



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 15, 2017 – 08:57 am GMT

PDB ID : 3HMJ
Title : Saccharomyces cerevisiae FAS type I
Authors : Johansson, P.; Mulinacci, B.; Koestler, C.; Vollrath, R.; Oesterhelt, D.; Grininger, M.
Deposited on : 2009-05-29
Resolution : 4.00 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7.2 (RC1), CSD as538be (2017)
Xtriage (Phenix) : 1.9-1692
EDS : trunk28620
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : recalc28972

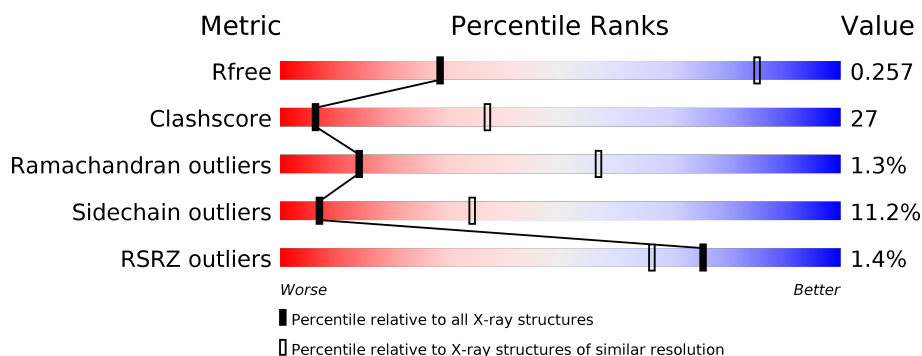
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 4.00 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	100719	1088 (4.40-3.60)
Clashscore	112137	1187 (4.40-3.60)
Ramachandran outliers	110173	1139 (4.40-3.60)
Sidechain outliers	110143	1126 (4.40-3.60)
RSRZ outliers	101464	1099 (4.40-3.60)

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

Mol	Chain	Length	Quality of chain
1	A	1887	<div> <div>2%</div> <div> <div></div> <div>55%</div> <div>32%</div> <div>5%</div> <div>7%</div> </div> </div>
1	B	1887	<div> <div>2%</div> <div> <div></div> <div>55%</div> <div>32%</div> <div>5%</div> <div>7%</div> </div> </div>
1	C	1887	<div> <div>3%</div> <div> <div></div> <div>54%</div> <div>33%</div> <div>5%</div> <div>7%</div> </div> </div>
2	G	2051	<div> <div></div> <div> <div></div> <div>51%</div> <div>40%</div> <div>8%</div> </div> </div>
2	H	2051	<div> <div></div> <div> <div></div> <div>51%</div> <div>40%</div> <div>8%</div> </div> </div>
2	I	2051	<div> <div></div> <div> <div></div> <div>51%</div> <div>40%</div> <div>8%</div> </div> </div>

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
3	CER	C	2748	-	-	-	X

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 88830 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.

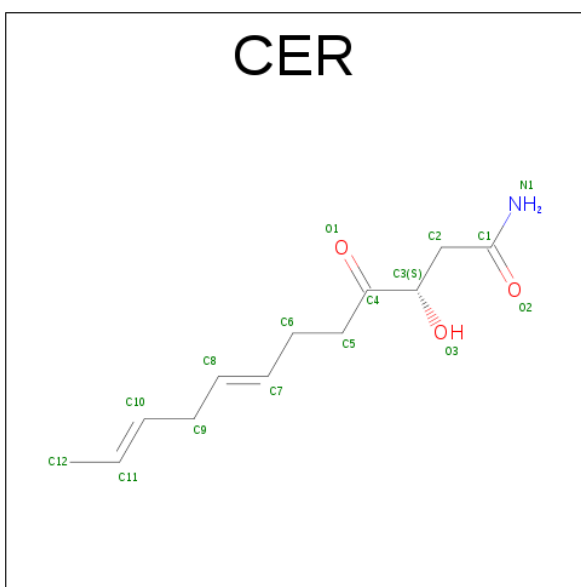
- Molecule 1 is a protein called Fatty acid synthase subunit alpha.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	1750	Total	C	N	O	S	0	0	0
			13572	8594	2292	2637	49			
1	B	1750	Total	C	N	O	S	0	0	0
			13572	8594	2292	2637	49			
1	C	1750	Total	C	N	O	S	0	0	0
			13572	8594	2292	2637	49			

- Molecule 2 is a protein called Fatty acid synthase subunit beta.

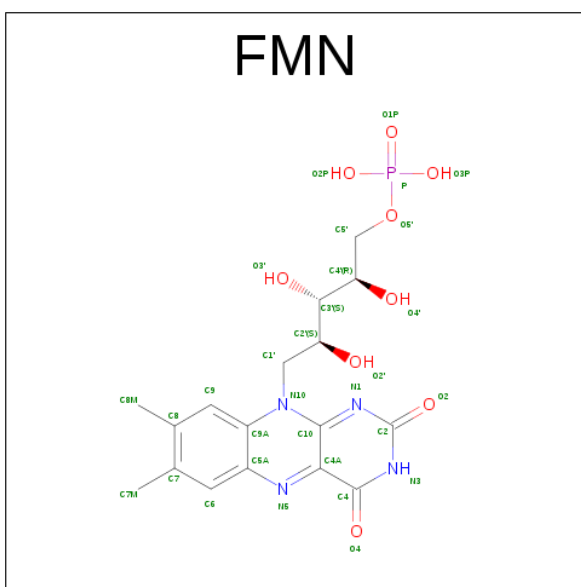
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	G	2033	Total	C	N	O	S	0	0	0
			15995	10253	2660	3026	56			
2	H	2033	Total	C	N	O	S	0	0	0
			15995	10253	2660	3026	56			
2	I	2033	Total	C	N	O	S	0	0	0
			15995	10253	2660	3026	56			

- Molecule 3 is (2S, 3R)-3-HYDROXY-4-OXO-7,10-TRANS,TRANS-DODECADIENTAMIDE (three-letter code: CER) (formula: C₁₂H₁₉NO₃).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
3	A	1	Total	C	N	O	0	0
			12	8	1	3		
3	B	1	Total	C	N	O	0	0
			12	8	1	3		
3	C	1	Total	C	N	O	0	0
			12	8	1	3		

- Molecule 4 is FLAVIN MONONUCLEOTIDE (three-letter code: FMN) (formula: C₁₇H₂₁N₄O₉P).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	G	1	Total	C	N	O	P	0	0
			31	17	4	9	1		

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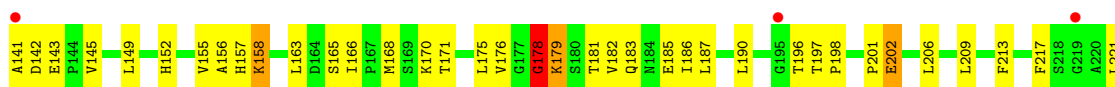
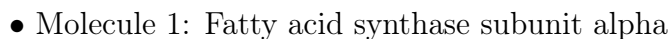
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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	H	1	Total	C	N	O	P	0	0
			31	17	4	9	1		
4	I	1	Total	C	N	O	P	0	0
			31	17	4	9	1		

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

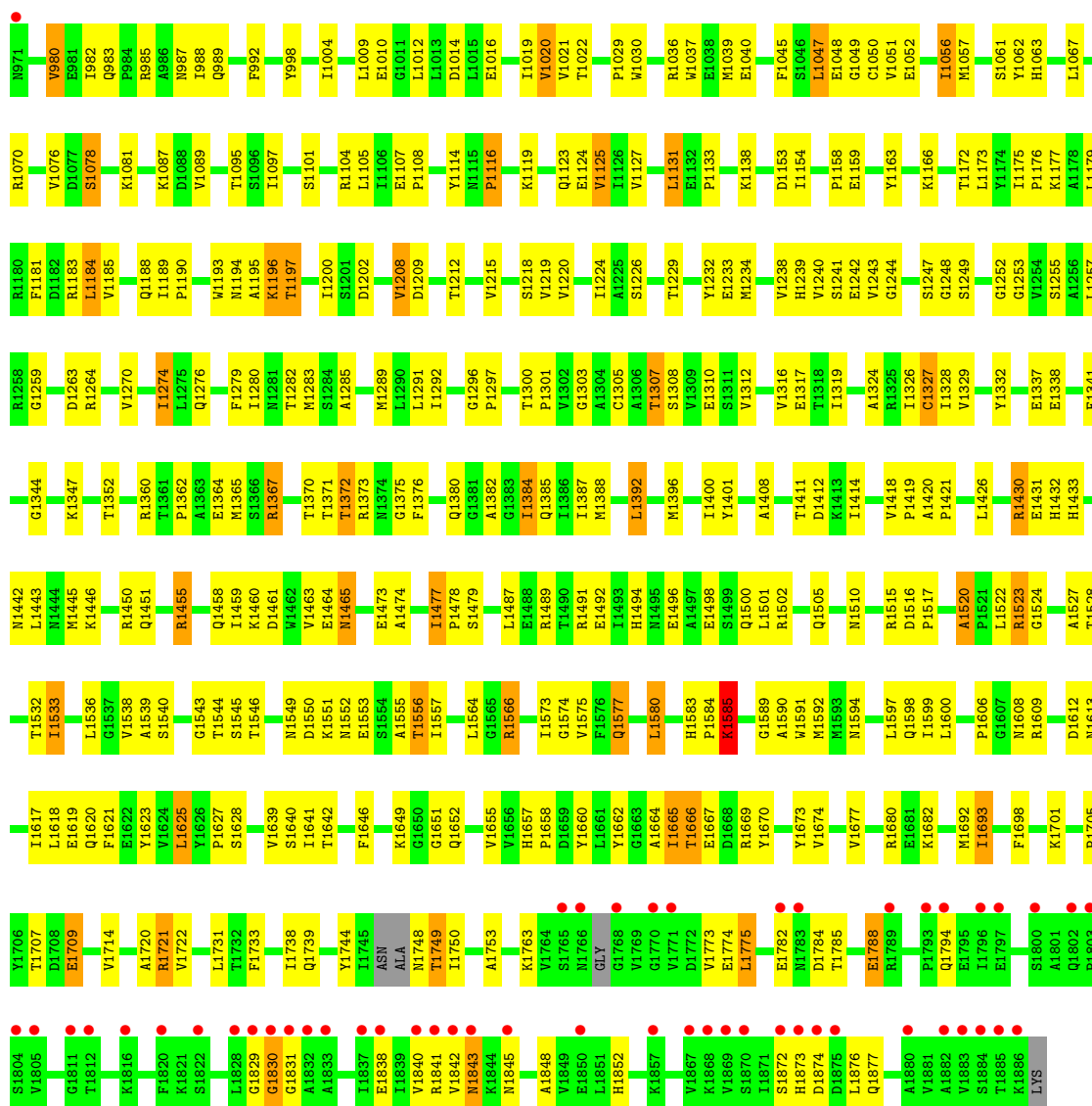
- Chain A: ■ 29% ■ 55% ■ 32% ■ 5% ■ 7%

The visualization displays a sequence of 100 segments, each with a unique ID. The segments are arranged in a grid-like pattern, with some segments having additional labels (e.g., R76, D142, L221, V300, L382, T458, M537, ALA, V671, E780, K674, L781, D675, T680, T681, A683, G689, T794, M795, L796, Q698, T797, M798, T799, L800, R801, C805, R806, K807, T817, R818, V822, T823, L824, R825, K826, S827, P828, T731, L732, I733, F833, G834, D835, R836, Y839, K843, L846, T849, F751, R852, W858, A859, N860, V864, I868, T873, R874). The segments are arranged in a grid-like pattern, with some segments having additional labels (e.g., R76, D142, L221, V300, L382, T458, M537, ALA, V671, E780, K674, L781, D675, T680, T681, A683, G689, T794, M795, L796, Q698, T797, M798, T799, L800, R801, C805, R806, K807, T817, R818, V822, T823, L824, R825, K826, S827, P828, T731, L732, I733, F833, G834, D835, R836, Y839, K843, L846, T849, F751, R852, W858, A859, N860, V864, I868, T873, R874).



