



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 20, 2018 – 04:53 am GMT

PDB ID : 1I3Q
Title : RNA POLYMERASE II CRYSTAL FORM I AT 3.1 A RESOLUTION
Authors : Cramer, P.; Bushnell, D.A.; Kornberg, R.D.
Deposited on : 2001-02-15
Resolution : 3.10 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 following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467
Xtrriage (Phenix) : **NOT EXECUTED**
EDS : **NOT EXECUTED**
Percentile statistics : 20171227.v01 (using entries in the PDB archive December 27th 2017)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk30686

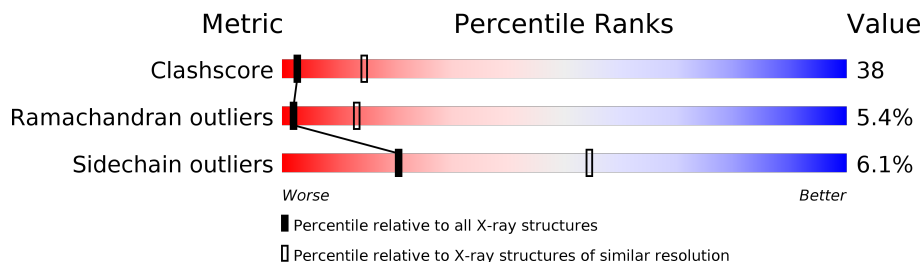
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.10 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))
Clashscore	122078	1042 (3.10-3.10)
Ramachandran outliers	120005	1010 (3.10-3.10)
Sidechain outliers	119972	1010 (3.10-3.10)



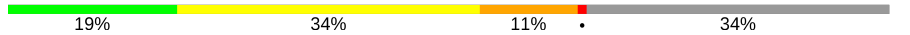
The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey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

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	A	1733	
2	B	1224	
3	C	318	
4	E	215	
5	F	155	
6	H	146	
7	I	122	

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Mol	Chain	Length	Quality of chain
8	J	70	
9	K	120	
10	L	70	

2 Entry composition [i](#)

There are 12 unique types of molecules in this entry. The entry contains 28161 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 LARGEST SUB-UNIT.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	1414	11114	7000	1947	2106	61	0	0	0

- Molecule 2 is a protein called DNA-DIRECTED RNA POLYMERASE II 140KD POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	1083	8624	5470	1501	1600	53	0	0	0

- Molecule 3 is a protein called DNA-DIRECTED RNA POLYMERASE II 45KD POLYPEPTIDE.

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 27KD POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	E	215	1760	1116	310	322	12	0	0	0

- Molecule 5 is a protein called DNA-DIRECTED RNA POLYMERASE II 23KD POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	F	84	679	434	115	127	3	0	0	0

- Molecule 6 is a protein called DNA-DIRECTED RNA POLYMERASE II 14.5KD POLYPEPTIDE.

TIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
6	H	133	1068	673	180	211	4	0	0	0

- Molecule 7 is a protein called DNA-DIRECTED RNA POLYMERASE II 14.2KD POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
7	I	122	997	613	182	191	11	0	0	0

- Molecule 8 is a protein called DNA-DIRECTED RNA POLYMERASE II 8.3KD POLYPEPTIDE.

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

- Molecule 9 is a protein called DNA-DIRECTED RNA POLYMERASE II 13.6KD POLYPEPTIDE.

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

- Molecule 10 is a protein called DNA-DIRECTED RNA POLYMERASE II 7.7KD POLYPEPTIDE.

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

- Molecule 11 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
11	J	1	Total	Zn	0	0
			1	1		
11	B	1	Total	Zn	0	0
			1	1		
11	I	2	Total	Zn	0	0
			2	2		
11	C	1	Total	Zn	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
11	A	2	Total 2	Zn 2	0	0
11	L	1	Total 1	Zn 1	0	0

- Molecule 12 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

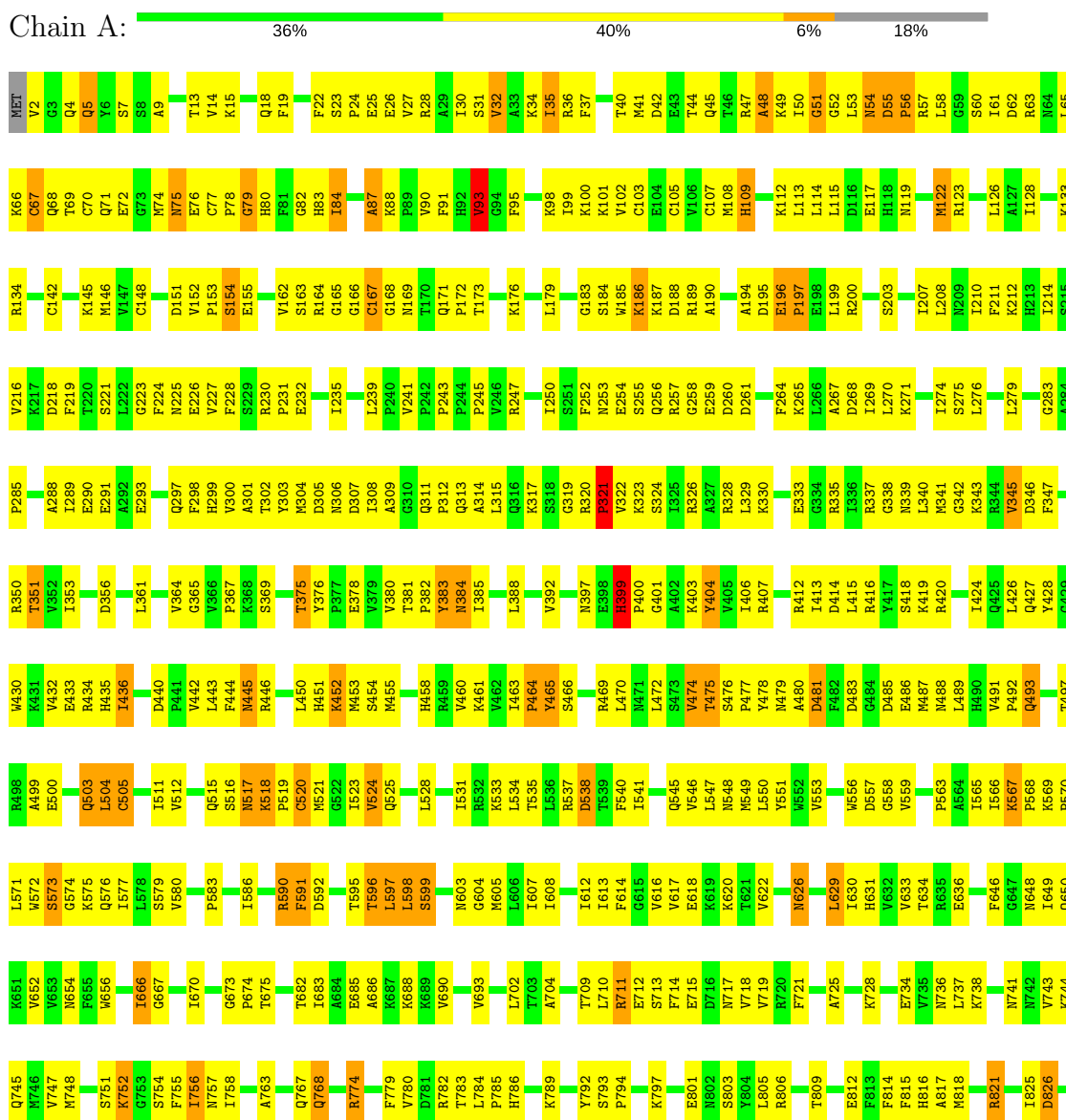
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
12	A	1	Total 1	Mg 1	0	0

3 Residue-property plots

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

Note EDS was not executed.

- Molecule 1: DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT

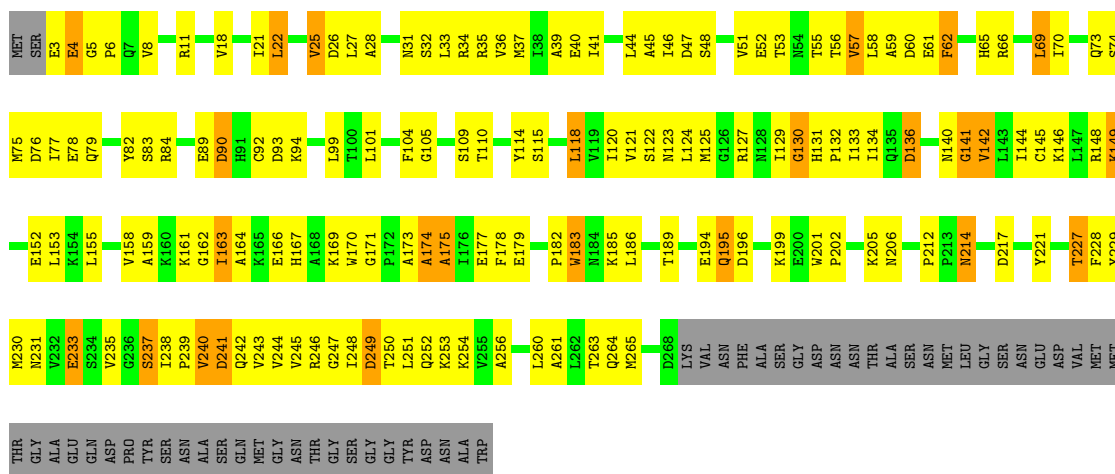
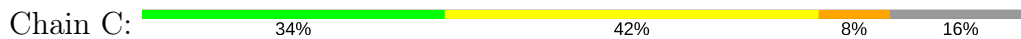


K830	L913	M1009	PHE	Y1154	I1227	S1293	L1371	G1437	THR	TYR	SER
R839	E914	R1012	ALA	D1155	W1228	P1294	V1372	T1438	SER	SER	PRO
W842	E919	Y1015	VAL	T1161	S1229	G1296	M1375	G1439	ASN	PRO	THR
K843	L920	V1016	ALA	V1162	E1230	T1297	L1440	F1441	ALA	TYR	THR
A844	G921	T1017	SER	I1163	D1231	Y1298	T1376	F1441	MET	SER	PRO
L845	D922	L1018	K1092	E1168	D1233	V1299	Q1378	L1445	ALA	ALA	THR
E846	L925	F1019	K1093	I1169	L1236	K1300	G1380	ASP	GLY	GLY	THR
D847	L926	C1019	V1094	L1172	L1237	W1304	L1381	GLU	GLU	PRO	THR
L848	Q926	S1096	S1096	L1172	I1238	L1304	T1382	GLU	PHE	PRO	THR
W849	Y927	L1021	S1097	H1173	L1239	L1306	L1383	SER	TYR	THR	THR
D853	L928	L1022	V1098	F1174	C1240	E1307	L1384	VAL	TYR	PRO	THR
M854	E931	K1023	P1099	S1175	R1241	T1308	T1385	LYS	GLY	PRO	THR
R855	R936	S1024	R1100	L1176	V1242	D1309	R1386	R1386	GLY	TYR	THR
T856	L936	R1029	M1106	LEU	W1243	G1310	G1387	MET	ALA	SER	PRO
R857	D939	R1030	V1107	ASP	ARG	V1311	G1388	PRO	ASP	PRO	THR
M858	R940	V1031	V1107	GLU	PRO	M1316	F1389	GLU	TYR	TYR	THR
G861	R943	Y1035	M1110	ALA	LYS	W1317	M1390	GLN	GLY	GLY	THR
N862	L943	R1036	M1111	GLU	SER	L1318	L1391	ILE	ALA	ALA	THR
W863	V946	R1037	T1112	GLN	ASP	D1323	M1393	THR	THR	THR	THR
L864	F947	L1038	T1113	SER	ALA	F1324	T1394	GLU	GLY	GLY	THR
F865	Y948	T1039	P1114	THR	THR	T1325	G1395	ILE	PRO	PRO	THR
F866	R958	K1039	S1115	ASP	GLU	L1325	A1396	GLY	PHE	TYR	SER
L867	N953	D1043	L1116	GLU	GLU	L1329	L1397	ASP	GLY	TYR	SER
R868	R953	D1043	L1117	GLU	A1254	M1398	M1398	GLY	ALA	PRO	THR
G869	R962	Y1044	T1118	GLN	E1255	M1330	R1399	GLN	TYR	PRO	THR
D871	P955	W1045	Y1119	ASP	E1256	S1331	L1400	GLY	GLY	GLY	THR
G872	R958	L1046	L1120	THR	H1258	F1332	S1401	GLY	GLY	PRO	THR
R873	R962	L1049	L1121	GLU	W1259	I1333	F1402	GLY	ALA	PRO	THR
A875	R962	Y1056	P1122	L1193	L1260	E1337	E1403	VAL	PRO	THR	THR
A876	R963	S1056	G1123	R1194	L1261	W1338	E1404	THR	THR	TYR	THR
H877	T973	V1057	H1124	L1196	K1261	L1339	V1405	PRO	PRO	PRO	THR
L878	D974	Y1058	A1126	L1197	I1263	L1340	V1406	TYR	PRO	PRO	THR
E879	S979	W1058	D1127	D1198	E1264	I1341	E1407	SER	PHE	PRO	THR
S882	D980	P1060	Q1128	R1199	W1265	E1342	L1409	GLU	GLY	PRO	THR
L883	L992	P1061	E1129	A1200	T1266	R1345	F1410	SER	VAL	TYR	THR
D884	L993	G1062	M1202	M1203	L1268	L1348	E1411	GLY	PRO	PRO	THR
F885	Q994	V1063	M1205	D1206	L1272	E1351	S1415	VAL	GLY	PRO	THR
L886	L994	G1064	K1132	L1207	L1273	V1352	A1416	ALA	PHE	PRO	THR
D890	L995	G1066	R1135	L1208	R1274	L1356	E1417	ASP	SER	PRO	THR
R896	L996	L1067	L1138	T1208	I1279	I1356	C1421	LEU	PRO	PRO	THR
Y897	Q994	I1072	E1139	M1209	E1280	D1359	R1422	LEU	THR	THR	THR
R898	L997	G1073	H1140	G1210	R1281	G1360	G1423	ASP	PRO	PRO	THR
W899	L998	E1074	T1141	G1211	V1282	S1361	V1424	GLU	TYR	TYR	THR
P900	L999	P1075	L1143	V1212	V1283	Y1362	S1425	GLU	THR	THR	THR
L901	L999	P1076	L1144	R1215	M1284	W1363	V1428	LEU	PRO	PRO	THR
L902	L999	A1076	L1145	R1215	M1284	M1364	I1429	LEU	PRO	PRO	THR
L903	L999	T1077	S1146	R1215	M1286	Y1365	L1430	MET	PRO	PRO	THR
T904	R1001	T1147	V1146	R1215	L1287	G1331	G1431	SER	PRO	PRO	THR
T907	G1002	L1148	L1147	R1222	D1288	R1366	Q1432	PRO	PRO	PRO	THR
M1004	PHE	ASN	I1148	M1222	R1289	H1367	M1433	LEU	ALA	ALA	THR
	HIS	THR	E1151	D1223	R1290	M1368	A1434	VAL	TYR	TYR	THR
			L1152	L1224	V1291	A1369	P1435	ASP	PRO	PRO	THR
			Y1153	P1292	P1292	L1370	I1436	SER	PRO	PRO	THR

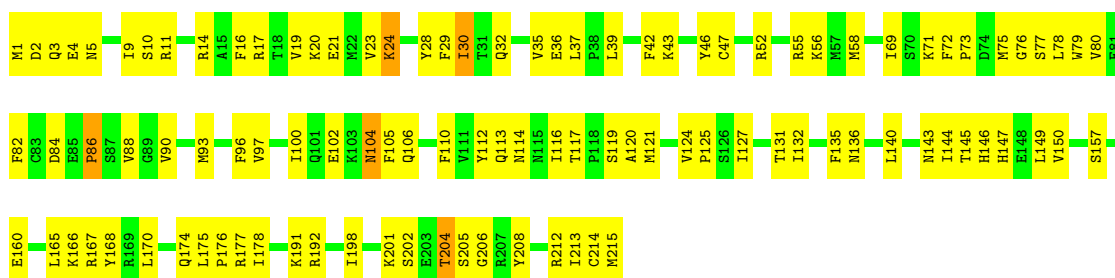
• Molecule 2: DNA-DIRECTED RNA POLYMERASE II 140KD POLYPEPTIDE



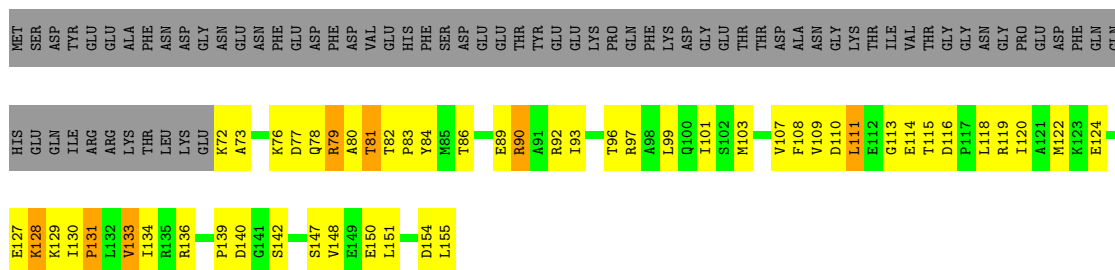
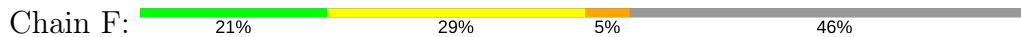
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SER	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
ASP	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
LEU	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
GLN	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
GLY	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
THR	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
PRO	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
ASN	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
ASP	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
GLY	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
THR	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
PRO	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
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GLY	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
THR	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
PRO	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
ASN	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
ASP	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
GLY	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
THR	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
PRO	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131	Y132	D66	T68	L69
ASN	L90	S91	F92	I95	Y96	Y97	R98	K99	P100	W101	V102	D106	G107	V108	T109	L112	Y113	P114	Q115	E116	A117	R118	L119	R120	N121	Y124	S125	S126	F129	V130	D131</				



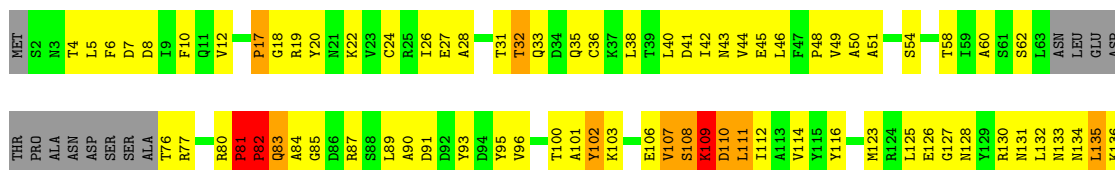
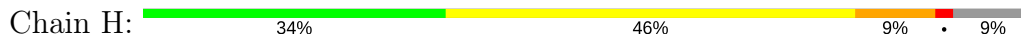
• Molecule 4: DNA-DIRECTED RNA POLYMERASE II 27KD POLYPEPTIDE



• Molecule 5: DNA-DIRECTED RNA POLYMERASE II 23KD POLYPEPTIDE

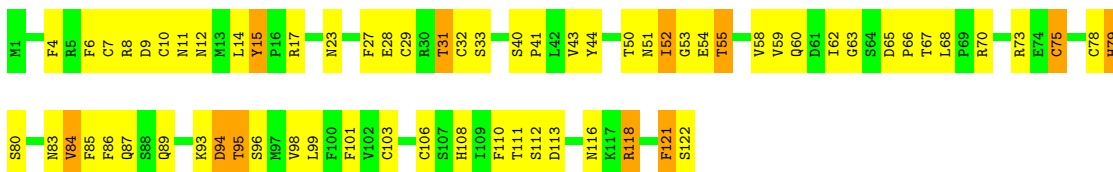


• Molecule 6: DNA-DIRECTED RNA POLYMERASE II 14.5KD POLYPEPTIDE

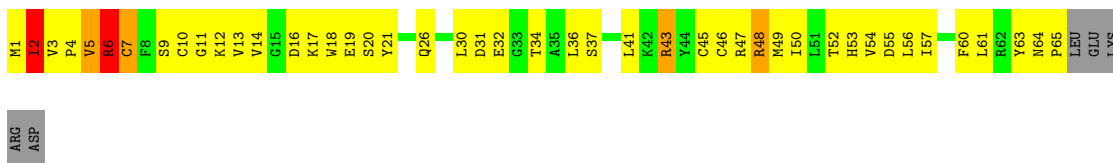




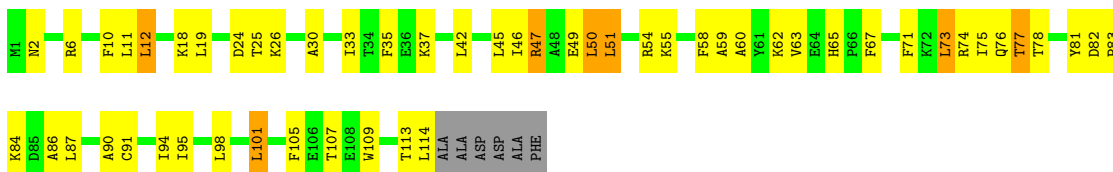
- Molecule 7: DNA-DIRECTED RNA POLYMERASE II 14.2KD POLYPEPTIDE



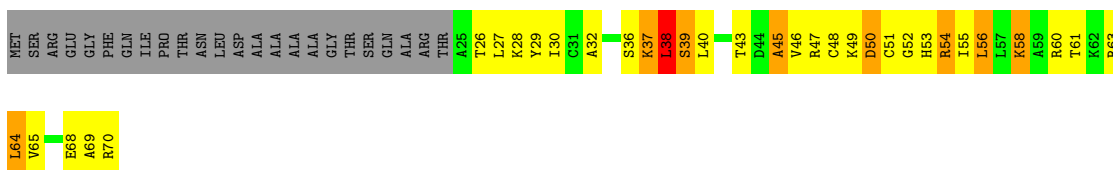
- Molecule 8: DNA-DIRECTED RNA POLYMERASE II 8.3KD POLYPEPTIDE



- Molecule 9: DNA-DIRECTED RNA POLYMERASE II 13.6KD POLYPEPTIDE



- Molecule 10: DNA-DIRECTED RNA POLYMERASE II 7.7KD POLYPEPTIDE



4 Data and refinement statistics

Xtrriage (Phenix) and EDS were not executed - this section is therefore incomplete.

Property	Value	Source
Space group	I 2 2 2	Depositor
Cell constants a, b, c, α , β , γ	130.70Å 224.80Å 369.40Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.00 – 3.10	Depositor
% Data completeness (in resolution range)	(Not available) (40.00-3.10)	Depositor
R_{merge}	0.08	Depositor
R_{sym}	(Not available)	Depositor
Refinement program	CNS	Depositor
R, R_{free}	0.229 , 0.283	Depositor
Estimated twinning fraction	No twinning to report.	Xtrriage
Total number of atoms	28161	wwPDB-VP
Average B, all atoms (Å ²)	71.0	wwPDB-VP

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: ZN, MG

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	0.40	1/11312 (0.0%)	0.70	2/15298 (0.0%)
2	B	0.40	0/8793	0.68	3/11857 (0.0%)
3	C	0.42	0/2133	0.72	1/2891 (0.0%)
4	E	0.37	0/1796	0.63	0/2416
5	F	0.42	0/691	0.66	0/933
6	H	0.59	2/1086 (0.2%)	0.91	6/1470 (0.4%)
7	I	0.41	0/1016	0.70	0/1365
8	J	0.43	0/541	0.85	1/727 (0.1%)
9	K	0.42	0/937	0.61	0/1265
10	L	0.41	0/366	0.66	0/485
All	All	0.41	3/28671 (0.0%)	0.70	13/38707 (0.0%)

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	H	109	LYS	CD-CE	7.54	1.70	1.51
6	H	109	LYS	CE-NZ	5.69	1.63	1.49
1	A	520	CYS	CB-SG	-5.67	1.72	1.81

All (13) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	H	109	LYS	N-CA-C	7.39	130.95	111.00
1	A	452	LYS	N-CA-C	-6.74	92.80	111.00
6	H	109	LYS	CA-CB-CG	6.68	128.09	113.40
6	H	80	ARG	NE-CZ-NH1	-6.09	117.25	120.30
6	H	80	ARG	NE-CZ-NH2	5.97	123.28	120.30
2	B	1066	SER	N-CA-C	5.54	125.97	111.00
1	A	399	HIS	N-CA-C	5.53	125.93	111.00
3	C	183	TRP	N-CA-C	-5.49	96.19	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	819	ALA	N-CA-C	-5.44	96.31	111.00
2	B	937	ALA	N-CA-C	-5.36	96.54	111.00
8	J	5	VAL	N-CA-C	-5.28	96.74	111.00
6	H	81	PRO	N-CA-C	5.21	125.65	112.10
6	H	108	SER	CB-CA-C	5.17	119.92	110.10

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	11114	0	11193	945	0
2	B	8624	0	8642	736	1
3	C	2095	0	2051	177	0
4	E	1760	0	1788	103	0
5	F	679	0	701	56	0
6	H	1068	0	1040	93	0
7	I	997	0	955	71	0
8	J	532	0	542	78	0
9	K	919	0	929	62	0
10	L	364	0	388	47	0
11	A	2	0	0	0	0
11	B	1	0	0	0	0
11	C	1	0	0	0	0
11	I	2	0	0	1	0
11	J	1	0	0	0	0
11	L	1	0	0	0	0
12	A	1	0	0	0	0
All	All	28161	0	28229	2150	1

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 38.

