



Full wwPDB X-ray Structure Validation Report ⓘ

Jun 17, 2024 – 11:01 PM EDT

PDB ID : 3QT1
Title : RNA polymerase II variant containing A Chimeric RPB9-C11 subunit
Authors : Ruan, W.; Lehmann, E.; Thomm, M.; Kostrewa, D.; Cramer, P.
Deposited on : 2011-02-22
Resolution : 4.30 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

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467
Xtrriage (Phenix) : 1.20.1
EDS : 2.37.1
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.37.1

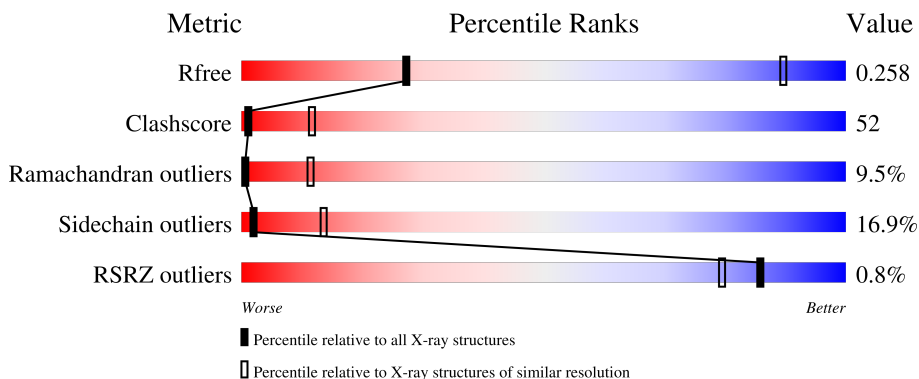
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 4.30 Å.

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



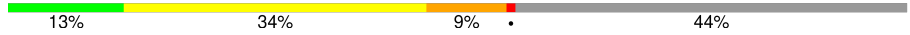



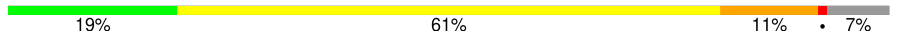
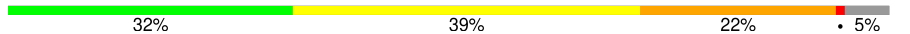
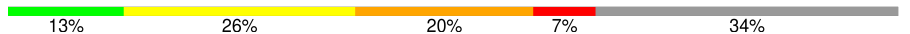
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1014 (4.80-3.80)
Clashscore	141614	1077 (4.80-3.80)
Ramachandran outliers	138981	1029 (4.80-3.80)
Sidechain outliers	138945	1012 (4.80-3.80)
RSRZ outliers	127900	1075 (4.90-3.70)

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

Mol	Chain	Length	Quality of chain
1	A	1733	
2	B	1224	
3	C	318	
4	D	219	
5	E	215	

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Mol	Chain	Length	Quality of chain
6	F	155	
7	G	171	
8	H	146	
9	I	133	
10	J	70	
11	K	120	
12	L	70	

2 Entry composition [i](#)

There are 14 unique types of molecules in this entry. The entry contains 30535 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
			Total	C	N	O	S			
1	A	1416	11143	7021	1949	2111	62	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	1103	8770	5554	1535	1626	55	0	0	0

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 9 is a protein called DNA-directed RNA polymerase II subunit RPB9, DNA-directed RNA polymerase III subunit RPC10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
9	I	47	398	246	72	75	5	0	0	0

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

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

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

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

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

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

- Molecule 13 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
13	A	2	Total	Zn	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
13	B	1	Total 1	Zn 1	0	0
13	C	1	Total 1	Zn 1	0	0
13	I	1	Total 1	Zn 1	0	0
13	J	1	Total 1	Zn 1	0	0
13	L	1	Total 1	Zn 1	0	0

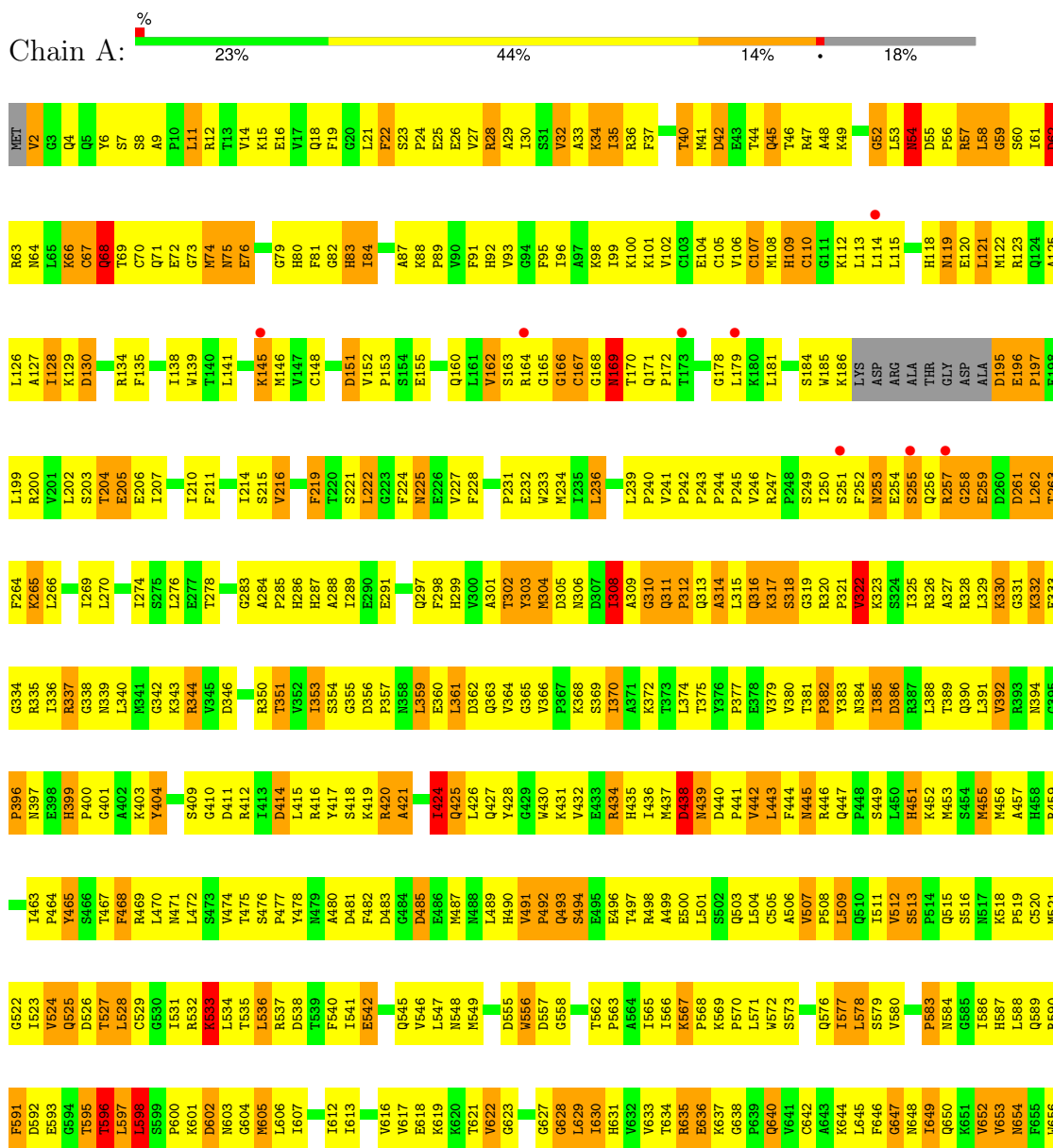
- Molecule 14 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
14	A	1	Total 1	Mg 1	0	0

3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide 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.

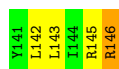
- Molecule 1: DNA-directed RNA polymerase II subunit RPB1



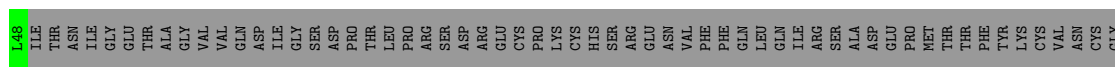
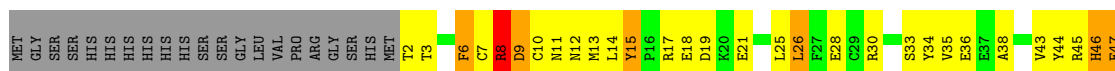
PRO	SER	TYR	ASP	P1455	M1393	T1325	K1262	A1200	A1137	A1076	A1010	V946	D871	S803	A729	L657
SER	TYR	GLY	TYR	GLU	T1326	R1326	I1263	A1201	I1138	T1077	Q1011	V947	S872	Y804	G730	L658
TYR	GLY	GLN	GLY	GLN	E1139	E1139	E1264	K1205	H1139	Q1078	R1012	F947	M873	L805	L731	H659
GLY	ASN	LEU	ASN	LEU	M1265	M1265	M1265	L1206	H1140	Q1079	D1013		D874	L806	L732	N660
ASN	LEU	LEU	LEU	LEU	L1327	L1327	L1266	L1207	T1141	T1080	A1014	A952	A875	L807	A733	G661
LEU	LEU	LEU	LEU	LEU	L1268	L1268	L1268	L1208	T1142	T1081	V1015	A953	A876	L808	A734	F662
LEU	LEU	LEU	LEU	LEU	L1269	L1269	L1269	M1209	L1143	ASN	T1016	A954	A877	P810	V735	S663
LEU	LEU	LEU	LEU	LEU	L1270	L1270	L1270	Q1210	L1144	THR	L1017	A955	A878	Q811	N736	T664
LEU	LEU	LEU	LEU	LEU	L1271	L1271	L1271	Q1211	L1145	PHE	L1018	A956	A879	E812	L737	G665
LEU	LEU	LEU	LEU	LEU	L1272	L1272	L1272	Q1212	L1146	HIS	F1019	A957	A880	F813	L738	G666
LEU	LEU	LEU	LEU	LEU	L1273	L1273	L1273	V1212	L1147	PHE	C1020	A958	A881	D739	G667	
LEU	LEU	LEU	LEU	LEU	L1274	L1274	L1274	V1213	L1148	ALA	G1021	A959	A882	L740	D668	
LEU	LEU	LEU	LEU	LEU	L1275	L1275	L1275	G1214	L1149	GLY	L1021	A960	A883	M741	D669	
LEU	LEU	LEU	LEU	LEU	G1276	G1276	G1276	R1215	S1150	VAL	S1024	A961	A884	M742	L670	
LEU	LEU	LEU	LEU	LEU	V1277	V1277	V1277	E1151	E1151	ALA	R1025	A962	A885	V743	A671	
LEU	LEU	LEU	LEU	LEU	I1152	I1152	I1152	E1152	E1152	SER	L1026	A963	A886	V744	A672	
LEU	LEU	LEU	LEU	LEU	M1278	M1278	M1278	Y1153	Y1153	SER	A1027	A964	A887	K744	D672	
LEU	LEU	LEU	LEU	LEU	L1279	L1279	L1279	Y1154	Y1154	K1093	T1028	A965	A888	Q745		
LEU	LEU	LEU	LEU	LEU	E1280	E1280	E1280	D1155	D1155	V1094	R1029	A966	A889	M748	T675	
LEU	LEU	LEU	LEU	LEU	R1281	R1281	R1281	P1156	P1156	S1096	L1030	A967	A890	A749	M676	
LEU	LEU	LEU	LEU	LEU	L1282	L1282	L1282	D1157	D1157	S1097	V1031	A968	A891	A828	M677	
LEU	LEU	LEU	LEU	LEU	M1283	M1283	M1283	P1158	P1158	G1097	Q969	A969	A892	R829	E678	
LEU	LEU	LEU	LEU	LEU	Y1284	Y1284	Y1284	R1159	R1159	V1098	L1032	A970	A893	D900	T679	
LEU	LEU	LEU	LEU	LEU	L1285	L1285	L1285	S1160	S1160	P1099	L1033	A971	A894	K830	L756	
LEU	LEU	LEU	LEU	LEU	V1286	V1286	V1286	T1161	T1161	H1100	E1034	A972	A895	L901	T680	
LEU	LEU	LEU	LEU	LEU	I1227	I1227	I1227	V1162	V1162	R1101	Y1035	A973	A896	T831	T681	
LEU	LEU	LEU	LEU	LEU	M1228	M1228	M1228	I1163	I1163	K1102	R1036	A974	A897	T832	T682	
LEU	LEU	LEU	LEU	LEU	S1229	S1229	S1229	P1164	P1164	H1103	L1037	A975	A898	Q760	A684	
LEU	LEU	LEU	LEU	LEU	I1230	I1230	I1230	P1165	P1165	H1104	T1038	A976	A899	E685	A686	
LEU	LEU	LEU	LEU	LEU	D1231	D1231	D1231	D1166	D1166	H1105	Q1039	A977	A900	Y836		
LEU	LEU	LEU	LEU	LEU	S1232	S1232	S1232	E1167	E1167	H1106	Q1040	A978	A901	L908		
LEU	LEU	LEU	LEU	LEU	D1233	D1233	D1233	L1170	L1170	H1107	G1041	A979	A902	Q838		
LEU	LEU	LEU	LEU	LEU	E1234	E1234	E1234	I1171	I1171	H1108	A1042	A980	A903	R840		
LEU	LEU	LEU	LEU	LEU	K1235	K1235	K1235	Q1171	Q1171	H1109	D1043	A981	A904	L841		
LEU	LEU	LEU	LEU	LEU	L1236	L1236	L1236	M1172	M1172	H1110	W1044	A982	A905	L842		
LEU	LEU	LEU	LEU	LEU	I1237	I1237	I1237	H1173	H1173	H1111	V1045	A983	A906	L843		
LEU	LEU	LEU	LEU	LEU	L1238	L1238	L1238	F1174	F1174	H1112	L1046	A984	A907	E844		
LEU	LEU	LEU	LEU	LEU	R1239	R1239	R1239	S1175	S1175	H1113	S1047	A985	A908	D845		
LEU	LEU	LEU	LEU	LEU	C1240	C1240	C1240	LEU	LEU	H1114	M1048	A986	A909	L846		
LEU	LEU	LEU	LEU	LEU	R1241	R1241	R1241	LEU	LEU	P1114	D1049	A987	A910	M849		
LEU	LEU	LEU	LEU	LEU	V1242	V1242	V1242	LEU	LEU	H1115	F1042	A988	A911	V850		
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LEU	LEU	LEU	LEU	LEU	SER	SER	SER	LEU	LEU	H1119	F1056	A992	A915	M854		
LEU	LEU	LEU	LEU	LEU	SER	SER	SER	LEU	LEU	H1120	F1057	A993	A916	L855		
LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	H1121	F1058	A994	A917	T856		
LEU	LEU	LEU	LEU	LEU	ASP	ASP	ASP	LEU	LEU	H1122	H1059	A995	A918	T857		
LEU	LEU	LEU	LEU	LEU	ALA	ALA	ALA	LEU	LEU	H1123	H1060	A996	A919	L784		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1124	H1061	A997	A920	M858		
LEU	LEU	LEU	LEU	LEU	THR	THR	THR	LEU	LEU	H1125	H1062	A998	A921	L785		
LEU	LEU	LEU	LEU	LEU	THR	THR	THR	LEU	LEU	H1126	H1063	A999	A922	H786		
LEU	LEU	LEU	LEU	LEU	THR	THR	THR	LEU	LEU	H1127	H1064	A1000	A923	L860		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1128	H1065	A1001	A924	G861		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1129	H1066	A1002	A925	S862		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1130	H1067	A1003	A926	E863		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1131	H1068	A1004	A927	L864		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1132	H1069	A1005	A928	F865		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1133	H1070	A1006	A929	L867		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1134	H1071	A1007	A930	Y868		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1135	H1072	A1008	A931	E869		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1136	H1073	A1009	A932	D727		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1137	H1074	A1010	A933	E870		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1138	H1075	A1011	A934	M802		
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1139	H1076	A1012	A935			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1140	H1077	A1013	A936			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1141	H1078	A1014	A937			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1142	H1079	A1015	A938			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1143	H1080	A1016	A939			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1144	H1081	A1017	A940			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1145	H1082	A1018	A941			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1146	H1083	A1019	A942			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1147	H1084	A1020	A943			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1148	H1085	A1021	A944			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1149	H1086	A1022	A945			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1150	H1087	A1023	A946			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1151	H1088	A1024	A947			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1152	H1089	A1025	A948			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1153	H1090	A1026	A949			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1154	H1091	A1027	A950			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1155	H1092	A1028	A951			
LEU	LEU	LEU	LEU	LEU	GLU	GLU	GLU	LEU	LEU	H1156</						



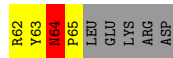
- Molecule 8: DNA-directed RNA polymerases I, II, and III subunit RPABC3



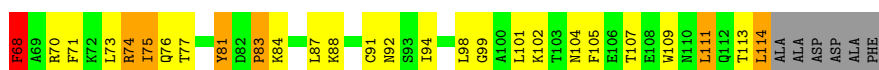
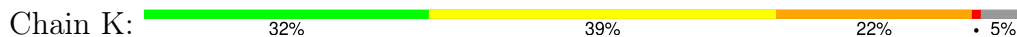
- Molecule 9: DNA-directed RNA polymerase II subunit RPB9, DNA-directed RNA polymerase III subunit RPC10



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

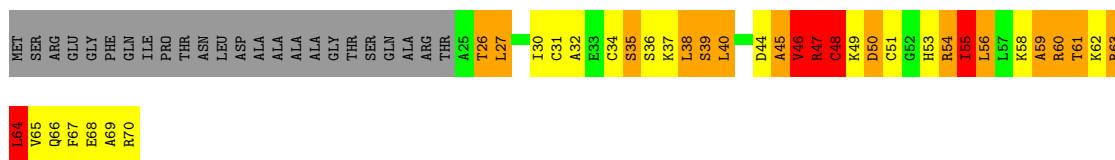


- Molecule 11: DNA-directed RNA polymerase II subunit RPB11



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

Chain L: 13% 26% 20% 7% 34%



4 Data and refinement statistics

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α , β , γ	222.38Å 393.38Å 281.43Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	48.60 – 4.30 48.66 – 4.30	Depositor EDS
% Data completeness (in resolution range)	98.5 (48.60-4.30) 98.5 (48.66-4.30)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.67 (at 4.29Å)	Xtrriage
Refinement program	PHENIX (phenix.refine: 1.6.1_357)	Depositor
R, R_{free}	0.235 , 0.281 0.211 , 0.258	Depositor DCC
R_{free} test set	2022 reflections (2.45%)	wwPDB-VP
Wilson B-factor (Å ²)	172.3	Xtrriage
Anisotropy	0.553	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.25 , 120.0	EDS
L-test for twinning ²	$\langle L \rangle = 0.41$, $\langle L^2 \rangle = 0.24$	Xtrriage
Estimated twinning fraction	0.057 for 1/2*h-1/2*k,-3/2*h-1/2*k,-l 0.067 for 1/2*h+1/2*k,3/2*h-1/2*k,-l	Xtrriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	30535	wwPDB-VP
Average B, all atoms (Å ²)	144.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.83% 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 [i](#)

5.1 Standard geometry [i](#)

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

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	0.35	0/11342	0.58	0/15337
2	B	0.34	0/8939	0.56	0/12051
3	C	0.33	0/2133	0.56	0/2891
4	D	0.32	0/1444	0.52	0/1935
5	E	0.32	0/1788	0.54	0/2406
6	F	0.40	0/717	0.63	0/967
7	G	0.33	0/1368	0.55	0/1844
8	H	0.29	0/1094	0.50	0/1481
9	I	0.36	0/406	0.57	0/546
10	J	0.33	0/541	0.57	0/727
11	K	0.38	0/937	0.56	0/1265
12	L	0.36	0/365	0.64	0/485
All	All	0.34	0/31074	0.56	0/41935

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

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	1243	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	B	8770	0	8795	984	0
3	C	2095	0	2051	223	0
4	D	1434	0	1460	163	0
5	E	1752	0	1776	172	0
6	F	705	0	731	101	0
7	G	1340	0	1357	153	0
8	H	1076	0	1046	97	0
9	I	398	0	370	37	0
10	J	532	0	542	92	0
11	K	919	0	929	113	0
12	L	363	0	386	65	0
13	A	2	0	0	0	0
13	B	1	0	0	0	0
13	C	1	0	0	0	0
13	I	1	0	0	0	0
13	J	1	0	0	0	0
13	L	1	0	0	0	0
14	A	1	0	0	0	0
All	All	30535	0	30660	3185	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 52.

