



Full wwPDB EM Validation Report ⓘ

Jan 1, 2025 – 07:45 PM EST

PDB ID : 8ZJM
EMDB ID : EMD-60150
Title : Structure of DOCK5/ELMO1/Rac1 core (RhoG/DOCK5/ELMO1/Rac1 dataset, class 5)
Authors : Kukimoto-Niino, M.; Katsura, K.; Ishizuka-Katsura, Y.; Mishima-Tsumagari, C.; Yonemochi, M.; Inoue, M.; Nakagawa, R.; Kaushik, R.; Zhang, K.Y.J.; Shirouzu, M.
Deposited on : 2024-05-15
Resolution : 4.52 Å (reported)
Based on initial model : 7DPA

This is a Full wwPDB EM 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/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev113
MolProbity : 4.02b-467
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.40

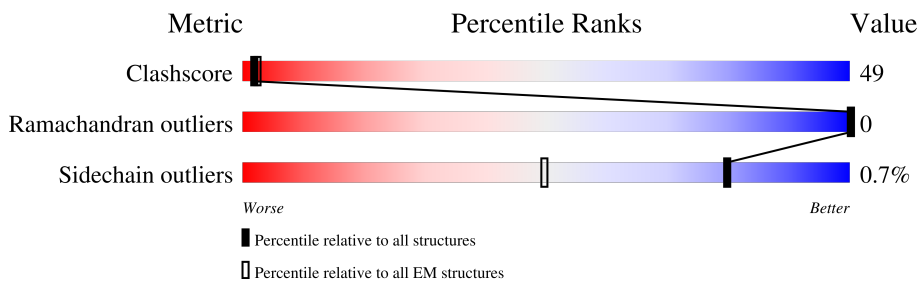
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.52 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)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	733	
1	D	733	
2	B	1648	
2	E	1648	
3	C	184	
3	F	184	

2 Entry composition i

There are 3 unique types of molecules in this entry. The entry contains 32858 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 Engulfment and cell motility protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	198	1608	1018	277	303	10	0	0
1	D	198	1608	1018	277	303	10	0	0

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-5	GLY	-	expression tag	UNP Q92556
A	-4	GLY	-	expression tag	UNP Q92556
A	-3	SER	-	expression tag	UNP Q92556
A	-2	GLY	-	expression tag	UNP Q92556
A	-1	GLY	-	expression tag	UNP Q92556
A	0	SER	-	expression tag	UNP Q92556
D	-5	GLY	-	expression tag	UNP Q92556
D	-4	GLY	-	expression tag	UNP Q92556
D	-3	SER	-	expression tag	UNP Q92556
D	-2	GLY	-	expression tag	UNP Q92556
D	-1	GLY	-	expression tag	UNP Q92556
D	0	SER	-	expression tag	UNP Q92556

- Molecule 2 is a protein called Deducator of cytokinesis protein 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	1642	13436	8618	2264	2484	70	0	0
2	E	1642	13436	8618	2264	2484	70	0	0

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	-5	GLY	-	expression tag	UNP Q9H7D0

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Chain	Residue	Modelled	Actual	Comment	Reference
B	-4	GLY	-	expression tag	UNP Q9H7D0
B	-3	SER	-	expression tag	UNP Q9H7D0
B	-2	GLY	-	expression tag	UNP Q9H7D0
B	-1	GLY	-	expression tag	UNP Q9H7D0
B	0	SER	-	expression tag	UNP Q9H7D0
B	1285	ARG	LYS	variant	UNP Q9H7D0
E	-5	GLY	-	expression tag	UNP Q9H7D0
E	-4	GLY	-	expression tag	UNP Q9H7D0
E	-3	SER	-	expression tag	UNP Q9H7D0
E	-2	GLY	-	expression tag	UNP Q9H7D0
E	-1	GLY	-	expression tag	UNP Q9H7D0
E	0	SER	-	expression tag	UNP Q9H7D0
E	1285	ARG	LYS	variant	UNP Q9H7D0

- Molecule 3 is a protein called Ras-related C3 botulinum toxin substrate 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	177	1385	890	228	259	8	0	0
3	F	177	1385	890	228	259	8	0	0

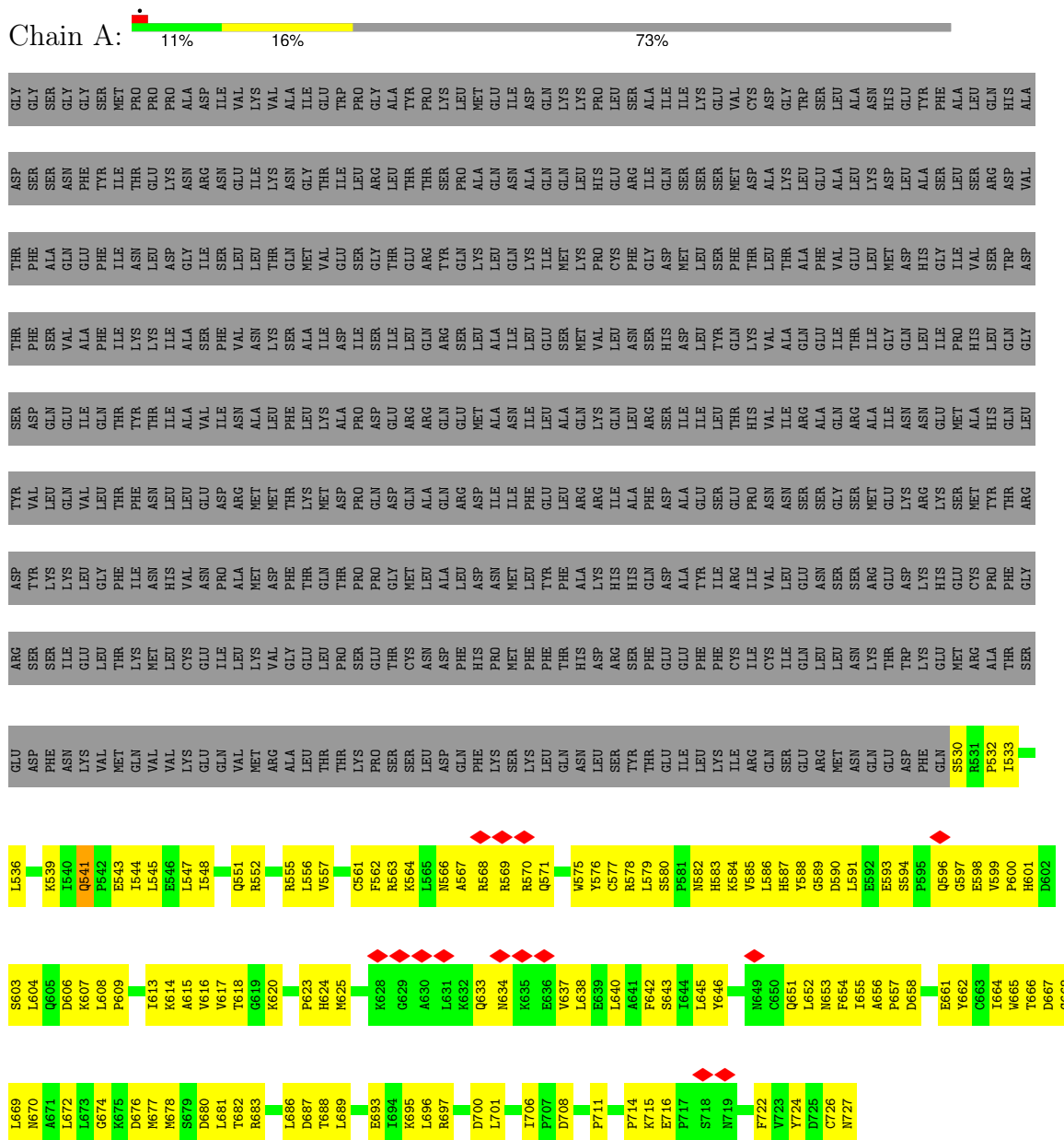
There are 16 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	-6	GLY	-	expression tag	UNP P63000
C	-5	SER	-	expression tag	UNP P63000
C	-4	SER	-	expression tag	UNP P63000
C	-3	GLY	-	expression tag	UNP P63000
C	-2	SER	-	expression tag	UNP P63000
C	-1	SER	-	expression tag	UNP P63000
C	0	GLY	-	expression tag	UNP P63000
C	15	ALA	GLY	engineered mutation	UNP P63000
F	-6	GLY	-	expression tag	UNP P63000
F	-5	SER	-	expression tag	UNP P63000
F	-4	SER	-	expression tag	UNP P63000
F	-3	GLY	-	expression tag	UNP P63000
F	-2	SER	-	expression tag	UNP P63000
F	-1	SER	-	expression tag	UNP P63000
F	0	GLY	-	expression tag	UNP P63000
F	15	ALA	GLY	engineered mutation	UNP P63000

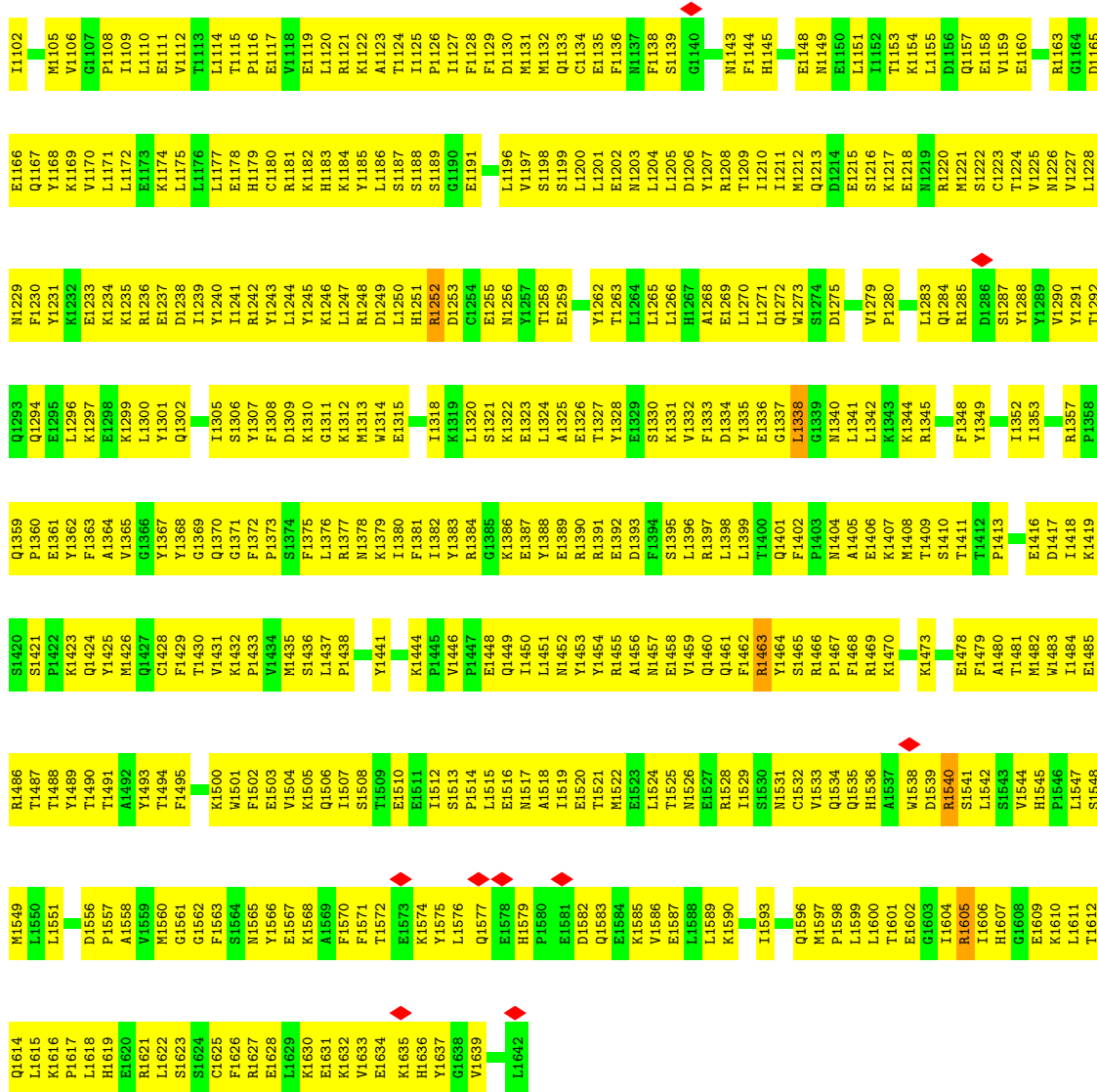
3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

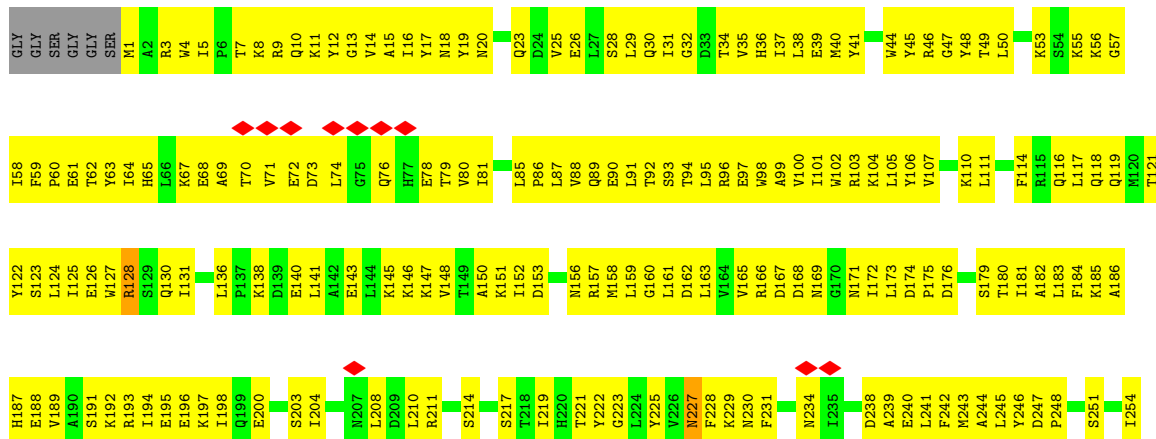
- Molecule 1: Engulfment and cell motility protein 1



H187	L390	F322	K390	K459	E520	F584	S645	W715	R776	K842	N908	I973	F1038
E188	L260	V326	E391	K460	E521	Y585	N646	L716	F777	F843	I909	S974	E1039
V189	R261	M327	N392	K461	E522	L586	E717	E717	G778	R844	L910	T975	L1040
S191	G263	M327	N393	T462	T523	T587	Q648	T718	G779	Q845	E911	F976	Q1041
R193	S264	I329	H394	P463	C525	L588	N649	Y719	Q780	S846	N912	K977	L1042
L194	N265	T330	K395	K464	H526	P589	I650	T720	S781	R847	L913	T978	W1043
E196	G266	D331	W400	N465	I527	G590	K651	K722	F787	Q851	R915	R979	M1044
K197	G266	I332	V401	N466	R28	T591	H652	H723	M788	L852	N918	I982	Y1045
I198	N267	I333	S402	V467	F529	K592	H653	F724	N789	R853	N919	R983	Y1046
E200	P268	I333	L403	V468	T530	M593	L654	S725	S790	R854	G919	D984	H1047
S203	R268	I333	K404	V469	F531	E594	K655	A726	I791	Q855	A920	F985	H1048
I204	K273	I333	L405	M470	R532	M595	L657	L728	R792	R856	T921	L986	L1049
L208	K273	I333	L406	S471	R533	E596	M658	A729	Q793	L857	A922	M987	A1050
D209	E270	I333	L406	V472	R534	E597	E659	K732	Q793	M858	Y923	R988	A1051
R211	I271	I333	T411	H473	R535	E597	V660	K732	A797	L794	N924	T989	F1052
G212	I271	I333	Q412	D474	S536	K598	Q662	L733	F798	R859	H924	F990	F1053
Q213	L277	I333	K415	G477	Q537	L600	E664	S734	M799	Y864	N925	F991	A1054
S214	V280	I351	N415	K478	Q538	L606	L665	K736	N800	R864	E930	I991	S1058
S217	F281	A352	F417	L479	E539	A602	T672	A742	M801	Q871	N929	N992	L1059
T218	T282	E354	S418	L480	T539	S603	L673	A744	L801	R874	E930	M992	Q1060
I219	D283	M553	H419	L481	R640	S604	L669	A744	M802	R875	E931	F993	L1061
H220	L284	E354	L420	K482	K642	R604	L669	D745	N803	R876	N932	M992	E1062
I219	L284	E354	L421	K483	S543	R605	L665	A754	R804	R877	L932	F993	T1063
H220	S286	E354	D422	I484	E544	N605	L665	D745	P885	F889	R933	G998	Y1064
T221	S286	E354	R423	H485	R545	I606	T671	A754	R885	R890	R934	K999	F1064
Y222	M287	E354	S424	G487	A546	L607	N671	A754	E907	Q871	R935	Y1002	Q1065
Y225	D288	E354	S424	A488	F547	L607	T672	A754	E908	C874	N937	Y1006	Q1066
V226	L289	E354	T425	G489	G548	V607	L673	A754	A809	R875	N938	M1007	L1067
V226	L290	E354	A428	Y490	G548	V608	A675	K749	W810	R876	N939	M1008	K1068
V226	R291	E354	R429	E491	V549	T610	A676	L757	A815	L878	N943	M1010	R1069
N227	R292	E354	K430	G492	A550	P611	N680	L757	A816	L879	N944	M1011	D1078
F228	R293	E354	K431	G493	F551	S612	M681	L757	A817	P880	N945	T1012	F1085
K229	V294	E354	M431	I493	F552	S613	M681	L757	L817	R881	R945	Q1013	R1086
N230	L296	E354	G482	S494	V552	D614	S684	A754	R818	L882	Q946	N1014	A1025
F231	L296	E354	F433	E495	K553	D614	D685	A754	Y819	T883	H949	R1015	A1026
N231	L296	E354	P434	Y496	L554	S615	D685	A756	L820	D884	N949	V1016	R1080
N234	V297	E354	K497	S498	L555	T616	D685	L757	R821	R885	N950	F1017	K1081
D238	C298	E354	I436	Y499	N556	K617	D690	L757	S822	L886	F953	L1018	E1082
A239	Q299	E354	I437	V499	P557	D618	F691	K758	L823	Q889	N954	R1019	I1083
E240	R302	E354	L438	V500	T560	D618	L692	A759	R824	L890	N954	M1022	F1084
L241	V303	E354	D441	Y502	T561	F620	V693	L760	N825	L890	N957	Q1023	F1085
F242	G304	E354	V442	Q503	L562	Q621	F694	K761	D826	N893	R957	F1024	R1086
M243	H305	E354	R443	V504	G565	L622	A696	T762	V827	S894	A959	A1025	A1025
A244	H305	E354	N444	K505	L569	A623	A696	F764	K828	S894	L960	E1026	R1088
L245	E307	E354	D445	K506	L625	A623	A696	R765	L829	N895	Q962	V1027	D1089
Y246	L308	E354	I446	Q506	L626	L622	A696	F766	F831	K896	Q962	L1028	M1090
D247	L308	E354	Y447	Q506	L626	L622	A696	L767	D898	R897	N964	T1029	W1091
P248	K309	E354	W509	Y509	V570	C627	L701	L768	D898	H899	N964	T1029	Y1092
T254	E310	E354	Y510	Y510	V570	Q628	K708	Q769	E835	S902	N965	F1031	L1094
E256	G311	E354	E511	E511	Y572	F629	F709	S770	L836	S903	D966	F1031	L1094
N257	K312	E354	T512	T512	G574	K630	Q710	R771	S837	Q904	Y969	M1033	H1097
Y258	K313	E354	V513	V513	G574	L631	H711	V772	W838	L905	N970	D1034	K1098
	H314	E354	E454	E454	D575	T632	H712	L773	L839	L906	H971	Q1035	I1099
	T315	E354	F455	V515	N576	Q633	H713	Y774	F840	L906	Y972	A1036	K1100
	L318	E354	D456	S516	K577	D636	P714	L775	C841	S907		S1037	F1101
	R319	E354	K457	L517	K578	L637							
	R320	E354	K385	A518	M579	L638							
	P321	E354	V386	E580	E580	L640							
		E354	I387	A582	A582	L641							
		E354	A388	R643	R643	M642							
		E354	A389	R644	R644								



● Molecule 2: Dedicator of cytokinesis protein 5



N1093	N1094	P1096	K1097	K1098	I1099	K1100	F1101	I1102	M1105	V1106	G1107	P1108	I1109	L1110	V1111	V1112	L1113	T1114	T1115	L986	P1116	E1117	V1118	E1119	L1120	R1121	K1122	A1123	T1124	I1125	P1126	I1127	F1128	F1129	D1130	M1131	Q1132	C1133	C1134	E1135	F1136	N1137	F1138	S1139	G1140	N1143	F1144	H1145	E1148	N1149	E1150	L1151	I1152	T1153	K1154	L1155						
T1029	R1030	F1031	M1032	D1033	Q1034	Q1035	A1036	E1039	L1040	Q1041	L1042	M1044	M1045	V1046	H1048	L1049	L1114	A1050	V1051	A1052	F1053	H1056	E1057	S1058	R1059	F1060	Q1061	L1062	E1063	P1064	S1065	F1066	A1067	K1068	M1069	N1070	K1071	E1072	Y1076	G1077	D1078	M1079	R1080	K1081	E1082	L1083	F1084	F1085	R1086	I1087	L1088	D1089	M1090	M1091	K1154	Y1092						
Q963	M964	D966	Y969	S970	H971	Y972	I973	S974	T975	F976	K977	R978	L979	I982	E983	D984	F985	T986	M987	E988	T989	F990	I991	M992	F993	K994	D995	L996	I997	G998	K999	Y1002	M1006	M1007	V1008	M1009	M1010	M1011	T1012	Q1013	M1014	R1015	V1016	F1017	L1018	R1019	N1022	Q1023	F1024	A1025	E1026	M1027	L1028									
H899	S902	S903	Q904	L905	L906	S907	R908	Q909	L910	E911	V912	L913	R914	R915	V918	G919	A920	T921	A922	N923	H924	I925	Q926	L927	F928	M929	E930	R931	L932	L933	R934	R935	I936	R937	R938	T939	V940	E941	M1009	M1010	M1011	T1012	R945	Q946	H949	F953	V954	N957	L958	A959	E1026	M1091	L1028									
D832	E835	L836	S837	V838	L839	F840	C841	R842	F843	L844	S845	L847	R851	L852	M853	R854	Q855	K856	R792	L857	N858	C859	M860	T861	K862	L863	V864	K865	R866	F869	R870	Q871	C874	R875	E876	R877	M1009	M1010	M1011	T1012	R945	Q946	H949	F953	V954	N957	L958	A959	E1026	M1091	L1028											
K708	F709	Q710	H711	F712	N713	P714	V715	L716	E717	T718	L719	V720	V721	K722	H723	F724	A726	T727	L728	A729	V730	L731	M732	L733	S734	K735	V736	M737	E664	L738	F739	V740	V741	M742	S603	K604	L606	V607	T608	F609	T610	P611	S612	D614	S615	T616	K617	D618	S619	F620	Q621	L622	A623	T624	L625	I626	C627	S628	K630	L631	T632	Q633
D575	N576	K577	K578	M579	E580	D581	A582	K583	F584	Y585	L586	T587	L588	P589	G590	T591	K592	M593	E594	M595	E596	E597	K598	E599	L600	Q601	A602	S603	K604	L606	V607	T608	F609	T610	P611	S612	D614	S615	T616	K617	D618	S619	F620	Q621	L622	A623	T624	L625	I626	C627	S628	K630	L631	T632	Q633							
W509	Y510	E511	T512	V513	K514	L517	A518	I519	E520	G458	V522	T523	R524	C525	H526	I527	R528	F529	T530	F531	V467	V468	M470	R534	S535	S536	Q537	H473	D474	E475	F476	G477	K478	L479	L480	E481	K482	A483	I484	H485	P486	G487	A488	G489	Y490	E491	G492	I493	S494	M431	F433	P434	S498	V499	I436	V500	Y501	Y502	Q503	V504	K505	Q506
I446	Y447	V448	L449	L450	I451	F455	D456	K457	G458	K459	K460	K461	T462	P463	K464	M465	V466	V468	M470	R534	S535	S536	Q537	H473	D474	E475	F476	G477	K478	L479	L480	E481	K482	A483	I484	H485	P486	G487	A488	G489	Y490	E491	G492	I493	S494	M431	F433	P434	S498	V499	I436	V500	Y501	Y502	Q503	V504	K505	Q506				
C316	R319	R320	P321	F322	V326	A388	A389	K390	E391	I329	T330	D331	I332	I333	K336	V337	D338	D339	E340	E341	K342	Q343	H344	F345	I346	P347	F348	Q349	Q350	I351	L352	M353	E354	T355	V356	I357	R358	Q359	R360	Q361	L362	I363	M364	S365	F366	L367	I368	T369	M306	S370	H371	V372	I373	G374	N376	E377	P378	L379				
T380	L383	V386	I387	A388	A389	K390	E391	I329	T330	D331	I332	I333	K336	V337	D338	D339	E340	E341	K342	Q343	H344	F345	I346	P347	F348	Q349	Q350	I351	L352	M353	E354	T355	V356	I357	R358	Q359	R360	Q361	L362	I363	M364	S365	F366	L367	I368	T369	M306	S370	H371	V372	I373	G374	N376	E377	P378	L379						

D1156	Q1157	M1221	E1158	V1159	E1160	R1163	G1164	D1165	E1166	F1230	Q1167	Y1168	K1169	V1170	L1171	E1173	L1172	E1174	E1237	D1238	L1175	L1176	L1177	E1178	H1179	R1242	Y1243	C1180	R1181	K1182	H1183	K1184	Y1185	L1186	S1187	S1188	R1252	S1189	D1253	C1254	E1255	M1256	Y1257	L1196	V1197	S1198	E1259	A1260	L1200	A1261	E1262	E1203	M1203	L1204	L1205	D1206	Y1207	R1208	E1209	L1210	M1211	Q1212	W1273	S1274	D1275	E1215	S1216	K1217	E1218	M1219
R1220	M1221	S1222	C1223	T1224	V1225	M1226	V1227	L1228	M1229	F1230	Y1231	K1232	E1233	K1234	K1235	R1236	E1237	D1238	L1239	Y1240	I1241	R1242	Y1243	L1244	Y1245	K1246	L1247	R1248	D1249	L1250	H1251	R1252	D1253	E1254	E1255	M1256	Y1257	L1321	K1322	E1323	L1324	A1325	E1326	T1327	Y1328	E1329	S1330	K1331	V1332	F1333	D1334	Y1335	T1336	Q1401	G1337	L1338	P1403	M1404	A1405	E1406	K1407	M1408								
L1283	Q1284	R1285	D1286	S1287	Y1288	Y1289	V1290	L1291	T1292	Q1293	Q1294	E1295	L1296	K1297	E1298	L1299	L1300	Y1301	Q1302	I1305	Q1306	F1307	Y1308	D1309	K1310	G1311	L1312	M1313	W1314	E1315	I1316	I1317	K1318	L1319	E1320	S1321	K1322	L1323	L1324	A1325	E1326	T1327	Y1328	E1329	S1330	K1331	V1332	F1333	D1334	Y1335	T1336	Q1401	G1337	L1338	P1403	M1404	A1405	E1406	K1407	M1408										
R1345	F1346	Y1347	P1348	L1349	L1350	R1351	Q1352	Q1353	Q1354	Q1355	Q1356	Q1357	Q1358	Q1359	Q1360	Q1361	Q1362	Q1363	Q1364	Q1365	Q1366	Q1367	Q1368	Q1369	Q1370	Q1371	Q1372	Q1373	Q1374	Q1375	Q1376	Q1377	Q1378	Q1379	Q1380	Q1381	Q1382	Q1383	Q1384	Q1385	Q1386	Q1387	Q1388	Q1389	Q1390	Q1391	Q1392	Q1393	Q1394	Q1395	Q1396	Q1397	Q1398	Q1399	Q1400	Q1401	Q1402	Q1403	Q1404	Q1405	Q1406	Q1407	Q1408							
T1409	S1410	T1411	T1412	P1413	E1414	D1417	L1418	L1419	S1420	S1421	E1422	K1423	Q1424	Y1425	A1426	Q1427	C1428	F1429	T1430	Y1431	K1432	P1433	V1434	M1435	S1436	L1437	P1438	Y1439	K1440	P1441	P1442	E1443	Q1444	Q1445	L1446	L1447	L1448	L1449	L1450	L1451	M1452	Y1453	Y1454	R1455	A1456	M1457	E1458	L1459	Q1460	Q1461	F1462	R1463	Y1464	S1465	R1466	P1467	F1468	L1469	K1470											
K1473	F1474	A1475	S1476	M1477	L1478	L1479	L1480	L1481	L1482	L1483	L1484	L1485	L1486	L1487	L1488	L1489	L1490	L1491	A1492	Y1493	L1494	F1495	K1500	W1501	F1502	E1503	L1504	K1505	Q1506	L1507	S1508	L1509	E1510	E1511	L1512	S1513	P1514	L1515	L1516	M1517	A1518	L1519	E1520	T1521	Y1522	E1523	L1524	T1525	M1526	E1527	R1528	I1529	S1530	M1531	C1532	S1533	Q1534	Q1535	L1536	H1537	W1538	L1539								
R1540	S1541	L1542	S1543	V1544	P1545	L1546	L1547	S1548	M1549	L1550	L1551	D1552	P1553	A1554	L1555	E1556	P1557	A1558	G1559	F1560	F1561	F1562	F1563	S1564	M1565	Y1566	E1567	K1568	A1569	F1570	L1571	Y1572	E1573	K1574	Y1575	L1576	Q1577	E1578	H1579	L1580	E1581	D1582	Q1583	E1584	K1585	V1586	E1587	L1588	L1589	K1590	I1591	Q1592	M1593	Q1594	M1595	P1596	L1597	L1598	L1599	L1600	L1601	E1602	G1603	L1604	R1605					
I1606	H1607	G1608	E1609	K1610	L1611	L1612	E1613	Q1614	L1615	M1616	L1617	L1618	H1619	E1620	L1621	L1622	S1623	S1624	G1625	F1626	R1627	E1628	L1629	E1630	E1631	K1632	E1633	E1634	K1635	H1636	G1637	V1638	L1639	L1640	L1641	L1642																																		

• Molecule 3: Ras-related C3 botulinum toxin substrate 1

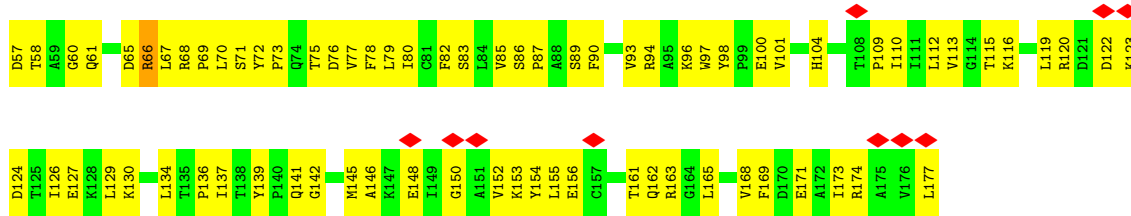


GLY	SER	GLY	SER	GLY	SER	GLY	M1	Q2	A3	I4	K5	C6	V7	V8	V9	G10	D11	G12	A13	V14	A15	K16	T17	L20	I21	Y22	T23	T24	T25	N26	A27	F28	P29	R30	G31	E32	Y33	I34	P34	T35	V36	F37	D38	N39	Y40	S41	A42	N43	V44	M45	V46	D47	G48	K49	P50	V51	N52	L53	L54	D122
R56	D57	T58	A59	G60	Q61	D65	R66	L67	R68	P69	L70	S71	Y72	P73	G74	T75	D76	V77	F78	L79	A80	C81	F82	S83	L84	R85	S86	R87	F90	Y93	R94	A95	K96	H97	Y98	P99	E100	V101	H104	M107	T108	P109	L110	I111	L112	L113	G114	T115	K116	L119	R120	D121	D122							
K123	D124	T125	I126	E127	K128	L129	K130	L134	T136	P136	I137	L138	Y139	P140	Q141	G142	L143	A144	M145	A146	K147	E148	L149	G150	A151	V152	K153	Y154	L155	E156	C157	T161	Q162	R163	G164	L165	K166	T167	V168	F169	D170	E171	A172	L173	R174	A175	V176	L177												

• Molecule 3: Ras-related C3 botulinum toxin substrate 1



GLY	SER	GLY	SER	GLY	SER	GLY	M1	Q2	A3	I4	K5	C6	V7	V8	V9	G10	D11	G12	A13	V14	A15	K16	T17	L20	I21	Y22	T23	T24	T25	N26	A27	F28	P29	R30	G31	E32	Y33	I34	P34	T35	V36	F37	D38	N39	Y40	S41	A42	N43	V44	M45	V46	K49	P50	V51	N52	L53	L54	W56
-----	-----	-----	-----	-----	-----	-----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C2	Depositor
Number of particles used	156585	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	64000	Depositor
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.052	Depositor
Minimum map value	-0.015	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.002	Depositor
Recommended contour level	0.01	Depositor
Map size (Å)	452.2, 452.2, 452.2	wwPDB
Map dimensions	340, 340, 340	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.33, 1.33, 1.33	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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	0.33	0/1641	0.55	0/2218
1	D	0.33	0/1641	0.56	0/2218
2	B	0.36	0/13722	0.54	1/18514 (0.0%)
2	E	0.36	0/13722	0.54	1/18514 (0.0%)
3	C	0.32	0/1415	0.50	0/1924
3	F	0.32	0/1415	0.50	0/1924
All	All	0.35	0/33556	0.54	2/45312 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	D	0	1
2	B	0	1
2	E	0	1
All	All	0	4

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	1338	LEU	CA-CB-CG	5.62	128.24	115.30
2	B	1338	LEU	CA-CB-CG	5.61	128.19	115.30

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	541	GLN	Peptide

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Mol	Chain	Res	Type	Group
2	B	1041	GLN	Peptide
1	D	541	GLN	Peptide
2	E	1041	GLN	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1608	0	1617	136	0
1	D	1608	0	1617	148	0
2	B	13436	0	13516	1369	0
2	E	13436	0	13516	1393	0
3	C	1385	0	1407	129	0
3	F	1385	0	1407	128	0
All	All	32858	0	33080	3217	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 49.

