



# Full wwPDB X-ray Structure Validation Report ⓘ

May 14, 2020 – 02:41 am BST

PDB ID : 2JA7  
Title : CPD lesion containing RNA Polymerase II elongation complex C  
Authors : Brueckner, F.; Hennecke, U.; Carell, T.; Cramer, P.  
Deposited on : 2006-11-23  
Resolution : 3.80 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

<https://www.wwpdb.org/validation/2017/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 : 1.8.5 (274361), CSD as541be (2020)  
Xtriage (Phenix) : 1.13  
EDS : 2.11  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Refmac : 5.8.0158  
CCP4 : 7.0.044 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.11

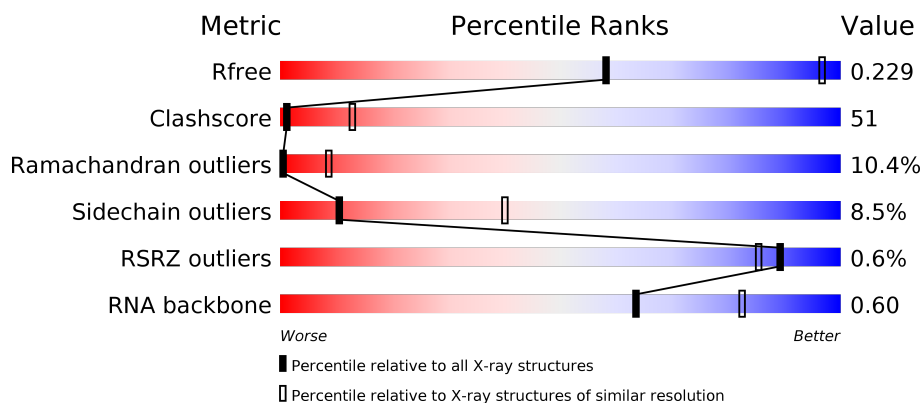
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.80 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))
$R_{free}$	130704	1212 (4.00-3.60)
Clashscore	141614	1288 (4.00-3.60)
Ramachandran outliers	138981	1243 (4.00-3.60)
Sidechain outliers	138945	1237 (4.00-3.60)
RSRZ outliers	127900	1121 (4.00-3.60)
RNA backbone	3102	1036 (4.60-3.00)

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 respectively. 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	1	14	<div> <div>29%</div> <div>21%</div> <div>50%</div> </div>
1	4	14	<div> <div>29%</div> <div>21%</div> <div>50%</div> </div>
2	2	25	<div> <div>•</div> <div>52%</div> <div>16%</div> <div>28%</div> </div>
2	5	25	<div> <div>8%</div> <div>48%</div> <div>16%</div> <div>28%</div> </div>

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Mol	Chain	Length	Quality of chain
3	3	11	
3	6	11	
4	A	1733	
4	M	1733	
5	B	1224	
5	N	1224	
6	C	318	
6	O	318	
7	D	221	
7	P	221	
8	E	215	
8	Q	215	
9	F	155	
9	R	155	
10	G	171	
10	S	171	
11	H	146	
11	T	146	
12	I	122	
12	U	122	
13	J	70	
13	V	70	
14	K	120	
14	W	120	
15	L	70	

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Mol	Chain	Length	Quality of chain
15	X	70	<div> <div>20%</div> <div>36%</div> <div>9%</div> <div>34%</div> </div>

## 2 Entry composition

There are 17 unique types of molecules in this entry. The entry contains 63924 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 DNA chain called 5'-D(\*TP\*AP\*AP\*GP\*TP\*AP\*CP\*TP\*TP\*GP\*AP\*GP\*CP\*T)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1	7	Total	C	N	O	P	0	0	0
			141	69	27	39	6			
1	4	7	Total	C	N	O	P	0	0	0
			141	69	27	39	6			

- Molecule 2 is a DNA chain called 5'-D(\*AP\*GP\*CP\*TP\*CP\*AP\*AP\*GP\*TP\*AP\*CP\*TP\*TP\*TP\*CP\*CP\*BRUP\*GP\*GP\*TP\*CP\*AP\*TP\*T)-3'.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
2	2	18	Total	Br	C	N	O	P	0	0	0
			380	1	186	60	116	17			
2	5	18	Total	Br	C	N	O	P	0	0	0
			380	1	186	60	116	17			

- Molecule 3 is a RNA chain called 5'-R(\*UP\*UP\*CP\*GP\*AP\*CP\*CP\*AP\*GP\*GP\*AP)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	3	10	Total	C	N	O	P	0	0	0
			212	96	41	66	9			
3	6	10	Total	C	N	O	P	0	0	0
			212	96	41	66	9			

- Molecule 4 is a protein called DNA-DIRECTED RNA POLYMERASE II LARGEST SUB-UNIT.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	A	1421	Total	C	N	O	S	0	0	0
			11186	7048	1958	2118	62			
4	M	1421	Total	C	N	O	S	0	0	0
			11186	7048	1958	2118	62			

- Molecule 5 is a protein called DNA-DIRECTED RNA POLYMERASE II 140 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	B	1115	Total	C	N	O	S	0	0	0
			8866	5614	1553	1644	55			
5	N	1115	Total	C	N	O	S	0	0	0
			8866	5614	1553	1644	55			

- Molecule 6 is a protein called DNA-DIRECTED RNA POLYMERASE II 45KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	C	267	Total	C	N	O	S	0	0	0
			2101	1320	349	419	13			
6	O	267	Total	C	N	O	S	0	0	0
			2101	1320	349	419	13			

- Molecule 7 is a protein called DNA-DIRECTED RNA POLYMERASE II 32KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	D	177	Total	C	N	O	S	0	0	0
			1427	882	256	287	2			
7	P	177	Total	C	N	O	S	0	0	0
			1427	882	256	287	2			

- Molecule 8 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III 27 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	E	214	Total	C	N	O	S	0	0	0
			1752	1111	309	321	11			
8	Q	214	Total	C	N	O	S	0	0	0
			1752	1111	309	321	11			

- Molecule 9 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III 23 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	F	87	Total	C	N	O	S	0	0	0
			705	451	119	132	3			
9	R	87	Total	C	N	O	S	0	0	0
			705	451	119	132	3			

- Molecule 10 is a protein called DNA-DIRECTED RNA POLYMERASE II 19KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	G	171	Total	C	N	O	S	0	0	0
			1340	861	222	249	8			
10	S	171	Total	C	N	O	S	0	0	0
			1340	861	222	249	8			

- Molecule 11 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III 14.5 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	H	135	Total	C	N	O	S	0	0	0
			1084	683	183	214	4			
11	T	135	Total	C	N	O	S	0	0	0
			1084	683	183	214	4			

- Molecule 12 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT 9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	I	116	Total	C	N	O	S	0	0	0
			944	581	172	181	10			
12	U	116	Total	C	N	O	S	0	0	0
			944	581	172	181	10			

- Molecule 13 is a protein called DNA-DIRECTED RNA POLYMERASES I/II/III SUBUNIT 10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	J	65	Total	C	N	O	S	0	0	0
			532	339	93	94	6			
13	V	65	Total	C	N	O	S	0	0	0
			532	339	93	94	6			

- Molecule 14 is a protein called DNA-DIRECTED RNA POLYMERASE II 13.6 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	K	114	Total	C	N	O	S	0	0	0
			919	590	156	171	2			
14	W	114	Total	C	N	O	S	0	0	0
			919	590	156	171	2			

- Molecule 15 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III 7.7

## KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	L	46	Total	C	N	O	S	0	0	0
			364	224	72	64	4			
15	X	46	Total	C	N	O	S	0	0	0
			364	224	72	64	4			

- Molecule 16 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
16	A	1	Total	Mg	0	0
			1	1		
16	M	1	Total	Mg	0	0
			1	1		

- Molecule 17 is ZINC ION (three-letter code: ZN) (formula: Zn).


Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
17	J	1	Total	Zn	0	0
			1	1		
17	B	1	Total	Zn	0	0
			1	1		
17	I	2	Total	Zn	0	0
			2	2		
17	C	1	Total	Zn	0	0
			1	1		
17	V	1	Total	Zn	0	0
			1	1		
17	A	2	Total	Zn	0	0
			2	2		
17	N	1	Total	Zn	0	0
			1	1		
17	U	2	Total	Zn	0	0
			2	2		
17	X	1	Total	Zn	0	0
			1	1		
17	O	1	Total	Zn	0	0
			1	1		
17	L	1	Total	Zn	0	0
			1	1		
17	M	2	Total	Zn	0	0
			2	2		

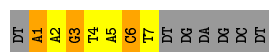


### 3 Residue-property plots [i](#)


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

- Molecule 1: 5'-D(\*TP\*AP\*AP\*GP\*TP\*AP\*CP\*TP\*TP\*GP \*AP\*GP\*CP\*T)-3'

Chain 1: 



- Molecule 1: 5'-D(\*TP\*AP\*AP\*GP\*TP\*AP\*CP\*TP\*TP\*GP \*AP\*GP\*CP\*T)-3'

Chain 4: 

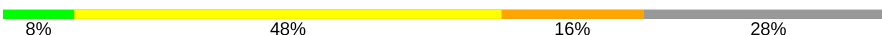


- Molecule 2: 5'-D(\*AP\*GP\*CP\*TP\*CP\*AP\*AP\*GP\*TP\*AP \*CP\*TP\*TP\*TP\*TTP\*CP\*CP\*BRUP\*GP\*GP\*TP\*CP\*AP\*TP\*T)-3'

Chain 2: 



- Molecule 2: 5'-D(\*AP\*GP\*CP\*TP\*CP\*AP\*AP\*GP\*TP\*AP \*CP\*TP\*TP\*TP\*TTP\*CP\*CP\*BRUP\*GP\*GP\*TP\*CP\*AP\*TP\*T)-3'

Chain 5: 



- Molecule 3: 5'-R(\*UP\*UP\*CP\*GP\*AP\*CP\*CP\*AP\*GP\*GP\*AP)-3'

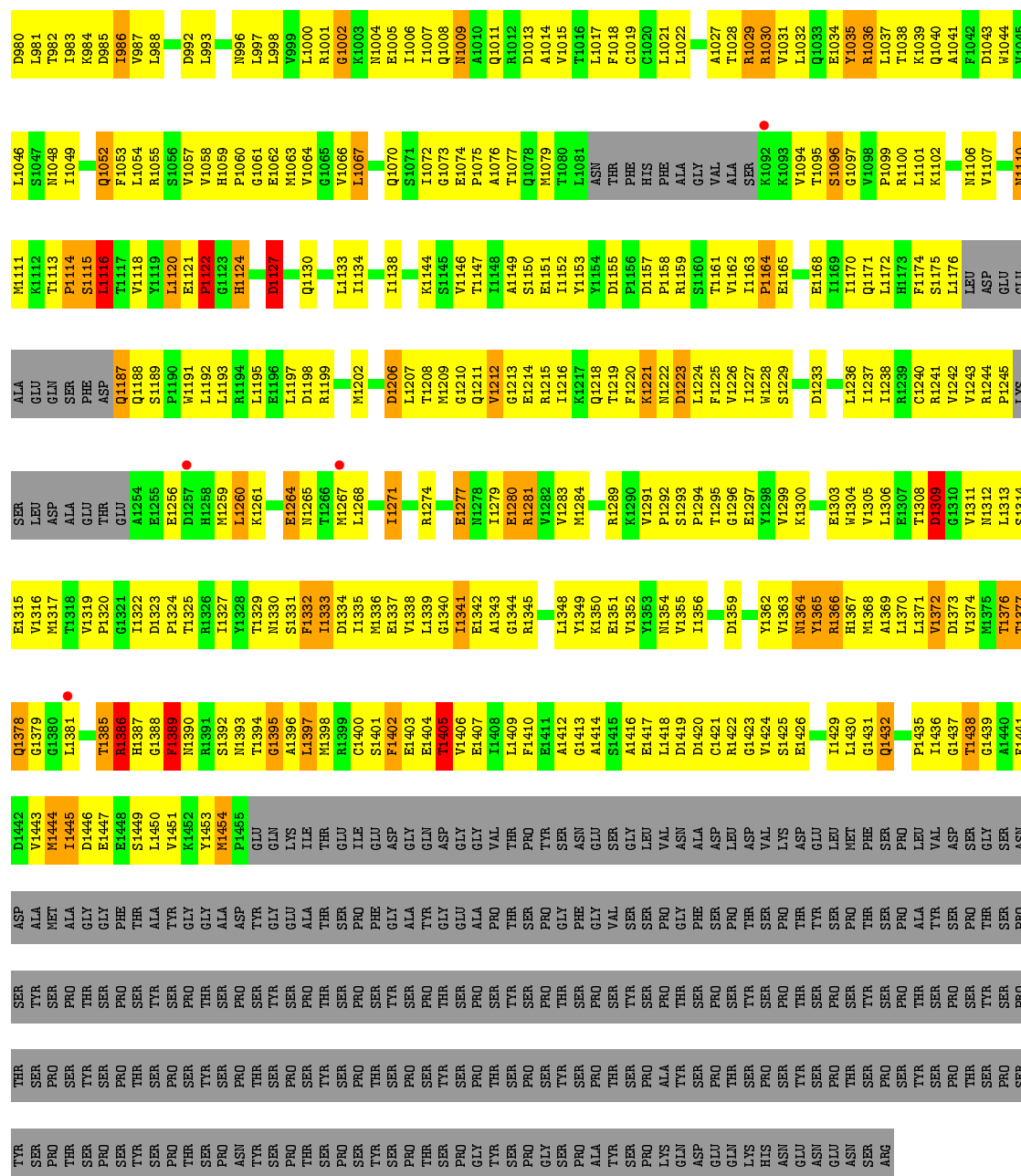
Chain 3: 



- Molecule 3: 5'-R(\*UP\*UP\*CP\*GP\*AP\*CP\*CP\*AP\*GP\*GP\*AP)-3'

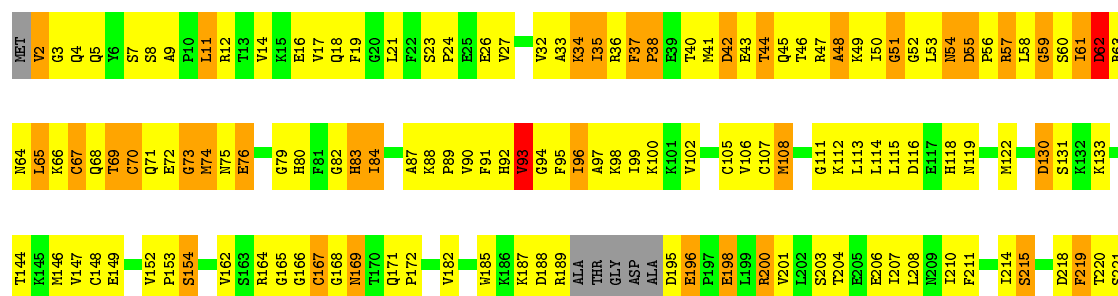
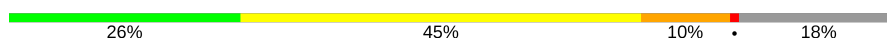
Chain 6: 





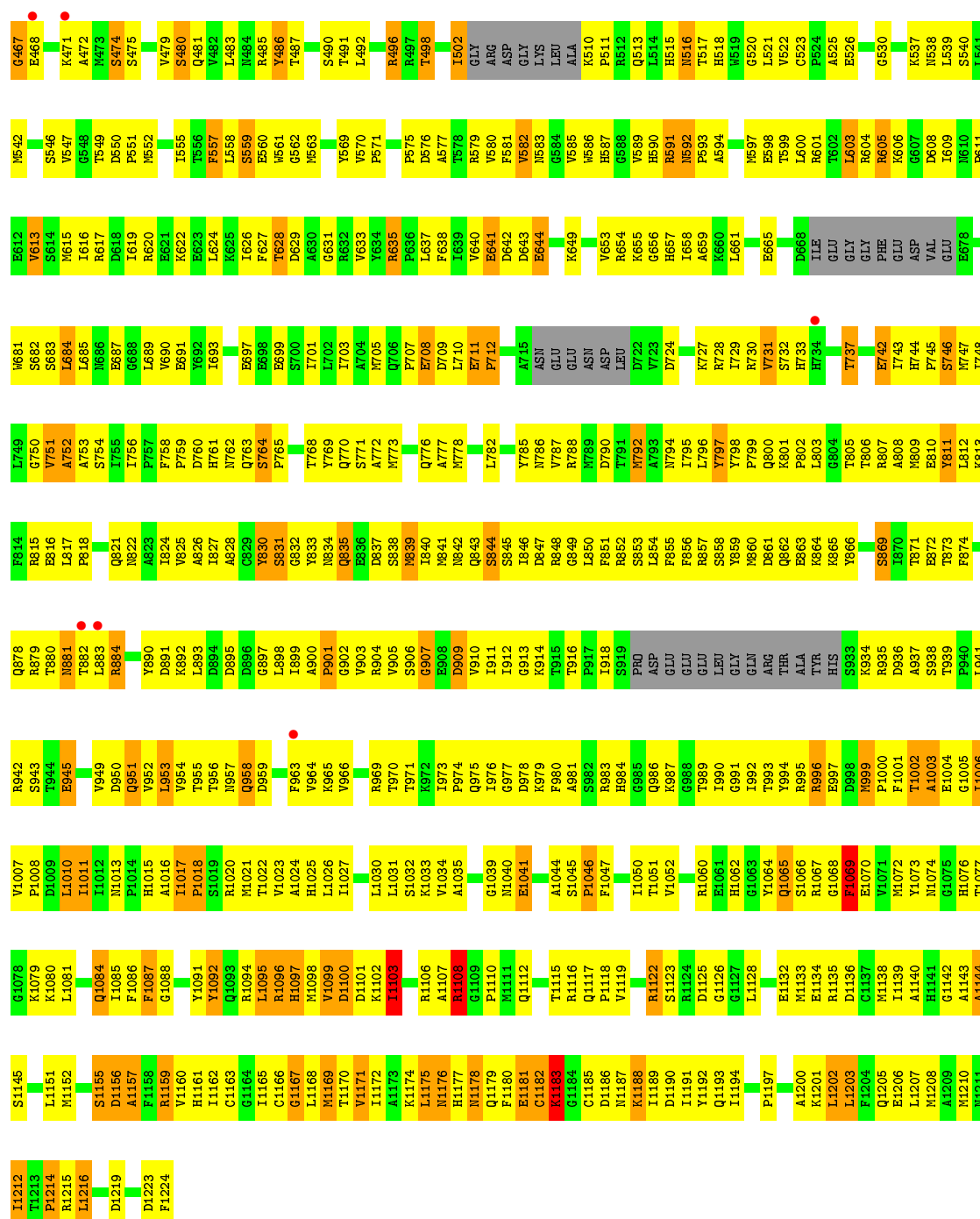
# Molecule 4: DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT

Chain M:

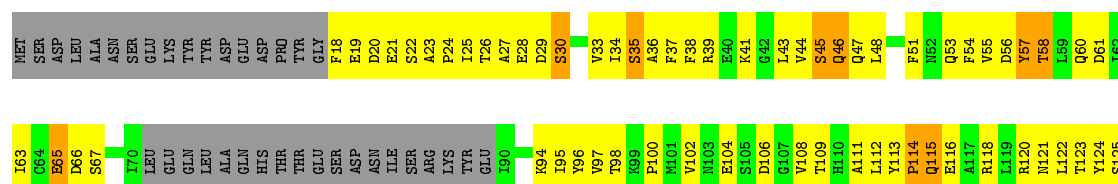


L1176	L1106	D1043	T976	D900	1837	W765	V690	E618	L547	F482	A421	R350	A284	L222
LEU	V1107	L1046	S979	L901	Q838	G766	T694	K619	M548	D483	G422	T351	P285	G223
ASP		L1047	D980	L902	R839	Q767	T694	K620	M549	D484	I423	V352	H286	F224
GLU	N1110	N1047	L981	T904	R840	Q768	T694	T621	M550	D485	I424	I353	H287	N235
ALA	K1112	N1048	T982	D905	R842	R774	E696	G622	M551	E486	Q425	S354	A288	E226
GLU	T1113	L1049	L983	H906	R843	L775	Q698	G623	M552	G623	A697	G355	L289	V227
GLN	P1114	E1050	K984	H907	K844	L776	Q699	S624	M553	M488	Q427	D356	E290	F228
SER	S1115	A1051	D985	L908	L845	F779	A699	S625	T560	L489	Y428	P357	E291	S229
ASP	L1116	Q1052	L986		L846	W780	M700	M626	P561	H490	G429	N358	R230	R330
ASP	T1117	Q1053	L987	L913	D847	D781	L701	V491	T562	V491	W430	D362	Q297	P231
Q1187	V1118	L1054	L988	E914	R848	R782	T709	Q493	T563	Q493	K431	D363	F298	E232
Q1188	Y1119	R1055		S915	R849	T783	T710	Q494	E584	V300	V364	Q363	H299	M233
S1189	L1120	S1056	D992	S915	R849	L784	R711	V632	E585	R434	G365	V366	V300	M234
P1190	E1121	V1057	L993	L919	T852	T785	E712	V633	E586	R435	T497	P367	T302	L236
W1191	P1122	V1058		L920	D853	W786	S713	T634	K567	D438	D438	P368	Y303	
L1192	G1123	H1059	N996	G921	R854	F787	E714	R635	P568	M439	D439	K369	M304	L239
H1124	H1124	P1060	L997	D922	R855	W788	E715	E636	P569	R305	D305	S369	D305	P240
R1194	G1061	T856	L998		T856	K789			P570	I370	N306	I370	N306	V241
L1195	E1062	R857		Q926	R857		V718	P639	L571	D440	D440	A371	D367	P242
E1196	M1063	R858		L929	R858	F794	W719	Q640	M572	V442	V442	K372	I308	P243
L1197	V1064	S859		L929	S859	E795	R720	L645	S573	L443	L443	T381	A309	P244
D1198	G1085	L860		E932	R861	S796	F721	G574	G574	F444	F444	G310	G310	P245
R1199	V1066	N1004		Y933	R862	K797	L722	F646	K575	N445	N445	P382	Q311	V246
	L1067	E1005		Y933	R863	G798	N723	G647	L509	R446	R446	Y383	P312	R247
		I1006			V863	F799	E724	M648	Q510	Q447	Q447	N384	Q313	P248
		I1007			R864	W800	A725	P649	P511	P449	P449	I385	A314	S249
		Q1008			R865	E801		P650	V512	S449	S449	D386	L315	I250
		N1009			R866	N802	K728	G650	S513	L450	L450	K316	L316	P251
		A1010			R867	S803	W729	P514	P514	H481	H481	K317	F252	F252
		G1073			R868	Y804	G730	G653	Q515	K452	K452	S318	N253	N253
		E1074			R869	L805	R731	M654	S516	M453	M453	V392	E254	E254
		P1075			R870	F855	L732	P655	L588	S464	S464	N321	S255	S255
		A1076			R871	Q807		P656	Q589	M456	M456	N394	Q256	Q256
		Q1077			R872	L808	V735	L657	R590	A457	A457	G323	G257	G257
		Q1078			R873	T809		L658	F591	G520	G520	K324	E258	E258
		M1079			D874		N736		M521	H458	H458	I325	S324	S324
		T1080			A875		L737		D592	R459	R459	I326	R326	D260
		L1081				E812	K738	G661	G522	V460	V460	R399	A327	D261
ASN		A876				F813	D739	P662	I523	P400	P400	G401		T263
THR		R877				F814	L740	S663	T596	K461	K461	I406	I336	I269
PHE		L878				F815	N741	T664	L597	V462	V462	D408	R337	L270
HIS						H816	N742	G665	L598	I463	I463	K403	K332	K265
PHE						A817	V743	G666	S599	P464	P464	Y404	K333	L266
ALA						M818	K744	G667	P600	Y465	Y465	V405	G334	A267
GLY							Q745		K601	S466	S466	I406	R335	D268
VAL						R821	V747	T670	D602	T467	T467	R407	I336	I269
ALA						E822		A671	N603	F468	F468	D408	R337	L270
SER						G823		D672	G604	R469	R469	S409	G338	G338
K1092						L824	G753	G673	M605	L470	L470	G410	N339	N339
						T825	S754	P674	L606	N471	N471	D411	L340	L340
						D826	F755	T675	L607	L472	L472	R412	M341	M341
						T827	V756		P608	S473	S473	I413	G342	G342
						A828	N757		D609	V474	V474	D414	K343	L276
						W829	T758		G610	T475	T475	L415	R344	E277
						K830	A759		I541	S476	S476	L415	V345	L278
						T831	Q760		P542	P477	P477	R416	V346	L279
							R761		L613	Y478	Y478	S417	D346	E280
							S762		G615	N479	N479	S418	F347	E281
							T834		P616	A480	A480	K419	S348	N282
							G835		V616	V546	V546	R420	G283	G283
							C764		V617				A349	

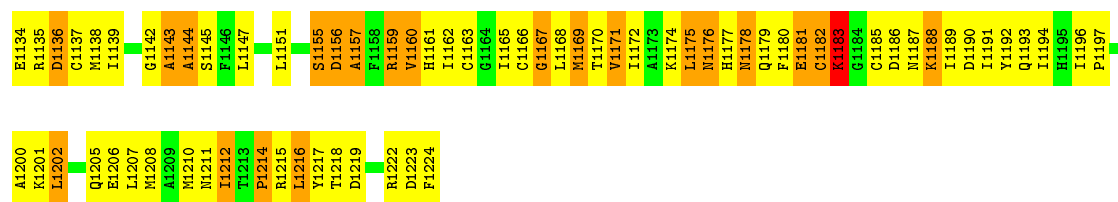




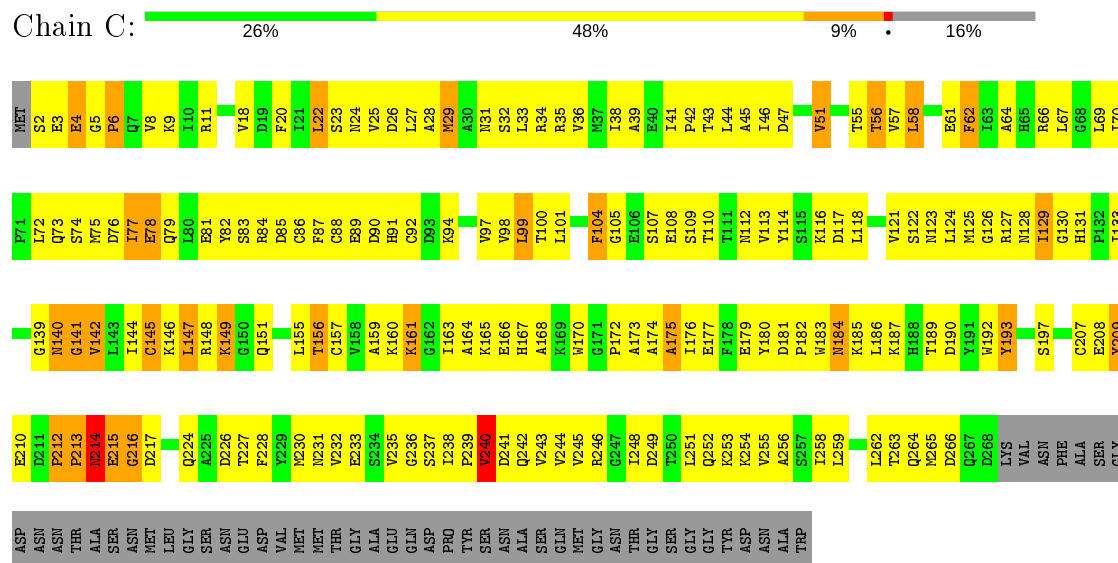
• Molecule 5: DNA-DIRECTED RNA POLYMERASE II 140 KDA POLYPEPTIDE



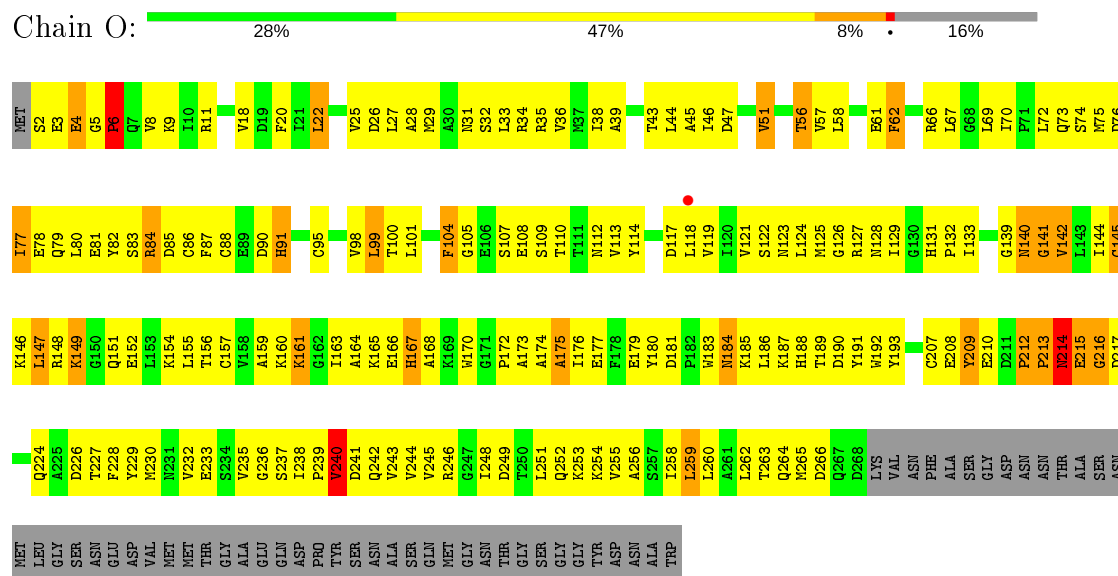
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HIS	S933	K934	R935	D936	A937	S938	R939	E940	L941	R942	S943	E945		I948	V949	I950	Q951	L952	L953	V954	T955	T956	N957	Q958	P1018	P1019	P1020	P1021	P1022	P1023	P1024	P1025	P1026	P1027	P1028	P1029	P1030	P1031	P1032	P1033	P1034	P1035	P1036	P1037	P1038	P1039	P1040	P1041	P1042	P1043	P1044	P1045	P1046	P1047	P1048	P1049	P1050	P1051	P1052	P1053	P1054	P1055	P1056	P1057	P1058	P1059	P1060	P1061	P1062	P1063	P1064	P1065	P1066																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
K864	R865	Y866	S869	L870	T871	E872	F873	F874	P877	Q878	R879	T880	N881	T882	T883	L884	D891	R892	L893	T895	T896	N897	Q898	L899	L900	F901	G902	H903	H904	H905	H906	H907	H908	H909	H910	H911	H912	H913	H914	H915	H916	H917	H918	H919	H920	H921	H922	H923	H924	H925	H926	H927	H928	H929	H930	H931	H932	H933	H934	H935	H936	H937	H938	H939	H940	H941	H942	H943	H944	H945	H946	H947	H948	H949	H950	H951	H952	H953	H954	H955	H956	H957	H958	H959	H960	H961	H962	H963	H964	H965	H966	H967	H968	H969	H970	H971	H972	H973	H974	H975	H976	H977	H978	H979	H980	H981	H982	H983	H984	H985	H986	H987	H988	H989	H990	H991	H992	H993	H994	H995	H996	H997	H998	H999	H1000	H1001	H1002	H1003	H1004	H1005	H1006	H1007	H1008	H1009	H1010	H1011	H1012	H1013	H1014	H1015	H1016	H1017	H1018	H1019	H1020	H1021	H1022	H1023	H1024	H1025	H1026	H1027	H1028	H1029	H1030	H1031	H1032	H1033	H1034	H1035	H1036	H1037	H1038	H1039	H1040	H1041	H1042	H1043	H1044	H1045	H1046	H1047	H1048	H1049	H1050	H1051	H1052	H1053	H1054	H1055	H1056	H1057	H1058	H1059	H1060	H1061	H1062	H1063	H1064	H1065	H1066	H1067	H1068	H1069	H1070	H1071	H1072	H1073	H1074	H1075	H1076	H1077	H1078	H1079	H1080	H1081	H1082	H1083	H1084	H1085	H1086	H1087	H1088	H1089	H1090	H1091	H1092	H1093	H1094	H1095	H1096	H1097	H1098	H1099	H1100	H1101	H1102	H1103	H1104	H1105	H1106	H1107	H1108	H1109	H1110	H1111	H1112	H1113	H1114	H1115	H1116	H1117	H1118	H1119	H1120	H1121	H1122	H1123	H1124	H1125	H1126	H1127	H1128	H1129	H1130	H1131	H1132	H1133	H1134	H1135	H1136	H1137	H1138	H1139	H1140	H1141	H1142	H1143	H1144	H1145	H1146	H1147	H1148	H1149	H1150	H1151	H1152	H1153	H1154	H1155	H1156	H1157	H1158	H1159	H1160	H1161	H1162	H1163	H1164	H1165	H1166	H1167	H1168	H1169	H1170	H1171	H1172	H1173	H1174	H1175	H1176	H1177	H1178	H1179	H1180	H1181	H1182	H1183	H1184	H1185	H1186	H1187	H1188	H1189	H1190	H1191	H1192	H1193	H1194	H1195	H1196	H1197	H1198	H1199	H1200	H1201	H1202	H1203	H1204	H1205	H1206	H1207	H1208	H1209	H1210	H1211	H1212	H1213	H1214	H1215	H1216	H1217	H1218	H1219	H1220	H1221	H1222	H1223	H1224	H1225	H1226	H1227	H1228	H1229	H1230	H1231	H1232	H1233	H1234	H1235	H1236	H1237	H1238	H1239	H1240	H1241	H1242	H1243	H1244	H1245	H1246	H1247	H1248	H1249	H1250	H1251	H1252	H1253	H1254	H1255	H1256	H1257	H1258	H1259	H1260	H1261	H1262	H1263	H1264	H1265	H1266	H1267	H1268	H1269	H1270	H1271	H1272	H1273	H1274	H1275	H1276	H1277	H1278	H1279	H1280	H1281	H1282	H1283	H1284	H1285	H1286	H1287	H1288	H1289	H1290	H1291	H1292	H1293	H1294	H1295	H1296	H1297	H1298	H1299	H1300	H1301	H1302	H1303	H1304	H1305	H1306	H1307	H1308	H1309	H1310	H1311	H1312	H1313	H1314	H1315	H1316	H1317	H1318	H1319	H1320	H1321	H1322	H1323	H1324	H1325	H1326	H1327	H1328	H1329	H1330	H1331	H1332	H1333	H1334	H1335	H1336	H1337	H1338	H1339	H1340	H1341	H1342	H1343	H1344	H1345	H1346	H1347	H1348	H1349	H1350	H1351	H1352	H1353	H1354	H1355	H1356	H1357	H1358	H1359	H1360	H1361	H1362	H1363	H1364	H1365	H1366	H1367	H1368	H1369	H1370	H1371	H1372	H1373	H1374	H1375	H1376	H1377	H1378	H1379	H1380	H1381	H1382	H1383	H1384	H1385	H1386	H1387	H1388	H1389	H1390	H1391	H1392	H1393	H1394	H1395	H1396	H1397	H1398	H1399	H1400	H1401	H1402	H1403	H1404	H1405	H1406	H1407	H1408	H1409	H1410	H1411	H1412	H1413	H1414	H1415	H1416	H1417	H1418	H1419	H1420	H1421	H1422	H1423	H1424	H1425	H1426	H1427	H1428	H1429	H1430	H1431	H1432	H1433	H1434	H1435	H1436	H1437	H1438	H1439	H1440	H1441	H1442	H1443	H1444	H1445	H1446	H1447	H1448	H1449	H1450	H1451	H1452	H1453	H1454	H1455	H1456	H1457	H1458	H1459	H1460	H1461	H1462	H1463	H1464	H1465	H1466	H1467	H1468	H1469	H1470	H1471	H1472	H1473	H1474	H1475	H1476	H1477	H1478	H1479	H1480	H1481	H1482	H1483	H1484	H1485	H1486	H1487	H1488	H1489	H1490	H1491	H1492	H1493	H1494	H1495	H1496	H1497	H1498	H1499	H1500	H1501	H1502	H1503	H1504	H1505	H1506	H1507	H1508	H1509	H1510	H1511	H1512	H1513	H1514	H1515	H1516	H1517	H1518	H1519	H1520	H1521	H1522	H1523	H1524	H1525	H1526	H1527	H1528	H1529	H1530	H1531	H1532	H1533	H1534	H1535	H1536	H1537	H1538	H1539	H1540	H1541	H1542	H1543	H1544	H1545	H1546	H1547	H1548	H1549	H1550	H1551	H1552	H1553	H1554	H1555	H1556	H1557	H1558	H1559	H1560	H1561	H1562	H1563	H1564	H1565	H1566	H1567	H1568	H1569	H1570	H1571	H1572	H1573	H1574	H1575	H1576	H1577	H1578	H1579	H1580	H1581	H1582	H1583	H1584	H1585	H1586	H1587	H1588	H1589	H1590	H1591	H1592	H1593	H1594	H1595	H1596	H1597	H1598	H1599	H1600	H1601	H1602	H1603	H1604	H1605	H1606	H1607	H1608	H1609	H1610	H1611	H1612	H1613	H1614	H1615	H1616	H1617	H1618	H1619	H1620	H1621	H1622	H1623	H1624	H1625	H1626	H1627	H1628	H1629	H1630	H1631	H1632	H1633	H1634	H1635	H1636	H1637	H1638	H1639	H1640	H1641	H1642	H1643	H1644	H1645	H1646	H1647	H1648	H1649	H1650	H1651	H1652	H1653	H1654	H1655	H1656	H1657	H1658	H1659	H1660	H1661	H1662	H1663	H1664	H1665	H1666	H1667	H1668	H1669	H1670	H1671	H1672	H1673	H1674	H1675	H1676	H1677	H1678	H1679	H1680	H1681	H1682	H1683	H1684	H1685	H1686	H1687	H1688	H1689	H1690	H1691	H1692	H1693	H1694	H1695	H1696	H1697	H1698	H1699	H1700	H1701	H1702	H1703	H1704	H1705	H1706	H1707	H1708	H1709	H1710	H1711	H1712	H1713	H1714	H1715	H1716	H1717	H1718	H1719	H1720	H1721	H1722	H1723	H1724	H1725	H1726	H1727	H1728	H1729	H1730	H1731	H1732	H1733	H1734	H1735	H1736	H1737	H1738	H1739	H1740	H1741	H1742	H1743	H1744	H1745	H1746	H1747	H1748	H1749	H1750	H1751	H1752	H1753	H1754	H1755	H1756	H1757	H1758	H1759	H1760	H1761	H1762	H1763	H1764	H1765	H1766	H1767	H1768	H1769	H1770	H1771	H1772	H1773	H1774	H1775	H1776	H1777	H1778	H1779	H1780	H1781	H1782	H1783	H1784	H1785	H1786	H1787	H1788	H1789	H1790	H1791	H1792	H1793	H1794	H1795	H1796	H1797	H1798	H1799	H1800	H1801	H1802	H1803	H1804	H1805	H1806	H1807	H1808	H1809	H1810	H1811	H1812	H1813	H1814	H1815	H1816	H1817	H1818	H1819	H1820	H1821	H1822	H1823	H1824	H1825	H1826	H1827	H1828	H1829	H1830	H1831	H1832	H1833	H1834	H1835	H1836	H1837	H1838	H1839	H1840	H1841	H1842	H1843	H1844	H1845	H1846	H1847	H1848	H1849	H1850	H1851	H1852	H1853	H1854	H1855	H1856	H1857	H1858	H1859	H1860	H1861	H1862	H1863	H1864	H1865	H1866	H1867	H1868	H1869	H1870	H1871	H1872	H1873	H1874	H1875	H1876	H1877	H1878	H1879	H1880	H1881	H1882	H1883	H1884	H1885	H1886	H1887	H1888	H1889	H1890	H1891	H1892	H1893	H1894	H1895	H1896	H1897	H1898	H1899	H1900	H1901	H1902	H1903	H1904	H1905	H1906	H1907	H1908	H1909	H1910	H1911	H1912	H1913	H1914	H1915	H1916	H1917	H1918	H1919	H1920	H1921	H1922	H1923	H1924	H1925	H1926	H1927	H1928	H1929	H1930	H1931	H1932	H1933	H1934	H1935	H1936	H1937	H1938	H1939	H1940	H1941	H1942	H1943	H1944	H1945	H1946	H1947	H1948	H1949	H1950	H1951	H1952	H1953	H1954	H1955	H1956	H1957	H1958	H1959	H1960	H1961	H1962	H1963	H1964	H1965	H1966	H1967	H1968	H1969	H1970	H1971	H1972	H1973	H1974	H1975	H1976	H1977	H1978	H1979	H1980	H1981	H1982	H1983	H1984	H1985	H1986	H1987	H1988	H1989	H1990	H1991	H1992	H1993	H1994	H1995	H1996	H1997	H1998	H1999	H2000	H2001	H2002	H2003	H2004	H2005	H2006	H2007	H2008	H2009	H2010	H2011	H2012	H2013	H2014	H2015	H2016	H2017	H2018	H2019	H2020	H2021	H2022	H2023	H2024	H2025	H2026	H2027	H2028	H2029	H2030	H2031	H2032	H2033	H2034	H2035	H2036	H2037	H2038	H2039	H2040	H2041	H2042	H2043	H2044	H2045	H2046	H2047	H2048	H2049	H2050	H2051	H2052	H2053	H2054	H2055	H2056	H2057	H2058	H2059	H2060	H2061	H2062	H2063	H2064	H2065	H2066	H2067	H2068	H2069	H2070	H2071	H2072	H2073	H2074	H2075	H2076	H2077	H2078	H2079	H2080	H2081	H2082	H2083	H2084	H2085	H2086	H2087	H2088	H2089	H2090	H2091	H2092	H2093	H2094	H2095	H2096	H2097	H2098	H2099	H2100	H2101	H2102	H2103	H2104	H2105	H2106	H2107	H2108	H2109	H2110	H2111	H2112	H2113	H2114	H2115	H2116	H2117	H2118	H2119	H2120	H2121	H2122	H2123	H2124	H2125	H2126	H2127	H2128	H2129	H2130	H2131	H2132	H2133	H2134



• Molecule 6: DNA-DIRECTED RNA POLYMERASE II 45KDA POLYPEPTIDE



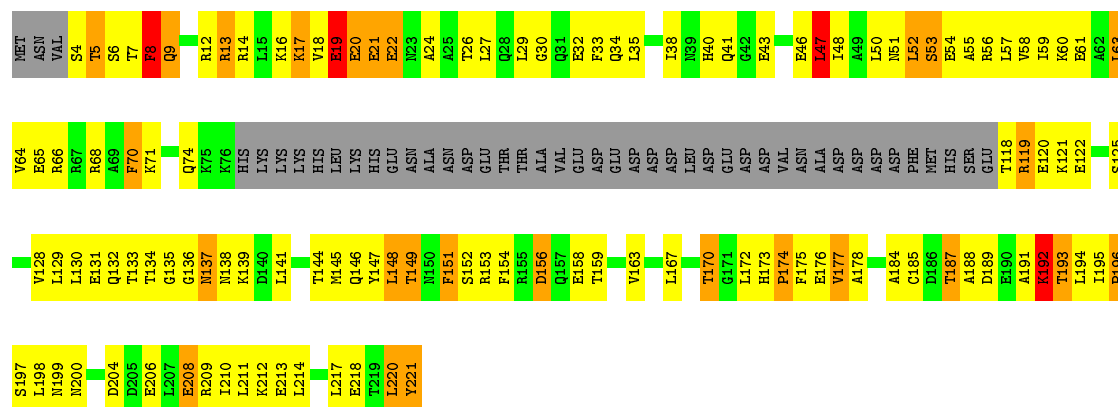
• Molecule 6: DNA-DIRECTED RNA POLYMERASE II 45KDA POLYPEPTIDE



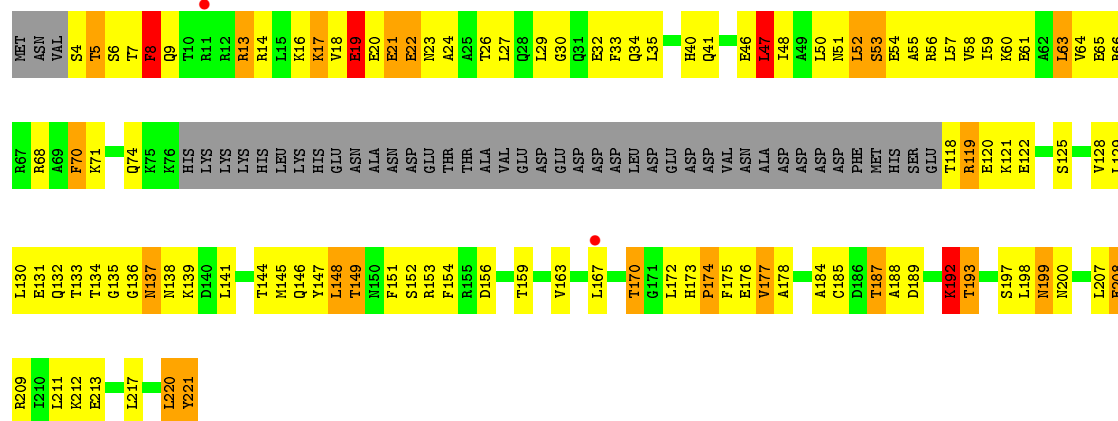
• Molecule 7: DNA-DIRECTED RNA POLYMERASE II 32KDA POLYPEPTIDE



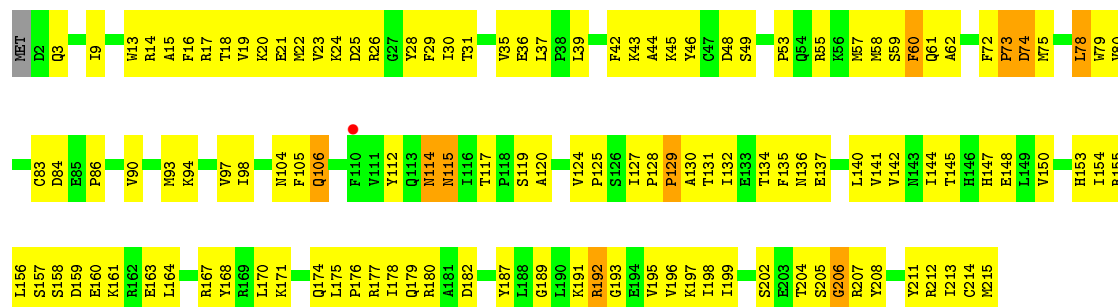




• Molecule 7: DNA-DIRECTED RNA POLYMERASE II 32KDA POLYPEPTIDE



• Molecule 8: DNA-DIRECTED RNA POLYMERASES I, II, AND III 27 KDA POLYPEPTIDE

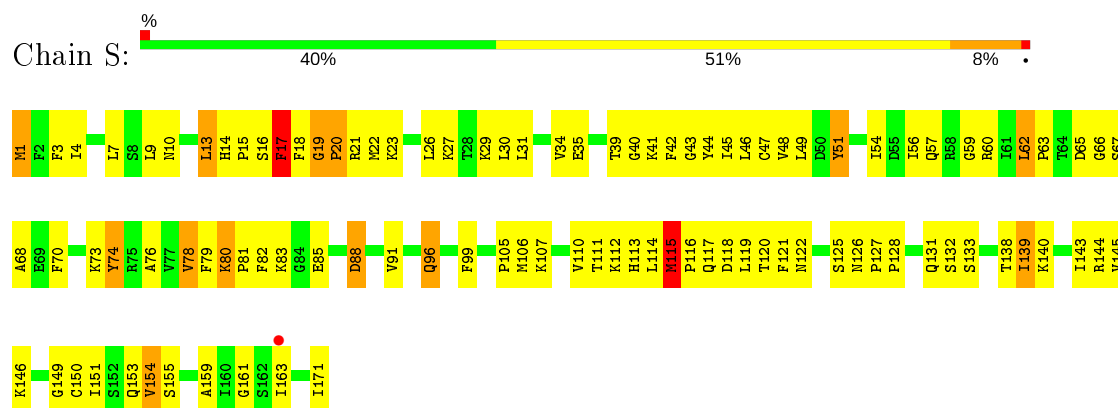


• Molecule 8: DNA-DIRECTED RNA POLYMERASES I, II, AND III 27 KDA POLYPEPTIDE

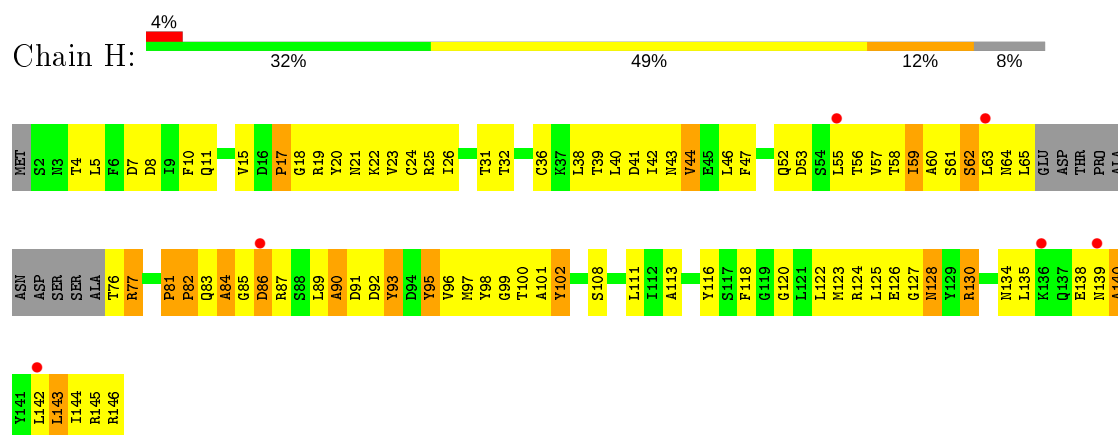




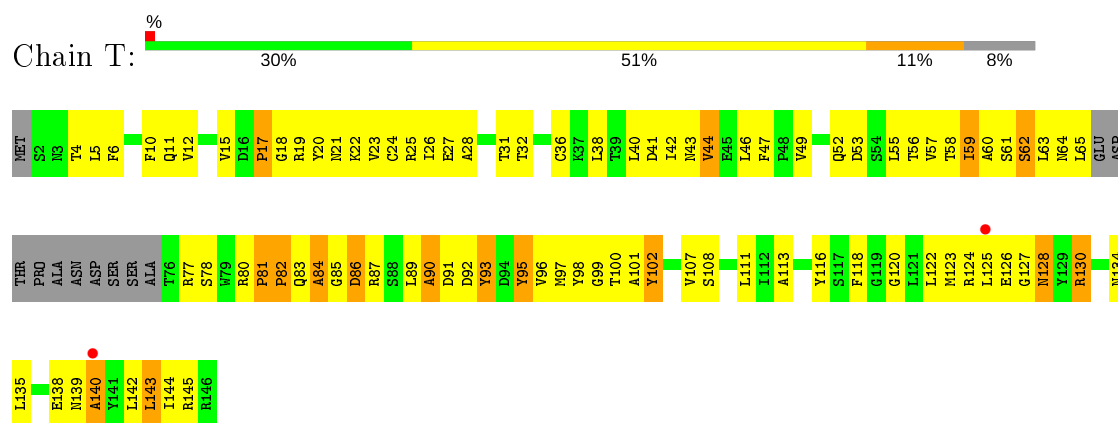
• Molecule 10: DNA-DIRECTED RNA POLYMERASE II 19KDA POLYPEPTIDE



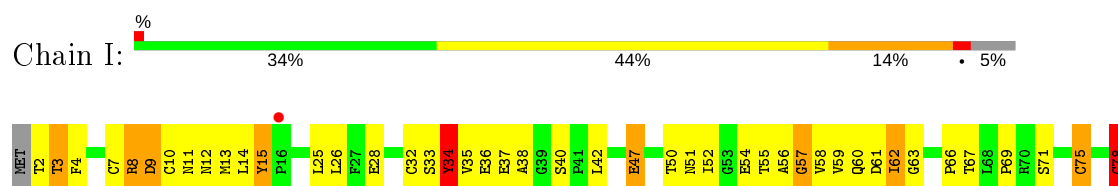
• Molecule 11: DNA-DIRECTED RNA POLYMERASES I, II, AND III 14.5 KDA POLYPEPTIDE



• Molecule 11: DNA-DIRECTED RNA POLYMERASES I, II, AND III 14.5 KDA POLYPEPTIDE



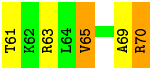
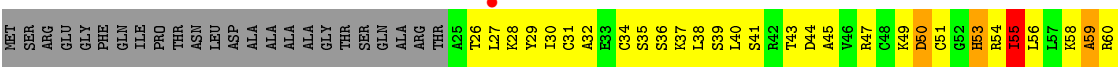
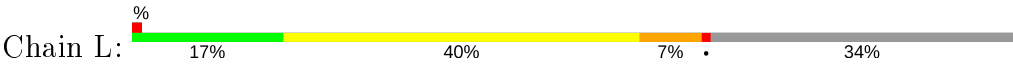
• Molecule 12: DNA-DIRECTED RNA POLYMERASE II SUBUNIT 9



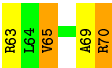
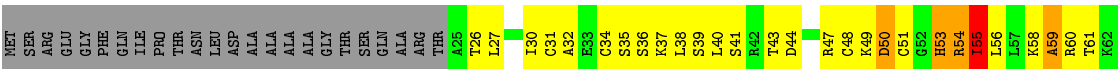
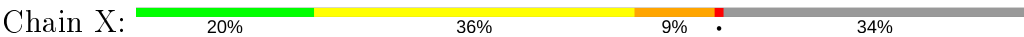




• Molecule 15: DNA-DIRECTED RNA POLYMERASES I, II, AND III 7.7 KDA POLYPEPTIDE



• Molecule 15: DNA-DIRECTED RNA POLYMERASES I, II, AND III 7.7 KDA POLYPEPTIDE



## 4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	394.36Å 221.86Å 283.11Å 90.00° 90.56° 90.00°	Depositor
Resolution (Å)	50.00 – 3.80 48.96 – 3.80	Depositor EDS
% Data completeness (in resolution range)	98.1 (50.00-3.80) 96.7 (48.96-3.80)	Depositor EDS
$R_{merge}$	0.10	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.76 (at 3.77Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, $R_{free}$	0.257 , 0.275 0.216 , 0.229	Depositor DCC
$R_{free}$ test set	9042 reflections (1.95%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	116.2	Xtriage
Anisotropy	0.457	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.27 , 51.3	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.45$ , $\langle L^2 \rangle = 0.28$	Xtriage
Estimated twinning fraction	0.024 for -1/2*h-3/2*k,-1/2*h+1/2*k,-l 0.024 for -1/2*h+3/2*k,1/2*h+1/2*k,-l 0.024 for 1/2*h-3/2*k,-1/2*h-1/2*k,-l 0.020 for 1/2*h+3/2*k,1/2*h-1/2*k,-l 0.308 for -h,-k,l	Xtriage
$F_o, F_c$ correlation	0.92	EDS
Total number of atoms	63924	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	104.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.93% 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, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: MG, ZN, BRU, TT

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	1	1.37	0/158	1.57	3/242 (1.2%)
1	4	1.35	0/158	1.58	3/242 (1.2%)
2	2	1.47	1/357 (0.3%)	1.42	3/544 (0.6%)
2	5	1.46	1/357 (0.3%)	1.40	4/544 (0.7%)
3	3	1.55	4/237 (1.7%)	2.20	8/368 (2.2%)
3	6	1.59	4/237 (1.7%)	2.10	8/368 (2.2%)
4	A	0.48	0/11385	0.73	2/15393 (0.0%)
4	M	0.48	0/11385	0.73	2/15393 (0.0%)
5	B	0.47	0/9037	0.70	3/12181 (0.0%)
5	N	0.46	0/9037	0.70	2/12181 (0.0%)
6	C	0.48	0/2138	0.71	0/2896
6	O	0.50	0/2138	0.71	0/2896
7	D	0.44	0/1437	0.67	0/1925
7	P	0.46	0/1437	0.68	0/1925
8	E	0.43	0/1788	0.63	0/2406
8	Q	0.43	0/1788	0.63	0/2406
9	F	0.55	0/716	0.77	0/964
9	R	0.55	0/716	0.75	0/964
10	G	0.52	0/1368	0.74	0/1844
10	S	0.52	0/1368	0.74	0/1844
11	H	0.40	0/1102	0.65	0/1492
11	T	0.40	0/1102	0.65	0/1492
12	I	0.39	0/962	0.69	0/1295
12	U	0.41	0/962	0.69	0/1295
13	J	0.49	0/541	0.77	0/727
13	V	0.52	0/541	0.79	1/727 (0.1%)
14	K	0.92	6/937 (0.6%)	1.00	11/1265 (0.9%)
14	W	0.93	6/937 (0.6%)	0.99	11/1265 (0.9%)
15	L	0.43	0/366	0.71	0/485
15	X	0.45	0/366	0.72	0/485
All	All	0.53	22/65058 (0.0%)	0.76	61/88054 (0.1%)

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
2	2	0	2
2	5	0	1
5	B	0	1
5	N	0	1
All	All	0	5

All (22) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	W	112	GLN	CA-C	10.22	1.79	1.52
14	K	112	GLN	CA-C	10.06	1.79	1.52
14	W	113	THR	N-CA	9.11	1.64	1.46
14	K	113	THR	N-CA	9.06	1.64	1.46
14	W	112	GLN	N-CA	8.71	1.63	1.46
14	W	112	GLN	CB-CG	8.69	1.76	1.52
14	K	112	GLN	N-CA	8.63	1.63	1.46
14	K	112	GLN	CB-CG	8.46	1.75	1.52
3	6	2	C	C5-C6	7.77	1.40	1.34
3	3	2	C	C5-C6	7.32	1.40	1.34
14	W	112	GLN	CG-CD	7.19	1.67	1.51
14	K	112	GLN	CG-CD	6.89	1.67	1.51
14	W	113	THR	CA-C	6.55	1.70	1.52
14	K	113	THR	CA-C	6.54	1.70	1.52
3	3	3	G	P-OP2	6.00	1.59	1.49
3	6	3	G	P-OP2	5.76	1.58	1.49
3	3	2	C	C4'-C3'	5.54	1.59	1.53
2	2	27	DA	C3'-O3'	-5.50	1.36	1.44
2	5	27	DA	C3'-O3'	-5.47	1.36	1.44
3	3	2	C	C3'-O3'	5.25	1.49	1.42
3	6	10	A	N9-C4	-5.18	1.34	1.37
3	6	2	C	C4'-C3'	5.09	1.58	1.53

All (61) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	3	2	C	OP2-P-O3'	-22.50	55.69	105.20
3	3	3	G	O5'-P-OP2	22.31	137.47	110.70
3	6	3	G	O5'-P-OP2	21.67	136.70	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	6	2	C	OP2-P-O3'	-20.00	61.20	105.20
14	W	113	THR	N-CA-C	9.88	137.68	111.00
14	K	113	THR	N-CA-C	9.81	137.48	111.00
1	4	6	DC	OP2-P-O3'	9.72	126.59	105.20
1	1	6	DC	OP2-P-O3'	9.71	126.57	105.20
1	4	1	DA	OP2-P-O3'	8.87	124.72	105.20
14	W	112	GLN	N-CA-C	8.82	134.81	111.00
1	1	1	DA	OP2-P-O3'	8.77	124.49	105.20
14	K	112	GLN	N-CA-C	8.55	134.08	111.00
3	3	2	C	OP1-P-O3'	8.53	123.96	105.20
3	6	2	C	OP1-P-O3'	8.00	122.80	105.20
3	3	10	A	N9-C1'-C2'	-7.90	103.31	112.00
3	6	2	C	C4'-C3'-O3'	7.78	128.56	113.00
3	3	2	C	O3'-P-O5'	-7.69	89.38	104.00
2	2	15	DT	O4'-C4'-C3'	-7.59	101.45	106.00
2	5	15	DT	O4'-C4'-C3'	-7.52	101.48	106.00
3	3	2	C	C4'-C3'-O3'	7.52	128.04	113.00
14	K	114	LEU	N-CA-C	7.49	131.21	111.00
14	K	114	LEU	CB-CG-CD1	7.32	123.44	111.00
3	6	10	A	N9-C1'-C2'	-7.30	103.97	112.00
14	W	114	LEU	CB-CG-CD1	7.21	123.25	111.00
14	W	114	LEU	N-CA-C	7.15	130.30	111.00
3	6	2	C	O3'-P-O5'	-6.96	90.77	104.00
14	K	114	LEU	CA-C-O	-6.74	105.95	120.10
14	W	114	LEU	CA-C-O	-6.45	106.55	120.10
14	K	111	LEU	N-CA-C	6.01	127.22	111.00
14	W	111	LEU	N-CA-C	6.01	127.22	111.00
4	M	509	LEU	CA-CB-CG	-5.91	101.72	115.30
5	N	1185	CYS	N-CA-C	-5.89	95.09	111.00
2	5	27	DA	O3'-P-O5'	-5.85	92.89	104.00
14	K	112	GLN	CA-C-N	5.77	129.89	117.20
4	A	567	LYS	C-N-CD	5.72	140.41	128.40
2	2	27	DA	O3'-P-O5'	-5.71	93.14	104.00
14	W	112	GLN	CA-C-N	5.63	129.59	117.20
4	A	509	LEU	CA-CB-CG	-5.61	102.39	115.30
5	B	1185	CYS	N-CA-C	-5.50	96.15	111.00
4	M	567	LYS	C-N-CD	5.49	139.92	128.40
1	4	3	DG	C5'-C4'-C3'	-5.46	104.28	114.10
3	3	1	U	C4'-C3'-O3'	-5.42	98.02	109.40
1	1	3	DG	C5'-C4'-C3'	-5.42	104.34	114.10
3	3	1	U	N1-C1'-C2'	5.42	121.04	114.00
14	K	111	LEU	CA-C-N	5.39	129.05	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	W	111	LEU	CA-C-N	5.37	129.00	117.20
14	K	112	GLN	N-CA-CB	-5.35	100.97	110.60
3	6	1	U	C4'-C3'-O3'	-5.35	98.17	109.40
14	W	112	GLN	N-CA-CB	-5.28	101.09	110.60
2	2	15	DT	C5'-C4'-C3'	5.26	123.56	114.10
13	V	10	CYS	CA-CB-SG	5.25	123.44	114.00
5	B	111	ALA	N-CA-C	-5.19	96.98	111.00
14	W	113	THR	CB-CA-C	-5.18	97.61	111.60
3	6	1	U	N1-C1'-C2'	5.18	120.73	114.00
14	K	113	THR	CB-CA-C	-5.13	97.75	111.60
2	5	15	DT	C5'-C4'-C3'	5.11	123.30	114.10
14	W	114	LEU	CA-CB-CG	5.09	127.01	115.30
2	5	25	DT	N1-C1'-C2'	5.08	122.26	112.60
5	N	111	ALA	N-CA-C	-5.03	97.42	111.00
5	B	1203	LEU	CA-CB-CG	-5.01	103.77	115.30
14	K	114	LEU	CA-CB-CG	5.00	126.81	115.30

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	2	20	DC	Sidechain
2	2	26	DC	Sidechain
2	5	20	DC	Sidechain
5	B	486	TYR	Sidechain
5	N	486	TYR	Sidechain

## 5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1	141	0	81	11	0
1	4	141	0	81	12	0
2	2	380	0	218	36	0
2	5	380	0	218	33	0
3	3	212	0	110	14	0
3	6	212	0	110	10	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	A	11186	0	11266	1277	0
4	M	11186	0	11266	1263	0
5	B	8866	0	8898	968	0
5	N	8866	0	8898	1006	0
6	C	2101	0	2055	256	0
6	O	2101	0	2055	237	0
7	D	1427	0	1451	142	0
7	P	1427	0	1451	144	0
8	E	1752	0	1776	131	0
8	Q	1752	0	1776	124	0
9	F	705	0	730	82	0
9	R	705	0	730	80	0
10	G	1340	0	1357	154	0
10	S	1340	0	1357	164	0
11	H	1084	0	1057	122	0
11	T	1084	0	1057	122	0
12	I	944	0	899	112	0
12	U	944	0	899	113	0
13	J	532	0	542	98	0
13	V	532	0	542	110	0
14	K	919	0	929	113	0
14	W	919	0	929	99	0
15	L	364	0	386	41	0
15	X	364	0	386	41	0
16	A	1	0	0	0	0
16	M	1	0	0	0	0
17	A	2	0	0	0	0
17	B	1	0	0	0	0
17	C	1	0	0	0	0
17	I	2	0	0	0	0
17	J	1	0	0	0	0
17	L	1	0	0	0	0
17	M	2	0	0	0	0
17	N	1	0	0	0	0
17	O	1	0	0	0	0
17	U	2	0	0	0	0
17	V	1	0	0	0	0
17	X	1	0	0	0	0
All	All	63924	0	63510	6519	0

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 51.