All (3185) 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)
1:A:775:ILE:HB	1:A:797:LYS:O	1.37	1.23
1:A:567:LYS:HB2	1:A:568:PRO:HD2	1.21	1.17
2:B:763:GLN:HG2	2:B:765:PRO:HD2	1.26	1.15
9:I:25:LEU:HB3	9:I:38:ALA:HB2	1.17	1.14
2:B:577:ALA:HB1	2:B:589:VAL:HG11	1.30	1.13
4:D:134:THR:HG22	4:D:135:GLY:H	1.06	1.10
10:J:64:ASN:HB3	10:J:65:PRO:HD3	1.30	1.10
1:A:482:PHE:HB2	2:B:836:GLU:O	1.52	1.09
5:E:94:LYS:HE2	5:E:98:ILE:HD11	1.35	1.07
2:B:824:ILE:HG12	10:J:48:ARG:HH12	1.14	1.03
2:B:1116:ARG:HG3	2:B:1198:TYR:CD2	1.93	1.03
2:B:295:GLY:H	2:B:298:LEU:HD23	1.19	1.03
2:B:510:LYS:HG3	2:B:511:PRO:HD3	1.37	1.02
1:A:855:THR:HG21	1:A:857:ARG:HE	1.23	1.01
11:K:65:HIS:CD2	11:K:67:PHE:H	1.80	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:45:ILE:HA	7:G:78:VAL:HG12	1.44	0.99
4:D:66:ARG:HH22	7:G:48:VAL:HG23	1.26	0.98
2:B:210:LYS:HD3	2:B:482:VAL:HG13	1.41	0.98
4:D:188:ALA:HA	4:D:191:ALA:HB3	1.44	0.98
1:A:1116:LEU:HB3	1:A:1308:THR:HG21	1.44	0.98
2:B:1130:PHE:HE2	2:B:1151:LEU:HD21	1.27	0.97
2:B:706:GLN:HB2	2:B:709:ASP:HB2	1.47	0.97
2:B:273:LEU:HD21	2:B:360:PHE:HD1	1.28	0.96
1:A:845:LEU:HD12	1:A:1069:ALA:HB2	1.47	0.96
1:A:741:ASN:HD21	1:A:743:VAL:HG23	1.26	0.96
3:C:103:ALA:HB3	3:C:153:LEU:HB3	1.47	0.96
1:A:814:PHE:HD1	2:B:519:TRP:HE3	1.03	0.95
1:A:95:PHE:HD1	1:A:234:MET:HG2	1.30	0.95
7:G:13:LEU:HD21	7:G:17:PHE:HD2	1.32	0.95
2:B:430:ARG:HG2	2:B:430:ARG:HH11	1.29	0.95
1:A:903:ASN:HD22	1:A:905:ASP:H	1.01	0.94
2:B:29:ASP:HB3	2:B:658:ILE:HD13	1.45	0.94
1:A:463:ILE:HB	1:A:464:PRO:HD2	1.49	0.94
1:A:361:LEU:HA	1:A:471:ASN:HD22	1.32	0.94
5:E:124:VAL:HG13	5:E:132:ILE:HB	1.47	0.93
2:B:846:ILE:HD13	2:B:974:PRO:HB2	1.51	0.93
2:B:996:ARG:HH22	3:C:175:ALA:H	1.07	0.93
1:A:121:LEU:HD22	1:A:141:LEU:HD21	1.48	0.93
2:B:848:ARG:HH22	2:B:996:ARG:HD2	1.33	0.93
1:A:1156:PRO:HA	1:A:1190:PRO:HB3	1.51	0.93
1:A:1036:ARG:HG2	1:A:1036:ARG:HH11	1.32	0.92
1:A:600:PRO:HG2	1:A:601:LYS:HG3	1.51	0.92
2:B:515:HIS:HD2	2:B:517:THR:H	1.08	0.92
1:A:326:ARG:HG3	1:A:1406:VAL:HG21	1.51	0.91
2:B:1162:ILE:HD11	2:B:1194:ILE:HG21	1.51	0.91
2:B:351:TYR:CE1	2:B:355:ILE:HD11	2.05	0.90
2:B:1034:VAL:HG22	2:B:1059:LEU:HD13	1.51	0.90
1:A:239:LEU:HD12	1:A:240:PRO:HD2	1.53	0.90
1:A:95:PHE:CD1	1:A:234:MET:HG2	2.06	0.90
1:A:53:LEU:HD23	1:A:54:ASN:H	1.35	0.90
1:A:591:PHE:HD2	1:A:595:THR:HB	1.34	0.90
7:G:139:ILE:HG23	7:G:140:LYS:HG3	1.53	0.90
1:A:216:VAL:O	1:A:219:PHE:HB2	1.71	0.90
1:A:265:LYS:HA	1:A:265:LYS:HE3	1.54	0.90
8:H:130:ARG:HH11	8:H:130:ARG:H	1.16	0.90
1:A:899:VAL:HB	1:A:929:LEU:HD12	1.53	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1116:LEU:HB3	1:A:1308:THR:CG2	2.01	0.90
2:B:1181:GLU:HA	2:B:1187:ASN:O	1.72	0.89
1:A:254:GLU:HB2	2:B:935:ARG:HH22	1.36	0.89
1:A:265:LYS:HD2	1:A:322:VAL:HG21	1.55	0.89
11:K:65:HIS:HD2	11:K:67:PHE:N	1.70	0.89
1:A:567:LYS:CB	1:A:568:PRO:HD2	2.01	0.89
6:F:90:ARG:HD2	6:F:155:LEU:HD13	1.55	0.89
3:C:63:ILE:HA	3:C:66:ARG:HG3	1.51	0.89
3:C:57:VAL:HG11	10:J:60:PHE:HB3	1.55	0.89
2:B:515:HIS:CD2	2:B:517:THR:H	1.90	0.88
4:D:134:THR:HG22	4:D:135:GLY:N	1.87	0.88
2:B:975:GLN:HG3	2:B:976:ILE:H	1.38	0.88
1:A:1006:ILE:HD11	5:E:163:GLU:HG3	1.56	0.88
2:B:824:ILE:HG12	10:J:48:ARG:NH1	1.88	0.88
11:K:65:HIS:HD2	11:K:67:PHE:H	0.90	0.88
2:B:230:ALA:HB3	2:B:231:PRO:HD3	1.54	0.87
4:D:71:LYS:HG3	4:D:74:GLN:HG3	1.54	0.87
1:A:524:VAL:HG12	1:A:525:GLN:H	1.40	0.87
1:A:666:ILE:HG23	2:B:1026:LEU:HB2	1.57	0.87
1:A:425:GLN:H	1:A:425:GLN:NE2	1.72	0.87
1:A:506:ALA:HB1	1:A:508:PRO:HD2	1.57	0.87
6:F:101:ILE:HD13	6:F:120:ILE:HG21	1.55	0.87
1:A:14:VAL:H	1:A:1432:GLN:HE22	1.22	0.87
2:B:408:LEU:HD11	2:B:545:ILE:HG13	1.55	0.87
4:D:56:ARG:HA	4:D:59:ILE:HD12	1.55	0.87
1:A:814:PHE:CD1	2:B:519:TRP:HE3	1.92	0.86
1:A:506:ALA:HB3	1:A:509:LEU:HG	1.56	0.86
4:D:179:GLN:HE22	7:G:1:MET:HB2	1.38	0.86
11:K:56:VAL:HA	11:K:77:THR:HG22	1.56	0.86
1:A:933:TYR:O	1:A:933:TYR:HD2	1.59	0.85
3:C:115:SER:HB3	3:C:141:GLY:O	1.76	0.85
1:A:1318:THR:HB	5:E:141:VAL:HG11	1.57	0.85
1:A:814:PHE:HD1	2:B:519:TRP:CE3	1.93	0.85
2:B:521:LEU:HD22	2:B:633:VAL:HG12	1.58	0.85
3:C:88:CYS:SG	3:C:91:HIS:HA	2.16	0.85
12:L:39:SER:O	12:L:40:LEU:HG	1.77	0.85
2:B:1130:PHE:CE2	2:B:1151:LEU:HD21	2.12	0.84
1:A:492:PRO:HG3	1:A:501:LEU:HD12	1.59	0.84
1:A:567:LYS:HB2	1:A:568:PRO:CD	2.06	0.84
2:B:810:GLU:HA	2:B:815:ARG:HH22	1.42	0.84
10:J:36:LEU:HB2	10:J:47:ARG:NH1	1.92	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:19:PHE:HZ	1:A:1397:LEU:HD21	1.41	0.84
1:A:35:ILE:H	1:A:35:ILE:HD12	1.42	0.84
1:A:256:GLN:O	1:A:257:ARG:HB2	1.76	0.84
1:A:1035:TYR:O	1:A:1036:ARG:HB2	1.77	0.84
2:B:65:GLU:OE1	2:B:418:LYS:HE3	1.76	0.84
1:A:110:CYS:HB2	1:A:167:CYS:SG	2.17	0.84
1:A:1094:VAL:HG13	1:A:1113:THR:HB	1.57	0.84
2:B:613:VAL:HG13	2:B:627:PHE:O	1.77	0.84
4:D:134:THR:CG2	4:D:135:GLY:H	1.89	0.84
10:J:64:ASN:HB3	10:J:65:PRO:CD	2.08	0.84
1:A:40:THR:HB	1:A:41:MET:HG2	1.60	0.84
8:H:4:THR:HA	8:H:60:ALA:HB2	1.58	0.83
9:I:35:VAL:HG12	9:I:36:GLU:H	1.43	0.83
1:A:19:PHE:CZ	1:A:1397:LEU:HD21	2.13	0.83
1:A:770:VAL:HG12	1:A:771:GLU:HG3	1.61	0.83
7:G:13:LEU:HD21	7:G:17:PHE:CD2	2.14	0.83
2:B:405:ARG:HB3	2:B:631:GLY:HA3	1.61	0.83
1:A:868:TYR:HE1	1:A:1064:VAL:HG13	1.43	0.83
2:B:408:LEU:O	2:B:412:LEU:HG	1.79	0.83
2:B:241:ARG:HA	2:B:253:THR:HG22	1.58	0.83
1:A:664:THR:HA	1:A:742:ASN:HD22	1.43	0.82
6:F:100:GLN:O	6:F:105:ALA:HB2	1.80	0.82
11:K:21:ILE:HG12	11:K:33:ILE:HG23	1.58	0.82
1:A:591:PHE:CD2	1:A:595:THR:HB	2.14	0.82
1:A:335:ARG:HD3	1:A:339:ASN:HD22	1.43	0.82
1:A:903:ASN:ND2	1:A:905:ASP:H	1.77	0.82
2:B:957:ASN:HD21	2:B:961:LEU:HB2	1.44	0.82
9:I:6:PHE:HA	9:I:14:LEU:HG	1.59	0.82
1:A:954:TRP:CZ3	5:E:203:GLU:HB2	2.15	0.82
1:A:483:ASP:HB2	2:B:987:LYS:HG3	1.62	0.82
7:G:158:HIS:HD2	7:G:159:ALA:H	1.25	0.82
2:B:172:ILE:HD13	2:B:178:ASN:HD22	1.45	0.82
2:B:1159:ARG:HB3	2:B:1159:ARG:HH11	1.45	0.82
1:A:414:ASP:HB3	1:A:417:TYR:HB2	1.60	0.82
10:J:8:PHE:H	10:J:8:PHE:HD2	1.27	0.82
1:A:107:CYS:HA	1:A:171:GLN:HE22	1.45	0.82
2:B:430:ARG:HH11	2:B:430:ARG:CG	1.93	0.82
2:B:570:VAL:HB	2:B:573:GLN:HB3	1.61	0.82
3:C:166:GLU:O	11:K:6:ARG:HG3	1.80	0.82
12:L:26:THR:HG22	12:L:27:LEU:H	1.44	0.82
2:B:202:TYR:H	2:B:202:TYR:HD2	1.27	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:775:ILE:CB	1:A:797:LYS:O	2.26	0.81
1:A:254:GLU:HB2	2:B:935:ARG:NH2	1.95	0.81
2:B:114:PRO:HG3	2:B:181:LEU:HD11	1.62	0.81
2:B:211:VAL:O	2:B:480:SER:HA	1.78	0.81
2:B:406:LEU:HD12	2:B:545:ILE:HD11	1.62	0.81
1:A:342:GLY:HA3	2:B:1131:GLY:HA2	1.59	0.81
1:A:1197:LEU:HD11	1:A:1238:ILE:HD11	1.62	0.81
2:B:345:LYS:HG2	2:B:346:GLU:H	1.44	0.81
2:B:999:MET:HG3	2:B:1000:PRO:HD2	1.63	0.81
12:L:53:HIS:HB3	12:L:55:ILE:CD1	2.10	0.80
1:A:845:LEU:CD1	1:A:1069:ALA:HB2	2.11	0.80
3:C:39:ALA:HA	3:C:164:ALA:HB3	1.64	0.80
1:A:590:ARG:O	1:A:591:PHE:HB2	1.81	0.80
2:B:1076:HIS:HD2	11:K:40:HIS:CE1	1.99	0.80
3:C:148:ARG:H	3:C:151:GLN:HG3	1.46	0.80
10:J:6:ARG:HA	10:J:12:LYS:O	1.81	0.80
1:A:1354:ASN:O	1:A:1358:SER:HB3	1.81	0.80
2:B:899:ILE:HG21	2:B:949:VAL:HG21	1.62	0.80
1:A:332:LYS:HG2	1:A:333:GLU:HG2	1.64	0.80
2:B:801:LYS:O	10:J:52:THR:HG23	1.82	0.80
3:C:118:LEU:HD12	3:C:132:PRO:HG3	1.63	0.80
1:A:362:ASP:HB3	1:A:507:VAL:HG12	1.61	0.80
1:A:868:TYR:CE1	1:A:1064:VAL:HG13	2.17	0.80
2:B:277:LYS:HE2	2:B:336:ARG:C	2.02	0.80
2:B:1157:ALA:O	2:B:1158:PHE:HB2	1.82	0.80
7:G:158:HIS:CD2	7:G:159:ALA:H	1.99	0.80
10:J:1:MET:O	10:J:2:ILE:HG22	1.81	0.80
1:A:353:ILE:HG21	1:A:487:MET:HG3	1.64	0.79
2:B:1158:PHE:HE2	2:B:1160:VAL:HG22	1.47	0.79
4:D:54:GLU:O	4:D:58:VAL:HG23	1.81	0.79
11:K:5:ASP:HB2	11:K:7:PHE:CZ	2.17	0.79
2:B:295:GLY:N	2:B:298:LEU:HD23	1.98	0.79
2:B:843:GLN:HB2	2:B:993:THR:HB	1.64	0.79
2:B:996:ARG:NH2	3:C:175:ALA:H	1.78	0.79
1:A:1094:VAL:HG22	1:A:1113:THR:HG21	1.65	0.79
8:H:102:TYR:H	8:H:102:TYR:HD2	1.28	0.79
3:C:259:LEU:HD21	11:K:92:ASN:OD1	1.83	0.79
4:D:53:SER:HB3	4:D:152:SER:HB3	1.65	0.79
2:B:840:ILE:HB	2:B:1011:ILE:HB	1.63	0.79
8:H:13:SER:HB3	8:H:27:GLU:O	1.83	0.79
7:G:111:THR:HG22	7:G:114:LEU:HD22	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:855:THR:CG2	1:A:857:ARG:HE	1.95	0.78
4:D:25:ALA:CB	4:D:196:PRO:HG2	2.13	0.78
2:B:94:LYS:HG2	2:B:95:ILE:H	1.48	0.78
1:A:391:LEU:HD23	1:A:400:PRO:O	1.84	0.78
3:C:242:GLN:HE21	3:C:246:ARG:HE	1.27	0.78
4:D:138:ASN:HB3	4:D:141:LEU:HB3	1.65	0.78
1:A:537:ARG:HD2	8:H:20:TYR:CE1	2.18	0.78
2:B:261:ARG:HH11	2:B:261:ARG:HB3	1.46	0.78
3:C:184:ASN:HD21	3:C:189:THR:H	1.31	0.78
11:K:113:THR:HG22	11:K:114:LEU:H	1.49	0.78
1:A:852:TYR:CE2	1:A:1060:PRO:HB2	2.19	0.78
2:B:280:ILE:HG23	2:B:284:ILE:HD12	1.66	0.78
7:G:31:LEU:HD22	7:G:48:VAL:HG21	1.64	0.78
1:A:1124:HIS:H	1:A:1124:HIS:CD2	2.02	0.78
2:B:955:THR:HG22	2:B:956:THR:N	1.98	0.78
1:A:1102:LYS:HG2	1:A:1106:ASN:HD21	1.48	0.78
6:F:87:LYS:HG3	6:F:88:TYR:CD1	2.19	0.78
2:B:702:LEU:HD23	2:B:738:PHE:H	1.49	0.77
1:A:1205:LYS:O	1:A:1207:LEU:HG	1.84	0.77
10:J:35:ALA:O	10:J:39:LEU:HD12	1.84	0.77
1:A:134:ARG:HG2	1:A:138:ILE:HD11	1.67	0.77
1:A:946:VAL:HG22	5:E:201:LYS:HD2	1.65	0.77
2:B:174:LEU:HD21	2:B:204:ILE:HD11	1.67	0.77
1:A:518:LYS:HB2	1:A:519:PRO:HD2	1.67	0.77
3:C:70:ILE:O	3:C:72:LEU:HD12	1.83	0.77
1:A:70:CYS:O	1:A:72:GLU:HG2	1.84	0.77
1:A:899:VAL:HG13	1:A:908:LEU:HD21	1.67	0.77
2:B:326:ASP:O	2:B:330:ALA:HB2	1.85	0.77
1:A:66:LYS:HD3	1:A:67:CYS:N	2.00	0.77
1:A:351:THR:HG23	1:A:468:PHE:CE1	2.20	0.77
1:A:34:LYS:HE3	1:A:57:ARG:HH12	1.47	0.77
1:A:108:MET:HB3	1:A:210:ILE:HD13	1.67	0.77
1:A:881:GLN:NE2	1:A:959:ASN:HA	1.99	0.77
2:B:36:ALA:HA	2:B:39:ARG:HD2	1.65	0.77
12:L:32:ALA:HB2	12:L:55:ILE:HG13	1.66	0.77
1:A:336:ILE:HD11	2:B:1203:LEU:CD1	2.15	0.77
2:B:619:ILE:HG22	2:B:620:ARG:HG3	1.66	0.77
3:C:41:ILE:O	3:C:163:ILE:HG22	1.84	0.76
5:E:202:SER:OG	5:E:204:THR:HG22	1.85	0.76
3:C:111:THR:HB	3:C:147:LEU:HG	1.67	0.76
5:E:124:VAL:HB	5:E:125:PRO:HD3	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:49:VAL:HG22	3:C:157:CYS:SG	2.25	0.76
4:D:56:ARG:HD3	4:D:149:THR:HA	1.65	0.76
7:G:115:MET:HB3	7:G:119:LEU:HD23	1.67	0.76
12:L:32:ALA:CB	12:L:55:ILE:HG13	2.16	0.76
2:B:653:VAL:HG22	2:B:689:LEU:HB3	1.66	0.76
1:A:672:ASP:HB3	1:A:736:ASN:HD21	1.51	0.76
2:B:613:VAL:HG22	2:B:628:THR:HA	1.67	0.76
1:A:1313:LEU:HD23	1:A:1338:VAL:HG21	1.68	0.76
2:B:216:GLU:HA	2:B:406:LEU:HD23	1.68	0.76
4:D:206:GLU:O	4:D:210:ILE:HG13	1.85	0.76
10:J:8:PHE:HD2	10:J:8:PHE:N	1.82	0.76
1:A:93:VAL:HG22	1:A:301:ALA:HA	1.68	0.76
2:B:559:SER:HA	2:B:563:MET:HB3	1.66	0.76
1:A:855:THR:HG21	1:A:857:ARG:NE	1.99	0.76
1:A:1242:VAL:HG12	1:A:1243:VAL:H	1.50	0.76
1:A:755:PHE:HA	1:A:758:ILE:HD12	1.66	0.76
4:D:15:LEU:O	4:D:17:LYS:HG3	1.85	0.76
1:A:600:PRO:HA	8:H:25:ARG:NH1	2.01	0.75
7:G:34:VAL:HG12	7:G:45:ILE:HG21	1.67	0.75
1:A:706:HIS:CD2	1:A:1283:VAL:HG22	2.21	0.75
6:F:100:GLN:HB3	7:G:15:PRO:HB3	1.65	0.75
7:G:55:ASP:HB3	7:G:73:LYS:HB2	1.68	0.75
1:A:79:GLY:HA3	1:A:243:PRO:HB2	1.66	0.75
2:B:824:ILE:CG1	10:J:48:ARG:HH12	1.98	0.75
2:B:616:ILE:HD12	2:B:625:LYS:HB2	1.69	0.75
10:J:48:ARG:HG2	10:J:48:ARG:HH11	1.52	0.75
2:B:351:TYR:O	2:B:355:ILE:HG13	1.85	0.75
2:B:387:LEU:HD23	2:B:393:LYS:HG3	1.69	0.75
1:A:53:LEU:HD23	1:A:54:ASN:HD22	1.49	0.75
2:B:796:LEU:HB3	2:B:799:PRO:HG3	1.69	0.75
4:D:25:ALA:HB1	4:D:196:PRO:HG2	1.69	0.75
1:A:606:LEU:HG	1:A:613:ILE:HG13	1.69	0.75
2:B:975:GLN:HG3	2:B:976:ILE:N	2.00	0.75
2:B:1202:LEU:O	2:B:1206:GLU:HG3	1.87	0.74
3:C:56:THR:HG21	3:C:145:CYS:SG	2.27	0.74
1:A:356:ASP:HB3	1:A:359:LEU:HD21	1.68	0.74
1:A:56:PRO:O	1:A:57:ARG:HG3	1.87	0.74
4:D:56:ARG:NH2	4:D:155:ARG:HG2	2.02	0.74
1:A:442:VAL:HB	1:A:489:LEU:HD11	1.68	0.74
1:A:427:GLN:HB2	1:A:430:TRP:CD2	2.21	0.74
8:H:101:ALA:HB2	8:H:116:TYR:CE2	2.22	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:852:TYR:CD2	1:A:1060:PRO:HB2	2.23	0.74
1:A:1210:GLY:HA2	1:A:1228:TRP:HE1	1.50	0.74
2:B:1158:PHE:CE2	2:B:1160:VAL:HG22	2.23	0.74
4:D:35:LEU:H	4:D:35:LEU:HD12	1.52	0.74
5:E:44:ALA:O	5:E:45:LYS:HB2	1.87	0.74
1:A:1100:ARG:HH21	1:A:1351:GLU:HG2	1.53	0.74
10:J:64:ASN:CB	10:J:65:PRO:HD3	2.15	0.74
2:B:800:GLN:HB3	10:J:52:THR:HG22	1.70	0.73
4:D:47:LEU:HB3	4:D:174:PRO:HG2	1.70	0.73
1:A:285:PRO:HB2	1:A:288:ALA:HB3	1.70	0.73
2:B:1099:VAL:O	2:B:1103:ILE:HG22	1.88	0.73
1:A:283:GLY:O	1:A:285:PRO:HD3	1.88	0.73
1:A:490:HIS:HB3	2:B:1150:ARG:NH1	2.02	0.73
1:A:1148:ILE:O	9:I:47:GLU:HA	1.89	0.73
2:B:406:LEU:O	2:B:408:LEU:HD12	1.88	0.73
4:D:208:GLU:HG3	4:D:212:LYS:HE3	1.69	0.73
2:B:842:ASN:HD21	2:B:844:SER:HB2	1.54	0.73
7:G:27:LYS:HD3	7:G:51:TYR:CE2	2.24	0.73
2:B:577:ALA:HB1	2:B:589:VAL:CG1	2.16	0.73
2:B:1182:CYS:SG	2:B:1185:CYS:HB2	2.28	0.73
12:L:49:LYS:O	12:L:50:ASP:HB2	1.87	0.73
2:B:770:GLN:HB2	2:B:985:GLY:H	1.52	0.73
1:A:369:SER:HB3	11:K:2:ASN:HD21	1.52	0.73
1:A:549:MET:HE1	1:A:656:TRP:CD1	2.23	0.73
1:A:115:LEU:HD13	1:A:122:MET:HB2	1.71	0.73
7:G:121:PHE:CZ	7:G:123:ALA:HB2	2.24	0.73
6:F:96:THR:O	6:F:100:GLN:HG3	1.89	0.72
7:G:111:THR:HG22	7:G:114:LEU:HD13	1.70	0.72
1:A:635:ARG:NH1	1:A:635:ARG:HA	2.04	0.72
2:B:794:ASN:C	2:B:795:ILE:HD12	2.09	0.72
4:D:59:ILE:HG22	4:D:63:LEU:HD12	1.71	0.72
5:E:96:PHE:CE1	5:E:100:ILE:HD11	2.24	0.72
1:A:962:ARG:HA	1:A:965:GLN:HG3	1.71	0.72
2:B:850:LEU:HB2	10:J:8:PHE:HD1	1.55	0.72
7:G:129:SER:HB2	7:G:138:THR:HG23	1.71	0.72
1:A:549:MET:HE1	1:A:656:TRP:HD1	1.54	0.72
1:A:1121:GLU:HG2	1:A:1122:PRO:HD2	1.70	0.72
1:A:1308:THR:HG23	1:A:1310:GLY:H	1.55	0.72
2:B:261:ARG:HB3	2:B:261:ARG:NH1	2.05	0.72
1:A:399:HIS:HB3	1:A:400:PRO:HD3	1.71	0.72
1:A:1269:GLU:O	1:A:1270:ASN:HB2	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:345:LYS:O	2:B:347:LYS:HG2	1.89	0.72
1:A:1148:ILE:HB	1:A:1196:GLU:HG2	1.72	0.72
5:E:16:PHE:CE1	5:E:20:LYS:HE3	2.25	0.72
7:G:81:PRO:HG3	7:G:106:MET:SD	2.29	0.72
11:K:7:PHE:HA	11:K:10:PHE:CE2	2.25	0.72
1:A:726:ARG:HD2	1:A:765:VAL:O	1.89	0.72
1:A:853:ASP:OD1	1:A:855:THR:HG22	1.90	0.72
2:B:25:ILE:HD11	2:B:651:LEU:HD12	1.71	0.72
2:B:777:ALA:HA	2:B:1095:LEU:CB	2.19	0.72
3:C:183:TRP:O	3:C:185:LYS:HG3	1.89	0.72
1:A:706:HIS:HD2	1:A:1283:VAL:HG22	1.53	0.72
2:B:172:ILE:HD13	2:B:178:ASN:ND2	2.04	0.72
1:A:1304:TRP:O	1:A:1305:VAL:HG23	1.89	0.71
4:D:66:ARG:NH2	7:G:48:VAL:HG23	2.03	0.71
11:K:5:ASP:OD2	11:K:5:ASP:N	2.21	0.71
1:A:1308:THR:HG23	1:A:1309:ASP:N	2.04	0.71
2:B:165:VAL:HG12	2:B:167:ILE:HD11	1.72	0.71
6:F:109:VAL:HG12	6:F:110:ASP:N	2.05	0.71
1:A:1155:ASP:OD2	1:A:1161:THR:HA	1.90	0.71
2:B:457:LEU:O	2:B:461:LEU:HB2	1.90	0.71
7:G:97:HIS:H	7:G:97:HIS:CD2	2.09	0.71
1:A:335:ARG:HA	1:A:339:ASN:HD22	1.55	0.71
7:G:119:LEU:HD12	7:G:131:GLN:O	1.91	0.71
1:A:814:PHE:CE1	2:B:519:TRP:HB2	2.26	0.71
2:B:711:GLU:HB2	2:B:712:PRO:HD3	1.72	0.71
6:F:87:LYS:HG3	6:F:88:TYR:HD1	1.56	0.71
1:A:34:LYS:HE3	1:A:57:ARG:NH1	2.05	0.71
1:A:53:LEU:HD23	1:A:54:ASN:N	2.04	0.71
1:A:427:GLN:HB2	1:A:430:TRP:CG	2.26	0.71
3:C:18:VAL:HG21	11:K:109:TRP:HZ3	1.53	0.71
4:D:51:ASN:HD22	4:D:178:ALA:HA	1.55	0.71
8:H:101:ALA:HB2	8:H:116:TYR:HE2	1.56	0.71
10:J:36:LEU:HB2	10:J:47:ARG:HH12	1.52	0.71
1:A:362:ASP:OD1	1:A:459:ARG:HD3	1.91	0.71
2:B:291:ILE:HG12	2:B:300:HIS:NE2	2.06	0.71
2:B:996:ARG:HH22	3:C:175:ALA:N	1.87	0.71
2:B:1138:MET:HB2	2:B:1147:LEU:HD21	1.72	0.71
12:L:27:LEU:HD22	12:L:37:LYS:HD2	1.72	0.71
1:A:511:ILE:O	1:A:519:PRO:HA	1.91	0.71
1:A:1028:THR:O	1:A:1032:LEU:HD12	1.91	0.71
2:B:1160:VAL:HG12	2:B:1161:HIS:N	2.04	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:21:LEU:HD23	2:B:1212:ILE:HG13	1.73	0.70
1:A:535:THR:HG21	1:A:617:VAL:H	1.55	0.70
1:A:901:LEU:H	1:A:926:GLN:NE2	1.89	0.70
2:B:522:VAL:HG12	2:B:523:CYS:N	2.06	0.70
2:B:800:GLN:HB3	10:J:52:THR:CG2	2.21	0.70
7:G:143:ILE:HG12	7:G:170:ALA:HA	1.71	0.70
1:A:947:PHE:CE1	1:A:954:TRP:CE2	2.79	0.70
2:B:745:PRO:O	2:B:748:ILE:HG12	1.91	0.70
3:C:67:LEU:HD23	3:C:70:ILE:HD11	1.72	0.70
4:D:205:ASP:O	4:D:208:GLU:HB3	1.91	0.70
2:B:313:MET:O	2:B:316:PRO:HD2	1.90	0.70
2:B:705:MET:H	2:B:710:LEU:HD12	1.57	0.70
7:G:56:ILE:HG23	7:G:57:GLN:H	1.57	0.70
11:K:47:ARG:HD3	11:K:59:ALA:O	1.91	0.70
1:A:984:LYS:O	1:A:988:LEU:HB2	1.90	0.70
1:A:913:LEU:HD12	1:A:914:GLU:N	2.06	0.70
1:A:388:LEU:HA	1:A:391:LEU:HD12	1.72	0.70
2:B:69:LEU:HD13	2:B:429:PHE:HD1	1.56	0.70
2:B:973:ILE:CG2	2:B:974:PRO:HD2	2.21	0.70
1:A:265:LYS:O	1:A:269:ILE:HG13	1.91	0.70
2:B:1002:THR:OG1	2:B:1006:ILE:HD12	1.92	0.70
3:C:121:VAL:HG12	3:C:122:SER:N	2.05	0.70
1:A:269:ILE:HG12	1:A:299:HIS:HB3	1.72	0.70
1:A:483:ASP:CB	2:B:987:LYS:HG3	2.22	0.70
2:B:123:THR:OG1	2:B:458:LYS:HE2	1.92	0.70
2:B:573:GLN:O	2:B:575:PRO:HD3	1.91	0.70
2:B:616:ILE:CD1	2:B:625:LYS:HB2	2.21	0.70
3:C:242:GLN:NE2	3:C:246:ARG:HE	1.89	0.70
2:B:190:TYR:CE1	10:J:62:ARG:HD3	2.26	0.70
5:E:138:ALA:HA	5:E:141:VAL:HG23	1.73	0.70
4:D:39:ASN:CG	4:D:40:HIS:H	1.94	0.69
11:K:63:VAL:HG23	11:K:63:VAL:O	1.91	0.69
2:B:273:LEU:HD21	2:B:360:PHE:CD1	2.20	0.69
6:F:101:ILE:HG22	6:F:117:PRO:HB3	1.74	0.69
1:A:107:CYS:HA	1:A:171:GLN:NE2	2.07	0.69
4:D:188:ALA:HA	4:D:191:ALA:CB	2.22	0.69
4:D:220:LEU:HD23	4:D:221:TYR:H	1.56	0.69
1:A:463:ILE:HB	1:A:464:PRO:CD	2.22	0.69
1:A:565:ILE:CG2	1:A:567:LYS:HG2	2.22	0.69
1:A:1118:VAL:HG23	1:A:1306:LEU:HB2	1.75	0.69
1:A:1216:ILE:O	1:A:1219:THR:HG22	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:112:ILE:CG2	8:H:130:ARG:HH22	2.06	0.69
2:B:54:PHE:CZ	2:B:59:LEU:HD13	2.27	0.69
1:A:664:THR:HG23	1:A:664:THR:O	1.93	0.69
2:B:398:ARG:CZ	2:B:398:ARG:HB2	2.22	0.69
4:D:12:ARG:HD3	4:D:14:ARG:HG2	1.74	0.69
1:A:382:PRO:HD3	1:A:428:TYR:CE2	2.28	0.69
1:A:1127:ASP:HB3	1:A:1130:GLN:HB3	1.75	0.69
2:B:113:TYR:CD2	2:B:114:PRO:HD2	2.28	0.69
2:B:780:VAL:O	2:B:817:LEU:HD22	1.93	0.69
2:B:1182:CYS:SG	2:B:1182:CYS:O	2.51	0.69
3:C:46:ILE:HD12	3:C:67:LEU:HB3	1.75	0.69
3:C:147:LEU:HB2	3:C:151:GLN:HB2	1.74	0.69
7:G:138:THR:HG22	7:G:139:ILE:H	1.58	0.69
8:H:102:TYR:CE2	8:H:115:TYR:HB3	2.28	0.69
1:A:240:PRO:O	1:A:242:PRO:HD3	1.93	0.69
7:G:31:LEU:CD2	7:G:48:VAL:HG21	2.21	0.69
1:A:298:PHE:CZ	1:A:314:ALA:HB2	2.28	0.68
6:F:111:LEU:C	6:F:113:GLY:H	1.96	0.68
7:G:21:ARG:HD2	7:G:24:GLN:HB3	1.74	0.68
8:H:24:CYS:SG	8:H:44:VAL:HG21	2.33	0.68
1:A:997:LEU:HB3	1:A:1053:PHE:CE2	2.28	0.68
1:A:1217:LYS:O	1:A:1221:LYS:HA	1.92	0.68
2:B:1007:VAL:HG23	2:B:1008:PRO:HD2	1.74	0.68
3:C:58:LEU:HD21	10:J:57:ILE:HD13	1.75	0.68
1:A:1036:ARG:HG2	1:A:1036:ARG:NH1	2.06	0.68
1:A:1107:VAL:HG12	1:A:1107:VAL:O	1.94	0.68
2:B:363:HIS:CD2	2:B:585:VAL:HG22	2.28	0.68
4:D:190:GLU:HA	7:G:167:TYR:CD1	2.27	0.68
2:B:237:VAL:HG22	2:B:257:LYS:HA	1.76	0.68
2:B:1073:TYR:CE2	2:B:1080:LYS:HG2	2.29	0.68
4:D:179:GLN:NE2	7:G:1:MET:HB2	2.07	0.68
5:E:153:HIS:C	5:E:154:ILE:HD12	2.14	0.68
11:K:51:LEU:HD11	11:K:59:ALA:HB3	1.76	0.68
3:C:67:LEU:O	3:C:70:ILE:HG13	1.94	0.68
3:C:174:ALA:HA	10:J:10:CYS:O	1.94	0.68
3:C:75:MET:HG3	3:C:76:ASP:OD1	1.92	0.68
3:C:112:ASN:HB3	3:C:114:TYR:CE1	2.29	0.68
8:H:40:LEU:HD13	8:H:123:MET:HG3	1.75	0.68
1:A:53:LEU:CD2	1:A:54:ASN:HD22	2.06	0.68
1:A:251:SER:HA	1:A:257:ARG:O	1.94	0.68
1:A:584:ASN:O	1:A:637:LYS:HE2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:671:ALA:H	1:A:676:MET:HE3	1.57	0.68
1:A:1101:LEU:HA	1:A:1104:ILE:HD12	1.75	0.68
1:A:1242:VAL:HG12	1:A:1243:VAL:N	2.09	0.68
2:B:731:VAL:O	2:B:732:SER:HB2	1.93	0.68
2:B:797:TYR:HB3	2:B:798:TYR:HD2	1.59	0.68
1:A:1404:GLU:O	1:A:1408:ILE:HG13	1.94	0.68
1:A:434:ARG:NH2	1:A:437:MET:HG3	2.09	0.67
3:C:63:ILE:CA	3:C:66:ARG:HG3	2.23	0.67
8:H:26:ILE:HG22	8:H:40:LEU:O	1.94	0.67
1:A:266:LEU:HD21	1:A:303:TYR:CE1	2.28	0.67
1:A:492:PRO:O	1:A:493:GLN:NE2	2.26	0.67
1:A:869:GLY:O	5:E:204:THR:HG21	1.94	0.67
2:B:785:TYR:HE2	10:J:60:PHE:CE1	2.12	0.67
11:K:46:ILE:O	11:K:50:LEU:HB2	1.94	0.67
2:B:860:MET:HB2	2:B:965:LYS:HG2	1.76	0.67
4:D:30:GLY:C	4:D:32:GLU:H	1.97	0.67
6:F:111:LEU:HD21	6:F:120:ILE:HD11	1.76	0.67
1:A:34:LYS:CE	1:A:57:ARG:HH12	2.08	0.67
2:B:483:LEU:HD11	2:B:491:THR:HG23	1.76	0.67
2:B:611:PRO:HB3	2:B:685:LEU:HD11	1.76	0.67
11:K:113:THR:HG22	11:K:114:LEU:N	2.09	0.67
1:A:666:ILE:HD12	1:A:667:GLY:H	1.60	0.67
1:A:933:TYR:O	1:A:933:TYR:CD2	2.44	0.67
2:B:955:THR:HG22	2:B:956:THR:H	1.60	0.67
2:B:1076:HIS:HD2	11:K:40:HIS:NE2	1.91	0.67
1:A:91:PHE:H	1:A:297:GLN:HE22	1.41	0.67
1:A:330:LYS:O	1:A:334:GLY:HA3	1.95	0.67
1:A:845:LEU:HA	1:A:848:ILE:HD12	1.76	0.67
2:B:973:ILE:HG22	2:B:974:PRO:HD2	1.77	0.67
3:C:169:LYS:NZ	12:L:69:ALA:HB3	2.10	0.67
5:E:15:ALA:HA	5:E:140:LEU:O	1.93	0.67
1:A:567:LYS:NZ	8:H:46:LEU:HB2	2.10	0.67
5:E:180:ARG:HB2	5:E:215:MET:OXT	1.95	0.67
1:A:219:PHE:CZ	1:A:231:PRO:HD2	2.30	0.67
1:A:1112:LYS:O	1:A:1114:PRO:HD3	1.95	0.67
2:B:102:VAL:HB	2:B:112:LEU:HB2	1.77	0.67
2:B:215:GLN:HB2	2:B:407:ASP:HB2	1.76	0.67
2:B:496:ARG:HH12	2:B:541:LEU:HA	1.60	0.67
3:C:45:ALA:HA	3:C:72:LEU:HD22	1.77	0.67
2:B:817:LEU:N	2:B:818:PRO:HD3	2.09	0.67
2:B:1138:MET:CB	2:B:1147:LEU:HD21	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:213:ILE:HG12	5:E:214:CYS:N	2.10	0.67
8:H:139:ASN:O	8:H:140:ALA:HB2	1.95	0.67
1:A:649:ILE:O	1:A:653:VAL:HG23	1.95	0.67
1:A:760:GLN:HE21	1:A:765:VAL:HG13	1.59	0.67
1:A:1259:MET:HA	1:A:1262:LYS:HD2	1.76	0.67
1:A:32:VAL:HG23	1:A:33:ALA:H	1.59	0.66
1:A:69:THR:HG21	2:B:1174:LYS:NZ	2.08	0.66
1:A:589:GLN:HA	1:A:605:MET:O	1.94	0.66
2:B:36:ALA:O	2:B:39:ARG:HB2	1.95	0.66
10:J:57:ILE:HG23	10:J:58:GLU:N	2.11	0.66
1:A:262:LEU:HD12	1:A:328:ARG:NH2	2.10	0.66
1:A:963:ILE:HD11	1:A:1048:ASN:HB3	1.77	0.66
1:A:1445:ILE:HD12	1:A:1445:ILE:O	1.94	0.66
2:B:363:HIS:O	2:B:364:ILE:HB	1.95	0.66
7:G:144:ARG:O	7:G:168:LEU:HD22	1.95	0.66
10:J:12:LYS:O	10:J:14:VAL:HG23	1.95	0.66
2:B:559:SER:HA	2:B:563:MET:CB	2.25	0.66
2:B:824:ILE:HB	2:B:1009:ASP:OD2	1.94	0.66
7:G:14:HIS:CD2	7:G:15:PRO:HD2	2.30	0.66
1:A:351:THR:HG23	1:A:468:PHE:CD1	2.31	0.66
6:F:120:ILE:HG22	6:F:121:ALA:N	2.10	0.66
11:K:32:VAL:HG23	11:K:74:ARG:HG3	1.77	0.66
1:A:152:VAL:HG13	1:A:153:PRO:HD2	1.77	0.66
1:A:205:GLU:H	1:A:205:GLU:CD	1.98	0.66
1:A:1138:ILE:O	1:A:1140:HIS:N	2.29	0.66
1:A:361:LEU:CA	1:A:471:ASN:HD22	2.07	0.66
1:A:795:GLU:CD	1:A:795:GLU:H	1.99	0.66
2:B:1114:LEU:CD1	2:B:1202:LEU:HD11	2.26	0.66
4:D:40:HIS:ND1	7:G:6:ASP:HB3	2.10	0.66
1:A:494:SER:O	1:A:497:THR:HB	1.96	0.66
2:B:643:ASP:OD2	2:B:652:LYS:HE3	1.95	0.66
2:B:806:THR:HG22	2:B:808:ALA:H	1.61	0.66
2:B:886:LYS:HE2	2:B:940:PRO:HG3	1.76	0.66
2:B:1107:ALA:O	2:B:1108:ARG:CB	2.44	0.66
12:L:47:ARG:O	12:L:48:CYS:HB2	1.95	0.66
1:A:359:LEU:HD23	1:A:359:LEU:H	1.59	0.66
1:A:1100:ARG:O	1:A:1104:ILE:HG13	1.96	0.66
1:A:1119:TYR:CD2	1:A:1305:VAL:HG21	2.31	0.66
2:B:810:GLU:CA	2:B:815:ARG:HH22	2.08	0.66
2:B:878:GLN:H	2:B:934:LYS:HZ3	1.44	0.66
2:B:1160:VAL:HG12	2:B:1161:HIS:H	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:89:GLU:O	6:F:93:ILE:HG13	1.96	0.66
1:A:474:VAL:HG23	1:A:521:MET:HE1	1.78	0.66
2:B:418:LYS:HG2	2:B:422:LYS:HE3	1.78	0.66
7:G:21:ARG:NH1	7:G:24:GLN:HB2	2.10	0.66
1:A:672:ASP:HB3	1:A:736:ASN:ND2	2.10	0.66
2:B:204:ILE:HG23	2:B:207:GLY:O	1.95	0.66
2:B:521:LEU:HB3	2:B:633:VAL:HG11	1.77	0.66
3:C:112:ASN:ND2	3:C:146:LYS:HG2	2.10	0.66
4:D:48:ILE:HG22	4:D:48:ILE:O	1.94	0.66
12:L:55:ILE:HD13	12:L:55:ILE:H	1.60	0.66
1:A:365:GLY:HA3	1:A:469:ARG:HB2	1.78	0.65
1:A:1120:LEU:HD22	1:A:1124:HIS:O	1.95	0.65
2:B:879:ARG:HE	2:B:879:ARG:H	1.44	0.65
4:D:52:LEU:HD12	4:D:182:SER:HB2	1.76	0.65
1:A:350:ARG:N	2:B:1128:LEU:HD11	2.11	0.65
1:A:622:VAL:O	1:A:630:ILE:HD11	1.96	0.65
1:A:1004:ASN:ND2	1:A:1007:ILE:HG13	2.11	0.65
4:D:66:ARG:O	4:D:70:PHE:HB2	1.96	0.65
6:F:84:TYR:HA	6:F:152:ILE:HD12	1.78	0.65
1:A:58:LEU:CD1	1:A:244:PRO:HD3	2.26	0.65
2:B:94:LYS:HG2	2:B:95:ILE:N	2.11	0.65
2:B:364:ILE:HG12	2:B:585:VAL:HG13	1.77	0.65
2:B:542:MET:SD	2:B:747:MET:HE2	2.37	0.65
2:B:1194:ILE:HG12	2:B:1196:ILE:HG22	1.77	0.65
10:J:5:VAL:HA	10:J:15:GLY:H	1.61	0.65
1:A:1453:TYR:CE2	6:F:129:LYS:HA	2.32	0.65
2:B:299:GLU:HB3	2:B:571:PRO:HG2	1.77	0.65
1:A:63:ARG:CG	1:A:74:MET:HE1	2.26	0.65
1:A:1434:ALA:O	1:A:1436:ILE:N	2.29	0.65
2:B:227:LYS:H	2:B:395:GLN:NE2	1.94	0.65
4:D:46:GLU:HG2	4:D:47:LEU:H	1.62	0.65
9:I:45:ARG:HG3	9:I:46:HIS:N	2.12	0.65
1:A:709:THR:HG22	1:A:710:LEU:N	2.12	0.65
1:A:1030:ARG:HG2	1:A:1034:GLU:OE2	1.95	0.65
1:A:30:ILE:HD11	2:B:1168:LEU:HD13	1.78	0.65
1:A:112:LYS:HG2	1:A:113:LEU:H	1.62	0.65
1:A:569:LYS:HD2	3:C:221:TYR:HB2	1.79	0.65
1:A:714:PHE:O	1:A:718:VAL:HG23	1.96	0.65
1:A:966:ASN:O	1:A:970:THR:HB	1.97	0.65
1:A:1308:THR:HG21	1:A:1310:GLY:O	1.97	0.65
2:B:1065:GLN:HG3	2:B:1068:GLY:H	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:8:PHE:CZ	4:D:37:GLN:HB2	2.31	0.65
5:E:198:ILE:HD13	5:E:212:ARG:HH11	1.62	0.65
1:A:864:ILE:HD12	1:A:864:ILE:N	2.11	0.65
1:A:1223:ASP:HA	1:A:1243:VAL:CG2	2.27	0.65
2:B:488:TYR:CE2	2:B:813:LYS:HB2	2.31	0.65
2:B:488:TYR:HE2	2:B:813:LYS:HB2	1.61	0.65
5:E:78:LEU:HG	5:E:107:THR:HG21	1.77	0.65
6:F:94:LEU:HD21	6:F:122:MET:HG2	1.76	0.65
1:A:7:SER:OG	2:B:1161:HIS:HE1	1.80	0.65
1:A:59:GLY:C	1:A:244:PRO:HG2	2.16	0.65
2:B:780:VAL:HG11	10:J:56:LEU:CD1	2.27	0.65
3:C:55:THR:OG1	3:C:152:GLU:N	2.30	0.65
3:C:197:SER:O	3:C:201:TRP:HB2	1.97	0.65
1:A:532:ARG:HD2	1:A:749:ALA:HB2	1.77	0.65
1:A:1027:ALA:O	1:A:1031:VAL:HG23	1.96	0.65
3:C:112:ASN:ND2	3:C:143:LEU:HD21	2.12	0.65
1:A:456:MET:HE3	1:A:507:VAL:HG23	1.79	0.64
1:A:1280:GLU:O	1:A:1282:VAL:HG23	1.97	0.64
2:B:758:PHE:CE2	2:B:1044:ALA:HA	2.31	0.64
1:A:2:VAL:O	2:B:1158:PHE:HA	1.97	0.64
1:A:537:ARG:HD2	8:H:20:TYR:CZ	2.32	0.64
2:B:549:THR:HG22	2:B:550:ASP:H	1.61	0.64
2:B:638:PHE:CE1	2:B:743:ILE:HA	2.32	0.64
1:A:467:THR:HG21	2:B:976:ILE:HG22	1.79	0.64
1:A:982:THR:HG22	1:A:984:LYS:H	1.61	0.64
1:A:58:LEU:HD12	1:A:244:PRO:HD3	1.78	0.64
2:B:169:ARG:O	2:B:457:LEU:HD12	1.98	0.64
2:B:430:ARG:HG2	2:B:430:ARG:NH1	2.04	0.64
2:B:807:ARG:HG2	2:B:1045:SER:OG	1.97	0.64
5:E:10:SER:O	5:E:13:TRP:HB3	1.97	0.64
1:A:642:CYS:O	1:A:645:LEU:HB3	1.97	0.64
1:A:1291:VAL:HG22	1:A:1292:PRO:HD2	1.79	0.64
5:E:61:GLN:HG2	5:E:62:ALA:H	1.63	0.64
5:E:100:ILE:HG23	5:E:105:PHE:CD1	2.32	0.64
1:A:1118:VAL:O	1:A:1305:VAL:HG13	1.97	0.64
5:E:19:VAL:O	5:E:23:VAL:HG23	1.97	0.64
1:A:135:PHE:HD1	1:A:222:LEU:CD2	2.10	0.64
1:A:441:PRO:HG2	1:A:498:ARG:HB2	1.79	0.64
2:B:1162:ILE:CD1	2:B:1194:ILE:HG21	2.27	0.64
5:E:187:TYR:HD2	5:E:188:LEU:CD2	2.11	0.64
6:F:86:THR:HG23	6:F:89:GLU:OE1	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1226:VAL:HG22	1:A:1240:CYS:HB3	1.80	0.64
2:B:213:ILE:CG2	2:B:499:ASN:HB2	2.27	0.64
2:B:798:TYR:CE1	10:J:4:PRO:HB3	2.33	0.64
2:B:955:THR:CG2	2:B:956:THR:N	2.61	0.64
2:B:1096:ARG:HG2	2:B:1097:HIS:H	1.61	0.64
7:G:158:HIS:HD2	7:G:159:ALA:N	1.96	0.64
11:K:23:PRO:HA	11:K:31:VAL:HG13	1.80	0.64
1:A:91:PHE:HZ	1:A:207:ILE:HD12	1.62	0.64
1:A:93:VAL:CG2	1:A:301:ALA:HA	2.28	0.64
1:A:332:LYS:HA	1:A:337:ARG:HB3	1.80	0.64
1:A:679:ILE:HG23	1:A:729:ALA:HB1	1.80	0.64
1:A:901:LEU:HD22	1:A:919:ILE:HG23	1.79	0.64
2:B:619:ILE:HG22	2:B:620:ARG:N	2.13	0.64
1:A:115:LEU:HB3	1:A:122:MET:HG2	1.79	0.64
11:K:46:ILE:HG22	11:K:50:LEU:HD12	1.78	0.64
11:K:65:HIS:CD2	11:K:67:PHE:N	2.55	0.64
1:A:1130:GLN:HA	1:A:1133:LEU:HD12	1.80	0.63
2:B:69:LEU:HB3	2:B:429:PHE:HE1	1.63	0.63
2:B:635:ARG:HB2	2:B:636:PRO:HD2	1.79	0.63
2:B:1115:THR:O	2:B:1116:ARG:HB2	1.98	0.63
2:B:948:ILE:HG22	2:B:949:VAL:O	1.98	0.63
2:B:1116:ARG:HG3	2:B:1198:TYR:CE2	2.32	0.63
4:D:194:LEU:N	4:D:194:LEU:HD23	2.13	0.63
1:A:1223:ASP:HA	1:A:1243:VAL:HG21	1.80	0.63
3:C:182:PRO:HD2	3:C:210:GLU:OE1	1.98	0.63
3:C:191:TYR:CD2	3:C:201:TRP:CD1	2.87	0.63
1:A:93:VAL:HG21	1:A:304:MET:HB2	1.80	0.63
8:H:82:PRO:C	8:H:84:ALA:H	2.00	0.63
12:L:66:GLN:C	12:L:67:PHE:CD1	2.72	0.63
1:A:336:ILE:HD11	2:B:1203:LEU:HD13	1.79	0.63
1:A:685:GLU:HG3	1:A:686:ALA:N	2.12	0.63
3:C:260:LEU:O	3:C:264:GLN:HG3	1.98	0.63
5:E:41:ASP:HA	5:E:44:ALA:HB3	1.79	0.63
1:A:256:GLN:O	1:A:257:ARG:CB	2.47	0.63
1:A:997:LEU:HD22	1:A:1053:PHE:CG	2.33	0.63
2:B:702:LEU:HD23	2:B:738:PHE:N	2.14	0.63
4:D:60:LYS:O	4:D:64:VAL:HG23	1.98	0.63
4:D:159:THR:O	4:D:163:VAL:HG23	1.98	0.63
4:D:163:VAL:HG13	4:D:214:LEU:HD21	1.79	0.63
7:G:42:PHE:O	7:G:80:LYS:HB2	1.99	0.63
7:G:88:ASP:HB3	7:G:144:ARG:HA	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:836:TYR:CZ	1:A:840:ARG:HD2	2.33	0.63
2:B:859:TYR:HD1	2:B:859:TYR:H	1.47	0.63
1:A:265:LYS:HE3	1:A:265:LYS:CA	2.27	0.63
2:B:277:LYS:HG3	2:B:336:ARG:HG2	1.79	0.63
2:B:696:GLU:O	2:B:699:GLU:HB2	1.97	0.63
1:A:59:GLY:CA	1:A:244:PRO:HG2	2.29	0.63
1:A:634:THR:O	1:A:638:GLY:HA2	1.99	0.63
1:A:999:VAL:HG12	1:A:1000:LEU:HG	1.79	0.63
1:A:1227:ILE:HA	1:A:1228:TRP:CE3	2.34	0.63
10:J:25:LEU:HD21	10:J:32:GLU:HG3	1.81	0.63
11:K:40:HIS:NE2	11:K:63:VAL:HG11	2.13	0.63
12:L:53:HIS:HB3	12:L:55:ILE:HD13	1.80	0.63
1:A:767:GLN:NE2	1:A:774:ARG:HB2	2.14	0.62
2:B:650:GLU:HG3	2:B:651:LEU:N	2.14	0.62
5:E:117:THR:HB	5:E:120:ALA:HB2	1.81	0.62
11:K:45:LEU:O	11:K:48:ALA:HB3	1.99	0.62
12:L:30:ILE:HD11	12:L:59:ALA:HB2	1.81	0.62
1:A:350:ARG:C	1:A:351:THR:HG22	2.18	0.62
1:A:399:HIS:CB	1:A:400:PRO:HD3	2.28	0.62
1:A:535:THR:HG21	1:A:616:VAL:HA	1.80	0.62
2:B:126:SER:OG	2:B:172:ILE:HD11	1.98	0.62
2:B:948:ILE:O	2:B:968:VAL:HG13	1.99	0.62
8:H:127:GLY:O	8:H:128:ASN:HB2	1.98	0.62
1:A:1107:VAL:CG2	1:A:1383:SER:HB3	2.29	0.62
2:B:541:LEU:HB2	2:B:747:MET:HE3	1.79	0.62
2:B:613:VAL:CG2	2:B:628:THR:HA	2.30	0.62
2:B:830:TYR:CE2	2:B:1000:PRO:HD3	2.35	0.62
6:F:129:LYS:C	6:F:130:ILE:HG13	2.20	0.62
10:J:48:ARG:HD2	10:J:48:ARG:O	1.99	0.62
1:A:82:GLY:O	1:A:241:VAL:HB	1.99	0.62
1:A:262:LEU:HD12	1:A:328:ARG:CZ	2.30	0.62
1:A:403:LYS:O	1:A:415:LEU:HB2	2.00	0.62
1:A:1402:PHE:C	1:A:1403:GLU:HG2	2.19	0.62
3:C:169:LYS:HZ2	12:L:69:ALA:HB3	1.64	0.62
6:F:128:LYS:HD3	6:F:148:VAL:O	1.98	0.62
7:G:30:LEU:HD13	7:G:72:VAL:HG11	1.81	0.62
9:I:46:HIS:O	9:I:47:GLU:HG2	1.99	0.62
1:A:377:PRO:HB2	1:A:431:LYS:NZ	2.15	0.62
2:B:770:GLN:HG2	2:B:983:ARG:O	2.00	0.62
4:D:147:TYR:O	4:D:151:PHE:CD1	2.51	0.62
6:F:100:GLN:O	6:F:105:ALA:CB	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:814:PHE:HE1	2:B:519:TRP:HB2	1.64	0.62
5:E:156:LEU:HG	5:E:195:VAL:O	2.00	0.62
7:G:17:PHE:CE2	7:G:25:TYR:HE2	2.16	0.62
4:D:147:TYR:O	4:D:151:PHE:HD1	1.82	0.62
8:H:145:ARG:O	8:H:146:ARG:HB2	1.99	0.62
1:A:49:LYS:NZ	1:A:61:ILE:H	1.98	0.62
1:A:1119:TYR:HA	1:A:1305:VAL:HG22	1.80	0.62
1:A:1207:LEU:HD13	1:A:1273:LEU:HD23	1.82	0.62
1:A:1299:VAL:HG12	1:A:1300:LYS:H	1.65	0.62
2:B:638:PHE:HA	2:B:690:VAL:HG12	1.81	0.62
2:B:898:LEU:HD21	2:B:964:VAL:HG21	1.82	0.62
2:B:1198:TYR:CE1	2:B:1201:LYS:HD2	2.34	0.62
4:D:167:LEU:C	4:D:169:SER:H	2.03	0.62
5:E:16:PHE:CZ	5:E:20:LYS:HE3	2.34	0.62
7:G:90:THR:HG23	7:G:140:LYS:O	2.00	0.62
1:A:58:LEU:HB3	1:A:80:HIS:O	1.99	0.62
1:A:1208:THR:HB	1:A:1211:GLN:HG3	1.82	0.62
1:A:1210:GLY:HA2	1:A:1228:TRP:NE1	2.14	0.62
3:C:220:ASP:OD2	3:C:223:ALA:HB2	2.00	0.62
5:E:61:GLN:HG2	5:E:62:ALA:N	2.14	0.62
2:B:174:LEU:HD21	2:B:204:ILE:CD1	2.29	0.62
2:B:879:ARG:HE	2:B:879:ARG:N	1.97	0.62
11:K:53:ASP:HB3	11:K:56:VAL:HB	1.82	0.62
1:A:604:GLY:O	1:A:605:MET:HB2	2.00	0.61
1:A:1107:VAL:HG23	1:A:1383:SER:HB3	1.80	0.61
2:B:515:HIS:HD2	2:B:517:THR:N	1.90	0.61
5:E:119:SER:O	5:E:122:LYS:HB2	2.00	0.61
1:A:40:THR:HG23	1:A:54:ASN:HD21	1.63	0.61
1:A:506:ALA:CB	1:A:508:PRO:HD2	2.28	0.61
1:A:601:LYS:HD3	1:A:603:ASN:HD21	1.65	0.61
1:A:1154:TYR:CZ	1:A:1156:PRO:HG3	2.34	0.61
9:I:35:VAL:HG12	9:I:36:GLU:N	2.12	0.61
1:A:224:PHE:HD2	1:A:231:PRO:HD3	1.63	0.61
1:A:317:LYS:O	1:A:318:SER:HB3	1.99	0.61
1:A:419:LYS:HG3	1:A:420:ARG:N	2.14	0.61
1:A:621:THR:O	1:A:629:LEU:HB2	2.00	0.61
1:A:1153:TYR:HB2	1:A:1192:LEU:HD23	1.81	0.61
3:C:237:SER:O	3:C:238:ILE:HG13	1.99	0.61
11:K:63:VAL:O	11:K:65:HIS:N	2.33	0.61
2:B:234:ILE:HG12	2:B:257:LYS:HB3	1.83	0.61
2:B:486:TYR:CD1	2:B:1096:ARG:NH2	2.68	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:45:ILE:O	7:G:45:ILE:HG22	1.99	0.61
2:B:68:THR:HG22	2:B:91:SER:HA	1.82	0.61
2:B:105:SER:O	2:B:106:ASP:HB2	1.99	0.61
3:C:3:GLU:HB3	11:K:104:ASN:HD21	1.65	0.61
4:D:29:LEU:HD23	4:D:33:PHE:HB3	1.81	0.61
8:H:130:ARG:HH11	8:H:130:ARG:N	1.92	0.61
12:L:62:LYS:O	12:L:64:LEU:N	2.32	0.61
1:A:253:ASN:HB2	2:B:884:ARG:NH1	2.14	0.61
1:A:836:TYR:CE2	1:A:840:ARG:HD2	2.36	0.61
1:A:1146:VAL:O	1:A:1197:LEU:HA	2.00	0.61
2:B:129:PHE:CE2	2:B:166:PHE:HB2	2.36	0.61
2:B:309:GLN:O	2:B:312:GLU:HB3	2.00	0.61
2:B:635:ARG:HB2	2:B:636:PRO:CD	2.30	0.61
2:B:955:THR:CG2	2:B:956:THR:H	2.12	0.61
2:B:999:MET:HG2	2:B:1007:VAL:CG2	2.30	0.61
7:G:115:MET:HB3	7:G:116:PRO:HD2	1.83	0.61
12:L:47:ARG:HH21	12:L:54:ARG:HG2	1.65	0.61
1:A:1079:MET:HG2	1:A:1359:ASP:OD1	2.01	0.61
1:A:1102:LYS:HG2	1:A:1106:ASN:ND2	2.16	0.61
3:C:262:LEU:HD13	11:K:88:LYS:HG2	1.82	0.61
5:E:178:ILE:HB	5:E:212:ARG:HD3	1.82	0.61
6:F:111:LEU:O	6:F:113:GLY:N	2.33	0.61
9:I:17:ARG:HG3	9:I:18:GLU:H	1.65	0.61
12:L:40:LEU:HD13	12:L:44:ASP:HB3	1.82	0.61
1:A:969:GLN:O	1:A:969:GLN:HG2	2.01	0.61
2:B:562:GLY:HA3	2:B:590:HIS:ND1	2.14	0.61
2:B:644:GLU:HG3	2:B:646:LEU:H	1.66	0.61
2:B:656:GLY:O	2:B:660:LYS:HB2	1.99	0.61
7:G:13:LEU:HD23	7:G:14:HIS:N	2.15	0.61
9:I:25:LEU:CB	9:I:38:ALA:HB2	2.11	0.61
10:J:9:SER:HB2	10:J:45:CYS:HB2	1.82	0.61
1:A:321:PRO:O	1:A:322:VAL:HG12	2.00	0.61
1:A:370:ILE:HG22	1:A:374:LEU:CD1	2.30	0.61
1:A:873:MET:O	1:A:1058:VAL:HG23	2.01	0.61
1:A:1199:ARG:HG3	1:A:1236:LEU:HD11	1.81	0.61
1:A:1255:GLU:CD	1:A:1258:HIS:HB2	2.20	0.61
1:A:1441:PHE:CZ	6:F:89:GLU:HA	2.35	0.61
2:B:639:ILE:HG22	2:B:641:GLU:HG2	1.81	0.61
2:B:999:MET:HA	2:B:999:MET:HE3	1.81	0.61
3:C:80:LEU:HD12	3:C:94:LYS:O	2.01	0.61
3:C:124:LEU:HD23	3:C:127:ARG:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:7:CYS:HB3	9:I:14:LEU:HD21	1.82	0.61
1:A:27:VAL:C	1:A:29:ALA:H	2.04	0.61
1:A:648:ASN:O	1:A:652:VAL:HG23	2.00	0.61
1:A:1259:MET:O	1:A:1263:ILE:HG13	2.01	0.61
2:B:791:THR:HA	2:B:858:SER:HB2	1.82	0.61
3:C:186:LEU:HD21	3:C:225:ALA:HB2	1.82	0.61
4:D:120:GLU:O	4:D:123:LEU:HB2	2.01	0.61
8:H:59:ILE:O	8:H:60:ALA:HB3	2.01	0.61
1:A:709:THR:HG22	1:A:710:LEU:H	1.66	0.60
2:B:1079:LYS:HZ2	3:C:188:HIS:CE1	2.18	0.60
7:G:30:LEU:CD1	7:G:72:VAL:HG11	2.31	0.60
10:J:8:PHE:N	10:J:8:PHE:CD2	2.56	0.60
1:A:42:ASP:HB3	1:A:45:GLN:HA	1.83	0.60
1:A:219:PHE:CE2	1:A:231:PRO:HD2	2.36	0.60
1:A:463:ILE:CB	1:A:464:PRO:HD2	2.27	0.60
1:A:741:ASN:ND2	1:A:743:VAL:N	2.49	0.60
1:A:1263:ILE:HA	1:A:1266:THR:HB	1.83	0.60
2:B:168:GLY:H	2:B:450:ALA:HB1	1.65	0.60
2:B:1096:ARG:CZ	2:B:1096:ARG:HB2	2.30	0.60
8:H:104:PHE:CE2	8:H:114:VAL:HG12	2.36	0.60
2:B:69:LEU:HD22	2:B:429:PHE:CE1	2.37	0.60
2:B:1013:ASN:HD21	2:B:1015:HIS:HD2	1.48	0.60
6:F:100:GLN:NE2	7:G:18:PHE:HE2	1.99	0.60
1:A:75:ASN:O	1:A:76:GLU:CB	2.48	0.60
1:A:106:VAL:HG13	1:A:112:LYS:O	2.01	0.60
1:A:902:LEU:HD23	1:A:921:GLY:HA2	1.82	0.60
1:A:1010:ALA:O	1:A:1013:ASP:HB2	2.00	0.60
1:A:1227:ILE:C	1:A:1228:TRP:HE3	2.04	0.60
2:B:493:SER:HA	2:B:751:VAL:HG21	1.82	0.60
2:B:777:ALA:HA	2:B:1095:LEU:HB3	1.82	0.60
7:G:120:THR:OG1	7:G:131:GLN:HB2	2.00	0.60
1:A:102:VAL:HG11	1:A:211:PHE:HE1	1.66	0.60
1:A:359:LEU:HD23	1:A:359:LEU:N	2.15	0.60
2:B:549:THR:HG22	2:B:550:ASP:N	2.17	0.60
9:I:17:ARG:HH21	9:I:30:ARG:NH2	2.00	0.60
10:J:3:VAL:HG21	10:J:18:TRP:HB2	1.83	0.60
1:A:49:LYS:HZ2	1:A:61:ILE:H	1.48	0.60
1:A:84:ILE:O	1:A:84:ILE:HG22	2.01	0.60
1:A:679:ILE:HD11	1:A:733:ALA:HB2	1.82	0.60
2:B:959:ASP:OD2	2:B:961:LEU:HD12	2.02	0.60