All (2150) 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:1364:ASN:ND2	1:A:1366:ARG:HG2	1.59	1.17
7:I:111:THR:HG22	7:I:113:ASP:H	1.05	1.17
10:L:60:ARG:HG3	10:L:61:THR:H	1.04	1.12
2:B:846:ILE:HG23	2:B:974:PRO:HG2	1.32	1.11
1:A:1161:THR:HG22	1:A:1163:ILE:H	1.06	1.10
1:A:567:LYS:HB2	1:A:568:PRO:HD2	1.24	1.09
1:A:47:ARG:HH22	1:A:255:SER:HA	1.13	1.08
1:A:353:ILE:HG21	1:A:487:MET:HE3	1.26	1.08
1:A:308:ILE:HG22	1:A:309:ALA:H	1.13	1.07
2:B:639:ILE:HD11	2:B:691:GLU:HG3	1.32	1.07
1:A:381:THR:HG22	1:A:383:TYR:H	1.21	1.06
2:B:1065:GLN:NE2	2:B:1067:ARG:H	1.55	1.04
3:C:44:LEU:HB2	3:C:77:ILE:HD11	1.38	1.04
2:B:955:THR:HG22	2:B:956:THR:H	0.88	1.04
1:A:535:THR:HG21	1:A:617:VAL:H	1.23	1.04
2:B:806:THR:HG22	2:B:808:ALA:H	1.24	1.03
2:B:955:THR:HG22	2:B:956:THR:N	1.72	1.02
2:B:120:ARG:HG2	2:B:955:THR:HG21	1.41	1.02
6:H:26:ILE:HD11	6:H:49:VAL:HG11	1.40	1.02
2:B:731:VAL:HG12	2:B:732:SER:H	1.26	1.01
10:L:60:ARG:CG	10:L:61:THR:H	1.72	1.01
1:A:313:GLN:HB2	1:A:320:ARG:HB3	1.42	1.01
2:B:637:LEU:HD12	2:B:693:ILE:HD12	1.42	1.01
2:B:405:ARG:NH1	2:B:632:ARG:HG2	1.75	1.00
2:B:955:THR:CG2	2:B:956:THR:H	1.70	1.00
1:A:40:THR:HG22	1:A:41:MET:HG3	1.40	1.00
2:B:708:GLU:HG3	2:B:709:ASP:H	1.27	0.99
1:A:868:TYR:CE1	1:A:1064:VAL:HG11	1.98	0.97
1:A:567:LYS:HZ1	6:H:46:LEU:HB2	1.27	0.97
2:B:871:THR:HG22	2:B:872:GLU:H	1.27	0.97
2:B:1165:ILE:HD12	2:B:1187:ASN:HD21	1.27	0.96
1:A:533:LYS:HE2	1:A:745:GLN:HE22	1.31	0.96
1:A:1394:THR:HG22	1:A:1395:GLY:H	1.29	0.95
1:A:567:LYS:HB2	1:A:568:PRO:CD	1.96	0.95
10:L:60:ARG:HG3	10:L:61:THR:N	1.79	0.95
1:A:869:GLY:O	4:E:204:THR:HG21	1.66	0.95
1:A:518:LYS:HB2	1:A:519:PRO:HD2	1.46	0.94
1:A:187:LYS:HB2	1:A:194:ALA:HB1	1.48	0.94
1:A:35:ILE:HD12	1:A:241:VAL:HG21	1.50	0.94
2:B:541:LEU:HB2	2:B:747:MET:HE3	1.50	0.94
2:B:650:GLU:HG2	2:B:654:ARG:HH12	1.31	0.94
1:A:2:VAL:HG21	2:B:1157:ALA:HB3	1.46	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:567:LYS:CB	1:A:568:PRO:HD2	1.96	0.93
1:A:49:LYS:HB3	1:A:55:ASP:HB2	1.49	0.93
2:B:642:ASP:HB3	2:B:649:LYS:HD3	1.51	0.93
1:A:849:MET:CE	1:A:1061:GLY:HA2	1.98	0.93
2:B:654:ARG:H	2:B:657:HIS:HD2	1.07	0.92
1:A:567:LYS:NZ	6:H:46:LEU:HB2	1.82	0.92
2:B:955:THR:HG23	10:L:54:ARG:O	1.68	0.92
2:B:680:THR:HG22	2:B:681:TRP:N	1.85	0.92
9:K:46:ILE:HG22	9:K:50:LEU:HD12	1.50	0.92
2:B:957:ASN:HD22	2:B:961:LEU:HD12	1.32	0.92
6:H:35:GLN:HB3	6:H:111:LEU:HD21	1.50	0.92
4:E:5:ASN:HD21	4:E:52:ARG:HG2	1.34	0.91
1:A:907:THR:HG22	1:A:908:LEU:H	1.36	0.91
1:A:15:LYS:HB3	2:B:1220:ARG:HG2	1.51	0.90
2:B:174:LEU:O	2:B:175:ARG:HB2	1.69	0.90
1:A:1116:LEU:HD13	1:A:1311:VAL:HG13	1.53	0.90
2:B:345:LYS:HA	2:B:348:ARG:HE	1.35	0.90
6:H:109:LYS:CG	6:H:110:ASP:H	1.83	0.90
2:B:884:ARG:O	2:B:936:ASP:HB3	1.72	0.90
2:B:65:GLU:HG3	2:B:66:ASP:H	1.35	0.89
2:B:882:THR:HG21	2:B:935:ARG:HA	1.54	0.89
1:A:47:ARG:NH2	1:A:255:SER:HA	1.88	0.89
2:B:211:VAL:O	2:B:480:SER:HA	1.73	0.89
2:B:680:THR:HG22	2:B:681:TRP:H	1.37	0.89
1:A:14:VAL:H	1:A:1432:GLN:HE22	1.21	0.89
2:B:801:LYS:O	8:J:52:THR:HG23	1.73	0.88
6:H:107:VAL:HG12	6:H:107:VAL:O	1.74	0.88
8:J:3:VAL:HG21	8:J:18:TRP:HB2	1.56	0.88
2:B:1072:MET:HE3	2:B:1085:ILE:HB	1.52	0.88
1:A:741:ASN:HD22	1:A:744:LYS:H	1.17	0.88
1:A:896:ARG:HD3	1:A:897:TYR:HE1	1.37	0.88
2:B:29:ASP:HB3	2:B:658:ILE:HD13	1.54	0.88
9:K:113:THR:O	9:K:114:LEU:HB2	1.73	0.87
1:A:445:ASN:HB2	1:A:455:MET:HG2	1.55	0.87
2:B:311:LEU:HB3	7:I:4:PHE:HE2	1.40	0.87
2:B:569:TYR:CD1	2:B:589:VAL:HG21	2.09	0.87
5:F:111:LEU:H	5:F:111:LEU:HD12	1.38	0.87
6:H:4:THR:HA	6:H:60:ALA:HB2	1.57	0.87
1:A:1161:THR:HG22	1:A:1163:ILE:N	1.90	0.86
2:B:130:VAL:HG21	2:B:167:ILE:HD12	1.55	0.86
1:A:313:GLN:CB	1:A:320:ARG:HB3	2.06	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:472:LEU:O	1:A:475:THR:HB	1.76	0.86
7:I:111:THR:HG22	7:I:113:ASP:N	1.89	0.85
1:A:414:ASP:OD1	1:A:416:ARG:HG2	1.77	0.85
6:H:26:ILE:HD12	6:H:42:ILE:HD12	1.57	0.85
1:A:541:ILE:HG22	1:A:546:VAL:HG23	1.59	0.84
1:A:32:VAL:HG21	1:A:68:GLN:NE2	1.91	0.84
1:A:1404:GLU:C	1:A:1406:VAL:H	1.80	0.84
1:A:590:ARG:HB3	1:A:605:MET:H	1.42	0.84
4:E:143:ASN:HB3	4:E:146:HIS:HD2	1.43	0.84
2:B:744:HIS:HD2	2:B:746:SER:H	1.25	0.84
2:B:363:HIS:O	2:B:364:ILE:HB	1.77	0.83
1:A:590:ARG:NH1	1:A:590:ARG:HG3	1.92	0.83
1:A:13:THR:HG23	1:A:1432:GLN:NE2	1.93	0.83
3:C:123:ASN:HD22	3:C:125:MET:HG2	1.43	0.83
1:A:255:SER:O	1:A:256:GLN:HG3	1.78	0.83
2:B:559:SER:HA	2:B:563:MET:HB3	1.61	0.83
1:A:567:LYS:HD2	1:A:568:PRO:HD2	1.60	0.83
1:A:445:ASN:CB	1:A:455:MET:HG2	2.09	0.83
1:A:567:LYS:HD3	6:H:95:TYR:CD1	2.14	0.83
2:B:605:ARG:NH1	2:B:639:ILE:HD13	1.92	0.82
4:E:177:ARG:HD3	4:E:215:MET:SD	2.20	0.82
10:L:27:LEU:HD22	10:L:37:LYS:HD3	1.61	0.82
1:A:844:ALA:HB2	1:A:1384:VAL:HG13	1.59	0.82
1:A:84:ILE:HG23	1:A:239:LEU:HB3	1.61	0.82
2:B:200:GLY:HA2	2:B:202:TYR:CE2	2.15	0.82
3:C:214:ASN:HB2	3:C:217:ASP:OD2	1.80	0.82
1:A:1329:THR:HG22	1:A:1331:SER:H	1.45	0.82
1:A:32:VAL:HG21	1:A:68:GLN:HE22	1.42	0.82
2:B:956:THR:HA	2:B:961:LEU:O	1.80	0.81
3:C:123:ASN:ND2	3:C:125:MET:HG2	1.95	0.81
2:B:542:MET:HE3	2:B:747:MET:HG3	1.62	0.81
1:A:351:THR:HG23	2:B:1103:ILE:HA	1.60	0.81
1:A:412:ARG:NH2	2:B:1110:PRO:HD3	1.95	0.81
1:A:48:ALA:O	1:A:49:LYS:HG3	1.80	0.81
1:A:590:ARG:HB3	1:A:605:MET:N	1.95	0.81
1:A:315:LEU:HD12	1:A:321:PRO:HG2	1.60	0.81
6:H:89:LEU:C	6:H:91:ASP:H	1.82	0.81
3:C:174:ALA:O	8:J:10:CYS:HB2	1.81	0.80
10:L:54:ARG:HH11	10:L:54:ARG:HB2	1.46	0.80
1:A:308:ILE:HG22	1:A:309:ALA:N	1.95	0.80
1:A:1094:VAL:HG13	1:A:1113:THR:HG21	1.61	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:590:ARG:HH11	1:A:590:ARG:HG3	1.45	0.80
8:J:32:GLU:CD	8:J:32:GLU:H	1.85	0.80
2:B:800:GLN:HB3	8:J:52:THR:CG2	2.11	0.80
1:A:453:MET:HB3	1:A:477:PRO:HB3	1.63	0.80
1:A:41:MET:HA	1:A:49:LYS:HA	1.64	0.80
2:B:680:THR:HG22	2:B:682:SER:H	1.45	0.80
3:C:134:ILE:HG12	3:C:141:GLY:HA3	1.64	0.80
7:I:17:ARG:HG3	7:I:28:GLU:HG2	1.64	0.80
1:A:650:GLN:O	1:A:654:ASN:HB2	1.82	0.80
1:A:913:LEU:HD12	1:A:914:GLU:H	1.46	0.79
2:B:1172:ILE:HD11	2:B:1183:LYS:HE2	1.65	0.79
2:B:29:ASP:HB3	2:B:658:ILE:CD1	2.11	0.79
10:L:55:ILE:HG13	10:L:56:LEU:H	1.47	0.79
2:B:871:THR:HG22	2:B:872:GLU:N	1.97	0.79
8:J:1:MET:N	8:J:56:LEU:HB2	1.97	0.79
1:A:107:CYS:SG	1:A:148:CYS:HB2	2.22	0.79
2:B:114:PRO:HG3	2:B:181:LEU:HD11	1.63	0.79
1:A:779:PHE:CE1	1:A:785:PRO:HD3	2.17	0.79
2:B:54:PHE:HA	2:B:58:THR:HB	1.64	0.79
1:A:896:ARG:HD3	1:A:897:TYR:CE1	2.16	0.79
2:B:807:ARG:HG3	2:B:807:ARG:HH11	1.45	0.79
1:A:1364:ASN:HD22	1:A:1366:ARG:HG2	1.45	0.79
1:A:567:LYS:HB3	6:H:96:VAL:H	1.48	0.79
4:E:147:HIS:CD2	4:E:149:LEU:H	2.00	0.79
7:I:54:GLU:OE2	7:I:118:ARG:NH1	2.15	0.79
3:C:99:LEU:HD22	3:C:120:ILE:HG12	1.64	0.78
1:A:704:ALA:HB2	1:A:710:LEU:HD12	1.63	0.78
2:B:1051:THR:HG22	2:B:1053:GLU:H	1.48	0.78
6:H:109:LYS:HG2	6:H:110:ASP:H	1.48	0.78
1:A:805:LEU:O	1:A:805:LEU:HD12	1.83	0.78
1:A:675:THR:HG21	1:A:736:ASN:ND2	1.97	0.78
1:A:1390:ASN:O	1:A:1391:ARG:HB2	1.84	0.78
1:A:535:THR:HG21	1:A:617:VAL:N	1.98	0.78
6:H:123:MET:HE3	6:H:142:LEU:HD22	1.64	0.78
2:B:846:ILE:CG2	2:B:974:PRO:HG2	2.12	0.78
2:B:1002:THR:HG22	2:B:1006:ILE:N	1.99	0.77
2:B:601:ARG:O	2:B:605:ARG:HG3	1.82	0.77
1:A:524:VAL:HG12	1:A:525:GLN:H	1.48	0.77
2:B:991:GLY:O	2:B:992:ILE:HB	1.84	0.77
2:B:650:GLU:HG2	2:B:654:ARG:NH1	1.98	0.77
1:A:330:LYS:HA	1:A:333:GLU:HG2	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:15:LYS:HD2	2:B:1220:ARG:HE	1.50	0.77
1:A:709:THR:HG22	1:A:711:ARG:H	1.48	0.77
3:C:242:GLN:HE21	3:C:246:ARG:HH21	1.31	0.77
2:B:1051:THR:HG22	2:B:1053:GLU:N	1.99	0.77
1:A:675:THR:CG2	1:A:736:ASN:HD21	1.97	0.77
2:B:429:PHE:HA	2:B:432:MET:HE3	1.66	0.77
4:E:124:VAL:HG13	4:E:132:ILE:HB	1.67	0.77
2:B:1065:GLN:HE21	2:B:1067:ARG:H	1.32	0.77
1:A:563:PRO:HG3	1:A:572:TRP:CZ2	2.20	0.76
2:B:680:THR:CG2	2:B:681:TRP:H	1.97	0.76
3:C:114:TYR:CD2	3:C:140:ASN:HB3	2.20	0.76
4:E:135:PHE:HB3	4:E:140:LEU:HD11	1.67	0.76
3:C:66:ARG:NH2	8:J:5:VAL:HG23	2.00	0.76
2:B:640:VAL:HG22	2:B:651:LEU:HD22	1.67	0.76
1:A:1017:LEU:HB2	4:E:206:GLY:H	1.50	0.76
2:B:702:LEU:CD2	2:B:737:THR:HG22	2.16	0.76
6:H:82:PRO:HG3	9:K:54:ARG:HG2	1.66	0.75
2:B:745:PRO:O	2:B:748:ILE:HG12	1.87	0.75
1:A:30:ILE:HG12	2:B:1170:THR:HG21	1.68	0.75
4:E:3:GLN:HG3	4:E:5:ASN:H	1.49	0.75
3:C:194:GLU:O	3:C:195:GLN:HG3	1.86	0.75
5:F:81:THR:HG21	5:F:136:ARG:HD3	1.68	0.75
8:J:64:ASN:HB3	8:J:65:PRO:HD3	1.69	0.75
1:A:1431:GLY:HA2	2:B:1152:MET:CE	2.16	0.75
1:A:1399:ARG:O	1:A:1401:SER:N	2.20	0.75
1:A:1431:GLY:HA2	2:B:1152:MET:HE2	1.69	0.75
1:A:875:ALA:HB2	1:A:1366:ARG:HD2	1.68	0.75
2:B:1002:THR:HG22	2:B:1006:ILE:H	1.52	0.75
2:B:903:VAL:HG13	10:L:63:ARG:HH21	1.50	0.75
4:E:90:VAL:HA	4:E:120:ALA:HB2	1.67	0.75
1:A:567:LYS:HB3	6:H:96:VAL:N	2.02	0.74
1:A:172:PRO:HB3	1:A:185:TRP:CE2	2.21	0.74
1:A:1400:CYS:HB3	1:A:1405:THR:HG1	1.53	0.74
2:B:654:ARG:H	2:B:657:HIS:CD2	1.98	0.74
3:C:73:GLN:NE2	3:C:75:MET:HB2	2.02	0.74
1:A:901:LEU:HD22	1:A:919:ILE:HG22	1.67	0.74
1:A:1114:PRO:HB2	1:A:1311:VAL:HG23	1.69	0.74
1:A:1242:VAL:HG12	1:A:1243:VAL:H	1.52	0.74
4:E:19:VAL:HG11	4:E:80:VAL:HG11	1.68	0.74
6:H:100:THR:HG23	6:H:138:GLU:HA	1.69	0.74
1:A:1224:LEU:HD12	1:A:1241:ARG:O	1.88	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:210:ILE:O	1:A:214:ILE:HG13	1.87	0.74
1:A:381:THR:HG21	1:A:383:TYR:CD1	2.23	0.74
2:B:1072:MET:CE	2:B:1085:ILE:HB	2.17	0.74
1:A:308:ILE:CG2	1:A:309:ALA:H	1.98	0.74
1:A:855:THR:HG21	1:A:857:ARG:HE	1.53	0.74
3:C:77:ILE:HD13	3:C:129:ILE:HD11	1.70	0.74
5:F:76:LYS:HA	5:F:79:ARG:HD2	1.69	0.74
10:L:32:ALA:HB3	10:L:55:ILE:HD12	1.69	0.74
1:A:590:ARG:HB2	1:A:605:MET:HB3	1.69	0.74
1:A:1295:THR:HG23	1:A:1297:GLU:OE1	1.87	0.73
1:A:219:PHE:HB3	1:A:224:PHE:HB2	1.69	0.73
1:A:875:ALA:HA	1:A:878:ILE:HD12	1.69	0.73
2:B:115:GLN:HG2	2:B:193:LYS:HB2	1.69	0.73
2:B:737:THR:HG23	7:I:66:PRO:HB2	1.67	0.73
4:E:55:ARG:HB2	4:E:84:ASP:OD2	1.86	0.73
1:A:1173:HIS:NE2	1:A:1227:ILE:HG23	2.03	0.73
1:A:40:THR:HG23	1:A:54:ASN:OD1	1.89	0.73
2:B:487:THR:HG22	2:B:490:SER:H	1.53	0.73
4:E:17:ARG:O	4:E:21:GLU:HG3	1.88	0.73
2:B:120:ARG:CG	2:B:955:THR:HG21	2.18	0.73
1:A:93:VAL:HG22	1:A:301:ALA:HA	1.70	0.73
2:B:35:SER:HA	2:B:811:TYR:HE2	1.53	0.73
1:A:1168:GLU:O	1:A:1172:LEU:HG	1.87	0.73
1:A:270:LEU:O	1:A:274:ILE:HG13	1.88	0.73
2:B:702:LEU:HD22	2:B:737:THR:HG22	1.71	0.73
1:A:523:ILE:HD12	1:A:622:VAL:HG21	1.71	0.72
1:A:351:THR:CG2	2:B:1103:ILE:HA	2.18	0.72
2:B:642:ASP:HB3	2:B:649:LYS:CD	2.19	0.72
2:B:879:ARG:HD2	2:B:883:LEU:HD22	1.68	0.72
1:A:1364:ASN:ND2	1:A:1366:ARG:H	1.87	0.72
1:A:317:LYS:HD2	1:A:321:PRO:HG3	1.72	0.72
1:A:31:SER:CB	1:A:83:HIS:HB2	2.19	0.72
2:B:680:THR:CG2	2:B:681:TRP:N	2.53	0.72
2:B:705:MET:H	2:B:710:LEU:HD12	1.54	0.72
6:H:109:LYS:CG	6:H:110:ASP:N	2.51	0.72
1:A:907:THR:HG22	1:A:908:LEU:N	2.05	0.72
2:B:98:THR:HG22	2:B:99:LYS:H	1.53	0.72
1:A:302:THR:OG1	1:A:312:PRO:HG3	1.90	0.72
1:A:590:ARG:HG2	1:A:604:GLY:HA2	1.72	0.72
2:B:603:LEU:HB3	2:B:609:ILE:HG13	1.72	0.72
2:B:737:THR:HG21	7:I:66:PRO:O	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:806:THR:HG22	2:B:808:ALA:N	2.02	0.72
3:C:167:HIS:HD2	3:C:169:LYS:H	1.38	0.72
1:A:1370:LEU:HD12	1:A:1370:LEU:O	1.89	0.71
9:K:55:LYS:HD3	9:K:78:THR:HB	1.72	0.71
1:A:1293:SER:HB2	1:A:1299:VAL:CG2	2.20	0.71
2:B:387:LEU:HD23	2:B:393:LYS:HD2	1.70	0.71
6:H:130:ARG:HB3	6:H:134:ASN:HD22	1.54	0.71
2:B:254:LEU:HD23	2:B:381:MET:HE3	1.71	0.71
3:C:56:THR:HG22	3:C:58:LEU:H	1.54	0.71
6:H:101:ALA:HB2	6:H:116:TYR:CE2	2.25	0.71
1:A:1341:ILE:HD12	1:A:1379:GLY:C	2.10	0.71
2:B:234:ILE:H	2:B:234:ILE:HD12	1.55	0.71
2:B:977:GLY:HA3	2:B:1099:VAL:HG21	1.73	0.71
4:E:43:LYS:O	4:E:47:CYS:HB2	1.91	0.71
1:A:535:THR:HG22	1:A:616:VAL:HA	1.72	0.71
1:A:61:ILE:HG22	1:A:62:ASP:H	1.56	0.71
2:B:654:ARG:N	2:B:657:HIS:HD2	1.86	0.71
1:A:605:MET:HE2	1:A:607:ILE:HG13	1.73	0.71
1:A:901:LEU:HA	1:A:907:THR:HG23	1.72	0.71
1:A:1404:GLU:C	1:A:1406:VAL:N	2.40	0.71
2:B:709:ASP:O	2:B:710:LEU:HD23	1.89	0.71
2:B:642:ASP:O	2:B:644:GLU:N	2.24	0.71
2:B:25:ILE:HD11	2:B:653:VAL:O	1.91	0.71
2:B:824:ILE:HG12	8:J:48:ARG:NH1	2.05	0.71
1:A:1394:THR:HG22	1:A:1395:GLY:N	2.06	0.71
1:A:913:LEU:HD12	1:A:914:GLU:N	2.06	0.71
9:K:65:HIS:HD2	9:K:67:PHE:H	1.37	0.71
1:A:434:ARG:HG3	1:A:435:HIS:O	1.91	0.70
1:A:57:ARG:HB3	1:A:68:GLN:HG3	1.72	0.70
2:B:613:VAL:HG22	2:B:628:THR:HG23	1.72	0.70
5:F:81:THR:HG22	5:F:136:ARG:NH1	2.06	0.70
10:L:27:LEU:HD13	10:L:37:LYS:HG2	1.71	0.70
1:A:114:LEU:HD22	1:A:171:GLN:NE2	2.06	0.70
1:A:535:THR:CG2	1:A:616:VAL:HA	2.21	0.70
2:B:58:THR:O	2:B:62:ILE:HG13	1.91	0.70
2:B:821:GLN:OE1	2:B:850:LEU:HD12	1.91	0.70
2:B:118:ARG:HG3	2:B:204:ILE:HD13	1.73	0.70
3:C:76:ASP:O	3:C:79:GLN:HG2	1.91	0.70
1:A:1189:SER:HB2	1:A:1190:PRO:HD2	1.73	0.70
2:B:92:PHE:HD2	2:B:130:VAL:HG11	1.57	0.70
2:B:778:MET:HG2	2:B:794:ASN:HB3	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1017:LEU:HB2	4:E:206:GLY:N	2.05	0.70
9:K:55:LYS:HD3	9:K:78:THR:CB	2.22	0.70
1:A:608:ILE:HD12	1:A:613:ILE:HD13	1.72	0.70
2:B:63:ILE:HB	2:B:95:ILE:HD11	1.73	0.70
1:A:868:TYR:HE1	1:A:1064:VAL:HG11	1.52	0.70
1:A:994:GLN:HE22	1:A:1023:ARG:HE	1.40	0.70
2:B:311:LEU:HB3	7:I:4:PHE:CE2	2.25	0.70
3:C:70:ILE:HD11	3:C:144:ILE:HG12	1.73	0.69
1:A:353:ILE:HD13	1:A:487:MET:HE2	1.72	0.69
2:B:864:LYS:HD3	2:B:871:THR:HA	1.74	0.69
3:C:241:ASP:O	3:C:245:VAL:HG23	1.92	0.69
5:F:77:ASP:O	5:F:78:GLN:HB2	1.91	0.69
2:B:46:GLN:HG3	2:B:47:GLN:N	2.07	0.69
4:E:147:HIS:HD2	4:E:149:LEU:H	1.37	0.69
2:B:639:ILE:HD11	2:B:691:GLU:CG	2.16	0.69
1:A:711:ARG:HH12	7:I:95:THR:HG22	1.56	0.69
1:A:853:ASP:OD1	1:A:855:THR:HB	1.92	0.69
2:B:102:VAL:CG2	2:B:112:LEU:HB2	2.23	0.69
2:B:46:GLN:HG3	2:B:47:GLN:H	1.57	0.69
2:B:889:THR:HG22	2:B:891:ASP:H	1.55	0.69
5:F:81:THR:CG2	5:F:136:ARG:HH11	2.05	0.69
2:B:827:ILE:HD13	2:B:1017:ILE:HD11	1.73	0.69
2:B:963:PHE:HE2	2:B:965:LYS:HE3	1.58	0.69
1:A:1111:MET:HE1	1:A:1114:PRO:HA	1.75	0.69
1:A:367:PRO:HB3	1:A:466:SER:HA	1.75	0.69
1:A:751:SER:O	1:A:752:LYS:HB2	1.91	0.69
1:A:919:ILE:HD13	1:A:983:ILE:HD12	1.74	0.69
1:A:18:GLN:HB2	2:B:1215:ARG:HB2	1.75	0.69
2:B:291:ILE:HD13	2:B:300:HIS:NE2	2.08	0.69
1:A:901:LEU:HD22	1:A:919:ILE:CG2	2.22	0.69
1:A:757:ASN:OD1	2:B:1021:MET:HE2	1.94	0.68
1:A:436:ILE:HD11	1:A:491:VAL:HG21	1.76	0.68
1:A:57:ARG:HB3	1:A:68:GLN:CG	2.23	0.68
2:B:130:VAL:CG2	2:B:167:ILE:HD12	2.23	0.68
6:H:111:LEU:HA	6:H:127:GLY:O	1.93	0.68
1:A:115:LEU:HD12	1:A:142:CYS:HB3	1.76	0.68
1:A:1400:CYS:HB3	1:A:1405:THR:OG1	1.93	0.68
1:A:541:ILE:HG22	1:A:546:VAL:CG2	2.23	0.68
1:A:567:LYS:CD	1:A:568:PRO:HD2	2.23	0.68
2:B:102:VAL:HG22	2:B:112:LEU:HB2	1.75	0.68
2:B:1162:ILE:HD11	2:B:1194:ILE:CD1	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:295:GLY:H	2:B:298:LEU:HG	1.58	0.68
2:B:39:ARG:NE	2:B:665:GLU:HG2	2.08	0.68
8:J:16:ASP:OD1	8:J:17:LYS:HG3	1.93	0.68
1:A:4:GLN:O	1:A:5:GLN:HB2	1.94	0.68
1:A:579:SER:OG	1:A:612:ILE:HG22	1.94	0.68
1:A:82:GLY:HA3	1:A:241:VAL:HB	1.76	0.68
2:B:822:ASN:HD22	8:J:52:THR:HG21	1.59	0.68
1:A:1039:LYS:O	1:A:1043:ASP:HB2	1.94	0.68
2:B:39:ARG:HE	2:B:665:GLU:HG2	1.59	0.68
1:A:187:LYS:O	1:A:188:ASP:HB2	1.93	0.68
1:A:80:HIS:O	1:A:243:PRO:HB3	1.94	0.68
9:K:55:LYS:HB3	9:K:81:TYR:HD1	1.59	0.68
1:A:108:MET:O	1:A:109:HIS:HB2	1.93	0.67
1:A:1258:HIS:ND1	1:A:1262:LYS:HE3	2.09	0.67
1:A:185:TRP:O	1:A:186:LYS:HB2	1.93	0.67
1:A:741:ASN:ND2	1:A:744:LYS:H	1.92	0.67
1:A:783:THR:HG21	1:A:815:PHE:CZ	2.29	0.67
1:A:913:LEU:HD11	1:A:981:LEU:O	1.95	0.67
3:C:66:ARG:CZ	8:J:5:VAL:HG23	2.24	0.67
1:A:1345:ARG:HG2	1:A:1372:VAL:CG1	2.23	0.67
1:A:1435:PRO:HA	1:A:1439:GLY:O	1.94	0.67
1:A:982:THR:HG22	1:A:984:LYS:H	1.58	0.67
1:A:265:LYS:O	1:A:269:ILE:HG13	1.94	0.67
1:A:32:VAL:HB	1:A:57:ARG:HD2	1.77	0.67
2:B:707:PRO:HG2	2:B:708:GLU:H	1.58	0.67
3:C:166:GLU:HG3	9:K:10:PHE:CZ	2.29	0.67
1:A:1193:LEU:HB2	1:A:1260:LEU:HD11	1.76	0.67
7:I:55:THR:HG23	7:I:58:VAL:HG21	1.75	0.67
2:B:871:THR:CG2	2:B:872:GLU:H	2.05	0.67
2:B:980:PHE:CE2	2:B:1094:ARG:HG3	2.29	0.67
2:B:995:ARG:HB3	2:B:997:GLU:OE2	1.94	0.67
1:A:474:VAL:HG13	1:A:478:TYR:CE1	2.29	0.67
1:A:879:GLU:O	1:A:955:PRO:HA	1.94	0.67
1:A:1422:ARG:HG2	2:B:1220:ARG:NH1	2.10	0.67
3:C:148:ARG:NH1	8:J:64:ASN:HA	2.10	0.67
3:C:56:THR:HG22	3:C:57:VAL:N	2.09	0.67
4:E:29:PHE:O	4:E:30:ILE:HG13	1.94	0.67
2:B:287:ARG:HG2	2:B:292:ILE:HA	1.75	0.67
1:A:31:SER:OG	1:A:83:HIS:HB2	1.94	0.67
6:H:12:VAL:HA	6:H:28:ALA:CB	2.25	0.67
6:H:38:LEU:HD13	6:H:125:LEU:HD13	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:882:THR:HG22	2:B:884:ARG:H	1.60	0.67
2:B:911:ILE:HD11	2:B:941:LEU:HD12	1.77	0.67
1:A:1342:GLU:OE2	4:E:212:ARG:NH1	2.25	0.66
2:B:780:VAL:HG21	8:J:56:LEU:HD11	1.76	0.66
2:B:392:ARG:NH2	7:I:52:ILE:HD11	2.10	0.66
7:I:111:THR:HG22	7:I:112:SER:N	2.10	0.66
1:A:711:ARG:NH1	7:I:95:THR:HG22	2.10	0.66
2:B:825:VAL:HG12	2:B:826:ALA:N	2.11	0.66
1:A:1118:VAL:CG2	1:A:1306:LEU:HB2	2.24	0.66
1:A:711:ARG:HH12	7:I:95:THR:CG2	2.07	0.66
1:A:345:VAL:HG11	2:B:1128:LEU:O	1.95	0.66
2:B:1166:CYS:O	2:B:1168:LEU:N	2.27	0.66
2:B:345:LYS:HA	2:B:348:ARG:NE	2.10	0.66
2:B:731:VAL:HG12	2:B:732:SER:N	2.04	0.66
1:A:896:ARG:NH2	1:A:1030:ARG:HH21	1.94	0.66
1:A:1114:PRO:O	1:A:1115:SER:HB3	1.94	0.66
1:A:32:VAL:HB	1:A:57:ARG:HB2	1.77	0.66
2:B:165:VAL:HG13	2:B:446:LEU:HD21	1.76	0.66
2:B:999:MET:HG3	2:B:1000:PRO:HD2	1.76	0.66
10:L:60:ARG:CG	10:L:61:THR:N	2.45	0.66
1:A:1152:ILE:HG23	1:A:1260:LEU:HD23	1.76	0.66
1:A:709:THR:HB	1:A:712:GLU:HG3	1.77	0.66
2:B:240:ILE:HG22	2:B:254:LEU:HB3	1.76	0.66
2:B:542:MET:CE	2:B:747:MET:HG3	2.24	0.66
1:A:540:PHE:C	1:A:541:ILE:HD12	2.16	0.66
2:B:108:VAL:HG12	2:B:109:THR:H	1.60	0.66
2:B:293:PRO:HG2	2:B:296:GLU:CB	2.25	0.66
2:B:293:PRO:HG2	2:B:296:GLU:HB2	1.77	0.66
1:A:1342:GLU:HG2	4:E:212:ARG:NH1	2.11	0.66
1:A:806:ARG:HH12	2:B:729:ILE:HD11	1.61	0.66
2:B:1162:ILE:HD11	2:B:1194:ILE:HD13	1.78	0.66
2:B:515:HIS:CD2	2:B:517:THR:H	2.14	0.66
2:B:712:PRO:HD3	2:B:733:HIS:CD2	2.31	0.66
3:C:124:LEU:O	3:C:127:ARG:HG2	1.94	0.66
2:B:118:ARG:NH1	2:B:204:ILE:HD11	2.10	0.65
6:H:5:LEU:HB3	6:H:133:ASN:O	1.96	0.65
9:K:45:LEU:HG	9:K:94:ILE:HD13	1.78	0.65
1:A:590:ARG:O	1:A:591:PHE:HB2	1.96	0.65
1:A:675:THR:CG2	1:A:736:ASN:ND2	2.59	0.65
1:A:1193:LEU:HB3	1:A:1240:CYS:HB2	1.79	0.65
1:A:783:THR:HG22	1:A:784:LEU:HG	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:147:SER:OG	5:F:150:GLU:HG3	1.96	0.65
1:A:24:PRO:HG2	1:A:25:GLU:OE2	1.96	0.65
1:A:74:MET:O	1:A:75:ASN:HB2	1.95	0.65
5:F:97:ARG:NE	5:F:124:GLU:OE1	2.21	0.65
1:A:1441:PHE:CZ	5:F:89:GLU:HA	2.32	0.65
1:A:515:GLN:HG3	1:A:516:SER:N	2.12	0.65
2:B:378:LEU:O	2:B:382:ILE:HG13	1.97	0.65
1:A:1025:ARG:HD2	1:A:1030:ARG:HH12	1.61	0.65
1:A:388:LEU:HD22	1:A:432:VAL:HB	1.78	0.65
1:A:868:TYR:CZ	1:A:1064:VAL:HG11	2.32	0.65
3:C:47:ASP:HA	10:L:69:ALA:HB3	1.78	0.65
4:E:46:TYR:CD2	4:E:58:MET:HG2	2.31	0.65
8:J:53:HIS:CD2	8:J:54:VAL:N	2.64	0.65
1:A:1195:LEU:HD11	1:A:1267:MET:HE3	1.77	0.65
2:B:549:THR:HB	2:B:628:THR:HG22	1.78	0.65
2:B:763:GLN:HB2	2:B:1021:MET:HB2	1.79	0.65
4:E:69:ILE:HG23	4:E:73:PRO:HA	1.78	0.65
2:B:800:GLN:HB3	8:J:52:THR:HG21	1.77	0.65
1:A:1364:ASN:HD21	1:A:1366:ARG:HH11	1.45	0.65
1:A:208:LEU:HD22	1:A:212:LYS:HE3	1.79	0.65
2:B:43:LEU:HD13	2:B:812:LEU:HD23	1.78	0.65
3:C:3:GLU:O	3:C:4:GLU:HB2	1.96	0.65
1:A:590:ARG:HH11	1:A:590:ARG:CG	2.10	0.64
1:A:901:LEU:HD23	1:A:907:THR:HG23	1.79	0.64
2:B:205:ILE:CD1	2:B:461:LEU:HB3	2.27	0.64
2:B:619:ILE:HD12	7:I:65:ASP:HB2	1.78	0.64
1:A:1138:ILE:HG22	1:A:1279:ILE:HG21	1.79	0.64
1:A:1410:PHE:HD2	2:B:1212:ILE:HD11	1.60	0.64
1:A:313:GLN:O	1:A:321:PRO:HD2	1.97	0.64
1:A:901:LEU:HD13	1:A:919:ILE:HG23	1.78	0.64
8:J:3:VAL:CG2	8:J:18:TRP:HB2	2.26	0.64
1:A:399:HIS:HB3	1:A:400:PRO:HD3	1.79	0.64
2:B:834:ASN:HB3	2:B:840:ILE:HG13	1.80	0.64
1:A:871:ASP:HB3	4:E:204:THR:CG2	2.28	0.64
1:A:1113:THR:HG22	1:A:1113:THR:O	1.97	0.64
1:A:737:LEU:HD11	1:A:758:ILE:HG21	1.78	0.64
2:B:1002:THR:CG2	2:B:1006:ILE:H	2.10	0.64
3:C:244:VAL:O	3:C:248:ILE:HG13	1.98	0.64
1:A:337:ARG:HH22	1:A:1403:GLU:HA	1.61	0.64
1:A:451:HIS:O	2:B:1137:CYS:SG	2.54	0.64
2:B:1065:GLN:NE2	2:B:1067:ARG:N	2.38	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:46:GLN:NE2	2:B:496:ARG:HD3	2.13	0.64
3:C:175:ALA:HB2	8:J:10:CYS:HB2	1.80	0.64
1:A:65:LEU:O	1:A:71:GLN:HA	1.97	0.64
2:B:912:ILE:O	2:B:938:SER:HB2	1.97	0.64
1:A:1293:SER:OG	1:A:1295:THR:HG22	1.98	0.64
2:B:446:LEU:O	2:B:447:ALA:HB3	1.97	0.63
2:B:67:SER:HB2	2:B:92:PHE:CD1	2.33	0.63
9:K:18:LYS:NZ	9:K:37:LYS:HB2	2.12	0.63
9:K:47:ARG:HG3	9:K:60:ALA:HA	1.79	0.63
1:A:122:MET:O	1:A:126:LEU:HG	1.98	0.63
1:A:311:GLN:HG2	1:A:313:GLN:HG3	1.80	0.63
1:A:58:LEU:HD22	1:A:80:HIS:O	1.99	0.63
6:H:106:GLU:C	6:H:108:SER:H	2.02	0.63
1:A:15:LYS:O	1:A:1421:CYS:HB2	1.98	0.63
1:A:100:LYS:HE2	1:A:176:LYS:HB2	1.79	0.63
1:A:305:ASP:OD1	1:A:306:ASN:N	2.32	0.63
1:A:49:LYS:CB	1:A:55:ASP:HB2	2.27	0.63
2:B:1079:LYS:HA	3:C:27:LEU:HD21	1.80	0.63
1:A:973:ILE:HG21	1:A:1036:ARG:O	1.97	0.63
1:A:868:TYR:CD2	1:A:1058:VAL:HG21	2.34	0.63
1:A:1094:VAL:HG13	1:A:1113:THR:CG2	2.27	0.63
1:A:1399:ARG:C	1:A:1401:SER:H	2.01	0.63
2:B:1077:THR:HG22	2:B:1079:LYS:H	1.62	0.63
2:B:287:ARG:NH2	2:B:325:GLN:HE22	1.97	0.63
3:C:92:CYS:SG	3:C:94:LYS:HB3	2.38	0.63
2:B:545:ILE:HG22	2:B:546:SER:O	1.98	0.63
2:B:35:SER:HA	2:B:811:TYR:CE2	2.32	0.63
3:C:33:LEU:HG	3:C:37:MET:CE	2.28	0.63
6:H:36:CYS:HA	6:H:126:GLU:O	1.99	0.63
8:J:57:ILE:O	8:J:61:LEU:HG	1.98	0.63
1:A:350:ARG:HD2	1:A:488:ASN:OD1	1.98	0.63
2:B:90:ILE:HA	2:B:133:LYS:O	1.99	0.63
2:B:273:LEU:HB2	2:B:276:ILE:HD12	1.79	0.63
5:F:111:LEU:H	5:F:111:LEU:CD1	2.11	0.63
6:H:81:PRO:HB2	6:H:82:PRO:HD3	1.80	0.63
1:A:567:LYS:NZ	6:H:46:LEU:CB	2.61	0.63
1:A:1364:ASN:ND2	1:A:1366:ARG:HH11	1.97	0.63
1:A:225:ASN:O	1:A:226:GLU:HG2	1.99	0.63
1:A:340:LEU:HD22	1:A:1425:SER:HB2	1.79	0.63
1:A:399:HIS:O	1:A:401:GLY:N	2.30	0.63
1:A:470:LEU:HD13	1:A:474:VAL:HG12	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:45:ALA:HB3	3:C:170:TRP:NE1	2.14	0.63
1:A:1345:ARG:HG2	1:A:1372:VAL:HG12	1.81	0.63
1:A:434:ARG:NH2	1:A:440:ASP:OD1	2.31	0.63
2:B:834:ASN:O	2:B:1013:ASN:HB2	1.99	0.63
1:A:98:LYS:NZ	1:A:1411:GLU:HG2	2.14	0.62
1:A:666:ILE:HD11	2:B:1030:LEU:HD13	1.80	0.62
1:A:847:ASP:OD2	1:A:858:ASN:HB2	1.99	0.62
2:B:484:ASN:OD1	2:B:486:TYR:HE1	1.80	0.62
2:B:918:ILE:HD12	2:B:935:ARG:HD2	1.79	0.62
3:C:141:GLY:O	3:C:142:VAL:HB	1.98	0.62
3:C:66:ARG:NH2	8:J:3:VAL:O	2.32	0.62
1:A:173:THR:O	1:A:183:GLY:HA2	2.00	0.62
1:A:535:THR:O	1:A:575:LYS:HE3	1.99	0.62
2:B:515:HIS:HD2	2:B:517:THR:H	1.44	0.62
2:B:541:LEU:CB	2:B:747:MET:HE3	2.26	0.62
3:C:99:LEU:CD2	3:C:120:ILE:HG12	2.27	0.62
1:A:90:VAL:HG12	1:A:91:PHE:N	2.13	0.62
3:C:73:GLN:HE21	3:C:75:MET:H	1.44	0.62
6:H:138:GLU:HG2	6:H:139:ASN:N	2.13	0.62
1:A:100:LYS:NZ	1:A:176:LYS:HD2	2.13	0.62
1:A:605:MET:HE3	1:A:612:ILE:HG13	1.80	0.62
1:A:927:VAL:O	1:A:931:GLU:HG3	2.00	0.62
2:B:288:ALA:HB1	2:B:331:LEU:HD12	1.82	0.62
1:A:1333:ILE:O	1:A:1337:GLU:HG3	1.99	0.62
1:A:35:ILE:CD1	1:A:241:VAL:HG11	2.28	0.62
2:B:1166:CYS:HB2	2:B:1215:ARG:NH1	2.14	0.62
1:A:908:LEU:HD12	1:A:983:ILE:HD11	1.80	0.62
2:B:1002:THR:HG23	2:B:1004:GLU:H	1.64	0.62
2:B:1185:CYS:O	2:B:1186:ASP:HB2	1.98	0.62
2:B:284:ILE:HD13	2:B:324:ILE:HD12	1.80	0.62
2:B:778:MET:CE	2:B:1094:ARG:HD3	2.30	0.62
1:A:337:ARG:HH22	1:A:1403:GLU:CA	2.12	0.62
1:A:567:LYS:CG	1:A:568:PRO:HD2	2.29	0.62
2:B:708:GLU:HG3	2:B:709:ASP:N	2.08	0.62
2:B:912:ILE:HD11	2:B:966:VAL:HG23	1.82	0.62
4:E:113:GLN:C	4:E:114:ASN:HD22	2.02	0.62
8:J:1:MET:H1	8:J:56:LEU:HB2	1.64	0.62
2:B:1056:SER:HB3	2:B:1066:SER:HB2	1.82	0.62
2:B:636:PRO:HA	2:B:691:GLU:O	2.00	0.62
1:A:1100:ARG:HH21	1:A:1351:GLU:CG	2.12	0.62