All (6519) 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)
14:W:112:GLN:CB	14:W:112:GLN:CG	1.76	1.59
14:K:112:GLN:CB	14:K:112:GLN:CG	1.75	1.56
14:K:112:GLN:CA	14:K:112:GLN:C	1.79	1.49
14:W:112:GLN:C	14:W:112:GLN:CA	1.79	1.47
4:A:855:THR:HG21	4:A:857:ARG:HE	1.09	1.18
5:B:336:ARG:HG2	5:B:348:ARG:HD3	1.27	1.16
5:B:343:ILE:HG23	5:B:347:LYS:HB2	1.15	1.15
5:B:273:LEU:HB2	5:B:276:ILE:HD12	1.29	1.14
8:Q:22:MET:HE3	8:Q:26:ARG:HH21	1.11	1.13
5:N:336:ARG:HG2	5:N:348:ARG:HD3	1.28	1.13
5:N:343:ILE:HG23	5:N:347:LYS:HB2	1.17	1.12
4:A:53:LEU:HD23	4:A:54:ASN:N	1.67	1.09
4:A:34:LYS:HE2	7:P:187:THR:HG21	1.35	1.09
4:A:34:LYS:HD3	4:A:57:ARG:HH22	1.03	1.09
4:M:53:LEU:HD23	4:M:54:ASN:N	1.67	1.09
13:V:3:VAL:HG21	13:V:18:TRP:HB2	1.35	1.08
13:J:5:VAL:HG12	13:J:6:ARG:HG3	1.36	1.06
4:M:855:THR:HG21	4:M:857:ARG:HE	1.05	1.06
4:M:53:LEU:HD23	4:M:54:ASN:H	0.92	1.06
5:N:273:LEU:HB2	5:N:276:ILE:HD12	1.30	1.06
10:G:138:THR:HG22	10:G:139:ILE:H	1.20	1.06
5:N:806:THR:HG22	5:N:808:ALA:H	1.17	1.06
13:V:5:VAL:HG12	13:V:6:ARG:HG3	1.26	1.06
4:A:53:LEU:HD23	4:A:54:ASN:H	0.92	1.06
4:M:34:LYS:HD3	4:M:57:ARG:NH2	1.71	1.05
4:A:1445:ILE:HD12	4:A:1445:ILE:H	1.20	1.05
5:B:589:VAL:HG12	5:B:590:HIS:H	1.22	1.04
4:M:1017:LEU:HB2	8:Q:206:GLY:H	1.23	1.04
5:B:214:ALA:HB3	5:B:498:THR:HA	1.38	1.04
4:M:40:THR:HG22	4:M:41:MET:HG3	1.40	1.04
8:E:22:MET:HE3	8:E:26:ARG:HH21	1.22	1.03
5:B:336:ARG:HH22	5:B:345:LYS:HE2	1.23	1.03
9:R:93:ILE:HD11	9:R:134:ILE:HD11	1.40	1.03
2:2:26:DC:H2''	2:2:27:DA:O5'	1.54	1.03
5:B:232:SER:HB3	5:B:261:ARG:HH21	1.15	1.03
6:O:66:ARG:NH1	13:V:2:ILE:HG21	1.73	1.03
5:N:589:VAL:HG12	5:N:590:HIS:H	1.24	1.03
4:A:1017:LEU:HB2	8:E:206:GLY:H	1.25	1.02
5:B:806:THR:HG22	5:B:808:ALA:H	1.20	1.02
4:A:40:THR:HG22	4:A:41:MET:HG3	1.41	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S:14:HIS:CD2	10:S:16:SER:HB2	1.95	1.01
4:A:567:LYS:HB3	11:H:96:VAL:H	1.24	1.01
4:M:754:SER:H	4:M:757:ASN:HD22	1.09	1.01
5:N:502:ILE:H	5:N:502:ILE:HD12	1.21	1.01
5:B:1201:LYS:HE2	5:B:1205:GLN:OE1	1.61	1.01
7:P:40:HIS:HB3	10:S:73:LYS:NZ	1.75	1.01
4:M:901:LEU:H	4:M:926:GLN:NE2	1.59	1.01
14:K:111:LEU:C	14:K:112:GLN:HG2	1.81	1.00
10:S:138:THR:HG22	10:S:139:ILE:H	1.25	1.00
4:M:567:LYS:HB3	11:T:96:VAL:H	1.27	1.00
7:D:187:THR:HG21	4:M:34:LYS:CE	1.91	1.00
5:N:232:SER:HB3	5:N:261:ARG:HH21	1.25	1.00
14:K:65:HIS:HD2	14:K:67:PHE:H	1.07	1.00
5:N:1201:LYS:HE2	5:N:1205:GLN:OE1	1.61	0.99
5:N:486:TYR:OH	5:N:1096:ARG:HB3	1.63	0.99
1:1:1:DA:H1'	1:1:2:DA:H5'	1.39	0.99
5:B:65:GLU:HG3	5:B:66:ASP:H	1.26	0.99
5:N:824:ILE:HG22	5:N:1087:PHE:HE2	1.23	0.99
5:B:824:ILE:HG22	5:B:1087:PHE:HE2	1.27	0.98
5:N:882:THR:HG22	5:N:884:ARG:H	1.28	0.98
4:M:34:LYS:HD3	4:M:57:ARG:HH22	0.86	0.98
4:M:254:GLU:HB2	5:N:935:ARG:HH12	1.28	0.98
4:A:1420:ASP:HB3	4:A:1422:ARG:HG3	1.43	0.98
6:C:66:ARG:NH1	13:J:2:ILE:HG21	1.79	0.98
4:M:1402:PHE:CE1	4:M:1403:GLU:HG3	1.98	0.98
4:A:58:LEU:HD21	4:A:243:PRO:HA	1.45	0.97
7:D:187:THR:HG21	4:M:34:LYS:HE2	1.00	0.97
9:F:93:ILE:HD11	9:F:134:ILE:HD11	1.45	0.97
4:A:1161:THR:HG22	4:A:1163:ILE:H	1.27	0.97
12:I:34:TYR:HD2	12:I:35:VAL:N	1.62	0.97
5:N:214:ALA:HB3	5:N:498:THR:HA	1.45	0.97
4:M:34:LYS:CD	4:M:57:ARG:HH22	1.77	0.97
5:B:521:LEU:HD22	5:B:633:VAL:HG12	1.43	0.97
4:M:1445:ILE:HD12	4:M:1445:ILE:H	1.29	0.97
14:W:47:ARG:HB3	14:W:47:ARG:HH11	1.27	0.97
6:C:57:VAL:HG11	13:J:60:PHE:HB3	1.43	0.97
4:M:58:LEU:HD12	4:M:59:GLY:H	1.30	0.96
6:O:43:THR:HG22	6:O:44:LEU:H	1.27	0.96
5:B:882:THR:HG22	5:B:884:ARG:H	1.28	0.96
4:A:21:LEU:HD11	4:A:1414:ALA:HA	1.47	0.96
6:O:166:GLU:HG3	14:W:10:PHE:HZ	1.27	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:W:65:HIS:HD2	14:W:67:PHE:H	1.13	0.96
5:B:486:TYR:OH	5:B:1096:ARG:HB3	1.65	0.96
5:B:502:ILE:HD12	5:B:502:ILE:H	1.30	0.96
5:B:821:GLN:HE22	5:B:851:PHE:HA	1.31	0.96
4:M:913:LEU:HD12	4:M:914:GLU:H	1.31	0.96
5:N:65:GLU:HG3	5:N:66:ASP:H	1.30	0.96
10:S:13:LEU:HD21	10:S:17:PHE:HB2	1.48	0.96
4:A:399:HIS:HB3	4:A:400:PRO:HD3	1.45	0.95
4:M:1424:VAL:HG13	4:M:1436:ILE:HD11	1.47	0.95
10:S:81:PRO:HG3	10:S:106:MET:SD	2.04	0.95
2:5:26:DC:H2''	2:5:27:DA:O5'	1.65	0.95
6:C:43:THR:HG22	6:C:44:LEU:H	1.29	0.95
2:5:26:DC:H2''	2:5:27:DA:C5'	1.96	0.95
4:A:53:LEU:CD2	4:A:54:ASN:H	1.79	0.95
10:G:14:HIS:CD2	10:G:16:SER:HB2	2.02	0.95
5:N:521:LEU:HD22	5:N:633:VAL:HG12	1.47	0.95
4:A:1402:PHE:CE1	4:A:1403:GLU:HG3	2.01	0.95
9:F:82:THR:HG22	9:F:84:TYR:H	1.25	0.95
5:B:847:ASP:HB3	6:C:167:HIS:HE2	1.32	0.95
4:A:567:LYS:CG	4:A:568:PRO:HD2	1.97	0.95
4:M:901:LEU:HG	4:M:926:GLN:HE21	1.31	0.94
5:B:800:GLN:HB3	13:J:52:THR:HG21	1.46	0.94
4:M:58:LEU:HD21	4:M:243:PRO:HA	1.49	0.94
4:A:1424:VAL:HG13	4:A:1436:ILE:HD11	1.48	0.94
4:A:963:ILE:HD11	4:A:1048:ASN:HB3	1.46	0.94
4:M:225:ASN:HD22	4:M:228:PHE:H	1.15	0.94
4:M:567:LYS:CG	4:M:568:PRO:HD2	1.97	0.94
13:V:1:MET:H1	13:V:57:ILE:H	1.12	0.94
5:B:549:THR:HG22	5:B:550:ASP:H	1.31	0.94
5:N:336:ARG:HH22	5:N:345:LYS:HE2	1.31	0.94
4:M:53:LEU:CD2	4:M:54:ASN:H	1.81	0.93
6:O:57:VAL:HG11	13:V:60:PHE:HB3	1.47	0.93
6:C:6:PRO:HB3	6:C:25:VAL:CG1	1.98	0.93
4:A:709:THR:HG23	12:I:94:ASP:HA	1.51	0.93
14:W:111:LEU:C	14:W:112:GLN:HG2	1.88	0.93
4:M:21:LEU:HD11	4:M:1414:ALA:HA	1.50	0.93
4:A:779:PHE:HE1	4:A:785:PRO:HD3	1.33	0.93
10:G:13:LEU:HD21	10:G:17:PHE:HB2	1.51	0.93
7:D:40:HIS:HB3	10:G:73:LYS:HZ3	1.34	0.93
5:N:1187:ASN:O	5:N:1188:LYS:HB2	1.69	0.93
4:A:225:ASN:HD22	4:A:228:PHE:H	1.06	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:901:LEU:H	4:A:926:GLN:NE2	1.67	0.93
6:C:101:LEU:HD13	6:C:118:LEU:HD23	1.51	0.93
2:2:25:DT:H2''	2:2:26:DC:O5'	1.66	0.92
4:M:563:PRO:HG3	4:M:572:TRP:CZ2	2.04	0.92
5:N:172:ILE:HD13	5:N:178:ASN:HB3	1.50	0.92
11:T:4:THR:HA	11:T:60:ALA:HB2	1.48	0.92
6:O:142:VAL:H	13:V:16:ASP:HB3	1.34	0.92
7:D:144:THR:O	7:D:148:LEU:HB2	1.69	0.92
5:N:510:LYS:HG2	5:N:511:PRO:HD3	1.49	0.92
5:N:800:GLN:HB3	13:V:52:THR:CG2	1.99	0.92
6:C:166:GLU:HG3	14:K:10:PHE:HZ	1.29	0.92
1:4:1:DA:H1'	1:4:2:DA:H5'	1.48	0.92
4:A:254:GLU:HB2	5:B:935:ARG:HH12	1.34	0.92
4:M:1420:ASP:HB3	4:M:1422:ARG:HG3	1.51	0.92
4:M:524:VAL:HG12	4:M:525:GLN:H	1.33	0.92
8:E:94:LYS:HE2	8:E:98:ILE:HD11	1.53	0.92
5:B:847:ASP:HB3	6:C:167:HIS:NE2	1.85	0.91
6:O:6:PRO:HB3	6:O:25:VAL:CG1	2.00	0.91
2:5:25:DT:H2''	2:5:26:DC:O5'	1.67	0.91
4:A:34:LYS:CE	7:P:187:THR:HG21	2.00	0.91
7:D:47:LEU:HD13	7:D:48:ILE:H	1.36	0.91
12:I:34:TYR:CD2	12:I:35:VAL:N	2.38	0.91
4:A:567:LYS:CD	4:A:568:PRO:HD2	2.00	0.91
12:I:85:PHE:H	12:I:85:PHE:HD2	1.09	0.91
4:M:1094:VAL:HG12	4:M:1095:THR:H	1.31	0.91
4:M:1161:THR:HG22	4:M:1163:ILE:H	1.34	0.91
4:M:399:HIS:HB3	4:M:400:PRO:HD3	1.48	0.91
5:N:800:GLN:HB3	13:V:52:THR:HG21	1.51	0.91
13:J:1:MET:H2	13:J:57:ILE:H	1.16	0.91
7:P:40:HIS:HB3	10:S:73:LYS:HZ3	1.27	0.91
14:K:47:ARG:HB3	14:K:47:ARG:HH11	1.35	0.91
5:B:217:ARG:HE	5:B:405:ARG:HB2	1.35	0.91
12:I:8:ARG:HG3	12:I:34:TYR:HE1	1.35	0.91
6:O:47:ASP:HA	15:X:69:ALA:HB3	1.53	0.91
4:A:1094:VAL:HG12	4:A:1095:THR:H	1.33	0.91
13:J:3:VAL:HG21	13:J:18:TRP:HB2	1.52	0.91
4:M:285:PRO:HG2	4:M:288:ALA:HB3	1.53	0.91
5:N:510:LYS:CG	5:N:511:PRO:HD3	2.01	0.91
9:R:82:THR:HG22	9:R:84:TYR:H	1.33	0.91
4:A:855:THR:HG21	4:A:857:ARG:NE	1.86	0.90
4:M:93:VAL:HG13	4:M:301:ALA:HB1	1.51	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:46:GLN:HG3	5:N:47:GLN:H	1.34	0.90
4:M:709:THR:HG23	12:U:94:ASP:HA	1.54	0.90
6:C:6:PRO:HB3	6:C:25:VAL:HG12	1.52	0.90
8:Q:19:VAL:O	8:Q:23:VAL:HG23	1.72	0.90
7:P:47:LEU:HD13	7:P:48:ILE:H	1.36	0.90
4:M:1329:THR:HG22	4:M:1331:SER:H	1.34	0.90
4:M:567:LYS:CD	4:M:568:PRO:HD2	2.00	0.90
4:M:535:THR:HG21	4:M:616:VAL:HA	1.53	0.90
10:S:15:PRO:HA	10:S:18:PHE:CD1	2.07	0.90
4:A:58:LEU:CD1	4:A:59:GLY:H	1.83	0.89
5:B:483:LEU:HD11	5:B:491:THR:HG23	1.52	0.89
5:N:577:ALA:HB1	5:N:589:VAL:HG11	1.53	0.89
5:B:467:GLY:H	5:B:475:SER:HB3	1.36	0.89
4:A:1329:THR:HG22	4:A:1331:SER:H	1.37	0.89
5:B:1072:MET:CE	5:B:1085:ILE:HB	2.03	0.89
13:V:16:ASP:OD1	13:V:17:LYS:HD2	1.72	0.89
4:M:836:TYR:CD2	4:M:840:ARG:HD2	2.07	0.89
5:N:515:HIS:H	5:N:518:HIS:HD2	1.19	0.89
12:U:85:PHE:HD2	12:U:85:PHE:H	1.14	0.89
4:A:84:ILE:HD11	4:A:270:LEU:HD13	1.52	0.89
10:S:7:LEU:HB2	10:S:74:TYR:CE2	2.08	0.89
4:M:58:LEU:CD1	4:M:59:GLY:H	1.84	0.89
5:B:510:LYS:CG	5:B:511:PRO:HD3	2.02	0.89
11:H:4:THR:HA	11:H:60:ALA:HB2	1.53	0.89
5:N:999:MET:HG3	5:N:1000:PRO:HD2	1.55	0.89
5:N:1072:MET:CE	5:N:1085:ILE:HB	2.03	0.89
4:A:563:PRO:HG3	4:A:572:TRP:CZ2	2.08	0.88
14:K:21:ILE:HG12	14:K:33:ILE:HG12	1.55	0.88
4:M:646:PHE:O	4:M:650:GLN:HG3	1.72	0.88
13:V:1:MET:N	13:V:57:ILE:H	1.71	0.88
4:A:67:CYS:O	4:A:70:CYS:HB3	1.72	0.88
5:B:800:GLN:HB3	13:J:52:THR:CG2	2.03	0.88
11:H:84:ALA:HA	11:H:87:ARG:HB2	1.54	0.88
4:A:58:LEU:HD12	4:A:59:GLY:H	1.36	0.88
5:B:999:MET:HG3	5:B:1000:PRO:HD2	1.56	0.88
7:D:40:HIS:HB3	10:G:73:LYS:NZ	1.87	0.88
4:M:855:THR:HG21	4:M:857:ARG:NE	1.87	0.88
5:B:336:ARG:HD3	5:B:348:ARG:HH11	1.37	0.88
4:M:779:PHE:HE1	4:M:785:PRO:HD3	1.37	0.88
7:P:144:THR:O	7:P:148:LEU:HB2	1.74	0.88
4:A:34:LYS:HD3	4:A:57:ARG:NH2	1.89	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:855:THR:CG2	4:M:857:ARG:HE	1.87	0.88
6:O:66:ARG:NH2	13:V:5:VAL:HG23	1.88	0.88
4:A:646:PHE:O	4:A:650:GLN:HG3	1.73	0.87
5:N:899:ILE:HD11	5:N:911:ILE:HA	1.53	0.87
6:O:43:THR:HG22	6:O:44:LEU:N	1.89	0.87
8:Q:22:MET:HE3	8:Q:26:ARG:NH2	1.88	0.87
4:A:524:VAL:HG12	4:A:525:GLN:H	1.40	0.87
14:W:21:ILE:HG12	14:W:33:ILE:HG12	1.57	0.87
5:B:98:THR:O	5:B:126:SER:HB2	1.73	0.87
4:A:1094:VAL:HG12	4:A:1095:THR:N	1.89	0.87
4:A:93:VAL:HG13	4:A:301:ALA:HB1	1.55	0.87
5:N:343:ILE:CG2	5:N:348:ARG:HG3	2.04	0.87
5:N:549:THR:HG22	5:N:550:ASP:H	1.40	0.87
12:U:26:LEU:HD23	12:U:37:GLU:HA	1.56	0.87
4:M:567:LYS:HD2	4:M:568:PRO:HD2	1.57	0.87
4:A:285:PRO:HG2	4:A:288:ALA:HB3	1.57	0.87
4:A:541:ILE:HD13	4:A:549:MET:HE1	1.55	0.87
12:I:115:LYS:HD3	12:I:117:LYS:HE3	1.54	0.87
4:A:567:LYS:HD2	4:A:568:PRO:HD2	1.54	0.87
11:H:36:CYS:HA	11:H:126:GLU:O	1.75	0.87
5:N:516:ASN:N	5:N:516:ASN:HD22	1.70	0.86
12:U:34:TYR:CD2	12:U:35:VAL:N	2.42	0.86
5:N:1072:MET:HE3	5:N:1085:ILE:HB	1.57	0.86
4:M:1094:VAL:HG12	4:M:1095:THR:N	1.90	0.86
5:N:847:ASP:HB3	6:O:167:HIS:NE2	1.89	0.86
5:B:172:ILE:HD13	5:B:178:ASN:HB3	1.58	0.86
5:B:232:SER:HB3	5:B:261:ARG:NH2	1.89	0.86
10:G:15:PRO:HA	10:G:18:PHE:CD1	2.11	0.86
10:G:7:LEU:HB2	10:G:74:TYR:CE2	2.10	0.86
4:M:828:ALA:CB	5:N:530:GLY:HA2	2.05	0.86
5:B:46:GLN:HG3	5:B:47:GLN:H	1.39	0.86
8:E:19:VAL:O	8:E:23:VAL:HG23	1.75	0.86
5:N:1224:PHE:HE2	8:Q:171:LYS:HG3	1.41	0.86
12:U:34:TYR:HD2	12:U:35:VAL:N	1.74	0.86
5:B:343:ILE:CG2	5:B:348:ARG:HG3	2.04	0.86
5:B:516:ASN:N	5:B:516:ASN:HD22	1.70	0.86
8:E:198:ILE:HD11	8:E:212:ARG:HG3	1.58	0.86
5:N:343:ILE:HG21	5:N:348:ARG:HG3	1.58	0.86
12:U:115:LYS:HD3	12:U:117:LYS:HE3	1.55	0.86
4:A:34:LYS:CD	4:A:57:ARG:HH22	1.88	0.85
5:B:343:ILE:HG21	5:B:348:ARG:HG3	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:853:ASP:OD1	4:M:855:THR:HB	1.76	0.85
4:A:868:TYR:CE1	4:A:1064:VAL:HG11	2.11	0.85
4:A:855:THR:CG2	4:A:857:ARG:HE	1.88	0.85
5:B:899:ILE:HD11	5:B:911:ILE:HA	1.57	0.85
4:M:34:LYS:HE3	4:M:57:ARG:HH12	1.41	0.85
5:N:168:GLY:H	5:N:450:ALA:HB1	1.42	0.85
6:O:6:PRO:HB3	6:O:25:VAL:HG12	1.57	0.85
7:D:153:ARG:NH2	7:D:184:ALA:HA	1.90	0.85
1:1:6:DC:H1'	1:1:7:DT:H5'	1.58	0.85
2:2:20:DC:H4'	4:A:447:GLN:NE2	1.92	0.85
4:A:356:ASP:HB2	4:A:469:ARG:NH1	1.90	0.85
4:A:590:ARG:HH21	4:A:620:LYS:HB3	1.41	0.85
5:B:778:MET:CE	5:B:1094:ARG:HD3	2.07	0.85
4:M:466:SER:O	5:N:1103:ILE:HD11	1.77	0.85
4:M:351:THR:HB	5:N:1103:ILE:HD12	1.58	0.85
5:B:1187:ASN:O	5:B:1188:LYS:HB2	1.76	0.85
5:B:770:GLN:OE1	5:B:983:ARG:HA	1.76	0.85
8:Q:94:LYS:HE2	8:Q:98:ILE:HD11	1.59	0.85
4:A:34:LYS:HE2	7:P:187:THR:CG2	2.07	0.85
4:A:351:THR:HB	5:B:1103:ILE:HD12	1.59	0.85
4:A:754:SER:H	4:A:757:ASN:HD22	1.23	0.85
5:B:510:LYS:HG2	5:B:511:PRO:HD3	1.55	0.85
11:T:84:ALA:HA	11:T:87:ARG:HB2	1.57	0.85
5:B:1224:PHE:HE2	8:E:171:LYS:HG3	1.39	0.84
5:N:613:VAL:HG13	5:N:627:PHE:O	1.77	0.84
4:A:836:TYR:CE2	4:A:840:ARG:HD2	2.12	0.84
5:N:217:ARG:HE	5:N:405:ARG:HB2	1.41	0.84
5:B:363:HIS:O	5:B:364:ILE:HB	1.78	0.84
4:M:1325:THR:O	8:Q:148:GLU:HB2	1.77	0.84
11:T:100:THR:HG23	11:T:138:GLU:HA	1.59	0.84
5:N:363:HIS:O	5:N:364:ILE:HB	1.78	0.84
12:U:8:ARG:HG3	12:U:34:TYR:HE1	1.40	0.84
4:A:828:ALA:CB	5:B:530:GLY:HA2	2.07	0.84
9:R:86:THR:OG1	9:R:89:GLU:HG3	1.78	0.84
6:C:47:ASP:HA	15:L:69:ALA:HB3	1.60	0.84
5:N:701:ILE:HD11	5:N:703:ILE:HD11	1.59	0.84
7:P:47:LEU:HD11	10:S:3:PHE:CD2	2.11	0.84
4:M:351:THR:HG22	5:N:1103:ILE:HA	1.60	0.84
4:M:590:ARG:NH2	4:M:620:LYS:HB3	1.92	0.84
4:M:783:THR:HG21	4:M:815:PHE:CZ	2.13	0.84
9:F:111:LEU:HD12	9:F:111:LEU:H	1.42	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:901:LEU:HG	4:A:926:GLN:HE21	1.41	0.84
4:A:903:ASN:HD22	4:A:904:THR:N	1.75	0.84
4:A:779:PHE:CE1	4:A:785:PRO:HD3	2.13	0.83
4:A:321:PRO:O	4:A:322:VAL:HB	1.76	0.83
5:B:654:ARG:H	5:B:657:HIS:HD2	1.26	0.83
4:M:1171:GLN:HA	4:M:1174:PHE:CE1	2.13	0.83
5:B:340:ALA:HB2	5:B:343:ILE:HD12	1.59	0.83
5:B:336:ARG:NH2	5:B:345:LYS:HG2	1.93	0.83
13:J:1:MET:N	13:J:57:ILE:H	1.75	0.83
4:M:709:THR:HG22	4:M:711:ARG:H	1.42	0.83
5:N:847:ASP:HB3	6:O:167:HIS:HE2	1.42	0.83
4:A:885:THR:O	4:A:940:ARG:HD2	1.77	0.83
5:B:515:HIS:H	5:B:518:HIS:HD2	1.25	0.83
4:M:868:TYR:CE1	4:M:1064:VAL:HG11	2.14	0.83
5:N:343:ILE:HG21	5:N:348:ARG:N	1.92	0.83
5:N:467:GLY:N	5:N:475:SER:HB3	1.93	0.83
5:N:654:ARG:H	5:N:657:HIS:HD2	1.25	0.83
5:B:1065:GLN:HE21	5:B:1067:ARG:H	1.25	0.83
4:M:239:LEU:HD12	4:M:240:PRO:HD2	1.59	0.83
2:5:20:DC:H4'	4:M:447:GLN:NE2	1.93	0.83
5:N:483:LEU:HD11	5:N:491:THR:HG23	1.60	0.83
4:A:567:LYS:HB3	11:H:96:VAL:N	1.93	0.83
5:B:1072:MET:HE3	5:B:1085:ILE:HB	1.58	0.83
4:M:567:LYS:HB3	11:T:96:VAL:N	1.93	0.83
5:B:1002:THR:HG21	5:B:1006:ILE:HD12	1.61	0.83
4:M:768:GLN:HG2	4:M:816:HIS:HA	1.61	0.83
4:A:535:THR:HG21	4:A:616:VAL:HA	1.58	0.83
5:N:467:GLY:H	5:N:475:SER:HB3	1.43	0.83
15:X:32:ALA:HB3	15:X:55:ILE:HD12	1.61	0.83
4:A:70:CYS:O	4:A:72:GLU:HG2	1.78	0.82
5:B:467:GLY:N	5:B:475:SER:HB3	1.92	0.82
4:M:356:ASP:HB2	4:M:469:ARG:NH1	1.94	0.82
5:N:806:THR:HG22	5:N:808:ALA:N	1.94	0.82
4:A:382:PRO:HB3	4:A:428:TYR:HE2	1.43	0.82
6:C:32:SER:O	6:C:36:VAL:HG23	1.78	0.82
10:G:34:VAL:HG12	10:G:45:ILE:HG21	1.59	0.82
5:B:365:THR:HG23	5:B:367:LEU:H	1.42	0.82
5:N:98:THR:O	5:N:126:SER:HB2	1.79	0.82
4:M:590:ARG:HH21	4:M:620:LYS:HB3	1.42	0.82
5:N:770:GLN:OE1	5:N:983:ARG:HA	1.78	0.82
10:S:14:HIS:ND1	10:S:15:PRO:HD2	1.94	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1394:THR:HG21	4:M:1398:MET:SD	2.20	0.82
7:D:187:THR:CG2	4:M:34:LYS:HE2	1.97	0.82
13:V:64:ASN:HB3	13:V:65:PRO:CD	2.09	0.82
4:M:779:PHE:CE1	4:M:785:PRO:HD3	2.14	0.82
4:A:1100:ARG:HH21	4:A:1351:GLU:HG2	1.45	0.82
5:N:364:ILE:HG12	5:N:585:VAL:HG13	1.61	0.82
2:2:26:DC:H2''	2:2:27:DA:C5'	2.10	0.81
4:A:709:THR:HG22	4:A:711:ARG:H	1.43	0.81
4:M:913:LEU:HD12	4:M:914:GLU:N	1.95	0.81
10:S:80:LYS:N	10:S:80:LYS:HD3	1.95	0.81
5:B:701:ILE:HD11	5:B:703:ILE:HD11	1.62	0.81
8:Q:16:PHE:CZ	8:Q:20:LYS:HE2	2.15	0.81
11:T:36:CYS:HA	11:T:126:GLU:O	1.79	0.81
5:B:1096:ARG:O	5:B:1097:HIS:HB2	1.79	0.81
10:G:81:PRO:HG3	10:G:106:MET:SD	2.19	0.81
13:J:64:ASN:HB3	13:J:65:PRO:CD	2.10	0.81
4:M:1189:SER:O	4:M:1241:ARG:HD3	1.80	0.81
4:M:541:ILE:HD13	4:M:549:MET:HE1	1.61	0.81
5:B:336:ARG:CG	5:B:348:ARG:HD3	2.08	0.81
12:I:26:LEU:HD23	12:I:37:GLU:HA	1.61	0.81
4:M:885:THR:O	4:M:940:ARG:HD2	1.80	0.81
5:N:879:ARG:HH11	5:N:883:LEU:HD22	1.44	0.81
11:T:56:THR:HB	11:T:145:ARG:HG2	1.63	0.81
4:A:1004:ASN:ND2	8:E:167:ARG:HD2	1.95	0.81
9:R:111:LEU:HD12	9:R:111:LEU:H	1.44	0.81
4:A:337:ARG:HD3	5:B:1132:GLU:OE1	1.81	0.81
6:C:43:THR:HG22	6:C:44:LEU:N	1.96	0.81
5:N:332:ASP:O	5:N:336:ARG:HG3	1.81	0.81
13:V:64:ASN:HB3	13:V:65:PRO:HD3	1.61	0.81
4:M:335:ARG:NH1	5:N:1202:LEU:HD13	1.95	0.81
5:N:1002:THR:HG21	5:N:1006:ILE:HD12	1.61	0.81
5:N:1180:PHE:HB3	5:N:1191:ILE:CD1	2.10	0.81
4:A:913:LEU:HD12	4:A:914:GLU:H	1.46	0.81
5:B:53:GLN:HG2	5:B:547:VAL:HG22	1.63	0.81
6:C:39:ALA:HA	6:C:164:ALA:HB3	1.63	0.81
4:M:963:ILE:HD11	4:M:1048:ASN:HB3	1.63	0.81
14:W:45:LEU:HG	14:W:94:ILE:HD13	1.63	0.81
4:M:107:CYS:SG	4:M:171:GLN:HG2	2.21	0.81
4:A:534:LEU:O	4:A:574:GLY:HA3	1.80	0.80
5:B:661:LEU:HD11	5:B:684:LEU:HD11	1.61	0.80
4:M:438:ASP:O	4:M:439:ASN:HB2	1.81	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:824:ILE:HG22	5:B:1087:PHE:CE2	2.16	0.80
5:B:1180:PHE:HB3	5:B:1191:ILE:HD12	1.63	0.80
11:H:56:THR:HB	11:H:145:ARG:HG2	1.63	0.80
4:M:384:ASN:OD1	4:M:388:LEU:HD12	1.80	0.80
6:O:101:LEU:HD13	6:O:118:LEU:HD23	1.61	0.80
2:5:26:DC:H2''	2:5:27:DA:H5'	1.61	0.80
4:A:1189:SER:O	4:A:1241:ARG:HD3	1.80	0.80
4:A:590:ARG:NH2	4:A:620:LYS:HB3	1.96	0.80
5:B:1159:ARG:HD3	5:B:1193:GLN:HG3	1.63	0.80
4:M:1121:GLU:HG2	4:M:1122:PRO:HD2	1.63	0.80
4:M:534:LEU:O	4:M:574:GLY:HA3	1.81	0.80
5:N:1096:ARG:O	5:N:1097:HIS:HB2	1.79	0.80
11:T:81:PRO:HB2	11:T:82:PRO:HD2	1.63	0.80
4:A:836:TYR:CD2	4:A:840:ARG:HD2	2.17	0.80
5:B:393:LYS:HA	5:B:393:LYS:HE3	1.64	0.80
5:N:1084:GLN:NE2	5:N:1084:GLN:H	1.79	0.80
1:4:6:DC:H1'	1:4:7:DT:H5'	1.63	0.80
4:A:225:ASN:ND2	4:A:228:PHE:H	1.80	0.80
14:K:65:HIS:CD2	14:K:67:PHE:H	1.97	0.80
5:N:1138:MET:HA	5:N:1138:MET:HE3	1.62	0.80
4:A:858:ASN:C	4:A:858:ASN:HD22	1.85	0.80
4:M:84:ILE:HD11	4:M:270:LEU:HD13	1.62	0.80
8:Q:198:ILE:HD11	8:Q:212:ARG:HG3	1.64	0.80
4:A:269:ILE:HD13	4:A:300:VAL:HG22	1.63	0.80
4:A:438:ASP:O	4:A:439:ASN:HB2	1.82	0.80
5:B:232:SER:CB	5:B:261:ARG:HH21	1.94	0.80
11:H:81:PRO:HB2	11:H:82:PRO:HD2	1.64	0.80
5:N:171:PRO:HD2	5:N:457:LEU:HD13	1.64	0.80
5:N:189:LEU:HA	5:N:192:LEU:HD12	1.62	0.80
5:N:365:THR:HG23	5:N:367:LEU:H	1.44	0.80
4:A:541:ILE:HD13	4:A:549:MET:CE	2.11	0.80
13:J:43:ARG:HG3	13:J:45:CYS:SG	2.21	0.80
4:A:35:ILE:O	4:A:35:ILE:HG22	1.81	0.79
4:A:768:GLN:CG	4:A:816:HIS:HA	2.12	0.79
5:B:642:ASP:HA	5:B:649:LYS:HA	1.61	0.79
6:O:32:SER:O	6:O:36:VAL:HG23	1.82	0.79
5:N:824:ILE:HG22	5:N:1087:PHE:CE2	2.15	0.79
10:S:59:GLY:HA3	10:S:70:PHE:CD2	2.18	0.79
4:A:1100:ARG:HH21	4:A:1351:GLU:CG	1.95	0.79
5:B:577:ALA:HB1	5:B:589:VAL:HG11	1.62	0.79
13:J:64:ASN:HB3	13:J:65:PRO:HD3	1.62	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:855:THR:HG23	4:M:857:ARG:HG3	1.64	0.79
5:B:244:LEU:HD21	5:B:366:GLN:NE2	1.96	0.79
11:H:100:THR:HG23	11:H:138:GLU:HA	1.64	0.79
5:N:1065:GLN:HE21	5:N:1067:ARG:N	1.81	0.79
5:N:340:ALA:HB2	5:N:343:ILE:HD12	1.63	0.79
4:M:321:PRO:O	4:M:322:VAL:HB	1.82	0.79
4:A:549:MET:SD	4:A:577:ILE:HD11	2.23	0.79
6:C:239:PRO:HB2	6:C:241:ASP:OD1	1.83	0.79
4:M:215:SER:HB3	4:M:218:ASP:OD2	1.82	0.79
5:N:112:LEU:HD12	5:N:113:TYR:H	1.46	0.79
7:P:153:ARG:NH2	7:P:184:ALA:HA	1.96	0.79
4:A:58:LEU:HD21	4:A:243:PRO:CA	2.13	0.79
4:M:70:CYS:O	4:M:72:GLU:HG2	1.82	0.79
5:N:434:ARG:O	5:N:437:GLU:HB2	1.82	0.79
4:M:567:LYS:HB3	11:T:95:TYR:HA	1.64	0.79
10:S:34:VAL:HG12	10:S:45:ILE:HG21	1.63	0.79
4:A:1171:GLN:HA	4:A:1174:PHE:CE1	2.17	0.79
5:B:911:ILE:HD11	5:B:941:LEU:HD13	1.62	0.79
4:A:858:ASN:ND2	4:A:860:LEU:H	1.80	0.78
4:A:886:ILE:HG22	4:A:887:GLY:N	1.97	0.78
5:B:806:THR:HG22	5:B:808:ALA:N	1.98	0.78
4:M:337:ARG:HD3	5:N:1132:GLU:OE1	1.83	0.78
5:N:778:MET:CE	5:N:1094:ARG:HD3	2.12	0.78
10:S:14:HIS:HD2	10:S:16:SER:HB2	1.48	0.78
12:U:8:ARG:HG3	12:U:34:TYR:CE1	2.18	0.78
4:M:763:ALA:O	4:M:803:SER:HB3	1.81	0.78
5:N:708:GLU:O	5:N:710:LEU:N	2.16	0.78
4:A:58:LEU:HD11	4:A:243:PRO:HB3	1.65	0.78
7:D:47:LEU:HD11	10:G:3:PHE:CD2	2.17	0.78
5:N:273:LEU:CB	5:N:276:ILE:HD12	2.13	0.78
5:N:35:SER:HA	5:N:811:TYR:HE2	1.48	0.78
14:W:12:LEU:HD12	14:W:12:LEU:H	1.47	0.78
4:A:1312:ASN:O	4:A:1316:VAL:HG23	1.84	0.78
4:A:427:GLN:HG3	4:A:430:TRP:CZ2	2.19	0.78
4:A:866:PHE:C	4:A:867:ILE:HD12	2.04	0.78
4:A:996:ASN:O	4:A:998:LEU:HD12	1.84	0.78
5:N:393:LYS:HA	5:N:393:LYS:HE3	1.65	0.78
5:N:842:ASN:ND2	5:N:845:SER:OG	2.17	0.78
5:N:911:ILE:HD11	5:N:941:LEU:HD13	1.64	0.78
6:O:47:ASP:HA	15:X:69:ALA:CB	2.13	0.78
12:I:8:ARG:HG3	12:I:34:TYR:CE1	2.19	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:840:ILE:HB	5:N:1011:ILE:HB	1.65	0.78
6:C:232:VAL:HG21	6:C:244:VAL:HG22	1.65	0.78
5:B:1065:GLN:HE21	5:B:1067:ARG:N	1.82	0.78
5:B:168:GLY:H	5:B:450:ALA:HB1	1.49	0.78
5:B:169:ARG:HB2	5:B:454:THR:HG23	1.62	0.78
5:N:1065:GLN:HE21	5:N:1067:ARG:H	1.31	0.78
5:N:361:LEU:HD21	5:N:377:PHE:CD2	2.18	0.78
5:N:515:HIS:H	5:N:518:HIS:CD2	2.02	0.78
5:B:1095:LEU:HD12	5:B:1095:LEU:H	1.49	0.78
5:B:955:THR:HG22	5:B:956:THR:H	1.50	0.78
7:P:134:THR:HG22	7:P:136:GLY:H	1.49	0.78
4:A:1348:LEU:HG	4:A:1372:VAL:HG23	1.65	0.77
5:B:35:SER:HA	5:B:811:TYR:HE2	1.48	0.77
5:N:1085:ILE:N	5:N:1085:ILE:HD12	1.99	0.77
5:N:232:SER:CB	5:N:261:ARG:HH21	1.97	0.77
5:N:1001:PHE:CE1	5:N:1073:TYR:HB2	2.19	0.77
4:A:107:CYS:SG	4:A:171:GLN:HG2	2.24	0.77
5:B:65:GLU:HG3	5:B:66:ASP:N	1.98	0.77
4:M:903:ASN:HD22	4:M:904:THR:N	1.80	0.77
4:M:1424:VAL:HG11	5:N:1139:ILE:HD13	1.65	0.77
5:N:53:GLN:HG2	5:N:547:VAL:HG22	1.66	0.77
5:B:336:ARG:HG2	5:B:348:ARG:CD	2.13	0.77
9:F:86:THR:OG1	9:F:89:GLU:HG3	1.85	0.77
10:G:128:PRO:O	10:G:138:THR:HG23	1.84	0.77
10:G:14:HIS:ND1	10:G:15:PRO:HD2	1.99	0.77
10:S:1:MET:SD	10:S:79:PHE:CD1	2.77	0.77
9:F:79:ARG:HG3	9:F:144:GLU:OE1	1.84	0.77
4:M:767:GLN:NE2	4:M:774:ARG:HB3	2.00	0.77
4:A:1345:ARG:HG3	4:A:1376:THR:HG21	1.66	0.77
5:B:830:TYR:O	5:B:832:GLY:N	2.16	0.77
5:B:879:ARG:HH11	5:B:883:LEU:HD22	1.48	0.77
5:N:336:ARG:HD3	5:N:348:ARG:HH11	1.48	0.77
6:O:39:ALA:HA	6:O:164:ALA:HB3	1.64	0.77
6:O:98:VAL:C	6:O:99:LEU:HD23	2.05	0.77
5:B:189:LEU:HA	5:B:192:LEU:HD12	1.66	0.77
6:C:47:ASP:HA	15:L:69:ALA:CB	2.13	0.77
4:M:58:LEU:HD11	4:M:243:PRO:HB3	1.67	0.77
6:C:142:VAL:H	13:J:16:ASP:HB3	1.49	0.77
15:L:38:LEU:O	15:L:39:SER:HB3	1.85	0.77
5:N:336:ARG:CG	5:N:348:ARG:HD3	2.12	0.77
4:M:1444:MET:HG2	10:S:60:ARG:HA	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:567:LYS:HB3	11:H:95:TYR:HA	1.67	0.77
5:B:824:ILE:CG2	5:B:1087:PHE:HE2	1.98	0.77
11:H:59:ILE:HG22	11:H:60:ALA:N	2.00	0.77
11:H:61:SER:O	11:H:62:SER:HB3	1.85	0.77
4:M:886:ILE:HG22	4:M:887:GLY:N	1.98	0.77
5:N:65:GLU:HG3	5:N:66:ASP:N	2.00	0.77
11:T:40:LEU:HD13	11:T:123:MET:HB2	1.67	0.77
5:B:332:ASP:O	5:B:336:ARG:HG3	1.85	0.77
5:B:637:LEU:HD12	5:B:693:ILE:HD12	1.67	0.77
8:E:16:PHE:CZ	8:E:20:LYS:HE2	2.20	0.77
4:M:1445:ILE:HG12	10:S:18:PHE:CE2	2.20	0.77
4:M:868:TYR:HD2	4:M:1058:VAL:HG21	1.48	0.77
5:N:1180:PHE:HB3	5:N:1191:ILE:HD12	1.67	0.77
5:N:244:LEU:HD21	5:N:366:GLN:NE2	1.99	0.77
5:N:745:PRO:O	5:N:748:ILE:HG12	1.84	0.77
4:A:1121:GLU:HG2	4:A:1122:PRO:HD2	1.67	0.76
4:A:1329:THR:HG22	4:A:1331:SER:N	1.99	0.76
4:A:1325:THR:O	8:E:148:GLU:HB2	1.84	0.76
4:M:340:LEU:HD13	4:M:1429:ILE:HG23	1.66	0.76
4:M:844:ALA:O	4:M:845:LEU:HD23	1.84	0.76
5:N:18:PHE:N	5:N:19:GLU:N	2.33	0.76
5:N:642:ASP:HA	5:N:649:LYS:HA	1.64	0.76
9:R:69:LEU:HA	9:R:70:LYS:N	1.99	0.76
14:W:110:ASN:O	14:W:111:LEU:HD23	1.85	0.76
5:B:336:ARG:HH22	5:B:345:LYS:CE	1.98	0.76
4:M:382:PRO:HB3	4:M:428:TYR:HE2	1.49	0.76
4:A:1063:MET:CG	4:A:1436:ILE:HG23	2.15	0.76
2:2:20:DC:H4'	4:A:447:GLN:HE22	1.48	0.76
5:B:1162:ILE:HD11	5:B:1194:ILE:HD13	1.66	0.76
12:U:111:THR:HG22	12:U:112:SER:H	1.51	0.76
3:6:5:C:H2'	3:6:6:C:H6	1.49	0.76
4:A:1323:ASP:OD1	4:A:1325:THR:HB	1.85	0.76
7:D:47:LEU:HD11	10:G:3:PHE:HD2	1.51	0.76
4:A:768:GLN:HG2	4:A:816:HIS:HA	1.67	0.76
4:M:836:TYR:CE2	4:M:840:ARG:HD2	2.20	0.76
5:N:661:LEU:HD11	5:N:684:LEU:HD11	1.66	0.76
6:O:186:LEU:HD21	6:O:224:GLN:O	1.86	0.76
4:A:1094:VAL:CG1	4:A:1095:THR:H	1.98	0.76
4:M:1329:THR:HG22	4:M:1331:SER:N	1.99	0.76
1:1:1:DA:H1'	1:1:2:DA:C5'	2.13	0.76
4:A:1341:ILE:HD12	4:A:1379:GLY:O	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:541:ILE:HD13	4:M:549:MET:CE	2.14	0.76
4:A:855:THR:HG23	4:A:857:ARG:HG3	1.67	0.76
5:B:336:ARG:CD	5:B:348:ARG:HH11	1.98	0.76
4:M:1372:VAL:O	4:M:1376:THR:HG22	1.86	0.76
5:B:364:ILE:HG12	5:B:585:VAL:HG13	1.68	0.76
5:B:975:GLN:HG2	5:B:976:ILE:H	1.51	0.76
12:I:55:THR:HG21	12:I:109:ILE:HD13	1.66	0.76
5:N:1007:VAL:HG22	5:N:1008:PRO:HD2	1.67	0.76
5:B:1159:ARG:NH1	5:B:1159:ARG:HB3	2.00	0.76
4:M:106:VAL:HG13	4:M:112:LYS:O	1.85	0.76
4:M:1312:ASN:O	4:M:1316:VAL:HG23	1.86	0.76
5:N:189:LEU:O	5:N:192:LEU:N	2.17	0.76
11:T:4:THR:HA	11:T:60:ALA:CB	2.15	0.76
13:V:3:VAL:HG21	13:V:18:TRP:CB	2.14	0.76
4:A:115:LEU:O	4:A:122:MET:HE2	1.87	0.75
5:N:336:ARG:NH2	5:N:345:LYS:HG2	2.01	0.75
5:B:336:ARG:HH21	5:B:345:LYS:HG2	1.51	0.75
5:B:613:VAL:HG13	5:B:627:PHE:O	1.86	0.75
8:E:22:MET:HE3	8:E:26:ARG:NH2	1.97	0.75
10:G:80:LYS:HD3	10:G:80:LYS:N	2.02	0.75
12:U:105:SER:O	12:U:106:CYS:HB3	1.85	0.75
4:A:385:ILE:HG22	4:A:386:ASP:N	2.00	0.75
5:B:955:THR:HG22	5:B:956:THR:N	1.99	0.75
4:A:567:LYS:HE3	11:H:46:LEU:HB2	1.67	0.75
2:5:20:DC:H4'	4:M:447:GLN:HE22	1.49	0.75
4:M:450:LEU:HD12	4:M:450:LEU:H	1.51	0.75
4:M:858:ASN:C	4:M:858:ASN:HD22	1.90	0.75
12:U:7:CYS:HB3	12:U:14:LEU:HD21	1.67	0.75
13:V:1:MET:H1	13:V:57:ILE:N	1.82	0.75
4:A:58:LEU:CG	4:A:59:GLY:H	1.98	0.75
8:E:153:HIS:HB3	8:E:196:VAL:HG11	1.68	0.75
10:G:138:THR:HG22	10:G:139:ILE:N	2.00	0.75
11:H:102:TYR:OH	11:H:122:LEU:HD22	1.87	0.75
11:T:59:ILE:HG22	11:T:60:ALA:N	2.02	0.75
5:B:1197:PRO:HG2	5:B:1200:ALA:HB2	1.67	0.75
5:N:737:THR:HG21	12:U:66:PRO:HA	1.67	0.75
7:P:185:CYS:HB2	7:P:211:LEU:HD22	1.68	0.75
4:A:1244:ARG:HB3	4:A:1245:PRO:HD2	1.69	0.75
6:C:147:LEU:HB2	6:C:151:GLN:HB2	1.69	0.75
4:M:1424:VAL:HG13	4:M:1436:ILE:CD1	2.16	0.75
4:M:308:ILE:HG22	4:M:309:ALA:H	1.52	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:975:GLN:O	5:N:990:ILE:HD12	1.86	0.75
6:O:166:GLU:HG3	14:W:10:PHE:CZ	2.18	0.75
6:O:164:ALA:HA	6:O:167:HIS:O	1.86	0.75
4:A:821:ARG:HB2	4:A:821:ARG:HH11	1.51	0.75
5:B:217:ARG:NE	5:B:405:ARG:HB2	2.01	0.75
4:M:512:VAL:HA	4:M:519:PRO:HA	1.67	0.75
4:A:34:LYS:HE3	4:A:57:ARG:HH12	1.52	0.75
13:J:16:ASP:OD1	13:J:17:LYS:HD2	1.86	0.75
4:M:58:LEU:HD21	4:M:243:PRO:CA	2.16	0.75
4:M:67:CYS:O	4:M:70:CYS:HB3	1.85	0.75
4:M:768:GLN:CG	4:M:816:HIS:HA	2.16	0.75
6:O:44:LEU:HB2	6:O:77:ILE:HD11	1.67	0.75
4:A:384:ASN:OD1	4:A:388:LEU:HD12	1.86	0.75
13:J:36:LEU:HD12	13:J:47:ARG:NH1	2.02	0.75
10:S:119:LEU:HD12	10:S:131:GLN:O	1.87	0.75
2:2:15:DT:H2"	2:2:16:DT:H71	1.69	0.74
4:A:1035:TYR:O	4:A:1037:LEU:N	2.20	0.74
5:B:1177:HIS:HB2	5:B:1179:GLN:HE21	1.52	0.74
6:C:35:ARG:NH1	14:K:41:THR:H	1.84	0.74
4:M:58:LEU:HD13	4:M:80:HIS:O	1.87	0.74
5:N:232:SER:HB3	5:N:261:ARG:NH2	1.99	0.74
5:N:579:ARG:HB2	5:N:586:TRP:NE1	2.02	0.74
8:Q:157:SER:C	8:Q:159:ASP:H	1.91	0.74
3:6:5:C:H2'	3:6:6:C:C6	2.21	0.74
4:A:547:LEU:HD22	14:K:58:PHE:CD1	2.22	0.74
4:A:897:TYR:HD2	4:A:936:LEU:HD13	1.52	0.74
6:O:133:ILE:HD11	6:O:237:SER:HA	1.67	0.74
5:B:1007:VAL:HG22	5:B:1008:PRO:HD2	1.68	0.74
5:B:434:ARG:O	5:B:437:GLU:HB2	1.87	0.74
5:B:515:HIS:HD2	5:B:517:THR:H	1.35	0.74
4:M:427:GLN:HG3	4:M:430:TRP:CZ2	2.22	0.74
6:O:67:LEU:HD11	6:O:155:LEU:CD1	2.17	0.74
10:S:111:THR:HG22	10:S:113:HIS:H	1.52	0.74
6:C:44:LEU:HB2	6:C:77:ILE:HD11	1.68	0.74
5:N:114:PRO:HG2	5:N:115:GLN:H	1.53	0.74
10:S:1:MET:SD	10:S:79:PHE:HD1	2.11	0.74
4:A:844:ALA:O	4:A:845:LEU:HD23	1.86	0.74
4:M:858:ASN:ND2	4:M:860:LEU:H	1.85	0.74
5:N:280:ILE:HD13	5:N:334:ILE:HG12	1.69	0.74
7:P:48:ILE:HG21	10:S:4:ILE:HB	1.69	0.74
14:W:65:HIS:CD2	14:W:67:PHE:H	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1424:VAL:HG13	4:A:1436:ILE:CD1	2.18	0.74
4:A:463:ILE:HB	4:A:464:PRO:HD2	1.68	0.74
8:E:198:ILE:CD1	8:E:212:ARG:HG3	2.17	0.74
4:M:1094:VAL:CG1	4:M:1095:THR:H	1.99	0.74
4:M:1100:ARG:HH21	4:M:1351:GLU:HG2	1.52	0.74
4:M:385:ILE:HG22	4:M:386:ASP:N	2.02	0.74
14:W:112:GLN:C	14:W:112:GLN:HA	2.02	0.74
4:A:249:SER:O	4:A:250:ILE:HG13	1.86	0.74
4:A:265:LYS:HZ3	4:A:322:VAL:HG13	1.49	0.74
4:A:61:ILE:HG22	4:A:62:ASP:H	1.51	0.74
5:B:1159:ARG:HB3	5:B:1159:ARG:HH11	1.51	0.74
4:M:1116:LEU:N	4:M:1308:THR:HG22	2.02	0.74
5:N:579:ARG:HB2	5:N:586:TRP:HE1	1.53	0.74
5:N:821:GLN:HE22	5:N:851:PHE:HA	1.52	0.74
4:M:18:GLN:HB2	5:N:1215:ARG:HB2	1.68	0.74
5:B:343:ILE:HG21	5:B:348:ARG:N	2.01	0.74
12:I:111:THR:HG22	12:I:112:SER:H	1.53	0.74
5:B:1085:ILE:HD12	5:B:1085:ILE:N	2.02	0.74
5:B:579:ARG:HB2	5:B:586:TRP:NE1	2.02	0.74
11:H:130:ARG:H	11:H:130:ARG:HD2	1.51	0.74
5:N:1197:PRO:HG2	5:N:1200:ALA:HB2	1.68	0.74
5:N:569:TYR:CE1	5:N:589:VAL:HG21	2.22	0.74
5:N:834:ASN:HB3	5:N:840:ILE:HG13	1.69	0.74
11:T:61:SER:O	11:T:62:SER:HB3	1.88	0.74
4:A:53:LEU:HD22	4:A:54:ASN:HD22	1.53	0.73
5:B:351:TYR:O	5:B:355:ILE:HG13	1.87	0.73
5:B:589:VAL:HG12	5:B:590:HIS:N	2.02	0.73
5:B:902:GLY:O	15:L:65:VAL:HG11	1.88	0.73
4:M:463:ILE:HB	4:M:464:PRO:HD2	1.69	0.73
4:M:567:LYS:CB	11:T:95:TYR:HA	2.17	0.73
4:M:567:LYS:HD3	11:T:95:TYR:CD2	2.23	0.73
4:M:63:ARG:HA	4:M:74:MET:SD	2.28	0.73
5:N:515:HIS:HD2	5:N:517:THR:H	1.33	0.73
5:N:842:ASN:ND2	5:N:845:SER:H	1.86	0.73
1:4:5:DA:H1'	1:4:6:DC:O5'	1.87	0.73
4:A:308:ILE:HG22	4:A:309:ALA:H	1.50	0.73
4:A:512:VAL:HA	4:A:519:PRO:HA	1.68	0.73
5:B:1172:ILE:O	5:B:1172:ILE:HG22	1.87	0.73
5:B:280:ILE:HD13	5:B:334:ILE:HG12	1.70	0.73
10:G:79:PHE:CZ	10:G:106:MET:HE2	2.24	0.73
10:G:23:LYS:HG3	10:G:56:ILE:HD11	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1341:ILE:HD12	4:M:1379:GLY:O	1.88	0.73
5:N:953:LEU:HD21	5:N:965:LYS:HB2	1.70	0.73
5:N:847:ASP:HB3	6:O:167:HIS:CD2	2.23	0.73
4:A:868:TYR:HD2	4:A:1058:VAL:HG21	1.52	0.73
15:L:32:ALA:HB3	15:L:55:ILE:HD12	1.68	0.73
4:M:269:ILE:HD13	4:M:300:VAL:HG22	1.69	0.73
4:M:412:ARG:NH2	5:N:1108:ARG:NH1	2.36	0.73
5:N:995:ARG:HH12	6:O:165:LYS:HG2	1.54	0.73
6:O:253:LYS:O	6:O:256:ALA:HB3	1.87	0.73
5:B:1197:PRO:HG2	5:B:1200:ALA:CB	2.19	0.73
6:C:253:LYS:O	6:C:256:ALA:HB3	1.88	0.73
4:M:1171:GLN:HA	4:M:1174:PHE:CD1	2.22	0.73
4:M:164:ARG:HG3	4:M:165:GLY:N	2.02	0.73
5:N:1202:LEU:O	5:N:1206:GLU:HG3	1.88	0.73
7:P:7:THR:HG21	7:P:32:GLU:CD	2.08	0.73
12:U:111:THR:HG22	12:U:112:SER:N	2.03	0.73
1:1:5:DA:H1'	1:1:6:DC:O5'	1.88	0.73
4:A:239:LEU:HD12	4:A:240:PRO:HD2	1.71	0.73
5:B:778:MET:HE1	5:B:853:SER:HB3	1.69	0.73
10:G:14:HIS:HD2	10:G:16:SER:HB2	1.53	0.73
5:B:44:VAL:HG11	5:B:199:MET:HG2	1.69	0.73
14:K:112:GLN:HA	14:K:112:GLN:C	2.02	0.73
5:N:857:ARG:HD2	5:N:945:GLU:OE1	1.89	0.73
5:N:955:THR:HG22	5:N:956:THR:N	2.02	0.73
5:B:343:ILE:CG2	5:B:347:LYS:HB2	2.09	0.73
5:B:708:GLU:O	5:B:710:LEU:N	2.21	0.73
4:A:1343:ALA:HB2	8:E:150:VAL:HG22	1.71	0.73
8:E:157:SER:C	8:E:159:ASP:H	1.90	0.73
5:N:39:ARG:NH2	5:N:665:GLU:HG2	2.02	0.73
10:S:23:LYS:HG3	10:S:56:ILE:CD1	2.19	0.73
4:M:1015:VAL:HG12	4:M:1019:CYS:SG	2.29	0.73
4:M:254:GLU:HB2	5:N:935:ARG:NH1	2.03	0.73
10:S:128:PRO:O	10:S:138:THR:HG23	1.89	0.73
7:P:40:HIS:CB	10:S:73:LYS:NZ	2.51	0.73
15:X:30:ILE:O	15:X:56:LEU:HA	1.89	0.73
4:A:58:LEU:HD13	4:A:80:HIS:O	1.89	0.73
4:A:897:TYR:CD2	4:A:936:LEU:HD13	2.24	0.73
10:G:153:GLN:HG2	10:G:154:VAL:HG23	1.71	0.73
4:A:340:LEU:HD13	4:A:1429:ILE:HG23	1.70	0.72
4:A:567:LYS:CB	11:H:95:TYR:HA	2.19	0.72
5:B:1084:GLN:NE2	5:B:1084:GLN:H	1.85	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:343:ILE:HG23	5:B:347:LYS:CB	2.09	0.72
7:D:66:ARG:HD2	7:D:133:THR:HB	1.71	0.72
9:F:69:LEU:HA	9:F:70:LYS:N	2.03	0.72
13:J:48:ARG:HE	13:J:49:MET:HE2	1.54	0.72
15:L:30:ILE:O	15:L:56:LEU:HA	1.88	0.72
4:M:472:LEU:O	4:M:475:THR:HB	1.88	0.72
9:R:82:THR:HG22	9:R:84:TYR:N	2.04	0.72
4:A:1036:ARG:HH11	4:A:1036:ARG:HG2	1.53	0.72
4:A:55:ASP:N	4:A:56:PRO:HD3	2.04	0.72
4:A:68:GLN:C	4:A:70:CYS:H	1.92	0.72
4:A:783:THR:HG21	4:A:815:PHE:CZ	2.24	0.72
5:B:171:PRO:HD2	5:B:457:LEU:HD13	1.71	0.72
5:B:850:LEU:HD12	5:B:851:PHE:N	2.04	0.72
6:C:186:LEU:HD21	6:C:224:GLN:O	1.89	0.72
5:B:309:GLN:OE1	12:I:52:ILE:HD11	1.89	0.72
4:M:1341:ILE:HG23	4:M:1342:GLU:N	2.04	0.72
5:N:879:ARG:NH1	5:N:883:LEU:HD22	2.03	0.72
9:R:103:MET:O	9:R:104:ASN:HB2	1.89	0.72
3:3:5:C:H2'	3:3:6:C:C6	2.24	0.72
4:A:1394:THR:HG21	4:A:1398:MET:SD	2.29	0.72
6:C:66:ARG:NH2	13:J:5:VAL:HG23	2.02	0.72
14:K:49:GLU:HG3	14:K:94:ILE:HG12	1.70	0.72
4:M:265:LYS:HD2	4:M:265:LYS:H	1.53	0.72
5:N:1084:GLN:HE21	5:N:1084:GLN:H	1.37	0.72
5:N:882:THR:HG22	5:N:884:ARG:N	2.01	0.72
4:A:326:ARG:HH22	4:A:1407:GLU:HG3	1.54	0.72
4:A:798:GLY:HA2	4:A:815:PHE:CD1	2.24	0.72
4:A:913:LEU:HD12	4:A:914:GLU:N	2.04	0.72
13:J:14:VAL:HG12	13:J:14:VAL:O	1.89	0.72
7:P:47:LEU:HD13	7:P:48:ILE:N	2.04	0.72
3:3:3:G:H2'	3:3:4:A:C8	2.24	0.72
4:A:1372:VAL:O	4:A:1376:THR:HG22	1.89	0.72
4:A:49:LYS:NZ	4:A:61:ILE:HG13	2.04	0.72
4:A:567:LYS:HD3	11:H:95:TYR:CD2	2.25	0.72
7:D:22:GLU:H	7:D:22:GLU:CD	1.91	0.72
4:A:537:ARG:HD2	11:H:20:TYR:HE1	1.52	0.72
4:M:1100:ARG:HH21	4:M:1351:GLU:CG	2.03	0.72
4:M:144:THR:O	4:M:146:MET:HG3	1.89	0.72
4:M:528:LEU:O	4:M:531:ILE:HG22	1.88	0.72
5:N:710:LEU:HA	5:N:733:HIS:HB3	1.72	0.72
8:Q:117:THR:HG22	8:Q:119:SER:H	1.52	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1341:ILE:HG23	4:A:1342:GLU:N	2.05	0.72
4:A:591:PHE:HA	4:A:595:THR:HG21	1.72	0.72
4:A:466:SER:O	5:B:1103:ILE:HD11	1.89	0.72
5:B:821:GLN:NE2	5:B:851:PHE:HA	2.03	0.72
6:C:67:LEU:HD11	6:C:155:LEU:CD1	2.20	0.72
9:F:103:MET:O	9:F:104:ASN:HB2	1.89	0.72
4:M:1028:THR:O	4:M:1032:LEU:HD12	1.89	0.72
4:M:1437:GLY:O	4:M:1439:GLY:N	2.23	0.72
5:N:1023:VAL:O	5:N:1026:LEU:HB2	1.89	0.72
10:S:23:LYS:HG3	10:S:56:ILE:HD11	1.70	0.72
11:T:42:ILE:HG23	11:T:95:TYR:HE1	1.54	0.72
4:A:1332:PHE:H	4:A:1332:PHE:HD2	1.36	0.72
4:A:93:VAL:HG22	4:A:301:ALA:HA	1.72	0.72
4:M:326:ARG:HH22	4:M:1407:GLU:HG3	1.54	0.72
4:M:549:MET:SD	4:M:577:ILE:HD11	2.30	0.72
4:M:58:LEU:CD1	4:M:80:HIS:H	2.02	0.72
5:N:378:LEU:O	5:N:382:ILE:HG13	1.89	0.72
5:N:37:PHE:CE1	5:N:41:LYS:HG3	2.25	0.72
4:A:215:SER:HB3	4:A:218:ASP:OD2	1.90	0.72
5:B:336:ARG:HD3	5:B:348:ARG:NH1	2.04	0.72
5:B:847:ASP:HB3	6:C:167:HIS:CD2	2.25	0.72
8:E:153:HIS:HB3	8:E:196:VAL:CG1	2.18	0.72
6:C:35:ARG:NH1	14:K:41:THR:N	2.38	0.72
14:K:45:LEU:HG	14:K:94:ILE:HD13	1.72	0.72
5:N:850:LEU:HD12	5:N:851:PHE:N	2.03	0.72
6:O:232:VAL:HG21	6:O:244:VAL:HG22	1.70	0.72
9:R:79:ARG:HG3	9:R:144:GLU:OE1	1.89	0.72
5:B:359:GLU:O	5:B:362:PRO:HD3	1.90	0.72
4:M:93:VAL:HG22	4:M:301:ALA:HA	1.72	0.72
5:N:1069:PHE:HA	5:N:1085:ILE:O	1.90	0.72
5:N:615:MET:C	5:N:616:ILE:HD12	2.10	0.72
7:P:130:LEU:O	7:P:132:GLN:N	2.20	0.72
7:P:159:THR:O	7:P:163:VAL:HG23	1.89	0.72
8:Q:153:HIS:HB3	8:Q:196:VAL:HG11	1.72	0.72
8:Q:177:ARG:HD3	8:Q:215:MET:HG3	1.72	0.72
9:R:111:LEU:C	9:R:113:GLY:H	1.93	0.72
4:A:1206:ASP:HB3	4:A:1274:ARG:HH12	1.53	0.72
4:M:856:THR:HB	4:M:865:GLN:HB2	1.70	0.72
6:O:213:PRO:O	6:O:214:ASN:HB2	1.88	0.72
3:3:5:C:H2'	3:3:6:C:H6	1.53	0.71
4:A:106:VAL:HG13	4:A:112:LYS:O	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:115:LEU:O	4:M:122:MET:HE2	1.90	0.71
4:M:164:ARG:HG3	4:M:165:GLY:H	1.55	0.71
4:M:701:LEU:HA	12:U:115:LYS:HE3	1.72	0.71
5:N:278:GLN:HG2	5:N:279:ASP:H	1.55	0.71
5:N:343:ILE:CG2	5:N:347:LYS:HB2	2.10	0.71
15:X:38:LEU:O	15:X:39:SER:HB3	1.90	0.71
4:A:1015:VAL:HG12	4:A:1019:CYS:SG	2.30	0.71
4:A:34:LYS:H	4:A:57:ARG:NH2	1.88	0.71
4:A:472:LEU:O	4:A:475:THR:HB	1.89	0.71
5:B:515:HIS:H	5:B:518:HIS:CD2	2.08	0.71
4:M:901:LEU:HB2	4:M:926:GLN:HG2	1.72	0.71
5:N:589:VAL:HG12	5:N:590:HIS:N	2.04	0.71
5:N:902:GLY:O	15:X:65:VAL:HG11	1.91	0.71
5:B:1180:PHE:HB3	5:B:1191:ILE:CD1	2.20	0.71
7:D:176:GLU:C	7:D:178:ALA:H	1.94	0.71
11:T:130:ARG:H	11:T:130:ARG:HD2	1.54	0.71
4:A:58:LEU:HD12	4:A:59:GLY:N	2.06	0.71
7:D:130:LEU:C	7:D:132:GLN:H	1.93	0.71
4:M:1332:PHE:H	4:M:1332:PHE:HD2	1.38	0.71
5:N:549:THR:H	5:N:628:THR:HG23	1.54	0.71
6:O:90:ASP:O	6:O:91:HIS:HB3	1.89	0.71
4:M:567:LYS:NZ	11:T:46:LEU:HB2	2.06	0.71
7:D:47:LEU:HD13	7:D:48:ILE:N	2.05	0.71
7:D:7:THR:HG21	7:D:32:GLU:CD	2.10	0.71
4:M:49:LYS:NZ	4:M:61:ILE:HG13	2.06	0.71
5:N:121:ASN:HA	5:N:207:GLY:HA2	1.71	0.71
5:N:25:ILE:HD11	5:N:653:VAL:O	1.90	0.71
4:A:1161:THR:HG22	4:A:1163:ILE:N	2.05	0.71
4:A:1348:LEU:HG	4:A:1372:VAL:CG2	2.20	0.71
4:A:89:PRO:HB2	4:A:204:THR:HG22	1.72	0.71
5:B:1099:VAL:CG1	5:B:1100:ASP:N	2.53	0.71
5:B:120:ARG:HG2	5:B:955:THR:HG21	1.71	0.71
6:C:212:PRO:HB3	6:C:213:PRO:HD2	1.72	0.71
5:N:1087:PHE:HD2	5:N:1088:GLY:N	1.88	0.71
12:I:25:LEU:HB3	12:I:38:ALA:HB2	1.71	0.71
4:M:1436:ILE:O	4:M:1437:GLY:C	2.28	0.71
4:A:340:LEU:HD21	5:B:1200:ALA:N	2.06	0.71
5:B:953:LEU:O	5:B:953:LEU:HD23	1.90	0.71
6:C:133:ILE:CD1	6:C:237:SER:HA	2.21	0.71
10:G:23:LYS:HG3	10:G:56:ILE:CD1	2.20	0.71
10:G:9:LEU:HD12	10:G:10:ASN:H	1.53	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:42:ILE:HG23	11:H:95:TYR:HE1	1.55	0.71
4:M:1206:ASP:HB3	4:M:1274:ARG:HH12	1.55	0.71
4:M:886:ILE:HD11	4:M:943:LEU:HB3	1.73	0.71
5:N:622:LYS:HE2	12:U:59:VAL:HG22	1.72	0.71
4:A:1171:GLN:HA	4:A:1174:PHE:CD1	2.25	0.71
4:M:414:ASP:OD1	4:M:416:ARG:HG2	1.89	0.71
5:N:824:ILE:CG2	5:N:1087:PHE:HE2	1.99	0.71
4:A:1436:ILE:O	4:A:1437:GLY:C	2.29	0.71
4:A:528:LEU:O	4:A:531:ILE:HG22	1.90	0.71
9:F:111:LEU:C	9:F:113:GLY:H	1.94	0.71
14:K:6:ARG:O	14:K:9:LEU:HG	1.89	0.71
5:N:1172:ILE:O	5:N:1172:ILE:HG22	1.91	0.71
5:N:37:PHE:CD1	5:N:41:LYS:HG3	2.26	0.71
5:N:35:SER:O	5:N:39:ARG:HG3	1.90	0.71
6:O:46:ILE:HG13	6:O:72:LEU:HD11	1.73	0.71
4:M:567:LYS:HD3	11:T:95:TYR:CG	2.26	0.71
5:B:882:THR:HG22	5:B:884:ARG:N	2.04	0.70
4:A:1370:LEU:O	4:A:1374:VAL:HG23	1.91	0.70
4:A:254:GLU:HB2	5:B:935:ARG:NH1	2.04	0.70
5:N:247:GLY:C	5:N:249:ARG:H	1.93	0.70
7:P:40:HIS:CB	10:S:73:LYS:HZ3	2.03	0.70
5:B:807:ARG:HG2	5:B:1045:SER:OG	1.91	0.70
10:G:1:MET:SD	10:G:79:PHE:CD1	2.84	0.70
4:A:567:LYS:CE	11:H:46:LEU:HB2	2.21	0.70
11:H:4:THR:HA	11:H:60:ALA:CB	2.20	0.70
4:M:35:ILE:HG22	4:M:35:ILE:O	1.91	0.70
5:N:1161:HIS:NE2	5:N:1175:LEU:HD21	2.06	0.70
5:N:798:TYR:HE2	6:O:62:PHE:CZ	2.10	0.70
4:A:567:LYS:NZ	11:H:46:LEU:HB2	2.06	0.70
11:H:84:ALA:CA	11:H:87:ARG:HB2	2.20	0.70
4:M:1006:ILE:HD12	8:Q:163:GLU:HG3	1.72	0.70
4:M:1244:ARG:HB3	4:M:1245:PRO:HD2	1.74	0.70
10:S:138:THR:HG22	10:S:139:ILE:N	2.05	0.70
12:U:34:TYR:HE2	12:U:36:GLU:HB3	1.56	0.70
4:A:1155:ASP:OD2	4:A:1161:THR:HG23	1.91	0.70
4:A:881:GLN:NE2	4:A:958:VAL:O	2.23	0.70
4:M:897:TYR:HD2	4:M:936:LEU:HD13	1.55	0.70
10:S:153:GLN:HG2	10:S:154:VAL:HG23	1.74	0.70
13:V:36:LEU:HD12	13:V:47:ARG:NH1	2.07	0.70
4:A:92:HIS:O	4:A:94:GLY:N	2.25	0.70
6:C:164:ALA:HA	6:C:167:HIS:O	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:98:VAL:C	6:C:99:LEU:HD23	2.11	0.70
7:D:53:SER:HB3	7:D:152:SER:CB	2.22	0.70
12:I:111:THR:HG22	12:I:112:SER:N	2.06	0.70
4:M:899:VAL:HB	4:M:929:LEU:CD1	2.21	0.70
5:N:36:ALA:HA	5:N:39:ARG:HD2	1.73	0.70
8:Q:124:VAL:HG13	8:Q:132:ILE:HB	1.74	0.70
4:A:1063:MET:HG3	4:A:1436:ILE:HG23	1.73	0.70
4:A:14:VAL:HG21	5:B:1216:LEU:HD13	1.72	0.70
5:B:863:GLU:OE2	5:B:873:THR:HA	1.92	0.70
8:E:117:THR:HG22	8:E:119:SER:H	1.55	0.70
4:M:852:TYR:CD2	4:M:1060:PRO:HB2	2.26	0.70
4:M:866:PHE:C	4:M:867:ILE:HD12	2.12	0.70
5:N:1065:GLN:HG3	5:N:1067:ARG:H	1.56	0.70
5:N:955:THR:HG22	5:N:956:THR:H	1.57	0.70
5:B:1223:ASP:O	5:B:1224:PHE:HB2	1.90	0.70
5:B:18:PHE:N	5:B:19:GLU:N	2.40	0.70
5:B:879:ARG:NH1	5:B:883:LEU:HD22	2.06	0.70
5:B:906:SER:O	5:B:941:LEU:HD23	1.92	0.70
4:A:537:ARG:HD2	11:H:20:TYR:CE1	2.27	0.70
5:N:1099:VAL:CG1	5:N:1100:ASP:N	2.54	0.70
11:T:84:ALA:CA	11:T:87:ARG:HB2	2.20	0.70
4:A:335:ARG:HA	4:A:339:ASN:HB2	1.74	0.70
5:B:361:LEU:HD21	5:B:377:PHE:CD2	2.26	0.70
5:B:842:ASN:HD22	5:B:845:SER:CB	2.04	0.70
4:M:34:LYS:H	4:M:57:ARG:NH2	1.89	0.70
4:M:902:LEU:HG	4:M:926:GLN:HG3	1.74	0.70
5:N:336:ARG:HH22	5:N:345:LYS:CE	2.03	0.70
7:P:130:LEU:C	7:P:132:GLN:H	1.94	0.70
4:M:1004:ASN:ND2	8:Q:167:ARG:HD2	2.06	0.70
14:W:42:LEU:O	14:W:46:ILE:HG13	1.91	0.70
4:A:1342:GLU:OE2	8:E:212:ARG:NH1	2.25	0.70
4:A:902:LEU:HG	4:A:926:GLN:HG3	1.72	0.70
5:B:273:LEU:CB	5:B:276:ILE:HD12	2.16	0.70
5:B:39:ARG:NH2	5:B:665:GLU:HG2	2.06	0.70
6:C:133:ILE:HD11	6:C:237:SER:HA	1.74	0.70
4:M:58:LEU:HD12	4:M:59:GLY:N	2.04	0.70
5:N:465:ASN:HD22	5:N:465:ASN:N	1.88	0.70
6:O:212:PRO:HB3	6:O:213:PRO:HD2	1.72	0.70
5:N:971:THR:OG1	6:O:61:GLU:HG3	1.92	0.70
4:A:23:SER:HA	4:A:233:TRP:CD1	2.27	0.69
4:A:853:ASP:OD1	4:A:855:THR:HB	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:710:LEU:HA	5:B:733:HIS:HB3	1.74	0.69
5:B:737:THR:HG21	12:I:66:PRO:HA	1.73	0.69
5:B:918:ILE:HB	5:B:935:ARG:HD2	1.74	0.69
4:M:1155:ASP:OD2	4:M:1161:THR:HG23	1.92	0.69
5:N:1017:ILE:HB	5:N:1018:PRO:HD3	1.74	0.69
4:A:1116:LEU:N	4:A:1308:THR:HG22	2.06	0.69
4:A:590:ARG:HG3	4:A:590:ARG:NH1	2.07	0.69
4:A:49:LYS:HE2	4:A:61:ILE:HD12	1.74	0.69
5:B:112:LEU:HD12	5:B:113:TYR:H	1.56	0.69
6:C:35:ARG:HH12	14:K:41:THR:H	1.40	0.69
9:F:82:THR:HG22	9:F:84:TYR:N	2.04	0.69
4:M:249:SER:O	4:M:250:ILE:HG13	1.91	0.69
4:M:53:LEU:HD22	4:M:54:ASN:HD22	1.57	0.69
4:A:414:ASP:OD1	4:A:416:ARG:HG2	1.91	0.69
4:A:630:ILE:HD13	4:A:646:PHE:CZ	2.27	0.69
5:B:247:GLY:C	5:B:249:ARG:H	1.94	0.69
5:B:278:GLN:HG2	5:B:279:ASP:H	1.57	0.69
5:B:336:ARG:NH2	5:B:345:LYS:HE2	2.05	0.69
9:F:138:LEU:HB3	9:F:139:PRO:HD2	1.74	0.69
10:G:59:GLY:HA3	10:G:70:PHE:CD2	2.28	0.69
4:M:901:LEU:N	4:M:926:GLN:NE2	2.37	0.69
4:A:164:ARG:HG3	4:A:165:GLY:N	2.06	0.69
4:A:58:LEU:HD21	4:A:244:PRO:HD2	1.74	0.69
5:N:1084:GLN:NE2	5:N:1084:GLN:N	2.39	0.69
13:V:8:PHE:H	13:V:49:MET:HE1	1.58	0.69
4:A:525:GLN:HG3	5:B:835:GLN:HG2	1.73	0.69
4:A:58:LEU:CG	4:A:59:GLY:N	2.56	0.69
4:A:58:LEU:HG	4:A:59:GLY:N	2.07	0.69
11:H:40:LEU:HD13	11:H:123:MET:HB2	1.75	0.69
7:P:29:LEU:HD22	10:S:82:PHE:CE2	2.28	0.69
14:W:47:ARG:NH1	14:W:47:ARG:HB3	2.06	0.69
1:4:1:DA:H1'	1:4:2:DA:C5'	2.20	0.69
4:A:1409:LEU:HD13	5:B:1207:LEU:HD11	1.72	0.69
5:B:37:PHE:CE1	5:B:41:LYS:HG3	2.28	0.69
5:B:745:PRO:O	5:B:748:ILE:HG12	1.93	0.69
7:D:134:THR:HG22	7:D:135:GLY:N	2.07	0.69
4:M:699:ALA:CB	4:M:701:LEU:HG	2.22	0.69
4:M:741:ASN:HD22	4:M:744:LYS:H	1.41	0.69
5:N:496:ARG:HB3	5:N:496:ARG:HH11	1.58	0.69
6:O:226:ASP:O	6:O:227:THR:HB	1.92	0.69
4:A:1424:VAL:HG11	5:B:1139:ILE:HD13	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:265:LYS:NZ	4:A:322:VAL:HG22	2.08	0.69
4:A:325:ILE:HG21	5:B:1210:MET:HG3	1.74	0.69
5:B:516:ASN:ND2	5:B:516:ASN:N	2.40	0.69
6:C:39:ALA:CA	6:C:164:ALA:HB3	2.22	0.69
7:D:130:LEU:O	7:D:132:GLN:N	2.23	0.69
14:K:60:ALA:O	14:K:73:LEU:HD12	1.93	0.69
4:M:340:LEU:HD21	5:N:1200:ALA:N	2.07	0.69
5:N:859:TYR:OH	5:N:941:LEU:HD12	1.92	0.69
8:Q:192:ARG:HG3	8:Q:192:ARG:HH11	1.57	0.69
2:2:27:DA:H2"	2:2:28:DT:OP2	1.90	0.69
4:M:325:ILE:HG21	5:N:1210:MET:HG3	1.75	0.69
5:B:622:LYS:HE2	12:I:59:VAL:HG22	1.73	0.69
4:M:588:LEU:O	4:M:606:LEU:HA	1.92	0.69
5:N:815:ARG:HD3	5:N:1041:GLU:OE2	1.93	0.69
5:N:120:ARG:HG2	5:N:955:THR:HG21	1.73	0.69
4:A:399:HIS:O	4:A:401:GLY:N	2.25	0.69
5:B:189:LEU:O	5:B:192:LEU:N	2.19	0.69
5:B:953:LEU:HD21	5:B:965:LYS:HB2	1.75	0.69
11:H:41:ASP:O	11:H:42:ILE:HG13	1.93	0.69
7:P:134:THR:HG22	7:P:135:GLY:N	2.08	0.69
7:P:176:GLU:C	7:P:178:ALA:H	1.95	0.69
7:P:22:GLU:CD	7:P:22:GLU:H	1.95	0.69
13:V:44:TYR:HA	13:V:47:ARG:CB	2.23	0.69
6:C:244:VAL:O	6:C:248:ILE:HG13	1.93	0.69
7:D:7:THR:HB	10:G:42:PHE:CE2	2.28	0.69
6:O:36:VAL:HG21	6:O:251:LEU:HB2	1.75	0.69
12:U:103:CYS:HB3	12:U:106:CYS:SG	2.33	0.69
4:A:1187:GLN:O	4:A:1243:VAL:HG13	1.93	0.68
4:A:1329:THR:CG2	4:A:1331:SER:H	2.05	0.68
5:B:38:PHE:HD1	5:B:811:TYR:CD2	2.11	0.68
5:B:467:GLY:H	5:B:475:SER:CB	2.05	0.68
4:A:253:ASN:HB3	5:B:935:ARG:CZ	2.23	0.68
10:G:79:PHE:HZ	10:G:106:MET:HE2	1.57	0.68
4:M:55:ASP:N	4:M:56:PRO:HD3	2.08	0.68
5:N:516:ASN:N	5:N:516:ASN:ND2	2.40	0.68
4:A:87:ALA:CB	4:A:276:LEU:HD23	2.23	0.68
4:A:405:VAL:HG22	4:A:432:VAL:HG13	1.76	0.68
4:A:567:LYS:HD3	11:H:95:TYR:CG	2.28	0.68
4:A:741:ASN:HD22	4:A:744:LYS:H	1.41	0.68
5:B:35:SER:O	5:B:39:ARG:HG3	1.93	0.68
15:L:58:LYS:HG2	15:L:58:LYS:O	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:896:ARG:HD3	4:M:897:TYR:CE1	2.28	0.68
4:M:254:GLU:CB	5:N:935:ARG:HH12	2.04	0.68
4:A:254:GLU:O	4:A:256:GLN:N	2.27	0.68
5:B:37:PHE:CD1	5:B:41:LYS:HG3	2.29	0.68
5:B:569:TYR:CE1	5:B:589:VAL:HG21	2.28	0.68
8:E:124:VAL:HG13	8:E:132:ILE:HB	1.76	0.68
8:E:157:SER:OG	8:E:160:GLU:HG3	1.94	0.68
6:C:66:ARG:NH2	13:J:3:VAL:O	2.26	0.68
4:M:69:THR:O	4:M:71:GLN:N	2.26	0.68
4:M:743:VAL:O	4:M:747:VAL:HG23	1.92	0.68
4:M:960:ILE:O	4:M:963:ILE:HG22	1.93	0.68
8:Q:9:ILE:HD11	8:Q:53:PRO:HD3	1.74	0.68
12:U:55:THR:HG21	12:U:109:ILE:HD13	1.75	0.68
15:X:53:HIS:HB3	15:X:55:ILE:CD1	2.22	0.68
4:A:58:LEU:CD1	4:A:80:HIS:H	2.05	0.68
4:A:63:ARG:HA	4:A:74:MET:CE	2.23	0.68
5:B:378:LEU:O	5:B:382:ILE:HG13	1.93	0.68
4:M:567:LYS:HG3	4:M:568:PRO:HD2	1.76	0.68
4:M:897:TYR:CD2	4:M:936:LEU:HD13	2.29	0.68
5:N:899:ILE:CD1	5:N:911:ILE:HA	2.23	0.68
6:O:133:ILE:CD1	6:O:237:SER:HA	2.23	0.68
14:W:31:VAL:HG12	14:W:32:VAL:N	2.08	0.68
4:A:1116:LEU:HB2	4:A:1329:THR:OG1	1.94	0.68
4:A:144:THR:O	4:A:146:MET:HG3	1.93	0.68
4:A:450:LEU:HD12	4:A:450:LEU:H	1.59	0.68
5:B:860:MET:HG2	5:B:861:ASP:N	2.08	0.68
6:C:238:ILE:CG2	6:C:242:GLN:HB2	2.24	0.68
12:I:103:CYS:HB3	12:I:106:CYS:SG	2.32	0.68
14:K:31:VAL:HG12	14:K:32:VAL:N	2.08	0.68
4:M:346:ASP:HB3	5:N:1108:ARG:H	1.58	0.68
4:M:14:VAL:HG21	5:N:1216:LEU:HD13	1.76	0.68
5:N:310:MET:HE1	5:N:387:LEU:HD12	1.76	0.68
4:M:1329:THR:CG2	4:M:1331:SER:H	2.06	0.68
4:M:728:LYS:O	4:M:732:LEU:HG	1.93	0.68
4:M:504:LEU:HD11	9:R:91:ALA:HB1	1.74	0.68
5:N:100:PRO:HD2	5:N:180:TYR:HE1	1.59	0.68
5:N:637:LEU:HD12	5:N:693:ILE:HD12	1.74	0.68
6:O:77:ILE:HG23	6:O:161:LYS:HE3	1.75	0.68
8:Q:198:ILE:CD1	8:Q:212:ARG:HG3	2.24	0.68
11:T:102:TYR:OH	11:T:122:LEU:HD22	1.93	0.68
2:5:15:DT:H2"	2:5:16:DT:H71	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:310:MET:HE1	5:B:387:LEU:HD12	1.76	0.68
11:H:143:LEU:N	11:H:143:LEU:HD12	2.09	0.68
6:O:43:THR:CG2	6:O:44:LEU:H	2.03	0.68
4:A:50:ILE:C	4:A:52:GLY:H	1.96	0.68
4:A:351:THR:HB	5:B:1103:ILE:CD1	2.24	0.68
5:B:635:ARG:NH2	5:B:742:GLU:OE2	2.26	0.68
7:D:153:ARG:HB3	7:D:154:PHE:CE1	2.29	0.68
7:D:52:LEU:HD21	7:D:147:TYR:HE2	1.59	0.68
4:M:1036:ARG:HG2	4:M:1036:ARG:HH11	1.58	0.68
4:M:458:HIS:CE1	4:M:507:VAL:HG21	2.29	0.68
5:N:1197:PRO:HG2	5:N:1200:ALA:CB	2.24	0.68
5:B:23:ALA:HB1	5:B:24:PRO:HD2	1.74	0.68
5:B:815:ARG:HD3	5:B:1041:GLU:OE2	1.94	0.68
5:B:953:LEU:CD2	5:B:965:LYS:HB2	2.23	0.68
6:C:90:ASP:O	6:C:91:HIS:HB3	1.94	0.68
4:M:1161:THR:HG22	4:M:1163:ILE:N	2.08	0.68
5:N:830:TYR:O	5:N:832:GLY:N	2.27	0.68
5:B:357:GLN:O	5:B:366:GLN:HA	1.94	0.67
6:C:123:ASN:HD22	6:C:125:MET:HG2	1.60	0.67
6:C:77:ILE:HG23	6:C:161:LYS:HE3	1.76	0.67
10:G:111:THR:HG22	10:G:113:HIS:H	1.58	0.67
4:M:849:MET:CE	4:M:1061:GLY:HA2	2.23	0.67
4:M:596:THR:O	4:M:598:LEU:N	2.27	0.67
5:N:217:ARG:NE	5:N:405:ARG:HB2	2.09	0.67
10:G:119:LEU:HD12	10:G:131:GLN:O	1.94	0.67
10:G:1:MET:SD	10:G:79:PHE:HD1	2.17	0.67
13:J:7:CYS:CB	13:J:46:CYS:HB3	2.25	0.67
4:M:49:LYS:HE2	4:M:61:ILE:HD12	1.76	0.67
5:N:344:LYS:O	5:N:345:LYS:HG3	1.94	0.67
5:N:357:GLN:O	5:N:366:GLN:HA	1.94	0.67
5:N:635:ARG:NH2	5:N:742:GLU:OE2	2.27	0.67
5:B:1202:LEU:O	5:B:1206:GLU:HG3	1.94	0.67
5:B:799:PRO:HB3	5:B:818:PRO:HG2	1.76	0.67
6:C:213:PRO:O	6:C:214:ASN:HB2	1.93	0.67
4:M:1323:ASP:OD1	4:M:1325:THR:HB	1.94	0.67
4:M:1345:ARG:HG3	4:M:1376:THR:HG21	1.76	0.67
5:N:336:ARG:HH21	5:N:345:LYS:HG2	1.57	0.67
5:N:616:ILE:HD12	5:N:616:ILE:N	2.09	0.67
6:O:238:ILE:CG2	6:O:242:GLN:HB2	2.25	0.67
4:A:1100:ARG:NH2	4:A:1351:GLU:HG2	2.09	0.67
8:E:46:TYR:CD2	8:E:58:MET:HG2	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:701:LEU:HA	12:I:115:LYS:HE3	1.76	0.67
4:M:809:THR:OG1	4:M:812:GLU:HG3	1.94	0.67
7:P:175:PHE:HZ	10:S:85:GLU:HG3	1.58	0.67
4:A:899:VAL:HB	4:A:929:LEU:CD1	2.24	0.67
4:A:993:LEU:HD23	4:A:1022:LEU:HD21	1.75	0.67
5:B:1069:PHE:HD1	5:B:1069:PHE:H	1.43	0.67
5:B:121:ASN:HA	5:B:207:GLY:HA2	1.76	0.67
9:F:125:LEU:O	9:F:125:LEU:HG	1.93	0.67
13:J:64:ASN:HD22	13:J:65:PRO:HD3	1.60	0.67
4:A:666:ILE:HD12	4:A:667:GLY:H	1.58	0.67
4:A:898:ARG:HB2	4:A:933:TYR:CE1	2.30	0.67
4:A:346:ASP:HB3	5:B:1108:ARG:H	1.60	0.67
5:B:594:ALA:HA	5:B:617:ARG:NH1	2.10	0.67
4:M:699:ALA:HB1	4:M:701:LEU:HG	1.76	0.67
5:N:642:ASP:O	5:N:644:GLU:N	2.27	0.67
6:O:244:VAL:O	6:O:248:ILE:HG13	1.94	0.67
4:A:58:LEU:HD11	4:A:243:PRO:CB	2.23	0.67
4:A:69:THR:O	4:A:71:GLN:N	2.28	0.67
12:I:34:TYR:HE2	12:I:36:GLU:HB3	1.59	0.67
4:M:1035:TYR:O	4:M:1037:LEU:N	2.28	0.67
4:M:567:LYS:HE3	11:T:46:LEU:HB2	1.75	0.67
4:M:903:ASN:ND2	4:M:905:ASP:H	1.93	0.67
5:N:860:MET:HG2	5:N:861:ASP:N	2.10	0.67
6:O:239:PRO:HB2	6:O:241:ASP:OD1	1.95	0.67
4:A:741:ASN:HD21	4:A:743:VAL:HB	1.60	0.67
5:B:859:TYR:OH	5:B:941:LEU:HD12	1.94	0.67
6:C:2:SER:N	6:C:3:GLU:N	2.43	0.67
10:G:80:LYS:HD3	10:G:80:LYS:H	1.60	0.67
4:M:518:LYS:HE2	4:M:624:SER:O	1.94	0.67
4:M:794:PRO:HG2	4:M:795:GLU:OE2	1.95	0.67
5:N:1162:ILE:HD11	5:N:1194:ILE:HD13	1.75	0.67
7:P:47:LEU:HD11	10:S:3:PHE:HD2	1.54	0.67
14:W:47:ARG:O	14:W:47:ARG:HD2	1.95	0.67
2:5:21:DC:H2"	2:5:22:BRU:H5"	1.77	0.67
4:A:663:SER:OG	4:A:664:THR:N	2.26	0.67
6:C:226:ASP:O	6:C:227:THR:HB	1.94	0.67
7:D:159:THR:O	7:D:163:VAL:HG23	1.95	0.67
12:I:75:CYS:SG	12:I:79:HIS:N	2.68	0.67
4:M:1289:ARG:HD2	4:M:1303:GLU:OE2	1.95	0.67
4:M:254:GLU:O	4:M:256:GLN:N	2.28	0.67
4:M:265:LYS:HD2	4:M:265:LYS:N	2.07	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:384:ASN:O	4:M:385:ILE:C	2.34	0.67
4:M:590:ARG:NH1	4:M:590:ARG:HG3	2.10	0.67
7:P:7:THR:HB	10:S:42:PHE:CE2	2.30	0.67
11:T:81:PRO:CB	11:T:82:PRO:CD	2.73	0.67
1:1:1:DA:C1'	1:1:2:DA:H5'	2.19	0.67
4:A:265:LYS:HD2	4:A:265:LYS:H	1.60	0.67
5:B:1087:PHE:HD2	5:B:1088:GLY:N	1.92	0.67
5:B:601:ARG:O	5:B:605:ARG:HG3	1.95	0.67
4:A:547:LEU:HD22	14:K:58:PHE:HD1	1.60	0.67
4:M:58:LEU:CG	4:M:59:GLY:H	2.07	0.67
4:M:58:LEU:HD11	4:M:243:PRO:CB	2.24	0.67
4:M:901:LEU:HG	4:M:926:GLN:NE2	2.09	0.67
6:O:67:LEU:HA	6:O:70:ILE:HD12	1.74	0.67
6:O:69:LEU:HB3	13:V:6:ARG:HD3	1.76	0.67
14:W:47:ARG:CB	14:W:47:ARG:HH11	2.06	0.67
4:A:63:ARG:HA	4:A:74:MET:SD	2.35	0.66
5:B:1073:TYR:CE2	5:B:1080:LYS:HG2	2.31	0.66
5:B:616:ILE:HD12	5:B:616:ILE:N	2.10	0.66
4:A:254:GLU:CB	5:B:935:ARG:HH12	2.05	0.66
8:E:78:LEU:HD21	8:E:80:VAL:HG23	1.76	0.66
4:M:225:ASN:ND2	4:M:228:PHE:H	1.90	0.66
4:M:591:PHE:HA	4:M:595:THR:HG21	1.76	0.66
4:M:984:LYS:O	4:M:988:LEU:HB2	1.96	0.66
5:N:1002:THR:HG23	5:N:1006:ILE:HG13	1.75	0.66
5:N:339:THR:O	5:N:339:THR:HG22	1.95	0.66
5:N:953:LEU:CD2	5:N:965:LYS:HB2	2.24	0.66
6:O:73:GLN:HE21	6:O:75:MET:N	1.93	0.66
11:T:81:PRO:CB	11:T:82:PRO:HD2	2.24	0.66
2:2:24:DG:OP2	5:B:942:ARG:NH2	2.23	0.66
4:A:1332:PHE:HD2	4:A:1332:PHE:N	1.93	0.66
4:A:399:HIS:HB3	4:A:400:PRO:CD	2.23	0.66
4:A:856:THR:HB	4:A:865:GLN:HB2	1.77	0.66
4:A:982:THR:HB	4:A:985:ASP:H	1.60	0.66
4:A:986:ILE:HG22	4:A:987:VAL:N	2.09	0.66
5:B:229:ALA:HB1	5:B:231:PRO:HD2	1.76	0.66
5:B:995:ARG:HH12	6:C:165:LYS:HG2	1.61	0.66
4:M:1332:PHE:N	4:M:1332:PHE:CD2	2.63	0.66
4:M:901:LEU:H	4:M:926:GLN:HE21	1.41	0.66
4:M:525:GLN:HG3	5:N:835:GLN:HG2	1.76	0.66
5:N:863:GLU:OE2	5:N:873:THR:HA	1.96	0.66
8:Q:15:ALA:O	8:Q:19:VAL:HG23	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:265:LYS:HD2	4:A:265:LYS:N	2.09	0.66
11:H:81:PRO:CB	11:H:82:PRO:CD	2.73	0.66
4:M:108:MET:N	4:M:108:MET:SD	2.67	0.66
4:M:382:PRO:HD3	4:M:428:TYR:CD2	2.31	0.66
4:M:798:GLY:HA2	4:M:815:PHE:CD1	2.30	0.66
6:O:2:SER:N	6:O:3:GLU:N	2.44	0.66
10:S:111:THR:HB	10:S:114:LEU:HB2	1.77	0.66
11:T:143:LEU:HD12	11:T:143:LEU:N	2.10	0.66
4:A:382:PRO:HD3	4:A:428:TYR:CD2	2.30	0.66
4:A:351:THR:HG22	5:B:1103:ILE:HA	1.76	0.66
6:C:46:ILE:HG23	6:C:157:CYS:HB3	1.77	0.66
8:E:213:ILE:HG12	8:E:214:CYS:H	1.59	0.66
4:A:1444:MET:CG	10:G:60:ARG:HA	2.26	0.66
4:M:714:PHE:O	4:M:718:VAL:HG23	1.96	0.66
5:N:1223:ASP:O	5:N:1224:PHE:HB2	1.94	0.66
10:S:15:PRO:HA	10:S:18:PHE:CE1	2.30	0.66
10:S:49:LEU:HG	10:S:76:ALA:HA	1.76	0.66
4:A:152:VAL:CG1	4:A:153:PRO:HD2	2.26	0.66
4:A:699:ALA:CB	4:A:701:LEU:HG	2.25	0.66
11:H:59:ILE:HG22	11:H:60:ALA:H	1.60	0.66
4:M:253:ASN:HB3	5:N:935:ARG:CZ	2.26	0.66
4:M:567:LYS:HB2	4:M:568:PRO:CD	2.25	0.66
4:M:61:ILE:HG22	4:M:62:ASP:H	1.60	0.66
5:N:169:ARG:HB2	5:N:454:THR:HG23	1.75	0.66
5:N:834:ASN:HA	5:N:838:SER:O	1.95	0.66
5:N:975:GLN:HG2	5:N:976:ILE:H	1.61	0.66
4:A:1332:PHE:N	4:A:1332:PHE:CD2	2.63	0.66
5:B:1106:ARG:NH1	5:B:1110:PRO:HG2	2.11	0.66
5:B:825:VAL:CG1	5:B:826:ALA:N	2.59	0.66
15:L:32:ALA:HB3	15:L:55:ILE:CD1	2.25	0.66
4:M:1063:MET:CG	4:M:1436:ILE:HG23	2.25	0.66
4:M:1171:GLN:HA	4:M:1174:PHE:HE1	1.61	0.66
5:N:860:MET:HG2	5:N:861:ASP:H	1.61	0.66
7:P:153:ARG:HB3	7:P:154:PHE:CE1	2.31	0.66
15:X:32:ALA:HB3	15:X:55:ILE:CD1	2.25	0.66
15:X:53:HIS:HB3	15:X:55:ILE:HD11	1.78	0.66
4:A:89:PRO:HB2	4:A:204:THR:CG2	2.24	0.66
8:E:192:ARG:HG3	8:E:192:ARG:HH11	1.60	0.66
11:H:44:VAL:O	11:H:44:VAL:HG12	1.96	0.66
4:M:1127:ASP:HB3	4:M:1130:GLN:CB	2.26	0.66
4:M:33:ALA:HA	4:M:57:ARG:NH2	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:1159:ARG:HB3	5:N:1159:ARG:HH11	1.61	0.66
5:N:336:ARG:CD	5:N:348:ARG:HH11	2.08	0.66
5:N:616:ILE:HG13	5:N:697:GLU:HA	1.78	0.66
7:P:53:SER:HB3	7:P:153:ARG:H	1.59	0.66
8:Q:153:HIS:HB3	8:Q:196:VAL:CG1	2.25	0.66
11:T:84:ALA:CB	11:T:87:ARG:HB2	2.26	0.66
6:O:66:ARG:NH2	13:V:3:VAL:O	2.29	0.66
4:A:979:SER:OG	4:A:980:ASP:N	2.29	0.66
13:J:57:ILE:HA	13:J:60:PHE:HD2	1.60	0.66
13:J:8:PHE:H	13:J:49:MET:HE1	1.61	0.66
14:K:110:ASN:O	14:K:111:LEU:HD23	1.96	0.66
4:M:1450:LEU:HG	4:M:1450:LEU:O	1.95	0.66
4:M:152:VAL:CG1	4:M:153:PRO:HD2	2.26	0.66
4:M:524:VAL:HG12	4:M:525:GLN:N	2.09	0.66
4:M:34:LYS:HE3	4:M:57:ARG:NH1	2.09	0.66
4:M:68:GLN:C	4:M:70:CYS:H	1.98	0.66
4:M:863:VAL:HG11	4:M:866:PHE:CD2	2.31	0.66
12:U:75:CYS:SG	12:U:79:HIS:N	2.69	0.66
5:N:1006:ILE:HD13	13:V:44:TYR:CE2	2.31	0.66
14:W:61:TYR:CD2	14:W:61:TYR:C	2.68	0.66
2:2:16:DT:H4'	4:A:1403:GLU:OE2	1.96	0.66
4:A:19:PHE:O	4:A:1416:ALA:HA	1.94	0.66
5:B:496:ARG:NH1	5:B:539:LEU:HB2	2.11	0.66
5:B:579:ARG:HB2	5:B:586:TRP:HE1	1.59	0.66
4:M:981:LEU:CD2	4:M:1039:LYS:HA	2.26	0.66
4:M:244:PRO:O	4:M:247:ARG:N	2.29	0.66
4:M:35:ILE:HA	4:M:52:GLY:O	1.96	0.66
5:N:807:ARG:HG2	5:N:1045:SER:OG	1.96	0.66
13:V:44:TYR:HA	13:V:47:ARG:HB3	1.78	0.66
5:B:114:PRO:HG2	5:B:115:GLN:H	1.61	0.66
4:M:903:ASN:C	4:M:903:ASN:HD22	1.97	0.66
5:N:336:ARG:HG2	5:N:348:ARG:CD	2.17	0.66
5:N:918:ILE:HB	5:N:935:ARG:HD2	1.78	0.66
3:6:3:G:H2'	3:6:4:A:C8	2.32	0.65
4:A:794:PRO:HG2	4:A:795:GLU:OE2	1.97	0.65
5:B:770:GLN:CD	5:B:983:ARG:HA	2.16	0.65
10:G:143:ILE:HG22	10:G:144:ARG:N	2.11	0.65
4:M:901:LEU:CG	4:M:926:GLN:HE21	2.08	0.65
8:Q:157:SER:OG	8:Q:160:GLU:HG3	1.96	0.65
13:V:1:MET:N	13:V:56:LEU:N	2.44	0.65
14:W:10:PHE:N	14:W:10:PHE:CD2	2.63	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:I:13:MET:HG3	12:I:14:LEU:N	2.11	0.65
4:M:1444:MET:CG	10:S:60:ARG:HA	2.26	0.65
4:M:590:ARG:HB3	4:M:605:MET:N	2.11	0.65
4:M:663:SER:OG	4:M:664:THR:N	2.28	0.65
4:M:69:THR:C	4:M:71:GLN:H	1.98	0.65
5:N:180:TYR:H	5:N:180:TYR:HD1	1.45	0.65
6:O:179:GLU:HG2	6:O:180:TYR:N	2.10	0.65
8:Q:135:PHE:HD2	8:Q:140:LEU:HD21	1.59	0.65
9:R:114:GLU:OE2	9:R:119:ARG:HG2	1.94	0.65
2:2:20:DC:H2''	2:2:21:DC:H5'	1.76	0.65
4:A:42:ASP:HB3	4:A:45:GLN:H	1.61	0.65
4:A:53:LEU:CD2	4:A:54:ASN:HD22	2.09	0.65
4:A:567:LYS:HB2	4:A:568:PRO:CD	2.26	0.65
5:B:180:TYR:HD1	5:B:180:TYR:H	1.45	0.65
5:B:339:THR:HG22	5:B:339:THR:O	1.96	0.65
11:H:81:PRO:CB	11:H:82:PRO:HD2	2.25	0.65
4:M:630:ILE:HD13	4:M:646:PHE:CZ	2.30	0.65
5:N:1115:THR:HG22	5:N:1117:GLN:HG3	1.77	0.65
5:N:63:ILE:O	5:N:67:SER:HB3	1.96	0.65
5:N:782:LEU:HD12	5:N:788:ARG:HH11	1.61	0.65
5:B:860:MET:HG2	5:B:861:ASP:H	1.62	0.65
6:C:46:ILE:HG13	6:C:72:LEU:HD11	1.79	0.65
7:D:170:THR:CG2	7:D:172:LEU:HG	2.26	0.65
7:D:53:SER:HB3	7:D:152:SER:HB2	1.78	0.65
4:M:230:ARG:H	4:M:233:TRP:HE3	1.38	0.65
5:N:225:VAL:HA	5:N:237:VAL:O	1.96	0.65
11:T:59:ILE:HG22	11:T:60:ALA:H	1.61	0.65
5:B:975:GLN:O	5:B:990:ILE:HD12	1.97	0.65
6:C:263:THR:C	6:C:265:MET:H	1.99	0.65
4:M:63:ARG:HA	4:M:74:MET:CE	2.27	0.65
4:M:979:SER:OG	4:M:980:ASP:N	2.28	0.65
5:N:1095:LEU:HD12	5:N:1095:LEU:H	1.62	0.65
6:O:147:LEU:HB2	6:O:151:GLN:HB2	1.78	0.65
6:O:66:ARG:HH21	13:V:5:VAL:HG23	1.60	0.65
7:P:51:ASN:O	7:P:52:LEU:O	2.14	0.65
8:Q:213:ILE:HG12	8:Q:214:CYS:H	1.60	0.65
10:S:80:LYS:H	10:S:80:LYS:HD3	1.62	0.65
13:V:48:ARG:HE	13:V:49:MET:HE2	1.61	0.65
4:A:1299:VAL:HG12	4:A:1300:LYS:N	2.12	0.65
4:M:1002:GLY:HA3	4:M:1007:ILE:HG21	1.79	0.65
4:M:1332:PHE:N	4:M:1332:PHE:HD2	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1445:ILE:HG12	10:S:18:PHE:HE2	1.60	0.65
4:M:87:ALA:HB3	4:M:276:LEU:HD23	1.77	0.65
4:M:754:SER:H	4:M:757:ASN:ND2	1.87	0.65
2:2:27:DA:H2	3:3:2:C:H42	1.45	0.65
2:5:24:DG:H2''	2:5:25:DT:H5'	1.77	0.65
4:A:567:LYS:HG3	4:A:568:PRO:HD2	1.77	0.65
5:B:549:THR:H	5:B:628:THR:HG23	1.61	0.65
6:C:45:ALA:HA	6:C:72:LEU:HD12	1.78	0.65
14:K:111:LEU:O	14:K:112:GLN:HG2	1.94	0.65
4:M:264:PHE:O	4:M:267:ALA:HB3	1.97	0.65
4:M:881:GLN:NE2	4:M:958:VAL:O	2.29	0.65
7:P:173:HIS:ND1	7:P:174:PRO:HD2	2.12	0.65
4:M:567:LYS:CE	11:T:46:LEU:HB2	2.27	0.65
13:V:14:VAL:HG12	13:V:14:VAL:O	1.95	0.65
5:N:801:LYS:O	13:V:52:THR:HG23	1.97	0.65
5:N:1169:MET:HE1	5:N:1201:LYS:HA	1.77	0.65
5:N:810:GLU:HB2	5:N:815:ARG:HH22	1.61	0.65
9:R:138:LEU:HB3	9:R:139:PRO:HD2	1.79	0.65
4:A:1120:LEU:N	4:A:1120:LEU:HD12	2.11	0.65
4:A:1127:ASP:HB3	4:A:1130:GLN:CB	2.27	0.65
4:A:458:HIS:CE1	4:A:507:VAL:HG21	2.32	0.65
5:B:1001:PHE:CE1	5:B:1073:TYR:HB2	2.32	0.65
5:B:378:LEU:HD12	5:B:378:LEU:O	1.96	0.65
6:C:166:GLU:HG3	14:K:10:PHE:CZ	2.21	0.65
4:A:598:LEU:HA	11:H:122:LEU:HD13	1.79	0.65
4:M:537:ARG:HD2	11:T:20:TYR:HE1	1.60	0.65
5:N:467:GLY:H	5:N:475:SER:CB	2.09	0.65
10:S:39:THR:HG22	10:S:41:LYS:H	1.62	0.65
4:A:1356:ILE:HD12	4:A:1368:MET:SD	2.37	0.65
6:C:73:GLN:HB3	6:C:131:HIS:H	1.62	0.65
4:A:504:LEU:HD11	9:F:91:ALA:HB1	1.79	0.65
13:J:16:ASP:O	13:J:18:TRP:N	2.29	0.65
4:M:306:ASN:HB2	4:M:324:SER:HB3	1.79	0.65
4:M:1428:VAL:HG13	5:N:1151:LEU:HD21	1.77	0.65
6:O:167:HIS:HD2	6:O:168:ALA:H	1.45	0.65
13:V:43:ARG:HG3	13:V:45:CYS:SG	2.37	0.65
5:B:411:PRO:O	5:B:414:ALA:HB3	1.96	0.64
4:M:1120:LEU:N	4:M:1120:LEU:HD12	2.11	0.64
4:M:982:THR:HB	4:M:985:ASP:H	1.60	0.64
6:O:43:THR:CG2	6:O:44:LEU:N	2.60	0.64
6:O:56:THR:HG22	6:O:57:VAL:H	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:353:ILE:HG21	4:A:487:MET:HG3	1.78	0.64
5:B:429:PHE:HA	5:B:432:MET:HE3	1.79	0.64
7:D:13:ARG:HB2	7:D:17:LYS:HZ2	1.61	0.64
7:D:66:ARG:O	7:D:70:PHE:HB2	1.98	0.64
4:M:87:ALA:CB	4:M:276:LEU:HD23	2.27	0.64
4:M:92:HIS:O	4:M:94:GLY:N	2.31	0.64
6:O:3:GLU:O	6:O:4:GLU:HG3	1.97	0.64
4:M:870:GLU:HG2	8:Q:208:TYR:CG	2.31	0.64
9:R:103:MET:HE2	10:S:66:GLY:H	1.63	0.64
11:T:123:MET:HG2	11:T:124:ARG:N	2.12	0.64
4:A:675:THR:O	4:A:679:ILE:HG13	1.97	0.64
4:A:767:GLN:NE2	4:A:774:ARG:HB3	2.12	0.64
5:B:839:MET:HE3	5:B:1010:LEU:HD21	1.80	0.64
5:B:344:LYS:O	5:B:345:LYS:HG3	1.97	0.64
6:C:43:THR:CG2	6:C:44:LEU:H	2.07	0.64
8:E:114:ASN:O	8:E:115:ASN:HB3	1.98	0.64
9:F:111:LEU:N	9:F:111:LEU:HD12	2.11	0.64
13:J:1:MET:N	13:J:56:LEU:N	2.45	0.64
4:A:58:LEU:CD1	4:A:243:PRO:HB3	2.27	0.64
4:A:57:ARG:O	4:A:68:GLN:HG3	1.97	0.64
5:B:340:ALA:CB	5:B:343:ILE:HD12	2.27	0.64
5:B:642:ASP:HB3	5:B:649:LYS:CD	2.28	0.64
5:B:882:THR:CG2	5:B:884:ARG:HB2	2.28	0.64
4:M:108:MET:SD	4:M:210:ILE:HD13	2.37	0.64
5:N:1096:ARG:O	5:N:1097:HIS:CB	2.45	0.64
4:A:34:LYS:NZ	7:P:187:THR:HG21	2.12	0.64
5:N:822:ASN:O	13:V:48:ARG:NH1	2.30	0.64
4:A:699:ALA:HB1	4:A:701:LEU:HG	1.80	0.64
4:A:903:ASN:HD22	4:A:903:ASN:C	2.00	0.64
10:G:1:MET:SD	10:G:1:MET:O	2.55	0.64
11:H:89:LEU:HB3	11:H:91:ASP:OD1	1.96	0.64
12:I:55:THR:HG22	12:I:58:VAL:HG21	1.79	0.64
4:M:230:ARG:N	4:M:233:TRP:CE3	2.60	0.64
4:M:356:ASP:HB2	4:M:469:ARG:HH11	1.63	0.64
4:M:666:ILE:HD12	4:M:667:GLY:H	1.62	0.64
4:M:57:ARG:O	4:M:68:GLN:HG3	1.98	0.64
4:M:896:ARG:HD3	4:M:897:TYR:HE1	1.61	0.64
5:N:778:MET:HE2	5:N:1094:ARG:HG2	1.80	0.64
5:N:1138:MET:CE	5:N:1138:MET:HA	2.27	0.64
12:U:99:LEU:O	12:U:111:THR:HG23	1.97	0.64
6:C:241:ASP:O	6:C:245:VAL:HG23	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:J:44:TYR:HD2	13:J:44:TYR:H	1.45	0.64
4:M:1227:ILE:HG22	4:M:1228:TRP:N	2.13	0.64
4:M:55:ASP:C	4:M:57:ARG:H	1.99	0.64
4:M:58:LEU:CG	4:M:59:GLY:N	2.61	0.64
5:N:44:VAL:HG11	5:N:199:MET:HG2	1.80	0.64
7:P:71:LYS:HA	7:P:74:GLN:HB2	1.78	0.64
10:S:9:LEU:HD12	10:S:10:ASN:H	1.61	0.64
11:T:89:LEU:HB3	11:T:91:ASP:OD1	1.97	0.64
2:2:21:DC:H2"	2:2:22:BRU:H5"	1.80	0.64
5:B:637:LEU:O	5:B:690:VAL:HG13	1.98	0.64
5:B:25:ILE:HD11	5:B:653:VAL:O	1.97	0.64
5:B:821:GLN:HE22	5:B:851:PHE:CA	2.08	0.64
6:C:179:GLU:HG2	6:C:180:TYR:N	2.13	0.64
7:D:138:ASN:OD1	7:D:141:LEU:HB2	1.98	0.64
4:M:1127:ASP:HB3	4:M:1130:GLN:HB3	1.78	0.64
4:M:407:ARG:HB3	4:M:430:TRP:CE2	2.32	0.64
4:M:547:LEU:HD22	14:W:58:PHE:CD1	2.33	0.64
4:M:58:LEU:HD21	4:M:244:PRO:HD2	1.79	0.64
4:M:996:ASN:O	4:M:998:LEU:HD12	1.98	0.64
5:N:882:THR:CG2	5:N:884:ARG:HB2	2.28	0.64
7:P:8:PHE:CZ	7:P:40:HIS:HA	2.33	0.64
4:A:366:VAL:HG21	4:A:460:VAL:HG22	1.80	0.64
5:B:287:ARG:HG2	5:B:292:ILE:HA	1.78	0.64
5:B:615:MET:C	5:B:616:ILE:HD12	2.18	0.64
5:B:842:ASN:HB3	5:B:845:SER:OG	1.98	0.64
6:C:161:LYS:O	6:C:170:TRP:NE1	2.30	0.64
7:D:176:GLU:O	7:D:178:ALA:N	2.30	0.64
8:E:9:ILE:HD11	8:E:53:PRO:HD3	1.79	0.64
14:K:12:LEU:HD12	14:K:12:LEU:H	1.63	0.64
14:K:46:ILE:O	14:K:46:ILE:HG22	1.97	0.64
4:M:670:ILE:HG23	4:M:805:LEU:HD21	1.80	0.64
5:N:906:SER:O	5:N:941:LEU:HD23	1.97	0.64
4:A:1028:THR:O	4:A:1032:LEU:HD12	1.98	0.64
4:A:321:PRO:O	4:A:322:VAL:CB	2.46	0.64
4:A:33:ALA:O	4:A:83:HIS:HD2	1.81	0.64
5:B:1115:THR:O	5:B:1116:ARG:HB2	1.97	0.64
5:B:642:ASP:O	5:B:644:GLU:N	2.31	0.64
4:A:870:GLU:HG2	8:E:208:TYR:CG	2.33	0.64
5:B:1006:ILE:HD13	13:J:44:TYR:CE2	2.33	0.64
13:J:44:TYR:HA	13:J:47:ARG:HB3	1.80	0.64
4:M:1348:LEU:HG	4:M:1372:VAL:HG23	1.77	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:502:ILE:H	5:N:502:ILE:CD1	1.97	0.64
6:O:208:GLU:O	6:O:210:GLU:N	2.31	0.64
7:P:53:SER:CB	7:P:153:ARG:H	2.10	0.64
8:Q:177:ARG:HD3	8:Q:215:MET:CG	2.28	0.64
9:R:97:ARG:O	9:R:101:ILE:HG13	1.98	0.64
4:A:1124:HIS:HB3	4:A:1130:GLN:HG2	1.79	0.64
5:B:542:MET:HG2	5:B:747:MET:HB3	1.80	0.64
5:B:758:PHE:CE2	5:B:1044:ALA:HA	2.32	0.64
4:M:347:PHE:H	5:N:1107:ALA:HA	1.63	0.64
4:M:351:THR:HB	5:N:1103:ILE:CD1	2.27	0.64
5:N:758:PHE:CE2	5:N:1044:ALA:HA	2.33	0.64
5:N:847:ASP:C	5:N:849:GLY:H	2.00	0.64
5:N:953:LEU:HD23	5:N:953:LEU:O	1.98	0.64
8:Q:114:ASN:O	8:Q:115:ASN:HB3	1.98	0.64
1:1:3:DG:H2"	1:1:4:DT:OP2	1.96	0.63
4:A:869:GLY:O	8:E:204:THR:HG21	1.98	0.63
5:B:314:LEU:O	5:B:317:CYS:HB3	1.99	0.63
5:B:557:PHE:C	5:B:557:PHE:CD2	2.70	0.63
8:E:135:PHE:HD2	8:E:140:LEU:HD21	1.61	0.63
4:M:1364:ASN:HD22	4:M:1365:TYR:N	1.96	0.63
4:M:500:GLU:OE1	5:N:1143:ALA:C	2.36	0.63
12:U:34:TYR:CE2	12:U:36:GLU:HB3	2.33	0.63
2:5:18:TT:O5R	2:5:18:TT:H2'1	1.97	0.63
4:A:1006:ILE:HD12	8:E:163:GLU:HG3	1.79	0.63
4:A:164:ARG:HG3	4:A:165:GLY:H	1.63	0.63
4:A:49:LYS:HZ1	4:A:61:ILE:N	1.97	0.63
4:A:69:THR:C	4:A:71:GLN:H	2.01	0.63
4:A:720:ARG:O	4:A:724:GLU:HB2	1.98	0.63
4:A:901:LEU:H	4:A:926:GLN:HE21	1.47	0.63
5:B:1017:ILE:HB	5:B:1018:PRO:HD3	1.80	0.63
8:E:39:LEU:O	8:E:42:PHE:HB3	1.98	0.63
11:H:111:LEU:HD23	11:H:127:GLY:O	1.98	0.63
12:I:112:SER:O	12:I:114:GLN:N	2.31	0.63
4:M:1370:LEU:O	4:M:1374:VAL:HG23	1.99	0.63
4:M:34:LYS:CE	4:M:57:ARG:HH12	2.10	0.63
4:M:405:VAL:HG22	4:M:432:VAL:HG13	1.81	0.63
5:N:979:LYS:HG2	5:N:1095:LEU:HD13	1.79	0.63
14:W:49:GLU:HG3	14:W:94:ILE:HG12	1.79	0.63
4:A:1127:ASP:HB3	4:A:1130:GLN:HB3	1.79	0.63
4:A:714:PHE:O	4:A:718:VAL:HG23	1.97	0.63
5:B:1165:ILE:HG22	5:B:1166:CYS:N	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:189:ASP:O	7:D:193:THR:HB	1.98	0.63
13:J:3:VAL:HG21	13:J:18:TRP:CB	2.26	0.63
4:M:69:THR:C	4:M:71:GLN:N	2.51	0.63
7:P:8:PHE:CE2	7:P:40:HIS:HA	2.33	0.63
4:M:869:GLY:O	8:Q:204:THR:HG21	1.98	0.63
8:Q:46:TYR:CD2	8:Q:58:MET:HG2	2.33	0.63
4:A:1227:ILE:HG22	4:A:1228:TRP:N	2.13	0.63
4:A:384:ASN:O	4:A:385:ILE:C	2.37	0.63
4:A:853:ASP:OD1	4:A:855:THR:N	2.31	0.63
5:B:100:PRO:HD2	5:B:180:TYR:HE1	1.64	0.63
5:B:446:LEU:O	5:B:447:ALA:HB3	1.99	0.63
6:C:174:ALA:HB2	6:C:235:VAL:HG22	1.81	0.63
4:M:1342:GLU:OE2	8:Q:212:ARG:NH1	2.32	0.63
4:M:54:ASN:HB3	4:M:247:ARG:HH12	1.64	0.63
5:N:121:ASN:HA	5:N:207:GLY:CA	2.27	0.63
5:N:654:ARG:H	5:N:657:HIS:CD2	2.14	0.63
10:S:88:ASP:N	10:S:88:ASP:OD2	2.31	0.63
2:5:24:DG:OP2	5:N:942:ARG:NH2	2.26	0.63
4:A:23:SER:HA	4:A:233:TRP:NE1	2.14	0.63
4:A:590:ARG:O	4:A:591:PHE:HB2	1.98	0.63
4:A:596:THR:O	4:A:598:LEU:N	2.31	0.63
5:B:465:ASN:HD22	5:B:465:ASN:N	1.95	0.63
5:B:526:GLU:HG2	5:B:538:ASN:HD22	1.63	0.63
6:C:167:HIS:HD2	6:C:168:ALA:H	1.47	0.63
7:D:71:LYS:HA	7:D:74:GLN:HB2	1.79	0.63
4:M:1063:MET:SD	4:M:1436:ILE:HG12	2.39	0.63
4:M:1438:THR:HB	5:N:1144:ALA:HB3	1.79	0.63
4:M:828:ALA:HB2	5:N:530:GLY:HA2	1.79	0.63
5:N:642:ASP:HB3	5:N:649:LYS:CD	2.29	0.63
5:N:39:ARG:HH21	5:N:665:GLU:CD	2.02	0.63
5:N:38:PHE:HD1	5:N:811:TYR:CD2	2.17	0.63
12:U:13:MET:HG3	12:U:14:LEU:N	2.14	0.63
5:B:1169:MET:HE1	5:B:1201:LYS:HA	1.79	0.63
4:A:18:GLN:HB2	5:B:1215:ARG:HB2	1.81	0.63
5:B:53:GLN:HG2	5:B:547:VAL:CG2	2.27	0.63
5:B:579:ARG:HH11	5:B:579:ARG:HG2	1.62	0.63
5:B:582:VAL:HG23	5:B:626:ILE:HB	1.81	0.63
4:A:782:ARG:NH2	5:B:699:GLU:O	2.30	0.63
5:B:842:ASN:ND2	5:B:845:SER:OG	2.30	0.63
6:C:3:GLU:O	6:C:4:GLU:HG3	1.97	0.63
12:I:105:SER:O	12:I:106:CYS:HB3	1.96	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:49:LYS:HZ1	4:M:61:ILE:HG13	1.63	0.63
5:N:1034:VAL:HG12	5:N:1035:ALA:N	2.12	0.63
5:N:880:THR:O	5:N:881:ASN:HB2	1.99	0.63
4:A:34:LYS:HZ3	7:P:187:THR:HG21	1.63	0.63
7:P:52:LEU:HD21	7:P:147:TYR:HE2	1.63	0.63
11:T:17:PRO:HB3	11:T:24:CYS:SG	2.38	0.63
4:A:1002:GLY:HA3	4:A:1007:ILE:HG21	1.79	0.63
4:A:1289:ARG:HD2	4:A:1303:GLU:OE2	1.99	0.63
4:A:356:ASP:HB2	4:A:469:ARG:HH12	1.63	0.63
4:A:58:LEU:HG	4:A:59:GLY:H	1.62	0.63
4:A:903:ASN:ND2	4:A:905:ASP:H	1.96	0.63
5:B:1161:HIS:NE2	5:B:1175:LEU:HD21	2.13	0.63
5:B:223:VAL:CG1	5:B:381:MET:HG2	2.28	0.63
5:B:880:THR:O	5:B:881:ASN:HB2	1.99	0.63
4:M:90:VAL:CG1	4:M:297:GLN:HA	2.28	0.63
5:N:1069:PHE:HD1	5:N:1069:PHE:H	1.43	0.63
2:2:24:DG:H2''	2:2:25:DT:H5'	1.79	0.63
2:2:27:DA:H2	3:3:2:C:N4	1.97	0.63
5:B:936:ASP:OD1	5:B:938:SER:N	2.30	0.63
7:D:185:CYS:HB2	7:D:211:LEU:HD22	1.79	0.63
8:E:202:SER:OG	8:E:204:THR:HG22	1.99	0.63
4:M:252:PHE:O	4:M:253:ASN:HB2	1.98	0.63
5:N:446:LEU:O	5:N:447:ALA:HB3	1.99	0.63
6:O:263:THR:C	6:O:265:MET:H	2.01	0.63
5:B:1065:GLN:HG3	5:B:1067:ARG:H	1.64	0.63
6:C:73:GLN:HE21	6:C:75:MET:N	1.97	0.63
11:H:17:PRO:HB3	11:H:24:CYS:SG	2.39	0.63
4:M:89:PRO:HB2	4:M:204:THR:HG22	1.81	0.63
4:M:666:ILE:HD12	4:M:666:ILE:N	2.13	0.63
4:M:821:ARG:HH11	4:M:821:ARG:HB2	1.64	0.63
5:N:1159:ARG:HD3	5:N:1193:GLN:HG3	1.81	0.63
4:M:335:ARG:HH11	5:N:1202:LEU:HD13	1.61	0.63
5:N:589:VAL:CG1	5:N:590:HIS:H	2.06	0.63
7:P:52:LEU:O	7:P:54:GLU:N	2.30	0.63
4:A:21:LEU:HD12	4:A:229:SER:HB2	1.81	0.62
7:D:52:LEU:O	7:D:54:GLU:N	2.30	0.62
10:G:35:GLU:OE2	10:G:48:VAL:HG23	1.99	0.62
4:M:852:TYR:CE2	4:M:1060:PRO:HB2	2.33	0.62
4:M:41:MET:HB3	4:M:48:ALA:O	1.98	0.62
5:N:226:PHE:HA	5:N:395:GLN:HG3	1.81	0.62
5:N:1001:PHE:CE2	6:O:34:ARG:CZ	2.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:P:47:LEU:HD11	10:S:3:PHE:CE2	2.33	0.62
4:A:728:LYS:O	4:A:732:LEU:HG	1.98	0.62
5:B:1034:VAL:HG12	5:B:1035:ALA:N	2.13	0.62
5:B:871:THR:HG22	5:B:872:GLU:O	1.98	0.62
5:B:899:ILE:CD1	5:B:911:ILE:HA	2.29	0.62
6:C:56:THR:HG22	6:C:57:VAL:H	1.63	0.62
10:G:91:VAL:HB	10:G:139:ILE:O	1.99	0.62
4:M:1124:HIS:HB3	4:M:1130:GLN:HG2	1.80	0.62
4:M:492:PRO:O	4:M:493:GLN:NE2	2.32	0.62
5:N:582:VAL:HG23	5:N:626:ILE:HB	1.81	0.62
8:Q:48:ASP:CG	8:Q:49:SER:H	2.02	0.62
4:A:1214:GLU:O	4:A:1218:GLN:HG2	2.00	0.62
4:A:68:GLN:O	4:A:70:CYS:N	2.33	0.62
4:A:868:TYR:CE1	4:A:1064:VAL:CG1	2.81	0.62
5:B:580:VAL:HG22	5:B:624:LEU:HB3	1.81	0.62
6:C:36:VAL:HG21	6:C:251:LEU:HB2	1.80	0.62
8:E:177:ARG:HD3	8:E:215:MET:HG3	1.82	0.62
4:M:321:PRO:O	4:M:322:VAL:CB	2.47	0.62
5:N:1079:LYS:HA	6:O:27:LEU:HD21	1.80	0.62
5:N:336:ARG:HD3	5:N:348:ARG:NH1	2.14	0.62
5:N:593:PRO:HG2	5:N:617:ARG:NH2	2.14	0.62
4:M:537:ARG:HD2	11:T:20:TYR:CE1	2.34	0.62
4:A:1313:LEU:HD23	4:A:1338:VAL:HG21	1.80	0.62
4:A:1438:THR:HB	5:B:1144:ALA:HB3	1.80	0.62
4:A:577:ILE:O	4:A:580:VAL:HG23	2.00	0.62
4:A:588:LEU:O	4:A:606:LEU:HA	1.98	0.62
5:B:1065:GLN:NE2	5:B:1066:SER:N	2.47	0.62
14:K:61:TYR:C	14:K:61:TYR:CD2	2.70	0.62
4:M:335:ARG:HA	4:M:339:ASN:HB2	1.82	0.62
4:M:598:LEU:HD22	11:T:25:ARG:NH1	2.14	0.62
4:M:986:ILE:HG22	4:M:987:VAL:N	2.12	0.62
5:N:287:ARG:HG2	5:N:292:ILE:HA	1.80	0.62
5:N:794:ASN:O	5:N:795:ILE:HD12	1.99	0.62
6:O:35:ARG:NH1	14:W:41:THR:N	2.48	0.62
12:U:55:THR:HG22	12:U:58:VAL:HG21	1.80	0.62
2:5:27:DA:H2''	2:5:28:DT:OP2	1.99	0.62
4:A:306:ASN:HB2	4:A:324:SER:HB3	1.81	0.62
4:A:69:THR:C	4:A:71:GLN:N	2.52	0.62
4:A:743:VAL:O	4:A:747:VAL:HG23	1.99	0.62
12:I:71:SER:OG	12:I:83:ASN:HB2	1.99	0.62
2:5:16:DT:H4'	4:M:1403:GLU:OE2	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:694:THR:O	4:M:698:GLN:HG3	1.98	0.62
4:M:963:ILE:HD11	4:M:1048:ASN:CB	2.29	0.62
5:N:496:ARG:HH12	5:N:539:LEU:HB2	1.64	0.62
7:P:52:LEU:C	7:P:54:GLU:H	2.02	0.62
10:S:1:MET:O	10:S:1:MET:SD	2.56	0.62
12:U:50:THR:HG22	12:U:52:ILE:H	1.65	0.62
4:A:399:HIS:CB	4:A:400:PRO:HD3	2.24	0.62
4:A:567:LYS:CB	4:A:568:PRO:HD2	2.29	0.62
7:D:4:SER:O	7:D:5:THR:HB	2.00	0.62
8:E:168:TYR:HB2	8:E:170:LEU:HG	1.81	0.62
11:H:84:ALA:CB	11:H:87:ARG:HB2	2.30	0.62
4:M:1100:ARG:NH2	4:M:1351:GLU:HG2	2.14	0.62
5:N:899:ILE:O	5:N:952:VAL:HG21	1.99	0.62
6:O:29:MET:HE1	14:W:98:LEU:HG	1.81	0.62
4:A:49:LYS:HZ1	4:A:61:ILE:HG13	1.63	0.62
5:B:229:ALA:CB	5:B:231:PRO:HD2	2.30	0.62
5:B:36:ALA:HA	5:B:39:ARG:HD2	1.82	0.62
7:D:56:ARG:HB2	7:D:148:LEU:HD22	1.82	0.62
4:M:1348:LEU:HG	4:M:1372:VAL:CG2	2.28	0.62
5:N:309:GLN:OE1	12:U:52:ILE:HD11	2.00	0.62
5:N:496:ARG:NH1	5:N:539:LEU:HB2	2.14	0.62
6:O:189:THR:HG22	6:O:190:ASP:N	2.13	0.62
8:Q:78:LEU:HD21	8:Q:80:VAL:HG23	1.80	0.62
10:S:79:PHE:CZ	10:S:106:MET:HE1	2.35	0.62
4:A:590:ARG:HB2	4:A:605:MET:HB3	1.82	0.62
7:D:63:LEU:HD13	7:D:133:THR:OG1	1.99	0.62
4:M:1030:ARG:HG3	4:M:1034:GLU:OE2	1.98	0.62
4:M:590:ARG:HB2	4:M:605:MET:HB3	1.82	0.62
7:P:60:LYS:O	7:P:64:VAL:HG23	1.99	0.62
4:A:982:THR:O	4:A:985:ASP:HB2	2.00	0.62
5:B:1001:PHE:CD2	6:C:34:ARG:NH2	2.67	0.62
5:B:1182:CYS:O	5:B:1182:CYS:SG	2.58	0.62
5:B:770:GLN:HG2	5:B:983:ARG:O	2.00	0.62
4:M:1214:GLU:O	4:M:1218:GLN:HG2	2.00	0.62
5:N:1165:ILE:HG22	5:N:1166:CYS:N	2.13	0.62
5:N:1177:HIS:HB2	5:N:1179:GLN:HE21	1.65	0.62
5:N:800:GLN:HB3	13:V:52:THR:HG22	1.79	0.62
15:X:47:ARG:HH21	15:X:54:ARG:HH21	1.47	0.62
1:1:6:DC:C1'	1:1:7:DT:H5'	2.28	0.62
4:A:427:GLN:HG3	4:A:430:TRP:CE2	2.34	0.62
4:A:481:ASP:OD1	4:A:483:ASP:OD2	2.17	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:852:TYR:CD2	4:A:1060:PRO:HB2	2.34	0.62
4:A:901:LEU:HB2	4:A:926:GLN:HG2	1.81	0.62
5:B:95:ILE:HG13	5:B:130:VAL:HG22	1.81	0.62
5:N:223:VAL:CG1	5:N:381:MET:HG2	2.30	0.62
7:P:187:THR:HG22	7:P:188:ALA:H	1.65	0.62
9:R:93:ILE:HD11	9:R:134:ILE:CD1	2.24	0.62
10:S:17:PHE:N	10:S:17:PHE:CD2	2.67	0.62
4:A:269:ILE:HD11	4:A:300:VAL:HA	1.82	0.61
4:A:347:PHE:H	5:B:1107:ALA:HA	1.65	0.61
4:A:37:PHE:N	4:A:37:PHE:CD1	2.67	0.61
4:A:863:VAL:HG11	4:A:866:PHE:CD2	2.35	0.61
4:A:960:ILE:O	4:A:963:ILE:HG22	1.99	0.61
5:B:857:ARG:HD2	5:B:945:GLU:OE1	2.00	0.61
7:D:144:THR:HG21	10:G:46:LEU:HD13	1.82	0.61
7:D:40:HIS:CE1	7:D:41:GLN:HG3	2.35	0.61