All (3217) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:929:MET:HA	2:E:933:LEU:HD13	1.43	1.01
1:A:701:LEU:HD23	2:B:31:ILE:HG23	1.43	1.00
2:B:929:MET:HA	2:B:933:LEU:HD13	1.43	0.99
2:E:1545:HIS:HB2	3:F:5:LYS:HE2	1.49	0.95
2:E:657:LEU:HD23	2:E:696:ALA:HB1	1.51	0.93
1:A:711:PRO:HG2	2:B:16:ILE:HG21	1.50	0.92
2:B:657:LEU:HD23	2:B:696:ALA:HB1	1.51	0.92
2:E:1587:GLU:HA	2:E:1590:LYS:HD2	1.53	0.91
2:E:102:TRP:HB2	2:E:114:PHE:HE1	1.36	0.91
2:B:5:ILE:H	2:B:40:MET:H	1.19	0.90
2:E:1484:ILE:HB	2:E:1512:ILE:HD12	1.53	0.90
2:B:657:LEU:HD21	2:B:700:ILE:HD11	1.54	0.90
2:B:1587:GLU:HA	2:B:1590:LYS:HD2	1.53	0.89
2:B:102:TRP:HB2	2:B:114:PHE:HE1	1.36	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:5:ILE:H	2:E:40:MET:H	1.19	0.88
2:B:1526:ASN:HA	2:B:1529:ILE:HD12	1.56	0.88
2:B:1484:ILE:HB	2:B:1512:ILE:HD12	1.53	0.88
2:E:10:GLN:HG3	2:E:37:ILE:HB	1.56	0.87
2:E:1526:ASN:HA	2:E:1529:ILE:HD12	1.56	0.87
2:B:239:ALA:HB3	2:B:262:TRP:HB3	1.57	0.87
2:E:657:LEU:HD21	2:E:700:ILE:HD11	1.54	0.87
2:B:10:GLN:HG3	2:B:37:ILE:HB	1.56	0.85
3:C:87:PRO:HG2	3:C:134:LEU:HB3	1.58	0.85
1:D:580:SER:HA	1:D:587:HIS:HE1	1.41	0.85
2:E:239:ALA:HB3	2:E:262:TRP:HB3	1.57	0.85
2:B:764:PHE:HD2	2:B:767:ILE:HD12	1.41	0.85
2:E:738:ASN:HA	2:E:794:LEU:HD13	1.58	0.85
1:A:580:SER:HA	1:A:587:HIS:HE1	1.42	0.85
2:B:376:ASN:ND2	2:B:502:TYR:O	2.10	0.84
2:B:738:ASN:HA	2:B:794:LEU:HD13	1.59	0.84
3:C:171:GLU:HA	3:C:174:ARG:HG2	1.59	0.83
2:E:677:PHE:HB3	2:E:726:ALA:HB2	1.60	0.83
2:E:764:PHE:HD2	2:E:767:ILE:HD12	1.41	0.83
2:E:166:ARG:NH1	2:E:167:ASP:OD1	2.11	0.83
2:E:376:ASN:ND2	2:E:502:TYR:O	2.11	0.83
3:C:65:ASP:HA	3:C:68:ARG:HG2	1.61	0.83
2:B:166:ARG:NH1	2:B:167:ASP:OD1	2.11	0.83
2:B:1567:GLU:HA	2:B:1571:PHE:HB2	1.61	0.83
3:F:87:PRO:HG2	3:F:134:LEU:HB3	1.58	0.83
2:B:242:PHE:HB2	2:B:299:GLN:HB2	1.61	0.83
2:E:4:TRP:HB3	2:E:39:GLU:HB3	1.61	0.82
2:E:1418:ILE:HG13	2:E:1425:TYR:CD2	2.15	0.82
2:B:1418:ILE:HG13	2:B:1425:TYR:CD2	2.15	0.82
3:C:1:MET:SD	3:C:49:LYS:NZ	2.51	0.82
2:B:677:PHE:HB3	2:B:726:ALA:HB2	1.60	0.82
2:E:242:PHE:HB2	2:E:299:GLN:HB2	1.61	0.82
3:F:65:ASP:HA	3:F:68:ARG:HG2	1.61	0.82
3:F:1:MET:SD	3:F:49:LYS:NZ	2.51	0.82
2:B:1557:PRO:HB2	2:B:1561:GLY:HA2	1.62	0.82
3:C:7:VAL:HA	3:C:56:TRP:HB2	1.61	0.82
2:E:730:TYR:HA	2:E:767:ILE:HG23	1.61	0.82
2:E:1006:TRP:O	2:E:1010:ASN:N	2.12	0.81
3:F:96:LYS:HD2	3:F:100:GLU:HG3	1.62	0.81
2:B:4:TRP:HB3	2:B:39:GLU:HB3	1.61	0.81
2:E:1557:PRO:HB2	2:E:1561:GLY:HA2	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1432:LYS:N	2:B:1463:ARG:O	2.12	0.81
1:D:551:GLN:OE1	1:D:552:ARG:NH2	2.14	0.81
3:C:96:LYS:HD2	3:C:100:GLU:HG3	1.62	0.81
3:F:171:GLU:HA	3:F:174:ARG:HG2	1.59	0.81
2:B:1251:HIS:HB3	2:B:1256:ASN:HB2	1.62	0.81
2:B:1006:TRP:O	2:B:1010:ASN:N	2.12	0.81
2:E:1314:TRP:HB3	2:E:1348:PHE:HB3	1.61	0.81
2:B:1444:LYS:NZ	2:E:1330:SER:O	2.13	0.81
3:F:7:VAL:HA	3:F:56:TRP:HB2	1.61	0.81
2:B:730:TYR:HA	2:B:767:ILE:HG23	1.61	0.81
2:E:1567:GLU:HA	2:E:1571:PHE:HB2	1.61	0.80
1:A:551:GLN:OE1	1:A:552:ARG:NH2	2.14	0.80
2:B:165:VAL:HG23	2:B:175:PRO:HD3	1.62	0.80
2:B:1314:TRP:HB3	2:B:1348:PHE:HB3	1.61	0.80
2:B:241:LEU:HB2	2:B:260:ILE:HB	1.63	0.80
2:E:347:PRO:HB2	2:E:392:VAL:HB	1.64	0.80
2:E:1561:GLY:O	2:E:1565:ASN:N	2.15	0.80
2:E:1251:HIS:HB3	2:E:1256:ASN:HB2	1.62	0.80
2:B:1382:ILE:N	2:B:1502:PHE:O	2.15	0.79
2:E:1488:THR:HB	2:E:1508:SER:HB2	1.64	0.79
2:E:1169:LYS:HA	2:E:1172:LEU:HD12	1.65	0.79
1:A:724:TYR:HB3	2:B:4:TRP:HB2	1.63	0.79
2:E:165:VAL:HG23	2:E:175:PRO:HD3	1.62	0.79
2:E:241:LEU:HB2	2:E:260:ILE:HB	1.63	0.79
2:E:1382:ILE:N	2:E:1502:PHE:O	2.15	0.79
2:E:467:GLU:HB2	2:E:500:VAL:HG22	1.65	0.79
2:E:740:TYR:HA	2:E:749:LYS:HD3	1.65	0.79
2:E:1357:ARG:HH22	2:E:1456:ALA:H	1.31	0.79
2:E:1283:LEU:O	2:E:1285:ARG:NH1	2.16	0.79
3:C:77:VAL:HG12	3:C:109:PRO:HG2	1.65	0.79
2:B:1128:PHE:HA	2:B:1131:MET:SD	2.23	0.79
2:E:1128:PHE:HA	2:E:1131:MET:SD	2.23	0.79
2:B:347:PRO:HB2	2:B:392:VAL:HB	1.64	0.79
2:E:18:ASN:HB3	2:E:28:SER:HB2	1.63	0.78
2:E:1378:ASN:ND2	2:E:1419:LYS:O	2.16	0.78
2:E:889:GLN:OE1	2:E:895:ASN:ND2	2.17	0.78
2:B:1169:LYS:HA	2:B:1172:LEU:HD12	1.65	0.78
2:B:889:GLN:OE1	2:B:895:ASN:ND2	2.17	0.78
2:B:929:MET:HG2	2:B:933:LEU:HD22	1.66	0.78
2:B:1291:TYR:HB3	2:B:1296:LEU:HD21	1.65	0.78
1:A:637:VAL:HG12	1:A:640:LEU:HD12	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:18:ASN:HB3	2:B:28:SER:HB2	1.63	0.78
1:D:637:VAL:HG12	1:D:640:LEU:HD12	1.65	0.77
2:B:740:TYR:HA	2:B:749:LYS:HD3	1.65	0.77
2:E:46:ARG:HB3	2:E:58:ILE:HG13	1.67	0.77
3:F:77:VAL:HG12	3:F:109:PRO:HG2	1.65	0.77
2:B:1283:LEU:O	2:B:1285:ARG:NH1	2.16	0.77
1:D:640:LEU:HB3	1:D:656:ALA:H	1.49	0.77
2:B:467:GLU:HB2	2:B:500:VAL:HG22	1.65	0.77
2:E:929:MET:HG2	2:E:933:LEU:HD22	1.66	0.77
2:B:1378:ASN:ND2	2:B:1419:LYS:O	2.16	0.77
2:E:1291:TYR:HB3	2:E:1296:LEU:HD21	1.65	0.77
1:D:698:LEU:HA	2:E:31:ILE:HG21	1.66	0.77
2:E:764:PHE:CD2	2:E:767:ILE:HD12	2.20	0.77
2:E:1407:LYS:HG3	2:E:1426:MET:HB2	1.67	0.77
2:E:1056:HIS:ND1	2:E:1057:GLU:OE2	2.17	0.77
2:B:764:PHE:CD2	2:B:767:ILE:HD12	2.20	0.77
2:B:1056:HIS:ND1	2:B:1057:GLU:OE2	2.17	0.77
2:B:1488:THR:HB	2:B:1508:SER:HB2	1.64	0.77
2:E:1524:LEU:HD12	2:E:1528:ARG:HH21	1.49	0.77
1:D:701:LEU:HD11	2:E:16:ILE:HA	1.66	0.77
3:F:2:GLN:HG2	3:F:51:VAL:HG23	1.67	0.77
2:B:1357:ARG:HE	2:B:1453:TYR:HA	1.50	0.76
2:E:37:ILE:HA	2:E:47:GLY:HA3	1.68	0.76
1:A:670:ASN:ND2	1:A:676:ASP:O	2.19	0.76
1:A:640:LEU:HB3	1:A:656:ALA:H	1.50	0.76
2:B:816:ALA:O	2:B:820:LEU:HB2	1.86	0.76
2:B:1028:LEU:HD21	2:B:1042:LEU:HD23	1.68	0.76
2:E:1155:LEU:HD11	2:E:1201:LEU:HD21	1.68	0.76
2:B:904:GLN:O	2:B:908:ASN:ND2	2.19	0.76
2:E:921:THR:O	2:E:925:ILE:N	2.19	0.76
2:B:37:ILE:HA	2:B:47:GLY:HA3	1.68	0.76
2:B:61:GLU:HA	2:B:64:ILE:HB	1.68	0.76
2:B:1524:LEU:HD12	2:B:1528:ARG:HH21	1.49	0.76
2:E:1357:ARG:HE	2:E:1453:TYR:HA	1.50	0.76
2:E:1252:ARG:NH1	2:E:1253:ASP:OD1	2.19	0.76
2:B:676:LEU:HA	2:B:679:ILE:HD12	1.68	0.76
2:B:1407:LYS:HG3	2:B:1426:MET:HB2	1.67	0.76
2:B:921:THR:O	2:B:925:ILE:N	2.19	0.76
2:B:1357:ARG:HH22	2:B:1456:ALA:H	1.31	0.76
2:B:1490:THR:O	2:B:1505:LYS:N	2.19	0.76
2:B:1561:GLY:O	2:B:1565:ASN:N	2.15	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:13:GLY:HA3	2:E:35:VAL:HG22	1.67	0.76
2:E:1490:THR:O	2:E:1505:LYS:N	2.19	0.76
2:B:1436:SER:HB3	2:B:1454:TYR:HB3	1.68	0.75
2:E:816:ALA:O	2:E:820:LEU:HB2	1.86	0.75
2:B:1155:LEU:HD11	2:B:1201:LEU:HD21	1.68	0.75
2:E:25:VAL:HG23	2:E:57:GLY:HA2	1.69	0.75
2:B:46:ARG:HB3	2:B:58:ILE:HG13	1.67	0.75
2:E:1028:LEU:HD21	2:E:1042:LEU:HD23	1.68	0.75
2:E:904:GLN:O	2:E:908:ASN:ND2	2.19	0.75
2:B:13:GLY:HA3	2:B:35:VAL:HG22	1.67	0.75
2:B:1252:ARG:NH1	2:B:1253:ASP:OD1	2.19	0.75
3:C:2:GLN:HG2	3:C:51:VAL:HG23	1.67	0.75
2:E:163:LEU:HD21	2:E:194:ILE:HD11	1.69	0.75
2:E:1432:LYS:N	2:E:1463:ARG:O	2.12	0.75
2:B:519:ILE:HG21	2:B:630:LYS:HB3	1.68	0.74
2:E:61:GLU:HA	2:E:64:ILE:HB	1.68	0.74
2:E:519:ILE:HG21	2:E:630:LYS:HB3	1.68	0.74
1:D:530:SER:HA	1:D:533:ILE:HD12	1.69	0.74
2:B:809:ALA:HB1	2:B:812:ILE:HB	1.70	0.74
2:E:676:LEU:HA	2:E:679:ILE:HD12	1.68	0.74
2:E:925:ILE:HA	2:E:928:ILE:HD12	1.69	0.74
2:E:1057:GLU:O	2:E:1080:ARG:NH1	2.21	0.74
2:B:297:VAL:HG22	2:B:326:VAL:HG22	1.69	0.74
2:B:319:ARG:O	2:B:500:VAL:N	2.20	0.74
1:D:670:ASN:ND2	1:D:676:ASP:O	2.19	0.74
2:E:1059:LEU:HD12	2:E:1116:PRO:HB2	1.70	0.74
2:B:288:ASP:HA	2:B:291:ARG:HE	1.52	0.74
2:B:1135:GLU:HA	2:B:1138:PHE:HB3	1.68	0.74
1:D:607:LYS:HG3	1:D:609:PRO:HD3	1.70	0.74
2:E:1586:VAL:HG23	2:E:1589:LEU:HD12	1.69	0.74
2:B:925:ILE:HA	2:B:928:ILE:HD12	1.69	0.74
2:B:1028:LEU:HA	2:B:1032:PHE:HD1	1.52	0.74
2:B:254:ILE:O	2:B:431:MET:N	2.20	0.74
2:B:1114:LEU:HB3	2:B:1163:ARG:HD2	1.70	0.74
2:B:1545:HIS:HB2	3:C:5:LYS:HE2	1.70	0.74
2:B:1567:GLU:HG3	2:B:1636:HIS:HE1	1.53	0.74
1:D:561:CYS:SG	1:D:594:SER:OG	2.46	0.74
2:E:1381:PHE:HA	2:E:1503:GLU:HA	1.69	0.74
2:E:1436:SER:HB3	2:E:1454:TYR:HB3	1.68	0.74
2:E:1521:THR:OG1	2:E:1566:TYR:OH	2.05	0.74
3:F:39:ASN:H	3:F:57:ASP:HB3	1.53	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:561:CYS:SG	1:A:594:SER:OG	2.46	0.73
2:B:1217:LYS:HD3	2:B:1220:ARG:HH12	1.52	0.73
3:C:93:VAL:HA	3:C:97:TRP:HB2	1.70	0.73
2:E:80:VAL:HG22	2:E:85:LEU:HD11	1.70	0.73
2:E:319:ARG:O	2:E:500:VAL:N	2.20	0.73
2:E:1217:LYS:HD3	2:E:1220:ARG:HH12	1.52	0.73
2:E:1028:LEU:HA	2:E:1032:PHE:HD1	1.52	0.73
2:B:1059:LEU:HD12	2:B:1116:PRO:HB2	1.70	0.73
2:B:1586:VAL:HG23	2:B:1589:LEU:HD12	1.69	0.73
2:E:12:TYR:HB2	2:E:67:LYS:HB2	1.69	0.73
1:A:530:SER:HA	1:A:533:ILE:HD12	1.69	0.73
2:E:256:GLU:OE1	2:E:447:TYR:OH	2.06	0.73
2:E:288:ASP:HA	2:E:291:ARG:HE	1.52	0.73
2:B:12:TYR:HB2	2:B:67:LYS:HB2	1.69	0.73
2:B:1381:PHE:HA	2:B:1503:GLU:HA	1.69	0.73
3:C:39:ASN:H	3:C:57:ASP:HB3	1.53	0.73
2:E:1114:LEU:HB3	2:E:1163:ARG:HD2	1.70	0.73
2:E:1488:THR:N	2:E:1508:SER:O	2.22	0.73
1:D:722:PHE:HE1	2:E:1:MET:HB3	1.52	0.73
2:B:25:VAL:HG23	2:B:57:GLY:HA2	1.69	0.73
2:B:163:LEU:HD21	2:B:194:ILE:HD11	1.69	0.73
2:E:1135:GLU:HA	2:E:1138:PHE:HB3	1.68	0.73
2:B:256:GLU:OE1	2:B:447:TYR:OH	2.06	0.73
2:B:105:LEU:HD22	2:B:110:LYS:HD3	1.71	0.72
2:E:1567:GLU:HG3	2:E:1636:HIS:HE1	1.53	0.72
2:E:225:TYR:HA	2:E:280:VAL:HG22	1.70	0.72
2:E:809:ALA:HB1	2:E:812:ILE:HB	1.70	0.72
3:F:9:VAL:HG21	3:F:101:VAL:HG21	1.71	0.72
1:A:607:LYS:HG3	1:A:609:PRO:HD3	1.70	0.72
2:B:1488:THR:N	2:B:1508:SER:O	2.22	0.72
2:B:1633:VAL:HA	2:B:1637:TYR:HB2	1.71	0.72
2:E:105:LEU:HD22	2:E:110:LYS:HD3	1.71	0.72
2:E:297:VAL:HG22	2:E:326:VAL:HG22	1.69	0.72
2:B:225:TYR:HA	2:B:280:VAL:HG22	1.70	0.72
2:E:1536:HIS:NE2	2:E:1609:GLU:OE2	2.21	0.72
2:B:1057:GLU:O	2:B:1080:ARG:NH1	2.21	0.72
2:E:1633:VAL:HA	2:E:1637:TYR:HB2	1.71	0.72
3:F:93:VAL:HA	3:F:97:TRP:HB2	1.70	0.72
2:B:80:VAL:HG22	2:B:85:LEU:HD11	1.70	0.72
2:B:737:LEU:HD12	2:B:740:TYR:HB2	1.72	0.72
2:E:737:LEU:HD12	2:E:740:TYR:HB2	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:896:LYS:HG3	2:E:897:PRO:HD3	1.71	0.72
2:B:1081:LYS:HE3	2:B:1119:GLU:HB2	1.72	0.72
2:B:771:ARG:NH1	2:B:781:SER:OG	2.23	0.71
3:C:9:VAL:HG21	3:C:101:VAL:HG21	1.72	0.71
2:E:771:ARG:NH1	2:E:781:SER:OG	2.23	0.71
2:B:928:ILE:HA	2:B:932:LEU:HD13	1.72	0.71
2:E:979:ARG:NH2	2:E:1035:GLN:OE1	2.24	0.71
2:E:1110:LEU:HD21	2:E:1151:LEU:HG	1.72	0.71
2:B:482:LYS:HE2	2:B:491:GLU:HG2	1.73	0.71
2:B:1080:ARG:NH2	2:B:1117:GLU:OE2	2.23	0.71
2:E:695:ASP:OD1	2:E:740:TYR:OH	2.08	0.71
2:E:1080:ARG:NH2	2:E:1117:GLU:OE2	2.23	0.71
2:E:1081:LYS:HE3	2:E:1119:GLU:HB2	1.72	0.71
2:B:979:ARG:NH2	2:B:1035:GLN:OE1	2.24	0.71
2:E:1019:ARG:O	2:E:1023:GLN:NE2	2.21	0.71
2:B:1099:ILE:HA	2:B:1102:ILE:HD12	1.72	0.71
2:E:879:LEU:HD23	2:E:927:LEU:HD22	1.73	0.71
2:E:1099:ILE:HA	2:E:1102:ILE:HD12	1.72	0.71
2:B:12:TYR:HA	2:B:34:THR:HG23	1.72	0.71
2:B:1102:ILE:HG12	2:B:1131:MET:HB2	1.73	0.71
2:B:103:ARG:HH12	2:B:104:LYS:HE3	1.55	0.71
2:B:896:LYS:HG3	2:B:897:PRO:HD3	1.71	0.71
2:E:928:ILE:HA	2:E:932:LEU:HD13	1.72	0.70
2:E:1102:ILE:HG12	2:E:1131:MET:HB2	1.73	0.70
2:E:1328:TYR:HB3	2:E:1338:LEU:HD22	1.72	0.70
2:E:1033:MET:SD	2:E:1093:ASN:ND2	2.65	0.70
1:A:701:LEU:HD11	2:B:16:ILE:HA	1.72	0.70
2:B:1059:LEU:O	2:B:1063:THR:OG1	2.09	0.70
2:E:1410:SER:OG	2:E:1413:PRO:O	2.08	0.70
2:B:575:ASP:HB3	2:B:578:LYS:HB2	1.73	0.70
2:B:1328:TYR:HB3	2:B:1338:LEU:HD22	1.72	0.70
2:B:1410:SER:OG	2:B:1413:PRO:O	2.08	0.70
2:E:103:ARG:HH12	2:E:104:LYS:HE3	1.55	0.70
2:E:472:VAL:HG22	2:E:527:ILE:HG12	1.73	0.70
3:F:66:ARG:HG2	3:F:67:LEU:HG	1.74	0.70
3:F:87:PRO:HA	3:F:137:ILE:HD11	1.73	0.70
2:B:964:MET:HG2	2:B:969:TYR:CE1	2.27	0.70
2:B:1110:LEU:HD21	2:B:1151:LEU:HG	1.72	0.70
2:B:1622:LEU:O	2:B:1626:PHE:HB3	1.91	0.70
2:E:12:TYR:HA	2:E:34:THR:HG23	1.72	0.70
2:E:1322:LYS:HD3	2:E:1345:ARG:NH1	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:879:LEU:HD23	2:B:927:LEU:HD22	1.73	0.70
2:E:1622:LEU:O	2:E:1626:PHE:HB3	1.91	0.70
2:E:1630:LYS:O	2:E:1634:GLU:HG2	1.92	0.70
2:E:98:TRP:O	2:E:101:ILE:HG22	1.91	0.70
2:E:254:ILE:O	2:E:431:MET:N	2.20	0.70
2:B:472:VAL:HG22	2:B:527:ILE:HG12	1.73	0.70
2:E:1218:GLU:OE1	2:E:1218:GLU:N	2.25	0.70
2:B:695:ASP:OD1	2:B:740:TYR:OH	2.08	0.70
2:B:1630:LYS:O	2:B:1634:GLU:HG2	1.92	0.70
2:E:451:ILE:HD11	2:E:623:ALA:HB2	1.74	0.70
2:E:575:ASP:HB3	2:E:578:LYS:HB2	1.73	0.70
2:E:1294:GLN:N	2:E:1294:GLN:OE1	2.25	0.70
2:B:451:ILE:HD12	2:B:621:GLN:HG2	1.74	0.69
2:E:482:LYS:HE2	2:E:491:GLU:HG2	1.73	0.69
2:B:775:LEU:HD23	2:B:781:SER:HB2	1.74	0.69
2:B:1231:TYR:O	2:B:1235:LYS:N	2.25	0.69
2:B:1322:LYS:HD3	2:B:1345:ARG:NH1	2.06	0.69
3:C:71:SER:O	3:C:75:THR:OG1	2.09	0.69
2:E:964:MET:HG2	2:E:969:TYR:CE1	2.27	0.69
2:E:1121:ARG:O	2:E:1125:ILE:HD12	1.91	0.69
2:E:1231:TYR:O	2:E:1235:LYS:N	2.25	0.69
2:E:1428:CYS:SG	2:E:1429:PHE:N	2.65	0.69
2:B:1006:TRP:HB3	2:B:1009:MET:HB2	1.73	0.69
2:B:1033:MET:SD	2:B:1093:ASN:ND2	2.65	0.69
2:E:1231:TYR:HD1	2:E:1236:ARG:HB3	1.58	0.69
2:B:1121:ARG:O	2:B:1125:ILE:HD12	1.91	0.69
2:E:451:ILE:HD12	2:E:621:GLN:HG2	1.74	0.69
2:B:98:TRP:O	2:B:101:ILE:HG22	1.92	0.69
2:B:1218:GLU:OE1	2:B:1218:GLU:N	2.25	0.69
3:F:39:ASN:HA	3:F:57:ASP:H	1.57	0.69
2:B:1294:GLN:OE1	2:B:1294:GLN:N	2.24	0.69
2:B:1521:THR:OG1	2:B:1566:TYR:OH	2.06	0.69
2:E:1006:TRP:HB3	2:E:1009:MET:HB2	1.73	0.69
3:C:119:LEU:HA	3:C:122:ASP:HB2	1.75	0.69
2:E:445:ASP:HB3	2:E:447:TYR:HE2	1.58	0.69
2:B:1231:TYR:HD1	2:B:1236:ARG:HB3	1.58	0.69
2:B:1428:CYS:SG	2:B:1429:PHE:N	2.65	0.69
3:C:39:ASN:HA	3:C:57:ASP:H	1.57	0.69
3:C:66:ARG:HG2	3:C:67:LEU:HG	1.73	0.69
1:D:584:LYS:HD2	2:E:1403:PRO:HA	1.74	0.69
2:E:954:VAL:O	2:E:958:ILE:HG12	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:722:PHE:HE1	2:B:1:MET:HB3	1.56	0.68
2:B:451:ILE:HD11	2:B:623:ALA:HB2	1.74	0.68
3:C:87:PRO:HA	3:C:137:ILE:HD11	1.73	0.68
2:E:41:TYR:HD2	2:E:44:TRP:HB2	1.59	0.68
2:E:474:ASP:HA	2:E:525:CYS:HA	1.75	0.68
2:E:1357:ARG:HH12	2:E:1456:ALA:HB3	1.58	0.68
2:B:928:ILE:HG23	2:B:932:LEU:HD22	1.76	0.68
2:B:1357:ARG:HH12	2:B:1456:ALA:HB3	1.58	0.68
2:E:954:VAL:HA	2:E:957:MET:SD	2.33	0.68
2:E:871:GLN:HE22	2:E:913:LEU:HA	1.58	0.68
2:E:1404:ASN:OD1	2:E:1424:GLN:HB2	1.93	0.68
2:E:36:HIS:N	2:E:48:TYR:O	2.27	0.68
2:E:879:LEU:HD22	2:E:924:HIS:CE1	2.29	0.68
3:F:71:SER:O	3:F:75:THR:OG1	2.09	0.68
2:B:1024:PHE:HA	2:B:1027:VAL:HG12	1.76	0.68
2:E:1307:TYR:O	2:E:1311:GLY:N	2.27	0.68
3:F:119:LEU:HA	3:F:122:ASP:HB2	1.75	0.68
2:E:166:ARG:O	2:E:171:ASN:HA	1.94	0.68
2:E:485:HIS:HB2	2:E:514:LYS:HB3	1.76	0.68
2:B:166:ARG:O	2:B:171:ASN:HA	1.94	0.68
2:B:445:ASP:HB3	2:B:447:TYR:HE2	1.58	0.68
2:E:449:THR:HB	2:E:623:ALA:HB3	1.76	0.68
2:E:1135:GLU:O	2:E:1139:SER:N	2.27	0.68
2:B:871:GLN:HE22	2:B:913:LEU:HA	1.58	0.67
2:B:1404:ASN:OD1	2:B:1424:GLN:HB2	1.93	0.67
2:B:41:TYR:HD2	2:B:44:TRP:HB2	1.59	0.67
2:E:95:LEU:HD21	2:E:124:LEU:HD13	1.75	0.67
2:E:775:LEU:HD23	2:E:781:SER:HB2	1.74	0.67
2:E:1597:MET:HG3	2:E:1600:LEU:HD12	1.76	0.67
2:B:954:VAL:HA	2:B:957:MET:SD	2.34	0.67
2:B:1120:LEU:O	2:B:1124:THR:OG1	2.11	0.67
2:B:1597:MET:HG3	2:B:1600:LEU:HD12	1.76	0.67
3:C:37:PHE:HB2	3:C:40:TYR:HE1	1.60	0.67
2:E:928:ILE:HG23	2:E:932:LEU:HD22	1.76	0.67
2:B:36:HIS:N	2:B:48:TYR:O	2.27	0.67
2:B:471:SER:O	2:B:528:ARG:N	2.27	0.67
2:B:474:ASP:HA	2:B:525:CYS:HA	1.75	0.67
2:B:1333:PHE:HZ	2:E:1444:LYS:HD3	1.60	0.67
2:E:5:ILE:HB	2:E:40:MET:HB2	1.75	0.67
2:E:1059:LEU:O	2:E:1063:THR:OG1	2.09	0.67
3:F:37:PHE:HB2	3:F:40:TYR:HE1	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:613:ILE:HD13	1:A:646:TYR:HB3	1.76	0.67
3:C:130:LYS:HE3	3:C:136:PRO:HD3	1.76	0.67
1:D:613:ILE:HD13	1:D:646:TYR:HB3	1.76	0.67
2:E:471:SER:O	2:E:528:ARG:N	2.27	0.67
2:E:485:HIS:N	2:E:514:LYS:O	2.22	0.67
2:E:1388:TYR:HD2	3:F:45:MET:HE2	1.60	0.67
2:B:4:TRP:CE2	2:B:46:ARG:HD3	2.30	0.67
2:B:240:GLU:OE2	2:B:319:ARG:NE	2.26	0.67
2:B:954:VAL:O	2:B:958:ILE:HG12	1.93	0.67
2:B:1307:TYR:O	2:B:1311:GLY:N	2.27	0.67
2:E:102:TRP:HB2	2:E:114:PHE:CE1	2.27	0.67
2:B:105:LEU:HD13	2:B:110:LYS:HZ2	1.60	0.67
2:E:1364:ALA:HA	2:E:1382:ILE:HA	1.77	0.67
2:B:5:ILE:HB	2:B:40:MET:HB2	1.76	0.67
2:B:879:LEU:HD22	2:B:924:HIS:CE1	2.29	0.67
2:B:1135:GLU:O	2:B:1139:SER:N	2.27	0.67
2:B:1536:HIS:NE2	2:B:1609:GLU:OE2	2.21	0.67
3:C:61:GLN:O	3:C:68:ARG:NH2	2.28	0.67
2:E:890:LEU:HD12	2:E:935:ARG:HG3	1.77	0.67
2:E:972:TYR:OH	2:E:977:LYS:NZ	2.27	0.67
1:A:567:ALA:HA	1:A:571:GLN:HB2	1.78	0.66
2:B:95:LEU:HD21	2:B:124:LEU:HD13	1.75	0.66
2:B:485:HIS:HB2	2:B:514:LYS:HB3	1.76	0.66
2:B:1491:THR:HG22	2:B:1493:TYR:H	1.59	0.66
2:B:1536:HIS:HD2	2:B:1606:ILE:HB	1.60	0.66
2:E:1120:LEU:O	2:E:1124:THR:OG1	2.11	0.66
2:B:96:ARG:NH1	2:B:97:GLU:OE2	2.28	0.66
2:E:79:THR:HA	2:E:85:LEU:HD22	1.78	0.66
2:E:95:LEU:HA	2:E:98:TRP:HD1	1.60	0.66
2:E:172:ILE:HA	2:E:175:PRO:HG2	1.77	0.66
3:F:61:GLN:O	3:F:68:ARG:NH2	2.28	0.66
2:B:172:ILE:HA	2:B:175:PRO:HG2	1.77	0.66
2:B:860:MET:HA	2:B:863:ILE:HD12	1.76	0.66
2:B:890:LEU:HD12	2:B:935:ARG:HG3	1.77	0.66
3:C:100:GLU:O	3:C:104:HIS:ND1	2.27	0.66
2:E:938:ARG:HA	2:E:941:ILE:HD12	1.78	0.66
2:E:946:GLN:HA	2:E:950:ILE:HG21	1.77	0.66
2:B:449:THR:HB	2:B:623:ALA:HB3	1.76	0.66
2:B:1364:ALA:HA	2:B:1382:ILE:HA	1.77	0.66
2:B:95:LEU:HA	2:B:98:TRP:HD1	1.60	0.66
2:E:860:MET:HA	2:E:863:ILE:HD12	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1491:THR:HG22	2:E:1493:TYR:H	1.59	0.66
3:F:100:GLU:O	3:F:104:HIS:ND1	2.27	0.66
3:F:130:LYS:HE3	3:F:136:PRO:HD3	1.76	0.66
2:B:450:LEU:O	2:B:510:TYR:N	2.28	0.66
2:B:938:ARG:HA	2:B:941:ILE:HD12	1.78	0.66
2:E:1536:HIS:HD2	2:E:1606:ILE:HB	1.60	0.66
1:D:578:ARG:HB3	1:D:587:HIS:HB2	1.77	0.66
2:E:96:ARG:NH1	2:E:97:GLU:OE2	2.28	0.66
1:A:615:ALA:HB3	1:A:645:LEU:HD12	1.78	0.66
2:B:1631:GLU:OE1	2:B:1635:LYS:NZ	2.28	0.66
2:E:1024:PHE:HA	2:E:1027:VAL:HG12	1.76	0.66
2:B:35:VAL:HG12	2:B:49:THR:HA	1.77	0.66
2:B:561:THR:HG21	2:B:631:LEU:HB3	1.77	0.66
2:B:1314:TRP:HB2	2:B:1352:ILE:HD11	1.78	0.66
2:B:1596:GLN:O	2:B:1600:LEU:N	2.26	0.66
2:E:561:THR:HG21	2:E:631:LEU:HB3	1.77	0.66
2:B:946:GLN:HA	2:B:950:ILE:HG21	1.77	0.65
2:B:1369:GLY:N	2:B:1418:ILE:O	2.30	0.65
3:C:4:ILE:HG13	3:C:76:ASP:HB2	1.76	0.65
2:E:35:VAL:HG12	2:E:49:THR:HA	1.77	0.65
2:E:757:LEU:HD23	2:E:760:LEU:HD11	1.79	0.65
2:E:1369:GLY:N	2:E:1418:ILE:O	2.30	0.65
2:E:1631:GLU:OE1	2:E:1635:LYS:NZ	2.28	0.65
1:A:578:ARG:HB3	1:A:587:HIS:HB2	1.77	0.65
1:D:567:ALA:HA	1:D:571:GLN:HB2	1.77	0.65
2:E:136:LEU:HD12	2:E:140:GLU:HG2	1.78	0.65
3:F:4:ILE:HG13	3:F:76:ASP:HB2	1.77	0.65
2:B:79:THR:HG22	2:B:85:LEU:HB2	1.77	0.65
2:B:204:ILE:HG13	2:B:211:ARG:HB3	1.79	0.65
2:E:1367:TYR:O	2:E:1378:ASN:N	2.27	0.65
2:B:94:THR:HG21	2:B:152:ILE:HG12	1.79	0.65
2:B:1586:VAL:HA	2:B:1589:LEU:HG	1.79	0.65
2:E:4:TRP:CE2	2:E:46:ARG:HD3	2.30	0.65
2:E:450:LEU:O	2:E:510:TYR:N	2.28	0.65
2:B:136:LEU:HD12	2:B:140:GLU:HG2	1.78	0.65
2:B:1124:THR:HG23	2:B:1127:ILE:HD12	1.79	0.65
2:B:1372:PHE:O	2:B:1377:ARG:NH2	2.28	0.65
3:C:23:TYR:HB2	3:C:165:LEU:HD21	1.79	0.65
1:D:615:ALA:HB3	1:D:645:LEU:HD12	1.78	0.65
2:E:79:THR:HG22	2:E:85:LEU:HB2	1.77	0.65
2:B:79:THR:HA	2:B:85:LEU:HD22	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1248:ARG:NH1	2:B:1249:ASP:OD1	2.30	0.65
2:E:157:ARG:NH1	2:E:157:ARG:O	2.29	0.65
2:E:243:MET:HG3	2:E:281:PHE:HZ	1.62	0.65
2:E:1314:TRP:HB2	2:E:1352:ILE:HD11	1.78	0.65
2:E:1579:HIS:HB3	2:E:1582:ASP:OD1	1.96	0.65
2:E:204:ILE:HG13	2:E:211:ARG:HB3	1.79	0.65
2:B:1463:ARG:HA	2:B:1487:THR:O	1.96	0.65
2:E:821:PRO:HG3	2:E:863:ILE:HG13	1.79	0.65
2:E:1057:GLU:HA	2:E:1061:LEU:HD13	1.79	0.65
1:A:624:HIS:HD2	1:A:633:GLN:HG3	1.62	0.65
2:B:481:GLU:OE1	2:B:494:SER:OG	2.13	0.65
2:B:1315:GLU:OE1	2:B:1315:GLU:N	2.28	0.65
2:E:1124:THR:HG23	2:E:1127:ILE:HD12	1.79	0.65
2:E:1353:ILE:HA	2:E:1449:GLN:HG2	1.79	0.65
2:E:1463:ARG:HA	2:E:1487:THR:O	1.96	0.65
1:D:576:TYR:HB2	1:D:598:GLU:HG2	1.79	0.65
2:E:1533:VAL:HA	2:E:1606:ILE:HD13	1.79	0.65
2:B:1167:GLN:OE1	2:B:1167:GLN:N	2.31	0.64
2:B:302:ARG:HD3	2:B:322:PHE:HD1	1.61	0.64
2:B:1579:HIS:HB3	2:B:1582:ASP:OD1	1.96	0.64
2:E:302:ARG:HD3	2:E:322:PHE:HD1	1.61	0.64
3:F:12:GLY:H	3:F:60:GLY:HA3	1.62	0.64
3:F:80:ILE:HG23	3:F:112:LEU:HA	1.79	0.64
2:B:102:TRP:HB2	2:B:114:PHE:CE1	2.27	0.64
3:F:23:TYR:HB2	3:F:165:LEU:HD21	1.79	0.64
1:D:667:ASP:OD1	1:D:678:MET:N	2.31	0.64
2:E:1197:VAL:O	2:E:1201:LEU:HG	1.98	0.64
2:E:256:GLU:HB3	2:E:431:MET:HE3	1.80	0.64
2:B:187:HIS:CE1	2:B:1006:TRP:HA	2.33	0.64
2:B:430:LYS:NZ	2:B:433:PHE:O	2.28	0.64
3:C:80:ILE:HG23	3:C:112:LEU:HA	1.79	0.64
2:E:268:PRO:HG2	2:E:274:LEU:HB2	1.80	0.64
2:B:757:LEU:HD23	2:B:760:LEU:HD11	1.79	0.64
1:D:624:HIS:HD2	1:D:633:GLN:HG3	1.62	0.64
2:E:166:ARG:O	2:E:171:ASN:ND2	2.28	0.64
2:E:187:HIS:CE1	2:E:1006:TRP:HA	2.33	0.64
2:E:1586:VAL:HA	2:E:1589:LEU:HG	1.79	0.64
2:B:268:PRO:HG2	2:B:274:LEU:HB2	1.80	0.64
2:B:1336:GLU:OE1	2:B:1336:GLU:N	2.19	0.64
2:E:821:PRO:HB2	2:E:862:LYS:HB3	1.80	0.64
2:B:757:LEU:HD13	2:B:815:ALA:HB3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1390:ARG:NH2	3:C:26:ASN:OD1	2.30	0.64
2:E:1596:GLN:O	2:E:1600:LEU:N	2.26	0.64
3:C:12:GLY:H	3:C:60:GLY:HA3	1.62	0.64
1:D:584:LYS:HG3	1:D:585:VAL:HG13	1.80	0.64
2:E:225:TYR:N	2:E:404:LYS:O	2.28	0.64
2:E:481:GLU:OE1	2:E:494:SER:OG	2.13	0.64
2:B:821:PRO:HB2	2:B:862:LYS:HB3	1.80	0.63
2:B:1353:ILE:HA	2:B:1449:GLN:HG2	1.79	0.63
3:C:116:LYS:HD2	3:C:119:LEU:HD12	1.80	0.63
2:E:187:HIS:NE2	2:E:1006:TRP:HA	2.12	0.63
2:E:1248:ARG:NH1	2:E:1249:ASP:OD1	2.30	0.63
2:E:1495:PHE:HE1	2:E:1502:PHE:HD2	1.45	0.63
3:F:146:ALA:O	3:F:150:GLY:N	2.30	0.63
1:A:667:ASP:OD1	1:A:678:MET:N	2.31	0.63
2:B:821:PRO:HG3	2:B:863:ILE:HG13	1.79	0.63
2:B:1197:VAL:O	2:B:1201:LEU:HG	1.98	0.63
2:E:1280:PRO:HA	2:E:1283:LEU:HB2	1.80	0.63
1:A:576:TYR:HB2	1:A:598:GLU:HG2	1.79	0.63
2:B:243:MET:HG3	2:B:281:PHE:HZ	1.62	0.63
2:B:244:ALA:HB2	2:B:257:ASN:HA	1.80	0.63
2:B:857:LEU:HD22	2:B:905:LEU:HD11	1.80	0.63
2:E:1315:GLU:OE1	2:E:1315:GLU:N	2.29	0.63
1:A:584:LYS:HG3	1:A:585:VAL:HG13	1.80	0.63
2:B:1135:GLU:OE1	2:B:1144:PHE:HA	1.99	0.63
2:B:1361:GLU:OE1	2:B:1361:GLU:N	2.30	0.63
2:B:1533:VAL:HA	2:B:1606:ILE:HD13	1.79	0.63
2:E:569:LEU:N	2:E:620:PHE:O	2.32	0.63
2:E:676:LEU:HB3	2:E:693:VAL:HG13	1.80	0.63
2:B:1057:GLU:HA	2:B:1061:LEU:HD13	1.79	0.63
2:B:1221:MET:HA	2:B:1224:THR:HG22	1.81	0.63
2:E:105:LEU:HD13	2:E:110:LYS:HZ2	1.63	0.63
2:B:182:ALA:HA	2:B:185:LYS:NZ	2.14	0.63
2:B:256:GLU:HB3	2:B:431:MET:HE3	1.79	0.63
2:B:839:LEU:HA	2:B:842:LYS:HD2	1.81	0.63
2:B:1019:ARG:O	2:B:1023:GLN:NE2	2.21	0.63
2:B:1241:ILE:HA	2:B:1244:LEU:HD12	1.81	0.63
2:E:69:ALA:HB2	2:E:78:GLU:HG2	1.81	0.63
2:E:1135:GLU:OE1	2:E:1144:PHE:HA	1.99	0.63
1:A:722:PHE:CE1	2:B:1:MET:HB3	2.33	0.63
2:B:225:TYR:N	2:B:404:LYS:O	2.28	0.63
2:B:973:ILE:HA	2:B:976:PHE:CE2	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1368:TYR:O	2:B:1425:TYR:N	2.31	0.63
2:B:1571:PHE:HA	2:B:1586:VAL:HG21	1.81	0.63
2:E:94:THR:HG21	2:E:152:ILE:HG12	1.79	0.63
2:E:746:ASP:O	2:E:750:THR:OG1	2.10	0.63
2:E:1167:GLN:OE1	2:E:1167:GLN:N	2.31	0.63
2:E:1221:MET:HA	2:E:1224:THR:HG22	1.81	0.63
2:B:285:SER:N	2:B:288:ASP:OD2	2.32	0.63
3:C:21:ILE:HD13	3:C:34:PRO:HA	1.80	0.63
1:D:548:ILE:HG21	1:D:682:THR:HG23	1.81	0.63
2:E:182:ALA:HA	2:E:185:LYS:NZ	2.14	0.63
2:E:760:LEU:HB3	2:E:823:ILE:HG21	1.80	0.63
2:B:187:HIS:NE2	2:B:1006:TRP:HA	2.13	0.63
2:B:569:LEU:N	2:B:620:PHE:O	2.32	0.63
2:B:761:LYS:HB2	2:B:822:SER:HB2	1.80	0.63
2:B:1126:PRO:HB3	2:B:1179:HIS:CE1	2.34	0.63
1:D:551:GLN:HG3	2:E:106:TYR:CE2	2.34	0.63
2:E:244:ALA:HB2	2:E:257:ASN:HA	1.80	0.63
2:E:798:PHE:O	2:E:802:MET:HG3	1.99	0.63
2:E:973:ILE:HA	2:E:976:PHE:CE2	2.34	0.63
2:B:719:TYR:CD1	2:B:723:HIS:HB2	2.34	0.62
2:B:798:PHE:O	2:B:802:MET:HG3	1.99	0.62
2:B:1280:PRO:HA	2:B:1283:LEU:HB2	1.80	0.62
2:E:719:TYR:CD1	2:E:723:HIS:HB2	2.34	0.62
2:E:1336:GLU:OE1	2:E:1336:GLU:N	2.18	0.62
2:E:757:LEU:HD13	2:E:815:ALA:HB3	1.80	0.62
2:E:1126:PRO:HB3	2:E:1179:HIS:CE1	2.34	0.62
2:E:1372:PHE:O	2:E:1377:ARG:NH2	2.28	0.62
2:E:1571:PHE:HA	2:E:1586:VAL:HG21	1.81	0.62
3:F:171:GLU:HG3	3:F:174:ARG:HH11	1.64	0.62
2:B:69:ALA:HB2	2:B:78:GLU:HG2	1.81	0.62
2:B:70:THR:HG22	2:B:71:VAL:H	1.64	0.62
2:E:1361:GLU:OE1	2:E:1361:GLU:N	2.30	0.62
3:F:21:ILE:HD13	3:F:34:PRO:HA	1.81	0.62
1:A:716:GLU:HG3	2:B:44:TRP:CZ2	2.34	0.62
2:B:1495:PHE:HE1	2:B:1502:PHE:HD2	1.45	0.62
2:E:761:LYS:HB2	2:E:822:SER:HB2	1.81	0.62
2:B:243:MET:O	2:B:258:TYR:N	2.23	0.62
2:B:1247:LEU:HA	2:B:1250:LEU:HD12	1.81	0.62
2:B:1367:TYR:O	2:B:1378:ASN:N	2.27	0.62
2:E:243:MET:O	2:E:258:TYR:N	2.24	0.62
2:E:839:LEU:HA	2:E:842:LYS:HD2	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:95:LEU:HA	2:B:98:TRP:CD1	2.34	0.62
2:B:166:ARG:HD3	2:B:173:LEU:HB2	1.82	0.62
2:B:1330:SER:O	2:E:1444:LYS:NZ	2.26	0.62
1:D:536:LEU:HD21	2:E:17:TYR:HB2	1.80	0.62
2:E:15:ALA:HA	2:E:59:PHE:CE2	2.35	0.62
2:E:95:LEU:HA	2:E:98:TRP:CD1	2.34	0.62
2:E:138:LYS:HA	2:E:141:LEU:HB2	1.81	0.62
2:E:493:ILE:HD11	2:E:496:TYR:HD1	1.65	0.62
2:E:285:SER:N	2:E:288:ASP:OD2	2.32	0.62
2:E:866:SER:O	2:E:868:LEU:N	2.32	0.62
2:E:1247:LEU:HA	2:E:1250:LEU:HD12	1.81	0.62
3:F:116:LYS:HD2	3:F:119:LEU:HD12	1.80	0.62
2:B:157:ARG:NH1	2:B:157:ARG:O	2.29	0.62
2:B:496:TYR:CZ	2:B:513:VAL:HG11	2.35	0.62
2:B:972:TYR:OH	2:B:977:LYS:NZ	2.27	0.62
2:E:1122:LYS:HD3	2:E:1175:LEU:HD21	1.82	0.62
2:B:5:ILE:H	2:B:40:MET:N	1.95	0.62
2:B:509:TRP:HB3	2:B:511:GLU:HG3	1.82	0.62
2:B:1016:VAL:HG23	2:B:1017:PHE:HD1	1.65	0.62
2:B:1372:PHE:CE2	2:B:1424:GLN:HB3	2.34	0.62
2:E:1372:PHE:CE2	2:E:1424:GLN:HB3	2.34	0.62
2:E:1463:ARG:NE	2:E:1486:ARG:HE	1.98	0.62
2:B:443:ARG:HG3	2:B:628:SER:HA	1.82	0.62
2:E:857:LEU:HD22	2:E:905:LEU:HD11	1.80	0.62
2:E:879:LEU:HG	2:E:931:ARG:HH21	1.65	0.62
2:E:1016:VAL:HG23	2:E:1017:PHE:HD1	1.65	0.62
2:B:180:THR:O	2:B:184:PHE:N	2.33	0.61
2:B:760:LEU:HB3	2:B:823:ILE:HG21	1.80	0.61
2:E:240:GLU:OE2	2:E:319:ARG:NE	2.26	0.61
2:E:1241:ILE:HA	2:E:1244:LEU:HD12	1.81	0.61
2:E:1375:PHE:CE2	2:E:1376:LEU:HG	2.35	0.61
1:A:617:VAL:HG13	1:A:645:LEU:HD21	1.81	0.61
2:B:15:ALA:HA	2:B:59:PHE:CE2	2.35	0.61
2:B:1463:ARG:NE	2:B:1486:ARG:HE	1.98	0.61
2:E:1170:VAL:HG12	2:E:1174:LYS:HE2	1.82	0.61
2:E:1227:VAL:HA	2:E:1230:PHE:CD2	2.35	0.61
2:E:1238:ASP:OD1	2:E:1239:ILE:N	2.31	0.61
2:E:1532:CYS:O	2:E:1535:GLN:NE2	2.30	0.61
2:B:719:TYR:HA	2:B:723:HIS:HD2	1.66	0.61
2:B:1122:LYS:HD3	2:B:1175:LEU:HD21	1.82	0.61
3:C:171:GLU:HG3	3:C:174:ARG:HH11	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:496:TYR:CZ	2:E:513:VAL:HG11	2.35	0.61
2:E:936:ILE:HD12	2:E:939:THR:HB	1.82	0.61
2:E:1065:SER:O	2:E:1069:ARG:NH1	2.34	0.61
2:E:1080:ARG:HA	2:E:1083:ILE:HD12	1.82	0.61
2:B:138:LYS:HA	2:B:141:LEU:HB2	1.81	0.61
2:B:1231:TYR:HH	2:B:1243:TYR:HE1	1.47	0.61
1:D:701:LEU:HD23	2:E:31:ILE:HG23	1.82	0.61
2:B:166:ARG:O	2:B:171:ASN:ND2	2.28	0.61
2:B:1065:SER:O	2:B:1069:ARG:NH1	2.34	0.61
1:D:580:SER:HA	1:D:587:HIS:CE1	2.30	0.61
2:B:676:LEU:HB3	2:B:693:VAL:HG13	1.80	0.61
2:B:879:LEU:HG	2:B:931:ARG:HH21	1.65	0.61
2:E:100:VAL:HA	2:E:103:ARG:HG2	1.83	0.61
2:B:523:THR:HA	2:B:555:MET:SD	2.40	0.61
2:B:979:ARG:HD3	2:B:1039:GLU:OE2	2.01	0.61
1:A:726:CYS:HA	2:B:46:ARG:NH2	2.15	0.61
2:B:493:ILE:HD11	2:B:496:TYR:HD1	1.65	0.61
2:E:1125:ILE:HG12	2:E:1172:LEU:HA	1.83	0.61
1:A:548:ILE:HG21	1:A:682:THR:HG23	1.81	0.61
2:B:936:ILE:HD12	2:B:939:THR:HB	1.82	0.61
2:B:970:SER:O	2:B:974:SER:OG	2.15	0.61
3:C:42:ALA:HB3	3:C:53:LEU:HD11	1.82	0.61
2:E:166:ARG:HD3	2:E:173:LEU:HB2	1.81	0.61
2:E:443:ARG:HG3	2:E:628:SER:HA	1.82	0.61
2:E:523:THR:HA	2:E:555:MET:SD	2.41	0.61
2:B:1227:VAL:HA	2:B:1230:PHE:CD2	2.35	0.61
2:E:843:PHE:O	2:E:846:SER:OG	2.19	0.61
2:B:326:VAL:HB	2:B:386:VAL:HG12	1.83	0.60
2:B:1480:ALA:HA	2:B:1514:PRO:HB3	1.83	0.60
3:C:94:ARG:CZ	3:C:145:MET:HG2	2.31	0.60
1:D:697:ARG:NH1	2:E:30:GLN:HG3	2.16	0.60
2:E:70:THR:HG22	2:E:71:VAL:H	1.64	0.60
2:E:1243:TYR:HA	2:E:1246:LYS:HG2	1.83	0.60
3:F:7:VAL:HG21	3:F:71:SER:HB3	1.83	0.60
1:D:711:PRO:O	2:E:63:TYR:OH	2.06	0.60
2:E:701:ILE:HG21	2:E:763:LEU:HD21	1.83	0.60
2:E:857:LEU:HB3	2:E:905:LEU:HD21	1.83	0.60
2:E:961:LEU:O	2:E:969:TYR:OH	2.19	0.60
2:B:882:LEU:O	2:B:885:GLN:HG2	2.02	0.60
2:B:1170:VAL:HG12	2:B:1174:LYS:HE2	1.83	0.60
2:B:1375:PHE:CE2	2:B:1376:LEU:HG	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:326:VAL:HB	2:E:386:VAL:HG12	1.83	0.60
2:E:719:TYR:HA	2:E:723:HIS:HD2	1.65	0.60
3:F:94:ARG:CZ	3:F:145:MET:HG2	2.31	0.60
2:B:485:HIS:N	2:B:514:LYS:O	2.22	0.60
2:B:1243:TYR:HA	2:B:1246:LYS:HG2	1.83	0.60
2:B:1532:CYS:O	2:B:1535:GLN:NE2	2.30	0.60
2:E:1258:THR:HG22	2:E:1262:TYR:CE2	2.36	0.60
2:E:1459:VAL:HG23	2:E:1495:PHE:HB2	1.84	0.60
2:B:85:LEU:O	2:B:88:VAL:HG22	2.02	0.60
2:B:565:GLY:N	2:B:624:THR:O	2.34	0.60
2:B:866:SER:O	2:B:868:LEU:N	2.33	0.60
2:B:1006:TRP:HE3	2:B:1009:MET:HG3	1.67	0.60
2:B:1080:ARG:HA	2:B:1083:ILE:HD12	1.82	0.60
2:B:1206:ASP:O	2:B:1209:THR:HG22	2.02	0.60
2:B:1258:THR:HG22	2:B:1262:TYR:CE2	2.37	0.60