1:A:88:LYS:HD2	1:A:293:GLU:OE1	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:497:THR:HG23	2:B:1146:PHE:HD1	1.64	0.62
3:C:235:VAL:HG13	8:J:13:VAL:HG23	1.81	0.62
4:E:192:ARG:HB2	4:E:215:MET:O	1.99	0.62
6:H:43:ASN:OD1	6:H:45:GLU:HB3	2.00	0.62
7:I:32:CYS:HG	11:I:2003:ZN:ZN	1.14	0.62
1:A:1341:ILE:HD11	1:A:1376:THR:HG23	1.82	0.61
2:B:952:VAL:HB	10:L:58:LYS:HB2	1.81	0.61
3:C:93:ASP:O	3:C:127:ARG:NH2	2.32	0.61
7:I:111:THR:CG2	7:I:112:SER:N	2.62	0.61
3:C:175:ALA:HB3	8:J:43:ARG:CZ	2.29	0.61
1:A:367:PRO:HB3	1:A:465:TYR:O	2.00	0.61
1:A:675:THR:OG1	1:A:736:ASN:ND2	2.32	0.61
1:A:743:VAL:O	1:A:747:VAL:HG23	2.01	0.61
2:B:705:MET:H	2:B:710:LEU:CD1	2.13	0.61
9:K:55:LYS:O	9:K:77:THR:HG22	2.00	0.61
1:A:1025:ARG:HD2	1:A:1030:ARG:NH1	2.15	0.61
1:A:1410:PHE:CD2	2:B:1212:ILE:HD11	2.35	0.61
1:A:1438:THR:HG22	2:B:1144:ALA:HB3	1.81	0.61
1:A:381:THR:HG22	1:A:383:TYR:N	2.06	0.61
1:A:596:THR:O	1:A:598:LEU:N	2.32	0.61
2:B:226:PHE:HA	2:B:395:GLN:HG3	1.82	0.61
2:B:787:VAL:O	2:B:787:VAL:HG12	2.00	0.61
1:A:1120:LEU:HB3	1:A:1124:HIS:O	2.00	0.61
1:A:709:THR:HG21	7:I:93:LYS:O	2.00	0.61
2:B:315:LYS:N	2:B:316:PRO:HD2	2.15	0.61
2:B:758:PHE:CE2	2:B:1044:ALA:HA	2.34	0.61
2:B:800:GLN:HB3	8:J:52:THR:HG22	1.83	0.61
2:B:860:MET:HG2	2:B:861:ASP:N	2.15	0.61
6:H:26:ILE:HD11	6:H:49:VAL:CG1	2.26	0.61
6:H:36:CYS:SG	6:H:130:ARG:NH2	2.73	0.61
9:K:10:PHE:CD1	9:K:11:LEU:HD13	2.36	0.61
10:L:38:LEU:O	10:L:39:SER:HB3	2.00	0.61
4:E:131:THR:HG21	4:E:191:LYS:HE2	1.82	0.61
10:L:43:THR:O	10:L:43:THR:HG22	2.01	0.61
1:A:252:PHE:HB2	1:A:256:GLN:OE1	2.00	0.61
1:A:646:PHE:O	1:A:650:GLN:HG3	2.00	0.61
2:B:1017:ILE:HB	2:B:1018:PRO:HD3	1.82	0.61
7:I:78:CYS:O	7:I:80:SER:N	2.33	0.61
1:A:1098:VAL:N	1:A:1099:PRO:HD2	2.15	0.61
1:A:1116:LEU:CD1	1:A:1311:VAL:HG13	2.29	0.61
1:A:19:PHE:O	1:A:1416:ALA:HA	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:725:ALA:HA	1:A:728:LYS:HE2	1.82	0.61
1:A:786:HIS:CD2	1:A:786:HIS:N	2.66	0.61
2:B:970:THR:HG22	2:B:971:THR:N	2.14	0.61
3:C:242:GLN:OE1	3:C:242:GLN:HA	1.99	0.61
3:C:37:MET:HG2	3:C:243:VAL:HG12	1.83	0.61
4:E:79:TRP:HB2	4:E:105:PHE:CE1	2.36	0.61
6:H:26:ILE:CD1	6:H:49:VAL:HG11	2.22	0.61
1:A:793:SER:HB2	1:A:794:PRO:HD2	1.83	0.61
4:E:2:ASP:O	4:E:3:GLN:HG2	2.01	0.61
9:K:55:LYS:HB3	9:K:81:TYR:CD1	2.36	0.61
6:H:4:THR:HA	6:H:60:ALA:CB	2.30	0.61
2:B:1183:LYS:O	2:B:1185:CYS:N	2.29	0.61
2:B:708:GLU:O	2:B:710:LEU:N	2.34	0.61
3:C:133:ILE:HD12	3:C:237:SER:HA	1.83	0.61
6:H:139:ASN:O	6:H:140:ALA:HB2	2.01	0.61
10:L:27:LEU:HD13	10:L:37:LYS:CG	2.30	0.61
1:A:151:ASP:HA	1:A:162:VAL:O	2.01	0.60
1:A:50:ILE:C	1:A:52:GLY:H	2.04	0.60
3:C:11:ARG:HH21	3:C:229:TYR:HD2	1.47	0.60
2:B:864:LYS:HG2	2:B:871:THR:HG23	1.83	0.60
6:H:82:PRO:O	6:H:84:ALA:N	2.34	0.60
9:K:18:LYS:HZ1	9:K:37:LYS:HB2	1.66	0.60
9:K:55:LYS:HD3	9:K:78:THR:OG1	2.01	0.60
1:A:313:GLN:HA	1:A:322:VAL:HG23	1.83	0.60
1:A:470:LEU:HD21	1:A:487:MET:CE	2.31	0.60
2:B:281:PRO:HG2	2:B:284:ILE:HD12	1.83	0.60
2:B:292:ILE:HD13	2:B:326:ASP:HA	1.84	0.60
5:F:82:THR:HG22	5:F:84:TYR:H	1.66	0.60
1:A:285:PRO:HG2	1:A:288:ALA:HB3	1.82	0.60
1:A:537:ARG:HB2	6:H:20:TYR:CE2	2.36	0.60
1:A:844:ALA:HB2	1:A:1384:VAL:CG1	2.31	0.60
1:A:268:ASP:HB3	1:A:299:HIS:CE1	2.36	0.60
1:A:35:ILE:HD11	1:A:241:VAL:HG11	1.82	0.60
1:A:875:ALA:HB2	1:A:1366:ARG:CD	2.31	0.60
1:A:902:LEU:HG	1:A:926:GLN:HG3	1.83	0.60
2:B:1051:THR:CG2	2:B:1053:GLU:H	2.14	0.60
2:B:807:ARG:HG3	2:B:807:ARG:NH1	2.17	0.60
7:I:121:PHE:O	7:I:122:SER:HB3	2.01	0.60
1:A:1194:ARG:NH2	1:A:1237:ILE:HD13	2.16	0.60
1:A:353:ILE:HD13	1:A:487:MET:CE	2.30	0.60
2:B:135:ARG:O	2:B:136:THR:CB	2.50	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:280:ILE:CD1	2:B:334:ILE:HG12	2.32	0.60
2:B:840:ILE:HB	2:B:1011:ILE:HB	1.83	0.60
8:J:48:ARG:HE	8:J:49:MET:HE2	1.66	0.60
1:A:87:ALA:HB3	1:A:276:LEU:HD23	1.83	0.60
1:A:738:LYS:HB3	6:H:19:ARG:HH22	1.66	0.60
1:A:857:ARG:HD3	1:A:861:GLY:O	2.02	0.60
2:B:97:VAL:HG12	2:B:178:ASN:HD21	1.67	0.60
2:B:363:HIS:O	2:B:364:ILE:CB	2.49	0.60
4:E:32:GLN:HE21	4:E:36:GLU:HG3	1.67	0.60
6:H:18:GLY:O	6:H:19:ARG:HB2	2.02	0.60
2:B:661:LEU:HD11	2:B:684:LEU:HD11	1.84	0.60
8:J:45:CYS:O	8:J:48:ARG:HG3	2.01	0.60
9:K:46:ILE:HG22	9:K:50:LEU:CD1	2.29	0.60
1:A:28:ARG:HG2	1:A:83:HIS:CE1	2.37	0.60
2:B:914:LYS:HB3	2:B:937:ALA:O	2.01	0.60
3:C:75:MET:HG2	3:C:246:ARG:HH22	1.67	0.60
1:A:1348:LEU:O	1:A:1352:VAL:HG23	2.02	0.59
1:A:768:GLN:HG2	1:A:816:HIS:HA	1.84	0.59
2:B:575:PRO:HG2	2:B:576:ASP:H	1.66	0.59
2:B:25:ILE:HD11	2:B:653:VAL:C	2.21	0.59
1:A:871:ASP:HB3	4:E:204:THR:HG23	1.84	0.59
4:E:46:TYR:CE2	4:E:58:MET:HA	2.37	0.59
1:A:184:SER:HB3	1:A:199:LEU:CD2	2.32	0.59
1:A:190:ALA:HA	1:A:195:ASP:OD1	2.02	0.59
2:B:640:VAL:O	2:B:641:GLU:C	2.40	0.59
5:F:109:VAL:CG2	5:F:124:GLU:HG2	2.32	0.59
1:A:392:VAL:HG13	1:A:415:LEU:HD11	1.84	0.59
1:A:913:LEU:CD1	1:A:981:LEU:O	2.50	0.59
1:A:69:THR:HB	2:B:1174:LYS:HE2	1.84	0.59
3:C:260:LEU:O	3:C:263:THR:HB	2.01	0.59
1:A:1021:LEU:O	1:A:1025:ARG:HG2	2.01	0.59
1:A:230:ARG:HB3	1:A:232:GLU:HG2	1.85	0.59
1:A:32:VAL:HG11	1:A:68:GLN:OE1	2.02	0.59
5:F:81:THR:CG2	5:F:136:ARG:NH1	2.65	0.59
5:F:81:THR:HG22	5:F:82:THR:N	2.17	0.59
7:I:50:THR:HG22	7:I:51:ASN:N	2.17	0.59
1:A:34:LYS:HD2	1:A:36:ARG:NH2	2.17	0.59
1:A:465:TYR:CD1	1:A:465:TYR:N	2.71	0.59
2:B:1220:ARG:O	2:B:1222:ARG:N	2.34	0.59
2:B:733:HIS:O	2:B:735:ALA:N	2.35	0.59
1:A:1400:CYS:CB	1:A:1405:THR:HG1	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:353:ILE:HD11	1:A:485:ASP:HB2	1.83	0.59
1:A:741:ASN:HD22	1:A:744:LYS:N	1.96	0.59
2:B:129:PHE:CE2	2:B:166:PHE:HD1	2.20	0.59
2:B:429:PHE:HA	2:B:432:MET:CE	2.30	0.59
2:B:569:TYR:CE1	2:B:589:VAL:HG21	2.38	0.59
1:A:1004:ASN:CG	4:E:167:ARG:HD2	2.22	0.59
6:H:84:ALA:HA	6:H:87:ARG:HB2	1.85	0.59
3:C:166:GLU:HG3	9:K:10:PHE:CE2	2.37	0.59
1:A:388:LEU:O	1:A:392:VAL:HG23	2.02	0.59
1:A:452:LYS:HB3	2:B:1141:HIS:CE1	2.37	0.59
1:A:667:GLY:HA2	1:A:670:ILE:HD12	1.85	0.59
2:B:847:ASP:O	3:C:65:HIS:HE1	1.85	0.59
6:H:38:LEU:HD13	6:H:125:LEU:CD1	2.31	0.59
1:A:862:ASN:HA	4:E:174:GLN:HB3	1.85	0.59
8:J:1:MET:H3	8:J:56:LEU:HB2	1.68	0.59
9:K:47:ARG:HD2	9:K:51:LEU:HD22	1.83	0.59
1:A:49:LYS:HD3	1:A:54:ASN:O	2.03	0.59
1:A:528:LEU:HD23	1:A:751:SER:HB3	1.85	0.59
2:B:555:ILE:HD13	2:B:587:HIS:NE2	2.18	0.59
2:B:770:GLN:HB2	2:B:985:GLY:H	1.66	0.59
5:F:118:LEU:O	5:F:122:MET:HG3	2.03	0.59
1:A:548:ASN:OD1	9:K:60:ALA:HB1	2.03	0.59
1:A:993:LEU:HD22	1:A:1046:LEU:HD22	1.85	0.59
2:B:280:ILE:HD13	2:B:334:ILE:HG12	1.85	0.59
2:B:871:THR:O	2:B:917:PRO:HD2	2.02	0.59
5:F:111:LEU:N	5:F:111:LEU:HD12	2.14	0.59
6:H:24:CYS:SG	6:H:44:VAL:HG21	2.42	0.59
10:L:47:ARG:HG2	10:L:52:GLY:HA2	1.85	0.59
1:A:1436:ILE:O	1:A:1437:GLY:C	2.41	0.58
1:A:533:LYS:HE2	1:A:745:GLN:NE2	2.13	0.58
2:B:1148:LYS:HG2	2:B:1152:MET:HE3	1.85	0.58
2:B:1162:ILE:CD1	2:B:1194:ILE:HD13	2.32	0.58
2:B:29:ASP:CB	2:B:658:ILE:HD13	2.31	0.58
3:C:32:SER:O	3:C:36:VAL:HG23	2.03	0.58
5:F:81:THR:HG22	5:F:136:ARG:HH11	1.66	0.58
2:B:996:ARG:HG3	2:B:1007:VAL:HG11	1.85	0.58
2:B:841:MET:HG3	2:B:1010:LEU:HD12	1.84	0.58
2:B:405:ARG:HH11	2:B:632:ARG:HG2	1.60	0.58
2:B:976:ILE:O	2:B:990:ILE:O	2.20	0.58
2:B:1084:GLN:HG2	3:C:201:TRP:CZ2	2.38	0.58
3:C:145:CYS:SG	3:C:146:LYS:N	2.76	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:102:TYR:O	6:H:103:LYS:HG3	2.03	0.58
1:A:741:ASN:HD21	1:A:743:VAL:HB	1.69	0.58
2:B:484:ASN:OD1	2:B:486:TYR:CE1	2.56	0.58
1:A:1144:LYS:HG3	1:A:1268:LEU:O	2.03	0.58
1:A:337:ARG:NH2	1:A:1403:GLU:HA	2.18	0.58
1:A:686:ALA:O	1:A:690:VAL:HG23	2.04	0.58
1:A:68:GLN:HE22	1:A:80:HIS:CB	2.16	0.58
2:B:680:THR:HG22	2:B:682:SER:N	2.18	0.58
2:B:879:ARG:HH11	2:B:883:LEU:HB3	1.67	0.58
1:A:537:ARG:HB2	6:H:20:TYR:HE2	1.68	0.58
10:L:49:LYS:O	10:L:50:ASP:HB2	2.03	0.58
1:A:184:SER:HB3	1:A:199:LEU:HD21	1.85	0.58
2:B:1139:ILE:HG13	2:B:1147:LEU:HD11	1.85	0.58
3:C:22:LEU:O	3:C:227:THR:HA	2.04	0.58
4:E:157:SER:OG	4:E:160:GLU:HG3	2.04	0.58
1:A:1342:GLU:HG3	4:E:198:ILE:HD13	1.85	0.58
7:I:40:SER:HB2	7:I:41:PRO:HD2	1.86	0.58
1:A:1383:SER:HB3	1:A:1387:HIS:NE2	2.19	0.58
2:B:100:PRO:HA	2:B:125:SER:O	2.03	0.58
9:K:82:ASP:OD1	9:K:84:LYS:HG3	2.04	0.58
1:A:474:VAL:O	1:A:477:PRO:HD2	2.03	0.58
2:B:234:ILE:N	2:B:234:ILE:HD12	2.19	0.58
1:A:185:TRP:HZ3	1:A:200:ARG:HG2	1.69	0.58
2:B:1177:HIS:HB2	2:B:1179:GLN:HG3	1.86	0.58
8:J:7:CYS:SG	8:J:49:MET:HE3	2.44	0.58
1:A:1293:SER:OG	1:A:1294:PRO:HD2	2.04	0.58
1:A:1364:ASN:HD21	1:A:1366:ARG:NH1	2.01	0.58
1:A:225:ASN:HD22	1:A:228:PHE:HD1	1.51	0.58
1:A:567:LYS:HE3	6:H:46:LEU:CD1	2.34	0.58
1:A:1424:VAL:HA	1:A:1434:ALA:HB2	1.85	0.57
2:B:1060:ARG:O	2:B:1060:ARG:HD2	2.04	0.57
2:B:542:MET:HG3	2:B:747:MET:HE1	1.86	0.57
2:B:859:TYR:CD1	2:B:859:TYR:N	2.72	0.57
1:A:1138:ILE:CG2	1:A:1279:ILE:HG21	2.34	0.57
1:A:1376:THR:O	1:A:1378:GLN:N	2.37	0.57
1:A:886:ILE:HD11	1:A:943:LEU:HB3	1.85	0.57
2:B:780:VAL:HG21	8:J:56:LEU:CD1	2.34	0.57
1:A:500:GLU:OE2	1:A:1438:THR:HG21	2.04	0.57
2:B:780:VAL:CG2	2:B:799:PRO:HG2	2.34	0.57
3:C:51:VAL:HG11	3:C:60:ASP:OD2	2.03	0.57
1:A:1308:THR:CG2	1:A:1310:GLY:O	2.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:16:PHE:CZ	4:E:20:LYS:HE2	2.40	0.57
10:L:27:LEU:HD13	10:L:37:LYS:CB	2.34	0.57
1:A:151:ASP:OD1	1:A:163:SER:HA	2.05	0.57
1:A:444:PHE:HE2	1:A:470:LEU:CD2	2.18	0.57
1:A:713:SER:O	1:A:717:ASN:ND2	2.38	0.57
1:A:878:ILE:CG2	1:A:955:PRO:HB2	2.35	0.57
2:B:282:ILE:HD11	2:B:317:CYS:SG	2.45	0.57
2:B:43:LEU:HD11	2:B:811:TYR:O	2.05	0.57
5:F:77:ASP:O	5:F:78:GLN:CB	2.52	0.57
7:I:8:ARG:O	7:I:9:ASP:HB2	2.04	0.57
9:K:12:LEU:HD12	9:K:12:LEU:H	1.69	0.57
1:A:666:ILE:CD1	2:B:1030:LEU:HD22	2.34	0.57
1:A:1169:ILE:O	1:A:1173:HIS:CD2	2.57	0.57
1:A:518:LYS:HB2	1:A:519:PRO:CD	2.26	0.57
1:A:575:LYS:HB3	1:A:612:ILE:CG2	2.34	0.57
1:A:693:VAL:HG21	1:A:721:PHE:HE1	1.68	0.57
2:B:484:ASN:ND2	2:B:486:TYR:CD1	2.72	0.57
2:B:802:PRO:HA	2:B:822:ASN:HD21	1.70	0.57
10:L:36:SER:O	10:L:38:LEU:N	2.38	0.57
1:A:407:ARG:HG2	1:A:430:TRP:CZ2	2.39	0.57
2:B:1177:HIS:HB2	2:B:1179:GLN:HE21	1.70	0.57
2:B:98:THR:O	2:B:126:SER:HB2	2.05	0.57
4:E:84:ASP:O	4:E:86:PRO:HD3	2.05	0.57
10:L:63:ARG:O	10:L:64:LEU:O	2.22	0.57
1:A:907:THR:CG2	1:A:908:LEU:H	2.15	0.57
2:B:332:ASP:O	2:B:334:ILE:N	2.37	0.57
2:B:882:THR:HB	2:B:934:LYS:O	2.05	0.57
3:C:148:ARG:CG	3:C:149:LYS:H	2.17	0.57
1:A:789:LYS:HE3	7:I:67:THR:OG1	2.05	0.57
1:A:474:VAL:HG13	1:A:478:TYR:CD1	2.40	0.57
2:B:693:ILE:HD11	2:B:740:HIS:NE2	2.19	0.57
2:B:737:THR:HG23	7:I:66:PRO:CB	2.35	0.57
2:B:30:SER:HB2	2:B:743:ILE:O	2.05	0.57
6:H:12:VAL:HA	6:H:28:ALA:HB2	1.86	0.57
1:A:1364:ASN:ND2	1:A:1366:ARG:CG	2.52	0.56
1:A:782:ARG:NH1	1:A:785:PRO:HA	2.20	0.56
1:A:1293:SER:HB2	1:A:1299:VAL:HG23	1.87	0.56
1:A:172:PRO:HB3	1:A:185:TRP:CZ2	2.40	0.56
1:A:842:VAL:O	1:A:846:GLU:HB2	2.05	0.56
2:B:726:ALA:HB1	2:B:1051:THR:HG21	1.87	0.56
6:H:89:LEU:C	6:H:91:ASP:N	2.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:K:73:LEU:HD22	9:K:75:ILE:HG13	1.87	0.56
1:A:1146:VAL:HG11	1:A:1202:MET:SD	2.45	0.56
1:A:93:VAL:CG2	1:A:301:ALA:HA	2.34	0.56
1:A:979:SER:OG	1:A:981:LEU:HB2	2.05	0.56
9:K:63:VAL:O	9:K:63:VAL:CG2	2.53	0.56
1:A:1195:LEU:HD11	1:A:1267:MET:CE	2.35	0.56
1:A:347:PHE:CZ	2:B:1109:GLY:HA2	2.40	0.56
1:A:757:ASN:HA	2:B:1021:MET:HE1	1.87	0.56
2:B:463:THR:CG2	2:B:465:ASN:HD22	2.18	0.56
2:B:69:LEU:HD21	2:B:425:THR:HG23	1.85	0.56
3:C:41:ILE:HD11	3:C:247:GLY:CA	2.35	0.56
5:F:93:ILE:HD11	5:F:134:ILE:HD11	1.87	0.56
1:A:1074:GLU:N	1:A:1075:PRO:HD2	2.20	0.56
8:J:14:VAL:HG12	8:J:14:VAL:O	2.05	0.56
1:A:32:VAL:CB	1:A:57:ARG:HD2	2.35	0.56
2:B:521:LEU:HD21	2:B:635:ARG:HD3	1.88	0.56
2:B:764:SER:HB3	2:B:765:PRO:CD	2.36	0.56
1:A:442:VAL:CG2	1:A:489:LEU:HD11	2.36	0.56
1:A:443:LEU:HD13	1:A:455:MET:CE	2.35	0.56
1:A:49:LYS:HB3	1:A:55:ASP:CB	2.27	0.56
1:A:858:ASN:HD22	1:A:858:ASN:C	2.08	0.56
2:B:984:HIS:CD2	2:B:1025:HIS:HA	2.40	0.56
3:C:11:ARG:NH2	3:C:229:TYR:CD2	2.73	0.56
4:E:76:GLY:H	4:E:106:GLN:CD	2.08	0.56
7:I:73:ARG:H	7:I:83:ASN:ND2	2.04	0.56
9:K:51:LEU:HD13	9:K:59:ALA:HB3	1.88	0.56
1:A:108:MET:SD	1:A:210:ILE:HD13	2.46	0.56
1:A:276:LEU:HD11	1:A:293:GLU:HG3	1.87	0.56
4:E:46:TYR:HE2	4:E:58:MET:HA	1.69	0.56
2:B:120:ARG:CZ	10:L:54:ARG:HH12	2.18	0.56
1:A:283:GLY:O	1:A:285:PRO:HD3	2.06	0.56
1:A:567:LYS:HD2	1:A:568:PRO:CD	2.34	0.56
1:A:715:GLU:OE1	1:A:774:ARG:HD3	2.05	0.56
1:A:901:LEU:HA	1:A:907:THR:CG2	2.35	0.56
2:B:1002:THR:HG23	2:B:1004:GLU:N	2.19	0.56
2:B:642:ASP:CB	2:B:649:LYS:HA	2.35	0.56
3:C:40:GLU:OE1	3:C:254:LYS:HE3	2.06	0.56
1:A:146:MET:HA	1:A:171:GLN:HB2	1.88	0.56
1:A:187:LYS:CB	1:A:194:ALA:HB1	2.29	0.56
1:A:265:LYS:NZ	1:A:323:LYS:H	2.03	0.56
1:A:399:HIS:O	1:A:435:HIS:HD2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:69:LEU:HD13	2:B:432:MET:HE1	1.87	0.56
1:A:1015:VAL:HG12	1:A:1019:CYS:SG	2.46	0.56
1:A:1035:TYR:O	1:A:1037:LEU:N	2.39	0.56
1:A:590:ARG:HH21	1:A:620:LYS:HD3	1.70	0.56
2:B:31:TRP:CD1	2:B:807:ARG:NH1	2.74	0.56
2:B:484:ASN:HB2	2:B:494:HIS:ND1	2.20	0.56
2:B:706:GLN:HE22	2:B:730:ARG:NH1	2.04	0.56
1:A:84:ILE:CG2	1:A:239:LEU:HB3	2.35	0.55
2:B:1148:LYS:CG	2:B:1152:MET:HE3	2.35	0.55
2:B:305:VAL:HG12	2:B:305:VAL:O	2.06	0.55
3:C:18:VAL:HG23	3:C:240:VAL:HG11	1.86	0.55
1:A:1431:GLY:HA2	2:B:1152:MET:HE1	1.89	0.55
1:A:768:GLN:CG	1:A:816:HIS:HA	2.36	0.55
2:B:616:ILE:N	2:B:616:ILE:HD12	2.20	0.55
2:B:957:ASN:HD22	2:B:961:LEU:CD1	2.14	0.55
2:B:770:GLN:HB2	2:B:985:GLY:N	2.21	0.55
1:A:1384:VAL:O	1:A:1386:ARG:N	2.40	0.55
1:A:1390:ASN:O	1:A:1391:ARG:CB	2.54	0.55
2:B:1182:CYS:C	2:B:1183:LYS:HG3	2.27	0.55
2:B:784:ASN:O	2:B:788:ARG:HG3	2.07	0.55
1:A:369:SER:HB3	9:K:2:ASN:OD1	2.06	0.55
2:B:54:PHE:HA	2:B:58:THR:CB	2.34	0.55
2:B:751:VAL:HG13	2:B:812:LEU:HD22	1.89	0.55
2:B:864:LYS:HD3	2:B:871:THR:CA	2.37	0.55
2:B:999:MET:HA	2:B:999:MET:CE	2.37	0.55
1:A:792:TYR:CE1	7:I:87:GLN:NE2	2.75	0.55
1:A:1155:ASP:OD1	1:A:1162:VAL:HG23	2.06	0.55
1:A:207:ILE:HG22	1:A:235:ILE:HD11	1.89	0.55
1:A:445:ASN:HB2	1:A:454:SER:O	2.06	0.55
2:B:549:THR:CG2	2:B:550:ASP:N	2.69	0.55
2:B:787:VAL:O	2:B:787:VAL:CG1	2.54	0.55
3:C:39:ALA:HA	3:C:164:ALA:HB3	1.88	0.55
9:K:33:ILE:CD1	9:K:87:LEU:HD22	2.37	0.55
1:A:1264:GLU:HG3	1:A:1265:ASN:N	2.20	0.55
1:A:767:GLN:NE2	1:A:774:ARG:HB3	2.20	0.55
2:B:1166:CYS:HB2	2:B:1215:ARG:HH11	1.70	0.55
2:B:979:LYS:HE2	2:B:987:LYS:HD2	1.88	0.55
1:A:381:THR:CG2	1:A:383:TYR:CD1	2.89	0.55
2:B:393:LYS:HE2	2:B:621:GLU:CD	2.27	0.55
4:E:168:TYR:HB3	4:E:170:LEU:HD21	1.88	0.55
7:I:10:CYS:O	7:I:12:ASN:N	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:J:14:VAL:HG12	8:J:50:ILE:HD11	1.89	0.55
1:A:630:ILE:HD13	1:A:646:PHE:CZ	2.42	0.55
2:B:38:PHE:HZ	2:B:541:LEU:HB3	1.71	0.55
2:B:542:MET:HG3	2:B:747:MET:CE	2.37	0.55
1:A:483:ASP:HB2	2:B:987:LYS:HG3	1.89	0.55
2:B:168:GLY:HA2	2:B:454:THR:OG1	2.07	0.55
2:B:861:ASP:OD1	2:B:862:GLN:N	2.40	0.55
3:C:73:GLN:HE21	3:C:75:MET:HB2	1.71	0.55
4:E:71:LYS:HB3	4:E:72:PHE:CE1	2.41	0.55
1:A:974:ASP:HB2	6:H:136:LYS:HZ1	1.72	0.55
1:A:690:VAL:HG13	1:A:718:VAL:HG13	1.89	0.55
2:B:220:GLY:HA2	2:B:241:ARG:HB3	1.89	0.55
2:B:693:ILE:HD11	2:B:740:HIS:CD2	2.42	0.55
2:B:806:THR:CG2	2:B:808:ALA:H	2.08	0.55
3:C:101:LEU:HD13	3:C:118:LEU:CD1	2.36	0.55
5:F:90:ARG:HD3	5:F:155:LEU:CD1	2.37	0.55
2:B:903:VAL:CG1	10:L:63:ARG:HH21	2.18	0.55
1:A:381:THR:HG21	1:A:383:TYR:CE1	2.43	0.54
1:A:523:ILE:CD1	1:A:649:ILE:HG21	2.37	0.54
1:A:78:PRO:O	1:A:79:GLY:C	2.46	0.54
2:B:370:PHE:HD2	2:B:373:ARG:HD2	1.70	0.54
3:C:129:ILE:O	3:C:130:GLY:O	2.24	0.54
4:E:147:HIS:HB3	4:E:150:VAL:HG23	1.88	0.54
4:E:192:ARG:HH11	4:E:192:ARG:HG3	1.72	0.54
9:K:63:VAL:HG23	9:K:63:VAL:O	2.05	0.54
1:A:1202:MET:O	1:A:1205:LYS:O	2.24	0.54
2:B:1197:PRO:HG2	2:B:1200:ALA:HB2	1.89	0.54
2:B:165:VAL:CG1	2:B:446:LEU:HD21	2.37	0.54
2:B:579:ARG:HG3	2:B:581:PHE:HE1	1.73	0.54
2:B:705:MET:N	2:B:710:LEU:HD12	2.22	0.54
2:B:1022:THR:HG23	2:B:1022:THR:O	2.08	0.54
2:B:108:VAL:HG12	2:B:109:THR:N	2.22	0.54
2:B:242:SER:OG	2:B:252:SER:O	2.25	0.54
3:C:73:GLN:NE2	3:C:75:MET:H	2.04	0.54
4:E:166:LYS:NZ	4:E:167:ARG:HH21	2.04	0.54
2:B:597:MET:SD	2:B:624:LEU:HD11	2.48	0.54
2:B:654:ARG:C	2:B:656:GLY:H	2.11	0.54
2:B:813:LYS:HA	2:B:816:GLU:OE1	2.07	0.54
3:C:36:VAL:HG21	3:C:251:LEU:HB2	1.88	0.54
1:A:557:ASP:HA	9:K:26:LYS:HD2	1.90	0.54
1:A:25:GLU:CD	1:A:25:GLU:H	2.10	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:763:ALA:O	1:A:803:SER:HB3	2.08	0.54
1:A:1009:ASN:OD1	1:A:1012:ARG:NH1	2.41	0.54
1:A:845:LEU:O	1:A:1065:GLY:HA3	2.07	0.54
2:B:1065:GLN:O	2:B:1065:GLN:HG3	2.06	0.54
2:B:1177:HIS:CB	2:B:1179:GLN:HE21	2.21	0.54
2:B:1182:CYS:O	2:B:1183:LYS:O	2.26	0.54
2:B:288:ALA:HB1	2:B:331:LEU:CD1	2.37	0.54
2:B:551:PRO:O	2:B:555:ILE:HG13	2.08	0.54
4:E:93:MET:O	4:E:97:VAL:HG23	2.08	0.54
6:H:76:THR:HG22	6:H:76:THR:O	2.08	0.54
8:J:14:VAL:CG1	8:J:50:ILE:HD11	2.38	0.54
1:A:1191:TRP:CD1	1:A:1256:GLU:HB2	2.42	0.54
1:A:1323:ASP:OD1	1:A:1325:THR:HB	2.08	0.54
1:A:31:SER:HB2	1:A:83:HIS:HB2	1.88	0.54
1:A:383:TYR:O	1:A:384:ASN:HB3	2.06	0.54
1:A:412:ARG:NE	2:B:1110:PRO:HG3	2.22	0.54
2:B:864:LYS:HB3	2:B:871:THR:HA	1.89	0.54
3:C:253:LYS:O	3:C:256:ALA:HB3	2.08	0.54
10:L:32:ALA:HB3	10:L:55:ILE:CD1	2.38	0.54
1:A:268:ASP:HB3	1:A:299:HIS:ND1	2.23	0.54
3:C:51:VAL:HG22	3:C:155:LEU:HD22	1.88	0.54
3:C:84:ARG:CD	9:K:11:LEU:HD21	2.38	0.54
6:H:7:ASP:O	6:H:8:ASP:HB2	2.07	0.54
1:A:1220:PHE:O	1:A:1223:ASP:OD1	2.26	0.54
1:A:40:THR:HG21	1:A:259:GLU:OE2	2.07	0.54
1:A:573:SER:O	1:A:576:GLN:HB2	2.07	0.54
1:A:626:ASN:O	1:A:631:HIS:CD2	2.61	0.54
1:A:682:THR:CG2	1:A:728:LYS:HG3	2.38	0.54
1:A:855:THR:CG2	1:A:857:ARG:HE	2.20	0.54
1:A:963:ILE:HD12	1:A:1049:ILE:HG12	1.89	0.54
2:B:324:ILE:HG23	2:B:329:THR:HB	1.90	0.54
3:C:173:ALA:O	3:C:175:ALA:N	2.40	0.54
5:F:81:THR:HG21	5:F:136:ARG:HH11	1.73	0.54
2:B:954:VAL:O	10:L:55:ILE:O	2.26	0.54
1:A:460:VAL:HG12	1:A:461:LYS:N	2.22	0.54
1:A:470:LEU:HD21	1:A:487:MET:HE3	1.89	0.54
2:B:642:ASP:HB2	2:B:649:LYS:HA	1.90	0.54
2:B:67:SER:HB2	2:B:92:PHE:HD1	1.73	0.54
2:B:850:LEU:HG	2:B:851:PHE:HD1	1.71	0.54
7:I:10:CYS:SG	7:I:31:THR:HG21	2.48	0.54
1:A:383:TYR:HB2	5:F:115:THR:HG23	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:126:SER:OG	2:B:172:ILE:HD11	2.07	0.53
3:C:148:ARG:HG2	3:C:149:LYS:H	1.73	0.53
1:A:1284:MET:HG2	1:A:1306:LEU:CD2	2.38	0.53
1:A:882:SER:HB3	1:A:953:ASN:OD1	2.08	0.53
2:B:167:ILE:HD13	2:B:424:LEU:CD2	2.38	0.53
2:B:46:GLN:HE22	2:B:496:ARG:HD3	1.72	0.53
2:B:702:LEU:HD23	2:B:737:THR:HG22	1.89	0.53
8:J:64:ASN:HB3	8:J:65:PRO:CD	2.37	0.53
1:A:13:THR:HG23	1:A:1432:GLN:CD	2.29	0.53
1:A:313:GLN:HB2	1:A:320:ARG:CB	2.27	0.53
2:B:998:ASP:OD1	3:C:35:ARG:NH2	2.41	0.53
1:A:375:THR:HG23	1:A:376:TYR:N	2.22	0.53
1:A:556:TRP:CH2	1:A:558:GLY:HA2	2.44	0.53
2:B:1172:ILE:O	2:B:1180:PHE:O	2.26	0.53
2:B:1079:LYS:CA	3:C:27:LEU:HD21	2.38	0.53
4:E:19:VAL:O	4:E:23:VAL:HG23	2.06	0.53
6:H:44:VAL:O	6:H:44:VAL:HG12	2.08	0.53
7:I:70:ARG:HG2	7:I:84:VAL:HG23	1.90	0.53
1:A:575:LYS:HB3	1:A:612:ILE:HG23	1.91	0.53
2:B:800:GLN:CB	8:J:52:THR:HG22	2.38	0.53
6:H:31:THR:O	6:H:32:THR:CB	2.55	0.53
1:A:337:ARG:HG2	1:A:341:MET:HE2	1.91	0.53
1:A:528:LEU:O	1:A:531:ILE:HG22	2.08	0.53
1:A:896:ARG:HB3	1:A:897:TYR:HD1	1.72	0.53
2:B:737:THR:HG23	2:B:737:THR:O	2.09	0.53
3:C:31:ASN:O	3:C:35:ARG:HG3	2.07	0.53
1:A:1342:GLU:CD	4:E:212:ARG:HH12	2.11	0.53
1:A:1206:ASP:HB2	1:A:1274:ARG:NH1	2.24	0.53
1:A:326:ARG:CZ	1:A:1406:VAL:HG11	2.38	0.53
1:A:187:LYS:HB2	1:A:194:ALA:CB	2.32	0.53
1:A:2:VAL:HG21	2:B:1157:ALA:CB	2.31	0.53
2:B:135:ARG:O	2:B:136:THR:HB	2.09	0.53
2:B:178:ASN:O	2:B:179:CYS:C	2.46	0.53
2:B:244:LEU:O	2:B:249:ARG:HG2	2.09	0.53
2:B:957:ASN:O	2:B:959:ASP:N	2.42	0.53
8:J:7:CYS:CA	8:J:49:MET:HE3	2.39	0.53
1:A:568:PRO:HB2	3:C:221:TYR:CE1	2.44	0.53
1:A:622:VAL:HG22	1:A:622:VAL:O	2.09	0.53
2:B:1183:LYS:C	2:B:1185:CYS:H	2.09	0.53
2:B:185:THR:O	2:B:189:LEU:HG	2.09	0.53
2:B:893:LEU:HD22	2:B:897:GLY:C	2.29	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:242:GLN:NE2	3:C:246:ARG:HE	2.06	0.53
4:E:124:VAL:HA	4:E:132:ILE:HD12	1.90	0.53
6:H:83:GLN:C	6:H:85:GLY:H	2.12	0.53
1:A:517:ASN:O	1:A:517:ASN:OD1	2.27	0.53
1:A:878:ILE:HG21	1:A:955:PRO:HB2	1.91	0.53
2:B:1065:GLN:HE21	2:B:1067:ARG:N	2.01	0.53
2:B:25:ILE:HD11	2:B:653:VAL:HG12	1.91	0.53
2:B:512:ARG:NH2	2:B:535:LEU:HD11	2.24	0.53
2:B:873:THR:HG22	2:B:874:PHE:N	2.23	0.53
3:C:22:LEU:HD12	3:C:230:MET:HE3	1.90	0.53
8:J:12:LYS:O	8:J:14:VAL:HG23	2.09	0.53
8:J:18:TRP:O	8:J:21:TYR:HB3	2.08	0.53
3:C:66:ARG:CZ	8:J:2:ILE:HG21	2.39	0.53
1:A:1394:THR:CG2	1:A:1395:GLY:H	2.12	0.53
1:A:337:ARG:HH22	1:A:1403:GLU:N	2.06	0.53
1:A:779:PHE:CZ	1:A:785:PRO:HD3	2.44	0.53
2:B:897:GLY:O	2:B:898:LEU:HD23	2.09	0.53
3:C:241:ASP:HB3	9:K:109:TRP:CE2	2.44	0.53
1:A:55:ASP:N	1:A:56:PRO:HD2	2.24	0.52
1:A:685:GLU:HA	1:A:688:LYS:HD2	1.90	0.52
1:A:751:SER:O	1:A:752:LYS:CB	2.56	0.52
2:B:970:THR:HG22	2:B:971:THR:H	1.72	0.52
5:F:109:VAL:HG23	5:F:124:GLU:HG2	1.91	0.52
1:A:451:HIS:NE2	1:A:1074:GLU:HG3	2.25	0.52
1:A:1208:THR:O	1:A:1212:VAL:HG23	2.09	0.52
1:A:783:THR:HG21	1:A:815:PHE:HZ	1.74	0.52
1:A:996:ASN:O	1:A:997:LEU:C	2.47	0.52
2:B:23:ALA:HB1	2:B:24:PRO:HD2	1.92	0.52
3:C:89:GLU:O	3:C:90:ASP:CB	2.57	0.52
6:H:95:TYR:HB3	6:H:144:ILE:HB	1.91	0.52
8:J:7:CYS:CB	8:J:49:MET:HE3	2.38	0.52
1:A:1364:ASN:HD22	1:A:1366:ARG:N	2.07	0.52
1:A:569:LYS:HG2	1:A:571:LEU:HD13	1.92	0.52
1:A:855:THR:HG22	1:A:857:ARG:HG3	1.91	0.52
1:A:902:LEU:HD23	1:A:921:GLY:HA2	1.91	0.52
1:A:879:GLU:OE2	1:A:962:ARG:NH2	2.43	0.52
2:B:547:VAL:N	2:B:612:GLU:OE2	2.41	0.52
2:B:650:GLU:HG3	2:B:651:LEU:N	2.24	0.52
3:C:109:SER:O	3:C:110:THR:HB	2.08	0.52
4:E:88:VAL:HG11	4:E:110:PHE:HE2	1.73	0.52
6:H:126:GLU:C	6:H:130:ARG:NH1	2.62	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:31:THR:O	6:H:32:THR:HB	2.10	0.52
1:A:412:ARG:HH21	2:B:1110:PRO:HD3	1.73	0.52
1:A:715:GLU:O	1:A:719:VAL:HG23	2.08	0.52
2:B:1207:LEU:O	2:B:1212:ILE:HB	2.09	0.52
2:B:244:LEU:HD11	2:B:366:GLN:NE2	2.24	0.52
2:B:616:ILE:CG1	2:B:697:GLU:HA	2.39	0.52
2:B:616:ILE:HG12	2:B:697:GLU:HA	1.90	0.52
2:B:914:LYS:O	2:B:937:ALA:O	2.27	0.52
1:A:1072:ILE:HD11	1:A:1368:MET:HA	1.92	0.52
1:A:148:CYS:HB3	1:A:167:CYS:O	2.09	0.52
1:A:306:ASN:OD1	1:A:312:PRO:HD2	2.10	0.52
2:B:63:ILE:HA	2:B:421:PHE:CE2	2.44	0.52
2:B:547:VAL:H	2:B:612:GLU:CD	2.12	0.52
5:F:76:LYS:O	5:F:79:ARG:HD3	2.08	0.52
7:I:59:VAL:HG12	7:I:60:GLN:N	2.24	0.52
1:A:1161:THR:HG21	1:A:1163:ILE:HB	1.92	0.52
1:A:1375:MET:HG3	1:A:1382:THR:O	2.10	0.52
1:A:152:VAL:HG13	1:A:153:PRO:HD2	1.91	0.52
1:A:901:LEU:H	1:A:926:GLN:NE2	2.07	0.52
2:B:596:LEU:HD12	2:B:596:LEU:O	2.09	0.52
2:B:890:TYR:O	2:B:893:LEU:HB2	2.09	0.52
3:C:162:GLY:HA3	3:C:170:TRP:CD2	2.45	0.52
1:A:899:VAL:CG2	1:A:1029:ARG:HG2	2.40	0.52
1:A:167:CYS:SG	1:A:167:CYS:O	2.68	0.52
2:B:1051:THR:CG2	2:B:1053:GLU:HB2	2.39	0.52
3:C:133:ILE:CD1	3:C:237:SER:HA	2.39	0.52
8:J:31:ASP:OD1	8:J:34:THR:HB	2.10	0.52
10:L:48:CYS:HB3	10:L:51:CYS:O	2.10	0.52
1:A:500:GLU:O	1:A:504:LEU:HB2	2.10	0.52
2:B:60:GLN:HA	2:B:95:ILE:HD12	1.91	0.52
3:C:121:VAL:HG12	3:C:121:VAL:O	2.10	0.52
5:F:109:VAL:HG12	5:F:110:ASP:N	2.25	0.52
1:A:384:ASN:OD1	1:A:388:LEU:HD12	2.09	0.52
1:A:503:GLN:HE21	5:F:90:ARG:HH21	1.58	0.52
2:B:324:ILE:HD11	2:B:333:PHE:CD1	2.45	0.52
2:B:393:LYS:CE	2:B:621:GLU:OE1	2.58	0.52
2:B:792:MET:HA	2:B:856:PHE:O	2.09	0.52
2:B:864:LYS:N	2:B:872:GLU:OE1	2.43	0.52
3:C:261:ALA:HA	3:C:264:GLN:OE1	2.09	0.52
5:F:133:VAL:HG22	5:F:147:SER:HA	1.91	0.52
6:H:89:LEU:O	6:H:91:ASP:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:392:ARG:HH21	7:I:52:ILE:HD11	1.74	0.52
1:A:1242:VAL:HG12	1:A:1243:VAL:N	2.22	0.52
1:A:313:GLN:HG2	1:A:322:VAL:HG23	1.92	0.52