8:E:15:ALA:O	8:E:19:VAL:HG23	1.99	0.61
4:M:23:SER:HA	4:M:233:TRP:CD1	2.35	0.61
5:N:770:GLN:CD	5:N:983:ARG:HA	2.20	0.61
5:N:850:LEU:HD12	5:N:851:PHE:H	1.65	0.61
6:O:66:ARG:CZ	13:V:2:ILE:HG21	2.29	0.61
14:W:42:LEU:HD21	14:W:46:ILE:HD11	1.81	0.61
1:4:3:DG:H2"	1:4:4:DT:OP2	1.98	0.61
4:A:647:GLY:O	4:A:651:LYS:HG3	1.99	0.61
5:B:705:MET:H	5:B:710:LEU:HD12	1.63	0.61
5:B:798:TYR:HE2	6:C:62:PHE:CZ	2.18	0.61
13:J:44:TYR:HA	13:J:47:ARG:CB	2.30	0.61
4:M:302:THR:HA	4:M:305:ASP:O	2.00	0.61
4:M:49:LYS:HZ1	4:M:61:ILE:N	1.98	0.61
4:M:546:VAL:O	4:M:550:LEU:HG	2.00	0.61
4:M:58:LEU:HD11	4:M:80:HIS:H	1.65	0.61
5:N:1106:ARG:NH1	5:N:1110:PRO:HG2	2.15	0.61
6:O:123:ASN:HD22	6:O:125:MET:HG2	1.64	0.61
7:P:176:GLU:O	7:P:178:ALA:N	2.32	0.61
4:A:108:MET:N	4:A:108:MET:SD	2.73	0.61
4:A:33:ALA:HA	4:A:57:ARG:NH2	2.15	0.61
4:A:475:THR:HG23	4:A:476:SER:N	2.13	0.61
4:A:590:ARG:HG3	4:A:590:ARG:HH11	1.65	0.61
4:A:809:THR:OG1	4:A:812:GLU:HG3	2.00	0.61
4:A:963:ILE:HD11	4:A:1048:ASN:CB	2.26	0.61
4:A:981:LEU:CD2	4:A:1039:LYS:HA	2.31	0.61
4:A:666:ILE:HD11	5:B:1067:ARG:O	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:33:PHE:CE1	10:G:80:LYS:HE3	2.36	0.61
4:M:51:GLY:HA2	4:M:56:PRO:HA	1.82	0.61
5:N:351:TYR:O	5:N:355:ILE:HG13	2.00	0.61
5:N:557:PHE:C	5:N:557:PHE:CD2	2.72	0.61
5:N:579:ARG:HG2	5:N:579:ARG:HH11	1.64	0.61
4:M:782:ARG:NH2	5:N:699:GLU:O	2.33	0.61
5:N:825:VAL:CG1	5:N:826:ALA:N	2.63	0.61
5:N:995:ARG:NH1	6:O:165:LYS:HG2	2.16	0.61
7:P:34:GLN:O	7:P:47:LEU:HD23	2.00	0.61
8:Q:94:LYS:CE	8:Q:98:ILE:HD11	2.31	0.61
10:S:1:MET:SD	10:S:1:MET:C	2.78	0.61
12:U:26:LEU:CD2	12:U:37:GLU:HA	2.28	0.61
4:A:1171:GLN:HA	4:A:1174:PHE:HE1	1.66	0.61
4:A:54:ASN:HB3	4:A:247:ARG:HH12	1.65	0.61
5:B:1162:ILE:HG22	5:B:1163:CYS:H	1.65	0.61
4:M:1313:LEU:O	4:M:1315:GLU:N	2.34	0.61
4:M:1279:ILE:HD11	4:M:1316:VAL:HG21	1.80	0.61
4:M:853:ASP:OD1	4:M:855:THR:CB	2.47	0.61
5:N:601:ARG:O	5:N:605:ARG:HG3	2.00	0.61
7:P:66:ARG:HD2	7:P:133:THR:HB	1.83	0.61
13:V:57:ILE:HA	13:V:60:PHE:HD2	1.66	0.61
4:A:268:ASP:HB3	4:A:299:HIS:CE1	2.35	0.61
4:A:741:ASN:ND2	4:A:744:LYS:H	1.97	0.61
5:B:37:PHE:HE2	5:B:542:MET:HA	1.65	0.61
5:B:496:ARG:HH12	5:B:539:LEU:HB2	1.65	0.61
5:B:957:ASN:O	5:B:959:ASP:N	2.34	0.61
8:E:94:LYS:CE	8:E:98:ILE:HD11	2.26	0.61
9:F:130:ILE:O	9:F:148:VAL:HG21	1.99	0.61
4:M:23:SER:HA	4:M:233:TRP:NE1	2.15	0.61
4:M:577:ILE:O	4:M:580:VAL:HG23	2.00	0.61
5:N:594:ALA:HA	5:N:617:ARG:NH1	2.16	0.61
6:O:174:ALA:HB2	6:O:235:VAL:HG22	1.83	0.61
5:N:798:TYR:HE2	6:O:62:PHE:CE2	2.18	0.61
4:A:1030:ARG:HG3	4:A:1034:GLU:OE2	2.00	0.61
4:A:1120:LEU:HD13	4:A:1304:TRP:O	2.00	0.61
4:A:16:GLU:HB3	4:A:1418:LEU:HD11	1.83	0.61
4:A:37:PHE:H	4:A:37:PHE:HD1	1.48	0.61
4:M:450:LEU:N	4:M:450:LEU:HD12	2.14	0.61
4:M:42:ASP:HB3	4:M:45:GLN:H	1.65	0.61
4:M:50:ILE:C	4:M:52:GLY:H	2.04	0.61
4:M:58:LEU:HG	4:M:59:GLY:N	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:336:ARG:NH2	5:N:345:LYS:HE2	2.10	0.61
5:N:483:LEU:HD11	5:N:491:THR:CG2	2.30	0.61
5:N:705:MET:H	5:N:710:LEU:HD12	1.64	0.61
6:O:183:TRP:CZ2	6:O:207:CYS:HB3	2.36	0.61
2:2:18:TT:O5R	2:2:18:TT:H2'1	2.01	0.61
4:A:639:PRO:HG2	4:A:640:GLN:H	1.64	0.61
5:B:433:GLN:O	5:B:437:GLU:HG3	2.00	0.61
5:B:620:ARG:NH2	12:I:89:GLN:NE2	2.48	0.61
4:M:14:VAL:H	4:M:1432:GLN:HE22	1.48	0.61
9:R:111:LEU:HD12	9:R:111:LEU:N	2.14	0.61
15:X:58:LYS:O	15:X:58:LYS:HG2	2.00	0.61
4:A:828:ALA:HB2	5:B:530:GLY:HA2	1.82	0.61
6:C:177:GLU:HB2	6:C:231:ASN:HB3	1.83	0.61
13:J:44:TYR:HD2	13:J:44:TYR:N	1.98	0.61
13:J:7:CYS:HB2	13:J:46:CYS:HB3	1.83	0.61
4:M:399:HIS:O	4:M:401:GLY:N	2.34	0.61
6:O:100:THR:HG22	6:O:101:LEU:N	2.15	0.61
6:O:161:LYS:O	6:O:170:TRP:NE1	2.33	0.61
7:P:35:LEU:HD13	7:P:173:HIS:ND1	2.16	0.61
10:S:1:MET:O	10:S:3:PHE:CD1	2.53	0.61
11:T:38:LEU:HD12	11:T:124:ARG:O	2.01	0.61
5:N:622:LYS:CE	12:U:59:VAL:HG22	2.31	0.61
2:5:27:DA:H2	3:6:2:C:H42	1.48	0.61
4:A:1107:VAL:HG12	4:A:1107:VAL:O	2.01	0.61
5:B:1070:GLU:OE1	13:J:44:TYR:OH	2.19	0.61
6:C:174:ALA:O	6:C:175:ALA:HB2	2.01	0.61
4:A:857:ARG:NH1	9:F:139:PRO:HB2	2.15	0.61
12:I:78:CYS:HB2	12:I:106:CYS:HB3	1.82	0.61
4:M:21:LEU:HG	4:M:1413:GLY:O	2.01	0.61
4:M:58:LEU:CD1	4:M:243:PRO:HB3	2.31	0.61
12:U:8:ARG:CG	12:U:34:TYR:HE1	2.12	0.61
13:V:44:TYR:HD2	13:V:44:TYR:H	1.47	0.61
4:A:1066:VAL:O	4:A:1070:GLN:HG3	2.01	0.61
4:A:244:PRO:O	4:A:247:ARG:N	2.34	0.61
4:A:252:PHE:O	4:A:253:ASN:HB2	2.01	0.61
4:A:382:PRO:HD3	4:A:428:TYR:HD2	1.66	0.61
5:B:978:ASP:OD2	5:B:1098:MET:HG2	2.01	0.61
6:C:18:VAL:HG12	6:C:18:VAL:O	1.99	0.61
6:C:214:ASN:HB3	6:C:217:ASP:OD2	2.00	0.61
8:E:48:ASP:CG	8:E:49:SER:H	2.04	0.61
10:G:15:PRO:HA	10:G:18:PHE:CE1	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:91:ASP:C	11:H:93:TYR:H	2.03	0.61
4:M:55:ASP:O	4:M:55:ASP:CG	2.36	0.61
4:M:785:PRO:HG2	4:M:786:HIS:HD2	1.65	0.61
5:N:1174:LYS:O	5:N:1176:ASN:N	2.33	0.61
4:A:1198:ASP:O	4:A:1202:MET:HG2	2.01	0.60
4:A:1291:VAL:HG13	4:A:1292:PRO:HD2	1.81	0.60
5:B:1001:PHE:CE2	6:C:34:ARG:CZ	2.83	0.60
5:B:27:ALA:O	5:B:29:ASP:N	2.34	0.60
5:B:777:ALA:HA	5:B:1095:LEU:HA	1.83	0.60
4:M:21:LEU:HD12	4:M:229:SER:HB2	1.83	0.60
4:M:399:HIS:CB	4:M:400:PRO:HD3	2.27	0.60
7:P:7:THR:O	7:P:9:GLN:N	2.34	0.60
9:R:69:LEU:CA	9:R:70:LYS:N	2.63	0.60
4:A:1437:GLY:O	4:A:1439:GLY:N	2.34	0.60
4:A:35:ILE:HD12	4:A:241:VAL:HG21	1.82	0.60
5:B:190:TYR:CE2	13:J:62:ARG:HB3	2.35	0.60
5:B:224:GLN:O	5:B:238:ALA:HA	2.01	0.60
5:B:782:LEU:HD12	5:B:788:ARG:HH11	1.66	0.60
8:E:90:VAL:HA	8:E:120:ALA:HB2	1.83	0.60
15:L:53:HIS:HB3	15:L:55:ILE:CD1	2.30	0.60
5:N:1072:MET:HE1	5:N:1085:ILE:HB	1.81	0.60
6:O:238:ILE:HG23	6:O:242:GLN:HB2	1.83	0.60
5:N:1001:PHE:CD2	6:O:34:ARG:NH2	2.69	0.60
10:S:34:VAL:CG1	10:S:45:ILE:HG21	2.30	0.60
10:S:51:TYR:C	10:S:51:TYR:CD2	2.74	0.60
4:A:763:ALA:O	4:A:803:SER:HB3	2.02	0.60
5:B:811:TYR:N	5:B:811:TYR:CD1	2.69	0.60
5:B:843:GLN:O	5:B:846:ILE:HB	2.01	0.60
12:I:106:CYS:O	12:I:107:SER:HB2	2.00	0.60
4:M:1118:VAL:CG2	4:M:1306:LEU:HB2	2.31	0.60
4:M:1187:GLN:O	4:M:1243:VAL:HG13	2.02	0.60
4:M:244:PRO:HB2	4:M:245:PRO:HD3	1.81	0.60
4:M:475:THR:HG23	4:M:476:SER:N	2.15	0.60
6:O:165:LYS:O	14:W:6:ARG:NH1	2.34	0.60
5:B:57:TYR:CD1	5:B:57:TYR:N	2.69	0.60
9:F:109:VAL:HG11	9:F:123:LYS:HD3	1.82	0.60
9:F:90:ARG:HG3	9:F:91:ALA:N	2.15	0.60
13:J:44:TYR:N	13:J:44:TYR:CD2	2.70	0.60
4:M:1209:MET:SD	4:M:1236:LEU:HD22	2.42	0.60
4:M:19:PHE:O	4:M:1416:ALA:HA	1.99	0.60
4:M:477:PRO:CG	4:M:521:MET:HG2	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:552:TRP:HE3	4:M:651:LYS:HB3	1.66	0.60
4:M:907:THR:CG2	4:M:908:LEU:N	2.64	0.60
5:N:1099:VAL:HG12	5:N:1100:ASP:N	2.15	0.60
5:N:100:PRO:HD2	5:N:180:TYR:CE1	2.37	0.60
5:N:842:ASN:HD22	5:N:845:SER:CB	2.13	0.60
8:Q:157:SER:C	8:Q:159:ASP:N	2.54	0.60
8:Q:29:PHE:O	8:Q:30:ILE:HG13	2.02	0.60
8:Q:39:LEU:O	8:Q:42:PHE:HB3	2.02	0.60
4:A:1101:LEU:HB2	4:A:1355:VAL:HG11	1.83	0.60
4:A:1385:THR:O	4:A:1387:HIS:N	2.35	0.60
4:A:289:ILE:C	4:A:291:GLU:H	2.05	0.60
4:A:518:LYS:HE2	4:A:624:SER:O	2.01	0.60
7:D:173:HIS:ND1	7:D:174:PRO:HD2	2.17	0.60
4:M:1107:VAL:O	4:M:1107:VAL:HG12	2.02	0.60
5:N:224:GLN:O	5:N:238:ALA:HA	2.01	0.60
9:R:111:LEU:O	9:R:113:GLY:N	2.34	0.60
10:S:143:ILE:HG22	10:S:144:ARG:N	2.16	0.60
11:T:127:GLY:O	11:T:128:ASN:HB2	2.01	0.60
14:W:6:ARG:O	14:W:9:LEU:HG	2.01	0.60
4:A:230:ARG:H	4:A:233:TRP:HE3	1.42	0.60
4:A:244:PRO:HB2	4:A:245:PRO:HD3	1.81	0.60
4:A:87:ALA:HB3	4:A:276:LEU:HD23	1.83	0.60
4:A:694:THR:O	4:A:698:GLN:HG3	2.00	0.60
5:B:233:PRO:HG2	5:B:234:ILE:HD12	1.82	0.60
5:B:225:VAL:HA	5:B:237:VAL:O	2.01	0.60
5:B:57:TYR:N	5:B:57:TYR:HD1	2.00	0.60
8:E:157:SER:C	8:E:159:ASP:N	2.55	0.60
8:E:175:LEU:HD23	8:E:176:PRO:HD2	1.84	0.60
8:E:29:PHE:O	8:E:30:ILE:HG13	2.02	0.60
12:I:103:CYS:CB	12:I:106:CYS:SG	2.89	0.60
12:I:7:CYS:HB3	12:I:14:LEU:HD21	1.83	0.60
6:C:29:MET:HE1	14:K:98:LEU:HG	1.83	0.60
4:M:1027:ALA:O	4:M:1031:VAL:HG23	2.02	0.60
4:M:89:PRO:HB2	4:M:204:THR:CG2	2.31	0.60
4:M:534:LEU:HG	4:M:534:LEU:O	2.01	0.60
5:N:1115:THR:O	5:N:1116:ARG:HB2	2.00	0.60
5:N:999:MET:HE3	5:N:999:MET:HA	1.83	0.60
7:P:167:LEU:O	7:P:170:THR:OG1	2.18	0.60
4:A:567:LYS:CB	4:A:568:PRO:CD	2.79	0.60
5:B:549:THR:HG22	5:B:550:ASP:N	2.10	0.60
6:C:76:ASP:O	6:C:79:GLN:HG2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:399:HIS:HB3	4:M:400:PRO:CD	2.27	0.60
5:N:294:ASP:O	5:N:296:GLU:N	2.34	0.60
5:N:53:GLN:HG2	5:N:547:VAL:CG2	2.30	0.60
4:A:224:PHE:HD2	4:A:229:SER:O	1.85	0.60
4:A:475:THR:CG2	4:A:476:SER:N	2.64	0.60
5:B:1174:LYS:O	5:B:1176:ASN:N	2.33	0.60
5:B:843:GLN:O	5:B:846:ILE:N	2.35	0.60
11:H:56:THR:HG21	11:H:145:ARG:HE	1.67	0.60
14:K:42:LEU:HD21	14:K:46:ILE:HD11	1.84	0.60
4:M:868:TYR:CD2	4:M:1058:VAL:HG21	2.34	0.60
4:M:1116:LEU:HB3	4:M:1308:THR:HG21	1.83	0.60
4:M:738:LYS:HB2	4:M:740:LEU:HG	1.83	0.60
8:Q:179:GLN:HB2	8:Q:182:ASP:HB2	1.84	0.60
11:T:41:ASP:O	11:T:42:ILE:HG13	2.00	0.60
14:W:7:PHE:HA	14:W:10:PHE:CE2	2.37	0.60
4:A:1011:GLN:NE2	4:A:1015:VAL:HG21	2.17	0.60
4:A:1279:ILE:HD11	4:A:1316:VAL:HG21	1.83	0.60
4:A:492:PRO:O	4:A:493:GLN:NE2	2.34	0.60
5:B:745:PRO:O	5:B:747:MET:N	2.35	0.60
9:F:111:LEU:O	9:F:113:GLY:N	2.34	0.60
10:G:138:THR:CG2	10:G:139:ILE:H	2.01	0.60
10:G:1:MET:SD	10:G:1:MET:C	2.80	0.60
4:M:244:PRO:O	4:M:246:VAL:N	2.35	0.60
4:M:741:ASN:HD21	4:M:743:VAL:HB	1.67	0.60
5:N:343:ILE:CB	5:N:348:ARG:HG3	2.31	0.60
7:P:56:ARG:HB2	7:P:148:LEU:HD22	1.83	0.60
10:S:39:THR:HG22	10:S:40:GLY:N	2.17	0.60
4:A:55:ASP:C	4:A:57:ARG:H	2.03	0.60
4:A:738:LYS:HB2	4:A:740:LEU:HG	1.83	0.60
4:A:896:ARG:HD3	4:A:897:TYR:HE1	1.67	0.60
5:B:211:VAL:O	5:B:480:SER:HA	2.02	0.60
8:E:180:ARG:HH21	8:E:192:ARG:HB2	1.67	0.60
10:G:17:PHE:N	10:G:17:PHE:CD2	2.69	0.60
4:M:1293:SER:OG	4:M:1294:PRO:HD2	2.02	0.60
4:M:1385:THR:O	4:M:1387:HIS:N	2.35	0.60
4:M:548:ASN:HA	14:W:60:ALA:HB1	1.84	0.60
5:N:1162:ILE:HG22	5:N:1163:CYS:H	1.67	0.60
5:N:315:LYS:N	5:N:316:PRO:HD2	2.17	0.60
5:N:498:THR:HB	5:N:537:LYS:O	2.02	0.60
5:N:616:ILE:CG1	5:N:697:GLU:HA	2.31	0.60
6:O:100:THR:OG1	6:O:121:VAL:HG21	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:T:58:THR:HG22	11:T:59:ILE:H	1.66	0.60
11:T:4:THR:CA	11:T:60:ALA:HB2	2.26	0.60
2:5:27:DA:H2	3:6:2:C:N4	2.00	0.59
4:A:1121:GLU:CG	4:A:1122:PRO:HD2	2.32	0.59
4:A:326:ARG:NH2	4:A:1407:GLU:HG3	2.16	0.59
4:A:450:LEU:N	4:A:450:LEU:HD12	2.16	0.59
4:A:58:LEU:HD11	4:A:80:HIS:H	1.67	0.59
5:B:226:PHE:HA	5:B:395:GLN:HG3	1.84	0.59
5:B:521:LEU:HB3	5:B:633:VAL:HG11	1.83	0.59
5:B:842:ASN:O	5:B:846:ILE:HG13	2.02	0.59
7:D:52:LEU:C	7:D:54:GLU:H	2.05	0.59
9:F:89:GLU:OE2	9:F:134:ILE:HG21	2.02	0.59
4:M:783:THR:HG21	4:M:815:PHE:CE2	2.36	0.59
6:O:56:THR:HG21	6:O:145:CYS:SG	2.42	0.59
8:Q:197:LYS:HE2	8:Q:199:ILE:HD11	1.83	0.59
5:B:971:THR:OG1	6:C:61:GLU:HG3	2.02	0.59
6:C:100:THR:HG22	6:C:101:LEU:N	2.17	0.59
7:D:134:THR:HG22	7:D:136:GLY:H	1.66	0.59
7:D:8:PHE:CZ	7:D:40:HIS:HA	2.38	0.59
4:M:187:LYS:HE3	4:M:198:GLU:OE2	2.02	0.59
4:M:35:ILE:HD12	4:M:241:VAL:HG21	1.83	0.59
4:M:541:ILE:HG22	4:M:546:VAL:HG23	1.84	0.59
4:M:567:LYS:CB	4:M:568:PRO:HD2	2.32	0.59
5:N:23:ALA:HB1	5:N:24:PRO:HD2	1.83	0.59
5:N:542:MET:HG2	5:N:747:MET:HB3	1.84	0.59
8:Q:180:ARG:HH21	8:Q:192:ARG:HB2	1.66	0.59
9:R:118:LEU:O	9:R:122:MET:HG3	2.02	0.59
12:U:106:CYS:O	12:U:107:SER:HB2	2.02	0.59
4:A:1063:MET:SD	4:A:1436:ILE:HG12	2.42	0.59
4:A:860:LEU:HD11	4:A:1393:ASN:HB2	1.84	0.59
10:G:139:ILE:HG22	10:G:140:LYS:N	2.16	0.59
11:H:127:GLY:O	11:H:128:ASN:HB2	2.02	0.59
13:J:23:ASN:C	13:J:25:LEU:H	2.05	0.59
4:M:567:LYS:HB3	11:T:95:TYR:CA	2.32	0.59
4:M:596:THR:C	4:M:598:LEU:H	2.03	0.59
5:N:1159:ARG:HB3	5:N:1159:ARG:NH1	2.16	0.59
5:N:175:ARG:HH11	5:N:175:ARG:HG2	1.67	0.59
5:N:802:PRO:HB3	5:N:1091:TYR:CD2	2.37	0.59
5:N:831:SER:HB3	5:N:994:TYR:OH	2.02	0.59
5:N:999:MET:CE	5:N:999:MET:HA	2.32	0.59
11:T:111:LEU:HD23	11:T:127:GLY:O	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:T:63:LEU:HD22	11:T:90:ALA:HB3	1.83	0.59
13:V:12:LYS:O	13:V:14:VAL:HG23	2.02	0.59
4:A:58:LEU:CD2	4:A:244:PRO:HD2	2.32	0.59
4:A:666:ILE:HD12	4:A:666:ILE:N	2.17	0.59
5:B:515:HIS:CD2	5:B:517:THR:H	2.19	0.59
6:C:262:LEU:HD11	14:K:87:LEU:HD23	1.84	0.59
7:D:60:LYS:O	7:D:64:VAL:HG23	2.01	0.59
8:E:168:TYR:CB	8:E:170:LEU:HG	2.32	0.59
4:A:598:LEU:HD22	11:H:25:ARG:NH1	2.18	0.59
4:M:445:ASN:HB2	4:M:455:MET:HG2	1.84	0.59
4:M:482:PHE:C	4:M:484:GLY:H	2.04	0.59
4:M:868:TYR:CE1	4:M:1064:VAL:CG1	2.84	0.59
5:N:433:GLN:O	5:N:437:GLU:HG3	2.01	0.59
10:S:79:PHE:HZ	10:S:106:MET:HE1	1.68	0.59
5:B:1103:ILE:O	5:B:1122:ARG:NH1	2.35	0.59
5:B:546:SER:OG	5:B:631:GLY:N	2.33	0.59
5:B:756:ILE:O	5:B:759:PRO:HD3	2.02	0.59
5:B:834:ASN:HA	5:B:838:SER:O	2.02	0.59
9:F:97:ARG:O	9:F:101:ILE:HG13	2.02	0.59
10:G:1:MET:O	10:G:3:PHE:CD1	2.56	0.59
12:I:34:TYR:CE2	12:I:36:GLU:HB3	2.37	0.59
4:M:849:MET:HE1	4:M:1061:GLY:HA2	1.83	0.59
4:M:1120:LEU:HD13	4:M:1304:TRP:O	2.02	0.59
4:M:471:ASN:OD1	4:M:472:LEU:N	2.35	0.59
4:M:532:ARG:O	4:M:535:THR:HB	2.03	0.59
4:M:90:VAL:HG13	4:M:297:GLN:HA	1.83	0.59
5:N:1007:VAL:CG2	5:N:1008:PRO:HD2	2.32	0.59
4:M:1409:LEU:HD13	5:N:1207:LEU:HD11	1.83	0.59
5:N:269:ILE:HD11	5:N:386:LEU:HD21	1.85	0.59
13:V:27:GLU:O	13:V:29:GLU:N	2.36	0.59
5:N:190:TYR:CE2	13:V:62:ARG:HB3	2.37	0.59
4:A:1001:ARG:O	4:A:1002:GLY:O	2.21	0.59
4:A:1445:ILE:HD12	4:A:1445:ILE:N	2.03	0.59
4:A:2:VAL:HG21	5:B:1157:ALA:C	2.23	0.59
5:B:1084:GLN:NE2	5:B:1084:GLN:N	2.50	0.59
5:B:217:ARG:C	5:B:217:ARG:HD2	2.22	0.59
5:B:431:TYR:CZ	5:B:447:ALA:HB2	2.37	0.59
5:B:63:ILE:O	5:B:67:SER:HB3	2.02	0.59
4:A:1445:ILE:HG12	10:G:18:PHE:CE2	2.38	0.59
11:H:113:ALA:HB2	11:H:126:GLU:HG3	1.85	0.59
12:I:78:CYS:HB3	12:I:106:CYS:SG	2.42	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:I:50:THR:HG22	12:I:52:ILE:H	1.68	0.59
13:J:1:MET:H1	13:J:56:LEU:HB2	1.67	0.59
4:M:971:PHE:CE2	4:M:1040:GLN:HG2	2.37	0.59
4:M:567:LYS:CB	4:M:568:PRO:CD	2.79	0.59
5:N:1180:PHE:O	5:N:1181:GLU:O	2.20	0.59
5:N:27:ALA:O	5:N:29:ASP:N	2.36	0.59
5:N:378:LEU:HD12	5:N:378:LEU:O	2.03	0.59
5:N:515:HIS:CD2	5:N:517:THR:H	2.18	0.59
5:N:611:PRO:HB3	5:N:685:LEU:HD11	1.82	0.59
5:N:990:ILE:HG22	5:N:991:GLY:N	2.17	0.59
6:O:44:LEU:HD21	6:O:159:ALA:HB1	1.84	0.59
7:P:13:ARG:HB2	7:P:17:LYS:HZ2	1.66	0.59
14:W:47:ARG:C	14:W:47:ARG:HD2	2.22	0.59
5:B:847:ASP:C	5:B:849:GLY:H	2.05	0.59
10:G:1:MET:O	10:G:3:PHE:CE1	2.56	0.59
5:N:46:GLN:HG3	5:N:47:GLN:N	2.11	0.59
9:R:90:ARG:HG3	9:R:91:ALA:N	2.16	0.59
11:T:128:ASN:O	11:T:128:ASN:CG	2.40	0.59
11:T:58:THR:HB	11:T:143:LEU:HD13	1.85	0.59
4:A:886:ILE:HD11	4:A:943:LEU:HB3	1.83	0.59
4:A:899:VAL:HB	4:A:929:LEU:HD11	1.83	0.59
5:B:1002:THR:HG23	5:B:1006:ILE:HG13	1.83	0.59
5:B:291:ILE:HD13	5:B:300:HIS:NE2	2.18	0.59
5:B:603:LEU:HD13	5:B:608:ASP:HB2	1.83	0.59
5:B:731:VAL:HG12	5:B:732:SER:H	1.67	0.59
6:C:189:THR:HG22	6:C:190:ASP:N	2.17	0.59
6:C:22:LEU:HD13	6:C:230:MET:CE	2.33	0.59
7:D:8:PHE:CE2	7:D:40:HIS:HA	2.37	0.59
4:M:372:LYS:HA	4:M:435:HIS:ND1	2.18	0.59
5:N:516:ASN:H	5:N:516:ASN:HD22	1.48	0.59
9:R:85:MET:CE	9:R:93:ILE:HD12	2.32	0.59
11:T:102:TYR:CD2	11:T:102:TYR:N	2.71	0.59
4:A:407:ARG:HG2	4:A:430:TRP:CH2	2.38	0.59
5:B:287:ARG:NH1	5:B:324:ILE:O	2.36	0.59
5:B:401:PHE:HD2	5:B:521:LEU:HD12	1.67	0.59
5:B:622:LYS:CE	12:I:59:VAL:HG22	2.33	0.59
5:B:969:ARG:HD2	6:C:61:GLU:OE2	2.02	0.59
8:E:179:GLN:HB2	8:E:182:ASP:HB2	1.85	0.59
9:F:119:ARG:HH11	9:F:119:ARG:HG3	1.68	0.59
10:G:48:VAL:HG13	10:G:74:TYR:HD1	1.68	0.59
12:I:14:LEU:HD22	12:I:28:GLU:O	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:O:39:ALA:CA	6:O:164:ALA:HB3	2.32	0.59
10:S:7:LEU:HB2	10:S:74:TYR:HE2	1.63	0.59
4:A:546:VAL:O	4:A:550:LEU:HG	2.03	0.59
4:A:942:PHE:HD2	4:A:943:LEU:HD23	1.67	0.59
8:E:156:LEU:HD12	8:E:195:VAL:HB	1.85	0.59
4:A:547:LEU:HB3	14:K:58:PHE:CE1	2.37	0.59
4:M:1333:ILE:O	4:M:1337:GLU:HG3	2.03	0.59
4:M:265:LYS:HE2	4:M:322:VAL:CG1	2.33	0.59
5:N:527:THR:OG1	5:N:528:PRO:HD2	2.02	0.59
5:N:977:GLY:HA3	5:N:1099:VAL:CG2	2.32	0.59
7:P:213:GLU:O	7:P:217:LEU:HG	2.02	0.59
9:R:81:THR:HB	9:R:136:ARG:HH11	1.67	0.59
13:V:8:PHE:H	13:V:49:MET:CE	2.16	0.59
5:B:121:ASN:HA	5:B:207:GLY:CA	2.33	0.58
11:H:63:LEU:HD22	11:H:90:ALA:HB3	1.84	0.58
4:M:1039:LYS:HE3	4:M:1043:ASP:OD2	2.02	0.58
4:M:224:PHE:HD2	4:M:229:SER:O	1.85	0.58
4:M:289:ILE:C	4:M:291:GLU:H	2.06	0.58
4:M:482:PHE:O	4:M:484:GLY:N	2.35	0.58
5:N:1182:CYS:SG	5:N:1182:CYS:O	2.61	0.58
5:N:211:VAL:O	5:N:480:SER:HA	2.03	0.58
5:N:758:PHE:HB3	5:N:761:HIS:CD2	2.38	0.58
6:O:11:ARG:HD3	6:O:209:TYR:CE2	2.37	0.58
11:T:56:THR:HG21	11:T:145:ARG:HE	1.68	0.58
4:A:500:GLU:OE1	5:B:1143:ALA:C	2.42	0.58
4:A:665:GLY:O	4:A:667:GLY:N	2.36	0.58
4:A:844:ALA:C	4:A:845:LEU:HD23	2.23	0.58
6:C:112:ASN:HB2	6:C:114:TYR:CE1	2.38	0.58
7:D:7:THR:O	7:D:9:GLN:N	2.36	0.58
15:L:47:ARG:HH21	15:L:54:ARG:HH21	1.50	0.58
5:N:603:LEU:HD13	5:N:608:ASP:HB2	1.84	0.58
11:T:93:TYR:HB3	11:T:144:ILE:O	2.02	0.58
12:U:112:SER:O	12:U:114:GLN:N	2.36	0.58
4:A:107:CYS:N	4:A:114:LEU:HD21	2.18	0.58
4:A:979:SER:OG	4:A:981:LEU:HG	2.04	0.58
5:B:175:ARG:HH11	5:B:175:ARG:HG2	1.67	0.58
5:B:981:ALA:HB2	5:B:987:LYS:HA	1.85	0.58
4:M:901:LEU:O	4:M:921:GLY:N	2.31	0.58
5:N:978:ASP:OD2	5:N:1098:MET:HG2	2.04	0.58
7:P:170:THR:CG2	7:P:172:LEU:HG	2.32	0.58
11:T:11:GLN:HA	11:T:53:ASP:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:U:101:PHE:CD1	12:U:101:PHE:N	2.70	0.58
4:A:406:ILE:HG13	4:A:431:LYS:HB2	1.85	0.58
5:B:510:LYS:HG3	5:B:511:PRO:HD3	1.83	0.58
9:F:101:ILE:HD11	9:F:124:GLU:OE1	2.03	0.58
10:G:34:VAL:CG1	10:G:45:ILE:HG21	2.31	0.58
4:A:547:LEU:HB3	14:K:58:PHE:HE1	1.68	0.58
4:M:863:VAL:HG11	4:M:866:PHE:CE2	2.39	0.58
6:O:112:ASN:HB2	6:O:114:TYR:CE1	2.38	0.58
6:O:73:GLN:HB3	6:O:131:HIS:H	1.68	0.58
14:W:109:TRP:O	14:W:111:LEU:N	2.34	0.58
4:A:1118:VAL:HG12	4:A:1327:ILE:HG13	1.84	0.58
4:A:471:ASN:OD1	4:A:472:LEU:N	2.36	0.58
4:A:84:ILE:HG23	4:A:84:ILE:O	2.03	0.58
4:A:858:ASN:ND2	4:A:858:ASN:C	2.56	0.58
4:A:886:ILE:CG2	4:A:887:GLY:N	2.66	0.58
5:B:1159:ARG:HD3	5:B:1193:GLN:CG	2.32	0.58
5:B:125:SER:HA	5:B:171:PRO:HA	1.85	0.58
5:B:831:SER:OG	5:B:840:ILE:HD11	2.03	0.58
5:B:955:THR:CG2	5:B:956:THR:H	2.16	0.58
6:C:252:GLN:HG3	14:K:95:ILE:HG23	1.85	0.58
7:D:18:VAL:O	7:D:18:VAL:HG13	2.02	0.58
11:H:11:GLN:HA	11:H:53:ASP:O	2.03	0.58
12:I:101:PHE:N	12:I:101:PHE:CD1	2.70	0.58
13:J:64:ASN:CB	13:J:65:PRO:CD	2.81	0.58
14:K:10:PHE:CD2	14:K:10:PHE:N	2.70	0.58
4:M:1279:ILE:O	4:M:1279:ILE:HG22	2.03	0.58
4:M:2:VAL:HG21	5:N:1157:ALA:C	2.24	0.58
4:M:269:ILE:HD11	4:M:300:VAL:HA	1.85	0.58
4:M:47:ARG:HH12	4:M:254:GLU:HG2	1.66	0.58
4:M:7:SER:C	4:M:9:ALA:H	2.06	0.58
4:M:899:VAL:HB	4:M:929:LEU:HD11	1.85	0.58
5:N:859:TYR:CZ	5:N:941:LEU:HD12	2.38	0.58
6:O:147:LEU:HD23	6:O:147:LEU:N	2.18	0.58
6:O:238:ILE:HD11	6:O:246:ARG:NH1	2.17	0.58
7:P:4:SER:O	7:P:5:THR:HB	2.04	0.58
10:S:117:GLN:C	10:S:119:LEU:H	2.07	0.58
4:A:444:PHE:CB	4:A:458:HIS:HD2	2.16	0.58
4:A:482:PHE:O	4:A:484:GLY:N	2.36	0.58
4:A:93:VAL:CG2	4:A:301:ALA:HA	2.32	0.58
5:B:822:ASN:O	13:J:48:ARG:NH1	2.36	0.58
4:M:33:ALA:O	4:M:83:HIS:HD2	1.87	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:899:VAL:HB	4:M:929:LEU:HD12	1.85	0.58
5:N:1065:GLN:NE2	5:N:1066:SER:N	2.52	0.58
5:N:51:PHE:O	5:N:54:PHE:HB3	2.03	0.58
5:N:957:ASN:O	5:N:959:ASP:N	2.36	0.58
5:N:97:VAL:HG12	5:N:178:ASN:HD21	1.69	0.58
4:A:224:PHE:CE2	4:A:231:PRO:HG3	2.39	0.58
4:A:264:PHE:O	4:A:267:ALA:HB3	2.04	0.58
4:A:265:LYS:HE2	4:A:322:VAL:CG1	2.34	0.58
4:A:590:ARG:HB3	4:A:605:MET:N	2.19	0.58
4:A:761:MET:HA	4:A:804:TYR:HB2	1.85	0.58
5:B:1050:ILE:HG22	5:B:1051:THR:N	2.19	0.58
5:B:288:ALA:HA	5:B:331:LEU:HD12	1.86	0.58
5:B:604:ARG:NH1	5:B:691:GLU:OE2	2.37	0.58
5:B:983:ARG:HD2	5:B:1091:TYR:HD2	1.67	0.58
6:C:31:ASN:O	6:C:34:ARG:HB3	2.04	0.58
9:F:147:SER:OG	9:F:150:GLU:HG3	2.03	0.58
10:G:73:LYS:HE2	10:G:74:TYR:O	2.03	0.58
4:M:1291:VAL:HG13	4:M:1292:PRO:HD2	1.84	0.58
4:M:32:VAL:HG23	4:M:32:VAL:O	2.03	0.58
5:N:1070:GLU:OE1	13:V:44:TYR:OH	2.21	0.58
5:N:806:THR:CG2	5:N:808:ALA:HB3	2.34	0.58
5:N:811:TYR:N	5:N:811:TYR:CD1	2.72	0.58
6:O:22:LEU:HD23	6:O:25:VAL:HG21	1.85	0.58
6:O:46:ILE:HG23	6:O:157:CYS:HB3	1.85	0.58
6:O:45:ALA:HA	6:O:72:LEU:HD12	1.85	0.58
7:P:198:LEU:O	7:P:200:ASN:N	2.37	0.58
8:Q:177:ARG:C	8:Q:212:ARG:HD3	2.24	0.58
13:V:64:ASN:HD22	13:V:65:PRO:HD3	1.69	0.58
4:A:84:ILE:HG22	4:A:239:LEU:HB3	1.86	0.58
4:A:477:PRO:CG	4:A:521:MET:HG2	2.34	0.58
4:A:805:LEU:HD11	5:B:1052:VAL:HG21	1.84	0.58
5:B:95:ILE:CG1	5:B:130:VAL:HG22	2.34	0.58
6:C:123:ASN:ND2	6:C:125:MET:HG2	2.18	0.58
6:C:73:GLN:HE21	6:C:75:MET:H	1.50	0.58
8:E:195:VAL:HG22	8:E:213:ILE:HG13	1.86	0.58
8:E:78:LEU:HD23	8:E:78:LEU:C	2.24	0.58
13:J:27:GLU:O	13:J:29:GLU:N	2.37	0.58
4:M:1341:ILE:CG2	4:M:1342:GLU:N	2.66	0.58
4:M:34:LYS:CE	4:M:57:ARG:NH1	2.67	0.58
4:M:463:ILE:HD12	4:M:469:ARG:HD2	1.85	0.58
4:M:675:THR:O	4:M:679:ILE:HG13	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:809:THR:H	4:M:812:GLU:HB2	1.68	0.58
4:M:844:ALA:C	4:M:845:LEU:HD23	2.23	0.58
5:N:1002:THR:HG21	5:N:1006:ILE:CD1	2.32	0.58
8:Q:78:LEU:C	8:Q:78:LEU:HD23	2.24	0.58
11:T:44:VAL:HG12	11:T:44:VAL:O	2.03	0.58
11:T:56:THR:HB	11:T:145:ARG:CG	2.33	0.58
12:U:69:PRO:HG2	12:U:85:PHE:CD2	2.38	0.58
1:4:5:DA:C2	2:5:13:DA:C2	2.92	0.58
4:A:548:ASN:HA	14:K:60:ALA:HB1	1.86	0.58
4:A:821:ARG:HD2	4:A:825:ILE:HD11	1.84	0.58
5:B:831:SER:HB3	5:B:994:TYR:OH	2.02	0.58
4:A:1444:MET:HG3	10:G:60:ARG:HA	1.84	0.58
12:I:86:PHE:CE1	12:I:100:PHE:HB2	2.38	0.58
4:M:107:CYS:N	4:M:114:LEU:HD21	2.19	0.58
4:M:11:LEU:HB2	5:N:1193:GLN:OE1	2.04	0.58
4:M:412:ARG:NH2	5:N:1108:ARG:HH12	2.01	0.58
4:M:466:SER:HB2	5:N:1099:VAL:HG11	1.86	0.58
5:N:1107:ALA:O	5:N:1108:ARG:HG2	2.04	0.58
5:N:240:ILE:CG2	5:N:254:LEU:HB3	2.33	0.58
6:O:174:ALA:O	6:O:175:ALA:HB2	2.03	0.58
2:2:14:DC:H2''	2:2:15:DT:H71	1.86	0.58
1:4:1:DA:C1'	1:4:2:DA:H5'	2.28	0.58
4:A:34:LYS:HB2	4:A:36:ARG:HH21	1.68	0.58
4:A:51:GLY:HA2	4:A:56:PRO:HA	1.84	0.58
4:A:871:ASP:OD2	4:A:873:MET:HB2	2.04	0.58
4:A:984:LYS:O	4:A:988:LEU:HB2	2.03	0.58
5:B:516:ASN:HD22	5:B:516:ASN:H	1.51	0.58
6:C:66:ARG:NH1	6:C:144:ILE:O	2.36	0.58
7:D:57:LEU:O	7:D:61:GLU:HB2	2.04	0.58
11:H:123:MET:HG2	11:H:124:ARG:N	2.19	0.58
11:H:81:PRO:HB2	11:H:82:PRO:CD	2.33	0.58
13:J:28:ASP:O	13:J:30:LEU:HG	2.04	0.58
4:M:1299:VAL:HG12	4:M:1300:LYS:N	2.19	0.58
5:N:546:SER:OG	5:N:631:GLY:N	2.34	0.58
5:N:882:THR:HG21	5:N:935:ARG:HA	1.86	0.58
10:S:13:LEU:CD2	10:S:17:PHE:HB2	2.30	0.58
4:A:381:THR:HG23	4:A:383:TYR:H	1.68	0.57
4:A:372:LYS:HA	4:A:435:HIS:ND1	2.19	0.57
4:A:71:GLN:C	4:A:73:GLY:H	2.08	0.57
5:B:1065:GLN:NE2	5:B:1066:SER:H	2.02	0.57
5:B:1110:PRO:HB2	5:B:1119:VAL:HG21	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:L:53:HIS:HB3	15:L:55:ILE:HD11	1.86	0.57
5:N:401:PHE:HD2	5:N:521:LEU:HD12	1.68	0.57
5:N:604:ARG:NH1	5:N:691:GLU:OE2	2.37	0.57
4:A:742:ASN:O	4:A:745:GLN:HB2	2.03	0.57
4:A:450:LEU:HB3	4:A:838:GLN:NE2	2.19	0.57
5:B:1099:VAL:O	5:B:1101:ASP:N	2.36	0.57
5:B:865:LYS:HE2	5:B:871:THR:OG1	2.05	0.57
5:N:329:THR:O	5:N:332:ASP:HB3	2.04	0.57
5:N:521:LEU:HD13	5:N:633:VAL:HB	1.87	0.57
5:N:874:PHE:HA	5:N:913:GLY:O	2.03	0.57
7:P:66:ARG:O	7:P:70:PHE:HB2	2.05	0.57
14:W:69:ALA:O	14:W:70:ARG:HB3	2.04	0.57
4:A:1362:TYR:CD1	4:A:1363:VAL:N	2.72	0.57
4:A:1397:LEU:O	4:A:1400:CYS:HB3	2.04	0.57
5:B:1110:PRO:HG3	5:B:1125:ASP:HB3	1.86	0.57
5:B:778:MET:CE	5:B:1094:ARG:CD	2.80	0.57
12:I:85:PHE:N	12:I:85:PHE:CD2	2.62	0.57
6:C:66:ARG:CZ	13:J:2:ILE:HG21	2.34	0.57
4:M:154:SER:HB3	4:M:162:VAL:HG21	1.86	0.57
4:M:332:LYS:HG3	4:M:333:GLU:HG2	1.86	0.57
4:M:381:THR:HG23	4:M:383:TYR:H	1.70	0.57
5:N:466:TRP:O	5:N:468:GLU:N	2.36	0.57
5:N:57:TYR:N	5:N:57:TYR:CD1	2.72	0.57
5:N:580:VAL:HG22	5:N:624:LEU:HB3	1.86	0.57
5:N:693:ILE:HD13	5:N:701:ILE:HD13	1.86	0.57
5:N:731:VAL:HG12	5:N:732:SER:H	1.69	0.57
7:P:134:THR:CG2	7:P:135:GLY:N	2.67	0.57
4:A:722:LEU:HD22	4:A:799:PHE:CD1	2.39	0.57
4:A:809:THR:H	4:A:812:GLU:HB2	1.69	0.57
4:A:849:MET:CE	4:A:1061:GLY:HA2	2.34	0.57
4:A:90:VAL:CG1	4:A:297:GLN:HA	2.34	0.57
5:B:51:PHE:O	5:B:54:PHE:HB3	2.04	0.57
5:B:794:ASN:O	5:B:795:ILE:HD12	2.03	0.57
5:B:842:ASN:ND2	5:B:845:SER:H	2.03	0.57
5:B:882:THR:HB	5:B:934:LYS:O	2.04	0.57
6:C:83:SER:OG	6:C:160:LYS:HD3	2.04	0.57
9:F:128:LYS:HD3	9:F:149:GLU:O	2.03	0.57
12:I:112:SER:O	12:I:114:GLN:HG3	2.04	0.57
4:M:1224:LEU:HD12	4:M:1241:ARG:O	2.05	0.57
4:M:16:GLU:HB3	4:M:1418:LEU:HD11	1.86	0.57
4:M:84:ILE:O	4:M:84:ILE:HG23	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:102:VAL:O	5:N:109:THR:HA	2.04	0.57
6:O:249:ASP:O	6:O:252:GLN:HB3	2.05	0.57
9:R:90:ARG:HD3	9:R:155:LEU:HD11	1.86	0.57
11:T:81:PRO:HB2	11:T:82:PRO:CD	2.33	0.57
4:A:1030:ARG:NH1	4:A:1035:TYR:OH	2.38	0.57
4:A:1341:ILE:CG2	4:A:1342:GLU:N	2.67	0.57
4:A:356:ASP:HB2	4:A:469:ARG:HH11	1.66	0.57
4:A:534:LEU:HG	4:A:534:LEU:O	2.03	0.57
4:A:886:ILE:HG13	4:A:943:LEU:HD12	1.86	0.57
13:J:64:ASN:CB	13:J:65:PRO:HD3	2.32	0.57
4:M:224:PHE:CE2	4:M:231:PRO:HG3	2.40	0.57
4:M:527:THR:HG23	4:M:650:GLN:HA	1.87	0.57
5:N:1045:SER:O	5:N:1046:PRO:O	2.21	0.57
4:M:1428:VAL:HG13	5:N:1151:LEU:CD2	2.33	0.57
8:Q:23:VAL:O	8:Q:28:TYR:HB2	2.04	0.57
9:R:99:LEU:HD12	9:R:99:LEU:O	2.04	0.57
5:N:737:THR:CG2	12:U:66:PRO:HA	2.34	0.57
1:4:6:DC:C1'	1:4:7:DT:H5'	2.33	0.57
4:A:563:PRO:HG3	4:A:572:TRP:CE2	2.40	0.57
5:B:1095:LEU:HD12	5:B:1095:LEU:N	2.19	0.57
5:B:603:LEU:HD12	5:B:609:ILE:HG13	1.86	0.57
5:B:693:ILE:HD13	5:B:701:ILE:HD13	1.87	0.57
5:B:745:PRO:C	5:B:747:MET:H	2.07	0.57
5:B:843:GLN:O	5:B:844:SER:C	2.43	0.57
9:F:69:LEU:CA	9:F:70:LYS:N	2.67	0.57
11:H:102:TYR:N	11:H:102:TYR:CD2	2.73	0.57
4:M:50:ILE:O	4:M:52:GLY:N	2.34	0.57
4:M:93:VAL:CG2	4:M:301:ALA:HA	2.34	0.57
5:N:1106:ARG:HD3	5:N:1126:GLY:C	2.24	0.57
5:N:95:ILE:HG13	5:N:129:PHE:O	2.04	0.57
6:O:152:GLU:OE2	6:O:154:LYS:HE3	2.04	0.57
9:R:69:LEU:N	9:R:70:LYS:N	2.53	0.57
7:P:48:ILE:CG2	10:S:4:ILE:HB	2.33	0.57
12:U:2:THR:O	12:U:3:THR:C	2.42	0.57
12:U:52:ILE:O	12:U:52:ILE:HG13	2.04	0.57
4:A:311:GLN:O	4:A:312:PRO:C	2.42	0.57
4:A:508:PRO:O	4:A:511:ILE:HG13	2.05	0.57
4:A:843:LYS:HD3	4:A:846:GLU:OE2	2.04	0.57
5:B:1079:LYS:HA	6:C:27:LEU:HD21	1.87	0.57
5:B:205:ILE:N	5:B:205:ILE:HD12	2.20	0.57
5:B:240:ILE:CG2	5:B:254:LEU:HB3	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:265:SER:O	5:B:266:ALA:HB3	2.04	0.57
5:B:810:GLU:HB2	5:B:815:ARG:HH22	1.68	0.57
4:M:683:ILE:HG21	4:M:801:GLU:HG3	1.86	0.57
4:M:730:GLY:O	4:M:732:LEU:N	2.38	0.57
5:N:359:GLU:O	5:N:362:PRO:HD3	2.03	0.57
7:P:128:VAL:O	7:P:132:GLN:HG3	2.04	0.57
10:S:145:VAL:HG12	10:S:146:LYS:N	2.18	0.57
4:M:598:LEU:HA	11:T:122:LEU:HD13	1.86	0.57
13:V:64:ASN:CB	13:V:65:PRO:CD	2.82	0.57
4:A:1329:THR:H	4:A:1335:ILE:HD11	1.69	0.57
4:A:1450:LEU:HG	4:A:1450:LEU:O	2.04	0.57
6:C:252:GLN:CG	14:K:95:ILE:HG23	2.34	0.57
7:D:56:ARG:HA	7:D:148:LEU:HD13	1.86	0.57
10:G:39:THR:HG22	10:G:40:GLY:H	1.68	0.57
10:G:51:TYR:C	10:G:51:TYR:CD2	2.78	0.57
13:J:8:PHE:H	13:J:49:MET:CE	2.17	0.57
14:K:7:PHE:HA	14:K:10:PHE:CE2	2.40	0.57
4:M:852:TYR:HA	4:M:1060:PRO:HB3	1.87	0.57
4:M:1121:GLU:CG	4:M:1122:PRO:HD2	2.31	0.57
4:M:1116:LEU:HB2	4:M:1329:THR:OG1	2.04	0.57
4:M:1313:LEU:HD23	4:M:1338:VAL:HG21	1.85	0.57
5:N:337:ARG:C	5:N:338:GLY:N	2.58	0.57
5:N:343:ILE:CG2	5:N:348:ARG:N	2.68	0.57
6:O:35:ARG:NH1	14:W:41:THR:H	2.01	0.57
6:O:69:LEU:N	6:O:69:LEU:HD12	2.20	0.57
7:P:53:SER:HB3	7:P:152:SER:CA	2.34	0.57
7:P:40:HIS:CE1	7:P:41:GLN:HG3	2.40	0.57
10:S:80:LYS:HG2	10:S:80:LYS:O	2.04	0.57
12:U:86:PHE:CE1	12:U:100:PHE:HB2	2.40	0.57
5:N:1077:THR:HG22	14:W:44:ASN:ND2	2.20	0.57
4:A:482:PHE:C	4:A:484:GLY:H	2.06	0.57
5:B:315:LYS:N	5:B:316:PRO:HD2	2.20	0.57
5:B:562:GLY:HA3	5:B:590:HIS:CE1	2.39	0.57
5:B:916:THR:O	5:B:935:ARG:HG3	2.05	0.57
6:C:179:GLU:HG2	6:C:180:TYR:H	1.70	0.57
13:J:64:ASN:ND2	13:J:65:PRO:HD3	2.18	0.57
4:M:341:MET:CE	4:M:843:LYS:HZ3	2.18	0.57
4:M:37:PHE:N	4:M:37:PHE:CD1	2.72	0.57
4:M:942:PHE:HD2	4:M:943:LEU:HD23	1.70	0.57
5:N:1077:THR:HG22	14:W:44:ASN:HD21	1.68	0.57
4:M:1410:PHE:HA	5:N:1212:ILE:CD1	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:787:VAL:HG12	5:N:787:VAL:O	2.05	0.57
8:Q:192:ARG:NH1	8:Q:192:ARG:HG3	2.20	0.57
2:5:20:DC:H2"	2:5:21:DC:H5'	1.85	0.57
5:B:1007:VAL:CG2	5:B:1008:PRO:HD2	2.35	0.57
5:B:130:VAL:HB	5:B:167:ILE:CD1	2.35	0.57
6:C:238:ILE:HG23	6:C:242:GLN:HB2	1.87	0.57
7:D:191:ALA:O	7:D:193:THR:N	2.38	0.57
4:M:1362:TYR:CD1	4:M:1363:VAL:N	2.72	0.57
4:M:979:SER:OG	4:M:981:LEU:HG	2.05	0.57
5:N:973:ILE:HG23	5:N:974:PRO:HD2	1.87	0.57
13:V:23:ASN:C	13:V:25:LEU:H	2.07	0.57
4:A:335:ARG:HD2	5:B:1206:GLU:OE1	2.05	0.56
4:A:50:ILE:O	4:A:52:GLY:N	2.38	0.56
4:A:821:ARG:HB2	4:A:821:ARG:NH1	2.19	0.56
4:A:343:LYS:NZ	5:B:1151:LEU:O	2.35	0.56
5:B:731:VAL:HG12	5:B:732:SER:N	2.20	0.56
7:D:134:THR:CG2	7:D:135:GLY:N	2.68	0.56
7:D:51:ASN:O	7:D:52:LEU:O	2.23	0.56
7:D:7:THR:HB	10:G:42:PHE:CZ	2.40	0.56
8:E:23:VAL:O	8:E:28:TYR:HB2	2.04	0.56
11:H:89:LEU:C	11:H:91:ASP:H	2.09	0.56
5:B:797:TYR:O	13:J:1:MET:HG2	2.05	0.56
4:M:364:VAL:HG13	4:M:364:VAL:O	2.03	0.56
4:M:590:ARG:HH11	4:M:590:ARG:HG3	1.70	0.56
4:M:741:ASN:ND2	4:M:744:LYS:H	2.02	0.56
4:M:843:LYS:HD3	4:M:846:GLU:OE2	2.05	0.56
5:N:999:MET:HE2	5:N:1000:PRO:HD2	1.87	0.56
5:N:1163:CYS:SG	5:N:1165:ILE:HB	2.44	0.56
5:N:288:ALA:HA	5:N:331:LEU:HD12	1.87	0.56
5:N:583:ASN:HD21	5:N:628:THR:HB	1.68	0.56
5:N:821:GLN:NE2	5:N:851:PHE:HA	2.17	0.56
5:N:864:LYS:N	5:N:872:GLU:OE1	2.38	0.56
13:V:43:ARG:O	13:V:47:ARG:HB2	2.05	0.56
1:1:5:DA:C2	2:2:13:DA:C2	2.93	0.56
4:A:1423:GLY:HA3	4:A:1426:GLU:HG2	1.87	0.56
4:A:816:HIS:CD2	5:B:764:SER:HB2	2.41	0.56
5:B:1166:CYS:O	5:B:1166:CYS:SG	2.63	0.56
4:M:475:THR:CG2	4:M:476:SER:N	2.68	0.56
4:M:565:ILE:O	4:M:570:PRO:HA	2.05	0.56
5:N:803:LEU:CD1	5:N:1032:SER:HB3	2.35	0.56
5:N:827:ILE:HG22	5:N:827:ILE:O	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:O:18:VAL:HG12	6:O:18:VAL:O	2.03	0.56
4:A:1341:ILE:HG23	4:A:1342:GLU:H	1.69	0.56
4:A:527:THR:HG23	4:A:650:GLN:HA	1.88	0.56
4:A:896:ARG:HD3	4:A:897:TYR:CE1	2.40	0.56
5:B:1163:CYS:SG	5:B:1165:ILE:HB	2.45	0.56
5:B:39:ARG:HH21	5:B:665:GLU:CD	2.09	0.56
7:D:53:SER:HB3	7:D:152:SER:CA	2.35	0.56
11:H:128:ASN:CG	11:H:128:ASN:O	2.43	0.56
11:H:38:LEU:HD12	11:H:124:ARG:O	2.06	0.56
12:I:52:ILE:HG13	12:I:52:ILE:O	2.05	0.56
4:M:56:PRO:O	4:M:57:ARG:HG3	2.05	0.56
7:P:53:SER:HB3	7:P:152:SER:CB	2.34	0.56
8:Q:9:ILE:CD1	8:Q:53:PRO:HD3	2.35	0.56
4:M:547:LEU:HD22	14:W:58:PHE:HD1	1.69	0.56
4:A:14:VAL:H	4:A:1432:GLN:HE22	1.53	0.56
4:A:785:PRO:HG2	4:A:786:HIS:HD2	1.70	0.56
5:B:269:ILE:HD11	5:B:386:LEU:HD21	1.88	0.56
10:G:13:LEU:CD2	10:G:17:PHE:HB2	2.31	0.56
4:M:93:VAL:CG1	4:M:301:ALA:HB1	2.31	0.56
4:M:35:ILE:CD1	4:M:241:VAL:HG11	2.36	0.56
5:N:308:TRP:HA	5:N:311:LEU:HD12	1.87	0.56
5:N:376:PHE:CE2	5:N:569:TYR:HD2	2.22	0.56
5:N:376:PHE:HE2	5:N:569:TYR:HD2	1.53	0.56
5:N:745:PRO:O	5:N:747:MET:N	2.38	0.56
5:N:756:ILE:O	5:N:759:PRO:HD3	2.05	0.56
5:N:899:ILE:HD12	5:N:911:ILE:HG23	1.86	0.56
8:Q:124:VAL:HB	8:Q:125:PRO:HD3	1.88	0.56
8:Q:195:VAL:HG22	8:Q:213:ILE:HG13	1.88	0.56
4:A:265:LYS:NZ	4:A:322:VAL:HG13	2.20	0.56
4:A:34:LYS:NZ	4:A:57:ARG:CZ	2.69	0.56
7:D:63:LEU:O	7:D:129:LEU:HD11	2.05	0.56
12:I:2:THR:O	12:I:3:THR:C	2.42	0.56
4:M:23:SER:HB3	4:M:233:TRP:CZ2	2.40	0.56
4:M:382:PRO:HB3	4:M:428:TYR:CE2	2.37	0.56
4:M:608:ILE:HB	4:M:613:ILE:HD11	1.88	0.56
4:M:767:GLN:HE21	4:M:774:ARG:HB3	1.71	0.56
4:M:351:THR:CB	5:N:1103:ILE:HD12	2.32	0.56
5:N:431:TYR:CZ	5:N:447:ALA:HB2	2.40	0.56
5:N:871:THR:HG22	5:N:872:GLU:O	2.05	0.56
6:O:34:ARG:O	6:O:38:ILE:HG13	2.06	0.56
7:P:24:ALA:C	7:P:26:THR:H	2.08	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:T:61:SER:HB2	11:T:139:ASN:HB3	1.88	0.56
4:A:1279:ILE:O	4:A:1279:ILE:HG22	2.05	0.56
4:A:34:LYS:CE	4:A:57:ARG:HH12	2.18	0.56
5:B:1023:VAL:O	5:B:1026:LEU:HB2	2.05	0.56
5:B:100:PRO:HD2	5:B:180:TYR:CE1	2.41	0.56
5:B:291:ILE:HD13	5:B:300:HIS:CD2	2.40	0.56
5:B:329:THR:O	5:B:332:ASP:HB3	2.06	0.56
5:B:899:ILE:O	5:B:952:VAL:HG21	2.05	0.56
8:E:202:SER:HB3	8:E:205:SER:O	2.06	0.56
4:M:1029:ARG:HG3	4:M:1029:ARG:HH11	1.71	0.56
4:M:244:PRO:CB	4:M:245:PRO:HD3	2.36	0.56
4:M:311:GLN:O	4:M:312:PRO:C	2.43	0.56
4:M:17:VAL:HA	5:N:1215:ARG:O	2.06	0.56
5:N:57:TYR:N	5:N:57:TYR:HD1	2.04	0.56
5:N:865:LYS:HE2	5:N:871:THR:OG1	2.06	0.56
6:O:67:LEU:HD11	6:O:155:LEU:HD13	1.87	0.56
8:Q:202:SER:OG	8:Q:204:THR:HG22	2.05	0.56
4:M:1441:PHE:CZ	9:R:89:GLU:HA	2.41	0.56
13:V:64:ASN:CB	13:V:65:PRO:HD3	2.33	0.56
4:A:1279:ILE:CD1	4:A:1316:VAL:HG21	2.36	0.56
4:A:657:LEU:HD12	4:A:657:LEU:O	2.05	0.56
5:B:654:ARG:H	5:B:657:HIS:CD2	2.16	0.56
6:C:35:ARG:HH11	14:K:41:THR:CA	2.18	0.56
10:G:165:GLU:HB2	10:G:168:LEU:HD12	1.88	0.56
12:I:62:ILE:HG12	12:I:62:ILE:O	2.06	0.56
4:M:852:TYR:CD2	4:M:1060:PRO:CB	2.89	0.56
4:M:1356:ILE:HD12	4:M:1368:MET:SD	2.46	0.56
4:M:596:THR:C	4:M:598:LEU:N	2.58	0.56
4:M:768:GLN:HG2	4:M:816:HIS:CA	2.35	0.56
4:M:858:ASN:ND2	4:M:858:ASN:C	2.59	0.56
4:M:883:LEU:HD11	4:M:1017:LEU:HD11	1.87	0.56
4:M:947:PHE:CD2	4:M:954:TRP:CE2	2.94	0.56
4:M:98:LYS:O	4:M:99:ILE:C	2.44	0.56
5:N:1065:GLN:NE2	5:N:1067:ARG:H	2.03	0.56
5:N:281:PRO:O	5:N:283:VAL:N	2.39	0.56
6:O:140:ASN:O	6:O:141:GLY:O	2.23	0.56
9:R:109:VAL:HG11	9:R:123:LYS:HD3	1.88	0.56
15:X:31:CYS:SG	15:X:34:CYS:N	2.76	0.56
4:A:1095:THR:O	4:A:1096:SER:HB2	2.06	0.56
4:A:402:ALA:CB	4:A:434:ARG:HA	2.36	0.56
4:A:596:THR:C	4:A:598:LEU:H	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:667:GLY:HA3	6:C:192:TRP:CH2	2.39	0.56
8:E:13:TRP:O	8:E:16:PHE:HB3	2.06	0.56
11:H:93:TYR:HB3	11:H:144:ILE:O	2.05	0.56
5:N:770:GLN:HG2	5:N:983:ARG:O	2.06	0.56
5:N:843:GLN:O	5:N:846:ILE:N	2.39	0.56
6:O:44:LEU:HD21	6:O:159:ALA:CB	2.36	0.56
7:P:17:LYS:HE3	7:P:17:LYS:CA	2.34	0.56
4:A:1120:LEU:CD1	4:A:1120:LEU:N	2.69	0.56
4:A:356:ASP:O	4:A:358:ASN:N	2.38	0.56
5:B:746:SER:HB2	5:B:1046:PRO:HG2	1.87	0.56
5:B:792:MET:HG3	5:B:855:PHE:HE1	1.70	0.56
7:D:29:LEU:HD22	10:G:82:PHE:CE2	2.40	0.56
13:J:14:VAL:HG12	13:J:50:ILE:HD11	1.87	0.56
4:M:353:ILE:HD12	4:M:470:LEU:HD21	1.88	0.56
5:N:185:THR:H	5:N:188:ASP:HB2	1.71	0.56
5:N:882:THR:HB	5:N:934:LYS:O	2.06	0.56
10:S:127:PRO:HG2	10:S:138:THR:HG21	1.88	0.56
4:A:21:LEU:HG	4:A:1413:GLY:O	2.06	0.56
4:A:88:LYS:HE3	4:A:280:GLU:OE2	2.05	0.56
4:A:438:ASP:OD1	4:A:462:VAL:HG23	2.05	0.56
5:B:1096:ARG:O	5:B:1097:HIS:CB	2.48	0.56
5:B:192:LEU:O	5:B:193:LYS:HB2	2.05	0.56
5:B:840:ILE:HB	5:B:1011:ILE:HB	1.87	0.56
6:C:104:PHE:HD2	6:C:105:GLY:N	2.04	0.56
6:C:147:LEU:N	6:C:147:LEU:HD23	2.21	0.56
6:C:70:ILE:HD11	6:C:144:ILE:HG12	1.88	0.56
9:F:69:LEU:N	9:F:70:LYS:N	2.54	0.56
9:F:74:ILE:HG23	9:F:75:PRO:HD2	1.87	0.56
10:G:115:MET:HB3	10:G:116:PRO:HD2	1.87	0.56
4:M:1261:LYS:O	4:M:1264:GLU:HB3	2.06	0.56
5:N:1085:ILE:HG22	5:N:1086:PHE:N	2.21	0.56
11:T:25:ARG:HA	11:T:41:ASP:HA	1.88	0.56
5:N:797:TYR:O	13:V:1:MET:HG2	2.05	0.56
4:A:47:ARG:HH12	4:A:254:GLU:HG2	1.70	0.56
4:A:601:LYS:HB2	4:A:603:ASN:ND2	2.21	0.56
5:B:1072:MET:HE1	5:B:1085:ILE:HB	1.87	0.56
5:B:185:THR:H	5:B:188:ASP:HB2	1.71	0.56
5:B:606:LYS:HD2	5:B:608:ASP:OD2	2.06	0.56
5:B:787:VAL:HG12	5:B:787:VAL:O	2.06	0.56
9:F:93:ILE:HD11	9:F:134:ILE:CD1	2.27	0.56
4:M:1329:THR:H	4:M:1335:ILE:HD11	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:268:ASP:HB3	4:M:299:HIS:CE1	2.41	0.56
4:M:356:ASP:O	4:M:358:ASN:N	2.39	0.56
4:M:446:ARG:HD2	4:M:480:ALA:HB2	1.87	0.56
4:M:720:ARG:O	4:M:724:GLU:HB2	2.06	0.56
5:N:486:TYR:CZ	5:N:1096:ARG:HB3	2.41	0.56
5:N:365:THR:HG23	5:N:367:LEU:HG	1.87	0.56
5:N:310:MET:HE1	5:N:387:LEU:CD1	2.36	0.56
9:R:143:PHE:CD1	9:R:143:PHE:C	2.79	0.56
14:W:85:ASP:O	14:W:88:LYS:HB2	2.05	0.56
3:3:3:G:H2'	3:3:4:A:H8	1.69	0.55
5:B:1180:PHE:O	5:B:1181:GLU:O	2.23	0.55
5:B:95:ILE:HG13	5:B:129:PHE:O	2.05	0.55
5:B:516:ASN:ND2	5:B:516:ASN:H	2.03	0.55
6:C:254:LYS:O	6:C:256:ALA:N	2.38	0.55
11:H:25:ARG:HA	11:H:41:ASP:HA	1.88	0.55
4:M:1423:GLY:HA3	4:M:1426:GLU:HG2	1.87	0.55
4:M:1444:MET:HG2	10:S:60:ARG:CA	2.35	0.55
5:N:1099:VAL:HG12	5:N:1100:ASP:H	1.69	0.55
5:N:745:PRO:C	5:N:747:MET:H	2.09	0.55
8:Q:202:SER:HB3	8:Q:205:SER:O	2.07	0.55
9:R:125:LEU:HG	9:R:125:LEU:O	2.05	0.55
4:A:1291:VAL:HG13	4:A:1292:PRO:CD	2.36	0.55
4:A:1305:VAL:HG12	4:A:1306:LEU:N	2.21	0.55
4:A:1441:PHE:CZ	9:F:89:GLU:HA	2.41	0.55
5:B:1099:VAL:HG13	5:B:1100:ASP:N	2.20	0.55
5:B:281:PRO:O	5:B:283:VAL:N	2.39	0.55
5:B:310:MET:HE1	5:B:387:LEU:CD1	2.36	0.55
5:B:521:LEU:HD13	5:B:633:VAL:HB	1.88	0.55
7:D:4:SER:OG	7:D:5:THR:N	2.35	0.55
10:G:106:MET:HG2	10:G:107:LYS:N	2.20	0.55
11:H:56:THR:HB	11:H:145:ARG:CG	2.35	0.55
12:I:26:LEU:CD2	12:I:37:GLU:HA	2.33	0.55
12:I:55:THR:CG2	12:I:58:VAL:HG21	2.36	0.55
4:M:224:PHE:CD2	4:M:231:PRO:HG3	2.40	0.55
4:M:341:MET:HE1	4:M:843:LYS:HZ3	1.70	0.55
4:M:730:GLY:C	4:M:732:LEU:H	2.09	0.55
5:N:273:LEU:HD12	5:N:280:ILE:HD12	1.88	0.55
6:O:112:ASN:HD22	6:O:112:ASN:N	2.04	0.55
7:P:138:ASN:OD1	7:P:141:LEU:HB2	2.05	0.55
10:S:39:THR:HG22	10:S:40:GLY:H	1.71	0.55
6:O:142:VAL:N	13:V:16:ASP:HB3	2.14	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:W:46:ILE:O	14:W:50:LEU:HB2	2.06	0.55
4:A:75:ASN:O	4:A:76:GLU:CB	2.54	0.55
5:B:980:PHE:HD2	5:B:1094:ARG:HA	1.71	0.55
6:C:100:THR:OG1	6:C:121:VAL:HG21	2.06	0.55
6:C:73:GLN:NE2	6:C:74:SER:H	2.05	0.55
8:E:207:ARG:CB	8:E:207:ARG:HH11	2.20	0.55
9:F:77:ASP:C	9:F:79:ARG:H	2.08	0.55
7:D:40:HIS:CB	10:G:73:LYS:NZ	2.65	0.55
13:J:1:MET:H1	13:J:56:LEU:N	2.05	0.55
14:K:49:GLU:HG3	14:K:94:ILE:CG1	2.36	0.55
4:M:402:ALA:CB	4:M:434:ARG:HA	2.36	0.55
4:M:805:LEU:HD11	5:N:1052:VAL:HG21	1.88	0.55
4:M:982:THR:O	4:M:985:ASP:HB2	2.07	0.55
6:O:66:ARG:HH12	13:V:2:ILE:HG21	1.67	0.55
14:W:35:PHE:CD1	14:W:71:PHE:CE1	2.95	0.55
2:2:23:DG:H2'	2:2:24:DG:C8	2.41	0.55
4:A:401:GLY:C	4:A:435:HIS:HD2	2.08	0.55
4:A:534:LEU:HD13	4:A:656:TRP:CG	2.41	0.55
10:G:110:VAL:HG22	10:G:161:GLY:O	2.06	0.55
12:I:34:TYR:C	12:I:34:TYR:CD2	2.79	0.55
13:J:48:ARG:HD2	13:J:49:MET:N	2.21	0.55
4:M:1001:ARG:O	4:M:1002:GLY:O	2.24	0.55
4:M:401:GLY:C	4:M:435:HIS:CD2	2.80	0.55
4:M:464:PRO:HG2	4:M:465:TYR:HD1	1.72	0.55
5:N:1166:CYS:O	5:N:1166:CYS:SG	2.64	0.55
5:N:172:ILE:HD13	5:N:178:ASN:CB	2.30	0.55
5:N:265:SER:O	5:N:266:ALA:HB3	2.06	0.55
5:N:516:ASN:ND2	5:N:516:ASN:H	2.02	0.55
9:R:130:ILE:O	9:R:148:VAL:HG21	2.05	0.55
7:P:7:THR:HB	10:S:42:PHE:HE2	1.71	0.55
12:U:62:ILE:HG12	12:U:62:ILE:O	2.07	0.55
5:N:852:ARG:NH2	15:X:70:ARG:OXT	2.34	0.55
4:A:105:CYS:O	4:A:114:LEU:HG	2.07	0.55
4:A:852:TYR:CE2	4:A:1060:PRO:HB2	2.41	0.55
4:A:1420:ASP:O	4:A:1421:CYS:HB2	2.04	0.55
4:A:596:THR:C	4:A:598:LEU:N	2.59	0.55
4:A:768:GLN:HG2	4:A:816:HIS:CA	2.35	0.55
5:B:118:ARG:HH11	5:B:204:ILE:HD11	1.71	0.55
5:B:611:PRO:HB3	5:B:685:LEU:HD11	1.87	0.55
5:B:801:LYS:O	13:J:52:THR:HG23	2.06	0.55
5:B:980:PHE:HE1	5:B:990:ILE:HD11	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:7:LEU:CD1	10:G:45:ILE:HD11	2.37	0.55
4:A:1444:MET:HG2	10:G:60:ARG:HA	1.89	0.55
11:H:4:THR:CA	11:H:60:ALA:HB2	2.31	0.55
4:M:1369:ALA:O	4:M:1370:LEU:C	2.43	0.55
4:M:407:ARG:HG2	4:M:430:TRP:CH2	2.41	0.55
4:M:79:GLY:HA3	4:M:243:PRO:CG	2.36	0.55
4:M:902:LEU:O	4:M:903:ASN:HB2	2.06	0.55
5:N:192:LEU:O	5:N:193:LYS:HB2	2.05	0.55
5:N:465:ASN:N	5:N:465:ASN:ND2	2.55	0.55
6:O:69:LEU:HD12	6:O:69:LEU:H	1.72	0.55
4:A:868:TYR:CD2	4:A:1058:VAL:HG21	2.38	0.55
4:A:1283:VAL:HG12	4:A:1284:MET:N	2.22	0.55
4:A:1336:MET:CE	4:A:1381:LEU:HG	2.36	0.55
4:A:567:LYS:CG	4:A:568:PRO:CD	2.80	0.55
4:A:1410:PHE:HA	5:B:1212:ILE:CD1	2.37	0.55
5:B:344:LYS:O	5:B:345:LYS:CB	2.55	0.55
5:B:778:MET:HE1	5:B:853:SER:CB	2.35	0.55
9:F:96:THR:O	9:F:100:GLN:HG3	2.07	0.55
4:M:1134:ILE:O	4:M:1138:ILE:HG13	2.06	0.55
4:M:114:LEU:HD13	4:M:171:GLN:HE22	1.70	0.55
4:M:203:SER:OG	4:M:206:GLU:HB2	2.07	0.55
5:N:114:PRO:O	5:N:116:GLU:N	2.40	0.55
5:N:223:VAL:HG11	5:N:381:MET:HG2	1.87	0.55
5:N:340:ALA:CB	5:N:343:ILE:HD12	2.33	0.55
5:N:980:PHE:HD2	5:N:1094:ARG:HA	1.71	0.55
5:N:843:GLN:N	5:N:994:TYR:O	2.29	0.55
7:P:51:ASN:O	7:P:54:GLU:HB3	2.07	0.55
13:V:13:VAL:O	13:V:14:VAL:CG2	2.55	0.55
4:A:477:PRO:HG2	4:A:521:MET:HG2	1.89	0.55
4:A:730:GLY:O	4:A:732:LEU:N	2.40	0.55
5:B:258:LEU:HB2	5:B:385:LEU:HD21	1.89	0.55
6:C:114:TYR:HB3	6:C:140:ASN:O	2.07	0.55
4:M:1305:VAL:HG12	4:M:1306:LEU:N	2.21	0.55
4:M:388:LEU:O	4:M:392:VAL:HG23	2.06	0.55
10:S:48:VAL:HG13	10:S:74:TYR:HD1	1.72	0.55
13:V:44:TYR:HA	13:V:47:ARG:HB2	1.89	0.55
4:A:42:ASP:C	4:A:44:THR:H	2.08	0.55
4:A:666:ILE:CD1	4:A:667:GLY:H	2.19	0.55
4:A:901:LEU:O	4:A:921:GLY:N	2.37	0.55
5:B:1045:SER:O	5:B:1046:PRO:O	2.25	0.55
7:D:48:ILE:HG21	10:G:4:ILE:HB	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:157:SER:HG	8:E:160:GLU:HG3	1.72	0.55
8:E:177:ARG:C	8:E:212:ARG:HD3	2.27	0.55
11:H:82:PRO:C	11:H:84:ALA:H	2.10	0.55
12:I:34:TYR:HD2	12:I:34:TYR:C	2.10	0.55
14:K:47:ARG:HH11	14:K:47:ARG:CB	2.15	0.55
4:M:683:ILE:HD13	4:M:801:GLU:HG3	1.88	0.55
4:M:929:LEU:HD23	4:M:983:ILE:HG21	1.89	0.55
5:N:778:MET:CE	5:N:1094:ARG:CD	2.85	0.55
5:N:1142:GLY:HA3	9:R:88:TYR:HE2	1.72	0.55
6:O:73:GLN:HE21	6:O:75:MET:H	1.53	0.55
15:X:39:SER:O	15:X:40:LEU:HG	2.06	0.55
4:A:1341:ILE:CG2	4:A:1342:GLU:H	2.20	0.55
4:A:1402:PHE:CD1	4:A:1403:GLU:HG3	2.40	0.55
4:A:236:LEU:HD11	4:A:304:MET:HE1	1.88	0.55
4:A:444:PHE:HB2	4:A:458:HIS:HD2	1.72	0.55
4:A:699:ALA:O	4:A:700:ASN:HB3	2.07	0.55
5:B:220:GLY:O	5:B:222:ILE:HG13	2.07	0.55
5:B:563:MET:HE3	5:B:580:VAL:HB	1.89	0.55
5:B:859:TYR:CZ	5:B:941:LEU:HD12	2.41	0.55
10:G:39:THR:HG22	10:G:40:GLY:N	2.22	0.55
14:K:47:ARG:NH1	14:K:47:ARG:HB3	2.15	0.55
14:K:69:ALA:O	14:K:70:ARG:HB3	2.05	0.55
15:L:31:CYS:SG	15:L:34:CYS:N	2.77	0.55
4:M:535:THR:HG23	4:M:575:LYS:HE2	1.88	0.55
4:M:75:ASN:O	4:M:76:GLU:CB	2.54	0.55
4:M:786:HIS:N	4:M:786:HIS:CD2	2.75	0.55
4:M:947:PHE:CD2	4:M:954:TRP:CZ2	2.95	0.55
5:N:1115:THR:CG2	5:N:1117:GLN:HG3	2.36	0.55
5:N:1208:MET:O	5:N:1211:ASN:N	2.40	0.55
5:N:293:PRO:HG2	5:N:296:GLU:CB	2.36	0.55
5:N:291:ILE:HD13	5:N:300:HIS:NE2	2.22	0.55
5:N:841:MET:SD	5:N:846:ILE:HD11	2.47	0.55
6:O:184:ASN:ND2	6:O:187:LYS:HA	2.21	0.55
9:R:89:GLU:OE2	9:R:134:ILE:HG21	2.07	0.55
10:S:18:PHE:HA	10:S:22:MET:HE3	1.89	0.55
12:U:85:PHE:CD2	12:U:85:PHE:N	2.66	0.55
1:1:1:DA:H2''	1:1:2:DA:O5'	2.06	0.55
4:A:1364:ASN:HD22	4:A:1365:TYR:N	2.05	0.55
4:A:1336:MET:HE2	4:A:1381:LEU:HG	1.88	0.55
4:A:401:GLY:C	4:A:435:HIS:CD2	2.81	0.55
4:A:524:VAL:HG12	4:A:525:GLN:N	2.17	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:901:LEU:HD22	4:A:919:ILE:CG2	2.37	0.55
5:B:1115:THR:HG22	5:B:1117:GLN:HG3	1.87	0.55
9:F:130:ILE:O	9:F:148:VAL:CG2	2.55	0.55
4:A:698:GLN:HA	12:I:97:MET:O	2.07	0.55
4:M:115:LEU:HB2	4:M:122:MET:HE2	1.89	0.55
4:M:442:VAL:O	4:M:457:ALA:HA	2.07	0.55
4:M:453:MET:HE3	4:M:513:SER:HB2	1.89	0.55
4:M:528:LEU:C	4:M:528:LEU:HD12	2.27	0.55
4:M:622:VAL:HG22	4:M:622:VAL:O	2.06	0.55
4:M:95:PHE:O	4:M:96:ILE:C	2.46	0.55
5:N:332:ASP:OD1	5:N:336:ARG:NE	2.40	0.55
5:N:620:ARG:NH2	12:U:89:GLN:NE2	2.54	0.55
4:A:840:ARG:O	4:A:841:LEU:C	2.45	0.54
4:A:853:ASP:O	4:A:854:ASN:HB2	2.07	0.54
6:C:113:VAL:CG2	6:C:147:LEU:HD21	2.37	0.54
4:M:1191:TRP:CD1	4:M:1256:GLU:HB2	2.41	0.54
4:M:1208:THR:HG22	4:M:1210:GLY:H	1.72	0.54
4:M:524:VAL:HG12	4:M:525:GLN:HE21	1.72	0.54
4:M:58:LEU:CD2	4:M:244:PRO:HD2	2.37	0.54
4:M:898:ARG:HB2	4:M:933:TYR:CE1	2.42	0.54
5:N:1006:ILE:HG22	13:V:45:CYS:HB3	1.87	0.54
5:N:229:ALA:HB1	5:N:231:PRO:HD2	1.88	0.54
5:N:411:PRO:O	5:N:414:ALA:HB3	2.07	0.54
5:N:654:ARG:C	5:N:656:GLY:H	2.10	0.54
5:N:731:VAL:HG12	5:N:732:SER:N	2.21	0.54
5:N:843:GLN:O	5:N:846:ILE:HB	2.07	0.54
8:Q:175:LEU:HD23	8:Q:176:PRO:HD2	1.90	0.54
6:O:145:CYS:HA	13:V:2:ILE:HD11	1.89	0.54
13:V:44:TYR:N	13:V:44:TYR:CD2	2.76	0.54
2:2:27:DA:C2	3:3:2:C:N4	2.74	0.54
2:5:24:DG:H2''	2:5:25:DT:C5'	2.36	0.54
4:A:332:LYS:HG3	4:A:333:GLU:HG2	1.89	0.54
4:A:34:LYS:HE3	4:A:57:ARG:NH1	2.21	0.54
4:A:442:VAL:O	4:A:457:ALA:HA	2.07	0.54
4:A:535:THR:CG2	4:A:616:VAL:HA	2.34	0.54
4:A:828:ALA:HB1	5:B:530:GLY:HA2	1.86	0.54
4:A:90:VAL:HG13	4:A:297:GLN:HA	1.88	0.54
5:B:593:PRO:HG2	5:B:617:ARG:NH2	2.22	0.54
12:I:99:LEU:O	12:I:111:THR:HG23	2.07	0.54
5:B:309:GLN:HG3	12:I:52:ILE:HD11	1.89	0.54
4:M:1120:LEU:O	4:M:1323:ASP:HB2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1402:PHE:CD1	4:M:1403:GLU:HG3	2.41	0.54
5:N:185:THR:H	5:N:188:ASP:CB	2.21	0.54
5:N:29:ASP:HB3	5:N:658:ILE:CD1	2.37	0.54
6:O:76:ASP:O	6:O:79:GLN:HG2	2.08	0.54
7:P:56:ARG:HD3	7:P:149:THR:HA	1.90	0.54
15:X:32:ALA:CB	15:X:55:ILE:HD12	2.35	0.54
4:A:896:ARG:NH2	4:A:1030:ARG:HH21	2.05	0.54
4:A:1175:SER:O	4:A:1176:LEU:HB2	2.06	0.54
4:A:1144:LYS:HB2	4:A:1268:LEU:O	2.07	0.54
4:A:1332:PHE:CE1	4:A:1348:LEU:HD13	2.42	0.54
4:A:1437:GLY:HA3	9:F:88:TYR:CD2	2.43	0.54
5:B:429:PHE:HA	5:B:432:MET:CE	2.38	0.54
5:B:466:TRP:O	5:B:468:GLU:N	2.40	0.54
10:G:106:MET:CG	10:G:107:LYS:N	2.70	0.54
14:K:111:LEU:C	14:K:112:GLN:CG	2.64	0.54
4:M:1120:LEU:N	4:M:1120:LEU:CD1	2.71	0.54
4:M:1348:LEU:O	4:M:1352:VAL:HG23	2.07	0.54
4:M:427:GLN:O	4:M:428:TYR:C	2.45	0.54
4:M:401:GLY:C	4:M:435:HIS:HD2	2.10	0.54
5:N:785:TYR:CD1	5:N:786:ASN:N	2.75	0.54
5:N:948:ILE:HG22	5:N:949:VAL:O	2.07	0.54
7:P:50:LEU:HD13	7:P:55:ALA:HA	1.89	0.54
8:Q:90:VAL:HA	8:Q:120:ALA:HB2	1.89	0.54
10:S:1:MET:O	10:S:3:PHE:CE1	2.60	0.54
12:U:25:LEU:HB3	12:U:38:ALA:HB2	1.88	0.54
4:A:1115:SER:O	4:A:1116:LEU:HB3	2.07	0.54
4:A:1420:ASP:CB	4:A:1422:ARG:HG3	2.29	0.54
4:A:244:PRO:O	4:A:246:VAL:N	2.41	0.54
4:A:42:ASP:HB3	4:A:45:GLN:N	2.22	0.54
4:A:464:PRO:HG2	4:A:465:TYR:HD1	1.72	0.54
4:A:532:ARG:O	4:A:535:THR:HB	2.06	0.54
4:A:58:LEU:HD21	4:A:243:PRO:CB	2.36	0.54
4:A:682:THR:HG23	4:A:728:LYS:HE3	1.89	0.54
4:A:853:ASP:OD1	4:A:855:THR:CB	2.54	0.54
5:B:1068:GLY:O	5:B:1069:PHE:O	2.25	0.54
8:E:124:VAL:HA	8:E:132:ILE:HD12	1.88	0.54
14:K:101:LEU:HD23	14:K:101:LEU:O	2.08	0.54
4:M:1424:VAL:CG1	4:M:1436:ILE:HD11	2.28	0.54
4:M:353:ILE:HB	4:M:470:LEU:CD2	2.37	0.54
4:M:828:ALA:HB1	5:N:530:GLY:HA2	1.86	0.54
4:M:855:THR:HG23	4:M:857:ARG:CG	2.35	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:980:PHE:HE2	5:N:1094:ARG:CG	2.20	0.54
5:N:1099:VAL:O	5:N:1101:ASP:N	2.40	0.54
5:N:217:ARG:HD2	5:N:217:ARG:C	2.27	0.54
5:N:247:GLY:C	5:N:249:ARG:N	2.61	0.54
5:N:408:LEU:HG	5:N:409:ALA:H	1.72	0.54
7:P:68:ARG:C	7:P:70:PHE:H	2.11	0.54
10:S:132:SER:OG	10:S:133:SER:N	2.39	0.54
14:W:21:ILE:HG23	14:W:31:VAL:HG11	1.90	0.54
4:A:32:VAL:HG23	4:A:32:VAL:O	2.06	0.54
4:A:42:ASP:HB3	4:A:45:GLN:HA	1.90	0.54
4:A:590:ARG:CG	4:A:590:ARG:HH11	2.20	0.54
4:A:783:THR:HG22	4:A:784:LEU:HG	1.90	0.54
4:A:857:ARG:HG2	4:A:863:VAL:HA	1.89	0.54
5:B:1099:VAL:HG12	5:B:1100:ASP:H	1.72	0.54
5:B:1106:ARG:HG3	5:B:1107:ALA:N	2.22	0.54
5:B:221:ASN:N	5:B:241:ARG:O	2.30	0.54
5:B:657:HIS:CE1	5:B:689:LEU:HD11	2.42	0.54
6:C:18:VAL:O	6:C:20:PHE:HD2	1.90	0.54
7:D:7:THR:HB	10:G:42:PHE:HE2	1.71	0.54
9:F:111:LEU:C	9:F:113:GLY:N	2.60	0.54
10:G:143:ILE:CG2	10:G:144:ARG:N	2.71	0.54
10:G:3:PHE:CE1	10:G:80:LYS:HE2	2.42	0.54
4:M:1063:MET:HG3	4:M:1436:ILE:HG23	1.87	0.54
4:M:1095:THR:O	4:M:1096:SER:CB	2.56	0.54
4:M:1115:SER:HB3	4:M:1330:ASN:HD21	1.73	0.54
5:N:792:MET:HG3	5:N:855:PHE:HE1	1.72	0.54
7:P:63:LEU:HD13	7:P:133:THR:OG1	2.06	0.54
11:T:91:ASP:C	11:T:93:TYR:H	2.11	0.54
5:N:801:LYS:O	13:V:52:THR:CG2	2.55	0.54
14:W:31:VAL:CG1	14:W:32:VAL:N	2.70	0.54
14:W:55:LYS:HB3	14:W:81:TYR:CD1	2.42	0.54
2:2:26:DC:H2''	2:2:27:DA:H5'	1.87	0.54
4:A:115:LEU:HB2	4:A:122:MET:HE2	1.90	0.54
4:A:510:GLN:HA	4:A:510:GLN:OE1	2.07	0.54
4:A:683:ILE:HG21	4:A:801:GLU:HG3	1.90	0.54
4:A:82:GLY:O	4:A:241:VAL:N	2.34	0.54
5:B:1183:LYS:CE	5:B:1183:LYS:N	2.71	0.54
5:B:122:LEU:O	5:B:206:ASN:HA	2.08	0.54
8:E:55:ARG:C	8:E:57:MET:H	2.10	0.54
4:M:444:PHE:CB	4:M:458:HIS:HD2	2.20	0.54
5:N:778:MET:HE3	5:N:1094:ARG:HD3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:882:THR:O	5:N:883:LEU:HB2	2.08	0.54
6:O:256:ALA:O	6:O:259:LEU:N	2.41	0.54
7:P:192:LYS:HB3	7:P:192:LYS:HZ3	1.73	0.54
8:Q:105:PHE:O	8:Q:106:GLN:HB2	2.07	0.54
9:R:111:LEU:C	9:R:113:GLY:N	2.60	0.54
9:R:76:LYS:O	9:R:79:ARG:HD3	2.08	0.54
9:R:99:LEU:O	9:R:103:MET:HG2	2.07	0.54
4:M:567:LYS:CB	11:T:96:VAL:H	2.12	0.54
4:A:1076:ALA:HA	4:A:1079:MET:CE	2.38	0.54
4:A:1341:ILE:O	4:A:1344:GLY:N	2.41	0.54
4:A:1369:ALA:O	4:A:1372:VAL:HG12	2.08	0.54
4:A:463:ILE:HD12	4:A:469:ARG:HD2	1.89	0.54
4:A:353:ILE:HD13	4:A:487:MET:HE2	1.90	0.54
4:A:552:TRP:HE3	4:A:651:LYS:HB3	1.72	0.54
4:A:883:LEU:CD2	4:A:1021:LEU:HB2	2.38	0.54
4:A:412:ARG:NH2	5:B:1108:ARG:NH1	2.55	0.54
5:B:376:PHE:CE2	5:B:569:TYR:HD2	2.26	0.54
5:B:552:MET:HA	5:B:555:ILE:HB	1.90	0.54
5:B:705:MET:H	5:B:710:LEU:CD1	2.21	0.54
8:E:177:ARG:HD3	8:E:215:MET:CG	2.38	0.54
4:M:1369:ALA:O	4:M:1372:VAL:HG12	2.08	0.54
4:M:547:LEU:HB3	14:W:58:PHE:CE1	2.42	0.54
4:M:816:HIS:CD2	5:N:764:SER:HB2	2.43	0.54
6:O:209:TYR:HD1	6:O:209:TYR:H	1.54	0.54
5:N:798:TYR:CE2	6:O:62:PHE:CE2	2.95	0.54
9:R:103:MET:CE	10:S:66:GLY:H	2.20	0.54
9:R:77:ASP:C	9:R:79:ARG:H	2.10	0.54
13:V:44:TYR:N	13:V:44:TYR:HD2	2.06	0.54
14:W:111:LEU:O	14:W:112:GLN:HG2	2.07	0.54
4:A:350:ARG:HB2	4:A:488:ASN:OD1	2.07	0.54
4:A:527:THR:CG2	4:A:650:GLN:HA	2.37	0.54
5:B:525:ALA:O	5:B:768:THR:HG23	2.08	0.54
5:B:616:ILE:HG13	5:B:697:GLU:HA	1.90	0.54
5:B:990:ILE:HG22	5:B:991:GLY:N	2.23	0.54
6:C:27:LEU:HD13	6:C:228:PHE:HE2	1.73	0.54
11:H:23:VAL:HG22	11:H:43:ASN:HA	1.90	0.54
14:K:31:VAL:CG1	14:K:32:VAL:N	2.70	0.54
4:M:1095:THR:O	4:M:1096:SER:HB2	2.07	0.54
4:M:1118:VAL:HG23	4:M:1306:LEU:HB2	1.90	0.54
4:M:1283:VAL:HG12	4:M:1284:MET:N	2.23	0.54
4:M:265:LYS:NZ	4:M:322:VAL:HG22	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:353:ILE:HG13	4:M:482:PHE:HD2	1.72	0.54
5:N:309:GLN:HG3	12:U:52:ILE:HD11	1.88	0.54
5:N:777:ALA:HA	5:N:1095:LEU:HA	1.89	0.54
6:O:113:VAL:CG2	6:O:147:LEU:HD21	2.38	0.54
7:P:18:VAL:HG13	7:P:18:VAL:O	2.06	0.54
10:S:145:VAL:CG1	10:S:146:LYS:N	2.70	0.54
11:T:116:TYR:HE2	11:T:140:ALA:CB	2.21	0.54
14:W:55:LYS:HB2	14:W:81:TYR:HE1	1.72	0.54
4:A:300:VAL:O	4:A:300:VAL:HG12	2.08	0.54
4:A:947:PHE:CD2	4:A:954:TRP:CZ2	2.96	0.54
5:B:1017:ILE:HG22	5:B:1018:PRO:N	2.22	0.54
5:B:979:LYS:HG2	5:B:1095:LEU:HD13	1.88	0.54
5:B:705:MET:N	5:B:710:LEU:HD12	2.23	0.54
9:F:135:ARG:HD3	9:F:143:PHE:CD2	2.42	0.54
10:G:88:ASP:OD2	10:G:88:ASP:N	2.41	0.54
11:H:61:SER:HB2	11:H:139:ASN:HB3	1.90	0.54
4:M:1341:ILE:HG23	4:M:1342:GLU:H	1.71	0.54
4:M:1386:ARG:HB3	4:M:1403:GLU:OE1	2.08	0.54
4:M:715:GLU:OE2	4:M:774:ARG:NH1	2.41	0.54
5:N:1085:ILE:CD1	5:N:1085:ILE:N	2.69	0.54
5:N:176:SER:O	5:N:182:SER:HB3	2.08	0.54
10:S:47:CYS:O	10:S:76:ALA:HB1	2.07	0.54
12:U:50:THR:CG2	12:U:52:ILE:HG12	2.38	0.54
4:A:230:ARG:N	4:A:233:TRP:CE3	2.65	0.54
4:A:407:ARG:HB3	4:A:430:TRP:CE2	2.42	0.54
4:A:958:VAL:O	4:A:958:VAL:HG12	2.08	0.54
5:B:557:PHE:C	5:B:557:PHE:HD2	2.09	0.54
5:B:910:VAL:HG12	5:B:912:ILE:H	1.73	0.54
6:C:212:PRO:CB	6:C:213:PRO:HD2	2.38	0.54
6:C:177:GLU:HG3	6:C:231:ASN:HD22	1.72	0.54
6:C:39:ALA:HA	6:C:164:ALA:CB	2.36	0.54
6:C:45:ALA:HA	6:C:72:LEU:CD1	2.38	0.54
7:D:213:GLU:O	7:D:217:LEU:HG	2.07	0.54
9:F:75:PRO:HG2	9:F:78:GLN:HB2	1.90	0.54
4:M:282:ASN:O	4:M:284:ALA:N	2.41	0.54
4:M:481:ASP:OD1	4:M:483:ASP:OD2	2.25	0.54
4:M:504:LEU:HD11	9:R:91:ALA:CB	2.37	0.54
4:M:608:ILE:C	4:M:610:GLY:N	2.59	0.54
5:N:237:VAL:HG12	5:N:238:ALA:N	2.22	0.54
5:N:370:PHE:HD2	5:N:373:ARG:HD2	1.73	0.54
10:S:73:LYS:HE2	10:S:74:TYR:O	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S:74:TYR:H	10:S:74:TYR:HD2	1.56	0.54
13:V:27:GLU:C	13:V:29:GLU:H	2.10	0.54
13:V:36:LEU:O	13:V:39:LEU:N	2.41	0.54
4:A:55:ASP:CG	4:A:55:ASP:O	2.41	0.53
4:A:600:PRO:HG2	4:A:601:LYS:H	1.73	0.53
5:B:102:VAL:O	5:B:109:THR:HA	2.08	0.53
5:B:973:ILE:HG23	5:B:974:PRO:HD2	1.90	0.53
6:C:33:LEU:O	6:C:34:ARG:C	2.47	0.53
5:B:996:ARG:NH1	6:C:38:ILE:HG23	2.22	0.53
11:H:116:TYR:HB2	11:H:123:MET:HB3	1.90	0.53
4:M:877:HIS:O	4:M:878:ILE:HG12	2.08	0.53
5:N:284:ILE:HG12	5:N:324:ILE:HD12	1.89	0.53
5:N:343:ILE:HB	5:N:348:ARG:HG3	1.89	0.53
6:O:66:ARG:NH1	13:V:2:ILE:CG2	2.61	0.53
7:P:4:SER:OG	7:P:5:THR:N	2.31	0.53
8:Q:55:ARG:HD2	8:Q:83:CYS:O	2.09	0.53
9:R:85:MET:HE1	9:R:93:ILE:HD12	1.89	0.53
14:W:65:HIS:HD2	14:W:67:PHE:N	1.95	0.53
4:A:1397:LEU:HB2	4:A:1426:GLU:OE1	2.08	0.53
4:A:154:SER:HB3	4:A:162:VAL:HG21	1.89	0.53
4:A:90:VAL:HG13	4:A:297:GLN:OE1	2.08	0.53
4:A:44:THR:O	4:A:45:GLN:HB2	2.09	0.53
4:A:929:LEU:HD21	4:A:983:ILE:HD13	1.89	0.53
5:B:642:ASP:HB3	5:B:649:LYS:HD2	1.89	0.53
5:B:654:ARG:C	5:B:656:GLY:H	2.10	0.53
5:B:882:THR:O	5:B:883:LEU:HB2	2.08	0.53
6:C:35:ARG:HH11	14:K:41:THR:N	2.06	0.53
7:D:173:HIS:O	7:D:177:VAL:HG23	2.08	0.53
9:F:118:LEU:O	9:F:122:MET:HG3	2.07	0.53
4:A:789:LYS:HE3	12:I:67:THR:OG1	2.09	0.53
5:B:852:ARG:NH2	15:L:70:ARG:OXT	2.29	0.53
4:M:23:SER:HB3	4:M:233:TRP:CE2	2.43	0.53
4:M:326:ARG:NH2	4:M:1407:GLU:HG3	2.22	0.53
4:M:427:GLN:HG3	4:M:430:TRP:CE2	2.43	0.53
4:M:886:ILE:HG13	4:M:943:LEU:HD12	1.90	0.53
4:M:18:GLN:CB	5:N:1215:ARG:HB2	2.35	0.53
5:N:582:VAL:HA	5:N:626:ILE:O	2.08	0.53
6:O:254:LYS:O	6:O:258:ILE:HD13	2.09	0.53
8:Q:55:ARG:C	8:Q:57:MET:H	2.11	0.53
4:A:1064:VAL:O	4:A:1067:LEU:HB3	2.07	0.53
4:A:1313:LEU:HD23	4:A:1338:VAL:CG2	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1120:LEU:O	4:A:1323:ASP:HB2	2.08	0.53
4:A:182:VAL:HG22	4:A:201:VAL:HA	1.89	0.53
4:A:35:ILE:HA	4:A:52:GLY:O	2.09	0.53
4:A:841:LEU:O	4:A:845:LEU:HG	2.08	0.53
4:A:915:SER:O	4:A:919:ILE:HG13	2.08	0.53
5:B:1002:THR:HG21	5:B:1006:ILE:CD1	2.37	0.53
5:B:1106:ARG:HD3	5:B:1126:GLY:C	2.29	0.53
5:B:365:THR:HG23	5:B:367:LEU:N	2.19	0.53
5:B:882:THR:HG21	5:B:935:ARG:HA	1.90	0.53
7:D:34:GLN:O	7:D:47:LEU:HD23	2.08	0.53
10:G:7:LEU:HB2	10:G:74:TYR:HE2	1.69	0.53
4:M:1341:ILE:CG2	4:M:1342:GLU:H	2.21	0.53
4:M:699:ALA:O	4:M:700:ASN:HB3	2.08	0.53
4:M:761:MET:HA	4:M:804:TYR:HB2	1.90	0.53
5:N:258:LEU:O	5:N:258:LEU:HG	2.08	0.53
5:N:344:LYS:O	5:N:345:LYS:CB	2.55	0.53
5:N:879:ARG:HH11	5:N:883:LEU:CD2	2.18	0.53
6:O:174:ALA:HB2	6:O:235:VAL:CG2	2.38	0.53
9:R:81:THR:HB	9:R:136:ARG:NH1	2.23	0.53
10:S:122:ASN:ND2	10:S:125:SER:HB3	2.23	0.53
11:T:89:LEU:C	11:T:91:ASP:H	2.12	0.53
4:A:541:ILE:HG22	4:A:546:VAL:HG23	1.89	0.53
4:A:695:LYS:C	4:A:697:ALA:H	2.12	0.53
4:A:947:PHE:CD2	4:A:954:TRP:CE2	2.97	0.53
5:B:1065:GLN:NE2	5:B:1067:ARG:H	2.00	0.53
5:B:1084:GLN:HE21	5:B:1084:GLN:H	1.56	0.53
5:B:65:GLU:CG	5:B:66:ASP:H	2.12	0.53
5:B:864:LYS:N	5:B:872:GLU:OE1	2.40	0.53
6:C:208:GLU:O	6:C:210:GLU:N	2.41	0.53
6:C:235:VAL:HG13	13:J:13:VAL:CG2	2.38	0.53
7:D:176:GLU:C	7:D:178:ALA:N	2.61	0.53
7:D:5:THR:HG23	7:D:5:THR:O	2.08	0.53
8:E:105:PHE:O	8:E:106:GLN:HB2	2.08	0.53
12:I:82:GLU:HB3	12:I:104:LEU:HD12	1.89	0.53
4:M:310:GLY:O	4:M:312:PRO:HD2	2.08	0.53
4:M:528:LEU:HD12	4:M:528:LEU:O	2.08	0.53
4:M:534:LEU:HD13	4:M:656:TRP:CG	2.43	0.53
4:M:695:LYS:C	4:M:697:ALA:H	2.12	0.53
5:N:1033:LYS:NZ	5:N:1070:GLU:OE1	2.42	0.53
5:N:199:MET:SD	5:N:199:MET:N	2.82	0.53
5:N:562:GLY:HA3	5:N:590:HIS:CE1	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:872:GLU:CD	5:N:914:LYS:HE2	2.28	0.53
6:O:124:LEU:O	6:O:127:ARG:HG2	2.09	0.53
6:O:212:PRO:CB	6:O:213:PRO:HD2	2.38	0.53
7:P:54:GLU:O	7:P:58:VAL:HG23	2.09	0.53
4:A:1261:LYS:O	4:A:1264:GLU:HB3	2.08	0.53
4:A:282:ASN:O	4:A:284:ALA:N	2.41	0.53
4:A:353:ILE:HG21	4:A:487:MET:HE3	1.90	0.53
4:A:608:ILE:HB	4:A:613:ILE:HD11	1.89	0.53
4:A:899:VAL:HB	4:A:929:LEU:HD12	1.89	0.53
6:C:124:LEU:O	6:C:127:ARG:HG2	2.08	0.53
13:J:27:GLU:C	13:J:29:GLU:H	2.11	0.53
4:M:1280:GLU:O	4:M:1281:ARG:O	2.26	0.53
5:N:122:LEU:O	5:N:206:ASN:HA	2.08	0.53
5:N:310:MET:O	5:N:313:MET:HB2	2.08	0.53
5:N:343:ILE:HG23	5:N:347:LYS:CB	2.11	0.53
5:N:843:GLN:O	5:N:844:SER:C	2.44	0.53
10:S:7:LEU:HD11	10:S:45:ILE:HD11	1.91	0.53
11:T:61:SER:O	11:T:62:SER:CB	2.56	0.53
5:N:1039:GLY:HA2	13:V:51:LEU:CD2	2.39	0.53
14:W:60:ALA:O	14:W:73:LEU:HD12	2.09	0.53
4:A:1164:PRO:HG2	4:A:1165:GLU:H	1.74	0.53
4:A:317:LYS:O	4:A:318:SER:CB	2.56	0.53
4:A:326:ARG:HG2	4:A:327:ALA:N	2.22	0.53
4:A:844:ALA:HB2	4:A:1389:PHE:CE2	2.44	0.53
5:B:1102:LYS:O	5:B:1103:ILE:C	2.46	0.53
5:B:247:GLY:C	5:B:249:ARG:N	2.62	0.53
8:E:94:LYS:HE2	8:E:98:ILE:CD1	2.33	0.53
11:H:58:THR:HG22	11:H:59:ILE:H	1.73	0.53
4:M:1316:VAL:HG12	4:M:1316:VAL:O	2.09	0.53
4:M:563:PRO:HG3	4:M:572:TRP:CE2	2.44	0.53
4:M:982:THR:H	4:M:985:ASP:HB2	1.73	0.53
5:N:287:ARG:NH1	5:N:324:ILE:O	2.41	0.53
5:N:37:PHE:HE2	5:N:542:MET:HA	1.74	0.53
5:N:696:GLU:O	5:N:699:GLU:HB2	2.08	0.53
7:P:220:LEU:O	7:P:221:TYR:HD1	1.91	0.53
8:Q:157:SER:HG	8:Q:160:GLU:HG3	1.73	0.53
8:Q:131:THR:HG21	8:Q:191:LYS:NZ	2.24	0.53
11:T:113:ALA:HB2	11:T:126:GLU:HG3	1.91	0.53
4:A:1350:LYS:O	4:A:1354:ASN:ND2	2.40	0.53
4:A:24:PRO:HD2	4:A:233:TRP:CD1	2.43	0.53
4:A:34:LYS:HB3	4:A:36:ARG:HE	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:498:ARG:O	4:A:501:LEU:N	2.38	0.53
4:A:50:ILE:C	4:A:52:GLY:N	2.62	0.53
4:A:590:ARG:HH21	4:A:620:LYS:CB	2.18	0.53
4:A:866:PHE:O	4:A:867:ILE:HD12	2.09	0.53
5:B:745:PRO:C	5:B:747:MET:N	2.62	0.53
5:B:806:THR:CG2	5:B:808:ALA:HB3	2.39	0.53
6:C:172:PRO:O	6:C:235:VAL:HG23	2.07	0.53
8:E:78:LEU:HD23	8:E:79:TRP:N	2.23	0.53
4:M:853:ASP:OD1	4:M:855:THR:N	2.41	0.53
4:M:1410:PHE:HA	5:N:1212:ILE:HD11	1.89	0.53
5:N:769:TYR:O	5:N:772:ALA:N	2.42	0.53
6:O:31:ASN:O	6:O:32:SER:C	2.47	0.53
9:R:99:LEU:C	9:R:99:LEU:HD12	2.29	0.53
12:U:61:ASP:C	12:U:63:GLY:H	2.11	0.53
12:U:71:SER:OG	12:U:83:ASN:HB2	2.07	0.53
4:A:1057:VAL:HG12	4:A:1058:VAL:N	2.24	0.53
4:A:1095:THR:O	4:A:1096:SER:CB	2.57	0.53
4:A:11:LEU:HB2	5:B:1193:GLN:OE1	2.09	0.53
4:A:119:ASN:O	4:A:122:MET:HB3	2.09	0.53
4:A:34:LYS:HZ2	4:A:57:ARG:NH2	2.06	0.53
4:A:622:VAL:HG22	4:A:622:VAL:O	2.09	0.53
4:A:341:MET:CE	4:A:843:LYS:HZ3	2.22	0.53
5:B:223:VAL:HG11	5:B:381:MET:HG2	1.91	0.53
5:B:653:VAL:CG2	5:B:689:LEU:HB3	2.39	0.53
6:C:69:LEU:HB3	13:J:6:ARG:HD3	1.91	0.53
7:D:118:THR:HB	7:D:121:LYS:HB2	1.91	0.53
7:D:198:LEU:O	7:D:200:ASN:N	2.42	0.53
11:H:83:GLN:C	11:H:85:GLY:H	2.11	0.53
4:M:1227:ILE:HG22	4:M:1228:TRP:H	1.74	0.53
4:M:1376:THR:O	4:M:1377:THR:C	2.47	0.53
4:M:284:ALA:O	4:M:286:HIS:N	2.36	0.53
4:M:265:LYS:HZ3	4:M:322:VAL:HG13	1.73	0.53
4:M:590:ARG:O	4:M:591:PHE:HB2	2.07	0.53
4:M:697:ALA:C	4:M:699:ALA:H	2.11	0.53
5:N:167:ILE:HG22	5:N:453:ILE:HD12	1.90	0.53
5:N:283:VAL:O	5:N:286:PHE:N	2.42	0.53
5:N:365:THR:HG23	5:N:367:LEU:N	2.20	0.53
5:N:687:GLU:O	5:N:689:LEU:HG	2.09	0.53
5:N:842:ASN:HB3	5:N:845:SER:OG	2.09	0.53
5:N:95:ILE:CG1	5:N:130:VAL:HG22	2.39	0.53
6:O:183:TRP:O	6:O:185:LYS:N	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:O:66:ARG:NH1	6:O:144:ILE:O	2.42	0.53
6:O:98:VAL:HG23	6:O:122:SER:HB3	1.91	0.53
7:P:173:HIS:O	7:P:177:VAL:HG23	2.09	0.53
10:S:7:LEU:CD1	10:S:45:ILE:HD11	2.39	0.53
12:U:15:TYR:CD1	12:U:15:TYR:N	2.77	0.53
14:W:68:PHE:CD2	14:W:68:PHE:N	2.76	0.53
4:A:41:MET:HB3	4:A:48:ALA:O	2.07	0.53
4:A:7:SER:C	4:A:9:ALA:H	2.12	0.53
5:B:769:TYR:O	5:B:772:ALA:N	2.42	0.53
5:B:797:TYR:HE1	5:B:854:LEU:CD2	2.22	0.53
6:C:101:LEU:HD13	6:C:118:LEU:CD2	2.34	0.53
11:H:116:TYR:HE2	11:H:140:ALA:CB	2.22	0.53
11:H:58:THR:HB	11:H:143:LEU:HD13	1.91	0.53
11:H:62:SER:C	11:H:64:ASN:H	2.12	0.53
5:B:1006:ILE:HG22	13:J:45:CYS:HB3	1.91	0.53
4:M:53:LEU:CD2	4:M:54:ASN:HD22	2.22	0.53
4:M:648:ASN:O	4:M:649:ILE:C	2.46	0.53
4:M:730:GLY:C	4:M:732:LEU:N	2.61	0.53
4:M:71:GLN:C	4:M:73:GLY:H	2.11	0.53
5:N:305:VAL:HG12	5:N:305:VAL:O	2.09	0.53
5:N:642:ASP:HB3	5:N:649:LYS:HD2	1.89	0.53
5:N:654:ARG:O	5:N:656:GLY:N	2.41	0.53
8:Q:35:VAL:C	8:Q:37:LEU:H	2.11	0.53
9:R:103:MET:HE1	10:S:65:ASP:HB2	1.91	0.53
10:S:143:ILE:CG2	10:S:144:ARG:N	2.72	0.53
7:P:7:THR:HB	10:S:42:PHE:CZ	2.44	0.53
4:A:1118:VAL:CG2	4:A:1306:LEU:HB2	2.38	0.53
4:A:244:PRO:CB	4:A:245:PRO:HD3	2.39	0.53
4:A:458:HIS:NE2	4:A:478:TYR:OH	2.34	0.53
4:A:718:VAL:O	4:A:721:PHE:HB2	2.09	0.53
4:A:816:HIS:CD2	5:B:764:SER:H	2.27	0.53
4:A:98:LYS:O	4:A:99:ILE:C	2.48	0.53
5:B:1069:PHE:HA	5:B:1085:ILE:O	2.08	0.53
4:A:466:SER:HB2	5:B:1099:VAL:HG11	1.91	0.53
5:B:308:TRP:HA	5:B:311:LEU:HD12	1.90	0.53
5:B:46:GLN:HG3	5:B:47:GLN:N	2.15	0.53
10:G:145:VAL:HG12	10:G:146:LYS:N	2.23	0.53
4:M:1259:MET:C	4:M:1261:LYS:H	2.12	0.53
4:M:278:THR:O	4:M:278:THR:HG22	2.09	0.53
5:N:343:ILE:HG22	5:N:345:LYS:H	1.74	0.53
7:P:5:THR:O	7:P:5:THR:HG23	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Q:168:TYR:CB	8:Q:170:LEU:HG	2.39	0.53
10:S:56:ILE:O	10:S:57:GLN:HB2	2.08	0.53
10:S:59:GLY:CA	10:S:70:PHE:CD2	2.92	0.53
11:T:139:ASN:O	11:T:140:ALA:HB2	2.09	0.53
11:T:82:PRO:C	11:T:84:ALA:H	2.12	0.53
4:A:1209:MET:SD	4:A:1236:LEU:HD22	2.49	0.52
4:A:1377:THR:O	4:A:1379:GLY:N	2.41	0.52
4:A:302:THR:HA	4:A:305:ASP:O	2.09	0.52
4:A:566:ILE:O	4:A:567:LYS:O	2.27	0.52
4:A:845:LEU:O	4:A:846:GLU:C	2.47	0.52
4:A:849:MET:HE1	4:A:1061:GLY:HA2	1.90	0.52
5:B:1106:ARG:HD3	5:B:1126:GLY:O	2.10	0.52
5:B:370:PHE:HE2	5:B:373:ARG:HH11	1.57	0.52
6:C:215:GLU:O	6:C:217:ASP:N	2.42	0.52
8:E:84:ASP:O	8:E:86:PRO:HD3	2.09	0.52
9:F:143:PHE:C	9:F:143:PHE:CD1	2.81	0.52
9:F:85:MET:CE	9:F:93:ILE:HD12	2.39	0.52
13:J:57:ILE:HA	13:J:60:PHE:CD2	2.43	0.52
14:K:19:LEU:HD22	14:K:33:ILE:CG2	2.39	0.52
4:M:1025:ARG:O	4:M:1026:LEU:HD23	2.09	0.52
4:M:105:CYS:O	4:M:114:LEU:HG	2.09	0.52
4:M:115:LEU:HB2	4:M:122:MET:CE	2.39	0.52
4:M:1164:PRO:HG2	4:M:1165:GLU:H	1.74	0.52
4:M:382:PRO:HD3	4:M:428:TYR:CE2	2.44	0.52
4:M:567:LYS:CG	4:M:568:PRO:CD	2.81	0.52
4:M:666:ILE:CD1	4:M:667:GLY:H	2.22	0.52
5:N:1183:LYS:CE	5:N:1183:LYS:N	2.72	0.52
5:N:274:PRO:O	5:N:275:TYR:HB2	2.08	0.52
5:N:746:SER:HB2	5:N:1046:PRO:HG2	1.91	0.52
6:O:22:LEU:HD13	6:O:230:MET:HE3	1.92	0.52
7:P:176:GLU:C	7:P:178:ALA:N	2.62	0.52
9:R:90:ARG:HD3	9:R:155:LEU:CD1	2.38	0.52
10:S:23:LYS:HG3	10:S:56:ILE:HD12	1.91	0.52
4:A:316:GLN:O	4:A:317:LYS:C	2.47	0.52
4:A:68:GLN:C	4:A:70:CYS:N	2.62	0.52
5:B:496:ARG:HH11	5:B:496:ARG:HB3	1.74	0.52
5:B:744:HIS:HD2	5:B:746:SER:OG	1.92	0.52
10:G:9:LEU:HD12	10:G:10:ASN:N	2.23	0.52
11:H:91:ASP:O	11:H:93:TYR:N	2.42	0.52
4:M:316:GLN:O	4:M:317:LYS:C	2.47	0.52
5:N:1022:THR:O	5:N:1022:THR:HG23	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:343:ILE:HB	5:N:348:ARG:HE	1.74	0.52
5:N:579:ARG:CB	5:N:586:TRP:HE1	2.22	0.52
5:N:970:THR:HG22	5:N:971:THR:N	2.24	0.52
6:O:123:ASN:ND2	6:O:125:MET:HG2	2.24	0.52
8:Q:168:TYR:HB2	8:Q:170:LEU:HG	1.92	0.52
13:V:13:VAL:O	13:V:14:VAL:HG23	2.09	0.52
14:W:19:LEU:HD22	14:W:33:ILE:CG2	2.39	0.52
4:A:1134:ILE:O	4:A:1138:ILE:HG13	2.08	0.52
4:A:115:LEU:HB2	4:A:122:MET:CE	2.39	0.52
4:A:335:ARG:NH1	5:B:1202:LEU:HD13	2.25	0.52
4:A:474:VAL:HG22	4:A:474:VAL:O	2.09	0.52
4:A:783:THR:HG21	4:A:815:PHE:CE2	2.43	0.52
5:B:778:MET:HE2	5:B:1094:ARG:CD	2.40	0.52
5:B:1183:LYS:HE3	5:B:1183:LYS:N	2.24	0.52
5:B:434:ARG:HA	5:B:437:GLU:CD	2.30	0.52
5:B:589:VAL:CG1	5:B:590:HIS:H	2.04	0.52
6:C:34:ARG:O	6:C:38:ILE:HG13	2.10	0.52
7:D:145:MET:O	7:D:149:THR:HB	2.09	0.52
9:F:103:MET:HE2	10:G:66:GLY:H	1.75	0.52
12:I:32:CYS:SG	12:I:33:SER:N	2.82	0.52
14:K:47:ARG:HD2	14:K:47:ARG:C	2.30	0.52
4:M:1057:VAL:HG12	4:M:1058:VAL:N	2.24	0.52
4:M:1076:ALA:HA	4:M:1079:MET:CE	2.39	0.52
4:M:477:PRO:HG2	4:M:521:MET:HG2	1.92	0.52
5:N:1039:GLY:HA2	13:V:51:LEU:HD22	1.91	0.52
5:N:1202:LEU:HD22	5:N:1206:GLU:CD	2.30	0.52
5:N:205:ILE:HD12	5:N:205:ILE:N	2.25	0.52
5:N:705:MET:H	5:N:710:LEU:CD1	2.23	0.52
5:N:936:ASP:OD1	5:N:938:SER:N	2.38	0.52
4:M:1343:ALA:HB2	8:Q:150:VAL:HG22	1.90	0.52
8:Q:55:ARG:C	8:Q:57:MET:N	2.63	0.52
11:T:64:ASN:O	11:T:65:LEU:HB2	2.08	0.52
12:U:55:THR:CG2	12:U:58:VAL:HG21	2.39	0.52
4:A:971:PHE:CE2	4:A:1040:GLN:HG2	2.43	0.52
5:B:293:PRO:HG2	5:B:296:GLU:CB	2.39	0.52
5:B:29:ASP:HB3	5:B:658:ILE:CD1	2.39	0.52
4:M:595:THR:O	4:M:596:THR:HG23	2.08	0.52
4:M:639:PRO:HG2	4:M:640:GLN:H	1.73	0.52
4:M:840:ARG:O	4:M:841:LEU:C	2.47	0.52
5:N:1183:LYS:HE3	5:N:1183:LYS:N	2.24	0.52
7:P:17:LYS:HE3	7:P:17:LYS:HA	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:W:12:LEU:HD12	14:W:12:LEU:N	2.20	0.52
4:A:1114:PRO:O	4:A:1115:SER:O	2.27	0.52
4:A:1398:MET:HB2	4:A:1426:GLU:OE2	2.10	0.52
4:A:152:VAL:HG13	4:A:153:PRO:HD2	1.91	0.52
4:A:382:PRO:CB	4:A:428:TYR:HE2	2.19	0.52
5:B:1155:SER:OG	5:B:1156:ASP:N	2.43	0.52
5:B:1162:ILE:HG22	5:B:1163:CYS:N	2.23	0.52
5:B:1166:CYS:O	5:B:1168:LEU:N	2.43	0.52
5:B:830:TYR:O	5:B:831:SER:C	2.47	0.52
7:D:17:LYS:CA	7:D:17:LYS:HE3	2.39	0.52
10:G:114:LEU:HD13	10:S:151:ILE:HD13	1.90	0.52
12:I:86:PHE:HE1	12:I:100:PHE:HB2	1.74	0.52
12:I:15:TYR:CD1	12:I:15:TYR:N	2.78	0.52
5:B:1039:GLY:HA2	13:J:51:LEU:HD22	1.92	0.52
4:M:853:ASP:O	4:M:854:ASN:HB2	2.09	0.52
4:M:93:VAL:HG21	4:M:301:ALA:O	2.09	0.52
5:N:1065:GLN:NE2	5:N:1066:SER:H	2.07	0.52
4:M:12:ARG:O	5:N:1194:ILE:HG22	2.10	0.52
5:N:955:THR:CG2	5:N:956:THR:H	2.22	0.52
10:S:18:PHE:HA	10:S:22:MET:CE	2.39	0.52
4:A:1280:GLU:O	4:A:1281:ARG:O	2.28	0.52
4:A:1369:ALA:O	4:A:1370:LEU:C	2.46	0.52
4:A:42:ASP:HB3	4:A:45:GLN:CA	2.40	0.52
4:A:77:CYS:C	4:A:78:PRO:O	2.47	0.52
5:B:459:TYR:CD2	5:B:459:TYR:C	2.83	0.52
6:C:22:LEU:HD13	6:C:230:MET:HE3	1.92	0.52
6:C:263:THR:C	6:C:265:MET:N	2.63	0.52
10:G:56:ILE:O	10:G:57:GLN:HB2	2.09	0.52
11:H:61:SER:O	11:H:62:SER:CB	2.58	0.52
13:J:53:HIS:CD2	13:J:54:VAL:N	2.78	0.52
4:M:1114:PRO:O	4:M:1115:SER:O	2.27	0.52
4:M:600:PRO:HG2	4:M:601:LYS:H	1.74	0.52
5:N:1010:LEU:HD23	5:N:1092:TYR:CD1	2.45	0.52
5:N:364:ILE:HG22	5:N:365:THR:N	2.23	0.52
5:N:510:LYS:HG3	5:N:511:PRO:HD3	1.88	0.52
6:O:214:ASN:HB3	6:O:217:ASP:OD2	2.09	0.52
6:O:241:ASP:O	6:O:245:VAL:HG23	2.07	0.52
6:O:36:VAL:HG11	6:O:251:LEU:HB2	1.91	0.52
13:V:7:CYS:SG	13:V:8:PHE:N	2.83	0.52
4:A:1062:GLU:OE2	9:F:88:TYR:OH	2.28	0.52
4:A:1191:TRP:CD1	4:A:1256:GLU:HB2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:130:ASP:O	4:A:133:LYS:N	2.38	0.52
4:A:335:ARG:HA	4:A:339:ASN:HD22	1.73	0.52
4:A:382:PRO:HB3	4:A:428:TYR:CE2	2.34	0.52
4:A:639:PRO:HG2	4:A:640:GLN:N	2.25	0.52
4:A:798:GLY:HA2	4:A:815:PHE:HD1	1.74	0.52
5:B:1022:THR:HG23	5:B:1022:THR:O	2.09	0.52
5:B:365:THR:HG23	5:B:367:LEU:HG	1.91	0.52
5:B:466:TRP:HA	5:B:466:TRP:CE3	2.44	0.52
5:B:999:MET:HA	5:B:999:MET:CE	2.39	0.52
4:M:996:ASN:HB3	4:M:1050:GLU:OE2	2.09	0.52
4:M:590:ARG:HH11	4:M:590:ARG:CG	2.22	0.52
4:M:535:THR:CG2	4:M:616:VAL:HA	2.33	0.52
4:M:964:ILE:O	4:M:967:ALA:N	2.42	0.52
5:N:1050:ILE:HG22	5:N:1051:THR:N	2.24	0.52
5:N:705:MET:N	5:N:710:LEU:HD12	2.25	0.52
10:S:27:LYS:HE2	10:S:54:ILE:HB	1.90	0.52
10:S:1:MET:SD	10:S:79:PHE:CE1	3.03	0.52
14:W:21:ILE:HG23	14:W:31:VAL:CG1	2.40	0.52
4:A:1333:ILE:O	4:A:1337:GLU:HG3	2.10	0.52
4:A:965:GLN:O	4:A:968:GLN:HB2	2.10	0.52
4:A:997:LEU:HD13	4:A:1018:PHE:HE2	1.75	0.52
5:B:114:PRO:O	5:B:116:GLU:N	2.43	0.52
5:B:472:ALA:C	5:B:474:SER:H	2.10	0.52
5:B:872:GLU:CD	5:B:914:LYS:HE2	2.29	0.52
6:C:183:TRP:CZ2	6:C:207:CYS:HB3	2.45	0.52
7:D:51:ASN:O	7:D:54:GLU:HB3	2.10	0.52
9:F:100:GLN:O	9:F:103:MET:HB2	2.09	0.52
12:I:82:GLU:O	12:I:104:LEU:HG	2.09	0.52
4:M:317:LYS:O	4:M:318:SER:CB	2.57	0.52
4:M:586:ILE:CD1	4:M:633:VAL:HG22	2.39	0.52
4:M:672:ASP:HB2	4:M:736:ASN:OD1	2.10	0.52
4:M:666:ILE:HD11	5:N:1086:PHE:HE1	1.75	0.52
5:N:291:ILE:HD13	5:N:300:HIS:CD2	2.45	0.52
5:N:254:LEU:HD23	5:N:381:MET:HE3	1.91	0.52
5:N:429:PHE:HA	5:N:432:MET:HE3	1.92	0.52
5:N:521:LEU:HB3	5:N:633:VAL:HG11	1.91	0.52
5:N:847:ASP:C	5:N:849:GLY:N	2.63	0.52
7:P:56:ARG:NH2	7:P:57:LEU:HD21	2.24	0.52
10:S:44:TYR:O	10:S:78:VAL:HG12	2.09	0.52
12:U:82:GLU:O	12:U:104:LEU:HG	2.09	0.52
6:O:235:VAL:HG13	13:V:13:VAL:CG2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:547:LEU:HB3	14:W:58:PHE:HE1	1.74	0.52
4:A:1418:LEU:HD12	4:A:1419:ASP:N	2.24	0.52
5:B:26:THR:O	5:B:29:ASP:HB2	2.10	0.52
5:B:305:VAL:HG12	5:B:305:VAL:O	2.10	0.52
5:B:952:VAL:HG22	5:B:966:VAL:HG13	1.92	0.52
6:C:129:ILE:HG23	6:C:130:GLY:N	2.25	0.52
9:F:69:LEU:N	9:F:70:LYS:CA	2.73	0.52
14:K:53:ASP:OD1	14:K:55:LYS:HB2	2.10	0.52
4:M:152:VAL:HG12	4:M:153:PRO:HD2	1.92	0.52
4:M:219:PHE:O	4:M:222:LEU:O	2.28	0.52
4:M:58:LEU:HD21	4:M:243:PRO:CB	2.38	0.52
5:N:118:ARG:HH11	5:N:204:ILE:HD11	1.75	0.52
5:N:979:LYS:HG2	5:N:1095:LEU:CD1	2.39	0.52
6:O:167:HIS:HD2	6:O:168:ALA:N	2.08	0.52
11:T:4:THR:O	11:T:5:LEU:HD23	2.09	0.52
11:T:95:TYR:CE2	11:T:97:MET:CG	2.92	0.52
13:V:28:ASP:O	13:V:30:LEU:HG	2.10	0.52
2:2:24:DG:H2''	2:2:25:DT:C5'	2.39	0.52
4:A:1389:PHE:C	4:A:1389:PHE:CD1	2.83	0.52
4:A:224:PHE:CD2	4:A:231:PRO:HG3	2.44	0.52
4:A:391:LEU:O	4:A:394:ASN:HB2	2.09	0.52
4:A:494:SER:O	4:A:497:THR:N	2.41	0.52
4:A:343:LYS:HZ3	5:B:1197:PRO:HB3	1.74	0.52
5:B:39:ARG:HH21	5:B:665:GLU:HG2	1.73	0.52
5:B:542:MET:SD	5:B:747:MET:HE2	2.50	0.52
5:B:911:ILE:HD11	5:B:941:LEU:CD1	2.38	0.52
6:C:46:ILE:HD12	6:C:67:LEU:O	2.10	0.52
8:E:124:VAL:HB	8:E:125:PRO:HD3	1.92	0.52
14:K:63:VAL:O	14:K:63:VAL:HG23	2.10	0.52
4:M:1011:GLN:NE2	4:M:1015:VAL:HG21	2.25	0.52
4:M:444:PHE:HB2	4:M:458:HIS:HD2	1.74	0.52
5:N:125:SER:HA	5:N:171:PRO:HA	1.92	0.52
5:N:278:GLN:HE22	5:N:337:ARG:HH21	1.56	0.52
5:N:603:LEU:HB3	5:N:609:ILE:HG13	1.92	0.52
5:N:640:VAL:O	5:N:641:GLU:C	2.48	0.52
4:M:816:HIS:CD2	5:N:764:SER:H	2.28	0.52
5:N:806:THR:HG22	5:N:808:ALA:CB	2.40	0.52
4:A:1147:THR:HA	4:A:1197:LEU:HD23	1.90	0.51
4:A:528:LEU:HD12	4:A:528:LEU:C	2.29	0.51
4:A:683:ILE:HD13	4:A:801:GLU:HG3	1.91	0.51
5:B:212:LEU:HD23	5:B:480:SER:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:799:PRO:CB	5:B:818:PRO:HG2	2.39	0.51
4:A:658:LEU:HD13	5:B:831:SER:N	2.25	0.51
6:C:56:THR:HG21	6:C:145:CYS:SG	2.49	0.51
7:D:122:GLU:HA	7:D:125:SER:OG	2.11	0.51
7:D:68:ARG:C	7:D:70:PHE:H	2.14	0.51
4:M:88:LYS:HE3	4:M:280:GLU:OE2	2.09	0.51
4:M:510:GLN:HA	4:M:510:GLN:OE1	2.09	0.51
5:N:486:TYR:CE1	5:N:1096:ARG:HD3	2.44	0.51
5:N:1162:ILE:HG22	5:N:1163:CYS:N	2.24	0.51
5:N:129:PHE:HA	5:N:165:VAL:O	2.10	0.51
5:N:386:LEU:O	5:N:388:CYS:N	2.43	0.51
5:N:467:GLY:N	5:N:475:SER:CB	2.69	0.51
5:N:496:ARG:NH1	5:N:496:ARG:HB3	2.25	0.51
5:N:758:PHE:HB3	5:N:761:HIS:HD2	1.74	0.51
12:U:86:PHE:HE1	12:U:100:PHE:HB2	1.75	0.51
6:O:58:LEU:HD21	13:V:57:ILE:HD12	1.91	0.51
4:A:1096:SER:O	4:A:1100:ARG:HB3	2.11	0.51
4:A:765:VAL:HG23	4:A:802:ASN:O	2.11	0.51
5:B:167:ILE:HG22	5:B:453:ILE:HD12	1.91	0.51
5:B:729:ILE:HG22	5:B:729:ILE:O	2.09	0.51
6:C:183:TRP:O	6:C:185:LYS:N	2.43	0.51
7:D:35:LEU:HD13	7:D:173:HIS:ND1	2.25	0.51
7:D:47:LEU:CD1	7:D:48:ILE:N	2.71	0.51
8:E:112:TYR:CZ	8:E:136:ASN:HB2	2.45	0.51
5:B:1224:PHE:CE2	8:E:171:LYS:HG3	2.31	0.51
13:J:14:VAL:CG1	13:J:50:ILE:HD11	2.41	0.51
4:M:1198:ASP:O	4:M:1202:MET:HG2	2.10	0.51
4:M:152:VAL:HG13	4:M:153:PRO:HD2	1.92	0.51
4:M:339:ASN:O	4:M:343:LYS:HG2	2.10	0.51
4:M:356:ASP:HB2	4:M:469:ARG:HH12	1.75	0.51
4:M:446:ARG:HB2	4:M:487:MET:SD	2.50	0.51
4:M:947:PHE:HD2	4:M:954:TRP:CZ2	2.28	0.51
6:O:147:LEU:HD12	6:O:151:GLN:O	2.10	0.51
6:O:98:VAL:O	6:O:99:LEU:HD23	2.10	0.51
9:R:109:VAL:HG12	9:R:110:ASP:N	2.25	0.51
10:S:51:TYR:CD2	10:S:51:TYR:O	2.63	0.51
12:U:111:THR:CG2	12:U:112:SER:H	2.21	0.51
4:A:1039:LYS:HE3	4:A:1043:ASP:OD2	2.10	0.51
4:A:1094:VAL:CG1	4:A:1095:THR:N	2.57	0.51
4:A:355:GLY:N	4:A:482:PHE:CZ	2.79	0.51
4:A:427:GLN:HB2	4:A:430:TRP:CD1	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:446:ARG:CD	4:A:480:ALA:HB2	2.40	0.51
4:A:709:THR:HG22	4:A:710:LEU:N	2.26	0.51
4:A:325:ILE:HG21	5:B:1210:MET:CG	2.39	0.51
5:B:1219:ASP:O	5:B:1219:ASP:OD1	2.28	0.51
