



# Full wwPDB X-ray Structure Validation Report ⓘ

May 26, 2020 – 09:52 am BST

PDB ID : 1I6V  
Title : THERMUS AQUATICUS CORE RNA POLYMERASE-RIFAMPICIN COMPLEX  
Authors : Campbell, E.A.; Korzheva, N.; Mustaev, A.; Murakami, K.; Goldfarb, A.; Darst, S.A.  
Deposited on : 2001-03-05  
Resolution : 3.30 Å(reported)

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

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
Xtrriage (Phenix) : **NOT EXECUTED**  
EDS : **NOT EXECUTED**  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.11

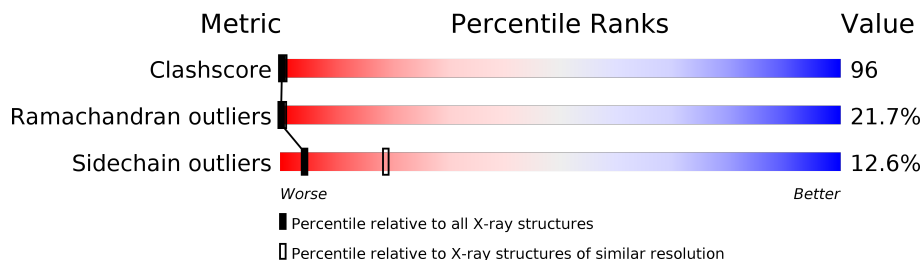
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.30 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	141614	1205 (3.34-3.26)
Ramachandran outliers	138981	1183 (3.34-3.26)
Sidechain outliers	138945	1182 (3.34-3.26)

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

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	A	314	12% 40% 15% 29%
1	B	314	11% 46% 16% 27%
2	C	1118	14% 60% 24%
3	D	1264	18% 52% 21% 7%
4	E	99	19% 62% 18%

## 2 Entry composition

There are 7 unique types of molecules in this entry. The entry contains 21292 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called DNA-DIRECTED RNA POLYMERASE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	224	Total	C	N	O	S	0	0	0
			1741	1109	299	330	3			
1	B	230	Total	C	N	O	S	0	0	0
			1761	1122	299	337	3			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	112	VAL	GLY	CONFLICT	UNP Q9KWU8
A	232	SER	LEU	CONFLICT	UNP Q9KWU8
B	112	VAL	GLY	CONFLICT	UNP Q9KWU8
B	232	SER	LEU	CONFLICT	UNP Q9KWU8

- Molecule 2 is a protein called DNA-DIRECTED RNA POLYMERASE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	C	1113	Total	C	N	O	S	12	0	0
			8508	5386	1514	1585	23			

There are 3 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	2	LYS	GLU	CONFLICT	UNP Q9KWU7
C	?	-	GLU	DELETION	UNP Q9KWU7
C	1111	VAL	ILE	CONFLICT	UNP Q9KWU7

- Molecule 3 is a protein called DNA-DIRECTED RNA POLYMERASE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	D	1174	Total	C	N	O	S	17	0	0
			8502	5329	1550	1596	27			

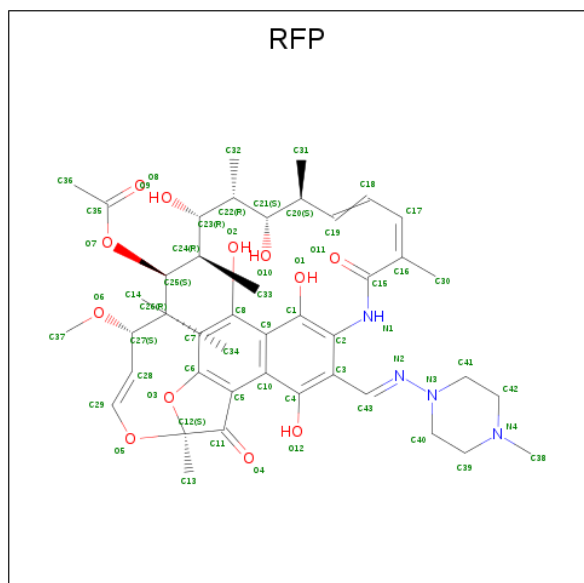
There are 9 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
D	70	ALA	GLY	CONFLICT	UNP Q9KWU6
D	77	ALA	GLY	CONFLICT	UNP Q9KWU6
D	91	ALA	GLY	CONFLICT	UNP Q9KWU6
D	113	ALA	GLY	CONFLICT	UNP Q9KWU6
D	139	ALA	GLY	CONFLICT	UNP Q9KWU6
D	144	ALA	GLY	CONFLICT	UNP Q9KWU6
D	863	THR	VAL	CONFLICT	UNP Q9KWU6
D	866	THR	VAL	CONFLICT	UNP Q9KWU6
D	1009	ASN	LYS	CONFLICT	UNP Q9KWU6

- Molecule 4 is a protein called DNA-DIRECTED RNA POLYMERASE.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace	
			Total	C	N	O				S
4	E	98	719	453	132	130	4	0	0	0

- Molecule 5 is RIFAMPICIN (three-letter code: RFP) (formula: C<sub>43</sub>H<sub>58</sub>N<sub>4</sub>O<sub>12</sub>).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
5	C	1	59	43	4	12	0	0

- Molecule 6 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	D	1	Total Mg 1 1	0	0

- Molecule 7 is ZINC ION (three-letter code: ZN) (formula: Zn).

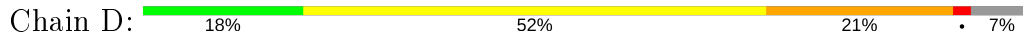
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
7	D	1	Total Zn 1 1	0	0





R805	R806	R807	D810	P811	G812	V813	E814	L815	K816	P817	G818	V819	R820	R821	R822	V823	R824	V825	F826	V827	H828	A828	R831	K832	L833	Q834	V835	G836	D837	K838	L839	R840	N841	R842	H843	G844	N845	K846	G847	V848	V849	A850	K851	L852	L853	P854	V855	E856	D857	M858	P859	H860	A861	L862	P863	D864	T865	L866	V867	D868	I869	L870	I871	L872	L873	L874	L875	L876	L877	L878	L879	M880	M881	L882	G883	Q884	L885	L886	E887	H888	L889	G890	L891	L892	A893	G894	S895	V896	F897	E898	E899	L900	K901	I902	S903	S904	F905	D906	G907	G908	A909	T910	E911	P912	E913	P914	K915	V916	G917	G918	L919	A920	F921	G922	P923	L924	V925	V926	G927	K928	R929	Q930	G931	I932	G933	L934	G935	V936	D937	K938	R939	E940	V941	M1000	V1001	G1002	D1003	K1004	M1005	H1006	L1007	R1008	S1009	T1010	P1011	E1012	Y1013	S1014	L1015	I1016	T1017	Q1018	P1019	V1020	L1021	G1022	G1023	K1024	A1025	Q1026	F1027	D1028	G1029	Q1030	R1031	F1032	G1033	E1034	M1035	E1036	V1037	W1038	A1039	L1040	E1041	A1042	Y1043	A1044	A1045	T1048	L1049	Q1050	E1051	M1052	L1053	T1054	I1055	K1056	S1057	D1058	D1059	G1060	E1061	G1062	L1063	A1066	Q1068	A1069	I1070	K1071	K1072	G1073	E1074	D1075	V1076	F1077	E1078	P1079	S1080	V1081	P1082	E1083	S1084	F1085	L1086	V1087	L1088	V1089	A1090	E1091	L1092	Q1093	A1094	L1095	A1096	L1097	D1098	V1099	Q1100	T1101	L1102	D1103	K1104	K1105	D1106	M1107	P1108	V1109	D1110	V1111	F1112	E1113	G1114	L1115	A1116	S1117	L1118	L1119	ANG
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• Molecule 3: DNA-DIRECTED RNA POLYMERASE

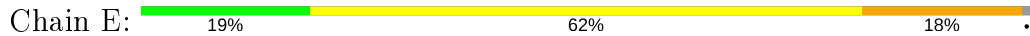


MET	LYS	K3	E4	V6	R6	K7	R8	V9	R10	A11	L12	P15	R19	S20	N21	S22	Y23	G24	E25	V26	E27	K28	P29	E30	T31	I32	ASN	T34	ARG	THR	ASP	GLY	LEU	PHE	GLU	PRO	ILE	LYS	PRO	GLU	ARG	ASP	GLY	LEU	PHE	GLY	PRO	ILE	LYS	ASP	TTR	GLU	CYS	ALA	CYS	GLY	LYS	TTR	L127	Y128	F129	M130	K131	Y132	I133	V134	L135	D136	P137	R138	A139	A140	P141	K142	R143	S144	H145	R146	L147	E148	E149	E150	E151	E152	E153	E154	E155	E156	E157	E158	E159	E160	E161	E162	E163	E164	E165	E166	E167	E168	E169	E170	E171	E172	E173	E174	E175	E176	E177	E178	E179	E180	E181	E182	E183	E184	E185	E186	E187	E188	E189	E190	E191	E192	E193	E194	E195	E196	E197	E198	E199	E200	E201	E202	E203	E204	E205	E206	E207	E208	E209	E210	E211	E212	E213	E214	E215	E216	E217	E218	E219	E220	E221	E222	E223	E224	E225	E226	E227	E228	E229	E230	E231	E232	E233	E234	E235	E236	E237	E238	E239	E240	E241	E242	E243	E244	E245	E246	E247	E248	E249	E250	E251	E252	E253	E254	E255	E256	E257	E258	E259	E260	E261	E262	E263	E264	E265	E266	E267	E268	E269	E270	E271	E272	E273	E274	E275	E276	E277	E278	E279	E280	E281	E282	E283	E284	E285	E286	E287	E288	E289	E290	E291	E292	E293	E294	E295	E296	E297	E298	E299	E300	E301	E302	E303	E304	E305	E306	E307	E308	E309	E310	E311	E312	E313	E314	E315	E316	E317	E318	E319	E320	E321	E322	E323	E324	E325	E326	E327	E328	E329	E330	E331	E332	E333	E334	E335	E336	E337	E338	E339	E340	E341	E342	E343	E344	E345	E346	E347	E348	E349	E350	E351	E352	E353	E354	E355	E356	E357	E358	E359	E360	E361	E362	E363	E364	E365	E366	E367	E368	E369	E370	E371	E372	E373	E374	E375	E376	E377	E378	E379	E380	E381	E382	E383	E384	E385	E386	E387	E388	E389	E390	E391	E392	E393	E394	E395	E396	E397	E398	E399	E400	E401	E402	E403	E404	E405	E406	E407	E408	E409	E410	E411	E412	E413	E414	E415	E416	E417	E418	E419	E420	E421	E422	E423	E424	E425	E426	E427	E428	E429	E430	E431	E432	E433	E434	E435	E436	E437	E438	E439	E440	E441	E442	E443	E444	E445	E446	E447	E448	E449	E450	E451	E452	E453	E454	E455	E456	E457	E458	E459	E460	E461	E462	E463	E464	E465	E466	E467	E468	E469	E470	E471	E472	E473	E474	E475	E476	E477	E478	E479	E480	E481	E482	E483	E484	E485	E486	E487	E488	E489	E490	E491	E492	E493	E494	E495	E496	E497	E498	E499	E500	E501	E502	E503	E504	E505	E506	E507	E508	E509	E510	E511	E512	E513	E514	E515	E516	E517	E518	E519	E520	E521	E522	E523	E524	E525	E526	E527	E528	E529	E530	E531	E532	E533	E534	E535	E536	E537	E538	E539	E540	E541	E542	E543	E544	E545	E546	E547	E548	E549	E550	E551	E552	E553	E554	E555	E556	E557	E558	E559	E560	E561	E562	E563	E564	E565	E566	E567	E568	E569	E570	E571	E572	E573	E574	E575	E576	E577	E578	E579	E580	E581	E582	E583	E584	E585	E586	E587	E588	E589	E590	E591	E592	E593	E594	E595	E596	E597	E598	E599	E600	E601	E602	E603	E604	E605	E606	E607	E608	E609	E610	E611	E612	E613	E614	E615	E616	E617	E618	E619	E620	E621	E622	E623	E624	E625	E626	E627	E628	E629	E630	E631	E632	E633	E634	E635	E636	E637	E638	E639	E640	E641	E642	E643	E644	E645	E646	E647	E648	E649	E650	E651	E652	E653	E654	E655	E656	E657	E658	E659	E660	E661	E662	E663	E664	E665	E666	E667	E668	E669	E670	E671	E672	E673	E674	E675	E676	E677	E678	E679	E680	E681	E682	E683	E684	E685	E686	E687	E688	E689	E690	E691	E692	E693	E694	E695	E696	E697	E698	E699	E700	E701	E702	E703	E704	E705	E706	E707	E708	E709	E710	E711	E712	E713	E714	E715	E716	E717	E718	E719	E720	E721	E722	E723	E724	E725	E726	E727	E728	E729	E730	E731	E732	E733	E734	E735	E736	E737	E738	E739	E740	E741	E742	E743	E744	E745	E746	E747	E748	E749	E750	E751	E752	E753	E754	E755	E756	E757	E758	E759	E760	E761	E762	E763	E764	E765	E766	E767	E768	E769	E770	E771	E772	E773	E774	E775	E776	E777	E778	E779	E780	E781	E782	E783	E784	E785	E786	E787	E788	E789	E790	E791	E792	E793	E794	E795	E796	E797	E798	E799	E800	A805	F806	A807	T808	P809	E810	E811	A814	A815	Y816	E817	V821	A822	L823	N824	A825	P826	L827	V828	V829	A830	G831	S832	E833	T834	V835	V836
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G837	R338	R339	R340	N845	P846	D847	E848	A849	L850	L851	L852	V853	A854	H855	G856	L857	L858	D859	L860	Q861	L922	T863	M224	V864	T865	T866	R867	L869	R871	R872	L873	E874	T875	S876	P877	G878	R879	L941	G946	L947	T948	L884	L885	V886	G887	E888	A889	V890	G891	D892	P893	K894	V895	A896	Q897	L899													
I900	Q901	M902	D903	V904	R905	R906	K908	N909	S910	L911	K912	D913	L914	V915	G916	Q917	A918	F919	L920	R921	D922	G923	M224	V864	T865	T866	K926	T927	L930	R931	D932	A933	L934	K935	T936	G937	G938	F939	T940	L941	G946	L947	T948	L884	L885	V886	G887	E888	A889	V890	G891	D892	P893	K894	V895	A896	Q897	L899											
L964	E965	E966	A967	D968	R969	L970	L971	R972	Q973	L974	R975	G976	A977	R1028	R1029	M1030	M1031	Q1032	Q1033	Q1034	L1035	L1036	Q1037	Q1038	L1039	Q1040	M1041	R1042	G1043	G1044	M1045	Q1046	K1047	L1048	D985	L983	T984	R985	R986	R987	T1000	K1001	K1002	V1003	T1004	Q1005	A1006	T1007	F1008	N1009	F1010	F1011	E1012	M1013	M1014	Y1015	P1016	R1017	R1018	P1019	L1020	P957	E958	Y1021	E959	K960	Q961	A1024	G1027
A1028	R1029	M1030	M1031	Q1032	Q1033	Q1034	L1035	L1036	Q1037	Q1038	L1039	Q1040	M1041	R1042	G1043	G1044	M1045	Q1046	K1047	L1048	D985	L983	T984	R985	R986	R987	T1000	K1001	K1002	V1003	T1004	Q1005	A1006	T1007	F1008	N1009	F1010	F1011	E1012	M1013	M1014	Y1015	P1016	R1017	R1018	P1019	L1020	P957	E958	Y1021	E959	K960	Q961	A1024	G1027														
T1088	A1089	D1090	S1091	Y1092	Y1093	L1094	T1095	R1096	L1097	L1098	L1099	D1100	V1101	A1102	H1103	E1104	I1105	V1106	V1107	R1108	E1109	A1110	D1111	T1112	G1113	T1114	Y1117	I1118	S1119	L1122	F1123	Q1124	M1125	D1126	E1127	V1128	T1129	R1130	L1132	R1133	L1134	R1135	K1136	L1137	S1138	V1200	C1201	I1140	I1141	S1142	L1143	Y1205	G1206	L1144	L1145	Y1207	D1208	L1209	S1210	L1149									
A1150	R1151	E1152	V1153	E1154	A1155	L1156	R1159	L1160	E1161	E1162	G1163	R1164	Y1165	S1167	L1168	E1169	D1170	V1171	H1172	F1173	L1174	I1175	K1176	A1177	A1178	E1179	E1182	V1183	R1184	E1185	V1186	P1187	V1188	R1189	S1190	P1191	L1192	T1193	G1194	Q1195	T1196	R1197	K1203	C1204	Y1205	G1206	L1144	L1145	Y1207	D1208	L1209	S1210	L1149																
A1212	R1213	P1214	V1215	S1216	I1217	G1218	E1219	A1220	V1221	G1222	V1223	V1224	A1225	A1226	S1228	E1231	P1232	L1233	T1234	Q1235	L1236	T1237	M1238	R1239	T1240	PHE	HIS	THR	GLY	VAL	ALA	VAL	G1249	T1250	D1251	I1252	T1253	Q1254	G1255	L1256	P1257	R1258	E1259	E1260	E1261	L1262	F1263	E1264	A1265	R1266	L1267	E1268	K1269	A1270	K1271	A1272													
V1273	L1274	S1275	V1276	I1277	D1278	G1279	V1280	A1281	R1282	L1283	L1290	S1291	V1292	F1293	V1294	S1300	K1301	E1302	Y1303	K1304	H1305	P1306	K1307	D1308	A1309	L1310	L1311	L1312	V1313	K1314	D1315	G1316	D1317	Y1318	V1319	E1320	A1321	Q1322	Q1323	L1324	L1325	T1326	R1327	G1328	A1329	Q1330	L1331	P1332	H1333	L1334	L1335	L1336	E1337	A1338	K1339	G1340													
P1341	E1342	A1343	V1344	A1345	R1346	Y1347	L1348	V1349	D1350	E1351	I1352	Q1353	K1354	V1355	L1356	R1357	V1361	K1362	L1363	H1364	D1365	K1366	H1367	I1368	E1369	L1370	V1371	L1372	R1373	Q1374	M1375	L1376	K1377	Y1378	V1379	E1380	V1381	T1382	D1383	P1384	R1388	L1389	L1390	E1391	G1392	Q1393	V1394	L1395	L1396	D1457	E1447	E1449	A1450	T1451	T1452	A1453	G1454	K1455	K1456	L1457	E1458	L1459	I1460	G1461	L1462	K1463	L1464	M1404	
E1405	R1406	L1407	T1408	A1409	GLU	GLY	LYS	V1413	P1414	E1415	A1416	K1417	K1418	P1419	L1420	M1422	G1423	V1424	T1425	K1426	S1427	A1428	L1429	S1430	K1431	S1432	S1433	L1434	V1435	S1436	A1437	A1438	F1440	Q1441	M1442	T1443	T1444	L1447	E1449	A1450	T1451	T1452	A1453	G1454	K1455	K1456	L1457	E1458	L1459	I1460	G1461	L1462	K1463	L1464	M1404														
V1466	L1467	L1468	G1469	R1470	L1471	I1472	P1473	A1474	G1475	T1476	G1477	S1478	D1479	F1480	V1481	R1482	T1484	Q1485	V1486	V1487	D1488	Q1489	R1490	T1491	L1492	E1496	GLU	ALA	ARG	LYS	GLU	VAL	GLU	ALA	VAL	GLU	ALA	LYS	GLU	LYS	ALA	PRO	ARG	ARG	PRO	VAL	ARG	ARG	GLU	GLN	PRO	GLY	LYS	GLY	LEU														

• Molecule 4: DNA-DIRECTED RNA POLYMERASE



H1	A2	E3	P4	G5	R6	D7	K8	L9	F10	G11	M12	V13	D14	S15	K16	R17	L18	L19	Q20	L21	V22	K25	A27	Q28	Q29	L30	L31	R32	R33	R34	F35	K36	N37	T38	V39	L40	E41	E42	E43	E44	K47	N48	T50	L51	E52	S53	L54	Y55	D56	D57	P58	N59	V61	T62
M63	A64	R65	R66	E67	L68	L69	G70	I71	R72	L73	F74	E75	F76	E77	N78	L79	R80	P81	E82	D83	R84	L85	D86	R89	L92	Y93	P94	T95	E98	ALA																								

## 4 Data and refinement statistics

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

Property	Value	Source
Space group	P 41 21 2	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	199.45Å 199.45Å 289.13Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	8.00 – 3.30	Depositor
% Data completeness (in resolution range)	(Not available) (8.00-3.30)	Depositor
$R_{merge}$	0.08	Depositor
$R_{sym}$	(Not available)	Depositor
Refinement program	CNS	Depositor
R, $R_{free}$	0.276 , 0.359	Depositor
Estimated twinning fraction	No twinning to report.	Xtrriage
Total number of atoms	21292	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	74.0	wwPDB-VP

## 5 Model quality i

### 5.1 Standard geometry i

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z  > 5$	RMSZ	# $ Z  > 5$
1	A	0.43	0/1775	0.77	1/2417 (0.0%)
1	B	0.42	1/1795 (0.1%)	0.77	1/2447 (0.0%)
2	C	0.41	0/8672	0.80	7/11752 (0.1%)
3	D	0.44	1/8439 (0.0%)	0.84	19/11447 (0.2%)
4	E	0.37	0/730	0.71	0/991
All	All	0.42	2/21411 (0.0%)	0.81	28/29054 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
2	C	0	1
3	D	0	3
All	All	0	5

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	1270	ALA	C-N	-12.09	1.06	1.34
1	B	94	MET	SD-CE	5.75	2.10	1.77

All (28) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	1270	ALA	O-C-N	-19.05	92.23	122.70
3	D	1270	ALA	C-N-CA	13.67	155.87	121.70
3	D	1270	ALA	CA-C-N	12.08	143.77	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	580	MET	N-CA-C	6.98	129.85	111.00
3	D	1166	LEU	CA-CB-CG	6.22	129.61	115.30
3	D	508	ARG	N-CA-C	-6.00	94.79	111.00
1	A	25	LEU	N-CA-C	-5.91	95.05	111.00
3	D	954	ALA	N-CA-C	-5.87	95.16	111.00
2	C	836	GLY	N-CA-C	-5.82	98.55	113.10
3	D	137	PRO	N-CA-CB	5.80	110.26	103.30
3	D	775	GLY	N-CA-C	5.78	127.55	113.10
3	D	512	MET	N-CA-C	-5.73	95.53	111.00
3	D	834	THR	N-CA-C	-5.61	95.86	111.00
2	C	571	LEU	CA-CB-CG	5.57	128.10	115.30
1	B	26	GLU	N-CA-C	5.46	125.75	111.00
3	D	98	PRO	N-CA-CB	5.40	109.78	103.30
2	C	467	ILE	N-CA-C	5.38	125.54	111.00
3	D	29	PRO	N-CA-CB	5.33	109.69	103.30
3	D	1069	GLU	N-CA-C	-5.26	96.79	111.00
3	D	1042	ARG	N-CA-C	-5.24	96.86	111.00
2	C	329	GLY	N-CA-C	-5.23	100.02	113.10
3	D	826	PRO	N-CA-CB	5.23	109.57	103.30
3	D	146	PRO	N-CA-CB	5.17	109.50	103.30
3	D	109	PRO	N-CA-CB	5.16	109.50	103.30
2	C	379	GLU	N-CA-C	-5.14	97.13	111.00
3	D	1388	ARG	N-CA-C	5.12	124.82	111.00
2	C	655	LEU	CA-CB-CG	5.07	126.95	115.30
3	D	1018	ASN	C-N-CD	5.04	139.00	128.40

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	139	TYR	Sidechain
2	C	1013	TYR	Sidechain
3	D	1165	TYR	Sidechain
3	D	1268	PRO	Mainchain
3	D	1270	ALA	Mainchain

## 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	1741	0	1747	348	0
1	B	1761	0	1754	316	0
2	C	8508	0	8421	1817	0
3	D	8502	0	8002	1671	0
4	E	719	0	685	138	0
5	C	59	0	56	6	0
6	D	1	0	0	0	0
7	D	1	0	0	0	0
All	All	21292	0	20665	4041	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 96.