7:G:51:TYR:CD2	7:G:51:TYR:O	2.55	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:567:LYS:HE3	8:H:46:LEU:HD12	1.83	0.60
1:A:744:LYS:O	1:A:748:MET:HB2	2.01	0.60
1:A:1349:TYR:O	1:A:1350:LYS:C	2.40	0.60
2:B:210:LYS:HD2	2:B:480:SER:OG	2.01	0.60
2:B:508:LEU:O	2:B:509:ALA:HB3	2.01	0.60
2:B:841:MET:HG2	2:B:846:ILE:HD11	1.84	0.60
4:D:190:GLU:O	4:D:194:LEU:HG	2.01	0.60
8:H:102:TYR:HD2	8:H:102:TYR:N	1.98	0.60
1:A:1152:ILE:HG23	1:A:1260:LEU:HD23	1.81	0.60
6:F:86:THR:HG23	6:F:89:GLU:CD	2.23	0.60
12:L:38:LEU:O	12:L:39:SER:CB	2.49	0.60
1:A:118:HIS:O	1:A:119:ASN:HB2	2.01	0.60
1:A:528:LEU:HG	1:A:529:CYS:N	2.16	0.60
5:E:14:ARG:HB3	5:E:141:VAL:O	2.02	0.60
5:E:56:LYS:HE2	5:E:84:ASP:HB2	1.84	0.60
1:A:346:ASP:OD1	2:B:1108:ARG:HA	2.02	0.60
1:A:1141:THR:HG23	1:A:1205:LYS:HD3	1.83	0.60
3:C:121:VAL:HG12	3:C:122:SER:H	1.66	0.60
4:D:8:PHE:HZ	4:D:37:GLN:HB2	1.67	0.60
1:A:49:LYS:HD3	1:A:54:ASN:O	2.02	0.59
1:A:135:PHE:HA	1:A:138:ILE:HD12	1.83	0.59
1:A:1208:THR:HG23	1:A:1231:ASP:OD2	2.02	0.59
2:B:879:ARG:N	2:B:879:ARG:NE	2.49	0.59
2:B:1023:VAL:HG12	2:B:1027:ILE:HD11	1.82	0.59
4:D:192:LYS:HG2	4:D:198:LEU:HD12	1.83	0.59
5:E:122:LYS:O	5:E:123:LEU:HG	2.02	0.59
6:F:109:VAL:HG12	6:F:110:ASP:H	1.65	0.59
1:A:1208:THR:HG22	1:A:1210:GLY:H	1.67	0.59
1:A:1291:VAL:HG13	1:A:1292:PRO:HD2	1.83	0.59
2:B:126:SER:CB	2:B:172:ILE:HD11	2.32	0.59
2:B:652:LYS:HD3	2:B:688:GLY:O	2.01	0.59
3:C:13:ALA:HB1	3:C:18:VAL:HG22	1.83	0.59
4:D:59:ILE:O	4:D:63:LEU:HB2	2.02	0.59
5:E:55:ARG:C	5:E:57:MET:H	2.05	0.59
5:E:124:VAL:O	5:E:132:ILE:HD13	2.02	0.59
6:F:111:LEU:HD23	6:F:114:GLU:O	2.02	0.59
6:F:140:ASP:CG	6:F:141:GLY:N	2.56	0.59
7:G:158:HIS:CD2	7:G:159:ALA:N	2.69	0.59
2:B:638:PHE:HB3	2:B:651:LEU:HD22	1.83	0.59
3:C:147:LEU:N	3:C:147:LEU:HD23	2.16	0.59
3:C:163:ILE:HD12	3:C:165:LYS:HB2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:6:PHE:N	9:I:6:PHE:CD1	2.69	0.59
9:I:25:LEU:HB3	9:I:38:ALA:CB	2.11	0.59
11:K:65:HIS:CD2	11:K:65:HIS:C	2.76	0.59
1:A:66:LYS:HD3	1:A:67:CYS:H	1.67	0.59
1:A:979:SER:OG	1:A:980:ASP:N	2.35	0.59
3:C:241:ASP:O	3:C:244:VAL:HB	2.02	0.59
5:E:79:TRP:HD1	5:E:96:PHE:HE1	1.49	0.59
1:A:873:MET:HG2	1:A:957:PRO:HG3	1.83	0.59
1:A:883:LEU:HD23	1:A:1021:LEU:HD13	1.84	0.59
1:A:1227:ILE:HG22	1:A:1228:TRP:N	2.16	0.59
2:B:188:ASP:O	2:B:192:LEU:HD12	2.03	0.59
2:B:446:LEU:O	2:B:447:ALA:HB3	2.03	0.59
2:B:880:THR:HB	2:B:934:LYS:HB2	1.85	0.59
11:K:16:GLU:OE1	11:K:37:LYS:HE3	2.02	0.59
1:A:875:ALA:HA	1:A:878:ILE:HD12	1.85	0.59
1:A:916:GLY:O	1:A:919:ILE:HG22	2.03	0.59
1:A:923:LEU:O	1:A:927:VAL:HG23	2.03	0.59
1:A:1094:VAL:HG22	1:A:1113:THR:CG2	2.32	0.59
2:B:596:LEU:HD11	2:B:600:LEU:HD11	1.85	0.59
2:B:734:HIS:O	2:B:735:ALA:CB	2.51	0.59
2:B:872:GLU:OE1	2:B:914:LYS:HE3	2.02	0.59
8:H:63:LEU:HB3	8:H:90:ALA:H	1.68	0.59
11:K:53:ASP:CB	11:K:56:VAL:HB	2.33	0.59
1:A:597:LEU:O	1:A:598:LEU:HB2	2.02	0.59
2:B:1110:PRO:HG2	2:B:1125:ASP:O	2.03	0.59
3:C:167:HIS:ND1	3:C:169:LYS:HG2	2.18	0.59
5:E:152:LYS:HG3	5:E:154:ILE:HD11	1.85	0.59
1:A:12:ARG:CB	2:B:1218:THR:HG22	2.33	0.59
1:A:92:HIS:HB3	1:A:95:PHE:HB2	1.85	0.59
2:B:100:PRO:HA	2:B:126:SER:HB3	1.83	0.59
2:B:115:GLN:O	2:B:119:LEU:HD12	2.02	0.59
4:D:73:SER:HB3	7:G:21:ARG:HH21	1.68	0.59
5:E:135:PHE:CD2	5:E:140:LEU:HD21	2.38	0.59
1:A:35:ILE:HG12	1:A:241:VAL:HG11	1.85	0.59
1:A:306:ASN:HD22	1:A:322:VAL:HG12	1.67	0.59
1:A:760:GLN:HG2	1:A:765:VAL:HA	1.83	0.59
1:A:871:ASP:OD2	1:A:873:MET:HB2	2.03	0.59
2:B:1195:HIS:C	2:B:1196:ILE:HG22	2.24	0.59
4:D:53:SER:HB3	4:D:152:SER:CB	2.33	0.59
1:A:356:ASP:OD2	2:B:833:TYR:HE2	1.86	0.58
1:A:577:ILE:HA	1:A:580:VAL:HG23	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1343:ALA:HA	5:E:149:LEU:O	2.03	0.58
2:B:205:ILE:N	2:B:205:ILE:HD12	2.18	0.58
2:B:597:MET:HA	2:B:597:MET:CE	2.32	0.58
2:B:637:LEU:HD12	2:B:693:ILE:HD12	1.85	0.58
2:B:728:ARG:HH11	2:B:730:ARG:NH2	2.01	0.58
2:B:849:GLY:HA2	2:B:852:ARG:HD2	1.85	0.58
2:B:957:ASN:H	2:B:957:ASN:HD22	1.50	0.58
7:G:49:LEU:HG	7:G:76:ALA:HA	1.85	0.58
10:J:36:LEU:O	10:J:41:LEU:HG	2.02	0.58
2:B:815:ARG:HB2	2:B:815:ARG:HH11	1.68	0.58
2:B:1034:VAL:HA	2:B:1037:LEU:CD1	2.32	0.58
2:B:1159:ARG:HB3	2:B:1159:ARG:NH1	2.15	0.58
3:C:112:ASN:HD21	3:C:146:LYS:HE2	1.67	0.58
6:F:100:GLN:NE2	7:G:61:ILE:HD11	2.17	0.58
7:G:9:LEU:HD12	7:G:10:ASN:N	2.19	0.58
1:A:1226:VAL:HG13	1:A:1239:ARG:O	2.03	0.58
1:A:1394:THR:HG22	1:A:1395:GLY:H	1.68	0.58
2:B:119:LEU:HD23	2:B:953:LEU:HD11	1.85	0.58
2:B:308:TRP:CH2	9:I:45:ARG:HG2	2.37	0.58
2:B:681:TRP:CE3	2:B:684:LEU:HD12	2.38	0.58
2:B:901:PRO:HG3	2:B:952:VAL:HG23	1.84	0.58
2:B:1174:LYS:HB2	2:B:1179:GLN:O	2.02	0.58
4:D:147:TYR:CZ	7:G:103:VAL:HG13	2.38	0.58
1:A:392:VAL:HG13	1:A:415:LEU:HD21	1.85	0.58
1:A:1012:ARG:O	1:A:1013:ASP:C	2.42	0.58
1:A:1316:VAL:O	1:A:1316:VAL:HG12	2.03	0.58
2:B:69:LEU:HD13	2:B:429:PHE:CD1	2.37	0.58
2:B:663:ALA:O	2:B:667:GLN:HG3	2.04	0.58
3:C:242:GLN:HE21	3:C:246:ARG:NE	1.99	0.58
11:K:70:ARG:O	11:K:70:ARG:HG3	2.02	0.58
1:A:148:CYS:O	1:A:168:GLY:HA2	2.03	0.58
2:B:234:ILE:HG21	2:B:237:VAL:HG23	1.84	0.58
2:B:912:ILE:HD11	2:B:966:VAL:CG2	2.34	0.58
6:F:77:ASP:O	6:F:78:GLN:HB3	2.02	0.58
7:G:51:TYR:O	7:G:51:TYR:HD2	1.86	0.58
8:H:59:ILE:HG22	8:H:60:ALA:N	2.18	0.58
1:A:21:LEU:HD11	1:A:1414:ALA:HA	1.85	0.58
1:A:449:SER:HB2	2:B:1133:MET:HB3	1.85	0.58
1:A:515:GLN:HA	1:A:1367:HIS:NE2	2.19	0.58
1:A:595:THR:O	1:A:596:THR:HG23	2.02	0.58
1:A:973:ILE:HD13	1:A:1038:THR:HG23	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:168:GLY:N	2:B:450:ALA:HB1	2.18	0.58
2:B:469:GLN:C	2:B:472:ALA:HB3	2.23	0.58
5:E:169:ARG:HD3	6:F:140:ASP:OD1	2.04	0.58
1:A:71:GLN:O	1:A:73:GLY:N	2.35	0.58
1:A:391:LEU:O	1:A:394:ASN:HB2	2.03	0.58
1:A:1227:ILE:HG22	1:A:1228:TRP:H	1.67	0.58
2:B:842:ASN:C	2:B:842:ASN:HD22	2.06	0.58
3:C:18:VAL:HG21	11:K:109:TRP:CZ3	2.37	0.58
10:J:37:SER:OG	10:J:47:ARG:NH2	2.36	0.58
3:C:8:VAL:HG12	3:C:9:LYS:N	2.18	0.58
4:D:39:ASN:ND2	4:D:40:HIS:H	2.01	0.58
5:E:213:ILE:HG12	5:E:214:CYS:H	1.68	0.58
10:J:2:ILE:HG23	10:J:3:VAL:O	2.04	0.58
1:A:172:PRO:HG3	1:A:185:TRP:CE2	2.39	0.58
1:A:664:THR:CG2	2:B:1014:PRO:HB3	2.34	0.58
1:A:850:VAL:HG21	1:A:1058:VAL:HG11	1.86	0.58
1:A:1118:VAL:CG2	1:A:1306:LEU:HB2	2.33	0.58
2:B:108:VAL:HG23	2:B:109:THR:H	1.68	0.58
3:C:44:LEU:HD23	3:C:44:LEU:C	2.24	0.58
4:D:52:LEU:HB2	4:D:182:SER:HB2	1.84	0.58
5:E:187:TYR:HD2	5:E:188:LEU:HD23	1.69	0.58
7:G:79:PHE:CD1	7:G:79:PHE:C	2.72	0.58
1:A:741:ASN:HD22	1:A:741:ASN:C	2.06	0.58
1:A:827:THR:HG22	1:A:828:ALA:N	2.19	0.58
1:A:858:ASN:HD22	1:A:858:ASN:H	1.52	0.58
1:A:1150:SER:H	9:I:46:HIS:HB3	1.68	0.58
1:A:1187:GLN:HG3	1:A:1188:GLN:H	1.69	0.58
1:A:1350:LYS:O	1:A:1353:TYR:HB3	2.03	0.58
2:B:326:ASP:O	2:B:330:ALA:CB	2.50	0.58
2:B:453:ILE:O	2:B:457:LEU:HG	2.03	0.58
2:B:833:TYR:C	2:B:835:GLN:H	2.05	0.58
5:E:197:LYS:HE2	5:E:199:ILE:HD11	1.86	0.58
6:F:87:LYS:CE	6:F:88:TYR:HE1	2.16	0.58
1:A:617:VAL:HG12	1:A:622:VAL:HG12	1.85	0.57
1:A:1349:TYR:CE2	1:A:1353:TYR:HB2	2.39	0.57
2:B:770:GLN:CD	2:B:983:ARG:HA	2.24	0.57
2:B:975:GLN:CG	2:B:976:ILE:N	2.67	0.57
3:C:45:ALA:CB	3:C:72:LEU:HD13	2.33	0.57
6:F:130:ILE:O	6:F:132:LEU:N	2.36	0.57
8:H:17:PRO:HB3	8:H:24:CYS:SG	2.43	0.57
1:A:224:PHE:CD2	1:A:231:PRO:HG3	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:524:VAL:HG12	1:A:525:GLN:N	2.15	0.57
1:A:808:LEU:HB3	1:A:812:GLU:HB2	1.86	0.57
1:A:896:ARG:HD3	1:A:897:TYR:CE1	2.39	0.57
1:A:1406:VAL:HG12	1:A:1410:PHE:CE1	2.39	0.57
2:B:839:MET:HE1	2:B:980:PHE:HB2	1.86	0.57
2:B:879:ARG:H	2:B:879:ARG:NE	2.02	0.57
2:B:1166:CYS:O	2:B:1168:LEU:N	2.36	0.57
3:C:191:TYR:HD2	3:C:201:TRP:CD1	2.22	0.57
10:J:57:ILE:HG23	10:J:58:GLU:H	1.69	0.57
1:A:6:TYR:CG	1:A:7:SER:N	2.72	0.57
1:A:7:SER:OG	2:B:1161:HIS:CE1	2.58	0.57
1:A:98:LYS:O	1:A:102:VAL:HG23	2.04	0.57
1:A:206:GLU:O	1:A:210:ILE:HG13	2.04	0.57
1:A:1166:ASP:OD2	1:A:1239:ARG:HD2	2.05	0.57
2:B:898:LEU:HD12	12:L:58:LYS:HD2	1.86	0.57
3:C:213:PRO:O	3:C:214:ASN:HB3	2.04	0.57
6:F:90:ARG:CD	6:F:155:LEU:HD13	2.32	0.57
1:A:247:ARG:HD2	1:A:263:THR:HG23	1.85	0.57
1:A:447:GLN:HG2	2:B:1134:GLU:OE2	2.04	0.57
1:A:546:VAL:O	1:A:549:MET:HB2	2.05	0.57
1:A:834:THR:HG21	1:A:1077:THR:HG23	1.86	0.57
1:A:975:HIS:O	1:A:976:THR:HG23	2.05	0.57
1:A:1444:MET:HG3	7:G:59:GLY:O	2.04	0.57
2:B:365:THR:HG23	2:B:367:LEU:H	1.69	0.57
2:B:655:LYS:HD2	2:B:658:ILE:HG22	1.84	0.57
2:B:777:ALA:HA	2:B:1095:LEU:HB2	1.87	0.57
3:C:47:ASP:HA	12:L:69:ALA:HB3	1.86	0.57
3:C:50:GLU:HB3	3:C:156:THR:HB	1.86	0.57
12:L:58:LYS:O	12:L:59:ALA:O	2.22	0.57
1:A:443:LEU:HD23	1:A:501:LEU:HD22	1.87	0.57
6:F:76:LYS:HA	6:F:79:ARG:HD2	1.85	0.57
7:G:115:MET:CB	7:G:119:LEU:HD23	2.35	0.57
10:J:3:VAL:HG21	10:J:18:TRP:CG	2.39	0.57
1:A:409:SER:O	1:A:411:ASP:HB2	2.05	0.57
1:A:1254:ALA:O	1:A:1255:GLU:HB2	2.04	0.57
1:A:1279:ILE:HG23	1:A:1308:THR:OG1	2.04	0.57
2:B:226:PHE:HA	2:B:395:GLN:HG3	1.87	0.57
2:B:345:LYS:HG2	2:B:346:GLU:N	2.17	0.57
2:B:405:ARG:NH1	2:B:632:ARG:HG2	2.19	0.57
3:C:16:ASP:O	3:C:233:GLU:HA	2.04	0.57
6:F:101:ILE:HD13	6:F:120:ILE:CG2	2.29	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:9:SER:CB	10:J:45:CYS:HB2	2.35	0.57
11:K:63:VAL:O	11:K:64:GLU:C	2.42	0.57
1:A:270:LEU:O	1:A:274:ILE:HG13	2.05	0.57
1:A:355:GLY:N	1:A:482:PHE:CZ	2.72	0.57
1:A:1354:ASN:O	1:A:1358:SER:CB	2.51	0.57
2:B:467:GLY:H	2:B:475:SER:HB2	1.69	0.57
2:B:593:PRO:HB2	2:B:617:ARG:CZ	2.35	0.57
2:B:977:GLY:HA3	2:B:1099:VAL:HG11	1.86	0.57
9:I:15:TYR:N	9:I:15:TYR:CD1	2.73	0.57
10:J:3:VAL:HG21	10:J:18:TRP:CB	2.34	0.57
1:A:850:VAL:HG23	1:A:1064:VAL:HG21	1.87	0.57
1:A:1315:GLU:O	1:A:1317:MET:N	2.37	0.57
2:B:100:PRO:HD2	2:B:180:TYR:CE1	2.40	0.57
2:B:990:ILE:HG22	2:B:992:ILE:H	1.69	0.57
5:E:15:ALA:O	5:E:19:VAL:HG23	2.04	0.57
5:E:185:ALA:O	5:E:190:LEU:HG	2.05	0.57
7:G:111:THR:CG2	7:G:114:LEU:HD13	2.34	0.57
12:L:26:THR:HG22	12:L:27:LEU:N	2.15	0.57
1:A:202:LEU:HB3	1:A:207:ILE:HD11	1.87	0.57
1:A:1356:ILE:HD13	1:A:1363:VAL:HG21	1.86	0.57
2:B:361:LEU:HD21	2:B:377:PHE:HD2	1.69	0.57
2:B:398:ARG:HB2	2:B:398:ARG:NH1	2.20	0.57
6:F:129:LYS:O	6:F:130:ILE:HG13	2.05	0.57
7:G:126:ASN:HD22	7:G:127:PRO:N	2.03	0.57
11:K:39:ASP:OD1	11:K:41:THR:HG22	2.05	0.57
1:A:403:LYS:HE2	1:A:404:TYR:HE1	1.70	0.57
1:A:567:LYS:HZ2	8:H:46:LEU:HB2	1.70	0.57
1:A:933:TYR:O	1:A:937:VAL:HG23	2.04	0.57
1:A:1029:ARG:O	1:A:1033:GLN:HB3	2.04	0.57
2:B:192:LEU:O	2:B:193:LYS:HB2	2.05	0.57
2:B:282:ILE:HD12	2:B:382:ILE:HD13	1.86	0.57
2:B:797:TYR:HB2	2:B:852:ARG:O	2.04	0.57
2:B:1098:MET:O	2:B:1101:ASP:HB2	2.05	0.57
2:B:1166:CYS:C	2:B:1168:LEU:H	2.08	0.57
4:D:170:THR:O	4:D:172:LEU:N	2.38	0.57
7:G:92:VAL:HG21	7:G:102:GLN:HB2	1.86	0.57
2:B:363:HIS:O	2:B:364:ILE:CB	2.52	0.56
2:B:724:ASP:HB3	2:B:727:LYS:HG3	1.86	0.56
2:B:995:ARG:HB3	2:B:997:GLU:OE2	2.05	0.56
11:K:57:LEU:HD13	11:K:76:GLN:NE2	2.18	0.56
1:A:92:HIS:HE1	1:A:1410:PHE:CE2	2.22	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1351:GLU:O	1:A:1355:VAL:HG23	2.05	0.56
2:B:100:PRO:HG3	2:B:172:ILE:HD12	1.86	0.56
2:B:1135:ARG:O	2:B:1139:ILE:HG13	2.05	0.56
3:C:76:ASP:C	3:C:129:ILE:HD11	2.26	0.56
5:E:153:HIS:HB3	5:E:196:VAL:HG21	1.86	0.56
1:A:12:ARG:HB2	2:B:1218:THR:HG22	1.86	0.56
1:A:134:ARG:HD2	1:A:221:SER:O	2.05	0.56
1:A:148:CYS:HB3	1:A:168:GLY:HA2	1.87	0.56
1:A:490:HIS:ND1	2:B:1150:ARG:NH1	2.53	0.56
1:A:640:GLN:CD	1:A:640:GLN:N	2.57	0.56
1:A:903:ASN:HB3	1:A:906:HIS:HB2	1.87	0.56
1:A:1116:LEU:N	1:A:1308:THR:HG22	2.20	0.56
2:B:31:TRP:CE3	2:B:34:ILE:HD12	2.40	0.56
2:B:230:ALA:CB	2:B:231:PRO:HD3	2.33	0.56
2:B:510:LYS:CG	2:B:511:PRO:HD3	2.24	0.56
2:B:792:MET:HA	2:B:856:PHE:O	2.05	0.56
2:B:1110:PRO:O	2:B:1119:VAL:HG13	2.05	0.56
2:B:1157:ALA:O	2:B:1158:PHE:CB	2.52	0.56
5:E:155:ARG:O	5:E:156:LEU:HD23	2.05	0.56
8:H:30:SER:CB	8:H:36:CYS:HB3	2.35	0.56
1:A:49:LYS:HZ1	1:A:61:ILE:HG13	1.70	0.56
1:A:92:HIS:HE1	1:A:1410:PHE:HE2	1.51	0.56
1:A:185:TRP:CZ3	1:A:200:ARG:HB3	2.41	0.56
1:A:549:MET:CE	1:A:656:TRP:HD1	2.18	0.56
1:A:810:PRO:HD3	2:B:730:ARG:HH21	1.70	0.56
2:B:486:TYR:HD1	2:B:1096:ARG:NH2	2.03	0.56
3:C:35:ARG:NH1	11:K:41:THR:HB	2.20	0.56
4:D:24:ALA:HB3	4:D:26:THR:HG23	1.88	0.56
5:E:99:HIS:CE1	5:E:103:LYS:HG3	2.41	0.56
6:F:97:ARG:NH2	6:F:108:PHE:HE1	2.03	0.56
7:G:111:THR:HG22	7:G:114:LEU:CD2	2.34	0.56
1:A:81:PHE:CD2	1:A:243:PRO:HD3	2.41	0.56
1:A:108:MET:O	1:A:109:HIS:HB3	2.04	0.56
1:A:363:GLN:HA	1:A:459:ARG:O	2.05	0.56
1:A:850:VAL:HG12	1:A:1060:PRO:HA	1.87	0.56
1:A:1260:LEU:HA	1:A:1263:ILE:HD12	1.86	0.56
2:B:65:GLU:HG3	2:B:66:ASP:H	1.71	0.56
2:B:792:MET:HG3	2:B:855:PHE:HE1	1.70	0.56
2:B:900:ALA:HB1	12:L:61:THR:OG1	2.05	0.56
6:F:130:ILE:HG22	6:F:132:LEU:HG	1.88	0.56
1:A:11:LEU:HG	1:A:12:ARG:N	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:361:LEU:HA	1:A:471:ASN:ND2	2.11	0.56
1:A:399:HIS:ND1	1:A:399:HIS:C	2.58	0.56
1:A:1362:TYR:HD1	1:A:1363:VAL:N	2.04	0.56
2:B:798:TYR:CD1	10:J:4:PRO:HB3	2.41	0.56
2:B:1065:GLN:HB2	2:B:1069:PHE:O	2.06	0.56
6:F:97:ARG:NH2	6:F:108:PHE:CE1	2.74	0.56
1:A:528:LEU:O	1:A:531:ILE:HG22	2.06	0.56
1:A:547:LEU:HD13	11:K:58:PHE:CD1	2.41	0.56
1:A:617:VAL:HG12	1:A:622:VAL:CG1	2.35	0.56
1:A:868:TYR:HE2	1:A:1366:ARG:HE	1.53	0.56
1:A:1011:GLN:HE22	1:A:1015:VAL:HG21	1.69	0.56
1:A:1152:ILE:CD1	9:I:44:TYR:HD2	2.18	0.56
1:A:1210:GLY:O	1:A:1214:GLU:HG2	2.05	0.56
2:B:515:HIS:CD2	2:B:516:ASN:H	2.24	0.56
2:B:1131:GLY:O	2:B:1132:GLU:C	2.44	0.56
3:C:31:ASN:O	3:C:35:ARG:HG3	2.05	0.56
3:C:32:SER:O	3:C:36:VAL:HG23	2.05	0.56
4:D:123:LEU:HB3	4:D:124:GLU:OE2	2.06	0.56
4:D:151:PHE:CD1	4:D:151:PHE:N	2.74	0.56
8:H:11:GLN:HA	8:H:53:ASP:O	2.06	0.56
1:A:565:ILE:HG23	1:A:567:LYS:HG2	1.86	0.56
1:A:1110:ASN:H	1:A:1110:ASN:ND2	2.04	0.56
3:C:148:ARG:N	3:C:151:GLN:HG3	2.19	0.56
6:F:100:GLN:NE2	7:G:18:PHE:CE2	2.73	0.56
7:G:51:TYR:O	7:G:54:ILE:HG13	2.05	0.56
1:A:664:THR:HG22	2:B:1014:PRO:HB3	1.87	0.56
2:B:120:ARG:HH12	12:L:54:ARG:HH11	1.54	0.56
2:B:220:GLY:HA2	2:B:241:ARG:NH1	2.21	0.56
2:B:334:ILE:HG22	2:B:334:ILE:O	2.05	0.56
3:C:101:LEU:HB3	3:C:155:LEU:HB2	1.86	0.56
4:D:35:LEU:H	4:D:35:LEU:CD1	2.18	0.56
5:E:90:VAL:O	5:E:90:VAL:HG22	2.06	0.56
6:F:139:PRO:O	6:F:140:ASP:C	2.44	0.56
1:A:1394:THR:HG21	1:A:1398:MET:SD	2.46	0.56
1:A:1396:ALA:HA	1:A:1399:ARG:NH2	2.21	0.56
2:B:222:ILE:HD11	2:B:627:PHE:CZ	2.40	0.56
6:F:111:LEU:C	6:F:113:GLY:N	2.59	0.56
7:G:13:LEU:CD2	7:G:17:PHE:HD2	2.12	0.56
1:A:541:ILE:HG22	1:A:542:GLU:N	2.21	0.55
1:A:1324:PRO:HB2	5:E:142:VAL:HG11	1.88	0.55
2:B:362:PRO:HB3	2:B:366:GLN:OE1	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:485:ARG:HH12	2:B:782:LEU:HD21	1.71	0.55
2:B:542:MET:HG2	2:B:747:MET:HB3	1.88	0.55
2:B:828:ALA:HB2	2:B:1085:ILE:HG12	1.88	0.55
3:C:114:TYR:CD2	3:C:140:ASN:HB3	2.41	0.55
5:E:148:GLU:HG2	5:E:149:LEU:HD23	1.87	0.55
2:B:679:TYR:CE1	2:B:683:SER:HB2	2.41	0.55
3:C:43:THR:HG22	3:C:74:SER:OG	2.06	0.55
4:D:208:GLU:O	4:D:212:LYS:HG3	2.06	0.55
8:H:82:PRO:O	8:H:84:ALA:N	2.40	0.55
1:A:145:LYS:HE3	1:A:146:MET:H	1.71	0.55
1:A:172:PRO:HB3	1:A:185:TRP:CD2	2.40	0.55
1:A:718:VAL:O	1:A:721:PHE:HB2	2.06	0.55
1:A:873:MET:C	1:A:1058:VAL:HG23	2.26	0.55
1:A:1191:TRP:HZ3	9:I:43:VAL:HG21	1.72	0.55
2:B:998:ASP:OD1	3:C:35:ARG:NH2	2.40	0.55
3:C:123:ASN:OD1	3:C:125:MET:HG2	2.07	0.55
5:E:63:ASN:HB3	5:E:64:PRO:HD2	1.88	0.55
8:H:130:ARG:HB3	8:H:134:ASN:H	1.72	0.55
1:A:1011:GLN:HG3	1:A:1012:ARG:N	2.20	0.55
2:B:522:VAL:HG13	2:B:537:LYS:HB3	1.88	0.55
2:B:805:THR:HG22	2:B:806:THR:O	2.06	0.55
3:C:113:VAL:O	3:C:143:LEU:HD13	2.07	0.55
4:D:134:THR:HG21	4:D:138:ASN:HB2	1.88	0.55
5:E:114:ASN:O	5:E:115:ASN:HB3	2.06	0.55
5:E:122:LYS:C	5:E:123:LEU:HG	2.25	0.55
7:G:160:ILE:HG22	7:G:161:GLY:N	2.21	0.55
11:K:32:VAL:HA	11:K:73:LEU:O	2.06	0.55
1:A:16:GLU:HA	1:A:1419:ASP:O	2.06	0.55
1:A:335:ARG:HD3	1:A:339:ASN:ND2	2.19	0.55
1:A:548:ASN:HD21	11:K:47:ARG:HH21	1.53	0.55
1:A:1291:VAL:HG13	1:A:1292:PRO:CD	2.36	0.55
2:B:120:ARG:NH1	12:L:54:ARG:HH11	2.02	0.55
2:B:530:GLY:C	2:B:531:GLN:HG2	2.25	0.55
1:A:308:ILE:HG22	1:A:309:ALA:H	1.71	0.55
1:A:353:ILE:HG23	1:A:485:ASP:O	2.07	0.55
1:A:481:ASP:HB2	1:A:483:ASP:OD2	2.07	0.55
1:A:666:ILE:HD11	2:B:1067:ARG:O	2.06	0.55
1:A:670:ILE:CG2	1:A:805:LEU:HD21	2.37	0.55
1:A:679:ILE:O	1:A:683:ILE:HG13	2.06	0.55
2:B:416:LEU:O	2:B:420:LEU:HB2	2.07	0.55
2:B:459:TYR:C	2:B:459:TYR:CD2	2.80	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:467:GLY:H	2:B:475:SER:CB	2.19	0.55
2:B:785:TYR:CE2	10:J:60:PHE:CE1	2.95	0.55
2:B:876:LYS:NZ	2:B:891:ASP:HA	2.22	0.55
4:D:39:ASN:HD22	4:D:41:GLN:H	1.53	0.55
11:K:37:LYS:O	11:K:38:GLU:HG2	2.05	0.55
11:K:68:PHE:N	11:K:68:PHE:CD2	2.71	0.55
1:A:711:ARG:O	1:A:714:PHE:HB3	2.06	0.55
1:A:840:ARG:HG2	1:A:1402:PHE:HZ	1.72	0.55
2:B:806:THR:HB	2:B:809:MET:HG3	1.87	0.55
2:B:842:ASN:HD21	2:B:844:SER:CB	2.19	0.55
4:D:138:ASN:HD21	7:G:35:GLU:HB3	1.70	0.55
5:E:143:ASN:ND2	5:E:146:HIS:ND1	2.55	0.55
1:A:95:PHE:CE2	1:A:1410:PHE:HD2	2.25	0.55
1:A:853:ASP:OD1	1:A:855:THR:CG2	2.53	0.55
2:B:1174:LYS:HB2	2:B:1179:GLN:H	1.72	0.55
1:A:556:TRP:O	1:A:558:GLY:N	2.40	0.55
1:A:666:ILE:HG23	2:B:1026:LEU:CB	2.34	0.55
1:A:1004:ASN:O	1:A:1008:GLN:HG2	2.06	0.55
1:A:1095:THR:HG21	1:A:1112:LYS:HB2	1.89	0.55
1:A:1105:LEU:O	1:A:1384:VAL:HG23	2.07	0.55
1:A:1287:TYR:O	1:A:1302:PRO:HA	2.07	0.55
2:B:185:THR:O	2:B:189:LEU:HG	2.07	0.55
2:B:230:ALA:HB3	2:B:231:PRO:CD	2.32	0.55
2:B:251:ILE:O	2:B:251:ILE:HG22	2.07	0.55
2:B:999:MET:HA	2:B:999:MET:CE	2.35	0.55
2:B:1012:ILE:O	2:B:1014:PRO:HD3	2.07	0.55
3:C:82:TYR:HB2	3:C:85:ASP:OD2	2.06	0.55
7:G:126:ASN:HD22	7:G:126:ASN:C	2.10	0.55
1:A:224:PHE:HD2	1:A:231:PRO:CD	2.19	0.55
1:A:909:ASP:O	1:A:911:SER:N	2.40	0.55
4:D:25:ALA:HB3	4:D:196:PRO:HG2	1.88	0.55
1:A:474:VAL:C	1:A:477:PRO:HD2	2.27	0.54
1:A:866:PHE:C	1:A:867:ILE:HD12	2.27	0.54
2:B:57:TYR:CD1	2:B:57:TYR:N	2.72	0.54
2:B:179:CYS:SG	2:B:181:LEU:HD12	2.47	0.54
2:B:754:SER:HB2	2:B:812:LEU:HD11	1.89	0.54
2:B:1137:CYS:O	2:B:1140:ALA:HB3	2.07	0.54
8:H:130:ARG:H	8:H:130:ARG:NH1	1.96	0.54
10:J:17:LYS:HB3	10:J:39:LEU:CD2	2.38	0.54
1:A:310:GLY:C	1:A:312:PRO:HD2	2.26	0.54
1:A:441:PRO:HD2	1:A:498:ARG:CZ	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:541:ILE:HD12	1:A:577:ILE:HD11	1.87	0.54
1:A:1050:GLU:O	1:A:1053:PHE:HB3	2.07	0.54
1:A:1400:CYS:SG	1:A:1409:LEU:HD21	2.47	0.54
2:B:859:TYR:CD1	2:B:859:TYR:N	2.71	0.54
3:C:88:CYS:SG	3:C:91:HIS:CA	2.93	0.54
4:D:39:ASN:CG	4:D:40:HIS:N	2.60	0.54
4:D:118:THR:HG21	4:D:121:LYS:HD2	1.88	0.54
11:K:51:LEU:CD1	11:K:59:ALA:HB3	2.37	0.54
11:K:113:THR:CG2	11:K:114:LEU:H	2.20	0.54
1:A:364:VAL:O	1:A:366:VAL:HG23	2.07	0.54
1:A:636:GLU:CD	1:A:966:ASN:HD21	2.10	0.54
1:A:986:ILE:HG22	1:A:987:VAL:N	2.22	0.54
1:A:1224:LEU:N	1:A:1243:VAL:HG13	2.22	0.54
1:A:1344:GLY:O	1:A:1345:ARG:C	2.46	0.54
2:B:856:PHE:CD1	2:B:856:PHE:N	2.74	0.54
2:B:955:THR:HG22	2:B:956:THR:O	2.07	0.54
5:E:177:ARG:HH11	5:E:215:MET:CE	2.20	0.54
5:E:178:ILE:HG22	5:E:213:ILE:O	2.07	0.54
8:H:102:TYR:N	8:H:102:TYR:CD2	2.69	0.54
10:J:30:LEU:HD22	10:J:34:THR:HG21	1.89	0.54
10:J:48:ARG:HH11	10:J:48:ARG:CG	2.20	0.54
11:K:7:PHE:C	11:K:9:LEU:H	2.11	0.54
1:A:374:LEU:O	1:A:436:ILE:HG12	2.07	0.54
1:A:665:GLY:O	1:A:667:GLY:N	2.40	0.54
1:A:830:LYS:HG3	1:A:1098:VAL:HG11	1.89	0.54
1:A:982:THR:O	1:A:985:ASP:HB2	2.07	0.54
1:A:1313:LEU:O	1:A:1315:GLU:N	2.41	0.54
1:A:1390:ASN:HD21	1:A:1402:PHE:HB3	1.72	0.54
2:B:827:ILE:O	2:B:1085:ILE:HG23	2.07	0.54
2:B:955:THR:HG23	12:L:54:ARG:O	2.08	0.54
2:B:1152:MET:O	2:B:1157:ALA:HB2	2.07	0.54
2:B:1168:LEU:HB2	2:B:1170:THR:OG1	2.07	0.54
4:D:56:ARG:HD2	4:D:122:GLU:OE1	2.08	0.54
5:E:13:TRP:CZ3	5:E:39:LEU:HB2	2.42	0.54
12:L:66:GLN:C	12:L:67:PHE:HD1	2.10	0.54
1:A:164:ARG:HG2	1:A:165:GLY:N	2.23	0.54
1:A:707:GLY:HA2	1:A:1281:ARG:HD3	1.90	0.54
2:B:515:HIS:H	2:B:518:HIS:CD2	2.25	0.54
2:B:516:ASN:H	2:B:516:ASN:HD22	1.55	0.54
2:B:936:ASP:CG	2:B:937:ALA:N	2.61	0.54
1:A:102:VAL:CG1	1:A:211:PHE:HE1	2.20	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:135:PHE:HD1	1:A:222:LEU:HD22	1.71	0.54
1:A:741:ASN:O	1:A:745:GLN:HG3	2.08	0.54
1:A:1315:GLU:C	1:A:1317:MET:H	2.09	0.54
2:B:210:LYS:CD	2:B:482:VAL:HG13	2.28	0.54
2:B:521:LEU:HD22	2:B:633:VAL:CG1	2.35	0.54
2:B:541:LEU:HB2	2:B:747:MET:CE	2.38	0.54
2:B:911:ILE:HG21	2:B:966:VAL:HG11	1.89	0.54
8:H:89:LEU:O	8:H:89:LEU:HD12	2.07	0.54
9:I:13:MET:HG2	9:I:14:LEU:N	2.23	0.54
12:L:55:ILE:O	12:L:56:LEU:HB2	2.08	0.54
1:A:526:ASP:HB2	2:B:835:GLN:CD	2.27	0.54
1:A:826:ASP:HB2	1:A:830:LYS:HD3	1.90	0.54
2:B:581:PHE:O	2:B:582:VAL:HG23	2.08	0.54
3:C:167:HIS:O	3:C:168:ALA:C	2.45	0.54
4:D:192:LYS:HD2	4:D:199:ASN:H	1.72	0.54
7:G:79:PHE:CD2	7:G:105:PRO:HD2	2.42	0.54
1:A:16:GLU:OE1	4:D:13:ARG:NH2	2.41	0.54
1:A:1100:ARG:HH12	1:A:1111:MET:HE2	1.73	0.54
1:A:1427:ASN:O	1:A:1430:LEU:N	2.40	0.54
8:H:128:ASN:C	8:H:128:ASN:HD22	2.11	0.54
1:A:224:PHE:CD2	1:A:231:PRO:HD3	2.42	0.54
1:A:1173:HIS:CD2	1:A:1227:ILE:HG23	2.43	0.54
2:B:126:SER:HB3	2:B:172:ILE:HD11	1.89	0.54
2:B:213:ILE:HG21	2:B:499:ASN:HB2	1.88	0.54
4:D:190:GLU:HG2	4:D:194:LEU:HD11	1.88	0.54
6:F:121:ALA:HA	6:F:124:GLU:HB2	1.90	0.54
1:A:69:THR:HG21	2:B:1174:LYS:HZ2	1.72	0.54
1:A:500:GLU:O	1:A:504:LEU:HB2	2.08	0.54
1:A:669:THR:O	1:A:762:SER:HB3	2.07	0.54
1:A:741:ASN:ND2	1:A:743:VAL:H	2.07	0.54
1:A:998:LEU:HD23	1:A:1001:ARG:HG3	1.88	0.54
2:B:291:ILE:H	2:B:291:ILE:HD12	1.72	0.54
2:B:611:PRO:O	2:B:692:TYR:HB2	2.08	0.54
2:B:662:MET:HA	2:B:665:GLU:HB2	1.88	0.54
2:B:899:ILE:HG23	2:B:903:VAL:HG21	1.89	0.54
3:C:111:THR:O	3:C:147:LEU:HD23	2.08	0.54
1:A:196:GLU:HG2	1:A:197:PRO:HD2	1.90	0.53
1:A:404:TYR:CD2	1:A:412:ARG:HD3	2.43	0.53
1:A:427:GLN:HG3	1:A:430:TRP:CE2	2.42	0.53
1:A:540:PHE:HZ	8:H:121:LEU:HD11	1.73	0.53
1:A:567:LYS:HE3	8:H:46:LEU:CD1	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:908:LEU:HD23	1:A:1029:ARG:NH2	2.23	0.53
1:A:1098:VAL:HB	1:A:1099:PRO:CD	2.38	0.53
1:A:1119:TYR:HA	1:A:1305:VAL:CG2	2.38	0.53
2:B:37:PHE:HE1	2:B:41:LYS:HG3	1.73	0.53
2:B:828:ALA:CB	2:B:1085:ILE:HG12	2.37	0.53
1:A:964:ILE:O	1:A:964:ILE:HG22	2.08	0.53
1:A:1349:TYR:C	1:A:1349:TYR:CD2	2.82	0.53
2:B:508:LEU:O	2:B:509:ALA:CB	2.57	0.53
2:B:917:PRO:O	2:B:918:ILE:HG13	2.07	0.53
2:B:1198:TYR:O	2:B:1201:LYS:HB3	2.09	0.53
4:D:39:ASN:ND2	4:D:41:GLN:H	2.05	0.53
4:D:167:LEU:O	4:D:169:SER:N	2.41	0.53
5:E:155:ARG:C	5:E:156:LEU:HD23	2.29	0.53
6:F:118:LEU:O	6:F:122:MET:HG3	2.07	0.53
11:K:30:ALA:HA	11:K:75:ILE:O	2.08	0.53
1:A:605:MET:SD	1:A:621:THR:HG21	2.49	0.53
1:A:640:GLN:CD	1:A:640:GLN:H	2.11	0.53
2:B:172:ILE:HG21	2:B:178:ASN:HB3	1.90	0.53
2:B:654:ARG:O	2:B:657:HIS:HB2	2.08	0.53
2:B:744:HIS:CD2	2:B:746:SER:OG	2.60	0.53
3:C:62:PHE:O	3:C:66:ARG:CG	2.57	0.53
4:D:170:THR:O	4:D:172:LEU:HG	2.08	0.53
8:H:114:VAL:HG22	8:H:125:LEU:HB3	1.91	0.53
9:I:6:PHE:HB3	9:I:12:ASN:O	2.08	0.53
1:A:236:LEU:N	1:A:236:LEU:HD23	2.23	0.53
1:A:317:LYS:O	1:A:318:SER:CB	2.55	0.53
1:A:381:THR:CG2	1:A:382:PRO:HD2	2.38	0.53
1:A:635:ARG:HA	1:A:635:ARG:HH11	1.72	0.53
2:B:284:ILE:HD13	2:B:333:PHE:CD2	2.44	0.53
2:B:323:VAL:O	2:B:324:ILE:HG13	2.08	0.53
2:B:533:CYS:C	2:B:535:LEU:H	2.12	0.53
2:B:763:GLN:O	2:B:766:ARG:HB2	2.07	0.53
7:G:30:LEU:HD23	7:G:31:LEU:HD23	1.91	0.53
8:H:142:LEU:C	8:H:143:LEU:HD12	2.29	0.53
9:I:7:CYS:SG	9:I:8:ARG:O	2.66	0.53
10:J:24:LEU:HD11	10:J:38:ARG:HG2	1.89	0.53
1:A:849:MET:HE1	1:A:1061:GLY:HA2	1.91	0.53
1:A:954:TRP:HZ3	5:E:203:GLU:HB2	1.68	0.53
2:B:522:VAL:CG1	2:B:523:CYS:N	2.70	0.53
2:B:583:ASN:OD1	2:B:628:THR:HG22	2.08	0.53
6:F:83:PRO:HA	6:F:146:TRP:CZ3	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:113:ALA:HA	8:H:125:LEU:O	2.08	0.53
1:A:178:GLY:C	1:A:179:LEU:HD23	2.29	0.53
1:A:453:MET:HE3	1:A:513:SER:HB2	1.90	0.53
2:B:324:ILE:HD11	2:B:329:THR:HG22	1.91	0.53
3:C:244:VAL:HG11	11:K:105:PHE:CE2	2.43	0.53
5:E:158:SER:O	5:E:162:ARG:HG3	2.07	0.53
1:A:535:THR:O	1:A:536:LEU:O	2.27	0.53
1:A:664:THR:HA	1:A:742:ASN:ND2	2.19	0.53
1:A:1016:THR:O	1:A:1019:CYS:HB2	2.09	0.53
1:A:1144:LYS:HA	1:A:1268:LEU:HD22	1.91	0.53
2:B:64:CYS:HA	2:B:67:SER:OG	2.08	0.53
2:B:825:VAL:HG11	2:B:1012:ILE:HD11	1.90	0.53
2:B:990:ILE:HG22	2:B:991:GLY:N	2.24	0.53
5:E:28:TYR:C	5:E:65:THR:HG23	2.29	0.53
1:A:23:SER:HB2	1:A:233:TRP:CE2	2.44	0.53
1:A:381:THR:O	1:A:384:ASN:OD1	2.27	0.53
2:B:124:TYR:CD2	2:B:124:TYR:O	2.61	0.53
2:B:652:LYS:O	2:B:689:LEU:HD22	2.09	0.53
2:B:941:LEU:HG	2:B:942:ARG:N	2.23	0.53
6:F:69:LEU:HB3	6:F:71:GLU:OE1	2.09	0.53
7:G:56:ILE:O	7:G:57:GLN:HB2	2.09	0.53
1:A:386:ASP:OD1	1:A:386:ASP:N	2.38	0.53
1:A:396:PRO:O	1:A:397:ASN:OD1	2.27	0.53
1:A:852:TYR:HD2	1:A:1060:PRO:CB	2.22	0.53
1:A:868:TYR:HE1	1:A:1064:VAL:CG1	2.17	0.53
1:A:1037:LEU:HD13	1:A:1041:ALA:HB1	1.90	0.53
2:B:581:PHE:HA	2:B:585:VAL:O	2.08	0.53
2:B:1096:ARG:CG	2:B:1097:HIS:H	2.22	0.53
2:B:1130:PHE:CE1	2:B:1134:GLU:HB3	2.44	0.53
4:D:56:ARG:HH21	4:D:155:ARG:HG2	1.73	0.53
6:F:87:LYS:HE2	6:F:88:TYR:HE1	1.73	0.53
6:F:133:VAL:HG21	7:G:58:ARG:HE	1.74	0.53
7:G:121:PHE:CE2	7:G:123:ALA:HB2	2.44	0.53
9:I:8:ARG:HG3	9:I:34:TYR:CE1	2.44	0.53
1:A:15:LYS:HB3	2:B:1220:ARG:NH2	2.23	0.53
1:A:315:LEU:HD22	1:A:319:GLY:O	2.08	0.53
1:A:1098:VAL:HB	1:A:1099:PRO:HD3	1.90	0.53
1:A:1313:LEU:HD23	1:A:1338:VAL:CG2	2.37	0.53
1:A:1376:THR:O	1:A:1377:THR:C	2.48	0.53
2:B:120:ARG:HH12	12:L:54:ARG:NH1	2.07	0.53
2:B:493:SER:N	2:B:751:VAL:HG11	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:553:PRO:O	2:B:557:PHE:HB2	2.09	0.53
2:B:1084:GLN:N	2:B:1084:GLN:HE21	2.07	0.53
5:E:78:LEU:HG	5:E:107:THR:CG2	2.39	0.53
7:G:5:LYS:HG3	7:G:6:ASP:N	2.23	0.53
1:A:970:THR:HG22	1:A:971:PHE:CD1	2.44	0.52
2:B:289:LEU:HD13	2:B:375:ALA:HB2	1.91	0.52
2:B:655:LYS:HD2	2:B:658:ILE:CG2	2.39	0.52
2:B:801:LYS:O	2:B:801:LYS:HG3	2.09	0.52
4:D:185:CYS:SG	4:D:190:GLU:HB3	2.49	0.52
7:G:55:ASP:HB3	7:G:73:LYS:CB	2.39	0.52
8:H:145:ARG:O	8:H:146:ARG:CB	2.56	0.52
11:K:40:HIS:CE1	11:K:63:VAL:HG11	2.43	0.52
12:L:30:ILE:CD1	12:L:59:ALA:HB2	2.40	0.52
1:A:1394:THR:HG22	1:A:1395:GLY:N	2.24	0.52
2:B:259:TYR:HD1	2:B:259:TYR:H	1.56	0.52
2:B:744:HIS:HD2	2:B:746:SER:OG	1.92	0.52
3:C:62:PHE:O	3:C:66:ARG:HG3	2.09	0.52
1:A:34:LYS:HB2	1:A:36:ARG:NH1	2.24	0.52
1:A:122:MET:HA	1:A:141:LEU:HD13	1.91	0.52
1:A:285:PRO:O	1:A:287:HIS:N	2.42	0.52
1:A:894:GLU:O	1:A:898:ARG:HB3	2.10	0.52
1:A:1258:HIS:O	1:A:1262:LYS:HE3	2.10	0.52
2:B:102:VAL:HG21	2:B:122:LEU:HD13	1.91	0.52
2:B:126:SER:O	2:B:169:ARG:HA	2.09	0.52
2:B:732:SER:HB3	2:B:734:HIS:CE1	2.45	0.52
2:B:878:GLN:H	2:B:934:LYS:NZ	2.07	0.52
2:B:899:ILE:HG22	2:B:900:ALA:O	2.09	0.52
2:B:1194:ILE:HD11	2:B:1196:ILE:HG21	1.90	0.52
3:C:46:ILE:HA	3:C:159:ALA:HA	1.91	0.52
3:C:115:SER:CB	3:C:142:VAL:HB	2.39	0.52
5:E:85:GLU:OE1	5:E:88:VAL:HA	2.10	0.52
1:A:129:LYS:O	1:A:130:ASP:CB	2.56	0.52
1:A:257:ARG:HG2	1:A:259:GLU:HG2	1.92	0.52
1:A:370:ILE:C	1:A:372:LYS:H	2.13	0.52
2:B:284:ILE:HD13	2:B:333:PHE:HD2	1.75	0.52
2:B:421:PHE:CE1	2:B:424:LEU:HD23	2.43	0.52
2:B:508:LEU:N	2:B:512:ARG:HH21	2.07	0.52
2:B:684:LEU:HA	2:B:689:LEU:HD12	1.92	0.52
2:B:848:ARG:NH2	2:B:996:ARG:HD2	2.15	0.52
4:D:216:ASN:C	4:D:218:GLU:H	2.13	0.52
6:F:109:VAL:CG1	6:F:110:ASP:N	2.71	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:84:ALA:HA	8:H:87:ARG:HD2	1.92	0.52
10:J:52:THR:HG22	10:J:52:THR:O	2.08	0.52
12:L:38:LEU:HD11	12:L:49:LYS:HE2	1.92	0.52
1:A:164:ARG:HG2	1:A:165:GLY:H	1.74	0.52
1:A:852:TYR:CD2	1:A:1060:PRO:CB	2.91	0.52
1:A:962:ARG:O	1:A:965:GLN:N	2.38	0.52
1:A:967:ALA:CA	1:A:1044:TRP:HZ3	2.22	0.52
1:A:1036:ARG:NH1	1:A:1036:ARG:CG	2.72	0.52
1:A:1037:LEU:HD12	1:A:1042:PHE:HA	1.91	0.52
4:D:59:ILE:HG23	7:G:47:CYS:SG	2.49	0.52
5:E:55:ARG:HD2	5:E:84:ASP:HA	1.92	0.52
6:F:78:GLN:O	6:F:78:GLN:HG2	2.10	0.52
7:G:27:LYS:O	7:G:31:LEU:HG	2.10	0.52
8:H:115:TYR:CE2	8:H:124:ARG:HG3	2.43	0.52
1:A:388:LEU:O	1:A:392:VAL:HG23	2.09	0.52
1:A:438:ASP:O	1:A:439:ASN:C	2.47	0.52
1:A:596:THR:O	1:A:598:LEU:N	2.42	0.52
1:A:692:ASP:C	1:A:694:THR:H	2.13	0.52
1:A:864:ILE:HG21	1:A:1370:LEU:CD2	2.39	0.52
1:A:929:LEU:H	1:A:929:LEU:CD2	2.22	0.52
1:A:1219:THR:CG2	1:A:1220:PHE:N	2.72	0.52
2:B:203:PHE:CD2	2:B:461:LEU:HD21	2.45	0.52
2:B:274:PRO:HB2	2:B:359:GLU:HB3	1.91	0.52
2:B:637:LEU:HD12	2:B:693:ILE:CD1	2.40	0.52
2:B:655:LYS:HE3	2:B:659:ALA:HB2	1.92	0.52
5:E:136:ASN:O	5:E:140:LEU:HG	2.09	0.52
6:F:117:PRO:HA	6:F:120:ILE:HB	1.90	0.52
7:G:139:ILE:HD13	7:G:140:LYS:HG3	1.92	0.52
8:H:89:LEU:C	8:H:91:ASP:H	2.13	0.52
1:A:1289:ARG:HD3	1:A:1290:LYS:O	2.10	0.52
1:A:1329:THR:HG23	1:A:1331:SER:H	1.74	0.52
2:B:427:ASP:O	2:B:430:ARG:HB2	2.10	0.52
2:B:702:LEU:O	2:B:739:THR:N	2.42	0.52
2:B:791:THR:O	2:B:792:MET:HB3	2.09	0.52
2:B:860:MET:HG2	2:B:861:ASP:N	2.24	0.52
7:G:111:THR:CG2	7:G:114:LEU:HD22	2.38	0.52
8:H:30:SER:HB3	8:H:36:CYS:HB3	1.91	0.52
1:A:28:ARG:HG3	1:A:83:HIS:ND1	2.24	0.52
1:A:567:LYS:CB	1:A:568:PRO:CD	2.74	0.52
1:A:1041:ALA:O	1:A:1045:VAL:HG23	2.09	0.52
1:A:1121:GLU:CG	1:A:1122:PRO:HD2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1259:MET:O	1:A:1259:MET:HE2	2.09	0.52
1:A:1365:TYR:HB2	5:E:203:GLU:OE1	2.10	0.52
1:A:1378:GLN:O	5:E:177:ARG:HD2	2.10	0.52
2:B:345:LYS:HA	2:B:348:ARG:HG2	1.91	0.52
2:B:766:ARG:NH2	2:B:1020:ARG:HB3	2.25	0.52
5:E:55:ARG:C	5:E:57:MET:N	2.61	0.52
5:E:153:HIS:ND1	5:E:153:HIS:N	2.58	0.52
1:A:645:LEU:O	1:A:649:ILE:HG13	2.09	0.52
1:A:814:PHE:HE1	2:B:519:TRP:CA	2.23	0.52
2:B:640:VAL:HG22	2:B:651:LEU:HD23	1.92	0.52
5:E:168:TYR:HB3	5:E:170:LEU:HG	1.90	0.52
1:A:130:ASP:H	1:A:134:ARG:HH21	1.58	0.52
1:A:1377:THR:HG22	5:E:176:PRO:HB3	1.92	0.52
2:B:483:LEU:HD12	2:B:484:ASN:N	2.25	0.52
2:B:582:VAL:HG22	2:B:626:ILE:CG2	2.39	0.52
3:C:166:GLU:HA	11:K:6:ARG:HB3	1.92	0.52
11:K:33:ILE:HB	11:K:35:PHE:HE1	1.76	0.52
11:K:53:ASP:C	11:K:55:LYS:H	2.11	0.52
1:A:172:PRO:HG3	1:A:185:TRP:CZ2	2.46	0.51
1:A:401:GLY:H	1:A:435:HIS:HD2	1.58	0.51
1:A:446:ARG:HB2	1:A:487:MET:HE3	1.92	0.51
1:A:693:VAL:O	1:A:693:VAL:HG12	2.10	0.51
2:B:479:VAL:O	2:B:480:SER:HB3	2.09	0.51
2:B:781:PHE:HD1	2:B:782:LEU:HG	1.75	0.51
3:C:92:CYS:SG	3:C:94:LYS:HB2	2.50	0.51
6:F:140:ASP:CG	6:F:141:GLY:H	2.13	0.51
6:F:146:TRP:HB3	6:F:151:LEU:HD11	1.92	0.51
1:A:1218:GLN:O	1:A:1221:LYS:HE3	2.10	0.51
1:A:1345:ARG:O	1:A:1348:LEU:HB3	2.10	0.51
2:B:527:THR:OG1	2:B:528:PRO:HD2	2.09	0.51
2:B:770:GLN:HB2	2:B:985:GLY:N	2.24	0.51
5:E:96:PHE:CD1	5:E:100:ILE:HD11	2.45	0.51
6:F:134:ILE:HG22	6:F:136:ARG:HG3	1.92	0.51
1:A:364:VAL:O	1:A:364:VAL:HG13	2.09	0.51
1:A:419:LYS:HG3	1:A:420:ARG:HG3	1.92	0.51
1:A:577:ILE:HA	1:A:580:VAL:CG2	2.39	0.51
1:A:913:LEU:HD12	1:A:914:GLU:H	1.73	0.51
1:A:1170:ILE:HG22	1:A:1174:PHE:CE1	2.46	0.51
2:B:54:PHE:CE2	2:B:59:LEU:HD13	2.45	0.51
2:B:287:ARG:HG2	2:B:292:ILE:HA	1.92	0.51
2:B:459:TYR:CE1	2:B:469:GLN:HB2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:100:GLN:O	6:F:103:MET:HB2	2.10	0.51
7:G:165:GLU:HG3	7:G:168:LEU:HD12	1.90	0.51
12:L:61:THR:HG21	12:L:63:ARG:NE	2.25	0.51
1:A:492:PRO:HG3	1:A:501:LEU:CD1	2.36	0.51
1:A:1037:LEU:HD12	1:A:1042:PHE:CA	2.40	0.51
2:B:378:LEU:O	2:B:382:ILE:HG13	2.10	0.51
2:B:408:LEU:CD1	2:B:545:ILE:HG21	2.41	0.51
2:B:522:VAL:CG1	2:B:537:LYS:HB3	2.40	0.51
2:B:640:VAL:O	2:B:640:VAL:HG12	2.09	0.51
2:B:886:LYS:HE2	2:B:940:PRO:CG	2.40	0.51
1:A:18:GLN:HG2	1:A:1418:LEU:HD13	1.91	0.51
1:A:151:ASP:HA	1:A:162:VAL:O	2.11	0.51
1:A:496:GLU:O	1:A:499:ALA:HB3	2.11	0.51
1:A:1324:PRO:CB	5:E:142:VAL:HG11	2.40	0.51
2:B:203:PHE:HD2	2:B:461:LEU:HD21	1.75	0.51
2:B:408:LEU:HD13	2:B:545:ILE:HG21	1.93	0.51
3:C:186:LEU:HB3	3:C:188:HIS:CD2	2.45	0.51
7:G:122:ASN:HB2	7:G:131:GLN:HG2	1.92	0.51
1:A:87:ALA:HB3	1:A:276:LEU:HD23	1.92	0.51
1:A:340:LEU:HD21	2:B:1200:ALA:N	2.26	0.51
1:A:853:ASP:HB3	6:F:138:LEU:HD21	1.93	0.51
1:A:981:LEU:HD23	1:A:1039:LYS:HA	1.93	0.51
1:A:1008:GLN:O	1:A:1011:GLN:HB3	2.11	0.51
1:A:1348:LEU:HD23	1:A:1372:VAL:HG13	1.92	0.51
2:B:294:ASP:C	2:B:296:GLU:H	2.14	0.51
2:B:638:PHE:HE1	2:B:743:ILE:HA	1.74	0.51
11:K:12:LEU:HA	11:K:37:LYS:HG3	1.91	0.51
1:A:44:THR:O	1:A:45:GLN:HB2	2.10	0.51
1:A:68:GLN:NE2	1:A:68:GLN:O	2.43	0.51
1:A:441:PRO:O	1:A:492:PRO:HG2	2.11	0.51
1:A:1011:GLN:NE2	1:A:1015:VAL:HG21	2.25	0.51
2:B:114:PRO:O	2:B:118:ARG:HG3	2.09	0.51
2:B:514:LEU:HD12	2:B:518:HIS:HD2	1.76	0.51
2:B:800:GLN:CB	10:J:52:THR:HG22	2.38	0.51
2:B:822:ASN:HD22	2:B:822:ASN:N	2.08	0.51
3:C:77:ILE:N	3:C:129:ILE:HD11	2.25	0.51
3:C:115:SER:HB2	3:C:142:VAL:HB	1.93	0.51
4:D:18:VAL:O	4:D:19:GLU:CB	2.57	0.51
8:H:31:THR:O	8:H:31:THR:HG22	2.10	0.51
12:L:44:ASP:O	12:L:45:ALA:HB3	2.10	0.51
1:A:332:LYS:C	1:A:334:GLY:H	2.15	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:338:GLY:HA2	2:B:1129:ARG:HH22	1.75	0.51
1:A:370:ILE:C	1:A:372:LYS:N	2.64	0.51
1:A:855:THR:HA	1:A:866:PHE:O	2.11	0.51
2:B:575:PRO:HG2	2:B:576:ASP:H	1.76	0.51
2:B:759:PRO:C	2:B:761:HIS:H	2.13	0.51
2:B:795:ILE:HD12	2:B:795:ILE:N	2.26	0.51
2:B:1022:THR:HG23	2:B:1022:THR:O	2.10	0.51
3:C:53:THR:HG21	3:C:152:GLU:HB3	1.92	0.51
3:C:57:VAL:HG23	3:C:58:LEU:N	2.26	0.51
7:G:111:THR:HG22	7:G:114:LEU:CD1	2.39	0.51
8:H:63:LEU:CB	8:H:90:ALA:HB3	2.41	0.51
8:H:95:TYR:HE2	8:H:97:MET:SD	2.34	0.51
12:L:34:CYS:O	12:L:35:SER:C	2.48	0.51
1:A:518:LYS:CB	1:A:519:PRO:HD2	2.40	0.51
1:A:586:ILE:HD11	1:A:633:VAL:HG22	1.93	0.51
1:A:666:ILE:HD12	1:A:667:GLY:N	2.24	0.51
1:A:852:TYR:CE1	6:F:136:ARG:HG2	2.45	0.51
1:A:866:PHE:O	1:A:867:ILE:HD12	2.09	0.51
1:A:1220:PHE:O	1:A:1221:LYS:HB2	2.11	0.51
1:A:1424:VAL:HG11	2:B:1139:ILE:HD13	1.92	0.51
1:A:1437:GLY:O	1:A:1441:PHE:CE2	2.64	0.51
2:B:32:ALA:HB3	2:B:658:ILE:HD11	1.92	0.51
2:B:698:GLU:HA	2:B:701:ILE:HG12	1.93	0.51
2:B:744:HIS:CG	2:B:745:PRO:HD2	2.45	0.51
2:B:1116:ARG:HG3	2:B:1198:TYR:CG	2.45	0.51
2:B:1212:ILE:O	2:B:1212:ILE:HG22	2.11	0.51
3:C:49:VAL:O	12:L:66:GLN:HA	2.10	0.51
3:C:184:ASN:ND2	3:C:189:THR:H	2.04	0.51
4:D:4:SER:O	4:D:5:THR:HB	2.11	0.51
8:H:59:ILE:O	8:H:60:ALA:CB	2.59	0.51
1:A:563:PRO:HB3	1:A:572:TRP:CE2	2.46	0.51
1:A:868:TYR:CE1	1:A:1064:VAL:HG22	2.45	0.51
1:A:1384:VAL:HA	1:A:1389:PHE:CE2	2.46	0.51
2:B:957:ASN:ND2	2:B:961:LEU:HB2	2.21	0.51
4:D:50:LEU:HD23	4:D:50:LEU:H	1.75	0.51
4:D:160:VAL:HG12	4:D:161:GLY:N	2.26	0.51
6:F:84:TYR:CA	6:F:152:ILE:HD12	2.41	0.51
8:H:59:ILE:HG22	8:H:60:ALA:H	1.75	0.51
10:J:8:PHE:CE2	10:J:49:MET:SD	3.04	0.51
11:K:68:PHE:N	11:K:68:PHE:HD2	2.08	0.51
1:A:331:GLY:O	1:A:332:LYS:O	2.29	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:353:ILE:HD12	1:A:470:LEU:HD21	1.92	0.50
1:A:490:HIS:CD2	1:A:490:HIS:N	2.79	0.50
1:A:993:LEU:HB2	1:A:1046:LEU:HD22	1.92	0.50
1:A:1130:GLN:O	1:A:1134:ILE:HG13	2.11	0.50
1:A:1293:SER:OG	1:A:1294:PRO:HD2	2.11	0.50
2:B:37:PHE:CE1	2:B:41:LYS:HG3	2.45	0.50
2:B:345:LYS:HE3	2:B:349:ILE:HD11	1.93	0.50
3:C:18:VAL:HG12	3:C:18:VAL:O	2.10	0.50
6:F:147:SER:OG	6:F:150:GLU:HG3	2.12	0.50
11:K:56:VAL:O	11:K:56:VAL:HG12	2.11	0.50
11:K:75:ILE:HD13	11:K:75:ILE:N	2.26	0.50
12:L:38:LEU:HD12	12:L:39:SER:N	2.26	0.50
1:A:332:LYS:H	1:A:337:ARG:CB	2.23	0.50
1:A:532:ARG:CD	1:A:749:ALA:HB2	2.41	0.50
2:B:240:ILE:HD12	2:B:241:ARG:N	2.25	0.50
2:B:390:LEU:O	2:B:391:ASP:C	2.49	0.50
2:B:785:TYR:HE2	10:J:60:PHE:CZ	2.29	0.50
2:B:1058:LEU:HD23	2:B:1061:GLU:OE2	2.10	0.50
3:C:66:ARG:NH2	10:J:3:VAL:O	2.45	0.50