5:B:230:ALA:N	5:B:231:PRO:CD	2.73	0.51
5:B:654:ARG:O	5:B:656:GLY:N	2.43	0.51
5:B:911:ILE:O	5:B:912:ILE:HG13	2.10	0.51
6:C:263:THR:O	6:C:265:MET:N	2.43	0.51
6:C:66:ARG:HH21	13:J:5:VAL:HG23	1.72	0.51
14:K:18:LYS:HZ3	14:K:38:GLU:HG2	1.75	0.51
4:M:1291:VAL:HG13	4:M:1292:PRO:CD	2.39	0.51
4:M:130:ASP:O	4:M:133:LYS:N	2.38	0.51
4:M:353:ILE:HD13	4:M:487:MET:HE2	1.92	0.51
4:M:527:THR:CG2	4:M:650:GLN:HA	2.40	0.51
5:N:1102:LYS:O	5:N:1103:ILE:C	2.48	0.51
5:N:112:LEU:HD12	5:N:113:TYR:N	2.19	0.51
5:N:1189:ILE:HG22	5:N:1190:ASP:N	2.25	0.51
5:N:916:THR:O	5:N:935:ARG:HG3	2.09	0.51
6:O:263:THR:C	6:O:265:MET:N	2.63	0.51
7:P:19:GLU:O	7:P:21:GLU:N	2.44	0.51
14:W:42:LEU:CD2	14:W:46:ILE:HD11	2.40	0.51
4:A:1323:ASP:C	4:A:1325:THR:H	2.12	0.51
4:A:1348:LEU:O	4:A:1352:VAL:HG23	2.11	0.51
4:A:1410:PHE:HA	5:B:1212:ILE:HD11	1.91	0.51
5:B:19:GLU:O	5:B:20:ASP:C	2.49	0.51
5:B:45:SER:O	5:B:46:GLN:C	2.48	0.51
6:C:112:ASN:N	6:C:112:ASN:HD22	2.08	0.51
5:B:995:ARG:NH1	6:C:165:LYS:HG2	2.25	0.51
7:D:54:GLU:O	7:D:58:VAL:HG23	2.11	0.51
8:E:145:THR:HG21	8:E:187:TYR:CE2	2.45	0.51
10:G:138:THR:HG22	10:G:139:ILE:HG13	1.91	0.51
11:H:55:LEU:HD22	11:H:144:ILE:CG2	2.41	0.51
13:J:16:ASP:OD1	13:J:17:LYS:CD	2.56	0.51
4:M:1279:ILE:CD1	4:M:1316:VAL:HG21	2.40	0.51
4:M:381:THR:HG21	4:M:383:TYR:CD1	2.46	0.51
5:N:310:MET:CE	5:N:387:LEU:HD12	2.41	0.51
5:N:810:GLU:CB	5:N:815:ARG:HH22	2.21	0.51
5:N:977:GLY:HA3	5:N:1099:VAL:HG21	1.92	0.51
7:P:118:THR:HB	7:P:121:LYS:HB2	1.93	0.51
10:S:149:GLY:O	10:S:159:ALA:HB1	2.11	0.51
11:T:83:GLN:C	11:T:85:GLY:H	2.13	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1313:LEU:O	4:A:1315:GLU:N	2.43	0.51
4:A:1333:ILE:HG22	4:A:1334:ASP:N	2.25	0.51
4:A:1430:LEU:HB2	4:A:1432:GLN:HG3	1.92	0.51
4:A:549:MET:SD	4:A:577:ILE:CD1	2.98	0.51
4:A:709:THR:HB	4:A:712:GLU:HG3	1.93	0.51
8:E:55:ARG:C	8:E:57:MET:N	2.64	0.51
4:A:567:LYS:HB3	11:H:95:TYR:CA	2.36	0.51
4:A:1149:ALA:HB2	12:I:47:GLU:HA	1.92	0.51
4:M:1162:VAL:O	4:M:1162:VAL:HG12	2.10	0.51
4:M:1389:PHE:CD1	4:M:1389:PHE:C	2.84	0.51
4:M:767:GLN:HA	4:M:799:PHE:HA	1.92	0.51
4:M:774:ARG:O	4:M:775:ILE:C	2.48	0.51
5:N:1162:ILE:O	5:N:1171:VAL:HG21	2.09	0.51
5:N:179:CYS:SG	5:N:181:LEU:HG	2.51	0.51
5:N:327:ARG:O	5:N:331:LEU:HD13	2.10	0.51
5:N:63:ILE:HA	5:N:421:PHE:CE2	2.45	0.51
8:Q:84:ASP:O	8:Q:86:PRO:HD3	2.11	0.51
10:S:115:MET:HB3	10:S:116:PRO:HD2	1.92	0.51
4:A:1277:GLU:O	4:A:1279:ILE:N	2.39	0.51
4:A:12:ARG:NE	5:B:1192:TYR:HE2	2.08	0.51
4:A:284:ALA:O	4:A:286:HIS:N	2.38	0.51
4:A:90:VAL:HG13	4:A:297:GLN:CD	2.31	0.51
4:A:349:ALA:C	5:B:1128:LEU:HD11	2.30	0.51
4:A:903:ASN:ND2	4:A:903:ASN:C	2.63	0.51
5:B:778:MET:HE3	5:B:1094:ARG:HD3	1.91	0.51
5:B:343:ILE:CB	5:B:348:ARG:HG3	2.40	0.51
12:I:115:LYS:CD	12:I:117:LYS:HE3	2.35	0.51
6:C:66:ARG:HH12	13:J:2:ILE:HG21	1.71	0.51
14:K:42:LEU:O	14:K:46:ILE:HG13	2.11	0.51
4:M:107:CYS:H	4:M:114:LEU:HD21	1.76	0.51
4:M:844:ALA:HB2	4:M:1389:PHE:CE2	2.45	0.51
4:M:91:PHE:HB2	4:M:297:GLN:HE22	1.74	0.51
4:M:341:MET:CE	4:M:843:LYS:NZ	2.74	0.51
4:M:42:ASP:HB3	4:M:45:GLN:N	2.26	0.51
4:M:61:ILE:O	4:M:63:ARG:N	2.43	0.51
4:M:682:THR:HG23	4:M:728:LYS:HE3	1.93	0.51
5:N:826:ALA:HB2	5:N:1008:PRO:HB3	1.93	0.51
5:N:583:ASN:OD1	5:N:628:THR:N	2.40	0.51
6:O:35:ARG:HH12	14:W:41:THR:H	1.59	0.51
8:Q:13:TRP:O	8:Q:16:PHE:HB3	2.10	0.51
8:Q:78:LEU:HD23	8:Q:79:TRP:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:T:23:VAL:HG22	11:T:43:ASN:HA	1.93	0.51
12:U:112:SER:O	12:U:114:GLN:HG3	2.11	0.51
14:W:111:LEU:C	14:W:112:GLN:CG	2.69	0.51
14:W:53:ASP:OD1	14:W:55:LYS:HB2	2.11	0.51
15:X:30:ILE:HG22	15:X:31:CYS:N	2.26	0.51
4:A:997:LEU:HD13	4:A:1018:PHE:CE2	2.45	0.51
4:A:1120:LEU:CD1	4:A:1120:LEU:H	2.24	0.51
4:A:341:MET:HE1	4:A:843:LYS:HZ3	1.74	0.51
4:A:344:ARG:HB3	5:B:1118:PRO:HB2	1.93	0.51
4:A:474:VAL:C	4:A:477:PRO:HD2	2.31	0.51
4:A:353:ILE:HG13	4:A:482:PHE:HD2	1.76	0.51
4:A:577:ILE:O	4:A:580:VAL:N	2.41	0.51
4:A:709:THR:HG21	12:I:93:LYS:O	2.11	0.51
5:B:1095:LEU:CD1	5:B:1095:LEU:H	2.14	0.51
5:B:794:ASN:C	5:B:795:ILE:HD12	2.31	0.51
5:B:797:TYR:HE1	5:B:854:LEU:HD23	1.75	0.51
7:D:191:ALA:C	7:D:193:THR:H	2.12	0.51
9:F:111:LEU:H	9:F:111:LEU:CD1	2.19	0.51
12:I:101:PHE:HB2	12:I:110:PHE:CE2	2.46	0.51
4:M:1005:GLU:O	4:M:1009:ASN:HB2	2.11	0.51
4:M:1017:LEU:HB3	8:Q:205:SER:HA	1.92	0.51
4:M:403:LYS:O	4:M:404:TYR:CD2	2.64	0.51
4:M:871:ASP:OD2	4:M:873:MET:HB2	2.11	0.51
5:N:1219:ASP:O	5:N:1219:ASP:OD1	2.28	0.51
5:N:235:SER:HA	5:N:261:ARG:NH1	2.25	0.51
5:N:729:ILE:HG22	5:N:729:ILE:O	2.10	0.51
6:O:242:GLN:C	6:O:244:VAL:H	2.13	0.51
7:P:33:PHE:CE1	10:S:80:LYS:HE3	2.46	0.51
9:R:101:ILE:HD11	9:R:124:GLU:OE1	2.10	0.51
4:A:1211:GLN:O	4:A:1212:VAL:C	2.50	0.51
4:A:152:VAL:HG12	4:A:153:PRO:HD2	1.93	0.51
4:A:92:HIS:HD2	4:A:304:MET:CE	2.23	0.51
5:B:280:ILE:CD1	5:B:334:ILE:HG12	2.41	0.51
5:B:38:PHE:CD1	5:B:811:TYR:CD2	2.95	0.51
8:E:35:VAL:C	8:E:37:LEU:H	2.13	0.51
14:K:35:PHE:CD1	14:K:71:PHE:CE1	2.99	0.51
15:L:58:LYS:O	15:L:59:ALA:O	2.29	0.51
4:M:883:LEU:CD2	4:M:1021:LEU:HB2	2.40	0.51
4:M:993:LEU:HD22	4:M:1046:LEU:HD22	1.93	0.51
4:M:42:ASP:HB3	4:M:45:GLN:HA	1.93	0.51
4:M:366:VAL:HG21	4:M:460:VAL:HG22	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:841:LEU:O	4:M:845:LEU:HG	2.10	0.51
4:M:963:ILE:HD13	4:M:1049:ILE:HG13	1.92	0.51
5:N:221:ASN:N	5:N:241:ARG:O	2.33	0.51
5:N:557:PHE:C	5:N:557:PHE:HD2	2.12	0.51
5:N:745:PRO:C	5:N:747:MET:N	2.64	0.51
11:T:116:TYR:HB2	11:T:123:MET:HB3	1.93	0.51
4:A:1029:ARG:HG3	4:A:1029:ARG:HH11	1.74	0.51
4:A:49:LYS:HZ3	4:A:61:ILE:HG13	1.76	0.51
4:A:829:VAL:C	4:A:831:THR:H	2.14	0.51
5:B:129:PHE:HE2	5:B:166:PHE:HD1	1.59	0.51
5:B:449:ASN:C	5:B:451:LYS:H	2.14	0.51
5:B:640:VAL:O	5:B:641:GLU:C	2.49	0.51
6:C:76:ASP:OD2	6:C:128:ASN:N	2.44	0.51
10:G:49:LEU:HG	10:G:76:ALA:HA	1.92	0.51
11:H:139:ASN:O	11:H:140:ALA:HB2	2.11	0.51
4:M:1102:LYS:O	4:M:1106:ASN:ND2	2.44	0.51
4:M:1115:SER:O	4:M:1116:LEU:HB3	2.11	0.51
4:M:300:VAL:O	4:M:300:VAL:HG12	2.10	0.51
5:N:758:PHE:CE1	5:N:1027:ILE:CG2	2.94	0.51
5:N:38:PHE:CD1	5:N:811:TYR:CD2	2.99	0.51
7:P:47:LEU:CD1	7:P:48:ILE:N	2.72	0.51
4:A:211:PHE:HA	4:A:214:ILE:HG13	1.93	0.51
4:A:446:ARG:HD2	4:A:480:ALA:HB2	1.93	0.51
4:A:787:PHE:CE1	4:A:796:SER:HA	2.46	0.51
5:B:227:LYS:HB2	5:B:395:GLN:OE1	2.11	0.51
5:B:737:THR:CG2	12:I:66:PRO:HA	2.40	0.51
5:B:879:ARG:HH11	5:B:883:LEU:CD2	2.21	0.51
6:C:232:VAL:HG21	6:C:244:VAL:CG2	2.38	0.51
10:G:51:TYR:O	10:G:51:TYR:CD2	2.64	0.51
5:N:337:ARG:C	5:N:338:GLY:CA	2.80	0.51
7:P:173:HIS:CD2	7:P:175:PHE:H	2.29	0.51
8:Q:156:LEU:HD12	8:Q:195:VAL:HB	1.92	0.51
8:Q:212:ARG:HH11	8:Q:212:ARG:HG3	1.76	0.51
4:M:1153:TYR:CE1	12:U:42:LEU:HD13	2.46	0.51
14:W:46:ILE:HG22	14:W:46:ILE:O	2.11	0.51
4:A:1226:VAL:HG22	4:A:1240:CYS:HB3	1.93	0.50
4:A:806:ARG:HH12	5:B:729:ILE:CD1	2.24	0.50
5:B:1172:ILE:O	5:B:1172:ILE:CG2	2.59	0.50
5:B:269:ILE:HG21	5:B:282:ILE:HD13	1.92	0.50
5:B:401:PHE:HA	5:B:404:LYS:HG3	1.93	0.50
5:B:465:ASN:N	5:B:465:ASN:ND2	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:825:VAL:HG12	5:B:826:ALA:N	2.27	0.50
5:B:841:MET:SD	5:B:846:ILE:HD11	2.51	0.50
6:C:107:SER:C	6:C:109:SER:H	2.14	0.50
8:E:192:ARG:NH1	8:E:192:ARG:HG3	2.23	0.50
10:G:3:PHE:CG	10:G:80:LYS:NZ	2.69	0.50
13:J:43:ARG:O	13:J:47:ARG:HB2	2.10	0.50
14:K:21:ILE:HG23	14:K:31:VAL:CG1	2.41	0.50
14:K:55:LYS:HB2	14:K:81:TYR:HE1	1.76	0.50
4:M:846:GLU:OE1	4:M:1425:SER:OG	2.29	0.50
4:M:172:PRO:HG3	4:M:185:TRP:CZ2	2.46	0.50
4:M:23:SER:O	4:M:24:PRO:C	2.48	0.50
4:M:82:GLY:O	4:M:241:VAL:N	2.37	0.50
5:N:1084:GLN:N	5:N:1084:GLN:HE21	2.05	0.50
5:N:1132:GLU:O	5:N:1135:ARG:HB3	2.11	0.50
5:N:126:SER:O	5:N:169:ARG:HA	2.11	0.50
6:O:114:TYR:HB3	6:O:140:ASN:O	2.11	0.50
9:R:130:ILE:O	9:R:148:VAL:CG2	2.59	0.50
5:B:254:LEU:HD23	5:B:381:MET:CE	2.41	0.50
5:B:283:VAL:O	5:B:286:PHE:N	2.45	0.50
5:B:343:ILE:CG2	5:B:348:ARG:N	2.73	0.50
5:B:386:LEU:O	5:B:388:CYS:N	2.44	0.50
5:B:579:ARG:HG2	5:B:579:ARG:NH1	2.25	0.50
5:B:911:ILE:O	5:B:911:ILE:HG22	2.11	0.50
7:D:128:VAL:O	7:D:132:GLN:HG3	2.11	0.50
4:A:567:LYS:HE3	11:H:46:LEU:HD12	1.92	0.50
13:J:23:ASN:C	13:J:25:LEU:N	2.64	0.50
14:K:55:LYS:HB3	14:K:81:TYR:CD1	2.46	0.50
4:M:860:LEU:HD11	4:M:1393:ASN:HB2	1.93	0.50
4:M:236:LEU:HD11	4:M:304:MET:HE1	1.92	0.50
4:M:64:ASN:O	4:M:65:LEU:C	2.49	0.50
5:N:502:ILE:N	5:N:502:ILE:HD12	2.05	0.50
5:N:549:THR:HG22	5:N:550:ASP:N	2.18	0.50
5:N:603:LEU:HD12	5:N:609:ILE:HG13	1.91	0.50
4:M:658:LEU:HD13	5:N:831:SER:N	2.25	0.50
7:P:51:ASN:C	7:P:52:LEU:O	2.50	0.50
11:T:47:PHE:CD2	11:T:95:TYR:HD1	2.29	0.50
12:U:14:LEU:HA	12:U:28:GLU:O	2.12	0.50
13:V:48:ARG:HD2	13:V:49:MET:N	2.26	0.50
4:A:1072:ILE:O	4:A:1075:PRO:HD2	2.10	0.50
4:A:1097:GLY:O	4:A:1100:ARG:N	2.44	0.50
4:A:1401:SER:O	4:A:1402:PHE:HB2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:38:PRO:HA	4:A:270:LEU:HD23	1.92	0.50
4:A:269:ILE:CD1	4:A:300:VAL:HA	2.41	0.50
4:A:369:SER:HB2	14:K:2:ASN:OD1	2.11	0.50
4:A:632:VAL:O	4:A:633:VAL:C	2.49	0.50
5:B:199:MET:N	5:B:199:MET:SD	2.85	0.50
5:B:327:ARG:O	5:B:331:LEU:HD13	2.11	0.50
5:B:370:PHE:HD2	5:B:373:ARG:HD2	1.75	0.50
7:D:52:LEU:CD2	7:D:147:TYR:HE2	2.24	0.50
8:E:23:VAL:HG13	8:E:78:LEU:HD13	1.93	0.50
12:I:7:CYS:SG	12:I:8:ARG:O	2.69	0.50
14:K:61:TYR:O	14:K:61:TYR:CD2	2.64	0.50
4:M:1101:LEU:HB2	4:M:1355:VAL:HG11	1.94	0.50
4:M:262:LEU:O	4:M:264:PHE:N	2.44	0.50
4:M:464:PRO:O	4:M:465:TYR:O	2.30	0.50
4:M:567:LYS:HE3	11:T:46:LEU:HD12	1.92	0.50
5:N:1002:THR:CG2	5:N:1006:ILE:HG13	2.41	0.50
5:N:130:VAL:HB	5:N:167:ILE:CD1	2.42	0.50
5:N:259:TYR:HD1	5:N:259:TYR:H	1.58	0.50
5:N:1001:PHE:CE2	6:O:34:ARG:NE	2.80	0.50
4:A:1066:VAL:CG1	5:B:1140:ALA:HB2	2.41	0.50
4:A:34:LYS:CE	4:A:57:ARG:NH1	2.75	0.50
4:A:786:HIS:CD2	4:A:786:HIS:N	2.78	0.50
4:A:95:PHE:O	4:A:96:ILE:C	2.49	0.50
5:B:1010:LEU:HD23	5:B:1092:TYR:CD1	2.47	0.50
5:B:446:LEU:O	5:B:447:ALA:CB	2.58	0.50
5:B:467:GLY:N	5:B:475:SER:CB	2.69	0.50
6:C:242:GLN:C	6:C:244:VAL:N	2.65	0.50
10:G:29:LYS:O	10:G:30:LEU:C	2.50	0.50
14:K:19:LEU:HD21	14:K:35:PHE:CD2	2.46	0.50
4:M:19:PHE:HB3	4:M:1413:GLY:HA2	1.93	0.50
4:M:244:PRO:HG2	4:M:245:PRO:HD3	1.93	0.50
4:M:403:LYS:O	4:M:404:TYR:CG	2.64	0.50
4:M:535:THR:HG22	4:M:536:LEU:N	2.26	0.50
6:O:167:HIS:CD2	6:O:168:ALA:N	2.79	0.50
6:O:242:GLN:C	6:O:244:VAL:N	2.65	0.50
5:N:1224:PHE:CE2	8:Q:171:LYS:HG3	2.33	0.50
9:R:111:LEU:H	9:R:111:LEU:CD1	2.20	0.50
10:S:88:ASP:HB3	10:S:144:ARG:HA	1.94	0.50
12:U:115:LYS:CD	12:U:117:LYS:HE3	2.36	0.50
14:W:55:LYS:CB	14:W:81:TYR:CE1	2.95	0.50
4:A:637:LYS:HB3	4:A:641:VAL:HG11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:826:ASP:HB2	4:A:830:LYS:HD3	1.93	0.50
5:B:410:GLY:O	5:B:412:LEU:N	2.45	0.50
6:C:239:PRO:O	6:C:241:ASP:N	2.44	0.50
5:B:798:TYR:HE2	6:C:62:PHE:CE2	2.28	0.50
12:I:111:THR:CG2	12:I:112:SER:N	2.75	0.50
14:K:68:PHE:N	14:K:68:PHE:CD2	2.79	0.50
4:M:114:LEU:O	4:M:115:LEU:HG	2.12	0.50
4:M:598:LEU:O	4:M:599:SER:C	2.50	0.50
4:M:722:LEU:O	4:M:725:ALA:HB3	2.12	0.50
4:M:79:GLY:HA3	4:M:243:PRO:HG3	1.92	0.50
5:N:550:ASP:OD1	5:N:551:PRO:HD2	2.12	0.50
5:N:95:ILE:HG13	5:N:130:VAL:HG22	1.93	0.50
7:P:64:VAL:C	7:P:66:ARG:H	2.15	0.50
9:R:124:GLU:HB3	9:R:130:ILE:HG12	1.94	0.50
10:S:96:GLN:HB3	10:S:121:PHE:CE2	2.46	0.50
10:S:4:ILE:HG22	10:S:4:ILE:O	2.10	0.50
14:W:63:VAL:HG23	14:W:63:VAL:O	2.10	0.50
1:4:1:DA:H2"	1:4:2:DA:O5'	2.10	0.50
4:A:1206:ASP:O	4:A:1274:ARG:NH1	2.45	0.50
4:A:1316:VAL:HG12	4:A:1316:VAL:O	2.12	0.50
4:A:62:ASP:HB3	4:A:64:ASN:ND2	2.27	0.50
4:A:730:GLY:C	4:A:732:LEU:N	2.64	0.50
5:B:1099:VAL:HG12	5:B:1100:ASP:N	2.27	0.50
4:A:351:THR:CB	5:B:1103:ILE:HD12	2.39	0.50
5:B:310:MET:CE	5:B:387:LEU:HD12	2.41	0.50
10:G:91:VAL:HG12	10:G:92:VAL:N	2.26	0.50
14:K:109:TRP:O	14:K:111:LEU:N	2.40	0.50
4:M:1149:ALA:HB2	12:U:47:GLU:HA	1.94	0.50
4:M:1336:MET:CE	4:M:1381:LEU:HG	2.41	0.50
4:M:263:THR:HG22	4:M:263:THR:O	2.11	0.50
5:N:1016:ALA:O	5:N:1020:ARG:HG3	2.11	0.50
5:N:25:ILE:HD11	5:N:653:VAL:C	2.31	0.50
5:N:472:ALA:C	5:N:474:SER:H	2.12	0.50
5:N:563:MET:HE3	5:N:580:VAL:HB	1.94	0.50
6:O:179:GLU:HG2	6:O:180:TYR:H	1.73	0.50
6:O:33:LEU:O	6:O:34:ARG:C	2.50	0.50
8:Q:157:SER:O	8:Q:159:ASP:N	2.44	0.50
8:Q:178:ILE:HG22	8:Q:213:ILE:O	2.11	0.50
10:S:14:HIS:CE1	10:S:15:PRO:HD2	2.46	0.50
11:T:59:ILE:CG2	11:T:60:ALA:N	2.73	0.50
12:U:69:PRO:HB2	12:U:85:PHE:CE2	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:5:27:DA:C2	3:6:2:C:N4	2.79	0.50
4:A:130:ASP:HB3	4:A:133:LYS:HB2	1.94	0.50
4:A:56:PRO:O	4:A:57:ARG:HG3	2.11	0.50
4:A:598:LEU:O	4:A:599:SER:C	2.50	0.50
4:A:84:ILE:CG2	4:A:84:ILE:O	2.59	0.50
4:A:907:THR:CG2	4:A:908:LEU:N	2.75	0.50
5:B:343:ILE:HB	5:B:348:ARG:HE	1.77	0.50
5:B:591:ARG:O	5:B:592:ASN:C	2.50	0.50
6:C:242:GLN:C	6:C:244:VAL:H	2.13	0.50
4:M:1097:GLY:O	4:M:1100:ARG:N	2.44	0.50
4:M:1239:ARG:HB3	4:M:1239:ARG:NH1	2.27	0.50
4:M:1364:ASN:O	4:M:1365:TYR:C	2.50	0.50
4:M:188:ASP:OD1	4:M:189:ARG:N	2.45	0.50
4:M:42:ASP:C	4:M:44:THR:H	2.13	0.50
4:M:47:ARG:HH12	4:M:254:GLU:CG	2.25	0.50
4:M:601:LYS:HB2	4:M:603:ASN:ND2	2.27	0.50
4:M:903:ASN:C	4:M:903:ASN:ND2	2.64	0.50
4:M:997:LEU:HD13	4:M:1018:PHE:CE2	2.46	0.50
4:M:1438:THR:HB	5:N:1144:ALA:CB	2.41	0.50
5:N:118:ARG:HG2	5:N:204:ILE:HD13	1.93	0.50
5:N:311:LEU:O	5:N:312:GLU:C	2.48	0.50
5:N:412:LEU:HB3	5:N:466:TRP:CZ2	2.47	0.50
5:N:526:GLU:OE2	5:N:752:ALA:HB2	2.11	0.50
5:N:758:PHE:CE1	5:N:1027:ILE:HG22	2.47	0.50
9:R:143:PHE:HD1	9:R:143:PHE:C	2.15	0.50
10:S:154:VAL:HG12	10:S:155:SER:N	2.27	0.50
4:A:1386:ARG:HB3	4:A:1403:GLU:OE1	2.12	0.50
4:A:195:ASP:O	4:A:196:GLU:HB3	2.12	0.50
4:A:61:ILE:HG22	4:A:62:ASP:N	2.24	0.50
5:B:185:THR:H	5:B:188:ASP:CB	2.25	0.50
5:B:309:GLN:HG3	12:I:52:ILE:CD1	2.42	0.50
5:B:343:ILE:HG22	5:B:345:LYS:H	1.77	0.50
5:B:874:PHE:HA	5:B:913:GLY:O	2.10	0.50
6:C:43:THR:CG2	6:C:44:LEU:N	2.66	0.50
7:D:33:PHE:CE2	10:G:80:LYS:NZ	2.68	0.50
11:H:40:LEU:CD1	11:H:123:MET:HB2	2.42	0.50
14:K:47:ARG:HD3	14:K:59:ALA:O	2.11	0.50
6:C:165:LYS:O	14:K:6:ARG:NH1	2.44	0.50
4:M:1017:LEU:HB2	8:Q:206:GLY:N	2.08	0.50
4:M:1225:PHE:CE2	4:M:1227:ILE:HD11	2.47	0.50
4:M:35:ILE:CD1	4:M:241:VAL:HG21	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:441:PRO:HD2	4:M:498:ARG:NH2	2.26	0.50
4:M:446:ARG:CD	4:M:480:ALA:HB2	2.41	0.50
4:M:787:PHE:CE1	4:M:796:SER:HA	2.47	0.50
5:N:1106:ARG:HG3	5:N:1107:ALA:N	2.26	0.50
5:N:449:ASN:C	5:N:451:LYS:H	2.15	0.50
5:N:39:ARG:CZ	5:N:665:GLU:HG2	2.42	0.50
10:S:117:GLN:C	10:S:119:LEU:N	2.65	0.50
11:T:43:ASN:OD1	11:T:46:LEU:HG	2.11	0.50
4:A:1116:LEU:HB3	4:A:1308:THR:HG21	1.93	0.50
4:A:388:LEU:HD22	4:A:432:VAL:HG21	1.92	0.50
4:A:528:LEU:O	4:A:528:LEU:HD12	2.11	0.50
4:A:567:LYS:HB2	4:A:568:PRO:HD2	1.91	0.50
4:A:774:ARG:O	4:A:775:ILE:C	2.48	0.50
5:B:1162:ILE:O	5:B:1171:VAL:HG21	2.11	0.50
5:B:483:LEU:HD11	5:B:491:THR:CG2	2.34	0.50
6:C:70:ILE:HD11	6:C:144:ILE:CG1	2.42	0.50
7:D:134:THR:HG22	7:D:135:GLY:H	1.75	0.50
9:F:99:LEU:O	9:F:103:MET:HG2	2.12	0.50
10:G:101:VAL:HG12	10:G:102:GLN:N	2.25	0.50
11:H:64:ASN:O	11:H:65:LEU:HB2	2.11	0.50
4:M:167:CYS:SG	4:M:167:CYS:O	2.69	0.50
4:M:195:ASP:O	4:M:196:GLU:HB3	2.11	0.50
4:M:350:ARG:HB2	4:M:488:ASN:OD1	2.11	0.50
5:N:39:ARG:NH2	5:N:665:GLU:CG	2.72	0.50
5:N:65:GLU:CG	5:N:66:ASP:H	2.15	0.50
5:N:834:ASN:CA	5:N:838:SER:O	2.60	0.50
5:N:792:MET:HA	5:N:856:PHE:O	2.12	0.50
10:S:35:GLU:OE2	10:S:48:VAL:HG23	2.11	0.50
11:T:128:ASN:OD1	11:T:128:ASN:O	2.30	0.50
12:U:92:ARG:HB3	12:U:95:THR:OG1	2.12	0.50
14:W:112:GLN:CB	14:W:112:GLN:C	2.74	0.50
4:A:388:LEU:O	4:A:392:VAL:HG23	2.12	0.49
5:B:810:GLU:CB	5:B:815:ARG:HH22	2.24	0.49
5:B:842:ASN:HD22	5:B:845:SER:HB3	1.77	0.49
5:B:899:ILE:HD12	5:B:911:ILE:HG23	1.94	0.49
6:C:256:ALA:O	6:C:259:LEU:N	2.45	0.49
7:D:195:ILE:N	7:D:196:PRO:CD	2.76	0.49
8:E:55:ARG:HD2	8:E:83:CYS:O	2.12	0.49
10:G:27:LYS:O	10:G:30:LEU:HB3	2.12	0.49
10:G:80:LYS:HG2	10:G:80:LYS:O	2.11	0.49
4:M:1211:GLN:O	4:M:1212:VAL:C	2.51	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1265:ASN:O	4:M:1268:LEU:N	2.45	0.49
4:M:1308:THR:HG23	4:M:1309:ASP:N	2.26	0.49
4:M:1404:GLU:O	4:M:1407:GLU:HB2	2.12	0.49
4:M:353:ILE:HG21	4:M:487:MET:HE3	1.93	0.49
4:M:626:ASN:O	4:M:631:HIS:CD2	2.64	0.49
4:M:871:ASP:OD1	4:M:1366:ARG:NH2	2.45	0.49
4:M:958:VAL:HG12	4:M:958:VAL:O	2.11	0.49
5:N:344:LYS:O	5:N:345:LYS:CG	2.60	0.49
5:N:37:PHE:HE1	5:N:41:LYS:CD	2.25	0.49
5:N:806:THR:HG22	5:N:808:ALA:HB3	1.94	0.49
6:O:27:LEU:O	6:O:28:ALA:C	2.51	0.49
7:P:59:ILE:HG21	7:P:145:MET:SD	2.52	0.49
9:R:135:ARG:HD3	9:R:143:PHE:CD2	2.47	0.49
10:S:3:PHE:CG	10:S:80:LYS:NZ	2.67	0.49
4:A:353:ILE:HD12	4:A:470:LEU:HD21	1.94	0.49
4:A:347:PHE:CE2	4:A:493:GLN:OE1	2.65	0.49
4:A:730:GLY:C	4:A:732:LEU:H	2.15	0.49
4:A:17:VAL:HA	5:B:1215:ARG:O	2.12	0.49
5:B:412:LEU:HB3	5:B:466:TRP:CZ2	2.47	0.49
5:B:550:ASP:OD1	5:B:551:PRO:HD2	2.12	0.49
5:B:579:ARG:CB	5:B:586:TRP:HE1	2.24	0.49
5:B:33:VAL:HG21	5:B:638:PHE:HZ	1.77	0.49
11:H:116:TYR:HE2	11:H:140:ALA:HB1	1.78	0.49
14:K:21:ILE:HG23	14:K:31:VAL:HG11	1.93	0.49
4:M:997:LEU:HD13	4:M:1018:PHE:HE2	1.77	0.49
4:M:102:VAL:O	4:M:105:CYS:HB2	2.13	0.49
4:M:353:ILE:HG21	4:M:487:MET:HG3	1.94	0.49
4:M:845:LEU:O	4:M:846:GLU:C	2.51	0.49
4:M:72:GLU:OE2	5:N:1175:LEU:HB2	2.13	0.49
5:N:44:VAL:O	5:N:45:SER:C	2.50	0.49
6:O:174:ALA:O	13:V:10:CYS:O	2.30	0.49
6:O:70:ILE:HD11	6:O:144:ILE:HG12	1.94	0.49
8:Q:161:LYS:C	8:Q:163:GLU:N	2.66	0.49
11:T:95:TYR:HE2	11:T:97:MET:CG	2.24	0.49
4:A:1115:SER:HB3	4:A:1330:ASN:HD21	1.77	0.49
4:A:1072:ILE:HD11	4:A:1368:MET:HA	1.93	0.49
4:A:1376:THR:O	4:A:1377:THR:C	2.51	0.49
4:A:445:ASN:ND2	4:A:446:ARG:N	2.61	0.49
4:A:34:LYS:NZ	4:A:57:ARG:NH2	2.60	0.49
4:A:947:PHE:HD2	4:A:954:TRP:CZ2	2.30	0.49
5:B:176:SER:O	5:B:182:SER:HB3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:847:ASP:C	5:B:849:GLY:N	2.66	0.49
6:C:104:PHE:HD2	6:C:105:GLY:H	1.59	0.49
7:D:17:LYS:HA	7:D:17:LYS:HE3	1.94	0.49
11:H:4:THR:O	11:H:5:LEU:HD23	2.11	0.49
4:M:1226:VAL:HG22	4:M:1240:CYS:HB3	1.94	0.49
4:M:14:VAL:CG2	5:N:1216:LEU:HD13	2.42	0.49
4:M:182:VAL:HG22	4:M:201:VAL:HA	1.94	0.49
4:M:343:LYS:HZ3	5:N:1197:PRO:HB3	1.76	0.49
4:M:442:VAL:HB	4:M:489:LEU:HD11	1.93	0.49
4:M:71:GLN:O	4:M:73:GLY:N	2.36	0.49
4:M:670:ILE:HG23	4:M:805:LEU:CD2	2.41	0.49
5:N:1004:GLU:HG3	5:N:1064:TYR:HE2	1.77	0.49
5:N:1196:ILE:HB	5:N:1197:PRO:HD2	1.94	0.49
5:N:39:ARG:HH11	5:N:39:ARG:HG2	1.77	0.49
5:N:769:TYR:C	5:N:771:SER:N	2.64	0.49
5:N:797:TYR:HE1	5:N:854:LEU:CD2	2.25	0.49
12:U:103:CYS:CB	12:U:106:CYS:SG	3.00	0.49
4:A:1227:ILE:HG22	4:A:1228:TRP:H	1.77	0.49
4:A:1259:MET:C	4:A:1261:LYS:H	2.16	0.49
4:A:1277:GLU:C	4:A:1279:ILE:H	2.15	0.49
4:A:1293:SER:OG	4:A:1294:PRO:HD2	2.12	0.49
4:A:853:ASP:C	4:A:853:ASP:OD1	2.51	0.49
4:A:901:LEU:N	4:A:926:GLN:NE2	2.49	0.49
4:A:996:ASN:C	4:A:998:LEU:HD12	2.32	0.49
5:B:210:LYS:HD3	5:B:481:GLN:O	2.12	0.49
5:B:582:VAL:HA	5:B:626:ILE:O	2.13	0.49
5:B:758:PHE:HB3	5:B:761:HIS:CD2	2.48	0.49
12:I:13:MET:HG3	12:I:14:LEU:H	1.76	0.49
12:I:50:THR:HG22	12:I:51:ASN:N	2.27	0.49
12:I:51:ASN:O	12:I:54:GLU:HG3	2.12	0.49
14:K:112:GLN:CB	14:K:112:GLN:C	2.75	0.49
14:K:12:LEU:HD12	14:K:12:LEU:N	2.27	0.49
4:M:250:ILE:O	4:M:258:GLY:HA3	2.12	0.49
4:M:53:LEU:CD2	4:M:54:ASN:N	2.55	0.49
4:M:722:LEU:HD22	4:M:799:PHE:CD1	2.47	0.49
4:M:829:VAL:C	4:M:831:THR:H	2.16	0.49
5:N:215:GLN:OE1	5:N:479:VAL:HG22	2.13	0.49
5:N:230:ALA:N	5:N:231:PRO:HD2	2.27	0.49
5:N:653:VAL:CG2	5:N:689:LEU:HB3	2.43	0.49
10:S:115:MET:CB	10:S:116:PRO:HD2	2.41	0.49
10:S:9:LEU:HD12	10:S:10:ASN:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:T:62:SER:C	11:T:64:ASN:H	2.15	0.49
14:W:52:ASN:O	14:W:54:ARG:N	2.46	0.49
2:5:21:DC:H2"	2:5:22:BRU:C5'	2.42	0.49
4:A:1116:LEU:HD11	4:A:1118:VAL:HG13	1.95	0.49
4:A:381:THR:CG2	4:A:383:TYR:H	2.25	0.49
4:A:722:LEU:O	4:A:725:ALA:HB3	2.12	0.49
5:B:850:LEU:HD12	5:B:851:PHE:H	1.74	0.49
6:C:147:LEU:HD12	6:C:151:GLN:O	2.12	0.49
6:C:167:HIS:HD2	6:C:168:ALA:N	2.10	0.49
7:D:151:PHE:N	7:D:151:PHE:CD1	2.80	0.49
10:G:111:THR:HB	10:G:114:LEU:HB2	1.94	0.49
10:G:26:LEU:O	10:G:27:LYS:C	2.51	0.49
10:G:34:VAL:HG12	10:G:45:ILE:CG2	2.37	0.49
10:G:74:TYR:H	10:G:74:TYR:HD2	1.59	0.49
11:H:100:THR:HG22	11:H:101:ALA:N	2.27	0.49
14:K:42:LEU:HD21	14:K:46:ILE:CD1	2.42	0.49
4:M:4:GLN:O	4:M:5:GLN:HB2	2.11	0.49
4:M:37:PHE:HB2	4:M:52:GLY:HA3	1.94	0.49
4:M:982:THR:N	4:M:985:ASP:HB2	2.27	0.49
5:N:446:LEU:O	5:N:447:ALA:CB	2.60	0.49
5:N:797:TYR:HE1	5:N:854:LEU:HD23	1.76	0.49
6:O:238:ILE:HG22	6:O:243:VAL:HG23	1.94	0.49
12:U:98:VAL:HG11	12:U:113:ASP:OD1	2.12	0.49
4:A:873:MET:C	4:A:1058:VAL:HG23	2.32	0.49
4:A:1224:LEU:HD12	4:A:1241:ARG:O	2.13	0.49
4:A:1265:ASN:O	4:A:1268:LEU:N	2.41	0.49
4:A:299:HIS:O	4:A:301:ALA:N	2.46	0.49
4:A:265:LYS:HZ1	4:A:322:VAL:HG22	1.76	0.49
7:D:20:GLU:HA	7:D:20:GLU:OE2	2.12	0.49
12:I:50:THR:CG2	12:I:52:ILE:HG12	2.42	0.49
12:I:69:PRO:HG2	12:I:85:PHE:CD2	2.47	0.49
4:M:1409:LEU:O	4:M:1412:ALA:HB3	2.12	0.49
4:M:166:GLY:O	4:M:167:CYS:CB	2.61	0.49
4:M:34:LYS:NZ	4:M:57:ARG:CZ	2.76	0.49
4:M:42:ASP:HB3	4:M:45:GLN:CA	2.43	0.49
5:N:1115:THR:HG22	5:N:1117:GLN:CG	2.43	0.49
5:N:247:GLY:O	5:N:249:ARG:N	2.46	0.49
5:N:300:HIS:CE1	5:N:376:PHE:CE1	3.01	0.49
5:N:796:LEU:HD12	5:N:852:ARG:O	2.12	0.49
6:O:86:CYS:O	6:O:88:CYS:N	2.46	0.49
10:S:34:VAL:HG12	10:S:45:ILE:CG2	2.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:W:55:LYS:CB	14:W:81:TYR:HE1	2.25	0.49
4:A:1242:VAL:HG12	4:A:1243:VAL:N	2.28	0.49
4:A:1420:ASP:HB3	4:A:1422:ARG:CG	2.30	0.49
4:A:278:THR:O	4:A:278:THR:HG22	2.12	0.49
4:A:298:PHE:O	4:A:301:ALA:HB3	2.12	0.49
4:A:929:LEU:CD2	4:A:983:ILE:HG21	2.43	0.49
5:B:1099:VAL:C	5:B:1101:ASP:H	2.16	0.49
4:A:1436:ILE:HD13	5:B:1139:ILE:HG23	1.95	0.49
5:B:1159:ARG:HE	5:B:1193:GLN:HE21	1.59	0.49
5:B:129:PHE:HA	5:B:165:VAL:O	2.13	0.49
5:B:364:ILE:HG22	5:B:365:THR:N	2.27	0.49
5:B:1084:GLN:OE1	6:C:189:THR:CG2	2.61	0.49
6:C:31:ASN:O	6:C:32:SER:C	2.48	0.49
9:F:90:ARG:HD3	9:F:155:LEU:HD11	1.94	0.49
10:G:27:LYS:HE2	10:G:54:ILE:HB	1.95	0.49
10:G:39:THR:HG22	10:G:41:LYS:H	1.78	0.49
12:I:92:ARG:HB3	12:I:95:THR:OG1	2.12	0.49
13:J:32:GLU:O	13:J:35:ALA:N	2.46	0.49
15:L:40:LEU:HD13	15:L:44:ASP:HB3	1.94	0.49
4:M:1243:VAL:HG12	4:M:1244:ARG:N	2.27	0.49
4:M:1342:GLU:CG	8:Q:198:ILE:HD13	2.42	0.49
4:M:657:LEU:O	4:M:657:LEU:HD12	2.12	0.49
4:M:785:PRO:HG2	4:M:786:HIS:CD2	2.46	0.49
5:N:803:LEU:HD13	5:N:1032:SER:HB3	1.94	0.49
5:N:1106:ARG:HD3	5:N:1126:GLY:O	2.12	0.49
5:N:298:LEU:N	5:N:298:LEU:CD2	2.76	0.49
7:P:57:LEU:O	7:P:61:GLU:HB2	2.13	0.49
14:W:67:PHE:C	14:W:68:PHE:HD2	2.16	0.49
4:A:1151:GLU:HB3	4:A:1153:TYR:HE1	1.78	0.49
4:A:224:PHE:HZ	4:A:234:MET:HE1	1.78	0.49
3:3:3:G:H4'	4:A:323:LYS:NZ	2.28	0.49
4:A:355:GLY:N	4:A:482:PHE:CE1	2.80	0.49
4:A:37:PHE:HB2	4:A:52:GLY:HA3	1.93	0.49
5:B:244:LEU:HD11	5:B:366:GLN:HE22	1.78	0.49
5:B:39:ARG:HH21	5:B:665:GLU:CG	2.26	0.49
5:B:758:PHE:N	5:B:759:PRO:CD	2.76	0.49
5:B:816:GLU:O	5:B:817:LEU:HD23	2.13	0.49
7:D:134:THR:CG2	7:D:135:GLY:H	2.25	0.49
8:E:153:HIS:O	8:E:154:ILE:HG13	2.13	0.49
9:F:85:MET:HE1	9:F:93:ILE:HD12	1.93	0.49
11:H:142:LEU:C	11:H:143:LEU:HD12	2.32	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:J:12:LYS:O	13:J:14:VAL:HG23	2.13	0.49
4:M:1397:LEU:O	4:M:1400:CYS:HB3	2.13	0.49
4:M:1434:ALA:O	4:M:1436:ILE:N	2.46	0.49
4:M:1445:ILE:HD12	4:M:1445:ILE:N	2.12	0.49
4:M:407:ARG:HG2	4:M:430:TRP:CZ2	2.48	0.49
4:M:404:TYR:HB2	4:M:433:GLU:HB2	1.93	0.49
4:M:701:LEU:HD23	12:U:115:LYS:CG	2.43	0.49
5:N:1087:PHE:HD2	5:N:1088:GLY:H	1.58	0.49
5:N:980:PHE:CD2	5:N:1094:ARG:HA	2.47	0.49
5:N:1159:ARG:HD3	5:N:1193:GLN:CG	2.41	0.49
5:N:278:GLN:NE2	5:N:337:ARG:HH21	2.10	0.49
5:N:361:LEU:HD21	5:N:377:PHE:HD2	1.72	0.49
5:N:591:ARG:O	5:N:592:ASN:C	2.51	0.49
6:O:104:PHE:HD2	6:O:105:GLY:N	2.10	0.49
9:R:75:PRO:HG2	9:R:78:GLN:HB2	1.94	0.49
11:T:11:GLN:O	11:T:28:ALA:HB1	2.13	0.49
11:T:26:ILE:CD1	11:T:49:VAL:HG11	2.43	0.49
3:3:6:C:H2'	3:3:7:A:H8	1.76	0.49
4:A:1213:GLY:O	4:A:1214:GLU:C	2.50	0.49
4:A:299:HIS:C	4:A:301:ALA:H	2.16	0.49
5:B:464:GLY:HA2	5:B:479:VAL:O	2.12	0.49
5:B:841:MET:O	5:B:993:THR:HA	2.13	0.49
6:C:113:VAL:HG23	6:C:147:LEU:HD21	1.94	0.49
7:D:19:GLU:O	7:D:21:GLU:N	2.46	0.49
8:E:157:SER:O	8:E:159:ASP:N	2.46	0.49
9:F:99:LEU:C	9:F:99:LEU:HD12	2.33	0.49
4:M:1120:LEU:H	4:M:1120:LEU:CD1	2.26	0.49
4:M:1222:ASN:O	4:M:1223:ASP:HB3	2.13	0.49
4:M:224:PHE:CZ	4:M:234:MET:HE2	2.47	0.49
4:M:269:ILE:CD1	4:M:300:VAL:HA	2.42	0.49
4:M:665:GLY:O	4:M:667:GLY:N	2.46	0.49
5:N:1103:ILE:O	5:N:1122:ARG:NH1	2.46	0.49
5:N:43:LEU:HD13	5:N:812:LEU:HD23	1.94	0.49
5:N:1001:PHE:HD2	6:O:34:ARG:NH2	2.09	0.49
9:R:74:ILE:HG23	9:R:75:PRO:HD2	1.95	0.49
10:S:91:VAL:HB	10:S:139:ILE:O	2.12	0.49
11:T:24:CYS:HB2	11:T:44:VAL:HG21	1.94	0.49
4:A:64:ASN:O	4:A:65:LEU:C	2.50	0.49
4:A:998:LEU:HD12	4:A:998:LEU:H	1.78	0.49
5:B:230:ALA:N	5:B:231:PRO:HD2	2.27	0.49
5:B:311:LEU:O	5:B:312:GLU:C	2.50	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:298:LEU:HD13	5:B:314:LEU:HD13	1.94	0.49
5:B:597:MET:O	5:B:599:THR:N	2.46	0.49
5:B:769:TYR:C	5:B:771:SER:N	2.65	0.49
5:B:803:LEU:CD1	5:B:1032:SER:HB3	2.43	0.49
8:E:9:ILE:CD1	8:E:53:PRO:HD3	2.43	0.49
14:K:52:ASN:O	14:K:54:ARG:N	2.46	0.49
14:K:67:PHE:C	14:K:68:PHE:HD2	2.16	0.49
4:M:1064:VAL:O	4:M:1067:LEU:HB3	2.13	0.49
4:M:19:PHE:HE1	4:M:1396:ALA:HB3	1.78	0.49
4:M:222:LEU:O	4:M:224:PHE:N	2.46	0.49
4:M:50:ILE:C	4:M:52:GLY:N	2.67	0.49
5:N:1065:GLN:NE2	5:N:1067:ARG:HG2	2.28	0.49
5:N:526:GLU:HG2	5:N:538:ASN:HD22	1.77	0.49
5:N:778:MET:HE2	5:N:1094:ARG:CD	2.42	0.49
5:N:911:ILE:HG22	5:N:911:ILE:O	2.12	0.49
9:R:140:ASP:OD1	9:R:140:ASP:C	2.50	0.49
10:S:117:GLN:O	10:S:119:LEU:N	2.45	0.49
1:1:1:DA:C2'	1:1:2:DA:O5'	2.61	0.48
4:A:222:LEU:O	4:A:224:PHE:N	2.46	0.48
4:A:224:PHE:HZ	4:A:234:MET:CE	2.26	0.48
4:A:402:ALA:HB1	4:A:434:ARG:HA	1.95	0.48
5:B:1106:ARG:HH11	5:B:1110:PRO:HG2	1.78	0.48
5:B:240:ILE:HG23	5:B:240:ILE:O	2.13	0.48
5:B:344:LYS:O	5:B:345:LYS:HB2	2.13	0.48
9:F:119:ARG:HG3	9:F:119:ARG:NH1	2.28	0.48
9:F:81:THR:HB	9:F:136:ARG:HH11	1.78	0.48
12:I:61:ASP:C	12:I:63:GLY:H	2.16	0.48
14:K:47:ARG:O	14:K:47:ARG:HD2	2.13	0.48
4:M:1032:LEU:O	4:M:1036:ARG:HD3	2.13	0.48
4:M:1166:ASP:OD2	4:M:1239:ARG:HD2	2.13	0.48
4:M:1175:SER:O	4:M:1176:LEU:HB2	2.12	0.48
4:M:566:ILE:O	4:M:567:LYS:O	2.30	0.48
4:M:590:ARG:HH21	4:M:620:LYS:CB	2.22	0.48
4:M:696:GLU:HG2	4:M:696:GLU:O	2.13	0.48
4:M:84:ILE:HG22	4:M:239:LEU:HB3	1.95	0.48
5:N:378:LEU:CD1	5:N:382:ILE:HD11	2.43	0.48
5:N:862:GLN:HG2	5:N:963:PHE:HD1	1.77	0.48
10:S:26:LEU:O	10:S:27:LYS:C	2.52	0.48
15:X:70:ARG:HH11	15:X:70:ARG:HG2	1.78	0.48
4:A:1291:VAL:HG13	4:A:1292:PRO:N	2.28	0.48
4:A:79:GLY:HA3	4:A:243:PRO:CG	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:846:GLU:OE1	4:A:1425:SER:OG	2.31	0.48
4:A:961:ARG:HG2	4:A:965:GLN:HE21	1.78	0.48
4:A:500:GLU:OE2	5:B:1145:SER:HB2	2.12	0.48
5:B:205:ILE:CD1	5:B:205:ILE:N	2.76	0.48
5:B:213:ILE:O	5:B:215:GLN:HG2	2.13	0.48
5:B:259:TYR:HD1	5:B:259:TYR:H	1.59	0.48
5:B:337:ARG:C	5:B:338:GLY:N	2.66	0.48
6:C:174:ALA:HB2	6:C:235:VAL:CG2	2.43	0.48
6:C:243:VAL:HG12	6:C:243:VAL:O	2.14	0.48
8:E:176:PRO:O	8:E:212:ARG:HA	2.13	0.48
9:F:140:ASP:OD1	9:F:140:ASP:C	2.51	0.48
13:J:36:LEU:HA	13:J:39:LEU:HD12	1.95	0.48
14:K:112:GLN:N	14:K:112:GLN:CG	2.76	0.48
4:A:551:TYR:CE2	14:K:62:LYS:HE2	2.48	0.48
4:M:1213:GLY:O	4:M:1214:GLU:C	2.50	0.48
4:M:1341:ILE:O	4:M:1344:GLY:N	2.46	0.48
4:M:1377:THR:O	4:M:1379:GLY:N	2.45	0.48
4:M:577:ILE:HG13	4:M:578:LEU:N	2.28	0.48
4:M:92:HIS:O	4:M:95:PHE:N	2.39	0.48
5:N:464:GLY:HA2	5:N:479:VAL:O	2.12	0.48
5:N:785:TYR:C	5:N:785:TYR:CD1	2.86	0.48
5:N:911:ILE:CG2	5:N:966:VAL:HG11	2.43	0.48
5:N:96:TYR:HB2	5:N:129:PHE:HB2	1.95	0.48
4:M:1444:MET:CE	9:R:135:ARG:HB2	2.44	0.48
10:S:1:MET:O	10:S:1:MET:CE	2.61	0.48
11:T:138:GLU:O	11:T:139:ASN:C	2.52	0.48
4:A:107:CYS:H	4:A:114:LEU:HD21	1.78	0.48
4:A:1225:PHE:CE2	4:A:1227:ILE:HD11	2.48	0.48
4:A:1308:THR:HG23	4:A:1309:ASP:N	2.27	0.48
4:A:172:PRO:HG3	4:A:185:TRP:CZ2	2.48	0.48
4:A:23:SER:HB3	4:A:233:TRP:CE2	2.47	0.48
4:A:23:SER:HB3	4:A:233:TRP:CZ2	2.48	0.48
4:A:469:ARG:HB3	4:A:469:ARG:HH11	1.77	0.48
4:A:735:VAL:HG12	4:A:735:VAL:O	2.13	0.48
5:B:1085:ILE:CD1	5:B:1085:ILE:N	2.71	0.48
5:B:128:LEU:HB2	5:B:168:GLY:O	2.14	0.48
5:B:204:ILE:C	5:B:205:ILE:HD12	2.33	0.48
6:C:36:VAL:HG11	6:C:251:LEU:HB2	1.95	0.48
8:E:17:ARG:O	8:E:20:LYS:HB2	2.13	0.48
8:E:213:ILE:HG12	8:E:214:CYS:N	2.27	0.48
9:F:77:ASP:O	9:F:78:GLN:HB2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1127:ASP:HB3	4:M:1130:GLN:HB2	1.95	0.48
4:M:1445:ILE:HD11	10:S:68:ALA:HB1	1.95	0.48
4:M:735:VAL:HG12	4:M:735:VAL:O	2.13	0.48
4:M:901:LEU:HD22	4:M:919:ILE:CG2	2.43	0.48
4:M:993:LEU:HD23	4:M:1022:LEU:HD21	1.95	0.48
5:N:129:PHE:HE2	5:N:166:PHE:HD1	1.62	0.48
5:N:230:ALA:N	5:N:231:PRO:CD	2.77	0.48
5:N:459:TYR:CD2	5:N:459:TYR:C	2.87	0.48
7:P:134:THR:CG2	7:P:135:GLY:H	2.26	0.48
10:S:110:VAL:HG22	10:S:161:GLY:O	2.14	0.48
12:U:5:ARG:HD3	12:U:36:GLU:OE2	2.13	0.48
12:U:50:THR:HG22	12:U:51:ASN:N	2.28	0.48
4:A:1017:LEU:HB2	8:E:206:GLY:N	2.09	0.48
4:A:1332:PHE:O	4:A:1333:ILE:C	2.51	0.48
4:A:166:GLY:O	4:A:167:CYS:CB	2.62	0.48
4:A:535:THR:HG23	4:A:575:LYS:HE2	1.95	0.48
4:A:87:ALA:HB1	4:A:276:LEU:HD23	1.93	0.48
4:A:968:GLN:O	4:A:970:THR:N	2.46	0.48
5:B:1001:PHE:CE2	6:C:34:ARG:NE	2.81	0.48
5:B:130:VAL:HB	5:B:167:ILE:HD12	1.96	0.48
5:B:298:LEU:N	5:B:298:LEU:CD2	2.76	0.48
5:B:44:VAL:O	5:B:45:SER:C	2.51	0.48
5:B:563:MET:CE	5:B:580:VAL:HB	2.44	0.48
7:D:51:ASN:ND2	7:D:54:GLU:OE2	2.46	0.48
12:I:111:THR:CG2	12:I:112:SER:H	2.24	0.48
13:J:57:ILE:HG12	13:J:61:LEU:HD11	1.96	0.48
15:L:30:ILE:HG22	15:L:31:CYS:N	2.29	0.48
4:M:12:ARG:NE	5:N:1192:TYR:HE2	2.12	0.48
4:M:1412:ALA:HA	4:M:1417:GLU:OE2	2.14	0.48
4:M:265:LYS:HE2	4:M:322:VAL:HG13	1.95	0.48
4:M:608:ILE:O	4:M:610:GLY:N	2.45	0.48
5:N:313:MET:CE	5:N:386:LEU:HD22	2.42	0.48
5:N:401:PHE:HA	5:N:404:LYS:HG3	1.94	0.48
6:O:69:LEU:HB3	13:V:6:ARG:CD	2.41	0.48
8:Q:35:VAL:O	8:Q:37:LEU:N	2.47	0.48
9:R:147:SER:OG	9:R:150:GLU:HG3	2.14	0.48
10:S:44:TYR:CD2	10:S:105:PRO:HB2	2.48	0.48
11:T:15:VAL:HG22	11:T:26:ILE:HG12	1.95	0.48
13:V:2:ILE:HG22	13:V:3:VAL:O	2.13	0.48
5:N:992:ILE:HD11	14:W:66:PRO:HB2	1.96	0.48
4:A:116:ASP:C	4:A:118:HIS:N	2.67	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:187:LYS:HE3	4:A:198:GLU:OE2	2.14	0.48
4:A:35:ILE:HB	4:A:83:HIS:O	2.13	0.48
4:A:475:THR:CG2	4:A:476:SER:H	2.25	0.48
4:A:341:MET:CE	4:A:843:LYS:NZ	2.77	0.48
5:B:1189:ILE:HG22	5:B:1190:ASP:N	2.29	0.48
5:B:400:HIS:O	5:B:402:GLY:N	2.46	0.48
5:B:838:SER:HA	5:B:989:THR:O	2.13	0.48
5:B:844:SER:O	5:B:847:ASP:N	2.45	0.48
5:B:999:MET:HE2	5:B:1000:PRO:HD2	1.95	0.48
6:C:99:LEU:HB2	6:C:157:CYS:HB2	1.96	0.48
5:B:798:TYR:CE2	6:C:62:PHE:CE2	3.01	0.48
7:D:64:VAL:C	7:D:66:ARG:H	2.15	0.48
4:A:1059:HIS:ND1	9:F:86:THR:HA	2.27	0.48
11:H:93:TYR:N	11:H:93:TYR:CD1	2.81	0.48
4:M:981:LEU:HD21	4:M:1039:LYS:HA	1.94	0.48
4:M:1144:LYS:HB2	4:M:1268:LEU:O	2.13	0.48
4:M:1450:LEU:CG	4:M:1450:LEU:O	2.62	0.48
4:M:44:THR:O	4:M:45:GLN:HB2	2.14	0.48
4:M:548:ASN:OD1	14:W:60:ALA:HB1	2.13	0.48
8:Q:145:THR:HG21	8:Q:187:TYR:CD2	2.48	0.48
4:M:1006:ILE:CD1	8:Q:163:GLU:HG3	2.42	0.48
10:S:35:GLU:CG	10:S:48:VAL:HG23	2.44	0.48
10:S:51:TYR:O	10:S:54:ILE:HG13	2.12	0.48
2:2:21:DC:C6	2:2:22:BRU:BR	3.22	0.48
4:A:1076:ALA:HA	4:A:1079:MET:HE3	1.96	0.48
4:A:550:LEU:HD11	4:A:561:PRO:HD2	1.94	0.48
4:A:92:HIS:O	4:A:95:PHE:N	2.41	0.48
5:B:778:MET:HE2	5:B:1094:ARG:HD3	1.93	0.48
5:B:502:ILE:HD12	5:B:502:ILE:N	2.13	0.48
5:B:658:ILE:HG22	5:B:659:ALA:N	2.28	0.48
5:B:861:ASP:OD1	5:B:862:GLN:N	2.47	0.48
5:B:899:ILE:CG2	5:B:949:VAL:HG21	2.43	0.48
6:C:215:GLU:O	6:C:216:GLY:C	2.52	0.48
6:C:254:LYS:C	6:C:256:ALA:N	2.64	0.48
10:G:91:VAL:HA	10:G:101:VAL:HA	1.96	0.48
13:J:28:ASP:O	13:J:29:GLU:C	2.51	0.48
13:J:36:LEU:O	13:J:39:LEU:N	2.46	0.48
15:L:39:SER:O	15:L:40:LEU:HG	2.12	0.48
4:M:34:LYS:HB3	4:M:36:ARG:HE	1.79	0.48
5:N:102:VAL:HG12	5:N:104:GLU:HG2	1.95	0.48
5:N:846:ILE:HG23	5:N:974:PRO:HG2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:910:VAL:HG12	5:N:912:ILE:H	1.78	0.48
5:N:950:ASP:O	5:N:951:GLN:HB2	2.12	0.48
10:S:106:MET:HE2	10:S:106:MET:HB3	1.68	0.48
10:S:99:PHE:C	10:S:99:PHE:CD1	2.86	0.48
11:T:116:TYR:HE2	11:T:140:ALA:HB1	1.79	0.48
13:V:13:VAL:C	13:V:14:VAL:HG23	2.32	0.48
13:V:1:MET:H1	13:V:56:LEU:N	2.12	0.48
13:V:64:ASN:ND2	13:V:65:PRO:HD3	2.28	0.48
4:A:43:GLU:O	4:A:44:THR:CB	2.62	0.48
4:A:672:ASP:HB2	4:A:736:ASN:OD1	2.13	0.48
4:A:699:ALA:HB3	4:A:701:LEU:HG	1.96	0.48
5:B:412:LEU:HB3	5:B:466:TRP:HZ2	1.79	0.48
5:B:434:ARG:HA	5:B:437:GLU:OE2	2.14	0.48
5:B:792:MET:HA	5:B:856:PHE:O	2.14	0.48
6:C:254:LYS:C	6:C:256:ALA:H	2.16	0.48
7:D:194:LEU:C	7:D:195:ILE:HG13	2.33	0.48
10:G:34:VAL:HG11	10:G:74:TYR:HE1	1.77	0.48
4:M:1095:THR:OG1	4:M:1113:THR:HB	2.14	0.48
4:M:43:GLU:O	4:M:44:THR:CB	2.61	0.48
4:M:463:ILE:HB	4:M:464:PRO:CD	2.43	0.48
4:M:567:LYS:HD2	4:M:568:PRO:CD	2.36	0.48
5:N:757:PRO:HG3	5:N:1028:GLU:OE2	2.14	0.48
5:N:711:GLU:H	5:N:712:PRO:HD2	1.78	0.48
5:N:750:GLY:O	5:N:751:VAL:C	2.51	0.48
5:N:954:VAL:O	15:X:55:ILE:O	2.30	0.48
5:N:955:THR:CG2	5:N:956:THR:N	2.71	0.48
6:O:145:CYS:HA	13:V:2:ILE:CD1	2.43	0.48
6:O:45:ALA:HA	6:O:72:LEU:CD1	2.43	0.48
10:S:106:MET:CG	10:S:107:LYS:N	2.77	0.48
11:T:93:TYR:N	11:T:93:TYR:CD1	2.81	0.48
4:A:896:ARG:NH2	4:A:1030:ARG:NH2	2.61	0.48
4:A:1299:VAL:HG12	4:A:1300:LYS:H	1.75	0.48
4:A:1329:THR:CG2	4:A:1331:SER:HB3	2.44	0.48
4:A:34:LYS:HZ1	4:A:57:ARG:CZ	2.26	0.48
4:A:862:ASN:HA	8:E:174:GLN:HB3	1.95	0.48
5:B:254:LEU:HD23	5:B:381:MET:HE3	1.95	0.48
5:B:687:GLU:O	5:B:689:LEU:HG	2.12	0.48
5:B:980:PHE:CD2	5:B:1094:ARG:HA	2.49	0.48
7:D:24:ALA:C	7:D:26:THR:H	2.16	0.48
8:E:145:THR:HG21	8:E:187:TYR:CD2	2.48	0.48
11:H:95:TYR:CE2	11:H:97:MET:HG3	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:18:LYS:NZ	14:K:38:GLU:HG2	2.29	0.48
4:M:1094:VAL:CG1	4:M:1095:THR:N	2.59	0.48
4:M:1453:TYR:O	4:M:1454:MET:HB3	2.13	0.48
4:M:467:THR:O	4:M:469:ARG:HG3	2.14	0.48
4:M:606:LEU:HB3	4:M:614:PHE:CE2	2.48	0.48
4:M:709:THR:HB	4:M:712:GLU:HG3	1.96	0.48
4:M:84:ILE:O	4:M:84:ILE:CG2	2.61	0.48
5:N:1095:LEU:HD12	5:N:1095:LEU:N	2.28	0.48
5:N:26:THR:O	5:N:29:ASP:HB2	2.13	0.48
13:V:53:HIS:CD2	13:V:54:VAL:N	2.82	0.48
2:2:15:DT:C2'	2:2:16:DT:H71	2.41	0.48
2:5:21:DC:C6	2:5:22:BRU:BR	3.22	0.48
4:A:1265:ASN:C	4:A:1267:MET:N	2.65	0.48
4:A:399:HIS:O	4:A:400:PRO:C	2.52	0.48
4:A:403:LYS:O	4:A:404:TYR:CD2	2.66	0.48
4:A:711:ARG:NH2	12:I:87:GLN:OE1	2.47	0.48
5:B:274:PRO:O	5:B:275:TYR:HB2	2.13	0.48
5:B:344:LYS:O	5:B:345:LYS:CG	2.62	0.48
5:B:486:TYR:CE1	5:B:1096:ARG:HD3	2.49	0.48
5:B:616:ILE:CG1	5:B:697:GLU:HA	2.43	0.48
4:M:1324:PRO:HB2	8:Q:142:VAL:HG11	1.94	0.48
4:M:1118:VAL:HG12	4:M:1327:ILE:HG13	1.94	0.48
4:M:839:ARG:O	4:M:840:ARG:C	2.51	0.48
4:M:877:HIS:C	4:M:878:ILE:CG1	2.82	0.48
4:M:968:GLN:O	4:M:970:THR:N	2.47	0.48
5:N:360:PHE:CD2	5:N:360:PHE:C	2.86	0.48
5:N:466:TRP:HA	5:N:466:TRP:CE3	2.48	0.48
5:N:563:MET:CE	5:N:580:VAL:HB	2.44	0.48
5:N:606:LYS:HD2	5:N:608:ASP:OD2	2.13	0.48
5:N:865:LYS:NZ	5:N:869:SER:HA	2.29	0.48
8:Q:114:ASN:O	8:Q:115:ASN:CB	2.62	0.48
12:U:85:PHE:CD1	12:U:99:LEU:HD13	2.48	0.48
4:A:1208:THR:HG22	4:A:1210:GLY:H	1.78	0.48
4:A:1373:ASP:HA	4:A:1376:THR:CG2	2.43	0.48
4:A:168:GLY:O	4:A:169:ASN:C	2.51	0.48
4:A:353:ILE:CD1	4:A:487:MET:HE2	2.44	0.48
4:A:60:SER:C	4:A:61:ILE:HG13	2.34	0.48
5:B:1177:HIS:CB	5:B:1179:GLN:HE21	2.25	0.48
5:B:179:CYS:SG	5:B:181:LEU:HG	2.54	0.48
5:B:581:PHE:HA	5:B:585:VAL:O	2.14	0.48
6:C:140:ASN:O	6:C:141:GLY:O	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:70:ILE:HG12	6:C:142:VAL:HG11	1.95	0.48
6:C:22:LEU:HD23	6:C:25:VAL:HG21	1.96	0.48
7:D:7:THR:O	7:D:7:THR:HG23	2.14	0.48
10:G:127:PRO:HG2	10:G:138:THR:HG21	1.95	0.48
1:4:5:DA:H5'	4:M:1387:HIS:CE1	2.49	0.48
4:M:1430:LEU:HB2	4:M:1432:GLN:HG3	1.96	0.48
4:M:478:TYR:O	4:M:479:ASN:HB3	2.14	0.48
4:M:886:ILE:CG2	4:M:887:GLY:N	2.69	0.48
5:N:980:PHE:CE2	5:N:1094:ARG:HG3	2.48	0.48
5:N:181:LEU:HD22	5:N:189:LEU:CD2	2.43	0.48
5:N:213:ILE:O	5:N:215:GLN:HG2	2.14	0.48
5:N:235:SER:OG	5:N:236:HIS:CD2	2.67	0.48
8:Q:213:ILE:HG12	8:Q:214:CYS:N	2.28	0.48
12:U:84:VAL:O	12:U:84:VAL:HG13	2.13	0.48
13:V:23:ASN:C	13:V:25:LEU:N	2.67	0.48
2:2:21:DC:H2''	2:2:22:BRU:C5'	2.44	0.47
4:A:399:HIS:CB	4:A:400:PRO:CD	2.84	0.47
5:B:1142:GLY:HA3	9:F:88:TYR:HE2	1.79	0.47
5:B:195:CYS:SG	5:B:197:PHE:HB2	2.54	0.47
5:B:558:LEU:O	5:B:560:GLU:N	2.47	0.47
5:B:711:GLU:H	5:B:712:PRO:HD2	1.79	0.47
5:B:764:SER:HB3	5:B:765:PRO:CD	2.44	0.47
5:B:950:ASP:O	5:B:951:GLN:HB2	2.13	0.47
5:B:997:GLU:H	5:B:997:GLU:CD	2.15	0.47
6:C:22:LEU:HD13	6:C:230:MET:HE1	1.95	0.47
6:C:83:SER:O	6:C:85:ASP:N	2.47	0.47
11:H:113:ALA:HB1	11:H:125:LEU:O	2.14	0.47
14:K:18:LYS:NZ	14:K:37:LYS:O	2.47	0.47
4:M:285:PRO:O	4:M:287:HIS:N	2.46	0.47
4:M:709:THR:HG21	12:U:93:LYS:O	2.14	0.47
4:M:767:GLN:HB2	4:M:799:PHE:HD1	1.79	0.47
5:N:130:VAL:HB	5:N:167:ILE:HD12	1.96	0.47
5:N:575:PRO:HG2	5:N:576:ASP:H	1.79	0.47
5:N:830:TYR:O	5:N:831:SER:C	2.52	0.47
5:N:981:ALA:HB2	5:N:987:LYS:HA	1.96	0.47
2:2:25:DT:C2'	2:2:26:DC:O5'	2.53	0.47
3:3:6:C:O2'	3:3:7:A:H5'	2.14	0.47
4:A:1197:LEU:HD12	4:A:1209:MET:HE1	1.97	0.47
4:A:863:VAL:HG11	4:A:866:PHE:CE2	2.49	0.47
4:A:871:ASP:OD1	4:A:1366:ARG:NH2	2.47	0.47
5:B:1074:ASN:HB2	5:B:1081:LEU:HD21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:336:ARG:NH2	5:B:345:LYS:CG	2.72	0.47
6:C:146:LYS:C	6:C:147:LEU:HD23	2.34	0.47
6:C:27:LEU:HD13	6:C:228:PHE:CE2	2.49	0.47
7:D:156:ASP:C	7:D:158:GLU:H	2.17	0.47
7:D:210:ILE:O	7:D:214:LEU:HG	2.14	0.47
10:G:3:PHE:CD1	10:G:80:LYS:NZ	2.78	0.47
11:H:40:LEU:HD12	11:H:122:LEU:O	2.14	0.47
11:H:38:LEU:HD13	11:H:125:LEU:HD13	1.96	0.47
11:H:84:ALA:HA	11:H:87:ARG:CB	2.35	0.47
13:J:48:ARG:HE	13:J:49:MET:CE	2.22	0.47
4:M:1102:LYS:HG2	4:M:1106:ASN:HD21	1.79	0.47
4:M:406:ILE:HG13	4:M:431:LYS:HB2	1.95	0.47
4:M:420:ARG:O	4:M:421:ALA:C	2.53	0.47
4:M:474:VAL:C	4:M:477:PRO:HD2	2.35	0.47
4:M:504:LEU:N	4:M:504:LEU:HD12	2.28	0.47
4:M:1410:PHE:HD2	5:N:1212:ILE:HD12	1.80	0.47
4:M:18:GLN:HB3	5:N:1215:ARG:HG3	1.96	0.47
5:N:295:GLY:H	5:N:298:LEU:HD23	1.78	0.47
5:N:616:ILE:HG13	5:N:697:GLU:HG3	1.95	0.47
7:P:53:SER:HB3	7:P:153:ARG:N	2.26	0.47
10:S:99:PHE:HZ	10:S:163:ILE:HD13	1.79	0.47
12:U:34:TYR:CD2	12:U:34:TYR:C	2.87	0.47
4:A:883:LEU:HD11	4:A:1017:LEU:HD11	1.97	0.47
4:A:35:ILE:CD1	4:A:241:VAL:HG11	2.44	0.47
4:A:43:GLU:O	4:A:44:THR:HB	2.15	0.47
4:A:367:PRO:HB3	4:A:465:TYR:O	2.14	0.47
4:A:506:ALA:O	4:A:509:LEU:HB2	2.14	0.47
4:A:67:CYS:O	4:A:68:GLN:HB2	2.13	0.47
4:A:874:ASP:O	4:A:876:ALA:N	2.47	0.47
5:B:259:TYR:N	5:B:259:TYR:CD1	2.82	0.47
5:B:616:ILE:HG13	5:B:697:GLU:HG3	1.95	0.47
5:B:806:THR:HG22	5:B:808:ALA:CB	2.44	0.47
5:B:830:TYR:CE2	5:B:1000:PRO:HD3	2.49	0.47
5:B:999:MET:HE3	5:B:999:MET:HA	1.96	0.47
6:C:226:ASP:O	6:C:227:THR:CB	2.62	0.47
6:C:3:GLU:O	6:C:4:GLU:CG	2.62	0.47
11:H:98:TYR:C	11:H:118:PHE:HD2	2.18	0.47
4:M:130:ASP:O	4:M:131:SER:C	2.51	0.47
4:M:1373:ASP:HA	4:M:1376:THR:CG2	2.44	0.47
4:M:252:PHE:HB2	4:M:256:GLN:NE2	2.29	0.47
4:M:347:PHE:CE2	4:M:493:GLN:OE1	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:68:GLN:O	4:M:70:CYS:N	2.42	0.47
4:M:821:ARG:NH1	4:M:821:ARG:HB2	2.27	0.47
4:M:412:ARG:HH21	5:N:1108:ARG:NH1	2.11	0.47
5:N:552:MET:HA	5:N:555:ILE:HB	1.96	0.47
5:N:798:TYR:HE2	6:O:62:PHE:HZ	1.60	0.47
7:P:7:THR:HG23	7:P:7:THR:O	2.14	0.47
8:Q:176:PRO:HB2	8:Q:211:TYR:O	2.15	0.47
11:T:31:THR:HG22	11:T:31:THR:O	2.14	0.47
11:T:58:THR:HG22	11:T:59:ILE:N	2.27	0.47
15:X:40:LEU:HD13	15:X:44:ASP:HB3	1.96	0.47
4:A:218:ASP:O	4:A:219:PHE:O	2.31	0.47
4:A:243:PRO:O	4:A:244:PRO:C	2.52	0.47
4:A:61:ILE:O	4:A:63:ARG:N	2.47	0.47
4:A:964:ILE:O	4:A:967:ALA:N	2.46	0.47
5:B:1060:ARG:HA	5:B:1060:ARG:HD2	1.59	0.47
5:B:118:ARG:HG2	5:B:204:ILE:HD13	1.96	0.47
5:B:126:SER:O	5:B:169:ARG:HA	2.14	0.47
5:B:361:LEU:HD21	5:B:377:PHE:HD2	1.74	0.47
6:C:242:GLN:HA	6:C:245:VAL:HG23	1.95	0.47
14:K:65:HIS:CD2	14:K:67:PHE:HB2	2.50	0.47
4:M:43:GLU:O	4:M:44:THR:HB	2.14	0.47
4:M:774:ARG:NH2	4:M:797:LYS:HG3	2.30	0.47
4:M:915:SER:O	4:M:919:ILE:HG13	2.14	0.47
5:N:1115:THR:CG2	5:N:1117:GLN:CG	2.92	0.47
5:N:1172:ILE:O	5:N:1172:ILE:CG2	2.62	0.47
5:N:952:VAL:HG22	5:N:966:VAL:HG13	1.97	0.47
10:S:138:THR:HG22	10:S:139:ILE:HG13	1.95	0.47
11:T:100:THR:OG1	11:T:138:GLU:HG3	2.12	0.47
12:U:110:PHE:H	12:U:110:PHE:HD2	1.62	0.47
13:V:36:LEU:HA	13:V:39:LEU:HD12	1.95	0.47
4:A:469:ARG:NH2	5:B:991:GLY:O	2.47	0.47
5:B:247:GLY:O	5:B:249:ARG:N	2.48	0.47
5:B:802:PRO:HG2	5:B:805:THR:HG22	1.96	0.47
5:B:96:TYR:HB2	5:B:129:PHE:HB2	1.97	0.47
6:C:44:LEU:HD21	6:C:159:ALA:CB	2.45	0.47
7:D:50:LEU:HD13	7:D:55:ALA:HA	1.97	0.47
8:E:157:SER:OG	8:E:159:ASP:HB2	2.14	0.47
9:F:75:PRO:O	9:F:77:ASP:O	2.32	0.47
14:K:5:ASP:O	14:K:6:ARG:C	2.53	0.47
14:K:56:VAL:HG22	14:K:77:THR:HG22	1.97	0.47
15:L:32:ALA:CB	15:L:55:ILE:HD12	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1242:VAL:HG12	4:M:1243:VAL:N	2.30	0.47
4:M:332:LYS:H	4:M:337:ARG:HB3	1.78	0.47
4:M:765:VAL:HG23	4:M:802:ASN:O	2.15	0.47
5:N:19:GLU:O	5:N:20:ASP:C	2.53	0.47
5:N:220:GLY:O	5:N:222:ILE:HG13	2.14	0.47
5:N:259:TYR:CD1	5:N:259:TYR:N	2.81	0.47
5:N:313:MET:HE2	5:N:386:LEU:HD22	1.96	0.47
5:N:434:ARG:HA	5:N:437:GLU:CD	2.35	0.47
7:P:146:GLN:O	7:P:149:THR:HG22	2.14	0.47
12:U:61:ASP:C	12:U:63:GLY:N	2.67	0.47
2:2:20:DC:H2''	2:2:21:DC:C5'	2.44	0.47
4:A:108:MET:HB3	4:A:210:ILE:CD1	2.45	0.47
4:A:35:ILE:O	4:A:35:ILE:CG2	2.55	0.47
4:A:42:ASP:C	4:A:44:THR:N	2.67	0.47
4:A:639:PRO:CG	4:A:640:GLN:H	2.27	0.47
4:A:687:LYS:O	4:A:690:VAL:HB	2.15	0.47
5:B:1177:HIS:O	5:B:1179:GLN:N	2.47	0.47
5:B:383:ASN:O	5:B:384:ARG:C	2.51	0.47
5:B:63:ILE:HA	5:B:421:PHE:CE2	2.49	0.47
5:B:25:ILE:HD11	5:B:653:VAL:C	2.34	0.47
5:B:955:THR:CG2	5:B:956:THR:N	2.68	0.47
6:C:167:HIS:CD2	6:C:168:ALA:N	2.83	0.47
6:C:66:ARG:NH1	13:J:2:ILE:CG2	2.67	0.47
7:D:195:ILE:HG22	7:D:198:LEU:HG	1.95	0.47
11:H:18:GLY:O	11:H:19:ARG:HB2	2.15	0.47
4:A:1153:TYR:CE1	12:I:42:LEU:HD13	2.50	0.47
4:M:382:PRO:CB	4:M:428:TYR:HE2	2.23	0.47
4:M:929:LEU:CD2	4:M:983:ILE:HG21	2.44	0.47
5:N:1060:ARG:HD2	5:N:1060:ARG:HA	1.63	0.47
5:N:1072:MET:HE3	5:N:1085:ILE:HD13	1.96	0.47
6:O:243:VAL:O	6:O:243:VAL:HG12	2.14	0.47
6:O:252:GLN:HG3	14:W:95:ILE:HG23	1.97	0.47
6:O:35:ARG:HH11	14:W:41:THR:N	2.12	0.47
7:P:130:LEU:C	7:P:132:GLN:N	2.62	0.47
8:Q:112:TYR:CZ	8:Q:136:ASN:HB2	2.49	0.47
8:Q:163:GLU:O	8:Q:164:LEU:C	2.53	0.47
4:A:1226:VAL:HG13	4:A:1240:CYS:HB3	1.97	0.47
4:A:1389:PHE:CD1	4:A:1390:ASN:N	2.83	0.47
4:A:34:LYS:CB	4:A:36:ARG:HE	2.28	0.47
4:A:467:THR:O	4:A:469:ARG:HG3	2.14	0.47
5:B:801:LYS:O	13:J:52:THR:CG2	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:56:ARG:HD3	7:D:149:THR:HA	1.97	0.47
9:F:116:ASP:C	9:F:116:ASP:OD1	2.53	0.47
12:I:110:PHE:H	12:I:110:PHE:HD2	1.63	0.47
4:M:1339:LEU:HD13	8:Q:147:HIS:CD2	2.49	0.47
4:M:1451:VAL:O	4:M:1454:MET:HG2	2.14	0.47
4:M:391:LEU:O	4:M:394:ASN:HB2	2.14	0.47
4:M:920:LEU:HD23	4:M:921:GLY:N	2.30	0.47
5:N:999:MET:HG2	5:N:1007:VAL:HG22	1.97	0.47
5:N:980:PHE:HE2	5:N:1094:ARG:HG3	1.78	0.47
5:N:244:LEU:O	5:N:246:LYS:N	2.48	0.47
5:N:37:PHE:CE1	5:N:41:LYS:CG	2.97	0.47
6:O:82:TYR:O	6:O:83:SER:C	2.51	0.47
7:P:63:LEU:O	7:P:129:LEU:HD11	2.14	0.47
8:Q:31:THR:O	8:Q:35:VAL:HG23	2.14	0.47
13:V:56:LEU:O	13:V:57:ILE:C	2.53	0.47
14:W:29:ASN:O	14:W:76:GLN:HG3	2.14	0.47
4:A:102:VAL:O	4:A:105:CYS:HB2	2.14	0.47
4:A:1127:ASP:HB3	4:A:1130:GLN:HB2	1.97	0.47
4:A:432:VAL:O	4:A:433:GLU:C	2.51	0.47
4:A:577:ILE:O	4:A:578:LEU:C	2.53	0.47
5:B:575:PRO:HG2	5:B:576:ASP:H	1.80	0.47
7:D:27:LEU:HG	7:D:197:SER:HB2	1.96	0.47
8:E:134:THR:C	8:E:135:PHE:HD1	2.18	0.47
8:E:14:ARG:O	8:E:17:ARG:HB3	2.14	0.47
10:G:145:VAL:CG1	10:G:146:LYS:N	2.77	0.47
10:G:15:PRO:O	10:G:16:SER:C	2.53	0.47
4:A:789:LYS:HE3	12:I:67:THR:CB	2.45	0.47
12:I:84:VAL:O	12:I:84:VAL:HG13	2.13	0.47
4:M:1168:GLU:O	4:M:1172:LEU:HG	2.14	0.47
4:M:356:ASP:OD2	4:M:469:ARG:NH1	2.48	0.47
4:M:608:ILE:C	4:M:610:GLY:H	2.17	0.47
4:M:68:GLN:C	4:M:70:CYS:N	2.67	0.47
5:N:758:PHE:HE1	5:N:1027:ILE:HG22	1.78	0.47
4:M:805:LEU:CD1	5:N:1052:VAL:HG21	2.45	0.47
5:N:240:ILE:O	5:N:240:ILE:HG23	2.14	0.47
5:N:658:ILE:HG22	5:N:659:ALA:N	2.30	0.47
5:N:953:LEU:HD23	5:N:965:LYS:H	1.80	0.47
6:O:83:SER:O	6:O:85:ASP:N	2.47	0.47
9:R:75:PRO:HG3	9:R:78:GLN:OE1	2.15	0.47
10:S:111:THR:HG22	10:S:113:HIS:N	2.25	0.47
4:A:1036:ARG:HG2	4:A:1036:ARG:NH1	2.26	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1095:THR:OG1	4:A:1113:THR:HB	2.15	0.47
4:A:1120:LEU:CD1	4:A:1304:TRP:O	2.62	0.47
4:A:1299:VAL:CG1	4:A:1300:LYS:N	2.76	0.47
4:A:577:ILE:HA	4:A:580:VAL:HG23	1.95	0.47
5:B:582:VAL:HG12	5:B:587:HIS:NE2	2.29	0.47
10:G:7:LEU:HD11	10:G:45:ILE:HD11	1.96	0.47
11:H:47:PHE:CD2	11:H:95:TYR:HD1	2.31	0.47
4:M:211:PHE:HA	4:M:214:ILE:HG13	1.97	0.47
4:M:224:PHE:HZ	4:M:234:MET:CE	2.26	0.47
4:M:34:LYS:N	4:M:57:ARG:NH2	2.60	0.47
4:M:71:GLN:C	4:M:73:GLY:N	2.68	0.47
4:M:805:LEU:O	5:N:761:HIS:CE1	2.68	0.47
4:M:974:ASP:C	4:M:976:THR:H	2.19	0.47
5:N:839:MET:HE3	5:N:1010:LEU:HD21	1.96	0.47
5:N:412:LEU:HB3	5:N:466:TRP:HZ2	1.80	0.47
5:N:579:ARG:HG2	5:N:579:ARG:NH1	2.28	0.47
6:O:175:ALA:HB3	13:V:43:ARG:HH22	1.80	0.47
8:Q:61:GLN:HG2	8:Q:62:ALA:N	2.29	0.47
8:Q:94:LYS:HE2	8:Q:98:ILE:CD1	2.39	0.47
11:T:18:GLY:O	11:T:19:ARG:HB2	2.15	0.47
5:N:309:GLN:HG3	12:U:52:ILE:CD1	2.45	0.47
14:W:10:PHE:N	14:W:10:PHE:HD2	2.11	0.47
15:X:49:LYS:O	15:X:50:ASP:CB	2.62	0.47
4:A:265:LYS:HE2	4:A:322:VAL:HG11	1.96	0.47
4:A:464:PRO:O	4:A:465:TYR:O	2.33	0.47
4:A:441:PRO:HD2	4:A:498:ARG:NH2	2.30	0.47
4:A:608:ILE:HD12	4:A:613:ILE:CD1	2.45	0.47
4:A:779:PHE:O	4:A:780:VAL:C	2.54	0.47
4:A:920:LEU:HD23	4:A:921:GLY:N	2.30	0.47
5:B:258:LEU:HG	5:B:258:LEU:O	2.15	0.47
5:B:405:ARG:HA	5:B:631:GLY:O	2.15	0.47
5:B:906:SER:O	5:B:907:GLY:O	2.32	0.47
6:C:112:ASN:CB	6:C:114:TYR:CE1	2.98	0.47
7:D:71:LYS:HA	7:D:74:GLN:CB	2.45	0.47
8:E:163:GLU:O	8:E:164:LEU:C	2.53	0.47
10:G:87:VAL:HG23	10:G:103:VAL:HG21	1.96	0.47
4:A:701:LEU:HD23	12:I:115:LYS:CG	2.45	0.47
14:K:85:ASP:O	14:K:88:LYS:HB2	2.15	0.47
4:M:477:PRO:HG3	4:M:521:MET:HG2	1.97	0.47
4:M:701:LEU:HA	12:U:115:LYS:CE	2.42	0.47
4:M:710:LEU:H	4:M:710:LEU:HD12	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:862:ASN:HA	8:Q:174:GLN:HB3	1.96	0.47
5:N:1110:PRO:HG3	5:N:1125:ASP:HB3	1.97	0.47
5:N:1147:LEU:O	5:N:1147:LEU:HD23	2.15	0.47
5:N:229:ALA:CB	5:N:231:PRO:HD2	2.45	0.47
5:N:244:LEU:C	5:N:246:LYS:N	2.68	0.47
5:N:298:LEU:CD2	5:N:298:LEU:H	2.28	0.47
5:N:343:ILE:HG21	5:N:348:ARG:H	1.75	0.47
6:O:189:THR:CG2	6:O:190:ASP:N	2.77	0.47
8:Q:93:MET:SD	8:Q:97:VAL:HG23	2.55	0.47
10:S:79:PHE:HZ	10:S:106:MET:CE	2.27	0.47
12:U:12:ASN:HB3	12:U:13:MET:H	1.51	0.47
4:A:1396:ALA:O	4:A:1398:MET:N	2.48	0.47
4:A:241:VAL:HG13	4:A:266:LEU:HD13	1.97	0.47
4:A:481:ASP:OD1	4:A:483:ASP:CG	2.54	0.47
4:A:608:ILE:C	4:A:610:GLY:N	2.66	0.47
4:A:898:ARG:HB2	4:A:933:TYR:HE1	1.79	0.47
4:A:907:THR:HG22	4:A:908:LEU:O	2.15	0.47
5:B:233:PRO:HG2	5:B:234:ILE:CD1	2.44	0.47
5:B:446:LEU:HD23	5:B:446:LEU:N	2.30	0.47
5:B:776:GLN:O	5:B:1095:LEU:HA	2.15	0.47
5:B:825:VAL:HG13	5:B:826:ALA:H	1.80	0.47
6:C:116:LYS:HD3	6:C:140:ASN:HB3	1.96	0.47
11:H:40:LEU:HD22	11:H:123:MET:CE	2.45	0.47
12:I:99:LEU:HB2	12:I:101:PHE:CE1	2.50	0.47
4:M:1030:ARG:NH1	4:M:1035:TYR:OH	2.48	0.47
4:M:1096:SER:O	4:M:1100:ARG:HB3	2.15	0.47
4:M:1349:TYR:CA	4:M:1372:VAL:HG21	2.45	0.47
4:M:1450:LEU:HD11	9:R:108:PHE:CZ	2.50	0.47
4:M:37:PHE:HD1	4:M:37:PHE:H	1.62	0.47
4:M:356:ASP:CB	4:M:469:ARG:NH1	2.74	0.47
4:M:524:VAL:CG1	4:M:525:GLN:H	2.14	0.47
4:M:913:LEU:HD23	4:M:919:ILE:HD12	1.97	0.47
5:N:1166:CYS:O	5:N:1168:LEU:N	2.48	0.47
5:N:233:PRO:HG2	5:N:234:ILE:HD12	1.95	0.47
8:Q:55:ARG:O	8:Q:57:MET:N	2.48	0.47
9:R:94:LEU:HD21	9:R:122:MET:HA	1.96	0.47
4:A:1019:CYS:O	4:A:1022:LEU:N	2.48	0.46
4:A:21:LEU:CD1	4:A:229:SER:HB2	2.45	0.46
4:A:252:PHE:HB2	4:A:256:GLN:NE2	2.30	0.46
4:A:364:VAL:O	4:A:364:VAL:HG13	2.13	0.46
5:B:172:ILE:HD13	5:B:178:ASN:CB	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:244:LEU:O	5:B:246:LYS:N	2.48	0.46
5:B:834:ASN:HB3	5:B:840:ILE:HG13	1.96	0.46
5:B:986:GLN:OE1	5:B:986:GLN:HA	2.15	0.46
6:C:31:ASN:O	6:C:34:ARG:N	2.47	0.46
6:C:58:LEU:N	6:C:58:LEU:HD22	2.30	0.46
6:C:69:LEU:HD12	6:C:69:LEU:N	2.29	0.46
7:D:14:ARG:N	7:D:17:LYS:HZ3	2.13	0.46
4:M:166:GLY:O	4:M:167:CYS:HB3	2.15	0.46
4:M:896:ARG:NH2	4:M:1030:ARG:HH21	2.13	0.46
5:N:293:PRO:HG2	5:N:296:GLU:HB3	1.97	0.46
5:N:918:ILE:HD12	5:N:935:ARG:HD3	1.97	0.46
4:M:469:ARG:NH2	5:N:991:GLY:O	2.48	0.46
6:O:107:SER:C	6:O:109:SER:H	2.18	0.46
6:O:51:VAL:HG22	6:O:155:LEU:HD22	1.97	0.46
7:P:52:LEU:CD2	7:P:147:TYR:HE2	2.26	0.46
8:Q:58:MET:O	8:Q:59:SER:O	2.33	0.46
9:R:69:LEU:N	9:R:70:LYS:CA	2.78	0.46
10:S:17:PHE:C	10:S:19:GLY:H	2.18	0.46
11:T:26:ILE:HD13	11:T:49:VAL:HG11	1.97	0.46
12:U:100:PHE:CD1	12:U:100:PHE:N	2.84	0.46
15:X:38:LEU:O	15:X:39:SER:CB	2.62	0.46
15:X:55:ILE:HG12	15:X:55:ILE:H	1.34	0.46
2:5:23:DG:H2'	2:5:24:DG:C8	2.49	0.46
4:A:1364:ASN:O	4:A:1365:TYR:C	2.54	0.46
4:A:443:LEU:O	4:A:489:LEU:HD12	2.14	0.46
4:A:474:VAL:HG22	4:A:478:TYR:CE1	2.51	0.46
5:B:102:VAL:HG12	5:B:104:GLU:HG2	1.96	0.46
5:B:1081:LEU:HD12	5:B:1085:ILE:HD11	1.96	0.46
5:B:237:VAL:HG12	5:B:238:ALA:N	2.28	0.46
5:B:278:GLN:HG2	5:B:279:ASP:N	2.28	0.46
10:G:1:MET:CE	10:G:1:MET:O	2.62	0.46
4:M:34:LYS:CB	4:M:36:ARG:HE	2.27	0.46
4:M:351:THR:HG21	5:N:1103:ILE:HG13	1.97	0.46
4:M:458:HIS:NE2	4:M:478:TYR:OH	2.35	0.46
4:M:58:LEU:O	4:M:59:GLY:O	2.32	0.46
5:N:806:THR:C	5:N:808:ALA:N	2.66	0.46
7:P:119:ARG:HG2	7:P:120:GLU:N	2.29	0.46
10:S:49:LEU:HD23	10:S:49:LEU:N	2.31	0.46
10:S:26:LEU:HD12	10:S:56:ILE:HD13	1.97	0.46
12:U:101:PHE:HB2	12:U:110:PHE:CE2	2.50	0.46
6:O:141:GLY:HA2	13:V:16:ASP:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1213:GLY:O	4:A:1216:ILE:N	2.48	0.46
4:A:32:VAL:O	4:A:57:ARG:HB2	2.14	0.46
4:A:929:LEU:HD23	4:A:983:ILE:HG21	1.97	0.46
5:B:1187:ASN:O	5:B:1188:LYS:CB	2.55	0.46
5:B:293:PRO:HG2	5:B:296:GLU:HB3	1.98	0.46
5:B:800:GLN:HB3	13:J:52:THR:HG22	1.90	0.46
5:B:806:THR:HG22	5:B:808:ALA:HB3	1.97	0.46
7:D:208:GLU:O	7:D:212:LYS:HG3	2.15	0.46
4:A:1017:LEU:HB3	8:E:205:SER:HA	1.96	0.46
9:F:85:MET:HE1	9:F:148:VAL:HG12	1.97	0.46
10:G:88:ASP:HA	10:G:144:ARG:HA	1.96	0.46
4:M:1118:VAL:HG23	4:M:1118:VAL:O	2.16	0.46
4:M:1437:GLY:HA3	9:R:88:TYR:CD2	2.51	0.46
4:M:774:ARG:HG2	4:M:774:ARG:H	1.44	0.46
5:N:102:VAL:CG2	5:N:112:LEU:HD22	2.46	0.46
5:N:1182:CYS:O	5:N:1183:LYS:C	2.53	0.46
5:N:410:GLY:O	5:N:412:LEU:N	2.49	0.46
5:N:582:VAL:HG12	5:N:587:HIS:NE2	2.29	0.46
5:N:763:GLN:HG2	5:N:765:PRO:HD2	1.97	0.46
5:N:769:TYR:O	5:N:771:SER:N	2.48	0.46
6:O:112:ASN:CB	6:O:114:TYR:CE1	2.98	0.46
6:O:6:PRO:HB3	6:O:25:VAL:HG13	1.93	0.46
7:P:53:SER:HB3	7:P:152:SER:HA	1.97	0.46
8:Q:145:THR:HG21	8:Q:187:TYR:CE2	2.50	0.46
8:Q:161:LYS:C	8:Q:163:GLU:H	2.18	0.46
8:Q:176:PRO:O	8:Q:212:ARG:HA	2.16	0.46
8:Q:46:TYR:CE2	8:Q:58:MET:HA	2.50	0.46
14:W:49:GLU:HG3	14:W:94:ILE:CG1	2.45	0.46
4:A:1115:SER:OG	4:A:1116:LEU:N	2.48	0.46
4:A:23:SER:O	4:A:24:PRO:C	2.53	0.46
4:A:313:GLN:O	4:A:314:ALA:HB3	2.14	0.46
4:A:340:LEU:HD21	5:B:1200:ALA:CA	2.46	0.46
4:A:408:ASP:C	4:A:410:GLY:H	2.18	0.46
4:A:565:ILE:O	4:A:570:PRO:HA	2.15	0.46
4:A:549:MET:HE1	4:A:656:TRP:HD1	1.80	0.46
4:A:901:LEU:HD22	4:A:919:ILE:HG22	1.98	0.46
4:A:958:VAL:HG22	4:A:1052:GLN:HB3	1.96	0.46
5:B:1115:THR:CG2	5:B:1117:GLN:HG3	2.45	0.46
5:B:167:ILE:HG22	5:B:453:ILE:CD1	2.46	0.46
6:C:77:ILE:O	6:C:79:GLN:N	2.49	0.46
6:C:97:VAL:HG12	6:C:99:LEU:CD2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:53:SER:HB3	7:D:152:SER:HA	1.97	0.46
11:H:130:ARG:N	11:H:130:ARG:HD2	2.24	0.46
13:J:2:ILE:HG12	13:J:57:ILE:HD12	1.96	0.46
15:L:49:LYS:O	15:L:50:ASP:CB	2.63	0.46
4:M:1237:ILE:HG22	4:M:1238:ILE:N	2.29	0.46
4:M:1313:LEU:HD23	4:M:1338:VAL:CG2	2.45	0.46
4:M:1420:ASP:O	4:M:1421:CYS:HB2	2.15	0.46
4:M:266:LEU:O	4:M:267:ALA:C	2.53	0.46
4:M:632:VAL:O	4:M:633:VAL:C	2.53	0.46
4:M:921:GLY:O	4:M:922:ASP:C	2.54	0.46
4:M:1436:ILE:HD13	5:N:1139:ILE:HG23	1.98	0.46
5:N:1214:PRO:O	5:N:1214:PRO:HG2	2.14	0.46
5:N:205:ILE:CD1	5:N:205:ILE:N	2.78	0.46
5:N:472:ALA:HB1	5:N:474:SER:HB3	1.97	0.46
5:N:558:LEU:O	5:N:560:GLU:N	2.49	0.46
5:N:841:MET:O	5:N:993:THR:HA	2.15	0.46
6:O:176:ILE:HG22	6:O:177:GLU:O	2.15	0.46
7:P:209:ARG:O	7:P:212:LYS:HB2	2.16	0.46
13:V:48:ARG:HE	13:V:49:MET:CE	2.25	0.46
2:5:26:DC:C2'	2:5:27:DA:H5'	2.39	0.46
4:A:1444:MET:HE2	4:A:1444:MET:N	2.31	0.46
4:A:626:ASN:O	4:A:631:HIS:CD2	2.68	0.46
4:A:699:ALA:O	4:A:700:ASN:CB	2.63	0.46
4:A:805:LEU:O	5:B:761:HIS:CE1	2.68	0.46
4:A:901:LEU:CG	4:A:926:GLN:HE21	2.19	0.46
5:B:707:PRO:O	5:B:711:GLU:HG3	2.15	0.46
5:B:865:LYS:NZ	5:B:869:SER:HA	2.31	0.46
7:D:47:LEU:HD11	10:G:3:PHE:CE2	2.49	0.46
9:F:90:ARG:HD3	9:F:155:LEU:CD1	2.45	0.46
12:I:55:THR:HG22	12:I:58:VAL:CG2	2.45	0.46
13:J:1:MET:N	13:J:57:ILE:N	2.55	0.46
15:L:61:THR:HG22	15:L:63:ARG:HG2	1.96	0.46
4:M:472:LEU:O	4:M:475:THR:CB	2.62	0.46
4:M:560:ILE:HG13	11:T:78:SER:HB2	1.98	0.46
4:M:523:ILE:HD12	4:M:622:VAL:CG2	2.46	0.46
4:M:586:ILE:HD11	4:M:633:VAL:HG22	1.97	0.46
4:M:899:VAL:CG2	4:M:1029:ARG:HG2	2.46	0.46
4:M:873:MET:HG2	4:M:957:PRO:HB3	1.97	0.46
5:N:999:MET:HE2	5:N:1000:PRO:CD	2.45	0.46
5:N:118:ARG:CG	5:N:204:ILE:HD13	2.46	0.46
5:N:171:PRO:HD2	5:N:457:LEU:CD1	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:195:CYS:SG	5:N:197:PHE:HB2	2.56	0.46
5:N:429:PHE:HA	5:N:432:MET:CE	2.46	0.46
5:N:469:GLN:HB2	5:N:470:LYS:H	1.49	0.46
5:N:983:ARG:HD2	5:N:1091:TYR:HD2	1.80	0.46
6:O:213:PRO:O	6:O:214:ASN:CB	2.63	0.46
6:O:215:GLU:O	6:O:216:GLY:C	2.53	0.46
6:O:262:LEU:HD11	14:W:87:LEU:HD23	1.97	0.46
5:N:1079:LYS:CA	6:O:27:LEU:HD21	2.45	0.46
6:O:36:VAL:HG21	6:O:251:LEU:HD22	1.96	0.46
11:T:40:LEU:CD1	11:T:123:MET:HB2	2.40	0.46
4:A:1102:LYS:O	4:A:1106:ASN:ND2	2.48	0.46
4:A:1102:LYS:HG2	4:A:1106:ASN:HD21	1.80	0.46
4:A:1150:SER:HA	4:A:1195:LEU:HD23	1.97	0.46
4:A:351:THR:O	4:A:486:GLU:HA	2.16	0.46
4:A:401:GLY:O	4:A:435:HIS:CD2	2.69	0.46
4:A:420:ARG:O	4:A:421:ALA:C	2.54	0.46
4:A:535:THR:HG22	4:A:536:LEU:N	2.30	0.46
4:A:55:ASP:N	4:A:56:PRO:CD	2.78	0.46
4:A:894:GLU:O	4:A:896:ARG:N	2.48	0.46
5:B:1152:MET:CE	5:B:1157:ALA:HA	2.46	0.46
5:B:999:MET:HB3	5:B:1007:VAL:HG21	1.98	0.46
6:C:18:VAL:HG23	6:C:240:VAL:HB	1.97	0.46
7:D:130:LEU:C	7:D:132:GLN:N	2.62	0.46
8:E:124:VAL:HG13	8:E:132:ILE:HD12	1.98	0.46
12:I:115:LYS:HD3	12:I:117:LYS:CE	2.36	0.46
12:I:14:LEU:CD2	12:I:28:GLU:O	2.63	0.46
14:K:24:ASP:OD1	14:K:26:LYS:N	2.48	0.46
4:M:147:VAL:O	4:M:149:GLU:N	2.48	0.46
4:M:42:ASP:HA	4:M:46:THR:O	2.15	0.46
4:M:75:ASN:O	4:M:76:GLU:HB2	2.16	0.46
5:N:520:GLY:N	5:N:748:ILE:HG22	2.31	0.46
5:N:657:HIS:CE1	5:N:689:LEU:HD11	2.51	0.46
5:N:957:ASN:O	5:N:958:GLN:C	2.54	0.46
13:V:16:ASP:OD1	13:V:17:LYS:N	2.47	0.46
14:W:47:ARG:HD3	14:W:59:ALA:O	2.16	0.46
14:W:65:HIS:CD2	14:W:67:PHE:HB2	2.51	0.46
1:4:3:DG:H1'	1:4:4:DT:H5'	1.96	0.46
3:6:10:A:H4'	4:M:485:ASP:OD1	2.14	0.46
4:A:1404:GLU:O	4:A:1407:GLU:HB2	2.16	0.46
4:A:166:GLY:O	4:A:167:CYS:SG	2.74	0.46
4:A:218:ASP:O	4:A:219:PHE:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:269:ILE:HG12	4:A:299:HIS:HB3	1.97	0.46
4:A:463:ILE:HB	4:A:464:PRO:CD	2.42	0.46
5:B:189:LEU:O	5:B:190:TYR:C	2.54	0.46
5:B:235:SER:OG	5:B:236:HIS:CD2	2.69	0.46
5:B:337:ARG:HA	5:B:337:ARG:HD2	1.77	0.46
5:B:862:GLN:HG2	5:B:963:PHE:HD1	1.80	0.46
5:B:918:ILE:HD12	5:B:935:ARG:HD3	1.98	0.46
6:C:238:ILE:HG22	6:C:243:VAL:HG23	1.98	0.46
8:E:178:ILE:HG22	8:E:213:ILE:O	2.15	0.46
8:E:73:PRO:O	8:E:75:MET:N	2.48	0.46
4:A:857:ARG:NH1	9:F:139:PRO:CB	2.79	0.46
10:G:18:PHE:HA	10:G:22:MET:HE3	1.98	0.46
15:L:55:ILE:O	15:L:56:LEU:HB2	2.15	0.46
4:M:1265:ASN:C	4:M:1267:MET:N	2.67	0.46
4:M:1279:ILE:HA	4:M:1310:GLY:HA3	1.98	0.46
4:M:699:ALA:HB3	4:M:701:LEU:HG	1.94	0.46
4:M:806:ARG:HH12	5:N:729:ILE:CD1	2.28	0.46
4:M:886:ILE:HG13	4:M:943:LEU:CD1	2.46	0.46
5:N:1109:GLY:O	5:N:1110:PRO:C	2.54	0.46
5:N:233:PRO:HG2	5:N:234:ILE:CD1	2.46	0.46
5:N:23:ALA:H	5:N:654:ARG:HB3	1.81	0.46
5:N:388:CYS:C	5:N:390:LEU:H	2.19	0.46
5:N:227:LYS:HB2	5:N:395:GLN:OE1	2.16	0.46
5:N:39:ARG:NH1	5:N:39:ARG:HG2	2.31	0.46
5:N:744:HIS:HD2	5:N:746:SER:OG	1.99	0.46
9:R:75:PRO:O	9:R:77:ASP:O	2.33	0.46
11:T:101:ALA:HB2	11:T:116:TYR:CZ	2.51	0.46
4:M:698:GLN:HA	12:U:97:MET:O	2.16	0.46
14:W:112:GLN:N	14:W:112:GLN:HG2	2.30	0.46
4:A:1219:THR:HG21	4:A:1271:ILE:HG13	1.97	0.46
4:A:1425:SER:O	4:A:1426:GLU:C	2.54	0.46
4:A:18:GLN:O	5:B:1215:ARG:HG2	2.16	0.46
4:A:75:ASN:O	4:A:76:GLU:HB2	2.15	0.46
4:A:823:GLY:O	4:A:824:LEU:C	2.53	0.46
4:A:966:ASN:O	4:A:967:ALA:C	2.52	0.46
5:B:1159:ARG:HD2	5:B:1159:ARG:C	2.35	0.46
5:B:386:LEU:O	5:B:387:LEU:C	2.53	0.46
5:B:39:ARG:NH2	5:B:665:GLU:CG	2.78	0.46
5:B:37:PHE:HE1	5:B:41:LYS:CD	2.28	0.46
7:D:137:ASN:HD22	7:D:137:ASN:C	2.18	0.46
7:D:29:LEU:HD13	10:G:82:PHE:CZ	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:99:PHE:HZ	10:G:163:ILE:HD13	1.81	0.46
10:G:38:CYS:HB3	10:G:155:SER:HA	1.96	0.46
13:J:1:MET:H1	13:J:56:LEU:CB	2.28	0.46
14:K:111:LEU:O	14:K:112:GLN:CG	2.62	0.46
14:K:112:GLN:N	14:K:112:GLN:HG2	2.30	0.46
4:M:116:ASP:C	4:M:118:HIS:N	2.69	0.46
4:M:1291:VAL:HG13	4:M:1292:PRO:N	2.30	0.46
4:M:1323:ASP:C	4:M:1325:THR:H	2.18	0.46
4:M:317:LYS:O	4:M:318:SER:HB3	2.15	0.46
4:M:320:ARG:HH21	4:M:323:LYS:NZ	2.14	0.46
4:M:364:VAL:O	4:M:364:VAL:CG1	2.64	0.46
4:M:509:LEU:HA	4:M:509:LEU:HD23	1.79	0.46
4:M:577:ILE:C	4:M:579:SER:N	2.67	0.46
5:N:1147:LEU:C	5:N:1147:LEU:HD23	2.36	0.46
5:N:1159:ARG:HE	5:N:1193:GLN:HE21	1.62	0.46
5:N:237:VAL:CG1	5:N:238:ALA:N	2.79	0.46
5:N:221:ASN:OD1	5:N:242:SER:HA	2.16	0.46
5:N:654:ARG:C	5:N:656:GLY:N	2.68	0.46
5:N:757:PRO:HD3	5:N:983:ARG:NH2	2.31	0.46
6:O:76:ASP:OD2	6:O:128:ASN:N	2.49	0.46
6:O:99:LEU:N	6:O:99:LEU:HD23	2.30	0.46
7:P:71:LYS:HA	7:P:74:GLN:CB	2.46	0.46
10:S:138:THR:CG2	10:S:139:ILE:H	2.05	0.46
13:V:34:THR:O	13:V:35:ALA:C	2.54	0.46
13:V:7:CYS:CB	13:V:46:CYS:HB3	2.46	0.46
4:A:1118:VAL:HG23	4:A:1118:VAL:O	2.16	0.46
4:A:1130:GLN:O	4:A:1134:ILE:HG13	2.16	0.46
4:A:244:PRO:CB	4:A:245:PRO:CD	2.94	0.46
4:A:244:PRO:HG2	4:A:245:PRO:CD	2.46	0.46
4:A:266:LEU:O	4:A:267:ALA:C	2.54	0.46
4:A:356:ASP:C	4:A:358:ASN:H	2.18	0.46
4:A:446:ARG:HB2	4:A:487:MET:SD	2.56	0.46
5:B:1197:PRO:HG2	5:B:1200:ALA:HB3	1.97	0.46
5:B:181:LEU:HD22	5:B:189:LEU:CD2	2.46	0.46
5:B:498:THR:HB	5:B:537:LYS:O	2.16	0.46
5:B:996:ARG:NH2	6:C:175:ALA:HA	2.31	0.46
6:C:61:GLU:HA	6:C:64:ALA:HB3	1.98	0.46
9:F:109:VAL:HG12	9:F:110:ASP:N	2.31	0.46
12:I:8:ARG:O	12:I:10:CYS:N	2.49	0.46
6:C:175:ALA:HB3	13:J:43:ARG:HH22	1.81	0.46
4:M:1446:ASP:HB3	4:M:1449:SER:OG	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:252:PHE:HB2	4:M:256:GLN:CD	2.36	0.46
4:M:353:ILE:CD1	4:M:487:MET:HE2	2.46	0.46
4:M:67:CYS:O	4:M:68:GLN:HB2	2.15	0.46
4:M:798:GLY:HA2	4:M:815:PHE:HD1	1.80	0.46
5:N:1023:VAL:O	5:N:1026:LEU:N	2.49	0.46
5:N:604:ARG:O	5:N:606:LYS:N	2.49	0.46
6:O:18:VAL:O	6:O:20:PHE:HD2	1.98	0.46
6:O:35:ARG:HH11	14:W:41:THR:CA	2.28	0.46
7:P:7:THR:HG21	7:P:32:GLU:OE2	2.16	0.46
7:P:144:THR:HG21	10:S:46:LEU:HD13	1.96	0.46
14:W:15:GLY:O	14:W:16:GLU:HG3	2.15	0.46
14:W:55:LYS:HB3	14:W:81:TYR:CE1	2.51	0.46
14:W:59:ALA:HA	14:W:74:ARG:O	2.16	0.46
4:A:1149:ALA:CB	12:I:47:GLU:HA	2.46	0.46
4:A:1161:THR:HG22	4:A:1163:ILE:HG13	1.97	0.46
4:A:332:LYS:H	4:A:337:ARG:HB3	1.80	0.46
4:A:456:MET:HB2	4:A:478:TYR:OH	2.16	0.46
4:A:817:ALA:O	4:A:818:MET:C	2.53	0.46
6:C:44:LEU:HD21	6:C:159:ALA:HB1	1.97	0.46
6:C:8:VAL:HG12	6:C:9:LYS:H	1.81	0.46
9:F:118:LEU:HG	9:F:118:LEU:O	2.15	0.46
9:F:69:LEU:N	9:F:70:LYS:HA	2.31	0.46
10:G:10:ASN:OD1	10:G:71:ASN:HA	2.16	0.46
10:G:14:HIS:HD1	10:G:15:PRO:HD2	1.76	0.46
10:G:22:MET:O	10:G:25:TYR:N	2.49	0.46
4:A:547:LEU:HD22	14:K:58:PHE:CE1	2.51	0.46
4:M:1332:PHE:CE1	4:M:1348:LEU:HD13	2.51	0.46
4:M:56:PRO:O	4:M:57:ARG:CG	2.63	0.46
4:M:618:GLU:O	4:M:620:LYS:N	2.49	0.46
5:N:1099:VAL:C	5:N:1101:ASP:H	2.19	0.46
5:N:549:THR:N	5:N:628:THR:HG23	2.28	0.46
5:N:525:ALA:O	5:N:768:THR:HA	2.14	0.46
6:O:70:ILE:HG12	6:O:142:VAL:HG11	1.97	0.46
6:O:239:PRO:O	6:O:241:ASP:N	2.48	0.46
8:Q:14:ARG:O	8:Q:17:ARG:HB3	2.16	0.46
10:S:31:LEU:CD2	10:S:48:VAL:HG21	2.46	0.46
10:S:1:MET:HG2	10:S:85:GLU:CD	2.36	0.46
12:U:8:ARG:NE	12:U:9:ASP:OD1	2.42	0.46
4:M:356:ASP:OD2	14:W:65:HIS:HE1	1.98	0.46
3:6:5:C:O2'	3:6:6:C:H5'	2.16	0.45
4:A:1162:VAL:HG12	4:A:1162:VAL:O	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1168:GLU:O	4:A:1172:LEU:HG	2.16	0.45
4:A:1453:TYR:O	4:A:1454:MET:HB3	2.17	0.45
4:A:433:GLU:OE1	5:B:1108:ARG:NH1	2.49	0.45
4:A:577:ILE:HG13	4:A:578:LEU:N	2.31	0.45
4:A:676:MET:O	4:A:679:ILE:N	2.47	0.45
4:A:715:GLU:OE2	4:A:774:ARG:NH1	2.49	0.45
4:A:913:LEU:HD23	4:A:919:ILE:HD12	1.97	0.45
5:B:118:ARG:CG	5:B:204:ILE:HD13	2.47	0.45
5:B:284:ILE:HG12	5:B:324:ILE:HD12	1.97	0.45
5:B:360:PHE:C	5:B:360:PHE:CD2	2.88	0.45
6:C:249:ASP:O	6:C:252:GLN:HB3	2.17	0.45
7:D:33:PHE:CZ	10:G:80:LYS:HE3	2.51	0.45
11:H:123:MET:HE3	11:H:142:LEU:CD2	2.45	0.45
11:H:91:ASP:C	11:H:93:TYR:N	2.69	0.45
12:I:13:MET:O	12:I:14:LEU:HD23	2.16	0.45
15:L:40:LEU:HB3	15:L:41:SER:H	1.63	0.45
4:M:1226:VAL:HG13	4:M:1240:CYS:HB3	1.98	0.45
4:M:62:ASP:HB3	4:M:64:ASN:ND2	2.31	0.45
4:M:718:VAL:O	4:M:721:PHE:HB2	2.16	0.45
4:M:35:ILE:HB	4:M:83:HIS:O	2.16	0.45
5:N:820:GLY:C	5:N:1091:TYR:CE1	2.90	0.45
5:N:1159:ARG:HD2	5:N:1159:ARG:C	2.36	0.45
5:N:280:ILE:CD1	5:N:334:ILE:HG12	2.41	0.45
5:N:952:VAL:HG12	5:N:953:LEU:N	2.30	0.45
6:O:88:CYS:SG	6:O:91:HIS:HA	2.57	0.45
8:Q:124:VAL:HG13	8:Q:132:ILE:CB	2.45	0.45
8:Q:161:LYS:HD2	8:Q:195:VAL:HG23	1.99	0.45
4:A:1011:GLN:O	4:A:1015:VAL:HG23	2.16	0.45
4:A:1222:ASN:O	4:A:1223:ASP:HB3	2.16	0.45
4:A:1260:LEU:HG	4:A:1260:LEU:O	2.16	0.45
4:A:577:ILE:C	4:A:579:SER:N	2.67	0.45
4:A:695:LYS:C	4:A:697:ALA:N	2.70	0.45
4:A:1409:LEU:CD1	5:B:1207:LEU:HD11	2.43	0.45
5:B:295:GLY:O	5:B:299:GLU:HG3	2.17	0.45
5:B:372:SER:O	5:B:376:PHE:HD1	1.98	0.45
5:B:897:GLY:O	5:B:898:LEU:HD23	2.16	0.45
6:C:176:ILE:HG22	6:C:177:GLU:O	2.16	0.45
6:C:256:ALA:C	6:C:258:ILE:N	2.69	0.45
7:D:170:THR:C	7:D:172:LEU:H	2.20	0.45
8:E:124:VAL:HG13	8:E:132:ILE:CB	2.45	0.45
8:E:161:LYS:C	8:E:163:GLU:N	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:29:PHE:C	8:E:30:ILE:HG13	2.36	0.45
11:H:95:TYR:HB3	11:H:144:ILE:HB	1.97	0.45
11:H:58:THR:HG22	11:H:59:ILE:N	2.31	0.45
5:B:309:GLN:CG	12:I:52:ILE:HD11	2.46	0.45
14:K:19:LEU:HD21	14:K:35:PHE:CE2	2.51	0.45
4:M:500:GLU:OE2	4:M:1438:THR:HG21	2.17	0.45
4:M:298:PHE:O	4:M:301:ALA:HB3	2.16	0.45
4:M:49:LYS:HZ3	4:M:61:ILE:HG13	1.80	0.45
4:M:639:PRO:HG2	4:M:640:GLN:N	2.32	0.45
4:M:873:MET:C	4:M:1058:VAL:HG23	2.36	0.45
5:N:446:LEU:N	5:N:446:LEU:HD23	2.31	0.45
5:N:730:ARG:O	5:N:731:VAL:O	2.33	0.45
5:N:758:PHE:N	5:N:759:PRO:CD	2.79	0.45
5:N:899:ILE:CG2	5:N:949:VAL:HG21	2.46	0.45
6:O:232:VAL:HG21	6:O:244:VAL:CG2	2.42	0.45
7:P:145:MET:O	7:P:149:THR:HB	2.17	0.45
12:U:78:CYS:HB2	12:U:106:CYS:HB3	1.97	0.45
12:U:111:THR:CG2	12:U:112:SER:N	2.72	0.45
4:A:1220:PHE:CD1	4:A:1224:LEU:HD23	2.52	0.45
4:A:1237:ILE:HG22	4:A:1238:ILE:N	2.30	0.45
4:A:1193:LEU:HD22	4:A:1260:LEU:HD11	1.97	0.45
4:A:381:THR:HG21	4:A:383:TYR:CD1	2.52	0.45
4:A:53:LEU:O	4:A:54:ASN:C	2.55	0.45
4:A:676:MET:O	4:A:679:ILE:HB	2.17	0.45
4:A:785:PRO:HG2	4:A:786:HIS:CD2	2.51	0.45
4:A:829:VAL:C	4:A:831:THR:N	2.69	0.45
4:A:982:THR:N	4:A:985:ASP:HB2	2.31	0.45
5:B:1077:THR:HG22	14:K:44:ASN:ND2	2.31	0.45
5:B:115:GLN:HG2	5:B:193:LYS:HB2	1.97	0.45
5:B:658:ILE:O	5:B:661:LEU:HB2	2.15	0.45
5:B:525:ALA:O	5:B:768:THR:HA	2.15	0.45
6:C:58:LEU:N	6:C:58:LEU:CD2	2.80	0.45
6:C:82:TYR:O	6:C:83:SER:C	2.53	0.45
6:C:99:LEU:HD23	6:C:99:LEU:N	2.31	0.45
7:D:156:ASP:C	7:D:158:GLU:N	2.70	0.45
11:H:138:GLU:O	11:H:139:ASN:C	2.55	0.45
13:J:32:GLU:O	13:J:33:GLY:C	2.54	0.45
5:B:833:TYR:CZ	14:K:66:PRO:HG3	2.51	0.45
5:B:954:VAL:O	15:L:55:ILE:O	2.33	0.45
4:M:875:ALA:HB2	4:M:1366:ARG:HD2	1.97	0.45
4:M:1345:ARG:NH1	4:M:1373:ASP:OD1	2.43	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1400:CYS:O	4:M:1405:THR:HG23	2.17	0.45
4:M:1402:PHE:O	4:M:1403:GLU:HB2	2.17	0.45
4:M:313:GLN:O	4:M:314:ALA:HB3	2.16	0.45
4:M:652:VAL:O	4:M:653:VAL:C	2.53	0.45
4:M:742:ASN:O	4:M:745:GLN:HB2	2.17	0.45
5:N:847:ASP:O	5:N:849:GLY:N	2.48	0.45
5:N:908:GLU:O	5:N:909:ASP:O	2.34	0.45
5:N:910:VAL:HG12	5:N:911:ILE:N	2.31	0.45
10:S:27:LYS:O	10:S:30:LEU:HB3	2.17	0.45
4:A:366:VAL:CG2	4:A:460:VAL:HG22	2.46	0.45
4:A:417:TYR:O	4:A:418:SER:C	2.55	0.45
4:A:526:ASP:O	4:A:527:THR:C	2.55	0.45
4:A:567:LYS:HE3	11:H:46:LEU:CB	2.41	0.45
4:A:608:ILE:O	4:A:610:GLY:N	2.49	0.45
5:B:1006:ILE:CG2	13:J:45:CYS:HB3	2.46	0.45
5:B:336:ARG:CD	5:B:348:ARG:HD3	2.46	0.45
5:B:37:PHE:CE2	5:B:542:MET:HA	2.50	0.45
5:B:785:TYR:C	5:B:785:TYR:CD1	2.89	0.45
10:G:154:VAL:HG12	10:G:155:SER:N	2.30	0.45
4:M:1153:TYR:CD2	4:M:1163:ILE:HD11	2.52	0.45
4:M:1332:PHE:O	4:M:1333:ILE:C	2.55	0.45
4:M:231:PRO:HA	4:M:234:MET:HE2	1.99	0.45
4:M:270:LEU:O	4:M:271:LYS:C	2.55	0.45
4:M:388:LEU:CD2	4:M:432:VAL:HB	2.46	0.45
4:M:613:ILE:O	4:M:614:PHE:HB3	2.16	0.45
4:M:59:GLY:HA2	4:M:67:CYS:SG	2.55	0.45
4:M:709:THR:HG22	4:M:710:LEU:N	2.32	0.45
4:M:823:GLY:O	4:M:824:LEU:C	2.54	0.45
5:N:984:HIS:NE2	5:N:1025:HIS:HA	2.32	0.45
5:N:1033:LYS:CE	5:N:1070:GLU:OE1	2.65	0.45
5:N:33:VAL:HG21	5:N:638:PHE:HZ	1.82	0.45
5:N:360:PHE:O	5:N:361:LEU:C	2.53	0.45
5:N:821:GLN:HE22	5:N:851:PHE:CA	2.27	0.45
6:O:208:GLU:C	6:O:210:GLU:H	2.20	0.45
5:N:996:ARG:NH1	6:O:38:ILE:HG23	2.30	0.45
11:T:95:TYR:HB3	11:T:144:ILE:HB	1.98	0.45
12:U:82:GLU:HB3	12:U:104:LEU:HD12	1.97	0.45
13:V:28:ASP:O	13:V:29:GLU:C	2.55	0.45
15:X:31:CYS:HB3	15:X:34:CYS:C	2.37	0.45
4:A:147:VAL:O	4:A:149:GLU:N	2.49	0.45
4:A:265:LYS:CE	4:A:322:VAL:HG13	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:982:THR:H	4:A:985:ASP:HB2	1.81	0.45
5:B:839:MET:CE	5:B:1010:LEU:HD21	2.46	0.45
5:B:1176:ASN:C	5:B:1178:ASN:H	2.19	0.45
5:B:193:LYS:HD3	5:B:787:VAL:HG11	1.97	0.45
5:B:27:ALA:C	5:B:29:ASP:N	2.70	0.45
5:B:431:TYR:CE2	5:B:447:ALA:HB2	2.52	0.45
5:B:30:SER:HB3	5:B:743:ILE:O	2.17	0.45
5:B:753:ALA:O	5:B:756:ILE:HG13	2.16	0.45
5:B:1005:GLY:HA2	6:C:176:ILE:O	2.16	0.45
6:C:236:GLY:C	6:C:238:ILE:N	2.68	0.45
6:C:69:LEU:HB3	13:J:6:ARG:CD	2.47	0.45
7:D:13:ARG:HB2	7:D:17:LYS:NZ	2.31	0.45
8:E:90:VAL:HG23	8:E:120:ALA:HA	1.97	0.45
10:G:25:TYR:HE2	10:G:29:LYS:HD2	1.82	0.45
12:I:59:VAL:C	12:I:61:ASP:H	2.19	0.45
13:J:34:THR:O	13:J:35:ALA:C	2.55	0.45
14:K:59:ALA:HA	14:K:74:ARG:O	2.17	0.45
4:M:1115:SER:OG	4:M:1116:LEU:N	2.49	0.45
4:M:1147:THR:HA	4:M:1197:LEU:HD23	1.97	0.45
4:M:382:PRO:HD3	4:M:428:TYR:HD2	1.77	0.45
4:M:723:ASN:C	4:M:725:ALA:N	2.70	0.45
5:N:383:ASN:O	5:N:384:ARG:C	2.54	0.45
5:N:764:SER:HB3	5:N:765:PRO:CD	2.46	0.45
5:N:906:SER:O	5:N:907:GLY:O	2.34	0.45
6:O:112:ASN:HB2	6:O:114:TYR:HE1	1.81	0.45
6:O:263:THR:O	6:O:265:MET:N	2.50	0.45
6:O:3:GLU:O	6:O:4:GLU:CG	2.65	0.45
7:P:188:ALA:N	7:P:208:GLU:OE2	2.50	0.45
8:Q:128:PRO:HA	8:Q:129:PRO:C	2.37	0.45
10:S:14:HIS:ND1	10:S:15:PRO:CD	2.71	0.45
12:U:54:GLU:HB3	12:U:100:PHE:CE2	2.52	0.45
4:A:1220:PHE:O	4:A:1221:LYS:HB2	2.17	0.45
4:A:1377:THR:O	4:A:1378:GLN:C	2.55	0.45
4:A:1446:ASP:HB3	4:A:1449:SER:OG	2.16	0.45
4:A:370:ILE:O	4:A:373:THR:N	2.42	0.45
4:A:47:ARG:HH12	4:A:254:GLU:CG	2.30	0.45
4:A:353:ILE:HD13	4:A:487:MET:CE	2.47	0.45
4:A:4:GLN:O	4:A:5:GLN:HB2	2.16	0.45
4:A:567:LYS:HD2	4:A:568:PRO:CD	2.38	0.45
4:A:663:SER:HB2	5:B:827:ILE:O	2.16	0.45
4:A:932:GLU:OE1	4:A:987:VAL:HG22	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1214:PRO:O	5:B:1214:PRO:HG2	2.17	0.45
5:B:337:ARG:C	5:B:338:GLY:CA	2.85	0.45
5:B:806:THR:HB	5:B:809:MET:HG3	1.99	0.45
9:F:125:LEU:CG	9:F:125:LEU:O	2.64	0.45
10:G:13:LEU:O	10:G:67:SER:HA	2.16	0.45
12:I:98:VAL:HG11	12:I:113:ASP:OD1	2.16	0.45
12:I:85:PHE:CD1	12:I:99:LEU:HD13	2.51	0.45
13:J:13:VAL:O	13:J:14:VAL:CG2	2.65	0.45
13:J:31:ASP:O	13:J:32:GLU:C	2.55	0.45
4:M:146:MET:HA	4:M:171:GLN:HB2	1.97	0.45
4:M:369:SER:HB2	14:W:2:ASN:OD1	2.17	0.45
4:M:402:ALA:HB1	4:M:433:GLU:O	2.17	0.45
4:M:667:GLY:HA3	6:O:192:TRP:CH2	2.51	0.45
4:M:684:ALA:O	4:M:687:LYS:HB2	2.17	0.45
4:M:666:ILE:HD11	5:N:1067:ARG:O	2.17	0.45
5:N:1135:ARG:O	5:N:1138:MET:N	2.50	0.45
5:N:1147:LEU:HD23	5:N:1151:LEU:HD13	1.98	0.45
5:N:27:ALA:C	5:N:29:ASP:N	2.70	0.45
5:N:337:ARG:HD2	5:N:337:ARG:HA	1.76	0.45
5:N:344:LYS:O	5:N:345:LYS:HB2	2.16	0.45
5:N:467:GLY:CA	5:N:475:SER:HB3	2.47	0.45
6:O:215:GLU:O	6:O:217:ASP:N	2.50	0.45
7:P:137:ASN:C	7:P:137:ASN:HD22	2.19	0.45
7:P:141:LEU:HA	7:P:141:LEU:HD12	1.83	0.45
7:P:27:LEU:HG	7:P:197:SER:HB2	1.98	0.45
8:Q:124:VAL:HB	8:Q:125:PRO:CD	2.46	0.45
9:R:118:LEU:HG	9:R:118:LEU:O	2.16	0.45
10:S:13:LEU:O	10:S:67:SER:HA	2.16	0.45
10:S:14:HIS:CD2	10:S:16:SER:CB	2.84	0.45
10:S:18:PHE:HZ	10:S:68:ALA:HB2	1.81	0.45
5:N:1006:ILE:HD13	13:V:44:TYR:HE2	1.78	0.45
15:X:55:ILE:O	15:X:56:LEU:HB2	2.16	0.45
3:3:8:G:O2'	3:3:9:G:H5'	2.16	0.45
4:A:1118:VAL:HG23	4:A:1306:LEU:HB2	1.99	0.45
4:A:18:GLN:HB3	5:B:1215:ARG:HG3	1.99	0.45
4:A:289:ILE:C	4:A:291:GLU:N	2.70	0.45
4:A:478:TYR:O	4:A:479:ASN:HB3	2.16	0.45
4:A:49:LYS:NZ	4:A:61:ILE:CG1	2.78	0.45
4:A:574:GLY:O	4:A:575:LYS:C	2.54	0.45
4:A:666:ILE:HG12	5:B:1030:LEU:HD22	1.99	0.45
5:B:980:PHE:HE2	5:B:1094:ARG:CG	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:209:GLU:CD	5:B:788:ARG:HH22	2.20	0.45
6:C:123:ASN:ND2	6:C:125:MET:CG	2.78	0.45
6:C:174:ALA:O	6:C:175:ALA:CB	2.65	0.45
9:F:114:GLU:OE2	9:F:119:ARG:HG2	2.17	0.45
10:G:79:PHE:CE2	10:G:105:PRO:HG2	2.51	0.45
12:I:100:PHE:CD1	12:I:100:PHE:N	2.85	0.45
14:K:55:LYS:CB	14:K:81:TYR:CE1	3.00	0.45
15:L:43:THR:O	15:L:43:THR:HG22	2.17	0.45
4:M:986:ILE:HD12	4:M:1032:LEU:HD11	1.98	0.45
4:M:399:HIS:CB	4:M:400:PRO:CD	2.88	0.45
4:M:621:THR:O	4:M:629:LEU:HB2	2.17	0.45
4:M:699:ALA:O	4:M:700:ASN:CB	2.64	0.45
4:M:817:ALA:O	4:M:818:MET:C	2.54	0.45
5:N:33:VAL:O	5:N:36:ALA:HB3	2.17	0.45
5:N:603:LEU:HB3	5:N:609:ILE:CD1	2.46	0.45
5:N:830:TYR:CE2	5:N:1000:PRO:HD3	2.51	0.45
6:O:83:SER:OG	6:O:160:LYS:HD3	2.17	0.45
7:P:23:ASN:O	10:S:83:LYS:HB2	2.17	0.45
8:Q:205:SER:O	8:Q:206:GLY:C	2.54	0.45
8:Q:48:ASP:CG	8:Q:49:SER:N	2.70	0.45
2:2:12:DT:H2"	2:2:13:DA:OP2	2.16	0.45
4:A:1004:ASN:O	4:A:1008:GLN:HB2	2.17	0.45
4:A:1297:GLU:H	4:A:1297:GLU:HG3	1.47	0.45
4:A:130:ASP:O	4:A:131:SER:C	2.53	0.45
4:A:653:VAL:O	4:A:654:ASN:C	2.55	0.45
4:A:960:ILE:O	4:A:961:ARG:C	2.54	0.45
5:B:1099:VAL:HG22	5:B:1103:ILE:HD13	1.98	0.45
4:A:816:HIS:HE2	5:B:764:SER:H	1.63	0.45
7:D:64:VAL:O	7:D:66:ARG:N	2.50	0.45
10:G:88:ASP:HB3	10:G:144:ARG:HA	1.99	0.45
4:M:1161:THR:HG22	4:M:1163:ILE:HG13	1.98	0.45
4:M:1206:ASP:O	4:M:1274:ARG:NH1	2.50	0.45
4:M:42:ASP:C	4:M:44:THR:N	2.69	0.45
4:M:453:MET:C	4:M:455:MET:N	2.70	0.45
4:M:553:VAL:HG13	4:M:648:ASN:HB3	1.98	0.45
4:M:55:ASP:C	4:M:57:ARG:N	2.67	0.45
4:M:914:GLU:HB2	4:M:979:SER:O	2.17	0.45
4:M:343:LYS:NZ	5:N:1151:LEU:O	2.38	0.45
5:N:184:ALA:HB1	5:N:188:ASP:HB3	1.98	0.45
5:N:258:LEU:O	5:N:258:LEU:CG	2.63	0.45
