



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 15, 2017 – 08:49 am GMT

PDB ID : 3HOU
Title : Complete RNA polymerase II elongation complex I with a T-U mismatch
Authors : Sydow, J.F.; Brueckner, F.; Cheung, A.C.M.; Damsma, G.E.; Dengl, S.;
Lehmann, E.; Vassylyev, D.; Cramer, P.
Deposited on : 2009-06-03
Resolution : 3.20 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<http://wwpdb.org/validation/2016/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7.2 (RC1), CSD as538be (2017)
Xtriage (Phenix) : 1.9-1692
EDS : trunk28620
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : recalc28949

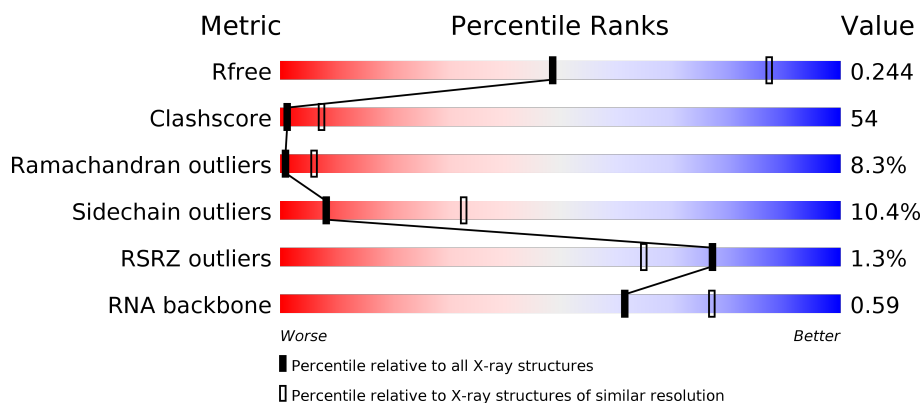
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 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}	100719	1015 (3.22-3.18)
Clashscore	112137	1009 (3.20-3.20)
Ramachandran outliers	110173	1118 (3.22-3.18)
Sidechain outliers	110143	1117 (3.22-3.18)
RSRZ outliers	101464	1020 (3.22-3.18)
RNA backbone	2435	1045 (3.60-2.80)

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

Mol	Chain	Length	Quality of chain
1	A	1733	<div> <div></div> <div>31%41%9%18%</div> </div>
1	M	1733	<div> <div></div> <div>31%40%9%18%</div> </div>
2	B	1224	<div> <div></div> <div>27%51%12%10%</div> </div>
2	N	1224	<div> <div></div> <div>26%53%11%10%</div> </div>

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Mol	Chain	Length	Quality of chain
3	C	318	
3	O	318	
4	D	221	
4	P	221	
5	E	215	
5	Q	215	
6	F	155	
6	R	155	
7	G	171	
7	S	171	
8	H	146	
8	T	146	
9	I	122	
9	U	122	
10	J	70	
10	V	70	
11	K	120	
11	W	120	
12	L	70	
12	X	70	
13	1	26	
13	4	26	
14	2	13	
14	5	13	
15	3	17	

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Mol	Chain	Length	Quality of chain	
				
15	6	17	6%	29% 35% 35%

2 Entry composition

There are 16 unique types of molecules in this entry. The entry contains 63664 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called DNA-directed RNA polymerase II subunit RPB1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	1416	Total	C	N	O	S	0	0	0
			11143	7021	1949	2111	62			
1	M	1416	Total	C	N	O	S	0	0	0
			11143	7021	1949	2111	62			

- Molecule 2 is a protein called DNA-directed RNA polymerase II subunit RPB2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	1104	Total	C	N	O	S	0	0	0
			8779	5560	1537	1627	55			
2	N	1104	Total	C	N	O	S	0	0	0
			8779	5560	1537	1627	55			

- Molecule 3 is a protein called DNA-directed RNA polymerase II subunit RPB3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	266	Total	C	N	O	S	0	0	0
			2095	1317	348	417	13			
3	O	266	Total	C	N	O	S	0	0	0
			2095	1317	348	417	13			

- Molecule 4 is a protein called DNA-directed RNA polymerase II subunit RPB4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	178	Total	C	N	O	S	0	0	0
			1434	887	257	288	2			
4	P	178	Total	C	N	O	S	0	0	0
			1434	887	257	288	2			

- Molecule 5 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC1.

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

- Molecule 6 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC2.

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

- Molecule 7 is a protein called DNA-directed RNA polymerase II subunit RPB7.

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

- Molecule 8 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	134	Total	C	N	O	S	0	0	0
			1076	677	182	213	4			
8	T	134	Total	C	N	O	S	0	0	0
			1076	677	182	213	4			

- Molecule 9 is a protein called DNA-directed RNA polymerase II subunit RPB9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	119	Total	C	N	O	S	0	0	0
			971	596	179	186	10			
9	U	119	Total	C	N	O	S	0	0	0
			971	596	179	186	10			

- Molecule 10 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC5.

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

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

- Molecule 11 is a protein called DNA-directed RNA polymerase II subunit RPB11.

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

- Molecule 12 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	46	Total	C	N	O	S	0	0	0
			363	224	72	63	4			
12	X	46	Total	C	N	O	S	0	0	0
			363	224	72	63	4			

- Molecule 13 is a DNA chain called 5'-D(*AP*GP*CP*TP*CP*A*AP*GP*TP*AP*GP*TP*TP*AP*TP*GP*CP*CP*(BRU)P*GP*GP*TP*CP*AP*TP*T)-3'.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
13	1	18	Total 368	Br 1	C 176	N 66	O 108	P 17	0	0	0
13	4	18	Total 368	Br 1	C 176	N 66	O 108	P 17	0	0	0

- Molecule 14 is a DNA chain called 5'-D(*A*AP*CP*TP*AP*CP*TP*TP*GP*AP*GP*CP*T)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	2	6	Total	C	N	O	P	0	0	0
			117	58	20	34	5			
14	5	6	Total	C	N	O	P	0	0	0
			117	58	20	34	5			

- Molecule 15 is a RNA chain called 5'-R(*UP*GP*CP*AP*UP*U*UP*CP*GP*AP*CP*CP*AP*GP*GP*CP*U)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	3	11	Total	C	N	O	P	0	0	0
			230	104	41	75	10			
15	6	11	Total	C	N	O	P	0	0	0
			230	104	41	75	10			

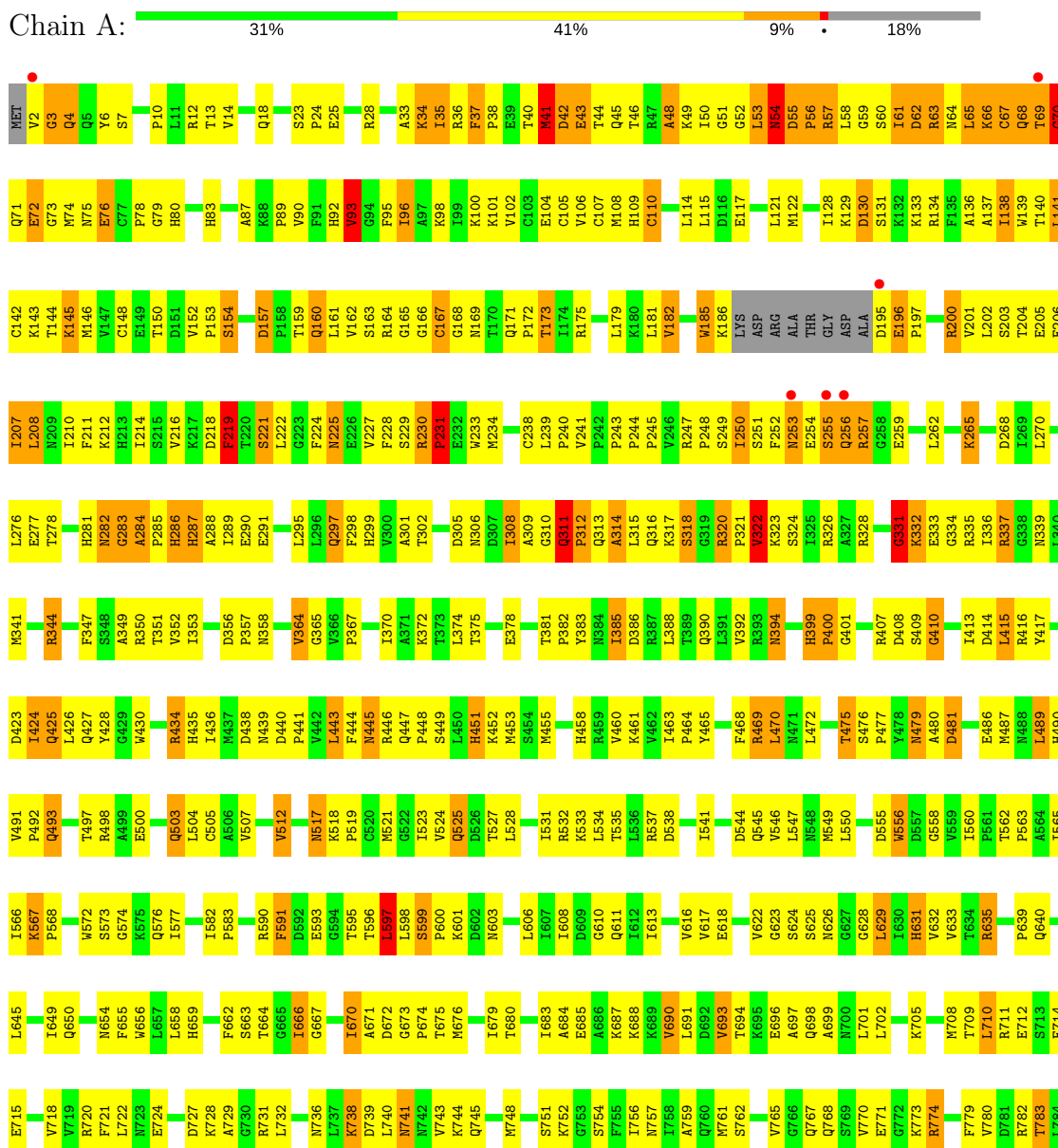
- Molecule 16 is ZINC ION (three-letter code: ZN) (formula: Zn).

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

3 Residue-property plots

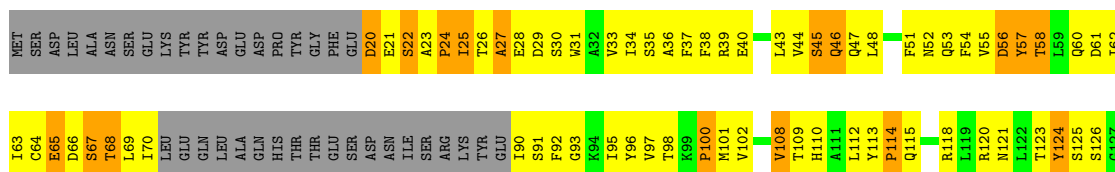
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are 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: DNA-directed RNA polymerase II subunit RPB1





GLY	N1009	L929	L860	S796	V719	L645	T562	M487	R420	G342	L276	I207	W139	Q71	MET
VAL	A1010	K934	G861	K797	R720	L645	P563	N488	D423	K343	E277	L208	T140	E72	V2
ALA	Q1011	K935	Q865	G798	F721	I649	A564	L489	L424	R344	T278	N209	L141	G73	G3
SER	Q1012	L936	F866	F799	L722	I649	A565	H490	Q425	F347	H281	F211	C142	N74	Q4
K1093	V1015	V937	I867	E801	N723	F655	K567	V491	L426	T351	C283	I214	K145	N75	Q5
V1034	T1016	V937	V968	N602	E724	F656	P568	P492	Q427	V352	Q284	S215	E76	E77	S7
T1095	L1017	R940	Q869	S803	K728	L657	K569	Q493	Y428	V353	A285	S216	C148	P78	
S1096	F1018	K941	E870	L805	A729	L658	L571	T497	G429	I353	P284	V216	E149	G79	L11
G1097	C1019	F942	D871	R805	N736	S663	L571	T497	W430	G354	H286	K217	T150	H80	R12
V1098	C1020	F942	D871	R805	N736	S663	L571	T497	W430	G354	H286	K217	T150	H80	T13
P1099	L1021	E945	M873	R806	N737	T664	S573	A499	V432	G355	A288	F219	V152	H83	V14
V946	L1022	V946	D874	R807	K738	T665	S574	A499	V433	G356	A289	F220	P153	T84	
R1001	L1022	F947	D874	R807	K738	T665	S574	A499	V433	G356	A289	F220	P153	T84	
L1101	R1023	F947	D874	R807	K738	T665	S574	A499	V433	G356	A289	F220	P153	T84	
K1102	S1024	V948	A876	E812	L740	G667	K575	Q503	R434	L359	E290	S221	S154	K85	Q18
L1106	R1029	G950	H877	E812	L740	G667	K575	Q503	R434	L359	E290	S221	S154	K85	
N1105	R1030	E951	H878	F815	N742	T670	V580	C505	W437	Q363	E293	F224	D156	L86	F22
V1107	E1031	E951	H878	F815	N742	T670	V580	C505	W437	Q363	E293	F224	D156	L86	S23
A1108	Q1033	P955	L883	H816	Q745	G673	S582	V512	D440	G365	L296	E226	P158	V90	E26
K1109	E1034	L956	I886	G820	N748	T675	S590	S516	F441	V366	Q297	V227	Q160	F91	I30
Y1035	P957	V958	E822	R821	M748	T675	S590	S516	F441	V366	Q297	V227	Q160	F91	
R1036	P958	V958	E822	R821	M748	T675	S590	S516	F441	V366	Q297	V227	Q160	F91	A33
N959	N959	N959	G888	G823	K752	T680	D592	K518	F444	S369	V300	P231	R164	F95	K34
T1038	L1037	N960	S889	L824	K752	T680	D592	K518	F444	S369	V300	P231	R164	F95	I35
K1039	K1039	R961	D890	I825	G753	E681	S593	P519	R446	A371	T302	W233	G166	A97	R36
Q1040	Q1040	R962	A891	D826	S754	T682	G594	C520	Q447	K372	V303	M234	C167	K98	F37
S1115	L1116	P963	A892	T827	F755	I683	T595	M521	P448	K373	K304	I235	G168	I99	P38
T1117	A1041	P964	F893	A828	L756	I684	T596	G522	L374	D305	N169	L236	M169	E39	E39
V1118	L1044	Q965	F893	R829	N757	E685	L597	I523	H451	T375	N306	L239	T170	V102	T40
Y1119	V1045	N966	R896	K830	L758	A686	L598	V524	K452	E378	I307	L239	Q171	K41	K41
L1120	L1046	A967	R997	T831	A759	K687	S599	Q525	K453	E378	I307	L239	Q171	K41	D42
E1121	S1047	A967	R997	T831	A759	K687	S599	Q525	K453	E378	I307	L239	Q171	K41	D42
P1122	I1048	F971	V899	A832	Q760	K689	P600	L528	S454	T381	G310	P243	T173	C107	E43
H1124	I1049	H972	D900	T834	S762	V690	N603	L528	S454	T381	G310	P243	T173	C107	T44
A1125	V1057	I973	L901	G835	L691	D692	N603	L528	S454	T381	G310	P243	T173	C107	T44
V1058	V1058	T976	N903	Y836	Q767	D692	N603	L528	S454	T381	G310	P243	T173	C107	T44
H1059	H1059	K977	T904	Y836	Q767	D692	N603	L528	S454	T381	G310	P243	T173	C107	T44
Q1128	P1060	P978	D905	R838	S769	T694	Q610	L535	V460	N384	Q312	P244	V182	C110	R47
E1129	E1129	S979	H906	R840	V770	T694	Q610	L535	V460	N384	Q312	P244	V182	C110	R47
Q1130	M1063	D980	T907	R841	E771	A697	Q698	D538	V462	N385	Q316	P247	G183	G111	A48
I1134	A1069	L981	L908	V842	R774	A699	V616	I541	Y465	N393	Q318	I250	LYS	L114	I50
I1138	I1072	T982	D909	K843	F777	L701	V617	Q545	F468	N394	P321	F252	ASP	D116	G52
E1139	G1073	K984	S911	L845	G778	L702	E618	Q546	R469	N394	P321	F252	ALA	E117	L53
H1140	E1074	I986	L912	E846	F779	L702	E618	Q546	R469	N394	P321	F252	ALA	E117	L53
T1141	P1075	I986	L913	D847	V780	K705	V622	N548	L471	H399	Q323	Q255	THR	L121	D55
T1142	A1076	L993	S915	I848	D781	K705	V622	N548	L471	H399	Q323	Q255	THR	L121	D55
L1143	L1076	L993	S915	I848	D781	K705	V622	N548	L471	H399	Q323	Q255	THR	L121	D55
M1079	M1079	N996	K1144	H851	L784	T709	S625	V553	T475	R407	K332	E259	E196	I128	I61
S1145	T1080	L997	L919	H851	L784	T709	S625	V553	T475	R407	K332	E259	E196	I128	I61
V1146	V1146	L998	L920	D853	H786	R712	L629	P554	P477	S409	G334	K265	E198	D62	D62
T1147	T1147	L998	L920	D853	H786	R712	L629	P554	P477	S409	G334	K265	E198	D62	D62
I1148	THR	G1002	G921	H854	S787	F787	V713	V556	N479	G410	R335	I268	L199	R63	R63
A1149	PHE	K1003	L923	T855	S788	F788	H631	V557	N480	I413	R337	D268	L201	N64	N64
H1152	HIS	N1004	L923	T856	S789	F789	H632	V558	D481	I414	G338	I270	L202	L65	L65
Y1153	ALA	I1006	Q926	R857	N717	E715	V633	I560	D483	I416	R339	L274	T204	C67	C67
				S859	E795	V718	R635	P561	G484		M341	S275		Q88	Q88
														A136	A136
														T69	T69
														C70	C70

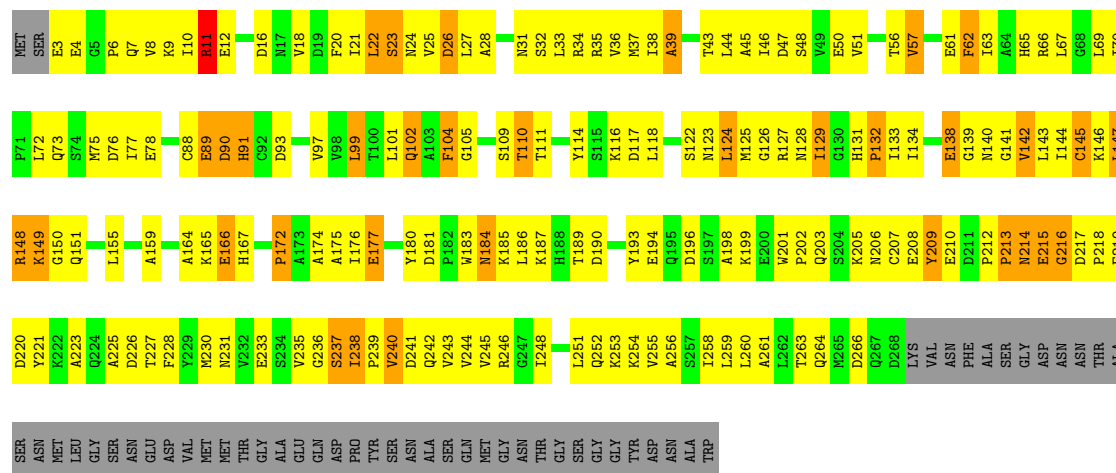


G1109	K1033	K965	P901	M841	A777	P712	B650	H590	G520	T454	L387	R395	L258	L128
P1110	V1034	V966	G902	M842	K778	A713	L651	R591	L521	L457	C388	D326	Y259	F129
V1113	L1037	R967	V905	S843	G779	E714	K652	H592	V522	L458	C389	R327	R261	D131
L1114	S1038	V968	S906	S844	F780	A715	P593	C523	C523	K458	A389	C195	E262	
T1115	G1039	R969	S907	S845	F781	ASN	R654	A594	A524	K459	D391	L331	S264	K134
R1116	T1040	T970	G907	L846	L782	GLU	K655	R595	E256	A460	R392	D332	G263	ARG
P1117	N1040	T971	E908	D847	T783	GLU	G556	L596	E527	L461	K393	F333	S264	THR
P1118	E1041	P974	D909	R848	N784	ASN	H657	H597	T527		D394	I334	I269	THR
V1119	G1042	V910	E910	R849	T785	ASP	L658	E598	P528	G464	Q395	G395	I269	TTR
E1120	D1043	Q975	I911	L850	N786	GLU	A659	T599	E529	N465	D397	R336	L204	GLU
E1121	A1044	I976	F851	F787	T787	D722	K660	L600	G530	K466	D397	R336	L205	ALA
G1122	S1045	K979	R852	R788	R788	V723	L661	R601	Q531	G467	R398	THR	G207	ILE
S1123	F1046	F980	S853	T789	T789	V724	M662	T602	A632	E468	D399	ALA	E209	ASP
R1124	T1048	F855	F856	L854	D790	D724	M663	L603		Q469	H400	GLY	E209	VAL
F1129	D1049	R857	T791	F857	T791	K727	T664	R604	L539	K470	F401	LEU	K210	PHO
R1130	T1050	H857	T792	R857	T792	R728	E665	R605	M542	L475	G402	GLY	V211	GLY
G1131	T1051	S858	A793	T795	N794	V731	D668	G607	M542	A472	R405	ILE	L212	ARG
E1132	S1056	X859	T795	L796	T795	S732	ILE	D608	T545	N473	K345	LYS	E216	GLU
R1135	R1060	M860	T796	L796	T796	H734	GLU	T609	S546	S474	L406	LEU	E216	LEU
D1136	G1063	D861	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
C1137	Y1064	Q862	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
H1141	Q1065	Q863	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
A1144	S1066	Q864	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
S1145	R1067	Q865	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
F1146	F1068	Q866	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
L1147	Y1070	Q867	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
R1150	M1071	Q868	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
L1151	M1072	Q869	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
S1155	K1079	Q870	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
D1156	K1080	Q871	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
A1157	Q1084	Q872	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
F1159	L1085	Q873	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
V1160	F1086	Q874	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
H1161	F1087	Q875	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
T1165	Y1091	Q876	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
C1166	L1094	Q877	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
G1167	L1095	Q878	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
L1168	R1096	Q879	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
M1169	T1097	Q880	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
T1170	H1098	Q881	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
V1171	M1099	Q882	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
L1172	D1100	Q883	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
K1174	K1101	Q884	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
L1175	K1102	Q885	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
N1176	L1103	Q886	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
H1177	H1104	Q887	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
N1178	A1105	Q888	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
R1180	R1106	Q889	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
F1189	A1107	Q890	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
E1181	L1108	Q891	T798	T798	T798	H734	GLY	T610	S546	S474	L406	LEU	E216	LEU
L192	L193	K194	C195	P196	L258	L259	R261	E262	S264	Y202	F203	L204	N206	G207
L216	R217	S218	A219	G220	I285	F286	R287	A288	G290	I291	K292	P293	A299	A230
E231	F232	G233	H234	I235	J236	K237	L238	M239	N240	O241	P242	Q243	R244	S245
T246	U247	V248	W249	X250	Y251	Z252	A253	B254	C255	D256	E257	F258	G259	H260
I261	J262	K263	L264	M265	N266	O267	P268	Q269	R270	S271	T272	U273	V274	W275
X276	Y277	Z278	A279	B280	C281	D282	E283	F284	G285	H286	I287	J288	K289	L290
M291	N292	O293	P294	Q295	R296	S297	T298	U299	V300	W301	X302	Y303	Z304	A305
B306	C307	D308	E309	F310	G311	H312	I313	J314	K315	L316	M317	N318	O319	P320
Q321	R322	S323	T324	U325	V326	W327	X328	Y329	Z330	A331	B332	C333	D334	E335
F336	G337	H338	I339	J340	K341	L342	M343	N344	O345	P346	Q347	R348	S349	T350
U351	V352	W353	X354	Y355	Z356	A357	B358	C359	D360	E361	F362	G363	H364	I365
J366	K367	L368	M369	N370	O371	P372	Q373	R374	S375	T376	U377	V378	W379	X380
Y381	Z382	A383	B384	C385	D386	E387	F388	G389	H390	I391	J392	K393	L394	M395
N396	O397	P398	Q399	R400	S401	T402	U403	V404	W405	X406	Y407	Z408	A409	B410
C411	D412	E413	F414	G415	H416	I417	J418	K419	L420	M421	N422	O423	P424	Q425
R426	S427	T428	U429	V430	W431	X432	Y433	Z434	A435	B436	C437	D438	E439	F440
G441	H442	I443	J444	K445	L446	M447	N448	O449	P450	Q451	R452	S453	T454	U455
V456	W457	X458	Y459	Z460	A461	B462	C463	D464	E465	F466	G467	H468	I469	J470
K471	L472	M473	N474	O475	P476	Q477	R478	S479	T480	U481	V482	W483	X484	Y485
Z486	A487	B488	C489	D490	E491	F492	G493	H494	I495	J496	K497	L498	M499	N500
O501	P502	Q503	R504	S505	T506	U507	V508	W509	X510	Y511	Z512	A513	B514	C515
D516	E517	F518	G519	H520	I521	J522	K523	L524	M525	N526	O527	P528	Q529	R530
S531	T532	U533	V534	W535	X536	Y537	Z538	A539	B540	C541	D542	E543	F544	G545
H546	I547	J548	K549	L550	M551	N552	O553	P554	Q555	R556	S557	T558	U559	V560
W561	X562	Y563	Z564	A565	B566	C567	D568	E569	F570	G571	H572	I573	J574	K575
L576	M577	N578	O579	P580	Q581	R582	S583	T584	U585	V586	W587	X588	Y589	Z590
A591	B592	C593	D594	E595	F596	G597	H598	I599	J600	K601	L602	M603	N604	O605
P606	Q607	R608	S609	T610	U611	V612	W613	X614	Y615	Z616	A617	B618	C619	D620
E621	F622	G623	H624	I625	J626	K627	L628	M629	N630	O631	P632	Q633	R634	S635
T636	U637	V638	W639	X640	Y641	Z642	A643	B644	C645	D646	E647	F648	G649	H650
I651	J652	K653	L654	M655	N656	O657	P658	Q659	R660	S661	T662	U663	V664	W665
X666	Y667	Z668	A669	B670	C671	D672	E673	F674	G675	H676	I677	J678	K679	L680
M681	N682	O683	P684	Q685	R686	S687	T688	U689	V690	W691	X692	Y693	Z694	A695
B696	C697	D698	E699	F700	G701	H702	I703	J704	K705	L706	M707	N708	O709	P710
Q711	R712	S713	T714	U715	V716	W717	X718	Y719	Z720	A721	B722	C723	D724	E725
F726	G727	H728	I729	J730	K731	L732	M733	N734	O735	P736	Q737	R738	S739	T740
U741	V742	W743	X744	Y745	Z746	A747	B748	C749	D750	E751	F752	G753	H754	I755
J756	K757	L758	M759	N760	O761	P762	Q763	R764	S765	T766	U767	V768	W769	X770
Y771	Z772	A773	B774	C775	D776	E777	F778	G779	H780	I781	J782	K783	L784	M785
N786	O787	P788	Q789	R790	S791	T792	U793	V794	W795	X796	Y797	Z798	A799	B800
C801	D802	E803	F804	G805	H806	I807	J808	K809	L810	M811	N812	O813	P814	Q815
R816	S817	T818	U819	V820	W821	X822	Y823	Z824	A825	B826	C827	D828	E829	F830
G831	H832	I833	J834	K835	L836	M837	N838	O839	P840	Q841	R842	S843	T844	U845
V846	W847	X848	Y849	Z850	A851	B852	C853	D854	E855	F856	G857	H858	I859	J860
K861	L862	M863	N864	O865	P866	Q867	R868	S869	T870	U871	V872	W873	X874	Y875
Z876	A877	B878	C879	D880	E881	F882	G883	H884	I885	J886	K887	L888	M889	N890
O891	P892	Q893	R894	S895	T896	U897	V89							



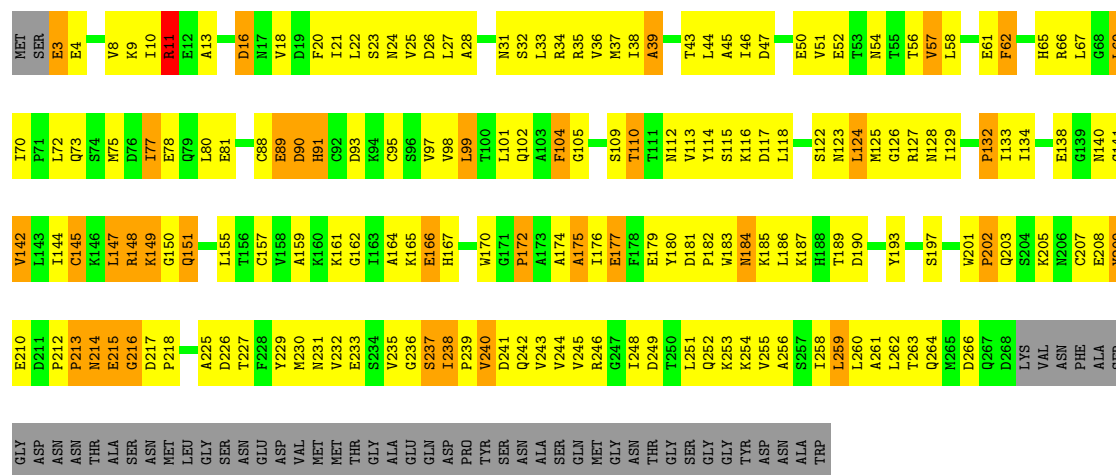
• Molecule 3: DNA-directed RNA polymerase II subunit RPB3

Chain C: 29% 44% 11% 16%



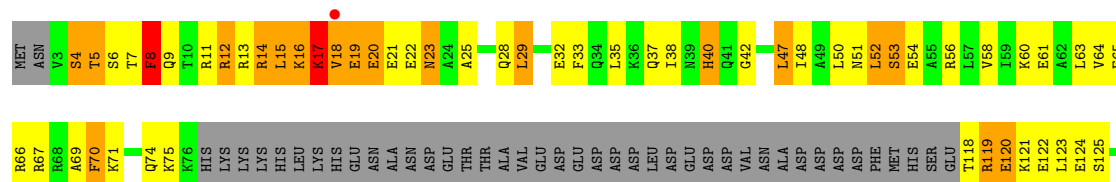
• Molecule 3: DNA-directed RNA polymerase II subunit RPB3

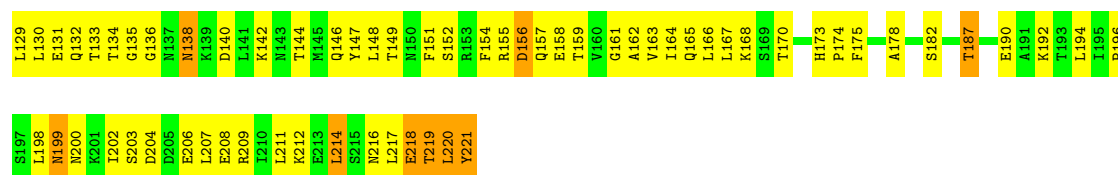
Chain O: 28% 44% 11% 16%



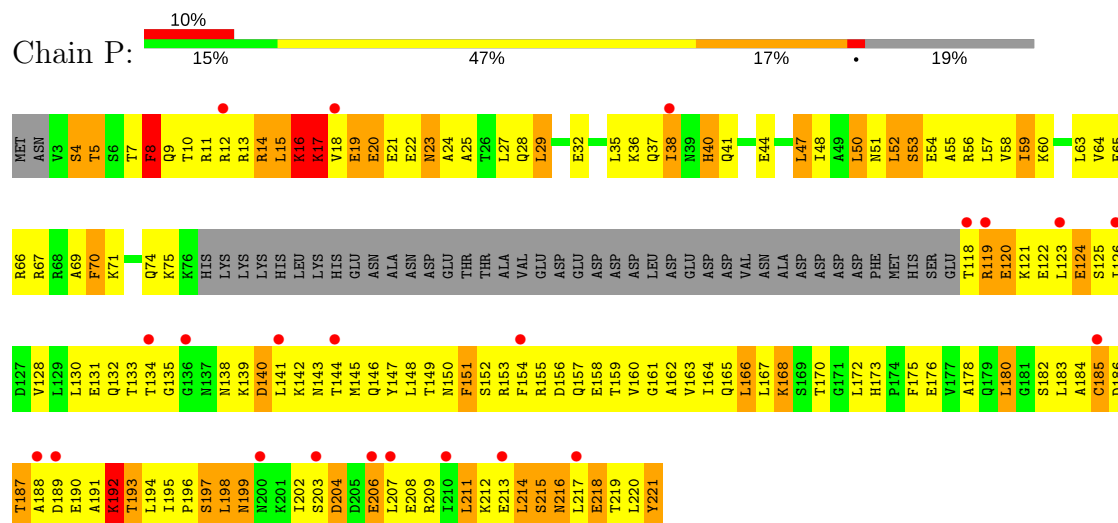
• Molecule 4: DNA-directed RNA polymerase II subunit RPB4

Chain D: 26% 41% 12% 19%

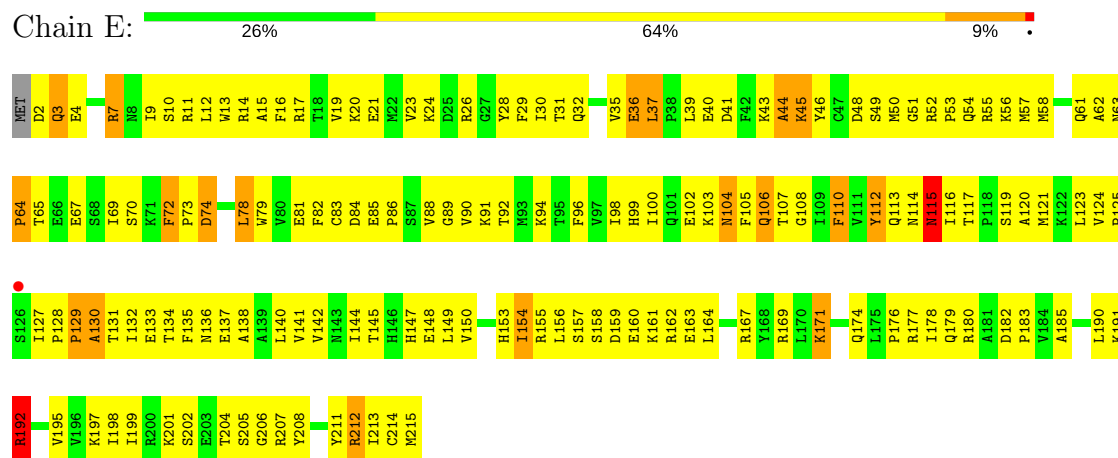




• Molecule 4: DNA-directed RNA polymerase II subunit RPB4



• Molecule 5: DNA-directed RNA polymerases I, II, and III subunit RPABC1



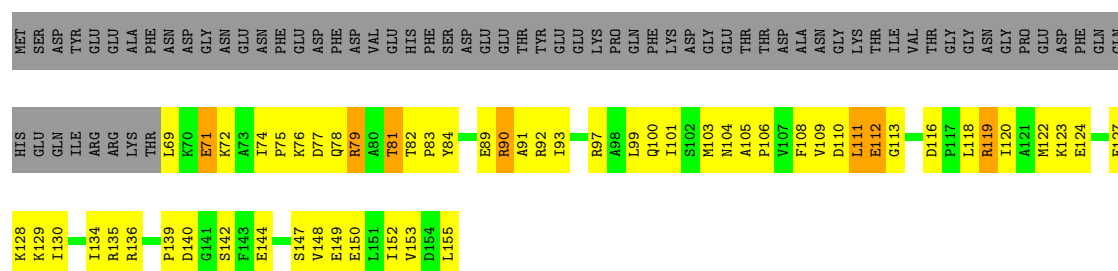
• Molecule 5: DNA-directed RNA polymerases I, II, and III subunit RPABC1





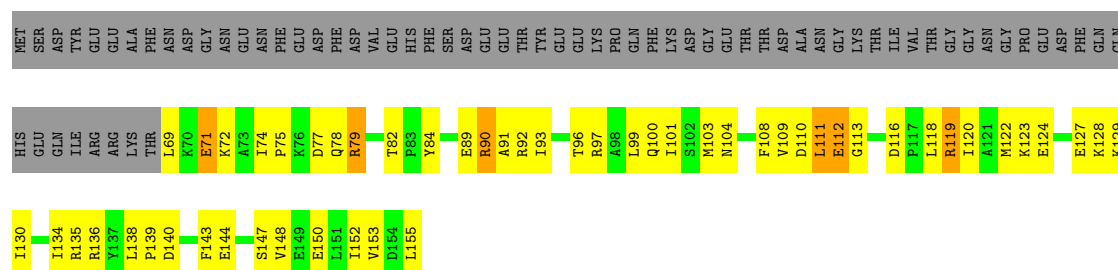
- Molecule 6: DNA-directed RNA polymerases I, II, and III subunit RPABC2

Chain F: 19% 32% 5% 44%



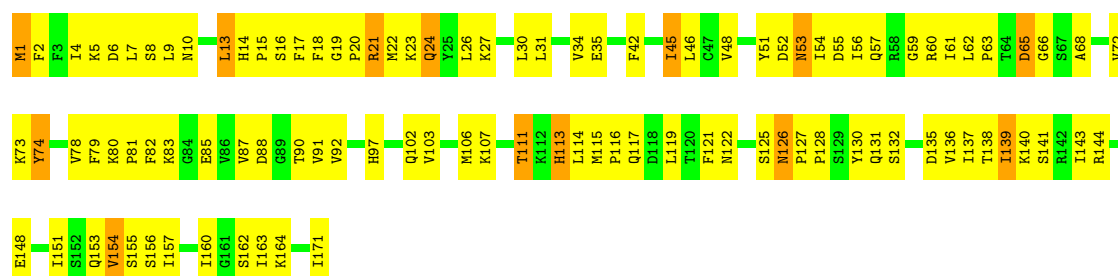
- Molecule 6: DNA-directed RNA polymerases I, II, and III subunit RPABC2

Chain R: 22% 30% 44%



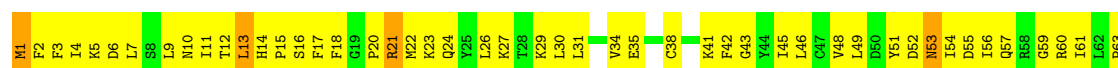
- Molecule 7: DNA-directed RNA polymerase II subunit RPB7

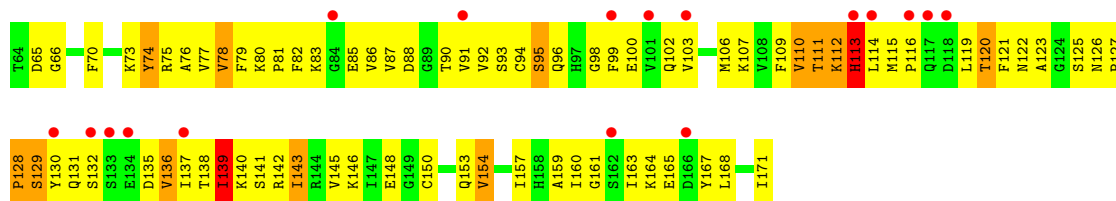
Chain G: 40% 53% 8%



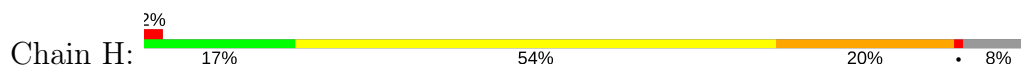
- Molecule 7: DNA-directed RNA polymerase II subunit RPB7

Chain S: 10% 26% 63% 9%

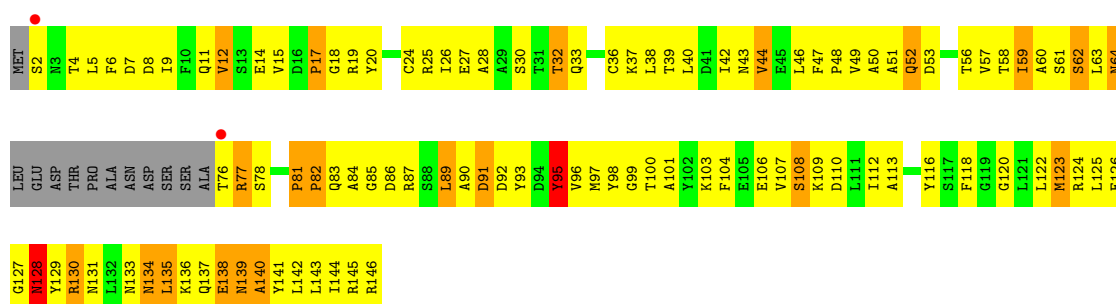




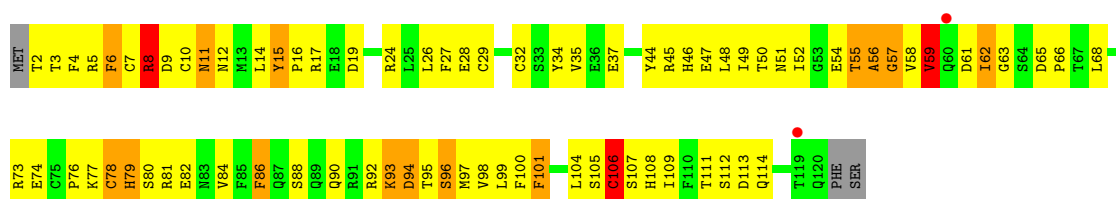
• Molecule 8: DNA-directed RNA polymerases I, II, and III subunit RPABC3



• Molecule 8: DNA-directed RNA polymerases I, II, and III subunit RPABC3



• Molecule 9: DNA-directed RNA polymerase II subunit RPB9

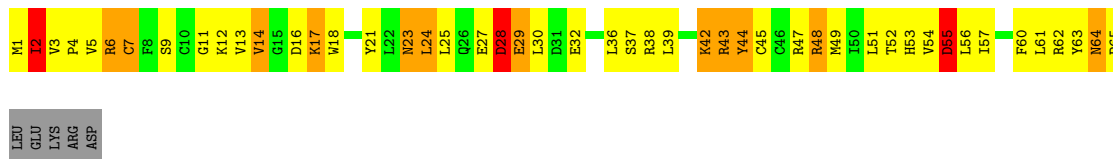
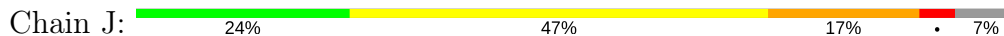


• Molecule 9: DNA-directed RNA polymerase II subunit RPB9

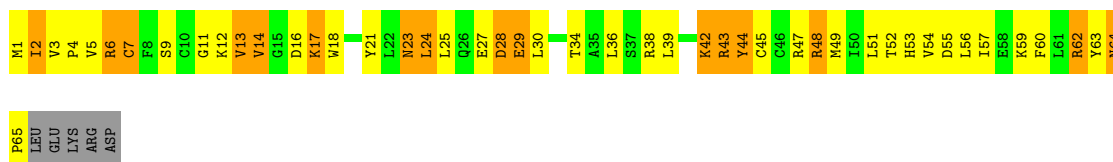




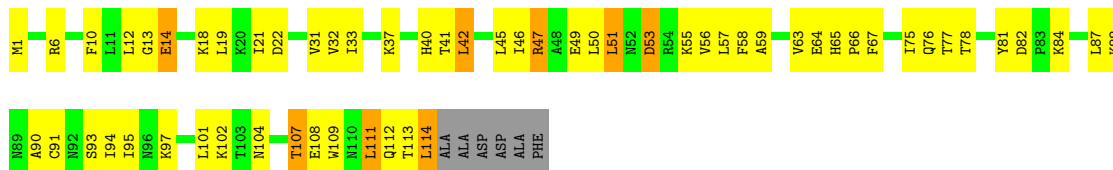
- Molecule 10: DNA-directed RNA polymerases I, II, and III subunit RPABC5



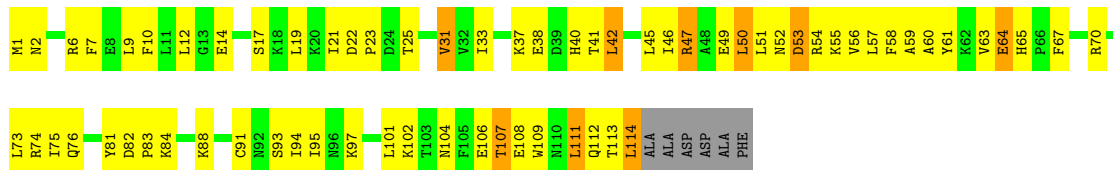
- Molecule 10: DNA-directed RNA polymerases I, II, and III subunit RPABC5



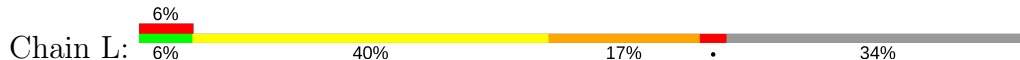
- Molecule 11: DNA-directed RNA polymerase II subunit RPB11

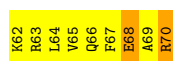


- Molecule 11: DNA-directed RNA polymerase II subunit RPB11



- Molecule 12: DNA-directed RNA polymerases I, II, and III subunit RPABC4





- Molecule 12: DNA-directed RNA polymerases I, II, and III subunit RPABC4



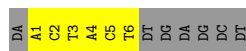
- Molecule 13: 5'-D(*AP*GP*CP*TP*CP*A*AP*GP*TP*AP*GP*TP*TP*AP*TP*GP*CP*C
P*(BRU)P*GP*GP*TP*CP*AP*TP*T)-3'



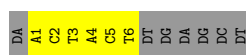
- Molecule 13: 5'-D(*AP*GP*CP*TP*CP*A*AP*GP*TP*AP*GP*TP*TP*AP*TP*GP*CP*C
P*(BRU)P*GP*GP*TP*CP*AP*TP*T)-3'



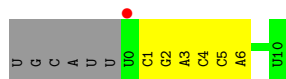
- Molecule 14: 5'-D(*A*AP*CP*TP*AP*CP*TP*TP*GP*AP*GP*CP*T)-3'



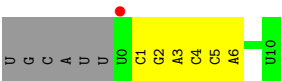
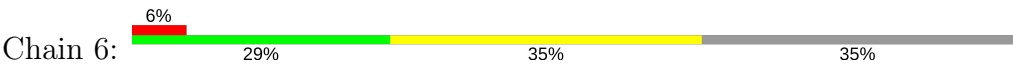
- Molecule 14: 5'-D(*A*AP*CP*TP*AP*CP*TP*TP*GP*AP*GP*CP*T)-3'



- Molecule 15: 5'-R(*UP*GP*CP*AP*UP*U*UP*CP*GP*AP*CP*CP*AP*GP*GP*CP*U)-3',



● Molecule 15: 5'-R(*UP*GP*CP*AP*UP*U*UP*CP*GP*AP*CP*CP*AP*GP*GP*CP*U)-3',



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	394.26Å 221.61Å 283.45Å 90.00° 90.90° 90.00°	Depositor
Resolution (Å)	40.00 – 3.20 38.25 – 3.02	Depositor EDS
% Data completeness (in resolution range)	95.6 (40.00-3.20) 85.7 (38.25-3.02)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.07	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.97 (at 3.01Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, R_{free}	0.233 , 0.252 0.238 , 0.244	Depositor DCC
R_{free} test set	18782 reflections (5.20%)	DCC
Wilson B-factor (Å ²)	62.6	Xtriage
Anisotropy	0.223	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 40.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.29$	Xtriage
Estimated twinning fraction	0.017 for -1/2*h-3/2*k,-1/2*h+1/2*k,-l 0.018 for -1/2*h+3/2*k,1/2*h+1/2*k,-l 0.017 for 1/2*h-3/2*k,-1/2*h-1/2*k,-l 0.017 for 1/2*h+3/2*k,1/2*h-1/2*k,-l 0.257 for -h,-k,l	Xtriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	63664	wwPDB-VP
Average B, all atoms (Å ²)	62.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.35% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 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: ZN, BRU

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	A	0.50	0/11342	0.77	8/15337 (0.1%)
1	M	0.50	0/11342	0.78	8/15337 (0.1%)
2	B	0.48	0/8948	0.74	1/12062 (0.0%)
2	N	0.48	1/8948 (0.0%)	0.74	1/12062 (0.0%)
3	C	0.49	0/2133	0.73	1/2891 (0.0%)
3	O	0.48	0/2133	0.74	1/2891 (0.0%)
4	D	0.44	0/1444	0.72	1/1935 (0.1%)
4	P	0.53	0/1444	0.85	5/1935 (0.3%)
5	E	0.46	0/1788	0.69	1/2406 (0.0%)
5	Q	0.46	0/1788	0.70	1/2406 (0.0%)
6	F	0.57	0/717	0.82	1/967 (0.1%)
6	R	0.56	0/717	0.82	1/967 (0.1%)
7	G	0.46	0/1368	0.75	1/1844 (0.1%)
7	S	0.57	0/1368	0.86	1/1844 (0.1%)
8	H	0.43	0/1094	0.71	0/1481
8	T	0.42	0/1094	0.72	0/1481
9	I	0.42	0/989	0.71	0/1331
9	U	0.45	0/989	0.71	0/1331
10	J	0.51	0/541	0.83	0/727
10	V	0.48	0/541	0.80	0/727
11	K	0.46	0/937	0.67	0/1265
11	W	0.48	0/937	0.68	0/1265
12	L	0.58	0/365	0.84	0/485
12	X	0.57	0/365	0.84	0/485
13	1	0.60	0/389	0.96	0/597
13	4	0.60	0/389	0.94	0/597
14	2	0.61	0/130	0.78	0/198
14	5	0.60	0/130	0.78	0/198
15	3	0.56	0/256	0.74	0/397
15	6	0.54	0/256	0.74	0/397
All	All	0.49	1/64882 (0.0%)	0.76	32/87846 (0.0%)

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	B	0	1
2	N	0	2
13	1	0	4
13	4	0	4
All	All	0	11

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	N	1137	CYS	CB-SG	-5.78	1.72	1.81

All (32) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	P	180	LEU	CA-CB-CG	-7.93	97.05	115.30
4	P	166	LEU	CA-CB-CG	6.53	130.32	115.30
1	A	56	PRO	N-CA-C	-6.37	95.55	112.10
1	M	56	PRO	N-CA-C	-6.35	95.59	112.10
3	C	39	ALA	N-CA-C	5.97	127.11	111.00
4	P	50	LEU	CA-CB-CG	5.89	128.85	115.30
4	P	172	LEU	CA-CB-CG	5.86	128.77	115.30
7	S	65	ASP	N-CA-C	-5.75	95.48	111.00
7	G	65	ASP	N-CA-C	-5.69	95.64	111.00
1	A	3	GLY	N-CA-C	-5.68	98.89	113.10
1	M	3	GLY	N-CA-C	-5.67	98.93	113.10
3	O	39	ALA	N-CA-C	5.66	126.27	111.00
1	M	311	GLN	N-CA-C	5.65	126.25	111.00
6	F	71	GLU	N-CA-C	-5.59	95.91	111.00
1	A	311	GLN	N-CA-C	5.58	126.07	111.00
5	Q	171	LYS	N-CA-C	-5.54	96.05	111.00
6	R	71	GLU	N-CA-C	-5.52	96.10	111.00
5	E	171	LYS	N-CA-C	-5.52	96.11	111.00
1	M	4	GLN	N-CA-C	5.51	125.89	111.00
4	P	8	PHE	N-CA-C	5.39	125.55	111.00
1	A	4	GLN	N-CA-C	5.27	125.22	111.00
4	D	8	PHE	N-CA-C	5.26	125.20	111.00
2	N	1130	PHE	N-CA-C	-5.22	96.91	111.00
1	A	331	GLY	N-CA-C	5.21	126.13	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	1130	PHE	N-CA-C	-5.19	96.98	111.00
1	A	54	ASN	C-N-CA	5.19	134.67	121.70
1	M	54	ASN	C-N-CA	5.10	134.44	121.70
1	M	629	LEU	CA-CB-CG	5.09	127.02	115.30
1	A	1403	GLU	N-CA-C	5.08	124.71	111.00
1	M	1403	GLU	N-CA-C	5.07	124.69	111.00
1	A	55	ASP	N-CA-CB	5.07	119.72	110.60
1	M	331	GLY	N-CA-C	5.02	125.65	113.10

There are no chirality outliers.

All (11) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
13	1	18	DA	Sidechain
13	1	19	DT	Sidechain
13	1	20	DG	Sidechain
13	1	21	DC	Sidechain
13	4	18	DA	Sidechain
13	4	19	DT	Sidechain
13	4	20	DG	Sidechain
13	4	21	DC	Sidechain
2	B	833	TYR	Sidechain
2	N	431	TYR	Sidechain
2	N	797	TYR	Sidechain

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	11143	0	11217	1159	0
1	M	11143	0	11217	1163	0
2	B	8779	0	8808	1066	0
2	N	8779	0	8808	1078	0
3	C	2095	0	2051	226	0
3	O	2095	0	2051	227	0
4	D	1434	0	1460	152	0
4	P	1434	0	1460	273	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	E	1752	0	1776	187	0
5	Q	1752	0	1776	202	0
6	F	705	0	731	85	0
6	R	705	0	731	75	0
7	G	1340	0	1357	145	0
7	S	1340	0	1357	205	0
8	H	1076	0	1046	171	0
8	T	1076	0	1046	154	0
9	I	971	0	929	117	0
9	U	971	0	929	126	0
10	J	532	0	542	97	0
10	V	532	0	542	95	0
11	K	919	0	929	81	0
11	W	919	0	929	84	0
12	L	363	0	387	87	0
12	X	363	0	387	84	0
13	1	368	0	203	27	0
13	4	368	0	203	27	0
14	2	117	0	70	13	0
14	5	117	0	70	11	0
15	3	230	0	121	8	0
15	6	230	0	121	8	0
16	A	2	0	0	0	0
16	B	1	0	0	0	0
16	C	1	0	0	0	0
16	I	2	0	0	0	0
16	J	1	0	0	0	0
16	L	1	0	0	0	0
16	M	2	0	0	0	0
16	N	1	0	0	0	0
16	O	1	0	0	0	0
16	U	2	0	0	0	0
16	V	1	0	0	0	0
16	X	1	0	0	0	0
All	All	63664	0	63254	6846	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 54.