All (4041) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:94:MET:SD	1:B:94:MET:CE	2.10	1.39
2:C:690:ILE:HB	2:C:852:ILE:HG22	1.19	1.18
3:D:1280:VAL:HG12	3:D:1281:VAL:HG23	1.25	1.16
2:C:491:GLU:HA	2:C:531:PHE:HA	1.29	1.15
3:D:772:PRO:HG3	3:D:778:LEU:HB2	1.28	1.14
2:C:861:LEU:HG	2:C:862:PRO:HD2	1.23	1.14
3:D:1280:VAL:HG13	3:D:1315:ASP:HA	1.25	1.13
2:C:613:VAL:HG21	2:C:619:ARG:HG2	1.31	1.13
3:D:129:PHE:HA	3:D:454:ALA:HB1	1.24	1.12
2:C:208:VAL:HG11	2:C:218:VAL:HG11	1.27	1.12
1:A:96:SER:HB3	1:A:145:ASP:HA	1.16	1.11
3:D:890:VAL:HG12	3:D:891:GLY:H	1.12	1.10
3:D:1101:VAL:HG21	3:D:1424:VAL:HG22	1.33	1.10
3:D:1015:TYR:HB3	3:D:1019:PRO:HD3	1.33	1.10
3:D:483:HIS:H	3:D:484:PRO:HD2	1.00	1.09
2:C:17:PRO:HD2	2:C:20:GLU:HB2	1.32	1.09
2:C:261:LEU:HG	2:C:263:ASP:HB3	1.33	1.09
2:C:262:ALA:HB1	2:C:266:ARG:HD3	1.15	1.08
1:A:26:GLU:HB3	1:A:27:PRO:CD	1.81	1.08
2:C:129:ILE:HG21	2:C:387:SER:HB2	1.36	1.08
3:D:691:LEU:HD12	3:D:691:LEU:H	1.18	1.08
2:C:12:VAL:HG12	2:C:13:ILE:H	1.17	1.07
2:C:115:LEU:HD12	2:C:116:GLY:H	1.12	1.06
3:D:876:SER:H	3:D:879:ARG:HG3	1.20	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:399:ASN:C	2:C:399:ASN:HD22	1.59	1.06
3:D:772:PRO:CG	3:D:778:LEU:HB2	1.86	1.06
1:A:30:ARG:HD2	1:A:191:ASP:HB3	1.37	1.05
2:C:376:ARG:H	2:C:377:PRO:HD2	1.20	1.05
2:C:873:PRO:O	2:C:877:PRO:HD2	1.56	1.05
3:D:1019:PRO:HB2	3:D:1022:VAL:HG23	1.37	1.05
3:D:1154:GLU:HB3	3:D:1159:ARG:HG2	1.38	1.05
2:C:333:ILE:HD11	2:C:468:ARG:HE	1.20	1.05
2:C:474:VAL:HG22	2:C:530:GLU:HA	1.37	1.04
2:C:1008:ARG:HD3	2:C:1029:GLY:H	1.19	1.04
3:D:1273:VAL:HG23	3:D:1324:PRO:HG3	1.37	1.04
3:D:886:VAL:HG11	3:D:900:ILE:HD11	1.36	1.03
2:C:253:ALA:HA	2:C:256:TYR:HB2	1.36	1.03
3:D:811:GLU:HA	3:D:814:ALA:HB3	1.34	1.03
2:C:456:ALA:HB3	2:C:459:ALA:HB2	1.34	1.02
3:D:879:ARG:NH2	3:D:904:VAL:HA	1.75	1.02
2:C:710:ILE:HD11	2:C:790:LEU:HD22	1.05	1.02
1:B:195:LEU:HD11	1:B:197:LEU:HD13	1.42	1.02
2:C:140:ILE:HG22	2:C:333:ILE:HG12	1.40	1.01
1:B:26:GLU:HG3	1:B:194:LYS:HD2	1.38	1.01
1:A:26:GLU:HB3	1:A:27:PRO:HD3	1.43	1.01
1:B:97:THR:CG2	1:B:120:VAL:HG21	1.91	1.00
3:D:521:PRO:HG2	3:D:522:PRO:HD3	1.41	1.00
1:A:158:ILE:HD11	1:A:161:ARG:HE	1.23	1.00
2:C:525:ALA:HB1	2:C:526:PRO:HD2	1.44	1.00
1:A:131:THR:HG23	2:C:644:ARG:HH21	1.24	1.00
2:C:1045:ALA:HB1	2:C:1048:THR:HB	1.40	0.99
1:B:97:THR:HG21	1:B:120:VAL:HG21	1.42	0.99
2:C:72:ARG:HD3	2:C:112:GLU:OE1	1.62	0.99
3:D:772:PRO:HD2	3:D:776:GLU:O	1.62	0.99
3:D:1236:LEU:HB2	3:D:1256:LEU:HB2	1.45	0.99
2:C:755:LEU:HD12	2:C:790:LEU:HD23	1.41	0.99
3:D:1141:GLU:HA	3:D:1171:VAL:HG11	1.42	0.98
3:D:1353:GLN:HE21	3:D:1368:ILE:HD11	1.24	0.98
3:D:1092:GLY:HA2	3:D:1096:ARG:HE	1.29	0.98
3:D:860:LEU:HA	3:D:877:PRO:HG2	1.43	0.98
1:A:143:ARG:HE	1:A:159:LYS:HE2	1.24	0.98
2:C:110:GLU:HG2	2:C:369:PRO:HG2	1.44	0.98
3:D:483:HIS:H	3:D:484:PRO:CD	1.75	0.98
3:D:699:VAL:HB	3:D:716:PHE:O	1.63	0.97
3:D:721:VAL:HG12	3:D:722:GLU:H	1.28	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1055:ILE:H	2:C:1055:ILE:HD12	1.26	0.97
2:C:384:GLU:O	2:C:388:ARG:HB2	1.65	0.97
3:D:89:ARG:C	3:D:520:LEU:HD21	1.85	0.97
1:A:96:SER:CB	1:A:145:ASP:HA	1.95	0.97
2:C:567:GLN:HB2	2:C:997:LEU:HD22	1.44	0.96
2:C:946:ARG:HE	3:D:861:GLN:HE22	1.10	0.96
3:D:836:VAL:O	3:D:865:THR:HG23	1.65	0.96
1:B:106:PRO:HA	1:B:133:GLU:HA	1.46	0.96
2:C:159:ILE:HD11	2:C:310:LEU:HB2	1.48	0.96
2:C:195:LEU:HD13	2:C:227:LEU:HD13	1.48	0.96
2:C:497:ALA:HA	2:C:502:PRO:HG3	1.47	0.96
2:C:165:LEU:HD22	2:C:334:ARG:HD3	1.48	0.95
2:C:710:ILE:HG13	2:C:790:LEU:HD13	1.46	0.95
3:D:1310:ARG:HA	3:D:1323:GLN:O	1.66	0.94
3:D:483:HIS:HA	3:D:489:ARG:HG3	1.49	0.94
2:C:1001:VAL:HG11	3:D:724:GLN:HB3	1.49	0.94
2:C:438:ILE:HD13	2:C:470:PRO:HD3	1.49	0.94
3:D:1251:ASP:H	3:D:1269:LYS:HZ2	0.99	0.93
1:B:106:PRO:HB3	1:B:133:GLU:HG3	1.51	0.93
2:C:1038:TRP:NE1	3:D:1099:VAL:HG11	1.82	0.93
3:D:639:LEU:H	3:D:729:HIS:CD2	1.83	0.93
3:D:1336:LEU:HB2	3:D:1344:VAL:HG21	1.49	0.93
3:D:899:LEU:O	3:D:900:ILE:HG13	1.66	0.93
1:B:26:GLU:HB3	1:B:27:PRO:HD3	1.48	0.93
3:D:1118:ILE:HD13	3:D:1190:SER:HB3	1.51	0.93
3:D:857:LEU:HD12	3:D:858:LEU:H	1.34	0.93
2:C:585:GLU:HG2	2:C:665:PHE:HE2	1.33	0.92
2:C:710:ILE:HD11	2:C:790:LEU:CD2	1.97	0.92
2:C:115:LEU:HD12	2:C:116:GLY:N	1.83	0.92
1:A:30:ARG:H	1:A:30:ARG:HD3	1.35	0.92
2:C:690:ILE:CB	2:C:852:ILE:HG22	1.99	0.92
3:D:1236:LEU:HD11	3:D:1356:TYR:HE2	1.31	0.92
1:B:25:LEU:HD11	1:B:28:LEU:HD11	1.51	0.92
2:C:946:ARG:HE	3:D:861:GLN:NE2	1.67	0.92
2:C:613:VAL:HG13	2:C:620:LEU:H	1.33	0.92
3:D:806:PHE:H	3:D:827:ILE:HA	1.35	0.92
2:C:198:ARG:HG2	2:C:228:ALA:HA	1.52	0.92
2:C:585:GLU:HG2	2:C:665:PHE:CE2	2.05	0.91
1:A:38:ASN:ND2	2:C:980:GLY:HA2	1.84	0.91
3:D:699:VAL:H	3:D:756:GLN:NE2	1.68	0.91
3:D:900:ILE:HG22	3:D:902:MET:H	1.35	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:41:ARG:HB3	1:A:41:ARG:NH1	1.85	0.91
3:D:1382:THR:HG21	3:D:1418:LYS:HE3	1.52	0.91
1:A:197:LEU:HD23	1:A:197:LEU:H	1.35	0.91
3:D:1147:ARG:NH1	3:D:1190:SER:HB2	1.86	0.91
2:C:605:LYS:HG2	2:C:607:ASP:H	1.33	0.90
2:C:749:VAL:HG11	2:C:792:VAL:HG21	1.53	0.90
2:C:852:ILE:N	2:C:852:ILE:HD13	1.84	0.90
3:D:615:ARG:HA	3:D:618:LEU:HD12	1.52	0.90
3:D:728:LEU:HD22	3:D:745:MET:HE1	1.52	0.90
3:D:860:LEU:C	3:D:862:ASP:H	1.69	0.90
2:C:31:GLN:OE1	2:C:39:ARG:HB3	1.71	0.90
2:C:203:ASP:O	2:C:206:THR:HG22	1.72	0.90
3:D:483:HIS:N	3:D:484:PRO:HD2	1.86	0.90
2:C:564:MET:SD	2:C:840:ALA:HB1	2.12	0.90
3:D:552:ASN:HA	3:D:555:LYS:HB3	1.53	0.90
3:D:1278:ASP:HA	3:D:1318:TYR:HA	1.54	0.90
3:D:643:GLY:HA3	3:D:727:GLN:H	1.37	0.90
2:C:256:TYR:HA	2:C:260:LEU:HD13	1.54	0.89
4:E:31:LEU:HD12	4:E:35:PHE:HA	1.54	0.89
3:D:901:GLN:HB2	3:D:905:PRO:HG3	1.52	0.89
1:A:88:ARG:HD3	1:A:121:GLU:OE2	1.72	0.89
1:A:15:THR:HG22	1:B:230:ALA:HB1	1.53	0.89
1:A:160:ASP:O	1:A:162:ILE:HG22	1.72	0.89
3:D:1321:ALA:O	3:D:1323:GLN:N	2.05	0.89
2:C:99:GLN:HB3	2:C:109:LYS:HG2	1.54	0.89
3:D:1253:THR:HA	3:D:1258:ARG:HD2	1.53	0.89
2:C:1103:ASP:HB2	2:C:1108:PRO:HB2	1.55	0.89
2:C:246:ASP:HB3	2:C:247:PRO:HD2	1.54	0.89
3:D:1008:PHE:HE1	3:D:1035:ILE:HG13	1.37	0.89
3:D:1231:GLU:HB3	3:D:1232:PRO:HD3	1.53	0.89
2:C:1095:LEU:HD12	3:D:603:LEU:HD23	1.55	0.89
1:B:78:ILE:HG13	1:B:130:ALA:HB2	1.52	0.89
2:C:159:ILE:HD13	2:C:306:THR:HG23	1.55	0.89
2:C:260:LEU:O	2:C:261:LEU:HD23	1.73	0.89
3:D:631:ILE:HD13	3:D:745:MET:HE2	1.55	0.88
1:A:72:LYS:HA	2:C:607:ASP:HB3	1.55	0.88
3:D:1024:ALA:HA	3:D:1028:ALA:HB3	1.51	0.88
2:C:1017:THR:O	2:C:1018:GLN:HB2	1.71	0.88
2:C:110:GLU:CG	2:C:369:PRO:HG2	2.03	0.88
2:C:701:THR:HG22	2:C:832:LYS:HA	1.56	0.88
2:C:257:LEU:HD23	2:C:261:LEU:HD21	1.54	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:726:ILE:HD12	2:C:726:ILE:H	1.37	0.88
3:D:699:VAL:H	3:D:756:GLN:HE22	1.19	0.88
2:C:631:SER:HB2	2:C:635:THR:H	1.36	0.88
2:C:605:LYS:HA	2:C:612:ALA:HB3	1.53	0.88
2:C:32:ALA:HA	2:C:71:TYR:HE1	1.38	0.87
2:C:493:ARG:HH12	3:D:1069:GLU:HA	1.36	0.87
2:C:889:HIS:CE1	3:D:951:ILE:H	1.92	0.87
3:D:1015:TYR:CB	3:D:1019:PRO:HD3	2.05	0.87
2:C:588:VAL:HG12	2:C:588:VAL:O	1.74	0.87
3:D:1043:GLY:HA2	3:D:1057:VAL:HG23	1.54	0.87
2:C:290:LEU:HD11	2:C:298:PHE:HB3	1.56	0.87
3:D:704:ARG:HH12	3:D:743:ASP:CG	1.78	0.87
2:C:762:LYS:HD2	2:C:786:LYS:HD2	1.56	0.87
2:C:551:GLU:HA	2:C:906:PHE:HE2	1.39	0.87
4:E:78:ASN:OD1	4:E:79:LEU:HG	1.73	0.87
2:C:1040:LEU:HD12	2:C:1045:ALA:HB3	1.57	0.87
2:C:674:VAL:HB	2:C:869:VAL:HG13	1.56	0.87
3:D:783:ARG:O	3:D:784:ASP:HB2	1.71	0.87
1:A:79:ILE:HD11	1:A:165:ILE:HD12	1.57	0.87
1:B:211:LEU:O	1:B:215:VAL:HG23	1.74	0.86
2:C:892:LEU:H	2:C:892:LEU:CD2	1.88	0.86
3:D:1466:VAL:O	3:D:1469:GLY:N	2.08	0.86
2:C:15:LEU:HD11	2:C:461:VAL:HG21	1.57	0.86
2:C:396:ASP:OD1	2:C:402:SER:HB3	1.75	0.86
3:D:129:PHE:HA	3:D:454:ALA:CB	2.05	0.86
1:A:79:ILE:HD11	1:A:165:ILE:CD1	2.05	0.86
2:C:1008:ARG:HD3	2:C:1029:GLY:N	1.91	0.86
3:D:1019:PRO:C	3:D:1021:TYR:H	1.77	0.86
1:A:59:GLU:HG2	1:A:137:LYS:HE3	1.56	0.86
2:C:115:LEU:CD1	2:C:116:GLY:H	1.89	0.86
3:D:1194:CYS:HB3	3:D:1373:ARG:NH2	1.90	0.86
3:D:890:VAL:HG12	3:D:891:GLY:N	1.90	0.86
2:C:1052:MET:O	2:C:1053:LEU:HD13	1.74	0.86
2:C:569:VAL:HG13	2:C:569:VAL:O	1.73	0.86
2:C:9:ILE:HG22	2:C:10:ARG:N	1.89	0.85
1:A:131:THR:HG23	2:C:644:ARG:NH2	1.91	0.85
3:D:1043:GLY:HA3	3:D:1057:VAL:H	1.41	0.85
1:A:88:ARG:HB3	1:A:121:GLU:HB2	1.56	0.85
1:B:214:ALA:HA	1:B:217:ILE:HD12	1.55	0.85
2:C:959:PRO:HG2	2:C:960:GLU:H	1.41	0.85
3:D:876:SER:N	3:D:879:ARG:HG3	1.91	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:890:VAL:HG11	3:D:922:LEU:HD13	1.59	0.85
3:D:1132:LEU:HD13	3:D:1184:ARG:HH12	1.41	0.85
3:D:1261:GLU:CD	3:D:1268:PRO:HB3	1.97	0.85
2:C:323:ASP:C	2:C:325:ILE:H	1.79	0.85
2:C:642:ARG:HG2	2:C:643:VAL:HG23	1.56	0.85
3:D:113:ALA:HB2	3:D:495:ARG:HH22	1.38	0.85
3:D:855:HIS:H	3:D:855:HIS:CD2	1.93	0.85
2:C:443:THR:HG21	2:C:454:SER:HB2	1.56	0.84
3:D:1047:LYS:HA	3:D:1053:PHE:CE1	2.12	0.84
2:C:162:ILE:HG13	2:C:171:TRP:CZ3	2.11	0.84
2:C:613:VAL:CG2	2:C:619:ARG:HG2	2.06	0.84
3:D:1280:VAL:HG12	3:D:1281:VAL:CG2	2.08	0.84
2:C:12:VAL:HG12	2:C:13:ILE:N	1.90	0.84
3:D:1147:ARG:HH12	3:D:1190:SER:HB2	1.42	0.84
3:D:502:PHE:HE1	3:D:1452:ILE:HG13	1.41	0.84
3:D:772:PRO:HG3	3:D:778:LEU:CB	2.07	0.84
1:A:143:ARG:HE	1:A:159:LYS:CE	1.90	0.84
2:C:852:ILE:H	2:C:852:ILE:HD13	1.37	0.84
1:B:98:THR:HG22	1:B:99:LEU:N	1.92	0.84
2:C:882:LEU:N	2:C:882:LEU:HD23	1.91	0.84
2:C:440:PRO:HB3	2:C:541:SER:HB3	1.58	0.84
2:C:843:HIS:CD2	2:C:884:GLN:HA	2.13	0.84
2:C:89:THR:O	2:C:91:GLN:HG3	1.78	0.84
2:C:1008:ARG:CZ	2:C:1020:PRO:HB3	2.07	0.83
2:C:278:GLU:HG3	2:C:284:GLY:H	1.43	0.83
2:C:324:ASP:O	2:C:326:ASP:N	2.10	0.83
1:B:86:VAL:HG23	1:B:124:ASN:ND2	1.92	0.83
2:C:13:ILE:HG22	2:C:15:LEU:H	1.43	0.83
3:D:879:ARG:NE	3:D:904:VAL:HG22	1.94	0.83
2:C:1107:ASN:N	2:C:1108:PRO:HD3	1.93	0.83
2:C:198:ARG:CG	2:C:228:ALA:HA	2.08	0.83
2:C:333:ILE:HD11	2:C:468:ARG:NE	1.92	0.83
2:C:352:ALA:HA	2:C:355:VAL:HG12	1.59	0.83
3:D:1450:ALA:HA	3:D:1455:LYS:HG3	1.61	0.83
3:D:879:ARG:CD	3:D:904:VAL:HG22	2.07	0.83
2:C:58:ASP:CB	2:C:61:LYS:HG3	2.09	0.83
2:C:672:VAL:HG22	2:C:868:ASP:OD2	1.77	0.83
1:A:131:THR:O	1:A:131:THR:HG22	1.79	0.83
3:D:1015:TYR:HB3	3:D:1018:ASN:HB2	1.61	0.83
3:D:908:LYS:HG3	3:D:1027:GLY:CA	2.07	0.83
3:D:465:LEU:HD23	3:D:509:PRO:HB3	1.59	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:38:THR:HG22	4:E:40:LEU:H	1.43	0.83
2:C:1051:GLU:HG2	2:C:1056:LYS:HE2	1.58	0.83
3:D:1011:PHE:HA	3:D:1014:ASN:O	1.76	0.83
3:D:590:PRO:HB3	3:D:599:PRO:HA	1.60	0.83
3:D:860:LEU:C	3:D:862:ASP:N	2.32	0.83
4:E:9:LEU:HA	4:E:12:MET:HE2	1.59	0.83
3:D:511:TRP:O	3:D:512:MET:HG3	1.79	0.83
1:A:143:ARG:NE	1:A:159:LYS:HE2	1.94	0.82
2:C:875:GLY:HA2	2:C:879:ARG:HG3	1.61	0.82
3:D:1003:VAL:O	3:D:1007:VAL:HG12	1.79	0.82
3:D:1107:VAL:HG21	3:D:1215:VAL:HG11	1.61	0.82
3:D:1282:ARG:CG	3:D:1293:PHE:HB2	2.10	0.82
3:D:900:ILE:HG22	3:D:902:MET:N	1.94	0.82
3:D:1154:GLU:HA	3:D:1159:ARG:HA	1.61	0.82
2:C:1012:PRO:HB3	2:C:1023:GLY:HA3	1.58	0.82
2:C:924:LEU:N	2:C:924:LEU:HD23	1.94	0.82
3:D:792:ILE:HG21	3:D:881:LEU:HD23	1.60	0.82
1:B:25:LEU:HD11	1:B:28:LEU:HD21	1.59	0.82
3:D:1213:ARG:HG3	3:D:1214:PRO:N	1.95	0.82
1:B:103:ALA:HB3	1:B:137:LYS:O	1.80	0.82
3:D:521:PRO:CG	3:D:522:PRO:HD3	2.09	0.82
4:E:48:MET:HG2	4:E:49:ARG:H	1.45	0.82
2:C:110:GLU:H	2:C:369:PRO:HG3	1.44	0.82
3:D:1251:ASP:H	3:D:1269:LYS:NZ	1.76	0.82
3:D:1376:LEU:HD11	3:D:1421:LEU:HD12	1.62	0.82
3:D:1250:THR:HG23	3:D:1269:LYS:HD3	1.61	0.82
2:C:695:LEU:HD21	2:C:833:LEU:HB3	1.60	0.82
2:C:564:MET:SD	2:C:846:LYS:HB3	2.20	0.82
3:D:1403:LEU:HD21	3:D:1415:VAL:H	1.44	0.82
2:C:15:LEU:HD21	2:C:461:VAL:CG2	2.09	0.81
3:D:890:VAL:HG11	3:D:922:LEU:CD1	2.08	0.81
3:D:731:LEU:HD11	3:D:931:LEU:HD12	1.61	0.81
3:D:1277:ILE:HD12	3:D:1294:VAL:HG12	1.61	0.81
2:C:32:ALA:HA	2:C:71:TYR:CE1	2.14	0.81
1:B:151:VAL:HG23	1:B:169:ALA:HB3	1.62	0.81
2:C:1030:GLN:O	3:D:622:ARG:HA	1.79	0.81
2:C:604:VAL:HG11	2:C:619:ARG:NH2	1.94	0.81
2:C:1005:MET:O	2:C:1005:MET:HG3	1.80	0.81
3:D:1096:ARG:HG3	3:D:1096:ARG:HH11	1.42	0.81
2:C:260:LEU:HD23	2:C:261:LEU:N	1.95	0.81
2:C:836:GLY:HA3	2:C:1001:VAL:CG2	2.10	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1119:SER:HB3	3:D:1185:GLU:HB3	1.62	0.81
2:C:892:LEU:H	2:C:892:LEU:HD22	1.46	0.81
3:D:582:ILE:O	3:D:584:ASN:N	2.14	0.81
2:C:376:ARG:N	2:C:377:PRO:HD2	1.95	0.81
3:D:1037:GLN:HG3	3:D:1042:ARG:HG2	1.63	0.81
3:D:1403:LEU:O	3:D:1407:LEU:HB2	1.81	0.81
1:A:10:VAL:HB	1:A:26:GLU:CG	2.11	0.81
1:B:109:VAL:O	1:B:129:ILE:HB	1.80	0.81
2:C:467:ILE:CG2	2:C:484:VAL:HG21	2.11	0.81
2:C:589:ARG:HH21	2:C:654:LEU:HD12	1.45	0.81
1:A:180:GLN:HE21	2:C:934:PHE:HB3	1.45	0.81
3:D:1459:LEU:HB3	3:D:1465:ASN:HD22	1.46	0.81
2:C:1053:LEU:HD12	3:D:621:LYS:HD2	1.63	0.80
3:D:1258:ARG:CZ	3:D:1262:LEU:HD11	2.11	0.80
3:D:882:PHE:HA	3:D:885:ILE:HD12	1.63	0.80
2:C:136:ILE:HG21	2:C:336:VAL:HG13	1.60	0.80
3:D:969:ARG:HG3	3:D:970:LYS:N	1.95	0.80
2:C:969:LEU:HD11	3:D:952:ASP:H	1.42	0.80
1:A:158:ILE:HG23	1:A:159:LYS:H	1.45	0.80
1:B:26:GLU:HB3	1:B:27:PRO:CD	2.11	0.80
1:B:41:ARG:HD3	1:B:42:ARG:N	1.96	0.80
2:C:216:ASP:O	2:C:218:VAL:HG23	1.80	0.80
2:C:671:ASN:HA	2:C:993:PHE:HA	1.62	0.80
2:C:889:HIS:HE1	3:D:951:ILE:H	1.26	0.80
3:D:968:ASP:O	3:D:970:LYS:N	2.14	0.80
2:C:613:VAL:HG12	2:C:614:ARG:N	1.96	0.80
3:D:795:VAL:HG13	3:D:864:VAL:CG2	2.10	0.80
2:C:580:MET:HB2	2:C:584:GLU:OE1	1.81	0.80
2:C:261:LEU:CG	2:C:263:ASP:HB3	2.12	0.80
2:C:572:ILE:O	2:C:573:ARG:HB2	1.81	0.80
2:C:108:ILE:HD13	2:C:368:THR:HG22	1.64	0.80
2:C:654:LEU:O	2:C:655:LEU:HB3	1.81	0.80
2:C:84:ARG:HA	2:C:131:GLY:HA2	1.64	0.80
3:D:881:LEU:O	3:D:885:ILE:HG13	1.82	0.80
1:A:24:VAL:HG12	1:A:25:LEU:O	1.82	0.80
3:D:1062:ARG:HG3	3:D:1062:ARG:HH11	1.45	0.80
3:D:1086:LEU:HD13	3:D:1238:MET:HB2	1.63	0.80
3:D:1351:GLU:OE1	3:D:1354:LYS:HD2	1.82	0.80
2:C:1005:MET:HB2	3:D:629:SER:HB2	1.63	0.80
2:C:9:ILE:HG22	2:C:10:ARG:H	1.47	0.80
3:D:1067:VAL:HG12	3:D:1069:GLU:HB2	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:890:VAL:CG1	3:D:922:LEU:HD13	2.11	0.80
2:C:149:THR:OG1	2:C:323:ASP:HA	1.82	0.79
2:C:460:ARG:NH1	2:C:464:LEU:HD21	1.97	0.79
2:C:631:SER:HB2	2:C:635:THR:N	1.96	0.79
3:D:772:PRO:HD3	3:D:778:LEU:H	1.47	0.79
3:D:886:VAL:CG1	3:D:900:ILE:HD11	2.12	0.79
1:B:38:ASN:HB3	1:B:39:PRO:HD3	1.63	0.79
2:C:147:TYR:O	2:C:322:VAL:HG13	1.83	0.79
3:D:876:SER:H	3:D:879:ARG:CG	1.95	0.79
2:C:290:LEU:HD12	2:C:291:VAL:H	1.45	0.79
3:D:1378:TYR:HE2	3:D:1431:THR:HB	1.45	0.79
2:C:149:THR:HB	2:C:158:TYR:HE1	1.46	0.79
2:C:440:PRO:HG3	2:C:454:SER:H	1.46	0.79
2:C:921:ALA:H	2:C:924:LEU:HD21	1.47	0.79
3:D:1459:LEU:CD1	3:D:1470:ARG:HH11	1.96	0.79
2:C:140:ILE:CG2	2:C:333:ILE:HG12	2.12	0.79
2:C:474:VAL:HG13	2:C:529:VAL:O	1.83	0.79
3:D:1046:GLN:HA	3:D:1052:THR:HA	1.64	0.79
3:D:113:ALA:HB2	3:D:495:ARG:NH2	1.98	0.79
1:A:163:ASN:O	1:A:165:ILE:HG23	1.82	0.79
2:C:478:VAL:O	2:C:479:VAL:HG13	1.81	0.79
2:C:613:VAL:HG11	2:C:619:ARG:CG	2.12	0.79
2:C:452:ILE:HG21	5:C:1640:RFP:O11	1.82	0.79
2:C:807:ARG:O	2:C:810:ASP:HB2	1.83	0.79
3:D:721:VAL:HG12	3:D:722:GLU:N	1.98	0.79
2:C:839:LEU:HD12	2:C:994:ILE:CG2	2.12	0.79
3:D:1483:PHE:CZ	4:E:18:ARG:HG3	2.17	0.79
2:C:531:PHE:O	2:C:532:MET:HB2	1.82	0.79
2:C:163:ILE:HG22	2:C:164:PRO:HD2	1.65	0.78
2:C:577:PRO:HG2	2:C:580:MET:HB3	1.65	0.78
3:D:1207:TYR:HA	3:D:1213:ARG:O	1.82	0.78
3:D:728:LEU:HD22	3:D:745:MET:CE	2.13	0.78
2:C:873:PRO:HG2	2:C:874:LEU:H	1.46	0.78
2:C:862:PRO:HA	2:C:975:TYR:HE1	1.48	0.78
1:A:222:LEU:HD12	1:B:215:VAL:HG13	1.63	0.78
2:C:399:ASN:C	2:C:399:ASN:ND2	2.36	0.78
2:C:690:ILE:HB	2:C:852:ILE:CG2	2.08	0.78
2:C:952:LEU:HD23	2:C:966:LEU:HD11	1.65	0.78
3:D:1160:LEU:HD22	3:D:1164:ARG:NH1	1.98	0.78
3:D:1196:THR:HB	3:D:1199:GLY:O	1.84	0.78
1:B:44:LEU:O	1:B:174:VAL:HG21	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:225:ALA:O	2:C:229:MET:HG2	1.84	0.78
2:C:401:LEU:HD21	2:C:543:ASN:HB3	1.64	0.78
3:D:1019:PRO:HB2	3:D:1022:VAL:CG2	2.14	0.78
1:B:169:ALA:HB1	1:B:171:PHE:CZ	2.19	0.78
2:C:666:LEU:HD11	2:C:668:LEU:HD21	1.66	0.78
3:D:765:SER:O	3:D:769:LEU:HB2	1.83	0.78
3:D:947:ILE:HG13	3:D:947:ILE:O	1.83	0.78
3:D:948:THR:O	3:D:1020:LEU:HB2	1.84	0.78
2:C:533:ASP:HB3	2:C:538:GLN:NE2	1.99	0.78
2:C:602:GLU:H	2:C:647:GLN:HA	1.49	0.78
1:A:20:TYR:O	1:A:207:PRO:HG2	1.82	0.78
1:B:195:LEU:CD1	1:B:197:LEU:HD13	2.14	0.78
2:C:460:ARG:HH11	2:C:464:LEU:HD21	1.48	0.78
2:C:597:ALA:HA	2:C:614:ARG:HH11	1.48	0.78
3:D:1280:VAL:CG1	3:D:1281:VAL:HG23	2.11	0.78
3:D:1484:THR:O	3:D:1486:VAL:HG23	1.83	0.78
1:A:23:PHE:CD2	1:A:211:LEU:HD22	2.19	0.77
1:B:47:SER:O	1:B:48:ILE:HG13	1.84	0.77
3:D:1459:LEU:HD13	3:D:1470:ARG:HH11	1.47	0.77
3:D:905:PRO:O	3:D:906:GLN:HB2	1.84	0.77
2:C:474:VAL:HG22	2:C:530:GLU:CA	2.14	0.77
3:D:1007:VAL:HG21	3:D:1039:CYS:HB2	1.65	0.77
3:D:996:TRP:CD2	3:D:1056:PRO:HG3	2.19	0.77
3:D:544:TYR:O	3:D:548:ILE:HG12	1.85	0.77
3:D:1205:TYR:HD2	3:D:1215:VAL:HG21	1.49	0.77
3:D:648:MET:O	3:D:652:LEU:HD23	1.85	0.77
2:C:256:TYR:O	2:C:261:LEU:HD22	1.85	0.77
2:C:376:ARG:H	2:C:377:PRO:CD	1.96	0.77
2:C:813:VAL:HG12	2:C:815:LEU:HD11	1.64	0.77
2:C:551:GLU:HA	2:C:906:PHE:CE2	2.18	0.77
3:D:1290:LEU:HB2	3:D:1305:LEU:O	1.85	0.77
1:A:195:LEU:HD23	1:A:196:THR:H	1.49	0.77
2:C:460:ARG:HD2	2:C:464:LEU:HD22	1.67	0.77
2:C:475:LYS:O	2:C:477:GLY:N	2.18	0.77
2:C:966:LEU:HD11	2:C:986:PRO:HG3	1.66	0.77
3:D:1282:ARG:HG2	3:D:1293:PHE:HB2	1.64	0.77
2:C:159:ILE:CG1	2:C:310:LEU:HD13	2.14	0.77
2:C:333:ILE:CD1	2:C:468:ARG:HE	1.97	0.77
2:C:944:LEU:HD21	2:C:963:LEU:HD22	1.66	0.77
3:D:547:LEU:HD13	3:D:577:ALA:O	1.85	0.77
1:A:109:VAL:HG23	1:A:130:ALA:O	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:13:ILE:CG2	2:C:15:LEU:H	1.98	0.77
2:C:1054:THR:HB	2:C:1055:ILE:HD12	1.67	0.77
2:C:493:ARG:NH1	3:D:1069:GLU:HA	2.00	0.77
3:D:731:LEU:CD1	3:D:931:LEU:HD12	2.15	0.77
1:A:173:PRO:O	1:A:202:ASP:HA	1.85	0.76
2:C:256:TYR:C	2:C:260:LEU:HB3	2.06	0.76
2:C:257:LEU:HD22	2:C:264:PRO:HG3	1.67	0.76
2:C:274:ARG:HE	2:C:275:TYR:HE1	1.31	0.76
2:C:810:ASP:OD1	2:C:811:PRO:HD2	1.85	0.76
2:C:969:LEU:HD21	3:D:952:ASP:HB2	1.66	0.76
3:D:465:LEU:HD22	3:D:512:MET:SD	2.26	0.76
3:D:822:ALA:HA	3:D:832:ARG:HB3	1.65	0.76
2:C:163:ILE:HD12	2:C:163:ILE:H	1.47	0.76
2:C:890:LEU:HG	2:C:890:LEU:O	1.85	0.76
3:D:855:HIS:HD2	3:D:855:HIS:H	1.30	0.76
1:B:98:THR:CG2	1:B:99:LEU:N	2.48	0.76
2:C:437:ARG:HB3	3:D:1071:PHE:CE1	2.20	0.76
2:C:963:LEU:HD12	2:C:972:VAL:HG22	1.65	0.76
3:D:1043:GLY:CA	3:D:1057:VAL:HG23	2.15	0.76
3:D:1376:LEU:CD1	3:D:1421:LEU:HD12	2.16	0.76
3:D:1481:VAL:O	3:D:1482:ARG:HG3	1.85	0.76
2:C:139:GLN:CD	2:C:334:ARG:HH21	1.88	0.76
2:C:79:SER:OG	2:C:82:GLU:HB2	1.86	0.76
3:D:1252:ILE:O	3:D:1258:ARG:HB2	1.85	0.76
3:D:767:HIS:CE1	4:E:6:ILE:HG13	2.20	0.76
3:D:795:VAL:H	3:D:862:ASP:CB	1.99	0.76
2:C:181:VAL:HG12	2:C:182:VAL:HG23	1.67	0.76
2:C:398:THR:OG1	2:C:633:GLN:HG3	1.86	0.76
2:C:1016:ILE:HD12	3:D:536:ALA:HA	1.66	0.76
2:C:605:LYS:CA	2:C:612:ALA:HB3	2.16	0.76
1:A:41:ARG:NE	2:C:860:HIS:NE2	2.34	0.76
3:D:1103:HIS:C	3:D:1105:ILE:H	1.89	0.76
3:D:1273:VAL:H	3:D:1324:PRO:HG3	1.51	0.76
3:D:1273:VAL:N	3:D:1324:PRO:HG3	2.01	0.76
3:D:1378:TYR:CD1	3:D:1422:MET:HG3	2.20	0.76
1:A:215:VAL:O	1:A:219:LYS:HG3	1.85	0.76
2:C:348:LEU:HD12	2:C:378:LEU:HD11	1.67	0.76
3:D:1156:LEU:HD12	3:D:1177:ALA:HA	1.68	0.76
3:D:691:LEU:H	3:D:691:LEU:CD1	1.98	0.76
3:D:806:PHE:HA	3:D:827:ILE:O	1.86	0.76
2:C:208:VAL:CG1	2:C:218:VAL:HG11	2.12	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:387:SER:O	2:C:388:ARG:HG3	1.85	0.75
3:D:1126:ASP:OD1	3:D:1128:VAL:HB	1.86	0.75
3:D:1443:THR:HG22	3:D:1447:LEU:HD22	1.67	0.75
1:A:197:LEU:H	1:A:197:LEU:CD2	1.98	0.75
2:C:80:GLN:O	2:C:81:ASP:HB2	1.84	0.75
3:D:1235:GLN:O	3:D:1236:LEU:HD23	1.87	0.75
3:D:506:GLY:O	3:D:507:ASN:HB3	1.86	0.75
3:D:518:PRO:HB3	3:D:544:TYR:CE1	2.21	0.75
3:D:790:TYR:CE2	3:D:906:GLN:HB3	2.22	0.75
1:A:72:LYS:CA	2:C:607:ASP:HB3	2.17	0.75
1:B:103:ALA:HB1	1:B:132:LEU:HD11	1.67	0.75
1:B:199:ILE:HG23	1:B:201:THR:HG23	1.68	0.75
1:A:35:THR:HG21	1:B:43:ILE:HD11	1.67	0.75
2:C:1053:LEU:CD1	3:D:621:LYS:HD2	2.15	0.75
2:C:710:ILE:N	2:C:710:ILE:HD12	2.01	0.75
2:C:440:PRO:HD3	2:C:455:LEU:N	2.02	0.75
3:D:865:THR:HG22	3:D:866:THR:N	2.01	0.75
1:A:39:PRO:O	1:A:43:ILE:HG12	1.86	0.75
1:B:100:ILE:HG23	1:B:141:GLU:HG2	1.69	0.75
2:C:239:PHE:CE1	2:C:254:LEU:HD23	2.22	0.75
2:C:659:PRO:O	2:C:660:ALA:HB2	1.85	0.75
2:C:748:GLU:HA	2:C:799:ILE:HA	1.66	0.75
3:D:1481:VAL:CG1	4:E:21:VAL:HG21	2.17	0.75
1:B:78:ILE:CG1	1:B:130:ALA:HB2	2.16	0.75
2:C:730:SER:HA	2:C:734:LEU:HD11	1.67	0.75
3:D:1283:ILE:HG12	3:D:1292:VAL:HG22	1.69	0.75
3:D:626:SER:HA	3:D:652:LEU:HD11	1.68	0.75
3:D:881:LEU:HG	3:D:885:ILE:HD11	1.68	0.75
4:E:40:LEU:C	4:E:42:PRO:HD2	2.06	0.75
2:C:251:ASP:O	2:C:252:LYS:HB3	1.84	0.75
2:C:438:ILE:HD12	2:C:484:VAL:HG22	1.69	0.75
2:C:705:ILE:HD12	2:C:705:ILE:H	1.51	0.75
3:D:855:HIS:O	3:D:857:LEU:N	2.20	0.75
1:B:33:GLY:O	1:B:195:LEU:HD23	1.87	0.75
3:D:100:ALA:HB1	3:D:579:ASP:OD1	1.87	0.75
3:D:968:ASP:O	3:D:971:LEU:N	2.19	0.75
1:B:214:ALA:HA	1:B:217:ILE:CD1	2.17	0.75
2:C:17:PRO:O	2:C:18:LEU:HB2	1.86	0.75
3:D:1047:LYS:HB3	3:D:1048:PRO:HD2	1.69	0.75
1:B:98:THR:HG23	1:B:142:VAL:O	1.87	0.74
3:D:1069:GLU:HG3	3:D:1072:ILE:HD13	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1280:VAL:HG12	3:D:1281:VAL:N	2.02	0.74
3:D:1282:ARG:O	3:D:1283:ILE:HG13	1.87	0.74
1:A:101:LEU:HD12	1:A:102:ARG:N	2.01	0.74
2:C:958:SER:O	2:C:962:GLN:HG3	1.85	0.74
3:D:1092:GLY:HA2	3:D:1096:ARG:NE	2.01	0.74
2:C:168:ARG:NH2	2:C:266:ARG:HG2	2.03	0.74
3:D:1031:ASN:O	3:D:1035:ILE:HG12	1.88	0.74
3:D:1322:GLY:O	3:D:1323:GLN:HB2	1.86	0.74
3:D:827:ILE:O	3:D:828:VAL:HG23	1.87	0.74
1:B:178:ALA:HB3	1:B:198:ARG:HE	1.52	0.74
2:C:106:GLY:O	2:C:107:LEU:HD23	1.86	0.74
2:C:260:LEU:HD23	2:C:261:LEU:HB3	1.68	0.74
2:C:571:LEU:HD22	2:C:670:GLN:HG3	1.70	0.74
3:D:1150:ALA:HB2	3:D:1189:ARG:HG2	1.67	0.74
3:D:1459:LEU:HB3	3:D:1465:ASN:ND2	2.01	0.74
2:C:401:LEU:HD21	2:C:543:ASN:CB	2.16	0.74
3:D:675:ARG:HA	3:D:678:GLU:HB2	1.69	0.74
3:D:752:SER:O	3:D:754:PHE:N	2.21	0.74
1:A:94:MET:CE	1:A:119:ASP:HB2	2.17	0.74
1:A:89:PHE:O	1:A:119:ASP:HB3	1.86	0.74
2:C:148:PHE:O	2:C:149:THR:HB	1.87	0.74
2:C:305:PRO:O	2:C:308:ARG:HB3	1.88	0.74
2:C:861:LEU:CG	2:C:862:PRO:HD2	2.10	0.74
2:C:911:GLU:O	2:C:915:LYS:HG2	1.85	0.74
2:C:922:PHE:C	2:C:924:LEU:H	1.89	0.74
1:B:25:LEU:HD11	1:B:28:LEU:CD1	2.16	0.74
2:C:1030:GLN:HE22	3:D:628:ARG:HD3	1.52	0.74
2:C:290:LEU:HA	2:C:300:ASP:HA	1.68	0.74
2:C:328:LEU:O	2:C:467:ILE:HD13	1.87	0.74
2:C:256:TYR:O	2:C:260:LEU:HD22	1.87	0.74
3:D:1042:ARG:HG3	3:D:1042:ARG:O	1.87	0.74
3:D:1060:SER:O	3:D:1062:ARG:N	2.19	0.74
3:D:1364:HIS:CG	3:D:1365:ASP:H	2.06	0.74
2:C:710:ILE:CG1	2:C:790:LEU:HD13	2.18	0.74
3:D:795:VAL:HG23	3:D:904:VAL:HG11	1.68	0.74
2:C:34:VAL:HG11	2:C:39:ARG:HG2	1.69	0.74
3:D:1109:GLU:HG3	3:D:1110:ALA:N	2.02	0.74
3:D:639:LEU:N	3:D:729:HIS:CD2	2.56	0.74
2:C:262:ALA:HB1	2:C:266:ARG:CD	2.09	0.73
2:C:290:LEU:HD21	2:C:298:PHE:HD2	1.53	0.73
2:C:355:VAL:HG23	2:C:372:LEU:HB3	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:10:ILE:HG13	3:D:11:ALA:H	1.52	0.73
1:A:165:ILE:O	1:A:165:ILE:HG13	1.87	0.73
1:B:174:VAL:HG12	1:B:201:THR:HG21	1.69	0.73
2:C:492:ASP:H	2:C:532:MET:H	1.36	0.73
2:C:755:LEU:HD12	2:C:790:LEU:CD2	2.18	0.73
3:D:1118:ILE:CD1	3:D:1190:SER:HB3	2.18	0.73
3:D:1275:SER:H	3:D:1322:GLY:HA2	1.52	0.73
3:D:519:VAL:HG12	3:D:520:LEU:H	1.50	0.73
2:C:285:LEU:HD23	2:C:286:SER:H	1.53	0.73
2:C:291:VAL:HB	2:C:299:LYS:HG3	1.71	0.73
2:C:613:VAL:HG11	2:C:619:ARG:HG2	1.70	0.73
2:C:727:PRO:HG3	2:C:785:VAL:HG12	1.69	0.73
3:D:1045:MET:CE	3:D:1045:MET:HA	2.18	0.73
1:A:83:LYS:HE2	1:A:168:ASP:HB2	1.70	0.73
2:C:256:TYR:O	2:C:260:LEU:HB3	1.88	0.73
3:D:630:VAL:O	3:D:725:SER:HA	1.86	0.73
1:A:184:THR:O	1:A:185:ARG:HD3	1.89	0.73
2:C:285:LEU:HD11	2:C:302:VAL:HG21	1.70	0.73
2:C:391:LEU:HD22	2:C:415:PRO:CD	2.17	0.73
2:C:753:ASP:O	2:C:791:ARG:HA	1.89	0.73
3:D:1106:VAL:HG21	3:D:1474:ALA:HB2	1.71	0.73
3:D:1281:VAL:HG12	3:D:1282:ARG:N	2.04	0.73
3:D:1338:ALA:O	3:D:1339:LYS:HB2	1.87	0.73
3:D:1481:VAL:HG11	4:E:21:VAL:HG21	1.69	0.73
2:C:129:ILE:CG2	2:C:387:SER:HB2	2.17	0.73
2:C:629:ALA:O	2:C:630:ARG:HD3	1.88	0.73
3:D:1314:LYS:O	3:D:1315:ASP:O	2.07	0.73
3:D:1483:PHE:CE1	4:E:22:VAL:HG23	2.24	0.73
3:D:508:ARG:O	3:D:510:GLU:N	2.21	0.73
2:C:1094:ALA:HB1	3:D:603:LEU:HD21	1.71	0.73
2:C:110:GLU:CB	2:C:369:PRO:HG2	2.19	0.73
2:C:66:LEU:HA	2:C:100:LEU:HA	1.70	0.73
2:C:553:ASP:OD2	2:C:843:HIS:ND1	2.20	0.73
2:C:552:HIS:CE1	3:D:1064:GLY:H	2.07	0.73
3:D:1145:TYR:C	3:D:1145:TYR:HD2	1.90	0.73
3:D:578:VAL:C	3:D:580:ALA:H	1.91	0.73
3:D:879:ARG:HD2	3:D:904:VAL:HG22	1.69	0.73
3:D:790:TYR:CD2	3:D:906:GLN:HB3	2.24	0.73
2:C:363:SER:O	2:C:367:LEU:HG	1.89	0.72
2:C:267:TYR:N	2:C:267:TYR:CD2	2.56	0.72
2:C:795:GLY:O	2:C:797:GLY:N	2.21	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1147:ARG:HB3	3:D:1188:VAL:CG2	2.18	0.72
3:D:580:ALA:O	3:D:584:ASN:HB2	1.89	0.72
1:A:90:LEU:HB2	1:A:119:ASP:HB3	1.70	0.72
2:C:676:ILE:O	2:C:677:MET:HB3	1.89	0.72
3:D:893:GLU:O	3:D:894:LYS:HB2	1.88	0.72
1:A:12:THR:HB	1:A:24:VAL:HB	1.71	0.72
2:C:597:ALA:HB2	2:C:655:LEU:HD13	1.69	0.72
2:C:277:ALA:HB1	2:C:281:LEU:HD12	1.70	0.72
2:C:559:LEU:HD12	2:C:560:MET:N	2.04	0.72
2:C:775:ARG:O	2:C:780:GLU:N	2.22	0.72
3:D:879:ARG:CZ	3:D:904:VAL:HA	2.19	0.72
1:A:142:VAL:HG22	1:A:142:VAL:O	1.89	0.72
2:C:421:GLU:HG3	2:C:423:ALA:H	1.54	0.72
2:C:801:VAL:CG2	2:C:828:ALA:HB2	2.18	0.72
1:A:143:ARG:O	1:A:144:VAL:HG13	1.89	0.72
2:C:399:ASN:ND2	2:C:401:LEU:N	2.38	0.72
2:C:897:LEU:HD23	2:C:899:GLN:OE1	1.89	0.72
3:D:1281:VAL:CG1	3:D:1282:ARG:H	2.01	0.72
3:D:1402:ALA:HB1	3:D:1415:VAL:HG11	1.72	0.72
3:D:865:THR:HG22	3:D:866:THR:H	1.53	0.72
1:A:41:ARG:HB3	1:A:41:ARG:HH11	1.54	0.72
1:B:55:SER:HA	1:B:166:PRO:HA	1.70	0.72
2:C:139:GLN:HE22	2:C:416:GLY:HA3	1.53	0.72
2:C:946:ARG:NE	2:C:984:GLU:HB2	2.05	0.72
3:D:1033:GLN:HA	3:D:1036:ARG:HD3	1.72	0.72
3:D:1205:TYR:CD2	3:D:1215:VAL:HG21	2.25	0.72
1:A:42:ARG:HH21	1:B:34:VAL:HB	1.55	0.72
1:A:90:LEU:HD12	1:A:119:ASP:HA	1.69	0.72
3:D:1034:GLN:O	3:D:1037:GLN:HB3	1.90	0.72
3:D:609:GLY:HA2	3:D:615:ARG:CZ	2.19	0.72
3:D:668:PRO:HG2	3:D:672:ALA:CB	2.19	0.72
1:A:162:ILE:HG23	1:A:163:ASN:N	2.05	0.71
2:C:688:ILE:HG23	2:C:871:LEU:HD12	1.70	0.71
2:C:877:PRO:HA	2:C:882:LEU:HD21	1.72	0.71
3:D:1094:LEU:HD22	3:D:1256:LEU:HD11	1.72	0.71
1:B:66:SER:OG	1:B:67:THR:N	2.19	0.71
2:C:710:ILE:CD1	2:C:790:LEU:HD22	2.02	0.71
1:A:212:ASN:O	1:A:215:VAL:HG22	1.89	0.71
2:C:80:GLN:HE22	2:C:122:THR:HG23	1.55	0.71
2:C:253:ALA:O	2:C:254:LEU:HB3	1.90	0.71
2:C:469:THR:HG22	2:C:483:VAL:HA	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1356:TYR:HB3	3:D:1361:VAL:HB	1.70	0.71
2:C:1012:PRO:CB	2:C:1023:GLY:HA3	2.21	0.71
2:C:775:ARG:HA	2:C:780:GLU:CB	2.20	0.71
3:D:1443:THR:CG2	3:D:1447:LEU:HD22	2.20	0.71
3:D:756:GLN:O	3:D:760:ARG:HG2	1.90	0.71
1:A:10:VAL:H	1:A:26:GLU:HB2	1.55	0.71
1:B:174:VAL:HA	1:B:201:THR:HG22	1.72	0.71
2:C:262:ALA:CB	2:C:266:ARG:HD3	2.08	0.71
2:C:921:ALA:N	2:C:924:LEU:HD21	2.05	0.71
2:C:940:GLU:HG2	2:C:973:VAL:HG21	1.73	0.71
3:D:564:GLU:HG3	3:D:568:ARG:HE	1.55	0.71
1:B:82:LEU:HD21	1:B:142:VAL:HG21	1.72	0.71
2:C:399:ASN:HD21	2:C:401:LEU:HB3	1.56	0.71
2:C:166:PRO:HB3	2:C:417:GLY:H	1.56	0.71
2:C:523:ILE:O	2:C:525:ALA:N	2.23	0.71
2:C:525:ALA:CB	2:C:526:PRO:HD2	2.20	0.71
2:C:570:PRO:HB3	2:C:659:PRO:O	1.90	0.71
3:D:705:ALA:HB3	3:D:706:PRO:CD	2.21	0.71
3:D:728:LEU:HD13	3:D:745:MET:HE3	1.73	0.71
4:E:40:LEU:HD21	4:E:67:GLU:HA	1.72	0.71
1:A:75:VAL:HA	1:A:78:ILE:HD12	1.71	0.71
2:C:51:THR:OG1	2:C:348:LEU:HD23	1.91	0.71
2:C:910:THR:HG22	2:C:912:PRO:HD2	1.72	0.71
3:D:691:LEU:HD12	3:D:691:LEU:N	1.98	0.71
3:D:899:LEU:N	3:D:899:LEU:HD13	2.06	0.71
3:D:1486:VAL:HG21	4:E:25:LYS:HZ1	1.55	0.71
1:A:110:ARG:HB2	1:A:126:ASP:O	1.90	0.71
1:B:213:GLN:O	1:B:217:ILE:HG13	1.90	0.71
3:D:688:TRP:O	3:D:690:ALA:N	2.24	0.71
3:D:699:VAL:CB	3:D:716:PHE:O	2.36	0.71
2:C:1066:ALA:O	2:C:1070:ILE:HD13	1.90	0.71
2:C:144:PRO:HA	2:C:162:ILE:CG2	2.21	0.71
2:C:877:PRO:O	2:C:881:ASN:N	2.22	0.71
2:C:939:ARG:HD3	2:C:975:TYR:HE2	1.55	0.71
3:D:486:ARG:HG3	3:D:487:ALA:H	1.55	0.71
3:D:586:ARG:O	3:D:588:GLY:N	2.23	0.71
1:A:112:VAL:O	1:A:114:PHE:N	2.24	0.70
1:A:47:SER:O	1:A:48:ILE:HG13	1.88	0.70
2:C:467:ILE:HG21	2:C:484:VAL:HG21	1.71	0.70
2:C:630:ARG:HA	2:C:705:ILE:HD13	1.73	0.70
3:D:1311:LEU:HB2	3:D:1323:GLN:OE1	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:460:ALA:O	3:D:463:GLU:HB3	1.90	0.70
1:A:106:PRO:O	1:A:107:LYS:HB3	1.91	0.70
1:A:85:LEU:HA	1:A:124:ASN:HD21	1.55	0.70
1:B:26:GLU:CB	1:B:27:PRO:HD3	2.20	0.70
2:C:196:LEU:O	2:C:200:LEU:HG	1.91	0.70
2:C:564:MET:HG3	2:C:997:LEU:HD11	1.72	0.70
3:D:571:LYS:C	3:D:573:MET:H	1.94	0.70
3:D:631:ILE:CD1	3:D:745:MET:HE2	2.21	0.70
1:A:30:ARG:HD2	1:A:191:ASP:CB	2.19	0.70
3:D:1402:ALA:CB	3:D:1415:VAL:HG11	2.22	0.70
3:D:1457:ASP:CG	3:D:1459:LEU:HD23	2.11	0.70
3:D:645:PRO:HD2	3:D:648:MET:SD	2.30	0.70
3:D:899:LEU:HD11	3:D:921:ARG:HD2	1.73	0.70
2:C:613:VAL:HG22	2:C:620:LEU:C	2.12	0.70
2:C:801:VAL:HG21	2:C:828:ALA:HB2	1.74	0.70
2:C:922:PHE:HA	2:C:925:TYR:HB3	1.73	0.70
2:C:943:VAL:HG21	2:C:973:VAL:HG13	1.73	0.70
3:D:1281:VAL:HG12	3:D:1282:ARG:H	1.55	0.70
3:D:1432:LYS:HG3	3:D:1433:SER:H	1.55	0.70
3:D:502:PHE:HE2	3:D:509:PRO:HG3	1.56	0.70
2:C:90:TYR:CE2	2:C:120:LEU:HB2	2.27	0.70
3:D:1145:TYR:C	3:D:1145:TYR:CD2	2.63	0.70
3:D:1273:VAL:CG2	3:D:1324:PRO:HG3	2.18	0.70
3:D:590:PRO:O	3:D:600:LEU:HD11	1.92	0.70
2:C:841:ASN:C	2:C:841:ASN:HD22	1.94	0.70
1:A:30:ARG:NH1	1:A:191:ASP:HB2	2.06	0.70
2:C:197:LEU:HD22	2:C:202:TYR:HD1	1.54	0.70
2:C:148:PHE:CZ	2:C:309:TYR:HD2	2.10	0.70
2:C:1099:VAL:HG22	3:D:10:ILE:HD12	1.73	0.70
3:D:688:TRP:C	3:D:690:ALA:H	1.94	0.70
2:C:142:ARG:HG2	2:C:147:TYR:CZ	2.26	0.70
3:D:1104:GLU:O	3:D:1104:GLU:HG2	1.91	0.70
3:D:1265:ALA:O	3:D:1266:ARG:HG3	1.91	0.70
2:C:874:LEU:HD13	3:D:787:LEU:HD22	1.73	0.70
3:D:890:VAL:HG13	3:D:926:LYS:HE2	1.74	0.70
3:D:890:VAL:CG1	3:D:891:GLY:H	1.97	0.70
1:A:66:SER:HB2	1:A:75:VAL:HG21	1.72	0.70
1:B:25:LEU:HD11	1:B:28:LEU:CD2	2.22	0.70
2:C:565:GLN:HG3	2:C:995:MET:CE	2.21	0.70
3:D:1211:MET:CE	4:E:16:LYS:HD2	2.21	0.70
3:D:1431:THR:O	3:D:1432:LYS:HG2	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:291:VAL:HG11	2:C:299:LYS:HE2	1.74	0.70
2:C:674:VAL:HG22	2:C:675:ALA:N	2.07	0.70
4:E:26:ARG:NE	4:E:67:GLU:OE2	2.25	0.70
2:C:588:VAL:HG23	2:C:666:LEU:HB2	1.74	0.69
3:D:1019:PRO:CB	3:D:1022:VAL:HG23	2.19	0.69
3:D:1403:LEU:HG	3:D:1415:VAL:HB	1.73	0.69
3:D:657:LEU:O	3:D:660:LYS:N	2.24	0.69
1:B:199:ILE:HG23	1:B:201:THR:CG2	2.22	0.69
1:B:25:LEU:HD11	1:B:28:LEU:CG	2.23	0.69
2:C:177:GLU:HG2	2:C:181:VAL:H	1.55	0.69
2:C:498:GLN:H	2:C:502:PRO:HD3	1.56	0.69
2:C:862:PRO:HA	2:C:975:TYR:CE1	2.27	0.69
2:C:950:LEU:O	3:D:1018:ASN:OD1	2.10	0.69
3:D:587:ARG:HG2	3:D:588:GLY:N	2.07	0.69
3:D:836:VAL:HG11	3:D:858:LEU:HG	1.72	0.69
2:C:312:ALA:HB1	2:C:318:PRO:CG	2.22	0.69
2:C:391:LEU:HD22	2:C:415:PRO:HD2	1.74	0.69
2:C:500:ASN:C	2:C:502:PRO:HD2	2.12	0.69
2:C:536:PRO:HB3	3:D:1068:LEU:HD11	1.75	0.69
3:D:1107:VAL:HG21	3:D:1215:VAL:CG1	2.21	0.69
3:D:1202:GLN:O	3:D:1203:LYS:HB2	1.92	0.69
1:A:206:THR:HB	1:A:209:GLU:HG3	1.75	0.69
2:C:666:LEU:HD11	2:C:668:LEU:CD2	2.22	0.69
1:A:109:VAL:O	1:A:129:ILE:HB	1.93	0.69
2:C:299:LYS:O	2:C:299:LYS:HG3	1.91	0.69
2:C:142:ARG:HA	2:C:330:ASN:O	1.91	0.69
3:D:1108:ARG:O	3:D:1109:GLU:HG2	1.92	0.69
3:D:701:LEU:HD12	3:D:715:ALA:HB2	1.75	0.69
2:C:352:ALA:O	2:C:355:VAL:HG12	1.92	0.69
3:D:1145:TYR:HD2	3:D:1146:GLY:N	1.91	0.69
3:D:552:ASN:HA	3:D:555:LYS:CB	2.22	0.69
1:A:6:LEU:C	1:A:8:ALA:H	1.94	0.69
1:B:179:PHE:HB2	1:B:197:LEU:HD12	1.73	0.69
2:C:889:HIS:C	2:C:891:GLY:H	1.95	0.69
3:D:1270:ALA:CB	3:D:1328:GLY:HA3	2.22	0.69
2:C:126:SER:HB3	2:C:135:VAL:HG13	1.73	0.69
2:C:726:ILE:HD12	2:C:726:ILE:N	2.07	0.69
3:D:1144:LEU:O	3:D:1147:ARG:HG2	1.92	0.69
2:C:1052:MET:HG2	3:D:623:VAL:HG22	1.75	0.69
2:C:796:GLU:HG2	3:D:681:ARG:HH12	1.57	0.69
4:E:59:ASN:ND2	4:E:61:VAL:HG23	2.08	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:42(U):UNK:O	3:D:43(U):UNK:O	2.10	0.69
3:D:654:LYS:HB3	3:D:655:PRO:HD3	1.72	0.69
1:B:59:GLU:O	1:B:60:ASP:HB2	1.93	0.69
2:C:323:ASP:C	2:C:325:ILE:N	2.47	0.69
2:C:413:LEU:HD21	2:C:451:LEU:HD13	1.74	0.69
2:C:333:ILE:HG21	2:C:460:ARG:HH22	1.58	0.69
2:C:42:VAL:N	2:C:46:ALA:HB2	2.08	0.69
2:C:683:ASN:HB2	2:C:872:ASN:HB2	1.74	0.69
3:D:1147:ARG:HB3	3:D:1188:VAL:HG22	1.74	0.69
3:D:1251:ASP:C	3:D:1253:THR:H	1.95	0.69
2:C:1005:MET:HA	3:D:628:ARG:O	1.92	0.69
2:C:469:THR:HB	2:C:482:GLU:O	1.93	0.69
3:D:1201:CYS:SG	3:D:1202:GLN:N	2.65	0.69
3:D:456:MET:HG2	3:D:457:GLY:N	2.08	0.69
3:D:493:ARG:O	3:D:496:LEU:HB3	1.93	0.69
3:D:808:THR:N	3:D:809:PRO:HD3	2.08	0.69
3:D:886:VAL:HG11	3:D:900:ILE:CD1	2.18	0.69
4:E:50:THR:O	4:E:52:GLU:N	2.26	0.69
1:A:72:LYS:HG3	2:C:607:ASP:OD1	1.92	0.68
1:B:44:LEU:HG	1:B:199:ILE:HD11	1.74	0.68
2:C:613:VAL:HG21	2:C:619:ARG:CG	2.17	0.68
3:D:1104:GLU:HB2	3:D:1461:GLY:HA2	1.75	0.68
3:D:115:LEU:C	3:D:117:ASP:H	1.93	0.68
4:E:30:LEU:C	4:E:32:ARG:H	1.97	0.68
1:A:105:GLY:N	1:A:136:GLY:HA3	2.07	0.68
2:C:211:LEU:HD22	2:C:304:LEU:HD12	1.75	0.68
2:C:837:ASP:N	2:C:837:ASP:OD2	2.24	0.68
3:D:1014:ASN:O	3:D:1015:TYR:CG	2.47	0.68
3:D:1160:LEU:HD22	3:D:1164:ARG:HH12	1.58	0.68
3:D:1105:ILE:HD11	3:D:1374:GLN:NE2	2.07	0.68
2:C:64:LEU:HD11	2:C:367:LEU:HD12	1.73	0.68
2:C:54:ILE:HD11	2:C:356:ARG:HB2	1.75	0.68
2:C:569:VAL:HG12	2:C:996:LYS:O	1.94	0.68
2:C:545:ASN:HB3	2:C:583:LEU:HD12	1.75	0.68
3:D:765:SER:HB2	3:D:769:LEU:HD12	1.76	0.68
2:C:1052:MET:C	2:C:1053:LEU:HD22	2.14	0.68
2:C:139:GLN:NE2	2:C:334:ARG:HH21	1.91	0.68
2:C:759:THR:HB	2:C:785:VAL:CG1	2.23	0.68
2:C:881:ASN:N	2:C:881:ASN:ND2	2.42	0.68
3:D:1062:ARG:HG3	3:D:1062:ARG:NH1	2.08	0.68
2:C:22:GLN:HE21	2:C:336:VAL:CG2	2.06	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:401:LEU:HD13	2:C:587:VAL:HG11	1.74	0.68
2:C:502:PRO:O	2:C:507:ARG:NH2	2.26	0.68
2:C:613:VAL:HG12	2:C:614:ARG:H	1.58	0.68
2:C:660:ALA:O	2:C:667:ALA:N	2.24	0.68
2:C:816:LYS:HD2	2:C:817:PRO:HD2	1.74	0.68
3:D:750:PRO:HG2	3:D:756:GLN:OE1	1.93	0.68
1:A:175:ARG:HB2	1:A:201:THR:HB	1.76	0.68
2:C:142:ARG:NE	2:C:324:ASP:HA	2.08	0.68
2:C:261:LEU:C	2:C:263:ASP:H	1.97	0.68
2:C:852:ILE:CD1	2:C:852:ILE:N	2.57	0.68
2:C:939:ARG:HD3	2:C:975:TYR:CE2	2.29	0.68
2:C:1089:VAL:O	2:C:1093:GLN:HG3	1.94	0.68
2:C:193:LEU:HD13	2:C:193:LEU:O	1.94	0.68
2:C:313:LEU:HD13	2:C:319:GLY:O	1.94	0.68
2:C:770:GLU:O	2:C:774:LEU:HG	1.94	0.68
3:D:112:ILE:O	3:D:114:THR:N	2.26	0.68
3:D:836:VAL:HG11	3:D:858:LEU:CG	2.22	0.68
3:D:859:ASP:O	3:D:860:LEU:HB3	1.94	0.68
1:B:147:GLY:HA3	1:B:171:PHE:CD1	2.29	0.68
2:C:836:GLY:HA3	2:C:1001:VAL:HG21	1.76	0.68
2:C:99:GLN:CB	2:C:109:LYS:HG2	2.22	0.68
2:C:54:ILE:HG12	2:C:355:VAL:HG13	1.76	0.68
2:C:924:LEU:O	2:C:928:LYS:HG3	1.94	0.68
4:E:81:PRO:HG3	4:E:84:ARG:HD2	1.76	0.68
1:A:157:GLY:HA3	1:A:166:PRO:HB3	1.76	0.68
2:C:1054:THR:O	2:C:1056:LYS:N	2.27	0.68
2:C:204:GLN:HG3	2:C:205:GLU:HG2	1.75	0.68
3:D:662:GLU:HB2	3:D:670:VAL:HG22	1.75	0.68
3:D:770:LEU:H	3:D:770:LEU:HD12	1.59	0.68
3:D:789:LEU:HD13	3:D:882:PHE:HE1	1.58	0.68
1:B:49:PRO:HB3	1:B:146:ARG:NH2	2.10	0.68
2:C:145:GLY:O	2:C:146:VAL:HG23	1.93	0.68
2:C:147:TYR:O	2:C:148:PHE:HB2	1.93	0.68
1:B:56:VAL:O	1:B:164:ALA:O	2.12	0.67
2:C:410:ILE:HG12	2:C:468:ARG:HH21	1.58	0.67
2:C:635:THR:O	2:C:636:ALA:HB3	1.94	0.67
2:C:754:ILE:CD1	2:C:791:ARG:HE	2.07	0.67
2:C:755:LEU:HD23	2:C:792:VAL:CG2	2.24	0.67
3:D:1123:PHE:CE2	3:D:1184:ARG:HG2	2.29	0.67
3:D:509:PRO:HA	3:D:511:TRP:NE1	2.09	0.67
3:D:721:VAL:CG1	3:D:722:GLU:H	2.06	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:285:LEU:HD11	2:C:302:VAL:CG2	2.24	0.67
2:C:729:LEU:HB2	2:C:787:ASP:OD2	1.93	0.67
3:D:1106:VAL:O	3:D:1108:ARG:HG3	1.94	0.67
3:D:126:VAL:H	3:D:456:MET:HE2	1.58	0.67
3:D:502:PHE:CE1	3:D:1452:ILE:HG13	2.28	0.67
3:D:26:VAL:C	3:D:28:LYS:H	1.95	0.67
3:D:709:HIS:HD2	3:D:711:LEU:HB2	1.59	0.67
3:D:631:ILE:HG21	3:D:745:MET:HE2	1.77	0.67
4:E:29:GLN:N	4:E:32:ARG:HG2	2.10	0.67
1:B:16:GLN:HB3	1:B:19:HIS:O	1.93	0.67
1:B:26:GLU:O	1:B:28:LEU:HG	1.95	0.67
2:C:328:LEU:O	2:C:467:ILE:HG21	1.94	0.67
2:C:35:PRO:O	2:C:37:GLU:N	2.27	0.67
2:C:903:SER:HB2	2:C:909:ALA:HB2	1.77	0.67
3:D:1033:GLN:O	3:D:1036:ARG:HG2	1.94	0.67
3:D:1153:VAL:O	3:D:1153:VAL:HG12	1.95	0.67
3:D:1207:TYR:HA	3:D:1214:PRO:HA	1.76	0.67
3:D:578:VAL:O	3:D:582:ILE:HG13	1.94	0.67
3:D:957:PRO:HB2	3:D:959:GLU:HG2	1.76	0.67
1:B:72:LYS:N	1:B:131:THR:O	2.27	0.67
2:C:257:LEU:O	2:C:259:GLY:N	2.28	0.67
2:C:285:LEU:CD2	2:C:286:SER:H	2.06	0.67
2:C:605:LYS:HD3	2:C:607:ASP:HA	1.76	0.67
2:C:674:VAL:CG2	2:C:675:ALA:N	2.57	0.67
2:C:892:LEU:HD23	2:C:893:ALA:H	1.60	0.67
3:D:1327:ARG:HB3	3:D:1327:ARG:NH1	2.10	0.67
3:D:551:ASN:O	3:D:555:LYS:HB2	1.93	0.67
3:D:639:LEU:H	3:D:729:HIS:HD2	1.38	0.67
1:B:202:ASP:C	1:B:204:SER:H	1.98	0.67
2:C:246:ASP:HB3	2:C:247:PRO:CD	2.25	0.67
2:C:423:ALA:HA	2:C:427:VAL:HG21	1.77	0.67
2:C:159:ILE:O	2:C:173:ASP:HA	1.93	0.67
2:C:440:PRO:HD3	2:C:455:LEU:CA	2.24	0.67
2:C:579:VAL:HG21	2:C:887:GLU:HG3	1.75	0.67
3:D:612:GLY:O	3:D:614:PHE:N	2.27	0.67
4:E:48:MET:HG2	4:E:49:ARG:N	2.10	0.67
2:C:1034:GLU:CD	3:D:1096:ARG:HH12	1.98	0.67
2:C:164:PRO:HD3	2:C:267:TYR:CD2	2.30	0.67
2:C:673:LEU:O	2:C:868:ASP:HB2	1.95	0.67
3:D:947:ILE:HD12	3:D:1020:LEU:HB3	1.77	0.67
3:D:1125:MET:HB2	3:D:1132:LEU:HD23	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:465:LEU:HD22	3:D:512:MET:CE	2.25	0.67
3:D:553:ARG:O	3:D:554:LEU:HD23	1.95	0.67
3:D:709:HIS:CD2	3:D:711:LEU:HB2	2.30	0.67
3:D:699:VAL:HG22	3:D:756:GLN:NE2	2.10	0.67
4:E:82:GLU:O	4:E:85:LEU:HB3	1.95	0.67
1:B:76:VAL:HB	3:D:872:ARG:HH22	1.58	0.67
2:C:640:ARG:HH11	2:C:640:ARG:HG3	1.60	0.67
3:D:1043:GLY:O	3:D:1056:PRO:HA	1.95	0.67
3:D:1103:HIS:HB2	3:D:1462:LEU:HD12	1.77	0.67
3:D:906:GLN:OE1	3:D:906:GLN:N	2.28	0.67
1:A:180:GLN:HG3	2:C:934:PHE:CD2	2.30	0.67
1:A:44:LEU:HD13	1:A:199:ILE:HG13	1.75	0.67
1:B:25:LEU:HD12	1:B:25:LEU:C	2.15	0.67
1:B:30:ARG:HA	1:B:193:ASP:OD1	1.95	0.67
3:D:557:LEU:HD11	3:D:563:PRO:HD2	1.77	0.67
3:D:891:GLY:N	3:D:926:LYS:HZ1	1.92	0.67
1:A:194:LYS:O	1:A:196:THR:HG22	1.94	0.67
1:A:197:LEU:HD23	1:A:197:LEU:N	2.08	0.67
2:C:605:LYS:HA	2:C:612:ALA:CB	2.24	0.67
3:D:100:ALA:CB	3:D:575:GLN:HG3	2.25	0.67
3:D:1136:LYS:O	3:D:1138:SER:N	2.28	0.67
3:D:1252:ILE:C	3:D:1254:GLN:H	1.96	0.67
3:D:795:VAL:HG13	3:D:864:VAL:HG22	1.77	0.67
4:E:29:GLN:CA	4:E:32:ARG:HG2	2.25	0.67
2:C:882:LEU:CD2	2:C:882:LEU:N	2.59	0.66
3:D:705:ALA:CB	3:D:706:PRO:CD	2.73	0.66
3:D:760:ARG:HH12	4:E:59:ASN:HD21	1.42	0.66
3:D:947:ILE:HB	3:D:1020:LEU:HD22	1.76	0.66
3:D:777:PRO:HG2	3:D:912:LYS:HG3	1.76	0.66
4:E:25:LYS:HA	4:E:28:GLN:HB3	1.77	0.66
2:C:438:ILE:CD1	2:C:484:VAL:HG22	2.25	0.66
2:C:676:ILE:CG2	2:C:873:PRO:HB3	2.25	0.66
2:C:929:ARG:C	2:C:931:GLY:H	1.98	0.66
3:D:103:TRP:O	3:D:104:PHE:CB	2.43	0.66
3:D:510:GLU:O	3:D:512:MET:N	2.28	0.66
1:A:62:LEU:HD13	2:C:745:ILE:HB	1.78	0.66
2:C:1018:GLN:HA	2:C:1018:GLN:OE1	1.95	0.66
2:C:266:ARG:NE	2:C:268:ASP:HB3	2.10	0.66
2:C:323:ASP:O	2:C:325:ILE:N	2.24	0.66
2:C:440:PRO:HG3	2:C:454:SER:N	2.10	0.66
2:C:755:LEU:CD1	2:C:790:LEU:HD23	2.23	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:876:VAL:HB	2:C:877:PRO:CD	2.25	0.66
3:D:1304:LYS:N	3:D:1304:LYS:HD3	2.10	0.66
3:D:764:LEU:HG	3:D:766:ALA:H	1.60	0.66
1:A:195:LEU:HD23	1:A:196:THR:N	2.11	0.66
1:B:25:LEU:CD1	1:B:28:LEU:HD21	2.25	0.66
2:C:148:PHE:O	2:C:149:THR:CB	2.42	0.66
2:C:710:ILE:HG12	2:C:790:LEU:HB2	1.77	0.66
3:D:1141:GLU:HA	3:D:1171:VAL:CG1	2.22	0.66
3:D:108:VAL:N	3:D:511:TRP:HH2	1.94	0.66
3:D:849:ALA:O	3:D:853:VAL:HG23	1.95	0.66
3:D:91:ALA:O	3:D:517:VAL:HG13	1.96	0.66
1:A:41:ARG:HG2	1:A:177:VAL:CG1	2.25	0.66
1:B:106:PRO:CA	1:B:133:GLU:HA	2.24	0.66
2:C:712:ALA:HB2	2:C:722:ILE:HD12	1.78	0.66
3:D:1486:VAL:HG21	4:E:25:LYS:NZ	2.11	0.66
2:C:881:ASN:HD22	2:C:881:ASN:N	1.92	0.66
2:C:922:PHE:C	2:C:924:LEU:N	2.49	0.66
3:D:1236:LEU:HD11	3:D:1356:TYR:CE2	2.22	0.66
3:D:1396:GLU:O	3:D:1400:VAL:HG23	1.95	0.66
3:D:546:ARG:HH12	3:D:589:SER:HB2	1.59	0.66
3:D:904:VAL:HG12	3:D:906:GLN:OE1	1.95	0.66
3:D:879:ARG:NH2	3:D:905:PRO:HD2	2.11	0.66
1:A:211:LEU:O	1:A:215:VAL:HG13	1.95	0.66
1:A:217:ILE:HG22	1:A:221:HIS:CD2	2.31	0.66
2:C:892:LEU:N	2:C:892:LEU:CD2	2.54	0.66
2:C:862:PRO:HG3	2:C:925:TYR:OH	1.96	0.66
2:C:953:VAL:HG11	2:C:962:GLN:HB3	1.78	0.66
2:C:839:LEU:HD12	2:C:994:ILE:HG22	1.77	0.66
3:D:1142:SER:O	3:D:1365:ASP:HB2	1.95	0.66
3:D:91:ALA:HB3	3:D:518:PRO:HG2	1.76	0.66
2:C:502:PRO:HB2	2:C:507:ARG:HH12	1.59	0.66
3:D:908:LYS:HG3	3:D:1027:GLY:HA3	1.77	0.66
3:D:772:PRO:HG3	3:D:778:LEU:CD2	2.26	0.66
3:D:792:ILE:HG22	3:D:792:ILE:O	1.95	0.66
2:C:163:ILE:HG23	2:C:265:LYS:NZ	2.11	0.65
2:C:626:ARG:NE	2:C:637:PHE:HZ	1.94	0.65
4:E:40:LEU:HB3	4:E:44:GLU:O	1.96	0.65
1:B:30:ARG:HG3	1:B:30:ARG:O	1.95	0.65
2:C:336:VAL:HA	2:C:339:LEU:HD12	1.78	0.65
2:C:958:SER:HB2	2:C:959:PRO:HD2	1.78	0.65
3:D:1112:CYS:SG	3:D:1113:GLY:N	2.69	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1273:VAL:HG23	3:D:1324:PRO:CG	2.19	0.65
3:D:772:PRO:HD3	3:D:778:LEU:N	2.11	0.65
2:C:721:ARG:O	2:C:758:ARG:HB2	1.95	0.65
3:D:90:MET:N	3:D:520:LEU:HD21	2.10	0.65
3:D:91:ALA:HB3	3:D:518:PRO:HD2	1.78	0.65
1:B:150:TYR:CE1	1:B:170:ILE:HG22	2.31	0.65
2:C:1045:ALA:HB1	2:C:1048:THR:CB	2.23	0.65
2:C:613:VAL:CG1	2:C:620:LEU:H	2.05	0.65
2:C:648:ARG:HG2	2:C:648:ARG:HH11	1.61	0.65
2:C:943:VAL:O	2:C:946:ARG:N	2.28	0.65
3:D:1069:GLU:O	3:D:1072:ILE:N	2.28	0.65
3:D:681:ARG:O	3:D:682:ASP:HB2	1.97	0.65
1:A:162:ILE:HG12	1:A:163:ASN:OD1	1.95	0.65
1:B:58:ILE:HG23	1:B:140:MET:HG2	1.77	0.65
1:B:174:VAL:HG12	1:B:201:THR:CG2	2.26	0.65
2:C:1034:GLU:HB3	3:D:618:LEU:O	1.96	0.65
2:C:142:ARG:HH12	2:C:171:TRP:HH2	1.45	0.65
2:C:159:ILE:HG12	2:C:310:LEU:HD13	1.76	0.65
2:C:410:ILE:HG12	2:C:468:ARG:NH2	2.11	0.65
2:C:576:ALA:H	2:C:662:GLU:HG2	1.62	0.65
3:D:754:PHE:O	3:D:758:GLU:HG2	1.96	0.65
3:D:789:LEU:HD11	3:D:934:LEU:HD22	1.78	0.65
1:A:35:THR:HG22	1:B:218:LEU:HD13	1.77	0.65
1:B:94:MET:HB2	1:B:94:MET:CE	2.27	0.65
2:C:1020:PRO:HD2	3:D:622:ARG:O	1.96	0.65
2:C:796:GLU:HG2	3:D:681:ARG:HH22	1.62	0.65
2:C:857:ASP:O	2:C:858:MET:HB2	1.95	0.65
3:D:860:LEU:HA	3:D:877:PRO:CG	2.21	0.65
2:C:1008:ARG:HB2	2:C:1028:GLY:HA3	1.77	0.65
2:C:404:LEU:HD23	2:C:587:VAL:HG13	1.79	0.65
2:C:467:ILE:HG22	2:C:484:VAL:HG21	1.77	0.65
2:C:564:MET:CG	2:C:997:LEU:HD11	2.26	0.65
2:C:604:VAL:HG11	2:C:619:ARG:HH22	1.61	0.65
2:C:575:GLN:O	2:C:667:ALA:HB1	1.96	0.65
1:A:213:GLN:O	1:A:216:ALA:HB3	1.97	0.65
2:C:813:VAL:CG1	2:C:815:LEU:HD11	2.26	0.65
2:C:953:VAL:CG2	2:C:966:LEU:HD13	2.27	0.65
3:D:129:PHE:CA	3:D:454:ALA:HB1	2.15	0.65
3:D:916:TYR:C	3:D:916:TYR:CD2	2.71	0.65
2:C:439:CYS:SG	2:C:440:PRO:HD2	2.37	0.65
2:C:631:SER:OG	2:C:635:THR:HG22	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1017:PHE:HA	3:D:1023:MET:SD	2.37	0.65
2:C:1008:ARG:CD	2:C:1029:GLY:H	2.02	0.65
2:C:360:VAL:O	2:C:361:MET:C	2.35	0.65
2:C:395:LYS:HE2	2:C:403:SER:HB2	1.79	0.65
2:C:495:THR:HG22	2:C:496:ILE:H	1.61	0.65
2:C:813:VAL:HG12	2:C:815:LEU:CD1	2.27	0.65
2:C:688:ILE:CG2	2:C:871:LEU:HD12	2.27	0.65
2:C:910:THR:C	2:C:912:PRO:HD2	2.17	0.65
2:C:94:LEU:O	2:C:115:LEU:HB3	1.97	0.65
3:D:670:VAL:O	3:D:673:ALA:HB3	1.97	0.65
3:D:877:PRO:O	3:D:880:ILE:HB	1.95	0.65
2:C:1063:ARG:O	2:C:1066:ALA:HB3	1.97	0.64
2:C:184:MET:HB3	2:C:191:PHE:CZ	2.32	0.64
3:D:657:LEU:O	3:D:658:LEU:C	2.35	0.64
1:A:23:PHE:HZ	1:A:207:PRO:HB2	1.63	0.64
2:C:163:ILE:HG21	2:C:169:GLY:HA3	1.79	0.64
2:C:605:LYS:CG	2:C:607:ASP:H	2.10	0.64
2:C:573:ARG:HG3	2:C:573:ARG:HH11	1.62	0.64
3:D:1093:TYR:HE2	3:D:1097:LYS:NZ	1.96	0.64
3:D:1277:ILE:HG22	3:D:1279:GLY:H	1.62	0.64
3:D:1364:HIS:O	3:D:1365:ASP:HB3	1.97	0.64
3:D:1457:ASP:OD1	3:D:1459:LEU:HD23	1.96	0.64
3:D:978:TYR:C	3:D:980:MET:H	2.01	0.64
2:C:839:LEU:HD23	2:C:849:VAL:HG22	1.80	0.64
3:D:1118:ILE:HD12	3:D:1118:ILE:N	2.11	0.64
3:D:1136:LYS:HE3	3:D:1139:ASP:OD1	1.96	0.64
3:D:1348:LEU:O	3:D:1352:ILE:HG13	1.97	0.64
2:C:1019:GLN:HB3	2:C:1057:SER:OG	1.96	0.64
2:C:1113:GLU:O	2:C:1115:LEU:HD23	1.98	0.64
3:D:1093:TYR:HE2	3:D:1097:LYS:HZ2	1.45	0.64
3:D:578:VAL:HG12	3:D:582:ILE:HD11	1.79	0.64
3:D:641:GLN:HB3	3:D:719:VAL:HG21	1.79	0.64
2:C:151:ASP:H	2:C:157:ARG:HA	1.63	0.64
2:C:331:ARG:O	2:C:467:ILE:HG12	1.96	0.64
2:C:34:VAL:CG1	2:C:38:LYS:HG3	2.27	0.64
3:D:1282:ARG:CB	3:D:1293:PHE:HB2	2.26	0.64
3:D:1381:VAL:HG12	3:D:1382:THR:H	1.62	0.64
3:D:764:LEU:HD23	3:D:767:HIS:NE2	2.12	0.64
3:D:793:THR:HG22	3:D:879:ARG:HH22	1.61	0.64
2:C:304:LEU:N	2:C:305:PRO:CD	2.61	0.64
2:C:589:ARG:NH2	2:C:654:LEU:HA	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:768:SER:HB2	2:C:769:PRO:HD2	1.79	0.64
2:C:859:PRO:O	2:C:867:VAL:HG23	1.98	0.64
3:D:1037:GLN:HG3	3:D:1042:ARG:CG	2.26	0.64
3:D:1323:GLN:N	3:D:1324:PRO:CD	2.61	0.64
3:D:968:ASP:O	3:D:969:ARG:C	2.36	0.64
3:D:996:TRP:HA	3:D:999:THR:HG22	1.78	0.64
2:C:12:VAL:HG21	2:C:479:VAL:HG11	1.79	0.64
2:C:256:TYR:CA	2:C:260:LEU:HD13	2.28	0.64
3:D:1086:LEU:O	3:D:1089:ALA:HB3	1.98	0.64
3:D:1142:SER:O	3:D:1364:HIS:HD2	1.80	0.64
3:D:886:VAL:HG21	3:D:914:LEU:HD11	1.79	0.64
2:C:946:ARG:HH11	2:C:946:ARG:HG2	1.63	0.64
4:E:59:ASN:HD22	4:E:62:THR:HG1	1.46	0.64
3:D:1378:TYR:CE2	3:D:1431:THR:HB	2.30	0.64
3:D:1433:SER:HB3	3:D:1464:GLU:OE2	1.98	0.64
3:D:626:SER:HB2	3:D:748:HIS:HA	1.80	0.64
4:E:59:ASN:HD21	4:E:61:VAL:HG23	1.63	0.64
1:B:14:THR:CB	1:B:22:GLU:HB3	2.27	0.63
3:D:1326:THR:O	3:D:1327:ARG:HB3	1.97	0.63
3:D:1484:THR:HG21	4:E:79:LEU:HB2	1.79	0.63
3:D:606:ILE:HD12	3:D:606:ILE:H	1.63	0.63
3:D:840:LYS:CB	3:D:846:PRO:HA	2.28	0.63
4:E:47:LYS:HD3	4:E:54:LEU:HD23	1.80	0.63
1:A:88:ARG:HB2	1:A:123:MET:SD	2.38	0.63
1:B:23:PHE:HD1	1:B:211:LEU:HD22	1.63	0.63
1:B:76:VAL:HB	3:D:872:ARG:NH2	2.13	0.63
2:C:831:ARG:HH12	2:C:1002:GLU:HB2	1.63	0.63
3:D:1280:VAL:HG12	3:D:1281:VAL:H	1.63	0.63
1:A:115:THR:HG23	1:A:115:THR:O	1.98	0.63
2:C:1087:VAL:HG12	2:C:1091:GLU:OE2	1.97	0.63
2:C:66:LEU:HD11	2:C:98:LEU:CB	2.27	0.63
3:D:1096:ARG:HG3	3:D:1096:ARG:NH1	2.10	0.63
3:D:496:LEU:HD12	3:D:500:ARG:HG2	1.81	0.63
3:D:723:GLY:O	3:D:724:GLN:HB2	1.98	0.63
3:D:965:GLU:O	3:D:968:ASP:HB2	1.97	0.63
3:D:969:ARG:HG3	3:D:970:LYS:H	1.60	0.63
2:C:303:PHE:H	2:C:305:PRO:HD2	1.63	0.63
3:D:1043:GLY:HA2	3:D:1057:VAL:CG2	2.28	0.63
3:D:1282:ARG:HB3	3:D:1293:PHE:HB2	1.80	0.63
3:D:580:ALA:HB2	3:D:587:ARG:HH22	1.63	0.63
3:D:769:LEU:HD22	3:D:779:ALA:HB2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:788:GLY:O	3:D:792:ILE:HD13	1.97	0.63
2:C:66:LEU:CA	2:C:100:LEU:HA	2.28	0.63
2:C:1089:VAL:HG13	2:C:1099:VAL:HB	1.80	0.63
2:C:129:ILE:CD1	2:C:386:PHE:HB3	2.29	0.63
2:C:38:LYS:O	2:C:39:ARG:HB2	1.98	0.63
2:C:408:ARG:NH2	2:C:456:ALA:O	2.28	0.63
2:C:475:LYS:C	2:C:477:GLY:H	2.02	0.63
2:C:580:MET:HB2	2:C:584:GLU:CD	2.19	0.63
2:C:602:GLU:O	2:C:603:VAL:HG13	1.99	0.63
3:D:1103:HIS:C	3:D:1105:ILE:N	2.50	0.63
3:D:976:GLN:C	3:D:978:TYR:H	2.02	0.63
2:C:202:TYR:CE1	2:C:304:LEU:HB3	2.32	0.63
2:C:401:LEU:O	2:C:404:LEU:HB3	1.99	0.63
2:C:588:VAL:CG1	2:C:588:VAL:O	2.46	0.63
1:A:131:THR:CG2	2:C:644:ARG:HE	2.12	0.63
2:C:685:GLU:OE1	2:C:685:GLU:HA	1.99	0.63
2:C:874:LEU:O	2:C:876:VAL:HG23	1.98	0.63
2:C:87:ASP:OD2	2:C:824:ARG:NH2	2.31	0.63
3:D:1403:LEU:HD12	3:D:1417:TRP:HZ3	1.64	0.63
3:D:89:ARG:O	3:D:520:LEU:HD11	1.97	0.63
3:D:643:GLY:HA2	3:D:721:VAL:HG21	1.80	0.63
3:D:880:ILE:O	3:D:883:ALA:HB3	1.98	0.63
3:D:972:ARG:O	3:D:976:GLN:HB2	1.99	0.63
1:B:174:VAL:HA	1:B:201:THR:CB	2.28	0.63
1:B:87:VAL:HG12	1:B:88:ARG:N	2.14	0.63
3:D:1139:ASP:O	3:D:1143:GLY:N	2.32	0.63
3:D:1304:LYS:H	3:D:1304:LYS:HD3	1.61	0.63
1:A:46:SER:OG	2:C:856:GLU:HG2	1.98	0.63
1:B:90:LEU:HB2	1:B:119:ASP:HA	1.80	0.63
2:C:26:TYR:O	2:C:30:LEU:N	2.29	0.63
2:C:492:ASP:O	2:C:532:MET:HA	1.98	0.63
3:D:1154:GLU:O	3:D:1155:ALA:HB2	1.98	0.63
3:D:35(U):UNK:O	3:D:36(U):UNK:CB	2.47	0.63
3:D:456:MET:HG2	3:D:457:GLY:H	1.64	0.63
3:D:519:VAL:HG12	3:D:520:LEU:N	2.13	0.63
3:D:679:ARG:O	3:D:681:ARG:N	2.32	0.63
4:E:14:ASP:CG	4:E:15:SER:N	2.51	0.63
1:A:86:VAL:HG12	1:A:124:ASN:CG	2.18	0.63
2:C:202:TYR:HB3	2:C:207:LEU:HD13	1.80	0.63
2:C:257:LEU:CD2	2:C:264:PRO:HG3	2.29	0.63
2:C:268:ASP:O	2:C:270:GLY:N	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:816:LYS:HD2	2:C:817:PRO:CD	2.28	0.63
3:D:1236:LEU:HD12	3:D:1256:LEU:HD13	1.81	0.63
3:D:1324:PRO:HG2	3:D:1325:LEU:N	2.14	0.63
3:D:678:GLU:C	3:D:680:GLN:H	2.02	0.63
3:D:908:LYS:HD3	3:D:909:ASN:HB2	1.81	0.63
1:A:217:ILE:HG22	1:A:221:HIS:NE2	2.14	0.62
1:B:115:THR:O	1:B:117:SER:N	2.32	0.62
1:B:98:THR:CG2	1:B:99:LEU:H	2.12	0.62
2:C:110:GLU:HB2	2:C:369:PRO:HG2	1.80	0.62
2:C:787:ASP:O	2:C:787:ASP:OD1	2.17	0.62
2:C:1107:ASN:N	2:C:1108:PRO:CD	2.62	0.62
2:C:676:ILE:O	2:C:677:MET:CB	2.47	0.62
2:C:722:ILE:HA	2:C:758:ARG:CB	2.29	0.62
2:C:66:LEU:HD11	2:C:98:LEU:HB3	1.80	0.62
3:D:502:PHE:CE2	3:D:509:PRO:HG3	2.33	0.62
2:C:1012:PRO:HB3	2:C:1023:GLY:CA	2.29	0.62
2:C:1034:GLU:HA	2:C:1037:VAL:HG23	1.81	0.62
2:C:603:VAL:HG21	2:C:646:GLY:H	1.65	0.62
3:D:1083:ASP:O	3:D:1086:LEU:HB2	1.99	0.62
3:D:767:HIS:HE1	4:E:2:ALA:HB1	1.64	0.62
2:C:208:VAL:HG12	2:C:209:ARG:HG3	1.80	0.62
2:C:324:ASP:C	2:C:326:ASP:H	2.02	0.62
3:D:554:LEU:O	3:D:558:LEU:HD12	1.99	0.62
3:D:770:LEU:H	3:D:770:LEU:CD1	2.11	0.62
1:A:28:LEU:HD12	1:A:195:LEU:HB2	1.81	0.62
1:A:173:PRO:O	1:A:203:GLY:N	2.31	0.62
2:C:1001:VAL:O	2:C:1004:LYS:N	2.27	0.62
2:C:100:LEU:HD11	2:C:369:PRO:HD3	1.81	0.62
2:C:911:GLU:HA	2:C:914:ILE:HD12	1.81	0.62
3:D:688:TRP:HA	3:D:688:TRP:CE3	2.34	0.62
1:B:76:VAL:O	1:B:80:LEU:HG	1.98	0.62
2:C:1038:TRP:CD1	3:D:1099:VAL:HG11	2.34	0.62
2:C:595:LEU:HD21	2:C:623:HIS:HB3	1.82	0.62
3:D:1291:SER:HA	3:D:1303:TYR:O	1.99	0.62
3:D:1462:LEU:HD23	3:D:1473:PRO:HG2	1.80	0.62
3:D:558:LEU:CD2	3:D:567:ILE:HG13	2.30	0.62
2:C:946:ARG:NE	3:D:861:GLN:HE22	1.89	0.62
1:B:174:VAL:HA	1:B:201:THR:CG2	2.29	0.62
1:B:53:VAL:HG11	1:B:82:LEU:HG	1.82	0.62
2:C:502:PRO:HB2	2:C:507:ARG:NH1	2.14	0.62
3:D:1019:PRO:C	3:D:1021:TYR:N	2.48	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:3(U):UNK:O	3:D:39(U):UNK:O	2.16	0.62
3:D:639:LEU:HD23	3:D:729:HIS:CD2	2.35	0.62
3:D:793:THR:CG2	3:D:879:ARG:HH22	2.12	0.62
3:D:795:VAL:HG12	3:D:796:ARG:N	2.15	0.62
2:C:635:THR:HG22	2:C:636:ALA:N	2.14	0.62
2:C:565:GLN:HG3	2:C:995:MET:HE1	1.81	0.62
3:D:1075:HIS:O	3:D:1077:ALA:N	2.32	0.62
3:D:1266:ARG:O	3:D:1268:PRO:HD3	2.00	0.62
2:C:1052:MET:HE1	3:D:748:HIS:HB3	1.82	0.62
1:B:49:PRO:HD2	1:B:213:GLN:NE2	2.15	0.62
1:B:80:LEU:O	1:B:83:LYS:HB2	2.00	0.62
2:C:168:ARG:HH21	2:C:266:ARG:HG2	1.64	0.62
3:D:637:LEU:O	3:D:638:LYS:O	2.17	0.62
3:D:658:LEU:HA	3:D:661:MET:HE2	1.81	0.62
3:D:903:ASP:O	3:D:903:ASP:OD1	2.18	0.62
3:D:952:ASP:C	3:D:954:ALA:H	2.03	0.62
2:C:1113:GLU:C	2:C:1115:LEU:H	2.02	0.62
2:C:379:GLU:O	2:C:380:ALA:HB3	1.99	0.62
2:C:629:ALA:C	2:C:630:ARG:HD3	2.21	0.62
3:D:1059:SER:O	3:D:1061:PHE:N	2.33	0.62
3:D:1304:LYS:O	3:D:1304:LYS:HG2	2.00	0.62
3:D:1394:VAL:HG12	3:D:1395:LEU:N	2.15	0.62
3:D:1403:LEU:CD2	3:D:1415:VAL:H	2.11	0.62
3:D:863:THR:N	3:D:876:SER:OG	2.33	0.62
3:D:793:THR:CG2	3:D:879:ARG:HH12	2.13	0.62
1:A:110:ARG:HD3	1:A:113:ASP:OD2	2.00	0.61
1:A:224:TYR:CD1	1:B:9:PRO:HD2	2.35	0.61
2:C:22:GLN:O	2:C:24:GLU:N	2.32	0.61
2:C:22:GLN:HE21	2:C:336:VAL:HG21	1.64	0.61
2:C:559:LEU:HD12	2:C:559:LEU:C	2.21	0.61
3:D:1263:PHE:CE2	3:D:1352:ILE:HD13	2.35	0.61
3:D:10:ILE:HG21	3:D:1450:ALA:HB1	1.82	0.61
3:D:757:ALA:HB2	4:E:61:VAL:CG1	2.30	0.61
1:A:15:THR:OG1	1:A:16:GLN:N	2.32	0.61
1:A:35:THR:HG21	1:B:43:ILE:CD1	2.30	0.61
2:C:159:ILE:HG21	2:C:306:THR:CG2	2.30	0.61
2:C:438:ILE:HG23	2:C:470:PRO:HB3	1.81	0.61
2:C:613:VAL:CG1	2:C:614:ARG:N	2.64	0.61
2:C:946:ARG:NE	3:D:861:GLN:NE2	2.43	0.61
3:D:1262:LEU:HD21	3:D:1351:GLU:HG3	1.81	0.61
3:D:1264:GLU:HG2	3:D:1266:ARG:NH2	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:14:PRO:O	2:C:15:LEU:HB3	1.99	0.61
2:C:686:ASP:OD2	3:D:739:ASP:OD2	2.18	0.61
3:D:1103:HIS:O	3:D:1104:GLU:HB3	2.01	0.61
3:D:1270:ALA:HB3	3:D:1328:GLY:HA3	1.82	0.61
3:D:1333:HIS:CE1	3:D:1421:LEU:HB3	2.35	0.61
3:D:518:PRO:CB	3:D:544:TYR:CE1	2.82	0.61
1:B:188:GLN:CG	3:D:688:TRP:HD1	2.13	0.61
3:D:770:LEU:HD12	3:D:770:LEU:N	2.15	0.61
3:D:891:GLY:N	3:D:926:LYS:NZ	2.47	0.61
3:D:921:ARG:O	3:D:922:LEU:HD23	2.00	0.61
1:A:142:VAL:O	1:A:143:ARG:O	2.18	0.61
1:A:86:VAL:HG21	1:A:203:GLY:C	2.20	0.61
2:C:614:ARG:O	2:C:616:GLU:N	2.30	0.61
3:D:1045:MET:HE2	3:D:1045:MET:HA	1.82	0.61
3:D:633:VAL:HG22	3:D:634:GLY:N	2.15	0.61
3:D:638:LYS:HA	3:D:729:HIS:CG	2.35	0.61
3:D:699:VAL:HG12	3:D:717:GLN:CG	2.30	0.61
1:A:169:ALA:O	1:A:170:ILE:HD13	2.01	0.61
1:A:31:GLY:H	1:A:193:ASP:CG	2.03	0.61
2:C:184:MET:HB3	2:C:191:PHE:CE1	2.36	0.61
2:C:348:LEU:CD1	2:C:378:LEU:HD11	2.30	0.61
2:C:605:LYS:HA	2:C:612:ALA:H	1.65	0.61
2:C:588:VAL:CG2	2:C:666:LEU:HB2	2.29	0.61
2:C:729:LEU:O	2:C:731:GLU:N	2.33	0.61
3:D:1036:ARG:O	3:D:1040:GLY:O	2.18	0.61
3:D:1150:ALA:HB2	3:D:1189:ARG:CG	2.29	0.61
1:A:10:VAL:HB	1:A:26:GLU:HG3	1.82	0.61
1:B:125:PRO:HG2	1:B:126:ASP:H	1.65	0.61
2:C:9:ILE:CG2	2:C:10:ARG:N	2.61	0.61
2:C:342:ASP:O	2:C:345:ARG:HB2	2.01	0.61
2:C:466:PHE:CE1	2:C:467:ILE:HD12	2.35	0.61
2:C:1005:MET:HB2	3:D:629:SER:CB	2.29	0.61
3:D:792:ILE:N	3:D:792:ILE:HD12	2.16	0.61
3:D:760:ARG:NH1	4:E:59:ASN:HD21	1.98	0.61
2:C:1101:THR:O	2:C:1110:ASP:N	2.33	0.61
2:C:491:GLU:O	2:C:509:ALA:HB1	2.01	0.61
3:D:1372:VAL:HG22	3:D:1375:MET:HE3	1.80	0.61
3:D:607:LEU:O	3:D:608:SER:HB2	2.00	0.61
2:C:1067:TYR:O	2:C:1067:TYR:CG	2.54	0.61
3:D:1017:PHE:HA	3:D:1023:MET:HE1	1.81	0.61
3:D:1278:ASP:HA	3:D:1317:ASP:O	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:509:PRO:HA	3:D:511:TRP:HE1	1.64	0.61
3:D:590:PRO:HA	3:D:600:LEU:HG	1.82	0.61
3:D:985:ASP:O	3:D:988:ARG:HB3	2.00	0.61
3:D:1379:VAL:O	3:D:1393:GLN:HA	2.01	0.61
1:A:175:ARG:O	1:A:176:ARG:HB2	2.01	0.61
1:B:26:GLU:HG3	1:B:194:LYS:CD	2.22	0.61
2:C:327:HIS:C	2:C:329:GLY:H	2.03	0.61
2:C:482:GLU:HA	2:C:486:MET:CE	2.31	0.61
2:C:552:HIS:CE1	3:D:1064:GLY:N	2.69	0.61
1:A:180:GLN:HE21	2:C:934:PHE:CB	2.12	0.61
3:D:545:ARG:HG3	3:D:546:ARG:N	2.15	0.61
1:B:175:ARG:O	1:B:176:ARG:HB2	2.01	0.60
2:C:569:VAL:O	2:C:569:VAL:CG1	2.44	0.60
2:C:8:ARG:HH11	2:C:495:THR:HG23	1.65	0.60
2:C:963:LEU:CD1	2:C:972:VAL:HG22	2.30	0.60
3:D:1192:LEU:HD13	3:D:1345:GLU:OE1	2.01	0.60
3:D:1356:TYR:HD1	3:D:1363:LEU:HD21	1.65	0.60
3:D:857:LEU:O	3:D:858:LEU:C	2.39	0.60
3:D:916:TYR:HD2	3:D:917:GLN:N	1.99	0.60
3:D:1485:GLN:CB	4:E:22:VAL:HG22	2.31	0.60
1:B:86:VAL:HG23	1:B:124:ASN:CG	2.22	0.60
1:B:143:ARG:HD2	1:B:159:LYS:CG	2.31	0.60
2:C:491:GLU:HG3	2:C:510:THR:HB	1.81	0.60
2:C:475:LYS:CB	2:C:527:GLU:H	2.14	0.60
2:C:589:ARG:NH1	2:C:596:TYR:HB3	2.16	0.60
2:C:598:GLU:OE2	2:C:614:ARG:NH2	2.33	0.60
3:D:1324:PRO:HG2	3:D:1325:LEU:H	1.67	0.60
3:D:638:LYS:C	3:D:639:LEU:O	2.38	0.60
3:D:747:VAL:O	3:D:747:VAL:HG22	2.01	0.60
1:B:42:ARG:HG3	1:B:42:ARG:HH11	1.65	0.60
2:C:1055:ILE:H	2:C:1055:ILE:CD1	2.02	0.60
2:C:342:ASP:O	2:C:346:VAL:HG23	2.01	0.60
2:C:588:VAL:HG11	2:C:661:SER:HB3	1.81	0.60
2:C:729:LEU:HB3	2:C:734:LEU:HD21	1.83	0.60
3:D:948:THR:H	3:D:1020:LEU:HD13	1.66	0.60
1:B:148:VAL:HG23	1:B:149:GLY:N	2.16	0.60
2:C:165:LEU:HD13	2:C:342:ASP:OD2	2.01	0.60
3:D:1003:VAL:O	3:D:1006:ALA:HB3	2.02	0.60
3:D:100:ALA:HB2	3:D:575:GLN:HG3	1.83	0.60
3:D:1272:ALA:CB	3:D:1325:LEU:HA	2.31	0.60
3:D:1346:ARG:HH12	3:D:1349:VAL:HG11	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1364:HIS:CD2	3:D:1365:ASP:H	2.19	0.60
3:D:566:ILE:C	3:D:570:GLU:HG3	2.21	0.60
4:E:29:GLN:HA	4:E:32:ARG:HG2	1.84	0.60
1:B:51:THR:HG21	1:B:87:VAL:O	2.01	0.60
2:C:317:VAL:H	2:C:318:PRO:HD2	1.66	0.60
2:C:706:GLU:HG3	2:C:707:ARG:N	2.15	0.60
2:C:875:GLY:HA3	2:C:879:ARG:HD2	1.84	0.60
3:D:10:ILE:HG13	3:D:11:ALA:N	2.17	0.60
3:D:1236:LEU:CB	3:D:1256:LEU:HB2	2.27	0.60
3:D:609:GLY:HA2	3:D:615:ARG:NH2	2.15	0.60
1:A:30:ARG:HH11	1:A:191:ASP:HB2	1.66	0.60
2:C:110:GLU:HB2	2:C:369:PRO:CG	2.32	0.60
2:C:391:LEU:HD22	2:C:415:PRO:HD3	1.82	0.60
2:C:519:GLY:C	2:C:521:PRO:HD3	2.22	0.60
2:C:636:ALA:HB2	2:C:705:ILE:HD11	1.82	0.60
3:D:465:LEU:HD22	3:D:512:MET:HE1	1.83	0.60
3:D:932:ASP:O	3:D:933:ALA:C	2.40	0.60
1:A:16:GLN:HG3	1:A:20:TYR:HB2	1.83	0.60
2:C:1033:GLY:O	2:C:1035:MET:N	2.35	0.60
2:C:152:PRO:HD2	2:C:158:TYR:CE2	2.35	0.60
2:C:184:MET:HE1	2:C:303:PHE:CZ	2.37	0.60
2:C:440:PRO:CG	2:C:454:SER:H	2.15	0.60
2:C:460:ARG:HD2	2:C:464:LEU:CD2	2.30	0.60
2:C:730:SER:O	2:C:731:GLU:C	2.40	0.60
3:D:1194:CYS:SG	3:D:1201:CYS:HB2	2.41	0.60
3:D:88:TYR:O	3:D:520:LEU:HD13	2.01	0.60
3:D:566:ILE:O	3:D:566:ILE:HG22	2.01	0.60
3:D:969:ARG:CG	3:D:970:LYS:N	2.62	0.60
4:E:30:LEU:O	4:E:32:ARG:N	2.31	0.60
1:A:41:ARG:HH11	1:A:41:ARG:C	2.04	0.60
2:C:572:ILE:O	2:C:573:ARG:CB	2.49	0.60
2:C:743:VAL:HG11	2:C:800:VAL:HG21	1.83	0.60
3:D:91:ALA:HB3	3:D:518:PRO:CG	2.31	0.60
4:E:14:ASP:CG	4:E:15:SER:H	2.05	0.60
1:A:44:LEU:O	1:A:174:VAL:HG21	2.01	0.60
2:C:1054:THR:CB	2:C:1055:ILE:HD12	2.32	0.60
2:C:253:ALA:CA	2:C:256:TYR:HB2	2.22	0.60
2:C:613:VAL:HG11	2:C:619:ARG:HA	1.83	0.60
2:C:712:ALA:HB1	2:C:720:GLU:O	2.02	0.60
2:C:815:LEU:N	2:C:815:LEU:HD12	2.16	0.60
3:D:587:ARG:HG2	3:D:588:GLY:H	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:901:GLN:CB	3:D:905:PRO:HG3	2.28	0.60
3:D:969:ARG:CG	3:D:970:LYS:H	2.14	0.60
2:C:261:LEU:O	2:C:263:ASP:N	2.35	0.60
2:C:423:ALA:HA	2:C:427:VAL:CG2	2.32	0.60
2:C:759:THR:HB	2:C:785:VAL:HG13	1.83	0.60
2:C:77:PRO:HD3	2:C:92:ALA:HA	1.83	0.60
3:D:1219:GLU:O	3:D:1221:VAL:N	2.33	0.60
3:D:1192:LEU:HD13	3:D:1345:GLU:HB3	1.83	0.60
3:D:637:LEU:CB	3:D:641:GLN:HG3	2.32	0.60
1:A:158:ILE:HD11	1:A:161:ARG:NE	2.06	0.59
2:C:80:GLN:NE2	2:C:122:THR:HG23	2.17	0.59
2:C:721:ARG:C	2:C:758:ARG:HB2	2.22	0.59
2:C:8:ARG:NH1	2:C:495:THR:HG23	2.17	0.59
3:D:1382:THR:HG21	3:D:1418:LYS:CE	2.29	0.59
3:D:854:ALA:O	3:D:855:HIS:C	2.41	0.59
2:C:1054:THR:CG2	2:C:1055:ILE:HD12	2.32	0.59
3:D:1435:LEU:HD21	3:D:1468:LEU:HD21	1.85	0.59
3:D:1435:LEU:O	3:D:1438:ALA:HB3	2.02	0.59
2:C:1085:PHE:CE1	3:D:1468:LEU:HD13	2.36	0.59
3:D:638:LYS:HA	3:D:729:HIS:CD2	2.37	0.59
1:A:30:ARG:CD	1:A:191:ASP:HB3	2.23	0.59
1:A:57:TYR:CD2	1:A:57:TYR:C	2.74	0.59
1:B:37:GLY:HA3	1:B:195:LEU:HD21	1.82	0.59
2:C:149:THR:HG23	2:C:150:PRO:HD2	1.84	0.59
3:D:1275:SER:H	3:D:1322:GLY:CA	2.14	0.59
3:D:21:TRP:O	3:D:23:TYR:N	2.35	0.59
1:A:100:ILE:HG22	1:A:101:LEU:N	2.17	0.59
2:C:31:GLN:O	2:C:33:ASP:N	2.36	0.59
2:C:850:ALA:HA	3:D:632:VAL:HG11	1.84	0.59
2:C:89:THR:HG23	2:C:129:ILE:HA	1.84	0.59
3:D:24(U):UNK:O	3:D:25(U):UNK:CB	2.50	0.59
3:D:860:LEU:O	3:D:862:ASP:N	2.34	0.59
3:D:767:HIS:CE1	4:E:2:ALA:HB1	2.38	0.59
1:A:162:ILE:HG23	1:A:163:ASN:H	1.67	0.59
2:C:369:PRO:O	2:C:370:ALA:HB3	2.02	0.59
2:C:539:VAL:HG12	2:C:539:VAL:O	2.02	0.59
2:C:981:GLU:HB3	2:C:982:PRO:HD2	1.85	0.59
3:D:1014:ASN:O	3:D:1015:TYR:CD2	2.54	0.59
3:D:466:LYS:O	3:D:468:LEU:N	2.35	0.59
3:D:612:GLY:C	3:D:614:PHE:H	2.05	0.59
4:E:68:LEU:CD1	4:E:73:LEU:HD12	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:679:PHE:O	2:C:681:GLY:N	2.35	0.59
2:C:861:LEU:HG	2:C:862:PRO:CD	2.16	0.59
2:C:9:ILE:N	2:C:9:ILE:HD12	2.18	0.59
3:D:1222:GLY:O	3:D:1225:ALA:HB3	2.02	0.59
3:D:1364:HIS:CG	3:D:1365:ASP:N	2.69	0.59
3:D:701:LEU:HD12	3:D:715:ALA:CB	2.33	0.59
3:D:964:LEU:O	3:D:966:GLU:N	2.33	0.59
1:B:79:ILE:HG23	1:B:167:VAL:HG12	1.85	0.59
2:C:1034:GLU:HA	2:C:1037:VAL:CG2	2.33	0.59
2:C:480:THR:HG23	2:C:480:THR:O	2.03	0.59
2:C:527:GLU:O	2:C:528:GLU:C	2.41	0.59
2:C:577:PRO:HA	2:C:671:ASN:HD22	1.67	0.59
2:C:769:PRO:O	2:C:771:GLU:N	2.34	0.59
2:C:564:MET:SD	2:C:840:ALA:CB	2.87	0.59
3:D:1017:PHE:HA	3:D:1023:MET:CE	2.33	0.59
3:D:1109:GLU:HG3	3:D:1110:ALA:H	1.67	0.59
3:D:1107:VAL:HG13	3:D:1202:GLN:HA	1.84	0.59
3:D:518:PRO:HB3	3:D:544:TYR:CZ	2.38	0.59
3:D:719:VAL:O	3:D:721:VAL:HG23	2.02	0.59
3:D:850:LEU:HA	3:D:853:VAL:HB	1.85	0.59
3:D:978:TYR:CG	3:D:988:ARG:HD2	2.37	0.59
1:B:214:ALA:HA	1:B:217:ILE:CG1	2.32	0.59
1:B:223:ASN:O	1:B:225:PHE:N	2.36	0.59
1:B:42:ARG:HG3	1:B:42:ARG:NH1	2.18	0.59
2:C:11:GLU:OE1	2:C:473:ARG:HG3	2.03	0.59
2:C:367:LEU:HD13	2:C:372:LEU:HD21	1.85	0.59
2:C:439:CYS:HB2	2:C:468:ARG:NH1	2.17	0.59
2:C:882:LEU:HD11	2:C:884:GLN:HE21	1.67	0.59
2:C:950:LEU:HB3	3:D:1018:ASN:OD1	2.03	0.59
3:D:1431:THR:C	3:D:1432:LYS:HG2	2.23	0.59
3:D:795:VAL:HG21	3:D:904:VAL:HG21	1.85	0.59
1:B:199:ILE:O	1:B:199:ILE:HG22	2.03	0.59
2:C:972:VAL:O	2:C:974:LEU:N	2.35	0.59
3:D:7(U):UNK:O	3:D:35(U):UNK:N	2.36	0.59
3:D:590:PRO:CB	3:D:599:PRO:HA	2.33	0.59
3:D:916:TYR:C	3:D:918:ALA:H	2.05	0.59
3:D:927:THR:HG22	3:D:931:LEU:HD23	1.84	0.59
3:D:961:GLN:O	3:D:962:ARG:C	2.40	0.59
1:A:101:LEU:C	1:A:101:LEU:HD12	2.22	0.59
1:B:149:GLY:HA2	1:B:172:SER:OG	2.03	0.59
2:C:1103:ASP:HB2	2:C:1108:PRO:CB	2.30	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:181:VAL:HG21	2:C:220:GLY:HA3	1.85	0.59
2:C:368:THR:HB	2:C:369:PRO:HD2	1.85	0.59
2:C:461:VAL:O	2:C:462:ASP:CB	2.51	0.59
2:C:467:ILE:O	2:C:469:THR:HG23	2.03	0.59
2:C:525:ALA:O	2:C:526:PRO:C	2.40	0.59
2:C:568:ALA:O	2:C:569:VAL:HB	2.03	0.59
2:C:613:VAL:CG1	2:C:614:ARG:H	2.16	0.59
3:D:1147:ARG:CB	3:D:1188:VAL:HG21	2.32	0.59
3:D:126:VAL:H	3:D:456:MET:CE	2.15	0.59
2:C:1021:LEU:HG	3:D:622:ARG:HD2	1.84	0.59
4:E:86:GLN:O	4:E:89:MET:HB2	2.03	0.59
1:A:185:ARG:HH21	1:A:194:LYS:HE3	1.68	0.58
1:A:221:HIS:HA	1:A:224:TYR:CD2	2.38	0.58
2:C:162:ILE:CG2	2:C:163:ILE:N	2.66	0.58
2:C:440:PRO:HG3	2:C:454:SER:HB3	1.85	0.58
2:C:755:LEU:O	2:C:755:LEU:HD13	2.03	0.58
2:C:882:LEU:H	2:C:882:LEU:HD23	1.68	0.58
2:C:989:VAL:HG12	2:C:990:GLY:N	2.16	0.58
3:D:762:GLN:NE2	4:E:20:THR:HG21	2.18	0.58
3:D:948:THR:N	3:D:1020:LEU:HD13	2.18	0.58
2:C:164:PRO:HG2	2:C:168:ARG:HG2	1.84	0.58
2:C:839:LEU:O	2:C:995:MET:O	2.21	0.58
3:D:1273:VAL:N	3:D:1324:PRO:CG	2.67	0.58
3:D:879:ARG:HG2	3:D:879:ARG:HH11	1.68	0.58
1:B:101:LEU:HD13	1:B:114:PHE:HA	1.85	0.58
1:B:14:THR:OG1	1:B:22:GLU:HB3	2.03	0.58
1:B:80:LEU:HD13	3:D:839:LEU:CB	2.33	0.58
2:C:110:GLU:H	2:C:369:PRO:CG	2.16	0.58
2:C:483:VAL:O	2:C:486:MET:N	2.36	0.58
2:C:603:VAL:CG2	2:C:646:GLY:H	2.16	0.58
2:C:841:ASN:ND2	2:C:845:ASN:H	2.00	0.58
3:D:1165:TYR:CZ	3:D:1214:PRO:HB3	2.38	0.58
3:D:757:ALA:HB2	4:E:61:VAL:HG11	1.86	0.58
3:D:701:LEU:HD11	3:D:759:ALA:HB1	1.85	0.58
1:A:224:TYR:CE1	1:B:9:PRO:HD2	2.39	0.58
2:C:11:GLU:OE2	2:C:473:ARG:NE	2.36	0.58
2:C:348:LEU:C	2:C:350:ARG:H	2.06	0.58
2:C:636:ALA:CB	2:C:705:ILE:HD11	2.33	0.58
2:C:885:ILE:O	2:C:887:GLU:N	2.37	0.58
3:D:1125:MET:HG2	3:D:1126:ASP:N	2.19	0.58
3:D:1200:VAL:HA	3:D:1373:ARG:HH12	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:850:ALA:HA	3:D:632:VAL:CG1	2.34	0.58
2:C:1098:ASP:OD1	2:C:1100:GLN:HG3	2.02	0.58
2:C:483:VAL:O	2:C:486:MET:HB2	2.03	0.58
2:C:501:THR:O	2:C:502:PRO:C	2.42	0.58
2:C:945:ALA:O	2:C:949:LYS:HG3	2.03	0.58
2:C:565:GLN:HG3	2:C:995:MET:HE3	1.85	0.58
3:D:129:PHE:O	3:D:130:ASN:CB	2.50	0.58
3:D:1353:GLN:HE21	3:D:1368:ILE:CD1	2.07	0.58
3:D:599:PRO:O	3:D:600:LEU:HD23	2.04	0.58
3:D:798:GLU:HG3	3:D:821:VAL:CB	2.32	0.58
3:D:907:GLU:HB3	3:D:911:LEU:HD22	1.86	0.58
3:D:948:THR:H	3:D:1020:LEU:CD1	2.16	0.58
2:C:419:THR:O	2:C:420:ARG:C	2.42	0.58
2:C:987:ILE:HD11	3:D:946:GLY:C	2.23	0.58
3:D:699:VAL:HA	3:D:717:GLN:HA	1.84	0.58
3:D:1211:MET:HE2	4:E:16:LYS:HD2	1.84	0.58
1:B:94:MET:HE1	1:B:119:ASP:HB2	1.86	0.58
2:C:1052:MET:HE3	2:C:1056:LYS:HZ1	1.69	0.58
2:C:198:ARG:NH1	2:C:231:PRO:HD3	2.19	0.58
2:C:312:ALA:HB1	2:C:318:PRO:HG3	1.85	0.58
2:C:613:VAL:CG1	2:C:619:ARG:HG2	2.33	0.58
1:A:131:THR:HG23	2:C:644:ARG:HE	1.68	0.58
3:D:1035:ILE:C	3:D:1037:GLN:H	2.05	0.58
3:D:551:ASN:HA	3:D:574:LEU:HD13	1.84	0.58
3:D:582:ILE:HG22	3:D:583:ASP:H	1.68	0.58
2:C:1100:GLN:O	3:D:8:VAL:O	2.22	0.58
1:A:90:LEU:HB2	1:A:119:ASP:CB	2.34	0.58
1:A:143:ARG:HD3	1:A:145:ASP:OD1	2.04	0.58
1:A:158:ILE:HG13	1:A:161:ARG:HG2	1.86	0.58
1:A:181:VAL:O	1:A:181:VAL:HG12	2.04	0.58
1:B:55:SER:OG	1:B:157:GLY:HA3	2.03	0.58
1:B:36:LEU:O	1:B:39:PRO:HD2	2.03	0.58
2:C:395:LYS:HG3	2:C:397:GLU:HG3	1.85	0.58
3:D:642:CYS:SG	3:D:702:LEU:HD23	2.43	0.58
3:D:704:ARG:NH1	3:D:743:ASP:CG	2.53	0.58
3:D:898:GLU:C	3:D:899:LEU:HD13	2.24	0.58
3:D:959:GLU:O	3:D:963:TYR:CD1	2.56	0.58
2:C:1008:ARG:NH2	2:C:1020:PRO:HB3	2.18	0.58
2:C:386:PHE:O	2:C:392:SER:OG	2.15	0.58
2:C:487:THR:O	2:C:489:SER:N	2.37	0.58
2:C:684:PHE:CD2	2:C:685:GLU:HG2	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:198:ARG:HH12	2:C:932:GLU:HB3	1.68	0.58
3:D:1014:ASN:C	3:D:1015:TYR:CG	2.76	0.58
3:D:1008:PHE:CE1	3:D:1035:ILE:HG13	2.28	0.58
3:D:1194:CYS:HB3	3:D:1373:ARG:HH22	1.66	0.58
3:D:1281:VAL:HA	3:D:1314:LYS:HA	1.85	0.58
3:D:1452:ILE:HG22	3:D:1453:ALA:N	2.19	0.58
3:D:1486:VAL:O	4:E:79:LEU:HD12	2.04	0.58
2:C:1082:PRO:HG2	2:C:1085:PHE:CB	2.34	0.58
2:C:128:ILE:N	2:C:128:ILE:HD12	2.19	0.58
2:C:758:ARG:HH11	2:C:758:ARG:HG3	1.68	0.58
3:D:1059:SER:O	3:D:1060:SER:C	2.38	0.58
3:D:1234:THR:HG22	3:D:1234:THR:O	2.04	0.58
3:D:1261:GLU:OE1	3:D:1268:PRO:HB3	2.02	0.58
1:A:124:ASN:O	1:A:125:PRO:O	2.22	0.57
2:C:281:LEU:HD21	2:C:306:THR:OG1	2.04	0.57
2:C:349:ALA:C	2:C:350:ARG:HG3	2.23	0.57
2:C:579:VAL:CG2	2:C:887:GLU:HG3	2.34	0.57
2:C:635:THR:O	2:C:636:ALA:CB	2.51	0.57
3:D:1031:ASN:OD1	3:D:1033:GLN:HG2	2.04	0.57
3:D:1059:SER:C	3:D:1061:PHE:N	2.56	0.57
3:D:794:GLN:O	3:D:795:VAL:HB	2.03	0.57
3:D:789:LEU:HD13	3:D:882:PHE:CE1	2.39	0.57
4:E:68:LEU:HD13	4:E:73:LEU:HD12	1.84	0.57
2:C:136:ILE:CG2	2:C:336:VAL:HG13	2.33	0.57
2:C:137:VAL:CG1	2:C:411:SER:HB2	2.34	0.57
2:C:695:LEU:O	2:C:698:ASP:N	2.35	0.57
2:C:926:PHE:CE1	2:C:929:ARG:HD2	2.39	0.57
2:C:946:ARG:O	2:C:950:LEU:HG	2.04	0.57
3:D:959:GLU:O	3:D:963:TYR:HD1	1.87	0.57
1:A:106:PRO:O	1:A:107:LYS:CB	2.52	0.57
2:C:26:TYR:CE2	2:C:30:LEU:HD22	2.39	0.57
2:C:399:ASN:ND2	2:C:401:LEU:H	2.01	0.57
2:C:551:GLU:HG3	2:C:906:PHE:CD2	2.39	0.57
2:C:742:ILE:HG23	2:C:756:VAL:HG22	1.86	0.57
3:D:1076:GLY:O	3:D:1079:LYS:HG2	2.04	0.57
3:D:1109:GLU:O	3:D:1217:ILE:HD11	2.03	0.57
3:D:1103:HIS:H	3:D:1222:GLY:HA3	1.70	0.57
3:D:969:ARG:HG3	3:D:970:LYS:HG3	1.85	0.57
1:A:178:ALA:O	1:A:179:PHE:HB3	2.04	0.57
1:A:222:LEU:HD12	1:B:215:VAL:CG1	2.33	0.57
1:A:71:VAL:HG13	1:A:132:LEU:HB3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:73:GLU:OE2	1:B:73:GLU:N	2.38	0.57
2:C:157:ARG:HG3	2:C:313:LEU:HG	1.85	0.57
2:C:466:PHE:CD1	2:C:467:ILE:HG13	2.39	0.57
2:C:64:LEU:CD1	2:C:367:LEU:HD12	2.34	0.57
3:D:1204:CYS:C	3:D:1206:GLY:H	2.08	0.57
3:D:772:PRO:CD	3:D:778:LEU:HB2	2.34	0.57
1:A:228:PRO:HA	1:B:11:PHE:O	2.05	0.57
1:B:95:ALA:O	1:B:96:SER:HB3	2.05	0.57
2:C:34:VAL:HG11	2:C:38:LYS:HG3	1.86	0.57
3:D:1084:THR:C	3:D:1086:LEU:H	2.07	0.57
3:D:1280:VAL:HG13	3:D:1315:ASP:CA	2.18	0.57
3:D:1280:VAL:CG1	3:D:1281:VAL:N	2.68	0.57
3:D:1275:SER:N	3:D:1322:GLY:HA2	2.18	0.57
3:D:1353:GLN:HB3	3:D:1357:ARG:CD	2.34	0.57
3:D:639:LEU:HD23	3:D:729:HIS:HD2	1.68	0.57
3:D:829:VAL:O	3:D:830:ALA:HB3	2.05	0.57
4:E:38:THR:HG22	4:E:39:VAL:N	2.20	0.57
1:B:19:HIS:HB3	1:B:201:THR:O	2.04	0.57
2:C:1054:THR:C	2:C:1056:LYS:H	2.08	0.57
2:C:142:ARG:CD	2:C:324:ASP:HA	2.34	0.57
2:C:3:ILE:CG2	2:C:902:ILE:HD13	2.35	0.57
2:C:662:GLU:O	2:C:663:GLU:HB2	2.04	0.57
3:D:1430:SER:O	3:D:1431:THR:HB	2.05	0.57
3:D:758:GLU:O	3:D:762:GLN:HG3	2.04	0.57
4:E:17:TYR:O	4:E:21:VAL:HG23	2.05	0.57
1:A:56:VAL:HB	1:A:142:VAL:HB	1.86	0.57
2:C:202:TYR:CD1	2:C:304:LEU:HD13	2.39	0.57
2:C:374:ASN:O	2:C:376:ARG:N	2.38	0.57
2:C:747:ALA:O	2:C:749:VAL:HG23	2.05	0.57
2:C:760:SER:O	2:C:785:VAL:HG22	2.05	0.57
3:D:558:LEU:HD21	3:D:567:ILE:HG13	1.86	0.57
3:D:890:VAL:HG11	3:D:922:LEU:HD11	1.87	0.57
4:E:79:LEU:O	4:E:81:PRO:HD2	2.04	0.57
1:A:225:PHE:CZ	1:B:25:LEU:HD23	2.40	0.57
1:A:41:ARG:HG2	1:A:177:VAL:HB	1.85	0.57
1:B:25:LEU:CD1	1:B:28:LEU:HD11	2.29	0.57
2:C:149:THR:HB	2:C:158:TYR:CE1	2.34	0.57
2:C:162:ILE:HG22	2:C:163:ILE:N	2.20	0.57
2:C:211:LEU:HD22	2:C:304:LEU:CD1	2.34	0.57
2:C:410:ILE:HG21	2:C:468:ARG:NH2	2.19	0.57
3:D:1014:ASN:O	3:D:1015:TYR:CB	2.53	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1052:MET:HE2	3:D:623:VAL:HG11	1.87	0.57
2:C:260:LEU:HD12	2:C:292:ARG:CB	2.35	0.57
2:C:51:THR:HG1	2:C:348:LEU:HD23	1.70	0.57
2:C:988:VAL:HG12	3:D:948:THR:OG1	2.04	0.57
3:D:1312:LEU:O	3:D:1313:VAL:CB	2.53	0.57
3:D:1479:ASP:C	3:D:1481:VAL:H	2.07	0.57
3:D:480:GLU:HA	3:D:493:ARG:NH1	2.19	0.57
3:D:853:VAL:HG21	3:D:877:PRO:CB	2.35	0.57
1:B:129:ILE:O	1:B:130:ALA:HB2	2.04	0.57
1:B:26:GLU:CB	1:B:27:PRO:CD	2.79	0.57
2:C:12:VAL:O	2:C:13:ILE:HD12	2.05	0.57
2:C:545:ASN:CB	2:C:583:LEU:HD12	2.35	0.57
2:C:659:PRO:O	2:C:660:ALA:CB	2.52	0.57
3:D:1023:MET:SD	3:D:1023:MET:N	2.77	0.57
3:D:1250:THR:HG21	3:D:1270:ALA:HB2	1.86	0.57
3:D:626:SER:HA	3:D:652:LEU:CD1	2.35	0.57
3:D:69:GLU:O	3:D:70:ALA:HB3	2.05	0.57
4:E:3:GLU:HB3	4:E:4:PRO:CD	2.35	0.57
1:A:101:LEU:HD21	1:A:109:VAL:HG11	1.85	0.56
1:B:150:TYR:CD1	1:B:170:ILE:HG22	2.40	0.56
2:C:1077:PRO:O	2:C:1079:PRO:HD3	2.05	0.56
2:C:468:ARG:O	2:C:469:THR:O	2.23	0.56
1:A:72:LYS:N	2:C:607:ASP:HB3	2.20	0.56
2:C:597:ALA:HA	2:C:614:ARG:NH1	2.19	0.56
2:C:728:HIS:CD2	2:C:783:ARG:HH11	2.22	0.56
2:C:874:LEU:CD2	3:D:784:ASP:HA	2.35	0.56
2:C:843:HIS:HD2	2:C:884:GLN:HA	1.66	0.56
2:C:892:LEU:HD23	2:C:892:LEU:N	2.19	0.56
3:D:1277:ILE:HG22	3:D:1278:ASP:N	2.20	0.56
3:D:1379:VAL:HG22	3:D:1394:VAL:O	2.04	0.56
3:D:663:GLU:C	3:D:665:ALA:H	2.09	0.56
3:D:777:PRO:CG	3:D:912:LYS:HG3	2.34	0.56
3:D:934:LEU:O	3:D:935:LYS:C	2.44	0.56
1:B:72:LYS:HB3	1:B:131:THR:HB	1.87	0.56
1:B:53:VAL:HG12	1:B:167:VAL:HG21	1.86	0.56
2:C:1055:ILE:CG2	2:C:1066:ALA:HB2	2.34	0.56
2:C:129:ILE:HD12	2:C:386:PHE:HB3	1.85	0.56
2:C:163:ILE:CG2	2:C:164:PRO:HD2	2.34	0.56
2:C:317:VAL:N	2:C:318:PRO:HD2	2.20	0.56
2:C:142:ARG:HE	2:C:324:ASP:HA	1.69	0.56
2:C:100:LEU:HD21	2:C:368:THR:CA	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:568:ALA:O	2:C:569:VAL:CB	2.53	0.56
3:D:461:ILE:HG22	3:D:465:LEU:CD1	2.35	0.56
3:D:580:ALA:HB2	3:D:587:ARG:NH2	2.21	0.56
3:D:702:LEU:HD12	3:D:745:MET:SD	2.45	0.56
3:D:957:PRO:HG3	3:D:1007:VAL:HB	1.87	0.56
1:A:52:ALA:HB3	1:A:171:PHE:CE1	2.39	0.56
1:B:126:ASP:O	1:B:127:LEU:HB3	2.05	0.56
1:B:77:GLU:HA	1:B:77:GLU:OE1	2.05	0.56
2:C:159:ILE:HD11	2:C:310:LEU:CB	2.29	0.56
2:C:640:ARG:NH1	2:C:640:ARG:HG3	2.20	0.56
2:C:873:PRO:HG2	2:C:874:LEU:N	2.18	0.56
2:C:989:VAL:CG1	2:C:990:GLY:N	2.68	0.56
1:B:100:ILE:HA	1:B:141:GLU:HA	1.86	0.56
2:C:169:GLY:HA2	2:C:264:PRO:O	2.06	0.56
2:C:726:ILE:CD1	2:C:726:ILE:H	2.14	0.56
2:C:735:ARG:HA	2:C:737:LEU:O	2.04	0.56
3:D:1154:GLU:CB	3:D:1159:ARG:HG2	2.25	0.56
3:D:1381:VAL:HG12	3:D:1382:THR:N	2.20	0.56
3:D:1475:GLY:C	3:D:1477:GLY:N	2.59	0.56
3:D:91:ALA:CB	3:D:518:PRO:HG2	2.36	0.56
3:D:811:GLU:CA	3:D:814:ALA:HB3	2.24	0.56
3:D:88:TYR:C	3:D:520:LEU:HD13	2.25	0.56
3:D:88:TYR:O	3:D:89:ARG:CB	2.53	0.56
1:A:26:GLU:OE2	1:A:185:ARG:CZ	2.53	0.56
1:A:99:LEU:O	1:A:100:ILE:HD13	2.06	0.56
2:C:100:LEU:HD21	2:C:368:THR:HA	1.87	0.56
2:C:493:ARG:HH12	3:D:1069:GLU:CD	2.08	0.56
2:C:873:PRO:CG	2:C:874:LEU:H	2.18	0.56
2:C:940:GLU:HA	2:C:973:VAL:HG21	1.87	0.56
3:D:1062:ARG:C	3:D:1062:ARG:HD3	2.25	0.56
3:D:1208:ASP:HA	3:D:1215:VAL:HG22	1.87	0.56
3:D:1376:LEU:HD11	3:D:1421:LEU:CD1	2.32	0.56
3:D:1463:LYS:O	3:D:1467:ILE:HG13	2.05	0.56
3:D:20(U):UNK:O	3:D:21(U):UNK:CB	2.53	0.56
3:D:898:GLU:OE1	3:D:921:ARG:NH1	2.38	0.56
3:D:1483:PHE:HE2	4:E:18:ARG:NE	2.03	0.56
1:A:199:ILE:HG22	1:A:199:ILE:O	2.05	0.56
2:C:1076:VAL:HG21	3:D:753:SER:HB3	1.88	0.56
2:C:1087:VAL:O	2:C:1087:VAL:HG12	2.06	0.56
2:C:443:THR:N	2:C:444:PRO:CD	2.69	0.56
2:C:456:ALA:HB3	2:C:459:ALA:CB	2.24	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:944:LEU:C	2:C:946:ARG:H	2.07	0.56
2:C:918:LEU:HD13	2:C:968:ASP:HA	1.87	0.56
3:D:616:GLN:O	3:D:617:ASN:HB2	2.04	0.56
3:D:87:ARG:CB	3:D:522:PRO:HG2	2.36	0.56
1:A:159:LYS:C	1:A:161:ARG:H	2.09	0.56
1:A:185:ARG:NH2	1:A:194:LYS:HE3	2.20	0.56
1:B:188:GLN:HG2	3:D:688:TRP:CD1	2.40	0.56
2:C:151:ASP:HB2	2:C:156:GLY:O	2.04	0.56
2:C:314:THR:O	2:C:315:ALA:CB	2.53	0.56
2:C:681:GLY:HA2	3:D:939:PHE:CE2	2.40	0.56
3:D:1079:LYS:C	3:D:1081:GLY:H	2.07	0.56
3:D:1266:ARG:O	3:D:1268:PRO:CD	2.54	0.56
3:D:502:PHE:CD1	3:D:1452:ILE:HG23	2.40	0.56
1:A:157:GLY:CA	1:A:166:PRO:HB3	2.35	0.56
1:A:198:ARG:HD3	2:C:934:PHE:CZ	2.41	0.56
1:B:94:MET:SD	1:B:97:THR:HG22	2.45	0.56
2:C:100:LEU:CD1	2:C:108:ILE:HB	2.35	0.56
2:C:260:LEU:CD2	2:C:261:LEU:HB3	2.34	0.56
2:C:325:ILE:C	2:C:327:HIS:H	2.07	0.56
2:C:328:LEU:C	2:C:467:ILE:HD13	2.26	0.56
2:C:337:GLY:O	2:C:341:ALA:HB2	2.06	0.56
2:C:605:LYS:HG3	2:C:611:ILE:HA	1.88	0.56
2:C:693:GLU:OE1	2:C:693:GLU:HA	2.06	0.56
3:D:1030:GLY:O	3:D:1031:ASN:HB3	2.06	0.56
3:D:1194:CYS:HB3	3:D:1373:ARG:HH21	1.70	0.56
3:D:1381:VAL:HB	3:D:1390:LEU:O	2.06	0.56
3:D:554:LEU:HD11	3:D:571:LYS:HA	1.87	0.56
3:D:795:VAL:N	3:D:862:ASP:CB	2.67	0.56
4:E:10:PHE:CE2	4:E:16:LYS:HG3	2.41	0.56
1:A:198:ARG:O	1:A:199:ILE:C	2.44	0.56
1:B:78:ILE:HA	1:B:81:ASN:HD22	1.71	0.56
2:C:1008:ARG:NE	2:C:1010:THR:O	2.39	0.56
2:C:144:PRO:HA	2:C:162:ILE:HG21	1.87	0.56
2:C:31:GLN:HG2	2:C:39:ARG:HD2	1.86	0.56
2:C:440:PRO:HG2	2:C:453:THR:OG1	2.06	0.56
2:C:498:GLN:H	2:C:502:PRO:CD	2.18	0.56
1:A:41:ARG:HH21	2:C:860:HIS:CD2	2.24	0.56
3:D:897:GLN:HE21	3:D:897:GLN:HA	1.71	0.56
2:C:1008:ARG:HH12	2:C:1021:LEU:N	2.04	0.56
2:C:183:THR:HG21	2:C:190:LYS:HG3	1.88	0.56
2:C:233:GLU:O	2:C:237:ARG:HG2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:263:ASP:OD2	2:C:264:PRO:HD3	2.05	0.56
2:C:352:ALA:CA	2:C:355:VAL:HG12	2.32	0.56
2:C:395:LYS:CE	2:C:403:SER:HB2	2.35	0.56
3:D:1280:VAL:CG1	3:D:1281:VAL:H	2.18	0.56
3:D:1353:GLN:HB3	3:D:1357:ARG:HD2	1.87	0.56
3:D:1450:ALA:CA	3:D:1455:LYS:HG3	2.33	0.56
2:C:750:LYS:HE3	3:D:680:GLN:HE22	1.71	0.56
3:D:978:TYR:C	3:D:980:MET:N	2.59	0.56
1:B:103:ALA:HB1	1:B:132:LEU:CD1	2.36	0.56
2:C:203:ASP:N	2:C:207:LEU:HB2	2.21	0.56
2:C:166:PRO:CB	2:C:417:GLY:H	2.19	0.56
2:C:731:GLU:O	2:C:733:ALA:N	2.38	0.56
2:C:841:ASN:C	2:C:841:ASN:ND2	2.59	0.56
3:D:1015:TYR:CB	3:D:1018:ASN:HB2	2.34	0.56
3:D:1031:ASN:HD21	3:D:1034:GLN:HB2	1.71	0.56
3:D:699:VAL:HG12	3:D:717:GLN:HG2	1.87	0.56
3:D:808:THR:N	3:D:809:PRO:CD	2.69	0.56
3:D:971:LEU:O	3:D:974:ILE:N	2.36	0.56
1:A:121:GLU:O	1:A:123:MET:N	2.31	0.55
1:A:143:ARG:HG3	1:A:159:LYS:HG3	1.88	0.55
2:C:208:VAL:HG21	2:C:218:VAL:HG13	1.87	0.55
2:C:343:GLN:HG2	2:C:385:PHE:CB	2.36	0.55
2:C:605:LYS:CD	2:C:607:ASP:HA	2.35	0.55
2:C:867:VAL:HG12	2:C:868:ASP:H	1.70	0.55
2:C:567:GLN:O	2:C:997:LEU:HA	2.06	0.55
3:D:1437:ALA:HA	3:D:1440:PHE:HD1	1.71	0.55
3:D:603:LEU:HA	3:D:606:ILE:HD13	1.87	0.55
3:D:659:LYS:C	3:D:659:LYS:HD3	2.27	0.55
3:D:904:VAL:HG12	3:D:906:GLN:CD	2.26	0.55
3:D:936:TYR:O	3:D:940:THR:HG22	2.05	0.55
3:D:99:ALA:HB3	3:D:458:ALA:HB1	1.87	0.55
3:D:1483:PHE:HE1	4:E:22:VAL:HG23	1.72	0.55
1:A:131:THR:HG23	2:C:644:ARG:CZ	2.37	0.55
1:B:94:MET:CB	1:B:94:MET:CE	2.84	0.55
2:C:21:ILE:O	2:C:25:SER:HB2	2.06	0.55
2:C:31:GLN:HG2	2:C:39:ARG:CD	2.35	0.55
2:C:355:VAL:HG13	2:C:356:ARG:N	2.21	0.55
2:C:360:VAL:HG12	2:C:361:MET:N	2.20	0.55
2:C:501:THR:N	2:C:502:PRO:HD2	2.20	0.55
2:C:580:MET:O	2:C:581:THR:HB	2.07	0.55
2:C:595:LEU:HG	2:C:655:LEU:CD2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:665:PHE:O	2:C:666:LEU:C	2.44	0.55
2:C:845:ASN:ND2	2:C:884:GLN:OE1	2.36	0.55
3:D:1008:PHE:CD2	3:D:1008:PHE:O	2.59	0.55
3:D:1109:GLU:CG	3:D:1110:ALA:N	2.68	0.55
3:D:1335:LEU:HD23	3:D:1344:VAL:HG22	1.88	0.55
3:D:25(U):UNK:HA	3:D:40(U):UNK:O	2.06	0.55
2:C:549:PHE:HE1	2:C:579:VAL:HG11	1.71	0.55
2:C:603:VAL:HG21	2:C:645:VAL:HA	1.87	0.55
2:C:755:LEU:HB3	2:C:790:LEU:HD23	1.86	0.55
2:C:831:ARG:O	2:C:832:LYS:O	2.25	0.55
3:D:1141:GLU:CA	3:D:1171:VAL:HG11	2.27	0.55
3:D:1429:LEU:HD12	3:D:1429:LEU:O	2.07	0.55
3:D:1475:GLY:C	3:D:1477:GLY:H	2.08	0.55
3:D:857:LEU:CD1	3:D:858:LEU:H	2.14	0.55
3:D:865:THR:CG2	3:D:866:THR:N	2.69	0.55
2:C:177:GLU:CG	2:C:181:VAL:H	2.19	0.55
2:C:163:ILE:HG23	2:C:265:LYS:HZ1	1.72	0.55
2:C:304:LEU:HD23	2:C:305:PRO:CD	2.37	0.55
2:C:30:LEU:O	2:C:32:ALA:N	2.40	0.55
2:C:313:LEU:HD13	2:C:319:GLY:C	2.27	0.55
2:C:837:ASP:H	2:C:1001:VAL:HG23	1.71	0.55
1:A:198:ARG:NH1	2:C:934:PHE:CE1	2.74	0.55
3:D:1402:ALA:C	3:D:1404:ASN:H	2.10	0.55
3:D:502:PHE:CD2	3:D:507:ASN:ND2	2.73	0.55
3:D:100:ALA:HA	3:D:575:GLN:OE1	2.06	0.55
3:D:675:ARG:HA	3:D:678:GLU:CB	2.37	0.55
2:C:796:GLU:HA	3:D:681:ARG:HH22	1.72	0.55
3:D:807:ALA:C	3:D:809:PRO:HD3	2.27	0.55
3:D:865:THR:CG2	3:D:866:THR:H	2.18	0.55
3:D:907:GLU:CG	3:D:911:LEU:HD13	2.37	0.55
1:A:122:ILE:HG22	1:A:122:ILE:O	2.06	0.55
1:A:131:THR:O	1:A:131:THR:CG2	2.52	0.55
1:A:16:GLN:HG3	1:A:20:TYR:CB	2.36	0.55
1:B:173:PRO:HG3	1:B:204:SER:OG	2.06	0.55
2:C:1009:SER:HB2	3:D:651:GLU:O	2.07	0.55
2:C:142:ARG:HG2	2:C:147:TYR:OH	2.07	0.55
2:C:754:ILE:HD13	2:C:791:ARG:HE	1.71	0.55
3:D:681:ARG:O	3:D:682:ASP:CB	2.55	0.55
3:D:728:LEU:HD13	3:D:745:MET:CE	2.36	0.55
3:D:772:PRO:O	3:D:772:PRO:HG2	2.06	0.55
2:C:1073:GLY:HA2	3:D:659:LYS:HE3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:15:LEU:HD21	2:C:461:VAL:HG21	1.86	0.55
2:C:803:ARG:HB3	2:C:825:VAL:HG22	1.88	0.55
2:C:852:ILE:O	2:C:852:ILE:HG12	2.06	0.55
3:D:1069:GLU:HG3	3:D:1072:ILE:CD1	2.35	0.55
3:D:1083:ASP:O	3:D:1086:LEU:N	2.37	0.55
3:D:1283:ILE:HD12	3:D:1312:LEU:HA	1.89	0.55
3:D:1324:PRO:CG	3:D:1325:LEU:H	2.20	0.55
3:D:1459:LEU:CD1	3:D:1470:ARG:NH1	2.69	0.55
3:D:1471:LEU:O	3:D:1471:LEU:HG	2.06	0.55
3:D:648:MET:CE	3:D:747:VAL:HG11	2.36	0.55
3:D:864:VAL:H	3:D:876:SER:HG	1.51	0.55
3:D:793:THR:HG21	3:D:907:GLU:OE1	2.06	0.55
2:C:1020:PRO:O	2:C:1021:LEU:HG	2.06	0.55
2:C:881:ASN:ND2	3:D:1034:GLN:CD	2.60	0.55
1:B:12:THR:HB	1:B:24:VAL:HB	1.88	0.55
2:C:1012:PRO:CG	2:C:1023:GLY:HA3	2.37	0.55
2:C:327:HIS:O	2:C:329:GLY:N	2.36	0.55
2:C:44:ILE:HD12	2:C:44:ILE:H	1.71	0.55
2:C:479:VAL:O	2:C:480:THR:O	2.25	0.55
2:C:688:ILE:HG22	2:C:869:VAL:HG23	1.89	0.55
2:C:816:LYS:HG3	2:C:819:VAL:HG23	1.89	0.55
3:D:30(U):UNK:O	3:D:31(U):UNK:CB	2.55	0.55
3:D:616:GLN:O	3:D:617:ASN:CB	2.54	0.55
3:D:965:GLU:O	3:D:968:ASP:N	2.40	0.55
1:A:56:VAL:O	1:A:165:ILE:HG12	2.07	0.55
1:A:95:ALA:O	1:A:96:SER:HB3	2.06	0.55
1:B:104:GLU:O	1:B:136:GLY:HA3	2.06	0.55
1:B:143:ARG:HG2	1:B:144:VAL:N	2.21	0.55
2:C:831:ARG:HG2	2:C:1002:GLU:OE2	2.06	0.55
2:C:1005:MET:HG2	3:D:724:GLN:HG3	1.88	0.55
2:C:601:GLY:O	2:C:602:GLU:CB	2.54	0.55
2:C:613:VAL:HG11	2:C:619:ARG:HG3	1.87	0.55
2:C:676:ILE:HG21	2:C:873:PRO:HB3	1.87	0.55
2:C:839:LEU:O	2:C:840:ALA:O	2.25	0.55
2:C:924:LEU:N	2:C:924:LEU:CD2	2.66	0.55
3:D:1281:VAL:HG13	3:D:1314:LYS:CB	2.36	0.55
3:D:1402:ALA:O	3:D:1406:ARG:HB2	2.06	0.55
1:B:78:ILE:HG13	1:B:129:ILE:O	2.07	0.55
1:B:62:LEU:HD23	1:B:163:ASN:OD1	2.07	0.55
2:C:291:VAL:O	2:C:299:LYS:N	2.38	0.55
2:C:552:HIS:CE1	3:D:1064:GLY:HA2	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:672:VAL:HG22	2:C:673:LEU:H	1.71	0.55
2:C:700:TYR:HB2	2:C:833:LEU:HD22	1.89	0.55
3:D:1148:VAL:HG23	3:D:1165:TYR:CD2	2.42	0.55
3:D:1407:LEU:C	3:D:1409:ALA:H	2.10	0.55
3:D:1436:SER:HB3	3:D:1464:GLU:HG2	1.88	0.55
3:D:666:PHE:O	3:D:667:ALA:HB3	2.06	0.55
3:D:669:ASN:O	3:D:672:ALA:HB3	2.06	0.55
3:D:970:LYS:HA	3:D:973:GLN:HB2	1.87	0.55
1:B:100:ILE:HA	1:B:140:MET:O	2.06	0.54
1:B:151:VAL:HG23	1:B:169:ALA:CB	2.32	0.54
2:C:163:ILE:HD12	2:C:163:ILE:N	2.20	0.54
2:C:203:ASP:O	2:C:204:GLN:O	2.25	0.54
2:C:257:LEU:O	2:C:258:PHE:C	2.46	0.54
2:C:200:LEU:HD22	2:C:290:LEU:HD13	1.88	0.54
2:C:440:PRO:HG3	2:C:454:SER:CB	2.36	0.54
2:C:472:ARG:HH11	2:C:472:ARG:HG2	1.73	0.54
2:C:495:THR:HG22	2:C:496:ILE:N	2.21	0.54
2:C:5:ARG:HH22	2:C:10:ARG:NH1	2.05	0.54
2:C:780:GLU:O	2:C:781:LYS:C	2.46	0.54
2:C:889:HIS:C	2:C:891:GLY:N	2.60	0.54
3:D:1142:SER:O	3:D:1364:HIS:CD2	2.59	0.54
3:D:1324:PRO:CG	3:D:1325:LEU:N	2.70	0.54
3:D:1434:TRP:CD1	3:D:1447:LEU:HD12	2.43	0.54
3:D:26:VAL:C	3:D:28:LYS:N	2.60	0.54
3:D:660:LYS:O	3:D:664:LYS:HB2	2.06	0.54
3:D:762:GLN:O	3:D:768:ASN:HB2	2.07	0.54
4:E:27:ALA:HB1	4:E:60:ALA:HB1	1.89	0.54
1:A:72:LYS:HA	2:C:607:ASP:CB	2.32	0.54
2:C:1111:VAL:HG12	2:C:1111:VAL:O	2.07	0.54
2:C:17:PRO:HD2	2:C:20:GLU:CB	2.23	0.54
2:C:202:TYR:HE1	2:C:304:LEU:HB3	1.73	0.54
2:C:291:VAL:HB	2:C:299:LYS:CG	2.37	0.54
2:C:410:ILE:HB	2:C:453:THR:HG23	1.89	0.54
3:D:104:PHE:O	3:D:511:TRP:HZ3	1.90	0.54
3:D:564:GLU:CG	3:D:568:ARG:HE	2.20	0.54
4:E:38:THR:HG22	4:E:40:LEU:N	2.18	0.54
1:A:26:GLU:CB	1:A:27:PRO:CD	2.72	0.54
1:B:147:GLY:HA3	1:B:171:PHE:CG	2.43	0.54
1:B:170:ILE:HD12	1:B:170:ILE:O	2.07	0.54
1:B:173:PRO:O	1:B:201:THR:HB	2.07	0.54
2:C:101:ILE:HG22	2:C:102:HIS:H	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:439:CYS:HB2	2:C:468:ARG:HH11	1.72	0.54
3:D:1105:ILE:HG23	3:D:1200:VAL:CB	2.37	0.54
3:D:1444:THR:O	3:D:1448:THR:N	2.35	0.54
3:D:461:ILE:HG22	3:D:465:LEU:HD13	1.89	0.54
3:D:91:ALA:HB3	3:D:518:PRO:CD	2.36	0.54
3:D:542:ASP:O	3:D:543:LEU:C	2.45	0.54
2:C:1052:MET:HG2	3:D:623:VAL:CG2	2.37	0.54
3:D:699:VAL:CA	3:D:716:PHE:O	2.55	0.54
3:D:629:SER:HB3	3:D:726:ILE:HD12	1.88	0.54
3:D:905:PRO:O	3:D:906:GLN:CB	2.54	0.54
3:D:952:ASP:O	3:D:954:ALA:N	2.41	0.54
1:B:73:GLU:OE1	1:B:128:HIS:CE1	2.60	0.54
2:C:470:PRO:HG3	2:C:472:ARG:NH2	2.23	0.54
2:C:492:ASP:HA	2:C:509:ALA:CB	2.37	0.54
3:D:1118:ILE:HD11	3:D:1193:THR:HG22	1.90	0.54
3:D:1236:LEU:CD1	3:D:1259:VAL:HG21	2.37	0.54
2:C:1038:TRP:HE1	3:D:1463:LYS:HE3	1.73	0.54
3:D:573:MET:HA	3:D:576:GLU:HB2	1.88	0.54
3:D:688:TRP:C	3:D:690:ALA:N	2.60	0.54
3:D:897:GLN:NE2	3:D:897:GLN:HA	2.22	0.54
3:D:965:GLU:HA	3:D:968:ASP:HB2	1.89	0.54
4:E:42:PRO:HG2	4:E:44:GLU:HG2	1.89	0.54
1:A:162:ILE:HG23	1:A:163:ASN:ND2	2.22	0.54
2:C:1052:MET:HG3	2:C:1056:LYS:HE3	1.89	0.54
2:C:159:ILE:HG21	2:C:306:THR:HG23	1.88	0.54
2:C:238:LEU:O	2:C:241:LEU:HB2	2.07	0.54
2:C:328:LEU:CB	2:C:484:VAL:HG11	2.38	0.54
2:C:574:ALA:C	2:C:575:GLN:HG3	2.28	0.54
2:C:692:GLU:OE1	2:C:696:LYS:HE3	2.07	0.54
2:C:881:ASN:OD1	3:D:1034:GLN:NE2	2.40	0.54
3:D:1148:VAL:O	3:D:1148:VAL:HG12	2.08	0.54
3:D:1271:LYS:O	3:D:1272:ALA:C	2.46	0.54
3:D:772:PRO:CB	3:D:778:LEU:HB2	2.36	0.54
3:D:911:LEU:O	3:D:915:VAL:HG23	2.08	0.54
3:D:953:ASP:OD1	3:D:1020:LEU:HG	2.06	0.54
1:A:104:GLU:C	1:A:136:GLY:HA3	2.27	0.54
1:B:118:ALA:O	1:B:120:VAL:N	2.41	0.54
1:B:143:ARG:HD2	1:B:159:LYS:HG2	1.90	0.54
2:C:266:ARG:C	2:C:268:ASP:H	2.11	0.54
3:D:480:GLU:O	3:D:493:ARG:NH2	2.39	0.54
4:E:26:ARG:NH2	4:E:30:LEU:CD1	2.70	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:128:HIS:CE1	1:A:131:THR:OG1	2.61	0.54
1:A:9:PRO:HG3	1:B:224:TYR:CG	2.43	0.54
1:B:188:GLN:CG	3:D:688:TRP:CD1	2.91	0.54
2:C:603:VAL:O	2:C:604:VAL:HG23	2.07	0.54
2:C:908:GLY:O	2:C:909:ALA:HB3	2.07	0.54
3:D:1069:GLU:O	3:D:1071:PHE:N	2.41	0.54
3:D:1331:ASP:O	3:D:1333:HIS:N	2.40	0.54
3:D:969:ARG:NH2	3:D:970:LYS:HE3	2.22	0.54
1:A:157:GLY:N	1:A:166:PRO:HB3	2.23	0.54
1:A:175:ARG:O	1:A:176:ARG:CB	2.56	0.54
2:C:231:PRO:O	2:C:233:GLU:N	2.40	0.54
2:C:328:LEU:C	2:C:484:VAL:HG11	2.28	0.54
2:C:745:ILE:HD12	2:C:802:GLY:HA2	1.90	0.54
2:C:831:ARG:O	2:C:832:LYS:C	2.46	0.54
2:C:958:SER:C	2:C:962:GLN:HE21	2.10	0.54
3:D:957:PRO:CD	3:D:1007:VAL:HB	2.38	0.54
3:D:1031:ASN:ND2	3:D:1034:GLN:HB2	2.23	0.54
3:D:654:LYS:O	3:D:657:LEU:HB3	2.08	0.54
3:D:703:ASN:OD1	3:D:704:ARG:N	2.41	0.54
1:B:47:SER:O	1:B:48:ILE:CG1	2.55	0.54
1:B:76:VAL:HA	1:B:79:ILE:HB	1.90	0.54
2:C:1001:VAL:HG11	3:D:724:GLN:CB	2.32	0.54
2:C:148:PHE:HE2	2:C:310:LEU:HA	1.73	0.54
2:C:289:THR:O	2:C:290:LEU:O	2.26	0.54
3:D:28:LYS:CB	3:D:548:ILE:HG23	2.38	0.54
3:D:497:GLU:HG2	3:D:1389:LEU:HD21	1.88	0.54
1:A:83:LYS:CE	1:A:168:ASP:HB2	2.38	0.54
1:B:220:GLU:O	1:B:223:ASN:HB2	2.08	0.54
1:B:221:HIS:HA	1:B:224:TYR:CE1	2.43	0.54
2:C:1115:LEU:HD23	2:C:1115:LEU:N	2.23	0.54
2:C:115:LEU:HA	2:C:375:SER:OG	2.08	0.54
2:C:198:ARG:HG3	2:C:228:ALA:HA	1.89	0.54
2:C:31:GLN:HG2	2:C:39:ARG:NE	2.23	0.54
2:C:586:ARG:O	2:C:588:VAL:N	2.40	0.54
2:C:722:ILE:HA	2:C:758:ARG:HB2	1.90	0.54
2:C:949:LYS:C	2:C:951:GLY:H	2.11	0.54
3:D:1213:ARG:HG3	3:D:1214:PRO:CD	2.38	0.54
3:D:558:LEU:HD11	3:D:567:ILE:HD11	1.90	0.54
3:D:760:ARG:HH12	4:E:59:ASN:ND2	2.06	0.54
3:D:832:ARG:HG2	3:D:832:ARG:O	2.07	0.54
3:D:82:ARG:O	3:D:84:ILE:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:177:VAL:HG13	1:B:199:ILE:HD12	1.90	0.53
2:C:640:ARG:HG3	2:C:641:PRO:HD2	1.89	0.53
2:C:915:LYS:O	2:C:919:ALA:N	2.41	0.53
3:D:1009:ASN:OD1	3:D:1009:ASN:O	2.25	0.53
3:D:117:ASP:C	3:D:119:SER:H	2.10	0.53
3:D:1264:GLU:O	3:D:1265:ALA:HB3	2.08	0.53
3:D:149:LYS:O	3:D:151:GLN:N	2.41	0.53
3:D:723:GLY:C	3:D:724:GLN:HE21	2.12	0.53
2:C:520:GLU:N	2:C:521:PRO:HD3	2.22	0.53
2:C:555:ALA:O	2:C:558:ALA:HB3	2.08	0.53
2:C:959:PRO:HG2	2:C:960:GLU:N	2.18	0.53
3:D:1479:ASP:C	3:D:1481:VAL:N	2.61	0.53
3:D:876:SER:O	3:D:877:PRO:C	2.46	0.53
3:D:879:ARG:HE	3:D:904:VAL:H	1.56	0.53
1:A:22:GLU:HA	1:A:198:ARG:HA	1.89	0.53
1:B:101:LEU:HD23	1:B:140:MET:HE2	1.89	0.53
1:B:53:VAL:HG23	1:B:85:LEU:HD23	1.90	0.53
2:C:1038:TRP:CE2	3:D:1099:VAL:HG11	2.43	0.53
2:C:13:ILE:HG23	2:C:14:PRO:CD	2.38	0.53
2:C:363:SER:OG	2:C:364:PRO:HD2	2.08	0.53
2:C:466:PHE:HD1	2:C:467:ILE:CG1	2.22	0.53
2:C:493:ARG:NH1	3:D:1069:GLU:CD	2.62	0.53
2:C:566:THR:C	2:C:568:ALA:H	2.12	0.53
2:C:598:GLU:N	2:C:614:ARG:NH1	2.56	0.53
2:C:854:PRO:HB2	2:C:856:GLU:HG3	1.91	0.53
2:C:901:TYR:C	2:C:902:ILE:HD12	2.29	0.53
3:D:1033:GLN:HG3	3:D:1034:GLN:N	2.24	0.53
3:D:1156:LEU:CD1	3:D:1177:ALA:HA	2.38	0.53
3:D:1281:VAL:HG22	3:D:1315:ASP:H	1.73	0.53
3:D:1363:LEU:O	3:D:1364:HIS:HB2	2.08	0.53
3:D:1409:ALA:O	3:D:1413:VAL:N	2.40	0.53
3:D:1465:ASN:HD21	3:D:1470:ARG:NH1	2.06	0.53
3:D:702:LEU:O	3:D:713:ILE:O	2.26	0.53
3:D:882:PHE:HA	3:D:885:ILE:CD1	2.35	0.53
3:D:8:VAL:HG12	3:D:1434:TRP:HH2	1.72	0.53
3:D:951:ILE:HG22	3:D:952:ASP:N	2.23	0.53
1:A:138:LEU:O	1:A:139:TYR:C	2.47	0.53
1:B:124:ASN:OD1	1:B:124:ASN:N	2.41	0.53
1:B:71:VAL:HA	1:B:132:LEU:HA	1.91	0.53
2:C:243:ARG:HG3	2:C:244:PRO:HA	1.89	0.53
2:C:399:ASN:ND2	2:C:402:SER:H	2.06	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:478:VAL:C	2:C:479:VAL:HG22	2.29	0.53
2:C:613:VAL:HG22	2:C:620:LEU:N	2.24	0.53
2:C:801:VAL:HG23	2:C:828:ALA:HB2	1.88	0.53
2:C:882:LEU:HD11	2:C:884:GLN:NE2	2.23	0.53
3:D:1043:GLY:CA	3:D:1057:VAL:H	2.17	0.53
3:D:1224:VAL:HG12	3:D:1224:VAL:O	2.08	0.53
3:D:1420:LEU:HD12	3:D:1421:LEU:H	1.72	0.53
3:D:1434:TRP:HD1	3:D:1447:LEU:HD12	1.74	0.53
3:D:1459:LEU:HD12	3:D:1470:ARG:NH1	2.24	0.53
3:D:989:TYR:CZ	3:D:993:ILE:HG13	2.44	0.53
4:E:41:GLU:N	4:E:42:PRO:HD2	2.23	0.53
1:A:6:LEU:C	1:A:8:ALA:N	2.62	0.53
1:B:109:VAL:HG21	1:B:138:LEU:HD23	1.91	0.53
2:C:100:LEU:HD23	2:C:372:LEU:HD12	1.90	0.53
2:C:1076:VAL:HG21	3:D:753:SER:CB	2.38	0.53
2:C:466:PHE:HD1	2:C:467:ILE:HG13	1.72	0.53
2:C:580:MET:O	2:C:581:THR:O	2.27	0.53
2:C:628:TYR:O	2:C:629:ALA:O	2.26	0.53
2:C:672:VAL:O	2:C:991:GLN:HA	2.08	0.53
3:D:1041:MET:HG2	3:D:1042:ARG:N	2.24	0.53
3:D:571:LYS:C	3:D:573:MET:N	2.62	0.53
3:D:715:ALA:O	3:D:764:LEU:HD12	2.07	0.53
3:D:916:TYR:CD2	3:D:917:GLN:N	2.76	0.53
3:D:949:ILE:HG22	3:D:949:ILE:O	2.08	0.53
1:A:31:GLY:N	1:A:193:ASP:OD2	2.37	0.53
1:B:33:GLY:HA3	1:B:181:VAL:HG21	1.90	0.53
2:C:102:HIS:HD2	2:C:106:GLY:HA3	1.72	0.53
2:C:1103:ASP:O	2:C:1104:GLU:C	2.47	0.53
2:C:118:LEU:C	2:C:118:LEU:HD23	2.28	0.53
2:C:376:ARG:N	2:C:377:PRO:CD	2.62	0.53
2:C:449:ILE:O	2:C:451:LEU:N	2.41	0.53
2:C:440:PRO:HG3	2:C:454:SER:CA	2.38	0.53
2:C:892:LEU:HD23	2:C:893:ALA:N	2.22	0.53
2:C:839:LEU:O	2:C:994:ILE:HG22	2.08	0.53
3:D:1311:LEU:HD12	3:D:1311:LEU:H	1.73	0.53
3:D:1393:GLN:HE21	3:D:1420:LEU:HD21	1.74	0.53
3:D:643:GLY:CA	3:D:727:GLN:HB2	2.39	0.53
3:D:792:ILE:HG12	3:D:941:LEU:HG	1.91	0.53
3:D:879:ARG:NE	3:D:904:VAL:H	2.06	0.53
2:C:443:THR:H	2:C:444:PRO:CD	2.21	0.53
2:C:589:ARG:HH12	2:C:596:TYR:CB	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:131:THR:HG23	2:C:644:ARG:NE	2.23	0.53
2:C:718:GLY:HA3	2:C:761:PHE:CG	2.43	0.53
3:D:1231:GLU:HB3	3:D:1232:PRO:CD	2.32	0.53
3:D:89:ARG:O	3:D:520:LEU:HD21	2.07	0.53
3:D:542:ASP:O	3:D:544:TYR:N	2.42	0.53
2:C:1019:GLN:HB2	3:D:622:ARG:HB2	1.91	0.53
3:D:634:GLY:O	3:D:636:GLN:N	2.42	0.53
3:D:876:SER:CA	3:D:879:ARG:HG3	2.38	0.53
4:E:63:TRP:O	4:E:66:LYS:N	2.40	0.53
1:B:207:PRO:O	1:B:210:ALA:N	2.42	0.53
2:C:144:PRO:HA	2:C:162:ILE:HG22	1.89	0.53
2:C:240:THR:O	2:C:240:THR:HG22	2.09	0.53
2:C:759:THR:HB	2:C:785:VAL:HG11	1.89	0.53
2:C:841:ASN:HD21	2:C:845:ASN:H	1.55	0.53