1:A:493:GLN:HE21	1:A:493:GLN:CA	2.23	0.52
1:A:519:PRO:HD3	1:A:631:HIS:CD2	2.45	0.52
1:A:801:GLU:HG3	1:A:801:GLU:O	2.10	0.52
2:B:1013:ASN:OD1	2:B:1015:HIS:HB2	2.10	0.52
2:B:115:GLN:HG2	2:B:193:LYS:CB	2.40	0.52
2:B:167:ILE:HG12	2:B:448:ILE:HG21	1.92	0.52
2:B:557:PHE:HZ	2:B:599:THR:HG21	1.74	0.52
2:B:402:GLY:CA	2:B:695:ALA:HB3	2.39	0.52
3:C:205:LYS:O	3:C:205:LYS:HG2	2.10	0.52
3:C:22:LEU:HD22	3:C:25:VAL:HG21	1.92	0.52
1:A:517:ASN:HD22	1:A:1362:TYR:HE2	1.58	0.51
2:B:31:TRP:CE3	2:B:34:ILE:HD12	2.45	0.51
2:B:850:LEU:HG	2:B:851:PHE:CD1	2.46	0.51
2:B:605:ARG:NH1	2:B:639:ILE:HG21	2.25	0.51
3:C:134:ILE:HG23	3:C:136:ASP:OD1	2.09	0.51
6:H:91:ASP:C	6:H:93:TYR:H	2.14	0.51
7:I:73:ARG:H	7:I:83:ASN:HD22	1.59	0.51
1:A:1286:LYS:HE3	1:A:1304:TRP:CE2	2.44	0.51
1:A:37:PHE:HB2	1:A:52:GLY:HA3	1.93	0.51
2:B:914:LYS:H	2:B:938:SER:HB3	1.75	0.51
6:H:81:PRO:HB2	6:H:82:PRO:CD	2.41	0.51
7:I:75:CYS:HB3	7:I:110:PHE:CE2	2.46	0.51
1:A:369:SER:CB	9:K:2:ASN:HD21	2.23	0.51
1:A:105:CYS:O	1:A:114:LEU:HG	2.11	0.51
1:A:1107:VAL:HG12	1:A:1107:VAL:O	2.10	0.51
1:A:1289:ARG:O	1:A:1291:VAL:HG23	2.10	0.51
1:A:380:VAL:CG1	1:A:385:ILE:HG12	2.40	0.51
1:A:407:ARG:HG2	1:A:430:TRP:CE2	2.46	0.51
1:A:442:VAL:HB	1:A:489:LEU:HD11	1.93	0.51
2:B:1037:LEU:HD21	2:B:1064:TYR:HE1	1.74	0.51
2:B:846:ILE:HG23	2:B:974:PRO:CG	2.22	0.51
7:I:55:THR:HG23	7:I:58:VAL:CG2	2.41	0.51
3:C:52:GLU:HA	10:L:64:LEU:HD22	1.92	0.51
1:A:849:MET:HE1	1:A:1061:GLY:HA2	1.91	0.51
1:A:1222:ASN:O	1:A:1223:ASP:HB3	2.09	0.51
1:A:98:LYS:CE	1:A:1411:GLU:HG2	2.41	0.51
2:B:955:THR:CG2	2:B:956:THR:N	2.45	0.51
3:C:55:THR:O	3:C:55:THR:HG22	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1143:LEU:HA	1:A:1273:LEU:CD2	2.41	0.51
1:A:549:MET:SD	1:A:577:ILE:HD11	2.51	0.51
1:A:682:THR:HG21	1:A:728:LYS:HG3	1.91	0.51
2:B:23:ALA:HB3	2:B:655:LYS:HE2	1.92	0.51
2:B:46:GLN:HE22	2:B:496:ARG:HA	1.76	0.51
2:B:549:THR:HB	2:B:628:THR:CG2	2.40	0.51
1:A:806:ARG:NH1	2:B:729:ILE:HD11	2.25	0.51
2:B:63:ILE:CB	2:B:95:ILE:HD11	2.41	0.51
4:E:144:ILE:HG13	4:E:145:THR:N	2.25	0.51
5:F:72:LYS:N	5:F:142:SER:HA	2.25	0.51
7:I:7:CYS:SG	7:I:8:ARG:O	2.68	0.51
1:A:1286:LYS:HE3	1:A:1304:TRP:CZ2	2.46	0.51
1:A:329:LEU:HD11	2:B:1210:MET:CE	2.41	0.51
1:A:873:MET:O	1:A:1058:VAL:HG23	2.11	0.51
1:A:993:LEU:HD22	1:A:1046:LEU:CD2	2.40	0.51
2:B:640:VAL:HG22	2:B:651:LEU:CD2	2.39	0.51
2:B:710:LEU:O	2:B:711:GLU:OE1	2.28	0.51
5:F:81:THR:HG21	5:F:136:ARG:CD	2.40	0.51
1:A:108:MET:O	1:A:109:HIS:CB	2.59	0.51
1:A:596:THR:C	1:A:598:LEU:N	2.64	0.51
2:B:707:PRO:HG2	2:B:708:GLU:N	2.26	0.51
2:B:841:MET:CE	2:B:1010:LEU:HD11	2.41	0.51
3:C:174:ALA:O	3:C:175:ALA:HB2	2.11	0.51
1:A:567:LYS:HE3	6:H:46:LEU:HD12	1.93	0.51
6:H:6:PHE:O	6:H:58:THR:HA	2.10	0.51
1:A:1364:ASN:ND2	1:A:1366:ARG:N	2.56	0.51
1:A:1415:SER:O	1:A:1417:GLU:N	2.44	0.51
1:A:185:TRP:CZ3	1:A:200:ARG:HG2	2.45	0.51
1:A:326:ARG:CZ	1:A:1406:VAL:CG1	2.88	0.51
1:A:709:THR:HG22	1:A:710:LEU:N	2.26	0.51
1:A:839:ARG:NE	2:B:1133:MET:HE1	2.26	0.51
1:A:1409:LEU:HD13	2:B:1207:LEU:HD21	1.93	0.51
2:B:174:LEU:HD13	2:B:204:ILE:HG13	1.92	0.51
2:B:295:GLY:O	2:B:299:GLU:HG3	2.11	0.51
2:B:315:LYS:N	2:B:316:PRO:CD	2.74	0.51
2:B:589:VAL:HG12	2:B:590:HIS:N	2.26	0.51
9:K:10:PHE:CE1	9:K:11:LEU:HD13	2.46	0.51
1:A:1199:ARG:HG2	1:A:1203:ASN:HD21	1.76	0.51
1:A:1401:SER:O	1:A:1402:PHE:HB2	2.10	0.51
2:B:408:LEU:HD11	2:B:545:ILE:HD12	1.93	0.51
2:B:579:ARG:HB2	2:B:586:TRP:NE1	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:770:GLN:HG2	2:B:983:ARG:O	2.11	0.51
7:I:78:CYS:SG	7:I:106:CYS:HB3	2.51	0.51
9:K:91:CYS:O	9:K:95:ILE:HG13	2.11	0.51
1:A:412:ARG:NH2	1:A:433:GLU:OE1	2.44	0.50
1:A:857:ARG:HG2	1:A:863:VAL:HA	1.92	0.50
2:B:652:LYS:HE3	2:B:688:GLY:O	2.11	0.50
3:C:175:ALA:HB3	8:J:43:ARG:NH1	2.26	0.50
7:I:84:VAL:CG1	7:I:84:VAL:O	2.59	0.50
1:A:648:ASN:O	1:A:652:VAL:HG23	2.11	0.50
2:B:1001:PHE:CZ	2:B:1073:TYR:HB2	2.46	0.50
2:B:1160:VAL:HG12	2:B:1161:HIS:N	2.25	0.50
2:B:562:GLY:O	2:B:563:MET:C	2.50	0.50
2:B:613:VAL:HG13	2:B:627:PHE:O	2.10	0.50
2:B:744:HIS:CD2	2:B:745:PRO:HD2	2.46	0.50
3:C:115:SER:OG	3:C:141:GLY:O	2.15	0.50
1:A:1318:THR:OG1	4:E:11:ARG:NH1	2.44	0.50
6:H:112:ILE:HD12	6:H:131:ASN:HD21	1.76	0.50
6:H:126:GLU:C	6:H:130:ARG:HH12	2.14	0.50
8:J:53:HIS:CD2	8:J:54:VAL:H	2.28	0.50
1:A:1206:ASP:HB2	1:A:1274:ARG:HH11	1.77	0.50
1:A:285:PRO:CG	1:A:288:ALA:HB3	2.41	0.50
1:A:264:PHE:CD1	1:A:315:LEU:HD22	2.46	0.50
1:A:337:ARG:HH22	1:A:1403:GLU:H	1.59	0.50
2:B:281:PRO:CG	2:B:284:ILE:HD12	2.41	0.50
4:E:23:VAL:HG12	4:E:28:TYR:HB2	1.93	0.50
4:E:96:PHE:CZ	4:E:100:ILE:HD11	2.46	0.50
6:H:10:PHE:O	6:H:54:SER:HA	2.11	0.50
1:A:541:ILE:HG12	1:A:549:MET:HE1	1.92	0.50
2:B:1107:ALA:O	2:B:1108:ARG:C	2.49	0.50
2:B:446:LEU:O	2:B:447:ALA:CB	2.59	0.50
3:C:183:TRP:HB2	3:C:185:LYS:HG3	1.94	0.50
7:I:7:CYS:HB2	7:I:29:CYS:HB2	1.93	0.50
1:A:1169:ILE:HD11	1:A:1229:SER:HB3	1.92	0.50
1:A:511:ILE:HG12	1:A:521:MET:HE2	1.92	0.50
1:A:90:VAL:HG12	1:A:91:PHE:H	1.74	0.50
2:B:167:ILE:HD13	2:B:424:LEU:HD21	1.94	0.50
3:C:175:ALA:HB3	8:J:43:ARG:NH2	2.27	0.50
7:I:31:THR:HG22	7:I:32:CYS:N	2.26	0.50
8:J:36:LEU:HD12	8:J:47:ARG:NH1	2.25	0.50
1:A:381:THR:HG23	1:A:382:PRO:HD2	1.94	0.50
1:A:392:VAL:HG13	1:A:415:LEU:CD1	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:82:GLY:CA	1:A:241:VAL:HB	2.41	0.50
2:B:116:GLU:OE1	2:B:120:ARG:NH2	2.42	0.50
2:B:259:TYR:O	2:B:267:ARG:HG2	2.12	0.50
7:I:65:ASP:C	7:I:65:ASP:OD1	2.49	0.50
1:A:1074:GLU:H	1:A:1075:PRO:HD2	1.75	0.50
1:A:1094:VAL:HA	1:A:1113:THR:HG21	1.94	0.50
1:A:1145:SER:HB2	1:A:1205:LYS:NZ	2.26	0.50
1:A:1329:THR:HG22	1:A:1330:ASN:N	2.26	0.50
1:A:260:ASP:OD2	1:A:328:ARG:NH2	2.45	0.50
1:A:515:GLN:HG3	1:A:516:SER:H	1.76	0.50
1:A:994:GLN:HE21	1:A:1019:CYS:HB3	1.75	0.50
2:B:757:PRO:HG3	2:B:1028:GLU:OE2	2.12	0.50
2:B:558:LEU:HD13	2:B:580:VAL:HG11	1.94	0.50
2:B:862:GLN:O	2:B:914:LYS:HE3	2.10	0.50
2:B:986:GLN:OE1	2:B:986:GLN:HA	2.11	0.50
6:H:130:ARG:O	6:H:133:ASN:N	2.45	0.50
6:H:83:GLN:C	6:H:85:GLY:N	2.65	0.50
1:A:166:GLY:O	1:A:167:CYS:HB3	2.12	0.50
1:A:167:CYS:C	1:A:169:ASN:H	2.15	0.50
1:A:503:GLN:HE21	5:F:90:ARG:NH2	2.10	0.50
1:A:670:ILE:HD13	2:B:1067:ARG:CZ	2.42	0.50
2:B:179:CYS:SG	2:B:181:LEU:HB2	2.52	0.50
3:C:239:PRO:O	3:C:242:GLN:HB2	2.11	0.50
6:H:5:LEU:CD1	6:H:135:LEU:HG	2.41	0.50
1:A:35:ILE:HG12	1:A:52:GLY:O	2.11	0.50
1:A:434:ARG:HH21	1:A:440:ASP:CG	2.14	0.50
2:B:361:LEU:N	2:B:362:PRO:CD	2.74	0.50
2:B:25:ILE:CD1	2:B:653:VAL:HG12	2.41	0.50
1:A:406:ILE:HD11	1:A:412:ARG:NH1	2.27	0.49
3:C:101:LEU:HD13	3:C:118:LEU:HD12	1.94	0.49
3:C:22:LEU:HD12	3:C:230:MET:CE	2.42	0.49
6:H:123:MET:HE3	6:H:142:LEU:CD2	2.38	0.49
8:J:37:SER:OG	8:J:47:ARG:NH2	2.44	0.49
1:A:1116:LEU:H	1:A:1308:THR:HG22	1.77	0.49
1:A:1376:THR:CG2	4:E:212:ARG:HH21	2.25	0.49
1:A:444:PHE:HE2	1:A:470:LEU:HD23	1.77	0.49
1:A:856:THR:HB	1:A:865:GLN:HB2	1.93	0.49
1:A:871:ASP:CG	4:E:204:THR:HG23	2.32	0.49
1:A:1066:VAL:HG11	2:B:1140:ALA:HB2	1.94	0.49
2:B:484:ASN:HD21	2:B:486:TYR:HD1	1.57	0.49
5:F:96:THR:O	5:F:99:LEU:HB3	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L:38:LEU:O	10:L:39:SER:CB	2.59	0.49
1:A:1015:VAL:CG1	1:A:1019:CYS:SG	3.00	0.49
1:A:1143:LEU:HA	1:A:1273:LEU:HD21	1.93	0.49
1:A:385:ILE:HD11	1:A:428:TYR:CE2	2.46	0.49
1:A:442:VAL:HG21	1:A:489:LEU:HD11	1.94	0.49
1:A:523:ILE:HD12	1:A:622:VAL:CG2	2.40	0.49
1:A:590:ARG:CB	1:A:605:MET:N	2.73	0.49
1:A:902:LEU:HG	1:A:926:GLN:CG	2.43	0.49
1:A:505:CYS:HB3	2:B:1141:HIS:CE1	2.47	0.49
2:B:220:GLY:O	2:B:221:ASN:HB2	2.12	0.49
4:E:213:ILE:O	4:E:213:ILE:HG23	2.12	0.49
9:K:90:ALA:O	9:K:94:ILE:HG13	2.12	0.49
1:A:24:PRO:HG2	1:A:25:GLU:CD	2.33	0.49
1:A:427:GLN:HG3	1:A:430:TRP:CZ2	2.48	0.49
1:A:54:ASN:HA	1:A:58:LEU:HD12	1.94	0.49
2:B:1103:ILE:O	2:B:1103:ILE:HG22	2.13	0.49
3:C:56:THR:CG2	3:C:57:VAL:N	2.73	0.49
3:C:248:ILE:CD1	9:K:101:LEU:HD22	2.43	0.49
1:A:1193:LEU:HD21	1:A:1267:MET:HE2	1.93	0.49
1:A:1236:LEU:O	1:A:1237:ILE:HG13	2.13	0.49
1:A:1295:THR:CG2	1:A:1297:GLU:OE1	2.60	0.49
1:A:1118:VAL:O	1:A:1305:VAL:HG13	2.13	0.49
1:A:223:GLY:O	1:A:1415:SER:HA	2.12	0.49
1:A:243:PRO:C	1:A:245:PRO:HD2	2.33	0.49
1:A:275:SER:O	1:A:279:LEU:HG	2.13	0.49
1:A:608:ILE:HD12	1:A:613:ILE:CD1	2.39	0.49
1:A:783:THR:CG2	1:A:815:PHE:CZ	2.96	0.49
1:A:871:ASP:OD1	1:A:1366:ARG:NH2	2.45	0.49
2:B:1037:LEU:HD11	2:B:1064:TYR:CD1	2.47	0.49
2:B:956:THR:HG21	2:B:960:GLY:HA2	1.95	0.49
1:A:1386:ARG:HG3	1:A:1386:ARG:O	2.12	0.49
1:A:1402:PHE:O	1:A:1404:GLU:HG3	2.13	0.49
1:A:469:ARG:HH21	2:B:976:ILE:HD13	1.78	0.49
1:A:636:GLU:OE2	1:A:962:ARG:HD2	2.13	0.49
1:A:901:LEU:H	1:A:926:GLN:HE21	1.60	0.49
1:A:757:ASN:HA	2:B:1021:MET:CE	2.43	0.49
2:B:1172:ILE:CD1	2:B:1183:LYS:HE2	2.41	0.49
2:B:228:LYS:HD3	2:B:234:ILE:HD13	1.95	0.49
2:B:365:THR:HG23	2:B:367:LEU:HG	1.94	0.49
2:B:969:ARG:HD3	3:C:61:GLU:OE2	2.12	0.49
1:A:100:LYS:O	1:A:103:CYS:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:673:GLY:N	1:A:674:PRO:HD2	2.28	0.49
2:B:65:GLU:HG3	2:B:66:ASP:N	2.15	0.49
2:B:981:ALA:HB2	2:B:987:LYS:HA	1.94	0.49
1:A:1396:ALA:O	1:A:1397:LEU:HG	2.12	0.49
1:A:1406:VAL:HG12	1:A:1407:GLU:N	2.25	0.49
1:A:1063:MET:SD	1:A:1436:ILE:HB	2.53	0.49
1:A:321:PRO:O	1:A:322:VAL:HG23	2.12	0.49
3:C:141:GLY:O	3:C:142:VAL:CB	2.60	0.49
3:C:174:ALA:HB3	3:C:233:GLU:HB3	1.95	0.49
5:F:101:ILE:HD13	5:F:120:ILE:CG2	2.43	0.49
6:H:96:VAL:HG22	6:H:143:LEU:HD23	1.94	0.49
1:A:464:PRO:O	9:K:2:ASN:HB3	2.13	0.49
2:B:190:TYR:CZ	2:B:196:PRO:HG3	2.48	0.49
2:B:778:MET:SD	2:B:1094:ARG:HD3	2.53	0.49
2:B:794:ASN:C	2:B:795:ILE:HD12	2.33	0.49
2:B:911:ILE:HG22	2:B:912:ILE:HG13	1.94	0.49
1:A:1400:CYS:O	1:A:1401:SER:O	2.31	0.49
1:A:305:ASP:OD2	1:A:326:ARG:HD2	2.12	0.49
1:A:565:ILE:HG23	1:A:567:LYS:HG2	1.94	0.49
2:B:650:GLU:CG	2:B:654:ARG:HH12	2.15	0.49
2:B:863:GLU:O	2:B:864:LYS:O	2.31	0.49
2:B:976:ILE:O	2:B:990:ILE:HB	2.13	0.49
3:C:177:GLU:HB2	3:C:231:ASN:HB3	1.94	0.49
4:E:71:LYS:HB3	4:E:72:PHE:CD1	2.47	0.49
1:A:566:ILE:O	1:A:566:ILE:HG22	2.13	0.48
2:B:397:ASP:OD2	2:B:515:HIS:HE1	1.96	0.48
2:B:957:ASN:O	2:B:958:GLN:C	2.51	0.48
3:C:53:THR:O	3:C:153:LEU:HA	2.12	0.48
4:E:88:VAL:HG21	4:E:110:PHE:CE2	2.48	0.48
10:L:48:CYS:HB3	10:L:51:CYS:HB2	1.95	0.48
1:A:203:SER:O	1:A:207:ILE:HG12	2.13	0.48
1:A:42:ASP:O	1:A:50:ILE:HD11	2.13	0.48
1:A:556:TRP:CZ3	1:A:558:GLY:HA2	2.48	0.48
2:B:1166:CYS:O	2:B:1166:CYS:SG	2.71	0.48
2:B:1174:LYS:HD2	2:B:1179:GLN:HB2	1.95	0.48
2:B:130:VAL:HG12	2:B:131:ASP:N	2.27	0.48
2:B:635:ARG:HG3	2:B:635:ARG:HH11	1.77	0.48
2:B:959:ASP:O	2:B:961:LEU:HG	2.12	0.48
6:H:130:ARG:HB3	6:H:134:ASN:ND2	2.26	0.48
7:I:15:TYR:N	7:I:15:TYR:CD1	2.81	0.48
10:L:29:TYR:O	10:L:30:ILE:HG13	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1127:ASP:HB3	1:A:1130:GLN:H	1.78	0.48
1:A:4:GLN:O	1:A:5:GLN:CB	2.61	0.48
1:A:939:ASP:OD2	1:A:1023:ARG:NH1	2.36	0.48
1:A:95:PHE:O	1:A:98:LYS:HB2	2.14	0.48
2:B:1051:THR:HG21	2:B:1053:GLU:HB2	1.95	0.48
2:B:484:ASN:ND2	2:B:486:TYR:CE1	2.82	0.48
2:B:635:ARG:HG3	2:B:635:ARG:NH1	2.28	0.48
2:B:65:GLU:CG	2:B:66:ASP:H	2.15	0.48
3:C:77:ILE:CD1	3:C:129:ILE:HD11	2.40	0.48
5:F:81:THR:CG2	5:F:82:THR:N	2.75	0.48
2:B:1170:THR:O	2:B:1170:THR:HG22	2.14	0.48
2:B:121:ASN:HA	2:B:207:GLY:HA3	1.95	0.48
2:B:896:ASP:OD2	10:L:58:LYS:HE3	2.13	0.48
7:I:63:GLY:O	7:I:70:ARG:NH2	2.47	0.48
2:B:784:ASN:HB3	8:J:63:TYR:OH	2.13	0.48
9:K:113:THR:O	9:K:114:LEU:CB	2.52	0.48
1:A:493:GLN:HE21	1:A:493:GLN:HA	1.78	0.48
2:B:251:ILE:HG22	2:B:251:ILE:O	2.13	0.48
2:B:618:ASP:HB3	2:B:621:GLU:HB3	1.94	0.48
3:C:148:ARG:HH12	8:J:64:ASN:HA	1.78	0.48
1:A:1338:VAL:O	4:E:144:ILE:HG21	2.13	0.48
1:A:50:ILE:C	1:A:52:GLY:N	2.67	0.48
1:A:69:THR:O	2:B:1174:LYS:HG2	2.14	0.48
2:B:1037:LEU:HD21	2:B:1064:TYR:CE1	2.48	0.48
2:B:166:PHE:O	2:B:167:ILE:HG13	2.13	0.48
2:B:612:GLU:O	2:B:632:ARG:NH2	2.46	0.48
1:A:871:ASP:CB	4:E:204:THR:HG23	2.44	0.48
1:A:1356:ILE:HD12	1:A:1368:MET:SD	2.53	0.48
1:A:276:LEU:HD11	1:A:293:GLU:CG	2.43	0.48
8:J:43:ARG:HG3	8:J:46:CYS:SG	2.52	0.48
10:L:51:CYS:C	10:L:53:HIS:H	2.17	0.48
1:A:1264:GLU:OE2	7:I:44:TYR:HE2	1.97	0.48
1:A:326:ARG:NH1	1:A:1406:VAL:HG11	2.29	0.48
1:A:505:CYS:HB3	2:B:1141:HIS:ND1	2.29	0.48
1:A:500:GLU:OE2	2:B:1145:SER:HB3	2.13	0.48
2:B:40:GLU:OE1	2:B:680:THR:CG2	2.61	0.48
4:E:102:GLU:C	4:E:104:ASN:H	2.17	0.48
5:F:89:GLU:O	5:F:93:ILE:HG13	2.14	0.48
7:I:86:PHE:HD1	7:I:87:GLN:O	1.97	0.48
1:A:877:HIS:HB3	1:A:1056:SER:OG	2.13	0.48
1:A:1287:TYR:CD1	1:A:1305:VAL:HG21	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:492:PRO:CB	1:A:497:THR:HG22	2.44	0.48
1:A:814:PHE:O	1:A:817:ALA:HB3	2.14	0.48
2:B:25:ILE:HG22	2:B:26:THR:N	2.29	0.48
2:B:463:THR:HG22	2:B:465:ASN:N	2.29	0.48
2:B:34:ILE:HG12	2:B:542:MET:CE	2.44	0.48
2:B:690:VAL:HG12	2:B:691:GLU:N	2.28	0.48
4:E:75:MET:HA	4:E:106:GLN:HE22	1.78	0.48
5:F:109:VAL:CG1	5:F:110:ASP:N	2.77	0.48
7:I:121:PHE:O	7:I:122:SER:CB	2.61	0.48
7:I:14:LEU:HB3	7:I:27:PHE:HB3	1.96	0.48
10:L:32:ALA:CB	10:L:55:ILE:HD12	2.41	0.48
1:A:849:MET:HE2	1:A:1061:GLY:HA2	1.87	0.48
1:A:1066:VAL:CG1	2:B:1140:ALA:HB2	2.43	0.48
1:A:451:HIS:HB3	1:A:452:LYS:H	1.50	0.48
1:A:549:MET:SD	1:A:577:ILE:CD1	3.02	0.48
2:B:498:THR:HG22	2:B:499:ASN:N	2.29	0.48
2:B:563:MET:O	2:B:563:MET:HG3	2.14	0.48
10:L:27:LEU:HD23	10:L:27:LEU:N	2.29	0.48
2:B:902:GLY:O	10:L:65:VAL:HG21	2.14	0.48
1:A:1293:SER:HB2	1:A:1299:VAL:HG21	1.93	0.47
1:A:329:LEU:HD11	2:B:1210:MET:HE1	1.95	0.47
1:A:407:ARG:HD2	1:A:413:ILE:HD11	1.96	0.47
1:A:470:LEU:HD21	1:A:487:MET:HE1	1.96	0.47
1:A:573:SER:H	1:A:576:GLN:HG3	1.78	0.47
1:A:608:ILE:HB	1:A:613:ILE:CD1	2.44	0.47
1:A:745:GLN:HA	1:A:748:MET:HE3	1.96	0.47
1:A:88:LYS:HD2	1:A:293:GLU:CD	2.35	0.47
2:B:62:ILE:HG23	2:B:418:LYS:HG2	1.95	0.47
2:B:796:LEU:O	2:B:799:PRO:HD3	2.14	0.47
2:B:824:ILE:HG12	8:J:48:ARG:HH12	1.74	0.47
3:C:171:GLY:O	8:J:6:ARG:NH2	2.47	0.47
4:E:177:ARG:O	4:E:212:ARG:HD3	2.14	0.47
1:A:1215:ARG:NH1	1:A:1272:THR:O	2.47	0.47
1:A:399:HIS:O	1:A:435:HIS:CD2	2.67	0.47
2:B:1043:ASP:O	2:B:1050:ILE:HD12	2.14	0.47
2:B:321:GLY:C	2:B:323:VAL:H	2.17	0.47
2:B:393:LYS:HE2	2:B:621:GLU:OE2	2.14	0.47
2:B:825:VAL:CG1	2:B:826:ALA:N	2.77	0.47
3:C:166:GLU:OE1	10:L:70:ARG:NH2	2.43	0.47
2:B:999:MET:HB3	2:B:1007:VAL:HG22	1.96	0.47
2:B:827:ILE:CD1	2:B:1017:ILE:HD11	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:498:THR:CG2	2:B:499:ASN:N	2.77	0.47
4:E:124:VAL:HB	4:E:125:PRO:HD3	1.96	0.47
1:A:754:SER:O	1:A:755:PHE:C	2.53	0.47
1:A:90:VAL:HG13	1:A:297:GLN:HA	1.96	0.47
2:B:653:VAL:CG2	2:B:689:LEU:HB3	2.44	0.47
3:C:39:ALA:O	3:C:163:ILE:HG23	2.14	0.47
5:F:111:LEU:C	5:F:113:GLY:H	2.17	0.47
1:A:535:THR:CG2	1:A:535:THR:O	2.63	0.47
2:B:957:ASN:ND2	2:B:961:LEU:HD12	2.15	0.47
2:B:984:HIS:NE2	2:B:1025:HIS:HA	2.29	0.47
3:C:169:LYS:C	3:C:171:GLY:H	2.17	0.47
3:C:254:LYS:HD3	9:K:42:LEU:HD13	1.96	0.47
3:C:33:LEU:HG	3:C:37:MET:HE2	1.96	0.47
5:F:127:GLU:O	5:F:129:LYS:HG3	2.15	0.47
9:K:49:GLU:HG3	9:K:94:ILE:CG1	2.44	0.47
1:A:1205:LYS:O	1:A:1207:LEU:N	2.47	0.47
1:A:365:GLY:HA3	1:A:463:ILE:HD13	1.96	0.47
1:A:451:HIS:HB2	1:A:454:SER:OG	2.14	0.47
1:A:568:PRO:HB2	3:C:221:TYR:CZ	2.49	0.47
2:B:680:THR:O	2:B:683:SER:OG	2.32	0.47
2:B:796:LEU:HB3	2:B:799:PRO:HG3	1.96	0.47
2:B:971:THR:OG1	3:C:61:GLU:HG3	2.14	0.47
1:A:1415:SER:O	1:A:1416:ALA:C	2.52	0.47
1:A:225:ASN:C	1:A:227:VAL:H	2.16	0.47
1:A:337:ARG:NH2	1:A:1400:CYS:O	2.47	0.47
1:A:53:LEU:O	1:A:56:PRO:HD2	2.14	0.47
2:B:463:THR:HG22	2:B:464:GLY:N	2.29	0.47
2:B:778:MET:HG2	2:B:794:ASN:CB	2.41	0.47
3:C:75:MET:HG2	3:C:246:ARG:NH2	2.29	0.47
1:A:1348:LEU:HD21	1:A:1375:MET:SD	2.55	0.47
1:A:32:VAL:HB	1:A:57:ARG:CB	2.45	0.47
1:A:785:PRO:HG2	1:A:786:HIS:CD2	2.50	0.47
1:A:844:ALA:C	1:A:845:LEU:HD23	2.34	0.47
1:A:839:ARG:NE	2:B:1133:MET:CE	2.78	0.47
2:B:331:LEU:HD21	2:B:353:LYS:HG2	1.96	0.47
2:B:424:LEU:O	2:B:428:ILE:HG13	2.15	0.47
2:B:788:ARG:NH1	2:B:790:ASP:OD1	2.47	0.47
2:B:794:ASN:O	2:B:795:ILE:HD12	2.15	0.47
3:C:70:ILE:HG21	3:C:115:SER:HB2	1.96	0.47
4:E:204:THR:HG22	4:E:205:SER:N	2.30	0.47
1:A:1155:ASP:CG	1:A:1162:VAL:HG23	2.34	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1402:PHE:C	1:A:1404:GLU:N	2.66	0.47
1:A:535:THR:CG2	1:A:617:VAL:H	2.10	0.47
2:B:189:LEU:HD13	2:B:196:PRO:HA	1.97	0.47
2:B:563:MET:HE1	2:B:588:GLY:N	2.30	0.47
2:B:959:ASP:O	2:B:961:LEU:N	2.48	0.47
3:C:77:ILE:C	3:C:79:GLN:H	2.17	0.47
1:A:1376:THR:CG2	4:E:212:ARG:NH2	2.78	0.47
1:A:1433:MET:HE1	5:F:92:ARG:NH1	2.30	0.47
1:A:1126:ALA:O	1:A:1128:GLN:N	2.48	0.47
1:A:1155:ASP:OD2	1:A:1161:THR:HG23	2.15	0.47
1:A:1223:ASP:HA	1:A:1243:VAL:HG13	1.97	0.47
1:A:1152:ILE:CG2	1:A:1260:LEU:HD23	2.44	0.47
1:A:13:THR:HG23	1:A:1432:GLN:HE22	1.76	0.47
1:A:1402:PHE:C	1:A:1404:GLU:H	2.17	0.47
1:A:460:VAL:CG1	1:A:461:LYS:N	2.78	0.47
1:A:71:GLN:O	1:A:72:GLU:HB2	2.15	0.47
1:A:974:ASP:HB2	6:H:136:LYS:NZ	2.29	0.47
1:A:994:GLN:NE2	1:A:1019:CYS:HB3	2.30	0.47
1:A:1431:GLY:O	2:B:1148:LYS:HE3	2.15	0.47
3:C:99:LEU:HD12	3:C:118:LEU:HD23	1.96	0.47
4:E:117:THR:HG22	4:E:119:SER:H	1.79	0.47
5:F:76:LYS:CA	5:F:79:ARG:HD2	2.44	0.47
1:A:1031:VAL:HG12	1:A:1031:VAL:O	2.14	0.47
1:A:873:MET:C	1:A:1058:VAL:HG23	2.35	0.47
1:A:1100:ARG:HH21	1:A:1351:GLU:HG3	1.79	0.47
1:A:216:VAL:HA	1:A:219:PHE:CD1	2.50	0.47
1:A:565:ILE:O	1:A:570:PRO:HA	2.15	0.47
1:A:534:LEU:HD13	1:A:656:TRP:CD1	2.50	0.47
1:A:77:CYS:O	1:A:79:GLY:N	2.48	0.47
1:A:884:ASP:HB3	1:A:896:ARG:HH12	1.80	0.47
2:B:708:GLU:C	2:B:710:LEU:H	2.18	0.47
2:B:780:VAL:HG22	2:B:799:PRO:HG2	1.97	0.47
2:B:904:ARG:NH2	2:B:948:ILE:HD11	2.30	0.47
3:C:136:ASP:OD2	8:J:16:ASP:HB2	2.14	0.47
8:J:3:VAL:HG21	8:J:18:TRP:CB	2.36	0.47
9:K:24:ASP:HB3	9:K:30:ALA:HB3	1.97	0.47
1:A:1198:ASP:OD1	1:A:1200:ALA:N	2.46	0.46
2:B:25:ILE:HG22	2:B:26:THR:H	1.79	0.46
2:B:791:THR:O	2:B:792:MET:HB2	2.15	0.46
4:E:88:VAL:HG21	4:E:110:PHE:HE2	1.80	0.46
1:A:1441:PHE:HZ	5:F:89:GLU:HA	1.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:195:ASP:O	1:A:196:GLU:O	2.33	0.46
1:A:364:VAL:O	1:A:364:VAL:HG13	2.15	0.46
1:A:993:LEU:HD23	1:A:1022:LEU:HD21	1.98	0.46
2:B:1004:GLU:O	3:C:177:GLU:HG2	2.15	0.46
2:B:815:ARG:NE	2:B:1041:GLU:OE2	2.48	0.46
7:I:17:ARG:HG3	7:I:28:GLU:CG	2.40	0.46
2:B:212:LEU:HD13	2:B:409:ALA:HA	1.96	0.46
2:B:911:ILE:HD11	2:B:941:LEU:CD1	2.44	0.46
2:B:946:ASN:CG	2:B:946:ASN:O	2.54	0.46
7:I:99:LEU:O	7:I:111:THR:HG23	2.15	0.46
7:I:53:GLY:O	7:I:89:GLN:HB2	2.15	0.46
1:A:783:THR:HG22	1:A:784:LEU:N	2.31	0.46
2:B:167:ILE:CG2	2:B:453:ILE:HD12	2.46	0.46
2:B:405:ARG:HA	2:B:631:GLY:O	2.15	0.46
3:C:37:MET:HG2	3:C:243:VAL:CG1	2.45	0.46
2:B:969:ARG:HH21	3:C:59:ALA:HB1	1.81	0.46
9:K:73:LEU:HD22	9:K:75:ILE:CG1	2.46	0.46
1:A:1111:MET:CE	1:A:1114:PRO:HA	2.45	0.46
1:A:99:ILE:HG23	1:A:211:PHE:CZ	2.50	0.46
1:A:313:GLN:HB3	1:A:320:ARG:C	2.35	0.46
1:A:338:GLY:O	1:A:343:LYS:HB2	2.15	0.46
1:A:346:ASP:HB3	1:A:347:PHE:CD1	2.51	0.46
1:A:577:ILE:O	1:A:580:VAL:HB	2.15	0.46
1:A:897:TYR:CD1	1:A:897:TYR:N	2.84	0.46
1:A:670:ILE:HD13	2:B:1067:ARG:NH2	2.30	0.46
1:A:821:ARG:HH21	2:B:534:GLY:HA2	1.80	0.46
2:B:549:THR:HG22	2:B:550:ASP:N	2.29	0.46
2:B:707:PRO:CG	2:B:708:GLU:H	2.26	0.46
3:C:240:VAL:O	3:C:242:GLN:N	2.48	0.46
4:E:77:SER:HB2	4:E:105:PHE:HD2	1.81	0.46
5:F:154:ASP:O	5:F:155:LEU:HB2	2.15	0.46
6:H:81:PRO:HD2	6:H:82:PRO:HD2	1.96	0.46
1:A:1097:GLY:C	1:A:1099:PRO:HD2	2.35	0.46
1:A:134:ARG:HD3	1:A:221:SER:O	2.16	0.46
2:B:1201:LYS:HE2	2:B:1205:GLN:CD	2.36	0.46
2:B:172:ILE:HD13	2:B:178:ASN:CB	2.45	0.46
2:B:552:MET:N	2:B:553:PRO:HD2	2.30	0.46
2:B:98:THR:HG22	2:B:99:LYS:N	2.26	0.46
3:C:105:GLY:O	3:C:149:LYS:O	2.34	0.46
3:C:131:HIS:O	3:C:132:PRO:C	2.54	0.46
3:C:134:ILE:HG23	3:C:141:GLY:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:40:LEU:HD12	6:H:41:ASP:H	1.80	0.46
1:A:119:ASN:O	1:A:123:ARG:HG3	2.16	0.46
1:A:1429:ILE:O	1:A:1429:ILE:HG22	2.16	0.46
1:A:313:GLN:HB3	1:A:321:PRO:N	2.30	0.46
1:A:361:LEU:HD21	1:A:521:MET:CE	2.46	0.46
1:A:595:THR:OG1	1:A:603:ASN:HB3	2.15	0.46
1:A:709:THR:HB	1:A:712:GLU:H	1.81	0.46
1:A:901:LEU:HD23	1:A:907:THR:CG2	2.44	0.46
2:B:287:ARG:NH2	2:B:325:GLN:NE2	2.63	0.46
2:B:618:ASP:CB	2:B:621:GLU:HB3	2.46	0.46
2:B:618:ASP:O	2:B:621:GLU:N	2.48	0.46
2:B:781:PHE:O	2:B:782:LEU:HG	2.16	0.46
3:C:104:PHE:HD1	3:C:152:GLU:HG3	1.80	0.46
1:A:857:ARG:CZ	5:F:139:PRO:HG3	2.45	0.46
8:J:48:ARG:O	8:J:52:THR:HB	2.16	0.46
3:C:57:VAL:HG11	8:J:60:PHE:HB3	1.97	0.46
1:A:1364:ASN:C	1:A:1364:ASN:HD22	2.19	0.46
1:A:41:MET:HB3	1:A:48:ALA:O	2.16	0.46
1:A:596:THR:C	1:A:598:LEU:H	2.18	0.46
1:A:786:HIS:HD2	1:A:786:HIS:N	2.12	0.46
1:A:839:ARG:HE	2:B:1133:MET:HE1	1.80	0.46
2:B:240:ILE:O	2:B:240:ILE:HG23	2.16	0.46
3:C:162:GLY:HA3	3:C:170:TRP:CE2	2.51	0.46
5:F:107:VAL:HG12	5:F:109:VAL:H	1.80	0.46
1:A:1017:LEU:O	1:A:1020:CYS:HB2	2.15	0.46
1:A:534:LEU:HD13	1:A:656:TRP:CG	2.51	0.46
1:A:35:ILE:HD13	1:A:53:LEU:HD23	1.98	0.46
1:A:605:MET:CE	1:A:612:ILE:HG13	2.43	0.46
1:A:575:LYS:HG2	1:A:612:ILE:HD13	1.96	0.46
1:A:774:ARG:HB2	1:A:797:LYS:O	2.15	0.46
2:B:121:ASN:HA	2:B:207:GLY:CA	2.46	0.46
2:B:531:GLN:HG3	2:B:532:ALA:H	1.80	0.46
2:B:216:GLU:OE1	2:B:537:LYS:HE2	2.16	0.46
2:B:570:VAL:CG2	2:B:573:GLN:HB2	2.46	0.46
3:C:177:GLU:O	3:C:230:MET:HA	2.16	0.46
6:H:126:GLU:N	6:H:130:ARG:HH12	2.14	0.46
3:C:6:PRO:HB2	9:K:101:LEU:HB2	1.98	0.46
9:K:55:LYS:CD	9:K:78:THR:HB	2.43	0.46
10:L:45:ALA:O	10:L:46:VAL:CG2	2.64	0.46
1:A:849:MET:HE3	1:A:1061:GLY:HA2	1.90	0.46
1:A:1153:TYR:CD1	1:A:1163:ILE:HD11	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:414:ASP:C	1:A:414:ASP:OD1	2.53	0.46
1:A:55:ASP:O	1:A:56:PRO:C	2.54	0.46
1:A:62:ASP:O	1:A:63:ARG:HB2	2.16	0.46
1:A:858:ASN:ND2	1:A:858:ASN:C	2.69	0.46
2:B:1034:VAL:HG12	2:B:1035:ALA:N	2.30	0.46
2:B:650:GLU:HG3	2:B:651:LEU:H	1.80	0.46
2:B:665:GLU:O	2:B:668:ASP:HB2	2.16	0.46
2:B:756:ILE:O	2:B:759:PRO:HD3	2.16	0.46
2:B:978:ASP:O	2:B:989:THR:HA	2.16	0.46
1:A:1036:ARG:HH11	1:A:1036:ARG:HG2	1.81	0.45
1:A:1114:PRO:O	1:A:1330:ASN:OD1	2.34	0.45
1:A:1152:ILE:HD11	1:A:1260:LEU:O	2.16	0.45
1:A:128:ILE:HG21	1:A:133:LYS:HB3	1.98	0.45
1:A:44:THR:HG22	1:A:44:THR:O	2.17	0.45
1:A:50:ILE:HG22	1:A:51:GLY:N	2.31	0.45
2:B:1152:MET:HG2	2:B:1153:GLU:N	2.32	0.45
2:B:1158:PHE:O	2:B:1195:HIS:HA	2.16	0.45
2:B:235:SER:OG	2:B:236:HIS:HD2	1.99	0.45
2:B:314:LEU:C	2:B:316:PRO:HD2	2.36	0.45
2:B:40:GLU:O	2:B:40:GLU:HG3	2.16	0.45
2:B:859:TYR:H	2:B:859:TYR:HD1	1.64	0.45
4:E:176:PRO:O	4:E:212:ARG:HA	2.16	0.45
6:H:40:LEU:HD13	6:H:123:MET:HB2	1.98	0.45
2:B:843:GLN:HG3	9:K:6:ARG:NH2	2.31	0.45
1:A:1161:THR:CG2	1:A:1163:ILE:HB	2.47	0.45
1:A:1220:PHE:O	1:A:1221:LYS:C	2.55	0.45
1:A:1118:VAL:HG22	1:A:1306:LEU:HB2	1.98	0.45
1:A:214:ILE:CG2	1:A:218:ASP:HB2	2.46	0.45
1:A:289:ILE:O	1:A:291:GLU:N	2.49	0.45
1:A:517:ASN:O	1:A:517:ASN:CG	2.54	0.45
1:A:546:VAL:HG21	1:A:572:TRP:CE3	2.51	0.45
1:A:922:ASP:HB3	1:A:925:LEU:HB2	1.97	0.45
1:A:1342:GLU:CG	4:E:198:ILE:HD13	2.46	0.45
7:I:4:PHE:HE1	7:I:6:PHE:CZ	2.34	0.45
1:A:1229:SER:HB2	1:A:1233:ASP:OD2	2.16	0.45
1:A:404:TYR:HA	1:A:413:ILE:O	2.16	0.45
1:A:412:ARG:CZ	2:B:1110:PRO:HD3	2.44	0.45
2:B:332:ASP:C	2:B:334:ILE:N	2.68	0.45
2:B:227:LYS:HB2	2:B:395:GLN:OE1	2.16	0.45
2:B:463:THR:HG22	2:B:465:ASN:H	1.80	0.45
3:C:249:ASP:O	3:C:252:GLN:HB3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1339:LEU:HD13	4:E:147:HIS:CD2	2.51	0.45
1:A:1115:SER:O	1:A:1329:THR:HG23	2.16	0.45
1:A:1189:SER:HB2	1:A:1190:PRO:CD	2.44	0.45
1:A:1254:ALA:O	1:A:1255:GLU:HB2	2.16	0.45
1:A:458:HIS:NE2	1:A:478:TYR:OH	2.46	0.45
1:A:50:ILE:O	1:A:52:GLY:N	2.49	0.45
4:E:192:ARG:HG3	4:E:192:ARG:NH1	2.31	0.45
1:A:1424:VAL:O	1:A:1428:VAL:HG23	2.16	0.45
1:A:185:TRP:O	1:A:197:PRO:HA	2.16	0.45
1:A:329:LEU:CD1	2:B:1210:MET:HE1	2.46	0.45