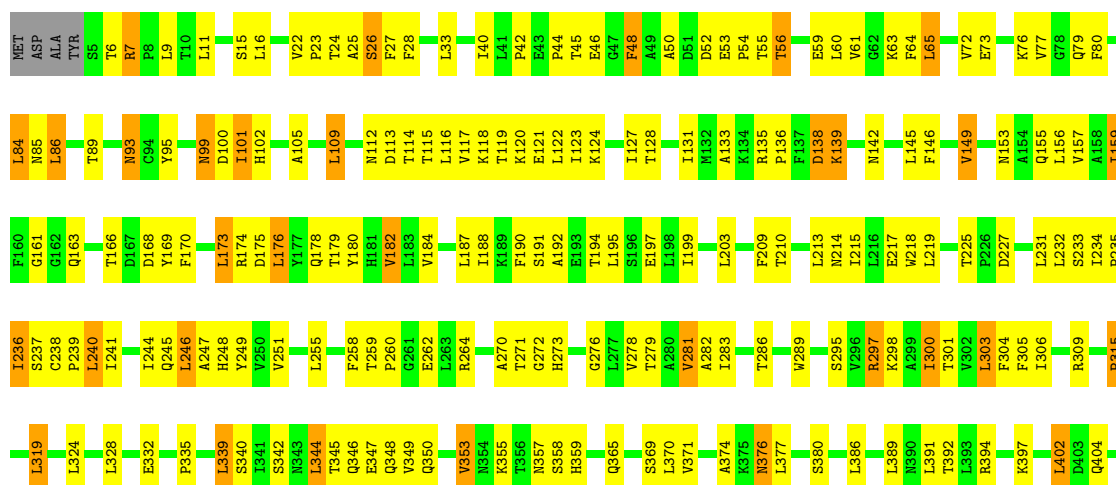




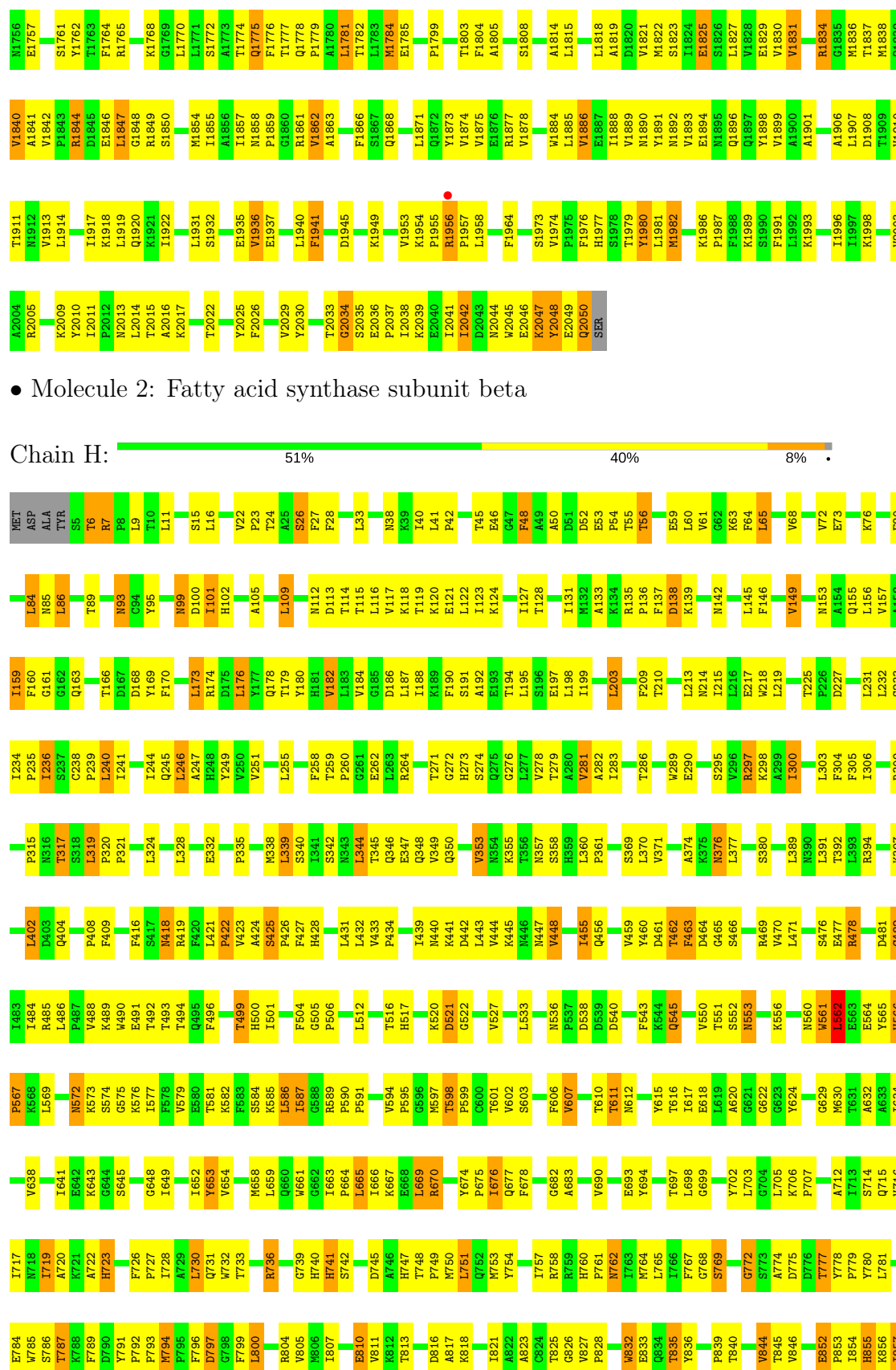


● Molecule 2: Fatty acid synthase subunit beta

Chain G: 51% 40% 8%







E1199	L1040	R952	F868	Y791	G648	S574	F496	P422	L328	L240	Q163	T89	ME1
L1205	E1041	R953	D869	F792	I649	G575	T499	V423	L329	I241	Q166	T89	ASP
K1206	A1042	V954	E770	M794	T727	K576	H500	A424	E332	I244	D167	N93	ALA
L1210	V1043	E955	T871	M794	T728	I577	I501	S425	E332	I244	D167	N93	TTR
L1211	V1044	E956	I872	F796	A729	F578	L502	P426	P335	I246	D168	C94	S5
L1212	D1045	R957	I873	F796	L730	F579	D503	F427	P335	I246	D168	C94	T6
L1213	Q1046	K960	K879	D797	T731	F580	F504	H428	L339	I247	D169	N99	R7
L1214	V1048	S961	L880	F799	T732	T581	G505	S429	S340	I248	D170	D100	P8
L1215	Q1049	K962	L880	F799	T733	K582	G506	H430	S340	I249	D171	D101	L9
L1216	R1050	T963	P881	L800	T734	F583	P506	L431	S342	I250	D172	H101	VAL
L1217	Q1051	L964	P882	L800	T735	S584	G507	L432	S342	I251	D173	H102	L11
L1218	C1052	S965	K887	R804	G737	K585	G508	L433	S343	I252	D174	A105	L16
L1219	I1053	L968	K887	R805	G738	L586	L512	L439	L344	I253	D175	A106	L16
L1220	H1054	I967	I892	R806	G739	I587	L512	L440	L345	I254	D176	A107	L16
L1221	H1055	Q968	I893	R807	G740	G588	L512	L441	L346	I255	D177	A108	L16
L1222	A1129	S969	R894	E810	H741	G589	T516	L442	L347	I256	D178	A109	L16
L1223	T1130	S970	R895	E811	H742	G590	H517	L443	L348	I257	D179	A110	L16
L1224	Q1060	S971	R896	K812	T743	P591	R519	L444	L349	I258	D180	A111	L16
L1225	A1061	L972	A897	K813	T744	L592	K520	L445	L350	I259	D181	A112	L16
L1226	Q1062	L973	D898	T813	T745	L593	K521	L446	L351	I260	D182	A113	L16
L1227	F1063	A979	F899	D816	T746	G596	G524	L447	L352	I261	D183	A114	L16
L1228	T1063	A979	F899	D817	T747	G597	G525	L448	L353	I262	D184	A115	L16
L1229	I1066	Y887	P902	K818	T748	G598	G526	L449	L354	I263	D185	A116	L16
L1230	D1067	Q993	W903	R821	T749	G599	G527	L450	L355	I264	D186	A117	L16
L1231	E1068	Q994	F904	A822	T750	G600	A530	L451	L356	I265	D187	A118	L16
L1232	P1069	F994	A905	A823	T751	G601	G531	L452	L357	I266	D188	A119	L16
L1233	W1149	L995	T906	C824	T752	T754	T532	L453	L358	I267	D189	A120	L16
L1234	R1150	L996	T907	T825	T753	T755	T533	L454	L359	I268	D190	A121	L16
L1235	K1071	Q998	G826	R826	T754	T756	L533	L455	L360	I269	D191	A122	L16
L1236	M1074	Q999	R827	R827	T755	T757	L534	L456	L361	I270	D192	A123	L16
L1237	D1075	I1000	P828	P828	T756	T758	L535	L457	L362	I271	D193	A124	L16
L1238	G1076	D1001	P829	P829	T757	T759	L536	L458	L363	I272	D194	A125	L16
L1239	I1077	H1002	D912	D912	T760	T761	L537	L459	L364	I273	D195	A126	L16
L1240	H1078	F1003	L914	L914	T762	T762	L538	L460	L365	I274	D196	A127	L16
L1241	D1079	L1004	A915	A915	T763	T763	L539	L461	L366	I275	D197	A128	L16
L1242	G1080	S1005	T916	T916	T764	T764	L540	L462	L367	I276	D198	A129	L16
L1243	H1081	I1006	E921	E921	T765	T765	L541	L463	L368	I277	D199	A130	L16
L1244	I1082	P1010	L926	L926	T766	T766	L542	L464	L369	I278	D200	A131	L16
L1245	K1083	M1011	L927	L927	T767	T767	L543	L465	L370	I279	D201	A132	L16
L1246	L1084	Q1012	L928	L928	T768	T768	L544	L466	L371	I280	D202	A133	L16
L1247	L1085	Q1013	L929	L929	T769	T769	L545	L467	L372	I281	D203	A134	L16
L1248	L1086	V1015	L930	L930	T770	T770	L546	L468	L373	I282	D204	A135	L16
L1249	H1087	P1016	I932	I932	T771	T771	L547	L469	L374	I283	D205	A136	L16
L1250	Y1090	F1017	P853	P853	T772	T772	L548	L470	L375	I284	D206	A137	L16
L1251	G1091	P1018	L933	L933	T773	T773	L549	L471	L376	I285	D207	A138	L16
L1252	D1092	P1019	F939	F939	T774	T774	L550	L472	L377	I286	D208	A139	L16
L1253	S1177	V1020	L934	L934	T775	T775	L551	L473	L378	I287	D209	A140	L16
L1254	K1096	L1021	T942	T942	T776	T776	L552	L474	L379	I288	D210	A141	L16
L1255	I1097	R1024	W943	W943	T777	T777	L553	L475	L380	I289	D211	A142	L16
L1256	E1101	E1026	T944	T944	T778	T778	L554	L476	L381	I290	D212	A143	L16
L1257	L1269	F1025	T945	T945	T779	T779	L555	L477	L382	I291	D213	A144	L16
L1258	Y1102	E1027	F946	F946	T780	T780	L556	L478	L383	I292	D214	A145	L16
L1259	F1103	I1027	T947	T947	T781	T781	L557	L479	L384	I293	D215	A146	L16
L1260	V1104	K1031	G948	G948	T782	T782	L558	L480	L385	I294	D216	A147	L16
L1261	V1105	T1196	F949	F949	T783	T783	L559	L481	L386	I295	D217	A148	L16
L1262	P1108	L1103	F950	F950	T784	T784	L560	L482	L387	I296	D218	A149	L16
L1263	P1109	S1198	L951	L951	T785	T785	L561	L483	L388	I297	D219	A150	L16
L1264	Y1266	L1269	F1270	F1270	T786	T786	L562	L484	L389	I298	D220	A151	L16
L1265	E1269	Y1270	F1271	F1271	T787	T787	L563	L485	L390	I299	D221	A152	L16
L1266	D1272	E1273	F1274	F1274	T788	T788	L564	L486	L391	I300	D222	A153	L16
L1267	P1274	L1199	F1275	F1275	T789	T789	L565	L487	L392	I301	D223	A154	L16
L1268	F1275	S1198	L952	L952	T790	T790	L566	L488	L393	I302	D224	A155	L16
L1269	Y1276	L1270	F1277	F1277	T791	T791	L567	L489	L394	I303	D225	A156	L16
L1270	E1277	Y1271	F1278	F1278	T792	T792	L568	L490	L395	I304	D226	A157	L16
L1271	D1278	E1279	F1279	F1279	T793	T793	L569	L491	L396	I305	D227	A158	L16
L1272	P1279	L1271	F1280	F1280	T794	T794	L570	L492	L397	I306	D228	A159	L16
L1273	F1280	S1199	L953	L953	T795	T795	L571	L493	L398	I307	D229	A160	L16
L1274	Y1281	L1272	F1281	F1281	T796	T796	L572	L494	L399	I308	D230	A161	L16