3:D:563:PRO:O	3:D:565:ILE:N	2.42	0.53
3:D:578:VAL:C	3:D:580:ALA:N	2.62	0.53
3:D:910:SER:O	3:D:911:LEU:C	2.46	0.53
2:C:987:ILE:HD11	3:D:946:GLY:CA	2.38	0.53
2:C:111:ASP:O	2:C:113:VAL:N	2.34	0.53
2:C:218:VAL:O	2:C:221:LEU:N	2.42	0.53
2:C:336:VAL:O	2:C:339:LEU:N	2.41	0.53
2:C:552:HIS:CE1	3:D:1064:GLY:CA	2.92	0.53
2:C:811:PRO:O	2:C:813:VAL:N	2.41	0.53
2:C:840:ALA:HB2	2:C:846:LYS:HA	1.91	0.53
3:D:1402:ALA:O	3:D:1404:ASN:N	2.42	0.53
3:D:468:LEU:O	3:D:471:GLU:HG2	2.09	0.53
3:D:809:PRO:C	3:D:811:GLU:N	2.62	0.53
1:A:41:ARG:HE	2:C:860:HIS:CE1	2.26	0.53
1:A:41:ARG:HH11	1:A:41:ARG:CB	2.21	0.53
1:A:52:ALA:HB3	1:A:171:PHE:CD1	2.44	0.53
1:B:58:ILE:HA	1:B:139:TYR:O	2.09	0.53
1:B:174:VAL:HA	1:B:201:THR:HB	1.90	0.53
1:A:225:PHE:HE1	1:B:36:LEU:HD13	1.73	0.53
1:B:53:VAL:CG2	1:B:85:LEU:HD23	2.40	0.53
2:C:1017:THR:O	2:C:1018:GLN:CB	2.48	0.53
2:C:1095:LEU:HD11	3:D:603:LEU:HB3	1.91	0.53
2:C:17:PRO:O	2:C:18:LEU:CB	2.56	0.53
2:C:257:LEU:O	2:C:260:LEU:N	2.41	0.53
2:C:290:LEU:HD12	2:C:291:VAL:N	2.21	0.53
2:C:308:ARG:O	2:C:310:LEU:N	2.42	0.53
2:C:577:PRO:HG2	2:C:580:MET:CB	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:564:MET:CE	2:C:846:LYS:HB3	2.39	0.53
3:D:1015:TYR:HA	3:D:1018:ASN:HD22	1.74	0.53
3:D:1260:ILE:HG22	3:D:1261:GLU:N	2.23	0.53
3:D:811:GLU:HA	3:D:814:ALA:CB	2.24	0.53
3:D:971:LEU:O	3:D:974:ILE:HG22	2.09	0.53
1:A:26:GLU:OE2	1:A:185:ARG:NH2	2.42	0.52
1:A:74:ASP:OD1	1:A:74:ASP:C	2.46	0.52
1:B:14:THR:HB	1:B:22:GLU:HB3	1.90	0.52
1:B:179:PHE:CB	1:B:197:LEU:HD12	2.39	0.52
2:C:163:ILE:HG21	2:C:169:GLY:CA	2.39	0.52
2:C:921:ALA:HA	2:C:924:LEU:HG	1.92	0.52
3:D:1043:GLY:O	3:D:1057:VAL:HG23	2.08	0.52
3:D:1192:LEU:CD2	3:D:1369:GLU:HB3	2.39	0.52
3:D:509:PRO:HA	3:D:511:TRP:CD1	2.44	0.52
3:D:542:ASP:O	3:D:545:ARG:N	2.41	0.52
3:D:638:LYS:CB	3:D:932:ASP:OD1	2.57	0.52
3:D:705:ALA:HB3	3:D:706:PRO:HD2	1.91	0.52
3:D:965:GLU:C	3:D:968:ASP:H	2.13	0.52
4:E:3:GLU:HG3	4:E:6:ILE:HD11	1.91	0.52
1:A:162:ILE:HG12	1:A:163:ASN:CG	2.30	0.52
1:A:186:LEU:O	1:A:187:GLY:C	2.46	0.52
1:B:203:GLY:O	1:B:204:SER:CB	2.58	0.52
1:B:79:ILE:HG23	1:B:167:VAL:CG1	2.40	0.52
2:C:232:GLU:C	2:C:234:ALA:N	2.61	0.52
2:C:501:THR:N	2:C:502:PRO:CD	2.73	0.52
2:C:507:ARG:O	2:C:518:ARG:HA	2.09	0.52
2:C:600:ASP:C	2:C:648:ARG:HB2	2.28	0.52
2:C:552:HIS:NE2	2:C:886:LEU:HD12	2.24	0.52
3:D:1082:ALA:O	3:D:1085:ALA:HB3	2.09	0.52
3:D:1119:SER:HA	3:D:1186:VAL:O	2.09	0.52
3:D:1216:SER:OG	4:E:16:LYS:N	2.42	0.52
3:D:1223:VAL:O	3:D:1227:GLU:HG3	2.10	0.52
3:D:1439:SER:OG	3:D:1467:ILE:HD11	2.09	0.52
3:D:502:PHE:HE1	3:D:1452:ILE:CG1	2.17	0.52
3:D:890:VAL:HG13	3:D:922:LEU:HD13	1.90	0.52
4:E:25:LYS:HD3	4:E:25:LYS:O	2.08	0.52
2:C:874:LEU:O	2:C:876:VAL:N	2.42	0.52
3:D:115:LEU:C	3:D:117:ASP:N	2.59	0.52
3:D:1274:ILE:HD11	3:D:1334:GLN:NE2	2.24	0.52
3:D:1365:ASP:C	3:D:1366:LYS:HG3	2.29	0.52
3:D:569:ASN:O	3:D:572:ARG:HG2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:764:LEU:HD21	3:D:766:ALA:HB3	1.92	0.52
1:A:121:GLU:HB3	1:A:123:MET:HE3	1.91	0.52
1:A:101:LEU:O	1:A:139:TYR:HA	2.09	0.52
1:A:76:VAL:HG21	2:C:628:TYR:OH	2.09	0.52
2:C:1045:ALA:CB	2:C:1048:THR:HB	2.28	0.52
2:C:603:VAL:O	2:C:604:VAL:CB	2.58	0.52
2:C:642:ARG:O	2:C:643:VAL:HB	2.09	0.52
2:C:68:PHE:CD2	2:C:98:LEU:HD22	2.43	0.52
2:C:953:VAL:HG23	2:C:966:LEU:HD13	1.91	0.52
2:C:922:PHE:CD2	2:C:964:LYS:HG3	2.45	0.52
3:D:1202:GLN:O	3:D:1203:LYS:CB	2.57	0.52
3:D:1251:ASP:O	3:D:1253:THR:N	2.40	0.52
3:D:494:LYS:O	3:D:497:GLU:HB2	2.08	0.52
3:D:495:ARG:O	3:D:499:VAL:N	2.28	0.52
3:D:885:ILE:HG12	3:D:937:TYR:CE2	2.44	0.52
4:E:9:LEU:HD23	4:E:69:LEU:HD13	1.90	0.52
1:A:16:GLN:HE21	1:A:16:GLN:HA	1.75	0.52
1:A:9:PRO:HA	1:A:27:PRO:HD2	1.91	0.52
1:B:199:ILE:HG22	1:B:207:PRO:HB3	1.90	0.52
2:C:146:VAL:HG22	2:C:161:SER:HA	1.91	0.52
2:C:552:HIS:ND1	3:D:1064:GLY:HA2	2.25	0.52
2:C:626:ARG:NE	2:C:637:PHE:CZ	2.76	0.52
2:C:820:ARG:O	2:C:821:GLU:O	2.27	0.52
2:C:959:PRO:CG	2:C:960:GLU:H	2.18	0.52
3:D:1399:ASP:OD2	3:D:1417:TRP:HB3	2.10	0.52
3:D:545:ARG:CG	3:D:546:ARG:N	2.72	0.52
3:D:658:LEU:HA	3:D:661:MET:CE	2.39	0.52
3:D:863:THR:C	3:D:864:VAL:HG23	2.30	0.52
3:D:927:THR:O	3:D:931:LEU:HD23	2.09	0.52
1:B:148:VAL:HG23	1:B:149:GLY:H	1.74	0.52
2:C:445:GLU:HG3	5:C:1640:RFP:H303	1.90	0.52
2:C:568:ALA:O	2:C:569:VAL:HG12	2.10	0.52
3:D:1292:VAL:HG23	3:D:1305:LEU:HD23	1.91	0.52
3:D:1437:ALA:HA	3:D:1440:PHE:CD1	2.45	0.52
3:D:783:ARG:O	3:D:784:ASP:CB	2.49	0.52
1:A:56:VAL:HG13	1:A:167:VAL:CG2	2.40	0.52
1:B:132:LEU:CD2	1:B:132:LEU:N	2.73	0.52
1:B:59:GLU:O	1:B:60:ASP:CB	2.58	0.52
2:C:141:HIS:HE1	2:C:334:ARG:HG3	1.75	0.52
2:C:613:VAL:HG22	2:C:621:VAL:N	2.24	0.52
2:C:671:ASN:HB3	2:C:993:PHE:HB2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:911:GLU:N	2:C:912:PRO:HD2	2.25	0.52
3:D:1110:ALA:O	3:D:1112:CYS:N	2.42	0.52
3:D:774:SER:HA	3:D:1209:LEU:HD21	1.92	0.52
3:D:1462:LEU:HD23	3:D:1473:PRO:CG	2.40	0.52
3:D:691:LEU:C	3:D:693:GLU:N	2.63	0.52
1:A:105:GLY:HA2	1:A:136:GLY:H	1.75	0.52
1:A:53:VAL:HG21	1:A:82:LEU:O	2.09	0.52
1:B:38:ASN:HB3	1:B:39:PRO:CD	2.35	0.52
1:A:134:GLU:CB	2:C:606:VAL:HG23	2.40	0.52
2:C:713:ARG:HB2	2:C:720:GLU:OE1	2.09	0.52
3:D:1147:ARG:HB3	3:D:1188:VAL:HG21	1.89	0.52
3:D:1221:VAL:O	3:D:1222:GLY:C	2.46	0.52
3:D:1304:LYS:H	3:D:1304:LYS:CD	2.23	0.52
3:D:1365:ASP:O	3:D:1366:LYS:HB2	2.09	0.52
3:D:699:VAL:HG12	3:D:717:GLN:HG3	1.92	0.52
3:D:885:ILE:HD13	3:D:937:TYR:HD2	1.75	0.52
1:A:28:LEU:CD1	1:A:195:LEU:HB2	2.40	0.52
1:B:74:ASP:O	1:B:75:VAL:C	2.48	0.52
2:C:137:VAL:HG21	2:C:393:GLN:CD	2.29	0.52
2:C:84:ARG:HA	2:C:131:GLY:CA	2.38	0.52
3:D:1365:ASP:O	3:D:1366:LYS:CB	2.58	0.52
3:D:599:PRO:C	3:D:600:LEU:HD23	2.30	0.52
3:D:759:ALA:HA	3:D:763:MET:HG2	1.92	0.52
3:D:968:ASP:O	3:D:971:LEU:HB2	2.09	0.52
1:A:122:ILE:O	1:A:124:ASN:N	2.43	0.52
1:A:124:ASN:ND2	1:A:127:LEU:HD22	2.25	0.52
1:A:222:LEU:O	1:A:225:PHE:HD1	1.92	0.52
2:C:65:VAL:HB	2:C:101:ILE:HG12	1.91	0.52
2:C:215:GLY:O	2:C:217:LEU:HG	2.10	0.52
2:C:369:PRO:C	2:C:371:LYS:H	2.12	0.52
2:C:52:PHE:HD1	2:C:52:PHE:O	1.93	0.52
2:C:16:PRO:HB3	2:C:586:ARG:HH21	1.75	0.52
2:C:613:VAL:HG21	2:C:619:ARG:HE	1.75	0.52
3:D:1335:LEU:HD23	3:D:1344:VAL:CG2	2.40	0.52
3:D:1486:VAL:O	4:E:79:LEU:CD1	2.58	0.52
3:D:518:PRO:HA	3:D:544:TYR:OH	2.09	0.52
2:C:325:ILE:O	2:C:327:HIS:N	2.43	0.51
2:C:586:ARG:O	2:C:589:ARG:N	2.43	0.51
1:A:108:GLU:HG2	2:C:644:ARG:NH2	2.24	0.51
2:C:399:ASN:OD1	2:C:668:LEU:HD22	2.11	0.51
2:C:845:ASN:HD21	2:C:876:VAL:HG11	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1237:THR:O	3:D:1257:PRO:HD3	2.11	0.51
3:D:1443:THR:O	3:D:1447:LEU:HB2	2.09	0.51
3:D:552:ASN:C	3:D:554:LEU:H	2.13	0.51
3:D:823:LEU:O	3:D:824:ASN:CB	2.58	0.51
1:A:125:PRO:O	1:A:127:LEU:N	2.43	0.51
1:A:59:GLU:HG2	1:A:137:LYS:CE	2.34	0.51
2:C:610:ARG:HA	2:C:623:HIS:O	2.11	0.51
2:C:662:GLU:O	2:C:662:GLU:HG3	2.10	0.51
2:C:690:ILE:O	2:C:852:ILE:HA	2.10	0.51
2:C:73:ILE:HG22	2:C:74:GLY:N	2.26	0.51
3:D:643:GLY:HA3	3:D:727:GLN:N	2.16	0.51
3:D:962:ARG:O	3:D:966:GLU:HG3	2.10	0.51
1:B:56:VAL:HG13	1:B:142:VAL:HB	1.92	0.51
2:C:184:MET:CG	2:C:193:LEU:HD23	2.40	0.51
2:C:603:VAL:O	2:C:604:VAL:HB	2.11	0.51
2:C:601:GLY:HA3	2:C:647:GLN:C	2.31	0.51
2:C:873:PRO:O	2:C:874:LEU:C	2.47	0.51
2:C:950:LEU:O	2:C:951:GLY:C	2.49	0.51
3:D:1377:LYS:HG2	3:D:1378:TYR:CE1	2.45	0.51
3:D:1403:LEU:HD12	3:D:1417:TRP:CZ3	2.43	0.51
3:D:617:ASN:OD1	3:D:621:LYS:HE3	2.11	0.51
4:E:30:LEU:C	4:E:32:ARG:N	2.64	0.51
1:B:38:ASN:ND2	1:B:41:ARG:HD2	2.25	0.51
2:C:163:ILE:CB	2:C:164:PRO:HD2	2.41	0.51
2:C:236:VAL:HG13	2:C:248:PRO:O	2.10	0.51
2:C:282:GLY:O	2:C:283:VAL:HB	2.10	0.51
2:C:283:VAL:CG1	2:C:284:GLY:N	2.73	0.51
2:C:577:PRO:HB3	2:C:993:PHE:CE2	2.44	0.51
2:C:874:LEU:HD21	3:D:784:ASP:N	2.25	0.51
3:D:1475:GLY:O	3:D:1477:GLY:N	2.43	0.51
3:D:104:PHE:O	3:D:511:TRP:CZ3	2.62	0.51
3:D:639:LEU:O	3:D:641:GLN:N	2.41	0.51
3:D:916:TYR:O	3:D:918:ALA:N	2.43	0.51
4:E:13:VAL:HG21	4:E:19:LEU:HB2	1.92	0.51
1:A:225:PHE:CE2	1:B:25:LEU:HD23	2.46	0.51
2:C:13:ILE:HG23	2:C:14:PRO:HD2	1.91	0.51
2:C:193:LEU:HD11	2:C:307:LEU:HD22	1.93	0.51
2:C:243:ARG:CG	2:C:244:PRO:HA	2.41	0.51
2:C:270:GLY:O	2:C:274:ARG:HG2	2.09	0.51
2:C:3:ILE:HD13	2:C:900:ARG:HB2	1.91	0.51
2:C:937:ASP:OD1	2:C:939:ARG:HD2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1330:ILE:O	3:D:1331:ASP:C	2.49	0.51
3:D:729:HIS:O	3:D:731:LEU:N	2.44	0.51
3:D:808:THR:O	3:D:808:THR:HG22	2.09	0.51
1:B:118:ALA:C	1:B:120:VAL:H	2.13	0.51
2:C:1034:GLU:O	2:C:1037:VAL:N	2.43	0.51
2:C:15:LEU:HD21	2:C:461:VAL:CB	2.41	0.51
2:C:443:THR:H	2:C:444:PRO:HD3	1.76	0.51
2:C:460:ARG:HG3	2:C:461:VAL:N	2.26	0.51
2:C:548:PRO:HG3	2:C:842:ARG:NH2	2.25	0.51
2:C:631:SER:OG	2:C:636:ALA:N	2.31	0.51
2:C:699:PHE:O	2:C:701:THR:N	2.43	0.51
2:C:713:ARG:HH12	2:C:816:LYS:HG2	1.74	0.51
2:C:8:ARG:O	2:C:494:TYR:OH	2.27	0.51
3:D:1038:LEU:O	3:D:1060:SER:O	2.28	0.51
3:D:1397:LYS:HD2	3:D:1400:VAL:HB	1.92	0.51
3:D:486:ARG:CG	3:D:487:ALA:H	2.22	0.51
1:A:196:THR:O	1:A:196:THR:OG1	2.26	0.51
2:C:282:GLY:O	2:C:283:VAL:CB	2.59	0.51
2:C:310:LEU:O	2:C:313:LEU:HB3	2.10	0.51
2:C:430:VAL:O	2:C:431:HIS:C	2.49	0.51
2:C:874:LEU:CD2	3:D:784:ASP:CA	2.88	0.51
2:C:976:ASP:O	2:C:978:ARG:N	2.44	0.51
3:D:999:THR:HG23	3:D:1000:THR:N	2.26	0.51
3:D:1088:THR:O	3:D:1091:SER:HB3	2.10	0.51
3:D:1166:LEU:HD22	3:D:1166:LEU:H	1.75	0.51
3:D:1110:ALA:HA	3:D:1202:GLN:O	2.10	0.51
1:B:205:VAL:HG12	1:B:206:THR:N	2.26	0.51
2:C:1034:GLU:OE2	3:D:1096:ARG:NH1	2.44	0.51
2:C:758:ARG:NH1	2:C:758:ARG:HG3	2.25	0.51
3:D:1251:ASP:C	3:D:1253:THR:N	2.62	0.51
3:D:542:ASP:O	3:D:545:ARG:HG2	2.10	0.51
3:D:879:ARG:CZ	3:D:904:VAL:CA	2.88	0.51
4:E:41:GLU:N	4:E:42:PRO:CD	2.74	0.51
1:A:105:GLY:O	1:A:133:GLU:HA	2.10	0.51
1:A:158:ILE:HG13	1:A:161:ARG:CG	2.41	0.51
2:C:1101:THR:HB	2:C:1110:ASP:CB	2.41	0.51
2:C:333:ILE:HG21	2:C:460:ARG:NH2	2.26	0.51
2:C:401:LEU:HD21	2:C:543:ASN:HB2	1.92	0.51
2:C:676:ILE:HG22	2:C:677:MET:N	2.25	0.51
2:C:729:LEU:HD21	2:C:754:ILE:CD1	2.40	0.51
2:C:755:LEU:HD13	2:C:755:LEU:C	2.31	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:925:TYR:OH	2:C:972:VAL:HG21	2.11	0.51
2:C:981:GLU:HB3	2:C:982:PRO:CD	2.41	0.51
3:D:1150:ALA:O	3:D:1151:ARG:HB2	2.10	0.51
3:D:1228:SER:O	3:D:1232:PRO:HD2	2.11	0.51
3:D:489:ARG:O	3:D:493:ARG:HG2	2.11	0.51
3:D:643:GLY:HA3	3:D:727:GLN:HB2	1.92	0.51
3:D:645:PRO:HB3	3:D:724:GLN:H	1.76	0.51
1:A:72:LYS:O	1:A:73:GLU:O	2.29	0.51
1:B:64:GLU:HA	1:B:75:VAL:HG11	1.93	0.51
1:B:97:THR:HG21	1:B:120:VAL:CG2	2.30	0.51
2:C:1059:ASP:HA	2:C:1083:GLU:CB	2.41	0.51
2:C:115:LEU:CG	2:C:116:GLY:H	2.24	0.51
2:C:254:LEU:C	2:C:256:TYR:H	2.12	0.51
2:C:428:ARG:O	2:C:429:ASP:CB	2.59	0.51
2:C:796:GLU:CG	3:D:681:ARG:HH22	2.24	0.51
2:C:943:VAL:O	2:C:944:LEU:C	2.49	0.51
2:C:950:LEU:C	3:D:1018:ASN:HD21	2.14	0.51
2:C:564:MET:HG3	2:C:997:LEU:CD1	2.39	0.51
3:D:1277:ILE:CG2	3:D:1279:GLY:H	2.24	0.51
3:D:1457:ASP:C	3:D:1459:LEU:H	2.14	0.51
2:C:1008:ARG:O	3:D:652:LEU:HD13	2.11	0.51
3:D:905:PRO:HG2	3:D:906:GLN:N	2.26	0.51
4:E:17:TYR:N	4:E:17:TYR:CD1	2.77	0.51
1:A:42:ARG:HD3	2:C:977:GLY:O	2.12	0.50
1:B:114:PHE:O	1:B:116:PRO:N	2.44	0.50
2:C:139:GLN:NE2	2:C:334:ARG:NH2	2.59	0.50
2:C:183:THR:CG2	2:C:190:LYS:HG3	2.40	0.50
2:C:201:GLY:O	2:C:203:ASP:OD2	2.29	0.50
2:C:354:GLY:O	2:C:357:GLU:HB3	2.11	0.50
2:C:637:PHE:HB2	2:C:659:PRO:CB	2.41	0.50
3:D:1105:ILE:HG21	3:D:1370:ILE:HG23	1.92	0.50
3:D:117:ASP:C	3:D:119:SER:N	2.65	0.50
3:D:1107:VAL:HG12	3:D:1217:ILE:HD13	1.92	0.50
3:D:1353:GLN:O	3:D:1356:TYR:N	2.43	0.50
3:D:521:PRO:N	3:D:522:PRO:CD	2.73	0.50
3:D:795:VAL:HG12	3:D:796:ARG:H	1.75	0.50
3:D:729:HIS:HE1	3:D:935:LYS:HD3	1.75	0.50
3:D:1483:PHE:CE2	4:E:18:ARG:NE	2.79	0.50
4:E:77:GLU:OE1	4:E:77:GLU:HA	2.11	0.50
1:A:6:LEU:O	1:A:8:ALA:N	2.45	0.50
2:C:148:PHE:HE2	2:C:310:LEU:CA	2.23	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:377:PRO:O	2:C:379:GLU:O	2.27	0.50
2:C:743:VAL:HG13	2:C:744:ARG:N	2.26	0.50
2:C:796:GLU:HG2	3:D:681:ARG:NH1	2.25	0.50
3:D:690:ALA:O	3:D:694:VAL:HG23	2.11	0.50
3:D:968:ASP:HA	3:D:971:LEU:HB2	1.94	0.50
4:E:28:GLN:O	4:E:28:GLN:HG2	2.11	0.50
4:E:48:MET:O	4:E:49:ARG:HG3	2.12	0.50
2:C:1082:PRO:HG2	2:C:1085:PHE:HB3	1.93	0.50
2:C:137:VAL:HG12	2:C:411:SER:HB2	1.93	0.50
2:C:35:PRO:C	2:C:37:GLU:H	2.12	0.50
2:C:415:PRO:O	2:C:416:GLY:O	2.29	0.50
2:C:15:LEU:HD22	2:C:471:TYR:OH	2.11	0.50
2:C:66:LEU:HD11	2:C:98:LEU:HB2	1.94	0.50
3:D:1252:ILE:C	3:D:1254:GLN:N	2.64	0.50
3:D:1273:VAL:H	3:D:1324:PRO:CG	2.22	0.50
3:D:1459:LEU:HD12	3:D:1470:ARG:HH11	1.76	0.50
4:E:27:ALA:HB1	4:E:60:ALA:CB	2.41	0.50
1:A:56:VAL:HG13	1:A:167:VAL:HG23	1.94	0.50
1:B:58:ILE:HG23	1:B:140:MET:CG	2.42	0.50
1:B:58:ILE:O	1:B:59:GLU:C	2.49	0.50
1:B:68:ILE:N	1:B:68:ILE:HD12	2.27	0.50
2:C:118:LEU:HD23	2:C:119:PRO:O	2.10	0.50
2:C:186:VAL:HG11	2:C:258:PHE:CD2	2.47	0.50
2:C:263:ASP:CG	2:C:264:PRO:HD3	2.31	0.50
2:C:348:LEU:HA	2:C:351:LEU:HB3	1.93	0.50
2:C:407:LYS:C	2:C:409:ARG:H	2.13	0.50
2:C:492:ASP:H	2:C:532:MET:N	2.08	0.50
2:C:492:ASP:N	2:C:532:MET:H	2.05	0.50
2:C:613:VAL:CB	2:C:619:ARG:HG2	2.41	0.50
3:D:1008:PHE:HE1	3:D:1035:ILE:CG1	2.18	0.50
3:D:1118:ILE:CD1	3:D:1190:SER:H	2.24	0.50
3:D:1322:GLY:O	3:D:1323:GLN:CB	2.58	0.50
3:D:492:ALA:O	3:D:495:ARG:HB2	2.11	0.50
3:D:824:ASN:O	3:D:825:ALA:C	2.50	0.50
3:D:908:LYS:HG3	3:D:1027:GLY:HA2	1.90	0.50
1:A:34:VAL:O	1:A:35:THR:C	2.48	0.50
1:B:144:VAL:HG12	1:B:145:ASP:H	1.76	0.50
1:B:199:ILE:O	1:B:199:ILE:CG2	2.59	0.50
1:B:49:PRO:HD2	1:B:213:GLN:HE21	1.76	0.50
2:C:393:GLN:HE22	5:C:1640:RFP:C8	2.25	0.50
2:C:502:PRO:O	2:C:507:ARG:CZ	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:7:GLY:O	2:C:8:ARG:HG3	2.12	0.50
3:D:1118:ILE:HD11	3:D:1190:SER:H	1.76	0.50
3:D:1363:LEU:O	3:D:1363:LEU:HD23	2.11	0.50
3:D:1381:VAL:O	3:D:1382:THR:HG23	2.11	0.50
3:D:1449:GLU:O	3:D:1450:ALA:C	2.50	0.50
3:D:506:GLY:O	3:D:507:ASN:CB	2.59	0.50
3:D:795:VAL:HA	3:D:862:ASP:CB	2.41	0.50
3:D:879:ARG:NH2	3:D:904:VAL:CA	2.63	0.50
1:A:218:LEU:O	1:A:222:LEU:HD23	2.12	0.50
1:B:151:VAL:CG2	1:B:169:ALA:HB3	2.36	0.50
1:B:202:ASP:C	1:B:204:SER:N	2.64	0.50
1:B:40:LEU:O	1:B:44:LEU:HB2	2.11	0.50
2:C:1106:ASP:C	2:C:1108:PRO:HD3	2.32	0.50
2:C:342:ASP:N	2:C:345:ARG:HH11	2.10	0.50
2:C:352:ALA:HA	2:C:355:VAL:CG1	2.37	0.50
2:C:65:VAL:HB	2:C:101:ILE:CG1	2.42	0.50
2:C:902:ILE:O	2:C:902:ILE:HG22	2.10	0.50
3:D:1004:THR:HG22	3:D:1005:GLN:N	2.27	0.50
3:D:1007:VAL:HG13	3:D:1008:PHE:N	2.26	0.50
3:D:1276:GLU:CD	3:D:1301:LYS:HE2	2.32	0.50
3:D:1347:TYR:CZ	3:D:1351:GLU:HG2	2.46	0.50
3:D:612:GLY:C	3:D:614:PHE:N	2.63	0.50
3:D:853:VAL:HG11	3:D:860:LEU:HB2	1.93	0.50
3:D:885:ILE:CD1	3:D:937:TYR:HD2	2.24	0.50
1:A:108:GLU:HG3	2:C:644:ARG:HH22	1.77	0.50
1:A:67:THR:O	1:A:69:PRO:HD3	2.12	0.50
1:B:23:PHE:CD1	1:B:211:LEU:HD22	2.47	0.50
2:C:220:GLY:HA2	2:C:223:ASP:OD2	2.10	0.50
2:C:277:ALA:O	2:C:281:LEU:N	2.36	0.50
2:C:148:PHE:CE2	2:C:310:LEU:HA	2.47	0.50
2:C:482:GLU:HA	2:C:486:MET:HE1	1.94	0.50
2:C:662:GLU:O	2:C:663:GLU:CB	2.58	0.50
2:C:710:ILE:HG21	2:C:758:ARG:HD2	1.92	0.50
2:C:755:LEU:HD23	2:C:792:VAL:HG23	1.92	0.50
2:C:798:GLY:O	2:C:827:VAL:HG13	2.12	0.50
3:D:1250:THR:HG23	3:D:1269:LYS:CD	2.39	0.50
3:D:1347:TYR:OH	3:D:1351:GLU:HG2	2.11	0.50
3:D:1436:SER:CB	3:D:1464:GLU:HG2	2.41	0.50
3:D:1490:ARG:C	3:D:1492:LEU:H	2.15	0.50
1:A:157:GLY:O	1:A:158:ILE:C	2.50	0.50
1:A:41:ARG:HB3	1:A:41:ARG:CZ	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:106:PRO:HA	1:B:132:LEU:O	2.12	0.50
2:C:180:GLY:O	2:C:181:VAL:HB	2.12	0.50
2:C:250:LYS:O	2:C:250:LYS:HG3	2.12	0.50
2:C:42:VAL:H	2:C:46:ALA:HB2	1.77	0.50
2:C:705:ILE:HG23	2:C:828:ALA:HA	1.94	0.50
2:C:722:ILE:O	2:C:722:ILE:HG22	2.12	0.50
3:D:1051:GLU:O	3:D:1052:THR:C	2.50	0.50
3:D:1434:TRP:HB2	3:D:1450:ALA:HB2	1.94	0.50
3:D:1465:ASN:OD1	3:D:1470:ARG:HB3	2.11	0.50
1:A:158:ILE:HG12	1:A:159:LYS:N	2.27	0.50
1:B:4:SER:O	1:B:5:LYS:CB	2.59	0.50
2:C:159:ILE:HG13	2:C:310:LEU:HD13	1.89	0.50
2:C:352:ALA:O	2:C:353:ARG:C	2.50	0.50
2:C:354:GLY:O	2:C:358:ARG:HG2	2.12	0.50
2:C:434:HIS:O	2:C:436:GLY:N	2.45	0.50
2:C:635:THR:CG2	2:C:636:ALA:N	2.74	0.50
2:C:704:HIS:ND1	2:C:831:ARG:HD2	2.26	0.50
2:C:768:SER:O	2:C:769:PRO:O	2.30	0.50
2:C:712:ALA:HB3	2:C:820:ARG:O	2.12	0.50
3:D:1236:LEU:HD13	3:D:1259:VAL:HG21	1.92	0.50
3:D:1205:TYR:CD1	3:D:1366:LYS:HD2	2.47	0.50
1:A:127:LEU:HG	1:A:129:ILE:HD11	1.94	0.49
1:A:178:ALA:HB2	2:C:864:GLY:HA3	1.94	0.49
1:A:188:GLN:O	1:A:189:ARG:HB3	2.12	0.49
2:C:1043:TYR:CE2	3:D:710:ARG:HD3	2.47	0.49
2:C:9:ILE:CG2	2:C:10:ARG:H	2.13	0.49
2:C:222:LEU:O	2:C:225:ALA:N	2.43	0.49
2:C:257:LEU:HB2	2:C:258:PHE:HD1	1.77	0.49
2:C:261:LEU:C	2:C:263:ASP:N	2.64	0.49
2:C:755:LEU:HD11	2:C:825:VAL:HB	1.94	0.49
2:C:845:ASN:HD22	2:C:884:GLN:CD	2.15	0.49
3:D:10:ILE:HG21	3:D:1450:ALA:CB	2.42	0.49
3:D:110:SER:C	3:D:112:ILE:H	2.15	0.49
3:D:1403:LEU:HD21	3:D:1415:VAL:N	2.20	0.49
3:D:935:LYS:HG3	3:D:939:PHE:HE1	1.77	0.49
1:A:167:VAL:HG12	1:A:168:ASP:N	2.27	0.49
1:A:41:ARG:HH11	1:A:42:ARG:N	2.10	0.49
2:C:1054:THR:HG22	2:C:1055:ILE:N	2.27	0.49
1:A:108:GLU:CG	2:C:644:ARG:NH2	2.75	0.49
2:C:712:ALA:HB2	2:C:722:ILE:CD1	2.41	0.49
2:C:551:GLU:HG2	2:C:906:PHE:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1353:GLN:NE2	3:D:1368:ILE:HD11	2.08	0.49
3:D:502:PHE:HD1	3:D:1452:ILE:HG23	1.77	0.49
3:D:40(U):UNK:O	3:D:41(U):UNK:O	2.30	0.49
3:D:732:VAL:O	3:D:733:CYS:C	2.49	0.49
3:D:936:TYR:CD2	3:D:936:TYR:C	2.86	0.49
1:A:77:GLU:O	1:A:80:LEU:N	2.45	0.49
1:B:132:LEU:HD23	1:B:132:LEU:H	1.77	0.49
2:C:181:VAL:CG1	2:C:182:VAL:HG23	2.40	0.49
2:C:226:VAL:HG23	2:C:227:LEU:N	2.27	0.49
2:C:483:VAL:O	2:C:485:TYR:N	2.46	0.49
2:C:474:VAL:HG22	2:C:530:GLU:CB	2.43	0.49
2:C:571:LEU:CD2	2:C:670:GLN:HG3	2.40	0.49
2:C:691:SER:O	2:C:692:GLU:C	2.49	0.49
2:C:747:ALA:O	2:C:800:VAL:HG23	2.12	0.49
3:D:1321:ALA:O	3:D:1324:PRO:HD2	2.12	0.49
3:D:935:LYS:HG3	3:D:939:PHE:CE1	2.48	0.49
3:D:9(U):UNK:O	3:D:10(U):UNK:CB	2.60	0.49
1:A:150:TYR:HB2	2:C:696:LYS:HE2	1.93	0.49
2:C:163:ILE:HG21	2:C:169:GLY:C	2.33	0.49
2:C:198:ARG:HD3	2:C:198:ARG:C	2.32	0.49
2:C:263:ASP:CB	2:C:264:PRO:HD3	2.42	0.49
2:C:598:GLU:HG3	2:C:614:ARG:NH2	2.28	0.49
2:C:727:PRO:C	2:C:729:LEU:H	2.14	0.49
2:C:872:ASN:HD21	2:C:874:LEU:HB3	1.77	0.49
3:D:633:VAL:HA	3:D:740:PHE:CZ	2.47	0.49
3:D:684:LYS:HE2	3:D:685:ASP:OD2	2.12	0.49
3:D:973:GLN:O	3:D:977:ALA:HB2	2.13	0.49
3:D:996:TRP:HA	3:D:999:THR:CG2	2.42	0.49
1:A:111:ALA:HB2	1:A:127:LEU:HB3	1.93	0.49
2:C:164:PRO:HD3	2:C:267:TYR:CE2	2.48	0.49
2:C:44:ILE:HG22	2:C:45:GLN:N	2.27	0.49
2:C:328:LEU:O	2:C:484:VAL:HG11	2.12	0.49
2:C:45:GLN:O	2:C:48:PHE:HB2	2.12	0.49
3:D:1327:ARG:CB	3:D:1327:ARG:HH11	2.25	0.49
3:D:1331:ASP:O	3:D:1334:GLN:N	2.28	0.49
1:A:38:ASN:HB3	1:A:39:PRO:HD3	1.95	0.49
1:B:14:THR:HG22	1:B:14:THR:O	2.12	0.49
2:C:910:THR:CG2	2:C:912:PRO:HD2	2.40	0.49
3:D:1017:PHE:O	3:D:1019:PRO:N	2.46	0.49
3:D:687:VAL:O	3:D:690:ALA:CB	2.60	0.49
3:D:739:ASP:O	3:D:741:ASP:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:764:LEU:HB3	3:D:767:HIS:CD2	2.48	0.49
3:D:864:VAL:HG12	3:D:874:GLU:O	2.13	0.49
3:D:879:ARG:HH22	3:D:905:PRO:HD2	1.78	0.49
2:C:100:LEU:CD1	2:C:369:PRO:HD3	2.42	0.49
2:C:89:THR:HG23	2:C:129:ILE:HG23	1.94	0.49
2:C:142:ARG:HG2	2:C:147:TYR:CE1	2.47	0.49
2:C:344:PHE:HE2	2:C:378:LEU:HD23	1.77	0.49
2:C:12:VAL:HG21	2:C:479:VAL:CG1	2.43	0.49
2:C:636:ALA:HB2	2:C:705:ILE:CD1	2.42	0.49
1:A:77:GLU:OE2	2:C:640:ARG:NH1	2.46	0.49
2:C:676:ILE:C	3:D:948:THR:HG22	2.32	0.49
3:D:1156:LEU:HB3	3:D:1173:PHE:HE1	1.77	0.49
3:D:1429:LEU:HD13	3:D:1440:PHE:CD2	2.47	0.49
3:D:552:ASN:C	3:D:554:LEU:N	2.66	0.49
3:D:97:THR:O	3:D:571:LYS:HE3	2.13	0.49
2:C:1053:LEU:HD13	3:D:621:LYS:HD2	1.94	0.49
1:B:80:LEU:HB3	3:D:839:LEU:CB	2.42	0.49
2:C:969:LEU:CD2	3:D:952:ASP:HB2	2.40	0.49
1:A:41:ARG:HG2	1:A:177:VAL:CB	2.43	0.49
1:B:94:MET:HE1	1:B:119:ASP:O	2.13	0.49
1:B:46:SER:O	1:B:47:SER:C	2.50	0.49
2:C:149:THR:HG23	2:C:323:ASP:CB	2.42	0.49
2:C:173:ASP:HB3	2:C:185:LYS:HE3	1.95	0.49
2:C:559:LEU:C	2:C:559:LEU:CD1	2.80	0.49
1:A:41:ARG:NH2	2:C:860:HIS:CD2	2.81	0.49
2:C:875:GLY:HA2	2:C:879:ARG:CG	2.39	0.49
2:C:889:HIS:HE1	3:D:951:ILE:N	2.03	0.49
3:D:1034:GLN:HE22	3:D:1037:GLN:NE2	2.11	0.49
3:D:1324:PRO:CD	3:D:1325:LEU:H	2.25	0.49
3:D:1394:VAL:CG1	3:D:1395:LEU:N	2.75	0.49
3:D:583:ASP:O	3:D:585:GLY:N	2.46	0.49
2:C:1030:GLN:NE2	3:D:628:ARG:HD3	2.25	0.49
1:A:15:THR:HG22	1:B:230:ALA:CB	2.34	0.49
1:A:9:PRO:HB2	1:A:25:LEU:HD13	1.93	0.49
1:B:57:TYR:CD2	1:B:58:ILE:N	2.81	0.49
2:C:286:SER:O	2:C:288:ARG:N	2.46	0.49
2:C:325:ILE:C	2:C:327:HIS:N	2.66	0.49
2:C:421:GLU:O	2:C:422:ARG:C	2.50	0.49
2:C:551:GLU:O	3:D:1065:LEU:HB3	2.13	0.49
2:C:691:SER:O	2:C:693:GLU:N	2.45	0.49
2:C:705:ILE:HD12	2:C:705:ILE:N	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:803:ARG:HD2	2:C:803:ARG:H	1.78	0.49
3:D:1171:VAL:HG12	3:D:1171:VAL:O	2.12	0.49
3:D:648:MET:HE2	3:D:747:VAL:HG11	1.95	0.49
3:D:794:GLN:OE1	3:D:794:GLN:HA	2.12	0.49
1:A:16:GLN:OE1	1:A:19:HIS:HE1	1.96	0.49
1:B:143:ARG:CG	1:B:144:VAL:N	2.76	0.49
2:C:1020:PRO:HD3	2:C:1057:SER:HA	1.94	0.49
2:C:1091:GLU:OE1	3:D:613:ARG:HG3	2.13	0.49
2:C:129:ILE:HG22	2:C:130:ASN:ND2	2.28	0.49
2:C:159:ILE:HG21	2:C:306:THR:HG21	1.95	0.49
2:C:556:ASN:O	2:C:559:LEU:HG	2.12	0.49
2:C:745:ILE:HG22	2:C:746:GLY:N	2.28	0.49
3:D:1027:GLY:O	3:D:1028:ALA:HB2	2.13	0.49
3:D:709:HIS:HA	3:D:1227:GLU:HB3	1.95	0.49
3:D:1272:ALA:HB1	3:D:1325:LEU:HA	1.95	0.49
3:D:482:LYS:HE2	3:D:488:ARG:HB3	1.95	0.49
3:D:552:ASN:O	3:D:555:LYS:N	2.44	0.49
1:A:10:VAL:HB	1:A:26:GLU:HG2	1.90	0.48
1:B:77:GLU:O	1:B:81:ASN:ND2	2.46	0.48
2:C:115:LEU:HD13	2:C:375:SER:OG	2.13	0.48
2:C:256:TYR:CG	2:C:260:LEU:HD13	2.48	0.48
2:C:307:LEU:O	2:C:310:LEU:HB3	2.13	0.48
2:C:473:ARG:HE	2:C:476:ASN:HA	1.77	0.48
2:C:487:THR:O	2:C:488:ALA:C	2.51	0.48
2:C:569:VAL:O	2:C:571:LEU:HD12	2.13	0.48
2:C:845:ASN:OD1	2:C:845:ASN:O	2.30	0.48
3:D:1065:LEU:C	3:D:1067:VAL:H	2.15	0.48
3:D:1071:PHE:CE2	3:D:1075:HIS:NE2	2.78	0.48
3:D:1164:ARG:HG2	3:D:1165:TYR:N	2.28	0.48
3:D:1425:THR:C	3:D:1427:SER:H	2.15	0.48
3:D:664:LYS:O	3:D:665:ALA:HB3	2.13	0.48
3:D:1483:PHE:HZ	4:E:18:ARG:HG3	1.76	0.48
4:E:79:LEU:O	4:E:81:PRO:CD	2.61	0.48
1:A:162:ILE:CG2	1:A:163:ASN:N	2.73	0.48
1:A:55:SER:HG	1:A:164:ALA:HB1	1.78	0.48
1:A:195:LEU:CD2	1:A:196:THR:N	2.76	0.48
1:A:198:ARG:NH1	2:C:934:PHE:HE1	2.11	0.48
2:C:342:ASP:HA	2:C:345:ARG:HD2	1.94	0.48
2:C:465:GLY:O	2:C:466:PHE:HB3	2.13	0.48
2:C:479:VAL:O	2:C:480:THR:C	2.52	0.48
2:C:489:SER:O	2:C:490:GLU:CB	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:836:GLY:O	2:C:837:ASP:O	2.31	0.48
3:D:1277:ILE:HG22	3:D:1278:ASP:H	1.76	0.48
2:C:725:ASP:O	2:C:725:ASP:OD1	2.31	0.48
1:A:62:LEU:CD1	2:C:745:ILE:HB	2.43	0.48
2:C:839:LEU:HD23	2:C:849:VAL:CG2	2.42	0.48
2:C:872:ASN:HD21	2:C:874:LEU:CB	2.26	0.48
2:C:900:ARG:C	2:C:901:TYR:CD1	2.86	0.48
2:C:946:ARG:NH1	2:C:946:ARG:HG2	2.29	0.48
3:D:1008:PHE:HD2	3:D:1008:PHE:O	1.96	0.48
3:D:1223:VAL:C	3:D:1225:ALA:H	2.16	0.48
3:D:28:LYS:O	3:D:548:ILE:HG21	2.13	0.48
3:D:626:SER:OG	3:D:748:HIS:N	2.46	0.48
3:D:961:GLN:O	3:D:964:LEU:O	2.30	0.48
2:C:134:ARG:HB3	2:C:393:GLN:O	2.14	0.48
3:D:1102:ALA:O	3:D:1103:HIS:O	2.31	0.48
3:D:1476:THR:HG22	4:E:21:VAL:CG2	2.43	0.48
3:D:552:ASN:C	3:D:555:LYS:H	2.16	0.48
3:D:669:ASN:OD1	3:D:670:VAL:N	2.47	0.48
3:D:853:VAL:HG13	3:D:858:LEU:O	2.13	0.48
3:D:935:LYS:O	3:D:936:TYR:C	2.52	0.48
1:A:152:PRO:O	1:A:154:GLU:N	2.44	0.48
1:A:158:ILE:HG23	1:A:159:LYS:N	2.22	0.48
1:A:80:LEU:HD11	2:C:572:ILE:HG21	1.96	0.48
1:B:128:HIS:O	1:B:129:ILE:HB	2.13	0.48
1:B:185:ARG:CB	1:B:190:THR:HA	2.43	0.48
2:C:1059:ASP:HA	2:C:1083:GLU:OE1	2.13	0.48
2:C:278:GLU:HG3	2:C:284:GLY:N	2.22	0.48
2:C:304:LEU:H	2:C:305:PRO:CD	2.26	0.48
2:C:142:ARG:HD2	2:C:324:ASP:HA	1.95	0.48
2:C:324:ASP:C	2:C:326:ASP:N	2.66	0.48
2:C:674:VAL:CG2	2:C:675:ALA:H	2.26	0.48
2:C:800:VAL:O	2:C:800:VAL:HG12	2.12	0.48
2:C:816:LYS:HB3	2:C:819:VAL:HG21	1.96	0.48
2:C:493:ARG:NH1	3:D:1069:GLU:OE2	2.47	0.48
3:D:1278:ASP:HA	3:D:1318:TYR:CA	2.36	0.48
3:D:1316:GLY:O	3:D:1317:ASP:CB	2.61	0.48
3:D:1311:LEU:O	3:D:1323:GLN:OE1	2.30	0.48
3:D:646:LYS:HB3	3:D:720:LEU:HD23	1.96	0.48
3:D:699:VAL:N	3:D:756:GLN:HE22	1.99	0.48
1:B:157:GLY:HA3	1:B:166:PRO:HB3	1.95	0.48
1:B:184:THR:HG21	1:B:194:LYS:HD3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:44:LEU:HG	1:B:199:ILE:CD1	2.40	0.48
1:B:44:LEU:CD2	1:B:199:ILE:HD11	2.44	0.48
2:C:1054:THR:C	2:C:1056:LYS:N	2.64	0.48
2:C:208:VAL:HG12	2:C:209:ARG:N	2.29	0.48
2:C:208:VAL:HG21	2:C:218:VAL:CG1	2.43	0.48
2:C:255:ALA:O	2:C:298:PHE:HE2	1.97	0.48
2:C:476:ASN:O	2:C:477:GLY:C	2.51	0.48
2:C:574:ALA:O	2:C:575:GLN:HG3	2.14	0.48
2:C:648:ARG:O	2:C:653:ASP:HB2	2.14	0.48
2:C:573:ARG:O	2:C:670:GLN:HG2	2.13	0.48
2:C:705:ILE:HA	2:C:827:VAL:O	2.13	0.48
2:C:860:HIS:HD2	2:C:977:GLY:HA3	1.77	0.48
2:C:948:GLU:HA	2:C:953:VAL:H	1.77	0.48
3:D:1129:THR:O	3:D:1130:ARG:C	2.52	0.48
3:D:1250:THR:HA	3:D:1269:LYS:HZ3	1.77	0.48
3:D:1341:PRO:HD2	3:D:1342:GLU:OE1	2.14	0.48
3:D:669:ASN:OD1	3:D:671:LYS:HG2	2.13	0.48
3:D:793:THR:HG22	3:D:879:ARG:HH12	1.77	0.48
1:A:198:ARG:HH12	2:C:932:GLU:CD	2.17	0.48
2:C:1109:VAL:O	2:C:1109:VAL:HG13	2.13	0.48
2:C:95:TYR:HB3	2:C:114:PHE:HA	1.95	0.48
2:C:172:ILE:HD13	2:C:184:MET:SD	2.54	0.48
2:C:466:PHE:CD1	2:C:467:ILE:CG1	2.96	0.48
2:C:87:ASP:CG	2:C:824:ARG:HH22	2.16	0.48
3:D:1045:MET:HG2	3:D:1073:SER:HB3	1.94	0.48
3:D:1147:ARG:O	3:D:1165:TYR:HA	2.14	0.48
3:D:1105:ILE:CG2	3:D:1200:VAL:CB	2.92	0.48
3:D:1253:THR:CA	3:D:1258:ARG:HD2	2.36	0.48
3:D:1434:TRP:HZ3	3:D:1457:ASP:H	1.62	0.48
3:D:795:VAL:CG2	3:D:904:VAL:HG21	2.44	0.48
4:E:8:LYS:CE	4:E:69:LEU:HD21	2.43	0.48
1:A:121:GLU:C	1:A:123:MET:H	2.16	0.48
1:A:128:HIS:C	1:A:128:HIS:CD2	2.86	0.48
1:B:203:GLY:O	1:B:204:SER:HB3	2.14	0.48
2:C:1020:PRO:O	2:C:1021:LEU:CB	2.62	0.48
2:C:1023:GLY:C	2:C:1024:LYS:HG3	2.34	0.48
2:C:1106:ASP:N	2:C:1108:PRO:HD3	2.29	0.48
2:C:91:GLN:HA	2:C:119:PRO:HA	1.96	0.48
2:C:14:PRO:HA	2:C:458:TYR:CE1	2.49	0.48
2:C:427:VAL:O	2:C:430:VAL:HB	2.14	0.48
1:A:131:THR:CG2	2:C:644:ARG:HH21	2.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:745:ILE:C	2:C:747:ALA:H	2.16	0.48
2:C:761:PHE:O	2:C:762:LYS:O	2.31	0.48
2:C:892:LEU:C	2:C:894:GLY:H	2.17	0.48
2:C:953:VAL:HG11	2:C:962:GLN:CB	2.42	0.48
3:D:1336:LEU:HA	3:D:1340:GLY:O	2.14	0.48
3:D:1393:GLN:HE21	3:D:1420:LEU:CD2	2.27	0.48
3:D:8:VAL:CG1	3:D:1434:TRP:HH2	2.27	0.48
3:D:647:ARG:HA	3:D:647:ARG:HD2	1.63	0.48
3:D:716:PHE:CE2	3:D:765:SER:HB3	2.48	0.48
1:B:25:LEU:HD12	1:B:26:GLU:N	2.28	0.48
1:B:31:GLY:O	1:B:35:THR:OG1	2.31	0.48
2:C:13:ILE:HG13	2:C:14:PRO:HD2	1.96	0.48
2:C:254:LEU:O	2:C:257:LEU:HD12	2.14	0.48
2:C:44:ILE:CD1	2:C:44:ILE:H	2.26	0.48
2:C:328:LEU:HD23	2:C:468:ARG:HD2	1.95	0.48
2:C:501:THR:O	2:C:501:THR:HG22	2.14	0.48
2:C:735:ARG:C	2:C:737:LEU:N	2.66	0.48
2:C:880:MET:C	2:C:881:ASN:ND2	2.67	0.48
3:D:1103:HIS:H	3:D:1222:GLY:CA	2.27	0.48
3:D:1238:MET:O	3:D:1238:MET:HG3	2.13	0.48
3:D:124:GLU:HA	3:D:456:MET:SD	2.54	0.48
3:D:632:VAL:HG12	3:D:633:VAL:O	2.13	0.48
3:D:836:VAL:HG11	3:D:858:LEU:CD1	2.44	0.48
3:D:905:PRO:HG2	3:D:906:GLN:H	1.78	0.48
1:A:133:GLU:C	1:A:135:GLY:H	2.16	0.48
1:A:43:ILE:CD1	1:B:32:PHE:CE1	2.97	0.48
2:C:156:GLY:O	2:C:157:ARG:O	2.32	0.48
2:C:613:VAL:CG1	2:C:619:ARG:HA	2.44	0.48
2:C:668:LEU:HB2	2:C:995:MET:HE2	1.95	0.48
2:C:74:GLY:O	2:C:76:PRO:N	2.47	0.48
2:C:929:ARG:C	2:C:931:GLY:N	2.66	0.48
3:D:1015:TYR:HB3	3:D:1018:ASN:CB	2.40	0.48
3:D:1071:PHE:HA	3:D:1074:SER:HB3	1.96	0.48
3:D:1076:GLY:HA2	3:D:1079:LYS:HE2	1.96	0.48
3:D:1086:LEU:HD12	3:D:1089:ALA:CB	2.44	0.48
3:D:1101:VAL:HG21	3:D:1424:VAL:CG2	2.24	0.48
3:D:468:LEU:C	3:D:470:LEU:N	2.67	0.48
3:D:500:ARG:O	3:D:504:ASP:HB2	2.14	0.48
3:D:724:GLN:O	3:D:725:SER:O	2.31	0.48
3:D:848:GLU:HA	3:D:851:LEU:HB3	1.96	0.48
1:A:112:VAL:C	1:A:114:PHE:H	2.17	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:13:ALA:O	1:A:15:THR:N	2.46	0.47
1:A:72:LYS:HB3	1:A:73:GLU:OE2	2.14	0.47
1:B:26:GLU:O	1:B:27:PRO:C	2.53	0.47
2:C:1103:ASP:O	2:C:1106:ASP:N	2.44	0.47
2:C:173:ASP:CB	2:C:185:LYS:HE3	2.44	0.47
2:C:425:PHE:O	2:C:426:ASP:HB3	2.14	0.47
2:C:495:THR:O	2:C:496:ILE:CB	2.61	0.47
2:C:831:ARG:HH12	2:C:1002:GLU:CB	2.27	0.47
3:D:1140:ILE:HD13	3:D:1175:ILE:HG12	1.95	0.47
3:D:1274:ILE:H	3:D:1274:ILE:HD12	1.77	0.47
3:D:1344:VAL:O	3:D:1348:LEU:N	2.44	0.47
3:D:690:ALA:O	3:D:694:VAL:N	2.47	0.47
3:D:716:PHE:CE2	3:D:765:SER:CB	2.97	0.47
3:D:815:ALA:O	3:D:817:GLU:N	2.47	0.47
3:D:879:ARG:HG2	3:D:879:ARG:NH1	2.29	0.47
4:E:25:LYS:O	4:E:28:GLN:C	2.52	0.47
4:E:8:LYS:NZ	4:E:69:LEU:HD21	2.29	0.47
1:B:164:ALA:O	1:B:165:ILE:C	2.52	0.47
1:A:225:PHE:CE1	1:B:36:LEU:HD13	2.50	0.47
2:C:1008:ARG:HH12	2:C:1021:LEU:H	1.61	0.47
2:C:1082:PRO:HG2	2:C:1085:PHE:HB2	1.96	0.47
2:C:1059:ASP:CG	2:C:1083:GLU:HB2	2.35	0.47
2:C:21:ILE:HD11	2:C:455:LEU:HD21	1.97	0.47
2:C:399:ASN:HD21	2:C:401:LEU:N	2.10	0.47
2:C:328:LEU:HD21	2:C:468:ARG:NH1	2.29	0.47
2:C:589:ARG:NH2	2:C:654:LEU:HD12	2.23	0.47
2:C:679:PHE:N	2:C:683:ASN:OD1	2.43	0.47
2:C:73:ILE:HD12	2:C:94:LEU:HD13	1.96	0.47
2:C:831:ARG:NH1	2:C:1002:GLU:CD	2.67	0.47
2:C:564:MET:CE	2:C:846:LYS:HG2	2.45	0.47
2:C:6:PHE:HD2	2:C:909:ALA:H	1.61	0.47
3:D:1384:PRO:HG3	3:D:1389:LEU:O	2.14	0.47
3:D:643:GLY:O	3:D:644:LEU:HB2	2.13	0.47
3:D:800:LYS:CB	3:D:821:VAL:H	2.26	0.47
4:E:26:ARG:HH22	4:E:37:ASN:HB3	1.77	0.47
1:B:132:LEU:CD2	1:B:132:LEU:H	2.27	0.47
1:B:81:ASN:O	1:B:82:LEU:C	2.51	0.47
2:C:13:ILE:HG22	2:C:15:LEU:N	2.21	0.47
2:C:184:MET:CE	2:C:191:PHE:HZ	2.27	0.47
2:C:14:PRO:HA	2:C:458:TYR:CD1	2.48	0.47
2:C:790:LEU:O	2:C:791:ARG:O	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:831:ARG:NH1	2:C:1002:GLU:OE2	2.48	0.47
2:C:7:GLY:HA2	2:C:907:ASP:OD1	2.14	0.47
2:C:993:PHE:O	2:C:993:PHE:CD1	2.67	0.47
3:D:1065:LEU:C	3:D:1067:VAL:N	2.67	0.47
3:D:1481:VAL:O	3:D:1482:ARG:CG	2.60	0.47
3:D:21:TRP:C	3:D:23:TYR:H	2.18	0.47
3:D:575:GLN:NE2	3:D:579:ASP:OD2	2.47	0.47
1:A:10:VAL:O	1:A:12:THR:N	2.43	0.47
1:B:44:LEU:HG	1:B:199:ILE:CG1	2.44	0.47
2:C:184:MET:HE3	2:C:191:PHE:HZ	1.79	0.47
2:C:261:LEU:O	2:C:264:PRO:HD2	2.14	0.47
2:C:274:ARG:CG	2:C:275:TYR:N	2.78	0.47
2:C:405:ARG:HD2	2:C:543:ASN:ND2	2.29	0.47
2:C:601:GLY:HA3	2:C:648:ARG:N	2.30	0.47
2:C:657:ASP:OD1	2:C:663:GLU:HA	2.14	0.47
2:C:83:CYS:SG	2:C:88:LEU:HB2	2.55	0.47
3:D:1053:PHE:CD1	3:D:1072:ILE:HG23	2.49	0.47
3:D:1274:ILE:HA	3:D:1322:GLY:N	2.30	0.47
3:D:654:LYS:O	3:D:657:LEU:N	2.47	0.47
3:D:707:THR:C	3:D:708:LEU:HG	2.34	0.47
1:A:108:GLU:CG	2:C:644:ARG:HH22	2.27	0.47
1:A:88:ARG:CB	1:A:121:GLU:HB2	2.38	0.47
1:A:79:ILE:CD1	1:A:165:ILE:HD12	2.38	0.47
1:A:18:ASP:O	1:A:19:HIS:HB3	2.15	0.47
1:B:118:ALA:C	1:B:120:VAL:N	2.68	0.47
1:B:219:LYS:O	1:B:222:LEU:HB2	2.14	0.47
1:B:87:VAL:CG1	1:B:88:ARG:N	2.77	0.47
2:C:1036:GLU:O	2:C:1039:ALA:HB3	2.14	0.47
2:C:637:PHE:HE1	2:C:1639:GLN:HE21	1.61	0.47
2:C:195:LEU:HD13	2:C:227:LEU:CD1	2.31	0.47
2:C:23:VAL:HG12	2:C:24:GLU:N	2.30	0.47
2:C:159:ILE:CD1	2:C:310:LEU:HB2	2.34	0.47
2:C:408:ARG:NH1	2:C:455:LEU:HD23	2.29	0.47
2:C:425:PHE:O	2:C:426:ASP:CB	2.62	0.47
2:C:449:ILE:HG22	2:C:450:GLY:N	2.29	0.47
2:C:333:ILE:CG2	2:C:460:ARG:HH22	2.25	0.47
2:C:46:ALA:O	2:C:50:GLU:N	2.31	0.47
2:C:768:SER:CB	2:C:769:PRO:HD2	2.42	0.47
2:C:778:PHE:CD1	2:C:778:PHE:N	2.82	0.47
2:C:966:LEU:CD1	2:C:986:PRO:HG3	2.40	0.47
2:C:985:GLY:O	2:C:986:PRO:O	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1035:ILE:C	3:D:1037:GLN:N	2.68	0.47
3:D:1155:ALA:O	3:D:1156:LEU:C	2.53	0.47
3:D:1277:ILE:HG22	3:D:1279:GLY:N	2.27	0.47
3:D:1336:LEU:HD13	3:D:1340:GLY:C	2.35	0.47
3:D:564:GLU:O	3:D:565:ILE:C	2.53	0.47
2:C:1095:LEU:CD1	3:D:603:LEU:HD23	2.35	0.47
3:D:836:VAL:CG1	3:D:858:LEU:HD11	2.45	0.47
4:E:8:LYS:HB3	4:E:69:LEU:HD11	1.96	0.47
1:A:35:THR:HG21	1:B:43:ILE:CG1	2.45	0.47
1:A:41:ARG:HH12	1:A:42:ARG:HG2	1.80	0.47
1:B:111:ALA:O	1:B:114:PHE:CD1	2.68	0.47
1:B:119:ASP:C	1:B:120:VAL:HG23	2.35	0.47
1:B:181:VAL:O	1:B:181:VAL:HG13	2.14	0.47
2:C:1007:ALA:HB1	3:D:652:LEU:CD2	2.44	0.47
3:D:1071:PHE:O	3:D:1074:SER:N	2.46	0.47
3:D:464:LEU:O	3:D:468:LEU:CB	2.63	0.47
3:D:497:GLU:HG2	3:D:1389:LEU:HD11	1.96	0.47
3:D:705:ALA:CB	3:D:706:PRO:HD3	2.44	0.47
3:D:859:ASP:OD1	3:D:861:GLN:NE2	2.48	0.47
3:D:897:GLN:HE21	3:D:897:GLN:CA	2.27	0.47
3:D:899:LEU:H	3:D:899:LEU:HD22	1.79	0.47
1:A:152:PRO:C	1:A:154:GLU:H	2.18	0.47
1:B:26:GLU:OE1	1:B:27:PRO:HD3	2.15	0.47
2:C:30:LEU:HD12	2:C:44:ILE:HG12	1.97	0.47
2:C:327:HIS:C	2:C:329:GLY:N	2.68	0.47
2:C:15:LEU:HD21	2:C:461:VAL:HB	1.96	0.47
2:C:747:ALA:O	2:C:748:GLU:C	2.52	0.47
2:C:749:VAL:HG23	2:C:800:VAL:HG23	1.96	0.47
2:C:78:PHE:HB3	2:C:82:GLU:OE2	2.15	0.47
2:C:881:ASN:CG	3:D:1034:GLN:CD	2.73	0.47
3:D:1136:LYS:CG	3:D:1139:ASP:OD2	2.62	0.47
3:D:1132:LEU:CD1	3:D:1184:ARG:HH12	2.20	0.47
3:D:602:SER:O	3:D:606:ILE:HD12	2.15	0.47
2:C:1073:GLY:CA	3:D:659:LYS:HE3	2.44	0.47
3:D:962:ARG:O	3:D:966:GLU:CG	2.63	0.47
1:B:113:ASP:O	1:B:114:PHE:C	2.53	0.47
2:C:1034:GLU:OE2	3:D:1096:ARG:NH2	2.47	0.47
2:C:1067:TYR:O	2:C:1071:ILE:HD13	2.15	0.47
2:C:460:ARG:HB2	2:C:468:ARG:HA	1.97	0.47
2:C:397:GLU:OE2	2:C:632:ASN:ND2	2.47	0.47
2:C:547:ILE:HG23	2:C:843:HIS:CE1	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:875:GLY:O	2:C:876:VAL:C	2.53	0.47
3:D:1055:VAL:O	3:D:1055:VAL:HG12	2.13	0.47
3:D:1095:THR:O	3:D:1099:VAL:HG23	2.13	0.47
3:D:1465:ASN:O	3:D:1470:ARG:HB2	2.15	0.47
3:D:708:LEU:O	3:D:709:HIS:O	2.33	0.47
2:C:1034:GLU:O	2:C:1037:VAL:HB	2.15	0.47
2:C:97:ARG:HG2	2:C:112:GLU:H	1.79	0.47
2:C:198:ARG:CZ	2:C:203:ASP:OD2	2.63	0.47
2:C:554:ASP:O	2:C:555:ALA:C	2.53	0.47
2:C:774:LEU:O	2:C:778:PHE:N	2.47	0.47
2:C:944:LEU:HD11	2:C:963:LEU:CD2	2.45	0.47
2:C:987:ILE:HG22	2:C:987:ILE:O	2.14	0.47
3:D:1005:GLN:O	3:D:1009:ASN:HB3	2.15	0.47
3:D:947:ILE:CA	3:D:1020:LEU:HD13	2.43	0.47
3:D:1311:LEU:HD12	3:D:1311:LEU:N	2.30	0.47
3:D:537:THR:HG22	3:D:537:THR:O	2.15	0.47
2:C:1056:LYS:O	3:D:624:ASP:HB2	2.14	0.47
3:D:687:VAL:O	3:D:690:ALA:HB3	2.15	0.47
3:D:764:LEU:CD2	3:D:766:ALA:HB3	2.45	0.47
1:A:111:ALA:O	1:A:112:VAL:C	2.53	0.47
1:A:199:ILE:N	1:A:199:ILE:HD12	2.30	0.47
1:A:223:ASN:O	1:A:225:PHE:N	2.48	0.47
1:B:32:PHE:HA	1:B:35:THR:OG1	2.15	0.47
2:C:794:PRO:HG2	2:C:1027:PHE:HB2	1.97	0.47
2:C:1055:ILE:N	2:C:1055:ILE:HD12	2.11	0.47
2:C:1091:GLU:OE1	3:D:606:ILE:HG22	2.15	0.47
2:C:208:VAL:O	2:C:209:ARG:HB2	2.14	0.47
2:C:216:ASP:C	2:C:218:VAL:N	2.67	0.47
2:C:252:LYS:HE3	2:C:298:PHE:HE1	1.80	0.47
2:C:26:TYR:HE2	2:C:30:LEU:HD22	1.80	0.47
2:C:730:SER:O	2:C:731:GLU:O	2.33	0.47
2:C:876:VAL:HB	2:C:877:PRO:HD3	1.94	0.47
2:C:890:LEU:HD11	2:C:917:LEU:HD13	1.97	0.47
3:D:1134:LEU:HD23	3:D:1134:LEU:N	2.29	0.47
3:D:120:ALA:HB1	3:D:126:VAL:CB	2.45	0.47
3:D:1231:GLU:C	3:D:1233:GLY:N	2.67	0.47
3:D:1327:ARG:CB	3:D:1327:ARG:NH1	2.76	0.47
3:D:793:THR:HA	3:D:879:ARG:HH12	1.80	0.47
1:A:34:VAL:C	1:A:36:LEU:N	2.67	0.47
1:A:222:LEU:CD1	1:B:215:VAL:HG13	2.40	0.47
1:B:11:PHE:HA	1:B:25:LEU:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:30:ARG:CZ	2:C:854:PRO:HB3	2.45	0.47
2:C:101:ILE:HG22	2:C:102:HIS:N	2.29	0.47
2:C:175:GLU:O	2:C:182:VAL:HA	2.15	0.47
2:C:20:GLU:OE2	2:C:461:VAL:HG23	2.15	0.47
2:C:304:LEU:HD23	2:C:305:PRO:N	2.30	0.47
2:C:314:THR:O	2:C:315:ALA:HB3	2.15	0.47
2:C:706:GLU:O	2:C:826:PHE:HA	2.15	0.47
2:C:78:PHE:HB3	2:C:82:GLU:CD	2.36	0.47
2:C:78:PHE:HD2	2:C:82:GLU:OE2	1.98	0.47
2:C:862:PRO:HG2	2:C:863:ASP:H	1.80	0.47
3:D:1081:GLY:HA2	3:D:1084:THR:HG23	1.97	0.47
3:D:1205:TYR:O	3:D:1206:GLY:O	2.32	0.47
3:D:1236:LEU:HB3	3:D:1256:LEU:N	2.30	0.47
3:D:507:ASN:O	3:D:508:ARG:HG2	2.15	0.47
3:D:553:ARG:C	3:D:554:LEU:HD23	2.36	0.47
3:D:99:ALA:O	3:D:575:GLN:HB2	2.14	0.47
3:D:706:PRO:HG2	3:D:706:PRO:O	2.15	0.47
3:D:937:TYR:O	3:D:941:LEU:HB2	2.14	0.47
4:E:13:VAL:HG21	4:E:19:LEU:CB	2.45	0.47
1:A:195:LEU:C	1:A:196:THR:HG22	2.34	0.46
1:A:199:ILE:HG21	1:A:207:PRO:HA	1.97	0.46
1:B:24:VAL:O	1:B:24:VAL:HG12	2.13	0.46
2:C:127:PHE:N	2:C:127:PHE:CD1	2.83	0.46
2:C:149:THR:CB	2:C:158:TYR:HE1	2.22	0.46
2:C:358:ARG:O	2:C:359:MET:C	2.53	0.46
2:C:115:LEU:HA	2:C:375:SER:CB	2.45	0.46
1:A:134:GLU:HB3	2:C:606:VAL:HG23	1.96	0.46
2:C:595:LEU:HG	2:C:655:LEU:HD23	1.97	0.46
2:C:674:VAL:HG23	2:C:869:VAL:O	2.15	0.46
2:C:796:GLU:HG2	3:D:681:ARG:NH2	2.28	0.46
2:C:846:LYS:HD2	2:C:846:LYS:O	2.16	0.46
2:C:890:LEU:HD11	2:C:901:TYR:CE2	2.50	0.46
3:D:1075:HIS:H	3:D:1075:HIS:CD2	2.33	0.46
3:D:1094:LEU:O	3:D:1095:THR:C	2.53	0.46
3:D:1251:ASP:O	3:D:1252:ILE:HB	2.15	0.46
3:D:1340:GLY:HA3	3:D:1342:GLU:OE1	2.15	0.46
3:D:1101:VAL:CG2	3:D:1424:VAL:HG22	2.24	0.46
3:D:149:LYS:C	3:D:151:GLN:N	2.68	0.46
2:C:1052:MET:HE1	3:D:748:HIS:CB	2.43	0.46
3:D:789:LEU:CD1	3:D:934:LEU:HD22	2.44	0.46
2:C:65:VAL:HB	2:C:101:ILE:HB	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:166:PRO:HB3	2:C:417:GLY:N	2.27	0.46
2:C:215:GLY:O	2:C:216:ASP:O	2.34	0.46
2:C:434:HIS:C	2:C:436:GLY:N	2.69	0.46
1:A:70:GLY:HA2	2:C:606:VAL:HG22	1.97	0.46
2:C:613:VAL:HG13	2:C:620:LEU:N	2.15	0.46
2:C:728:HIS:CD2	2:C:783:ARG:NH1	2.83	0.46
2:C:691:SER:HB2	2:C:858:MET:CE	2.45	0.46
2:C:928:LYS:O	2:C:931:GLY:N	2.48	0.46
1:A:198:ARG:HH12	2:C:932:GLU:CB	2.27	0.46
3:D:1083:ASP:C	3:D:1085:ALA:N	2.69	0.46
4:E:55:TYR:O	4:E:56:ASP:C	2.54	0.46
4:E:86:GLN:HA	4:E:89:MET:HG2	1.97	0.46
1:B:188:GLN:NE2	1:B:188:GLN:C	2.69	0.46
2:C:1099:VAL:HG22	3:D:10:ILE:CD1	2.42	0.46
2:C:72:ARG:HH11	2:C:112:GLU:CD	2.17	0.46
2:C:308:ARG:C	2:C:310:LEU:N	2.68	0.46
2:C:308:ARG:C	2:C:310:LEU:H	2.19	0.46
2:C:545:ASN:HA	2:C:905:VAL:HG21	1.98	0.46
2:C:609:THR:HG23	2:C:609:THR:O	2.14	0.46
3:D:1339:LYS:HD2	3:D:1339:LYS:HA	1.58	0.46
3:D:149:LYS:O	3:D:152:LEU:N	2.48	0.46
3:D:560:GLN:O	3:D:561:GLY:C	2.54	0.46
3:D:631:ILE:HD11	3:D:743:ASP:CB	2.45	0.46
3:D:638:LYS:CB	3:D:729:HIS:NE2	2.78	0.46
3:D:752:SER:O	3:D:753:SER:C	2.54	0.46
3:D:794:GLN:HB3	3:D:1017:PHE:CZ	2.49	0.46
2:C:100:LEU:HD23	2:C:372:LEU:CD1	2.45	0.46
2:C:1108:PRO:O	2:C:1109:VAL:O	2.33	0.46
2:C:437:ARG:O	2:C:437:ARG:HG3	2.14	0.46
2:C:461:VAL:O	2:C:481:GLU:HG2	2.16	0.46
2:C:672:VAL:HG22	2:C:868:ASP:CG	2.36	0.46
2:C:727:PRO:O	2:C:729:LEU:N	2.48	0.46
3:D:1273:VAL:O	3:D:1322:GLY:HA3	2.15	0.46
3:D:1290:LEU:O	3:D:1291:SER:C	2.54	0.46
3:D:552:ASN:O	3:D:556:LYS:N	2.49	0.46
3:D:660:LYS:O	3:D:664:LYS:N	2.42	0.46
3:D:695:ILE:HG23	3:D:718:PRO:HD2	1.96	0.46
3:D:709:HIS:HA	3:D:1227:GLU:CD	2.36	0.46
3:D:701:LEU:CD1	3:D:715:ALA:HB2	2.44	0.46
3:D:773:ALA:O	3:D:774:SER:CB	2.64	0.46
3:D:855:HIS:N	3:D:855:HIS:CD2	2.66	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:15:SER:O	4:E:17:TYR:N	2.49	0.46
4:E:78:ASN:O	4:E:79:LEU:HB2	2.15	0.46
1:A:30:ARG:HH11	1:A:192:LEU:HD23	1.80	0.46
1:B:211:LEU:C	1:B:215:VAL:HG23	2.33	0.46
2:C:186:VAL:HG11	2:C:258:PHE:HD2	1.79	0.46
2:C:258:PHE:N	2:C:258:PHE:CD1	2.83	0.46
2:C:460:ARG:CA	2:C:468:ARG:O	2.63	0.46
2:C:494:TYR:O	2:C:495:THR:CB	2.62	0.46
2:C:549:PHE:HA	2:C:551:GLU:OE1	2.15	0.46
2:C:641:PRO:HA	2:C:656:ALA:HA	1.96	0.46
2:C:684:PHE:O	2:C:686:ASP:N	2.49	0.46
3:D:1089:ALA:C	3:D:1091:SER:H	2.19	0.46
3:D:1114:THR:CB	3:D:1189:ARG:HH11	2.27	0.46
3:D:1156:LEU:HB3	3:D:1173:PHE:CE1	2.50	0.46
3:D:654:LYS:O	3:D:655:PRO:C	2.51	0.46
3:D:772:PRO:CB	3:D:778:LEU:HD23	2.46	0.46
3:D:99:ALA:HB3	3:D:458:ALA:CB	2.45	0.46
1:A:105:GLY:HA2	1:A:136:GLY:N	2.30	0.46
1:B:101:LEU:HD23	1:B:140:MET:CE	2.45	0.46
1:B:144:VAL:HG12	1:B:145:ASP:N	2.30	0.46
2:C:122:THR:HG22	2:C:123:GLU:N	2.30	0.46
2:C:358:ARG:HB2	2:C:372:LEU:CD2	2.45	0.46
2:C:351:LEU:HA	2:C:377:PRO:HG3	1.98	0.46
2:C:395:LYS:CG	2:C:397:GLU:HG3	2.44	0.46
2:C:1639:GLN:HG2	2:C:658:GLY:HA2	1.97	0.46
2:C:756:VAL:O	2:C:790:LEU:N	2.48	0.46
2:C:805:ARG:NE	2:C:821:GLU:OE2	2.38	0.46
2:C:946:ARG:CD	2:C:984:GLU:HB2	2.45	0.46
3:D:1109:GLU:O	3:D:1202:GLN:CB	2.64	0.46
3:D:1435:LEU:CD2	3:D:1457:ASP:OD2	2.64	0.46
3:D:1472:ILE:O	3:D:1477:GLY:HA3	2.15	0.46
3:D:31(U):UNK:O	3:D:32(U):UNK:CB	2.62	0.46
3:D:467:GLU:O	3:D:468:LEU:O	2.34	0.46
3:D:700:VAL:N	3:D:716:PHE:O	2.48	0.46
4:E:48:MET:HE2	4:E:57:ASP:HB3	1.98	0.46
1:A:30:ARG:NH1	1:A:192:LEU:CD2	2.79	0.46
1:A:194:LYS:HG2	1:A:194:LYS:O	2.16	0.46
1:B:22:GLU:O	1:B:23:PHE:HD2	1.98	0.46
2:C:1014:SER:O	2:C:1018:GLN:OE1	2.34	0.46
2:C:1038:TRP:CH2	3:D:1096:ARG:HA	2.50	0.46
2:C:1055:ILE:HG22	2:C:1055:ILE:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1059:ASP:HA	2:C:1083:GLU:CG	2.46	0.46
2:C:143:SER:O	2:C:147:TYR:OH	2.27	0.46
2:C:340:MET:O	2:C:340:MET:SD	2.73	0.46
2:C:525:ALA:O	2:C:527:GLU:N	2.48	0.46
2:C:66:LEU:N	2:C:100:LEU:HA	2.30	0.46
2:C:813:VAL:HG12	2:C:815:LEU:CG	2.46	0.46
2:C:816:LYS:O	2:C:819:VAL:HB	2.15	0.46
2:C:682:TYR:CE1	2:C:851:LYS:HD2	2.51	0.46
2:C:912:PRO:O	2:C:915:LYS:HB2	2.16	0.46
1:A:198:ARG:NH2	2:C:932:GLU:OE1	2.32	0.46
2:C:969:LEU:HD11	3:D:952:ASP:N	2.22	0.46
3:D:1166:LEU:HB2	3:D:1170:ASP:HB2	1.96	0.46
3:D:1377:LYS:HE2	3:D:1378:TYR:CZ	2.51	0.46
3:D:23(U):UNK:CB	3:D:43(U):UNK:N	2.79	0.46
3:D:28:LYS:O	3:D:30:GLU:N	2.49	0.46
3:D:548:ILE:O	3:D:552:ASN:ND2	2.49	0.46
3:D:794:GLN:OE1	3:D:906:GLN:NE2	2.49	0.46
3:D:937:TYR:N	3:D:937:TYR:HD1	2.14	0.46
3:D:98:PRO:CB	3:D:574:LEU:HD23	2.46	0.46
3:D:760:ARG:NH2	4:E:3:GLU:OE2	2.38	0.46
1:A:184:THR:HG23	1:A:184:THR:O	2.15	0.46
1:A:74:ASP:OD1	1:A:76:VAL:HG23	2.16	0.46
2:C:12:VAL:CG1	2:C:13:ILE:H	1.96	0.46
2:C:252:LYS:HE3	2:C:298:PHE:CE1	2.51	0.46
2:C:462:ASP:O	2:C:464:LEU:N	2.48	0.46
2:C:672:VAL:HG13	2:C:673:LEU:N	2.31	0.46
2:C:787:ASP:O	2:C:789:SER:N	2.49	0.46
1:B:30:ARG:NH2	2:C:854:PRO:HB3	2.31	0.46
3:D:1057:VAL:HG12	3:D:1067:VAL:HG21	1.98	0.46
3:D:1084:THR:C	3:D:1086:LEU:N	2.69	0.46
3:D:1277:ILE:O	3:D:1317:ASP:O	2.33	0.46
3:D:1441:GLN:O	3:D:1442:ASN:HB3	2.16	0.46
3:D:1449:GLU:O	3:D:1452:ILE:N	2.49	0.46
3:D:538:SER:O	3:D:539:ASP:C	2.55	0.46
3:D:6(U):UNK:CB	3:D:36(U):UNK:HA	2.46	0.46
3:D:75:ARG:O	3:D:77:ALA:N	2.49	0.46
3:D:968:ASP:HA	3:D:971:LEU:HD12	1.96	0.46
4:E:26:ARG:NH2	4:E:30:LEU:HD12	2.30	0.46
4:E:26:ARG:HH22	4:E:37:ASN:CB	2.29	0.46
3:D:1489:GLN:CB	4:E:72:ARG:HD2	2.46	0.46
1:A:125:PRO:O	1:A:126:ASP:C	2.52	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:164:ALA:O	1:A:165:ILE:HG12	2.15	0.46
1:B:99:LEU:HD13	1:B:114:PHE:CD2	2.51	0.46
1:B:26:GLU:CG	1:B:27:PRO:HD3	2.45	0.46
1:B:64:GLU:O	1:B:75:VAL:HG21	2.16	0.46
2:C:197:LEU:HD22	2:C:202:TYR:CD1	2.43	0.46
3:D:1454:GLY:O	3:D:1455:LYS:HB2	2.15	0.46
3:D:1485:GLN:HA	4:E:75:PHE:HA	1.98	0.46
3:D:520:LEU:HB3	3:D:521:PRO:HD2	1.97	0.46
3:D:642:CYS:SG	3:D:702:LEU:CD2	3.04	0.46
3:D:836:VAL:HB	3:D:858:LEU:HD21	1.98	0.46
4:E:26:ARG:HH21	4:E:30:LEU:CD1	2.29	0.46
1:B:101:LEU:HD11	1:B:113:ASP:HB2	1.98	0.46
2:C:162:ILE:N	2:C:162:ILE:HD12	2.31	0.46
2:C:203:ASP:O	2:C:204:GLN:C	2.55	0.46
2:C:94:LEU:HD21	2:C:344:PHE:HZ	1.81	0.46
2:C:474:VAL:O	2:C:474:VAL:HG12	2.16	0.46
2:C:570:PRO:CG	2:C:635:THR:HG23	2.46	0.46
2:C:599:GLU:O	2:C:600:ASP:O	2.33	0.46
2:C:640:ARG:O	2:C:657:ASP:N	2.49	0.46
2:C:679:PHE:HE2	2:C:978:ARG:NH2	2.14	0.46
2:C:684:PHE:O	2:C:685:GLU:HB2	2.16	0.46
2:C:737:LEU:O	2:C:738:ASP:C	2.53	0.46
3:D:709:HIS:CE1	3:D:1231:GLU:HG3	2.51	0.46
3:D:1278:ASP:CA	3:D:1317:ASP:O	2.64	0.46
3:D:1347:TYR:CE1	3:D:1351:GLU:HB2	2.51	0.46
3:D:1485:GLN:CB	4:E:75:PHE:HB3	2.46	0.46
3:D:690:ALA:O	3:D:693:GLU:N	2.43	0.46
3:D:75:ARG:C	3:D:77:ALA:H	2.19	0.46
3:D:859:ASP:C	3:D:861:GLN:H	2.19	0.46
3:D:901:GLN:O	3:D:905:PRO:HD3	2.16	0.46
3:D:957:PRO:CG	3:D:1007:VAL:HB	2.45	0.46
3:D:989:TYR:C	3:D:991:GLN:H	2.18	0.46
1:A:126:ASP:O	1:A:127:LEU:C	2.54	0.45
1:A:175:ARG:HB2	1:A:201:THR:CB	2.46	0.45
1:B:213:GLN:O	1:B:216:ALA:HB3	2.16	0.45
1:B:43:ILE:HD12	1:B:218:LEU:HB2	1.97	0.45
1:B:57:TYR:CD2	1:B:57:TYR:C	2.88	0.45
2:C:1099:VAL:O	2:C:1099:VAL:HG12	2.16	0.45
2:C:172:ILE:CG2	2:C:173:ASP:N	2.79	0.45
2:C:306:THR:O	2:C:310:LEU:N	2.49	0.45
2:C:157:ARG:NH1	2:C:321:GLU:HG2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:589:ARG:NH1	2:C:596:TYR:CB	2.79	0.45
2:C:692:GLU:O	2:C:693:GLU:C	2.53	0.45
3:D:1007:VAL:HG13	3:D:1008:PHE:H	1.81	0.45
3:D:791:TYR:CE1	3:D:1023:MET:HG3	2.51	0.45
3:D:1165:TYR:CE2	3:D:1214:PRO:HB3	2.51	0.45
3:D:1346:ARG:NH1	3:D:1369:GLU:OE2	2.50	0.45
3:D:508:ARG:HB2	3:D:510:GLU:OE2	2.15	0.45
3:D:700:VAL:CG2	3:D:718:PRO:HG3	2.46	0.45
3:D:836:VAL:HG11	3:D:858:LEU:HD11	1.98	0.45
3:D:937:TYR:CD1	3:D:937:TYR:N	2.84	0.45
3:D:1475:GLY:HA2	4:E:17:TYR:CE2	2.51	0.45
1:A:24:VAL:HG22	1:A:196:THR:HB	1.98	0.45
2:C:1004:LYS:O	2:C:1005:MET:HB3	2.15	0.45
2:C:1108:PRO:O	2:C:1109:VAL:C	2.55	0.45
2:C:289:THR:HG23	2:C:302:VAL:O	2.16	0.45
2:C:321:GLU:O	2:C:322:VAL:C	2.54	0.45
2:C:540:PHE:CE1	2:C:906:PHE:HE1	2.34	0.45
2:C:574:ALA:O	2:C:575:GLN:O	2.34	0.45
2:C:880:MET:O	2:C:881:ASN:O	2.33	0.45
2:C:8:ARG:C	2:C:494:TYR:OH	2.55	0.45
2:C:6:PHE:CD2	2:C:909:ALA:HA	2.52	0.45
2:C:937:ASP:O	2:C:939:ARG:N	2.48	0.45
3:D:1148:VAL:HG22	3:D:1163:GLY:O	2.17	0.45
3:D:1333:HIS:HE1	3:D:1421:LEU:HB3	1.80	0.45
3:D:638:LYS:CB	3:D:729:HIS:CE1	2.99	0.45
3:D:678:GLU:C	3:D:680:GLN:N	2.69	0.45
3:D:762:GLN:HE21	4:E:20:THR:CB	2.28	0.45
2:C:218:VAL:O	2:C:219:GLN:C	2.54	0.45
2:C:257:LEU:HA	2:C:261:LEU:CD2	2.45	0.45
2:C:351:LEU:HG	2:C:352:ALA:N	2.31	0.45
2:C:380:ALA:O	2:C:384:GLU:CB	2.64	0.45
2:C:137:VAL:HG11	2:C:411:SER:HB2	1.97	0.45
2:C:654:LEU:HG	2:C:655:LEU:N	2.32	0.45
2:C:733:ALA:O	2:C:734:LEU:C	2.55	0.45
2:C:959:PRO:O	2:C:962:GLN:N	2.50	0.45
3:D:1170:ASP:C	3:D:1172:HIS:N	2.70	0.45
3:D:1462:LEU:CD2	3:D:1473:PRO:HG2	2.46	0.45
3:D:632:VAL:HG12	3:D:633:VAL:N	2.30	0.45
3:D:729:HIS:ND1	3:D:730:PRO:HD2	2.30	0.45
3:D:772:PRO:HG3	3:D:778:LEU:HD23	1.99	0.45
3:D:78:VAL:N	3:D:81:THR:O	2.43	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:121:GLU:C	1:A:123:MET:N	2.70	0.45
1:A:17:GLY:O	1:A:18:ASP:HB2	2.16	0.45
1:A:50:GLY:HA3	1:A:171:PHE:O	2.15	0.45
2:C:152:PRO:O	2:C:153:ALA:O	2.35	0.45
2:C:215:GLY:O	2:C:216:ASP:C	2.54	0.45
2:C:224:GLU:C	2:C:226:VAL:N	2.70	0.45
2:C:520:GLU:N	2:C:521:PRO:CD	2.80	0.45
2:C:574:ALA:HB1	2:C:667:ALA:O	2.17	0.45
2:C:681:GLY:CA	3:D:939:PHE:CE2	2.99	0.45
2:C:762:LYS:HD2	2:C:786:LYS:CD	2.38	0.45
2:C:881:ASN:HB2	3:D:1061:PHE:CE2	2.52	0.45
2:C:926:PHE:HE1	2:C:929:ARG:NH1	2.14	0.45
2:C:92:ALA:HB2	2:C:120:LEU:HD11	1.98	0.45
3:D:963:TYR:HE2	3:D:1002:LYS:HB3	1.81	0.45
3:D:1044:LEU:HD12	3:D:1044:LEU:HA	1.73	0.45
3:D:1065:LEU:HD12	3:D:1067:VAL:HG23	1.98	0.45
3:D:1075:HIS:CD2	3:D:1075:HIS:N	2.85	0.45
3:D:1237:THR:HG22	3:D:1239:ARG:H	1.81	0.45
3:D:153:LEU:C	3:D:155:ASP:H	2.19	0.45
3:D:653:PHE:O	3:D:654:LYS:C	2.55	0.45
3:D:678:GLU:O	3:D:680:GLN:N	2.45	0.45
3:D:770:LEU:CD1	3:D:770:LEU:N	2.77	0.45
3:D:845:ASN:O	3:D:847:ASP:N	2.42	0.45
4:E:63:TRP:O	4:E:67:GLU:N	2.41	0.45
1:B:15:THR:C	1:B:17:GLY:H	2.18	0.45
1:B:173:PRO:HA	1:B:203:GLY:HA3	1.99	0.45
2:C:64:LEU:HA	2:C:101:ILE:O	2.16	0.45
2:C:553:ASP:HA	2:C:882:LEU:HA	1.98	0.45
1:A:74:ASP:HB2	2:C:627:ARG:NH2	2.31	0.45
2:C:588:VAL:CG2	2:C:666:LEU:HD13	2.46	0.45
2:C:848:VAL:HG12	3:D:740:PHE:O	2.16	0.45
3:D:1051:GLU:O	3:D:1052:THR:O	2.35	0.45
3:D:1069:GLU:C	3:D:1071:PHE:N	2.70	0.45
3:D:1086:LEU:HD13	3:D:1238:MET:CB	2.38	0.45
3:D:1118:ILE:HD11	3:D:1193:THR:CG2	2.46	0.45
3:D:1130:ARG:NH1	3:D:1130:ARG:HG2	2.32	0.45
3:D:1140:ILE:O	3:D:1144:LEU:N	2.49	0.45
3:D:1271:LYS:O	3:D:1273:VAL:N	2.49	0.45
3:D:1283:ILE:CD1	3:D:1312:LEU:HA	2.47	0.45
3:D:601:ARG:HD2	3:D:605:ASP:OD2	2.16	0.45
3:D:631:ILE:HD11	3:D:743:ASP:HB2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:764:LEU:HG	3:D:766:ALA:N	2.29	0.45
3:D:92:HIS:O	3:D:94:GLU:N	2.50	0.45
1:A:126:ASP:OD1	1:A:126:ASP:N	2.49	0.45
1:A:30:ARG:NH1	1:A:192:LEU:HD23	2.32	0.45
1:B:12:THR:O	1:B:24:VAL:N	2.50	0.45
1:A:42:ARG:NH2	1:B:34:VAL:HB	2.26	0.45
2:C:304:LEU:H	2:C:305:PRO:HD3	1.82	0.45
2:C:374:ASN:O	2:C:376:ARG:HG2	2.17	0.45
2:C:406:HIS:ND1	2:C:406:HIS:O	2.50	0.45
2:C:630:ARG:HA	2:C:705:ILE:CD1	2.45	0.45
2:C:32:ALA:HB2	2:C:73:ILE:HD13	1.99	0.45
2:C:78:PHE:N	2:C:78:PHE:CD1	2.83	0.45
2:C:935:GLY:O	2:C:936:VAL:O	2.33	0.45
3:D:1085:ALA:C	3:D:1087:ARG:H	2.19	0.45
3:D:1106:VAL:HG12	3:D:1107:VAL:N	2.32	0.45
3:D:1268:PRO:HB2	3:D:1269:LYS:H	1.67	0.45
3:D:666:PHE:CZ	3:D:676:MET:SD	3.10	0.45
3:D:91:ALA:CB	3:D:518:PRO:CG	2.95	0.45
4:E:77:GLU:HG3	4:E:77:GLU:O	2.17	0.45
1:A:179:PHE:O	1:A:179:PHE:CD1	2.69	0.45
1:A:189:ARG:O	1:A:191:ASP:N	2.50	0.45
1:B:36:LEU:O	1:B:40:LEU:HD23	2.17	0.45
2:C:33:ASP:O	2:C:33:ASP:CG	2.55	0.45
2:C:115:LEU:HD13	2:C:375:SER:CB	2.47	0.45
2:C:378:LEU:N	2:C:378:LEU:HD12	2.31	0.45
2:C:758:ARG:O	2:C:788:THR:O	2.35	0.45
2:C:877:PRO:HG2	3:D:949:ILE:HD12	1.98	0.45
2:C:905:VAL:O	2:C:906:PHE:HB2	2.17	0.45
1:A:198:ARG:NH1	2:C:932:GLU:HB3	2.31	0.45
2:C:940:GLU:HA	2:C:973:VAL:CG2	2.45	0.45
3:D:1076:GLY:HA2	3:D:1079:LYS:HG2	1.97	0.45
3:D:106:LYS:O	3:D:109:PRO:N	2.50	0.45
3:D:1192:LEU:HG	3:D:1369:GLU:HB3	1.99	0.45
3:D:1352:ILE:O	3:D:1353:GLN:C	2.55	0.45
3:D:21:TRP:C	3:D:23:TYR:N	2.70	0.45
3:D:609:GLY:O	3:D:611:GLN:N	2.50	0.45
3:D:860:LEU:HD12	3:D:878:GLY:CA	2.47	0.45
3:D:876:SER:O	3:D:878:GLY:N	2.50	0.45
1:A:157:GLY:H	1:A:166:PRO:HB3	1.80	0.45
1:A:157:GLY:O	1:A:164:ALA:HB1	2.17	0.45
1:A:173:PRO:O	1:A:202:ASP:CA	2.62	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:44:LEU:CG	1:B:199:ILE:HD11	2.43	0.45
2:C:282:GLY:O	2:C:283:VAL:HG23	2.17	0.45
2:C:299:LYS:O	2:C:299:LYS:CG	2.64	0.45
2:C:410:ILE:HG21	2:C:468:ARG:HH22	1.81	0.45
2:C:545:ASN:C	2:C:547:ILE:H	2.20	0.45
2:C:576:ALA:HB1	2:C:577:PRO:HD2	1.99	0.45
3:D:957:PRO:HG3	3:D:1007:VAL:CA	2.47	0.45
3:D:1060:SER:C	3:D:1062:ARG:N	2.69	0.45
3:D:1319:VAL:O	3:D:1320:GLU:C	2.54	0.45
3:D:695:ILE:HD13	3:D:718:PRO:HB2	1.98	0.45
3:D:705:ALA:HB3	3:D:706:PRO:HD3	1.98	0.45
2:C:1035:MET:HB3	3:D:707:THR:HB	1.98	0.45
1:A:195:LEU:HD22	1:A:197:LEU:HD22	1.99	0.45
1:A:23:PHE:CZ	1:A:207:PRO:HB2	2.49	0.45
1:A:88:ARG:HD3	1:A:121:GLU:CD	2.37	0.45
2:C:202:TYR:C	2:C:203:ASP:CG	2.75	0.45
2:C:202:TYR:CE1	2:C:304:LEU:HD13	2.52	0.45
2:C:246:ASP:O	2:C:248:PRO:HD3	2.17	0.45
2:C:545:ASN:O	2:C:547:ILE:N	2.49	0.45
2:C:884:GLN:HG3	2:C:885:ILE:HD12	1.98	0.45
3:D:1266:ARG:C	3:D:1268:PRO:HD3	2.37	0.45
3:D:511:TRP:CD1	3:D:511:TRP:N	2.84	0.45
3:D:679:ARG:C	3:D:680:GLN:HG2	2.38	0.45
3:D:710:ARG:NH1	3:D:768:ASN:HD21	2.15	0.45
3:D:924:MET:N	4:E:7:ASP:OD2	2.50	0.45
1:A:225:PHE:CD2	1:B:11:PHE:CE1	3.05	0.45
1:B:188:GLN:HG2	3:D:688:TRP:HD1	1.77	0.45
2:C:163:ILE:CG2	2:C:169:GLY:HA3	2.45	0.45
2:C:150:PRO:HD3	2:C:321:GLU:HB3	1.98	0.45
2:C:143:SER:OG	2:C:330:ASN:HA	2.17	0.45
2:C:491:GLU:HA	2:C:531:PHE:CA	2.21	0.45
2:C:491:GLU:O	2:C:510:THR:N	2.43	0.45
2:C:531:PHE:O	2:C:532:MET:CB	2.60	0.45
2:C:537:LYS:O	2:C:540:PHE:N	2.48	0.45
2:C:405:ARG:NH1	2:C:566:THR:OG1	2.48	0.45
2:C:674:VAL:HG21	2:C:871:LEU:HB2	1.99	0.45
2:C:778:PHE:O	2:C:780:GLU:N	2.50	0.45
2:C:840:ALA:CB	2:C:846:LYS:HA	2.47	0.45
2:C:944:LEU:O	2:C:946:ARG:N	2.50	0.45
3:D:1083:ASP:O	3:D:1086:LEU:CB	2.62	0.45
3:D:1283:ILE:HD13	3:D:1312:LEU:CD2	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1311:LEU:CD1	3:D:1311:LEU:H	2.29	0.45
3:D:1435:LEU:HD21	3:D:1468:LEU:CD2	2.47	0.45
3:D:1463:LYS:HA	3:D:1466:VAL:HB	1.99	0.45
3:D:778:LEU:O	3:D:778:LEU:HD12	2.17	0.45
3:D:907:GLU:HG3	3:D:911:LEU:HD13	1.97	0.45
3:D:924:MET:O	3:D:925:GLU:C	2.54	0.45
3:D:924:MET:O	3:D:927:THR:N	2.49	0.45
3:D:983:LEU:HA	3:D:983:LEU:HD23	1.73	0.45
1:B:19:HIS:HA	1:B:207:PRO:HG3	1.98	0.44
1:B:94:MET:CB	1:B:94:MET:HE3	2.47	0.44
2:C:1008:ARG:HH22	2:C:1020:PRO:HA	1.82	0.44
2:C:584:GLU:C	2:C:586:ARG:H	2.19	0.44
2:C:691:SER:HB2	2:C:858:MET:HE2	1.98	0.44
1:A:178:ALA:HB2	2:C:863:ASP:O	2.17	0.44
2:C:874:LEU:HD12	2:C:874:LEU:HA	1.66	0.44
3:D:1343:ALA:O	3:D:1344:VAL:C	2.55	0.44
3:D:1478:SER:O	3:D:1481:VAL:N	2.45	0.44
3:D:149:LYS:C	3:D:151:GLN:H	2.19	0.44
3:D:638:LYS:O	3:D:639:LEU:O	2.34	0.44
3:D:663:GLU:C	3:D:665:ALA:N	2.69	0.44
1:B:80:LEU:HD22	3:D:839:LEU:CB	2.48	0.44
3:D:905:PRO:CG	3:D:906:GLN:N	2.80	0.44
4:E:9:LEU:C	4:E:11:GLY:H	2.20	0.44
1:B:111:ALA:HA	1:B:114:PHE:CE1	2.52	0.44
1:B:99:LEU:O	1:B:141:GLU:HA	2.17	0.44
2:C:1104:GLU:HA	3:D:6:ARG:HG3	1.99	0.44
2:C:30:LEU:HD13	2:C:118:LEU:HD11	1.98	0.44
2:C:378:LEU:O	2:C:382:LEU:HB2	2.17	0.44
2:C:520:GLU:O	2:C:522:VAL:N	2.49	0.44
2:C:641:PRO:HA	2:C:656:ALA:CB	2.47	0.44
2:C:588:VAL:HG21	2:C:666:LEU:HA	1.99	0.44
2:C:677:MET:H	2:C:873:PRO:HD3	1.82	0.44
2:C:897:LEU:O	2:C:899:GLN:HG3	2.17	0.44
3:D:1007:VAL:HG11	3:D:1040:GLY:HA3	2.00	0.44
3:D:1094:LEU:HA	3:D:1094:LEU:HD12	1.63	0.44
3:D:1344:VAL:HG11	3:D:1421:LEU:HD11	1.99	0.44
3:D:890:VAL:HG13	3:D:926:LYS:CE	2.45	0.44
4:E:13:VAL:HB	4:E:18:ARG:HB3	1.99	0.44
1:A:111:ALA:N	1:A:129:ILE:HG12	2.31	0.44
1:B:133:GLU:C	1:B:135:GLY:H	2.21	0.44
2:C:182:VAL:HG12	2:C:193:LEU:CB	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:23:VAL:C	2:C:25:SER:H	2.19	0.44
2:C:440:PRO:HD3	2:C:455:LEU:HA	1.96	0.44
2:C:493:ARG:NH2	3:D:1069:GLU:OE2	2.50	0.44
3:D:1400:VAL:HG12	3:D:1400:VAL:O	2.17	0.44
3:D:1467:ILE:C	3:D:1469:GLY:H	2.20	0.44
3:D:691:LEU:C	3:D:693:GLU:H	2.19	0.44
3:D:792:ILE:N	3:D:792:ILE:CD1	2.79	0.44
3:D:809:PRO:C	3:D:811:GLU:H	2.19	0.44
3:D:84:ILE:O	3:D:85:VAL:CB	2.65	0.44
3:D:948:THR:O	3:D:1020:LEU:CB	2.58	0.44
4:E:4:PRO:CG	4:E:66:LYS:HE2	2.47	0.44
1:A:160:ASP:O	1:A:161:ARG:C	2.55	0.44
1:A:185:ARG:NH2	1:A:194:LYS:CE	2.80	0.44
1:A:26:GLU:HB3	1:A:27:PRO:HD2	1.88	0.44
1:A:74:ASP:OD2	2:C:627:ARG:NH2	2.50	0.44
2:C:103:LYS:HD3	2:C:103:LYS:HA	1.85	0.44
2:C:1070:ILE:HD12	2:C:1070:ILE:N	2.32	0.44
2:C:394:PHE:HB2	5:C:1640:RFP:O8	2.18	0.44
2:C:413:LEU:HD11	2:C:448:ASN:OD1	2.17	0.44
2:C:520:GLU:C	2:C:522:VAL:N	2.69	0.44
2:C:527:GLU:O	2:C:529:VAL:N	2.50	0.44
2:C:544:THR:O	2:C:545:ASN:C	2.54	0.44
2:C:729:LEU:CB	2:C:734:LEU:HD21	2.48	0.44
2:C:754:ILE:HD13	2:C:791:ARG:NE	2.33	0.44
2:C:722:ILE:HD13	2:C:821:GLU:OE1	2.17	0.44
3:D:947:ILE:HA	3:D:1020:LEU:HD13	1.99	0.44
3:D:1133:ARG:HG3	3:D:1134:LEU:N	2.31	0.44
3:D:22:SER:C	3:D:24:GLY:H	2.21	0.44
3:D:43(U):UNK:O	3:D:44(U):UNK:CB	2.66	0.44
3:D:960:LYS:O	3:D:961:GLN:C	2.56	0.44
1:A:43:ILE:O	1:A:44:LEU:C	2.56	0.44
1:A:82:LEU:HD23	1:A:129:ILE:HD12	1.98	0.44
1:B:169:ALA:HB1	1:B:171:PHE:CE1	2.52	0.44
1:B:29:GLU:O	1:B:30:ARG:C	2.55	0.44
2:C:9:ILE:O	2:C:10:ARG:HB3	2.18	0.44
2:C:121:MET:HA	2:C:126:SER:O	2.17	0.44
2:C:15:LEU:HD21	2:C:461:VAL:HG23	1.94	0.44
2:C:445:GLU:HG3	5:C:1640:RFP:C30	2.47	0.44
2:C:202:TYR:CB	2:C:207:LEU:HD13	2.47	0.44
2:C:267:TYR:HD1	2:C:273:GLY:HA3	1.81	0.44
2:C:341:ALA:O	2:C:344:PHE:N	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:328:LEU:HB3	2:C:467:ILE:HG21	1.98	0.44
2:C:8:ARG:HB3	2:C:494:TYR:OH	2.18	0.44
2:C:520:GLU:O	2:C:521:PRO:C	2.55	0.44
2:C:605:LYS:HA	2:C:612:ALA:N	2.30	0.44
2:C:648:ARG:HH11	2:C:648:ARG:CG	2.27	0.44
2:C:79:SER:O	2:C:82:GLU:HB3	2.16	0.44
2:C:922:PHE:CE2	2:C:964:LYS:HB2	2.52	0.44
2:C:73:ILE:CD1	2:C:94:LEU:HD13	2.48	0.44
2:C:669:GLY:HA3	2:C:995:MET:HA	1.98	0.44
3:D:1047:LYS:CA	3:D:1053:PHE:CE1	2.92	0.44
3:D:1353:GLN:O	3:D:1354:LYS:C	2.55	0.44
3:D:1461:GLY:N	3:D:1464:GLU:OE1	2.47	0.44
3:D:633:VAL:CG2	3:D:634:GLY:N	2.80	0.44
3:D:864:VAL:CG1	3:D:874:GLU:O	2.66	0.44
3:D:853:VAL:HG21	3:D:877:PRO:HB3	1.99	0.44
3:D:984:THR:O	3:D:988:ARG:N	2.48	0.44
3:D:98:PRO:O	3:D:514:LEU:HD13	2.18	0.44
4:E:22:VAL:HG21	4:E:75:PHE:CD2	2.52	0.44
1:A:164:ALA:O	1:A:165:ILE:C	2.56	0.44
1:A:221:HIS:HA	1:A:224:TYR:CE2	2.52	0.44
2:C:569:VAL:HA	2:C:570:PRO:HD2	1.77	0.44
2:C:605:LYS:CG	2:C:606:VAL:H	2.30	0.44
2:C:606:VAL:O	2:C:607:ASP:HB2	2.18	0.44
2:C:713:ARG:HH12	2:C:816:LYS:CG	2.31	0.44
2:C:895:TYR:HD2	2:C:896:PHE:CE1	2.36	0.44
2:C:959:PRO:CG	2:C:960:GLU:N	2.80	0.44
3:D:1069:GLU:HG3	3:D:1072:ILE:CG1	2.48	0.44
3:D:1093:TYR:HE2	3:D:1097:LYS:CE	2.31	0.44
3:D:1304:LYS:CD	3:D:1304:LYS:N	2.80	0.44
3:D:629:SER:HB3	3:D:726:ILE:CD1	2.47	0.44
3:D:641:GLN:HB3	3:D:719:VAL:CG2	2.46	0.44
3:D:776:GLU:HB3	3:D:777:PRO:HD2	1.98	0.44
3:D:879:ARG:NH1	3:D:904:VAL:HG13	2.32	0.44
3:D:911:LEU:HA	3:D:911:LEU:HD12	1.85	0.44
4:E:63:TRP:O	4:E:64:ALA:C	2.56	0.44
1:A:18:ASP:O	1:A:19:HIS:CB	2.66	0.44
1:A:201:THR:HG22	1:A:202:ASP:N	2.31	0.44
1:A:225:PHE:HD2	1:B:11:PHE:CE1	2.36	0.44
1:B:160:ASP:O	1:B:162:ILE:N	2.50	0.44
2:C:1021:LEU:O	2:C:1022:GLY:C	2.56	0.44
2:C:12:VAL:CG1	2:C:13:ILE:N	2.62	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:141:HIS:CE1	2:C:334:ARG:HG3	2.52	0.44
2:C:236:VAL:CG2	2:C:250:LYS:HA	2.47	0.44
2:C:340:MET:C	2:C:340:MET:SD	2.96	0.44
2:C:399:ASN:HD21	2:C:401:LEU:CB	2.27	0.44
2:C:488:ALA:O	2:C:490:GLU:N	2.51	0.44
2:C:584:GLU:H	2:C:584:GLU:HG3	1.31	0.44
2:C:613:VAL:H	2:C:621:VAL:HA	1.83	0.44
2:C:628:TYR:HE2	2:C:703:ILE:HD13	1.81	0.44
2:C:705:ILE:HA	2:C:828:ALA:HA	2.00	0.44
2:C:714:ASP:O	2:C:715:THR:O	2.35	0.44
2:C:835:VAL:HG13	2:C:850:ALA:O	2.18	0.44
2:C:688:ILE:CG2	2:C:869:VAL:HG23	2.48	0.44
3:D:791:TYR:HE1	3:D:1023:MET:HG3	1.82	0.44
3:D:1047:LYS:HA	3:D:1053:PHE:CZ	2.49	0.44
3:D:1125:MET:HG2	3:D:1126:ASP:H	1.81	0.44
3:D:1114:THR:HA	3:D:1189:ARG:HH11	1.83	0.44
3:D:1231:GLU:O	3:D:1233:GLY:N	2.51	0.44
3:D:143:ASP:O	3:D:145:VAL:N	2.51	0.44
3:D:772:PRO:CG	3:D:778:LEU:HD23	2.47	0.44
3:D:88:TYR:C	3:D:520:LEU:CD1	2.85	0.44
3:D:906:GLN:O	3:D:907:GLU:HB2	2.18	0.44
4:E:32:ARG:HG3	4:E:33:HIS:N	2.32	0.44
1:A:86:VAL:HG13	1:A:123:MET:HB3	1.99	0.44
1:B:188:GLN:NE2	1:B:188:GLN:O	2.50	0.44
2:C:598:GLU:HB3	2:C:599:GLU:H	1.59	0.44
2:C:925:TYR:CE2	2:C:972:VAL:HG21	2.53	0.44
2:C:983:PHE:O	2:C:984:GLU:C	2.55	0.44
3:D:1117:TYR:C	3:D:1118:ILE:HD12	2.38	0.44
3:D:1236:LEU:HD12	3:D:1256:LEU:CD1	2.47	0.44
3:D:680:GLN:C	3:D:681:ARG:HG3	2.38	0.44
3:D:688:TRP:HE3	3:D:688:TRP:HA	1.82	0.44
3:D:92:HIS:O	3:D:93:ILE:C	2.57	0.44
2:C:1038:TRP:CZ2	3:D:1096:ARG:HA	2.52	0.44
2:C:11:GLU:OE1	2:C:473:ARG:CD	2.66	0.44
2:C:11:GLU:OE1	2:C:473:ARG:CG	2.66	0.44
2:C:172:ILE:HG22	2:C:173:ASP:N	2.32	0.44
2:C:278:GLU:HA	2:C:283:VAL:HA	1.99	0.44
2:C:773:LEU:O	2:C:774:LEU:C	2.56	0.44
3:D:1047:LYS:HB3	3:D:1048:PRO:CD	2.45	0.44
3:D:1220:ALA:O	3:D:1224:VAL:HG23	2.18	0.44
3:D:1252:ILE:HG21	3:D:1261:GLU:OE1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1274:ILE:O	3:D:1275:SER:C	2.57	0.44
2:C:1088:LEU:HD23	3:D:1468:LEU:CD2	2.48	0.44
3:D:462:GLN:O	3:D:463:GLU:C	2.56	0.44
3:D:628:ARG:O	3:D:629:SER:HB2	2.18	0.44
3:D:896:ALA:HA	3:D:899:LEU:HD22	2.00	0.44
4:E:3:GLU:HB3	4:E:4:PRO:HD2	1.99	0.44
1:A:100:ILE:HG22	1:A:101:LEU:H	1.82	0.43
1:B:59:GLU:OE1	1:B:60:ASP:N	2.50	0.43
1:B:95:ALA:O	1:B:96:SER:CB	2.60	0.43
2:C:100:LEU:HD11	2:C:369:PRO:CD	2.46	0.43
2:C:64:LEU:N	2:C:101:ILE:O	2.51	0.43
2:C:104:ASP:N	2:C:104:ASP:OD1	2.50	0.43
2:C:343:GLN:HG2	2:C:385:PHE:HB2	2.00	0.43
2:C:710:ILE:CD1	2:C:710:ILE:N	2.74	0.43
2:C:738:ASP:HA	2:C:743:VAL:HA	2.00	0.43
2:C:754:ILE:O	2:C:754:ILE:HG22	2.18	0.43
2:C:794:PRO:HG2	2:C:1027:PHE:CB	2.48	0.43
2:C:881:ASN:HB2	3:D:1061:PHE:HE2	1.81	0.43
3:D:1251:ASP:N	3:D:1269:LYS:HZ2	1.84	0.43
3:D:564:GLU:HG3	3:D:568:ARG:NE	2.29	0.43
3:D:606:ILE:HD12	3:D:606:ILE:N	2.28	0.43
3:D:658:LEU:O	3:D:661:MET:N	2.51	0.43
1:A:41:ARG:NH1	1:A:42:ARG:N	2.66	0.43
1:B:151:VAL:O	1:B:169:ALA:N	2.46	0.43
2:C:1042:ALA:CB	3:D:1227:GLU:OE1	2.66	0.43
2:C:95:TYR:CD1	2:C:112:GLU:OE1	2.71	0.43
5:C:1640:RFP:N1	5:C:1640:RFP:N2	2.65	0.43
2:C:443:THR:O	2:C:444:PRO:O	2.36	0.43
2:C:54:ILE:HG13	2:C:55:GLU:O	2.18	0.43
2:C:626:ARG:CZ	2:C:637:PHE:CZ	3.00	0.43
2:C:760:SER:OG	2:C:762:LYS:HG3	2.18	0.43
2:C:836:GLY:C	2:C:837:ASP:OD2	2.55	0.43
3:D:1011:PHE:CE2	3:D:1022:VAL:CG1	3.01	0.43
3:D:1066:THR:C	3:D:1068:LEU:N	2.71	0.43
3:D:1192:LEU:HD21	3:D:1369:GLU:HA	2.00	0.43
3:D:564:GLU:O	3:D:567:ILE:HG22	2.19	0.43
3:D:851:LEU:O	3:D:851:LEU:HD12	2.18	0.43
3:D:899:LEU:O	3:D:900:ILE:CG1	2.53	0.43
3:D:905:PRO:CG	3:D:906:GLN:H	2.31	0.43
3:D:931:LEU:HA	3:D:931:LEU:HD13	1.84	0.43
3:D:969:ARG:CZ	3:D:970:LYS:HE3	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1034:GLU:HG3	2:C:1035:MET:N	2.33	0.43
2:C:291:VAL:HB	2:C:299:LYS:O	2.19	0.43
2:C:380:ALA:O	2:C:384:GLU:N	2.38	0.43
2:C:605:LYS:HG2	2:C:606:VAL:N	2.33	0.43
2:C:85:GLU:O	2:C:806:LEU:HD11	2.18	0.43
3:D:1071:PHE:O	3:D:1075:HIS:HD2	2.01	0.43
3:D:1261:GLU:OE2	3:D:1268:PRO:HB3	2.18	0.43
3:D:1253:THR:HG21	3:D:1327:ARG:HG2	2.00	0.43
3:D:513:ILE:CG2	3:D:514:LEU:N	2.81	0.43
3:D:770:LEU:HD23	3:D:927:THR:CG2	2.49	0.43
3:D:805:ALA:O	3:D:806:PHE:CB	2.66	0.43
3:D:808:THR:O	3:D:809:PRO:O	2.36	0.43
3:D:816:TYR:HA	3:D:832:ARG:NH2	2.33	0.43
3:D:899:LEU:N	3:D:899:LEU:CD1	2.78	0.43
4:E:40:LEU:HA	4:E:44:GLU:HG3	2.00	0.43
4:E:9:LEU:C	4:E:11:GLY:N	2.72	0.43
1:A:165:ILE:O	1:A:165:ILE:CG1	2.60	0.43
1:A:222:LEU:HD21	1:B:218:LEU:HD23	2.00	0.43
1:A:86:VAL:HG13	1:A:86:VAL:O	2.18	0.43
1:B:11:PHE:HZ	1:B:211:LEU:HD21	1.83	0.43
2:C:203:ASP:H	2:C:207:LEU:HB2	1.83	0.43
2:C:73:ILE:HD12	2:C:73:ILE:N	2.32	0.43
3:D:1235:GLN:C	3:D:1236:LEU:HD23	2.38	0.43
3:D:1292:VAL:CG2	3:D:1305:LEU:HD23	2.49	0.43
3:D:687:VAL:O	3:D:688:TRP:C	2.56	0.43
3:D:785:ILE:HD13	3:D:935:LYS:HA	2.00	0.43
4:E:25:LYS:HZ3	4:E:29:GLN:CD	2.21	0.43
1:A:218:LEU:HD12	1:A:218:LEU:O	2.18	0.43
1:B:214:ALA:HA	1:B:217:ILE:HG13	1.99	0.43
2:C:1035:MET:HB2	2:C:1036:GLU:OE2	2.17	0.43
2:C:186:VAL:O	2:C:187:ASN:C	2.57	0.43
2:C:236:VAL:CG1	2:C:248:PRO:O	2.67	0.43
2:C:312:ALA:HB1	2:C:318:PRO:HG2	1.97	0.43
2:C:596:TYR:CD1	2:C:596:TYR:O	2.71	0.43
2:C:67:ASP:N	2:C:67:ASP:OD1	2.50	0.43
3:D:1011:PHE:O	3:D:1013:GLU:N	2.51	0.43
3:D:1175:ILE:O	3:D:1179:GLU:HG3	2.18	0.43
3:D:1331:ASP:C	3:D:1333:HIS:N	2.70	0.43
3:D:567:ILE:CA	3:D:570:GLU:HB2	2.49	0.43
3:D:590:PRO:C	3:D:600:LEU:HD21	2.39	0.43
3:D:935:LYS:HG2	3:D:939:PHE:HD1	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:133:GLU:HG2	1:B:134:GLU:N	2.33	0.43
2:C:306:THR:HG22	2:C:307:LEU:N	2.34	0.43
2:C:428:ARG:O	2:C:429:ASP:HB2	2.18	0.43
2:C:491:GLU:CA	2:C:531:PHE:HA	2.21	0.43
2:C:539:VAL:HB	2:C:540:PHE:CD1	2.53	0.43
2:C:568:ALA:O	2:C:569:VAL:CG1	2.66	0.43
2:C:595:LEU:HD21	2:C:623:HIS:CB	2.47	0.43
2:C:398:THR:O	2:C:635:THR:HG21	2.19	0.43
2:C:724:ARG:C	2:C:726:ILE:HD12	2.38	0.43
3:D:1057:VAL:HG13	3:D:1067:VAL:HG11	2.01	0.43
3:D:1231:GLU:C	3:D:1233:GLY:H	2.21	0.43
3:D:1250:THR:HG22	3:D:1251:ASP:O	2.18	0.43
3:D:1306:PRO:O	3:D:1308:ASP:N	2.52	0.43
3:D:1323:GLN:H	3:D:1324:PRO:HD2	1.83	0.43
3:D:1443:THR:O	3:D:1444:THR:C	2.57	0.43
3:D:669:ASN:O	3:D:672:ALA:N	2.50	0.43
3:D:700:VAL:HG13	3:D:748:HIS:O	2.18	0.43
1:A:28:LEU:O	1:A:192:LEU:HB3	2.19	0.43
2:C:184:MET:HE2	2:C:196:LEU:HD22	1.99	0.43
2:C:399:ASN:O	2:C:399:ASN:ND2	2.44	0.43
2:C:467:ILE:HG22	2:C:484:VAL:CG2	2.48	0.43
2:C:606:VAL:HG22	2:C:606:VAL:O	2.19	0.43
2:C:944:LEU:C	2:C:946:ARG:N	2.71	0.43
2:C:99:GLN:OE1	2:C:109:LYS:HE3	2.18	0.43
3:D:1258:ARG:HG3	3:D:1258:ARG:NH1	2.33	0.43
1:B:188:GLN:HG3	3:D:688:TRP:HD1	1.84	0.43
3:D:764:LEU:HD23	3:D:767:HIS:CD2	2.54	0.43
3:D:806:PHE:N	3:D:827:ILE:HA	2.17	0.43
3:D:853:VAL:O	3:D:854:ALA:O	2.35	0.43
3:D:836:VAL:CB	3:D:858:LEU:HD21	2.49	0.43
3:D:885:ILE:HG12	3:D:937:TYR:CD2	2.54	0.43
3:D:1480:PHE:HE2	4:E:15:SER:HB2	1.82	0.43
3:D:1481:VAL:HG12	4:E:21:VAL:HG21	1.98	0.43
1:A:71:VAL:HG22	1:A:132:LEU:HB3	2.00	0.43
1:B:177:VAL:HG13	1:B:199:ILE:CD1	2.49	0.43
1:B:61:VAL:O	1:B:62:LEU:O	2.36	0.43
2:C:1095:LEU:O	2:C:1096:ALA:HB3	2.18	0.43
2:C:84:ARG:HE	2:C:128:ILE:HG12	1.84	0.43
2:C:89:THR:HA	2:C:130:ASN:H	1.84	0.43
2:C:163:ILE:CG2	2:C:265:LYS:HD2	2.48	0.43
2:C:413:LEU:CD2	2:C:451:LEU:HD13	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:15:LEU:CD1	2:C:461:VAL:HG21	2.37	0.43
2:C:769:PRO:HG2	2:C:770:GLU:HG3	2.00	0.43
2:C:788:THR:O	2:C:788:THR:HG23	2.19	0.43
3:D:1103:HIS:O	3:D:1105:ILE:HG12	2.19	0.43
3:D:110:SER:O	3:D:112:ILE:N	2.48	0.43
3:D:491:LYS:HE2	3:D:495:ARG:HH21	1.84	0.43
3:D:916:TYR:C	3:D:918:ALA:N	2.72	0.43
4:E:38:THR:HG23	4:E:63:TRP:CZ3	2.53	0.43
1:A:221:HIS:O	1:A:222:LEU:C	2.57	0.43
1:B:70:GLY:O	1:B:132:LEU:HB2	2.18	0.43
1:B:174:VAL:HG23	1:B:174:VAL:O	2.19	0.43
1:B:173:PRO:HA	1:B:203:GLY:CA	2.48	0.43
2:C:5:ARG:NH2	2:C:10:ARG:NH1	2.66	0.43
2:C:218:VAL:O	2:C:220:GLY:N	2.52	0.43
2:C:254:LEU:O	2:C:254:LEU:HD12	2.19	0.43
2:C:260:LEU:HD23	2:C:261:LEU:CB	2.45	0.43
2:C:110:GLU:HB2	2:C:369:PRO:HB2	2.00	0.43
2:C:397:GLU:HB2	2:C:632:ASN:HD22	1.83	0.43
2:C:648:ARG:CG	2:C:648:ARG:NH1	2.81	0.43
2:C:730:SER:CA	2:C:734:LEU:HD11	2.44	0.43
2:C:796:GLU:HA	3:D:681:ARG:NH2	2.33	0.43
2:C:967:PHE:C	2:C:969:LEU:H	2.22	0.43
2:C:974:LEU:HD23	2:C:987:ILE:HG21	2.01	0.43
3:D:1047:LYS:HG2	3:D:1053:PHE:CZ	2.54	0.43
3:D:15:PRO:O	3:D:19:ARG:HG3	2.19	0.43
3:D:483:HIS:N	3:D:484:PRO:CD	2.54	0.43
3:D:711:LEU:HD21	3:D:768:ASN:O	2.19	0.43
4:E:28:GLN:O	4:E:29:GLN:HB2	2.19	0.43
4:E:25:LYS:NZ	4:E:29:GLN:OE1	2.49	0.43
1:A:94:MET:HE1	1:A:119:ASP:HB2	1.95	0.43
1:B:171:PHE:O	1:B:172:SER:OG	2.33	0.43
1:B:41:ARG:HA	1:B:177:VAL:HG11	2.01	0.43
1:B:40:LEU:O	1:B:44:LEU:HD22	2.18	0.43
2:C:148:PHE:HA	2:C:159:ILE:HA	2.01	0.43
2:C:205:GLU:OE2	2:C:209:ARG:HD2	2.19	0.43
2:C:182:VAL:HG11	2:C:307:LEU:HD11	2.01	0.43
2:C:424:GLY:O	2:C:427:VAL:HG23	2.18	0.43
2:C:631:SER:C	2:C:634:GLY:H	2.23	0.43
2:C:710:ILE:H	2:C:710:ILE:HD12	1.83	0.43
3:D:1114:THR:CB	3:D:1189:ARG:NH1	2.82	0.43
3:D:1154:GLU:O	3:D:1155:ALA:CB	2.63	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1156:LEU:H	3:D:1182:GLU:CD	2.21	0.43
3:D:1122:LEU:CD1	3:D:1186:VAL:HG23	2.49	0.43
3:D:472:LYS:O	3:D:473:LEU:C	2.58	0.43
3:D:759:ALA:HA	3:D:763:MET:CG	2.47	0.43
3:D:793:THR:CA	3:D:879:ARG:HH12	2.31	0.43
3:D:901:GLN:O	3:D:903:ASP:N	2.52	0.43
3:D:952:ASP:C	3:D:954:ALA:N	2.71	0.43
1:A:127:LEU:O	1:A:127:LEU:HG	2.19	0.42
1:A:162:ILE:CG2	1:A:163:ASN:H	2.30	0.42
2:C:1112:PHE:O	2:C:1114:GLY:N	2.52	0.42
2:C:211:LEU:HG	2:C:212:SER:N	2.33	0.42
2:C:221:LEU:HG	2:C:221:LEU:O	2.18	0.42
2:C:310:LEU:O	2:C:313:LEU:N	2.44	0.42
2:C:442:GLU:OE1	2:C:558:ALA:HB3	2.18	0.42
2:C:549:PHE:CE2	2:C:886:LEU:HB3	2.54	0.42
2:C:63:GLY:O	2:C:64:LEU:HB2	2.19	0.42
2:C:745:ILE:C	2:C:747:ALA:N	2.71	0.42
2:C:754:ILE:CD1	2:C:791:ARG:NE	2.80	0.42
2:C:953:VAL:HG12	2:C:954:SER:N	2.33	0.42
3:D:957:PRO:HD3	3:D:1007:VAL:HG23	2.01	0.42
3:D:498:VAL:O	3:D:501:ALA:HB3	2.19	0.42
3:D:694:VAL:O	3:D:696:HIS:N	2.52	0.42
3:D:734:GLU:OE2	3:D:780:LYS:NZ	2.52	0.42
3:D:770:LEU:HD23	3:D:927:THR:HG21	2.00	0.42
3:D:772:PRO:CD	3:D:778:LEU:N	2.81	0.42
3:D:936:TYR:C	3:D:936:TYR:HD2	2.22	0.42
4:E:13:VAL:HG11	4:E:19:LEU:N	2.34	0.42
1:A:118:ALA:O	1:A:120:VAL:N	2.48	0.42
1:A:142:VAL:CG2	1:A:142:VAL:O	2.58	0.42
1:A:36:LEU:O	1:A:40:LEU:HG	2.19	0.42
1:B:34:VAL:O	1:B:36:LEU:N	2.52	0.42
1:B:76:VAL:O	1:B:79:ILE:HB	2.19	0.42
2:C:1069:ALA:O	2:C:1075:ASP:O	2.37	0.42
2:C:164:PRO:CG	2:C:168:ARG:HG2	2.49	0.42
2:C:254:LEU:C	2:C:254:LEU:HD12	2.39	0.42
2:C:341:ALA:CB	2:C:345:ARG:HH12	2.32	0.42
2:C:676:ILE:N	2:C:676:ILE:HD12	2.33	0.42
2:C:739:GLU:O	2:C:739:GLU:HG3	2.19	0.42
2:C:79:SER:OG	2:C:82:GLU:CB	2.64	0.42
2:C:922:PHE:O	2:C:926:PHE:N	2.51	0.42
3:D:1069:GLU:O	3:D:1070:TYR:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1149:LEU:HD23	3:D:1188:VAL:HG23	2.00	0.42
3:D:1151:ARG:HA	3:D:1162:GLU:HG3	2.01	0.42
3:D:1252:ILE:HD12	3:D:1269:LYS:HB2	2.01	0.42
3:D:1275:SER:O	3:D:1319:VAL:HA	2.19	0.42
3:D:1303:TYR:O	3:D:1305:LEU:N	2.52	0.42
3:D:468:LEU:C	3:D:470:LEU:H	2.21	0.42
3:D:707:THR:HG23	3:D:712:GLY:HA3	2.00	0.42
3:D:752:SER:O	3:D:755:ALA:N	2.47	0.42
3:D:930:LEU:HD12	3:D:934:LEU:HG	2.01	0.42
1:B:183:ASP:HA	1:B:192:LEU:O	2.19	0.42
2:C:1059:ASP:HA	2:C:1083:GLU:HB2	2.01	0.42
2:C:342:ASP:CA	2:C:345:ARG:HH11	2.32	0.42
2:C:348:LEU:C	2:C:350:ARG:N	2.71	0.42
2:C:349:ALA:O	2:C:350:ARG:HG3	2.20	0.42
2:C:515:ALA:CB	3:D:1069:GLU:OE2	2.67	0.42
2:C:518:ARG:C	2:C:520:GLU:N	2.70	0.42
2:C:574:ALA:O	2:C:669:GLY:O	2.37	0.42
2:C:74:GLY:O	2:C:75:ASP:C	2.57	0.42
2:C:816:LYS:HA	2:C:817:PRO:HD2	1.88	0.42
1:A:41:ARG:NE	2:C:860:HIS:CE1	2.85	0.42
3:D:1004:THR:OG1	3:D:1036:ARG:HB2	2.19	0.42
3:D:1030:GLY:O	3:D:1031:ASN:CB	2.67	0.42
3:D:1194:CYS:SG	3:D:1201:CYS:CB	3.06	0.42
3:D:1326:THR:O	3:D:1327:ARG:CB	2.65	0.42
3:D:1327:ARG:HG3	3:D:1327:ARG:O	2.19	0.42
3:D:1142:SER:C	3:D:1364:HIS:HD2	2.22	0.42
3:D:1427:SER:C	3:D:1429:LEU:N	2.72	0.42
3:D:584:ASN:HB2	3:D:602:SER:HB3	2.01	0.42
3:D:540:LEU:HD11	3:D:603:LEU:HD13	2.00	0.42
2:C:1071:ILE:HD11	3:D:655:PRO:HB3	2.00	0.42
2:C:686:ASP:CG	3:D:739:ASP:OD2	2.57	0.42
3:D:795:VAL:CA	3:D:862:ASP:CB	2.97	0.42
3:D:907:GLU:O	3:D:908:LYS:CB	2.67	0.42
1:A:41:ARG:HG2	1:A:177:VAL:HG12	1.99	0.42
1:A:63:HIS:HA	1:A:165:ILE:HG22	2.01	0.42
1:B:101:LEU:N	1:B:140:MET:O	2.52	0.42
1:B:109:VAL:HG23	1:B:132:LEU:HD22	2.01	0.42
1:B:29:GLU:OE1	1:B:189:ARG:NH1	2.52	0.42
1:B:32:PHE:C	1:B:34:VAL:N	2.72	0.42
2:C:11:GLU:CD	2:C:473:ARG:NE	2.73	0.42
2:C:122:THR:HG22	2:C:123:GLU:H	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:268:ASP:HB2	2:C:269:LEU:H	1.54	0.42
2:C:342:ASP:HA	2:C:345:ARG:HH11	1.83	0.42
2:C:517:ARG:CG	2:C:518:ARG:N	2.82	0.42
2:C:547:ILE:HD12	2:C:550:LEU:HD13	2.00	0.42
2:C:603:VAL:O	2:C:604:VAL:CG2	2.66	0.42
2:C:676:ILE:H	2:C:676:ILE:HD12	1.84	0.42
3:D:1071:PHE:O	3:D:1072:ILE:C	2.56	0.42
3:D:1114:THR:CA	3:D:1189:ARG:HH11	2.32	0.42
3:D:1471:LEU:O	3:D:1472:ILE:C	2.57	0.42
3:D:586:ARG:C	3:D:587:ARG:HD3	2.40	0.42
3:D:632:VAL:CG1	3:D:633:VAL:N	2.81	0.42
3:D:907:GLU:HB3	3:D:911:LEU:CD2	2.48	0.42
3:D:937:TYR:O	3:D:938:GLY:C	2.58	0.42
4:E:26:ARG:NH2	4:E:30:LEU:HD13	2.35	0.42
4:E:64:ALA:O	4:E:68:LEU:N	2.52	0.42
1:A:13:ALA:O	1:B:230:ALA:CB	2.68	0.42
1:A:143:ARG:NH1	1:A:145:ASP:OD1	2.52	0.42
1:A:32:PHE:O	1:A:33:GLY:C	2.57	0.42
1:B:202:ASP:O	1:B:204:SER:N	2.52	0.42
1:B:73:GLU:HG3	1:B:77:GLU:HG2	2.01	0.42
2:C:9:ILE:O	2:C:10:ARG:CB	2.68	0.42
2:C:193:LEU:HD13	2:C:193:LEU:C	2.39	0.42
2:C:261:LEU:CD1	2:C:263:ASP:HB3	2.47	0.42
2:C:418:LEU:HG	2:C:418:LEU:O	2.19	0.42
2:C:534:VAL:N	2:C:538:GLN:HE22	2.17	0.42
2:C:549:PHE:CD1	2:C:886:LEU:O	2.71	0.42
2:C:923:ASN:N	2:C:924:LEU:HD23	2.35	0.42
2:C:72:ARG:NE	2:C:95:TYR:HE1	2.17	0.42
3:D:1258:ARG:HH11	3:D:1258:ARG:HG3	1.84	0.42
3:D:1329:ALA:O	3:D:1330:ILE:C	2.57	0.42
3:D:1336:LEU:CD1	3:D:1340:GLY:C	2.88	0.42
3:D:1378:TYR:CD1	3:D:1378:TYR:N	2.88	0.42
3:D:1476:THR:HG22	4:E:21:VAL:HG23	2.00	0.42
3:D:558:LEU:HD21	3:D:567:ILE:CD1	2.49	0.42
3:D:609:GLY:HA2	3:D:615:ARG:NE	2.34	0.42
3:D:722:GLU:HB3	3:D:723:GLY:H	1.48	0.42
3:D:884:ARG:O	3:D:887:GLY:N	2.52	0.42
1:B:57:TYR:O	1:B:140:MET:HA	2.20	0.42
1:B:206:THR:OG1	1:B:209:GLU:HG3	2.20	0.42
2:C:1051:GLU:OE2	3:D:751:LEU:HB3	2.19	0.42
2:C:266:ARG:O	2:C:266:ARG:HG3	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:34:VAL:O	2:C:34:VAL:HG12	2.19	0.42
2:C:395:LYS:HG2	2:C:397:GLU:CD	2.40	0.42
2:C:573:ARG:CG	2:C:573:ARG:HH11	2.29	0.42
2:C:586:ARG:O	2:C:587:VAL:C	2.58	0.42
2:C:613:VAL:CG2	2:C:619:ARG:HE	2.31	0.42
2:C:755:LEU:CD1	2:C:756:VAL:HG23	2.50	0.42
2:C:710:ILE:CG1	2:C:790:LEU:HB2	2.48	0.42
3:D:1201:CYS:SG	3:D:1204:CYS:HB2	2.60	0.42
3:D:1466:VAL:O	3:D:1467:ILE:C	2.57	0.42
3:D:570:GLU:HA	3:D:573:MET:HE2	2.00	0.42
3:D:713:ILE:HG22	3:D:714:GLN:N	2.35	0.42
3:D:734:GLU:O	3:D:735:ALA:C	2.57	0.42
3:D:935:LYS:HG2	3:D:939:PHE:CD1	2.54	0.42
4:E:6:ILE:HG22	4:E:10:PHE:CD1	2.54	0.42
4:E:38:THR:CG2	4:E:40:LEU:H	2.24	0.42
1:A:115:THR:CG2	1:A:115:THR:O	2.67	0.42
1:A:90:LEU:HD21	1:A:121:GLU:OE2	2.20	0.42
1:B:129:ILE:O	1:B:130:ALA:CB	2.68	0.42
2:C:1055:ILE:HD11	2:C:1079:PRO:CG	2.49	0.42
2:C:1067:TYR:CE1	2:C:1071:ILE:HD11	2.55	0.42
2:C:1113:GLU:C	2:C:1115:LEU:N	2.69	0.42
2:C:208:VAL:HG13	2:C:212:SER:OG	2.20	0.42
2:C:194:VAL:HG22	2:C:221:LEU:HD12	2.02	0.42
2:C:561:GLY:HA3	2:C:842:ARG:O	2.20	0.42
2:C:592:LEU:HA	2:C:592:LEU:HD23	1.80	0.42
2:C:603:VAL:HB	2:C:604:VAL:H	1.61	0.42
2:C:693:GLU:O	2:C:694:LEU:C	2.57	0.42
2:C:699:PHE:C	2:C:701:THR:H	2.22	0.42
2:C:750:LYS:HE2	2:C:753:ASP:OD2	2.18	0.42
2:C:772:ARG:HH11	2:C:776:SER:HB3	1.84	0.42
2:C:985:GLY:O	2:C:986:PRO:C	2.57	0.42
3:D:953:ASP:OD1	3:D:1020:LEU:CB	2.68	0.42
3:D:953:ASP:OD1	3:D:1020:LEU:CG	2.66	0.42
3:D:497:GLU:CG	3:D:1389:LEU:HD21	2.50	0.42
3:D:638:LYS:O	3:D:639:LEU:C	2.55	0.42
3:D:654:LYS:HB3	3:D:655:PRO:CD	2.45	0.42
3:D:795:VAL:CG1	3:D:796:ARG:N	2.83	0.42
3:D:795:VAL:CG1	3:D:864:VAL:CG2	2.92	0.42
3:D:876:SER:O	3:D:879:ARG:N	2.53	0.42
3:D:905:PRO:CD	3:D:906:GLN:H	2.32	0.42
3:D:729:HIS:CE1	3:D:935:LYS:HD3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:999:THR:O	3:D:1000:THR:C	2.58	0.42
4:E:26:ARG:NH2	4:E:67:GLU:OE2	2.53	0.42
4:E:80:VAL:CB	4:E:81:PRO:CD	2.97	0.42
1:A:56:VAL:CG1	1:A:167:VAL:HG21	2.50	0.42
1:B:100:ILE:HG22	1:B:101:LEU:N	2.35	0.42
2:C:257:LEU:C	2:C:259:GLY:N	2.72	0.42
2:C:32:ALA:O	2:C:34:VAL:N	2.52	0.42
2:C:342:ASP:N	2:C:345:ARG:NH1	2.68	0.42
2:C:420:ARG:HD3	2:C:420:ARG:H	1.84	0.42
2:C:892:LEU:C	2:C:894:GLY:N	2.73	0.42
3:D:106:LYS:O	3:D:110:SER:N	2.53	0.42
3:D:1145:TYR:CD2	3:D:1146:GLY:N	2.80	0.42
3:D:1153:VAL:CG1	3:D:1153:VAL:O	2.64	0.42
3:D:1276:GLU:HG3	3:D:1303:TYR:OH	2.20	0.42
3:D:496:LEU:O	3:D:500:ARG:HB2	2.19	0.42
3:D:876:SER:O	3:D:879:ARG:HG3	2.20	0.42
3:D:984:THR:O	3:D:985:ASP:C	2.59	0.42
1:A:25:LEU:HB3	1:A:26:GLU:H	1.61	0.42
1:B:159:LYS:O	1:B:161:ARG:N	2.40	0.42
1:B:21:GLY:O	1:B:23:PHE:CD2	2.73	0.42
2:C:1025:ALA:HB1	2:C:1026:GLN:NE2	2.35	0.42
2:C:21:ILE:HD11	2:C:455:LEU:CD2	2.50	0.42
2:C:433:THR:HG21	3:D:1075:HIS:CD2	2.55	0.42
2:C:471:TYR:O	2:C:472:ARG:HG2	2.20	0.42
2:C:597:ALA:CA	2:C:614:ARG:HH11	2.26	0.42
2:C:822:VAL:HG12	2:C:822:VAL:O	2.19	0.42
2:C:885:ILE:HD12	2:C:885:ILE:N	2.34	0.42
2:C:892:LEU:HA	2:C:895:TYR:CB	2.50	0.42
2:C:897:LEU:O	2:C:898:GLY:C	2.58	0.42
3:D:1094:LEU:O	3:D:1097:LYS:N	2.53	0.42
3:D:151:GLN:O	3:D:154:THR:N	2.53	0.42
3:D:69:GLU:O	3:D:70:ALA:CB	2.68	0.42
3:D:732:VAL:HG22	3:D:769:LEU:HD11	2.01	0.42
2:C:874:LEU:CD1	3:D:787:LEU:HD22	2.47	0.42
3:D:879:ARG:CZ	3:D:904:VAL:HG22	2.48	0.42
3:D:964:LEU:O	3:D:965:GLU:HB3	2.20	0.42
1:A:27:PRO:HG2	1:A:27:PRO:O	2.19	0.42
2:C:202:TYR:O	2:C:203:ASP:CG	2.58	0.42
2:C:252:LYS:HG2	2:C:256:TYR:HD1	1.83	0.42
2:C:278:GLU:O	2:C:283:VAL:HG22	2.19	0.42
2:C:148:PHE:CE1	2:C:309:TYR:HD2	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:34:VAL:O	2:C:35:PRO:C	2.58	0.42
2:C:358:ARG:HB2	2:C:372:LEU:HD23	2.00	0.42
2:C:415:PRO:O	2:C:416:GLY:C	2.58	0.42
2:C:421:GLU:O	2:C:423:ALA:N	2.53	0.42
2:C:332:ARG:NH1	2:C:465:GLY:O	2.53	0.42
2:C:539:VAL:HB	2:C:540:PHE:CE1	2.54	0.42
2:C:56:GLU:OE1	2:C:64:LEU:O	2.38	0.42
2:C:937:ASP:OD1	2:C:939:ARG:CD	2.68	0.42
3:D:1108:ARG:O	3:D:1109:GLU:CG	2.65	0.42
3:D:1294:VAL:O	3:D:1301:LYS:N	2.53	0.42
3:D:710:ARG:HG3	3:D:711:LEU:N	2.35	0.42
3:D:638:LYS:CA	3:D:729:HIS:CD2	3.03	0.42
3:D:874:GLU:O	3:D:875:THR:O	2.38	0.42
3:D:920:LEU:CD2	3:D:920:LEU:N	2.83	0.42
4:E:54:LEU:O	4:E:55:TYR:CB	2.67	0.42
1:B:15:THR:C	1:B:17:GLY:N	2.74	0.41
1:B:222:LEU:O	1:B:223:ASN:C	2.57	0.41
1:B:41:ARG:HD3	1:B:41:ARG:C	2.40	0.41
2:C:1105:LYS:C	2:C:1108:PRO:HD3	2.40	0.41
2:C:197:LEU:HD23	2:C:197:LEU:HA	1.92	0.41
2:C:200:LEU:HD21	2:C:290:LEU:HD22	2.02	0.41
2:C:140:ILE:HD12	2:C:331:ARG:HD2	2.02	0.41
2:C:43:GLY:O	2:C:44:ILE:C	2.58	0.41
2:C:605:LYS:HD2	2:C:607:ASP:CG	2.40	0.41
2:C:674:VAL:HG11	2:C:992:MET:HB2	2.02	0.41
2:C:728:HIS:C	2:C:730:SER:N	2.73	0.41
2:C:734:LEU:O	2:C:737:LEU:O	2.38	0.41
2:C:873:PRO:CG	2:C:874:LEU:N	2.78	0.41
2:C:552:HIS:CD2	2:C:886:LEU:HD12	2.55	0.41
3:D:1011:PHE:C	3:D:1013:GLU:N	2.73	0.41
3:D:1130:ARG:HG2	3:D:1130:ARG:HH11	1.85	0.41
3:D:1402:ALA:HB3	3:D:1415:VAL:HG11	2.01	0.41
3:D:9:ARG:HA	3:D:1456:LYS:HA	2.02	0.41
3:D:583:ASP:OD1	3:D:604:THR:OG1	2.26	0.41
3:D:974:ILE:CG2	3:D:975:GLU:N	2.83	0.41
1:B:109:VAL:HG23	1:B:132:LEU:CD2	2.49	0.41
1:B:51:THR:HA	1:B:145:ASP:O	2.19	0.41
2:C:1020:PRO:O	2:C:1021:LEU:CG	2.68	0.41
2:C:167:LYS:O	2:C:168:ARG:HB2	2.19	0.41
2:C:224:GLU:O	2:C:227:LEU:N	2.46	0.41
2:C:355:VAL:CG1	2:C:356:ARG:N	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:137:VAL:CG2	2:C:406:HIS:HE1	2.33	0.41
2:C:521:PRO:O	2:C:522:VAL:C	2.58	0.41
2:C:560:MET:O	2:C:564:MET:HB2	2.20	0.41
2:C:614:ARG:CZ	2:C:623:HIS:HE1	2.33	0.41
2:C:575:GLN:C	2:C:667:ALA:HB1	2.39	0.41
2:C:769:PRO:C	2:C:771:GLU:N	2.74	0.41
2:C:704:HIS:HD1	2:C:831:ARG:HD2	1.84	0.41
2:C:839:LEU:HD13	2:C:839:LEU:HA	1.76	0.41
2:C:924:LEU:H	2:C:924:LEU:HD23	1.75	0.41
3:D:1094:LEU:HB3	3:D:1095:THR:H	1.77	0.41
3:D:1110:ALA:O	3:D:1111:ASP:C	2.58	0.41
3:D:12:LEU:HD12	3:D:12:LEU:HA	1.79	0.41
3:D:1436:SER:OG	3:D:1464:GLU:HG2	2.20	0.41
3:D:471:GLU:HG3	3:D:471:GLU:O	2.20	0.41
3:D:496:LEU:CD1	3:D:500:ARG:HG2	2.48	0.41
3:D:566:ILE:O	3:D:570:GLU:HG3	2.20	0.41
3:D:620:GLY:O	3:D:621:LYS:HG3	2.20	0.41
3:D:645:PRO:O	3:D:646:LYS:C	2.56	0.41
3:D:887:GLY:C	3:D:889:ALA:H	2.23	0.41
3:D:962:ARG:O	3:D:966:GLU:HB2	2.19	0.41
4:E:26:ARG:HD2	4:E:26:ARG:HA	1.79	0.41
1:A:79:ILE:HG23	1:A:167:VAL:CG2	2.50	0.41
2:C:1001:VAL:O	2:C:1002:GLU:C	2.58	0.41
2:C:1023:GLY:O	2:C:1024:LYS:HG3	2.21	0.41
2:C:334:ARG:HA	2:C:338:GLU:OE2	2.20	0.41
2:C:542:LEU:HA	2:C:545:ASN:HD22	1.85	0.41
2:C:623:HIS:HA	2:C:624:PRO:HD3	1.89	0.41
2:C:83:CYS:HB3	2:C:88:LEU:O	2.21	0.41
3:D:963:TYR:CE2	3:D:1002:LYS:HB3	2.55	0.41
3:D:1331:ASP:O	3:D:1334:GLN:HB2	2.20	0.41
3:D:472:LYS:C	3:D:474:GLU:N	2.71	0.41
3:D:97:THR:O	3:D:571:LYS:CE	2.68	0.41
3:D:597:GLU:HG2	3:D:598:ARG:N	2.36	0.41
3:D:876:SER:H	3:D:879:ARG:CD	2.33	0.41
1:A:200:TRP:O	1:A:201:THR:O	2.38	0.41
2:C:1034:GLU:HG3	2:C:1035:MET:H	1.86	0.41
2:C:1112:PHE:C	2:C:1114:GLY:N	2.73	0.41
2:C:30:LEU:O	2:C:31:GLN:C	2.58	0.41
2:C:333:ILE:HG22	2:C:333:ILE:O	2.19	0.41
2:C:442:GLU:O	2:C:442:GLU:HG3	2.20	0.41
2:C:511:ASP:OD1	2:C:516:ARG:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:758:ARG:HD3	2:C:788:THR:O	2.20	0.41
2:C:717:LEU:O	2:C:761:PHE:CB	2.68	0.41
2:C:947:ALA:O	2:C:950:LEU:N	2.53	0.41
3:D:1067:VAL:C	3:D:1069:GLU:N	2.74	0.41
3:D:1065:LEU:HD12	3:D:1067:VAL:CG2	2.50	0.41
3:D:1192:LEU:CD1	3:D:1345:GLU:HB3	2.49	0.41
3:D:1348:LEU:HD12	3:D:1348:LEU:HA	1.71	0.41
3:D:1403:LEU:CG	3:D:1415:VAL:HB	2.46	0.41
3:D:1431:THR:HG23	3:D:1432:LYS:HG2	2.03	0.41
3:D:23:TYR:O	3:D:24:GLY:C	2.58	0.41
3:D:805:ALA:HB1	3:D:809:PRO:HD2	2.03	0.41
3:D:965:GLU:O	3:D:968:ASP:CB	2.67	0.41
3:D:999:THR:O	3:D:1002:LYS:N	2.53	0.41
1:A:71:VAL:HA	1:A:132:LEU:HA	2.01	0.41
1:B:110:ARG:C	1:B:112:VAL:H	2.23	0.41
1:B:122:ILE:HD12	1:B:122:ILE:N	2.35	0.41
2:C:1014:SER:O	2:C:1018:GLN:HA	2.20	0.41
2:C:1085:PHE:CE1	3:D:1468:LEU:HD22	2.55	0.41
2:C:115:LEU:HD11	2:C:378:LEU:HD22	2.01	0.41
2:C:198:ARG:HG2	2:C:228:ALA:CA	2.37	0.41
2:C:218:VAL:C	2:C:220:GLY:N	2.73	0.41
2:C:368:THR:O	2:C:371:LYS:HB2	2.21	0.41
2:C:575:GLN:HA	2:C:662:GLU:CD	2.40	0.41
2:C:588:VAL:HG21	2:C:666:LEU:HD13	2.02	0.41
2:C:657:ASP:HB3	2:C:658:GLY:H	1.46	0.41
2:C:679:PHE:C	2:C:681:GLY:N	2.73	0.41
2:C:773:LEU:O	2:C:777:ILE:HG13	2.20	0.41
2:C:806:LEU:O	2:C:821:GLU:HA	2.20	0.41
2:C:889:HIS:O	2:C:891:GLY:N	2.53	0.41
2:C:918:LEU:HD13	2:C:968:ASP:CA	2.51	0.41
3:D:1101:VAL:HG22	3:D:1424:VAL:O	2.20	0.41
3:D:710:ARG:NH2	3:D:1219:GLU:OE2	2.51	0.41
3:D:1238:MET:HE3	3:D:1257:PRO:HG3	2.02	0.41
3:D:1282:ARG:HG2	3:D:1293:PHE:CB	2.44	0.41
3:D:1394:VAL:HG11	3:D:1398:TRP:HE3	1.84	0.41
3:D:126:VAL:N	3:D:456:MET:CE	2.83	0.41
3:D:99:ALA:HB1	3:D:512:MET:O	2.20	0.41
3:D:767:HIS:O	3:D:769:LEU:N	2.49	0.41
3:D:794:GLN:O	3:D:795:VAL:CB	2.65	0.41
3:D:809:PRO:O	3:D:811:GLU:N	2.53	0.41
3:D:868:TYR:HA	3:D:871:ARG:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:795:VAL:CG2	3:D:904:VAL:HG11	2.45	0.41
3:D:891:GLY:H	3:D:926:LYS:NZ	2.17	0.41
3:D:988:ARG:O	3:D:989:TYR:C	2.59	0.41
1:B:128:HIS:HE1	1:B:131:THR:N	2.18	0.41
2:C:29:ALA:O	2:C:44:ILE:HD13	2.20	0.41
2:C:498:GLN:CB	2:C:503:LEU:H	2.34	0.41
2:C:648:ARG:NH1	2:C:653:ASP:HB3	2.35	0.41
3:D:1113:GLY:O	3:D:1114:THR:O	2.38	0.41
3:D:1456:LYS:O	3:D:1457:ASP:C	2.58	0.41
3:D:469:ASP:C	3:D:471:GLU:N	2.72	0.41
3:D:904:VAL:HG12	3:D:906:GLN:NE2	2.36	0.41
3:D:956:ILE:HD11	3:D:1062:ARG:HB3	2.01	0.41
4:E:47:LYS:CD	4:E:54:LEU:HD23	2.48	0.41
1:B:174:VAL:CA	1:B:201:THR:HG22	2.48	0.41
2:C:1051:GLU:OE2	3:D:752:SER:OG	2.34	0.41
2:C:147:TYR:O	2:C:148:PHE:CB	2.66	0.41
2:C:162:ILE:HG13	2:C:171:TRP:HZ3	1.77	0.41
2:C:202:TYR:O	2:C:203:ASP:OD2	2.39	0.41
2:C:216:ASP:O	2:C:218:VAL:N	2.54	0.41
2:C:454:SER:O	2:C:455:LEU:HB2	2.21	0.41
2:C:460:ARG:N	2:C:468:ARG:O	2.54	0.41
2:C:514:VAL:C	2:C:516:ARG:H	2.23	0.41
2:C:777:ILE:C	2:C:779:GLY:H	2.23	0.41
2:C:550:LEU:HD23	2:C:905:VAL:CG1	2.51	0.41
3:D:1079:LYS:C	3:D:1081:GLY:N	2.73	0.41
3:D:1486:VAL:HG21	4:E:25:LYS:CE	2.50	0.41
3:D:497:GLU:O	3:D:501:ALA:HB2	2.21	0.41
3:D:521:PRO:CD	3:D:522:PRO:HD3	2.51	0.41
3:D:575:GLN:O	3:D:578:VAL:N	2.53	0.41
3:D:590:PRO:HA	3:D:600:LEU:CG	2.50	0.41
3:D:697:GLY:O	3:D:760:ARG:NH1	2.53	0.41
3:D:626:SER:CB	3:D:748:HIS:HA	2.50	0.41
3:D:850:LEU:O	3:D:853:VAL:HB	2.20	0.41
4:E:38:THR:HG22	4:E:39:VAL:H	1.84	0.41
1:A:14:THR:HG22	1:A:14:THR:O	2.21	0.41
1:B:205:VAL:HG13	1:B:209:GLU:OE1	2.20	0.41
2:C:471:TYR:HB3	2:C:534:VAL:HG21	2.03	0.41
2:C:614:ARG:NH1	2:C:623:HIS:HE1	2.19	0.41
2:C:80:GLN:OE1	2:C:122:THR:HG23	2.21	0.41
2:C:892:LEU:HA	2:C:895:TYR:HB2	2.03	0.41
2:C:943:VAL:O	2:C:946:ARG:HB3	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:959:PRO:HA	2:C:962:GLN:NE2	2.36	0.41
3:D:1011:PHE:CE2	3:D:1022:VAL:HG11	2.55	0.41
3:D:1141:GLU:OE1	3:D:1168:LEU:HD11	2.20	0.41
3:D:1170:ASP:C	3:D:1172:HIS:H	2.24	0.41
3:D:1321:ALA:C	3:D:1323:GLN:N	2.74	0.41
3:D:659:LYS:O	3:D:662:GLU:HB3	2.20	0.41
2:C:969:LEU:CD1	3:D:952:ASP:H	2.24	0.41
1:A:220:GLU:HA	1:A:223:ASN:HD22	1.85	0.41
1:A:43:ILE:O	1:A:46:SER:N	2.54	0.41
2:C:137:VAL:HG23	2:C:393:GLN:HG3	2.03	0.41
2:C:253:ALA:C	2:C:255:ALA:H	2.24	0.41
2:C:34:VAL:HG13	2:C:38:LYS:HG3	2.00	0.41
2:C:427:VAL:HG12	2:C:428:ARG:N	2.35	0.41
2:C:598:GLU:HG3	2:C:614:ARG:CZ	2.51	0.41
2:C:695:LEU:O	2:C:696:LYS:C	2.59	0.41
2:C:769:PRO:O	2:C:770:GLU:HB2	2.21	0.41
2:C:976:ASP:C	2:C:978:ARG:H	2.23	0.41
3:D:1007:VAL:C	3:D:1009:ASN:H	2.24	0.41
3:D:1017:PHE:O	3:D:1018:ASN:C	2.58	0.41
3:D:1132:LEU:HD13	3:D:1184:ARG:NH1	2.20	0.41
3:D:1137:ARG:N	3:D:1137:ARG:HD2	2.35	0.41
2:C:1052:MET:CE	3:D:748:HIS:HB3	2.50	0.41
3:D:776:GLU:H	3:D:776:GLU:HG2	1.47	0.41
3:D:989:TYR:O	3:D:991:GLN:N	2.53	0.41
4:E:26:ARG:CZ	4:E:67:GLU:OE2	2.68	0.41
4:E:75:PHE:N	4:E:75:PHE:CD1	2.89	0.41
1:A:212:ASN:O	1:A:213:GLN:C	2.59	0.41
1:B:127:LEU:O	1:B:129:ILE:HG12	2.20	0.41
1:B:205:VAL:CG1	1:B:206:THR:N	2.84	0.41
1:B:40:LEU:O	1:B:44:LEU:N	2.42	0.41
2:C:13:ILE:HG23	2:C:14:PRO:N	2.36	0.41
2:C:149:THR:CG2	2:C:150:PRO:HD2	2.50	0.41
2:C:313:LEU:HA	2:C:319:GLY:HA2	2.03	0.41
2:C:352:ALA:C	2:C:355:VAL:HG12	2.41	0.41
2:C:361:MET:O	2:C:362:GLY:O	2.39	0.41
2:C:445:GLU:HB3	2:C:446:GLY:H	1.67	0.41
2:C:611:ILE:HD11	2:C:641:PRO:CB	2.51	0.41
2:C:816:LYS:HD2	2:C:817:PRO:HG2	2.03	0.41
2:C:841:ASN:ND2	2:C:842:ARG:N	2.69	0.41
2:C:432:ARG:CZ	3:D:1048:PRO:O	2.68	0.41
3:D:1093:TYR:CE2	3:D:1097:LYS:HD2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1151:ARG:N	3:D:1162:GLU:HG3	2.35	0.41
3:D:1302:GLU:C	3:D:1303:TYR:CD1	2.94	0.41
3:D:1382:THR:O	3:D:1383:ASP:C	2.58	0.41
3:D:1455:LYS:O	3:D:1456:LYS:HG2	2.21	0.41
3:D:631:ILE:HG21	3:D:745:MET:CE	2.47	0.41
3:D:701:LEU:HG	3:D:763:MET:CE	2.50	0.41
3:D:710:ARG:C	3:D:712:GLY:H	2.24	0.41
3:D:816:TYR:HA	3:D:832:ARG:HH22	1.86	0.41
3:D:879:ARG:CG	3:D:879:ARG:NH1	2.83	0.41
3:D:930:LEU:HD12	3:D:930:LEU:O	2.21	0.41
1:A:198:ARG:HH22	2:C:932:GLU:CD	2.17	0.41
1:B:16:GLN:CB	1:B:20:TYR:HB3	2.51	0.41
2:C:152:PRO:HD2	2:C:158:TYR:HE2	1.84	0.41
2:C:440:PRO:CD	2:C:455:LEU:N	2.80	0.41
2:C:705:ILE:CD1	2:C:705:ILE:N	2.84	0.41
2:C:750:LYS:HG2	2:C:753:ASP:OD1	2.21	0.41
3:D:1107:VAL:HG23	3:D:1221:VAL:HG23	2.03	0.41
3:D:1323:GLN:H	3:D:1324:PRO:CD	2.32	0.41
3:D:558:LEU:C	3:D:560:GLN:N	2.73	0.41
3:D:782:SER:HA	3:D:786:ILE:HD11	2.03	0.41
3:D:976:GLN:C	3:D:978:TYR:N	2.71	0.41
4:E:62:THR:O	4:E:63:TRP:C	2.58	0.41
1:A:88:ARG:O	1:A:89:PHE:HD1	2.05	0.40
1:B:32:PHE:HA	1:B:35:THR:CB	2.51	0.40
1:B:49:PRO:HB3	1:B:146:ARG:HH21	1.84	0.40
2:C:1049:LEU:C	2:C:1051:GLU:H	2.24	0.40
2:C:1052:MET:HE3	2:C:1056:LYS:NZ	2.35	0.40
2:C:151:ASP:N	2:C:157:ARG:HA	2.32	0.40
2:C:162:ILE:N	2:C:162:ILE:CD1	2.84	0.40
2:C:184:MET:CE	2:C:196:LEU:HD22	2.51	0.40
2:C:25:SER:O	2:C:28:LYS:HG2	2.20	0.40
2:C:566:THR:O	2:C:568:ALA:N	2.53	0.40
2:C:584:GLU:C	2:C:586:ARG:N	2.74	0.40
2:C:653:ASP:CG	2:C:653:ASP:O	2.60	0.40
2:C:692:GLU:O	2:C:695:LEU:N	2.54	0.40
2:C:935:GLY:O	2:C:936:VAL:C	2.60	0.40
3:D:1102:ALA:C	3:D:1103:HIS:O	2.59	0.40
3:D:1145:TYR:HA	3:D:1171:VAL:HG21	2.02	0.40
3:D:675:ARG:CZ	3:D:675:ARG:HB2	2.50	0.40
3:D:829:VAL:O	3:D:830:ALA:CB	2.69	0.40
1:A:187:GLY:HA3	1:A:192:LEU:HD11	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:223:ASN:O	1:B:224:TYR:C	2.60	0.40
2:C:1008:ARG:NH2	2:C:1020:PRO:CB	2.83	0.40
2:C:102:HIS:HB3	2:C:103:LYS:H	1.59	0.40
2:C:115:LEU:CD1	2:C:116:GLY:N	2.65	0.40
2:C:216:ASP:C	2:C:218:VAL:H	2.24	0.40
2:C:222:LEU:O	2:C:223:ASP:C	2.60	0.40
2:C:734:LEU:HG	2:C:734:LEU:H	1.68	0.40
2:C:881:ASN:ND2	3:D:1034:GLN:CG	2.85	0.40
3:D:1066:THR:O	3:D:1067:VAL:C	2.59	0.40
3:D:1329:ALA:O	3:D:1330:ILE:O	2.39	0.40
3:D:557:LEU:O	3:D:558:LEU:HG	2.21	0.40
3:D:655:PRO:O	3:D:656:PHE:C	2.58	0.40
3:D:709:HIS:CA	3:D:1227:GLU:HB3	2.51	0.40
4:E:15:SER:O	4:E:18:ARG:N	2.30	0.40
1:A:122:ILE:O	1:A:123:MET:C	2.60	0.40
1:A:127:LEU:O	1:A:129:ILE:HG12	2.20	0.40
1:A:12:THR:HG22	1:A:13:ALA:N	2.36	0.40
1:A:185:ARG:HH21	1:A:194:LYS:CE	2.32	0.40
2:C:66:LEU:HB2	2:C:100:LEU:HB3	2.02	0.40
2:C:124:ASP:OD1	2:C:407:LYS:NZ	2.39	0.40
2:C:182:VAL:CG1	2:C:307:LEU:HD11	2.51	0.40
2:C:342:ASP:OD1	2:C:345:ARG:HD2	2.21	0.40
2:C:462:ASP:O	2:C:463:ALA:C	2.59	0.40
2:C:439:CYS:CB	2:C:468:ARG:NH1	2.84	0.40
2:C:498:GLN:CB	2:C:502:PRO:HA	2.52	0.40
2:C:840:ALA:CA	2:C:846:LYS:HA	2.52	0.40
2:C:949:LYS:C	2:C:951:GLY:N	2.74	0.40
3:D:1107:VAL:CG2	3:D:1215:VAL:HG11	2.43	0.40
3:D:660:LYS:NZ	4:E:58:PRO:HG2	2.36	0.40
3:D:694:VAL:C	3:D:696:HIS:N	2.73	0.40
3:D:733:CYS:O	3:D:737:ASN:N	2.47	0.40
3:D:767:HIS:C	3:D:769:LEU:H	2.24	0.40
3:D:958:GLU:C	3:D:960:LYS:H	2.23	0.40
4:E:57:ASP:HA	4:E:58:PRO:HD3	1.84	0.40
1:A:13:ALA:O	1:B:230:ALA:HB2	2.22	0.40
1:A:147:GLY:HA3	1:A:171:PHE:CZ	2.56	0.40
1:A:178:ALA:HB2	2:C:864:GLY:CA	2.51	0.40
1:A:191:ASP:O	1:A:192:LEU:O	2.39	0.40
1:B:99:LEU:HB3	1:B:114:PHE:HD2	1.86	0.40
1:B:65:PHE:O	1:B:65:PHE:HD1	2.05	0.40
1:B:91:ASP:HA	1:B:92:PRO:HD3	1.96	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:207:LEU:HG	2:C:208:VAL:N	2.36	0.40
2:C:336:VAL:O	2:C:338:GLU:N	2.55	0.40
2:C:533:ASP:O	2:C:535:SER:N	2.54	0.40
2:C:552:HIS:O	2:C:553:ASP:C	2.59	0.40
2:C:729:LEU:CD1	2:C:791:ARG:NH2	2.85	0.40
2:C:750:LYS:CE	2:C:753:ASP:OD2	2.70	0.40
2:C:854:PRO:C	2:C:856:GLU:N	2.74	0.40
2:C:860:HIS:HD2	2:C:977:GLY:CA	2.34	0.40
2:C:875:GLY:CA	2:C:879:ARG:HD2	2.50	0.40
2:C:895:TYR:CD1	2:C:991:GLN:NE2	2.89	0.40
2:C:916:GLU:O	2:C:919:ALA:N	2.55	0.40
3:D:1153:VAL:HG11	3:D:1174:LEU:HD21	2.03	0.40
3:D:1258:ARG:C	3:D:1260:ILE:N	2.75	0.40
3:D:1457:ASP:OD1	3:D:1459:LEU:N	2.52	0.40
3:D:1466:VAL:O	3:D:1469:GLY:CA	2.70	0.40
3:D:776:GLU:HB3	3:D:912:LYS:HE2	2.02	0.40
3:D:948:THR:HB	3:D:949:ILE:H	1.68	0.40
2:C:969:LEU:HD13	3:D:952:ASP:OD1	2.21	0.40
4:E:81:PRO:CG	4:E:84:ARG:HD2	2.49	0.40
1:A:41:ARG:HD3	1:A:177:VAL:O	2.22	0.40
1:B:175:ARG:O	1:B:176:ARG:CB	2.69	0.40
1:B:178:ALA:CB	1:B:198:ARG:HE	2.28	0.40
2:C:1107:ASN:OD1	2:C:1107:ASN:O	2.40	0.40
2:C:535:SER:HA	2:C:536:PRO:HD3	1.91	0.40
2:C:580:MET:HB2	2:C:584:GLU:OE2	2.21	0.40
2:C:611:ILE:O	2:C:611:ILE:HG22	2.21	0.40
2:C:670:GLN:OE1	2:C:699:PHE:C	2.60	0.40
2:C:9:ILE:HD13	2:C:494:TYR:CE1	2.57	0.40
3:D:1232:PRO:HB3	3:D:1361:VAL:CG1	2.51	0.40
3:D:1192:LEU:HD21	3:D:1369:GLU:CA	2.52	0.40
3:D:1372:VAL:CG2	3:D:1375:MET:HE3	2.49	0.40
3:D:1425:THR:C	3:D:1427:SER:N	2.75	0.40
3:D:1431:THR:O	3:D:1432:LYS:CG	2.68	0.40
3:D:121:THR:CB	3:D:461:ILE:HD11	2.51	0.40
3:D:571:LYS:O	3:D:573:MET:N	2.53	0.40
3:D:625:TYR:O	3:D:652:LEU:HD12	2.22	0.40
3:D:77:ALA:C	3:D:79:GLU:H	2.25	0.40
3:D:885:ILE:HD13	3:D:937:TYR:CD2	2.55	0.40
2:C:1078:GLU:CD	4:E:32:ARG:HH12	2.25	0.40
4:E:38:THR:CG2	4:E:63:TRP:HZ3	2.34	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	222/314 (71%)	111 (50%)	61 (28%)	50 (22%)	0	0
1	B	228/314 (73%)	123 (54%)	62 (27%)	43 (19%)	0	1
2	C	1111/1118 (99%)	591 (53%)	277 (25%)	243 (22%)	0	0
3	D	1126/1264 (89%)	588 (52%)	291 (26%)	247 (22%)	0	0
4	E	96/99 (97%)	50 (52%)	24 (25%)	22 (23%)	0	0
All	All	2783/3109 (90%)	1463 (53%)	715 (26%)	605 (22%)	0	0