5:N:370:PHE:HE2	5:N:373:ARG:HH11	1.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:376:PHE:CE2	5:N:569:TYR:CD2	3.05	0.45
5:N:388:CYS:O	5:N:390:LEU:N	2.50	0.45
5:N:520:GLY:H	5:N:748:ILE:HG22	1.80	0.45
5:N:29:ASP:HB3	5:N:658:ILE:HD13	1.99	0.45
5:N:683:SER:O	5:N:687:GLU:HB2	2.17	0.45
6:O:183:TRP:CE2	6:O:207:CYS:HB3	2.52	0.45
6:O:260:LEU:O	6:O:263:THR:HB	2.16	0.45
8:Q:29:PHE:C	8:Q:30:ILE:HG13	2.36	0.45
10:S:15:PRO:O	10:S:16:SER:C	2.55	0.45
11:T:55:LEU:HD22	11:T:144:ILE:CG2	2.47	0.45
12:U:100:PHE:N	12:U:100:PHE:HD1	2.15	0.45
14:W:112:GLN:CG	14:W:112:GLN:N	2.79	0.45
4:A:1005:GLU:O	4:A:1006:ILE:C	2.55	0.45
4:A:427:GLN:O	4:A:428:TYR:C	2.54	0.45
4:A:606:LEU:HB3	4:A:614:PHE:CE2	2.52	0.45
5:B:1138:MET:HE2	5:B:1143:ALA:HB3	1.99	0.45
4:A:1410:PHE:HD2	5:B:1212:ILE:HD12	1.82	0.45
5:B:37:PHE:CE1	5:B:41:LYS:CG	2.99	0.45
5:B:597:MET:O	5:B:600:LEU:N	2.46	0.45
5:B:710:LEU:O	5:B:711:GLU:OE2	2.35	0.45
11:H:15:VAL:HG22	11:H:26:ILE:HG12	1.99	0.45
4:A:547:LEU:HD13	14:K:58:PHE:CD1	2.52	0.45
4:M:1239:ARG:HH11	4:M:1239:ARG:CB	2.30	0.45
4:M:224:PHE:CE2	4:M:231:PRO:HA	2.52	0.45
4:M:262:LEU:C	4:M:264:PHE:N	2.70	0.45
4:M:388:LEU:HD22	4:M:432:VAL:HG21	1.98	0.45
4:M:603:ASN:O	4:M:604:GLY:C	2.54	0.45
4:M:763:ALA:C	4:M:803:SER:HB3	2.37	0.45
4:M:901:LEU:N	4:M:926:GLN:HE21	2.08	0.45
5:N:1001:PHE:CZ	5:N:1073:TYR:HB2	2.50	0.45
5:N:1085:ILE:CG2	5:N:1086:PHE:N	2.80	0.45
5:N:1156:ASP:O	5:N:1157:ALA:O	2.34	0.45
5:N:343:ILE:CG2	5:N:348:ARG:H	2.29	0.45
5:N:37:PHE:HE1	5:N:41:LYS:HG3	1.78	0.45
5:N:825:VAL:HG12	5:N:826:ALA:N	2.32	0.45
6:O:22:LEU:HD13	6:O:230:MET:CE	2.47	0.45
6:O:74:SER:HB2	6:O:77:ILE:HG12	1.99	0.45
8:Q:124:VAL:HA	8:Q:132:ILE:HD12	1.99	0.45
10:S:66:GLY:O	10:S:67:SER:C	2.55	0.45
11:T:127:GLY:O	11:T:128:ASN:CB	2.65	0.45
11:T:142:LEU:C	11:T:143:LEU:HD12	2.36	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:V:21:TYR:HB2	13:V:39:LEU:HD13	1.99	0.45
14:W:24:ASP:OD1	14:W:26:LYS:N	2.50	0.45
15:X:36:SER:O	15:X:37:LYS:C	2.55	0.45
3:3:9:G:H4'	5:B:1097:HIS:NE2	2.32	0.45
2:5:10:DA:H2''	2:5:11:DG:OP2	2.17	0.45
3:6:3:G:H2'	3:6:4:A:H8	1.82	0.45
4:A:1423:GLY:O	4:A:1424:VAL:C	2.55	0.45
4:A:334:GLY:O	4:A:335:ARG:C	2.55	0.45
4:A:524:VAL:CG1	4:A:525:GLN:H	2.20	0.45
4:A:696:GLU:HG2	4:A:696:GLU:O	2.17	0.45
5:B:244:LEU:C	5:B:246:LYS:N	2.70	0.45
5:B:638:PHE:HD2	5:B:690:VAL:HG22	1.82	0.45
5:B:683:SER:O	5:B:687:GLU:HB2	2.16	0.45
5:B:653:VAL:HG22	5:B:689:LEU:HB3	1.99	0.45
6:C:256:ALA:C	6:C:258:ILE:H	2.19	0.45
7:D:220:LEU:O	7:D:221:TYR:HD1	2.00	0.45
4:A:1339:LEU:HD13	8:E:147:HIS:CD2	2.52	0.45
10:G:115:MET:CB	10:G:116:PRO:HD2	2.46	0.45
10:G:22:MET:O	10:G:23:LYS:C	2.55	0.45
10:G:4:ILE:HG22	10:G:4:ILE:O	2.16	0.45
5:B:1039:GLY:HA2	13:J:51:LEU:CD2	2.47	0.45
5:B:1076:HIS:CD2	14:K:40:HIS:CE1	3.05	0.45
15:L:31:CYS:HB3	15:L:34:CYS:C	2.37	0.45
4:M:1151:GLU:HB3	4:M:1153:TYR:HE1	1.82	0.45
4:M:168:GLY:O	4:M:169:ASN:C	2.55	0.45
4:M:274:ILE:O	4:M:275:SER:C	2.55	0.45
4:M:92:HIS:HD2	4:M:304:MET:CE	2.29	0.45
4:M:335:ARG:O	4:M:336:ILE:C	2.54	0.45
4:M:355:GLY:N	4:M:482:PHE:CE1	2.86	0.45
5:N:1034:VAL:O	5:N:1037:LEU:N	2.42	0.45
5:N:1135:ARG:O	5:N:1136:ASP:C	2.56	0.45
5:N:123:THR:O	5:N:125:SER:N	2.49	0.45
5:N:515:HIS:O	5:N:518:HIS:HB2	2.17	0.45
5:N:806:THR:HG21	5:N:808:ALA:HB3	1.98	0.45
6:O:100:THR:HG22	6:O:101:LEU:H	1.82	0.45
11:T:123:MET:HE1	11:T:142:LEU:HD11	1.99	0.45
13:V:32:GLU:CD	13:V:32:GLU:H	2.20	0.45
13:V:14:VAL:HG12	13:V:50:ILE:HD11	1.98	0.45
4:A:1243:VAL:HG12	4:A:1244:ARG:N	2.31	0.44
4:A:224:PHE:CZ	4:A:231:PRO:HG3	2.53	0.44
4:A:506:ALA:HB1	4:A:508:PRO:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:701:LEU:HD23	12:I:115:LYS:HE3	1.99	0.44
4:A:723:ASN:C	4:A:725:ALA:N	2.71	0.44
4:A:890:ASP:H	4:A:1296:GLY:HA3	1.82	0.44
5:B:112:LEU:HD12	5:B:113:TYR:N	2.26	0.44
5:B:221:ASN:OD1	5:B:242:SER:HA	2.18	0.44
5:B:235:SER:HA	5:B:261:ARG:NH1	2.31	0.44
5:B:39:ARG:HG2	5:B:39:ARG:HH11	1.81	0.44
5:B:642:ASP:CA	5:B:649:LYS:HA	2.40	0.44
5:B:750:GLY:O	5:B:751:VAL:C	2.55	0.44
5:B:899:ILE:HD13	5:B:905:VAL:HG11	1.98	0.44
5:B:910:VAL:HG12	5:B:911:ILE:N	2.32	0.44
4:A:253:ASN:HB3	5:B:935:ARG:NH1	2.31	0.44
6:C:27:LEU:O	6:C:28:ALA:C	2.55	0.44
7:D:135:GLY:C	7:D:137:ASN:H	2.20	0.44
13:J:52:THR:O	13:J:53:HIS:C	2.55	0.44
15:L:27:LEU:N	15:L:27:LEU:HD23	2.32	0.44
4:M:1146:VAL:HG11	4:M:1207:LEU:HD12	1.99	0.44
4:M:108:MET:HB3	4:M:210:ILE:CD1	2.46	0.44
4:M:475:THR:CG2	4:M:476:SER:H	2.29	0.44
4:M:474:VAL:HG22	4:M:478:TYR:CE1	2.53	0.44
4:M:500:GLU:OE2	5:N:1145:SER:N	2.49	0.44
4:M:800:VAL:HG11	4:M:808:LEU:HG	1.99	0.44
4:M:853:ASP:C	4:M:853:ASP:OD1	2.55	0.44
4:M:958:VAL:HG22	4:M:1052:GLN:HB3	1.99	0.44
4:M:412:ARG:HH22	5:N:1108:ARG:HH12	1.64	0.44
5:N:579:ARG:N	5:N:589:VAL:HG13	2.31	0.44
5:N:997:GLU:CD	5:N:997:GLU:H	2.19	0.44
6:O:241:ASP:OD1	6:O:242:GLN:N	2.44	0.44
6:O:258:ILE:HD12	6:O:258:ILE:N	2.32	0.44
6:O:44:LEU:CD2	6:O:159:ALA:HB1	2.46	0.44
7:P:134:THR:HG22	7:P:135:GLY:H	1.81	0.44
7:P:24:ALA:C	7:P:26:THR:N	2.70	0.44
9:R:123:LYS:O	9:R:124:GLU:C	2.55	0.44
4:M:1151:GLU:HA	12:U:44:TYR:O	2.16	0.44
13:V:43:ARG:HG2	13:V:43:ARG:H	1.62	0.44
15:X:43:THR:O	15:X:43:THR:HG22	2.17	0.44
2:5:18:TT:H1'	2:5:18:TT:H5R1	1.99	0.44
4:A:1114:PRO:HB2	4:A:1311:VAL:HG23	1.99	0.44
4:A:248:PRO:O	4:A:260:ASP:HB2	2.17	0.44
4:A:645:LEU:O	4:A:646:PHE:C	2.55	0.44
4:A:666:ILE:HD12	4:A:667:GLY:N	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:235:SER:O	5:B:236:HIS:HD2	2.00	0.44
5:B:579:ARG:N	5:B:589:VAL:HG13	2.30	0.44
5:B:730:ARG:O	5:B:731:VAL:O	2.34	0.44
5:B:825:VAL:HG13	5:B:826:ALA:N	2.32	0.44
6:C:105:GLY:HA3	6:C:149:LYS:O	2.16	0.44
5:B:1001:PHE:HD2	6:C:34:ARG:NH2	2.14	0.44
10:G:34:VAL:HG11	10:G:74:TYR:CE1	2.52	0.44
10:G:44:TYR:CD2	10:G:105:PRO:HB2	2.52	0.44
10:G:59:GLY:CA	10:G:70:PHE:CD2	3.00	0.44
11:H:41:ASP:OD2	11:H:122:LEU:N	2.47	0.44
15:L:40:LEU:HD22	15:L:44:ASP:CG	2.38	0.44
4:M:1356:ILE:HG22	4:M:1356:ILE:O	2.18	0.44
4:M:1398:MET:HB2	4:M:1426:GLU:OE2	2.17	0.44
4:M:24:PRO:HD2	4:M:233:TRP:CD1	2.52	0.44
4:M:356:ASP:C	4:M:358:ASN:H	2.20	0.44
4:M:506:ALA:O	4:M:509:LEU:HB2	2.17	0.44
5:N:1135:ARG:O	5:N:1137:CYS:N	2.50	0.44
4:M:7:SER:CB	5:N:1175:LEU:HD22	2.47	0.44
9:R:89:GLU:HB3	9:R:134:ILE:HD13	1.99	0.44
11:T:84:ALA:HA	11:T:87:ARG:CB	2.37	0.44
12:U:77:LYS:O	12:U:79:HIS:N	2.50	0.44
14:W:61:TYR:CD2	14:W:61:TYR:O	2.70	0.44
1:4:1:DA:C2'	1:4:2:DA:O5'	2.66	0.44
4:A:1265:ASN:O	4:A:1267:MET:N	2.50	0.44
4:A:1349:TYR:CA	4:A:1372:VAL:HG21	2.47	0.44
4:A:93:VAL:HG21	4:A:301:ALA:O	2.16	0.44
4:A:974:ASP:C	4:A:976:THR:H	2.21	0.44
5:B:1182:CYS:O	5:B:1183:LYS:C	2.55	0.44
5:B:332:ASP:OD1	5:B:336:ARG:NE	2.51	0.44
5:B:370:PHE:HE2	5:B:373:ARG:NH1	2.16	0.44
5:B:376:PHE:HE2	5:B:569:TYR:HD2	1.64	0.44
5:B:616:ILE:CD1	5:B:616:ILE:N	2.78	0.44
5:B:762:ASN:OD1	5:B:1024:ALA:HB3	2.17	0.44
5:B:807:ARG:O	5:B:811:TYR:HE1	1.99	0.44
5:B:955:THR:HG23	15:L:54:ARG:O	2.17	0.44
7:D:53:SER:CB	7:D:153:ARG:H	2.31	0.44
10:G:96:GLN:HB3	10:G:121:PHE:CE2	2.53	0.44
10:G:18:PHE:HA	10:G:22:MET:CE	2.47	0.44
4:M:971:PHE:HE2	4:M:1040:GLN:HG2	1.78	0.44
4:M:12:ARG:HD2	5:N:1218:THR:HB	1.98	0.44
4:M:1325:THR:O	4:M:1325:THR:CG2	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:172:PRO:HB3	4:M:185:TRP:CD2	2.51	0.44
4:M:90:VAL:HG11	4:M:297:GLN:HA	1.97	0.44
4:M:577:ILE:O	4:M:578:LEU:C	2.55	0.44
4:M:711:ARG:NH2	12:U:87:GLN:OE1	2.50	0.44
5:N:128:LEU:HB2	5:N:168:GLY:O	2.18	0.44
5:N:388:CYS:C	5:N:390:LEU:N	2.71	0.44
5:N:778:MET:HE2	5:N:1094:ARG:CG	2.45	0.44
5:N:1084:GLN:OE1	6:O:189:THR:CG2	2.65	0.44
6:O:73:GLN:NE2	6:O:74:SER:H	2.15	0.44
7:P:64:VAL:O	7:P:66:ARG:N	2.51	0.44
8:Q:136:ASN:OD1	8:Q:137:GLU:N	2.51	0.44
8:Q:73:PRO:O	8:Q:75:MET:N	2.47	0.44
10:S:3:PHE:CE1	10:S:80:LYS:HE2	2.53	0.44
11:T:84:ALA:C	11:T:86:ASP:N	2.70	0.44
6:O:47:ASP:CA	15:X:69:ALA:CB	2.92	0.44
4:A:1437:GLY:CA	9:F:88:TYR:CD2	3.01	0.44
4:A:35:ILE:CD1	4:A:241:VAL:HG21	2.46	0.44
4:A:285:PRO:O	4:A:287:HIS:N	2.50	0.44
4:A:914:GLU:HB2	4:A:979:SER:O	2.17	0.44
5:B:1084:GLN:C	5:B:1085:ILE:HD12	2.38	0.44
5:B:953:LEU:HD23	5:B:965:LYS:H	1.82	0.44
5:B:979:LYS:HG2	5:B:1095:LEU:CD1	2.47	0.44
6:C:55:THR:O	6:C:55:THR:HG22	2.16	0.44
6:C:89:GLU:O	6:C:90:ASP:HB3	2.18	0.44
8:E:205:SER:O	8:E:206:GLY:C	2.56	0.44
8:E:30:ILE:HG22	8:E:31:THR:N	2.31	0.44
10:G:114:LEU:HG	10:G:162:SER:HB3	1.99	0.44
10:G:23:LYS:HG3	10:G:56:ILE:HD12	1.95	0.44
11:H:40:LEU:HD22	11:H:123:MET:HE2	1.99	0.44
4:A:562:THR:HB	11:H:98:TYR:CD2	2.53	0.44
4:M:1013:ASP:O	4:M:1015:VAL:N	2.50	0.44
4:M:1336:MET:HE2	4:M:1381:LEU:HG	1.99	0.44
4:M:172:PRO:HD3	4:M:185:TRP:NE1	2.32	0.44
4:M:241:VAL:HG12	4:M:241:VAL:O	2.16	0.44
4:M:34:LYS:H	4:M:57:ARG:HH21	1.62	0.44
4:M:549:MET:SD	4:M:577:ILE:CD1	3.04	0.44
4:M:647:GLY:O	4:M:651:LYS:HG3	2.16	0.44
4:M:695:LYS:C	4:M:697:ALA:N	2.71	0.44
4:M:738:LYS:C	4:M:740:LEU:H	2.21	0.44
4:M:981:LEU:HD21	4:M:1038:THR:C	2.37	0.44
5:N:1084:GLN:C	5:N:1085:ILE:HD12	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:777:ALA:HB1	5:N:1093:GLN:HB3	2.00	0.44
5:N:189:LEU:O	5:N:190:TYR:C	2.56	0.44
5:N:189:LEU:O	5:N:192:LEU:HB2	2.17	0.44
5:N:251:ILE:HG22	5:N:251:ILE:O	2.17	0.44
5:N:298:LEU:HD23	5:N:298:LEU:H	1.82	0.44
5:N:314:LEU:O	5:N:317:CYS:HB3	2.17	0.44
5:N:400:HIS:O	5:N:402:GLY:N	2.51	0.44
2:5:24:DG:OP1	5:N:857:ARG:NH2	2.50	0.44
6:O:209:TYR:CD1	6:O:209:TYR:N	2.85	0.44
10:S:31:LEU:HD22	10:S:48:VAL:HG21	1.99	0.44
12:U:56:ALA:O	12:U:57:GLY:O	2.36	0.44
14:W:58:PHE:HB3	14:W:76:GLN:HB3	1.99	0.44
4:A:1396:ALA:O	4:A:1397:LEU:C	2.56	0.44
4:A:19:PHE:HB3	4:A:1413:GLY:HA2	1.99	0.44
4:A:252:PHE:HB2	4:A:256:GLN:CD	2.37	0.44
4:A:404:TYR:HB2	4:A:433:GLU:HB2	1.98	0.44
4:A:839:ARG:O	4:A:840:ARG:C	2.55	0.44
4:A:901:LEU:HG	4:A:926:GLN:NE2	2.22	0.44
5:B:1110:PRO:HB2	5:B:1119:VAL:CG2	2.48	0.44
5:B:361:LEU:N	5:B:362:PRO:CD	2.81	0.44
5:B:378:LEU:CD1	5:B:382:ILE:HD11	2.48	0.44
6:C:11:ARG:HD3	6:C:209:TYR:CE2	2.51	0.44
6:C:246:ARG:HA	6:C:249:ASP:HB3	1.99	0.44
8:E:35:VAL:O	8:E:37:LEU:N	2.51	0.44
9:F:77:ASP:C	9:F:79:ARG:N	2.70	0.44
4:M:653:VAL:O	4:M:654:ASN:C	2.55	0.44
4:M:779:PHE:O	4:M:780:VAL:C	2.56	0.44
4:M:888:GLY:O	4:M:940:ARG:NH2	2.50	0.44
5:N:654:ARG:N	5:N:657:HIS:HD2	2.04	0.44
5:N:39:ARG:HH21	5:N:665:GLU:CG	2.30	0.44
8:Q:134:THR:C	8:Q:135:PHE:HD1	2.21	0.44
9:R:89:GLU:HB3	9:R:134:ILE:CD1	2.46	0.44
13:V:1:MET:H3	13:V:56:LEU:N	2.16	0.44
13:V:56:LEU:O	13:V:59:LYS:N	2.46	0.44
2:2:10:DA:H2"	2:2:11:DG:OP2	2.17	0.44
4:A:1053:PHE:O	4:A:1055:ARG:N	2.49	0.44
4:A:1409:LEU:O	4:A:1412:ALA:HB3	2.17	0.44
4:A:299:HIS:C	4:A:301:ALA:N	2.70	0.44
4:A:575:LYS:NZ	4:A:615:GLY:H	2.16	0.44
5:B:1033:LYS:NZ	5:B:1068:GLY:O	2.50	0.44
5:B:486:TYR:CZ	5:B:1096:ARG:HB3	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:113:TYR:CD2	5:B:192:LEU:HD22	2.53	0.44
5:B:123:THR:O	5:B:125:SER:N	2.50	0.44
5:B:180:TYR:N	5:B:180:TYR:CD1	2.81	0.44
5:B:263:GLY:O	5:B:264:SER:C	2.56	0.44
5:B:654:ARG:C	5:B:656:GLY:N	2.70	0.44
5:B:654:ARG:N	5:B:657:HIS:HD2	2.05	0.44
5:B:763:GLN:HG2	5:B:765:PRO:HD2	1.99	0.44
5:B:842:ASN:ND2	5:B:845:SER:CB	2.78	0.44
5:B:983:ARG:HD2	5:B:1091:TYR:CD2	2.48	0.44
7:D:18:VAL:O	7:D:19:GLU:HB3	2.18	0.44
9:F:86:THR:HG23	9:F:89:GLU:OE1	2.17	0.44
12:I:12:ASN:HB3	12:I:13:MET:H	1.56	0.44
12:I:8:ARG:CG	12:I:34:TYR:HE1	2.18	0.44
4:M:1120:LEU:CD1	4:M:1304:TRP:O	2.65	0.44
4:M:220:THR:O	4:M:221:SER:C	2.54	0.44
4:M:341:MET:HE2	4:M:843:LYS:NZ	2.33	0.44
4:M:443:LEU:O	4:M:489:LEU:HD12	2.17	0.44
4:M:472:LEU:CD1	5:N:835:GLN:CD	2.85	0.44
4:M:784:LEU:HB3	4:M:785:PRO:HD2	2.00	0.44
4:M:845:LEU:HD22	4:M:1374:VAL:HG21	2.00	0.44
5:N:1187:ASN:O	5:N:1188:LYS:CB	2.52	0.44
5:N:219:ALA:HB2	5:N:405:ARG:NH1	2.33	0.44
5:N:168:GLY:HA2	5:N:454:THR:OG1	2.18	0.44
5:N:54:PHE:O	5:N:58:THR:HB	2.17	0.44
5:N:744:HIS:HD2	5:N:746:SER:CB	2.30	0.44
5:N:859:TYR:CD1	5:N:859:TYR:N	2.86	0.44
5:N:899:ILE:HD13	5:N:905:VAL:HG11	1.99	0.44
4:A:1260:LEU:CG	4:A:1260:LEU:O	2.65	0.44
4:A:399:HIS:CG	4:A:400:PRO:N	2.82	0.44
4:A:34:LYS:N	4:A:57:ARG:NH2	2.62	0.44
4:A:767:GLN:HE21	4:A:774:ARG:HB3	1.83	0.44
5:B:309:GLN:CD	12:I:52:ILE:HD11	2.36	0.44
5:B:559:SER:HA	5:B:563:MET:HB3	1.99	0.44
5:B:603:LEU:HB3	5:B:609:ILE:HG13	1.99	0.44
7:D:187:THR:HG22	7:D:188:ALA:H	1.82	0.44
7:D:192:LYS:HE3	7:D:204:ASP:OD1	2.17	0.44
11:H:127:GLY:O	11:H:128:ASN:CB	2.66	0.44
11:H:84:ALA:C	11:H:86:ASP:N	2.71	0.44
4:M:939:ASP:OD1	4:M:1023:ARG:NH1	2.51	0.44
4:M:1074:GLU:N	4:M:1075:PRO:HD2	2.32	0.44
4:M:1118:VAL:O	4:M:1305:VAL:HG13	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:207:ILE:O	4:M:208:LEU:C	2.56	0.44
4:M:353:ILE:HD13	4:M:487:MET:CE	2.48	0.44
4:M:349:ALA:HB1	4:M:370:ILE:HD13	2.00	0.44
4:M:826:ASP:HB2	4:M:830:LYS:HD3	2.00	0.44
5:N:254:LEU:HD23	5:N:381:MET:CE	2.47	0.44
5:N:27:ALA:C	5:N:29:ASP:H	2.21	0.44
5:N:597:MET:O	5:N:600:LEU:N	2.47	0.44
5:N:789:MET:HE2	5:N:953:LEU:HD22	1.98	0.44
5:N:990:ILE:CG2	5:N:991:GLY:N	2.81	0.44
6:O:105:GLY:HA3	6:O:149:LYS:O	2.17	0.44
10:S:83:LYS:HE2	10:S:150:CYS:H	1.83	0.44
10:S:39:THR:O	10:S:43:GLY:HA2	2.17	0.44
11:T:12:VAL:HA	11:T:28:ALA:HB2	1.99	0.44
13:V:57:ILE:HA	13:V:60:PHE:CD2	2.48	0.44
4:A:250:ILE:O	4:A:258:GLY:HA3	2.18	0.44
4:A:567:LYS:HG3	4:A:568:PRO:CD	2.45	0.44
4:A:981:LEU:HD21	4:A:1038:THR:C	2.37	0.44
5:B:34:ILE:O	5:B:37:PHE:N	2.51	0.44
5:B:802:PRO:HB3	5:B:1091:TYR:CD2	2.53	0.44
5:B:936:ASP:OD1	5:B:937:ALA:N	2.50	0.44
4:M:1116:LEU:CB	4:M:1308:THR:HG21	2.46	0.44
4:M:244:PRO:CB	4:M:245:PRO:CD	2.95	0.44
5:N:1064:TYR:O	5:N:1065:GLN:C	2.56	0.44
5:N:1130:PHE:HZ	5:N:1138:MET:HG2	1.83	0.44
5:N:798:TYR:CE2	6:O:62:PHE:HE2	2.36	0.44
5:N:860:MET:CG	5:N:861:ASP:N	2.80	0.44
7:P:52:LEU:C	7:P:54:GLU:N	2.68	0.44
10:S:112:LYS:NZ	10:S:120:THR:HA	2.33	0.44
10:S:115:MET:CB	10:S:116:PRO:CD	2.96	0.44
13:V:53:HIS:NE2	13:V:55:ASP:HA	2.33	0.44
13:V:57:ILE:HG23	13:V:58:GLU:N	2.32	0.44
14:W:78:THR:O	14:W:81:TYR:HB3	2.18	0.44
15:X:27:LEU:HD23	15:X:27:LEU:N	2.33	0.44
2:2:21:DC:H2'	2:2:22:BRU:BR	2.73	0.44
4:A:1199:ARG:O	4:A:1202:MET:HB2	2.18	0.44
4:A:98:LYS:O	4:A:100:LYS:N	2.50	0.44
4:A:1431:GLY:HA3	5:B:1152:MET:SD	2.58	0.44
5:B:273:LEU:HD12	5:B:280:ILE:HD12	2.00	0.44
5:B:310:MET:O	5:B:313:MET:HB2	2.18	0.44
5:B:360:PHE:O	5:B:361:LEU:C	2.55	0.44
10:G:49:LEU:HD21	10:G:77:VAL:HG23	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:123:MET:HE3	11:H:142:LEU:HD22	2.00	0.44
12:I:61:ASP:C	12:I:63:GLY:N	2.71	0.44
13:J:41:LEU:HD23	13:J:41:LEU:N	2.32	0.44
4:M:1227:ILE:CG2	4:M:1228:TRP:N	2.80	0.44
4:M:289:ILE:C	4:M:291:GLU:N	2.71	0.44
4:M:535:THR:CG2	4:M:575:LYS:HE2	2.47	0.44
4:M:91:PHE:HB2	4:M:297:GLN:NE2	2.33	0.44
5:N:259:TYR:N	5:N:259:TYR:HD1	2.15	0.44
5:N:242:SER:HB2	5:N:362:PRO:HG2	1.99	0.44
5:N:616:ILE:CD1	5:N:616:ILE:N	2.77	0.44
5:N:877:PRO:C	5:N:878:GLN:HG3	2.38	0.44
6:O:104:PHE:HD2	6:O:105:GLY:H	1.64	0.44
7:P:153:ARG:C	7:P:154:PHE:CD1	2.91	0.44
4:A:452:LYS:HB3	4:A:452:LYS:HE2	1.79	0.43
4:A:472:LEU:O	4:A:475:THR:CB	2.63	0.43
4:A:374:LEU:HD13	4:A:491:VAL:CG2	2.48	0.43
4:A:63:ARG:HA	4:A:74:MET:HE2	1.99	0.43
4:A:527:THR:O	4:A:653:VAL:HG11	2.18	0.43
4:A:845:LEU:O	4:A:846:GLU:O	2.35	0.43
4:A:886:ILE:HG13	4:A:943:LEU:CD1	2.47	0.43
4:A:7:SER:CB	5:B:1175:LEU:HD22	2.48	0.43
5:B:458:LYS:O	5:B:459:TYR:C	2.55	0.43
5:B:899:ILE:HG21	5:B:949:VAL:HG21	1.99	0.43
6:C:100:THR:HG22	6:C:101:LEU:H	1.82	0.43
6:C:86:CYS:O	6:C:88:CYS:N	2.51	0.43
7:D:51:ASN:C	7:D:52:LEU:O	2.53	0.43
8:E:48:ASP:CG	8:E:49:SER:N	2.71	0.43
9:F:143:PHE:C	9:F:143:PHE:HD1	2.20	0.43
11:H:31:THR:O	11:H:31:THR:HG22	2.17	0.43
12:I:69:PRO:HB2	12:I:85:PHE:CE2	2.53	0.43
14:K:78:THR:O	14:K:81:TYR:HB3	2.18	0.43
4:M:1036:ARG:CG	4:M:1036:ARG:HH11	2.28	0.43
4:M:1215:ARG:HA	4:M:1215:ARG:HD2	1.75	0.43
4:M:1277:GLU:C	4:M:1279:ILE:H	2.21	0.43
4:M:1327:ILE:HG22	8:Q:147:HIS:HE1	1.82	0.43
4:M:1385:THR:O	4:M:1388:GLY:N	2.49	0.43
4:M:344:ARG:C	4:M:345:VAL:CG1	2.84	0.43
4:M:452:LYS:HE2	4:M:452:LYS:HB3	1.84	0.43
4:M:907:THR:HG22	4:M:908:LEU:N	2.31	0.43
5:N:1081:LEU:HD12	5:N:1085:ILE:HD11	2.00	0.43
5:N:294:ASP:C	5:N:296:GLU:H	2.20	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:309:GLN:CG	12:U:52:ILE:HD11	2.47	0.43
5:N:449:ASN:O	5:N:451:LYS:N	2.51	0.43
7:P:18:VAL:O	7:P:19:GLU:HB3	2.18	0.43
8:Q:60:PHE:CE2	8:Q:80:VAL:HB	2.52	0.43
9:R:77:ASP:C	9:R:79:ARG:N	2.71	0.43
12:U:51:ASN:O	12:U:54:GLU:HG3	2.17	0.43
13:V:3:VAL:HG21	13:V:18:TRP:CG	2.53	0.43
5:N:800:GLN:CB	13:V:52:THR:HG22	2.47	0.43
15:X:58:LYS:O	15:X:59:ALA:O	2.35	0.43
4:A:114:LEU:O	4:A:115:LEU:HG	2.18	0.43
4:A:23:SER:CB	4:A:233:TRP:NE1	2.80	0.43
4:A:93:VAL:CG1	4:A:301:ALA:HB1	2.36	0.43
4:A:873:MET:HG2	4:A:957:PRO:HB3	2.00	0.43
5:B:1060:ARG:C	5:B:1062:HIS:H	2.21	0.43
4:A:341:MET:CE	5:B:1135:ARG:NH1	2.80	0.43
5:B:222:ILE:O	5:B:240:ILE:HA	2.18	0.43
5:B:336:ARG:NH2	5:B:345:LYS:CE	2.75	0.43
6:C:62:PHE:O	6:C:66:ARG:HG3	2.17	0.43
6:C:8:VAL:HG12	6:C:9:LYS:N	2.33	0.43
7:D:119:ARG:HG2	7:D:120:GLU:N	2.32	0.43
7:D:153:ARG:C	7:D:154:PHE:CD1	2.92	0.43
7:D:177:VAL:O	7:D:177:VAL:HG12	2.17	0.43
4:A:1059:HIS:CE1	9:F:87:LYS:H	2.36	0.43
9:F:99:LEU:HD12	9:F:99:LEU:O	2.18	0.43
11:H:24:CYS:HB2	11:H:44:VAL:HG21	1.99	0.43
5:B:900:ALA:HB3	15:L:61:THR:OG1	2.18	0.43
4:M:1397:LEU:HB2	4:M:1426:GLU:OE1	2.18	0.43
4:M:334:GLY:O	4:M:335:ARG:C	2.56	0.43
4:M:449:SER:O	5:N:1133:MET:HB3	2.19	0.43
4:M:562:THR:HB	11:T:98:TYR:CD2	2.52	0.43
4:M:546:VAL:HG21	4:M:572:TRP:HB2	2.00	0.43
4:M:701:LEU:HD23	12:U:115:LYS:HE3	1.99	0.43
4:M:728:LYS:HA	4:M:731:ARG:HB2	2.00	0.43
5:N:1060:ARG:C	5:N:1062:HIS:H	2.22	0.43
5:N:96:TYR:HE1	5:N:131:ASP:OD2	2.00	0.43
5:N:235:SER:C	5:N:236:HIS:HD2	2.22	0.43
5:N:293:PRO:HG2	5:N:296:GLU:HB2	2.00	0.43
5:N:597:MET:O	5:N:599:THR:N	2.51	0.43
5:N:707:PRO:O	5:N:711:GLU:HG3	2.18	0.43
5:N:957:ASN:O	5:N:960:GLY:N	2.50	0.43
6:O:146:LYS:C	6:O:147:LEU:HD23	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:O:254:LYS:C	6:O:256:ALA:N	2.71	0.43
6:O:31:ASN:O	6:O:34:ARG:HB3	2.18	0.43
6:O:74:SER:HB2	6:O:77:ILE:CG1	2.47	0.43
7:P:40:HIS:CB	10:S:73:LYS:HZ2	2.31	0.43
8:Q:177:ARG:HG2	8:Q:213:ILE:HG22	1.99	0.43
8:Q:92:THR:O	8:Q:92:THR:HG22	2.18	0.43
10:S:22:MET:O	10:S:23:LYS:C	2.56	0.43
10:S:80:LYS:O	10:S:82:PHE:CE1	2.70	0.43
2:2:12:DT:H1'	2:2:13:DA:H5'	1.99	0.43
2:5:15:DT:C2'	2:5:16:DT:H71	2.45	0.43
4:A:1118:VAL:O	4:A:1305:VAL:HG13	2.17	0.43
4:A:263:THR:HG22	4:A:263:THR:O	2.17	0.43
4:A:335:ARG:O	4:A:336:ILE:C	2.54	0.43
4:A:626:ASN:C	4:A:628:GLY:H	2.21	0.43
5:B:34:ILE:O	5:B:35:SER:C	2.57	0.43
5:B:802:PRO:HA	5:B:822:ASN:HD21	1.83	0.43
5:B:834:ASN:CA	5:B:838:SER:O	2.66	0.43
5:B:978:ASP:O	5:B:989:THR:HB	2.18	0.43
6:C:70:ILE:HG22	6:C:70:ILE:O	2.17	0.43
6:C:77:ILE:C	6:C:79:GLN:H	2.21	0.43
8:E:114:ASN:O	8:E:115:ASN:CB	2.63	0.43
8:E:131:THR:HG21	8:E:191:LYS:NZ	2.34	0.43
8:E:42:PHE:HZ	8:E:58:MET:HE1	1.83	0.43
8:E:90:VAL:O	8:E:90:VAL:HG22	2.18	0.43
11:H:43:ASN:OD1	11:H:46:LEU:HG	2.18	0.43
14:K:55:LYS:CB	14:K:81:TYR:HE1	2.31	0.43
14:K:82:ASP:OD1	14:K:84:LYS:N	2.47	0.43
15:L:30:ILE:HD11	15:L:59:ALA:HB2	2.00	0.43
15:L:40:LEU:HD22	15:L:44:ASP:CB	2.47	0.43
4:M:299:HIS:C	4:M:301:ALA:H	2.21	0.43
4:M:701:LEU:HD23	12:U:115:LYS:HG3	1.99	0.43
4:M:890:ASP:H	4:M:1296:GLY:HA3	1.83	0.43
5:N:205:ILE:O	5:N:206:ASN:C	2.57	0.43
5:N:372:SER:O	5:N:376:PHE:HD1	2.01	0.43
5:N:387:LEU:O	5:N:392:ARG:HB2	2.18	0.43
4:M:817:ALA:HA	5:N:764:SER:OG	2.18	0.43
5:N:900:ALA:HB3	15:X:61:THR:OG1	2.18	0.43
6:O:22:LEU:CD2	6:O:25:VAL:HG21	2.48	0.43
7:P:192:LYS:NZ	7:P:192:LYS:CB	2.81	0.43
7:P:29:LEU:HD22	10:S:82:PHE:CD2	2.53	0.43
10:S:20:PRO:CD	10:S:21:ARG:H	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:T:113:ALA:HB1	11:T:125:LEU:O	2.18	0.43
13:V:53:HIS:CD2	13:V:53:HIS:C	2.90	0.43
4:A:1157:ASP:C	4:A:1159:ARG:H	2.21	0.43
4:A:1365:TYR:O	4:A:1367:HIS:N	2.50	0.43
4:A:1401:SER:O	4:A:1402:PHE:CB	2.67	0.43
4:A:365:GLY:O	4:A:468:PHE:HA	2.19	0.43
4:A:47:ARG:O	4:A:48:ALA:HB2	2.18	0.43
4:A:49:LYS:HZ1	4:A:61:ILE:CG1	2.29	0.43
4:A:53:LEU:CD2	4:A:54:ASN:N	2.55	0.43
4:A:601:LYS:HB2	4:A:603:ASN:HD21	1.83	0.43
4:A:767:GLN:HA	4:A:799:PHE:HA	1.99	0.43
4:A:78:PRO:HA	5:B:1201:LYS:NZ	2.33	0.43
4:A:77:CYS:O	4:A:78:PRO:O	2.37	0.43
4:A:857:ARG:HD3	4:A:861:GLY:O	2.18	0.43
4:A:867:ILE:CG2	4:A:872:GLY:N	2.81	0.43
4:A:89:PRO:HB3	4:A:208:LEU:HD12	2.00	0.43
5:B:1013:ASN:OD1	5:B:1015:HIS:N	2.39	0.43
5:B:603:LEU:HB3	5:B:609:ILE:CD1	2.48	0.43
6:C:193:TYR:HD2	6:C:197:SER:HB3	1.83	0.43
7:D:167:LEU:HB3	7:D:177:VAL:HG13	2.00	0.43
7:D:59:ILE:O	7:D:60:LYS:C	2.57	0.43
8:E:197:LYS:HE2	8:E:199:ILE:HD11	2.00	0.43
8:E:198:ILE:HD11	8:E:212:ARG:CG	2.40	0.43
11:H:10:PHE:CE1	11:H:57:VAL:HB	2.53	0.43
13:J:43:ARG:HG2	13:J:43:ARG:H	1.65	0.43
4:M:1066:VAL:O	4:M:1070:GLN:HG3	2.18	0.43
4:M:1076:ALA:HA	4:M:1079:MET:HE3	2.00	0.43
4:M:1150:SER:HA	4:M:1195:LEU:HD23	1.99	0.43
4:M:1377:THR:O	4:M:1378:GLN:C	2.56	0.43
4:M:1409:LEU:HD23	4:M:1409:LEU:HA	1.83	0.43
4:M:679:ILE:O	4:M:682:THR:N	2.51	0.43
4:M:821:ARG:HD2	4:M:825:ILE:HD11	2.01	0.43
4:M:862:ASN:O	4:M:864:ILE:HG13	2.18	0.43
5:N:295:GLY:O	5:N:299:GLU:HG3	2.18	0.43
5:N:936:ASP:OD1	5:N:937:ALA:N	2.52	0.43
7:P:170:THR:HG21	7:P:172:LEU:CD1	2.48	0.43
10:S:139:ILE:HG22	10:S:140:LYS:N	2.34	0.43
10:S:1:MET:O	10:S:3:PHE:HD1	1.99	0.43
10:S:1:MET:HE1	10:S:80:LYS:H	1.82	0.43
11:T:80:ARG:HA	11:T:81:PRO:HD3	1.72	0.43
11:T:98:TYR:C	11:T:118:PHE:HD2	2.21	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:U:59:VAL:C	12:U:61:ASP:H	2.21	0.43
14:W:90:ALA:O	14:W:94:ILE:HG13	2.19	0.43
4:A:868:TYR:HE1	4:A:1064:VAL:HG11	1.75	0.43
4:A:113:LEU:HG	4:A:218:ASP:OD1	2.18	0.43
4:A:1215:ARG:HA	4:A:1218:GLN:HG2	1.99	0.43
4:A:1305:VAL:CG1	4:A:1306:LEU:N	2.81	0.43
4:A:1412:ALA:HA	4:A:1417:GLU:OE2	2.19	0.43
4:A:244:PRO:O	4:A:245:PRO:C	2.56	0.43
4:A:262:LEU:C	4:A:264:PHE:N	2.72	0.43
4:A:274:ILE:O	4:A:275:SER:C	2.57	0.43
4:A:573:SER:O	4:A:576:GLN:HB2	2.18	0.43
4:A:852:TYR:HA	4:A:1060:PRO:HB3	2.00	0.43
5:B:1040:ASN:O	5:B:1041:GLU:C	2.56	0.43
5:B:1065:GLN:HE21	5:B:1066:SER:N	2.15	0.43
5:B:1167:GLY:O	5:B:1215:ARG:HA	2.19	0.43
5:B:583:ASN:HD21	5:B:628:THR:HB	1.83	0.43
6:C:184:ASN:ND2	6:C:187:LYS:HA	2.34	0.43
8:E:46:TYR:CE2	8:E:58:MET:HA	2.53	0.43
4:A:1450:LEU:HD11	9:F:108:PHE:CZ	2.53	0.43
10:G:109:PHE:O	10:G:160:ILE:HA	2.18	0.43
11:H:128:ASN:O	11:H:128:ASN:OD1	2.36	0.43
11:H:95:TYR:HE2	11:H:97:MET:CG	2.32	0.43
4:M:1053:PHE:O	4:M:1055:ARG:N	2.51	0.43
4:M:1171:GLN:HA	4:M:1174:PHE:HD1	1.81	0.43
4:M:1199:ARG:O	4:M:1202:MET:HB2	2.18	0.43
4:M:1220:PHE:O	4:M:1221:LYS:HB2	2.18	0.43
4:M:384:ASN:CG	4:M:388:LEU:HD12	2.39	0.43
4:M:49:LYS:NZ	4:M:60:SER:HA	2.34	0.43
4:M:58:LEU:HD11	4:M:243:PRO:HB2	2.01	0.43
4:M:783:THR:CG2	4:M:815:PHE:CE2	3.02	0.43
4:M:907:THR:HG22	4:M:908:LEU:O	2.18	0.43
5:N:1155:SER:OG	5:N:1156:ASP:N	2.51	0.43
5:N:386:LEU:O	5:N:387:LEU:C	2.56	0.43
5:N:824:ILE:CG2	5:N:1087:PHE:CE2	2.90	0.43
13:V:2:ILE:CG2	13:V:3:VAL:N	2.80	0.43
4:A:1027:ALA:O	4:A:1031:VAL:HG23	2.19	0.43
4:A:1227:ILE:CG2	4:A:1228:TRP:N	2.81	0.43
4:A:1343:ALA:HB2	8:E:150:VAL:CG2	2.45	0.43
4:A:1444:MET:O	9:F:133:VAL:N	2.49	0.43
4:A:339:ASN:O	4:A:343:LYS:HG2	2.18	0.43
4:A:384:ASN:CG	4:A:388:LEU:HD12	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:603:ASN:O	4:A:604:GLY:C	2.56	0.43
4:A:639:PRO:CG	4:A:640:GLN:N	2.82	0.43
4:A:652:VAL:O	4:A:653:VAL:C	2.56	0.43
4:A:71:GLN:C	4:A:73:GLY:N	2.70	0.43
4:A:466:SER:HB3	5:B:1103:ILE:HG12	2.00	0.43
5:B:122:LEU:C	5:B:123:THR:HG1	2.22	0.43
5:B:276:ILE:HD13	5:B:334:ILE:HG23	2.01	0.43
5:B:39:ARG:HG2	5:B:39:ARG:NH1	2.33	0.43
5:B:483:LEU:CD1	5:B:491:THR:HG23	2.37	0.43
5:B:558:LEU:O	5:B:561:TRP:N	2.50	0.43
5:B:903:VAL:HG12	5:B:904:ARG:N	2.34	0.43
5:B:95:ILE:HG13	5:B:130:VAL:CG2	2.49	0.43
6:C:239:PRO:O	6:C:240:VAL:C	2.56	0.43
7:D:7:THR:HG21	7:D:32:GLU:OE2	2.19	0.43
9:F:88:TYR:N	9:F:88:TYR:CD1	2.85	0.43
11:H:83:GLN:O	11:H:85:GLY:N	2.52	0.43
11:H:95:TYR:CE2	11:H:97:MET:CG	3.02	0.43
12:I:55:THR:O	12:I:55:THR:HG22	2.18	0.43
13:J:53:HIS:NE2	13:J:55:ASP:HA	2.34	0.43
14:K:52:ASN:O	14:K:53:ASP:C	2.57	0.43
15:L:29:TYR:CD2	15:L:29:TYR:N	2.85	0.43
5:B:193:LYS:NZ	15:L:32:ALA:HB1	2.33	0.43
4:M:1010:ALA:O	4:M:1011:GLN:C	2.56	0.43
4:M:1219:THR:HG21	4:M:1271:ILE:HG13	1.99	0.43
4:M:1342:GLU:HG3	8:Q:198:ILE:HD13	2.00	0.43
4:M:218:ASP:O	4:M:219:PHE:C	2.57	0.43
4:M:351:THR:CG2	5:N:1103:ILE:HD12	2.48	0.43
4:M:61:ILE:HG22	4:M:62:ASP:N	2.28	0.43
4:M:687:LYS:O	4:M:690:VAL:HB	2.19	0.43
4:M:738:LYS:HG3	4:M:738:LYS:H	1.56	0.43
5:N:1017:ILE:HG22	5:N:1018:PRO:N	2.33	0.43
5:N:339:THR:O	5:N:339:THR:CG2	2.66	0.43
6:O:123:ASN:ND2	6:O:125:MET:SD	2.92	0.43
6:O:246:ARG:HA	6:O:249:ASP:HB3	1.99	0.43
8:Q:191:LYS:O	8:Q:192:ARG:C	2.56	0.43
4:M:699:ALA:HB2	12:U:114:GLN:CD	2.39	0.43
12:U:69:PRO:HG2	12:U:85:PHE:CE2	2.53	0.43
12:U:8:ARG:O	12:U:10:CYS:N	2.52	0.43
4:M:547:LEU:HD13	14:W:58:PHE:CD1	2.53	0.43
2:2:26:DC:H1'	2:2:27:DA:H5'	2.01	0.43
4:A:224:PHE:CE2	4:A:231:PRO:HA	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:26:GLU:O	4:A:27:VAL:C	2.56	0.43
4:A:666:ILE:CD1	4:A:667:GLY:N	2.82	0.43
4:A:845:LEU:HD22	4:A:1374:VAL:HG21	2.00	0.43
5:B:1216:LEU:N	5:B:1216:LEU:HD23	2.34	0.43
5:B:205:ILE:O	5:B:206:ASN:C	2.57	0.43
5:B:294:ASP:O	5:B:296:GLU:N	2.48	0.43
5:B:358:LYS:HA	5:B:366:GLN:HB3	2.01	0.43
5:B:591:ARG:O	5:B:593:PRO:HD3	2.19	0.43
5:B:604:ARG:O	5:B:606:LYS:N	2.52	0.43
6:C:213:PRO:O	6:C:214:ASN:CB	2.65	0.43
7:D:176:GLU:HG2	7:D:197:SER:OG	2.19	0.43
8:E:136:ASN:OD1	8:E:137:GLU:N	2.52	0.43
8:E:153:HIS:O	8:E:154:ILE:CG1	2.66	0.43
10:G:87:VAL:CG2	10:G:103:VAL:HG21	2.48	0.43
4:M:1116:LEU:HB3	4:M:1308:THR:CG2	2.49	0.43
4:M:1157:ASP:C	4:M:1159:ARG:H	2.22	0.43
4:M:244:PRO:HG2	4:M:245:PRO:CD	2.47	0.43
4:M:34:LYS:N	4:M:34:LYS:HD3	2.34	0.43
4:M:940:ARG:HG2	4:M:940:ARG:HH11	1.84	0.43
5:N:1010:LEU:HD12	5:N:1010:LEU:HA	1.78	0.43
5:N:1029:CYS:SG	5:N:1086:PHE:CE2	3.11	0.43
5:N:1074:ASN:HB2	5:N:1081:LEU:HD21	1.99	0.43
5:N:1095:LEU:CD1	5:N:1095:LEU:H	2.23	0.43
5:N:258:LEU:HB2	5:N:385:LEU:HD21	2.01	0.43
5:N:30:SER:HB3	5:N:743:ILE:O	2.19	0.43
5:N:45:SER:O	5:N:46:GLN:C	2.56	0.43
6:O:226:ASP:O	6:O:227:THR:CB	2.60	0.43
6:O:27:LEU:HD13	6:O:228:PHE:HE2	1.83	0.43
6:O:8:VAL:HG12	6:O:9:LYS:N	2.34	0.43
7:P:151:PHE:CD1	7:P:151:PHE:N	2.86	0.43
7:P:153:ARG:HH22	7:P:184:ALA:HA	1.82	0.43
11:T:82:PRO:O	11:T:83:GLN:HB2	2.19	0.43
1:1:1:DA:C1'	1:1:2:DA:C5'	2.90	0.43
4:A:244:PRO:HG2	4:A:245:PRO:HD3	2.00	0.43
4:A:464:PRO:HG2	4:A:465:TYR:CD1	2.54	0.43
4:A:618:GLU:O	4:A:619:LYS:C	2.57	0.43
4:A:650:GLN:HB3	4:A:654:ASN:HD21	1.84	0.43
4:A:679:ILE:O	4:A:682:THR:N	2.50	0.43
4:A:767:GLN:HB2	4:A:799:PHE:HD1	1.82	0.43
4:A:855:THR:HG23	4:A:857:ARG:CG	2.45	0.43
4:A:89:PRO:C	4:A:204:THR:HG21	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1065:GLN:NE2	5:B:1067:ARG:HG2	2.34	0.43
5:B:1165:ILE:CG2	5:B:1166:CYS:N	2.82	0.43
5:B:1156:ASP:HB3	5:B:1197:PRO:HA	2.01	0.43
5:B:343:ILE:HB	5:B:348:ARG:HG3	1.98	0.43
5:B:862:GLN:CG	5:B:963:PHE:HD1	2.32	0.43
7:D:195:ILE:O	7:D:197:SER:N	2.51	0.43
8:E:61:GLN:HG2	8:E:62:ALA:N	2.33	0.43
4:M:1237:ILE:CG2	4:M:1238:ILE:N	2.81	0.43
4:M:1364:ASN:HD22	4:M:1364:ASN:C	2.18	0.43
4:M:264:PHE:O	4:M:267:ALA:N	2.52	0.43
4:M:269:ILE:HG12	4:M:299:HIS:HB3	2.00	0.43
4:M:470:LEU:HD21	4:M:482:PHE:HE2	1.83	0.43
5:N:758:PHE:HB2	5:N:1024:ALA:HB1	2.01	0.43
5:N:18:PHE:CD1	5:N:18:PHE:N	2.86	0.43
5:N:743:ILE:H	5:N:743:ILE:HG12	1.60	0.43
7:P:64:VAL:C	7:P:66:ARG:N	2.72	0.43
7:P:68:ARG:C	7:P:70:PHE:N	2.71	0.43
11:T:40:LEU:HD22	11:T:123:MET:CE	2.49	0.43
12:U:27:PHE:O	12:U:28:GLU:HB3	2.17	0.43
5:N:193:LYS:NZ	15:X:32:ALA:HB1	2.33	0.43
5:N:955:THR:HG23	15:X:54:ARG:O	2.19	0.43
4:A:1013:ASP:C	4:A:1015:VAL:H	2.22	0.43
4:A:834:THR:HG21	4:A:1077:THR:HA	2.00	0.43
4:A:1164:PRO:HG2	4:A:1165:GLU:HG3	2.01	0.43
4:A:172:PRO:HB3	4:A:185:TRP:CD2	2.53	0.43
4:A:218:ASP:HA	4:A:221:SER:OG	2.19	0.43
4:A:262:LEU:O	4:A:264:PHE:N	2.52	0.43
4:A:33:ALA:O	4:A:83:HIS:CD2	2.68	0.43
4:A:34:LYS:H	4:A:57:ARG:HH21	1.65	0.43
4:A:531:ILE:HG12	4:A:531:ILE:O	2.19	0.43
4:A:577:ILE:O	4:A:579:SER:N	2.52	0.43
5:B:1016:ALA:O	5:B:1020:ARG:HG3	2.19	0.43
5:B:96:TYR:HE1	5:B:131:ASP:OD2	2.01	0.43
5:B:27:ALA:C	5:B:29:ASP:H	2.22	0.43
5:B:45:SER:OG	5:B:46:GLN:N	2.50	0.43
5:B:641:GLU:HA	5:B:641:GLU:OE1	2.19	0.43
9:F:124:GLU:HB3	9:F:130:ILE:HG12	1.99	0.43
7:D:175:PHE:HZ	10:G:85:GLU:HG3	1.83	0.43
15:L:36:SER:O	15:L:37:LYS:C	2.57	0.43
4:M:306:ASN:ND2	4:M:322:VAL:HB	2.33	0.43
4:M:491:VAL:HG12	4:M:492:PRO:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:1017:ILE:CB	5:N:1018:PRO:HD3	2.45	0.43
5:N:861:ASP:OD1	5:N:862:GLN:N	2.52	0.43
5:N:866:TYR:HD1	5:N:870:ILE:O	2.01	0.43
5:N:893:LEU:HD22	5:N:897:GLY:C	2.39	0.43
2:2:18:TT:H6	2:2:18:TT:H2'2	1.80	0.43
2:5:12:DT:H1'	2:5:13:DA:H5'	2.00	0.43
4:A:1397:LEU:C	4:A:1400:CYS:HB3	2.39	0.43
4:A:219:PHE:O	4:A:222:LEU:O	2.37	0.43
4:A:392:VAL:O	4:A:393:ARG:C	2.56	0.43
4:A:409:SER:O	4:A:410:GLY:C	2.57	0.43
4:A:588:LEU:O	4:A:606:LEU:HD12	2.19	0.43
4:A:553:VAL:HG13	4:A:648:ASN:HB3	2.01	0.43
4:A:693:VAL:O	4:A:693:VAL:HG12	2.19	0.43
4:A:852:TYR:CD2	4:A:1060:PRO:CB	3.00	0.43
5:B:999:MET:HG2	5:B:1007:VAL:HG22	2.00	0.43
5:B:102:VAL:CG2	5:B:112:LEU:HD22	2.49	0.43
5:B:597:MET:C	5:B:599:THR:N	2.72	0.43
5:B:597:MET:C	5:B:599:THR:H	2.22	0.43
5:B:744:HIS:HD2	5:B:746:SER:CB	2.32	0.43
6:C:242:GLN:O	6:C:244:VAL:N	2.52	0.43
6:C:259:LEU:HD13	14:K:91:CYS:HB2	2.01	0.43
8:E:93:MET:SD	8:E:97:VAL:HG23	2.59	0.43
13:J:1:MET:O	13:J:1:MET:HG3	2.19	0.43
4:M:1004:ASN:O	4:M:1008:GLN:HB2	2.19	0.43
4:M:164:ARG:CG	4:M:165:GLY:H	2.22	0.43
4:M:90:VAL:HG13	4:M:297:GLN:CD	2.39	0.43
4:M:406:ILE:HG13	4:M:431:LYS:CB	2.49	0.43
4:M:47:ARG:O	4:M:48:ALA:HB2	2.19	0.43
4:M:53:LEU:O	4:M:54:ASN:C	2.57	0.43
4:M:800:VAL:CG1	4:M:808:LEU:HG	2.49	0.43
5:N:1134:GLU:CD	5:N:1134:GLU:H	2.22	0.43
5:N:1160:VAL:HG11	5:N:1169:MET:SD	2.58	0.43
5:N:487:THR:CG2	5:N:488:TYR:N	2.81	0.43
5:N:634:TYR:HA	5:N:694:ASP:HA	2.01	0.43
5:N:827:ILE:HD12	5:N:1086:PHE:CD2	2.54	0.43
5:N:844:SER:O	5:N:847:ASP:N	2.50	0.43
5:N:97:VAL:HG12	5:N:178:ASN:ND2	2.32	0.43
5:N:983:ARG:HD2	5:N:1091:TYR:CD2	2.54	0.43
5:N:838:SER:HA	5:N:989:THR:O	2.18	0.43
10:S:1:MET:HG3	10:S:85:GLU:OE2	2.18	0.43
4:A:1097:GLY:C	4:A:1099:PRO:HD2	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:598:LEU:O	4:A:598:LEU:CD2	2.67	0.42
4:A:621:THR:O	4:A:629:LEU:HB2	2.20	0.42
4:A:98:LYS:O	4:A:101:LYS:N	2.52	0.42
5:B:1020:ARG:HB2	5:B:1022:THR:HG22	2.01	0.42
5:B:235:SER:C	5:B:236:HIS:HD2	2.22	0.42
5:B:408:LEU:HG	5:B:409:ALA:H	1.84	0.42
5:B:640:VAL:O	5:B:640:VAL:HG12	2.19	0.42
5:B:681:TRP:O	5:B:684:LEU:N	2.51	0.42
5:B:996:ARG:HH21	6:C:175:ALA:HA	1.84	0.42
6:C:175:ALA:HB3	13:J:43:ARG:NH2	2.33	0.42
6:C:213:PRO:HG2	6:C:214:ASN:H	1.84	0.42
7:D:64:VAL:C	7:D:66:ARG:N	2.72	0.42
10:G:6:ASP:HB3	10:G:73:LYS:HZ1	1.83	0.42
14:K:67:PHE:C	14:K:68:PHE:CD2	2.92	0.42
4:M:1243:VAL:CG1	4:M:1244:ARG:N	2.82	0.42
4:M:244:PRO:CG	4:M:245:PRO:HD3	2.49	0.42
4:M:432:VAL:O	4:M:433:GLU:C	2.57	0.42
4:M:453:MET:C	4:M:455:MET:H	2.22	0.42
4:M:774:ARG:HB2	4:M:797:LYS:HB3	2.01	0.42
4:M:18:GLN:O	5:N:1215:ARG:HG2	2.19	0.42
5:N:1223:ASP:HB3	5:N:1224:PHE:H	1.59	0.42
5:N:43:LEU:HD11	5:N:811:TYR:O	2.19	0.42
5:N:825:VAL:HG13	5:N:826:ALA:N	2.34	0.42
7:P:51:ASN:O	7:P:52:LEU:C	2.56	0.42
7:P:55:ALA:O	7:P:56:ARG:C	2.58	0.42
9:R:128:LYS:HD3	9:R:149:GLU:O	2.19	0.42
9:R:77:ASP:O	9:R:78:GLN:HB2	2.19	0.42
11:T:100:THR:HG22	11:T:101:ALA:N	2.34	0.42
11:T:130:ARG:N	11:T:130:ARG:HD2	2.28	0.42
12:U:4:PHE:CD1	12:U:4:PHE:C	2.93	0.42
13:V:14:VAL:CG1	13:V:50:ILE:HD11	2.48	0.42
4:A:1280:GLU:O	4:A:1281:ARG:C	2.57	0.42
4:A:270:LEU:O	4:A:271:LYS:C	2.58	0.42
3:3:10:A:H4'	4:A:485:ASP:OD1	2.19	0.42
4:A:675:THR:OG1	4:A:736:ASN:ND2	2.52	0.42
4:A:809:THR:HG23	4:A:812:GLU:OE1	2.18	0.42
4:A:897:TYR:HD2	4:A:936:LEU:CD1	2.28	0.42
4:A:932:GLU:O	4:A:935:GLN:HB3	2.18	0.42
4:A:981:LEU:CD2	4:A:1039:LYS:CA	2.97	0.42
5:B:339:THR:CG2	5:B:339:THR:O	2.67	0.42
5:B:847:ASP:O	5:B:849:GLY:N	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:48:ILE:CG2	10:G:4:ILE:HB	2.48	0.42
4:M:1425:SER:O	4:M:1426:GLU:C	2.55	0.42
4:M:172:PRO:HB3	4:M:185:TRP:CE2	2.54	0.42
4:M:265:LYS:CE	4:M:322:VAL:HG13	2.48	0.42
4:M:34:LYS:HG2	4:M:36:ARG:NH2	2.34	0.42
4:M:3:GLY:O	4:M:4:GLN:HB2	2.19	0.42
4:M:920:LEU:HD23	4:M:920:LEU:C	2.39	0.42
5:N:803:LEU:HD12	5:N:1032:SER:HB3	2.00	0.42
5:N:1087:PHE:CD2	5:N:1088:GLY:N	2.78	0.42
5:N:977:GLY:HA3	5:N:1099:VAL:HB	2.01	0.42
5:N:234:ILE:O	5:N:261:ARG:NH2	2.51	0.42
5:N:303:TYR:N	5:N:303:TYR:CD2	2.86	0.42
5:N:519:TRP:CD1	5:N:519:TRP:C	2.91	0.42
5:N:405:ARG:HA	5:N:631:GLY:O	2.19	0.42
5:N:897:GLY:O	5:N:898:LEU:HD23	2.19	0.42
5:N:862:GLN:O	5:N:914:LYS:HE3	2.19	0.42
11:T:38:LEU:HD13	11:T:125:LEU:HD13	2.01	0.42
4:A:1032:LEU:O	4:A:1036:ARG:HD3	2.19	0.42
4:A:1161:THR:CG2	4:A:1163:ILE:HG13	2.49	0.42
4:A:1444:MET:O	9:F:132:LEU:HA	2.19	0.42
4:A:34:LYS:N	4:A:34:LYS:HD3	2.34	0.42
4:A:474:VAL:HG22	4:A:478:TYR:HE1	1.83	0.42
4:A:3:GLY:O	4:A:4:GLN:HB2	2.19	0.42
4:A:59:GLY:HA2	4:A:67:CYS:SG	2.58	0.42
4:A:794:PRO:C	4:A:796:SER:H	2.21	0.42
5:B:184:ALA:HB1	5:B:188:ASP:HB3	2.00	0.42
5:B:234:ILE:O	5:B:261:ARG:NH2	2.51	0.42
5:B:549:THR:CG2	5:B:550:ASP:H	2.13	0.42
5:B:957:ASN:O	5:B:958:GLN:C	2.57	0.42
6:C:20:PHE:HE1	6:C:22:LEU:HD12	1.83	0.42
6:C:248:ILE:H	6:C:248:ILE:HG13	1.66	0.42
6:C:69:LEU:O	13:J:6:ARG:HD2	2.19	0.42
7:D:191:ALA:C	7:D:193:THR:N	2.73	0.42
7:D:55:ALA:O	7:D:56:ARG:C	2.58	0.42
8:E:55:ARG:O	8:E:57:MET:N	2.52	0.42
11:H:82:PRO:C	11:H:84:ALA:N	2.73	0.42
4:M:1149:ALA:CB	12:U:47:GLU:HA	2.48	0.42
4:M:1213:GLY:O	4:M:1216:ILE:N	2.51	0.42
4:M:1297:GLU:HG3	4:M:1297:GLU:H	1.47	0.42
4:M:1385:THR:C	4:M:1387:HIS:N	2.72	0.42
4:M:164:ARG:CG	4:M:165:GLY:N	2.70	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:90:VAL:HG13	4:M:297:GLN:OE1	2.19	0.42
4:M:392:VAL:O	4:M:393:ARG:C	2.57	0.42
4:M:960:ILE:O	4:M:961:ARG:C	2.57	0.42
5:N:1167:GLY:H	5:N:1217:TYR:HE1	1.68	0.42
5:N:180:TYR:CD1	5:N:180:TYR:N	2.82	0.42
5:N:234:ILE:HD12	5:N:234:ILE:N	2.33	0.42
5:N:681:TRP:O	5:N:684:LEU:N	2.51	0.42
5:N:800:GLN:CA	13:V:52:THR:HG22	2.49	0.42
6:O:166:GLU:O	6:O:167:HIS:HB2	2.17	0.42
11:T:26:ILE:CG2	11:T:27:GLU:N	2.82	0.42
12:U:109:ILE:O	12:U:109:ILE:HG22	2.18	0.42
12:U:60:GLN:NE2	12:U:107:SER:OG	2.50	0.42
14:W:56:VAL:HG22	14:W:77:THR:HG22	2.01	0.42
2:5:20:DC:H4'	4:M:447:GLN:CD	2.39	0.42
4:A:899:VAL:CG2	4:A:1029:ARG:HG2	2.50	0.42
4:A:1110:ASN:OD1	4:A:1110:ASN:N	2.52	0.42
4:A:42:ASP:HA	4:A:46:THR:O	2.19	0.42
5:B:97:VAL:HG12	5:B:178:ASN:HD21	1.83	0.42
5:B:303:TYR:CD2	5:B:303:TYR:N	2.86	0.42
5:B:386:LEU:C	5:B:388:CYS:N	2.72	0.42
5:B:683:SER:C	5:B:685:LEU:N	2.73	0.42
10:G:151:ILE:HD13	10:S:114:LEU:HD13	2.01	0.42
10:G:14:HIS:CE1	10:G:15:PRO:HD2	2.52	0.42
12:I:7:CYS:HB2	12:I:34:TYR:CD1	2.55	0.42
13:J:13:VAL:C	13:J:14:VAL:HG23	2.39	0.42
13:J:2:ILE:CG2	13:J:3:VAL:N	2.82	0.42
14:K:58:PHE:HB3	14:K:76:GLN:HB3	2.01	0.42
15:L:55:ILE:H	15:L:55:ILE:HG12	1.39	0.42
4:M:1344:GLY:O	4:M:1345:ARG:C	2.56	0.42
4:M:396:PRO:HB3	4:M:403:LYS:HB3	2.01	0.42
4:M:362:ASP:OD2	4:M:459:ARG:HD3	2.20	0.42
4:M:507:VAL:N	4:M:508:PRO:CD	2.82	0.42
4:M:73:GLY:O	4:M:75:ASN:N	2.52	0.42
4:M:829:VAL:C	4:M:831:THR:N	2.72	0.42
5:N:996:ARG:HG2	5:N:1007:VAL:HG11	2.00	0.42
5:N:1080:LYS:HD2	6:O:188:HIS:HB2	2.02	0.42
5:N:1222:ARG:HG2	5:N:1222:ARG:O	2.19	0.42
5:N:604:ARG:C	5:N:606:LYS:H	2.23	0.42
6:O:26:ASP:O	6:O:27:LEU:C	2.54	0.42
5:N:309:GLN:CD	12:U:52:ILE:HD11	2.39	0.42
2:2:23:DG:H2'	2:2:24:DG:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:963:ILE:HD13	4:A:1049:ILE:HG13	2.00	0.42
4:A:1451:VAL:O	4:A:1454:MET:HG2	2.20	0.42
4:A:172:PRO:HB3	4:A:185:TRP:CE2	2.55	0.42
4:A:185:TRP:CZ3	4:A:200:ARG:HG2	2.55	0.42
4:A:219:PHE:CE2	4:A:231:PRO:HD2	2.54	0.42
4:A:546:VAL:HG21	4:A:572:TRP:CE3	2.54	0.42
4:A:58:LEU:HD11	4:A:243:PRO:HB2	2.01	0.42
5:B:996:ARG:HG2	5:B:1007:VAL:HG11	2.01	0.42
5:B:278:GLN:HE22	5:B:337:ARG:HH21	1.66	0.42
5:B:487:THR:O	5:B:490:SER:HB3	2.19	0.42
5:B:810:GLU:HB3	5:B:811:TYR:CE1	2.55	0.42
6:C:241:ASP:OD1	6:C:242:GLN:N	2.46	0.42
4:A:537:ARG:NH1	11:H:120:GLY:O	2.51	0.42
13:J:53:HIS:CD2	13:J:53:HIS:C	2.91	0.42
14:K:65:HIS:CG	14:K:66:PRO:HD2	2.55	0.42
4:M:1401:SER:O	4:M:1402:PHE:HB2	2.19	0.42
4:M:1445:ILE:HD12	10:S:59:GLY:O	2.20	0.42
4:M:262:LEU:C	4:M:264:PHE:H	2.22	0.42
4:M:402:ALA:HB1	4:M:434:ARG:HA	2.01	0.42
4:M:367:PRO:HB3	4:M:465:TYR:O	2.18	0.42
4:M:55:ASP:N	4:M:56:PRO:CD	2.81	0.42
4:M:814:PHE:O	4:M:818:MET:HG3	2.19	0.42
4:M:825:ILE:O	4:M:826:ASP:C	2.56	0.42
4:M:901:LEU:HD22	4:M:919:ILE:HG22	2.01	0.42
5:N:999:MET:HB3	5:N:1007:VAL:HG21	2.01	0.42
4:M:666:ILE:HG12	5:N:1030:LEU:HD22	2.02	0.42
5:N:1065:GLN:HE21	5:N:1066:SER:N	2.16	0.42
5:N:1187:ASN:OD1	5:N:1190:ASP:N	2.53	0.42
5:N:300:HIS:HE1	5:N:376:PHE:CE1	2.38	0.42
5:N:842:ASN:O	5:N:846:ILE:HG13	2.20	0.42
6:O:38:ILE:HA	6:O:173:ALA:HB2	2.01	0.42
6:O:83:SER:C	6:O:85:ASP:H	2.22	0.42
7:P:122:GLU:HA	7:P:125:SER:OG	2.19	0.42
7:P:46:GLU:C	7:P:47:LEU:O	2.57	0.42
4:M:857:ARG:NH1	9:R:139:PRO:HB2	2.34	0.42
10:S:34:VAL:HG11	10:S:74:TYR:HE1	1.82	0.42
14:W:18:LYS:NZ	14:W:37:LYS:O	2.53	0.42
15:X:40:LEU:HD22	15:X:44:ASP:CG	2.40	0.42
15:X:40:LEU:HB3	15:X:41:SER:H	1.64	0.42
4:A:172:PRO:HD3	4:A:185:TRP:NE1	2.34	0.42
4:A:393:ARG:O	4:A:394:ASN:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:492:PRO:CB	4:A:497:THR:HG22	2.50	0.42
5:B:758:PHE:CE1	5:B:1027:ILE:HG22	2.55	0.42
6:C:123:ASN:ND2	6:C:125:MET:SD	2.93	0.42
6:C:99:LEU:O	6:C:156:THR:HA	2.19	0.42
7:D:53:SER:H	7:D:148:LEU:CD2	2.32	0.42
7:D:38:ILE:HG23	7:D:43:GLU:O	2.19	0.42
10:G:111:THR:O	10:G:115:MET:HG3	2.20	0.42
10:G:13:LEU:HD22	10:G:14:HIS:O	2.19	0.42
13:J:32:GLU:CD	13:J:32:GLU:H	2.23	0.42
6:C:29:MET:HE2	14:K:98:LEU:HD21	2.01	0.42
6:C:47:ASP:CA	15:L:69:ALA:CB	2.93	0.42
4:M:1019:CYS:O	4:M:1022:LEU:N	2.53	0.42
4:M:1365:TYR:O	4:M:1366:ARG:C	2.57	0.42
4:M:218:ASP:O	4:M:219:PHE:O	2.37	0.42
4:M:26:GLU:O	4:M:27:VAL:C	2.57	0.42
4:M:326:ARG:HG2	4:M:327:ALA:N	2.34	0.42
4:M:418:SER:C	4:M:420:ARG:H	2.22	0.42
4:M:650:GLN:HB3	4:M:654:ASN:HD21	1.84	0.42
4:M:837:ILE:HA	4:M:840:ARG:HD3	2.02	0.42
5:N:1027:ILE:O	5:N:1028:GLU:C	2.57	0.42
5:N:278:GLN:HG2	5:N:279:ASP:N	2.29	0.42
11:T:99:GLY:HA3	11:T:118:PHE:HA	2.02	0.42
11:T:40:LEU:HD12	11:T:122:LEU:O	2.20	0.42
4:A:1215:ARG:HA	4:A:1215:ARG:HD2	1.73	0.42
4:A:1385:THR:C	4:A:1387:HIS:N	2.71	0.42
4:A:1406:VAL:O	4:A:1407:GLU:C	2.57	0.42
4:A:1444:MET:HG2	10:G:59:GLY:O	2.19	0.42
4:A:1445:ILE:CD1	4:A:1445:ILE:H	2.01	0.42
4:A:1454:MET:HG3	4:A:1454:MET:O	2.19	0.42
4:A:370:ILE:O	4:A:371:ALA:C	2.58	0.42
4:A:645:LEU:HD11	4:A:649:ILE:HD11	2.01	0.42
4:A:70:CYS:O	4:A:70:CYS:SG	2.76	0.42
4:A:768:GLN:HG3	4:A:816:HIS:HA	1.99	0.42
4:A:843:LYS:HA	4:A:843:LYS:HD3	1.87	0.42
5:B:890:TYR:O	5:B:892:LYS:N	2.53	0.42
6:C:168:ALA:C	6:C:170:TRP:N	2.71	0.42
6:C:77:ILE:HG22	6:C:78:GLU:N	2.34	0.42
8:E:72:PHE:CE2	8:E:155:ARG:NH2	2.88	0.42
8:E:42:PHE:O	8:E:43:LYS:C	2.57	0.42
8:E:60:PHE:CE2	8:E:80:VAL:HB	2.54	0.42
11:H:99:GLY:N	11:H:118:PHE:CD2	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:J:1:MET:H1	13:J:56:LEU:CA	2.32	0.42
14:K:90:ALA:O	14:K:94:ILE:HG13	2.20	0.42
4:M:119:ASN:O	4:M:122:MET:HB3	2.20	0.42
4:M:243:PRO:O	4:M:244:PRO:C	2.57	0.42
4:M:472:LEU:HD11	5:N:835:GLN:CD	2.39	0.42
4:M:567:LYS:HG3	4:M:568:PRO:CD	2.48	0.42
4:M:858:ASN:ND2	4:M:860:LEU:N	2.61	0.42
5:N:213:ILE:HD12	5:N:497:ARG:HB3	2.01	0.42
5:N:343:ILE:HG21	5:N:348:ARG:CA	2.49	0.42
5:N:807:ARG:H	5:N:1045:SER:HG	1.64	0.42
5:N:882:THR:O	5:N:883:LEU:CB	2.68	0.42
5:N:843:GLN:HB2	5:N:993:THR:HB	2.00	0.42
7:P:135:GLY:C	7:P:137:ASN:H	2.22	0.42
7:P:14:ARG:N	7:P:17:LYS:HZ3	2.17	0.42
8:Q:154:ILE:HG22	8:Q:155:ARG:O	2.20	0.42
11:T:123:MET:HE1	11:T:142:LEU:CD1	2.50	0.42
15:X:70:ARG:NH1	15:X:70:ARG:HG2	2.34	0.42
2:2:18:TT:H5M1	2:2:20:DC:C5	2.55	0.42
4:A:1066:VAL:HG12	5:B:1140:ALA:HB2	2.02	0.42
4:A:167:CYS:SG	4:A:167:CYS:O	2.78	0.42
4:A:146:MET:HA	4:A:171:GLN:HB2	2.01	0.42
4:A:320:ARG:HA	4:A:321:PRO:HD3	1.93	0.42
4:A:595:THR:O	4:A:596:THR:HG23	2.19	0.42
4:A:599:SER:HA	4:A:600:PRO:HD2	1.92	0.42
4:A:697:ALA:C	4:A:699:ALA:H	2.21	0.42
4:A:774:ARG:HB2	4:A:797:LYS:HB3	2.02	0.42
4:A:826:ASP:O	4:A:827:THR:C	2.57	0.42
5:B:1115:THR:CG2	5:B:1117:GLN:CG	2.97	0.42
5:B:240:ILE:HG22	5:B:254:LEU:HB3	2.02	0.42
5:B:382:ILE:O	5:B:386:LEU:HG	2.19	0.42
5:B:765:PRO:O	5:B:768:THR:N	2.53	0.42
5:B:785:TYR:CD1	5:B:786:ASN:N	2.88	0.42
5:B:862:GLN:O	5:B:914:LYS:HE3	2.20	0.42
6:C:98:VAL:HG23	6:C:122:SER:HB3	2.01	0.42
6:C:116:LYS:HD3	6:C:140:ASN:HA	2.02	0.42
6:C:98:VAL:C	6:C:99:LEU:CD2	2.85	0.42
7:D:209:ARG:O	7:D:212:LYS:HB2	2.20	0.42
7:D:56:ARG:NH2	7:D:57:LEU:HD21	2.35	0.42
4:A:1324:PRO:HB2	8:E:142:VAL:HG11	2.02	0.42
8:E:31:THR:O	8:E:35:VAL:HG23	2.18	0.42
10:G:117:GLN:C	10:G:119:LEU:H	2.23	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:66:GLY:O	10:G:67:SER:C	2.57	0.42
10:G:99:PHE:C	10:G:99:PHE:CD1	2.93	0.42
11:H:100:THR:OG1	11:H:138:GLU:HG3	2.18	0.42
11:H:20:TYR:O	11:H:22:LYS:N	2.52	0.42
12:I:82:GLU:HB3	12:I:104:LEU:CD1	2.50	0.42
4:M:1447:GLU:OE2	10:S:23:LYS:HB2	2.19	0.42
4:M:23:SER:CB	4:M:233:TRP:NE1	2.83	0.42
4:M:353:ILE:HG13	4:M:482:PHE:CD2	2.53	0.42
4:M:538:ASP:OD2	11:T:22:LYS:HB2	2.19	0.42
4:M:549:MET:HE1	4:M:656:TRP:HD1	1.84	0.42
4:M:666:ILE:CD1	4:M:667:GLY:N	2.83	0.42
4:M:896:ARG:NH2	4:M:1030:ARG:NH2	2.68	0.42
4:M:901:LEU:HA	4:M:907:THR:OG1	2.20	0.42
5:N:240:ILE:HG22	5:N:254:LEU:HB3	2.02	0.42
5:N:751:VAL:HG13	5:N:812:LEU:HD22	2.02	0.42
6:O:133:ILE:CD1	6:O:237:SER:CA	2.96	0.42
6:O:239:PRO:O	6:O:240:VAL:C	2.58	0.42
6:O:80:LEU:HD11	6:O:95:CYS:CA	2.50	0.42
13:V:31:ASP:O	13:V:32:GLU:C	2.58	0.42
4:M:369:SER:CB	14:W:2:ASN:OD1	2.68	0.42
14:W:31:VAL:O	14:W:74:ARG:HA	2.20	0.42
4:A:1319:VAL:HG13	4:A:1320:PRO:HD2	2.01	0.42
4:A:1344:GLY:O	4:A:1345:ARG:C	2.57	0.42
4:A:482:PHE:C	4:A:484:GLY:N	2.71	0.42
4:A:773:LYS:HG3	4:A:773:LYS:H	1.58	0.42
4:A:854:ASN:HB3	4:A:1000:LEU:HD21	2.01	0.42
5:B:1187:ASN:OD1	5:B:1190:ASP:N	2.53	0.42
5:B:234:ILE:O	5:B:261:ARG:CZ	2.68	0.42
5:B:251:ILE:HG22	5:B:251:ILE:O	2.20	0.42
5:B:283:VAL:O	5:B:284:ILE:C	2.57	0.42
5:B:449:ASN:O	5:B:451:LYS:N	2.53	0.42
5:B:839:MET:HE3	5:B:1010:LEU:CD2	2.48	0.42
5:B:882:THR:O	5:B:883:LEU:CB	2.68	0.42
5:B:893:LEU:HD22	5:B:897:GLY:C	2.41	0.42
6:C:38:ILE:HA	6:C:173:ALA:HB2	2.02	0.42
6:C:189:THR:CG2	6:C:190:ASP:N	2.82	0.42
6:C:69:LEU:HD12	6:C:69:LEU:H	1.85	0.42
6:C:83:SER:C	6:C:85:ASP:H	2.23	0.42
7:D:170:THR:HG22	7:D:172:LEU:HG	1.98	0.42
11:H:7:ASP:O	11:H:8:ASP:HB2	2.20	0.42
14:K:69:ALA:O	14:K:70:ARG:CB	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1072:ILE:O	4:M:1075:PRO:HD2	2.19	0.42
4:M:1164:PRO:HG2	4:M:1165:GLU:HG3	2.02	0.42
4:M:1280:GLU:O	4:M:1281:ARG:C	2.58	0.42
4:M:1384:VAL:HG12	4:M:1384:VAL:O	2.19	0.42
4:M:230:ARG:N	4:M:233:TRP:HE3	2.09	0.42
5:N:1176:ASN:C	5:N:1178:ASN:H	2.22	0.42
5:N:283:VAL:O	5:N:286:PHE:HB2	2.19	0.42
5:N:37:PHE:HE1	5:N:41:LYS:CG	2.32	0.42
5:N:899:ILE:HG21	5:N:949:VAL:HG21	2.02	0.42
5:N:956:THR:HG22	5:N:957:ASN:N	2.35	0.42
6:O:18:VAL:HG23	6:O:240:VAL:HB	2.00	0.42
6:O:74:SER:CB	6:O:77:ILE:HG12	2.50	0.42
7:P:63:LEU:HA	7:P:63:LEU:HD22	1.80	0.42
10:S:88:ASP:HA	10:S:144:ARG:HA	2.01	0.42
11:T:6:PHE:O	11:T:58:THR:HA	2.20	0.42
12:U:33:SER:O	12:U:35:VAL:HG23	2.19	0.42
14:W:31:VAL:CG1	14:W:32:VAL:H	2.32	0.42
15:X:34:CYS:O	15:X:36:SER:N	2.53	0.42
4:A:1005:GLU:O	4:A:1009:ASN:HB2	2.20	0.42
4:A:1013:ASP:O	4:A:1015:VAL:N	2.53	0.42
4:A:993:LEU:HD22	4:A:1046:LEU:HD22	2.01	0.42
4:A:1237:ILE:CG2	4:A:1238:ILE:N	2.82	0.42
4:A:1322:ILE:O	4:A:1324:PRO:HD3	2.20	0.42
4:A:1342:GLU:CG	8:E:198:ILE:HD13	2.50	0.42
4:A:525:GLN:HB2	5:B:835:GLN:OE1	2.19	0.42
4:A:540:PHE:CE2	4:A:565:ILE:HD12	2.54	0.42
5:B:1002:THR:O	5:B:1003:ALA:C	2.59	0.42
5:B:773:MET:SD	5:B:987:LYS:HB3	2.60	0.42
5:B:980:PHE:CA	5:B:1095:LEU:HD11	2.50	0.42
10:G:122:ASN:ND2	10:G:125:SER:HB3	2.35	0.42
10:G:145:VAL:CG1	10:G:161:GLY:HA3	2.50	0.42
14:K:40:HIS:O	14:K:41:THR:C	2.58	0.42
4:M:1076:ALA:HA	4:M:1079:MET:HE2	2.02	0.42
4:M:1299:VAL:CG1	4:M:1300:LYS:N	2.82	0.42
4:M:1305:VAL:CG1	4:M:1306:LEU:N	2.83	0.42
4:M:308:ILE:HG22	4:M:309:ALA:N	2.27	0.42
4:M:408:ASP:C	4:M:410:GLY:H	2.22	0.42
4:M:867:ILE:CG2	4:M:872:GLY:N	2.83	0.42
4:M:920:LEU:CD2	4:M:920:LEU:C	2.89	0.42
4:M:349:ALA:C	5:N:1128:LEU:HD11	2.40	0.42
5:N:1196:ILE:O	5:N:1196:ILE:HG13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:N:281:PRO:O	5:N:282:ILE:C	2.57	0.42
5:N:386:LEU:C	5:N:388:CYS:N	2.73	0.42
5:N:581:PHE:HA	5:N:585:VAL:O	2.20	0.42
5:N:637:LEU:O	5:N:690:VAL:HG13	2.20	0.42
5:N:855:PHE:HZ	5:N:857:ARG:NH1	2.18	0.42
6:O:181:ASP:CG	6:O:186:LEU:HD13	2.39	0.42
6:O:31:ASN:O	6:O:34:ARG:N	2.52	0.42
4:M:1444:MET:HE1	9:R:135:ARG:HB2	2.02	0.42
9:R:95:GLY:O	9:R:96:THR:C	2.57	0.42
10:S:106:MET:HG2	10:S:107:LYS:N	2.34	0.42
12:U:8:ARG:HG3	12:U:8:ARG:H	1.65	0.42
4:A:1385:THR:O	4:A:1388:GLY:N	2.51	0.41
4:A:1394:THR:O	4:A:1395:GLY:O	2.38	0.41
4:A:1409:LEU:HD13	5:B:1207:LEU:CD1	2.45	0.41
4:A:1435:PRO:HA	4:A:1439:GLY:O	2.20	0.41
4:A:174:ILE:HG22	4:A:175:ARG:N	2.35	0.41
4:A:319:GLY:HA3	5:B:471:LYS:HA	2.02	0.41
4:A:344:ARG:HD2	5:B:1118:PRO:O	2.19	0.41
4:A:370:ILE:O	4:A:372:LYS:N	2.53	0.41
4:A:55:ASP:C	4:A:57:ARG:N	2.71	0.41
5:B:1017:ILE:CB	5:B:1018:PRO:HD3	2.47	0.41
5:B:1181:GLU:O	5:B:1182:CYS:HB2	2.20	0.41
5:B:1200:ALA:O	5:B:1203:LEU:HB3	2.20	0.41
5:B:237:VAL:CG1	5:B:238:ALA:N	2.83	0.41
5:B:371:GLU:CD	5:B:371:GLU:N	2.73	0.41
5:B:37:PHE:HE1	5:B:41:LYS:HG3	1.82	0.41
5:B:526:GLU:OE2	5:B:752:ALA:HB2	2.20	0.41
5:B:642:ASP:HB3	5:B:649:LYS:CG	2.50	0.41
5:B:796:LEU:HD12	5:B:852:ARG:O	2.19	0.41
5:B:969:ARG:HG2	5:B:970:THR:N	2.34	0.41
6:C:41:ILE:HA	6:C:42:PRO:HD3	1.75	0.41
5:B:798:TYR:CE2	6:C:62:PHE:CZ	3.04	0.41
7:D:187:THR:HG22	7:D:188:ALA:N	2.35	0.41
10:G:1:MET:HG3	10:G:85:GLU:OE2	2.19	0.41
11:H:99:GLY:HA3	11:H:118:PHE:HA	2.02	0.41
12:I:54:GLU:HB3	12:I:100:PHE:CE2	2.54	0.41
12:I:15:TYR:HD1	12:I:15:TYR:H	1.68	0.41
12:I:78:CYS:CB	12:I:106:CYS:SG	3.07	0.41
14:K:89:ASN:O	14:K:91:CYS:N	2.53	0.41
4:M:874:ASP:CA	4:M:1058:VAL:HG22	2.50	0.41
4:M:1396:ALA:O	4:M:1398:MET:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:1445:ILE:HD11	10:S:68:ALA:CB	2.50	0.41
4:M:35:ILE:HD13	4:M:241:VAL:HG11	2.01	0.41
4:M:409:SER:O	4:M:410:GLY:C	2.57	0.41
4:M:666:ILE:HD12	4:M:667:GLY:N	2.34	0.41
4:M:874:ASP:HA	4:M:1058:VAL:HG22	2.00	0.41
4:M:961:ARG:HG2	4:M:965:GLN:HE21	1.85	0.41
5:N:298:LEU:HD13	5:N:314:LEU:HD13	2.01	0.41
5:N:615:MET:HG2	5:N:626:ILE:HG23	2.00	0.41
5:N:638:PHE:HD2	5:N:690:VAL:HG22	1.85	0.41
6:O:123:ASN:ND2	6:O:125:MET:CG	2.82	0.41
6:O:174:ALA:O	6:O:175:ALA:CB	2.67	0.41
8:Q:136:ASN:OD1	8:Q:138:ALA:N	2.53	0.41
10:S:114:LEU:HA	10:S:114:LEU:HD12	1.92	0.41
4:M:698:GLN:NE2	12:U:99:LEU:HD21	2.35	0.41
14:W:57:LEU:N	14:W:76:GLN:O	2.53	0.41
2:5:12:DT:H2"	2:5:13:DA:OP2	2.19	0.41
4:A:368:LYS:O	4:A:369:SER:C	2.58	0.41
4:A:470:LEU:HD21	4:A:482:PHE:HE2	1.84	0.41
4:A:509:LEU:HD23	4:A:509:LEU:HA	1.77	0.41
4:A:56:PRO:O	4:A:57:ARG:CG	2.68	0.41
4:A:738:LYS:C	4:A:740:LEU:H	2.24	0.41
5:B:1004:GLU:HG3	5:B:1064:TYR:HE2	1.85	0.41
5:B:203:PHE:N	5:B:203:PHE:CD1	2.88	0.41
5:B:522:VAL:HG12	5:B:523:CYS:N	2.34	0.41
5:B:984:HIS:NE2	5:B:1025:HIS:HA	2.35	0.41
6:C:18:VAL:O	6:C:20:PHE:CD2	2.71	0.41
6:C:208:GLU:C	6:C:210:GLU:H	2.23	0.41
8:E:144:ILE:HG13	8:E:145:THR:N	2.34	0.41
8:E:20:LYS:O	8:E:21:GLU:C	2.58	0.41
10:G:1:MET:SD	10:G:79:PHE:CE1	3.13	0.41
15:L:28:LYS:HB2	15:L:39:SER:HA	2.02	0.41
4:M:1130:GLN:O	4:M:1134:ILE:HG13	2.19	0.41
4:M:338:GLY:HA2	5:N:1129:ARG:HH22	1.84	0.41
4:M:574:GLY:O	4:M:575:LYS:C	2.57	0.41
4:M:710:LEU:N	4:M:710:LEU:HD12	2.35	0.41
4:M:783:THR:HG22	4:M:784:LEU:HG	2.02	0.41
4:M:971:PHE:O	4:M:972:HIS:C	2.58	0.41
5:N:203:PHE:N	5:N:203:PHE:CD1	2.87	0.41
5:N:431:TYR:CE2	5:N:447:ALA:HB2	2.55	0.41
6:O:124:LEU:HD22	6:O:129:ILE:HG22	2.02	0.41
6:O:190:ASP:O	6:O:191:TYR:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:P:46:GLU:O	7:P:47:LEU:O	2.38	0.41
8:Q:127:ILE:HG13	8:Q:127:ILE:O	2.20	0.41
11:T:95:TYR:CE2	11:T:97:MET:HG3	2.55	0.41
12:U:106:CYS:O	12:U:107:SER:CB	2.67	0.41
12:U:115:LYS:HD3	12:U:117:LYS:CE	2.38	0.41
14:W:69:ALA:O	14:W:70:ARG:CB	2.68	0.41
4:A:1036:ARG:NH1	4:A:1036:ARG:CG	2.82	0.41
4:A:117:GLU:H	4:A:117:GLU:CD	2.24	0.41
4:A:12:ARG:O	5:B:1194:ILE:HG22	2.19	0.41
4:A:1299:VAL:CG1	4:A:1300:LYS:H	2.32	0.41
4:A:1365:TYR:O	4:A:1366:ARG:C	2.58	0.41
4:A:1063:MET:SD	4:A:1436:ILE:HG23	2.60	0.41
4:A:114:LEU:HD13	4:A:171:GLN:HE22	1.84	0.41
4:A:207:ILE:O	4:A:208:LEU:C	2.58	0.41
4:A:42:ASP:OD1	4:A:45:GLN:O	2.38	0.41
4:A:975:HIS:HA	4:A:1036:ARG:HG3	2.02	0.41
5:B:1064:TYR:O	5:B:1065:GLN:C	2.58	0.41
5:B:1138:MET:HA	5:B:1138:MET:CE	2.49	0.41
4:A:14:VAL:CG2	5:B:1216:LEU:HD13	2.45	0.41
5:B:29:ASP:HB3	5:B:658:ILE:HD13	2.02	0.41
5:B:502:ILE:CD1	5:B:502:ILE:H	2.04	0.41
5:B:54:PHE:CZ	5:B:59:LEU:HD13	2.56	0.41
5:B:604:ARG:C	5:B:606:LYS:H	2.24	0.41
5:B:792:MET:HG3	5:B:855:PHE:CE1	2.53	0.41
7:D:52:LEU:C	7:D:54:GLU:N	2.70	0.41
8:E:14:ARG:HH21	8:E:141:VAL:CG1	2.32	0.41
8:E:18:THR:O	8:E:19:VAL:C	2.58	0.41
8:E:191:LYS:O	8:E:193:GLY:N	2.52	0.41
8:E:207:ARG:HB2	8:E:207:ARG:NH1	2.35	0.41
8:E:212:ARG:HH11	8:E:212:ARG:HG3	1.85	0.41
9:F:97:ARG:HA	9:F:97:ARG:HD2	1.80	0.41
10:G:14:HIS:ND1	10:G:15:PRO:CD	2.76	0.41
11:H:38:LEU:HD13	11:H:125:LEU:CD1	2.50	0.41
11:H:62:SER:C	11:H:64:ASN:N	2.73	0.41
12:I:100:PHE:N	12:I:100:PHE:HD1	2.18	0.41
12:I:60:GLN:NE2	12:I:107:SER:OG	2.53	0.41
13:J:51:LEU:O	13:J:51:LEU:HD12	2.20	0.41
14:K:15:GLY:O	14:K:16:GLU:HG3	2.20	0.41
15:L:34:CYS:O	15:L:36:SER:N	2.52	0.41
4:M:1029:ARG:HG3	4:M:1029:ARG:NH1	2.35	0.41
4:M:1409:LEU:O	4:M:1410:PHE:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:305:ASP:CG	4:M:326:ARG:HD2	2.40	0.41
4:M:630:ILE:HD13	4:M:646:PHE:HZ	1.84	0.41
4:M:650:GLN:O	4:M:654:ASN:ND2	2.53	0.41
4:M:853:ASP:O	4:M:854:ASN:CB	2.69	0.41
5:N:426:LYS:HG3	5:N:426:LYS:O	2.20	0.41
5:N:969:ARG:HD2	6:O:61:GLU:OE2	2.20	0.41
6:O:258:ILE:CD1	6:O:258:ILE:N	2.82	0.41
8:Q:30:ILE:HG22	8:Q:31:THR:N	2.35	0.41
9:R:93:ILE:HD13	9:R:148:VAL:CG1	2.50	0.41
13:V:41:LEU:N	13:V:41:LEU:HD23	2.34	0.41
4:A:407:ARG:HG2	4:A:430:TRP:CZ2	2.56	0.41
4:A:648:ASN:O	4:A:649:ILE:C	2.57	0.41
4:A:855:THR:HA	4:A:866:PHE:O	2.20	0.41
5:B:1013:ASN:OD1	5:B:1015:HIS:HB2	2.20	0.41
5:B:1085:ILE:HG22	5:B:1086:PHE:N	2.36	0.41
5:B:828:ALA:HB2	5:B:1085:ILE:HG23	2.01	0.41
5:B:558:LEU:C	5:B:560:GLU:N	2.74	0.41
5:B:744:HIS:CG	5:B:745:PRO:HD2	2.55	0.41
6:C:167:HIS:CD2	6:C:168:ALA:H	2.32	0.41
6:C:181:ASP:CG	6:C:186:LEU:HD13	2.40	0.41
10:G:101:VAL:CG1	10:G:102:GLN:N	2.84	0.41
11:H:145:ARG:O	11:H:146:ARG:HB2	2.21	0.41
4:A:551:TYR:CZ	14:K:62:LYS:HE2	2.56	0.41
4:M:1097:GLY:O	4:M:1098:VAL:C	2.59	0.41
4:M:224:PHE:HZ	4:M:234:MET:HE1	1.85	0.41
4:M:224:PHE:CZ	4:M:234:MET:CE	3.03	0.41
4:M:701:LEU:HD23	12:U:115:LYS:CE	2.50	0.41
4:M:755:PHE:O	4:M:756:ILE:C	2.59	0.41
4:M:939:ASP:O	4:M:940:ARG:C	2.58	0.41
5:N:1182:CYS:O	5:N:1183:LYS:O	2.38	0.41
5:N:382:ILE:O	5:N:386:LEU:HG	2.21	0.41
5:N:776:GLN:O	5:N:1095:LEU:HA	2.21	0.41
5:N:209:GLU:CD	5:N:788:ARG:HH22	2.23	0.41
6:O:27:LEU:HD13	6:O:228:PHE:CE2	2.56	0.41
7:P:176:GLU:HB3	7:P:198:LEU:HD21	2.01	0.41
7:P:177:VAL:HG12	7:P:177:VAL:O	2.20	0.41
11:T:95:TYR:HE2	11:T:97:MET:HG2	1.86	0.41
12:U:61:ASP:O	12:U:63:GLY:N	2.53	0.41
13:V:1:MET:O	13:V:1:MET:HG3	2.21	0.41
15:X:53:HIS:CB	15:X:55:ILE:HD11	2.48	0.41
4:A:1146:VAL:HG11	4:A:1207:LEU:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:331:GLY:O	4:A:332:LYS:O	2.38	0.41
4:A:408:ASP:O	4:A:410:GLY:N	2.45	0.41
4:A:701:LEU:HD23	12:I:115:LYS:CE	2.50	0.41
4:A:857:ARG:NH2	9:F:139:PRO:HG3	2.35	0.41
4:A:78:PRO:HA	5:B:1201:LYS:HZ2	1.85	0.41
5:B:388:CYS:C	5:B:390:LEU:H	2.23	0.41
5:B:168:GLY:HA2	5:B:454:THR:OG1	2.21	0.41
6:C:77:ILE:HA	6:C:77:ILE:HD13	1.95	0.41
10:G:138:THR:O	10:G:141:SER:OG	2.39	0.41
11:H:40:LEU:HG	11:H:41:ASP:O	2.21	0.41
4:M:1340:GLY:O	4:M:1342:GLU:N	2.53	0.41
4:M:494:SER:O	4:M:497:THR:N	2.46	0.41
4:M:847:ASP:O	4:M:858:ASN:HA	2.20	0.41
5:N:1029:CYS:O	5:N:1030:LEU:C	2.59	0.41
5:N:257:LYS:N	5:N:270:LYS:O	2.51	0.41
5:N:546:SER:HA	5:N:612:GLU:OE2	2.20	0.41
6:O:113:VAL:HG23	6:O:147:LEU:HD21	2.01	0.41
6:O:239:PRO:O	6:O:241:ASP:OD1	2.38	0.41
6:O:255:VAL:HG12	14:W:91:CYS:HB3	2.03	0.41
7:P:192:LYS:HZ3	7:P:199:ASN:HA	1.85	0.41
7:P:53:SER:HB3	7:P:152:SER:HB2	2.01	0.41
12:U:50:THR:HG22	12:U:52:ILE:N	2.34	0.41
14:W:111:LEU:O	14:W:112:GLN:CG	2.68	0.41
14:W:12:LEU:H	14:W:12:LEU:CD1	2.25	0.41
15:X:48:CYS:SG	15:X:49:LYS:N	2.93	0.41
4:A:103:CYS:O	4:A:106:VAL:O	2.38	0.41
4:A:407:ARG:HD2	4:A:413:ILE:HD11	2.03	0.41
4:A:41:MET:O	4:A:42:ASP:C	2.59	0.41
4:A:449:SER:O	5:B:1133:MET:HB3	2.20	0.41
4:A:32:VAL:HG21	4:A:68:GLN:NE2	2.34	0.41
4:A:867:ILE:HG22	4:A:871:ASP:H	1.86	0.41
5:B:1132:GLU:O	5:B:1135:ARG:HB3	2.21	0.41
5:B:231:PRO:O	5:B:232:SER:HB2	2.20	0.41
5:B:258:LEU:CG	5:B:258:LEU:O	2.67	0.41
5:B:265:SER:O	5:B:266:ALA:CB	2.67	0.41
5:B:758:PHE:O	5:B:760:ASP:N	2.54	0.41
5:B:770:GLN:OE1	5:B:983:ARG:CA	2.60	0.41
5:B:812:LEU:O	5:B:813:LYS:C	2.58	0.41
5:B:859:TYR:CD1	5:B:859:TYR:N	2.88	0.41
5:B:879:ARG:O	5:B:880:THR:HB	2.20	0.41
6:C:186:LEU:N	6:C:186:LEU:HD12	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:92:CYS:C	6:C:94:LYS:N	2.73	0.41
5:B:992:ILE:HD11	14:K:66:PRO:HB2	2.02	0.41
4:M:1017:LEU:O	4:M:1018:PHE:C	2.58	0.41
4:M:1152:ILE:HG13	12:U:44:TYR:HD2	1.84	0.41
4:M:1208:THR:O	4:M:1209:MET:C	2.59	0.41
4:M:1406:VAL:O	4:M:1407:GLU:C	2.57	0.41
4:M:353:ILE:CG2	4:M:487:MET:HB2	2.51	0.41
4:M:537:ARG:NH1	11:T:120:GLY:O	2.52	0.41
4:M:805:LEU:O	5:N:761:HIS:HE1	2.03	0.41
5:N:1002:THR:O	5:N:1003:ALA:C	2.59	0.41
5:N:982:SER:HB3	5:N:1092:TYR:CE2	2.55	0.41
5:N:559:SER:HA	5:N:563:MET:HB3	2.03	0.41
5:N:810:GLU:HB2	5:N:815:ARG:NH2	2.33	0.41
5:N:858:SER:HA	5:N:966:VAL:O	2.20	0.41
6:O:229:TYR:N	6:O:229:TYR:CD1	2.87	0.41
6:O:66:ARG:CZ	13:V:2:ILE:CG2	2.99	0.41
9:R:130:ILE:HB	9:R:148:VAL:HG21	2.02	0.41
3:3:5:C:O2'	3:3:6:C:H5'	2.21	0.41
4:A:388:LEU:CD2	4:A:432:VAL:HB	2.50	0.41
4:A:455:MET:HE3	5:B:1134:GLU:HG3	2.03	0.41
4:A:498:ARG:O	4:A:499:ALA:C	2.59	0.41
4:A:858:ASN:ND2	4:A:860:LEU:N	2.59	0.41
6:C:26:ASP:O	6:C:27:LEU:C	2.59	0.41
8:E:176:PRO:HB2	8:E:211:TYR:O	2.21	0.41
8:E:29:PHE:O	8:E:30:ILE:CG1	2.67	0.41
4:A:857:ARG:CZ	9:F:139:PRO:HG3	2.50	0.41
9:F:76:LYS:O	9:F:79:ARG:HD3	2.21	0.41
10:G:45:ILE:HA	10:G:45:ILE:HD13	1.95	0.41
6:C:35:ARG:HH11	14:K:41:THR:HA	1.84	0.41
15:L:28:LYS:HB2	15:L:39:SER:HB2	2.02	0.41
4:M:427:GLN:HB2	4:M:430:TRP:CD1	2.55	0.41
4:M:457:ALA:HB3	4:M:506:ALA:HA	2.02	0.41
4:M:577:ILE:HA	4:M:580:VAL:HG23	2.02	0.41
4:M:867:ILE:HG22	4:M:872:GLY:N	2.34	0.41
5:N:37:PHE:CE2	5:N:542:MET:HA	2.53	0.41
5:N:635:ARG:NH1	5:N:635:ARG:HG3	2.36	0.41
5:N:799:PRO:HB3	5:N:818:PRO:HG2	2.03	0.41
7:P:13:ARG:HB2	7:P:17:LYS:NZ	2.34	0.41
7:P:170:THR:HG22	7:P:172:LEU:HG	2.03	0.41
8:Q:10:SER:O	8:Q:14:ARG:HG3	2.21	0.41
10:S:26:LEU:O	10:S:29:LYS:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S:3:PHE:CD1	10:S:80:LYS:NZ	2.81	0.41
11:T:42:ILE:O	11:T:44:VAL:HG23	2.21	0.41
11:T:99:GLY:N	11:T:118:PHE:HD2	2.18	0.41
4:A:1226:VAL:HG22	4:A:1240:CYS:CB	2.51	0.41
4:A:310:GLY:O	4:A:312:PRO:HD2	2.21	0.41
4:A:341:MET:HE1	4:A:843:LYS:NZ	2.36	0.41
4:A:805:LEU:CD1	5:B:1052:VAL:HG21	2.48	0.41
5:B:895:ASP:C	5:B:897:GLY:H	2.24	0.41
5:B:977:GLY:HA3	5:B:1099:VAL:HB	2.03	0.41
6:C:238:ILE:HD11	6:C:246:ARG:NH1	2.36	0.41
6:C:256:ALA:O	6:C:258:ILE:N	2.53	0.41
7:D:146:GLN:O	7:D:147:TYR:C	2.59	0.41
7:D:46:GLU:C	7:D:47:LEU:O	2.55	0.41
7:D:4:SER:O	7:D:5:THR:CB	2.67	0.41
4:A:1327:ILE:HG22	8:E:147:HIS:HE1	1.86	0.41
9:F:154:ASP:HB3	9:F:155:LEU:H	1.64	0.41
12:I:69:PRO:HG2	12:I:85:PHE:CE2	2.56	0.41
12:I:75:CYS:SG	12:I:78:CYS:C	2.99	0.41
14:K:89:ASN:O	14:K:92:ASN:N	2.54	0.41
4:M:1215:ARG:HA	4:M:1218:GLN:HG2	2.02	0.41
4:M:1193:LEU:HB2	4:M:1260:LEU:HD11	2.03	0.41
4:M:1279:ILE:HG23	4:M:1308:THR:OG1	2.21	0.41
4:M:130:ASP:HB3	4:M:133:LYS:HB2	2.03	0.41
4:M:1115:SER:O	4:M:1311:VAL:HG22	2.21	0.41
4:M:277:GLU:C	4:M:279:LEU:H	2.24	0.41
4:M:34:LYS:HB2	4:M:36:ARG:HH21	1.84	0.41
4:M:531:ILE:HG12	4:M:531:ILE:O	2.19	0.41
4:M:7:SER:OG	5:N:1193:GLN:NE2	2.54	0.41
4:M:95:PHE:O	4:M:98:LYS:N	2.54	0.41
4:M:966:ASN:O	4:M:967:ALA:C	2.57	0.41
5:N:222:ILE:O	5:N:240:ILE:HA	2.21	0.41
5:N:364:ILE:CG1	5:N:585:VAL:HG13	2.41	0.41
5:N:591:ARG:O	5:N:593:PRO:HD3	2.21	0.41
5:N:593:PRO:O	5:N:596:LEU:N	2.53	0.41
5:N:732:SER:HB2	5:N:734:HIS:CD2	2.56	0.41
5:N:911:ILE:HD11	5:N:941:LEU:CD1	2.41	0.41
6:O:51:VAL:HG22	6:O:155:LEU:CD2	2.50	0.41
9:R:119:ARG:HH11	9:R:119:ARG:HG3	1.85	0.41
13:V:32:GLU:O	13:V:35:ALA:N	2.54	0.41
13:V:7:CYS:HB2	13:V:46:CYS:HB3	2.00	0.41
14:W:55:LYS:HB3	14:W:81:TYR:HD1	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:5:20:DC:H2''	2:5:21:DC:C5'	2.50	0.41
2:5:18:TT:H5M1	2:5:20:DC:N4	2.35	0.41
4:A:1073:GLY:O	4:A:1076:ALA:HB3	2.21	0.41
4:A:108:MET:O	4:A:109:HIS:HB2	2.21	0.41
4:A:1208:THR:O	4:A:1209:MET:C	2.59	0.41
4:A:1265:ASN:C	4:A:1267:MET:H	2.24	0.41
4:A:205:GLU:HG3	4:A:205:GLU:H	1.76	0.41
4:A:224:PHE:CZ	4:A:234:MET:HE2	2.56	0.41
4:A:353:ILE:HG21	4:A:487:MET:CG	2.48	0.41
4:A:396:PRO:HG3	4:A:416:ARG:HB3	2.02	0.41
4:A:842:VAL:HG11	5:B:1136:ASP:OD2	2.21	0.41
5:B:1152:MET:HE1	5:B:1157:ALA:HA	2.03	0.41
5:B:865:LYS:C	5:B:866:TYR:CD1	2.94	0.41
6:C:114:TYR:CD2	6:C:140:ASN:HB2	2.56	0.41
6:C:5:GLY:HA3	6:C:6:PRO:HD2	1.79	0.41
8:E:207:ARG:CB	8:E:207:ARG:NH1	2.84	0.41
10:G:20:PRO:HG2	10:G:21:ARG:H	1.86	0.41
11:H:59:ILE:CG2	11:H:60:ALA:N	2.71	0.41
11:H:82:PRO:O	11:H:84:ALA:N	2.42	0.41
12:I:4:PHE:CD1	12:I:4:PHE:C	2.94	0.41
4:M:1333:ILE:HG22	4:M:1334:ASP:N	2.35	0.41
4:M:185:TRP:CZ3	4:M:200:ARG:HG2	2.56	0.41
4:M:248:PRO:O	4:M:260:ASP:HB2	2.21	0.41
4:M:368:LYS:O	4:M:369:SER:C	2.59	0.41
4:M:415:LEU:HA	4:M:415:LEU:HD23	1.71	0.41
4:M:418:SER:O	4:M:420:ARG:N	2.54	0.41
4:M:474:VAL:HG22	4:M:478:TYR:HE1	1.85	0.41
4:M:481:ASP:OD1	4:M:483:ASP:CG	2.60	0.41
5:N:1121:GLY:C	5:N:1123:SER:N	2.73	0.41
5:N:95:ILE:CB	5:N:130:VAL:HG22	2.51	0.41
5:N:21:GLU:O	5:N:22:SER:OG	2.34	0.41
5:N:235:SER:O	5:N:236:HIS:HD2	2.04	0.41
5:N:34:ILE:O	5:N:37:PHE:N	2.54	0.41
5:N:361:LEU:N	5:N:362:PRO:CD	2.84	0.41
5:N:358:LYS:HA	5:N:366:GLN:HB3	2.03	0.41
5:N:45:SER:OG	5:N:46:GLN:N	2.52	0.41
5:N:498:THR:HG23	5:N:499:ASN:N	2.36	0.41
5:N:593:PRO:HG2	5:N:617:ARG:CZ	2.50	0.41
5:N:642:ASP:CA	5:N:649:LYS:HA	2.44	0.41
5:N:694:ASP:O	5:N:698:GLU:HB2	2.20	0.41
5:N:733:HIS:ND1	5:N:733:HIS:N	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:O:100:THR:CG2	6:O:101:LEU:N	2.81	0.41
6:O:99:LEU:HA	6:O:119:VAL:O	2.21	0.41
6:O:22:LEU:O	6:O:227:THR:HA	2.21	0.41
9:R:96:THR:O	9:R:99:LEU:HB3	2.21	0.41
10:S:127:PRO:HA	10:S:128:PRO:HD3	1.92	0.41
13:V:14:VAL:CG1	13:V:14:VAL:O	2.66	0.41
13:V:32:GLU:O	13:V:33:GLY:C	2.59	0.41
4:A:1027:ALA:O	4:A:1028:THR:C	2.59	0.41
4:A:1171:GLN:HA	4:A:1174:PHE:HD1	1.82	0.41
4:A:1394:THR:CG2	4:A:1398:MET:SD	3.05	0.41
4:A:367:PRO:O	4:A:368:LYS:C	2.58	0.41
4:A:533:LYS:O	4:A:535:THR:N	2.54	0.41
4:A:613:ILE:O	4:A:614:PHE:HB3	2.20	0.41
5:B:1001:PHE:CD1	5:B:1001:PHE:C	2.93	0.41
5:B:1002:THR:O	5:B:1004:GLU:N	2.54	0.41
5:B:1001:PHE:CZ	5:B:1073:TYR:HB2	2.55	0.41
5:B:259:TYR:HD1	5:B:259:TYR:N	2.17	0.41
4:A:472:LEU:CD1	5:B:835:GLN:CD	2.89	0.41
6:C:167:HIS:HA	14:K:6:ARG:HH12	1.86	0.41
6:C:22:LEU:CD2	6:C:25:VAL:HG21	2.50	0.41
10:G:49:LEU:N	10:G:49:LEU:HD23	2.36	0.41
14:K:112:GLN:O	14:K:112:GLN:CA	2.55	0.41
14:K:112:GLN:CA	14:K:112:GLN:CG	2.86	0.41
4:M:1005:GLU:O	4:M:1006:ILE:C	2.60	0.41
4:M:226:GLU:HG2	4:M:226:GLU:O	2.21	0.41
4:M:38:PRO:HA	4:M:270:LEU:HD23	2.02	0.41
4:M:444:PHE:CB	4:M:458:HIS:CD2	3.03	0.41
4:M:545:GLN:C	4:M:547:LEU:N	2.73	0.41
4:M:67:CYS:HB3	4:M:70:CYS:HB3	2.02	0.41
4:M:738:LYS:HD2	4:M:740:LEU:HD21	2.03	0.41
4:M:826:ASP:O	4:M:827:THR:C	2.59	0.41
4:M:96:ILE:O	4:M:97:ALA:C	2.59	0.41
5:N:1001:PHE:C	5:N:1001:PHE:CD1	2.94	0.41
5:N:1162:ILE:C	5:N:1171:VAL:HG21	2.40	0.41
5:N:234:ILE:O	5:N:261:ARG:CZ	2.69	0.41
5:N:515:HIS:CD2	5:N:517:THR:HG23	2.56	0.41
5:N:628:THR:O	5:N:628:THR:CG2	2.68	0.41
5:N:60:GLN:O	5:N:63:ILE:HG22	2.21	0.41
6:O:242:GLN:O	6:O:244:VAL:N	2.54	0.41
6:O:8:VAL:HG12	6:O:9:LYS:H	1.86	0.41
7:P:208:GLU:O	7:P:212:LYS:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Q:90:VAL:HG22	8:Q:90:VAL:O	2.21	0.41
13:V:36:LEU:O	13:V:37:SER:C	2.58	0.41
15:X:61:THR:HG22	15:X:63:ARG:HG2	2.03	0.41
2:2:18:TT:H1'	2:2:18:TT:H5R1	2.03	0.41
4:A:1111:MET:H	4:A:1111:MET:HG2	1.61	0.41
4:A:1445:ILE:HD12	10:G:59:GLY:O	2.21	0.41
4:A:442:VAL:HB	4:A:489:LEU:HD11	2.02	0.41
4:A:444:PHE:CB	4:A:458:HIS:CD2	3.01	0.41
4:A:800:VAL:HG22	4:A:812:GLU:HB3	2.03	0.41
4:A:839:ARG:O	4:A:842:VAL:HB	2.19	0.41
4:A:89:PRO:HB2	4:A:204:THR:HG21	2.02	0.41
5:B:1202:LEU:O	5:B:1203:LEU:C	2.58	0.41
5:B:129:PHE:CE2	5:B:166:PHE:HD1	2.39	0.41
5:B:797:TYR:HB2	5:B:852:ARG:O	2.21	0.41
5:B:197:PHE:CZ	5:B:816:GLU:HG2	2.56	0.41
6:C:51:VAL:HG22	6:C:155:LEU:HD22	2.03	0.41
6:C:94:LYS:HB2	6:C:94:LYS:HE3	1.94	0.41
7:D:146:GLN:O	7:D:149:THR:HG22	2.20	0.41
8:E:128:PRO:HA	8:E:129:PRO:C	2.42	0.41
9:F:81:THR:HB	9:F:136:ARG:NH1	2.35	0.41
10:G:111:THR:HG22	10:G:113:HIS:N	2.33	0.41
10:G:115:MET:CB	10:G:116:PRO:CD	2.99	0.41
10:G:30:LEU:HD13	10:G:72:VAL:HG11	2.02	0.41
4:M:1349:TYR:O	4:M:1350:LYS:C	2.59	0.41
4:M:1365:TYR:O	4:M:1367:HIS:N	2.53	0.41
4:M:299:HIS:O	4:M:301:ALA:N	2.54	0.41
4:M:418:SER:C	4:M:420:ARG:N	2.74	0.41
4:M:438:ASP:OD1	4:M:461:LYS:HA	2.20	0.41
4:M:645:LEU:CD1	4:M:649:ILE:HG13	2.51	0.41
4:M:965:GLN:O	4:M:968:GLN:HB2	2.21	0.41
5:N:378:LEU:HD11	5:N:382:ILE:HD11	2.03	0.41
5:N:642:ASP:CA	5:N:649:LYS:HG3	2.51	0.41
6:O:105:GLY:O	6:O:149:LYS:O	2.39	0.41
5:N:798:TYR:CE2	6:O:62:PHE:CZ	3.00	0.41
7:P:59:ILE:O	7:P:60:LYS:C	2.60	0.41
8:Q:186:LEU:O	8:Q:189:GLY:N	2.54	0.41
9:R:154:ASP:HB3	9:R:155:LEU:H	1.65	0.41
9:R:99:LEU:O	9:R:102:SER:OG	2.31	0.41
10:S:154:VAL:HG12	10:S:155:SER:H	1.86	0.41
12:U:50:THR:HG23	12:U:52:ILE:HG12	2.04	0.41
5:N:848:ARG:NH1	13:V:8:PHE:O	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:53:HIS:O	15:X:55:ILE:HG12	2.21	0.41
3:6:7:A:H2'	3:6:8:G:O4'	2.21	0.40
4:A:1041:ALA:O	4:A:1044:TRP:HB3	2.21	0.40
4:A:35:ILE:HD13	4:A:241:VAL:HG11	2.03	0.40
4:A:265:LYS:HE2	4:A:322:VAL:HG13	2.04	0.40
4:A:604:GLY:O	4:A:605:MET:HB2	2.21	0.40
4:A:757:ASN:HA	5:B:1021:MET:SD	2.61	0.40
4:A:79:GLY:HA3	4:A:243:PRO:HG3	2.03	0.40
5:B:549:THR:CG2	5:B:550:ASP:N	2.80	0.40
5:B:58:THR:O	5:B:62:ILE:HG13	2.22	0.40
5:B:954:VAL:HA	5:B:964:VAL:HG22	2.03	0.40
6:C:176:ILE:HG22	6:C:177:GLU:N	2.35	0.40
7:D:68:ARG:C	7:D:70:PHE:N	2.73	0.40
8:E:24:LYS:CG	8:E:25:ASP:N	2.84	0.40
4:A:1447:GLU:OE2	10:G:23:LYS:HB2	2.21	0.40
11:H:39:THR:O	11:H:123:MET:HA	2.21	0.40
14:K:42:LEU:CD2	14:K:46:ILE:CD1	3.00	0.40
14:K:7:PHE:C	14:K:7:PHE:CD1	2.95	0.40
4:M:114:LEU:HD13	4:M:171:GLN:NE2	2.36	0.40
4:M:265:LYS:HE2	4:M:322:VAL:HG11	2.03	0.40
4:M:299:HIS:C	4:M:301:ALA:N	2.74	0.40
4:M:391:LEU:O	4:M:392:VAL:C	2.60	0.40
4:M:474:VAL:O	4:M:478:TYR:HD1	2.02	0.40
4:M:34:LYS:HZ1	4:M:57:ARG:CZ	2.33	0.40
4:M:789:LYS:HE3	12:U:67:THR:OG1	2.22	0.40
4:M:932:GLU:OE1	4:M:987:VAL:HG22	2.20	0.40
5:N:1106:ARG:HH12	5:N:1110:PRO:HG2	1.86	0.40
5:N:1181:GLU:O	5:N:1182:CYS:HB2	2.21	0.40
5:N:371:GLU:CD	5:N:371:GLU:N	2.74	0.40
5:N:510:LYS:CG	5:N:511:PRO:CD	2.87	0.40
5:N:597:MET:C	5:N:599:THR:H	2.24	0.40
5:N:855:PHE:HZ	5:N:857:ARG:HH12	1.69	0.40
8:Q:35:VAL:C	8:Q:37:LEU:N	2.75	0.40
9:R:116:ASP:HB3	9:R:119:ARG:HB2	2.03	0.40
10:S:15:PRO:CG	10:S:66:GLY:HA3	2.51	0.40
10:S:62:LEU:HD23	10:S:62:LEU:HA	1.80	0.40
4:A:103:CYS:SG	4:A:207:ILE:HD12	2.62	0.40
4:A:1400:CYS:O	4:A:1405:THR:HG23	2.22	0.40
4:A:1405:THR:HB	4:A:1406:VAL:H	1.52	0.40
4:A:341:MET:HE2	4:A:843:LYS:NZ	2.36	0.40
4:A:457:ALA:HB3	4:A:506:ALA:HA	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:701:LEU:HA	12:I:115:LYS:CE	2.47	0.40
4:A:843:LYS:CD	4:A:846:GLU:OE2	2.69	0.40
4:A:870:GLU:HG2	8:E:208:TYR:CD1	2.55	0.40
5:B:309:GLN:O	5:B:312:GLU:HB3	2.21	0.40
5:B:223:VAL:HG21	5:B:380:TYR:CE2	2.57	0.40
2:2:24:DG:OP1	5:B:857:ARG:NH2	2.54	0.40
5:B:911:ILE:CG2	5:B:966:VAL:HG11	2.51	0.40
5:B:990:ILE:CG2	5:B:991:GLY:N	2.84	0.40
10:G:65:ASP:OD2	10:G:67:SER:HB2	2.21	0.40
13:J:23:ASN:O	13:J:25:LEU:N	2.54	0.40
15:L:43:THR:C	15:L:45:ALA:H	2.23	0.40
4:M:868:TYR:HE1	4:M:1064:VAL:HG11	1.74	0.40
4:M:106:VAL:HG13	4:M:112:LYS:C	2.41	0.40
4:M:1161:THR:HG22	4:M:1162:VAL:N	2.35	0.40
4:M:393:ARG:O	4:M:395:GLY:N	2.54	0.40
4:M:388:LEU:HD22	4:M:432:VAL:HB	2.03	0.40
4:M:873:MET:C	4:M:1058:VAL:CG2	2.90	0.40
4:M:913:LEU:CD1	4:M:914:GLU:N	2.75	0.40
5:N:486:TYR:OH	5:N:1096:ARG:CB	2.52	0.40
5:N:560:GLU:O	5:N:561:TRP:CD1	2.75	0.40
5:N:485:ARG:NH2	5:N:782:LEU:HD11	2.36	0.40
6:O:131:HIS:O	6:O:132:PRO:C	2.59	0.40
4:M:871:ASP:HB3	8:Q:204:THR:HG23	2.03	0.40
8:Q:85:GLU:OE2	8:Q:92:THR:HG21	2.21	0.40
11:T:99:GLY:N	11:T:118:PHE:CD2	2.89	0.40
11:T:83:GLN:O	11:T:85:GLY:N	2.55	0.40
12:U:13:MET:HG3	12:U:14:LEU:H	1.84	0.40
15:X:40:LEU:HD22	15:X:44:ASP:CB	2.50	0.40
4:A:306:ASN:ND2	4:A:322:VAL:HB	2.36	0.40
4:A:356:ASP:OD2	14:K:65:HIS:HE1	2.05	0.40
4:A:719:VAL:C	4:A:721:PHE:N	2.75	0.40
4:A:923:LEU:HD23	4:A:923:LEU:HA	1.89	0.40
5:B:1013:ASN:OD1	5:B:1015:HIS:CD2	2.75	0.40
5:B:1156:ASP:O	5:B:1157:ALA:O	2.38	0.40
5:B:236:HIS:CE1	5:B:389:ALA:HA	2.57	0.40
5:B:472:ALA:HB1	5:B:474:SER:HB3	2.04	0.40
5:B:579:ARG:HA	5:B:589:VAL:HG13	2.04	0.40
5:B:743:ILE:H	5:B:743:ILE:HG12	1.65	0.40
5:B:520:GLY:H	5:B:748:ILE:HG22	1.86	0.40
5:B:806:THR:C	5:B:808:ALA:N	2.73	0.40
5:B:903:VAL:CG1	5:B:904:ARG:N	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:105:GLY:O	6:C:149:LYS:O	2.40	0.40
6:C:112:ASN:HB2	6:C:114:TYR:HE1	1.81	0.40
6:C:181:ASP:N	6:C:182:PRO:CD	2.84	0.40
6:C:23:SER:O	6:C:24:ASN:HB3	2.20	0.40
6:C:31:ASN:O	6:C:35:ARG:HG3	2.21	0.40
11:H:76:THR:O	11:H:77:ARG:O	2.39	0.40
12:I:56:ALA:O	12:I:57:GLY:C	2.60	0.40
13:J:48:ARG:C	13:J:48:ARG:HD2	2.41	0.40
4:M:1036:ARG:HG2	4:M:1036:ARG:NH1	2.31	0.40
4:M:1074:GLU:HB3	4:M:1075:PRO:CD	2.51	0.40
4:M:1434:ALA:HA	4:M:1435:PRO:HD3	1.96	0.40
4:M:230:ARG:HB2	4:M:233:TRP:CE3	2.57	0.40
4:M:23:SER:O	4:M:26:GLU:N	2.54	0.40
4:M:268:ASP:HB3	4:M:299:HIS:ND1	2.36	0.40
4:M:283:GLY:O	4:M:285:PRO:CD	2.69	0.40
4:M:341:MET:HE1	4:M:843:LYS:NZ	2.34	0.40
4:M:399:HIS:CG	4:M:400:PRO:N	2.85	0.40
4:M:526:ASP:O	4:M:527:THR:C	2.59	0.40
4:M:650:GLN:HB3	4:M:654:ASN:ND2	2.35	0.40
4:M:70:CYS:SG	4:M:70:CYS:O	2.79	0.40
4:M:794:PRO:C	4:M:796:SER:H	2.24	0.40
4:M:824:LEU:HD23	4:M:824:LEU:HA	1.93	0.40
4:M:857:ARG:CZ	9:R:139:PRO:HG3	2.51	0.40
5:N:1174:LYS:O	5:N:1176:ASN:HB2	2.21	0.40
5:N:186:GLU:HG2	13:V:62:ARG:HH12	1.86	0.40
5:N:34:ILE:O	5:N:35:SER:C	2.60	0.40
5:N:360:PHE:CD2	5:N:361:LEU:HB2	2.57	0.40
5:N:370:PHE:HE2	5:N:373:ARG:NH1	2.20	0.40
5:N:498:THR:CG2	5:N:499:ASN:N	2.83	0.40
5:N:641:GLU:OE1	5:N:641:GLU:HA	2.21	0.40
4:M:663:SER:HB2	5:N:827:ILE:O	2.21	0.40
4:M:525:GLN:HB2	5:N:835:GLN:OE1	2.21	0.40
5:N:865:LYS:C	5:N:866:TYR:CD1	2.95	0.40
5:N:903:VAL:HG12	5:N:904:ARG:N	2.36	0.40
6:O:236:GLY:C	6:O:238:ILE:N	2.72	0.40
8:Q:157:SER:OG	8:Q:159:ASP:HB2	2.20	0.40
9:R:116:ASP:O	9:R:119:ARG:HB3	2.21	0.40
12:U:33:SER:O	12:U:34:TYR:O	2.38	0.40
12:U:99:LEU:HB2	12:U:101:PHE:CE1	2.56	0.40
4:A:1074:GLU:N	4:A:1075:PRO:HD2	2.36	0.40
4:A:1187:GLN:HG3	4:A:1188:GLN:H	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1192:LEU:HG	4:A:1193:LEU:N	2.37	0.40
4:A:1206:ASP:CB	4:A:1274:ARG:HH12	2.28	0.40
4:A:1340:GLY:O	4:A:1342:GLU:N	2.54	0.40
4:A:242:PRO:HA	4:A:243:PRO:HD2	1.62	0.40
4:A:428:TYR:HD1	4:A:428:TYR:H	1.70	0.40
4:A:659:HIS:O	5:B:1081:LEU:HD22	2.22	0.40
4:A:71:GLN:HG3	4:A:72:GLU:N	2.36	0.40
4:A:81:PHE:CZ	5:B:1208:MET:HB2	2.57	0.40
4:A:867:ILE:HG22	4:A:872:GLY:N	2.36	0.40
4:A:881:GLN:O	4:A:953:ASN:HA	2.21	0.40
5:B:1002:THR:CG2	5:B:1006:ILE:HG13	2.50	0.40
5:B:100:PRO:HD3	5:B:172:ILE:HD12	2.04	0.40
5:B:1031:LEU:O	5:B:1034:VAL:HB	2.21	0.40
5:B:1151:LEU:N	5:B:1151:LEU:HD12	2.35	0.40
5:B:591:ARG:O	5:B:593:PRO:N	2.55	0.40
5:B:642:ASP:CA	5:B:649:LYS:HG3	2.51	0.40
5:B:861:ASP:OD1	5:B:862:GLN:O	2.40	0.40
5:B:970:THR:HG22	5:B:971:THR:N	2.37	0.40
6:C:92:CYS:SG	6:C:94:LYS:HB3	2.61	0.40
8:E:207:ARG:HH11	8:E:207:ARG:HB3	1.86	0.40
11:H:89:LEU:C	11:H:91:ASP:N	2.74	0.40
12:I:56:ALA:O	12:I:57:GLY:O	2.39	0.40
14:K:18:LYS:O	14:K:35:PHE:HA	2.21	0.40
4:M:1116:LEU:HD11	4:M:1118:VAL:HG13	2.04	0.40
4:M:1260:LEU:HG	4:M:1260:LEU:O	2.22	0.40
4:M:1289:ARG:NH1	4:M:1326:ARG:NH1	2.70	0.40
4:M:1437:GLY:O	4:M:1438:THR:C	2.59	0.40
4:M:60:SER:C	4:M:61:ILE:HG13	2.42	0.40
4:M:675:THR:OG1	4:M:736:ASN:ND2	2.54	0.40
4:M:760:GLN:HG2	4:M:765:VAL:O	2.21	0.40
4:M:841:LEU:HD23	4:M:841:LEU:HA	1.95	0.40
4:M:858:ASN:HD21	4:M:860:LEU:HB2	1.87	0.40
4:M:955:PRO:O	4:M:956:LEU:HG	2.22	0.40
4:M:335:ARG:HH12	5:N:1202:LEU:HD13	1.81	0.40
5:N:185:THR:O	5:N:188:ASP:HB2	2.22	0.40
5:N:244:LEU:HD11	5:N:366:GLN:HE22	1.87	0.40
5:N:661:LEU:C	5:N:663:ALA:N	2.73	0.40
5:N:704:ALA:HB2	5:N:738:PHE:CD2	2.56	0.40
5:N:970:THR:HG22	5:N:971:THR:H	1.85	0.40
5:N:980:PHE:HE1	5:N:990:ILE:HD11	1.87	0.40
7:P:192:LYS:HG2	7:P:207:LEU:CD2	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:P:189:ASP:O	7:P:193:THR:HB	2.21	0.40
8:Q:67:GLU:O	8:Q:70:SER:HB3	2.22	0.40
8:Q:23:VAL:HG13	8:Q:78:LEU:HD13	2.03	0.40
12:U:106:CYS:SG	12:U:107:SER:N	2.94	0.40
12:U:32:CYS:SG	12:U:33:SER:N	2.95	0.40
2:5:18:TT:H2'2	2:5:18:TT:H6	1.79	0.40
4:A:1315:GLU:C	4:A:1317:MET:H	2.25	0.40
4:A:1381:LEU:HA	4:A:1381:LEU:HD23	1.80	0.40
4:A:1450:LEU:CG	4:A:1450:LEU:O	2.69	0.40
4:A:164:ARG:CG	4:A:165:GLY:N	2.73	0.40
4:A:34:LYS:HZ1	4:A:57:ARG:NH1	2.18	0.40
4:A:34:LYS:HZ3	7:P:187:THR:CG2	2.32	0.40
4:A:414:ASP:OD1	4:A:414:ASP:C	2.59	0.40
4:A:494:SER:O	4:A:495:GLU:C	2.60	0.40
4:A:699:ALA:HB2	12:I:114:GLN:NE2	2.36	0.40
4:A:71:GLN:O	4:A:73:GLY:N	2.48	0.40
4:A:805:LEU:O	5:B:761:HIS:HE1	2.05	0.40
4:A:823:GLY:O	4:A:825:ILE:N	2.55	0.40
5:B:1077:THR:HG22	14:K:44:ASN:HD21	1.87	0.40
5:B:181:LEU:HD22	5:B:189:LEU:HD22	2.03	0.40
6:C:189:THR:HG22	6:C:190:ASP:H	1.86	0.40
8:E:127:ILE:O	8:E:127:ILE:HG13	2.21	0.40
8:E:161:LYS:C	8:E:163:GLU:H	2.25	0.40
8:E:161:LYS:HD2	8:E:195:VAL:HG23	2.04	0.40
9:F:118:LEU:CG	9:F:118:LEU:O	2.69	0.40
10:G:20:PRO:CD	10:G:21:ARG:H	2.34	0.40
12:I:101:PHE:CE1	12:I:112:SER:HB2	2.57	0.40
12:I:101:PHE:H	12:I:101:PHE:HD1	1.69	0.40
15:L:38:LEU:O	15:L:39:SER:CB	2.60	0.40
4:M:1059:HIS:O	4:M:1060:PRO:C	2.56	0.40
4:M:834:THR:HG21	4:M:1077:THR:HA	2.03	0.40
4:M:867:ILE:HD12	4:M:867:ILE:N	2.37	0.40
5:N:37:PHE:CD2	5:N:542:MET:HE3	2.56	0.40
5:N:597:MET:C	5:N:599:THR:N	2.74	0.40
7:P:35:LEU:CD1	7:P:174:PRO:HD2	2.52	0.40
7:P:29:LEU:HD13	10:S:82:PHE:CZ	2.57	0.40
10:S:20:PRO:HG2	10:S:21:ARG:H	1.87	0.40
10:S:9:LEU:HD23	10:S:30:LEU:HD12	2.04	0.40
11:T:10:PHE:CE1	11:T:57:VAL:HB	2.56	0.40
11:T:82:PRO:C	11:T:84:ALA:N	2.75	0.40
13:V:7:CYS:CB	13:V:49:MET:HE3	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:W:89:ASN:O	14:W:91:CYS:N	2.54	0.40

