP:CE2	2.83	0.60
18:R:36:GLU:OE2	18:R:47:ARG:HD2	2.00	0.60
15:O:23:GLU:O	15:O:23:GLU:CG	2.33	0.60
14:N:94:LYS:HE3	14:N:118:ILE:HD11	1.81	0.60
5:E:163:ASP:O	5:E:164:LEU:CB	2.49	0.60
7:G:63:MET:CE	7:G:106:LEU:CD2	2.78	0.60
9:I:112:TRP:HH2	9:I:117:TYR:HH	1.43	0.60
12:L:7:GLU:CG	12:L:8:ARG:N	2.41	0.60
8:H:29:GLU:CD	8:H:86:LYS:HE3	2.20	0.60
11:K:2:LEU:HD13	11:K:3:MET:H	0.53	0.60
11:K:62:PHE:HE1	11:K:67:PHE:HE2	1.48	0.60
5:E:62:LYS:HD2	5:E:80:ILE:HG13	1.83	0.60
10:J:87:LEU:CD1	10:J:91:LYS:HB2	2.29	0.60
13:M:13:ASP:C	13:M:16:THR:HB	2.13	0.60
12:L:118:ARG:HG2	12:L:119:ASP:H	1.66	0.60
23:W:20:ARG:HB3	23:W:22:LYS:HD3	1.82	0.60
20:T:40:ALA:CB	20:T:43:LYS:CG	2.58	0.60
7:G:197:GLN:O	7:G:201:LYS:HG2	2.01	0.60
12:L:35:ARG:HH21	12:L:63:THR:CG2	2.10	0.60
1:A:66:VAL:O	1:A:67:ALA:HB3	2.01	0.60
3:C:148:VAL:HB	3:C:149:PRO:HD3	1.83	0.60
8:H:192:PHE:O	8:H:193:GLN:C	2.40	0.60
8:H:6:ALA:HA	8:H:10:LYS:HD3	0.72	0.60
14:N:62:GLN:HB2	14:N:65:PHE:CE2	2.32	0.60
4:D:53:THR:O	4:D:90:LYS:HE2	2.01	0.60
17:Q:58:LEU:HD13	17:Q:108:ILE:CG2	2.26	0.60
10:J:136:ARG:HG3	10:J:160:SER:HB3	1.82	0.60
8:H:50:GLU:OE2	8:H:58:LYS:CD	2.44	0.60
19:S:26:ILE:O	19:S:30:ILE:HG13	2.01	0.60
10:J:92:MET:O	10:J:93:LYS:NZ	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:81:LEU:HD12	10:J:97:ILE:HD11	1.83	0.60
2:B:113:MET:CE	2:B:209:ASP:CB	2.79	0.60
24:X:1:MET:O	24:X:3:LYS:HB2	2.02	0.60
4:D:216:GLU:O	4:D:217:ILE:CD1	2.49	0.60
10:J:10:ARG:CB	10:J:10:ARG:HH11	2.06	0.60
2:B:117:TRP:HE3	2:B:153:THR:HB	1.65	0.60
5:E:122:LYS:CD	5:E:164:LEU:HD21	2.31	0.60
5:E:180:LEU:CD1	5:E:228:ILE:HD11	2.32	0.60
7:G:227:GLN:HG2	7:G:230:LYS:HZ3	1.65	0.60
9:I:140:LYS:O	9:I:141:ARG:CG	2.49	0.60
12:L:59:LYS:HE2	12:L:134:LEU:HD21	1.83	0.60
12:L:96:ILE:O	12:L:99:TYR:O	2.20	0.60
1:A:17:LYS:HE3	1:A:17:LYS:H	1.64	0.60
1:A:180:ARG:CD	1:A:184:ARG:CZ	2.78	0.60
22:V:53:TYR:CG	22:V:72:LEU:HD13	2.36	0.60
4:D:47:GLU:CG	4:D:85:GLU:CG	2.71	0.60
11:K:89:ILE:O	11:K:90:VAL:HG12	2.02	0.60
17:Q:16:LYS:HE3	17:Q:17:LYS:HD2	1.84	0.60
5:E:23:LEU:O	5:E:24:THR:CB	2.49	0.60
10:J:124:HIS:O	10:J:125:HIS:C	2.38	0.60
25:Y:48:TYR:C	25:Y:50:THR:HG23	2.21	0.60
20:T:45:LEU:HG	20:T:46:ALA:N	2.15	0.60
19:S:88:LYS:N	19:S:94:LYS:O	2.35	0.60
4:D:166:TYR:CE1	4:D:200:PRO:HB3	2.36	0.60
16:P:49:LEU:HD13	16:P:51:ARG:NE	1.97	0.60
12:L:118:ARG:HG2	12:L:119:ASP:N	2.14	0.60
20:T:90:SER:C	20:T:91:HIS:HD2	2.04	0.60
9:I:87:ASN:OD1	9:I:89:GLU:HG2	2.00	0.60
7:G:192:ILE:HG13	7:G:193:ALA:N	2.17	0.60
25:Y:110:ARG:O	25:Y:114:MET:HG3	2.01	0.60
1:A:14:ASP:HB3	1:A:18:PHE:CE2	2.34	0.60
3:C:69:PHE:CZ	3:C:247:THR:CB	2.83	0.60
8:H:166:VAL:HG23	8:H:173:PHE:CZ	2.37	0.60
8:H:23:ILE:O	8:H:23:ILE:HD13	2.02	0.60
22:V:41:LYS:C	22:V:43:THR:N	2.52	0.60
11:K:84:HIS:CD2	13:M:27:ILE:CD1	2.84	0.60
17:Q:140:ARG:O	17:Q:141:TYR:O	2.19	0.60
21:U:62:ARG:HH11	21:U:79:ARG:HD3	1.67	0.60
5:E:56:LEU:HD23	5:E:56:LEU:N	2.16	0.60
10:J:16:PRO:O	10:J:17:ARG:C	2.33	0.60
10:J:79:ARG:O	10:J:83:ARG:CG	2.47	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:46:LYS:O	25:Y:46:LYS:CD	2.50	0.60
13:M:71:GLU:O	13:M:72:HIS:C	2.38	0.60
2:B:225:LEU:O	2:B:229:MET:CG	2.48	0.60
3:C:79:ILE:HD11	3:C:147:ILE:HD11	1.83	0.60
3:C:87:LEU:C	3:C:87:LEU:HD23	2.21	0.60
8:H:166:VAL:HG23	8:H:173:PHE:CE2	2.35	0.60
4:D:98:ALA:N	4:D:188:ILE:HD12	2.17	0.60
4:D:71:ALA:O	4:D:75:LYS:HG2	2.01	0.60
11:K:12:TYR:CD2	11:K:82:TYR:CD2	2.89	0.60
8:H:50:GLU:OE2	8:H:90:LYS:HE2	2.02	0.60
13:M:14:VAL:O	13:M:16:THR:N	2.35	0.60
23:W:128:PHE:CD1	23:W:129:PHE:CA	2.84	0.60
13:M:76:LEU:HD22	13:M:77:ILE:H	1.66	0.60
19:S:10:GLN:CB	19:S:13:LEU:HD21	2.32	0.60
1:A:202:TYR:O	1:A:203:PHE:CB	2.49	0.60
17:Q:129:SER:O	17:Q:131:LYS:NZ	2.28	0.60
7:G:186:GLN:O	7:G:190:ARG:HG3	2.01	0.60
9:I:157:LYS:O	9:I:158:ILE:HG22	2.00	0.60
1:A:58:LEU:HD21	1:A:178:LEU:CG	2.29	0.60
4:D:35:SER:HA	4:D:99:ILE:HD11	0.73	0.60
6:F:44:LYS:HB3	6:F:45:TYR:CD1	2.32	0.60
11:K:25:LYS:HD2	11:K:62:PHE:HE1	1.65	0.60
11:K:71:LEU:CG	11:K:76:ILE:CD1	2.80	0.60
17:Q:58:LEU:HD21	17:Q:111:ILE:HB	1.83	0.60
10:J:34:GLU:HB2	10:J:35:TYR:CD2	2.35	0.60
25:Y:63:HIS:CG	25:Y:64:PHE:CD1	2.88	0.60
18:R:44:LYS:HE2	18:R:47:ARG:HH22	1.45	0.60
7:G:1:MET:SD	7:G:106:LEU:O	2.60	0.60
7:G:142:ARG:HE	7:G:147:LEU:HB3	1.67	0.60
9:I:112:TRP:CH2	9:I:117:TYR:HE2	2.19	0.60
12:L:101:ARG:HB2	24:X:10:ALA:N	2.17	0.60
17:Q:8:GLN:HA	17:Q:99:TYR:OH	2.01	0.60
1:A:119:PRO:HG3	1:A:122:LEU:HD21	1.84	0.60
3:C:197:LYS:N	3:C:200:LEU:HD23	2.17	0.60
6:F:91:ARG:HH21	17:Q:46:THR:HG22	1.65	0.60
17:Q:47:LEU:HD23	17:Q:81:ILE:HD12	1.63	0.60
17:Q:85:ARG:HD3	17:Q:119:LEU:HD21	1.81	0.60
21:U:103:SER:C	21:U:104:ILE:O	2.39	0.60
10:J:106:LEU:O	10:J:109:ARG:HG3	2.02	0.60
16:P:123:TYR:CD2	19:S:120:HIS:CE1	2.55	0.60
2:B:87:ILE:CG2	2:B:101:HIS:CG	2.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:50:ILE:HG12	19:S:63:GLU:HG2	1.83	0.60
2:B:160:GLN:NE2	2:B:205:TYR:CE1	2.55	0.60
25:Y:98:GLU:OE2	25:Y:99:LYS:HA	2.01	0.60
13:M:91:LEU:CD2	13:M:104:VAL:HG13	2.21	0.60
10:J:10:ARG:CG	10:J:10:ARG:HH11	2.15	0.60
5:E:260:GLN:O	5:E:261:SER:OG	2.13	0.60
5:E:100:ARG:CD	5:E:102:ILE:HD12	2.31	0.60
5:E:129:ILE:CG2	5:E:139:LEU:CD2	2.79	0.60
5:E:86:PHE:CE1	5:E:182:MET:SD	2.95	0.60
7:G:64:LYS:HG3	7:G:67:VAL:HG11	1.84	0.60
1:A:127:PRO:HA	1:A:134:LEU:CD1	2.32	0.60
2:B:161:VAL:HG12	2:B:165:ARG:NH1	2.16	0.60
3:C:79:ILE:CD1	3:C:147:ILE:HD11	2.27	0.60
6:F:128:ILE:O	6:F:134:VAL:HG13	2.02	0.60
6:F:201:LYS:CD	6:F:204:ARG:NH2	2.39	0.60
14:N:62:GLN:CB	14:N:65:PHE:CE2	2.82	0.60
15:O:19:PRO:HG3	15:O:27:VAL:HG11	1.82	0.60
11:K:12:TYR:CZ	11:K:52:LEU:HD21	2.37	0.60
17:Q:42:ILE:CG1	17:Q:51:LEU:CD2	2.79	0.60
17:Q:54:PRO:CG	17:Q:88:ILE:HD12	2.32	0.60
21:U:67:LYS:O	21:U:68:THR:C	2.33	0.60
10:J:46:VAL:HG12	10:J:102:ILE:HD12	1.82	0.60
19:S:40:TYR:CA	19:S:83:PHE:HZ	2.13	0.60
26:Z:92:LEU:CD2	26:Z:97:ILE:HG13	2.30	0.60
4:D:196:GLY:O	4:D:199:GLY:HA3	2.02	0.60
3:C:155:TRP:CH2	23:W:97:ARG:CD	2.84	0.60
3:C:155:TRP:CE2	23:W:97:ARG:HD2	2.37	0.60
2:B:206:PRO:O	2:B:207:LEU:HB2	2.01	0.60
14:N:128:TYR:O	14:N:132:LYS:HG2	2.02	0.60
2:B:117:TRP:HE3	2:B:153:THR:CB	2.14	0.60
5:E:204:SER:O	5:E:205:PHE:CB	2.50	0.60
5:E:154:ILE:HG21	5:E:160:ILE:HD11	1.83	0.60
9:I:105:ASP:O	9:I:106:SER:HB2	2.02	0.60
9:I:62:VAL:HB	9:I:75:LYS:CE	2.28	0.60
3:C:42:ASP:OD1	3:C:43:LYS:N	2.35	0.60
8:H:190:PRO:HG2	8:H:192:PHE:CZ	2.37	0.60
14:N:23:PRO:O	14:N:24:THR:HB	2.02	0.60
17:Q:109:LYS:NZ	17:Q:113:ILE:HD11	2.17	0.60
10:J:109:ARG:O	10:J:110:LEU:C	2.34	0.60
25:Y:9:THR:HG21	25:Y:48:TYR:HE2	1.67	0.60
16:P:11:THR:O	16:P:12:PHE:CB	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:42:MET:HE1	23:W:50:PHE:CE2	2.37	0.60
16:P:74:GLU:O	16:P:75:VAL:CB	2.50	0.60
23:W:96:SER:OG	23:W:98:GLN:HG2	2.01	0.60
8:H:117:PRO:HD2	8:H:120:ARG:HB2	1.84	0.60
17:Q:63:PHE:HD1	17:Q:68:ILE:HD11	1.65	0.60
6:F:166:ILE:N	6:F:166:ILE:HD12	2.16	0.60
2:B:42:ARG:NH2	2:B:232:HIS:HA	2.17	0.60
6:F:65:GLN:NE2	6:F:65:GLN:HA	2.16	0.60
12:L:148:ALA:C	12:L:150:GLY:N	2.50	0.59
1:A:6:ASP:O	1:A:8:LEU:N	2.35	0.59
2:B:52:THR:HG22	2:B:58:ALA:HB2	1.82	0.59
3:C:141:ILE:O	3:C:145:LEU:HD23	2.02	0.59
8:H:158:LEU:N	8:H:158:LEU:HD23	2.17	0.59
8:H:6:ALA:HB3	8:H:15:LYS:HE2	1.84	0.59
13:M:45:ARG:H	13:M:45:ARG:NE	2.00	0.59
11:K:40:VAL:HG23	11:K:41:PRO:CD	2.29	0.59
16:P:19:GLY:H	19:S:92:ASP:HA	1.64	0.59
19:S:27:ALA:O	19:S:31:THR:HG23	2.01	0.59
10:J:28:GLU:CD	10:J:40:LYS:HD2	2.20	0.59
23:W:41:MET:HG2	23:W:129:PHE:CD2	2.36	0.59
24:X:74:LEU:CD1	24:X:81:ILE:CD1	2.71	0.59
20:T:28:LEU:CD2	20:T:28:LEU:O	2.44	0.59
17:Q:63:PHE:CD1	17:Q:68:ILE:HD11	2.37	0.59
23:W:37:PHE:CE1	23:W:103:VAL:HG11	2.37	0.59
5:E:100:ARG:HG2	5:E:102:ILE:HD12	1.84	0.59
5:E:166:THR:HB	5:E:168:LYS:NZ	2.17	0.59
7:G:85:ARG:HD3	25:Y:118:ARG:NH1	2.16	0.59
2:B:137:LEU:HD23	2:B:215:VAL:HA	1.84	0.59
2:B:49:VAL:HG12	2:B:50:THR:N	2.16	0.59
8:H:37:LYS:HZ3	8:H:38:ALA:HA	1.67	0.59
24:X:139:GLU:CD	24:X:139:GLU:N	2.55	0.59
5:E:67:GLN:OE1	5:E:67:GLN:HA	2.02	0.59
20:T:38:LYS:HD2	20:T:46:ALA:N	2.17	0.59
16:P:75:VAL:CG1	16:P:76:VAL:N	2.64	0.59
4:D:193:ASP:CA	4:D:202:LYS:O	2.37	0.59
4:D:218:LEU:HB2	4:D:220:THR:HG22	1.78	0.59
2:B:92:GLN:O	2:B:95:ASN:HB2	2.02	0.59
7:G:28:TYR:OH	7:G:104:ALA:HB2	2.01	0.59
7:G:7:PHE:HB2	7:G:124:LEU:HG	1.84	0.59
9:I:155:ASN:C	9:I:157:LYS:N	2.55	0.59
1:A:119:PRO:HG2	1:A:142:LEU:CD1	2.27	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:61:ALA:HB2	1:A:161:ILE:HD11	1.83	0.59
6:F:61:PHE:O	6:F:63:LYS:N	2.36	0.59
8:H:145:ARG:NH1	8:H:155:LYS:HZ2	1.95	0.59
22:V:40:ASP:OD2	22:V:45:ARG:HB2	2.02	0.59
4:D:40:ARG:HD3	21:U:107:GLU:OE2	2.02	0.59
6:F:44:LYS:CB	6:F:45:TYR:CE1	2.69	0.59
21:U:69:PRO:HG2	21:U:69:PRO:O	2.02	0.59
21:U:67:LYS:CE	21:U:78:ASP:OD2	2.49	0.59
25:Y:12:PHE:HD1	25:Y:23:MET:HB3	1.67	0.59
25:Y:50:THR:OG1	25:Y:55:ILE:HD11	2.03	0.59
20:T:76:THR:C	20:T:95:GLY:H	1.98	0.59
20:T:31:PRO:HG2	20:T:102:ARG:CG	2.33	0.59
16:P:53:GLN:HE21	16:P:80:LEU:CG	2.14	0.59
25:Y:33:ALA:O	25:Y:34:THR:CB	2.49	0.59
20:T:23:LYS:HD3	20:T:54:TYR:CD1	2.33	0.59
16:P:49:LEU:HA	16:P:51:ARG:NE	2.17	0.59
23:W:90:GLN:N	23:W:102:ILE:HD11	2.16	0.59
3:C:158:LYS:NZ	22:V:4:ASN:HA	2.16	0.59
24:X:107:ARG:O	24:X:108:LYS:HB2	2.03	0.59
13:M:42:LEU:CD2	13:M:110:VAL:HG21	2.32	0.59
1:A:27:GLY:O	1:A:47:TYR:CD2	2.54	0.59
3:C:120:GLY:CA	3:C:150:VAL:HG22	2.29	0.59
8:H:168:HIS:CE1	8:H:169:LYS:HG2	2.37	0.59
11:K:90:VAL:HG22	11:K:90:VAL:O	2.02	0.59
25:Y:20:ARG:C	25:Y:21:LYS:HD3	2.22	0.59
25:Y:55:ILE:HG13	25:Y:75:ILE:HG12	1.65	0.59
16:P:53:GLN:NE2	16:P:80:LEU:HD22	2.16	0.59
3:C:241:TRP:C	3:C:242:LYS:HG3	2.17	0.59
3:C:154:TYR:OH	3:C:161:LYS:C	2.40	0.59
21:U:57:PRO:HD2	21:U:57:PRO:O	2.02	0.59
2:B:145:LYS:HA	2:B:149:GLN:OE1	2.02	0.59
15:O:75:MET:CE	15:O:118:ALA:HB2	2.33	0.59
21:U:56:MET:HE1	21:U:88:LEU:HD23	1.84	0.59
16:P:28:MET:HB3	16:P:32:GLN:OE1	2.01	0.59
23:W:82:GLN:O	23:W:83:LEU:HB3	2.03	0.59
15:O:46:ASP:O	15:O:49:GLY:N	2.33	0.59
9:I:76:THR:CG2	9:I:105:ASP:HB2	2.33	0.59
9:I:141:ARG:O	9:I:142:SER:CB	2.50	0.59
9:I:55:TYR:CD2	9:I:55:TYR:N	2.68	0.59
1:A:21:ALA:HB2	1:A:173:LEU:HD11	0.61	0.59
1:A:5:LEU:CD2	1:A:5:LEU:C	2.61	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:71:LEU:O	22:V:29:HIS:HE1	1.83	0.59
6:F:136:ARG:O	6:F:203:ASN:CB	2.45	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
19:S:40:TYR:HA	19:S:83:PHE:HZ	1.67	0.59
20:T:23:LYS:CE	20:T:54:TYR:CE2	2.85	0.59
10:J:12:THR:C	10:J:48:PHE:CE2	2.76	0.59
4:D:108:LYS:CA	4:D:113:LEU:HD22	2.33	0.59
25:Y:98:GLU:O	25:Y:99:LYS:HB3	2.03	0.59
2:B:117:TRP:CE3	2:B:153:THR:HB	2.37	0.59
7:G:142:ARG:NE	7:G:147:LEU:HB3	2.18	0.59
1:A:74:VAL:HG22	1:A:121:LEU:HB3	1.84	0.59
1:A:2:SER:OG	1:A:5:LEU:O	2.16	0.59
22:V:55:ILE:CG2	22:V:60:ARG:HG3	2.32	0.59
22:V:20:SER:HA	23:W:23:ARG:HH22	1.67	0.59
8:H:144:ILE:HG13	23:W:52:ILE:HG23	1.83	0.59
3:C:196:LYS:C	3:C:200:LEU:HD23	2.23	0.59
4:D:32:ASP:OD1	4:D:57:ASN:HB2	2.03	0.59
11:K:1:MET:N	11:K:2:LEU:O	2.33	0.59
21:U:108:PRO:HD2	21:U:108:PRO:O	2.00	0.59
5:E:49:ARG:NH2	5:E:50:ASN:ND2	2.51	0.59
10:J:162:ARG:O	10:J:163:SER:C	2.41	0.59
24:X:128:VAL:CG1	24:X:133:LEU:HD21	2.32	0.59
19:S:8:LYS:HA	26:Z:49:LEU:CD2	2.30	0.59
18:R:24:LEU:HB2	18:R:58:MET:HE3	1.84	0.59
25:Y:88:LYS:HE3	25:Y:97:TYR:OH	2.03	0.59
3:C:236:LEU:HD23	3:C:237:THR:N	2.17	0.59
15:O:56:VAL:HG13	15:O:81:VAL:HG23	1.78	0.59
14:N:119:GLU:O	14:N:123:HIS:CD2	2.56	0.59
4:D:67:ARG:NH1	11:K:95:ARG:HG3	2.17	0.59
18:R:14:ARG:O	18:R:18:GLU:HG3	2.03	0.59
4:D:170:THR:HG22	4:D:171:ALA:N	2.18	0.59
7:G:14:LYS:HZ2	7:G:123:GLY:HA3	0.66	0.59
1:A:122:LEU:CD1	1:A:137:ALA:HB2	2.32	0.59
1:A:14:ASP:O	1:A:18:PHE:CD2	2.55	0.59
4:D:5:ILE:O	4:D:6:SER:N	2.33	0.59
25:Y:56:PHE:CG	25:Y:86:GLU:OE2	2.56	0.59
3:C:93:LYS:CD	3:C:218:LEU:HD22	1.83	0.59
3:C:93:LYS:CE	3:C:95:MET:HG2	2.32	0.59
20:T:29:LYS:C	20:T:30:VAL:CG1	2.70	0.59
16:P:123:TYR:CZ	19:S:120:HIS:NE2	2.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:52:LYS:O	26:Z:54:THR:N	2.35	0.59
25:Y:103:SER:O	25:Y:104:ARG:HB3	2.03	0.59
24:X:109:GLY:O	24:X:119:ARG:CD	2.42	0.59
25:Y:98:GLU:CD	25:Y:98:GLU:O	2.41	0.59
23:W:3:ARG:NE	23:W:9:ASP:OD2	2.35	0.59
25:Y:37:LYS:HA	25:Y:40:ILE:CG2	2.32	0.59
3:C:117:ASP:CG	3:C:119:ASN:H	2.05	0.59
1:A:180:ARG:NH1	1:A:184:ARG:NH2	2.50	0.59
14:N:28:LEU:CD1	14:N:58:HIS:CE1	2.85	0.59
6:F:28:VAL:HG13	6:F:110:GLN:NE2	2.16	0.59
11:K:42:ASN:O	11:K:43:LEU:HD23	2.03	0.59
24:X:100:VAL:HG12	24:X:125:VAL:CG2	2.20	0.59
2:B:66:VAL:CB	2:B:87:ILE:HG22	2.25	0.59
8:H:83:LEU:C	8:H:83:LEU:HD12	2.23	0.59
16:P:13:ARG:O	16:P:14:LYS:CG	2.50	0.59
26:Z:51:ASP:O	26:Z:52:LYS:CB	2.49	0.59
18:R:91:LEU:H	18:R:92:ASP:CA	2.15	0.59
12:L:118:ARG:CD	12:L:119:ASP:N	2.66	0.59
13:M:95:ASP:HB2	13:M:101:ARG:NH1	2.16	0.59
5:E:256:LEU:HD12	5:E:257:ALA:N	2.16	0.59
5:E:86:PHE:HE1	5:E:182:MET:SD	2.26	0.59
7:G:13:GLN:O	7:G:14:LYS:HG2	2.03	0.59
9:I:128:LYS:O	9:I:131:PRO:HD2	2.02	0.59
9:I:141:ARG:HD2	9:I:144:LYS:CB	1.99	0.59
9:I:141:ARG:HD3	9:I:144:LYS:CG	2.33	0.59
25:Y:119:GLY:O	25:Y:120:THR:C	2.42	0.59
23:W:23:ARG:HG2	23:W:23:ARG:HH11	1.66	0.59
24:X:95:GLU:CB	24:X:140:ARG:HH22	2.15	0.59
5:E:67:GLN:O	5:E:68:ARG:CG	2.50	0.59
20:T:77:LYS:HA	20:T:94:ARG:CG	2.26	0.59
16:P:56:LEU:CD1	16:P:80:LEU:CD1	2.79	0.59
6:F:104:THR:HG22	6:F:104:THR:O	2.03	0.59
4:D:202:LYS:HB2	4:D:203:PRO:HD3	1.82	0.59
4:D:201:LYS:C	4:D:203:PRO:HD2	2.13	0.59
16:P:49:LEU:N	16:P:51:ARG:HG3	2.17	0.59
12:L:78:THR:HG23	12:L:79:LYS:N	2.17	0.59
26:Z:64:ASN:O	26:Z:111:ARG:CZ	2.48	0.59
6:F:56:TYR:CE1	6:F:66:CYS:HB2	2.38	0.59
5:E:159:THR:HG21	5:E:227:VAL:O	2.02	0.59
5:E:86:PHE:CD2	5:E:87:MET:HG2	2.37	0.59
7:G:135:PRO:HG2	7:G:144:LEU:CD2	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:114:MET:HE3	25:Y:125:VAL:HG23	1.76	0.59
1:A:111:GLN:OE1	3:C:48:VAL:HB	2.02	0.59
2:B:31:TYR:CE1	2:B:94:LYS:N	2.69	0.59
8:H:46:THR:HG23	8:H:47:ALA:N	2.18	0.59
11:K:84:HIS:CD2	13:M:27:ILE:CG1	2.85	0.59
10:J:120:ALA:HA	10:J:125:HIS:HD2	1.68	0.59
24:X:87:ASN:HB2	24:X:90:CYS:SG	2.43	0.59
25:Y:21:LYS:H	25:Y:21:LYS:HD3	1.61	0.59
10:J:177:ASN:C	10:J:180:LYS:HB3	2.24	0.59
3:C:154:TYR:CD2	3:C:158:LYS:HA	2.37	0.59
3:C:158:LYS:HZ3	22:V:4:ASN:HA	1.68	0.59
23:W:96:SER:OG	23:W:99:PHE:CE2	2.56	0.59
17:Q:28:GLY:HA3	17:Q:67:ASP:CG	2.23	0.59
5:E:36:HIS:HB3	5:E:41:CYS:SG	2.42	0.59
7:G:162:LEU:HD22	7:G:172:LYS:HZ1	1.68	0.58
2:B:93:GLY:C	2:B:94:LYS:HD3	2.23	0.58
8:H:143:ARG:NE	23:W:53:ILE:CG2	2.62	0.58
8:H:43:LEU:HD21	8:H:71:SER:OG	2.03	0.58
6:F:25:THR:CG2	6:F:41:VAL:HG22	2.32	0.58
21:U:83:ARG:HB3	21:U:85:HIS:HE1	1.68	0.58
3:C:185:ARG:HA	3:C:206:ASP:OD2	2.03	0.58
3:C:93:LYS:HE3	3:C:95:MET:CB	2.31	0.58
24:X:22:TRP:O	24:X:23:HIS:O	2.20	0.58
16:P:32:GLN:HA	16:P:35:GLN:CD	2.24	0.58
1:A:183:LEU:CB	1:A:189:ILE:CD1	2.81	0.58
1:A:57:LYS:HE2	22:V:70:LEU:CD2	2.32	0.58
8:H:37:LYS:CE	8:H:41:ARG:HH11	2.04	0.58
11:K:3:MET:CE	11:K:8:ARG:HH21	1.79	0.58
17:Q:118:THR:O	17:Q:120:LEU:N	2.36	0.58
24:X:95:GLU:OE1	24:X:140:ARG:NH2	2.36	0.58
25:Y:9:THR:HG21	25:Y:48:TYR:CE2	2.37	0.58
8:H:80:VAL:O	8:H:83:LEU:HG	2.03	0.58
18:R:17:ILE:HG21	18:R:69:ILE:HD11	1.38	0.58
18:R:21:TYR:HD2	18:R:73:LEU:HD12	1.67	0.58
3:C:154:TYR:OH	3:C:161:LYS:N	2.34	0.58
10:J:10:ARG:CZ	10:J:10:ARG:HB3	2.24	0.58
6:F:158:ALA:HA	6:F:172:CYS:SG	2.43	0.58
9:I:129:LEU:O	9:I:134:GLU:HB2	2.03	0.58
3:C:243:GLU:O	3:C:244:THR:CB	2.48	0.58
17:Q:105:LYS:NZ	17:Q:109:LYS:CB	2.66	0.58
25:Y:76:TYR:CB	25:Y:82:ALA:HB2	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:126:ILE:CD1	4:D:134:CYS:CB	2.76	0.58
21:U:59:LYS:CB	21:U:84:ILE:CG2	2.61	0.58
7:G:179:LEU:C	7:G:180:VAL:HG23	2.24	0.58
9:I:154:LYS:O	12:L:22:ARG:HG3	2.03	0.58
12:L:71:ARG:HD2	12:L:73:LEU:HD11	1.84	0.58
2:B:53:GLN:HG2	2:B:56:LYS:HB2	1.85	0.58
2:B:57:ILE:HD13	2:B:60:ASP:OD2	1.94	0.58
15:O:98:ARG:HG3	15:O:133:THR:HG22	1.85	0.58
22:V:55:ILE:CG2	22:V:60:ARG:CG	2.81	0.58
16:P:53:GLN:HG3	16:P:80:LEU:HD11	1.84	0.58
2:B:87:ILE:CD1	2:B:220:LYS:HZ3	2.17	0.58
12:L:17:PHE:HZ	12:L:19:ASN:OD1	1.86	0.58
23:W:128:PHE:CE1	23:W:130:PHE:HE2	2.16	0.58
13:M:79:VAL:CG1	13:M:80:ASP:N	2.66	0.58
2:B:133:TYR:CZ	2:B:181:LEU:HD12	2.38	0.58
2:B:136:HIS:ND1	2:B:138:PHE:CZ	2.72	0.58
19:S:111:LEU:HD22	19:S:125:HIS:CE1	2.37	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
7:G:137:ARG:HG3	7:G:140:ARG:HB3	1.85	0.58
7:G:145:PHE:CB	7:G:147:LEU:CD1	2.65	0.58
7:G:19:ASP:O	7:G:20:ASP:CG	2.42	0.58
12:L:86:ILE:HG13	12:L:111:VAL:HG13	1.84	0.58
1:A:176:TRP:HZ2	1:A:195:TRP:CE3	1.94	0.58
1:A:195:TRP:CE2	1:A:197:VAL:HB	2.39	0.58
15:O:30:VAL:HG23	15:O:32:HIS:HD2	1.68	0.58
6:F:44:LYS:C	6:F:45:TYR:HD1	2.05	0.58
6:F:51:HIS:CD2	6:F:86:LYS:HD3	2.38	0.58
11:K:83:LEU:HD12	11:K:85:LEU:CD2	2.23	0.58
17:Q:90:LYS:HD3	17:Q:120:LEU:CA	2.33	0.58
10:J:65:GLU:O	10:J:66:LYS:CB	2.51	0.58
24:X:126:ALA:O	24:X:128:VAL:CG2	2.52	0.58
20:T:39:LEU:HD11	20:T:56:ARG:HH21	1.68	0.58
16:P:111:MET:C	16:P:114:HIS:HD2	2.07	0.58
19:S:8:LYS:HB2	19:S:9:PHE:CE1	2.26	0.58
2:B:130:THR:CG2	2:B:179:ASN:N	2.66	0.58
20:T:64:LEU:N	20:T:64:LEU:CD2	2.63	0.58
5:E:229:GLY:HA3	5:E:235:TRP:CD1	2.39	0.58
12:L:55:TYR:CD1	12:L:115:PRO:HG2	2.39	0.58
1:A:125:THR:O	1:A:147:LEU:HB2	1.99	0.58
1:A:2:SER:OG	1:A:3:GLY:N	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:90:CYS:O	24:X:91:LEU:O	2.22	0.58
3:C:154:TYR:HH	3:C:162:PRO:HD3	1.66	0.58
20:T:85:ASN:HD22	20:T:85:ASN:H	1.49	0.58
9:I:3:ILE:HG23	9:I:3:ILE:O	1.97	0.58
6:F:32:ASP:HB2	6:F:117:ILE:CG2	2.33	0.58
5:E:184:THR:C	5:E:189:LEU:CD1	2.70	0.58
12:L:46:THR:HG23	12:L:46:THR:O	2.04	0.58
7:G:27:PHE:HZ	7:G:41:LEU:HD13	1.68	0.58
25:Y:114:MET:C	25:Y:124:ASN:HD22	2.06	0.58
1:A:106:GLY:HA3	1:A:113:GLN:HE22	1.67	0.58
1:A:139:TYR:C	1:A:140:VAL:HG23	2.24	0.58
3:C:50:LYS:HB2	3:C:258:LEU:CB	2.34	0.58
18:R:98:VAL:O	18:R:100:PRO:HD2	2.04	0.58
22:V:19:ALA:CB	22:V:59:ILE:CD1	2.76	0.58
1:A:157:VAL:O	22:V:66:ASP:CG	2.42	0.58
11:K:64:TRP:C	11:K:65:ARG:HG2	2.24	0.58
11:K:89:ILE:O	11:K:89:ILE:HD13	2.03	0.58
24:X:52:LEU:HD12	24:X:53:GLU:HB3	1.86	0.58
25:Y:55:ILE:HD11	25:Y:75:ILE:HD13	1.85	0.58
16:P:53:GLN:HG2	16:P:56:LEU:HD12	1.85	0.58
19:S:80:PRO:HG3	19:S:82:TRP:CE2	2.38	0.58
19:S:89:ASP:HB2	19:S:94:LYS:HB2	1.85	0.58
18:R:93:GLN:O	18:R:94:GLU:C	2.40	0.58
5:E:36:HIS:C	5:E:41:CYS:SG	2.82	0.58
9:I:29:LEU:HD21	9:I:31:ARG:HH12	1.69	0.58
10:J:84:ILE:O	10:J:108:ARG:CD	2.51	0.58
7:G:191:ARG:O	7:G:195:LYS:HG3	2.04	0.58
7:G:32:MET:HA	7:G:52:ILE:HG23	1.86	0.58
9:I:149:TYR:HA	9:I:152:ARG:NH1	2.19	0.58
8:H:188:GLU:HG2	8:H:189:PHE:H	1.69	0.58
8:H:190:PRO:CB	8:H:191:GLU:HG2	2.33	0.58
17:Q:50:LYS:CA	17:Q:53:GLU:HG3	2.34	0.58
5:E:62:LYS:CD	5:E:80:ILE:CG1	2.81	0.58
2:B:144:LYS:O	2:B:144:LYS:HG3	2.03	0.58
19:S:15:VAL:CG1	19:S:68:ILE:HD11	2.33	0.58
20:T:111:LYS:O	20:T:124:THR:CG2	2.51	0.58
10:J:84:ILE:CG1	10:J:86:VAL:HG23	2.32	0.58
8:H:154:ILE:HG22	8:H:185:VAL:CG2	2.34	0.58
5:E:117:GLU:HG3	5:E:118:GLU:N	2.18	0.58
5:E:98:ASN:HD21	5:E:119:ALA:HA	1.68	0.58
5:E:152:PRO:HG3	7:G:209:TYR:CZ	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:185:LEU:O	7:G:189:ARG:HG3	2.04	0.58
7:G:3:LEU:CD1	7:G:41:LEU:HD11	2.33	0.58
9:I:145:ILE:HA	9:I:148:LYS:CD	2.33	0.58
1:A:42:LYS:HZ2	18:R:102:THR:HG22	1.68	0.58
1:A:60:LEU:CD1	1:A:60:LEU:C	2.72	0.58
3:C:55:VAL:HA	3:C:82:PHE:CZ	2.34	0.58
4:D:97:CYS:O	4:D:100:ALA:N	2.36	0.58
17:Q:93:VAL:HG11	17:Q:105:LYS:HE2	0.58	0.58
16:P:41:GLN:NE2	16:P:45:LEU:CD1	2.67	0.58
5:E:43:PRO:HG2	5:E:46:ILE:CD1	2.34	0.58
20:T:76:THR:CG2	20:T:95:GLY:O	2.52	0.58
23:W:42:MET:HE2	23:W:48:GLY:O	2.04	0.58
10:J:16:PRO:C	10:J:18:ARG:N	2.52	0.58
13:M:12:MET:CE	13:M:17:ALA:C	2.41	0.58
17:Q:92:LEU:O	17:Q:96:TYR:CD2	2.56	0.58
20:T:4:VAL:HG11	20:T:139:ALA:HB2	1.84	0.58
2:B:119:THR:HB	2:B:143:THR:HG23	1.84	0.58
10:J:84:ILE:O	10:J:108:ARG:HD3	2.03	0.58
5:E:156:MET:O	5:E:157:ASN:HB2	2.03	0.58
7:G:32:MET:SD	7:G:100:CYS:SG	3.01	0.58
7:G:135:PRO:CG	7:G:144:LEU:HD23	2.33	0.58
7:G:174:PRO:O	7:G:175:LYS:HB2	2.03	0.58
9:I:85:ALA:HB1	12:L:8:ARG:HD2	1.85	0.58
18:R:99:ASP:CA	18:R:119:VAL:HG13	2.13	0.58
24:X:126:ALA:CB	24:X:128:VAL:CB	2.57	0.58
19:S:58:GLU:CB	19:S:59:LEU:HD13	2.34	0.58
26:Z:51:ASP:O	26:Z:52:LYS:HB2	2.02	0.58
4:D:212:GLU:HG2	18:R:19:LYS:CE	2.34	0.58
8:H:154:ILE:CG2	8:H:154:ILE:O	2.51	0.58
2:B:67:PHE:HE1	15:O:47:LEU:CA	2.16	0.57
6:F:122:ARG:C	6:F:141:VAL:HG13	2.18	0.57
8:H:144:ILE:HD12	23:W:52:ILE:CD1	2.25	0.57
14:N:16:LEU:CD1	14:N:62:GLN:HE22	2.03	0.57
4:D:59:LEU:CG	4:D:60:GLY:H	2.16	0.57
11:K:53:LYS:CA	11:K:58:VAL:HG13	2.34	0.57
11:K:62:PHE:CE1	11:K:67:PHE:HE2	2.18	0.57
6:F:47:LYS:CB	17:Q:117:ARG:HH22	2.16	0.57
17:Q:85:ARG:O	17:Q:88:ILE:CG1	2.50	0.57
10:J:131:ARG:NH1	10:J:143:ASN:HD21	2.01	0.57
10:J:170:PRO:HG3	10:J:175:ARG:HG2	1.81	0.57
19:S:80:PRO:CG	19:S:82:TRP:NE1	2.67	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:67:ARG:CG	24:X:115:ILE:HG12	2.32	0.57
19:S:47:LYS:HZ1	19:S:78:LYS:CB	2.14	0.57
2:B:129:THR:OG1	2:B:133:TYR:HB2	2.03	0.57
20:T:87:VAL:HG13	20:T:88:MET:N	2.18	0.57
2:B:125:VAL:CG2	2:B:169:MET:HG3	2.34	0.57
2:B:226:GLY:O	2:B:230:GLU:HG3	2.04	0.57
7:G:63:MET:HE3	7:G:106:LEU:CD2	2.34	0.57
7:G:185:LEU:HD23	7:G:188:LYS:HE3	1.86	0.57
9:I:142:SER:HB3	9:I:143:LYS:CD	2.34	0.57
12:L:130:GLU:HG2	12:L:131:CYS:N	2.19	0.57
25:Y:114:MET:HE2	25:Y:121:ALA:O	2.04	0.57
1:A:59:LEU:HD23	1:A:181:GLU:CG	2.33	0.57
1:A:45:GLY:C	1:A:46:ILE:HG12	2.22	0.57
2:B:67:PHE:CE1	15:O:47:LEU:CA	2.87	0.57
2:B:28:LYS:NZ	15:O:51:GLU:OE2	2.37	0.57
17:Q:116:ASP:O	17:Q:117:ARG:CB	2.50	0.57
10:J:170:PRO:CB	10:J:174:LYS:NZ	2.67	0.57
10:J:37:LEU:CD2	10:J:42:GLU:HB3	2.25	0.57
25:Y:52:PRO:CD	25:Y:53:ASP:N	2.64	0.57
25:Y:36:PRO:HD3	25:Y:39:GLU:OE1	1.98	0.57
5:E:248:ILE:CA	10:J:72:PHE:CE1	2.86	0.57
26:Z:92:LEU:CD1	26:Z:109:TYR:CE1	2.84	0.57
10:J:81:LEU:CD1	10:J:97:ILE:CD1	2.81	0.57
13:M:12:MET:CE	13:M:120:ALA:HB1	2.32	0.57
19:S:73:ASN:HB3	19:S:76:GLN:OE1	2.04	0.57
23:W:77:PRO:HD2	23:W:79:PHE:CZ	2.39	0.57
2:B:71:LEU:HD13	2:B:84:PHE:HE2	0.85	0.57
6:F:193:LYS:HE2	6:F:197:GLU:CD	2.25	0.57
6:F:42:LYS:HB2	6:F:46:ALA:N	2.19	0.57
11:K:61:GLN:O	11:K:67:PHE:HA	2.05	0.57
10:J:110:LEU:HB3	10:J:130:ILE:CD1	2.33	0.57
6:F:14:THR:HG23	6:F:15:PRO:HD2	1.85	0.57
11:K:13:GLU:HG3	11:K:14:LEU:N	2.19	0.57
8:H:60:ILE:HG21	8:H:92:VAL:HG22	1.86	0.57
18:R:20:TYR:CE2	18:R:38:ILE:CB	2.73	0.57
23:W:128:PHE:CZ	23:W:130:PHE:HE2	2.23	0.57
20:T:40:ALA:N	20:T:43:LYS:HG3	2.18	0.57
26:Z:94:LYS:CE	26:Z:95:GLY:H	2.16	0.57
15:O:75:MET:SD	15:O:114:SER:O	2.63	0.57
18:R:61:ILE:HG23	18:R:74:GLN:HE22	1.70	0.57
9:I:76:THR:CG2	9:I:77:ARG:H	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:24:HIS:HB2	1:A:49:ILE:O	2.04	0.57
3:C:126:MET:HE1	3:C:223:LYS:CE	2.33	0.57
6:F:119:SER:O	6:F:121:PRO:HD3	2.04	0.57
22:V:74:LYS:HA	22:V:78:ILE:O	2.04	0.57
16:P:41:GLN:CD	16:P:84:ILE:CB	2.61	0.57
16:P:5:GLU:HG2	16:P:9:LYS:HE2	1.85	0.57
25:Y:35:VAL:CG1	25:Y:36:PRO:HD2	2.28	0.57
10:J:15:THR:HB	10:J:44:TRP:CH2	2.39	0.57
9:I:22:HIS:CD2	9:I:25:ARG:HH11	2.22	0.57
10:J:91:LYS:C	10:J:93:LYS:H	2.08	0.57
4:D:126:ILE:HD12	4:D:134:CYS:HB2	1.87	0.57
2:B:105:LEU:O	2:B:106:THR:CB	2.52	0.57
11:K:95:ARG:NE	11:K:95:ARG:HA	2.18	0.57
14:N:142:GLU:HG2	14:N:145:THR:HG23	1.86	0.57
7:G:155:GLN:C	7:G:156:TYR:CD1	2.78	0.57
9:I:48:VAL:HG11	9:I:54:LYS:HB2	1.86	0.57
9:I:62:VAL:HG23	9:I:75:LYS:CE	2.32	0.57
12:L:147:LYS:HE2	12:L:156:GLN:HE22	1.70	0.57
1:A:127:PRO:HG2	1:A:153:PRO:CD	2.26	0.57
2:B:70:SER:HB3	15:O:128:ARG:NH1	2.19	0.57
4:D:48:ILE:HG23	4:D:48:ILE:O	2.03	0.57
4:D:74:GLN:NE2	4:D:75:LYS:CD	2.66	0.57
16:P:44:ARG:CD	16:P:82:ASP:O	2.52	0.57
10:J:65:GLU:HA	10:J:70:ARG:HD3	1.87	0.57
6:F:15:PRO:HD3	17:Q:56:LEU:CB	2.34	0.57
10:J:89:GLU:O	10:J:91:LYS:O	2.23	0.57
16:P:127:LYS:HE3	16:P:128:HIS:CA	2.34	0.57
16:P:127:LYS:HE3	16:P:128:HIS:HA	1.86	0.57
21:U:47:ASN:H	21:U:47:ASN:HD22	1.50	0.57
13:M:124:ILE:C	13:M:127:TYR:CD2	2.77	0.57
20:T:40:ALA:O	20:T:43:LYS:HB2	2.05	0.57
3:C:98:GLN:HB3	3:C:107:THR:HA	1.85	0.57
5:E:129:ILE:CB	5:E:139:LEU:CD2	2.73	0.57
7:G:159:ARG:HH22	7:G:161:PRO:CA	2.17	0.57
9:I:142:SER:HB3	9:I:143:LYS:CE	2.34	0.57
12:L:97:ARG:HG2	12:L:98:LYS:CA	2.34	0.57
8:H:143:ARG:CD	23:W:53:ILE:CG1	2.50	0.57
2:B:25:PHE:CE1	15:O:53:ILE:HG22	2.38	0.57
10:J:50:LEU:CD1	10:J:102:ILE:CD1	2.72	0.57
24:X:126:ALA:O	24:X:128:VAL:N	2.37	0.57
10:J:17:ARG:CA	10:J:18:ARG:HG2	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:87:LEU:HD12	10:J:91:LYS:HD3	1.87	0.57
25:Y:103:SER:O	25:Y:104:ARG:CB	2.53	0.57
24:X:105:PHE:HB3	24:X:112:VAL:HG21	1.86	0.57
4:D:218:LEU:C	4:D:220:THR:HG23	2.24	0.57
3:C:192:ALA:HB3	3:C:195:PRO:CD	2.35	0.57
2:B:225:LEU:HB3	2:B:229:MET:CE	2.34	0.57
16:P:67:ALA:HB2	16:P:73:PRO:CB	2.35	0.57
18:R:61:ILE:HG23	18:R:74:GLN:NE2	2.19	0.57
7:G:159:ARG:HA	7:G:172:LYS:O	2.04	0.57
9:I:148:LYS:HE2	9:I:152:ARG:NH2	2.20	0.57
12:L:109:MET:SD	12:L:140:PHE:CE1	2.97	0.57
12:L:80:MET:HE2	12:L:120:VAL:O	1.92	0.57
8:H:144:ILE:O	23:W:51:GLU:CA	2.47	0.57
15:O:128:ARG:C	15:O:129:ILE:HG12	2.17	0.57
18:R:98:VAL:CG1	18:R:99:ASP:N	2.68	0.57
17:Q:18:THR:O	17:Q:75:GLY:HA3	2.04	0.57
25:Y:55:ILE:CD1	25:Y:75:ILE:HD13	2.35	0.57
25:Y:55:ILE:HA	25:Y:74:MET:O	2.04	0.57
19:S:23:ARG:HD3	26:Z:48:VAL:CB	2.34	0.57
4:D:194:PRO:O	4:D:197:LYS:O	2.23	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
19:S:46:ARG:NE	20:T:50:GLU:CD	2.58	0.57
3:C:161:LYS:CD	3:C:162:PRO:HD2	2.34	0.57
20:T:124:THR:CG2	20:T:126:GLN:HB3	2.35	0.57
8:H:117:PRO:HD2	8:H:120:ARG:CD	2.35	0.57
15:O:39:ASP:N	15:O:69:SER:HB3	2.20	0.57
9:I:31:ARG:HG3	9:I:31:ARG:NH1	2.20	0.57
7:G:188:LYS:O	7:G:191:ARG:HG3	2.05	0.57
8:H:193:GLN:N	8:H:193:GLN:CD	2.57	0.57
15:O:17:LEU:CG	15:O:18:GLY:N	2.68	0.57
11:K:64:TRP:O	11:K:65:ARG:HG3	2.04	0.57
21:U:101:ILE:O	21:U:105:SER:OG	2.23	0.57
19:S:85:ASN:ND2	19:S:98:VAL:H	2.03	0.57
26:Z:48:VAL:HG22	26:Z:80:ARG:HD2	1.79	0.57
13:M:61:TYR:OH	13:M:108:CYS:SG	2.61	0.57
3:C:161:LYS:HD3	22:V:9:VAL:HG11	1.85	0.57
6:F:36:GLN:HG2	6:F:37:ASP:CG	2.24	0.57
16:P:67:ALA:HB2	16:P:73:PRO:HB3	1.87	0.57
7:G:63:MET:CE	7:G:106:LEU:HD21	2.32	0.57
7:G:177:GLN:O	7:G:178:ARG:HB2	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:44:LYS:CA	6:F:45:TYR:CD1	2.88	0.57
10:J:50:LEU:HD12	10:J:102:ILE:CG1	2.35	0.57
16:P:56:LEU:HD22	16:P:78:THR:CG2	2.34	0.57
16:P:107:ILE:CA	16:P:111:MET:CE	2.72	0.57
16:P:49:LEU:CA	16:P:51:ARG:CD	2.83	0.57
4:D:218:LEU:CG	4:D:218:LEU:O	2.53	0.57
26:Z:73:VAL:CG1	26:Z:79:ILE:HG21	2.23	0.57
15:O:38:ASN:O	15:O:68:GLU:HB3	2.04	0.57
9:I:141:ARG:HD3	9:I:144:LYS:HB3	1.62	0.57
17:Q:7:LEU:HD22	17:Q:27:ARG:HD2	1.87	0.57
25:Y:117:VAL:HB	25:Y:124:ASN:HD21	1.69	0.57
1:A:102:ARG:O	1:A:104:THR:N	2.38	0.57
3:C:68:LEU:HD22	3:C:247:THR:HG21	1.87	0.57
15:O:44:VAL:HG22	15:O:93:LEU:HD13	1.85	0.57
22:V:42:VAL:O	22:V:43:THR:CB	2.52	0.57
8:H:145:ARG:CG	23:W:51:GLU:HG2	2.35	0.57
6:F:21:GLY:C	6:F:22:LYS:HG3	2.25	0.57
17:Q:50:LYS:HA	17:Q:53:GLU:HG3	1.87	0.57
24:X:52:LEU:HD12	24:X:53:GLU:CG	2.35	0.57
12:L:17:PHE:CD1	12:L:18:GLN:CB	2.88	0.57
3:C:195:PRO:HD3	3:C:221:PHE:CE2	2.40	0.57
23:W:30:CYS:CA	23:W:34:ILE:HD12	2.35	0.57
12:L:1:MET:O	12:L:2:ALA:CB	2.52	0.57
9:I:154:LYS:O	12:L:22:ARG:CD	2.53	0.56
1:A:4:ALA:O	1:A:8:LEU:HD22	2.05	0.56
14:N:27:LYS:N	14:N:27:LYS:CD	2.62	0.56
14:N:58:HIS:CD2	14:N:59:GLY:H	2.23	0.56
15:O:44:VAL:HG21	15:O:93:LEU:HD11	1.85	0.56
4:D:23:GLU:CG	11:K:64:TRP:HE1	2.18	0.56
11:K:84:HIS:CD2	13:M:27:ILE:HG13	2.32	0.56
17:Q:47:LEU:O	17:Q:49:TYR:N	2.38	0.56
10:J:67:ASP:O	10:J:70:ARG:N	2.38	0.56
3:C:93:LYS:HE3	3:C:95:MET:HG2	1.86	0.56
2:B:87:ILE:HD12	2:B:220:LYS:HZ3	1.69	0.56
2:B:110:MET:CE	2:B:213:ARG:HD2	2.35	0.56
17:Q:92:LEU:O	17:Q:96:TYR:HD2	1.87	0.56
14:N:4:MET:HE2	14:N:124:ARG:HH22	1.70	0.56
20:T:5:THR:CG2	20:T:7:LYS:HB2	2.34	0.56
2:B:136:HIS:CE1	2:B:138:PHE:HZ	2.20	0.56
20:T:85:ASN:CB	20:T:88:MET:HB2	2.35	0.56
18:R:42:PRO:CD	18:R:43:SER:N	2.67	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:183:ALA:HB2	3:C:208:TYR:CD2	2.40	0.56
7:G:162:LEU:O	7:G:162:LEU:CD1	2.49	0.56
9:I:142:SER:CB	9:I:143:LYS:CB	2.29	0.56
9:I:155:ASN:CG	9:I:156:ALA:N	2.57	0.56
12:L:102:PHE:HD1	12:L:102:PHE:N	1.95	0.56
12:L:148:ALA:O	12:L:150:GLY:O	2.23	0.56
12:L:102:PHE:O	24:X:8:ARG:O	2.22	0.56
1:A:57:LYS:HE2	22:V:70:LEU:HD21	1.86	0.56
4:D:55:THR:HA	4:D:58:VAL:CG2	2.35	0.56
6:F:42:LYS:O	6:F:42:LYS:CD	2.48	0.56
17:Q:18:THR:HB	17:Q:75:GLY:H	1.71	0.56
17:Q:47:LEU:CB	17:Q:81:ILE:HD13	2.34	0.56
17:Q:76:GLY:O	17:Q:80:GLN:HG2	2.00	0.56
24:X:91:LEU:O	24:X:92:ASN:C	2.43	0.56
25:Y:54:VAL:CG2	25:Y:79:LEU:HD21	2.35	0.56
19:S:120:HIS:CD2	19:S:124:ARG:HG3	2.39	0.56
8:H:109:ARG:O	8:H:110:THR:HB	2.04	0.56
20:T:65:TYR:CE2	20:T:128:GLN:HG3	2.39	0.56
2:B:120:MET:HB2	2:B:142:PHE:HE1	1.70	0.56
4:D:149:SER:O	4:D:150:MET:SD	2.63	0.56
1:A:115:ALA:O	1:A:117:ARG:HG2	2.05	0.56
12:L:56:ILE:CG2	12:L:57:ASP:N	2.68	0.56
5:E:129:ILE:CG2	5:E:139:LEU:HD23	2.35	0.56
7:G:176:ILE:HG21	7:G:179:LEU:CB	2.28	0.56
5:E:153:LEU:CD2	7:G:216:ARG:NH2	2.65	0.56
1:A:119:PRO:O	1:A:142:LEU:HD22	2.04	0.56
8:H:9:VAL:CA	8:H:11:PRO:HD3	2.36	0.56
22:V:18:SER:O	22:V:72:LEU:HD21	2.05	0.56
1:A:141:ASN:O	22:V:32:ILE:CG1	2.41	0.56
2:B:44:ILE:HD11	2:B:86:LEU:HD13	1.86	0.56
8:H:15:LYS:HB3	8:H:16:PRO:HD3	1.82	0.56
11:K:1:MET:HB3	11:K:47:LYS:HB3	1.88	0.56
6:F:76:MET:HE1	6:F:169:ILE:CG2	2.21	0.56
11:K:43:LEU:H	11:K:46:MET:CB	2.18	0.56
16:P:41:GLN:HA	16:P:84:ILE:HD13	1.88	0.56
10:J:110:LEU:HD12	10:J:130:ILE:HG12	1.55	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
25:Y:54:VAL:CG1	25:Y:76:TYR:CA	2.83	0.56
19:S:34:LYS:CB	19:S:103:LEU:HD23	2.21	0.56
26:Z:92:LEU:CD1	26:Z:109:TYR:HE1	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:162:ASP:HB3	4:D:163:PRO:HD3	1.86	0.56
10:J:80:ARG:HA	10:J:83:ARG:HD3	1.86	0.56
21:U:50:VAL:HG22	21:U:51:LYS:N	2.19	0.56
24:X:105:PHE:HB3	24:X:112:VAL:CG2	2.36	0.56
4:D:123:LEU:HD11	4:D:154:ASP:CB	2.35	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	2.46	0.56
24:X:41:PHE:HZ	24:X:102:VAL:CG1	2.19	0.56
6:F:195:GLU:OE1	6:F:195:GLU:CA	2.49	0.56
8:H:135:PHE:HB3	8:H:136:PRO:HD3	1.87	0.56
17:Q:15:ARG:NH1	17:Q:20:THR:HG21	2.19	0.56
22:V:49:GLN:O	22:V:50:SER:O	2.23	0.56
12:L:6:THR:HG23	12:L:7:GLU:N	2.19	0.56
3:C:49:THR:HG23	3:C:75:GLU:CG	2.36	0.56
3:C:69:PHE:CZ	3:C:247:THR:HG21	2.40	0.56
3:C:55:VAL:CB	3:C:82:PHE:CZ	2.84	0.56
8:H:192:PHE:O	8:H:193:GLN:O	2.23	0.56
1:A:142:LEU:N	22:V:32:ILE:CD1	2.69	0.56
17:Q:19:ALA:CB	17:Q:75:GLY:HA3	2.33	0.56
17:Q:42:ILE:CG2	17:Q:51:LEU:HD23	2.30	0.56
25:Y:44:LEU:HG	25:Y:75:ILE:HD11	1.87	0.56
20:T:77:LYS:CB	20:T:94:ARG:CD	2.48	0.56
13:M:77:ILE:HD12	13:M:79:VAL:HG23	1.88	0.56
13:M:100:PRO:O	13:M:101:ARG:NH1	2.39	0.56
9:I:9:HIS:O	9:I:10:LYS:CG	2.52	0.56
14:N:67:THR:O	14:N:69:ASN:N	2.36	0.56
9:I:136:ILE:O	9:I:139:LYS:CD	2.52	0.56
9:I:142:SER:HB3	9:I:143:LYS:HB2	0.62	0.56
12:L:40:ILE:HG13	12:L:68:ILE:HG13	1.88	0.56
1:A:108:PHE:CE2	1:A:122:LEU:HD11	2.41	0.56
1:A:159:ILE:O	1:A:159:ILE:HG23	2.04	0.56
1:A:77:ILE:HG12	1:A:99:ILE:HB	1.87	0.56
3:C:250:PRO:HA	3:C:253:GLU:HG2	1.88	0.56
3:C:63:LEU:HB3	3:C:67:TYR:CE2	2.40	0.56
6:F:134:VAL:HG12	6:F:136:ARG:NH2	2.19	0.56
4:D:53:THR:HG22	4:D:91:VAL:CB	2.36	0.56
26:Z:105:ALA:O	26:Z:106:GLN:HG3	2.05	0.56
26:Z:99:LEU:CD1	26:Z:102:LYS:HD3	2.35	0.56
4:D:153:VAL:HG12	4:D:154:ASP:N	2.20	0.56
2:B:104:ASP:CG	2:B:105:LEU:H	2.07	0.56
8:H:109:ARG:CZ	8:H:111:LYS:HD2	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:141:LYS:HE3	4:D:179:GLN:NE2	2.21	0.56
4:D:116:ARG:O	4:D:120:TYR:HB2	2.04	0.56
14:N:11:LEU:HD12	14:N:11:LEU:O	2.05	0.56
18:R:62:GLN:HG3	18:R:62:GLN:O	2.06	0.56
7:G:19:ASP:O	7:G:20:ASP:HB2	2.05	0.56
7:G:67:VAL:O	7:G:68:LEU:CB	2.50	0.56
9:I:140:LYS:C	9:I:141:ARG:CG	2.73	0.56
9:I:48:VAL:HG11	9:I:54:LYS:HE3	1.87	0.56
1:A:189:ILE:O	1:A:190:SER:OG	2.22	0.56
6:F:122:ARG:HH21	6:F:193:LYS:HZ1	1.51	0.56
3:C:200:LEU:CD1	3:C:201:MET:SD	2.94	0.56
17:Q:111:ILE:C	17:Q:114:GLN:HG2	2.25	0.56
19:S:120:HIS:CD2	19:S:124:ARG:CD	2.89	0.56
26:Z:99:LEU:HD21	26:Z:102:LYS:HD3	1.79	0.56
10:J:177:ASN:CA	10:J:180:LYS:HB3	2.35	0.56
3:C:166:ARG:O	23:W:96:SER:HB3	2.04	0.56
5:E:38:LEU:HD12	5:E:39:ARG:N	2.15	0.56
8:H:99:ARG:O	8:H:100:ILE:O	2.23	0.56
14:N:114:ARG:HD3	14:N:117:LEU:HD12	1.86	0.56
7:G:176:ILE:CG2	7:G:179:LEU:HB2	2.33	0.56
7:G:211:LYS:O	7:G:215:LYS:HD3	2.06	0.56
12:L:5:GLN:OE1	12:L:10:TYR:HA	2.06	0.56
3:C:43:LYS:HG3	3:C:44:GLU:H	1.71	0.56
3:C:60:ILE:O	3:C:82:PHE:HZ	1.87	0.56
8:H:10:LYS:HE3	8:H:16:PRO:C	2.22	0.56
8:H:158:LEU:HG	8:H:187:PHE:HD1	1.70	0.56
22:V:39:VAL:O	22:V:41:LYS:N	2.34	0.56
16:P:9:LYS:O	16:P:10:ARG:CZ	2.54	0.56
16:P:90:VAL:HG11	16:P:109:PRO:HG3	1.88	0.56
19:S:30:ILE:HG22	19:S:36:VAL:HG21	1.88	0.56
13:M:85:LEU:O	13:M:89:VAL:HG23	2.05	0.56
6:F:81:ARG:HE	6:F:82:ASN:HD21	1.52	0.56
8:H:117:PRO:C	8:H:119:SER:N	2.54	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
7:G:73:VAL:HG12	7:G:74:ARG:N	2.19	0.56
9:I:165:GLN:HE21	9:I:171:LEU:HD22	1.70	0.56
2:B:52:THR:HG22	14:N:53:ILE:HD11	81.94	0.56
15:O:30:VAL:CB	15:O:32:HIS:NE2	2.69	0.56
6:F:18:LYS:NZ	6:F:18:LYS:CB	2.69	0.56
4:D:10:LYS:NZ	21:U:111:GLU:HG2	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:44:ARG:CZ	16:P:84:ILE:HD12	2.24	0.56
5:E:72:ILE:CD1	5:E:82:TYR:CE2	2.88	0.56
10:J:61:LEU:CD1	10:J:94:LEU:HD11	2.33	0.56
16:P:8:LYS:C	16:P:11:THR:HG22	2.24	0.56
14:N:125:LEU:CD1	14:N:129:TYR:CZ	2.89	0.56
2:B:179:ASN:HB3	2:B:183:GLU:HB2	1.88	0.56
17:Q:10:VAL:HG12	17:Q:11:GLN:N	2.21	0.56
4:D:93:THR:HG23	4:D:93:THR:O	2.05	0.56
1:A:7:VAL:HG22	1:A:8:LEU:HD12	1.88	0.56
8:H:12:ASN:ND2	8:H:46:THR:CB	2.67	0.56
17:Q:85:ARG:NH2	17:Q:117:ARG:CG	2.47	0.56
24:X:125:VAL:O	24:X:128:VAL:CA	2.53	0.56
20:T:39:LEU:HD11	20:T:56:ARG:CZ	2.36	0.56
16:P:56:LEU:HD12	16:P:80:LEU:HD12	1.87	0.56
4:D:168:VAL:CG1	4:D:189:MET:SD	2.94	0.56
16:P:17:TYR:H	16:P:25:LEU:HD11	1.71	0.56
26:Z:77:LEU:O	26:Z:78:LYS:CD	2.53	0.56
10:J:78:LEU:HD23	10:J:97:ILE:HD11	1.86	0.56
23:W:128:PHE:C	23:W:128:PHE:CD1	2.78	0.56
4:D:214:LYS:HE2	4:D:214:LYS:O	2.04	0.56
3:C:161:LYS:HD3	22:V:9:VAL:CG1	2.35	0.56
13:M:99:LYS:N	13:M:100:PRO:CD	2.68	0.56
6:F:53:ALA:C	17:Q:125:ARG:HH22	2.08	0.56
7:G:120:ASP:N	7:G:120:ASP:OD1	2.38	0.56
9:I:85:ALA:C	12:L:8:ARG:NH1	2.59	0.56
1:A:94:THR:CG2	1:A:182:VAL:CG2	2.84	0.56
4:D:70:THR:HA	4:D:86:LEU:HD11	1.87	0.56
11:K:53:LYS:HA	11:K:58:VAL:CG1	2.36	0.56
11:K:8:ARG:O	11:K:12:TYR:HD1	1.88	0.56
21:U:40:ILE:HD13	21:U:53:PRO:CG	2.07	0.56
25:Y:20:ARG:HD3	25:Y:76:TYR:CE2	2.40	0.56
3:C:218:LEU:HD12	3:C:219:GLY:CA	2.36	0.56
16:P:121:ILE:CG2	19:S:123:LEU:CD1	2.64	0.56
6:F:15:PRO:HD3	17:Q:56:LEU:CA	2.36	0.56
16:P:89:MET:O	16:P:107:ILE:HD11	2.05	0.56
10:J:17:ARG:CD	10:J:18:ARG:HD3	2.35	0.56
20:T:23:LYS:HE2	20:T:54:TYR:CE2	2.41	0.56
3:C:163:HIS:O	3:C:205:ASP:HB2	2.06	0.56
16:P:30:TYR:O	16:P:34:MET:CG	2.54	0.56
23:W:93:LEU:CG	23:W:93:LEU:O	2.54	0.56
18:R:90:ALA:C	18:R:91:LEU:HD12	2.26	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:33:ARG:CG	13:M:33:ARG:HH11	2.15	0.56
14:N:4:MET:CE	14:N:124:ARG:NH2	2.68	0.56
4:D:175:VAL:HG13	4:D:175:VAL:O	2.05	0.56
20:T:4:VAL:CG2	20:T:136:GLY:HA2	2.36	0.56
1:A:205:ARG:NH1	18:R:82:ASP:HA	2.21	0.56
3:C:229:ILE:CG1	3:C:230:SER:N	2.64	0.56
5:E:205:PHE:CD1	5:E:221:ARG:CZ	2.89	0.56
14:N:71:ILE:O	14:N:75:LEU:HD13	2.06	0.56
5:E:126:VAL:CG2	5:E:129:ILE:CD1	2.84	0.55
7:G:141:ILE:HG21	7:G:153:VAL:HG13	1.87	0.55
1:A:145:ILE:HG23	1:A:159:ILE:CG2	2.36	0.55
1:A:54:THR:HG1	1:A:162:PRO:HG2	1.68	0.55
6:F:134:VAL:HG11	6:F:136:ARG:NH2	2.12	0.55
8:H:169:LYS:CB	8:H:173:PHE:CZ	2.90	0.55
8:H:31:GLU:CD	8:H:41:ARG:HD3	2.25	0.55
11:K:12:TYR:OH	11:K:52:LEU:HD21	2.06	0.55
11:K:53:LYS:HA	11:K:58:VAL:HG13	1.88	0.55
17:Q:85:ARG:CD	17:Q:119:LEU:CD2	2.72	0.55
10:J:170:PRO:HD2	10:J:175:ARG:HD2	1.88	0.55
9:I:98:LYS:HD3	9:I:178:ARG:NE	2.21	0.55
9:I:19:LYS:HE2	9:I:20:PRO:HD3	1.83	0.55
20:T:23:LYS:CD	20:T:54:TYR:CG	2.62	0.55
10:J:88:ASP:O	10:J:91:LYS:CB	2.41	0.55
14:N:139:TRP:HZ3	14:N:141:TYR:N	2.03	0.55
20:T:4:VAL:CB	20:T:8:ASP:HB2	2.36	0.55
16:P:70:MET:HG3	16:P:71:GLU:OE2	2.07	0.55
26:Z:94:LYS:HA	26:Z:94:LYS:HE2	1.88	0.55
17:Q:124:PRO:CG	17:Q:125:ARG:N	2.69	0.55
3:C:262:HIS:ND1	3:C:263:THR:N	2.54	0.55
13:M:59:PRO:HB2	13:M:62:VAL:HG22	1.89	0.55
7:G:135:PRO:CG	7:G:144:LEU:HD22	2.36	0.55
7:G:50:VAL:HG11	7:G:111:LEU:CB	2.35	0.55
6:F:122:ARG:HB2	6:F:123:GLU:OE1	2.06	0.55
1:A:42:LYS:NZ	18:R:102:THR:HG22	2.21	0.55
19:S:89:ASP:O	19:S:90:VAL:HG23	2.05	0.55
20:T:11:GLN:CD	20:T:62:ARG:CZ	2.70	0.55
4:D:222:PRO:C	4:D:223:ILE:CD1	2.74	0.55
18:R:91:LEU:HB2	18:R:93:GLN:H	1.66	0.55
12:L:153:LYS:HA	14:N:131:THR:O	2.06	0.55
25:Y:13:MET:HE3	25:Y:14:THR:H	1.71	0.55
4:D:141:LYS:CE	4:D:179:GLN:NE2	2.69	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:77:GLU:HG3	18:R:80:ARG:NH2	2.20	0.55
5:E:230:LYS:O	5:E:233:LYS:N	2.36	0.55
7:G:176:ILE:HG21	7:G:179:LEU:CG	2.32	0.55
9:I:154:LYS:CE	9:I:154:LYS:O	2.53	0.55
9:I:157:LYS:HB2	12:L:22:ARG:NE	2.20	0.55
12:L:149:ALA:O	12:L:150:GLY:O	2.24	0.55
3:C:141:ILE:CG2	3:C:142:LEU:N	2.69	0.55
6:F:130:ARG:HH11	6:F:135:ARG:HG3	1.71	0.55
8:H:8:ILE:CG2	8:H:9:VAL:H	2.19	0.55
4:D:59:LEU:CG	4:D:60:GLY:N	2.69	0.55
4:D:47:GLU:HG3	4:D:85:GLU:OE2	1.98	0.55
11:K:47:LYS:HD3	11:K:50:GLN:CD	2.26	0.55
16:P:84:ILE:HG22	16:P:86:LEU:CD2	2.35	0.55
20:T:76:THR:CA	20:T:95:GLY:O	2.53	0.55
16:P:22:LEU:HA	16:P:25:LEU:HD12	1.87	0.55
9:I:25:ARG:HB3	9:I:27:TYR:CE2	2.41	0.55
26:Z:92:LEU:CD2	26:Z:109:TYR:CE1	2.85	0.55
4:D:211:VAL:CG2	18:R:39:ALA:N	2.69	0.55
2:B:113:MET:CE	2:B:209:ASP:HB3	2.36	0.55
4:D:214:LYS:O	4:D:214:LYS:HG3	2.07	0.55
3:C:198:LEU:O	3:C:198:LEU:HD23	2.06	0.55
25:Y:37:LYS:CA	25:Y:40:ILE:HG22	2.36	0.55
6:F:182:LYS:NZ	6:F:182:LYS:CB	2.69	0.55
20:T:65:TYR:HE2	20:T:128:GLN:HG3	1.72	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
7:G:36:VAL:CG1	7:G:37:ALA:H	2.14	0.55
12:L:111:VAL:HG23	12:L:140:PHE:C	2.27	0.55
25:Y:120:THR:O	25:Y:122:LYS:N	2.37	0.55
1:A:139:TYR:O	1:A:140:VAL:CG2	2.54	0.55
1:A:180:ARG:NH1	1:A:184:ARG:CZ	2.65	0.55
22:V:40:ASP:HB2	22:V:47:ASN:HD21	1.61	0.55
22:V:55:ILE:HG22	22:V:60:ARG:HG3	1.87	0.55
17:Q:109:LYS:NZ	17:Q:113:ILE:CD1	2.69	0.55
8:H:83:LEU:HD21	8:H:92:VAL:HG11	1.81	0.55
25:Y:46:LYS:O	25:Y:46:LYS:CG	2.54	0.55
1:A:169:HIS:CD2	1:A:203:PHE:CE2	2.95	0.55
4:D:28:GLU:OE1	4:D:28:GLU:HA	2.07	0.55
5:E:71:LYS:HG2	5:E:76:VAL:N	2.21	0.55
9:I:83:TYR:HB3	9:I:101:ILE:HB	1.89	0.55
9:I:48:VAL:HG22	9:I:52:ASN:C	2.26	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:120:THR:HG22	25:Y:122:LYS:HE2	1.88	0.55
1:A:122:LEU:HD12	1:A:137:ALA:HB2	1.88	0.55
3:C:55:VAL:HG21	3:C:82:PHE:HE2	1.63	0.55
8:H:16:PRO:HA	8:H:17:ASP:CB	2.26	0.55
4:D:46:THR:CB	4:D:79:PHE:CZ	2.89	0.55
6:F:18:LYS:HB3	6:F:18:LYS:NZ	2.18	0.55
11:K:41:PRO:CD	11:K:43:LEU:HG	2.36	0.55
16:P:49:LEU:HD12	16:P:50:ARG:H	1.71	0.55
4:D:212:GLU:HG2	18:R:19:LYS:HZ3	1.72	0.55
3:C:157:ASN:N	3:C:157:ASN:HD22	1.98	0.55
20:T:75:MET:HA	20:T:78:ILE:HG22	1.89	0.55
20:T:64:LEU:H	20:T:64:LEU:HD23	1.69	0.55
5:E:181:CYS:SG	5:E:225:ILE:HG23	2.46	0.55
7:G:67:VAL:CG2	7:G:100:CYS:H	2.20	0.55
1:A:5:LEU:HB2	22:V:41:LYS:NZ	2.22	0.55
1:A:71:PRO:HB2	1:A:95:GLY:HA3	1.88	0.55
2:B:68:GLU:OE2	2:B:83:LYS:CE	2.45	0.55
6:F:46:ALA:O	6:F:47:LYS:CD	2.39	0.55
20:T:38:LYS:HD2	20:T:46:ALA:CA	2.37	0.55
4:D:132:LYS:N	4:D:191:PRO:HG2	2.17	0.55
25:Y:63:HIS:HB2	25:Y:68:LYS:HD3	1.88	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
20:T:16:ARG:CG	20:T:16:ARG:NH1	2.65	0.55
2:B:105:LEU:HG	2:B:213:ARG:O	2.06	0.55
7:G:25:ARG:O	7:G:26:THR:C	2.45	0.55
2:B:76:ASN:O	2:B:76:ASN:CG	2.39	0.55
15:O:52:THR:C	15:O:53:ILE:HG23	2.16	0.55
3:C:196:LYS:HD2	3:C:200:LEU:CD2	2.37	0.55
4:D:58:VAL:HG23	4:D:59:LEU:N	2.21	0.55
6:F:68:ILE:HG13	6:F:69:VAL:N	2.21	0.55
4:D:76:ARG:CZ	11:K:66:HIS:NE2	2.69	0.55
10:J:164:PRO:C	10:J:165:TYR:HD1	2.10	0.55
10:J:34:GLU:CB	10:J:35:TYR:CD2	2.89	0.55
24:X:27:TYR:CD2	24:X:31:HIS:CD2	2.95	0.55
11:K:14:LEU:CG	11:K:35:LEU:HD21	2.36	0.55
25:Y:33:ALA:C	25:Y:34:THR:HG1	2.08	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
24:X:28:LYS:CE	24:X:32:LEU:HD11	2.37	0.55
14:N:76:LYS:C	14:N:76:LYS:CD	2.75	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:136:ILE:N	5:E:136:ILE:CD1	2.69	0.55
7:G:164:LYS:O	7:G:164:LYS:HG3	2.06	0.55
7:G:188:LYS:HA	7:G:191:ARG:CG	2.37	0.55
7:G:227:GLN:HA	7:G:230:LYS:NZ	2.21	0.55
9:I:54:LYS:CG	9:I:181:GLN:O	2.54	0.55
3:C:149:PRO:CB	3:C:233:TYR:CD2	2.80	0.55
8:H:6:ALA:HA	8:H:10:LYS:CG	2.34	0.55
17:Q:53:GLU:O	17:Q:57:LEU:HG	2.07	0.55
24:X:125:VAL:C	24:X:127:ASN:N	2.54	0.55
8:H:50:GLU:OE2	8:H:90:LYS:CE	2.55	0.55
19:S:55:ARG:CG	26:Z:48:VAL:HG11	2.33	0.55
13:M:13:ASP:HB2	13:M:16:THR:OG1	2.04	0.55
5:E:129:ILE:HG23	5:E:139:LEU:HD23	1.88	0.55
5:E:153:LEU:CD1	5:E:172:PHE:HZ	1.94	0.55
7:G:135:PRO:CD	7:G:144:LEU:CD2	2.85	0.55
7:G:170:ARG:HD2	7:G:172:LYS:HG2	1.88	0.55
1:A:106:GLY:O	1:A:110:ASN:HB2	2.07	0.55
1:A:106:GLY:HA3	1:A:110:ASN:HD22	1.70	0.55
2:B:107:ARG:NH1	15:O:133:THR:O	2.40	0.55
4:D:4:GLN:O	4:D:5:ILE:HG13	2.07	0.55
4:D:74:GLN:HE22	4:D:75:LYS:CE	2.10	0.55
4:D:79:PHE:CE1	4:D:83:SER:HB3	2.42	0.55
5:E:69:PHE:CZ	25:Y:17:LEU:HA	2.42	0.55
25:Y:50:THR:CG2	25:Y:75:ILE:HG21	2.36	0.55
16:P:53:GLN:CG	16:P:56:LEU:HD12	2.37	0.55
3:C:240:LEU:HD12	3:C:240:LEU:N	2.21	0.55
13:M:101:ARG:O	13:M:103:VAL:HG23	2.07	0.55
14:N:124:ARG:O	14:N:127:ARG:HG2	2.06	0.55
14:N:4:MET:CE	14:N:124:ARG:HH22	2.19	0.55
2:B:124:HIS:HD2	2:B:136:HIS:CE1	2.20	0.55
3:C:198:LEU:HD13	3:C:225:THR:CG2	2.36	0.55
2:B:120:MET:CE	2:B:142:PHE:HZ	2.20	0.55
7:G:159:ARG:HH22	7:G:161:PRO:N	2.05	0.55
9:I:117:TYR:HE1	9:I:155:ASN:ND2	2.05	0.55
9:I:66:SER:HA	9:I:73:THR:HA	1.89	0.55
12:L:59:LYS:CE	12:L:134:LEU:HD21	2.37	0.55
1:A:141:ASN:HA	22:V:32:ILE:HD11	1.89	0.55
4:D:77:PHE:O	4:D:79:PHE:N	2.40	0.55
19:S:36:VAL:HA	19:S:40:TYR:CD2	2.42	0.55
18:R:1:MET:O	18:R:2:GLY:C	2.40	0.55
26:Z:112:ASN:N	26:Z:112:ASN:OD1	2.28	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:61:GLU:HB3	26:Z:65:TYR:OH	2.07	0.55
10:J:81:LEU:HD12	10:J:97:ILE:CD1	2.37	0.55
18:R:22:THR:CG2	18:R:73:LEU:CD1	2.72	0.55
14:N:92:ILE:HG22	14:N:150:VAL:HG23	1.86	0.55
20:T:111:LYS:HB3	20:T:126:GLN:HE21	1.68	0.55
2:B:138:PHE:CD2	2:B:138:PHE:N	2.74	0.55
20:T:14:PHE:HZ	20:T:131:LEU:CD1	2.20	0.55
5:E:100:ARG:CG	5:E:102:ILE:CD1	2.85	0.54
1:A:186:ARG:O	1:A:186:ARG:NH1	2.39	0.54
3:C:197:LYS:HG3	3:C:200:LEU:HD21	1.89	0.54
4:D:23:GLU:CB	11:K:64:TRP:HE1	2.20	0.54
13:M:27:ILE:HG23	13:M:28:HIS:N	2.22	0.54
24:X:52:LEU:CD1	24:X:71:ARG:HB2	2.36	0.54
16:P:93:MET:SD	16:P:106:GLU:CA	2.96	0.54
26:Z:92:LEU:HD21	26:Z:109:TYR:HE1	1.69	0.54
3:C:154:TYR:CZ	3:C:161:LYS:CA	2.86	0.54
20:T:40:ALA:CA	20:T:43:LYS:HG2	2.35	0.54
22:V:35:ASN:OD1	22:V:52:THR:HB	2.07	0.54
7:G:122:PRO:HD2	7:G:123:GLY:N	2.22	0.54
9:I:191:GLU:CG	9:I:192:GLY:N	2.70	0.54
1:A:173:LEU:O	1:A:177:MET:HG2	2.07	0.54
8:H:11:PRO:HG2	8:H:12:ASN:H	1.71	0.54
1:A:57:LYS:HZ3	22:V:70:LEU:HG	1.71	0.54
20:T:38:LYS:O	20:T:39:LEU:HB3	2.08	0.54
16:P:83:MET:CE	16:P:116:LEU:CD1	2.78	0.54
19:S:55:ARG:HG3	26:Z:48:VAL:CG1	2.34	0.54
23:W:93:LEU:CD2	23:W:128:PHE:HD2	2.10	0.54
23:W:128:PHE:HD1	23:W:129:PHE:CA	2.20	0.54
2:B:153:THR:O	2:B:154:SER:CB	2.54	0.54
15:O:74:ALA:HB3	15:O:114:SER:OG	2.07	0.54
2:B:195:LYS:CA	2:B:195:LYS:HE2	2.37	0.54
20:T:9:VAL:CG1	20:T:13:GLU:HG3	2.37	0.54
14:N:2:GLY:O	14:N:3:ARG:CB	2.55	0.54
9:I:148:LYS:CE	9:I:152:ARG:NH2	2.71	0.54
9:I:63:GLY:O	9:I:75:LYS:HG2	2.06	0.54
1:A:30:LEU:HD13	1:A:38:ILE:HD13	1.68	0.54
6:F:143:PRO:HA	6:F:146:ARG:HG3	1.88	0.54
8:H:157:HIS:O	8:H:158:LEU:CD2	2.55	0.54
17:Q:115:TYR:HE2	17:Q:119:LEU:HD11	1.72	0.54
5:E:46:ILE:O	5:E:50:ASN:HB2	2.07	0.54
16:P:77:LYS:O	16:P:78:THR:HG22	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:205:TYR:CG	2:B:206:PRO:CD	2.82	0.54
4:D:214:LYS:O	4:D:215:ASP:CG	2.46	0.54
6:F:36:GLN:C	6:F:37:ASP:CG	2.63	0.54
14:N:116:ILE:CA	14:N:119:GLU:HG3	2.38	0.54
5:E:143:ASP:OD2	5:E:145:ARG:HD2	2.07	0.54
25:Y:37:LYS:HA	25:Y:40:ILE:HG22	1.89	0.54
7:G:64:LYS:CD	7:G:65:GLN:O	2.56	0.54
12:L:101:ARG:NH1	24:X:5:ARG:HA	2.18	0.54
1:A:5:LEU:HD13	1:A:5:LEU:C	2.27	0.54
2:B:31:TYR:CE1	2:B:94:LYS:CA	2.90	0.54
8:H:37:LYS:O	8:H:38:ALA:HB3	2.07	0.54
6:F:133:THR:OG1	15:O:66:ARG:HD2	2.06	0.54
25:Y:54:VAL:HG13	25:Y:76:TYR:N	2.18	0.54
16:P:10:ARG:NH2	16:P:11:THR:CB	2.30	0.54
24:X:27:TYR:CD1	24:X:31:HIS:CD2	2.94	0.54
12:L:17:PHE:CZ	12:L:19:ASN:OD1	2.61	0.54
10:J:82:VAL:HG13	10:J:92:MET:HE3	1.89	0.54
16:P:127:LYS:O	16:P:127:LYS:CG	2.54	0.54
20:T:111:LYS:CG	20:T:126:GLN:HE22	2.19	0.54
13:M:71:GLU:C	13:M:72:HIS:O	2.42	0.54
5:E:143:ASP:OD2	5:E:145:ARG:CD	2.55	0.54
2:B:98:THR:O	2:B:232:HIS:HE1	1.91	0.54
20:T:14:PHE:CZ	20:T:131:LEU:HD12	2.42	0.54
5:E:97:GLU:HB2	5:E:99:PHE:CE2	2.42	0.54
7:G:177:GLN:CG	7:G:178:ARG:H	2.21	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:118:GLU:CD	3:C:50:LYS:NZ	2.61	0.54
15:O:31:CYS:SG	15:O:95:ILE:CG1	2.95	0.54
6:F:18:LYS:O	6:F:46:ALA:HB1	2.08	0.54
11:K:85:LEU:HD13	11:K:89:ILE:CG1	2.37	0.54
20:T:77:LYS:O	20:T:92:PHE:HZ	1.91	0.54
19:S:54:LYS:HB3	19:S:55:ARG:H	1.72	0.54
19:S:81:ASP:OD2	19:S:95:TYR:HD2	1.88	0.54
8:H:122:LEU:CD1	8:H:123:THR:CA	2.71	0.54
23:W:101:PHE:CD2	23:W:129:PHE:HE1	2.26	0.54
21:U:25:THR:HG22	21:U:86:LYS:CG	2.34	0.54
14:N:139:TRP:CE3	14:N:140:LYS:C	2.81	0.54
25:Y:46:LYS:O	25:Y:47:MET:HG2	2.07	0.54
21:U:54:VAL:O	21:U:56:MET:SD	2.65	0.54
5:E:165:GLU:OE2	5:E:165:GLU:HA	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:43:LYS:HE3	3:C:43:LYS:C	2.28	0.54
2:B:67:PHE:HD1	15:O:47:LEU:CB	2.19	0.54
3:C:197:LYS:CG	3:C:200:LEU:HD21	2.36	0.54
17:Q:50:LYS:HZ1	17:Q:85:ARG:HH22	1.48	0.54
10:J:164:PRO:HB2	10:J:165:TYR:CD1	2.43	0.54
16:P:97:TYR:OH	16:P:100:LYS:HA	2.08	0.54
10:J:17:ARG:HG3	10:J:18:ARG:HG2	1.77	0.54
13:M:12:MET:CE	13:M:17:ALA:O	2.40	0.54
3:C:236:LEU:HD23	3:C:236:LEU:C	2.27	0.54
25:Y:10:ARG:CD	25:Y:24:VAL:HG11	2.33	0.54
12:L:83:GLN:O	12:L:83:GLN:HG2	2.06	0.54
1:A:205:ARG:HH12	18:R:82:ASP:HA	1.73	0.54
14:N:7:PRO:HD2	14:N:8:GLY:N	2.23	0.54
14:N:64:ARG:O	14:N:67:THR:O	2.25	0.54
7:G:24:LEU:O	7:G:25:ARG:C	2.45	0.54
7:G:55:GLY:HA2	7:G:110:ASN:ND2	2.23	0.54
7:G:64:LYS:HD2	7:G:67:VAL:HG13	1.88	0.54
9:I:201:LYS:NZ	12:L:8:ARG:HA	2.23	0.54
1:A:18:PHE:CZ	1:A:55:TRP:CZ3	2.96	0.54
1:A:193:HIS:CB	1:A:194:PRO:CD	2.84	0.54
3:C:50:LYS:HG3	3:C:258:LEU:HD13	1.89	0.54
6:F:133:THR:O	6:F:135:ARG:HG2	2.08	0.54
8:H:166:VAL:CG2	8:H:173:PHE:HE2	2.13	0.54
15:O:28:PHE:CE1	15:O:92:ALA:HB1	2.43	0.54
2:B:67:PHE:CZ	15:O:48:SER:HB3	2.43	0.54
4:D:76:ARG:CD	11:K:66:HIS:ND1	2.66	0.54
11:K:43:LEU:O	11:K:45:VAL:CA	2.51	0.54
11:K:43:LEU:H	11:K:46:MET:HB3	1.73	0.54
17:Q:34:VAL:HG21	17:Q:39:LEU:HD23	1.76	0.54
26:Z:103:HIS:CD2	26:Z:105:ALA:CA	2.90	0.54
10:J:134:HIS:CE1	10:J:163:SER:HB3	2.34	0.54
24:X:128:VAL:O	24:X:129:SER:OG	2.24	0.54
2:B:160:GLN:HE22	2:B:205:TYR:HE1	1.49	0.54
16:P:39:ALA:HA	16:P:42:ARG:CG	2.37	0.54
8:H:100:ILE:HG13	8:H:125:VAL:HG21	1.87	0.54
25:Y:5:VAL:O	25:Y:6:THR:CB	2.56	0.54
5:E:71:LYS:HG2	5:E:76:VAL:H	1.72	0.54
1:A:180:ARG:O	1:A:184:ARG:HG3	2.06	0.54
1:A:141:ASN:HD21	22:V:29:HIS:HA	1.72	0.54
11:K:39:ASN:C	11:K:40:VAL:HG12	2.28	0.54
11:K:14:LEU:CD1	11:K:35:LEU:HD11	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:46:ASN:HB3	26:Z:80:ARG:HA	1.90	0.54
10:J:16:PRO:C	10:J:18:ARG:H	2.09	0.54
8:H:122:LEU:HD13	8:H:123:THR:HA	1.87	0.54
14:N:38:TYR:CE1	14:N:78:LYS:NZ	2.76	0.54
18:R:95:ILE:N	18:R:114:LEU:HD13	2.23	0.54
7:G:43:GLU:O	7:G:44:GLU:C	2.46	0.54
1:A:154:LEU:CD1	22:V:63:GLY:CA	2.85	0.54
2:B:26:SER:C	2:B:27:LYS:HG3	2.23	0.54
3:C:59:LYS:HD2	3:C:254:PHE:HE1	1.73	0.54
15:O:31:CYS:SG	15:O:95:ILE:HG12	2.47	0.54
6:F:15:PRO:HD3	17:Q:56:LEU:HA	1.88	0.54
16:P:108:LYS:HZ1	19:S:118:ARG:NH1	2.06	0.54
3:C:101:THR:HG22	3:C:103:ALA:O	1.93	0.54
21:U:86:LYS:C	21:U:87:ARG:HG2	2.28	0.54
2:B:178:THR:O	2:B:179:ASN:CB	2.56	0.54
18:R:87:GLU:O	18:R:88:VAL:CB	2.56	0.54
2:B:37:ALA:O	2:B:38:MET:C	2.42	0.54
23:W:10:ALA:O	23:W:13:SER:OG	2.22	0.54
5:E:150:PRO:C	5:E:151:ASP:OD2	2.47	0.54
9:I:141:ARG:HB3	9:I:144:LYS:HG2	1.90	0.54
9:I:174:CYS:HB2	9:I:190:LEU:HD21	1.90	0.54
17:Q:7:LEU:CD2	17:Q:8:GLN:H	2.17	0.54
17:Q:98:LYS:CE	17:Q:99:TYR:CE2	2.91	0.54
1:A:48:ILE:HD13	18:R:105:MET:CG	2.36	0.54
2:B:49:VAL:HG22	2:B:65:ARG:HH12	1.72	0.54
22:V:24:ILE:CD1	22:V:25:GLY:CA	2.85	0.54
6:F:42:LYS:HD3	6:F:42:LYS:C	2.09	0.54
17:Q:18:THR:C	17:Q:75:GLY:CA	2.76	0.54
4:D:50:ILE:HG22	21:U:82:MET:HE1	21.90	0.54
20:T:31:PRO:CD	20:T:102:ARG:HG3	2.38	0.54
20:T:39:LEU:HD21	20:T:56:ARG:HH21	1.72	0.54
13:M:12:MET:CG	13:M:17:ALA:N	2.71	0.54
3:C:154:TYR:CE1	3:C:162:PRO:CD	2.91	0.54
20:T:143:LYS:O	20:T:144:LYS:CB	2.45	0.54
26:Z:74:SER:CA	26:Z:79:ILE:HG22	2.33	0.54
6:F:78:MET:HB2	6:F:159:ARG:NH2	2.22	0.54
17:Q:124:PRO:CD	17:Q:125:ARG:H	2.21	0.54
17:Q:144:SER:O	17:Q:145:TYR:CB	2.55	0.54
7:G:153:VAL:HG12	7:G:154:ARG:N	2.23	0.53
7:G:76:LEU:HD13	7:G:92:ARG:HD2	1.90	0.53
12:L:96:ILE:HD13	12:L:102:PHE:HA	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:97:ARG:O	12:L:99:TYR:C	2.47	0.53
1:A:179:ALA:HA	1:A:182:VAL:HG22	1.90	0.53
1:A:32:PHE:HA	1:A:35:GLU:OE1	2.08	0.53
3:C:55:VAL:HG22	3:C:82:PHE:CZ	2.42	0.53
3:C:89:ASP:HB3	3:C:115:ILE:CG1	2.39	0.53
13:M:44:LYS:C	13:M:46:GLN:H	2.12	0.53
21:U:104:ILE:O	21:U:106:ILE:HG22	2.08	0.53
21:U:111:GLU:CA	21:U:111:GLU:OE1	2.49	0.53
10:J:110:LEU:HD11	10:J:135:ILE:CD1	2.38	0.53
19:S:121:ARG:CG	19:S:131:VAL:CG1	2.82	0.53
23:W:42:MET:HE3	23:W:50:PHE:CE2	2.42	0.53
8:H:60:ILE:HG23	8:H:60:ILE:O	2.06	0.53
19:S:137:LYS:O	19:S:141:ARG:CZ	2.57	0.53
21:U:18:HIS:CE1	21:U:98:VAL:HG22	2.39	0.53
19:S:22:GLY:O	19:S:57:GLY:N	2.35	0.53
5:E:124:CYS:HB2	5:E:162:ILE:CD1	2.39	0.53
9:I:48:VAL:CG1	9:I:54:LYS:HE3	2.38	0.53
1:A:132:GLN:N	1:A:133:PRO:HD3	2.22	0.53
8:H:31:GLU:O	8:H:37:LYS:HB2	2.08	0.53
4:D:29:LEU:O	4:D:32:ASP:HB2	2.08	0.53
11:K:85:LEU:HD13	11:K:89:ILE:HD11	1.90	0.53
25:Y:20:ARG:CD	25:Y:76:TYR:CZ	2.84	0.53
25:Y:82:ALA:O	25:Y:86:GLU:HB2	2.09	0.53
16:P:4:VAL:HG22	16:P:10:ARG:HD2	1.91	0.53
26:Z:65:TYR:HD2	26:Z:68:ILE:CD1	2.21	0.53
16:P:49:LEU:HD13	16:P:51:ARG:CZ	2.32	0.53
25:Y:99:LYS:O	25:Y:100:LYS:O	2.25	0.53
16:P:39:ALA:O	16:P:42:ARG:CG	2.56	0.53
20:T:85:ASN:ND2	20:T:91:HIS:HD2	2.06	0.53
18:R:42:PRO:HD3	18:R:46:LEU:HD23	1.89	0.53
5:E:205:PHE:CE1	5:E:221:ARG:CZ	2.90	0.53
5:E:153:LEU:CD1	5:E:172:PHE:CE1	2.72	0.53
5:E:154:ILE:CG2	5:E:160:ILE:HD11	2.39	0.53
9:I:138:ASN:O	9:I:139:LYS:C	2.47	0.53
9:I:144:LYS:CD	9:I:144:LYS:H	2.22	0.53
25:Y:117:VAL:HB	25:Y:124:ASN:ND2	2.24	0.53
1:A:149:ASN:H	1:A:165:ASN:HD21	1.57	0.53
14:N:27:LYS:C	14:N:27:LYS:HD2	2.25	0.53
22:V:19:ALA:O	23:W:23:ARG:CZ	2.57	0.53
3:C:70:SER:C	22:V:29:HIS:HE1	2.07	0.53
23:W:17:ALA:HB2	23:W:25:VAL:HG11	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:3:MET:SD	11:K:8:ARG:CZ	2.91	0.53
21:U:53:PRO:O	21:U:53:PRO:HD2	2.08	0.53
20:T:76:THR:OG1	20:T:94:ARG:HD2	2.08	0.53
23:W:42:MET:CE	23:W:50:PHE:HD2	2.10	0.53
19:S:26:ILE:CD1	19:S:59:LEU:CD2	2.81	0.53
9:I:6:ASP:OD2	9:I:8:TRP:CG	2.62	0.53
4:D:162:ASP:OD1	4:D:162:ASP:O	2.27	0.53
25:Y:91:LEU:C	25:Y:97:TYR:CB	2.77	0.53
13:M:77:ILE:HD12	13:M:78:LYS:O	2.09	0.53
10:J:138:ARG:HD3	10:J:156:HIS:ND1	2.22	0.53
20:T:18:LEU:HB2	20:T:134:ILE:HD12	1.86	0.53
20:T:5:THR:HG23	20:T:7:LYS:HB2	1.90	0.53
2:B:125:VAL:CG1	2:B:173:THR:HG22	2.28	0.53
3:C:134:THR:HG23	3:C:135:ALA:N	2.23	0.53
4:D:39:VAL:O	4:D:39:VAL:HG13	2.07	0.53
6:F:192:LYS:HD2	6:F:192:LYS:O	2.08	0.53
5:E:100:ARG:NH2	5:E:122:LYS:HA	2.23	0.53
1:A:149:ASN:CB	1:A:165:ASN:ND2	2.69	0.53
1:A:193:HIS:CG	1:A:194:PRO:HD2	2.42	0.53
18:R:100:PRO:CA	18:R:103:LYS:HB2	2.09	0.53
6:F:113:VAL:CG1	6:F:114:ASN:N	2.72	0.53
11:K:47:LYS:CD	11:K:50:GLN:NE2	2.72	0.53
6:F:95:HIS:NE2	26:Z:103:HIS:CB	2.71	0.53
10:J:37:LEU:HG	10:J:38:ARG:H	1.73	0.53
24:X:91:LEU:O	24:X:94:ILE:N	2.31	0.53
20:T:77:LYS:O	20:T:92:PHE:CZ	2.61	0.53
19:S:34:LYS:HD3	19:S:34:LYS:N	2.22	0.53
2:B:87:ILE:CD1	2:B:101:HIS:CD2	2.62	0.53
18:R:16:ILE:O	18:R:20:TYR:HB2	2.07	0.53
19:S:15:VAL:HG12	19:S:16:LEU:N	2.20	0.53
23:W:128:PHE:CD1	23:W:129:PHE:HA	2.43	0.53
13:M:93:LYS:O	13:M:95:ASP:OD1	2.27	0.53
6:F:79:HIS:O	6:F:82:ASN:N	2.41	0.53
6:F:53:ALA:C	17:Q:125:ARG:NH2	2.61	0.53
2:B:232:HIS:O	2:B:233:GLY:O	2.27	0.53
5:E:206:ASP:O	5:E:222:LEU:N	2.41	0.53
5:E:180:LEU:CD1	5:E:228:ILE:HG13	2.39	0.53
7:G:3:LEU:CD2	7:G:109:LEU:HB2	2.38	0.53
7:G:64:LYS:HE3	7:G:65:GLN:O	2.08	0.53
9:I:149:TYR:HD1	9:I:152:ARG:NH1	2.05	0.53
12:L:157:LYS:O	12:L:158:PHE:CG	2.61	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:40:ILE:CD1	12:L:68:ILE:HB	2.22	0.53
1:A:76:VAL:HG12	1:A:87:VAL:HB	1.90	0.53
3:C:68:LEU:O	22:V:15:ARG:NE	2.39	0.53
22:V:55:ILE:HG21	22:V:60:ARG:HG2	1.90	0.53
2:B:87:ILE:HD12	2:B:220:LYS:NZ	2.22	0.53
17:Q:24:HIS:NE2	17:Q:69:ARG:CB	2.68	0.53
17:Q:63:PHE:CD1	17:Q:68:ILE:CD1	2.91	0.53
5:E:259:LYS:CG	5:E:260:GLN:OE1	2.56	0.53
6:F:166:ILE:H	6:F:166:ILE:CD1	2.19	0.53
7:G:58:LYS:HG2	7:G:105:ASN:O	2.09	0.53
1:A:105:PRO:HA	1:A:136:GLU:OE2	2.08	0.53
1:A:154:LEU:O	1:A:154:LEU:CD1	2.43	0.53
6:F:138:ALA:CB	6:F:204:ARG:HB3	2.39	0.53
15:O:30:VAL:HG21	15:O:32:HIS:NE2	2.23	0.53
15:O:34:PHE:CE1	15:O:99:ALA:C	2.81	0.53
24:X:94:ILE:CD1	24:X:122:VAL:HG11	2.37	0.53
11:K:14:LEU:HD22	11:K:35:LEU:CD1	2.37	0.53
26:Z:58:LEU:CD2	26:Z:77:LEU:HD11	2.38	0.53
14:N:84:LEU:HB2	14:N:88:LEU:HD23	1.91	0.53
10:J:147:PHE:CE2	10:J:149:VAL:HA	2.44	0.53
3:C:174:GLY:O	3:C:175:SER:CB	2.55	0.53
4:D:167:TYR:CE2	4:D:204:LEU:CD2	2.92	0.53
6:F:175:ASP:C	6:F:175:ASP:OD1	2.47	0.53
5:E:192:ILE:HD13	5:E:238:LEU:HD22	1.91	0.53
5:E:98:ASN:ND2	5:E:114:ILE:CG1	2.72	0.53
7:G:162:LEU:HD21	7:G:170:ARG:HB2	1.88	0.53
7:G:226:GLU:O	7:G:230:LYS:HG2	2.08	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
1:A:159:ILE:HD12	1:A:160:ALA:N	2.24	0.53
1:A:16:LEU:HD11	18:R:111:PHE:CZ	2.42	0.53
11:K:27:VAL:CB	11:K:43:LEU:CD2	2.82	0.53
16:P:15:PHE:HD2	16:P:110:GLU:OE2	1.91	0.53
19:S:11:HIS:O	19:S:12:ILE:HB	2.09	0.53
9:I:5:ARG:CG	9:I:5:ARG:NH1	2.65	0.53
12:L:31:GLU:HG2	12:L:32:LYS:N	2.23	0.53
20:T:83:GLN:NE2	20:T:85:ASN:CA	2.72	0.53
25:Y:5:VAL:O	25:Y:6:THR:OG1	2.19	0.53
1:A:66:VAL:HG11	22:V:46:PHE:HB3	1.90	0.53
15:O:28:PHE:HB3	15:O:47:LEU:HD11	1.89	0.53
4:D:34:TYR:OH	4:D:37:VAL:HG13	2.08	0.53