All (605) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	11	PHE
1	A	19	HIS
1	A	26	GLU
1	A	59	GLU
1	A	73	GLU
1	A	92	PRO
1	A	105	GLY
1	A	107	LYS
1	A	113	ASP
1	A	125	PRO
1	A	143	ARG
1	A	144	VAL
1	A	153	ALA
1	A	158	ILE
1	A	162	ILE
1	A	176	ARG
1	A	187	GLY
1	A	192	LEU
1	A	201	THR
1	B	4	SER
1	B	5	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	6	LEU
1	B	26	GLU
1	B	60	ASP
1	B	62	LEU
1	B	63	HIS
1	B	75	VAL
1	B	96	SER
1	B	126	ASP
1	B	138	LEU
1	B	156	HIS
1	B	158	ILE
1	B	160	ASP
1	B	161	ARG
1	B	176	ARG
1	B	204	SER
1	B	224	TYR
2	C	31	GLN
2	C	32	ALA
2	C	33	ASP
2	C	36	PRO
2	C	44	ILE
2	C	77	PRO
2	C	153	ALA
2	C	157	ARG
2	C	204	GLN
2	C	216	ASP
2	C	258	PHE
2	C	261	LEU
2	C	268	ASP
2	C	269	LEU
2	C	276	LYS
2	C	283	VAL
2	C	287	GLY
2	C	290	LEU
2	C	295	ASP
2	C	325	ILE
2	C	360	VAL
2	C	361	MET
2	C	375	SER
2	C	388	ARG
2	C	402	SER
2	C	416	GLY