There are no symmetry-related clashes.

## 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	
4	A	1410/1733 (81%)	968 (69%)	288 (20%)	154 (11%)	0	8
4	M	1410/1733 (81%)	964 (68%)	291 (21%)	155 (11%)	0	8
5	B	1096/1224 (90%)	762 (70%)	222 (20%)	112 (10%)	0	9
5	N	1096/1224 (90%)	765 (70%)	217 (20%)	114 (10%)	0	9
6	C	264/318 (83%)	172 (65%)	64 (24%)	28 (11%)	0	8
6	O	264/318 (83%)	171 (65%)	63 (24%)	30 (11%)	0	7
7	D	173/221 (78%)	125 (72%)	27 (16%)	21 (12%)	0	6
7	P	173/221 (78%)	124 (72%)	32 (18%)	17 (10%)	0	10
8	E	212/215 (99%)	155 (73%)	42 (20%)	15 (7%)	1	17
8	Q	212/215 (99%)	156 (74%)	42 (20%)	14 (7%)	1	19
9	F	84/155 (54%)	67 (80%)	11 (13%)	6 (7%)	1	17
9	R	84/155 (54%)	67 (80%)	12 (14%)	5 (6%)	1	20
10	G	169/171 (99%)	125 (74%)	37 (22%)	7 (4%)	3	27
10	S	169/171 (99%)	132 (78%)	28 (17%)	9 (5%)	2	23
11	H	131/146 (90%)	87 (66%)	27 (21%)	17 (13%)	0	5
11	T	131/146 (90%)	83 (63%)	30 (23%)	18 (14%)	0	4
12	I	114/122 (93%)	83 (73%)	19 (17%)	12 (10%)	0	8
12	U	114/122 (93%)	81 (71%)	22 (19%)	11 (10%)	0	10
13	J	63/70 (90%)	35 (56%)	14 (22%)	14 (22%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
13	V	63/70 (90%)	36 (57%)	15 (24%)	12 (19%)	0	2
14	K	112/120 (93%)	86 (77%)	14 (12%)	12 (11%)	0	8
14	W	112/120 (93%)	86 (77%)	17 (15%)	9 (8%)	1	14
15	L	44/70 (63%)	16 (36%)	21 (48%)	7 (16%)	0	3
15	X	44/70 (63%)	17 (39%)	19 (43%)	8 (18%)	0	2
All	All	7744/9130 (85%)	5363 (69%)	1574 (20%)	807 (10%)	0	9