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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	0.53
24:X:126:ALA:O	24:X:128:VAL:HG23	2.08	0.53
25:Y:18:LEU:CB	25:Y:20:ARG:CZ	2.79	0.53
25:Y:54:VAL:HG13	25:Y:76:TYR:H	1.71	0.53
19:S:120:HIS:CD2	19:S:120:HIS:C	2.81	0.53
19:S:88:LYS:N	19:S:95:TYR:CD1	2.72	0.53
26:Z:66:LYS:O	26:Z:110:THR:HA	2.08	0.53
4:D:210:ILE:HD11	18:R:15:VAL:CG1	2.29	0.53
13:M:51:VAL:CG1	13:M:109:VAL:HG23	2.39	0.53
13:M:95:ASP:O	13:M:96:ARG:HG2	2.09	0.53
10:J:179:LYS:HA	10:J:182:GLN:CD	2.29	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
20:T:14:PHE:HZ	20:T:131:LEU:HD12	1.74	0.53
7:G:28:TYR:C	7:G:30:LYS:H	2.13	0.53
9:I:155:ASN:ND2	9:I:156:ALA:CA	2.70	0.53
12:L:156:GLN:OE1	12:L:158:PHE:CZ	2.58	0.53
3:C:73:ILE:HG23	3:C:73:ILE:O	2.08	0.53
6:F:130:ARG:HB3	6:F:135:ARG:H	1.74	0.53
3:C:55:VAL:CB	6:F:34:SER:HB3	87.03	0.53
8:H:40:LEU:HD11	8:H:75:ILE:HD13	1.90	0.53
10:J:130:ILE:CG1	10:J:135:ILE:CD1	2.81	0.53
9:I:69:SER:HB3	12:L:19:ASN:OD1	2.08	0.53
26:Z:99:LEU:CD2	26:Z:109:TYR:CZ	2.89	0.53
2:B:140:VAL:O	2:B:210:VAL:HA	2.09	0.53
24:X:105:PHE:CD2	24:X:119:ARG:C	2.82	0.53
20:T:16:ARG:NH1	20:T:16:ARG:HG2	2.23	0.53
13:M:76:LEU:C	13:M:128:PHE:CZ	2.82	0.53
4:D:177:LEU:HD12	4:D:178:ARG:HH21	1.72	0.53
2:B:19:LYS:HG3	2:B:19:LYS:O	2.09	0.53
20:T:83:GLN:NE2	20:T:85:ASN:N	2.56	0.53
20:T:123:LEU:H	20:T:123:LEU:CD2	2.22	0.53
2:B:225:LEU:HB3	2:B:229:MET:HE1	1.91	0.53
5:E:166:THR:OG1	5:E:168:LYS:HG2	2.07	0.53
5:E:163:ASP:HB3	5:E:167:GLY:O	2.09	0.53
5:E:87:MET:CE	5:E:182:MET:HE1	2.37	0.53
12:L:86:ILE:CG2	12:L:113:LEU:HD12	2.38	0.53
3:C:55:VAL:HG13	3:C:82:PHE:CD2	2.21	0.53
6:F:38:TYR:N	6:F:38:TYR:CD2	2.75	0.53
8:H:35:ASP:C	8:H:37:LYS:H	2.09	0.53
3:C:72:PRO:HA	22:V:29:HIS:NE2	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:1:MET:H2	11:K:2:LEU:C	2.12	0.53
5:E:45:ILE:HG23	5:E:46:ILE:N	2.24	0.53
24:X:126:ALA:HB1	24:X:128:VAL:HB	1.83	0.53
16:P:4:VAL:O	16:P:4:VAL:CG1	2.50	0.53
19:S:124:ARG:HB2	19:S:131:VAL:HG22	1.90	0.53
16:P:51:ARG:O	16:P:52:LYS:HB2	2.07	0.53
14:N:4:MET:SD	14:N:124:ARG:NH1	2.82	0.53
20:T:123:LEU:H	20:T:123:LEU:HD23	1.74	0.53
17:Q:143:LYS:HG2	17:Q:145:TYR:H	1.74	0.53
5:E:122:LYS:CG	5:E:164:LEU:CD2	2.80	0.52
5:E:71:LYS:O	5:E:90:ILE:HA	2.09	0.52
12:L:86:ILE:CG1	12:L:111:VAL:HG13	2.39	0.52
1:A:76:VAL:HG13	1:A:175:TRP:CZ2	2.37	0.52
2:B:214:LYS:HG2	2:B:215:VAL:N	2.23	0.52
8:H:61:ILE:HG12	8:H:95:ILE:HD12	1.91	0.52
5:E:49:ARG:O	5:E:49:ARG:CD	2.42	0.52
20:T:72:VAL:O	20:T:76:THR:HG23	2.09	0.52
16:P:90:VAL:HA	16:P:107:ILE:HG13	1.91	0.52
26:Z:107:VAL:HB	26:Z:109:TYR:CE2	2.44	0.52
3:C:101:THR:HG23	3:C:103:ALA:C	2.28	0.52
25:Y:92:ALA:C	25:Y:97:TYR:O	2.47	0.52
13:M:31:LEU:HD11	13:M:109:VAL:CB	2.38	0.52
14:N:135:LEU:HD22	14:N:139:TRP:CD1	2.43	0.52
1:A:202:TYR:C	1:A:203:PHE:CD1	2.82	0.52
24:X:62:PRO:HD2	24:X:63:ASN:N	2.23	0.52
12:L:80:MET:CG	12:L:86:ILE:HG22	2.36	0.52
1:A:16:LEU:CB	1:A:17:LYS:HE2	2.39	0.52
1:A:190:SER:O	1:A:191:ARG:CB	2.58	0.52
1:A:52:LYS:HB3	1:A:52:LYS:HZ2	1.73	0.52
11:K:27:VAL:O	11:K:28:HIS:CG	2.63	0.52
17:Q:112:LEU:CD2	17:Q:119:LEU:CD1	2.72	0.52
17:Q:43:GLU:HG2	17:Q:45:ARG:CB	2.37	0.52
3:C:187:THR:OG1	3:C:206:ASP:HB3	2.09	0.52
24:X:51:VAL:CG1	24:X:70:VAL:HG13	2.32	0.52
19:S:23:ARG:O	19:S:55:ARG:HD2	2.09	0.52
6:F:167:LYS:HE3	6:F:171:GLU:HG3	1.89	0.52
4:D:199:GLY:O	4:D:201:LYS:N	2.37	0.52
3:C:99:LYS:NZ	3:C:100:GLN:O	2.38	0.52
18:R:61:ILE:CG2	18:R:74:GLN:NE2	2.72	0.52
12:L:117:PHE:CD2	12:L:145:VAL:HG23	2.44	0.52
24:X:5:ARG:NH2	24:X:5:ARG:CG	2.72	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:250:PRO:O	3:C:254:PHE:HD2	1.93	0.52
1:A:141:ASN:CA	22:V:32:ILE:HG13	2.19	0.52
17:Q:84:ILE:HG13	17:Q:85:ARG:N	2.24	0.52
25:Y:54:VAL:O	25:Y:54:VAL:CG1	2.57	0.52
19:S:39:ARG:HH21	20:T:38:LYS:HZ2	0.55	0.52
16:P:53:GLN:NE2	16:P:80:LEU:CD1	2.43	0.52
16:P:56:LEU:HD11	16:P:80:LEU:CD1	2.39	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
20:T:123:LEU:N	20:T:123:LEU:HD23	2.24	0.52
8:H:73:GLN:NE2	8:H:135:PHE:CE1	2.77	0.52
5:E:260:GLN:O	5:E:261:SER:CB	2.58	0.52
9:I:157:LYS:CB	12:L:22:ARG:NE	2.71	0.52
2:B:137:LEU:HD12	2:B:176:VAL:HG21	1.91	0.52
17:Q:42:ILE:HD11	17:Q:51:LEU:HD13	1.91	0.52
17:Q:45:ARG:CG	17:Q:46:THR:N	2.72	0.52
21:U:67:LYS:CG	21:U:78:ASP:CG	2.78	0.52
20:T:31:PRO:HG2	20:T:102:ARG:HG3	1.90	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	1.73	0.52
19:S:90:VAL:CG1	19:S:91:LYS:CE	2.87	0.52
19:S:71:MET:HG3	19:S:99:LEU:HD13	1.91	0.52
23:W:81:VAL:HG22	23:W:89:TRP:NE1	2.24	0.52
13:M:103:VAL:HG12	13:M:103:VAL:O	2.09	0.52
20:T:84:ARG:CB	20:T:84:ARG:CZ	2.82	0.52
13:M:72:HIS:O	13:M:73:GLN:HB3	2.10	0.52
2:B:175:GLU:HG2	2:B:193:ILE:HD12	1.86	0.52
12:L:25:LEU:O	12:L:27:GLU:HA	2.10	0.52
7:G:157:VAL:HG13	7:G:159:ARG:H	0.73	0.52
7:G:161:PRO:CD	7:G:161:PRO:O	2.57	0.52
7:G:191:ARG:HB3	7:G:191:ARG:NH1	2.25	0.52
7:G:57:ASP:CG	7:G:98:ARG:HG3	2.29	0.52
9:I:191:GLU:CG	9:I:192:GLY:H	2.23	0.52
9:I:37:LYS:H	9:I:59:ARG:H	1.57	0.52
25:Y:120:THR:C	25:Y:122:LYS:CD	2.76	0.52
8:H:64:VAL:CG1	8:H:65:PRO:HD2	2.39	0.52
6:F:20:PHE:CD2	6:F:23:TRP:HD1	2.27	0.52
11:K:1:MET:HB3	11:K:47:LYS:CB	2.39	0.52
10:J:117:LEU:O	10:J:119:LEU:CD2	2.49	0.52
10:J:125:HIS:NE2	10:J:129:LEU:HD21	2.25	0.52
10:J:32:ILE:O	10:J:35:TYR:C	2.48	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:54:VAL:O	25:Y:76:TYR:N	2.42	0.52
20:T:38:LYS:O	20:T:39:LEU:CB	2.58	0.52
4:D:192:TRP:N	4:D:192:TRP:HD1	2.08	0.52
10:J:79:ARG:NH1	10:J:83:ARG:HD2	2.25	0.52
21:U:48:LEU:C	21:U:49:LYS:CG	2.74	0.52
23:W:102:ILE:H	23:W:113:HIS:HD1	1.58	0.52
25:Y:88:LYS:HG3	25:Y:97:TYR:CZ	2.45	0.52
8:H:57:ARG:HD2	8:H:89:GLY:C	2.29	0.52
13:M:85:LEU:HA	13:M:88:TRP:CZ3	2.39	0.52
17:Q:124:PRO:HD2	17:Q:125:ARG:H	1.75	0.52
7:G:135:PRO:CD	7:G:144:LEU:HD23	2.39	0.52
9:I:140:LYS:C	9:I:141:ARG:HG3	2.29	0.52
1:A:80:ARG:NH1	1:A:165:ASN:O	2.33	0.52
8:H:15:LYS:O	8:H:16:PRO:HB2	2.10	0.52
8:H:51:ILE:HD11	8:H:176:VAL:HG22	1.91	0.52
14:N:26:LEU:HD21	14:N:66:VAL:HG22	1.91	0.52
15:O:43:HIS:NE2	15:O:45:THR:CG2	2.73	0.52
15:O:27:VAL:N	15:O:91:THR:OG1	2.43	0.52
22:V:24:ILE:HD12	22:V:25:GLY:N	2.20	0.52
16:P:98:ASN:CG	16:P:120:SER:HB2	2.29	0.52
25:Y:50:THR:O	25:Y:51:THR:HG23	2.09	0.52
16:P:18:ARG:C	19:S:93:GLY:HA3	2.30	0.52
19:S:33:ILE:CB	19:S:36:VAL:CG1	2.80	0.52
16:P:37:TYR:HA	19:S:88:LYS:CD	2.40	0.52
18:R:17:ILE:CG2	18:R:71:ILE:HD11	2.40	0.52
18:R:90:ALA:C	18:R:91:LEU:HG	2.29	0.52
3:C:192:ALA:N	3:C:195:PRO:HG2	2.25	0.52
13:M:92:CYS:CB	13:M:101:ARG:HG3	2.37	0.52
4:D:176:LEU:C	4:D:177:LEU:HD13	2.30	0.52
7:G:35:GLU:O	7:G:36:VAL:CG2	2.58	0.52
9:I:158:ILE:O	12:L:22:ARG:NH2	2.43	0.52
12:L:147:LYS:CE	12:L:156:GLN:HE22	2.23	0.52
12:L:147:LYS:HZ3	12:L:149:ALA:H	1.57	0.52
1:A:145:ILE:HG23	1:A:159:ILE:HG21	1.92	0.52
3:C:142:LEU:O	3:C:145:LEU:HG	2.10	0.52
24:X:54:LYS:CD	24:X:91:LEU:HD12	2.38	0.52
25:Y:87:PRO:CG	25:Y:90:ARG:HB2	2.39	0.52
16:P:83:MET:HB3	16:P:116:LEU:HD12	1.91	0.52
8:H:83:LEU:HD21	8:H:92:VAL:CG1	2.38	0.52
25:Y:30:PRO:O	25:Y:67:GLY:HA3	2.09	0.52
5:E:248:ILE:CG1	10:J:72:PHE:CG	2.52	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:15:ASN:CG	23:W:19:LYS:HE3	2.29	0.52
19:S:46:ARG:CD	20:T:50:GLU:HG2	2.40	0.52
4:D:123:LEU:O	4:D:123:LEU:HD23	2.10	0.52
15:O:20:GLN:HG2	15:O:21:VAL:CA	2.38	0.52
8:H:118:ARG:C	8:H:120:ARG:H	2.11	0.52
3:C:99:LYS:C	3:C:99:LYS:HD2	2.29	0.52
5:E:143:ASP:O	5:E:144:ALA:HB3	2.09	0.52
3:C:109:PHE:CD2	3:C:132:VAL:CG2	2.93	0.52
7:G:162:LEU:CD2	7:G:172:LYS:HE2	2.32	0.52
7:G:64:LYS:HD3	7:G:65:GLN:O	2.10	0.52
9:I:140:LYS:O	9:I:141:ARG:CB	2.56	0.52
9:I:141:ARG:HB3	9:I:144:LYS:CG	2.40	0.52
2:B:103:MET:HE3	2:B:212:VAL:O	2.09	0.52
2:B:57:ILE:CG1	2:B:60:ASP:OD1	2.52	0.52
3:C:60:ILE:C	3:C:82:PHE:HE1	2.09	0.52
8:H:61:ILE:HD13	8:H:176:VAL:HG11	1.92	0.52
8:H:23:ILE:O	8:H:27:LEU:HD23	2.09	0.52
6:F:162:ALA:HB1	6:F:169:ILE:HD13	1.92	0.52
16:P:41:GLN:C	16:P:41:GLN:OE1	2.48	0.52
16:P:41:GLN:O	16:P:41:GLN:NE2	2.43	0.52
3:C:93:LYS:HE3	3:C:95:MET:CG	2.40	0.52
3:C:155:TRP:H	3:C:163:HIS:CE1	2.27	0.52
4:D:113:LEU:HD12	4:D:113:LEU:N	2.15	0.52
24:X:105:PHE:HE2	24:X:118:VAL:C	2.13	0.52
25:Y:99:LYS:NZ	25:Y:99:LYS:C	2.64	0.52
5:E:100:ARG:HG2	5:E:102:ILE:CD1	2.40	0.52
7:G:227:GLN:HA	7:G:230:LYS:CG	2.40	0.52
12:L:112:HIS:CG	12:L:134:LEU:HD11	2.44	0.52
1:A:24:HIS:HB3	1:A:51:LEU:CD2	2.40	0.52
2:B:81:PHE:O	2:B:82:ARG:CB	2.57	0.52
3:C:47:PRO:HA	3:C:75:GLU:OE2	2.10	0.52
6:F:134:VAL:HG12	6:F:136:ARG:CZ	2.39	0.52
4:D:79:PHE:O	4:D:80:PRO:C	2.48	0.52
6:F:110:GLN:C	6:F:113:VAL:HG12	2.28	0.52
11:K:60:GLU:HG3	11:K:69:TRP:NE1	2.24	0.52
17:Q:52:LEU:C	17:Q:54:PRO:HD2	2.30	0.52
3:C:185:ARG:O	10:J:54:ARG:NH2	2.43	0.52
10:J:102:ILE:HG22	10:J:106:LEU:CD1	2.35	0.52
26:Z:62:VAL:HG13	26:Z:68:ILE:HD11	1.83	0.52
10:J:83:ARG:CZ	10:J:150:ARG:HH21	2.22	0.52
4:D:217:ILE:HG23	4:D:218:LEU:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:236:LEU:CD2	3:C:236:LEU:C	2.78	0.52
13:M:33:ARG:HG3	13:M:33:ARG:NH1	2.21	0.52
4:D:177:LEU:HD22	4:D:182:LEU:CD2	2.25	0.52
12:L:147:LYS:HG3	12:L:148:ALA:HB2	1.91	0.52
3:C:50:LYS:HA	3:C:53:ARG:HD2	1.91	0.52
8:H:64:VAL:HG21	8:H:72:PHE:CD2	2.45	0.52
8:H:138:GLU:CD	14:N:19:ARG:HB3	2.21	0.52
14:N:22:VAL:CG2	14:N:23:PRO:HA	2.40	0.52
14:N:27:LYS:N	14:N:27:LYS:CE	2.57	0.52
11:K:16:PHE:CE2	11:K:80:ARG:N	2.78	0.52
10:J:169:ARG:HB3	10:J:170:PRO:HD3	1.84	0.52
25:Y:44:LEU:CD1	25:Y:48:TYR:HD2	2.18	0.52
19:S:54:LYS:HB3	19:S:55:ARG:N	2.25	0.52
26:Z:44:LEU:HD13	26:Z:45:ASN:CA	2.40	0.52
10:J:83:ARG:NH2	10:J:150:ARG:NH2	2.57	0.52
19:S:139:THR:O	19:S:140:GLY:C	2.49	0.52
24:X:105:PHE:HE2	24:X:119:ARG:N	2.06	0.52
13:M:52:LEU:O	13:M:85:LEU:HD12	2.10	0.52
4:D:178:ARG:HE	4:D:178:ARG:H	1.58	0.52
17:Q:55:VAL:HG22	17:Q:63:PHE:CE2	2.45	0.52
9:I:31:ARG:HH11	9:I:31:ARG:HG3	1.75	0.52
17:Q:6:PRO:O	17:Q:6:PRO:HD2	2.09	0.52
8:H:135:PHE:CB	8:H:136:PRO:CD	2.88	0.52
23:W:120:HIS:O	23:W:120:HIS:CG	2.63	0.52
5:E:122:LYS:HG2	5:E:164:LEU:CD2	2.40	0.51
3:C:61:LYS:HA	3:C:82:PHE:CE1	2.44	0.51
8:H:29:GLU:OE2	8:H:86:LYS:HE2	2.06	0.51
15:O:33:ILE:HG12	15:O:42:VAL:HG22	1.90	0.51
4:D:18:LYS:CD	4:D:18:LYS:C	2.78	0.51
6:F:39:ILE:HG21	6:F:113:VAL:HG23	1.92	0.51
11:K:49:MET:HB2	11:K:69:TRP:CZ2	2.44	0.51
26:Z:105:ALA:C	26:Z:106:GLN:HG3	2.31	0.51
24:X:94:ILE:CD1	24:X:125:VAL:HG21	2.40	0.51
20:T:76:THR:HA	20:T:95:GLY:O	2.10	0.51
18:R:44:LYS:CD	18:R:47:ARG:NH2	2.70	0.51
21:U:50:VAL:CG1	21:U:51:LYS:N	2.46	0.51
20:T:11:GLN:OE1	20:T:62:ARG:HD3	2.09	0.51
14:N:125:LEU:HD22	14:N:129:TYR:CE2	2.45	0.51
8:H:149:ASP:C	8:H:151:SER:H	2.13	0.51
21:U:16:ALA:O	21:U:94:PRO:HG3	2.10	0.51
12:L:44:PHE:CD2	12:L:143:LEU:HD23	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:184:ARG:N	1:A:189:ILE:HD12	2.25	0.51
1:A:30:LEU:CD1	1:A:38:ILE:HD12	2.24	0.51
2:B:57:ILE:C	2:B:59:SER:N	2.64	0.51
8:H:142:LYS:C	8:H:143:ARG:HG2	2.30	0.51
8:H:37:LYS:NZ	8:H:38:ALA:HA	2.24	0.51
22:V:43:THR:O	22:V:44:GLY:C	2.48	0.51
4:D:46:THR:O	4:D:85:GLU:N	2.39	0.51
6:F:93:VAL:C	6:F:97:PHE:CE1	2.82	0.51
11:K:41:PRO:O	11:K:43:LEU:O	2.29	0.51
13:M:124:ILE:HB	13:M:127:TYR:HE2	1.75	0.51
14:N:134:VAL:HG22	14:N:135:LEU:HG	1.91	0.51
14:N:141:TYR:O	14:N:141:TYR:CD2	2.63	0.51
20:T:130:ASP:OD2	20:T:131:LEU:HD23	2.11	0.51
5:E:124:CYS:HG	5:E:162:ILE:HD13	1.75	0.51
9:I:73:THR:O	9:I:74:ARG:HD2	2.09	0.51
12:L:59:LYS:CD	12:L:112:HIS:NE2	2.72	0.51
1:A:98:PRO:HG2	1:A:98:PRO:O	2.11	0.51
2:B:53:GLN:C	2:B:55:THR:N	2.63	0.51
6:F:138:ALA:CB	6:F:200:ALA:O	2.55	0.51
15:O:63:LYS:O	15:O:64:ALA:CB	2.57	0.51
1:A:158:ASP:CB	22:V:65:SER:OG	2.58	0.51
3:C:197:LYS:C	3:C:200:LEU:HG	2.26	0.51
10:J:50:LEU:HB2	10:J:102:ILE:CD1	2.40	0.51
25:Y:12:PHE:CZ	25:Y:21:LYS:HB2	2.44	0.51
19:S:90:VAL:HG12	19:S:91:LYS:N	2.25	0.51
12:L:17:PHE:CD2	12:L:18:GLN:O	2.63	0.51
20:T:23:LYS:HD2	20:T:54:TYR:CE2	2.45	0.51
24:X:55:VAL:HG12	24:X:57:VAL:HG23	1.92	0.51
3:C:194:VAL:N	3:C:195:PRO:HD2	2.25	0.51
13:M:98:GLY:C	13:M:100:PRO:CD	2.74	0.51
12:L:49:GLU:OE1	12:L:49:GLU:HA	2.10	0.51
14:N:47:PRO:HG3	14:N:75:LEU:HD22	1.93	0.51
1:A:70:ASN:HB2	1:A:73:ASP:OD2	2.10	0.51
5:E:123:LEU:HD21	5:E:235:TRP:HB2	1.92	0.51
1:A:39:TYR:CD2	1:A:40:LYS:HB2	2.46	0.51
1:A:57:LYS:CE	22:V:70:LEU:CD2	2.89	0.51
2:B:36:PRO:CB	2:B:231:LEU:CD2	2.71	0.51
11:K:3:MET:SD	11:K:8:ARG:NE	2.84	0.51
17:Q:12:VAL:HG21	17:Q:91:ALA:HA	1.92	0.51
25:Y:51:THR:CB	25:Y:52:PRO:CD	2.82	0.51
20:T:102:ARG:CD	20:T:105:GLN:OE1	2.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:132:LYS:H	4:D:191:PRO:CD	1.88	0.51
8:H:146:VAL:CG2	23:W:50:PHE:CD1	2.89	0.51
19:S:117:ILE:C	19:S:118:ARG:CG	2.66	0.51
19:S:85:ASN:HD21	19:S:98:VAL:N	2.09	0.51
18:R:13:ALA:HB1	18:R:57:LEU:HD12	1.92	0.51
13:M:94:ILE:H	13:M:101:ARG:HD3	1.73	0.51
6:F:151:ILE:O	6:F:154:LEU:HG	2.10	0.51
6:F:152:TRP:O	6:F:153:LEU:C	2.45	0.51
20:T:75:MET:O	20:T:79:TYR:HD2	1.93	0.51
8:H:149:ASP:C	8:H:151:SER:N	2.61	0.51
5:E:230:LYS:O	5:E:231:GLY:C	2.48	0.51
5:E:181:CYS:SG	5:E:225:ILE:CG2	2.99	0.51
1:A:139:TYR:O	1:A:140:VAL:HG23	2.11	0.51
3:C:126:MET:CE	3:C:223:LYS:NZ	2.56	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
8:H:12:ASN:HB3	8:H:46:THR:HG1	1.73	0.51
15:O:90:ILE:HG22	15:O:124:MET:CE	2.41	0.51
15:O:30:VAL:O	15:O:44:VAL:HA	2.10	0.51
22:V:73:ALA:O	22:V:77:GLY:N	2.44	0.51
18:R:13:ALA:HA	18:R:54:VAL:HG21	1.89	0.51
5:E:130:PHE:HB3	5:E:138:HIS:ND1	2.23	0.51
23:W:38:LEU:HA	23:W:41:MET:HE3	1.89	0.51
19:S:64:VAL:HG23	19:S:65:GLU:N	2.25	0.51
8:H:135:PHE:CD2	8:H:136:PRO:N	2.78	0.51
6:F:72:LEU:HD23	6:F:72:LEU:O	2.10	0.51
7:G:184:VAL:O	7:G:188:LYS:HE2	2.11	0.51
7:G:225:GLN:C	7:G:227:GLN:H	2.14	0.51
1:A:30:LEU:O	1:A:31:ASP:HB2	2.10	0.51
22:V:79:VAL:HG11	22:V:82:ASN:OD1	2.05	0.51
3:C:196:LYS:HD2	3:C:200:LEU:HD23	1.93	0.51
4:D:51:LEU:HD12	4:D:89:GLU:O	2.11	0.51
6:F:45:TYR:O	6:F:47:LYS:HE3	1.94	0.51
24:X:122:VAL:CG1	24:X:130:LEU:HD11	2.39	0.51
25:Y:12:PHE:CD1	25:Y:23:MET:HB3	2.45	0.51
5:E:248:ILE:HD12	10:J:72:PHE:CE1	2.46	0.51
16:P:52:LYS:HD3	16:P:52:LYS:C	2.06	0.51
5:E:130:PHE:O	5:E:137:PRO:HA	2.10	0.51
24:X:105:PHE:CB	24:X:112:VAL:CG2	2.89	0.51
14:N:38:TYR:CZ	14:N:78:LYS:HG3	2.46	0.51
3:C:168:LYS:HE3	23:W:95:PRO:CA	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:102:VAL:HG11	24:X:120:PHE:HB3	1.91	0.51
5:E:29:PRO:O	5:E:30:ARG:HB3	2.10	0.51
5:E:207:VAL:CG1	5:E:219:ALA:HB1	2.41	0.51
5:E:86:PHE:CZ	5:E:182:MET:HE3	2.25	0.51
7:G:143:LYS:HA	7:G:143:LYS:CE	2.39	0.51
12:L:80:MET:HG3	12:L:86:ILE:CG2	2.39	0.51
12:L:101:ARG:HD2	24:X:6:GLY:O	2.10	0.51
12:L:101:ARG:CB	24:X:7:LEU:O	2.43	0.51
25:Y:114:MET:HE3	25:Y:125:VAL:N	2.24	0.51
25:Y:114:MET:HG2	25:Y:124:ASN:CB	2.37	0.51
3:C:115:ILE:HD11	3:C:140:ILE:CG2	2.30	0.51
6:F:124:ASP:CG	6:F:125:SER:H	2.13	0.51
6:F:162:ALA:CB	6:F:169:ILE:HD13	2.40	0.51
6:F:43:GLU:O	6:F:44:LYS:HB2	2.10	0.51
5:E:72:ILE:HD12	5:E:82:TYR:CD2	2.45	0.51
24:X:138:LYS:N	24:X:139:GLU:OE2	2.44	0.51
24:X:52:LEU:CG	24:X:71:ARG:CB	2.88	0.51
25:Y:61:ARG:CG	25:Y:61:ARG:NH2	2.38	0.51
20:T:77:LYS:HG2	20:T:92:PHE:HZ	1.65	0.51
20:T:31:PRO:O	20:T:33:TRP:CA	2.54	0.51
16:P:18:ARG:NH1	19:S:88:LYS:HB3	2.26	0.51
18:R:20:TYR:CE2	18:R:38:ILE:CD1	2.92	0.51
19:S:46:ARG:NH1	20:T:50:GLU:CB	2.70	0.51
20:T:85:ASN:ND2	20:T:90:SER:HA	2.24	0.51
26:Z:94:LYS:HZ3	26:Z:95:GLY:H	1.52	0.51
3:C:124:LEU:C	3:C:124:LEU:HD13	2.31	0.51
2:B:99:ASN:HD22	2:B:228:LEU:HD23	1.76	0.51
5:E:159:THR:C	5:E:160:ILE:HG13	2.30	0.51
7:G:203:LYS:HE2	7:G:207:ALA:HB2	1.92	0.51
9:I:101:ILE:HD12	9:I:190:LEU:HD11	1.92	0.51
9:I:141:ARG:CB	9:I:144:LYS:CG	2.87	0.51
9:I:148:LYS:HB2	9:I:152:ARG:NH2	2.26	0.51
9:I:85:ALA:C	12:L:8:ARG:HH11	2.15	0.51
2:B:137:LEU:HD23	2:B:215:VAL:CB	2.39	0.51
2:B:25:PHE:HD2	15:O:88:LEU:HD22	1.44	0.51
4:D:24:PHE:HD2	4:D:25:LEU:HD22	1.76	0.51
11:K:16:PHE:CE2	11:K:79:LEU:CA	2.88	0.51
6:F:91:ARG:CD	17:Q:46:THR:CG2	2.89	0.51
17:Q:57:LEU:O	17:Q:111:ILE:HG21	2.11	0.51
17:Q:50:LYS:CE	17:Q:85:ARG:NH2	2.73	0.51
21:U:108:PRO:O	21:U:110:VAL:CG2	2.53	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:184:PRO:O	3:C:187:THR:HG23	2.11	0.51
5:E:43:PRO:HD2	5:E:46:ILE:HB	1.92	0.51
5:E:67:GLN:O	5:E:68:ARG:CB	2.59	0.51
25:Y:55:ILE:CD1	25:Y:75:ILE:HD11	2.41	0.51
3:C:93:LYS:HE2	3:C:218:LEU:HD21	1.83	0.51
20:T:31:PRO:HG3	20:T:102:ARG:CG	2.41	0.51
19:S:90:VAL:CG1	19:S:91:LYS:HE3	2.41	0.51
16:P:127:LYS:HE3	16:P:128:HIS:N	2.24	0.51
24:X:67:ARG:HE	24:X:67:ARG:HA	1.75	0.51
24:X:69:CYS:HB3	24:X:83:ALA:O	2.11	0.51
20:T:4:VAL:HG21	20:T:135:ALA:O	2.11	0.51
2:B:145:LYS:HG3	2:B:149:GLN:HB3	1.92	0.51
7:G:148:SER:C	7:G:150:GLU:H	2.14	0.51
7:G:33:ALA:H	7:G:52:ILE:CG2	2.14	0.51
7:G:93:LYS:HG2	7:G:95:LYS:HG3	1.92	0.51
9:I:157:LYS:O	9:I:158:ILE:C	2.47	0.51
9:I:79:ILE:HG23	9:I:80:ASP:N	2.25	0.51
1:A:125:THR:O	1:A:147:LEU:CD1	2.59	0.51
1:A:119:PRO:O	1:A:142:LEU:HD21	2.10	0.51
1:A:45:GLY:O	1:A:46:ILE:HD13	2.10	0.51
2:B:47:THR:CG2	2:B:67:PHE:CZ	2.82	0.51
8:H:65:PRO:HG2	8:H:68:GLN:NE2	2.25	0.51
2:B:30:TRP:CE3	15:O:19:PRO:HB3	2.46	0.51
2:B:25:PHE:CD1	15:O:88:LEU:HD13	2.45	0.51
4:D:3:VAL:O	4:D:4:GLN:O	2.29	0.51
11:K:46:MET:HA	11:K:69:TRP:HH2	1.74	0.51
11:K:50:GLN:HG3	11:K:51:SER:N	2.25	0.51
5:E:64:ILE:CG1	25:Y:17:LEU:HD13	2.41	0.51
25:Y:58:PHE:HE1	25:Y:72:PHE:CE2	2.28	0.51
10:J:21:GLU:O	10:J:24:ARG:N	2.43	0.51
2:B:136:HIS:CE1	2:B:138:PHE:CE1	2.99	0.51
1:A:164:ASN:C	1:A:166:LYS:H	2.07	0.51
2:B:29:ASP:C	2:B:29:ASP:OD1	2.49	0.51
7:G:102:VAL:HG11	7:G:109:LEU:HD11	1.93	0.51
7:G:212:LEU:CA	7:G:215:LYS:HD3	2.41	0.51
12:L:92:TYR:CE2	12:L:105:ARG:HB2	2.46	0.51
17:Q:8:GLN:CG	17:Q:99:TYR:CD1	2.47	0.51
11:K:16:PHE:HE2	11:K:79:LEU:HB2	0.74	0.51
20:T:29:LYS:C	20:T:30:VAL:HG13	2.29	0.51
12:L:17:PHE:CG	12:L:18:GLN:N	2.79	0.51
16:P:49:LEU:H	16:P:51:ARG:HG3	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:101:LYS:C	25:Y:102:THR:HG1	2.15	0.51
18:R:17:ILE:HD11	18:R:54:VAL:HG13	1.93	0.51
23:W:86:LEU:HD11	23:W:113:HIS:HB2	1.93	0.51
14:N:142:GLU:HG3	14:N:144:SER:OG	2.08	0.51
25:Y:3:ASP:C	25:Y:4:THR:HG1	2.09	0.51
3:C:183:ALA:CB	3:C:208:TYR:CE2	2.94	0.51
15:O:41:PHE:CD1	15:O:57:THR:HG21	2.46	0.51
4:D:208:VAL:O	4:D:208:VAL:HG12	2.08	0.51
23:W:105:THR:O	23:W:105:THR:HG23	2.10	0.51
7:G:41:LEU:HD21	7:G:45:TRP:CH2	2.36	0.50
9:I:148:LYS:HE3	9:I:152:ARG:HH21	1.76	0.50
12:L:59:LYS:HB2	12:L:112:HIS:CE1	2.46	0.50
1:A:157:VAL:O	1:A:157:VAL:HG23	2.12	0.50
8:H:158:LEU:HG	8:H:187:PHE:CD1	2.46	0.50
15:O:62:VAL:CG2	15:O:72:TYR:CZ	2.92	0.50
1:A:42:LYS:HZ1	18:R:102:THR:CG2	2.22	0.50
22:V:42:VAL:O	22:V:43:THR:OG1	2.29	0.50
11:K:27:VAL:HA	11:K:43:LEU:CD2	2.42	0.50
11:K:53:LYS:CB	11:K:58:VAL:HG13	2.41	0.50
25:Y:53:ASP:O	25:Y:79:LEU:CD2	2.59	0.50
5:E:248:ILE:CG1	10:J:72:PHE:CZ	2.89	0.50
19:S:33:ILE:HB	19:S:36:VAL:HG13	1.90	0.50
12:L:17:PHE:CD1	12:L:18:GLN:CA	2.94	0.50
3:C:101:THR:CG2	3:C:103:ALA:C	2.68	0.50
13:M:12:MET:HG3	13:M:17:ALA:N	2.25	0.50
13:M:83:LYS:HG3	13:M:103:VAL:HG12	1.94	0.50
7:G:142:ARG:NH1	7:G:142:ARG:HG3	2.08	0.50
7:G:67:VAL:CG2	7:G:99:GLY:HA2	2.32	0.50
1:A:118:GLU:CD	3:C:50:LYS:HE2	2.30	0.50
8:H:158:LEU:O	8:H:190:PRO:HD3	2.10	0.50
15:O:62:VAL:HG22	15:O:72:TYR:HH	1.75	0.50
15:O:44:VAL:HG11	15:O:93:LEU:CD2	2.41	0.50
4:D:21:LEU:HD22	4:D:25:LEU:HD21	1.94	0.50
21:U:64:THR:HG22	21:U:79:ARG:CD	2.39	0.50
16:P:41:GLN:HG2	16:P:84:ILE:HG23	1.76	0.50
13:M:124:ILE:O	13:M:127:TYR:CE2	2.63	0.50
13:M:76:LEU:C	13:M:128:PHE:HZ	2.15	0.50
20:T:84:ARG:O	20:T:86:GLY:N	2.45	0.50
23:W:27:ILE:HG13	23:W:61:ILE:HB	1.93	0.50
26:Z:94:LYS:CD	26:Z:95:GLY:N	2.73	0.50
16:P:29:SER:OG	16:P:31:GLU:HB2	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:147:LYS:NZ	12:L:156:GLN:NE2	2.59	0.50
12:L:40:ILE:HG23	12:L:41:GLY:N	2.25	0.50
9:I:201:LYS:CE	12:L:8:ARG:HA	2.42	0.50
12:L:103:GLU:OE1	24:X:11:ARG:NE	2.45	0.50
1:A:122:LEU:HD12	1:A:137:ALA:CB	2.40	0.50
1:A:149:ASN:N	1:A:165:ASN:HD21	2.09	0.50
1:A:18:PHE:CZ	1:A:55:TRP:CE3	3.00	0.50
3:C:69:PHE:CE1	3:C:249:SER:CA	2.94	0.50
3:C:68:LEU:CD2	3:C:247:THR:HG21	2.40	0.50
6:F:115:ALA:HB2	6:F:177:LEU:HD22	1.92	0.50
6:F:42:LYS:HB3	6:F:46:ALA:N	2.25	0.50
11:K:27:VAL:HG11	11:K:43:LEU:HD22	1.67	0.50
5:E:21:ASP:OD1	5:E:24:THR:CG2	2.53	0.50
16:P:8:LYS:O	16:P:9:LYS:C	2.50	0.50
19:S:40:TYR:O	19:S:44:VAL:HG23	2.11	0.50
10:J:83:ARG:NH2	10:J:150:ARG:HH21	2.09	0.50
4:D:212:GLU:CB	4:D:213:PRO:CD	2.76	0.50
13:M:86:GLY:C	13:M:91:LEU:HD11	2.31	0.50
4:D:27:ARG:HB3	4:D:27:ARG:NH1	5.00	0.50
20:T:4:VAL:CA	20:T:8:ASP:OD2	2.54	0.50
24:X:77:ASN:O	24:X:79:LYS:N	2.44	0.50
5:E:192:ILE:HD11	5:E:238:LEU:HD22	1.92	0.50
7:G:79:LYS:O	7:G:81:HIS:CD2	2.65	0.50
25:Y:106:GLN:O	25:Y:110:ARG:HG3	2.12	0.50
14:N:26:LEU:CD2	14:N:66:VAL:CG2	2.89	0.50
18:R:100:PRO:CB	18:R:119:VAL:HG22	2.37	0.50
4:D:77:PHE:O	4:D:78:GLY:C	2.49	0.50
10:J:42:GLU:OE1	10:J:42:GLU:HA	2.11	0.50
25:Y:23:MET:CE	25:Y:44:LEU:HD21	2.40	0.50
25:Y:76:TYR:CD1	25:Y:82:ALA:HA	2.47	0.50
16:P:123:TYR:OH	19:S:124:ARG:CG	2.57	0.50
25:Y:29:HIS:HE1	25:Y:67:GLY:CA	2.06	0.50
16:P:93:MET:SD	16:P:106:GLU:HA	2.51	0.50
23:W:102:ILE:N	23:W:113:HIS:ND1	2.57	0.50
23:W:90:GLN:CA	23:W:102:ILE:HD12	2.40	0.50
10:J:155:LYS:HE3	10:J:156:HIS:NE2	2.26	0.50
20:T:124:THR:HG23	20:T:127:GLY:H	1.74	0.50
7:G:197:GLN:O	7:G:200:LYS:HG2	2.11	0.50
12:L:10:TYR:HD2	12:L:12:LYS:CE	2.14	0.50
2:B:53:GLN:CG	2:B:56:LYS:HB2	2.41	0.50
13:M:46:GLN:HB3	13:M:112:LYS:HG2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:17:ALA:HB2	23:W:25:VAL:HG12	1.92	0.50
11:K:25:LYS:HD2	11:K:62:PHE:CE1	2.46	0.50
25:Y:19:GLN:CD	25:Y:85:ASN:HD21	2.13	0.50
20:T:31:PRO:HG3	20:T:102:ARG:HG3	1.91	0.50
20:T:45:LEU:HG	20:T:46:ALA:H	1.76	0.50
19:S:16:LEU:C	19:S:17:ASN:OD1	2.50	0.50
13:M:79:VAL:CG1	13:M:80:ASP:H	2.25	0.50
13:M:26:LEU:HD11	13:M:89:VAL:O	2.11	0.50
14:N:4:MET:HE1	14:N:124:ARG:NH2	2.26	0.50
18:R:31:ASN:ND2	18:R:55:THR:CG2	2.73	0.50
8:H:73:GLN:HE21	8:H:135:PHE:HE1	1.59	0.50
8:H:135:PHE:CD2	8:H:136:PRO:CD	2.91	0.50
7:G:121:ILE:CG2	7:G:122:PRO:HD2	2.26	0.50
1:A:149:ASN:HB2	1:A:165:ASN:OD1	2.12	0.50
2:B:90:ASP:CG	2:B:91:VAL:N	2.62	0.50
22:V:12:TYR:CE1	22:V:14:PRO:HG3	2.46	0.50
3:C:243:GLU:HA	22:V:16:LYS:NZ	2.27	0.50
4:D:29:LEU:HB3	4:D:34:TYR:HB2	1.94	0.50
11:K:71:LEU:HG	11:K:76:ILE:CD1	2.42	0.50
17:Q:51:LEU:HD12	17:Q:52:LEU:N	2.26	0.50
10:J:143:ASN:O	10:J:143:ASN:CG	2.49	0.50
10:J:63:LEU:O	10:J:70:ARG:NH1	2.44	0.50
24:X:52:LEU:HD12	24:X:53:GLU:HG2	1.91	0.50
25:Y:78:SER:O	25:Y:79:LEU:C	2.48	0.50
8:H:50:GLU:CD	8:H:58:LYS:HD3	2.28	0.50
19:S:52:LEU:HD12	19:S:52:LEU:C	2.31	0.50
26:Z:44:LEU:HD11	26:Z:46:ASN:CG	2.32	0.50
10:J:78:LEU:HD11	10:J:93:LYS:HA	1.93	0.50
10:J:90:GLY:O	10:J:91:LYS:O	2.29	0.50
4:D:219:PRO:O	4:D:220:THR:C	2.50	0.50
25:Y:92:ALA:N	25:Y:97:TYR:CB	2.53	0.50
12:L:118:ARG:NH1	12:L:119:ASP:OD2	2.43	0.50
13:M:51:VAL:HG13	13:M:109:VAL:HG22	1.93	0.50
13:M:77:ILE:CG2	13:M:78:LYS:H	2.06	0.50
5:E:133:THR:O	5:E:133:THR:OG1	2.30	0.50
14:N:5:HIS:HD2	14:N:121:ARG:NE	2.09	0.50
5:E:136:ILE:N	5:E:136:ILE:HD12	2.26	0.50
10:J:58:ARG:O	10:J:62:THR:HG23	2.10	0.50
5:E:99:PHE:CZ	5:E:113:ARG:CG	2.93	0.50
5:E:121:TYR:HA	5:E:163:ASP:O	2.12	0.50
7:G:64:LYS:CD	7:G:65:GLN:C	2.80	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:59:LYS:CD	12:L:112:HIS:CD2	2.90	0.50
9:I:194:GLU:CG	12:L:12:LYS:CE	2.88	0.50
1:A:125:THR:C	1:A:147:LEU:HB2	2.32	0.50
1:A:16:LEU:CB	1:A:17:LYS:CE	2.89	0.50
3:C:48:VAL:HG23	3:C:75:GLU:OE2	2.11	0.50
3:C:54:LEU:N	3:C:258:LEU:HD22	2.27	0.50
14:N:22:VAL:HB	14:N:23:PRO:C	2.32	0.50
11:K:2:LEU:CD1	11:K:3:MET:N	2.21	0.50
11:K:40:VAL:HG22	11:K:41:PRO:C	2.30	0.50
13:M:28:HIS:O	13:M:29:ASP:CB	2.52	0.50
24:X:51:VAL:HG21	24:X:94:ILE:CG2	2.41	0.50
25:Y:36:PRO:CG	25:Y:39:GLU:HB2	2.36	0.50
10:J:89:GLU:C	10:J:91:LYS:O	2.50	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
12:L:1:MET:O	12:L:2:ALA:O	2.29	0.50
12:L:152:LYS:O	12:L:154:GLN:N	2.44	0.50
8:H:154:ILE:CG2	8:H:185:VAL:CG2	2.89	0.50
5:E:86:PHE:CZ	5:E:182:MET:HE1	2.43	0.50
9:I:144:LYS:CD	9:I:144:LYS:N	2.75	0.50
1:A:140:VAL:HG13	3:C:72:PRO:HG3	1.94	0.50
1:A:179:ALA:O	1:A:183:LEU:HG	2.12	0.50
1:A:48:ILE:CD1	18:R:105:MET:HG2	2.42	0.50
8:H:66:VAL:HG21	8:H:97:GLN:O	2.12	0.50
22:V:33:PRO:HB2	22:V:53:TYR:O	2.11	0.50
3:C:193:PRO:O	3:C:196:LYS:HG3	2.12	0.50
6:F:28:VAL:HG22	6:F:110:GLN:CG	2.37	0.50
11:K:60:GLU:HG2	11:K:69:TRP:CD1	2.47	0.50
10:J:127:ARG:HH11	10:J:145:PRO:HB3	1.76	0.50
16:P:10:ARG:O	16:P:11:THR:O	2.30	0.50
8:H:79:LEU:HD23	8:H:79:LEU:O	2.12	0.50
4:D:192:TRP:C	4:D:196:GLY:H	1.90	0.50
18:R:17:ILE:O	18:R:71:ILE:HD11	2.11	0.50
15:O:55:ARG:O	15:O:81:VAL:HG22	2.12	0.50
2:B:149:GLN:HE21	2:B:151:ARG:CG	2.19	0.50
23:W:27:ILE:HD11	23:W:61:ILE:HD12	1.93	0.50
4:D:207:HIS:O	4:D:208:VAL:CG2	2.59	0.50
20:T:14:PHE:CZ	20:T:131:LEU:CD1	2.95	0.50
3:C:109:PHE:CD2	3:C:132:VAL:HG22	2.47	0.50
22:V:5:ALA:O	22:V:7:GLU:N	2.44	0.50
1:A:29:ASN:O	1:A:151:ASP:HB3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:220:ALA:O	7:G:223:LYS:HB2	2.12	0.50
7:G:147:LEU:CD2	7:G:156:TYR:HE2	2.24	0.50
7:G:35:GLU:C	7:G:36:VAL:HG23	2.33	0.50
2:B:36:PRO:HA	2:B:231:LEU:HD23	1.92	0.50
2:B:93:GLY:CA	2:B:94:LYS:HD3	2.41	0.50
3:C:79:ILE:CD1	3:C:147:ILE:HD13	2.33	0.50
22:V:18:SER:O	22:V:18:SER:OG	2.29	0.50
4:D:21:LEU:HD22	4:D:25:LEU:CD2	2.42	0.50
25:Y:87:PRO:O	25:Y:87:PRO:CD	2.60	0.50
19:S:39:ARG:HH22	20:T:38:LYS:CG	2.22	0.50
19:S:80:PRO:CB	19:S:82:TRP:NE1	2.75	0.50
5:E:259:LYS:O	5:E:260:GLN:OE1	2.29	0.50
7:G:63:MET:HE2	7:G:106:LEU:HD11	1.77	0.49
2:B:36:PRO:CA	2:B:231:LEU:HD21	2.42	0.49
2:B:82:ARG:NH1	2:B:191:ASP:OD1	2.45	0.49
8:H:45:ILE:O	8:H:45:ILE:HG13	2.11	0.49
8:H:9:VAL:O	8:H:45:ILE:HG13	2.12	0.49
4:D:79:PHE:HE1	4:D:83:SER:HB3	1.78	0.49
26:Z:44:LEU:HD13	26:Z:44:LEU:O	1.94	0.49
4:D:197:LYS:N	4:D:198:ILE:HG13	2.27	0.49
10:J:88:ASP:C	10:J:92:MET:CG	2.48	0.49
4:D:135:GLU:HG2	4:D:187:LYS:HB3	1.93	0.49
5:E:212:ASP:OD2	5:E:214:ASN:HB2	2.12	0.49
14:N:87:ASP:CG	14:N:129:TYR:OH	2.45	0.49
3:C:99:LYS:HD2	3:C:100:GLN:H	1.72	0.49
3:C:129:SER:HB2	3:C:134:THR:HG23	1.92	0.49
5:E:151:ASP:HB3	7:G:212:LEU:HD22	1.93	0.49
7:G:162:LEU:CD2	7:G:170:ARG:HG3	2.42	0.49
7:G:163:ASN:O	7:G:164:LYS:CB	2.59	0.49
1:A:111:GLN:NE2	1:A:116:PHE:CZ	2.80	0.49
2:B:71:LEU:CB	2:B:84:PHE:HE2	2.25	0.49
3:C:244:THR:CG2	3:C:246:PHE:CG	2.94	0.49
3:C:68:LEU:CB	6:F:128:ILE:HD11	78.54	0.49
8:H:32:MET:O	8:H:33:ASN:HB2	2.09	0.49
11:K:15:LEU:CD1	11:K:21:MET:HE2	2.29	0.49
17:Q:112:LEU:CB	17:Q:120:LEU:HD21	2.42	0.49
10:J:136:ARG:HG2	10:J:141:VAL:HA	1.94	0.49
25:Y:20:ARG:HD3	25:Y:76:TYR:CE1	2.44	0.49
16:P:90:VAL:HA	16:P:107:ILE:CD1	2.42	0.49
10:J:87:LEU:HD12	10:J:88:ASP:H	1.77	0.49
10:J:91:LYS:HA	10:J:96:TYR:CD2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:50:CYS:N	13:M:75:ASN:HD22	2.10	0.49
23:W:111:MET:HE3	23:W:116:ALA:HA	1.93	0.49
26:Z:74:SER:HA	26:Z:79:ILE:CG2	2.34	0.49
20:T:85:ASN:HD21	20:T:91:HIS:HD2	1.57	0.49
4:D:141:LYS:CD	4:D:179:GLN:CG	2.87	0.49
3:C:183:ALA:HB2	3:C:208:TYR:CE2	2.47	0.49
10:J:147:PHE:O	10:J:148:ILE:CB	2.55	0.49
9:I:150:ASP:C	9:I:150:ASP:OD2	2.50	0.49
7:G:137:ARG:HG3	7:G:140:ARG:CB	2.41	0.49
7:G:163:ASN:O	7:G:163:ASN:OD1	2.30	0.49
7:G:184:VAL:C	7:G:188:LYS:HE2	2.33	0.49
12:L:134:LEU:HD23	12:L:134:LEU:C	2.33	0.49
12:L:40:ILE:CG1	12:L:68:ILE:HG13	2.41	0.49
1:A:120:ARG:CD	3:C:251:TYR:CE2	2.61	0.49
1:A:39:TYR:HB3	1:A:48:ILE:O	2.12	0.49
1:A:58:LEU:HD23	1:A:58:LEU:O	2.12	0.49
2:B:67:PHE:HD1	15:O:47:LEU:O	1.95	0.49
2:B:71:LEU:HD13	2:B:84:PHE:CZ	2.26	0.49
8:H:169:LYS:O	8:H:172:THR:HG22	2.12	0.49
14:N:54:LEU:C	14:N:60:VAL:HG22	2.32	0.49
15:O:92:ALA:HB2	15:O:125:LYS:HB2	1.95	0.49
15:O:72:TYR:C	15:O:72:TYR:CD1	2.86	0.49
22:V:43:THR:O	22:V:44:GLY:O	2.29	0.49
4:D:1:MET:O	4:D:2:ALA:O	2.30	0.49
11:K:2:LEU:O	11:K:3:MET:HE2	2.12	0.49
17:Q:111:ILE:O	17:Q:114:GLN:CG	2.54	0.49
10:J:164:PRO:HB3	10:J:170:PRO:O	2.11	0.49
25:Y:56:PHE:CD2	25:Y:86:GLU:CD	2.76	0.49
20:T:77:LYS:HE3	20:T:92:PHE:CE2	2.48	0.49
19:S:8:LYS:CA	19:S:9:PHE:HD1	2.23	0.49
4:D:108:LYS:CA	4:D:113:LEU:CD2	2.91	0.49
24:X:105:PHE:CE2	24:X:118:VAL:C	2.86	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
10:J:10:ARG:NH1	10:J:10:ARG:CG	2.74	0.49
8:H:114:GLN:O	8:H:115:LYS:C	2.49	0.49
19:S:72:GLN:O	19:S:72:GLN:HG2	2.11	0.49
5:E:136:ILE:HG13	5:E:149:TYR:CZ	2.46	0.49
5:E:129:ILE:CG2	5:E:139:LEU:HD21	2.42	0.49
7:G:98:ARG:CD	7:G:98:ARG:C	2.75	0.49
9:I:117:TYR:HE1	9:I:155:ASN:HD21	1.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:101:ASP:HA	18:R:104:GLU:HB2	1.94	0.49
4:D:70:THR:N	4:D:86:LEU:HD22	2.27	0.49
21:U:67:LYS:CE	21:U:78:ASP:CG	2.68	0.49
10:J:164:PRO:HB2	10:J:165:TYR:CE1	2.48	0.49
20:T:101:ARG:CG	20:T:105:GLN:NE2	2.75	0.49
19:S:8:LYS:CA	19:S:9:PHE:CD1	2.95	0.49
10:J:177:ASN:C	10:J:180:LYS:HG2	2.18	0.49
16:P:127:LYS:CE	16:P:128:HIS:N	2.73	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
20:T:59:SER:O	20:T:62:ARG:HG2	2.12	0.49
25:Y:100:LYS:CG	25:Y:100:LYS:O	2.55	0.49
14:N:116:ILE:HA	14:N:119:GLU:HG3	1.93	0.49
5:E:185:GLY:CA	5:E:189:LEU:HD13	2.43	0.49
2:B:228:LEU:CD1	2:B:232:HIS:CD2	2.94	0.49
7:G:227:GLN:HA	7:G:230:LYS:HZ3	1.77	0.49
9:I:148:LYS:HE2	9:I:152:ARG:HH22	1.76	0.49
12:L:113:LEU:HD11	12:L:120:VAL:HG11	1.93	0.49
12:L:69:ARG:O	12:L:130:GLU:HB3	2.12	0.49
12:L:99:TYR:OH	24:X:14:ARG:CG	2.61	0.49
1:A:125:THR:HA	1:A:147:LEU:CB	2.35	0.49
1:A:32:PHE:CE1	1:A:33:GLN:CD	2.85	0.49
1:A:39:TYR:HB2	1:A:50:ASN:HD21	1.58	0.49
1:A:42:LYS:HD3	18:R:101:ASP:HB3	1.79	0.49
1:A:44:ASP:OD1	1:A:44:ASP:N	2.43	0.49
1:A:98:PRO:O	1:A:99:ILE:CG1	2.60	0.49
3:C:55:VAL:HG11	3:C:82:PHE:CD2	2.45	0.49
3:C:197:LYS:CB	3:C:200:LEU:HD21	2.42	0.49
11:K:62:PHE:CD1	11:K:67:PHE:CD2	2.96	0.49
4:D:162:ASP:OD1	4:D:166:TYR:CE2	2.65	0.49
25:Y:98:GLU:O	25:Y:98:GLU:OE1	2.30	0.49
1:A:208:GLU:HG2	1:A:209:GLU:N	2.27	0.49
2:B:148:ASN:ND2	2:B:148:ASN:N	2.61	0.49
2:B:131:ASP:N	2:B:131:ASP:OD1	2.38	0.49
8:H:147:LYS:HE3	8:H:153:LEU:CD1	2.39	0.49
6:F:53:ALA:HB1	17:Q:125:ARG:NH2	2.25	0.49
12:L:72:ILE:N	12:L:72:ILE:HD12	2.26	0.49
24:X:8:ARG:O	24:X:10:ALA:N	2.42	0.49
8:H:37:LYS:HZ3	8:H:41:ARG:HG3	1.77	0.49
3:C:196:LYS:HG3	3:C:197:LYS:N	2.28	0.49
17:Q:45:ARG:O	17:Q:46:THR:C	2.50	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	1.95	0.49
24:X:71:ARG:NE	24:X:82:THR:HG23	2.23	0.49
20:T:33:TRP:CD1	20:T:37:VAL:HG21	2.48	0.49
16:P:10:ARG:NH2	16:P:11:THR:HG22	2.26	0.49
6:F:14:THR:OG1	17:Q:56:LEU:CG	2.56	0.49
16:P:21:ASP:O	16:P:25:LEU:HG	2.12	0.49
19:S:88:LYS:N	19:S:95:TYR:HD1	2.10	0.49
18:R:5:ARG:HB2	18:R:10:LYS:CE	2.35	0.49
13:M:51:VAL:HG13	13:M:109:VAL:HG23	1.94	0.49
18:R:95:ILE:HA	18:R:114:LEU:HB3	1.95	0.49
13:M:82:ASN:HD22	13:M:107:SER:HA	1.77	0.49
9:I:110:ARG:NH2	9:I:124:LYS:NZ	2.60	0.49
9:I:139:LYS:O	9:I:140:LYS:CB	2.46	0.49
9:I:152:ARG:O	9:I:153:LYS:CB	2.59	0.49
9:I:154:LYS:HD3	9:I:155:ASN:HA	1.94	0.49
1:A:14:ASP:OD2	1:A:55:TRP:HH2	1.96	0.49
2:B:72:ALA:O	2:B:76:ASN:HA	2.13	0.49
3:C:142:LEU:O	3:C:145:LEU:HD21	2.11	0.49
8:H:164:ASN:HA	8:H:167:GLU:CG	2.39	0.49
14:N:26:LEU:CD2	14:N:66:VAL:HG22	2.42	0.49
15:O:62:VAL:HG12	15:O:63:LYS:N	2.28	0.49
22:V:68:SER:O	22:V:72:LEU:HG	2.13	0.49
4:D:46:THR:HB	4:D:84:VAL:HG23	1.94	0.49
6:F:42:LYS:O	6:F:44:LYS:C	2.50	0.49
17:Q:37:ARG:HB2	17:Q:38:PRO:HD2	1.95	0.49
4:D:10:LYS:HZ3	21:U:111:GLU:HG2	1.76	0.49
10:J:168:GLY:O	10:J:169:ARG:O	2.30	0.49
18:R:34:VAL:HG12	18:R:38:ILE:HG12	1.94	0.49
20:T:42:HIS:NE2	20:T:83:GLN:HB3	2.28	0.49
21:U:18:HIS:HE1	21:U:98:VAL:HG22	1.63	0.49
5:E:191:ARG:NE	5:E:245:ARG:CD	2.76	0.49
5:E:124:CYS:HB3	5:E:141:THR:CB	2.36	0.49
5:E:129:ILE:CD1	5:E:139:LEU:HD22	2.32	0.49
12:L:113:LEU:HD12	12:L:120:VAL:HG11	1.93	0.49
12:L:71:ARG:CD	12:L:73:LEU:CG	2.91	0.49
1:A:97:THR:HG22	1:A:98:PRO:N	2.27	0.49
22:V:78:ILE:HG23	22:V:79:VAL:H	1.78	0.49
11:K:37:ASP:C	11:K:38:LYS:HD3	2.33	0.49
10:J:37:LEU:HG	10:J:38:ARG:N	2.28	0.49
25:Y:68:LYS:O	25:Y:69:THR:CG2	2.61	0.49
26:Z:102:LYS:HA	26:Z:107:VAL:CA	2.40	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:44:LYS:HG3	18:R:47:ARG:NE	2.19	0.49
18:R:17:ILE:HG22	18:R:71:ILE:HD11	1.94	0.49
18:R:5:ARG:O	18:R:10:LYS:NZ	2.46	0.49
2:B:105:LEU:HD11	2:B:213:ARG:HG3	1.93	0.49
13:M:19:GLN:NE2	13:M:88:TRP:CD1	2.81	0.49
4:D:141:LYS:HE3	4:D:179:GLN:HE21	1.77	0.49
1:A:89:LYS:HB3	1:A:202:TYR:CE2	2.48	0.49
7:G:170:ARG:HD2	7:G:171:THR:O	2.13	0.49
9:I:139:LYS:CD	9:I:145:ILE:HD12	2.43	0.49
9:I:76:THR:HG22	9:I:77:ARG:H	1.72	0.49
1:A:66:VAL:O	1:A:67:ALA:CB	2.60	0.49
2:B:49:VAL:HG23	2:B:65:ARG:HH12	1.76	0.49
2:B:68:GLU:CD	2:B:83:LYS:HE2	2.32	0.49
8:H:190:PRO:HG2	8:H:192:PHE:CE1	2.47	0.49
22:V:53:TYR:CD2	22:V:72:LEU:HB3	2.47	0.49
22:V:79:VAL:HG12	22:V:82:ASN:CG	2.33	0.49
4:D:22:ASN:OD1	4:D:34:TYR:OH	2.30	0.49
5:E:45:ILE:HG13	5:E:61:VAL:HG21	1.94	0.49
20:T:76:THR:HG22	20:T:95:GLY:O	2.13	0.49
24:X:27:TYR:CD2	24:X:31:HIS:HD2	2.31	0.49
23:W:15:ASN:HD21	23:W:19:LYS:HE3	1.77	0.49
23:W:101:PHE:HD2	23:W:129:PHE:CE1	2.28	0.49
13:M:76:LEU:CA	13:M:128:PHE:HZ	2.25	0.49
20:T:4:VAL:HB	20:T:8:ASP:HB2	1.94	0.49
10:J:84:ILE:HG13	10:J:86:VAL:CG2	2.41	0.49
8:H:126:HIS:NE2	8:H:181:THR:HG22	2.28	0.49
24:X:96:GLU:O	24:X:97:ASN:HB2	2.12	0.49
3:C:94:ILE:O	3:C:94:ILE:HG22	2.13	0.49
13:M:58:GLU:O	13:M:58:GLU:HG3	2.13	0.49
7:G:142:ARG:NH2	7:G:152:ASP:N	2.54	0.49
1:A:125:THR:CG2	1:A:175:TRP:NE1	2.73	0.49
8:H:37:LYS:O	8:H:38:ALA:CB	2.61	0.49
8:H:9:VAL:C	8:H:11:PRO:HD2	2.32	0.49
22:V:53:TYR:HB3	22:V:72:LEU:HD13	1.95	0.49
4:D:35:SER:C	4:D:99:ILE:HD11	2.29	0.49
6:F:42:LYS:CB	6:F:45:TYR:CA	2.81	0.49
13:M:117:GLU:C	13:M:118:SER:HG	2.01	0.49
17:Q:88:ILE:HG13	17:Q:89:SER:H	1.78	0.49
16:P:41:GLN:CG	16:P:84:ILE:CB	2.31	0.49
5:E:11:ARG:CZ	5:E:20:LEU:HB3	2.42	0.49
10:J:125:HIS:CE1	10:J:129:LEU:HD21	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:139:GLU:C	24:X:141:PRO:CD	2.66	0.49
25:Y:22:GLN:HA	25:Y:74:MET:SD	2.52	0.49
25:Y:54:VAL:HG13	25:Y:76:TYR:HB2	1.95	0.49
19:S:55:ARG:NH1	26:Z:80:ARG:HE	2.03	0.49
26:Z:91:LEU:HB3	26:Z:97:ILE:HG12	1.95	0.49
4:D:123:LEU:CG	4:D:154:ASP:HB3	2.42	0.49
23:W:38:LEU:HD23	23:W:41:MET:HE1	1.93	0.49
13:M:104:VAL:HG22	13:M:105:GLY:N	2.28	0.49
13:M:93:LYS:H	13:M:101:ARG:CD	2.26	0.49
1:A:205:ARG:O	1:A:206:ASP:CB	2.61	0.49
26:Z:94:LYS:NZ	26:Z:95:GLY:N	2.56	0.49
17:Q:124:PRO:HG2	17:Q:125:ARG:N	2.28	0.49
4:D:164:VAL:HG13	4:D:165:ASN:N	2.27	0.49
2:B:120:MET:CE	2:B:142:PHE:CZ	2.96	0.49
12:L:149:ALA:CB	12:L:156:GLN:CD	2.26	0.48
3:C:59:LYS:HD2	3:C:254:PHE:CE1	2.48	0.48
8:H:28:LEU:O	8:H:31:GLU:HB2	2.13	0.48
2:B:70:SER:HB3	15:O:128:ARG:HH11	1.77	0.48
18:R:98:VAL:HG11	18:R:103:LYS:N	2.27	0.48
1:A:24:HIS:CE1	18:R:105:MET:HG3	2.45	0.48
21:U:68:THR:HB	21:U:70:CYS:O	2.13	0.48
21:U:68:THR:CG2	21:U:70:CYS:O	2.61	0.48
24:X:70:VAL:HG12	24:X:71:ARG:N	2.27	0.48
19:S:80:PRO:HG2	19:S:82:TRP:CE2	2.48	0.48
18:R:16:ILE:O	18:R:20:TYR:N	2.46	0.48
18:R:122:PRO:CA	18:R:123:THR:OG1	2.61	0.48
14:N:38:TYR:CE2	14:N:78:LYS:HG3	2.47	0.48
4:D:157:MET:SD	4:D:187:LYS:HD3	2.50	0.48
25:Y:98:GLU:OE2	25:Y:99:LYS:CA	2.61	0.48
3:C:154:TYR:OH	3:C:162:PRO:N	2.45	0.48
14:N:125:LEU:HD11	14:N:129:TYR:CZ	2.48	0.48
16:P:71:GLU:HB3	16:P:72:LYS:HG3	1.93	0.48
8:H:149:ASP:OD1	8:H:149:ASP:O	2.31	0.48
15:O:143:LYS:CG	15:O:144:GLY:N	2.64	0.48
5:E:188:ASN:ND2	5:E:218:PHE:CD1	2.80	0.48
5:E:129:ILE:HG23	5:E:139:LEU:CD2	2.43	0.48
7:G:154:ARG:HG2	7:G:155:GLN:N	2.28	0.48
9:I:158:ILE:C	12:L:22:ARG:NH2	2.67	0.48
2:B:137:LEU:HD21	2:B:215:VAL:HG11	1.78	0.48
2:B:137:LEU:HD23	2:B:215:VAL:CG1	2.18	0.48
8:H:169:LYS:HD2	8:H:173:PHE:CZ	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:21:SER:C	14:N:22:VAL:CG1	2.75	0.48
22:V:42:VAL:C	22:V:43:THR:OG1	2.51	0.48
17:Q:109:LYS:HZ1	17:Q:113:ILE:CD1	2.26	0.48
17:Q:111:ILE:HA	17:Q:114:GLN:CD	2.33	0.48
17:Q:116:ASP:CG	17:Q:117:ARG:N	2.65	0.48
21:U:62:ARG:HD2	21:U:79:ARG:HD3	1.94	0.48
5:E:21:ASP:OD2	5:E:24:THR:HG22	2.01	0.48
16:P:18:ARG:HD2	16:P:37:TYR:CB	2.41	0.48
19:S:26:ILE:HD11	19:S:59:LEU:CG	2.42	0.48
10:J:93:LYS:HE3	10:J:93:LYS:N	2.26	0.48
14:N:116:ILE:O	14:N:119:GLU:HG3	2.13	0.48
9:I:38:ILE:HD11	9:I:96:LEU:HD21	1.95	0.48
14:N:114:ARG:CG	14:N:114:ARG:HH21	2.26	0.48
15:O:71:PRO:HB3	15:O:114:SER:HB3	1.93	0.48
5:E:178:GLY:H	5:E:195:ILE:HB	1.78	0.48
3:C:129:SER:CB	3:C:134:THR:HG23	2.43	0.48
24:X:28:LYS:HE3	24:X:32:LEU:HD11	1.95	0.48
22:V:57:GLY:O	22:V:61:ARG:HG3	2.13	0.48
4:D:110:LEU:O	4:D:110:LEU:HD23	2.13	0.48
5:E:100:ARG:CG	5:E:102:ILE:HD12	2.42	0.48
5:E:126:VAL:HG21	5:E:156:MET:HA	1.91	0.48
9:I:193:LYS:HG3	12:L:10:TYR:HE1	1.77	0.48
9:I:74:ARG:HD2	9:I:74:ARG:HA	1.48	0.48
1:A:161:ILE:CG2	1:A:174:MET:CE	2.90	0.48
2:B:49:VAL:CG1	2:B:50:THR:N	2.77	0.48
6:F:63:LYS:CE	6:F:71:ARG:HH12	2.26	0.48
15:O:66:ARG:HG2	15:O:67:ASP:N	2.27	0.48
16:P:41:GLN:HE21	16:P:84:ILE:CG1	2.22	0.48
5:E:43:PRO:CD	5:E:43:PRO:O	2.60	0.48
20:T:77:LYS:HG3	20:T:92:PHE:HE2	0.73	0.48
4:D:168:VAL:HG13	4:D:189:MET:SD	2.53	0.48
16:P:75:VAL:HG21	16:P:104:GLN:NE2	2.27	0.48
19:S:53:THR:C	19:S:54:LYS:CA	2.72	0.48
19:S:81:ASP:C	19:S:87:GLN:HE22	2.15	0.48
9:I:6:ASP:OD2	9:I:8:TRP:N	2.46	0.48
9:I:8:TRP:O	9:I:8:TRP:CE3	2.66	0.48
26:Z:58:LEU:HD23	26:Z:77:LEU:CD1	2.42	0.48
4:D:196:GLY:O	4:D:199:GLY:HA2	2.11	0.48
4:D:220:THR:O	4:D:221:THR:O	2.30	0.48
12:L:152:LYS:C	12:L:154:GLN:N	2.67	0.48
14:N:11:LEU:C	14:N:11:LEU:HD12	2.33	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:192:LYS:CD	6:F:192:LYS:O	2.61	0.48
14:N:37:ILE:HD11	14:N:63:VAL:HG11	1.95	0.48
5:E:48:LEU:CD2	5:E:70:ILE:CD1	2.81	0.48
7:G:147:LEU:HD21	7:G:156:TYR:CD2	2.46	0.48
25:Y:118:ARG:O	25:Y:119:GLY:C	2.51	0.48
3:C:49:THR:HG23	3:C:75:GLU:HG3	1.91	0.48
8:H:10:LYS:HZ1	8:H:17:ASP:CA	2.25	0.48
22:V:11:LEU:HD12	22:V:12:TYR:CG	2.38	0.48
17:Q:51:LEU:C	17:Q:51:LEU:HD12	2.34	0.48
2:B:87:ILE:HG23	2:B:101:HIS:HB2	1.94	0.48
19:S:80:PRO:HG3	19:S:82:TRP:NE1	2.28	0.48
16:P:127:LYS:O	16:P:127:LYS:HG3	2.12	0.48
12:L:118:ARG:HD2	12:L:119:ASP:N	2.20	0.48
14:N:84:LEU:C	14:N:84:LEU:HD12	2.34	0.48
6:F:184:SER:O	6:F:185:SER:HB2	2.13	0.48
6:F:182:LYS:CB	6:F:182:LYS:HZ3	2.25	0.48
14:N:114:ARG:CD	14:N:117:LEU:HD12	2.42	0.48
20:T:65:TYR:CD2	20:T:123:LEU:CD1	2.96	0.48
7:G:27:PHE:HE2	7:G:41:LEU:CD1	2.12	0.48
12:L:130:GLU:HG2	12:L:131:CYS:H	1.78	0.48
9:I:154:LYS:HZ3	12:L:22:ARG:HG3	1.78	0.48
1:A:184:ARG:HD3	1:A:192:GLU:HG2	1.96	0.48
2:B:53:GLN:O	2:B:55:THR:N	2.47	0.48
8:H:36:LEU:HA	8:H:36:LEU:HD13	1.46	0.48
15:O:16:SER:O	15:O:17:LEU:CB	2.61	0.48
1:A:158:ASP:CB	22:V:65:SER:HB2	2.43	0.48
4:D:76:ARG:CG	11:K:66:HIS:ND1	2.76	0.48
11:K:47:LYS:HD2	11:K:50:GLN:NE2	2.28	0.48
17:Q:41:MET:O	17:Q:43:GLU:HG3	2.13	0.48
17:Q:72:VAL:HG12	17:Q:80:GLN:NE2	2.29	0.48
6:F:95:HIS:NE2	26:Z:103:HIS:HB3	2.28	0.48
25:Y:17:LEU:C	25:Y:17:LEU:HD12	2.34	0.48
20:T:99:VAL:CG2	20:T:100:ALA:N	2.76	0.48
25:Y:104:ARG:HA	25:Y:107:ARG:NH2	2.29	0.48
16:P:127:LYS:CD	16:P:127:LYS:O	2.61	0.48
23:W:102:ILE:N	23:W:113:HIS:HD1	2.12	0.48
4:D:212:GLU:N	4:D:212:GLU:CD	2.48	0.48
5:E:47:PHE:CE2	5:E:52:LEU:HD12	2.42	0.48
20:T:84:ARG:C	20:T:86:GLY:N	2.67	0.48
3:C:124:LEU:N	3:C:226:PHE:CZ	2.81	0.48
25:Y:111:LYS:HG3	25:Y:112:ASN:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:255:THR:CG2	3:C:256:ASP:N	2.76	0.48
5:E:97:GLU:OE1	5:E:97:GLU:C	4.80	0.48
9:I:104:ILE:HG13	9:I:105:ASP:N	2.26	0.48
6:F:59:LYS:HD2	6:F:62:ARG:HH21	0.66	0.48
8:H:158:LEU:HD21	8:H:187:PHE:CD1	2.48	0.48
1:A:7:VAL:CG2	22:V:43:THR:HG21	2.44	0.48
13:M:111:VAL:HG11	13:M:114:TYR:HB3	1.95	0.48
17:Q:109:LYS:HZ2	17:Q:113:ILE:HD11	1.79	0.48
10:J:110:LEU:CD1	10:J:135:ILE:HD12	2.42	0.48
16:P:107:ILE:HA	16:P:111:MET:HE1	1.86	0.48
19:S:90:VAL:HG12	19:S:91:LYS:CE	2.43	0.48
20:T:40:ALA:O	20:T:43:LYS:CG	2.62	0.48
3:C:259:VAL:O	3:C:260:LYS:O	2.30	0.48
8:H:121:THR:HG22	8:H:124:ALA:CB	2.43	0.48
18:R:95:ILE:CA	18:R:114:LEU:HD13	2.42	0.48
19:S:111:LEU:HD22	19:S:125:HIS:CG	2.48	0.48
5:E:256:LEU:HD12	5:E:256:LEU:C	2.34	0.48
22:V:57:GLY:O	22:V:61:ARG:CG	2.62	0.48
23:W:115:GLU:HG2	23:W:119:LYS:HE3	1.95	0.48
7:G:16:ILE:HD13	7:G:45:TRP:CE2	2.35	0.48
7:G:33:ALA:N	7:G:52:ILE:CG2	2.74	0.48
9:I:154:LYS:O	12:L:22:ARG:HD2	2.14	0.48
12:L:59:LYS:HD2	12:L:112:HIS:NE2	2.29	0.48
12:L:101:ARG:HB2	24:X:10:ALA:HB2	1.95	0.48
1:A:30:LEU:HD13	1:A:38:ILE:HD11	0.49	0.48
3:C:142:LEU:O	3:C:145:LEU:CG	2.61	0.48
6:F:136:ARG:HD2	6:F:136:ARG:N	2.28	0.48
22:V:12:TYR:HE1	22:V:14:PRO:HG3	1.79	0.48
22:V:11:LEU:HD12	22:V:12:TYR:N	2.29	0.48
17:Q:112:LEU:HD12	17:Q:120:LEU:CD2	2.42	0.48
17:Q:45:ARG:HG2	17:Q:46:THR:H	1.79	0.48
17:Q:50:LYS:HG3	17:Q:85:ARG:NH2	2.26	0.48
10:J:174:LYS:HE2	10:J:174:LYS:HB3	1.42	0.48
12:L:17:PHE:HE1	12:L:18:GLN:HB2	1.68	0.48
26:Z:65:TYR:CD2	26:Z:68:ILE:CD1	2.97	0.48
16:P:65:LYS:HG3	16:P:66:GLU:H	1.79	0.48
14:N:84:LEU:HD12	14:N:84:LEU:O	2.14	0.48
14:N:13:GLN:C	14:N:14:SER:O	2.47	0.48
3:C:169:VAL:HG11	3:C:232:THR:HG22	1.94	0.48
2:B:120:MET:HE3	2:B:142:PHE:CZ	2.44	0.48
7:G:227:GLN:C	7:G:230:LYS:HG3	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:157:LYS:C	9:I:158:ILE:O	2.51	0.48
2:B:72:ALA:N	2:B:79:VAL:CG2	2.75	0.48
3:C:54:LEU:CD2	3:C:254:PHE:CB	2.88	0.48
8:H:160:LYS:CB	8:H:192:PHE:HZ	2.27	0.48
2:B:83:LYS:NZ	15:O:130:GLU:OE2	2.46	0.48
15:O:34:PHE:HE1	15:O:99:ALA:C	2.15	0.48
1:A:4:ALA:CB	22:V:39:VAL:HG21	2.39	0.48