L1275	E1282	Y1272	F1282	F1282	T797	T797	L573	L495	L400	I309	D231	A162	L16
L1276	D1283	E1283	F1283	F1283	T798	T798	L574	L496	L401	I310	D232	A163	L16
L1277	P1284	L1273	F1284	F1284	T799	T799	L575	L497	L402	I311	D233	A164	L16
L1278	F1285	Y1273	F1285	F1285	T800	T800	L576	L498	L403	I312	D234	A165	L16
L1279	E1286	Y1274	F1286	F1286	T801	T801	L577	L499	L404	I313	D235	A166	L16
L1280	D1287	E1287	F1287	F1287	T802	T802	L578	L500	L405	I314	D236	A167	L16
L1281	P1288	L1274	F1288	F1288	T803	T803	L579	L501	L406	I315	D237	A168	L16
L1282	F1289	Y1275	F1289	F1289	T804	T804	L580	L502	L407	I316	D238	A169	L16
L1283	E1290	Y1276	F1290	F1290	T805	T805	L581	L503	L408	I317	D239	A170	L16
L1284	D1291	E1291	F1291	F1291	T806	T806	L582	L504	L409	I318	D240	A171	L16
L1285	P1292	L1275	F1292	F1292	T807	T807	L583	L505	L410	I319	D241	A172	L16
L1286	F1293	Y1277	F1293	F1293	T808	T808	L584	L506	L411	I320	D242	A173	L16
L1287	E1294	Y1278	F1294	F1294	T809	T809	L585	L507	L412	I321	D243	A174	L16
L1288	D1295	E1295	F1295	F1295	T810	T810	L586	L508	L413	I322	D244	A175	L16
L1289	P1296	L1276	F1296	F1296	T811	T811	L587	L509	L414	I323	D245	A176	L16
L1290	F1297	Y1279	F1297	F1297	T812	T812	L588	L510	L415	I324	D246	A177	L16
L1291	E1298	Y1280	F1298	F1298	T813	T813	L589	L511	L416	I325	D247	A178	L16
L1292	D1299	E1299	F1299	F1299	T814	T814	L590	L512	L417	I326	D248	A179	L16
L1293	P1300	L1277	F1300	F1300	T815	T815	L591	L513	L418	I327	D249	A180	L16
L1294	F1301	Y1281	F1301	F1301	T816	T816	L592	L514	L419	I328	D250	A181	L16
L1295	E1302	Y1282	F1302	F1302	T817	T817	L593	L515	L420	I329	D251	A182	L16
L1296	D1303	E1303	F1303	F1303	T818	T818	L594	L516	L421	I330	D252	A183	L16
L1297	P1304	L1278	F1304	F1304	T819	T819	L595	L517	L422	I331	D253	A184	L16
L1298	F1305	Y1283	F1305	F1305	T820	T820	L596	L518	L423	I332	D254	A185	L16
L1299	E1306	Y1284	F1306	F1306	T821	T821	L597	L519	L424	I333	D255	A186	L16
L1300	D1307	E1307	F1307	F1307	T822	T822	L598	L520	L425	I334	D256	A187	L16
L1301	P1308	L1279	F1308	F1308	T823	T823	L599	L521	L426	I335	D257	A188	L16
L1302	F1309	Y1285	F1309	F1309	T824	T824	L600	L522	L427	I336	D258	A189	L16
L1303	E1310	Y1286	F1310	F1310	T825	T825	L601	L523	L428	I337	D259	A190	L16
L1304	D1311	E1311	F1311	F1311	T826	T826	L602	L524	L429	I338	D260	A191	L16
L1305	P1312	L1280	F1312	F1312	T827	T827	L603	L525	L430	I339	D261	A192	L16
L1306	F1313	Y1287	F1313	F1313	T828	T828	L604	L526	L431	I340	D262	A193	L16
L1307	E1314	Y1288	F1314	F1314	T829	T829	L605	L527	L432	I341	D263	A194	L16
L1308	D1313	E1313	F1313	F1313									



4 Data and refinement statistics

Property	Value	Source
Space group	P 43 21 2	Depositor
Cell constants a, b, c, α , β , γ	231.88Å 231.88Å 756.78Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	20.00 – 4.00 20.00 – 4.00	Depositor EDS
% Data completeness (in resolution range)	97.3 (20.00-4.00) 97.3 (20.00-4.00)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.71 (at 3.94Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.266 , 0.267 0.257 , 0.257	Depositor DCC
R_{free} test set	8523 reflections (5.07%)	DCC
Wilson B-factor (Å ²)	130.2	Xtriage
Anisotropy	0.319	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.23 , 74.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.36$, $\langle L^2 \rangle = 0.19$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	88830	wwPDB-VP
Average B, all atoms (Å ²)	168.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.67% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

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

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	5/13822 (0.0%)	0.59	6/18682 (0.0%)
1	B	0.43	3/13822 (0.0%)	0.61	9/18682 (0.0%)
1	C	0.43	4/13822 (0.0%)	0.59	4/18682 (0.0%)
2	G	0.41	7/16360 (0.0%)	0.58	6/22198 (0.0%)
2	H	0.40	7/16360 (0.0%)	0.57	3/22198 (0.0%)
2	I	0.40	5/16360 (0.0%)	0.58	10/22198 (0.0%)
All	All	0.42	31/90546 (0.0%)	0.59	38/122640 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	G	0	1
2	H	0	2
2	I	0	1
All	All	0	4

All (31) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	992	PHE	C-N	13.35	1.59	1.34
1	C	992	PHE	C-N	13.18	1.59	1.34
2	I	842	GLY	C-N	11.12	1.59	1.34
2	G	315	PRO	C-N	10.45	1.58	1.34
1	C	485	ASP	C-N	9.61	1.56	1.34
2	H	1256	GLU	C-N	9.35	1.55	1.34
2	H	138	ASP	C-N	9.07	1.54	1.34
2	H	1840	VAL	C-N	8.47	1.53	1.34
2	G	1657	ILE	C-N	8.15	1.52	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	I	315	PRO	C-N	7.84	1.52	1.34
1	A	668	PHE	C-N	7.73	1.51	1.34
2	I	1980	TYR	C-N	7.70	1.51	1.34
1	A	181	THR	C-N	7.05	1.50	1.34
2	G	422	PRO	C-N	6.97	1.50	1.34
2	I	1018	VAL	C-N	-6.57	1.21	1.34
2	G	1256	GLU	C-N	6.43	1.48	1.34
1	C	1520	ALA	C-N	-6.36	1.22	1.34
2	I	903	TRP	C-N	6.33	1.48	1.34
2	H	1053	ILE	C-N	6.30	1.48	1.34
2	H	422	PRO	C-N	6.29	1.48	1.34
2	G	842	GLY	C-N	6.06	1.48	1.34
2	H	137	PHE	C-N	5.95	1.47	1.34
1	A	1520	ALA	C-N	5.79	1.45	1.34
2	H	1982	MET	C-N	5.67	1.47	1.34
1	B	181	THR	C-N	-5.65	1.21	1.34
2	G	1529	GLN	C-N	-5.50	1.21	1.34
2	G	1980	TYR	C-N	5.38	1.46	1.34
1	C	636	PRO	C-N	-5.29	1.21	1.34
1	B	668	PHE	C-N	5.29	1.46	1.34
1	B	1430	ARG	C-N	-5.19	1.22	1.34
1	A	1181	PHE	C-N	5.13	1.45	1.34