1:A:598:LEU:O	1:A:599:SER:C	2.54	0.45
2:B:273:LEU:CB	2:B:276:ILE:HD12	2.46	0.45
2:B:805:THR:HA	2:B:809:MET:HE1	1.98	0.45
7:I:84:VAL:O	7:I:84:VAL:HG13	2.16	0.45
1:A:1261:LYS:C	1:A:1263:ILE:N	2.69	0.45
1:A:225:ASN:ND2	1:A:228:PHE:CD1	2.84	0.45
1:A:736:ASN:O	1:A:737:LEU:C	2.54	0.45
2:B:654:ARG:O	2:B:656:GLY:N	2.49	0.45
2:B:906:SER:O	2:B:907:GLY:C	2.54	0.45
3:C:33:LEU:HD11	3:C:248:ILE:HG12	1.99	0.45
4:E:205:SER:O	4:E:206:GLY:C	2.54	0.45
1:A:1370:LEU:C	1:A:1370:LEU:HD12	2.35	0.45
1:A:1383:SER:HB3	1:A:1387:HIS:CD2	2.51	0.45
1:A:49:LYS:NZ	1:A:60:SER:HA	2.31	0.45
1:A:896:ARG:HB3	1:A:897:TYR:CD1	2.50	0.45
2:B:1103:ILE:O	2:B:1104:HIS:C	2.55	0.45
2:B:212:LEU:HD12	2:B:409:ALA:CB	2.46	0.45
2:B:577:ALA:HB1	2:B:589:VAL:CG1	2.46	0.45
2:B:666:TYR:C	2:B:668:ASP:H	2.19	0.45
5:F:127:GLU:O	5:F:129:LYS:N	2.50	0.45
1:A:1208:THR:N	1:A:1211:GLN:OE1	2.50	0.45
1:A:466:SER:HB2	2:B:1103:ILE:HD13	1.98	0.45
2:B:1155:SER:O	2:B:1156:ASP:O	2.34	0.45
2:B:282:ILE:O	2:B:286:PHE:HD1	2.00	0.45
2:B:564:GLU:HA	2:B:565:PRO:HD2	1.70	0.45
1:A:1106:ASN:OD1	1:A:1385:THR:HB	2.16	0.45
1:A:1199:ARG:HA	1:A:1236:LEU:CD1	2.47	0.45
1:A:343:LYS:O	1:A:345:VAL:HG22	2.17	0.45
1:A:474:VAL:HG13	1:A:478:TYR:HE1	1.77	0.45
2:B:172:ILE:HD13	2:B:178:ASN:HB2	1.99	0.45
2:B:826:ALA:HB2	2:B:1087:PHE:CE1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:109:LYS:HG3	6:H:110:ASP:N	2.30	0.45
6:H:5:LEU:O	6:H:133:ASN:HB3	2.17	0.45
7:I:50:THR:HG22	7:I:52:ILE:H	1.80	0.45
1:A:380:VAL:HG12	1:A:381:THR:N	2.32	0.45
1:A:444:PHE:CE2	1:A:470:LEU:HD23	2.52	0.45
1:A:49:LYS:NZ	1:A:61:ILE:HG13	2.31	0.45
1:A:605:MET:HE2	1:A:607:ILE:CG1	2.45	0.45
1:A:553:VAL:HG22	1:A:652:VAL:HG22	1.99	0.45
1:A:826:ASP:O	1:A:830:LYS:N	2.45	0.45
1:A:886:ILE:CD1	1:A:943:LEU:HB3	2.47	0.45
1:A:886:ILE:CG1	1:A:943:LEU:HB3	2.47	0.45
2:B:229:ALA:HB1	2:B:231:PRO:HD2	1.98	0.45
2:B:640:VAL:HG23	2:B:740:HIS:HA	1.99	0.45
4:E:177:ARG:HD3	4:E:215:MET:CE	2.46	0.45
1:A:709:THR:HG23	7:I:94:ASP:HA	1.99	0.45
1:A:1389:PHE:CD1	1:A:1389:PHE:N	2.84	0.44
1:A:34:LYS:CD	1:A:36:ARG:NH2	2.79	0.44
1:A:867:ILE:HG13	4:E:208:TYR:HE1	1.81	0.44
2:B:915:THR:HG22	2:B:916:THR:N	2.33	0.44
3:C:48:SER:HB3	3:C:158:VAL:HB	1.99	0.44
7:I:106:CYS:SG	7:I:108:HIS:HB3	2.57	0.44
8:J:19:GLU:O	8:J:20:SER:C	2.54	0.44
8:J:30:LEU:HD13	8:J:34:THR:HG22	1.99	0.44
10:L:55:ILE:HG13	10:L:56:LEU:N	2.24	0.44
1:A:114:LEU:HD22	1:A:171:GLN:HE22	1.80	0.44
1:A:32:VAL:HG11	1:A:68:GLN:CD	2.38	0.44
1:A:583:PRO:HG2	1:A:586:ILE:HG13	1.99	0.44
2:B:1099:VAL:C	2:B:1101:ASP:H	2.20	0.44
2:B:1148:LYS:O	2:B:1152:MET:HB2	2.17	0.44
6:H:91:ASP:C	6:H:93:TYR:N	2.70	0.44
8:J:32:GLU:CD	8:J:32:GLU:N	2.62	0.44
3:C:8:VAL:HG21	9:K:105:PHE:HB2	1.99	0.44
1:A:1066:VAL:O	1:A:1067:LEU:C	2.54	0.44
1:A:1197:LEU:HD12	1:A:1209:MET:SD	2.57	0.44
2:B:864:LYS:CG	2:B:871:THR:HG23	2.47	0.44
2:B:990:ILE:HG22	2:B:992:ILE:H	1.82	0.44
4:E:10:SER:O	4:E:14:ARG:HG3	2.17	0.44
6:H:42:ILE:CG2	6:H:43:ASN:N	2.80	0.44
1:A:1279:ILE:HD11	1:A:1316:VAL:HG21	1.99	0.44
1:A:167:CYS:HB2	1:A:169:ASN:ND2	2.32	0.44
1:A:269:ILE:HD11	1:A:303:TYR:CB	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:591:PHE:HA	1:A:595:THR:CB	2.48	0.44
1:A:66:LYS:O	1:A:67:CYS:HB2	2.17	0.44
1:A:783:THR:CG2	1:A:815:PHE:CE2	3.00	0.44
1:A:903:ASN:O	1:A:904:THR:C	2.55	0.44
3:C:238:ILE:HG23	3:C:242:GLN:CB	2.48	0.44
4:E:43:LYS:HA	4:E:47:CYS:SG	2.57	0.44
1:A:1364:ASN:ND2	1:A:1364:ASN:C	2.70	0.44
1:A:90:VAL:CG1	1:A:91:PHE:N	2.79	0.44
1:A:91:PHE:HB2	1:A:297:GLN:HE22	1.83	0.44
2:B:575:PRO:HG2	2:B:576:ASP:N	2.32	0.44
2:B:603:LEU:O	2:B:609:ILE:N	2.49	0.44
2:B:627:PHE:CB	2:B:632:ARG:HH11	2.30	0.44
2:B:657:HIS:CE1	2:B:689:LEU:HD11	2.52	0.44
2:B:864:LYS:HD3	2:B:871:THR:OG1	2.18	0.44
2:B:969:ARG:NH2	3:C:59:ALA:HB1	2.32	0.44
3:C:166:GLU:HG3	9:K:10:PHE:HZ	1.79	0.44
4:E:39:LEU:HG	4:E:43:LYS:HE3	1.99	0.44
4:E:56:LYS:HG3	4:E:84:ASP:HB2	1.99	0.44
6:H:139:ASN:O	6:H:140:ALA:CB	2.65	0.44
1:A:341:MET:CE	1:A:343:LYS:HE3	2.48	0.44
1:A:446:ARG:HD3	1:A:480:ALA:HB2	1.98	0.44
1:A:591:PHE:HA	1:A:595:THR:HB	1.99	0.44
2:B:857:ARG:HD2	2:B:945:GLU:OE1	2.17	0.44
4:E:35:VAL:C	4:E:37:LEU:H	2.20	0.44
8:J:7:CYS:HA	8:J:49:MET:HE3	2.00	0.44
1:A:465:TYR:HA	9:K:2:ASN:O	2.17	0.44
1:A:317:LYS:HD2	1:A:321:PRO:CG	2.45	0.44
2:B:1135:ARG:HG3	2:B:1147:LEU:HD22	2.00	0.44
2:B:175:ARG:HH11	2:B:175:ARG:HG2	1.83	0.44
2:B:200:GLY:HA2	2:B:202:TYR:CD2	2.53	0.44
2:B:226:PHE:CE2	2:B:398:ARG:HG2	2.53	0.44
2:B:240:ILE:CG2	2:B:254:LEU:HB3	2.45	0.44
3:C:196:ASP:OD2	3:C:199:LYS:HG3	2.18	0.44
6:H:138:GLU:O	6:H:139:ASN:C	2.56	0.44
7:I:28:GLU:HG3	7:I:28:GLU:O	2.17	0.44
7:I:94:ASP:OD1	7:I:94:ASP:N	2.50	0.44
10:L:54:ARG:NH1	10:L:54:ARG:HB2	2.23	0.44
1:A:442:VAL:CB	1:A:489:LEU:HD11	2.48	0.44
1:A:780:VAL:O	1:A:782:ARG:HG2	2.17	0.44
1:A:825:ILE:HD11	2:B:512:ARG:O	2.18	0.44
2:B:247:GLY:O	2:B:248:SER:HB3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:306:ASN:O	2:B:308:TRP:N	2.48	0.44
2:B:364:ILE:HG12	2:B:585:VAL:HG13	1.99	0.44
2:B:377:PHE:O	2:B:378:LEU:C	2.56	0.44
6:H:43:ASN:C	6:H:45:GLU:H	2.21	0.44
2:B:620:ARG:NH1	7:I:68:LEU:HD21	2.33	0.44
2:B:618:ASP:HB3	2:B:621:GLU:CB	2.48	0.44
2:B:979:LYS:HB3	2:B:1095:LEU:HB2	1.99	0.44
3:C:74:SER:HB3	3:C:77:ILE:HG13	1.99	0.44
8:J:17:LYS:O	8:J:18:TRP:C	2.55	0.44
1:A:1106:ASN:HA	1:A:1383:SER:OG	2.18	0.43
1:A:1425:SER:HA	1:A:1428:VAL:HG23	1.98	0.43
1:A:154:SER:HB3	1:A:162:VAL:HG23	2.00	0.43
1:A:403:LYS:O	1:A:404:TYR:O	2.35	0.43
1:A:499:ALA:O	1:A:503:GLN:HB2	2.18	0.43
1:A:567:LYS:HZ3	6:H:95:TYR:HE1	1.62	0.43
1:A:534:LEU:O	1:A:574:GLY:HA3	2.18	0.43
2:B:766:ARG:HD3	2:B:766:ARG:HA	1.86	0.43
2:B:864:LYS:CB	2:B:871:THR:HA	2.48	0.43
3:C:56:THR:HG21	3:C:145:CYS:SG	2.57	0.43
3:C:62:PHE:C	3:C:62:PHE:HD2	2.21	0.43
4:E:3:GLN:HG3	4:E:4:GLU:N	2.33	0.43
8:J:6:ARG:HD2	8:J:13:VAL:HG22	1.99	0.43
1:A:1161:THR:HG23	1:A:1239:ARG:HH21	1.82	0.43
1:A:443:LEU:HD13	1:A:455:MET:HE2	1.99	0.43
1:A:90:VAL:CG1	1:A:297:GLN:HA	2.47	0.43
2:B:1020:ARG:HB2	2:B:1022:THR:HG22	1.98	0.43
2:B:446:LEU:O	2:B:446:LEU:HG	2.18	0.43
3:C:110:THR:O	3:C:110:THR:HG22	2.18	0.43
4:E:116:ILE:HG22	4:E:121:MET:HG2	2.00	0.43
1:A:1365:TYR:HD2	4:E:204:THR:HG1	1.65	0.43
4:E:88:VAL:HG11	4:E:110:PHE:CE2	2.54	0.43
10:L:29:TYR:HD1	10:L:39:SER:HA	1.82	0.43
1:A:1401:SER:O	1:A:1402:PHE:CB	2.65	0.43
1:A:172:PRO:HA	1:A:184:SER:O	2.19	0.43
1:A:849:MET:HE2	1:A:1061:GLY:CA	2.49	0.43
2:B:168:GLY:H	2:B:450:ALA:HB1	1.83	0.43
2:B:634:TYR:CD1	2:B:634:TYR:C	2.92	0.43
7:I:78:CYS:SG	7:I:103:CYS:SG	3.15	0.43
10:L:39:SER:O	10:L:40:LEU:HD23	2.18	0.43
1:A:119:ASN:HB3	1:A:122:MET:HB3	2.01	0.43
1:A:1230:GLU:O	1:A:1232:ASN:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:756:ILE:HD13	1:A:756:ILE:HA	1.90	0.43
2:B:130:VAL:HG12	2:B:131:ASP:H	1.83	0.43
2:B:25:ILE:HG22	2:B:29:ASP:HB2	1.99	0.43
2:B:659:ALA:O	2:B:663:ALA:HB2	2.19	0.43
2:B:956:THR:CG2	2:B:960:GLY:HA2	2.48	0.43
3:C:56:THR:HG22	3:C:57:VAL:H	1.79	0.43
3:C:69:LEU:HB3	8:J:5:VAL:HG11	1.99	0.43
1:A:1143:LEU:N	1:A:1273:LEU:HD22	2.33	0.43
1:A:300:VAL:O	1:A:304:MET:HG3	2.18	0.43
1:A:179:LEU:HD21	1:A:308:ILE:HD13	2.01	0.43
2:B:198:ASP:OD1	2:B:485:ARG:NH2	2.50	0.43
3:C:77:ILE:HG22	3:C:161:LYS:HE3	1.99	0.43
1:A:1135:ARG:HG3	1:A:1282:VAL:CG1	2.48	0.43
1:A:123:ARG:NH2	1:A:155:GLU:OE2	2.50	0.43
1:A:392:VAL:HG21	1:A:426:LEU:HD11	2.00	0.43
1:A:537:ARG:NH2	1:A:599:SER:O	2.51	0.43
2:B:1128:LEU:O	2:B:1128:LEU:HG	2.18	0.43
2:B:1160:VAL:HG11	2:B:1169:MET:SD	2.59	0.43
2:B:1175:LEU:O	2:B:1176:ASN:ND2	2.52	0.43
2:B:765:PRO:O	2:B:766:ARG:C	2.56	0.43
3:C:62:PHE:CD2	3:C:62:PHE:C	2.91	0.43
4:E:29:PHE:C	4:E:30:ILE:HG13	2.38	0.43
1:A:219:PHE:CD2	1:A:231:PRO:HG2	2.54	0.43
1:A:474:VAL:O	1:A:478:TYR:HD1	2.02	0.43
1:A:492:PRO:HB3	1:A:497:THR:HG22	2.00	0.43
1:A:675:THR:CB	1:A:736:ASN:HD21	2.31	0.43
1:A:805:LEU:C	1:A:805:LEU:HD12	2.39	0.43
1:A:855:THR:HG21	1:A:857:ARG:NE	2.28	0.43
2:B:999:MET:CG	2:B:1008:PRO:HG2	2.48	0.43
2:B:51:PHE:O	2:B:54:PHE:HB3	2.19	0.43
2:B:522:VAL:HG13	2:B:537:LYS:HB3	2.01	0.43
2:B:566:LEU:HB2	2:B:588:GLY:HA2	2.00	0.43
2:B:654:ARG:C	2:B:656:GLY:N	2.70	0.43
2:B:880:THR:O	2:B:881:ASN:HB2	2.19	0.43
2:B:856:PHE:CD2	2:B:969:ARG:HB2	2.53	0.43
3:C:11:ARG:NH2	3:C:229:TYR:HD2	2.13	0.43
2:B:293:PRO:HA	7:I:12:ASN:HD21	1.84	0.43
7:I:32:CYS:SG	7:I:33:SER:N	2.92	0.43
8:J:6:ARG:HG3	8:J:11:GLY:O	2.18	0.43
8:J:3:VAL:O	8:J:4:PRO:C	2.55	0.43
1:A:1222:ASN:O	1:A:1223:ASP:CB	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:299:HIS:HA	1:A:302:THR:HB	2.00	0.43
1:A:265:LYS:HZ2	1:A:323:LYS:H	1.65	0.43
1:A:704:ALA:CB	1:A:710:LEU:HD12	2.42	0.43
2:B:577:ALA:HB1	2:B:589:VAL:HG12	2.00	0.43
2:B:842:ASN:HD22	2:B:845:SER:HB3	1.83	0.43
2:B:63:ILE:CG1	2:B:95:ILE:HD11	2.48	0.43
1:A:298:PHE:CZ	1:A:312:PRO:HB3	2.54	0.43
1:A:592:ASP:N	1:A:595:THR:OG1	2.50	0.43
1:A:72:GLU:OE2	1:A:76:GLU:HB3	2.19	0.43
2:B:193:LYS:HZ3	8:J:65:PRO:HG2	1.84	0.43
2:B:640:VAL:HG12	2:B:640:VAL:O	2.18	0.43
2:B:973:ILE:HA	2:B:974:PRO:HD2	1.87	0.43
3:C:120:ILE:HD11	3:C:130:GLY:O	2.18	0.43
4:E:127:ILE:O	4:E:127:ILE:HG13	2.19	0.43
5:F:150:GLU:O	5:F:151:LEU:C	2.57	0.43
1:A:356:ASP:OD2	9:K:65:HIS:HE1	2.02	0.43
10:L:28:LYS:H	10:L:39:SER:HB2	1.83	0.43
10:L:30:ILE:O	10:L:56:LEU:HA	2.18	0.43
1:A:1060:PRO:HD2	5:F:86:THR:HG21	2.01	0.43
1:A:1398:MET:O	1:A:1399:ARG:C	2.57	0.43
1:A:1404:GLU:O	1:A:1406:VAL:N	2.52	0.43
1:A:115:LEU:HD21	1:A:145:LYS:CE	2.49	0.43
1:A:57:ARG:O	1:A:68:GLN:HG3	2.18	0.43
2:B:291:ILE:HD12	2:B:375:ALA:HB1	2.00	0.43
2:B:393:LYS:HE2	2:B:621:GLU:OE1	2.19	0.43
2:B:397:ASP:OD2	2:B:515:HIS:CE1	2.72	0.43
3:C:136:ASP:OD1	3:C:141:GLY:HA2	2.19	0.43
1:A:1151:GLU:HA	7:I:44:TYR:O	2.19	0.43
1:A:1198:ASP:OD1	1:A:1200:ALA:HB3	2.19	0.42
1:A:345:VAL:CG2	2:B:1106:ARG:HH11	2.31	0.42
1:A:399:HIS:HE1	1:A:436:ILE:O	2.01	0.42
1:A:512:VAL:HG23	1:A:634:THR:HG21	2.01	0.42
2:B:195:CYS:SG	2:B:197:PHE:HB2	2.59	0.42
3:C:33:LEU:HG	3:C:37:MET:HE3	2.00	0.42
4:E:1:MET:C	4:E:3:GLN:H	2.21	0.42
7:I:111:THR:CG2	7:I:112:SER:H	2.32	0.42
7:I:50:THR:HG22	7:I:51:ASN:H	1.84	0.42
1:A:1127:ASP:C	1:A:1129:GLU:N	2.72	0.42
1:A:1148:ILE:HD11	1:A:1198:ASP:HA	2.00	0.42
1:A:128:ILE:HG21	1:A:133:LYS:CB	2.49	0.42
1:A:342:GLY:HA3	2:B:1130:PHE:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:378:GLU:HG2	1:A:388:LEU:HD11	2.00	0.42
1:A:44:THR:O	1:A:45:GLN:HB2	2.18	0.42
1:A:541:ILE:N	1:A:541:ILE:HD12	2.34	0.42
1:A:68:GLN:HE22	1:A:80:HIS:HB2	1.83	0.42
1:A:75:ASN:O	1:A:76:GLU:HB2	2.18	0.42
1:A:774:ARG:H	1:A:774:ARG:HG2	1.62	0.42
2:B:203:PHE:O	2:B:209:GLU:HA	2.19	0.42
2:B:376:PHE:O	2:B:586:TRP:HZ3	2.01	0.42
2:B:690:VAL:CG1	2:B:691:GLU:N	2.82	0.42
2:B:651:LEU:HD11	2:B:707:PRO:HB3	2.01	0.42
2:B:488:TYR:CD1	2:B:817:LEU:HD12	2.54	0.42
3:C:179:GLU:CD	3:C:206:ASN:HD22	2.22	0.42
4:E:102:GLU:C	4:E:104:ASN:N	2.72	0.42
1:A:250:ILE:N	1:A:258:GLY:O	2.53	0.42
1:A:335:ARG:O	1:A:339:ASN:ND2	2.52	0.42
2:B:841:MET:HE2	2:B:1010:LEU:HD11	2.00	0.42
2:B:193:LYS:NZ	8:J:65:PRO:HG2	2.35	0.42
9:K:35:PHE:N	9:K:35:PHE:CD1	2.87	0.42
1:A:547:LEU:HD22	9:K:58:PHE:CE1	2.54	0.42
1:A:1130:GLN:HG3	1:A:1130:GLN:O	2.20	0.42
1:A:453:MET:HG2	1:A:520:CYS:SG	2.60	0.42
1:A:557:ASP:OD2	1:A:559:VAL:HB	2.19	0.42
1:A:928:LEU:HD23	1:A:928:LEU:HA	1.93	0.42
2:B:179:CYS:C	2:B:181:LEU:H	2.23	0.42
2:B:291:ILE:HD13	2:B:300:HIS:CD2	2.53	0.42
2:B:332:ASP:O	2:B:333:PHE:C	2.58	0.42
2:B:435:THR:O	2:B:435:THR:HG22	2.19	0.42
2:B:822:ASN:O	8:J:48:ARG:NH1	2.53	0.42
1:A:472:LEU:HD13	2:B:835:GLN:OE1	2.20	0.42
2:B:63:ILE:HD13	2:B:95:ILE:HD11	2.01	0.42
3:C:27:LEU:HA	3:C:228:PHE:CZ	2.54	0.42
1:A:1004:ASN:OD1	4:E:167:ARG:HD2	2.19	0.42
6:H:40:LEU:HD21	6:H:142:LEU:HD21	2.00	0.42
8:J:36:LEU:HD22	8:J:41:LEU:HD12	2.01	0.42
9:K:101:LEU:HD23	9:K:101:LEU:O	2.19	0.42
1:A:1094:VAL:HG12	1:A:1095:THR:N	2.35	0.42
1:A:252:PHE:O	1:A:253:ASN:C	2.58	0.42
1:A:436:ILE:CD1	1:A:491:VAL:HG21	2.47	0.42
2:B:170:LEU:O	2:B:171:PRO:C	2.55	0.42
2:B:345:LYS:CA	2:B:348:ARG:HE	2.18	0.42
2:B:446:LEU:N	2:B:446:LEU:HD23	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:596:LEU:O	2:B:599:THR:HB	2.20	0.42
3:C:136:ASP:OD1	3:C:136:ASP:N	2.50	0.42
1:A:1077:THR:HG22	1:A:1077:THR:O	2.20	0.42
1:A:586:ILE:HD12	1:A:633:VAL:HG22	2.02	0.42
2:B:1051:THR:CG2	2:B:1052:VAL:N	2.83	0.42
2:B:1084:GLN:OE1	3:C:189:THR:HG22	2.19	0.42
2:B:365:THR:CG2	2:B:367:LEU:H	2.33	0.42
2:B:806:THR:C	2:B:808:ALA:N	2.72	0.42
4:E:166:LYS:CE	4:E:167:ARG:HH21	2.31	0.42
5:F:116:ASP:HB3	5:F:119:ARG:HB2	2.00	0.42
5:F:101:ILE:HD13	5:F:120:ILE:HG21	2.02	0.42
9:K:83:PRO:O	9:K:86:ALA:HB3	2.20	0.42
10:L:28:LYS:N	10:L:39:SER:HB2	2.34	0.42
1:A:100:LYS:O	1:A:102:VAL:N	2.53	0.42
1:A:1098:VAL:N	1:A:1099:PRO:CD	2.83	0.42
1:A:849:MET:CE	1:A:1061:GLY:CA	2.84	0.42
1:A:855:THR:CG2	1:A:856:THR:N	2.82	0.42
2:B:284:ILE:CD1	2:B:324:ILE:HD12	2.48	0.42
2:B:570:VAL:HB	2:B:573:GLN:HB2	2.01	0.42
2:B:765:PRO:O	2:B:768:THR:N	2.51	0.42
2:B:899:ILE:HG22	2:B:900:ALA:N	2.34	0.42
4:E:77:SER:HB2	4:E:105:PHE:CD2	2.54	0.42
6:H:42:ILE:HG22	6:H:43:ASN:N	2.35	0.42
6:H:49:VAL:HG12	6:H:50:ALA:N	2.34	0.42
7:I:50:THR:CG2	7:I:51:ASN:N	2.82	0.42
8:J:30:LEU:HD22	8:J:34:THR:HG21	2.01	0.42
8:J:5:VAL:O	8:J:6:ARG:CB	2.66	0.42
10:L:45:ALA:C	10:L:46:VAL:HG23	2.40	0.42
1:A:569:LYS:HG2	1:A:571:LEU:CD1	2.49	0.42
1:A:575:LYS:HB3	1:A:612:ILE:HG21	2.01	0.42
2:B:274:PRO:HG3	2:B:359:GLU:O	2.19	0.42
2:B:864:LYS:HD3	2:B:871:THR:CB	2.50	0.42
3:C:239:PRO:HD2	3:C:242:GLN:HG3	2.02	0.42
3:C:264:GLN:H	3:C:264:GLN:HG3	1.64	0.42
1:A:1001:ARG:O	1:A:1002:GLY:C	2.58	0.42
1:A:1096:SER:O	1:A:1099:PRO:HG2	2.20	0.42
1:A:1425:SER:HA	1:A:1428:VAL:CG2	2.50	0.42
1:A:261:ASP:OD1	1:A:315:LEU:HD13	2.19	0.42
1:A:815:PHE:O	1:A:818:MET:HB2	2.20	0.42
2:B:682:SER:O	2:B:686:ASN:ND2	2.53	0.42
2:B:744:HIS:CD2	2:B:746:SER:H	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:755:ILE:HG22	2:B:755:ILE:O	2.20	0.42
2:B:956:THR:HG23	2:B:961:LEU:N	2.35	0.42
4:E:39:LEU:O	4:E:42:PHE:HB3	2.20	0.42
5:F:109:VAL:HG13	5:F:127:GLU:OE1	2.20	0.42
1:A:551:TYR:CE2	9:K:62:LYS:HE2	2.54	0.42
1:A:1191:TRP:HZ3	7:I:43:VAL:HG21	1.84	0.42
1:A:100:LYS:CE	1:A:176:LYS:HB2	2.48	0.42
1:A:306:ASN:ND2	1:A:322:VAL:CG1	2.83	0.42
1:A:418:SER:O	1:A:420:ARG:N	2.53	0.42
1:A:714:PHE:O	1:A:718:VAL:HG23	2.20	0.42
2:B:486:TYR:CD2	2:B:1096:ARG:CZ	3.03	0.42
3:C:31:ASN:O	3:C:34:ARG:HB3	2.20	0.42
3:C:265:MET:HE1	9:K:19:LEU:O	2.19	0.42
1:A:113:LEU:HA	1:A:113:LEU:HD23	1.87	0.41
1:A:1359:ASP:C	1:A:1361:SER:H	2.23	0.41
1:A:112:LYS:NZ	1:A:165:GLY:H	2.18	0.41
1:A:388:LEU:HD22	1:A:432:VAL:CB	2.46	0.41
1:A:7:SER:C	1:A:9:ALA:H	2.24	0.41
1:A:992:ASP:O	1:A:995:GLU:HB2	2.20	0.41
2:B:1177:HIS:O	2:B:1179:GLN:HG3	2.20	0.41
2:B:1183:LYS:C	2:B:1185:CYS:N	2.72	0.41
2:B:514:LEU:HD12	2:B:518:HIS:HD2	1.84	0.41
2:B:627:PHE:HB3	2:B:632:ARG:HH11	1.84	0.41
8:J:1:MET:O	8:J:2:ILE:O	2.38	0.41
3:C:146:LYS:HB2	8:J:57:ILE:CD1	2.50	0.41
10:L:46:VAL:O	10:L:47:ARG:HG3	2.19	0.41
1:A:1045:VAL:O	1:A:1046:LEU:C	2.56	0.41
1:A:1436:ILE:O	1:A:1436:ILE:HG13	2.20	0.41
1:A:23:SER:O	1:A:27:VAL:HG23	2.20	0.41
1:A:289:ILE:C	1:A:291:GLU:H	2.24	0.41
1:A:179:LEU:HD21	1:A:308:ILE:CD1	2.50	0.41
2:B:1197:PRO:O	2:B:1200:ALA:HB3	2.19	0.41
2:B:225:VAL:HA	2:B:237:VAL:O	2.20	0.41
2:B:857:ARG:NH1	2:B:945:GLU:OE2	2.53	0.41
3:C:46:ILE:HA	3:C:159:ALA:HA	2.02	0.41
4:E:5:ASN:O	4:E:9:ILE:HG13	2.19	0.41
5:F:147:SER:O	5:F:148:VAL:C	2.58	0.41
8:J:9:SER:OG	8:J:48:ARG:NH2	2.53	0.41
1:A:1064:VAL:O	1:A:1064:VAL:HG12	2.21	0.41
1:A:225:ASN:ND2	1:A:228:PHE:HD1	2.16	0.41
1:A:252:PHE:CD1	1:A:252:PHE:N	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:267:ALA:O	1:A:271:LYS:HG3	2.19	0.41
1:A:768:GLN:HG2	1:A:816:HIS:CA	2.50	0.41
1:A:805:LEU:CD1	2:B:1052:VAL:HG21	2.50	0.41
1:A:845:LEU:N	1:A:845:LEU:HD23	2.35	0.41
2:B:1007:VAL:HG22	2:B:1008:PRO:HD2	2.01	0.41
2:B:515:HIS:HD2	2:B:517:THR:OG1	2.02	0.41
2:B:532:ALA:HB1	2:B:536:VAL:HG23	2.02	0.41
2:B:914:LYS:N	2:B:938:SER:HB3	2.35	0.41
3:C:75:MET:CG	3:C:246:ARG:HH22	2.30	0.41
4:E:165:LEU:HD21	4:E:175:LEU:HD11	2.02	0.41
4:E:178:ILE:HG23	4:E:214:CYS:HA	2.03	0.41
8:J:52:THR:HG22	8:J:52:THR:O	2.19	0.41
2:B:784:ASN:HB3	8:J:63:TYR:CZ	2.56	0.41
9:K:18:LYS:HA	9:K:18:LYS:HD3	1.85	0.41
1:A:1364:ASN:HD21	1:A:1366:ARG:H	1.64	0.41
1:A:1364:ASN:CG	1:A:1366:ARG:HH11	2.24	0.41
1:A:311:GLN:HA	1:A:312:PRO:HD2	1.90	0.41
1:A:319:GLY:O	1:A:321:PRO:HD3	2.19	0.41
1:A:399:HIS:C	1:A:401:GLY:N	2.73	0.41
2:B:827:ILE:O	2:B:1085:ILE:HG23	2.21	0.41
2:B:737:THR:CG2	2:B:737:THR:O	2.69	0.41
2:B:871:THR:CG2	2:B:872:GLU:N	2.68	0.41
2:B:873:THR:CG2	2:B:874:PHE:N	2.84	0.41
2:B:879:ARG:HD2	2:B:883:LEU:CD2	2.47	0.41
3:C:66:ARG:CZ	8:J:2:ILE:CG2	2.98	0.41
6:H:82:PRO:HG3	9:K:54:ARG:CG	2.43	0.41
8:J:43:ARG:HG2	8:J:43:ARG:H	1.67	0.41
9:K:49:GLU:HG3	9:K:94:ILE:HG12	2.01	0.41
1:A:1009:ASN:HA	1:A:1012:ARG:NH1	2.36	0.41
1:A:315:LEU:HD12	1:A:321:PRO:CG	2.41	0.41
1:A:503:GLN:HG3	5:F:90:ARG:HH21	1.84	0.41
2:B:205:ILE:HD11	2:B:461:LEU:HD23	2.02	0.41
2:B:551:PRO:HG2	2:B:552:MET:SD	2.60	0.41
2:B:43:LEU:CD1	2:B:812:LEU:HD23	2.49	0.41
2:B:825:VAL:HG12	2:B:826:ALA:H	1.83	0.41
2:B:996:ARG:NH2	3:C:175:ALA:HA	2.35	0.41
3:C:77:ILE:C	3:C:79:GLN:N	2.73	0.41
4:E:78:LEU:C	4:E:78:LEU:HD23	2.41	0.41
1:A:1141:THR:HG21	1:A:1207:LEU:HD11	2.03	0.41
1:A:1173:HIS:O	1:A:1174:PHE:CG	2.74	0.41
1:A:1391:ARG:HB3	1:A:1392:SER:H	1.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:481:ASP:OD1	1:A:485:ASP:OD2	2.39	0.41
1:A:550:LEU:HD23	1:A:550:LEU:HA	1.88	0.41
1:A:702:LEU:HD23	1:A:702:LEU:HA	1.87	0.41
2:B:1001:PHE:HE1	3:C:178:PHE:HB3	1.86	0.41
3:C:248:ILE:HG23	9:K:98:LEU:HD22	2.03	0.41
3:C:82:TYR:O	3:C:83:SER:C	2.59	0.41
5:F:127:GLU:O	5:F:128:LYS:C	2.59	0.41
6:H:84:ALA:HA	6:H:87:ARG:CG	2.50	0.41
1:A:1111:MET:HE1	1:A:1330:ASN:OD1	2.21	0.41
1:A:1193:LEU:HB2	1:A:1260:LEU:CD1	2.45	0.41
1:A:1215:ARG:NH1	1:A:1273:LEU:O	2.53	0.41
1:A:1140:HIS:CE1	1:A:1272:THR:HG23	2.55	0.41
1:A:1300:LYS:NZ	1:A:1300:LYS:HB3	2.36	0.41
1:A:152:VAL:HG23	1:A:164:ARG:HD3	2.01	0.41
1:A:511:ILE:HG12	1:A:521:MET:CE	2.51	0.41
1:A:535:THR:HG23	1:A:575:LYS:HE3	2.03	0.41
1:A:853:ASP:OD2	1:A:857:ARG:NH2	2.49	0.41
1:A:974:ASP:HB3	6:H:136:LYS:HZ3	1.85	0.41
1:A:486:GLU:OE1	2:B:1102:LYS:HD3	2.20	0.41
1:A:505:CYS:HB3	2:B:1141:HIS:CG	2.56	0.41
2:B:100:PRO:HG2	2:B:124:TYR:CZ	2.55	0.41
2:B:797:TYR:HE1	2:B:854:LEU:CD2	2.33	0.41
3:C:56:THR:CG2	3:C:57:VAL:H	2.34	0.41
3:C:69:LEU:HA	3:C:69:LEU:HD12	1.83	0.41
4:E:191:LYS:O	4:E:192:ARG:C	2.59	0.41
4:E:82:PHE:N	4:E:82:PHE:CD1	2.89	0.41
5:F:111:LEU:HD23	5:F:114:GLU:O	2.20	0.41
5:F:130:ILE:HA	5:F:131:PRO:HD2	1.83	0.41
5:F:82:THR:HA	5:F:83:PRO:HD3	1.75	0.41
1:A:254:GLU:O	1:A:255:SER:OG	2.35	0.41
1:A:67:CYS:O	1:A:70:CYS:SG	2.79	0.41
2:B:31:TRP:CZ3	2:B:34:ILE:HD12	2.56	0.41
2:B:484:ASN:CG	2:B:486:TYR:CE1	2.94	0.41
2:B:830:TYR:CE2	2:B:1000:PRO:HD3	2.56	0.41
3:C:127:ARG:HG2	3:C:127:ARG:H	1.70	0.41
1:A:868:TYR:CE2	1:A:1058:VAL:HG21	2.56	0.41
1:A:100:LYS:CE	1:A:176:LYS:HD2	2.50	0.41
1:A:214:ILE:HG22	1:A:218:ASP:HB2	2.02	0.41
1:A:734:GLU:HA	1:A:737:LEU:HD12	2.03	0.41
1:A:897:TYR:CD2	1:A:936:LEU:HD13	2.56	0.41
2:B:1099:VAL:O	2:B:1103:ILE:HG13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:23:ALA:HB3	2:B:655:LYS:CE	2.51	0.41
2:B:653:VAL:HG22	2:B:689:LEU:HB3	2.02	0.41
2:B:806:THR:N	2:B:809:MET:HE3	2.35	0.41
3:C:11:ARG:HE	3:C:21:ILE:HD11	1.86	0.41
4:E:24:LYS:HE3	4:E:30:ILE:O	2.21	0.41
7:I:78:CYS:O	7:I:79:HIS:C	2.59	0.41
2:B:798:TYR:CD2	8:J:4:PRO:HG3	2.55	0.41
1:A:1035:TYR:O	1:A:1036:ARG:C	2.59	0.41
1:A:148:CYS:O	1:A:168:GLY:HA2	2.21	0.41
1:A:22:PHE:HD2	1:A:26:GLU:HG2	1.86	0.41
1:A:751:SER:OG	2:B:1015:HIS:HE1	2.04	0.41
2:B:112:LEU:HD12	2:B:113:TYR:H	1.86	0.41
2:B:345:LYS:HB3	2:B:346:GLU:H	1.57	0.41
2:B:254:LEU:HD22	2:B:361:LEU:HD13	2.03	0.41
2:B:59:LEU:HD11	2:B:417:PHE:CZ	2.56	0.41
2:B:707:PRO:CG	2:B:708:GLU:N	2.84	0.41
7:I:96:SER:OG	7:I:98:VAL:HG23	2.20	0.41
1:A:1199:ARG:HG2	1:A:1203:ASN:ND2	2.36	0.41
1:A:519:PRO:HD3	1:A:631:HIS:CG	2.56	0.41
1:A:608:ILE:HB	1:A:613:ILE:HD11	2.03	0.41
2:B:1096:ARG:O	2:B:1097:HIS:HB2	2.21	0.41
1:A:1438:THR:CG2	2:B:1144:ALA:HB3	2.50	0.41
2:B:1182:CYS:C	2:B:1183:LYS:O	2.59	0.41
2:B:1222:ARG:HG2	2:B:1223:ASP:N	2.36	0.41
2:B:514:LEU:HD12	2:B:518:HIS:CD2	2.56	0.41
2:B:520:GLY:HA2	2:B:748:ILE:HG22	2.02	0.41
2:B:782:LEU:HD23	2:B:782:LEU:HA	1.85	0.41
2:B:806:THR:C	2:B:808:ALA:H	2.24	0.41
3:C:182:PRO:HB3	3:C:206:ASN:HB2	2.01	0.41
2:B:997:GLU:HB2	3:C:35:ARG:HH21	1.86	0.41
7:I:10:CYS:SG	7:I:31:THR:CG2	3.09	0.41
1:A:1152:ILE:HA	1:A:1192:LEU:O	2.21	0.40
1:A:1116:LEU:HD12	1:A:1329:THR:OG1	2.21	0.40
1:A:1364:ASN:ND2	1:A:1365:TYR:N	2.70	0.40
1:A:538:ASP:OD1	6:H:22:LYS:HG3	2.22	0.40
1:A:629:LEU:O	1:A:633:VAL:HG23	2.21	0.40
1:A:890:ASP:OD1	1:A:940:ARG:NH1	2.54	0.40
1:A:948:VAL:HG12	1:A:948:VAL:O	2.20	0.40
2:B:1152:MET:HG2	2:B:1153:GLU:H	1.86	0.40
2:B:431:TYR:CZ	2:B:447:ALA:HB2	2.56	0.40
2:B:510:LYS:N	2:B:511:PRO:CD	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:575:PRO:CG	2:B:576:ASP:H	2.34	0.40
2:B:605:ARG:CZ	2:B:639:ILE:HD13	2.50	0.40
2:B:984:HIS:CD2	2:B:1025:HIS:CA	3.03	0.40
3:C:40:GLU:O	3:C:250:THR:HG21	2.21	0.40
6:H:130:ARG:C	6:H:132:LEU:N	2.72	0.40
9:K:63:VAL:HG12	9:K:71:PHE:HB3	2.03	0.40
1:A:107:CYS:SG	1:A:148:CYS:CB	3.04	0.40
2:B:1037:LEU:HD11	2:B:1064:TYR:CE1	2.56	0.40
2:B:202:TYR:CD2	2:B:483:LEU:HD22	2.56	0.40
2:B:597:MET:HE3	2:B:600:LEU:HD12	2.03	0.40
1:A:547:LEU:HD22	9:K:58:PHE:CD1	2.56	0.40
1:A:1237:ILE:CG2	1:A:1238:ILE:N	2.84	0.40
1:A:326:ARG:HD3	1:A:1406:VAL:HG11	2.03	0.40
1:A:475:THR:CG2	1:A:476:SER:N	2.85	0.40
1:A:613:ILE:O	1:A:614:PHE:HB3	2.22	0.40
1:A:61:ILE:HG22	1:A:62:ASP:N	2.30	0.40
1:A:809:THR:H	1:A:812:GLU:HB2	1.86	0.40
2:B:377:PHE:CD2	2:B:381:MET:HE2	2.57	0.40
2:B:23:ALA:HB3	2:B:655:LYS:CD	2.51	0.40
2:B:701:ILE:HB	2:B:739:THR:OG1	2.21	0.40
2:B:842:ASN:HD22	2:B:845:SER:CB	2.34	0.40
2:B:859:TYR:CE2	2:B:942:ARG:HG3	2.56	0.40
2:B:959:ASP:O	2:B:960:GLY:C	2.59	0.40
4:E:116:ILE:CG2	4:E:121:MET:HG2	2.52	0.40
4:E:72:PHE:CD1	4:E:72:PHE:N	2.89	0.40
1:A:1001:ARG:HB2	5:F:80:ALA:O	2.21	0.40
6:H:84:ALA:HA	6:H:87:ARG:CB	2.51	0.40
7:I:101:PHE:CD1	7:I:101:PHE:N	2.89	0.40
7:I:85:PHE:HB3	7:I:101:PHE:CD2	2.56	0.40
9:K:58:PHE:HB3	9:K:76:GLN:HB3	2.03	0.40
1:A:1332:PHE:CD1	1:A:1381:LEU:HD13	2.56	0.40
1:A:1391:ARG:O	1:A:1392:SER:HB3	2.22	0.40
1:A:189:ARG:O	1:A:190:ALA:HB3	2.21	0.40
1:A:545:GLN:O	1:A:549:MET:HG3	2.21	0.40
1:A:666:ILE:O	1:A:667:GLY:C	2.59	0.40
1:A:683:ILE:O	1:A:686:ALA:HB3	2.21	0.40
2:B:1050:ILE:CG2	2:B:1055:ILE:HD11	2.52	0.40
2:B:1180:PHE:O	2:B:1181:GLU:O	2.39	0.40
2:B:121:ASN:HD22	2:B:121:ASN:N	2.19	0.40
2:B:348:ARG:O	2:B:351:TYR:HB3	2.21	0.40
2:B:603:LEU:HD23	2:B:603:LEU:HA	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:693:ILE:HD13	2:B:701:ILE:HD13	2.04	0.40
2:B:893:LEU:HA	2:B:893:LEU:HD23	1.91	0.40
2:B:918:ILE:HD12	2:B:935:ARG:NH1	2.36	0.40
1:A:567:LYS:NZ	6:H:95:TYR:CE1	2.88	0.40
3:C:175:ALA:CB	8:J:43:ARG:NH1	2.84	0.40
1:A:1015:VAL:O	1:A:1015:VAL:HG12	2.22	0.40
1:A:1129:GLU:O	1:A:1132:LYS:HB2	2.21	0.40
1:A:269:ILE:HD11	1:A:303:TYR:HB3	2.03	0.40
1:A:341:MET:HE3	1:A:343:LYS:HE3	2.04	0.40
2:B:292:ILE:N	2:B:293:PRO:HD2	2.36	0.40
3:C:167:HIS:HE1	10:L:70:ARG:O	2.05	0.40
3:C:62:PHE:HD2	3:C:62:PHE:O	2.05	0.40
3:C:77:ILE:O	3:C:79:GLN:N	2.54	0.40
3:C:92:CYS:C	3:C:94:LYS:H	2.24	0.40
4:E:112:TYR:CZ	4:E:136:ASN:HB2	2.57	0.40
1:A:946:VAL:HG22	4:E:201:LYS:HD2	2.04	0.40
6:H:44:VAL:HG13	6:H:48:PRO:HA	2.03	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:106:ASP:OD1	2:B:106:ASP:OD1[2_655]	2.08	0.12