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	426	ASP
2	C	427	VAL
2	C	432	ARG
2	C	449	ILE
2	C	450	GLY
2	C	460	ARG
2	C	461	VAL
2	C	462	ASP
2	C	467	ILE
2	C	468	ARG
2	C	469	THR
2	C	476	ASN
2	C	477	GLY
2	C	479	VAL
2	C	480	THR
2	C	484	VAL
2	C	488	ALA
2	C	489	SER
2	C	495	THR
2	C	496	ILE
2	C	502	PRO
2	C	517	ARG
2	C	526	PRO
2	C	528	GLU
2	C	568	ALA
2	C	569	VAL
2	C	573	ARG
2	C	575	GLN
2	C	600	ASP
2	C	602	GLU
2	C	603	VAL
2	C	604	VAL
2	C	606	VAL
2	C	613	VAL
2	C	615	TYR
2	C	629	ALA
2	C	636	ALA
2	C	654	LEU
2	C	660	ALA
2	C	677	MET
2	C	680	ASP
2	C	700	TYR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	715	THR
2	C	730	SER
2	C	734	LEU
2	C	762	LYS
2	C	788	THR
2	C	791	ARG
2	C	796	GLU
2	C	811	PRO
2	C	821	GLU
2	C	832	LYS
2	C	837	ASP
2	C	840	ALA
2	C	876	VAL
2	C	881	ASN
2	C	887	GLU
2	C	936	VAL
2	C	943	VAL
2	C	973	VAL
2	C	992	MET
2	C	993	PHE
2	C	1001	VAL
2	C	1018	GLN
2	C	1021	LEU
2	C	1022	GLY
2	C	1034	GLU
2	C	1055	ILE
2	C	1080	SER
2	C	1104	GLU
2	C	1109	VAL
3	D	28	LYS
3	D	83	SER
3	D	84	ILE
3	D	85	VAL
3	D	86	ARG
3	D	93	ILE
3	D	98	PRO
3	D	104	PHE
3	D	112	ILE
3	D	113	ALA
3	D	127	LEU
3	D	130	ASN
3	D	133	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	137	PRO
3	D	143	ASP
3	D	467	GLU
3	D	468	LEU
3	D	483	HIS
3	D	509	PRO
3	D	511	TRP
3	D	512	MET
3	D	513	ILE
3	D	515	GLU
3	D	539	ASP
3	D	564	GLU
3	D	583	ASP
3	D	584	ASN
3	D	587	ARG
3	D	610	LYS
3	D	638	LYS
3	D	657	LEU
3	D	658	LEU
3	D	680	GLN
3	D	682	ASP
3	D	689	ASP
3	D	705	ALA
3	D	709	HIS
3	D	722	GLU
3	D	725	SER
3	D	740	PHE
3	D	748	HIS
3	D	753	SER
3	D	774	SER
3	D	783	ARG
3	D	795	VAL
3	D	824	ASN
3	D	827	ILE
3	D	828	VAL
3	D	835	SER
3	D	838	ARG
3	D	839	LEU
3	D	854	ALA
3	D	856	GLY
3	D	869	LEU
3	D	875	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	892	ASP
3	D	902	MET
3	D	908	LYS
3	D	969	ARG
3	D	1015	TYR
3	D	1018	ASN
3	D	1028	ALA
3	D	1052	THR
3	D	1075	HIS
3	D	1076	GLY
3	D	1089	ALA
3	D	1111	ASP
3	D	1112	CYS
3	D	1114	THR
3	D	1137	ARG
3	D	1197	ARG
3	D	1203	LYS
3	D	1206	GLY
3	D	1268	PRO
3	D	1270	ALA
3	D	1271	LYS
3	D	1279	GLY
3	D	1281	VAL
3	D	1282	ARG
3	D	1307	LYS
3	D	1312	LEU
3	D	1313	VAL
3	D	1315	ASP
3	D	1317	ASP
3	D	1320	GLU
3	D	1322	GLY
3	D	1323	GLN
3	D	1325	LEU
3	D	1339	LYS
3	D	1364	HIS
3	D	1392	GLY
3	D	1403	LEU
3	D	1442	ASN
3	D	1472	ILE
3	D	1482	ARG
4	E	29	GLN
4	E	31	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	E	34	ARG
4	E	35	PHE
4	E	43	GLU
4	E	51	LEU
4	E	55	TYR
4	E	80	VAL
4	E	94	PRO
1	A	14	THR
1	A	30	ARG
1	A	90	LEU
1	A	96	SER
1	A	123	MET
1	A	139	TYR
1	A	161	ARG
1	A	182	GLU
1	A	190	THR
1	A	200	TRP
1	A	224	TYR
1	B	35	THR
1	B	47	SER
1	B	105	GLY
1	B	107	LYS
1	B	116	PRO
1	B	119	ASP
1	B	120	VAL
1	B	130	ALA
1	B	152	PRO
1	B	195	LEU
1	B	196	THR
2	C	10	ARG
2	C	23	VAL
2	C	42	VAL
2	C	59	LYS
2	C	90	TYR
2	C	148	PHE
2	C	155	PRO
2	C	168	ARG
2	C	262	ALA
2	C	303	PHE
2	C	309	TYR
2	C	315	ALA
2	C	319	GLY