All (6846) 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)
2:N:510:LYS:HG3	2:N:511:PRO:HD3	1.21	1.17
1:A:855:THR:HG21	1:A:857:ARG:HE	1.08	1.16
9:U:111:THR:HG22	9:U:113:ASP:H	1.05	1.15
5:Q:124:VAL:HG13	5:Q:132:ILE:HB	1.28	1.15
8:H:4:THR:HA	8:H:60:ALA:HB2	1.26	1.14
1:M:855:THR:HG21	1:M:857:ARG:HE	1.03	1.14
9:I:111:THR:HG22	9:I:113:ASP:H	1.05	1.14
3:O:57:VAL:HG11	10:V:60:PHE:HB3	1.26	1.14
2:N:102:VAL:HG23	2:N:112:LEU:HB2	1.30	1.14
8:T:4:THR:HA	8:T:60:ALA:HB2	1.27	1.13
1:A:53:LEU:HD23	1:A:54:ASN:H	1.03	1.12
2:B:508:LEU:N	14:2:1:DA:HO5'	1.49	1.10
1:M:1420:ASP:HB3	1:M:1422:ARG:HG3	1.33	1.10
1:A:541:ILE:HD13	1:A:549:MET:HE1	1.33	1.10
2:N:710:LEU:HA	2:N:733:HIS:HB3	1.33	1.09
1:M:351:THR:HG22	2:N:1103:ILE:HA	1.35	1.09
3:C:177:GLU:HG3	3:C:231:ASN:HB3	1.33	1.09
1:A:567:LYS:HB3	8:H:96:VAL:H	1.12	1.08
2:B:559:SER:HA	2:B:563:MET:HB3	1.33	1.08
1:M:1161:THR:HG22	1:M:1163:ILE:H	1.12	1.08
2:B:521:LEU:HD22	2:B:633:VAL:HG12	1.35	1.07
1:M:41:MET:HB3	1:M:49:LYS:HA	1.33	1.07
2:B:622:LYS:HE2	9:I:59:VAL:HG22	1.31	1.07
2:N:559:SER:HA	2:N:563:MET:HB3	1.34	1.07
2:B:102:VAL:HG23	2:B:112:LEU:HB2	1.33	1.07
7:G:111:THR:HG23	7:G:114:LEU:HB2	1.35	1.07
3:C:57:VAL:HG11	10:J:60:PHE:HB3	1.33	1.07
1:M:53:LEU:HD23	1:M:54:ASN:N	1.69	1.06
2:N:622:LYS:HE2	9:U:59:VAL:HG22	1.34	1.06
1:A:1161:THR:HG22	1:A:1163:ILE:H	1.12	1.06
5:Q:197:LYS:HE2	5:Q:199:ILE:HD11	1.36	1.06
1:A:107:CYS:HA	1:A:171:GLN:HE22	1.18	1.06
1:A:41:MET:HB3	1:A:49:LYS:HA	1.33	1.06
1:M:53:LEU:CD2	1:M:54:ASN:H	1.68	1.05
1:M:108:MET:HA	1:M:210:ILE:HD13	1.37	1.05
2:N:521:LEU:HD22	2:N:633:VAL:HG12	1.35	1.05
1:M:567:LYS:HB3	8:T:96:VAL:H	1.18	1.05
2:B:710:LEU:HA	2:B:733:HIS:HB3	1.33	1.05
1:A:351:THR:HG22	2:B:1103:ILE:HA	1.36	1.05
5:E:124:VAL:HG13	5:E:132:ILE:HB	1.30	1.04
12:L:26:THR:HG22	12:L:27:LEU:H	1.21	1.04
5:E:197:LYS:HE2	5:E:199:ILE:HD11	1.37	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:353:ILE:HG21	1:A:487:MET:HG3	1.38	1.04
5:E:94:LYS:HE2	5:E:98:ILE:HD11	1.37	1.04
1:M:53:LEU:HD23	1:M:54:ASN:H	0.87	1.03
2:B:577:ALA:HB1	2:B:589:VAL:HG11	1.37	1.03
1:M:353:ILE:HG21	1:M:487:MET:HG3	1.41	1.03
5:E:117:THR:HG22	5:E:119:SER:H	1.23	1.02
2:N:516:ASN:H	2:N:516:ASN:HD22	1.04	1.02
2:N:516:ASN:N	2:N:516:ASN:HD22	1.57	1.02
2:N:114:PRO:HG3	2:N:181:LEU:HD11	1.36	1.02
2:N:583:ASN:HD21	2:N:628:THR:HG22	1.19	1.01
12:X:26:THR:HG22	12:X:27:LEU:H	1.21	1.01
7:S:1:MET:HE1	7:S:79:PHE:HA	1.36	1.01
2:B:583:ASN:HD21	2:B:628:THR:HG22	1.24	1.01
1:M:297:GLN:HE21	1:M:297:GLN:HA	1.23	1.01
2:N:577:ALA:HB1	2:N:589:VAL:HG11	1.39	1.01
3:O:177:GLU:HG3	3:O:231:ASN:HB3	1.43	1.01
2:B:510:LYS:CG	2:B:511:PRO:HD3	1.91	1.01
1:M:1385:THR:HG22	1:M:1387:HIS:H	1.24	1.00
1:A:53:LEU:CD2	1:A:54:ASN:H	1.73	1.00
2:B:579:ARG:HB2	2:B:586:TRP:HE1	1.24	1.00
1:A:297:GLN:HA	1:A:297:GLN:HE21	1.25	1.00
12:L:40:LEU:HD13	12:L:44:ASP:HB3	1.44	1.00
9:U:93:LYS:H	9:U:93:LYS:HD3	1.25	0.99
5:E:56:LYS:HE2	5:E:84:ASP:HB2	1.44	0.99
1:A:524:VAL:HG12	1:A:525:GLN:H	1.28	0.99
8:T:130:ARG:HH11	8:T:130:ARG:HB2	1.26	0.98
8:T:95:TYR:HE2	8:T:97:MET:HG3	1.26	0.98
8:H:59:ILE:HG22	8:H:60:ALA:H	1.28	0.98
1:A:344:ARG:HB3	1:A:344:ARG:HH11	1.25	0.98
1:M:1255:GLU:HG3	1:M:1258:HIS:HD2	1.28	0.98
2:B:516:ASN:H	2:B:516:ASN:HD22	1.12	0.98
2:B:510:LYS:HG3	2:B:511:PRO:CD	1.92	0.98
2:B:744:HIS:HD2	2:B:745:PRO:HD2	1.24	0.97
5:Q:56:LYS:HE2	5:Q:84:ASP:HB2	1.45	0.97
4:P:118:THR:HB	4:P:121:LYS:HB2	1.46	0.97
3:C:101:LEU:HD13	3:C:118:LEU:HD23	1.46	0.97
5:Q:14:ARG:HH21	5:Q:141:VAL:HG12	1.26	0.97
3:C:7:GLN:HE21	11:K:104:ASN:ND2	1.61	0.97
10:V:5:VAL:HG12	10:V:6:ARG:HG3	1.45	0.97
2:B:615:MET:HB3	2:B:626:ILE:HG12	1.45	0.97
8:T:84:ALA:HB2	8:T:87:ARG:HD2	1.45	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:957:ASN:HD21	2:B:961:LEU:HB2	1.26	0.97
9:I:6:PHE:HB3	9:I:12:ASN:O	1.64	0.97
1:M:903:ASN:HD22	1:M:904:THR:N	1.62	0.97
4:P:56:ARG:HA	4:P:148:LEU:HD13	1.46	0.97
4:P:159:THR:O	4:P:163:VAL:HG23	1.64	0.96
1:M:1006:ILE:HD11	5:Q:163:GLU:HG3	1.46	0.96
1:A:90:VAL:HB	1:A:297:GLN:NE2	1.81	0.96
1:M:779:PHE:CE1	1:M:785:PRO:HD3	2.01	0.96
8:T:59:ILE:HG22	8:T:60:ALA:H	1.31	0.96
1:A:53:LEU:HD23	1:A:54:ASN:N	1.79	0.96
1:A:1329:THR:HG22	1:A:1331:SER:H	1.28	0.96
5:E:153:HIS:O	5:E:154:ILE:HG13	1.64	0.95
7:G:7:LEU:HB2	7:G:74:TYR:CE2	2.01	0.95
1:A:34:LYS:HD2	4:P:187:THR:HG21	1.45	0.95
2:N:510:LYS:CG	2:N:511:PRO:HD3	1.96	0.95
5:Q:153:HIS:O	5:Q:154:ILE:HG13	1.67	0.95
1:A:1116:LEU:N	1:A:1308:THR:HG22	1.80	0.95
1:M:41:MET:CB	1:M:49:LYS:HA	1.96	0.95
2:N:880:THR:HB	2:N:934:LYS:HD2	1.49	0.95
10:J:3:VAL:HG21	10:J:18:TRP:HB2	1.45	0.95
2:B:516:ASN:N	2:B:516:ASN:HD22	1.64	0.95
3:C:238:ILE:HG22	3:C:243:VAL:HG23	1.49	0.95
9:U:26:LEU:HD23	9:U:37:GLU:HA	1.45	0.95
3:O:47:ASP:HA	12:X:69:ALA:HB3	1.47	0.95
9:U:6:PHE:HB3	9:U:12:ASN:O	1.67	0.95
1:A:285:PRO:HG2	1:A:288:ALA:HB3	1.45	0.95
1:M:855:THR:CG2	1:M:857:ARG:HE	1.80	0.95
2:B:114:PRO:HG3	2:B:181:LEU:HD11	1.45	0.94
2:B:510:LYS:HG3	2:B:511:PRO:HD3	0.97	0.94
1:A:472:LEU:O	1:A:475:THR:HB	1.68	0.94
10:J:64:ASN:HB3	10:J:65:PRO:CD	1.97	0.94
2:B:806:THR:HG22	2:B:808:ALA:H	1.31	0.94
10:V:64:ASN:HB3	10:V:65:PRO:CD	1.98	0.94
1:M:541:ILE:HD13	1:M:549:MET:HE1	1.48	0.94
2:N:289:LEU:HD13	2:N:375:ALA:HB2	1.49	0.94
2:N:542:MET:HG2	2:N:747:MET:HE3	1.49	0.94
4:P:14:ARG:HH22	4:P:16:LYS:HD2	1.29	0.94
1:A:308:ILE:HG22	1:A:309:ALA:H	1.33	0.94
1:A:770:VAL:HG12	1:A:771:GLU:HG3	1.49	0.94
2:N:1007:VAL:HG22	2:N:1008:PRO:HD2	1.50	0.94
2:N:508:LEU:N	14:5:1:DA:HO5'	1.65	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:108:MET:HA	1:A:210:ILE:HD13	1.47	0.93
7:S:91:VAL:HG23	7:S:143:ILE:HD11	1.46	0.93
2:B:1065:GLN:HE21	2:B:1067:ARG:H	1.03	0.93
2:N:806:THR:HG22	2:N:808:ALA:H	1.31	0.93
6:R:93:ILE:HD11	6:R:134:ILE:HD11	1.50	0.93
7:G:139:ILE:HG23	7:G:140:LYS:HG3	1.46	0.93
1:M:1364:ASN:OD1	1:M:1366:ARG:HG2	1.69	0.93
2:B:289:LEU:HD13	2:B:375:ALA:HB2	1.48	0.93
5:Q:114:ASN:O	5:Q:115:ASN:HB3	1.65	0.93
6:R:103:MET:CE	7:S:66:GLY:H	1.80	0.93
12:X:40:LEU:HD13	12:X:44:ASP:HB3	1.48	0.93
1:M:14:VAL:H	1:M:1432:GLN:HE22	1.07	0.93
12:X:55:ILE:HG12	12:X:56:LEU:H	1.34	0.93
1:A:903:ASN:ND2	1:A:905:ASP:H	1.66	0.93
3:C:123:ASN:ND2	3:C:125:MET:HG2	1.84	0.93
1:M:344:ARG:HB3	1:M:344:ARG:HH11	1.34	0.93
9:I:93:LYS:H	9:I:93:LYS:HD3	1.29	0.93
12:L:55:ILE:HD13	12:L:55:ILE:H	1.33	0.92
10:V:3:VAL:HG21	10:V:18:TRP:HB2	1.50	0.92
2:B:288:ALA:HB1	2:B:331:LEU:HD12	1.50	0.92
1:M:1036:ARG:HG2	1:M:1036:ARG:HH11	1.34	0.92
6:F:103:MET:CE	7:G:66:GLY:H	1.82	0.92
1:M:855:THR:HG21	1:M:857:ARG:NE	1.83	0.92
7:S:91:VAL:CG2	7:S:143:ILE:HD11	2.00	0.92
1:M:503:GLN:HE21	6:R:90:ARG:HH21	1.17	0.92
1:A:41:MET:CB	1:A:49:LYS:HA	2.00	0.92
1:M:90:VAL:HB	1:M:297:GLN:NE2	1.84	0.92
1:M:563:PRO:HG3	1:M:572:TRP:CZ2	2.04	0.92
2:B:1072:MET:CE	2:B:1085:ILE:HB	2.00	0.91
3:C:47:ASP:HA	12:L:69:ALA:HB3	1.50	0.91
1:A:7:SER:HB3	2:B:1193:GLN:HE22	1.32	0.91
1:A:503:GLN:HE21	6:F:90:ARG:HH21	1.04	0.91
1:M:1116:LEU:N	1:M:1308:THR:HG22	1.84	0.91
1:M:1444:MET:HG3	7:S:60:ARG:HA	1.50	0.91
5:E:9:ILE:HD11	5:E:53:PRO:HD3	1.52	0.91
9:I:26:LEU:HD23	9:I:37:GLU:HA	1.52	0.91
6:R:82:THR:HG22	6:R:84:TYR:H	1.35	0.91
10:J:5:VAL:HG12	10:J:6:ARG:HG3	1.52	0.91
10:J:63:TYR:O	10:J:64:ASN:HB2	1.71	0.91
1:M:961:ARG:HG2	1:M:965:GLN:HE21	1.35	0.91
1:A:567:LYS:HB3	8:H:96:VAL:N	1.86	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1007:VAL:HG22	2:B:1008:PRO:HD2	1.53	0.91
5:E:114:ASN:O	5:E:115:ASN:HB3	1.69	0.91
7:G:97:HIS:CD2	7:S:95:SER:HB3	2.05	0.91
2:N:217:ARG:HE	2:N:405:ARG:HB2	1.32	0.90
7:G:151:ILE:HG21	7:S:113:HIS:O	1.70	0.90
11:W:65:HIS:CD2	11:W:67:PHE:H	1.89	0.90
4:D:118:THR:HB	4:D:121:LYS:HB2	1.52	0.90
3:O:123:ASN:ND2	3:O:125:MET:HG2	1.84	0.90
2:B:737:THR:HG21	9:I:66:PRO:HA	1.53	0.90
4:P:154:PHE:CD1	4:P:163:VAL:HG21	2.06	0.90
2:B:792:MET:HE2	2:B:857:ARG:HH22	1.36	0.90
1:A:54:ASN:HB3	1:A:247:ARG:HH12	1.36	0.90
2:B:579:ARG:HB2	2:B:586:TRP:NE1	1.86	0.90
2:N:863:GLU:OE2	2:N:873:THR:HA	1.71	0.90
2:N:427:ASP:HA	2:N:430:ARG:HD2	1.54	0.89
10:V:48:ARG:HH11	10:V:48:ARG:HG2	1.36	0.89
13:1:22:DC:H2''	13:1:23:BRU:H5'	1.52	0.89
2:B:217:ARG:HE	2:B:405:ARG:HB2	1.35	0.89
1:M:1255:GLU:HG3	1:M:1258:HIS:CD2	2.06	0.89
1:M:316:GLN:HE21	1:M:317:LYS:HE3	1.36	0.89
1:A:14:VAL:H	1:A:1432:GLN:HE22	1.10	0.89
8:T:130:ARG:NH1	8:T:130:ARG:HB2	1.88	0.89
2:B:744:HIS:CD2	2:B:745:PRO:HD2	2.08	0.89
1:M:567:LYS:NZ	8:T:46:LEU:HB2	1.87	0.89
1:A:779:PHE:CE1	1:A:785:PRO:HD3	2.07	0.89
2:B:890:TYR:O	2:B:893:LEU:HB2	1.73	0.89
7:S:13:LEU:HD21	7:S:17:PHE:HB2	1.54	0.89
2:B:758:PHE:CE2	2:B:1044:ALA:HA	2.07	0.88
1:A:687:LYS:O	1:A:690:VAL:HG12	1.72	0.88
2:B:805:THR:HG22	2:B:806:THR:H	1.36	0.88
1:A:1444:MET:HG3	7:G:60:ARG:HA	1.53	0.88
13:4:22:DC:H2''	13:4:23:BRU:H5'	1.53	0.88
2:N:800:GLN:HB3	10:V:52:THR:CG2	2.02	0.88
6:F:93:ILE:HD11	6:F:134:ILE:HD11	1.52	0.88
9:I:111:THR:CG2	9:I:113:ASP:H	1.87	0.88
1:M:1224:LEU:HD11	1:M:1240:CYS:HB3	1.55	0.88
4:P:188:ALA:HB3	4:P:204:ASP:OD1	1.74	0.88
2:B:800:GLN:HB3	10:J:52:THR:CG2	2.02	0.88
2:B:1072:MET:HE2	2:B:1085:ILE:HB	1.52	0.88
13:1:13:DT:H2''	13:1:14:DA:OP2	1.72	0.88
1:M:308:ILE:HG22	1:M:309:ALA:H	1.39	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:156:ASP:HB3	4:P:158:GLU:OE1	1.73	0.88
1:A:629:LEU:O	1:A:633:VAL:HG23	1.74	0.88
1:A:913:LEU:HD12	1:A:914:GLU:H	1.36	0.88
1:A:1398:MET:HB2	1:A:1426:GLU:OE2	1.74	0.88
1:M:687:LYS:O	1:M:690:VAL:HG12	1.72	0.88
1:M:903:ASN:ND2	1:M:905:ASP:H	1.72	0.88
2:N:168:GLY:H	2:N:450:ALA:HB1	1.37	0.87
1:A:445:ASN:HB2	1:A:455:MET:HG2	1.56	0.87
1:A:567:LYS:HB2	1:A:568:PRO:HD2	1.53	0.87
12:L:55:ILE:HG12	12:L:56:LEU:H	1.39	0.87
2:N:273:LEU:HD12	2:N:280:ILE:HD12	1.55	0.87
1:M:902:LEU:HG	1:M:926:GLN:HG3	1.53	0.87
10:V:64:ASN:HD22	10:V:65:PRO:HD3	1.39	0.87
5:Q:117:THR:HG22	5:Q:119:SER:H	1.38	0.87
2:B:1095:LEU:HD12	2:B:1095:LEU:H	1.37	0.87
2:B:168:GLY:H	2:B:450:ALA:HB1	1.37	0.87
8:H:84:ALA:HB2	8:H:87:ARG:HD2	1.55	0.87
2:N:957:ASN:HD21	2:N:961:LEU:HB2	1.38	0.87
1:M:399:HIS:HB3	1:M:400:PRO:HD3	1.54	0.87
5:Q:94:LYS:HE2	5:Q:98:ILE:HD11	1.57	0.87
1:M:288:ALA:HA	1:M:291:GLU:CD	1.96	0.87
1:M:316:GLN:NE2	1:M:317:LYS:HE3	1.90	0.87
4:P:156:ASP:HB2	4:P:159:THR:HG23	1.55	0.87
10:V:63:TYR:O	10:V:64:ASN:HB2	1.75	0.87
1:A:1036:ARG:HH11	1:A:1036:ARG:HG2	1.40	0.86
1:A:399:HIS:HB3	1:A:400:PRO:HD3	1.54	0.86
8:H:100:THR:HG23	8:H:138:GLU:HA	1.56	0.86
2:N:226:PHE:HA	2:N:395:GLN:HG3	1.55	0.86
9:U:50:THR:HG22	9:U:51:ASN:H	1.39	0.86
1:M:768:GLN:HG2	1:M:816:HIS:HA	1.56	0.86
13:4:13:DT:H2"	13:4:14:DA:OP2	1.73	0.86
1:A:710:LEU:HD12	1:A:710:LEU:H	1.38	0.86
7:G:26:LEU:HD12	7:G:56:ILE:HD11	1.55	0.86
1:A:563:PRO:HG3	1:A:572:TRP:CZ2	2.11	0.86
3:O:66:ARG:NH1	10:V:2:ILE:HG21	1.91	0.86
2:B:880:THR:HB	2:B:934:LYS:HD2	1.58	0.86
2:N:1065:GLN:HE21	2:N:1067:ARG:H	1.17	0.86
2:N:805:THR:HG22	2:N:806:THR:H	1.39	0.86
11:W:65:HIS:HD2	11:W:67:PHE:H	1.21	0.86
1:A:1341:ILE:HD12	1:A:1379:GLY:O	1.75	0.86
1:A:902:LEU:HG	1:A:926:GLN:HG3	1.58	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:381:THR:HG22	1:M:383:TYR:H	1.41	0.86
1:M:853:ASP:OD1	1:M:855:THR:HB	1.76	0.86
1:A:768:GLN:HG2	1:A:816:HIS:HA	1.55	0.85
5:E:117:THR:HB	5:E:120:ALA:HB2	1.57	0.85
8:H:59:ILE:HG22	8:H:60:ALA:N	1.90	0.85
1:M:90:VAL:HB	1:M:297:GLN:HE22	1.41	0.85
1:M:961:ARG:HG2	1:M:965:GLN:NE2	1.90	0.85
2:N:241:ARG:HG2	2:N:253:THR:CG2	2.05	0.85
1:M:265:LYS:CA	1:M:265:LYS:HE3	2.05	0.85
1:M:672:ASP:HB3	1:M:736:ASN:HD21	1.41	0.85
12:X:32:ALA:CB	12:X:55:ILE:HG13	2.06	0.85
1:A:903:ASN:HD22	1:A:904:THR:N	1.71	0.85
1:M:249:SER:O	1:M:250:ILE:HG13	1.74	0.85
1:M:285:PRO:HG2	1:M:288:ALA:HB3	1.58	0.85
9:U:111:THR:HG22	9:U:113:ASP:N	1.90	0.85
1:M:629:LEU:O	1:M:633:VAL:HG23	1.76	0.85
4:P:71:LYS:HA	4:P:74:GLN:HG3	1.59	0.85
2:B:583:ASN:HD21	2:B:628:THR:CG2	1.88	0.85
1:M:54:ASN:HB3	1:M:247:ARG:HH12	1.41	0.85
2:N:510:LYS:HG3	2:N:511:PRO:CD	2.05	0.85
7:S:116:PRO:HD2	7:S:119:LEU:HD23	1.59	0.85
1:A:1364:ASN:OD1	1:A:1366:ARG:HG2	1.77	0.85
2:B:430:ARG:HB3	2:B:430:ARG:HH11	1.39	0.85
1:A:855:THR:HG21	1:A:857:ARG:NE	1.92	0.85
2:B:744:HIS:HD2	2:B:745:PRO:CD	1.89	0.85
9:I:111:THR:HG22	9:I:113:ASP:N	1.91	0.85
1:M:1341:ILE:HD12	1:M:1379:GLY:O	1.76	0.85
4:P:208:GLU:O	4:P:212:LYS:HG3	1.77	0.85
1:A:407:ARG:HD2	1:A:413:ILE:HD11	1.59	0.85
1:M:567:LYS:HB2	1:M:568:PRO:HD2	1.58	0.85
2:N:705:MET:H	2:N:710:LEU:HD12	1.42	0.85
2:N:758:PHE:CE2	2:N:1044:ALA:HA	2.11	0.85
6:R:103:MET:HE2	7:S:66:GLY:H	1.42	0.85
1:M:288:ALA:HA	1:M:291:GLU:OE1	1.77	0.85
8:T:59:ILE:HG22	8:T:60:ALA:N	1.90	0.85
1:M:567:LYS:HB3	8:T:96:VAL:N	1.92	0.85
2:B:824:ILE:HG12	10:J:48:ARG:HH12	1.42	0.84
3:C:50:GLU:OE1	12:L:64:LEU:HD22	1.77	0.84
2:N:241:ARG:HG2	2:N:253:THR:HG22	1.56	0.84
2:N:890:TYR:O	2:N:893:LEU:HB2	1.78	0.84
3:O:56:THR:HG21	3:O:145:CYS:SG	2.17	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:294:ASP:O	2:B:296:GLU:N	2.10	0.84
1:A:667:GLY:HA2	1:A:670:ILE:HD11	1.58	0.84
1:A:754:SER:H	1:A:757:ASN:HD22	1.22	0.84
2:B:65:GLU:OE1	2:B:418:LYS:HE3	1.77	0.84
7:S:115:MET:HB3	7:S:116:PRO:HD2	1.59	0.84
7:S:138:THR:HG22	7:S:139:ILE:HG22	1.57	0.84
6:F:79:ARG:HA	6:F:144:GLU:OE1	1.78	0.84
1:M:754:SER:H	1:M:757:ASN:HD22	1.23	0.84
2:N:261:ARG:HB3	2:N:261:ARG:HH11	1.43	0.84
5:Q:15:ALA:O	5:Q:19:VAL:HG23	1.76	0.84
2:B:295:GLY:H	2:B:298:LEU:HD23	1.42	0.84
1:M:858:ASN:ND2	1:M:860:LEU:H	1.76	0.84
2:N:244:LEU:HD11	2:N:366:GLN:HE22	1.43	0.84
7:S:122:ASN:ND2	7:S:125:SER:HB3	1.93	0.84
8:T:82:PRO:C	8:T:84:ALA:H	1.78	0.84
1:M:145:LYS:HA	1:M:145:LYS:HE3	1.60	0.83
3:O:73:GLN:HE21	3:O:75:MET:H	1.25	0.83
1:A:1385:THR:HG22	1:A:1387:HIS:H	1.42	0.83
2:B:834:ASN:HB3	2:B:840:ILE:HG13	1.60	0.83
6:F:82:THR:HG22	6:F:84:TYR:H	1.42	0.83
8:H:82:PRO:C	8:H:84:ALA:H	1.78	0.83
1:A:107:CYS:HA	1:A:171:GLN:NE2	1.93	0.83
2:B:878:GLN:HB2	2:B:879:ARG:HD2	1.61	0.83
11:K:65:HIS:CD2	11:K:67:PHE:H	1.95	0.83
12:L:30:ILE:O	12:L:56:LEU:HA	1.77	0.83
7:S:34:VAL:HG11	7:S:74:TYR:HE1	1.42	0.83
7:G:97:HIS:HD2	7:S:95:SER:HB3	1.44	0.83
1:M:567:LYS:HD2	1:M:568:PRO:HD2	1.58	0.83
11:W:58:PHE:HB3	11:W:76:GLN:HB3	1.59	0.83
1:A:451:HIS:CD2	1:A:1074:GLU:HG3	2.13	0.83
1:A:43:GLU:HG3	1:A:46:THR:HB	1.59	0.83
2:B:642:ASP:HA	2:B:649:LYS:HA	1.60	0.83
1:M:1110:ASN:N	1:M:1110:ASN:HD22	1.76	0.83
7:S:13:LEU:CD2	7:S:17:PHE:HB2	2.08	0.83
2:N:1072:MET:HE2	2:N:1085:ILE:HB	1.61	0.83
2:N:879:ARG:H	2:N:879:ARG:CZ	1.90	0.83
4:P:14:ARG:NH2	4:P:16:LYS:HD2	1.93	0.83
8:T:100:THR:HG23	8:T:138:GLU:HA	1.59	0.83
13:4:12:DG:H4'	13:4:13:DT:OP1	1.78	0.83
2:B:226:PHE:HA	2:B:395:GLN:HG3	1.61	0.83
1:M:43:GLU:HG3	1:M:46:THR:HB	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:567:LYS:CG	1:M:568:PRO:HD2	2.09	0.83
1:A:446:ARG:HB2	1:A:487:MET:SD	2.18	0.83
1:M:157:ASP:OD2	1:M:159:THR:HB	1.79	0.83
1:A:1420:ASP:HB3	1:A:1422:ARG:HG3	1.60	0.83
2:B:292:ILE:HD11	2:B:327:ARG:H	1.43	0.83
1:M:591:PHE:HA	1:M:595:THR:HG21	1.60	0.83
2:N:292:ILE:HD11	2:N:327:ARG:H	1.43	0.83
5:Q:117:THR:HB	5:Q:120:ALA:HB2	1.61	0.83
1:A:1445:ILE:HD12	1:A:1445:ILE:H	1.41	0.83
1:M:87:ALA:HB3	1:M:276:LEU:HD23	1.61	0.83
2:N:999:MET:HG3	2:N:1000:PRO:HD2	1.60	0.83
2:N:465:ASN:HD22	2:N:465:ASN:N	1.74	0.83
1:A:265:LYS:HE3	1:A:265:LYS:CA	2.09	0.82
2:B:705:MET:H	2:B:710:LEU:HD12	1.43	0.82
12:L:32:ALA:CB	12:L:55:ILE:HG13	2.09	0.82
2:N:862:GLN:HG2	2:N:963:PHE:HD1	1.42	0.82
6:R:111:LEU:HD12	6:R:111:LEU:H	1.43	0.82
1:A:1158:PRO:O	1:A:1159:ARG:HG3	1.79	0.82
2:N:763:GLN:HG2	2:N:765:PRO:HD2	1.61	0.82
7:S:7:LEU:HB2	7:S:74:TYR:CE2	2.15	0.82
10:V:64:ASN:HB3	10:V:65:PRO:HD3	1.62	0.82
1:A:33:ALA:HA	1:A:57:ARG:HH12	1.43	0.82
1:M:414:ASP:OD1	1:M:416:ARG:HG2	1.79	0.82
2:N:751:VAL:HG13	2:N:812:LEU:HD22	1.60	0.82
1:A:1161:THR:HG22	1:A:1163:ILE:N	1.94	0.82
1:M:710:LEU:H	1:M:710:LEU:HD12	1.45	0.82
5:Q:180:ARG:HH21	5:Q:192:ARG:HB2	1.44	0.82
2:B:745:PRO:O	2:B:748:ILE:HG12	1.79	0.82
1:M:66:LYS:HD3	1:M:67:CYS:N	1.95	0.82
2:N:642:ASP:HA	2:N:649:LYS:HA	1.61	0.82
8:T:109:LYS:HG2	8:T:110:ASP:OD1	1.80	0.82
2:B:515:HIS:H	2:B:518:HIS:HD2	1.27	0.82
2:N:1072:MET:CE	2:N:1085:ILE:HB	2.09	0.82
6:R:90:ARG:HD3	6:R:155:LEU:HD13	1.62	0.82
13:1:12:DG:H4'	13:1:13:DT:OP1	1.79	0.82
2:B:295:GLY:N	2:B:298:LEU:HD23	1.94	0.82
4:D:192:LYS:HD2	4:D:199:ASN:HA	1.59	0.82
2:N:1095:LEU:HD12	2:N:1095:LEU:H	1.45	0.82
2:N:1201:LYS:HE2	2:N:1205:GLN:OE1	1.79	0.82
1:A:93:VAL:HG13	1:A:301:ALA:HB1	1.60	0.82
1:M:265:LYS:HE3	1:M:265:LYS:HA	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:148:ARG:NH1	3:O:149:LYS:HE3	1.93	0.82
1:A:90:VAL:HB	1:A:297:GLN:HE22	1.41	0.82
2:B:469:GLN:O	2:B:472:ALA:HB3	1.80	0.82
2:N:393:LYS:HA	2:N:393:LYS:HE3	1.61	0.82
4:P:119:ARG:HB2	4:P:221:TYR:CE1	2.15	0.82
4:P:56:ARG:HH21	4:P:155:ARG:HG2	1.45	0.82
5:Q:19:VAL:O	5:Q:23:VAL:HG23	1.79	0.81
12:X:30:ILE:O	12:X:56:LEU:HA	1.79	0.81
1:A:157:ASP:OD2	1:A:159:THR:HB	1.81	0.81
2:B:390:LEU:O	2:B:392:ARG:HG3	1.80	0.81
1:M:244:PRO:HB2	1:M:245:PRO:HD3	1.62	0.81
3:O:244:VAL:O	3:O:248:ILE:HG13	1.79	0.81
4:P:146:GLN:O	4:P:149:THR:HG22	1.79	0.81
1:A:265:LYS:HE3	1:A:265:LYS:N	1.95	0.81
7:G:13:LEU:CD2	7:G:17:PHE:HB2	2.11	0.81
3:O:128:ASN:O	3:O:129:ILE:HG13	1.80	0.81
9:U:93:LYS:H	9:U:93:LYS:CD	1.93	0.81
1:A:858:ASN:ND2	1:A:860:LEU:H	1.78	0.81
2:B:1187:ASN:HD21	2:B:1190:ASP:HB3	1.46	0.81
2:B:879:ARG:CZ	2:B:879:ARG:H	1.93	0.81
11:K:57:LEU:HB2	11:K:76:GLN:HG2	1.60	0.81
8:T:40:LEU:HD23	8:T:42:ILE:HD11	1.61	0.81
1:A:1329:THR:HG22	1:A:1331:SER:N	1.94	0.81
1:A:470:LEU:HD23	1:A:470:LEU:H	1.45	0.81
2:B:622:LYS:HE2	9:I:59:VAL:CG2	2.10	0.81
2:B:996:ARG:HH12	3:C:174:ALA:HA	1.44	0.81
5:E:19:VAL:O	5:E:23:VAL:HG23	1.80	0.81
10:V:1:MET:N	10:V:57:ILE:H	1.78	0.81
1:A:392:VAL:HG13	1:A:415:LEU:HD11	1.61	0.81
11:K:58:PHE:HB3	11:K:76:GLN:HB3	1.61	0.81
2:N:65:GLU:OE1	2:N:418:LYS:HE3	1.80	0.81
3:O:238:ILE:HG22	3:O:243:VAL:HG23	1.61	0.81
1:A:683:ILE:HG21	1:A:801:GLU:HG3	1.63	0.81
13:1:23:BRU:H5''	13:1:23:BRU:H6	1.61	0.81
2:B:1100:ASP:OD2	11:K:1:MET:HB3	1.80	0.81
2:B:911:ILE:HD11	2:B:941:LEU:HD13	1.63	0.81
6:F:103:MET:HE2	7:G:66:GLY:H	1.45	0.81
9:I:50:THR:HG22	9:I:51:ASN:H	1.44	0.81
1:M:524:VAL:HG12	1:M:525:GLN:H	1.45	0.81
7:S:126:ASN:HD22	7:S:127:PRO:HA	1.46	0.81
8:T:84:ALA:CB	8:T:87:ARG:HD2	2.11	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:38:PRO:HA	1:A:270:LEU:HD23	1.63	0.80
3:O:252:GLN:HG3	11:W:95:ILE:HG23	1.63	0.80
2:B:1065:GLN:HE21	2:B:1067:ARG:N	1.79	0.80
7:G:122:ASN:ND2	7:G:125:SER:HB3	1.95	0.80
1:M:1161:THR:HG22	1:M:1163:ILE:N	1.94	0.80
1:M:1259:MET:HA	1:M:1262:LYS:HD2	1.63	0.80
1:M:567:LYS:HB2	1:M:568:PRO:CD	2.11	0.80
13:4:16:DT:H5'	13:4:16:DT:H6	1.46	0.80
9:U:76:PRO:HD2	9:U:108:HIS:HD2	1.46	0.80
2:B:370:PHE:HD2	2:B:373:ARG:HD3	1.46	0.80
5:E:15:ALA:O	5:E:19:VAL:HG23	1.82	0.80
7:G:138:THR:HG22	7:G:139:ILE:N	1.96	0.80
1:M:202:LEU:HB3	1:M:207:ILE:HD11	1.64	0.80
8:H:40:LEU:HD12	8:H:123:MET:HB2	1.63	0.80
1:M:1155:ASP:OD2	1:M:1161:THR:HG23	1.80	0.80
1:M:472:LEU:O	1:M:475:THR:HB	1.80	0.80
2:N:810:GLU:HB2	2:N:815:ARG:HH22	1.45	0.80
5:Q:48:ASP:HB3	5:Q:54:GLN:NE2	1.96	0.80
2:B:583:ASN:ND2	2:B:628:THR:HG22	1.97	0.80
2:N:583:ASN:ND2	2:N:628:THR:HG22	1.97	0.80
2:N:766:ARG:HH21	2:N:1020:ARG:CD	1.94	0.80
1:A:344:ARG:NH1	1:A:344:ARG:HB3	1.96	0.80
2:B:261:ARG:HH11	2:B:261:ARG:HB3	1.45	0.80
1:M:1170:ILE:H	1:M:1170:ILE:HD12	1.47	0.80
3:O:147:LEU:HB2	3:O:151:GLN:HB2	1.62	0.80
9:U:105:SER:O	9:U:106:CYS:HB3	1.80	0.80
2:N:800:GLN:HB3	10:V:52:THR:HG21	1.64	0.80
13:1:16:DT:H5'	13:1:16:DT:H6	1.46	0.80
1:A:855:THR:CG2	1:A:857:ARG:HE	1.93	0.80
1:A:981:LEU:HD21	1:A:1039:LYS:HA	1.63	0.80
3:C:73:GLN:HE21	3:C:75:MET:H	1.30	0.80
1:M:14:VAL:N	1:M:1432:GLN:HE22	1.81	0.80
2:B:955:THR:HG22	2:B:956:THR:O	1.81	0.79
3:C:73:GLN:NE2	3:C:75:MET:HB2	1.97	0.79
10:J:1:MET:N	10:J:57:ILE:H	1.80	0.79
4:P:176:GLU:OE2	4:P:197:SER:HB2	1.80	0.79
4:P:214:LEU:HD13	4:P:214:LEU:O	1.82	0.79
1:M:1387:HIS:O	1:M:1391:ARG:HG3	1.82	0.79
1:M:1214:GLU:O	1:M:1218:GLN:HG2	1.82	0.79
1:M:167:CYS:HB2	1:M:169:ASN:HD21	1.45	0.79
2:N:351:TYR:O	2:N:355:ILE:HG13	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:469:GLN:O	2:N:472:ALA:HB3	1.82	0.79
3:O:50:GLU:OE1	12:X:64:LEU:HD22	1.83	0.79
10:V:57:ILE:HA	10:V:60:PHE:HD2	1.46	0.79
10:J:57:ILE:HA	10:J:60:PHE:HD2	1.46	0.79
1:M:236:LEU:HD11	1:M:304:MET:HE1	1.62	0.79
1:M:534:LEU:O	1:M:574:GLY:HA3	1.82	0.79
9:U:50:THR:HG22	9:U:51:ASN:N	1.98	0.79
6:F:111:LEU:N	6:F:111:LEU:HD12	1.98	0.79
9:I:105:SER:O	9:I:106:CYS:HB3	1.79	0.79
9:I:65:ASP:HB3	9:I:68:LEU:HD12	1.62	0.79
1:M:93:VAL:HG13	1:M:301:ALA:HB1	1.63	0.79
9:U:93:LYS:N	9:U:93:LYS:HD3	1.97	0.79
2:N:583:ASN:HD21	2:N:628:THR:CG2	1.95	0.79
6:R:77:ASP:O	6:R:78:GLN:HB2	1.81	0.79
1:A:7:SER:HB3	2:B:1193:GLN:NE2	1.98	0.79
2:B:309:GLN:HG3	9:I:52:ILE:HD11	1.64	0.79
1:M:567:LYS:CB	1:M:568:PRO:HD2	2.12	0.79
1:M:535:THR:HG21	1:M:616:VAL:HA	1.63	0.79
2:N:778:MET:HE1	2:N:1094:ARG:HD3	1.63	0.79
8:T:89:LEU:C	8:T:91:ASP:H	1.84	0.79
2:B:1224:PHE:CE1	5:E:171:LYS:HG3	2.17	0.79
12:X:61:THR:CG2	12:X:63:ARG:HG3	2.13	0.79
1:A:567:LYS:HB2	1:A:568:PRO:CD	2.12	0.79
3:C:6:PRO:HB2	3:C:25:VAL:HG22	1.65	0.79
4:P:66:ARG:HD2	4:P:133:THR:HB	1.65	0.79
1:A:40:THR:HG22	1:A:41:MET:HG3	1.63	0.79
1:A:722:LEU:H	1:A:722:LEU:HD12	1.48	0.79
4:D:208:GLU:O	4:D:212:LYS:HG3	1.83	0.79
6:F:90:ARG:HD3	6:F:155:LEU:HD13	1.63	0.79
9:I:76:PRO:HD2	9:I:108:HIS:HD2	1.47	0.79
2:N:603:LEU:HD13	2:N:608:ASP:HB2	1.65	0.79
8:T:58:THR:HG22	8:T:59:ILE:H	1.48	0.79
1:A:503:GLN:NE2	6:F:90:ARG:HH21	1.80	0.78
9:I:93:LYS:H	9:I:93:LYS:CD	1.96	0.78
1:M:1308:THR:HG23	1:M:1309:ASP:N	1.97	0.78
7:S:95:SER:OG	7:S:96:GLN:N	2.15	0.78
13:4:23:BRU:H6	13:4:23:BRU:H5"	1.63	0.78
1:A:407:ARG:HG2	1:A:430:TRP:CZ2	2.16	0.78
1:A:697:ALA:HB2	1:A:702:LEU:HD11	1.65	0.78
7:G:34:VAL:HG11	7:G:74:TYR:HE1	1.48	0.78
1:M:1291:VAL:HG22	1:M:1292:PRO:HD2	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1323:ASP:OD1	1:M:1325:THR:HG22	1.84	0.78
1:A:1308:THR:HG23	1:A:1309:ASP:N	1.98	0.78
1:A:14:VAL:N	1:A:1432:GLN:HE22	1.81	0.78
1:M:225:ASN:ND2	1:M:228:PHE:H	1.81	0.78
1:A:390:GLN:HE21	1:A:394:ASN:HD22	1.31	0.78
2:B:846:ILE:HG23	2:B:974:PRO:HG2	1.65	0.78
5:E:48:ASP:HB3	5:E:54:GLN:NE2	1.99	0.78
8:H:58:THR:HG22	8:H:59:ILE:H	1.49	0.78
1:M:693:VAL:HG21	1:M:721:PHE:HE1	1.48	0.78
6:R:111:LEU:HD12	6:R:111:LEU:N	1.98	0.78
2:B:862:GLN:HG2	2:B:963:PHE:HD1	1.48	0.78
4:D:159:THR:O	4:D:163:VAL:HG23	1.84	0.78
1:M:1081:LEU:HD11	1:M:1097:GLY:HA3	1.66	0.78
4:P:194:LEU:HD13	7:S:86:VAL:HG11	1.65	0.78
9:U:111:THR:CG2	9:U:113:ASP:H	1.92	0.78
1:A:913:LEU:HD12	1:A:914:GLU:N	1.98	0.78
2:B:603:LEU:HD13	2:B:608:ASP:HB2	1.66	0.78
8:H:89:LEU:C	8:H:91:ASP:H	1.85	0.78
2:B:800:GLN:HB3	10:J:52:THR:HG21	1.65	0.78
11:K:47:ARG:HB3	11:K:47:ARG:HH11	1.46	0.78
2:N:737:THR:HG21	9:U:66:PRO:HA	1.64	0.78
4:P:158:GLU:CD	4:P:158:GLU:H	1.86	0.78
1:M:981:LEU:HD21	1:M:1039:LYS:HA	1.66	0.78
1:M:830:LYS:O	1:M:834:THR:HB	1.84	0.78
4:P:47:LEU:HD13	4:P:48:ILE:N	1.99	0.78
7:S:119:LEU:HD11	7:S:130:TYR:HB3	1.66	0.78
7:S:34:VAL:HG11	7:S:74:TYR:CE1	2.19	0.78
8:T:17:PRO:HB3	8:T:24:CYS:SG	2.23	0.78
1:A:225:ASN:ND2	1:A:228:PHE:H	1.80	0.78
1:A:591:PHE:HA	1:A:595:THR:HG21	1.66	0.78
7:G:15:PRO:HA	7:G:18:PHE:CD1	2.19	0.78
1:M:1094:VAL:HG13	1:M:1113:THR:CG2	2.14	0.78
2:N:516:ASN:ND2	2:N:516:ASN:H	1.81	0.78
2:N:745:PRO:O	2:N:748:ILE:HG12	1.84	0.78
3:O:148:ARG:HD3	3:O:149:LYS:HG3	1.66	0.78
2:N:824:ILE:HG12	10:V:48:ARG:HH12	1.49	0.78
1:A:934:LYS:O	1:A:937:VAL:HG12	1.83	0.78
2:B:751:VAL:HG13	2:B:812:LEU:HD22	1.63	0.78
2:N:865:LYS:HB2	2:N:961:LEU:HD11	1.64	0.78
7:S:129:SER:HB2	7:S:138:THR:OG1	1.84	0.78
2:B:857:ARG:HD2	2:B:945:GLU:OE1	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:792:MET:HE2	2:B:857:ARG:NH2	1.97	0.78
5:E:84:ASP:O	5:E:86:PRO:HD3	1.84	0.78
1:M:503:GLN:NE2	6:R:90:ARG:HH21	1.81	0.78
1:M:567:LYS:CD	1:M:568:PRO:HD2	2.12	0.78
7:S:115:MET:HB3	7:S:119:LEU:HD23	1.65	0.78
3:C:147:LEU:HB2	3:C:151:GLN:HB2	1.64	0.77
9:U:80:SER:OG	9:U:105:SER:HB2	1.83	0.77
1:M:741:ASN:HD22	1:M:742:ASN:N	1.83	0.77
1:A:458:HIS:CE1	1:A:507:VAL:HG21	2.20	0.77
1:A:565:ILE:HG23	1:A:567:LYS:HG2	1.64	0.77
1:A:567:LYS:NZ	8:H:46:LEU:HB2	2.00	0.77
1:A:567:LYS:CB	1:A:568:PRO:HD2	2.13	0.77
9:I:80:SER:OG	9:I:105:SER:HB2	1.84	0.77
9:U:74:GLU:HB3	9:U:81:ARG:HD2	1.65	0.77
10:V:3:VAL:HG21	10:V:18:TRP:CB	2.13	0.77
10:V:1:MET:H2	10:V:57:ILE:H	1.30	0.77
14:2:5:DC:C2'	14:2:6:DT:H72	2.15	0.77
1:M:855:THR:HG23	1:M:857:ARG:HG3	1.66	0.77
11:W:47:ARG:HB3	11:W:47:ARG:HH11	1.50	0.77
1:A:1323:ASP:OD1	1:A:1325:THR:HG22	1.85	0.77
4:D:146:GLN:O	4:D:149:THR:HG22	1.83	0.77
1:M:590:ARG:O	1:M:591:PHE:HB2	1.84	0.77
1:M:899:VAL:HB	1:M:929:LEU:HD12	1.65	0.77
1:M:93:VAL:HG22	1:M:301:ALA:HA	1.64	0.77
2:N:294:ASP:O	2:N:296:GLU:N	2.16	0.77
2:N:615:MET:HB3	2:N:626:ILE:HG12	1.65	0.77
7:S:53:ASN:N	7:S:53:ASN:HD22	1.81	0.77
7:S:85:GLU:HG2	7:S:87:VAL:HG12	1.66	0.77
1:A:287:HIS:HA	1:A:290:GLU:HG2	1.66	0.77
1:A:855:THR:HG23	1:A:857:ARG:HG3	1.65	0.77
2:B:351:TYR:CE1	2:B:355:ILE:HD11	2.20	0.77
2:B:953:LEU:HD21	2:B:965:LYS:HB2	1.66	0.77
1:M:407:ARG:HD2	1:M:413:ILE:HD11	1.65	0.77
1:M:565:ILE:HG23	1:M:567:LYS:HG2	1.66	0.77
1:M:596:THR:O	1:M:598:LEU:N	2.17	0.77
8:T:127:GLY:O	8:T:128:ASN:HB2	1.82	0.77
14:5:5:DC:C2'	14:5:6:DT:H72	2.15	0.77
1:M:537:ARG:HD2	8:T:20:TYR:CE1	2.20	0.77
6:F:111:LEU:H	6:F:111:LEU:HD12	1.50	0.77
1:M:1094:VAL:HG13	1:M:1113:THR:HG21	1.66	0.77
4:D:187:THR:HG21	1:M:34:LYS:NZ	2.00	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:821:ARG:HH11	1:M:821:ARG:HB2	1.48	0.77
2:B:100:PRO:HG3	2:B:172:ILE:HD12	1.67	0.77
1:M:1095:THR:HG21	1:M:1112:LYS:HB2	1.66	0.77
1:M:1293:SER:OG	1:M:1295:THR:HG23	1.84	0.77
2:N:579:ARG:HB2	2:N:586:TRP:HE1	1.48	0.77
2:N:766:ARG:HH21	2:N:1020:ARG:HD3	1.48	0.77
5:Q:176:PRO:O	5:Q:212:ARG:HA	1.85	0.77
12:X:47:ARG:HB2	12:X:47:ARG:HH11	1.50	0.77
12:X:32:ALA:HB2	12:X:55:ILE:HG13	1.64	0.77
2:B:273:LEU:HD21	2:B:360:PHE:HD1	1.49	0.76
8:H:40:LEU:HD23	8:H:42:ILE:HD11	1.66	0.76
1:M:172:PRO:HB3	1:M:185:TRP:CE2	2.20	0.76
1:A:1197:LEU:HD11	1:A:1238:ILE:HD11	1.67	0.76
10:J:3:VAL:HG21	10:J:18:TRP:CB	2.13	0.76
1:M:184:SER:HB3	1:M:199:LEU:HD23	1.65	0.76
7:S:106:MET:HG2	7:S:107:LYS:N	1.98	0.76
8:T:130:ARG:HH11	8:T:130:ARG:CB	1.99	0.76
8:T:15:VAL:HG22	8:T:26:ILE:HG12	1.67	0.76
1:A:1116:LEU:H	1:A:1308:THR:HG22	1.50	0.76
1:A:288:ALA:HA	1:A:291:GLU:CD	2.06	0.76
12:L:53:HIS:HB3	12:L:55:ILE:CD1	2.15	0.76
1:M:310:GLY:O	1:M:312:PRO:HD2	1.84	0.76
5:Q:84:ASP:O	5:Q:86:PRO:HD3	1.86	0.76
2:B:863:GLU:OE2	2:B:873:THR:HA	1.84	0.76
5:E:117:THR:HB	5:E:120:ALA:CB	2.15	0.76
1:M:913:LEU:HD12	1:M:914:GLU:H	1.48	0.76
3:O:69:LEU:H	3:O:69:LEU:HD12	1.50	0.76
1:A:889:SER:HB3	1:A:1297:GLU:HG3	1.68	0.76
1:A:1385:THR:CG2	1:A:1387:HIS:H	1.98	0.76
1:A:87:ALA:HB3	1:A:276:LEU:HD23	1.66	0.76
1:A:541:ILE:HD13	1:A:549:MET:CE	2.15	0.76
3:O:51:VAL:HG22	3:O:155:LEU:HD22	1.67	0.76
1:A:963:ILE:HD13	1:A:1049:ILE:HG13	1.65	0.76
2:B:1069:PHE:HD1	2:B:1069:PHE:H	1.30	0.76
2:B:542:MET:HE2	2:B:747:MET:HE2	1.67	0.76
1:M:541:ILE:HD13	1:M:549:MET:CE	2.15	0.76
1:M:770:VAL:HG12	1:M:771:GLU:HG3	1.68	0.76
1:M:822:GLU:HG3	2:N:513:GLN:NE2	2.00	0.76
3:O:11:ARG:HE	3:O:21:ILE:HD11	1.51	0.76
1:A:824:LEU:O	1:A:827:THR:HG22	1.85	0.76
2:B:579:ARG:HH11	2:B:579:ARG:HG2	1.48	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:770:GLN:OE1	2:B:983:ARG:HA	1.86	0.76
4:D:154:PHE:HE2	4:D:218:GLU:HA	1.51	0.76
2:N:172:ILE:HD13	2:N:178:ASN:HD22	1.50	0.76
2:N:617:ARG:HE	2:N:619:ILE:HG12	1.50	0.76
1:M:1006:ILE:HD11	5:Q:163:GLU:CG	2.16	0.76
1:M:89:PRO:O	1:M:204:THR:HG21	1.85	0.76
1:M:794:PRO:HG2	1:M:795:GLU:OE2	1.86	0.76
8:T:95:TYR:CE2	8:T:97:MET:HG3	2.16	0.76
1:A:353:ILE:HG21	1:A:487:MET:CG	2.14	0.76
2:B:778:MET:HE1	2:B:1094:ARG:HD3	1.68	0.76
1:M:164:ARG:HG3	1:M:165:GLY:H	1.51	0.76
1:M:535:THR:CG2	1:M:616:VAL:HA	2.14	0.76
11:W:65:HIS:HD2	11:W:67:PHE:N	1.84	0.76
1:A:1387:HIS:O	1:A:1391:ARG:HG3	1.85	0.76
1:A:534:LEU:O	1:A:574:GLY:HA3	1.85	0.76
3:C:93:ASP:OD1	3:C:122:SER:HB2	1.86	0.76
2:N:313:MET:HE2	2:N:390:LEU:HD11	1.68	0.76
1:A:93:VAL:HG22	1:A:301:ALA:HA	1.68	0.75
2:B:737:THR:CG2	9:I:66:PRO:HA	2.15	0.75
5:E:48:ASP:CG	5:E:49:SER:H	1.86	0.75
2:N:792:MET:HE2	2:N:857:ARG:HH22	1.51	0.75
5:Q:9:ILE:HD11	5:Q:53:PRO:HD3	1.66	0.75
1:A:1223:ASP:HA	1:A:1243:VAL:CG2	2.15	0.75
2:B:1201:LYS:HE2	2:B:1205:GLN:OE1	1.86	0.75
2:B:169:ARG:HB2	2:B:454:THR:HG23	1.66	0.75
1:A:858:ASN:C	1:A:858:ASN:HD22	1.88	0.75
1:A:869:GLY:O	5:E:204:THR:HG21	1.87	0.75
7:G:34:VAL:HG12	7:G:45:ILE:HG21	1.68	0.75
1:M:1433:MET:HE3	7:S:63:PRO:HB2	1.67	0.75
7:S:83:LYS:HG3	7:S:148:GLU:O	1.86	0.75
8:T:40:LEU:HD12	8:T:123:MET:HB2	1.67	0.75
1:A:567:LYS:HB2	8:H:95:TYR:HA	1.66	0.75
3:C:56:THR:HG22	3:C:57:VAL:H	1.51	0.75
6:F:109:VAL:HG12	6:F:110:ASP:N	2.02	0.75
1:M:108:MET:CA	1:M:210:ILE:HD13	2.15	0.75
2:N:60:GLN:O	2:N:63:ILE:HG22	1.86	0.75
3:O:56:THR:HG22	3:O:57:VAL:H	1.50	0.75
13:1:22:DC:H2''	13:1:23:BRU:C5'	2.14	0.75
6:F:130:ILE:HB	6:F:148:VAL:HG21	1.68	0.75
1:M:842:VAL:HG11	2:N:1136:ASP:OD2	1.87	0.75
2:N:25:ILE:CG2	2:N:658:ILE:HD12	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:744:HIS:CD2	2:N:745:PRO:HD2	2.22	0.75
5:Q:117:THR:HB	5:Q:120:ALA:CB	2.16	0.75
9:U:50:THR:CG2	9:U:52:ILE:HG12	2.17	0.75
9:U:65:ASP:HB3	9:U:68:LEU:HD12	1.68	0.75
1:A:172:PRO:HB3	1:A:185:TRP:CE2	2.22	0.75
2:B:36:ALA:HA	2:B:39:ARG:HD2	1.69	0.75
5:E:202:SER:OG	5:E:204:THR:HG22	1.87	0.75
6:F:119:ARG:HH11	6:F:119:ARG:HG3	1.51	0.75
1:M:1218:GLN:O	1:M:1221:LYS:HE3	1.86	0.75
4:P:14:ARG:HB3	4:P:14:ARG:HH11	1.50	0.75
2:N:35:SER:HA	2:N:811:TYR:HE2	1.51	0.75
3:O:183:TRP:O	3:O:185:LYS:N	2.19	0.75
7:S:115:MET:O	7:S:164:LYS:HD3	1.87	0.75
3:C:183:TRP:O	3:C:185:LYS:N	2.19	0.75
1:M:858:ASN:C	1:M:858:ASN:HD22	1.87	0.75
2:N:744:HIS:HD2	2:N:745:PRO:CD	2.00	0.75
1:A:34:LYS:CD	4:P:187:THR:HG21	2.17	0.75
1:A:107:CYS:CA	1:A:171:GLN:HE22	1.99	0.75
2:B:800:GLN:HB3	10:J:52:THR:HG22	1.69	0.75
4:D:66:ARG:HD2	4:D:133:THR:HB	1.68	0.75
1:A:1006:ILE:HD11	5:E:163:GLU:HG3	1.68	0.75
2:N:1187:ASN:HD21	2:N:1190:ASP:HB3	1.52	0.75
2:B:361:LEU:HD21	2:B:377:PHE:CD2	2.21	0.74
3:C:143:LEU:HD21	3:C:146:LYS:HE3	1.69	0.74
4:D:71:LYS:HA	4:D:74:GLN:HB2	1.68	0.74
1:M:973:ILE:HD13	1:M:1037:LEU:HA	1.68	0.74
2:N:129:PHE:HE2	2:N:166:PHE:HB2	1.52	0.74
2:N:917:PRO:O	2:N:918:ILE:HG13	1.86	0.74
3:C:238:ILE:CG2	3:C:243:VAL:HG23	2.16	0.74
1:M:1255:GLU:O	1:M:1255:GLU:HG2	1.87	0.74
1:M:167:CYS:HB2	1:M:169:ASN:ND2	2.01	0.74
2:N:955:THR:HG22	2:N:956:THR:O	1.87	0.74
1:M:869:GLY:O	5:Q:204:THR:HG21	1.87	0.74
8:T:130:ARG:HD3	8:T:130:ARG:N	2.01	0.74
9:U:55:THR:HG23	9:U:100:PHE:CD2	2.22	0.74
12:X:61:THR:HG22	12:X:63:ARG:HG3	1.69	0.74
3:C:244:VAL:O	3:C:248:ILE:HG13	1.87	0.74
11:K:45:LEU:HG	11:K:94:ILE:HD13	1.69	0.74
12:L:38:LEU:HD13	12:L:49:LYS:HE2	1.69	0.74
1:M:37:PHE:N	1:M:37:PHE:CD1	2.53	0.74
1:M:446:ARG:HB2	1:M:487:MET:SD	2.26	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:231:PRO:HA	1:M:234:MET:HE2	1.69	0.74
1:M:78:PRO:HA	2:N:1201:LYS:HZ2	1.52	0.74
2:N:345:LYS:O	2:N:347:LYS:HG2	1.87	0.74
2:N:1224:PHE:CZ	5:Q:171:LYS:HG3	2.22	0.74
8:T:8:ASP:OD2	8:T:9:ILE:N	2.19	0.74
13:4:22:DC:H2''	13:4:23:BRU:C5'	2.15	0.74
2:B:549:THR:HB	2:B:628:THR:OG1	1.87	0.74
12:L:26:THR:HG22	12:L:27:LEU:N	2.01	0.74
1:M:451:HIS:CD2	1:M:1074:GLU:HG3	2.23	0.74
2:N:261:ARG:NH1	2:N:261:ARG:HB3	2.02	0.74
3:O:147:LEU:HD23	3:O:147:LEU:N	2.03	0.74
4:P:12:ARG:HH11	4:P:12:ARG:HG2	1.52	0.74
12:X:55:ILE:H	12:X:55:ILE:HD13	1.53	0.74
3:C:7:GLN:HE21	11:K:104:ASN:HD21	1.34	0.74
1:A:537:ARG:HD2	8:H:20:TYR:CE1	2.22	0.74
1:M:1015:VAL:HG12	1:M:1019:CYS:SG	2.27	0.74
4:D:187:THR:HG21	1:M:34:LYS:HZ3	1.51	0.74
1:A:1293:SER:OG	1:A:1295:THR:HG23	1.88	0.74
1:A:470:LEU:HD23	1:A:470:LEU:N	2.02	0.74
2:B:345:LYS:O	2:B:347:LYS:HG2	1.87	0.74
6:F:90:ARG:HD3	6:F:155:LEU:CD1	2.18	0.74
9:I:111:THR:CG2	9:I:112:SER:N	2.50	0.74
1:M:1105:LEU:HD22	1:M:1384:VAL:HG21	1.68	0.74
2:N:309:GLN:HG3	9:U:52:ILE:HD11	1.70	0.74
1:A:69:THR:O	1:A:71:GLN:N	2.21	0.74
4:D:29:LEU:HD22	4:D:29:LEU:N	2.03	0.74
1:M:353:ILE:HG21	1:M:487:MET:CG	2.17	0.74
3:O:183:TRP:CZ2	3:O:207:CYS:HB3	2.23	0.74
4:P:190:GLU:HA	7:S:167:TYR:CD1	2.22	0.74
9:U:50:THR:HG22	9:U:52:ILE:H	1.52	0.74
12:X:49:LYS:O	12:X:50:ASP:HB2	1.86	0.74
1:A:596:THR:O	1:A:598:LEU:N	2.20	0.73
2:B:805:THR:HA	2:B:809:MET:HE1	1.68	0.73
6:F:147:SER:OG	6:F:150:GLU:HG3	1.88	0.73
7:G:34:VAL:CG1	7:G:45:ILE:HG21	2.18	0.73
7:G:26:LEU:HD12	7:G:56:ILE:CD1	2.17	0.73
1:A:567:LYS:HD2	1:A:568:PRO:HD2	1.68	0.73
1:A:590:ARG:O	1:A:591:PHE:HB2	1.88	0.73
2:B:798:TYR:CD1	10:J:4:PRO:HG3	2.23	0.73
2:B:865:LYS:HB2	2:B:961:LEU:HD11	1.69	0.73
1:M:287:HIS:HA	1:M:290:GLU:HG2	1.68	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1224:LEU:HD11	1:A:1240:CYS:HB3	1.69	0.73
1:A:853:ASP:OD1	1:A:855:THR:HB	1.87	0.73
1:A:901:LEU:H	1:A:926:GLN:NE2	1.85	0.73
2:B:241:ARG:HG2	2:B:253:THR:HG22	1.69	0.73
2:B:637:LEU:HD12	2:B:693:ILE:HD12	1.70	0.73
7:G:53:ASN:HD22	7:G:53:ASN:N	1.84	0.73
8:H:127:GLY:O	8:H:128:ASN:HB2	1.85	0.73
9:U:74:GLU:HB3	9:U:81:ARG:CD	2.18	0.73
11:W:45:LEU:HG	11:W:94:ILE:HD13	1.70	0.73
2:B:277:LYS:HG2	2:B:336:ARG:HB3	1.70	0.73
2:B:53:GLN:HG2	2:B:547:VAL:HG22	1.70	0.73
6:F:69:LEU:HB3	6:F:71:GLU:OE1	1.88	0.73
2:N:806:THR:HG22	2:N:808:ALA:N	2.04	0.73
12:X:26:THR:HG22	12:X:27:LEU:N	2.02	0.73
1:A:1107:VAL:HG12	1:A:1107:VAL:O	1.87	0.73
3:C:203:GLN:HG2	3:C:207:CYS:SG	2.29	0.73
12:L:60:ARG:HG2	12:L:61:THR:H	1.53	0.73
6:R:109:VAL:HG12	6:R:110:ASP:N	2.02	0.73
12:X:30:ILE:HD11	12:X:59:ALA:HB2	1.68	0.73
1:A:33:ALA:HA	1:A:57:ARG:NH1	2.03	0.73
1:M:590:ARG:HH11	1:M:590:ARG:HG2	1.52	0.73
1:M:896:ARG:HD3	1:M:897:TYR:CE1	2.23	0.73
2:N:364:ILE:HG13	2:N:585:VAL:HG13	1.70	0.73
2:N:613:VAL:HG13	2:N:627:PHE:O	1.89	0.73
7:S:51:TYR:O	7:S:54:ILE:HG13	1.88	0.73
2:N:800:GLN:HB3	10:V:52:THR:HG22	1.70	0.73
12:X:47:ARG:HG3	12:X:52:GLY:O	1.87	0.73
1:A:1015:VAL:HG12	1:A:1019:CYS:SG	2.27	0.73
1:A:372:LYS:HA	1:A:435:HIS:ND1	2.02	0.73
1:A:567:LYS:CB	8:H:95:TYR:HA	2.17	0.73
2:B:516:ASN:ND2	2:B:516:ASN:N	2.35	0.73
3:C:183:TRP:CZ2	3:C:207:CYS:HB3	2.24	0.73
8:H:84:ALA:CB	8:H:87:ARG:HD2	2.17	0.73
2:N:1065:GLN:HE21	2:N:1067:ARG:N	1.86	0.73
2:N:308:TRP:CH2	9:U:45:ARG:HG2	2.24	0.73
4:P:141:LEU:O	4:P:145:MET:HG2	1.89	0.73
2:B:294:ASP:C	2:B:296:GLU:H	1.91	0.73
1:M:66:LYS:NZ	1:M:68:GLN:H	1.87	0.73
2:N:333:PHE:O	2:N:334:ILE:HG13	1.89	0.73
7:S:129:SER:HB2	7:S:138:THR:HG1	1.54	0.73
1:M:567:LYS:HB2	8:T:95:TYR:HA	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:250:ILE:HG22	1:A:250:ILE:O	1.87	0.73
5:E:147:HIS:HB3	5:E:150:VAL:HG23	1.71	0.73
9:I:50:THR:HG22	9:I:51:ASN:N	2.04	0.73
1:M:107:CYS:HA	1:M:171:GLN:HE22	1.54	0.73
1:M:1223:ASP:HA	1:M:1243:VAL:HG22	1.70	0.73
1:M:321:PRO:O	1:M:322:VAL:HG12	1.89	0.73
1:M:69:THR:O	1:M:71:GLN:N	2.22	0.73
1:A:70:CYS:O	1:A:72:GLU:HG2	1.89	0.73
3:C:66:ARG:NH1	10:J:2:ILE:HG21	2.04	0.73
1:M:225:ASN:ND2	1:M:227:VAL:H	1.86	0.73
1:M:337:ARG:HD3	2:N:1132:GLU:OE1	1.89	0.73
2:N:579:ARG:HB2	2:N:586:TRP:NE1	2.03	0.73
2:N:589:VAL:HG12	2:N:590:HIS:H	1.52	0.73
2:N:879:ARG:H	2:N:879:ARG:NH1	1.86	0.73
4:P:189:ASP:O	4:P:193:THR:HB	1.89	0.73
4:P:207:LEU:O	4:P:211:LEU:HD12	1.89	0.73
1:A:535:THR:HG21	1:A:616:VAL:HA	1.71	0.72
1:A:62:ASP:O	1:A:63:ARG:C	2.28	0.72
1:A:62:ASP:O	1:A:64:ASN:HB2	1.89	0.72
1:A:901:LEU:HA	1:A:907:THR:OG1	1.88	0.72
2:B:313:MET:HE2	2:B:390:LEU:HD11	1.70	0.72
5:E:176:PRO:O	5:E:212:ARG:HA	1.89	0.72
6:F:109:VAL:HG12	6:F:110:ASP:H	1.54	0.72
1:M:11:LEU:O	1:M:11:LEU:HD23	1.89	0.72
2:N:644:GLU:HB3	2:N:648:HIS:O	1.89	0.72
1:A:829:VAL:HG21	2:B:508:LEU:HD13	1.69	0.72
1:A:896:ARG:HD3	1:A:897:TYR:CE1	2.24	0.72
4:D:154:PHE:CE2	4:D:218:GLU:HA	2.24	0.72
1:M:1394:THR:HG21	1:M:1398:MET:SD	2.28	0.72
2:N:911:ILE:HD11	2:N:941:LEU:HD13	1.71	0.72
3:O:263:THR:O	3:O:266:ASP:HB2	1.89	0.72
7:S:116:PRO:HG2	7:S:119:LEU:CB	2.19	0.72
1:A:40:THR:HG23	1:A:54:ASN:HD21	1.54	0.72
1:M:860:LEU:HD11	1:M:1393:ASN:HB2	1.71	0.72
1:M:62:ASP:O	1:M:63:ARG:C	2.28	0.72
1:M:667:GLY:HA2	1:M:670:ILE:HD11	1.70	0.72
1:M:66:LYS:HD3	1:M:67:CYS:H	1.52	0.72
2:N:542:MET:HG2	2:N:747:MET:CE	2.18	0.72
1:A:297:GLN:CA	1:A:297:GLN:HE21	2.02	0.72
2:N:1016:ALA:O	2:N:1020:ARG:HG3	1.89	0.72
2:N:549:THR:HG22	2:N:550:ASP:N	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:582:VAL:HG23	2:N:626:ILE:HB	1.70	0.72
7:S:1:MET:SD	7:S:2:PHE:N	2.63	0.72
9:U:111:THR:CG2	9:U:112:SER:N	2.52	0.72
1:A:567:LYS:CG	1:A:568:PRO:HD2	2.18	0.72
1:A:49:LYS:HE2	1:A:61:ILE:HD12	1.71	0.72
2:B:1095:LEU:HD12	2:B:1095:LEU:N	2.04	0.72
2:B:292:ILE:HD11	2:B:327:ARG:N	2.03	0.72
2:N:287:ARG:HG2	2:N:292:ILE:HA	1.72	0.72
1:A:693:VAL:HG21	1:A:721:PHE:HE1	1.55	0.72
2:B:589:VAL:HG12	2:B:590:HIS:H	1.53	0.72
2:B:600:LEU:O	2:B:609:ILE:HD11	1.90	0.72
1:M:445:ASN:HB2	1:M:455:MET:HG2	1.70	0.72
2:B:724:ASP:OD2	2:B:727:LYS:HG3	1.90	0.72
5:E:180:ARG:HH21	5:E:192:ARG:HB2	1.54	0.72
1:M:332:LYS:HG2	1:M:333:GLU:HG2	1.72	0.72
2:N:1183:LYS:HE3	2:N:1183:LYS:N	2.04	0.72
7:S:87:VAL:CG2	7:S:103:VAL:HG21	2.19	0.72
1:A:1118:VAL:CG2	1:A:1306:LEU:HB2	2.20	0.72
5:E:23:VAL:O	5:E:28:TYR:HB2	1.90	0.72
2:N:1096:ARG:O	2:N:1097:HIS:HB2	1.90	0.72
3:O:36:VAL:HG21	3:O:251:LEU:HD13	1.72	0.72
2:N:622:LYS:NZ	9:U:59:VAL:HG13	2.05	0.72
1:A:1242:VAL:HG12	1:A:1243:VAL:N	2.05	0.72
1:A:1348:LEU:O	1:A:1352:VAL:HG23	1.89	0.72
1:A:601:LYS:HB2	1:A:603:ASN:ND2	2.05	0.72
5:E:14:ARG:HH21	5:E:141:VAL:HG12	1.54	0.72
1:A:1094:VAL:HG13	1:A:1113:THR:CG2	2.19	0.72
1:A:310:GLY:O	1:A:312:PRO:HD2	1.89	0.72
2:B:278:GLN:HG2	2:B:279:ASP:H	1.54	0.72
2:B:549:THR:HG22	2:B:550:ASP:N	2.04	0.72
1:M:1385:THR:HG22	1:M:1387:HIS:N	2.04	0.72
1:M:517:ASN:HD22	1:M:1364:ASN:HD22	1.38	0.72
1:M:7:SER:OG	2:N:1161:HIS:HE1	1.72	0.72
2:N:1224:PHE:CE1	5:Q:171:LYS:HG3	2.25	0.72
2:N:294:ASP:C	2:N:296:GLU:H	1.93	0.72
2:N:56:ASP:HB3	2:N:57:TYR:CD1	2.25	0.72
3:O:8:VAL:O	3:O:9:LYS:HG3	1.90	0.72
1:M:889:SER:HB3	1:M:1297:GLU:HG3	1.72	0.71
2:N:766:ARG:HH22	2:N:1020:ARG:HH11	1.38	0.71
2:N:336:ARG:HH11	2:N:336:ARG:HG3	1.56	0.71
7:S:153:GLN:HG2	7:S:154:VAL:HG23	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:48:ARG:HH11	10:J:48:ARG:HG2	1.54	0.71
1:M:470:LEU:HD23	1:M:470:LEU:H	1.55	0.71
2:N:289:LEU:HD13	2:N:375:ALA:CB	2.20	0.71
2:N:56:ASP:HB3	2:N:57:TYR:HD1	1.55	0.71
8:T:24:CYS:HB2	8:T:44:VAL:HG21	1.72	0.71
3:O:166:GLU:HG3	11:W:10:PHE:HZ	1.55	0.71
1:A:1121:GLU:CG	1:A:1122:PRO:HD2	2.20	0.71
2:B:542:MET:HG2	2:B:747:MET:HE3	1.72	0.71
2:B:999:MET:HG3	2:B:1000:PRO:HD2	1.72	0.71
3:O:165:LYS:O	11:W:6:ARG:NH1	2.22	0.71
1:A:1223:ASP:HA	1:A:1243:VAL:HG22	1.72	0.71
1:A:37:PHE:N	1:A:37:PHE:CD1	2.56	0.71
1:A:517:ASN:HD22	1:A:1364:ASN:HD22	1.37	0.71
1:A:68:GLN:O	1:A:68:GLN:OE1	2.09	0.71
2:B:56:ASP:HB3	2:B:57:TYR:CD1	2.25	0.71
4:D:138:ASN:HD21	7:G:35:GLU:HB3	1.55	0.71
6:F:77:ASP:O	6:F:78:GLN:HB2	1.90	0.71
8:H:130:ARG:HD3	8:H:130:ARG:N	2.06	0.71
1:M:1116:LEU:H	1:M:1308:THR:HG22	1.55	0.71
1:M:239:LEU:HD12	1:M:240:PRO:HD2	1.71	0.71
1:M:905:ASP:C	1:M:906:HIS:HD1	1.94	0.71
2:N:953:LEU:HD21	2:N:965:LYS:HB2	1.71	0.71
5:Q:50:MET:HG2	5:Q:52:ARG:HH21	1.55	0.71
2:B:427:ASP:HA	2:B:430:ARG:HD2	1.73	0.71
2:N:515:HIS:HD2	2:N:517:THR:H	1.37	0.71
5:Q:23:VAL:O	5:Q:28:TYR:HB2	1.90	0.71
1:A:316:GLN:HG2	1:A:317:LYS:HG2	1.71	0.71
1:A:709:THR:HG22	1:A:710:LEU:N	2.04	0.71
4:D:8:PHE:CE1	4:D:37:GLN:HB2	2.26	0.71
12:L:32:ALA:HB2	12:L:55:ILE:HG13	1.72	0.71
1:M:115:LEU:HD12	1:M:142:CYS:HB3	1.71	0.71
1:M:709:THR:HG22	1:M:710:LEU:N	2.05	0.71
2:N:295:GLY:N	2:N:298:LEU:HD23	2.06	0.71
1:A:37:PHE:HD1	1:A:37:PHE:N	1.89	0.71
2:B:1016:ALA:O	2:B:1020:ARG:HG3	1.91	0.71
1:M:1189:SER:O	1:M:1241:ARG:HD3	1.91	0.71
2:N:705:MET:N	2:N:710:LEU:HD12	2.06	0.71
4:P:138:ASN:C	4:P:142:LYS:HE2	2.11	0.71
9:U:34:TYR:CD2	9:U:35:VAL:N	2.59	0.71
2:B:60:GLN:O	2:B:63:ILE:HG22	1.89	0.71
2:B:778:MET:CE	2:B:1094:ARG:HD3	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:13:LEU:HD22	7:G:17:PHE:HB2	1.70	0.71
12:L:47:ARG:HB2	12:L:47:ARG:HH11	1.56	0.71
12:L:47:ARG:HG3	12:L:52:GLY:O	1.91	0.71
1:M:390:GLN:HE21	1:M:394:ASN:HD22	1.39	0.71
1:M:722:LEU:H	1:M:722:LEU:HD12	1.55	0.71
1:M:767:GLN:NE2	1:M:774:ARG:HB3	2.05	0.71
2:N:467:GLY:N	2:N:475:SER:HB3	2.06	0.71
2:N:515:HIS:CD2	2:N:517:THR:HG23	2.26	0.71
1:A:1155:ASP:OD2	1:A:1161:THR:HG23	1.90	0.71
9:I:93:LYS:HD3	9:I:93:LYS:N	2.04	0.71
1:M:1011:GLN:HE22	1:M:1015:VAL:HG21	1.56	0.71
2:N:620:ARG:NH1	9:U:68:LEU:HD21	2.05	0.71
2:N:25:ILE:HG21	2:N:658:ILE:HD12	1.73	0.71
5:Q:16:PHE:CZ	5:Q:20:LYS:HE2	2.26	0.71
1:A:1207:LEU:HD13	1:A:1273:LEU:HD23	1.73	0.70
1:A:281:HIS:C	1:A:282:ASN:HD22	1.94	0.70
2:B:384:ARG:HH12	2:B:393:LYS:HD3	1.55	0.70
2:B:226:PHE:HA	2:B:395:GLN:CG	2.20	0.70
1:A:253:ASN:ND2	2:B:884:ARG:HD2	2.05	0.70
2:B:917:PRO:O	2:B:918:ILE:HG13	1.90	0.70
2:B:898:LEU:HD13	2:B:952:VAL:HG11	1.72	0.70
1:M:1121:GLU:CG	1:M:1122:PRO:HD2	2.20	0.70
1:M:157:ASP:OD2	1:M:160:GLN:HG3	1.91	0.70
2:N:217:ARG:NE	2:N:405:ARG:HB2	2.06	0.70
7:S:99:PHE:O	7:S:110:VAL:HG23	1.90	0.70
1:A:225:ASN:HD22	1:A:228:PHE:H	1.37	0.70
1:A:523:ILE:CG1	1:A:622:VAL:HG22	2.21	0.70
1:A:71:GLN:O	1:A:73:GLY:N	2.23	0.70
1:M:1118:VAL:HG23	1:M:1306:LEU:HB2	1.72	0.70
2:N:756:ILE:O	2:N:759:PRO:HD3	1.91	0.70
4:P:8:PHE:HE1	4:P:37:GLN:HB2	1.55	0.70
2:B:873:THR:O	2:B:914:LYS:HA	1.91	0.70
3:C:147:LEU:HD23	3:C:147:LEU:N	2.07	0.70
1:M:1293:SER:OG	1:M:1294:PRO:HD2	1.91	0.70
1:M:916:GLY:O	1:M:919:ILE:HG22	1.91	0.70
2:N:38:PHE:HD1	2:N:811:TYR:CD2	2.09	0.70
2:N:873:THR:O	2:N:914:LYS:HA	1.91	0.70
1:M:254:GLU:HB2	2:N:935:ARG:NH2	2.06	0.70
1:A:541:ILE:HG22	1:A:546:VAL:HG23	1.73	0.70
1:A:842:VAL:HG11	2:B:1136:ASP:OD2	1.91	0.70
2:B:1004:GLU:HG3	10:J:42:LYS:NZ	2.05	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:309:GLN:HG3	9:I:52:ILE:CD1	2.21	0.70
8:H:81:PRO:CB	8:H:82:PRO:HD2	2.21	0.70
1:M:216:VAL:O	1:M:219:PHE:HB2	1.91	0.70
2:N:604:ARG:HB2	2:N:609:ILE:HG13	1.73	0.70
4:P:29:LEU:HD12	7:S:82:PHE:CZ	2.26	0.70
10:V:44:TYR:HA	10:V:47:ARG:HB2	1.74	0.70
11:W:60:ALA:O	11:W:73:LEU:HD12	1.90	0.70
1:A:1121:GLU:HG2	1:A:1122:PRO:HD2	1.74	0.70
1:A:1127:ASP:HB3	1:A:1130:GLN:HB3	1.71	0.70
1:A:1353:TYR:HD2	1:A:1353:TYR:C	1.94	0.70
1:A:249:SER:O	1:A:250:ILE:HG13	1.90	0.70
1:A:626:ASN:O	1:A:631:HIS:HD2	1.74	0.70
2:B:168:GLY:HA2	2:B:454:THR:OG1	1.91	0.70
2:B:642:ASP:O	2:B:644:GLU:N	2.21	0.70
3:C:101:LEU:HD13	3:C:118:LEU:CD2	2.20	0.70
4:D:130:LEU:HD13	4:D:142:LYS:HG2	1.72	0.70
5:E:10:SER:O	5:E:13:TRP:HB3	1.92	0.70
7:G:126:ASN:HD22	7:G:127:PRO:CA	2.05	0.70
8:H:17:PRO:HB3	8:H:24:CYS:SG	2.31	0.70
1:M:541:ILE:HG22	1:M:546:VAL:HG23	1.73	0.70
2:N:240:ILE:CG2	2:N:254:LEU:HB3	2.22	0.70
2:N:288:ALA:HB1	2:N:331:LEU:HD12	1.71	0.70
2:N:778:MET:CE	2:N:1094:ARG:HD3	2.21	0.70
6:R:130:ILE:HB	6:R:148:VAL:HG21	1.72	0.70
10:V:53:HIS:CD2	10:V:54:VAL:N	2.59	0.70
1:A:388:LEU:O	1:A:392:VAL:HG23	1.92	0.70
1:A:908:LEU:HD11	1:A:983:ILE:HD11	1.74	0.70
1:M:567:LYS:CB	8:T:95:TYR:HA	2.20	0.70
4:P:151:PHE:CD1	4:P:151:PHE:N	2.58	0.70
4:P:70:PHE:O	4:P:74:GLN:HG3	1.91	0.70
5:Q:180:ARG:NH2	5:Q:192:ARG:HB2	2.05	0.70
1:A:868:TYR:HD2	1:A:1058:VAL:HG21	1.57	0.70
1:M:122:MET:HA	1:M:141:LEU:CD1	2.22	0.70
1:M:1409:LEU:HD13	2:N:1207:LEU:HD11	1.73	0.70
2:N:600:LEU:O	2:N:609:ILE:HD11	1.90	0.70
2:N:846:ILE:HG23	2:N:974:PRO:HG2	1.72	0.70
4:P:120:GLU:O	4:P:124:GLU:OE2	2.09	0.70
2:B:247:GLY:H	2:B:249:ARG:HH21	1.37	0.70
2:B:705:MET:H	2:B:710:LEU:CD1	2.04	0.70
8:H:8:ASP:OD2	8:H:9:ILE:N	2.24	0.70
10:J:53:HIS:CD2	10:J:54:VAL:N	2.60	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:40:THR:HG22	1:M:41:MET:HG3	1.72	0.70
2:N:129:PHE:CE2	2:N:166:PHE:HB2	2.27	0.70
2:N:642:ASP:CA	2:N:649:LYS:HG3	2.22	0.70
7:S:138:THR:HG22	7:S:139:ILE:N	2.06	0.70
1:A:1293:SER:OG	1:A:1294:PRO:HD2	1.90	0.70
1:A:595:THR:O	1:A:596:THR:HG23	1.92	0.70
1:M:768:GLN:CG	1:M:816:HIS:HA	2.22	0.70
4:P:134:THR:HG23	4:P:141:LEU:HD23	1.74	0.70
1:M:1006:ILE:CD1	5:Q:163:GLU:HG3	2.21	0.70
5:Q:202:SER:OG	5:Q:204:THR:HG22	1.92	0.70
2:B:245:GLU:O	2:B:246:LYS:HG3	1.91	0.70
5:E:147:HIS:HD2	5:E:149:LEU:H	1.39	0.70
11:K:65:HIS:HD2	11:K:67:PHE:H	1.38	0.70
1:M:372:LYS:HA	1:M:435:HIS:ND1	2.07	0.70
2:N:345:LYS:CG	2:N:346:GLU:H	2.05	0.70
2:N:705:MET:H	2:N:710:LEU:CD1	2.04	0.70
5:Q:48:ASP:CG	5:Q:49:SER:H	1.93	0.70
1:A:852:TYR:CE2	1:A:1060:PRO:HB2	2.27	0.69
1:A:1353:TYR:CD2	1:A:1353:TYR:C	2.65	0.69
1:A:14:VAL:H	1:A:1432:GLN:NE2	1.88	0.69
1:A:794:PRO:HG2	1:A:795:GLU:OE2	1.91	0.69
1:A:946:VAL:HG22	5:E:201:LYS:HD2	1.73	0.69
2:B:559:SER:CA	2:B:563:MET:HB3	2.19	0.69
4:D:35:LEU:H	4:D:35:LEU:HD12	1.56	0.69
7:G:139:ILE:HG23	7:G:140:LYS:N	2.07	0.69
10:J:64:ASN:HB3	10:J:65:PRO:HD2	1.74	0.69
1:M:672:ASP:HB3	1:M:736:ASN:ND2	2.07	0.69
1:M:722:LEU:HD21	1:M:794:PRO:HB3	1.72	0.69
1:A:1210:GLY:O	1:A:1214:GLU:HG2	1.92	0.69
1:A:225:ASN:ND2	1:A:227:VAL:H	1.90	0.69
1:A:903:ASN:HD22	1:A:903:ASN:C	1.91	0.69
1:M:351:THR:HG22	2:N:1103:ILE:CA	2.20	0.69
3:O:33:LEU:O	3:O:37:MET:HG3	1.92	0.69
9:U:4:PHE:HE1	9:U:13:MET:HG3	1.58	0.69
11:W:101:LEU:O	11:W:101:LEU:HD23	1.92	0.69
11:W:57:LEU:HB2	11:W:76:GLN:HG2	1.73	0.69
1:A:288:ALA:HA	1:A:291:GLU:OE1	1.91	0.69
1:A:535:THR:CG2	1:A:616:VAL:HA	2.23	0.69
2:B:114:PRO:HG2	2:B:115:GLN:H	1.57	0.69
1:M:399:HIS:O	1:M:401:GLY:N	2.25	0.69
5:Q:94:LYS:O	5:Q:98:ILE:HG13	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:94:CYS:SG	7:S:128:PRO:HB2	2.32	0.69
1:A:425:GLN:N	1:A:425:GLN:OE1	2.25	0.69
1:A:866:PHE:C	1:A:867:ILE:HD12	2.12	0.69
1:A:960:ILE:O	1:A:963:ILE:HG22	1.92	0.69
2:B:542:MET:HG2	2:B:747:MET:CE	2.22	0.69
2:B:957:ASN:ND2	2:B:961:LEU:HB2	2.03	0.69
3:O:39:ALA:HA	3:O:164:ALA:HB3	1.74	0.69
5:Q:124:VAL:CG1	5:Q:132:ILE:HB	2.16	0.69
8:T:84:ALA:HB1	8:T:87:ARG:HB2	1.74	0.69
2:B:217:ARG:NE	2:B:405:ARG:HB2	2.08	0.69
2:B:165:VAL:HG11	2:B:448:ILE:HD13	1.73	0.69
3:C:165:LYS:O	11:K:6:ARG:NH1	2.25	0.69
2:N:996:ARG:HH12	3:O:174:ALA:HA	1.58	0.69
3:O:66:ARG:NH2	10:V:3:VAL:O	2.25	0.69
11:W:46:ILE:O	11:W:50:LEU:HB2	1.92	0.69
2:B:96:TYR:HB2	2:B:129:PHE:HB2	1.73	0.69
3:C:66:ARG:NH2	10:J:3:VAL:O	2.26	0.69
1:M:1011:GLN:HE22	1:M:1015:VAL:CG2	2.06	0.69
1:M:115:LEU:CD1	1:M:142:CYS:HB3	2.22	0.69
1:M:42:ASP:O	1:M:44:THR:N	2.26	0.69
1:M:537:ARG:HD2	8:T:20:TYR:HE1	1.56	0.69
2:N:357:GLN:O	2:N:366:GLN:HA	1.91	0.69
4:P:160:VAL:O	4:P:164:ILE:HG13	1.92	0.69
6:R:89:GLU:O	6:R:93:ILE:HD12	1.92	0.69
2:N:737:THR:CG2	9:U:66:PRO:HA	2.22	0.69
2:B:1084:GLN:HG2	3:C:201:TRP:CZ2	2.27	0.69
7:G:14:HIS:CD2	7:G:16:SER:H	2.10	0.69
9:I:50:THR:HG22	9:I:52:ILE:H	1.58	0.69
10:J:1:MET:H1	10:J:57:ILE:H	1.41	0.69
1:M:822:GLU:HG3	2:N:513:GLN:HE21	1.57	0.69
7:S:121:PHE:CE2	7:S:123:ALA:HB2	2.28	0.69
7:S:90:THR:HG22	7:S:91:VAL:O	1.92	0.69
1:M:698:GLN:HA	9:U:97:MET:O	1.92	0.69
1:A:828:ALA:HB1	2:B:530:GLY:HA2	1.73	0.69
2:B:824:ILE:HG12	10:J:48:ARG:NH1	2.08	0.69
7:G:125:SER:OG	7:G:128:PRO:HA	1.93	0.69
9:I:111:THR:HG23	9:I:112:SER:H	1.57	0.69
1:M:122:MET:HA	1:M:141:LEU:HD11	1.74	0.69
1:M:1223:ASP:HA	1:M:1243:VAL:CG2	2.22	0.69
4:P:59:ILE:HG21	4:P:145:MET:SD	2.33	0.69
11:W:113:THR:O	11:W:114:LEU:HB2	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:241:ARG:HG2	2:B:253:THR:CG2	2.23	0.69
2:N:642:ASP:O	2:N:644:GLU:N	2.23	0.69
2:N:710:LEU:CA	2:N:733:HIS:HB3	2.17	0.69
8:T:81:PRO:CB	8:T:82:PRO:HD2	2.22	0.69
2:B:616:ILE:HD12	2:B:616:ILE:N	2.07	0.69
12:L:32:ALA:HB3	12:L:55:ILE:HG13	1.74	0.69
1:M:55:ASP:C	1:M:57:ARG:H	1.94	0.69
2:N:36:ALA:HA	2:N:39:ARG:HD2	1.74	0.69
2:N:834:ASN:HB3	2:N:840:ILE:HG13	1.73	0.69
7:S:95:SER:O	7:S:130:TYR:OH	2.07	0.69
1:A:1112:LYS:O	1:A:1114:PRO:HD3	1.92	0.69
2:B:582:VAL:HG23	2:B:626:ILE:HB	1.73	0.69
3:C:45:ALA:HA	3:C:72:LEU:HD12	1.74	0.69
1:M:381:THR:HG23	1:M:382:PRO:HD2	1.75	0.69
9:U:26:LEU:CD2	9:U:37:GLU:HA	2.19	0.69
1:A:1433:MET:HE3	7:G:63:PRO:HB2	1.74	0.68
2:B:1181:GLU:HA	2:B:1187:ASN:O	1.92	0.68
2:B:707:PRO:HG2	2:B:708:GLU:H	1.57	0.68
2:N:559:SER:CA	2:N:563:MET:HB3	2.20	0.68
9:U:55:THR:HG23	9:U:100:PHE:HD2	1.57	0.68
12:X:47:ARG:NH1	12:X:47:ARG:HB2	2.07	0.68
1:A:1148:ILE:HD11	1:A:1198:ASP:HA	1.75	0.68
1:A:1438:THR:HB	2:B:1144:ALA:HB3	1.75	0.68
1:A:709:THR:HG22	1:A:710:LEU:H	1.58	0.68
2:B:357:GLN:O	2:B:366:GLN:HA	1.92	0.68
2:B:168:GLY:N	2:B:450:ALA:HB1	2.08	0.68
2:B:653:VAL:HG23	2:B:689:LEU:HB3	1.76	0.68
2:B:705:MET:N	2:B:710:LEU:HD12	2.09	0.68
3:C:51:VAL:HG22	3:C:155:LEU:HD22	1.73	0.68
2:N:1113:VAL:CG2	15:6:1:C:H4'	2.23	0.68
7:S:112:LYS:HB3	7:S:113:HIS:CE1	2.28	0.68
11:W:108:GLU:O	11:W:112:GLN:HG2	1.93	0.68
1:A:1094:VAL:HG13	1:A:1113:THR:HG21	1.74	0.68
1:A:1207:LEU:CD1	1:A:1273:LEU:HD23	2.24	0.68
1:A:185:TRP:H	1:A:185:TRP:HE3	1.41	0.68
2:B:254:LEU:HD23	2:B:381:MET:HE1	1.75	0.68
2:B:291:ILE:HD13	2:B:300:HIS:CD2	2.29	0.68
2:B:378:LEU:O	2:B:382:ILE:HG13	1.93	0.68
8:H:130:ARG:NH1	8:H:130:ARG:HB2	2.08	0.68
11:K:63:VAL:O	11:K:63:VAL:HG23	1.94	0.68
12:L:26:THR:CG2	12:L:27:LEU:H	2.02	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:744:HIS:HD2	2:N:745:PRO:HD2	1.55	0.68
2:B:1183:LYS:HE3	2:B:1183:LYS:N	2.08	0.68
10:J:64:ASN:HB3	10:J:65:PRO:HD3	1.74	0.68
2:B:955:THR:OG1	12:L:55:ILE:HA	1.93	0.68
1:M:1036:ARG:HG2	1:M:1036:ARG:NH1	2.05	0.68
1:M:1195:LEU:HD11	1:M:1267:MET:CE	2.23	0.68
2:N:244:LEU:HD11	2:N:366:GLN:NE2	2.08	0.68
7:S:128:PRO:O	7:S:138:THR:HG23	1.94	0.68
8:T:12:VAL:HA	8:T:28:ALA:HB2	1.74	0.68
1:A:503:GLN:HE21	6:F:90:ARG:NH2	1.87	0.68
1:A:524:VAL:HG12	1:A:525:GLN:N	2.06	0.68
1:M:875:ALA:HB2	1:M:1366:ARG:HD2	1.76	0.68
1:A:350:ARG:HB2	2:B:1128:LEU:HD11	1.74	0.68
3:C:56:THR:HG21	3:C:145:CYS:SG	2.33	0.68
1:A:1325:THR:O	5:E:148:GLU:HB2	1.94	0.68
8:H:61:SER:HB3	8:H:139:ASN:HB3	1.74	0.68
1:M:150:THR:HG23	1:M:166:GLY:HA2	1.76	0.68
1:M:913:LEU:HD12	1:M:914:GLU:N	2.09	0.68
2:N:69:LEU:HB3	2:N:429:PHE:CE1	2.28	0.68
2:N:708:GLU:O	2:N:710:LEU:N	2.27	0.68
3:O:93:ASP:OD1	3:O:122:SER:HB2	1.92	0.68
3:O:3:GLU:HB3	11:W:104:ASN:OD1	1.93	0.68
1:A:830:LYS:O	1:A:834:THR:HB	1.94	0.68
3:C:69:LEU:HB3	10:J:6:ARG:HD3	1.76	0.68
10:J:64:ASN:HD22	10:J:65:PRO:HD3	1.58	0.68
1:M:1325:THR:O	5:Q:148:GLU:HB2	1.94	0.68
2:N:309:GLN:OE1	9:U:52:ILE:HD11	1.92	0.68
3:O:16:ASP:C	3:O:240:VAL:HG11	2.14	0.68
4:P:153:ARG:O	4:P:154:PHE:HD2	1.76	0.68
4:P:59:ILE:HG22	4:P:60:LYS:N	2.07	0.68
7:S:111:THR:HG22	7:S:114:LEU:HB2	1.75	0.68
1:A:337:ARG:HD3	2:B:1132:GLU:OE1	1.94	0.68
1:A:413:ILE:HG21	1:A:424:ILE:HD11	1.76	0.68
1:A:66:LYS:HD3	1:A:67:CYS:H	1.59	0.68
4:D:14:ARG:HB3	4:D:14:ARG:HH11	1.58	0.68
8:H:12:VAL:HA	8:H:28:ALA:HB2	1.75	0.68
9:I:8:ARG:HG3	9:I:34:TYR:CE1	2.28	0.68
1:M:1420:ASP:CB	1:M:1422:ARG:HG3	2.19	0.68
2:N:836:GLU:O	2:N:837:ASP:HB2	1.93	0.68
4:P:138:ASN:HB3	4:P:141:LEU:HB3	1.75	0.68
4:P:4:SER:O	4:P:5:THR:HB	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:147:HIS:HB3	5:Q:150:VAL:HG23	1.76	0.68
8:T:99:GLY:HA3	8:T:118:PHE:HD2	1.58	0.68
14:2:5:DC:H2"	14:2:6:DT:C7	2.24	0.68
1:A:49:LYS:NZ	1:A:60:SER:HA	2.09	0.68
1:A:55:ASP:C	1:A:57:ARG:H	1.95	0.68
3:C:39:ALA:HA	3:C:164:ALA:HB3	1.75	0.68
5:E:50:MET:HG2	5:E:52:ARG:HH21	1.59	0.68
6:F:116:ASP:HB3	6:F:119:ARG:HB2	1.76	0.68
10:J:16:ASP:OD1	10:J:17:LYS:HD2	1.93	0.68
2:N:226:PHE:HA	2:N:395:GLN:CG	2.24	0.68
2:N:597:MET:CE	2:N:597:MET:HA	2.24	0.68
4:P:35:LEU:N	4:P:35:LEU:HD12	2.09	0.68
9:U:76:PRO:HD2	9:U:108:HIS:CD2	2.28	0.68
4:D:18:VAL:O	4:D:19:GLU:HB2	1.94	0.68
7:G:1:MET:SD	7:G:79:PHE:CD1	2.87	0.68
1:A:567:LYS:CB	8:H:96:VAL:H	1.98	0.68
1:M:89:PRO:C	1:M:204:THR:HG21	2.13	0.68
2:N:100:PRO:HG3	2:N:172:ILE:HD12	1.75	0.68
2:N:857:ARG:HD2	2:N:945:GLU:OE1	1.92	0.68
2:B:1065:GLN:NE2	2:B:1067:ARG:H	1.86	0.67
2:B:345:LYS:HA	2:B:348:ARG:HE	1.59	0.67
4:D:29:LEU:H	4:D:29:LEU:HD22	1.57	0.67
5:E:144:ILE:HG13	5:E:145:THR:N	2.09	0.67
2:N:807:ARG:HG2	2:N:1045:SER:OG	1.94	0.67
2:N:897:GLY:O	2:N:898:LEU:HD23	1.93	0.67
4:P:71:LYS:HA	4:P:74:GLN:HB2	1.75	0.67
1:A:42:ASP:O	1:A:44:THR:N	2.27	0.67
4:D:71:LYS:HG2	4:D:74:GLN:HG3	1.75	0.67
1:M:382:PRO:CA	1:M:428:TYR:HE2	2.07	0.67
1:M:852:TYR:CD2	1:M:1060:PRO:HB2	2.29	0.67
2:N:579:ARG:HG2	2:N:579:ARG:HH11	1.59	0.67
2:B:243:ALA:HA	2:B:250:PHE:O	1.93	0.67
3:C:123:ASN:HD22	3:C:125:MET:HG2	1.56	0.67
3:C:186:LEU:HD21	3:C:225:ALA:HB2	1.76	0.67
4:D:146:GLN:HA	4:D:149:THR:HG22	1.76	0.67
1:M:433:GLU:OE1	2:N:1108:ARG:NH2	2.27	0.67
1:M:866:PHE:C	1:M:867:ILE:HD12	2.15	0.67
1:M:868:TYR:CD2	1:M:1058:VAL:HG21	2.30	0.67
2:N:20:ASP:O	2:N:22:SER:N	2.23	0.67
2:N:657:HIS:CE1	2:N:689:LEU:HD11	2.30	0.67
4:P:144:THR:O	4:P:148:LEU:HB2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:X:53:HIS:HB3	12:X:55:ILE:CD1	2.23	0.67
1:A:244:PRO:HB2	1:A:245:PRO:HD3	1.76	0.67
2:B:589:VAL:HG12	2:B:590:HIS:N	2.09	0.67
4:D:54:GLU:O	4:D:58:VAL:HG23	1.95	0.67
1:M:901:LEU:H	1:M:926:GLN:NE2	1.93	0.67
1:M:897:TYR:HB3	1:M:936:LEU:HD12	1.77	0.67
2:N:291:ILE:HD13	2:N:300:HIS:CD2	2.29	0.67
2:N:622:LYS:HE2	9:U:59:VAL:CG2	2.19	0.67
3:O:186:LEU:HD21	3:O:225:ALA:HB2	1.77	0.67
2:N:309:GLN:HG3	9:U:52:ILE:CD1	2.24	0.67
1:A:768:GLN:CG	1:A:816:HIS:HA	2.22	0.67
2:B:23:ALA:HB1	2:B:24:PRO:HD2	1.77	0.67
2:B:373:ARG:HA	2:B:566:LEU:HD23	1.76	0.67
2:B:868:MET:O	2:B:870:ILE:HG13	1.95	0.67
1:M:903:ASN:ND2	1:M:904:THR:N	2.39	0.67
2:N:254:LEU:HD12	2:N:272:THR:O	1.94	0.67
2:N:345:LYS:N	2:N:347:LYS:HE2	2.10	0.67
2:N:168:GLY:N	2:N:450:ALA:HB1	2.10	0.67
3:O:124:LEU:O	3:O:127:ARG:HG2	1.94	0.67
1:A:265:LYS:HE3	1:A:265:LYS:HA	1.74	0.67
1:A:767:GLN:NE2	1:A:774:ARG:HB3	2.10	0.67
2:B:363:HIS:O	2:B:364:ILE:HB	1.95	0.67
2:B:580:VAL:HG22	2:B:624:LEU:HB3	1.75	0.67
5:E:177:ARG:HD3	5:E:215:MET:SD	2.34	0.67
8:H:15:VAL:HG22	8:H:26:ILE:HD11	1.75	0.67
9:I:111:THR:HG21	9:I:113:ASP:HB2	1.75	0.67
1:M:1141:THR:CG2	1:M:1205:LYS:HD3	2.25	0.67
2:N:165:VAL:HG11	2:N:448:ILE:HD13	1.76	0.67
2:N:562:GLY:HA3	2:N:590:HIS:CE1	2.30	0.67
4:P:156:ASP:HB2	4:P:159:THR:CG2	2.24	0.67
4:P:18:VAL:O	4:P:19:GLU:HB2	1.95	0.67
5:Q:4:GLU:HB3	5:Q:7:ARG:HE	1.59	0.67
9:U:40:SER:OG	9:U:41:PRO:HD2	1.94	0.67
14:5:5:DC:H2''	14:5:6:DT:C7	2.25	0.67
1:A:512:VAL:HA	1:A:519:PRO:HA	1.75	0.67
5:E:98:ILE:HG22	5:E:102:GLU:HG3	1.76	0.67
1:M:852:TYR:CE2	1:M:1060:PRO:HB2	2.30	0.67
1:M:492:PRO:CB	1:M:497:THR:HG22	2.25	0.67
1:M:34:LYS:NZ	1:M:57:ARG:NH2	2.43	0.67
2:N:724:ASP:OD2	2:N:727:LYS:HG3	1.95	0.67
4:P:8:PHE:CE1	4:P:37:GLN:HB2	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:94:LYS:HE2	5:Q:98:ILE:CD1	2.25	0.67
7:S:116:PRO:HG2	7:S:119:LEU:HB2	1.77	0.67
2:N:1124:ARG:NH1	15:6:2:G:OP2	2.28	0.67
1:A:635:ARG:HH11	1:A:635:ARG:HA	1.60	0.67
2:B:1202:LEU:O	2:B:1206:GLU:HG3	1.95	0.67
2:B:1224:PHE:CZ	5:E:171:LYS:HG3	2.29	0.67
1:M:595:THR:O	1:M:596:THR:HG23	1.95	0.67
12:X:38:LEU:CD1	12:X:49:LYS:HE2	2.25	0.67
2:B:1017:ILE:HB	2:B:1018:PRO:HD3	1.75	0.67
2:B:240:ILE:CG2	2:B:254:LEU:HB3	2.25	0.67
2:B:899:ILE:HG21	2:B:949:VAL:HG21	1.77	0.67
4:D:4:SER:O	4:D:5:THR:HB	1.95	0.67
1:A:1004:ASN:ND2	5:E:167:ARG:HD2	2.10	0.67
6:F:89:GLU:HG2	6:F:134:ILE:HD13	1.77	0.67
8:H:58:THR:HB	8:H:143:LEU:HD13	1.76	0.67
10:J:1:MET:N	10:J:56:LEU:N	2.43	0.67
1:M:1144:LYS:HB2	1:M:1268:LEU:O	1.94	0.67
1:M:185:TRP:HE3	1:M:185:TRP:H	1.42	0.67
1:M:284:ALA:O	1:M:286:HIS:N	2.27	0.67
2:N:34:ILE:HG12	2:N:542:MET:HE1	1.76	0.67
2:N:589:VAL:HG12	2:N:590:HIS:N	2.10	0.67
2:N:593:PRO:HG2	2:N:617:ARG:NH1	2.10	0.67
4:P:48:ILE:HG22	4:P:48:ILE:O	1.94	0.67
5:Q:100:ILE:HG23	5:Q:105:PHE:HB2	1.77	0.67
5:Q:157:SER:OG	5:Q:160:GLU:HG3	1.95	0.67
7:S:34:VAL:HG12	7:S:45:ILE:HG21	1.76	0.67
7:S:45:ILE:HA	7:S:78:VAL:HG12	1.77	0.67
9:U:44:TYR:CD1	9:U:45:ARG:N	2.62	0.67
11:W:63:VAL:HG23	11:W:63:VAL:O	1.95	0.67
1:A:34:LYS:HZ2	1:A:57:ARG:NH2	1.93	0.67
2:B:261:ARG:NH1	2:B:261:ARG:HB3	2.09	0.67
2:B:806:THR:HG22	2:B:808:ALA:N	2.06	0.67
1:A:1147:THR:HB	9:I:48:LEU:HD12	1.77	0.67
10:J:16:ASP:OD1	10:J:17:LYS:N	2.28	0.67
1:M:164:ARG:HG3	1:M:165:GLY:N	2.09	0.67
1:M:407:ARG:HG2	1:M:430:TRP:CZ2	2.29	0.67
1:M:492:PRO:HB2	1:M:497:THR:HG22	1.76	0.67
1:M:688:LYS:HG3	1:M:691:LEU:HD23	1.76	0.67
12:X:47:ARG:HG2	12:X:48:CYS:H	1.59	0.67
1:A:675:THR:O	1:A:679:ILE:HG13	1.95	0.66
7:G:126:ASN:HD22	7:G:127:PRO:HA	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:66:LYS:HZ2	1:M:68:GLN:H	1.42	0.66
2:N:515:HIS:CD2	2:N:517:THR:H	2.12	0.66
1:A:1255:GLU:HG3	1:A:1258:HIS:CD2	2.30	0.66
1:A:567:LYS:CD	1:A:568:PRO:HD2	2.24	0.66
2:B:562:GLY:HA3	2:B:590:HIS:CE1	2.30	0.66
2:B:708:GLU:O	2:B:710:LEU:N	2.28	0.66
2:B:879:ARG:NE	2:B:879:ARG:H	1.93	0.66
2:N:868:MET:O	2:N:870:ILE:HG13	1.95	0.66
6:R:96:THR:O	6:R:100:GLN:HG3	1.95	0.66
1:A:122:MET:HA	1:A:141:LEU:CD1	2.25	0.66
1:A:977:LYS:HB3	1:A:978:PRO:HD2	1.77	0.66
2:B:805:THR:HG22	2:B:806:THR:N	2.10	0.66
2:B:955:THR:CG2	2:B:956:THR:N	2.57	0.66
7:G:1:MET:HE1	7:G:79:PHE:HA	1.76	0.66
1:A:698:GLN:HA	9:I:97:MET:O	1.95	0.66
12:L:40:LEU:HD13	12:L:44:ASP:CB	2.21	0.66
1:M:535:THR:HG21	1:M:617:VAL:H	1.60	0.66
2:N:806:THR:N	2:N:809:MET:HE3	2.10	0.66
1:M:870:GLU:HG2	5:Q:208:TYR:CG	2.30	0.66
1:A:1081:LEU:HD11	1:A:1098:VAL:H	1.60	0.66
1:A:1167:GLU:O	1:A:1170:ILE:HD12	1.95	0.66
2:B:1096:ARG:O	2:B:1097:HIS:HB2	1.96	0.66
2:B:604:ARG:HB2	2:B:609:ILE:HG13	1.77	0.66
7:G:115:MET:HB3	7:G:116:PRO:HD2	1.77	0.66
1:M:1353:TYR:CD2	1:M:1353:TYR:C	2.68	0.66
1:M:463:ILE:HB	1:M:464:PRO:HD2	1.78	0.66
1:M:55:ASP:N	1:M:56:PRO:HD3	2.09	0.66
1:M:828:ALA:HB1	2:N:530:GLY:HA2	1.76	0.66
2:N:1037:LEU:HD21	2:N:1064:TYR:HE1	1.61	0.66
7:S:111:THR:HG22	7:S:114:LEU:HD13	1.77	0.66
9:U:8:ARG:HG3	9:U:34:TYR:HE1	1.60	0.66
3:O:69:LEU:HB3	10:V:6:ARG:HD3	1.78	0.66
14:2:5:DC:H2"	14:2:6:DT:H72	1.78	0.66
1:A:1076:ALA:HA	1:A:1079:MET:HG3	1.77	0.66
1:A:1130:GLN:O	1:A:1134:ILE:HG13	1.96	0.66
1:A:1116:LEU:HB3	1:A:1308:THR:HG21	1.78	0.66
1:A:203:SER:O	1:A:207:ILE:HG12	1.96	0.66
1:A:414:ASP:OD1	1:A:416:ARG:HG2	1.96	0.66
2:B:345:LYS:HG2	2:B:346:GLU:H	1.61	0.66
2:B:553:PRO:O	2:B:557:PHE:HB2	1.95	0.66
2:B:847:ASP:C	2:B:849:GLY:H	1.98	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:111:LEU:O	6:F:113:GLY:N	2.23	0.66
7:G:7:LEU:HB2	7:G:74:TYR:HE2	1.60	0.66
9:I:50:THR:CG2	9:I:52:ILE:HG12	2.26	0.66
9:I:7:CYS:HB3	9:I:14:LEU:HD21	1.76	0.66
1:M:203:SER:O	1:M:207:ILE:HG12	1.96	0.66
2:N:562:GLY:HA3	2:N:590:HIS:ND1	2.11	0.66
2:N:911:ILE:HD11	2:N:941:LEU:CD1	2.24	0.66
8:T:95:TYR:HE2	8:T:97:MET:CG	2.05	0.66
9:U:19:ASP:HB3	9:U:24:ARG:HG2	1.77	0.66
1:A:1258:HIS:O	1:A:1262:LYS:HE3	1.96	0.66
1:A:710:LEU:CD1	1:A:710:LEU:H	2.08	0.66
1:A:828:ALA:CB	2:B:530:GLY:HA2	2.25	0.66
2:B:644:GLU:HB3	2:B:648:HIS:O	1.95	0.66
4:D:134:THR:HG22	4:D:135:GLY:N	2.10	0.66
12:L:38:LEU:CD1	12:L:49:LYS:HE2	2.25	0.66
1:M:66:LYS:O	1:M:67:CYS:HB2	1.93	0.66
5:Q:14:ARG:HH21	5:Q:141:VAL:CG1	2.02	0.66
7:S:111:THR:CG2	7:S:114:LEU:HD13	2.26	0.66
1:A:308:ILE:HG22	1:A:309:ALA:N	2.09	0.66
1:A:710:LEU:HD12	1:A:710:LEU:N	2.11	0.66
2:B:515:HIS:HD2	2:B:517:THR:OG1	1.78	0.66
8:H:14:GLU:HG2	8:H:15:VAL:N	2.11	0.66
11:K:113:THR:O	11:K:114:LEU:HB2	1.96	0.66
7:S:52:ASP:C	7:S:53:ASN:HD22	1.98	0.66
9:U:73:ARG:HH12	9:U:112:SER:HB3	1.59	0.66
2:B:64:CYS:HA	2:B:67:SER:OG	1.95	0.66
1:M:268:ASP:HB3	1:M:299:HIS:CE1	2.31	0.66
1:M:463:ILE:HD11	1:M:469:ARG:HG3	1.78	0.66
1:M:71:GLN:O	1:M:73:GLY:N	2.28	0.66
4:P:118:THR:HB	4:P:121:LYS:CB	2.23	0.66
4:P:124:GLU:O	4:P:128:VAL:HG23	1.96	0.66
4:P:71:LYS:HA	4:P:74:GLN:CG	2.24	0.66
1:M:1004:ASN:ND2	5:Q:167:ARG:HD2	2.10	0.66
1:A:1342:GLU:CG	5:E:198:ILE:HD13	2.25	0.66
1:A:321:PRO:O	1:A:322:VAL:HG12	1.96	0.66
1:A:626:ASN:O	1:A:631:HIS:CD2	2.49	0.66
1:A:897:TYR:HB3	1:A:936:LEU:HD12	1.78	0.66
2:B:819:ALA:O	2:B:1093:GLN:HG2	1.95	0.66
7:G:116:PRO:HG2	7:G:119:LEU:HB2	1.77	0.66
2:N:295:GLY:H	2:N:298:LEU:HD23	1.59	0.66
4:P:139:LYS:HA	4:P:142:LYS:HD2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:U:111:THR:CG2	9:U:112:SER:H	2.09	0.66
1:A:1036:ARG:HG2	1:A:1036:ARG:NH1	2.10	0.66
1:A:1259:MET:HE3	1:A:1263:ILE:HG13	1.77	0.66
1:A:973:ILE:HD13	1:A:1037:LEU:HA	1.77	0.66
2:B:384:ARG:NH1	2:B:393:LYS:HD3	2.11	0.66
2:B:955:THR:HG22	2:B:956:THR:N	2.11	0.66
4:D:119:ARG:HG3	4:D:221:TYR:CZ	2.30	0.66
1:M:982:THR:O	1:M:985:ASP:HB2	1.96	0.66
7:S:13:LEU:HD21	7:S:17:PHE:CB	2.24	0.66
9:U:7:CYS:SG	9:U:8:ARG:O	2.54	0.66
10:V:1:MET:N	10:V:56:LEU:N	2.44	0.66
12:X:32:ALA:HB3	12:X:55:ILE:HG13	1.77	0.66
1:A:1095:THR:HG21	1:A:1112:LYS:HD2	1.77	0.65
1:A:1259:MET:HA	1:A:1262:LYS:HD2	1.78	0.65
2:B:287:ARG:NH1	2:B:324:ILE:O	2.28	0.65
2:B:418:LYS:HE2	2:B:422:LYS:NZ	2.10	0.65
5:E:2:ASP:O	5:E:3:GLN:HG2	1.96	0.65
10:J:64:ASN:CB	10:J:65:PRO:CD	2.74	0.65
12:L:61:THR:CG2	12:L:63:ARG:HG3	2.26	0.65
5:Q:197:LYS:HE2	5:Q:199:ILE:CD1	2.21	0.65
2:B:560:GLU:O	2:B:561:TRP:CD1	2.50	0.65
2:B:953:LEU:CD2	2:B:965:LYS:HB2	2.26	0.65
1:M:1241:ARG:O	1:M:1242:VAL:HB	1.95	0.65
1:M:341:MET:HE3	2:N:1135:ARG:NH1	2.12	0.65
1:M:37:PHE:HD1	1:M:37:PHE:N	1.93	0.65
1:M:512:VAL:HA	1:M:519:PRO:HA	1.76	0.65
2:N:1073:TYR:CE2	2:N:1080:LYS:HG2	2.31	0.65
4:P:50:LEU:HD13	4:P:55:ALA:HA	1.77	0.65
1:A:1170:ILE:HG22	1:A:1174:PHE:CE1	2.32	0.65
1:A:399:HIS:O	1:A:401:GLY:N	2.28	0.65
2:B:831:SER:HB2	2:B:833:TYR:HD1	1.61	0.65
3:C:16:ASP:C	3:C:240:VAL:HG11	2.16	0.65
3:C:69:LEU:HD12	3:C:69:LEU:N	2.11	0.65
1:M:1242:VAL:CG1	1:M:1243:VAL:N	2.59	0.65
1:M:37:PHE:H	1:M:37:PHE:HD1	1.44	0.65
1:M:567:LYS:HZ2	8:T:46:LEU:HB2	1.60	0.65
2:N:167:ILE:HA	2:N:450:ALA:CB	2.26	0.65
2:N:243:ALA:HA	2:N:250:PHE:O	1.95	0.65
2:N:361:LEU:HD21	2:N:377:PHE:CD2	2.31	0.65
2:N:649:LYS:HD3	2:N:736:THR:O	1.96	0.65
3:O:238:ILE:HD11	3:O:246:ARG:NH1	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:44:ALA:O	5:Q:45:LYS:HB2	1.95	0.65
7:S:139:ILE:HG12	7:S:140:LYS:HG3	1.77	0.65
1:A:1118:VAL:HG23	1:A:1306:LEU:HB2	1.79	0.65
1:A:1120:LEU:HD22	1:A:1125:ALA:HA	1.78	0.65
2:B:842:ASN:HD22	2:B:845:SER:H	1.42	0.65
8:H:84:ALA:HA	8:H:87:ARG:HB2	1.78	0.65
1:M:14:VAL:H	1:M:1432:GLN:NE2	1.89	0.65
2:N:789:MET:CE	2:N:953:LEU:HD22	2.26	0.65
7:S:15:PRO:HA	7:S:18:PHE:CD1	2.31	0.65
14:5:5:DC:H2"	14:5:6:DT:H72	1.79	0.65
8:H:139:ASN:O	8:H:140:ALA:HB2	1.96	0.65
2:N:364:ILE:O	2:N:365:THR:HB	1.96	0.65
2:N:425:THR:HA	2:N:428:ILE:HD12	1.78	0.65
2:N:465:ASN:ND2	2:N:465:ASN:N	2.44	0.65
2:N:69:LEU:HB3	2:N:429:PHE:HE1	1.61	0.65
8:T:139:ASN:O	8:T:140:ALA:HB2	1.96	0.65
10:V:24:LEU:O	10:V:30:LEU:HB2	1.95	0.65
4:D:8:PHE:HE1	4:D:37:GLN:HB2	1.61	0.65
10:J:14:VAL:HG12	10:J:14:VAL:O	1.97	0.65
1:M:265:LYS:N	1:M:265:LYS:HE3	2.12	0.65
2:N:244:LEU:HD21	2:N:366:GLN:NE2	2.11	0.65
2:N:805:THR:HG22	2:N:806:THR:N	2.12	0.65
3:O:58:LEU:HD23	3:O:58:LEU:N	2.11	0.65
2:N:969:ARG:NH1	3:O:61:GLU:OE1	2.30	0.65
7:S:34:VAL:CG1	7:S:45:ILE:HG21	2.26	0.65
9:U:50:THR:CG2	9:U:51:ASN:H	2.10	0.65
10:V:21:TYR:HB2	10:V:39:LEU:HD11	1.77	0.65
2:B:168:GLY:HA2	2:B:454:THR:HG1	1.60	0.65
2:B:613:VAL:HG13	2:B:627:PHE:O	1.97	0.65
2:B:780:VAL:HG21	10:J:56:LEU:HD11	1.78	0.65
2:N:292:ILE:HD11	2:N:327:ARG:N	2.12	0.65
4:P:12:ARG:HG2	4:P:12:ARG:NH1	2.12	0.65
5:E:9:ILE:CD1	5:E:53:PRO:HD3	2.25	0.65
5:E:56:LYS:CE	5:E:84:ASP:HB2	2.22	0.65
12:L:34:CYS:HB3	12:L:51:CYS:SG	2.37	0.65
1:M:129:LYS:O	1:M:130:ASP:HB2	1.95	0.65
2:N:431:TYR:CD1	2:N:447:ALA:HB2	2.32	0.65
2:N:707:PRO:HG2	2:N:708:GLU:H	1.62	0.65
2:N:792:MET:HE2	2:N:857:ARG:NH2	2.11	0.65
4:P:119:ARG:HG3	4:P:221:TYR:CZ	2.32	0.65
4:P:155:ARG:NH1	4:P:155:ARG:HB2	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:R:111:LEU:H	6:R:111:LEU:CD1	2.10	0.65
2:B:20:ASP:O	2:B:22:SER:N	2.25	0.65
2:B:289:LEU:HD13	2:B:375:ALA:CB	2.23	0.65
9:I:73:ARG:HD2	9:I:101:PHE:CE2	2.32	0.65
10:J:44:TYR:HD2	10:J:44:TYR:H	1.43	0.65
1:M:1116:LEU:HB3	1:M:1308:THR:HG21	1.79	0.65
1:M:1121:GLU:HG2	1:M:1122:PRO:HD2	1.79	0.65
1:M:1236:LEU:C	1:M:1237:ILE:HD12	2.15	0.65
1:M:134:ARG:HD2	1:M:221:SER:O	1.97	0.65
1:M:250:ILE:HG22	1:M:250:ILE:O	1.96	0.65
1:M:335:ARG:HA	1:M:339:ASN:HD22	1.62	0.65
1:M:34:LYS:HZ1	1:M:57:ARG:NH2	1.94	0.65
2:N:770:GLN:HG2	2:N:983:ARG:O	1.96	0.65
1:A:231:PRO:HA	1:A:234:MET:HE2	1.78	0.65
1:A:284:ALA:O	1:A:286:HIS:N	2.28	0.65
2:B:1174:LYS:O	2:B:1176:ASN:N	2.30	0.65
2:B:483:LEU:HD11	2:B:491:THR:HG22	1.78	0.65
2:B:497:ARG:NH2	2:B:775:LYS:NZ	2.45	0.65
8:H:15:VAL:HG22	8:H:26:ILE:CD1	2.26	0.65
1:M:1242:VAL:HG12	1:M:1243:VAL:N	2.11	0.65
1:M:626:ASN:O	1:M:631:HIS:HD2	1.80	0.65
2:N:123:THR:HG21	2:N:458:LYS:HE2	1.78	0.65
4:P:12:ARG:NH1	4:P:14:ARG:HA	2.11	0.65
5:Q:78:LEU:HD12	5:Q:107:THR:HG21	1.78	0.65
2:B:167:ILE:HA	2:B:450:ALA:CB	2.27	0.64
2:N:515:HIS:H	2:N:518:HIS:HD2	1.45	0.64
2:N:521:LEU:CD2	2:N:633:VAL:HG12	2.19	0.64
5:Q:9:ILE:CD1	5:Q:53:PRO:HD3	2.27	0.64
7:S:1:MET:HE1	7:S:79:PHE:CA	2.23	0.64
8:T:139:ASN:O	8:T:140:ALA:CB	2.45	0.64
3:C:73:GLN:NE2	3:C:75:MET:H	1.94	0.64
4:D:7:THR:O	4:D:9:GLN:N	2.29	0.64
5:E:117:THR:HG22	5:E:119:SER:N	2.04	0.64
2:B:309:GLN:CG	9:I:52:ILE:HD11	2.27	0.64
9:I:52:ILE:HG13	9:I:52:ILE:O	1.98	0.64
1:M:106:VAL:HG12	1:M:107:CYS:N	2.12	0.64
2:N:205:ILE:N	2:N:205:ILE:HD12	2.12	0.64
5:Q:98:ILE:O	5:Q:102:GLU:HG3	1.97	0.64
6:R:147:SER:OG	6:R:150:GLU:HG3	1.96	0.64
8:T:123:MET:HE3	8:T:142:LEU:HD22	1.78	0.64
9:U:50:THR:HG21	9:U:52:ILE:HG12	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:107:CYS:SG	1:A:148:CYS:HB2	2.36	0.64
2:B:1072:MET:HE3	2:B:1085:ILE:HB	1.80	0.64
2:B:273:LEU:CB	2:B:276:ILE:HD12	2.27	0.64
2:B:549:THR:HG22	2:B:550:ASP:H	1.60	0.64
8:H:32:THR:HG22	8:H:33:GLN:OE1	1.96	0.64
8:H:84:ALA:CA	8:H:87:ARG:HB2	2.26	0.64
1:M:833:GLU:OE2	1:M:1102:LYS:HE3	1.97	0.64
2:N:309:GLN:CG	9:U:52:ILE:HD11	2.28	0.64
2:N:770:GLN:CD	2:N:983:ARG:HA	2.18	0.64
2:N:957:ASN:ND2	2:N:961:LEU:HB2	2.11	0.64
4:P:56:ARG:CA	4:P:148:LEU:HD13	2.24	0.64
4:P:156:ASP:O	4:P:160:VAL:HG23	1.96	0.64
1:A:868:TYR:CD2	1:A:1058:VAL:HG21	2.33	0.64
1:A:741:ASN:ND2	1:A:744:LYS:H	1.95	0.64
2:B:465:ASN:N	2:B:465:ASN:ND2	2.43	0.64
2:B:56:ASP:HB3	2:B:57:TYR:HD1	1.62	0.64
3:C:69:LEU:H	3:C:69:LEU:HD12	1.62	0.64
1:M:1258:HIS:O	1:M:1262:LYS:HE3	1.97	0.64
1:M:425:GLN:OE1	1:M:425:GLN:N	2.30	0.64
1:M:385:ILE:HD11	1:M:426:LEU:HB2	1.80	0.64
1:A:1208:THR:HG22	1:A:1210:GLY:H	1.61	0.64
1:A:1333:ILE:O	1:A:1337:GLU:HG3	1.97	0.64
2:B:622:LYS:NZ	9:I:59:VAL:HG13	2.12	0.64
5:E:124:VAL:HB	5:E:125:PRO:HD3	1.79	0.64
1:M:1041:ALA:O	1:M:1045:VAL:HG23	1.97	0.64
1:M:1112:LYS:O	1:M:1114:PRO:HD3	1.97	0.64
1:M:1345:ARG:HG2	1:M:1372:VAL:HG12	1.79	0.64
1:M:172:PRO:HB3	1:M:185:TRP:CD2	2.32	0.64
1:M:332:LYS:C	1:M:334:GLY:H	2.01	0.64
1:M:741:ASN:C	1:M:741:ASN:HD22	1.99	0.64
2:N:515:HIS:H	2:N:518:HIS:CD2	2.16	0.64
2:N:916:THR:O	2:N:935:ARG:HG2	1.97	0.64
3:O:11:ARG:HH12	3:O:205:LYS:NZ	1.95	0.64
5:Q:112:TYR:O	5:Q:137:GLU:HG3	1.97	0.64
10:V:48:ARG:NH1	10:V:48:ARG:HG2	2.09	0.64
11:W:49:GLU:HG3	11:W:94:ILE:HG13	1.80	0.64
2:B:272:THR:HG23	2:B:279:ASP:OD1	1.97	0.64
2:B:364:ILE:O	2:B:365:THR:HB	1.95	0.64
4:D:52:LEU:O	4:D:54:GLU:N	2.31	0.64
7:G:137:ILE:HG23	7:G:143:ILE:HD11	1.79	0.64
1:M:577:ILE:O	1:M:580:VAL:HG23	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:934:LYS:O	1:M:937:VAL:HG12	1.97	0.64
2:N:611:PRO:HB3	2:N:685:LEU:HD11	1.80	0.64
3:O:181:ASP:CG	3:O:186:LEU:HD13	2.18	0.64
4:P:163:VAL:O	4:P:167:LEU:HG	1.97	0.64
4:P:162:ALA:HB1	4:P:217:LEU:HD13	1.78	0.64
9:U:61:ASP:C	9:U:63:GLY:H	2.00	0.64
13:4:25:DG:H2"	13:4:26:DT:C7	2.27	0.64
1:A:1144:LYS:HB2	1:A:1268:LEU:O	1.97	0.64
1:A:523:ILE:HG12	1:A:622:VAL:HG22	1.79	0.64
1:A:916:GLY:O	1:A:919:ILE:HG22	1.97	0.64
2:B:225:VAL:HG11	2:B:385:LEU:HA	1.80	0.64
2:B:515:HIS:H	2:B:518:HIS:CD2	2.12	0.64
3:C:238:ILE:HD11	3:C:246:ARG:CZ	2.28	0.64
12:L:53:HIS:HB3	12:L:55:ILE:HD11	1.78	0.64
1:M:1353:TYR:HD2	1:M:1353:TYR:C	2.01	0.64
2:N:115:GLN:HG2	2:N:193:LYS:HB2	1.80	0.64
2:N:582:VAL:CG2	2:N:626:ILE:HB	2.28	0.64
4:P:154:PHE:HD1	4:P:163:VAL:HG21	1.63	0.64
5:Q:144:ILE:HG13	5:Q:145:THR:H	1.62	0.64
5:Q:69:ILE:N	5:Q:69:ILE:HD12	2.12	0.64
9:U:17:ARG:HH21	9:U:30:ARG:NE	1.96	0.64
1:A:1011:GLN:HE22	1:A:1015:VAL:CG2	2.11	0.64
1:A:351:THR:CG2	2:B:1103:ILE:HA	2.22	0.64
2:B:345:LYS:CG	2:B:346:GLU:H	2.11	0.64
3:C:43:THR:CG2	3:C:44:LEU:N	2.60	0.64
4:D:14:ARG:HB3	4:D:14:ARG:NH1	2.12	0.64
10:J:44:TYR:HA	10:J:47:ARG:HB2	1.80	0.64
2:N:23:ALA:HB1	2:N:24:PRO:HD2	1.80	0.64
3:O:73:GLN:NE2	3:O:75:MET:HB2	2.13	0.64
4:P:158:GLU:N	4:P:158:GLU:CD	2.51	0.64
7:S:87:VAL:HG21	7:S:103:VAL:HG11	1.79	0.64
11:W:45:LEU:HG	11:W:94:ILE:CD1	2.27	0.64
1:A:1139:GLU:O	1:A:1139:GLU:HG2	1.96	0.64
2:B:57:TYR:N	2:B:57:TYR:HD1	1.96	0.64
2:B:597:MET:HA	2:B:597:MET:CE	2.27	0.64
2:B:701:ILE:HD11	2:B:703:ILE:HD11	1.80	0.64
2:B:797:TYR:C	2:B:798:TYR:HD2	2.01	0.64
3:C:11:ARG:HH12	3:C:205:LYS:NZ	1.95	0.64
7:G:1:MET:SD	7:G:2:PHE:N	2.70	0.64
8:H:139:ASN:O	8:H:140:ALA:CB	2.46	0.64
11:K:90:ALA:O	11:K:94:ILE:HG13	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:47:ARG:NH1	12:L:47:ARG:HB2	2.12	0.64
1:M:518:LYS:HE2	1:M:624:SER:O	1.98	0.64
1:M:903:ASN:C	1:M:903:ASN:HD22	2.00	0.64
1:M:22:PHE:HB2	2:N:1211:ASN:ND2	2.13	0.64
2:N:780:VAL:HG21	10:V:56:LEU:HD11	1.80	0.64
4:P:163:VAL:O	4:P:166:LEU:HB3	1.98	0.64
5:Q:56:LYS:CE	5:Q:84:ASP:HB2	2.24	0.64
7:S:81:PRO:HG3	7:S:106:MET:SD	2.38	0.64
1:M:567:LYS:CB	8:T:96:VAL:H	2.02	0.64
9:U:78:CYS:SG	9:U:106:CYS:HB3	2.38	0.64
1:A:1029:ARG:HG3	1:A:1029:ARG:HH11	1.63	0.64
1:A:741:ASN:HD22	1:A:744:LYS:H	1.44	0.64
2:B:1037:LEU:HD21	2:B:1064:TYR:HE1	1.63	0.64
2:B:1115:THR:O	2:B:1116:ARG:HB2	1.98	0.64
2:B:123:THR:HG21	2:B:458:LYS:HE2	1.79	0.64
8:H:82:PRO:C	8:H:84:ALA:N	2.52	0.64
11:K:21:ILE:CG2	11:K:31:VAL:HG11	2.28	0.64
1:M:1385:THR:CG2	1:M:1387:HIS:H	2.05	0.64
1:M:331:GLY:O	1:M:332:LYS:O	2.15	0.64
1:M:567:LYS:CB	1:M:568:PRO:CD	2.72	0.64
1:M:79:GLY:HA3	1:M:243:PRO:HG3	1.78	0.64
2:N:1100:ASP:OD2	11:W:1:MET:HB3	1.98	0.64
2:N:120:ARG:NH1	12:X:54:ARG:HH11	1.96	0.64
2:N:549:THR:HB	2:N:628:THR:OG1	1.97	0.64
3:O:148:ARG:N	3:O:151:GLN:HG3	2.12	0.64
5:Q:144:ILE:HG13	5:Q:145:THR:N	2.13	0.64
6:R:69:LEU:HB3	6:R:71:GLU:OE1	1.98	0.64
1:A:773:LYS:H	1:A:773:LYS:HD2	1.63	0.63
2:B:577:ALA:CB	2:B:589:VAL:HG11	2.21	0.63
5:E:16:PHE:CZ	5:E:20:LYS:HE2	2.33	0.63
8:H:130:ARG:HH11	8:H:130:ARG:HB2	1.62	0.63
9:I:58:VAL:HG13	9:I:62:ILE:HD13	1.80	0.63
2:N:31:TRP:CZ3	2:N:34:ILE:HD12	2.33	0.63
2:N:553:PRO:O	2:N:557:PHE:HB2	1.97	0.63
2:N:955:THR:HG22	2:N:956:THR:N	2.11	0.63
2:N:186:GLU:HG2	10:V:62:ARG:HH22	1.63	0.63
10:V:64:ASN:ND2	10:V:65:PRO:HD3	2.12	0.63
12:X:34:CYS:HB3	12:X:51:CYS:SG	2.38	0.63
13:1:22:DC:C2'	13:1:23:BRU:H5'	2.25	0.63
1:A:670:ILE:HG23	1:A:805:LEU:HD21	1.78	0.63
2:B:562:GLY:HA3	2:B:590:HIS:ND1	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:554:ILE:HD11	2:B:609:ILE:HG22	1.79	0.63
5:E:100:ILE:HG23	5:E:105:PHE:HB2	1.80	0.63
1:M:883:LEU:HD23	1:M:1021:LEU:HD13	1.80	0.63
1:M:596:THR:C	1:M:598:LEU:H	2.01	0.63
2:N:126:SER:OG	2:N:172:ILE:HD11	1.98	0.63
8:T:14:GLU:HG2	8:T:15:VAL:N	2.13	0.63
8:T:82:PRO:C	8:T:84:ALA:N	2.52	0.63
11:W:21:ILE:HG23	11:W:33:ILE:HG12	1.80	0.63
1:A:252:PHE:HB2	1:A:256:GLN:NE2	2.14	0.63
2:B:102:VAL:HG21	2:B:112:LEU:HD13	1.80	0.63
2:B:484:ASN:O	2:B:491:THR:HG23	1.99	0.63
3:C:124:LEU:O	3:C:127:ARG:HG2	1.99	0.63
8:H:44:VAL:HG13	8:H:48:PRO:HA	1.81	0.63
12:L:38:LEU:HG	12:L:39:SER:H	1.64	0.63
1:M:107:CYS:HA	1:M:171:GLN:NE2	2.13	0.63
4:P:14:ARG:O	4:P:16:LYS:N	2.25	0.63
5:Q:56:LYS:HZ3	5:Q:84:ASP:N	1.97	0.63
7:S:111:THR:O	7:S:114:LEU:HB2	1.98	0.63
1:A:216:VAL:O	1:A:219:PHE:HB2	1.99	0.63
1:A:489:LEU:HD12	1:A:490:HIS:N	2.13	0.63
1:A:961:ARG:HB2	1:A:961:ARG:HH11	1.63	0.63
2:B:282:ILE:O	2:B:286:PHE:HD1	1.81	0.63
2:B:798:TYR:HD1	10:J:4:PRO:HG3	1.64	0.63
2:B:886:LYS:HE2	2:B:940:PRO:HD3	1.80	0.63
6:F:119:ARG:HH11	6:F:119:ARG:CG	2.11	0.63
6:F:75:PRO:O	6:F:77:ASP:O	2.16	0.63
8:H:100:THR:OG1	8:H:138:GLU:HG2	1.99	0.63
9:I:61:ASP:C	9:I:63:GLY:H	2.00	0.63
11:K:31:VAL:HG12	11:K:32:VAL:N	2.12	0.63
1:M:626:ASN:O	1:M:631:HIS:CD2	2.52	0.63
2:N:370:PHE:HD2	2:N:373:ARG:CD	2.11	0.63
2:N:955:THR:OG1	12:X:55:ILE:HA	1.97	0.63
4:P:219:THR:HG22	4:P:220:LEU:O	1.98	0.63
5:Q:180:ARG:HB2	5:Q:215:MET:OXT	1.97	0.63
5:Q:178:ILE:HG22	5:Q:213:ILE:O	1.98	0.63
5:Q:39:LEU:HG	5:Q:43:LYS:HE3	1.79	0.63
2:B:1113:VAL:HG23	15:3:1:C:H4'	1.80	0.63
1:A:1410:PHE:HA	2:B:1212:ILE:HD11	1.80	0.63
2:B:284:ILE:HD13	2:B:333:PHE:HD2	1.64	0.63
2:B:465:ASN:N	2:B:465:ASN:HD22	1.94	0.63
5:E:157:SER:OG	5:E:160:GLU:HG3	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:60:ARG:HG2	12:L:61:THR:N	2.13	0.63
1:M:252:PHE:O	1:M:256:GLN:NE2	2.30	0.63
1:M:87:ALA:CB	1:M:276:LEU:HD23	2.28	0.63
2:N:1065:GLN:NE2	2:N:1067:ARG:H	1.94	0.63
2:N:575:PRO:HG2	2:N:576:ASP:H	1.62	0.63
4:P:155:ARG:HH21	4:P:221:TYR:HD1	1.43	0.63
2:N:193:LYS:NZ	12:X:32:ALA:HB1	2.13	0.63
1:A:1006:ILE:CD1	5:E:163:GLU:HG3	2.29	0.63
1:A:1338:VAL:HG12	1:A:1339:LEU:HD23	1.81	0.63
3:C:261:ALA:HA	3:C:264:GLN:OE1	1.99	0.63
4:D:14:ARG:NH2	4:D:16:LYS:HD2	2.14	0.63
1:M:567:LYS:NZ	8:T:43:ASN:HB3	2.14	0.63
1:M:949:ASP:OD1	1:M:951:GLU:HB2	1.99	0.63
2:N:1001:PHE:CE1	2:N:1073:TYR:HB2	2.33	0.63
2:N:422:LYS:O	2:N:426:LYS:HG2	1.97	0.63
5:Q:46:TYR:CD2	5:Q:58:MET:HG2	2.34	0.63
8:T:38:LEU:HD12	8:T:39:THR:H	1.64	0.63
13:1:25:DG:H2''	13:1:26:DT:C7	2.28	0.63
15:6:2:G:O2'	15:6:3:A:H5'	1.99	0.63
1:A:1102:LYS:O	1:A:1106:ASN:ND2	2.32	0.63
1:A:1170:ILE:HD12	1:A:1170:ILE:H	1.62	0.63
1:A:332:LYS:C	1:A:334:GLY:H	2.02	0.63
1:A:666:ILE:HD12	1:A:667:GLY:H	1.62	0.63
2:B:293:PRO:HD2	2:B:296:GLU:OE1	1.99	0.63
2:B:370:PHE:HD2	2:B:373:ARG:CD	2.12	0.63
5:E:153:HIS:O	5:E:154:ILE:CG1	2.45	0.63
9:I:76:PRO:HD2	9:I:108:HIS:CD2	2.32	0.63
12:L:28:LYS:HE3	12:L:39:SER:OG	1.97	0.63
1:M:993:LEU:HD22	1:M:1046:LEU:HD22	1.81	0.63
1:M:297:GLN:HE21	1:M:297:GLN:CA	2.02	0.63
1:M:903:ASN:HD22	1:M:904:THR:H	1.45	0.63
2:N:284:ILE:HD13	2:N:333:PHE:HD2	1.63	0.63
3:O:148:ARG:H	3:O:151:GLN:HG3	1.63	0.63
4:P:14:ARG:HB3	4:P:14:ARG:NH1	2.13	0.63
4:P:35:LEU:HD11	4:P:173:HIS:CD2	2.34	0.63
4:P:71:LYS:HG2	4:P:74:GLN:NE2	2.14	0.63
15:3:2:G:O2'	15:3:3:A:H5'	1.99	0.63
1:A:427:GLN:HG3	1:A:430:TRP:CZ2	2.33	0.63
1:A:596:THR:C	1:A:598:LEU:H	2.02	0.63
2:B:1096:ARG:HH11	2:B:1096:ARG:HB2	1.64	0.63
2:B:751:VAL:HG13	2:B:812:LEU:CD2	2.27	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:34:TYR:CD2	9:I:35:VAL:N	2.67	0.63
1:M:666:ILE:HD12	1:M:667:GLY:H	1.63	0.63
1:M:697:ALA:HB2	1:M:702:LEU:HD11	1.81	0.63
1:M:977:LYS:HB3	1:M:978:PRO:HD2	1.80	0.63
2:N:1113:VAL:HG23	15:6:1:C:H4'	1.80	0.63
5:Q:56:LYS:HZ3	5:Q:84:ASP:H	1.47	0.63
7:S:106:MET:HG2	7:S:107:LYS:H	1.64	0.63
8:T:99:GLY:HA3	8:T:118:PHE:CD2	2.33	0.63
1:A:44:THR:O	1:A:45:GLN:HB2	1.98	0.63
1:A:961:ARG:HG2	1:A:965:GLN:HE21	1.63	0.63
3:C:36:VAL:HG21	3:C:251:LEU:HB2	1.81	0.63
8:H:127:GLY:O	8:H:128:ASN:CB	2.47	0.63
12:L:61:THR:HG22	12:L:63:ARG:HG3	1.80	0.63
1:M:1076:ALA:HA	1:M:1079:MET:HG3	1.80	0.63
2:N:1017:ILE:HB	2:N:1018:PRO:HD3	1.81	0.63
8:T:89:LEU:C	8:T:91:ASP:N	2.52	0.63
9:U:111:THR:HG22	9:U:112:SER:N	2.13	0.63
2:B:649:LYS:HD3	2:B:736:THR:O	1.99	0.62
7:G:51:TYR:O	7:G:54:ILE:HG13	1.99	0.62
1:M:50:ILE:C	1:M:52:GLY:H	2.02	0.62
2:N:1095:LEU:HD12	2:N:1095:LEU:N	2.14	0.62
2:N:464:GLY:O	2:N:477:ALA:HA	1.99	0.62
2:N:654:ARG:HH11	2:N:654:ARG:HG3	1.64	0.62
7:S:21:ARG:HD2	7:S:24:GLN:CB	2.29	0.62
10:V:64:ASN:CB	10:V:65:PRO:CD	2.75	0.62
12:X:58:LYS:O	12:X:59:ALA:O	2.17	0.62