All (38) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	1116	PRO	O-C-N	-11.67	104.02	122.70
2	I	1982	MET	O-C-N	-9.44	107.59	122.70
2	G	842	GLY	O-C-N	-8.86	108.52	122.70
2	G	1053	ILE	O-C-N	-8.58	108.97	122.70
1	B	992	PHE	O-C-N	8.47	137.19	121.10
2	I	422	PRO	O-C-N	-8.30	109.42	122.70
1	B	992	PHE	C-N-CD	8.15	145.52	128.40
2	I	1982	MET	C-N-CA	8.08	141.89	121.70
1	B	1116	PRO	CA-C-N	8.00	134.79	117.20
2	I	1657	ILE	O-C-N	-7.47	110.75	122.70
1	C	1520	ALA	O-C-N	7.43	135.22	121.10
1	A	1430	ARG	O-C-N	-7.40	110.85	122.70
1	B	1116	PRO	C-N-CA	7.29	139.94	121.70
1	B	599	MET	N-CA-C	-6.93	92.27	111.00
1	C	599	MET	N-CA-C	-6.92	92.32	111.00
1	A	599	MET	N-CA-C	-6.90	92.37	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	992	PHE	C-N-CD	6.65	142.37	128.40
2	I	422	PRO	CA-C-N	6.52	131.55	117.20
2	H	1840	VAL	O-C-N	-6.51	112.29	122.70
2	I	1982	MET	CA-C-N	6.50	131.50	117.20
1	C	1116	PRO	O-C-N	-6.36	112.52	122.70
1	B	992	PHE	CA-C-N	-6.11	100.00	117.10
2	G	1053	ILE	CA-C-N	6.05	130.50	117.20
1	A	992	PHE	O-C-N	5.97	132.45	121.10
2	I	315	PRO	O-C-N	-5.75	113.50	122.70
1	B	540	GLN	N-CA-C	-5.65	95.74	111.00
1	A	540	GLN	N-CA-C	-5.64	95.77	111.00
1	C	540	GLN	N-CA-C	-5.63	95.80	111.00
1	B	178	GLY	O-C-N	5.57	131.61	122.70
2	I	422	PRO	C-N-CA	5.52	135.50	121.70
2	G	138	ASP	O-C-N	-5.44	113.99	122.70
1	A	1520	ALA	O-C-N	5.44	131.44	121.10
2	H	1256	GLU	CA-C-N	-5.39	105.35	117.20
2	I	1657	ILE	CA-C-N	5.34	128.95	117.20
2	G	842	GLY	CA-C-N	5.30	128.86	117.20
2	H	138	ASP	O-C-N	-5.08	114.56	122.70
2	G	138	ASP	C-N-CA	5.05	134.32	121.70
2	I	1657	ILE	C-N-CA	5.03	134.27	121.70

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	G	1108	PRO	Peptide
2	H	1108	PRO	Peptide
2	H	1256	GLU	Mainchain
2	I	1108	PRO	Peptide

5.2 Too-close contacts ⓘ

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	13572	0	13489	663	15

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B	13572	0	13490	618	6
1	C	13572	0	13490	638	22
2	G	15995	0	15978	1026	32
2	H	15995	0	15978	1023	7
2	I	15995	0	15977	983	26
3	A	12	0	10	3	0
3	B	12	0	10	4	0
3	C	12	0	10	4	0
4	G	31	0	19	7	0
4	H	31	0	19	6	0
4	I	31	0	19	8	0
All	All	88830	0	88489	4773	54

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 27.