6:F:101:ILE:HD11	6:F:107:VAL:HG13	1.92	0.50
11:K:68:PHE:O	11:K:70:ARG:HG2	2.11	0.50
11:K:83:PRO:O	11:K:84:LYS:C	2.49	0.50
1:A:184:SER:HB3	1:A:199:LEU:HD23	1.92	0.50
1:A:427:GLN:HG3	1:A:430:TRP:CZ2	2.45	0.50
1:A:881:GLN:HE22	1:A:959:ASN:HA	1.75	0.50
2:B:91:SER:OG	2:B:133:LYS:HB2	2.12	0.50
2:B:221:ASN:OD1	2:B:242:SER:HA	2.10	0.50
2:B:1037:LEU:H	2:B:1037:LEU:HD12	1.77	0.50
8:H:63:LEU:CG	8:H:90:ALA:HB3	2.41	0.50
1:A:63:ARG:HG3	1:A:74:MET:HE1	1.93	0.50
1:A:849:MET:CE	1:A:1061:GLY:HA2	2.42	0.50
1:A:1349:TYR:C	1:A:1349:TYR:HD2	2.14	0.50
2:B:60:GLN:NE2	2:B:95:ILE:HB	2.25	0.50
2:B:831:SER:HG	2:B:833:TYR:HD1	1.59	0.50
3:C:37:MET:HE3	3:C:176:ILE:HD13	1.94	0.50
3:C:76:ASP:O	3:C:79:GLN:HG2	2.11	0.50
3:C:261:ALA:HA	3:C:264:GLN:OE1	2.12	0.50
4:D:47:LEU:HD13	4:D:48:ILE:N	2.26	0.50
5:E:89:GLY:C	5:E:91:LYS:H	2.13	0.50
5:E:164:LEU:HD22	5:E:211:TYR:CD2	2.45	0.50
1:A:442:VAL:O	1:A:457:ALA:HA	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:593:GLU:C	1:A:595:THR:H	2.15	0.50
1:A:966:ASN:O	1:A:970:THR:CB	2.60	0.50
1:A:1329:THR:O	1:A:1329:THR:HG22	2.10	0.50
2:B:323:VAL:O	2:B:323:VAL:HG12	2.10	0.50
2:B:796:LEU:HD21	2:B:821:GLN:HG3	1.92	0.50
2:B:912:ILE:HD11	2:B:966:VAL:HG23	1.92	0.50
2:B:971:THR:OG1	3:C:61:GLU:HG3	2.12	0.50
4:D:35:LEU:HD11	4:D:173:HIS:CD2	2.46	0.50
4:D:156:ASP:C	4:D:158:GLU:H	2.14	0.50
7:G:81:PRO:O	7:G:82:PHE:CD2	2.65	0.50
8:H:58:THR:HG22	8:H:59:ILE:N	2.26	0.50
8:H:118:PHE:HD1	8:H:121:LEU:O	1.95	0.50
11:K:22:ASP:C	11:K:31:VAL:HG13	2.31	0.50
1:A:302:THR:HA	1:A:305:ASP:O	2.12	0.50
1:A:353:ILE:HG21	1:A:487:MET:CG	2.40	0.50
1:A:354:SER:HA	1:A:482:PHE:CE2	2.47	0.50
1:A:464:PRO:O	1:A:465:TYR:O	2.30	0.50
1:A:573:SER:OG	1:A:576:GLN:HB2	2.11	0.50
1:A:633:VAL:O	1:A:634:THR:C	2.48	0.50
1:A:858:ASN:ND2	1:A:861:GLY:H	2.09	0.50
1:A:1120:LEU:O	1:A:1323:ASP:HB2	2.12	0.50
2:B:628:THR:HG23	2:B:628:THR:O	2.10	0.50
2:B:637:LEU:HB3	2:B:740:HIS:HB3	1.93	0.50
2:B:780:VAL:HG21	10:J:56:LEU:HD11	1.94	0.50
2:B:1077:THR:OG1	2:B:1079:LYS:HB3	2.11	0.50
2:B:1183:LYS:HD2	2:B:1183:LYS:O	2.11	0.50
4:D:128:VAL:O	4:D:131:GLU:HB3	2.12	0.50
5:E:80:VAL:HG12	5:E:82:PHE:HE1	1.77	0.50
7:G:106:MET:HG2	7:G:107:LYS:N	2.25	0.50
1:A:82:GLY:C	1:A:241:VAL:HB	2.32	0.50
1:A:185:TRP:HE3	1:A:185:TRP:H	1.58	0.50
1:A:973:ILE:HG21	1:A:1036:ARG:O	2.12	0.50
1:A:1329:THR:H	1:A:1335:ILE:HD11	1.77	0.50
2:B:213:ILE:HD11	2:B:481:GLN:CD	2.32	0.50
2:B:370:PHE:HD2	2:B:373:ARG:HD2	1.77	0.50
2:B:429:PHE:CD2	2:B:433:GLN:NE2	2.79	0.50
2:B:429:PHE:HD2	2:B:433:GLN:NE2	2.10	0.50
2:B:1107:ALA:O	2:B:1108:ARG:HB2	2.11	0.50
4:D:13:ARG:C	4:D:15:LEU:H	2.15	0.50
5:E:117:THR:HG22	5:E:119:SER:H	1.76	0.50
12:L:27:LEU:HD13	12:L:37:LYS:HG2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:129:LYS:O	1:A:130:ASP:HB2	2.12	0.50
1:A:379:VAL:HG12	1:A:380:VAL:H	1.76	0.50
1:A:1011:GLN:NE2	1:A:1015:VAL:CG2	2.75	0.50
1:A:1323:ASP:OD2	1:A:1325:THR:HG22	2.12	0.50
2:B:60:GLN:HE22	2:B:95:ILE:HB	1.76	0.50
2:B:844:SER:O	2:B:847:ASP:HB2	2.12	0.50
4:D:220:LEU:HD23	4:D:221:TYR:N	2.23	0.50
5:E:23:VAL:O	5:E:28:TYR:HB2	2.11	0.50
7:G:1:MET:HE3	7:G:80:LYS:O	2.11	0.50
7:G:53:ASN:HD22	7:G:53:ASN:N	2.10	0.50
8:H:106:GLU:HG2	8:H:112:ILE:HD11	1.92	0.50
8:H:139:ASN:O	8:H:140:ALA:CB	2.59	0.50
1:A:79:GLY:HA3	1:A:243:PRO:CB	2.37	0.50
1:A:476:SER:N	1:A:477:PRO:CD	2.75	0.50
1:A:947:PHE:N	1:A:947:PHE:CD2	2.80	0.50
1:A:1198:ASP:HB3	1:A:1201:ALA:CB	2.41	0.50
1:A:1445:ILE:HD11	7:G:70:PHE:CE2	2.47	0.50
2:B:1160:VAL:CG1	2:B:1161:HIS:H	2.25	0.50
3:C:127:ARG:O	3:C:129:ILE:N	2.45	0.50
4:D:125:SER:O	4:D:128:VAL:HB	2.12	0.50
11:K:35:PHE:N	11:K:35:PHE:CD1	2.78	0.50
1:A:24:PRO:O	1:A:28:ARG:HB2	2.12	0.49
1:A:40:THR:CG2	1:A:54:ASN:HD21	2.24	0.49
1:A:100:LYS:HE2	1:A:104:GLU:OE2	2.12	0.49
1:A:903:ASN:HD22	1:A:905:ASP:N	1.87	0.49
1:A:1103:GLU:C	1:A:1108:ALA:HB2	2.32	0.49
1:A:1331:SER:OG	1:A:1333:ILE:HG22	2.12	0.49
2:B:1096:ARG:HB2	2:B:1096:ARG:NH1	2.27	0.49
3:C:70:ILE:O	3:C:72:LEU:CD1	2.56	0.49
3:C:77:ILE:HA	3:C:129:ILE:HD11	1.93	0.49
3:C:93:ASP:OD2	3:C:122:SER:HB2	2.11	0.49
7:G:9:LEU:HG	7:G:11:ILE:CG1	2.41	0.49
7:G:159:ALA:C	7:G:160:ILE:HD12	2.32	0.49
1:A:490:HIS:HE1	2:B:1130:PHE:HB2	1.77	0.49
1:A:1198:ASP:HB3	1:A:1201:ALA:HB3	1.94	0.49
2:B:58:THR:O	2:B:62:ILE:HG13	2.12	0.49
2:B:1065:GLN:HE21	2:B:1067:ARG:H	1.58	0.49
4:D:40:HIS:CD2	7:G:73:LYS:HE3	2.47	0.49
5:E:100:ILE:HG23	5:E:105:PHE:HD1	1.74	0.49
5:E:106:GLN:HA	5:E:130:ALA:HB2	1.95	0.49
5:E:182:ASP:OD1	5:E:183:PRO:HD2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:9:ALA:HB3	2:B:1193:GLN:HB2	1.93	0.49
1:A:58:LEU:HD13	1:A:243:PRO:HA	1.94	0.49
1:A:91:PHE:N	1:A:297:GLN:HE22	2.09	0.49
1:A:374:LEU:HD11	2:B:1105:ALA:HB1	1.94	0.49
1:A:525:GLN:O	1:A:526:ASP:C	2.50	0.49
1:A:1322:ILE:HG13	1:A:1323:ASP:N	2.26	0.49
2:B:545:ILE:HG22	2:B:546:SER:O	2.12	0.49
4:D:6:SER:HB3	7:G:8:SER:OG	2.11	0.49
4:D:155:ARG:NH2	4:D:221:TYR:CD1	2.81	0.49
5:E:3:GLN:HE21	5:E:52:ARG:HH12	1.58	0.49
10:J:57:ILE:CG2	10:J:58:GLU:N	2.75	0.49
1:A:253:ASN:HB3	2:B:935:ARG:NH1	2.28	0.49
1:A:370:ILE:HG22	1:A:374:LEU:HD13	1.92	0.49
1:A:1030:ARG:HD3	1:A:1035:TYR:OH	2.13	0.49
1:A:1197:LEU:HD12	1:A:1209:MET:SD	2.52	0.49
2:B:168:GLY:HA2	2:B:454:THR:OG1	2.12	0.49
2:B:269:ILE:HG21	2:B:282:ILE:HD13	1.95	0.49
2:B:780:VAL:HB	2:B:817:LEU:HD22	1.93	0.49
2:B:1016:ALA:HB1	2:B:1020:ARG:HE	1.76	0.49
3:C:165:LYS:O	11:K:6:ARG:HD2	2.13	0.49
6:F:139:PRO:O	6:F:141:GLY:N	2.45	0.49
7:G:8:SER:HA	7:G:72:VAL:O	2.12	0.49
11:K:57:LEU:H	11:K:77:THR:HA	1.77	0.49
12:L:38:LEU:O	12:L:39:SER:HB2	2.12	0.49
1:A:670:ILE:HD13	1:A:670:ILE:H	1.78	0.49
1:A:868:TYR:CE1	1:A:1064:VAL:CG1	2.92	0.49
2:B:222:ILE:HD11	2:B:627:PHE:HZ	1.77	0.49
2:B:458:LYS:O	2:B:459:TYR:C	2.51	0.49
2:B:822:ASN:ND2	10:J:52:THR:HG21	2.27	0.49
2:B:900:ALA:CB	12:L:61:THR:OG1	2.61	0.49
3:C:86:CYS:SG	3:C:87:PHE:N	2.86	0.49
3:C:185:LYS:C	3:C:186:LEU:HD12	2.33	0.49
4:D:25:ALA:C	4:D:27:LEU:H	2.15	0.49
4:D:156:ASP:C	4:D:158:GLU:N	2.64	0.49
5:E:4:GLU:HB3	5:E:7:ARG:HE	1.76	0.49
12:L:61:THR:HG21	12:L:63:ARG:HE	1.77	0.49
1:A:528:LEU:C	1:A:528:LEU:HD12	2.33	0.49
1:A:741:ASN:HD21	1:A:743:VAL:CG2	2.12	0.49
1:A:761:MET:HA	1:A:804:TYR:HB2	1.95	0.49
2:B:176:SER:O	2:B:182:SER:HB3	2.13	0.49
2:B:604:ARG:HG3	2:B:611:PRO:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:642:ASP:CA	2:B:649:LYS:HG3	2.42	0.49
9:I:17:ARG:NH2	9:I:30:ARG:NH2	2.61	0.49
1:A:335:ARG:O	1:A:339:ASN:HB2	2.13	0.49
1:A:967:ALA:HA	1:A:1044:TRP:CZ3	2.47	0.49
1:A:1146:VAL:HG12	1:A:1201:ALA:O	2.12	0.49
1:A:1325:THR:O	5:E:147:HIS:CD2	2.66	0.49
2:B:1170:THR:HB	2:B:1182:CYS:HB2	1.95	0.49
3:C:45:ALA:HB1	3:C:72:LEU:HD13	1.94	0.49
5:E:93:MET:O	5:E:97:VAL:HG23	2.13	0.49
12:L:45:ALA:C	12:L:46:VAL:HG22	2.33	0.49
1:A:14:VAL:N	1:A:1432:GLN:HE22	2.01	0.49
1:A:34:LYS:CE	1:A:57:ARG:NH1	2.71	0.49
1:A:316:GLN:HG2	1:A:317:LYS:HG2	1.93	0.49
2:B:167:ILE:HG22	2:B:453:ILE:HG13	1.94	0.49
2:B:226:PHE:CE2	2:B:398:ARG:NH2	2.80	0.49
2:B:298:LEU:HD22	2:B:298:LEU:N	2.27	0.49
2:B:361:LEU:N	2:B:362:PRO:HD3	2.26	0.49
2:B:635:ARG:HH22	2:B:742:GLU:CD	2.16	0.49
3:C:15:LYS:O	3:C:240:VAL:HG22	2.13	0.49
3:C:112:ASN:HB3	3:C:114:TYR:HE1	1.78	0.49
4:D:71:LYS:HA	4:D:74:GLN:HG3	1.93	0.49
6:F:88:TYR:O	6:F:89:GLU:C	2.50	0.49
7:G:13:LEU:HD23	7:G:14:HIS:H	1.75	0.49
8:H:62:SER:C	8:H:63:LEU:HD12	2.33	0.49
8:H:115:TYR:CZ	8:H:124:ARG:HG3	2.48	0.49
11:K:42:LEU:O	11:K:46:ILE:HG13	2.13	0.49
1:A:41:MET:CB	1:A:49:LYS:HA	2.43	0.49
1:A:63:ARG:HG2	1:A:74:MET:HE1	1.93	0.49
1:A:224:PHE:CD2	1:A:231:PRO:CD	2.95	0.49
1:A:362:ASP:HB3	1:A:507:VAL:CG1	2.39	0.49
1:A:572:TRP:HH2	8:H:79:TRP:CZ3	2.31	0.49
1:A:883:LEU:HD21	1:A:956:LEU:HD11	1.95	0.49
1:A:1116:LEU:HB2	1:A:1311:VAL:HG22	1.93	0.49
1:A:1332:PHE:N	1:A:1332:PHE:CD2	2.80	0.49
2:B:705:MET:N	2:B:710:LEU:HD12	2.25	0.49
2:B:980:PHE:HE1	2:B:990:ILE:HG13	1.78	0.49
2:B:1203:LEU:HA	2:B:1206:GLU:OE1	2.13	0.49
3:C:8:VAL:HG12	3:C:9:LYS:H	1.78	0.49
4:D:52:LEU:O	4:D:54:GLU:N	2.44	0.49
4:D:138:ASN:O	4:D:139:LYS:C	2.51	0.49
6:F:109:VAL:CG1	6:F:110:ASP:H	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:55:ILE:O	12:L:56:LEU:CB	2.60	0.49
1:A:563:PRO:HB3	1:A:572:TRP:CZ2	2.47	0.49
1:A:567:LYS:CB	8:H:95:TYR:HA	2.43	0.49
1:A:741:ASN:HD22	1:A:743:VAL:N	2.11	0.49
1:A:901:LEU:HB2	1:A:926:GLN:HG2	1.94	0.49
1:A:997:LEU:HD22	1:A:1053:PHE:CD2	2.48	0.49
1:A:1437:GLY:O	1:A:1441:PHE:HE2	1.96	0.49
2:B:188:ASP:C	2:B:192:LEU:HD12	2.33	0.49
2:B:227:LYS:H	2:B:395:GLN:CD	2.16	0.49
2:B:288:ALA:HB1	2:B:331:LEU:HG	1.94	0.49
2:B:290:GLY:O	2:B:292:ILE:HG13	2.13	0.49
2:B:581:PHE:O	2:B:626:ILE:HB	2.12	0.49
2:B:757:PRO:O	2:B:758:PHE:HB2	2.13	0.49
2:B:1106:ARG:HH11	2:B:1126:GLY:HA2	1.78	0.49
4:D:179:GLN:O	4:D:183:LEU:HD12	2.13	0.49
5:E:185:ALA:HA	5:E:190:LEU:HG	1.95	0.49
5:E:198:ILE:HB	5:E:210:SER:HB3	1.94	0.49
7:G:17:PHE:C	7:G:19:GLY:H	2.16	0.49
1:A:14:VAL:HB	1:A:1430:LEU:CD1	2.43	0.48
1:A:28:ARG:HG3	1:A:83:HIS:CE1	2.48	0.48
1:A:58:LEU:CB	1:A:80:HIS:O	2.61	0.48
1:A:252:PHE:O	1:A:253:ASN:HB3	2.13	0.48
1:A:426:LEU:O	1:A:427:GLN:HG2	2.13	0.48
1:A:453:MET:HG2	1:A:520:CYS:SG	2.53	0.48
1:A:491:VAL:HG13	1:A:492:PRO:O	2.13	0.48
1:A:863:VAL:HG12	1:A:864:ILE:N	2.28	0.48
1:A:998:LEU:O	1:A:999:VAL:HG23	2.13	0.48
2:B:188:ASP:OD2	2:B:188:ASP:N	2.44	0.48
2:B:446:LEU:HD23	2:B:448:ILE:HD11	1.94	0.48
2:B:515:HIS:CD2	2:B:517:THR:OG1	2.66	0.48
2:B:876:LYS:HG3	2:B:893:LEU:HD12	1.95	0.48
3:C:167:HIS:CD2	12:L:70:ARG:HG2	2.49	0.48
12:L:47:ARG:HB2	12:L:47:ARG:NH1	2.27	0.48
1:A:81:PHE:CE2	1:A:243:PRO:HD3	2.48	0.48
1:A:125:ALA:O	1:A:128:ILE:HB	2.13	0.48
1:A:360:GLU:O	1:A:361:LEU:C	2.51	0.48
1:A:874:ASP:O	1:A:876:ALA:N	2.46	0.48
1:A:1152:ILE:HD11	9:I:44:TYR:HD2	1.77	0.48
1:A:1329:THR:CG2	1:A:1331:SER:H	2.26	0.48
1:A:1362:TYR:CD1	1:A:1362:TYR:C	2.85	0.48
2:B:190:TYR:HD2	10:J:63:TYR:CE2	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:360:PHE:O	2:B:361:LEU:C	2.52	0.48
2:B:983:ARG:HH11	2:B:1091:TYR:HB3	1.78	0.48
3:C:61:GLU:O	3:C:62:PHE:C	2.50	0.48
4:D:51:ASN:HB3	4:D:178:ALA:O	2.13	0.48
6:F:76:LYS:O	6:F:79:ARG:HD3	2.13	0.48
6:F:80:ALA:HB3	6:F:144:GLU:OE2	2.13	0.48
7:G:30:LEU:CD2	7:G:31:LEU:HD23	2.43	0.48
10:J:17:LYS:O	10:J:20:SER:N	2.45	0.48
1:A:380:VAL:HB	1:A:430:TRP:H	1.78	0.48
2:B:202:TYR:CD2	2:B:202:TYR:N	2.65	0.48
2:B:659:ALA:HA	2:B:662:MET:HE2	1.94	0.48
2:B:1007:VAL:HG23	2:B:1008:PRO:CD	2.43	0.48
2:B:1079:LYS:N	3:C:27:LEU:HD21	2.29	0.48
3:C:68:GLY:O	3:C:169:LYS:HB2	2.13	0.48
3:C:235:VAL:HG12	10:J:13:VAL:CG1	2.43	0.48
5:E:152:LYS:HG3	5:E:154:ILE:CD1	2.43	0.48
7:G:13:LEU:HD21	7:G:17:PHE:HB2	1.95	0.48
11:K:31:VAL:HG12	11:K:32:VAL:N	2.28	0.48
11:K:109:TRP:C	11:K:109:TRP:CD1	2.87	0.48
1:A:298:PHE:C	1:A:298:PHE:CD2	2.87	0.48
1:A:567:LYS:HB3	8:H:95:TYR:HA	1.95	0.48
1:A:588:LEU:HB3	1:A:607:ILE:HB	1.95	0.48
1:A:763:ALA:C	1:A:803:SER:HB3	2.33	0.48
1:A:981:LEU:CD2	1:A:1039:LYS:HA	2.42	0.48
1:A:1393:ASN:O	1:A:1394:THR:O	2.30	0.48
2:B:108:VAL:HG23	2:B:109:THR:N	2.29	0.48
2:B:516:ASN:ND2	2:B:516:ASN:N	2.62	0.48
2:B:541:LEU:CD1	2:B:747:MET:HE1	2.44	0.48
2:B:629:ASP:HB3	2:B:632:ARG:HE	1.78	0.48
2:B:973:ILE:HG23	2:B:974:PRO:HD2	1.95	0.48
2:B:1206:GLU:O	2:B:1209:ALA:HB3	2.13	0.48
3:C:167:HIS:O	3:C:169:LYS:N	2.47	0.48
4:D:56:ARG:HD3	4:D:149:THR:CA	2.41	0.48
11:K:34:THR:O	11:K:34:THR:HG22	2.13	0.48
1:A:81:PHE:HA	1:A:243:PRO:HG3	1.96	0.48
1:A:255:SER:OG	2:B:918:ILE:HD13	2.14	0.48
1:A:463:ILE:CB	1:A:464:PRO:CD	2.87	0.48
1:A:728:LYS:O	1:A:732:LEU:HB2	2.14	0.48
1:A:1005:GLU:O	1:A:1006:ILE:C	2.51	0.48
2:B:120:ARG:CD	2:B:955:THR:HG21	2.44	0.48
2:B:582:VAL:HB	2:B:587:HIS:CD2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:736:THR:O	2:B:736:THR:HG22	2.13	0.48
3:C:57:VAL:HG23	3:C:58:LEU:HD23	1.96	0.48
4:D:73:SER:CB	7:G:21:ARG:HH21	2.26	0.48
5:E:79:TRP:HB2	5:E:105:PHE:CE1	2.48	0.48
7:G:150:CYS:C	7:G:151:ILE:HD12	2.33	0.48
10:J:6:ARG:N	10:J:14:VAL:HB	2.28	0.48
12:L:38:LEU:HD21	12:L:48:CYS:HA	1.95	0.48
1:A:58:LEU:HD12	1:A:244:PRO:CD	2.44	0.48
1:A:67:CYS:O	1:A:68:GLN:C	2.52	0.48
1:A:257:ARG:HG2	1:A:258:GLY:H	1.78	0.48
1:A:722:LEU:HD23	1:A:799:PHE:CD1	2.49	0.48
1:A:773:LYS:H	1:A:773:LYS:HD2	1.78	0.48
1:A:1021:LEU:O	1:A:1024:SER:HB3	2.13	0.48
1:A:1151:GLU:HG2	9:I:45:ARG:HB2	1.96	0.48
2:B:642:ASP:HA	2:B:649:LYS:HG3	1.95	0.48
3:C:124:LEU:HB3	3:C:126:GLY:H	1.77	0.48
3:C:179:GLU:HG2	3:C:180:TYR:N	2.28	0.48
3:C:183:TRP:O	3:C:185:LYS:N	2.47	0.48
5:E:100:ILE:CG2	5:E:105:PHE:HB2	2.43	0.48
5:E:151:PRO:HD2	5:E:153:HIS:HE1	1.77	0.48
6:F:72:LYS:O	6:F:143:PHE:CD2	2.67	0.48
6:F:138:LEU:O	6:F:139:PRO:C	2.52	0.48
9:I:33:SER:O	9:I:35:VAL:HG23	2.13	0.48
12:L:59:ALA:O	12:L:60:ARG:O	2.31	0.48
1:A:446:ARG:HD2	1:A:480:ALA:HB2	1.94	0.48
1:A:722:LEU:N	1:A:722:LEU:HD12	2.29	0.48
1:A:1105:LEU:HD22	1:A:1384:VAL:HG21	1.96	0.48
1:A:1290:LYS:O	1:A:1291:VAL:HG23	2.14	0.48
2:B:637:LEU:HB2	2:B:693:ILE:HD12	1.94	0.48
3:C:57:VAL:CG1	10:J:60:PHE:HB3	2.37	0.48
3:C:173:ALA:O	3:C:174:ALA:HB3	2.14	0.48
8:H:58:THR:HG22	8:H:59:ILE:H	1.79	0.48
12:L:51:CYS:HB3	12:L:53:HIS:HB2	1.94	0.48
1:A:49:LYS:NZ	1:A:61:ILE:HG13	2.28	0.48
1:A:145:LYS:HE3	1:A:145:LYS:HA	1.96	0.48
1:A:245:PRO:O	2:B:1114:LEU:CD1	2.61	0.48
1:A:492:PRO:HA	1:A:497:THR:HG21	1.96	0.48
1:A:967:ALA:HA	1:A:1044:TRP:HZ3	1.77	0.48
1:A:1430:LEU:O	1:A:1432:GLN:HG3	2.12	0.48
2:B:247:GLY:HA2	2:B:418:LYS:NZ	2.28	0.48
6:F:100:GLN:HA	6:F:103:MET:HB2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:48:PRO:O	8:H:49:VAL:HG23	2.14	0.48
1:A:350:ARG:O	1:A:351:THR:HG22	2.13	0.48
1:A:388:LEU:HB3	1:A:432:VAL:HG21	1.95	0.48
1:A:744:LYS:HG2	1:A:748:MET:HE2	1.96	0.48
1:A:756:ILE:O	1:A:759:ALA:HB3	2.14	0.48
1:A:831:THR:O	1:A:834:THR:HB	2.14	0.48
1:A:1227:ILE:C	1:A:1228:TRP:CE3	2.86	0.48
1:A:1227:ILE:CA	1:A:1228:TRP:CE3	2.96	0.48
2:B:179:CYS:SG	2:B:181:LEU:HB2	2.54	0.48
2:B:496:ARG:O	2:B:539:LEU:HD12	2.14	0.48
2:B:796:LEU:O	2:B:799:PRO:HD3	2.14	0.48
2:B:1114:LEU:HD11	2:B:1202:LEU:HD11	1.94	0.48
3:C:70:ILE:HG22	3:C:71:PRO:HD2	1.95	0.48
3:C:97:VAL:HG21	3:C:129:ILE:HG22	1.96	0.48
4:D:32:GLU:HB3	4:D:33:PHE:CD1	2.49	0.48
5:E:61:GLN:HB2	5:E:79:TRP:CE3	2.49	0.48
5:E:153:HIS:CD2	5:E:184:VAL:HG11	2.49	0.48
7:G:61:ILE:HG13	7:G:68:ALA:HB2	1.94	0.48
8:H:125:LEU:HG	8:H:126:GLU:N	2.28	0.48
1:A:89:PRO:O	1:A:204:THR:HG21	2.14	0.48
1:A:105:CYS:O	1:A:114:LEU:HG	2.12	0.48
1:A:523:ILE:HG23	1:A:527:THR:HB	1.95	0.48
1:A:974:ASP:OD2	1:A:977:LYS:HB2	2.14	0.48
1:A:1227:ILE:CA	1:A:1228:TRP:HE3	2.27	0.48
2:B:351:TYR:CD1	2:B:355:ILE:HD11	2.47	0.48
2:B:409:ALA:O	2:B:413:LEU:HD12	2.14	0.48
2:B:1003:ALA:CB	3:C:179:GLU:HB2	2.43	0.48
2:B:1084:GLN:C	2:B:1085:ILE:HD12	2.34	0.48
3:C:3:GLU:HB3	11:K:104:ASN:ND2	2.29	0.48
4:D:4:SER:O	4:D:5:THR:CB	2.62	0.48
5:E:119:SER:HA	5:E:122:LYS:CG	2.43	0.48
5:E:151:PRO:HD2	5:E:153:HIS:CE1	2.49	0.48
1:A:535:THR:CG2	1:A:616:VAL:HA	2.44	0.47
1:A:850:VAL:HG23	1:A:1064:VAL:CG2	2.44	0.47
1:A:1001:ARG:O	1:A:1002:GLY:O	2.32	0.47
1:A:1141:THR:CG2	1:A:1205:LYS:HD3	2.43	0.47
1:A:1260:LEU:HA	1:A:1263:ILE:CD1	2.44	0.47
2:B:500:THR:O	2:B:535:LEU:HD22	2.14	0.47
2:B:758:PHE:CZ	2:B:1044:ALA:HA	2.49	0.47
2:B:862:GLN:HA	2:B:962:LYS:O	2.14	0.47
2:B:1192:TYR:CD1	2:B:1218:THR:HG21	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:49:ALA:HB3	4:D:174:PRO:O	2.13	0.47
8:H:130:ARG:HB3	8:H:133:ASN:HB2	1.96	0.47
9:I:17:ARG:HB3	9:I:26:LEU:HB3	1.96	0.47
12:L:32:ALA:HB3	12:L:55:ILE:HG13	1.92	0.47
1:A:425:GLN:H	1:A:425:GLN:CD	2.16	0.47
1:A:515:GLN:HE22	1:A:1074:GLU:HB3	1.80	0.47
1:A:947:PHE:N	1:A:947:PHE:HD2	2.11	0.47
1:A:1261:LYS:O	1:A:1264:GLU:HB3	2.14	0.47
1:A:1346:ALA:O	1:A:1347:ALA:C	2.52	0.47
2:B:27:ALA:O	2:B:29:ASP:N	2.47	0.47
2:B:113:TYR:HD2	2:B:114:PRO:HD2	1.77	0.47
2:B:485:ARG:NH1	2:B:782:LEU:HD21	2.29	0.47
2:B:785:TYR:C	2:B:787:VAL:N	2.67	0.47
2:B:797:TYR:HB3	2:B:798:TYR:CD2	2.43	0.47
2:B:1046:PRO:O	2:B:1048:THR:HG23	2.14	0.47
2:B:1193:GLN:C	2:B:1194:ILE:HG22	2.34	0.47
3:C:82:TYR:CD2	3:C:84:ARG:NH2	2.82	0.47
3:C:141:GLY:O	3:C:142:VAL:HB	2.14	0.47
5:E:84:ASP:O	5:E:86:PRO:HD3	2.14	0.47
7:G:56:ILE:HG23	7:G:57:GLN:N	2.26	0.47
8:H:37:LYS:HD2	8:H:126:GLU:OE2	2.13	0.47
11:K:22:ASP:O	11:K:31:VAL:HG13	2.13	0.47
1:A:1226:VAL:HG22	1:A:1240:CYS:CB	2.43	0.47
2:B:276:ILE:HD11	2:B:334:ILE:HG23	1.96	0.47
2:B:277:LYS:HG2	2:B:336:ARG:O	2.14	0.47
2:B:409:ALA:C	2:B:413:LEU:HD12	2.34	0.47
2:B:706:GLN:HA	2:B:707:PRO:HD2	1.72	0.47
2:B:743:ILE:H	2:B:743:ILE:HG12	1.41	0.47
2:B:1101:ASP:O	2:B:1122:ARG:CZ	2.63	0.47
4:D:71:LYS:HA	4:D:74:GLN:CG	2.44	0.47
5:E:131:THR:HG21	5:E:191:LYS:NZ	2.29	0.47
5:E:143:ASN:HB3	5:E:146:HIS:HB2	1.95	0.47
1:A:1289:ARG:HH22	1:A:1326:ARG:NH1	2.12	0.47
1:A:1364:ASN:O	1:A:1365:TYR:C	2.53	0.47
1:A:1364:ASN:O	1:A:1366:ARG:N	2.47	0.47
1:A:1391:ARG:O	1:A:1392:SER:O	2.33	0.47
2:B:365:THR:HG23	2:B:367:LEU:N	2.29	0.47
2:B:582:VAL:HG22	2:B:626:ILE:HG21	1.96	0.47
2:B:612:GLU:HG2	2:B:613:VAL:N	2.28	0.47
2:B:918:ILE:HD12	2:B:935:ARG:CZ	2.44	0.47
2:B:1205:GLN:O	2:B:1208:MET:HB2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:41:ILE:HD12	3:C:243:VAL:HG13	1.96	0.47
4:D:154:PHE:HZ	4:D:214:LEU:CD1	2.28	0.47
5:E:124:VAL:CG1	5:E:132:ILE:HB	2.32	0.47
1:A:127:ALA:O	1:A:129:LYS:HG3	2.15	0.47
1:A:464:PRO:HG2	1:A:465:TYR:HD1	1.79	0.47
1:A:1037:LEU:HD12	1:A:1042:PHE:N	2.30	0.47
1:A:1173:HIS:HB3	1:A:1227:ILE:HD13	1.97	0.47
1:A:1444:MET:HE2	1:A:1444:MET:HB2	1.63	0.47
2:B:32:ALA:O	2:B:35:SER:HB2	2.15	0.47
2:B:43:LEU:HD11	2:B:811:TYR:O	2.14	0.47
2:B:310:MET:O	2:B:311:LEU:C	2.52	0.47
3:C:125:MET:HB2	3:C:127:ARG:HE	1.78	0.47
7:G:151:ILE:HD12	7:G:151:ILE:N	2.30	0.47
9:I:7:CYS:C	9:I:8:ARG:O	2.51	0.47
12:L:38:LEU:CD1	12:L:49:LYS:HE2	2.44	0.47
1:A:336:ILE:HD11	2:B:1203:LEU:HD12	1.92	0.47
1:A:390:GLN:HE21	1:A:394:ASN:HD21	1.63	0.47
1:A:451:HIS:ND1	1:A:451:HIS:N	2.62	0.47
1:A:482:PHE:CD1	2:B:836:GLU:HB2	2.50	0.47
1:A:501:LEU:HD21	2:B:1146:PHE:CD1	2.49	0.47
1:A:675:THR:HG22	1:A:675:THR:O	2.15	0.47
1:A:852:TYR:HE2	1:A:1060:PRO:HB2	1.72	0.47
1:A:864:ILE:N	1:A:864:ILE:CD1	2.78	0.47
1:A:1400:CYS:HA	1:A:1408:ILE:HD12	1.97	0.47
2:B:190:TYR:CD1	10:J:62:ARG:HD3	2.49	0.47
2:B:498:THR:HB	2:B:537:LYS:O	2.14	0.47
2:B:834:ASN:O	2:B:1013:ASN:HB2	2.15	0.47
3:C:178:PHE:HD2	3:C:178:PHE:C	2.18	0.47
3:C:241:ASP:HB3	11:K:109:TRP:CZ3	2.49	0.47
7:G:8:SER:HB2	7:G:71:ASN:OD1	2.13	0.47
9:I:17:ARG:HG3	9:I:18:GLU:N	2.30	0.47
10:J:41:LEU:HD23	10:J:41:LEU:N	2.29	0.47
11:K:61:TYR:CD1	11:K:61:TYR:C	2.88	0.47
12:L:30:ILE:HG22	12:L:31:CYS:O	2.15	0.47
1:A:19:PHE:CZ	1:A:1397:LEU:CD2	2.92	0.47
1:A:377:PRO:HB2	1:A:431:LYS:HZ2	1.80	0.47
1:A:434:ARG:CZ	1:A:437:MET:HG3	2.44	0.47
1:A:444:PHE:HE2	1:A:470:LEU:HD13	1.80	0.47
1:A:578:LEU:C	1:A:580:VAL:H	2.18	0.47
1:A:591:PHE:HD2	1:A:595:THR:CB	2.17	0.47
1:A:600:PRO:CA	8:H:25:ARG:NH1	2.75	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:649:ILE:O	1:A:650:GLN:C	2.53	0.47
1:A:705:LYS:HB2	1:A:708:MET:HE3	1.96	0.47
1:A:826:ASP:O	1:A:830:LYS:HB2	2.14	0.47
1:A:933:TYR:HD2	1:A:933:TYR:C	2.17	0.47
1:A:1111:MET:SD	1:A:1114:PRO:HB3	2.54	0.47
1:A:1272:THR:C	1:A:1273:LEU:HD12	2.34	0.47
1:A:1313:LEU:C	1:A:1315:GLU:N	2.68	0.47
1:A:1348:LEU:O	1:A:1352:VAL:HG23	2.14	0.47
1:A:1446:ASP:O	1:A:1447:GLU:C	2.52	0.47
2:B:25:ILE:HD11	2:B:651:LEU:CD1	2.41	0.47
2:B:335:GLY:O	2:B:336:ARG:HB2	2.14	0.47
2:B:523:CYS:SG	2:B:524:PRO:HD2	2.55	0.47
2:B:579:ARG:HA	2:B:589:VAL:HG22	1.97	0.47
2:B:774:GLY:C	2:B:776:GLN:H	2.18	0.47
2:B:958:GLN:C	2:B:960:GLY:H	2.18	0.47
2:B:1023:VAL:HG13	2:B:1026:LEU:HD12	1.95	0.47
3:C:178:PHE:C	3:C:178:PHE:CD2	2.88	0.47
3:C:213:PRO:O	3:C:214:ASN:CB	2.63	0.47
4:D:40:HIS:HD2	7:G:73:LYS:HE3	1.80	0.47
4:D:198:LEU:HB2	4:D:199:ASN:H	1.53	0.47
5:E:177:ARG:HH11	5:E:215:MET:HE1	1.79	0.47
7:G:27:LYS:HE2	7:G:54:ILE:HD12	1.97	0.47
7:G:111:THR:H	7:G:114:LEU:HD22	1.79	0.47
1:A:26:GLU:O	1:A:30:ILE:HG13	2.14	0.47
1:A:164:ARG:CG	1:A:165:GLY:N	2.78	0.47
1:A:496:GLU:O	1:A:500:GLU:HG3	2.14	0.47
1:A:532:ARG:HH12	1:A:745:GLN:NE2	2.13	0.47
1:A:653:VAL:O	1:A:654:ASN:C	2.53	0.47
1:A:857:ARG:HA	1:A:864:ILE:HD13	1.97	0.47
1:A:1308:THR:HG23	1:A:1310:GLY:N	2.26	0.47
2:B:204:ILE:O	2:B:204:ILE:HG22	2.13	0.47
2:B:421:PHE:CD1	2:B:424:LEU:HD23	2.50	0.47
2:B:782:LEU:HB3	2:B:784:ASN:OD1	2.15	0.47
2:B:822:ASN:HD22	2:B:822:ASN:H	1.62	0.47
2:B:1076:HIS:ND1	2:B:1076:HIS:N	2.63	0.47
3:C:39:ALA:CA	3:C:164:ALA:HB3	2.40	0.47
3:C:44:LEU:HD13	3:C:129:ILE:HG23	1.96	0.47
3:C:46:ILE:HG22	3:C:47:ASP:N	2.29	0.47
3:C:70:ILE:HG23	3:C:142:VAL:HG11	1.96	0.47
3:C:112:ASN:HD21	3:C:146:LYS:HG2	1.79	0.47
3:C:148:ARG:NH1	10:J:64:ASN:HA	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:163:GLU:OE2	5:E:167:ARG:HG3	2.13	0.47
9:I:8:ARG:O	9:I:9:ASP:HB2	2.15	0.47
1:A:339:ASN:O	1:A:343:LYS:HE2	2.15	0.47
1:A:501:LEU:HD21	2:B:1146:PHE:CE1	2.49	0.47
1:A:656:TRP:CH2	1:A:660:ASN:CG	2.88	0.47
1:A:678:GLU:O	1:A:681:GLU:HG2	2.15	0.47
1:A:808:LEU:HD21	1:A:816:HIS:HD2	1.80	0.47
1:A:929:LEU:HD22	1:A:929:LEU:N	2.29	0.47
1:A:933:TYR:CD2	1:A:933:TYR:C	2.88	0.47
1:A:1074:GLU:N	1:A:1075:PRO:HD2	2.29	0.47
1:A:1139:GLU:O	1:A:1139:GLU:HG2	2.14	0.47
2:B:850:LEU:HD12	2:B:851:PHE:N	2.30	0.47
3:C:128:ASN:OD1	3:C:131:HIS:HD2	1.98	0.47
10:J:57:ILE:CG2	10:J:58:GLU:H	2.28	0.47
1:A:356:ASP:OD2	2:B:833:TYR:CE2	2.67	0.47
1:A:416:ARG:C	1:A:417:TYR:HD2	2.18	0.47
1:A:690:VAL:HG13	1:A:690:VAL:O	2.14	0.47
1:A:1219:THR:HG21	1:A:1271:ILE:HD11	1.96	0.47
2:B:802:PRO:HG3	2:B:1091:TYR:CZ	2.50	0.47
2:B:821:GLN:HE22	2:B:851:PHE:H	1.63	0.47
4:D:15:LEU:O	4:D:17:LYS:N	2.48	0.47
10:J:58:GLU:HA	10:J:61:LEU:HD12	1.97	0.47
12:L:47:ARG:NH2	12:L:54:ARG:HG2	2.30	0.47
1:A:166:GLY:O	1:A:167:CYS:O	2.33	0.46
1:A:227:VAL:HG12	1:A:228:PHE:CD1	2.51	0.46
1:A:659:HIS:ND1	2:B:1074:ASN:ND2	2.63	0.46
1:A:809:THR:HB	1:A:810:PRO:HD2	1.97	0.46
1:A:990:VAL:HG12	1:A:991:LYS:N	2.31	0.46
2:B:311:LEU:O	2:B:312:GLU:C	2.54	0.46
2:B:615:MET:HB3	2:B:626:ILE:HA	1.96	0.46
2:B:711:GLU:CB	2:B:712:PRO:HD3	2.43	0.46
2:B:899:ILE:HD12	2:B:911:ILE:HG23	1.96	0.46
2:B:916:THR:HB	2:B:935:ARG:HG3	1.97	0.46
2:B:999:MET:HG2	2:B:1007:VAL:HG23	1.97	0.46
2:B:1017:ILE:H	2:B:1018:PRO:CD	2.27	0.46
2:B:1065:GLN:NE2	2:B:1066:SER:H	2.12	0.46
2:B:1160:VAL:CG1	2:B:1161:HIS:N	2.73	0.46
4:D:30:GLY:C	4:D:32:GLU:N	2.64	0.46
5:E:136:ASN:OD1	5:E:137:GLU:N	2.48	0.46
6:F:79:ARG:HG3	6:F:144:GLU:OE1	2.15	0.46
7:G:94:CYS:SG	7:G:130:TYR:CE1	3.08	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:63:LEU:HG	8:H:90:ALA:HB3	1.97	0.46
8:H:130:ARG:CZ	8:H:130:ARG:HB2	2.44	0.46
1:A:54:ASN:HB3	1:A:247:ARG:HH12	1.80	0.46
1:A:357:PRO:HD2	2:B:833:TYR:CE2	2.51	0.46
1:A:913:LEU:HB2	1:A:1032:LEU:HD22	1.97	0.46
1:A:1436:ILE:O	1:A:1438:THR:N	2.47	0.46
1:A:1450:LEU:HD13	6:F:131:PRO:HG2	1.97	0.46
2:B:739:THR:HB	2:B:740:HIS:ND1	2.29	0.46
3:C:175:ALA:HB2	10:J:10:CYS:CB	2.46	0.46
4:D:159:THR:O	4:D:162:ALA:HB3	2.15	0.46
5:E:83:CYS:HB3	5:E:85:GLU:HG3	1.98	0.46
5:E:153:HIS:HB3	5:E:196:VAL:CG2	2.45	0.46
5:E:156:LEU:HD12	5:E:195:VAL:HB	1.96	0.46
7:G:115:MET:SD	7:G:119:LEU:HD23	2.56	0.46
1:A:986:ILE:HD13	1:A:1031:VAL:HG21	1.97	0.46
1:A:1313:LEU:HB3	1:A:1338:VAL:HG21	1.96	0.46
1:A:1421:CYS:C	1:A:1423:GLY:H	2.19	0.46
2:B:132:VAL:HG23	2:B:165:VAL:HB	1.96	0.46
2:B:800:GLN:HB3	10:J:52:THR:HG21	1.96	0.46
3:C:238:ILE:HG23	3:C:239:PRO:HD2	1.97	0.46
4:D:26:THR:C	4:D:28:GLN:H	2.18	0.46
11:K:32:VAL:HG23	11:K:74:ARG:CG	2.43	0.46
1:A:583:PRO:HB2	1:A:637:LYS:HE3	1.98	0.46
1:A:682:THR:O	1:A:682:THR:HG22	2.15	0.46
1:A:814:PHE:HE1	2:B:519:TRP:CB	2.26	0.46
1:A:868:TYR:HE2	1:A:1366:ARG:NE	2.14	0.46
2:B:63:ILE:HG23	2:B:63:ILE:O	2.14	0.46
2:B:129:PHE:CE2	2:B:166:PHE:HD1	2.32	0.46
2:B:226:PHE:HA	2:B:395:GLN:CG	2.45	0.46
2:B:405:ARG:NH1	2:B:632:ARG:CG	2.79	0.46
2:B:579:ARG:HB2	2:B:586:TRP:NE1	2.30	0.46
2:B:596:LEU:O	2:B:600:LEU:HG	2.15	0.46
2:B:856:PHE:N	2:B:856:PHE:HD1	2.14	0.46
3:C:191:TYR:HB3	3:C:201:TRP:CD1	2.51	0.46
5:E:31:THR:OG1	5:E:34:GLU:HB2	2.16	0.46
5:E:80:VAL:HG12	5:E:82:PHE:CE1	2.50	0.46
6:F:101:ILE:HA	6:F:105:ALA:HB3	1.96	0.46
8:H:143:LEU:HD12	8:H:143:LEU:N	2.30	0.46
10:J:1:MET:N	10:J:56:LEU:N	2.63	0.46
1:A:66:LYS:O	1:A:67:CYS:CB	2.63	0.46
1:A:245:PRO:O	2:B:1114:LEU:HD11	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:533:LYS:HB3	1:A:533:LYS:HE2	1.69	0.46
1:A:566:ILE:HG22	1:A:566:ILE:O	2.15	0.46
1:A:1308:THR:CG2	1:A:1310:GLY:O	2.61	0.46
1:A:1422:ARG:HH12	2:B:1224:PHE:HD2	1.62	0.46
2:B:56:ASP:HB3	2:B:57:TYR:CD1	2.51	0.46
2:B:244:LEU:HD21	2:B:366:GLN:NE2	2.31	0.46
2:B:858:SER:HA	2:B:966:VAL:O	2.15	0.46
2:B:906:SER:O	2:B:907:GLY:C	2.54	0.46
3:C:39:ALA:HA	3:C:164:ALA:CB	2.41	0.46
3:C:123:ASN:HD21	3:C:125:MET:HG2	1.81	0.46
6:F:95:GLY:O	6:F:96:THR:C	2.54	0.46
7:G:139:ILE:HG23	7:G:140:LYS:N	2.31	0.46
8:H:107:VAL:O	8:H:108:SER:HB2	2.16	0.46
1:A:204:THR:O	1:A:205:GLU:C	2.54	0.46
1:A:288:ALA:HA	1:A:291:GLU:CD	2.36	0.46
1:A:382:PRO:HD3	1:A:428:TYR:CZ	2.50	0.46
1:A:503:GLN:O	1:A:504:LEU:HD12	2.15	0.46
1:A:541:ILE:HG22	1:A:542:GLU:H	1.81	0.46
1:A:898:ARG:HA	1:A:933:TYR:CE1	2.50	0.46
1:A:964:ILE:O	1:A:964:ILE:CG2	2.64	0.46
1:A:1116:LEU:HB2	1:A:1329:THR:OG1	2.15	0.46
2:B:191:LYS:HE2	2:B:191:LYS:HB3	1.78	0.46
2:B:241:ARG:HG2	2:B:253:THR:CG2	2.46	0.46
2:B:611:PRO:CB	2:B:685:LEU:HD11	2.44	0.46
2:B:744:HIS:CD2	2:B:745:PRO:HD2	2.51	0.46
2:B:800:GLN:HB2	2:B:821:GLN:HA	1.98	0.46
2:B:834:ASN:O	2:B:1013:ASN:CB	2.63	0.46
2:B:1004:GLU:HB3	2:B:1006:ILE:HD11	1.97	0.46
5:E:3:GLN:NE2	5:E:52:ARG:HH12	2.13	0.46
5:E:191:LYS:HB3	5:E:191:LYS:HE2	1.69	0.46
8:H:63:LEU:HD23	8:H:90:ALA:C	2.36	0.46
8:H:130:ARG:HA	8:H:133:ASN:HB2	1.97	0.46
1:A:58:LEU:HD12	1:A:244:PRO:HG3	1.98	0.46
1:A:92:HIS:HD2	1:A:236:LEU:HD21	1.81	0.46
1:A:535:THR:CG2	1:A:617:VAL:HG23	2.46	0.46
1:A:645:LEU:HD11	1:A:649:ILE:HD11	1.97	0.46
1:A:692:ASP:O	1:A:694:THR:N	2.49	0.46
1:A:863:VAL:C	1:A:864:ILE:HD12	2.36	0.46
1:A:881:GLN:NE2	1:A:958:VAL:O	2.49	0.46
1:A:1159:ARG:O	1:A:1160:SER:HB3	2.16	0.46
1:A:1282:VAL:HA	1:A:1307:GLU:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:770:GLN:HG2	2:B:983:ARG:C	2.36	0.46
2:B:861:ASP:OD1	2:B:862:GLN:N	2.48	0.46
5:E:198:ILE:CD1	5:E:212:ARG:HH11	2.27	0.46
6:F:120:ILE:CG2	6:F:121:ALA:N	2.78	0.46
11:K:74:ARG:C	11:K:75:ILE:HD13	2.36	0.46
1:A:95:PHE:CE2	1:A:1410:PHE:CD2	3.03	0.46
1:A:521:MET:O	1:A:646:PHE:CE2	2.68	0.46
1:A:898:ARG:O	1:A:1029:ARG:NH1	2.49	0.46
1:A:901:LEU:HG	1:A:926:GLN:HE21	1.80	0.46
2:B:103:ASN:HB2	2:B:169:ARG:NH2	2.31	0.46
2:B:887:HIS:CD2	2:B:888:GLY:N	2.84	0.46
3:C:167:HIS:HA	11:K:6:ARG:NH1	2.30	0.46
5:E:121:MET:HA	5:E:124:VAL:HG23	1.97	0.46
5:E:178:ILE:HG23	5:E:178:ILE:O	2.16	0.46
6:F:70:LYS:HD3	6:F:70:LYS:HA	1.42	0.46
6:F:89:GLU:HB3	6:F:134:ILE:CD1	2.45	0.46
8:H:38:LEU:HD12	8:H:39:THR:N	2.31	0.46
11:K:65:HIS:CD2	11:K:66:PRO:N	2.84	0.46
1:A:56:PRO:O	1:A:57:ARG:CG	2.60	0.46
1:A:222:LEU:O	1:A:222:LEU:HD13	2.16	0.46
1:A:381:THR:HG23	6:F:104:ASN:OD1	2.16	0.46
1:A:451:HIS:CD2	1:A:1074:GLU:HG3	2.51	0.46
1:A:923:LEU:HD23	1:A:923:LEU:HA	1.54	0.46
1:A:1167:GLU:HA	1:A:1170:ILE:CD1	2.45	0.46
1:A:1215:ARG:O	1:A:1218:GLN:N	2.49	0.46
2:B:698:GLU:HG2	2:B:701:ILE:HD11	1.98	0.46
2:B:859:TYR:CZ	2:B:941:LEU:HD12	2.50	0.46
2:B:898:LEU:HD13	2:B:952:VAL:HG11	1.98	0.46
2:B:906:SER:HA	2:B:946:ASN:HB3	1.97	0.46
2:B:1013:ASN:HD21	2:B:1015:HIS:CD2	2.31	0.46
4:D:14:ARG:O	4:D:16:LYS:N	2.43	0.46
5:E:168:TYR:HD2	5:E:168:TYR:HA	1.69	0.46
7:G:95:SER:O	7:G:121:PHE:CE1	2.68	0.46
8:H:38:LEU:HD13	8:H:125:LEU:HD12	1.97	0.46
10:J:12:LYS:O	10:J:13:VAL:C	2.54	0.46
11:K:55:LYS:HB2	11:K:81:TYR:HE1	1.81	0.46
1:A:41:MET:CE	1:A:257:ARG:HG3	2.46	0.46
1:A:340:LEU:HD22	2:B:1200:ALA:HB2	1.97	0.46
1:A:805:LEU:HD13	2:B:1052:VAL:HG21	1.98	0.46
1:A:850:VAL:HG12	1:A:850:VAL:O	2.16	0.46
1:A:1228:TRP:CE3	1:A:1228:TRP:N	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:241:ARG:HG2	2:B:253:THR:HG21	1.97	0.46
2:B:308:TRP:HH2	9:I:45:ARG:HG2	1.81	0.46
2:B:446:LEU:O	2:B:447:ALA:CB	2.64	0.46
2:B:1095:LEU:O	2:B:1096:ARG:O	2.34	0.46
3:C:22:LEU:HD22	3:C:230:MET:HE1	1.98	0.46
3:C:131:HIS:HA	3:C:132:PRO:HD2	1.76	0.46
3:C:251:LEU:O	3:C:255:VAL:HG23	2.15	0.46
4:D:208:GLU:CG	4:D:212:LYS:HE3	2.43	0.46
5:E:61:GLN:HB2	5:E:79:TRP:HE3	1.81	0.46
5:E:132:ILE:HD12	5:E:132:ILE:N	2.31	0.46
11:K:58:PHE:HE2	11:K:74:ARG:HB3	1.80	0.46
1:A:445:ASN:HA	1:A:478:TYR:HE2	1.81	0.45
1:A:814:PHE:HD2	1:A:814:PHE:C	2.19	0.45
1:A:917:SER:C	1:A:919:ILE:H	2.19	0.45
1:A:1267:MET:O	1:A:1271:ILE:HB	2.15	0.45
2:B:802:PRO:HG3	2:B:1091:TYR:CE1	2.51	0.45
2:B:1072:MET:HG3	2:B:1085:ILE:HD13	1.99	0.45
3:C:248:ILE:HD13	11:K:101:LEU:HD22	1.99	0.45
7:G:122:ASN:ND2	7:G:125:SER:HB3	2.30	0.45
10:J:1:MET:H2	10:J:57:ILE:H	1.62	0.45
11:K:61:TYR:O	11:K:61:TYR:CG	2.69	0.45
1:A:46:THR:O	1:A:47:ARG:C	2.55	0.45
1:A:135:PHE:CD1	1:A:222:LEU:HD21	2.51	0.45
1:A:203:SER:O	1:A:206:GLU:HB3	2.17	0.45
1:A:528:LEU:CD1	1:A:749:ALA:HB1	2.46	0.45
1:A:529:CYS:SG	1:A:662:PHE:CZ	3.10	0.45
1:A:670:ILE:HG23	1:A:805:LEU:HD21	1.99	0.45
1:A:1349:TYR:HE2	1:A:1353:TYR:CD1	2.34	0.45
2:B:424:LEU:O	2:B:428:ILE:HG13	2.16	0.45
2:B:515:HIS:CD2	2:B:516:ASN:N	2.83	0.45
2:B:758:PHE:N	2:B:759:PRO:CD	2.80	0.45
2:B:844:SER:O	2:B:848:ARG:HG3	2.15	0.45
2:B:1058:LEU:O	2:B:1061:GLU:HB2	2.15	0.45
3:C:8:VAL:C	3:C:9:LYS:HG3	2.36	0.45
7:G:44:TYR:CE1	7:G:157:ILE:HB	2.51	0.45
7:G:119:LEU:HA	7:G:132:SER:OG	2.16	0.45
8:H:32:THR:HG22	8:H:33:GLN:OE1	2.16	0.45
11:K:30:ALA:HB2	11:K:76:GLN:HG3	1.97	0.45
1:A:14:VAL:H	1:A:1432:GLN:NE2	2.00	0.45
1:A:19:PHE:HZ	1:A:1397:LEU:CD2	2.22	0.45
1:A:261:ASP:OD2	1:A:261:ASP:N	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:445:ASN:HA	1:A:478:TYR:CE2	2.51	0.45
1:A:925:LEU:O	1:A:929:LEU:HD23	2.17	0.45
1:A:1229:SER:HB2	1:A:1230:GLU:H	1.48	0.45
2:B:102:VAL:O	2:B:109:THR:HG23	2.17	0.45
2:B:496:ARG:NH1	2:B:541:LEU:HA	2.31	0.45
2:B:599:THR:HG22	2:B:600:LEU:HD23	1.99	0.45
2:B:797:TYR:HD2	2:B:798:TYR:HE2	1.64	0.45
2:B:841:MET:CE	2:B:1010:LEU:HG	2.46	0.45
2:B:936:ASP:CG	2:B:937:ALA:H	2.19	0.45
2:B:1016:ALA:CB	2:B:1020:ARG:HE	2.29	0.45
4:D:172:LEU:HD11	4:D:202:ILE:HG21	1.97	0.45
5:E:135:PHE:HB3	5:E:140:LEU:HD11	1.99	0.45
5:E:139:ALA:O	5:E:140:LEU:HD23	2.17	0.45
6:F:127:GLU:O	6:F:129:LYS:N	2.49	0.45
7:G:119:LEU:HA	7:G:132:SER:HG	1.81	0.45
12:L:38:LEU:CG	12:L:39:SER:H	2.29	0.45
1:A:135:PHE:HD1	1:A:222:LEU:HD21	1.80	0.45
1:A:303:TYR:O	1:A:325:ILE:HG13	2.16	0.45
1:A:403:LYS:C	1:A:415:LEU:HB2	2.36	0.45
1:A:689:LYS:O	1:A:689:LYS:HG2	2.16	0.45
1:A:833:GLU:O	1:A:837:ILE:HG13	2.16	0.45
2:B:259:TYR:N	2:B:259:TYR:CD1	2.85	0.45
2:B:542:MET:HB3	2:B:636:PRO:HD3	1.98	0.45
2:B:789:MET:HE2	2:B:965:LYS:HB3	1.97	0.45
2:B:912:ILE:HD11	2:B:966:VAL:HG21	1.97	0.45
2:B:1070:GLU:O	2:B:1084:GLN:HB3	2.15	0.45
2:B:1076:HIS:CD2	11:K:40:HIS:CE1	2.90	0.45
2:B:1147:LEU:O	2:B:1148:LYS:C	2.53	0.45
6:F:125:LEU:O	6:F:128:LYS:N	2.48	0.45
6:F:130:ILE:HB	6:F:148:VAL:HG21	1.99	0.45
11:K:59:ALA:HA	11:K:74:ARG:O	2.15	0.45
12:L:40:LEU:HD22	12:L:44:ASP:OD1	2.17	0.45
1:A:58:LEU:HD12	1:A:244:PRO:CG	2.47	0.45
1:A:239:LEU:CD1	1:A:240:PRO:HD2	2.36	0.45
1:A:671:ALA:H	1:A:676:MET:CE	2.25	0.45
1:A:929:LEU:CD2	1:A:929:LEU:N	2.79	0.45
1:A:1129:GLU:O	1:A:1133:LEU:HG	2.16	0.45
1:A:1135:ARG:HG2	1:A:1136:SER:N	2.32	0.45
1:A:1138:ILE:HA	1:A:1275:GLY:HA2	1.99	0.45
1:A:1365:TYR:CD1	5:E:203:GLU:HG2	2.52	0.45
2:B:510:LYS:O	2:B:511:PRO:C	2.55	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:602:THR:HA	2:B:605:ARG:HB2	1.98	0.45
2:B:779:GLY:O	2:B:795:ILE:HA	2.17	0.45
3:C:130:GLY:O	3:C:132:PRO:HD3	2.17	0.45
3:C:175:ALA:HB2	10:J:10:CYS:HB2	1.97	0.45
3:C:237:SER:C	3:C:238:ILE:HG13	2.37	0.45
5:E:96:PHE:CZ	5:E:100:ILE:HD11	2.51	0.45
8:H:15:VAL:HG13	8:H:24:CYS:HB3	1.98	0.45
1:A:444:PHE:CE2	1:A:470:LEU:HD13	2.51	0.45
1:A:489:LEU:C	1:A:490:HIS:CD2	2.90	0.45
1:A:590:ARG:O	1:A:591:PHE:CB	2.57	0.45
1:A:741:ASN:ND2	1:A:741:ASN:C	2.67	0.45
1:A:1004:ASN:HD22	1:A:1007:ILE:HG13	1.82	0.45
1:A:1280:GLU:HB3	1:A:1281:ARG:H	1.61	0.45
1:A:1368:MET:HE3	1:A:1368:MET:HB2	1.74	0.45
1:A:1395:GLY:HA3	1:A:1426:GLU:OE2	2.16	0.45
2:B:44:VAL:O	2:B:45:SER:C	2.54	0.45
2:B:839:MET:HG3	2:B:1010:LEU:HD21	1.98	0.45
2:B:887:HIS:CD2	2:B:888:GLY:H	2.34	0.45
3:C:58:LEU:HD13	3:C:62:PHE:CD2	2.51	0.45
4:D:39:ASN:ND2	4:D:40:HIS:N	2.64	0.45
4:D:54:GLU:CD	4:D:164:ILE:HD11	2.37	0.45
7:G:1:MET:SD	7:G:79:PHE:CE1	3.10	0.45
8:H:4:THR:HG21	8:H:7:ASP:OD2	2.16	0.45
8:H:35:GLN:H	8:H:35:GLN:HG3	1.57	0.45
8:H:47:PHE:CD2	8:H:95:TYR:HD1	2.34	0.45
10:J:17:LYS:HB3	10:J:39:LEU:HD23	1.98	0.45
10:J:56:LEU:O	10:J:60:PHE:CD2	2.70	0.45
1:A:73:GLY:O	1:A:74:MET:C	2.55	0.45
1:A:152:VAL:CG1	1:A:153:PRO:HD2	2.47	0.45
1:A:252:PHE:O	1:A:253:ASN:CB	2.65	0.45
1:A:763:ALA:O	1:A:803:SER:HB3	2.17	0.45
2:B:234:ILE:CG1	2:B:257:LYS:HB3	2.45	0.45
2:B:811:TYR:CD1	2:B:811:TYR:N	2.83	0.45
2:B:878:GLN:N	2:B:934:LYS:HZ3	2.10	0.45
2:B:918:ILE:HG21	2:B:935:ARG:NH2	2.32	0.45
2:B:942:ARG:HD3	2:B:942:ARG:HA	1.67	0.45
2:B:956:THR:HA	2:B:961:LEU:O	2.17	0.45
2:B:1078:GLY:O	2:B:1079:LYS:C	2.55	0.45
4:D:126:ILE:C	4:D:128:VAL:N	2.70	0.45
4:D:146:GLN:O	4:D:149:THR:HG22	2.17	0.45
7:G:14:HIS:HD2	7:G:16:SER:H	1.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:104:GLY:C	7:G:106:MET:H	2.20	0.45
12:L:39:SER:O	12:L:40:LEU:CG	2.57	0.45
1:A:598:LEU:HD13	8:H:115:TYR:HE2	1.81	0.45
1:A:897:TYR:HD2	1:A:936:LEU:CD1	2.30	0.45
1:A:1279:ILE:HG22	1:A:1282:VAL:CG2	2.47	0.45
2:B:102:VAL:HG23	2:B:112:LEU:HD22	1.97	0.45
4:D:29:LEU:HB3	4:D:33:PHE:HB2	1.98	0.45
4:D:52:LEU:H	4:D:182:SER:HB3	1.82	0.45
7:G:116:PRO:C	7:G:118:ASP:H	2.19	0.45
11:K:47:ARG:NH1	11:K:51:LEU:HD22	2.32	0.45
1:A:16:GLU:CD	2:B:1220:ARG:HA	2.37	0.45
1:A:55:ASP:HB2	1:A:59:GLY:O	2.17	0.45
1:A:1173:HIS:CB	1:A:1227:ILE:HD13	2.47	0.45
1:A:1188:GLN:OE1	1:A:1241:ARG:HD3	2.17	0.45
2:B:66:ASP:OD1	2:B:422:LYS:HE2	2.17	0.45
2:B:291:ILE:HG21	2:B:300:HIS:CD2	2.52	0.45
2:B:398:ARG:NH1	2:B:398:ARG:CB	2.80	0.45
2:B:950:ASP:HB2	2:B:969:ARG:HB3	1.99	0.45
3:C:67:LEU:HA	3:C:70:ILE:HD11	1.97	0.45
3:C:183:TRP:O	3:C:184:ASN:C	2.55	0.45
3:C:241:ASP:O	3:C:245:VAL:HG23	2.17	0.45
4:D:192:LYS:HD2	4:D:199:ASN:HA	1.98	0.45
5:E:79:TRP:HE1	5:E:81:GLU:HB2	1.82	0.45
6:F:85:MET:SD	6:F:90:ARG:HB2	2.57	0.45
7:G:79:PHE:HD1	7:G:80:LYS:N	2.14	0.45
7:G:106:MET:HG3	7:G:157:ILE:O	2.16	0.45
10:J:7:CYS:CB	10:J:49:MET:HE3	2.47	0.45
11:K:56:VAL:O	11:K:56:VAL:CG1	2.64	0.45
1:A:709:THR:CG2	1:A:710:LEU:N	2.79	0.45
1:A:899:VAL:CG1	1:A:908:LEU:HD21	2.43	0.45
2:B:416:LEU:HD11	2:B:460:ALA:HB3	1.98	0.45
2:B:710:LEU:HA	2:B:733:HIS:HB3	1.98	0.45
2:B:948:ILE:HD12	2:B:969:ARG:HH11	1.81	0.45
2:B:1013:ASN:ND2	2:B:1015:HIS:HD2	2.13	0.45
4:D:129:LEU:O	4:D:132:GLN:HG3	2.17	0.45
4:D:151:PHE:HD1	4:D:151:PHE:N	2.15	0.45
7:G:129:SER:OG	7:G:130:TYR:N	2.49	0.45
7:G:163:ILE:HG13	7:G:163:ILE:O	2.17	0.45
8:H:82:PRO:C	8:H:84:ALA:N	2.68	0.45
1:A:58:LEU:HD13	1:A:244:PRO:HD3	1.97	0.44
1:A:181:LEU:HD23	1:A:181:LEU:HA	1.87	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:814:PHE:C	1:A:814:PHE:CD2	2.90	0.44
1:A:886:ILE:HD11	1:A:943:LEU:O	2.16	0.44
1:A:1132:LYS:HA	1:A:1135:ARG:HB3	1.99	0.44