1:A:205:GLU:CD	1:A:205:GLU:H	2.01	0.62
2:B:1084:GLN:N	2:B:1084:GLN:NE2	2.47	0.62
2:B:370:PHE:CD2	2:B:373:ARG:HD3	2.33	0.62
2:B:361:LEU:HD21	2:B:377:PHE:HD2	1.62	0.62
1:M:270:LEU:O	1:M:274:ILE:HG13	1.98	0.62
1:M:789:LYS:HE3	9:U:67:THR:OG1	1.97	0.62
2:N:233:PRO:HG2	2:N:234:ILE:HD13	1.80	0.62
2:N:644:GLU:OE2	2:N:646:LEU:HB3	1.98	0.62
2:N:941:LEU:HD21	2:N:946:ASN:HA	1.80	0.62
3:O:66:ARG:HA	3:O:69:LEU:HD13	1.80	0.62
4:P:153:ARG:C	4:P:154:PHE:CD2	2.73	0.62
9:U:111:THR:HG23	9:U:112:SER:H	1.63	0.62
1:A:635:ARG:NH1	1:A:635:ARG:HA	2.14	0.62
1:A:63:ARG:HA	1:A:74:MET:CE	2.29	0.62
2:B:579:ARG:HD2	2:B:586:TRP:CZ2	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:911:ILE:CG2	2:B:966:VAL:HG11	2.28	0.62
2:B:822:ASN:ND2	10:J:52:THR:HG21	2.14	0.62
12:L:58:LYS:O	12:L:59:ALA:O	2.17	0.62
1:M:335:ARG:O	1:M:339:ASN:HB2	1.98	0.62
1:M:33:ALA:HA	1:M:57:ARG:NH1	2.14	0.62
1:M:709:THR:HB	1:M:712:GLU:HG3	1.81	0.62
2:N:102:VAL:HG21	2:N:112:LEU:HD13	1.81	0.62
1:M:782:ARG:NH2	2:N:699:GLU:O	2.32	0.62
2:N:815:ARG:HB2	2:N:815:ARG:HH11	1.65	0.62
3:O:241:ASP:O	3:O:245:VAL:HG23	1.98	0.62
6:R:69:LEU:O	6:R:71:GLU:HG3	1.98	0.62
13:4:22:DC:C2'	13:4:23:BRU:H5'	2.26	0.62
1:A:252:PHE:O	1:A:256:GLN:NE2	2.32	0.62
2:B:766:ARG:HH21	2:B:1020:ARG:HD3	1.63	0.62
2:B:126:SER:OG	2:B:172:ILE:HD11	1.99	0.62
2:B:365:THR:HG21	2:B:370:PHE:CG	2.34	0.62
2:B:398:ARG:CB	2:B:398:ARG:HH11	2.12	0.62
2:B:57:TYR:CD1	2:B:57:TYR:N	2.67	0.62
3:C:73:GLN:HE21	3:C:75:MET:HB2	1.63	0.62
6:F:111:LEU:H	6:F:111:LEU:CD1	2.11	0.62
7:G:126:ASN:HD22	7:G:127:PRO:N	1.97	0.62
9:I:78:CYS:SG	9:I:106:CYS:HB3	2.40	0.62
11:K:49:GLU:HG3	11:K:94:ILE:HG12	1.81	0.62
2:N:516:ASN:N	2:N:516:ASN:ND2	2.30	0.62
2:N:618:ASP:CG	2:N:621:GLU:HB3	2.20	0.62
2:N:64:CYS:HA	2:N:67:SER:OG	1.99	0.62
1:A:705:LYS:HB2	1:A:708:MET:HE3	1.81	0.62
2:B:43:LEU:HD11	2:B:811:TYR:O	1.99	0.62
1:M:1127:ASP:HB3	1:M:1130:GLN:HB3	1.79	0.62
1:M:93:VAL:CG2	1:M:301:ALA:HA	2.28	0.62
7:S:150:CYS:SG	7:S:159:ALA:HB2	2.39	0.62
2:N:309:GLN:CD	9:U:52:ILE:HD11	2.19	0.62
1:A:351:THR:HG21	2:B:1103:ILE:HG13	1.80	0.62
2:B:408:LEU:HD11	2:B:545:ILE:HD13	1.82	0.62
2:B:916:THR:O	2:B:935:ARG:HG2	1.99	0.62
5:E:135:PHE:HD2	5:E:140:LEU:HD21	1.64	0.62
2:N:427:ASP:HA	2:N:430:ARG:CD	2.29	0.62
2:N:168:GLY:HA2	2:N:454:THR:OG1	1.99	0.62
3:O:251:LEU:O	3:O:255:VAL:HG23	1.99	0.62
4:P:134:THR:HG22	4:P:135:GLY:N	2.15	0.62
12:X:64:LEU:H	12:X:64:LEU:HD12	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:217:ARG:C	2:B:217:ARG:HD2	2.20	0.62
2:B:345:LYS:CE	2:B:349:ILE:HD11	2.29	0.62
2:B:557:PHE:CE1	2:B:603:LEU:HD11	2.35	0.62
7:G:13:LEU:HD21	7:G:17:PHE:HB2	1.81	0.62
1:M:1254:ALA:O	1:M:1255:GLU:HB3	2.00	0.62
1:M:1394:THR:CG2	1:M:1398:MET:SD	2.87	0.62
1:M:98:LYS:O	1:M:102:VAL:HG23	2.00	0.62
2:N:39:ARG:HH11	2:N:39:ARG:HG2	1.63	0.62
5:Q:98:ILE:HG22	5:Q:102:GLU:HG3	1.82	0.62
7:S:142:ARG:C	7:S:143:ILE:HG12	2.19	0.62
7:S:35:GLU:HG2	7:S:48:VAL:HG23	1.82	0.62
8:T:127:GLY:O	8:T:128:ASN:CB	2.48	0.62
1:A:1141:THR:CG2	1:A:1205:LYS:HD3	2.30	0.62
1:A:55:ASP:N	1:A:56:PRO:HD3	2.13	0.62
2:B:1115:THR:CG2	2:B:1117:GLN:HB2	2.29	0.62
2:B:287:ARG:HG2	2:B:292:ILE:HA	1.81	0.62
3:C:8:VAL:O	3:C:9:LYS:HG3	2.00	0.62
4:D:155:ARG:NH2	4:D:221:TYR:HD1	1.98	0.62
10:J:7:CYS:HB2	10:J:49:MET:HE3	1.82	0.62
1:M:888:GLY:O	1:M:940:ARG:NH2	2.33	0.62
2:N:1174:LYS:O	2:N:1176:ASN:N	2.32	0.62
10:V:16:ASP:OD1	10:V:17:LYS:HD2	1.98	0.62
14:5:3:DT:H2"	14:5:4:DA:OP2	2.00	0.62
1:A:1193:LEU:HD12	1:A:1194:ARG:N	2.15	0.62
1:A:1385:THR:HG22	1:A:1387:HIS:N	2.12	0.62
1:A:49:LYS:CD	1:A:55:ASP:HB3	2.30	0.62
1:A:535:THR:HG21	1:A:617:VAL:H	1.65	0.62
1:A:675:THR:HG21	1:A:736:ASN:CB	2.30	0.62
1:A:690:VAL:CG2	1:A:718:VAL:HG13	2.30	0.62
1:A:901:LEU:HB2	1:A:926:GLN:HG2	1.82	0.62
2:B:227:LYS:H	2:B:395:GLN:CD	2.03	0.62
2:B:39:ARG:NH2	2:B:665:GLU:HG2	2.15	0.62
2:B:810:GLU:HB2	2:B:815:ARG:HH22	1.63	0.62
2:B:941:LEU:HD21	2:B:946:ASN:HA	1.82	0.62
3:C:184:ASN:ND2	3:C:189:THR:HB	2.14	0.62
5:E:44:ALA:O	5:E:45:LYS:HB2	2.00	0.62
9:I:111:THR:CG2	9:I:112:SER:H	2.11	0.62
12:L:34:CYS:SG	12:L:34:CYS:O	2.57	0.62
1:M:38:PRO:HA	1:M:270:LEU:HD23	1.81	0.62
1:M:399:HIS:HB3	1:M:400:PRO:CD	2.29	0.62
1:M:497:THR:HG23	2:N:1146:PHE:HD1	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:811:TYR:N	2:N:811:TYR:CD1	2.68	0.62
4:P:32:GLU:O	7:S:5:LYS:NZ	2.30	0.62
1:A:1445:ILE:HD12	1:A:1445:ILE:N	2.14	0.62
1:A:49:LYS:HD2	1:A:55:ASP:HB3	1.80	0.62
1:A:857:ARG:HD3	1:A:861:GLY:O	2.00	0.62
2:B:284:ILE:HD13	2:B:333:PHE:CD2	2.34	0.62
2:B:333:PHE:O	2:B:334:ILE:HG13	2.00	0.62
2:B:642:ASP:HB3	2:B:649:LYS:HD2	1.80	0.62
2:B:839:MET:CE	2:B:980:PHE:HB2	2.29	0.62
7:G:115:MET:O	7:G:164:LYS:HD3	2.00	0.62
1:M:1118:VAL:CG2	1:M:1306:LEU:HB2	2.30	0.62
1:M:219:PHE:CE2	1:M:231:PRO:HD2	2.33	0.62
1:M:49:LYS:HZ3	1:M:61:ILE:HG13	1.64	0.62
1:M:960:ILE:O	1:M:963:ILE:HG22	2.00	0.62
2:N:288:ALA:CB	2:N:331:LEU:HD12	2.30	0.62
2:N:53:GLN:HG2	2:N:547:VAL:CG2	2.30	0.62
2:N:652:LYS:HD2	2:N:688:GLY:O	2.00	0.62
4:P:185:CYS:SG	4:P:190:GLU:HG2	2.40	0.62
7:S:87:VAL:CG2	7:S:103:VAL:HG11	2.30	0.62
10:V:1:MET:H1	10:V:56:LEU:N	1.98	0.62
1:A:268:ASP:HB3	1:A:299:HIS:ND1	2.15	0.61
1:A:399:HIS:HB3	1:A:400:PRO:CD	2.29	0.61
2:B:1220:ARG:NH1	2:B:1220:ARG:HB3	2.15	0.61
2:B:345:LYS:HE3	2:B:349:ILE:HD11	1.81	0.61
6:F:97:ARG:NH2	6:F:108:PHE:HE1	1.98	0.61
11:K:65:HIS:HD2	11:K:67:PHE:N	1.97	0.61
1:M:99:ILE:HG23	1:M:211:PHE:HE2	1.64	0.61
1:M:427:GLN:HG3	1:M:430:TRP:CZ2	2.35	0.61
1:M:675:THR:O	1:M:679:ILE:HG13	2.00	0.61
1:M:803:SER:OG	1:M:806:ARG:HG3	1.99	0.61
2:N:847:ASP:C	2:N:849:GLY:H	2.02	0.61
2:N:886:LYS:HE2	2:N:940:PRO:HD3	1.82	0.61
2:N:953:LEU:CD2	2:N:965:LYS:HB2	2.30	0.61
3:O:69:LEU:N	3:O:69:LEU:HD12	2.14	0.61
8:T:130:ARG:HB3	8:T:134:ASN:H	1.66	0.61
1:A:1200:ALA:HA	1:A:1203:ASN:HD22	1.65	0.61
1:A:856:THR:HB	1:A:865:GLN:HB2	1.81	0.61
2:B:758:PHE:HE1	2:B:1027:ILE:HG22	1.63	0.61
2:B:326:ASP:OD2	2:B:328:GLU:HB3	2.01	0.61
2:B:334:ILE:HG22	2:B:334:ILE:O	1.98	0.61
2:B:521:LEU:HB3	2:B:633:VAL:HG11	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:189:THR:HG22	3:C:190:ASP:N	2.15	0.61
4:D:71:LYS:HA	4:D:74:GLN:CB	2.29	0.61
4:D:175:PHE:HZ	7:G:85:GLU:HG3	1.66	0.61
1:M:1029:ARG:HG3	1:M:1029:ARG:HH11	1.65	0.61
1:M:364:VAL:HG13	1:M:364:VAL:O	1.99	0.61
1:M:56:PRO:O	1:M:57:ARG:HG3	2.00	0.61
1:M:78:PRO:HA	2:N:1201:LYS:NZ	2.15	0.61
2:N:129:PHE:HD2	2:N:166:PHE:HA	1.66	0.61
2:N:235:SER:OG	2:N:236:HIS:CD2	2.54	0.61
2:N:241:ARG:HG2	2:N:253:THR:HG21	1.82	0.61
2:N:287:ARG:NH1	2:N:324:ILE:O	2.32	0.61
2:N:549:THR:CG2	2:N:550:ASP:N	2.62	0.61
2:N:862:GLN:HG2	2:N:963:PHE:CD1	2.32	0.61
2:N:953:LEU:HD23	2:N:953:LEU:O	2.00	0.61
4:P:29:LEU:HD22	4:P:29:LEU:N	2.15	0.61
7:S:53:ASN:N	7:S:53:ASN:ND2	2.47	0.61
1:A:852:TYR:CD2	1:A:1060:PRO:HB2	2.35	0.61
1:A:982:THR:O	1:A:985:ASP:HB2	2.00	0.61
2:B:35:SER:HA	2:B:811:TYR:HE2	1.65	0.61
3:C:143:LEU:HD21	3:C:146:LYS:CE	2.29	0.61
6:F:69:LEU:O	6:F:71:GLU:HG3	1.99	0.61
8:H:89:LEU:C	8:H:91:ASP:N	2.54	0.61
10:J:64:ASN:ND2	10:J:65:PRO:HD3	2.14	0.61
1:M:70:CYS:O	1:M:72:GLU:HG2	2.00	0.61
1:M:7:SER:OG	2:N:1161:HIS:CE1	2.52	0.61
1:M:960:ILE:HA	1:M:963:ILE:HG22	1.82	0.61
2:N:336:ARG:NH1	2:N:336:ARG:HG3	2.15	0.61
2:N:57:TYR:N	2:N:57:TYR:HD1	1.98	0.61
2:N:29:ASP:HB3	2:N:658:ILE:HD13	1.82	0.61
4:P:29:LEU:HD12	7:S:82:PHE:CE2	2.35	0.61
1:A:1011:GLN:HE22	1:A:1015:VAL:HG21	1.64	0.61
1:A:351:THR:CG2	2:B:1103:ILE:HG13	2.30	0.61
1:A:341:MET:HE2	2:B:1135:ARG:NH1	2.15	0.61
1:A:500:GLU:OE2	2:B:1145:SER:HB2	1.99	0.61
2:B:68:THR:HA	2:B:90:ILE:O	2.00	0.61
6:F:103:MET:HE1	7:G:66:GLY:H	1.64	0.61
2:N:192:LEU:O	2:N:193:LYS:HB2	2.00	0.61
2:N:418:LYS:HE2	2:N:422:LYS:NZ	2.15	0.61
2:N:577:ALA:CB	2:N:589:VAL:HG11	2.22	0.61
6:R:111:LEU:O	6:R:113:GLY:N	2.28	0.61
12:X:55:ILE:HG12	12:X:56:LEU:N	2.08	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2:3:DT:H2''	14:2:4:DA:OP2	2.00	0.61
1:A:1241:ARG:O	1:A:1242:VAL:HG23	2.01	0.61
2:B:277:LYS:HE2	2:B:336:ARG:C	2.20	0.61
2:B:637:LEU:HD21	2:B:742:GLU:OE2	2.01	0.61
1:A:782:ARG:NH2	2:B:699:GLU:O	2.33	0.61
4:D:14:ARG:O	4:D:16:LYS:N	2.27	0.61
7:G:55:ASP:OD1	7:G:57:GLN:HG3	2.00	0.61
2:N:766:ARG:NH2	2:N:1020:ARG:CD	2.62	0.61
2:N:911:ILE:CG2	2:N:966:VAL:HG11	2.30	0.61
5:Q:22:MET:HE1	5:Q:26:ARG:NH2	2.14	0.61
12:X:38:LEU:HD13	12:X:49:LYS:HE2	1.82	0.61
1:A:172:PRO:HB3	1:A:185:TRP:CD2	2.34	0.61
1:A:317:LYS:O	1:A:318:SER:CB	2.49	0.61
1:A:50:ILE:C	1:A:52:GLY:H	2.03	0.61
1:A:684:ALA:O	1:A:687:LYS:HB2	2.01	0.61
2:B:100:PRO:HB2	2:B:180:TYR:HE1	1.65	0.61
2:B:464:GLY:O	2:B:477:ALA:HA	2.00	0.61
2:B:652:LYS:HB3	2:B:689:LEU:HD23	1.81	0.61
8:H:130:ARG:HH11	8:H:130:ARG:H	1.47	0.61
1:A:710:LEU:HD22	9:I:96:SER:HA	1.82	0.61
12:L:49:LYS:O	12:L:50:ASP:HB2	2.00	0.61
1:M:1120:LEU:O	1:M:1323:ASP:HB2	2.01	0.61
1:M:444:PHE:CE2	1:M:487:MET:HE2	2.35	0.61
4:P:52:LEU:O	4:P:54:GLU:N	2.34	0.61
8:T:11:GLN:HA	8:T:53:ASP:O	2.01	0.61
8:T:51:ALA:O	8:T:52:GLN:HB2	2.01	0.61
1:A:38:PRO:CA	1:A:270:LEU:HD23	2.30	0.61
2:B:1096:ARG:NH1	2:B:1096:ARG:HB2	2.15	0.61
2:B:516:ASN:ND2	2:B:516:ASN:H	1.90	0.61
2:B:787:VAL:HG12	2:B:787:VAL:O	1.98	0.61
2:B:815:ARG:HD3	2:B:1041:GLU:OE2	2.00	0.61
2:B:864:LYS:HG3	2:B:872:GLU:OE1	1.99	0.61
3:C:6:PRO:CB	3:C:25:VAL:HG22	2.30	0.61
5:E:198:ILE:HD11	5:E:212:ARG:HG3	1.82	0.61
5:E:29:PHE:O	5:E:30:ILE:HG13	2.00	0.61
7:G:21:ARG:HD2	7:G:24:GLN:CB	2.31	0.61
10:J:23:ASN:C	10:J:25:LEU:H	2.04	0.61
11:K:46:ILE:O	11:K:50:LEU:HB2	2.00	0.61
1:M:40:THR:HG23	1:M:54:ASN:HD21	1.66	0.61
1:M:598:LEU:HD23	1:M:598:LEU:O	2.01	0.61
2:N:345:LYS:HE3	2:N:349:ILE:HD11	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:68:THR:HA	2:N:90:ILE:O	2.00	0.61
4:P:71:LYS:HA	4:P:74:GLN:CB	2.30	0.61
8:T:44:VAL:HG13	8:T:48:PRO:HA	1.82	0.61
1:A:1255:GLU:HG3	1:A:1258:HIS:HD2	1.62	0.61
2:B:425:THR:HA	2:B:428:ILE:HD12	1.82	0.61
2:B:53:GLN:HG2	2:B:547:VAL:CG2	2.31	0.61
3:C:101:LEU:C	3:C:102:GLN:HG2	2.21	0.61
8:H:128:ASN:ND2	8:H:131:ASN:OD1	2.33	0.61
8:H:24:CYS:HB2	8:H:44:VAL:HG21	1.81	0.61
2:N:1220:ARG:NH1	2:N:1220:ARG:HB3	2.16	0.61
2:N:167:ILE:HG22	2:N:453:ILE:HD12	1.82	0.61
2:N:221:ASN:OD1	2:N:242:SER:HA	2.01	0.61
2:N:857:ARG:HH21	2:N:942:ARG:CZ	2.13	0.61
2:N:918:ILE:HD12	2:N:935:ARG:NH1	2.16	0.61
4:P:7:THR:O	4:P:9:GLN:N	2.33	0.61
2:B:983:ARG:HD2	2:B:1091:TYR:HB3	1.83	0.61
2:B:398:ARG:HB2	2:B:398:ARG:NH1	2.15	0.61
4:D:148:LEU:O	4:D:152:SER:OG	2.16	0.61
4:D:25:ALA:HB1	4:D:196:PRO:HG2	1.83	0.61
5:E:198:ILE:CD1	5:E:212:ARG:HG3	2.31	0.61
8:H:104:PHE:CZ	8:H:136:LYS:HA	2.36	0.61
10:J:24:LEU:N	10:J:24:LEU:HD23	2.15	0.61
2:N:1181:GLU:HA	2:N:1187:ASN:O	2.00	0.61
9:U:111:THR:HG21	9:U:113:ASP:HB2	1.82	0.61
1:A:1116:LEU:HB2	1:A:1329:THR:OG1	2.00	0.61
2:B:192:LEU:O	2:B:193:LYS:HB2	2.01	0.61
2:B:806:THR:CG2	2:B:808:ALA:HB3	2.31	0.61
3:C:148:ARG:NH1	3:C:149:LYS:HE3	2.16	0.61
5:E:65:THR:O	5:E:69:ILE:HD12	2.01	0.61
2:B:309:GLN:OE1	9:I:52:ILE:HD11	2.01	0.61
2:N:955:THR:CG2	2:N:956:THR:N	2.63	0.61
3:O:8:VAL:HG12	3:O:9:LYS:N	2.16	0.61
2:N:902:GLY:O	12:X:65:VAL:HG11	2.00	0.61
2:B:575:PRO:HG2	2:B:576:ASP:H	1.64	0.60
2:B:770:GLN:CD	2:B:983:ARG:HA	2.21	0.60
7:G:34:VAL:HG11	7:G:74:TYR:CE1	2.32	0.60
1:M:1291:VAL:HG22	1:M:1292:PRO:CD	2.31	0.60
1:M:821:ARG:NH1	1:M:821:ARG:HB2	2.15	0.60
1:M:866:PHE:O	1:M:867:ILE:HD12	2.00	0.60
2:N:240:ILE:HG23	2:N:254:LEU:HB3	1.83	0.60
2:N:549:THR:CG2	2:N:550:ASP:H	2.14	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:261:ALA:HA	3:O:264:GLN:OE1	2.00	0.60
5:Q:78:LEU:HB2	5:Q:107:THR:HB	1.83	0.60
3:O:248:ILE:HD13	11:W:101:LEU:HD22	1.83	0.60
1:A:150:THR:HG23	1:A:166:GLY:HA2	1.83	0.60
1:A:939:ASP:OD2	1:A:1023:ARG:NH1	2.34	0.60
2:B:1147:LEU:HD22	2:B:1151:LEU:HD22	1.82	0.60
2:B:172:ILE:HD13	2:B:178:ASN:HD22	1.66	0.60
7:G:138:THR:HG22	7:G:139:ILE:H	1.63	0.60
1:A:598:LEU:CD1	8:H:124:ARG:HB2	2.31	0.60
10:J:1:MET:H1	10:J:56:LEU:N	1.99	0.60
1:M:332:LYS:O	1:M:333:GLU:HB2	2.00	0.60
1:M:705:LYS:HB2	1:M:708:MET:HE3	1.82	0.60
1:M:828:ALA:CB	2:N:530:GLY:HA2	2.31	0.60
2:N:123:THR:O	2:N:125:SER:N	2.34	0.60
2:N:291:ILE:HD13	2:N:300:HIS:NE2	2.16	0.60
2:N:57:TYR:N	2:N:57:TYR:CD1	2.69	0.60
2:N:39:ARG:NH2	2:N:665:GLU:HG2	2.16	0.60
1:M:857:ARG:CZ	6:R:139:PRO:HG3	2.31	0.60
7:S:115:MET:HB3	7:S:116:PRO:CD	2.30	0.60
12:X:34:CYS:HB3	12:X:51:CYS:HG	1.66	0.60
2:B:797:TYR:HE1	2:B:854:LEU:CD2	2.15	0.60
4:D:12:ARG:NH1	4:D:14:ARG:HA	2.17	0.60
9:I:101:PHE:N	9:I:101:PHE:CD1	2.69	0.60
1:M:1206:ASP:O	1:M:1274:ARG:CZ	2.49	0.60
1:M:573:SER:O	1:M:576:GLN:HB2	2.01	0.60
2:N:359:GLU:O	2:N:362:PRO:HD3	2.02	0.60
2:N:653:VAL:CG2	2:N:689:LEU:HB3	2.31	0.60
2:N:865:LYS:HG2	2:N:961:LEU:HD21	1.82	0.60
2:N:983:ARG:NH1	2:N:1028:GLU:OE1	2.35	0.60
10:V:23:ASN:C	10:V:25:LEU:H	2.05	0.60
1:A:79:GLY:HA3	1:A:243:PRO:CG	2.31	0.60
1:A:920:LEU:HD23	1:A:921:GLY:N	2.16	0.60
6:F:89:GLU:O	6:F:93:ILE:HD12	2.02	0.60
1:M:1420:ASP:O	1:M:1421:CYS:HB2	2.00	0.60
2:N:189:LEU:O	2:N:192:LEU:N	2.32	0.60
2:N:334:ILE:HG22	2:N:334:ILE:O	2.02	0.60
2:N:39:ARG:NH1	2:N:39:ARG:HG2	2.17	0.60
2:N:662:MET:HA	2:N:665:GLU:HG3	1.83	0.60
3:O:189:THR:HG22	3:O:190:ASP:N	2.16	0.60
3:O:172:PRO:O	3:O:235:VAL:HG23	2.02	0.60
1:A:1215:ARG:NH1	1:A:1272:THR:O	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:71:LYS:HA	4:D:74:GLN:CG	2.31	0.60
8:H:123:MET:HE3	8:H:142:LEU:HD22	1.82	0.60
1:M:1208:THR:HG22	1:M:1210:GLY:H	1.66	0.60
1:M:44:THR:O	1:M:45:GLN:HB2	2.01	0.60
1:M:590:ARG:NH1	1:M:590:ARG:HG2	2.16	0.60
1:M:709:THR:HG22	1:M:710:LEU:H	1.66	0.60
1:M:870:GLU:HG2	5:Q:208:TYR:CD2	2.36	0.60
2:N:102:VAL:HG22	2:N:112:LEU:HD22	1.83	0.60
4:P:151:PHE:HD1	4:P:151:PHE:H	1.48	0.60
4:P:193:THR:HG22	4:P:194:LEU:N	2.16	0.60
1:A:129:LYS:O	1:A:130:ASP:CB	2.49	0.60
1:A:1441:PHE:CZ	6:F:89:GLU:HA	2.36	0.60
2:B:120:ARG:NH1	12:L:54:ARG:NH1	2.50	0.60
2:B:171:PRO:HD2	2:B:457:LEU:HD12	1.82	0.60
2:B:547:VAL:HG12	2:B:612:GLU:OE2	2.02	0.60
10:J:24:LEU:O	10:J:30:LEU:HB2	2.01	0.60
12:L:47:ARG:HG2	12:L:48:CYS:H	1.65	0.60
1:M:705:LYS:HB2	1:M:708:MET:CE	2.31	0.60
2:N:25:ILE:HG22	2:N:658:ILE:HD12	1.83	0.60
1:A:145:LYS:HE3	1:A:145:LYS:HA	1.82	0.60
1:A:335:ARG:HH12	2:B:1206:GLU:CD	2.04	0.60
1:A:567:LYS:CB	1:A:568:PRO:CD	2.74	0.60
1:A:671:ALA:HB3	1:A:676:MET:CE	2.32	0.60
2:B:1116:ARG:HG3	2:B:1198:TYR:CG	2.37	0.60
2:B:364:ILE:HG12	2:B:585:VAL:HG13	1.84	0.60
1:A:1438:THR:HG22	6:F:92:ARG:HD2	1.84	0.60
1:M:1110:ASN:N	1:M:1110:ASN:ND2	2.49	0.60
1:M:709:THR:HG22	1:M:711:ARG:H	1.66	0.60
1:M:675:THR:HG21	1:M:736:ASN:CB	2.32	0.60
4:P:162:ALA:CB	4:P:217:LEU:HD13	2.32	0.60
4:P:154:PHE:CE1	4:P:163:VAL:HG21	2.35	0.60
4:P:209:ARG:HG2	4:P:209:ARG:NH1	2.17	0.60
4:P:63:LEU:HD22	4:P:133:THR:OG1	2.01	0.60
6:R:116:ASP:HB3	6:R:119:ARG:HB2	1.84	0.60
8:T:123:MET:HE3	8:T:142:LEU:CD2	2.31	0.60
8:T:56:THR:HB	8:T:145:ARG:HG2	1.82	0.60
1:A:690:VAL:HG21	1:A:718:VAL:HG13	1.82	0.60
2:B:123:THR:HG23	2:B:205:ILE:HA	1.82	0.60
2:B:29:ASP:HB3	2:B:658:ILE:CD1	2.32	0.60
1:M:225:ASN:HD22	1:M:228:PHE:H	1.46	0.60
1:M:79:GLY:HA3	1:M:243:PRO:CG	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:831:THR:O	1:M:834:THR:HG22	2.02	0.60
7:S:116:PRO:HG2	7:S:119:LEU:HB3	1.84	0.60
8:T:100:THR:OG1	8:T:138:GLU:HG2	2.00	0.60
2:N:797:TYR:O	10:V:1:MET:HG2	2.02	0.60
1:A:399:HIS:CB	1:A:400:PRO:HD3	2.28	0.60
2:B:307:ASP:OD2	2:B:310:MET:HB2	2.01	0.60
2:B:34:ILE:HG23	2:B:542:MET:HE1	1.84	0.60
2:B:579:ARG:HG2	2:B:579:ARG:NH1	2.17	0.60
5:E:185:ALA:O	5:E:190:LEU:HG	2.02	0.60
2:B:308:TRP:CH2	9:I:45:ARG:HG2	2.36	0.60
9:I:82:GLU:HB3	9:I:104:LEU:HD12	1.83	0.60
11:K:51:LEU:CD1	11:K:59:ALA:HB3	2.31	0.60
1:M:1149:ALA:HB2	9:U:47:GLU:HA	1.83	0.60
3:O:203:GLN:HG2	3:O:207:CYS:SG	2.42	0.60
2:N:798:TYR:HE2	3:O:62:PHE:CZ	2.19	0.60
12:X:61:THR:HG21	12:X:63:ARG:HG3	1.84	0.60
1:A:1308:THR:HG23	1:A:1310:GLY:H	1.67	0.60
1:A:172:PRO:HD3	1:A:185:TRP:NE1	2.17	0.60
2:B:120:ARG:NH1	12:L:54:ARG:HH11	2.00	0.60
3:C:101:LEU:CD1	3:C:118:LEU:HD23	2.27	0.60
1:A:1324:PRO:HB2	5:E:142:VAL:HG11	1.84	0.60
9:I:111:THR:HG22	9:I:112:SER:N	2.17	0.60
1:M:33:ALA:HA	1:M:57:ARG:HH12	1.66	0.60
1:M:35:ILE:HG22	1:M:35:ILE:O	2.00	0.60
1:M:7:SER:HB3	2:N:1193:GLN:HE22	1.67	0.60
2:N:1096:ARG:O	2:N:1097:HIS:CB	2.49	0.60
2:N:102:VAL:CG2	2:N:112:LEU:HB2	2.18	0.60
2:N:1202:LEU:O	2:N:1206:GLU:HG3	2.01	0.60
4:P:188:ALA:O	4:P:192:LYS:HG2	2.02	0.60
4:P:194:LEU:HB3	7:S:86:VAL:HG21	1.83	0.60
1:A:1294:PRO:HG2	1:A:1295:THR:HG22	1.83	0.59
1:A:7:SER:OG	2:B:1161:HIS:HE1	1.85	0.59
2:B:278:GLN:CG	2:B:279:ASP:H	2.15	0.59
3:C:124:LEU:HD21	3:C:129:ILE:O	2.01	0.59
3:C:184:ASN:OD1	3:C:187:LYS:HA	2.01	0.59
7:G:138:THR:CG2	7:G:139:ILE:N	2.63	0.59
8:H:11:GLN:HA	8:H:53:ASP:O	2.02	0.59
12:L:40:LEU:HD22	12:L:44:ASP:CG	2.22	0.59
2:N:96:TYR:N	2:N:129:PHE:O	2.30	0.59
2:N:217:ARG:HD2	2:N:217:ARG:C	2.22	0.59
2:N:236:HIS:CE1	2:N:389:ALA:HA	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:863:GLU:O	2:N:961:LEU:HD13	2.02	0.59
4:P:118:THR:HG21	4:P:121:LYS:HE3	1.83	0.59
4:P:51:ASN:OD1	4:P:52:LEU:O	2.20	0.59
5:Q:32:GLN:HG3	5:Q:36:GLU:OE2	2.02	0.59
1:A:1130:GLN:HA	1:A:1133:LEU:HD12	1.84	0.59
1:A:253:ASN:HD22	2:B:884:ARG:HD2	1.66	0.59
1:A:628:GLY:O	1:A:632:VAL:HG23	2.02	0.59
2:B:863:GLU:O	2:B:961:LEU:HD13	2.02	0.59
6:F:111:LEU:C	6:F:113:GLY:H	2.05	0.59
8:H:82:PRO:O	8:H:84:ALA:N	2.34	0.59
2:B:902:GLY:O	12:L:65:VAL:HG11	2.01	0.59
1:M:1114:PRO:O	1:M:1311:VAL:HG23	2.02	0.59
2:N:29:ASP:HB3	2:N:658:ILE:CD1	2.32	0.59
2:N:34:ILE:HG12	2:N:542:MET:CE	2.33	0.59
4:P:173:HIS:CE1	4:P:175:PHE:H	2.21	0.59
6:R:109:VAL:CG1	6:R:110:ASP:N	2.64	0.59
7:S:142:ARG:HB3	7:S:171:ILE:HD11	1.84	0.59
4:P:144:THR:HG21	7:S:46:LEU:HD13	1.83	0.59
8:T:32:THR:HG22	8:T:33:GLN:OE1	2.01	0.59
1:A:239:LEU:HD12	1:A:240:PRO:HD2	1.84	0.59
1:A:285:PRO:CG	1:A:288:ALA:HB3	2.27	0.59
1:A:332:LYS:O	1:A:333:GLU:HB2	2.02	0.59
1:A:56:PRO:O	1:A:57:ARG:HG3	2.02	0.59
2:B:189:LEU:O	2:B:192:LEU:N	2.33	0.59
2:B:211:VAL:O	2:B:480:SER:HA	2.02	0.59
2:B:830:TYR:CE2	2:B:1000:PRO:HD3	2.36	0.59
2:B:936:ASP:OD1	2:B:937:ALA:N	2.36	0.59
4:D:5:THR:O	4:D:5:THR:HG23	2.02	0.59
7:G:117:GLN:NE2	7:S:154:VAL:HG22	2.18	0.59
7:G:26:LEU:CD1	7:G:56:ILE:HD11	2.30	0.59
1:M:1210:GLY:O	1:M:1214:GLU:HG2	2.02	0.59
1:M:1259:MET:CE	1:M:1263:ILE:HG13	2.31	0.59
1:M:597:LEU:HD23	8:T:103:LYS:HD2	1.83	0.59
2:N:1181:GLU:HB2	2:N:1188:LYS:HG3	1.84	0.59
4:P:130:LEU:HD13	4:P:142:LYS:HG2	1.84	0.59
4:P:188:ALA:O	4:P:192:LYS:CG	2.51	0.59
7:S:126:ASN:HD22	7:S:127:PRO:CA	2.15	0.59
12:X:49:LYS:O	12:X:50:ASP:CB	2.50	0.59
1:A:1171:GLN:OE1	1:A:1172:LEU:N	2.36	0.59
1:A:283:GLY:O	1:A:285:PRO:HD3	2.02	0.59
1:A:297:GLN:HA	1:A:297:GLN:NE2	2.08	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:568:PRO:HB2	3:C:221:TYR:CZ	2.37	0.59
1:A:715:GLU:OE1	1:A:774:ARG:HD3	2.03	0.59
2:B:123:THR:O	2:B:125:SER:N	2.36	0.59
2:B:273:LEU:HD12	2:B:280:ILE:HD12	1.83	0.59
2:B:298:LEU:N	2:B:298:LEU:HD22	2.17	0.59
2:B:766:ARG:NH2	2:B:1020:ARG:CD	2.65	0.59
2:B:770:GLN:HG2	2:B:983:ARG:O	2.02	0.59
4:D:202:ILE:HG23	4:D:207:LEU:HB2	1.84	0.59
5:E:131:THR:HG21	5:E:191:LYS:NZ	2.18	0.59
8:H:130:ARG:HB3	8:H:134:ASN:H	1.68	0.59
1:M:105:CYS:SG	1:M:139:TRP:HA	2.42	0.59
2:N:1187:ASN:OD1	2:N:1188:LYS:N	2.35	0.59
2:N:345:LYS:CG	2:N:346:GLU:N	2.65	0.59
6:R:99:LEU:O	6:R:103:MET:HG2	2.02	0.59
7:S:109:PHE:O	7:S:160:ILE:HG23	2.01	0.59
7:S:111:THR:HG22	7:S:114:LEU:HD22	1.84	0.59
8:T:42:ILE:HG23	8:T:95:TYR:CE1	2.37	0.59
3:O:66:ARG:NH1	10:V:2:ILE:CG2	2.64	0.59
1:A:331:GLY:O	1:A:332:LYS:O	2.20	0.59
2:B:549:THR:CG2	2:B:550:ASP:H	2.15	0.59
2:B:848:ARG:HH22	2:B:996:ARG:HD3	1.66	0.59
2:B:887:HIS:N	2:B:887:HIS:CD2	2.69	0.59
3:C:184:ASN:HD21	3:C:189:THR:HB	1.67	0.59
4:D:13:ARG:O	4:D:15:LEU:N	2.29	0.59
1:M:1241:ARG:O	1:M:1242:VAL:CB	2.50	0.59
1:M:116:ASP:OD2	1:M:164:ARG:HD2	2.02	0.59
1:M:297:GLN:NE2	1:M:297:GLN:HA	2.06	0.59
1:M:528:LEU:HD23	1:M:751:SER:HA	1.84	0.59
2:N:766:ARG:NH2	2:N:1020:ARG:HD2	2.18	0.59
2:N:1115:THR:O	2:N:1116:ARG:HB2	2.02	0.59
2:N:384:ARG:HH12	2:N:393:LYS:HD3	1.68	0.59
2:N:941:LEU:CD1	2:N:968:VAL:HG21	2.33	0.59
3:O:254:LYS:HE2	11:W:42:LEU:HD13	1.85	0.59
5:Q:198:ILE:HD11	5:Q:212:ARG:HG3	1.83	0.59
8:T:84:ALA:CB	8:T:87:ARG:HB2	2.31	0.59
9:U:84:VAL:O	9:U:84:VAL:HG13	2.02	0.59
2:B:244:LEU:HD21	2:B:366:GLN:NE2	2.17	0.59
2:B:615:MET:CB	2:B:626:ILE:HG12	2.26	0.59
2:B:642:ASP:HB3	2:B:649:LYS:CD	2.32	0.59
2:B:999:MET:HE2	2:B:1000:PRO:HD2	1.83	0.59
3:C:114:TYR:CD2	3:C:140:ASN:HB3	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:84:ALA:HB1	8:H:87:ARG:HB2	1.84	0.59
1:M:675:THR:OG1	1:M:736:ASN:ND2	2.34	0.59
2:N:639:ILE:HD11	2:N:691:GLU:HB2	1.84	0.59
2:N:899:ILE:HD11	2:N:911:ILE:HA	1.84	0.59
2:N:96:TYR:HB2	2:N:129:PHE:HB2	1.82	0.59
3:O:39:ALA:O	3:O:164:ALA:HB3	2.02	0.59
9:U:52:ILE:O	9:U:52:ILE:HG13	2.02	0.59
11:W:82:ASP:OD1	11:W:84:LYS:N	2.35	0.59
1:A:110:CYS:HB3	1:A:167:CYS:SG	2.42	0.59
1:A:1208:THR:HG22	1:A:1210:GLY:N	2.18	0.59
1:A:671:ALA:HB3	1:A:676:MET:HE2	1.85	0.59
1:A:63:ARG:HA	1:A:74:MET:HE2	1.85	0.59
2:B:224:GLN:HA	2:B:396:ASP:OD2	2.03	0.59
2:B:637:LEU:HD12	2:B:693:ILE:CD1	2.33	0.59
5:E:4:GLU:HB3	5:E:7:ARG:HE	1.68	0.59
11:K:49:GLU:HG3	11:K:94:ILE:CG1	2.32	0.59
1:M:323:LYS:H	1:M:323:LYS:HD2	1.66	0.59
1:M:62:ASP:O	1:M:64:ASN:HB2	2.03	0.59
1:M:68:GLN:O	1:M:68:GLN:OE1	2.20	0.59
1:M:908:LEU:HD11	1:M:983:ILE:HD11	1.84	0.59
2:N:810:GLU:CB	2:N:815:ARG:HH22	2.14	0.59
9:U:73:ARG:HD2	9:U:101:PHE:CE2	2.37	0.59
1:A:79:GLY:HA3	1:A:243:PRO:HG3	1.84	0.59
1:A:350:ARG:HB2	2:B:1128:LEU:CD1	2.32	0.59
1:A:754:SER:N	1:A:757:ASN:HD22	1.96	0.59
1:A:858:ASN:C	1:A:858:ASN:ND2	2.55	0.59
3:C:43:THR:HG22	3:C:44:LEU:N	2.17	0.59
3:C:8:VAL:CG1	3:C:9:LYS:N	2.66	0.59
1:M:399:HIS:CB	1:M:400:PRO:HD3	2.30	0.59
1:M:718:VAL:O	1:M:722:LEU:HD12	2.03	0.59
1:M:804:TYR:OH	2:N:763:GLN:HA	2.03	0.59
2:N:806:THR:CG2	2:N:808:ALA:HB3	2.33	0.59
1:M:253:ASN:ND2	2:N:884:ARG:HD2	2.18	0.59
3:O:243:VAL:O	3:O:243:VAL:HG12	2.01	0.59
1:M:1340:GLY:HA2	5:Q:183:PRO:HD2	1.84	0.59
5:Q:177:ARG:HD3	5:Q:215:MET:SD	2.42	0.59
8:T:89:LEU:HB2	8:T:91:ASP:OD1	2.02	0.59
12:X:38:LEU:HG	12:X:39:SER:H	1.67	0.59
1:A:1214:GLU:O	1:A:1218:GLN:HG2	2.02	0.59
1:A:1152:ILE:HD12	1:A:1261:LYS:HE3	1.84	0.59
1:A:24:PRO:HG2	1:A:25:GLU:OE2	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:66:LYS:O	1:A:67:CYS:HB2	2.00	0.59
2:B:327:ARG:NH2	2:B:371:GLU:HG2	2.17	0.59
2:B:418:LYS:HE2	2:B:422:LYS:HZ2	1.67	0.59
2:B:597:MET:SD	2:B:624:LEU:HD11	2.43	0.59
2:B:638:PHE:HD2	2:B:690:VAL:HG12	1.68	0.59
7:G:21:ARG:HD2	7:G:24:GLN:HB2	1.85	0.59
8:H:27:GLU:HG2	8:H:39:THR:HA	1.85	0.59
1:M:1308:THR:HG23	1:M:1310:GLY:H	1.67	0.59
1:M:335:ARG:HH12	2:N:1206:GLU:CD	2.06	0.59
3:O:89:GLU:O	3:O:90:ASP:HB3	2.01	0.59
1:M:1441:PHE:CZ	6:R:89:GLU:HA	2.37	0.59
7:S:88:ASP:OD2	7:S:88:ASP:O	2.21	0.59
11:W:50:LEU:HD11	11:W:75:ILE:CD1	2.33	0.59
2:B:879:ARG:N	2:B:879:ARG:CD	2.65	0.59
5:E:64:PRO:O	5:E:69:ILE:HD11	2.02	0.59
8:H:95:TYR:CE2	8:H:97:MET:HG3	2.38	0.59
9:I:44:TYR:CD1	9:I:45:ARG:N	2.71	0.59
12:L:30:ILE:HG22	12:L:31:CYS:N	2.18	0.59
1:M:1141:THR:HG23	1:M:1205:LYS:HD3	1.84	0.59
1:M:1450:LEU:HD11	6:R:108:PHE:CZ	2.38	0.59
1:M:427:GLN:HG3	1:M:430:TRP:CE2	2.38	0.59
1:M:903:ASN:C	1:M:903:ASN:ND2	2.56	0.59
2:N:766:ARG:HH21	2:N:1020:ARG:HD2	1.67	0.59
7:S:87:VAL:HG21	7:S:103:VAL:HG21	1.83	0.59
10:V:30:LEU:HD11	10:V:38:ARG:NH1	2.18	0.59
12:X:34:CYS:SG	12:X:51:CYS:SG	3.01	0.59
1:A:1399:ARG:HB3	1:A:1408:ILE:HD13	1.84	0.58
1:A:66:LYS:HD3	1:A:67:CYS:N	2.18	0.58
1:A:718:VAL:O	1:A:722:LEU:HD12	2.03	0.58
1:A:907:THR:HG23	1:A:908:LEU:N	2.18	0.58
1:A:982:THR:HB	1:A:985:ASP:H	1.65	0.58
2:B:273:LEU:CD2	2:B:360:PHE:HD1	2.16	0.58
2:B:642:ASP:CA	2:B:649:LYS:HG3	2.32	0.58
2:B:710:LEU:CA	2:B:733:HIS:HB3	2.20	0.58
4:D:25:ALA:HB1	4:D:196:PRO:CG	2.33	0.58
5:E:164:LEU:HD11	5:E:211:TYR:CE1	2.38	0.58
1:A:1149:ALA:HB2	9:I:47:GLU:HA	1.84	0.58
4:P:164:ILE:O	4:P:168:LYS:HG2	2.03	0.58
9:U:62:ILE:HG12	9:U:62:ILE:O	2.03	0.58
3:O:69:LEU:O	10:V:6:ARG:HD2	2.03	0.58
1:A:67:CYS:C	1:A:68:GLN:HG3	2.22	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:766:ARG:NH2	2:B:1020:ARG:HD2	2.18	0.58
2:B:262:GLU:HA	2:B:267:ARG:NH2	2.18	0.58
2:B:273:LEU:HD21	2:B:360:PHE:CD1	2.35	0.58
2:B:638:PHE:HB3	2:B:651:LEU:CD2	2.33	0.58
2:B:807:ARG:HG2	2:B:1045:SER:OG	2.02	0.58
2:B:842:ASN:ND2	2:B:845:SER:H	2.00	0.58
2:B:620:ARG:NH1	9:I:68:LEU:HD21	2.17	0.58
1:M:317:LYS:O	1:M:318:SER:CB	2.51	0.58
1:M:444:PHE:CE2	1:M:487:MET:CE	2.86	0.58
2:N:433:GLN:O	2:N:434:ARG:HG3	2.03	0.58
2:N:842:ASN:ND2	2:N:845:SER:OG	2.29	0.58
4:P:13:ARG:O	4:P:15:LEU:N	2.29	0.58
5:Q:29:PHE:O	5:Q:30:ILE:HG13	2.02	0.58
10:V:3:VAL:HG21	10:V:18:TRP:CG	2.38	0.58
1:A:1313:LEU:O	1:A:1315:GLU:N	2.36	0.58
2:B:816:GLU:O	2:B:817:LEU:HD23	2.02	0.58
2:B:999:MET:HA	2:B:999:MET:CE	2.33	0.58
1:M:420:ARG:O	1:M:424:ILE:HG13	2.04	0.58
1:M:684:ALA:O	1:M:687:LYS:HB2	2.04	0.58
2:N:815:ARG:HD3	2:N:1041:GLU:OE2	2.03	0.58
2:N:637:LEU:HD22	2:N:741:CYS:O	2.02	0.58
2:N:847:ASP:OD2	11:W:6:ARG:NH2	2.34	0.58
4:P:153:ARG:O	4:P:154:PHE:CD2	2.56	0.58
5:Q:212:ARG:HH11	5:Q:212:ARG:HG3	1.68	0.58
7:S:1:MET:HG3	7:S:85:GLU:OE2	2.03	0.58
10:V:21:TYR:HB2	10:V:39:LEU:CD1	2.33	0.58
1:A:845:LEU:HD12	1:A:1069:ALA:HB2	1.85	0.58
2:B:96:TYR:N	2:B:129:PHE:O	2.31	0.58
2:B:69:LEU:HB3	2:B:429:PHE:CE1	2.38	0.58
2:B:839:MET:HE2	2:B:980:PHE:CD1	2.37	0.58
3:C:75:MET:HB3	3:C:128:ASN:HB3	1.85	0.58
8:H:84:ALA:CB	8:H:87:ARG:HB2	2.33	0.58
9:I:74:GLU:HB3	9:I:81:ARG:CD	2.33	0.58
11:K:82:ASP:OD1	11:K:84:LYS:N	2.36	0.58
1:M:1171:GLN:OE1	1:M:1172:LEU:HG	2.03	0.58
1:M:1171:GLN:OE1	1:M:1172:LEU:N	2.37	0.58
1:M:382:PRO:HA	1:M:428:TYR:HE2	1.68	0.58
1:M:693:VAL:HG21	1:M:721:PHE:CE1	2.35	0.58
1:M:774:ARG:NH2	1:M:797:LYS:HB2	2.19	0.58
1:M:873:MET:C	1:M:1058:VAL:HG23	2.24	0.58
2:N:277:LYS:HG2	2:N:336:ARG:HB3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:579:ARG:HA	2:N:589:VAL:HG13	1.85	0.58
3:O:32:SER:O	3:O:36:VAL:HG23	2.04	0.58
5:Q:10:SER:O	5:Q:13:TRP:HB3	2.03	0.58
5:Q:97:VAL:HG13	5:Q:127:ILE:HD13	1.84	0.58
7:S:116:PRO:HD2	7:S:119:LEU:CD2	2.31	0.58
7:S:15:PRO:HA	7:S:18:PHE:CE1	2.38	0.58
8:T:128:ASN:ND2	8:T:131:ASN:OD1	2.37	0.58
1:A:1225:PHE:CE2	1:A:1227:ILE:HD11	2.39	0.58
1:A:157:ASP:OD2	1:A:160:GLN:HG3	2.03	0.58
1:A:219:PHE:CE2	1:A:231:PRO:HD2	2.39	0.58
2:B:527:THR:OG1	2:B:528:PRO:HD2	2.03	0.58
2:B:756:ILE:O	2:B:759:PRO:HD3	2.04	0.58
4:D:161:GLY:O	4:D:165:GLN:HG3	2.03	0.58
1:M:1118:VAL:O	1:M:1305:VAL:HG13	2.04	0.58
1:M:89:PRO:HB2	1:M:204:THR:CG2	2.33	0.58
1:M:308:ILE:HG22	1:M:309:ALA:N	2.16	0.58
1:M:886:ILE:HG23	1:M:887:GLY:N	2.19	0.58
1:M:351:THR:CG2	2:N:1103:ILE:HG13	2.33	0.58
2:N:664:THR:HG23	2:N:678:GLU:N	2.19	0.58
1:M:472:LEU:HD11	2:N:835:GLN:NE2	2.18	0.58
2:N:957:ASN:O	2:N:959:ASP:N	2.36	0.58
2:N:975:GLN:HG2	2:N:976:ILE:H	1.68	0.58
3:O:238:ILE:HG23	3:O:242:GLN:HB2	1.85	0.58
8:T:143:LEU:HD12	8:T:143:LEU:N	2.19	0.58
2:N:824:ILE:HG12	10:V:48:ARG:NH1	2.17	0.58
1:A:886:ILE:HG23	1:A:887:GLY:N	2.19	0.58
2:B:205:ILE:N	2:B:205:ILE:HD12	2.18	0.58
2:B:313:MET:O	2:B:316:PRO:HD2	2.03	0.58
2:B:70:ILE:H	2:B:429:PHE:HE1	1.51	0.58
2:B:865:LYS:HG2	2:B:961:LEU:HD21	1.85	0.58
9:I:92:ARG:HG2	9:I:93:LYS:HE2	1.84	0.58
1:M:1166:ASP:HA	1:M:1169:ILE:HD12	1.85	0.58
1:M:344:ARG:HB3	1:M:344:ARG:NH1	2.14	0.58
10:V:14:VAL:HG12	10:V:14:VAL:O	2.01	0.58
1:A:883:LEU:HD23	1:A:1021:LEU:HD13	1.86	0.58
2:B:110:HIS:HB3	12:L:54:ARG:HH22	1.69	0.58
2:B:102:VAL:HG22	2:B:112:LEU:HD22	1.86	0.58
1:A:78:PRO:HA	2:B:1201:LYS:HZ2	1.68	0.58
2:B:251:ILE:HG22	2:B:251:ILE:O	2.04	0.58
2:B:846:ILE:CG2	2:B:974:PRO:HG2	2.32	0.58
1:A:567:LYS:NZ	8:H:43:ASN:HB3	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:95:TYR:HE2	8:H:97:MET:HG3	1.68	0.58
9:I:55:THR:HG23	9:I:100:PHE:CD2	2.38	0.58
1:M:500:GLU:OE2	2:N:1145:SER:HB2	2.03	0.58
2:N:120:ARG:NH1	12:X:54:ARG:NH1	2.52	0.58
2:N:361:LEU:HD21	2:N:377:PHE:HD2	1.69	0.58
2:N:244:LEU:HD21	2:N:366:GLN:HE21	1.68	0.58
2:N:46:GLN:HG3	2:N:47:GLN:H	1.68	0.58
1:A:1259:MET:CE	1:A:1263:ILE:HG13	2.34	0.58
2:B:1161:HIS:NE2	2:B:1175:LEU:HD21	2.19	0.58
2:B:613:VAL:HG13	2:B:628:THR:HA	1.85	0.58
2:B:763:GLN:HG2	2:B:765:PRO:HD2	1.84	0.58
2:B:916:THR:HB	2:B:935:ARG:HD2	1.86	0.58
5:E:128:PRO:HA	5:E:129:PRO:C	2.23	0.58
7:G:15:PRO:HA	7:G:18:PHE:CE1	2.39	0.58
8:H:15:VAL:HG22	8:H:26:ILE:HG13	1.86	0.58
1:M:1342:GLU:CG	5:Q:198:ILE:HD13	2.33	0.58
1:M:689:LYS:HE2	1:M:721:PHE:CE2	2.39	0.58
4:P:25:ALA:HB1	4:P:196:PRO:HG2	1.86	0.58
4:P:216:ASN:C	4:P:218:GLU:N	2.54	0.58
4:P:52:LEU:HD21	4:P:147:TYR:CE2	2.38	0.58
7:S:138:THR:HG22	7:S:139:ILE:H	1.69	0.58
7:S:94:CYS:O	7:S:94:CYS:SG	2.59	0.58
8:T:82:PRO:O	8:T:84:ALA:N	2.35	0.58
10:V:16:ASP:OD1	10:V:17:LYS:N	2.36	0.58
1:A:71:GLN:C	1:A:73:GLY:H	2.06	0.58
2:B:1096:ARG:O	2:B:1097:HIS:CB	2.51	0.58
2:B:185:THR:H	2:B:188:ASP:HB2	1.69	0.58
5:E:204:THR:HG23	5:E:205:SER:N	2.19	0.58
5:E:212:ARG:HH11	5:E:212:ARG:HG3	1.69	0.58
5:E:69:ILE:HD12	5:E:69:ILE:H	1.69	0.58
10:J:23:ASN:O	10:J:25:LEU:N	2.37	0.58
12:L:27:LEU:HD13	12:L:37:LYS:HD2	1.86	0.58
1:M:1227:ILE:HG22	1:M:1228:TRP:H	1.69	0.58
1:M:67:CYS:C	1:M:68:GLN:HG3	2.24	0.58
2:N:273:LEU:HB2	2:N:276:ILE:HD12	1.86	0.58
6:R:75:PRO:O	6:R:77:ASP:O	2.22	0.58
1:A:492:PRO:HB2	1:A:497:THR:HG22	1.84	0.58
2:B:359:GLU:O	2:B:362:PRO:HD3	2.04	0.58
3:C:241:ASP:O	3:C:245:VAL:HG23	2.04	0.58
5:E:207:ARG:HH11	5:E:207:ARG:HB3	1.69	0.58
2:N:1084:GLN:NE2	2:N:1084:GLN:N	2.52	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1183:LYS:CE	2:N:1183:LYS:N	2.67	0.58
2:N:284:ILE:HD13	2:N:333:PHE:CD2	2.39	0.58
2:N:293:PRO:HD2	2:N:296:GLU:OE1	2.03	0.58
2:N:98:THR:O	2:N:126:SER:HB2	2.03	0.58
3:O:43:THR:CG2	3:O:44:LEU:N	2.67	0.58
5:Q:50:MET:HG2	5:Q:52:ARG:NH2	2.19	0.58
12:X:34:CYS:CB	12:X:51:CYS:HG	2.17	0.58
1:A:1095:THR:HG21	1:A:1112:LYS:HB2	1.86	0.57
1:A:1173:HIS:ND1	1:A:1173:HIS:O	2.37	0.57
1:A:1437:GLY:O	1:A:1439:GLY:N	2.37	0.57
1:A:278:THR:O	1:A:278:THR:HG22	2.04	0.57
2:B:1056:SER:HB3	2:B:1066:SER:OG	2.02	0.57
2:B:638:PHE:HB3	2:B:651:LEU:HD22	1.86	0.57
7:G:52:ASP:C	7:G:53:ASN:HD22	2.07	0.57
8:H:40:LEU:HD23	8:H:42:ILE:CD1	2.34	0.57
1:M:34:LYS:HB2	1:M:36:ARG:CZ	2.34	0.57
1:M:493:GLN:HE21	1:M:493:GLN:CA	2.16	0.57
2:N:235:SER:O	2:N:236:HIS:HD2	1.87	0.57
3:O:73:GLN:HE21	3:O:75:MET:N	1.99	0.57
12:X:47:ARG:HD3	12:X:52:GLY:HA2	1.86	0.57
1:A:311:GLN:O	1:A:313:GLN:N	2.36	0.57
1:A:470:LEU:CD2	1:A:470:LEU:N	2.67	0.57
1:A:720:ARG:O	1:A:724:GLU:HB3	2.03	0.57
2:B:129:PHE:HA	2:B:165:VAL:O	2.05	0.57
2:B:508:LEU:N	14:2:1:DA:O5'	2.28	0.57
2:B:604:ARG:NH2	2:B:614:SER:HA	2.19	0.57
2:B:654:ARG:HG3	2:B:654:ARG:HH11	1.67	0.57
3:C:243:VAL:HG12	3:C:243:VAL:O	2.03	0.57
3:C:39:ALA:O	3:C:164:ALA:HB3	2.04	0.57
4:D:202:ILE:CG2	4:D:207:LEU:HB2	2.34	0.57
4:D:209:ARG:HA	4:D:212:LYS:CE	2.34	0.57
4:D:50:LEU:HD11	7:G:4:ILE:HD11	1.85	0.57
5:E:78:LEU:HB2	5:E:107:THR:HB	1.86	0.57
7:G:137:ILE:CG2	7:G:143:ILE:HD11	2.34	0.57
9:I:84:VAL:HG13	9:I:84:VAL:O	2.04	0.57
2:N:1172:ILE:O	2:N:1172:ILE:HG22	2.02	0.57
2:N:880:THR:HG21	2:N:934:LYS:HE3	1.86	0.57
3:O:37:MET:HE1	3:O:232:VAL:HG22	1.86	0.57
4:P:130:LEU:HD11	4:P:142:LYS:HA	1.86	0.57
8:T:44:VAL:HG12	8:T:44:VAL:O	2.03	0.57
12:X:60:ARG:HG2	12:X:61:THR:H	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1242:VAL:CG1	1:A:1243:VAL:N	2.67	0.57
1:A:523:ILE:HG13	1:A:622:VAL:HG22	1.86	0.57
2:B:1115:THR:HG22	2:B:1117:GLN:HB2	1.85	0.57
2:B:911:ILE:HD11	2:B:941:LEU:CD1	2.33	0.57
5:E:62:ALA:HB3	5:E:78:LEU:HD22	1.86	0.57
8:H:143:LEU:N	8:H:143:LEU:HD12	2.20	0.57
1:M:440:ASP:O	1:M:460:VAL:HG23	2.04	0.57
1:M:549:MET:HE1	1:M:656:TRP:HD1	1.70	0.57
2:N:1008:PRO:HB3	2:N:1087:PHE:HE2	1.69	0.57
2:N:390:LEU:HD13	2:N:392:ARG:NH2	2.19	0.57
2:N:398:ARG:HB3	2:N:398:ARG:HH11	1.70	0.57
2:N:638:PHE:HD2	2:N:690:VAL:HG12	1.69	0.57
2:N:824:ILE:CG1	10:V:48:ARG:HH12	2.15	0.57
3:O:44:LEU:HD21	3:O:159:ALA:HB1	1.86	0.57
3:O:11:ARG:HH12	3:O:205:LYS:HZ3	1.51	0.57
5:Q:153:HIS:O	5:Q:154:ILE:CG1	2.48	0.57
8:T:106:GLU:HA	8:T:112:ILE:HD12	1.84	0.57
1:A:1438:THR:HG23	6:F:92:ARG:HB2	1.86	0.57
1:A:202:LEU:HB3	1:A:207:ILE:HD11	1.85	0.57
1:A:335:ARG:O	1:A:339:ASN:HB2	2.03	0.57
1:A:378:GLU:OE1	1:A:434:ARG:HD3	2.05	0.57
2:B:758:PHE:CE1	2:B:1027:ILE:HG22	2.39	0.57
2:B:470:LYS:C	2:B:472:ALA:N	2.57	0.57
3:C:11:ARG:HH12	3:C:205:LYS:HZ3	1.52	0.57
1:A:1340:GLY:HA2	5:E:183:PRO:HD2	1.85	0.57
9:I:58:VAL:HG12	9:I:58:VAL:O	2.05	0.57
1:M:107:CYS:CA	1:M:171:GLN:HE22	2.17	0.57
2:N:276:ILE:O	2:N:276:ILE:HG22	2.02	0.57
2:N:282:ILE:O	2:N:286:PHE:HD1	1.88	0.57
2:N:773:MET:CE	2:N:985:GLY:HA2	2.35	0.57
1:M:369:SER:HB3	11:W:2:ASN:OD1	2.04	0.57
2:B:31:TRP:CE3	2:B:34:ILE:HD12	2.39	0.57
2:B:58:THR:O	2:B:62:ILE:HG13	2.04	0.57
2:B:998:ASP:OD1	3:C:35:ARG:NH2	2.37	0.57
3:C:32:SER:O	3:C:36:VAL:HG23	2.05	0.57
5:E:158:SER:O	5:E:162:ARG:HD3	2.04	0.57
1:M:993:LEU:HD22	1:M:1046:LEU:CD2	2.34	0.57
1:M:1100:ARG:HH21	1:M:1351:GLU:CG	2.18	0.57
2:N:189:LEU:HA	2:N:192:LEU:HD12	1.87	0.57
2:N:526:GLU:HG3	2:N:771:SER:HB3	1.85	0.57
2:N:806:THR:H	2:N:809:MET:HE3	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:797:TYR:HE1	2:N:854:LEU:HD23	1.69	0.57
3:O:36:VAL:CG2	3:O:251:LEU:HD13	2.35	0.57
4:P:154:PHE:HZ	4:P:214:LEU:HD11	1.69	0.57
5:Q:99:HIS:CE1	5:Q:103:LYS:HG3	2.39	0.57
6:R:111:LEU:C	6:R:113:GLY:H	2.07	0.57
7:S:136:VAL:HG12	7:S:136:VAL:O	2.04	0.57
10:V:23:ASN:O	10:V:25:LEU:N	2.37	0.57
2:B:552:MET:CE	2:B:552:MET:HA	2.34	0.57
2:B:862:GLN:HG2	2:B:963:PHE:CD1	2.36	0.57
4:D:13:ARG:C	4:D:15:LEU:H	2.06	0.57
6:F:119:ARG:CG	6:F:119:ARG:NH1	2.68	0.57
8:H:15:VAL:HG22	8:H:26:ILE:CG1	2.34	0.57
1:M:61:ILE:HG22	1:M:62:ASP:H	1.69	0.57
1:M:973:ILE:CD1	1:M:1037:LEU:HA	2.34	0.57
2:N:313:MET:SD	2:N:390:LEU:HD21	2.45	0.57
2:N:470:LYS:C	2:N:472:ALA:N	2.57	0.57
2:N:211:VAL:O	2:N:480:SER:HA	2.03	0.57
2:N:120:ARG:HH11	12:X:54:ARG:HH11	1.53	0.57
1:A:1118:VAL:O	1:A:1305:VAL:HG13	2.05	0.57
1:A:41:MET:HB2	1:A:48:ALA:O	2.05	0.57
2:B:29:ASP:HB3	2:B:658:ILE:HD13	1.87	0.57
2:B:315:LYS:N	2:B:316:PRO:HD2	2.19	0.57
2:B:570:VAL:HG21	2:B:573:GLN:CD	2.25	0.57
1:M:1121:GLU:HB3	1:M:1124:HIS:NE2	2.20	0.57
1:M:129:LYS:O	1:M:130:ASP:CB	2.52	0.57
1:M:567:LYS:HZ1	8:T:46:LEU:HB2	1.68	0.57
1:M:979:SER:OG	1:M:980:ASP:N	2.37	0.57
2:N:100:PRO:HB2	2:N:180:TYR:HE1	1.69	0.57
2:N:1177:HIS:HB3	2:N:1179:GLN:NE2	2.19	0.57
2:N:408:LEU:N	2:N:408:LEU:HD12	2.20	0.57
7:S:125:SER:OG	7:S:128:PRO:HA	2.05	0.57
1:A:427:GLN:HG3	1:A:430:TRP:CE2	2.39	0.57
2:B:980:PHE:CE2	2:B:1094:ARG:HG3	2.39	0.57
4:D:204:ASP:O	4:D:208:GLU:HB2	2.04	0.57
1:M:523:ILE:CG1	1:M:622:VAL:HG22	2.35	0.57
2:N:857:ARG:HH21	2:N:942:ARG:NH2	2.03	0.57
4:P:195:ILE:O	4:P:198:LEU:HG	2.03	0.57
1:A:1268:LEU:O	1:A:1269:GLU:HG3	2.05	0.57
1:A:401:GLY:C	1:A:435:HIS:HD2	2.07	0.57
1:A:34:LYS:NZ	1:A:57:ARG:NH2	2.53	0.57
1:A:709:THR:HB	1:A:712:GLU:HG3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:888:GLY:O	1:A:940:ARG:NH2	2.38	0.57
2:B:653:VAL:CG2	2:B:689:LEU:HB3	2.34	0.57
2:B:402:GLY:HA2	2:B:695:ALA:HB3	1.86	0.57
3:C:238:ILE:HD11	3:C:246:ARG:NH1	2.19	0.57
4:D:144:THR:O	4:D:148:LEU:HB2	2.05	0.57
8:H:7:ASP:O	8:H:8:ASP:HB2	2.05	0.57
9:I:111:THR:CG2	9:I:113:ASP:HB2	2.34	0.57
1:M:1294:PRO:HG2	1:M:1295:THR:HG22	1.86	0.57
1:M:49:LYS:HE2	1:M:61:ILE:HD12	1.86	0.57
2:N:39:ARG:NH2	2:N:665:GLU:CG	2.68	0.57
2:N:580:VAL:HG22	2:N:624:LEU:HB3	1.87	0.57
2:N:642:ASP:HA	2:N:649:LYS:HG3	1.86	0.57
2:N:794:ASN:C	2:N:795:ILE:HD12	2.25	0.57
7:S:106:MET:CG	7:S:107:LYS:N	2.67	0.57
1:A:556:TRP:CZ2	1:A:558:GLY:HA2	2.40	0.57
2:B:639:ILE:HD11	2:B:691:GLU:HB2	1.87	0.57
4:D:130:LEU:C	4:D:132:GLN:H	2.08	0.57
6:F:111:LEU:N	6:F:111:LEU:CD1	2.67	0.57
6:F:79:ARG:HG3	6:F:144:GLU:OE1	2.04	0.57
8:H:81:PRO:HB2	8:H:82:PRO:HD2	1.84	0.57
12:L:52:GLY:O	12:L:53:HIS:C	2.43	0.57
1:M:152:VAL:HG13	1:M:153:PRO:HD2	1.87	0.57
1:M:93:VAL:CG1	1:M:301:ALA:HB1	2.35	0.57
3:O:184:ASN:HD21	3:O:189:THR:HB	1.70	0.57
4:P:209:ARG:HG2	4:P:209:ARG:HH11	1.69	0.57
8:T:4:THR:HG22	8:T:5:LEU:N	2.20	0.57
1:A:42:ASP:HA	1:A:46:THR:O	2.05	0.56
2:B:167:ILE:HA	2:B:450:ALA:HB2	1.87	0.56
2:B:618:ASP:CG	2:B:621:GLU:HB3	2.25	0.56
5:E:100:ILE:CG2	5:E:105:PHE:HB2	2.35	0.56
5:E:55:ARG:HG3	5:E:55:ARG:HH11	1.70	0.56
10:J:36:LEU:HB2	10:J:47:ARG:HH12	1.70	0.56
1:M:699:ALA:HB3	1:M:701:LEU:HG	1.87	0.56
2:N:254:LEU:HD23	2:N:381:MET:HE1	1.86	0.56
2:N:313:MET:CE	2:N:386:LEU:HD22	2.35	0.56
1:A:1237:ILE:HG22	1:A:1238:ILE:N	2.20	0.56
1:A:492:PRO:CB	1:A:497:THR:HG22	2.34	0.56
1:A:898:ARG:HD2	1:A:899:VAL:H	1.70	0.56
2:B:508:LEU:O	2:B:509:ALA:HB3	2.05	0.56
3:C:70:ILE:HG12	3:C:142:VAL:HG11	1.86	0.56
12:L:55:ILE:HG12	12:L:56:LEU:N	2.13	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:810:GLU:HB2	2:N:815:ARG:NH2	2.19	0.56
2:N:1084:GLN:HG2	3:O:201:TRP:CZ2	2.40	0.56
4:P:155:ARG:CB	4:P:155:ARG:NH1	2.68	0.56
7:G:151:ILE:HG12	7:S:114:LEU:HD12	1.86	0.56
7:S:14:HIS:CD2	7:S:16:SER:H	2.23	0.56
8:T:104:PHE:CE2	8:T:136:LYS:HG3	2.40	0.56
1:A:475:THR:CG2	1:A:476:SER:N	2.67	0.56
2:B:336:ARG:HG3	2:B:336:ARG:HH11	1.70	0.56
3:C:148:ARG:N	3:C:151:GLN:HG3	2.19	0.56
4:D:14:ARG:HH12	4:D:16:LYS:NZ	2.04	0.56
1:M:1259:MET:HE3	1:M:1263:ILE:HG13	1.86	0.56
1:M:311:GLN:O	1:M:313:GLN:N	2.38	0.56
4:P:155:ARG:NE	4:P:221:TYR:HE1	2.04	0.56
4:P:13:ARG:C	4:P:15:LEU:H	2.07	0.56
5:Q:145:THR:HG21	5:Q:187:TYR:CD2	2.40	0.56
5:Q:19:VAL:HG22	5:Q:140:LEU:HD12	1.87	0.56
9:U:50:THR:HG22	9:U:52:ILE:N	2.19	0.56
1:A:256:GLN:O	1:A:257:ARG:HB2	2.04	0.56
1:A:382:PRO:HA	1:A:428:TYR:HE2	1.69	0.56
1:A:441:PRO:HG3	1:A:498:ARG:HB2	1.88	0.56
1:A:541:ILE:CD1	1:A:549:MET:HE1	2.22	0.56
1:A:666:ILE:HD12	1:A:666:ILE:N	2.20	0.56
2:B:957:ASN:O	2:B:959:ASP:N	2.38	0.56
3:C:177:GLU:CG	3:C:231:ASN:HB3	2.21	0.56
7:G:128:PRO:O	7:G:138:THR:HG23	2.04	0.56
8:H:104:PHE:CE2	8:H:136:LYS:HG3	2.40	0.56
1:M:1436:ILE:O	1:M:1437:GLY:C	2.43	0.56
1:M:500:GLU:OE2	1:M:1438:THR:HG21	2.05	0.56
1:M:786:HIS:N	1:M:786:HIS:CD2	2.73	0.56
2:N:345:LYS:CE	2:N:349:ILE:HD11	2.35	0.56
5:Q:22:MET:HE3	5:Q:26:ARG:NE	2.19	0.56
5:Q:79:TRP:HE1	5:Q:81:GLU:HB2	1.71	0.56
6:R:69:LEU:HD13	6:R:71:GLU:OE1	2.04	0.56
3:O:259:LEU:HD21	11:W:91:CYS:HB3	1.87	0.56
1:A:830:LYS:HE3	1:A:1081:LEU:HD12	1.86	0.56
1:A:1316:VAL:HG12	1:A:1316:VAL:O	2.05	0.56
2:B:1007:VAL:CG2	2:B:1008:PRO:HD2	2.33	0.56
2:B:497:ARG:NH2	2:B:775:LYS:HZ3	2.04	0.56
2:B:731:VAL:HG12	2:B:732:SER:N	2.20	0.56
3:C:148:ARG:H	3:C:151:GLN:HG3	1.70	0.56
4:D:56:ARG:HA	4:D:148:LEU:HD13	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:216:ASN:C	4:D:218:GLU:N	2.57	0.56
5:E:112:TYR:CE1	5:E:136:ASN:HA	2.40	0.56
1:M:853:ASP:OD1	1:M:855:THR:CB	2.52	0.56
1:M:99:ILE:HG23	1:M:211:PHE:CE2	2.41	0.56
2:N:434:ARG:O	2:N:436:VAL:HG23	2.05	0.56
2:N:898:LEU:HD13	2:N:952:VAL:HG11	1.87	0.56
3:O:213:PRO:O	3:O:214:ASN:HB3	2.06	0.56
1:A:1142:THR:O	1:A:1145:SER:OG	2.19	0.56
1:A:268:ASP:HB3	1:A:299:HIS:CE1	2.41	0.56
1:A:43:GLU:CG	1:A:46:THR:HB	2.31	0.56
1:A:744:LYS:HG2	1:A:748:MET:CE	2.36	0.56
2:B:288:ALA:HB1	2:B:331:LEU:CD1	2.32	0.56
2:B:842:ASN:ND2	2:B:845:SER:OG	2.37	0.56
3:C:215:GLU:O	3:C:216:GLY:C	2.44	0.56
4:D:12:ARG:HH11	4:D:12:ARG:HG2	1.71	0.56
1:M:1130:GLN:O	1:M:1134:ILE:HG13	2.05	0.56
1:M:710:LEU:HD22	9:U:96:SER:HA	1.88	0.56
1:M:962:ARG:O	1:M:964:ILE:N	2.39	0.56
2:N:313:MET:HE3	2:N:386:LEU:HD22	1.88	0.56
2:N:430:ARG:HB3	2:N:434:ARG:NH2	2.21	0.56
2:N:167:ILE:HA	2:N:450:ALA:HB2	1.87	0.56
2:N:614:SER:HB2	2:N:697:GLU:OE1	2.05	0.56
3:O:174:ALA:O	3:O:175:ALA:HB3	2.06	0.56
4:P:154:PHE:CE2	4:P:218:GLU:HA	2.40	0.56
1:M:852:TYR:CD1	6:R:136:ARG:HB3	2.40	0.56
2:N:848:ARG:HD3	10:V:11:GLY:HA2	1.86	0.56
1:A:1255:GLU:HG2	1:A:1258:HIS:HB2	1.86	0.56
1:A:195:ASP:O	1:A:196:GLU:HB3	2.05	0.56
2:B:240:ILE:HG21	2:B:381:MET:HE1	1.88	0.56
2:B:594:ALA:HB2	2:B:617:ARG:HH12	1.71	0.56
2:B:805:THR:HG23	2:B:809:MET:SD	2.45	0.56
3:C:181:ASP:CG	3:C:186:LEU:HD13	2.25	0.56
4:D:155:ARG:NE	4:D:221:TYR:CE1	2.74	0.56
1:M:1195:LEU:HD11	1:M:1267:MET:HE3	1.87	0.56
1:M:283:GLY:O	1:M:285:PRO:CD	2.53	0.56
1:M:401:GLY:CA	1:M:435:HIS:HD2	2.19	0.56
1:M:883:LEU:HD11	1:M:1017:LEU:HD11	1.86	0.56
2:N:115:GLN:HG2	2:N:193:LYS:CB	2.36	0.56
2:N:247:GLY:C	2:N:249:ARG:H	2.08	0.56
2:N:361:LEU:O	2:N:363:HIS:O	2.24	0.56
2:N:486:TYR:N	2:N:486:TYR:CD2	2.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:613:VAL:HG13	2:N:628:THR:HA	1.86	0.56
3:O:44:LEU:HD21	3:O:159:ALA:CB	2.36	0.56
5:Q:124:VAL:HB	5:Q:125:PRO:HD3	1.87	0.56
5:Q:28:TYR:CE1	5:Q:78:LEU:HD13	2.41	0.56
5:Q:28:TYR:HE1	5:Q:78:LEU:HD13	1.71	0.56
8:T:59:ILE:CG2	8:T:60:ALA:N	2.64	0.56
11:W:55:LYS:HB2	11:W:81:TYR:CE1	2.41	0.56
2:B:1180:PHE:HB3	2:B:1191:ILE:HD13	1.87	0.56
1:A:10:PRO:HG2	2:B:1192:TYR:HD2	1.71	0.56
2:B:434:ARG:O	2:B:436:VAL:HG23	2.05	0.56
2:B:640:VAL:HG12	2:B:640:VAL:O	2.04	0.56
7:G:45:ILE:HA	7:G:78:VAL:HG12	1.87	0.56
11:K:50:LEU:HD11	11:K:75:ILE:CD1	2.35	0.56
1:M:598:LEU:HD23	8:T:25:ARG:NH1	2.20	0.56
1:M:929:LEU:HD21	1:M:983:ILE:HG21	1.87	0.56
2:N:560:GLU:O	2:N:561:TRP:CD1	2.59	0.56
2:N:638:PHE:HB3	2:N:651:LEU:HD22	1.88	0.56
6:R:69:LEU:HB3	6:R:71:GLU:CD	2.26	0.56
2:B:361:LEU:O	2:B:363:HIS:O	2.24	0.56
2:B:801:LYS:O	10:J:52:THR:HG23	2.05	0.56
2:B:842:ASN:HD22	2:B:845:SER:N	2.03	0.56
2:B:865:LYS:NZ	2:B:869:SER:HA	2.21	0.56
5:E:46:TYR:CD2	5:E:58:MET:HG2	2.41	0.56
8:H:80:ARG:HD2	8:H:87:ARG:HH22	1.71	0.56
1:M:1173:HIS:O	1:M:1173:HIS:ND1	2.39	0.56
1:M:367:PRO:HG2	1:M:370:ILE:HD12	1.88	0.56
1:M:593:GLU:C	1:M:595:THR:H	2.09	0.56
1:M:666:ILE:O	1:M:670:ILE:HD13	2.06	0.56
1:M:993:LEU:HD23	1:M:1022:LEU:HD21	1.88	0.56
2:N:424:LEU:O	2:N:428:ILE:HG13	2.05	0.56
2:N:508:LEU:O	2:N:509:ALA:HB3	2.06	0.56
3:O:179:GLU:HG2	3:O:180:TYR:N	2.21	0.56
1:A:1241:ARG:O	1:A:1242:VAL:CB	2.53	0.56
1:A:401:GLY:CA	1:A:435:HIS:HD2	2.18	0.56
1:A:608:ILE:HG13	1:A:613:ILE:HD12	1.88	0.56
2:B:247:GLY:C	2:B:249:ARG:H	2.09	0.56
2:B:679:TYR:CE1	2:B:683:SER:HB2	2.41	0.56
3:C:99:LEU:CD2	3:C:99:LEU:N	2.68	0.56
5:E:136:ASN:OD1	5:E:138:ALA:N	2.39	0.56
1:M:981:LEU:CD2	1:M:1039:LYS:HA	2.35	0.56
1:M:1207:LEU:HD13	1:M:1273:LEU:HD23	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:360:GLU:HB2	1:M:363:GLN:HG3	1.88	0.56
1:M:535:THR:HG21	1:M:617:VAL:N	2.21	0.56
1:M:672:ASP:CB	1:M:736:ASN:HD21	2.14	0.56
2:N:365:THR:HG21	2:N:370:PHE:CG	2.41	0.56
2:N:796:LEU:HD21	2:N:821:GLN:HE21	1.70	0.56
7:G:117:GLN:HE21	7:S:153:GLN:HG3	1.71	0.56
7:S:55:ASP:OD1	7:S:57:GLN:HG3	2.06	0.56
8:T:101:ALA:HB2	8:T:116:TYR:CE2	2.41	0.56
8:T:7:ASP:O	8:T:8:ASP:HB2	2.06	0.56
1:A:427:GLN:O	1:A:428:TYR:C	2.43	0.56
1:A:547:LEU:HD21	1:A:560:ILE:HD13	1.89	0.56
1:A:738:LYS:H	1:A:738:LYS:HD3	1.71	0.56
1:A:834:THR:HG22	1:A:835:GLY:N	2.21	0.56
2:B:1167:GLY:HA3	2:B:1216:LEU:H	1.70	0.56
3:C:166:GLU:CG	11:K:10:PHE:HZ	2.19	0.56
6:F:97:ARG:NH2	6:F:108:PHE:CE1	2.73	0.56
7:G:114:LEU:HG	7:G:162:SER:HB3	1.88	0.56
9:I:74:GLU:HB3	9:I:81:ARG:NE	2.21	0.56
11:K:93:SER:O	11:K:97:LYS:HG3	2.05	0.56
12:L:68:GLU:CD	12:L:68:GLU:H	2.10	0.56
1:M:1277:GLU:C	1:M:1279:ILE:H	2.09	0.56
1:M:836:TYR:CE2	1:M:840:ARG:HD2	2.40	0.56
2:N:1180:PHE:HB3	2:N:1191:ILE:HD13	1.88	0.56
2:N:227:LYS:H	2:N:395:GLN:CD	2.08	0.56
2:N:278:GLN:HG2	2:N:279:ASP:H	1.70	0.56
3:O:215:GLU:O	3:O:216:GLY:C	2.45	0.56
4:P:202:ILE:HD13	4:P:207:LEU:HB2	1.87	0.56
4:P:56:ARG:HH11	4:P:56:ARG:HG2	1.71	0.56
5:Q:79:TRP:HB2	5:Q:105:PHE:CE1	2.41	0.56
1:A:993:LEU:HD21	1:A:1049:ILE:HG21	1.87	0.55
2:B:126:SER:CB	2:B:172:ILE:HD11	2.36	0.55
2:B:240:ILE:HG23	2:B:254:LEU:HB3	1.88	0.55
2:B:300:HIS:O	2:B:303:TYR:HE2	1.88	0.55
2:B:430:ARG:CB	2:B:430:ARG:HH11	2.15	0.55
2:B:899:ILE:CG2	2:B:949:VAL:HG21	2.36	0.55
4:D:12:ARG:NH1	4:D:12:ARG:HG2	2.19	0.55
8:H:40:LEU:HD12	8:H:123:MET:CB	2.35	0.55
8:H:51:ALA:O	8:H:52:GLN:HB2	2.05	0.55
3:C:248:ILE:CD1	11:K:101:LEU:HD22	2.36	0.55
1:M:852:TYR:CD2	1:M:1060:PRO:CB	2.89	0.55
1:M:1220:PHE:O	1:M:1221:LYS:HB2	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:23:SER:HB3	1:M:233:TRP:CZ2	2.42	0.55
1:M:547:LEU:HD22	11:W:58:PHE:CE1	2.42	0.55
1:M:65:LEU:O	1:M:66:LYS:C	2.43	0.55
2:N:766:ARG:NH2	2:N:1020:ARG:HD3	2.20	0.55
2:N:398:ARG:CB	2:N:398:ARG:HH11	2.18	0.55
4:P:154:PHE:HE1	4:P:163:VAL:HG11	1.71	0.55
4:P:71:LYS:CG	4:P:74:GLN:HE21	2.19	0.55
7:S:21:ARG:HD2	7:S:24:GLN:HB2	1.89	0.55
8:T:81:PRO:HB3	8:T:82:PRO:HD2	1.86	0.55
12:X:52:GLY:O	12:X:53:HIS:C	2.44	0.55
15:6:5:C:H2'	15:6:6:A:C8	2.40	0.55
1:A:148:CYS:HB3	1:A:167:CYS:O	2.05	0.55
1:A:65:LEU:O	1:A:66:LYS:C	2.44	0.55
1:A:855:THR:CG2	1:A:857:ARG:HG3	2.36	0.55
2:B:102:VAL:HG13	2:B:958:GLN:HE21	1.71	0.55
2:B:549:THR:CG2	2:B:550:ASP:N	2.68	0.55
2:B:911:ILE:HG21	2:B:966:VAL:HG11	1.88	0.55
2:B:950:ASP:HB3	2:B:967:ARG:O	2.07	0.55
8:H:123:MET:HG2	8:H:124:ARG:N	2.20	0.55
10:J:36:LEU:HD12	10:J:47:ARG:NH1	2.20	0.55
1:M:427:GLN:O	1:M:428:TYR:C	2.44	0.55
1:M:42:ASP:HB3	1:M:45:GLN:HA	1.87	0.55
1:M:768:GLN:HG2	1:M:816:HIS:CA	2.34	0.55
2:N:118:ARG:HH11	2:N:204:ILE:HD11	1.70	0.55
2:N:48:LEU:HD23	2:N:173:MET:SD	2.47	0.55
2:N:235:SER:C	2:N:236:HIS:HD2	2.09	0.55
2:N:39:ARG:HH21	2:N:665:GLU:CG	2.19	0.55
4:P:130:LEU:C	4:P:132:GLN:H	2.10	0.55
4:P:155:ARG:CB	4:P:155:ARG:HH11	2.19	0.55
4:P:15:LEU:O	4:P:17:LYS:HG3	2.06	0.55
5:Q:204:THR:HG23	5:Q:205:SER:N	2.22	0.55
5:Q:16:PHE:CE2	5:Q:20:LYS:HE2	2.41	0.55
7:S:9:LEU:HD12	7:S:10:ASN:H	1.71	0.55
11:W:47:ARG:HD3	11:W:59:ALA:O	2.06	0.55
12:X:30:ILE:HG22	12:X:31:CYS:N	2.21	0.55
1:A:1291:VAL:HG22	1:A:1292:PRO:HD2	1.88	0.55
1:A:666:ILE:O	1:A:670:ILE:HD13	2.06	0.55
1:A:528:LEU:HD23	1:A:751:SER:HA	1.89	0.55
2:B:235:SER:C	2:B:236:HIS:HD2	2.10	0.55
2:B:327:ARG:HH22	2:B:371:GLU:HG2	1.71	0.55
2:B:789:MET:CE	2:B:953:LEU:HD22	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:22:LEU:HD22	3:C:230:MET:HE1	1.87	0.55
12:L:26:THR:HG23	12:L:62:LYS:NZ	2.20	0.55
1:M:42:ASP:HA	1:M:46:THR:O	2.07	0.55
1:M:61:ILE:HG22	1:M:62:ASP:N	2.21	0.55
2:N:347:LYS:HG3	2:N:348:ARG:H	1.72	0.55
2:N:637:LEU:CD2	2:N:742:GLU:HA	2.36	0.55
3:O:116:LYS:HD3	3:O:140:ASN:HA	1.89	0.55
5:Q:128:PRO:HA	5:Q:129:PRO:C	2.26	0.55
5:Q:207:ARG:HB3	5:Q:207:ARG:HH11	1.71	0.55
5:Q:56:LYS:NZ	5:Q:84:ASP:H	2.04	0.55
1:M:567:LYS:HZ3	8:T:43:ASN:HB3	1.69	0.55
9:U:59:VAL:C	9:U:61:ASP:H	2.10	0.55
10:V:27:GLU:C	10:V:29:GLU:H	2.10	0.55
13:4:15:DG:C2'	13:4:16:DT:H71	2.37	0.55
1:A:115:LEU:HG	1:A:142:CYS:HB3	1.89	0.55
1:A:1239:ARG:HH12	1:A:1241:ARG:HH12	1.54	0.55
1:A:1420:ASP:O	1:A:1421:CYS:HB2	2.06	0.55
1:A:154:SER:HB3	1:A:162:VAL:HG21	1.88	0.55
1:A:89:PRO:O	1:A:204:THR:HG21	2.07	0.55
2:B:1124:ARG:NH1	15:3:2:G:OP2	2.37	0.55
2:B:258:LEU:HG	2:B:258:LEU:O	2.05	0.55
2:B:531:GLN:HG2	2:B:532:ALA:H	1.69	0.55
3:C:174:ALA:O	3:C:175:ALA:HB3	2.07	0.55
4:D:220:LEU:HG	4:D:221:TYR:H	1.71	0.55
8:H:11:GLN:C	8:H:28:ALA:HB1	2.26	0.55
9:I:86:PHE:CE1	9:I:100:PHE:HB2	2.41	0.55
1:M:351:THR:HG21	2:N:1103:ILE:HG13	1.89	0.55
1:M:824:LEU:O	1:M:827:THR:HG22	2.06	0.55
2:N:300:HIS:O	2:N:303:TYR:HE2	1.89	0.55
2:N:378:LEU:O	2:N:382:ILE:HG13	2.06	0.55
3:O:36:VAL:HG21	3:O:251:LEU:HB2	1.89	0.55
3:O:51:VAL:HG22	3:O:155:LEU:CD2	2.35	0.55
4:P:4:SER:O	4:P:5:THR:CB	2.53	0.55
12:X:27:LEU:O	12:X:28:LYS:HB2	2.05	0.55
1:A:1171:GLN:OE1	1:A:1172:LEU:HG	2.06	0.55
1:A:1191:TRP:CD1	1:A:1256:GLU:HB2	2.42	0.55
1:A:903:ASN:HD22	1:A:905:ASP:H	1.48	0.55
2:B:1001:PHE:CE1	2:B:1073:TYR:HB2	2.40	0.55
2:B:244:LEU:HD11	2:B:366:GLN:HE22	1.70	0.55
2:B:345:LYS:HG2	2:B:346:GLU:N	2.21	0.55
2:B:657:HIS:CE1	2:B:689:LEU:HD11	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:918:ILE:HG21	2:B:935:ARG:NH2	2.21	0.55
1:M:1095:THR:CG2	1:M:1112:LYS:HB2	2.33	0.55
1:M:1111:MET:HE2	1:M:1114:PRO:HA	1.87	0.55
1:M:1454:MET:O	1:M:1454:MET:HG3	2.07	0.55
1:M:41:MET:HB2	1:M:49:LYS:HA	1.86	0.55
1:M:711:ARG:NH1	9:U:95:THR:HB	2.21	0.55
1:M:858:ASN:ND2	1:M:858:ASN:C	2.54	0.55
2:N:174:LEU:HD22	2:N:202:TYR:CE1	2.41	0.55
2:N:422:LYS:HA	2:N:425:THR:HB	1.87	0.55
2:N:461:LEU:N	2:N:461:LEU:HD12	2.21	0.55
3:O:148:ARG:NH1	10:V:64:ASN:HA	2.22	0.55
3:O:75:MET:HB3	3:O:128:ASN:HB3	1.88	0.55
4:P:155:ARG:NE	4:P:221:TYR:CE1	2.73	0.55
2:N:308:TRP:HB2	9:U:2:THR:HG22	1.89	0.55
1:A:28:ARG:HH21	1:A:238:CYS:HB2	1.71	0.55
1:A:699:ALA:HB3	1:A:701:LEU:HG	1.89	0.55
2:B:115:GLN:HG2	2:B:193:LYS:HB2	1.89	0.55
2:B:836:GLU:O	2:B:837:ASP:HB2	2.05	0.55
11:K:12:LEU:HD12	11:K:37:LYS:CG	2.37	0.55
1:M:2:VAL:CG1	2:N:1157:ALA:O	2.54	0.55
1:M:347:PHE:HE2	1:M:375:THR:CG2	2.19	0.55
1:M:512:VAL:HG12	1:M:512:VAL:O	2.07	0.55
1:M:535:THR:O	1:M:575:LYS:HE3	2.05	0.55
1:M:598:LEU:O	1:M:599:SER:C	2.44	0.55
2:N:731:VAL:HG12	2:N:732:SER:N	2.20	0.55
5:Q:192:ARG:NH1	5:Q:192:ARG:HG3	2.22	0.55
9:U:8:ARG:HG3	9:U:34:TYR:CE1	2.42	0.55
11:W:23:PRO:HA	11:W:31:VAL:HG13	1.89	0.55
1:A:1329:THR:CG2	1:A:1331:SER:H	2.13	0.55
1:A:207:ILE:HG22	1:A:211:PHE:CE2	2.42	0.55
1:A:382:PRO:CA	1:A:428:TYR:HE2	2.20	0.55
1:A:60:SER:OG	1:A:61:ILE:N	2.39	0.55
1:A:639:PRO:HG2	1:A:640:GLN:NE2	2.22	0.55
2:B:165:VAL:HG11	2:B:448:ILE:CD1	2.37	0.55
2:B:860:MET:HG2	2:B:861:ASP:H	1.71	0.55
3:C:73:GLN:HE21	3:C:75:MET:CB	2.19	0.55
1:A:1444:MET:CG	7:G:60:ARG:HA	2.34	0.55
8:H:18:GLY:O	8:H:19:ARG:HB2	2.07	0.55
8:H:12:VAL:HG13	8:H:26:ILE:HG12	1.87	0.55
8:H:89:LEU:HB2	8:H:91:ASP:CG	2.26	0.55
8:H:47:PHE:HB3	8:H:95:TYR:HD1	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:38:LEU:O	12:L:39:SER:HB3	2.06	0.55
1:M:1308:THR:HG21	1:M:1310:GLY:O	2.07	0.55
2:N:364:ILE:CG1	2:N:585:VAL:HG13	2.36	0.55
3:O:22:LEU:HD11	11:W:101:LEU:HD11	1.87	0.55
4:P:56:ARG:HD3	4:P:149:THR:HA	1.89	0.55
13:1:15:DG:C2'	13:1:16:DT:H71	2.37	0.55
1:A:1308:THR:HG21	1:A:1310:GLY:O	2.07	0.55
1:A:323:LYS:H	1:A:323:LYS:HD2	1.72	0.55
1:A:779:PHE:HE1	1:A:785:PRO:HD3	1.65	0.55
1:A:960:ILE:HA	1:A:963:ILE:HG22	1.88	0.55
1:A:337:ARG:HD3	2:B:1132:GLU:CD	2.26	0.55
2:B:579:ARG:HA	2:B:589:VAL:HG13	1.89	0.55
2:B:66:ASP:OD2	2:B:422:LYS:HG2	2.07	0.55
2:B:611:PRO:HB3	2:B:685:LEU:HD11	1.88	0.55
2:B:969:ARG:NH1	3:C:61:GLU:OE1	2.39	0.55
7:G:139:ILE:CG2	7:G:140:LYS:HG3	2.31	0.55
12:L:49:LYS:O	12:L:50:ASP:CB	2.54	0.55
1:M:1155:ASP:OD2	1:M:1161:THR:HA	2.07	0.55
1:M:1348:LEU:O	1:M:1352:VAL:HG23	2.07	0.55
1:M:145:LYS:HA	1:M:145:LYS:CE	2.35	0.55
1:M:836:TYR:CZ	1:M:840:ARG:HD2	2.42	0.55
2:N:770:GLN:OE1	2:N:983:ARG:HA	2.06	0.55
4:P:8:PHE:HD2	7:S:6:ASP:O	1.90	0.55
8:T:11:GLN:C	8:T:28:ALA:HB1	2.26	0.55
1:A:106:VAL:HG12	1:A:107:CYS:N	2.22	0.55
1:A:1313:LEU:HD23	1:A:1338:VAL:HG21	1.88	0.55
2:B:1063:GLY:O	3:C:202:PRO:HG2	2.06	0.55
2:B:637:LEU:HD11	2:B:703:ILE:HD13	1.89	0.55
3:C:114:TYR:CG	3:C:140:ASN:HB3	2.41	0.55
5:E:99:HIS:CE1	5:E:103:LYS:HG3	2.42	0.55
6:F:69:LEU:HB3	6:F:71:GLU:CD	2.27	0.55
7:G:138:THR:CG2	7:G:139:ILE:H	2.19	0.55
9:I:19:ASP:HB3	9:I:24:ARG:HG2	1.88	0.55
9:I:50:THR:HG21	9:I:52:ILE:HG12	1.87	0.55
1:M:1329:THR:HG22	1:M:1335:ILE:HG13	1.88	0.55
1:M:1403:GLU:O	13:4:16:DT:OP1	2.24	0.55
1:M:1438:THR:HB	2:N:1144:ALA:HB3	1.87	0.55
1:M:7:SER:HB3	2:N:1193:GLN:NE2	2.22	0.55
2:N:1197:PRO:O	2:N:1200:ALA:N	2.37	0.55
2:N:38:PHE:CD1	2:N:811:TYR:CD2	2.93	0.55
2:N:637:LEU:HD12	2:N:693:ILE:HD12	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:652:LYS:HB3	2:N:689:LEU:HD23	1.89	0.55
3:O:114:TYR:CG	3:O:140:ASN:HB3	2.42	0.55
7:S:34:VAL:HG13	7:S:45:ILE:HD13	1.89	0.55
1:A:555:ASP:O	1:A:556:TRP:C	2.46	0.55
2:B:1162:ILE:HD13	2:B:1194:ILE:HD13	1.88	0.55
2:B:526:GLU:OE1	2:B:752:ALA:HB3	2.07	0.55
4:D:146:GLN:CA	4:D:149:THR:HG22	2.37	0.55
5:E:155:ARG:HG2	5:E:155:ARG:HH11	1.71	0.55
5:E:156:LEU:HA	5:E:160:GLU:OE1	2.07	0.55
7:G:30:LEU:HD22	7:G:72:VAL:HG11	1.89	0.55
10:J:52:THR:HG22	10:J:52:THR:O	2.07	0.55
1:M:1263:ILE:O	1:M:1267:MET:HG3	2.07	0.55
1:M:850:VAL:HG21	1:M:1058:VAL:HG11	1.88	0.55
1:M:973:ILE:HG22	1:M:973:ILE:O	2.05	0.55
2:N:402:GLY:HA2	2:N:695:ALA:HB3	1.88	0.55
3:O:35:ARG:HH12	11:W:41:THR:H	1.55	0.55
5:Q:111:VAL:HG12	5:Q:137:GLU:HG2	1.87	0.55
5:Q:55:ARG:HA	5:Q:58:MET:HG3	1.88	0.55
5:Q:64:PRO:HB2	5:Q:69:ILE:HD11	1.89	0.55
11:W:93:SER:O	11:W:97:LYS:HG3	2.06	0.55
1:A:1436:ILE:O	1:A:1437:GLY:C	2.45	0.54
1:A:549:MET:CE	1:A:656:TRP:HD1	2.20	0.54
1:A:556:TRP:CH2	1:A:558:GLY:HA2	2.42	0.54
2:B:664:THR:HG1	2:B:678:GLU:N	2.04	0.54
5:E:179:GLN:HB2	5:E:182:ASP:HB2	1.89	0.54
8:H:59:ILE:CG2	8:H:60:ALA:N	2.63	0.54
1:M:1120:LEU:HD22	1:M:1125:ALA:HA	1.89	0.54
1:M:1152:ILE:HD12	1:M:1261:LYS:HE3	1.89	0.54
1:M:1450:LEU:HD11	6:R:108:PHE:HZ	1.71	0.54
1:M:265:LYS:HE2	1:M:268:ASP:OD2	2.07	0.54
1:M:470:LEU:HD23	1:M:470:LEU:N	2.21	0.54
1:M:475:THR:CG2	1:M:476:SER:N	2.69	0.54
1:M:492:PRO:C	1:M:493:GLN:HE21	2.11	0.54
1:M:503:GLN:HE21	6:R:90:ARG:NH2	1.98	0.54
2:N:185:THR:H	2:N:188:ASP:HB2	1.71	0.54
2:N:273:LEU:CB	2:N:276:ILE:HD12	2.37	0.54
2:N:351:TYR:CE1	2:N:355:ILE:HD11	2.42	0.54
2:N:90:ILE:HD12	2:N:432:MET:HE1	1.89	0.54
2:N:613:VAL:HG22	2:N:628:THR:HA	1.89	0.54
2:N:640:VAL:O	2:N:640:VAL:HG12	2.05	0.54
2:N:789:MET:HE2	2:N:953:LEU:HD22	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:207:LEU:O	4:P:207:LEU:HD12	2.06	0.54
7:G:117:GLN:HE22	7:S:154:VAL:HG22	1.69	0.54
9:U:10:CYS:SG	9:U:32:CYS:HB3	2.47	0.54
10:V:52:THR:HG22	10:V:52:THR:O	2.07	0.54
1:A:1116:LEU:HG	1:A:1308:THR:HB	1.89	0.54
1:A:1362:TYR:CD1	1:A:1363:VAL:N	2.75	0.54
1:A:289:ILE:HG22	1:A:290:GLU:N	2.23	0.54
1:A:353:ILE:HD13	1:A:487:MET:HG3	1.89	0.54
2:B:398:ARG:NH1	2:B:398:ARG:CB	2.70	0.54
2:B:848:ARG:HA	3:C:69:LEU:HD21	1.87	0.54
4:D:134:THR:CG2	4:D:135:GLY:N	2.69	0.54
7:G:111:THR:HG22	7:G:114:LEU:HD22	1.88	0.54
12:L:61:THR:HG22	12:L:63:ARG:H	1.72	0.54
1:M:1205:LYS:O	1:M:1207:LEU:HG	2.07	0.54
1:M:441:PRO:HG3	1:M:498:ARG:HB2	1.89	0.54
1:M:475:THR:HG23	1:M:476:SER:N	2.22	0.54
2:N:1147:LEU:HD22	2:N:1151:LEU:HD22	1.88	0.54
2:N:1167:GLY:HA3	2:N:1216:LEU:H	1.70	0.54
2:N:604:ARG:NH1	2:N:691:GLU:OE2	2.38	0.54
2:N:936:ASP:OD1	2:N:937:ALA:N	2.40	0.54
3:O:114:TYR:CD2	3:O:140:ASN:HB3	2.43	0.54
4:P:126:ILE:HD13	4:P:145:MET:HE3	1.89	0.54
5:Q:192:ARG:HG3	5:Q:192:ARG:HH11	1.71	0.54
8:T:15:VAL:HG22	8:T:26:ILE:CG1	2.36	0.54
12:X:26:THR:CG2	12:X:27:LEU:H	2.03	0.54
1:A:385:ILE:HG22	1:A:386:ASP:N	2.21	0.54
11:K:47:ARG:O	11:K:47:ARG:HD2	2.08	0.54
12:L:53:HIS:O	12:L:55:ILE:HD13	2.08	0.54
1:M:1015:VAL:HG12	1:M:1015:VAL:O	2.07	0.54
1:M:41:MET:HB2	1:M:48:ALA:O	2.08	0.54
4:P:193:THR:HG23	4:P:194:LEU:HD23	1.88	0.54
7:S:51:TYR:C	7:S:51:TYR:CD2	2.81	0.54
8:T:58:THR:HG22	8:T:59:ILE:N	2.20	0.54
10:V:9:SER:HB2	10:V:45:CYS:HB2	1.90	0.54
1:A:351:THR:HG22	2:B:1103:ILE:CA	2.23	0.54
1:A:534:LEU:HG	1:A:534:LEU:O	2.07	0.54
1:A:593:GLU:C	1:A:595:THR:H	2.11	0.54
1:A:518:LYS:HE2	1:A:624:SER:O	2.08	0.54
1:A:69:THR:O	1:A:70:CYS:C	2.45	0.54
2:B:34:ILE:HG12	2:B:542:MET:CE	2.37	0.54
4:D:209:ARG:HA	4:D:212:LYS:HE3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:59:VAL:C	9:I:61:ASP:H	2.11	0.54
12:L:66:GLN:HG2	12:L:67:PHE:N	2.22	0.54
1:M:1072:ILE:O	1:M:1075:PRO:HG2	2.07	0.54
1:M:1142:THR:O	1:M:1145:SER:OG	2.21	0.54
1:M:153:PRO:HB3	1:M:161:LEU:HD22	1.89	0.54
1:M:289:ILE:HG22	1:M:290:GLU:N	2.23	0.54
1:M:489:LEU:HD12	1:M:490:HIS:N	2.22	0.54
1:M:541:ILE:HG22	1:M:546:VAL:CG2	2.37	0.54
1:M:71:GLN:C	1:M:73:GLY:H	2.10	0.54
1:M:868:TYR:HD2	1:M:1058:VAL:HG21	1.72	0.54
2:N:766:ARG:NH2	2:N:1020:ARG:HH11	2.03	0.54
2:N:114:PRO:HG2	2:N:115:GLN:H	1.73	0.54
2:N:123:THR:HG23	2:N:205:ILE:HA	1.89	0.54
2:N:467:GLY:CA	2:N:475:SER:HB3	2.38	0.54
2:N:789:MET:HE1	2:N:953:LEU:HD22	1.90	0.54
2:N:950:ASP:HB3	2:N:967:ARG:O	2.08	0.54
7:S:55:ASP:HB3	7:S:73:LYS:HB2	1.89	0.54
12:X:47:ARG:CG	12:X:48:CYS:H	2.20	0.54
1:A:883:LEU:HD11	1:A:1017:LEU:HD11	1.88	0.54
1:A:438:ASP:O	1:A:439:ASN:HB2	2.05	0.54
5:E:79:TRP:HB2	5:E:105:PHE:CE1	2.43	0.54
6:F:110:ASP:O	6:F:123:LYS:HE3	2.07	0.54
7:G:115:MET:HG2	7:G:163:ILE:HD11	1.89	0.54
8:H:130:ARG:H	8:H:130:ARG:HD3	1.70	0.54
8:H:76:THR:O	8:H:77:ARG:HB2	2.07	0.54
2:B:797:TYR:O	10:J:1:MET:HG2	2.07	0.54
10:J:25:LEU:O	10:J:29:GLU:HA	2.08	0.54
12:L:31:CYS:HB2	12:L:48:CYS:SG	2.47	0.54
1:M:1206:ASP:O	1:M:1274:ARG:NH2	2.40	0.54
1:M:1317:MET:O	1:M:1322:ILE:HD11	2.08	0.54
1:M:549:MET:CE	1:M:656:TRP:HD1	2.21	0.54
2:N:129:PHE:HA	2:N:165:VAL:O	2.08	0.54
2:N:315:LYS:N	2:N:316:PRO:HD2	2.23	0.54
2:N:859:TYR:CZ	2:N:941:LEU:HD12	2.43	0.54
4:P:220:LEU:HG	4:P:221:TYR:H	1.73	0.54
5:Q:64:PRO:O	5:Q:69:ILE:HD11	2.07	0.54
5:Q:98:ILE:HG22	5:Q:102:GLU:CG	2.37	0.54
7:S:112:LYS:HB3	7:S:113:HIS:ND1	2.22	0.54
9:U:17:ARG:HH21	9:U:30:ARG:CZ	2.20	0.54
12:X:26:THR:C	12:X:27:LEU:HD23	2.27	0.54
1:A:1120:LEU:O	1:A:1323:ASP:HB2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:962:ARG:O	1:A:964:ILE:N	2.41	0.54
2:B:1160:VAL:HG12	2:B:1161:HIS:N	2.23	0.54
2:B:211:VAL:HG23	2:B:483:LEU:HB2	1.89	0.54
2:B:866:TYR:CG	2:B:870:ILE:HB	2.42	0.54
3:C:104:PHE:HE2	3:C:150:GLY:HA2	1.73	0.54
3:C:25:VAL:HG12	3:C:26:ASP:N	2.23	0.54
4:D:7:THR:HG23	4:D:7:THR:O	2.08	0.54
6:F:99:LEU:O	6:F:103:MET:HG2	2.08	0.54
11:K:55:LYS:HB2	11:K:81:TYR:CE1	2.43	0.54
1:M:1121:GLU:HG3	1:M:1122:PRO:HD2	1.90	0.54
1:M:283:GLY:O	1:M:285:PRO:HD3	2.06	0.54
1:M:35:ILE:CD1	1:M:241:VAL:HG11	2.37	0.54
2:N:185:THR:O	2:N:188:ASP:HB2	2.07	0.54
2:N:276:ILE:HA	2:N:336:ARG:O	2.07	0.54
2:N:597:MET:HA	2:N:597:MET:HE3	1.88	0.54
5:Q:198:ILE:CD1	5:Q:212:ARG:HG3	2.38	0.54
7:S:129:SER:OG	7:S:130:TYR:N	2.36	0.54
12:X:58:LYS:O	12:X:58:LYS:HG2	2.07	0.54
1:A:105:CYS:SG	1:A:139:TRP:HA	2.48	0.54
1:A:332:LYS:HG2	1:A:333:GLU:HG2	1.90	0.54
1:A:34:LYS:HG3	1:A:36:ARG:NH2	2.22	0.54
5:E:177:ARG:HB3	5:E:215:MET:HG2	1.90	0.54
5:E:17:ARG:O	5:E:21:GLU:HG3	2.08	0.54
8:H:40:LEU:HD11	8:H:142:LEU:CD2	2.38	0.54
8:H:89:LEU:HB2	8:H:91:ASP:OD1	2.08	0.54
11:K:21:ILE:HG23	11:K:31:VAL:HG11	1.89	0.54
1:M:130:ASP:OD2	1:M:133:LYS:HG3	2.08	0.54
1:M:468:PHE:CE2	1:M:489:LEU:HD23	2.43	0.54
1:M:779:PHE:HE1	1:M:785:PRO:HD3	1.69	0.54
1:M:770:VAL:HA	1:M:822:GLU:OE1	2.08	0.54
2:N:616:ILE:HD12	2:N:616:ILE:N	2.21	0.54
2:N:650:GLU:HG3	2:N:654:ARG:HH21	1.73	0.54
2:N:684:LEU:O	2:N:689:LEU:HB2	2.08	0.54
3:O:88:CYS:SG	3:O:91:HIS:HA	2.48	0.54
4:P:50:LEU:HD22	4:P:54:GLU:HG2	1.89	0.54
5:Q:69:ILE:H	5:Q:69:ILE:HD12	1.70	0.54
12:X:38:LEU:O	12:X:39:SER:HB3	2.08	0.54
1:A:1155:ASP:OD2	1:A:1161:THR:HA	2.07	0.54
1:A:115:LEU:CD1	1:A:142:CYS:HB3	2.37	0.54
1:A:535:THR:HG21	1:A:617:VAL:N	2.23	0.54
1:A:598:LEU:O	1:A:599:SER:C	2.46	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:973:ILE:HD11	1:A:1041:ALA:CB	2.38	0.54
1:A:979:SER:OG	1:A:980:ASP:N	2.39	0.54
1:A:981:LEU:CD2	1:A:1039:LYS:HA	2.33	0.54
2:B:47:GLN:O	2:B:173:MET:HE1	2.07	0.54
3:C:148:ARG:NH1	10:J:64:ASN:HA	2.22	0.54
5:E:124:VAL:CG1	5:E:132:ILE:HB	2.21	0.54
9:I:55:THR:HG23	9:I:100:PHE:HD2	1.72	0.54
10:J:9:SER:HB2	10:J:45:CYS:HB2	1.90	0.54
10:J:1:MET:H1	10:J:57:ILE:N	2.05	0.54
1:M:1445:ILE:H	1:M:1445:ILE:HD12	1.73	0.54
1:M:555:ASP:O	1:M:556:TRP:C	2.46	0.54
1:M:556:TRP:CH2	1:M:558:GLY:HA2	2.43	0.54
1:M:565:ILE:HG23	1:M:567:LYS:CG	2.38	0.54
1:M:710:LEU:H	1:M:710:LEU:CD1	2.18	0.54
1:M:95:PHE:O	1:M:96:ILE:C	2.45	0.54
1:M:335:ARG:NH1	2:N:1206:GLU:CD	2.61	0.54
2:N:114:PRO:CG	2:N:181:LEU:HD11	2.25	0.54
2:N:205:ILE:CD1	2:N:205:ILE:N	2.71	0.54
2:N:526:GLU:OE1	2:N:752:ALA:HB3	2.08	0.54
3:O:67:LEU:HD11	3:O:155:LEU:HD13	1.89	0.54
4:P:220:LEU:HD23	4:P:221:TYR:C	2.28	0.54
1:A:1421:CYS:HA	1:A:1426:GLU:HG3	1.89	0.54
1:A:381:THR:HG22	1:A:383:TYR:H	1.73	0.54
1:A:512:VAL:O	1:A:512:VAL:HG12	2.07	0.54
2:B:33:VAL:HG21	2:B:638:PHE:HZ	1.71	0.54
2:B:955:THR:HG1	12:L:55:ILE:HA	1.72	0.54
3:C:44:LEU:HD21	3:C:159:ALA:CB	2.38	0.54
9:I:73:ARG:HH12	9:I:112:SER:HB3	1.72	0.54
9:I:8:ARG:HG3	9:I:34:TYR:HE1	1.71	0.54
1:M:1011:GLN:NE2	1:M:1015:VAL:CG2	2.71	0.54
1:M:385:ILE:CD1	1:M:426:LEU:HB2	2.37	0.54
1:M:610:GLY:O	1:M:611:GLN:NE2	2.41	0.54
2:N:531:GLN:CG	2:N:532:ALA:H	2.20	0.54
2:N:995:ARG:HB3	2:N:997:GLU:OE2	2.07	0.54
3:O:56:THR:HG22	3:O:57:VAL:N	2.21	0.54
6:R:119:ARG:HH11	6:R:119:ARG:HG3	1.73	0.54
12:X:43:THR:O	12:X:43:THR:HG22	2.08	0.54
2:B:642:ASP:HA	2:B:649:LYS:HG3	1.90	0.54
2:B:898:LEU:HD13	2:B:952:VAL:CG1	2.38	0.54
3:C:148:ARG:HD3	3:C:149:LYS:HG3	1.89	0.54
5:E:144:ILE:HG13	5:E:145:THR:H	1.70	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:23:ASN:C	10:J:25:LEU:N	2.60	0.54
12:L:55:ILE:HD13	12:L:55:ILE:N	2.15	0.54
1:M:963:ILE:HD11	1:M:1048:ASN:HB2	1.89	0.54
1:M:438:ASP:O	1:M:439:ASN:HB2	2.07	0.54
1:M:565:ILE:HG21	1:M:567:LYS:HE2	1.90	0.54
1:M:697:ALA:HA	1:M:702:LEU:HG	1.90	0.54
2:N:167:ILE:HG21	2:N:424:LEU:CD2	2.38	0.54
2:N:805:THR:HG23	2:N:809:MET:SD	2.48	0.54
2:N:999:MET:CE	2:N:999:MET:HA	2.38	0.54
3:O:35:ARG:NH1	11:W:41:THR:H	2.06	0.54
4:P:56:ARG:NH2	4:P:155:ARG:HG2	2.21	0.54
3:O:66:ARG:NH2	10:V:5:VAL:HG23	2.23	0.54
11:W:51:LEU:HD13	11:W:59:ALA:HB3	1.90	0.54
1:A:129:LYS:O	1:A:130:ASP:HB2	2.08	0.53
1:A:838:GLN:O	1:A:842:VAL:HG23	2.08	0.53
2:B:859:TYR:CZ	2:B:941:LEU:HD12	2.43	0.53
8:H:15:VAL:HG21	8:H:49:VAL:O	2.07	0.53
8:H:4:THR:HG22	8:H:5:LEU:N	2.23	0.53
12:L:29:TYR:O	12:L:30:ILE:HG13	2.08	0.53
1:M:1141:THR:OG1	1:M:1205:LYS:HD3	2.08	0.53
1:M:1313:LEU:O	1:M:1315:GLU:N	2.41	0.53
1:M:281:HIS:C	1:M:282:ASN:HD22	2.11	0.53
1:M:537:ARG:NH1	8:T:120:GLY:O	2.41	0.53
1:M:920:LEU:HD23	1:M:921:GLY:N	2.23	0.53
2:N:1115:THR:HG22	2:N:1117:GLN:HG3	1.90	0.53
2:N:398:ARG:NH1	2:N:398:ARG:CB	2.71	0.53
2:N:642:ASP:HB3	2:N:649:LYS:CD	2.38	0.53
2:N:661:LEU:HD11	2:N:684:LEU:HD11	1.90	0.53
4:P:35:LEU:N	4:P:35:LEU:CD1	2.70	0.53
1:A:597:LEU:HD12	1:A:597:LEU:N	2.23	0.53
1:A:714:PHE:O	1:A:718:VAL:HG23	2.08	0.53
2:B:308:TRP:HB2	9:I:2:THR:HG22	1.89	0.53
3:C:97:VAL:HG21	3:C:129:ILE:HG23	1.91	0.53
4:D:29:LEU:H	4:D:29:LEU:CD2	2.22	0.53
6:F:103:MET:HE2	7:G:66:GLY:N	2.21	0.53
7:G:106:MET:HG2	7:G:107:LYS:N	2.23	0.53
7:G:1:MET:HE2	7:G:1:MET:C	2.29	0.53
1:A:567:LYS:HZ1	8:H:46:LEU:HB2	1.73	0.53
2:B:1004:GLU:OE1	10:J:42:LYS:HE2	2.08	0.53
1:M:1215:ARG:NH1	1:M:1272:THR:O	2.40	0.53
1:M:1450:LEU:HG	1:M:1450:LEU:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:381:THR:CG2	1:M:382:PRO:HD2	2.38	0.53
2:N:1177:HIS:HB3	2:N:1179:GLN:HE21	1.73	0.53
2:N:273:LEU:O	2:N:276:ILE:HB	2.08	0.53
2:N:473:MET:CE	2:N:474:SER:HA	2.38	0.53
2:N:809:MET:O	2:N:812:LEU:N	2.40	0.53
3:O:184:ASN:ND2	3:O:189:THR:HB	2.22	0.53
6:R:103:MET:HE1	7:S:66:GLY:H	1.71	0.53
1:M:598:LEU:HA	8:T:122:LEU:HD13	1.90	0.53
8:T:76:THR:O	8:T:77:ARG:HB2	2.07	0.53
13:4:25:DG:C2'	13:4:26:DT:H72	2.38	0.53
13:4:25:DG:H2''	13:4:26:DT:H73	1.90	0.53
1:A:573:SER:O	1:A:576:GLN:HB2	2.07	0.53
1:A:687:LYS:HE2	1:A:795:GLU:OE2	2.09	0.53
1:A:907:THR:CG2	1:A:908:LEU:N	2.71	0.53
2:B:705:MET:HA	2:B:705:MET:CE	2.38	0.53
2:B:809:MET:O	2:B:812:LEU:N	2.40	0.53
2:B:885:MET:HA	2:B:936:ASP:HB2	1.91	0.53
4:D:4:SER:O	4:D:5:THR:CB	2.55	0.53
5:E:180:ARG:HB2	5:E:215:MET:OXT	2.07	0.53
5:E:79:TRP:HE1	5:E:81:GLU:HB2	1.73	0.53
7:G:102:GLN:HG3	7:G:106:MET:O	2.09	0.53
9:I:74:GLU:HB3	9:I:81:ARG:HD2	1.89	0.53
2:B:1004:GLU:HG3	10:J:42:LYS:HZ3	1.71	0.53
10:J:48:ARG:NH1	10:J:48:ARG:HG2	2.23	0.53
11:K:107:THR:O	11:K:111:LEU:HG	2.09	0.53
1:M:1412:ALA:HA	1:M:1417:GLU:OE2	2.09	0.53
1:M:41:MET:O	1:M:42:ASP:C	2.46	0.53
1:M:337:ARG:CD	2:N:1132:GLU:OE1	2.56	0.53
2:N:66:ASP:OD2	2:N:422:LYS:HG2	2.08	0.53
2:N:640:VAL:O	2:N:641:GLU:C	2.46	0.53
4:P:146:GLN:O	4:P:147:TYR:C	2.46	0.53
8:T:38:LEU:HD12	8:T:39:THR:N	2.24	0.53
12:X:66:GLN:HG2	12:X:67:PHE:N	2.23	0.53
1:A:353:ILE:HD13	1:A:487:MET:CG	2.39	0.53
1:A:370:ILE:CG2	1:A:374:LEU:HD12	2.38	0.53
1:A:493:GLN:HE21	1:A:493:GLN:N	2.06	0.53
1:A:567:LYS:HZ1	8:H:43:ASN:HB3	1.73	0.53
8:H:58:THR:HG22	8:H:59:ILE:N	2.21	0.53
1:M:756:ILE:O	1:M:759:ALA:HB3	2.08	0.53
1:M:853:ASP:O	1:M:854:ASN:HB2	2.07	0.53
2:N:1001:PHE:CZ	2:N:1073:TYR:HB2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:190:TYR:CZ	2:N:196:PRO:HG3	2.44	0.53
2:N:277:LYS:HG3	2:N:336:ARG:HG2	1.90	0.53
2:N:313:MET:CE	2:N:390:LEU:HD11	2.38	0.53
2:N:393:LYS:HA	2:N:393:LYS:CE	2.35	0.53
6:R:101:ILE:HD13	6:R:120:ILE:CG2	2.39	0.53
8:T:130:ARG:HD3	8:T:130:ARG:H	1.72	0.53
9:U:106:CYS:O	9:U:107:SER:HB2	2.09	0.53
10:V:14:VAL:CG1	10:V:14:VAL:O	2.56	0.53
10:V:53:HIS:HD2	10:V:54:VAL:H	1.55	0.53
1:A:1141:THR:HA	1:A:1205:LYS:NZ	2.24	0.53
1:A:697:ALA:CB	1:A:702:LEU:HD11	2.36	0.53
2:B:39:ARG:HG2	2:B:39:ARG:HH11	1.73	0.53
3:C:104:PHE:HD2	3:C:105:GLY:N	2.06	0.53
7:G:53:ASN:ND2	7:G:53:ASN:N	2.55	0.53
9:I:50:THR:CG2	9:I:51:ASN:H	2.16	0.53
10:J:27:GLU:C	10:J:29:GLU:H	2.12	0.53
1:M:108:MET:CE	1:M:210:ILE:HD12	2.38	0.53
1:M:720:ARG:O	1:M:720:ARG:HG2	2.08	0.53
2:N:398:ARG:NH1	2:N:398:ARG:HB2	2.24	0.53
8:T:15:VAL:HG21	8:T:49:VAL:O	2.08	0.53
1:A:1025:ARG:HG3	1:A:1025:ARG:HH11	1.72	0.53
1:A:1277:GLU:C	1:A:1279:ILE:H	2.12	0.53
1:A:347:PHE:HE2	1:A:375:THR:HG22	1.73	0.53
1:A:597:LEU:HD23	8:H:103:LYS:HD2	1.89	0.53
1:A:679:ILE:HG23	1:A:729:ALA:HB1	1.90	0.53
1:A:868:TYR:CE1	1:A:1064:VAL:CG1	2.92	0.53
1:A:961:ARG:HG2	1:A:965:GLN:NE2	2.24	0.53
2:B:766:ARG:HH21	2:B:1020:ARG:CD	2.19	0.53
3:C:22:LEU:HD22	3:C:230:MET:CE	2.37	0.53
7:G:139:ILE:HG23	7:G:140:LYS:H	1.72	0.53
10:J:30:LEU:HD21	10:J:38:ARG:HH12	1.74	0.53
1:M:1148:ILE:HD11	1:M:1198:ASP:HA	1.89	0.53
1:M:198:GLU:O	1:M:198:GLU:HG2	2.07	0.53
1:M:35:ILE:HD13	1:M:241:VAL:HG11	1.89	0.53
1:M:399:HIS:O	1:M:400:PRO:C	2.41	0.53
1:M:913:LEU:HD13	1:M:981:LEU:O	2.09	0.53
2:N:1065:GLN:NE2	2:N:1066:SER:N	2.56	0.53
2:N:1161:HIS:NE2	2:N:1175:LEU:HD21	2.23	0.53
2:N:53:GLN:HG2	2:N:547:VAL:HG22	1.90	0.53
2:N:696:GLU:O	2:N:699:GLU:HB2	2.09	0.53
2:N:90:ILE:CD1	2:N:432:MET:SD	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:252:PHE:HB2	1:A:256:GLN:CD	2.28	0.53
1:A:901:LEU:H	1:A:926:GLN:CD	2.12	0.53
2:B:427:ASP:HA	2:B:430:ARG:HG3	1.90	0.53
3:C:172:PRO:O	3:C:235:VAL:HG23	2.09	0.53
3:C:193:TYR:C	3:C:193:TYR:CD1	2.81	0.53
3:C:221:TYR:CD2	8:H:46:LEU:HD22	2.44	0.53
6:F:108:PHE:O	6:F:129:LYS:HD3	2.07	0.53
1:M:1107:VAL:O	1:M:1107:VAL:HG12	2.08	0.53
1:M:186:LYS:NZ	1:M:197:PRO:HD3	2.23	0.53
1:M:323:LYS:HD2	1:M:323:LYS:N	2.23	0.53
1:M:518:LYS:HB2	1:M:519:PRO:HD2	1.91	0.53
1:M:541:ILE:CD1	1:M:549:MET:HE1	2.30	0.53
1:M:69:THR:O	1:M:70:CYS:C	2.47	0.53
2:N:1110:PRO:HB2	2:N:1119:VAL:HG11	1.91	0.53
3:O:44:LEU:CD2	3:O:159:ALA:HB1	2.39	0.53
2:N:798:TYR:HE2	3:O:62:PHE:CE2	2.27	0.53
4:P:190:GLU:O	4:P:193:THR:HG22	2.09	0.53
10:V:23:ASN:C	10:V:25:LEU:N	2.61	0.53
10:V:51:LEU:O	10:V:51:LEU:HD12	2.09	0.53
3:O:252:GLN:HE21	11:W:95:ILE:HG22	1.74	0.53
3:O:252:GLN:CG	11:W:95:ILE:HG23	2.35	0.53
1:A:675:THR:HG21	1:A:736:ASN:HB2	1.90	0.53
2:B:171:PRO:HD2	2:B:457:LEU:CD1	2.39	0.53
2:B:100:PRO:HD2	2:B:180:TYR:CE1	2.43	0.53
3:C:181:ASP:OD1	3:C:186:LEU:HD13	2.09	0.53
3:C:251:LEU:O	3:C:255:VAL:HG23	2.08	0.53
7:G:126:ASN:C	7:G:126:ASN:HD22	2.12	0.53
7:G:35:GLU:CG	7:G:48:VAL:HG23	2.38	0.53
1:M:310:GLY:O	1:M:312:PRO:CD	2.56	0.53
1:M:493:GLN:HE21	1:M:493:GLN:N	2.06	0.53
1:M:967:ALA:HA	1:M:1044:TRP:CZ3	2.43	0.53
2:N:1004:GLU:HG3	10:V:42:LYS:NZ	2.24	0.53
2:N:807:ARG:HD3	2:N:1043:ASP:OD1	2.09	0.53
2:N:878:GLN:HB2	2:N:879:ARG:NH1	2.24	0.53
2:N:887:HIS:CD2	2:N:887:HIS:N	2.75	0.53
4:P:12:ARG:HD3	4:P:14:ARG:HG2	1.90	0.53
9:U:34:TYR:HD2	9:U:35:VAL:N	2.05	0.53
2:N:801:LYS:O	10:V:52:THR:HG23	2.09	0.53
15:3:5:C:H2'	15:3:6:A:C8	2.42	0.53
1:A:1394:THR:HG21	1:A:1398:MET:SD	2.49	0.53
1:A:186:LYS:NZ	1:A:197:PRO:HD3	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:326:ARG:HG3	1:A:1406:VAL:HG21	1.91	0.53
2:B:288:ALA:CB	2:B:331:LEU:HD12	2.32	0.53
2:B:37:PHE:HE2	2:B:542:MET:HA	1.74	0.53
2:B:552:MET:HE2	2:B:552:MET:HA	1.91	0.53
2:B:640:VAL:O	2:B:641:GLU:C	2.46	0.53
2:B:806:THR:HG21	2:B:808:ALA:HB3	1.91	0.53
2:B:860:MET:HG2	2:B:861:ASP:N	2.24	0.53
3:C:133:ILE:HD12	3:C:237:SER:N	2.24	0.53
3:C:245:VAL:HG13	11:K:102:LYS:HG3	1.91	0.53
3:C:67:LEU:HA	3:C:70:ILE:HD12	1.91	0.53
9:I:16:PRO:HB3	9:I:27:PHE:CE2	2.44	0.53
10:J:3:VAL:HG21	10:J:18:TRP:CG	2.44	0.53
1:M:524:VAL:HG12	1:M:525:GLN:N	2.22	0.53
1:M:62:ASP:O	1:M:64:ASN:N	2.41	0.53
2:N:225:VAL:HA	2:N:237:VAL:O	2.08	0.53
2:N:878:GLN:O	2:N:879:ARG:C	2.47	0.53
3:O:45:ALA:HA	3:O:72:LEU:HD12	1.89	0.53
4:P:150:ASN:HB2	4:P:151:PHE:CD1	2.44	0.53
1:A:1403:GLU:O	13:1:16:DT:OP1	2.27	0.53
2:B:291:ILE:HD13	2:B:300:HIS:NE2	2.24	0.53
2:B:269:ILE:HD11	2:B:386:LEU:HD21	1.90	0.53
3:C:166:GLU:HG3	11:K:10:PHE:HZ	1.74	0.53
4:D:155:ARG:HH21	4:D:221:TYR:HD1	1.56	0.53
1:M:1018:PHE:O	1:M:1021:LEU:HB3	2.08	0.53
1:M:1139:GLU:HG2	1:M:1139:GLU:O	2.07	0.53
1:M:313:GLN:O	1:M:314:ALA:C	2.47	0.53
1:M:598:LEU:CD1	8:T:124:ARG:HB2	2.40	0.53
1:M:608:ILE:HG13	1:M:613:ILE:HD12	1.91	0.53
1:M:709:THR:CG2	1:M:710:LEU:N	2.72	0.53
2:N:763:GLN:HG2	2:N:765:PRO:CD	2.34	0.53
3:O:10:ILE:HG22	3:O:11:ARG:O	2.09	0.53
5:Q:112:TYR:OH	5:Q:136:ASN:HB2	2.09	0.53
1:A:1254:ALA:O	1:A:1255:GLU:CB	2.57	0.52
1:A:1345:ARG:HG2	1:A:1372:VAL:HG12	1.91	0.52
1:A:1349:TYR:CD2	1:A:1349:TYR:C	2.82	0.52
2:B:1190:ASP:C	2:B:1191:ILE:HG13	2.30	0.52
2:B:309:GLN:CD	9:I:52:ILE:HD11	2.30	0.52
2:B:90:ILE:CD1	2:B:432:MET:SD	2.97	0.52
2:B:594:ALA:HA	2:B:617:ARG:NH1	2.24	0.52
3:C:51:VAL:HG22	3:C:155:LEU:CD2	2.37	0.52
7:G:7:LEU:HD13	7:G:45:ILE:HD11	1.89	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1259:MET:O	1:M:1259:MET:HE3	2.10	0.52
1:M:253:ASN:ND2	2:N:935:ARG:HB2	2.24	0.52
1:M:316:GLN:HE21	1:M:317:LYS:CE	2.17	0.52
1:M:982:THR:HB	1:M:985:ASP:H	1.72	0.52
2:N:620:ARG:HH12	9:U:68:LEU:HD21	1.73	0.52
2:N:680:THR:OG1	2:N:681:TRP:N	2.40	0.52
2:N:803:LEU:HD13	2:N:1032:SER:O	2.09	0.52
2:N:811:TYR:HD1	2:N:811:TYR:H	1.57	0.52
6:R:100:GLN:NE2	7:S:61:ILE:HD13	2.24	0.52
8:T:84:ALA:C	8:T:86:ASP:N	2.61	0.52
9:U:69:PRO:HB2	9:U:85:PHE:CZ	2.44	0.52
1:A:1114:PRO:O	1:A:1311:VAL:HG23	2.09	0.52
1:A:1433:MET:CE	7:G:63:PRO:HB2	2.40	0.52
1:A:62:ASP:O	1:A:64:ASN:N	2.42	0.52
1:A:7:SER:OG	2:B:1161:HIS:CE1	2.62	0.52
1:A:946:VAL:HG12	1:A:947:PHE:CD2	2.44	0.52
2:B:427:ASP:HA	2:B:430:ARG:CD	2.39	0.52
3:C:67:LEU:HD11	3:C:155:LEU:HD13	1.91	0.52
1:A:537:ARG:NH1	8:H:120:GLY:O	2.42	0.52
8:H:135:LEU:HB2	8:H:137:GLN:HE21	1.75	0.52
8:H:40:LEU:HD12	8:H:123:MET:HG3	1.91	0.52
2:B:193:LYS:NZ	12:L:32:ALA:HB1	2.24	0.52
1:M:556:TRP:CZ2	1:M:558:GLY:HA2	2.44	0.52
1:M:523:ILE:HG12	1:M:622:VAL:HG22	1.90	0.52
1:M:670:ILE:HG23	1:M:805:LEU:HD21	1.91	0.52
2:N:216:GLU:HA	2:N:406:LEU:HD23	1.92	0.52
2:N:546:SER:OG	2:N:631:GLY:N	2.43	0.52
2:N:733:HIS:O	2:N:735:ALA:N	2.41	0.52
3:O:179:GLU:HG2	3:O:180:TYR:H	1.74	0.52
3:O:242:GLN:OE1	3:O:242:GLN:HA	2.08	0.52
4:P:146:GLN:HA	4:P:149:THR:HG22	1.91	0.52
5:Q:156:LEU:HA	5:Q:160:GLU:OE1	2.09	0.52
1:A:1015:VAL:CG1	1:A:1019:CYS:SG	2.97	0.52
2:B:1073:TYR:CE2	2:B:1080:LYS:HG2	2.44	0.52
2:B:235:SER:OG	2:B:236:HIS:CD2	2.63	0.52
2:B:225:VAL:HA	2:B:237:VAL:O	2.09	0.52
2:B:498:THR:HG22	2:B:537:LYS:H	1.75	0.52
2:B:618:ASP:O	2:B:622:LYS:N	2.42	0.52
5:E:178:ILE:HG22	5:E:213:ILE:O	2.09	0.52
6:F:74:ILE:HD12	6:F:144:GLU:HG2	1.90	0.52
8:H:95:TYR:HE2	8:H:97:MET:CG	2.22	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1209:MET:CE	1:M:1236:LEU:HB3	2.38	0.52
1:M:929:LEU:HD21	1:M:983:ILE:CG2	2.40	0.52
2:N:1056:SER:HB3	2:N:1066:SER:OG	2.09	0.52
2:N:479:VAL:O	2:N:480:SER:HB3	2.08	0.52
2:N:954:VAL:O	12:X:55:ILE:O	2.26	0.52
7:S:21:ARG:HD2	7:S:24:GLN:HB3	1.89	0.52
7:S:45:ILE:O	7:S:45:ILE:HG22	2.10	0.52
11:W:21:ILE:HG22	11:W:31:VAL:HG11	1.92	0.52
1:A:993:LEU:HD22	1:A:1046:LEU:HD22	1.91	0.52
1:A:1148:ILE:HG12	1:A:1198:ASP:HB2	1.90	0.52
2:B:1079:LYS:HA	3:C:27:LEU:HD21	1.90	0.52
2:B:1187:ASN:OD1	2:B:1188:LYS:N	2.42	0.52
2:B:278:GLN:HG2	2:B:279:ASP:N	2.22	0.52
2:B:875:GLU:O	2:B:877:PRO:HD3	2.09	0.52
7:G:13:LEU:HD21	7:G:17:PHE:CB	2.39	0.52
7:G:88:ASP:HB3	7:G:144:ARG:HA	1.91	0.52
7:G:1:MET:CE	7:G:80:LYS:H	2.22	0.52
1:M:347:PHE:HE2	1:M:375:THR:HG23	1.74	0.52
1:M:794:PRO:C	1:M:796:SER:H	2.12	0.52
2:N:167:ILE:HD12	2:N:167:ILE:N	2.24	0.52
2:N:95:ILE:HG13	2:N:130:VAL:HG22	1.91	0.52
4:P:27:LEU:HG	4:P:197:SER:HB3	1.90	0.52
5:Q:114:ASN:O	5:Q:115:ASN:CB	2.47	0.52
5:Q:30:ILE:HG23	5:Q:34:GLU:HG2	1.91	0.52
7:S:27:LYS:O	7:S:31:LEU:HG	2.09	0.52
1:A:208:LEU:HD21	1:A:212:LYS:HE3	1.90	0.52
1:A:335:ARG:NH1	2:B:1202:LEU:HD13	2.24	0.52
1:A:497:THR:HG23	2:B:1146:PHE:HD1	1.75	0.52
1:A:549:MET:SD	1:A:577:ILE:HD12	2.49	0.52
2:B:733:HIS:O	2:B:735:ALA:N	2.42	0.52
1:A:852:TYR:CE1	6:F:136:ARG:HG2	2.45	0.52
11:K:51:LEU:HD13	11:K:59:ALA:HB3	1.92	0.52
12:L:58:LYS:HG2	12:L:58:LYS:O	2.10	0.52
1:M:470:LEU:CD2	1:M:470:LEU:N	2.73	0.52
2:N:418:LYS:HE2	2:N:422:LYS:HZ1	1.74	0.52
2:N:521:LEU:HB3	2:N:633:VAL:HG11	1.91	0.52
3:O:18:VAL:HG23	3:O:240:VAL:HB	1.90	0.52
3:O:193:TYR:CD1	3:O:193:TYR:C	2.82	0.52
2:N:801:LYS:O	10:V:52:THR:CG2	2.58	0.52
1:A:1141:THR:OG1	1:A:1205:LYS:HD3	2.10	0.52
1:A:964:ILE:O	1:A:967:ALA:HB3	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:203:PHE:N	2:B:203:PHE:CD1	2.78	0.52
2:B:519:TRP:C	2:B:519:TRP:CD1	2.83	0.52
2:B:616:ILE:HD12	2:B:625:LYS:O	2.10	0.52
2:B:684:LEU:O	2:B:689:LEU:HB2	2.10	0.52
2:B:916:THR:HB	2:B:935:ARG:CG	2.38	0.52
2:B:95:ILE:HG13	2:B:130:VAL:CG2	2.39	0.52
8:H:106:GLU:HA	8:H:112:ILE:HD12	1.92	0.52
1:M:1081:LEU:CD1	1:M:1097:GLY:HA3	2.36	0.52
1:M:458:HIS:NE2	1:M:478:TYR:OH	2.33	0.52
2:N:473:MET:HE1	2:N:474:SER:HA	1.92	0.52
2:N:527:THR:OG1	2:N:528:PRO:HD2	2.10	0.52
2:N:63:ILE:HD12	2:N:421:PHE:CE2	2.45	0.52
2:N:911:ILE:HG22	2:N:966:VAL:HG21	1.92	0.52
4:P:14:ARG:CB	4:P:14:ARG:NH1	2.72	0.52
5:Q:121:MET:C	5:Q:123:LEU:H	2.12	0.52
11:W:55:LYS:HB2	11:W:81:TYR:CD1	2.45	0.52
13:4:16:DT:H5'	13:4:16:DT:C6	2.37	0.52
15:6:5:C:H2'	15:6:6:A:H8	1.75	0.52
1:A:317:LYS:O	1:A:318:SER:HB3	2.10	0.52
1:A:567:LYS:HB3	8:H:95:TYR:HA	1.90	0.52
2:B:837:ASP:OD2	2:B:1020:ARG:NH2	2.43	0.52
2:B:758:PHE:CE1	2:B:1027:ILE:CG2	2.93	0.52
2:B:1084:GLN:NE2	2:B:1084:GLN:H	2.07	0.52
2:B:398:ARG:HB3	2:B:398:ARG:HH11	1.74	0.52
2:B:486:TYR:N	2:B:486:TYR:CD2	2.76	0.52
9:I:50:THR:HG22	9:I:52:ILE:N	2.24	0.52
1:M:503:GLN:NE2	6:R:90:ARG:NH2	2.53	0.52
1:M:57:ARG:O	1:M:68:GLN:HG2	2.09	0.52
1:M:710:LEU:N	1:M:710:LEU:HD12	2.21	0.52
1:M:72:GLU:HB3	1:M:76:GLU:HG2	1.91	0.52
1:M:820:GLY:O	1:M:822:GLU:N	2.43	0.52
2:N:102:VAL:CG2	2:N:112:LEU:HD13	2.39	0.52
2:N:1177:HIS:CB	2:N:1179:GLN:NE2	2.73	0.52
2:N:273:LEU:CD2	2:N:360:PHE:HD1	2.22	0.52
2:N:579:ARG:HG2	2:N:579:ARG:NH1	2.23	0.52
2:N:686:ASN:C	2:N:688:GLY:H	2.13	0.52
5:Q:190:LEU:C	5:Q:191:LYS:HG2	2.30	0.52
6:R:82:THR:HG22	6:R:84:TYR:N	2.15	0.52
7:S:49:LEU:HD11	7:S:77:VAL:HG23	1.91	0.52
9:U:19:ASP:CB	9:U:24:ARG:HG2	2.38	0.52
13:1:23:BRU:C5'	13:1:23:BRU:H6	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1:25:DG:C2'	13:1:26:DT:H72	2.39	0.52
1:A:1120:LEU:CD2	1:A:1125:ALA:HA	2.40	0.52
1:A:1225:PHE:HE2	1:A:1227:ILE:HD11	1.73	0.52
1:A:265:LYS:HA	1:A:265:LYS:CE	2.39	0.52
1:A:399:HIS:CB	1:A:400:PRO:CD	2.87	0.52
1:A:41:MET:O	1:A:50:ILE:HG13	2.10	0.52
1:A:34:LYS:HZ2	1:A:57:ARG:HH22	1.58	0.52
1:A:870:GLU:HB2	5:E:204:THR:HG21	1.91	0.52
2:B:39:ARG:HG2	2:B:39:ARG:NH1	2.25	0.52
2:B:526:GLU:HG3	2:B:771:SER:HB3	1.90	0.52
2:B:601:ARG:HD3	2:B:605:ARG:CZ	2.40	0.52
2:B:801:LYS:O	10:J:52:THR:CG2	2.58	0.52
4:D:120:GLU:OE1	4:D:120:GLU:O	2.27	0.52
6:F:97:ARG:HD3	6:F:130:ILE:HG23	1.92	0.52
1:M:107:CYS:HB2	1:M:114:LEU:HD21	1.92	0.52
1:M:1149:ALA:CB	9:U:47:GLU:HA	2.40	0.52
1:M:1237:ILE:HG22	1:M:1238:ILE:N	2.23	0.52
1:M:117:GLU:HA	1:M:123:ARG:HG3	1.90	0.52