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%)	1138 (81%)	203 (14%)	65 (5%)	2 17
2	B	1061/1224 (87%)	868 (82%)	128 (12%)	65 (6%)	1 10
3	C	264/318 (83%)	210 (80%)	35 (13%)	19 (7%)	1 7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	E	213/215 (99%)	184 (86%)	27 (13%)	2 (1%)	19	56
5	F	82/155 (53%)	63 (77%)	15 (18%)	4 (5%)	2	15
6	H	129/146 (88%)	91 (70%)	22 (17%)	16 (12%)	0	1
7	I	120/122 (98%)	97 (81%)	17 (14%)	6 (5%)	2	15
8	J	63/70 (90%)	53 (84%)	7 (11%)	3 (5%)	2	16
9	K	112/120 (93%)	106 (95%)	5 (4%)	1 (1%)	19	56
10	L	44/70 (63%)	28 (64%)	9 (20%)	7 (16%)	0	0
All	All	3494/4173 (84%)	2838 (81%)	468 (13%)	188 (5%)	2	13

All (188) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	5	GLN
1	A	35	ILE
1	A	48	ALA
1	A	55	ASP
1	A	56	PRO
1	A	87	ALA
1	A	167	CYS
1	A	196	GLU
1	A	257	ARG
1	A	314	ALA
1	A	384	ASN
1	A	404	TYR
1	A	465	TYR
1	A	567	LYS
1	A	597	LEU
1	A	904	THR
1	A	998	LEU
1	A	1036	ARG
1	A	1114	PRO
1	A	1122	PRO
1	A	1127	ASP
1	A	1223	ASP
1	A	1377	THR
1	A	1386	ARG
1	A	1391	ARG
1	A	1393	ASN
1	A	1400	CYS
1	A	1401	SER