All (4773) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1749:THR:CB	1:A:1874:ASP:HB3	1.53	1.37
1:B:1749:THR:CB	1:B:1874:ASP:HB3	1.56	1.34
1:B:1749:THR:CB	1:B:1873:HIS:O	1.75	1.32
1:A:1464:GLU:HG3	1:A:1773:VAL:CG1	1.58	1.32
1:C:1749:THR:CB	1:C:1874:ASP:HB3	1.62	1.29
1:A:1464:GLU:CG	1:A:1773:VAL:HG12	1.65	1.26
1:A:1749:THR:CB	1:A:1873:HIS:O	1.88	1.21
1:C:1749:THR:CB	1:C:1874:ASP:CA	2.20	1.19
2:H:1956:ARG:HB2	2:H:1957:PRO:HD3	1.24	1.18
1:C:1749:THR:CB	1:C:1874:ASP:CB	2.22	1.16
2:G:28:PHE:CE2	2:H:7:ARG:HD2	1.80	1.16
1:C:1464:GLU:CG	1:C:1773:VAL:HG12	1.75	1.16
2:G:1859:PRO:HG3	2:G:1871:LEU:HD12	1.29	1.15
2:H:1834:ARG:HH11	2:H:1834:ARG:HG2	1.06	1.15
1:C:1501:LEU:CD1	1:C:1775:LEU:HD21	1.75	1.15
1:C:1460:LYS:NZ	1:C:1774:GLU:OE2	1.80	1.15
1:C:1498:GLU:HG3	1:C:1876:LEU:HD13	1.19	1.14
2:H:490:TRP:HE1	2:H:516:THR:HG22	1.12	1.14
1:C:1464:GLU:HG3	1:C:1773:VAL:CG1	1.77	1.14
2:H:499:THR:HB	2:H:500:HIS:HD2	1.10	1.12
2:I:490:TRP:HE1	2:I:516:THR:HG22	1.10	1.12
2:G:1956:ARG:HB2	2:G:1957:PRO:HD3	1.23	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:131:ILE:HD12	2:G:182:VAL:HB	1.18	1.12
2:H:131:ILE:HD12	2:H:182:VAL:CB	1.79	1.11
2:I:601:THR:HG21	2:I:618:GLU:O	1.50	1.11
2:I:1956:ARG:HB2	2:I:1957:PRO:HD3	1.23	1.11
1:A:253:ARG:HG3	1:A:254:TRP:HD1	1.15	1.10
1:A:1721:ARG:HG2	1:A:1721:ARG:HH11	1.16	1.10
2:H:601:THR:HG21	2:H:618:GLU:O	1.50	1.10
2:G:601:THR:HG21	2:G:618:GLU:O	1.52	1.10
1:B:1464:GLU:HG3	1:B:1773:VAL:HG12	1.31	1.09
2:G:499:THR:HB	2:G:500:HIS:HD2	1.08	1.09
2:H:131:ILE:CB	2:H:182:VAL:HG11	1.82	1.09
2:I:297:ARG:HD3	2:I:447:ASN:HD21	1.15	1.09
2:G:131:ILE:HB	2:G:182:VAL:HG11	1.31	1.09
2:I:499:THR:HB	2:I:500:HIS:HD2	1.07	1.08
2:G:490:TRP:HE1	2:G:516:THR:HG22	1.12	1.08
1:B:1460:LYS:NZ	1:B:1774:GLU:OE2	1.85	1.08
1:B:1749:THR:CB	1:B:1874:ASP:CB	2.32	1.08
1:A:1749:THR:CB	1:A:1874:ASP:CB	2.31	1.08
1:C:852:ARG:HG2	1:C:852:ARG:HH11	1.14	1.08
1:C:1498:GLU:CG	1:C:1876:LEU:HD13	1.84	1.07
2:H:131:ILE:HG21	2:H:182:VAL:HG12	1.35	1.07
2:H:128:THR:HA	2:H:182:VAL:HG21	1.31	1.07
2:I:1227:ARG:HH11	2:I:1227:ARG:HG3	1.18	1.07
2:G:297:ARG:HD3	2:G:447:ASN:HD21	1.17	1.06
2:G:28:PHE:CZ	2:H:7:ARG:HD2	1.91	1.06
2:I:1834:ARG:HG2	2:I:1834:ARG:HH11	1.16	1.06
1:C:1367:ARG:NH1	1:C:1372:THR:HB	1.71	1.06
2:G:903:TRP:O	2:G:906:THR:HG22	1.57	1.05
1:C:1721:ARG:HG2	1:C:1721:ARG:HH11	1.19	1.05
2:G:1834:ARG:HG2	2:G:1834:ARG:HH11	1.16	1.05
2:I:7:ARG:HH21	2:I:27:PHE:HB3	1.20	1.05
1:B:253:ARG:HG3	1:B:254:TRP:HD1	1.17	1.04
1:A:1367:ARG:NH1	1:A:1372:THR:HB	1.72	1.04
1:C:253:ARG:HG3	1:C:254:TRP:HD1	1.15	1.04
2:G:932:ILE:HD11	2:G:1042:ALA:HB2	1.36	1.04
2:I:1739:GLU:HB2	2:I:1987:PRO:HB3	1.40	1.04
1:B:1367:ARG:NH1	1:B:1372:THR:HB	1.73	1.04
2:H:1227:ARG:HG3	2:H:1227:ARG:HH11	1.19	1.03
2:G:1227:ARG:HH11	2:G:1227:ARG:HG3	1.18	1.03
2:H:297:ARG:HD3	2:H:447:ASN:HD21	1.16	1.03
1:B:1721:ARG:HH11	1:B:1721:ARG:HG2	1.21	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1722:VAL:HG11	1:B:1731:LEU:HB3	1.37	1.03
1:C:1722:VAL:HG11	1:C:1731:LEU:HB3	1.37	1.02
2:G:7:ARG:HH21	2:G:27:PHE:HB3	1.22	1.02
1:B:599:MET:HB2	1:B:624:LYS:HD2	1.42	1.02
2:H:7:ARG:HH21	2:H:27:PHE:HB3	1.22	1.02
1:B:852:ARG:HH11	1:B:852:ARG:HG2	1.20	1.02
1:A:852:ARG:HH11	1:A:852:ARG:HG2	1.23	1.02
1:C:1498:GLU:HG3	1:C:1876:LEU:CD1	1.84	1.02
1:C:1501:LEU:HD12	1:C:1775:LEU:HD21	1.38	1.02
2:H:1739:GLU:HB2	2:H:1987:PRO:HB3	1.42	1.02
2:H:1859:PRO:HG3	2:H:1871:LEU:HD12	1.37	1.01
2:I:1859:PRO:HG3	2:I:1871:LEU:HD12	1.41	1.01
2:H:131:ILE:HB	2:H:182:VAL:CG1	1.89	1.01
1:C:1219:VAL:HA	1:C:1384:ILE:HD11	1.40	1.01
2:H:131:ILE:CD1	2:H:182:VAL:HB	1.91	1.00
1:C:1014:ASP:H	1:C:1510:ASN:HD21	1.03	1.00
2:H:903:TRP:O	2:H:906:THR:HG22	1.59	1.00
1:A:1722:VAL:HG11	1:A:1731:LEU:HB3	1.40	1.00
2:I:741:HIS:NE2	2:I:855:HIS:CE1	2.30	1.00
1:A:599:MET:HB2	1:A:624:LYS:HD2	1.43	0.99
2:H:1567:ARG:HG3	2:H:1567:ARG:HH11	1.27	0.99
1:C:1749:THR:CB	1:C:1874:ASP:HA	1.90	0.99
1:C:599:MET:HB2	1:C:624:LYS:HD2	1.43	0.99
1:C:253:ARG:HG3	1:C:254:TRP:CD1	1.98	0.99
2:G:499:THR:HB	2:G:500:HIS:CD2	1.97	0.98
2:I:892:ILE:HD11	2:I:903:TRP:CE2	1.98	0.98
1:A:253:ARG:HG3	1:A:254:TRP:CD1	1.98	0.98
1:B:1219:VAL:HA	1:B:1384:ILE:HD11	1.45	0.98
1:C:1460:LYS:HE3	1:C:1774:GLU:CD	1.83	0.98
2:H:1803:THR:HG22	2:H:2009:LYS:HA	1.45	0.98
2:H:762:ASN:H	2:H:762:ASN:HD22	1.03	0.98
2:H:131:ILE:HB	2:H:182:VAL:HG11	1.00	0.98
2:I:499:THR:HB	2:I:500:HIS:CD2	1.97	0.98
2:I:903:TRP:O	2:I:906:THR:HG22	1.63	0.98
2:G:1844:ARG:HG2	2:G:1844:ARG:HH11	1.26	0.97
1:A:400:ARG:HG2	1:A:400:ARG:HH11	1.28	0.97
2:G:892:ILE:HD11	2:G:903:TRP:CE2	1.98	0.97
1:A:400:ARG:CG	1:A:400:ARG:HH11	1.76	0.97
2:H:499:THR:HB	2:H:500:HIS:CD2	1.99	0.97
2:H:1172:LYS:HE3	2:H:1574:ASN:OD1	1.64	0.97
1:B:198:PRO:HG3	1:B:209:LEU:HD21	1.47	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:253:ARG:HG3	1:B:254:TRP:CD1	1.99	0.96
2:H:594:VAL:HB	2:H:617:ILE:HG13	1.44	0.96
2:I:490:TRP:NE1	2:I:516:THR:HG22	1.79	0.96
2:I:762:ASN:HD22	2:I:762:ASN:H	1.08	0.96
1:A:1014:ASP:H	1:A:1510:ASN:HD21	1.10	0.96
2:H:490:TRP:NE1	2:H:516:THR:HG22	1.81	0.96
2:H:131:ILE:HD12	2:H:182:VAL:HB	0.96	0.96
1:A:12:ILE:HD11	2:G:2041:ILE:HD12	1.47	0.95
1:C:198:PRO:HG3	1:C:209:LEU:HD21	1.48	0.95
2:G:490:TRP:NE1	2:G:516:THR:HG22	1.81	0.95
2:H:1567:ARG:HH11	2:H:1567:ARG:CG	1.79	0.95
2:H:892:ILE:HD11	2:H:903:TRP:CE2	2.01	0.95
2:G:1803:THR:HG22	2:G:2009:LYS:HA	1.48	0.95
1:B:1460:LYS:CE	1:B:1773:VAL:O	2.15	0.95
2:I:1567:ARG:HH11	2:I:1567:ARG:HG3	1.29	0.95
2:I:594:VAL:HB	2:I:617:ILE:HG13	1.46	0.95
2:I:1567:ARG:HH11	2:I:1567:ARG:CG	1.79	0.95
2:H:1199:GLU:OE2	2:H:1567:ARG:NH1	2.00	0.95
2:G:1878:VAL:HG11	2:G:1910:VAL:HG22	1.48	0.95
2:G:1741:ILE:HD12	2:G:1986:LYS:HD2	1.47	0.95
1:A:198:PRO:HG3	1:A:209:LEU:HD21	1.47	0.95
2:I:741:HIS:CE1	2:I:855:HIS:CE1	2.55	0.95
2:G:1567:ARG:CG	2:G:1567:ARG:HH11	1.80	0.95
1:A:444:ASN:HB2	1:A:447:LEU:H	1.31	0.95
1:B:1464:GLU:HG3	1:B:1773:VAL:CG1	1.95	0.95
2:H:741:HIS:HE1	2:H:845:THR:CG2	1.80	0.95
2:H:835:THR:HG21	2:H:855:HIS:CD2	1.99	0.94
2:G:1739:GLU:HB2	2:G:1987:PRO:HB3	1.43	0.94
2:G:1589:VAL:HA	2:G:1592:LEU:HD12	1.49	0.94
1:B:1460:LYS:HE3	1:B:1773:VAL:O	1.68	0.94
2:H:55:THR:HG22	2:H:56:THR:HG22	1.48	0.94
1:B:444:ASN:HB2	1:B:447:LEU:H	1.31	0.94
1:C:1498:GLU:OE2	1:C:1876:LEU:HA	1.65	0.94
2:I:1741:ILE:HD12	2:I:1986:LYS:HD2	1.49	0.94