1:M:1437:GLY:O	1:M:1439:GLY:N	2.43	0.52
1:M:682:THR:HG23	1:M:728:LYS:HE3	1.90	0.52
2:N:357:GLN:CD	2:N:368:GLU:HA	2.30	0.52
2:N:466:TRP:HA	2:N:466:TRP:CE3	2.44	0.52
2:N:552:MET:HA	2:N:552:MET:HE3	1.91	0.52
4:P:193:THR:CG2	4:P:194:LEU:N	2.72	0.52
4:P:5:THR:O	4:P:5:THR:HG23	2.09	0.52
5:Q:112:TYR:CE1	5:Q:136:ASN:HA	2.45	0.52
5:Q:195:VAL:HG22	5:Q:213:ILE:HG13	1.91	0.52
7:S:139:ILE:HG12	7:S:140:LYS:CG	2.40	0.52
8:T:4:THR:HG22	8:T:6:PHE:H	1.74	0.52
3:O:35:ARG:NH1	11:W:41:THR:OG1	2.43	0.52
13:1:23:BRU:H2''	13:1:24:DG:O5'	2.09	0.52
1:A:873:MET:C	1:A:1058:VAL:HG23	2.30	0.52
2:B:98:THR:O	2:B:126:SER:HB2	2.09	0.52
2:B:126:SER:HB3	2:B:172:ILE:HD11	1.92	0.52
2:B:638:PHE:CD2	2:B:690:VAL:HG12	2.44	0.52
2:B:707:PRO:HG2	2:B:708:GLU:N	2.23	0.52
2:B:807:ARG:NH1	2:B:807:ARG:HB3	2.24	0.52
2:B:911:ILE:HG22	2:B:966:VAL:HG21	1.90	0.52
3:C:70:ILE:HD11	3:C:144:ILE:HG12	1.92	0.52
6:F:101:ILE:HD13	6:F:120:ILE:HG22	1.90	0.52
7:G:153:GLN:HG2	7:G:154:VAL:HG23	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:11:GLN:O	8:H:28:ALA:HB1	2.10	0.52
8:H:44:VAL:CG1	8:H:48:PRO:HA	2.40	0.52
8:H:59:ILE:O	8:H:60:ALA:HB3	2.10	0.52
3:C:66:ARG:CZ	10:J:2:ILE:HG21	2.40	0.52
1:M:1202:MET:CE	1:M:1212:VAL:HG21	2.40	0.52
1:M:1299:VAL:HG12	1:M:1300:LYS:N	2.25	0.52
1:M:1315:GLU:C	1:M:1317:MET:H	2.13	0.52
1:M:148:CYS:HB3	1:M:167:CYS:O	2.09	0.52
2:N:707:PRO:O	2:N:708:GLU:O	2.27	0.52
3:O:112:ASN:HB3	3:O:114:TYR:CE1	2.45	0.52
4:P:185:CYS:SG	4:P:191:ALA:HA	2.50	0.52
8:T:11:GLN:O	8:T:28:ALA:HB1	2.09	0.52
8:T:26:ILE:HD12	8:T:42:ILE:HD13	1.92	0.52
9:U:111:THR:CG2	9:U:113:ASP:HB2	2.39	0.52
9:U:17:ARG:HG2	9:U:28:GLU:HG2	1.92	0.52
10:V:30:LEU:HD22	10:V:34:THR:HB	1.92	0.52
13:1:16:DT:H5'	13:1:16:DT:C6	2.37	0.52
13:4:25:DG:H2''	13:4:26:DT:H72	1.92	0.52
1:A:1149:ALA:CB	9:I:47:GLU:HA	2.40	0.52
1:A:390:GLN:O	1:A:394:ASN:HB2	2.10	0.52
1:A:41:MET:O	1:A:42:ASP:C	2.48	0.52
1:A:826:ASP:O	1:A:830:LYS:HB2	2.09	0.52
1:A:898:ARG:HD2	1:A:899:VAL:N	2.24	0.52
2:B:1098:MET:HE3	2:B:1101:ASP:OD2	2.10	0.52
2:B:1115:THR:HG22	2:B:1117:GLN:CB	2.40	0.52
2:B:345:LYS:CG	2:B:346:GLU:N	2.72	0.52
2:B:31:TRP:CZ3	2:B:34:ILE:HD12	2.44	0.52
2:B:43:LEU:HD23	2:B:43:LEU:N	2.25	0.52
3:C:220:ASP:OD2	3:C:223:ALA:HB2	2.10	0.52
5:E:48:ASP:CG	5:E:49:SER:N	2.59	0.52
9:I:15:TYR:CD1	9:I:15:TYR:N	2.76	0.52
1:M:222:LEU:O	1:M:224:PHE:HD1	1.92	0.52
1:M:754:SER:N	1:M:757:ASN:HD22	1.98	0.52
2:N:653:VAL:HG23	2:N:689:LEU:HB3	1.92	0.52
1:A:108:MET:CA	1:A:210:ILE:HD13	2.28	0.51
1:A:55:ASP:CG	1:A:55:ASP:O	2.46	0.51
1:A:709:THR:CG2	1:A:710:LEU:N	2.73	0.51
1:A:903:ASN:ND2	1:A:903:ASN:C	2.62	0.51
2:B:102:VAL:CG2	2:B:112:LEU:HD13	2.40	0.51
2:B:604:ARG:HH21	2:B:614:SER:HA	1.75	0.51
2:B:642:ASP:CA	2:B:649:LYS:HA	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:73:GLN:HE21	3:C:75:MET:N	2.03	0.51
4:D:29:LEU:N	4:D:29:LEU:CD2	2.73	0.51
4:D:33:PHE:CE1	7:G:80:LYS:HD3	2.46	0.51
8:H:4:THR:HG22	8:H:6:PHE:H	1.73	0.51
2:B:954:VAL:O	12:L:55:ILE:O	2.27	0.51
2:N:837:ASP:OD2	2:N:1020:ARG:NH2	2.44	0.51
2:N:120:ARG:NH1	12:X:54:ARG:HD2	2.24	0.51
2:N:390:LEU:O	2:N:392:ARG:HG3	2.10	0.51
2:N:557:PHE:CZ	2:N:603:LEU:HD11	2.45	0.51
2:N:601:ARG:O	2:N:605:ARG:HG3	2.11	0.51
2:N:1063:GLY:O	3:O:202:PRO:HG2	2.09	0.51
4:P:118:THR:HG21	4:P:121:LYS:CD	2.40	0.51
4:P:216:ASN:C	4:P:218:GLU:H	2.13	0.51
4:P:29:LEU:N	4:P:29:LEU:CD2	2.73	0.51
8:T:84:ALA:O	8:T:85:GLY:C	2.49	0.51
8:T:84:ALA:CA	8:T:87:ARG:HB2	2.39	0.51
8:T:99:GLY:CA	8:T:118:PHE:HD2	2.23	0.51
10:V:2:ILE:HG12	10:V:57:ILE:HD13	1.91	0.51
13:4:23:BRU:H6	13:4:23:BRU:C5'	2.35	0.51
1:A:313:GLN:O	1:A:315:LEU:HD23	2.09	0.51
1:A:756:ILE:O	1:A:759:ALA:HB3	2.10	0.51
1:A:899:VAL:CG2	1:A:908:LEU:HD21	2.40	0.51
2:B:546:SER:OG	2:B:631:GLY:N	2.43	0.51
2:B:299:GLU:OE2	2:B:571:PRO:HG2	2.10	0.51
2:B:69:LEU:HB3	2:B:429:PHE:HE1	1.73	0.51
2:B:906:SER:O	2:B:907:GLY:C	2.48	0.51
3:C:116:LYS:HD3	3:C:140:ASN:HA	1.92	0.51
3:C:184:ASN:OD1	3:C:187:LYS:CA	2.58	0.51
3:C:91:HIS:C	3:C:91:HIS:CD2	2.82	0.51
5:E:124:VAL:HB	5:E:125:PRO:CD	2.40	0.51
6:F:109:VAL:HG13	6:F:127:GLU:OE1	2.09	0.51
9:I:82:GLU:OE2	9:I:104:LEU:HB2	2.10	0.51
2:B:824:ILE:CG1	10:J:48:ARG:HH12	2.15	0.51
1:M:1120:LEU:CD2	1:M:1125:ALA:HA	2.40	0.51
1:M:38:PRO:CA	1:M:270:LEU:HD23	2.41	0.51
1:M:596:THR:C	1:M:598:LEU:N	2.62	0.51
1:M:761:MET:HA	1:M:804:TYR:HB2	1.93	0.51
2:N:916:THR:HB	2:N:935:ARG:HG3	1.92	0.51
3:O:212:PRO:HB3	3:O:213:PRO:HD2	1.92	0.51
4:P:202:ILE:HG23	4:P:202:ILE:O	2.09	0.51
4:P:214:LEU:O	4:P:218:GLU:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:61:GLN:HG2	5:Q:62:ALA:N	2.24	0.51
5:Q:74:ASP:N	5:Q:74:ASP:OD1	2.43	0.51
7:S:91:VAL:CG1	7:S:92:VAL:N	2.72	0.51
8:T:89:LEU:HB2	8:T:91:ASP:CG	2.30	0.51
14:5:5:DC:H2'	14:5:6:DT:H72	1.91	0.51
1:A:1241:ARG:O	1:A:1242:VAL:HB	2.09	0.51
1:A:1317:MET:O	1:A:1322:ILE:HD11	2.10	0.51
2:B:370:PHE:CD2	2:B:373:ARG:CD	2.93	0.51
2:B:90:ILE:HD12	2:B:432:MET:HE1	1.91	0.51
2:B:878:GLN:CB	2:B:879:ARG:HH11	2.23	0.51
4:D:20:GLU:HG2	4:D:20:GLU:O	2.11	0.51
6:F:103:MET:O	6:F:104:ASN:HB2	2.10	0.51
6:F:97:ARG:HH21	6:F:108:PHE:HE1	1.54	0.51
7:G:106:MET:CG	7:G:107:LYS:N	2.72	0.51
8:H:130:ARG:HA	8:H:133:ASN:HB2	1.93	0.51
8:H:30:SER:CB	8:H:36:CYS:HB3	2.41	0.51
1:M:1325:THR:HG22	1:M:1326:ARG:HG3	1.91	0.51
1:M:313:GLN:O	1:M:315:LEU:HD23	2.11	0.51
1:M:463:ILE:HD12	1:M:469:ARG:HD2	1.91	0.51
1:M:720:ARG:O	1:M:724:GLU:HB3	2.11	0.51
2:N:345:LYS:HG3	2:N:346:GLU:H	1.75	0.51
2:N:806:THR:HG21	2:N:808:ALA:HB3	1.92	0.51
3:O:186:LEU:CD2	3:O:225:ALA:HB2	2.41	0.51
5:Q:56:LYS:NZ	5:Q:84:ASP:N	2.58	0.51
6:R:75:PRO:HG3	6:R:78:GLN:OE1	2.10	0.51
8:T:59:ILE:O	8:T:60:ALA:HB3	2.10	0.51
8:T:89:LEU:O	8:T:91:ASP:N	2.43	0.51
12:X:47:ARG:CD	12:X:52:GLY:HA2	2.40	0.51
1:A:833:GLU:OE2	1:A:1102:LYS:HE3	2.10	0.51
1:A:1170:ILE:HG22	1:A:1174:PHE:HE1	1.75	0.51
1:A:153:PRO:HB3	1:A:161:LEU:HD22	1.91	0.51
1:A:347:PHE:HE2	1:A:375:THR:CG2	2.23	0.51
1:A:89:PRO:C	1:A:204:THR:HG21	2.30	0.51
2:B:273:LEU:O	2:B:276:ILE:HB	2.10	0.51
2:B:515:HIS:CD2	2:B:517:THR:HG23	2.46	0.51
2:B:603:LEU:HB3	2:B:609:ILE:HD11	1.92	0.51
2:B:63:ILE:HD12	2:B:421:PHE:CE2	2.46	0.51
2:B:984:HIS:NE2	2:B:1025:HIS:HA	2.25	0.51
3:C:10:ILE:HG22	3:C:11:ARG:O	2.10	0.51
3:C:252:GLN:HG3	11:K:95:ILE:HG23	1.93	0.51
1:M:1035:TYR:O	1:M:1036:ARG:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:106:VAL:HG21	1:M:214:ILE:CD1	2.40	0.51
1:M:567:LYS:CG	1:M:568:PRO:CD	2.85	0.51
1:M:740:LEU:HD12	1:M:741:ASN:N	2.25	0.51
1:M:963:ILE:HD11	1:M:1048:ASN:CB	2.40	0.51
2:N:1167:GLY:HA3	2:N:1216:LEU:N	2.25	0.51
2:N:258:LEU:O	2:N:258:LEU:HG	2.09	0.51
2:N:273:LEU:HD22	2:N:360:PHE:HD1	1.76	0.51
2:N:549:THR:HG22	2:N:550:ASP:H	1.71	0.51
2:N:906:SER:O	2:N:907:GLY:C	2.48	0.51
5:Q:161:LYS:HD2	5:Q:195:VAL:HG23	1.92	0.51
9:U:34:TYR:HE2	9:U:36:GLU:HB3	1.75	0.51
9:U:58:VAL:HG13	9:U:62:ILE:HD13	1.91	0.51
9:U:84:VAL:HG12	9:U:104:LEU:HD21	1.93	0.51
10:V:54:VAL:O	10:V:56:LEU:N	2.42	0.51
11:W:49:GLU:HG3	11:W:94:ILE:CG1	2.40	0.51
12:X:28:LYS:HE3	12:X:39:SER:OG	2.10	0.51
1:A:381:THR:HG23	1:A:382:PRO:HD2	1.93	0.51
1:A:399:HIS:O	1:A:400:PRO:C	2.49	0.51
2:B:37:PHE:HE1	2:B:41:LYS:HD3	1.75	0.51
2:B:558:LEU:O	2:B:561:TRP:N	2.44	0.51
2:B:879:ARG:N	2:B:879:ARG:NE	2.56	0.51
3:C:263:THR:O	3:C:266:ASP:HB2	2.10	0.51
7:G:27:LYS:HE2	7:G:54:ILE:HB	1.93	0.51
11:K:47:ARG:HD3	11:K:59:ALA:O	2.11	0.51
1:M:1148:ILE:O	1:M:1149:ALA:HB2	2.10	0.51
1:M:1193:LEU:HD12	1:M:1194:ARG:N	2.26	0.51
1:M:857:ARG:HD3	1:M:861:GLY:O	2.11	0.51
1:M:901:LEU:HB2	1:M:926:GLN:HG2	1.91	0.51
2:N:345:LYS:HG2	2:N:346:GLU:H	1.73	0.51
2:N:594:ALA:N	2:N:617:ARG:HH12	2.08	0.51
2:N:39:ARG:HH21	2:N:665:GLU:CD	2.13	0.51
5:Q:83:CYS:SG	5:Q:85:GLU:HB2	2.51	0.51
8:T:18:GLY:O	8:T:19:ARG:HB2	2.11	0.51
10:V:25:LEU:O	10:V:29:GLU:HA	2.11	0.51
13:4:23:BRU:H2''	13:4:24:DG:O5'	2.10	0.51
1:A:1141:THR:HG23	1:A:1205:LYS:HD3	1.92	0.51
1:A:1267:MET:HA	1:A:1271:ILE:HD12	1.91	0.51
2:B:37:PHE:HE1	2:B:41:LYS:CD	2.24	0.51
2:B:999:MET:HB3	2:B:1007:VAL:HG21	1.92	0.51
5:E:94:LYS:O	5:E:98:ILE:HG13	2.10	0.51
5:E:169:ARG:HD3	6:F:140:ASP:CG	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:26:ILE:CD1	8:H:49:VAL:HG11	2.41	0.51
8:H:89:LEU:O	8:H:91:ASP:N	2.43	0.51
10:J:54:VAL:O	10:J:56:LEU:N	2.42	0.51
1:M:298:PHE:CZ	1:M:314:ALA:HB2	2.46	0.51
1:M:597:LEU:N	1:M:597:LEU:HD12	2.25	0.51
1:M:744:LYS:HD3	1:M:748:MET:HE1	1.93	0.51
2:N:1037:LEU:HD21	2:N:1064:TYR:CE1	2.43	0.51
2:N:121:ASN:HD22	2:N:207:GLY:HA3	1.75	0.51
2:N:124:TYR:OH	2:N:179:CYS:SG	2.68	0.51
3:O:248:ILE:CD1	11:W:101:LEU:HD22	2.39	0.51
3:O:91:HIS:C	3:O:91:HIS:CD2	2.83	0.51
7:G:97:HIS:HE1	7:S:93:SER:HB2	1.75	0.51
10:V:30:LEU:HD11	10:V:38:ARG:HH11	1.76	0.51
11:W:107:THR:O	11:W:111:LEU:HG	2.11	0.51
1:A:1148:ILE:O	1:A:1149:ALA:HB2	2.10	0.51
1:A:1227:ILE:HG22	1:A:1228:TRP:H	1.76	0.51
1:A:860:LEU:HD11	1:A:1393:ASN:HB2	1.92	0.51
1:A:224:PHE:HD2	1:A:229:SER:O	1.93	0.51
1:A:49:LYS:HE2	1:A:61:ILE:CD1	2.38	0.51
2:B:259:TYR:HD1	2:B:259:TYR:H	1.59	0.51
2:B:276:ILE:HA	2:B:336:ARG:O	2.10	0.51
2:B:792:MET:HG2	2:B:855:PHE:HE1	1.76	0.51
2:B:878:GLN:O	2:B:879:ARG:C	2.49	0.51
4:D:130:LEU:O	4:D:132:GLN:N	2.41	0.51
5:E:32:GLN:HG3	5:E:36:GLU:OE2	2.11	0.51
1:A:537:ARG:HD2	8:H:20:TYR:HE1	1.72	0.51
1:M:154:SER:HB3	1:M:162:VAL:HG21	1.91	0.51
1:M:224:PHE:HD2	1:M:229:SER:O	1.94	0.51
1:M:67:CYS:O	1:M:70:CYS:HB3	2.11	0.51
1:M:915:SER:O	1:M:919:ILE:HB	2.11	0.51
2:N:204:ILE:O	2:N:204:ILE:HG22	2.11	0.51
2:N:211:VAL:HG13	2:N:495:LEU:HD23	1.92	0.51
1:M:253:ASN:HB2	2:N:884:ARG:NH1	2.26	0.51
2:N:906:SER:N	2:N:909:ASP:OD2	2.43	0.51
3:O:39:ALA:HA	3:O:164:ALA:CB	2.39	0.51
1:A:277:GLU:HG2	4:P:209:ARG:HH21	1.75	0.51
7:S:109:PHE:O	7:S:160:ILE:HA	2.11	0.51
7:S:91:VAL:HG12	7:S:92:VAL:N	2.24	0.51
9:U:101:PHE:CD1	9:U:101:PHE:N	2.78	0.51
9:U:15:TYR:CD1	9:U:15:TYR:N	2.79	0.51
12:X:26:THR:HG23	12:X:62:LYS:NZ	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1:25:DG:H2''	13:1:26:DT:H72	1.92	0.51
1:A:117:GLU:H	1:A:117:GLU:CD	2.14	0.51
1:A:222:LEU:O	1:A:224:PHE:HD1	1.94	0.51
1:A:600:PRO:HA	8:H:25:ARG:NH1	2.25	0.51
1:A:871:ASP:OD1	1:A:1366:ARG:NH2	2.43	0.51
2:B:422:LYS:HA	2:B:425:THR:HB	1.91	0.51
2:B:686:ASN:C	2:B:688:GLY:H	2.14	0.51
2:B:955:THR:CG2	2:B:956:THR:H	2.22	0.51
3:C:252:GLN:HE21	11:K:95:ILE:HG23	1.75	0.51
5:E:112:TYR:CD1	5:E:112:TYR:C	2.84	0.51
9:I:78:CYS:SG	9:I:105:SER:O	2.69	0.51
10:J:42:LYS:HD3	10:J:43:ARG:HD3	1.92	0.51
1:M:132:LYS:HE3	1:M:1411:GLU:HG3	1.93	0.51
1:M:399:HIS:CB	1:M:400:PRO:CD	2.88	0.51
1:M:50:ILE:O	1:M:52:GLY:N	2.43	0.51
1:M:856:THR:HB	1:M:865:GLN:HB2	1.92	0.51
1:M:886:ILE:CG2	1:M:887:GLY:N	2.74	0.51
2:N:1115:THR:HG22	2:N:1117:GLN:CG	2.40	0.51
2:N:918:ILE:HG21	2:N:935:ARG:NH2	2.25	0.51
4:P:118:THR:HG21	4:P:121:LYS:CE	2.40	0.51
6:R:138:LEU:HB3	6:R:139:PRO:HD2	1.91	0.51
7:S:138:THR:CG2	7:S:139:ILE:N	2.73	0.51
8:T:62:SER:OG	8:T:63:LEU:N	2.44	0.51
10:V:64:ASN:CB	10:V:65:PRO:HD3	2.36	0.51
11:W:50:LEU:HD11	11:W:75:ILE:HD13	1.93	0.51
13:1:25:DG:H2''	13:1:26:DT:H73	1.93	0.51
1:A:1402:PHE:CE2	1:A:1403:GLU:HG3	2.46	0.51
1:A:549:MET:SD	1:A:577:ILE:CD1	2.99	0.51
1:A:598:LEU:HD23	8:H:25:ARG:NH2	2.26	0.51
1:A:67:CYS:O	1:A:68:GLN:C	2.49	0.51
2:B:273:LEU:HB3	2:B:276:ILE:HD12	1.91	0.51
2:B:616:ILE:H	2:B:616:ILE:HD12	1.74	0.51
2:B:781:PHE:HE2	2:B:795:ILE:HD11	1.76	0.51
2:B:839:MET:HE1	2:B:980:PHE:HB2	1.93	0.51
2:B:847:ASP:C	2:B:849:GLY:N	2.64	0.51
4:D:51:ASN:O	4:D:52:LEU:O	2.29	0.51
5:E:98:ILE:O	5:E:102:GLU:HG3	2.11	0.51
7:G:18:PHE:HA	7:G:22:MET:CE	2.41	0.51
1:A:1445:ILE:HD11	7:G:68:ALA:HB1	1.92	0.51
9:I:109:ILE:HG22	9:I:109:ILE:O	2.09	0.51
11:K:108:GLU:O	11:K:112:GLN:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:47:ARG:HD2	11:K:47:ARG:C	2.32	0.51
1:M:1255:GLU:CG	1:M:1255:GLU:O	2.58	0.51
1:M:335:ARG:NH1	2:N:1206:GLU:OE1	2.44	0.51
2:N:185:THR:O	2:N:186:GLU:C	2.49	0.51
2:N:579:ARG:NH1	2:N:622:LYS:O	2.44	0.51
2:N:599:THR:HG22	2:N:600:LEU:N	2.25	0.51
11:W:53:ASP:HB3	11:W:56:VAL:HG23	1.92	0.51
1:A:13:THR:HB	1:A:1432:GLN:NE2	2.26	0.51
1:A:493:GLN:HE21	1:A:493:GLN:CA	2.23	0.51
1:A:56:PRO:O	1:A:57:ARG:CG	2.59	0.51
1:A:598:LEU:HD11	8:H:124:ARG:HB2	1.93	0.51
1:A:866:PHE:O	1:A:867:ILE:HD12	2.10	0.51
2:B:637:LEU:CD2	2:B:742:GLU:HA	2.41	0.51
3:C:11:ARG:NH2	3:C:206:ASN:OD1	2.44	0.51
7:G:111:THR:CG2	7:G:114:LEU:HD22	2.40	0.51
8:H:95:TYR:HE2	8:H:97:MET:SD	2.34	0.51
1:M:868:TYR:OH	1:M:1366:ARG:HD3	2.11	0.51
1:M:114:LEU:HD21	1:M:171:GLN:HE21	1.75	0.51
1:M:200:ARG:HG2	1:M:200:ARG:HH11	1.75	0.51
1:M:443:LEU:HD12	2:N:1146:PHE:CE2	2.46	0.51
1:M:960:ILE:HA	1:M:963:ILE:CG2	2.41	0.51
1:M:967:ALA:O	1:M:971:PHE:HD1	1.92	0.51
2:N:96:TYR:HE1	2:N:131:ASP:OD1	1.94	0.51
2:N:165:VAL:HG11	2:N:448:ILE:CD1	2.41	0.51
2:N:237:VAL:HG22	2:N:257:LYS:HA	1.93	0.51
2:N:807:ARG:NH1	2:N:807:ARG:HB3	2.26	0.51
2:N:840:ILE:CG2	2:N:994:TYR:HD1	2.24	0.51
3:O:229:TYR:N	3:O:229:TYR:CD1	2.78	0.51
3:O:238:ILE:CG2	3:O:243:VAL:HG23	2.37	0.51
3:O:252:GLN:HE21	11:W:95:ILE:CG2	2.23	0.51
6:R:127:GLU:O	6:R:129:LYS:HG3	2.11	0.51
8:T:63:LEU:HD11	8:T:141:TYR:CD2	2.46	0.51
8:T:42:ILE:HG23	8:T:95:TYR:HE1	1.76	0.51
10:V:36:LEU:HD12	10:V:47:ARG:NH1	2.26	0.51
12:X:65:VAL:HG23	12:X:67:PHE:HE1	1.76	0.51
1:A:288:ALA:CA	1:A:291:GLU:HG3	2.40	0.50
1:A:50:ILE:O	1:A:52:GLY:N	2.43	0.50
1:A:694:THR:O	1:A:698:GLN:HG3	2.11	0.50
2:B:282:ILE:HD12	2:B:382:ILE:HD13	1.92	0.50
2:B:483:LEU:HD11	2:B:491:THR:CG2	2.40	0.50
3:C:177:GLU:HG3	3:C:231:ASN:CB	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:35:LEU:HA	4:D:47:LEU:HB2	1.93	0.50
8:H:84:ALA:C	8:H:86:ASP:N	2.63	0.50
1:A:562:THR:HB	8:H:98:TYR:CD2	2.46	0.50
11:K:22:ASP:O	11:K:31:VAL:HG13	2.10	0.50
1:M:898:ARG:O	1:M:1029:ARG:NH1	2.44	0.50
1:M:1138:ILE:HG21	1:M:1316:VAL:HG13	1.92	0.50
2:N:1037:LEU:CD2	2:N:1064:TYR:HE1	2.23	0.50
2:N:1183:LYS:HE3	2:N:1183:LYS:O	2.12	0.50
2:N:33:VAL:HG21	2:N:638:PHE:HZ	1.76	0.50
2:N:654:ARG:O	2:N:657:HIS:N	2.44	0.50
2:N:638:PHE:CD2	2:N:690:VAL:HG12	2.46	0.50
2:N:791:THR:O	2:N:792:MET:HB2	2.10	0.50
2:N:847:ASP:HB3	3:O:167:HIS:CD2	2.45	0.50
4:P:20:GLU:HG2	4:P:20:GLU:O	2.11	0.50
4:P:155:ARG:NH2	4:P:221:TYR:CD1	2.76	0.50
7:S:139:ILE:HD11	7:S:140:LYS:HE3	1.94	0.50
10:V:44:TYR:HD2	10:V:44:TYR:H	1.54	0.50
1:M:560:ILE:HD11	11:W:58:PHE:HD1	1.75	0.50
12:X:59:ALA:O	12:X:60:ARG:O	2.30	0.50
14:2:5:DC:H2'	14:2:6:DT:H72	1.92	0.50
1:A:1168:GLU:O	1:A:1171:GLN:OE1	2.28	0.50
1:A:283:GLY:O	1:A:285:PRO:CD	2.59	0.50
1:A:313:GLN:O	1:A:314:ALA:C	2.49	0.50
1:A:503:GLN:NE2	6:F:90:ARG:NH2	2.53	0.50
1:A:729:ALA:O	1:A:732:LEU:HB2	2.11	0.50
2:B:34:ILE:HG23	2:B:542:MET:CE	2.41	0.50
2:B:707:PRO:O	2:B:708:GLU:O	2.29	0.50
2:B:794:ASN:C	2:B:795:ILE:HD12	2.32	0.50
7:G:83:LYS:HG3	7:G:148:GLU:O	2.12	0.50
7:G:74:TYR:H	7:G:74:TYR:HD2	1.59	0.50
1:M:1339:LEU:HD13	5:Q:147:HIS:CD2	2.47	0.50
1:M:162:VAL:HG12	1:M:163:SER:N	2.26	0.50
1:M:195:ASP:O	1:M:196:GLU:HB3	2.11	0.50
1:M:207:ILE:HG22	1:M:211:PHE:CE2	2.46	0.50
1:M:322:VAL:O	1:M:322:VAL:CG1	2.59	0.50
1:M:826:ASP:O	1:M:830:LYS:HB2	2.11	0.50
1:M:909:ASP:OD1	1:M:911:SER:N	2.36	0.50
1:M:964:ILE:O	1:M:967:ALA:HB3	2.11	0.50
2:N:758:PHE:HE1	2:N:1027:ILE:HG22	1.76	0.50
2:N:305:VAL:HG12	2:N:305:VAL:O	2.11	0.50
2:N:345:LYS:HG2	2:N:346:GLU:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:90:ILE:HD12	2:N:432:MET:SD	2.51	0.50
2:N:37:PHE:HE2	2:N:542:MET:HA	1.75	0.50
2:N:31:TRP:CD1	2:N:807:ARG:NH2	2.79	0.50
3:O:123:ASN:HD22	3:O:125:MET:HG2	1.72	0.50
4:P:217:LEU:O	4:P:219:THR:N	2.43	0.50
5:Q:2:ASP:O	5:Q:3:GLN:HG2	2.10	0.50
5:Q:96:PHE:CE1	5:Q:100:ILE:HD11	2.46	0.50
8:T:84:ALA:HA	8:T:87:ARG:CG	2.41	0.50
9:U:78:CYS:SG	9:U:105:SER:O	2.69	0.50
3:O:235:VAL:HG11	10:V:6:ARG:NH2	2.26	0.50
1:A:101:LYS:HE2	1:A:139:TRP:CZ2	2.46	0.50
1:A:162:VAL:HG12	1:A:163:SER:H	1.76	0.50
1:A:595:THR:O	1:A:596:THR:CG2	2.59	0.50
1:A:596:THR:C	1:A:598:LEU:N	2.63	0.50
1:A:701:LEU:HD21	9:I:114:GLN:HB2	1.94	0.50
1:A:786:HIS:N	1:A:786:HIS:CD2	2.79	0.50
1:A:875:ALA:HB2	1:A:1366:ARG:HD2	1.94	0.50
2:B:368:GLU:O	2:B:370:PHE:N	2.43	0.50
2:B:696:GLU:O	2:B:699:GLU:HB2	2.11	0.50
3:C:243:VAL:O	3:C:243:VAL:CG1	2.59	0.50
4:D:203:SER:OG	4:D:206:GLU:HB2	2.11	0.50
1:M:1148:ILE:CG1	1:M:1198:ASP:HB2	2.42	0.50
1:M:49:LYS:HD2	1:M:55:ASP:HB3	1.91	0.50
2:N:298:LEU:N	2:N:298:LEU:HD22	2.27	0.50
3:O:22:LEU:HD22	3:O:230:MET:CE	2.41	0.50
5:Q:135:PHE:HD2	5:Q:140:LEU:HD21	1.76	0.50
5:Q:182:ASP:HB3	5:Q:185:ALA:HB2	1.93	0.50
7:S:1:MET:CE	7:S:2:PHE:HA	2.41	0.50
9:U:61:ASP:O	9:U:63:GLY:N	2.45	0.50
11:W:64:GLU:HA	11:W:64:GLU:OE2	2.11	0.50
1:A:1206:ASP:O	1:A:1274:ARG:NH2	2.44	0.50
1:A:427:GLN:HB2	1:A:430:TRP:CG	2.47	0.50
1:A:64:ASN:O	1:A:66:LYS:N	2.44	0.50
2:B:190:TYR:CZ	2:B:196:PRO:HG3	2.47	0.50
2:B:431:TYR:CD1	2:B:447:ALA:HB2	2.47	0.50
2:B:39:ARG:HH21	2:B:665:GLU:CG	2.24	0.50
3:C:118:LEU:HB2	3:C:132:PRO:HG2	1.94	0.50
4:D:56:ARG:NH2	4:D:155:ARG:HA	2.26	0.50
4:D:162:ALA:HA	4:D:165:GLN:NE2	2.27	0.50
1:M:1036:ARG:NH1	1:M:1036:ARG:CG	2.69	0.50
1:M:1410:PHE:HD2	2:N:1212:ILE:CD1	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:252:PHE:HB2	1:M:256:GLN:CD	2.31	0.50
2:N:118:ARG:HH22	2:N:194:GLU:CD	2.14	0.50
2:N:259:TYR:H	2:N:259:TYR:HD1	1.60	0.50
2:N:272:THR:HG23	2:N:279:ASP:OD1	2.12	0.50
2:N:797:TYR:HE1	2:N:854:LEU:CD2	2.25	0.50
2:N:863:GLU:OE1	2:N:962:LYS:HB2	2.11	0.50
4:P:167:LEU:O	4:P:170:THR:HG23	2.12	0.50
7:S:92:VAL:HG21	7:S:102:GLN:HB2	1.93	0.50
1:A:1124:HIS:HB2	1:A:1130:GLN:HG2	1.94	0.50
1:A:493:GLN:NE2	1:A:493:GLN:CA	2.73	0.50
1:A:693:VAL:HG21	1:A:721:PHE:CE1	2.42	0.50
2:B:185:THR:O	2:B:188:ASP:HB2	2.11	0.50
2:B:798:TYR:CE2	3:C:62:PHE:CZ	3.00	0.50
5:E:13:TRP:O	5:E:16:PHE:HB3	2.11	0.50
5:E:171:LYS:HG2	5:E:174:GLN:OE1	2.10	0.50
7:G:81:PRO:HD2	7:G:157:ILE:HD12	1.93	0.50
2:B:622:LYS:CE	9:I:59:VAL:HG13	2.41	0.50
9:I:61:ASP:O	9:I:63:GLY:N	2.45	0.50
1:M:1237:ILE:CG2	1:M:1238:ILE:N	2.74	0.50
1:M:200:ARG:HG2	1:M:200:ARG:NH1	2.26	0.50
1:M:285:PRO:O	1:M:287:HIS:N	2.44	0.50
1:M:535:THR:HG21	1:M:616:VAL:CA	2.38	0.50
2:N:984:HIS:CD2	2:N:1025:HIS:HA	2.47	0.50
2:N:209:GLU:OE2	2:N:485:ARG:NE	2.36	0.50
2:N:63:ILE:HD12	2:N:421:PHE:CZ	2.47	0.50
1:M:789:LYS:HD2	2:N:620:ARG:HH12	1.75	0.50
3:O:101:LEU:O	3:O:102:GLN:HG2	2.12	0.50
3:O:70:ILE:HG12	3:O:142:VAL:HG11	1.93	0.50
3:O:177:GLU:HG3	3:O:231:ASN:CB	2.30	0.50
3:O:209:TYR:HD1	3:O:209:TYR:H	1.58	0.50
5:Q:180:ARG:NH2	5:Q:192:ARG:HD2	2.27	0.50
5:Q:169:ARG:HD3	6:R:140:ASP:CG	2.31	0.50
1:A:1015:VAL:HG12	1:A:1015:VAL:O	2.11	0.50
1:A:722:LEU:HD21	1:A:794:PRO:HB3	1.94	0.50
1:A:72:GLU:HB3	1:A:76:GLU:HG2	1.92	0.50
1:A:794:PRO:C	1:A:796:SER:H	2.14	0.50
2:B:185:THR:O	2:B:186:GLU:C	2.50	0.50
2:B:611:PRO:O	2:B:692:TYR:HB2	2.12	0.50
3:C:147:LEU:HD12	3:C:151:GLN:O	2.11	0.50
2:B:847:ASP:HB3	3:C:167:HIS:CD2	2.46	0.50
3:C:186:LEU:CD2	3:C:225:ALA:HB2	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:23:ASN:HA	4:D:28:GLN:O	2.12	0.50
4:D:51:ASN:HB3	4:D:178:ALA:O	2.11	0.50
5:E:121:MET:C	5:E:123:LEU:H	2.14	0.50
12:L:47:ARG:HD3	12:L:52:GLY:HA2	1.92	0.50
1:M:1021:LEU:O	1:M:1024:SER:HB3	2.12	0.50
1:M:1362:TYR:CD1	1:M:1363:VAL:N	2.79	0.50
1:M:196:GLU:HG3	1:M:197:PRO:HD2	1.94	0.50
2:N:1117:GLN:HE21	2:N:1199:ALA:HB2	1.77	0.50
2:N:95:ILE:CG1	2:N:130:VAL:HG22	2.41	0.50
3:O:133:ILE:HD12	3:O:237:SER:N	2.26	0.50
4:P:120:GLU:OE1	4:P:120:GLU:O	2.30	0.50
4:P:36:LYS:HG2	4:P:44:GLU:OE1	2.12	0.50
9:U:6:PHE:CB	9:U:12:ASN:O	2.52	0.50
12:X:28:LYS:HB3	12:X:39:SER:HB2	1.93	0.50
14:5:2:DC:C5	14:5:3:DT:H73	2.46	0.50
1:A:973:ILE:HD11	1:A:1041:ALA:HB2	1.94	0.50
2:B:1001:PHE:CZ	2:B:1073:TYR:HB2	2.47	0.50
2:B:1116:ARG:HG3	2:B:1198:TYR:CD2	2.47	0.50
4:D:8:PHE:HD2	7:G:6:ASP:O	1.94	0.50
7:G:14:HIS:CE1	7:G:15:PRO:HD2	2.46	0.50
8:H:106:GLU:O	8:H:108:SER:N	2.34	0.50
11:K:31:VAL:CG1	11:K:32:VAL:N	2.74	0.50
1:M:1095:THR:HG21	1:M:1112:LYS:HD2	1.94	0.50
1:M:1444:MET:HG3	7:S:60:ARG:CA	2.33	0.50
1:M:171:GLN:HA	1:M:171:GLN:OE1	2.12	0.50
1:M:225:ASN:ND2	1:M:227:VAL:N	2.59	0.50
1:M:337:ARG:HD3	2:N:1132:GLU:CD	2.32	0.50
2:N:599:THR:O	2:N:603:LEU:HB2	2.11	0.50
2:N:642:ASP:CA	2:N:649:LYS:HA	2.39	0.50
2:N:611:PRO:O	2:N:692:TYR:HB2	2.12	0.50
4:P:71:LYS:HG2	4:P:74:GLN:HE21	1.74	0.50
7:S:138:THR:O	7:S:140:LYS:N	2.45	0.50
10:V:1:MET:H1	10:V:56:LEU:HB2	1.77	0.50
13:4:16:DT:N3	13:4:17:DT:C4	2.80	0.50
1:A:1255:GLU:HG2	1:A:1255:GLU:O	2.12	0.50
1:A:306:ASN:ND2	1:A:322:VAL:HG12	2.26	0.50
1:A:645:LEU:HG	1:A:649:ILE:HD12	1.94	0.50
1:A:852:TYR:CD2	1:A:1060:PRO:CB	2.95	0.50
2:B:424:LEU:O	2:B:428:ILE:HG13	2.11	0.50
2:B:766:ARG:NH2	2:B:1020:ARG:HD3	2.26	0.50
1:M:722:LEU:HB3	1:M:799:PHE:CE1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:803:LEU:HD12	2:N:1032:SER:HB3	1.94	0.50
2:N:62:ILE:HG23	2:N:418:LYS:HG3	1.93	0.50
2:N:821:GLN:OE1	2:N:850:LEU:HD12	2.12	0.50
2:N:850:LEU:HD12	2:N:851:PHE:N	2.26	0.50
2:N:859:TYR:OH	2:N:941:LEU:HD12	2.12	0.50
3:O:147:LEU:CD2	3:O:147:LEU:N	2.74	0.50
4:P:130:LEU:O	4:P:132:GLN:N	2.41	0.50
1:M:567:LYS:CE	8:T:46:LEU:HB2	2.42	0.50
10:V:64:ASN:HB3	10:V:65:PRO:HD2	1.89	0.50
1:A:1241:ARG:O	1:A:1242:VAL:CG2	2.60	0.50
2:B:1001:PHE:CE2	3:C:34:ARG:CZ	2.95	0.50
2:B:893:LEU:HD22	2:B:897:GLY:HA2	1.94	0.50
4:D:118:THR:HG22	4:D:118:THR:O	2.11	0.50
5:E:127:ILE:O	5:E:127:ILE:HG13	2.12	0.50
6:F:81:THR:HB	6:F:136:ARG:HH11	1.75	0.50
8:H:113:ALA:HA	8:H:125:LEU:O	2.11	0.50
1:M:1324:PRO:HB2	5:Q:142:VAL:HG11	1.93	0.50
1:M:1336:MET:HE2	1:M:1381:LEU:HG	1.94	0.50
1:M:133:LYS:O	1:M:136:ALA:HB3	2.12	0.50
1:M:1399:ARG:HB3	1:M:1408:ILE:HD13	1.93	0.50
1:M:1421:CYS:HA	1:M:1426:GLU:HG3	1.93	0.50
1:M:567:LYS:HB3	8:T:95:TYR:HA	1.92	0.50
2:N:429:PHE:CD1	2:N:432:MET:HE3	2.46	0.50
2:N:618:ASP:O	2:N:622:LYS:N	2.45	0.50
2:N:751:VAL:HG13	2:N:812:LEU:CD2	2.37	0.50
7:S:106:MET:CG	7:S:107:LYS:H	2.25	0.50
7:S:113:HIS:N	7:S:113:HIS:ND1	2.56	0.50
1:A:1187:GLN:HG3	1:A:1188:GLN:H	1.76	0.49
1:A:1237:ILE:CG2	1:A:1238:ILE:N	2.75	0.49
1:A:1280:GLU:O	1:A:1281:ARG:O	2.30	0.49
1:A:1315:GLU:C	1:A:1317:MET:H	2.15	0.49
1:A:349:ALA:HB2	1:A:374:LEU:HD11	1.94	0.49
1:A:807:GLY:HA2	2:B:760:ASP:O	2.11	0.49
2:B:1103:ILE:O	2:B:1103:ILE:HG23	2.11	0.49
2:B:758:PHE:CE2	2:B:1044:ALA:CA	2.90	0.49
2:B:956:THR:HA	2:B:961:LEU:O	2.11	0.49
3:C:25:VAL:HG12	3:C:26:ASP:H	1.76	0.49
4:D:144:THR:HG21	7:G:46:LEU:HD13	1.92	0.49
4:D:47:LEU:HD13	4:D:48:ILE:N	2.27	0.49
1:A:1342:GLU:HG3	5:E:198:ILE:HD13	1.93	0.49
7:G:116:PRO:HG2	7:G:119:LEU:CB	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:138:THR:O	7:G:140:LYS:N	2.45	0.49
1:A:562:THR:HB	8:H:98:TYR:HD2	1.75	0.49
11:K:55:LYS:HD3	11:K:81:TYR:CE1	2.47	0.49
12:L:27:LEU:O	12:L:28:LYS:HB2	2.12	0.49
1:M:1277:GLU:O	1:M:1279:ILE:N	2.44	0.49
1:M:41:MET:O	1:M:42:ASP:O	2.29	0.49
1:M:874:ASP:OD1	1:M:874:ASP:C	2.49	0.49
1:M:351:THR:CG2	2:N:1103:ILE:HA	2.22	0.49
2:N:1147:LEU:CD2	2:N:1151:LEU:HD22	2.42	0.49
2:N:203:PHE:HB3	2:N:205:ILE:CD1	2.42	0.49
2:N:327:ARG:O	2:N:331:LEU:HD13	2.12	0.49
2:N:916:THR:CG2	2:N:935:ARG:HD2	2.42	0.49
2:N:991:GLY:O	2:N:992:ILE:HB	2.12	0.49
4:P:57:LEU:HD13	4:P:157:GLN:OE1	2.12	0.49
7:S:11:ILE:HD13	7:S:29:LYS:HB3	1.93	0.49
7:S:31:LEU:HD23	7:S:48:VAL:HG21	1.93	0.49
9:U:13:MET:HG2	9:U:14:LEU:N	2.27	0.49
9:U:73:ARG:HH12	9:U:112:SER:CB	2.25	0.49
1:A:963:ILE:HD11	1:A:1048:ASN:CB	2.42	0.49
1:A:1100:ARG:O	1:A:1104:ILE:HG13	2.11	0.49
1:A:1242:VAL:CG1	1:A:1243:VAL:H	2.25	0.49
1:A:401:GLY:C	1:A:435:HIS:CD2	2.85	0.49
1:A:445:ASN:CB	1:A:455:MET:HG2	2.35	0.49
1:A:820:GLY:O	1:A:822:GLU:N	2.45	0.49
2:B:1099:VAL:HG13	2:B:1100:ASP:N	2.27	0.49
2:B:1167:GLY:HA3	2:B:1216:LEU:N	2.27	0.49
2:B:167:ILE:HG21	2:B:424:LEU:CD2	2.42	0.49
2:B:282:ILE:HG21	2:B:382:ILE:CD1	2.42	0.49
3:C:22:LEU:HD13	3:C:230:MET:HE1	1.93	0.49
4:D:146:GLN:O	4:D:147:TYR:C	2.50	0.49
1:A:598:LEU:HD23	8:H:25:ARG:CZ	2.42	0.49
8:H:58:THR:O	8:H:59:ILE:HG13	2.12	0.49
8:H:81:PRO:CB	8:H:82:PRO:CD	2.88	0.49
8:H:42:ILE:HG23	8:H:95:TYR:CE1	2.47	0.49
1:M:1254:ALA:O	1:M:1255:GLU:CB	2.60	0.49
1:M:1433:MET:HE3	7:S:63:PRO:CB	2.41	0.49
1:M:370:ILE:CG2	1:M:374:LEU:HD12	2.42	0.49
2:N:168:GLY:HA2	2:N:450:ALA:O	2.12	0.49
2:N:431:TYR:CG	2:N:447:ALA:HB2	2.47	0.49
2:N:653:VAL:HA	2:N:689:LEU:HD22	1.94	0.49
2:N:885:MET:HA	2:N:936:ASP:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:65:HIS:O	3:O:69:LEU:HD12	2.11	0.49
4:P:175:PHE:O	4:P:178:ALA:HB3	2.11	0.49
3:O:258:ILE:HG23	11:W:19:LEU:HD11	1.94	0.49
12:X:48:CYS:HB3	12:X:51:CYS:O	2.12	0.49
13:4:25:DG:N9	13:4:26:DT:H72	2.28	0.49
1:A:122:MET:HA	1:A:141:LEU:HD11	1.94	0.49
1:A:1450:LEU:HD21	7:G:19:GLY:O	2.13	0.49
1:A:152:VAL:HG13	1:A:153:PRO:HD2	1.94	0.49
1:A:202:LEU:HA	1:A:206:GLU:OE1	2.13	0.49
1:A:399:HIS:CG	1:A:400:PRO:N	2.79	0.49
1:A:773:LYS:CD	1:A:773:LYS:H	2.23	0.49
1:A:80:HIS:H	1:A:243:PRO:HB3	1.77	0.49
2:B:728:ARG:HH12	2:B:1047:PHE:HB3	1.78	0.49
2:B:953:LEU:O	2:B:953:LEU:HD23	2.12	0.49
3:C:189:THR:CG2	3:C:190:ASP:N	2.74	0.49
3:C:212:PRO:HB3	3:C:213:PRO:HD2	1.95	0.49
5:E:129:PRO:O	5:E:130:ALA:C	2.51	0.49
7:G:121:PHE:HB2	7:G:130:TYR:CE2	2.48	0.49
8:H:123:MET:HE3	8:H:142:LEU:CD2	2.43	0.49
12:L:38:LEU:HG	12:L:39:SER:N	2.28	0.49
2:N:1072:MET:HE3	2:N:1085:ILE:HB	1.88	0.49
2:N:108:VAL:HG23	2:N:109:THR:N	2.27	0.49
2:N:31:TRP:CE3	2:N:34:ILE:HD12	2.46	0.49
2:N:429:PHE:HA	2:N:432:MET:CE	2.43	0.49
2:N:635:ARG:NH1	2:N:742:GLU:OE2	2.43	0.49
4:P:24:ALA:HA	7:S:83:LYS:O	2.12	0.49
7:S:77:VAL:O	7:S:77:VAL:HG12	2.11	0.49
1:A:164:ARG:HG3	1:A:165:GLY:N	2.26	0.49
1:A:489:LEU:HD12	1:A:489:LEU:C	2.32	0.49
1:A:967:ALA:HA	1:A:1044:TRP:CZ3	2.47	0.49
2:B:235:SER:O	2:B:236:HIS:HD2	1.95	0.49
2:B:244:LEU:HD12	2:B:250:PHE:HD1	1.77	0.49
2:B:205:ILE:HD11	2:B:461:LEU:HD23	1.94	0.49
5:E:114:ASN:O	5:E:115:ASN:CB	2.48	0.49
5:E:180:ARG:NH2	5:E:192:ARG:HB2	2.25	0.49
5:E:61:GLN:HG2	5:E:62:ALA:N	2.27	0.49
11:K:64:GLU:OE2	11:K:64:GLU:HA	2.12	0.49
1:M:1163:ILE:HG22	1:M:1165:GLU:HG3	1.94	0.49
1:M:1100:ARG:NH2	1:M:1351:GLU:HG2	2.27	0.49
1:M:285:PRO:CG	1:M:288:ALA:HB3	2.38	0.49
2:N:449:ASN:C	2:N:451:LYS:H	2.16	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:95:ILE:CB	2:N:130:VAL:HG22	2.43	0.49
2:N:956:THR:HA	2:N:961:LEU:O	2.12	0.49
2:N:848:ARG:HH22	2:N:996:ARG:HD3	1.77	0.49
3:O:118:LEU:HB2	3:O:132:PRO:HG2	1.94	0.49
2:N:110:HIS:HB3	12:X:54:ARG:HH22	1.78	0.49
13:1:16:DT:N3	13:1:17:DT:C4	2.81	0.49
1:A:385:ILE:CD1	1:A:426:LEU:HB2	2.42	0.49
1:A:961:ARG:HH11	1:A:961:ARG:CB	2.26	0.49
2:B:466:TRP:HA	2:B:466:TRP:CE3	2.46	0.49
2:B:789:MET:HE2	2:B:953:LEU:HD22	1.94	0.49
2:B:95:ILE:HG13	2:B:130:VAL:HG22	1.93	0.49
5:E:207:ARG:CB	5:E:207:ARG:NH1	2.75	0.49
9:I:7:CYS:HB2	9:I:34:TYR:CG	2.47	0.49
11:K:55:LYS:HB2	11:K:81:TYR:CD1	2.48	0.49
1:M:401:GLY:C	1:M:435:HIS:HD2	2.15	0.49
1:M:493:GLN:NE2	1:M:493:GLN:CA	2.75	0.49
1:M:714:PHE:O	1:M:718:VAL:HG23	2.12	0.49
2:N:221:ASN:N	2:N:241:ARG:O	2.40	0.49
2:N:307:ASP:OD2	2:N:310:MET:HB2	2.12	0.49
2:N:244:LEU:CD1	2:N:366:GLN:HE22	2.18	0.49
2:N:368:GLU:O	2:N:370:PHE:N	2.44	0.49
2:N:370:PHE:HD2	2:N:373:ARG:HD3	1.78	0.49
2:N:570:VAL:HG21	2:N:573:GLN:CD	2.33	0.49
2:N:658:ILE:HG22	2:N:662:MET:HE2	1.94	0.49
2:N:975:GLN:HG2	2:N:976:ILE:N	2.27	0.49
3:O:147:LEU:HD12	3:O:151:GLN:O	2.12	0.49
7:S:121:PHE:CZ	7:S:123:ALA:HA	2.48	0.49
9:U:44:TYR:HD1	9:U:45:ARG:H	1.61	0.49
1:A:963:ILE:HD11	1:A:1048:ASN:HB2	1.93	0.49
1:A:1242:VAL:HG12	1:A:1243:VAL:H	1.76	0.49
1:A:134:ARG:HD2	1:A:221:SER:O	2.12	0.49
1:A:663:SER:OG	1:A:664:THR:N	2.45	0.49
2:B:282:ILE:HD11	2:B:317:CYS:SG	2.53	0.49
2:B:497:ARG:HH21	2:B:775:LYS:NZ	2.10	0.49
2:B:839:MET:HE2	2:B:980:PHE:HB2	1.93	0.49
3:C:248:ILE:HD13	11:K:101:LEU:HD22	1.94	0.49
7:G:160:ILE:HD11	7:S:111:THR:HG21	1.95	0.49
8:H:106:GLU:C	8:H:108:SER:H	2.15	0.49
1:M:106:VAL:CG1	1:M:107:CYS:N	2.74	0.49
1:M:1444:MET:HE2	1:M:1444:MET:N	2.27	0.49
1:M:452:LYS:HB3	2:N:1141:HIS:CE1	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:679:ILE:HG23	1:M:729:ALA:HB1	1.95	0.49
2:N:190:TYR:CE1	2:N:196:PRO:HG3	2.48	0.49
2:N:558:LEU:O	2:N:561:TRP:N	2.45	0.49
2:N:955:THR:CG2	2:N:956:THR:H	2.25	0.49
4:P:155:ARG:NH2	4:P:221:TYR:HD1	2.08	0.49
4:P:220:LEU:HD23	4:P:221:TYR:N	2.28	0.49
9:U:98:VAL:CG1	9:U:111:THR:HG23	2.43	0.49
12:X:34:CYS:O	12:X:34:CYS:SG	2.71	0.49
14:2:2:DC:C5	14:2:3:DT:H73	2.47	0.49
1:A:335:ARG:NH1	2:B:1206:GLU:CD	2.66	0.49
1:A:440:ASP:O	1:A:460:VAL:HG23	2.13	0.49
1:A:2:VAL:CG1	2:B:1157:ALA:O	2.60	0.49
2:B:351:TYR:O	2:B:355:ILE:HG13	2.11	0.49
3:C:39:ALA:HA	3:C:164:ALA:CB	2.42	0.49
4:D:119:ARG:O	4:D:123:LEU:HD23	2.13	0.49
4:D:155:ARG:NE	4:D:221:TYR:HE1	2.10	0.49
6:F:100:GLN:NE2	7:G:61:ILE:HD13	2.28	0.49
8:H:47:PHE:CB	8:H:95:TYR:HD1	2.26	0.49
9:I:92:ARG:HD2	9:I:94:ASP:OD2	2.12	0.49
1:M:1152:ILE:HD11	1:M:1261:LYS:HG3	1.93	0.49
1:M:145:LYS:CA	1:M:145:LYS:HE3	2.40	0.49
1:M:196:GLU:CG	1:M:197:PRO:HD2	2.43	0.49
1:M:563:PRO:HG3	1:M:572:TRP:CE2	2.44	0.49
1:M:597:LEU:HD23	8:T:103:LYS:CD	2.43	0.49
1:M:945:GLU:OE1	5:Q:201:LYS:NZ	2.45	0.49
2:N:294:ASP:C	2:N:296:GLU:N	2.61	0.49
2:N:313:MET:O	2:N:316:PRO:HD2	2.13	0.49
8:T:104:PHE:CZ	8:T:136:LYS:HA	2.47	0.49
1:A:288:ALA:HA	1:A:291:GLU:CG	2.42	0.49
1:A:67:CYS:O	1:A:70:CYS:HB3	2.12	0.49
2:B:294:ASP:C	2:B:296:GLU:N	2.60	0.49
2:B:351:TYR:CZ	2:B:355:ILE:HD11	2.47	0.49
2:B:492:LEU:HB2	2:B:751:VAL:HG11	1.95	0.49
4:D:167:LEU:O	4:D:170:THR:HG23	2.13	0.49
5:E:112:TYR:O	5:E:137:GLU:HG3	2.13	0.49
5:E:88:VAL:HB	5:E:116:ILE:HG12	1.94	0.49
8:H:13:SER:HB3	8:H:27:GLU:O	2.13	0.49
9:I:58:VAL:HG13	9:I:62:ILE:HG21	1.93	0.49
1:M:547:LEU:HD22	11:W:58:PHE:CD1	2.47	0.49
1:M:64:ASN:O	1:M:66:LYS:N	2.46	0.49
1:M:663:SER:OG	1:M:664:THR:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1410:PHE:HD2	2:N:1212:ILE:HD11	1.78	0.49
2:N:373:ARG:HA	2:N:566:LEU:CD2	2.42	0.49
2:N:373:ARG:HA	2:N:566:LEU:HD23	1.94	0.49
2:N:866:TYR:CG	2:N:870:ILE:HB	2.48	0.49
4:P:139:LYS:HG3	4:P:140:ASP:OD1	2.13	0.49
7:S:110:VAL:CG1	7:S:161:GLY:O	2.61	0.49
8:T:106:GLU:C	8:T:108:SER:H	2.15	0.49
1:A:106:VAL:HG12	1:A:107:CYS:H	1.76	0.49
1:A:265:LYS:CA	1:A:265:LYS:CE	2.89	0.49
1:A:316:GLN:HG2	1:A:317:LYS:N	2.28	0.49
1:A:40:THR:HG23	1:A:54:ASN:ND2	2.27	0.49
1:A:460:VAL:HG12	1:A:461:LYS:N	2.27	0.49
1:A:886:ILE:CG2	1:A:887:GLY:N	2.76	0.49
2:B:118:ARG:NH2	2:B:194:GLU:OE1	2.42	0.49
2:B:371:GLU:OE1	2:B:371:GLU:N	2.45	0.49
2:B:303:TYR:HH	2:B:586:TRP:HH2	1.59	0.49
2:B:629:ASP:HB3	2:B:632:ARG:HD3	1.94	0.49
2:B:805:THR:CG2	2:B:806:THR:H	2.16	0.49
5:E:88:VAL:HG21	5:E:110:PHE:CE1	2.47	0.49
6:F:111:LEU:C	6:F:113:GLY:N	2.64	0.49
8:H:130:ARG:HH11	8:H:130:ARG:CB	2.25	0.49
8:H:44:VAL:HG12	8:H:44:VAL:O	2.13	0.49
8:H:84:ALA:O	8:H:85:GLY:C	2.52	0.49
1:M:1170:ILE:HG22	1:M:1174:PHE:CE1	2.48	0.49
1:M:35:ILE:HA	1:M:52:GLY:O	2.13	0.49
1:M:42:ASP:HB3	1:M:45:GLN:CA	2.43	0.49
1:M:447:GLN:HA	1:M:448:PRO:C	2.33	0.49
1:M:65:LEU:O	1:M:66:LYS:O	2.30	0.49
1:M:75:ASN:O	1:M:76:GLU:HB2	2.13	0.49
2:N:1084:GLN:NE2	2:N:1084:GLN:H	2.09	0.49
2:N:429:PHE:HD1	2:N:432:MET:HE3	1.77	0.49
2:N:597:MET:HE2	2:N:597:MET:HA	1.95	0.49
2:N:862:GLN:CG	2:N:963:PHE:HD1	2.19	0.49
3:O:44:LEU:HD13	3:O:129:ILE:HG23	1.94	0.49
2:N:1165:ILE:HG21	4:P:17:LYS:CG	2.43	0.49
5:Q:177:ARG:C	5:Q:212:ARG:HD3	2.33	0.49
8:T:26:ILE:HD13	8:T:49:VAL:HG11	1.94	0.49
10:V:30:LEU:CD1	10:V:38:ARG:HH11	2.26	0.49
1:A:1453:TYR:O	1:A:1454:MET:HB3	2.13	0.49
1:A:23:SER:HB3	1:A:233:TRP:CZ2	2.48	0.49
1:A:37:PHE:H	1:A:37:PHE:HD1	1.58	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:407:ARG:HG2	1:A:430:TRP:CE2	2.48	0.49
1:A:57:ARG:O	1:A:68:GLN:HG2	2.12	0.49
1:A:831:THR:HG23	1:A:832:ALA:N	2.27	0.49
2:B:334:ILE:CG2	2:B:334:ILE:O	2.60	0.49
2:B:679:TYR:HE1	2:B:687:GLU:OE2	1.96	0.49
4:D:14:ARG:HH12	4:D:16:LYS:HZ2	1.60	0.49
5:E:98:ILE:HG22	5:E:102:GLU:CG	2.42	0.49
8:H:40:LEU:HD23	8:H:42:ILE:CG1	2.43	0.49
8:H:4:THR:HA	8:H:60:ALA:CB	2.19	0.49
1:M:1195:LEU:HD11	1:M:1267:MET:HE1	1.95	0.49
1:M:1280:GLU:O	1:M:1281:ARG:O	2.31	0.49
1:M:1118:VAL:HG12	1:M:1327:ILE:HG13	1.95	0.49
1:M:1409:LEU:CD1	2:N:1207:LEU:HD11	2.42	0.49
1:M:265:LYS:CE	1:M:265:LYS:HA	2.38	0.49
1:M:30:ILE:HD11	2:N:1168:LEU:CD1	2.43	0.49
1:M:901:LEU:H	1:M:926:GLN:CD	2.16	0.49
2:N:131:ASP:HA	2:N:164:LYS:HB3	1.95	0.49
4:P:66:ARG:O	4:P:70:PHE:HB2	2.13	0.49
4:P:69:ALA:C	4:P:71:LYS:H	2.15	0.49
5:Q:37:LEU:CD1	5:Q:41:ASP:HB2	2.43	0.49
8:T:30:SER:CB	8:T:36:CYS:HB3	2.43	0.49
8:T:91:ASP:C	8:T:93:TYR:H	2.16	0.49
1:M:1147:THR:HB	9:U:48:LEU:HD12	1.94	0.49
14:2:4:DA:H2"	14:2:5:DC:H6	1.78	0.48
14:5:4:DA:H2"	14:5:5:DC:H6	1.78	0.48
1:A:1018:PHE:O	1:A:1021:LEU:HB3	2.12	0.48
1:A:820:GLY:O	1:A:823:GLY:N	2.46	0.48
2:B:274:PRO:O	2:B:275:TYR:HB2	2.13	0.48
2:B:27:ALA:O	2:B:29:ASP:N	2.46	0.48
2:B:453:ILE:O	2:B:457:LEU:HG	2.12	0.48
2:B:211:VAL:HG13	2:B:495:LEU:HD23	1.94	0.48
2:B:531:GLN:CG	2:B:532:ALA:H	2.23	0.48
2:B:56:ASP:C	2:B:57:TYR:HD1	2.16	0.48
2:B:916:THR:CG2	2:B:935:ARG:HD2	2.43	0.48
3:C:219:PHE:CE2	3:C:221:TYR:HB3	2.48	0.48
3:C:242:GLN:OE1	3:C:242:GLN:HA	2.13	0.48
3:C:8:VAL:HG12	3:C:9:LYS:N	2.28	0.48
6:F:101:ILE:HD13	6:F:120:ILE:CG2	2.43	0.48
7:G:117:GLN:NE2	7:S:154:VAL:CG2	2.76	0.48
7:G:1:MET:O	7:G:2:PHE:C	2.51	0.48
3:C:35:ARG:NH1	11:K:41:THR:OG1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:590:ARG:HH12	1:M:592:ASP:CG	2.16	0.48
2:N:331:LEU:O	2:N:334:ILE:HB	2.13	0.48
2:N:387:LEU:HD12	2:N:387:LEU:N	2.28	0.48
2:N:120:ARG:HG2	2:N:955:THR:HG21	1.95	0.48
2:N:846:ILE:CG2	2:N:974:PRO:HG2	2.42	0.48
3:O:116:LYS:HG3	3:O:117:ASP:OD1	2.13	0.48
3:O:182:PRO:HD2	3:O:210:GLU:OE1	2.13	0.48
4:P:134:THR:CG2	4:P:141:LEU:HD23	2.42	0.48
4:P:32:GLU:HG3	7:S:5:LYS:HE2	1.94	0.48
8:T:106:GLU:O	8:T:108:SER:N	2.35	0.48
8:T:130:ARG:HA	8:T:133:ASN:HB2	1.95	0.48
1:A:107:CYS:HB2	1:A:114:LEU:HD21	1.94	0.48
1:A:1402:PHE:CE2	1:A:1403:GLU:CG	2.95	0.48
1:A:196:GLU:HG2	1:A:197:PRO:HD2	1.94	0.48
1:A:87:ALA:CB	1:A:276:LEU:HD23	2.38	0.48
1:A:93:VAL:CG1	1:A:301:ALA:HB1	2.38	0.48
2:B:244:LEU:HD11	2:B:366:GLN:NE2	2.28	0.48
2:B:487:THR:HG22	2:B:488:TYR:N	2.28	0.48
2:B:557:PHE:CZ	2:B:603:LEU:HD11	2.48	0.48
2:B:785:TYR:CD1	2:B:786:ASN:N	2.81	0.48
2:B:792:MET:HA	2:B:856:PHE:O	2.13	0.48
2:B:878:GLN:HB2	2:B:879:ARG:HH11	1.76	0.48
3:C:99:LEU:HD12	3:C:118:LEU:HB3	1.95	0.48
1:A:857:ARG:CZ	6:F:139:PRO:HG3	2.43	0.48
8:H:62:SER:OG	8:H:64:ASN:ND2	2.47	0.48
8:H:91:ASP:C	8:H:93:TYR:H	2.17	0.48
1:M:168:GLY:O	1:M:169:ASN:C	2.50	0.48
1:M:534:LEU:HG	1:M:534:LEU:O	2.12	0.48
1:M:595:THR:O	1:M:596:THR:CG2	2.61	0.48
2:N:1033:LYS:NZ	2:N:1070:GLU:OE1	2.36	0.48
2:N:436:VAL:O	2:N:436:VAL:HG12	2.13	0.48
2:N:594:ALA:N	2:N:617:ARG:NH1	2.61	0.48
2:N:659:ALA:HA	2:N:662:MET:HE2	1.95	0.48
2:N:798:TYR:CD1	10:V:4:PRO:HG3	2.48	0.48
2:N:847:ASP:C	2:N:849:GLY:N	2.66	0.48
2:N:68:THR:HG22	2:N:91:SER:HA	1.94	0.48
3:O:35:ARG:NH1	11:W:41:THR:N	2.60	0.48
1:M:1450:LEU:CD1	6:R:108:PHE:CZ	2.96	0.48
9:U:88:SER:HB3	9:U:95:THR:HG21	1.95	0.48
11:W:113:THR:O	11:W:114:LEU:CB	2.61	0.48
11:W:88:LYS:O	11:W:91:CYS:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1123:GLY:O	1:A:1125:ALA:N	2.46	0.48
1:A:186:LYS:HZ1	1:A:197:PRO:HD3	1.78	0.48
1:A:53:LEU:CD2	1:A:54:ASN:N	2.55	0.48
2:B:336:ARG:HG3	2:B:336:ARG:NH1	2.28	0.48
2:B:39:ARG:NH2	2:B:665:GLU:CG	2.75	0.48
2:B:479:VAL:O	2:B:480:SER:HB3	2.12	0.48
2:B:806:THR:HG22	2:B:808:ALA:HB3	1.95	0.48
3:C:33:LEU:O	3:C:37:MET:HG3	2.12	0.48
4:D:12:ARG:HH12	4:D:14:ARG:HA	1.78	0.48
4:D:56:ARG:HD3	4:D:149:THR:HA	1.96	0.48
7:G:126:ASN:C	7:G:126:ASN:ND2	2.67	0.48
7:G:139:ILE:CG2	7:G:140:LYS:N	2.76	0.48
8:H:109:LYS:HG2	8:H:110:ASP:OD1	2.13	0.48
1:A:567:LYS:CE	8:H:46:LEU:HB2	2.43	0.48
1:M:162:VAL:HG12	1:M:163:SER:H	1.78	0.48
1:M:390:GLN:O	1:M:394:ASN:HB2	2.12	0.48
1:M:946:VAL:HG22	5:Q:201:LYS:HD2	1.94	0.48
1:M:996:ASN:HA	1:M:998:LEU:CD1	2.44	0.48
2:N:97:VAL:HG12	2:N:97:VAL:O	2.13	0.48
3:O:114:TYR:HB2	3:O:116:LYS:HG2	1.94	0.48
3:O:213:PRO:HG2	3:O:214:ASN:H	1.78	0.48
4:P:185:CYS:SG	4:P:191:ALA:N	2.86	0.48
8:T:4:THR:HA	8:T:60:ALA:CB	2.20	0.48
9:U:61:ASP:C	9:U:63:GLY:N	2.66	0.48
1:A:1011:GLN:NE2	1:A:1015:VAL:CG2	2.76	0.48
1:A:1148:ILE:CG1	1:A:1198:ASP:HB2	2.43	0.48
1:A:1313:LEU:HD23	1:A:1338:VAL:CG2	2.43	0.48
1:A:463:ILE:HD11	1:A:469:ARG:HG3	1.96	0.48
1:A:476:SER:HB2	1:A:477:PRO:HD3	1.95	0.48
1:A:69:THR:C	1:A:71:GLN:N	2.65	0.48
2:B:594:ALA:CA	2:B:617:ARG:NH1	2.76	0.48
2:B:889:THR:O	2:B:889:THR:HG22	2.13	0.48
2:B:918:ILE:HD12	2:B:935:ARG:NH1	2.28	0.48
3:C:133:ILE:CD1	3:C:236:GLY:C	2.82	0.48
5:E:96:PHE:CZ	5:E:100:ILE:HD11	2.49	0.48
9:I:7:CYS:SG	9:I:8:ARG:O	2.72	0.48
11:K:47:ARG:CB	11:K:47:ARG:HH11	2.21	0.48
12:L:47:ARG:CG	12:L:48:CYS:H	2.26	0.48
12:L:59:ALA:O	12:L:60:ARG:O	2.32	0.48
1:M:1124:HIS:HB2	1:M:1130:GLN:HG2	1.93	0.48
1:M:370:ILE:HG22	1:M:374:LEU:HD12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:738:LYS:HD3	1:M:738:LYS:H	1.78	0.48
2:N:1116:ARG:HG3	2:N:1198:TYR:CG	2.48	0.48
2:N:212:LEU:HD23	2:N:480:SER:HB2	1.95	0.48
1:M:829:VAL:HG21	2:N:508:LEU:HD13	1.95	0.48
2:N:642:ASP:HB3	2:N:649:LYS:HG3	1.95	0.48
3:O:177:GLU:CG	3:O:231:ASN:HB3	2.27	0.48
4:P:154:PHE:CE1	4:P:163:VAL:CG2	2.96	0.48
8:T:81:PRO:CB	8:T:82:PRO:CD	2.88	0.48
1:A:332:LYS:O	1:A:333:GLU:CB	2.61	0.48
1:A:967:ALA:O	1:A:971:PHE:HD1	1.97	0.48
2:B:522:VAL:HG11	2:B:537:LYS:HB3	1.95	0.48
2:B:557:PHE:HD2	2:B:557:PHE:O	1.96	0.48
2:B:878:GLN:HA	2:B:885:MET:SD	2.53	0.48
3:C:260:LEU:O	3:C:263:THR:HB	2.13	0.48
3:C:63:ILE:HA	3:C:66:ARG:HG3	1.95	0.48
4:D:156:ASP:CB	4:D:159:THR:HG23	2.44	0.48
4:D:71:LYS:CA	4:D:74:GLN:HB2	2.39	0.48
12:L:26:THR:C	12:L:27:LEU:HD23	2.34	0.48
12:L:30:ILE:CG2	12:L:31:CYS:N	2.76	0.48
1:M:1259:MET:HA	1:M:1262:LYS:CD	2.37	0.48
1:M:392:VAL:HG13	1:M:415:LEU:HD11	1.95	0.48
2:N:1096:ARG:NH1	2:N:1096:ARG:HB2	2.28	0.48
2:N:1099:VAL:HG13	2:N:1100:ASP:N	2.29	0.48
4:P:139:LYS:O	4:P:143:ASN:ND2	2.46	0.48
4:P:189:ASP:OD2	7:S:167:TYR:HE1	1.96	0.48
5:Q:129:PRO:O	5:Q:130:ALA:C	2.52	0.48
7:S:116:PRO:CG	7:S:119:LEU:HB2	2.43	0.48
8:T:61:SER:HB3	8:T:139:ASN:HB3	1.96	0.48
11:W:53:ASP:OD2	11:W:81:TYR:OH	2.28	0.48
12:X:38:LEU:HD11	12:X:49:LYS:HE2	1.96	0.48
14:2:4:DA:H2"	14:2:5:DC:C6	2.48	0.48
1:A:1410:PHE:HD2	2:B:1212:ILE:HD11	1.79	0.48
1:A:321:PRO:O	1:A:322:VAL:CB	2.61	0.48
1:A:332:LYS:C	1:A:334:GLY:N	2.66	0.48
1:A:344:ARG:CB	1:A:344:ARG:HH11	2.12	0.48
1:A:523:ILE:HG13	1:A:622:VAL:CG2	2.43	0.48
1:A:65:LEU:O	1:A:66:LYS:O	2.31	0.48
1:A:95:PHE:O	1:A:96:ILE:C	2.51	0.48
2:B:446:LEU:HG	2:B:446:LEU:O	2.13	0.48
2:B:552:MET:C	2:B:554:ILE:H	2.17	0.48
3:C:236:GLY:O	3:C:238:ILE:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:44:LEU:HD21	3:C:159:ALA:HB1	1.95	0.48
4:D:56:ARG:CA	4:D:148:LEU:HD13	2.43	0.48
1:A:870:GLU:HG2	5:E:208:TYR:CG	2.47	0.48
6:F:69:LEU:HB3	6:F:71:GLU:CG	2.44	0.48
7:G:1:MET:HE1	7:G:80:LYS:H	1.78	0.48
8:H:61:SER:O	8:H:62:SER:HB2	2.13	0.48
1:M:1109:LYS:HG3	1:M:1110:ASN:ND2	2.28	0.48
1:M:1121:GLU:HB3	1:M:1124:HIS:CD2	2.48	0.48
1:M:1202:MET:HE1	1:M:1212:VAL:CG2	2.44	0.48
1:M:316:GLN:HG2	1:M:317:LYS:N	2.28	0.48
1:M:821:ARG:O	1:M:825:ILE:HG13	2.13	0.48
2:N:1020:ARG:HB2	2:N:1022:THR:HG22	1.96	0.48
2:N:552:MET:C	2:N:554:ILE:H	2.17	0.48
2:N:604:ARG:C	2:N:606:LYS:H	2.16	0.48
2:N:780:VAL:HG11	10:V:56:LEU:HD13	1.96	0.48
3:O:242:GLN:C	3:O:244:VAL:H	2.16	0.48
4:P:209:ARG:HA	4:P:212:LYS:CD	2.43	0.48
7:S:43:GLY:HA2	7:S:157:ILE:HD11	1.95	0.48
8:T:24:CYS:HB2	8:T:44:VAL:CG2	2.42	0.48
9:U:77:LYS:O	9:U:79:HIS:N	2.46	0.48
11:W:53:ASP:HB3	11:W:56:VAL:CG2	2.44	0.48
1:A:1315:GLU:O	1:A:1317:MET:N	2.46	0.48
1:A:41:MET:O	1:A:42:ASP:O	2.30	0.48
1:A:933:TYR:O	1:A:933:TYR:CD2	2.67	0.48
1:A:963:ILE:HD11	1:A:1049:ILE:N	2.29	0.48
2:B:110:HIS:CB	12:L:54:ARG:HH22	2.25	0.48
2:B:221:ASN:OD1	2:B:242:SER:HA	2.14	0.48
2:B:659:ALA:HA	2:B:662:MET:HE2	1.96	0.48
2:B:798:TYR:CD2	2:B:798:TYR:N	2.81	0.48
2:B:872:GLU:CD	2:B:914:LYS:HE2	2.34	0.48
4:D:29:LEU:HD12	7:G:82:PHE:CZ	2.49	0.48
5:E:55:ARG:CD	5:E:113:GLN:HE21	2.27	0.48
5:E:69:ILE:HD12	5:E:69:ILE:N	2.29	0.48
9:I:19:ASP:CB	9:I:24:ARG:HG2	2.42	0.48
1:A:1268:LEU:CD1	9:I:48:LEU:HD11	2.44	0.48
10:J:44:TYR:N	10:J:44:TYR:CD2	2.74	0.48
11:K:57:LEU:HD11	11:K:78:THR:HA	1.96	0.48
1:M:1332:PHE:CE1	1:M:1381:LEU:HD13	2.49	0.48
1:M:565:ILE:CG2	1:M:567:LYS:HE2	2.43	0.48
1:M:902:LEU:CG	1:M:926:GLN:HG3	2.34	0.48
2:N:216:GLU:HB2	2:N:406:LEU:CD2	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:558:LEU:O	2:N:560:GLU:N	2.47	0.48
2:N:629:ASP:HB3	2:N:632:ARG:HD3	1.96	0.48
2:N:944:THR:HG21	2:N:1122:ARG:NH2	2.28	0.48
3:O:98:VAL:HG13	3:O:157:CYS:O	2.14	0.48
3:O:226:ASP:O	3:O:227:THR:HB	2.14	0.48
3:O:97:VAL:HG21	3:O:129:ILE:CG2	2.44	0.48
4:P:209:ARG:HA	4:P:212:LYS:HE3	1.96	0.48
5:Q:94:LYS:HE2	5:Q:98:ILE:CG1	2.43	0.48
6:R:90:ARG:HG3	6:R:91:ALA:N	2.27	0.48
7:S:12:THR:O	7:S:12:THR:HG22	2.13	0.48
12:X:38:LEU:HG	12:X:39:SER:N	2.29	0.48
2:N:110:HIS:CB	12:X:54:ARG:HH22	2.27	0.48
1:A:1025:ARG:HG3	1:A:1025:ARG:NH1	2.28	0.48
1:A:1150:SER:O	1:A:1151:GLU:HG3	2.14	0.48
1:A:1193:LEU:HD12	1:A:1193:LEU:C	2.35	0.48
1:A:1254:ALA:O	1:A:1255:GLU:HB3	2.13	0.48
1:A:709:THR:CG2	1:A:710:LEU:H	2.25	0.48
1:A:728:LYS:HA	1:A:731:ARG:CZ	2.43	0.48
1:A:929:LEU:HD21	1:A:983:ILE:CG2	2.43	0.48
2:B:579:ARG:CB	2:B:586:TRP:HE1	2.10	0.48
4:D:216:ASN:C	4:D:218:GLU:H	2.16	0.48
5:E:29:PHE:HA	5:E:65:THR:HG22	1.95	0.48
12:L:40:LEU:HD22	12:L:44:ASP:OD2	2.13	0.48
1:M:164:ARG:CG	1:M:165:GLY:N	2.75	0.48
1:M:899:VAL:CG2	1:M:908:LEU:HD21	2.43	0.48
2:N:1110:PRO:C	2:N:1119:VAL:HG13	2.34	0.48
2:N:128:LEU:HB2	2:N:168:GLY:O	2.13	0.48
2:N:448:ILE:O	2:N:450:ALA:N	2.46	0.48
2:N:582:VAL:O	2:N:582:VAL:HG12	2.13	0.48
2:N:822:ASN:ND2	10:V:52:THR:HG21	2.29	0.48
2:N:996:ARG:NH1	3:O:174:ALA:HA	2.27	0.48
4:P:119:ARG:HB2	4:P:221:TYR:CZ	2.48	0.48
7:S:132:SER:HB3	7:S:135:ASP:H	1.79	0.48
7:S:9:LEU:HD12	7:S:10:ASN:N	2.28	0.48
8:T:135:LEU:HD13	8:T:137:GLN:NE2	2.29	0.48
1:A:250:ILE:CG2	1:A:250:ILE:O	2.59	0.48
1:A:598:LEU:O	1:A:598:LEU:HD23	2.13	0.48
2:B:273:LEU:HB2	2:B:276:ILE:HD12	1.95	0.48
2:B:654:ARG:O	2:B:657:HIS:N	2.47	0.48
3:C:253:LYS:O	3:C:256:ALA:HB3	2.14	0.48
3:C:3:GLU:CD	3:C:4:GLU:HG3	2.35	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:89:GLU:HG2	3:C:89:GLU:O	2.14	0.48
7:G:7:LEU:CB	7:G:74:TYR:HE2	2.26	0.48
2:B:848:ARG:HD3	10:J:11:GLY:HA2	1.96	0.48
1:M:1315:GLU:O	1:M:1317:MET:N	2.47	0.48
1:M:1333:ILE:O	1:M:1337:GLU:HG3	2.14	0.48
1:M:1313:LEU:HD23	1:M:1338:VAL:HG21	1.95	0.48
1:M:399:HIS:CG	1:M:400:PRO:N	2.81	0.48
1:M:477:PRO:CG	1:M:521:MET:HG2	2.43	0.48
2:N:853:SER:OG	2:N:1094:ARG:NH1	2.47	0.48
2:N:875:GLU:O	2:N:877:PRO:HD3	2.14	0.48
5:Q:116:ILE:HG22	5:Q:120:ALA:HB3	1.96	0.48
5:Q:207:ARG:CB	5:Q:207:ARG:NH1	2.77	0.48
5:Q:177:ARG:HD3	5:Q:215:MET:CG	2.43	0.48
7:S:7:LEU:HB2	7:S:74:TYR:HE2	1.74	0.48
10:V:6:ARG:HA	10:V:12:LYS:O	2.14	0.48
1:A:175:ARG:HG2	1:A:182:VAL:HG12	1.96	0.48
1:A:42:ASP:HB3	1:A:45:GLN:HA	1.95	0.48
1:A:504:LEU:CD1	6:F:91:ALA:HB2	2.44	0.48
2:B:1182:CYS:SG	2:B:1182:CYS:O	2.72	0.48
2:B:240:ILE:HG23	2:B:240:ILE:O	2.14	0.48
2:B:221:ASN:N	2:B:241:ARG:O	2.40	0.48
2:B:237:VAL:HG22	2:B:257:LYS:HA	1.96	0.48
2:B:429:PHE:CD1	2:B:432:MET:HE3	2.49	0.48
2:B:999:MET:HE2	2:B:1000:PRO:CD	2.43	0.48
5:E:128:PRO:HA	5:E:129:PRO:O	2.14	0.48
6:F:69:LEU:HD22	6:F:71:GLU:OE1	2.14	0.48
10:J:42:LYS:HG2	10:J:43:ARG:N	2.28	0.48
10:J:64:ASN:CB	10:J:65:PRO:HD3	2.42	0.48
11:K:109:TRP:O	11:K:112:GLN:HB2	2.13	0.48
11:K:21:ILE:HG12	11:K:33:ILE:HG12	1.94	0.48
1:M:1116:LEU:HD12	1:M:1116:LEU:C	2.35	0.48
1:M:846:GLU:OE1	1:M:1425:SER:OG	2.32	0.48
1:M:102:VAL:CG1	1:M:211:PHE:HE1	2.27	0.48
1:M:385:ILE:HG22	1:M:386:ASP:N	2.29	0.48
1:M:43:GLU:OE2	1:M:48:ALA:CB	2.62	0.48
1:M:845:LEU:O	1:M:846:GLU:C	2.52	0.48
2:N:27:ALA:O	2:N:29:ASP:N	2.47	0.48
2:N:806:THR:HG22	2:N:808:ALA:HB3	1.96	0.48
3:O:99:LEU:CD2	3:O:99:LEU:N	2.76	0.48
4:P:209:ARG:HA	4:P:212:LYS:CE	2.44	0.48
5:Q:48:ASP:CG	5:Q:49:SER:N	2.64	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:13:LEU:HD22	7:S:17:PHE:HB2	1.90	0.48
7:S:1:MET:O	7:S:3:PHE:CE2	2.67	0.48
7:S:26:LEU:HD12	7:S:56:ILE:CD1	2.43	0.48
1:A:1203:ASN:O	1:A:1204:ASP:C	2.52	0.47
1:A:1313:LEU:C	1:A:1315:GLU:N	2.67	0.47
1:A:1341:ILE:HG23	1:A:1342:GLU:N	2.28	0.47
1:A:1350:LYS:O	1:A:1354:ASN:ND2	2.46	0.47
1:A:544:ASP:CG	1:A:545:GLN:N	2.67	0.47
2:B:1156:ASP:HB3	2:B:1197:PRO:HA	1.96	0.47
2:B:433:GLN:O	2:B:434:ARG:HG3	2.14	0.47
1:A:822:GLU:HG3	2:B:513:GLN:HE21	1.79	0.47
2:B:886:LYS:HE2	2:B:940:PRO:CD	2.43	0.47
4:D:217:LEU:O	4:D:219:THR:N	2.47	0.47
5:E:182:ASP:HB3	5:E:185:ALA:HB2	1.96	0.47
5:E:2:ASP:C	5:E:3:GLN:HG2	2.35	0.47
6:F:81:THR:HB	6:F:136:ARG:NH1	2.29	0.47
10:J:36:LEU:HD11	10:J:51:LEU:HB2	1.96	0.47
1:M:1166:ASP:OD1	1:M:1194:ARG:NH2	2.45	0.47
1:M:332:LYS:O	1:M:333:GLU:CB	2.59	0.47
2:N:244:LEU:CD1	2:N:250:PHE:HD1	2.27	0.47
2:N:519:TRP:CD1	2:N:519:TRP:C	2.87	0.47
2:N:642:ASP:HB3	2:N:649:LYS:HD2	1.96	0.47
2:N:889:THR:O	2:N:889:THR:HG22	2.13	0.47
4:P:122:GLU:HA	4:P:125:SER:OG	2.14	0.47
8:T:87:ARG:O	8:T:89:LEU:HD23	2.14	0.47
15:3:5:C:H2'	15:3:6:A:H8	1.80	0.47
14:5:4:DA:H2''	14:5:5:DC:C6	2.48	0.47
1:A:1135:ARG:HG2	1:A:1136:SER:N	2.27	0.47
1:A:1217:LYS:O	1:A:1221:LYS:HA	2.13	0.47
1:A:565:ILE:HG23	1:A:567:LYS:CG	2.38	0.47
1:A:688:LYS:HG3	1:A:691:LEU:HD23	1.96	0.47
1:A:845:LEU:O	1:A:846:GLU:C	2.52	0.47
1:A:961:ARG:CG	1:A:961:ARG:HH11	2.27	0.47
2:B:278:GLN:CG	2:B:279:ASP:N	2.78	0.47
2:B:449:ASN:C	2:B:451:LYS:H	2.17	0.47
2:B:658:ILE:HG22	2:B:659:ALA:N	2.28	0.47
2:B:798:TYR:HE2	3:C:62:PHE:CZ	2.32	0.47
7:G:91:VAL:HG12	7:G:92:VAL:N	2.29	0.47
1:M:107:CYS:CB	1:M:171:GLN:HE22	2.27	0.47
1:M:690:VAL:CG2	1:M:718:VAL:HG13	2.44	0.47
1:M:902:LEU:CD2	1:M:923:LEU:HD23	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:946:VAL:HG22	5:Q:201:LYS:HB3	1.96	0.47
4:P:126:ILE:HD13	4:P:145:MET:CE	2.44	0.47
4:P:173:HIS:ND1	4:P:175:PHE:N	2.46	0.47
4:P:56:ARG:HH21	4:P:155:ARG:CG	2.21	0.47
9:U:7:CYS:HB2	9:U:34:TYR:CG	2.49	0.47
14:2:3:DT:C2	14:2:4:DA:N7	2.82	0.47
1:A:1006:ILE:HD11	5:E:163:GLU:CG	2.41	0.47
1:A:1397:LEU:HB2	1:A:1426:GLU:OE1	2.14	0.47
1:A:168:GLY:O	1:A:169:ASN:C	2.51	0.47
1:A:93:VAL:CG2	1:A:301:ALA:HA	2.42	0.47
1:A:463:ILE:HB	1:A:464:PRO:HD2	1.96	0.47
2:B:1006:ILE:HG13	2:B:1006:ILE:H	1.41	0.47
2:B:131:ASP:HA	2:B:164:LYS:HB3	1.96	0.47
3:C:226:ASP:O	3:C:227:THR:HB	2.14	0.47
3:C:241:ASP:HB3	11:K:109:TRP:CE2	2.49	0.47
5:E:108:GLY:O	5:E:132:ILE:HG23	2.15	0.47
10:J:7:CYS:CB	10:J:49:MET:HE3	2.43	0.47
12:L:33:GLU:OE1	12:L:55:ILE:HD11	2.15	0.47
1:M:1048:ASN:N	1:M:1048:ASN:HD22	2.10	0.47
1:M:1127:ASP:CG	1:M:1130:GLN:HB2	2.34	0.47
1:M:407:ARG:HG2	1:M:430:TRP:CH2	2.48	0.47
2:N:378:LEU:HD12	2:N:378:LEU:O	2.13	0.47
2:N:515:HIS:HD2	2:N:517:THR:HG23	1.76	0.47
2:N:95:ILE:HG13	2:N:130:VAL:CG2	2.43	0.47
3:O:184:ASN:OD1	3:O:187:LYS:HA	2.15	0.47
4:P:190:GLU:HA	7:S:167:TYR:CE1	2.48	0.47
5:Q:162:ARG:HH11	5:Q:162:ARG:HG2	1.78	0.47
7:S:74:TYR:H	7:S:74:TYR:HD2	1.62	0.47
13:1:25:DG:N9	13:1:26:DT:H72	2.30	0.47
1:A:568:PRO:CB	3:C:221:TYR:OH	2.62	0.47
1:A:761:MET:HA	1:A:804:TYR:HB2	1.96	0.47
1:A:789:LYS:HD2	2:B:620:ARG:HH12	1.79	0.47
2:B:1050:ILE:HG22	2:B:1051:THR:N	2.28	0.47
2:B:1197:PRO:O	2:B:1200:ALA:N	2.44	0.47
2:B:244:LEU:CD1	2:B:250:PHE:HD1	2.27	0.47
2:B:33:VAL:O	2:B:36:ALA:HB3	2.14	0.47
2:B:408:LEU:N	2:B:408:LEU:HD12	2.29	0.47
4:D:209:ARG:HA	4:D:212:LYS:CD	2.43	0.47
5:E:94:LYS:HE2	5:E:98:ILE:CD1	2.27	0.47
7:G:88:ASP:OD2	7:G:88:ASP:N	2.46	0.47
9:I:77:LYS:O	9:I:79:HIS:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:38:LEU:CG	12:L:39:SER:N	2.77	0.47
1:M:1332:PHE:HE1	1:M:1381:LEU:HD13	1.79	0.47
1:M:13:THR:HB	1:M:1432:GLN:NE2	2.29	0.47
1:M:353:ILE:HG22	1:M:468:PHE:HB2	1.96	0.47
1:M:472:LEU:O	1:M:475:THR:CB	2.58	0.47
2:N:1079:LYS:HA	3:O:27:LEU:HD21	1.96	0.47
2:N:1110:PRO:O	2:N:1119:VAL:HG13	2.14	0.47
2:N:1201:LYS:CE	2:N:1205:GLN:OE1	2.59	0.47
2:N:124:TYR:HH	2:N:179:CYS:HG	1.56	0.47
2:N:244:LEU:HD12	2:N:250:PHE:HD1	1.79	0.47
2:N:251:ILE:HG22	2:N:251:ILE:O	2.15	0.47
2:N:35:SER:O	2:N:39:ARG:HG3	2.13	0.47
2:N:604:ARG:CB	2:N:609:ILE:HG13	2.44	0.47
5:Q:145:THR:HG21	5:Q:187:TYR:CE2	2.49	0.47
5:Q:153:HIS:C	5:Q:154:ILE:HG13	2.32	0.47
7:S:146:LYS:HD2	7:S:165:GLU:HG3	1.95	0.47
4:P:58:VAL:HG11	7:S:4:ILE:HD11	1.95	0.47
12:X:38:LEU:CG	12:X:39:SER:N	2.77	0.47
1:A:1313:LEU:C	1:A:1315:GLU:H	2.17	0.47
1:A:285:PRO:O	1:A:287:HIS:N	2.47	0.47
1:A:381:THR:CG2	1:A:382:PRO:HD2	2.44	0.47
1:A:61:ILE:HG22	1:A:62:ASP:H	1.79	0.47
2:B:227:LYS:HE2	2:B:236:HIS:CE1	2.49	0.47
2:B:335:GLY:O	2:B:336:ARG:HG3	2.13	0.47
4:D:122:GLU:HA	4:D:125:SER:OG	2.15	0.47
1:A:946:VAL:CG2	5:E:201:LYS:HD2	2.42	0.47
1:A:709:THR:HG23	9:I:94:ASP:HA	1.97	0.47
10:J:30:LEU:HD21	10:J:38:ARG:NH1	2.29	0.47
1:M:335:ARG:NH1	2:N:1202:LEU:HD13	2.29	0.47
1:M:354:SER:HA	1:M:482:PHE:CD2	2.49	0.47
1:M:820:GLY:O	1:M:823:GLY:N	2.48	0.47
2:N:43:LEU:HD11	2:N:811:TYR:O	2.14	0.47
2:N:642:ASP:CB	2:N:649:LYS:HG3	2.44	0.47
2:N:805:THR:CG2	2:N:806:THR:H	2.18	0.47
2:N:831:SER:HB2	2:N:833:TYR:HD1	1.79	0.47
2:N:835:GLN:HE21	2:N:835:GLN:HB2	1.48	0.47
2:N:878:GLN:HA	2:N:885:MET:SD	2.55	0.47
3:O:99:LEU:N	3:O:99:LEU:HD22	2.30	0.47
4:P:12:ARG:HD3	4:P:14:ARG:CG	2.43	0.47
4:P:216:ASN:O	4:P:218:GLU:N	2.48	0.47
4:P:7:THR:HG23	4:P:7:THR:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:120:THR:HG23	7:S:131:GLN:O	2.14	0.47
1:A:1041:ALA:O	1:A:1045:VAL:HG23	2.15	0.47
1:A:1100:ARG:NH2	1:A:1351:GLU:HG2	2.30	0.47
2:B:617:ARG:HH22	9:I:61:ASP:CG	2.18	0.47
3:C:196:ASP:OD1	3:C:198:ALA:HB3	2.15	0.47
3:C:196:ASP:CG	3:C:199:LYS:HD3	2.35	0.47
4:D:69:ALA:C	4:D:71:LYS:H	2.17	0.47
6:F:152:ILE:HG22	6:F:153:VAL:N	2.29	0.47
7:G:87:VAL:HG23	7:G:103:VAL:HG21	1.97	0.47
8:H:81:PRO:HB3	8:H:82:PRO:HD2	1.96	0.47
10:J:53:HIS:CD2	10:J:54:VAL:H	2.31	0.47
1:M:12:ARG:HD2	2:N:1218:THR:HB	1.96	0.47
1:M:1389:PHE:C	1:M:1391:ARG:H	2.18	0.47
1:M:255:SER:OG	2:N:918:ILE:HD13	2.14	0.47
1:M:56:PRO:O	1:M:57:ARG:CG	2.61	0.47
1:M:60:SER:OG	1:M:61:ILE:N	2.48	0.47
2:N:121:ASN:ND2	2:N:207:GLY:HA3	2.28	0.47
2:N:211:VAL:HG23	2:N:483:LEU:HB2	1.97	0.47
2:N:247:GLY:H	2:N:249:ARG:HH21	1.63	0.47
2:N:277:LYS:HE2	2:N:336:ARG:C	2.35	0.47
2:N:785:TYR:CD1	2:N:786:ASN:N	2.82	0.47
3:O:254:LYS:O	3:O:258:ILE:HD13	2.15	0.47
4:P:67:ARG:HG2	4:P:67:ARG:O	2.15	0.47
5:Q:60:PHE:CD1	5:Q:60:PHE:C	2.87	0.47
12:X:33:GLU:OE1	12:X:55:ILE:HD11	2.15	0.47
1:A:1193:LEU:HB2	1:A:1260:LEU:HD11	1.96	0.47
1:A:1450:LEU:HG	1:A:1450:LEU:O	2.15	0.47
1:A:305:ASP:OD1	1:A:306:ASN:N	2.47	0.47
1:A:310:GLY:O	1:A:312:PRO:CD	2.60	0.47
1:A:407:ARG:HG2	1:A:430:TRP:CH2	2.49	0.47
1:A:75:ASN:O	1:A:76:GLU:HB2	2.15	0.47
1:A:899:VAL:HG22	1:A:908:LEU:HD21	1.95	0.47
1:A:949:ASP:OD1	1:A:951:GLU:HB2	2.14	0.47
2:B:189:LEU:HA	2:B:192:LEU:HD12	1.96	0.47
2:B:115:GLN:HG2	2:B:193:LYS:CB	2.44	0.47
2:B:597:MET:SD	2:B:617:ARG:HB2	2.55	0.47
2:B:807:ARG:HD3	2:B:1043:ASP:OD1	2.15	0.47
2:B:953:LEU:O	2:B:964:VAL:HG23	2.14	0.47
3:C:73:GLN:NE2	3:C:75:MET:N	2.62	0.47
10:J:9:SER:CB	10:J:45:CYS:HB2	2.45	0.47
1:M:1257:ASP:HA	1:M:1260:LEU:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1342:GLU:OE2	5:Q:212:ARG:NH1	2.46	0.47
1:M:378:GLU:OE1	1:M:434:ARG:HD3	2.14	0.47
1:M:401:GLY:N	1:M:435:HIS:HD2	2.13	0.47
1:M:69:THR:C	1:M:71:GLN:N	2.67	0.47
1:M:675:THR:HG21	1:M:736:ASN:HB2	1.96	0.47
1:M:963:ILE:HD13	1:M:1049:ILE:HG13	1.96	0.47
2:N:417:PHE:HE1	2:N:453:ILE:HG21	1.80	0.47
2:N:661:LEU:HD23	2:N:679:TYR:O	2.14	0.47
1:A:1050:GLU:O	1:A:1054:LEU:HD12	2.14	0.47
1:A:1280:GLU:HB3	1:A:1281:ARG:H	1.59	0.47
1:A:765:VAL:HB	1:A:800:VAL:CG1	2.45	0.47
2:B:102:VAL:CG2	2:B:112:LEU:HD22	2.44	0.47
2:B:118:ARG:HH22	2:B:194:GLU:CD	2.18	0.47
2:B:487:THR:CG2	2:B:488:TYR:N	2.78	0.47
2:B:558:LEU:O	2:B:560:GLU:N	2.48	0.47
2:B:594:ALA:HA	2:B:617:ARG:HH11	1.80	0.47
2:B:996:ARG:NH1	3:C:174:ALA:HA	2.20	0.47
3:C:213:PRO:HG2	3:C:214:ASN:H	1.80	0.47
3:C:89:GLU:O	3:C:90:ASP:HB3	2.14	0.47
4:D:12:ARG:NH1	4:D:14:ARG:CA	2.78	0.47
5:E:191:LYS:O	5:E:192:ARG:C	2.52	0.47
5:E:204:THR:CG2	5:E:205:SER:N	2.77	0.47
7:G:111:THR:CG2	7:G:114:LEU:HB2	2.25	0.47
9:I:10:CYS:SG	9:I:32:CYS:HB3	2.54	0.47
1:M:1148:ILE:O	1:M:1148:ILE:HG22	2.15	0.47
1:M:1345:ARG:HG2	1:M:1372:VAL:CG1	2.45	0.47
1:M:460:VAL:HG12	1:M:461:LYS:N	2.30	0.47
1:M:689:LYS:O	1:M:693:VAL:HG23	2.14	0.47
2:N:483:LEU:HD11	2:N:491:THR:CG2	2.45	0.47
2:N:641:GLU:OE1	2:N:641:GLU:HA	2.15	0.47
2:N:889:THR:HG23	2:N:891:ASP:HB2	1.97	0.47
4:P:161:GLY:O	4:P:165:GLN:HG3	2.14	0.47
4:P:187:THR:C	4:P:189:ASP:N	2.66	0.47
4:P:191:ALA:C	4:P:193:THR:H	2.18	0.47
6:R:119:ARG:HH11	6:R:119:ARG:CG	2.28	0.47
8:T:113:ALA:HA	8:T:125:LEU:O	2.14	0.47
1:A:134:ARG:HG2	1:A:138:ILE:HD11	1.97	0.47
1:A:144:THR:O	1:A:146:MET:HG3	2.14	0.47
1:A:321:PRO:O	1:A:322:VAL:CG1	2.63	0.47
1:A:364:VAL:O	1:A:364:VAL:HG13	2.15	0.47
1:A:71:GLN:C	1:A:73:GLY:N	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:909:ASP:OD1	1:A:911:SER:N	2.41	0.47
2:B:863:GLU:OE1	2:B:962:LYS:HB2	2.15	0.47
3:C:238:ILE:HG23	3:C:242:GLN:HB2	1.96	0.47
3:C:242:GLN:C	3:C:244:VAL:H	2.17	0.47
8:H:99:GLY:HA3	8:H:118:PHE:CD2	2.49	0.47
1:M:305:ASP:OD1	1:M:306:ASN:N	2.48	0.47
1:M:416:ARG:HG3	1:M:416:ARG:HH11	1.79	0.47
1:M:523:ILE:HG13	1:M:622:VAL:HG22	1.97	0.47
1:M:962:ARG:C	1:M:964:ILE:N	2.68	0.47
2:N:1039:GLY:HA2	10:V:51:LEU:HD22	1.97	0.47
2:N:20:ASP:C	2:N:22:SER:H	2.12	0.47
2:N:273:LEU:CD1	2:N:280:ILE:HD12	2.37	0.47
2:N:428:ILE:HG22	2:N:432:MET:HE2	1.97	0.47
2:N:90:ILE:HD11	2:N:432:MET:SD	2.55	0.47
3:O:3:GLU:OE1	3:O:4:GLU:N	2.47	0.47
4:P:194:LEU:C	4:P:195:ILE:HG13	2.34	0.47
6:R:103:MET:O	6:R:104:ASN:HB2	2.13	0.47
6:R:111:LEU:C	6:R:113:GLY:N	2.66	0.47
11:W:12:LEU:HD12	11:W:37:LYS:CG	2.45	0.47
1:A:100:LYS:HE2	1:A:104:GLU:OE2	2.14	0.47
1:A:477:PRO:CG	1:A:521:MET:HG2	2.45	0.47
1:A:675:THR:OG1	1:A:736:ASN:ND2	2.47	0.47
2:B:604:ARG:C	2:B:606:LYS:H	2.18	0.47
5:E:147:HIS:CD2	5:E:148:GLU:N	2.83	0.47
5:E:144:ILE:HD13	5:E:183:PRO:HB3	1.97	0.47
9:I:74:GLU:HA	9:I:80:SER:O	2.15	0.47
1:M:845:LEU:HD12	1:M:1069:ALA:HB2	1.96	0.47
1:M:1259:MET:HE1	1:M:1262:LYS:HB2	1.97	0.47
1:M:175:ARG:HG2	1:M:182:VAL:HG12	1.97	0.47
1:M:322:VAL:O	1:M:322:VAL:HG13	2.15	0.47
1:M:645:LEU:HD11	1:M:649:ILE:HD11	1.97	0.47
2:N:167:ILE:HA	2:N:450:ALA:HB1	1.94	0.47
2:N:224:GLN:HA	2:N:396:ASP:OD2	2.15	0.47
2:N:235:SER:C	2:N:236:HIS:CD2	2.88	0.47
2:N:371:GLU:N	2:N:371:GLU:OE1	2.47	0.47
2:N:58:THR:O	2:N:62:ILE:HG13	2.15	0.47
3:O:186:LEU:N	3:O:186:LEU:HD12	2.29	0.47
3:O:259:LEU:CD2	11:W:91:CYS:HB3	2.45	0.47
4:P:154:PHE:HE1	4:P:163:VAL:CG1	2.26	0.47
5:Q:177:ARG:HB3	5:Q:215:MET:HG2	1.96	0.47
1:A:868:TYR:CE1	1:A:1064:VAL:HG11	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1189:SER:O	1:A:1241:ARG:HD3	2.15	0.47
1:A:1277:GLU:O	1:A:1279:ILE:N	2.47	0.47
1:A:53:LEU:O	1:A:54:ASN:C	2.52	0.47
1:A:67:CYS:O	1:A:68:GLN:HG3	2.15	0.47
1:A:75:ASN:HD22	2:B:1116:ARG:HH12	1.62	0.47
2:B:172:ILE:HD13	2:B:178:ASN:ND2	2.30	0.47
2:B:222:ILE:N	2:B:240:ILE:HD12	2.30	0.47
1:A:472:LEU:HD13	2:B:835:GLN:OE1	2.15	0.47
2:B:886:LYS:HB2	2:B:890:TYR:OH	2.15	0.47
2:B:906:SER:O	2:B:941:LEU:HD23	2.15	0.47
3:C:147:LEU:CD2	3:C:147:LEU:N	2.75	0.47
6:F:77:ASP:OD1	6:F:78:GLN:N	2.48	0.47
1:A:1438:THR:CG2	6:F:92:ARG:HD2	2.43	0.47
9:I:106:CYS:O	9:I:107:SER:HB2	2.14	0.47
1:M:1207:LEU:CD1	1:M:1273:LEU:HD23	2.45	0.47
1:M:444:PHE:HE2	1:M:470:LEU:HD13	1.80	0.47
1:M:879:GLU:O	1:M:955:PRO:HA	2.15	0.47
2:N:258:LEU:O	2:N:258:LEU:CG	2.63	0.47
2:N:525:ALA:O	2:N:768:THR:HG23	2.15	0.47
2:N:792:MET:HA	2:N:856:PHE:O	2.15	0.47
4:P:60:LYS:O	4:P:64:VAL:HG23	2.15	0.47
7:S:26:LEU:HD12	7:S:56:ILE:HD11	1.97	0.47
8:T:84:ALA:HA	8:T:87:ARG:HB2	1.97	0.47
2:N:186:GLU:CG	10:V:62:ARG:HH22	2.28	0.47
1:A:35:ILE:HG22	1:A:35:ILE:O	2.16	0.46
1:A:984:LYS:HG2	1:A:988:LEU:HD12	1.97	0.46
2:B:223:VAL:HG21	2:B:380:TYR:HE2	1.80	0.46
2:B:361:LEU:HD11	2:B:381:MET:HE1	1.96	0.46
2:B:376:PHE:CZ	2:B:569:TYR:HD2	2.33	0.46
2:B:542:MET:HG2	2:B:747:MET:HE2	1.97	0.46
1:A:1378:GLN:HG2	5:E:177:ARG:HH12	1.80	0.46
11:K:65:HIS:CD2	11:K:67:PHE:HB2	2.50	0.46
12:L:55:ILE:O	12:L:56:LEU:HB2	2.15	0.46
2:N:1156:ASP:HB3	2:N:1197:PRO:HA	1.96	0.46
2:N:371:GLU:H	2:N:371:GLU:CD	2.18	0.46
2:N:171:PRO:HD2	2:N:457:LEU:CD1	2.46	0.46
4:P:139:LYS:N	4:P:142:LYS:HE2	2.29	0.46
4:P:187:THR:HB	4:P:189:ASP:HB3	1.96	0.46
6:R:101:ILE:HD13	6:R:120:ILE:HG22	1.97	0.46
1:M:1433:MET:CE	7:S:63:PRO:HB2	2.41	0.46
1:A:1029:ARG:CG	1:A:1029:ARG:HH11	2.25	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:741:ASN:ND2	1:A:743:VAL:N	2.63	0.46
2:B:470:LYS:O	2:B:472:ALA:N	2.48	0.46
2:B:707:PRO:CG	2:B:708:GLU:H	2.24	0.46
2:B:980:PHE:CA	2:B:1095:LEU:HD11	2.45	0.46
2:B:773:MET:HE2	2:B:985:GLY:HA2	1.97	0.46
2:B:996:ARG:NH2	3:C:175:ALA:H	2.12	0.46
4:D:60:LYS:O	4:D:64:VAL:HG23	2.15	0.46
5:E:116:ILE:HG22	5:E:120:ALA:HB3	1.97	0.46
5:E:62:ALA:HB3	5:E:78:LEU:CD2	2.44	0.46
3:C:7:GLN:NE2	11:K:104:ASN:HD21	2.09	0.46
1:M:1203:ASN:O	1:M:1204:ASP:C	2.53	0.46
1:M:1293:SER:HB3	1:M:1297:GLU:OE1	2.16	0.46
1:M:1375:MET:HG2	1:M:1382:THR:O	2.15	0.46
1:M:320:ARG:NE	1:M:323:LYS:NZ	2.64	0.46
1:M:413:ILE:HG21	1:M:424:ILE:HD11	1.98	0.46
1:M:977:LYS:HB3	1:M:978:PRO:CD	2.45	0.46
2:N:274:PRO:CG	2:N:359:GLU:HB3	2.45	0.46
2:N:637:LEU:HD22	2:N:742:GLU:HA	1.98	0.46
3:O:18:VAL:O	3:O:20:PHE:HD2	1.98	0.46
3:O:236:GLY:O	3:O:238:ILE:N	2.48	0.46
3:O:37:MET:HE3	3:O:176:ILE:HD13	1.98	0.46
5:Q:112:TYR:CD1	5:Q:112:TYR:C	2.89	0.46
5:Q:117:THR:HG22	5:Q:119:SER:N	2.19	0.46
7:S:137:ILE:O	7:S:138:THR:OG1	2.32	0.46
8:T:38:LEU:HD12	8:T:124:ARG:O	2.16	0.46
1:A:157:ASP:C	1:A:159:THR:H	2.18	0.46
1:A:444:PHE:CB	1:A:458:HIS:HD2	2.28	0.46
1:A:61:ILE:HG22	1:A:62:ASP:N	2.31	0.46
1:A:78:PRO:HA	2:B:1201:LYS:NZ	2.30	0.46
2:B:1116:ARG:HG3	2:B:1198:TYR:CD1	2.50	0.46
2:B:96:TYR:HE1	2:B:131:ASP:OD1	1.97	0.46
2:B:617:ARG:HA	2:B:624:LEU:HD12	1.96	0.46
3:C:18:VAL:O	3:C:20:PHE:HD2	1.98	0.46
4:D:219:THR:HG22	4:D:220:LEU:O	2.15	0.46
5:E:192:ARG:NH1	5:E:215:MET:O	2.49	0.46
1:M:34:LYS:HG3	1:M:36:ARG:NH2	2.29	0.46
1:M:33:ALA:HB1	1:M:56:PRO:HB2	1.97	0.46
1:M:570:PRO:O	1:M:571:LEU:HD12	2.16	0.46
2:N:1068:GLY:O	2:N:1069:PHE:O	2.34	0.46
2:N:193:LYS:HD3	2:N:787:VAL:HG11	1.96	0.46
2:N:231:PRO:O	2:N:231:PRO:HG2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:253:ASN:ND2	2:N:884:ARG:CD	2.78	0.46
3:O:167:HIS:CE1	12:X:70:ARG:HA	2.50	0.46
3:O:133:ILE:CD1	3:O:237:SER:HA	2.45	0.46
3:O:258:ILE:HD12	3:O:258:ILE:N	2.30	0.46
5:Q:207:ARG:HB3	5:Q:207:ARG:NH1	2.30	0.46
8:T:123:MET:HG2	8:T:124:ARG:N	2.30	0.46
11:W:55:LYS:CB	11:W:81:TYR:CD1	2.98	0.46
1:A:1121:GLU:HB3	1:A:1124:HIS:CD2	2.51	0.46
1:A:1277:GLU:O	1:A:1279:ILE:HG12	2.15	0.46
1:A:1284:MET:HA	1:A:1306:LEU:HD23	1.98	0.46
1:A:382:PRO:CA	1:A:428:TYR:CE2	2.99	0.46
1:A:518:LYS:HB2	1:A:519:PRO:HD2	1.97	0.46
1:A:591:PHE:CD2	1:A:595:THR:HB	2.50	0.46
2:B:105:SER:O	2:B:106:ASP:HB2	2.15	0.46
2:B:1156:ASP:O	2:B:1157:ALA:HB3	2.15	0.46
2:B:1183:LYS:HE3	2:B:1183:LYS:O	2.15	0.46
2:B:168:GLY:HA2	2:B:450:ALA:O	2.15	0.46
2:B:205:ILE:N	2:B:205:ILE:CD1	2.78	0.46
2:B:258:LEU:O	2:B:258:LEU:CG	2.62	0.46
2:B:282:ILE:HG21	2:B:382:ILE:HD13	1.97	0.46
2:B:305:VAL:HG12	2:B:305:VAL:O	2.15	0.46
2:B:429:PHE:HA	2:B:432:MET:HE2	1.98	0.46
2:B:90:ILE:HD12	2:B:432:MET:SD	2.56	0.46
2:B:431:TYR:CG	2:B:447:ALA:HB2	2.50	0.46
2:B:621:GLU:HG3	2:B:621:GLU:O	2.14	0.46
2:B:91:SER:OG	2:B:133:LYS:HB2	2.15	0.46
2:B:859:TYR:OH	2:B:941:LEU:HD12	2.15	0.46
3:C:252:GLN:HE21	11:K:95:ILE:CG2	2.28	0.46
5:E:50:MET:CG	5:E:52:ARG:HH21	2.26	0.46
4:D:40:HIS:NE2	7:G:73:LYS:HG2	2.30	0.46
10:J:21:TYR:HB2	10:J:39:LEU:CD1	2.45	0.46
1:M:1123:GLY:O	1:M:1125:ALA:N	2.49	0.46
1:M:1255:GLU:HG2	1:M:1258:HIS:HB2	1.98	0.46
1:M:1336:MET:CE	1:M:1381:LEU:HG	2.45	0.46
1:M:254:GLU:HB2	2:N:935:ARG:HH21	1.77	0.46
1:M:427:GLN:HB2	1:M:430:TRP:CD1	2.50	0.46
1:M:427:GLN:HB2	1:M:430:TRP:CG	2.51	0.46
1:M:67:CYS:O	1:M:68:GLN:C	2.51	0.46
1:M:722:LEU:HD23	1:M:799:PHE:CG	2.51	0.46
2:N:245:GLU:O	2:N:246:LYS:HG3	2.16	0.46
3:O:22:LEU:HG	3:O:25:VAL:HG21	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:12:ARG:NH1	4:P:14:ARG:CA	2.79	0.46
9:U:86:PHE:CE1	9:U:100:PHE:HB2	2.51	0.46
9:U:54:GLU:OE1	9:U:118:ARG:NH2	2.49	0.46
9:U:82:GLU:OE2	9:U:104:LEU:HB2	2.16	0.46
1:A:806:ARG:HH12	2:B:729:ILE:HD11	1.80	0.46
2:B:35:SER:HA	2:B:811:TYR:CE2	2.49	0.46
2:B:599:THR:O	2:B:603:LEU:HB2	2.15	0.46
2:B:773:MET:C	2:B:775:LYS:N	2.69	0.46
2:B:871:THR:HG22	2:B:872:GLU:N	2.30	0.46
4:D:15:LEU:O	4:D:15:LEU:HD12	2.16	0.46
8:H:47:PHE:HB3	8:H:95:TYR:CD1	2.49	0.46
1:M:1316:VAL:O	1:M:1316:VAL:HG12	2.14	0.46
1:M:49:LYS:CD	1:M:55:ASP:HB3	2.46	0.46
1:M:504:LEU:CD1	6:R:91:ALA:HB2	2.45	0.46
2:N:25:ILE:HD11	2:N:653:VAL:O	2.16	0.46
2:N:26:THR:O	2:N:29:ASP:HB2	2.16	0.46
2:N:35:SER:HA	2:N:811:TYR:CE2	2.42	0.46
2:N:390:LEU:O	2:N:391:ASP:C	2.54	0.46
2:N:758:PHE:CE1	2:N:1027:ILE:HG22	2.50	0.46
2:N:871:THR:O	2:N:917:PRO:HG3	2.15	0.46
3:O:104:PHE:HD2	3:O:105:GLY:N	2.14	0.46
4:P:154:PHE:HZ	4:P:214:LEU:CD1	2.27	0.46
9:U:75:CYS:SG	9:U:78:CYS:SG	3.13	0.46
1:A:868:TYR:CZ	1:A:1366:ARG:HD3	2.50	0.46
2:B:1095:LEU:CD1	2:B:1095:LEU:H	2.05	0.46
2:B:129:PHE:HD2	2:B:166:PHE:HA	1.79	0.46
2:B:390:LEU:O	2:B:391:ASP:C	2.54	0.46
2:B:750:GLY:O	2:B:751:VAL:C	2.54	0.46
4:D:208:GLU:HA	4:D:211:LEU:HD12	1.97	0.46
5:E:164:LEU:HD21	5:E:211:TYR:CD1	2.51	0.46
7:G:35:GLU:HG3	7:G:48:VAL:HG23	1.96	0.46
10:J:2:ILE:HG12	10:J:57:ILE:HD13	1.98	0.46
11:K:113:THR:O	11:K:114:LEU:CB	2.64	0.46
12:L:65:VAL:HG23	12:L:67:PHE:HE1	1.80	0.46
1:M:43:GLU:CG	1:M:46:THR:HB	2.39	0.46
1:M:694:THR:O	1:M:698:GLN:HG3	2.15	0.46
2:N:189:LEU:O	2:N:192:LEU:HB2	2.16	0.46
2:N:222:ILE:N	2:N:240:ILE:HD12	2.31	0.46
2:N:616:ILE:HD12	2:N:625:LYS:O	2.16	0.46
2:N:622:LYS:CE	9:U:59:VAL:HG13	2.45	0.46
2:N:642:ASP:HB3	2:N:649:LYS:CG	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:664:THR:CG2	2:N:678:GLU:N	2.78	0.46
2:N:744:HIS:CD2	2:N:745:PRO:CD	2.86	0.46
2:N:773:MET:C	2:N:775:LYS:N	2.69	0.46
2:N:497:ARG:NH2	2:N:775:LYS:NZ	2.64	0.46
2:N:850:LEU:HD12	2:N:851:PHE:H	1.80	0.46
2:N:861:ASP:OD1	2:N:862:GLN:N	2.49	0.46
2:N:871:THR:HG22	2:N:872:GLU:N	2.30	0.46
3:O:238:ILE:HD11	3:O:246:ARG:CZ	2.45	0.46
3:O:65:HIS:O	3:O:69:LEU:CD1	2.63	0.46
5:Q:100:ILE:CG2	5:Q:105:PHE:HB2	2.44	0.46
5:Q:65:THR:O	5:Q:69:ILE:CD1	2.63	0.46
7:S:1:MET:SD	7:S:79:PHE:CD1	3.09	0.46
9:U:116:ASN:C	9:U:117:LYS:HD2	2.36	0.46
13:4:15:DG:H2"	13:4:16:DT:H71	1.97	0.46
1:A:1100:ARG:HH21	1:A:1351:GLU:CG	2.29	0.46
1:A:1395:GLY:HA3	1:A:1419:ASP:OD2	2.16	0.46
1:A:2:VAL:HG22	1:A:3:GLY:H	1.81	0.46
1:A:322:VAL:O	1:A:322:VAL:CG1	2.63	0.46
2:B:1208:MET:O	2:B:1211:ASN:N	2.43	0.46
2:B:303:TYR:CD2	2:B:303:TYR:N	2.83	0.46
2:B:39:ARG:CZ	2:B:665:GLU:HG2	2.45	0.46
3:C:46:ILE:HG13	3:C:72:LEU:HD11	1.98	0.46
3:C:88:CYS:SG	3:C:91:HIS:HA	2.55	0.46
6:F:116:ASP:C	6:F:116:ASP:OD1	2.54	0.46
7:G:7:LEU:CD1	7:G:45:ILE:HD11	2.45	0.46
11:K:22:ASP:C	11:K:31:VAL:HG13	2.36	0.46
1:M:157:ASP:C	1:M:159:THR:H	2.19	0.46
1:M:338:GLY:HA2	2:N:1129:ARG:HH22	1.81	0.46
2:N:1068:GLY:O	2:N:1069:PHE:C	2.54	0.46
2:N:679:TYR:CE1	2:N:683:SER:HB2	2.51	0.46
2:N:732:SER:HB2	2:N:734:HIS:CE1	2.51	0.46
2:N:865:LYS:NZ	2:N:869:SER:HA	2.31	0.46
5:Q:158:SER:O	5:Q:162:ARG:HD3	2.16	0.46
5:Q:29:PHE:HA	5:Q:65:THR:HG22	1.98	0.46
6:R:90:ARG:HD3	6:R:155:LEU:CD1	2.40	0.46
4:P:7:THR:HB	7:S:42:PHE:HE2	1.79	0.46
7:S:96:GLN:H	7:S:96:GLN:HG2	1.51	0.46
8:T:47:PHE:HB3	8:T:95:TYR:HD1	1.80	0.46
10:V:7:CYS:CB	10:V:49:MET:HE3	2.45	0.46
1:A:245:PRO:O	1:A:248:PRO:HD3	2.16	0.46
1:A:427:GLN:HB2	1:A:430:TRP:CD2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:63:ARG:HA	1:A:74:MET:HE1	1.96	0.46
1:A:915:SER:O	1:A:919:ILE:HB	2.16	0.46
1:A:962:ARG:C	1:A:964:ILE:N	2.69	0.46
2:B:497:ARG:HH21	2:B:775:LYS:HZ1	1.64	0.46
2:B:637:LEU:HD22	2:B:742:GLU:HA	1.96	0.46
7:G:21:ARG:HD2	7:G:24:GLN:HB3	1.96	0.46
1:M:134:ARG:CD	1:M:221:SER:O	2.62	0.46
1:M:670:ILE:N	1:M:670:ILE:HD13	2.31	0.46
1:M:690:VAL:HG21	1:M:718:VAL:HG13	1.97	0.46
2:N:1183:LYS:H	2:N:1183:LYS:CE	2.28	0.46
2:N:240:ILE:O	2:N:240:ILE:HG23	2.16	0.46
2:N:619:ILE:HD12	9:U:65:ASP:HB2	1.98	0.46
2:N:758:PHE:CE2	2:N:1044:ALA:CA	2.93	0.46
4:P:16:LYS:O	4:P:18:VAL:N	2.41	0.46
4:P:191:ALA:O	4:P:193:THR:N	2.49	0.46
4:P:195:ILE:HB	4:P:198:LEU:HD11	1.97	0.46
1:M:1444:MET:HE1	6:R:135:ARG:HB2	1.98	0.46
1:M:600:PRO:HA	8:T:25:ARG:NH1	2.31	0.46
10:V:36:LEU:HD11	10:V:51:LEU:HB2	1.98	0.46
1:A:1236:LEU:C	1:A:1237:ILE:HD12	2.36	0.46
1:A:1394:THR:CG2	1:A:1398:MET:SD	3.04	0.46
1:A:230:ARG:HG3	1:A:233:TRP:CE3	2.51	0.46
1:A:365:GLY:HA3	1:A:463:ILE:HD13	1.97	0.46
1:A:447:GLN:HA	1:A:448:PRO:C	2.36	0.46
2:B:246:LYS:HA	2:B:249:ARG:CZ	2.46	0.46
2:B:90:ILE:HD11	2:B:432:MET:SD	2.55	0.46
3:C:239:PRO:O	3:C:242:GLN:N	2.45	0.46
5:E:100:ILE:HG23	5:E:105:PHE:CD1	2.51	0.46
5:E:147:HIS:CD2	5:E:149:LEU:H	2.27	0.46
6:F:93:ILE:CD1	6:F:134:ILE:HD11	2.37	0.46
9:I:15:TYR:HD1	9:I:15:TYR:N	2.13	0.46
11:K:50:LEU:HD11	11:K:75:ILE:HD11	1.97	0.46
1:M:401:GLY:C	1:M:435:HIS:CD2	2.89	0.46
1:M:697:ALA:CB	1:M:702:LEU:HD11	2.45	0.46
1:M:807:GLY:HA2	2:N:760:ASP:O	2.15	0.46
1:M:825:ILE:O	1:M:829:VAL:HG23	2.16	0.46
1:M:946:VAL:CG2	5:Q:201:LYS:HD2	2.45	0.46
2:N:521:LEU:HD22	2:N:633:VAL:CG1	2.26	0.46
3:O:16:ASP:OD1	3:O:16:ASP:N	2.49	0.46
3:O:3:GLU:OE1	3:O:4:GLU:HB2	2.16	0.46
3:O:73:GLN:HE21	3:O:75:MET:HB2	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:156:ASP:CB	4:P:159:THR:HG23	2.36	0.46
4:P:185:CYS:SG	4:P:191:ALA:CA	3.04	0.46
4:P:189:ASP:OD2	7:S:167:TYR:CE1	2.69	0.46
6:R:100:GLN:HE22	7:S:61:ILE:HD13	1.81	0.46
8:T:40:LEU:HD13	8:T:123:MET:CE	2.46	0.46
12:X:60:ARG:HG2	12:X:61:THR:N	2.31	0.46
1:A:1098:VAL:N	1:A:1099:PRO:HD2	2.30	0.46
1:A:1345:ARG:HG2	1:A:1372:VAL:CG1	2.46	0.46
1:A:181:LEU:HA	1:A:181:LEU:HD23	1.80	0.46
1:A:255:SER:OG	2:B:918:ILE:HD13	2.15	0.46
1:A:35:ILE:HA	1:A:52:GLY:O	2.16	0.46
1:A:929:LEU:HD21	1:A:983:ILE:HG21	1.98	0.46
1:A:878:ILE:HG21	1:A:955:PRO:HB2	1.98	0.46
2:B:1115:THR:HG21	2:B:1117:GLN:HB2	1.98	0.46
2:B:20:ASP:C	2:B:22:SER:H	2.14	0.46
2:B:331:LEU:HD21	2:B:353:LYS:HG2	1.97	0.46
2:B:331:LEU:O	2:B:334:ILE:HB	2.16	0.46
2:B:558:LEU:CD2	2:B:596:LEU:HD11	2.46	0.46
2:B:857:ARG:HH21	2:B:942:ARG:NH2	2.14	0.46
3:C:44:LEU:CD2	3:C:159:ALA:HB1	2.46	0.46
4:D:35:LEU:N	4:D:35:LEU:HD12	2.28	0.46
4:D:51:ASN:C	4:D:52:LEU:O	2.51	0.46
5:E:164:LEU:HD21	5:E:211:TYR:CG	2.50	0.46
8:H:77:ARG:HG2	8:H:78:SER:H	1.81	0.46
2:B:620:ARG:CZ	9:I:68:LEU:HD21	2.45	0.46
1:M:208:LEU:HA	1:M:235:ILE:HD12	1.97	0.46
1:M:367:PRO:HB3	1:M:465:TYR:O	2.16	0.46
1:M:549:MET:HE1	1:M:656:TRP:CD1	2.51	0.46
1:M:53:LEU:O	1:M:54:ASN:C	2.53	0.46
1:M:75:ASN:O	1:M:76:GLU:CB	2.62	0.46
1:M:834:THR:CG2	1:M:835:GLY:N	2.79	0.46
2:N:1169:MET:CE	2:N:1204:PHE:HB2	2.46	0.46
2:N:298:LEU:N	2:N:298:LEU:CD2	2.79	0.46
2:N:277:LYS:HG2	2:N:336:ARG:CB	2.46	0.46
2:N:51:PHE:O	2:N:54:PHE:HB3	2.16	0.46
3:O:177:GLU:HG3	3:O:231:ASN:HD22	1.81	0.46
4:P:134:THR:CG2	4:P:135:GLY:N	2.79	0.46
4:P:35:LEU:H	4:P:35:LEU:CD1	2.28	0.46
4:P:67:ARG:HB2	4:P:133:THR:CG2	2.45	0.46
4:P:194:LEU:CB	7:S:86:VAL:HG21	2.46	0.46
1:A:1036:ARG:NH1	1:A:1036:ARG:CG	2.74	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:960:ILE:HA	1:A:963:ILE:CG2	2.46	0.45
2:B:1008:PRO:HB3	2:B:1087:PHE:HE2	1.82	0.45
2:B:121:ASN:HA	2:B:207:GLY:CA	2.46	0.45
2:B:233:PRO:HG2	2:B:234:ILE:HD13	1.97	0.45
1:A:829:VAL:HG11	2:B:508:LEU:HD22	1.98	0.45
2:B:613:VAL:HG22	2:B:628:THR:HA	1.98	0.45
2:B:860:MET:HB2	2:B:965:LYS:HG2	1.98	0.45
4:D:220:LEU:CG	4:D:221:TYR:H	2.29	0.45
5:E:157:SER:C	5:E:159:ASP:N	2.70	0.45
4:D:6:SER:HB3	7:G:8:SER:OG	2.16	0.45
8:H:40:LEU:HD12	8:H:123:MET:CG	2.46	0.45
8:H:56:THR:HB	8:H:145:ARG:HG2	1.97	0.45
12:L:43:THR:O	12:L:43:THR:HG22	2.16	0.45
1:M:53:LEU:CD2	1:M:54:ASN:N	2.51	0.45
1:M:61:ILE:O	1:M:63:ARG:N	2.49	0.45
1:M:795:GLU:H	1:M:795:GLU:CD	2.19	0.45
2:N:427:ASP:HA	2:N:430:ARG:HG3	1.97	0.45
3:O:166:GLU:HG3	11:W:10:PHE:CZ	2.43	0.45
3:O:80:LEU:HD11	3:O:95:CYS:CA	2.46	0.45
4:P:153:ARG:HB3	4:P:154:PHE:CE2	2.51	0.45
4:P:212:LYS:O	4:P:215:SER:OG	2.33	0.45
11:W:47:ARG:O	11:W:47:ARG:HD2	2.16	0.45
12:X:36:SER:O	12:X:37:LYS:C	2.54	0.45
1:A:1048:ASN:HD22	1:A:1048:ASN:N	2.14	0.45
1:A:185:TRP:CH2	1:A:200:ARG:HG2	2.51	0.45
1:A:596:THR:C	1:A:597:LEU:HD12	2.36	0.45
2:B:619:ILE:HG22	2:B:620:ARG:N	2.30	0.45
2:B:806:THR:HG22	2:B:808:ALA:CB	2.46	0.45
4:D:162:ALA:HA	4:D:165:GLN:HE21	1.80	0.45
11:K:12:LEU:HD12	11:K:37:LYS:HG3	1.98	0.45
1:M:1148:ILE:HG12	1:M:1198:ASP:HB2	1.98	0.45
1:M:1280:GLU:O	1:M:1281:ARG:C	2.54	0.45
1:M:1445:ILE:HD12	1:M:1445:ILE:N	2.30	0.45
1:M:218:ASP:O	1:M:219:PHE:C	2.55	0.45
1:M:315:LEU:N	1:M:315:LEU:HD23	2.31	0.45
1:M:321:PRO:O	1:M:322:VAL:CG1	2.60	0.45
1:M:899:VAL:CB	1:M:929:LEU:HD12	2.43	0.45
2:N:167:ILE:HG21	2:N:424:LEU:HD21	1.99	0.45
3:O:43:THR:HG22	3:O:44:LEU:N	2.31	0.45
5:Q:134:THR:O	5:Q:135:PHE:CD1	2.69	0.45
13:1:15:DG:H2"	13:1:16:DT:H71	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6:5:C:O2'	15:6:6:A:H5'	2.16	0.45
1:A:133:LYS:O	1:A:136:ALA:HB3	2.16	0.45
1:A:167:CYS:HB2	1:A:169:ASN:ND2	2.32	0.45
2:B:167:ILE:HA	2:B:450:ALA:HB1	1.95	0.45
2:B:387:LEU:HD12	2:B:387:LEU:N	2.31	0.45
2:B:448:ILE:O	2:B:450:ALA:N	2.49	0.45
2:B:582:VAL:CG2	2:B:626:ILE:HB	2.43	0.45
3:C:183:TRP:O	3:C:185:LYS:HG3	2.16	0.45
5:E:161:LYS:HD2	5:E:195:VAL:HG23	1.98	0.45
6:F:109:VAL:CG1	6:F:110:ASP:N	2.73	0.45
8:H:27:GLU:HA	8:H:38:LEU:O	2.17	0.45
8:H:87:ARG:O	8:H:89:LEU:HD23	2.16	0.45
8:H:95:TYR:CE2	8:H:97:MET:CG	2.99	0.45
1:M:1400:CYS:O	1:M:1405:THR:HG23	2.16	0.45
1:M:409:SER:O	1:M:410:GLY:C	2.55	0.45
2:N:470:LYS:O	2:N:472:ALA:N	2.49	0.45
2:N:69:LEU:HD13	2:N:429:PHE:HD1	1.82	0.45
3:O:67:LEU:HD11	3:O:155:LEU:CD1	2.46	0.45
4:P:193:THR:CG2	4:P:194:LEU:HD23	2.46	0.45
9:U:73:ARG:NH1	9:U:112:SER:HB3	2.29	0.45
1:A:1029:ARG:CG	1:A:1029:ARG:NH1	2.79	0.45
1:A:1280:GLU:O	1:A:1281:ARG:C	2.54	0.45
1:A:335:ARG:HA	1:A:339:ASN:HD22	1.82	0.45
1:A:566:ILE:O	1:A:567:LYS:O	2.34	0.45
1:A:809:THR:OG1	1:A:812:GLU:HG3	2.17	0.45
1:A:898:ARG:HD3	1:A:933:TYR:CD1	2.51	0.45
2:B:803:LEU:HD13	2:B:1032:SER:HB3	1.97	0.45
2:B:1204:PHE:O	2:B:1208:MET:HG3	2.15	0.45
2:B:1220:ARG:HH11	2:B:1220:ARG:HB3	1.82	0.45
2:B:100:PRO:HA	2:B:125:SER:O	2.16	0.45
2:B:222:ILE:N	2:B:240:ILE:CD1	2.79	0.45
2:B:347:LYS:HG3	2:B:348:ARG:H	1.80	0.45
2:B:227:LYS:HG3	2:B:395:GLN:OE1	2.17	0.45
2:B:95:ILE:CB	2:B:130:VAL:HG22	2.47	0.45
2:B:990:ILE:HG22	2:B:991:GLY:N	2.30	0.45
2:B:831:SER:HG	2:B:994:TYR:HE1	1.62	0.45
2:B:995:ARG:HB3	2:B:997:GLU:OE2	2.16	0.45
3:C:186:LEU:O	3:C:187:LYS:HB2	2.17	0.45
3:C:258:ILE:HG23	11:K:19:LEU:HD11	1.99	0.45
4:D:134:THR:CG2	4:D:135:GLY:H	2.28	0.45
4:D:216:ASN:O	4:D:218:GLU:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:106:GLN:HE22	5:E:129:PRO:HB2	1.82	0.45
8:H:133:ASN:O	8:H:135:LEU:N	2.48	0.45
12:L:36:SER:O	12:L:37:LYS:C	2.54	0.45
1:M:1095:THR:CG2	1:M:1112:LYS:HD2	2.46	0.45
1:M:1198:ASP:O	1:M:1202:MET:HG2	2.16	0.45
1:M:1227:ILE:HG22	1:M:1228:TRP:N	2.30	0.45
1:M:1313:LEU:HD23	1:M:1338:VAL:CG2	2.47	0.45
1:M:1396:ALA:HA	1:M:1399:ARG:NH2	2.31	0.45
1:M:251:SER:HA	1:M:257:ARG:O	2.17	0.45
1:M:381:THR:HG21	1:M:383:TYR:CD1	2.52	0.45
1:M:50:ILE:C	1:M:52:GLY:N	2.68	0.45
1:M:590:ARG:O	1:M:591:PHE:CB	2.59	0.45
1:M:1410:PHE:HA	2:N:1212:ILE:HD11	1.97	0.45
2:N:557:PHE:CE1	2:N:603:LEU:HD11	2.51	0.45
2:N:376:PHE:CZ	2:N:569:TYR:HB3	2.52	0.45
2:N:970:THR:HG22	2:N:971:THR:N	2.31	0.45
3:O:144:ILE:HG22	3:O:145:CYS:HB3	1.98	0.45
3:O:239:PRO:O	3:O:242:GLN:N	2.47	0.45
3:O:243:VAL:O	3:O:243:VAL:CG1	2.64	0.45
4:P:138:ASN:C	4:P:140:ASP:N	2.69	0.45
5:Q:128:PRO:HA	5:Q:129:PRO:O	2.17	0.45
1:M:857:ARG:NH2	6:R:139:PRO:HG3	2.30	0.45
7:S:142:ARG:CB	7:S:171:ILE:HD11	2.47	0.45
9:U:100:PHE:CD1	9:U:100:PHE:N	2.84	0.45
15:6:3:A:H2'	15:6:4:C:C6	2.51	0.45
1:A:1291:VAL:CG2	1:A:1292:PRO:HD2	2.47	0.45
1:A:262:LEU:HD12	1:A:328:ARG:NH2	2.31	0.45
2:B:1084:GLN:HE21	2:B:1084:GLN:H	1.64	0.45
2:B:1106:ARG:HH12	2:B:1110:PRO:HG2	1.81	0.45
2:B:185:THR:O	2:B:188:ASP:N	2.50	0.45
2:B:230:ALA:HB3	2:B:231:PRO:HD3	1.97	0.45
2:B:245:GLU:C	2:B:246:LYS:HG3	2.37	0.45
2:B:401:PHE:HD2	2:B:521:LEU:HD12	1.82	0.45
2:B:637:LEU:HD22	2:B:741:CYS:O	2.17	0.45
2:B:766:ARG:HD3	2:B:766:ARG:HA	1.58	0.45
2:B:871:THR:O	2:B:917:PRO:HG3	2.15	0.45
3:C:208:GLU:O	3:C:210:GLU:N	2.49	0.45
4:D:190:GLU:O	4:D:194:LEU:HG	2.16	0.45
7:G:55:ASP:HB3	7:G:73:LYS:HB2	1.98	0.45
1:M:1217:LYS:O	1:M:1221:LYS:HA	2.15	0.45
1:M:61:ILE:CG2	1:M:62:ASP:H	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:962:ARG:C	1:M:964:ILE:H	2.20	0.45
2:N:1006:ILE:H	2:N:1006:ILE:HG13	1.33	0.45
2:N:1096:ARG:HH11	2:N:1096:ARG:HB2	1.81	0.45
4:P:195:ILE:N	4:P:196:PRO:CD	2.79	0.45
4:P:202:ILE:HD11	4:P:207:LEU:HA	1.98	0.45
4:P:23:ASN:HA	4:P:28:GLN:O	2.15	0.45
5:Q:179:GLN:HB2	5:Q:182:ASP:HB2	1.99	0.45
6:R:103:MET:HE2	7:S:66:GLY:N	2.21	0.45
9:U:74:GLU:HA	9:U:80:SER:O	2.17	0.45
12:X:40:LEU:HD13	12:X:44:ASP:CB	2.32	0.45
1:A:1116:LEU:HB3	1:A:1308:THR:CG2	2.46	0.45
1:A:1152:ILE:HG23	1:A:1260:LEU:HD23	1.98	0.45
1:A:150:THR:O	1:A:150:THR:HG22	2.16	0.45
1:A:44:THR:O	1:A:45:GLN:CB	2.64	0.45
1:A:56:PRO:O	1:A:57:ARG:CZ	2.65	0.45
1:A:66:LYS:O	1:A:67:CYS:CB	2.64	0.45
1:A:697:ALA:HA	1:A:702:LEU:HG	1.97	0.45
1:A:977:LYS:HB3	1:A:978:PRO:CD	2.44	0.45
2:B:95:ILE:CG1	2:B:130:VAL:HG22	2.47	0.45
2:B:641:GLU:C	2:B:643:ASP:H	2.19	0.45
2:B:807:ARG:HH11	2:B:807:ARG:HB3	1.82	0.45
5:E:177:ARG:C	5:E:212:ARG:HD3	2.37	0.45
6:F:69:LEU:C	6:F:71:GLU:HG3	2.37	0.45
8:H:57:VAL:HG12	8:H:58:THR:N	2.32	0.45
10:J:14:VAL:CG1	10:J:14:VAL:O	2.63	0.45
12:L:34:CYS:O	12:L:35:SER:C	2.55	0.45
1:M:107:CYS:SG	1:M:108:MET:O	2.75	0.45
1:M:1313:LEU:HB3	1:M:1338:VAL:HG21	1.98	0.45
1:M:64:ASN:O	1:M:65:LEU:C	2.55	0.45
1:M:683:ILE:HD13	1:M:801:GLU:HG3	1.99	0.45
1:M:878:ILE:HG21	1:M:955:PRO:HB2	1.98	0.45
2:N:1031:LEU:O	2:N:1031:LEU:HD12	2.16	0.45
2:N:112:LEU:HD12	2:N:113:TYR:H	1.81	0.45
2:N:223:VAL:HG21	2:N:380:TYR:HE2	1.82	0.45
2:N:744:HIS:HD2	2:N:745:PRO:CG	2.30	0.45
4:P:134:THR:HG22	4:P:135:GLY:H	1.79	0.45
4:P:35:LEU:HD11	4:P:173:HIS:NE2	2.32	0.45
6:R:119:ARG:NH1	6:R:119:ARG:CG	2.80	0.45
1:M:1438:THR:CG2	6:R:92:ARG:HD2	2.47	0.45
10:V:42:LYS:HG2	10:V:43:ARG:N	2.32	0.45
10:V:7:CYS:HB2	10:V:49:MET:HE3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1447:GLU:OE2	7:G:23:LYS:HB2	2.17	0.45
1:A:196:GLU:CG	1:A:197:PRO:HD2	2.46	0.45
1:A:66:LYS:NZ	1:A:68:GLN:H	2.14	0.45
1:A:72:GLU:HB3	1:A:76:GLU:CG	2.47	0.45
1:A:837:ILE:HG12	1:A:840:ARG:NH1	2.31	0.45
1:A:855:THR:HG23	1:A:857:ARG:CG	2.39	0.45
1:A:879:GLU:O	1:A:955:PRO:HA	2.17	0.45
2:B:1060:ARG:HA	2:B:1060:ARG:HD2	1.53	0.45
2:B:174:LEU:HD22	2:B:202:TYR:CE1	2.52	0.45
1:A:472:LEU:HD11	2:B:835:GLN:NE2	2.32	0.45
2:B:975:GLN:HG2	2:B:976:ILE:H	1.82	0.45
3:C:114:TYR:CD2	3:C:140:ASN:CB	2.99	0.45
3:C:114:TYR:HB2	3:C:116:LYS:HG2	1.99	0.45
5:E:21:GLU:O	5:E:24:LYS:HG2	2.17	0.45
5:E:78:LEU:HD23	5:E:78:LEU:C	2.37	0.45
5:E:89:GLY:C	5:E:91:LYS:H	2.20	0.45
6:F:101:ILE:HD11	6:F:124:GLU:OE1	2.17	0.45
7:G:139:ILE:HD13	7:G:140:LYS:HE3	1.98	0.45
7:G:1:MET:O	7:G:1:MET:HE2	2.17	0.45
8:H:30:SER:HB3	8:H:36:CYS:HB3	1.99	0.45
1:M:106:VAL:CG1	1:M:111:GLY:HA2	2.47	0.45
1:M:256:GLN:O	1:M:257:ARG:HB2	2.16	0.45
2:N:555:ILE:HG22	2:N:556:THR:N	2.32	0.45