4:D:40:ARG:CD	21:U:107:GLU:OE2	2.62	0.48
11:K:27:VAL:HA	11:K:43:LEU:HD23	1.95	0.48
10:J:121:LYS:HD3	10:J:121:LYS:HA	1.65	0.48
19:S:7:GLU:O	26:Z:50:PHE:O	2.31	0.48
18:R:1:MET:HA	18:R:1:MET:CG	2.38	0.48
18:R:24:LEU:HD12	18:R:58:MET:CE	2.44	0.48
14:N:38:TYR:CD1	14:N:78:LYS:CG	2.95	0.48
4:D:223:ILE:HG22	4:D:224:SER:N	2.28	0.48
24:X:41:PHE:CZ	24:X:120:PHE:CD1	3.02	0.48
18:R:95:ILE:CG2	18:R:115:SER:O	2.62	0.48
2:B:119:THR:HB	2:B:143:THR:CG2	2.42	0.48
1:A:91:ALA:HA	1:A:96:ALA:HB3	1.96	0.48
19:S:126:PHE:HD2	19:S:127:TRP:CD1	2.32	0.48
17:Q:62:ARG:HD3	17:Q:62:ARG:HA	1.47	0.48
9:I:154:LYS:O	12:L:22:ARG:CG	2.61	0.48
12:L:5:GLN:NE2	12:L:10:TYR:HD1	2.10	0.48
12:L:94:HIS:CB	12:L:105:ARG:CD	2.75	0.48
1:A:18:PHE:CE2	1:A:55:TRP:CZ3	3.02	0.48
3:C:48:VAL:CG2	3:C:75:GLU:OE2	2.61	0.48
3:C:54:LEU:H	3:C:258:LEU:HD22	1.79	0.48
8:H:34:SER:O	8:H:35:ASP:OD1	2.32	0.48
15:O:44:VAL:HG11	15:O:93:LEU:HD21	1.94	0.48
24:X:126:ALA:CB	24:X:128:VAL:CG1	2.88	0.48
20:T:76:THR:C	20:T:95:GLY:N	2.64	0.48
19:S:30:ILE:O	19:S:32:ALA:N	2.47	0.48
16:P:37:TYR:CA	19:S:88:LYS:HD3	2.44	0.48
19:S:89:ASP:O	19:S:90:VAL:CG2	2.61	0.48
10:J:28:GLU:OE1	10:J:40:LYS:CE	2.61	0.48
21:U:43:ALA:O	21:U:48:LEU:HG	2.13	0.48
14:N:38:TYR:CG	14:N:78:LYS:HD2	2.43	0.48
13:M:93:LYS:N	13:M:101:ARG:HD3	2.28	0.48
14:N:116:ILE:C	14:N:119:GLU:HG3	2.34	0.48
2:B:175:GLU:CG	2:B:193:ILE:CD1	2.84	0.48
9:I:31:ARG:HH11	9:I:31:ARG:CG	2.26	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:175:SER:O	3:C:213:GLY:HA3	2.14	0.48
8:H:126:HIS:HA	8:H:129:ILE:HD12	1.96	0.48
12:L:14:PRO:HB2	12:L:15:THR:HG23	1.96	0.48
9:I:144:LYS:H	9:I:144:LYS:HD3	1.78	0.48
9:I:191:GLU:O	9:I:195:LEU:CB	2.62	0.48
12:L:125:ILE:HB	12:L:146:THR:HG22	1.92	0.48
12:L:149:ALA:C	12:L:150:GLY:O	2.44	0.48
12:L:57:ASP:OD1	12:L:59:LYS:HB2	2.14	0.48
3:C:148:VAL:CB	3:C:149:PRO:HD3	2.43	0.48
3:C:54:LEU:N	3:C:258:LEU:CD2	2.77	0.48
6:F:138:ALA:HB3	6:F:204:ARG:HB3	1.96	0.48
6:F:71:ARG:HG3	6:F:71:ARG:HH21	1.72	0.48
8:H:29:GLU:HA	8:H:32:MET:SD	2.54	0.48
22:V:64:GLU:O	22:V:65:SER:C	2.52	0.48
25:Y:55:ILE:CA	25:Y:75:ILE:HG12	2.44	0.48
20:T:102:ARG:HH21	20:T:105:GLN:CD	2.09	0.48
16:P:10:ARG:CD	16:P:11:THR:H	2.25	0.48
2:B:87:ILE:HG23	2:B:101:HIS:CB	2.43	0.48
19:S:55:ARG:HH12	26:Z:82:SER:CB	2.27	0.48
26:Z:58:LEU:CD2	26:Z:77:LEU:CD1	2.91	0.48
25:Y:97:TYR:HD1	25:Y:98:GLU:H	1.58	0.48
20:T:42:HIS:CD2	20:T:81:GLY:O	2.67	0.48
2:B:183:GLU:O	2:B:187:LYS:HB2	2.13	0.48
5:E:241:GLY:O	5:E:244:ILE:CG1	2.58	0.48
5:E:132:GLY:N	5:E:136:ILE:O	2.47	0.48
9:I:70:GLU:O	9:I:71:CYS:HB3	2.14	0.47
1:A:127:PRO:HG2	1:A:152:SER:HB3	1.94	0.47
1:A:55:TRP:NE1	1:A:59:LEU:HD11	2.29	0.47
1:A:75:SER:HA	1:A:97:THR:O	2.14	0.47
2:B:36:PRO:HA	2:B:231:LEU:CD2	2.44	0.47
13:M:46:GLN:HB3	13:M:112:LYS:CD	2.44	0.47
3:C:197:LYS:C	3:C:200:LEU:CD2	2.80	0.47
17:Q:130:LYS:HA	17:Q:137:ALA:HA	1.96	0.47
10:J:125:HIS:HD2	10:J:129:LEU:HD11	1.64	0.47
10:J:50:LEU:HD12	10:J:102:ILE:HD11	1.85	0.47
24:X:128:VAL:O	24:X:128:VAL:CG1	2.29	0.47
25:Y:58:PHE:CD1	25:Y:72:PHE:HD2	2.31	0.47
20:T:36:THR:HG23	20:T:37:VAL:N	2.29	0.47
16:P:77:LYS:C	16:P:78:THR:CG2	2.81	0.47
16:P:17:TYR:CE1	16:P:18:ARG:HB2	2.49	0.47
16:P:37:TYR:CB	19:S:88:LYS:HD3	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:90:GLY:O	10:J:96:TYR:HD2	1.77	0.47
19:S:139:THR:HB	19:S:140:GLY:H	1.23	0.47
4:D:112:GLY:H	4:D:113:LEU:HD12	1.66	0.47
16:P:62:LYS:HA	16:P:65:LYS:HE2	1.96	0.47
12:L:78:THR:CG2	12:L:79:LYS:N	2.77	0.47
8:H:154:ILE:HG22	8:H:185:VAL:HG23	1.95	0.47
24:X:58:GLU:O	24:X:58:GLU:CG	2.62	0.47
5:E:151:ASP:HB3	5:E:152:PRO:CD	2.43	0.47
5:E:180:LEU:CD1	5:E:228:ILE:CD1	2.91	0.47
7:G:157:VAL:HG11	7:G:159:ARG:CA	2.43	0.47
7:G:207:ALA:O	7:G:211:LYS:HG3	2.13	0.47
7:G:64:LYS:HD2	7:G:100:CYS:SG	2.53	0.47
7:G:79:LYS:HD2	7:G:80:GLY:N	2.29	0.47
9:I:138:ASN:C	9:I:139:LYS:O	2.53	0.47
12:L:40:ILE:C	12:L:40:ILE:HD13	2.33	0.47
1:A:12:GLU:O	1:A:16:LEU:HG	2.14	0.47
2:B:48:LEU:N	2:B:48:LEU:CD1	2.71	0.47
3:C:244:THR:O	3:C:246:PHE:N	2.47	0.47
22:V:11:LEU:HD11	22:V:12:TYR:HE2	1.62	0.47
23:W:23:ARG:HG2	23:W:23:ARG:NH1	2.29	0.47
4:D:10:LYS:HE3	4:D:14:ASP:OD2	2.14	0.47
17:Q:44:PRO:O	17:Q:45:ARG:CG	2.54	0.47
19:S:103:LEU:HD12	19:S:103:LEU:C	2.33	0.47
19:S:90:VAL:HG12	19:S:91:LYS:CG	2.43	0.47
26:Z:54:THR:O	26:Z:58:LEU:HG	2.14	0.47
4:D:192:TRP:HE3	4:D:196:GLY:CA	2.15	0.47
25:Y:102:THR:HB	25:Y:104:ARG:H	1.79	0.47
10:J:48:PHE:HZ	10:J:52:LYS:HZ1	1.37	0.47
20:T:40:ALA:O	20:T:43:LYS:CB	2.62	0.47
14:N:14:SER:OG	14:N:14:SER:O	2.31	0.47
15:O:35:ALA:HB2	15:O:112:ALA:CB	2.23	0.47
17:Q:63:PHE:HD1	17:Q:68:ILE:CD1	2.27	0.47
4:D:145:GLN:CG	4:D:146:ARG:N	2.77	0.47
17:Q:10:VAL:HG11	17:Q:94:ALA:HB1	1.96	0.47
5:E:200:ARG:HG2	5:E:206:ASP:OD2	2.14	0.47
4:D:68:GLU:O	4:D:72:VAL:HG23	2.14	0.47
24:X:124:LYS:HE2	24:X:124:LYS:HB3	1.65	0.47
2:B:25:PHE:HA	2:B:28:LYS:HD2	1.96	0.47
4:D:58:VAL:HG21	4:D:88:ALA:CB	2.44	0.47
6:F:45:TYR:CA	6:F:47:LYS:HE2	2.44	0.47
17:Q:116:ASP:CG	17:Q:118:THR:H	2.18	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:81:ASP:HA	19:S:84:LEU:HD12	1.95	0.47
24:X:3:LYS:O	24:X:4:CYS:C	2.50	0.47
20:T:66:LEU:HB2	20:T:67:ARG:HE	1.79	0.47
4:D:221:THR:CB	4:D:222:PRO:CD	2.77	0.47
2:B:105:LEU:HD11	2:B:110:MET:HE1	1.88	0.47
20:T:87:VAL:CG1	20:T:88:MET:HG3	2.38	0.47
21:U:16:ALA:O	21:U:17:ILE:HG13	2.14	0.47
5:E:152:PRO:HD2	7:G:212:LEU:CD2	2.42	0.47
7:G:122:PRO:HD2	7:G:123:GLY:H	1.78	0.47
7:G:139:SER:O	7:G:143:LYS:HD2	2.14	0.47
7:G:73:VAL:CG1	7:G:74:ARG:N	2.78	0.47
9:I:113:TYR:O	9:I:117:TYR:HD2	1.96	0.47
9:I:140:LYS:CD	9:I:141:ARG:N	2.72	0.47
25:Y:120:THR:HB	25:Y:122:LYS:CD	2.42	0.47
2:B:55:THR:C	2:B:56:LYS:HD2	2.31	0.47
8:H:64:VAL:CG2	8:H:72:PHE:CE2	2.97	0.47
8:H:8:ILE:CG2	8:H:9:VAL:N	2.67	0.47
13:M:44:LYS:HA	13:M:45:ARG:HH21	1.80	0.47
15:O:44:VAL:CG1	15:O:93:LEU:HD22	2.45	0.47
20:T:55:THR:HG23	20:T:56:ARG:N	2.30	0.47
26:Z:44:LEU:HD11	26:Z:46:ASN:ND2	2.29	0.47
6:F:98:GLU:O	6:F:102:LEU:HG	2.15	0.47
10:J:21:GLU:C	10:J:23:SER:N	2.58	0.47
4:D:123:LEU:CD2	4:D:154:ASP:OD2	2.61	0.47
13:M:33:ARG:CG	13:M:33:ARG:NH1	2.74	0.47
25:Y:111:LYS:HZ2	25:Y:115:LYS:NZ	2.11	0.47
7:G:127:THR:C	7:G:128:THR:OG1	2.52	0.47
10:J:139:LYS:HA	10:J:139:LYS:HD2	1.52	0.47
5:E:48:LEU:HD11	5:E:70:ILE:HD13	1.94	0.47
9:I:76:THR:HG22	9:I:77:ARG:O	2.14	0.47
12:L:12:LYS:O	12:L:56:ILE:HD11	2.15	0.47
1:A:106:GLY:HA3	1:A:113:GLN:NE2	2.29	0.47
2:B:137:LEU:CB	2:B:172:MET:CE	2.78	0.47
3:C:58:MET:HE1	3:C:81:PHE:CZ	2.49	0.47
8:H:10:LYS:HZ1	8:H:16:PRO:C	2.17	0.47
22:V:41:LYS:O	22:V:42:VAL:C	2.50	0.47
22:V:69:ILE:O	22:V:73:ALA:N	2.45	0.47
4:D:51:LEU:HD12	4:D:51:LEU:HA	1.79	0.47
4:D:74:GLN:NE2	4:D:75:LYS:HD3	2.21	0.47
11:K:11:ILE:CD1	11:K:45:VAL:HG22	2.45	0.47
16:P:44:ARG:CZ	16:P:82:ASP:O	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:108:ARG:HG2	10:J:32:ILE:HD13	48.39	0.47
25:Y:19:GLN:CG	25:Y:81:TYR:CD1	2.71	0.47
20:T:33:TRP:CD1	20:T:34:VAL:N	2.82	0.47
4:D:132:LYS:HB3	4:D:189:MET:HG3	1.96	0.47
19:S:52:LEU:O	19:S:54:LYS:N	2.47	0.47
26:Z:99:LEU:HD13	26:Z:102:LYS:HE2	0.55	0.47
18:R:21:TYR:CE2	18:R:73:LEU:HD12	2.49	0.47
21:U:44:LYS:HA	21:U:47:ASN:HA	1.96	0.47
13:M:124:ILE:CB	13:M:127:TYR:HE2	2.27	0.47
23:W:104:LEU:C	23:W:104:LEU:HD12	2.35	0.47
2:B:153:THR:CG2	2:B:154:SER:N	2.53	0.47
9:I:155:ASN:CG	9:I:156:ALA:HA	2.35	0.47
1:A:85:ARG:NE	1:A:201:LEU:O	2.47	0.47
6:F:201:LYS:O	6:F:202:SER:O	2.32	0.47
8:H:29:GLU:OE1	8:H:86:LYS:HE3	2.15	0.47
15:O:44:VAL:HG13	15:O:93:LEU:HD22	1.96	0.47
11:K:40:VAL:HG23	11:K:41:PRO:HD3	1.94	0.47
11:K:40:VAL:HG21	11:K:45:VAL:HG23	1.95	0.47
11:K:4:PRO:CG	11:K:7:ASN:CG	2.83	0.47
3:C:185:ARG:HB3	10:J:98:LEU:O	2.14	0.47
24:X:129:SER:OG	24:X:132:ALA:CB	2.60	0.47
25:Y:54:VAL:HG13	25:Y:76:TYR:C	2.33	0.47
25:Y:79:LEU:O	25:Y:83:LYS:HG3	2.15	0.47
16:P:33:LEU:HD22	16:P:87:PRO:HD3	1.16	0.47
16:P:22:LEU:C	16:P:22:LEU:HD12	2.35	0.47
16:P:59:ARG:NE	16:P:76:VAL:HG13	2.29	0.47
3:C:241:TRP:CZ2	23:W:68:ARG:HD2	2.49	0.47
4:D:137:VAL:HG22	4:D:151:LYS:HG3	1.95	0.47
7:G:143:LYS:HE3	7:G:143:LYS:N	2.30	0.47
1:A:124:VAL:HG21	1:A:134:LEU:CD2	2.44	0.47
1:A:3:GLY:HA3	22:V:78:ILE:CG1	2.42	0.47
2:B:63:LYS:C	2:B:63:LYS:CD	2.79	0.47
1:A:180:ARG:NH1	1:A:184:ARG:HH22	2.11	0.47
1:A:6:ASP:O	1:A:7:VAL:C	2.53	0.47
2:B:137:LEU:HD23	2:B:215:VAL:CA	2.44	0.47
6:F:135:ARG:NH2	15:O:66:ARG:HG3	2.30	0.47
8:H:170:VAL:HA	8:H:173:PHE:CD2	2.48	0.47
15:O:31:CYS:SG	15:O:95:ILE:HG13	2.55	0.47
4:D:4:GLN:C	4:D:5:ILE:HG13	2.35	0.47
4:D:97:CYS:C	4:D:99:ILE:H	2.12	0.47
11:K:43:LEU:N	11:K:46:MET:H	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:115:TYR:C	17:Q:115:TYR:CD2	2.88	0.47
17:Q:135:PRO:CG	17:Q:141:TYR:CE1	2.71	0.47
6:F:91:ARG:HD2	17:Q:46:THR:CG2	2.40	0.47
5:E:11:ARG:C	5:E:12:VAL:HG23	2.34	0.47
10:J:121:LYS:O	10:J:122:SER:HB2	2.14	0.47
5:E:64:ILE:CG1	25:Y:18:LEU:HD21	2.44	0.47
25:Y:50:THR:C	25:Y:51:THR:HG23	2.35	0.47
20:T:38:LYS:HD2	20:T:46:ALA:HA	1.97	0.47
25:Y:29:HIS:CE1	25:Y:67:GLY:N	2.82	0.47
12:L:18:GLN:NE2	12:L:20:LYS:HD2	2.26	0.47
26:Z:99:LEU:HD21	26:Z:109:TYR:CZ	2.48	0.47
26:Z:99:LEU:CG	26:Z:102:LYS:HD3	2.42	0.47
4:D:166:TYR:CE1	4:D:200:PRO:HB2	2.41	0.47
4:D:202:LYS:HB3	4:D:203:PRO:HD3	1.95	0.47
2:B:209:ASP:C	2:B:210:VAL:HG23	2.34	0.47
16:P:126:VAL:HG12	16:P:127:LYS:CA	2.33	0.47
19:S:138:THR:CA	19:S:141:ARG:CZ	2.65	0.47
23:W:128:PHE:HE1	23:W:130:PHE:CE2	2.08	0.47
13:M:102:LYS:O	13:M:103:VAL:C	2.52	0.47
12:L:31:GLU:N	12:L:31:GLU:OE1	2.42	0.47
23:W:65:LEU:HD12	23:W:65:LEU:C	2.35	0.47
14:N:125:LEU:HD22	14:N:129:TYR:CZ	2.49	0.47
6:F:149:GLN:O	6:F:153:LEU:HG	2.15	0.47
20:T:42:HIS:HE1	20:T:93:SER:HB3	1.74	0.47
23:W:2:VAL:HG23	23:W:3:ARG:N	2.29	0.47
15:O:37:PHE:CD1	15:O:110:PRO:HD3	2.49	0.47
14:N:94:LYS:CG	14:N:118:ILE:HD13	2.43	0.47
16:P:94:VAL:HG12	16:P:96:VAL:CG2	2.44	0.47
24:X:5:ARG:HB3	24:X:5:ARG:HH21	1.77	0.47
1:A:59:LEU:CD2	1:A:181:GLU:CG	2.93	0.47
3:C:54:LEU:HD22	3:C:254:PHE:CB	2.44	0.47
3:C:49:THR:HG21	3:C:75:GLU:HG3	1.97	0.47
14:N:27:LYS:H	14:N:27:LYS:HE3	1.71	0.47
15:O:119:LEU:HD12	15:O:119:LEU:C	2.35	0.47
10:J:114:VAL:O	10:J:120:ALA:HB3	2.15	0.47
4:D:192:TRP:O	4:D:196:GLY:N	2.36	0.47
4:D:217:ILE:O	4:D:218:LEU:HB3	2.15	0.47
18:R:91:LEU:HD13	18:R:92:ASP:CB	2.44	0.47
2:B:105:LEU:O	2:B:106:THR:OG1	2.30	0.47
15:O:37:PHE:CE1	15:O:110:PRO:HD3	2.50	0.47
22:V:38:GLU:OE1	22:V:49:GLN:HB3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:113:GLN:OE1	10:J:116:LYS:HD3	2.15	0.47
5:E:57:THR:HB	5:E:59:ASP:H	1.80	0.47
7:G:6:SER:OG	7:G:112:VAL:HG22	2.15	0.47
5:E:94:LYS:C	5:E:95:THR:CG2	2.83	0.47
7:G:143:LYS:HA	7:G:143:LYS:HE3	1.97	0.47
9:I:114:GLU:O	9:I:118:ALA:HA	2.15	0.47
12:L:112:HIS:CB	12:L:134:LEU:CD1	2.92	0.47
1:A:147:LEU:HD23	1:A:147:LEU:HA	1.64	0.47
1:A:26:GLY:N	1:A:47:TYR:O	2.46	0.47
2:B:83:LYS:O	2:B:103:MET:HA	2.14	0.47
3:C:55:VAL:CA	3:C:82:PHE:CZ	2.96	0.47
8:H:37:LYS:HZ3	8:H:38:ALA:CA	2.28	0.47
18:R:103:LYS:HG3	18:R:107:LYS:HE3	1.97	0.47
22:V:41:LYS:C	22:V:43:THR:H	2.18	0.47
11:K:41:PRO:HD2	11:K:43:LEU:HG	1.97	0.47
4:D:23:GLU:HB3	11:K:64:TRP:HE1	1.80	0.47
17:Q:34:VAL:HG22	17:Q:39:LEU:HD21	1.93	0.47
5:E:46:ILE:HA	5:E:50:ASN:HB2	1.97	0.47
5:E:248:ILE:CD1	10:J:72:PHE:CZ	2.90	0.47
16:P:88:GLU:HG3	16:P:89:MET:N	2.27	0.47
19:S:58:GLU:O	19:S:59:LEU:HB2	2.15	0.47
2:B:144:LYS:HB3	2:B:208:HIS:HB3	1.97	0.47
2:B:208:HIS:C	2:B:208:HIS:CD2	2.88	0.47
4:D:212:GLU:HB3	18:R:19:LYS:CG	2.43	0.47
16:P:65:LYS:HG3	16:P:66:GLU:HG3	1.96	0.47
6:F:36:GLN:O	6:F:36:GLN:HG2	2.14	0.47
6:F:185:SER:HA	6:F:190:ILE:HD12	1.96	0.47
9:I:7:ASN:C	9:I:9:HIS:N	2.59	0.47
18:R:87:GLU:O	18:R:88:VAL:CG1	2.62	0.47
9:I:129:LEU:O	9:I:134:GLU:CB	2.63	0.47
5:E:152:PRO:HD3	7:G:209:TYR:HE1	1.80	0.47
7:G:226:GLU:C	7:G:230:LYS:HZ2	2.01	0.47
9:I:130:THR:N	9:I:131:PRO:CD	2.78	0.47
12:L:96:ILE:N	12:L:96:ILE:HD12	2.30	0.47
18:R:32:LYS:CE	18:R:33:ARG:HE	2.19	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
2:B:103:MET:O	2:B:214:LYS:HA	2.15	0.47
2:B:24:PRO:O	2:B:28:LYS:HG3	2.15	0.47
3:C:63:LEU:CB	3:C:67:TYR:CE2	2.98	0.47
8:H:37:LYS:HD2	8:H:41:ARG:HD3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:9:VAL:O	8:H:45:ILE:O	2.33	0.47
4:D:23:GLU:HG2	11:K:64:TRP:NE1	2.28	0.47
17:Q:42:ILE:HD12	17:Q:51:LEU:HD11	1.95	0.47
10:J:67:ASP:O	10:J:68:PRO:C	2.52	0.47
10:J:94:LEU:C	10:J:94:LEU:HD12	2.34	0.47
25:Y:55:ILE:HG12	25:Y:75:ILE:HD11	1.80	0.47
20:T:45:LEU:HD23	20:T:48:TYR:CE1	2.49	0.47
6:F:15:PRO:CD	17:Q:56:LEU:HB3	2.41	0.47
16:P:107:ILE:CA	16:P:111:MET:HE3	2.39	0.47
19:S:80:PRO:HG3	19:S:82:TRP:CZ2	2.50	0.47
26:Z:107:VAL:HG23	26:Z:108:ILE:H	1.80	0.47
24:X:60:LYS:CD	24:X:116:PRO:HG3	2.44	0.47
18:R:5:ARG:H	18:R:10:LYS:HZ1	1.62	0.47
23:W:94:LEU:HA	23:W:95:PRO:HD3	1.81	0.47
4:D:217:ILE:HG22	4:D:218:LEU:N	2.30	0.47
3:C:158:LYS:H	3:C:158:LYS:HG3	1.45	0.47
3:C:159:ILE:O	3:C:159:ILE:HG23	2.15	0.47
3:C:191:SER:OG	3:C:209:THR:HG21	2.15	0.47
4:D:182:LEU:HD22	4:D:182:LEU:N	2.30	0.47
17:Q:100:VAL:CG1	17:Q:101:ASP:N	2.44	0.47
21:U:73:GLY:C	21:U:74:SER:O	2.51	0.47
3:C:122:VAL:CG1	3:C:202:ALA:CA	2.93	0.47
2:B:189:ILE:HB	2:B:190:PRO:HD3	1.96	0.47
5:E:98:ASN:HD22	5:E:114:ILE:HG13	1.79	0.46
7:G:210:ALA:HA	7:G:213:LEU:CD2	2.45	0.46
7:G:77:LEU:HD13	7:G:84:TYR:HB2	1.96	0.46
9:I:197:PHE:CD2	12:L:5:GLN:CG	2.99	0.46
12:L:76:VAL:O	12:L:76:VAL:HG23	2.16	0.46
15:O:125:LYS:HB3	15:O:125:LYS:HE3	1.37	0.46
15:O:43:HIS:CD2	15:O:43:HIS:O	2.68	0.46
22:V:55:ILE:HG22	22:V:60:ARG:CG	2.44	0.46
22:V:55:ILE:CD1	22:V:65:SER:CA	2.86	0.46
11:K:2:LEU:O	11:K:3:MET:CE	2.63	0.46
11:K:40:VAL:CG2	11:K:44:HIS:N	2.77	0.46
17:Q:42:ILE:CB	17:Q:51:LEU:HD21	2.44	0.46
21:U:40:ILE:CD1	21:U:53:PRO:CD	2.88	0.46
25:Y:54:VAL:HG13	25:Y:76:TYR:CB	2.45	0.46
4:D:132:LYS:HB3	4:D:189:MET:O	2.16	0.46
19:S:90:VAL:HG12	19:S:91:LYS:CD	2.44	0.46
13:M:35:ILE:CG1	13:M:61:TYR:CE2	2.98	0.46
9:I:21:TYR:CZ	9:I:22:HIS:HD2	2.32	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:197:LYS:H	4:D:198:ILE:HG13	1.80	0.46
5:E:128:LYS:HE2	5:E:128:LYS:HB3	1.64	0.46
22:V:9:VAL:HG12	22:V:10:ASP:HA	1.95	0.46
14:N:141:TYR:CD2	14:N:141:TYR:C	2.88	0.46
9:I:9:HIS:O	9:I:10:LYS:CB	2.62	0.46
8:H:153:LEU:CD2	8:H:184:ASP:HB2	2.45	0.46
9:I:97:VAL:O	9:I:100:CYS:HB2	2.15	0.46
19:S:10:GLN:NE2	19:S:57:GLY:O	2.44	0.46
5:E:195:ILE:O	5:E:196:THR:CB	2.62	0.46
7:G:185:LEU:HB3	7:G:189:ARG:HH12	1.80	0.46
7:G:77:LEU:HD11	7:G:95:LYS:CB	2.35	0.46
7:G:85:ARG:NE	25:Y:118:ARG:NH2	2.57	0.46
1:A:161:ILE:HG22	1:A:174:MET:HE2	1.97	0.46
2:B:36:PRO:CA	2:B:231:LEU:CD2	2.94	0.46
6:F:141:VAL:HG22	6:F:146:ARG:HD3	1.96	0.46
6:F:20:PHE:HZ	6:F:50:PRO:HG3	1.80	0.46
5:E:108:ARG:O	5:E:109:PHE:C	2.49	0.46
10:J:61:LEU:HD23	10:J:98:LEU:CD1	2.35	0.46
24:X:52:LEU:CD1	24:X:53:GLU:CB	2.88	0.46
25:Y:29:HIS:CD2	25:Y:34:THR:N	2.78	0.46
4:D:193:ASP:HB3	4:D:194:PRO:HD3	1.98	0.46
10:J:91:LYS:CA	10:J:96:TYR:CD2	2.99	0.46
24:X:1:MET:SD	24:X:1:MET:N	2.80	0.46
24:X:3:LYS:HE2	24:X:3:LYS:HB3	1.59	0.46
18:R:6:THR:O	18:R:10:LYS:HG2	2.15	0.46
4:D:218:LEU:CA	4:D:220:THR:HG23	2.44	0.46
4:D:222:PRO:O	4:D:223:ILE:CD1	2.63	0.46
25:Y:88:LYS:HE2	25:Y:99:LYS:HG3	1.97	0.46
18:R:91:LEU:CB	18:R:92:ASP:C	2.67	0.46
10:J:179:LYS:CA	10:J:182:GLN:OE1	2.61	0.46
23:W:104:LEU:HD13	23:W:106:THR:CG2	2.42	0.46
8:H:118:ARG:O	8:H:121:THR:HG22	2.15	0.46
6:F:161:ALA:HB3	6:F:172:CYS:HG	1.79	0.46
17:Q:10:VAL:CG1	17:Q:11:GLN:N	2.78	0.46
4:D:151:LYS:HE2	4:D:151:LYS:HB2	1.59	0.46
5:E:123:LEU:HA	5:E:123:LEU:HD12	1.77	0.46
9:I:123:ARG:O	9:I:123:ARG:HD3	2.14	0.46
1:A:8:LEU:HD12	1:A:192:GLU:OE1	2.15	0.46
1:A:66:VAL:HG13	1:A:186:ARG:HG3	1.94	0.46
22:V:11:LEU:HD12	22:V:11:LEU:C	2.36	0.46
6:F:42:LYS:C	6:F:45:TYR:H	2.17	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:59:LYS:HD2	11:K:59:LYS:C	2.34	0.46
11:K:64:TRP:O	11:K:65:ARG:CG	2.63	0.46
10:J:124:HIS:C	10:J:126:ALA:N	2.66	0.46
10:J:169:ARG:HG2	10:J:175:ARG:NH1	2.30	0.46
16:P:15:PHE:CD2	16:P:110:GLU:OE2	2.69	0.46
16:P:17:TYR:CE2	16:P:25:LEU:CD2	2.98	0.46
10:J:87:LEU:HD11	10:J:92:MET:H	1.81	0.46
25:Y:101:LYS:O	25:Y:102:THR:OG1	2.30	0.46
18:R:21:TYR:HB2	18:R:71:ILE:HD13	0.64	0.46
4:D:178:ARG:NE	4:D:178:ARG:H	2.13	0.46
14:N:82:PRO:O	14:N:83:ASP:C	2.53	0.46
5:E:195:ILE:CG2	5:E:196:THR:N	2.73	0.46
3:C:227:ASP:O	3:C:231:LYS:HG3	2.15	0.46
5:E:229:GLY:HA3	5:E:235:TRP:HD1	1.79	0.46
7:G:25:ARG:C	7:G:27:PHE:N	2.68	0.46
7:G:68:LEU:N	7:G:68:LEU:HD22	2.30	0.46
7:G:71:GLY:O	7:G:98:ARG:NE	2.48	0.46
12:L:128:VAL:HG12	12:L:142:VAL:HA	1.98	0.46
1:A:76:VAL:HG12	1:A:87:VAL:CB	2.44	0.46
2:B:44:ILE:HG23	2:B:69:VAL:HG21	1.97	0.46
2:B:71:LEU:CB	2:B:84:PHE:CE2	2.98	0.46
3:C:148:VAL:CB	3:C:149:PRO:CD	2.67	0.46
3:C:244:THR:HG22	3:C:246:PHE:CB	2.44	0.46
8:H:190:PRO:HB2	8:H:191:GLU:HG3	1.96	0.46
2:B:52:THR:OG1	14:N:56:ASP:OD1	86.34	0.46
11:K:83:LEU:HB3	11:K:85:LEU:CG	2.31	0.46
21:U:108:PRO:HG2	21:U:110:VAL:HG23	1.96	0.46
16:P:86:LEU:N	16:P:86:LEU:CD2	2.72	0.46
25:Y:20:ARG:C	25:Y:21:LYS:CD	2.82	0.46
20:T:33:TRP:O	20:T:34:VAL:HB	2.14	0.46
25:Y:33:ALA:O	25:Y:34:THR:OG1	2.29	0.46
25:Y:27:VAL:CG1	25:Y:35:VAL:HG21	2.34	0.46
16:P:106:GLU:O	19:S:118:ARG:NH2	2.48	0.46
19:S:117:ILE:HG22	19:S:117:ILE:O	2.15	0.46
2:B:113:MET:HE3	2:B:209:ASP:HB3	1.98	0.46
14:N:93:LYS:CG	14:N:150:VAL:HG11	2.46	0.46
24:X:102:VAL:HG13	24:X:120:PHE:HB3	1.91	0.46
14:N:7:PRO:CD	14:N:8:GLY:N	2.78	0.46
2:B:228:LEU:CD2	2:B:232:HIS:CD2	2.98	0.46
8:H:139:ILE:HD12	8:H:139:ILE:N	2.30	0.46
7:G:142:ARG:NH1	7:G:142:ARG:HG2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:62:PRO:HB2	7:G:83:CYS:SG	2.56	0.46
7:G:80:GLY:O	7:G:81:HIS:ND1	2.47	0.46
12:L:114:SER:OG	12:L:115:PRO:HD2	2.16	0.46
1:A:130:ASP:HB3	1:A:133:PRO:HG2	1.98	0.46
2:B:71:LEU:HA	2:B:74:LEU:HB2	1.97	0.46
8:H:191:GLU:CD	8:H:193:GLN:OE1	2.54	0.46
8:H:35:ASP:C	8:H:35:ASP:OD1	2.50	0.46
4:D:38:GLU:CG	4:D:49:ILE:HB	2.45	0.46
17:Q:41:MET:O	17:Q:43:GLU:N	2.48	0.46
25:Y:19:GLN:CB	25:Y:81:TYR:HB3	2.46	0.46
16:P:5:GLU:O	16:P:6:GLN:HG2	2.14	0.46
19:S:80:PRO:HB2	19:S:82:TRP:NE1	2.31	0.46
6:F:174:ALA:O	6:F:178:ILE:HG13	2.16	0.46
13:M:12:MET:CG	13:M:16:THR:HG22	2.40	0.46
14:N:38:TYR:CE1	14:N:78:LYS:HG3	2.50	0.46
5:E:25:SER:OG	5:E:26:VAL:N	2.48	0.46
11:K:18:GLU:O	11:K:92:ALA:HB1	2.04	0.46
25:Y:43:LYS:O	25:Y:46:LYS:HG3	2.16	0.46
5:E:259:LYS:O	5:E:260:GLN:HG2	2.14	0.46
7:G:51:ARG:HG2	7:G:51:ARG:HH11	1.79	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
7:G:44:GLU:HG3	7:G:44:GLU:H	1.51	0.46
12:L:59:LYS:HD3	12:L:134:LEU:HD21	1.98	0.46
12:L:4:ILE:HB	12:L:5:GLN:H	1.56	0.46
23:W:77:PRO:CD	24:X:5:ARG:O	2.54	0.46
1:A:149:ASN:H	1:A:165:ASN:ND2	2.14	0.46
1:A:81:ASN:HA	1:A:84:GLN:OE1	2.15	0.46
8:H:40:LEU:HD23	8:H:43:LEU:HG	1.96	0.46
14:N:27:LYS:CD	14:N:28:LEU:H	2.29	0.46
14:N:62:GLN:CB	14:N:65:PHE:HD2	2.00	0.46
15:O:119:LEU:HD11	15:O:126:ILE:HD11	1.97	0.46
11:K:30:PRO:HA	11:K:41:PRO:HB3	1.97	0.46
11:K:40:VAL:HA	11:K:41:PRO:HD3	1.65	0.46
16:P:41:GLN:CA	16:P:84:ILE:HG12	2.43	0.46
19:S:40:TYR:CD1	19:S:44:VAL:CG2	2.98	0.46
24:X:67:ARG:NH2	24:X:114:ASP:OD2	2.49	0.46
21:U:50:VAL:HG22	21:U:51:LYS:CA	2.34	0.46
21:U:59:LYS:HD2	21:U:84:ILE:HG21	1.97	0.46
13:M:19:GLN:CG	13:M:88:TRP:CD1	2.97	0.46
14:N:131:THR:O	14:N:132:LYS:HD2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:19:LYS:HB2	2:B:19:LYS:HZ2	1.72	0.46
10:J:179:LYS:HA	10:J:182:GLN:CG	2.46	0.46
21:U:88:LEU:HD12	21:U:88:LEU:C	2.35	0.46
10:J:86:VAL:HG11	10:J:105:PHE:CE1	2.51	0.46
15:O:82:ALA:O	15:O:86:LYS:HG2	2.16	0.46
4:D:142:LEU:O	4:D:144:GLY:N	2.48	0.46
5:E:98:ASN:HD21	5:E:114:ILE:HD11	1.81	0.46
7:G:181:THR:HA	7:G:182:PRO:HD3	1.23	0.46
12:L:136:LYS:HG2	12:L:137:THR:N	2.27	0.46
12:L:99:TYR:N	12:L:99:TYR:CD2	2.80	0.46
1:A:120:ARG:HG2	1:A:120:ARG:HH11	1.80	0.46
2:B:93:GLY:O	2:B:94:LYS:HG2	2.15	0.46
8:H:40:LEU:O	8:H:41:ARG:C	2.54	0.46
15:O:16:SER:CA	15:O:87:GLU:O	2.56	0.46
22:V:40:ASP:O	22:V:40:ASP:OD1	2.33	0.46
6:F:47:LYS:N	6:F:47:LYS:HD3	2.29	0.46
17:Q:113:ILE:CG1	17:Q:120:LEU:CD1	2.93	0.46
26:Z:104:ARG:C	26:Z:104:ARG:NH1	2.69	0.46
5:E:72:ILE:HD13	5:E:82:TYR:CD2	2.49	0.46
24:X:125:VAL:O	24:X:128:VAL:CB	2.64	0.46
4:D:158:ILE:O	4:D:158:ILE:HG12	2.15	0.46
19:S:40:TYR:CE1	19:S:44:VAL:HG21	2.51	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
4:D:197:LYS:C	4:D:198:ILE:HG23	2.34	0.46
21:U:47:ASN:H	21:U:47:ASN:ND2	2.14	0.46
3:C:241:TRP:HH2	23:W:44:HIS:O	1.98	0.46
8:H:116:ARG:HA	8:H:117:PRO:HD3	1.50	0.46
1:A:70:ASN:O	1:A:73:ASP:OD1	2.33	0.46
7:G:145:PHE:C	7:G:147:LEU:HD12	2.36	0.46
7:G:185:LEU:CA	7:G:188:LYS:HE3	2.37	0.46
12:L:12:LYS:C	12:L:56:ILE:HD11	2.36	0.46
8:H:14:GLU:CD	8:H:16:PRO:CB	2.77	0.46
14:N:16:LEU:HD23	14:N:17:PRO:CD	2.45	0.46
15:O:98:ARG:HD2	15:O:132:VAL:HG23	1.97	0.46
15:O:61:LYS:C	15:O:62:VAL:HG23	2.27	0.46
25:Y:50:THR:O	25:Y:51:THR:CB	2.63	0.46
3:C:218:LEU:CD1	3:C:219:GLY:N	2.72	0.46
24:X:27:TYR:CZ	24:X:31:HIS:CE1	2.99	0.46
19:S:55:ARG:HB2	19:S:58:GLU:HG3	1.96	0.46
2:B:110:MET:HE1	2:B:213:ARG:HD2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:207:PRO:HB2	1:A:208:GLU:H	1.33	0.46
23:W:30:CYS:SG	23:W:31:SER:N	2.89	0.46
3:C:121:HIS:O	3:C:122:VAL:HG13	2.16	0.46
6:F:32:ASP:OD2	6:F:35:LEU:HD12	2.16	0.46
5:E:57:THR:OG1	5:E:60:GLU:N	2.41	0.46
7:G:13:GLN:O	7:G:14:LYS:CG	2.64	0.46
7:G:162:LEU:HD21	7:G:170:ARG:HG3	1.96	0.46
12:L:126:VAL:CG2	12:L:142:VAL:HG13	2.46	0.46
25:Y:114:MET:CE	25:Y:121:ALA:O	2.64	0.46
15:O:31:CYS:CB	15:O:95:ILE:CG1	2.80	0.46
2:B:67:PHE:HD1	15:O:47:LEU:C	2.10	0.46
15:O:72:TYR:CE1	15:O:76:LEU:CD1	2.98	0.46
1:A:42:LYS:HZ2	18:R:102:THR:HG23	1.76	0.46
1:A:142:LEU:C	22:V:32:ILE:HD13	2.35	0.46
1:A:141:ASN:CB	22:V:32:ILE:HG12	2.44	0.46
22:V:55:ILE:CD1	22:V:65:SER:O	2.64	0.46
17:Q:47:LEU:O	17:Q:48:GLN:C	2.54	0.46
20:T:77:LYS:HD2	20:T:94:ARG:HH11	1.78	0.46
20:T:31:PRO:HB2	20:T:33:TRP:NE1	2.28	0.46
16:P:9:LYS:O	16:P:10:ARG:NE	2.49	0.46
16:P:10:ARG:O	16:P:11:THR:C	2.54	0.46
19:S:88:LYS:O	19:S:89:ASP:O	2.34	0.46
10:J:93:LYS:HE3	10:J:93:LYS:CA	2.45	0.46
19:S:15:VAL:CG1	19:S:68:ILE:CD1	2.91	0.46
13:M:85:LEU:HD23	13:M:85:LEU:O	2.15	0.46
2:B:131:ASP:OD1	2:B:180:ASP:HA	2.15	0.46
21:U:116:ILE:O	21:U:117:ALA:HB2	2.16	0.46
18:R:87:GLU:O	18:R:88:VAL:HB	2.15	0.46
7:G:145:PHE:O	7:G:147:LEU:HD12	2.16	0.46
7:G:214:ALA:O	7:G:217:MET:HG2	2.15	0.46
12:L:42:LEU:HB2	12:L:44:PHE:CE2	2.50	0.46
6:F:145:ARG:HA	6:F:145:ARG:HD2	1.39	0.46
22:V:24:ILE:CD1	22:V:25:GLY:C	2.84	0.46
8:H:144:ILE:N	23:W:52:ILE:O	2.48	0.46
17:Q:93:VAL:CG1	17:Q:105:LYS:HD3	2.29	0.46
17:Q:50:LYS:NZ	17:Q:117:ARG:HH11	2.14	0.46
4:D:34:TYR:CD2	21:U:61:LEU:HD13	25.41	0.46
6:F:14:THR:OG1	17:Q:56:LEU:HD13	2.08	0.46
8:H:50:GLU:OE1	8:H:58:LYS:HE2	2.16	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:C	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:79:ARG:C	10:J:79:ARG:CD	2.83	0.46
24:X:105:PHE:CB	24:X:112:VAL:HG21	2.46	0.46
23:W:96:SER:OG	23:W:99:PHE:CD2	2.69	0.46
10:J:100:LEU:HD12	10:J:101:LYS:H	1.80	0.46
9:I:29:LEU:CG	9:I:30:GLY:H	2.22	0.46
12:L:2:ALA:O	12:L:3:ASP:C	2.54	0.46
3:C:164:THR:CG2	3:C:165:VAL:H	2.24	0.46
8:H:154:ILE:CG2	8:H:185:VAL:HG23	2.46	0.46
2:B:29:ASP:O	2:B:29:ASP:OD1	2.34	0.46
7:G:32:MET:HE1	7:G:100:CYS:C	2.22	0.45
7:G:5:ILE:HG22	7:G:124:LEU:CD2	2.43	0.45
17:Q:8:GLN:CA	17:Q:99:TYR:CZ	3.00	0.45
8:H:163:GLN:O	8:H:165:ASN:N	2.49	0.45
8:H:168:HIS:CE1	8:H:169:LYS:HE2	2.51	0.45
8:H:64:VAL:CG2	8:H:72:PHE:HE2	2.30	0.45
22:V:78:ILE:C	22:V:79:VAL:HG23	2.35	0.45
4:D:34:TYR:O	4:D:99:ILE:HD12	2.16	0.45
11:K:85:LEU:HD13	11:K:89:ILE:HG13	1.97	0.45
17:Q:45:ARG:O	17:Q:48:GLN:HB3	2.16	0.45
10:J:160:SER:O	10:J:162:ARG:N	2.49	0.45
25:Y:63:HIS:C	25:Y:64:PHE:CD1	2.89	0.45
16:P:17:TYR:CD2	16:P:25:LEU:HD21	2.51	0.45
16:P:17:TYR:C	19:S:90:VAL:O	2.55	0.45
18:R:17:ILE:CG1	18:R:54:VAL:HG13	2.46	0.45
16:P:65:LYS:CG	16:P:66:GLU:N	2.79	0.45
3:C:194:VAL:N	3:C:195:PRO:CD	2.79	0.45
24:X:40:PRO:CB	24:X:81:ILE:CD1	2.86	0.45
14:N:137:PRO:O	14:N:138:ASN:CB	2.64	0.45
5:E:99:PHE:HE1	5:E:113:ARG:CG	2.03	0.45
9:I:155:ASN:CG	9:I:156:ALA:CA	2.85	0.45
9:I:37:LYS:NZ	9:I:93:THR:HB	2.32	0.45
1:A:158:ASP:CG	1:A:158:ASP:O	2.54	0.45
2:B:53:GLN:O	2:B:56:LYS:N	2.49	0.45
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
8:H:188:GLU:HG2	8:H:189:PHE:N	2.30	0.45
6:F:88:MET:O	6:F:92:ILE:HG13	2.16	0.45
11:K:60:GLU:CG	11:K:69:TRP:NE1	2.79	0.45
17:Q:51:LEU:O	17:Q:54:PRO:HD2	2.16	0.45
21:U:104:ILE:HD13	21:U:104:ILE:HG21	1.71	0.45
8:H:146:VAL:HG11	23:W:50:PHE:CE2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:40:TYR:CD1	19:S:97:GLN:NE2	2.84	0.45
2:B:144:LYS:CG	2:B:206:PRO:HB3	2.47	0.45
2:B:19:LYS:HB3	2:B:19:LYS:HE2	1.47	0.45
9:I:10:LYS:CG	9:I:11:ARG:H	2.27	0.45
23:W:27:ILE:HG12	23:W:61:ILE:HB	1.96	0.45
9:I:38:ILE:HD11	9:I:81:VAL:HG23	1.97	0.45
8:H:109:ARG:HB3	8:H:110:THR:H	1.14	0.45
5:E:149:TYR:CD2	7:G:205:GLU:HB3	2.51	0.45
3:C:118:TYR:O	3:C:203:GLY:HA3	2.15	0.45
15:O:147:ARG:O	15:O:147:ARG:HG2	2.17	0.45
5:E:146:THR:C	5:E:147:ILE:HD13	2.35	0.45
5:E:89:VAL:O	5:E:90:ILE:HB	2.16	0.45
9:I:143:LYS:O	9:I:144:LYS:C	2.55	0.45
9:I:141:ARG:HB3	9:I:144:LYS:CB	2.22	0.45
12:L:147:LYS:NZ	12:L:156:GLN:HE22	2.15	0.45
12:L:60:CYS:HB3	12:L:63:THR:OG1	2.17	0.45
12:L:7:GLU:HG2	12:L:8:ARG:H	1.74	0.45
8:H:160:LYS:HB2	8:H:192:PHE:CZ	2.47	0.45
6:F:112:LEU:O	6:F:116:ILE:HG12	2.16	0.45
17:Q:58:LEU:CD1	17:Q:108:ILE:CG2	2.77	0.45
16:P:97:TYR:CD1	16:P:102:PHE:CE2	3.04	0.45
24:X:21:LYS:HD2	24:X:27:TYR:CG	2.51	0.45
19:S:23:ARG:HD3	26:Z:48:VAL:CG2	2.46	0.45
19:S:85:ASN:HD21	19:S:98:VAL:CB	2.29	0.45
10:J:177:ASN:HA	10:J:180:LYS:CB	2.44	0.45
16:P:127:LYS:CE	16:P:128:HIS:CA	2.94	0.45
14:N:134:VAL:HG22	14:N:135:LEU:N	2.31	0.45
10:J:179:LYS:HA	10:J:182:GLN:HB2	1.98	0.45
18:R:124:VAL:CG1	18:R:125:GLY:N	2.80	0.45
8:H:119:SER:O	8:H:120:ARG:CZ	2.63	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	2.32	0.45
20:T:21:PHE:HD1	20:T:22:LEU:N	2.14	0.45
16:P:94:VAL:HG12	16:P:96:VAL:HG23	1.97	0.45
2:B:189:ILE:HB	2:B:190:PRO:CD	2.47	0.45
24:X:101:LEU:HA	24:X:101:LEU:HD23	1.81	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:191:ARG:H	7:G:191:ARG:HG2	1.56	0.45
9:I:119:LEU:N	9:I:120:PRO:CD	2.78	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:99:TYR:CZ	24:X:14:ARG:CA	2.71	0.45
1:A:58:LEU:HA	1:A:161:ILE:HG12	1.98	0.45
2:B:137:LEU:HB3	2:B:172:MET:HE1	1.95	0.45
8:H:16:PRO:O	8:H:20:GLU:OE1	2.34	0.45
14:N:16:LEU:HD23	14:N:16:LEU:HA	1.79	0.45
14:N:36:GLN:HG3	14:N:54:LEU:HD21	1.99	0.45
22:V:56:CYS:SG	22:V:59:ILE:CG1	3.04	0.45
4:D:85:GLU:C	4:D:86:LEU:HD12	2.37	0.45
11:K:62:PHE:CZ	11:K:65:ARG:HA	2.51	0.45
11:K:80:ARG:HA	11:K:85:LEU:HD11	1.98	0.45
21:U:27:ARG:CZ	21:U:82:MET:CG	2.94	0.45
26:Z:103:HIS:C	26:Z:103:HIS:CD2	2.89	0.45
5:E:128:LYS:CG	5:E:130:PHE:HD1	2.28	0.45
19:S:14:ARG:NH1	19:S:17:ASN:C	2.70	0.45
3:C:241:TRP:CG	23:W:68:ARG:NH1	2.74	0.45
4:D:223:ILE:N	4:D:223:ILE:HD12	2.31	0.45
25:Y:10:ARG:CG	25:Y:24:VAL:CB	2.85	0.45
18:R:92:ASP:O	18:R:93:GLN:CD	2.55	0.45
3:C:221:PHE:C	3:C:221:PHE:CD2	2.90	0.45
5:E:213:ALA:O	5:E:214:ASN:OD1	2.33	0.45
6:F:151:ILE:O	6:F:152:TRP:C	2.52	0.45
24:X:28:LYS:HE2	24:X:32:LEU:CD1	2.47	0.45
12:L:113:LEU:HD11	12:L:120:VAL:CG1	2.47	0.45
1:A:125:THR:C	1:A:147:LEU:CB	2.79	0.45
1:A:123:VAL:CG1	1:A:175:TRP:CH2	3.00	0.45
1:A:48:ILE:CD1	18:R:105:MET:CG	2.94	0.45
1:A:18:PHE:CZ	1:A:55:TRP:HZ3	2.35	0.45
15:O:83:GLN:NE2	15:O:87:GLU:OE2	2.50	0.45
22:V:41:LYS:HD2	22:V:41:LYS:HA	1.39	0.45
17:Q:81:ILE:O	17:Q:84:ILE:HG12	2.16	0.45
5:E:106:LYS:HA	5:E:106:LYS:HD2	1.55	0.45
23:W:49:GLU:OE1	23:W:64:ASN:ND2	2.49	0.45
8:H:84:GLU:O	8:H:88:SER:HA	2.17	0.45
19:S:8:LYS:HG2	19:S:8:LYS:HZ2	1.45	0.45
2:B:144:LYS:HG2	2:B:206:PRO:HB3	1.98	0.45
13:M:77:ILE:O	13:M:78:LYS:HB2	2.17	0.45
13:M:102:LYS:HG3	13:M:103:VAL:H	1.81	0.45
13:M:102:LYS:HG3	13:M:103:VAL:N	2.31	0.45
11:K:94:LEU:O	11:K:95:ARG:HB2	2.15	0.45
9:I:36:THR:HG23	9:I:96:LEU:HB2	1.99	0.45
2:B:228:LEU:HD22	2:B:232:HIS:CD2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:21:PHE:CD1	20:T:22:LEU:N	2.85	0.45
24:X:45:SER:OG	24:X:46:HIS:HD2	2.00	0.45
7:G:2:LYS:HG3	7:G:17:GLU:HG2	1.99	0.45
7:G:25:ARG:O	7:G:28:TYR:N	2.26	0.45
9:I:191:GLU:O	9:I:195:LEU:HB3	2.16	0.45
1:A:102:ARG:HH21	1:A:105:PRO:HD2	1.82	0.45
2:B:72:ALA:CB	2:B:79:VAL:HG23	2.46	0.45
4:D:74:GLN:HB2	4:D:84:VAL:HG11	1.98	0.45
11:K:4:PRO:CG	11:K:7:ASN:HB2	2.26	0.45
25:Y:29:HIS:CE1	25:Y:67:GLY:HA2	2.30	0.45
23:W:15:ASN:ND2	23:W:19:LYS:CE	2.77	0.45
13:M:51:VAL:CG1	13:M:109:VAL:CG2	2.94	0.45
24:X:107:ARG:HB3	24:X:110:HIS:O	2.17	0.45
5:E:151:ASP:O	5:E:153:LEU:N	2.50	0.45
5:E:151:ASP:HA	5:E:152:PRO:HD3	1.44	0.45
5:E:153:LEU:HD21	7:G:216:ARG:NH1	2.32	0.45
7:G:213:LEU:HD12	7:G:214:ALA:CA	2.47	0.45
9:I:54:LYS:HD3	9:I:181:GLN:OE1	2.17	0.45
12:L:71:ARG:CG	12:L:73:LEU:CG	2.94	0.45
1:A:158:ASP:O	1:A:159:ILE:CB	2.65	0.45
8:H:163:GLN:O	8:H:164:ASN:C	2.54	0.45
8:H:59:ALA:HB2	8:H:172:THR:OG1	2.17	0.45
14:N:50:ILE:HG23	14:N:54:LEU:HD11	1.99	0.45
23:W:25:VAL:O	23:W:62:VAL:HA	2.17	0.45
4:D:2:ALA:C	4:D:4:GLN:N	2.63	0.45
4:D:46:THR:OG1	4:D:79:PHE:CE2	2.58	0.45
6:F:44:LYS:CD	6:F:44:LYS:C	2.78	0.45
11:K:3:MET:HA	11:K:4:PRO:HD2	1.66	0.45
17:Q:105:LYS:HZ3	17:Q:109:LYS:CB	2.21	0.45
24:X:52:LEU:CD1	24:X:71:ARG:CB	2.95	0.45
16:P:75:VAL:HG22	16:P:93:MET:HB3	1.97	0.45
4:D:217:ILE:HG22	4:D:218:LEU:HB3	1.98	0.45
6:F:185:SER:OG	6:F:190:ILE:HD12	2.17	0.45
23:W:7:LEU:HD21	23:W:33:VAL:HG12	1.99	0.45
18:R:86:PRO:HB2	18:R:87:GLU:H	1.62	0.45
20:T:9:VAL:HG12	20:T:10:ASN:N	2.32	0.45
6:F:175:ASP:O	6:F:175:ASP:OD1	2.35	0.45
6:F:163:PHE:CD2	6:F:164:ARG:HG2	2.50	0.45
1:A:204:TYR:O	1:A:204:TYR:HD2	1.99	0.45
4:D:226:GLN:HB3	4:D:227:LYS:H	1.59	0.45
7:G:198:ARG:HH21	7:G:201:LYS:HG3	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:67:VAL:HG22	7:G:100:CYS:SG	2.57	0.45
9:I:142:SER:CB	9:I:143:LYS:CE	2.93	0.45
9:I:67:TRP:CD2	9:I:70:GLU:HG2	2.52	0.45
1:A:66:VAL:HA	1:A:186:ARG:HD2	1.98	0.45
1:A:98:PRO:C	1:A:99:ILE:HG13	2.36	0.45
2:B:53:GLN:C	2:B:55:THR:H	2.18	0.45
3:C:126:MET:CE	3:C:223:LYS:HZ3	2.24	0.45
3:C:244:THR:HG22	3:C:246:PHE:CA	2.43	0.45
3:C:69:PHE:CE1	3:C:247:THR:CG2	2.99	0.45
11:K:53:LYS:CA	11:K:58:VAL:CG1	2.94	0.45
17:Q:16:LYS:HD2	17:Q:17:LYS:H	1.74	0.45
19:S:46:ARG:HD2	20:T:50:GLU:HG2	1.99	0.45
18:R:121:GLN:CA	18:R:121:GLN:NE2	2.76	0.45
23:W:89:TRP:C	23:W:102:ILE:HD11	2.38	0.45
4:D:94:ARG:HB3	4:D:94:ARG:HE	1.40	0.45
8:H:154:ILE:HG22	8:H:185:VAL:HG22	1.99	0.45
19:S:48:ALA:HB2	19:S:70:ILE:HD12	1.98	0.45
7:G:13:GLN:HA	7:G:124:LEU:HD11	1.99	0.45
9:I:141:ARG:O	9:I:143:LYS:NZ	2.49	0.45
9:I:118:ALA:CB	9:I:149:TYR:CE1	2.94	0.45
9:I:73:THR:O	9:I:74:ARG:CD	2.65	0.45
1:A:14:ASP:OD1	1:A:180:ARG:NH2	2.48	0.45
1:A:36:GLN:NE2	1:A:53:ARG:HH12	2.15	0.45
3:C:110:LYS:HA	3:C:128:CYS:HA	1.99	0.45
6:F:38:TYR:N	6:F:38:TYR:HD2	2.15	0.45
8:H:14:GLU:CG	8:H:15:LYS:O	2.64	0.45
17:Q:18:THR:C	17:Q:75:GLY:HA3	2.37	0.45
4:D:40:ARG:NE	21:U:107:GLU:OE2	2.49	0.45
10:J:118:GLY:C	10:J:120:ALA:H	2.20	0.45
10:J:124:HIS:O	10:J:127:ARG:N	2.49	0.45
25:Y:56:PHE:CE1	25:Y:94:HIS:HE1	2.34	0.45
16:P:56:LEU:CD2	16:P:78:THR:HG22	2.44	0.45
8:H:50:GLU:CD	8:H:58:LYS:HE2	2.37	0.45
25:Y:32:LYS:CG	25:Y:33:ALA:O	2.61	0.45
16:P:37:TYR:CA	19:S:88:LYS:CD	2.95	0.45
26:Z:77:LEU:O	26:Z:78:LYS:HD3	2.17	0.45
10:J:87:LEU:HG	10:J:88:ASP:N	2.31	0.45
10:J:180:LYS:HD3	10:J:180:LYS:O	2.11	0.45
4:D:108:LYS:HA	4:D:113:LEU:HD21	1.98	0.45
6:F:151:ILE:HA	6:F:154:LEU:CD2	2.47	0.45
20:T:75:MET:HE3	20:T:79:TYR:CZ	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:81:VAL:HG11	9:I:91:VAL:HA	1.99	0.45
10:J:148:ILE:O	10:J:148:ILE:HG22	2.17	0.45
5:E:53:LYS:HA	5:E:53:LYS:HD3	1.80	0.45
5:E:153:LEU:HD21	7:G:216:ARG:HH12	1.82	0.45
7:G:16:ILE:HG21	7:G:45:TRP:HZ2	1.79	0.45
9:I:118:ALA:CB	9:I:149:TYR:CD1	3.00	0.45
1:A:127:PRO:CG	1:A:153:PRO:HD2	2.30	0.45
18:R:99:ASP:C	18:R:119:VAL:HG13	2.19	0.45
11:K:15:LEU:HD22	11:K:21:MET:HE1	1.99	0.45
11:K:27:VAL:HG13	11:K:43:LEU:HD22	0.44	0.45
20:T:38:LYS:HE2	20:T:45:LEU:HA	1.98	0.45
4:D:132:LYS:CB	4:D:191:PRO:CD	2.90	0.45
4:D:132:LYS:HD3	4:D:191:PRO:CG	2.46	0.45
16:P:15:PHE:CE1	19:S:91:LYS:HD3	2.49	0.45
24:X:105:PHE:HE2	24:X:118:VAL:O	1.77	0.45
20:T:12:GLN:O	20:T:16:ARG:HB2	2.17	0.45
23:W:89:TRP:HB3	23:W:102:ILE:HD13	1.99	0.45
14:N:139:TRP:CE3	14:N:139:TRP:C	2.91	0.45
23:W:30:CYS:SG	23:W:61:ILE:CD1	2.97	0.45
5:E:166:THR:O	5:E:168:LYS:CD	2.52	0.44
7:G:172:LYS:HD3	7:G:172:LYS:O	6.03	0.44
7:G:58:LYS:O	7:G:59:GLN:CB	2.57	0.44
12:L:12:LYS:HE3	12:L:12:LYS:HB3	1.80	0.44
12:L:149:ALA:HB2	12:L:156:GLN:CB	2.16	0.44
25:Y:120:THR:C	25:Y:122:LYS:H	2.19	0.44
3:C:144:LYS:O	3:C:147:ILE:HG13	2.17	0.44
6:F:133:THR:HG21	6:F:135:ARG:NH1	2.33	0.44
15:O:64:ALA:CB	15:O:66:ARG:HE	2.28	0.44
4:D:86:LEU:HD12	4:D:86:LEU:N	2.32	0.44
25:Y:56:PHE:HB3	25:Y:58:PHE:CE2	2.47	0.44
20:T:31:PRO:O	20:T:33:TRP:CG	2.70	0.44
11:K:14:LEU:HD11	11:K:35:LEU:HD11	1.99	0.44
26:Z:51:ASP:HB2	26:Z:54:THR:HG23	1.98	0.44
19:S:15:VAL:HG11	19:S:68:ILE:HG12	1.99	0.44
24:X:67:ARG:NE	24:X:67:ARG:HA	2.31	0.44
3:C:157:ASN:O	3:C:159:ILE:N	2.50	0.44
2:B:110:MET:HE3	2:B:213:ARG:HD2	1.99	0.44
17:Q:92:LEU:HD11	17:Q:96:TYR:HH	1.80	0.44
8:H:100:ILE:HG12	8:H:125:VAL:CG2	2.37	0.44
5:E:2:ALA:O	5:E:3:ARG:CG	2.62	0.44
5:E:9:LEU:HD12	5:E:30:ARG:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:94:LYS:HE3	14:N:118:ILE:CD1	2.46	0.44
5:E:102:ILE:HG23	5:E:182:MET:SD	2.57	0.44
1:A:139:TYR:C	1:A:140:VAL:CG2	2.85	0.44
2:B:53:GLN:O	2:B:54:GLY:C	2.55	0.44
2:B:91:VAL:HG22	2:B:96:CYS:SG	2.57	0.44
3:C:150:VAL:O	3:C:150:VAL:HG23	2.16	0.44
6:F:110:GLN:CA	6:F:110:GLN:HE21	2.29	0.44
6:F:44:LYS:CB	6:F:45:TYR:CD1	3.00	0.44
17:Q:58:LEU:CD2	17:Q:111:ILE:HB	2.48	0.44
10:J:110:LEU:CB	10:J:130:ILE:HD13	2.43	0.44
10:J:131:ARG:HA	10:J:143:ASN:OD1	2.18	0.44
24:X:126:ALA:O	24:X:127:ASN:C	2.54	0.44
24:X:51:VAL:CG2	24:X:70:VAL:HG11	2.46	0.44
25:Y:86:GLU:O	25:Y:87:PRO:O	2.35	0.44
25:Y:29:HIS:CE1	25:Y:68:LYS:H	1.82	0.44
19:S:89:ASP:HB3	19:S:90:VAL:H	1.47	0.44
25:Y:101:LYS:HG2	25:Y:101:LYS:HZ2	1.44	0.44
14:N:125:LEU:CD2	14:N:129:TYR:CE2	3.00	0.44
25:Y:93:ARG:C	25:Y:93:ARG:CD	2.85	0.44
2:B:151:ARG:HG3	2:B:153:THR:H	1.82	0.44
17:Q:124:PRO:CD	17:Q:125:ARG:N	2.81	0.44
15:O:71:PRO:O	15:O:74:ALA:HB3	2.17	0.44
8:H:73:GLN:NE2	8:H:135:PHE:HE1	2.14	0.44
4:D:146:ARG:HD3	4:D:146:ARG:HA	1.63	0.44
4:D:138:VAL:O	4:D:149:SER:HA	2.16	0.44
9:I:197:PHE:CD2	12:L:5:GLN:CD	2.91	0.44
12:L:113:LEU:HD23	12:L:114:SER:O	2.18	0.44
12:L:97:ARG:HG2	12:L:98:LYS:HA	1.99	0.44
2:B:89:GLU:O	2:B:90:ASP:HB2	2.17	0.44
3:C:142:LEU:C	3:C:145:LEU:HD21	2.33	0.44
3:C:69:PHE:CZ	3:C:249:SER:CA	2.94	0.44
3:C:189:ILE:HG21	3:C:196:LYS:HA	1.99	0.44
17:Q:114:GLN:CG	17:Q:115:TYR:N	2.60	0.44
10:J:35:TYR:N	10:J:35:TYR:CD2	2.85	0.44
10:J:67:ASP:O	10:J:69:ARG:N	2.50	0.44
26:Z:48:VAL:HG22	26:Z:80:ARG:HB2	1.99	0.44
18:R:5:ARG:HB2	18:R:10:LYS:HZ3	0.60	0.44
2:B:182:LYS:HD3	2:B:182:LYS:HA	1.62	0.44
2:B:151:ARG:HD2	2:B:154:SER:H	1.82	0.44
2:B:148:ASN:C	18:R:124:VAL:CG2	2.86	0.44
8:H:154:ILE:CG2	8:H:185:VAL:HG22	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:58:ALA:HA	22:V:61:ARG:CD	2.47	0.44
5:E:152:PRO:HG3	7:G:209:TYR:OH	2.17	0.44
5:E:70:ILE:HG13	5:E:92:ILE:HD12	1.86	0.44
7:G:84:TYR:CE2	7:G:86:PRO:CG	2.88	0.44
9:I:157:LYS:CB	12:L:22:ARG:CD	2.54	0.44
1:A:103:PHE:O	1:A:104:THR:HB	2.17	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
3:C:51:LEU:CD2	3:C:60:ILE:HD12	2.48	0.44
8:H:8:ILE:O	8:H:11:PRO:HD3	2.16	0.44
8:H:36:LEU:HD23	8:H:78:ARG:HH11	1.82	0.44
14:N:18:TYR:C	14:N:19:ARG:O	2.49	0.44
14:N:26:LEU:HA	14:N:27:LYS:HE3	1.99	0.44
14:N:49:GLN:HG2	14:N:49:GLN:H	1.59	0.44
15:O:131:ASP:OD1	15:O:133:THR:HG23	2.18	0.44
4:D:53:THR:CG2	4:D:91:VAL:CG2	2.95	0.44
6:F:69:VAL:O	6:F:73:THR:HG23	2.17	0.44
11:K:30:PRO:C	11:K:31:LYS:CG	2.54	0.44
11:K:83:LEU:O	11:K:84:HIS:HB3	2.14	0.44
11:K:89:ILE:CG2	11:K:90:VAL:H	2.31	0.44
19:S:81:ASP:HA	19:S:84:LEU:CD1	2.46	0.44
13:M:35:ILE:CB	13:M:61:TYR:CE2	2.95	0.44
26:Z:52:LYS:HB3	26:Z:53:ALA:H	1.49	0.44
16:P:49:LEU:HD12	16:P:51:ARG:CD	2.38	0.44
15:O:105:THR:O	15:O:106:LYS:CB	2.64	0.44
23:W:104:LEU:CD1	23:W:106:THR:HG22	2.43	0.44
2:B:151:ARG:HG3	2:B:153:THR:N	2.33	0.44
24:X:41:PHE:CE1	24:X:47:ALA:HB3	2.51	0.44
3:C:180:LEU:O	3:C:181:ILE:HD13	2.18	0.44
15:O:139:SER:OG	15:O:140:THR:N	2.50	0.44
13:M:69:CYS:O	13:M:74:ILE:HD12	2.16	0.44
7:G:143:LYS:HE3	7:G:143:LYS:CA	2.48	0.44
7:G:147:LEU:O	7:G:148:SER:CB	2.65	0.44
7:G:161:PRO:HA	7:G:170:ARG:O	2.17	0.44
9:I:105:ASP:O	9:I:106:SER:CB	2.64	0.44
12:L:148:ALA:O	12:L:150:GLY:N	2.51	0.44
1:A:12:GLU:HB3	18:R:111:PHE:HE2	1.76	0.44
1:A:28:THR:CG2	1:A:46:ILE:HD13	2.45	0.44
1:A:5:LEU:HD13	1:A:6:ASP:CB	2.48	0.44
1:A:76:VAL:HG13	1:A:175:TRP:HH2	1.62	0.44
2:B:123:ALA:HB3	2:B:168:MET:SD	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:158:LEU:CG	8:H:187:PHE:CD1	3.00	0.44
8:H:44:ASN:HB3	8:H:68:GLN:NE2	2.29	0.44
13:M:44:LYS:C	13:M:46:GLN:N	2.69	0.44
2:B:72:ALA:CB	15:O:128:ARG:NH2	2.72	0.44
4:D:59:LEU:HD13	4:D:60:GLY:O	2.17	0.44
6:F:112:LEU:HA	6:F:177:LEU:HD13	1.96	0.44
6:F:115:ALA:HB3	6:F:177:LEU:HD22	1.99	0.44
6:F:20:PHE:HB3	6:F:23:TRP:CB	2.46	0.44
21:U:67:LYS:CD	21:U:78:ASP:OD2	2.66	0.44
5:E:49:ARG:CD	5:E:50:ASN:N	2.72	0.44
10:J:136:ARG:HH12	10:J:161:LEU:HD12	1.82	0.44
8:H:79:LEU:HD22	8:H:83:LEU:HD23	1.99	0.44
16:P:59:ARG:HG2	16:P:76:VAL:HG22	1.99	0.44
19:S:51:ASP:CG	19:S:53:THR:OG1	2.55	0.44
19:S:83:PHE:O	19:S:83:PHE:CG	2.70	0.44
13:M:77:ILE:CD1	13:M:78:LYS:N	2.80	0.44
14:N:140:LYS:HG2	14:N:141:TYR:N	2.32	0.44
2:B:19:LYS:O	2:B:21:VAL:HG11	2.05	0.44
1:A:188:THR:OG1	1:A:188:THR:O	2.29	0.44
8:H:121:THR:CG2	8:H:124:ALA:CB	2.96	0.44
5:E:205:PHE:CZ	5:E:221:ARG:NH1	2.86	0.44
23:W:37:PHE:CZ	23:W:103:VAL:HG11	2.53	0.44
7:G:219:GLU:H	7:G:219:GLU:HG3	1.65	0.44
9:I:112:TRP:CH2	9:I:117:TYR:CZ	3.06	0.44
9:I:140:LYS:N	9:I:145:ILE:HD11	2.32	0.44
9:I:144:LYS:HD2	9:I:144:LYS:N	2.33	0.44
12:L:59:LYS:CD	12:L:134:LEU:HD21	2.47	0.44
12:L:71:ARG:HD2	12:L:73:LEU:HD21	1.77	0.44
12:L:90:ARG:CZ	12:L:90:ARG:HB3	3.16	0.44
25:Y:122:LYS:CD	25:Y:123:ALA:N	2.62	0.44
1:A:159:ILE:HD12	1:A:160:ALA:H	1.83	0.44
1:A:24:HIS:NE2	18:R:105:MET:CG	2.57	0.44
2:B:31:TYR:CD2	2:B:62:LEU:HD22	2.52	0.44
8:H:160:LYS:CB	8:H:192:PHE:CZ	3.00	0.44
22:V:32:ILE:CG2	22:V:33:PRO:CD	2.86	0.44
22:V:77:GLY:HA2	22:V:78:ILE:C	2.38	0.44
6:F:116:ILE:H	6:F:116:ILE:CD1	2.00	0.44
11:K:36:ALA:O	11:K:38:LYS:CA	2.66	0.44
11:K:52:LEU:O	11:K:55:ARG:HG3	2.17	0.44
11:K:85:LEU:HG	11:K:85:LEU:H	1.54	0.44
17:Q:126:ARG:CG	17:Q:127:CYS:N	2.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:44:ARG:NE	16:P:82:ASP:O	2.51	0.44
10:J:110:LEU:HB3	10:J:111:GLN:H	1.49	0.44
24:X:129:SER:HG	24:X:132:ALA:HB3	1.78	0.44
5:E:64:ILE:CD1	25:Y:17:LEU:CD1	2.95	0.44
16:P:14:LYS:HB2	16:P:15:PHE:H	1.33	0.44
16:P:37:TYR:HA	19:S:88:LYS:HD2	1.99	0.44
19:S:82:TRP:HA	19:S:87:GLN:NE2	2.28	0.44
3:C:163:HIS:CD2	3:C:163:HIS:H	2.36	0.44
16:P:49:LEU:O	16:P:50:ARG:CB	2.54	0.44
13:M:12:MET:HG2	13:M:16:THR:HG22	1.99	0.44
20:T:15:VAL:HG23	20:T:16:ARG:N	2.31	0.44
23:W:90:GLN:HB3	23:W:102:ILE:HD12	2.00	0.44
14:N:82:PRO:O	14:N:84:LEU:N	2.51	0.44
15:O:20:GLN:HE21	15:O:22:ALA:HB2	1.82	0.44
17:Q:124:PRO:HG2	17:Q:125:ARG:HG3	2.00	0.44
8:H:109:ARG:NH2	8:H:111:LYS:HD2	2.33	0.44
2:B:41:ILE:HG23	2:B:41:ILE:HD13	1.61	0.44
6:F:32:ASP:CB	6:F:117:ILE:CG2	2.95	0.44
20:T:21:PHE:HD1	20:T:22:LEU:HD23	1.79	0.44
8:H:154:ILE:HG22	8:H:154:ILE:O	2.17	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:NH2	2.15	0.44
5:E:92:ILE:CG2	5:E:95:THR:OG1	2.63	0.44
7:G:176:ILE:HG21	7:G:179:LEU:HB2	1.94	0.44
7:G:186:GLN:HA	7:G:189:ARG:NH2	2.33	0.44
9:I:123:ARG:O	9:I:124:LYS:O	2.35	0.44
12:L:146:THR:HG23	12:L:147:LYS:N	2.33	0.44
1:A:57:LYS:HD3	1:A:159:ILE:HD11	1.98	0.44
1:A:57:LYS:HZ3	22:V:70:LEU:CD2	2.30	0.44
4:D:188:ILE:HG22	4:D:190:LEU:CD2	2.42	0.44
11:K:47:LYS:HA	11:K:50:GLN:HG2	2.00	0.44
11:K:21:MET:SD	11:K:49:MET:CE	3.06	0.44
11:K:84:HIS:CE1	11:K:85:LEU:CA	2.85	0.44
17:Q:57:LEU:HD13	17:Q:115:TYR:CD2	2.49	0.44
16:P:84:ILE:HD11	16:P:115:TYR:CZ	2.52	0.44
10:J:143:ASN:C	10:J:145:PRO:HD3	2.27	0.44
25:Y:78:SER:HB2	25:Y:81:TYR:HE2	1.75	0.44
3:C:93:LYS:HG2	3:C:95:MET:H	1.83	0.44
19:S:42:HIS:CB	20:T:45:LEU:CD1	2.88	0.44
16:P:79:HIS:ND1	16:P:102:PHE:CZ	2.74	0.44
14:N:92:ILE:CG2	14:N:150:VAL:HG23	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:93:ARG:C	25:Y:93:ARG:HD2	2.38	0.44
2:B:136:HIS:HB2	2:B:218:LEU:HD11	2.00	0.44
2:B:124:HIS:CG	2:B:136:HIS:NE2	2.82	0.44
9:I:205:ARG:O	9:I:206:LYS:O	2.35	0.44
8:H:117:PRO:O	8:H:119:SER:N	2.50	0.44
3:C:198:LEU:HD23	3:C:198:LEU:C	2.37	0.44
10:J:84:ILE:O	10:J:108:ARG:HD2	2.16	0.44
17:Q:40:GLU:HA	17:Q:40:GLU:OE1	2.17	0.44
7:G:151:ASP:O	7:G:152:ASP:HB3	2.18	0.44
7:G:85:ARG:NH1	25:Y:118:ARG:HH21	2.15	0.44
9:I:194:GLU:CD	12:L:12:LYS:CE	2.86	0.44
1:A:58:LEU:CD2	1:A:58:LEU:O	2.66	0.44
8:H:172:THR:HG23	8:H:173:PHE:N	2.32	0.44
8:H:46:THR:CG2	8:H:63:PHE:CB	2.95	0.44
15:O:98:ARG:NH1	15:O:98:ARG:HG2	2.32	0.44
8:H:144:ILE:O	23:W:52:ILE:N	2.51	0.44
6:F:112:LEU:HD23	6:F:112:LEU:O	2.18	0.44
21:U:104:ILE:C	21:U:105:SER:OG	2.56	0.44
10:J:132:GLN:O	10:J:133:ARG:HB2	2.17	0.44
16:P:123:TYR:OH	19:S:120:HIS:NE2	2.51	0.44