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	320	HIS
2	C	322	VAL
2	C	362	GLY
2	C	435	TYR
2	C	444	PRO
2	C	474	VAL
2	C	482	GLU
2	C	524	VAL
2	C	529	VAL
2	C	534	VAL
2	C	546	LEU
2	C	567	GLN
2	C	581	THR
2	C	587	VAL
2	C	643	VAL
2	C	657	ASP
2	C	663	GLU
2	C	713	ARG
2	C	728	HIS
2	C	731	GLU
2	C	769	PRO
2	C	777	ILE
2	C	779	GLY
2	C	812	GLY
2	C	874	LEU
2	C	886	LEU
2	C	922	PHE
2	C	938	LYS
2	C	945	ALA
2	C	969	LEU
2	C	970	GLY
2	C	975	TYR
2	C	977	GLY
2	C	1002	GLU
2	C	1025	ALA
2	C	1059	ASP
2	C	1074	GLU
2	C	1110	ASP
3	D	9	ARG
3	D	22	SER
3	D	29	PRO
3	D	72	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	76	CYS
3	D	78	VAL
3	D	87	ARG
3	D	89	ARG
3	D	95	LEU
3	D	111	LYS
3	D	126	VAL
3	D	144	ALA
3	D	150	ARG
3	D	453	ASP
3	D	561	GLY
3	D	567	ILE
3	D	590	PRO
3	D	613	ARG
3	D	617	ASN
3	D	643	GLY
3	D	668	PRO
3	D	730	PRO
3	D	733	CYS
3	D	747	VAL
3	D	773	ALA
3	D	784	ASP
3	D	799	LYS
3	D	806	PHE
3	D	822	ALA
3	D	825	ALA
3	D	855	HIS
3	D	858	LEU
3	D	917	GLN
3	D	935	LYS
3	D	946	GLY
3	D	983	LEU
3	D	995	LEU
3	D	1070	TYR
3	D	1103	HIS
3	D	1109	GLU
3	D	1130	ARG
3	D	1151	ARG
3	D	1155	ALA
3	D	1156	LEU
3	D	1200	VAL
3	D	1220	ALA