2:N:777:ALA:HA	2:N:1095:LEU:HA	1.98	0.45
2:N:796:LEU:HD12	2:N:852:ARG:O	2.17	0.45
3:O:233:GLU:OE1	10:V:12:LYS:HE2	2.16	0.45
3:O:253:LYS:O	3:O:256:ALA:HB3	2.17	0.45
1:M:1438:THR:HG23	6:R:92:ARG:HD2	1.98	0.45
8:T:133:ASN:O	8:T:135:LEU:N	2.49	0.45
8:T:81:PRO:HB2	8:T:82:PRO:HD2	1.97	0.45
14:5:3:DT:C2	14:5:4:DA:N7	2.85	0.45
1:A:1222:ASN:O	1:A:1223:ASP:HB3	2.16	0.45
1:A:1268:LEU:HD13	9:I:48:LEU:HD11	1.98	0.45
1:A:1297:GLU:OE1	1:A:1297:GLU:N	2.50	0.45
1:A:182:VAL:HG23	1:A:201:VAL:HA	1.98	0.45
1:A:42:ASP:HB3	1:A:45:GLN:CA	2.47	0.45
1:A:524:VAL:CG1	1:A:525:GLN:H	2.11	0.45
2:B:48:LEU:HD23	2:B:173:MET:SD	2.57	0.45
2:B:189:LEU:O	2:B:192:LEU:HB2	2.17	0.45
2:B:44:VAL:O	2:B:45:SER:C	2.54	0.45
2:B:515:HIS:CD2	2:B:517:THR:OG1	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:778:MET:HE1	2:B:1094:ARG:CD	2.42	0.45
2:B:840:ILE:HB	2:B:1011:ILE:HB	1.98	0.45
2:B:842:ASN:HD21	2:B:844:SER:HB2	1.82	0.45
2:B:93:GLY:O	2:B:130:VAL:HG13	2.16	0.45
1:A:568:PRO:HB3	3:C:221:TYR:OH	2.17	0.45
4:D:146:GLN:HA	4:D:149:THR:CG2	2.44	0.45
5:E:96:PHE:O	5:E:99:HIS:HB3	2.16	0.45
8:H:63:LEU:HD23	8:H:90:ALA:HB3	1.99	0.45
10:J:53:HIS:HD2	10:J:54:VAL:H	1.63	0.45
1:M:1115:SER:OG	1:M:1116:LEU:N	2.50	0.45
1:M:1453:TYR:O	1:M:1454:MET:HB3	2.17	0.45
1:M:536:LEU:HG	1:M:536:LEU:H	1.54	0.45
1:M:670:ILE:H	1:M:670:ILE:HD13	1.80	0.45
1:M:84:ILE:HG22	1:M:86:LEU:HD23	1.99	0.45
1:M:878:ILE:CG2	1:M:955:PRO:HB2	2.47	0.45
2:N:169:ARG:HB2	2:N:454:THR:HG23	1.99	0.45
3:O:46:ILE:HG13	3:O:72:LEU:HD11	1.98	0.45
4:P:12:ARG:HH12	4:P:14:ARG:HA	1.82	0.45
6:R:69:LEU:HB3	6:R:71:GLU:CG	2.47	0.45
1:A:1107:VAL:CG1	1:A:1107:VAL:O	2.59	0.45
1:A:1111:MET:HG3	1:A:1114:PRO:HB3	1.97	0.45
1:A:164:ARG:HG3	1:A:165:GLY:H	1.82	0.45
1:A:225:ASN:ND2	1:A:227:VAL:N	2.63	0.45
1:A:259:GLU:OE1	1:A:259:GLU:HA	2.17	0.45
1:A:316:GLN:HG2	1:A:317:LYS:H	1.81	0.45
1:A:560:ILE:HD11	11:K:58:PHE:HD1	1.82	0.45
1:A:61:ILE:O	1:A:63:ARG:N	2.50	0.45
1:A:64:ASN:O	1:A:65:LEU:C	2.55	0.45
2:B:205:ILE:HG12	2:B:461:LEU:HB3	1.99	0.45
2:B:24:PRO:O	2:B:25:ILE:HG23	2.17	0.45
2:B:69:LEU:HD13	2:B:429:PHE:HD1	1.81	0.45
2:B:582:VAL:HG12	2:B:582:VAL:O	2.16	0.45
2:B:866:TYR:HB2	2:B:870:ILE:HB	1.99	0.45
2:B:899:ILE:HG22	2:B:900:ALA:O	2.16	0.45
9:I:100:PHE:CD1	9:I:100:PHE:N	2.85	0.45
9:I:98:VAL:CG1	9:I:111:THR:HG23	2.46	0.45
9:I:17:ARG:HG3	9:I:28:GLU:OE1	2.16	0.45
12:L:53:HIS:C	12:L:55:ILE:HD13	2.38	0.45
1:M:1081:LEU:HD11	1:M:1098:VAL:H	1.82	0.45
1:M:1169:ILE:H	1:M:1169:ILE:HG13	1.55	0.45
1:M:295:LEU:O	1:M:298:PHE:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:489:LEU:C	1:M:489:LEU:HD12	2.36	0.45
1:M:55:ASP:C	1:M:57:ARG:N	2.64	0.45
1:M:767:GLN:HA	1:M:799:PHE:HA	1.99	0.45
2:N:345:LYS:HA	2:N:348:ARG:HG2	1.99	0.45
2:N:651:LEU:HD21	2:N:741:CYS:HB3	1.98	0.45
2:N:770:GLN:HG2	2:N:983:ARG:C	2.37	0.45
4:P:215:SER:HA	4:P:218:GLU:OE2	2.16	0.45
4:P:40:HIS:CE1	7:S:74:TYR:O	2.70	0.45
6:R:69:LEU:HD22	6:R:71:GLU:OE1	2.16	0.45
1:A:1066:VAL:O	1:A:1070:GLN:HG3	2.16	0.45
1:A:153:PRO:HB3	1:A:161:LEU:CD2	2.46	0.45
1:A:173:THR:O	1:A:173:THR:CG2	2.65	0.45
1:A:688:LYS:HA	1:A:691:LEU:HB3	1.99	0.45
1:A:744:LYS:HG2	1:A:748:MET:HE1	1.97	0.45
1:A:868:TYR:CE1	1:A:1064:VAL:HG13	2.51	0.45
1:A:659:HIS:ND1	2:B:1074:ASN:ND2	2.65	0.45
2:B:203:PHE:HB3	2:B:205:ILE:CD1	2.47	0.45
2:B:281:PRO:HG2	2:B:284:ILE:HD12	1.99	0.45
2:B:26:THR:O	2:B:29:ASP:HB2	2.17	0.45
2:B:314:LEU:O	2:B:318:VAL:HG23	2.17	0.45
2:B:467:GLY:CA	2:B:475:SER:HB3	2.47	0.45
2:B:473:MET:CE	2:B:474:SER:HA	2.46	0.45
2:B:604:ARG:CB	2:B:609:ILE:HG13	2.46	0.45
2:B:789:MET:HE1	2:B:953:LEU:HD22	1.99	0.45
2:B:984:HIS:CD2	2:B:1025:HIS:HA	2.52	0.45
2:B:976:ILE:HD13	2:B:992:ILE:HA	1.99	0.45
4:D:67:ARG:HG2	4:D:67:ARG:O	2.17	0.45
5:E:61:GLN:HB2	5:E:79:TRP:HE3	1.82	0.45
9:I:82:GLU:CB	9:I:104:LEU:HD12	2.47	0.45
1:M:1011:GLN:NE2	1:M:1015:VAL:HG23	2.31	0.45
1:M:117:GLU:H	1:M:117:GLU:CD	2.19	0.45
1:M:1202:MET:HE1	1:M:1212:VAL:HG21	1.97	0.45
1:M:1329:THR:HG23	1:M:1331:SER:N	2.31	0.45
1:M:392:VAL:HG13	1:M:415:LEU:CD1	2.47	0.45
1:M:62:ASP:OD1	1:M:62:ASP:O	2.34	0.45
1:M:720:ARG:O	1:M:724:GLU:CB	2.65	0.45
2:N:497:ARG:NH2	2:N:775:LYS:HZ3	2.15	0.45
2:N:710:LEU:HA	2:N:733:HIS:CB	2.24	0.45
2:N:787:VAL:O	2:N:787:VAL:HG12	2.17	0.45
2:N:941:LEU:HD11	2:N:968:VAL:HG21	1.98	0.45
3:O:189:THR:CG2	3:O:190:ASP:N	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:56:THR:O	8:T:144:ILE:HA	2.17	0.45
1:A:1100:ARG:O	1:A:1103:GLU:HB3	2.18	0.44
1:A:1454:MET:HG3	1:A:1454:MET:O	2.17	0.44
1:A:162:VAL:HG12	1:A:163:SER:N	2.32	0.44
1:A:567:LYS:CG	1:A:568:PRO:CD	2.93	0.44
2:B:29:ASP:OD1	2:B:658:ILE:HG21	2.17	0.44
2:B:941:LEU:CD1	2:B:968:VAL:HG21	2.46	0.44
2:B:997:GLU:HG2	3:C:39:ALA:HB2	2.00	0.44
3:C:138:GLU:OE1	3:C:138:GLU:N	2.50	0.44
4:D:13:ARG:C	4:D:15:LEU:N	2.69	0.44
4:D:146:GLN:C	4:D:149:THR:HG22	2.38	0.44
6:F:140:ASP:CG	6:F:142:SER:HG	2.20	0.44
7:G:1:MET:SD	7:G:79:PHE:CE1	3.09	0.44
8:H:62:SER:OG	8:H:63:LEU:N	2.50	0.44
1:M:547:LEU:HD21	1:M:560:ILE:HD13	1.98	0.44
1:M:72:GLU:HB3	1:M:76:GLU:CG	2.47	0.44
2:N:361:LEU:HD11	2:N:381:MET:HE1	1.98	0.44
2:N:508:LEU:N	2:N:512:ARG:HE	2.15	0.44
2:N:552:MET:CE	2:N:552:MET:HA	2.45	0.44
2:N:983:ARG:HD2	2:N:1091:TYR:HD2	1.81	0.44
4:P:188:ALA:CB	4:P:204:ASP:OD1	2.57	0.44
5:Q:42:PHE:HE1	5:Q:58:MET:HE3	1.82	0.44
5:Q:4:GLU:HB3	5:Q:7:ARG:NE	2.31	0.44
7:S:98:GLY:HA3	7:S:110:VAL:O	2.16	0.44
8:T:37:LYS:HD2	8:T:126:GLU:OE2	2.17	0.44
8:T:27:GLU:HA	8:T:38:LEU:O	2.18	0.44
9:U:34:TYR:O	9:U:35:VAL:HG23	2.17	0.44
9:U:56:ALA:O	9:U:57:GLY:O	2.35	0.44
10:V:13:VAL:O	10:V:14:VAL:HG23	2.17	0.44
1:A:1255:GLU:CG	1:A:1258:HIS:CD2	3.00	0.44
1:A:50:ILE:C	1:A:52:GLY:N	2.69	0.44
1:A:853:ASP:O	1:A:854:ASN:HB2	2.17	0.44
2:B:432:MET:C	2:B:434:ARG:H	2.20	0.44
2:B:578:THR:C	2:B:589:VAL:HG13	2.38	0.44
2:B:916:THR:HB	2:B:935:ARG:CD	2.46	0.44
3:C:180:TYR:HB3	3:C:228:PHE:HD2	1.82	0.44
5:E:129:PRO:O	5:E:130:ALA:O	2.35	0.44
5:E:171:LYS:HG2	5:E:174:GLN:CD	2.38	0.44
10:J:1:MET:HG3	10:J:1:MET:O	2.17	0.44
12:L:61:THR:HG22	12:L:62:LYS:N	2.33	0.44
1:M:1030:ARG:HG2	1:M:1034:GLU:OE2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1325:THR:CG2	1:M:1326:ARG:HG3	2.47	0.44
1:M:1370:LEU:O	1:M:1374:VAL:HG23	2.17	0.44
1:M:153:PRO:HB3	1:M:161:LEU:CD2	2.47	0.44
1:M:635:ARG:HH11	1:M:635:ARG:HA	1.82	0.44
1:M:688:LYS:HA	1:M:691:LEU:HB3	1.99	0.44
1:M:902:LEU:HD21	1:M:923:LEU:HD23	1.99	0.44
1:M:904:THR:O	1:M:904:THR:CG2	2.66	0.44
2:N:1004:GLU:HG3	10:V:42:LYS:HZ1	1.79	0.44
2:N:299:GLU:OE2	2:N:571:PRO:HG2	2.17	0.44
2:N:399:ASP:OD2	2:N:510:LYS:HB2	2.16	0.44
3:O:109:SER:O	3:O:110:THR:C	2.55	0.44
4:P:123:LEU:CD1	4:P:149:THR:HG21	2.47	0.44
4:P:155:ARG:HE	4:P:221:TYR:HE1	1.55	0.44
4:P:220:LEU:CG	4:P:221:TYR:H	2.30	0.44
4:P:56:ARG:NH1	4:P:56:ARG:HG2	2.32	0.44
5:Q:157:SER:N	5:Q:160:GLU:OE1	2.47	0.44
8:T:91:ASP:O	8:T:93:TYR:N	2.46	0.44
10:V:48:ARG:NH1	10:V:48:ARG:CG	2.75	0.44
2:B:1113:VAL:CG2	15:3:1:C:H4'	2.48	0.44
15:3:3:A:H2'	15:3:4:C:C6	2.52	0.44
1:A:107:CYS:HB2	1:A:114:LEU:CD2	2.47	0.44
1:A:1095:THR:CG2	1:A:1112:LYS:HD2	2.44	0.44
1:A:115:LEU:HD12	1:A:142:CYS:HB3	1.98	0.44
1:A:1445:ILE:HD12	7:G:59:GLY:O	2.17	0.44
1:A:447:GLN:OE1	13:1:20:DG:H4'	2.17	0.44
2:B:128:LEU:HB2	2:B:168:GLY:O	2.17	0.44
2:B:263:GLY:O	2:B:264:SER:C	2.56	0.44
2:B:597:MET:HE3	2:B:597:MET:HA	1.98	0.44
3:C:214:ASN:O	3:C:217:ASP:OD2	2.36	0.44
4:D:15:LEU:O	4:D:17:LYS:HG3	2.18	0.44
5:E:48:ASP:HB3	5:E:54:GLN:CD	2.37	0.44
7:G:81:PRO:HG3	7:G:106:MET:SD	2.57	0.44
10:J:1:MET:H2	10:J:57:ILE:H	1.59	0.44
11:K:55:LYS:CB	11:K:81:TYR:CD1	3.00	0.44
11:K:88:LYS:O	11:K:91:CYS:HB2	2.18	0.44
1:M:963:ILE:HD13	1:M:1049:ILE:CG1	2.48	0.44
1:M:1102:LYS:O	1:M:1106:ASN:ND2	2.50	0.44
1:M:1277:GLU:O	1:M:1279:ILE:HG12	2.18	0.44
1:M:549:MET:SD	1:M:577:ILE:HD12	2.57	0.44
1:M:562:THR:HB	8:T:98:TYR:CD2	2.52	0.44
2:N:469:GLN:HB3	2:N:470:LYS:H	1.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:46:GLN:NE2	2:N:539:LEU:HD12	2.32	0.44
3:O:123:ASN:HD21	3:O:125:MET:HG2	1.74	0.44
5:Q:155:ARG:NH1	5:Q:194:GLU:OE2	2.47	0.44
5:Q:17:ARG:O	5:Q:21:GLU:HG3	2.17	0.44
5:Q:22:MET:CE	5:Q:26:ARG:NH2	2.81	0.44
7:S:1:MET:HE2	7:S:2:PHE:HA	1.99	0.44
10:V:9:SER:CB	10:V:45:CYS:HB2	2.47	0.44
12:X:30:ILE:CD1	12:X:59:ALA:HB2	2.44	0.44
1:A:1325:THR:HG22	1:A:1326:ARG:HG3	1.98	0.44
1:A:356:ASP:C	1:A:358:ASN:H	2.21	0.44
1:A:35:ILE:HD13	1:A:241:VAL:HG11	1.99	0.44
1:A:451:HIS:O	1:A:452:LYS:C	2.56	0.44
1:A:481:ASP:OD1	1:A:481:ASP:N	2.51	0.44
1:A:800:VAL:HG22	1:A:812:GLU:HB3	1.98	0.44
1:A:982:THR:N	1:A:985:ASP:HB2	2.32	0.44
2:B:51:PHE:O	2:B:54:PHE:HB3	2.17	0.44
3:C:258:ILE:N	3:C:258:ILE:HD12	2.31	0.44
6:F:110:ASP:O	6:F:123:LYS:CE	2.66	0.44
6:F:83:PRO:HD2	6:F:84:TYR:HD1	1.83	0.44
8:H:40:LEU:CD1	8:H:123:MET:HG3	2.47	0.44
11:K:18:LYS:NZ	11:K:37:LYS:O	2.50	0.44
12:L:47:ARG:CD	12:L:52:GLY:HA2	2.47	0.44
1:M:1267:MET:HA	1:M:1271:ILE:HD12	2.00	0.44
1:M:1313:LEU:C	1:M:1315:GLU:N	2.71	0.44
1:M:1445:ILE:H	1:M:1445:ILE:CD1	2.27	0.44
1:M:321:PRO:O	1:M:322:VAL:CB	2.65	0.44
1:M:458:HIS:CE1	1:M:507:VAL:HG21	2.52	0.44
1:M:461:LYS:O	1:M:463:ILE:HG23	2.18	0.44
2:N:1182:CYS:SG	2:N:1182:CYS:O	2.75	0.44
2:N:558:LEU:HD21	2:N:600:LEU:HD11	1.98	0.44
2:N:617:ARG:NE	2:N:619:ILE:HG12	2.26	0.44
2:N:707:PRO:HG2	2:N:708:GLU:N	2.31	0.44
2:N:806:THR:HG22	2:N:808:ALA:CB	2.47	0.44
3:O:44:LEU:C	3:O:44:LEU:HD23	2.38	0.44
4:P:51:ASN:C	4:P:52:LEU:O	2.53	0.44
6:R:74:ILE:HD12	6:R:144:GLU:HG2	1.99	0.44
2:N:1039:GLY:HA2	10:V:51:LEU:CD2	2.48	0.44
1:A:997:LEU:HD13	1:A:1018:PHE:CE2	2.52	0.44
1:A:1116:LEU:N	1:A:1308:THR:CG2	2.67	0.44
1:A:251:SER:HA	1:A:257:ARG:O	2.18	0.44
1:A:381:THR:HG21	1:A:383:TYR:CD1	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:69:THR:HG21	2:B:1174:LYS:NZ	2.32	0.44
1:A:962:ARG:C	1:A:964:ILE:H	2.21	0.44
1:A:993:LEU:HD23	1:A:1022:LEU:HD21	1.98	0.44
2:B:235:SER:C	2:B:236:HIS:CD2	2.90	0.44
2:B:244:LEU:O	2:B:246:LYS:N	2.51	0.44
2:B:955:THR:HG23	2:B:956:THR:H	1.83	0.44
3:C:23:SER:O	3:C:24:ASN:HB3	2.18	0.44
7:G:9:LEU:HD12	7:G:10:ASN:H	1.83	0.44
1:A:1148:ILE:HG12	9:I:49:ILE:HD12	1.98	0.44
1:M:1259:MET:CE	1:M:1262:LYS:HB2	2.48	0.44
1:M:316:GLN:HG2	1:M:317:LYS:CG	2.47	0.44
1:M:889:SER:OG	1:M:891:ALA:HB3	2.18	0.44
1:M:946:VAL:HG12	1:M:947:PHE:CD2	2.51	0.44
2:N:93:GLY:O	2:N:130:VAL:HG13	2.17	0.44
2:N:185:THR:O	2:N:188:ASP:N	2.51	0.44
2:N:203:PHE:N	2:N:203:PHE:CD1	2.86	0.44
2:N:347:LYS:HG3	2:N:348:ARG:N	2.33	0.44
2:N:458:LYS:O	2:N:459:TYR:C	2.56	0.44
2:N:461:LEU:CD1	2:N:461:LEU:H	2.31	0.44
4:P:60:LYS:HE2	4:P:126:ILE:HG12	1.99	0.44
5:Q:37:LEU:O	5:Q:37:LEU:HG	2.18	0.44
6:R:118:LEU:O	6:R:122:MET:HG3	2.16	0.44
7:S:41:LYS:HD3	7:S:42:PHE:CE1	2.52	0.44
10:V:5:VAL:C	10:V:6:ARG:HG3	2.37	0.44
14:5:4:DA:C4	14:5:5:DC:C5	3.06	0.44
1:A:1081:LEU:HD11	1:A:1097:GLY:HA3	1.99	0.44
1:A:1121:GLU:HG3	1:A:1122:PRO:HD2	1.95	0.44
1:A:1223:ASP:HA	1:A:1243:VAL:HG21	1.96	0.44
1:A:55:ASP:C	1:A:57:ARG:N	2.65	0.44
1:A:593:GLU:O	1:A:595:THR:N	2.45	0.44
1:A:768:GLN:HG2	1:A:816:HIS:CA	2.35	0.44
2:B:1004:GLU:HG3	10:J:42:LYS:HZ1	1.81	0.44
2:B:209:GLU:CD	2:B:485:ARG:HE	2.21	0.44
2:B:25:ILE:HD13	2:B:653:VAL:HG12	1.99	0.44
3:C:134:ILE:HG21	3:C:139:GLY:HA2	1.99	0.44
3:C:11:ARG:NH1	3:C:205:LYS:NZ	2.63	0.44
3:C:18:VAL:HG23	3:C:240:VAL:HB	1.99	0.44
7:G:90:THR:HG22	7:G:91:VAL:N	2.32	0.44
9:I:16:PRO:HB3	9:I:27:PHE:HE2	1.82	0.44
3:C:167:HIS:CE1	12:L:70:ARG:HA	2.52	0.44
1:M:282:ASN:O	1:M:284:ALA:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:69:THR:O	1:M:71:GLN:HG2	2.18	0.44
1:M:821:ARG:O	1:M:821:ARG:HG3	2.17	0.44
1:M:904:THR:HG22	1:M:904:THR:O	2.17	0.44
1:M:982:THR:N	1:M:985:ASP:HB2	2.33	0.44
2:N:431:TYR:CG	2:N:447:ALA:CB	3.01	0.44
3:O:80:LEU:HD12	3:O:81:GLU:H	1.82	0.44
4:P:153:ARG:NH2	4:P:184:ALA:HA	2.32	0.44
5:Q:127:ILE:HG13	5:Q:127:ILE:O	2.17	0.44
6:R:97:ARG:NH2	6:R:108:PHE:CE1	2.86	0.44
11:W:111:LEU:HD23	11:W:111:LEU:N	2.33	0.44
1:A:102:VAL:CG1	1:A:211:PHE:HE1	2.31	0.44
1:A:1257:ASP:HA	1:A:1260:LEU:HB3	2.00	0.44
1:A:270:LEU:HA	1:A:270:LEU:HD12	1.82	0.44
1:A:365:GLY:CA	1:A:463:ILE:HD13	2.48	0.44
1:A:444:PHE:CE2	1:A:487:MET:CE	3.01	0.44
1:A:659:HIS:O	2:B:1081:LEU:HD23	2.18	0.44
2:B:134:LYS:NZ	2:B:164:LYS:HE2	2.32	0.44
2:B:35:SER:O	2:B:39:ARG:HG3	2.17	0.44
2:B:552:MET:O	2:B:554:ILE:N	2.51	0.44
2:B:640:VAL:CG1	2:B:640:VAL:O	2.66	0.44
2:B:840:ILE:CG2	2:B:994:TYR:HD1	2.29	0.44
3:C:66:ARG:NH1	10:J:2:ILE:CG2	2.78	0.44
5:E:112:TYR:OH	5:E:136:ASN:HB2	2.18	0.44
5:E:167:ARG:HD3	5:E:167:ARG:HA	1.83	0.44
8:H:143:LEU:C	8:H:144:ILE:HG13	2.37	0.44
1:M:1101:LEU:HB2	1:M:1355:VAL:HG11	1.99	0.44
1:M:1152:ILE:HG23	1:M:1260:LEU:CD2	2.48	0.44
1:M:40:THR:HG22	1:M:41:MET:CG	2.46	0.44
1:M:716:ASP:C	1:M:716:ASP:OD1	2.56	0.44
1:M:855:THR:HG23	1:M:857:ARG:CG	2.43	0.44
1:M:92:HIS:HD2	1:M:236:LEU:HD21	1.82	0.44
2:N:1103:ILE:HG23	2:N:1103:ILE:O	2.17	0.44
1:M:343:LYS:HB2	2:N:1117:GLN:OE1	2.18	0.44
2:N:125:SER:O	2:N:126:SER:HB3	2.17	0.44
2:N:879:ARG:CZ	2:N:879:ARG:N	2.70	0.44
3:O:113:VAL:HG23	3:O:147:LEU:HD21	1.99	0.44
3:O:23:SER:O	3:O:24:ASN:HB3	2.18	0.44
4:P:208:GLU:HA	4:P:211:LEU:HD12	1.99	0.44
4:P:214:LEU:HD13	4:P:214:LEU:C	2.38	0.44
5:Q:43:LYS:O	5:Q:45:LYS:N	2.50	0.44
6:R:109:VAL:HG11	6:R:123:LYS:HG2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4:16:DT:H2''	13:4:17:DT:O5'	2.18	0.44
1:A:1376:THR:O	1:A:1377:THR:C	2.55	0.44
1:A:744:LYS:HG2	1:A:748:MET:HE2	2.00	0.44
1:A:841:LEU:HA	1:A:841:LEU:HD23	1.84	0.44
1:A:868:TYR:OH	1:A:1366:ARG:HD3	2.17	0.44
1:A:893:PHE:CE1	1:A:940:ARG:HD2	2.52	0.44
4:D:156:ASP:HB2	4:D:159:THR:HG23	1.99	0.44
5:E:147:HIS:HD2	5:E:149:LEU:N	2.11	0.44
5:E:197:LYS:HE2	5:E:199:ILE:CD1	2.27	0.44
5:E:164:LEU:HD11	5:E:211:TYR:CD1	2.53	0.44
5:E:35:VAL:C	5:E:37:LEU:H	2.20	0.44
5:E:55:ARG:C	5:E:57:MET:N	2.71	0.44
5:E:63:ASN:HB3	5:E:64:PRO:HD2	1.99	0.44
7:G:122:ASN:HB2	7:G:131:GLN:HG3	2.00	0.44
1:M:599:SER:HA	1:M:600:PRO:HD2	1.80	0.44
1:M:599:SER:HB2	1:M:603:ASN:H	1.82	0.44
1:M:709:THR:CG2	1:M:710:LEU:H	2.29	0.44
1:M:93:VAL:HG21	1:M:301:ALA:O	2.18	0.44
2:N:118:ARG:HH11	2:N:204:ILE:CD1	2.30	0.44
2:N:263:GLY:O	2:N:264:SER:C	2.56	0.44
2:N:816:GLU:O	2:N:817:LEU:HD23	2.18	0.44
2:N:916:THR:HB	2:N:935:ARG:HD2	2.00	0.44
3:O:132:PRO:O	3:O:134:ILE:HG13	2.17	0.44
3:O:147:LEU:HB2	3:O:151:GLN:CB	2.41	0.44
3:O:70:ILE:HD11	3:O:144:ILE:HG12	2.00	0.44
4:P:118:THR:HB	4:P:121:LYS:CG	2.48	0.44
4:P:13:ARG:C	4:P:15:LEU:N	2.70	0.44
5:Q:116:ILE:HG22	5:Q:117:THR:N	2.33	0.44
1:M:942:PHE:CZ	5:Q:207:ARG:HG3	2.53	0.44
5:Q:21:GLU:O	5:Q:24:LYS:HG2	2.18	0.44
7:S:22:MET:O	7:S:23:LYS:C	2.56	0.44
1:A:1120:LEU:H	1:A:1120:LEU:HG	1.57	0.44
1:A:1148:ILE:O	1:A:1148:ILE:HG22	2.18	0.44
1:A:1293:SER:HB3	1:A:1297:GLU:OE1	2.18	0.44
1:A:1389:PHE:C	1:A:1391:ARG:H	2.22	0.44
1:A:463:ILE:HD12	1:A:469:ARG:HD2	1.99	0.44
1:A:444:PHE:CE2	1:A:487:MET:HE2	2.53	0.44
1:A:568:PRO:HG3	8:H:46:LEU:O	2.17	0.44
1:A:601:LYS:HB2	1:A:603:ASN:HD21	1.79	0.44
1:A:610:GLY:O	1:A:611:GLN:NE2	2.51	0.44
1:A:774:ARG:H	1:A:774:ARG:HG2	1.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:114:PRO:CG	2:B:181:LEU:HD11	2.33	0.44
2:B:707:PRO:CG	2:B:708:GLU:N	2.81	0.44
2:B:773:MET:O	2:B:775:LYS:N	2.50	0.44
2:B:866:TYR:CD2	2:B:870:ILE:HB	2.52	0.44
2:B:942:ARG:HB2	2:B:945:GLU:HB2	1.99	0.44
2:B:970:THR:HG22	2:B:971:THR:N	2.33	0.44
3:C:240:VAL:HG23	3:C:241:ASP:N	2.33	0.44
4:D:123:LEU:CD1	4:D:149:THR:HG21	2.48	0.44
4:D:173:HIS:ND1	4:D:174:PRO:HD2	2.33	0.44
1:A:870:GLU:HG2	5:E:208:TYR:CD2	2.52	0.44
5:E:52:ARG:HA	5:E:53:PRO:HD2	1.85	0.44
11:K:40:HIS:O	11:K:41:THR:C	2.56	0.44
1:M:1313:LEU:C	1:M:1315:GLU:H	2.21	0.44
1:M:1315:GLU:C	1:M:1317:MET:N	2.72	0.44
1:M:219:PHE:HE1	1:M:230:ARG:HH21	1.64	0.44
1:M:316:GLN:O	1:M:317:LYS:C	2.56	0.44
1:M:893:PHE:CE1	1:M:940:ARG:HD2	2.52	0.44
2:N:281:PRO:HB3	2:N:320:ASP:OD2	2.18	0.44
3:O:13:ALA:O	11:W:114:LEU:HD13	2.18	0.44
3:O:235:VAL:HG21	10:V:6:ARG:NH2	2.33	0.44
3:O:133:ILE:HD11	3:O:237:SER:HA	2.00	0.44
3:O:242:GLN:C	3:O:244:VAL:N	2.71	0.44
3:O:47:ASP:CG	3:O:47:ASP:O	2.57	0.44
4:P:186:ASP:OD1	4:P:186:ASP:N	2.51	0.44
5:Q:157:SER:C	5:Q:159:ASP:N	2.71	0.44
5:Q:201:LYS:HD3	5:Q:201:LYS:HA	1.82	0.44
6:R:97:ARG:NH2	6:R:108:PHE:HE1	2.16	0.44
3:O:166:GLU:CG	11:W:10:PHE:HZ	2.26	0.44
12:X:47:ARG:CG	12:X:52:GLY:HA2	2.48	0.44
15:3:5:C:O2'	15:3:6:A:H5'	2.18	0.43
1:A:971:PHE:CE2	1:A:1040:GLN:HG2	2.52	0.43
1:A:1167:GLU:O	1:A:1170:ILE:CD1	2.66	0.43
1:A:1209:MET:CE	1:A:1236:LEU:HB3	2.48	0.43
1:A:1215:ARG:O	1:A:1219:THR:N	2.47	0.43
1:A:1259:MET:HA	1:A:1262:LYS:CD	2.47	0.43
1:A:1207:LEU:HD11	1:A:1273:LEU:HD23	1.99	0.43
1:A:528:LEU:O	1:A:531:ILE:HG22	2.18	0.43
2:B:280:ILE:CD1	2:B:334:ILE:HG12	2.47	0.43
2:B:399:ASP:OD2	2:B:510:LYS:HB2	2.18	0.43
2:B:777:ALA:HA	2:B:1095:LEU:HA	1.99	0.43
2:B:97:VAL:O	2:B:97:VAL:CG1	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:52:LEU:HD12	4:D:182:SER:HB2	2.00	0.43
8:H:76:THR:HG22	8:H:141:TYR:OH	2.18	0.43
10:J:36:LEU:HB2	10:J:47:ARG:NH1	2.33	0.43
3:C:248:ILE:HD11	11:K:101:LEU:HD22	2.00	0.43
12:L:27:LEU:HD13	12:L:37:LYS:CD	2.47	0.43
1:M:593:GLU:C	1:M:595:THR:N	2.71	0.43
1:M:929:LEU:HD21	1:M:983:ILE:HD13	1.99	0.43
2:N:1050:ILE:HG22	2:N:1051:THR:N	2.32	0.43
2:N:1214:PRO:O	2:N:1214:PRO:HG2	2.18	0.43
2:N:429:PHE:O	2:N:433:GLN:HG3	2.18	0.43
2:N:432:MET:C	2:N:434:ARG:H	2.21	0.43
2:N:594:ALA:CA	2:N:617:ARG:NH1	2.81	0.43
2:N:757:PRO:HG2	2:N:984:HIS:HE1	1.83	0.43
5:Q:55:ARG:C	5:Q:57:MET:N	2.71	0.43
5:Q:63:ASN:HB3	5:Q:64:PRO:HD2	1.99	0.43
7:S:138:THR:CG2	7:S:139:ILE:H	2.29	0.43
9:U:34:TYR:CE2	9:U:36:GLU:HB3	2.53	0.43
2:N:193:LYS:HZ2	12:X:32:ALA:HB1	1.82	0.43
1:A:140:THR:HA	1:A:143:LYS:HE2	2.00	0.43
1:A:185:TRP:CE3	1:A:185:TRP:N	2.83	0.43
1:A:590:ARG:HH11	1:A:590:ARG:HG2	1.83	0.43
1:A:718:VAL:O	1:A:721:PHE:HB2	2.18	0.43
2:B:999:MET:HB3	2:B:1007:VAL:CG2	2.47	0.43
2:B:129:PHE:CE2	2:B:166:PHE:HD1	2.36	0.43
2:B:797:TYR:HE1	2:B:854:LEU:HD23	1.82	0.43
2:B:847:ASP:O	2:B:849:GLY:N	2.51	0.43
3:C:69:LEU:O	10:J:6:ARG:HD2	2.17	0.43
4:D:138:ASN:C	4:D:140:ASP:N	2.71	0.43
5:E:135:PHE:HD2	5:E:140:LEU:CD2	2.30	0.43
8:H:145:ARG:O	8:H:146:ARG:CB	2.66	0.43
9:I:56:ALA:O	9:I:57:GLY:O	2.36	0.43
10:J:53:HIS:HE1	10:J:55:ASP:OD1	2.01	0.43
12:L:26:THR:HG23	12:L:62:LYS:HZ1	1.82	0.43
1:M:54:ASN:CB	1:M:247:ARG:HH12	2.22	0.43
1:M:54:ASN:HB3	1:M:247:ARG:NH1	2.20	0.43
2:N:1004:GLU:OE1	10:V:42:LYS:HE2	2.18	0.43
2:N:1116:ARG:HG3	2:N:1198:TYR:CD2	2.53	0.43
2:N:1197:PRO:HG2	2:N:1200:ALA:HB2	2.00	0.43
2:N:291:ILE:HG22	2:N:297:ILE:HG12	1.99	0.43
2:N:461:LEU:N	2:N:461:LEU:CD1	2.80	0.43
2:N:679:TYR:HE1	2:N:687:GLU:OE2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:73:GLN:NE2	3:O:75:MET:H	2.04	0.43
5:Q:98:ILE:HA	5:Q:101:GLN:HB3	2.00	0.43
11:W:102:LYS:O	11:W:106:GLU:HG3	2.17	0.43
3:O:241:ASP:HB3	11:W:109:TRP:CE2	2.52	0.43
1:A:1220:PHE:O	1:A:1221:LYS:HB2	2.17	0.43
1:A:856:THR:HG21	1:A:1370:LEU:HD21	2.00	0.43
2:B:629:ASP:HB3	2:B:632:ARG:CD	2.49	0.43
2:B:916:THR:HB	2:B:935:ARG:HG3	1.99	0.43
2:B:918:ILE:HD12	2:B:935:ARG:CZ	2.48	0.43
2:B:957:ASN:O	2:B:960:GLY:N	2.52	0.43
3:C:233:GLU:OE1	10:J:12:LYS:HE2	2.18	0.43
6:F:76:LYS:O	6:F:79:ARG:HD3	2.18	0.43
8:H:84:ALA:CA	8:H:87:ARG:HD2	2.47	0.43
10:J:37:SER:OG	10:J:47:ARG:NH2	2.51	0.43
3:C:166:GLU:C	11:K:6:ARG:NH1	2.72	0.43
12:L:47:ARG:CG	12:L:52:GLY:HA2	2.48	0.43
1:M:1218:GLN:O	1:M:1221:LYS:HG3	2.18	0.43
1:M:1278:ASN:O	1:M:1310:GLY:HA3	2.18	0.43
1:M:268:ASP:HB3	1:M:299:HIS:ND1	2.32	0.43
1:M:645:LEU:HG	1:M:649:ILE:HD12	1.99	0.43
1:M:718:VAL:O	1:M:721:PHE:HB2	2.17	0.43
1:M:80:HIS:H	1:M:243:PRO:HB3	1.83	0.43
2:N:114:PRO:O	2:N:115:GLN:C	2.55	0.43
2:N:100:PRO:HD2	2:N:180:TYR:CE1	2.53	0.43
2:N:229:ALA:HB1	2:N:231:PRO:HD2	2.00	0.43
2:N:387:LEU:H	2:N:387:LEU:HD12	1.84	0.43
2:N:51:PHE:HB2	2:N:173:MET:HE1	2.00	0.43
2:N:942:ARG:HB2	2:N:945:GLU:HB2	2.00	0.43
5:Q:55:ARG:HD2	5:Q:113:GLN:HE21	1.83	0.43
5:Q:78:LEU:HD21	5:Q:80:VAL:HG23	1.99	0.43
7:S:127:PRO:HA	7:S:128:PRO:HD3	1.94	0.43
10:V:27:GLU:O	10:V:29:GLU:N	2.51	0.43
1:A:832:ALA:O	13:1:18:DA:H5'	2.17	0.43
1:A:1021:LEU:O	1:A:1024:SER:HB3	2.19	0.43
1:A:1112:LYS:O	1:A:1114:PRO:CD	2.63	0.43
1:A:1323:ASP:C	1:A:1325:THR:H	2.21	0.43
1:A:492:PRO:C	1:A:493:GLN:HE21	2.22	0.43
1:A:75:ASN:O	1:A:76:GLU:CB	2.65	0.43
2:B:236:HIS:CE1	2:B:389:ALA:HA	2.53	0.43
3:C:109:SER:O	3:C:110:THR:C	2.56	0.43
3:C:31:ASN:O	3:C:35:ARG:HG3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:58:THR:O	8:H:142:LEU:HD12	2.18	0.43
11:K:18:LYS:HA	11:K:18:LYS:HD3	1.83	0.43
1:M:1164:PRO:HG2	1:M:1165:GLU:H	1.83	0.43
1:M:571:LEU:HD22	8:T:46:LEU:HD11	2.00	0.43
1:M:709:THR:HB	1:M:712:GLU:H	1.83	0.43
1:M:774:ARG:HG2	1:M:774:ARG:H	1.31	0.43
2:N:351:TYR:CD1	2:N:355:ILE:HD11	2.54	0.43
2:N:871:THR:HG22	2:N:872:GLU:O	2.18	0.43
4:P:40:HIS:HE1	7:S:74:TYR:O	2.00	0.43
5:Q:191:LYS:O	5:Q:192:ARG:C	2.56	0.43
5:Q:28:TYR:C	5:Q:65:THR:HG23	2.39	0.43
6:R:89:GLU:C	6:R:93:ILE:HD12	2.39	0.43
8:T:108:SER:O	8:T:109:LYS:HB3	2.18	0.43
8:T:77:ARG:HG2	8:T:78:SER:H	1.82	0.43
9:U:58:VAL:HG13	9:U:62:ILE:CD1	2.48	0.43
2:N:622:LYS:HZ1	9:U:59:VAL:HG13	1.79	0.43
12:X:34:CYS:O	12:X:35:SER:C	2.56	0.43
2:N:792:MET:HE1	13:4:24:DG:P	2.58	0.43
1:A:115:LEU:CG	1:A:142:CYS:HB3	2.47	0.43
1:A:1169:ILE:HG13	1:A:1169:ILE:H	1.49	0.43
1:A:1235:LYS:O	1:A:1237:ILE:HD12	2.18	0.43
1:A:839:ARG:NH1	1:A:1402:PHE:HD1	2.17	0.43
1:A:173:THR:O	1:A:173:THR:HG22	2.19	0.43
1:A:821:ARG:O	1:A:825:ILE:HG13	2.17	0.43
2:B:1095:LEU:C	2:B:1096:ARG:O	2.55	0.43
2:B:614:SER:C	2:B:615:MET:HG3	2.38	0.43
2:B:642:ASP:HB3	2:B:649:LYS:CG	2.48	0.43
2:B:708:GLU:O	2:B:709:ASP:C	2.57	0.43
2:B:798:TYR:HD2	2:B:798:TYR:N	2.16	0.43
2:B:67:SER:HB3	2:B:92:PHE:HD1	1.83	0.43
3:C:242:GLN:C	3:C:244:VAL:N	2.72	0.43
4:D:12:ARG:NH1	4:D:14:ARG:N	2.66	0.43
5:E:17:ARG:O	5:E:20:LYS:HB2	2.18	0.43
1:A:1444:MET:HE1	6:F:135:ARG:HB2	2.00	0.43
1:M:1242:VAL:CG1	1:M:1243:VAL:H	2.29	0.43
1:M:856:THR:HG21	1:M:1370:LEU:HD21	2.00	0.43
1:M:1402:PHE:CE1	1:M:1403:GLU:HG2	2.54	0.43
1:M:245:PRO:O	1:M:248:PRO:HD3	2.19	0.43
1:M:40:THR:CG2	1:M:41:MET:HG3	2.47	0.43
1:M:374:LEU:O	1:M:436:ILE:HG12	2.17	0.43
1:M:532:ARG:O	1:M:535:THR:HB	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:71:GLN:C	1:M:73:GLY:N	2.71	0.43
1:M:738:LYS:HG3	1:M:740:LEU:HG	1.99	0.43
2:N:662:MET:HA	2:N:665:GLU:CG	2.46	0.43
2:N:864:LYS:HG3	2:N:872:GLU:OE1	2.19	0.43
3:O:260:LEU:O	3:O:263:THR:HB	2.18	0.43
3:O:37:MET:CE	3:O:176:ILE:HD13	2.48	0.43
4:P:145:MET:O	4:P:149:THR:HB	2.19	0.43
4:P:191:ALA:C	4:P:193:THR:N	2.72	0.43
4:P:193:THR:HG22	4:P:194:LEU:HG	2.00	0.43
5:Q:108:GLY:O	5:Q:132:ILE:HG23	2.19	0.43
5:Q:48:ASP:HB3	5:Q:54:GLN:CD	2.38	0.43
7:S:1:MET:O	7:S:3:PHE:CZ	2.71	0.43
8:T:57:VAL:HG12	8:T:58:THR:N	2.33	0.43
13:4:12:DG:HI'	13:4:13:DT:O5'	2.19	0.43
1:A:1074:GLU:HB3	1:A:1075:PRO:CD	2.49	0.43
1:A:295:LEU:O	1:A:298:PHE:HB3	2.19	0.43
1:A:532:ARG:HH22	1:A:745:GLN:HG2	1.84	0.43
1:A:535:THR:HG21	1:A:616:VAL:CA	2.46	0.43
1:A:913:LEU:HD13	1:A:981:LEU:O	2.19	0.43
2:B:1115:THR:HG22	2:B:1117:GLN:CG	2.49	0.43
1:A:1409:LEU:CD1	2:B:1207:LEU:HD21	2.49	0.43
2:B:129:PHE:HE2	2:B:166:PHE:CD1	2.37	0.43
2:B:231:PRO:HG2	2:B:231:PRO:O	2.19	0.43
2:B:287:ARG:HG2	2:B:292:ILE:HG12	2.00	0.43
2:B:314:LEU:O	2:B:317:CYS:HB2	2.19	0.43
2:B:313:MET:HE1	2:B:390:LEU:HG	2.01	0.43
2:B:570:VAL:CG2	2:B:573:GLN:HB3	2.48	0.43
2:B:664:THR:CG2	2:B:678:GLU:N	2.81	0.43
2:B:821:GLN:OE1	2:B:850:LEU:HD12	2.18	0.43
1:A:253:ASN:ND2	2:B:935:ARG:HB2	2.34	0.43
3:C:123:ASN:HD21	3:C:125:MET:HA	1.82	0.43
3:C:65:HIS:CE1	3:C:69:LEU:HD11	2.54	0.43
5:E:90:VAL:HB	5:E:117:THR:HG21	2.00	0.43
7:G:151:ILE:HG12	7:S:114:LEU:CD1	2.48	0.43
8:H:91:ASP:O	8:H:93:TYR:N	2.47	0.43
9:I:4:PHE:CD1	9:I:4:PHE:C	2.92	0.43
11:K:12:LEU:HD12	11:K:12:LEU:HA	1.80	0.43
1:M:1299:VAL:HG12	1:M:1300:LYS:H	1.84	0.43
1:M:1308:THR:HG23	1:M:1309:ASP:H	1.82	0.43
1:M:451:HIS:O	1:M:452:LYS:C	2.56	0.43
1:M:826:ASP:OD1	1:M:826:ASP:C	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:750:GLY:O	2:N:751:VAL:C	2.56	0.43
2:N:830:TYR:CE2	2:N:1000:PRO:HD3	2.52	0.43
2:N:860:MET:SD	2:N:861:ASP:N	2.91	0.43
2:N:916:THR:HB	2:N:935:ARG:CG	2.47	0.43
3:O:186:LEU:O	3:O:187:LYS:HB2	2.19	0.43
2:N:1084:GLN:OE1	3:O:189:THR:CG2	2.67	0.43
3:O:258:ILE:O	3:O:262:LEU:HG	2.18	0.43
5:Q:79:TRP:NE1	5:Q:81:GLU:HB2	2.33	0.43
7:S:80:LYS:O	7:S:82:PHE:CE1	2.71	0.43
8:T:128:ASN:C	8:T:128:ASN:HD22	2.22	0.43
9:U:100:PHE:HD1	9:U:100:PHE:N	2.16	0.43
9:U:50:THR:CG2	9:U:51:ASN:N	2.67	0.43
12:X:44:ASP:O	12:X:45:ALA:HB3	2.18	0.43
2:N:110:HIS:HB2	12:X:54:ARG:NH2	2.34	0.43
1:A:1030:ARG:HG2	1:A:1034:GLU:OE2	2.19	0.43
1:A:1315:GLU:C	1:A:1317:MET:N	2.72	0.43
1:A:1418:LEU:HD23	2:B:1222:ARG:HD2	1.99	0.43
1:A:409:SER:O	1:A:410:GLY:C	2.57	0.43
1:A:549:MET:HE1	1:A:656:TRP:HD1	1.83	0.43
1:A:79:GLY:H	2:B:1205:GLN:HE22	1.65	0.43
2:B:112:LEU:HD12	2:B:113:TYR:H	1.82	0.43
2:B:254:LEU:HD12	2:B:272:THR:O	2.18	0.43
2:B:567:GLU:HA	2:B:567:GLU:OE1	2.19	0.43
2:B:589:VAL:CG1	2:B:590:HIS:N	2.79	0.43
3:C:56:THR:HG22	3:C:57:VAL:N	2.25	0.43
6:F:97:ARG:O	6:F:101:ILE:HG13	2.18	0.43
7:G:132:SER:HB3	7:G:135:ASP:H	1.83	0.43
10:J:32:GLU:OE2	10:J:32:GLU:N	2.32	0.43
1:M:1146:VAL:HG12	1:M:1201:ALA:HB1	2.00	0.43
1:M:351:THR:HG21	2:N:1103:ILE:CG1	2.49	0.43
1:M:593:GLU:O	1:M:595:THR:N	2.45	0.43
1:M:722:LEU:HB3	1:M:799:PHE:CD1	2.53	0.43
1:M:853:ASP:C	1:M:853:ASP:OD1	2.57	0.43
2:N:999:MET:HB3	2:N:1007:VAL:HG21	2.01	0.43
2:N:108:VAL:HG23	2:N:109:THR:H	1.82	0.43
2:N:102:VAL:CG2	2:N:112:LEU:HD22	2.49	0.43
2:N:291:ILE:CD1	2:N:300:HIS:NE2	2.82	0.43
2:N:311:LEU:O	2:N:314:LEU:N	2.51	0.43
2:N:363:HIS:O	2:N:364:ILE:CB	2.67	0.43
2:N:44:VAL:O	2:N:45:SER:C	2.56	0.43
2:N:657:HIS:O	2:N:660:LYS:HB3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:708:GLU:O	2:N:709:ASP:C	2.57	0.43
2:N:878:GLN:HB2	2:N:879:ARG:HH11	1.82	0.43
2:N:1001:PHE:CE2	3:O:34:ARG:CZ	3.01	0.43
4:P:207:LEU:HD11	4:P:211:LEU:HD11	2.00	0.43
4:P:219:THR:CG2	4:P:220:LEU:N	2.82	0.43
5:Q:154:ILE:HG22	5:Q:155:ARG:O	2.19	0.43
6:R:109:VAL:CG1	6:R:110:ASP:H	2.31	0.43
8:T:84:ALA:HA	8:T:87:ARG:HG3	2.00	0.43
10:V:17:LYS:HG2	10:V:39:LEU:HB3	2.01	0.43
1:A:1341:ILE:HD12	1:A:1379:GLY:C	2.36	0.43
1:A:353:ILE:HD11	1:A:480:ALA:HB1	2.00	0.43
1:A:504:LEU:HD11	6:F:91:ALA:HB2	2.01	0.43
1:A:524:VAL:O	1:A:525:GLN:C	2.57	0.43
1:A:49:LYS:HD3	1:A:55:ASP:HB3	1.99	0.43
1:A:67:CYS:O	1:A:67:CYS:SG	2.77	0.43
1:A:662:PHE:HD2	2:B:1014:PRO:HG3	1.84	0.43
2:B:1166:CYS:O	2:B:1168:LEU:N	2.47	0.43
5:E:12:LEU:HD22	5:E:55:ARG:CZ	2.49	0.43
7:G:92:VAL:HG21	7:G:102:GLN:HB2	2.01	0.43
9:I:86:PHE:HE1	9:I:100:PHE:HB2	1.83	0.43
10:J:36:LEU:HD12	10:J:47:ARG:HH11	1.80	0.43
10:J:53:HIS:NE2	10:J:55:ASP:HA	2.34	0.43
12:L:44:ASP:O	12:L:45:ALA:HB3	2.19	0.43
1:M:1116:LEU:HB3	1:M:1308:THR:CG2	2.47	0.43
1:M:185:TRP:CE3	1:M:185:TRP:N	2.84	0.43
1:M:22:PHE:HE2	1:M:26:GLU:HG2	1.83	0.43
1:M:825:ILE:HD12	2:N:513:GLN:HG2	2.00	0.43
2:N:121:ASN:HA	2:N:207:GLY:CA	2.48	0.43
2:N:230:ALA:HB3	2:N:231:PRO:HD3	1.99	0.43
2:N:281:PRO:O	2:N:283:VAL:N	2.52	0.43
2:N:522:VAL:HG12	2:N:523:CYS:N	2.34	0.43
3:O:209:TYR:N	3:O:209:TYR:CD1	2.86	0.43
3:O:67:LEU:HA	3:O:70:ILE:HD12	2.01	0.43
4:P:138:ASN:O	4:P:140:ASP:N	2.52	0.43
5:Q:129:PRO:O	5:Q:130:ALA:O	2.37	0.43
5:Q:35:VAL:C	5:Q:37:LEU:H	2.22	0.43
5:Q:96:PHE:CZ	5:Q:100:ILE:HD11	2.54	0.43
6:R:152:ILE:HG22	6:R:153:VAL:N	2.33	0.43
7:S:21:ARG:HD3	7:S:21:ARG:HA	1.78	0.43
9:U:55:THR:CG2	9:U:100:PHE:HD2	2.26	0.43
1:M:698:GLN:NE2	9:U:99:LEU:HD21	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:W:70:ARG:HG3	11:W:70:ARG:O	2.18	0.43
12:X:40:LEU:HD22	12:X:44:ASP:CG	2.38	0.43
1:A:993:LEU:CD2	1:A:1022:LEU:HD21	2.49	0.43
1:A:282:ASN:O	1:A:284:ALA:N	2.52	0.43
1:A:40:THR:CG2	1:A:41:MET:HG3	2.42	0.43
2:B:175:ARG:HA	2:B:175:ARG:HD2	1.87	0.43
2:B:363:HIS:O	2:B:364:ILE:CB	2.63	0.43
2:B:378:LEU:HD12	2:B:378:LEU:O	2.18	0.43
2:B:282:ILE:CD1	2:B:382:ILE:HD13	2.48	0.43
2:B:390:LEU:O	2:B:392:ARG:N	2.52	0.43
2:B:431:TYR:CG	2:B:447:ALA:CB	3.02	0.43
2:B:603:LEU:HD12	2:B:609:ILE:HG12	2.01	0.43
2:B:861:ASP:OD1	2:B:862:GLN:N	2.52	0.43
2:B:935:ARG:HG3	2:B:935:ARG:O	2.19	0.43
6:F:89:GLU:CG	6:F:134:ILE:HD13	2.46	0.43
7:G:127:PRO:HA	7:G:128:PRO:HD3	1.94	0.43
7:G:18:PHE:HA	7:G:22:MET:HE3	2.00	0.43
10:J:24:LEU:HA	10:J:28:ASP:HB2	2.01	0.43
1:M:1121:GLU:O	1:M:1122:PRO:C	2.57	0.43
1:M:1308:THR:CG2	1:M:1309:ASP:N	2.68	0.43
1:M:55:ASP:O	1:M:55:ASP:CG	2.54	0.43
1:M:826:ASP:HA	1:M:829:VAL:HG23	1.99	0.43
2:N:1009:ASP:C	2:N:1010:LEU:HD12	2.39	0.43
2:N:294:ASP:OD2	2:N:294:ASP:N	2.51	0.43
2:N:618:ASP:OD2	2:N:621:GLU:HB3	2.18	0.43
2:N:778:MET:HE1	2:N:1094:ARG:CD	2.40	0.43
2:N:866:TYR:HB2	2:N:870:ILE:HB	2.01	0.43
2:N:90:ILE:HD12	2:N:432:MET:CE	2.49	0.43
3:O:16:ASP:O	3:O:240:VAL:HG11	2.19	0.43
3:O:189:THR:HG22	3:O:190:ASP:H	1.79	0.43
4:P:123:LEU:HD13	4:P:149:THR:HG21	2.01	0.43
4:P:15:LEU:O	4:P:17:LYS:N	2.44	0.43
2:N:1165:ILE:HG21	4:P:17:LYS:HG3	2.00	0.43
4:P:57:LEU:HA	4:P:57:LEU:HD23	1.75	0.43
5:Q:103:LYS:HB3	5:Q:105:PHE:CE2	2.54	0.43
5:Q:90:VAL:HA	5:Q:120:ALA:HB2	1.99	0.43
6:R:97:ARG:HD2	6:R:97:ARG:HA	1.86	0.43
7:S:138:THR:CG2	7:S:139:ILE:HG22	2.39	0.43
8:T:50:ALA:O	8:T:53:ASP:OD2	2.37	0.43
1:A:1120:LEU:HD12	1:A:1120:LEU:C	2.39	0.43
1:A:1239:ARG:HH11	1:A:1239:ARG:HB3	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1293:SER:HB2	1:A:1299:VAL:CG2	2.49	0.43
1:A:374:LEU:O	1:A:436:ILE:HG12	2.18	0.43
1:A:593:GLU:C	1:A:595:THR:N	2.72	0.43
1:A:770:VAL:HA	1:A:822:GLU:OE1	2.19	0.43
1:A:350:ARG:CB	2:B:1128:LEU:HD11	2.46	0.43
2:B:246:LYS:HA	2:B:249:ARG:NH2	2.34	0.43
2:B:257:LYS:HB3	2:B:258:LEU:H	1.55	0.43
2:B:324:ILE:HG22	2:B:324:ILE:O	2.19	0.43
2:B:405:ARG:HA	2:B:631:GLY:O	2.19	0.43
2:B:616:ILE:CG2	2:B:700:SER:OG	2.67	0.43
3:C:147:LEU:HB2	3:C:151:GLN:CB	2.41	0.43
3:C:209:TYR:H	3:C:209:TYR:HD1	1.63	0.43
3:C:254:LYS:HB3	11:K:42:LEU:HD11	2.01	0.43
9:I:4:PHE:HD1	9:I:5:ARG:N	2.16	0.43
9:I:88:SER:C	9:I:90:GLN:H	2.22	0.43
1:M:1280:GLU:HB3	1:M:1281:ARG:H	1.60	0.43
1:M:1402:PHE:CZ	1:M:1403:GLU:HG2	2.54	0.43
1:M:330:LYS:O	1:M:334:GLY:HA3	2.19	0.43
2:N:1017:ILE:H	2:N:1018:PRO:HD2	1.84	0.43
2:N:727:LYS:HE2	2:N:1049:ASP:OD1	2.19	0.43
1:M:1410:PHE:HA	2:N:1212:ILE:CD1	2.49	0.43
2:N:363:HIS:O	2:N:364:ILE:HB	2.18	0.43
2:N:447:ALA:O	2:N:449:ASN:N	2.52	0.43
2:N:487:THR:CG2	2:N:488:TYR:N	2.82	0.43
2:N:594:ALA:HA	2:N:617:ARG:NH1	2.34	0.43
2:N:957:ASN:O	2:N:960:GLY:N	2.52	0.43
2:N:840:ILE:HG21	2:N:994:TYR:HD1	1.83	0.43
4:P:60:LYS:HE2	4:P:126:ILE:CG1	2.48	0.43
5:Q:104:ASN:HD22	5:Q:104:ASN:HA	1.52	0.43
5:Q:124:VAL:HB	5:Q:125:PRO:CD	2.49	0.43
5:Q:82:PHE:O	5:Q:83:CYS:HB2	2.18	0.43
7:S:110:VAL:HG12	7:S:161:GLY:O	2.18	0.43
4:P:8:PHE:CD2	7:S:6:ASP:O	2.71	0.43
1:M:1445:ILE:HD13	7:S:70:PHE:CE2	2.54	0.43
8:T:135:LEU:HB2	8:T:137:GLN:HE21	1.83	0.43
8:T:62:SER:OG	8:T:64:ASN:ND2	2.51	0.43
9:U:82:GLU:HB3	9:U:104:LEU:HD12	1.99	0.43
1:M:701:LEU:HD21	9:U:114:GLN:HB2	2.01	0.43
10:V:24:LEU:HA	10:V:28:ASP:HB2	1.99	0.43
11:W:101:LEU:C	11:W:101:LEU:HD23	2.39	0.43
1:A:1100:ARG:NH2	1:A:1351:GLU:CG	2.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1121:GLU:O	1:A:1122:PRO:C	2.57	0.42
1:A:1148:ILE:HD11	1:A:1198:ASP:CA	2.46	0.42
1:A:1208:THR:O	1:A:1209:MET:C	2.56	0.42
1:A:1173:HIS:CD2	1:A:1227:ILE:HG23	2.54	0.42
1:A:219:PHE:CE1	1:A:230:ARG:HB3	2.54	0.42
1:A:500:GLU:O	1:A:504:LEU:HB2	2.19	0.42
1:A:33:ALA:HB1	1:A:56:PRO:HB2	2.00	0.42
2:B:1017:ILE:H	2:B:1018:PRO:HD2	1.84	0.42
2:B:51:PHE:CD2	2:B:173:MET:HB3	2.54	0.42
2:B:203:PHE:N	2:B:203:PHE:HD1	2.16	0.42
2:B:521:LEU:HB3	2:B:633:VAL:CG1	2.47	0.42
2:B:557:PHE:HZ	2:B:603:LEU:HD21	1.83	0.42
2:B:654:ARG:NH1	2:B:654:ARG:HG3	2.33	0.42
2:B:910:VAL:HG13	2:B:938:SER:HB3	2.01	0.42
4:D:166:LEU:HD23	4:D:214:LEU:CD2	2.49	0.42
4:D:7:THR:HG21	4:D:32:GLU:CD	2.39	0.42
1:A:1444:MET:CG	7:G:59:GLY:O	2.67	0.42
8:H:26:ILE:O	8:H:27:GLU:HG3	2.19	0.42
8:H:51:ALA:O	8:H:52:GLN:CB	2.67	0.42
12:L:29:TYR:O	12:L:30:ILE:CG1	2.66	0.42
1:M:846:GLU:HB2	1:M:847:ASP:H	1.67	0.42
2:N:384:ARG:HH12	2:N:393:LYS:CD	2.31	0.42
2:N:483:LEU:HD11	2:N:491:THR:HG22	1.99	0.42
2:N:659:ALA:HA	2:N:662:MET:CE	2.49	0.42
2:N:731:VAL:HG12	2:N:734:HIS:NE2	2.34	0.42
3:O:104:PHE:HE2	3:O:150:GLY:HA2	1.84	0.42
3:O:101:LEU:CD1	3:O:118:LEU:HD23	2.49	0.42
4:P:185:CYS:O	4:P:211:LEU:HD22	2.19	0.42
4:P:209:ARG:HA	4:P:212:LYS:HD2	1.99	0.42
4:P:5:THR:HG23	7:S:42:PHE:CE1	2.53	0.42
8:T:128:ASN:C	8:T:128:ASN:ND2	2.72	0.42
8:T:58:THR:O	8:T:59:ILE:HG13	2.19	0.42
11:W:59:ALA:HA	11:W:74:ARG:O	2.19	0.42
11:W:21:ILE:HD13	11:W:84:LYS:HE3	2.00	0.42
1:A:98:LYS:O	1:A:102:VAL:HG23	2.19	0.42
1:A:1035:TYR:O	1:A:1036:ARG:HB2	2.19	0.42
1:A:1308:THR:CG2	1:A:1309:ASP:N	2.68	0.42
1:A:1311:VAL:HG21	1:A:1329:THR:CG2	2.49	0.42
1:A:523:ILE:CG2	1:A:527:THR:HG22	2.49	0.42
1:A:65:LEU:HD13	1:A:71:GLN:OE1	2.19	0.42
1:A:883:LEU:HD21	1:A:1021:LEU:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:92:HIS:O	1:A:93:VAL:C	2.57	0.42
2:B:125:SER:O	2:B:126:SER:HB3	2.19	0.42
4:D:138:ASN:O	4:D:140:ASP:N	2.52	0.42
5:E:43:LYS:O	5:E:45:LYS:N	2.52	0.42
7:G:51:TYR:C	7:G:51:TYR:CD2	2.93	0.42
8:H:128:ASN:ND2	8:H:128:ASN:C	2.71	0.42
8:H:56:THR:O	8:H:144:ILE:HA	2.19	0.42
12:L:70:ARG:HG2	12:L:70:ARG:HH11	1.84	0.42
1:M:1081:LEU:HD11	1:M:1097:GLY:CA	2.45	0.42
1:M:109:HIS:H	1:M:210:ILE:HD11	1.84	0.42
1:M:1156:PRO:HA	1:M:1190:PRO:CB	2.49	0.42
1:M:1215:ARG:O	1:M:1219:THR:N	2.48	0.42
2:N:1106:ARG:HG3	2:N:1107:ALA:N	2.34	0.42
1:M:69:THR:HB	2:N:1174:LYS:HE2	2.01	0.42
2:N:247:GLY:C	2:N:249:ARG:N	2.71	0.42
2:N:334:ILE:CG2	2:N:334:ILE:O	2.66	0.42
2:N:335:GLY:O	2:N:336:ARG:HB2	2.19	0.42
2:N:899:ILE:CD1	2:N:911:ILE:HA	2.47	0.42
1:M:469:ARG:NH2	2:N:991:GLY:O	2.52	0.42
3:O:179:GLU:O	3:O:180:TYR:HB3	2.20	0.42
4:P:183:LEU:HA	4:P:183:LEU:HD23	1.46	0.42
4:P:52:LEU:H	4:P:182:SER:HB3	1.84	0.42
5:Q:182:ASP:HB3	5:Q:185:ALA:CB	2.48	0.42
1:M:598:LEU:CD2	8:T:25:ARG:NH1	2.82	0.42
8:T:61:SER:O	8:T:62:SER:HB2	2.19	0.42
10:V:44:TYR:N	10:V:44:TYR:CD2	2.78	0.42
1:A:1150:SER:HB3	1:A:1195:LEU:CD2	2.48	0.42
1:A:1239:ARG:HH12	1:A:1241:ARG:NH1	2.18	0.42
1:A:443:LEU:HD23	1:A:443:LEU:HA	1.76	0.42
1:A:599:SER:HA	1:A:600:PRO:HD2	1.81	0.42
1:A:608:ILE:HD12	1:A:613:ILE:CD1	2.49	0.42
1:A:645:LEU:HD11	1:A:649:ILE:HD11	2.00	0.42
1:A:741:ASN:C	1:A:741:ASN:HD22	2.22	0.42
2:B:357:GLN:CD	2:B:368:GLU:HA	2.40	0.42
2:B:447:ALA:O	2:B:449:ASN:N	2.53	0.42
2:B:508:LEU:O	2:B:509:ALA:CB	2.66	0.42
2:B:364:ILE:HG13	2:B:585:VAL:HG22	2.00	0.42
2:B:604:ARG:CA	2:B:609:ILE:HG13	2.49	0.42
2:B:744:HIS:CD2	2:B:745:PRO:CD	2.80	0.42
2:B:769:TYR:C	2:B:771:SER:N	2.73	0.42
2:B:773:MET:SD	2:B:987:LYS:HD2	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:832:GLY:O	2:B:835:GLN:NE2	2.52	0.42
3:C:259:LEU:HD21	11:K:91:CYS:HB3	2.01	0.42
3:C:27:LEU:O	3:C:28:ALA:C	2.58	0.42
5:E:124:VAL:N	5:E:125:PRO:HD2	2.33	0.42
5:E:14:ARG:NH2	5:E:141:VAL:HG12	2.28	0.42
1:A:1378:GLN:HG2	5:E:177:ARG:NH1	2.35	0.42
7:G:91:VAL:HG23	7:G:141:SER:O	2.19	0.42
8:H:100:THR:HG22	8:H:101:ALA:N	2.34	0.42
8:H:113:ALA:HB1	8:H:124:ARG:HE	1.84	0.42
9:I:100:PHE:N	9:I:100:PHE:HD1	2.17	0.42
9:I:101:PHE:N	9:I:101:PHE:HD1	2.15	0.42
9:I:10:CYS:O	9:I:11:ASN:C	2.58	0.42
9:I:62:ILE:HG12	9:I:62:ILE:O	2.19	0.42
1:M:1206:ASP:O	1:M:1274:ARG:NH1	2.51	0.42
1:M:1312:ASN:O	1:M:1316:VAL:HG23	2.18	0.42
1:M:219:PHE:CZ	1:M:230:ARG:HB3	2.55	0.42
1:M:320:ARG:NE	1:M:323:LYS:HZ2	2.18	0.42
1:M:353:ILE:HD11	1:M:480:ALA:HB1	2.01	0.42
1:M:874:ASP:OD1	1:M:876:ALA:N	2.40	0.42
1:M:942:PHE:HZ	5:Q:207:ARG:HG3	1.83	0.42
1:M:908:LEU:CD1	1:M:983:ILE:HD11	2.49	0.42
1:M:666:ILE:HD11	2:N:1067:ARG:O	2.19	0.42
2:N:980:PHE:CE2	2:N:1094:ARG:HG3	2.54	0.42
2:N:1166:CYS:O	2:N:1168:LEU:N	2.48	0.42
2:N:274:PRO:O	2:N:275:TYR:HB2	2.19	0.42
2:N:821:GLN:HE22	2:N:851:PHE:HA	1.84	0.42
3:O:77:ILE:HG23	3:O:161:LYS:HE3	2.02	0.42
4:P:190:GLU:HA	7:S:167:TYR:HD1	1.77	0.42
4:P:203:SER:OG	4:P:206:GLU:HB2	2.20	0.42
5:Q:124:VAL:N	5:Q:125:PRO:HD2	2.34	0.42
5:Q:65:THR:O	5:Q:69:ILE:HD12	2.19	0.42
7:S:111:THR:O	7:S:114:LEU:N	2.47	0.42
13:1:16:DT:H2''	13:1:17:DT:O5'	2.19	0.42
13:1:19:DT:H2'	13:1:20:DG:H8	1.84	0.42
1:A:1444:MET:HE2	1:A:1444:MET:N	2.34	0.42
1:A:211:PHE:HA	1:A:214:ILE:HG13	2.01	0.42
1:A:41:MET:HB2	1:A:49:LYS:HA	1.94	0.42
1:A:532:ARG:O	1:A:535:THR:HB	2.19	0.42
2:B:427:ASP:HA	2:B:430:ARG:CG	2.49	0.42
2:B:468:GLU:OE1	2:B:470:LYS:HE3	2.19	0.42
2:B:796:LEU:HB3	2:B:799:PRO:HG3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:835:GLN:HE21	2:B:835:GLN:HB2	1.43	0.42
2:B:879:ARG:HB2	2:B:880:THR:H	1.41	0.42
4:D:53:SER:OG	4:D:54:GLU:N	2.52	0.42
6:F:100:GLN:HA	6:F:103:MET:HG3	2.00	0.42
6:F:76:LYS:HE3	6:F:150:GLU:OE2	2.18	0.42
1:A:567:LYS:HE3	8:H:46:LEU:HB2	2.01	0.42
8:H:26:ILE:CD1	8:H:49:VAL:CG1	2.98	0.42
3:C:166:GLU:HG2	11:K:10:PHE:HZ	1.84	0.42
12:L:46:VAL:O	12:L:46:VAL:HG12	2.20	0.42
1:M:1033:GLN:O	1:M:1036:ARG:NH1	2.51	0.42
1:M:225:ASN:ND2	1:M:225:ASN:C	2.73	0.42
1:M:276:LEU:HD21	1:M:293:GLU:HG3	2.01	0.42
1:M:655:PHE:O	1:M:658:LEU:HB3	2.19	0.42
1:M:711:ARG:NH2	9:U:87:GLN:OE1	2.52	0.42
1:M:722:LEU:HD23	1:M:799:PHE:CD1	2.55	0.42
1:M:897:TYR:CB	1:M:936:LEU:HD12	2.46	0.42
2:N:1132:GLU:O	2:N:1135:ARG:HB3	2.19	0.42
2:N:70:ILE:H	2:N:429:PHE:HE1	1.67	0.42
2:N:640:VAL:O	2:N:640:VAL:CG1	2.67	0.42
2:N:773:MET:O	2:N:775:LYS:N	2.51	0.42
3:O:249:ASP:O	3:O:252:GLN:HB3	2.19	0.42
5:Q:78:LEU:HD11	5:Q:109:ILE:HD12	2.00	0.42
7:S:146:LYS:HB2	7:S:168:LEU:HD11	2.00	0.42
7:S:4:ILE:HA	7:S:76:ALA:O	2.19	0.42
10:V:3:VAL:CG2	10:V:18:TRP:CG	3.02	0.42
11:W:31:VAL:HG23	11:W:83:PRO:HG3	2.02	0.42
1:A:1030:ARG:NH1	1:A:1035:TYR:OH	2.53	0.42
1:A:1147:THR:HB	9:I:48:LEU:CD1	2.45	0.42
1:A:1165:GLU:H	1:A:1165:GLU:HG2	1.61	0.42
1:A:137:ALA:O	1:A:138:ILE:C	2.57	0.42
1:A:139:TRP:O	1:A:140:THR:C	2.58	0.42
1:A:1418:LEU:HD23	2:B:1222:ARG:CD	2.49	0.42
1:A:203:SER:O	1:A:206:GLU:HB3	2.19	0.42
1:A:390:GLN:HE21	1:A:394:ASN:ND2	2.09	0.42
1:A:452:LYS:HB3	2:B:1141:HIS:CE1	2.55	0.42
1:A:672:ASP:OD2	1:A:674:PRO:HG2	2.18	0.42
1:A:836:TYR:O	1:A:840:ARG:HD3	2.19	0.42
2:B:435:THR:C	2:B:437:GLU:H	2.21	0.42
2:B:889:THR:HG23	2:B:891:ASP:H	1.84	0.42
4:D:156:ASP:HB2	4:D:159:THR:CG2	2.50	0.42
4:D:156:ASP:O	4:D:157:GLN:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:134:THR:O	5:E:135:PHE:CD1	2.73	0.42
5:E:81:GLU:HG2	5:E:82:PHE:O	2.19	0.42
6:F:105:ALA:HB1	6:F:106:PRO:CD	2.49	0.42
7:G:126:ASN:HA	7:G:127:PRO:C	2.36	0.42
7:G:62:LEU:HD13	7:G:62:LEU:HA	1.83	0.42
10:J:12:LYS:O	10:J:14:VAL:HG23	2.20	0.42
11:K:33:ILE:HD13	11:K:87:LEU:HD22	2.00	0.42
1:M:1152:ILE:HG12	1:M:1260:LEU:HD23	2.01	0.42
1:M:1166:ASP:OD2	1:M:1239:ARG:NE	2.52	0.42
1:M:353:ILE:HD13	1:M:487:MET:CG	2.50	0.42
2:N:100:PRO:HA	2:N:125:SER:O	2.19	0.42
2:N:1182:CYS:SG	2:N:1185:CYS:HB2	2.60	0.42
2:N:1208:MET:O	2:N:1211:ASN:N	2.47	0.42
2:N:257:LYS:HB3	2:N:258:LEU:H	1.57	0.42
2:N:331:LEU:HD21	2:N:353:LYS:HG2	2.01	0.42
2:N:390:LEU:O	2:N:392:ARG:N	2.52	0.42
2:N:428:ILE:HG22	2:N:432:MET:CE	2.49	0.42
2:N:571:PRO:O	2:N:574:SER:O	2.37	0.42
2:N:769:TYR:O	2:N:772:ALA:N	2.50	0.42
2:N:884:ARG:O	2:N:936:ASP:CB	2.67	0.42
2:N:891:ASP:C	2:N:893:LEU:N	2.72	0.42
3:O:27:LEU:O	3:O:28:ALA:C	2.58	0.42
3:O:77:ILE:HA	3:O:77:ILE:HD13	1.86	0.42
4:P:14:ARG:HH12	4:P:16:LYS:NZ	2.18	0.42
4:P:190:GLU:HG3	7:S:167:TYR:CD1	2.54	0.42
4:P:53:SER:C	4:P:55:ALA:N	2.70	0.42
5:Q:147:HIS:CD2	5:Q:149:LEU:H	2.37	0.42
5:Q:88:VAL:HG21	5:Q:110:PHE:CE1	2.55	0.42
5:Q:89:GLY:C	5:Q:91:LYS:H	2.23	0.42
7:S:115:MET:CB	7:S:116:PRO:HD2	2.41	0.42
7:S:139:ILE:CG1	7:S:140:LYS:HG3	2.46	0.42
7:S:139:ILE:HG23	7:S:140:LYS:H	1.83	0.42
7:S:1:MET:O	7:S:2:PHE:C	2.57	0.42
7:S:9:LEU:HD23	7:S:30:LEU:HD12	2.01	0.42
8:T:135:LEU:HB2	8:T:137:GLN:NE2	2.35	0.42
1:A:1072:ILE:O	1:A:1075:PRO:HG2	2.19	0.42
1:A:1205:LYS:O	1:A:1207:LEU:HG	2.20	0.42
1:A:34:LYS:HG3	1:A:36:ARG:HH22	1.83	0.42
1:A:973:ILE:HG22	1:A:973:ILE:O	2.19	0.42
2:B:1027:ILE:C	2:B:1029:CYS:N	2.73	0.42
2:B:1068:GLY:O	2:B:1069:PHE:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1181:GLU:HB2	2:B:1188:LYS:HG2	2.02	0.42
2:B:1221:SER:O	2:B:1223:ASP:N	2.53	0.42
2:B:229:ALA:HB1	2:B:231:PRO:HD2	2.02	0.42
2:B:399:ASP:O	2:B:515:HIS:CD2	2.73	0.42
2:B:603:LEU:HB3	2:B:609:ILE:CD1	2.50	0.42
2:B:999:MET:HA	2:B:999:MET:HE2	2.02	0.42
3:C:133:ILE:CD1	3:C:237:SER:HA	2.49	0.42
2:B:1084:GLN:OE1	3:C:189:THR:CG2	2.67	0.42
2:B:1079:LYS:CA	3:C:27:LEU:HD21	2.50	0.42
4:D:134:THR:HG22	4:D:136:GLY:H	1.84	0.42
4:D:7:THR:HG21	4:D:32:GLU:OE1	2.20	0.42
1:M:1161:THR:OG1	1:M:1239:ARG:NH2	2.53	0.42
1:M:1100:ARG:NH2	1:M:1351:GLU:CG	2.81	0.42
1:M:208:LEU:C	1:M:208:LEU:CD2	2.88	0.42
1:M:270:LEU:HD12	1:M:270:LEU:HA	1.71	0.42
1:M:356:ASP:C	1:M:358:ASN:H	2.23	0.42
1:M:545:GLN:O	1:M:546:VAL:C	2.56	0.42
1:M:582:ILE:HA	1:M:583:PRO:HD2	1.88	0.42
1:M:787:PHE:CE1	1:M:796:SER:HA	2.54	0.42
2:N:408:LEU:HD11	2:N:545:ILE:HD13	2.02	0.42
2:N:578:THR:C	2:N:589:VAL:HG13	2.40	0.42
2:N:769:TYR:C	2:N:771:SER:N	2.73	0.42
3:O:148:ARG:HB3	3:O:149:LYS:H	1.50	0.42
4:P:146:GLN:CA	4:P:149:THR:HG22	2.50	0.42
4:P:195:ILE:HB	4:P:198:LEU:CD1	2.49	0.42
4:P:209:ARG:HH11	4:P:209:ARG:CG	2.33	0.42
4:P:71:LYS:CA	4:P:74:GLN:HB2	2.45	0.42
5:Q:111:VAL:CG1	5:Q:137:GLU:HG2	2.50	0.42
6:R:110:ASP:O	6:R:123:LYS:HE3	2.19	0.42
7:S:34:VAL:HG13	7:S:45:ILE:CD1	2.49	0.42
7:S:48:VAL:HG13	7:S:74:TYR:HD1	1.84	0.42
9:U:109:ILE:HG22	9:U:109:ILE:O	2.19	0.42
14:2:4:DA:C4	14:2:5:DC:C5	3.08	0.42
1:A:1003:LYS:O	1:A:1004:ASN:HB3	2.20	0.42
1:A:298:PHE:CZ	1:A:314:ALA:HB2	2.55	0.42
1:A:415:LEU:HA	1:A:415:LEU:HD23	1.78	0.42
1:A:590:ARG:O	1:A:591:PHE:CB	2.63	0.42
1:A:598:LEU:HD12	8:H:115:TYR:CD2	2.54	0.42
1:A:608:ILE:HD12	1:A:613:ILE:HD11	2.02	0.42
1:A:767:GLN:HA	1:A:799:PHE:HA	2.02	0.42
1:A:874:ASP:C	1:A:874:ASP:OD1	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1106:ARG:HG3	2:B:1107:ALA:N	2.35	0.42
1:A:500:GLU:OE2	2:B:1145:SER:CB	2.66	0.42
2:B:189:LEU:CD1	2:B:196:PRO:HA	2.49	0.42
2:B:377:PHE:CE2	2:B:381:MET:HE2	2.54	0.42
2:B:488:TYR:CE2	2:B:813:LYS:HB2	2.54	0.42
3:C:116:LYS:HG3	3:C:117:ASP:OD1	2.19	0.42
4:D:61:GLU:O	4:D:64:VAL:HB	2.20	0.42
5:E:90:VAL:HA	5:E:120:ALA:HB2	2.01	0.42
7:G:14:HIS:HD2	7:G:16:SER:CB	2.32	0.42
4:D:32:GLU:HG3	7:G:5:LYS:HE2	2.01	0.42
1:M:1003:LYS:O	1:M:1004:ASN:HB3	2.19	0.42
1:M:1312:ASN:ND2	1:M:1315:GLU:HG3	2.35	0.42
1:M:1341:ILE:HD12	1:M:1379:GLY:C	2.37	0.42
1:M:49:LYS:HZ1	1:M:61:ILE:H	1.67	0.42
1:M:49:LYS:NZ	1:M:60:SER:HA	2.33	0.42
1:M:65:LEU:HD13	1:M:71:GLN:OE1	2.20	0.42
1:M:783:THR:HG21	1:M:815:PHE:CZ	2.55	0.42
2:N:434:ARG:O	2:N:436:VAL:N	2.52	0.42
2:N:47:GLN:O	2:N:173:MET:HE1	2.19	0.42
2:N:603:LEU:HD12	2:N:609:ILE:HG12	2.02	0.42
2:N:634:TYR:CE1	2:N:692:TYR:CD1	3.07	0.42
4:P:29:LEU:HD12	7:S:82:PHE:CE1	2.54	0.42
5:Q:191:LYS:HG3	5:Q:194:GLU:OE1	2.19	0.42
5:Q:52:ARG:HA	5:Q:53:PRO:HD2	1.86	0.42
7:S:129:SER:C	7:S:130:TYR:CD1	2.93	0.42
7:S:163:ILE:HG21	7:S:163:ILE:HD13	1.79	0.42
8:T:30:SER:HB3	8:T:36:CYS:HB3	2.01	0.42
11:W:52:ASN:O	11:W:54:ARG:N	2.53	0.42
12:X:68:GLU:CD	12:X:68:GLU:H	2.11	0.42
1:A:1100:ARG:HH21	1:A:1351:GLU:CD	2.23	0.42
1:A:1111:MET:HB2	1:A:1111:MET:HE2	1.80	0.42
1:A:1402:PHE:CE2	1:A:1403:GLU:HG2	2.55	0.42
1:A:93:VAL:HG21	1:A:301:ALA:O	2.19	0.42
1:A:351:THR:HG21	2:B:1103:ILE:CG1	2.47	0.42
1:A:460:VAL:CG1	1:A:461:LYS:N	2.83	0.42
1:A:468:PHE:CE2	1:A:489:LEU:HD23	2.55	0.42
1:A:563:PRO:HG3	1:A:572:TRP:CE2	2.52	0.42
1:A:722:LEU:HD23	1:A:799:PHE:CG	2.55	0.42
1:A:849:MET:HE1	1:A:1440:ALA:HB2	2.01	0.42
1:A:961:ARG:O	1:A:965:GLN:HG3	2.20	0.42
2:B:134:LYS:NZ	2:B:164:LYS:NZ	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:458:LYS:O	2:B:459:TYR:C	2.58	0.42
2:B:711:GLU:HB2	2:B:712:PRO:CD	2.50	0.42
2:B:745:PRO:O	2:B:747:MET:N	2.52	0.42
3:C:66:ARG:CZ	10:J:2:ILE:CG2	2.98	0.42
5:E:26:ARG:HH12	5:E:133:GLU:CD	2.23	0.42
1:M:1011:GLN:NE2	1:M:1015:VAL:HG21	2.29	0.42
1:M:1057:VAL:HG12	1:M:1058:VAL:N	2.34	0.42
1:M:108:MET:O	1:M:109:HIS:HB3	2.20	0.42
1:M:1207:LEU:HA	1:M:1211:GLN:OE1	2.20	0.42
1:M:1120:LEU:HD23	1:M:1304:TRP:O	2.19	0.42
1:M:310:GLY:C	1:M:312:PRO:HD2	2.39	0.42
1:M:316:GLN:HG2	1:M:317:LYS:HG2	2.01	0.42
1:M:415:LEU:HD23	1:M:415:LEU:HA	1.70	0.42
1:M:567:LYS:HE3	8:T:46:LEU:HD12	2.00	0.42
1:M:809:THR:H	1:M:812:GLU:HB2	1.85	0.42
1:M:69:THR:HG21	2:N:1174:LYS:HZ3	1.85	0.42
2:N:219:ALA:HB2	2:N:405:ARG:NH1	2.34	0.42
2:N:425:THR:HG22	2:N:426:LYS:N	2.35	0.42
2:N:486:TYR:HD2	2:N:486:TYR:N	2.16	0.42
2:N:552:MET:O	2:N:554:ILE:N	2.53	0.42
2:N:63:ILE:HD12	2:N:63:ILE:HA	1.79	0.42
2:N:640:VAL:HG12	2:N:649:LYS:HG2	2.01	0.42
2:N:698:GLU:O	2:N:701:ILE:HG12	2.20	0.42
2:N:976:ILE:O	2:N:990:ILE:HB	2.19	0.42
4:P:207:LEU:HG	4:P:211:LEU:HD12	2.02	0.42
5:Q:17:ARG:O	5:Q:20:LYS:HB2	2.20	0.42
9:U:88:SER:C	9:U:90:GLN:H	2.23	0.42
1:A:1011:GLN:HE22	1:A:1015:VAL:HG23	1.83	0.42
1:A:904:THR:HG22	1:A:904:THR:O	2.20	0.42
2:B:247:GLY:C	2:B:249:ARG:N	2.72	0.42
2:B:39:ARG:HH21	2:B:665:GLU:HG2	1.81	0.42
2:B:434:ARG:O	2:B:436:VAL:N	2.52	0.42
2:B:123:THR:CB	2:B:458:LYS:HE2	2.49	0.42
2:B:34:ILE:HG12	2:B:542:MET:HE1	2.00	0.42
2:B:610:ASN:HA	2:B:611:PRO:HD3	1.93	0.42
2:B:640:VAL:HG12	2:B:649:LYS:HG2	2.02	0.42
2:B:842:ASN:HD22	2:B:845:SER:CB	2.33	0.42
2:B:905:VAL:HG23	2:B:941:LEU:HD22	2.02	0.42
4:D:175:PHE:O	4:D:178:ALA:HB3	2.20	0.42
8:H:55:LEU:HD22	8:H:144:ILE:CG2	2.49	0.42
8:H:98:TYR:C	8:H:118:PHE:HD2	2.24	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:53:ASP:HB3	11:K:56:VAL:HG23	2.00	0.42
1:M:154:SER:HB3	1:M:162:VAL:CG2	2.50	0.42
1:M:172:PRO:HD3	1:M:185:TRP:NE1	2.34	0.42
1:M:108:MET:HE2	1:M:210:ILE:HD12	2.01	0.42
1:M:385:ILE:CG2	1:M:386:ASP:N	2.81	0.42
1:M:426:LEU:O	1:M:427:GLN:HG2	2.19	0.42
1:M:577:ILE:HA	1:M:580:VAL:HG23	2.01	0.42
1:M:672:ASP:OD2	1:M:674:PRO:HG2	2.20	0.42
1:M:777:PHE:CD1	1:M:781:ASP:HA	2.55	0.42
1:M:848:ILE:HA	1:M:857:ARG:O	2.19	0.42
2:N:1027:ILE:C	2:N:1029:CYS:N	2.73	0.42
2:N:1060:ARG:HD2	2:N:1060:ARG:HA	1.51	0.42
2:N:1094:ARG:HH21	2:N:1098:MET:HG2	1.85	0.42
2:N:278:GLN:CG	2:N:279:ASP:H	2.33	0.42
2:N:31:TRP:CE3	2:N:31:TRP:HA	2.54	0.42
2:N:225:VAL:HG11	2:N:385:LEU:HA	2.01	0.42
2:N:508:LEU:O	2:N:509:ALA:CB	2.66	0.42
2:N:702:LEU:HG	2:N:738:PHE:HD2	1.85	0.42
2:N:773:MET:HE2	2:N:985:GLY:HA2	2.01	0.42
2:N:838:SER:HA	2:N:989:THR:O	2.19	0.42
3:O:105:GLY:O	3:O:149:LYS:O	2.37	0.42
3:O:8:VAL:CG1	3:O:9:LYS:N	2.80	0.42
4:P:198:LEU:HB2	4:P:199:ASN:H	1.59	0.42
6:R:72:LYS:HG2	6:R:72:LYS:H	1.69	0.42
7:S:121:PHE:CD1	7:S:130:TYR:CE1	3.08	0.42
9:U:17:ARG:HG3	9:U:28:GLU:OE1	2.19	0.42
11:W:47:ARG:HD2	11:W:47:ARG:C	2.39	0.42
1:A:1264:GLU:OE2	9:I:46:HIS:CD2	2.72	0.42
1:A:1428:VAL:HG13	2:B:1151:LEU:CD2	2.49	0.42
1:A:370:ILE:HG23	1:A:374:LEU:HD12	2.02	0.42
1:A:622:VAL:HG22	1:A:622:VAL:O	2.20	0.42
1:A:996:ASN:C	1:A:998:LEU:HD12	2.40	0.42
2:B:695:ALA:O	2:B:698:GLU:HB3	2.19	0.42
4:D:123:LEU:HD13	4:D:149:THR:HG21	2.01	0.42
4:D:16:LYS:O	4:D:18:VAL:N	2.45	0.42
5:E:82:PHE:O	5:E:83:CYS:HB2	2.19	0.42
10:J:61:LEU:O	10:J:63:TYR:N	2.51	0.42
11:K:65:HIS:NE2	11:K:67:PHE:CG	2.85	0.42
1:M:1029:ARG:CG	1:M:1029:ARG:NH1	2.83	0.42
1:M:137:ALA:O	1:M:138:ILE:C	2.58	0.42
1:M:252:PHE:HB2	1:M:256:GLN:NE2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:583:PRO:O	1:M:610:GLY:HA3	2.20	0.42
1:M:973:ILE:HG12	1:M:1038:THR:HG23	2.02	0.42
2:N:840:ILE:HB	2:N:1011:ILE:HB	2.02	0.42
2:N:758:PHE:CE1	2:N:1027:ILE:CG2	3.02	0.42
2:N:778:MET:HE2	2:N:1094:ARG:O	2.20	0.42
2:N:1095:LEU:C	2:N:1096:ARG:O	2.57	0.42
2:N:1160:VAL:HG11	2:N:1169:MET:SD	2.60	0.42
2:N:1185:CYS:HA	4:P:17:LYS:HE3	2.02	0.42
2:N:1197:PRO:O	2:N:1198:TYR:C	2.57	0.42
2:N:274:PRO:HG2	2:N:359:GLU:HB3	2.02	0.42
2:N:423:LYS:HD2	2:N:470:LYS:HZ1	1.85	0.42
2:N:880:THR:CB	2:N:934:LYS:HD2	2.35	0.42
4:P:159:THR:HG21	4:P:219:THR:OG1	2.20	0.42
5:Q:61:GLN:HG2	5:Q:62:ALA:H	1.84	0.42
8:T:100:THR:HG22	8:T:101:ALA:N	2.35	0.42
1:M:709:THR:HG23	9:U:94:ASP:HA	2.01	0.42
10:V:1:MET:H1	10:V:56:LEU:CA	2.32	0.42
1:A:100:LYS:O	1:A:104:GLU:HG3	2.20	0.41
1:A:1129:GLU:HG2	1:A:1132:LYS:NZ	2.35	0.41
1:A:1161:THR:HG22	1:A:1163:ILE:HG13	2.02	0.41
1:A:1239:ARG:HB3	1:A:1239:ARG:NH1	2.35	0.41
1:A:254:GLU:HB3	1:A:255:SER:H	1.46	0.41
1:A:533:LYS:HE2	1:A:533:LYS:HB3	1.90	0.41
1:A:848:ILE:HA	1:A:857:ARG:O	2.20	0.41
1:A:900:ASP:HB3	1:A:906:HIS:HB2	2.02	0.41
1:A:929:LEU:HD22	1:A:929:LEU:N	2.35	0.41
2:B:1114:LEU:HG	2:B:1202:LEU:HD11	2.02	0.41
2:B:293:PRO:C	2:B:294:ASP:O	2.56	0.41
2:B:360:PHE:CD2	2:B:361:LEU:HB2	2.55	0.41
2:B:531:GLN:HG2	2:B:532:ALA:N	2.35	0.41
2:B:522:VAL:CG1	2:B:537:LYS:HB3	2.50	0.41
2:B:635:ARG:NH2	2:B:742:GLU:OE2	2.52	0.41
2:B:877:PRO:C	2:B:878:GLN:HG3	2.40	0.41
2:B:891:ASP:C	2:B:893:LEU:N	2.72	0.41
3:C:31:ASN:O	3:C:34:ARG:HB3	2.20	0.41
3:C:36:VAL:HG21	3:C:251:LEU:HD13	2.02	0.41
3:C:76:ASP:OD2	3:C:128:ASN:N	2.52	0.41
4:D:148:LEU:HA	4:D:148:LEU:HD23	1.92	0.41
4:D:63:LEU:O	4:D:133:THR:HG21	2.19	0.41
5:E:157:SER:O	5:E:159:ASP:N	2.53	0.41
10:J:1:MET:H1	10:J:56:LEU:CA	2.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1074:GLU:HB3	1:M:1075:PRO:CD	2.50	0.41
1:M:1098:VAL:N	1:M:1099:PRO:HD2	2.35	0.41
1:M:288:ALA:HA	1:M:291:GLU:CG	2.50	0.41
2:N:241:ARG:CG	2:N:253:THR:HG22	2.39	0.41
2:N:292:ILE:HD13	2:N:326:ASP:HA	2.01	0.41
2:N:768:THR:O	2:N:771:SER:HB2	2.20	0.41
2:N:877:PRO:C	2:N:878:GLN:HG3	2.40	0.41
3:O:101:LEU:HD13	3:O:118:LEU:CD2	2.49	0.41
4:P:180:LEU:HA	4:P:180:LEU:HD23	1.53	0.41
4:P:27:LEU:HA	4:P:27:LEU:HD23	1.69	0.41
5:Q:177:ARG:O	5:Q:212:ARG:HD3	2.20	0.41
5:Q:50:MET:HG2	5:Q:52:ARG:HE	1.85	0.41
5:Q:61:GLN:HB2	5:Q:79:TRP:HE3	1.85	0.41
6:R:120:ILE:O	6:R:124:GLU:HG3	2.20	0.41
7:S:26:LEU:CD1	7:S:56:ILE:HD11	2.50	0.41
12:X:38:LEU:O	12:X:39:SER:CB	2.68	0.41
1:A:1141:THR:HA	1:A:1205:LYS:HZ2	1.86	0.41
1:A:1313:LEU:HB3	1:A:1338:VAL:HG21	2.02	0.41
1:A:134:ARG:HG2	1:A:138:ILE:CD1	2.49	0.41
1:A:310:GLY:C	1:A:312:PRO:HD2	2.40	0.41
1:A:332:LYS:HB2	1:A:332:LYS:HE3	1.80	0.41
1:A:546:VAL:HG21	1:A:572:TRP:HB2	2.01	0.41
1:A:582:ILE:HA	1:A:583:PRO:HD2	1.91	0.41
1:A:722:LEU:CD1	1:A:722:LEU:H	2.26	0.41
1:A:901:LEU:HG	1:A:926:GLN:HE21	1.85	0.41
2:B:1069:PHE:CD1	2:B:1069:PHE:N	2.78	0.41
1:A:828:ALA:HB2	2:B:530:GLY:HA2	2.02	0.41
2:B:558:LEU:O	2:B:559:SER:C	2.58	0.41
2:B:56:ASP:HB3	2:B:57:TYR:CE1	2.54	0.41
2:B:879:ARG:CD	2:B:879:ARG:H	2.31	0.41
2:B:916:THR:CB	2:B:935:ARG:HD2	2.50	0.41
6:F:118:LEU:O	6:F:122:MET:HG3	2.19	0.41
7:G:31:LEU:CD2	7:G:48:VAL:HG21	2.50	0.41
1:M:34:LYS:CG	1:M:36:ARG:NH2	2.82	0.41
1:M:436:ILE:HD11	1:M:491:VAL:HG11	2.01	0.41
1:M:623:GLY:C	1:M:625:SER:H	2.24	0.41
1:M:66:LYS:HZ3	1:M:68:GLN:H	1.66	0.41
1:M:847:ASP:N	1:M:847:ASP:OD1	2.51	0.41
2:N:1107:ALA:O	2:N:1108:ARG:CB	2.67	0.41
2:N:33:VAL:O	2:N:36:ALA:HB3	2.20	0.41
2:N:371:GLU:CD	2:N:371:GLU:N	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:459:TYR:CZ	2:N:469:GLN:HG3	2.55	0.41
2:N:893:LEU:HD22	2:N:897:GLY:HA2	2.02	0.41
2:N:936:ASP:CG	2:N:937:ALA:N	2.74	0.41
3:O:208:GLU:O	3:O:210:GLU:N	2.53	0.41
3:O:69:LEU:H	3:O:69:LEU:CD1	2.28	0.41
8:T:93:TYR:CD1	8:T:93:TYR:N	2.88	0.41
11:W:22:ASP:O	11:W:31:VAL:HG12	2.19	0.41
11:W:65:HIS:CD2	11:W:65:HIS:C	2.92	0.41
13:4:18:DA:H3'	13:4:18:DA:OP1	2.20	0.41
1:A:1362:TYR:CD1	1:A:1362:TYR:C	2.92	0.41
1:A:230:ARG:HG3	1:A:233:TRP:CZ3	2.55	0.41
1:A:352:VAL:HG12	1:A:353:ILE:N	2.35	0.41
1:A:655:PHE:O	1:A:658:LEU:HB3	2.21	0.41
1:A:828:ALA:C	1:A:831:THR:HG22	2.41	0.41
2:B:853:SER:OG	2:B:1094:ARG:NH1	2.53	0.41
4:D:151:PHE:N	4:D:151:PHE:CD1	2.87	0.41
4:D:63:LEU:O	4:D:129:LEU:HD11	2.20	0.41
5:E:43:LYS:HG3	5:E:43:LYS:H	1.67	0.41
8:H:93:TYR:N	8:H:93:TYR:CD1	2.89	0.41
9:I:8:ARG:H	9:I:8:ARG:HG3	1.67	0.41
10:J:57:ILE:O	10:J:60:PHE:HB2	2.20	0.41
12:L:65:VAL:HG23	12:L:67:PHE:CE1	2.55	0.41
1:M:208:LEU:HD23	1:M:208:LEU:O	2.21	0.41
1:M:220:THR:O	1:M:221:SER:C	2.58	0.41
1:M:278:THR:O	1:M:278:THR:HG22	2.19	0.41
1:M:365:GLY:O	1:M:468:PHE:HA	2.20	0.41
1:M:675:THR:O	1:M:675:THR:HG22	2.20	0.41
1:M:715:GLU:OE1	1:M:774:ARG:HD3	2.19	0.41
2:N:323:VAL:O	2:N:323:VAL:HG12	2.20	0.41
2:N:39:ARG:HH21	2:N:665:GLU:HG2	1.82	0.41
2:N:405:ARG:HA	2:N:631:GLY:O	2.20	0.41
2:N:637:LEU:HD12	2:N:693:ILE:CD1	2.50	0.41
2:N:745:PRO:O	2:N:747:MET:N	2.53	0.41
3:O:162:GLY:HA3	3:O:170:TRP:CE2	2.56	0.41
3:O:217:ASP:HA	3:O:218:PRO:HD3	1.91	0.41
4:P:149:THR:HG23	4:P:150:ASN:N	2.35	0.41
8:T:77:ARG:CG	8:T:78:SER:H	2.33	0.41
9:U:70:ARG:HA	9:U:83:ASN:O	2.20	0.41
13:4:19:DT:H2'	13:4:20:DG:H8	1.86	0.41
13:4:27:DC:H2''	13:4:28:DA:C8	2.55	0.41
1:A:106:VAL:HG21	1:A:214:ILE:CD1	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:288:ALA:HA	1:A:291:GLU:HG3	2.00	0.41
1:A:623:GLY:C	1:A:625:SER:H	2.24	0.41
2:B:1183:LYS:CE	2:B:1183:LYS:N	2.80	0.41
2:B:175:ARG:HB2	2:B:200:GLY:HA3	2.02	0.41
2:B:641:GLU:OE1	2:B:641:GLU:HA	2.20	0.41
4:D:70:PHE:O	4:D:74:GLN:HG2	2.20	0.41
5:E:55:ARG:NH1	5:E:55:ARG:HG3	2.34	0.41
5:E:67:GLU:O	5:E:70:SER:HB3	2.20	0.41
7:G:155:SER:O	7:G:156:SER:HB3	2.20	0.41
1:M:1063:MET:SD	1:M:1436:ILE:HB	2.60	0.41
1:M:482:PHE:C	1:M:484:GLY:H	2.24	0.41
1:M:956:LEU:HD21	1:M:1017:LEU:HG	2.01	0.41
1:M:960:ILE:CA	1:M:963:ILE:HG22	2.50	0.41
1:M:344:ARG:NE	2:N:1120:GLU:HB2	2.35	0.41
1:M:5:GLN:O	2:N:1159:ARG:NH2	2.52	0.41
2:N:1207:LEU:HA	2:N:1207:LEU:HD23	1.81	0.41
2:N:129:PHE:CD2	2:N:166:PHE:HA	2.49	0.41
2:N:129:PHE:CE2	2:N:166:PHE:HD1	2.38	0.41
2:N:244:LEU:O	2:N:246:LYS:N	2.53	0.41
2:N:245:GLU:HG2	2:N:245:GLU:O	2.20	0.41
2:N:280:ILE:HG23	2:N:281:PRO:HD2	2.01	0.41
2:N:227:LYS:HG3	2:N:395:GLN:OE1	2.20	0.41
2:N:51:PHE:HB2	2:N:173:MET:CE	2.50	0.41
2:N:856:PHE:CD1	2:N:856:PHE:N	2.88	0.41
2:N:910:VAL:CG1	2:N:938:SER:HB3	2.50	0.41
2:N:945:GLU:O	2:N:946:ASN:HB3	2.20	0.41
2:N:757:PRO:HG2	2:N:984:HIS:CE1	2.55	0.41
3:O:174:ALA:O	3:O:175:ALA:CB	2.67	0.41
5:Q:102:GLU:C	5:Q:104:ASN:N	2.72	0.41
7:S:122:ASN:HB2	7:S:131:GLN:CG	2.51	0.41
7:S:88:ASP:OD2	7:S:88:ASP:C	2.59	0.41
13:4:15:DG:C8	13:4:16:DT:C7	3.04	0.41
1:A:12:ARG:O	2:B:1194:ILE:HG22	2.21	0.41
1:A:1365:TYR:C	1:A:1365:TYR:CD2	2.94	0.41
1:A:1438:THR:HB	2:B:1144:ALA:CB	2.49	0.41
1:A:218:ASP:O	1:A:219:PHE:C	2.59	0.41
1:A:224:PHE:HB3	1:A:225:ASN:H	1.78	0.41
1:A:316:GLN:O	1:A:317:LYS:C	2.59	0.41
1:A:705:LYS:HD2	1:A:708:MET:HE1	2.02	0.41
1:A:825:ILE:O	1:A:829:VAL:HG23	2.19	0.41
1:A:908:LEU:CD1	1:A:983:ILE:HD11	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1130:PHE:HZ	2:B:1138:MET:HG2	1.84	0.41
2:B:126:SER:O	2:B:169:ARG:HA	2.20	0.41
2:B:298:LEU:CD2	2:B:298:LEU:N	2.82	0.41
2:B:54:PHE:HE1	2:B:414:ALA:HA	1.85	0.41
2:B:52:ASN:O	2:B:56:ASP:HB2	2.20	0.41
2:B:64:CYS:HA	2:B:67:SER:HG	1.83	0.41
2:B:769:TYR:O	2:B:772:ALA:N	2.51	0.41
2:B:806:THR:N	2:B:809:MET:HE3	2.35	0.41
2:B:842:ASN:ND2	2:B:845:SER:N	2.66	0.41
2:B:911:ILE:O	2:B:911:ILE:HG22	2.21	0.41
4:D:50:LEU:HD21	7:G:4:ILE:HD12	2.02	0.41
5:E:83:CYS:SG	5:E:85:GLU:HB2	2.61	0.41
8:H:103:LYS:HG2	8:H:104:PHE:N	2.36	0.41
9:I:14:LEU:HD22	9:I:28:GLU:C	2.40	0.41
11:K:49:GLU:HG3	11:K:94:ILE:HG13	2.02	0.41
11:K:51:LEU:HD12	11:K:51:LEU:HA	1.86	0.41
1:M:1402:PHE:CZ	1:M:1403:GLU:CG	3.03	0.41
1:M:150:THR:HA	1:M:165:GLY:O	2.19	0.41
1:M:219:PHE:O	1:M:222:LEU:HB2	2.21	0.41
1:M:332:LYS:C	1:M:334:GLY:N	2.64	0.41
1:M:34:LYS:HZ2	1:M:57:ARG:NH2	2.18	0.41
1:M:844:ALA:O	1:M:845:LEU:HD23	2.21	0.41
2:N:113:TYR:CD2	2:N:192:LEU:HD22	2.55	0.41
2:N:308:TRP:HA	2:N:311:LEU:HD12	2.01	0.41
2:N:427:ASP:HA	2:N:430:ARG:CG	2.50	0.41
2:N:67:SER:HB3	2:N:92:PHE:HD1	1.86	0.41
6:R:79:ARG:HG3	6:R:144:GLU:HB3	2.02	0.41
7:S:93:SER:OG	7:S:100:GLU:HB3	2.21	0.41
7:S:99:PHE:CE1	7:S:143:ILE:HD12	2.55	0.41
10:V:57:ILE:HA	10:V:60:PHE:CD2	2.37	0.41
13:1:12:DG:HI'	13:1:13:DT:O5'	2.21	0.41
1:A:1115:SER:OG	1:A:1116:LEU:N	2.54	0.41
1:A:1206:ASP:O	1:A:1274:ARG:CZ	2.68	0.41
1:A:172:PRO:HD3	1:A:185:TRP:CD1	2.56	0.41
1:A:667:GLY:CA	1:A:670:ILE:HD11	2.40	0.41
1:A:6:TYR:CD1	1:A:7:SER:N	2.88	0.41
1:A:896:ARG:HB3	1:A:897:TYR:CD1	2.56	0.41
1:A:929:LEU:N	1:A:929:LEU:CD2	2.84	0.41
2:B:114:PRO:O	2:B:115:GLN:C	2.57	0.41
2:B:1169:MET:HE2	2:B:1204:PHE:HB2	2.02	0.41
2:B:436:VAL:HG12	2:B:436:VAL:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:552:MET:C	2:B:554:ILE:N	2.74	0.41
2:B:846:ILE:HG23	2:B:974:PRO:CG	2.42	0.41
3:C:209:TYR:N	3:C:209:TYR:CD1	2.88	0.41
3:C:254:LYS:HE2	11:K:42:LEU:HD13	2.02	0.41
4:D:156:ASP:O	4:D:158:GLU:N	2.53	0.41
4:D:52:LEU:CD1	4:D:182:SER:HB2	2.50	0.41
5:E:11:ARG:C	5:E:13:TRP:N	2.74	0.41
5:E:213:ILE:HG12	5:E:214:CYS:N	2.35	0.41
5:E:55:ARG:HD2	5:E:84:ASP:HA	2.03	0.41
5:E:55:ARG:NE	5:E:113:GLN:NE2	2.68	0.41
6:F:69:LEU:HB2	6:F:72:LYS:HD2	2.01	0.41
8:H:38:LEU:HD12	8:H:124:ARG:O	2.20	0.41
8:H:4:THR:HG22	8:H:5:LEU:H	1.86	0.41
10:J:57:ILE:HA	10:J:60:PHE:CD2	2.38	0.41
1:M:102:VAL:CG1	1:M:211:PHE:CE1	3.03	0.41
1:M:1155:ASP:O	1:M:1190:PRO:O	2.38	0.41
1:M:740:LEU:HD12	1:M:740:LEU:C	2.40	0.41
2:N:1096:ARG:CG	2:N:1097:HIS:N	2.84	0.41
2:N:186:GLU:CG	10:V:62:ARG:NH2	2.84	0.41
2:N:259:TYR:CD1	2:N:259:TYR:N	2.89	0.41
2:N:653:VAL:HG22	2:N:689:LEU:HB3	1.99	0.41
2:N:705:MET:HB3	2:N:706:GLN:H	1.68	0.41
2:N:797:TYR:CE1	2:N:854:LEU:CD2	3.04	0.41
2:N:886:LYS:HD2	2:N:887:HIS:NE2	2.36	0.41
2:N:898:LEU:HD13	2:N:952:VAL:CG1	2.50	0.41
3:O:183:TRP:O	3:O:185:LYS:HG3	2.20	0.41
4:P:173:HIS:CE1	4:P:175:PHE:HB2	2.55	0.41
6:R:136:ARG:O	6:R:143:PHE:HA	2.21	0.41
7:S:34:VAL:HG13	7:S:45:ILE:HG21	2.02	0.41
13:1:18:DA:OP1	13:1:18:DA:H3'	2.20	0.41
1:A:1081:LEU:HD11	1:A:1098:VAL:N	2.31	0.41
1:A:1311:VAL:HG11	1:A:1334:ASP:OD2	2.21	0.41
1:A:562:THR:HA	1:A:563:PRO:HD3	1.89	0.41
1:A:55:ASP:OD1	1:A:57:ARG:CA	2.69	0.41
1:A:738:LYS:HG3	1:A:740:LEU:HG	2.01	0.41
1:A:765:VAL:HB	1:A:800:VAL:HG12	2.02	0.41
1:A:867:ILE:HG12	1:A:1000:LEU:HD11	2.02	0.41
2:B:31:TRP:CZ2	2:B:807:ARG:HB2	2.55	0.41
2:B:791:THR:O	2:B:792:MET:HB2	2.20	0.41
2:B:884:ARG:O	2:B:936:ASP:CB	2.69	0.41
3:C:24:ASN:O	3:C:24:ASN:CG	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:12:ARG:HH11	4:D:12:ARG:CG	2.34	0.41
5:E:72:PHE:CD1	5:E:72:PHE:N	2.89	0.41
7:G:14:HIS:CD2	7:G:16:SER:HB3	2.56	0.41
4:D:7:THR:HB	7:G:42:PHE:CE2	2.55	0.41
9:I:73:ARG:NH1	9:I:112:SER:HB3	2.35	0.41
2:B:308:TRP:CZ3	9:I:45:ARG:HG2	2.54	0.41
2:B:120:ARG:HH11	12:L:54:ARG:HH11	1.64	0.41
1:M:1220:PHE:CD1	1:M:1224:LEU:HD23	2.55	0.41
1:M:244:PRO:HB2	1:M:245:PRO:CD	2.41	0.41
1:M:317:LYS:O	1:M:318:SER:HB3	2.18	0.41
1:M:401:GLY:H	1:M:435:HIS:HD2	1.68	0.41
1:M:432:VAL:O	1:M:432:VAL:HG12	2.21	0.41
1:M:780:VAL:O	1:M:782:ARG:HG2	2.20	0.41
2:N:999:MET:HE2	2:N:1000:PRO:HD2	2.02	0.41
2:N:203:PHE:HB3	2:N:205:ILE:HD11	2.03	0.41
2:N:238:ALA:HB3	2:N:256:VAL:HB	2.02	0.41
2:N:234:ILE:HG12	2:N:257:LYS:HG2	2.03	0.41
2:N:311:LEU:O	2:N:312:GLU:C	2.57	0.41
2:N:639:ILE:HG22	2:N:641:GLU:HG2	2.03	0.41
2:N:642:ASP:N	2:N:649:LYS:HG3	2.35	0.41
2:N:762:ASN:OD1	2:N:1022:THR:HA	2.20	0.41
3:O:186:LEU:N	3:O:186:LEU:CD1	2.83	0.41
3:O:215:GLU:O	3:O:217:ASP:N	2.53	0.41
1:A:108:MET:O	1:A:109:HIS:HB3	2.21	0.41
1:A:1155:ASP:O	1:A:1190:PRO:O	2.38	0.41
1:A:1198:ASP:O	1:A:1202:MET:HG2	2.20	0.41
1:A:130:ASP:O	1:A:131:SER:C	2.59	0.41
1:A:108:MET:HB3	1:A:210:ILE:CD1	2.51	0.41
1:A:416:ARG:NH1	1:A:417:TYR:CE1	2.89	0.41
1:A:709:THR:HG22	1:A:711:ARG:H	1.85	0.41
1:A:722:LEU:N	1:A:722:LEU:HD12	2.25	0.41
2:B:1170:THR:O	2:B:1171:VAL:C	2.59	0.41
2:B:188:ASP:O	2:B:192:LEU:HD12	2.21	0.41
2:B:280:ILE:HD11	2:B:334:ILE:HG12	2.03	0.41
2:B:281:PRO:O	2:B:283:VAL:N	2.54	0.41
2:B:508:LEU:HB3	14:2:1:DA:O3'	2.21	0.41
2:B:571:PRO:O	2:B:574:SER:O	2.38	0.41
2:B:770:GLN:HB2	2:B:985:GLY:H	1.85	0.41
2:B:859:TYR:CD1	2:B:859:TYR:N	2.89	0.41
2:B:887:HIS:H	2:B:887:HIS:CD2	2.37	0.41
3:C:196:ASP:OD1	3:C:198:ALA:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:847:ASP:O	3:C:65:HIS:HE1	2.03	0.41
4:D:32:GLU:O	4:D:33:PHE:CG	2.74	0.41
5:E:13:TRP:CE3	5:E:39:LEU:HD13	2.55	0.41
7:G:14:HIS:HD2	7:G:16:SER:HB3	1.85	0.41
8:H:116:TYR:HE2	8:H:140:ALA:CB	2.33	0.41
11:K:21:ILE:HG12	11:K:33:ILE:HG23	2.02	0.41
1:M:1208:THR:HG22	1:M:1210:GLY:N	2.34	0.41
1:M:591:PHE:HA	1:M:595:THR:CG2	2.39	0.41
1:M:741:ASN:ND2	1:M:741:ASN:C	2.71	0.41
2:N:460:ALA:HB1	2:N:466:TRP:CE3	2.56	0.41
2:N:552:MET:C	2:N:554:ILE:N	2.74	0.41
2:N:52:ASN:O	2:N:56:ASP:HB2	2.21	0.41
2:N:492:LEU:HB2	2:N:751:VAL:HG11	2.03	0.41
2:N:941:LEU:CD2	2:N:946:ASN:HA	2.50	0.41
5:Q:63:ASN:HB3	5:Q:64:PRO:CD	2.51	0.41
7:S:132:SER:HB3	7:S:135:ASP:HB2	2.03	0.41
7:S:59:GLY:HA3	7:S:70:PHE:CD2	2.56	0.41
8:T:95:TYR:CD2	8:T:95:TYR:C	2.94	0.41
11:W:65:HIS:NE2	11:W:67:PHE:CG	2.87	0.41
1:A:1094:VAL:HG13	1:A:1113:THR:CB	2.50	0.41
1:A:145:LYS:HE3	1:A:145:LYS:CA	2.51	0.41
1:A:696:GLU:O	1:A:696:GLU:HG2	2.21	0.41
1:A:705:LYS:HB2	1:A:708:MET:CE	2.50	0.41
2:B:1110:PRO:HB2	2:B:1119:VAL:HG11	2.03	0.41
2:B:128:LEU:HD12	2:B:128:LEU:HA	1.93	0.41
2:B:241:ARG:HG2	2:B:253:THR:HG21	2.01	0.41
2:B:360:PHE:HD2	2:B:374:LYS:HD3	1.85	0.41
2:B:579:ARG:CG	2:B:579:ARG:NH1	2.82	0.41
2:B:63:ILE:HA	2:B:63:ILE:HD12	1.76	0.41
4:D:52:LEU:H	4:D:182:SER:HB3	1.86	0.41
6:F:109:VAL:CG1	6:F:110:ASP:H	2.28	0.41
8:H:105:GLU:O	8:H:112:ILE:HD12	2.21	0.41
10:J:6:ARG:HA	10:J:12:LYS:O	2.21	0.41
11:K:56:VAL:HA	11:K:77:THR:HG22	2.02	0.41
1:M:1161:THR:HG22	1:M:1163:ILE:HG13	2.03	0.41
1:M:1395:GLY:HA3	1:M:1419:ASP:OD2	2.21	0.41
1:M:40:THR:HG21	1:M:259:GLU:OE2	2.21	0.41
1:M:446:ARG:HD2	1:M:480:ALA:HB2	2.03	0.41
1:M:492:PRO:HB3	1:M:497:THR:HG22	2.02	0.41
1:M:553:VAL:HA	1:M:554:PRO:HD2	1.87	0.41
2:N:101:MET:HB3	2:N:109:THR:HG22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1034:VAL:O	2:N:1037:LEU:N	2.53	0.41
2:N:1102:LYS:O	2:N:1103:ILE:C	2.58	0.41
2:N:1104:HIS:ND1	2:N:1105:ALA:N	2.68	0.41
2:N:228:LYS:HD3	2:N:228:LYS:HA	1.85	0.41
2:N:610:ASN:HA	2:N:611:PRO:HD3	1.97	0.41
2:N:654:ARG:NH1	2:N:654:ARG:HG3	2.31	0.41
2:N:637:LEU:HD21	2:N:742:GLU:HA	2.03	0.41
1:M:472:LEU:CD1	2:N:835:GLN:NE2	2.82	0.41
4:P:150:ASN:HB2	4:P:151:PHE:CE1	2.56	0.41
7:S:111:THR:HG22	7:S:114:LEU:CB	2.47	0.41
7:S:111:THR:O	7:S:112:LYS:C	2.59	0.41
7:G:117:GLN:NE2	7:S:153:GLN:HG3	2.34	0.41
7:S:7:LEU:HD13	7:S:45:ILE:HD11	2.03	0.41
9:U:10:CYS:O	9:U:11:ASN:C	2.59	0.41
9:U:6:PHE:CD2	9:U:12:ASN:O	2.73	0.41
9:U:22:ASN:O	9:U:23:ASN:HB2	2.21	0.41
11:W:40:HIS:O	11:W:41:THR:C	2.59	0.41
1:A:1094:VAL:HG13	1:A:1113:THR:HB	2.03	0.41
1:A:1158:PRO:C	1:A:1159:ARG:HG3	2.41	0.41
1:A:541:ILE:HG21	1:A:549:MET:HE3	2.03	0.41
2:B:1085:ILE:HD12	2:B:1085:ILE:N	2.36	0.41
2:B:1159:ARG:HD2	2:B:1159:ARG:O	2.21	0.41
2:B:222:ILE:O	2:B:240:ILE:HA	2.21	0.41
2:B:466:TRP:O	2:B:468:GLU:N	2.53	0.41
2:B:796:LEU:HA	2:B:796:LEU:HD12	1.88	0.41
3:C:34:ARG:O	3:C:38:ILE:HG13	2.21	0.41
4:D:166:LEU:HD23	4:D:214:LEU:HD22	2.03	0.41
5:E:65:THR:O	5:E:69:ILE:CD1	2.68	0.41
7:G:87:VAL:CG2	7:G:103:VAL:HG21	2.51	0.41
11:K:13:GLY:O	11:K:14:GLU:C	2.59	0.41
12:L:27:LEU:HD13	12:L:37:LYS:CG	2.51	0.41
12:L:48:CYS:HB3	12:L:51:CYS:O	2.20	0.41
1:M:1208:THR:O	1:M:1209:MET:C	2.58	0.41
1:M:1212:VAL:O	1:M:1215:ARG:HB2	2.21	0.41
1:M:355:GLY:N	1:M:482:PHE:CZ	2.89	0.41
1:M:445:ASN:HB3	1:M:455:MET:HE2	2.02	0.41
1:M:562:THR:HA	1:M:563:PRO:HD3	1.89	0.41
1:M:532:ARG:NH2	1:M:745:GLN:HG2	2.36	0.41
2:N:1106:ARG:HH12	2:N:1110:PRO:HG2	1.86	0.41
2:N:449:ASN:O	2:N:451:LYS:N	2.53	0.41
2:N:886:LYS:HB2	2:N:890:TYR:OH	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:990:ILE:HG22	2:N:991:GLY:N	2.35	0.41
3:O:75:MET:O	3:O:246:ARG:NH2	2.53	0.41
4:P:155:ARG:HB2	4:P:155:ARG:CZ	2.50	0.41
4:P:155:ARG:HH11	4:P:155:ARG:HB3	1.83	0.41
8:T:145:ARG:O	8:T:146:ARG:CB	2.69	0.41
12:X:37:LYS:HE3	12:X:37:LYS:HB2	1.81	0.41
13:1:27:DC:H2"	13:1:28:DA:C8	2.56	0.41
1:A:1195:LEU:HD11	1:A:1267:MET:CE	2.51	0.41
1:A:550:LEU:HD23	1:A:550:LEU:HA	1.95	0.41
1:A:606:LEU:HG	1:A:613:ILE:HD12	2.02	0.41
1:A:68:GLN:O	1:A:70:CYS:N	2.51	0.41
2:B:1109:GLY:O	2:B:1110:PRO:C	2.59	0.41
2:B:377:PHE:O	2:B:380:TYR:N	2.53	0.41
2:B:469:GLN:HB3	2:B:470:LYS:H	1.53	0.41
2:B:792:MET:CE	2:B:857:ARG:NH2	2.77	0.41
3:C:11:ARG:HE	3:C:21:ILE:HD11	1.86	0.41
3:C:217:ASP:HA	3:C:218:PRO:HD3	1.92	0.41
4:D:12:ARG:NH1	4:D:14:ARG:HG2	2.36	0.41
4:D:25:ALA:HB1	4:D:196:PRO:HG3	2.03	0.41
1:A:1017:LEU:HB2	5:E:206:GLY:N	2.36	0.41
5:E:90:VAL:HG23	5:E:120:ALA:HA	2.02	0.41
7:G:1:MET:SD	7:G:79:PHE:HD1	2.42	0.41
8:H:129:TYR:CD1	8:H:130:ARG:CD	3.03	0.41
8:H:83:GLN:C	8:H:85:GLY:H	2.23	0.41
9:I:55:THR:HG22	9:I:86:PHE:HZ	1.86	0.41
2:B:992:ILE:HD11	11:K:66:PRO:HB2	2.01	0.41
1:M:113:LEU:HD23	1:M:113:LEU:HA	1.95	0.41
1:M:84:ILE:CD1	1:M:270:LEU:HD13	2.51	0.41
1:M:34:LYS:HB2	1:M:36:ARG:NH2	2.36	0.41
1:M:826:ASP:OD1	1:M:827:THR:N	2.54	0.41
1:M:920:LEU:HD23	1:M:920:LEU:C	2.41	0.41
1:M:95:PHE:O	1:M:98:LYS:N	2.54	0.41
2:N:1169:MET:HE1	2:N:1204:PHE:HB2	2.03	0.41
2:N:276:ILE:HD11	2:N:334:ILE:HG23	2.03	0.41
2:N:558:LEU:O	2:N:559:SER:C	2.59	0.41
2:N:641:GLU:C	2:N:643:ASP:H	2.24	0.41
2:N:658:ILE:HG22	2:N:659:ALA:N	2.35	0.41
2:N:886:LYS:HB2	2:N:890:TYR:CE1	2.56	0.41
3:O:112:ASN:CB	3:O:114:TYR:CE1	3.03	0.41
4:P:118:THR:HG21	4:P:121:LYS:HD2	2.03	0.41
4:P:119:ARG:CG	4:P:221:TYR:CZ	3.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:90:VAL:HG23	5:Q:120:ALA:HA	2.02	0.41
5:Q:69:ILE:N	5:Q:69:ILE:CD1	2.82	0.41
6:R:79:ARG:NH2	6:R:150:GLU:OE1	2.47	0.41
7:S:14:HIS:CE1	7:S:15:PRO:HD2	2.55	0.41
8:T:26:ILE:O	8:T:27:GLU:HG3	2.21	0.41
8:T:51:ALA:O	8:T:52:GLN:CB	2.69	0.41
11:W:7:PHE:C	11:W:7:PHE:CD1	2.95	0.41
12:X:27:LEU:HD13	12:X:37:LYS:HG2	2.03	0.41
13:4:15:DG:C8	13:4:16:DT:H73	2.56	0.40
1:A:1279:ILE:HG23	1:A:1308:THR:OG1	2.21	0.40
1:A:1345:ARG:HD2	1:A:1373:ASP:OD1	2.21	0.40
1:A:179:LEU:HD23	1:A:179:LEU:N	2.36	0.40
1:A:55:ASP:OD1	1:A:57:ARG:HA	2.21	0.40
1:A:673:GLY:O	1:A:676:MET:HB2	2.21	0.40
1:A:878:ILE:CG2	1:A:955:PRO:HB2	2.51	0.40
2:B:1160:VAL:CG1	2:B:1161:HIS:N	2.84	0.40
1:A:335:ARG:NH1	2:B:1206:GLU:OE1	2.55	0.40
2:B:167:ILE:N	2:B:167:ILE:HD12	2.35	0.40
2:B:652:LYS:HD2	2:B:688:GLY:O	2.22	0.40
2:B:910:VAL:CG1	2:B:938:SER:HB3	2.51	0.40
3:C:73:GLN:HB3	3:C:131:HIS:H	1.85	0.40
5:E:190:LEU:C	5:E:191:LYS:HG2	2.42	0.40
5:E:3:GLN:NE2	5:E:52:ARG:HH22	2.18	0.40
5:E:89:GLY:C	5:E:91:LYS:N	2.74	0.40
7:G:132:SER:HB3	7:G:135:ASP:HB2	2.03	0.40
8:H:35:GLN:HB3	8:H:111:LEU:HD21	2.03	0.40
9:I:58:VAL:CG1	9:I:62:ILE:HG21	2.51	0.40
12:L:38:LEU:CG	12:L:39:SER:H	2.27	0.40
1:M:1112:LYS:O	1:M:1114:PRO:CD	2.66	0.40
1:M:1127:ASP:CG	1:M:1130:GLN:CB	2.89	0.40
1:M:130:ASP:O	1:M:131:SER:C	2.59	0.40
1:M:1383:SER:O	1:M:1385:THR:N	2.54	0.40
1:M:225:ASN:HD22	1:M:227:VAL:N	2.19	0.40
1:M:565:ILE:O	1:M:570:PRO:HA	2.21	0.40
1:M:535:THR:HG22	1:M:616:VAL:HA	2.00	0.40
1:M:828:ALA:C	1:M:831:THR:HG22	2.40	0.40
2:N:1064:TYR:O	2:N:1065:GLN:C	2.59	0.40
1:M:341:MET:CE	2:N:1135:ARG:NH1	2.84	0.40
2:N:460:ALA:HB1	2:N:466:TRP:CZ3	2.55	0.40
2:N:570:VAL:CG2	2:N:573:GLN:HB3	2.51	0.40
2:N:593:PRO:O	2:N:595:ARG:N	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:766:ARG:HD3	2:N:766:ARG:HA	1.80	0.40
3:O:31:ASN:O	3:O:34:ARG:HB3	2.22	0.40
4:P:14:ARG:NH1	4:P:16:LYS:HG2	2.35	0.40
4:P:8:PHE:CD1	4:P:38:ILE:O	2.74	0.40
4:P:41:GLN:N	4:P:41:GLN:NE2	2.69	0.40
5:Q:136:ASN:OD1	5:Q:138:ALA:N	2.54	0.40
5:Q:13:TRP:O	5:Q:16:PHE:HB3	2.21	0.40
9:U:80:SER:HB2	9:U:103:CYS:SG	2.61	0.40
9:U:77:LYS:C	9:U:79:HIS:H	2.24	0.40
11:W:6:ARG:O	11:W:9:LEU:HG	2.21	0.40
12:X:53:HIS:O	12:X:55:ILE:HD13	2.21	0.40
1:A:1081:LEU:CD1	1:A:1097:GLY:HA3	2.51	0.40
1:A:1264:GLU:OE2	9:I:46:HIS:HD2	2.05	0.40
1:A:320:ARG:HA	1:A:321:PRO:HD3	1.91	0.40
1:A:650:GLN:O	1:A:654:ASN:HB2	2.21	0.40
1:A:996:ASN:HA	1:A:998:LEU:HD12	2.03	0.40
2:B:102:VAL:HG23	2:B:112:LEU:CB	2.25	0.40
2:B:1064:TYR:O	2:B:1065:GLN:C	2.59	0.40
2:B:59:LEU:HG	2:B:95:ILE:HD13	2.03	0.40
3:C:215:GLU:O	3:C:217:ASP:N	2.54	0.40
4:D:40:HIS:C	4:D:42:GLY:H	2.24	0.40
5:E:207:ARG:HB3	5:E:207:ARG:NH1	2.31	0.40
1:A:598:LEU:HA	8:H:122:LEU:HD13	2.03	0.40
9:I:88:SER:HB3	9:I:95:THR:HG21	2.02	0.40
1:M:1005:GLU:O	1:M:1009:ASN:ND2	2.54	0.40
1:M:1157:ASP:O	1:M:1159:ARG:N	2.49	0.40
1:M:1279:ILE:HG23	1:M:1308:THR:OG1	2.20	0.40
1:M:1323:ASP:C	1:M:1325:THR:H	2.24	0.40
1:M:1402:PHE:CE2	1:M:1403:GLU:CG	3.04	0.40
1:M:320:ARG:HE	1:M:323:LYS:NZ	2.20	0.40
1:M:332:LYS:O	1:M:334:GLY:N	2.54	0.40
1:M:871:ASP:OD1	1:M:1366:ARG:NH2	2.54	0.40
1:M:963:ILE:HD11	1:M:1049:ILE:N	2.36	0.40
2:N:1200:ALA:O	2:N:1201:LYS:C	2.60	0.40
2:N:466:TRP:O	2:N:468:GLU:N	2.53	0.40
2:N:617:ARG:HA	2:N:624:LEU:HD12	2.03	0.40
2:N:782:LEU:HB3	2:N:784:ASN:OD1	2.21	0.40
3:O:239:PRO:O	3:O:242:GLN:HB2	2.21	0.40
4:P:121:LYS:HA	4:P:124:GLU:OE2	2.20	0.40
4:P:151:PHE:HD1	4:P:151:PHE:N	2.04	0.40
5:Q:11:ARG:C	5:Q:13:TRP:N	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:102:GLN:HG3	7:S:106:MET:O	2.21	0.40
9:U:73:ARG:NH1	9:U:101:PHE:CZ	2.89	0.40
9:U:58:VAL:O	9:U:58:VAL:HG12	2.21	0.40
1:M:369:SER:HB3	11:W:2:ASN:HD21	1.86	0.40
12:X:38:LEU:CG	12:X:39:SER:H	2.29	0.40
1:A:850:VAL:HG21	1:A:1058:VAL:HG11	2.04	0.40
1:A:1143:LEU:O	1:A:1146:VAL:HG22	2.21	0.40
1:A:196:GLU:HG2	1:A:197:PRO:CD	2.52	0.40
1:A:347:PHE:H	2:B:1107:ALA:HA	1.87	0.40
1:A:55:ASP:OD2	1:A:55:ASP:O	2.39	0.40
1:A:698:GLN:NE2	9:I:99:LEU:HD11	2.37	0.40
1:A:752:LYS:HD3	1:A:752:LYS:HA	1.93	0.40
2:B:1045:SER:O	2:B:1046:PRO:O	2.39	0.40
1:A:1410:PHE:HD2	2:B:1212:ILE:CD1	2.33	0.40
2:B:129:PHE:CE2	2:B:166:PHE:CD1	3.10	0.40
2:B:211:VAL:HG21	2:B:483:LEU:HD13	2.04	0.40
2:B:722:ASP:HB3	2:B:723:VAL:H	1.58	0.40
2:B:780:VAL:HG21	10:J:56:LEU:CD1	2.47	0.40
2:B:838:SER:HA	2:B:989:THR:O	2.21	0.40
2:B:847:ASP:HB3	3:C:167:HIS:NE2	2.37	0.40
2:B:945:GLU:O	2:B:946:ASN:HB3	2.21	0.40
2:B:996:ARG:HH12	3:C:174:ALA:CA	2.24	0.40
3:C:111:THR:O	3:C:147:LEU:HD23	2.20	0.40
3:C:128:ASN:O	3:C:129:ILE:HG13	2.21	0.40
1:M:967:ALA:HB2	1:M:1045:VAL:HG22	2.03	0.40
1:M:1350:LYS:O	1:M:1354:ASN:ND2	2.54	0.40
1:M:316:GLN:HG2	1:M:317:LYS:H	1.85	0.40
1:M:843:LYS:HD3	1:M:843:LYS:HA	1.76	0.40
2:N:222:ILE:N	2:N:240:ILE:CD1	2.85	0.40
2:N:624:LEU:HA	2:N:624:LEU:HD12	1.92	0.40
3:O:133:ILE:CD1	3:O:236:GLY:C	2.89	0.40
3:O:34:ARG:O	3:O:38:ILE:HG13	2.22	0.40
4:P:56:ARG:HB2	4:P:148:LEU:HD22	2.03	0.40
5:Q:90:VAL:HB	5:Q:117:THR:HG21	2.04	0.40
7:S:90:THR:CG2	7:S:91:VAL:N	2.84	0.40
1:A:1291:VAL:HG22	1:A:1292:PRO:CD	2.51	0.40
1:A:349:ALA:CB	1:A:374:LEU:HD11	2.52	0.40
1:A:436:ILE:HD11	1:A:491:VAL:HG11	2.03	0.40
1:A:444:PHE:HB2	1:A:458:HIS:HD2	1.86	0.40
1:A:675:THR:O	1:A:675:THR:HG22	2.22	0.40
1:A:996:ASN:HA	1:A:998:LEU:CD1	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1158:PHE:CE2	2:B:1160:VAL:HG22	2.56	0.40
2:B:189:LEU:HD13	2:B:196:PRO:HA	2.03	0.40
2:B:204:ILE:HG22	2:B:204:ILE:O	2.21	0.40
2:B:345:LYS:HE2	2:B:349:ILE:HD11	2.01	0.40
2:B:211:VAL:CG1	2:B:495:LEU:HD23	2.51	0.40
2:B:654:ARG:O	2:B:657:HIS:HB2	2.22	0.40
2:B:813:LYS:HD2	2:B:816:GLU:OE1	2.21	0.40
2:B:90:ILE:HD12	2:B:432:MET:CE	2.51	0.40
2:B:847:ASP:OD2	3:C:167:HIS:HD2	2.03	0.40
4:D:54:GLU:OE1	4:D:164:ILE:HD11	2.21	0.40
5:E:102:GLU:C	5:E:104:ASN:N	2.73	0.40
5:E:127:ILE:N	5:E:128:PRO:CD	2.84	0.40
6:F:69:LEU:HB3	6:F:71:GLU:HG3	2.03	0.40
8:H:26:ILE:HD11	8:H:49:VAL:CG1	2.51	0.40
10:J:56:LEU:O	10:J:57:ILE:C	2.60	0.40
1:M:1153:TYR:HB2	1:M:1192:LEU:HD23	2.03	0.40
1:M:1222:ASN:O	1:M:1223:ASP:HB3	2.21	0.40
1:M:1291:VAL:CG2	1:M:1292:PRO:CD	2.99	0.40
1:M:254:GLU:HB3	1:M:255:SER:H	1.49	0.40
1:M:347:PHE:H	2:N:1107:ALA:HA	1.86	0.40
1:M:500:GLU:O	1:M:504:LEU:HB2	2.21	0.40
1:M:566:ILE:O	1:M:567:LYS:O	2.40	0.40
2:N:984:HIS:NE2	2:N:1025:HIS:HA	2.37	0.40
2:N:269:ILE:CG2	2:N:282:ILE:HD13	2.52	0.40
2:N:323:VAL:O	2:N:324:ILE:HG13	2.21	0.40
2:N:364:ILE:HG22	2:N:365:THR:N	2.37	0.40
2:N:40:GLU:OE1	2:N:681:TRP:HB3	2.22	0.40
2:N:39:ARG:NH2	2:N:665:GLU:OE1	2.48	0.40
2:N:905:VAL:HG23	2:N:941:LEU:HD22	2.04	0.40
2:N:979:LYS:HG2	2:N:1095:LEU:CD1	2.51	0.40
1:M:870:GLU:HB2	5:Q:204:THR:HG21	2.03	0.40
6:R:109:VAL:HG12	6:R:110:ASP:H	1.83	0.40
8:T:27:GLU:CG	8:T:39:THR:HG23	2.51	0.40
8:T:83:GLN:C	8:T:85:GLY:H	2.24	0.40
3:O:245:VAL:HG13	11:W:102:LYS:HG3	2.04	0.40
12:X:55:ILE:O	12:X:56:LEU:HB2	2.21	0.40
13:1:15:DG:C8	13:1:16:DT:C7	3.05	0.40
1:A:1202:MET:CE	1:A:1212:VAL:HG21	2.52	0.40
1:A:1265:ASN:C	1:A:1267:MET:N	2.73	0.40
1:A:1339:LEU:HD13	5:E:147:HIS:CG	2.56	0.40
1:A:1349:TYR:HA	1:A:1372:VAL:HG21	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:367:PRO:HB3	1:A:465:TYR:O	2.22	0.40
1:A:33:ALA:CA	1:A:57:ARG:HH12	2.23	0.40
1:A:783:THR:HG21	1:A:796:SER:O	2.20	0.40
1:A:905:ASP:O	1:A:906:HIS:ND1	2.55	0.40
2:B:1110:PRO:C	2:B:1119:VAL:HG13	2.42	0.40
2:B:273:LEU:HA	2:B:274:PRO:HD2	1.93	0.40
2:B:277:LYS:HG2	2:B:336:ARG:CB	2.44	0.40
2:B:601:ARG:HD3	2:B:605:ARG:NH2	2.36	0.40
2:B:811:TYR:N	2:B:811:TYR:CD1	2.89	0.40
2:B:908:GLU:O	2:B:909:ASP:C	2.59	0.40
2:B:976:ILE:O	2:B:990:ILE:HB	2.21	0.40
3:C:46:ILE:HD12	3:C:67:LEU:O	2.22	0.40
4:D:156:ASP:C	4:D:158:GLU:N	2.74	0.40
5:E:63:ASN:HB3	5:E:64:PRO:CD	2.52	0.40
6:F:81:THR:HG23	6:F:144:GLU:OE2	2.22	0.40
6:F:148:VAL:O	6:F:149:GLU:C	2.60	0.40
8:H:93:TYR:HB3	8:H:144:ILE:O	2.20	0.40
3:C:252:GLN:CG	11:K:95:ILE:HG23	2.51	0.40
1:M:1048:ASN:N	1:M:1048:ASN:ND2	2.70	0.40
1:M:1241:ARG:O	1:M:1242:VAL:HG23	2.22	0.40
1:M:1436:ILE:HG21	1:M:1436:ILE:HD13	1.91	0.40
1:M:705:LYS:HB2	1:M:708:MET:HE2	2.03	0.40
1:M:752:LYS:HD3	1:M:752:LYS:HA	1.86	0.40
1:M:831:THR:HG23	1:M:832:ALA:N	2.37	0.40
1:M:896:ARG:HB3	1:M:897:TYR:CD1	2.57	0.40
2:N:1221:SER:O	2:N:1223:ASP:N	2.55	0.40
2:N:377:PHE:O	2:N:380:TYR:N	2.54	0.40
2:N:212:LEU:HD21	2:N:466:TRP:CH2	2.56	0.40
2:N:629:ASP:HB3	2:N:632:ARG:CD	2.51	0.40
2:N:654:ARG:O	2:N:656:GLY:N	2.55	0.40
2:N:810:GLU:CA	2:N:815:ARG:HH22	2.35	0.40
2:N:826:ALA:HB2	2:N:1087:PHE:CE2	2.57	0.40
2:N:911:ILE:HG21	2:N:966:VAL:HG11	2.01	0.40
2:N:98:THR:O	2:N:126:SER:CB	2.69	0.40
3:O:184:ASN:OD1	3:O:187:LYS:CA	2.69	0.40
5:Q:48:ASP:OD1	5:Q:52:ARG:HB2	2.22	0.40
8:T:36:CYS:HA	8:T:126:GLU:O	2.22	0.40
11:W:37:LYS:O	11:W:38:GLU:HG2	2.21	0.40
11:W:47:ARG:HB3	11:W:47:ARG:NH1	2.28	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1406/1733 (81%)	1075 (76%)	225 (16%)	106 (8%)	1	8
1	M	1406/1733 (81%)	1073 (76%)	228 (16%)	105 (8%)	1	8
2	B	1082/1224 (88%)	800 (74%)	186 (17%)	96 (9%)	1	5
2	N	1082/1224 (88%)	798 (74%)	186 (17%)	98 (9%)	1	4
3	C	264/318 (83%)	202 (76%)	41 (16%)	21 (8%)	1	7
3	O	264/318 (83%)	203 (77%)	42 (16%)	19 (7%)	1	9
4	D	174/221 (79%)	120 (69%)	37 (21%)	17 (10%)	1	4
4	P	174/221 (79%)	122 (70%)	34 (20%)	18 (10%)	0	3
5	E	212/215 (99%)	155 (73%)	41 (19%)	16 (8%)	1	8
5	Q	212/215 (99%)	159 (75%)	37 (18%)	16 (8%)	1	8
6	F	85/155 (55%)	72 (85%)	11 (13%)	2 (2%)	7	39
6	R	85/155 (55%)	72 (85%)	11 (13%)	2 (2%)	7	39
7	G	169/171 (99%)	141 (83%)	23 (14%)	5 (3%)	5	32
7	S	169/171 (99%)	139 (82%)	23 (14%)	7 (4%)	3	24
8	H	130/146 (89%)	85 (65%)	25 (19%)	20 (15%)	0	1
8	T	130/146 (89%)	85 (65%)	25 (19%)	20 (15%)	0	1
9	I	117/122 (96%)	77 (66%)	28 (24%)	12 (10%)	0	3
9	U	117/122 (96%)	78 (67%)	28 (24%)	11 (9%)	1	4
10	J	63/70 (90%)	43 (68%)	9 (14%)	11 (18%)	0	0
10	V	63/70 (90%)	42 (67%)	10 (16%)	11 (18%)	0	0
11	K	112/120 (93%)	89 (80%)	20 (18%)	3 (3%)	6	35
11	W	112/120 (93%)	89 (80%)	19 (17%)	4 (4%)	4	27
12	L	44/70 (63%)	19 (43%)	15 (34%)	10 (23%)	0	0
12	X	44/70 (63%)	19 (43%)	15 (34%)	10 (23%)	0	0
All	All	7716/9130 (84%)	5757 (75%)	1319 (17%)	640 (8%)	1	6