1:C:400:ARG:HG2	1:C:400:ARG:HH11	1.33	0.94
1:C:2:LYS:HD2	2:I:2050:GLN:HB3	1.50	0.94
2:I:1878:VAL:HG11	2:I:1910:VAL:HG22	1.50	0.94
2:H:1314:ARG:HH11	2:H:1314:ARG:HG3	1.31	0.94
2:G:762:ASN:H	2:G:762:ASN:HD22	1.03	0.93
2:G:942:THR:HB	2:G:1012:GLN:HG2	1.50	0.93
1:A:1219:VAL:HA	1:A:1384:ILE:HD11	1.45	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:529:MET:HE3	1:B:529:MET:HA	1.47	0.93
1:A:1501:LEU:CD1	1:A:1775:LEU:HD21	1.98	0.93
2:I:741:HIS:HE1	2:I:845:THR:CG2	1.81	0.93
2:H:1845:ASP:HB2	2:H:1849:ARG:H	1.34	0.93
2:H:652:ILE:H	2:H:658:MET:HE3	1.30	0.93
1:B:400:ARG:HH11	1:B:400:ARG:CG	1.81	0.93
2:H:1589:VAL:HA	2:H:1592:LEU:HD12	1.49	0.93
2:G:565:TYR:CZ	2:G:758:ARG:HD2	2.04	0.93
2:I:1314:ARG:HG3	2:I:1314:ARG:HH11	1.32	0.93
1:A:12:ILE:HD11	2:G:2041:ILE:CD1	1.99	0.93
2:I:56:THR:HG23	2:I:59:GLU:HG3	1.49	0.93
1:C:1501:LEU:HD11	1:C:1775:LEU:CD2	1.99	0.93
2:G:1567:ARG:HG3	2:G:1567:ARG:HH11	1.30	0.93
2:G:128:THR:HA	2:G:182:VAL:HG21	1.51	0.92
1:A:1523:ARG:HG3	1:A:1523:ARG:HH11	1.33	0.92
1:C:1523:ARG:HH11	1:C:1523:ARG:HG3	1.32	0.92
1:C:1501:LEU:CD1	1:C:1775:LEU:CD2	2.47	0.92
2:I:741:HIS:CE1	2:I:845:THR:CG2	2.52	0.92
2:G:55:THR:HG21	2:G:113:ASP:HB2	1.52	0.92
1:A:1460:LYS:CE	1:A:1773:VAL:O	2.17	0.92
1:A:152:His:CD2	1:A:163:LEU:HB2	2.05	0.92
2:G:741:HIS:NE2	2:G:855:HIS:CE1	2.38	0.92
1:B:1749:THR:CB	1:B:1873:HIS:C	2.37	0.92
2:G:1844:ARG:CG	2:G:1844:ARG:HH11	1.82	0.92
2:I:55:THR:HG22	2:I:56:THR:HG22	1.51	0.91
2:I:667:LYS:HD2	2:I:697:THR:HG22	1.51	0.91
2:I:741:HIS:CE1	2:I:845:THR:HG22	2.04	0.91
1:A:1721:ARG:CG	1:A:1721:ARG:HH11	1.84	0.91
1:C:400:ARG:HH11	1:C:400:ARG:CG	1.81	0.91
2:G:1314:ARG:HH11	2:G:1314:ARG:HG3	1.32	0.91
1:C:152:HIS:CD2	1:C:163:LEU:HB2	2.05	0.91
2:G:56:THR:HG23	2:G:59:GLU:HG3	1.50	0.91
2:G:741:HIS:CE1	2:G:855:HIS:CE1	2.57	0.91
2:I:1803:THR:HG22	2:I:2009:LYS:HA	1.51	0.91
2:I:707:PRO:HG3	2:I:716:VAL:HG21	1.52	0.91
1:A:1693:ILE:HD11	2:G:998:GLN:HB2	1.51	0.91
1:B:1523:ARG:HH11	1:B:1523:ARG:HG3	1.36	0.91
1:C:1464:GLU:HG3	1:C:1773:VAL:HG12	0.91	0.91
1:C:793:ARG:HA	1:C:797:THR:HG23	1.52	0.90
2:H:1741:ILE:HD12	2:H:1986:LYS:HD2	1.54	0.90
2:I:942:THR:HB	2:I:1012:GLN:HG2	1.52	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:707:PRO:HG3	2:H:716:VAL:HG21	1.54	0.90
1:C:1498:GLU:HG3	1:C:1876:LEU:HB3	1.53	0.90
2:I:1441:ILE:HD11	2:I:1445:ARG:CZ	2.02	0.90
2:I:652:ILE:H	2:I:658:MET:HE3	1.36	0.90
1:C:1498:GLU:CG	1:C:1876:LEU:HB3	2.02	0.90
2:G:55:THR:HG22	2:G:56:THR:HG22	1.52	0.90
2:H:565:TYR:CZ	2:H:758:ARG:HD2	2.06	0.90
1:B:1456:GLU:OE1	1:B:1775:LEU:HD23	1.71	0.89
2:G:131:ILE:HD12	2:G:182:VAL:CB	2.01	0.89
1:C:1431:GLU:HG3	1:C:1433:HIS:CE1	2.07	0.89
2:G:1847:LEU:H	2:G:1847:LEU:HD12	1.37	0.89
1:C:444:ASN:HB2	1:C:447:LEU:H	1.33	0.89
2:G:594:VAL:HB	2:G:617:ILE:HG13	1.52	0.89
1:B:1721:ARG:HH11	1:B:1721:ARG:CG	1.85	0.89
1:B:793:ARG:HA	1:B:797:THR:HG23	1.54	0.89
2:I:1589:VAL:HA	2:I:1592:LEU:HD12	1.51	0.89
1:A:253:ARG:HE	1:A:254:TRP:HE1	1.21	0.89
2:G:1441:ILE:HD11	2:G:1445:ARG:CZ	2.02	0.89
2:H:1847:LEU:H	2:H:1847:LEU:HD12	1.37	0.89
2:H:55:THR:HG21	2:H:113:ASP:HB2	1.53	0.89
1:A:529:MET:HA	1:A:529:MET:HE3	1.53	0.89
2:H:56:THR:HG23	2:H:59:GLU:HG3	1.54	0.89
1:A:1474:ALA:HA	1:A:1478:PRO:HG2	1.54	0.88
1:B:1749:THR:CB	1:B:1874:ASP:CA	2.51	0.88
2:G:667:LYS:HD2	2:G:697:THR:HG22	1.55	0.88
1:A:1501:LEU:HD11	1:A:1775:LEU:CD2	2.01	0.88
2:H:667:LYS:HD2	2:H:697:THR:HG22	1.55	0.88
1:A:1367:ARG:HH12	1:A:1372:THR:HB	1.35	0.88
1:A:403:ASP:HB2	1:A:1613:ASN:HD21	1.38	0.88
1:B:31:THR:HG23	2:H:2011:ILE:HG21	1.56	0.88
2:H:942:THR:HB	2:H:1012:GLN:HG2	1.54	0.88
2:I:55:THR:HG21	2:I:113:ASP:HB2	1.53	0.88
1:B:1367:ARG:HH12	1:B:1372:THR:HB	1.38	0.88
1:B:152:HIS:CD2	1:B:163:LEU:HB2	2.09	0.88
1:B:1464:GLU:CG	1:B:1773:VAL:HG12	2.01	0.88
2:I:1227:ARG:HH11	2:I:1227:ARG:CG	1.87	0.88
1:C:1721:ARG:CG	1:C:1721:ARG:HH11	1.87	0.87
2:G:707:PRO:HG3	2:G:716:VAL:HG21	1.56	0.87
2:H:1441:ILE:HD11	2:H:1445:ARG:CZ	2.04	0.87
2:I:131:ILE:HD12	2:I:182:VAL:HB	1.55	0.87
1:B:1501:LEU:HD11	1:B:1775:LEU:HD21	1.56	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1422:THR:CG2	2:G:1474:PHE:HB2	2.05	0.87
1:A:793:ARG:HA	1:A:797:THR:HG23	1.53	0.87
1:C:59:ARG:HH11	2:I:1896:GLN:NE2	1.71	0.87
2:I:369:SER:OG	2:I:380:SER:HB3	1.74	0.87
2:I:298:LYS:HG2	2:I:448:VAL:HG22	1.56	0.87
1:C:1498:GLU:OE2	1:C:1876:LEU:CA	2.12	0.87
1:C:529:MET:HA	1:C:529:MET:HE3	1.57	0.87
2:H:131:ILE:CG2	2:H:182:VAL:HG12	2.04	0.87
2:I:1845:ASP:HB2	2:I:1849:ARG:H	1.38	0.87
1:B:260:ARG:HH12	1:B:300:VAL:HG21	1.38	0.87
2:I:932:ILE:HD11	2:I:1042:ALA:HB2	1.57	0.87
1:C:253:ARG:HE	1:C:254:TRP:HE1	1.21	0.87
1:A:1119:LYS:HD3	1:A:1121:MET:HE2	1.55	0.87
1:A:340:ARG:NH1	1:A:344:GLN:HG2	1.88	0.87
1:B:893:VAL:HG11	1:B:930:LEU:HD23	1.55	0.87
2:H:1422:THR:CG2	2:H:1474:PHE:HB2	2.04	0.86
2:H:741:HIS:HE1	2:H:845:THR:HG22	1.38	0.86
1:C:1474:ALA:HA	1:C:1478:PRO:HG2	1.57	0.86
2:H:1878:VAL:HG11	2:H:1910:VAL:HG22	1.55	0.86
2:I:1739:GLU:HB3	2:I:1746:LEU:HD11	1.58	0.86
1:B:1474:ALA:HA	1:B:1478:PRO:HG2	1.58	0.86
2:G:741:HIS:HE1	2:G:845:THR:CG2	1.88	0.86
2:H:1533:LEU:HD13	2:H:1630:GLY:HA2	1.55	0.86
1:B:400:ARG:HH11	1:B:400:ARG:HG2	1.41	0.85
2:H:1739:GLU:HB3	2:H:1746:LEU:HD11	1.56	0.85
2:G:741:HIS:CE1	2:G:845:THR:CG2	2.59	0.85
2:I:1533:LEU:HD13	2:I:1630:GLY:HA2	1.59	0.85
2:I:1422:THR:HG23	2:I:1422:THR:O	1.77	0.85
1:A:1749:THR:CB	1:A:1874:ASP:CA	2.55	0.85
2:H:774:ALA:HB1	2:H:1081:HIS:HD2	1.41	0.85
2:I:1847:LEU:HD12	2:I:1847:LEU:H	1.40	0.85
1:B:340:ARG:NH1	1:B:344:GLN:HG2	1.91	0.85
2:G:28:PHE:HE2	2:H:7:ARG:HD2	1.36	0.85
2:H:1844:ARG:HH11	2:H:1844:ARG:CG	1.89	0.85
1:A:1119:LYS:HD3	1:A:1121:MET:CE	2.07	0.85
2:H:1844:ARG:HH11	2:H:1844:ARG:HG2	1.41	0.85
2:G:28:PHE:CZ	2:H:7:ARG:CD	2.59	0.85
2:H:932:ILE:HD11	2:H:1042:ALA:HB2	1.58	0.84
2:H:297:ARG:HD3	2:H:447:ASN:ND2	1.91	0.84
2:G:369:SER:OG	2:G:380:SER:HB3	1.75	0.84
2:H:777:THR:CG2	2:H:1081:HIS:NE2	2.41	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:131:ILE:HG21	2:G:182:VAL:HG12	1.57	0.84
1:C:340:ARG:NH1	1:C:344:GLN:HG2	1.91	0.84
2:I:297:ARG:HD3	2:I:447:ASN:ND2	1.92	0.84
2:G:1054:LEU:HB2	4:G:3051:FMN:HM72	1.60	0.84
2:G:652:ILE:H	2:G:658:MET:HE3	1.42	0.84
2:H:2038:ILE:HG22	2:H:2042:ILE:HD11	1.60	0.84
2:H:369:SER:OG	2:H:380:SER:HB3	1.78	0.84
1:C:852:ARG:HG2	1:C:852:ARG:NH1	1.93	0.84