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	1272	ALA
3	D	1291	SER
3	D	1304	LYS
3	D	1316	GLY
3	D	1324	PRO
3	D	1330	ILE
3	D	1354	LYS
3	D	1366	LYS
3	D	1367	HIS
3	D	1408	ILE
3	D	1470	ARG
4	E	16	LYS
4	E	70	THR
1	A	20	TYR
1	A	48	ILE
1	A	112	VAL
1	A	160	ASP
1	A	199	ILE
1	B	90	LEU
1	B	207	PRO
2	C	55	GLU
2	C	75	ASP
2	C	103	LYS
2	C	156	GLY
2	C	203	ASP
2	C	210	GLU
2	C	264	PRO
2	C	328	LEU
2	C	420	ARG
2	C	457	ALA
2	C	463	ALA
2	C	512	ARG
2	C	527	GLU
2	C	531	PHE
2	C	551	GLU
2	C	555	ALA
2	C	610	ARG
2	C	692	GLU
2	C	732	ALA
2	C	738	ASP
2	C	857	ASP
2	C	873	PRO

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	875	GLY
2	C	966	LEU
2	C	986	PRO
2	C	998	TYR
2	C	1043	TYR
2	C	1061	GLU
2	C	1072	LYS
2	C	1105	LYS
2	C	1112	PHE
2	C	1113	GLU
3	D	11	ALA
3	D	125	GLN
3	D	486	ARG
3	D	507	ASN
3	D	543	LEU
3	D	652	LEU
3	D	711	LEU
3	D	714	GLN
3	D	734	GLU
3	D	768	ASN
3	D	793	THR
3	D	809	PRO
3	D	816	TYR
3	D	840	LYS
3	D	862	ASP
3	D	893	GLU
3	D	905	PRO
3	D	953	ASP
3	D	959	GLU
3	D	968	ASP
3	D	990	ASP
3	D	1090	ASP
3	D	1152	GLU
3	D	1251	ASP
3	D	1252	ILE
3	D	1283	ILE
3	D	1309	ALA
3	D	1319	VAL
3	D	1426	LYS
3	D	1452	ILE
3	D	1488	ASP
4	E	30	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	67	THR
1	A	119	ASP
1	A	126	ASP
1	A	128	HIS
1	A	152	PRO
1	B	15	THR
1	B	202	ASP
2	C	9	ILE
2	C	51	THR
2	C	58	ASP
2	C	66	LEU
2	C	105	THR
2	C	149	THR
2	C	181	VAL
2	C	187	ASN
2	C	232	GLU
2	C	324	ASP
2	C	326	ASP
2	C	380	ALA
2	C	425	PHE
2	C	431	HIS
2	C	499	ALA
2	C	626	ARG
2	C	685	GLU
2	C	699	PHE
2	C	781	LYS
2	C	890	LEU
2	C	894	GLY
2	C	1012	PRO
2	C	1044	GLY
3	D	522	PRO
3	D	599	PRO
3	D	629	SER
3	D	639	LEU
3	D	679	ARG
3	D	685	ASP
3	D	695	ILE
3	D	737	ASN
3	D	805	ALA
3	D	823	LEU
3	D	829	VAL
3	D	830	ALA