6:F:103:LEU:CG	6:F:103:LEU:O	2.64	0.44
9:I:98:LYS:O	9:I:99:ASN:CB	2.66	0.44
25:Y:101:LYS:HB3	25:Y:102:THR:H	1.66	0.44
16:P:62:LYS:CA	16:P:65:LYS:HE2	2.48	0.44
13:M:49:LEU:HA	13:M:75:ASN:HB2	1.99	0.44
5:E:212:ASP:OD2	5:E:214:ASN:N	2.51	0.44
12:L:153:LYS:CB	14:N:131:THR:O	2.66	0.44
20:T:4:VAL:CG1	20:T:139:ALA:HB2	2.46	0.44
20:T:18:LEU:HD13	20:T:134:ILE:CD1	2.16	0.44
24:X:107:ARG:O	24:X:108:LYS:CB	2.66	0.44
21:U:19:ARG:HD2	21:U:19:ARG:N	2.32	0.44
2:B:175:GLU:CG	2:B:193:ILE:HD11	2.47	0.44
17:Q:145:TYR:HB3	17:Q:146:ARG:H	1.53	0.44
19:S:73:ASN:C	19:S:76:GLN:OE1	2.57	0.44
5:E:188:ASN:HD21	5:E:218:PHE:HB2	1.82	0.44
5:E:181:CYS:O	5:E:192:ILE:HG23	2.18	0.44
5:E:90:ILE:HD11	5:E:101:LEU:HD11	1.99	0.44
9:I:149:TYR:CD1	9:I:152:ARG:NH1	2.68	0.44
1:A:77:ILE:HD11	1:A:122:LEU:HD22	1.99	0.44
2:B:93:GLY:C	2:B:94:LYS:HG2	2.38	0.44
3:C:89:ASP:HB3	3:C:115:ILE:HG12	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:55:ILE:HG21	22:V:60:ARG:CG	2.47	0.44
4:D:43:PRO:O	4:D:44:THR:CB	2.66	0.44
4:D:8:LYS:O	4:D:12:VAL:HG23	2.18	0.44
21:U:106:ILE:O	21:U:107:GLU:CB	2.65	0.44
10:J:171:GLY:O	10:J:172:ARG:C	2.55	0.44
16:P:4:VAL:C	16:P:10:ARG:HH11	2.19	0.44
16:P:18:ARG:HB3	19:S:93:GLY:HA3	2.00	0.44
26:Z:96:LEU:C	26:Z:112:ASN:HD22	2.20	0.44
10:J:78:LEU:HD13	10:J:92:MET:C	2.38	0.44
14:N:38:TYR:CE1	14:N:78:LYS:CD	3.01	0.44
24:X:29:LYS:HA	24:X:29:LYS:HD3	1.30	0.44
2:B:105:LEU:CD2	2:B:213:ARG:O	2.66	0.44
13:M:26:LEU:CD1	13:M:89:VAL:C	2.81	0.44
20:T:143:LYS:HA	20:T:143:LYS:HD3	1.21	0.44
10:J:101:LYS:N	10:J:101:LYS:HD2	2.31	0.44
4:D:67:ARG:CZ	11:K:95:ARG:HD2	2.48	0.44
7:G:145:PHE:O	7:G:146:ASN:O	2.36	0.43
9:I:172:LEU:HD22	9:I:172:LEU:N	2.33	0.43
9:I:191:GLU:HG2	9:I:192:GLY:H	1.82	0.43
12:L:55:TYR:CG	12:L:115:PRO:HG2	2.53	0.43
12:L:82:MET:SD	12:L:85:THR:HG23	2.58	0.43
1:A:127:PRO:HD3	1:A:147:LEU:O	2.18	0.43
1:A:49:ILE:CG2	1:A:50:ASN:N	2.81	0.43
8:H:11:PRO:CG	8:H:12:ASN:H	2.26	0.43
22:V:32:ILE:HD11	22:V:60:ARG:HH12	1.78	0.43
5:E:18:TRP:CD2	5:E:46:ILE:CD1	3.01	0.43
24:X:71:ARG:NE	24:X:82:THR:HG22	2.27	0.43
25:Y:58:PHE:HE1	25:Y:72:PHE:CD2	2.32	0.43
4:D:134:CYS:O	4:D:153:VAL:HG13	2.18	0.43
4:D:212:GLU:CG	18:R:19:LYS:NZ	2.78	0.43
4:D:216:GLU:OE1	4:D:217:ILE:N	2.51	0.43
4:D:223:ILE:CG2	4:D:224:SER:N	2.80	0.43
15:O:138:ASP:O	15:O:138:ASP:OD1	2.36	0.43
20:T:118:ASP:O	20:T:119:TRP:HB2	2.18	0.43
4:D:137:VAL:HB	4:D:185:LYS:HB2	1.99	0.43
5:E:126:VAL:HG22	5:E:157:ASN:N	2.29	0.43
5:E:71:LYS:HE2	5:E:74:GLY:HA2	1.98	0.43
12:L:156:GLN:CD	12:L:158:PHE:HE2	2.12	0.43
12:L:23:VAL:HG22	12:L:24:LEU:H	1.84	0.43
8:H:38:ALA:H	8:H:41:ARG:HG2	1.82	0.43
8:H:43:LEU:HD13	8:H:72:PHE:HE1	1.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:30:VAL:HG23	15:O:45:THR:OG1	2.16	0.43
23:W:24:GLN:HA	23:W:63:VAL:O	2.18	0.43
4:D:34:TYR:CE2	21:U:61:LEU:CG	25.45	0.43
11:K:8:ARG:HG2	11:K:12:TYR:CE1	2.53	0.43
17:Q:16:LYS:CD	17:Q:17:LYS:N	2.68	0.43
6:F:49:LEU:HD21	17:Q:46:THR:O	2.18	0.43
21:U:46:LYS:O	21:U:46:LYS:HG2	2.18	0.43
10:J:124:HIS:HB3	10:J:125:HIS:H	1.15	0.43
25:Y:29:HIS:O	25:Y:31:GLY:N	2.51	0.43
16:P:75:VAL:CG1	16:P:76:VAL:H	2.31	0.43
10:J:18:ARG:HA	10:J:19:PRO:HD3	1.48	0.43
26:Z:53:ALA:O	26:Z:57:LYS:HG3	2.18	0.43
2:B:156:ALA:CB	2:B:160:GLN:OE1	2.65	0.43
14:N:38:TYR:CZ	14:N:74:ILE:HG23	2.51	0.43
13:M:26:LEU:HD11	13:M:90:GLY:N	2.33	0.43
2:B:147:ASN:C	2:B:149:GLN:H	2.22	0.43
4:D:141:LYS:HG3	4:D:141:LYS:O	2.18	0.43
1:A:169:HIS:ND1	1:A:169:HIS:N	2.66	0.43
8:H:103:LYS:HG3	8:H:103:LYS:O	2.18	0.43
8:H:126:HIS:CE1	8:H:181:THR:HG22	2.53	0.43
2:B:23:ASP:HA	2:B:24:PRO:HD3	1.44	0.43
2:B:48:LEU:O	2:B:48:LEU:HD13	2.19	0.43
3:C:244:THR:O	3:C:246:PHE:HD2	2.01	0.43
3:C:83:LEU:C	3:C:85:ALA:H	2.22	0.43
8:H:10:LYS:HB2	8:H:10:LYS:HE2	1.71	0.43
8:H:46:THR:CG2	8:H:63:PHE:HB3	2.47	0.43
6:F:129:GLY:C	13:M:40:LYS:HZ3	111.62	0.43
14:N:50:ILE:O	14:N:54:LEU:CG	2.64	0.43
15:O:17:LEU:CD2	15:O:18:GLY:H	2.27	0.43
18:R:100:PRO:CD	18:R:119:VAL:HG13	2.48	0.43
22:V:67:ASP:N	22:V:67:ASP:OD1	2.51	0.43
4:D:99:ILE:HG13	4:D:100:ALA:N	2.33	0.43
4:D:37:VAL:HG12	4:D:50:ILE:HD13	1.98	0.43
6:F:91:ARG:NH1	6:F:94:LYS:HG3	2.11	0.43
26:Z:105:ALA:O	26:Z:106:GLN:CG	2.65	0.43
24:X:91:LEU:C	24:X:93:PHE:H	2.20	0.43
5:E:64:ILE:HD11	25:Y:18:LEU:HD11	1.99	0.43
20:T:31:PRO:CB	20:T:33:TRP:CH2	2.84	0.43
10:J:91:LYS:CA	10:J:96:TYR:CB	2.71	0.43
19:S:15:VAL:CG1	19:S:16:LEU:N	2.82	0.43
20:T:16:ARG:HH11	20:T:16:ARG:HG3	1.78	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:76:LEU:HD23	13:M:76:LEU:HA	1.80	0.43
14:N:125:LEU:HD22	14:N:125:LEU:O	2.19	0.43
3:C:260:LYS:HD2	3:C:261:THR:H	1.67	0.43
2:B:146:CYS:O	2:B:148:ASN:N	2.51	0.43
20:T:87:VAL:CG1	20:T:88:MET:N	2.80	0.43
8:H:116:ARG:HG2	8:H:117:PRO:N	2.32	0.43
21:U:75:LYS:H	21:U:75:LYS:HG3	1.25	0.43
19:S:72:GLN:O	19:S:73:ASN:OD1	2.35	0.43
15:O:147:ARG:HH21	15:O:150:ARG:HH21	1.65	0.43
4:D:124:ARG:NH1	4:D:128:GLU:OE1	2.51	0.43
7:G:64:LYS:HD3	7:G:65:GLN:N	2.33	0.43
1:A:111:GLN:HB3	3:C:48:VAL:CG1	2.46	0.43
1:A:141:ASN:CA	22:V:32:ILE:CD1	2.91	0.43
1:A:88:LEU:HD13	1:A:88:LEU:HA	1.79	0.43
3:C:58:MET:N	3:C:58:MET:SD	2.92	0.43
8:H:65:PRO:HB2	8:H:67:PRO:HD2	2.00	0.43
18:R:104:GLU:OE2	18:R:107:LYS:HD2	2.19	0.43
22:V:39:VAL:C	22:V:41:LYS:H	2.18	0.43
11:K:43:LEU:O	11:K:46:MET:N	2.50	0.43
16:P:44:ARG:HH21	16:P:84:ILE:CA	2.28	0.43
24:X:52:LEU:HG	24:X:71:ARG:C	2.37	0.43
25:Y:44:LEU:HD12	25:Y:48:TYR:CD2	2.50	0.43
3:C:218:LEU:HD12	3:C:218:LEU:C	2.38	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
24:X:67:ARG:O	24:X:84:PHE:HE1	2.02	0.43
21:U:49:LYS:HB2	21:U:49:LYS:HE2	1.57	0.43
4:D:214:LYS:HG3	4:D:215:ASP:CG	2.33	0.43
25:Y:98:GLU:O	25:Y:99:LYS:CB	2.67	0.43
3:C:166:ARG:CG	3:C:237:THR:HG21	2.49	0.43
6:F:190:ILE:HG23	6:F:191:LYS:N	2.33	0.43
10:J:101:LYS:CG	10:J:103:GLU:OE1	2.61	0.43
2:B:99:ASN:ND2	2:B:228:LEU:HD23	2.32	0.43
24:X:28:LYS:HG2	24:X:32:LEU:HD12	2.00	0.43
15:O:146:ARG:HG3	15:O:146:ARG:NH1	2.34	0.43
5:E:192:ILE:HG22	5:E:193:GLY:N	2.33	0.43
7:G:70:HIS:HB2	7:G:103:ASP:CG	2.34	0.43
9:I:58:LEU:O	9:I:59:ARG:HB2	2.19	0.43
9:I:155:ASN:HA	12:L:22:ARG:HD2	1.97	0.43
12:L:82:MET:HE1	12:L:85:THR:HG21	2.00	0.43
17:Q:9:SER:N	17:Q:99:TYR:OH	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:77:ASP:C	2:B:79:VAL:HG22	2.34	0.43
3:C:89:ASP:HB3	3:C:115:ILE:HG13	1.99	0.43
18:R:104:GLU:HA	18:R:107:LYS:HB2	2.00	0.43
6:F:45:TYR:O	6:F:47:LYS:HD2	1.96	0.43
6:F:94:LYS:HD2	6:F:94:LYS:O	2.18	0.43
11:K:66:HIS:O	11:K:67:PHE:HB2	2.18	0.43
11:K:89:ILE:HG23	11:K:90:VAL:H	1.83	0.43
17:Q:85:ARG:C	17:Q:88:ILE:HG12	2.39	0.43
16:P:83:MET:HB2	16:P:83:MET:HE2	1.81	0.43
19:S:7:GLU:OE2	19:S:7:GLU:HA	2.17	0.43
4:D:108:LYS:HA	4:D:113:LEU:CD2	2.48	0.43
4:D:112:GLY:N	4:D:113:LEU:HD11	2.28	0.43
4:D:153:VAL:CG1	4:D:154:ASP:N	2.80	0.43
4:D:207:HIS:C	4:D:208:VAL:HG23	2.39	0.43
20:T:9:VAL:HG13	20:T:13:GLU:OE2	2.19	0.43
3:C:109:PHE:CD2	3:C:132:VAL:HG23	2.53	0.43
10:J:151:LEU:C	10:J:153:SER:H	2.20	0.43
7:G:192:ILE:HG13	7:G:193:ALA:H	1.84	0.43
9:I:42:ARG:HB3	9:I:58:LEU:O	2.19	0.43
12:L:149:ALA:CA	12:L:156:GLN:NE2	2.58	0.43
17:Q:9:SER:HA	17:Q:26:LYS:HG3	1.97	0.43
1:A:57:LYS:HZ3	22:V:70:LEU:HD21	1.83	0.43
8:H:169:LYS:HB3	8:H:173:PHE:CZ	2.54	0.43
8:H:28:LEU:HG	8:H:32:MET:CE	2.49	0.43
14:N:54:LEU:O	14:N:60:VAL:HG22	2.18	0.43
11:K:85:LEU:CB	11:K:86:PRO:HD2	2.47	0.43
10:J:34:GLU:O	10:J:123:ILE:HD12	2.19	0.43
20:T:56:ARG:CD	20:T:103:VAL:HG21	2.48	0.43
19:S:50:ILE:O	19:S:51:ASP:C	2.52	0.43
19:S:25:LYS:HG3	19:S:54:LYS:O	2.19	0.43
18:R:13:ALA:HB2	18:R:54:VAL:CG2	2.49	0.43
17:Q:28:GLY:H	17:Q:66:VAL:HA	1.82	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
24:X:62:PRO:HD2	24:X:63:ASN:H	1.84	0.43
23:W:105:THR:O	23:W:105:THR:CG2	2.66	0.43
7:G:74:ARG:CD	7:G:94:ARG:HD2	2.27	0.43
12:L:10:TYR:CE2	12:L:12:LYS:HB3	2.54	0.43
12:L:77:VAL:CG1	12:L:80:MET:SD	2.96	0.43
3:C:68:LEU:O	22:V:15:ARG:NH2	2.52	0.43
8:H:14:GLU:HG3	8:H:15:LYS:C	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:21:SER:OG	14:N:22:VAL:N	2.49	0.43
15:O:31:CYS:HB3	15:O:95:ILE:HG12	1.92	0.43
4:D:18:LYS:HZ2	4:D:37:VAL:HG22	1.79	0.43
4:D:84:VAL:HG22	4:D:85:GLU:N	2.33	0.43
6:F:112:LEU:HD23	6:F:112:LEU:C	2.39	0.43
11:K:85:LEU:HD13	11:K:89:ILE:CD1	2.48	0.43
17:Q:78:VAL:HG13	17:Q:82:TYR:CE2	2.43	0.43
24:X:52:LEU:HD12	24:X:52:LEU:C	2.34	0.43
24:X:70:VAL:CG1	24:X:71:ARG:N	2.82	0.43
25:Y:18:LEU:HB3	25:Y:20:ARG:NE	2.33	0.43
20:T:33:TRP:C	20:T:35:ASP:H	2.21	0.43
2:B:87:ILE:HG23	2:B:101:HIS:CG	2.53	0.43
24:X:1:MET:O	24:X:3:LYS:N	2.51	0.43
24:X:3:LYS:C	24:X:4:CYS:O	2.57	0.43
14:N:130:LYS:HD3	14:N:139:TRP:HB3	2.01	0.43
25:Y:46:LYS:O	25:Y:47:MET:CG	2.67	0.43
20:T:75:MET:CA	20:T:78:ILE:HG22	2.49	0.43
5:E:258:ALA:HA	5:E:262:SER:OG	2.18	0.43
5:E:118:GLU:HA	5:E:121:TYR:CE2	2.54	0.43
7:G:143:LYS:CA	7:G:143:LYS:CE	2.96	0.43
12:L:42:LEU:HB2	12:L:44:PHE:CD2	2.54	0.43
1:A:143:PRO:HD3	22:V:32:ILE:CG2	2.48	0.43
2:B:52:THR:OG1	14:N:56:ASP:HB2	86.13	0.43
6:F:141:VAL:HG22	6:F:146:ARG:HG2	1.99	0.43
8:H:64:VAL:CG1	8:H:68:GLN:HB2	2.49	0.43
14:N:23:PRO:O	14:N:24:THR:CB	2.66	0.43
15:O:92:ALA:CB	15:O:125:LYS:HB2	2.48	0.43
18:R:98:VAL:HG12	18:R:102:THR:OG1	2.18	0.43
4:D:98:ALA:CA	4:D:188:ILE:HD12	2.48	0.43
4:D:58:VAL:O	4:D:65:ARG:HB2	2.19	0.43
4:D:59:LEU:C	4:D:59:LEU:HD12	2.25	0.43
4:D:82:GLY:O	4:D:83:SER:C	2.45	0.43
6:F:112:LEU:HD23	6:F:116:ILE:CG1	2.49	0.43
11:K:2:LEU:HD22	11:K:2:LEU:HA	1.20	0.43
17:Q:112:LEU:HD12	17:Q:120:LEU:HD21	1.94	0.43
17:Q:17:LYS:HB3	17:Q:18:THR:H	1.70	0.43
16:P:41:GLN:NE2	16:P:84:ILE:CG1	2.80	0.43
5:E:34:GLY:HA3	5:E:83:PRO:HG2	2.00	0.43
25:Y:44:LEU:HD12	25:Y:48:TYR:HD2	1.81	0.43
19:S:33:ILE:CG2	19:S:36:VAL:CG1	2.97	0.43
19:S:94:LYS:HG2	19:S:94:LYS:HZ2	1.42	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:88:LYS:N	19:S:95:TYR:CE1	2.77	0.43
2:B:206:PRO:O	2:B:207:LEU:CB	2.67	0.43
6:F:154:LEU:HD12	6:F:155:CYS:SG	2.59	0.43
5:E:201:HIS:HB2	5:E:205:PHE:O	2.19	0.43
19:S:111:LEU:CD2	19:S:125:HIS:ND1	2.75	0.43
3:C:180:LEU:HB3	3:C:207:CYS:SG	2.58	0.43
15:O:147:ARG:HH21	15:O:150:ARG:CD	2.31	0.43
25:Y:38:THR:O	25:Y:42:GLU:HG3	2.18	0.43
5:E:118:GLU:C	5:E:120:LYS:N	2.70	0.43
5:E:125:LYS:CB	5:E:226:PHE:CE1	2.96	0.43
5:E:152:PRO:CG	7:G:209:TYR:CE1	3.01	0.43
7:G:16:ILE:HD12	7:G:45:TRP:CZ2	2.42	0.43
7:G:46:LYS:HG2	7:G:118:GLU:OE1	2.19	0.43
7:G:70:HIS:HA	7:G:98:ARG:HH12	1.83	0.43
1:A:7:VAL:HG22	1:A:8:LEU:N	2.32	0.43
6:F:122:ARG:CB	6:F:123:GLU:OE1	2.66	0.43
8:H:194:LEU:HD12	8:H:194:LEU:H	1.84	0.43
4:D:21:LEU:HD23	4:D:21:LEU:HA	1.77	0.43
17:Q:84:ILE:O	17:Q:88:ILE:HG23	2.19	0.43
21:U:26:SER:OG	21:U:27:ARG:N	2.49	0.43
16:P:81:ARG:HH12	16:P:120:SER:HG	1.67	0.43
5:E:11:ARG:NH1	5:E:21:ASP:OD1	2.51	0.43
10:J:128:VAL:O	10:J:132:GLN:HG3	2.19	0.43
10:J:136:ARG:NE	10:J:160:SER:HB2	2.33	0.43
24:X:27:TYR:CG	24:X:31:HIS:CD2	3.07	0.43
4:D:196:GLY:C	4:D:199:GLY:CA	2.87	0.43
4:D:201:LYS:CE	4:D:201:LYS:CA	2.92	0.43
2:B:113:MET:SD	2:B:211:PHE:HE2	2.05	0.43
10:J:180:LYS:HG3	10:J:181:GLY:H	1.78	0.43
20:T:124:THR:OG1	20:T:125:PRO:HD2	2.19	0.43
18:R:41:ILE:HG23	18:R:42:PRO:HD3	2.00	0.43
9:I:81:VAL:CG1	9:I:91:VAL:HA	2.48	0.43
20:T:65:TYR:C	20:T:65:TYR:CD1	2.91	0.43
20:T:116:ASP:CB	20:T:120:GLY:O	2.65	0.43
20:T:24:LYS:HA	20:T:24:LYS:HD2	1.71	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:79:LYS:HA	7:G:86:PRO:HG2	2.01	0.43
2:B:56:LYS:CE	2:B:56:LYS:HA	2.48	0.43
6:F:38:TYR:HD1	6:F:144:LEU:HD13	1.84	0.43
8:H:140:VAL:HG21	8:H:159:ASP:HA	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:158:LEU:CD2	8:H:187:PHE:CE1	2.93	0.43
6:F:115:ALA:HB3	6:F:177:LEU:CD2	2.49	0.43
6:F:94:LYS:HA	6:F:94:LYS:HD3	2.55	0.43
5:E:62:LYS:CD	5:E:80:ILE:HG13	2.49	0.43
10:J:110:LEU:CD1	10:J:135:ILE:CD1	2.97	0.43
8:H:80:VAL:HA	8:H:83:LEU:HG	2.00	0.43
16:P:17:TYR:CD1	16:P:18:ARG:HG3	2.54	0.43
19:S:51:ASP:CG	19:S:53:THR:HG1	2.21	0.43
13:M:35:ILE:HG23	13:M:36:ARG:H	1.83	0.43
6:F:171:GLU:OE2	26:Z:67:LEU:HD23	2.18	0.43
26:Z:57:LYS:O	26:Z:61:GLU:HG3	2.19	0.43
21:U:57:PRO:CD	21:U:57:PRO:O	2.66	0.43
13:M:51:VAL:CB	13:M:77:ILE:HG21	2.46	0.43
2:B:132:GLY:O	2:B:133:TYR:C	2.56	0.43
10:J:100:LEU:HD11	10:J:104:ASP:CB	2.49	0.43
23:W:106:THR:HG21	23:W:111:MET:HE2	2.01	0.43
20:T:85:ASN:OD1	20:T:91:HIS:NE2	2.51	0.43
11:K:94:LEU:CG	11:K:95:ARG:N	2.82	0.43
4:D:141:LYS:NZ	4:D:179:GLN:NE2	2.67	0.43
4:D:209:SER:HG	18:R:40:ILE:HB	1.83	0.43
5:E:174:LYS:HB2	5:E:174:LYS:HE3	1.86	0.43
5:E:146:THR:HG23	5:E:146:THR:O	2.18	0.43
9:I:140:LYS:HD3	9:I:141:ARG:N	2.33	0.42
9:I:62:VAL:CG2	9:I:75:LYS:HZ1	2.29	0.42
12:L:101:ARG:HH12	24:X:5:ARG:CA	2.26	0.42
1:A:97:THR:HA	1:A:98:PRO:HD3	1.77	0.42
2:B:54:GLY:C	2:B:56:LYS:H	2.23	0.42
3:C:127:LYS:CD	3:C:142:LEU:HD11	2.42	0.42
3:C:61:LYS:CA	3:C:82:PHE:HE1	2.30	0.42
4:D:6:SER:OG	4:D:8:LYS:HG3	2.19	0.42
4:D:97:CYS:O	4:D:99:ILE:CA	2.60	0.42
6:F:18:LYS:HB3	6:F:18:LYS:HZ3	1.83	0.42
25:Y:33:ALA:O	25:Y:34:THR:HB	2.19	0.42
19:S:40:TYR:CE1	19:S:44:VAL:CG2	3.01	0.42
13:M:35:ILE:CG2	13:M:36:ARG:N	2.80	0.42
26:Z:62:VAL:HA	26:Z:65:TYR:CD2	2.52	0.42
23:W:11:LEU:CA	23:W:14:ILE:HG12	2.49	0.42
14:N:38:TYR:CD2	14:N:78:LYS:HG3	2.53	0.42
3:C:192:ALA:HB3	3:C:195:PRO:CG	2.48	0.42
13:M:31:LEU:CD1	13:M:33:ARG:HB3	2.42	0.42
20:T:28:LEU:HA	20:T:28:LEU:HD23	1.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:19:ARG:CG	21:U:92:HIS:HE1	2.31	0.42
26:Z:94:LYS:CE	26:Z:95:GLY:N	2.81	0.42
12:L:1:MET:C	12:L:2:ALA:O	2.54	0.42
3:C:170:THR:O	3:C:231:LYS:HD3	2.19	0.42
16:P:40:ARG:HD2	16:P:40:ARG:O	2.19	0.42
14:N:107:LYS:HD2	14:N:107:LYS:HA	1.69	0.42
7:G:162:LEU:C	7:G:162:LEU:HD12	2.34	0.42
1:A:123:VAL:HG12	1:A:175:TRP:CH2	2.54	0.42
1:A:186:ARG:NH1	1:A:187:GLY:N	2.67	0.42
3:C:110:LYS:CE	3:C:112:PHE:CZ	2.63	0.42
3:C:59:LYS:HA	3:C:59:LYS:HD3	1.39	0.42
6:F:121:PRO:CA	6:F:193:LYS:HE3	2.39	0.42
15:O:28:PHE:CE1	15:O:92:ALA:CB	3.02	0.42
4:D:53:THR:CG2	4:D:91:VAL:CB	2.89	0.42
6:F:115:ALA:CB	6:F:177:LEU:CD2	2.96	0.42
6:F:91:ARG:HD3	17:Q:46:THR:CG2	2.49	0.42
11:K:51:SER:O	11:K:55:ARG:HG2	2.19	0.42
13:M:27:ILE:CG2	13:M:28:HIS:N	2.81	0.42
17:Q:132:PHE:HB2	21:U:77:TRP:CD1	2.54	0.42
10:J:37:LEU:CD2	10:J:43:VAL:CG2	2.96	0.42
24:X:128:VAL:HG12	24:X:133:LEU:HD11	2.01	0.42
24:X:95:GLU:HG3	24:X:140:ARG:NH2	2.20	0.42
19:S:39:ARG:O	19:S:43:VAL:HG23	2.18	0.42
11:K:10:ALA:HA	11:K:13:GLU:HG2	2.01	0.42
11:K:14:LEU:CB	11:K:35:LEU:HD21	2.49	0.42
19:S:71:MET:HG3	19:S:99:LEU:CD1	2.48	0.42
9:I:161:LEU:HA	9:I:161:LEU:HD22	1.76	0.42
16:P:49:LEU:C	16:P:50:ARG:CG	2.75	0.42
24:X:67:ARG:O	24:X:68:LYS:CB	2.66	0.42
4:D:217:ILE:O	4:D:218:LEU:CB	2.67	0.42
23:W:96:SER:OG	23:W:98:GLN:CG	2.67	0.42
24:X:41:PHE:CZ	24:X:102:VAL:HG12	2.48	0.42
8:H:69:LEU:O	8:H:73:GLN:CG	2.66	0.42
2:B:37:ALA:HA	2:B:42:ARG:HE	1.83	0.42
1:A:76:VAL:HG12	1:A:87:VAL:HG12	1.86	0.42
1:A:90:PHE:HD1	1:A:179:ALA:HB2	1.83	0.42
3:C:149:PRO:HD2	3:C:149:PRO:O	2.19	0.42
8:H:31:GLU:O	8:H:37:LYS:CB	2.67	0.42
15:O:92:ALA:O	15:O:93:LEU:HD23	2.19	0.42
22:V:43:THR:HB	22:V:44:GLY:H	1.71	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)
13:M:113:ASP:O	13:M:114:TYR:CG	2.73	0.42
17:Q:21:ALA:HB2	17:Q:72:VAL:CG2	2.32	0.42
20:T:47:PRO:HG2	20:T:52:TRP:CD1	2.55	0.42
4:D:162:ASP:OD2	4:D:166:TYR:CE2	2.72	0.42
4:D:192:TRP:C	4:D:194:PRO:N	2.61	0.42
19:S:46:ARG:NH1	20:T:50:GLU:CA	2.81	0.42
18:R:17:ILE:O	18:R:71:ILE:CD1	2.66	0.42
18:R:5:ARG:N	18:R:10:LYS:NZ	2.60	0.42
4:D:123:LEU:C	4:D:123:LEU:HD23	2.39	0.42
2:B:104:ASP:CG	2:B:105:LEU:N	2.71	0.42
19:S:77:TYR:O	19:S:78:LYS:HB2	2.19	0.42
25:Y:7:ILE:HD11	25:Y:43:LYS:HD2	1.97	0.42
4:D:101:GLN:O	4:D:104:SER:HB2	2.19	0.42
3:C:134:THR:CG2	3:C:135:ALA:N	2.82	0.42
8:H:126:HIS:O	8:H:130:LEU:HD22	2.19	0.42
8:H:18:GLU:O	8:H:21:SER:HB2	2.18	0.42
5:E:166:THR:C	5:E:168:LYS:HG2	2.40	0.42
5:E:92:ILE:CG2	5:E:97:GLU:OE1	2.67	0.42
9:I:139:LYS:HD2	9:I:145:ILE:HD12	2.02	0.42
9:I:197:PHE:HE1	12:L:8:ARG:O	2.03	0.42
17:Q:9:SER:OG	17:Q:26:LYS:HE3	2.13	0.42
1:A:111:GLN:HE22	1:A:116:PHE:HZ	1.68	0.42
1:A:66:VAL:CG1	1:A:186:ARG:HD3	2.47	0.42
15:O:30:VAL:HG13	15:O:47:LEU:HA	2.00	0.42
6:F:93:VAL:C	6:F:97:PHE:CD1	2.86	0.42
11:K:1:MET:HG2	11:K:2:LEU:HB3	2.01	0.42
17:Q:42:ILE:CG1	17:Q:51:LEU:HD22	2.46	0.42
10:J:50:LEU:CG	10:J:102:ILE:HD13	2.49	0.42
20:T:77:LYS:CE	20:T:92:PHE:CE2	3.02	0.42
16:P:7:LYS:C	16:P:9:LYS:H	2.19	0.42
16:P:121:ILE:CG2	19:S:120:HIS:HA	2.44	0.42
16:P:14:LYS:C	16:P:22:LEU:HD23	2.37	0.42
16:P:17:TYR:CE2	16:P:25:LEU:HD21	2.54	0.42
19:S:85:ASN:OD1	19:S:86:ARG:N	2.52	0.42
3:C:240:LEU:CD1	3:C:240:LEU:N	2.83	0.42
5:E:153:LEU:HD12	5:E:172:PHE:CZ	2.36	0.42
7:G:213:LEU:CD1	7:G:214:ALA:N	2.73	0.42
9:I:108:PRO:HA	9:I:111:GLN:HG2	2.00	0.42
9:I:191:GLU:HG2	9:I:192:GLY:N	2.34	0.42
12:L:82:MET:SD	12:L:85:THR:CG2	3.08	0.42
1:A:66:VAL:CG2	1:A:186:ARG:CD	2.80	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:93:GLY:HA2	2:B:94:LYS:HD3	2.01	0.42
8:H:145:ARG:NH1	8:H:155:LYS:NZ	2.57	0.42
8:H:14:GLU:HG2	8:H:15:LYS:O	2.18	0.42
14:N:60:VAL:O	14:N:60:VAL:CG2	2.67	0.42
15:O:31:CYS:SG	15:O:93:LEU:HB2	2.59	0.42
6:F:42:LYS:O	6:F:45:TYR:N	2.53	0.42
11:K:71:LEU:HG	11:K:76:ILE:HD13	2.01	0.42
21:U:61:LEU:O	21:U:81:GLN:HA	2.19	0.42
26:Z:103:HIS:C	26:Z:105:ALA:N	2.69	0.42
5:E:45:ILE:HD12	5:E:80:ILE:CG2	2.49	0.42
10:J:170:PRO:CD	10:J:175:ARG:CG	2.94	0.42
10:J:50:LEU:CB	10:J:102:ILE:CD1	2.97	0.42
8:H:87:PHE:CD2	8:H:90:LYS:HD2	2.54	0.42
13:M:61:TYR:HH	13:M:108:CYS:CB	2.32	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:84:ARG:C	20:T:86:GLY:H	2.21	0.42
20:T:40:ALA:O	20:T:43:LYS:HG2	2.20	0.42
14:N:114:ARG:HD3	14:N:114:ARG:HA	1.44	0.42
15:O:143:LYS:HG3	15:O:144:GLY:N	2.34	0.42
12:L:14:PRO:C	12:L:15:THR:HG23	2.40	0.42
7:G:80:GLY:C	7:G:81:HIS:CG	2.92	0.42
12:L:10:TYR:CE2	12:L:12:LYS:NZ	2.79	0.42
25:Y:114:MET:HE3	25:Y:125:VAL:HG22	1.96	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
1:A:75:SER:HB2	1:A:122:LEU:CD2	2.46	0.42
6:F:124:ASP:O	6:F:200:ALA:CB	2.67	0.42
8:H:172:THR:CG2	8:H:173:PHE:N	2.81	0.42
15:O:98:ARG:HE	15:O:134:PRO:HD3	1.84	0.42
22:V:46:PHE:O	22:V:46:PHE:CG	2.72	0.42
23:W:17:ALA:CB	23:W:25:VAL:HG11	2.45	0.42
4:D:25:LEU:HD22	4:D:25:LEU:N	2.34	0.42
11:K:1:MET:HG2	11:K:2:LEU:CB	2.49	0.42
11:K:16:PHE:CZ	11:K:76:ILE:O	2.73	0.42
21:U:32:LEU:HD22	21:U:85:HIS:HB2	2.00	0.42
10:J:110:LEU:HD23	10:J:110:LEU:HA	1.83	0.42
10:J:169:ARG:HB3	10:J:175:ARG:NH1	2.26	0.42
19:S:41:ALA:O	19:S:45:LEU:HG	2.19	0.42
19:S:50:ILE:HG13	19:S:63:GLU:HG2	1.99	0.42
12:L:18:GLN:HB3	12:L:18:GLN:HE21	1.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:97:TYR:CD1	25:Y:98:GLU:N	2.79	0.42
6:F:190:ILE:CG2	6:F:191:LYS:N	2.82	0.42
2:B:147:ASN:HA	2:B:147:ASN:HD22	1.58	0.42
11:K:94:LEU:CD2	11:K:95:ARG:H	2.31	0.42
8:H:117:PRO:HD2	8:H:120:ARG:CB	2.49	0.42
17:Q:123:ASP:HA	17:Q:124:PRO:HD3	1.87	0.42
24:X:62:PRO:CD	24:X:63:ASN:N	2.83	0.42
24:X:58:GLU:O	24:X:59:ALA:C	2.58	0.42
7:G:159:ARG:NH2	7:G:161:PRO:N	2.68	0.42
7:G:58:LYS:HG2	7:G:58:LYS:H	1.51	0.42
1:A:124:VAL:HG21	1:A:134:LEU:HD21	2.00	0.42
1:A:5:LEU:CD1	1:A:6:ASP:CB	2.97	0.42
2:B:55:THR:O	2:B:56:LYS:CG	2.66	0.42
15:O:116:LEU:HD23	15:O:116:LEU:HA	1.77	0.42
15:O:34:PHE:CD2	15:O:98:ARG:NH1	2.87	0.42
23:W:24:GLN:OE1	23:W:24:GLN:N	2.53	0.42
4:D:20:GLU:HG2	11:K:64:TRP:CE3	2.55	0.42
6:F:112:LEU:O	6:F:116:ILE:CG1	2.67	0.42
11:K:37:ASP:CA	11:K:38:LYS:HD3	2.50	0.42
17:Q:54:PRO:CG	17:Q:88:ILE:HD11	2.26	0.42
16:P:41:GLN:NE2	16:P:84:ILE:HD13	2.34	0.42
20:T:55:THR:CG2	20:T:56:ARG:N	2.82	0.42
19:S:103:LEU:CD1	19:S:104:ASP:N	2.72	0.42
11:K:14:LEU:CD2	11:K:35:LEU:HD11	2.49	0.42
11:K:9:ILE:CG2	11:K:10:ALA:N	2.82	0.42
16:P:37:TYR:HA	19:S:88:LYS:HD3	2.01	0.42
23:W:15:ASN:O	23:W:19:LYS:HG3	2.20	0.42
21:U:48:LEU:O	21:U:49:LYS:CG	2.66	0.42
20:T:141:ALA:O	20:T:142:LYS:CB	2.64	0.42
8:H:121:THR:HG22	8:H:124:ALA:HB2	2.02	0.42
15:O:38:ASN:O	15:O:39:ASP:HB2	2.19	0.42
19:S:111:LEU:HD13	19:S:125:HIS:NE2	2.35	0.42
5:E:211:LYS:HE3	5:E:217:SER:OG	2.20	0.42
7:G:170:ARG:CD	7:G:171:THR:O	2.67	0.42
7:G:52:ILE:HA	7:G:111:LEU:CD2	2.42	0.42
9:I:141:ARG:C	9:I:143:LYS:CB	2.86	0.42
3:C:245:VAL:O	3:C:246:PHE:CB	2.65	0.42
6:F:134:VAL:HB	6:F:136:ARG:NH2	2.34	0.42
8:H:133:LEU:HA	8:H:133:LEU:HD23	1.78	0.42
8:H:23:ILE:C	8:H:23:ILE:HD13	2.40	0.42
14:N:36:GLN:O	14:N:40:LEU:HG	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:48:ILE:CG2	4:D:86:LEU:CG	2.82	0.42
6:F:86:LYS:O	6:F:90:VAL:HG23	2.19	0.42
11:K:31:LYS:HA	11:K:40:VAL:O	2.20	0.42
11:K:4:PRO:HD2	11:K:44:HIS:CE1	2.54	0.42
11:K:47:LYS:HA	11:K:47:LYS:HD3	1.92	0.42
11:K:4:PRO:HG2	11:K:7:ASN:CG	2.39	0.42
11:K:84:HIS:NE2	13:M:27:ILE:HD11	2.34	0.42
17:Q:43:GLU:HA	17:Q:45:ARG:H	1.81	0.42
19:S:120:HIS:CD2	19:S:124:ARG:CG	3.01	0.42
16:P:92:SER:OG	16:P:93:MET:N	2.52	0.42
9:I:199:LEU:HA	9:I:199:LEU:HD23	1.86	0.42
13:M:13:ASP:O	13:M:14:VAL:C	2.58	0.42
25:Y:99:LYS:HD2	25:Y:99:LYS:O	2.15	0.42
5:E:212:ASP:C	5:E:214:ASN:H	2.23	0.42
4:D:175:VAL:HG13	4:D:182:LEU:HB2	1.99	0.42
20:T:5:THR:HG22	20:T:8:ASP:CG	2.39	0.42
5:E:195:ILE:O	5:E:196:THR:OG1	2.36	0.42
18:R:112:GLY:O	18:R:113:SER:OG	2.32	0.42
15:O:59:GLY:O	15:O:60:MET:C	2.59	0.42
9:I:144:LYS:HD2	9:I:144:LYS:HA	1.86	0.42
9:I:93:THR:O	9:I:94:LYS:HB2	2.20	0.42
17:Q:9:SER:HB2	17:Q:26:LYS:CG	2.10	0.42
1:A:106:GLY:O	1:A:109:THR:O	2.38	0.42
8:H:37:LYS:HG3	8:H:38:ALA:N	2.29	0.42
8:H:65:PRO:O	8:H:66:VAL:HB	2.20	0.42
2:B:30:TRP:CD1	15:O:17:LEU:HD21	2.55	0.42
11:K:12:TYR:CD2	11:K:79:LEU:HD22	2.55	0.42
17:Q:117:ARG:O	17:Q:118:THR:CB	2.68	0.42
10:J:131:ARG:NH1	10:J:143:ASN:ND2	2.63	0.42
25:Y:87:PRO:HB2	25:Y:89:HIS:ND1	2.30	0.42
2:B:87:ILE:O	2:B:87:ILE:HG13	2.19	0.42
16:P:108:LYS:N	16:P:111:MET:CE	2.72	0.42
18:R:47:ARG:HG2	18:R:48:ASN:N	2.33	0.42
24:X:105:PHE:CD2	24:X:112:VAL:HG23	2.51	0.42
14:N:99:ARG:O	14:N:103:GLU:HG2	2.20	0.42
2:B:150:ILE:HB	18:R:124:VAL:HG13	2.01	0.42
5:E:7:LYS:HD2	5:E:7:LYS:HA	1.38	0.42
9:I:103:LEU:CD2	9:I:172:LEU:CD1	2.94	0.42
12:L:126:VAL:HG23	12:L:145:VAL:HA	2.01	0.42
9:I:154:LYS:HZ3	12:L:22:ARG:CG	2.32	0.42
12:L:22:ARG:HB2	12:L:23:VAL:H	1.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:49:ILE:HG22	1:A:50:ASN:N	2.35	0.42
1:A:57:LYS:HD2	1:A:160:ALA:O	2.20	0.42
2:B:161:VAL:HG12	2:B:165:ARG:CZ	2.49	0.42
2:B:52:THR:CG2	14:N:56:ASP:OD1	84.59	0.42
2:B:55:THR:O	2:B:56:LYS:CB	2.66	0.42
8:H:16:PRO:O	8:H:20:GLU:OE2	2.37	0.42
8:H:23:ILE:HG23	8:H:24:SER:N	2.34	0.42
2:B:67:PHE:HE1	15:O:47:LEU:CB	2.31	0.42
21:U:97:ILE:O	21:U:101:ILE:HD12	2.20	0.42
5:E:20:LEU:HD21	5:E:50:ASN:ND2	2.35	0.42
10:J:102:ILE:CG2	10:J:106:LEU:CD1	2.93	0.42
24:X:52:LEU:HD12	24:X:53:GLU:H	1.70	0.42
8:H:83:LEU:CD1	8:H:92:VAL:CG1	2.94	0.42
26:Z:51:ASP:O	26:Z:52:LYS:C	2.53	0.42
23:W:11:LEU:HA	23:W:14:ILE:CD1	2.50	0.42
23:W:98:GLN:HB3	23:W:98:GLN:HE21	1.63	0.42
13:M:104:VAL:CG2	13:M:105:GLY:N	2.82	0.42
13:M:76:LEU:N	13:M:128:PHE:CZ	2.88	0.42
23:W:29:PRO:O	23:W:30:CYS:CB	2.65	0.42
21:U:66:ARG:CZ	21:U:75:LYS:HA	2.49	0.42
23:W:37:PHE:CE1	23:W:103:VAL:CG1	3.03	0.42
3:C:231:LYS:HB3	3:C:231:LYS:HE3	1.46	0.42
4:D:142:LEU:C	4:D:144:GLY:H	2.23	0.42
16:P:43:ARG:HD3	16:P:43:ARG:HA	1.38	0.42
17:Q:106:LYS:HA	17:Q:106:LYS:HD3	1.90	0.42
24:X:75:ILE:HA	24:X:75:ILE:HD13	1.73	0.42
3:C:246:PHE:HB3	3:C:247:THR:H	1.63	0.41
3:C:48:VAL:HG23	3:C:75:GLU:HG2	2.01	0.41
15:O:103:ASN:O	15:O:104:ARG:O	2.39	0.41
15:O:32:HIS:O	15:O:43:HIS:HB3	2.20	0.41
3:C:72:PRO:N	22:V:29:HIS:CE1	2.87	0.41
22:V:64:GLU:O	22:V:67:ASP:N	2.53	0.41
3:C:196:LYS:CD	3:C:196:LYS:C	2.89	0.41
6:F:18:LYS:HB3	6:F:18:LYS:HE2	1.77	0.41
11:K:49:MET:HB3	11:K:69:TRP:CE2	2.55	0.41
11:K:3:MET:CG	11:K:4:PRO:N	2.83	0.41
11:K:52:LEU:HA	11:K:55:ARG:HD3	2.01	0.41
11:K:58:VAL:HG23	11:K:70:TYR:O	2.20	0.41
21:U:26:SER:HB2	21:U:110:VAL:HA	2.02	0.41
21:U:68:THR:HG22	21:U:69:PRO:HD2	2.01	0.41
25:Y:54:VAL:HG12	25:Y:75:ILE:HG23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:100:LYS:HD2	16:P:101:THR:N	2.35	0.41
11:K:14:LEU:HD23	11:K:35:LEU:HD22	1.88	0.41
25:Y:64:PHE:N	25:Y:64:PHE:HD1	2.09	0.41
9:I:69:SER:CB	12:L:19:ASN:CG	2.70	0.41
4:D:166:TYR:HD1	4:D:200:PRO:CG	2.33	0.41
2:B:208:HIS:NE2	2:B:209:ASP:OD2	2.53	0.41
19:S:61:GLU:O	19:S:64:VAL:HG23	2.09	0.41
13:M:127:TYR:CG	13:M:128:PHE:N	2.87	0.41
12:L:45:LYS:O	12:L:47:PRO:HD3	2.20	0.41
2:B:133:TYR:CD1	2:B:217:MET:HE1	2.55	0.41
20:T:111:LYS:HB2	20:T:126:GLN:HE22	1.71	0.41
2:B:41:ILE:HD12	2:B:41:ILE:HG21	1.77	0.41
4:D:145:GLN:HG3	4:D:146:ARG:H	1.84	0.41
3:C:113:VAL:HG12	3:C:114:ALA:N	2.35	0.41
5:E:153:LEU:HG	5:E:153:LEU:H	1.43	0.41
7:G:122:PRO:CD	7:G:123:GLY:N	2.83	0.41
7:G:28:TYR:O	7:G:29:GLU:HB3	2.20	0.41
7:G:64:LYS:HB3	7:G:97:VAL:HG11	2.02	0.41
9:I:139:LYS:CD	9:I:145:ILE:CD1	2.98	0.41
1:A:161:ILE:CG2	1:A:174:MET:HE2	2.50	0.41
1:A:5:LEU:HD13	1:A:6:ASP:CA	2.46	0.41
1:A:6:ASP:C	1:A:8:LEU:N	2.73	0.41
3:C:53:ARG:NH1	3:C:258:LEU:O	2.52	0.41
3:C:51:LEU:HD23	3:C:60:ILE:CD1	2.46	0.41
3:C:63:LEU:HD12	3:C:83:LEU:HD22	2.02	0.41
6:F:61:PHE:O	6:F:62:ARG:C	2.57	0.41
8:H:75:ILE:CG2	8:H:76:GLN:H	2.25	0.41
18:R:105:MET:C	18:R:109:LEU:HD12	2.39	0.41
22:V:66:ASP:O	22:V:67:ASP:O	2.39	0.41
6:F:115:ALA:HB3	6:F:116:ILE:HD13	2.02	0.41
11:K:88:GLU:O	11:K:89:ILE:C	2.58	0.41
13:M:113:ASP:C	13:M:115:GLY:H	2.23	0.41
26:Z:104:ARG:HH11	26:Z:104:ARG:C	2.23	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	2.02	0.41
24:X:129:SER:O	24:X:133:LEU:HG	2.20	0.41
20:T:47:PRO:CG	20:T:52:TRP:CD1	3.02	0.41
24:X:21:LYS:HB3	24:X:27:TYR:CE2	2.55	0.41
16:P:22:LEU:HA	16:P:25:LEU:CB	2.47	0.41
4:D:222:PRO:O	4:D:223:ILE:CB	2.65	0.41
22:V:3:SER:O	22:V:4:ASN:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:22:LEU:HD12	13:M:88:TRP:HB3	2.01	0.41
23:W:18:GLU:HG2	23:W:65:LEU:CD1	2.47	0.41
20:T:5:THR:HG21	20:T:7:LYS:HB2	2.01	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
8:H:121:THR:CG2	8:H:124:ALA:HB2	2.50	0.41
20:T:123:LEU:CD2	20:T:123:LEU:N	2.82	0.41
4:D:209:SER:O	18:R:40:ILE:N	2.45	0.41
4:D:164:VAL:CG1	4:D:165:ASN:N	2.83	0.41
16:P:67:ALA:HB2	16:P:73:PRO:CG	2.50	0.41
5:E:117:GLU:C	5:E:119:ALA:N	2.73	0.41
7:G:50:VAL:HG11	7:G:111:LEU:HB3	1.88	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
9:I:143:LYS:HE2	9:I:143:LYS:HB3	1.83	0.41
17:Q:8:GLN:HB3	17:Q:99:TYR:CD1	2.48	0.41
4:D:41:VAL:HG13	4:D:41:VAL:O	2.19	0.41
6:F:41:VAL:HG13	6:F:42:LYS:N	2.35	0.41
10:J:144:ILE:C	10:J:146:SER:N	2.72	0.41
10:J:136:ARG:NH1	10:J:161:LEU:HB2	2.36	0.41
10:J:66:LYS:C	10:J:71:LEU:CD1	2.89	0.41
20:T:33:TRP:HB2	20:T:36:THR:HG22	2.02	0.41
20:T:37:VAL:HG12	20:T:39:LEU:N	2.35	0.41
16:P:36:LEU:HA	16:P:37:TYR:CG	2.56	0.41
16:P:60:LEU:HD13	16:P:89:MET:HG3	2.02	0.41
10:J:40:LYS:O	10:J:41:ARG:C	2.53	0.41
12:L:17:PHE:CE1	12:L:18:GLN:C	2.89	0.41
12:L:20:LYS:CD	12:L:20:LYS:H	2.09	0.41
10:J:82:VAL:HG21	10:J:92:MET:HG2	2.02	0.41
21:U:47:ASN:C	21:U:48:LEU:HD23	2.34	0.41
14:N:38:TYR:CZ	14:N:78:LYS:CG	3.02	0.41
3:C:151:ARG:HH12	3:C:240:LEU:HD13	1.68	0.41
3:C:154:TYR:CG	3:C:158:LYS:HB3	2.55	0.41
23:W:7:LEU:CD2	23:W:34:ILE:HG13	2.46	0.41
20:T:60:THR:HG23	20:T:64:LEU:HD21	2.03	0.41
24:X:32:LEU:O	24:X:37:LYS:NZ	2.52	0.41
24:X:58:GLU:O	24:X:59:ALA:O	2.38	0.41
9:I:163:GLU:O	9:I:166:PHE:HB2	2.20	0.41
7:G:137:ARG:H	7:G:137:ARG:HG2	1.58	0.41
7:G:64:LYS:HD2	7:G:64:LYS:C	2.18	0.41
7:G:85:ARG:CZ	25:Y:118:ARG:CZ	2.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:145:ILE:HD12	1:A:159:ILE:CG2	2.27	0.41
2:B:24:PRO:O	2:B:27:LYS:HB2	2.20	0.41
8:H:39:GLN:CG	8:H:40:LEU:N	2.83	0.41
18:R:110:ASP:O	18:R:111:PHE:CD2	2.54	0.41
4:D:98:ALA:HA	4:D:188:ILE:CD1	2.50	0.41
6:F:95:HIS:NE2	26:Z:103:HIS:HB2	2.35	0.41
5:E:49:ARG:HD2	5:E:50:ASN:CG	2.40	0.41
25:Y:55:ILE:HA	25:Y:75:ILE:HG12	2.02	0.41
20:T:102:ARG:HD3	20:T:105:GLN:OE1	2.21	0.41
20:T:39:LEU:HD11	20:T:99:VAL:HG21	2.00	0.41
8:H:80:VAL:HA	8:H:83:LEU:CG	2.51	0.41
16:P:49:LEU:C	16:P:51:ARG:CA	2.82	0.41
10:J:79:ARG:CD	10:J:83:ARG:HD2	2.49	0.41
3:C:168:LYS:CG	23:W:95:PRO:HA	2.51	0.41
14:N:129:TYR:HB2	14:N:135:LEU:HD12	2.02	0.41
9:I:7:ASN:O	9:I:9:HIS:C	2.51	0.41
3:C:225:THR:HG23	3:C:226:PHE:N	2.35	0.41
24:X:77:ASN:C	24:X:79:LYS:N	2.73	0.41
2:B:120:MET:CB	2:B:142:PHE:CE1	3.04	0.41
13:M:68:LEU:HD23	13:M:68:LEU:HA	1.90	0.41
5:E:123:LEU:HD21	5:E:235:TRP:CB	2.51	0.41
5:E:123:LEU:HD22	5:E:236:ILE:HG23	2.02	0.41
5:E:86:PHE:CZ	5:E:182:MET:SD	3.13	0.41
7:G:28:TYR:C	7:G:30:LYS:N	2.74	0.41
7:G:68:LEU:N	7:G:68:LEU:CD2	2.84	0.41
12:L:71:ARG:CG	12:L:73:LEU:CD2	2.98	0.41
1:A:157:VAL:O	22:V:66:ASP:OD2	2.37	0.41
3:C:69:PHE:CE1	3:C:247:THR:HG23	2.55	0.41
6:F:128:ILE:O	6:F:129:GLY:C	2.55	0.41
6:F:135:ARG:NH2	15:O:66:ARG:CG	2.83	0.41
8:H:14:GLU:HG3	8:H:15:LYS:N	2.32	0.41
18:R:98:VAL:CG1	18:R:99:ASP:H	2.34	0.41
4:D:58:VAL:CG2	4:D:59:LEU:N	2.83	0.41
4:D:73:VAL:O	4:D:77:PHE:HD2	2.03	0.41
17:Q:76:GLY:C	17:Q:80:GLN:HG3	2.34	0.41
10:J:34:GLU:HB3	10:J:35:TYR:CE2	2.56	0.41
21:U:40:ILE:HD13	21:U:53:PRO:CD	2.51	0.41
20:T:99:VAL:HG23	20:T:100:ALA:H	1.83	0.41
8:H:83:LEU:HD12	8:H:84:GLU:CA	2.51	0.41
13:M:84:LYS:HB3	13:M:88:TRP:CZ2	2.55	0.41
13:M:94:ILE:O	13:M:95:ASP:CB	2.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:116:ILE:HA	14:N:119:GLU:OE1	2.20	0.41
20:T:78:ILE:CG2	20:T:79:TYR:N	2.83	0.41
5:E:75:LYS:O	5:E:76:VAL:CG2	4.93	0.41
9:I:145:ILE:O	9:I:149:TYR:CD2	2.73	0.41
9:I:191:GLU:CA	9:I:195:LEU:HB2	2.50	0.41
12:L:40:ILE:CG2	12:L:41:GLY:N	2.83	0.41
1:A:124:VAL:CG1	1:A:130:ASP:HB2	2.50	0.41
1:A:30:LEU:HD23	1:A:35:GLU:HG3	1.90	0.41
1:A:36:GLN:O	1:A:53:ARG:CZ	2.69	0.41
1:A:40:LYS:CD	1:A:41:ARG:H	2.33	0.41
1:A:118:GLU:CG	3:C:50:LYS:HZ3	2.33	0.41
6:F:71:ARG:NH2	6:F:71:ARG:CG	2.48	0.41
22:V:33:PRO:CB	22:V:53:TYR:O	2.69	0.41
17:Q:49:TYR:C	17:Q:53:GLU:HG3	2.39	0.41
17:Q:88:ILE:O	17:Q:91:ALA:HB3	2.21	0.41
24:X:52:LEU:HG	24:X:71:ARG:CB	2.51	0.41
2:B:140:VAL:CG1	2:B:211:PHE:HD2	2.34	0.41
10:J:180:LYS:HD2	10:J:181:GLY:N	2.35	0.41
13:M:51:VAL:CA	13:M:77:ILE:CG2	2.94	0.41
14:N:130:LYS:HE2	14:N:130:LYS:HB2	1.78	0.41
14:N:80:LEU:HD13	14:N:80:LEU:HA	1.94	0.41
2:B:130:THR:HG21	2:B:179:ASN:N	2.23	0.41
2:B:130:THR:HG23	2:B:179:ASN:N	2.36	0.41
5:E:143:ASP:OD1	5:E:145:ARG:HD2	2.21	0.41
20:T:64:LEU:HD12	20:T:113:VAL:HG11	2.03	0.41
14:N:37:ILE:HD11	14:N:63:VAL:CG1	2.51	0.41
5:E:197:ASN:O	5:E:209:HIS:N	2.48	0.41
5:E:169:ILE:HG13	5:E:169:ILE:O	2.21	0.41
5:E:122:LYS:HD2	5:E:164:LEU:HD21	2.01	0.41
5:E:192:ILE:HD13	5:E:238:LEU:CD2	2.51	0.41
7:G:64:LYS:HD2	7:G:65:GLN:C	2.40	0.41
7:G:64:LYS:CE	7:G:65:GLN:O	2.69	0.41
9:I:158:ILE:HG23	9:I:159:SER:N	2.36	0.41
1:A:106:GLY:CA	1:A:110:ASN:HD22	2.33	0.41
2:B:127:VAL:HG11	2:B:176:VAL:HB	2.02	0.41
2:B:71:LEU:C	2:B:79:VAL:HG21	2.40	0.41
6:F:124:ASP:CA	6:F:200:ALA:HB2	2.51	0.41
6:F:127:ARG:O	6:F:127:ARG:HD2	2.16	0.41
4:D:79:PHE:CG	4:D:84:VAL:HB	2.55	0.41
11:K:80:ARG:HA	11:K:85:LEU:CD1	2.50	0.41
17:Q:44:PRO:CB	17:Q:81:ILE:HD11	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:68:LYS:C	25:Y:69:THR:HG23	2.41	0.41
5:E:248:ILE:HD11	10:J:72:PHE:HB3	1.97	0.41
19:S:36:VAL:HA	19:S:40:TYR:HD2	1.84	0.41
25:Y:104:ARG:HA	25:Y:107:ARG:CZ	2.51	0.41
4:D:212:GLU:HB2	18:R:19:LYS:HD3	1.96	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
12:L:50:ALA:N	12:L:116:CYS:SG	2.94	0.41
20:T:87:VAL:HG12	20:T:88:MET:HE3	2.03	0.41
10:J:84:ILE:CG1	10:J:86:VAL:CG2	2.99	0.41
21:U:94:PRO:HB2	21:U:95:SER:H	1.76	0.41
1:A:152:SER:HB3	1:A:153:PRO:HD2	2.02	0.41
6:F:62:ARG:O	6:F:63:LYS:C	2.58	0.41
15:O:84:ARG:HA	15:O:87:GLU:CB	2.47	0.41
22:V:41:LYS:O	22:V:43:THR:CA	2.67	0.41
6:F:111:VAL:HG13	6:F:181:ALA:HB2	2.03	0.41
16:P:41:GLN:OE1	16:P:45:LEU:HD12	2.21	0.41
10:J:114:VAL:C	10:J:120:ALA:HB3	2.41	0.41
10:J:37:LEU:CD2	10:J:43:VAL:N	2.79	0.41
16:P:100:LYS:CD	16:P:101:THR:HG23	2.46	0.41
16:P:78:THR:O	16:P:102:PHE:HE1	2.03	0.41
8:H:58:LYS:O	8:H:90:LYS:HA	2.21	0.41
19:S:82:TRP:CG	19:S:83:PHE:N	2.89	0.41
18:R:21:TYR:CG	18:R:71:ILE:CD1	2.98	0.41
21:U:44:LYS:O	21:U:45:GLU:C	2.58	0.41
4:D:123:LEU:HA	4:D:126:ILE:HG12	2.02	0.41
3:C:195:PRO:HG3	3:C:221:PHE:CE1	2.54	0.41
3:C:260:LYS:HD2	3:C:261:THR:CB	2.50	0.41
23:W:78:ARG:NE	23:W:126:LEU:HD23	2.35	0.41
8:H:148:LEU:C	8:H:148:LEU:HD23	2.38	0.41
7:G:65:GLN:C	7:G:100:CYS:SG	2.99	0.41
7:G:121:ILE:CG1	7:G:122:PRO:HD3	2.51	0.41
7:G:145:PHE:CB	7:G:147:LEU:HD13	2.47	0.41
7:G:179:LEU:CD1	7:G:179:LEU:C	2.76	0.41
7:G:27:PHE:CE1	7:G:111:LEU:HD11	2.56	0.41
9:I:110:ARG:HE	9:I:128:LYS:NZ	2.18	0.41
9:I:62:VAL:HG23	9:I:75:LYS:HE3	2.01	0.41
12:L:55:TYR:C	12:L:55:TYR:CD1	2.94	0.41
9:I:146:GLN:HA	9:I:149:TYR:HD2	1.86	0.41
12:L:113:LEU:HD23	12:L:113:LEU:C	2.42	0.41
12:L:146:THR:CG2	12:L:147:LYS:N	2.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:95:TYR:C	12:L:96:ILE:HD12	2.40	0.41
2:B:88:THR:HG23	2:B:96:CYS:HB3	2.03	0.41
3:C:83:LEU:C	3:C:85:ALA:N	2.74	0.41
8:H:6:ALA:HB2	8:H:10:LYS:NZ	2.36	0.41
15:O:62:VAL:HG21	15:O:72:TYR:OH	2.11	0.41
18:R:103:LYS:HD2	18:R:103:LYS:HA	1.32	0.41
22:V:33:PRO:HB2	22:V:34:MET:H	1.74	0.41
8:H:169:LYS:HB2	8:H:173:PHE:CZ	2.47	0.41
13:M:43:ASP:O	13:M:44:LYS:HG3	2.21	0.41
15:O:42:VAL:HG12	15:O:43:HIS:N	2.35	0.41
18:R:102:THR:CA	18:R:105:MET:HB2	2.46	0.41
1:A:158:ASP:CB	22:V:65:SER:CB	2.92	0.41
4:D:47:GLU:HG2	4:D:85:GLU:HG2	1.90	0.41
4:D:65:ARG:HE	4:D:65:ARG:HB3	1.56	0.41
11:K:84:HIS:HD2	13:M:27:ILE:CD1	2.31	0.41
24:X:95:GLU:HB2	24:X:140:ARG:HH22	1.84	0.41
25:Y:55:ILE:CG1	25:Y:75:ILE:HD13	2.41	0.41
20:T:46:ALA:CB	20:T:47:PRO:CD	2.43	0.41
20:T:49:ASP:O	20:T:52:TRP:HD1	2.03	0.41
16:P:5:GLU:O	16:P:6:GLN:HG3	2.16	0.41
11:K:9:ILE:HG23	11:K:10:ALA:N	2.35	0.41
11:K:14:LEU:HB2	11:K:35:LEU:HD21	2.02	0.41
8:H:50:GLU:CD	8:H:58:LYS:CE	2.88	0.41
16:P:17:TYR:CE1	16:P:18:ARG:HG3	2.55	0.41
19:S:40:TYR:OH	19:S:99:LEU:HD21	2.21	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
26:Z:91:LEU:HD21	26:Z:96:LEU:HD12	1.98	0.41
18:R:17:ILE:HG13	18:R:54:VAL:HG13	2.03	0.41
4:D:111:GLY:CA	4:D:113:LEU:HD11	2.51	0.41
21:U:48:LEU:O	21:U:49:LYS:CB	2.66	0.41
21:U:44:LYS:HB2	21:U:49:LYS:HA	2.02	0.41
14:N:38:TYR:HE1	14:N:78:LYS:HZ3	1.60	0.41
14:N:38:TYR:CD1	14:N:78:LYS:HG3	2.56	0.41
3:C:191:SER:HB3	3:C:195:PRO:HG2	2.03	0.41
13:M:86:GLY:HA2	13:M:106:CYS:HB2	2.00	0.41
13:M:124:ILE:O	13:M:128:PHE:HB2	2.21	0.41
14:N:132:LYS:HB3	14:N:132:LYS:HE2	1.54	0.41
4:D:175:VAL:HG12	4:D:182:LEU:HB2	2.01	0.41
15:O:136:PRO:O	15:O:138:ASP:CA	2.63	0.41
2:B:145:LYS:CA	2:B:149:GLN:OE1	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:94:HIS:NE2	15:O:127:GLY:HA3	2.36	0.41
5:E:185:GLY:HA2	5:E:189:LEU:HD13	2.03	0.41
5:E:260:GLN:OE1	5:E:260:GLN:HA	2.20	0.41
2:B:119:THR:O	2:B:142:PHE:HA	2.21	0.41
10:J:53:ILE:HD13	10:J:105:PHE:CZ	2.55	0.41
10:J:84:ILE:CD1	10:J:86:VAL:HG23	2.49	0.41
4:D:110:LEU:HD23	4:D:110:LEU:C	2.41	0.41
5:E:59:ASP:O	5:E:63:LYS:HG3	2.20	0.41
26:Z:90:GLU:O	26:Z:93:SER:N	2.43	0.41
2:B:155:TYR:HD1	2:B:155:TYR:N	2.18	0.41
26:Z:84:ALA:O	26:Z:87:ALA:N	2.54	0.41
5:E:164:LEU:HA	5:E:164:LEU:HD22	1.77	0.41
7:G:32:MET:HA	7:G:52:ILE:CG2	2.51	0.41
7:G:64:LYS:CG	7:G:64:LYS:O	2.69	0.41
9:I:141:ARG:O	9:I:142:SER:HB3	2.19	0.41
12:L:56:ILE:HG22	12:L:57:ASP:N	2.35	0.41
1:A:180:ARG:HD3	1:A:184:ARG:NE	2.36	0.41
1:A:191:ARG:HD3	1:A:193:HIS:CD2	2.56	0.41
2:B:79:VAL:O	2:B:79:VAL:CG2	2.62	0.41
3:C:54:LEU:HB3	3:C:60:ILE:HG13	2.02	0.41
6:F:20:PHE:CD2	6:F:23:TRP:CD1	3.07	0.41
17:Q:85:ARG:HA	17:Q:88:ILE:HG12	2.03	0.41
10:J:115:PHE:CD1	10:J:122:SER:CA	3.04	0.41
23:W:49:GLU:CD	23:W:64:ASN:HD22	2.24	0.41
25:Y:32:LYS:HG2	25:Y:33:ALA:C	2.40	0.41
16:P:89:MET:HB3	16:P:107:ILE:HD11	1.96	0.41
13:M:35:ILE:CD1	13:M:61:TYR:CE2	3.03	0.41
3:C:238:PRO:HA	3:C:241:TRP:NE1	2.35	0.41
5:E:31:PRO:CG	5:E:38:LEU:HD13	2.45	0.41
14:N:136:PRO:HD2	14:N:139:TRP:HD1	1.86	0.41
20:T:40:ALA:HB3	20:T:43:LYS:HE3	2.02	0.41
2:B:150:ILE:CB	18:R:124:VAL:HG13	2.50	0.41
8:H:117:PRO:O	8:H:120:ARG:HB2	2.21	0.41
7:G:162:LEU:CD2	7:G:170:ARG:CB	2.96	0.40
7:G:200:LYS:HG3	7:G:201:LYS:N	2.35	0.40
9:I:139:LYS:HD2	9:I:149:TYR:OH	2.21	0.40
9:I:157:LYS:HG2	12:L:22:ARG:NH1	2.34	0.40
12:L:70:GLY:O	12:L:72:ILE:HD12	2.20	0.40
12:L:73:LEU:HD22	12:L:90:ARG:NH2	2.36	0.40
1:A:193:HIS:CG	1:A:194:PRO:CD	3.03	0.40
8:H:159:ASP:O	8:H:160:LYS:CB	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:31:SER:C	22:V:32:ILE:CG1	2.86	0.40
4:D:7:LYS:O	4:D:11:PHE:HD1	2.04	0.40
6:F:112:LEU:CB	6:F:177:LEU:HD11	2.50	0.40
26:Z:104:ARG:HD2	26:Z:104:ARG:HA	1.38	0.40
5:E:18:TRP:CD2	5:E:46:ILE:HD13	2.56	0.40
8:H:92:VAL:O	8:H:93:VAL:CB	2.68	0.40
9:I:19:LYS:HA	9:I:20:PRO:HD3	1.77	0.40
4:D:197:LYS:N	4:D:199:GLY:CA	2.84	0.40
3:C:167:CYS:SG	3:C:168:LYS:HG3	2.60	0.40
3:C:176:VAL:HG11	3:C:221:PHE:HA	2.03	0.40
20:T:83:GLN:HE22	20:T:85:ASN:CA	2.26	0.40
25:Y:111:LYS:HZ3	25:Y:115:LYS:NZ	2.02	0.40
7:G:176:ILE:CG1	7:G:179:LEU:CD2	2.98	0.40
1:A:134:LEU:CD2	1:A:144:THR:HG21	2.51	0.40
2:B:72:ALA:CB	2:B:79:VAL:O	2.57	0.40
3:C:127:LYS:HE3	3:C:128:CYS:H	1.85	0.40
3:C:59:LYS:CD	3:C:254:PHE:CE1	3.04	0.40
8:H:20:GLU:O	8:H:23:ILE:HG22	2.21	0.40
14:N:18:TYR:O	14:N:19:ARG:O	2.39	0.40
15:O:34:PHE:HE1	15:O:100:THR:N	2.19	0.40
6:F:28:VAL:HG13	6:F:110:GLN:HG2	2.02	0.40
13:M:113:ASP:O	13:M:114:TYR:CD2	2.74	0.40
17:Q:58:LEU:HD21	17:Q:111:ILE:CD1	2.28	0.40
17:Q:93:VAL:HG13	17:Q:105:LYS:CG	2.42	0.40
21:U:58:THR:OG1	21:U:85:HIS:CE1	2.75	0.40
5:E:34:GLY:HA3	5:E:83:PRO:CG	2.51	0.40
10:J:136:ARG:HG2	10:J:141:VAL:CA	2.51	0.40
10:J:50:LEU:HD12	10:J:102:ILE:HG12	2.02	0.40
10:J:50:LEU:CD2	10:J:54:ARG:HG3	2.45	0.40
8:H:146:VAL:HG23	23:W:50:PHE:CD1	2.52	0.40
8:H:87:PHE:HD2	8:H:90:LYS:HD2	1.86	0.40
10:J:91:LYS:C	10:J:93:LYS:N	2.71	0.40
2:B:210:VAL:C	2:B:211:PHE:CG	2.93	0.40
22:V:1:MET:HE2	22:V:10:ASP:H	1.86	0.40
5:E:47:PHE:CD2	5:E:52:LEU:HD12	2.57	0.40
20:T:40:ALA:HB3	20:T:43:LYS:CE	2.51	0.40
8:H:117:PRO:CD	8:H:120:ARG:HD2	2.48	0.40
16:P:67:ALA:HB1	16:P:73:PRO:HB3	1.98	0.40
14:N:2:GLY:O	14:N:3:ARG:HB2	2.19	0.40
1:A:204:TYR:CD2	1:A:204:TYR:C	2.95	0.40
6:F:29:GLN:O	6:F:31:ASN:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:212:LEU:N	7:G:215:LYS:HD3	2.35	0.40
9:I:118:ALA:HB2	9:I:149:TYR:CD1	2.55	0.40
9:I:48:VAL:HG11	9:I:54:LYS:CE	2.50	0.40
1:A:126:ASP:O	1:A:130:ASP:HB2	2.22	0.40
1:A:53:ARG:HH11	1:A:53:ARG:HD3	1.49	0.40
1:A:18:PHE:HZ	1:A:55:TRP:CZ3	2.38	0.40
3:C:254:PHE:O	3:C:257:HIS:CB	2.70	0.40
8:H:133:LEU:HD13	8:H:173:PHE:HA	2.02	0.40
8:H:159:ASP:O	8:H:190:PRO:HG3	2.21	0.40
8:H:51:ILE:HG13	8:H:51:ILE:O	2.22	0.40
15:O:83:GLN:O	15:O:87:GLU:HB2	2.21	0.40
15:O:98:ARG:NE	15:O:134:PRO:HD3	2.37	0.40
22:V:33:PRO:HB3	22:V:54:ALA:HA	2.02	0.40
1:A:57:LYS:NZ	22:V:70:LEU:HD21	2.36	0.40
22:V:74:LYS:CA	22:V:79:VAL:HB	2.51	0.40
4:D:29:LEU:CD2	4:D:65:ARG:NH2	2.83	0.40
4:D:29:LEU:HA	4:D:29:LEU:HD23	1.89	0.40
11:K:16:PHE:CD2	11:K:79:LEU:CD1	3.05	0.40
19:S:81:ASP:C	19:S:87:GLN:NE2	2.71	0.40
16:P:30:TYR:OH	16:P:51:ARG:NH1	2.54	0.40
21:U:37:ALA:O	21:U:41:ARG:HG3	2.20	0.40
3:C:168:LYS:HG3	23:W:95:PRO:HA	2.03	0.40
19:S:47:LYS:HZ1	19:S:78:LYS:HB3	1.85	0.40
2:B:182:LYS:O	2:B:185:VAL:HB	2.21	0.40
2:B:148:ASN:N	2:B:148:ASN:HD22	2.14	0.40
20:T:87:VAL:HG12	20:T:88:MET:CE	2.52	0.40
9:I:65:PHE:HA	9:I:187:GLY:O	2.21	0.40
14:N:101:HIS:CE1	14:N:105:ASN:HD22	2.39	0.40
12:L:122:ILE:O	12:L:122:ILE:HG13	2.21	0.40
7:G:49:VAL:CG2	7:G:115:LYS:HE2	2.51	0.40
1:A:12:GLU:HB3	18:R:111:PHE:CZ	2.57	0.40
1:A:154:LEU:CD1	22:V:63:GLY:HA2	2.52	0.40
1:A:36:GLN:O	1:A:53:ARG:NH1	2.54	0.40
8:H:145:ARG:HD3	8:H:155:LYS:NZ	2.36	0.40
14:N:54:LEU:C	14:N:60:VAL:CG2	2.90	0.40
3:C:233:TYR:CD1	22:V:12:TYR:CZ	3.09	0.40
6:F:20:PHE:CZ	6:F:50:PRO:HG3	2.56	0.40
13:M:117:GLU:O	13:M:118:SER:CB	2.69	0.40
25:Y:56:PHE:HB2	25:Y:58:PHE:HE2	1.81	0.40
25:Y:61:ARG:HD3	25:Y:70:THR:O	2.22	0.40
16:P:121:ILE:HA	19:S:120:HIS:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:49:GLU:H	23:W:64:ASN:HD22	1.69	0.40
19:S:24:ARG:C	19:S:55:ARG:HD2	2.42	0.40
26:Z:62:VAL:HA	26:Z:65:TYR:CZ	2.54	0.40
18:R:7:LYS:O	18:R:11:LYS:HG3	2.21	0.40
3:C:151:ARG:NH2	22:V:1:MET:SD	2.94	0.40
5:E:47:PHE:CD2	5:E:52:LEU:CD1	3.02	0.40
9:I:29:LEU:HD21	9:I:31:ARG:NH1	2.34	0.40
14:N:67:THR:C	14:N:69:ASN:H	2.24	0.40
21:U:95:SER:OG	21:U:96:GLU:N	2.55	0.40
9:I:155:ASN:HD21	9:I:156:ALA:HA	1.82	0.40
9:I:191:GLU:O	9:I:195:LEU:N	2.43	0.40
12:L:66:VAL:HB	12:L:131:CYS:SG	2.62	0.40
3:C:150:VAL:C	3:C:233:TYR:CE2	2.94	0.40
8:H:95:ILE:HG22	8:H:96:ALA:N	2.36	0.40
1:A:141:ASN:CB	22:V:32:ILE:CG1	2.97	0.40
4:D:29:LEU:CD1	4:D:50:ILE:HG21	2.51	0.40
4:D:76:ARG:O	4:D:76:ARG:HD2	2.21	0.40
4:D:47:GLU:HA	4:D:85:GLU:HG2	2.04	0.40
6:F:40:ALA:H	6:F:68:ILE:CG2	2.25	0.40
6:F:89:THR:HG23	6:F:90:VAL:N	2.35	0.40
6:F:47:LYS:HB3	17:Q:117:ARG:HH22	1.86	0.40
17:Q:19:ALA:CA	17:Q:74:GLY:C	2.89	0.40
21:U:68:THR:CB	21:U:70:CYS:O	2.69	0.40
3:C:186:GLY:HA3	10:J:54:ARG:HH21	1.77	0.40
5:E:85:GLY:HA2	5:E:109:PHE:CZ	2.57	0.40
24:X:91:LEU:C	24:X:93:PHE:N	2.60	0.40
19:S:52:LEU:HD12	19:S:53:THR:CA	2.51	0.40
6:F:103:LEU:CD2	6:F:178:ILE:HG21	2.51	0.40
9:I:25:ARG:NE	9:I:27:TYR:OH	2.54	0.40
9:I:8:TRP:CD1	9:I:22:HIS:HE1	2.40	0.40
26:Z:62:VAL:HG11	26:Z:91:LEU:HD11	2.03	0.40
24:X:55:VAL:HG12	24:X:57:VAL:CG2	2.52	0.40
13:M:127:TYR:C	13:M:127:TYR:CD1	2.93	0.40
13:M:22:LEU:O	13:M:26:LEU:HB2	2.22	0.40
13:M:85:LEU:HD21	13:M:109:VAL:HG22	2.03	0.40
23:W:36:ARG:HE	23:W:110:ILE:HB	1.85	0.40
1:A:202:TYR:O	1:A:203:PHE:HB2	2.21	0.40