2:I:774:ALA:HB2	2:I:1077:ILE:HA	1.58	0.84
1:B:11:HIS:ND1	2:H:1998:LYS:HA	1.93	0.84
1:C:1303:GLY:HA2	1:C:1649:LYS:HE2	1.58	0.84
2:I:995:LEU:HD23	2:I:1000:ILE:HD13	1.60	0.84
2:H:741:HIS:CE1	2:H:845:THR:HG22	2.12	0.84
1:C:31:THR:HG23	2:I:2011:ILE:HG21	1.59	0.84
2:G:1425:LYS:HG2	2:G:1471:GLU:HG3	1.58	0.83
2:G:1533:LEU:HD13	2:G:1630:GLY:HA2	1.60	0.83
2:G:774:ALA:HB2	2:G:1077:ILE:HA	1.61	0.83
1:A:980:VAL:HG23	2:G:968:GLN:OE1	1.78	0.83
1:B:253:ARG:HE	1:B:254:TRP:HE1	1.21	0.83
2:G:1227:ARG:HH11	2:G:1227:ARG:CG	1.89	0.83
2:I:774:ALA:HB1	2:I:1081:HIS:HD2	1.43	0.83
2:H:1227:ARG:HH11	2:H:1227:ARG:CG	1.90	0.83
2:H:1672:GLN:HG2	2:H:1777:THR:HG23	1.59	0.83
2:H:741:HIS:CE1	2:H:845:THR:CG2	2.60	0.83
2:I:1844:ARG:HH11	2:I:1844:ARG:HG2	1.43	0.83
2:G:1293:THR:HG23	2:G:1296:GLU:H	1.44	0.83
2:I:598:THR:HG22	2:I:622:GLY:HA3	1.61	0.83
1:B:403:ASP:HB2	1:B:1613:ASN:HD21	1.44	0.82
2:G:777:THR:CG2	2:G:1081:HIS:NE2	2.41	0.82
1:A:20:TYR:CG	2:G:2033:THR:OG1	2.32	0.82
2:G:297:ARG:HD3	2:G:447:ASN:ND2	1.94	0.82
2:H:85:ASN:HD22	2:H:135:ARG:HH11	1.26	0.82
1:C:1367:ARG:HH12	1:C:1372:THR:HB	1.37	0.82
2:G:1739:GLU:HB3	2:G:1746:LEU:HD11	1.60	0.82
2:G:131:ILE:CB	2:G:182:VAL:HG11	2.07	0.82
2:G:298:LYS:HG2	2:G:448:VAL:HG22	1.61	0.82
2:I:1672:GLN:HG2	2:I:1777:THR:HG23	1.61	0.82
1:A:1249:SER:HB3	1:A:1280:ILE:HG23	1.62	0.82
1:A:36:LEU:HD22	1:A:61:LEU:HD21	1.60	0.82
1:B:1014:ASP:H	1:B:1510:ASN:HD21	1.28	0.82
2:H:995:LEU:HD23	2:H:1000:ILE:HD13	1.58	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1931:LEU:HB3	2:I:1935:GLU:HG2	1.62	0.82
2:I:2038:ILE:HG22	2:I:2042:ILE:HD11	1.61	0.82
1:A:335:HIS:HE1	1:B:335:HIS:CE1	1.98	0.82
1:B:12:ILE:HD11	2:H:2041:ILE:CD1	2.10	0.82
1:C:333:LYS:O	1:C:337:VAL:HG23	1.80	0.81
2:G:995:LEU:HD23	2:G:1000:ILE:HD13	1.60	0.81
2:G:1847:LEU:HD13	2:G:1849:ARG:HD2	1.62	0.81
2:I:128:THR:HA	2:I:182:VAL:HG21	1.62	0.81
1:A:1501:LEU:HD11	1:A:1775:LEU:HD21	1.61	0.81
2:H:1159:ILE:HG12	2:H:1168:ASN:HA	1.61	0.81
2:H:543:PHE:HB2	2:H:545:GLN:HE22	1.45	0.81
2:I:1844:ARG:CG	2:I:1844:ARG:HH11	1.93	0.81
1:A:1464:GLU:HG3	1:A:1773:VAL:HG12	0.85	0.81
2:I:1054:LEU:HB2	4:I:3051:FMN:C7M	2.11	0.81
1:B:1249:SER:HB3	1:B:1280:ILE:HG23	1.62	0.81
2:G:543:PHE:HB2	2:G:545:GLN:HE22	1.46	0.81
2:I:777:THR:CG2	2:I:1081:HIS:NE2	2.43	0.81
2:I:345:THR:HG22	2:I:347:GLU:H	1.46	0.81
2:G:1931:LEU:HB3	2:G:1935:GLU:HG2	1.61	0.81
1:A:1460:LYS:HE2	1:A:1773:VAL:O	1.80	0.81
2:H:1149:TRP:HA	2:H:1242:PHE:CE1	2.15	0.81
1:C:59:ARG:HH11	2:I:1896:GLN:HE22	1.25	0.81
1:B:881:ASN:HA	1:B:944:ARG:NH2	1.96	0.81
1:B:93:ASP:HB3	1:B:94:PRO:HD2	1.62	0.81
1:A:1203:ASP:HB3	1:B:179:LYS:NZ	1.95	0.81
2:G:2038:ILE:HG22	2:G:2042:ILE:HD11	1.60	0.81
1:A:335:HIS:CE1	1:C:335:HIS:HE1	1.98	0.81
2:I:345:THR:HB	2:I:348:GLN:H	1.46	0.81
1:A:93:ASP:HB3	1:A:94:PRO:HD2	1.63	0.81
2:I:1159:ILE:HG12	2:I:1168:ASN:HA	1.63	0.81
1:A:400:ARG:HG2	1:A:400:ARG:NH1	1.91	0.80
2:I:1693:ARG:HD2	2:I:1825:GLU:OE2	1.80	0.80
1:A:1552:ASN:O	1:A:1556:THR:HG22	1.80	0.80
1:A:333:LYS:O	1:A:337:VAL:HG23	1.82	0.80
2:G:1693:ARG:HD2	2:G:1825:GLU:OE2	1.81	0.80
2:I:584:SER:HB3	2:I:591:PRO:HG3	1.63	0.80
1:B:1030:TRP:CD1	1:B:1580:LEU:HD22	2.17	0.80
2:H:1931:LEU:HB3	2:H:1935:GLU:HG2	1.62	0.80
2:H:298:LYS:HG2	2:H:448:VAL:HG22	1.63	0.80
1:A:340:ARG:HH12	1:A:344:GLN:HG2	1.45	0.80
1:A:20:TYR:CE1	2:G:2035:SER:HB2	2.17	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:259:THR:HG22	2:I:262:GLU:HG3	1.63	0.80
2:G:1672:GLN:HG2	2:G:1777:THR:HG23	1.61	0.80
1:B:36:LEU:HD22	1:B:61:LEU:HD21	1.64	0.80
2:H:1159:ILE:HG12	2:H:1169:PRO:HD3	1.63	0.80
1:B:24:SER:CB	2:H:2014:LEU:HD12	2.11	0.80
2:G:741:HIS:CE1	2:G:845:THR:HG22	2.17	0.80
2:H:1847:LEU:HD13	2:H:1849:ARG:HD2	1.63	0.80
2:I:192:ALA:HA	2:I:215:ILE:HD12	1.64	0.80
1:C:1249:SER:HB3	1:C:1280:ILE:HG23	1.63	0.80
1:C:1460:LYS:CE	1:C:1774:GLU:OE2	2.29	0.80
2:I:1242:PHE:HE2	2:I:1244:PRO:HG3	1.46	0.80
1:A:1501:LEU:HD12	1:A:1775:LEU:HD21	1.63	0.79
1:A:484:LEU:O	1:A:485:ASP:HB2	1.82	0.79
2:H:598:THR:HG22	2:H:622:GLY:HA3	1.64	0.79
2:H:907:VAL:HG21	2:H:921:GLU:HG2	1.64	0.79
2:I:455:ILE:HD11	2:I:469:ARG:HD3	1.63	0.79
1:C:1460:LYS:CE	1:C:1774:GLU:CD	2.50	0.79
2:I:1293:THR:HG23	2:I:1296:GLU:H	1.47	0.79
2:H:1199:GLU:OE2	2:H:1567:ARG:CZ	2.31	0.79
2:I:55:THR:CG2	2:I:113:ASP:HB2	2.12	0.79
1:C:1501:LEU:HD11	1:C:1775:LEU:HD21	1.55	0.79
1:A:31:THR:HG23	2:G:2011:ILE:HG21	1.64	0.79
2:I:1310:ASP:OD2	2:I:1602:SER:HB3	1.82	0.79
2:H:774:ALA:HB2	2:H:1077:ILE:HA	1.64	0.79
2:H:1636:LYS:N	2:H:1657:ILE:O	2.14	0.79
2:H:455:ILE:HD11	2:H:469:ARG:HD3	1.63	0.79
2:I:238:CYS:HB2	2:I:239:PRO:HD3	1.64	0.79
2:I:543:PHE:HB2	2:I:545:GLN:HE22	1.46	0.79
2:G:634:ILE:HD11	2:G:649:ILE:HD11	1.63	0.79
2:I:907:VAL:HG21	2:I:921:GLU:HG2	1.65	0.79
2:G:1314:ARG:CG	2:G:1314:ARG:HH11	1.95	0.79
1:B:260:ARG:NH1	1:B:300:VAL:HG21	1.97	0.79
1:C:403:ASP:HB2	1:C:1613:ASN:HD21	1.46	0.79
2:G:774:ALA:HB1	2:G:1081:HIS:HD2	1.47	0.79
1:B:1303:GLY:HA2	1:B:1649:LYS:HE2	1.63	0.79
2:G:55:THR:CG2	2:G:113:ASP:HB2	2.13	0.79
2:H:105:ALA:HB1	2:H:119:THR:HG23	1.65	0.79
2:H:757:ILE:HG21	2:H:765:LEU:HD13	1.64	0.79
2:I:1847:LEU:HD13	2:I:1849:ARG:HD2	1.64	0.79
1:B:1722:VAL:CG1	1:B:1731:LEU:HB3	2.13	0.78
1:C:1523:ARG:CG	1:C:1523:ARG:HH11	1.96	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:85:ASN:HD22	2:G:135:ARG:HH11	1.28	0.78
2:I:1149:TRP:HA	2:I:1242:PHE:CE1	2.19	0.78
1:C:328:LEU:O	1:C:331:ILE:HG22	1.84	0.78
2:H:1567:ARG:NH1	2:H:1567:ARG:HG3	1.98	0.78
2:H:345:THR:HB	2:H:348:GLN:H	1.48	0.78
2:H:960:LYS:HA	2:H:960:LYS:HE2	1.65	0.78
2:I:85:ASN:HD22	2:I:135:ARG:HH11	1.28	0.78
1:B:12:ILE:HD11	2:H:2041:ILE:HD12	1.63	0.78
2:G:7:ARG:NH2	2:G:27:PHE:HB3	1.99	0.78
2:H:131:ILE:CB	2:H:182:VAL:CG1	2.53	0.78
1:A:328:LEU:O	1:A:331:ILE:HG22	1.84	0.78
1:B:333:LYS:O	1:B:337:VAL:HG23	1.81	0.78
2:I:741:HIS:HE1	2:I:845:THR:HG22	1.41	0.78
1:C:1014:ASP:N	1:C:1510:ASN:HD21	1.82	0.78
2:I:138:ASP:O	2:I:139:LYS:HG3	1.83	0.78
2:I:1770:LEU:HD23	2:I:1776:PHE:CE2	2.19	0.78
1:A:2:LYS:HD2	2:G:2050:GLN:HB3	1.66	0.78
1:B:198:PRO:HG3	1:B:209:LEU:CD2	2.13	0.78
1:B:24:SER:O	2:H:1977:HIS:HD2	1.67	0.78
2:H:55:THR:CG2	2:H:113:ASP:HB2	2.13	0.78
1:C:1498:GLU:CG	1:C:1876:LEU:CD1	2.51	0.78
2:I:7:ARG:NH2	2:I:27:PHE:HB3	1.97	0.78
2:I:634:ILE:HD11	2:I:649:ILE:HD11	1.66	0.78
2:G:1227:ARG:HD2	2:G:1565:VAL:HG11	1.66	0.77