2:E:467:GLU:OE2	2:E:534:ARG:NH1	2.35	0.60
2:B:94:THR:HG22	2:B:98:TRP:NE1	2.16	0.60
2:B:857:LEU:HB3	2:B:905:LEU:HD21	1.83	0.60
2:B:961:LEU:O	2:B:969:TYR:OH	2.19	0.60
2:B:964:MET:O	2:B:1019:ARG:NH2	2.34	0.60
3:C:11:ASP:OD1	3:C:16:LYS:NZ	2.35	0.60
1:D:617:VAL:HG13	1:D:645:LEU:HD21	1.81	0.60
1:D:711:PRO:HG2	2:E:16:ILE:HG21	1.82	0.60
2:E:34:THR:HB	2:E:50:LEU:HD12	1.83	0.60
2:E:94:THR:HG22	2:E:98:TRP:NE1	2.16	0.60
1:A:580:SER:HB3	1:A:584:LYS:H	1.67	0.60
2:B:256:GLU:HG3	2:B:488:ALA:HB2	1.83	0.60
2:B:701:ILE:HG21	2:B:763:LEU:HD21	1.83	0.60
2:B:911:GLU:O	2:B:915:ARG:N	2.34	0.60
2:E:565:GLY:N	2:E:624:THR:O	2.34	0.60
2:E:937:ASN:HA	2:E:940:VAL:HG12	1.84	0.60
2:B:1357:ARG:HH21	2:B:1453:TYR:C	2.05	0.60
2:E:90:GLU:O	2:E:94:THR:OG1	2.13	0.60
2:E:509:TRP:HB3	2:E:511:GLU:HG3	1.82	0.60
2:E:964:MET:O	2:E:1019:ARG:NH2	2.34	0.60
2:E:1059:LEU:HA	2:E:1062:GLU:HG2	1.84	0.60
2:E:1067:ALA:O	2:E:1071:LYS:N	2.23	0.60
2:E:1206:ASP:O	2:E:1209:THR:HG22	2.02	0.60
2:E:1368:TYR:O	2:E:1425:TYR:N	2.31	0.60
3:F:42:ALA:HB3	3:F:53:LEU:HD11	1.83	0.60
2:B:470:MET:HG3	2:B:484:ILE:HD13	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1367:TYR:HE1	2:B:1398:LEU:HD23	1.67	0.60
2:B:1408:MET:N	2:B:1426:MET:O	2.33	0.60
1:D:562:PHE:N	1:D:575:TRP:O	2.35	0.60
1:D:580:SER:HB3	1:D:584:LYS:H	1.67	0.60
2:E:99:ALA:HA	2:E:102:TRP:NE1	2.17	0.60
2:E:911:GLU:O	2:E:915:ARG:N	2.34	0.60
1:A:580:SER:HA	1:A:587:HIS:CE1	2.30	0.59
3:C:146:ALA:O	3:C:150:GLY:N	2.30	0.59
1:D:643:SER:HB3	1:D:651:GLN:HB3	1.84	0.59
2:E:430:LYS:NZ	2:E:433:PHE:O	2.28	0.59
2:B:843:PHE:O	2:B:846:SER:OG	2.19	0.59
2:B:1313:MET:HA	2:B:1453:TYR:OH	2.02	0.59
2:B:1321:SER:O	2:B:1345:ARG:NH2	2.35	0.59
3:C:82:PHE:O	3:C:115:THR:N	2.24	0.59
1:D:601:HIS:CE1	1:D:603:SER:HA	2.38	0.59
2:E:36:HIS:O	2:E:48:TYR:N	2.35	0.59
2:E:85:LEU:O	2:E:88:VAL:HG22	2.02	0.59
2:E:166:ARG:NH1	2:E:168:ASP:H	2.00	0.59
2:E:166:ARG:HH21	2:E:169:ASN:HD21	1.49	0.59
2:E:1357:ARG:HH21	2:E:1453:TYR:C	2.05	0.59
3:F:11:ASP:OD1	3:F:16:LYS:NZ	2.35	0.59
1:A:562:PHE:N	1:A:575:TRP:O	2.35	0.59
1:A:580:SER:HB2	1:A:585:VAL:HG22	1.83	0.59
1:A:601:HIS:CE1	1:A:603:SER:HA	2.38	0.59
2:B:1067:ALA:O	2:B:1071:LYS:N	2.23	0.59
2:E:757:LEU:HA	2:E:760:LEU:HG	1.84	0.59
2:E:882:LEU:O	2:E:885:GLN:HG2	2.02	0.59
2:B:1183:HIS:CG	2:B:1184:LYS:H	2.21	0.59
2:E:1006:TRP:HE3	2:E:1009:MET:HG3	1.67	0.59
2:E:1321:SER:O	2:E:1345:ARG:NH2	2.35	0.59
2:E:1367:TYR:HE1	2:E:1398:LEU:HD23	1.67	0.59
2:E:1462:PHE:O	2:E:1489:TYR:N	2.33	0.59
2:E:1480:ALA:HA	2:E:1514:PRO:HB3	1.83	0.59
1:A:617:VAL:HG21	1:A:623:PRO:HD3	1.84	0.59
2:B:467:GLU:OE2	2:B:534:ARG:NH1	2.35	0.59
2:B:1125:ILE:HG12	2:B:1172:LEU:HA	1.83	0.59
2:B:1466:ARG:NH1	3:C:31:GLU:OE2	2.35	0.59
2:E:256:GLU:HG3	2:E:488:ALA:HB2	1.83	0.59
2:E:392:VAL:O	2:E:394:HIS:ND1	2.35	0.59
2:E:569:LEU:HD12	2:E:620:PHE:HD2	1.68	0.59
2:E:879:LEU:HG	2:E:931:ARG:NH2	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:34:THR:HB	2:B:50:LEU:HD12	1.83	0.59
2:B:99:ALA:HA	2:B:102:TRP:NE1	2.17	0.59
2:B:879:LEU:HG	2:B:931:ARG:NH2	2.18	0.59
2:B:937:ASN:HA	2:B:940:VAL:HG12	1.84	0.59
2:B:1381:PHE:HB2	2:B:1383:TYR:HE1	1.66	0.59
1:D:580:SER:HB2	1:D:585:VAL:HG22	1.83	0.59
1:D:617:VAL:HG21	1:D:623:PRO:HD3	1.84	0.59
2:E:37:ILE:HD13	2:E:45:TYR:HB3	1.85	0.59
2:E:197:LYS:HA	2:E:200:GLU:HG2	1.84	0.59
2:E:470:MET:HG3	2:E:484:ILE:HD13	1.84	0.59
2:E:789:ASN:O	2:E:792:ARG:N	2.36	0.59
2:E:1183:HIS:CG	2:E:1184:LYS:H	2.21	0.59
2:E:1381:PHE:HB2	2:E:1383:TYR:HE1	1.66	0.59
1:A:693:GLU:HA	1:A:696:LEU:HG	1.85	0.59
2:B:100:VAL:HA	2:B:103:ARG:HG2	1.83	0.59
2:B:789:ASN:O	2:B:792:ARG:N	2.36	0.59
2:E:802:MET:SD	2:E:846:SER:OG	2.58	0.59
2:E:970:SER:O	2:E:974:SER:OG	2.15	0.59
2:E:979:ARG:HD3	2:E:1039:GLU:OE2	2.01	0.59
2:E:1313:MET:HA	2:E:1453:TYR:OH	2.02	0.59
2:E:1390:ARG:NH1	3:F:26:ASN:OD1	2.36	0.59
1:A:711:PRO:CG	2:B:16:ILE:HG21	2.28	0.59
2:B:166:ARG:HH21	2:B:169:ASN:HD21	1.49	0.59
2:B:392:VAL:O	2:B:394:HIS:ND1	2.35	0.59
2:B:945:ARG:NH1	2:B:946:GLN:HB2	2.18	0.59
2:B:1238:ASP:OD1	2:B:1239:ILE:N	2.31	0.59
2:E:1438:PRO:HB2	2:E:1441:TYR:HB2	1.85	0.59
2:B:1256:ASN:HB3	2:B:1259:GLU:HB2	1.85	0.59
2:B:1468:PHE:CE2	2:B:1470:LYS:HB2	2.38	0.59
3:C:7:VAL:HG21	3:C:71:SER:HB3	1.83	0.59
2:E:1115:THR:HB	2:E:1120:LEU:HD11	1.85	0.59
2:E:1275:ASP:O	2:E:1292:THR:OG1	2.21	0.59
2:E:1362:TYR:O	2:E:1431:VAL:N	2.32	0.59
2:E:1468:PHE:CE2	2:E:1470:LYS:HB2	2.38	0.59
1:A:576:TYR:O	1:A:588:TYR:HA	2.03	0.59
2:B:187:HIS:CD2	2:B:1009:MET:HG2	2.38	0.59
2:B:1270:LEU:O	2:B:1272:GLN:NE2	2.36	0.59
2:B:1467:PRO:HG2	3:C:31:GLU:O	2.03	0.59
2:E:181:ILE:HA	2:E:184:PHE:HB3	1.85	0.59
2:E:1217:LYS:HA	2:E:1220:ARG:CZ	2.33	0.59
2:B:958:ILE:HD12	2:B:1016:VAL:HG21	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1459:VAL:HG23	2:B:1495:PHE:HB2	1.84	0.58
3:C:80:ILE:HD11	3:C:97:TRP:HB3	1.84	0.58
2:E:921:THR:HG23	2:E:925:ILE:HG13	1.84	0.58
2:E:958:ILE:HD12	2:E:1016:VAL:HG21	1.85	0.58
2:E:1259:GLU:OE1	2:E:1259:GLU:N	2.35	0.58
2:B:36:HIS:O	2:B:48:TYR:N	2.35	0.58
2:B:757:LEU:HA	2:B:760:LEU:HG	1.84	0.58
2:B:1115:THR:HB	2:B:1120:LEU:HD11	1.85	0.58
2:B:1479:PHE:HB3	2:B:1482:MET:HE2	1.84	0.58
2:B:181:ILE:HA	2:B:184:PHE:HB3	1.85	0.58
2:B:554:LEU:O	2:B:562:LEU:N	2.36	0.58
2:B:921:THR:HG23	2:B:925:ILE:HG13	1.84	0.58
2:B:1102:ILE:HD13	2:B:1135:GLU:HG3	1.85	0.58
2:B:1397:ARG:O	2:B:1401:GLN:N	2.35	0.58
2:B:1515:LEU:HG	2:B:1575:TYR:CE2	2.39	0.58
2:E:1262:TYR:O	2:E:1266:LEU:HG	2.03	0.58
2:E:1515:LEU:HG	2:E:1575:TYR:CE2	2.39	0.58
2:B:569:LEU:HD12	2:B:620:PHE:HD2	1.68	0.58
2:B:1059:LEU:HA	2:B:1062:GLU:HG2	1.84	0.58
2:B:1197:VAL:O	2:B:1200:LEU:HB3	2.03	0.58
2:B:1462:PHE:O	2:B:1489:TYR:N	2.33	0.58
2:E:180:THR:O	2:E:184:PHE:N	2.33	0.58
2:E:1265:LEU:O	2:E:1269:GLU:N	2.30	0.58
2:B:166:ARG:NH1	2:B:168:ASP:H	2.00	0.58
2:B:1438:PRO:HB2	2:B:1441:TYR:HB2	1.85	0.58
2:B:1539:ASP:OD1	2:B:1540:ARG:N	2.36	0.58
3:C:43:ASN:ND2	3:C:52:ASN:OD1	2.36	0.58
2:E:1357:ARG:NH2	2:E:1456:ALA:H	1.99	0.58
2:B:792:ARG:O	2:B:795:PHE:HB2	2.03	0.58
2:B:817:LEU:HB3	2:B:859:CYS:HB2	1.86	0.58
2:E:1379:LYS:HZ2	2:E:1503:GLU:HB2	1.69	0.58
3:F:80:ILE:HD11	3:F:97:TRP:HB3	1.84	0.58
3:F:82:PHE:O	3:F:115:THR:N	2.24	0.58
2:B:1111:GLU:OE2	2:B:1163:ARG:NH2	2.32	0.58
2:B:1262:TYR:O	2:B:1266:LEU:HG	2.03	0.58
2:B:1526:ASN:O	2:B:1599:LEU:HD21	2.04	0.58
2:E:1470:LYS:HB3	2:E:1483:TRP:CD1	2.39	0.58
2:E:1485:GLU:OE1	2:E:1485:GLU:N	2.36	0.58
3:F:43:ASN:ND2	3:F:52:ASN:OD1	2.36	0.58
2:B:1259:GLU:HA	2:B:1262:TYR:HD2	1.68	0.58
2:B:1485:GLU:OE1	2:B:1485:GLU:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:522:VAL:HG23	2:E:554:LEU:HD13	1.85	0.58
2:E:1197:VAL:O	2:E:1200:LEU:HB3	2.03	0.58
2:B:1217:LYS:HA	2:B:1220:ARG:CZ	2.33	0.58
2:B:1470:LYS:HB3	2:B:1483:TRP:CD1	2.39	0.58
2:E:81:ILE:HG21	2:E:141:LEU:HD21	1.85	0.58
2:E:189:VAL:HG13	2:E:193:ARG:NH1	2.19	0.58
2:E:450:LEU:HB3	2:E:620:PHE:HZ	1.69	0.58
2:E:945:ARG:NH1	2:E:946:GLN:HB2	2.18	0.58
2:E:1256:ASN:HB3	2:E:1259:GLU:HB2	1.85	0.58
2:E:1518:ALA:HA	2:E:1566:TYR:OH	2.04	0.58
2:E:1557:PRO:HA	3:F:36:VAL:CG1	2.33	0.58
2:B:189:VAL:HG13	2:B:193:ARG:NH1	2.19	0.58
2:B:450:LEU:HB3	2:B:620:PHE:HZ	1.69	0.58
1:D:711:PRO:HB2	2:E:63:TYR:CE1	2.39	0.58
2:E:187:HIS:CD2	2:E:1009:MET:HG2	2.38	0.58
2:E:1397:ARG:O	2:E:1401:GLN:N	2.35	0.58
2:B:1259:GLU:HA	2:B:1262:TYR:CD2	2.39	0.57
1:D:693:GLU:HA	1:D:696:LEU:HG	1.85	0.57
2:E:5:ILE:H	2:E:40:MET:N	1.95	0.57
3:F:90:PHE:CD1	3:F:137:ILE:HG12	2.40	0.57
2:B:1367:TYR:CE2	2:B:1402:PHE:HE2	2.21	0.57
1:D:576:TYR:O	1:D:588:TYR:HA	2.03	0.57
2:E:554:LEU:O	2:E:562:LEU:N	2.36	0.57
2:E:677:PHE:O	2:E:681:MET:HG2	2.04	0.57
2:E:874:CYS:HA	2:E:877:VAL:HG12	1.87	0.57
2:E:1539:ASP:OD1	2:E:1540:ARG:N	2.36	0.57
2:B:81:ILE:HG21	2:B:141:LEU:HD21	1.85	0.57
2:B:556:ASN:ND2	2:B:561:THR:O	2.37	0.57
2:B:643:TRP:CE2	2:B:679:ILE:HG13	2.40	0.57
2:B:1518:ALA:HA	2:B:1566:TYR:OH	2.04	0.57
2:E:1479:PHE:HB3	2:E:1482:MET:HE2	1.86	0.57
1:A:594:SER:HB2	1:A:596:GLN:HE21	1.69	0.57
2:B:197:LYS:HA	2:B:200:GLU:HG2	1.84	0.57
2:B:303:VAL:HG22	2:B:319:ARG:HG2	1.86	0.57
2:B:1275:ASP:O	2:B:1292:THR:OG1	2.21	0.57
2:E:520:GLU:O	2:E:523:THR:OG1	2.15	0.57
2:E:643:TRP:CE2	2:E:679:ILE:HG13	2.40	0.57
2:E:1359:GLN:HB3	2:E:1456:ALA:HB2	1.87	0.57
1:A:643:SER:HB3	1:A:651:GLN:HB3	1.85	0.57
2:B:1256:ASN:HD21	2:B:1500:LYS:HE2	1.70	0.57
2:E:719:TYR:HA	2:E:723:HIS:CD2	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:37:ILE:HD13	2:B:45:TYR:HB3	1.85	0.57
2:B:677:PHE:O	2:B:681:MET:HG2	2.05	0.57
2:B:765:ARG:NE	2:B:826:ASP:OD1	2.36	0.57
2:B:910:LEU:HB3	2:B:963:GLN:HE22	1.70	0.57
2:B:1099:ILE:HG13	2:B:1134:CYS:HB3	1.87	0.57
2:B:1515:LEU:HD13	2:B:1585:LYS:HB2	1.87	0.57
2:E:166:ARG:NH2	2:E:168:ASP:HB2	2.20	0.57
2:E:792:ARG:O	2:E:795:PHE:HB2	2.03	0.57
2:E:1099:ILE:HG13	2:E:1134:CYS:HB3	1.86	0.57
2:E:1165:ASP:HB2	2:E:1167:GLN:HE22	1.69	0.57
2:E:1242:ARG:HG2	2:E:1246:LYS:NZ	2.20	0.57
3:C:161:THR:O	3:C:163:ARG:NH1	2.37	0.57
1:D:693:GLU:O	1:D:697:ARG:HG2	2.05	0.57
2:E:556:ASN:ND2	2:E:561:THR:O	2.37	0.57
2:E:1205:LEU:HA	2:E:1208:ARG:HH21	1.70	0.57
2:E:1367:TYR:CE2	2:E:1402:PHE:HE2	2.21	0.57
3:F:8:VAL:O	3:F:58:THR:OG1	2.23	0.57
1:A:568:ARG:NH2	1:A:634:ASN:OD1	2.38	0.57
2:B:179:SER:OG	2:B:182:ALA:HB3	2.05	0.57
2:B:772:VAL:HA	2:B:775:LEU:HD12	1.86	0.57
2:B:838:VAL:HG12	2:B:877:VAL:HG21	1.87	0.57
2:B:1098:LYS:O	2:B:1102:ILE:HG13	2.05	0.57
2:B:1109:ILE:HA	2:B:1112:VAL:HG22	1.86	0.57
2:B:1242:ARG:HG2	2:B:1246:LYS:NZ	2.20	0.57
2:B:1284:GLN:NE2	2:B:1287:SER:O	2.37	0.57
3:C:7:VAL:HG23	3:C:75:THR:HG21	1.86	0.57
3:C:90:PHE:CD1	3:C:137:ILE:HG12	2.39	0.57
2:E:727:THR:HA	2:E:773:LEU:HD22	1.87	0.57
2:E:1102:ILE:HD13	2:E:1135:GLU:HG3	1.85	0.57
2:B:522:VAL:HG23	2:B:554:LEU:HD13	1.85	0.57
2:B:719:TYR:HA	2:B:723:HIS:CD2	2.40	0.57
2:B:828:LYS:HZ3	2:B:867:THR:HA	1.69	0.57
2:B:1259:GLU:OE1	2:B:1259:GLU:N	2.35	0.57
2:E:772:VAL:HA	2:E:775:LEU:HD12	1.87	0.57
2:E:1259:GLU:HA	2:E:1262:TYR:HD2	1.68	0.57
2:E:1259:GLU:HA	2:E:1262:TYR:CD2	2.39	0.57
2:E:1335:TYR:HA	2:E:1338:LEU:HD23	1.86	0.57
3:F:161:THR:O	3:F:163:ARG:NH1	2.37	0.57
2:B:1379:LYS:HZ2	2:B:1503:GLU:HB2	1.70	0.57
2:E:1526:ASN:O	2:E:1599:LEU:HD21	2.04	0.57
3:F:7:VAL:HG23	3:F:75:THR:HG21	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:8:VAL:HG22	3:F:79:LEU:HD12	1.87	0.57
1:A:541:GLN:O	1:A:544:ILE:HG22	2.04	0.56
2:B:874:CYS:HA	2:B:877:VAL:HG12	1.86	0.56
3:C:8:VAL:O	3:C:58:THR:OG1	2.23	0.56
1:D:568:ARG:NH2	1:D:634:ASN:OD1	2.38	0.56
2:E:1109:ILE:HA	2:E:1112:VAL:HG22	1.86	0.56
2:E:1284:GLN:NE2	2:E:1287:SER:O	2.37	0.56
2:B:727:THR:HA	2:B:773:LEU:HD22	1.87	0.56
2:B:1362:TYR:O	2:B:1431:VAL:N	2.32	0.56
2:B:1388:TYR:CE2	3:C:50:PRO:HG3	2.40	0.56
2:E:73:ASP:O	2:E:79:THR:N	2.38	0.56
2:E:760:LEU:HD12	2:E:819:TYR:HB2	1.87	0.56
2:E:817:LEU:HB3	2:E:859:CYS:HB2	1.86	0.56
2:E:1034:ASP:OD1	2:E:1097:HIS:NE2	2.38	0.56
2:E:1452:ASN:OD1	2:E:1453:TYR:N	2.38	0.56
2:B:73:ASP:O	2:B:79:THR:N	2.38	0.56
2:B:143:GLU:O	2:B:147:LYS:HG2	2.05	0.56
2:B:772:VAL:HG13	2:B:776:ARG:HH12	1.71	0.56
2:B:1207:TYR:O	2:B:1211:ILE:HG12	2.05	0.56
2:B:1235:LYS:O	2:B:1237:GLU:N	2.39	0.56
2:B:1359:GLN:HB3	2:B:1456:ALA:HB2	1.87	0.56
2:B:1452:ASN:OD1	2:B:1453:TYR:N	2.38	0.56
2:E:59:PHE:HD2	2:E:64:ILE:HG12	1.70	0.56
2:E:903:SER:HB3	2:E:953:PHE:CE2	2.40	0.56
2:E:914:ASP:CG	2:E:963:GLN:HG2	2.26	0.56
2:E:1207:TYR:O	2:E:1211:ILE:HG12	2.06	0.56
2:E:1240:TYR:O	2:E:1244:LEU:HG	2.05	0.56
2:E:1391:ARG:HG3	2:E:1429:PHE:HA	1.87	0.56
2:B:1034:ASP:OD1	2:B:1097:HIS:NE2	2.38	0.56
2:B:1088:ARG:HG3	2:B:1127:ILE:HD11	1.87	0.56
2:B:1325:ALA:HB2	2:B:1341:LEU:HD23	1.87	0.56
2:B:1448:GLU:OE1	2:B:1452:ASN:ND2	2.38	0.56
3:C:8:VAL:HG22	3:C:79:LEU:HD12	1.87	0.56
2:E:772:VAL:HG13	2:E:776:ARG:HH12	1.71	0.56
2:E:1408:MET:N	2:E:1426:MET:O	2.33	0.56
2:E:1525:THR:HA	2:E:1528:ARG:NH2	2.21	0.56
2:B:19:TYR:CG	2:B:59:PHE:HE1	2.24	0.56
2:B:208:LEU:HA	2:B:211:ARG:HD3	1.86	0.56
2:B:1167:GLN:O	2:B:1171:LEU:HG	2.05	0.56
1:D:541:GLN:O	1:D:544:ILE:HG22	2.04	0.56
1:D:586:LEU:HB2	1:D:608:LEU:HB3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:594:SER:HB2	1:D:596:GLN:HE21	1.69	0.56
2:E:196:GLU:O	2:E:200:GLU:HB3	2.05	0.56
2:E:1072:ILE:O	2:E:1076:TYR:N	2.37	0.56
2:E:1098:LYS:O	2:E:1102:ILE:HG13	2.05	0.56
2:E:1325:ALA:HB2	2:E:1341:LEU:HD23	1.87	0.56
1:A:714:PRO:HG3	2:B:60:PRO:HB3	1.88	0.56
2:B:1165:ASP:HB2	2:B:1167:GLN:HE22	1.69	0.56
1:D:708:ASP:OD1	1:D:708:ASP:N	2.39	0.56
2:E:303:VAL:HG22	2:E:319:ARG:HG2	1.86	0.56
2:E:838:VAL:HG12	2:E:877:VAL:HG21	1.87	0.56
2:E:1178:GLU:HA	2:E:1181:ARG:HD3	1.88	0.56
2:E:1270:LEU:O	2:E:1272:GLN:NE2	2.36	0.56
1:A:580:SER:HB2	1:A:585:VAL:H	1.71	0.56
1:A:596:GLN:NE2	1:A:597:GLY:O	2.39	0.56
2:B:1178:GLU:HA	2:B:1181:ARG:HD3	1.88	0.56
2:B:1240:TYR:O	2:B:1244:LEU:HG	2.05	0.56
1:D:711:PRO:HB2	2:E:63:TYR:HE1	1.70	0.56
2:E:143:GLU:O	2:E:147:LYS:HG2	2.05	0.56
2:E:910:LEU:HB3	2:E:963:GLN:HE22	1.70	0.56
3:F:27:ALA:O	3:F:162:GLN:NE2	2.38	0.56
1:A:677:MET:CB	1:A:682:THR:HG21	2.36	0.56
2:B:899:HIS:CD2	2:B:943:MET:HG2	2.41	0.56
2:B:1205:LEU:HA	2:B:1208:ARG:HH21	1.70	0.56
2:B:1357:ARG:NH2	2:B:1456:ALA:H	1.99	0.56
3:C:27:ALA:O	3:C:162:GLN:NE2	2.38	0.56
1:D:677:MET:CB	1:D:682:THR:HG21	2.36	0.56
2:E:484:ILE:O	2:E:493:ILE:N	2.39	0.56
2:E:1167:GLN:O	2:E:1171:LEU:HG	2.05	0.56
2:E:1371:GLY:C	2:E:1424:GLN:HE21	2.09	0.56
2:E:1484:ILE:H	2:E:1512:ILE:HB	1.71	0.56
2:E:1515:LEU:HD13	2:E:1585:LYS:HB2	1.87	0.56
2:B:166:ARG:NH2	2:B:168:ASP:HB2	2.20	0.56
2:B:261:ARG:HD3	2:B:269:LYS:HD3	1.88	0.56
2:B:1371:GLY:C	2:B:1424:GLN:HE21	2.09	0.56
1:D:711:PRO:HG2	2:E:16:ILE:HD13	1.88	0.56
2:E:208:LEU:HA	2:E:211:ARG:HD3	1.86	0.56
2:E:473:HIS:HB2	2:E:526:HIS:CE1	2.41	0.56
2:E:979:ARG:NH2	2:E:1031:PHE:O	2.39	0.56
2:B:484:ILE:O	2:B:493:ILE:N	2.39	0.56
2:B:903:SER:HB3	2:B:953:PHE:CE2	2.40	0.56
2:B:914:ASP:CG	2:B:963:GLN:HG2	2.26	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1041:GLN:NE2	2:B:1044:ASN:OD1	2.39	0.56
2:B:1072:ILE:O	2:B:1076:TYR:N	2.37	0.56
2:E:1041:GLN:NE2	2:E:1044:ASN:OD1	2.39	0.56
2:E:1256:ASN:HD21	2:E:1500:LYS:HE2	1.70	0.56
1:A:562:PHE:CE1	1:A:577:CYS:HB3	2.41	0.55
1:A:693:GLU:O	1:A:697:ARG:HG2	2.05	0.55
2:B:933:LEU:H	2:B:935:ARG:HH21	1.53	0.55
2:B:979:ARG:NH2	2:B:1031:PHE:O	2.39	0.55
2:B:1441:TYR:CD2	2:B:1450:ILE:HG21	2.41	0.55
2:B:1484:ILE:H	2:B:1512:ILE:HB	1.71	0.55
2:B:1525:THR:HA	2:B:1528:ARG:NH2	2.21	0.55
3:C:137:ILE:HG23	3:C:141:GLN:HB2	1.88	0.55
2:E:761:LYS:O	2:E:765:ARG:HG2	2.06	0.55
2:E:1615:LEU:O	2:E:1619:HIS:N	2.29	0.55
2:B:273:LYS:HD3	2:B:277:LEU:HD23	1.88	0.55
2:B:760:LEU:HD12	2:B:819:TYR:HB2	1.87	0.55
2:B:828:LYS:NZ	2:B:867:THR:HA	2.21	0.55
2:B:855:GLN:OE1	2:B:855:GLN:N	2.39	0.55
2:B:1045:ASN:O	2:B:1049:LEU:HB3	2.06	0.55
2:B:1335:TYR:HA	2:B:1338:LEU:HD23	1.86	0.55
2:B:1391:ARG:HG3	2:B:1429:PHE:HA	1.87	0.55
1:D:596:GLN:NE2	1:D:597:GLY:O	2.39	0.55
2:E:828:LYS:NZ	2:E:867:THR:HA	2.21	0.55
2:E:1029:THR:HA	2:E:1033:MET:HB2	1.87	0.55
2:E:1235:LYS:O	2:E:1237:GLU:N	2.39	0.55
2:E:1441:TYR:CD2	2:E:1450:ILE:HG21	2.41	0.55
2:B:59:PHE:HD2	2:B:64:ILE:HG12	1.70	0.55
2:B:196:GLU:O	2:B:200:GLU:HB3	2.05	0.55
2:B:825:ASN:ND2	2:B:866:SER:HB2	2.22	0.55
2:B:896:LYS:CG	2:B:897:PRO:HD3	2.35	0.55
2:B:1198:SER:HA	2:B:1201:LEU:HD12	1.89	0.55
2:B:1340:ASN:OD1	2:B:1341:LEU:N	2.40	0.55
1:D:578:ARG:HB2	1:D:598:GLU:OE1	2.07	0.55
1:D:580:SER:HB2	1:D:585:VAL:H	1.71	0.55
2:E:435:GLU:HA	2:E:708:LYS:NZ	2.21	0.55
2:E:1467:PRO:HG2	3:F:31:GLU:O	2.07	0.55
2:B:761:LYS:O	2:B:765:ARG:HG2	2.06	0.55
2:B:1242:ARG:HG2	2:B:1246:LYS:HZ1	1.72	0.55
3:C:126:ILE:HD12	3:C:136:PRO:HB3	1.88	0.55
2:E:273:LYS:HD3	2:E:277:LEU:HD23	1.88	0.55
2:E:1340:ASN:OD1	2:E:1341:LEU:N	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1571:PHE:CE2	2:E:1590:LYS:HG3	2.42	0.55
3:F:137:ILE:HG23	3:F:141:GLN:HB2	1.88	0.55
2:B:156:ASN:O	2:B:160:GLY:N	2.40	0.55
2:E:19:TYR:CG	2:E:59:PHE:HE1	2.24	0.55
2:B:17:TYR:OH	2:B:20:ASN:OD1	2.23	0.55
2:B:473:HIS:HB2	2:B:526:HIS:CE1	2.41	0.55
1:D:557:VAL:HA	1:D:579:LEU:HB3	1.89	0.55
2:E:17:TYR:OH	2:E:20:ASN:OD1	2.23	0.55
2:E:156:ASN:O	2:E:160:GLY:N	2.40	0.55
2:E:1045:ASN:O	2:E:1049:LEU:HB3	2.06	0.55
2:E:1159:VAL:O	2:E:1208:ARG:NH1	2.40	0.55
2:E:1328:TYR:HB3	2:E:1338:LEU:CD2	2.37	0.55
2:E:1460:GLN:O	2:E:1491:THR:N	2.39	0.55
3:F:126:ILE:HD12	3:F:136:PRO:HB3	1.88	0.55
1:A:669:LEU:HA	1:A:672:LEU:HD12	1.89	0.55
2:B:746:ASP:O	2:B:750:THR:OG1	2.10	0.55
2:B:856:LYS:HD2	2:B:857:LEU:HD23	1.89	0.55
2:B:965:ASP:OD1	2:B:966:ASP:N	2.40	0.55
2:B:1601:THR:HG22	2:B:1605:ARG:NE	2.21	0.55
2:E:179:SER:OG	2:E:182:ALA:HB3	2.05	0.55
2:E:1028:LEU:HD23	2:E:1032:PHE:CD1	2.42	0.55
2:E:1328:TYR:HA	2:E:1332:VAL:HG12	1.89	0.55
2:E:1601:THR:HG22	2:E:1605:ARG:NE	2.21	0.55
1:A:557:VAL:HA	1:A:579:LEU:HB3	1.89	0.55
2:B:435:GLU:HA	2:B:708:LYS:NZ	2.21	0.55
2:B:1029:THR:HA	2:B:1033:MET:HB2	1.87	0.55
2:B:1109:ILE:HG23	2:B:1128:PHE:HE1	1.72	0.55
2:B:1345:ARG:HA	2:B:1348:PHE:CD2	2.42	0.55
2:E:48:TYR:HB3	2:E:53:LYS:HD2	1.88	0.55
2:E:1012:THR:HA	2:E:1015:ARG:NH1	2.21	0.55
2:E:1043:TRP:CD1	2:E:1094:LEU:HD21	2.42	0.55
2:E:1448:GLU:OE1	2:E:1452:ASN:ND2	2.38	0.55
2:B:76:GLN:NE2	2:B:78:GLU:OE1	2.36	0.55
2:B:958:ILE:HB	2:B:1016:VAL:HG21	1.89	0.55
2:B:1506:GLN:NE2	2:B:1507:ILE:O	2.40	0.55
1:D:562:PHE:CE1	1:D:577:CYS:HB3	2.41	0.55
2:E:45:TYR:O	2:E:59:PHE:N	2.31	0.55
2:E:714:PRO:HA	2:E:717:GLU:HG2	1.89	0.55
2:E:1483:TRP:CZ2	2:E:1514:PRO:HD3	2.42	0.55
2:B:19:TYR:O	2:B:28:SER:HA	2.07	0.55
2:B:1251:HIS:O	2:B:1255:GLU:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1458:GLU:N	2:B:1495:PHE:O	2.40	0.55
2:B:1615:LEU:HA	2:B:1618:LEU:HB2	1.89	0.55
2:E:1088:ARG:HG3	2:E:1127:ILE:HD11	1.88	0.55
2:E:1458:GLU:N	2:E:1495:PHE:O	2.40	0.55
3:F:83:SER:HB3	3:F:86:SER:HB3	1.89	0.55
2:B:562:LEU:O	2:B:633:GLN:NE2	2.40	0.54
2:B:1159:VAL:O	2:B:1208:ARG:NH1	2.40	0.54
2:E:283:ASP:HB2	2:E:430:LYS:HB3	1.89	0.54
2:E:1251:HIS:O	2:E:1255:GLU:N	2.39	0.54
2:E:1506:GLN:NE2	2:E:1507:ILE:O	2.40	0.54
2:B:48:TYR:HB3	2:B:53:LYS:HD2	1.88	0.54
2:B:958:ILE:HA	2:B:961:LEU:HD12	1.89	0.54
2:B:1328:TYR:HA	2:B:1332:VAL:HG12	1.89	0.54
2:B:1571:PHE:CE2	2:B:1590:LYS:HG3	2.42	0.54
3:C:83:SER:HB3	3:C:86:SER:HB3	1.89	0.54
3:C:85:VAL:HG11	3:C:119:LEU:HB2	1.89	0.54
2:E:832:ASP:OD2	2:E:835:GLU:N	2.24	0.54
2:E:1216:SER:O	2:E:1220:ARG:NH1	2.41	0.54
1:A:586:LEU:HB2	1:A:608:LEU:HB3	1.88	0.54
2:B:105:LEU:HD13	2:B:110:LYS:NZ	2.22	0.54
2:B:832:ASP:OD2	2:B:835:GLU:N	2.24	0.54
2:B:880:PRO:HA	2:B:931:ARG:HH12	1.73	0.54
1:D:669:LEU:HA	1:D:672:LEU:HD12	1.89	0.54
2:E:958:ILE:HA	2:E:961:LEU:HD12	1.89	0.54
3:F:68:ARG:HG3	3:F:72:TYR:CE1	2.43	0.54
2:B:1535:GLN:HE22	2:B:1542:LEU:HD21	1.71	0.54
2:E:76:GLN:NE2	2:E:78:GLU:OE1	2.36	0.54
2:E:261:ARG:HD3	2:E:269:LYS:HD3	1.88	0.54
2:E:795:PHE:CD1	2:E:839:LEU:HB3	2.43	0.54
2:E:825:ASN:ND2	2:E:866:SER:HB2	2.22	0.54
2:E:899:HIS:CD2	2:E:943:MET:HG2	2.41	0.54
2:E:958:ILE:HB	2:E:1016:VAL:HG21	1.89	0.54
2:E:1418:ILE:HA	2:E:1421:SER:HB3	1.89	0.54
2:E:1545:HIS:O	2:E:1548:SER:OG	2.21	0.54
2:E:1615:LEU:HA	2:E:1618:LEU:HB2	1.89	0.54
1:A:708:ASP:N	1:A:708:ASP:OD1	2.39	0.54
2:B:97:GLU:OE2	2:B:1065:SER:HB2	2.08	0.54
2:B:1216:SER:O	2:B:1220:ARG:NH1	2.41	0.54
2:E:562:LEU:O	2:E:633:GLN:NE2	2.40	0.54
2:E:1109:ILE:HG23	2:E:1128:PHE:HE1	1.72	0.54
2:E:1111:GLU:OE2	2:E:1163:ARG:NH2	2.32	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1165:ASP:O	2:B:1168:TYR:HB3	2.08	0.54
2:B:1409:THR:HA	3:C:28:PHE:HZ	1.72	0.54
2:B:1557:PRO:HB2	2:B:1561:GLY:CA	2.36	0.54
2:E:11:LYS:HZ1	2:E:36:HIS:HB2	1.72	0.54
2:E:933:LEU:H	2:E:935:ARG:HH21	1.54	0.54
2:B:11:LYS:HZ1	2:B:36:HIS:HB2	1.73	0.54
2:B:732:LYS:O	2:B:736:VAL:HG23	2.08	0.54
2:B:1012:THR:HA	2:B:1015:ARG:NH1	2.21	0.54
2:B:1328:TYR:HB3	2:B:1338:LEU:CD2	2.37	0.54
2:E:473:HIS:ND1	2:E:477:GLY:O	2.41	0.54
2:E:896:LYS:CG	2:E:897:PRO:HD3	2.36	0.54
2:E:965:ASP:OD1	2:E:966:ASP:N	2.40	0.54
2:E:1217:LYS:HD3	2:E:1220:ARG:NH1	2.22	0.54
2:E:1535:GLN:HE22	2:E:1542:LEU:HD21	1.71	0.54
2:E:1593:ILE:HA	2:E:1596:GLN:HB3	1.90	0.54
1:A:578:ARG:HB2	1:A:598:GLU:OE1	2.07	0.54
2:E:93:SER:O	2:E:96:ARG:HB3	2.08	0.54
2:E:105:LEU:HD13	2:E:110:LYS:NZ	2.22	0.54
2:E:940:VAL:HG13	2:E:992:MET:CE	2.37	0.54
2:E:1623:SER:HA	2:E:1627:ARG:NH1	2.23	0.54
2:B:283:ASP:HB2	2:B:430:LYS:HB3	1.89	0.54
2:B:899:HIS:HB3	2:B:949:HIS:NE2	2.23	0.54
2:B:940:VAL:HG13	2:B:992:MET:CE	2.37	0.54
2:B:1028:LEU:HD23	2:B:1032:PHE:CD1	2.42	0.54
2:B:1065:SER:OG	2:B:1068:LYS:HB2	2.08	0.54
3:C:68:ARG:HG3	3:C:72:TYR:CE1	2.43	0.54
2:E:97:GLU:OE2	2:E:1065:SER:HB2	2.08	0.54
2:E:662:GLY:HA2	2:E:665:ILE:HB	1.90	0.54
2:E:855:GLN:OE1	2:E:855:GLN:N	2.39	0.54
2:E:1212:MET:HA	2:E:1215:GLU:OE2	2.08	0.54
2:E:1242:ARG:HG2	2:E:1246:LYS:HZ1	1.73	0.54
3:F:85:VAL:HG11	3:F:119:LEU:HB2	1.89	0.54
2:B:818:LYS:HZ3	2:B:858:ASN:HB3	1.73	0.54
2:B:1460:GLN:O	2:B:1491:THR:N	2.39	0.54
2:B:1483:TRP:CZ2	2:B:1514:PRO:HD3	2.42	0.54
2:E:19:TYR:HB3	2:E:29:LEU:H	1.73	0.54
2:E:1065:SER:OG	2:E:1068:LYS:HB2	2.08	0.54
2:E:1198:SER:HA	2:E:1201:LEU:HD12	1.88	0.54
2:E:1345:ARG:HA	2:E:1348:PHE:CD2	2.42	0.54
2:B:561:THR:HB	2:B:631:LEU:HD22	1.90	0.53
2:B:938:ARG:O	2:B:941:ILE:HB	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1043:TRP:CD1	2:B:1094:LEU:HD21	2.42	0.53
2:B:1449:GLN:HA	2:B:1452:ASN:ND2	2.24	0.53
2:E:19:TYR:O	2:E:28:SER:HA	2.07	0.53
2:E:23:GLN:HG2	2:E:58:ILE:HD13	1.89	0.53
2:E:649:ASN:OD1	2:E:652:HIS:HB3	2.08	0.53
2:E:732:LYS:O	2:E:736:VAL:HG23	2.08	0.53
2:B:4:TRP:CZ3	2:B:46:ARG:HG2	2.43	0.53
2:B:23:GLN:HG2	2:B:58:ILE:HD13	1.89	0.53
2:B:649:ASN:OD1	2:B:652:HIS:HB3	2.08	0.53
2:B:662:GLY:HA2	2:B:665:ILE:HB	1.90	0.53
2:B:714:PRO:HA	2:B:717:GLU:HG2	1.89	0.53
2:B:934:ARG:HB3	2:B:935:ARG:NH1	2.24	0.53
2:B:1418:ILE:HA	2:B:1421:SER:HB3	1.90	0.53
3:C:6:CYS:SG	3:C:79:LEU:HG	2.48	0.53
1:D:618:THR:HB	1:D:662:TYR:OH	2.08	0.53
1:D:670:ASN:O	1:D:674:GLY:N	2.41	0.53
2:E:856:LYS:HD2	2:E:857:LEU:HD23	1.89	0.53
2:E:992:MET:O	2:E:996:LEU:HD23	2.08	0.53
2:E:1363:PHE:O	2:E:1383:TYR:N	2.31	0.53
2:E:1579:HIS:O	2:E:1583:GLN:NE2	2.37	0.53
2:B:1091:TRP:CH2	2:B:1131:MET:HB3	2.44	0.53
2:B:1623:SER:HA	2:B:1627:ARG:NH1	2.23	0.53
2:E:4:TRP:CZ3	2:E:46:ARG:HG2	2.42	0.53
2:E:122:TYR:HA	2:E:125:ILE:HG12	1.91	0.53
2:E:899:HIS:HB3	2:E:949:HIS:NE2	2.23	0.53
2:B:1395:SER:O	2:B:1399:LEU:HG	2.09	0.53
2:B:1463:ARG:HH21	2:B:1484:ILE:HG21	1.73	0.53
2:B:1518:ALA:HB2	2:B:1570:PHE:CE2	2.44	0.53
1:D:704:ILE:HD11	2:E:65:HIS:CG	2.43	0.53
2:E:46:ARG:HA	2:E:57:GLY:O	2.09	0.53
2:E:820:LEU:O	2:E:823:ILE:HG12	2.09	0.53
2:E:1006:TRP:CD1	2:E:1006:TRP:N	2.77	0.53
3:F:41:SER:OG	3:F:53:LEU:O	2.15	0.53
3:F:142:GLY:HA3	3:F:154:TYR:CZ	2.44	0.53
2:B:473:HIS:ND1	2:B:477:GLY:O	2.41	0.53
2:B:795:PHE:CD1	2:B:839:LEU:HB3	2.43	0.53
2:B:824:ILE:O	2:B:828:LYS:HG2	2.09	0.53
2:B:831:PHE:HD2	2:B:836:LEU:HB2	1.74	0.53
2:B:886:LEU:HD13	2:B:932:LEU:HD23	1.90	0.53
2:B:1228:LEU:HD13	2:B:1244:LEU:HD23	1.90	0.53
2:E:938:ARG:O	2:E:941:ILE:HB	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1228:LEU:HD13	2:E:1244:LEU:HD23	1.90	0.53
2:E:1399:LEU:HD13	2:E:1405:ALA:HB1	1.90	0.53
2:E:1632:LYS:O	2:E:1636:HIS:N	2.41	0.53
3:F:69:PRO:HA	3:F:72:TYR:HD1	1.74	0.53
2:B:929:MET:HA	2:B:933:LEU:CD1	2.29	0.53
2:B:1212:MET:HA	2:B:1215:GLU:OE2	2.08	0.53
2:E:7:THR:O	2:E:10:GLN:NE2	2.42	0.53
2:E:281:PHE:HD1	2:E:428:ALA:HB3	1.74	0.53
2:E:886:LEU:HD13	2:E:932:LEU:HD23	1.90	0.53
2:E:1626:PHE:HD2	2:E:1627:ARG:HD2	1.74	0.53
3:F:6:CYS:SG	3:F:79:LEU:HG	2.48	0.53
1:A:670:ASN:O	1:A:674:GLY:N	2.41	0.53
2:B:296:LEU:HD23	2:B:346:ILE:HD11	1.90	0.53
2:B:820:LEU:O	2:B:823:ILE:HG12	2.09	0.53
2:B:1272:GLN:C	2:B:1297:LYS:HD2	2.29	0.53
3:C:69:PRO:HA	3:C:72:TYR:HD1	1.74	0.53
2:E:730:TYR:CD1	2:E:771:ARG:HD3	2.44	0.53
2:E:929:MET:HA	2:E:933:LEU:CD1	2.29	0.53
2:E:1348:PHE:O	2:E:1352:ILE:HG12	2.09	0.53
3:F:72:TYR:CE2	3:F:101:VAL:HG22	2.44	0.53
1:A:618:THR:HB	1:A:662:TYR:OH	2.08	0.53
2:B:19:TYR:HB3	2:B:29:LEU:H	1.73	0.53
2:B:46:ARG:HA	2:B:57:GLY:O	2.09	0.53
2:B:90:GLU:O	2:B:94:THR:OG1	2.13	0.53
2:B:320:ARG:NH1	2:B:375:GLU:OE1	2.42	0.53
2:B:992:MET:O	2:B:996:LEU:HD23	2.08	0.53
2:B:1391:ARG:NH2	2:B:1392:GLU:OE2	2.42	0.53
2:B:1399:LEU:HD13	2:B:1405:ALA:HB1	1.89	0.53
2:E:102:TRP:HA	2:E:105:LEU:HG	1.90	0.53
2:E:880:PRO:HA	2:E:931:ARG:HH12	1.73	0.53
2:E:940:VAL:HG13	2:E:992:MET:HE1	1.91	0.53
2:E:945:ARG:HH12	2:E:946:GLN:HB2	1.73	0.53
2:B:73:ASP:O	2:B:78:GLU:N	2.42	0.53
2:B:122:TYR:HA	2:B:125:ILE:HG12	1.90	0.53
2:B:1321:SER:OG	2:B:1345:ARG:NH2	2.42	0.53
2:B:1495:PHE:CE1	2:B:1502:PHE:HD2	2.26	0.53
3:C:66:ARG:NH1	3:C:67:LEU:HB2	2.24	0.53
2:E:881:LEU:O	2:E:884:ASP:HB2	2.09	0.53
2:E:997:ILE:HG21	2:E:1053:PHE:HB2	1.90	0.53
1:A:536:LEU:HA	1:A:539:LYS:HE3	1.91	0.53
2:B:93:SER:O	2:B:96:ARG:HB3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:243:MET:HG3	2:B:281:PHE:CZ	2.44	0.53
2:B:294:VAL:HG11	2:B:333:ILE:HD12	1.91	0.53
2:B:990:PHE:HB3	2:B:1045:ASN:CG	2.30	0.53
2:B:1006:TRP:N	2:B:1006:TRP:CD1	2.77	0.53
2:B:1203:ASN:O	2:B:1207:TYR:HB3	2.09	0.53
2:B:1407:LYS:HA	2:B:1426:MET:H	1.74	0.53
2:B:1545:HIS:O	2:B:1548:SER:OG	2.21	0.53
3:C:68:ARG:HG2	3:C:69:PRO:HD3	1.91	0.53
2:E:189:VAL:HA	2:E:192:LYS:HE2	1.91	0.53
2:E:222:TYR:CZ	2:E:289:LEU:HD11	2.44	0.53
2:E:561:THR:HB	2:E:631:LEU:HD22	1.90	0.53
2:E:765:ARG:NE	2:E:826:ASP:OD1	2.35	0.53
2:E:1091:TRP:CH2	2:E:1131:MET:HB3	2.44	0.53
2:E:1386:LYS:H	2:E:1389:GLU:HG3	1.74	0.53
2:E:1398:LEU:HA	2:E:1401:GLN:HB3	1.91	0.53
2:E:1518:ALA:HB2	2:E:1570:PHE:CE2	2.44	0.53
2:B:730:TYR:CZ	2:B:731:VAL:HG23	2.43	0.52
2:B:789:ASN:HA	2:B:792:ARG:HD2	1.91	0.52
2:B:881:LEU:O	2:B:884:ASP:HB2	2.09	0.52
2:B:1600:LEU:O	2:B:1604:ILE:HG12	2.09	0.52
2:E:14:VAL:HB	2:E:65:HIS:HB3	1.91	0.52
2:E:828:LYS:HZ3	2:E:867:THR:HA	1.75	0.52
2:E:1391:ARG:NH2	2:E:1392:GLU:OE2	2.42	0.52
2:E:1407:LYS:HA	2:E:1426:MET:H	1.74	0.52
1:A:576:TYR:HE1	1:A:591:LEU:HG	1.75	0.52
2:B:30:GLN:NE2	2:B:32:GLY:H	2.08	0.52
2:B:102:TRP:HA	2:B:105:LEU:HG	1.90	0.52
2:B:281:PHE:HD1	2:B:428:ALA:HB3	1.74	0.52
2:B:570:VAL:HG22	2:B:592:LYS:HZ2	1.74	0.52
2:B:570:VAL:HA	2:B:592:LYS:HZ2	1.73	0.52
2:B:945:ARG:HH12	2:B:946:GLN:HB2	1.74	0.52
2:B:997:ILE:HG21	2:B:1053:PHE:HB2	1.90	0.52
2:B:1027:VAL:HG22	2:B:1032:PHE:CE1	2.44	0.52
2:B:1207:TYR:HD2	2:B:1208:ARG:HG3	1.74	0.52
2:B:1348:PHE:O	2:B:1352:ILE:HG12	2.09	0.52
2:B:1404:ASN:HB2	2:B:1406:GLU:OE2	2.09	0.52
2:B:1626:PHE:CD2	2:B:1627:ARG:HD2	2.45	0.52
1:D:536:LEU:HD21	2:E:17:TYR:HA	1.91	0.52
2:E:46:ARG:HD2	2:E:58:ILE:HG13	1.91	0.52
2:E:99:ALA:HA	2:E:102:TRP:HE1	1.75	0.52
2:E:296:LEU:HD23	2:E:346:ILE:HD11	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:320:ARG:NH1	2:E:375:GLU:OE1	2.42	0.52
2:E:533:HIS:CE1	2:E:535:SER:HB3	2.44	0.52
2:E:730:TYR:CZ	2:E:731:VAL:HG23	2.43	0.52
2:E:1165:ASP:O	2:E:1168:TYR:HB3	2.08	0.52
2:E:1233:GLU:O	2:E:1235:LYS:NZ	2.22	0.52
2:E:1370:GLN:N	2:E:1421:SER:O	2.40	0.52
2:E:1395:SER:O	2:E:1399:LEU:HG	2.09	0.52
2:B:1363:PHE:O	2:B:1383:TYR:N	2.30	0.52
2:B:1386:LYS:H	2:B:1389:GLU:HG3	1.74	0.52
2:B:1626:PHE:HD2	2:B:1627:ARG:HD2	1.74	0.52
2:E:528:ARG:HA	2:E:551:PHE:HA	1.92	0.52
2:E:831:PHE:HD2	2:E:836:LEU:HB2	1.74	0.52
2:E:1027:VAL:HG22	2:E:1032:PHE:CE1	2.44	0.52
2:E:1203:ASN:O	2:E:1207:TYR:HB3	2.09	0.52
2:E:1463:ARG:HH21	2:E:1484:ILE:HG21	1.73	0.52
2:E:1521:THR:O	2:E:1524:LEU:HG	2.09	0.52
2:E:1522:MET:HG3	2:E:1566:TYR:HE2	1.75	0.52
3:F:68:ARG:HG2	3:F:69:PRO:HD3	1.91	0.52
1:A:544:ILE:O	1:A:547:LEU:HG	2.09	0.52
2:B:44:TRP:CE3	2:B:58:ILE:HG22	2.45	0.52
2:B:871:GLN:HG2	2:B:875:ARG:HD3	1.91	0.52
2:B:1398:LEU:HA	2:B:1401:GLN:HB3	1.92	0.52
3:C:72:TYR:CE2	3:C:101:VAL:HG22	2.44	0.52
1:D:536:LEU:HA	1:D:539:LYS:HE3	1.91	0.52
2:E:871:GLN:HG2	2:E:875:ARG:HD3	1.91	0.52
2:E:1058:SER:O	2:E:1062:GLU:HG2	2.09	0.52
2:E:1593:ILE:HB	2:E:1597:MET:HE1	1.92	0.52
2:B:646:ASN:HD21	2:B:649:ASN:HD22	1.57	0.52
2:B:853:VAL:O	2:B:856:LYS:HG3	2.10	0.52
2:B:1265:LEU:O	2:B:1269:GLU:N	2.30	0.52
2:B:1593:ILE:HA	2:B:1596:GLN:HB3	1.90	0.52
2:B:1615:LEU:O	2:B:1619:HIS:N	2.29	0.52
3:C:12:GLY:N	3:C:60:GLY:HA3	2.25	0.52
2:E:200:GLU:HA	2:E:203:SER:HB3	1.91	0.52
2:E:262:TRP:CZ3	2:E:268:PRO:HG3	2.44	0.52
2:E:789:ASN:HA	2:E:792:ARG:HD2	1.91	0.52
2:E:1249:ASP:HA	2:E:1252:ARG:NE	2.25	0.52
2:E:1404:ASN:HB2	2:E:1406:GLU:OE2	2.09	0.52
2:E:1626:PHE:CD2	2:E:1627:ARG:HD2	2.45	0.52
2:B:94:THR:HG22	2:B:98:TRP:HE1	1.74	0.52
2:B:730:TYR:CD1	2:B:771:ARG:HD3	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:589:GLY:O	1:D:591:LEU:N	2.42	0.52
2:E:570:VAL:HG22	2:E:592:LYS:HZ2	1.74	0.52
2:E:570:VAL:HA	2:E:592:LYS:HZ2	1.73	0.52
2:E:889:GLN:HA	2:E:895:ASN:HD21	1.75	0.52
2:E:934:ARG:HB3	2:E:935:ARG:NH1	2.24	0.52