All (168) 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)
9:I:125:LYS:NZ	35:I:56:LYS:N[4_555]	0.47	1.73
31:e:123:PHE:CE1	34:i:1758:G:C3'[3_564]	0.56	1.64
7:G:155:GLN:NE2	11:K:98:ARG:N[2_665]	0.61	1.59
19:S:108:ARG:NE	34:i:724:C:OP1[5_664]	0.68	1.52
34:i:136:C:C5'	34:i:533:C:N3[2_665]	0.71	1.49
19:S:108:ARG:CD	34:i:724:C:O5'[5_664]	0.74	1.46
34:i:136:C:C4'	34:i:533:C:N1[2_665]	0.77	1.43
19:S:108:ARG:CZ	34:i:724:C:OP1[5_664]	0.80	1.40
34:i:136:C:C5'	34:i:533:C:C2[2_665]	0.84	1.36
9:I:127:ALA:CB	35:I:52:ASP:O[4_555]	0.84	1.36
34:i:136:C:O5'	34:i:533:C:N3[2_665]	0.91	1.29
34:i:136:C:C4'	34:i:533:C:C2[2_665]	0.91	1.29
31:e:125:LYS:NZ	34:i:1761:C:O5'[3_564]	0.92	1.28
19:S:108:ARG:CG	34:i:724:C:C5'[5_664]	0.95	1.25
9:I:125:LYS:NZ	35:I:55:ASP:C[4_555]	0.97	1.23
31:e:125:LYS:N	34:i:1760:C:OP2[3_564]	0.97	1.23
9:I:200:ARG:NH2	34:i:1036:G:OP2[4_555]	0.98	1.22
34:i:137:U:OP2	34:i:532:U:O2[2_665]	0.99	1.21
7:G:155:GLN:CD	11:K:98:ARG:CB[2_665]	1.08	1.12
2:B:55:THR:CG2	34:i:271:G:OP1[4_555]	1.09	1.11
19:S:108:ARG:NE	34:i:724:C:P[5_664]	1.09	1.11
19:S:112:GLU:CD	34:i:725:C:OP1[5_664]	1.09	1.11
34:i:136:C:C3'	34:i:533:C:C1'[2_665]	1.09	1.11
19:S:108:ARG:CD	34:i:724:C:C5'[5_664]	1.11	1.09
7:G:155:GLN:CG	11:K:98:ARG:CA[2_665]	1.12	1.08
7:G:155:GLN:CD	11:K:98:ARG:CA[2_665]	1.14	1.06
31:e:123:PHE:CG	34:i:1759:C:O5'[3_564]	1.17	1.03
7:G:155:GLN:CB	11:K:98:ARG:CG[2_665]	1.18	1.02
7:G:156:TYR:CZ	11:K:98:ARG:NH2[2_665]	1.19	1.01
7:G:154:ARG:NH2	11:K:96:ARG:NH2[2_665]	1.21	0.99
9:I:125:LYS:CE	35:I:56:LYS:N[4_555]	1.23	0.97
7:G:155:GLN:CG	11:K:98:ARG:CB[2_665]	1.26	0.94
31:e:125:LYS:NZ	34:i:1761:C:C5'[3_564]	1.26	0.94
7:G:155:GLN:C	11:K:98:ARG:NH1[2_665]	1.27	0.93
34:i:136:C:C3'	34:i:533:C:N1[2_665]	1.27	0.93
34:i:137:U:OP1	34:i:532:U:N3[2_665]	1.27	0.93
31:e:123:PHE:CZ	34:i:1758:G:C3'[3_564]	1.28	0.92
7:G:155:GLN:OE1	11:K:98:ARG:CB[2_665]	1.29	0.91
9:I:200:ARG:CZ	34:i:1036:G:OP2[4_555]	1.31	0.89
3:C:40:ALA:O	34:i:1764:G:C5'[3_564]	1.35	0.85
7:G:155:GLN:O	11:K:98:ARG:NH1[2_665]	1.36	0.84
9:I:125:LYS:CE	35:I:56:LYS:CA[4_555]	1.37	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:125:LYS:C	34:i:1760:C:OP1[3_564]	1.38	0.82
19:S:112:GLU:OE2	34:i:725:C:P[5_664]	1.40	0.80
31:e:125:LYS:CE	34:i:1761:C:O5'[3_564]	1.40	0.80
19:S:112:GLU:CG	34:i:725:C:OP1[5_664]	1.41	0.79
31:e:125:LYS:CA	34:i:1760:C:P[3_564]	1.41	0.79
9:I:200:ARG:NH2	34:i:1036:G:P[4_555]	1.42	0.78
19:S:112:GLU:OE2	34:i:725:C:OP1[5_664]	1.43	0.77
34:i:136:C:C3'	34:i:533:C:O4'[2_665]	1.44	0.76
7:G:156:TYR:CE1	11:K:98:ARG:NH2[2_665]	1.44	0.76
31:e:123:PHE:CE1	34:i:1758:G:O3'[3_564]	1.46	0.74
31:e:123:PHE:CD1	34:i:1759:C:P[3_564]	1.46	0.74
7:G:156:TYR:CE1	11:K:98:ARG:CZ[2_665]	1.48	0.72
4:D:124:ARG:NE	34:i:1763:C:OP1[3_564]	1.48	0.72
34:i:136:C:C4'	34:i:533:C:O2[2_665]	1.49	0.71
7:G:155:GLN:CD	11:K:98:ARG:N[2_665]	1.50	0.70
31:e:125:LYS:CB	34:i:1761:C:OP2[3_564]	1.51	0.69
34:i:136:C:C4'	34:i:533:C:C1'[2_665]	1.52	0.68
3:C:40:ALA:C	34:i:1764:G:C4'[3_564]	1.53	0.67
7:G:155:GLN:NE2	11:K:98:ARG:CA[2_665]	1.54	0.66
31:e:123:PHE:CB	34:i:1759:C:O5'[3_564]	1.55	0.65
3:C:40:ALA:O	34:i:1764:G:C4'[3_564]	1.56	0.64
34:i:137:U:P	34:i:532:U:O2[2_665]	1.56	0.64
34:i:137:U:OP2	34:i:532:U:C2[2_665]	1.58	0.62
34:i:137:U:OP1	34:i:532:U:C2[2_665]	1.58	0.62
19:S:112:GLU:OE2	34:i:725:C:OP2[5_664]	1.58	0.62
34:i:136:C:C5'	34:i:533:C:C4[2_665]	1.59	0.61
31:e:123:PHE:CD1	34:i:1759:C:O5'[3_564]	1.59	0.61
31:e:125:LYS:CA	34:i:1760:C:OP2[3_564]	1.61	0.59
31:e:125:LYS:CA	34:i:1760:C:OP1[3_564]	1.61	0.59
19:S:108:ARG:NH2	34:i:724:C:OP1[5_664]	1.62	0.58
7:G:155:GLN:NE2	11:K:97:SER:C[2_665]	1.62	0.58
19:S:108:ARG:CD	34:i:724:C:P[5_664]	1.62	0.58
9:I:125:LYS:NZ	35:l:56:LYS:CA[4_555]	1.63	0.57
34:i:136:C:OP2	34:i:533:C:O2[2_665]	1.63	0.57
9:I:123:ARG:O	35:l:57:LYS:NZ[4_555]	1.63	0.57
4:D:124:ARG:NH2	34:i:1763:C:C5'[3_564]	1.64	0.56
9:I:200:ARG:NE	34:i:1036:G:OP2[4_555]	1.67	0.53
7:G:156:TYR:CE2	11:K:98:ARG:NH2[2_665]	1.68	0.52
9:I:200:ARG:CZ	34:i:1036:G:P[4_555]	1.69	0.51
31:e:123:PHE:CD1	34:i:1759:C:OP2[3_564]	1.71	0.49
3:C:39:LYS:CG	34:i:1765:G:O4'[3_564]	1.71	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:i:136:C:O5'	34:i:533:C:C2[2_665]	1.71	0.49
9:I:123:ARG:NE	34:i:1048:A:O3'[4_555]	1.72	0.48
34:i:136:C:C5'	34:i:533:C:N1[2_665]	1.72	0.48
31:e:125:LYS:CD	34:i:1761:C:OP2[3_564]	1.73	0.47
34:i:137:U:P	34:i:532:U:C2[2_665]	1.74	0.46
34:i:136:C:O5'	34:i:533:C:C4[2_665]	1.75	0.45
31:e:123:PHE:CD1	34:i:1758:G:O3'[3_564]	1.76	0.44
7:G:155:GLN:CB	11:K:98:ARG:CB[2_665]	1.76	0.44
4:D:45:ARG:NH2	34:i:75:G:OP2[3_564]	1.76	0.44
4:D:124:ARG:NH2	34:i:1763:C:O5'[3_564]	1.78	0.42
9:I:200:ARG:NH2	34:i:1036:G:O5'[4_555]	1.78	0.42
31:e:123:PHE:O	34:i:1760:C:OP2[3_564]	1.78	0.42
31:e:126:LYS:CD	34:i:1760:C:OP1[3_564]	1.78	0.42
9:I:125:LYS:CE	35:l:56:LYS:CB[4_555]	1.78	0.42
4:D:45:ARG:CZ	34:i:75:G:OP2[3_564]	1.79	0.41
9:I:131:PRO:CG	35:l:53:ASP:CB[4_555]	1.80	0.40
7:G:154:ARG:CD	11:K:98:ARG:O[2_665]	1.81	0.39
9:I:127:ALA:CB	35:l:52:ASP:C[4_555]	1.81	0.39
9:I:125:LYS:NZ	35:l:55:ASP:O[4_555]	1.82	0.38
31:e:125:LYS:CG	34:i:1761:C:OP2[3_564]	1.83	0.37
7:G:155:GLN:CG	11:K:98:ARG:CG[2_665]	1.83	0.37
31:e:123:PHE:CD1	34:i:1758:G:C3'[3_564]	1.84	0.36
19:S:108:ARG:NE	34:i:724:C:O5'[5_664]	1.87	0.33
11:K:96:ARG:NH2	34:i:77:A:N6[3_564]	1.88	0.32
2:B:55:THR:CB	34:i:271:G:OP1[4_555]	1.89	0.31
7:G:154:ARG:CD	11:K:98:ARG:C[2_665]	1.90	0.30
31:e:126:LYS:NZ	34:i:1759:C:O3'[3_564]	1.90	0.30
9:I:200:ARG:NE	34:i:1036:G:OP1[4_555]	1.92	0.28
31:e:123:PHE:CE1	34:i:1758:G:C4'[3_564]	1.92	0.28
34:i:136:C:C3'	34:i:533:C:C6[2_665]	1.94	0.26
7:G:156:TYR:CD1	11:K:98:ARG:CZ[2_665]	1.95	0.25
34:i:136:C:C5'	34:i:533:C:O2[2_665]	1.95	0.25
9:I:123:ARG:CD	34:i:1048:A:O3'[4_555]	1.95	0.25
4:D:45:ARG:NE	34:i:75:G:OP2[3_564]	1.95	0.25
7:G:156:TYR:CE1	11:K:98:ARG:NE[2_665]	1.96	0.24
31:e:125:LYS:CA	34:i:1760:C:O5'[3_564]	1.98	0.22
9:I:131:PRO:CB	35:l:53:ASP:CG[4_555]	1.98	0.22
31:e:125:LYS:O	34:i:1760:C:OP1[3_564]	1.99	0.21
3:C:40:ALA:CA	34:i:1764:G:C4'[3_564]	1.99	0.21
9:I:127:ALA:CA	35:l:52:ASP:O[4_555]	2.00	0.20
19:S:108:ARG:CB	34:i:724:C:C5'[5_664]	2.01	0.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:125:LYS:CD	35:I:56:LYS:CB[4_555]	2.01	0.19
7:G:155:GLN:CA	11:K:98:ARG:NH1[2_665]	2.01	0.19
7:G:156:TYR:CD1	11:K:98:ARG:NH2[2_665]	2.02	0.18
9:I:123:ARG:NE	34:i:1049:C:P[4_555]	2.02	0.18
34:i:135:U:OP2	34:i:532:U:O4[2_665]	2.02	0.18
7:G:155:GLN:CG	11:K:98:ARG:C[2_665]	2.03	0.17
7:G:154:ARG:NH2	11:K:96:ARG:CZ[2_665]	2.03	0.17
19:S:108:ARG:CG	34:i:724:C:C4'[5_664]	2.04	0.16
19:S:108:ARG:NH1	34:i:724:C:OP1[5_664]	2.04	0.16
9:I:200:ARG:NE	34:i:1036:G:P[4_555]	2.04	0.16
9:I:125:LYS:CE	35:I:56:LYS:C[4_555]	2.06	0.14
34:i:136:C:O3'	34:i:533:C:O4'[2_665]	2.06	0.14
34:i:137:U:OP2	34:i:532:U:N1[2_665]	2.07	0.13
7:G:155:GLN:OE1	11:K:98:ARG:CG[2_665]	2.07	0.13
7:G:155:GLN:CD	11:K:98:ARG:CG[2_665]	2.07	0.13
31:e:125:LYS:CB	34:i:1760:C:O5'[3_564]	2.08	0.12
34:i:137:U:OP2	34:i:532:U:C1'[2_665]	2.08	0.12
19:S:108:ARG:CD	34:i:724:C:OP1[5_664]	2.09	0.11
9:I:131:PRO:CG	35:I:53:ASP:CG[4_555]	2.09	0.11
2:B:55:THR:OG1	34:i:271:G:OP1[4_555]	2.09	0.11
4:D:45:ARG:NH2	34:i:74:G:O3'[3_564]	2.09	0.11
19:S:108:ARG:CZ	34:i:724:C:P[5_664]	2.10	0.10
31:e:125:LYS:N	34:i:1760:C:P[3_564]	2.10	0.10
31:e:126:LYS:N	34:i:1760:C:OP1[3_564]	2.10	0.10
7:G:156:TYR:CD1	11:K:98:ARG:NH1[2_665]	2.11	0.09
34:i:136:C:C4'	34:i:533:C:C6[2_665]	2.11	0.09
9:I:127:ALA:CA	35:I:52:ASP:OD2[4_555]	2.11	0.09
3:C:39:LYS:CG	34:i:1765:G:C4'[3_564]	2.12	0.08
19:S:108:ARG:CG	34:i:724:C:O5'[5_664]	2.12	0.08
19:S:108:ARG:NE	34:i:723:G:O3'[5_664]	2.12	0.08
34:i:137:U:OP1	34:i:532:U:C4[2_665]	2.13	0.07
9:I:123:ARG:NE	34:i:1049:C:OP1[4_555]	2.13	0.07
4:D:124:ARG:CZ	34:i:1763:C:OP1[3_564]	2.15	0.05
19:S:112:GLU:OE1	34:i:725:C:OP1[5_664]	2.15	0.05
7:G:156:TYR:CZ	11:K:98:ARG:CZ[2_665]	2.16	0.04
31:e:125:LYS:CD	34:i:1761:C:O5'[3_564]	2.16	0.04
7:G:156:TYR:CD2	11:K:98:ARG:NH2[2_665]	2.17	0.03
34:i:136:C:P	34:i:533:C:N3[2_665]	2.17	0.03
9:I:131:PRO:CG	35:I:53:ASP:OD1[4_555]	2.18	0.02
4:D:45:ARG:CZ	34:i:75:G:P[3_564]	2.18	0.02
19:S:112:GLU:CD	34:i:725:C:P[5_664]	2.18	0.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:e:123:PHE:CD2	34:i:1759:C:O5'[3_564]	2.18	0.02
9:I:131:PRO:CB	35:l:53:ASP:OD1[4_555]	2.18	0.02
7:G:155:GLN:CB	11:K:98:ARG:NH1[2_665]	2.19	0.01