All (807) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	A	44	THR
4	A	48	ALA
4	A	57	ARG
4	A	62	ASP
4	A	65	LEU
4	A	74	MET
4	A	93	VAL
4	A	167	CYS
4	A	223	GLY
4	A	250	ILE
4	A	255	SER
4	A	286	HIS
4	A	311	GLN
4	A	318	SER
4	A	322	VAL
4	A	385	ILE
4	A	399	HIS
4	A	423	ASP
4	A	483	ASP
4	A	517	ASN
4	A	536	LEU
4	A	543	LEU
4	A	567	LYS
4	A	597	LEU
4	A	666	ILE
4	A	780	VAL
4	A	847	ASP
4	A	968	GLN
4	A	969	GLN
4	A	986	ILE

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Mol	Chain	Res	Type
4	A	1002	GLY
4	A	1036	ARG
4	A	1096	SER
4	A	1115	SER
4	A	1122	PRO
4	A	1212	VAL
4	A	1223	ASP
4	A	1233	ASP
4	A	1281	ARG
4	A	1314	SER
4	A	1341	ILE
4	A	1365	TYR
4	A	1378	GLN
4	A	1438	THR
5	B	28	GLU
5	B	45	SER
5	B	46	GLN
5	B	108	VAL
5	B	258	LEU
5	B	282	ILE
5	B	367	LEU
5	B	401	PHE
5	B	467	GLY
5	B	474	SER
5	B	613	VAL
5	B	643	ASP
5	B	709	ASP
5	B	727	LYS
5	B	731	VAL
5	B	751	VAL
5	B	764	SER
5	B	831	SER
5	B	907	GLY
5	B	943	SER
5	B	945	GLU
5	B	958	GLN
5	B	1046	PRO
5	B	1069	PHE
5	B	1100	ASP
5	B	1156	ASP
5	B	1157	ALA
5	B	1167	GLY