2:E:990:PHE:HB3	2:E:1045:ASN:CG	2.30	0.52
3:F:2:GLN:NE2	3:F:50:PRO:O	2.42	0.52
2:B:105:LEU:HD11	2:B:117:LEU:HD13	1.91	0.52
2:B:860:MET:SD	2:B:905:LEU:HD22	2.50	0.52
2:B:929:MET:CA	2:B:933:LEU:HD13	2.30	0.52
2:B:1129:PHE:CG	2:B:1179:HIS:HB3	2.45	0.52
2:B:1249:ASP:HA	2:B:1252:ARG:NE	2.25	0.52
2:B:1373:PRO:HG2	2:B:1376:LEU:HD12	1.91	0.52
1:D:536:LEU:HD21	2:E:17:TYR:CB	2.38	0.52
1:D:544:ILE:O	1:D:547:LEU:HG	2.09	0.52
3:F:82:PHE:HE1	3:F:154:TYR:HE1	1.58	0.52
2:B:182:ALA:HA	2:B:185:LYS:HZ2	1.73	0.52
2:B:222:TYR:CE1	2:B:289:LEU:HD11	2.45	0.52
2:B:528:ARG:HA	2:B:551:PHE:HA	1.92	0.52
2:B:1129:PHE:HA	2:B:1132:MET:HG3	1.92	0.52
3:C:2:GLN:NE2	3:C:50:PRO:O	2.42	0.52
2:E:94:THR:HG22	2:E:98:TRP:HE1	1.75	0.52
2:E:105:LEU:HD11	2:E:117:LEU:HD13	1.91	0.52
2:E:166:ARG:HH22	2:E:168:ASP:HB2	1.75	0.52
2:E:421:VAL:HG13	2:E:425:THR:HG21	1.92	0.52
2:E:853:VAL:O	2:E:856:LYS:HG3	2.10	0.52
2:E:860:MET:SD	2:E:905:LEU:HD22	2.50	0.52
2:E:984:ASP:O	2:E:988:GLU:HG3	2.09	0.52
2:E:1102:ILE:CG1	2:E:1131:MET:HB2	2.39	0.52
2:E:1207:TYR:HD2	2:E:1208:ARG:HG3	1.74	0.52
2:E:1359:GLN:NE2	2:E:1455:ARG:HB2	2.25	0.52
2:E:1449:GLN:HA	2:E:1452:ASN:ND2	2.23	0.52
2:E:1618:LEU:HD22	2:E:1621:ARG:HH21	1.75	0.52
3:F:12:GLY:N	3:F:60:GLY:HA3	2.25	0.52
1:A:700:ASP:HB2	2:B:32:GLY:HA2	1.92	0.52
2:B:1058:SER:O	2:B:1062:GLU:HG2	2.09	0.52
2:B:1370:GLN:N	2:B:1421:SER:O	2.40	0.52
3:C:2:GLN:OE1	3:C:2:GLN:N	2.43	0.52
3:C:53:LEU:HD22	3:C:169:PHE:CE1	2.45	0.52
3:C:174:ARG:HA	3:C:177:LEU:HD12	1.92	0.52
2:E:32:GLY:O	2:E:50:LEU:HD13	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:824:ILE:O	2:E:828:LYS:HG2	2.09	0.52
2:B:189:VAL:HA	2:B:192:LYS:HE2	1.91	0.52
2:B:222:TYR:CZ	2:B:289:LEU:HD11	2.44	0.52
2:B:228:PHE:HB3	2:B:277:LEU:HB3	1.92	0.52
2:B:889:GLN:HA	2:B:895:ASN:HD21	1.75	0.52
2:B:902:SER:O	2:B:906:LEU:HG	2.10	0.52
2:B:984:ASP:O	2:B:988:GLU:HG3	2.10	0.52
2:B:1490:THR:OG1	2:B:1506:GLN:N	2.43	0.52
2:B:1521:THR:O	2:B:1524:LEU:HG	2.09	0.52
1:D:584:LYS:HZ1	2:E:1405:ALA:HB2	1.74	0.52
2:E:228:PHE:HB3	2:E:277:LEU:HB3	1.92	0.52
2:E:681:MET:SD	2:E:726:ALA:HB1	2.50	0.52
2:E:741:VAL:HG11	2:E:798:PHE:HD1	1.75	0.52
2:E:795:PHE:O	2:E:798:PHE:HB2	2.10	0.52
2:E:934:ARG:NH1	2:E:938:ARG:HB2	2.25	0.52
2:E:1129:PHE:CG	2:E:1179:HIS:HB3	2.45	0.52
2:E:1544:VAL:HG13	2:E:1547:LEU:HD22	1.92	0.52
3:F:2:GLN:OE1	3:F:2:GLN:N	2.43	0.52
3:F:66:ARG:NH1	3:F:67:LEU:HB2	2.24	0.52
2:B:1153:THR:O	2:B:1157:GLN:NE2	2.43	0.51
1:D:711:PRO:HD2	2:E:17:TYR:CE1	2.45	0.51
2:E:646:ASN:HD21	2:E:649:ASN:HD22	1.57	0.51
2:E:1536:HIS:CD2	2:E:1606:ILE:HB	2.43	0.51
1:A:578:ARG:HH22	1:A:601:HIS:H	1.58	0.51
2:B:7:THR:O	2:B:10:GLN:NE2	2.42	0.51
2:B:60:PRO:O	2:B:64:ILE:N	2.37	0.51
2:B:555:MET:HE2	2:B:561:THR:HA	1.92	0.51
2:B:1079:MET:N	2:B:1079:MET:SD	2.83	0.51
3:C:142:GLY:HA3	3:C:154:TYR:CZ	2.44	0.51
2:E:294:VAL:HG11	2:E:333:ILE:HD12	1.91	0.51
2:E:902:SER:O	2:E:906:LEU:HG	2.10	0.51
2:B:32:GLY:O	2:B:50:LEU:HD13	2.09	0.51
2:B:1306:SER:O	2:B:1310:LYS:HG2	2.11	0.51
2:B:1322:LYS:HD3	2:B:1345:ARG:HH11	1.74	0.51
2:E:44:TRP:CE3	2:E:58:ILE:HG22	2.45	0.51
2:E:222:TYR:CE1	2:E:289:LEU:HD11	2.45	0.51
2:E:637:LEU:O	2:E:641:LEU:HG	2.11	0.51
2:E:1153:THR:O	2:E:1157:GLN:NE2	2.43	0.51
2:E:1600:LEU:O	2:E:1604:ILE:HG12	2.09	0.51
2:B:173:LEU:O	2:B:176:ASP:HB2	2.11	0.51
2:B:262:TRP:CZ3	2:B:268:PRO:HG3	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:295:SER:HB2	2:B:326:VAL:HG13	1.93	0.51
2:B:533:HIS:CE1	2:B:535:SER:HB3	2.44	0.51
2:B:741:VAL:HG11	2:B:798:PHE:HD1	1.75	0.51
2:B:1145:HIS:O	2:B:1149:ASN:ND2	2.44	0.51
2:B:1359:GLN:NE2	2:B:1455:ARG:HB2	2.25	0.51
2:B:1379:LYS:NZ	2:B:1504:VAL:O	2.36	0.51
2:B:1574:LYS:O	2:B:1577:GLN:HB2	2.11	0.51
1:D:576:TYR:CE1	1:D:591:LEU:HG	2.46	0.51
2:E:555:MET:HE2	2:E:561:THR:HA	1.93	0.51
2:E:929:MET:CA	2:E:933:LEU:HD13	2.30	0.51
2:E:1322:LYS:HD3	2:E:1345:ARG:HH11	1.74	0.51
2:E:1557:PRO:HB2	2:E:1561:GLY:CA	2.36	0.51
1:A:532:PRO:HG3	1:A:708:ASP:HA	1.93	0.51
1:A:576:TYR:CE1	1:A:591:LEU:HG	2.46	0.51
2:B:192:LYS:O	2:B:195:GLU:HG2	2.10	0.51
2:B:637:LEU:O	2:B:641:LEU:HG	2.11	0.51
2:B:795:PHE:O	2:B:798:PHE:HB2	2.11	0.51
3:C:82:PHE:HE1	3:C:154:TYR:HE1	1.58	0.51
2:E:73:ASP:O	2:E:78:GLU:N	2.42	0.51
2:E:295:SER:HB2	2:E:326:VAL:HG13	1.93	0.51
2:E:673:LEU:HD13	2:E:719:TYR:CG	2.45	0.51
1:A:551:GLN:NE2	1:A:555:ARG:HD3	2.25	0.51
2:B:219:ILE:O	2:B:222:TYR:OH	2.21	0.51
2:B:1308:PHE:CD1	2:B:1313:MET:HB2	2.46	0.51
2:B:1438:PRO:HB2	2:B:1441:TYR:CD2	2.46	0.51
1:D:582:ASN:HB2	1:D:584:LYS:HG2	1.91	0.51
2:E:25:VAL:HG21	2:E:56:LYS:HG3	1.93	0.51
2:E:243:MET:HG3	2:E:281:PHE:CZ	2.44	0.51
2:E:1079:MET:N	2:E:1079:MET:SD	2.83	0.51
2:E:1129:PHE:HA	2:E:1132:MET:HG3	1.92	0.51
2:E:1145:HIS:O	2:E:1149:ASN:ND2	2.44	0.51
2:E:1490:THR:OG1	2:E:1506:GLN:N	2.44	0.51
3:F:53:LEU:HD22	3:F:169:PHE:CE1	2.45	0.51
2:B:451:ILE:HG23	2:B:510:TYR:CZ	2.46	0.51
2:B:472:VAL:HA	2:B:527:ILE:HA	1.93	0.51
2:B:681:MET:SD	2:B:726:ALA:HB1	2.51	0.51
2:B:880:PRO:HA	2:B:931:ARG:NH1	2.25	0.51
2:B:1478:GLU:OE1	3:C:34:PRO:HG2	2.11	0.51
2:E:30:GLN:NE2	2:E:32:GLY:H	2.08	0.51
2:E:88:VAL:HB	2:E:128:ARG:NH2	2.26	0.51
2:E:179:SER:H	2:E:183:LEU:HD13	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:730:TYR:CE1	2:E:731:VAL:HG23	2.46	0.51
2:E:979:ARG:HG3	2:E:1032:PHE:HE2	1.76	0.51
2:E:1272:GLN:C	2:E:1297:LYS:HD2	2.29	0.51
2:E:1321:SER:OG	2:E:1345:ARG:NH2	2.42	0.51
1:A:544:ILE:HD11	1:A:686:LEU:O	2.10	0.51
1:A:582:ASN:HB2	1:A:584:LYS:HG2	1.91	0.51
2:B:46:ARG:HD2	2:B:58:ILE:HG13	1.91	0.51
2:B:166:ARG:HH22	2:B:168:ASP:HB2	1.75	0.51
1:D:532:PRO:HG3	1:D:708:ASP:HA	1.93	0.51
1:D:578:ARG:HH22	1:D:601:HIS:H	1.58	0.51
2:E:195:GLU:HA	2:E:198:ILE:HG22	1.92	0.51
2:E:880:PRO:HA	2:E:931:ARG:NH1	2.25	0.51
2:E:958:ILE:HG21	2:E:1017:PHE:CE1	2.46	0.51
2:E:1441:TYR:CE2	2:E:1450:ILE:HD13	2.46	0.51
1:A:677:MET:O	1:A:683:ARG:NH1	2.44	0.51
2:B:116:GLN:HA	2:B:119:GLN:HG3	1.93	0.51
2:B:421:VAL:HG13	2:B:425:THR:HG21	1.92	0.51
2:B:934:ARG:NH1	2:B:938:ARG:HB2	2.25	0.51
2:B:1032:PHE:HA	2:B:1036:ALA:HB2	1.93	0.51
2:B:1362:TYR:OH	2:B:1456:ALA:O	2.20	0.51
1:D:576:TYR:HE1	1:D:591:LEU:HG	1.75	0.51
1:D:677:MET:O	1:D:683:ARG:NH1	2.44	0.51
2:E:192:LYS:O	2:E:195:GLU:HG2	2.10	0.51
2:E:203:SER:OG	2:E:210:LEU:HD22	2.11	0.51
2:E:1308:PHE:CD1	2:E:1313:MET:HB2	2.46	0.51
2:E:1373:PRO:HG2	2:E:1376:LEU:HD12	1.91	0.51
2:E:1438:PRO:HB2	2:E:1441:TYR:CD2	2.46	0.51
2:E:1488:THR:O	2:E:1508:SER:N	2.39	0.51
2:B:14:VAL:HB	2:B:65:HIS:HB3	1.91	0.51
2:B:520:GLU:O	2:B:523:THR:OG1	2.15	0.51
2:B:1334:ASP:O	2:B:1338:LEU:N	2.33	0.51
2:B:1563:PHE:HB3	2:B:1637:TYR:OH	2.11	0.51
2:B:1593:ILE:HB	2:B:1597:MET:HE1	1.93	0.51
2:E:46:ARG:HD2	2:E:58:ILE:CG1	2.41	0.51
2:E:238:ASP:O	2:E:303:VAL:N	2.36	0.51
2:E:966:ASP:HA	2:E:969:TYR:CD2	2.46	0.51
2:E:1166:GLU:O	2:E:1169:LYS:HG2	2.10	0.51
2:E:1411:THR:HB	3:F:28:PHE:CZ	2.46	0.51
2:E:1495:PHE:CE1	2:E:1502:PHE:HD2	2.26	0.51
2:E:1614:GLN:HG2	3:F:70:LEU:HD22	1.93	0.51
3:F:174:ARG:HA	3:F:177:LEU:HD12	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:179:SER:H	2:B:183:LEU:HD13	1.76	0.50
2:B:228:PHE:HB3	2:B:277:LEU:CB	2.41	0.50
2:B:680:MET:HG3	2:B:681:MET:HE3	1.93	0.50
2:B:1102:ILE:CD1	2:B:1131:MET:HB2	2.41	0.50
2:B:1166:GLU:O	2:B:1169:LYS:HG2	2.10	0.50
2:B:1544:VAL:HG13	2:B:1547:LEU:HD22	1.91	0.50
1:A:577:CYS:SG	1:A:586:LEU:HD12	2.51	0.50
2:B:98:TRP:O	2:B:102:TRP:HD1	1.94	0.50
2:B:1522:MET:HG3	2:B:1566:TYR:HE2	1.75	0.50
1:D:697:ARG:HA	2:E:30:GLN:HE21	1.76	0.50
2:E:121:THR:HA	2:E:124:LEU:HG	1.93	0.50
2:E:1032:PHE:HA	2:E:1036:ALA:HB2	1.93	0.50
2:E:1563:PHE:HB3	2:E:1637:TYR:OH	2.11	0.50
2:E:1633:VAL:HG12	2:E:1637:TYR:CG	2.46	0.50
2:B:45:TYR:O	2:B:59:PHE:N	2.31	0.50
2:B:45:TYR:HD2	2:B:64:ILE:HG13	1.77	0.50
2:B:200:GLU:HA	2:B:203:SER:HB3	1.91	0.50
2:B:589:PRO:HB3	2:B:594:GLU:HB3	1.94	0.50
2:B:757:LEU:HB3	2:B:815:ALA:HB1	1.94	0.50
2:B:958:ILE:HG21	2:B:1017:PHE:CE1	2.46	0.50
2:B:1336:GLU:H	2:B:1336:GLU:CD	2.11	0.50
2:E:98:TRP:O	2:E:102:TRP:HD1	1.94	0.50
2:E:644:ARG:NH2	2:E:678:ASN:OD1	2.43	0.50
1:A:584:LYS:CE	2:B:1405:ALA:HB2	2.41	0.50
1:A:677:MET:HB2	1:A:682:THR:HG21	1.93	0.50
2:B:99:ALA:HA	2:B:102:TRP:HE1	1.75	0.50
2:B:332:ILE:HD13	2:B:403:LEU:HB2	1.94	0.50
2:B:836:LEU:HG	2:B:840:PHE:HE2	1.76	0.50
2:B:1051:VAL:HG11	2:B:1108:PRO:HB3	1.93	0.50
2:B:1618:LEU:HD22	2:B:1621:ARG:HH21	1.75	0.50
1:D:551:GLN:NE2	1:D:555:ARG:HD3	2.26	0.50
1:D:577:CYS:SG	1:D:586:LEU:HD12	2.51	0.50
1:D:584:LYS:NZ	2:E:1399:LEU:O	2.42	0.50
2:E:768:ILE:HG21	2:E:829:LEU:HB2	1.94	0.50
2:E:876:GLU:OE1	2:E:876:GLU:N	2.40	0.50
2:E:1180:CYS:HB3	2:E:1187:SER:HB3	1.94	0.50
2:E:1334:ASP:O	2:E:1338:LEU:N	2.33	0.50
3:F:14:VAL:HG13	3:F:116:LYS:NZ	2.27	0.50
1:A:696:LEU:HD12	1:A:697:ARG:NE	2.26	0.50
2:B:121:THR:HA	2:B:124:LEU:HG	1.93	0.50
2:B:673:LEU:HD13	2:B:719:TYR:CG	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:740:TYR:CE2	2:B:752:LEU:HB3	2.46	0.50
2:B:979:ARG:HG3	2:B:1032:PHE:HE2	1.76	0.50
2:B:1207:TYR:CD2	2:B:1208:ARG:HG3	2.47	0.50
2:B:1632:LYS:O	2:B:1636:HIS:N	2.41	0.50
2:E:321:PRO:HB2	2:E:351:ILE:HD11	1.93	0.50
2:E:757:LEU:HB3	2:E:815:ALA:HB1	1.94	0.50
2:E:931:ARG:HB3	2:E:932:LEU:HD12	1.94	0.50
2:E:1574:LYS:O	2:E:1577:GLN:HB2	2.11	0.50
2:B:195:GLU:HA	2:B:198:ILE:HG22	1.92	0.50
2:B:444:ASN:ND2	2:B:517:ILE:O	2.45	0.50
2:B:644:ARG:NH2	2:B:678:ASN:OD1	2.43	0.50
2:B:730:TYR:CE1	2:B:731:VAL:HG23	2.46	0.50
2:B:966:ASP:HA	2:B:969:TYR:CD2	2.46	0.50
2:B:1102:ILE:CG1	2:B:1131:MET:HB2	2.40	0.50
2:B:1418:ILE:HG13	2:B:1425:TYR:CE2	2.47	0.50
2:B:1602:GLU:N	2:B:1605:ARG:HH21	2.10	0.50
1:D:677:MET:HB2	1:D:682:THR:HG21	1.94	0.50
1:D:696:LEU:HD12	1:D:697:ARG:NE	2.26	0.50
2:E:37:ILE:HG21	2:E:45:TYR:HB3	1.94	0.50
2:E:836:LEU:HG	2:E:840:PHE:HE2	1.76	0.50
2:E:1482:MET:HG3	2:E:1517:ASN:HB3	1.93	0.50
3:F:25:THR:HG21	3:F:32:TYR:HA	1.93	0.50
2:B:1441:TYR:CE2	2:B:1450:ILE:HD13	2.46	0.50
2:B:1444:LYS:HD3	2:E:1333:PHE:HZ	1.77	0.50
1:D:544:ILE:HD11	1:D:686:LEU:O	2.10	0.50
2:E:116:GLN:HA	2:E:119:GLN:HG3	1.93	0.50
2:E:1046:TYR:OH	2:E:1090:MET:HG3	2.11	0.50
2:E:1306:SER:O	2:E:1310:LYS:HG2	2.11	0.50
2:E:1602:GLU:N	2:E:1605:ARG:HH21	2.10	0.50
2:B:88:VAL:HB	2:B:128:ARG:NH2	2.26	0.50
2:B:468:VAL:HB	2:B:498:SER:HB3	1.94	0.50
2:B:871:GLN:OE1	2:B:918:VAL:HG12	2.12	0.50
2:B:931:ARG:HB3	2:B:932:LEU:HD12	1.94	0.50
2:B:1062:GLU:O	2:B:1068:LYS:HB3	2.12	0.50
2:B:1362:TYR:C	2:B:1431:VAL:HG22	2.32	0.50
2:B:1378:ASN:HB3	2:B:1419:LYS:HD3	1.94	0.50
2:B:1562:GLY:HA2	2:B:1565:ASN:HB2	1.94	0.50
2:E:451:ILE:HG23	2:E:510:TYR:CZ	2.46	0.50
2:E:468:VAL:HB	2:E:498:SER:HB3	1.94	0.50
2:E:1102:ILE:CD1	2:E:1131:MET:HB2	2.41	0.50
2:E:1102:ILE:O	2:E:1106:VAL:HG23	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1126:PRO:HD3	2:E:1175:LEU:HD12	1.94	0.50
2:E:1463:ARG:HG2	2:E:1487:THR:H	1.77	0.50
2:B:1008:VAL:O	2:B:1012:THR:HG23	2.12	0.50
2:B:1598:PRO:O	2:B:1601:THR:HB	2.12	0.50
1:D:717:PRO:HB2	2:E:1:MET:N	2.27	0.50
2:E:45:TYR:HD2	2:E:64:ILE:HG13	1.77	0.50
2:E:173:LEU:O	2:E:176:ASP:HB2	2.11	0.50
2:E:319:ARG:HB2	2:E:499:VAL:HA	1.94	0.50
2:E:472:VAL:HA	2:E:527:ILE:HA	1.93	0.50
2:E:589:PRO:HB3	2:E:594:GLU:HB3	1.94	0.50
2:E:899:HIS:HB3	2:E:949:HIS:CE1	2.46	0.50
2:E:1062:GLU:O	2:E:1068:LYS:HB3	2.12	0.50
2:E:1200:LEU:O	2:E:1204:LEU:HG	2.12	0.50
2:B:25:VAL:CG2	2:B:57:GLY:HA2	2.40	0.49
2:B:46:ARG:HD2	2:B:58:ILE:CG1	2.41	0.49
2:B:450:LEU:HD21	2:B:470:MET:SD	2.52	0.49
2:B:945:ARG:HH11	2:B:946:GLN:H	1.60	0.49
2:B:1180:CYS:HB3	2:B:1187:SER:HB3	1.93	0.49
2:B:1299:LYS:HE2	2:B:1302:GLN:OE1	2.12	0.49
1:D:570:ARG:HH22	1:D:593:GLU:HG3	1.77	0.49
2:E:228:PHE:HB3	2:E:277:LEU:CB	2.41	0.49
2:E:818:LYS:HZ3	2:E:858:ASN:HB3	1.76	0.49
2:E:1063:THR:HA	2:E:1069:ARG:HH11	1.77	0.49
1:A:552:ARG:HE	1:A:664:ILE:HG23	1.77	0.49
2:B:741:VAL:HG11	2:B:798:PHE:CD1	2.47	0.49
2:B:1046:TYR:OH	2:B:1090:MET:HG3	2.11	0.49
2:B:1619:HIS:HA	2:B:1622:LEU:HG	1.93	0.49
2:E:150:ALA:HB1	2:E:197:LYS:NZ	2.27	0.49
2:E:444:ASN:ND2	2:E:517:ILE:O	2.45	0.49
2:E:741:VAL:HG21	2:E:798:PHE:HE1	1.78	0.49
2:E:1028:LEU:HD23	2:E:1032:PHE:HD1	1.77	0.49
2:E:1388:TYR:CD2	3:F:45:MET:HE2	2.44	0.49
2:E:1619:HIS:HA	2:E:1622:LEU:HG	1.93	0.49
2:B:25:VAL:HG21	2:B:56:LYS:HG3	1.93	0.49
2:B:95:LEU:HD13	2:B:98:TRP:CD1	2.47	0.49
2:B:1633:VAL:HG12	2:B:1637:TYR:CG	2.46	0.49
2:E:417:PHE:HA	2:E:419:HIS:CE1	2.48	0.49
2:E:740:TYR:CE2	2:E:752:LEU:HB3	2.46	0.49
2:E:1483:TRP:CE2	2:E:1514:PRO:HD3	2.47	0.49
2:B:156:ASN:HD22	2:B:161:LEU:HD12	1.77	0.49
2:B:1611:LEU:HD21	2:B:1616:LYS:NZ	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:25:VAL:CG2	2:E:57:GLY:HA2	2.40	0.49
2:E:754:PHE:CZ	2:E:812:ILE:HG13	2.48	0.49
2:B:130:GLN:HG3	2:B:131:ILE:HG12	1.95	0.49
2:B:203:SER:OG	2:B:210:LEU:HD22	2.11	0.49
2:B:321:PRO:HB2	2:B:351:ILE:HD11	1.93	0.49
2:B:436:ILE:HG22	2:B:438:LEU:HD22	1.95	0.49
2:B:768:ILE:HG21	2:B:829:LEU:HB2	1.94	0.49
2:B:899:HIS:HB3	2:B:949:HIS:CE1	2.46	0.49
2:B:1196:LEU:O	2:B:1199:SER:OG	2.26	0.49
2:B:1463:ARG:HG2	2:B:1487:THR:H	1.77	0.49
2:B:1468:PHE:HE2	2:B:1470:LYS:HB2	1.78	0.49
3:C:14:VAL:HG13	3:C:116:LYS:NZ	2.27	0.49
2:E:95:LEU:HD13	2:E:98:TRP:CD1	2.47	0.49
2:E:332:ILE:HD13	2:E:403:LEU:HB2	1.94	0.49
2:E:436:ILE:HG22	2:E:438:LEU:HD22	1.95	0.49
2:E:945:ARG:HH11	2:E:946:GLN:H	1.60	0.49
2:E:1207:TYR:CD2	2:E:1208:ARG:HG3	2.47	0.49
2:E:1451:LEU:O	2:E:1455:ARG:HG3	2.12	0.49
2:E:1515:LEU:HG	2:E:1575:TYR:HE2	1.77	0.49
2:E:1562:GLY:HA2	2:E:1565:ASN:HB2	1.94	0.49
2:E:1611:LEU:HD21	2:E:1616:LYS:NZ	2.27	0.49
1:A:570:ARG:HH22	1:A:593:GLU:HG3	1.77	0.49
2:B:1483:TRP:CE2	2:B:1514:PRO:HD3	2.47	0.49
2:B:1536:HIS:CD2	2:B:1606:ILE:HB	2.43	0.49
2:B:1597:MET:HA	2:B:1600:LEU:HB2	1.94	0.49
2:B:1613:GLU:OE2	2:B:1614:GLN:HG3	2.13	0.49
1:D:680:ASP:OD1	1:D:681:LEU:N	2.45	0.49
2:E:529:PHE:O	2:E:550:ALA:N	2.41	0.49
2:E:1597:MET:HA	2:E:1600:LEU:HB2	1.94	0.49
3:F:129:LEU:HB3	3:F:134:LEU:O	2.13	0.49
2:B:19:TYR:CE2	2:B:26:GLU:HB3	2.48	0.49
2:B:444:ASN:HB2	2:B:519:ILE:HG12	1.95	0.49
2:B:1102:ILE:O	2:B:1106:VAL:HG23	2.12	0.49
3:C:7:VAL:HB	3:C:78:PHE:CE1	2.48	0.49
3:C:25:THR:HG21	3:C:32:TYR:HA	1.94	0.49
2:E:1008:VAL:O	2:E:1012:THR:HG23	2.12	0.49
2:E:1202:GLU:HA	2:E:1205:LEU:HB2	1.95	0.49
2:B:417:PHE:HA	2:B:419:HIS:CE1	2.48	0.49
2:B:647:SER:HA	2:B:650:ILE:HG13	1.94	0.49
3:C:41:SER:OG	3:C:53:LEU:O	2.15	0.49
2:E:19:TYR:CE2	2:E:26:GLU:HB3	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:187:HIS:HB3	2:E:1006:TRP:CZ3	2.48	0.49
2:E:741:VAL:HG11	2:E:798:PHE:CD1	2.47	0.49
2:E:1242:ARG:NH1	2:E:1246:LYS:HZ1	2.10	0.49
1:A:589:GLY:O	1:A:591:LEU:N	2.42	0.49
2:B:940:VAL:HG13	2:B:992:MET:HE1	1.95	0.49
1:D:564:LYS:NZ	1:D:590:ASP:OD1	2.40	0.49
2:E:552:VAL:HB	2:E:569:LEU:HD22	1.95	0.49
2:E:646:ASN:ND2	2:E:649:ASN:HD22	2.11	0.49
2:E:871:GLN:OE1	2:E:918:VAL:HG12	2.12	0.49
2:E:1291:TYR:CB	2:E:1296:LEU:HD21	2.40	0.49
2:E:1388:TYR:HD2	3:F:45:MET:CE	2.24	0.49
2:E:1598:PRO:O	2:E:1601:THR:HB	2.12	0.49
1:A:680:ASP:OD1	1:A:681:LEU:N	2.45	0.49
2:B:4:TRP:CD2	2:B:46:ARG:HD3	2.47	0.49
2:B:552:VAL:HB	2:B:569:LEU:HD22	1.95	0.49
2:B:716:LEU:O	2:B:720:ILE:HG13	2.13	0.49
2:B:741:VAL:HG21	2:B:798:PHE:HE1	1.78	0.49
2:B:932:LEU:N	2:B:935:ARG:HH21	2.11	0.49
2:B:1114:LEU:CB	2:B:1163:ARG:HD2	2.41	0.49
2:B:1217:LYS:HD3	2:B:1220:ARG:NH1	2.22	0.49
2:B:1222:SER:O	2:B:1225:VAL:HG22	2.13	0.49
2:B:1359:GLN:HE21	2:B:1455:ARG:HB2	1.77	0.49
2:B:1451:LEU:O	2:B:1455:ARG:HG3	2.13	0.49
2:B:1623:SER:O	2:B:1627:ARG:HD3	2.13	0.49
3:C:60:GLY:HA2	3:C:97:TRP:HZ2	1.78	0.49
3:C:129:LEU:HB3	3:C:134:LEU:O	2.13	0.49
1:D:557:VAL:O	1:D:578:ARG:HG3	2.13	0.49
2:E:46:ARG:HB3	2:E:58:ILE:HA	1.95	0.49
2:E:444:ASN:HB2	2:E:519:ILE:HG12	1.95	0.49
2:E:730:TYR:HD1	2:E:787:PHE:CG	2.31	0.49
2:E:764:PHE:O	2:E:768:ILE:HG12	2.13	0.49
2:E:883:THR:HG21	2:E:931:ARG:HG2	1.95	0.49
2:E:1051:VAL:HG11	2:E:1108:PRO:HB3	1.93	0.49
2:E:1186:LEU:HD12	2:E:1189:SER:HB2	1.95	0.49
2:E:1378:ASN:HB3	2:E:1419:LYS:HD3	1.94	0.49
2:B:319:ARG:HB2	2:B:499:VAL:HA	1.94	0.48
2:B:526:HIS:HB2	2:B:552:VAL:O	2.13	0.48
2:B:1126:PRO:HD3	2:B:1175:LEU:HD12	1.94	0.48
2:B:1390:ARG:HD3	3:C:44:VAL:CG1	2.42	0.48
2:B:1463:ARG:HG3	2:B:1486:ARG:HB3	1.95	0.48
1:D:552:ARG:HE	1:D:664:ILE:HG23	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:166:ARG:HG2	2:E:173:LEU:H	1.77	0.48
2:E:471:SER:HB3	2:E:495:GLU:HG2	1.95	0.48
2:E:560:THR:HG22	2:E:638:LEU:HD23	1.95	0.48
2:E:643:TRP:CD1	2:E:675:ALA:HB1	2.48	0.48
2:E:647:SER:HA	2:E:650:ILE:HG13	1.93	0.48
2:E:759:ALA:O	2:E:763:LEU:HG	2.13	0.48
2:E:1299:LYS:HE2	2:E:1302:GLN:OE1	2.12	0.48
2:E:1379:LYS:HZ3	2:E:1504:VAL:HG12	1.78	0.48
1:A:584:LYS:NZ	2:B:1405:ALA:HB2	2.28	0.48
2:B:111:LEU:HD13	2:B:114:PHE:HD2	1.78	0.48
2:B:646:ASN:ND2	2:B:649:ASN:HD22	2.11	0.48
2:B:670:GLN:HG3	2:B:719:TYR:HD1	1.78	0.48
2:B:759:ALA:O	2:B:763:LEU:HG	2.13	0.48
2:B:1057:GLU:O	2:B:1080:ARG:HD3	2.12	0.48
2:B:1063:THR:HA	2:B:1069:ARG:HH11	1.77	0.48
2:B:1233:GLU:O	2:B:1235:LYS:NZ	2.22	0.48
2:B:1452:ASN:HA	2:B:1455:ARG:CZ	2.43	0.48
2:E:4:TRP:CD2	2:E:46:ARG:HD3	2.47	0.48
2:E:182:ALA:HA	2:E:185:LYS:HZ2	1.78	0.48
2:E:245:LEU:HB3	2:E:254:ILE:HD12	1.95	0.48
2:E:532:ARG:HB3	2:E:534:ARG:HD3	1.95	0.48
2:E:716:LEU:O	2:E:720:ILE:HG13	2.13	0.48
2:E:743:ASN:HB2	2:E:749:LYS:HD2	1.95	0.48
2:E:932:LEU:N	2:E:935:ARG:HH21	2.11	0.48
2:E:1362:TYR:C	2:E:1431:VAL:HG22	2.32	0.48
2:E:1623:SER:O	2:E:1627:ARG:HD3	2.13	0.48
3:F:94:ARG:HA	3:F:98:TYR:HB3	1.95	0.48
1:A:557:VAL:O	1:A:578:ARG:HG3	2.13	0.48
2:B:734:SER:HB3	2:B:787:PHE:HE1	1.79	0.48
2:B:929:MET:CE	2:B:972:TYR:HB3	2.43	0.48
2:B:1186:LEU:HD12	2:B:1189:SER:HB2	1.95	0.48
2:B:1200:LEU:O	2:B:1204:LEU:HG	2.12	0.48
2:E:182:ALA:HA	2:E:185:LYS:HZ3	1.77	0.48
2:E:450:LEU:HD21	2:E:470:MET:SD	2.52	0.48
2:B:150:ALA:HB1	2:B:197:LYS:NZ	2.27	0.48
2:B:238:ASP:O	2:B:303:VAL:N	2.36	0.48
2:B:242:PHE:HB3	2:B:257:ASN:HB3	1.96	0.48
2:B:643:TRP:CD1	2:B:675:ALA:HB1	2.48	0.48
2:B:730:TYR:HD1	2:B:787:PHE:CG	2.31	0.48
2:B:743:ASN:HB2	2:B:749:LYS:HD2	1.95	0.48
2:B:754:PHE:CZ	2:B:812:ILE:HG13	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1202:GLU:HA	2:B:1205:LEU:HB2	1.95	0.48
2:B:1242:ARG:NH1	2:B:1246:LYS:HZ1	2.11	0.48
2:B:1470:LYS:N	2:B:1481:THR:O	2.37	0.48
2:B:1596:GLN:O	2:B:1600:LEU:HG	2.13	0.48
3:C:2:GLN:HE22	3:C:49:LYS:HG3	1.78	0.48
3:C:58:THR:HB	3:C:68:ARG:HH12	1.78	0.48
3:C:94:ARG:HA	3:C:98:TYR:HB3	1.95	0.48
1:D:539:LYS:HE3	2:E:18:ASN:OD1	2.13	0.48
2:E:156:ASN:HD22	2:E:161:LEU:HD12	1.77	0.48
2:E:680:MET:HG3	2:E:681:MET:HE3	1.94	0.48
2:E:921:THR:OG1	2:E:924:HIS:HB3	2.14	0.48
2:E:1057:GLU:O	2:E:1080:ARG:HD3	2.12	0.48
2:E:1145:HIS:HA	2:E:1148:GLU:HG3	1.96	0.48
2:E:1362:TYR:CE2	2:E:1459:VAL:HG21	2.49	0.48
2:E:1383:TYR:CD2	2:E:1501:TRP:HB3	2.49	0.48
2:E:1596:GLN:O	2:E:1600:LEU:HG	2.13	0.48
2:E:1618:LEU:HD22	2:E:1621:ARG:NH2	2.28	0.48
3:F:39:ASN:OD1	3:F:57:ASP:N	2.47	0.48
2:B:72:GLU:HG3	2:B:74:LEU:H	1.79	0.48
2:B:187:HIS:HB3	2:B:1006:TRP:CZ3	2.48	0.48
2:B:764:PHE:O	2:B:768:ILE:HG12	2.13	0.48
2:B:987:MET:CE	2:B:1042:LEU:HD13	2.44	0.48
2:B:1481:THR:O	2:B:1483:TRP:HD1	1.97	0.48
3:C:6:CYS:SG	3:C:77:VAL:HG23	2.54	0.48
3:C:39:ASN:OD1	3:C:57:ASP:N	2.47	0.48
1:D:584:LYS:CD	2:E:1403:PRO:HA	2.43	0.48
2:E:4:TRP:HZ3	2:E:45:TYR:HA	1.78	0.48
2:E:734:SER:HB3	2:E:787:PHE:HE1	1.78	0.48
2:E:1196:LEU:HD22	2:E:1234:LYS:HD2	1.95	0.48
2:E:1275:ASP:OD2	2:E:1275:ASP:N	2.45	0.48
2:E:1383:TYR:CG	2:E:1501:TRP:HB3	2.49	0.48
2:E:1463:ARG:HG3	2:E:1486:ARG:HB3	1.95	0.48
2:E:1539:ASP:OD1	2:E:1541:SER:N	2.47	0.48
3:F:7:VAL:HB	3:F:78:PHE:CE1	2.48	0.48
2:B:98:TRP:HA	2:B:101:ILE:HG22	1.96	0.48
2:B:273:LYS:O	2:B:277:LEU:HG	2.14	0.48
2:B:471:SER:HB3	2:B:495:GLU:HG2	1.95	0.48
2:B:883:THR:HG21	2:B:931:ARG:HG2	1.95	0.48
2:B:1256:ASN:HB3	2:B:1259:GLU:OE1	2.14	0.48
2:B:1379:LYS:HZ3	2:B:1504:VAL:HG12	1.78	0.48
2:B:1460:GLN:OE1	2:B:1494:THR:HA	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1482:MET:HG3	2:B:1517:ASN:HB3	1.94	0.48
2:B:1517:ASN:O	2:B:1520:GLU:HG3	2.14	0.48
2:B:1557:PRO:O	2:B:1561:GLY:HA2	2.14	0.48
2:B:1618:LEU:HD22	2:B:1621:ARG:NH2	2.28	0.48
1:D:569:ARG:NH2	1:D:571:GLN:OE1	2.47	0.48
1:D:697:ARG:HD3	2:E:30:GLN:HG2	1.95	0.48
2:E:98:TRP:O	2:E:102:TRP:CD1	2.67	0.48
2:E:191:SER:HA	2:E:194:ILE:HD12	1.96	0.48
2:E:248:PRO:HD2	2:E:293:ARG:HG3	1.96	0.48
2:E:728:LEU:HA	2:E:730:TYR:CE2	2.49	0.48
2:E:915:ARG:HA	2:E:915:ARG:HH11	1.79	0.48
2:E:1359:GLN:HE21	2:E:1455:ARG:HB2	1.77	0.48
2:E:1618:LEU:O	2:E:1622:LEU:HG	2.14	0.48
3:F:58:THR:HB	3:F:68:ARG:HH12	1.78	0.48
2:B:669:LEU:HD11	2:B:716:LEU:HD13	1.95	0.48
2:B:915:ARG:HA	2:B:915:ARG:HH11	1.78	0.48
2:B:1028:LEU:HD23	2:B:1032:PHE:HD1	1.77	0.48
2:B:1098:LYS:HD2	2:B:1134:CYS:SG	2.54	0.48
2:B:1185:TYR:O	2:B:1188:SER:OG	2.18	0.48
2:B:1357:ARG:NH1	2:B:1456:ALA:HB3	2.28	0.48
2:E:72:GLU:HG3	2:E:74:LEU:H	1.79	0.48
2:E:230:ASN:HA	2:E:274:LEU:HD11	1.96	0.48
2:E:751:GLU:OE2	2:E:751:GLU:N	2.38	0.48
2:E:792:ARG:HA	2:E:795:PHE:HD2	1.78	0.48
2:E:1006:TRP:CE3	2:E:1009:MET:HG3	2.49	0.48
2:E:1372:PHE:HE1	2:E:1402:PHE:CD2	2.32	0.48
2:B:4:TRP:HZ3	2:B:45:TYR:HA	1.78	0.48
2:B:37:ILE:HG21	2:B:45:TYR:HB3	1.94	0.48
2:B:98:TRP:O	2:B:102:TRP:CD1	2.67	0.48
2:B:166:ARG:HG2	2:B:173:LEU:H	1.77	0.48
2:B:191:SER:HA	2:B:194:ILE:HD12	1.96	0.48
2:B:230:ASN:HA	2:B:274:LEU:HD11	1.96	0.48
2:B:529:PHE:O	2:B:550:ALA:N	2.41	0.48
2:B:532:ARG:HB3	2:B:534:ARG:HD3	1.95	0.48
2:B:728:LEU:O	2:B:732:LYS:HG2	2.14	0.48
2:B:737:LEU:HD23	2:B:764:PHE:CZ	2.49	0.48
2:B:983:ILE:HD11	2:B:1032:PHE:CD2	2.48	0.48
2:E:130:GLN:HG3	2:E:131:ILE:HG12	1.95	0.48
2:E:584:PHE:O	2:E:588:LEU:HG	2.14	0.48
2:E:670:GLN:HG3	2:E:719:TYR:HD1	1.78	0.48
2:E:1222:SER:O	2:E:1225:VAL:HG22	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1408:MET:HB3	2:E:1410:SER:HB3	1.96	0.48
3:F:110:ILE:O	3:F:152:VAL:HG12	2.14	0.48
3:F:145:MET:O	3:F:148:GLU:HB3	2.14	0.48
2:B:248:PRO:HD2	2:B:293:ARG:HG3	1.96	0.48
2:B:257:ASN:O	2:B:487:GLY:HA3	2.14	0.48
2:B:1078:ASP:OD1	2:B:1081:LYS:HG2	2.13	0.48
2:B:1145:HIS:HA	2:B:1148:GLU:HG3	1.96	0.48
2:B:1468:PHE:N	2:B:1483:TRP:O	2.47	0.48
2:B:1633:VAL:O	2:B:1639:VAL:HG22	2.14	0.48
1:D:536:LEU:HD21	2:E:17:TYR:CA	2.43	0.48
2:E:118:GLN:HB3	2:E:122:TYR:CZ	2.49	0.48
2:E:242:PHE:HB3	2:E:257:ASN:HB3	1.96	0.48
2:E:983:ILE:HD11	2:E:1032:PHE:CD2	2.48	0.48
2:E:1452:ASN:HA	2:E:1455:ARG:CZ	2.43	0.48
2:B:72:GLU:OE1	2:B:86:PRO:HG3	2.14	0.48
2:B:302:ARG:HD3	2:B:322:PHE:CD1	2.47	0.48
2:B:839:LEU:HG	2:B:842:LYS:HZ1	1.79	0.48
2:B:1387:GLU:HG2	2:B:1388:TYR:N	2.28	0.48
1:D:687:ASP:OD1	1:D:688:THR:N	2.47	0.48
1:D:716:GLU:HG3	2:E:44:TRP:CZ2	2.48	0.48
2:E:111:LEU:HD13	2:E:114:PHE:HD2	1.78	0.48
2:E:556:ASN:N	2:E:560:THR:O	2.41	0.48
2:E:728:LEU:O	2:E:732:LYS:HG2	2.14	0.48
2:E:754:PHE:CZ	2:E:811:LYS:HB2	2.49	0.48
2:E:754:PHE:HZ	2:E:811:LYS:HB2	1.78	0.48
2:E:1114:LEU:CB	2:E:1163:ARG:HD2	2.41	0.48
2:E:1344:LYS:HB3	2:E:1348:PHE:CZ	2.49	0.48
2:E:1468:PHE:N	2:E:1483:TRP:O	2.47	0.48
1:A:544:ILE:HG12	1:A:686:LEU:HG	1.95	0.47
2:B:754:PHE:CZ	2:B:811:LYS:HB2	2.49	0.47
2:B:792:ARG:HA	2:B:795:PHE:HD2	1.78	0.47
2:B:1133:GLN:NE2	2:B:1133:GLN:O	2.47	0.47
2:B:1362:TYR:CE2	2:B:1459:VAL:HG21	2.49	0.47
2:B:1368:TYR:CE2	2:B:1419:LYS:HE3	2.49	0.47
2:B:1408:MET:HB3	2:B:1410:SER:HB3	1.96	0.47
2:B:1483:TRP:CZ2	2:B:1513:SER:HA	2.49	0.47
2:B:1539:ASP:OD1	2:B:1541:SER:N	2.47	0.47
2:B:1560:MET:HG3	3:C:36:VAL:HG22	1.95	0.47
2:B:1622:LEU:O	2:B:1626:PHE:CB	2.61	0.47
2:E:1196:LEU:O	2:E:1199:SER:OG	2.26	0.47
2:E:1206:ASP:HA	2:E:1209:THR:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1256:ASN:HB3	2:E:1259:GLU:OE1	2.14	0.47
2:E:1460:GLN:OE1	2:E:1494:THR:HA	2.13	0.47
2:E:1517:ASN:O	2:E:1520:GLU:HG3	2.14	0.47
2:E:1557:PRO:O	2:E:1561:GLY:HA2	2.14	0.47
2:E:1613:GLU:OE2	2:E:1614:GLN:HG3	2.13	0.47
3:F:43:ASN:HA	3:F:51:VAL:O	2.14	0.47
3:F:155:LEU:HD13	3:F:168:VAL:HG22	1.95	0.47
2:B:179:SER:HA	2:B:962:GLN:HE22	1.79	0.47
2:B:893:ASN:O	2:B:896:LYS:NZ	2.47	0.47
2:B:1196:LEU:HD22	2:B:1234:LYS:HD2	1.94	0.47
3:C:120:ARG:HH12	3:C:139:TYR:HB2	1.79	0.47
2:E:724:PHE:CZ	2:E:726:ALA:HB3	2.49	0.47
2:E:929:MET:HB2	2:E:964:MET:CE	2.44	0.47
2:E:1123:ALA:O	2:E:1126:PRO:HG2	2.14	0.47
2:E:1125:ILE:CG1	2:E:1172:LEU:HD23	2.44	0.47
2:E:1280:PRO:HA	2:E:1283:LEU:HD23	1.96	0.47
2:E:1318:ILE:HD11	2:E:1348:PHE:HB2	1.97	0.47
2:E:1401:GLN:HG3	2:E:1402:PHE:CE2	2.49	0.47
2:E:1418:ILE:HG13	2:E:1425:TYR:CE2	2.47	0.47
3:F:120:ARG:HH12	3:F:139:TYR:HB2	1.79	0.47
1:A:642:PHE:HB3	1:A:662:TYR:HE1	1.79	0.47
1:A:687:ASP:OD1	1:A:688:THR:N	2.47	0.47
2:B:118:GLN:HB3	2:B:122:TYR:CZ	2.49	0.47
2:B:728:LEU:HA	2:B:730:TYR:CE2	2.49	0.47
2:B:921:THR:OG1	2:B:924:HIS:HB3	2.14	0.47
2:B:997:ILE:HG13	2:B:998:GLY:H	1.79	0.47
2:B:1515:LEU:HD23	2:B:1589:LEU:HD11	1.96	0.47
2:E:188:GLU:HG3	2:E:192:LYS:NZ	2.29	0.47
2:E:273:LYS:O	2:E:277:LEU:HG	2.14	0.47
2:E:893:ASN:O	2:E:896:LYS:NZ	2.47	0.47
2:E:929:MET:CE	2:E:972:TYR:HB3	2.43	0.47
2:E:1078:ASP:OD1	2:E:1081:LYS:HG2	2.13	0.47
2:E:1416:GLU:O	2:E:1419:LYS:HB2	2.15	0.47
3:F:60:GLY:HA2	3:F:97:TRP:HZ2	1.78	0.47
1:A:643:SER:HA	1:A:652:LEU:O	2.15	0.47
2:B:39:GLU:CD	2:B:46:ARG:HE	2.17	0.47
2:B:473:HIS:HB3	2:B:477:GLY:HA2	1.96	0.47
2:B:751:GLU:OE2	2:B:751:GLU:N	2.38	0.47
2:B:802:MET:HG2	2:B:843:PHE:HE1	1.79	0.47
2:B:928:ILE:O	2:B:932:LEU:HB2	2.15	0.47
2:B:1123:ALA:O	2:B:1126:PRO:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1583:GLN:HG3	2:B:1586:VAL:HG12	1.97	0.47
2:B:1590:LYS:HB3	2:B:1639:VAL:HG12	1.97	0.47
3:C:155:LEU:HD13	3:C:168:VAL:HG22	1.95	0.47
1:D:563:ARG:HB2	1:D:655:ILE:O	2.14	0.47
1:D:585:VAL:HG12	1:D:607:LYS:HD2	1.96	0.47
2:E:257:ASN:O	2:E:487:GLY:HA3	2.14	0.47
2:E:288:ASP:OD1	2:E:291:ARG:NH2	2.47	0.47
2:E:526:HIS:HB2	2:E:552:VAL:O	2.13	0.47
2:E:669:LEU:HD11	2:E:716:LEU:HD13	1.95	0.47
2:E:737:LEU:HD23	2:E:764:PHE:CZ	2.49	0.47
2:E:795:PHE:HZ	2:E:836:LEU:HD12	1.79	0.47
2:E:1387:GLU:HG2	2:E:1388:TYR:N	2.28	0.47
2:E:1607:HIS:NE2	2:E:1619:HIS:HB2	2.29	0.47
3:F:2:GLN:HE22	3:F:49:LYS:HG3	1.79	0.47
3:F:6:CYS:SG	3:F:77:VAL:HG23	2.54	0.47
2:B:902:SER:HA	2:B:905:LEU:HD12	1.96	0.47
2:B:1122:LYS:HE2	2:B:1171:LEU:HD22	1.97	0.47
2:B:1280:PRO:HA	2:B:1283:LEU:HD23	1.96	0.47
2:B:1301:TYR:O	2:B:1305:ILE:HG12	2.15	0.47
2:B:1383:TYR:CD2	2:B:1501:TRP:HB3	2.49	0.47
2:B:1384:ARG:HE	2:B:1495:PHE:HB3	1.80	0.47
2:B:1601:THR:HG1	2:B:1626:PHE:HZ	1.63	0.47
3:C:43:ASN:HA	3:C:51:VAL:O	2.14	0.47
2:E:802:MET:HG2	2:E:843:PHE:HE1	1.79	0.47
2:E:909:ILE:HA	2:E:912:VAL:HG22	1.97	0.47
2:E:1468:PHE:HE2	2:E:1470:LYS:HB2	1.78	0.47
2:E:1515:LEU:HD23	2:E:1589:LEU:HD11	1.96	0.47
2:E:1534:GLN:HB3	2:E:1538:TRP:HZ3	1.80	0.47
2:E:1562:GLY:HA3	3:F:36:VAL:HG21	1.96	0.47
3:F:24:THR:HG21	3:F:40:TYR:HB3	1.97	0.47
1:A:625:MET:HE3	1:A:637:VAL:O	2.13	0.47
2:B:46:ARG:HB3	2:B:58:ILE:HA	1.95	0.47
2:B:1044:ASN:HA	2:B:1101:PHE:HZ	1.80	0.47
2:B:1169:LYS:HE3	2:B:1202:GLU:HB3	1.97	0.47
2:B:1383:TYR:CG	2:B:1501:TRP:HB3	2.49	0.47
2:B:1614:GLN:O	2:B:1618:LEU:HD23	2.15	0.47
1:D:642:PHE:HB3	1:D:662:TYR:HE1	1.79	0.47
2:E:902:SER:HA	2:E:905:LEU:HD12	1.96	0.47
2:E:1098:LYS:HD2	2:E:1134:CYS:SG	2.54	0.47
2:E:1570:PHE:HA	2:E:1575:TYR:CG	2.50	0.47
2:E:1590:LYS:HB3	2:E:1639:VAL:HG12	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:153:LYS:NZ	3:F:154:TYR:O	2.37	0.47
1:A:585:VAL:HG12	1:A:607:LYS:HD2	1.96	0.47
2:B:48:TYR:HB3	2:B:53:LYS:HA	1.96	0.47
2:B:105:LEU:CD1	2:B:117:LEU:HD13	2.45	0.47
2:B:166:ARG:HB2	2:B:174:ASP:H	1.79	0.47
2:B:188:GLU:HG3	2:B:192:LYS:HZ3	1.79	0.47
2:B:245:LEU:HB3	2:B:254:ILE:HD12	1.95	0.47
2:B:560:THR:HG22	2:B:638:LEU:HD23	1.95	0.47
2:B:584:PHE:O	2:B:588:LEU:HG	2.14	0.47
2:B:737:LEU:HD23	2:B:764:PHE:HZ	1.80	0.47
2:B:771:ARG:CZ	2:B:787:PHE:HB3	2.44	0.47
2:B:801:LEU:HA	2:B:804:ARG:NE	2.30	0.47
2:B:856:LYS:HZ3	2:B:885:GLN:HB2	1.78	0.47
2:B:868:LEU:HD11	2:B:871:GLN:HG3	1.97	0.47
2:B:909:ILE:HA	2:B:912:VAL:HG22	1.97	0.47
2:B:1249:ASP:HA	2:B:1252:ARG:CD	2.45	0.47
2:B:1323:GLU:HA	2:B:1326:GLU:HB3	1.97	0.47
2:B:1372:PHE:HE1	2:B:1402:PHE:CD2	2.32	0.47
2:B:1401:GLN:HG3	2:B:1402:PHE:CE2	2.49	0.47
2:B:1545:HIS:CB	3:C:5:LYS:HE2	2.43	0.47
2:B:1576:LEU:HG	2:B:1583:GLN:HG2	1.97	0.47
2:B:1599:LEU:HA	2:B:1602:GLU:OE1	2.15	0.47
2:B:1609:GLU:O	2:B:1610:LYS:HD2	2.15	0.47
2:B:1618:LEU:O	2:B:1622:LEU:HG	2.14	0.47
3:C:82:PHE:CE1	3:C:154:TYR:HE1	2.32	0.47
3:C:110:ILE:O	3:C:152:VAL:HG12	2.14	0.47
1:D:714:PRO:HD3	2:E:62:THR:HG21	1.96	0.47
2:E:60:PRO:O	2:E:64:ILE:N	2.37	0.47
2:E:98:TRP:HA	2:E:101:ILE:HG22	1.96	0.47
2:E:179:SER:HA	2:E:962:GLN:HE22	1.79	0.47
2:E:737:LEU:HD23	2:E:764:PHE:HZ	1.79	0.47
2:E:792:ARG:O	2:E:796:LEU:HG	2.15	0.47
2:E:895:ASN:O	2:E:899:HIS:N	2.48	0.47
2:E:979:ARG:HG3	2:E:1032:PHE:CE2	2.50	0.47
2:E:987:MET:O	2:E:991:ILE:HG12	2.15	0.47
2:E:997:ILE:HG13	2:E:998:GLY:H	1.79	0.47