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Mol	Chain	Res	Type
1	A	1416	ALA
2	B	65	GLU
2	B	136	THR
2	B	175	ARG
2	B	367	LEU
2	B	436	VAL
2	B	480	SER
2	B	531	GLN
2	B	643	ASP
2	B	708	GLU
2	B	709	ASP
2	B	734	HIS
2	B	864	LYS
2	B	884	ARG
2	B	943	SER
2	B	958	GLN
2	B	992	ILE
2	B	1108	ARG
2	B	1156	ASP
2	B	1167	GLY
2	B	1176	ASN
2	B	1181	GLU
2	B	1183	LYS
2	B	1221	SER
2	B	1222	ARG
3	C	90	ASP
3	C	141	GLY
3	C	174	ALA
5	F	73	ALA
5	F	128	LYS
6	H	81	PRO
6	H	83	GLN
6	H	140	ALA
7	I	11	ASN
7	I	79	HIS
8	J	2	ILE
10	L	38	LEU
10	L	64	LEU
1	A	54	ASN
1	A	67	CYS
1	A	75	ASN
1	A	109	HIS

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Mol	Chain	Res	Type
1	A	154	SER
1	A	186	LYS
1	A	290	GLU
1	A	920	LEU
1	A	986	ILE
1	A	1224	LEU
1	A	1231	ASP
1	A	1392	SER
2	B	55	VAL
2	B	174	LEU
2	B	200	GLY
2	B	247	GLY
2	B	333	PHE
2	B	347	LYS
2	B	364	ILE
2	B	575	PRO
2	B	649	LYS
2	B	887	HIS
2	B	901	PRO
2	B	907	GLY
2	B	960	GLY
2	B	996	ARG
2	B	1066	SER
2	B	1104	HIS
2	B	1154	ALA
3	C	4	GLU
3	C	5	GLY
3	C	130	GLY
3	C	142	VAL
3	C	195	GLN
3	C	241	ASP
6	H	17	PRO
6	H	32	THR
6	H	82	PRO
6	H	128	ASN
6	H	139	ASN
7	I	116	ASN
8	J	26	GLN
10	L	37	LYS
10	L	39	SER
1	A	79	GLY
1	A	101	LYS