All (640) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	4	GLN
1	A	43	GLU
1	A	57	ARG
1	A	62	ASP
1	A	63	ARG
1	A	67	CYS
1	A	70	CYS
1	A	130	ASP
1	A	250	ILE
1	A	255	SER
1	A	257	ARG
1	A	286	HIS
1	A	311	GLN
1	A	318	SER
1	A	332	LYS
1	A	399	HIS
1	A	410	GLY
1	A	423	ASP
1	A	517	ASN
1	A	567	LYS
1	A	597	LEU
1	A	1112	LYS
1	A	1114	PRO
1	A	1120	LEU
1	A	1122	PRO
1	A	1124	HIS
1	A	1223	ASP
1	A	1233	ASP
1	A	1242	VAL
1	A	1255	GLU
1	A	1281	ARG
1	A	1403	GLU
1	A	1438	THR
2	B	21	GLU
2	B	67	SER
2	B	68	THR
2	B	108	VAL
2	B	124	TYR
2	B	186	GLU
2	B	291	ILE
2	B	295	GLY
2	B	334	ILE

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Mol	Chain	Res	Type
2	B	365	THR
2	B	367	LEU
2	B	391	ASP
2	B	435	THR
2	B	468	GLU
2	B	509	ALA
2	B	643	ASP
2	B	708	GLU
2	B	709	ASP
2	B	728	ARG
2	B	731	VAL
2	B	734	HIS
2	B	907	GLY
2	B	958	GLN
2	B	1046	PRO
2	B	1156	ASP
2	B	1175	LEU
3	C	110	THR
3	C	141	GLY
3	C	184	ASN
3	C	209	TYR
3	C	215	GLU
4	D	5	THR
4	D	8	PHE
4	D	17	LYS
4	D	19	GLU
4	D	52	LEU
4	D	218	GLU
5	E	45	LYS
5	E	115	ASN
5	E	129	PRO
5	E	130	ALA
7	G	139	ILE
8	H	77	ARG
8	H	82	PRO
8	H	128	ASN
8	H	140	ALA
9	I	11	ASN
9	I	78	CYS
10	J	2	ILE
10	J	55	ASP
10	J	64	ASN