1:A:1311:VAL:HG11	1:A:1329:THR:HG21	1.99	0.44
1:A:1370:LEU:O	1:A:1371:LEU:C	2.55	0.44
1:A:1445:ILE:CD1	7:G:59:GLY:H	2.29	0.44
2:B:179:CYS:O	2:B:181:LEU:N	2.50	0.44
2:B:219:ALA:HA	2:B:405:ARG:HG2	1.98	0.44
2:B:360:PHE:CZ	2:B:361:LEU:HD13	2.52	0.44
2:B:483:LEU:HG	2:B:485:ARG:HD3	1.98	0.44
2:B:1037:LEU:HD12	2:B:1037:LEU:N	2.32	0.44
2:B:1073:TYR:OH	3:C:179:GLU:HG3	2.17	0.44
2:B:1109:GLY:HA3	2:B:1110:PRO:HD3	1.80	0.44
4:D:35:LEU:HD12	4:D:35:LEU:N	2.25	0.44
4:D:126:ILE:C	4:D:128:VAL:H	2.20	0.44
4:D:185:CYS:HB3	4:D:211:LEU:HD22	1.99	0.44
5:E:187:TYR:CD2	5:E:188:LEU:HD23	2.50	0.44
6:F:101:ILE:CG2	6:F:117:PRO:HB3	2.46	0.44
11:K:23:PRO:HA	11:K:31:VAL:HG22	1.98	0.44
1:A:69:THR:HG21	2:B:1174:LYS:HZ3	1.82	0.44
1:A:93:VAL:HG11	1:A:305:ASP:HB3	1.99	0.44
1:A:425:GLN:CD	1:A:425:GLN:N	2.71	0.44
1:A:434:ARG:HH21	1:A:437:MET:H	1.65	0.44
1:A:506:ALA:C	1:A:508:PRO:HD2	2.38	0.44
1:A:886:ILE:HG13	1:A:943:LEU:HB2	1.98	0.44
1:A:1196:GLU:HG3	1:A:1197:LEU:N	2.31	0.44
1:A:1396:ALA:HB2	1:A:1417:GLU:OE1	2.17	0.44
1:A:1424:VAL:O	1:A:1425:SER:C	2.56	0.44
2:B:101:MET:HB2	2:B:169:ARG:HH12	1.82	0.44
2:B:241:ARG:HH21	2:B:251:ILE:HD13	1.82	0.44
2:B:785:TYR:C	2:B:787:VAL:H	2.20	0.44
8:H:5:LEU:O	8:H:6:PHE:HB2	2.17	0.44
11:K:63:VAL:O	11:K:63:VAL:CG2	2.61	0.44
1:A:27:VAL:O	1:A:29:ALA:N	2.50	0.44
1:A:384:ASN:O	1:A:385:ILE:C	2.54	0.44
1:A:434:ARG:HH21	1:A:437:MET:HG3	1.80	0.44
1:A:664:THR:O	1:A:664:THR:CG2	2.64	0.44
1:A:868:TYR:O	1:A:870:GLU:N	2.50	0.44
1:A:1153:TYR:CZ	1:A:1163:ILE:HD11	2.53	0.44
1:A:1290:LYS:HA	1:A:1299:VAL:O	2.17	0.44
2:B:244:LEU:HD12	2:B:250:PHE:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:254:LEU:HD22	2:B:361:LEU:CD1	2.47	0.44
2:B:582:VAL:HG22	2:B:626:ILE:HB	1.99	0.44
2:B:750:GLY:H	2:B:753:ALA:HB3	1.80	0.44
2:B:766:ARG:HH21	2:B:1020:ARG:HB3	1.81	0.44
2:B:1076:HIS:CD2	11:K:40:HIS:CD2	3.05	0.44
3:C:109:SER:O	3:C:110:THR:C	2.55	0.44
3:C:129:ILE:HG22	3:C:129:ILE:O	2.16	0.44
5:E:67:GLU:O	5:E:70:SER:HB3	2.17	0.44
5:E:145:THR:HG21	5:E:187:TYR:CE2	2.52	0.44
8:H:82:PRO:HB2	8:H:83:GLN:H	1.67	0.44
11:K:5:ASP:CB	11:K:7:PHE:CZ	2.96	0.44
11:K:114:LEU:O	11:K:114:LEU:HD23	2.17	0.44
1:A:671:ALA:HB3	1:A:676:MET:HG3	1.99	0.44
1:A:1157:ASP:C	1:A:1159:ARG:H	2.20	0.44
1:A:1356:ILE:HG21	1:A:1363:VAL:HG23	1.98	0.44
1:A:1407:GLU:CD	1:A:1407:GLU:H	2.21	0.44
1:A:1435:PRO:HA	1:A:1439:GLY:O	2.18	0.44
2:B:866:TYR:HD2	2:B:870:ILE:HD12	1.82	0.44
2:B:980:PHE:CD1	2:B:980:PHE:N	2.86	0.44
2:B:1003:ALA:HB1	3:C:179:GLU:HB2	1.99	0.44
2:B:1185:CYS:SG	4:D:17:LYS:HE3	2.57	0.44
2:B:1204:PHE:CZ	2:B:1216:LEU:HD21	2.52	0.44
3:C:258:ILE:HG13	11:K:19:LEU:HD11	1.98	0.44
4:D:56:ARG:HB2	4:D:148:LEU:HB3	1.99	0.44
4:D:185:CYS:SG	4:D:186:ASP:N	2.90	0.44
4:D:203:SER:OG	4:D:206:GLU:HB2	2.17	0.44
5:E:98:ILE:HA	5:E:101:GLN:HB3	1.99	0.44
5:E:150:VAL:HG12	5:E:151:PRO:HD2	1.98	0.44
12:L:61:THR:HG21	12:L:63:ARG:NH2	2.32	0.44
1:A:88:LYS:HE2	1:A:205:GLU:OE2	2.17	0.44
1:A:100:LYS:O	1:A:104:GLU:HG3	2.18	0.44
1:A:313:GLN:O	1:A:314:ALA:C	2.56	0.44
1:A:523:ILE:HG22	1:A:528:LEU:HB3	1.99	0.44
1:A:598:LEU:HA	8:H:122:LEU:CD1	2.46	0.44
1:A:670:ILE:HG22	1:A:805:LEU:HD21	1.98	0.44
1:A:886:ILE:HD11	1:A:943:LEU:C	2.37	0.44
1:A:1107:VAL:O	1:A:1107:VAL:CG1	2.64	0.44
2:B:54:PHE:HB2	2:B:410:GLY:HA2	1.99	0.44
2:B:362:PRO:O	2:B:366:GLN:HG3	2.17	0.44
3:C:192:TRP:O	3:C:192:TRP:CE3	2.71	0.44
4:D:202:ILE:HD11	4:D:207:LEU:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:7:CYS:HB2	10:J:49:MET:HE3	2.00	0.44
2:B:515:HIS:CG	2:B:516:ASN:H	2.34	0.44
2:B:1076:HIS:CD2	11:K:40:HIS:NE2	2.78	0.44
4:D:66:ARG:HG3	7:G:51:TYR:CD1	2.53	0.44
7:G:99:PHE:HE1	7:G:101:VAL:HG23	1.82	0.44
8:H:94:ASP:O	8:H:95:TYR:HB2	2.17	0.44
12:L:55:ILE:CG1	12:L:56:LEU:H	2.31	0.44
1:A:329:LEU:O	1:A:330:LYS:O	2.36	0.44
1:A:567:LYS:CE	8:H:46:LEU:HB2	2.48	0.44
2:B:879:ARG:HE	2:B:879:ARG:CA	2.31	0.44
2:B:1034:VAL:HA	2:B:1037:LEU:HD12	1.99	0.44
5:E:117:THR:HB	5:E:120:ALA:CB	2.46	0.44
5:E:184:VAL:O	5:E:187:TYR:HB3	2.18	0.44
8:H:81:PRO:O	8:H:82:PRO:O	2.36	0.44
1:A:310:GLY:O	1:A:312:PRO:HD2	2.18	0.44
1:A:595:THR:HG23	1:A:603:ASN:HB2	2.00	0.44
1:A:897:TYR:CD2	1:A:936:LEU:CD1	3.01	0.44
1:A:1163:ILE:HG23	1:A:1164:PRO:HD2	1.99	0.44
1:A:1167:GLU:HA	1:A:1170:ILE:HD12	1.99	0.44
2:B:578:THR:HG23	2:B:622:LYS:C	2.38	0.44
2:B:885:MET:HA	2:B:936:ASP:HB2	2.00	0.44
2:B:911:ILE:HD11	2:B:941:LEU:HB2	2.00	0.44
2:B:1080:LYS:HG3	3:C:180:TYR:OH	2.18	0.44
4:D:173:HIS:C	4:D:175:PHE:N	2.71	0.44
7:G:165:GLU:H	7:G:165:GLU:HG2	1.37	0.44
9:I:7:CYS:HB2	9:I:34:TYR:CD2	2.53	0.44
1:A:35:ILE:H	1:A:35:ILE:CD1	2.20	0.44
1:A:195:ASP:O	1:A:196:GLU:O	2.36	0.44
1:A:254:GLU:O	1:A:255:SER:C	2.56	0.44
1:A:360:GLU:O	1:A:362:ASP:N	2.51	0.44
1:A:633:VAL:O	1:A:636:GLU:N	2.51	0.44
1:A:809:THR:HG21	2:B:730:ARG:HG3	2.00	0.44
1:A:858:ASN:HD22	1:A:858:ASN:N	2.11	0.44
1:A:1215:ARG:HA	1:A:1215:ARG:HD2	1.80	0.44
1:A:1265:ASN:C	1:A:1267:MET:H	2.21	0.44
2:B:121:ASN:HA	2:B:207:GLY:CA	2.48	0.44
2:B:430:ARG:HH11	2:B:430:ARG:CB	2.30	0.44
2:B:1192:TYR:CG	2:B:1218:THR:HG21	2.52	0.44
4:D:33:PHE:CE2	7:G:3:PHE:CD1	3.06	0.44
4:D:178:ALA:O	4:D:181:GLY:N	2.50	0.44
5:E:63:ASN:CB	5:E:64:PRO:HD2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:90:VAL:O	5:E:90:VAL:CG2	2.66	0.44
7:G:14:HIS:CD2	7:G:15:PRO:CD	3.01	0.44
7:G:143:ILE:HG12	7:G:170:ALA:CA	2.43	0.44
11:K:35:PHE:N	11:K:35:PHE:HD1	2.15	0.44
12:L:26:THR:CG2	12:L:27:LEU:H	2.23	0.44
1:A:14:VAL:HA	2:B:1217:TYR:O	2.18	0.43
1:A:211:PHE:HA	1:A:214:ILE:CD1	2.47	0.43
1:A:663:SER:HB2	2:B:1085:ILE:HG13	1.99	0.43
1:A:690:VAL:HG21	1:A:722:LEU:HD11	1.98	0.43
1:A:809:THR:OG1	1:A:812:GLU:HG3	2.18	0.43
1:A:841:LEU:CD2	1:A:845:LEU:HD11	2.48	0.43
1:A:1018:PHE:O	1:A:1019:CYS:C	2.57	0.43
1:A:1162:VAL:O	1:A:1162:VAL:HG12	2.18	0.43
1:A:1170:ILE:HG22	1:A:1174:PHE:HE1	1.81	0.43
1:A:1397:LEU:HA	1:A:1400:CYS:SG	2.58	0.43
1:A:1398:MET:HE3	1:A:1398:MET:HB2	1.94	0.43
1:A:1402:PHE:O	1:A:1404:GLU:N	2.51	0.43
2:B:225:VAL:HG22	2:B:396:ASP:OD2	2.18	0.43
2:B:878:GLN:OE1	2:B:879:ARG:HG2	2.18	0.43
2:B:913:GLY:HA2	2:B:938:SER:OG	2.17	0.43
2:B:1212:ILE:O	2:B:1212:ILE:CG2	2.66	0.43
3:C:242:GLN:O	3:C:246:ARG:HG2	2.17	0.43
4:D:66:ARG:HD2	4:D:133:THR:HB	1.99	0.43
7:G:160:ILE:HD12	7:G:160:ILE:N	2.32	0.43
1:A:92:HIS:CE1	1:A:1410:PHE:HE2	2.33	0.43
1:A:390:GLN:HE21	1:A:394:ASN:ND2	2.16	0.43
1:A:523:ILE:HD13	1:A:622:VAL:HG23	1.99	0.43
1:A:946:VAL:HG13	5:E:201:LYS:HB3	1.98	0.43
1:A:1106:ASN:O	1:A:1107:VAL:HB	2.18	0.43
1:A:1207:LEU:HD21	1:A:1274:ARG:NE	2.33	0.43
1:A:1223:ASP:HA	1:A:1243:VAL:HG22	1.97	0.43
2:B:205:ILE:O	2:B:207:GLY:N	2.51	0.43
2:B:276:ILE:O	2:B:276:ILE:HG22	2.18	0.43
2:B:313:MET:HE3	2:B:386:LEU:HD13	2.00	0.43
2:B:360:PHE:CD2	2:B:361:LEU:HB2	2.53	0.43
2:B:521:LEU:HD11	2:B:695:ALA:HB2	2.00	0.43
2:B:619:ILE:CG2	2:B:620:ARG:N	2.80	0.43
2:B:1073:TYR:HE2	3:C:180:TYR:CE2	2.36	0.43
3:C:53:THR:HB	3:C:154:LYS:HB2	1.99	0.43
4:D:48:ILE:O	4:D:48:ILE:CG2	2.66	0.43
5:E:24:LYS:HG2	5:E:25:ASP:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:98:ILE:HG22	5:E:102:GLU:OE2	2.19	0.43
5:E:147:HIS:HD2	5:E:148:GLU:N	2.16	0.43
8:H:5:LEU:HD22	8:H:133:ASN:O	2.18	0.43
8:H:95:TYR:HE2	8:H:97:MET:CG	2.31	0.43
11:K:23:PRO:CA	11:K:31:VAL:HG13	2.46	0.43
1:A:91:PHE:HE2	1:A:99:ILE:HG21	1.82	0.43
1:A:114:LEU:O	1:A:115:LEU:HG	2.18	0.43
1:A:298:PHE:CE2	1:A:314:ALA:HB2	2.53	0.43
1:A:774:ARG:HG3	1:A:797:LYS:HE3	2.00	0.43
1:A:946:VAL:C	1:A:947:PHE:HD2	2.21	0.43
1:A:1332:PHE:H	1:A:1332:PHE:HD2	1.66	0.43
2:B:125:SER:HB2	2:B:169:ARG:HB3	2.00	0.43
2:B:219:ALA:H	2:B:404:LYS:HA	1.84	0.43
2:B:605:ARG:HG2	2:B:688:GLY:CA	2.48	0.43
3:C:130:GLY:O	3:C:132:PRO:CD	2.67	0.43
6:F:103:MET:CE	7:G:66:GLY:H	2.31	0.43
7:G:41:LYS:HD3	7:G:42:PHE:CZ	2.54	0.43
8:H:37:LYS:O	8:H:38:LEU:HB2	2.19	0.43
1:A:337:ARG:HG2	2:B:1132:GLU:OE2	2.19	0.43
1:A:472:LEU:HD11	2:B:835:GLN:NE2	2.33	0.43
1:A:588:LEU:HG	1:A:589:GLN:N	2.32	0.43
1:A:595:THR:HG23	1:A:603:ASN:CB	2.49	0.43
1:A:804:TYR:HH	1:A:816:HIS:HE2	1.66	0.43
1:A:852:TYR:HD2	1:A:852:TYR:HA	1.70	0.43
1:A:1215:ARG:HA	1:A:1218:GLN:HG2	2.00	0.43
1:A:1215:ARG:HH22	1:A:1272:THR:CB	2.31	0.43
2:B:510:LYS:HG3	2:B:511:PRO:CD	2.27	0.43
2:B:530:GLY:O	2:B:533:CYS:HB2	2.19	0.43
2:B:639:ILE:CG2	2:B:641:GLU:HG2	2.48	0.43
2:B:979:LYS:C	2:B:980:PHE:CD1	2.91	0.43
2:B:1191:ILE:HG22	2:B:1192:TYR:N	2.34	0.43
2:B:1191:ILE:CG2	2:B:1192:TYR:N	2.82	0.43
3:C:191:TYR:HD2	3:C:201:TRP:NE1	2.16	0.43
5:E:142:VAL:HG12	5:E:143:ASN:N	2.33	0.43
6:F:124:GLU:HG2	6:F:129:LYS:O	2.19	0.43
7:G:89:GLY:HA3	7:G:103:VAL:CG2	2.48	0.43
7:G:96:GLN:H	7:G:96:GLN:HG3	1.69	0.43
11:K:91:CYS:O	11:K:94:ILE:HB	2.19	0.43
1:A:7:SER:HB3	2:B:1193:GLN:NE2	2.33	0.43
1:A:37:PHE:N	1:A:37:PHE:CD1	2.87	0.43
1:A:456:MET:CE	1:A:507:VAL:HG23	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:993:LEU:O	1:A:994:GLN:C	2.56	0.43
1:A:1114:PRO:O	1:A:1311:VAL:HG23	2.19	0.43
1:A:1256:GLU:C	1:A:1258:HIS:H	2.22	0.43
2:B:209:GLU:O	2:B:482:VAL:HG12	2.17	0.43
2:B:486:TYR:HD1	2:B:1096:ARG:HH22	1.65	0.43
2:B:514:LEU:HD12	2:B:518:HIS:CD2	2.53	0.43
2:B:516:ASN:H	2:B:516:ASN:ND2	2.16	0.43
2:B:852:ARG:HG2	2:B:973:ILE:HG23	2.00	0.43
2:B:1130:PHE:CE2	2:B:1150:ARG:HG2	2.54	0.43
3:C:9:LYS:O	3:C:20:PHE:HB2	2.18	0.43
3:C:62:PHE:O	3:C:66:ARG:HG2	2.18	0.43
3:C:240:VAL:O	3:C:241:ASP:C	2.56	0.43
3:C:259:LEU:O	3:C:262:LEU:HB2	2.19	0.43
4:D:20:GLU:O	4:D:20:GLU:HG2	2.18	0.43
4:D:71:LYS:O	4:D:74:GLN:HB2	2.19	0.43
4:D:163:VAL:O	4:D:166:LEU:HB3	2.19	0.43
5:E:82:PHE:CD1	5:E:82:PHE:N	2.87	0.43
5:E:138:ALA:HA	5:E:141:VAL:CG2	2.45	0.43
7:G:1:MET:SD	7:G:79:PHE:CD1	3.12	0.43
11:K:43:GLY:O	11:K:47:ARG:HB2	2.17	0.43
11:K:84:LYS:O	11:K:87:LEU:HB3	2.17	0.43
1:A:735:VAL:O	1:A:735:VAL:HG12	2.19	0.43
1:A:1037:LEU:HD13	1:A:1041:ALA:CB	2.49	0.43
2:B:640:VAL:O	2:B:641:GLU:C	2.57	0.43
2:B:641:GLU:HB2	2:B:643:ASP:OD1	2.19	0.43
2:B:693:ILE:HD11	2:B:740:HIS:CD2	2.52	0.43
2:B:745:PRO:HB2	2:B:1047:PHE:CD1	2.53	0.43
2:B:798:TYR:HE1	10:J:4:PRO:HA	1.84	0.43
2:B:866:TYR:HB2	2:B:870:ILE:HB	2.01	0.43
2:B:1023:VAL:HG12	2:B:1027:ILE:CD1	2.46	0.43
3:C:201:TRP:HA	3:C:201:TRP:CE3	2.53	0.43
6:F:83:PRO:HG2	6:F:84:TYR:CD1	2.54	0.43
7:G:106:MET:HG2	7:G:107:LYS:H	1.83	0.43
11:K:45:LEU:HG	11:K:94:ILE:HD13	2.00	0.43
1:A:98:LYS:HE2	1:A:224:PHE:HE1	1.83	0.43
1:A:419:LYS:C	1:A:421:ALA:H	2.21	0.43
1:A:499:ALA:O	1:A:500:GLU:C	2.56	0.43
1:A:548:ASN:HD21	11:K:47:ARG:NH2	2.15	0.43
1:A:679:ILE:CG2	1:A:729:ALA:HB1	2.47	0.43
1:A:852:TYR:CD1	6:F:136:ARG:HB3	2.53	0.43
1:A:1152:ILE:CG2	1:A:1260:LEU:HD23	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:100:PRO:HB2	2:B:180:TYR:HE1	1.84	0.43
2:B:102:VAL:CG2	2:B:112:LEU:HD22	2.49	0.43
2:B:181:LEU:O	2:B:182:SER:C	2.57	0.43
2:B:240:ILE:HD12	2:B:241:ARG:H	1.83	0.43
2:B:583:ASN:HD21	2:B:628:THR:HG22	1.84	0.43
2:B:660:LYS:O	2:B:663:ALA:HB3	2.18	0.43
2:B:796:LEU:HD23	2:B:799:PRO:HA	1.99	0.43
2:B:877:PRO:CA	2:B:934:LYS:HZ3	2.32	0.43
2:B:900:ALA:O	2:B:903:VAL:HG23	2.18	0.43
2:B:1026:LEU:H	2:B:1026:LEU:HG	1.56	0.43
3:C:100:THR:HB	3:C:119:VAL:HG23	2.01	0.43
4:D:119:ARG:HB2	4:D:221:TYR:CE1	2.53	0.43
4:D:192:LYS:HD2	4:D:199:ASN:N	2.33	0.43
5:E:63:ASN:CB	5:E:64:PRO:CD	2.96	0.43
6:F:85:MET:O	6:F:155:LEU:HD21	2.19	0.43
7:G:84:GLY:HA2	7:G:146:LYS:HE2	2.00	0.43
7:G:121:PHE:HB2	7:G:130:TYR:CE2	2.54	0.43
1:A:37:PHE:HB2	1:A:52:GLY:HA3	2.00	0.43
1:A:59:GLY:HA3	1:A:244:PRO:HG2	2.01	0.43
1:A:185:TRP:HZ3	1:A:200:ARG:HB3	1.84	0.43
1:A:535:THR:HG21	1:A:617:VAL:HG23	2.00	0.43
1:A:578:LEU:O	1:A:580:VAL:N	2.52	0.43
2:B:533:CYS:C	2:B:535:LEU:N	2.72	0.43
2:B:651:LEU:O	2:B:654:ARG:NE	2.50	0.43
2:B:1212:ILE:O	2:B:1214:PRO:HD3	2.17	0.43
5:E:74:ASP:N	5:E:74:ASP:OD1	2.51	0.43
8:H:6:PHE:CD2	8:H:7:ASP:N	2.87	0.43
11:K:31:VAL:CG1	11:K:32:VAL:N	2.82	0.43
1:A:27:VAL:C	1:A:29:ALA:N	2.71	0.43
1:A:135:PHE:CD1	1:A:222:LEU:CD2	2.98	0.43
1:A:338:GLY:HA2	2:B:1129:ARG:NH2	2.34	0.43
1:A:851:HIS:CB	6:F:139:PRO:HG3	2.48	0.43
1:A:985:ASP:O	1:A:986:ILE:C	2.57	0.43
1:A:1219:THR:HG23	1:A:1220:PHE:N	2.33	0.43
2:B:115:GLN:O	2:B:118:ARG:HB2	2.19	0.43
2:B:333:PHE:CD2	2:B:333:PHE:O	2.72	0.43
2:B:498:THR:O	2:B:536:VAL:HA	2.18	0.43
2:B:557:PHE:O	2:B:561:TRP:HD1	2.02	0.43
2:B:764:SER:N	2:B:765:PRO:CD	2.81	0.43
2:B:1033:LYS:O	2:B:1036:ALA:HB3	2.19	0.43
4:D:175:PHE:O	4:D:176:GLU:C	2.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:138:THR:O	7:G:140:LYS:N	2.51	0.43
12:L:63:ARG:O	12:L:64:LEU:C	2.57	0.43
1:A:22:PHE:HB3	2:B:1211:ASN:ND2	2.34	0.43
1:A:744:LYS:O	1:A:748:MET:CB	2.65	0.43
2:B:222:ILE:C	2:B:240:ILE:HD13	2.39	0.43
2:B:281:PRO:HG2	2:B:284:ILE:HG13	2.00	0.43
2:B:352:ALA:O	2:B:353:LYS:C	2.58	0.43
2:B:541:LEU:HD12	2:B:747:MET:HE1	2.00	0.43
2:B:839:MET:CE	2:B:980:PHE:HB2	2.48	0.43
2:B:841:MET:HE3	2:B:1010:LEU:HG	2.00	0.43
2:B:998:ASP:OD1	2:B:998:ASP:N	2.51	0.43
2:B:1167:GLY:HA3	2:B:1215:ARG:HA	2.00	0.43
3:C:46:ILE:HG13	3:C:72:LEU:HD21	2.01	0.43
5:E:190:LEU:N	5:E:190:LEU:HD23	2.33	0.43
7:G:91:VAL:HG12	7:G:92:VAL:N	2.34	0.43
12:L:55:ILE:HG12	12:L:56:LEU:N	2.34	0.43
1:A:15:LYS:HG3	2:B:1219:ASP:HA	2.01	0.42
1:A:34:LYS:NZ	1:A:57:ARG:NH1	2.67	0.42
1:A:42:ASP:HB3	1:A:45:GLN:CA	2.49	0.42
1:A:53:LEU:CD2	1:A:54:ASN:H	2.19	0.42
1:A:853:ASP:OD1	1:A:855:THR:CB	2.67	0.42
2:B:59:LEU:HD21	2:B:128:LEU:HD11	2.01	0.42
2:B:215:GLN:HE21	2:B:476:ARG:HH11	1.67	0.42
2:B:294:ASP:OD1	9:I:12:ASN:HA	2.19	0.42
2:B:638:PHE:HB2	2:B:741:CYS:HB3	2.00	0.42
2:B:724:ASP:HB3	2:B:727:LYS:CG	2.48	0.42
2:B:857:ARG:HG2	2:B:858:SER:H	1.83	0.42
2:B:1106:ARG:CZ	2:B:1110:PRO:HD2	2.48	0.42
4:D:145:MET:O	4:D:149:THR:HG22	2.18	0.42
4:D:188:ALA:CA	4:D:191:ALA:HB3	2.33	0.42
11:K:94:ILE:O	11:K:98:LEU:HG	2.18	0.42
11:K:107:THR:O	11:K:111:LEU:HG	2.19	0.42
1:A:224:PHE:HE2	1:A:231:PRO:HA	1.83	0.42
1:A:343:LYS:HG2	2:B:1151:LEU:HD12	2.02	0.42
1:A:526:ASP:HB2	2:B:835:GLN:OE1	2.19	0.42
1:A:661:GLY:CA	2:B:1081:LEU:HD22	2.49	0.42
1:A:662:PHE:O	2:B:828:ALA:HA	2.18	0.42
1:A:821:ARG:O	1:A:825:ILE:HG13	2.19	0.42
1:A:845:LEU:O	1:A:1065:GLY:HA3	2.19	0.42
2:B:736:THR:HA	2:B:738:PHE:CE1	2.54	0.42
2:B:807:ARG:HB3	2:B:807:ARG:HH11	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1043:ASP:O	2:B:1050:ILE:HD11	2.19	0.42
2:B:1173:ALA:HB1	2:B:1175:LEU:HD21	2.01	0.42
3:C:45:ALA:HA	3:C:72:LEU:HD13	2.00	0.42
3:C:70:ILE:HG22	3:C:71:PRO:CD	2.48	0.42
4:D:56:ARG:CD	4:D:149:THR:HA	2.43	0.42
4:D:198:LEU:N	4:D:198:LEU:HD23	2.34	0.42
5:E:92:THR:O	5:E:95:THR:HB	2.19	0.42
5:E:185:ALA:CA	5:E:190:LEU:HG	2.49	0.42
6:F:87:LYS:HG3	6:F:88:TYR:CE1	2.52	0.42
12:L:31:CYS:O	12:L:35:SER:HA	2.19	0.42
1:A:619:LYS:O	1:A:623:GLY:HA3	2.19	0.42
1:A:783:THR:HG21	1:A:796:SER:O	2.19	0.42
1:A:845:LEU:O	1:A:846:GLU:C	2.58	0.42
1:A:1025:ARG:O	1:A:1035:TYR:HE1	2.02	0.42
1:A:1100:ARG:HA	1:A:1103:GLU:OE1	2.20	0.42
1:A:1109:LYS:HA	1:A:1109:LYS:HD2	1.71	0.42
1:A:1161:THR:H	1:A:1170:ILE:HD13	1.84	0.42
1:A:1325:THR:O	5:E:148:GLU:HB3	2.20	0.42
1:A:1362:TYR:CE1	1:A:1363:VAL:O	2.72	0.42
1:A:1402:PHE:CD1	1:A:1403:GLU:HG2	2.54	0.42
2:B:70:ILE:HG13	2:B:429:PHE:HZ	1.84	0.42
2:B:281:PRO:O	2:B:283:VAL:N	2.53	0.42
2:B:459:TYR:O	2:B:463:THR:OG1	2.38	0.42
2:B:522:VAL:HG12	2:B:523:CYS:H	1.78	0.42
2:B:610:ASN:HA	2:B:611:PRO:HD3	1.92	0.42
3:C:167:HIS:HA	11:K:6:ARG:HH12	1.84	0.42
5:E:167:ARG:O	5:E:168:TYR:CG	2.72	0.42
10:J:17:LYS:O	10:J:18:TRP:C	2.56	0.42
11:K:30:ALA:HB2	11:K:76:GLN:CG	2.49	0.42
1:A:41:MET:O	1:A:42:ASP:O	2.37	0.42
1:A:109:HIS:NE2	1:A:169:ASN:ND2	2.67	0.42
1:A:446:ARG:HB2	1:A:487:MET:CE	2.49	0.42
1:A:474:VAL:HG23	1:A:521:MET:CE	2.47	0.42
1:A:809:THR:HG23	1:A:812:GLU:OE1	2.19	0.42
1:A:1397:LEU:N	1:A:1397:LEU:HD23	2.35	0.42
2:B:566:LEU:HD22	2:B:586:TRP:O	2.20	0.42
2:B:641:GLU:HB2	2:B:643:ASP:OD2	2.19	0.42
2:B:707:PRO:HB3	2:B:741:CYS:SG	2.58	0.42
3:C:69:LEU:O	10:J:6:ARG:NH1	2.52	0.42
4:D:173:HIS:O	4:D:175:PHE:N	2.53	0.42
1:A:92:HIS:CE1	1:A:1410:PHE:CE2	3.06	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:568:PRO:HB2	3:C:221:TYR:CE1	2.55	0.42
1:A:571:LEU:HD22	8:H:46:LEU:HD11	2.01	0.42
1:A:848:ILE:HA	1:A:857:ARG:O	2.20	0.42
1:A:904:THR:O	1:A:904:THR:HG22	2.19	0.42
1:A:1095:THR:HB	1:A:1100:ARG:HB2	2.01	0.42
1:A:1152:ILE:HG13	9:I:44:TYR:CD2	2.54	0.42
1:A:1450:LEU:HD21	7:G:19:GLY:O	2.19	0.42
2:B:378:LEU:O	2:B:378:LEU:HD12	2.19	0.42
2:B:498:THR:O	2:B:536:VAL:HG13	2.19	0.42
2:B:627:PHE:CE1	2:B:696:GLU:HG2	2.55	0.42
2:B:830:TYR:HB3	2:B:831:SER:H	1.44	0.42
2:B:1040:ASN:O	2:B:1041:GLU:C	2.57	0.42
4:D:167:LEU:C	4:D:169:SER:N	2.70	0.42
5:E:135:PHE:HD2	5:E:140:LEU:HD21	1.83	0.42
6:F:88:TYR:CD1	6:F:88:TYR:N	2.86	0.42
10:J:9:SER:HB2	10:J:45:CYS:CB	2.50	0.42
12:L:55:ILE:HG12	12:L:56:LEU:H	1.85	0.42
1:A:41:MET:HA	1:A:49:LYS:HA	2.01	0.42
1:A:59:GLY:O	1:A:244:PRO:HG2	2.19	0.42
1:A:548:ASN:ND2	11:K:47:ARG:HH21	2.15	0.42
1:A:647:GLY:O	1:A:648:ASN:C	2.57	0.42
1:A:661:GLY:O	1:A:662:PHE:HB2	2.19	0.42
1:A:907:THR:HG21	1:A:920:LEU:HD21	2.01	0.42
1:A:919:ILE:HD11	1:A:925:LEU:CD1	2.49	0.42
1:A:1211:GLN:O	1:A:1214:GLU:HB2	2.19	0.42
2:B:205:ILE:O	2:B:206:ASN:C	2.57	0.42
2:B:817:LEU:N	2:B:818:PRO:CD	2.81	0.42
2:B:916:THR:HA	2:B:917:PRO:HD3	1.82	0.42
3:C:181:ASP:CG	3:C:186:LEU:HD13	2.40	0.42
5:E:116:ILE:HG22	5:E:120:ALA:HB3	2.01	0.42
5:E:162:ARG:NH1	5:E:162:ARG:HB3	2.34	0.42
8:H:130:ARG:N	8:H:130:ARG:HD3	2.35	0.42
1:A:151:ASP:OD1	1:A:163:SER:HB3	2.19	0.42
1:A:344:ARG:HA	2:B:1129:ARG:HA	2.02	0.42
1:A:424:ILE:HG22	1:A:425:GLN:O	2.19	0.42
1:A:532:ARG:C	1:A:534:LEU:H	2.22	0.42
1:A:914:GLU:HB2	1:A:979:SER:O	2.19	0.42
1:A:946:VAL:HG22	5:E:201:LYS:CD	2.44	0.42
1:A:1291:VAL:CG2	1:A:1292:PRO:HD2	2.49	0.42
2:B:129:PHE:CD2	2:B:166:PHE:HB2	2.54	0.42
2:B:286:PHE:CE1	2:B:378:LEU:HG	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:745:PRO:O	2:B:747:MET:N	2.53	0.42
3:C:47:ASP:OD2	3:C:170:TRP:HH2	2.02	0.42
3:C:167:HIS:CD2	12:L:70:ARG:CG	3.03	0.42
3:C:187:LYS:HA	3:C:187:LYS:HD3	1.77	0.42
4:D:53:SER:O	4:D:54:GLU:C	2.57	0.42
4:D:146:GLN:HA	4:D:149:THR:HG22	2.02	0.42
5:E:17:ARG:O	5:E:21:GLU:HG3	2.19	0.42
6:F:82:THR:CG2	6:F:83:PRO:HD2	2.50	0.42
7:G:79:PHE:CE2	7:G:105:PRO:HD2	2.55	0.42
1:A:89:PRO:HD2	1:A:205:GLU:HG3	2.02	0.42
1:A:555:ASP:OD2	1:A:644:LYS:HE2	2.20	0.42
1:A:779:PHE:CZ	2:B:517:THR:HA	2.55	0.42
1:A:811:GLN:H	1:A:811:GLN:CD	2.23	0.42
1:A:851:HIS:HB3	6:F:139:PRO:HG3	2.02	0.42
1:A:1163:ILE:CG2	1:A:1164:PRO:HD2	2.50	0.42
1:A:1284:MET:CA	1:A:1306:LEU:HD23	2.50	0.42
2:B:277:LYS:HD3	2:B:277:LYS:N	2.35	0.42
2:B:514:LEU:HD12	2:B:514:LEU:HA	1.91	0.42
2:B:792:MET:O	2:B:793:ALA:HB2	2.20	0.42
2:B:877:PRO:C	2:B:878:GLN:HG3	2.40	0.42
2:B:1130:PHE:HD2	2:B:1151:LEU:HD11	1.85	0.42
2:B:1166:CYS:C	2:B:1168:LEU:N	2.73	0.42
3:C:77:ILE:HD12	3:C:77:ILE:O	2.19	0.42
1:A:522:GLY:HA2	1:A:630:ILE:CD1	2.50	0.42
1:A:607:ILE:HG12	1:A:612:ILE:HA	2.02	0.42
2:B:123:THR:C	2:B:125:SER:H	2.23	0.42
2:B:335:GLY:HA2	2:B:348:ARG:HB2	2.01	0.42
2:B:405:ARG:HA	2:B:631:GLY:O	2.19	0.42
2:B:461:LEU:HD12	2:B:461:LEU:HA	1.85	0.42
2:B:597:MET:HA	2:B:597:MET:HE2	2.00	0.42
2:B:650:GLU:HG3	2:B:651:LEU:H	1.84	0.42
2:B:1174:LYS:O	2:B:1176:ASN:N	2.44	0.42
3:C:136:ASP:OD2	3:C:137:LYS:N	2.53	0.42
6:F:146:TRP:HB3	6:F:151:LEU:CD1	2.49	0.42
10:J:31:ASP:OD1	10:J:34:THR:HB	2.20	0.42
11:K:47:ARG:NH1	11:K:47:ARG:HB3	2.35	0.42
1:A:61:ILE:HG22	1:A:62:ASP:H	1.84	0.42
1:A:101:LYS:HG2	1:A:139:TRP:CE2	2.55	0.42
1:A:225:ASN:HD22	1:A:227:VAL:H	1.68	0.42
1:A:396:PRO:O	1:A:397:ASN:CG	2.58	0.42
1:A:442:VAL:HG12	1:A:490:HIS:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:565:ILE:O	1:A:570:PRO:HA	2.20	0.42
1:A:670:ILE:HG22	1:A:805:LEU:HD11	2.01	0.42
1:A:802:ASN:ND2	2:B:728:ARG:HB2	2.35	0.42
1:A:963:ILE:HD11	1:A:1048:ASN:CB	2.48	0.42
1:A:1035:TYR:O	1:A:1036:ARG:CB	2.58	0.42
1:A:1156:PRO:HA	1:A:1190:PRO:CB	2.35	0.42
1:A:1426:GLU:H	1:A:1426:GLU:HG2	1.51	0.42
2:B:467:GLY:HA3	2:B:475:SER:HB3	2.01	0.42
2:B:515:HIS:CG	2:B:516:ASN:N	2.88	0.42
2:B:515:HIS:O	2:B:518:HIS:HB2	2.20	0.42
2:B:641:GLU:HB2	2:B:643:ASP:CG	2.40	0.42
2:B:785:TYR:CE2	10:J:60:PHE:HE1	2.37	0.42
2:B:840:ILE:HG21	2:B:1011:ILE:HD12	2.02	0.42
2:B:899:ILE:CG2	2:B:949:VAL:HG21	2.42	0.42
2:B:1074:ASN:OD1	2:B:1075:GLY:N	2.53	0.42
5:E:54:GLN:O	5:E:57:MET:HB3	2.20	0.42
5:E:100:ILE:HG23	5:E:105:PHE:HB2	2.01	0.42
6:F:125:LEU:HA	6:F:130:ILE:HD11	2.01	0.42
6:F:127:GLU:O	6:F:128:LYS:C	2.57	0.42
7:G:79:PHE:HD2	7:G:105:PRO:HD2	1.85	0.42
1:A:61:ILE:HG22	1:A:62:ASP:N	2.35	0.41
1:A:316:GLN:O	1:A:317:LYS:C	2.58	0.41
1:A:335:ARG:HA	1:A:339:ASN:ND2	2.27	0.41
1:A:403:LYS:HB3	1:A:404:TYR:CD1	2.54	0.41
1:A:425:GLN:NE2	1:A:425:GLN:N	2.54	0.41
1:A:451:HIS:O	1:A:452:LYS:C	2.57	0.41
1:A:503:GLN:OE1	1:A:503:GLN:HA	2.20	0.41
1:A:795:GLU:CD	1:A:795:GLU:N	2.71	0.41
1:A:899:VAL:CB	1:A:929:LEU:HD12	2.36	0.41
1:A:1099:PRO:HG2	1:A:1100:ARG:H	1.85	0.41
1:A:1102:LYS:O	1:A:1103:GLU:C	2.57	0.41
1:A:1215:ARG:O	1:A:1216:ILE:C	2.58	0.41
1:A:1242:VAL:O	1:A:1243:VAL:CG1	2.67	0.41
1:A:1264:GLU:HG3	1:A:1265:ASN:OD1	2.20	0.41
1:A:1300:LYS:C	1:A:1302:PRO:HD3	2.40	0.41
1:A:1317:MET:HE1	1:A:1338:VAL:HG11	2.01	0.41
2:B:278:GLN:HB3	2:B:279:ASP:H	1.69	0.41
2:B:563:MET:HE1	2:B:580:VAL:HG11	2.02	0.41
2:B:651:LEU:C	2:B:653:VAL:H	2.24	0.41
2:B:860:MET:HG3	2:B:965:LYS:HG2	2.01	0.41
2:B:900:ALA:HA	2:B:901:PRO:HD3	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:245:VAL:O	3:C:246:ARG:C	2.58	0.41
5:E:152:LYS:HD2	5:E:152:LYS:HA	1.86	0.41
7:G:146:LYS:HB2	7:G:168:LEU:HD11	2.02	0.41
7:G:160:ILE:CG2	7:G:161:GLY:N	2.81	0.41
7:G:163:ILE:HA	7:G:168:LEU:HD13	2.02	0.41
11:K:55:LYS:HB2	11:K:81:TYR:CE1	2.55	0.41
1:A:162:VAL:HG12	1:A:163:SER:H	1.85	0.41
1:A:284:ALA:HB1	1:A:289:ILE:HD11	2.03	0.41
1:A:399:HIS:O	1:A:435:HIS:HD2	2.04	0.41
1:A:474:VAL:HG23	1:A:477:PRO:HG2	2.02	0.41
1:A:475:THR:HG23	1:A:476:SER:N	2.35	0.41
1:A:541:ILE:HD12	1:A:577:ILE:CD1	2.49	0.41
1:A:580:VAL:O	1:A:580:VAL:HG12	2.19	0.41
1:A:654:ASN:O	1:A:657:LEU:HB3	2.20	0.41
1:A:767:GLN:HE21	1:A:774:ARG:HB2	1.81	0.41
1:A:1277:GLU:O	1:A:1278:ASN:HB2	2.19	0.41
2:B:68:THR:HG22	2:B:91:SER:CA	2.50	0.41
2:B:565:PRO:C	2:B:567:GLU:N	2.73	0.41
2:B:778:MET:SD	2:B:794:ASN:HB3	2.59	0.41
2:B:781:PHE:CD1	2:B:782:LEU:HG	2.54	0.41
2:B:1051:THR:HB	2:B:1054:GLY:H	1.84	0.41
3:C:16:ASP:HA	3:C:240:VAL:HG13	2.02	0.41
3:C:77:ILE:CA	3:C:129:ILE:HD11	2.49	0.41
3:C:93:ASP:O	3:C:127:ARG:NH2	2.52	0.41
3:C:124:LEU:HD23	3:C:126:GLY:HA2	2.02	0.41
4:D:213:GLU:O	4:D:216:ASN:HB2	2.20	0.41
5:E:131:THR:C	5:E:132:ILE:HG13	2.41	0.41
9:I:15:TYR:N	9:I:15:TYR:HD1	2.16	0.41
11:K:5:ASP:O	11:K:6:ARG:C	2.59	0.41
11:K:99:GLY:O	11:K:102:LYS:HB3	2.20	0.41
1:A:389:THR:N	1:A:426:LEU:HD11	2.35	0.41
1:A:501:LEU:HA	1:A:505:CYS:SG	2.60	0.41
1:A:1396:ALA:HA	1:A:1399:ARG:CZ	2.49	0.41
2:B:487:THR:O	2:B:490:SER:N	2.53	0.41
2:B:549:THR:CG2	2:B:550:ASP:H	2.32	0.41
2:B:846:ILE:HG23	2:B:974:PRO:HG2	2.02	0.41
2:B:1038:SER:O	10:J:33:GLY:HA3	2.20	0.41
4:D:123:LEU:HD22	4:D:149:THR:HG21	2.02	0.41
4:D:216:ASN:C	4:D:218:GLU:N	2.73	0.41
5:E:121:MET:C	5:E:123:LEU:H	2.23	0.41
1:A:258:GLY:O	1:A:259:GLU:O	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:528:LEU:CG	1:A:529:CYS:N	2.81	0.41
1:A:562:THR:CG2	1:A:563:PRO:HD2	2.50	0.41
1:A:690:VAL:HG23	1:A:721:PHE:HD1	1.85	0.41
1:A:829:VAL:HG11	2:B:508:LEU:HD13	2.03	0.41
1:A:1097:GLY:O	1:A:1098:VAL:C	2.59	0.41
2:B:21:GLU:O	2:B:21:GLU:HG3	2.21	0.41
2:B:248:SER:O	2:B:249:ARG:C	2.59	0.41
2:B:519:TRP:HE1	2:B:635:ARG:NH2	2.18	0.41
2:B:754:SER:HB2	2:B:812:LEU:CD1	2.49	0.41
2:B:778:MET:HE2	2:B:1094:ARG:HG2	2.03	0.41
2:B:1107:ALA:O	2:B:1108:ARG:HB3	2.18	0.41
3:C:114:TYR:C	3:C:116:LYS:H	2.24	0.41
4:D:48:ILE:HG21	7:G:4:ILE:HB	2.01	0.41
4:D:198:LEU:O	4:D:199:ASN:HB2	2.20	0.41
5:E:45:LYS:HB3	5:E:46:TYR:CE1	2.54	0.41
6:F:152:ILE:HG22	6:F:153:VAL:H	1.85	0.41
9:I:17:ARG:CG	9:I:18:GLU:H	2.31	0.41
11:K:11:LEU:HA	11:K:11:LEU:HD22	1.65	0.41
1:A:35:ILE:HG13	1:A:52:GLY:O	2.21	0.41
1:A:767:GLN:HE22	1:A:797:LYS:CB	2.34	0.41
1:A:784:LEU:O	1:A:786:HIS:N	2.53	0.41
1:A:1006:ILE:HD12	5:E:167:ARG:HB2	2.01	0.41
1:A:1011:GLN:HE22	1:A:1015:VAL:CG2	2.32	0.41
1:A:1280:GLU:O	1:A:1281:ARG:C	2.58	0.41
1:A:1343:ALA:O	1:A:1346:ALA:HB3	2.21	0.41
1:A:1362:TYR:CD1	1:A:1363:VAL:N	2.87	0.41
2:B:179:CYS:C	2:B:181:LEU:N	2.74	0.41
2:B:596:LEU:HD21	2:B:624:LEU:HD22	2.03	0.41
2:B:706:GLN:C	2:B:708:GLU:H	2.24	0.41
3:C:124:LEU:C	3:C:126:GLY:N	2.73	0.41
4:D:194:LEU:N	4:D:194:LEU:CD2	2.82	0.41
5:E:213:ILE:CG1	5:E:214:CYS:N	2.81	0.41
6:F:96:THR:HG22	6:F:100:GLN:OE1	2.20	0.41
1:A:512:VAL:O	1:A:512:VAL:HG12	2.20	0.41
1:A:531:ILE:CG1	1:A:578:LEU:HD21	2.51	0.41
1:A:578:LEU:C	1:A:580:VAL:N	2.74	0.41
1:A:1120:LEU:HD12	1:A:1120:LEU:N	2.35	0.41
1:A:1166:ASP:O	1:A:1170:ILE:HG13	2.21	0.41
1:A:1259:MET:HG3	1:A:1263:ILE:HD11	2.03	0.41
1:A:1263:ILE:HG13	1:A:1263:ILE:H	1.43	0.41
2:B:119:LEU:HD23	2:B:953:LEU:CD1	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:120:ARG:HG2	2:B:955:THR:HG21	2.01	0.41
2:B:121:ASN:N	2:B:121:ASN:HD22	2.19	0.41
2:B:547:VAL:HG12	2:B:612:GLU:OE2	2.20	0.41
2:B:637:LEU:HD13	2:B:740:HIS:HB2	2.01	0.41
2:B:650:GLU:CG	2:B:651:LEU:N	2.82	0.41
2:B:850:LEU:HA	10:J:8:PHE:HE1	1.84	0.41
3:C:53:THR:CG2	3:C:152:GLU:HB3	2.51	0.41
3:C:123:ASN:ND2	3:C:125:MET:HG2	2.36	0.41
4:D:180:LEU:HD11	4:D:198:LEU:HD11	2.01	0.41
5:E:30:ILE:HG23	5:E:34:GLU:HB3	2.01	0.41
10:J:18:TRP:CH2	10:J:22:LEU:HD11	2.55	0.41
12:L:67:PHE:CD1	12:L:67:PHE:N	2.89	0.41
1:A:75:ASN:O	1:A:76:GLU:HB2	2.20	0.41
1:A:125:ALA:HA	1:A:128:ILE:CD1	2.51	0.41
1:A:284:ALA:CB	1:A:289:ILE:HD11	2.50	0.41
1:A:285:PRO:O	1:A:288:ALA:N	2.53	0.41
1:A:919:ILE:HD11	1:A:925:LEU:HD11	2.02	0.41
1:A:952:ALA:C	1:A:954:TRP:HD1	2.23	0.41
1:A:1068:ALA:HB1	1:A:1367:HIS:HA	2.03	0.41
1:A:1265:ASN:C	1:A:1267:MET:N	2.73	0.41
1:A:1437:GLY:C	1:A:1439:GLY:H	2.23	0.41
2:B:114:PRO:O	2:B:115:GLN:C	2.57	0.41
2:B:243:ALA:HA	2:B:250:PHE:O	2.19	0.41
2:B:976:ILE:HD13	2:B:976:ILE:HA	1.85	0.41
3:C:37:MET:HE2	3:C:37:MET:HB2	1.65	0.41
3:C:73:GLN:O	3:C:129:ILE:HA	2.20	0.41
3:C:148:ARG:H	3:C:151:GLN:CG	2.26	0.41
4:D:202:ILE:HG12	4:D:207:LEU:HB2	2.02	0.41
6:F:85:MET:HA	6:F:151:LEU:HD23	2.02	0.41
7:G:21:ARG:O	7:G:22:MET:C	2.59	0.41
1:A:243:PRO:O	1:A:246:VAL:HG23	2.21	0.41
1:A:335:ARG:HD3	1:A:335:ARG:HA	1.82	0.41
1:A:339:ASN:HB3	2:B:1117:GLN:HE22	1.86	0.41
1:A:445:ASN:HB2	1:A:455:MET:HA	2.03	0.41
1:A:954:TRP:HA	1:A:955:PRO:HD3	1.97	0.41
1:A:1025:ARG:HA	1:A:1030:ARG:CD	2.51	0.41
1:A:1101:LEU:HB2	1:A:1355:VAL:HG11	2.02	0.41
1:A:1293:SER:OG	1:A:1295:THR:HG22	2.21	0.41
2:B:235:SER:CB	2:B:236:HIS:HD2	2.33	0.41
2:B:430:ARG:CG	2:B:430:ARG:NH1	2.63	0.41
2:B:877:PRO:HA	2:B:934:LYS:HZ3	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1007:VAL:CG2	2:B:1008:PRO:N	2.83	0.41
2:B:1034:VAL:HA	2:B:1037:LEU:HD11	2.03	0.41
2:B:1132:GLU:O	2:B:1135:ARG:HB3	2.21	0.41
3:C:58:LEU:HD13	3:C:62:PHE:CE2	2.56	0.41
3:C:167:HIS:ND1	3:C:167:HIS:C	2.74	0.41
5:E:12:LEU:HD13	5:E:12:LEU:HA	1.82	0.41
5:E:13:TRP:O	5:E:16:PHE:HB3	2.21	0.41
5:E:136:ASN:OD1	5:E:138:ALA:N	2.54	0.41
1:A:120:GLU:HG3	1:A:123:ARG:NH1	2.36	0.41
1:A:385:ILE:CG1	1:A:428:TYR:HE2	2.33	0.41
1:A:445:ASN:O	1:A:487:MET:HE3	2.20	0.41
1:A:446:ARG:HB3	1:A:478:TYR:HB3	2.01	0.41
1:A:545:GLN:O	1:A:546:VAL:C	2.59	0.41
1:A:710:LEU:H	1:A:710:LEU:HD12	1.85	0.41
1:A:809:THR:CG2	2:B:730:ARG:HG3	2.51	0.41
1:A:830:LYS:HE2	1:A:1081:LEU:HB2	2.03	0.41
1:A:1061:GLY:O	1:A:1062:GLU:C	2.59	0.41
1:A:1153:TYR:CB	1:A:1192:LEU:HD23	2.47	0.41
1:A:1213:GLY:O	1:A:1217:LYS:HB2	2.21	0.41
1:A:1216:ILE:H	1:A:1216:ILE:HG13	1.71	0.41
1:A:1365:TYR:HA	1:A:1368:MET:HE1	2.02	0.41
2:B:56:ASP:HB3	2:B:57:TYR:CE1	2.55	0.41
2:B:167:ILE:HD12	2:B:167:ILE:N	2.36	0.41
2:B:205:ILE:HG22	2:B:206:ASN:N	2.35	0.41
2:B:435:THR:C	2:B:437:GLU:H	2.24	0.41
2:B:512:ARG:O	2:B:513:GLN:O	2.39	0.41
2:B:822:ASN:N	2:B:822:ASN:ND2	2.69	0.41
2:B:841:MET:O	2:B:993:THR:HA	2.21	0.41
2:B:874:PHE:HD1	2:B:962:LYS:HD3	1.85	0.41
2:B:983:ARG:NH1	2:B:1091:TYR:HB3	2.35	0.41
2:B:1166:CYS:O	2:B:1166:CYS:SG	2.78	0.41
3:C:70:ILE:HA	3:C:71:PRO:HD3	1.86	0.41
3:C:180:TYR:O	3:C:181:ASP:C	2.59	0.41
3:C:258:ILE:HA	3:C:258:ILE:HD12	1.85	0.41
5:E:147:HIS:O	5:E:150:VAL:HG23	2.20	0.41
6:F:76:LYS:HA	6:F:79:ARG:CD	2.51	0.41
7:G:94:CYS:SG	7:G:130:TYR:HE1	2.43	0.41
8:H:102:TYR:HE2	8:H:116:TYR:N	2.19	0.41
8:H:106:GLU:HG2	8:H:112:ILE:CD1	2.50	0.41
9:I:7:CYS:O	9:I:11:ASN:HA	2.21	0.41
10:J:54:VAL:HG12	10:J:56:LEU:HD23	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:44:ASN:O	11:K:48:ALA:HB2	2.20	0.41
1:A:33:ALA:HA	1:A:57:ARG:NH1	2.36	0.41
1:A:54:ASN:HD22	1:A:54:ASN:N	2.17	0.41
1:A:204:THR:O	1:A:206:GLU:N	2.54	0.41
1:A:242:PRO:HA	1:A:243:PRO:HD3	1.85	0.41
1:A:311:GLN:O	1:A:313:GLN:N	2.53	0.41
1:A:391:LEU:O	1:A:392:VAL:C	2.60	0.41
1:A:627:GLY:O	1:A:628:GLY:C	2.60	0.41
1:A:766:GLY:HA2	1:A:799:PHE:CE1	2.55	0.41
1:A:808:LEU:HD23	1:A:812:GLU:C	2.42	0.41
1:A:836:TYR:CE2	1:A:840:ARG:CD	3.04	0.41
1:A:857:ARG:HA	1:A:864:ILE:CD1	2.51	0.41
2:B:39:ARG:NH2	2:B:665:GLU:HG2	2.35	0.41
2:B:92:PHE:CE1	2:B:421:PHE:HZ	2.38	0.41
2:B:294:ASP:C	2:B:296:GLU:N	2.74	0.41
2:B:407:ASP:HB3	2:B:412:LEU:HD21	2.03	0.41
2:B:420:LEU:HD23	2:B:420:LEU:HA	1.94	0.41
2:B:941:LEU:HG	2:B:942:ARG:H	1.86	0.41
2:B:1065:GLN:CD	2:B:1066:SER:H	2.23	0.41
2:B:1224:PHE:CZ	5:E:171:LYS:HE3	2.56	0.41
3:C:88:CYS:O	3:C:89:GLU:C	2.58	0.41
3:C:221:TYR:CZ	3:C:222:LYS:HE3	2.56	0.41
3:C:259:LEU:HD12	3:C:259:LEU:HA	1.87	0.41
4:D:8:PHE:CE1	4:D:37:GLN:HB2	2.55	0.41
4:D:13:ARG:O	4:D:15:LEU:N	2.54	0.41
5:E:178:ILE:O	5:E:179:GLN:O	2.39	0.41
5:E:188:LEU:HB2	5:E:190:LEU:HD21	2.03	0.41
6:F:74:ILE:HD12	6:F:144:GLU:CG	2.50	0.41
7:G:12:THR:HG22	7:G:13:LEU:N	2.36	0.41
10:J:41:LEU:HD23	10:J:41:LEU:H	1.86	0.41
1:A:25:GLU:OE2	1:A:25:GLU:N	2.54	0.40
1:A:35:ILE:HD12	1:A:35:ILE:N	2.22	0.40
1:A:49:LYS:CE	1:A:61:ILE:HG13	2.51	0.40
1:A:265:LYS:CD	1:A:322:VAL:HG21	2.37	0.40
1:A:779:PHE:CE1	1:A:785:PRO:HD3	2.55	0.40
1:A:900:ASP:HB3	1:A:906:HIS:HB3	2.03	0.40
1:A:1445:ILE:HD11	7:G:59:GLY:N	2.37	0.40
2:B:27:ALA:O	2:B:28:GLU:C	2.59	0.40
2:B:243:ALA:O	2:B:244:LEU:C	2.59	0.40
2:B:254:LEU:HD12	2:B:272:THR:O	2.21	0.40
2:B:639:ILE:HD11	2:B:691:GLU:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:640:VAL:O	2:B:640:VAL:CG1	2.69	0.40
2:B:821:GLN:NE2	2:B:851:PHE:H	2.18	0.40
2:B:854:LEU:HD23	2:B:854:LEU:HA	1.84	0.40
2:B:996:ARG:H	2:B:996:ARG:HG3	1.39	0.40
3:C:115:SER:HB3	3:C:142:VAL:HB	2.03	0.40
5:E:13:TRP:HA	5:E:42:PHE:CE2	2.56	0.40
10:J:48:ARG:NH1	10:J:48:ARG:CG	2.78	0.40
12:L:36:SER:O	12:L:37:LYS:C	2.60	0.40
1:A:195:ASP:OD1	1:A:195:ASP:N	2.54	0.40
1:A:323:LYS:N	1:A:323:LYS:HD2	2.36	0.40
1:A:325:ILE:C	1:A:327:ALA:N	2.75	0.40
1:A:380:VAL:HG23	1:A:430:TRP:C	2.41	0.40
1:A:391:LEU:O	1:A:394:ASN:N	2.55	0.40
1:A:441:PRO:O	1:A:492:PRO:CG	2.70	0.40
1:A:477:PRO:CG	1:A:521:MET:HE2	2.51	0.40
1:A:507:VAL:HG22	1:A:521:MET:HE1	2.02	0.40
1:A:741:ASN:HD21	1:A:743:VAL:H	1.70	0.40
1:A:1004:ASN:HD21	1:A:1006:ILE:HB	1.86	0.40
1:A:1313:LEU:O	1:A:1314:SER:C	2.59	0.40
2:B:189:LEU:HD13	2:B:196:PRO:HA	2.03	0.40
2:B:522:VAL:CG1	2:B:523:CYS:H	2.31	0.40
2:B:526:GLU:HG2	2:B:538:ASN:HB2	2.03	0.40
2:B:563:MET:O	2:B:565:PRO:HD3	2.21	0.40
2:B:1108:ARG:HG2	2:B:1109:GLY:H	1.85	0.40
3:C:8:VAL:CG1	3:C:9:LYS:N	2.85	0.40
3:C:37:MET:CE	3:C:176:ILE:HD13	2.51	0.40
3:C:121:VAL:O	3:C:122:SER:C	2.59	0.40
3:C:263:THR:O	3:C:266:ASP:HB2	2.21	0.40
5:E:127:ILE:N	5:E:128:PRO:HD3	2.36	0.40
5:E:171:LYS:H	5:E:171:LYS:HG2	1.51	0.40
6:F:131:PRO:O	6:F:132:LEU:HD23	2.21	0.40
7:G:21:ARG:HD3	7:G:21:ARG:HA	1.89	0.40
7:G:79:PHE:C	7:G:79:PHE:HD1	2.22	0.40
7:G:80:LYS:HG2	7:G:82:PHE:CE2	2.56	0.40
10:J:9:SER:HB2	10:J:45:CYS:SG	2.61	0.40
10:J:24:LEU:HD23	10:J:24:LEU:HA	1.87	0.40
1:A:305:ASP:OD1	1:A:306:ASN:N	2.55	0.40
1:A:379:VAL:HG12	1:A:380:VAL:N	2.36	0.40
1:A:490:HIS:HB3	2:B:1150:ARG:CZ	2.50	0.40
1:A:531:ILE:HG12	1:A:578:LEU:HD21	2.03	0.40
1:A:829:VAL:C	1:A:831:THR:N	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1266:THR:O	1:A:1266:THR:HG22	2.21	0.40
1:A:1279:ILE:HG22	1:A:1282:VAL:HG21	2.03	0.40
2:B:38:PHE:CD2	2:B:43:LEU:CD2	3.05	0.40
2:B:216:GLU:CA	2:B:406:LEU:HD23	2.45	0.40
2:B:221:ASN:HA	2:B:241:ARG:O	2.21	0.40
2:B:276:ILE:O	2:B:276:ILE:CG2	2.68	0.40
2:B:312:GLU:O	2:B:313:MET:C	2.60	0.40
2:B:508:LEU:HA	2:B:512:ARG:HE	1.86	0.40
2:B:529:GLU:OE1	2:B:769:TYR:HE2	2.04	0.40
2:B:589:VAL:HG12	2:B:590:HIS:N	2.35	0.40
2:B:773:MET:O	2:B:776:GLN:HB2	2.22	0.40
2:B:789:MET:CE	2:B:965:LYS:HB3	2.51	0.40
2:B:1076:HIS:HD2	11:K:40:HIS:CD2	2.39	0.40
2:B:1114:LEU:HD12	2:B:1114:LEU:HA	1.78	0.40
3:C:13:ALA:HA	3:C:18:VAL:HA	2.03	0.40
3:C:136:ASP:HB2	3:C:141:GLY:CA	2.51	0.40
5:E:52:ARG:HA	5:E:53:PRO:HD3	1.79	0.40
5:E:124:VAL:O	5:E:132:ILE:CD1	2.69	0.40
7:G:91:VAL:CG1	7:G:92:VAL:N	2.85	0.40
10:J:5:VAL:HA	10:J:15:GLY:N	2.34	0.40
10:J:8:PHE:CD2	10:J:49:MET:SD	3.15	0.40
11:K:38:GLU:HB3	11:K:71:PHE:HE2	1.86	0.40
1:A:68:GLN:O	1:A:68:GLN:CD	2.59	0.40
1:A:98:LYS:HE2	1:A:224:PHE:CE1	2.56	0.40
1:A:670:ILE:O	1:A:670:ILE:HG12	2.21	0.40
1:A:868:TYR:O	1:A:869:GLY:C	2.59	0.40
1:A:1398:MET:CE	1:A:1424:VAL:HG23	2.51	0.40
2:B:259:TYR:HB2	2:B:268:THR:HG23	2.03	0.40
2:B:347:LYS:HG2	2:B:347:LYS:H	1.71	0.40
2:B:666:TYR:C	2:B:668:ASP:H	2.25	0.40
2:B:780:VAL:HG11	10:J:56:LEU:HD12	2.02	0.40
2:B:796:LEU:HD11	2:B:821:GLN:HE21	1.86	0.40
2:B:1030:LEU:HD12	2:B:1030:LEU:HA	1.89	0.40
2:B:1109:GLY:H	2:B:1111:MET:CE	2.35	0.40
3:C:260:LEU:HG	3:C:264:GLN:NE2	2.37	0.40
5:E:18:THR:O	5:E:19:VAL:C	2.59	0.40
6:F:82:THR:HA	6:F:83:PRO:HD3	1.99	0.40
7:G:132:SER:O	7:G:133:SER:C	2.58	0.40
10:J:1:MET:H2	10:J:56:LEU:N	2.19	0.40
1:A:127:ALA:O	1:A:129:LYS:N	2.55	0.40
1:A:497:THR:HG23	2:B:1146:PHE:HD1	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1189:SER:C	1:A:1191:TRP:H	2.25	0.40
1:A:1351:GLU:C	1:A:1353:TYR:N	2.75	0.40
2:B:213:ILE:H	2:B:479:VAL:HG12	1.86	0.40
2:B:421:PHE:O	2:B:424:LEU:HB3	2.22	0.40
2:B:542:MET:HE2	2:B:747:MET:HE2	2.04	0.40
2:B:636:PRO:HG2	2:B:743:ILE:HD11	2.03	0.40
2:B:990:ILE:HG22	2:B:992:ILE:N	2.34	0.40
2:B:1138:MET:HB3	2:B:1147:LEU:HD21	2.00	0.40
3:C:59:ALA:O	3:C:60:ASP:C	2.59	0.40
4:D:124:GLU:O	4:D:128:VAL:HG23	2.21	0.40
8:H:38:LEU:HD13	8:H:125:LEU:CD1	2.52	0.40
11:K:5:ASP:HB2	11:K:7:PHE:CE2	2.54	0.40
12:L:53:HIS:HB3	12:L:55:ILE:HD11	2.00	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1406/1733 (81%)	974 (69%)	284 (20%)	148 (10%)	0	8
2	B	1081/1224 (88%)	754 (70%)	232 (22%)	95 (9%)	1	12
3	C	264/318 (83%)	187 (71%)	48 (18%)	29 (11%)	0	8
4	D	174/219 (80%)	116 (67%)	43 (25%)	15 (9%)	1	13
5	E	212/215 (99%)	156 (74%)	41 (19%)	15 (7%)	1	16
6	F	85/155 (55%)	61 (72%)	19 (22%)	5 (6%)	1	20
7	G	169/171 (99%)	120 (71%)	43 (25%)	6 (4%)	3	28
8	H	130/146 (89%)	90 (69%)	29 (22%)	11 (8%)	1	13
9	I	45/133 (34%)	31 (69%)	10 (22%)	4 (9%)	1	12
10	J	63/70 (90%)	43 (68%)	14 (22%)	6 (10%)	0	11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
11	K	112/120 (93%)	79 (70%)	24 (21%)	9 (8%)	1	14
12	L	44/70 (63%)	21 (48%)	8 (18%)	15 (34%)	0	0
All	All	3785/4574 (83%)	2632 (70%)	795 (21%)	358 (10%)	0	11