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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%)	173 (81%)	25 (12%)	15 (7%)	1	22
3	C	224/278 (81%)	200 (89%)	13 (6%)	11 (5%)	3	31
4	D	225/243 (93%)	180 (80%)	23 (10%)	22 (10%)	1	14
5	E	261/263 (99%)	209 (80%)	28 (11%)	24 (9%)	1	17
6	F	189/204 (93%)	162 (86%)	15 (8%)	12 (6%)	2	25
7	G	235/249 (94%)	201 (86%)	19 (8%)	15 (6%)	2	25
8	H	188/194 (97%)	146 (78%)	11 (6%)	31 (16%)	0	5
9	I	204/208 (98%)	169 (83%)	12 (6%)	23 (11%)	0	10
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	7
17	Q	139/146 (95%)	109 (78%)	20 (14%)	10 (7%)	1	22
18	R	124/135 (92%)	96 (77%)	13 (10%)	15 (12%)	0	8
19	S	135/152 (89%)	106 (78%)	20 (15%)	9 (7%)	1	24

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
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%)	110 (87%)	15 (12%)	2 (2%)	12	56
24	X	140/143 (98%)	121 (86%)	11 (8%)	8 (6%)	2	28
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	83/113 (74%)	49 (59%)	24 (29%)	10 (12%)	0	8
All	All	4909/5648 (87%)	3884 (79%)	520 (11%)	505 (10%)	1	12