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Mol	Chain	Res	Type
12	L	27	LEU
12	L	50	ASP
12	L	53	HIS
12	L	59	ALA
12	L	60	ARG
1	M	4	GLN
1	M	43	GLU
1	M	57	ARG
1	M	62	ASP
1	M	63	ARG
1	M	67	CYS
1	M	70	CYS
1	M	130	ASP
1	M	250	ILE
1	M	255	SER
1	M	257	ARG
1	M	286	HIS
1	M	311	GLN
1	M	318	SER
1	M	332	LYS
1	M	399	HIS
1	M	410	GLY
1	M	423	ASP
1	M	453	MET
1	M	517	ASN
1	M	567	LYS
1	M	597	LEU
1	M	1112	LYS
1	M	1114	PRO
1	M	1120	LEU
1	M	1122	PRO
1	M	1124	HIS
1	M	1223	ASP
1	M	1233	ASP
1	M	1242	VAL
1	M	1255	GLU
1	M	1281	ARG
1	M	1403	GLU
1	M	1438	THR
2	N	21	GLU
2	N	67	SER
2	N	68	THR

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Mol	Chain	Res	Type
2	N	108	VAL
2	N	124	TYR
2	N	186	GLU
2	N	258	LEU
2	N	334	ILE
2	N	365	THR
2	N	367	LEU
2	N	391	ASP
2	N	435	THR
2	N	468	GLU
2	N	509	ALA
2	N	643	ASP
2	N	708	GLU
2	N	709	ASP
2	N	728	ARG
2	N	731	VAL
2	N	734	HIS
2	N	907	GLY
2	N	958	GLN
2	N	1046	PRO
2	N	1069	PHE
2	N	1097	HIS
2	N	1156	ASP
2	N	1175	LEU
3	O	110	THR
3	O	141	GLY
3	O	184	ASN
3	O	215	GLU
3	O	216	GLY
4	P	5	THR
4	P	8	PHE
4	P	17	LYS
4	P	19	GLU
4	P	218	GLU
5	Q	45	LYS
5	Q	115	ASN
5	Q	129	PRO
5	Q	130	ALA
7	S	139	ILE
8	T	77	ARG
8	T	82	PRO
8	T	107	VAL