2:E:1061:LEU:HA	2:E:1064:PHE:CE1	2.50	0.47
2:E:1368:TYR:HB2	2:E:1408:MET:HE1	1.97	0.47
2:E:1406:GLU:OE2	2:E:1423:LYS:HG3	2.14	0.47
2:E:1599:LEU:HA	2:E:1602:GLU:OE1	2.15	0.47
2:E:1622:LEU:O	2:E:1626:PHE:CB	2.61	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:563:ARG:HB2	1:A:655:ILE:O	2.14	0.47
1:A:569:ARG:NH2	1:A:571:GLN:OE1	2.47	0.47
2:B:26:GLU:OE1	2:B:29:LEU:HD11	2.14	0.47
2:B:222:TYR:CD1	2:B:289:LEU:HD21	2.50	0.47
2:B:331:ASP:HB3	2:B:336:LYS:HB2	1.97	0.47
2:B:450:LEU:O	2:B:509:TRP:HB2	2.15	0.47
2:B:720:ILE:HG12	2:B:766:PHE:CZ	2.50	0.47
2:B:754:PHE:HZ	2:B:811:LYS:HB2	1.78	0.47
2:B:1133:GLN:O	2:B:1136:PHE:HB3	2.15	0.47
2:B:1291:TYR:CB	2:B:1296:LEU:HD21	2.40	0.47
2:B:1318:ILE:HD11	2:B:1348:PHE:HB2	1.97	0.47
2:B:1406:GLU:C	2:B:1407:LYS:HD3	2.36	0.47
2:B:1570:PHE:HA	2:B:1575:TYR:CG	2.50	0.47
1:D:544:ILE:HG12	1:D:686:LEU:HG	1.95	0.47
2:E:26:GLU:OE1	2:E:29:LEU:HD11	2.14	0.47
2:E:39:GLU:CD	2:E:46:ARG:HE	2.17	0.47
2:E:45:TYR:N	2:E:59:PHE:O	2.48	0.47
2:E:166:ARG:HB2	2:E:174:ASP:H	1.79	0.47
2:E:1028:LEU:HD22	2:E:1043:TRP:CH2	2.50	0.47
2:E:1633:VAL:O	2:E:1639:VAL:HG22	2.14	0.47
1:A:584:LYS:HZ1	2:B:1405:ALA:HB2	1.78	0.47
2:B:724:PHE:CZ	2:B:726:ALA:HB3	2.49	0.47
2:B:802:MET:SD	2:B:846:SER:OG	2.58	0.47
2:B:1221:MET:O	2:B:1225:VAL:HG13	2.15	0.47
2:B:1570:PHE:HA	2:B:1575:TYR:CD2	2.50	0.47
2:E:95:LEU:HD21	2:E:124:LEU:CD1	2.45	0.47
2:E:163:LEU:HD22	2:E:187:HIS:HE1	1.80	0.47
2:E:1283:LEU:HD11	2:E:1291:TYR:HB2	1.97	0.47
2:E:1370:GLN:OE1	2:E:1377:ARG:NH1	2.48	0.47
2:E:1609:GLU:O	2:E:1610:LYS:HD2	2.15	0.47
3:F:7:VAL:CG2	3:F:71:SER:HB3	2.45	0.47
2:B:45:TYR:N	2:B:59:PHE:O	2.48	0.47
2:B:150:ALA:HB1	2:B:197:LYS:HZ1	1.79	0.47
2:B:157:ARG:HH21	2:B:198:ILE:HG12	1.80	0.47
2:B:225:TYR:CZ	2:B:227:ASN:HB2	2.50	0.47
2:B:531:PHE:CE2	2:B:571:VAL:HG22	2.50	0.47
2:B:869:PHE:HA	2:B:918:VAL:HA	1.97	0.47
2:B:929:MET:HB2	2:B:964:MET:CE	2.44	0.47
2:B:1007:MET:O	2:B:1011:MET:HG2	2.15	0.47
2:B:1344:LYS:HB3	2:B:1348:PHE:CZ	2.49	0.47
2:B:1406:GLU:OE2	2:B:1423:LYS:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:145:MET:O	3:C:148:GLU:HB3	2.14	0.47
1:D:625:MET:HE3	1:D:637:VAL:O	2.15	0.47
2:E:890:LEU:CD1	2:E:935:ARG:HA	2.45	0.47
2:E:928:ILE:O	2:E:932:LEU:HB2	2.15	0.47
2:E:986:LEU:HB3	2:E:1042:LEU:HD21	1.97	0.47
2:E:1308:PHE:HD1	2:E:1313:MET:HB2	1.79	0.47
2:E:1399:LEU:HD22	2:E:1405:ALA:HA	1.97	0.47
2:E:1481:THR:O	2:E:1483:TRP:HD1	1.97	0.47
3:F:113:VAL:HA	3:F:155:LEU:O	2.15	0.47
3:F:163:ARG:C	3:F:165:LEU:H	2.19	0.47
1:A:591:LEU:HD22	1:A:604:LEU:HD23	1.97	0.46
2:B:143:GLU:HA	2:B:146:LYS:HE2	1.97	0.46
2:B:188:GLU:HG3	2:B:192:LYS:NZ	2.29	0.46
2:B:521:GLU:HG3	2:B:524:ARG:CZ	2.45	0.46
2:B:876:GLU:OE1	2:B:876:GLU:N	2.40	0.46
2:B:890:LEU:CD1	2:B:935:ARG:HA	2.45	0.46
2:B:1308:PHE:HD1	2:B:1313:MET:HB2	1.79	0.46
3:C:113:VAL:HA	3:C:155:LEU:O	2.15	0.46
2:E:72:GLU:OE1	2:E:86:PRO:HG3	2.14	0.46
2:E:105:LEU:CD1	2:E:117:LEU:HD13	2.45	0.46
2:E:479:LEU:HD11	2:E:494:SER:HB3	1.97	0.46
2:E:800:MET:CE	2:E:804:ARG:HH21	2.28	0.46
2:E:869:PHE:HA	2:E:918:VAL:HA	1.97	0.46
2:E:1169:LYS:HE3	2:E:1202:GLU:HB3	1.97	0.46
2:E:1249:ASP:HA	2:E:1252:ARG:CD	2.45	0.46
2:E:1273:TRP:CD2	2:E:1297:LYS:HD3	2.50	0.46
2:E:1323:GLU:HA	2:E:1326:GLU:HB3	1.97	0.46
2:E:1601:THR:C	2:E:1605:ARG:HE	2.15	0.46
2:B:479:LEU:HD11	2:B:494:SER:HB3	1.97	0.46
2:B:485:HIS:O	2:B:514:LYS:N	2.48	0.46
2:B:640:LEU:HD21	2:B:676:LEU:HD21	1.97	0.46
2:E:179:SER:H	2:E:183:LEU:CD1	2.28	0.46
2:E:450:LEU:O	2:E:509:TRP:HB2	2.15	0.46
2:E:521:GLU:HG3	2:E:524:ARG:CZ	2.45	0.46
2:E:720:ILE:HG12	2:E:766:PHE:CZ	2.50	0.46
2:E:1337:GLY:HA2	2:E:1340:ASN:HD21	1.80	0.46
2:E:1432:LYS:HD3	2:E:1433:PRO:HD2	1.98	0.46
3:F:82:PHE:CE1	3:F:154:TYR:HE1	2.33	0.46
2:B:45:TYR:HE2	2:B:61:GLU:HG3	1.81	0.46
2:B:124:LEU:HD12	2:B:125:ILE:N	2.31	0.46
2:B:166:ARG:HB3	2:B:171:ASN:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:530:THR:HA	2:B:549:VAL:HG22	1.96	0.46
2:B:1028:LEU:HD22	2:B:1043:TRP:CH2	2.50	0.46
2:B:1127:ILE:HA	2:B:1130:ASP:OD2	2.15	0.46
2:B:1136:PHE:HD1	2:B:1186:LEU:HD23	1.80	0.46
2:B:1399:LEU:HD22	2:B:1405:ALA:HA	1.97	0.46
3:C:24:THR:HG21	3:C:40:TYR:HB3	1.97	0.46
2:E:225:TYR:CZ	2:E:227:ASN:HB2	2.50	0.46
2:E:526:HIS:CE1	2:E:586:LEU:HD21	2.50	0.46
2:E:771:ARG:CZ	2:E:787:PHE:HB3	2.44	0.46
2:E:823:ILE:O	2:E:827:VAL:HG23	2.16	0.46
2:E:868:LEU:HD11	2:E:871:GLN:HG3	1.97	0.46
2:E:987:MET:CE	2:E:1042:LEU:HD13	2.44	0.46
2:E:1127:ILE:HA	2:E:1130:ASP:OD2	2.15	0.46
2:E:1133:GLN:NE2	2:E:1133:GLN:O	2.47	0.46
2:E:1362:TYR:OH	2:E:1456:ALA:O	2.20	0.46
2:E:1470:LYS:N	2:E:1481:THR:O	2.37	0.46
2:E:1563:PHE:O	2:E:1567:GLU:HG2	2.16	0.46
2:E:1576:LEU:HG	2:E:1583:GLN:HG2	1.97	0.46
2:E:1583:GLN:HG3	2:E:1586:VAL:HG12	1.97	0.46
2:E:1614:GLN:O	2:E:1618:LEU:HD23	2.15	0.46
3:F:53:LEU:HD22	3:F:169:PHE:HE1	1.80	0.46
3:F:122:ASP:O	3:F:126:ILE:HG12	2.16	0.46
1:A:566:ASN:OD1	1:A:633:GLN:NE2	2.49	0.46
1:A:624:HIS:HB3	1:A:653:ASN:HB3	1.97	0.46
1:A:727:ASN:H	2:B:46:ARG:HH21	1.62	0.46
2:B:62:THR:HG23	2:B:63:TYR:CD1	2.50	0.46
2:B:296:LEU:HB2	2:B:329:ILE:HG21	1.97	0.46
2:B:1515:LEU:HG	2:B:1575:TYR:HE2	1.76	0.46
3:C:21:ILE:HB	3:C:40:TYR:CE2	2.51	0.46
1:D:617:VAL:O	1:D:642:PHE:HA	2.15	0.46
1:D:643:SER:HA	1:D:652:LEU:O	2.15	0.46
2:E:124:LEU:HD12	2:E:125:ILE:N	2.31	0.46
2:E:296:LEU:HB2	2:E:329:ILE:HG21	1.97	0.46
2:E:473:HIS:HB3	2:E:477:GLY:HA2	1.96	0.46
2:E:640:LEU:HD21	2:E:676:LEU:HD21	1.97	0.46
2:E:802:MET:HG2	2:E:843:PHE:CE1	2.51	0.46
2:E:1057:GLU:HA	2:E:1061:LEU:HD22	1.98	0.46
2:E:1221:MET:O	2:E:1225:VAL:HG13	2.15	0.46
2:E:1231:TYR:HH	2:E:1243:TYR:HE1	1.62	0.46
2:E:1406:GLU:C	2:E:1407:LYS:HD3	2.35	0.46
2:E:1483:TRP:CZ2	2:E:1513:SER:HA	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1491:THR:HG21	2:E:1495:PHE:CE1	2.51	0.46
2:B:526:HIS:HE1	2:B:585:TYR:OH	1.99	0.46
2:B:840:PHE:O	2:B:844:ILE:HG13	2.16	0.46
2:B:895:ASN:O	2:B:899:HIS:N	2.48	0.46
2:B:979:ARG:HG3	2:B:1032:PHE:CE2	2.50	0.46
2:B:1061:LEU:HA	2:B:1064:PHE:CE1	2.50	0.46
2:B:1125:ILE:CG1	2:B:1172:LEU:HD23	2.44	0.46
2:B:1129:PHE:HZ	2:B:1183:HIS:HB2	1.81	0.46
2:B:1353:ILE:HG23	2:E:1335:TYR:CD2	2.51	0.46
2:B:1362:TYR:CE1	2:B:1384:ARG:HG3	2.50	0.46
2:B:1607:HIS:NE2	2:B:1619:HIS:HB2	2.29	0.46
3:C:7:VAL:CG2	3:C:71:SER:HB3	2.45	0.46
2:E:7:THR:HG22	2:E:9:ARG:H	1.80	0.46
2:E:820:LEU:HD12	2:E:823:ILE:HD11	1.98	0.46
2:E:958:ILE:HG21	2:E:1017:PHE:HE1	1.81	0.46
2:E:1007:MET:O	2:E:1011:MET:HG2	2.15	0.46
2:E:1133:GLN:O	2:E:1136:PHE:HB3	2.15	0.46
2:E:1362:TYR:CE1	2:E:1384:ARG:HG3	2.51	0.46
2:E:1368:TYR:CE2	2:E:1419:LYS:HE3	2.49	0.46
2:B:820:LEU:HD12	2:B:823:ILE:HD11	1.98	0.46
2:B:986:LEU:HB3	2:B:1042:LEU:HD21	1.97	0.46
2:B:1012:THR:O	2:B:1016:VAL:HG22	2.16	0.46
2:B:1057:GLU:HA	2:B:1061:LEU:HD22	1.98	0.46
2:B:1125:ILE:HA	2:B:1128:PHE:CD2	2.51	0.46
2:B:1181:ARG:C	2:B:1183:HIS:H	2.19	0.46
2:B:1206:ASP:HA	2:B:1209:THR:HG22	1.96	0.46
3:C:53:LEU:HD22	3:C:169:PHE:HE1	1.80	0.46
3:C:153:LYS:NZ	3:C:154:TYR:O	2.37	0.46
1:D:566:ASN:OD1	1:D:633:GLN:NE2	2.49	0.46
2:E:45:TYR:HE2	2:E:61:GLU:HG3	1.81	0.46
2:E:62:THR:HG23	2:E:63:TYR:CD1	2.50	0.46
2:E:157:ARG:HH21	2:E:198:ILE:HG12	1.80	0.46
2:E:485:HIS:O	2:E:514:LYS:N	2.48	0.46
2:E:529:PHE:HE2	2:E:552:VAL:HG12	1.81	0.46
2:E:801:LEU:HA	2:E:804:ARG:NE	2.30	0.46
2:E:907:SER:OG	2:E:908:ASN:N	2.49	0.46
2:E:1007:MET:HE3	2:E:1007:MET:H	1.81	0.46
2:E:1122:LYS:HE2	2:E:1171:LEU:HD22	1.97	0.46
2:E:1129:PHE:HZ	2:E:1183:HIS:HB2	1.81	0.46
2:E:1203:ASN:O	2:E:1207:TYR:CB	2.64	0.46
2:E:1249:ASP:O	2:E:1252:ARG:HD3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1383:TYR:HA	2:E:1501:TRP:HA	1.98	0.46
2:E:1486:ARG:HB2	2:E:1510:GLU:HB2	1.98	0.46
2:E:1623:SER:HA	2:E:1627:ARG:HH11	1.81	0.46
3:F:21:ILE:HB	3:F:40:TYR:CE2	2.51	0.46
1:A:543:GLU:OE1	1:A:543:GLU:N	2.48	0.46
2:B:81:ILE:HD11	2:B:138:LYS:HE2	1.98	0.46
2:B:871:GLN:HB2	2:B:918:VAL:O	2.16	0.46
2:B:1139:SER:OG	2:B:1143:ASN:HA	2.16	0.46
2:B:1390:ARG:HD3	3:C:44:VAL:HG13	1.96	0.46
2:B:1486:ARG:HB2	2:B:1510:GLU:HB2	1.98	0.46
2:B:1563:PHE:O	2:B:1567:GLU:HG2	2.16	0.46
3:C:122:ASP:O	3:C:126:ILE:HG12	2.16	0.46
1:D:544:ILE:HD11	1:D:689:LEU:HB2	1.98	0.46
2:E:222:TYR:CD1	2:E:289:LEU:HD21	2.50	0.46
2:E:932:LEU:CA	2:E:935:ARG:HE	2.29	0.46
2:E:1125:ILE:HA	2:E:1128:PHE:CD2	2.51	0.46
2:B:95:LEU:HD21	2:B:124:LEU:CD1	2.45	0.46
2:B:98:TRP:CE3	2:B:101:ILE:HG21	2.51	0.46
2:B:245:LEU:HB2	2:B:254:ILE:HB	1.98	0.46
2:B:792:ARG:O	2:B:796:LEU:HG	2.15	0.46
2:B:856:LYS:NZ	2:B:885:GLN:HB2	2.31	0.46
2:B:929:MET:HG3	2:B:964:MET:HE1	1.98	0.46
2:B:932:LEU:CA	2:B:935:ARG:HE	2.29	0.46
2:B:990:PHE:HB3	2:B:1045:ASN:OD1	2.16	0.46
2:B:1111:GLU:HA	2:B:1114:LEU:HD12	1.98	0.46
2:B:1283:LEU:HD11	2:B:1291:TYR:HB2	1.97	0.46
2:B:1416:GLU:O	2:B:1419:LYS:HB2	2.15	0.46
2:B:1467:PRO:HA	2:B:1484:ILE:HD13	1.98	0.46
2:B:1491:THR:HG21	2:B:1495:PHE:CE1	2.51	0.46
2:E:245:LEU:HB2	2:E:254:ILE:HB	1.98	0.46
2:E:530:THR:HA	2:E:549:VAL:HG22	1.96	0.46
2:E:744:ALA:HB1	2:E:812:ILE:HD13	1.98	0.46
2:E:1044:ASN:HA	2:E:1101:PHE:HZ	1.80	0.46
2:E:1066:GLN:HA	2:E:1069:ARG:NH2	2.31	0.46
2:E:1404:ASN:HB3	2:E:1423:LYS:HD2	1.98	0.46
2:E:1570:PHE:HA	2:E:1575:TYR:CD2	2.50	0.46
2:E:1601:THR:HG22	2:E:1605:ARG:CZ	2.46	0.46
3:F:80:ILE:CD1	3:F:97:TRP:HB3	2.46	0.46
2:B:7:THR:HG22	2:B:9:ARG:H	1.80	0.46
2:B:677:PHE:HD1	2:B:680:MET:HE2	1.81	0.46
2:B:823:ILE:HA	2:B:826:ASP:OD2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1203:ASN:O	2:B:1207:TYR:CB	2.64	0.46
2:B:1206:ASP:OD1	2:B:1207:TYR:N	2.49	0.46
3:C:80:ILE:CD1	3:C:97:TRP:HB3	2.46	0.46
2:E:48:TYR:HB3	2:E:53:LYS:HA	1.96	0.46
2:E:840:PHE:O	2:E:844:ILE:HG13	2.16	0.46
2:E:866:SER:C	2:E:868:LEU:H	2.19	0.46
2:E:933:LEU:H	2:E:935:ARG:NH2	2.14	0.46
2:E:1139:SER:OG	2:E:1143:ASN:HA	2.16	0.46
2:E:1379:LYS:NZ	2:E:1504:VAL:O	2.36	0.46
2:E:1457:ASN:O	2:E:1459:VAL:HG13	2.16	0.46
2:E:1466:ARG:O	2:E:1484:ILE:HA	2.16	0.46
3:F:53:LEU:HD22	3:F:173:ILE:HD11	1.97	0.46
2:B:526:HIS:CE1	2:B:586:LEU:HD21	2.50	0.46
2:B:578:LYS:HD3	2:B:584:PHE:CZ	2.51	0.46
2:B:802:MET:HE2	2:B:847:ILE:HD13	1.97	0.46
2:B:1062:GLU:OE2	2:B:1080:ARG:NH1	2.49	0.46
2:B:1370:GLN:OE1	2:B:1377:ARG:NH1	2.48	0.46
2:B:1566:TYR:HB3	2:B:1571:PHE:CE1	2.51	0.46
2:B:1606:ILE:HG13	2:B:1607:HIS:N	2.31	0.46
2:B:1623:SER:HA	2:B:1627:ARG:HH11	1.80	0.46
3:C:60:GLY:HA2	3:C:97:TRP:CZ2	2.51	0.46
2:E:554:LEU:HA	2:E:562:LEU:HB2	1.97	0.46
2:E:1002:TYR:OH	2:E:1013:GLN:HB2	2.16	0.46
2:E:1136:PHE:HD1	2:E:1186:LEU:HD23	1.80	0.46
2:E:1301:TYR:O	2:E:1305:ILE:HG12	2.15	0.46
2:E:1467:PRO:HA	2:E:1484:ILE:HD13	1.98	0.46
2:B:456:ASP:HB3	2:B:573:LYS:NZ	2.32	0.45
2:B:800:MET:CE	2:B:804:ARG:HH21	2.28	0.45
2:B:802:MET:HG2	2:B:843:PHE:CE1	2.51	0.45
2:B:1273:TRP:CD2	2:B:1297:LYS:HD3	2.50	0.45
2:B:1432:LYS:HD3	2:B:1433:PRO:HD2	1.98	0.45
2:B:1534:GLN:HB3	2:B:1538:TRP:HZ3	1.80	0.45
2:B:1601:THR:C	2:B:1605:ARG:HE	2.15	0.45
3:C:163:ARG:C	3:C:165:LEU:H	2.19	0.45
2:E:166:ARG:HB3	2:E:171:ASN:HA	1.97	0.45
2:E:446:ILE:HG12	2:E:626:ILE:HG12	1.98	0.45
2:E:531:PHE:CE2	2:E:571:VAL:HG22	2.50	0.45
2:E:1209:THR:O	2:E:1213:GLN:HB2	2.15	0.45
2:E:1357:ARG:NH1	2:E:1456:ALA:HB3	2.28	0.45
2:E:1566:TYR:HB3	2:E:1571:PHE:CE1	2.51	0.45
3:F:9:VAL:HG23	3:F:80:ILE:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:545:LEU:HB2	1:A:686:LEU:HD11	1.98	0.45
2:B:19:TYR:HE2	2:B:26:GLU:HB3	1.82	0.45
2:B:127:TRP:HD1	2:B:130:GLN:NE2	2.14	0.45
2:B:554:LEU:HA	2:B:562:LEU:HB2	1.97	0.45
2:B:792:ARG:NE	2:B:835:GLU:OE1	2.50	0.45
2:B:795:PHE:HZ	2:B:836:LEU:HD12	1.79	0.45
2:B:844:ILE:O	2:B:847:ILE:HB	2.16	0.45
2:B:899:HIS:HD2	2:B:943:MET:HG2	1.81	0.45
2:B:907:SER:OG	2:B:908:ASN:N	2.49	0.45
2:B:987:MET:O	2:B:991:ILE:HG12	2.15	0.45
2:B:1066:GLN:HA	2:B:1069:ARG:NH2	2.31	0.45
2:B:1337:GLY:HA2	2:B:1340:ASN:HD21	1.80	0.45
2:B:1382:ILE:HD11	2:B:1489:TYR:HB3	1.99	0.45
2:E:127:TRP:HD1	2:E:130:GLN:NE2	2.14	0.45
1:A:711:PRO:HD2	2:B:17:TYR:CE1	2.51	0.45
2:B:464:LYS:HE2	2:B:464:LYS:HA	1.99	0.45
2:B:1007:MET:HE3	2:B:1007:MET:H	1.81	0.45
2:B:1516:GLU:HA	2:B:1519:ILE:HD12	1.98	0.45
2:E:143:GLU:HA	2:E:146:LYS:HE2	1.97	0.45
2:E:823:ILE:HA	2:E:826:ASP:OD2	2.16	0.45
2:E:856:LYS:HZ1	2:E:857:LEU:HD21	1.81	0.45
2:E:934:ARG:HD2	2:E:985:PHE:CD1	2.52	0.45
2:E:1157:GLN:O	2:E:1160:GLU:HB3	2.17	0.45
2:E:1181:ARG:C	2:E:1183:HIS:H	2.19	0.45
2:E:1334:ASP:OD2	2:E:1337:GLY:HA3	2.17	0.45
2:E:1435:MET:HE3	2:E:1455:ARG:HG2	1.99	0.45
2:E:1566:TYR:HD1	2:E:1566:TYR:HA	1.62	0.45
2:B:529:PHE:HE2	2:B:552:VAL:HG12	1.81	0.45
2:B:654:LEU:HD13	2:B:692:LEU:HB2	1.99	0.45
2:B:1209:THR:O	2:B:1213:GLN:HB2	2.15	0.45
2:B:1249:ASP:O	2:B:1252:ARG:HD3	2.16	0.45
3:C:93:VAL:O	3:C:98:TYR:HB3	2.16	0.45
1:D:591:LEU:HD22	1:D:604:LEU:HD23	1.97	0.45
2:E:19:TYR:HE2	2:E:26:GLU:HB3	1.82	0.45
2:E:331:ASP:HB3	2:E:336:LYS:HB2	1.97	0.45
2:E:419:HIS:CD2	2:E:420:LEU:HG	2.51	0.45
2:E:643:TRP:HD1	2:E:675:ALA:HB1	1.82	0.45
2:E:787:PHE:O	2:E:791:ILE:HG12	2.17	0.45
2:E:806:LEU:HD22	2:E:851:GLN:HB3	1.99	0.45
2:E:853:VAL:O	2:E:857:LEU:HG	2.17	0.45
2:E:1384:ARG:HE	2:E:1495:PHE:HB3	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1516:GLU:HA	2:E:1519:ILE:HD12	1.98	0.45
1:A:551:GLN:HE22	1:A:555:ARG:HD3	1.81	0.45
2:B:68:GLU:HB3	2:B:76:GLN:HE22	1.82	0.45
2:B:89:GLN:O	2:B:92:THR:OG1	2.31	0.45
2:B:179:SER:H	2:B:183:LEU:CD1	2.28	0.45
2:B:285:SER:HB2	2:B:435:GLU:CD	2.37	0.45
2:B:446:ILE:HG12	2:B:626:ILE:HG12	1.98	0.45
2:B:1078:ASP:OD1	2:B:1080:ARG:HB2	2.16	0.45
2:B:1155:LEU:O	2:B:1159:VAL:HG23	2.17	0.45
2:B:1229:ASN:O	2:B:1233:GLU:HG3	2.16	0.45
2:B:1404:ASN:HB3	2:B:1423:LYS:HD2	1.98	0.45
3:C:39:ASN:HB3	3:C:56:TRP:HA	1.98	0.45
3:C:53:LEU:HD22	3:C:173:ILE:HD11	1.97	0.45
1:D:545:LEU:HB2	1:D:686:LEU:HD11	1.98	0.45
1:D:662:TYR:HA	1:D:665:TRP:HE3	1.82	0.45
1:D:722:PHE:CE1	2:E:1:MET:HB3	2.42	0.45
2:E:98:TRP:CE3	2:E:101:ILE:HG21	2.51	0.45
2:E:526:HIS:HE1	2:E:585:TYR:OH	1.99	0.45
2:E:658:MET:SD	2:E:699:PHE:HD2	2.40	0.45
2:E:844:ILE:O	2:E:847:ILE:HB	2.16	0.45
2:E:990:PHE:HB3	2:E:1045:ASN:OD1	2.16	0.45
2:E:1479:PHE:HA	2:E:1482:MET:HG2	1.99	0.45
3:F:39:ASN:HA	3:F:57:ASP:N	2.30	0.45
1:A:617:VAL:O	1:A:642:PHE:HA	2.15	0.45
2:B:3:ARG:O	2:B:3:ARG:HD3	2.16	0.45
2:B:163:LEU:HD22	2:B:187:HIS:HE1	1.80	0.45
2:B:419:HIS:CD2	2:B:420:LEU:HG	2.51	0.45
2:B:823:ILE:O	2:B:827:VAL:HG23	2.16	0.45
2:B:1168:TYR:CZ	2:B:1172:LEU:HD11	2.52	0.45
2:B:1258:THR:HG22	2:B:1262:TYR:HE2	1.81	0.45
2:B:1411:THR:HB	3:C:28:PHE:CE1	2.52	0.45
2:B:1479:PHE:HA	2:B:1482:MET:HG2	1.99	0.45
2:B:1551:LEU:HB3	2:B:1622:LEU:HD21	1.99	0.45
2:B:1579:HIS:O	2:B:1583:GLN:NE2	2.36	0.45
1:D:711:PRO:HG2	2:E:16:ILE:CD1	2.46	0.45
2:E:5:ILE:N	2:E:40:MET:H	2.01	0.45
2:E:68:GLU:HB3	2:E:76:GLN:HE22	1.82	0.45
2:E:302:ARG:HH22	2:E:375:GLU:HG2	1.82	0.45
2:E:456:ASP:HB3	2:E:573:LYS:NZ	2.32	0.45
2:E:816:ALA:O	2:E:820:LEU:CB	2.63	0.45
2:E:969:TYR:CD2	2:E:1023:GLN:HG3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1206:ASP:OD1	2:E:1207:TYR:N	2.49	0.45
1:A:617:VAL:HG13	1:A:645:LEU:HD11	1.98	0.45
2:B:485:HIS:HA	2:B:492:GLY:HA2	1.98	0.45
2:B:681:MET:HE1	2:B:729:ALA:HA	1.99	0.45
2:B:1466:ARG:O	2:B:1484:ILE:HA	2.17	0.45
3:C:9:VAL:HG23	3:C:80:ILE:HA	1.98	0.45
2:E:229:LYS:HE3	2:E:343:GLN:HG2	1.99	0.45
2:E:470:MET:CG	2:E:496:TYR:HB3	2.46	0.45
2:E:640:LEU:HD23	2:E:672:THR:HG23	1.98	0.45
2:E:1114:LEU:HA	2:E:1168:TYR:CZ	2.52	0.45
2:E:1120:LEU:HD12	2:E:1121:ARG:N	2.32	0.45
2:E:1268:ALA:HA	2:E:1271:LEU:HD13	1.99	0.45
2:E:1361:GLU:HB3	2:E:1430:THR:HG23	1.99	0.45
3:F:7:VAL:HB	3:F:78:PHE:CD1	2.52	0.45
3:F:39:ASN:HB3	3:F:56:TRP:HA	1.98	0.45
1:A:588:TYR:HE2	1:A:608:LEU:HB2	1.82	0.45
2:B:197:LYS:O	2:B:200:GLU:N	2.45	0.45
2:B:969:TYR:CD2	2:B:1023:GLN:HG3	2.52	0.45
2:B:1002:TYR:OH	2:B:1013:GLN:HB2	2.16	0.45
2:B:1170:VAL:O	2:B:1174:LYS:HG3	2.17	0.45
2:B:1365:VAL:N	2:B:1381:PHE:O	2.42	0.45
2:B:1601:THR:HG22	2:B:1605:ARG:CZ	2.46	0.45
2:B:1633:VAL:C	2:B:1639:VAL:HG22	2.37	0.45
1:D:711:PRO:CG	2:E:16:ILE:HG21	2.47	0.45
2:E:285:SER:HB2	2:E:435:GLU:CD	2.37	0.45
2:E:821:PRO:O	2:E:824:ILE:HG12	2.17	0.45
2:E:1062:GLU:OE2	2:E:1080:ARG:NH1	2.49	0.45
2:E:1065:SER:OG	2:E:1068:LYS:HE3	2.17	0.45
2:E:1111:GLU:HA	2:E:1114:LEU:HD12	1.98	0.45
2:E:1168:TYR:CZ	2:E:1172:LEU:HD11	2.52	0.45
3:F:93:VAL:O	3:F:98:TYR:HB3	2.16	0.45
1:A:544:ILE:HD11	1:A:689:LEU:HB2	1.98	0.45
1:A:662:TYR:HA	1:A:665:TRP:HE3	1.82	0.45
2:B:101:ILE:O	2:B:105:LEU:HG	2.17	0.45
2:B:103:ARG:HG3	2:B:104:LYS:N	2.32	0.45
2:B:470:MET:CG	2:B:496:TYR:HB3	2.46	0.45
2:B:957:MET:O	2:B:960:LEU:HB3	2.17	0.45
2:B:1283:LEU:HB3	2:B:1288:TYR:HE1	1.82	0.45
1:D:551:GLN:HE22	1:D:555:ARG:HD3	1.82	0.45
1:D:624:HIS:HB3	1:D:653:ASN:HB3	1.98	0.45
2:E:150:ALA:HB1	2:E:197:LYS:HZ1	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:856:LYS:NZ	2:E:885:GLN:HB2	2.31	0.45
2:E:862:LYS:O	2:E:865:GLU:HB3	2.17	0.45
2:E:871:GLN:HB2	2:E:918:VAL:O	2.16	0.45
2:E:1170:VAL:O	2:E:1174:LYS:HG3	2.17	0.45
2:E:1256:ASN:ND2	2:E:1500:LYS:HE2	2.32	0.45
2:B:1632:LYS:HA	2:B:1632:LYS:HD2	1.80	0.45
2:E:3:ARG:O	2:E:3:ARG:HD3	2.16	0.45
2:E:81:ILE:HD11	2:E:138:LYS:HE2	1.98	0.45
2:E:87:LEU:HB2	2:E:145:LYS:HE2	1.99	0.45
2:E:187:HIS:CD2	2:E:1008:VAL:HB	2.52	0.45
2:E:485:HIS:HA	2:E:492:GLY:HA2	1.98	0.45
2:E:1012:THR:O	2:E:1016:VAL:HG22	2.16	0.45
2:E:1078:ASP:OD1	2:E:1080:ARG:HB2	2.16	0.45
2:E:1369:GLY:HA3	2:E:1424:GLN:HA	1.99	0.45
2:E:1551:LEU:HB3	2:E:1622:LEU:HD21	1.99	0.45
3:F:60:GLY:HA2	3:F:97:TRP:CZ2	2.51	0.45
2:B:73:ASP:OD2	2:B:85:LEU:HB3	2.17	0.44
2:B:302:ARG:HH22	2:B:375:GLU:HG2	1.82	0.44
2:B:469:THR:HG22	2:B:495:GLU:HB3	1.99	0.44
2:B:640:LEU:HD23	2:B:672:THR:HG23	1.98	0.44
2:B:866:SER:C	2:B:868:LEU:H	2.19	0.44
2:B:1065:SER:OG	2:B:1068:LYS:HE3	2.17	0.44
2:B:1361:GLU:HB3	2:B:1430:THR:HG23	1.99	0.44
3:C:7:VAL:HB	3:C:78:PHE:CD1	2.52	0.44
1:D:577:CYS:SG	1:D:588:TYR:HB3	2.57	0.44
2:E:98:TRP:HE3	2:E:101:ILE:HG21	1.82	0.44
2:E:103:ARG:HG3	2:E:104:LYS:N	2.32	0.44
2:E:188:GLU:HG3	2:E:192:LYS:HZ3	1.82	0.44
2:E:349:GLN:NE2	2:E:350:GLN:O	2.32	0.44
2:E:422:ASP:OD1	2:E:422:ASP:N	2.50	0.44
2:E:792:ARG:NE	2:E:835:GLU:OE1	2.50	0.44
2:E:800:MET:O	2:E:804:ARG:HG3	2.17	0.44
2:E:929:MET:HG3	2:E:964:MET:HE1	1.99	0.44
2:E:987:MET:HE1	2:E:1042:LEU:HD13	1.99	0.44
2:E:1229:ASN:O	2:E:1233:GLU:HG3	2.16	0.44
2:E:1417:ASP:OD1	2:E:1418:ILE:HG12	2.17	0.44
2:E:1606:ILE:HG13	2:E:1607:HIS:N	2.31	0.44
1:A:696:LEU:HD12	1:A:697:ARG:HE	1.83	0.44
2:B:288:ASP:OD1	2:B:291:ARG:NH2	2.47	0.44
2:B:744:ALA:HB1	2:B:812:ILE:HD13	1.98	0.44
2:B:821:PRO:O	2:B:824:ILE:HG12	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:853:VAL:O	2:B:857:LEU:HG	2.17	0.44
2:B:862:LYS:O	2:B:865:GLU:HB3	2.17	0.44
2:B:922:ALA:HA	2:B:925:ILE:HD12	2.00	0.44
2:B:933:LEU:H	2:B:935:ARG:NH2	2.14	0.44
2:B:1042:LEU:HD12	2:B:1042:LEU:O	2.18	0.44
2:B:1114:LEU:HA	2:B:1168:TYR:CZ	2.52	0.44
2:B:1183:HIS:CG	2:B:1187:SER:HG	2.30	0.44
2:B:1597:MET:CE	2:B:1633:VAL:HG11	2.47	0.44
1:D:617:VAL:HG13	1:D:645:LEU:HD11	1.97	0.44
2:E:19:TYR:CD1	2:E:20:ASN:N	2.86	0.44
2:E:690:ASP:OD2	2:E:732:LYS:HB3	2.17	0.44
2:E:1199:SER:O	2:E:1202:GLU:HG2	2.18	0.44
2:E:1217:LYS:HD2	2:E:1220:ARG:HH22	1.82	0.44
2:E:1382:ILE:O	2:E:1502:PHE:N	2.42	0.44
2:E:1469:ARG:HB3	2:E:1473:LYS:HD2	1.98	0.44
1:A:616:VAL:HG23	1:A:643:SER:C	2.38	0.44
2:B:225:TYR:HD2	2:B:404:LYS:HB2	1.83	0.44
2:B:229:LYS:HE3	2:B:343:GLN:HG2	1.99	0.44
2:B:658:MET:SD	2:B:699:PHE:HD2	2.40	0.44
2:B:860:MET:SD	2:B:861:THR:N	2.91	0.44
2:B:1180:CYS:CB	2:B:1191:GLU:HG3	2.47	0.44
2:B:1369:GLY:HA3	2:B:1424:GLN:HA	1.99	0.44
2:B:1382:ILE:O	2:B:1502:PHE:N	2.42	0.44
2:B:1417:ASP:OD1	2:B:1418:ILE:HG12	2.17	0.44
2:B:1488:THR:O	2:B:1508:SER:N	2.39	0.44
3:C:11:ASP:OD1	3:C:11:ASP:N	2.49	0.44
2:E:930:GLU:HG2	2:E:972:TYR:CD1	2.53	0.44
2:E:1098:LYS:O	2:E:1102:ILE:N	2.50	0.44
2:E:1177:LEU:O	2:E:1181:ARG:HD2	2.18	0.44
2:E:1180:CYS:CB	2:E:1191:GLU:HG3	2.47	0.44
2:B:19:TYR:OH	2:B:44:TRP:HZ3	2.00	0.44
2:B:328:ASP:OD1	2:B:390:LYS:HE2	2.17	0.44
2:B:480:LEU:HD23	2:B:483:ALA:HB2	2.00	0.44
2:B:806:LEU:HD22	2:B:851:GLN:HB3	1.99	0.44
2:B:934:ARG:HD2	2:B:985:PHE:CD1	2.52	0.44
2:B:934:ARG:HH12	2:B:938:ARG:HB2	1.83	0.44
2:B:974:SER:HB2	2:B:1031:PHE:CE1	2.52	0.44
2:B:1002:TYR:CE1	2:B:1010:ASN:HA	2.52	0.44
2:B:1120:LEU:HD12	2:B:1121:ARG:N	2.32	0.44
2:B:1320:LEU:HA	2:B:1323:GLU:OE2	2.18	0.44
2:B:1334:ASP:OD2	2:B:1337:GLY:HA3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1398:LEU:HB3	2:B:1426:MET:SD	2.58	0.44
2:B:1441:TYR:HD2	2:B:1450:ILE:HG21	1.82	0.44
2:E:23:GLN:HG2	2:E:58:ILE:HB	2.00	0.44
2:E:104:LYS:HD3	2:E:107:VAL:HB	2.00	0.44
2:E:464:LYS:HE2	2:E:464:LYS:HA	1.99	0.44
2:E:468:VAL:HG21	2:E:620:PHE:CE1	2.53	0.44
2:E:889:GLN:NE2	2:E:898:ASP:OD2	2.50	0.44
2:E:994:LYS:HA	2:E:997:ILE:HG12	1.99	0.44
2:E:1393:ASP:O	2:E:1396:LEU:HB3	2.18	0.44
3:F:42:ALA:O	3:F:53:LEU:HG	2.17	0.44
2:B:816:ALA:O	2:B:820:LEU:CB	2.63	0.44
2:B:889:GLN:NE2	2:B:898:ASP:OD2	2.50	0.44
2:B:979:ARG:HA	2:B:982:ILE:HG22	2.00	0.44
2:B:1240:TYR:CE2	2:B:1244:LEU:HD11	2.53	0.44
2:E:19:TYR:CG	2:E:59:PHE:CE1	3.05	0.44
2:E:319:ARG:NH1	2:E:511:GLU:OE2	2.48	0.44
2:E:438:LEU:HB2	2:E:441:ASP:OD1	2.17	0.44
2:E:578:LYS:HD3	2:E:584:PHE:CZ	2.51	0.44
2:E:764:PHE:HD1	2:E:823:ILE:HB	1.83	0.44
2:E:802:MET:HE2	2:E:847:ILE:HD13	2.00	0.44
2:E:957:MET:O	2:E:960:LEU:HB3	2.17	0.44
2:E:1221:MET:SD	2:E:1250:LEU:HB3	2.58	0.44
2:E:1249:ASP:O	2:E:1252:ARG:NH1	2.51	0.44
2:E:1382:ILE:HD11	2:E:1489:TYR:HB3	1.99	0.44
2:E:1382:ILE:HD11	2:E:1504:VAL:HG23	1.99	0.44
2:E:1610:LYS:HD2	2:E:1610:LYS:HA	1.73	0.44
1:A:577:CYS:SG	1:A:588:TYR:HB3	2.57	0.44
2:B:166:ARG:CD	2:B:173:LEU:HB2	2.47	0.44
2:B:187:HIS:CD2	2:B:1008:VAL:HB	2.52	0.44
2:B:732:LYS:HA	2:B:732:LYS:HD3	1.84	0.44
2:B:819:TYR:O	2:B:822:SER:OG	2.23	0.44
2:B:868:LEU:O	2:B:918:VAL:HG13	2.18	0.44
2:B:958:ILE:HG21	2:B:1017:PHE:HE1	1.81	0.44
2:B:994:LYS:HA	2:B:997:ILE:HG12	2.00	0.44
2:B:1221:MET:SD	2:B:1250:LEU:HB3	2.58	0.44
2:B:1268:ALA:HB2	2:B:1300:LEU:HD13	1.99	0.44
2:B:1435:MET:HE3	2:B:1455:ARG:HG2	1.99	0.44
2:B:1560:MET:O	3:C:36:VAL:HG13	2.18	0.44
2:E:101:ILE:O	2:E:105:LEU:HG	2.17	0.44
2:E:974:SER:HB2	2:E:1031:PHE:CE1	2.52	0.44
2:E:1027:VAL:HG22	2:E:1032:PHE:HE1	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1320:LEU:HA	2:E:1323:GLU:OE2	2.17	0.44
2:E:1343:LYS:HE3	2:E:1343:LYS:HB3	1.85	0.44
2:E:1633:VAL:C	2:E:1639:VAL:HG22	2.37	0.44
1:A:551:GLN:HG3	2:B:106:TYR:CE2	2.53	0.44
2:B:166:ARG:HH21	2:B:169:ASN:ND2	2.14	0.44
2:B:1006:TRP:CE3	2:B:1009:MET:HG3	2.49	0.44
2:B:1383:TYR:HA	2:B:1501:TRP:HA	1.98	0.44
2:B:1495:PHE:HE1	2:B:1502:PHE:CD2	2.31	0.44
2:B:1567:GLU:O	2:B:1572:THR:N	2.47	0.44
3:C:42:ALA:O	3:C:53:LEU:HG	2.17	0.44
2:E:73:ASP:OD2	2:E:85:LEU:HB3	2.17	0.44
2:E:95:LEU:HA	2:E:98:TRP:HB2	2.00	0.44
2:E:145:LYS:O	2:E:148:VAL:HG12	2.17	0.44
2:E:166:ARG:HH21	2:E:169:ASN:ND2	2.14	0.44
2:E:247:ASP:O	2:E:251:SER:N	2.42	0.44
2:E:654:LEU:HD13	2:E:692:LEU:HB2	1.98	0.44
2:E:795:PHE:CZ	2:E:836:LEU:HD12	2.53	0.44
2:E:795:PHE:CE2	2:E:839:LEU:HD13	2.52	0.44
2:E:860:MET:SD	2:E:861:THR:N	2.90	0.44
2:E:940:VAL:HA	2:E:943:MET:HE2	2.00	0.44
2:E:1218:GLU:HB2	2:E:1501:TRP:CZ2	2.52	0.44
2:E:1417:ASP:OD1	2:E:1417:ASP:N	2.51	0.44
3:F:72:TYR:HB2	3:F:73:PRO:HD3	2.00	0.44
1:A:532:PRO:O	1:A:536:LEU:HD13	2.18	0.44
1:A:544:ILE:HG23	1:A:545:LEU:H	1.83	0.44
2:B:19:TYR:CD1	2:B:20:ASN:N	2.86	0.44
2:B:643:TRP:HD1	2:B:675:ALA:HB1	1.82	0.44
2:B:795:PHE:CE2	2:B:839:LEU:HD13	2.52	0.44
2:B:1393:ASP:O	2:B:1396:LEU:HB3	2.18	0.44
2:B:1469:ARG:HB3	2:B:1473:LYS:HD2	1.98	0.44
3:C:21:ILE:HD11	3:C:35:THR:HG23	2.00	0.44
3:C:72:TYR:HB2	3:C:73:PRO:HD3	2.00	0.44
3:C:85:VAL:O	3:C:129:LEU:HD21	2.18	0.44
1:D:585:VAL:HB	1:D:606:ASP:O	2.18	0.44
2:E:19:TYR:CZ	2:E:60:PRO:HD3	2.53	0.44
2:E:204:ILE:HG23	2:E:211:ARG:CZ	2.48	0.44
2:E:1361:GLU:OE2	2:E:1388:TYR:HA	2.18	0.44
2:E:1567:GLU:O	2:E:1572:THR:N	2.47	0.44
2:E:1597:MET:CE	2:E:1633:VAL:HG11	2.47	0.44
2:B:285:SER:OG	2:B:288:ASP:OD2	2.33	0.44
2:B:663:GLY:O	2:B:667:LYS:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:690:ASP:OD2	2:B:732:LYS:HB3	2.17	0.44
2:B:787:PHE:O	2:B:791:ILE:HG12	2.17	0.44
2:B:820:LEU:HB3	2:B:821:PRO:HD3	2.00	0.44
2:B:931:ARG:C	2:B:932:LEU:HD12	2.38	0.44
2:B:1217:LYS:HD2	2:B:1220:ARG:HH22	1.82	0.44
2:B:1224:THR:HA	2:B:1227:VAL:HG12	1.99	0.44
2:B:1483:TRP:HA	2:B:1512:ILE:O	2.18	0.44
1:D:616:VAL:HG23	1:D:643:SER:C	2.38	0.44
2:E:19:TYR:OH	2:E:44:TRP:HZ3	2.00	0.44
2:E:162:ASP:OD2	2:E:1071:LYS:NZ	2.51	0.44
2:E:302:ARG:HG3	2:E:320:ARG:HB2	2.00	0.44
2:E:471:SER:N	2:E:528:ARG:O	2.35	0.44
2:E:663:GLY:O	2:E:667:LYS:HG3	2.17	0.44
2:E:911:GLU:O	2:E:915:ARG:HG2	2.18	0.44
2:E:958:ILE:HB	2:E:1016:VAL:CG2	2.48	0.44
2:E:1002:TYR:CE1	2:E:1010:ASN:HA	2.52	0.44
2:E:1268:ALA:HB2	2:E:1300:LEU:HD13	1.99	0.44
2:E:1337:GLY:HA2	2:E:1340:ASN:ND2	2.33	0.44
2:B:572:TYR:OH	2:B:589:PRO:HD2	2.17	0.43
2:B:800:MET:O	2:B:804:ARG:HG3	2.17	0.43
2:B:820:LEU:O	2:B:824:ILE:HG23	2.18	0.43
2:B:930:GLU:HG2	2:B:972:TYR:CD1	2.53	0.43
2:B:987:MET:HE1	2:B:1042:LEU:HD13	1.99	0.43
2:B:1056:HIS:HD1	2:B:1057:GLU:CD	2.17	0.43
2:B:1256:ASN:ND2	2:B:1500:LYS:HE2	2.32	0.43
2:B:1368:TYR:HB2	2:B:1408:MET:HE1	1.99	0.43
2:E:572:TYR:OH	2:E:589:PRO:HD2	2.17	0.43
2:E:1062:GLU:O	2:E:1069:ARG:HD3	2.18	0.43
2:E:1063:THR:HA	2:E:1069:ARG:HD2	2.00	0.43
2:E:1398:LEU:HB3	2:E:1426:MET:SD	2.58	0.43
2:E:1483:TRP:HA	2:E:1512:ILE:O	2.18	0.43
1:A:585:VAL:HB	1:A:606:ASP:O	2.18	0.43
1:A:711:PRO:HD2	2:B:17:TYR:CD1	2.53	0.43
2:B:87:LEU:HA	2:B:90:GLU:HG3	2.00	0.43
2:B:98:TRP:HE3	2:B:101:ILE:HG21	1.82	0.43
2:B:438:LEU:HB2	2:B:441:ASP:OD1	2.17	0.43
2:B:556:ASN:N	2:B:560:THR:O	2.41	0.43
2:B:853:VAL:HG23	2:B:854:ARG:N	2.33	0.43
2:B:908:ASN:O	2:B:912:VAL:HG22	2.18	0.43
2:B:1218:GLU:HB2	2:B:1501:TRP:CZ2	2.52	0.43
2:B:1263:THR:HA	2:B:1266:LEU:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1545:HIS:O	2:B:1549:MET:HG2	2.18	0.43
1:D:532:PRO:O	1:D:536:LEU:HD13	2.18	0.43
1:D:588:TYR:HE2	1:D:608:LEU:HB2	1.82	0.43
2:E:87:LEU:HA	2:E:90:GLU:HG3	2.00	0.43
2:E:730:TYR:CE1	2:E:771:ARG:HD3	2.53	0.43
2:E:853:VAL:HG23	2:E:854:ARG:N	2.33	0.43
2:E:1056:HIS:HD1	2:E:1057:GLU:CD	2.17	0.43
2:E:1240:TYR:CE2	2:E:1244:LEU:HD11	2.53	0.43
3:F:39:ASN:CA	3:F:57:ASP:H	2.27	0.43
2:B:5:ILE:N	2:B:40:MET:H	2.01	0.43
2:B:145:LYS:O	2:B:148:VAL:HG12	2.17	0.43
2:B:204:ILE:HG23	2:B:211:ARG:CZ	2.48	0.43
2:B:305:HIS:CD2	2:B:314:HIS:HB2	2.53	0.43
2:B:305:HIS:HA	2:B:315:THR:O	2.18	0.43
2:B:499:VAL:HB	2:B:509:TRP:HD1	1.84	0.43
2:B:821:PRO:HA	2:B:824:ILE:HG12	2.01	0.43
2:B:1157:GLN:O	2:B:1160:GLU:HB3	2.17	0.43
2:B:1268:ALA:HA	2:B:1271:LEU:HD13	1.99	0.43
2:E:225:TYR:HD2	2:E:404:LYS:HB2	1.83	0.43
2:E:1022:ASN:O	2:E:1026:GLU:OE1	2.36	0.43
2:E:1324:LEU:HD23	2:E:1341:LEU:HD13	2.01	0.43
2:E:1365:VAL:N	2:E:1381:PHE:O	2.42	0.43
2:E:1583:GLN:O	2:E:1586:VAL:HG12	2.18	0.43
1:A:579:LEU:HD12	1:A:580:SER:H	1.84	0.43
2:B:438:LEU:N	2:B:441:ASP:OD2	2.51	0.43
2:B:500:VAL:HG11	2:B:534:ARG:HB2	2.00	0.43
2:B:714:PRO:O	2:B:718:THR:OG1	2.26	0.43
2:B:730:TYR:CE1	2:B:771:ARG:HD3	2.53	0.43
2:B:1063:THR:HA	2:B:1069:ARG:HD2	2.00	0.43
2:B:1249:ASP:O	2:B:1252:ARG:NH1	2.51	0.43
2:B:1382:ILE:HD11	2:B:1504:VAL:HG23	2.00	0.43
2:B:1457:ASN:O	2:B:1459:VAL:HG13	2.16	0.43
1:D:544:ILE:HG23	1:D:545:LEU:H	1.83	0.43
2:E:302:ARG:HD3	2:E:322:PHE:CD1	2.47	0.43
2:E:305:HIS:HA	2:E:315:THR:O	2.18	0.43
2:E:340:GLU:HG2	2:E:420:LEU:HD11	2.00	0.43
2:E:795:PHE:HE1	2:E:840:PHE:CD1	2.36	0.43
2:E:821:PRO:HA	2:E:824:ILE:HG12	2.00	0.43
2:E:857:LEU:CB	2:E:905:LEU:HD21	2.47	0.43
2:E:908:ASN:O	2:E:912:VAL:HG22	2.18	0.43
2:E:922:ALA:HA	2:E:925:ILE:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:926:GLN:HG2	2:E:971:HIS:ND1	2.34	0.43
2:E:979:ARG:HA	2:E:982:ILE:HG22	2.00	0.43
2:E:1258:THR:HG22	2:E:1262:TYR:HE2	1.80	0.43
2:E:1500:LYS:HB2	2:E:1501:TRP:CE3	2.53	0.43
2:E:1522:MET:HE3	2:E:1589:LEU:HB3	2.01	0.43
3:F:45:MET:HA	3:F:50:PRO:HA	2.00	0.43
2:B:19:TYR:CZ	2:B:60:PRO:HD3	2.53	0.43
2:B:23:GLN:HG2	2:B:58:ILE:HB	2.00	0.43
2:B:87:LEU:HB2	2:B:145:LYS:HE2	1.99	0.43
2:B:95:LEU:HA	2:B:98:TRP:HB2	2.00	0.43
2:B:182:ALA:HA	2:B:185:LYS:HZ3	1.83	0.43
2:B:643:TRP:HE1	2:B:675:ALA:HA	1.83	0.43
2:B:895:ASN:O	2:B:898:ASP:N	2.51	0.43
2:B:911:GLU:O	2:B:915:ARG:HG2	2.18	0.43
2:B:1062:GLU:O	2:B:1069:ARG:HD3	2.18	0.43
2:B:1596:GLN:O	2:B:1599:LEU:HB3	2.18	0.43
2:E:156:ASN:HD22	2:E:161:LEU:HB2	1.84	0.43
2:E:469:THR:HG22	2:E:495:GLU:HB3	1.99	0.43
2:E:499:VAL:HB	2:E:509:TRP:HD1	1.84	0.43
2:E:528:ARG:HG3	2:E:551:PHE:HB3	2.01	0.43
2:E:831:PHE:CD2	2:E:836:LEU:HB2	2.54	0.43
2:E:1042:LEU:HD12	2:E:1042:LEU:O	2.18	0.43
2:B:8:LYS:HA	2:B:10:GLN:HE22	1.84	0.43
2:B:1290:VAL:HG13	2:B:1291:TYR:N	2.34	0.43
2:B:1417:ASP:CG	2:B:1418:ILE:HG12	2.39	0.43