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Mol	Chain	Res	Type
5	B	1175	LEU
5	B	1178	ASN
5	B	1181	GLU
5	B	1182	CYS
5	B	1186	ASP
5	B	1188	LYS
6	C	6	PRO
6	C	78	GLU
6	C	87	PHE
6	C	141	GLY
6	C	149	LYS
6	C	156	THR
6	C	161	LYS
6	C	184	ASN
6	C	214	ASN
6	C	215	GLU
7	D	5	THR
7	D	8	PHE
7	D	19	GLU
7	D	20	GLU
7	D	52	LEU
7	D	131	GLU
7	D	177	VAL
7	D	199	ASN
8	E	73	PRO
8	E	74	ASP
8	E	106	GLN
8	E	130	ALA
8	E	206	GLY
10	G	63	PRO
10	G	139	ILE
11	H	17	PRO
11	H	62	SER
11	H	77	ARG
11	H	81	PRO
11	H	82	PRO
11	H	128	ASN
11	H	140	ALA
12	I	9	ASP
12	I	11	ASN
12	I	79	HIS
12	I	106	CYS

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Mol	Chain	Res	Type
13	J	2	ILE
13	J	6	ARG
13	J	17	LYS
13	J	29	GLU
13	J	32	GLU
13	J	64	ASN
14	K	7	PHE
14	K	110	ASN
15	L	35	SER
15	L	50	ASP
15	L	59	ALA
15	L	60	ARG
4	M	44	THR
4	M	48	ALA
4	M	54	ASN
4	M	57	ARG
4	M	62	ASP
4	M	65	LEU
4	M	66	LYS
4	M	74	MET
4	M	93	VAL
4	M	154	SER
4	M	167	CYS
4	M	223	GLY
4	M	255	SER
4	M	286	HIS
4	M	311	GLN
4	M	318	SER
4	M	322	VAL
4	M	385	ILE
4	M	423	ASP
4	M	465	TYR
4	M	517	ASN
4	M	536	LEU
4	M	567	LYS
4	M	597	LEU
4	M	619	LYS
4	M	626	ASN
4	M	666	ILE
4	M	780	VAL
4	M	847	ASP
4	M	968	GLN

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Mol	Chain	Res	Type
4	M	969	GLN
4	M	986	ILE
4	M	1002	GLY
4	M	1036	ARG
4	M	1096	SER
4	M	1115	SER
4	M	1122	PRO
4	M	1212	VAL
4	M	1223	ASP
4	M	1233	ASP
4	M	1281	ARG
4	M	1314	SER
4	M	1341	ILE
4	M	1365	TYR
4	M	1378	GLN
4	M	1405	THR
4	M	1438	THR
5	N	45	SER
5	N	46	GLN
5	N	108	VAL
5	N	115	GLN
5	N	258	LEU
5	N	367	LEU
5	N	467	GLY
5	N	474	SER
5	N	613	VAL
5	N	643	ASP
5	N	709	ASP
5	N	731	VAL
5	N	751	VAL
5	N	831	SER
5	N	907	GLY
5	N	909	ASP
5	N	943	SER
5	N	958	GLN
5	N	1046	PRO
5	N	1097	HIS
5	N	1100	ASP
5	N	1156	ASP
5	N	1157	ALA
5	N	1167	GLY
5	N	1175	LEU

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Mol	Chain	Res	Type
5	N	1181	GLU
5	N	1182	CYS
5	N	1188	LYS
6	O	6	PRO
6	O	87	PHE
6	O	141	GLY
6	O	149	LYS
6	O	156	THR
6	O	161	LYS
6	O	184	ASN
6	O	209	TYR
6	O	214	ASN
6	O	215	GLU
7	P	5	THR
7	P	8	PHE
7	P	19	GLU
7	P	20	GLU
7	P	52	LEU
7	P	131	GLU
7	P	177	VAL
7	P	199	ASN
8	Q	3	GLN
8	Q	36	GLU
8	Q	59	SER
8	Q	73	PRO
8	Q	74	ASP
8	Q	106	GLN
8	Q	130	ALA
8	Q	206	GLY
9	R	81	THR
10	S	63	PRO
10	S	139	ILE
11	T	17	PRO
11	T	62	SER
11	T	77	ARG
11	T	81	PRO
11	T	82	PRO
11	T	128	ASN
11	T	140	ALA
12	U	3	THR
12	U	9	ASP
12	U	11	ASN

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Mol	Chain	Res	Type
12	U	57	GLY
12	U	79	HIS
12	U	106	CYS
13	V	2	ILE
13	V	14	VAL
13	V	28	ASP
13	V	29	GLU
13	V	32	GLU
13	V	64	ASN
14	W	110	ASN
15	X	35	SER
15	X	50	ASP
15	X	59	ALA
15	X	60	ARG
4	A	42	ASP
4	A	54	ASN
4	A	59	GLY
4	A	61	ILE
4	A	66	LYS
4	A	70	CYS
4	A	73	GLY
4	A	76	GLU
4	A	148	CYS
4	A	154	SER
4	A	219	PHE
4	A	244	PRO
4	A	253	ASN
4	A	283	GLY
4	A	312	PRO
4	A	331	GLY
4	A	335	ARG
4	A	336	ILE
4	A	409	SER
4	A	418	SER
4	A	439	ASN
4	A	465	TYR
4	A	544	ASP
4	A	626	ASN
4	A	753	GLY
4	A	789	LYS
4	A	825	ILE
4	A	846	GLU

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Mol	Chain	Res	Type
4	A	871	ASP
4	A	875	ALA
4	A	1014	ALA
4	A	1054	LEU
4	A	1114	PRO
4	A	1116	LEU
4	A	1124	HIS
4	A	1277	GLU
4	A	1366	ARG
4	A	1377	THR
4	A	1386	ARG
4	A	1389	PHE
4	A	1392	SER
4	A	1395	GLY
4	A	1402	PHE
4	A	1405	THR
5	B	65	GLU
5	B	115	GLN
5	B	186	GLU
5	B	206	ASN
5	B	260	GLY
5	B	266	ALA
5	B	345	LYS
5	B	369	GLY
5	B	450	ALA
5	B	466	TRP
5	B	559	SER
5	B	605	ARG
5	B	619	ILE
5	B	641	GLU
5	B	655	LYS
5	B	708	GLU
5	B	746	SER
5	B	792	MET
5	B	881	ASN
5	B	891	ASP
5	B	1041	GLU
5	B	1097	HIS
5	B	1103	ILE
5	B	1108	ARG
5	B	1155	SER
5	B	1171	VAL

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Mol	Chain	Res	Type
5	B	1183	LYS
6	C	4	GLU
6	C	51	VAL
6	C	110	THR
6	C	175	ALA
6	C	209	TYR
6	C	213	PRO
6	C	216	GLY
6	C	240	VAL
6	C	264	GLN
7	D	6	SER
7	D	21	GLU
7	D	53	SER
7	D	192	LYS
8	E	3	GLN
8	E	36	GLU
8	E	45	LYS
8	E	59	SER
8	E	192	ARG
11	H	21	ASN
11	H	59	ILE
11	H	84	ALA
11	H	92	ASP
11	H	108	SER
12	I	3	THR
12	I	57	GLY
12	I	78	CYS
12	I	113	ASP
13	J	14	VAL
13	J	28	ASP
13	J	33	GLY
14	K	53	ASP
15	L	53	HIS
4	M	42	ASP
4	M	59	GLY
4	M	61	ILE
4	M	70	CYS
4	M	76	GLU
4	M	148	CYS
4	M	219	PHE
4	M	250	ILE
4	M	253	ASN

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Mol	Chain	Res	Type
4	M	283	GLY
4	M	312	PRO
4	M	332	LYS
4	M	335	ARG
4	M	336	ILE
4	M	394	ASN
4	M	418	SER
4	M	439	ASN
4	M	483	ASP
4	M	543	LEU
4	M	652	VAL
4	M	753	GLY
4	M	789	LYS
4	M	825	ILE
4	M	871	ASP
4	M	1014	ALA
4	M	1054	LEU
4	M	1114	PRO
4	M	1116	LEU
4	M	1124	HIS
4	M	1366	ARG
4	M	1377	THR
4	M	1386	ARG
4	M	1395	GLY
4	M	1397	LEU
4	M	1402	PHE
5	N	28	GLU
5	N	186	GLU
5	N	206	ASN
5	N	259	TYR
5	N	260	GLY
5	N	266	ALA
5	N	282	ILE
5	N	283	VAL
5	N	322	PHE
5	N	345	LYS
5	N	401	PHE
5	N	450	ALA
5	N	466	TRP
5	N	605	ARG
5	N	619	ILE
5	N	641	GLU

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Mol	Chain	Res	Type
5	N	655	LYS
5	N	708	GLU
5	N	727	LYS
5	N	764	SER
5	N	792	MET
5	N	881	ASN
5	N	891	ASP
5	N	945	GLU
5	N	1041	GLU
5	N	1065	GLN
5	N	1069	PHE
5	N	1103	ILE
5	N	1144	ALA
5	N	1155	SER
5	N	1171	VAL
5	N	1178	ASN
5	N	1183	LYS
5	N	1186	ASP
6	O	4	GLU
6	O	51	VAL
6	O	78	GLU
6	O	110	THR
6	O	175	ALA
6	O	213	PRO
6	O	216	GLY
6	O	240	VAL
7	P	21	GLU
7	P	30	GLY
7	P	53	SER
7	P	192	LYS
8	Q	45	LYS
8	Q	115	ASN
11	T	21	ASN
11	T	32	THR
11	T	59	ILE
11	T	84	ALA
11	T	108	SER
12	U	34	TYR
12	U	47	GLU
12	U	78	CYS
13	V	6	ARG
13	V	17	LYS

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Mol	Chain	Res	Type
13	V	27	GLU
13	V	33	GLY
14	W	7	PHE
14	W	53	ASP
14	W	112	GLN
15	X	53	HIS
4	A	69	THR
4	A	71	GLN
4	A	86	LEU
4	A	317	LYS
4	A	332	LYS
4	A	386	ASP
4	A	394	ASN
4	A	400	PRO
4	A	605	MET
4	A	619	LYS
4	A	731	ARG
4	A	852	TYR
4	A	895	LYS
4	A	979	SER
4	A	1120	LEU
4	A	1133	LEU
4	A	1221	LYS
4	A	1229	SER
4	A	1280	GLU
4	A	1309	ASP
4	A	1397	LEU
5	B	114	PRO
5	B	229	ALA
5	B	257	LYS
5	B	259	TYR
5	B	264	SER
5	B	513	GLN
5	B	629	ASP
5	B	711	GLU
5	B	848	ARG
5	B	869	SER
5	B	951	GLN
5	B	996	ARG
5	B	1003	ALA
5	B	1065	GLN
5	B	1112	GLN

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Mol	Chain	Res	Type
6	C	84	ARG
6	C	126	GLY
6	C	148	ARG
7	D	65	GLU
7	D	196	PRO
8	E	115	ASN
9	F	81	THR
9	F	112	GLU
9	F	150	GLU
9	F	154	ASP
10	G	17	PHE
10	G	20	PRO
11	H	32	THR
11	H	135	LEU
12	I	34	TYR
12	I	47	GLU
13	J	27	GLU
14	K	15	GLY
14	K	29	ASN
14	K	70	ARG
14	K	90	ALA
14	K	112	GLN
15	L	26	THR
4	M	8	SER
4	M	84	ILE
4	M	244	PRO
4	M	263	THR
4	M	317	LYS
4	M	399	HIS
4	M	409	SER
4	M	424	ILE
4	M	544	ASP
4	M	592	ASP
4	M	605	MET
4	M	609	ASP
4	M	731	ARG
4	M	875	ALA
4	M	903	ASN
4	M	979	SER
4	M	1016	THR
4	M	1127	ASP
4	M	1165	GLU

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Mol	Chain	Res	Type
4	M	1221	LYS
4	M	1229	SER
4	M	1277	GLU
4	M	1280	GLU
4	M	1389	PHE
5	N	48	LEU
5	N	58	THR
5	N	65	GLU
5	N	114	PRO
5	N	257	LYS
5	N	369	GLY
5	N	387	LEU
5	N	559	SER
5	N	591	ARG
5	N	629	ASP
5	N	711	GLU
5	N	746	SER
5	N	754	SER
5	N	818	PRO
5	N	848	ARG
5	N	869	SER
5	N	878	GLN
5	N	1003	ALA
5	N	1108	ARG
5	N	1136	ASP
6	O	84	ARG
6	O	117	ASP
6	O	148	ARG
6	O	264	GLN
7	P	6	SER
7	P	47	LEU
7	P	65	GLU
7	P	220	LEU
8	Q	192	ARG
9	R	112	GLU
9	R	150	GLU
10	S	20	PRO
10	S	118	ASP
12	U	107	SER
12	U	113	ASP
13	V	55	ASP
14	W	29	ASN

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Mol	Chain	Res	Type
14	W	88	LYS
14	W	90	ALA
15	X	55	ILE
4	A	8	SER
4	A	55	ASP
4	A	113	LEU
4	A	169	ASN
4	A	263	THR
4	A	290	GLU
4	A	424	ILE
4	A	525	GLN
4	A	592	ASP
4	A	609	ASP
4	A	661	GLY
4	A	958	VAL
5	B	48	LEU
5	B	56	ASP
5	B	58	THR
5	B	94	LYS
5	B	245	GLU
5	B	283	VAL
5	B	313	MET
5	B	387	LEU
5	B	540	SER
5	B	591	ARG
5	B	598	GLU
5	B	752	ALA
5	B	754	SER
5	B	884	ARG
5	B	909	ASP
5	B	1017	ILE
5	B	1096	ARG
5	B	1144	ALA
7	D	9	GLN
7	D	12	ARG
7	D	218	GLU
10	G	62	LEU
10	G	154	VAL
11	H	44	VAL
11	H	52	GLN
11	H	90	ALA
12	I	107	SER

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Mol	Chain	Res	Type
13	J	55	ASP
14	K	6	ARG
14	K	88	LYS
14	K	104	ASN
15	L	55	ILE
4	M	55	ASP
4	M	69	THR
4	M	113	LEU
4	M	169	ASN
4	M	278	THR
4	M	290	GLU
4	M	357	PRO
4	M	400	PRO
4	M	525	GLN
4	M	526	ASP
4	M	661	GLY
4	M	774	ARG
4	M	846	GLU
4	M	895	LYS
4	M	958	VAL
4	M	1067	LEU
4	M	1120	LEU
5	N	56	ASP
5	N	245	GLU
5	N	264	SER
5	N	728	ARG
5	N	884	ARG
5	N	951	GLN
5	N	1017	ILE
5	N	1112	GLN
6	O	81	GLU
6	O	142	VAL
7	P	119	ARG
9	R	154	ASP
10	S	62	LEU
10	S	115	MET
10	S	154	VAL
11	T	92	ASP
11	T	135	LEU
13	V	63	TYR
15	X	26	THR
15	X	54	ARG

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Mol	Chain	Res	Type
4	A	43	GLU
4	A	245	PRO
4	A	333	GLU
4	A	357	PRO
4	A	526	ASP
4	A	534	LEU
4	A	591	PHE
4	A	720	ARG
4	A	817	ALA
4	A	840	ARG
4	A	1127	ASP
4	A	1260	LEU
5	B	248	SER
5	B	309	GLN
5	B	365	THR
5	B	571	PRO
5	B	728	ARG
5	B	844	SER
5	B	1018	PRO
5	B	1214	PRO
6	C	81	GLU
6	C	117	ASP
6	C	142	VAL
7	D	47	LEU
7	D	119	ARG
7	D	220	LEU
8	E	158	SER
13	J	51	LEU
13	J	63	TYR
4	M	226	GLU
4	M	245	PRO
4	M	331	GLY
4	M	636	GLU
4	M	649	ILE
4	M	759	ALA
4	M	1133	LEU
4	M	1260	LEU
4	M	1309	ASP
4	M	1454	MET
5	N	248	SER
5	N	389	ALA
5	N	460	ALA

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Mol	Chain	Res	Type
5	N	461	LEU
5	N	513	GLN
5	N	531	GLN
5	N	571	PRO
5	N	598	GLU
5	N	1214	PRO
6	O	167	HIS
8	Q	138	ALA
8	Q	158	SER
11	T	44	VAL
11	T	52	GLN
14	W	15	GLY
4	A	99	ILE
4	A	111	GLY
4	A	300	VAL
4	A	410	GLY
4	A	599	SER
4	A	653	VAL
4	A	673	GLY
4	A	975	HIS
4	A	1158	PRO
5	B	124	TYR
5	B	411	PRO
5	B	480	SER
5	B	492	LEU
5	B	712	PRO
6	C	212	PRO
6	C	255	VAL
8	E	44	ALA
9	F	151	LEU
10	G	115	MET
13	J	8	PHE
4	M	96	ILE
4	M	653	VAL
4	M	755	PHE
4	M	852	TYR
5	N	94	LYS
5	N	124	TYR
5	N	341	LEU
5	N	480	SER
5	N	712	PRO
5	N	894	ASP

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Mol	Chain	Res	Type
5	N	1143	ALA
6	O	91	HIS
6	O	126	GLY
8	Q	44	ALA
10	S	17	PHE
10	S	19	GLY
11	T	90	ALA
14	W	70	ARG
4	A	492	PRO
4	A	775	ILE
4	A	1164	PRO
4	M	492	PRO
4	M	604	GLY
4	M	1164	PRO
5	N	1018	PRO
6	O	139	GLY
11	T	107	VAL
4	A	84	ILE
4	A	568	PRO
4	A	604	GLY
5	B	901	PRO
6	C	139	GLY
4	M	673	GLY
4	M	775	ILE
4	M	1098	VAL
4	M	1158	PRO
5	N	55	VAL
5	N	411	PRO
4	A	78	PRO
4	A	633	VAL
4	A	1454	MET
5	B	231	PRO
5	B	1011	ILE
9	F	131	PRO
14	K	66	PRO
4	M	51	GLY
4	M	73	GLY
4	M	196	GLU
4	M	1292	PRO
4	M	1335	ILE
5	N	295	GLY
5	N	364	ILE

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Mol	Chain	Res	Type
5	N	575	PRO
6	O	212	PRO
4	A	196	GLU
5	B	364	ILE
7	D	30	GLY
8	E	189	GLY
4	M	35	ILE
4	M	364	VAL
4	M	599	SER
4	M	765	VAL
4	M	1379	GLY
6	O	5	GLY
4	A	51	GLY
4	A	308	ILE
5	B	592	ASN
12	I	62	ILE
4	M	111	GLY
5	N	231	PRO
5	N	1110	PRO
9	R	131	PRO
8	E	129	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	
4	A	1244/1520 (82%)	1138 (92%)	106 (8%)	10	40
4	M	1244/1520 (82%)	1142 (92%)	102 (8%)	11	40
5	B	967/1061 (91%)	888 (92%)	79 (8%)	11	40
5	N	967/1061 (91%)	886 (92%)	81 (8%)	11	40
6	C	235/274 (86%)	216 (92%)	19 (8%)	11	41
6	O	235/274 (86%)	215 (92%)	20 (8%)	10	40
7	D	159/200 (80%)	136 (86%)	23 (14%)	3	19
7	P	159/200 (80%)	138 (87%)	21 (13%)	4	22

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	E	196/197 (100%)	191 (97%)	5 (3%)	46	69
8	Q	196/197 (100%)	191 (97%)	5 (3%)	46	69
9	F	77/137 (56%)	68 (88%)	9 (12%)	5	27
9	R	77/137 (56%)	69 (90%)	8 (10%)	7	30
10	G	152/152 (100%)	141 (93%)	11 (7%)	14	45
10	S	152/152 (100%)	140 (92%)	12 (8%)	12	42
11	H	119/128 (93%)	112 (94%)	7 (6%)	19	51
11	T	119/128 (93%)	112 (94%)	7 (6%)	19	51
12	I	110/116 (95%)	96 (87%)	14 (13%)	4	23
12	U	110/116 (95%)	95 (86%)	15 (14%)	3	22
13	J	60/65 (92%)	53 (88%)	7 (12%)	5	27
13	V	60/65 (92%)	54 (90%)	6 (10%)	7	32
14	K	99/102 (97%)	89 (90%)	10 (10%)	7	32
14	W	99/102 (97%)	88 (89%)	11 (11%)	6	29
15	L	40/57 (70%)	36 (90%)	4 (10%)	7	32
15	X	40/57 (70%)	36 (90%)	4 (10%)	7	32
All	All	6916/8018 (86%)	6330 (92%)	586 (8%)	10	40

All (586) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	A	2	VAL
4	A	11	LEU
4	A	34	LYS
4	A	37	PHE
4	A	38	PRO
4	A	62	ASP
4	A	67	CYS
4	A	70	CYS
4	A	83	HIS
4	A	93	VAL
4	A	100	LYS
4	A	108	MET
4	A	122	MET
4	A	130	ASP
4	A	142	CYS

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Mol	Chain	Res	Type
4	A	198	GLU
4	A	200	ARG
4	A	215	SER
4	A	221	SER
4	A	245	PRO
4	A	270	LEU
4	A	302	THR
4	A	312	PRO
4	A	320	ARG
4	A	335	ARG
4	A	381	THR
4	A	385	ILE
4	A	404	TYR
4	A	406	ILE
4	A	407	ARG
4	A	408	ASP
4	A	418	SER
4	A	425	GLN
4	A	443	LEU
4	A	445	ASN
4	A	449	SER
4	A	450	LEU
4	A	451	HIS
4	A	460	VAL
4	A	462	VAL
4	A	469	ARG
4	A	470	LEU
4	A	481	ASP
4	A	493	GLN
4	A	497	THR
4	A	515	GLN
4	A	527	THR
4	A	560	ILE
4	A	562	THR
4	A	618	GLU
4	A	626	ASN
4	A	629	LEU
4	A	663	SER
4	A	666	ILE
4	A	670	ILE
4	A	711	ARG
4	A	741	ASN

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Mol	Chain	Res	Type
4	A	768	GLN
4	A	774	ARG
4	A	779	PHE
4	A	821	ARG
4	A	827	THR
4	A	831	THR
4	A	858	ASN
4	A	871	ASP
4	A	886	ILE
4	A	890	ASP
4	A	903	ASN
4	A	906	HIS
4	A	929	LEU
4	A	940	ARG
4	A	969	GLN
4	A	992	ASP
4	A	1009	ASN
4	A	1029	ARG
4	A	1030	ARG
4	A	1035	TYR
4	A	1052	GLN
4	A	1067	LEU
4	A	1110	ASN
4	A	1116	LEU
4	A	1122	PRO
4	A	1127	ASP
4	A	1152	ILE
4	A	1170	ILE
4	A	1187	GLN
4	A	1206	ASP
4	A	1264	GLU
4	A	1271	ILE
4	A	1295	THR
4	A	1309	ASP
4	A	1332	PHE
4	A	1333	ILE
4	A	1359	ASP
4	A	1364	ASN
4	A	1371	LEU
4	A	1372	VAL
4	A	1376	THR
4	A	1385	THR

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Mol	Chain	Res	Type
4	A	1386	ARG
4	A	1389	PHE
4	A	1405	THR
4	A	1432	GLN
4	A	1443	VAL
4	A	1444	MET
4	A	1445	ILE
5	B	30	SER
5	B	57	TYR
5	B	61	ASP
5	B	106	ASP
5	B	128	LEU
5	B	175	ARG
5	B	188	ASP
5	B	194	GLU
5	B	199	MET
5	B	217	ARG
5	B	223	VAL
5	B	258	LEU
5	B	268	THR
5	B	286	PHE
5	B	298	LEU
5	B	365	THR
5	B	371	GLU
5	B	378	LEU
5	B	393	LYS
5	B	396	ASP
5	B	427	ASP
5	B	429	PHE
5	B	446	LEU
5	B	463	THR
5	B	466	TRP
5	B	485	ARG
5	B	496	ARG
5	B	498	THR
5	B	502	ILE
5	B	516	ASN
5	B	557	PHE
5	B	570	VAL
5	B	582	VAL
5	B	603	LEU
5	B	628	THR

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Mol	Chain	Res	Type
5	B	635	ARG
5	B	644	GLU
5	B	682	SER
5	B	684	LEU
5	B	724	ASP
5	B	737	THR
5	B	742	GLU
5	B	790	ASP
5	B	797	TYR
5	B	811	TYR
5	B	830	TYR
5	B	835	GLN
5	B	837	ASP
5	B	839	MET
5	B	858	SER
5	B	878	GLN
5	B	901	PRO
5	B	909	ASP
5	B	939	THR
5	B	953	LEU
5	B	999	MET
5	B	1002	THR
5	B	1006	ILE
5	B	1010	LEU
5	B	1047	PHE
5	B	1069	PHE
5	B	1084	GLN
5	B	1087	PHE
5	B	1092	TYR
5	B	1095	LEU
5	B	1099	VAL
5	B	1103	ILE
5	B	1108	ARG
5	B	1122	ARG
5	B	1123	SER
5	B	1159	ARG
5	B	1160	VAL
5	B	1169	MET
5	B	1170	THR
5	B	1176	ASN
5	B	1183	LYS
5	B	1202	LEU

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Mol	Chain	Res	Type
5	B	1212	ILE
5	B	1216	LEU
6	C	22	LEU
6	C	29	MET
6	C	56	THR
6	C	58	LEU
6	C	62	PHE
6	C	77	ILE
6	C	99	LEU
6	C	104	PHE
6	C	108	GLU
6	C	129	ILE
6	C	140	ASN
6	C	145	CYS
6	C	147	LEU
6	C	163	ILE
6	C	193	TYR
6	C	214	ASN
6	C	233	GLU
6	C	240	VAL
6	C	266	ASP
7	D	8	PHE
7	D	13	ARG
7	D	16	LYS
7	D	17	LYS
7	D	19	GLU
7	D	22	GLU
7	D	47	LEU
7	D	63	LEU
7	D	70	PHE
7	D	137	ASN
7	D	139	LYS
7	D	148	LEU
7	D	149	THR
7	D	151	PHE
7	D	156	ASP
7	D	170	THR
7	D	174	PRO
7	D	187	THR
7	D	192	LYS
7	D	193	THR
7	D	206	GLU

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Mol	Chain	Res	Type
7	D	208	GLU
7	D	221	TYR
8	E	60	PHE
8	E	74	ASP
8	E	78	LEU
8	E	104	ASN
8	E	114	ASN
9	F	79	ARG
9	F	81	THR
9	F	90	ARG
9	F	99	LEU
9	F	116	ASP
9	F	119	ARG
9	F	143	PHE
9	F	148	VAL
9	F	153	VAL
10	G	1	MET
10	G	13	LEU
10	G	17	PHE
10	G	74	TYR
10	G	78	VAL
10	G	80	LYS
10	G	88	ASP
10	G	96	GLN
10	G	115	MET
10	G	126	ASN
10	G	171	ILE
11	H	86	ASP
11	H	93	TYR
11	H	95	TYR
11	H	102	TYR
11	H	130	ARG
11	H	134	ASN
11	H	143	LEU
12	I	8	ARG
12	I	9	ASP
12	I	15	TYR
12	I	34	TYR
12	I	40	SER
12	I	75	CYS
12	I	78	CYS
12	I	85	PHE

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Mol	Chain	Res	Type
12	I	86	PHE
12	I	94	ASP
12	I	99	LEU
12	I	101	PHE
12	I	106	CYS
12	I	110	PHE
13	J	7	CYS
13	J	9	SER
13	J	10	CYS
13	J	28	ASP
13	J	44	TYR
13	J	46	CYS
13	J	48	ARG
14	K	5	ASP
14	K	10	PHE
14	K	25	THR
14	K	47	ARG
14	K	50	LEU
14	K	61	TYR
14	K	81	TYR
14	K	111	LEU
14	K	112	GLN
14	K	113	THR
15	L	51	CYS
15	L	55	ILE
15	L	65	VAL
15	L	70	ARG
4	M	2	VAL
4	M	11	LEU
4	M	34	LYS
4	M	37	PHE
4	M	38	PRO
4	M	62	ASP
4	M	67	CYS
4	M	83	HIS
4	M	93	VAL
4	M	100	LYS
4	M	108	MET
4	M	130	ASP
4	M	198	GLU
4	M	200	ARG
4	M	215	SER

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Mol	Chain	Res	Type
4	M	245	PRO
4	M	270	LEU
4	M	302	THR
4	M	312	PRO
4	M	320	ARG
4	M	335	ARG
4	M	381	THR
4	M	385	ILE
4	M	404	TYR
4	M	406	ILE
4	M	407	ARG
4	M	408	ASP
4	M	425	GLN
4	M	443	LEU
4	M	445	ASN
4	M	449	SER
4	M	450	LEU
4	M	451	HIS
4	M	462	VAL
4	M	470	LEU
4	M	481	ASP
4	M	493	GLN
4	M	515	GLN
4	M	527	THR
4	M	560	ILE
4	M	562	THR
4	M	618	GLU
4	M	626	ASN
4	M	629	LEU
4	M	635	ARG
4	M	666	ILE
4	M	670	ILE
4	M	711	ARG
4	M	741	ASN
4	M	768	GLN
4	M	774	ARG
4	M	779	PHE
4	M	821	ARG
4	M	827	THR
4	M	831	THR
4	M	855	THR
4	M	858	ASN

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Mol	Chain	Res	Type
4	M	886	ILE
4	M	890	ASP
4	M	903	ASN
4	M	906	HIS
4	M	907	THR
4	M	929	LEU
4	M	940	ARG
4	M	949	ASP
4	M	969	GLN
4	M	992	ASP
4	M	1009	ASN
4	M	1029	ARG
4	M	1030	ARG
4	M	1035	TYR
4	M	1052	GLN
4	M	1067	LEU
4	M	1110	ASN
4	M	1111	MET
4	M	1116	LEU
4	M	1122	PRO
4	M	1127	ASP
4	M	1170	ILE
4	M	1187	GLN
4	M	1206	ASP
4	M	1240	CYS
4	M	1264	GLU
4	M	1271	ILE
4	M	1291	VAL
4	M	1295	THR
4	M	1309	ASP
4	M	1332	PHE
4	M	1333	ILE
4	M	1359	ASP
4	M	1364	ASN
4	M	1366	ARG
4	M	1372	VAL
4	M	1376	THR
4	M	1385	THR
4	M	1386	ARG
4	M	1389	PHE
4	M	1405	THR
4	M	1432	GLN

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Mol	Chain	Res	Type
4	M	1442	ASP
4	M	1443	VAL
4	M	1445	ILE
5	N	30	SER
5	N	35	SER
5	N	57	TYR
5	N	61	ASP
5	N	106	ASP
5	N	128	LEU
5	N	175	ARG
5	N	180	TYR
5	N	188	ASP
5	N	194	GLU
5	N	199	MET
5	N	217	ARG
5	N	223	VAL
5	N	259	TYR
5	N	268	THR
5	N	286	PHE
5	N	298	LEU
5	N	360	PHE
5	N	365	THR
5	N	371	GLU
5	N	378	LEU
5	N	393	LYS
5	N	396	ASP
5	N	399	ASP
5	N	427	ASP
5	N	429	PHE
5	N	463	THR
5	N	465	ASN
5	N	466	TRP
5	N	485	ARG
5	N	496	ARG
5	N	498	THR
5	N	502	ILE
5	N	516	ASN
5	N	557	PHE
5	N	582	VAL
5	N	603	LEU
5	N	628	THR
5	N	635	ARG

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Mol	Chain	Res	Type
5	N	644	GLU
5	N	682	SER
5	N	684	LEU
5	N	724	ASP
5	N	737	THR
5	N	742	GLU
5	N	790	ASP
5	N	797	TYR
5	N	811	TYR
5	N	830	TYR
5	N	835	GLN
5	N	839	MET
5	N	844	SER
5	N	858	SER
5	N	878	GLN
5	N	909	ASP
5	N	935	ARG
5	N	939	THR
5	N	953	LEU
5	N	999	MET
5	N	1002	THR
5	N	1006	ILE
5	N	1010	LEU
5	N	1022	THR
5	N	1047	PHE
5	N	1069	PHE
5	N	1084	GLN
5	N	1087	PHE
5	N	1095	LEU
5	N	1099	VAL
5	N	1103	ILE
5	N	1122	ARG
5	N	1123	SER
5	N	1159	ARG
5	N	1160	VAL
5	N	1169	MET
5	N	1170	THR
5	N	1176	ASN
5	N	1183	LYS
5	N	1202	LEU
5	N	1212	ILE
5	N	1216	LEU

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Mol	Chain	Res	Type
6	O	6	PRO
6	O	22	LEU
6	O	56	THR
6	O	62	PHE
6	O	77	ILE
6	O	84	ARG
6	O	99	LEU
6	O	104	PHE
6	O	108	GLU
6	O	140	ASN
6	O	145	CYS
6	O	147	LEU
6	O	163	ILE
6	O	172	PRO
6	O	193	TYR
6	O	214	ASN
6	O	233	GLU
6	O	240	VAL
6	O	259	LEU
6	O	266	ASP
7	P	8	PHE
7	P	13	ARG
7	P	16	LYS
7	P	17	LYS
7	P	19	GLU
7	P	22	GLU
7	P	47	LEU
7	P	63	LEU
7	P	70	PHE
7	P	137	ASN
7	P	139	LYS
7	P	148	LEU
7	P	149	THR
7	P	156	ASP
7	P	170	THR
7	P	174	PRO
7	P	187	THR
7	P	192	LYS
7	P	193	THR
7	P	208	GLU
7	P	221	TYR
8	Q	60	PHE

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Mol	Chain	Res	Type
8	Q	74	ASP
8	Q	78	LEU
8	Q	104	ASN
8	Q	114	ASN
9	R	79	ARG
9	R	90	ARG
9	R	99	LEU
9	R	111	LEU
9	R	123	LYS
9	R	143	PHE
9	R	148	VAL
9	R	153	VAL
10	S	1	MET
10	S	13	LEU
10	S	17	PHE
10	S	51	TYR
10	S	74	TYR
10	S	78	VAL
10	S	80	LYS
10	S	88	ASP
10	S	96	GLN
10	S	115	MET
10	S	126	ASN
10	S	171	ILE
11	T	86	ASP
11	T	93	TYR
11	T	95	TYR
11	T	102	TYR
11	T	130	ARG
11	T	134	ASN
11	T	143	LEU
12	U	8	ARG
12	U	9	ASP
12	U	13	MET
12	U	15	TYR
12	U	34	TYR
12	U	40	SER
12	U	75	CYS
12	U	78	CYS
12	U	85	PHE
12	U	86	PHE
12	U	94	ASP

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Mol	Chain	Res	Type
12	U	99	LEU
12	U	101	PHE
12	U	106	CYS
12	U	110	PHE
13	V	7	CYS
13	V	9	SER
13	V	10	CYS
13	V	44	TYR
13	V	46	CYS
13	V	48	ARG
14	W	5	ASP
14	W	10	PHE
14	W	25	THR
14	W	47	ARG
14	W	50	LEU
14	W	61	TYR
14	W	78	THR
14	W	81	TYR
14	W	111	LEU
14	W	112	GLN
14	W	113	THR
15	X	51	CYS
15	X	55	ILE
15	X	65	VAL
15	X	70	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (149) such sidechains are listed below:

Mol	Chain	Res	Type
4	A	54	ASN
4	A	64	ASN
4	A	83	HIS
4	A	225	ASN
4	A	306	ASN
4	A	339	ASN
4	A	358	ASN
4	A	435	HIS
4	A	447	GLN
4	A	479	ASN
4	A	493	GLN
4	A	631	HIS
4	A	654	ASN

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Mol	Chain	Res	Type
4	A	741	ASN
4	A	757	ASN
4	A	768	GLN
4	A	786	HIS
4	A	858	ASN
4	A	903	ASN
4	A	926	GLN
4	A	1140	HIS
4	A	1265	ASN
4	A	1364	ASN
4	A	1432	GLN
5	B	178	ASN
5	B	215	GLN
5	B	236	HIS
5	B	363	HIS
5	B	366	GLN
5	B	465	ASN
5	B	513	GLN
5	B	515	HIS
5	B	516	ASN
5	B	518	HIS
5	B	538	ASN
5	B	734	HIS
5	B	744	HIS
5	B	794	ASN
5	B	821	GLN
5	B	842	ASN
5	B	975	GLN
5	B	984	HIS
5	B	1015	HIS
5	B	1025	HIS
5	B	1065	GLN
5	B	1076	HIS
5	B	1084	GLN
5	B	1117	GLN
5	B	1179	GLN
6	C	73	GLN
6	C	112	ASN
6	C	123	ASN
6	C	167	HIS
6	C	231	ASN
6	C	252	GLN

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Mol	Chain	Res	Type
7	D	40	HIS
7	D	137	ASN
8	E	8	ASN
8	E	101	GLN
8	E	104	ASN
8	E	114	ASN
8	E	147	HIS
10	G	53	ASN
10	G	122	ASN
10	G	126	ASN
10	G	158	HIS
12	I	12	ASN
12	I	60	GLN
13	J	53	HIS
13	J	64	ASN
14	K	44	ASN
14	K	65	HIS
14	K	76	GLN
4	M	54	ASN
4	M	64	ASN
4	M	68	GLN
4	M	83	HIS
4	M	225	ASN
4	M	306	ASN
4	M	339	ASN
4	M	435	HIS
4	M	479	ASN
4	M	493	GLN
4	M	631	HIS
4	M	654	ASN
4	M	698	GLN
4	M	741	ASN
4	M	757	ASN
4	M	767	GLN
4	M	768	GLN
4	M	786	HIS
4	M	858	ASN
4	M	903	ASN
4	M	926	GLN
4	M	1140	HIS
4	M	1364	ASN
4	M	1432	GLN

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Mol	Chain	Res	Type
5	N	178	ASN
5	N	236	HIS
5	N	300	HIS
5	N	363	HIS
5	N	366	GLN
5	N	465	ASN
5	N	513	GLN
5	N	515	HIS
5	N	516	ASN
5	N	518	HIS
5	N	538	ASN
5	N	734	HIS
5	N	744	HIS
5	N	776	GLN
5	N	794	ASN
5	N	821	GLN
5	N	842	ASN
5	N	975	GLN
5	N	984	HIS
5	N	1015	HIS
5	N	1025	HIS
5	N	1065	GLN
5	N	1076	HIS
5	N	1084	GLN
5	N	1117	GLN
5	N	1179	GLN
5	N	1193	GLN
6	O	73	GLN
6	O	112	ASN
6	O	123	ASN
6	O	167	HIS
6	O	231	ASN
7	P	39	ASN
7	P	40	HIS
7	P	137	ASN
7	P	179	GLN
8	Q	8	ASN
8	Q	101	GLN
8	Q	104	ASN
8	Q	114	ASN
8	Q	147	HIS
10	S	53	ASN

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Mol	Chain	Res	Type
10	S	122	ASN
10	S	126	ASN
10	S	153	GLN
12	U	12	ASN
12	U	89	GLN
13	V	53	HIS
13	V	64	ASN
14	W	44	ASN
14	W	65	HIS
14	W	76	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
3	3	9/11 (81%)	1 (11%)	0
3	6	9/11 (81%)	1 (11%)	0
All	All	18/22 (81%)	2 (11%)	0

All (2) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
3	3	3	G
3	6	3	G

There are no RNA pucker outliers to report.

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

4 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
2	BRU	5	22	3,2	15,21,22	1.87	3 (20%)	17,30,33	4.29	6 (35%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
2	BRU	2	22	3,2	15,21,22	1.74	3 (20%)	17,30,33	4.18	5 (29%)
2	TT	2	18	2	40,43,44	4.61	8 (20%)	59,69,72	2.09	12 (20%)
2	TT	5	18	2	40,43,44	4.60	7 (17%)	59,69,72	2.09	13 (22%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	BRU	5	22	3,2	-	2/4/21/22	0/2/2/2
2	BRU	2	22	3,2	-	2/4/21/22	0/2/2/2
2	TT	2	18	2	-	10/18/105/106	0/5/6/6
2	TT	5	18	2	-	10/18/105/106	0/5/6/6

All (21) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	5	18	TT	C5-C6	-20.59	1.31	1.55
2	2	18	TT	C5-C6	-20.44	1.31	1.55
2	2	18	TT	C5T-C6T	-19.00	1.33	1.55
2	5	18	TT	C5T-C6T	-18.67	1.33	1.55
2	5	22	BRU	C4-C5	5.39	1.45	1.38
2	2	22	BRU	C4-C5	4.82	1.44	1.38
2	2	18	TT	C6-N1	-4.25	1.39	1.46
2	5	18	TT	C6-N1	-4.02	1.40	1.46
2	5	18	TT	C6T-N1T	-3.99	1.40	1.46
2	2	18	TT	C6T-N1T	-3.84	1.40	1.46
2	5	22	BRU	C4-N3	3.71	1.39	1.33
2	2	22	BRU	C4-N3	3.49	1.39	1.33
2	2	18	TT	C6T-C6	3.10	1.65	1.56
2	5	18	TT	C6T-C6	3.07	1.65	1.56
2	5	18	TT	C5T-C4T	-2.95	1.46	1.51
2	2	18	TT	C5T-C4T	-2.77	1.46	1.51
2	5	18	TT	C1R-N1T	2.77	1.49	1.45
2	2	22	BRU	C6-C5	-2.57	1.33	1.39
2	5	22	BRU	C6-C5	-2.42	1.34	1.39
2	2	18	TT	C1'-N1	2.39	1.48	1.45
2	2	18	TT	C1R-N1T	2.29	1.48	1.45

All (36) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	5	22	BRU	C4-N3-C2	14.83	127.66	115.14
2	2	22	BRU	C4-N3-C2	14.74	127.59	115.14
2	5	18	TT	C5T-C5-C6	7.53	97.75	88.38
2	5	22	BRU	C5-C4-N3	-7.21	115.01	123.64
2	2	22	BRU	C5-C4-N3	-7.12	115.11	123.64
2	2	18	TT	C5T-C5-C6	7.05	97.15	88.38
2	2	18	TT	C5-C6-N1	6.27	124.39	115.61
2	5	18	TT	C5-C6-C6T	-6.13	79.23	89.28
2	5	18	TT	C5-C6-N1	5.95	123.95	115.61
2	2	18	TT	C5-C6-C6T	-5.94	79.54	89.28
2	5	18	TT	C5-C5T-C6T	-5.37	81.69	88.38
2	2	18	TT	C5-C5T-C6T	-5.24	81.86	88.38
2	2	18	TT	C5T-C6T-N1T	4.97	122.58	115.61
2	5	18	TT	C5T-C6T-N1T	4.96	122.56	115.61
2	5	22	BRU	BR-C5-C6	3.35	124.95	117.31
2	2	18	TT	O4-C4-C5	3.27	125.49	122.88
2	5	22	BRU	C5-C6-N1	3.18	124.08	119.97
2	2	22	BRU	C5-C6-N1	3.17	124.07	119.97
2	2	22	BRU	O3'-C3'-C2'	-2.90	100.52	110.90
2	5	18	TT	O4-C4-C5	2.86	125.16	122.88
2	5	18	TT	O4T-C4T-C5T	2.82	125.13	122.88
2	5	22	BRU	O3'-C3'-C2'	-2.77	101.00	110.90
2	2	18	TT	C6-C6T-N1T	2.67	128.89	118.20
2	2	18	TT	O4T-C4T-C5T	2.65	124.99	122.88
2	5	22	BRU	BR-C5-C4	-2.59	117.56	121.50
2	5	18	TT	C6-C6T-N1T	2.46	128.03	118.20
2	5	18	TT	N3-C2-N1	-2.44	114.16	116.69
2	2	18	TT	N3T-C2T-N1T	-2.40	114.20	116.69
2	2	18	TT	C5A-C5-C4	-2.40	104.08	108.22
2	2	18	TT	C5T-C6T-C6	2.32	93.09	89.28
2	5	18	TT	C5T-C6T-C6	2.31	93.07	89.28
2	5	18	TT	N3T-C2T-N1T	-2.28	114.33	116.69
2	2	18	TT	N3-C2-N1	-2.24	114.37	116.69
2	2	22	BRU	BR-C5-C6	2.19	122.30	117.31
2	5	18	TT	C5A-C5-C4	-2.07	104.65	108.22
2	5	18	TT	C5A-C5-C6	-2.01	108.00	114.16

There are no chirality outliers.

All (24) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	2	18	TT	O4R-C4R-C5R-O5R
2	2	18	TT	C3R-C4R-C5R-O5R

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Mol	Chain	Res	Type	Atoms
2	5	18	TT	C3R-C4R-C5R-O5R
2	5	18	TT	O4R-C4R-C5R-O5R
2	2	18	TT	O4'-C4'-C5'-O5'
2	5	18	TT	O4'-C4'-C5'-O5'
2	2	18	TT	C2'-C1'-N1-C6
2	5	18	TT	C2'-C1'-N1-C6
2	2	18	TT	C2'-C1'-N1-C2
2	5	18	TT	C2'-C1'-N1-C2
2	2	18	TT	O4'-C1'-N1-C2
2	5	18	TT	O4'-C1'-N1-C2
2	5	22	BRU	O4'-C4'-C5'-O5'
2	2	18	TT	O4'-C1'-N1-C6
2	5	18	TT	O4'-C1'-N1-C6
2	2	22	BRU	O4'-C4'-C5'-O5'
2	5	18	TT	C2R-C1R-N1T-C6T
2	5	22	BRU	C3'-C4'-C5'-O5'
2	2	22	BRU	C3'-C4'-C5'-O5'
2	5	18	TT	O4R-C1R-N1T-C6T
2	2	18	TT	C2R-C1R-N1T-C6T
2	2	18	TT	O4R-C1R-N1T-C6T
2	2	18	TT	C3'-C4'-C5'-O5'
2	5	18	TT	C3'-C4'-C5'-O5'

There are no ring outliers.

4 monomers are involved in 15 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	5	22	BRU	3	0
2	2	22	BRU	4	0
2	2	18	TT	4	0
2	5	18	TT	4	0

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 18 ligands modelled in this entry, 18 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
5	B	2
5	N	2
6	C	1
4	A	1
2	5	1
6	O	1
2	2	1
9	R	1
9	F	1
4	M	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	5	18:TT	O3'	20:DC	P	7.05
1	2	18:TT	O3'	20:DC	P	7.02
1	O	2:SER	C	3:GLU	N	4.13
1	C	2:SER	C	3:GLU	N	4.09
1	B	18:PHE	C	19:GLU	N	3.79
1	N	18:PHE	C	19:GLU	N	3.71
1	F	69:LEU	C	70:LYS	N	3.56
1	R	69:LEU	C	70:LYS	N	3.53
1	M	1175:SER	C	1176:LEU	N	3.43
1	A	1175:SER	C	1176:LEU	N	3.38
1	B	337:ARG	C	338:GLY	N	2.66
1	N	337:ARG	C	338:GLY	N	2.58

## 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	1	7/14 (50%)	-0.74	0 100 100	123, 130, 149, 149	0
1	4	7/14 (50%)	-0.68	0 100 100	120, 128, 147, 148	0
2	2	16/25 (64%)	-0.67	0 100 100	84, 130, 151, 155	0
2	5	16/25 (64%)	-0.57	0 100 100	87, 132, 150, 153	0
3	3	10/11 (90%)	-0.48	0 100 100	95, 100, 152, 155	0
3	6	10/11 (90%)	-0.44	0 100 100	95, 102, 153, 156	0
4	A	1421/1733 (81%)	-0.09	8 (0%) 89 85	22, 88, 163, 200	0
4	M	1421/1733 (81%)	-0.07	5 (0%) 92 89	20, 88, 163, 200	0
5	B	1115/1224 (91%)	-0.04	8 (0%) 87 83	24, 101, 175, 200	0
5	N	1115/1224 (91%)	-0.03	7 (0%) 89 85	23, 101, 174, 200	0
6	C	267/318 (83%)	-0.14	0 100 100	49, 88, 147, 173	0
6	O	267/318 (83%)	-0.07	1 (0%) 92 89	52, 87, 148, 170	0
7	D	177/221 (80%)	-0.06	0 100 100	72, 121, 166, 183	0
7	P	177/221 (80%)	-0.06	2 (1%) 80 74	71, 124, 166, 182	0
8	E	214/215 (99%)	-0.15	1 (0%) 91 87	60, 145, 193, 197	0
8	Q	214/215 (99%)	-0.14	1 (0%) 91 87	58, 145, 194, 197	0
9	F	87/155 (56%)	-0.07	0 100 100	31, 62, 108, 140	0
9	R	87/155 (56%)	-0.05	0 100 100	31, 63, 109, 138	0
10	G	171/171 (100%)	-0.10	0 100 100	64, 91, 136, 146	0
10	S	171/171 (100%)	-0.07	1 (0%) 89 85	65, 93, 136, 143	0
11	H	135/146 (92%)	-0.03	6 (4%) 34 29	101, 145, 182, 192	0
11	T	135/146 (92%)	0.00	2 (1%) 73 66	99, 146, 181, 191	0
12	I	116/122 (95%)	-0.10	1 (0%) 84 79	82, 139, 170, 195	0
12	U	116/122 (95%)	-0.14	1 (0%) 84 79	81, 138, 170, 194	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å <sup>2</sup> )	Q<0.9
13	J	65/70 (92%)	-0.14	1 (1%)	73	66	52, 83, 128, 133	0
13	V	65/70 (92%)	-0.10	1 (1%)	73	66	46, 81, 130, 136	0
14	K	114/120 (95%)	-0.00	2 (1%)	68	61	48, 92, 120, 170	0
14	W	114/120 (95%)	-0.05	2 (1%)	68	61	47, 92, 118, 167	0
15	L	46/70 (65%)	0.06	1 (2%)	62	54	86, 155, 179, 186	0
15	X	46/70 (65%)	0.06	0	100	100	84, 156, 179, 185	0
All	All	7922/9230 (85%)	-0.07	51 (0%)	89	85	20, 99, 173, 200	0

All (51) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
14	K	114	LEU	8.6
14	K	113	THR	8.0
14	W	114	LEU	6.6
14	W	113	THR	6.2
4	M	1092	LYS	5.7
5	N	471	LYS	5.7
5	B	471	LYS	5.4
5	B	883	LEU	4.5
4	M	1257	ASP	3.4
5	B	334	ILE	3.4
4	A	1092	LYS	3.2
5	N	882	THR	3.1
13	V	65	PRO	3.0
5	B	963	PHE	3.0
11	H	86	ASP	3.0
5	N	334	ILE	3.0
5	N	734	HIS	2.8
7	P	11	ARG	2.8
5	B	734	HIS	2.7
5	B	882	THR	2.7
15	L	27	LEU	2.7
8	Q	110	PHE	2.6
4	A	1257	ASP	2.5
5	B	335	GLY	2.5
4	A	2	VAL	2.4
11	T	125	LEU	2.4
4	M	1381	LEU	2.4
5	N	587	HIS	2.3
11	H	136	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
5	N	883	LEU	2.3
12	I	16	PRO	2.3
8	E	110	PHE	2.3
4	A	1381	LEU	2.2
4	A	186	LYS	2.2
11	H	63	LEU	2.2
11	T	140	ALA	2.2
10	S	163	ILE	2.2
6	O	118	LEU	2.1
11	H	142	LEU	2.1
4	A	199	LEU	2.1
11	H	55	LEU	2.1
11	H	139	ASN	2.1
5	B	468	GLU	2.1
13	J	65	PRO	2.1
4	M	893	PHE	2.0
7	P	167	LEU	2.0
4	A	1267	MET	2.0
4	A	171	GLN	2.0
4	M	883	LEU	2.0
5	N	470	LYS	2.0
12	U	4	PHE	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
2	BRU	2	22	20/21	0.90	0.17	69,76,80,84	0
2	BRU	5	22	20/21	0.92	0.14	77,84,87,89	0
2	TT	2	18	38/39	0.94	0.21	93,106,123,125	0
2	TT	5	18	38/39	0.94	0.16	95,108,126,127	0

## 6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
17	ZN	I	2457	1/1	0.97	0.24	199,199,199,199	0
17	ZN	B	2457	1/1	0.97	0.28	53,53,53,53	0
17	ZN	M	2457	1/1	0.98	0.27	87,87,87,87	0
17	ZN	X	2457	1/1	0.98	0.25	120,120,120,120	0
17	ZN	U	2458	1/1	0.98	0.19	178,178,178,178	0
17	ZN	L	2457	1/1	0.98	0.24	116,116,116,116	0
17	ZN	J	2457	1/1	0.99	0.25	70,70,70,70	0
16	MG	A	2457	1/1	0.99	0.19	50,50,50,50	0
17	ZN	I	2458	1/1	0.99	0.29	94,94,94,94	0
17	ZN	V	2457	1/1	0.99	0.24	67,67,67,67	0
17	ZN	M	2458	1/1	0.99	0.24	51,51,51,51	0
16	MG	M	2459	1/1	0.99	0.24	34,34,34,34	0
17	ZN	C	2457	1/1	0.99	0.30	48,48,48,48	0
17	ZN	U	2457	1/1	0.99	0.30	91,91,91,91	0
17	ZN	O	2457	1/1	0.99	0.30	39,39,39,39	0
17	ZN	A	2471	1/1	0.99	0.24	90,90,90,90	0
17	ZN	A	2472	1/1	1.00	0.22	52,52,52,52	0
17	ZN	N	2457	1/1	1.00	0.28	54,54,54,54	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.