All (505) 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

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Mol	Chain	Res	Type
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
4	D	226	GLN
5	E	12	VAL
5	E	24	THR
5	E	76	VAL
5	E	95	THR
5	E	163	ASP
5	E	196	THR
5	E	260	GLN
5	E	261	SER
6	F	43	GLU
6	F	44	LYS
6	F	202	SER
6	F	203	ASN
7	G	20	ASP
7	G	154	ARG
7	G	164	LYS
7	G	174	PRO
7	G	175	LYS
7	G	180	VAL
7	G	181	THR
8	H	15	LYS
8	H	16	PRO
8	H	33	ASN

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
35	l	100	ILE
35	l	103	ALA
1	A	7	VAL
1	A	96	ALA
1	A	112	ILE
1	A	140	VAL
1	A	159	ILE
1	A	186	ARG
1	A	190	SER
1	A	191	ARG
2	B	93	GLY
2	B	209	ASP
3	C	43	LYS
3	C	246	PHE
4	D	78	GLY
4	D	194	PRO
4	D	201	LYS
4	D	208	VAL
5	E	104	ASP
5	E	164	LEU
6	F	21	GLY
6	F	32	ASP
6	F	41	VAL
6	F	54	GLY
6	F	79	HIS

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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
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

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Mol	Chain	Res	Type
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
20	T	29	LYS
21	U	70	CYS
21	U	93	SER
21	U	110	VAL
24	X	92	ASN
25	Y	5	VAL
25	Y	53	ASP
25	Y	60	PHE
25	Y	63	HIS
27	a	13	LYS
27	a	97	PRO
27	a	102	ARG
27	a	107	ALA
28	b	7	LEU
29	c	65	ALA
31	e	127	LYS
31	e	129	PRO
32	f	137	ASP
32	f	138	ARG
33	g	84	ASP
33	g	255	SER
33	g	285	GLN
35	l	31	ILE
35	l	39	ASN
35	l	65	LYS
1	A	104	THR
2	B	224	GLU
3	C	244	THR
3	C	249	SER
5	E	30	ARG
5	E	119	ALA

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Mol	Chain	Res	Type
5	E	189	LEU
6	F	37	ASP
7	G	33	ALA
7	G	122	PRO
10	J	151	LEU
10	J	162	ARG
11	K	67	PHE
11	K	95	ARG
12	L	119	ASP
13	M	29	ASP
13	M	113	ASP
15	O	17	LEU
15	O	83	GLN
16	P	50	ARG
18	R	95	ILE
18	R	122	PRO
19	S	12	ILE
20	T	46	ALA
21	U	50	VAL
22	V	79	VAL
24	X	9	THR
24	X	129	SER
25	Y	102	THR
26	Z	111	ARG
26	Z	114	LYS
27	a	62	TYR
28	b	10	PRO
28	b	24	LEU
29	c	63	ARG
32	f	145	CYS
33	g	37	ASP
35	l	59	LEU
3	C	164	THR
4	D	80	PRO
5	E	90	ILE
5	E	134	LYS
5	E	213	ALA
9	I	52	ASN
9	I	59	ARG
11	K	38	LYS
12	L	2	ALA
13	M	59	PRO

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Mol	Chain	Res	Type
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	116	ILE
21	U	117	ALA
23	W	67	GLY
24	X	78	GLY
24	X	99	GLU
25	Y	51	THR
25	Y	121	ALA
26	Z	62	VAL
26	Z	78	LYS
27	a	105	GLY
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	23	THR
1	A	110	ASN
5	E	73	ASP
6	F	46	ALA
6	F	183	GLY
7	G	68	LEU
7	G	165	GLU
8	H	170	VAL
9	I	12	ARG
10	J	68	PRO
10	J	116	LYS
14	N	60	VAL
15	O	24	GLY
15	O	136	PRO
18	R	116	ASN
22	V	9	VAL

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Mol	Chain	Res	Type
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
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
28	b	37	CYS
30	d	11	PRO
4	D	200	PRO
8	H	93	VAL
13	M	30	GLY
28	b	9	HIS
2	B	21	VAL
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

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
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%)	157 (76%)	50 (24%)	1	6
8	H	170/174 (98%)	124 (73%)	46 (27%)	0	4
9	I	177/179 (99%)	142 (80%)	35 (20%)	1	12
10	J	157/168 (94%)	128 (82%)	29 (18%)	2	14
11	K	89/136 (65%)	61 (68%)	28 (32%)	0	2
12	L	142/142 (100%)	105 (74%)	37 (26%)	0	5
13	M	101/108 (94%)	78 (77%)	23 (23%)	1	8
14	N	130/131 (99%)	103 (79%)	27 (21%)	1	10
15	O	106/119 (89%)	87 (82%)	19 (18%)	2	15
16	P	116/130 (89%)	84 (72%)	32 (28%)	0	4
17	Q	117/121 (97%)	89 (76%)	28 (24%)	1	7
18	R	114/121 (94%)	90 (79%)	24 (21%)	1	9
19	S	119/132 (90%)	95 (80%)	24 (20%)	1	11
20	T	113/116 (97%)	87 (77%)	26 (23%)	1	7
21	U	94/107 (88%)	74 (79%)	20 (21%)	1	9
22	V	67/68 (98%)	50 (75%)	17 (25%)	1	6
23	W	112/113 (99%)	98 (88%)	14 (12%)	6	30
24	X	114/115 (99%)	91 (80%)	23 (20%)	1	11
25	Y	108/115 (94%)	85 (79%)	23 (21%)	1	9
26	Z	66/103 (64%)	53 (80%)	13 (20%)	1	12
27	a	91/99 (92%)	76 (84%)	15 (16%)	3	19
28	b	76/76 (100%)	63 (83%)	13 (17%)	2	17
29	c	57/62 (92%)	46 (81%)	11 (19%)	2	13
30	d	47/49 (96%)	35 (74%)	12 (26%)	1	6
31	e	49/106 (46%)	26 (53%)	23 (47%)	0	0
32	f	64/140 (46%)	43 (67%)	21 (33%)	0	2
33	g	272/275 (99%)	224 (82%)	48 (18%)	2	16
35	l	74/96 (77%)	57 (77%)	17 (23%)	1	7
All	All	4282/4806 (89%)	3327 (78%)	955 (22%)	1	9

All (955) residues with a non-rotameric sidechain are listed below:

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

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Mol	Chain	Res	Type
2	B	55	THR
2	B	56	LYS
2	B	75	GLN
2	B	78	GLU
2	B	82	ARG
2	B	83	LYS
2	B	89	GLU
2	B	94	LYS
2	B	115	LYS
2	B	116	LYS
2	B	131	ASP
2	B	138	PHE
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

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Mol	Chain	Res	Type
3	C	79	ILE
3	C	89	ASP
3	C	95	MET
3	C	99	LYS
3	C	100	GLN
3	C	101	THR
3	C	105	GLN
3	C	119	ASN
3	C	127	LYS
3	C	131	GLU
3	C	145	LEU
3	C	151	ARG
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

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Mol	Chain	Res	Type
4	D	74	GLN
4	D	76	ARG
4	D	79	PHE
4	D	89	GLU
4	D	90	LYS
4	D	94	ARG
4	D	97	CYS
4	D	103	GLU
4	D	113	LEU
4	D	120	TYR
4	D	127	MET
4	D	129	SER
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

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Mol	Chain	Res	Type
5	E	48	LEU
5	E	49	ARG
5	E	56	LEU
5	E	65	CYS
5	E	67	GLN
5	E	68	ARG
5	E	77	ARG
5	E	94	LYS
5	E	97	GLU
5	E	106	LYS
5	E	118	GLU
5	E	120	LYS
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

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Mol	Chain	Res	Type
5	E	246	LEU
5	E	259	LYS
5	E	260	GLN
6	F	15	PRO
6	F	18	LYS
6	F	29	GLN
6	F	36	GLN
6	F	37	ASP
6	F	38	TYR
6	F	41	VAL
6	F	42	LYS
6	F	43	GLU
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	175	ASP
6	F	177	LEU
6	F	182	LYS
6	F	186	ASN

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
7	G	230	LYS
7	G	233	ARG
8	H	9	VAL
8	H	10	LYS
8	H	11	PRO
8	H	14	GLU
8	H	15	LYS
8	H	16	PRO
8	H	17	ASP
8	H	23	ILE
8	H	32	MET
8	H	34	SER
8	H	36	LEU
8	H	37	LYS
8	H	40	LEU
8	H	57	ARG
8	H	58	LYS
8	H	61	ILE
8	H	69	LEU
8	H	72	PHE
8	H	74	LYS
8	H	78	ARG
8	H	81	ARG
8	H	82	GLU
8	H	85	LYS
8	H	87	PHE
8	H	93	VAL
8	H	99	ARG
8	H	105	THR
8	H	107	LYS
8	H	109	ARG

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
32	f	116	ARG
32	f	118	ARG
32	f	121	CYS
32	f	130	VAL
32	f	135	HIS
32	f	136	PHE
32	f	139	HIS
32	f	150	PHE
33	g	8	ARG
33	g	24	THR
33	g	25	PRO
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

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Mol	Chain	Res	Type
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
33	g	280	LYS
33	g	289	LEU
33	g	294	ASP
35	l	29	ASP
35	l	31	ILE
35	l	32	HIS
35	l	34	ARG
35	l	43	THR
35	l	46	THR
35	l	55	ASP
35	l	60	VAL
35	l	70	ASN
35	l	72	THR
35	l	78	GLU
35	l	85	LEU
35	l	90	ARG
35	l	91	LYS
35	l	93	ILE
35	l	104	LYS
35	l	109	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (114) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	24	HIS
1	A	36	GLN
1	A	50	ASN
1	A	81	ASN
1	A	141	ASN
1	A	169	HIS
2	B	75	GLN

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

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Mol	Chain	Res	Type
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
15	O	79	GLN
16	P	41	GLN
16	P	53	GLN
16	P	79	HIS
16	P	103	ASN
16	P	114	HIS
16	P	128	HIS
17	Q	80	GLN
18	R	74	GLN
18	R	121	GLN
19	S	11	HIS
19	S	42	HIS
19	S	87	GLN
20	T	11	GLN
20	T	42	HIS
20	T	63	HIS
20	T	83	GLN
20	T	85	ASN
20	T	126	GLN
20	T	128	GLN
21	U	18	HIS
21	U	47	ASN
22	V	47	ASN
22	V	76	HIS
23	W	15	ASN
23	W	64	ASN
23	W	98	GLN
24	X	39	ASN
24	X	46	HIS
25	Y	29	HIS

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Mol	Chain	Res	Type
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	48	GLN
35	l	84	GLN
35	l	89	GLN
35	l	107	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
34	i	1721/1863 (92%)	498 (28%)	0

All (498) RNA backbone outliers are listed below:

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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
34	i	632	U
34	i	633	A
34	i	634	G
34	i	645	A
34	i	653	C
34	i	658	A
34	i	659	A
34	i	660	A

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Mol	Chain	Res	Type
34	i	661	A
34	i	662	A
34	i	669	A
34	i	678	U
34	i	679	U
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	739	U
34	i	740	G
34	i	743	U
34	i	744	C
34	i	793	C
34	i	794	G
34	i	795	U
34	i	806	A
34	i	807	A
34	i	808	A
34	i	814	A
34	i	817	G
34	i	818	U
34	i	826	A
34	i	827	G
34	i	830	C
34	i	831	C
34	i	832	G
34	i	833	A
34	i	834	G
34	i	835	C
34	i	836	C
34	i	838	C

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Mol	Chain	Res	Type
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	885	U
34	i	886	U
34	i	890	G
34	i	891	G
34	i	893	U
34	i	899	A
34	i	900	A
34	i	907	C
34	i	909	A
34	i	910	U
34	i	916	A
34	i	917	G
34	i	929	G
34	i	947	C
34	i	951	A
34	i	962	U
34	i	965	U
34	i	966	G
34	i	967	G
34	i	972	G
34	i	974	G
34	i	986	A
34	i	988	A

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Mol	Chain	Res	Type
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	1050	G
34	i	1056	A
34	i	1057	U
34	i	1058	A
34	i	1068	U
34	i	1069	U
34	i	1073	A
34	i	1074	C
34	i	1079	A
34	i	1092	G
34	i	1093	G
34	i	1105	C
34	i	1106	G
34	i	1107	U
34	i	1111	U
34	i	1112	C
34	i	1113	C
34	i	1114	C
34	i	1116	U
34	i	1119	C
34	i	1127	G
34	i	1132	U
34	i	1134	C
34	i	1136	G
34	i	1137	G
34	i	1139	A
34	i	1144	A
34	i	1145	A
34	i	1146	A
34	i	1149	C

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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	1684	C
34	i	1690	A
34	i	1694	A
34	i	1696	C
34	i	1697	G
34	i	1716	U
34	i	1717	G
34	i	1722	G
34	i	1724	U
34	i	1740	A
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

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Mol	Chain	Res	Type
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%)	0.01	19 (9%) 11 16	173, 263, 322, 332	0
2	B	215/264 (81%)	1.93	83 (38%) 0 4	128, 196, 242, 252	0
3	C	226/278 (81%)	0.15	7 (3%) 52 48	82, 160, 268, 295	0
4	D	227/243 (93%)	1.70	82 (36%) 0 4	167, 217, 294, 337	0
5	E	263/263 (100%)	2.29	96 (36%) 0 4	117, 216, 286, 299	0
6	F	191/204 (93%)	1.07	38 (19%) 1 7	191, 263, 305, 317	0
7	G	237/249 (95%)	1.22	69 (29%) 1 5	164, 242, 325, 343	0
8	H	190/194 (97%)	0.91	40 (21%) 1 6	187, 326, 368, 385	0
9	I	206/208 (99%)	1.98	76 (36%) 0 4	89, 239, 276, 287	0
10	J	182/194 (93%)	1.45	61 (33%) 0 5	89, 166, 231, 276	0
11	K	98/165 (59%)	5.13	75 (76%) 0 2	222, 291, 316, 323	0
12	L	158/158 (100%)	0.82	31 (19%) 1 7	77, 176, 261, 270	0
13	M	124/132 (93%)	1.30	27 (21%) 1 6	298, 378, 406, 431	0
14	N	150/151 (99%)	1.43	41 (27%) 1 5	87, 150, 275, 297	0
15	O	136/151 (90%)	1.38	46 (33%) 0 5	92, 194, 256, 272	0
16	P	127/145 (87%)	1.75	49 (38%) 0 4	234, 305, 340, 361	0
17	Q	141/146 (96%)	2.55	57 (40%) 0 4	166, 287, 321, 331	0
18	R	126/135 (93%)	0.73	19 (15%) 3 9	174, 225, 322, 329	0
19	S	137/152 (90%)	3.30	82 (59%) 0 3	217, 311, 344, 357	0
20	T	141/145 (97%)	3.39	80 (56%) 0 3	238, 311, 341, 349	0
21	U	104/119 (87%)	3.20	57 (54%) 0 3	167, 266, 306, 317	0
22	V	82/83 (98%)	-0.21	2 (2%) 62 58	164, 218, 318, 328	0
23	W	129/130 (99%)	2.45	70 (54%) 0 4	107, 159, 204, 218	0
24	X	142/143 (99%)	3.92	86 (60%) 0 3	50, 90, 134, 155	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
25	Y	126/133 (94%)	0.78	17 (13%) 4 10	156, 205, 243, 261	0
26	Z	75/125 (60%)	3.06	51 (68%) 0 3	292, 320, 350, 360	0
27	a	107/115 (93%)	1.34	28 (26%) 1 5	87, 129, 234, 249	0
28	b	84/84 (100%)	1.88	35 (41%) 0 4	164, 223, 303, 334	0
29	c	64/69 (92%)	0.05	3 (4%) 35 35	175, 224, 274, 287	0
30	d	53/56 (94%)	1.07	11 (20%) 1 7	183, 212, 290, 295	0
31	e	59/133 (44%)	0.60	10 (16%) 2 8	103, 158, 182, 189	0
32	f	71/156 (45%)	1.22	24 (33%) 0 5	213, 332, 401, 415	0
33	g	313/317 (98%)	0.60	45 (14%) 3 9	235, 304, 346, 364	0
34	i	1797/1863 (96%)	1.63	518 (28%) 1 5	49, 184, 371, 475	0
35	l	85/113 (75%)	0.16	3 (3%) 48 45	223, 235, 250, 253	0
All	All	6774/7511 (90%)	1.58	2038 (30%) 1 5	49, 228, 347, 475	0

All (2038) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
34	i	252	C	81.4
34	i	251	C	55.7
34	i	250	G	49.8
34	i	249	C	36.3
24	X	83	ALA	25.4
34	i	253	G	24.2
34	i	697	G	23.4
21	U	36	CYS	20.1
34	i	1858	U	18.0
34	i	698	G	18.0
21	U	39	LEU	17.7
5	E	64	ILE	17.5
20	T	60	THR	17.4
24	X	69	CYS	17.2
5	E	60	GLU	16.4
20	T	61	ALA	16.0
20	T	64	LEU	15.7
24	X	122	VAL	15.7
34	i	722	C	15.5
11	K	20	VAL	15.2
11	K	69	TRP	15.0
11	K	21	MET	15.0

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Mol	Chain	Res	Type	RSRZ
17	Q	59	GLY	14.9
5	E	63	LYS	14.6
24	X	102	VAL	14.6
11	K	71	LEU	14.1
19	S	122	GLY	14.1
17	Q	58	LEU	13.9
11	K	19	GLY	13.8
21	U	40	ILE	13.6
34	i	261	G	13.6
5	E	65	CYS	13.5
5	E	69	PHE	13.4
11	K	45	VAL	13.0
24	X	103	ALA	12.9
11	K	15	LEU	12.8
24	X	84	PHE	12.7
24	X	59	ALA	12.7
11	K	41	PRO	12.7
24	X	115	ILE	12.3
34	i	1859	C	12.1
11	K	22	VAL	12.0
34	i	699	C	11.8
21	U	35	VAL	11.8
34	i	1762	A	11.8
34	i	723	G	11.6
11	K	11	ILE	11.4
34	i	230	C	11.4
5	E	67	GLN	11.3
9	I	84	ASN	11.3
20	T	57	ALA	11.2
21	U	26	SER	11.2
11	K	42	ASN	11.1
34	i	1647	G	11.0
34	i	1860	A	10.9
17	Q	54	PRO	10.8
34	i	1584	A	10.8
20	T	58	ALA	10.8
9	I	173	ALA	10.7
34	i	276	U	10.7
2	B	100	PHE	10.7
11	K	23	ALA	10.7
11	K	68	TYR	10.7
34	i	720	A	10.6

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Mol	Chain	Res	Type	RSRZ
34	i	248	C	10.6
2	B	58	ALA	10.5
20	T	59	SER	10.5
2	B	47	THR	10.4
24	X	85	VAL	10.4
11	K	40	VAL	10.3
24	X	101	LEU	10.3
21	U	110	VAL	10.3
9	I	83	TYR	10.2
17	Q	108	ILE	10.2
5	E	61	VAL	10.2
11	K	12	TYR	10.1
4	D	136	VAL	10.1
19	S	99	LEU	10.1
24	X	70	VAL	10.1
17	Q	23	ALA	10.1
9	I	101	ILE	10.1
34	i	696	G	10.1
9	I	190	LEU	10.0
34	i	1586	C	9.9
24	X	114	ASP	9.8
2	B	102	GLY	9.8
5	E	73	ASP	9.8
17	Q	89	SER	9.7
21	U	25	THR	9.7
20	T	75	MET	9.7
7	G	153	VAL	9.7
5	E	43	PRO	9.7
11	K	72	THR	9.6
2	B	67	PHE	9.6
20	T	63	HIS	9.5
24	X	56	GLY	9.5
17	Q	57	LEU	9.5
20	T	56	ARG	9.5
28	b	54	VAL	9.5
34	i	231	C	9.4
24	X	82	THR	9.4
20	T	62	ARG	9.4
2	B	48	LEU	9.3
34	i	229	A	9.3
27	a	86	ASN	9.3
9	I	102	VAL	9.3

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Mol	Chain	Res	Type	RSRZ
26	Z	69	THR	9.3
34	i	719	C	9.1
17	Q	91	ALA	9.1
11	K	10	ALA	9.1
19	S	113	ARG	9.1
9	I	171	LEU	9.1
5	E	84	ALA	9.0
5	E	54	TYR	9.0
33	g	78	ALA	8.9
23	W	103	VAL	8.9
26	Z	70	PRO	8.9
5	E	42	LEU	8.9
24	X	47	ALA	8.9
25	Y	17	LEU	8.9
34	i	1585	C	8.8
14	N	63	VAL	8.8
11	K	49	MET	8.8
34	i	277	U	8.8
17	Q	92	LEU	8.8
24	X	46	HIS	8.8
10	J	97	ILE	8.7
17	Q	55	VAL	8.7
16	P	125	PRO	8.7
24	X	120	PHE	8.7
11	K	36	ALA	8.7
16	P	112	ILE	8.7
17	Q	53	GLU	8.6
24	X	41	PHE	8.6
2	B	215	VAL	8.6
9	I	198	TYR	8.6
16	P	114	HIS	8.5
24	X	118	VAL	8.5
16	P	113	GLY	8.5
23	W	104	LEU	8.5
34	i	1583	A	8.5
2	B	45	GLY	8.4
20	T	76	THR	8.4
34	i	492	C	8.3
2	B	25	PHE	8.3
14	N	60	VAL	8.3
7	G	151	ASP	8.3
5	E	55	ALA	8.2

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Mol	Chain	Res	Type	RSRZ
2	B	61	GLY	8.2
19	S	110	ASP	8.2
14	N	62	GLN	8.1
19	S	43	VAL	8.1
24	X	55	VAL	8.1
25	Y	18	LEU	8.1
11	K	58	VAL	8.1
16	P	110	GLU	8.1
19	S	119	ALA	8.1
5	E	70	ILE	8.1
20	T	65	TYR	8.1
26	Z	71	ALA	8.1
24	X	112	VAL	8.0
21	U	111	GLU	8.0
2	B	217	MET	8.0
34	i	721	C	8.0
5	E	57	THR	8.0
19	S	123	LEU	7.9
11	K	48	ALA	7.9
23	W	111	MET	7.9
11	K	64	TRP	7.9
5	E	88	ASP	7.9
2	B	46	LYS	7.8
11	K	70	TYR	7.8
17	Q	112	LEU	7.8
17	Q	61	GLU	7.8
34	i	580	A	7.8
4	D	68	GLU	7.8
21	U	32	LEU	7.8
11	K	18	GLU	7.8
10	J	95	ASP	7.8
24	X	111	ALA	7.8
34	i	254	G	7.7
2	B	44	ILE	7.7
2	B	103	MET	7.7
19	S	41	ALA	7.7
4	D	73	VAL	7.7
28	b	53	VAL	7.7
19	S	125	HIS	7.7
9	I	172	LEU	7.7
24	X	81	ILE	7.7
19	S	114	LEU	7.7

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Mol	Chain	Res	Type	RSRZ
11	K	46	MET	7.7
24	X	45	SER	7.6
6	F	133	THR	7.6
27	a	84	VAL	7.6
34	i	1469	G	7.6
23	W	127	GLY	7.5
5	E	58	GLY	7.5
21	U	112	VAL	7.5
19	S	44	VAL	7.5
5	E	91	SER	7.5
4	D	70	THR	7.4
10	J	94	LEU	7.4
11	K	44	HIS	7.4
19	S	100	ALA	7.4
21	U	37	ALA	7.4
11	K	14	LEU	7.4
4	D	7	LYS	7.3
34	i	1582	G	7.3
20	T	36	THR	7.3
34	i	260	G	7.3
24	X	67	ARG	7.3
9	I	80	ASP	7.2
19	S	115	LYS	7.2
2	B	65	ARG	7.2
17	Q	22	VAL	7.2
26	Z	84	ALA	7.2
34	i	241	A	7.2
24	X	116	PRO	7.2
10	J	104	ASP	7.1
4	D	69	LEU	7.1
17	Q	111	ILE	7.1
5	E	90	ILE	7.1
11	K	63	ALA	7.1
34	i	263	G	7.1
34	i	1649	G	7.1
4	D	71	ALA	7.1
2	B	88	THR	7.1
26	Z	48	VAL	7.0
14	N	67	THR	7.0
24	X	113	GLY	7.0
34	i	303	G	7.0
34	i	1012	U	6.9

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Mol	Chain	Res	Type	RSRZ
4	D	15	GLY	6.9
5	E	47	PHE	6.9
14	N	66	VAL	6.9
34	i	1419	C	6.9
34	i	1467	C	6.9
6	F	29	GLN	6.9
19	S	98	VAL	6.9
4	D	119	CYS	6.8
19	S	124	ARG	6.8
4	D	48	ILE	6.8
34	i	1254	A	6.8
11	K	60	GLU	6.8
5	E	46	ILE	6.8
20	T	18	LEU	6.8
20	T	39	LEU	6.8
4	D	137	VAL	6.8
5	E	59	ASP	6.8
5	E	82	TYR	6.8
9	I	158	ILE	6.8
30	d	47	ALA	6.8
15	O	26	ASN	6.8
2	B	99	ASN	6.8
11	K	32	HIS	6.7
20	T	79	TYR	6.7
4	D	10	LYS	6.7
11	K	43	LEU	6.7
34	i	130	G	6.7
25	Y	124	ASN	6.7
20	T	71	GLY	6.7
6	F	31	ASN	6.7
5	E	71	LYS	6.7
17	Q	62	ARG	6.7
25	Y	85	ASN	6.7
5	E	83	PRO	6.7
34	i	1648	U	6.7
15	O	47	LEU	6.7
5	E	89	VAL	6.6
2	B	69	VAL	6.6
6	F	69	VAL	6.6
20	T	6	VAL	6.6
5	E	72	ILE	6.6
24	X	86	PRO	6.6

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Mol	Chain	Res	Type	RSRZ
4	D	11	PHE	6.6
9	I	100	CYS	6.6
2	B	24	PRO	6.6
34	i	305	U	6.6
14	N	14	SER	6.6
2	B	59	SER	6.5
4	D	72	VAL	6.5
14	N	59	GLY	6.5
5	E	92	ILE	6.5
19	S	71	MET	6.5
11	K	92	ALA	6.5
23	W	121	THR	6.5
19	S	97	GLN	6.5
17	Q	87	SER	6.4
34	i	893	U	6.4
34	i	262	G	6.4
21	U	38	ASP	6.4
4	D	58	VAL	6.4
2	B	86	LEU	6.4
2	B	62	LEU	6.4
34	i	724	C	6.4
20	T	112	MET	6.4
19	S	118	ARG	6.4
19	S	80	PRO	6.4
24	X	100	VAL	6.4
9	I	81	VAL	6.3
20	T	46	ALA	6.3
5	E	85	GLY	6.3
11	K	66	HIS	6.3
5	E	44	LEU	6.3
20	T	110	LEU	6.3
34	i	1470	A	6.3
5	E	153	LEU	6.3
20	T	72	VAL	6.3
24	X	10	ALA	6.3
4	D	12	VAL	6.3
17	Q	56	LEU	6.3
24	X	123	VAL	6.3
5	E	52	LEU	6.2
13	M	30	GLY	6.2
9	I	96	LEU	6.2
28	b	64	CYS	6.2

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Mol	Chain	Res	Type	RSRZ
4	D	28	GLU	6.2
12	L	143	LEU	6.2
26	Z	88	LEU	6.2
28	b	20	LYS	6.2
19	S	45	LEU	6.2
9	I	28	GLU	6.2
5	E	101	LEU	6.1
26	Z	83	LEU	6.1
4	D	152	PHE	6.1
33	g	279	SER	6.1
33	g	274	VAL	6.1
19	S	116	LYS	6.1
25	Y	114	MET	6.1
4	D	66	ILE	6.1
19	S	120	HIS	6.1
2	B	84	PHE	6.1
34	i	1524	C	6.1
21	U	43	ALA	6.1
24	X	104	GLY	6.1
9	I	165	GLN	6.1
26	Z	87	ALA	6.0
2	B	156	ALA	6.0
19	S	117	ILE	6.0
15	O	25	GLU	6.0
32	f	104	LYS	6.0
19	S	27	ALA	6.0
15	O	95	ILE	6.0
20	T	70	ALA	6.0
23	W	112	ASP	6.0
14	N	58	HIS	6.0
21	U	24	LEU	6.0
5	E	48	LEU	6.0
28	b	60	SER	6.0
34	i	403	G	5.9
11	K	7	ASN	5.9
6	F	68	ILE	5.9
18	R	12	ALA	5.9
19	S	79	ILE	5.9
20	T	37	VAL	5.9
30	d	50	ILE	5.9
23	W	62	VAL	5.9
7	G	152	ASP	5.9

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Mol	Chain	Res	Type	RSRZ
7	G	179	LEU	5.9
4	D	76	ARG	5.9
11	K	67	PHE	5.9
34	i	1536	G	5.9
7	G	188	LYS	5.9
19	S	127	TRP	5.9
20	T	96	SER	5.9
17	Q	32	ILE	5.8
23	W	102	ILE	5.8
20	T	55	THR	5.8
34	i	269	C	5.8
14	N	57	SER	5.8
34	i	107	A	5.8
5	E	74	GLY	5.8
24	X	117	GLY	5.8
9	I	185	ALA	5.8
15	O	28	PHE	5.8
9	I	162	LEU	5.8
17	Q	50	LYS	5.7
9	I	103	LEU	5.7
21	U	33	GLU	5.7
21	U	105	SER	5.7
24	X	119	ARG	5.7
19	S	121	ARG	5.7
34	i	1466	C	5.7
5	E	45	ILE	5.7
34	i	892	U	5.7
19	S	129	LEU	5.7
20	T	14	PHE	5.7
33	g	277	THR	5.7
2	B	50	THR	5.7
14	N	16	LEU	5.7
4	D	60	GLY	5.7
2	B	49	VAL	5.7
15	O	103	ASN	5.7
17	Q	21	ALA	5.7
27	a	36	ILE	5.7
11	K	93	THR	5.6
23	W	61	ILE	5.6
23	W	72	CYS	5.6
34	i	1219	A	5.6
34	i	1646	A	5.6