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	904	VAL
3	D	906	GLN
3	D	907	GLU
3	D	961	GLN
3	D	1009	ASN
3	D	1031	ASN
3	D	1036	ARG
3	D	1060	SER
3	D	1061	PHE
3	D	1138	SER
3	D	1161	GLU
3	D	1207	TYR
3	D	1327	ARG
3	D	1344	VAL
4	E	2	ALA
4	E	12	MET
4	E	49	ARG
4	E	56	ASP
4	E	95	THR
1	A	64	GLU
1	A	111	ALA
1	A	118	ALA
1	A	122	ILE
1	A	134	GLU
1	A	189	ARG
1	A	196	THR
1	B	37	GLY
1	B	159	LYS
2	C	12	VAL
2	C	15	LEU
2	C	39	ARG
2	C	46	ALA
2	C	112	GLU
2	C	182	VAL
2	C	617	ASP
2	C	656	ALA
2	C	716	LYS
2	C	793	PRO
2	C	858	MET
2	C	877	PRO
2	C	898	GLY
2	C	921	ALA

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	1077	PRO
3	D	94	GLU
3	D	132	TYR
3	D	134	VAL
3	D	145	VAL
3	D	540	LEU
3	D	558	LEU
3	D	572	ARG
3	D	582	ILE
3	D	644	LEU
3	D	654	LYS
3	D	673	ALA
3	D	861	GLN
3	D	894	LYS
3	D	1008	PHE
3	D	1321	ALA
3	D	1453	ALA
3	D	1476	THR
4	E	71	GLY
4	E	72	ARG
4	E	93	TYR
1	B	42	ARG
1	B	115	THR
1	B	128	HIS
1	B	134	GLU
2	C	35	PRO
2	C	376	ARG
2	C	856	GLU
2	C	1000	MET
2	C	1010	THR
2	C	1107	ASN
3	D	542	ASP
3	D	609	GLY
3	D	640	HIS
3	D	667	ALA
3	D	1332	PRO
3	D	1396	GLU
4	E	62	THR
1	A	109	VAL
1	A	203	GLY
2	C	113	VAL
2	C	164	PRO

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	166	PRO
2	C	337	GLY
2	C	478	VAL
2	C	520	GLU
2	C	982	PRO
2	C	1011	GLY
3	D	771	SER
3	D	864	VAL
3	D	1043	GLY
3	D	1081	GLY
3	D	1381	VAL
1	B	24	VAL
1	B	125	PRO
1	B	136	GLY
2	C	54	ILE
2	C	144	PRO
2	C	819	VAL
3	D	1064	GLY
2	C	470	PRO
2	C	972	VAL
3	D	719	VAL
3	D	900	ILE
3	D	1267	ARG
2	C	535	SER
2	C	951	GLY
2	C	959	PRO
2	C	1079	PRO
3	D	136	ASP
3	D	1050	GLY
3	D	1222	GLY
4	E	41	GLU
1	A	136	GLY
1	B	71	VAL
2	C	443	THR
2	C	931	GLY
3	D	634	GLY
3	D	845	ASN
3	D	890	VAL

### 5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	189/271 (70%)	161 (85%)	28 (15%)	3	13
1	B	190/271 (70%)	169 (89%)	21 (11%)	6	23
2	C	870/935 (93%)	770 (88%)	100 (12%)	5	22
3	D	782/1035 (76%)	671 (86%)	111 (14%)	3	15
4	E	67/88 (76%)	62 (92%)	5 (8%)	13	39
All	All	2098/2600 (81%)	1833 (87%)	265 (13%)	4	19

All (265) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	16	GLN
1	A	25	LEU
1	A	26	GLU
1	A	27	PRO
1	A	30	ARG
1	A	41	ARG
1	A	57	TYR
1	A	63	HIS
1	A	67	THR
1	A	74	ASP
1	A	77	GLU
1	A	91	ASP
1	A	97	THR
1	A	101	LEU
1	A	110	ARG
1	A	123	MET
1	A	126	ASP
1	A	132	LEU
1	A	142	VAL
1	A	143	ARG
1	A	144	VAL
1	A	192	LEU
1	A	195	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	196	THR
1	A	197	LEU
1	A	200	TRP
1	A	213	GLN
1	A	222	LEU
1	B	19	HIS
1	B	20	TYR
1	B	25	LEU
1	B	38	ASN
1	B	41	ARG
1	B	44	LEU
1	B	51	THR
1	B	56	VAL
1	B	57	TYR
1	B	89	PHE
1	B	90	LEU
1	B	94	MET
1	B	123	MET
1	B	132	LEU
1	B	151	VAL
1	B	167	VAL
1	B	171	PHE
1	B	183	ASP
1	B	188	GLN
1	B	191	ASP
1	B	199	ILE
2	C	13	ILE
2	C	34	VAL
2	C	36	PRO
2	C	52	PHE
2	C	56	GLU
2	C	67	ASP
2	C	70	GLU
2	C	75	ASP
2	C	95	TYR
2	C	100	LEU
2	C	104	ASP
2	C	115	LEU
2	C	126	SER
2	C	129	ILE
2	C	135	VAL
2	C	138	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	142	ARG
2	C	147	TYR
2	C	157	ARG
2	C	158	TYR
2	C	163	ILE
2	C	176	VAL
2	C	194	VAL
2	C	198	ARG
2	C	203	ASP
2	C	214	TYR
2	C	232	GLU
2	C	251	ASP
2	C	254	LEU
2	C	258	PHE
2	C	261	LEU
2	C	263	ASP
2	C	267	TYR
2	C	285	LEU
2	C	303	PHE
2	C	304	LEU
2	C	306	THR
2	C	335	THR
2	C	344	PHE
2	C	351	LEU
2	C	356	ARG
2	C	393	GLN
2	C	399	ASN
2	C	407	LYS
2	C	425	PHE
2	C	433	THR
2	C	434	HIS
2	C	435	TYR
2	C	438	ILE
2	C	445	GLU
2	C	461	VAL
2	C	479	VAL
2	C	502	PRO
2	C	526	PRO
2	C	534	VAL
2	C	559	LEU
2	C	575	GLN
2	C	603	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	630	ARG
2	C	633	GLN
2	C	635	THR
2	C	637	PHE
2	C	672	VAL
2	C	673	LEU
2	C	686	ASP
2	C	688	ILE
2	C	691	SER
2	C	698	ASP
2	C	699	PHE
2	C	705	ILE
2	C	710	ILE
2	C	714	ASP
2	C	723	THR
2	C	739	GLU
2	C	743	VAL
2	C	758	ARG
2	C	764	GLU
2	C	803	ARG
2	C	810	ASP
2	C	815	LEU
2	C	837	ASP
2	C	839	LEU
2	C	841	ASN
2	C	846	LYS
2	C	852	ILE
2	C	859	PRO
2	C	866	PRO
2	C	881	ASN
2	C	882	LEU
2	C	888	THR
2	C	892	LEU
2	C	924	LEU
2	C	981	GLU
2	C	1005	MET
2	C	1013	TYR
2	C	1018	GLN
2	C	1027	PHE
2	C	1031	ARG
2	C	1043	TYR
2	C	1115	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	5	VAL
3	D	21	TRP
3	D	469	ASP
3	D	502	PHE
3	D	509	PRO
3	D	567	ILE
3	D	576	GLU
3	D	587	ARG
3	D	619	LEU
3	D	640	HIS
3	D	651	GLU
3	D	674	ARG
3	D	678	GLU
3	D	685	ASP
3	D	688	TRP
3	D	691	LEU
3	D	701	LEU
3	D	702	LEU
3	D	722	GLU
3	D	724	GLN
3	D	752	SER
3	D	754	PHE
3	D	762	GLN
3	D	769	LEU
3	D	772	PRO
3	D	776	GLU
3	D	778	LEU
3	D	791	TYR
3	D	794	GLN
3	D	796	ARG
3	D	798	GLU
3	D	834	THR
3	D	851	LEU
3	D	857	LEU
3	D	860	LEU
3	D	876	SER
3	D	879	ARG
3	D	886	VAL
3	D	899	LEU
3	D	904	VAL
3	D	906	GLN
3	D	911	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	914	LEU
3	D	920	LEU
3	D	925	GLU
3	D	931	LEU
3	D	932	ASP
3	D	936	TYR
3	D	941	LEU
3	D	947	ILE
3	D	951	ILE
3	D	953	ASP
3	D	955	VAL
3	D	964	LEU
3	D	971	LEU
3	D	974	ILE
3	D	984	THR
3	D	989	TYR
3	D	1009	ASN
3	D	1031	ASN
3	D	1038	LEU
3	D	1041	MET
3	D	1042	ARG
3	D	1045	MET
3	D	1052	THR
3	D	1057	VAL
3	D	1061	PHE
3	D	1062	ARG
3	D	1068	LEU
3	D	1078	ARG
3	D	1093	TYR
3	D	1103	HIS
3	D	1104	GLU
3	D	1119	SER
3	D	1126	ASP
3	D	1130	ARG
3	D	1134	LEU
3	D	1137	ARG
3	D	1142	SER
3	D	1145	TYR
3	D	1154	GLU
3	D	1161	GLU
3	D	1166	LEU
3	D	1188	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	1190	SER
3	D	1192	LEU
3	D	1194	CYS
3	D	1196	THR
3	D	1207	TYR
3	D	1210	SER
3	D	1213	ARG
3	D	1260	ILE
3	D	1273	VAL
3	D	1274	ILE
3	D	1278	ASP
3	D	1299	PHE
3	D	1304	LYS
3	D	1315	ASP
3	D	1327	ARG
3	D	1332	PRO
3	D	1348	LEU
3	D	1372	VAL
3	D	1373	ARG
3	D	1376	LEU
3	D	1390	LEU
3	D	1399	ASP
3	D	1424	VAL
3	D	1434	TRP
3	D	1447	LEU
3	D	1476	THR
3	D	1483	PHE
4	E	32	ARG
4	E	61	VAL
4	E	75	PHE
4	E	78	ASN
4	E	92	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (71) such sidechains are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	19	HIS
1	A	81	ASN
1	A	128	HIS
1	A	156	HIS
1	A	180	GLN
1	A	212	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	223	ASN
1	A	227	ASN
1	B	38	ASN
1	B	81	ASN
1	B	156	HIS
1	B	188	GLN
1	B	213	GLN
1	B	221	HIS
1	B	223	ASN
2	C	22	GLN
2	C	102	HIS
2	C	141	HIS
2	C	320	HIS
2	C	343	GLN
2	C	393	GLN
2	C	399	ASN
2	C	538	GLN
2	C	545	ASN
2	C	565	GLN
2	C	623	HIS
2	C	632	ASN
2	C	1639	GLN
2	C	671	ASN
2	C	841	ASN
2	C	845	ASN
2	C	860	HIS
2	C	872	ASN
2	C	881	ASN
2	C	884	GLN
2	C	889	HIS
2	C	962	GLN
2	C	991	GLN
2	C	1026	GLN
2	C	1030	GLN
2	C	1107	ASN
3	D	507	ASN
3	D	549	ASN
3	D	551	ASN
3	D	552	ASN
3	D	636	GLN
3	D	640	HIS
3	D	696	HIS

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Mol	Chain	Res	Type
3	D	709	HIS
3	D	724	GLN
3	D	727	GLN
3	D	729	HIS
3	D	756	GLN
3	D	762	GLN
3	D	767	HIS
3	D	768	ASN
3	D	855	HIS
3	D	861	GLN
3	D	897	GLN
3	D	909	ASN
3	D	1018	ASN
3	D	1034	GLN
3	D	1333	HIS
3	D	1353	GLN
3	D	1364	HIS
3	D	1374	GLN
3	D	1393	GLN
3	D	1445	HIS
3	D	1465	ASN
4	E	33	HIS
4	E	59	ASN

### 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 carbohydrates in this entry.

### 5.6 Ligand geometry [i](#)

Of 3 ligands modelled in this entry, 2 are monoatomic - leaving 1 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
5	RFP	C	1640	-	63,63,63	1.26	9 (14%)	94,94,94	0.95	4 (4%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	RFP	C	1640	-	-	13/60/85/85	0/5/5/5

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	C	1640	RFP	O5-C29	3.47	1.48	1.39
5	C	1640	RFP	O4-C11	3.12	1.27	1.21
5	C	1640	RFP	C5-C10	2.99	1.49	1.43
5	C	1640	RFP	C39-N4	2.98	1.52	1.46
5	C	1640	RFP	C8-C9	2.77	1.51	1.43
5	C	1640	RFP	C42-N4	2.22	1.51	1.46
5	C	1640	RFP	C2-C1	2.07	1.43	1.38
5	C	1640	RFP	O6-C27	2.05	1.48	1.43
5	C	1640	RFP	O2-C8	-2.02	1.28	1.35

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	1640	RFP	C34-C26-C25	-2.37	107.15	111.40
5	C	1640	RFP	C5-C10-C9	-2.33	115.41	119.66
5	C	1640	RFP	O12-C4-C10	2.16	124.19	119.00
5	C	1640	RFP	C24-C23-C22	2.12	118.97	115.43

There are no chirality outliers.

All (13) torsion outliers are listed below:



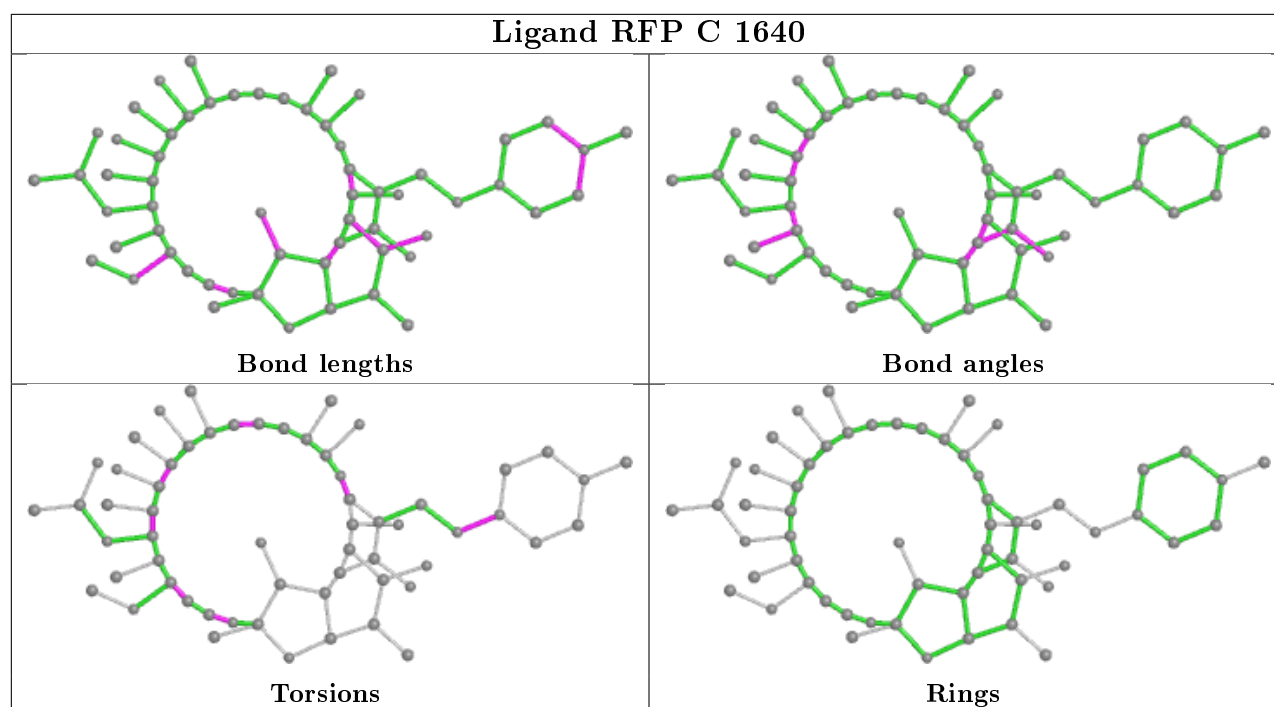
Mol	Chain	Res	Type	Atoms
5	C	1640	RFP	C17-C18-C19-C20
5	C	1640	RFP	C26-C27-C28-C29
5	C	1640	RFP	O6-C27-C28-C29
5	C	1640	RFP	C32-C22-C23-C24
5	C	1640	RFP	C21-C22-C23-C24
5	C	1640	RFP	C32-C22-C23-O9
5	C	1640	RFP	C43-N2-N3-C40
5	C	1640	RFP	C21-C22-C23-O9
5	C	1640	RFP	C43-N2-N3-C41
5	C	1640	RFP	C3-C2-N1-C15
5	C	1640	RFP	C28-C29-O5-C12
5	C	1640	RFP	C33-C24-C25-C26
5	C	1640	RFP	C23-C24-C25-C26

There are no ring outliers.

1 monomer is involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	C	1640	RFP	6	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

The following chains have linkage breaks:

Mol	Chain	Number of breaks
3	D	4

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	D	155:ASP	C	2(U):UNK	N	54.72
1	D	46(U):UNK	C	452:ILE	N	47.08
1	D	10(U):UNK	C	20(U):UNK	N	15.58
1	D	1270:ALA	C	1271:LYS	N	1.06

## 6 Fit of model and data

### 6.1 Protein, DNA and RNA chains

EDS was not executed - this section is therefore empty.

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

EDS was not executed - this section is therefore empty.

### 6.3 Carbohydrates

EDS was not executed - this section is therefore empty.

### 6.4 Ligands

EDS was not executed - this section is therefore empty.

### 6.5 Other polymers

EDS was not executed - this section is therefore empty.