All (358) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	35	ILE
1	A	42	ASP
1	A	48	ALA
1	A	54	ASN
1	A	57	ARG
1	A	67	CYS
1	A	68	GLN
1	A	74	MET
1	A	119	ASN
1	A	128	ILE
1	A	130	ASP
1	A	167	CYS
1	A	257	ARG
1	A	259	GLU
1	A	286	HIS
1	A	318	SER
1	A	330	LYS
1	A	332	LYS
1	A	361	LEU
1	A	424	ILE
1	A	439	ASN
1	A	465	TYR
1	A	525	GLN
1	A	527	THR
1	A	536	LEU
1	A	557	ASP
1	A	567	LYS
1	A	591	PHE
1	A	597	LEU
1	A	598	LEU
1	A	666	ILE
1	A	790	ASP
1	A	868	TYR
1	A	986	ILE

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Mol	Chain	Res	Type
1	A	1002	GLY
1	A	1036	ARG
1	A	1098	VAL
1	A	1139	GLU
1	A	1223	ASP
1	A	1229	SER
1	A	1232	ASN
1	A	1255	GLU
1	A	1270	ASN
1	A	1339	LEU
1	A	1365	TYR
1	A	1392	SER
1	A	1394	THR
1	A	1405	THR
1	A	1424	VAL
2	B	108	VAL
2	B	184	ALA
2	B	206	ASN
2	B	258	LEU
2	B	364	ILE
2	B	367	LEU
2	B	509	ALA
2	B	732	SER
2	B	735	ALA
2	B	738	PHE
2	B	1036	ALA
2	B	1046	PRO
2	B	1096	ARG
2	B	1103	ILE
2	B	1132	GLU
2	B	1155	SER
2	B	1156	ASP
2	B	1183	LYS
3	C	110	THR
3	C	121	VAL
3	C	128	ASN
3	C	137	LYS
3	C	184	ASN
3	C	227	THR
4	D	19	GLU
4	D	119	ARG
5	E	45	LYS