2:E:248:PRO:HB3	2:E:387:ILE:CG2	2.49	0.43
2:E:328:ASP:OD1	2:E:390:LYS:HE2	2.17	0.43
2:E:673:LEU:HD13	2:E:719:TYR:CD2	2.53	0.43
2:E:735:LYS:HG2	2:E:739:PHE:CE2	2.54	0.43
2:E:836:LEU:HG	2:E:840:PHE:CE2	2.53	0.43
2:E:889:GLN:CA	2:E:895:ASN:HD21	2.31	0.43
2:E:976:PHE:HB2	2:E:982:ILE:HD12	2.01	0.43
2:E:1048:HIS:HE1	2:E:1105:MET:HA	1.84	0.43
2:E:1227:VAL:HG22	2:E:1231:TYR:CE2	2.54	0.43
2:E:1290:VAL:HG13	2:E:1291:TYR:N	2.34	0.43
2:E:1545:HIS:O	2:E:1549:MET:HG2	2.18	0.43
2:E:1556:ASP:O	2:E:1558:ALA:N	2.51	0.43
3:F:21:ILE:HD11	3:F:35:THR:HG23	2.00	0.43
3:F:85:VAL:O	3:F:129:LEU:HD21	2.18	0.43
3:F:154:TYR:OH	3:F:156:GLU:OE2	2.31	0.43
2:B:167:ASP:OD1	2:B:168:ASP:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:214:SER:O	2:B:217:SER:OG	2.37	0.43
2:B:302:ARG:HG3	2:B:320:ARG:HB2	2.00	0.43
2:B:958:ILE:HB	2:B:1016:VAL:CG2	2.48	0.43
2:B:995:ASP:OD1	2:B:999:LYS:HE3	2.18	0.43
2:B:1061:LEU:HA	2:B:1064:PHE:CZ	2.53	0.43
2:B:1243:TYR:HD2	2:B:1246:LYS:HG3	1.83	0.43
2:B:1337:GLY:HA2	2:B:1340:ASN:ND2	2.33	0.43
2:B:1500:LYS:HB2	2:B:1501:TRP:CE3	2.53	0.43
1:D:575:TRP:CZ3	1:D:588:TYR:HB2	2.54	0.43
1:D:693:GLU:OE1	1:D:696:LEU:HD11	2.19	0.43
2:E:53:LYS:HG3	2:E:53:LYS:O	2.19	0.43
2:E:123:SER:O	2:E:126:GLU:HG3	2.19	0.43
2:E:1061:LEU:HA	2:E:1064:PHE:CZ	2.53	0.43
2:E:1206:ASP:O	2:E:1210:ILE:HG12	2.19	0.43
2:E:1313:MET:SD	2:E:1453:TYR:OH	2.71	0.43
1:A:579:LEU:HA	1:A:586:LEU:HD13	2.01	0.43
2:B:528:ARG:HG3	2:B:551:PHE:HB3	2.00	0.43
2:B:764:PHE:HD1	2:B:823:ILE:HB	1.83	0.43
2:B:976:PHE:HB2	2:B:982:ILE:HD12	2.00	0.43
2:B:1059:LEU:HD21	2:B:1117:GLU:OE2	2.19	0.43
2:B:1177:LEU:O	2:B:1181:ARG:HD2	2.18	0.43
2:B:1239:ILE:HG23	2:B:1242:ARG:HH21	1.83	0.43
2:B:1275:ASP:OD2	2:B:1275:ASP:N	2.45	0.43
1:D:615:ALA:H	1:D:645:LEU:HB2	1.84	0.43
2:E:88:VAL:HB	2:E:128:ARG:HH22	1.84	0.43
2:E:91:LEU:HD12	2:E:91:LEU:HA	1.81	0.43
2:E:804:ARG:HD2	2:E:808:GLU:OE2	2.19	0.43
2:E:820:LEU:HB3	2:E:821:PRO:HD3	2.00	0.43
2:E:934:ARG:HH12	2:E:938:ARG:HB2	1.83	0.43
2:E:1155:LEU:O	2:E:1159:VAL:HG23	2.17	0.43
2:E:1283:LEU:HB3	2:E:1288:TYR:HE1	1.82	0.43
2:E:1495:PHE:HE1	2:E:1502:PHE:CD2	2.31	0.43
2:E:1617:PRO:HB2	2:E:1621:ARG:HH22	1.84	0.43
1:A:564:LYS:NZ	1:A:590:ASP:OD1	2.40	0.43
1:A:652:LEU:HD13	1:A:654:PHE:CZ	2.54	0.43
2:B:118:GLN:HB3	2:B:122:TYR:OH	2.19	0.43
2:B:380:THR:HG21	2:B:510:TYR:CD2	2.54	0.43
2:B:673:LEU:HD13	2:B:719:TYR:CD2	2.53	0.43
2:B:718:THR:HG23	2:B:722:LYS:NZ	2.34	0.43
2:B:795:PHE:HE1	2:B:840:PHE:CD1	2.36	0.43
2:B:1111:GLU:O	2:B:1114:LEU:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1199:SER:O	2:B:1202:GLU:HG2	2.18	0.43
1:D:543:GLU:OE1	1:D:543:GLU:N	2.49	0.43
1:D:640:LEU:O	1:D:655:ILE:HA	2.19	0.43
2:E:305:HIS:CD2	2:E:314:HIS:HB2	2.53	0.43
2:E:500:VAL:HG11	2:E:534:ARG:HB2	2.00	0.43
2:E:710:GLN:HA	2:E:713:ASN:OD1	2.19	0.43
2:E:1224:THR:HA	2:E:1227:VAL:HG12	1.99	0.43
2:E:1309:ASP:O	2:E:1312:LYS:HE2	2.19	0.43
2:E:1406:GLU:OE1	2:E:1423:LYS:NZ	2.52	0.43
2:E:1417:ASP:CG	2:E:1418:ILE:HG12	2.39	0.43
1:A:615:ALA:H	1:A:645:LEU:HB2	1.84	0.43
1:A:640:LEU:O	1:A:655:ILE:HA	2.19	0.43
2:B:162:ASP:OD2	2:B:1071:LYS:NZ	2.50	0.43
2:B:468:VAL:HG21	2:B:620:PHE:CE1	2.53	0.43
2:B:470:MET:HA	2:B:529:PHE:HA	2.01	0.43
2:B:582:ALA:HA	2:B:585:TYR:CE2	2.54	0.43
2:B:773:LEU:HA	2:B:776:ARG:CZ	2.49	0.43
2:B:795:PHE:CZ	2:B:836:LEU:HD12	2.53	0.43
2:B:804:ARG:HD2	2:B:808:GLU:OE2	2.18	0.43
2:B:1115:THR:O	2:B:1121:ARG:NH2	2.52	0.43
2:B:1324:LEU:HD23	2:B:1341:LEU:HD13	2.01	0.43
2:B:1361:GLU:OE2	2:B:1388:TYR:HA	2.18	0.43
2:B:1406:GLU:OE1	2:B:1423:LYS:NZ	2.52	0.43
2:B:1556:ASP:O	2:B:1558:ALA:N	2.51	0.43
3:C:45:MET:HA	3:C:50:PRO:HA	2.00	0.43
1:D:704:ILE:HD11	2:E:65:HIS:CD2	2.54	0.43
2:E:166:ARG:CD	2:E:173:LEU:HB2	2.47	0.43
2:E:287:MET:HA	2:E:290:ILE:HG12	2.01	0.43
2:E:326:VAL:H	2:E:386:VAL:HG11	1.84	0.43
2:E:480:LEU:HD23	2:E:483:ALA:HB2	1.99	0.43
2:E:519:ILE:HG23	2:E:631:LEU:HG	2.01	0.43
2:E:636:ASP:HB2	2:E:660:VAL:HG22	2.01	0.43
2:E:868:LEU:HD12	2:E:868:LEU:HA	1.78	0.43
2:E:868:LEU:O	2:E:918:VAL:HG13	2.18	0.43
2:E:1223:CYS:HA	2:E:1226:ASN:ND2	2.34	0.43
2:E:1568:LYS:O	2:E:1572:THR:OG1	2.37	0.43
3:F:9:VAL:HB	3:F:97:TRP:CE3	2.54	0.43
2:B:435:GLU:HA	2:B:708:LYS:HZ2	1.81	0.42
2:B:463:PRO:HD2	2:B:503:GLN:HB3	2.01	0.42
2:B:1386:LYS:HG3	2:B:1387:GLU:H	1.84	0.42
2:B:1617:PRO:HB2	2:B:1621:ARG:HH22	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:633:GLN:HB3	1:D:637:VAL:HG21	2.01	0.42
1:D:652:LEU:HD13	1:D:654:PHE:CZ	2.54	0.42
2:E:468:VAL:HG22	2:E:531:PHE:CD1	2.54	0.42
2:E:473:HIS:HD2	2:E:528:ARG:HB3	1.84	0.42
2:E:773:LEU:HA	2:E:776:ARG:CZ	2.49	0.42
2:E:995:ASP:OD1	2:E:999:LYS:HE3	2.18	0.42
2:E:1248:ARG:HD2	2:E:1249:ASP:N	2.34	0.42
2:E:1318:ILE:O	2:E:1322:LYS:HG2	2.19	0.42
2:E:1367:TYR:CZ	2:E:1402:PHE:HE2	2.36	0.42
2:E:1596:GLN:O	2:E:1599:LEU:HB3	2.18	0.42
2:E:1631:GLU:O	2:E:1635:LYS:HG2	2.19	0.42
3:F:20:LEU:O	3:F:24:THR:HG23	2.19	0.42
3:F:82:PHE:HB3	3:F:93:VAL:HG21	2.01	0.42
2:B:11:LYS:NZ	2:B:36:HIS:HB2	2.34	0.42
2:B:53:LYS:HG3	2:B:53:LYS:O	2.19	0.42
2:B:153:ASP:HA	2:B:156:ASN:OD1	2.19	0.42
2:B:248:PRO:HB3	2:B:387:ILE:HG21	2.01	0.42
2:B:857:LEU:CB	2:B:905:LEU:HD21	2.47	0.42
2:B:889:GLN:CA	2:B:895:ASN:HD21	2.31	0.42
2:B:930:GLU:HG2	2:B:972:TYR:CG	2.54	0.42
2:B:1048:HIS:CE1	2:B:1108:PRO:HG2	2.54	0.42
2:B:1206:ASP:O	2:B:1210:ILE:HG12	2.19	0.42
2:B:1318:ILE:O	2:B:1322:LYS:HG2	2.19	0.42
2:B:1357:ARG:NE	2:B:1452:ASN:O	2.53	0.42
2:B:1367:TYR:CZ	2:B:1402:PHE:HE2	2.36	0.42
2:B:1372:PHE:N	2:B:1424:GLN:HG2	2.35	0.42
3:C:8:VAL:HG11	3:C:20:LEU:HD11	2.02	0.42
3:C:44:VAL:HG12	3:C:45:MET:O	2.18	0.42
1:D:696:LEU:HD12	1:D:697:ARG:HE	1.83	0.42
2:E:718:THR:HG23	2:E:722:LYS:NZ	2.34	0.42
2:E:931:ARG:C	2:E:932:LEU:HD12	2.38	0.42
2:E:1263:THR:HA	2:E:1266:LEU:HD12	2.00	0.42
2:E:1386:LYS:HG3	2:E:1387:GLU:H	1.84	0.42
1:A:693:GLU:OE1	1:A:696:LEU:HD11	2.19	0.42
1:A:714:PRO:HD3	2:B:62:THR:HG21	2.00	0.42
2:B:104:LYS:HD3	2:B:107:VAL:HB	2.00	0.42
2:B:156:ASN:HD22	2:B:161:LEU:HB2	1.84	0.42
2:B:166:ARG:HG2	2:B:173:LEU:HB2	2.01	0.42
2:B:166:ARG:NE	2:B:169:ASN:OD1	2.52	0.42
2:B:248:PRO:HB3	2:B:387:ILE:CG2	2.49	0.42
2:B:468:VAL:HG22	2:B:531:PHE:CD1	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:792:ARG:HG2	2:B:839:LEU:HD11	2.01	0.42
3:C:82:PHE:HB3	3:C:93:VAL:HG21	2.01	0.42
1:D:693:GLU:OE2	1:D:697:ARG:HD2	2.19	0.42
2:E:153:ASP:HA	2:E:156:ASN:OD1	2.19	0.42
2:E:306:MET:HE1	2:E:465:ASN:HB3	2.01	0.42
2:E:438:LEU:N	2:E:441:ASP:OD2	2.52	0.42
2:E:455:PHE:CD2	2:E:466:VAL:HG21	2.54	0.42
2:E:820:LEU:O	2:E:824:ILE:HG23	2.18	0.42
2:E:1243:TYR:HD2	2:E:1246:LYS:HG3	1.83	0.42
2:E:1625:CYS:O	2:E:1628:GLU:HB3	2.19	0.42
1:A:693:GLU:OE2	1:A:697:ARG:HD2	2.19	0.42
2:B:123:SER:O	2:B:126:GLU:HG3	2.19	0.42
2:B:156:ASN:HA	2:B:161:LEU:HD12	2.01	0.42
2:B:273:LYS:O	2:B:277:LEU:N	2.53	0.42
2:B:1227:VAL:HG22	2:B:1231:TYR:CE2	2.53	0.42
2:B:1367:TYR:CE2	2:B:1402:PHE:CE2	3.06	0.42
2:B:1583:GLN:O	2:B:1586:VAL:HG12	2.18	0.42
3:C:14:VAL:HG13	3:C:116:LYS:HZ3	1.83	0.42
3:C:20:LEU:O	3:C:24:THR:HG23	2.19	0.42
2:E:632:THR:HA	2:E:664:GLU:OE1	2.20	0.42
2:E:882:LEU:HD13	2:E:882:LEU:HA	1.87	0.42
2:E:895:ASN:O	2:E:898:ASP:N	2.51	0.42
2:E:1239:ILE:HG23	2:E:1242:ARG:HH21	1.83	0.42
3:F:11:ASP:OD1	3:F:11:ASP:N	2.49	0.42
2:B:25:VAL:HG12	2:B:55:LYS:HE3	2.01	0.42
2:B:326:VAL:H	2:B:386:VAL:HG11	1.84	0.42
2:B:656:LYS:HG3	2:B:659:GLU:OE2	2.20	0.42
2:B:735:LYS:HG2	2:B:739:PHE:CE2	2.54	0.42
2:B:769:GLN:HA	2:B:772:VAL:HG12	2.02	0.42
2:B:831:PHE:CD2	2:B:836:LEU:HB2	2.54	0.42
2:B:1022:ASN:O	2:B:1026:GLU:OE1	2.37	0.42
2:B:1308:PHE:O	2:B:1312:LYS:N	2.53	0.42
2:B:1363:PHE:HE1	2:B:1430:THR:HG1	1.67	0.42
2:B:1417:ASP:OD1	2:B:1417:ASP:N	2.51	0.42
2:B:1568:LYS:O	2:B:1572:THR:OG1	2.37	0.42
3:C:9:VAL:HB	3:C:97:TRP:CE3	2.54	0.42
1:D:657:PRO:HB2	1:D:661:GLU:OE2	2.20	0.42
2:E:25:VAL:HG12	2:E:55:LYS:HE3	2.01	0.42
2:E:158:MET:C	2:E:159:LEU:HD22	2.39	0.42
2:E:166:ARG:NE	2:E:169:ASN:OD1	2.52	0.42
2:E:197:LYS:O	2:E:200:GLU:N	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:278:GLN:O	2:E:426:ALA:N	2.49	0.42
2:E:582:ALA:HA	2:E:585:TYR:CE2	2.54	0.42
2:E:643:TRP:HE1	2:E:675:ALA:HA	1.83	0.42
2:E:1116:PRO:HA	2:E:1121:ARG:NH2	2.35	0.42
2:B:15:ALA:HA	2:B:59:PHE:CZ	2.54	0.42
2:B:632:THR:HA	2:B:664:GLU:OE1	2.20	0.42
2:B:1027:VAL:HG22	2:B:1032:PHE:HE1	1.82	0.42
2:B:1245:TYR:O	2:B:1248:ARG:HG3	2.20	0.42
2:B:1318:ILE:HD13	2:B:1349:TYR:CE2	2.55	0.42
3:C:17:THR:O	3:C:21:ILE:HG22	2.19	0.42
2:E:1:MET:HG3	2:E:4:TRP:HE1	1.84	0.42
2:E:118:GLN:HB3	2:E:122:TYR:OH	2.19	0.42
2:E:930:GLU:HG2	2:E:972:TYR:CG	2.53	0.42
2:E:1059:LEU:HD21	2:E:1117:GLU:OE2	2.19	0.42
2:E:1367:TYR:CE2	2:E:1402:PHE:CE2	3.06	0.42
3:F:44:VAL:HG12	3:F:45:MET:O	2.18	0.42
1:A:588:TYR:CE2	1:A:608:LEU:HB2	2.54	0.42
2:B:4:TRP:CE3	2:B:39:GLU:HB2	2.55	0.42
2:B:287:MET:HA	2:B:290:ILE:HG12	2.01	0.42
2:B:455:PHE:CD2	2:B:466:VAL:HG21	2.55	0.42
2:B:464:LYS:HD3	2:B:533:HIS:CD2	2.55	0.42
2:B:570:VAL:HG22	2:B:592:LYS:HD2	2.02	0.42
2:B:632:THR:HG21	2:B:637:LEU:HD23	2.02	0.42
2:B:926:GLN:HG2	2:B:971:HIS:ND1	2.34	0.42
2:B:1098:LYS:O	2:B:1102:ILE:N	2.50	0.42
2:B:1110:LEU:HA	2:B:1128:PHE:HZ	1.85	0.42
2:B:1243:TYR:HA	2:B:1246:LYS:CG	2.50	0.42
2:E:166:ARG:HG2	2:E:173:LEU:HB2	2.01	0.42
2:E:246:TYR:CE1	2:E:383:LEU:HD21	2.55	0.42
2:E:380:THR:HG21	2:E:510:TYR:CD2	2.54	0.42
2:E:545:ARG:HH11	2:E:576:ASN:HD21	1.66	0.42
2:E:1357:ARG:NE	2:E:1452:ASN:O	2.52	0.42
2:E:1401:GLN:HG3	2:E:1402:PHE:CD2	2.55	0.42
2:E:1598:PRO:O	2:E:1602:GLU:OE1	2.38	0.42
1:A:564:LYS:NZ	1:A:590:ASP:HA	2.35	0.42
2:B:158:MET:C	2:B:159:LEU:HD22	2.39	0.42
2:B:219:ILE:HG13	2:B:222:TYR:OH	2.20	0.42
2:B:340:GLU:HG2	2:B:420:LEU:HD11	2.00	0.42
2:B:636:ASP:HB2	2:B:660:VAL:HG22	2.01	0.42
2:B:879:LEU:HG	2:B:879:LEU:O	2.20	0.42
2:B:940:VAL:HA	2:B:943:MET:HE2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1059:LEU:HA	2:B:1059:LEU:HD23	1.77	0.42
2:B:1116:PRO:HA	2:B:1121:ARG:NH2	2.35	0.42
2:B:1155:LEU:HD21	2:B:1197:VAL:HG13	2.02	0.42
2:B:1248:ARG:HD2	2:B:1249:ASP:N	2.34	0.42
2:B:1309:ASP:O	2:B:1312:LYS:HE2	2.19	0.42
2:B:1313:MET:SD	2:B:1453:TYR:OH	2.71	0.42
2:B:1392:GLU:OE2	3:C:166:LYS:HE2	2.19	0.42
2:B:1409:THR:HA	3:C:28:PHE:CZ	2.52	0.42
3:C:39:ASN:CA	3:C:57:ASP:H	2.27	0.42
1:D:551:GLN:O	1:D:555:ARG:HG2	2.20	0.42
2:E:214:SER:O	2:E:217:SER:OG	2.37	0.42
2:E:570:VAL:HG22	2:E:592:LYS:HD2	2.02	0.42
2:E:769:GLN:HA	2:E:772:VAL:HG12	2.02	0.42
2:E:909:ILE:O	2:E:913:LEU:HD12	2.20	0.42
2:E:926:GLN:NE2	2:E:930:GLU:OE2	2.48	0.42
2:E:1242:ARG:O	2:E:1246:LYS:HG2	2.20	0.42
2:E:1256:ASN:O	2:E:1260:ALA:N	2.29	0.42
2:E:1338:LEU:O	2:E:1342:LEU:HD23	2.20	0.42
3:F:129:LEU:O	3:F:134:LEU:N	2.29	0.42
1:A:532:PRO:HG2	1:A:706:ILE:O	2.20	0.42
1:A:633:GLN:HB3	1:A:637:VAL:HG21	2.01	0.42
1:A:657:PRO:HB2	1:A:661:GLU:OE2	2.20	0.42
1:A:695:LYS:NZ	2:B:122:TYR:CE1	2.88	0.42
2:B:95:LEU:CA	2:B:98:TRP:HD1	2.31	0.42
2:B:1022:ASN:OD1	2:B:1086:ARG:NH1	2.53	0.42
2:B:1028:LEU:HA	2:B:1032:PHE:CD1	2.43	0.42
2:B:1090:MET:O	2:B:1094:LEU:HD23	2.20	0.42
2:B:1362:TYR:HE2	2:B:1459:VAL:HG21	1.85	0.42
2:B:1506:GLN:NE2	2:B:1508:SER:OG	2.48	0.42
1:D:564:LYS:HZ1	1:D:590:ASP:HA	1.84	0.42
1:D:701:LEU:HD21	2:E:15:ALA:C	2.40	0.42
2:E:15:ALA:HA	2:E:59:PHE:CZ	2.54	0.42
2:E:156:ASN:HA	2:E:161:LEU:HD12	2.01	0.42
2:E:464:LYS:HD3	2:E:533:HIS:CD2	2.55	0.42
2:E:839:LEU:HG	2:E:842:LYS:HZ1	1.83	0.42
2:E:1115:THR:O	2:E:1121:ARG:NH2	2.52	0.42
2:E:1372:PHE:N	2:E:1424:GLN:HG2	2.34	0.42
3:F:53:LEU:HD13	3:F:169:PHE:CZ	2.55	0.42
1:A:541:GLN:O	1:A:543:GLU:N	2.53	0.42
1:A:575:TRP:CZ3	1:A:588:TYR:HB2	2.54	0.42
1:A:585:VAL:HG12	1:A:607:LYS:NZ	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:246:TYR:CE1	2:B:383:LEU:HD21	2.54	0.42
2:B:344:HIS:N	2:B:401:VAL:O	2.53	0.42
2:B:519:ILE:HG23	2:B:631:LEU:HG	2.01	0.42
2:B:545:ARG:HH11	2:B:576:ASN:HD21	1.67	0.42
2:B:768:ILE:HG13	2:B:826:ASP:O	2.20	0.42
2:B:933:LEU:HA	2:B:936:ILE:HG22	2.02	0.42
2:B:1392:GLU:OE1	2:B:1392:GLU:N	2.51	0.42
2:B:1418:ILE:HD13	2:B:1421:SER:HB3	2.01	0.42
3:C:53:LEU:HD13	3:C:169:PHE:CZ	2.55	0.42
1:D:532:PRO:HG2	1:D:706:ILE:O	2.20	0.42
1:D:585:VAL:HG12	1:D:607:LYS:NZ	2.34	0.42
2:E:4:TRP:CE3	2:E:39:GLU:HB2	2.55	0.42
2:E:44:TRP:HE3	2:E:58:ILE:HG22	1.85	0.42
2:E:127:TRP:O	2:E:131:ILE:HG12	2.20	0.42
2:E:273:LYS:O	2:E:277:LEU:N	2.53	0.42
2:E:656:LYS:HG3	2:E:659:GLU:OE2	2.20	0.42
2:E:854:ARG:HH11	2:E:858:ASN:HD21	1.68	0.42
2:E:1048:HIS:CE1	2:E:1108:PRO:HG2	2.55	0.42
2:E:1111:GLU:O	2:E:1114:LEU:HB2	2.19	0.42
2:E:1129:PHE:CZ	2:E:1183:HIS:HB2	2.55	0.42
2:E:1183:HIS:CG	2:E:1184:LYS:N	2.87	0.42
2:E:1245:TYR:O	2:E:1248:ARG:HG3	2.20	0.42
2:E:1441:TYR:HD2	2:E:1450:ILE:HG21	1.82	0.42
2:E:1444:LYS:HD3	2:E:1446:VAL:HG12	2.02	0.42
3:F:17:THR:O	3:F:21:ILE:HG22	2.20	0.42
3:F:58:THR:HB	3:F:68:ARG:NH1	2.35	0.42
3:F:124:ASP:O	3:F:127:GLU:HG2	2.20	0.42
1:A:620:LYS:HE2	1:A:638:LEU:HD11	2.02	0.41
2:B:38:LEU:HD21	2:B:48:TYR:CD2	2.55	0.41
2:B:306:MET:HE1	2:B:465:ASN:HB3	2.01	0.41
2:B:473:HIS:HD2	2:B:528:ARG:HB3	1.84	0.41
2:B:778:TYR:O	2:B:780:GLN:N	2.53	0.41
2:B:1171:LEU:O	2:B:1175:LEU:HD23	2.20	0.41
2:B:1205:LEU:HD22	2:B:1208:ARG:NH2	2.35	0.41
2:B:1431:VAL:HG12	2:B:1464:TYR:HB2	2.02	0.41
1:D:588:TYR:CE2	1:D:608:LEU:HB2	2.54	0.41
2:E:38:LEU:HD21	2:E:48:TYR:CD2	2.55	0.41
2:E:105:LEU:HB3	2:E:114:PHE:HB2	2.02	0.41
2:E:1259:GLU:O	2:E:1263:THR:HG23	2.20	0.41
2:E:1308:PHE:O	2:E:1312:LYS:N	2.53	0.41
2:E:1360:PRO:HA	2:E:1387:GLU:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:666:THR:HG23	1:A:678:MET:SD	2.60	0.41
2:B:147:LYS:O	2:B:151:LYS:HD3	2.21	0.41
2:B:157:ARG:NH2	2:B:198:ILE:HG12	2.35	0.41
2:B:875:ARG:NH1	2:B:920:ALA:O	2.52	0.41
2:B:1091:TRP:CD1	2:B:1127:ILE:HG23	2.55	0.41
2:B:1155:LEU:HA	2:B:1158:GLU:OE2	2.20	0.41
2:B:1323:GLU:O	2:B:1327:THR:HG23	2.21	0.41
2:B:1367:TYR:C	2:B:1368:TYR:HD1	2.24	0.41
2:B:1380:ILE:HB	2:B:1504:VAL:HG12	2.03	0.41
2:B:1401:GLN:HG3	2:B:1402:PHE:CD2	2.55	0.41
1:D:579:LEU:HA	1:D:586:LEU:HD13	2.01	0.41
2:E:8:LYS:HA	2:E:10:GLN:HE22	1.84	0.41
2:E:441:ASP:O	2:E:629:THR:OG1	2.26	0.41
2:E:470:MET:HA	2:E:529:PHE:HA	2.01	0.41
2:E:768:ILE:HG13	2:E:826:ASP:O	2.20	0.41
2:E:792:ARG:HG2	2:E:839:LEU:HD11	2.01	0.41
2:E:818:LYS:O	2:E:821:PRO:HD2	2.20	0.41
2:E:993:PHE:O	2:E:997:ILE:HG12	2.20	0.41
2:E:1109:ILE:HG12	2:E:1128:PHE:CE1	2.56	0.41
2:E:1155:LEU:HD21	2:E:1197:VAL:HG13	2.01	0.41
2:E:1171:LEU:O	2:E:1175:LEU:HD23	2.20	0.41
2:E:1238:ASP:OD1	2:E:1239:ILE:HG12	2.20	0.41
2:E:1418:ILE:HD13	2:E:1421:SER:HB3	2.01	0.41
2:E:1463:ARG:NH2	2:E:1465:SER:HA	2.35	0.41
1:A:551:GLN:O	1:A:555:ARG:HG2	2.20	0.41
1:A:652:LEU:HD23	1:A:652:LEU:HA	1.74	0.41
1:A:658:ASP:OD1	1:A:661:GLU:HG2	2.21	0.41
2:B:80:VAL:HG23	2:B:81:ILE:HG22	2.03	0.41
2:B:874:CYS:O	2:B:878:LEU:HG	2.20	0.41
2:B:926:GLN:NE2	2:B:930:GLU:OE2	2.48	0.41
2:B:993:PHE:O	2:B:997:ILE:HG12	2.20	0.41
2:B:1322:LYS:HE3	2:B:1345:ARG:HD3	2.02	0.41
2:B:1598:PRO:O	2:B:1602:GLU:OE1	2.38	0.41
3:C:21:ILE:HA	3:C:24:THR:OG1	2.20	0.41
1:D:579:LEU:HD12	1:D:580:SER:H	1.84	0.41
2:E:435:GLU:HA	2:E:708:LYS:HZ2	1.83	0.41
2:E:768:ILE:HD11	2:E:827:VAL:HG22	2.02	0.41
2:E:853:VAL:HG23	2:E:854:ARG:H	1.85	0.41
2:E:1269:GLU:OE1	2:E:1270:LEU:HD22	2.21	0.41
2:E:1363:PHE:HE1	2:E:1430:THR:HG1	1.64	0.41
2:E:1506:GLN:NE2	2:E:1508:SER:OG	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:19:TYR:CG	2:B:59:PHE:CE1	3.05	0.41
2:B:44:TRP:HE3	2:B:58:ILE:HG22	1.85	0.41
2:B:228:PHE:CZ	2:B:231:PHE:HB2	2.55	0.41
2:B:818:LYS:O	2:B:821:PRO:HD2	2.20	0.41
2:B:959:ALA:HB1	2:B:963:GLN:NE2	2.35	0.41
2:B:1019:ARG:O	2:B:1023:GLN:HG2	2.21	0.41
2:B:1223:CYS:HA	2:B:1226:ASN:ND2	2.34	0.41
2:B:1238:ASP:OD1	2:B:1239:ILE:HG12	2.20	0.41
2:B:1290:VAL:HG13	2:B:1291:TYR:H	1.85	0.41
2:B:1318:ILE:HD13	2:B:1349:TYR:CZ	2.55	0.41
2:B:1333:PHE:CZ	2:E:1444:LYS:HD3	2.47	0.41
2:B:1338:LEU:O	2:B:1342:LEU:HD23	2.20	0.41
1:D:548:ILE:CG2	1:D:682:THR:HG23	2.50	0.41
1:D:564:LYS:NZ	1:D:590:ASP:HA	2.35	0.41
2:E:11:LYS:NZ	2:E:36:HIS:HB2	2.34	0.41
2:E:45:TYR:HB2	2:E:64:ILE:HG13	2.02	0.41
2:E:191:SER:O	2:E:194:ILE:HB	2.20	0.41
2:E:526:HIS:NE2	2:E:586:LEU:HD11	2.36	0.41
2:E:856:LYS:HZ3	2:E:885:GLN:HB2	1.85	0.41
2:E:874:CYS:O	2:E:878:LEU:HG	2.20	0.41
2:E:875:ARG:NH1	2:E:920:ALA:O	2.52	0.41
2:E:1228:LEU:HD23	2:E:1228:LEU:HA	1.90	0.41
2:E:1322:LYS:HE3	2:E:1345:ARG:HD3	2.02	0.41
2:E:1392:GLU:OE1	2:E:1392:GLU:N	2.51	0.41
3:F:8:VAL:HG11	3:F:20:LEU:HD11	2.02	0.41
1:A:646:TYR:CE1	1:A:652:LEU:HG	2.56	0.41
2:B:221:THR:HG23	2:B:283:ASP:HA	2.02	0.41
2:B:471:SER:N	2:B:528:ARG:O	2.35	0.41
2:B:710:GLN:HA	2:B:713:ASN:OD1	2.19	0.41
2:B:937:ASN:O	2:B:941:ILE:HG13	2.21	0.41
2:B:1369:GLY:CA	2:B:1418:ILE:HG22	2.51	0.41
2:B:1461:GLN:HA	2:B:1489:TYR:O	2.21	0.41
2:B:1625:CYS:O	2:B:1628:GLU:HB3	2.19	0.41
1:D:541:GLN:O	1:D:543:GLU:N	2.53	0.41
1:D:667:ASP:HB3	1:D:677:MET:SD	2.60	0.41
2:E:65:HIS:ND1	2:E:65:HIS:O	2.53	0.41
2:E:219:ILE:HG13	2:E:222:TYR:OH	2.20	0.41
2:E:463:PRO:HD2	2:E:503:GLN:HB3	2.02	0.41
2:E:910:LEU:HD22	2:E:963:GLN:OE1	2.20	0.41
2:E:959:ALA:HB1	2:E:963:GLN:NE2	2.35	0.41
2:E:1044:ASN:HA	2:E:1101:PHE:CZ	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1081:LYS:O	2:E:1085:PHE:HD1	2.04	0.41
2:E:1155:LEU:HA	2:E:1158:GLU:OE2	2.20	0.41
2:E:1531:ASN:O	2:E:1535:GLN:HG3	2.20	0.41
1:A:599:VAL:HA	1:A:600:PRO:HD3	1.86	0.41
1:A:614:LYS:H	1:A:614:LYS:HD2	1.85	0.41
1:A:640:LEU:HD13	1:A:656:ALA:O	2.21	0.41
2:B:570:VAL:HA	2:B:592:LYS:NZ	2.36	0.41
2:B:1048:HIS:HE1	2:B:1105:MET:HA	1.84	0.41
2:B:1063:THR:HA	2:B:1069:ARG:CD	2.51	0.41
2:B:1233:GLU:C	2:B:1234:LYS:HE2	2.41	0.41
2:B:1259:GLU:O	2:B:1263:THR:HG23	2.20	0.41
2:B:1436:SER:OG	2:B:1437:LEU:N	2.54	0.41
2:B:1449:GLN:OE1	2:B:1449:GLN:N	2.54	0.41
2:B:1463:ARG:NH2	2:B:1465:SER:HA	2.35	0.41
2:B:1489:TYR:HB3	2:B:1504:VAL:HG23	2.02	0.41
2:B:1522:MET:HE3	2:B:1589:LEU:HB3	2.02	0.41
2:E:764:PHE:HA	2:E:767:ILE:HB	2.03	0.41
2:E:933:LEU:HA	2:E:936:ILE:HG22	2.02	0.41
2:E:937:ASN:O	2:E:941:ILE:HG13	2.21	0.41
2:E:1034:ASP:OD1	2:E:1097:HIS:CD2	2.74	0.41
2:E:1090:MET:O	2:E:1094:LEU:HD23	2.20	0.41
2:E:1099:ILE:HD11	2:E:1134:CYS:O	2.21	0.41
2:E:1231:TYR:HB3	2:E:1240:TYR:HB2	2.03	0.41
2:E:1483:TRP:CE2	2:E:1513:SER:HA	2.55	0.41
2:E:1601:THR:HG1	2:E:1626:PHE:HZ	1.69	0.41
3:F:21:ILE:HA	3:F:24:THR:OG1	2.20	0.41
2:B:25:VAL:HB	2:B:56:LYS:O	2.20	0.41
2:B:836:LEU:HG	2:B:840:PHE:CE2	2.53	0.41
2:B:1129:PHE:CZ	2:B:1183:HIS:HB2	2.55	0.41
2:B:1154:LYS:O	2:B:1158:GLU:HG2	2.21	0.41
2:B:1279:VAL:HA	2:B:1280:PRO:HD3	1.93	0.41
2:B:1444:LYS:HD3	2:B:1446:VAL:HG12	2.02	0.41
2:B:1490:THR:N	2:B:1506:GLN:O	2.53	0.41
2:B:1631:GLU:O	2:B:1635:LYS:HG2	2.19	0.41
1:D:575:TRP:HE3	1:D:589:GLY:O	2.04	0.41
1:D:658:ASP:OD1	1:D:661:GLU:HG2	2.20	0.41
2:E:25:VAL:HB	2:E:56:LYS:O	2.20	0.41
2:E:38:LEU:H	2:E:47:GLY:HA3	1.86	0.41
2:E:166:ARG:HH12	2:E:168:ASP:H	1.67	0.41
2:E:1155:LEU:HA	2:E:1158:GLU:HG2	2.02	0.41
2:E:1205:LEU:HD22	2:E:1208:ARG:NH2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1323:GLU:O	2:E:1327:THR:HG23	2.21	0.41
2:E:1362:TYR:HE2	2:E:1459:VAL:HG21	1.85	0.41
2:E:1490:THR:N	2:E:1506:GLN:O	2.53	0.41
2:E:1575:TYR:CE1	2:E:1579:HIS:CE1	3.09	0.41
2:E:1612:THR:H	2:E:1615:LEU:HB2	1.86	0.41
1:A:693:GLU:O	1:A:696:LEU:HG	2.21	0.41
2:B:1:MET:HG3	2:B:4:TRP:HE1	1.84	0.41
2:B:45:TYR:HB2	2:B:64:ILE:HG13	2.02	0.41
2:B:65:HIS:ND1	2:B:65:HIS:O	2.53	0.41
2:B:191:SER:O	2:B:194:ILE:HB	2.21	0.41
2:B:737:LEU:HD12	2:B:737:LEU:HA	1.77	0.41
2:B:764:PHE:HA	2:B:767:ILE:HB	2.03	0.41
2:B:768:ILE:HD11	2:B:827:VAL:HG22	2.02	0.41
2:B:854:ARG:HH11	2:B:858:ASN:HD21	1.68	0.41
2:B:909:ILE:O	2:B:913:LEU:HD12	2.20	0.41
2:B:1109:ILE:HG12	2:B:1128:PHE:CE1	2.56	0.41
2:B:1175:LEU:O	2:B:1179:HIS:CD2	2.74	0.41
2:B:1180:CYS:HB2	2:B:1191:GLU:HG3	2.03	0.41
2:B:1408:MET:HB3	2:B:1410:SER:H	1.85	0.41
3:C:94:ARG:HH12	3:C:112:LEU:HD21	1.86	0.41
2:E:46:ARG:CB	2:E:58:ILE:HG13	2.46	0.41
2:E:89:GLN:O	2:E:92:THR:OG1	2.31	0.41
2:E:167:ASP:OD1	2:E:168:ASP:N	2.52	0.41
2:E:219:ILE:O	2:E:222:TYR:OH	2.21	0.41
2:E:332:ILE:HG12	2:E:337:VAL:HB	2.02	0.41
2:E:344:HIS:N	2:E:401:VAL:O	2.53	0.41
2:E:470:MET:HG2	2:E:496:TYR:HB3	2.03	0.41
2:E:473:HIS:HD1	2:E:478:LYS:C	2.24	0.41
2:E:972:TYR:HA	2:E:975:THR:HB	2.03	0.41
2:E:1091:TRP:CD1	2:E:1127:ILE:HG23	2.55	0.41
2:E:1109:ILE:O	2:E:1112:VAL:HG22	2.21	0.41
3:F:66:ARG:HD3	3:F:66:ARG:H	1.86	0.41
1:A:575:TRP:HE3	1:A:589:GLY:O	2.04	0.41
2:B:127:TRP:O	2:B:131:ILE:HG12	2.20	0.41
2:B:162:ASP:OD1	2:B:162:ASP:N	2.54	0.41
2:B:169:ASN:OD1	2:B:173:LEU:HD13	2.20	0.41
2:B:259:LEU:HD23	2:B:490:TYR:CG	2.56	0.41
2:B:406:LEU:HD12	2:B:413:VAL:HG13	2.03	0.41
2:B:436:ILE:HG23	2:B:711:HIS:NE2	2.36	0.41
2:B:483:ALA:O	2:B:515:VAL:HA	2.21	0.41
2:B:1018:LEU:O	2:B:1022:ASN:ND2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1034:ASP:OD1	2:B:1097:HIS:CD2	2.74	0.41
2:B:1081:LYS:O	2:B:1085:PHE:HD1	2.04	0.41
2:B:1201:LEU:HD23	2:B:1201:LEU:HA	1.92	0.41
2:B:1242:ARG:O	2:B:1246:LYS:HG2	2.20	0.41
2:B:1330:SER:O	2:B:1331:LYS:HD3	2.20	0.41
2:B:1483:TRP:CE2	2:B:1513:SER:HA	2.55	0.41
2:B:1532:CYS:HA	2:B:1535:GLN:HG3	2.03	0.41
3:C:28:PHE:CD2	3:C:29:PRO:HD2	2.56	0.41
3:C:58:THR:HB	3:C:68:ARG:NH1	2.35	0.41
3:C:82:PHE:HD1	3:C:112:LEU:HD11	1.86	0.41
3:C:120:ARG:NH2	3:C:139:TYR:H	2.19	0.41
3:C:124:ASP:O	3:C:127:GLU:HG2	2.20	0.41
1:D:580:SER:HB3	1:D:583:HIS:N	2.36	0.41
2:E:14:VAL:O	2:E:64:ILE:HA	2.21	0.41
2:E:189:VAL:HG13	2:E:193:ARG:CZ	2.50	0.41
2:E:221:THR:HG23	2:E:283:ASP:HA	2.02	0.41
2:E:228:PHE:CZ	2:E:231:PHE:HB2	2.55	0.41
2:E:234:ASN:O	2:E:322:PHE:HZ	2.04	0.41
2:E:248:PRO:HB3	2:E:387:ILE:HG21	2.01	0.41
2:E:259:LEU:HD23	2:E:490:TYR:CG	2.56	0.41
2:E:281:PHE:HE2	2:E:296:LEU:HD11	1.86	0.41
2:E:894:SER:O	2:E:897:PRO:HD2	2.21	0.41
2:E:928:ILE:CA	2:E:932:LEU:HD13	2.48	0.41
2:E:1002:TYR:HE1	2:E:1010:ASN:HA	1.85	0.41
2:E:1019:ARG:O	2:E:1023:GLN:HG2	2.21	0.41
2:E:1132:MET:HE1	2:E:1187:SER:HA	2.02	0.41
2:E:1318:ILE:HD13	2:E:1349:TYR:CE2	2.54	0.41
2:E:1318:ILE:HD13	2:E:1349:TYR:CZ	2.55	0.41
2:E:1330:SER:O	2:E:1331:LYS:HD3	2.21	0.41
2:E:1408:MET:HB3	2:E:1410:SER:H	1.85	0.41
2:E:1411:THR:HB	3:F:28:PHE:CE2	2.55	0.41
2:E:1461:GLN:HA	2:E:1489:TYR:O	2.21	0.41
2:E:1482:MET:C	2:E:1517:ASN:HD22	2.24	0.41
2:E:1566:TYR:CE1	2:E:1570:PHE:HE2	2.39	0.41
1:A:556:LEU:HD11	1:A:668:GLY:C	2.41	0.41
1:A:667:ASP:HB3	1:A:677:MET:SD	2.60	0.41
2:B:105:LEU:HB3	2:B:114:PHE:HB2	2.02	0.41
2:B:853:VAL:HG23	2:B:854:ARG:H	1.85	0.41
2:B:1531:ASN:O	2:B:1535:GLN:HG3	2.20	0.41
1:D:584:LYS:NZ	2:E:1405:ALA:HB2	2.34	0.41
1:D:646:TYR:CE1	1:D:652:LEU:HG	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:147:LYS:O	2:E:151:LYS:HD3	2.21	0.41
2:E:169:ASN:OD1	2:E:173:LEU:HD13	2.20	0.41
2:E:728:LEU:HD23	2:E:730:TYR:CE2	2.56	0.41
2:E:785:ASP:N	2:E:785:ASP:OD1	2.53	0.41
2:E:1072:ILE:HA	2:E:1076:TYR:HD2	1.86	0.41
2:E:1238:ASP:HA	2:E:1241:ILE:HD12	2.03	0.41
2:E:1361:GLU:OE1	2:E:1389:GLU:N	2.54	0.41
2:E:1380:ILE:HB	2:E:1504:VAL:HG12	2.03	0.41
2:E:1449:GLN:OE1	2:E:1449:GLN:N	2.54	0.41
1:A:580:SER:HB3	1:A:583:HIS:N	2.36	0.40
2:B:38:LEU:H	2:B:47:GLY:HA3	1.86	0.40
2:B:328:ASP:OD1	2:B:328:ASP:N	2.54	0.40
2:B:332:ILE:HG12	2:B:337:VAL:HB	2.02	0.40
2:B:730:TYR:CG	2:B:731:VAL:N	2.90	0.40
2:B:922:ALA:O	2:B:925:ILE:HB	2.21	0.40
2:B:1002:TYR:HE1	2:B:1010:ASN:HA	1.85	0.40
2:B:1109:ILE:O	2:B:1112:VAL:HG22	2.21	0.40
2:B:1168:TYR:HA	2:B:1171:LEU:HD12	2.03	0.40
2:B:1217:LYS:HB3	2:B:1221:MET:HE1	2.03	0.40
2:B:1231:TYR:HB3	2:B:1240:TYR:HB2	2.03	0.40
2:B:1283:LEU:HB3	2:B:1288:TYR:CE1	2.56	0.40
2:B:1369:GLY:HA2	2:B:1418:ILE:HG22	2.02	0.40
1:D:679:SER:HB2	1:D:682:THR:OG1	2.21	0.40
2:E:95:LEU:HD11	2:E:124:LEU:HD11	2.04	0.40
2:E:95:LEU:CA	2:E:98:TRP:HD1	2.31	0.40
2:E:157:ARG:NH2	2:E:198:ILE:HG12	2.36	0.40
2:E:406:LEU:HD12	2:E:413:VAL:HG13	2.03	0.40
2:E:964:MET:HG2	2:E:969:TYR:CZ	2.55	0.40
2:E:1110:LEU:HA	2:E:1128:PHE:HZ	1.85	0.40
2:E:1168:TYR:HA	2:E:1171:LEU:HD12	2.03	0.40
2:E:1374:SER:O	2:E:1377:ARG:HG2	2.21	0.40
2:E:1463:ARG:NH1	2:E:1465:SER:OG	2.54	0.40
2:E:1632:LYS:HD2	2:E:1632:LYS:HA	1.80	0.40
3:F:120:ARG:NH2	3:F:139:TYR:H	2.19	0.40
1:A:714:PRO:CG	2:B:60:PRO:HB3	2.51	0.40
2:B:14:VAL:O	2:B:64:ILE:HA	2.21	0.40
2:B:680:MET:O	2:B:684:SER:HB3	2.21	0.40
2:B:772:VAL:O	2:B:776:ARG:HG3	2.21	0.40
2:B:894:SER:O	2:B:897:PRO:HD2	2.21	0.40
2:B:932:LEU:N	2:B:935:ARG:HE	2.19	0.40
2:B:1579:HIS:O	2:B:1583:GLN:HB2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:328:ASP:OD1	2:E:328:ASP:N	2.55	0.40
2:E:455:PHE:CE2	2:E:466:VAL:HG11	2.56	0.40
2:E:570:VAL:HA	2:E:592:LYS:NZ	2.36	0.40
2:E:632:THR:HG21	2:E:637:LEU:HD23	2.02	0.40
2:E:730:TYR:CG	2:E:731:VAL:N	2.90	0.40
2:E:772:VAL:O	2:E:776:ARG:HG3	2.21	0.40
2:E:922:ALA:O	2:E:925:ILE:HB	2.21	0.40
2:E:934:ARG:NH1	2:E:934:ARG:O	2.55	0.40
2:E:1175:LEU:O	2:E:1179:HIS:CD2	2.74	0.40
2:E:1233:GLU:C	2:E:1234:LYS:HE2	2.41	0.40
2:E:1283:LEU:HB3	2:E:1288:TYR:CE1	2.56	0.40
2:E:1290:VAL:HG13	2:E:1291:TYR:H	1.86	0.40
2:E:1369:GLY:CA	2:E:1418:ILE:HG22	2.51	0.40
2:E:1431:VAL:HG12	2:E:1464:TYR:HB2	2.02	0.40
2:E:1436:SER:OG	2:E:1437:LEU:N	2.54	0.40
3:F:86:SER:O	3:F:89:SER:OG	2.24	0.40
2:B:88:VAL:HB	2:B:128:ARG:HH22	1.84	0.40
2:B:222:TYR:HB3	2:B:405:LEU:HD11	2.04	0.40
2:B:455:PHE:CE2	2:B:466:VAL:HG11	2.56	0.40
2:B:470:MET:HG2	2:B:496:TYR:HB3	2.03	0.40
2:B:526:HIS:NE2	2:B:586:LEU:HD11	2.36	0.40
2:B:910:LEU:HD22	2:B:963:GLN:OE1	2.20	0.40
2:B:964:MET:HG2	2:B:969:TYR:CZ	2.55	0.40
2:B:969:TYR:HE2	2:B:1019:ARG:HH21	1.68	0.40
2:B:993:PHE:HB3	2:B:1049:LEU:HD11	2.03	0.40
2:B:1072:ILE:HA	2:B:1076:TYR:HD2	1.86	0.40
2:B:1080:ARG:HH21	2:B:1117:GLU:HG2	1.86	0.40
2:B:1155:LEU:HA	2:B:1158:GLU:HG2	2.02	0.40
2:B:1179:HIS:O	2:B:1182:LYS:HB2	2.22	0.40
2:B:1231:TYR:HB2	2:B:1240:TYR:HD1	1.86	0.40
2:B:1482:MET:C	2:B:1517:ASN:HD22	2.24	0.40
2:B:1575:TYR:CE1	2:B:1579:HIS:CE1	3.09	0.40
3:C:3:ALA:HA	3:C:52:ASN:HB2	2.03	0.40
1:D:539:LYS:NZ	1:D:540:ILE:HD11	2.37	0.40
1:D:580:SER:CB	1:D:585:VAL:H	2.34	0.40
1:D:666:THR:HG23	1:D:678:MET:SD	2.60	0.40
2:E:13:GLY:O	2:E:34:THR:HA	2.21	0.40
2:E:345:PHE:HB2	2:E:400:TRP:CZ3	2.56	0.40
2:E:408:GLY:HA3	2:E:412:GLN:HB2	2.04	0.40
2:E:802:MET:HE3	2:E:843:PHE:CE1	2.57	0.40
2:E:821:PRO:CG	2:E:863:ILE:HG13	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:874:CYS:O	2:E:877:VAL:HG12	2.22	0.40
2:E:899:HIS:HD2	2:E:943:MET:HG2	1.81	0.40
2:E:929:MET:HB2	2:E:964:MET:HE3	2.03	0.40
2:E:929:MET:HE1	2:E:972:TYR:HB3	2.03	0.40
2:E:1008:VAL:HG12	2:E:1009:MET:HE2	2.03	0.40
2:E:1011:MET:HA	2:E:1014:ASN:ND2	2.37	0.40
2:E:1022:ASN:OD1	2:E:1086:ARG:NH1	2.53	0.40
2:E:1059:LEU:HA	2:E:1059:LEU:HD23	1.77	0.40
2:E:1180:CYS:HB2	2:E:1191:GLU:HG3	2.03	0.40
2:E:1367:TYR:C	2:E:1368:TYR:HD1	2.24	0.40
3:F:3:ALA:HA	3:F:52:ASN:HB2	2.03	0.40
2:B:10:GLN:HB2	2:B:37:ILE:HD12	2.03	0.40
2:B:928:ILE:CA	2:B:932:LEU:HD13	2.48	0.40
2:B:950:ILE:O	2:B:954:VAL:HG23	2.21	0.40
2:B:997:ILE:HG13	2:B:998:GLY:N	2.36	0.40
2:B:1245:TYR:HA	2:B:1248:ARG:HG3	2.03	0.40
2:B:1360:PRO:HA	2:B:1387:GLU:HA	2.02	0.40
2:B:1612:THR:H	2:B:1615:LEU:HB2	1.86	0.40
3:C:43:ASN:OD1	3:C:50:PRO:HB2	2.21	0.40
2:E:186:ALA:O	2:E:189:VAL:HB	2.22	0.40
2:E:223:GLY:HA2	2:E:281:PHE:O	2.22	0.40
2:E:778:TYR:O	2:E:780:GLN:N	2.53	0.40
2:E:932:LEU:N	2:E:935:ARG:HE	2.19	0.40
2:E:950:ILE:O	2:E:954:VAL:HG23	2.21	0.40
2:E:997:ILE:HG13	2:E:998:GLY:N	2.36	0.40
2:E:1091:TRP:CZ2	2:E:1131:MET:HB3	2.56	0.40
2:E:1125:ILE:HG12	2:E:1172:LEU:HD23	2.04	0.40
2:E:1238:ASP:HB3	2:E:1281:HIS:HB3	2.04	0.40
2:E:1512:ILE:HG22	2:E:1517:ASN:HB2	2.03	0.40
3:F:43:ASN:OD1	3:F:50:PRO:HB2	2.21	0.40
3:F:82:PHE:HD1	3:F:112:LEU:HD11	1.86	0.40
2:B:103:ARG:NH1	2:B:104:LYS:HE3	2.30	0.40
2:B:345:PHE:HB2	2:B:400:TRP:CZ3	2.56	0.40
2:B:422:ASP:N	2:B:422:ASP:OD1	2.50	0.40
2:B:824:ILE:HD11	2:B:863:ILE:HA	2.04	0.40
2:B:1044:ASN:HA	2:B:1101:PHE:CZ	2.55	0.40
2:B:1238:ASP:HA	2:B:1241:ILE:HD12	2.03	0.40
1:D:530:SER:HB3	1:D:531:ARG:NH2	2.37	0.40
1:D:620:LYS:HE2	1:D:638:LEU:HD11	2.02	0.40
2:E:436:ILE:HG23	2:E:711:HIS:NE2	2.36	0.40
2:E:824:ILE:HD11	2:E:863:ILE:HA	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:828:LYS:HE2	2:E:870:ARG:NH2	2.37	0.40
2:E:886:LEU:HD13	2:E:932:LEU:CD2	2.51	0.40
2:E:993:PHE:HB3	2:E:1049:LEU:HD11	2.03	0.40
2:E:1095:GLY:HA3	2:E:1096:PRO:HD3	1.95	0.40
3:F:28:PHE:CD2	3:F:29:PRO:HD2	2.56	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	196/733 (27%)	170 (87%)	26 (13%)	0	100	100
1	D	196/733 (27%)	170 (87%)	26 (13%)	0	100	100
2	B	1640/1648 (100%)	1476 (90%)	164 (10%)	0	100	100
2	E	1640/1648 (100%)	1476 (90%)	164 (10%)	0	100	100
3	C	175/184 (95%)	160 (91%)	15 (9%)	0	100	100
3	F	175/184 (95%)	160 (91%)	15 (9%)	0	100	100
All	All	4022/5130 (78%)	3612 (90%)	410 (10%)	0	100	100