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Mol	Chain	Res	Type
8	T	128	ASN
8	T	140	ALA
9	U	11	ASN
9	U	78	CYS
9	U	106	CYS
10	V	2	ILE
10	V	55	ASP
10	V	64	ASN
12	X	27	LEU
12	X	50	ASP
12	X	59	ALA
12	X	60	ARG
1	A	41	MET
1	A	42	ASP
1	A	54	ASN
1	A	59	GLY
1	A	61	ILE
1	A	66	LYS
1	A	76	GLU
1	A	154	SER
1	A	167	CYS
1	A	253	ASN
1	A	314	ALA
1	A	322	VAL
1	A	331	GLY
1	A	424	ILE
1	A	453	MET
1	A	525	GLN
1	A	821	ARG
1	A	958	VAL
1	A	1002	GLY
1	A	1123	GLY
1	A	1139	GLU
1	A	1221	LYS
1	A	1308	THR
1	A	1314	SER
2	B	28	GLU
2	B	65	GLU
2	B	206	ASN
2	B	257	LYS
2	B	258	LEU
2	B	264	SER

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Mol	Chain	Res	Type
2	B	294	ASP
2	B	369	GLY
2	B	448	ILE
2	B	450	ALA
2	B	466	TRP
2	B	467	GLY
2	B	531	GLN
2	B	591	ARG
2	B	619	ILE
2	B	641	GLU
2	B	642	ASP
2	B	751	VAL
2	B	777	ALA
2	B	848	ARG
2	B	869	SER
2	B	879	ARG
2	B	943	SER
2	B	992	ILE
2	B	1069	PHE
2	B	1097	HIS
2	B	1155	SER
2	B	1176	ASN
3	C	126	GLY
3	C	149	LYS
3	C	216	GLY
3	C	237	SER
4	D	14	ARG
4	D	119	ARG
4	D	131	GLU
4	D	198	LEU
4	D	199	ASN
5	E	36	GLU
5	E	74	ASP
5	E	106	GLN
6	F	112	GLU
7	G	154	VAL
8	H	12	VAL
8	H	17	PRO
8	H	32	THR
8	H	59	ILE
8	H	62	SER
8	H	92	ASP

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Mol	Chain	Res	Type
8	H	107	VAL
8	H	108	SER
8	H	134	ASN
9	I	54	GLU
9	I	57	GLY
9	I	59	VAL
9	I	62	ILE
9	I	79	HIS
9	I	106	CYS
10	J	6	ARG
10	J	24	LEU
10	J	28	ASP
10	J	42	LYS
10	J	62	ARG
12	L	28	LYS
12	L	35	SER
1	M	41	MET
1	M	42	ASP
1	M	54	ASN
1	M	61	ILE
1	M	66	LYS
1	M	76	GLU
1	M	167	CYS
1	M	219	PHE
1	M	253	ASN
1	M	314	ALA
1	M	322	VAL
1	M	331	GLY
1	M	424	ILE
1	M	525	GLN
1	M	789	LYS
1	M	821	ARG
1	M	1002	GLY
1	M	1123	GLY
1	M	1169	ILE
1	M	1221	LYS
1	M	1308	THR
1	M	1314	SER
2	N	28	GLU
2	N	46	GLN
2	N	65	GLU
2	N	206	ASN

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Mol	Chain	Res	Type
2	N	257	LYS
2	N	259	TYR
2	N	264	SER
2	N	291	ILE
2	N	294	ASP
2	N	295	GLY
2	N	369	GLY
2	N	448	ILE
2	N	449	ASN
2	N	450	ALA
2	N	466	TRP
2	N	467	GLY
2	N	531	GLN
2	N	591	ARG
2	N	619	ILE
2	N	641	GLU
2	N	642	ASP
2	N	655	LYS
2	N	751	VAL
2	N	777	ALA
2	N	869	SER
2	N	879	ARG
2	N	943	SER
2	N	992	ILE
2	N	1155	SER
2	N	1176	ASN
3	O	126	GLY
3	O	149	LYS
3	O	209	TYR
3	O	237	SER
4	P	14	ARG
4	P	16	LYS
4	P	52	LEU
4	P	119	ARG
4	P	131	GLU
4	P	198	LEU
5	Q	36	GLU
5	Q	74	ASP
5	Q	106	GLN
7	S	154	VAL
8	T	17	PRO
8	T	32	THR

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Mol	Chain	Res	Type
8	T	59	ILE
8	T	62	SER
8	T	92	ASP
8	T	108	SER
8	T	134	ASN
9	U	8	ARG
9	U	54	GLU
9	U	57	GLY
9	U	59	VAL
9	U	62	ILE
9	U	79	HIS
10	V	6	ARG
10	V	24	LEU
10	V	28	ASP
10	V	62	ARG
11	W	53	ASP
12	X	28	LYS
12	X	35	SER
12	X	53	HIS
1	A	48	ALA
1	A	65	LEU
1	A	69	THR
1	A	93	VAL
1	A	128	ILE
1	A	138	ILE
1	A	219	PHE
1	A	400	PRO
1	A	789	LYS
1	A	795	GLU
1	A	846	GLU
1	A	986	ILE
1	A	1140	HIS
1	A	1231	ASP
1	A	1309	ASP
1	A	1405	THR
1	A	1448	GLU
2	B	24	PRO
2	B	27	ALA
2	B	46	GLN
2	B	58	THR
2	B	245	GLU
2	B	259	TYR

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Mol	Chain	Res	Type
2	B	433	GLN
2	B	449	ASN
2	B	559	SER
2	B	711	GLU
2	B	738	PHE
2	B	746	SER
2	B	906	SER
2	B	938	SER
2	B	1103	ILE
2	B	1222	ARG
3	C	90	ASP
3	C	132	PRO
3	C	148	ARG
3	C	213	PRO
4	D	15	LEU
4	D	16	LYS
4	D	21	GLU
4	D	168	LYS
5	E	44	ALA
5	E	92	THR
8	H	139	ASN
9	I	8	ARG
10	J	14	VAL
10	J	29	GLU
11	K	14	GLU
11	K	53	ASP
12	L	26	THR
1	M	48	ALA
1	M	58	LEU
1	M	59	GLY
1	M	65	LEU
1	M	93	VAL
1	M	154	SER
1	M	400	PRO
1	M	415	LEU
1	M	479	ASN
1	M	795	GLU
1	M	846	GLU
1	M	958	VAL
1	M	963	ILE
1	M	986	ILE
1	M	1115	SER

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Mol	Chain	Res	Type
1	M	1139	GLU
1	M	1140	HIS
1	M	1231	ASP
1	M	1309	ASP
1	M	1405	THR
1	M	1448	GLU
2	N	24	PRO
2	N	27	ALA
2	N	58	THR
2	N	245	GLU
2	N	282	ILE
2	N	433	GLN
2	N	559	SER
2	N	711	GLU
2	N	738	PHE
2	N	746	SER
2	N	810	GLU
2	N	848	ARG
2	N	906	SER
2	N	938	SER
2	N	1103	ILE
2	N	1222	ARG
3	O	90	ASP
3	O	132	PRO
3	O	148	ARG
3	O	213	PRO
4	P	15	LEU
4	P	53	SER
4	P	168	LYS
4	P	199	ASN
5	Q	44	ALA
6	R	112	GLU
7	S	136	VAL
8	T	139	ASN
10	V	42	LYS
11	W	14	GLU
12	X	26	THR
1	A	256	GLN
1	A	312	PRO
1	A	415	LEU
1	A	479	ASN
1	A	591	PHE

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Mol	Chain	Res	Type
1	A	1168	GLU
1	A	1169	ILE
1	A	1280	GLU
1	A	1316	VAL
2	B	45	SER
2	B	114	PRO
2	B	282	ILE
2	B	323	VAL
2	B	575	PRO
2	B	636	PRO
2	B	655	LYS
2	B	792	MET
2	B	810	GLU
2	B	818	PRO
2	B	1017	ILE
2	B	1108	ARG
2	B	1171	VAL
2	B	1181	GLU
3	C	12	GLU
3	C	142	VAL
5	E	192	ARG
6	F	128	LYS
8	H	52	GLN
8	H	81	PRO
8	H	90	ALA
8	H	91	ASP
9	I	9	ASP
12	L	40	LEU
1	M	69	THR
1	M	96	ILE
1	M	138	ILE
1	M	256	GLN
1	M	312	PRO
1	M	591	PHE
1	M	1168	GLU
1	M	1280	GLU
1	M	1316	VAL
2	N	114	PRO
2	N	323	VAL
2	N	575	PRO
2	N	636	PRO
2	N	705	MET

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Mol	Chain	Res	Type
2	N	792	MET
2	N	946	ASN
2	N	1017	ILE
2	N	1181	GLU
3	O	142	VAL
4	P	21	GLU
4	P	192	LYS
5	Q	3	GLN
5	Q	92	THR
5	Q	192	ARG
8	T	12	VAL
8	T	52	GLN
8	T	81	PRO
8	T	90	ALA
8	T	91	ASP
8	T	95	TYR
9	U	9	ASP
9	U	56	ALA
10	V	14	VAL
10	V	17	LYS
10	V	29	GLU
12	X	40	LEU
1	A	58	LEU
1	A	72	GLU
1	A	96	ILE
1	A	556	TRP
1	A	780	VAL
1	A	884	ASP
1	A	963	ILE
1	A	1390	ASN
2	B	680	THR
2	B	1157	ALA
3	C	11	ARG
3	C	48	SER
3	C	172	PRO
3	C	214	ASN
4	D	53	SER
4	D	75	LYS
5	E	3	GLN
5	E	73	PRO
7	G	20	PRO
7	G	113	HIS

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Mol	Chain	Res	Type
7	G	136	VAL
8	H	95	TYR
9	I	56	ALA
10	J	17	LYS
11	K	107	THR
1	M	128	ILE
1	M	145	LYS
1	M	556	TRP
1	M	1149	ALA
1	M	1390	ASN
2	N	45	SER
2	N	55	VAL
2	N	56	ASP
2	N	461	LEU
2	N	561	TRP
2	N	1157	ALA
2	N	1171	VAL
3	O	11	ARG
3	O	240	VAL
4	P	75	LYS
5	Q	154	ILE
6	R	128	LYS
7	S	112	LYS
7	S	113	HIS
11	W	64	GLU
11	W	107	THR
1	A	35	ILE
1	A	51	GLY
1	A	357	PRO
1	A	599	SER
1	A	972	HIS
1	A	1174	PHE
2	B	55	VAL
2	B	56	ASP
2	B	461	LEU
2	B	946	ASN
2	B	1214	PRO
5	E	40	GLU
5	E	154	ILE
9	I	3	THR
1	M	35	ILE
1	M	51	GLY

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Mol	Chain	Res	Type
1	M	284	ALA
1	M	599	SER
1	M	972	HIS
1	M	1278	ASN
2	N	249	ARG
2	N	594	ALA
2	N	680	THR
2	N	1214	PRO
3	O	175	ALA
3	O	214	ASN
5	Q	73	PRO
7	S	20	PRO
7	S	128	PRO
2	B	1110	PRO
3	C	240	VAL
5	E	51	GLY
5	E	64	PRO
8	H	44	VAL
1	M	283	GLY
1	M	780	VAL
1	M	948	VAL
3	O	172	PRO
5	Q	51	GLY
8	T	44	VAL
1	A	283	GLY
1	A	284	ALA
1	A	308	ILE
1	A	948	VAL
2	B	1018	PRO
12	L	46	VAL
1	M	308	ILE
1	M	357	PRO
2	N	100	PRO
2	N	818	PRO
5	Q	64	PRO
12	X	46	VAL
1	A	231	PRO
2	B	613	VAL
3	C	176	ILE
1	M	364	VAL
2	N	1018	PRO
2	N	1110	PRO

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Mol	Chain	Res	Type
5	Q	76	GLY
1	A	196	GLU
1	A	336	ILE
1	A	364	VAL
2	B	553	PRO
1	M	196	GLU
2	N	260	GLY
1	A	693	VAL
2	B	100	PRO
1	M	231	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	1239/1520 (82%)	1116 (90%)	123 (10%)	9	35
1	M	1239/1520 (82%)	1107 (89%)	132 (11%)	8	31
2	B	958/1061 (90%)	860 (90%)	98 (10%)	8	34
2	N	958/1061 (90%)	853 (89%)	105 (11%)	7	30
3	C	234/274 (85%)	212 (91%)	22 (9%)	10	38
3	O	234/274 (85%)	207 (88%)	27 (12%)	6	28
4	D	160/200 (80%)	136 (85%)	24 (15%)	3	16
4	P	160/200 (80%)	127 (79%)	33 (21%)	1	6
5	E	196/197 (100%)	183 (93%)	13 (7%)	19	57
5	Q	196/197 (100%)	184 (94%)	12 (6%)	22	61
6	F	77/137 (56%)	71 (92%)	6 (8%)	15	50
6	R	77/137 (56%)	72 (94%)	5 (6%)	20	58
7	G	152/152 (100%)	140 (92%)	12 (8%)	14	49
7	S	152/152 (100%)	134 (88%)	18 (12%)	6	27
8	H	118/128 (92%)	105 (89%)	13 (11%)	7	30
8	T	118/128 (92%)	108 (92%)	10 (8%)	12	44

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	I	113/116 (97%)	101 (89%)	12 (11%)	8	32
9	U	113/116 (97%)	103 (91%)	10 (9%)	12	42
10	J	60/65 (92%)	51 (85%)	9 (15%)	3	16
10	V	60/65 (92%)	53 (88%)	7 (12%)	6	27
11	K	99/102 (97%)	94 (95%)	5 (5%)	28	66
11	W	99/102 (97%)	90 (91%)	9 (9%)	11	39
12	L	40/57 (70%)	34 (85%)	6 (15%)	3	16
12	X	40/57 (70%)	33 (82%)	7 (18%)	2	11
All	All	6892/8018 (86%)	6174 (90%)	718 (10%)	8	33

All (718) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	18	GLN
1	A	34	LYS
1	A	37	PHE
1	A	41	MET
1	A	53	LEU
1	A	68	GLN
1	A	70	CYS
1	A	83	HIS
1	A	93	VAL
1	A	110	CYS
1	A	121	LEU
1	A	141	LEU
1	A	145	LYS
1	A	157	ASP
1	A	160	GLN
1	A	173	THR
1	A	182	VAL
1	A	185	TRP
1	A	200	ARG
1	A	207	ILE
1	A	208	LEU
1	A	219	PHE
1	A	221	SER
1	A	225	ASN
1	A	230	ARG
1	A	231	PRO

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Mol	Chain	Res	Type
1	A	265	LYS
1	A	282	ASN
1	A	287	HIS
1	A	297	GLN
1	A	302	THR
1	A	320	ARG
1	A	322	VAL
1	A	324	SER
1	A	337	ARG
1	A	344	ARG
1	A	385	ILE
1	A	394	ASN
1	A	408	ASP
1	A	425	GLN
1	A	434	ARG
1	A	443	LEU
1	A	445	ASN
1	A	449	SER
1	A	451	HIS
1	A	469	ARG
1	A	470	LEU
1	A	475	THR
1	A	479	ASN
1	A	481	ASP
1	A	486	GLU
1	A	489	LEU
1	A	493	GLN
1	A	503	GLN
1	A	505	CYS
1	A	512	VAL
1	A	538	ASP
1	A	597	LEU
1	A	618	GLU
1	A	629	LEU
1	A	631	HIS
1	A	635	ARG
1	A	666	ILE
1	A	670	ILE
1	A	680	THR
1	A	685	GLU
1	A	690	VAL
1	A	710	LEU

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Mol	Chain	Res	Type
1	A	727	ASP
1	A	738	LYS
1	A	739	ASP
1	A	741	ASN
1	A	762	SER
1	A	774	ARG
1	A	783	THR
1	A	805	LEU
1	A	821	ARG
1	A	827	THR
1	A	834	THR
1	A	838	GLN
1	A	855	THR
1	A	858	ASN
1	A	903	ASN
1	A	906	HIS
1	A	907	THR
1	A	937	VAL
1	A	961	ARG
1	A	976	THR
1	A	978	PRO
1	A	983	ILE
1	A	1005	GLU
1	A	1029	ARG
1	A	1033	GLN
1	A	1036	ARG
1	A	1047	SER
1	A	1095	THR
1	A	1114	PRO
1	A	1116	LEU
1	A	1122	PRO
1	A	1124	HIS
1	A	1129	GLU
1	A	1170	ILE
1	A	1171	GLN
1	A	1193	LEU
1	A	1217	LYS
1	A	1257	ASP
1	A	1264	GLU
1	A	1270	ASN
1	A	1280	GLU
1	A	1288	ASP

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Mol	Chain	Res	Type
1	A	1295	THR
1	A	1297	GLU
1	A	1299	VAL
1	A	1325	THR
1	A	1333	ILE
1	A	1353	TYR
1	A	1370	LEU
1	A	1377	THR
1	A	1385	THR
1	A	1386	ARG
1	A	1394	THR
1	A	1444	MET
1	A	1445	ILE
2	B	20	ASP
2	B	21	GLU
2	B	30	SER
2	B	46	GLN
2	B	57	TYR
2	B	61	ASP
2	B	97	VAL
2	B	119	LEU
2	B	128	LEU
2	B	134	LYS
2	B	194	GLU
2	B	203	PHE
2	B	217	ARG
2	B	225	VAL
2	B	249	ARG
2	B	261	ARG
2	B	268	THR
2	B	272	THR
2	B	371	GLU
2	B	376	PHE
2	B	384	ARG
2	B	393	LYS
2	B	401	PHE
2	B	416	LEU
2	B	425	THR
2	B	427	ASP
2	B	429	PHE
2	B	430	ARG
2	B	452	THR

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Mol	Chain	Res	Type
2	B	465	ASN
2	B	466	TRP
2	B	473	MET
2	B	474	SER
2	B	479	VAL
2	B	485	ARG
2	B	491	THR
2	B	498	THR
2	B	516	ASN
2	B	552	MET
2	B	557	PHE
2	B	563	MET
2	B	582	VAL
2	B	597	MET
2	B	615	MET
2	B	616	ILE
2	B	636	PRO
2	B	694	ASP
2	B	705	MET
2	B	714	GLU
2	B	722	ASP
2	B	730	ARG
2	B	732	SER
2	B	737	THR
2	B	748	ILE
2	B	786	ASN
2	B	790	ASP
2	B	797	TYR
2	B	805	THR
2	B	816	GLU
2	B	831	SER
2	B	835	GLN
2	B	839	MET
2	B	868	MET
2	B	878	GLN
2	B	879	ARG
2	B	887	HIS
2	B	889	THR
2	B	894	ASP
2	B	895	ASP
2	B	901	PRO
2	B	904	ARG

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Mol	Chain	Res	Type
2	B	915	THR
2	B	939	THR
2	B	944	THR
2	B	953	LEU
2	B	956	THR
2	B	959	ASP
2	B	987	LYS
2	B	997	GLU
2	B	999	MET
2	B	1006	ILE
2	B	1007	VAL
2	B	1047	PHE
2	B	1049	ASP
2	B	1069	PHE
2	B	1084	GLN
2	B	1087	PHE
2	B	1095	LEU
2	B	1098	MET
2	B	1147	LEU
2	B	1151	LEU
2	B	1159	ARG
2	B	1175	LEU
2	B	1178	ASN
2	B	1183	LYS
2	B	1185	CYS
2	B	1202	LEU
2	B	1220	ARG
3	C	11	ARG
3	C	22	LEU
3	C	23	SER
3	C	26	ASP
3	C	57	VAL
3	C	62	PHE
3	C	77	ILE
3	C	78	GLU
3	C	89	GLU
3	C	91	HIS
3	C	99	LEU
3	C	102	GLN
3	C	104	PHE
3	C	124	LEU
3	C	129	ILE

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Mol	Chain	Res	Type
3	C	138	GLU
3	C	145	CYS
3	C	147	LEU
3	C	166	GLU
3	C	177	GLU
3	C	194	GLU
3	C	238	ILE
4	D	4	SER
4	D	11	ARG
4	D	12	ARG
4	D	17	LYS
4	D	18	VAL
4	D	20	GLU
4	D	22	GLU
4	D	23	ASN
4	D	29	LEU
4	D	38	ILE
4	D	40	HIS
4	D	47	LEU
4	D	65	GLU
4	D	70	PHE
4	D	120	GLU
4	D	124	GLU
4	D	138	ASN
4	D	156	ASP
4	D	187	THR
4	D	200	ASN
4	D	214	LEU
4	D	219	THR
4	D	220	LEU
4	D	221	TYR
5	E	7	ARG
5	E	31	THR
5	E	37	LEU
5	E	41	ASP
5	E	72	PHE
5	E	74	ASP
5	E	78	LEU
5	E	104	ASN
5	E	110	PHE
5	E	112	TYR
5	E	115	ASN

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Mol	Chain	Res	Type
5	E	192	ARG
5	E	212	ARG
6	F	79	ARG
6	F	81	THR
6	F	90	ARG
6	F	111	LEU
6	F	112	GLU
6	F	119	ARG
7	G	1	MET
7	G	13	LEU
7	G	21	ARG
7	G	24	GLN
7	G	45	ILE
7	G	53	ASN
7	G	65	ASP
7	G	74	TYR
7	G	111	THR
7	G	113	HIS
7	G	126	ASN
7	G	171	ILE
8	H	26	ILE
8	H	33	GLN
8	H	61	SER
8	H	64	ASN
8	H	86	ASP
8	H	89	LEU
8	H	123	MET
8	H	128	ASN
8	H	129	TYR
8	H	130	ARG
8	H	138	GLU
8	H	143	LEU
8	H	146	ARG
9	I	6	PHE
9	I	8	ARG
9	I	15	TYR
9	I	29	CYS
9	I	55	THR
9	I	59	VAL
9	I	86	PHE
9	I	93	LYS
9	I	94	ASP

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Mol	Chain	Res	Type
9	I	96	SER
9	I	101	PHE
9	I	106	CYS
10	J	2	ILE
10	J	7	CYS
10	J	13	VAL
10	J	23	ASN
10	J	28	ASP
10	J	43	ARG
10	J	44	TYR
10	J	48	ARG
10	J	55	ASP
11	K	42	LEU
11	K	47	ARG
11	K	51	LEU
11	K	111	LEU
11	K	114	LEU
12	L	27	LEU
12	L	35	SER
12	L	54	ARG
12	L	55	ILE
12	L	68	GLU
12	L	70	ARG
1	M	11	LEU
1	M	18	GLN
1	M	34	LYS
1	M	37	PHE
1	M	41	MET
1	M	54	ASN
1	M	68	GLN
1	M	70	CYS
1	M	83	HIS
1	M	93	VAL
1	M	110	CYS
1	M	121	LEU
1	M	145	LYS
1	M	160	GLN
1	M	173	THR
1	M	182	VAL
1	M	185	TRP
1	M	200	ARG
1	M	203	SER

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Mol	Chain	Res	Type
1	M	208	LEU
1	M	219	PHE
1	M	221	SER
1	M	225	ASN
1	M	230	ARG
1	M	244	PRO
1	M	265	LYS
1	M	275	SER
1	M	297	GLN
1	M	302	THR
1	M	315	LEU
1	M	320	ARG
1	M	322	VAL
1	M	337	ARG
1	M	344	ARG
1	M	369	SER
1	M	385	ILE
1	M	394	ASN
1	M	408	ASP
1	M	425	GLN
1	M	443	LEU
1	M	445	ASN
1	M	451	HIS
1	M	454	SER
1	M	469	ARG
1	M	470	LEU
1	M	476	SER
1	M	481	ASP
1	M	489	LEU
1	M	493	GLN
1	M	504	LEU
1	M	505	CYS
1	M	512	VAL
1	M	516	SER
1	M	524	VAL
1	M	538	ASP
1	M	597	LEU
1	M	618	GLU
1	M	626	ASN
1	M	631	HIS
1	M	635	ARG
1	M	666	ILE

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Mol	Chain	Res	Type
1	M	670	ILE
1	M	680	THR
1	M	685	GLU
1	M	690	VAL
1	M	710	LEU
1	M	738	LYS
1	M	740	LEU
1	M	741	ASN
1	M	762	SER
1	M	769	SER
1	M	774	ARG
1	M	783	THR
1	M	805	LEU
1	M	816	HIS
1	M	821	ARG
1	M	827	THR
1	M	834	THR
1	M	838	GLN
1	M	852	TYR
1	M	855	THR
1	M	858	ASN
1	M	871	ASP
1	M	873	MET
1	M	874	ASP
1	M	903	ASN
1	M	906	HIS
1	M	907	THR
1	M	909	ASP
1	M	937	VAL
1	M	961	ARG
1	M	976	THR
1	M	978	PRO
1	M	983	ILE
1	M	1005	GLU
1	M	1029	ARG
1	M	1033	GLN
1	M	1036	ARG
1	M	1110	ASN
1	M	1114	PRO
1	M	1116	LEU
1	M	1122	PRO
1	M	1124	HIS

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Mol	Chain	Res	Type
1	M	1129	GLU
1	M	1165	GLU
1	M	1170	ILE
1	M	1171	GLN
1	M	1187	GLN
1	M	1193	LEU
1	M	1217	LYS
1	M	1257	ASP
1	M	1264	GLU
1	M	1270	ASN
1	M	1273	LEU
1	M	1280	GLU
1	M	1288	ASP
1	M	1295	THR
1	M	1297	GLU
1	M	1325	THR
1	M	1329	THR
1	M	1333	ILE
1	M	1345	ARG
1	M	1353	TYR
1	M	1370	LEU
1	M	1386	ARG
1	M	1394	THR
1	M	1405	THR
1	M	1410	PHE
1	M	1426	GLU
1	M	1442	ASP
1	M	1444	MET
1	M	1445	ILE
2	N	20	ASP
2	N	22	SER
2	N	25	ILE
2	N	30	SER
2	N	57	TYR
2	N	61	ASP
2	N	128	LEU
2	N	134	LYS
2	N	175	ARG
2	N	194	GLU
2	N	217	ARG
2	N	218	SER
2	N	235	SER

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Mol	Chain	Res	Type
2	N	249	ARG
2	N	261	ARG
2	N	272	THR
2	N	294	ASP
2	N	298	LEU
2	N	299	GLU
2	N	319	GLU
2	N	364	ILE
2	N	371	GLU
2	N	376	PHE
2	N	393	LYS
2	N	401	PHE
2	N	416	LEU
2	N	419	THR
2	N	425	THR
2	N	427	ASP
2	N	429	PHE
2	N	465	ASN
2	N	466	TRP
2	N	473	MET
2	N	475	SER
2	N	479	VAL
2	N	485	ARG
2	N	490	SER
2	N	498	THR
2	N	502	ILE
2	N	516	ASN
2	N	552	MET
2	N	555	ILE
2	N	557	PHE
2	N	563	MET
2	N	582	VAL
2	N	597	MET
2	N	615	MET
2	N	616	ILE
2	N	636	PRO
2	N	643	ASP
2	N	645	SER
2	N	648	HIS
2	N	680	THR
2	N	694	ASP
2	N	705	MET

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Mol	Chain	Res	Type
2	N	714	GLU
2	N	722	ASP
2	N	732	SER
2	N	737	THR
2	N	748	ILE
2	N	786	ASN
2	N	790	ASP
2	N	797	TYR
2	N	805	THR
2	N	811	TYR
2	N	815	ARG
2	N	831	SER
2	N	835	GLN
2	N	837	ASP
2	N	839	MET
2	N	844	SER
2	N	868	MET
2	N	878	GLN
2	N	879	ARG
2	N	887	HIS
2	N	889	THR
2	N	895	ASP
2	N	901	PRO
2	N	915	THR
2	N	939	THR
2	N	944	THR
2	N	953	LEU
2	N	956	THR
2	N	959	ASP
2	N	987	LYS
2	N	999	MET
2	N	1006	ILE
2	N	1007	VAL
2	N	1022	THR
2	N	1047	PHE
2	N	1049	ASP
2	N	1060	ARG
2	N	1084	GLN
2	N	1087	PHE
2	N	1095	LEU
2	N	1147	LEU
2	N	1150	ARG

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Mol	Chain	Res	Type
2	N	1159	ARG
2	N	1175	LEU
2	N	1178	ASN
2	N	1183	LYS
2	N	1185	CYS
2	N	1202	LEU
2	N	1214	PRO
2	N	1220	ARG
3	O	3	GLU
3	O	11	ARG
3	O	16	ASP
3	O	26	ASP
3	O	52	GLU
3	O	54	ASN
3	O	57	VAL
3	O	62	PHE
3	O	69	LEU
3	O	77	ILE
3	O	78	GLU
3	O	89	GLU
3	O	91	HIS
3	O	99	LEU
3	O	104	PHE
3	O	115	SER
3	O	124	LEU
3	O	138	GLU
3	O	145	CYS
3	O	147	LEU
3	O	151	GLN
3	O	166	GLU
3	O	177	GLU
3	O	197	SER
3	O	202	PRO
3	O	238	ILE
3	O	259	LEU
4	P	4	SER
4	P	10	THR
4	P	11	ARG
4	P	16	LYS
4	P	17	LYS
4	P	20	GLU
4	P	22	GLU

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Mol	Chain	Res	Type
4	P	23	ASN
4	P	29	LEU
4	P	38	ILE
4	P	40	HIS
4	P	47	LEU
4	P	59	ILE
4	P	65	GLU
4	P	70	PHE
4	P	120	GLU
4	P	124	GLU
4	P	140	ASP
4	P	151	PHE
4	P	152	SER
4	P	185	CYS
4	P	187	THR
4	P	192	LYS
4	P	193	THR
4	P	197	SER
4	P	204	ASP
4	P	206	GLU
4	P	211	LEU
4	P	213	GLU
4	P	214	LEU
4	P	215	SER
4	P	216	ASN
4	P	221	TYR
5	Q	31	THR
5	Q	37	LEU
5	Q	41	ASP
5	Q	72	PHE
5	Q	74	ASP
5	Q	78	LEU
5	Q	104	ASN
5	Q	110	PHE
5	Q	115	ASN
5	Q	134	THR
5	Q	191	LYS
5	Q	212	ARG
6	R	79	ARG
6	R	90	ARG
6	R	111	LEU
6	R	112	GLU

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Mol	Chain	Res	Type
6	R	119	ARG
7	S	1	MET
7	S	13	LEU
7	S	21	ARG
7	S	38	CYS
7	S	53	ASN
7	S	74	TYR
7	S	75	ARG
7	S	78	VAL
7	S	95	SER
7	S	110	VAL
7	S	111	THR
7	S	113	HIS
7	S	120	THR
7	S	129	SER
7	S	139	ILE
7	S	141	SER
7	S	143	ILE
7	S	145	VAL
8	T	2	SER
8	T	64	ASN
8	T	89	LEU
8	T	95	TYR
8	T	123	MET
8	T	128	ASN
8	T	129	TYR
8	T	130	ARG
8	T	135	LEU
8	T	138	GLU
9	U	7	CYS
9	U	9	ASP
9	U	15	TYR
9	U	55	THR
9	U	59	VAL
9	U	86	PHE
9	U	93	LYS
9	U	94	ASP
9	U	100	PHE
9	U	106	CYS
10	V	7	CYS
10	V	13	VAL
10	V	23	ASN

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Mol	Chain	Res	Type
10	V	43	ARG
10	V	44	TYR
10	V	48	ARG
10	V	59	LYS
11	W	17	SER
11	W	25	THR
11	W	31	VAL
11	W	42	LEU
11	W	47	ARG
11	W	50	LEU
11	W	61	TYR
11	W	111	LEU
11	W	114	LEU
12	X	27	LEU
12	X	38	LEU
12	X	54	ARG
12	X	55	ILE
12	X	63	ARG
12	X	68	GLU
12	X	70	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (226) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	54	ASN
1	A	68	GLN
1	A	75	ASN
1	A	169	ASN
1	A	171	GLN
1	A	225	ASN
1	A	253	ASN
1	A	256	GLN
1	A	282	ASN
1	A	297	GLN
1	A	316	GLN
1	A	339	ASN
1	A	394	ASN
1	A	435	HIS
1	A	451	HIS
1	A	479	ASN
1	A	493	GLN
1	A	503	GLN

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Mol	Chain	Res	Type
1	A	517	ASN
1	A	603	ASN
1	A	611	GLN
1	A	631	HIS
1	A	640	GLN
1	A	723	ASN
1	A	741	ASN
1	A	745	GLN
1	A	757	ASN
1	A	786	HIS
1	A	858	ASN
1	A	903	ASN
1	A	926	GLN
1	A	965	GLN
1	A	969	GLN
1	A	1011	GLN
1	A	1048	ASN
1	A	1078	GLN
1	A	1106	ASN
1	A	1203	ASN
1	A	1218	GLN
1	A	1258	HIS
1	A	1354	ASN
1	A	1387	HIS
1	A	1432	GLN
2	B	46	GLN
2	B	115	GLN
2	B	178	ASN
2	B	224	GLN
2	B	236	HIS
2	B	366	GLN
2	B	465	ASN
2	B	484	ASN
2	B	499	ASN
2	B	513	GLN
2	B	515	HIS
2	B	516	ASN
2	B	518	HIS
2	B	538	ASN
2	B	686	ASN
2	B	744	HIS
2	B	835	GLN

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Mol	Chain	Res	Type
2	B	842	ASN
2	B	862	GLN
2	B	887	HIS
2	B	946	ASN
2	B	957	ASN
2	B	958	GLN
2	B	975	GLN
2	B	986	GLN
2	B	1025	HIS
2	B	1065	GLN
2	B	1074	ASN
2	B	1161	HIS
2	B	1179	GLN
2	B	1193	GLN
3	C	17	ASN
3	C	24	ASN
3	C	65	HIS
3	C	73	GLN
3	C	79	GLN
3	C	91	HIS
3	C	112	ASN
3	C	123	ASN
3	C	167	HIS
3	C	252	GLN
4	D	39	ASN
4	D	40	HIS
4	D	41	GLN
4	D	138	ASN
4	D	165	GLN
5	E	3	GLN
5	E	101	GLN
5	E	104	ASN
5	E	106	GLN
5	E	113	GLN
5	E	147	HIS
6	F	100	GLN
7	G	14	HIS
7	G	53	ASN
7	G	57	GLN
7	G	71	ASN
7	G	97	HIS
7	G	117	GLN

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Mol	Chain	Res	Type
7	G	122	ASN
7	G	126	ASN
7	G	158	HIS
8	H	64	ASN
8	H	128	ASN
8	H	131	ASN
8	H	137	GLN
9	I	12	ASN
9	I	46	HIS
9	I	60	GLN
9	I	83	ASN
9	I	108	HIS
10	J	53	HIS
11	K	65	HIS
11	K	89	ASN
11	K	104	ASN
1	M	75	ASN
1	M	169	ASN
1	M	171	GLN
1	M	225	ASN
1	M	253	ASN
1	M	256	GLN
1	M	282	ASN
1	M	297	GLN
1	M	316	GLN
1	M	339	ASN
1	M	390	GLN
1	M	435	HIS
1	M	451	HIS
1	M	479	ASN
1	M	493	GLN
1	M	503	GLN
1	M	517	ASN
1	M	611	GLN
1	M	631	HIS
1	M	698	GLN
1	M	736	ASN
1	M	741	ASN
1	M	745	GLN
1	M	757	ASN
1	M	786	HIS
1	M	858	ASN

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Mol	Chain	Res	Type
1	M	903	ASN
1	M	926	GLN
1	M	965	GLN
1	M	969	GLN
1	M	1011	GLN
1	M	1048	ASN
1	M	1110	ASN
1	M	1203	ASN
1	M	1218	GLN
1	M	1258	HIS
1	M	1354	ASN
1	M	1432	GLN
2	N	46	GLN
2	N	115	GLN
2	N	121	ASN
2	N	178	ASN
2	N	224	GLN
2	N	236	HIS
2	N	363	HIS
2	N	366	GLN
2	N	465	ASN
2	N	484	ASN
2	N	499	ASN
2	N	513	GLN
2	N	515	HIS
2	N	516	ASN
2	N	518	HIS
2	N	573	GLN
2	N	744	HIS
2	N	842	ASN
2	N	862	GLN
2	N	957	ASN
2	N	975	GLN
2	N	1015	HIS
2	N	1025	HIS
2	N	1040	ASN
2	N	1062	HIS
2	N	1065	GLN
2	N	1076	HIS
2	N	1117	GLN
2	N	1161	HIS
2	N	1179	GLN

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Mol	Chain	Res	Type
2	N	1193	GLN
2	N	1211	ASN
3	O	17	ASN
3	O	65	HIS
3	O	73	GLN
3	O	79	GLN
3	O	91	HIS
3	O	112	ASN
3	O	123	ASN
3	O	167	HIS
3	O	252	GLN
4	P	9	GLN
4	P	40	HIS
4	P	51	ASN
4	P	74	GLN
5	Q	3	GLN
5	Q	99	HIS
5	Q	101	GLN
5	Q	104	ASN
5	Q	106	GLN
5	Q	113	GLN
5	Q	147	HIS
6	R	100	GLN
7	S	14	HIS
7	S	53	ASN
7	S	97	HIS
7	S	122	ASN
7	S	126	ASN
8	T	64	ASN
8	T	128	ASN
8	T	131	ASN
8	T	137	GLN
9	U	46	HIS
9	U	83	ASN
9	U	89	GLN
9	U	108	HIS
10	V	53	HIS
10	V	64	ASN
11	W	65	HIS
11	W	89	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
15	3	10/17 (58%)	0	0
15	6	10/17 (58%)	0	0
All	All	20/34 (58%)	0	0

There are no RNA backbone outliers to report.

There are no RNA pucker outliers to report.

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

2 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	$\# Z > 2$
13	BRU	1	23	13,15	13,21,22	4.29	4 (30%)	16,30,33	3.92	3 (18%)
13	BRU	4	23	13,15	13,21,22	4.29	4 (30%)	16,30,33	3.95	3 (18%)

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
13	BRU	1	23	13,15	-	0/3/21/22	0/2/2/2
13	BRU	4	23	13,15	-	0/3/21/22	0/2/2/2

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	4	23	BRU	BR-C5	-13.77	1.50	1.90
13	1	23	BRU	BR-C5	-13.69	1.50	1.90
13	1	23	BRU	O5'-C5'	-2.53	1.41	1.44
13	4	23	BRU	O5'-C5'	-2.36	1.41	1.44
13	4	23	BRU	C4-N3	3.54	1.39	1.33
13	1	23	BRU	C4-N3	3.65	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	4	23	BRU	C4-C5	5.61	1.45	1.38
13	1	23	BRU	C4-C5	5.62	1.45	1.38

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	4	23	BRU	C5-C4-N3	-6.96	115.30	123.64
13	1	23	BRU	C5-C4-N3	-6.91	115.36	123.64
13	4	23	BRU	C5-C6-N1	2.96	123.89	119.56
13	1	23	BRU	C5-C6-N1	2.99	123.93	119.56
13	1	23	BRU	C4-N3-C2	13.49	126.96	115.16
13	4	23	BRU	C4-N3-C2	13.59	127.04	115.16

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 12 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
13	1	23	BRU	6	0
13	4	23	BRU	6	0

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 16 ligands modelled in this entry, 16 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](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	1416/1733 (81%)	-0.10	8 (0%) 89 83	12, 52, 93, 119	0
1	M	1416/1733 (81%)	-0.08	12 (0%) 86 77	10, 53, 94, 123	0
2	B	1104/1224 (90%)	-0.04	6 (0%) 90 85	12, 62, 103, 120	0
2	N	1104/1224 (90%)	0.02	13 (1%) 79 67	16, 65, 104, 121	0
3	C	266/318 (83%)	-0.13	0 100 100	24, 52, 83, 100	0
3	O	266/318 (83%)	-0.14	0 100 100	25, 54, 85, 106	0
4	D	178/221 (80%)	-0.07	1 (0%) 89 83	36, 68, 100, 108	0
4	P	178/221 (80%)	0.76	22 (12%) 4 3	55, 85, 105, 113	0
5	E	214/215 (99%)	-0.03	1 (0%) 90 85	35, 80, 106, 114	0
5	Q	214/215 (99%)	0.08	1 (0%) 90 85	35, 82, 107, 119	0
6	F	87/155 (56%)	-0.30	0 100 100	13, 34, 62, 78	0
6	R	87/155 (56%)	-0.23	0 100 100	15, 34, 63, 76	0
7	G	171/171 (100%)	-0.10	0 100 100	37, 55, 85, 99	0
7	S	171/171 (100%)	0.71	17 (9%) 8 5	37, 69, 110, 116	0
8	H	134/146 (91%)	0.18	3 (2%) 62 48	60, 88, 105, 114	0
8	T	134/146 (91%)	0.16	2 (1%) 74 61	66, 89, 104, 116	0
9	I	119/122 (97%)	0.08	2 (1%) 70 57	47, 81, 102, 117	0
9	U	119/122 (97%)	0.08	3 (2%) 58 43	45, 84, 102, 119	0
10	J	65/70 (92%)	-0.18	0 100 100	23, 52, 74, 91	0
10	V	65/70 (92%)	-0.17	0 100 100	28, 53, 78, 91	0
11	K	114/120 (95%)	-0.28	0 100 100	23, 54, 72, 83	0
11	W	114/120 (95%)	-0.22	0 100 100	21, 54, 74, 84	0
12	L	46/70 (65%)	0.25	4 (8%) 11 6	37, 89, 107, 107	0
12	X	46/70 (65%)	0.26	2 (4%) 36 23	42, 93, 107, 108	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1	17/26 (65%)	0.16	1 (5%) 23 13	47, 101, 140, 144	0
13	4	17/26 (65%)	0.21	0 100 100	50, 102, 139, 142	0
14	2	6/13 (46%)	0.27	0 100 100	114, 121, 127, 133	0
14	5	6/13 (46%)	0.30	0 100 100	114, 121, 129, 136	0
15	3	11/17 (64%)	0.14	1 (9%) 10 6	88, 93, 131, 133	0
15	6	11/17 (64%)	0.08	1 (9%) 10 6	88, 96, 130, 133	0
All	All	7896/9242 (85%)	-0.02	100 (1%) 77 65	10, 61, 102, 144	0

All (100) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	B	734	HIS	5.0
4	P	188	ALA	4.9
7	S	137	ILE	4.8
4	P	185	CYS	4.5
7	S	116	PRO	4.3
9	U	119	THR	4.3
7	S	133	SER	4.0
12	L	26	THR	3.7
9	I	119	THR	3.7
2	B	167	ILE	3.6
1	M	1455	PRO	3.5
1	M	158	PRO	3.5
2	N	867	GLY	3.5
7	S	114	LEU	3.4
4	P	210	ILE	3.3
4	P	123	LEU	3.2
1	M	69	THR	3.2
4	P	134	THR	3.2
1	A	69	THR	3.2
2	N	734	HIS	3.2
1	A	255	SER	3.1
2	N	918	ILE	3.1
2	N	715	ALA	3.1
7	S	130	TYR	3.1
7	S	117	GLN	3.1
1	M	2	VAL	3.0
1	A	2	VAL	3.0
4	P	126	ILE	3.0
2	N	733	HIS	3.0

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Mol	Chain	Res	Type	RSRZ
12	L	25	ALA	3.0
9	U	120	GLN	3.0
4	P	203	SER	2.9
7	S	103	VAL	2.8
2	N	709	ASP	2.8
1	M	155	GLU	2.8
7	S	134	GLU	2.7
2	N	246	LYS	2.7
2	N	250	PHE	2.7
1	M	255	SER	2.7
4	P	144	THR	2.7
2	N	167	ILE	2.7
12	X	27	LEU	2.6
7	S	132	SER	2.6
7	S	84	GLY	2.6
4	P	38	ILE	2.6
2	N	713	ALA	2.6
4	P	136	GLY	2.6
1	A	1455	PRO	2.6
12	X	25	ALA	2.5
1	M	195	ASP	2.5
12	L	43	THR	2.5
4	P	207	LEU	2.5
8	T	76	THR	2.5
2	N	868	MET	2.5
4	P	119	ARG	2.5
7	S	162	SER	2.5
12	L	27	LEU	2.4
2	B	715	ALA	2.4
7	S	101	VAL	2.4
2	N	869	SER	2.4
9	U	117	LYS	2.4
2	N	247	GLY	2.4
8	H	76	THR	2.3
9	I	60	GLN	2.3
8	H	108	SER	2.3
15	3	0	U	2.3
7	S	118	ASP	2.3
5	E	126	SER	2.3
4	P	217	LEU	2.3
8	H	139	ASN	2.3
4	P	200	ASN	2.3

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Mol	Chain	Res	Type	RSRZ
4	P	141	LEU	2.3
7	S	91	VAL	2.3
4	P	213	GLU	2.3
1	M	257	ARG	2.2
7	S	166	ASP	2.2
15	6	0	U	2.2
4	P	12	ARG	2.2
4	P	118	THR	2.2
8	T	2	SER	2.2
4	P	189	ASP	2.2
1	M	44	THR	2.2
1	M	173	THR	2.2
2	B	918	ILE	2.2
7	S	99	PHE	2.1
4	D	18	VAL	2.1
4	P	18	VAL	2.1
1	A	1092	LYS	2.1
2	B	470	LYS	2.1
7	S	113	HIS	2.1
1	A	256	GLN	2.1
4	P	154	PHE	2.1
1	A	253	ASN	2.1
5	Q	50	MET	2.1
1	M	161	LEU	2.1
4	P	206	GLU	2.1
13	1	12	DG	2.1
1	M	71	GLN	2.0
2	B	250	PHE	2.0
1	A	195	ASP	2.0

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th 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	LLDF	B-factors(Å ²)	Q<0.9
13	BRU	1	23	20/21	0.70	0.21	-	85,89,94,97	0
13	BRU	4	23	20/21	0.75	0.19	-	83,89,95,98	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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th 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	LLDF	B-factors(\AA^2)	Q<0.9
16	ZN	V	9998	1/1	0.99	0.25	1.91	52,52,52,52	0
16	ZN	J	9990	1/1	0.97	0.23	1.80	52,52,52,52	0
16	ZN	I	9988	1/1	0.98	0.23	1.35	65,65,65,65	0
16	ZN	C	9987	1/1	0.99	0.22	1.01	28,28,28,28	0
16	ZN	O	9995	1/1	0.98	0.23	0.85	43,43,43,43	0
16	ZN	U	9996	1/1	0.99	0.22	0.84	71,71,71,71	0
16	ZN	M	9992	1/1	0.95	0.22	0.48	74,74,74,74	0
16	ZN	N	9994	1/1	0.98	0.22	0.48	38,38,38,38	0
16	ZN	B	9986	1/1	0.99	0.24	0.44	33,33,33,33	0
16	ZN	A	9985	1/1	0.98	0.22	-0.24	40,40,40,40	0
16	ZN	A	9984	1/1	0.96	0.19	-0.29	70,70,70,70	0
16	ZN	M	9993	1/1	0.99	0.23	-0.61	37,37,37,37	0
16	ZN	I	9989	1/1	0.90	0.17	-0.66	117,117,117,117	0
16	ZN	U	9997	1/1	0.97	0.18	-0.79	119,119,119,119	0
16	ZN	L	9991	1/1	0.99	0.15	-0.93	90,90,90,90	0
16	ZN	X	9999	1/1	0.97	0.17	-1.08	103,103,103,103	0

6.5 Other polymers [i](#)

There are no such residues in this entry.