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Mol	Chain	Res	Type
5	E	105	PHE
5	E	168	TYR
5	E	179	GLN
6	F	128	LYS
6	F	139	PRO
6	F	140	ASP
7	G	41	LYS
7	G	139	ILE
8	H	82	PRO
8	H	128	ASN
8	H	140	ALA
10	J	2	ILE
10	J	42	LYS
10	J	64	ASN
11	K	28	PRO
11	K	64	GLU
12	L	35	SER
12	L	39	SER
12	L	46	VAL
12	L	50	ASP
12	L	59	ALA
12	L	60	ARG
12	L	63	ARG
1	A	52	GLY
1	A	66	LYS
1	A	76	GLU
1	A	166	GLY
1	A	204	THR
1	A	253	ASN
1	A	308	ILE
1	A	310	GLY
1	A	314	ALA
1	A	322	VAL
1	A	418	SER
1	A	421	ALA
1	A	438	ASP
1	A	592	ASP
1	A	605	MET
1	A	628	GLY
1	A	636	GLU
1	A	653	VAL
1	A	693	VAL

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Mol	Chain	Res	Type
1	A	780	VAL
1	A	875	ALA
1	A	912	LEU
1	A	985	ASP
1	A	999	VAL
1	A	1067	LEU
1	A	1120	LEU
1	A	1140	HIS
1	A	1188	GLN
1	A	1206	ASP
1	A	1221	LYS
1	A	1233	ASP
1	A	1242	VAL
1	A	1314	SER
1	A	1316	VAL
1	A	1367	HIS
1	A	1437	GLY
2	B	28	GLU
2	B	65	GLU
2	B	68	THR
2	B	369	GLY
2	B	435	THR
2	B	447	ALA
2	B	449	ASN
2	B	483	LEU
2	B	513	GLN
2	B	591	ARG
2	B	731	VAL
2	B	751	VAL
2	B	777	ALA
2	B	786	ASN
2	B	838	SER
2	B	887	HIS
2	B	937	ALA
2	B	938	SER
2	B	1041	GLU
2	B	1079	LYS
2	B	1108	ARG
2	B	1112	GLN
2	B	1157	ALA
2	B	1158	PHE
2	B	1167	GLY