There are no Ramachandran outliers to report.

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 PDB entries followed by that with respect to all EM entries.

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	183/664 (28%)	182 (100%)	1 (0%)	86	89
1	D	183/664 (28%)	182 (100%)	1 (0%)	86	89
2	B	1495/1497 (100%)	1485 (99%)	10 (1%)	81	87
2	E	1495/1497 (100%)	1484 (99%)	11 (1%)	81	87
3	C	153/157 (98%)	151 (99%)	2 (1%)	65	77
3	F	153/157 (98%)	151 (99%)	2 (1%)	65	77
All	All	3662/4636 (79%)	3635 (99%)	27 (1%)	80	87

All (27) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	715	LYS
2	B	128	ARG
2	B	227	ASN
2	B	415	LYS
2	B	478	LYS
2	B	856	LYS
2	B	935	ARG
2	B	1252	ARG
2	B	1463	ARG
2	B	1540	ARG
2	B	1605	ARG
3	C	66	ARG
3	C	123	LYS
1	D	715	LYS
2	E	128	ARG
2	E	227	ASN
2	E	415	LYS
2	E	478	LYS
2	E	769	GLN
2	E	856	LYS
2	E	935	ARG
2	E	1252	ARG
2	E	1463	ARG
2	E	1540	ARG
2	E	1605	ARG
3	F	66	ARG
3	F	123	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (47) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	596	GLN
2	B	30	GLN
2	B	156	ASN
2	B	187	HIS
2	B	227	ASN
2	B	419	HIS
2	B	526	HIS
2	B	649	ASN
2	B	653	ASN
2	B	670	GLN
2	B	723	HIS
2	B	769	GLN
2	B	858	ASN
2	B	889	GLN
2	B	895	ASN
2	B	908	ASN
2	B	1014	ASN
2	B	1041	GLN
2	B	1044	ASN
2	B	1048	HIS
2	B	1256	ASN
2	B	1424	GLN
2	B	1517	ASN
2	B	1579	HIS
3	C	43	ASN
1	D	596	GLN
2	E	30	GLN
2	E	156	ASN
2	E	187	HIS
2	E	227	ASN
2	E	419	HIS
2	E	526	HIS
2	E	649	ASN
2	E	653	ASN
2	E	670	GLN
2	E	723	HIS
2	E	858	ASN
2	E	889	GLN
2	E	895	ASN
2	E	1014	ASN
2	E	1041	GLN
2	E	1044	ASN
2	E	1048	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	E	1256	ASN
2	E	1424	GLN
2	E	1517	ASN
2	E	1579	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