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Mol	Chain	Res	Type	RSRZ
28	b	30	SER	5.6
15	O	94	HIS	5.6
20	T	47	PRO	5.6
28	b	55	LEU	5.6
15	O	31	CYS	5.6
21	U	42	GLY	5.6
21	U	89	ILE	5.6
10	J	186	GLY	5.6
24	X	35	ALA	5.6
27	a	9	GLY	5.6
24	X	57	VAL	5.5
19	S	40	TYR	5.5
34	i	142	C	5.5
5	E	66	MET	5.5
34	i	1758	G	5.5
6	F	112	LEU	5.5
15	O	29	GLY	5.5
24	X	105	PHE	5.5
4	D	21	LEU	5.5
33	g	92	LEU	5.5
34	i	1587	C	5.5
12	L	117	PHE	5.5
2	B	224	GLU	5.5
9	I	189	VAL	5.5
7	G	192	ILE	5.5
34	i	1468	C	5.5
17	Q	88	ILE	5.5
18	R	66	VAL	5.5
24	X	34	THR	5.5
17	Q	115	TYR	5.4
19	S	42	HIS	5.4
24	X	121	LYS	5.4
4	D	20	GLU	5.4
16	P	119	PHE	5.4
20	T	95	GLY	5.4
4	D	65	ARG	5.4
27	a	5	ARG	5.4
4	D	86	LEU	5.4
17	Q	70	VAL	5.4
33	g	91	ASP	5.4
12	L	9	ALA	5.4
4	D	57	ASN	5.4

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Mol	Chain	Res	Type	RSRZ
6	F	41	VAL	5.4
34	i	214	A	5.4
9	I	78	ILE	5.3
21	U	85	HIS	5.3
24	X	33	GLY	5.3
19	S	26	ILE	5.3
34	i	1493	G	5.3
4	D	138	VAL	5.3
16	P	130	ARG	5.3
7	G	156	TYR	5.3
16	P	111	MET	5.3
34	i	113	G	5.3
9	I	38	ILE	5.3
5	E	97	GLU	5.3
13	M	31	LEU	5.3
24	X	130	LEU	5.3
10	J	96	TYR	5.3
2	B	55	THR	5.3
34	i	242	G	5.3
34	i	867	U	5.2
28	b	61	THR	5.2
24	X	71	ARG	5.2
7	G	77	LEU	5.2
26	Z	72	VAL	5.2
9	I	156	ALA	5.2
24	X	40	PRO	5.2
34	i	439	A	5.2
27	a	87	ARG	5.2
4	D	16	ILE	5.2
23	W	128	PHE	5.2
34	i	228	A	5.2
33	g	79	LEU	5.2
21	U	82	MET	5.2
4	D	77	PHE	5.2
10	J	187	ALA	5.2
14	N	15	ALA	5.2
16	P	109	PRO	5.2
17	Q	69	ARG	5.2
27	a	7	ASN	5.2
2	B	101	HIS	5.2
34	i	1601	G	5.2
24	X	60	LYS	5.2

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Mol	Chain	Res	Type	RSRZ
5	E	204	SER	5.2
17	Q	63	PHE	5.2
34	i	1537	C	5.2
11	K	57	TYR	5.2
7	G	191	ARG	5.1
11	K	8	ARG	5.1
28	b	19	HIS	5.1
26	Z	73	VAL	5.1
11	K	79	LEU	5.1
24	X	54	LYS	5.1
34	i	1525	U	5.1
2	B	89	GLU	5.1
10	J	93	LYS	5.1
10	J	98	LEU	5.1
23	W	126	LEU	5.1
34	i	638	A	5.1
23	W	130	PHE	5.1
20	T	109	GLY	5.1
19	S	126	PHE	5.1
9	I	85	ALA	5.1
34	i	268	G	5.1
7	G	138	ALA	5.1
24	X	44	ALA	5.1
34	i	1420	G	5.1
7	G	18	VAL	5.1
17	Q	119	LEU	5.1
5	E	99	PHE	5.1
34	i	271	G	5.1
19	S	30	ILE	5.1
24	X	42	GLY	5.1
33	g	276	SER	5.1
5	E	154	ILE	5.1
11	K	52	LEU	5.0
20	T	107	LEU	5.0
30	d	51	GLY	5.0
9	I	166	PHE	5.0
14	N	17	PRO	5.0
4	D	208	VAL	5.0
34	i	275	C	5.0
5	E	175	PHE	5.0
14	N	28	LEU	5.0
7	G	16	ILE	5.0

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Mol	Chain	Res	Type	RSRZ
4	D	24	PHE	5.0
5	E	151	ASP	5.0
32	f	103	LEU	5.0
34	i	108	G	5.0
34	i	1153	G	5.0
17	Q	51	LEU	5.0
34	i	1652	G	5.0
11	K	75	GLY	5.0
4	D	17	PHE	5.0
34	i	863	G	5.0
34	i	676	U	5.0
33	g	273	GLU	5.0
5	E	76	VAL	5.0
34	i	1471	G	5.0
17	Q	52	LEU	5.0
10	J	100	LEU	5.0
34	i	677	C	5.0
34	i	891	G	4.9
1	A	127	PRO	4.9
28	b	21	LYS	4.9
23	W	60	LYS	4.9
5	E	81	THR	4.9
28	b	26	GLN	4.9
34	i	1857	A	4.9
20	T	9	VAL	4.9
34	i	1661	C	4.9
34	i	117	C	4.9
34	i	847	C	4.9
10	J	87	LEU	4.9
34	i	675	A	4.9
4	D	13	ALA	4.9
10	J	57	ALA	4.9
21	U	102	THR	4.9
34	i	339	A	4.9
20	T	100	ALA	4.9
34	i	913	U	4.9
4	D	63	GLY	4.9
2	B	33	VAL	4.9
19	S	33	ILE	4.9
24	X	124	LYS	4.9
21	U	114	VAL	4.8
23	W	37	PHE	4.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
6	F	15	PRO	4.8
34	i	1581	U	4.8
28	b	62	VAL	4.8
34	i	111	A	4.8
18	R	16	ILE	4.8
5	E	62	LYS	4.8
11	K	91	PRO	4.8
34	i	1605	G	4.8
13	M	32	ALA	4.8
10	J	184	GLY	4.8
16	P	129	GLY	4.8
20	T	38	LYS	4.8
21	U	84	ILE	4.8
34	i	126	G	4.8
20	T	99	VAL	4.8
2	B	23	ASP	4.8
2	B	90	ASP	4.8
5	E	176	ASP	4.8
11	K	35	LEU	4.8
34	i	894	U	4.8
14	N	61	ALA	4.8
34	i	1540	A	4.8
11	K	13	GLU	4.7
7	G	148	SER	4.7
34	i	1220	G	4.7
30	d	46	TYR	4.7
19	S	46	ARG	4.7
28	b	52	THR	4.7
34	i	402	G	4.7
34	i	1523	G	4.7
19	S	111	LEU	4.7
5	E	49	ARG	4.7
10	J	143	ASN	4.7
33	g	32	LEU	4.7
4	D	38	GLU	4.7
34	i	332	C	4.7
18	R	13	ALA	4.7
23	W	53	ILE	4.7
23	W	129	PHE	4.7
19	S	47	LYS	4.7
34	i	1579	G	4.7
16	P	103	ASN	4.7

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Mol	Chain	Res	Type	RSRZ
21	U	56	MET	4.7
8	H	61	ILE	4.7
21	U	22	ILE	4.7
23	W	125	ILE	4.7
10	J	185	ALA	4.7
9	I	82	VAL	4.7
34	i	735	C	4.7
34	i	116	U	4.7
33	g	59	LEU	4.7
34	i	1535	G	4.7
5	E	18	TRP	4.7
23	W	76	SER	4.7
7	G	41	LEU	4.6
4	D	29	LEU	4.6
26	Z	47	LEU	4.6
2	B	135	LEU	4.6
17	Q	39	LEU	4.6
19	S	128	GLY	4.6
19	S	74	PRO	4.6
9	I	104	ILE	4.6
34	i	725	C	4.6
34	i	112	U	4.6
32	f	102	VAL	4.6
11	K	16	PHE	4.6
1	A	134	LEU	4.6
34	i	1650	C	4.6
34	i	405	A	4.6
34	i	987	G	4.6
32	f	106	TYR	4.6
23	W	122	GLY	4.6
8	H	48	ALA	4.6
31	e	78	GLY	4.6
34	i	213	C	4.6
33	g	275	ILE	4.6
10	J	86	VAL	4.5
14	N	36	GLN	4.6
15	O	48	SER	4.5
5	E	152	PRO	4.5
23	W	105	THR	4.5
7	G	141	ILE	4.5
17	Q	68	ILE	4.5
17	Q	144	SER	4.5

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Mol	Chain	Res	Type	RSRZ
19	S	50	ILE	4.5
23	W	123	GLY	4.5
9	I	155	ASN	4.5
34	i	409	G	4.5
34	i	404	A	4.5
4	D	67	ARG	4.5
4	D	50	ILE	4.5
9	I	174	CYS	4.5
34	i	645	A	4.5
33	g	95	GLY	4.5
15	O	46	ASP	4.5
2	B	43	ASN	4.5
17	Q	85	ARG	4.5
2	B	121	ILE	4.5
20	T	52	TRP	4.5
27	a	35	ALA	4.5
20	T	66	LEU	4.5
6	F	30	ILE	4.5
34	i	16	G	4.5
4	D	64	ARG	4.5
4	D	19	ALA	4.5
9	I	95	THR	4.5
20	T	131	LEU	4.5
1	A	145	ILE	4.5
24	X	72	VAL	4.5
20	T	69	GLY	4.5
24	X	48	LYS	4.5
28	b	48	SER	4.5
26	Z	86	ALA	4.5
34	i	243	C	4.5
4	D	14	ASP	4.4
26	Z	74	SER	4.4
33	g	93	THR	4.4
2	B	56	LYS	4.4
24	X	107	ARG	4.4
34	i	212	G	4.4
18	R	64	GLY	4.4
8	H	138	GLU	4.4
9	I	87	ASN	4.4
18	R	69	ILE	4.4
2	B	28	LYS	4.4
20	T	40	ALA	4.4

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Mol	Chain	Res	Type	RSRZ
7	G	147	LEU	4.4
2	B	133	TYR	4.4
34	i	646	G	4.4
34	i	1669	G	4.4
27	a	79	ILE	4.4
20	T	130	ASP	4.4
25	Y	53	ASP	4.4
16	P	123	TYR	4.4
5	E	203	GLY	4.4
20	T	68	GLY	4.4
34	i	270	G	4.4
34	i	851	G	4.4
11	K	61	GLN	4.3
12	L	5	GLN	4.3
34	i	806	A	4.3
12	L	101	ARG	4.3
15	O	27	VAL	4.3
5	E	169	ILE	4.3
15	O	102	GLY	4.3
33	g	70	VAL	4.3
20	T	123	LEU	4.3
11	K	47	LYS	4.3
23	W	81	VAL	4.3
27	a	92	ARG	4.3
34	i	411	G	4.3
31	e	76	VAL	4.3
34	i	981	G	4.3
14	N	33	VAL	4.3
21	U	119	ALA	4.3
19	S	89	ASP	4.3
7	G	95	LYS	4.3
4	D	59	LEU	4.3
5	E	29	PRO	4.3
34	i	982	G	4.3
19	S	112	GLU	4.2
34	i	1446	G	4.2
21	U	86	LYS	4.2
34	i	665	U	4.2
7	G	3	LEU	4.2
13	M	111	VAL	4.2
20	T	113	VAL	4.2
34	i	115	U	4.2

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Mol	Chain	Res	Type	RSRZ
35	l	73	VAL	4.2
10	J	102	ILE	4.2
27	a	88	SER	4.2
2	B	60	ASP	4.2
34	i	1088	G	4.2
34	i	1651	G	4.2
20	T	78	ILE	4.2
19	S	81	ASP	4.2
14	N	65	PHE	4.2
20	T	103	VAL	4.2
24	X	80	LYS	4.2
24	X	68	LYS	4.2
14	N	83	ASP	4.2
23	W	55	ASP	4.2
34	i	674	G	4.2
14	N	13	GLN	4.2
33	g	90	TRP	4.2
34	i	1761	C	4.2
12	L	120	VAL	4.2
16	P	18	ARG	4.2
23	W	86	LEU	4.1
33	g	94	THR	4.1
16	P	118	GLU	4.1
5	E	77	ARG	4.1
23	W	10	ALA	4.1
23	W	77	PRO	4.1
26	Z	85	ARG	4.1
21	U	23	THR	4.1
11	K	50	GLN	4.1
17	Q	6	PRO	4.1
6	F	14	THR	4.1
7	G	84	TYR	4.1
34	i	345	G	4.1
34	i	1352	G	4.1
34	i	1531	G	4.1
8	H	137	SER	4.1
15	O	53	ILE	4.1
34	i	408	A	4.1
34	i	807	A	4.1
34	i	1532	A	4.1
34	i	846	C	4.1
31	e	79	SER	4.1

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Mol	Chain	Res	Type	RSRZ
21	U	113	GLU	4.1
2	B	221	PRO	4.1
15	O	19	PRO	4.1
26	Z	107	VAL	4.1
2	B	53	GLN	4.1
12	L	142	VAL	4.1
26	Z	49	LEU	4.1
9	I	163	GLU	4.1
5	E	93	ASP	4.1
6	F	32	ASP	4.1
7	G	111	LEU	4.1
2	B	95	ASN	4.1
34	i	267	G	4.1
2	B	66	VAL	4.1
34	i	338	A	4.1
33	g	89	LEU	4.1
33	g	77	PHE	4.1
2	B	32	ASP	4.1
34	i	942	U	4.1
21	U	87	ARG	4.0
34	i	397	G	4.0
34	i	1748	G	4.0
34	i	1533	C	4.0
26	Z	109	TYR	4.0
14	N	22	VAL	4.0
34	i	1668	U	4.0
1	A	126	ASP	4.0
8	H	95	ILE	4.0
34	i	1255	A	4.0
9	I	195	LEU	4.0
18	R	61	ILE	4.0
26	Z	79	ILE	4.0
34	i	1043	C	4.0
20	T	90	SER	4.0
6	F	50	PRO	4.0
4	D	8	LYS	4.0
30	d	52	PHE	4.0
34	i	1662	U	4.0
34	i	440	C	4.0
34	i	653	C	4.0
23	W	113	HIS	4.0
24	X	39	ASN	4.0

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Mol	Chain	Res	Type	RSRZ
34	i	505	G	4.0
16	P	124	LYS	4.0
23	W	59	GLY	4.0
2	B	216	LYS	4.0
13	M	110	VAL	4.0
2	B	87	ILE	4.0
18	R	17	ILE	4.0
34	i	255	C	4.0
34	i	1516	C	4.0
10	J	182	GLN	3.9
5	E	50	ASN	3.9
23	W	124	LYS	3.9
34	i	1064	G	3.9
34	i	664	C	3.9
2	B	161	VAL	3.9
4	D	75	LYS	3.9
27	a	10	ARG	3.9
34	i	486	C	3.9
34	i	487	C	3.9
3	C	103	ALA	3.9
20	T	104	LEU	3.9
26	Z	89	GLN	3.9
2	B	54	GLY	3.9
34	i	862	U	3.9
34	i	1538	U	3.9
21	U	53	PRO	3.9
26	Z	68	ILE	3.9
11	K	62	PHE	3.9
5	E	41	CYS	3.9
34	i	95	G	3.9
20	T	80	GLY	3.9
11	K	82	TYR	3.9
9	I	18	ARG	3.9
34	i	3	C	3.9
34	i	336	C	3.9
34	i	644	A	3.9
34	i	1618	A	3.9
12	L	126	VAL	3.9
27	a	78	ALA	3.9
17	Q	93	VAL	3.9
8	H	49	LYS	3.9
23	W	73	GLY	3.9

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Mol	Chain	Res	Type	RSRZ
34	i	476	A	3.9
34	i	810	U	3.9
34	i	1604	C	3.9
7	G	142	ARG	3.9
15	O	104	ARG	3.9
16	P	87	PRO	3.9
19	S	6	PRO	3.9
16	P	121	ILE	3.9
34	i	401	G	3.9
28	b	29	ASN	3.9
5	E	109	PHE	3.9
6	F	104	THR	3.8
10	J	118	GLY	3.8
34	i	131	C	3.8
4	D	150	MET	3.8
8	H	139	ILE	3.8
8	H	134	VAL	3.8
23	W	116	ALA	3.8
9	I	86	SER	3.8
34	i	289	G	3.8
5	E	171	ASP	3.8
16	P	17	TYR	3.8
17	Q	60	LYS	3.8
2	B	52	THR	3.8
34	i	788	C	3.8
19	S	29	ALA	3.8
20	T	74	SER	3.8
2	B	30	TRP	3.8
7	G	176	ILE	3.8
19	S	90	VAL	3.8
7	G	17	GLU	3.8
34	i	406	U	3.8
28	b	63	LEU	3.8
7	G	180	VAL	3.8
15	O	97	LEU	3.8
17	Q	110	ASP	3.8
2	B	98	THR	3.8
34	i	1704	G	3.8
7	G	75	LEU	3.8
12	L	47	PRO	3.8
9	I	170	LYS	3.8
4	D	88	ALA	3.8

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Mol	Chain	Res	Type	RSRZ
23	W	110	ILE	3.8
34	i	438	A	3.8
10	J	43	VAL	3.8
15	O	33	ILE	3.8
6	F	93	VAL	3.7
7	G	37	ALA	3.7
34	i	106	C	3.7
8	H	136	PRO	3.7
7	G	187	HIS	3.7
9	I	201	LYS	3.7
34	i	1011	U	3.7
20	T	108	GLU	3.7
25	Y	86	GLU	3.7
21	U	101	ILE	3.7
24	X	58	GLU	3.7
9	I	17	LYS	3.7
28	b	31	TYR	3.7
16	P	15	PHE	3.7
34	i	504	U	3.7
21	U	88	LEU	3.7
4	D	1	MET	3.7
34	i	266	G	3.7
34	i	441	G	3.7
34	i	1044	G	3.7
25	Y	112	ASN	3.7
34	i	639	U	3.7
11	K	3	MET	3.7
7	G	184	VAL	3.7
27	a	34	LYS	3.7
34	i	845	A	3.7
16	P	104	GLN	3.7
34	i	848	G	3.7
34	i	1757	G	3.7
2	B	181	LEU	3.7
11	K	95	ARG	3.7
24	X	87	ASN	3.7
23	W	106	THR	3.7
1	A	159	ILE	3.6
4	D	2	ALA	3.7
4	D	135	GLU	3.7
34	i	282	G	3.7
34	i	1421	G	3.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
34	i	1764	G	3.7
5	E	68	ARG	3.6
30	d	36	LEU	3.6
23	W	30	CYS	3.6
9	I	202	ILE	3.6
34	i	1063	C	3.6
28	b	2	PRO	3.6
2	B	57	ILE	3.6
21	U	117	ALA	3.6
14	N	2	GLY	3.6
16	P	108	LYS	3.6
9	I	79	ILE	3.6
34	i	795	U	3.6
34	i	980	C	3.6
11	K	9	ILE	3.6
21	U	116	ILE	3.6
34	i	232	A	3.6
34	i	941	U	3.6
26	Z	90	GLU	3.6
34	i	943	G	3.6
15	O	18	GLY	3.6
6	F	135	ARG	3.6
34	i	809	A	3.6
2	B	92	GLN	3.6
14	N	18	TYR	3.6
12	L	46	THR	3.6
2	B	68	GLU	3.6
34	i	143	U	3.6
34	i	861	A	3.6
26	Z	50	PHE	3.6
14	N	54	LEU	3.6
19	S	88	LYS	3.6
19	S	91	LYS	3.6
34	i	1205	A	3.6
16	P	95	GLY	3.6
34	i	473	C	3.6
16	P	24	GLN	3.6
34	i	1218	G	3.6
5	E	51	LYS	3.6
20	T	8	ASP	3.6
34	i	238	G	3.6
9	I	194	GLU	3.6

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Mol	Chain	Res	Type	RSRZ
19	S	35	GLY	3.6
16	P	16	THR	3.5
9	I	197	PHE	3.5
30	d	35	GLY	3.5
34	i	175	A	3.5
14	N	69	ASN	3.5
19	S	67	VAL	3.5
9	I	6	ASP	3.5
17	Q	65	GLY	3.5
34	i	114	G	3.5
34	i	129	C	3.5
34	i	337	G	3.5
26	Z	45	ASN	3.5
7	G	190	ARG	3.5
28	b	71	ALA	3.5
7	G	27	PHE	3.5
16	P	126	VAL	3.5
34	i	739	U	3.5
34	i	1653	G	3.5
27	a	33	ASP	3.5
19	S	59	LEU	3.5
16	P	105	VAL	3.5
34	i	647	U	3.5
2	B	70	SER	3.5
7	G	76	LEU	3.5
34	i	1465	A	3.5
16	P	85	ILE	3.5
33	g	58	ALA	3.5
14	N	37	ILE	3.5
26	Z	41	ARG	3.5
28	b	65	GLN	3.5
34	i	1856	G	3.5
27	a	75	VAL	3.5
17	Q	38	PRO	3.5
34	i	331	C	3.5
15	O	51	GLU	3.5
14	N	64	ARG	3.5
20	T	21	PHE	3.5
34	i	692	U	3.5
34	i	808	A	3.5
20	T	86	GLY	3.5
28	b	28	PRO	3.5

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Mol	Chain	Res	Type	RSRZ
26	Z	81	GLY	3.5
32	f	105	TYR	3.5
8	H	96	ALA	3.5
13	M	80	ASP	3.5
15	O	101	GLY	3.5
9	I	191	GLU	3.5
8	H	62	ILE	3.5
24	X	49	GLY	3.5
34	i	649	G	3.5
2	B	91	VAL	3.5
6	F	85	LYS	3.5
34	i	1227	C	3.5
4	D	37	VAL	3.4
23	W	32	LYS	3.4
34	i	1353	A	3.4
7	G	24	LEU	3.4
10	J	106	LEU	3.4
8	H	142	LYS	3.4
34	i	4	C	3.4
10	J	105	PHE	3.4
33	g	76	GLN	3.4
34	i	109	U	3.4
9	I	97	VAL	3.4
34	i	1812	A	3.4
4	D	74	GLN	3.4
34	i	133	C	3.4
5	E	177	THR	3.4
34	i	1270	G	3.4
7	G	135	PRO	3.4
33	g	40	ILE	3.4
10	J	35	TYR	3.4
26	Z	75	GLU	3.4
34	i	940	A	3.4
10	J	183	GLY	3.4
17	Q	24	HIS	3.4
21	U	115	THR	3.4
10	J	103	GLU	3.4
11	K	78	TYR	3.4
3	C	102	GLN	3.4
14	N	21	SER	3.4
32	f	101	ALA	3.4
6	F	28	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
20	T	81	GLY	3.4
27	a	11	ALA	3.4
33	g	80	SER	3.4
5	E	94	LYS	3.4
12	L	61	PRO	3.4
24	X	74	LEU	3.4
19	S	93	GLY	3.4
8	H	92	VAL	3.4
34	i	141	A	3.4
9	I	159	SER	3.4
10	J	81	LEU	3.4
23	W	34	ILE	3.4
4	D	115	VAL	3.4
6	F	49	LEU	3.4
11	K	59	LYS	3.4
34	i	306	C	3.4
7	G	36	VAL	3.4
27	a	72	HIS	3.4
4	D	185	LYS	3.4
9	I	106	SER	3.4
13	M	113	ASP	3.4
23	W	9	ASP	3.4
17	Q	64	ALA	3.3
19	S	58	GLU	3.3
2	B	93	GLY	3.3
16	P	23	ASP	3.3
16	P	5	GLU	3.3
34	i	1756	C	3.3
5	E	240	ARG	3.3
5	E	80	ILE	3.3
6	F	80	GLY	3.3
34	i	94	G	3.3
34	i	1580	U	3.3
16	P	94	VAL	3.3
7	G	113	ILE	3.3
7	G	189	ARG	3.3
16	P	20	VAL	3.3
19	S	95	TYR	3.3
8	H	60	ILE	3.3
32	f	119	ARG	3.3
18	R	24	LEU	3.3
34	i	1447	G	3.3

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Mol	Chain	Res	Type	RSRZ
9	I	4	SER	3.3
11	K	56	GLY	3.3
20	T	122	LYS	3.3
8	H	19	PHE	3.3
14	N	151	ALA	3.3
21	U	118	ASP	3.3
26	Z	46	ASN	3.3
34	i	1634	G	3.3
34	i	233	A	3.3
6	F	42	LYS	3.3
24	X	94	ILE	3.3
34	i	1606	G	3.3
34	i	2	A	3.3
13	M	64	LEU	3.3
1	A	133	PRO	3.3
27	a	8	ASN	3.3
34	i	1763	C	3.3
26	Z	51	ASP	3.3
8	H	112	ASN	3.3
26	Z	92	LEU	3.3
33	g	98	THR	3.3
34	i	1654	U	3.3
27	a	91	ALA	3.3
34	i	410	G	3.3
34	i	503	G	3.3
11	K	94	LEU	3.3
15	O	116	LEU	3.2
34	i	1042	U	3.2
4	D	39	VAL	3.2
9	I	122	GLY	3.2
30	d	22	ARG	3.2
34	i	938	G	3.2
34	i	1245	C	3.2
34	i	1253	G	3.2
12	L	145	VAL	3.2
13	M	79	VAL	3.2
19	S	86	ARG	3.2
4	D	151	LYS	3.2
21	U	90	ASP	3.2
34	i	9	U	3.2
8	H	132	ASP	3.2
5	E	87	MET	3.2

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Mol	Chain	Res	Type	RSRZ
34	i	178	C	3.2
34	i	693	A	3.2
34	i	1549	C	3.2
34	i	1813	A	3.2
13	M	39	ALA	3.2
34	i	531	U	3.2
34	i	730	C	3.2
9	I	19	LYS	3.2
28	b	46	VAL	3.2
2	B	29	ASP	3.2
34	i	656	U	3.2
17	Q	116	ASP	3.2
26	Z	77	LEU	3.2
34	i	1588	C	3.2
20	T	50	GLU	3.2
34	i	683	G	3.2
34	i	691	G	3.2
5	E	95	THR	3.2
10	J	78	LEU	3.2
13	M	112	LYS	3.2
33	g	22	ALA	3.2
23	W	90	GLN	3.2
34	i	954	G	3.2
23	W	11	LEU	3.2
24	X	90	CYS	3.2
34	i	134	C	3.2
16	P	37	TYR	3.2
19	S	39	ARG	3.2
34	i	300	G	3.2
15	O	89	GLY	3.2
34	i	301	C	3.2
26	Z	91	LEU	3.2
19	S	48	ALA	3.2
34	i	997	A	3.2
9	I	88	ASN	3.2
7	G	149	LYS	3.2
26	Z	58	LEU	3.2
33	g	30	MET	3.2
34	i	139	C	3.1
19	S	94	LYS	3.1
28	b	23	ARG	3.1
19	S	31	THR	3.1

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Mol	Chain	Res	Type	RSRZ
20	T	111	LYS	3.1
34	i	172	U	3.1
10	J	46	VAL	3.1
12	L	96	ILE	3.1
34	i	244	C	3.1
32	f	120	GLU	3.1
11	K	73	ASN	3.1
10	J	145	PRO	3.1
28	b	50	ALA	3.1
34	i	118	C	3.1
34	i	594	A	3.1
34	i	854	A	3.1
16	P	36	LEU	3.1
5	E	122	LYS	3.1
7	G	1	MET	3.1
15	O	127	GLY	3.1
10	J	88	ASP	3.1
19	S	21	ASP	3.1
34	i	680	G	3.1
4	D	25	LEU	3.1
15	O	130	GLU	3.1
31	e	122	THR	3.1
23	W	31	SER	3.1
8	H	156	VAL	3.1
20	T	35	ASP	3.1
24	X	66	ILE	3.1
28	b	27	SER	3.1
34	i	215	U	3.1
9	I	169	GLY	3.1
24	X	43	GLY	3.1
4	D	186	VAL	3.1
11	K	81	ASP	3.1
34	i	343	C	3.1
6	F	72	LEU	3.1
10	J	91	LYS	3.1
18	R	41	ILE	3.1
34	i	394	G	3.1
8	H	93	VAL	3.1
10	J	92	MET	3.1
34	i	21	U	3.1
7	G	50	VAL	3.1
21	U	52	GLY	3.1

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Mol	Chain	Res	Type	RSRZ
12	L	10	TYR	3.1
4	D	81	GLU	3.1
34	i	110	U	3.1
34	i	886	U	3.1
21	U	61	LEU	3.1
34	i	1749	C	3.1
20	T	121	ARG	3.1
8	H	50	GLU	3.1
15	O	16	SER	3.1
20	T	7	LYS	3.1
13	M	60	MET	3.1
19	S	36	VAL	3.1
34	i	895	U	3.1
34	i	1252	G	3.1
34	i	1603	U	3.1
9	I	175	ILE	3.1
34	i	657	U	3.0
5	E	167	GLY	3.0
34	i	247	C	3.0
34	i	805	A	3.0
27	a	37	LYS	3.0
5	E	196	THR	3.0
34	i	340	C	3.0
2	B	164	ILE	3.0
10	J	149	VAL	3.0
19	S	70	ILE	3.0
28	b	25	VAL	3.0
14	N	56	ASP	3.0
16	P	27	ASP	3.0
17	Q	33	LYS	3.0
7	G	35	GLU	3.0
11	K	89	ILE	3.0
33	g	134	THR	3.0
7	G	5	ILE	3.0
34	i	288	A	3.0
16	P	13	ARG	3.0
2	B	136	HIS	3.0
34	i	240	C	3.0
34	i	593	C	3.0
34	i	859	U	3.0
17	Q	25	CYS	3.0
34	i	1027	A	3.0

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Mol	Chain	Res	Type	RSRZ
34	i	1814	G	3.0
16	P	33	LEU	3.0
23	W	109	GLY	3.0
34	i	1667	U	3.0
8	H	23	ILE	3.0
20	T	67	ARG	3.0
34	i	371	C	3.0
21	U	106	ILE	3.0
34	i	325	G	3.0
34	i	393	G	3.0
24	X	9	THR	3.0
1	A	146	ALA	3.0
10	J	19	PRO	3.0
34	i	726	C	3.0
34	i	734	C	3.0
7	G	221	LYS	3.0
23	W	118	ARG	3.0
15	O	93	LEU	3.0
9	I	90	LEU	3.0
10	J	37	LEU	3.0
23	W	54	ASP	3.0
7	G	93	LYS	3.0
34	i	488	C	3.0
34	i	963	C	3.0
20	T	82	ARG	3.0
7	G	225	GLN	3.0
10	J	119	LEU	3.0
34	i	1593	G	3.0
6	F	105	GLY	2.9
24	X	53	GLU	2.9
34	i	659	A	2.9
10	J	42	GLU	2.9
20	T	134	ILE	2.9
9	I	105	ASP	2.9
17	Q	107	GLU	2.9
34	i	1645	A	2.9
24	X	38	ALA	2.9
26	Z	56	ASP	2.9
2	B	22	VAL	2.9
15	O	100	THR	2.9
25	Y	109	GLU	2.9
34	i	17	C	2.9

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Mol	Chain	Res	Type	RSRZ
34	i	823	A	2.9
13	M	41	ALA	2.9
19	S	34	LYS	2.9
30	d	38	MET	2.9
34	i	179	C	2.9
7	G	83	CYS	2.9
34	i	662	A	2.9
34	i	1607	G	2.9
23	W	40	VAL	2.9
2	B	96	CYS	2.9
4	D	49	ILE	2.9
18	R	65	PRO	2.9
32	f	118	ARG	2.9
4	D	209	SER	2.9
34	i	849	C	2.9
34	i	1552	C	2.9
17	Q	114	GLN	2.9
34	i	864	G	2.9
16	P	52	LYS	2.9
23	W	119	LYS	2.9
1	A	153	PRO	2.9
17	Q	71	ARG	2.9
24	X	28	LYS	2.9
34	i	1759	C	2.9
19	S	56	ALA	2.9
34	i	341	G	2.9
12	L	99	TYR	2.9
15	O	67	ASP	2.9
15	O	62	VAL	2.9
31	e	98	LYS	2.9
34	i	234	C	2.9
34	i	969	C	2.9
4	D	55	THR	2.9
9	I	36	THR	2.9
18	R	8	THR	2.9
19	S	15	VAL	2.9
34	i	22	A	2.9
21	U	109	GLY	2.9
23	W	120	HIS	2.9
5	E	31	PRO	2.9
32	f	122	PRO	2.9
14	N	40	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
23	W	13	SER	2.9
1	A	152	SER	2.9
19	S	96	SER	2.9
34	i	694	G	2.9
19	S	108	ARG	2.9
24	X	110	HIS	2.9
26	Z	76	ARG	2.9
33	g	272	GLN	2.9
34	i	93	U	2.9
8	H	143	ARG	2.9
28	b	3	LEU	2.9
33	g	96	THR	2.9
12	L	103	GLU	2.9
34	i	610	G	2.9
34	i	1627	G	2.9
16	P	86	LEU	2.9
31	e	81	ALA	2.9
34	i	493	C	2.9
5	E	56	LEU	2.9
10	J	127	ARG	2.8
34	i	1188	U	2.8
34	i	7	G	2.8
34	i	13	C	2.8
34	i	803	G	2.8
34	i	1539	C	2.8
34	i	1541	G	2.8
34	i	146	G	2.8
34	i	789	G	2.8
34	i	1621	C	2.8
18	R	15	VAL	2.8
23	W	71	LYS	2.8
28	b	15	GLU	2.8
34	i	1602	A	2.8
11	K	86	PRO	2.8
9	I	91	VAL	2.8
10	J	40	LYS	2.8
5	E	98	ASN	2.8
11	K	74	GLU	2.8
25	Y	113	ARG	2.8
34	i	286	C	2.8
34	i	811	U	2.8
34	i	1655	C	2.8

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Mol	Chain	Res	Type	RSRZ
17	Q	145	TYR	2.8
33	g	278	SER	2.8
21	U	50	VAL	2.8
34	i	804	A	2.8
6	F	27	ASP	2.8
9	I	61	ASP	2.8
15	O	140	THR	2.8
19	S	130	ARG	2.8
31	e	97	GLU	2.8
34	i	407	C	2.8
2	B	63	LYS	2.8
5	E	28	ALA	2.8
20	T	106	ALA	2.8
34	i	103	A	2.8
2	B	104	ASP	2.8
34	i	1664	G	2.8
17	Q	49	TYR	2.8
33	g	97	THR	2.8
23	W	94	LEU	2.8
34	i	1575	A	2.8
34	i	914	U	2.8
1	A	33	GLN	2.8
5	E	20	LEU	2.8
23	W	17	ALA	2.8
26	Z	53	ALA	2.8
7	G	94	ARG	2.8
24	X	99	GLU	2.8
34	i	643	A	2.8
10	J	39	ASN	2.8
5	E	174	LYS	2.7
9	I	204	ALA	2.7
15	O	54	CYS	2.7
34	i	335	U	2.7
17	Q	48	GLN	2.7
21	U	27	ARG	2.7
16	P	106	GLU	2.7
20	T	114	GLU	2.7
27	a	4	LYS	2.7
5	E	241	GLY	2.7
23	W	101	PHE	2.7
5	E	79	ASP	2.7
7	G	181	THR	2.7

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Mol	Chain	Res	Type	RSRZ
26	Z	67	LEU	2.7
21	U	107	GLU	2.7
23	W	79	PHE	2.7
26	Z	80	ARG	2.7
35	l	83	ILE	2.7
11	K	87	PRO	2.7
16	P	21	ASP	2.7
19	S	51	ASP	2.7
3	C	216	ALA	2.7
4	D	32	ASP	2.7
7	G	96	SER	2.7
1	A	124	VAL	2.7
19	S	131	VAL	2.7
5	E	158	ASP	2.7
11	K	65	ARG	2.7
8	H	63	PHE	2.7
25	Y	117	VAL	2.7
34	i	852	C	2.7
34	i	873	C	2.7
6	F	134	VAL	2.7
15	O	88	LEU	2.7
28	b	32	PHE	2.7
7	G	109	LEU	2.7
10	J	130	ILE	2.7
23	W	14	ILE	2.7
23	W	58	ALA	2.7
9	I	63	GLY	2.7
34	i	663	G	2.7
34	i	485	U	2.7
34	i	1544	U	2.7
34	i	1687	U	2.7
14	N	19	ARG	2.7
34	i	272	C	2.7
33	g	300	ALA	2.7
12	L	44	PHE	2.7
34	i	1217	G	2.7
34	i	1244	U	2.7
34	i	1534	U	2.7
19	S	134	GLN	2.7
4	D	210	ILE	2.7
11	K	24	LYS	2.7
5	E	119	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
34	i	1482	A	2.7
32	f	117	LEU	2.7
34	i	824	G	2.7
5	E	150	PRO	2.7
9	I	120	PRO	2.7
9	I	39	GLY	2.7
10	J	101	LYS	2.7
34	i	132	U	2.7
34	i	1089	A	2.7
24	X	79	LYS	2.7
27	a	95	ARG	2.7
34	i	1162	G	2.7
34	i	970	C	2.7
2	B	225	LEU	2.7
10	J	181	GLY	2.7
13	M	49	LEU	2.7
28	b	8	LEU	2.7
34	i	5	U	2.7
34	i	1663	U	2.7
26	Z	62	VAL	2.7
34	i	1146	A	2.7
8	H	47	ALA	2.6
32	f	84	SER	2.6
34	i	1010	G	2.6
34	i	1686	U	2.6
11	K	53	LYS	2.6
6	F	113	VAL	2.6
13	M	54	SER	2.6
18	R	57	LEU	2.6
10	J	74	GLY	2.6
12	L	4	ILE	2.6
17	Q	84	ILE	2.6
34	i	435	A	2.6
23	W	75	ILE	2.6
25	Y	15	ASN	2.6
9	I	188	TYR	2.6
14	N	26	LEU	2.6
26	Z	54	THR	2.6
27	a	85	ARG	2.6
6	F	46	ALA	2.6
20	T	17	ALA	2.6
29	c	65	ALA	2.6

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Mol	Chain	Res	Type	RSRZ
13	M	50	CYS	2.6
5	E	155	LYS	2.6
7	G	104	ALA	2.6
20	T	22	LEU	2.6
24	X	134	TYR	2.6
4	D	9	ARG	2.6
1	A	122	LEU	2.6
1	A	209	GLU	2.6
8	H	187	PHE	2.6
33	g	31	ILE	2.6
34	i	290	A	2.6
34	i	1551	A	2.6
23	W	63	VAL	2.6
4	D	18	LYS	2.6
26	Z	93	SER	2.6
34	i	1702	U	2.6
19	S	103	LEU	2.6
9	I	62	VAL	2.6
21	U	54	VAL	2.6
26	Z	43	LYS	2.6
34	i	1613	C	2.6
1	A	148	CYS	2.6
19	S	75	ARG	2.6
28	b	49	HIS	2.6
2	B	26	SER	2.6
16	P	14	LYS	2.6
7	G	193	ALA	2.6
5	E	164	LEU	2.6
14	N	23	PRO	2.6
5	E	160	ILE	2.6
26	Z	97	ILE	2.6
19	S	101	ASN	2.6
26	Z	78	LYS	2.6
32	f	115	SER	2.6
13	M	48	HIS	2.6
34	i	890	G	2.6
23	W	33	VAL	2.6
24	X	36	LEU	2.6
30	d	43	PHE	2.6
34	i	637	U	2.6
34	i	844	U	2.6
34	i	1657	U	2.6

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Mol	Chain	Res	Type	RSRZ
34	i	1705	C	2.6
34	i	1760	C	2.6
11	K	39	ASN	2.6
11	K	83	LEU	2.6
14	N	53	ILE	2.6
13	M	47	ALA	2.6
26	Z	82	SER	2.6
34	i	860	A	2.6
31	e	77	HIS	2.6
34	i	1400	U	2.6
34	i	1515	G	2.6
34	i	297	C	2.6
34	i	1611	U	2.6
6	F	48	TYR	2.6
2	B	51	ARG	2.6
7	G	218	LYS	2.6
34	i	284	C	2.6
20	T	49	ASP	2.6
19	S	23	ARG	2.5
8	H	133	LEU	2.5
34	i	850	A	2.5
25	Y	87	PRO	2.5
34	i	1562	G	2.5
8	H	46	THR	2.5
11	K	34	GLU	2.5
33	g	307	VAL	2.5
11	K	77	GLN	2.5
4	D	118	ALA	2.5
1	A	158	ASP	2.5
13	M	90	GLY	2.5
34	i	415	G	2.5
35	l	72	THR	2.5
25	Y	128	GLY	2.5
34	i	1204	A	2.5
10	J	111	GLN	2.5
12	L	8	ARG	2.5
34	i	174	C	2.5
32	f	111	ASN	2.5
4	D	84	VAL	2.5
10	J	120	ALA	2.5
34	i	658	A	2.5
26	Z	59	CYS	2.5

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Mol	Chain	Res	Type	RSRZ
34	i	220	C	2.5
34	i	1522	C	2.5
34	i	1703	C	2.5
5	E	172	PHE	2.5
12	L	6	THR	2.5
34	i	15	U	2.5
5	E	195	ILE	2.5
13	M	43	ASP	2.5
34	i	1752	G	2.5
2	B	97	LEU	2.5
5	E	111	VAL	2.5
11	K	76	ILE	2.5
13	M	109	VAL	2.5
17	Q	66	VAL	2.5
23	W	27	ILE	2.5
23	W	80	ASP	2.5
21	U	44	LYS	2.5
5	E	145	ARG	2.5
5	E	162	ILE	2.5
8	H	165	ASN	2.5
9	I	121	LEU	2.5
6	F	39	ILE	2.5
23	W	29	PRO	2.5
5	E	78	ALA	2.5
9	I	199	LEU	2.5
34	i	101	U	2.5
17	Q	67	ASP	2.5
6	F	33	ILE	2.5
25	Y	84	LYS	2.5
19	S	55	ARG	2.5
34	i	1660	G	2.5
34	i	342	U	2.5
34	i	344	U	2.5
34	i	609	A	2.5
16	P	19	GLY	2.5
33	g	160	SER	2.5
23	W	89	TRP	2.5
34	i	135	U	2.5
32	f	109	ASP	2.5
34	i	1701	G	2.5
34	i	839	C	2.5
8	H	79	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
13	M	18	LEU	2.5
20	T	73	GLY	2.5
7	G	103	ASP	2.5
14	N	126	ALA	2.5
34	i	412	U	2.5
16	P	84	ILE	2.5
7	G	185	LEU	2.5
21	U	21	ARG	2.5
4	D	215	ASP	2.5
2	B	83	LYS	2.5
3	C	229	ILE	2.5
28	b	16	LYS	2.5
34	i	326	A	2.5
34	i	1190	A	2.5
34	i	1147	G	2.4
34	i	1455	G	2.4
24	X	31	HIS	2.4
34	i	1861	U	2.4
23	W	100	GLY	2.4
2	B	134	LEU	2.4
26	Z	108	ILE	2.4
34	i	946	C	2.4
34	i	1578	C	2.4
34	i	1228	U	2.4
28	b	59	CYS	2.4
4	D	87	TYR	2.4
3	C	101	THR	2.4
18	R	39	ALA	2.4
1	A	123	VAL	2.4
23	W	78	ARG	2.4
24	X	51	VAL	2.4
6	F	103	LEU	2.4
31	e	80	LEU	2.4
32	f	86	THR	2.4
23	W	38	LEU	2.4
34	i	177	G	2.4
34	i	1445	G	2.4
34	i	1600	G	2.4
16	P	115	TYR	2.4
34	i	206	A	2.4
34	i	1105	C	2.4
6	F	84	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
14	N	139	TRP	2.4
34	i	1591	U	2.4
11	K	26	ASP	2.4
24	X	73	GLN	2.4
2	B	220	LYS	2.4
15	O	92	ALA	2.4
21	U	65	THR	2.4
34	i	939	U	2.4
34	i	90	G	2.4
34	i	1643	G	2.4
34	i	1387	C	2.4
10	J	50	LEU	2.4
16	P	25	LEU	2.4
7	G	19	ASP	2.4
7	G	139	SER	2.4
15	O	17	LEU	2.4
34	i	221	A	2.4
34	i	302	C	2.4
34	i	1635	A	2.4
24	X	6	GLY	2.4
27	a	19	GLN	2.4
12	L	12	LYS	2.4
34	i	673	G	2.4
4	D	109	LEU	2.4
8	H	193	GLN	2.4
9	I	60	LEU	2.4
34	i	372	C	2.4
34	i	420	C	2.4
10	J	44	TRP	2.4
34	i	1189	U	2.4
1	A	130	ASP	2.4
13	M	25	ALA	2.4
16	P	116	LEU	2.4
34	i	27	A	2.4
34	i	299	G	2.4
34	i	495	G	2.4
34	i	652	G	2.4
34	i	1553	C	2.4
34	i	1820	G	2.4
4	D	61	GLU	2.4
8	H	97	GLN	2.4
26	Z	106	GLN	2.4

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Mol	Chain	Res	Type	RSRZ
28	b	58	GLY	2.4
9	I	8	TRP	2.3
33	g	75	GLY	2.3
14	N	29	THR	2.3
13	M	22	LEU	2.3
34	i	12	U	2.3
21	U	108	PRO	2.3
34	i	436	G	2.3
34	i	813	G	2.3
34	i	1249	A	2.3
3	C	104	GLY	2.3
15	O	63	LYS	2.3
28	b	47	PHE	2.3
19	S	109	GLU	2.3
7	G	45	TRP	2.3
15	O	44	VAL	2.3
33	g	308	ARG	2.3
19	S	68	ILE	2.3
34	i	309	A	2.3
34	i	812	A	2.3
34	i	1526	A	2.3
20	T	115	LYS	2.3
34	i	1122	G	2.3
8	H	18	GLU	2.3
33	g	33	SER	2.3
4	D	62	LYS	2.3
27	a	74	CYS	2.3
30	d	34	TYR	2.3
34	i	370	G	2.3
34	i	592	G	2.3
32	f	110	GLU	2.3
34	i	287	U	2.3
2	B	223	PHE	2.3
5	E	86	PHE	2.3
15	O	126	ILE	2.3
27	a	31	PRO	2.3
34	i	512	A	2.3
6	F	44	LYS	2.3
34	i	28	U	2.3
34	i	216	U	2.3
34	i	245	U	2.3
32	f	121	CYS	2.3

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Mol	Chain	Res	Type	RSRZ
34	i	259	G	2.3
34	i	945	G	2.3
9	I	67	TRP	2.3
10	J	131	ARG	2.3
34	i	1644	U	2.3
22	V	81	GLN	2.3
24	X	63	ASN	2.3
12	L	62	PHE	2.3
16	P	22	LEU	2.3
7	G	29	GLU	2.3
18	R	9	VAL	2.3
24	X	91	LEU	2.3
34	i	264	U	2.3
34	i	1240	U	2.3
26	Z	101	SER	2.3
31	e	99	LYS	2.3
10	J	31	LEU	2.3
2	B	214	LYS	2.3
4	D	216	GLU	2.3
34	i	1095	G	2.3
24	X	29	LYS	2.3
34	i	92	A	2.3
34	i	104	A	2.3
34	i	425	A	2.3
34	i	1448	A	2.3
4	D	78	GLY	2.3
5	E	110	ALA	2.3
10	J	107	GLU	2.3
11	K	51	SER	2.3
12	L	127	THR	2.3
14	N	20	ARG	2.3
29	c	66	ARG	2.3
34	i	373	G	2.3
10	J	36	GLY	2.3
15	O	113	GLN	2.3
33	g	69	VAL	2.3
8	H	22	GLY	2.3
9	I	109	TYR	2.3
34	i	421	G	2.3
34	i	1623	C	2.3
33	g	161	SER	2.3
24	X	22	TRP	2.3

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Mol	Chain	Res	Type	RSRZ
34	i	1622	C	2.3
1	A	135	THR	2.2
24	X	13	LEU	2.2
2	B	126	ASP	2.2
13	M	89	VAL	2.2
15	O	136	PRO	2.2
10	J	54	ARG	2.2
27	a	94	ASP	2.2
34	i	731	C	2.2
34	i	1454	G	2.2
6	F	110	GLN	2.2
34	i	477	U	2.2
34	i	1507	U	2.2
9	I	76	THR	2.2
20	T	139	ALA	2.2
24	X	109	GLY	2.2
17	Q	29	ASN	2.2
34	i	1637	U	2.2
16	P	127	LYS	2.2
24	X	125	VAL	2.2
26	Z	55	TYR	2.2
32	f	85	TYR	2.2
13	M	75	ASN	2.2
8	H	20	GLU	2.2
9	I	168	GLN	2.2
4	D	102	ALA	2.2
23	W	35	VAL	2.2
34	i	998	U	2.2
34	i	1187	C	2.2
16	P	28	MET	2.2
4	D	105	LEU	2.2
8	H	94	PHE	2.2
10	J	109	ARG	2.2
34	i	424	G	2.2
34	i	1154	G	2.2
25	Y	121	ALA	2.2
4	D	184	ILE	2.2
9	I	70	GLU	2.2
9	I	94	LYS	2.2
10	J	28	GLU	2.2
13	M	65	VAL	2.2
21	U	91	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
32	f	123	SER	2.2
34	i	437	A	2.2
10	J	61	LEU	2.2
10	J	77	LEU	2.2
34	i	1453	U	2.2
7	G	73	VAL	2.2
12	L	146	THR	2.2
10	J	188	GLY	2.2
32	f	124	ASP	2.2
34	i	298	G	2.2
34	i	1084	U	2.2
34	i	1811	G	2.2
24	X	131	LEU	2.2
34	i	996	C	2.2
12	L	68	ILE	2.2
15	O	96	LYS	2.2
34	i	1296	U	2.2
4	D	6	SER	2.2
4	D	149	SER	2.2
4	D	171	ALA	2.2
23	W	69	LEU	2.2
34	i	1765	G	2.2
6	F	106	GLU	2.2
34	i	330	C	2.2
24	X	52	LEU	2.2
32	f	112	GLY	2.2
33	g	57	ARG	2.2
12	L	3	ASP	2.2
34	i	8	U	2.2
7	G	97	VAL	2.2
34	i	1350	G	2.2
8	H	17	ASP	2.2
2	B	165	ARG	2.2
12	L	11	GLN	2.2
14	N	149	LEU	2.2
23	W	93	LEU	2.2
34	i	62	G	2.2
34	i	1391	C	2.2
7	G	137	ARG	2.2
19	S	32	ALA	2.2
34	i	1451	A	2.2
5	E	53	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
7	G	69	THR	2.1
1	A	147	LEU	2.1
33	g	101	PHE	2.1
34	i	185	C	2.1
7	G	70	HIS	2.1
24	X	97	ASN	2.1
14	N	74	ILE	2.1
20	T	10	ASN	2.1
10	J	110	LEU	2.1
34	i	296	U	2.1
7	G	140	ARG	2.1
34	i	655	G	2.1
12	L	7	GLU	2.1
21	U	104	ILE	2.1
29	c	36	ASP	2.1
18	R	70	SER	2.1
2	B	85	LYS	2.1
34	i	295	C	2.1
34	i	1087	C	2.1
34	i	1747	C	2.1
34	i	855	G	2.1
34	i	1040	G	2.1
23	W	74	VAL	2.1
2	B	141	GLY	2.1
17	Q	31	LEU	2.1
18	R	87	GLU	2.1
20	T	89	PRO	2.1
6	F	81	ARG	2.1
20	T	127	GLY	2.1
34	i	640	A	2.1
34	i	1472	A	2.1
15	O	112	ALA	2.1
33	g	282	GLU	2.1
8	H	141	GLY	2.1
7	G	219	GLU	2.1
8	H	159	ASP	2.1
34	i	983	A	2.1
34	i	1096	A	2.1
34	i	1658	A	2.1
34	i	265	G	2.1
15	O	23	GLU	2.1
22	V	66	ASP	2.1

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Mol	Chain	Res	Type	RSRZ
26	Z	95	GLY	2.1
33	g	42	MET	2.1
8	H	98	ARG	2.1
5	E	147	ILE	2.1
6	F	18	LYS	2.1
7	G	217	MET	2.1
14	N	39	LYS	2.1
23	W	57	ARG	2.1
3	C	112	PHE	2.1
34	i	1130	G	2.1
34	i	796	U	2.1
34	i	1069	U	2.1
34	i	1226	C	2.1
34	i	1354	U	2.1
12	L	144	LYS	2.1
9	I	93	THR	2.1
26	Z	110	THR	2.1
2	B	21	VAL	2.1
20	T	28	LEU	2.1
34	i	975	C	2.1
34	i	1498	C	2.1
34	i	1598	G	2.1
10	J	85	GLY	2.1
11	K	90	VAL	2.1
34	i	976	A	2.1
34	i	1196	A	2.1
7	G	82	SER	2.1
11	K	17	LYS	2.1
15	O	144	GLY	2.1
10	J	113	GLN	2.1
34	i	799	C	2.1
20	T	140	ALA	2.1
21	U	63	ILE	2.1
6	F	109	LEU	2.0
7	G	114	VAL	2.0
2	B	122	GLU	2.0
15	O	138	ASP	2.0
17	Q	90	LYS	2.0
12	L	74	SER	2.0
20	T	87	VAL	2.0
2	B	20	LYS	2.0
34	i	6	G	2.0

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Mol	Chain	Res	Type	RSRZ
18	R	22	THR	2.0
19	S	53	THR	2.0
34	i	962	U	2.0
34	i	1479	A	2.0
32	f	113	LYS	2.0
4	D	117	ARG	2.0
20	T	45	LEU	2.0
33	g	88	ARG	2.0
32	f	116	ARG	2.0
24	X	129	SER	2.0
34	i	153	G	2.0
34	i	274	G	2.0
34	i	489	G	2.0
34	i	1152	U	2.0
34	i	1774	G	2.0
12	L	43	GLY	2.0
15	O	105	THR	2.0
19	S	136	THR	2.0
7	G	112	VAL	2.0
34	i	1135	C	2.0
9	I	99	ASN	2.0
20	T	85	ASN	2.0
5	E	261	SER	2.0
21	U	20	ILE	2.0
34	i	180	G	2.0
2	B	226	GLY	2.0
5	E	209	HIS	2.0
21	U	76	THR	2.0
21	U	57	PRO	2.0
8	H	126	HIS	2.0
34	i	964	U	2.0
34	i	1322	U	2.0
34	i	1590	U	2.0
17	Q	118	THR	2.0
21	U	80	PHE	2.0
19	S	24	ARG	2.0
34	i	184	G	2.0
34	i	686	G	2.0
34	i	687	G	2.0
25	Y	108	LYS	2.0
4	D	30	ALA	2.0
6	F	73	THR	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.