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Mol	Chain	Res	Type
1	A	324	SER
1	A	419	LYS
1	A	464	PRO
1	A	1221	LYS
1	A	1280	GLU
2	B	21	GLU
2	B	47	GLN
2	B	641	GLU
2	B	1109	GLY
3	C	175	ALA
3	C	202	PRO
3	C	212	PRO
3	C	227	THR
3	C	237	SER
6	H	51	ALA
6	H	62	SER
6	H	90	ALA
6	H	138	GLU
7	I	121	PHE
1	A	197	PRO
1	A	307	ASP
1	A	321	PRO
1	A	399	HIS
1	A	591	PHE
1	A	958	VAL
1	A	1172	LEU
2	B	466	TRP
2	B	619	ILE
2	B	655	LYS
2	B	731	VAL
2	B	791	THR
2	B	792	MET
2	B	813	LYS
2	B	1046	PRO
3	C	78	GLU
3	C	149	LYS
6	H	77	ARG
6	H	111	LEU
6	H	135	LEU
7	I	23	ASN
8	J	6	ARG
9	K	107	THR

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Mol	Chain	Res	Type
10	L	56	LEU
1	A	51	GLY
1	A	84	ILE
1	A	424	ILE
1	A	599	SER
1	A	752	LYS
1	A	875	ALA
1	A	1397	LEU
1	A	1437	GLY
2	B	90	ILE
2	B	179	CYS
2	B	180	TYR
2	B	707	PRO
2	B	938	SER
2	B	1017	ILE
3	C	28	ALA
3	C	214	ASN
5	F	81	THR
10	L	26	THR
2	B	168	GLY
2	B	1018	PRO
4	E	86	PRO
5	F	131	PRO
6	H	107	VAL
10	L	45	ALA
2	B	565	PRO
7	I	62	ILE
2	B	1184	GLY
4	E	30	ILE
2	B	167	ILE
3	C	240	VAL
1	A	1242	VAL
2	B	100	PRO
1	A	93	VAL

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	1234/1520 (81%)	1165 (94%)	69 (6%)	23	57
2	B	942/1061 (89%)	884 (94%)	58 (6%)	20	53
3	C	234/274 (85%)	221 (94%)	13 (6%)	23	57
4	E	197/197 (100%)	193 (98%)	4 (2%)	58	83
5	F	74/137 (54%)	67 (90%)	7 (10%)	9	34
6	H	117/128 (91%)	108 (92%)	9 (8%)	14	45
7	I	116/116 (100%)	107 (92%)	9 (8%)	14	45
8	J	60/65 (92%)	54 (90%)	6 (10%)	8	31
9	K	99/102 (97%)	90 (91%)	9 (9%)	10	37
10	L	40/57 (70%)	35 (88%)	5 (12%)	5	20
All	All	3113/3657 (85%)	2924 (94%)	189 (6%)	20	54

All (189) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	32	VAL
1	A	93	VAL
1	A	117	GLU
1	A	122	MET
1	A	247	ARG
1	A	321	PRO
1	A	345	VAL
1	A	351	THR
1	A	375	THR
1	A	383	TYR
1	A	397	ASN
1	A	436	ILE
1	A	445	ASN
1	A	450	LEU
1	A	474	VAL
1	A	475	THR
1	A	479	ASN
1	A	481	ASP
1	A	493	GLN
1	A	503	GLN
1	A	504	LEU
1	A	505	CYS
1	A	517	ASN
1	A	518	LYS

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Mol	Chain	Res	Type
1	A	524	VAL
1	A	538	ASP
1	A	573	SER
1	A	590	ARG
1	A	596	THR
1	A	597	LEU
1	A	598	LEU
1	A	618	GLU
1	A	626	ASN
1	A	629	LEU
1	A	666	ILE
1	A	711	ARG
1	A	756	ILE
1	A	768	GLN
1	A	774	ARG
1	A	821	ARG
1	A	826	ASP
1	A	845	LEU
1	A	854	ASN
1	A	855	THR
1	A	858	ASN
1	A	867	ILE
1	A	897	TYR
1	A	919	ILE
1	A	1035	TYR
1	A	1043	ASP
1	A	1055	ARG
1	A	1110	ASN
1	A	1122	PRO
1	A	1135	ARG
1	A	1208	THR
1	A	1257	ASP
1	A	1258	HIS
1	A	1264	GLU
1	A	1273	LEU
1	A	1295	THR
1	A	1308	THR
1	A	1331	SER
1	A	1345	ARG
1	A	1359	ASP
1	A	1364	ASN
1	A	1366	ARG

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Mol	Chain	Res	Type
1	A	1370	LEU
1	A	1387	HIS
1	A	1438	THR
2	B	20	ASP
2	B	63	ILE
2	B	121	ASN
2	B	174	LEU
2	B	194	GLU
2	B	199	MET
2	B	234	ILE
2	B	261	ARG
2	B	278	GLN
2	B	320	ASP
2	B	331	LEU
2	B	376	PHE
2	B	391	ASP
2	B	394	ASP
2	B	455	SER
2	B	466	TRP
2	B	480	SER
2	B	485	ARG
2	B	486	TYR
2	B	487	THR
2	B	513	GLN
2	B	538	ASN
2	B	547	VAL
2	B	559	SER
2	B	570	VAL
2	B	601	ARG
2	B	602	THR
2	B	616	ILE
2	B	628	THR
2	B	629	ASP
2	B	635	ARG
2	B	678	GLU
2	B	679	TYR
2	B	685	LEU
2	B	737	THR
2	B	769	TYR
2	B	780	VAL
2	B	790	ASP
2	B	791	THR

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Mol	Chain	Res	Type
2	B	807	ARG
2	B	857	ARG
2	B	859	TYR
2	B	860	MET
2	B	901	PRO
2	B	969	ARG
2	B	975	GLN
2	B	976	ILE
2	B	983	ARG
2	B	997	GLU
2	B	999	MET
2	B	1028	GLU
2	B	1065	GLN
2	B	1145	SER
2	B	1159	ARG
2	B	1175	LEU
2	B	1183	LYS
2	B	1185	CYS
2	B	1211	ASN
3	C	22	LEU
3	C	25	VAL
3	C	26	ASP
3	C	57	VAL
3	C	62	PHE
3	C	69	LEU
3	C	118	LEU
3	C	122	SER
3	C	136	ASP
3	C	163	ILE
3	C	186	LEU
3	C	233	GLU
3	C	249	ASP
4	E	24	LYS
4	E	104	ASN
4	E	202	SER
4	E	204	THR
5	F	79	ARG
5	F	90	ARG
5	F	103	MET
5	F	108	PHE
5	F	111	LEU
5	F	133	VAL

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Mol	Chain	Res	Type
5	F	140	ASP
6	H	17	PRO
6	H	27	GLU
6	H	33	GLN
6	H	82	PRO
6	H	102	TYR
6	H	109	LYS
6	H	110	ASP
6	H	114	VAL
6	H	143	LEU
7	I	15	TYR
7	I	31	THR
7	I	52	ILE
7	I	55	THR
7	I	75	CYS
7	I	84	VAL
7	I	94	ASP
7	I	95	THR
7	I	118	ARG
8	J	2	ILE
8	J	6	ARG
8	J	7	CYS
8	J	43	ARG
8	J	48	ARG
8	J	55	ASP
9	K	12	LEU
9	K	25	THR
9	K	47	ARG
9	K	50	LEU
9	K	51	LEU
9	K	73	LEU
9	K	74	ARG
9	K	77	THR
9	K	101	LEU
10	L	38	LEU
10	L	50	ASP
10	L	54	ARG
10	L	58	LYS
10	L	68	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (81) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	68	GLN
1	A	92	HIS
1	A	169	ASN
1	A	225	ASN
1	A	281	HIS
1	A	297	GLN
1	A	399	HIS
1	A	435	HIS
1	A	445	ASN
1	A	479	ASN
1	A	493	GLN
1	A	631	HIS
1	A	654	ASN
1	A	698	GLN
1	A	736	ASN
1	A	741	ASN
1	A	745	GLN
1	A	768	GLN
1	A	786	HIS
1	A	858	ASN
1	A	926	GLN
1	A	935	GLN
1	A	994	GLN
1	A	1078	GLN
1	A	1140	HIS
1	A	1203	ASN
1	A	1270	ASN
1	A	1364	ASN
1	A	1432	GLN
2	B	46	GLN
2	B	115	GLN
2	B	178	ASN
2	B	215	GLN
2	B	236	HIS
2	B	325	GLN
2	B	366	GLN
2	B	465	ASN
2	B	513	GLN
2	B	515	HIS
2	B	516	ASN
2	B	518	HIS
2	B	538	ASN
2	B	657	HIS

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Mol	Chain	Res	Type
2	B	686	ASN
2	B	706	GLN
2	B	744	HIS
2	B	822	ASN
2	B	842	ASN
2	B	957	ASN
2	B	984	HIS
2	B	1015	HIS
2	B	1040	ASN
2	B	1065	GLN
2	B	1179	GLN
2	B	1187	ASN
3	C	65	HIS
3	C	73	GLN
3	C	102	GLN
3	C	112	ASN
3	C	123	ASN
3	C	167	HIS
3	C	242	GLN
4	E	5	ASN
4	E	32	GLN
4	E	61	GLN
4	E	101	GLN
4	E	104	ASN
4	E	113	GLN
4	E	114	ASN
4	E	146	HIS
4	E	147	HIS
6	H	11	GLN
6	H	128	ASN
6	H	131	ASN
6	H	134	ASN
7	I	12	ASN
7	I	83	ASN
8	J	53	HIS
9	K	29	ASN
9	K	65	HIS
9	K	76	GLN

5.3.3 RNA ⓘ

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 carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 9 ligands modelled in this entry, 9 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 [i](#)

6.1 Protein, DNA and RNA chains [i](#)

EDS was not executed - this section is therefore empty.

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

EDS was not executed - this section is therefore empty.

6.3 Carbohydrates [i](#)

EDS was not executed - this section is therefore empty.

6.4 Ligands [i](#)

EDS was not executed - this section is therefore empty.

6.5 Other polymers [i](#)

EDS was not executed - this section is therefore empty.