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Mol	Chain	Res	Type
3	C	5	GLY
3	C	11	ARG
3	C	126	GLY
3	C	141	GLY
3	C	149	LYS
3	C	168	ALA
3	C	213	PRO
3	C	240	VAL
4	D	5	THR
4	D	14	ARG
4	D	16	LYS
4	D	168	LYS
4	D	171	GLY
5	E	3	GLN
5	E	75	MET
5	E	106	GLN
6	F	112	GLU
7	G	154	VAL
8	H	95	TYR
8	H	109	LYS
9	I	3	THR
9	I	8	ARG
10	J	6	ARG
11	K	68	PHE
12	L	26	THR
12	L	47	ARG
12	L	48	CYS
12	L	55	ILE
12	L	56	LEU
1	A	28	ARG
1	A	59	GLY
1	A	169	ASN
1	A	219	PHE
1	A	255	SER
1	A	312	PRO
1	A	317	LYS
1	A	382	PRO
1	A	556	TRP
1	A	596	THR
1	A	785	PRO
1	A	869	GLY
1	A	910	PRO

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Mol	Chain	Res	Type
1	A	1062	GLU
1	A	1114	PRO
1	A	1388	GLY
1	A	1403	GLU
1	A	1422	ARG
1	A	1448	GLU
2	B	27	ALA
2	B	45	SER
2	B	171	PRO
2	B	180	TYR
2	B	249	ARG
2	B	250	PHE
2	B	291	ILE
2	B	409	ALA
2	B	468	GLU
2	B	562	GLY
2	B	575	PRO
2	B	746	SER
2	B	760	ASP
2	B	775	LYS
2	B	802	PRO
2	B	834	ASN
2	B	907	GLY
2	B	959	ASP
2	B	1175	LEU
2	B	1176	ASN
2	B	1223	ASP
3	C	90	ASP
3	C	122	SER
3	C	142	VAL
3	C	167	HIS
3	C	214	ASN
3	C	241	ASP
4	D	31	GLN
4	D	134	THR
4	D	191	ALA
4	D	198	LEU
5	E	73	PRO
5	E	76	GLY
5	E	130	ALA
5	E	151	PRO
7	G	28	THR

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Mol	Chain	Res	Type
7	G	67	SER
8	H	59	ILE
8	H	60	ALA
8	H	81	PRO
9	I	47	GLU
11	K	8	GLU
12	L	45	ALA
12	L	64	LEU
1	A	170	THR
1	A	196	GLU
1	A	420	ARG
1	A	649	ILE
1	A	654	ASN
1	A	958	VAL
1	A	1016	THR
1	A	1124	HIS
1	A	1266	THR
1	A	1377	THR
1	A	1435	PRO
2	B	106	ASP
2	B	186	GLU
2	B	459	TYR
2	B	510	LYS
2	B	524	PRO
2	B	566	LEU
2	B	711	GLU
2	B	906	SER
2	B	1017	ILE
2	B	1169	MET
3	C	13	ALA
3	C	25	VAL
3	C	174	ALA
3	C	224	GLN
5	E	97	VAL
6	F	141	GLY
8	H	83	GLN
10	J	13	VAL
11	K	54	ARG
12	L	40	LEU
1	A	45	GLN
1	A	62	ASP
1	A	75	ASN

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Mol	Chain	Res	Type
1	A	155	GLU
1	A	205	GLU
1	A	396	PRO
1	A	579	SER
1	A	583	PRO
1	A	602	ASP
1	A	647	GLY
1	A	920	LEU
1	A	1080	THR
1	A	1345	ARG
2	B	46	GLN
2	B	124	TYR
2	B	304	ASP
2	B	636	PRO
2	B	707	PRO
2	B	758	PHE
2	B	889	THR
2	B	974	PRO
2	B	987	LYS
2	B	996	ARG
3	C	127	ARG
3	C	132	PRO
4	D	218	GLU
8	H	107	VAL
9	I	9	ASP
10	J	14	VAL
11	K	7	PHE
11	K	10	PHE
11	K	83	PRO
1	A	4	GLN
1	A	492	PRO
1	A	533	LYS
1	A	662	PHE
1	A	976	THR
1	A	1302	PRO
1	A	1428	VAL
2	B	218	SER
2	B	219	ALA
2	B	463	THR
2	B	902	GLY
3	C	175	ALA
4	D	9	GLN

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Mol	Chain	Res	Type
4	D	52	LEU
5	E	118	PRO
5	E	124	VAL
7	G	84	GLY
1	A	311	GLN
1	A	410	GLY
1	A	730	GLY
2	B	323	VAL
2	B	478	GLY
3	C	216	GLY
4	D	18	VAL
8	H	17	PRO
1	A	258	GLY
1	A	385	ILE
1	A	1107	VAL
2	B	24	PRO
1	A	197	PRO
1	A	392	VAL
2	B	100	PRO
2	B	260	GLY
1	A	250	ILE
1	A	800	VAL
1	A	937	VAL
1	A	1122	PRO
3	C	172	PRO
1	A	1190	PRO
2	B	114	PRO
2	B	1014	PRO
11	K	66	PRO
5	E	129	PRO

5.3.2 Protein sidechains [i](#)

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%)	1031 (83%)	208 (17%)	2 14

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	B	957/1061 (90%)	800 (84%)	157 (16%)	2	14
3	C	234/274 (85%)	200 (86%)	34 (14%)	3	18
4	D	160/198 (81%)	127 (79%)	33 (21%)	1	7
5	E	196/197 (100%)	170 (87%)	26 (13%)	4	20
6	F	77/137 (56%)	65 (84%)	12 (16%)	2	16
7	G	152/152 (100%)	124 (82%)	28 (18%)	1	11
8	H	118/128 (92%)	98 (83%)	20 (17%)	2	13
9	I	45/122 (37%)	35 (78%)	10 (22%)	1	6
10	J	60/65 (92%)	50 (83%)	10 (17%)	2	14
11	K	99/102 (97%)	76 (77%)	23 (23%)	1	5
12	L	40/57 (70%)	29 (72%)	11 (28%)	0	3
All	All	3377/4013 (84%)	2805 (83%)	572 (17%)	2	13

All (572) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	2	VAL
1	A	8	SER
1	A	11	LEU
1	A	22	PHE
1	A	32	VAL
1	A	34	LYS
1	A	40	THR
1	A	54	ASN
1	A	58	LEU
1	A	60	SER
1	A	62	ASP
1	A	64	ASN
1	A	68	GLN
1	A	83	HIS
1	A	84	ILE
1	A	96	ILE
1	A	107	CYS
1	A	109	HIS
1	A	110	CYS
1	A	121	LEU
1	A	126	LEU
1	A	145	LYS

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Mol	Chain	Res	Type
1	A	151	ASP
1	A	160	GLN
1	A	162	VAL
1	A	169	ASN
1	A	186	LYS
1	A	195	ASP
1	A	215	SER
1	A	216	VAL
1	A	222	LEU
1	A	225	ASN
1	A	232	GLU
1	A	236	LEU
1	A	249	SER
1	A	261	ASP
1	A	262	LEU
1	A	263	THR
1	A	264	PHE
1	A	265	LYS
1	A	278	THR
1	A	302	THR
1	A	303	TYR
1	A	304	MET
1	A	308	ILE
1	A	316	GLN
1	A	320	ARG
1	A	322	VAL
1	A	337	ARG
1	A	344	ARG
1	A	351	THR
1	A	353	ILE
1	A	359	LEU
1	A	368	LYS
1	A	370	ILE
1	A	375	THR
1	A	383	TYR
1	A	386	ASP
1	A	399	HIS
1	A	404	TYR
1	A	414	ASP
1	A	424	ILE
1	A	425	GLN
1	A	434	ARG

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Mol	Chain	Res	Type
1	A	438	ASP
1	A	440	ASP
1	A	442	VAL
1	A	443	LEU
1	A	445	ASN
1	A	451	HIS
1	A	455	MET
1	A	468	PHE
1	A	485	ASP
1	A	491	VAL
1	A	493	GLN
1	A	494	SER
1	A	507	VAL
1	A	509	LEU
1	A	512	VAL
1	A	513	SER
1	A	516	SER
1	A	524	VAL
1	A	528	LEU
1	A	533	LYS
1	A	538	ASP
1	A	542	GLU
1	A	577	ILE
1	A	578	LEU
1	A	587	HIS
1	A	595	THR
1	A	596	THR
1	A	598	LEU
1	A	602	ASP
1	A	618	GLU
1	A	622	VAL
1	A	629	LEU
1	A	630	ILE
1	A	631	HIS
1	A	635	ARG
1	A	640	GLN
1	A	652	VAL
1	A	657	LEU
1	A	670	ILE
1	A	680	THR
1	A	690	VAL
1	A	727	ASP

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Mol	Chain	Res	Type
1	A	738	LYS
1	A	739	ASP
1	A	741	ASN
1	A	742	ASN
1	A	743	VAL
1	A	745	GLN
1	A	774	ARG
1	A	805	LEU
1	A	814	PHE
1	A	827	THR
1	A	831	THR
1	A	833	GLU
1	A	838	GLN
1	A	841	LEU
1	A	845	LEU
1	A	852	TYR
1	A	858	ASN
1	A	860	LEU
1	A	886	ILE
1	A	899	VAL
1	A	902	LEU
1	A	903	ASN
1	A	906	HIS
1	A	919	ILE
1	A	933	TYR
1	A	936	LEU
1	A	939	ASP
1	A	969	GLN
1	A	970	THR
1	A	976	THR
1	A	987	VAL
1	A	988	LEU
1	A	992	ASP
1	A	999	VAL
1	A	1001	ARG
1	A	1017	LEU
1	A	1029	ARG
1	A	1033	GLN
1	A	1036	ARG
1	A	1037	LEU
1	A	1067	LEU
1	A	1072	ILE

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Mol	Chain	Res	Type
1	A	1078	GLN
1	A	1095	THR
1	A	1103	GLU
1	A	1110	ASN
1	A	1111	MET
1	A	1116	LEU
1	A	1120	LEU
1	A	1121	GLU
1	A	1124	HIS
1	A	1134	ILE
1	A	1142	THR
1	A	1159	ARG
1	A	1171	GLN
1	A	1217	LYS
1	A	1219	THR
1	A	1223	ASP
1	A	1228	TRP
1	A	1229	SER
1	A	1241	ARG
1	A	1255	GLU
1	A	1259	MET
1	A	1263	ILE
1	A	1264	GLU
1	A	1271	ILE
1	A	1272	THR
1	A	1274	ARG
1	A	1280	GLU
1	A	1284	MET
1	A	1289	ARG
1	A	1295	THR
1	A	1297	GLU
1	A	1299	VAL
1	A	1308	THR
1	A	1309	ASP
1	A	1325	THR
1	A	1329	THR
1	A	1331	SER
1	A	1333	ILE
1	A	1336	MET
1	A	1349	TYR
1	A	1362	TYR
1	A	1368	MET

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Mol	Chain	Res	Type
1	A	1370	LEU
1	A	1373	ASP
1	A	1377	THR
1	A	1378	GLN
1	A	1382	THR
1	A	1384	VAL
1	A	1385	THR
1	A	1397	LEU
1	A	1401	SER
1	A	1402	PHE
1	A	1403	GLU
1	A	1405	THR
1	A	1411	GLU
1	A	1424	VAL
1	A	1426	GLU
1	A	1429	ILE
1	A	1442	ASP
1	A	1451	VAL
2	B	29	ASP
2	B	44	VAL
2	B	46	GLN
2	B	47	GLN
2	B	57	TYR
2	B	61	ASP
2	B	63	ILE
2	B	90	ILE
2	B	95	ILE
2	B	102	VAL
2	B	115	GLN
2	B	165	VAL
2	B	181	LEU
2	B	185	THR
2	B	188	ASP
2	B	194	GLU
2	B	202	TYR
2	B	217	ARG
2	B	218	SER
2	B	225	VAL
2	B	249	ARG
2	B	259	TYR
2	B	261	ARG
2	B	276	ILE

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Mol	Chain	Res	Type
2	B	283	VAL
2	B	286	PHE
2	B	289	LEU
2	B	294	ASP
2	B	324	ILE
2	B	328	GLU
2	B	329	THR
2	B	363	HIS
2	B	365	THR
2	B	371	GLU
2	B	378	LEU
2	B	387	LEU
2	B	401	PHE
2	B	413	LEU
2	B	416	LEU
2	B	427	ASP
2	B	429	PHE
2	B	430	ARG
2	B	463	THR
2	B	466	TRP
2	B	473	MET
2	B	476	ARG
2	B	479	VAL
2	B	482	VAL
2	B	485	ARG
2	B	489	SER
2	B	496	ARG
2	B	516	ASN
2	B	531	GLN
2	B	538	ASN
2	B	539	LEU
2	B	552	MET
2	B	557	PHE
2	B	558	LEU
2	B	559	SER
2	B	563	MET
2	B	568	ASP
2	B	570	VAL
2	B	576	ASP
2	B	580	VAL
2	B	597	MET
2	B	602	THR

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Mol	Chain	Res	Type
2	B	615	MET
2	B	616	ILE
2	B	619	ILE
2	B	626	ILE
2	B	628	THR
2	B	635	ARG
2	B	641	GLU
2	B	646	LEU
2	B	648	HIS
2	B	678	GLU
2	B	684	LEU
2	B	708	GLU
2	B	709	ASP
2	B	737	THR
2	B	739	THR
2	B	743	ILE
2	B	748	ILE
2	B	773	MET
2	B	780	VAL
2	B	786	ASN
2	B	791	THR
2	B	797	TYR
2	B	815	ARG
2	B	816	GLU
2	B	830	TYR
2	B	841	MET
2	B	842	ASN
2	B	844	SER
2	B	856	PHE
2	B	859	TYR
2	B	868	MET
2	B	869	SER
2	B	878	GLN
2	B	879	ARG
2	B	885	MET
2	B	890	TYR
2	B	895	ASP
2	B	904	ARG
2	B	914	LYS
2	B	942	ARG
2	B	944	THR
2	B	946	ASN

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Mol	Chain	Res	Type
2	B	953	LEU
2	B	957	ASN
2	B	959	ASP
2	B	969	ARG
2	B	980	PHE
2	B	983	ARG
2	B	987	LYS
2	B	989	THR
2	B	996	ARG
2	B	998	ASP
2	B	999	MET
2	B	1006	ILE
2	B	1007	VAL
2	B	1010	LEU
2	B	1012	ILE
2	B	1020	ARG
2	B	1026	LEU
2	B	1029	CYS
2	B	1037	LEU
2	B	1051	THR
2	B	1076	HIS
2	B	1084	GLN
2	B	1087	PHE
2	B	1092	TYR
2	B	1095	LEU
2	B	1112	GLN
2	B	1113	VAL
2	B	1115	THR
2	B	1122	ARG
2	B	1135	ARG
2	B	1147	LEU
2	B	1149	GLU
2	B	1150	ARG
2	B	1156	ASP
2	B	1159	ARG
2	B	1162	ILE
2	B	1170	THR
2	B	1176	ASN
2	B	1177	HIS
2	B	1182	CYS
2	B	1183	LYS
2	B	1185	CYS

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Mol	Chain	Res	Type
2	B	1194	ILE
2	B	1196	ILE
2	B	1210	MET
2	B	1212	ILE
2	B	1216	LEU
2	B	1218	THR
2	B	1223	ASP
3	C	7	GLN
3	C	25	VAL
3	C	43	THR
3	C	48	SER
3	C	56	THR
3	C	63	ILE
3	C	77	ILE
3	C	83	SER
3	C	89	GLU
3	C	93	ASP
3	C	100	THR
3	C	104	PHE
3	C	106	GLU
3	C	112	ASN
3	C	118	LEU
3	C	119	VAL
3	C	123	ASN
3	C	124	LEU
3	C	143	LEU
3	C	145	CYS
3	C	147	LEU
3	C	166	GLU
3	C	178	PHE
3	C	190	ASP
3	C	193	TYR
3	C	201	TRP
3	C	231	ASN
3	C	232	VAL
3	C	235	VAL
3	C	240	VAL
3	C	249	ASP
3	C	254	LYS
3	C	258	ILE
3	C	259	LEU
4	D	5	THR

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Mol	Chain	Res	Type
4	D	11	ARG
4	D	13	ARG
4	D	16	LYS
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	34	GLN
4	D	40	HIS
4	D	47	LEU
4	D	50	LEU
4	D	51	ASN
4	D	59	ILE
4	D	65	GLU
4	D	70	PHE
4	D	118	THR
4	D	120	GLU
4	D	123	LEU
4	D	132	GLN
4	D	151	PHE
4	D	156	ASP
4	D	180	LEU
4	D	183	LEU
4	D	194	LEU
4	D	198	LEU
4	D	200	ASN
4	D	202	ILE
4	D	214	LEU
4	D	220	LEU
4	D	221	TYR
5	E	7	ARG
5	E	12	LEU
5	E	17	ARG
5	E	29	PHE
5	E	37	LEU
5	E	41	ASP
5	E	72	PHE
5	E	74	ASP
5	E	84	ASP
5	E	85	GLU

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Mol	Chain	Res	Type
5	E	106	GLN
5	E	114	ASN
5	E	115	ASN
5	E	132	ILE
5	E	144	ILE
5	E	150	VAL
5	E	153	HIS
5	E	165	LEU
5	E	168	TYR
5	E	171	LYS
5	E	173	SER
5	E	175	LEU
5	E	188	LEU
5	E	191	LYS
5	E	192	ARG
5	E	214	CYS
6	F	71	GLU
6	F	79	ARG
6	F	86	THR
6	F	93	ILE
6	F	101	ILE
6	F	107	VAL
6	F	112	GLU
6	F	120	ILE
6	F	138	LEU
6	F	140	ASP
6	F	147	SER
6	F	152	ILE
7	G	1	MET
7	G	7	LEU
7	G	13	LEU
7	G	21	ARG
7	G	42	PHE
7	G	45	ILE
7	G	48	VAL
7	G	51	TYR
7	G	53	ASN
7	G	56	ILE
7	G	67	SER
7	G	74	TYR
7	G	75	ARG
7	G	79	PHE

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Mol	Chain	Res	Type
7	G	87	VAL
7	G	88	ASP
7	G	96	GLN
7	G	97	HIS
7	G	111	THR
7	G	113	HIS
7	G	114	LEU
7	G	126	ASN
7	G	132	SER
7	G	138	THR
7	G	139	ILE
7	G	162	SER
7	G	165	GLU
7	G	168	LEU
8	H	7	ASP
8	H	27	GLU
8	H	33	GLN
8	H	35	GLN
8	H	38	LEU
8	H	53	ASP
8	H	57	VAL
8	H	61	SER
8	H	64	ASN
8	H	80	ARG
8	H	89	LEU
8	H	95	TYR
8	H	102	TYR
8	H	128	ASN
8	H	129	TYR
8	H	130	ARG
8	H	134	ASN
8	H	135	LEU
8	H	138	GLU
8	H	146	ARG
9	I	2	THR
9	I	6	PHE
9	I	8	ARG
9	I	10	CYS
9	I	15	TYR
9	I	19	ASP
9	I	21	GLU
9	I	26	LEU

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Mol	Chain	Res	Type
9	I	28	GLU
9	I	46	HIS
10	J	7	CYS
10	J	8	PHE
10	J	26	GLN
10	J	28	ASP
10	J	41	LEU
10	J	43	ARG
10	J	44	TYR
10	J	48	ARG
10	J	55	ASP
10	J	64	ASN
11	K	2	ASN
11	K	5	ASP
11	K	11	LEU
11	K	32	VAL
11	K	34	THR
11	K	35	PHE
11	K	41	THR
11	K	42	LEU
11	K	47	ARG
11	K	50	LEU
11	K	51	LEU
11	K	53	ASP
11	K	54	ARG
11	K	56	VAL
11	K	57	LEU
11	K	61	TYR
11	K	65	HIS
11	K	68	PHE
11	K	74	ARG
11	K	75	ILE
11	K	81	TYR
11	K	111	LEU
11	K	114	LEU
12	L	27	LEU
12	L	38	LEU
12	L	46	VAL
12	L	47	ARG
12	L	48	CYS
12	L	54	ARG
12	L	55	ILE

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Mol	Chain	Res	Type
12	L	61	THR
12	L	64	LEU
12	L	65	VAL
12	L	68	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (119) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	54	ASN
1	A	68	GLN
1	A	75	ASN
1	A	92	HIS
1	A	171	GLN
1	A	225	ASN
1	A	282	ASN
1	A	297	GLN
1	A	311	GLN
1	A	339	ASN
1	A	358	ASN
1	A	390	GLN
1	A	425	GLN
1	A	435	HIS
1	A	445	ASN
1	A	451	HIS
1	A	471	ASN
1	A	479	ASN
1	A	493	GLN
1	A	515	GLN
1	A	517	ASN
1	A	548	ASN
1	A	603	ASN
1	A	631	HIS
1	A	640	GLN
1	A	706	HIS
1	A	736	ASN
1	A	741	ASN
1	A	742	ASN
1	A	745	GLN
1	A	757	ASN
1	A	760	GLN
1	A	767	GLN
1	A	786	HIS

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Mol	Chain	Res	Type
1	A	851	HIS
1	A	858	ASN
1	A	877	HIS
1	A	903	ASN
1	A	926	GLN
1	A	965	GLN
1	A	966	ASN
1	A	972	HIS
1	A	1004	ASN
1	A	1011	GLN
1	A	1078	GLN
1	A	1106	ASN
1	A	1110	ASN
1	A	1124	HIS
1	A	1140	HIS
1	A	1173	HIS
1	A	1211	GLN
1	A	1432	GLN
2	B	47	GLN
2	B	60	GLN
2	B	121	ASN
2	B	178	ASN
2	B	236	HIS
2	B	395	GLN
2	B	465	ASN
2	B	515	HIS
2	B	516	ASN
2	B	518	HIS
2	B	531	GLN
2	B	538	ASN
2	B	734	HIS
2	B	744	HIS
2	B	761	HIS
2	B	821	GLN
2	B	842	ASN
2	B	862	GLN
2	B	887	HIS
2	B	946	ASN
2	B	957	ASN
2	B	975	GLN
2	B	984	HIS
2	B	1015	HIS

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Mol	Chain	Res	Type
2	B	1025	HIS
2	B	1065	GLN
2	B	1076	HIS
2	B	1084	GLN
2	B	1097	HIS
2	B	1161	HIS
2	B	1176	ASN
2	B	1193	GLN
2	B	1211	ASN
3	C	7	GLN
3	C	65	HIS
3	C	73	GLN
3	C	79	GLN
3	C	112	ASN
3	C	131	HIS
3	C	203	GLN
3	C	242	GLN
3	C	252	GLN
4	D	39	ASN
4	D	51	ASN
4	D	132	GLN
4	D	157	GLN
4	D	179	GLN
5	E	3	GLN
5	E	101	GLN
5	E	104	ASN
5	E	106	GLN
5	E	143	ASN
5	E	147	HIS
5	E	153	HIS
7	G	14	HIS
7	G	53	ASN
7	G	97	HIS
7	G	113	HIS
7	G	126	ASN
7	G	158	HIS
8	H	128	ASN
8	H	131	ASN
9	I	12	ASN
9	I	22	ASN
11	K	65	HIS
11	K	89	ASN

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Mol	Chain	Res	Type
12	L	53	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 8 ligands modelled in this entry, 8 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%)	-0.32	14 (0%) 82 74	31, 133, 223, 314	0
2	B	1103/1224 (90%)	-0.26	11 (0%) 82 74	23, 141, 230, 357	0
3	C	266/318 (83%)	-0.32	0 100 100	58, 139, 209, 281	0
4	D	178/219 (81%)	-0.43	0 100 100	64, 146, 212, 263	0
5	E	214/215 (99%)	-0.35	1 (0%) 91 86	71, 165, 246, 367	0
6	F	87/155 (56%)	-0.36	0 100 100	48, 95, 156, 221	0
7	G	171/171 (100%)	-0.37	0 100 100	43, 121, 199, 230	0
8	H	134/146 (91%)	0.05	4 (2%) 50 39	115, 185, 250, 406	0
9	I	47/133 (35%)	-0.26	0 100 100	93, 163, 204, 221	0
10	J	65/70 (92%)	-0.35	0 100 100	80, 147, 210, 261	0
11	K	114/120 (95%)	-0.36	0 100 100	63, 128, 194, 254	0
12	L	46/70 (65%)	-0.28	0 100 100	93, 159, 240, 306	0
All	All	3841/4574 (83%)	-0.30	30 (0%) 86 79	23, 140, 227, 406	0

All (30) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
8	H	139	ASN	3.5
2	B	134	LYS	3.5
1	A	257	ARG	3.4
2	B	472	ALA	3.1
2	B	469	GLN	3.1
8	H	134	ASN	3.0
1	A	255	SER	3.0
2	B	678	GLU	2.8
1	A	1455	PRO	2.8
1	A	114	LEU	2.8
2	B	468	GLU	2.7

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Mol	Chain	Res	Type	RSRZ
1	A	164	ARG	2.7
2	B	25	ILE	2.6
1	A	702	LEU	2.6
8	H	86	ASP	2.6
1	A	699	ALA	2.5
1	A	145	LYS	2.5
5	E	93	MET	2.4
2	B	641	GLU	2.3
2	B	919	SER	2.3
8	H	84	ALA	2.2
1	A	251	SER	2.2
1	A	179	LEU	2.2
1	A	700	ASN	2.2
2	B	263	GLY	2.2
2	B	267	ARG	2.1
2	B	21	GLU	2.1
1	A	660	ASN	2.0
1	A	1234	GLU	2.0
1	A	173	THR	2.0

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

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

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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	B-factors(Å ²)	Q<0.9
14	MG	A	3009	1/1	0.85	0.97	89,89,89,89	0
13	ZN	A	3006	1/1	0.89	0.07	274,274,274,274	0
13	ZN	A	3008	1/1	0.96	0.13	97,97,97,97	0
13	ZN	L	3005	1/1	0.97	0.08	229,229,229,229	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
13	ZN	C	3002	1/1	0.98	0.11	129,129,129,129	0
13	ZN	J	3001	1/1	0.98	0.29	153,153,153,153	0
13	ZN	B	3007	1/1	0.99	0.20	116,116,116,116	0
13	ZN	I	3003	1/1	1.00	0.12	133,133,133,133	0

6.5 Other polymers [i](#)

There are no such residues in this entry.