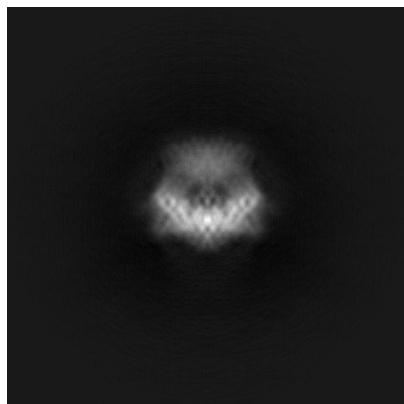
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-60150. These allow visual inspection of the internal detail of the map and identification of artifacts.

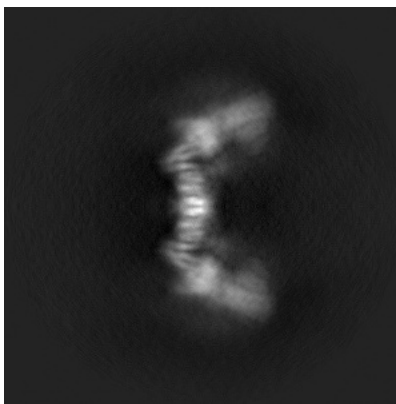
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

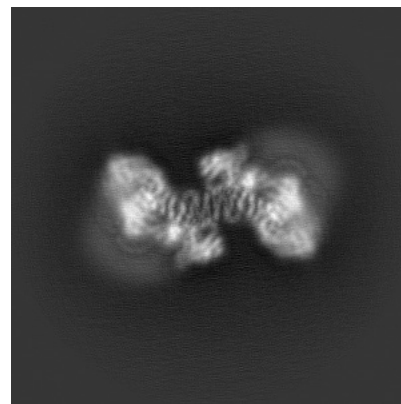
6.1.1 Primary map



X

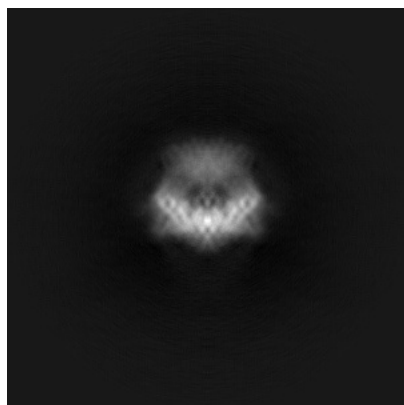


Y

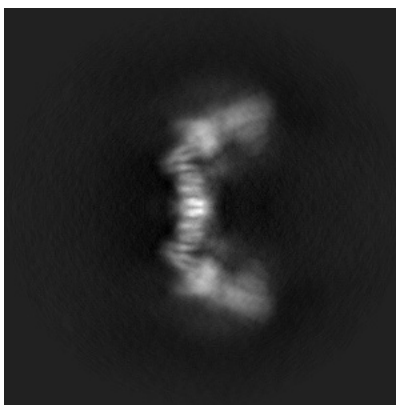


Z

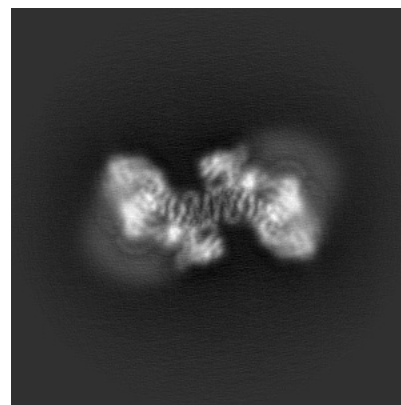
6.1.2 Raw map



X



Y

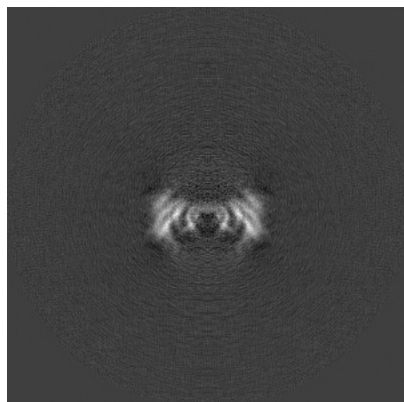


Z

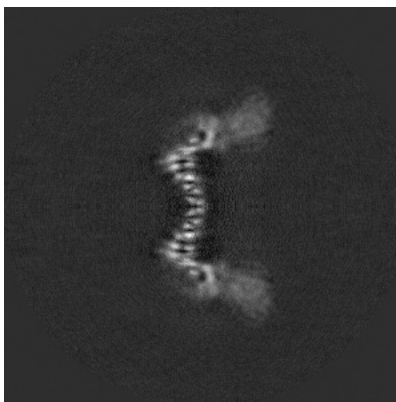
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

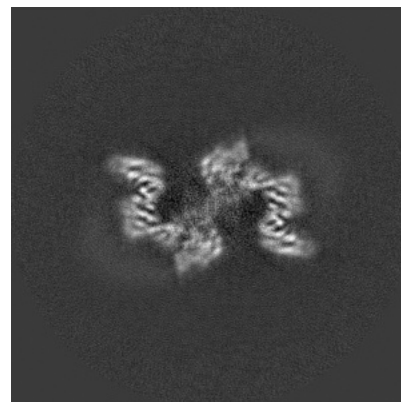
6.2.1 Primary map



X Index: 170

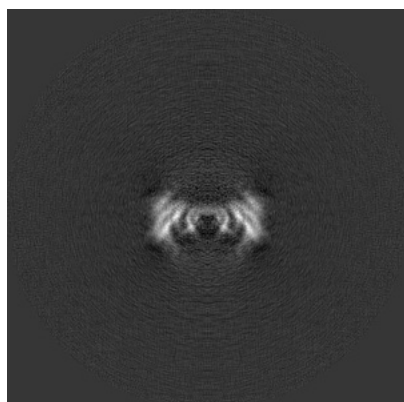


Y Index: 170

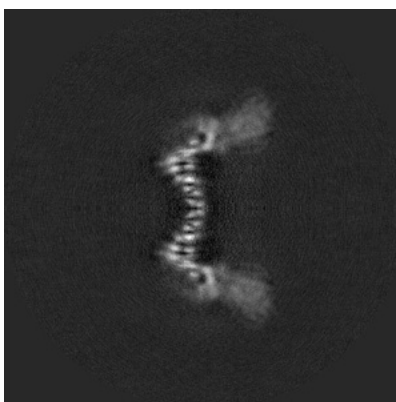


Z Index: 170

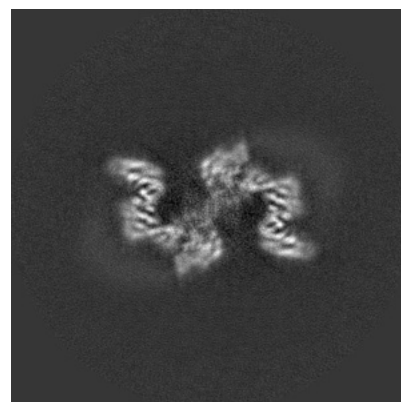
6.2.2 Raw map



X Index: 170



Y Index: 170

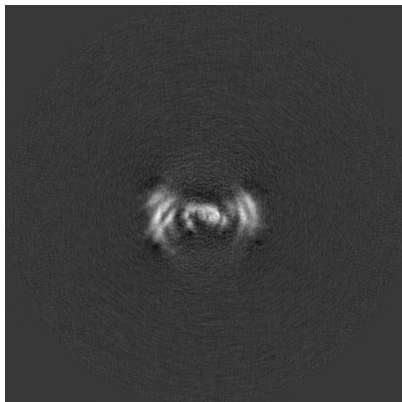


Z Index: 170

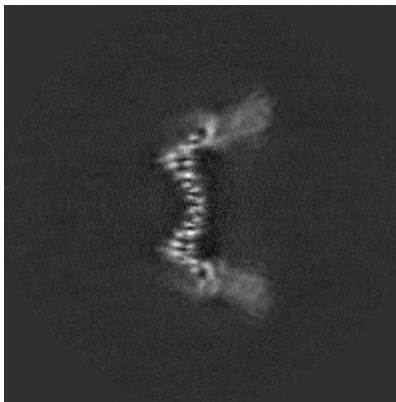
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

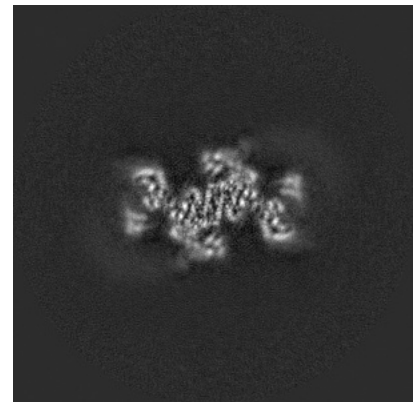
6.3.1 Primary map



X Index: 166

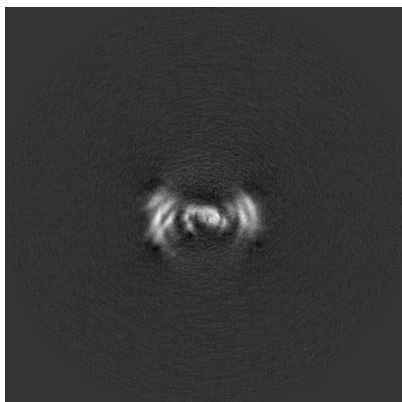


Y Index: 169

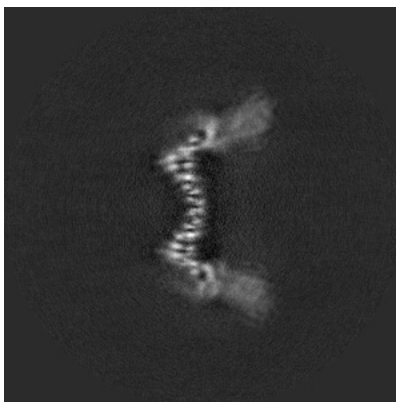


Z Index: 159

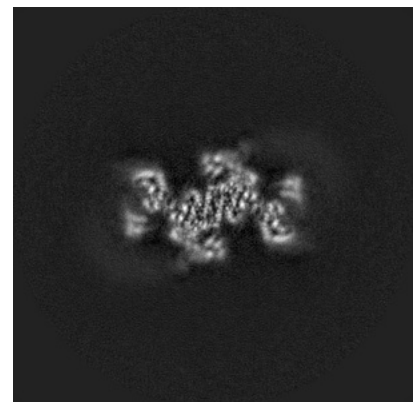
6.3.2 Raw map



X Index: 166



Y Index: 169

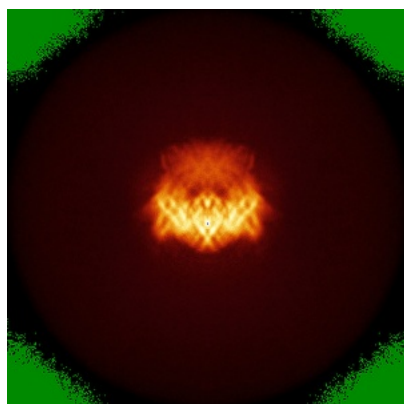


Z Index: 159

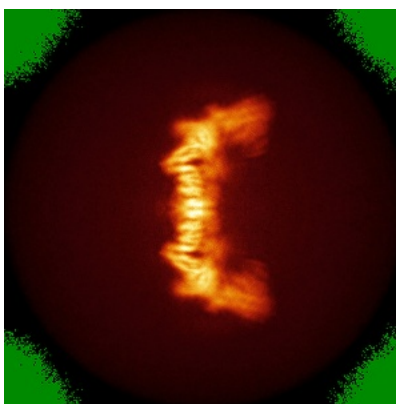
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

6.4.1 Primary map



X

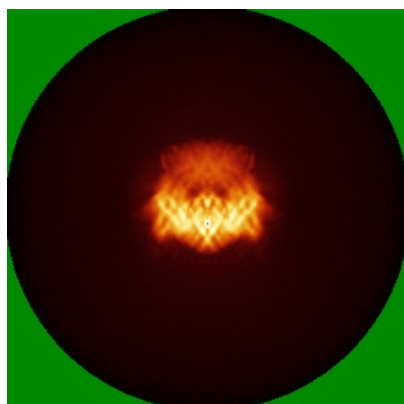


Y

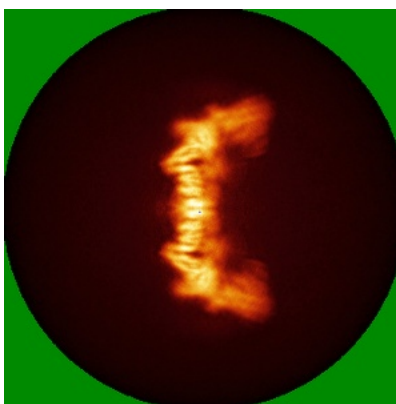


Z

6.4.2 Raw map



X



Y

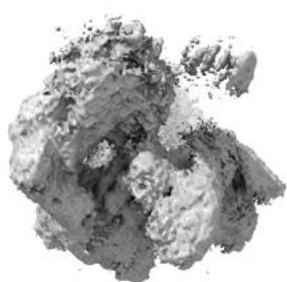


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



X



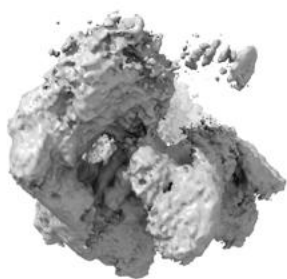
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.01. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



X



Y



Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

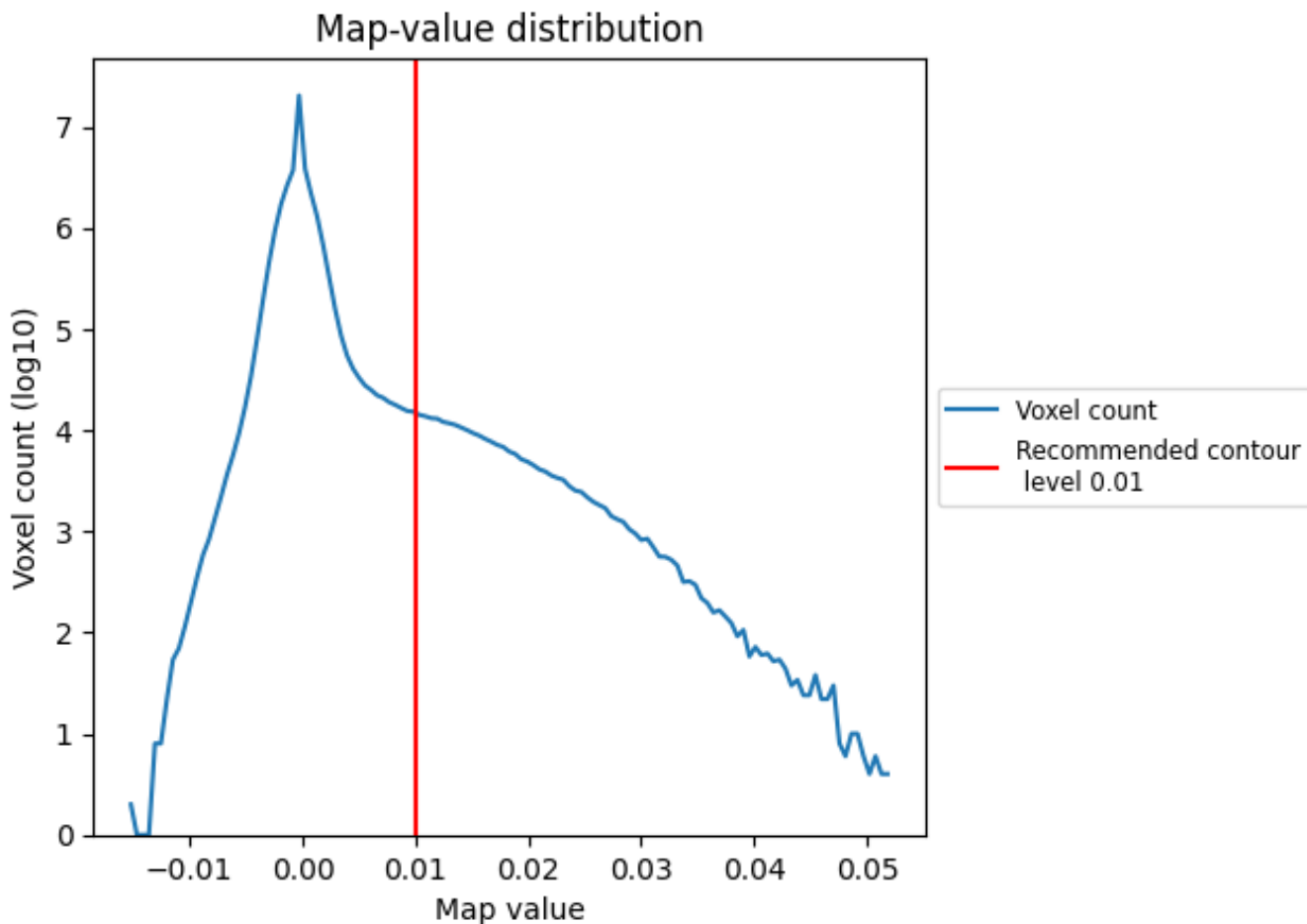
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

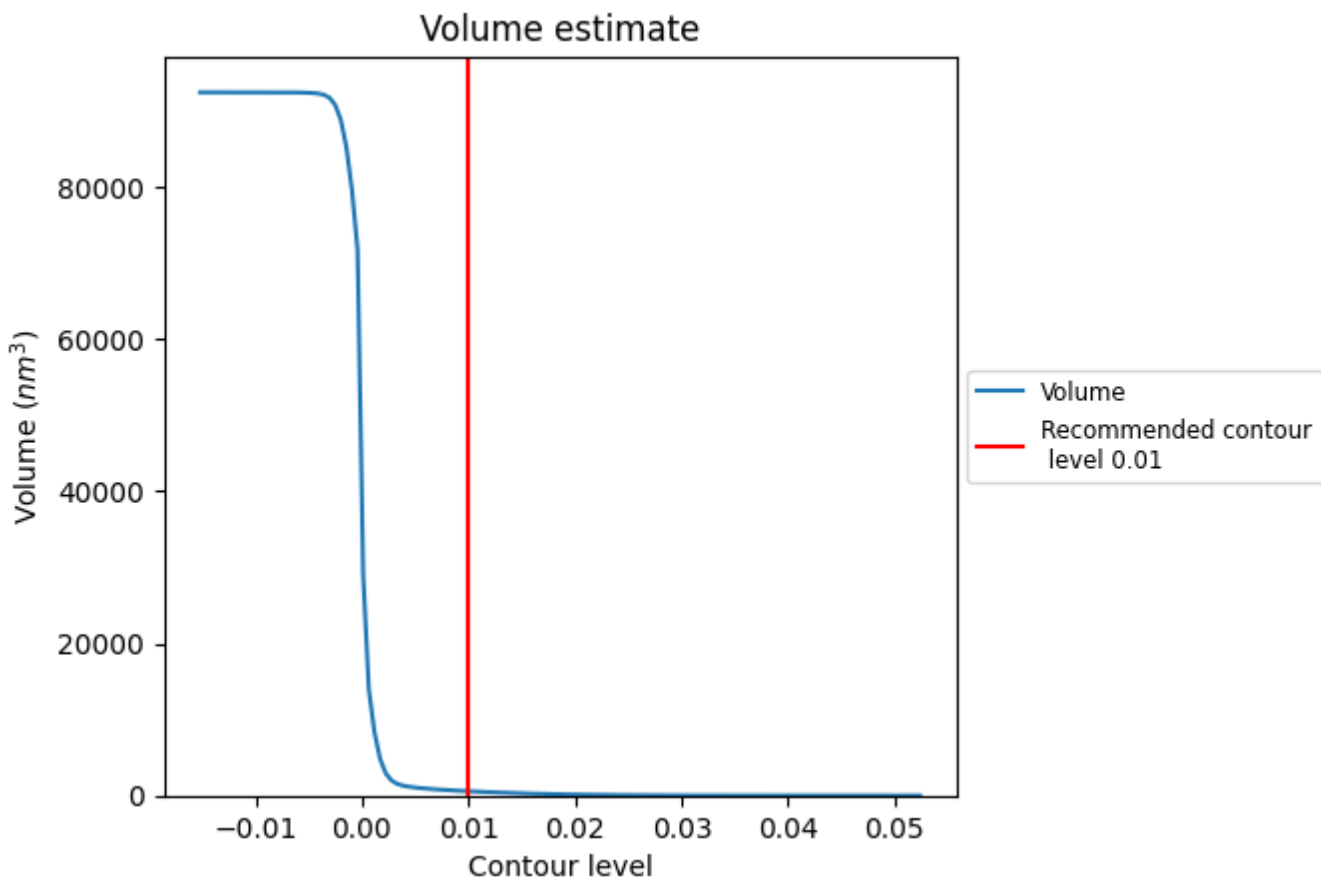
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

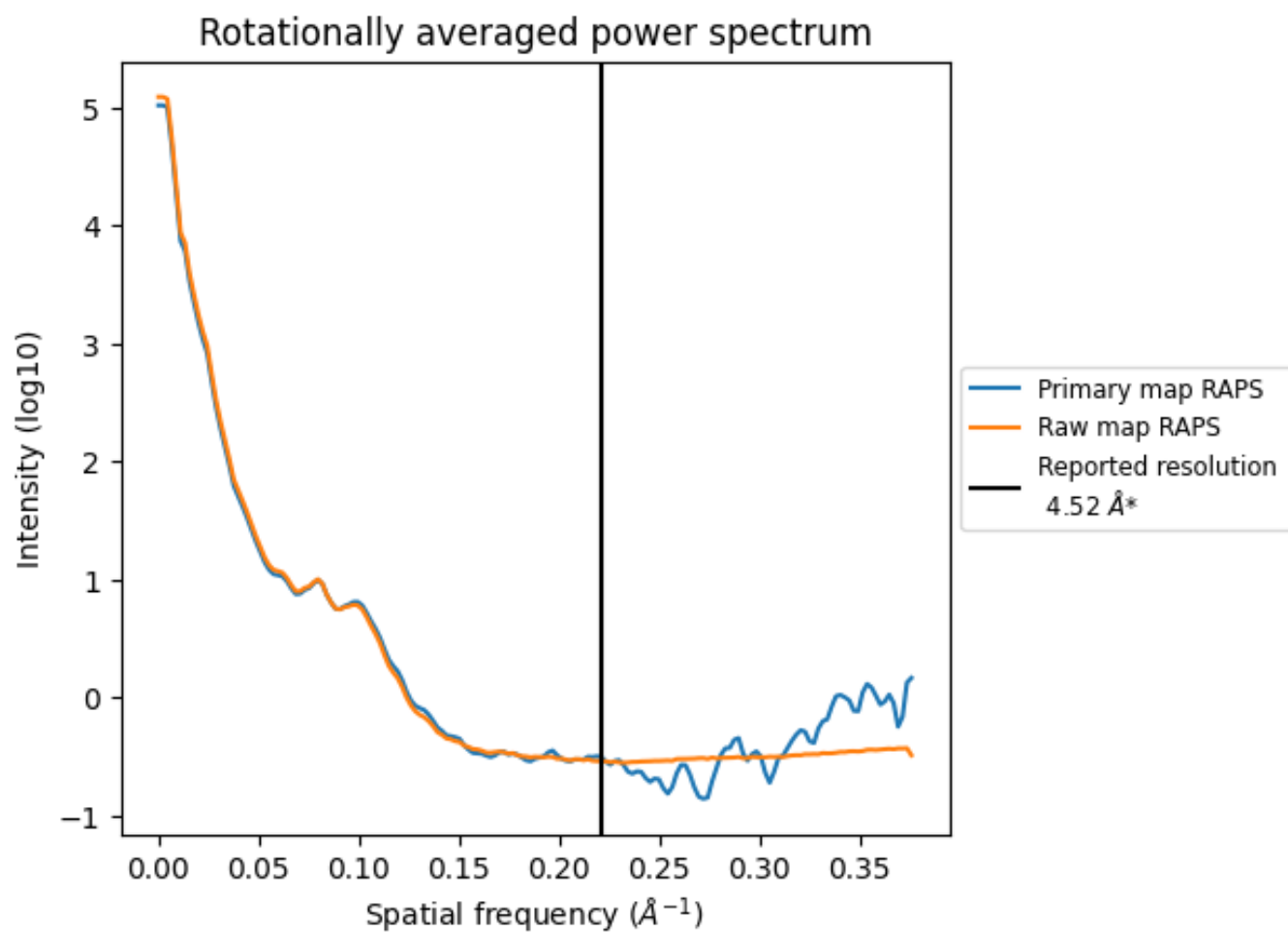
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 568 nm^3 ; this corresponds to an approximate mass of 513 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum [i](#)

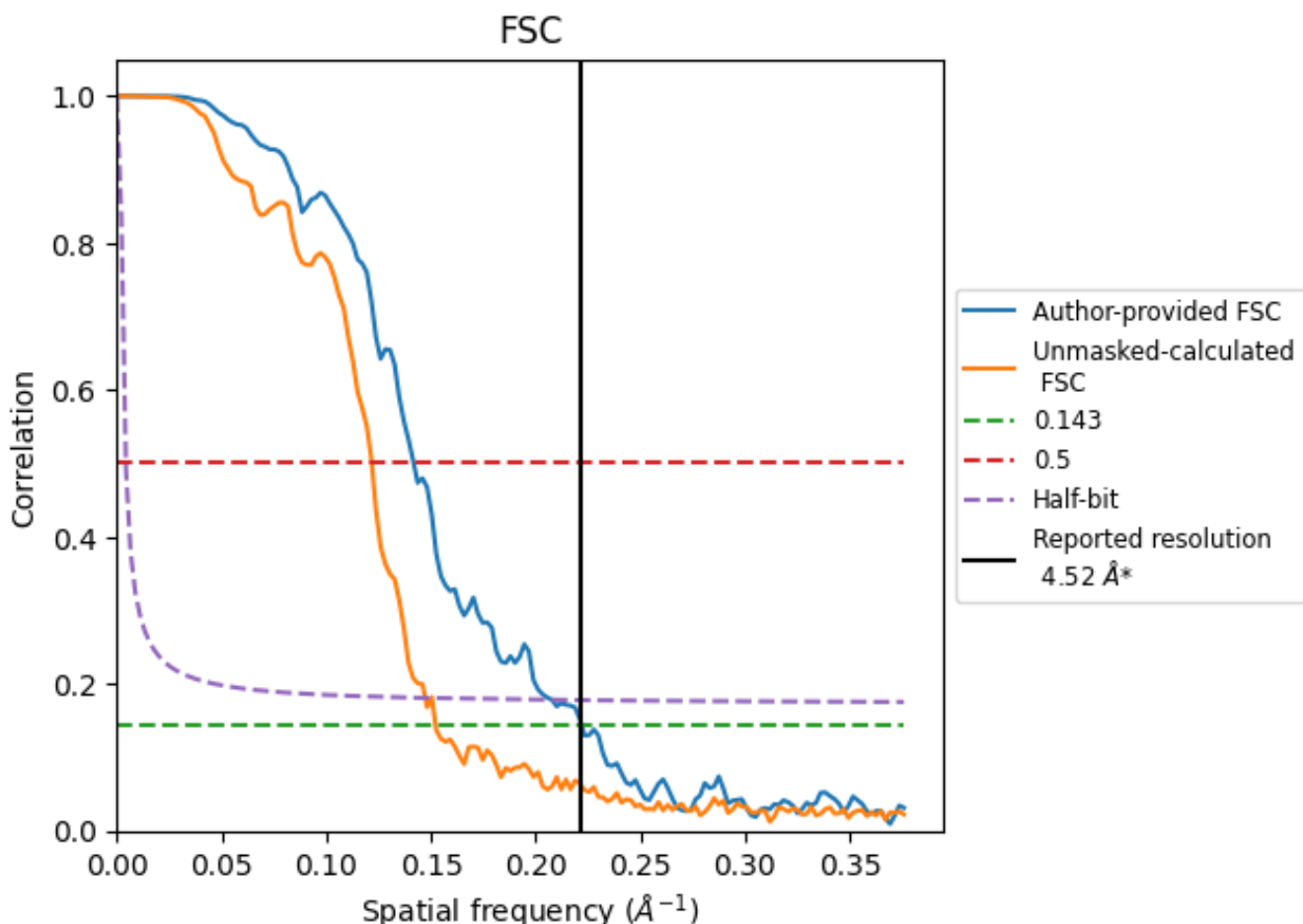


*Reported resolution corresponds to spatial frequency of 0.221 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.221\AA^{-1}

8.2 Resolution estimates [i](#)

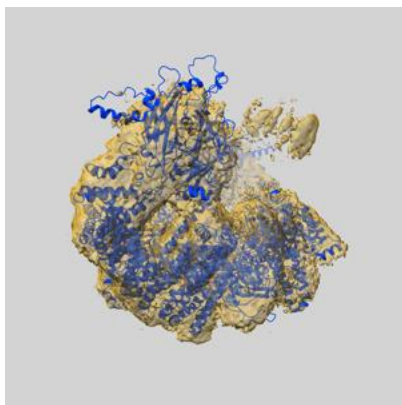
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.52	-	-
Author-provided FSC curve	4.50	7.05	4.81
Unmasked-calculated*	6.57	8.21	6.79

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 6.57 differs from the reported value 4.52 by more than 10 %

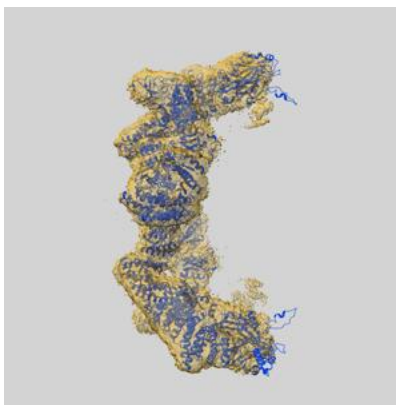
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-60150 and PDB model 8ZJM. Per-residue inclusion information can be found in section 3 on page 5.

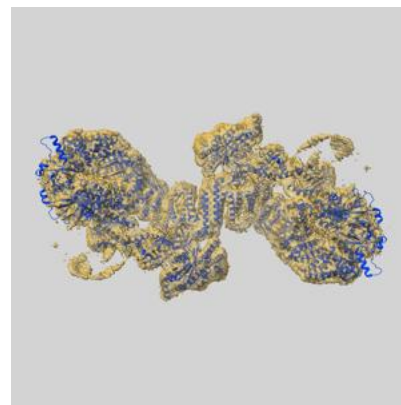
9.1 Map-model overlay [i](#)



X



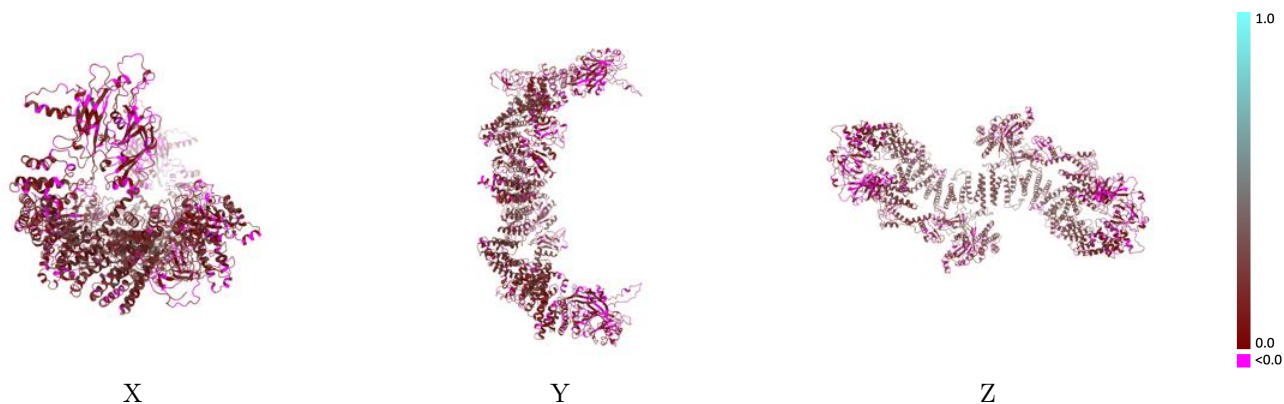
Y



Z

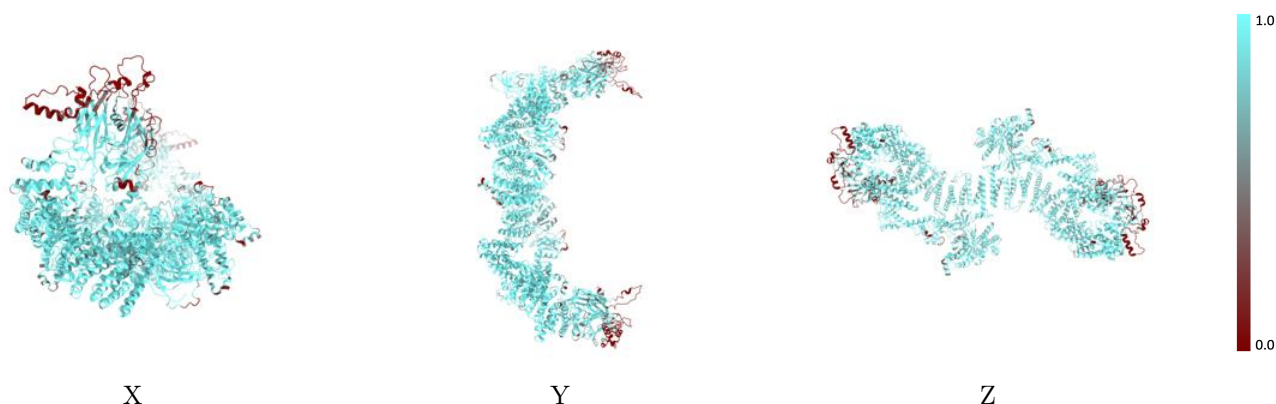
The images above show the 3D surface view of the map at the recommended contour level 0.01 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [\(i\)](#)



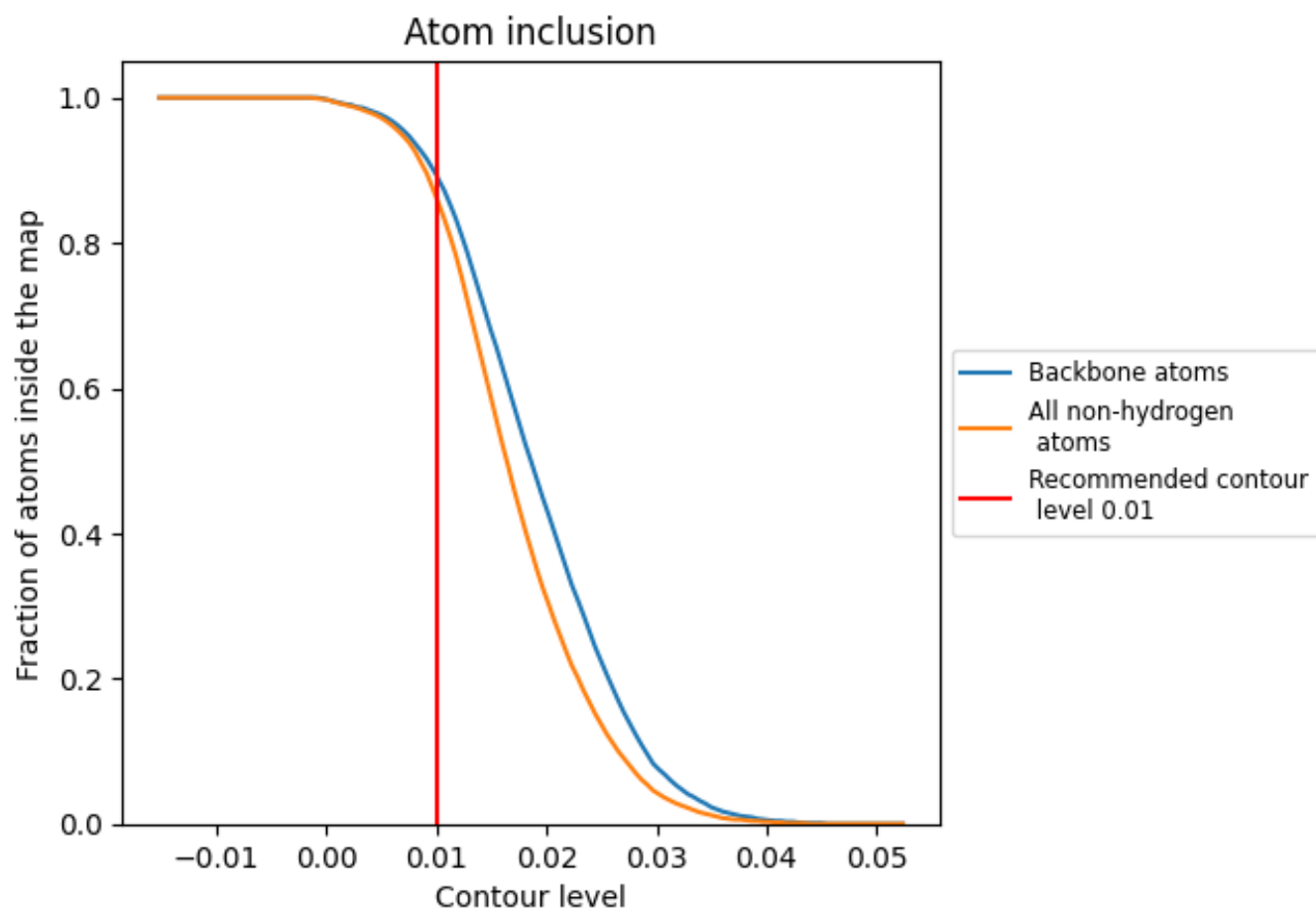
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [\(i\)](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.01).















9.4 Atom inclusion [i](#)



At the recommended contour level, 89% of all backbone atoms, 86% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (0.01) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8620	 0.1420
A	 0.8650	 0.1090
B	 0.8590	 0.1490
C	 0.8680	 0.1320
D	 0.8770	 0.1070
E	 0.8600	 0.1450
F	 0.8720	 0.1300