2:G:1770:LEU:HD23	2:G:1776:PHE:CE2	2.20	0.77
2:H:1693:ARG:HD2	2:H:1825:GLU:OE2	1.83	0.77
1:A:335:HIS:CE1	1:C:335:HIS:CE1	2.72	0.77
1:C:1463:VAL:HG11	1:C:1877:GLN:HE22	1.48	0.77
2:H:1293:THR:HG23	2:H:1296:GLU:H	1.49	0.77
1:C:1665:ILE:HG13	1:C:1669:ARG:HD3	1.66	0.77
2:G:455:ILE:HD11	2:G:469:ARG:HD3	1.66	0.77
2:G:355:LYS:O	2:G:358:SER:HB3	1.84	0.77
2:H:131:ILE:CG2	2:H:182:VAL:CG1	2.63	0.77
2:G:28:PHE:HZ	2:H:7:ARG:CD	1.97	0.77
2:I:741:HIS:CE1	2:I:855:HIS:NE2	2.52	0.77
1:A:1523:ARG:CG	1:A:1523:ARG:HH11	1.97	0.77
2:H:1310:ASP:OD2	2:H:1602:SER:HB3	1.82	0.77
1:A:24:SER:HB3	2:G:2014:LEU:HD12	1.64	0.77
1:B:1239:HIS:HD2	1:B:1241:SER:OG	1.67	0.77
2:I:1314:ARG:CG	2:I:1314:ARG:HH11	1.98	0.77
2:I:1423:PHE:H	2:I:1423:PHE:HD1	1.30	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1030:TRP:CD1	1:C:1580:LEU:HD22	2.20	0.77
2:G:1284:VAL:HG13	2:G:1377:VAL:HG22	1.65	0.77
2:G:345:THR:HG22	2:G:347:GLU:H	1.47	0.77
2:G:598:THR:HG22	2:G:622:GLY:HA3	1.67	0.77
1:C:1693:ILE:HD11	2:I:998:GLN:HB2	1.67	0.77
1:C:93:ASP:HB3	1:C:94:PRO:HD2	1.65	0.77
1:B:29:ILE:HG13	2:H:1891:TYR:O	1.85	0.77
1:C:1030:TRP:NE1	1:C:1580:LEU:HD22	2.00	0.77
1:C:12:ILE:HD11	2:I:2041:ILE:HD12	1.67	0.77
1:C:340:ARG:HH12	1:C:344:GLN:HG2	1.49	0.77
2:G:907:VAL:HG21	2:G:921:GLU:HG2	1.65	0.77
1:A:1665:ILE:HG13	1:A:1669:ARG:HD3	1.66	0.76
2:H:1834:ARG:NH1	2:H:1834:ARG:HG2	1.86	0.76
2:I:1567:ARG:HG3	2:I:1567:ARG:NH1	2.00	0.76
2:I:1834:ARG:NH1	2:I:1834:ARG:HG2	1.93	0.76
2:I:1956:ARG:CB	2:I:1957:PRO:HD3	2.09	0.76
1:A:1030:TRP:NE1	1:A:1580:LEU:HD22	1.99	0.76
1:B:1030:TRP:NE1	1:B:1580:LEU:HD22	2.00	0.76
1:A:198:PRO:HG3	1:A:209:LEU:CD2	2.14	0.76
1:C:198:PRO:HG3	1:C:209:LEU:CD2	2.15	0.76
2:G:1678:MET:HE3	2:G:1707:LEU:HD22	1.66	0.76
1:C:400:ARG:HG2	1:C:400:ARG:NH1	1.94	0.76
2:H:762:ASN:N	2:H:762:ASN:HD22	1.82	0.76
2:G:146:PHE:HA	2:G:149:VAL:CG1	2.15	0.76
2:G:345:THR:HB	2:G:348:GLN:H	1.50	0.76
2:I:355:LYS:O	2:I:358:SER:HB3	1.85	0.76
1:A:1030:TRP:CD1	1:A:1580:LEU:HD22	2.21	0.76
2:G:1149:TRP:HA	2:G:1242:PHE:CE1	2.20	0.76
2:G:964:LEU:H	2:G:964:LEU:HD23	1.50	0.76
2:H:598:THR:OG1	2:H:599:PRO:HD3	1.86	0.76
2:I:2015:THR:HG22	2:I:2017:LYS:H	1.51	0.76
1:C:1722:VAL:CG1	1:C:1731:LEU:HB3	2.14	0.76
1:C:24:SER:O	2:I:1977:HIS:HD2	1.68	0.76
2:H:1638:ILE:HD12	2:H:1657:ILE:HG13	1.67	0.76
2:H:1956:ARG:HB2	2:H:1957:PRO:CD	2.12	0.76
1:C:1239:HIS:HD2	1:C:1241:SER:OG	1.68	0.76
2:H:584:SER:HB3	2:H:591:PRO:HG3	1.67	0.76
1:A:988:ILE:HD13	1:A:1048:GLU:CB	2.15	0.75
1:B:1501:LEU:CD1	1:B:1775:LEU:HD21	2.16	0.75
2:G:2015:THR:HG22	2:G:2017:LYS:H	1.51	0.75
2:H:1314:ARG:HH11	2:H:1314:ARG:CG	1.97	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:317:THR:HG21	2:I:1309:GLU:HG3	1.67	0.75
2:I:707:PRO:CG	2:I:716:VAL:HG21	2.15	0.75
1:B:1523:ARG:HH11	1:B:1523:ARG:CG	1.98	0.75
1:B:340:ARG:HH12	1:B:344:GLN:HG2	1.48	0.75
2:H:192:ALA:HA	2:H:215:ILE:HD12	1.68	0.75
2:I:1054:LEU:HB2	4:I:3051:FMN:HM72	1.66	0.75
1:B:1665:ILE:HG13	1:B:1669:ARG:HD3	1.66	0.75
2:G:1159:ILE:HG12	2:G:1168:ASN:HA	1.67	0.75
2:G:1956:ARG:HB2	2:G:1957:PRO:CD	2.11	0.75
2:H:7:ARG:NH2	2:H:27:PHE:HB3	1.99	0.75
2:I:856:LYS:HG2	2:I:1054:LEU:HD12	1.68	0.75
1:A:1460:LYS:HE3	1:A:1773:VAL:O	1.86	0.75
2:G:960:LYS:HE2	2:G:960:LYS:HA	1.67	0.75
2:H:355:LYS:O	2:H:358:SER:HB3	1.85	0.75
2:H:84:LEU:HD13	2:H:133:ALA:HB2	1.69	0.75
1:B:328:LEU:O	1:B:331:ILE:HG22	1.86	0.75
2:H:1770:LEU:HD23	2:H:1776:PHE:CE2	2.22	0.75
2:H:259:THR:HG22	2:H:262:GLU:HG3	1.68	0.75
1:A:1498:GLU:HB2	1:A:1876:LEU:HD13	1.67	0.75
1:B:1460:LYS:HE2	1:B:1773:VAL:O	1.86	0.75
1:B:1208:VAL:HG13	1:B:1212:THR:HB	1.68	0.75
2:H:2015:THR:HG22	2:H:2017:LYS:H	1.51	0.75
2:H:579:VAL:HG23	2:H:1078:HIS:CD2	2.21	0.75
1:A:1303:GLY:HA2	1:A:1649:LYS:HE2	1.68	0.75
1:A:1310:GLU:OE1	1:A:1649:LYS:HE3	1.86	0.75
2:G:192:ALA:HA	2:G:215:ILE:HD12	1.67	0.75
2:G:572:ASN:HB3	2:G:576:LYS:H	1.52	0.75
2:H:455:ILE:HD11	2:H:469:ARG:CD	2.17	0.75
2:H:741:HIS:CB	2:H:853:PRO:HB2	2.16	0.75
2:I:960:LYS:HA	2:I:960:LYS:HE2	1.67	0.75
2:I:1129:ALA:HB2	2:I:1138:TRP:CZ3	2.22	0.75
2:I:1956:ARG:HB2	2:I:1957:PRO:CD	2.11	0.75
2:I:572:ASN:HB3	2:I:576:LYS:H	1.52	0.75
2:I:757:ILE:HG21	2:I:765:LEU:HD13	1.69	0.75
2:H:943:TRP:CH2	2:H:1016:PRO:HG3	2.22	0.74
2:H:1834:ARG:CG	2:H:1834:ARG:HH11	1.92	0.74
2:I:1159:ILE:HG12	2:I:1169:PRO:HD3	1.67	0.74
2:I:1284:VAL:HG13	2:I:1377:VAL:HG22	1.69	0.74
1:A:427:ASN:HD21	1:A:610:THR:H	1.33	0.74
1:B:1552:ASN:O	1:B:1556:THR:HG22	1.88	0.74
2:H:1678:MET:HE3	2:H:1707:LEU:HD22	1.67	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:20:TYR:CD2	2:G:2033:THR:OG1	2.40	0.74
2:H:1242:PHE:HE2	2:H:1244:PRO:HG3	1.51	0.74
2:H:1672:GLN:HA	2:H:1676:MET:HE1	1.68	0.74
2:I:943:TRP:CH2	2:I:1016:PRO:HG3	2.21	0.74
2:H:1784:MET:HG3	2:H:1785:GLU:N	2.03	0.74
1:A:1239:HIS:HD2	1:A:1241:SER:OG	1.69	0.74
1:A:335:HIS:CE1	1:B:335:HIS:CE1	2.74	0.74
1:B:335:HIS:HE1	1:C:335:HIS:CE1	2.06	0.74
1:C:749:ILE:HD13	1:C:806:VAL:HG12	1.70	0.74
2:H:1129:ALA:HB2	2:H:1138:TRP:CZ3	2.21	0.74
2:H:1672:GLN:HA	2:H:1676:MET:CE	2.18	0.74
2:H:1956:ARG:CB	2:H:1957:PRO:HD3	2.11	0.74
2:I:105:ALA:HB1	2:I:119:THR:HG23	1.67	0.74
2:I:131:ILE:HB	2:I:182:VAL:HG11	1.69	0.74
1:A:1749:THR:CB	1:A:1873:HIS:C	2.56	0.74
1:C:1552:ASN:O	1:C:1556:THR:HG22	1.88	0.74
2:G:1310:ASP:OD2	2:G:1602:SER:HB3	1.88	0.74
2:I:2035:SER:HB3	2:I:2038:ILE:HG13	1.69	0.74
2:I:835:THR:HG21	2:I:855:HIS:CD2	2.23	0.74
1:B:1551:LYS:HD2	1:B:1617:ILE:HG21	1.70	0.74
2:G:705:LEU:HD12	2:G:716:VAL:HG13	1.70	0.74
2:I:741:HIS:CE1	2:I:845:THR:HG21	2.22	0.74
1:A:1456:GLU:OE1	1:A:1775:LEU:HD23	1.87	0.74
2:G:757:ILE:HG21	2:G:765:LEU:HD13	1.67	0.74
1:B:18:LEU:HD21	2:H:1815:LEU:HD12	1.70	0.74
2:I:1889:VAL:HG13	2:I:1977:HIS:HB2	1.69	0.74
1:A:44:VAL:CG1	1:A:78:ILE:HG12	2.18	0.73
1:B:833:PHE:HA	1:B:937:LYS:HD2	1.69	0.73
2:H:1194:VAL:HG22	2:H:1212:LYS:HB3	1.70	0.73
2:H:7:ARG:NH1	2:H:24:THR:HG23	2.03	0.73
2:H:1004:LEU:HD21	2:H:1020:VAL:HG23	1.70	0.73
1:C:36:LEU:HD22	1:C:61:LEU:HD21	1.68	0.73
2:G:1159:ILE:HG12	2:G:1169:PRO:HD3	1.71	0.73
1:A:982:ILE:HD11	2:G:965:SER:HB2	1.69	0.73
2:H:705:LEU:HD12	2:H:716:VAL:HG13	1.70	0.73
1:C:888:ILE:HD11	1:C:930:LEU:HD21	1.71	0.73
2:H:1680:LEU:HD13	2:H:1687:ALA:HB2	1.71	0.73
2:I:1784:MET:HG3	2:I:1785:GLU:N	2.02	0.73
2:G:105:ALA:HB1	2:G:119:THR:HG23	1.70	0.73
2:G:7:ARG:NH1	2:G:24:THR:HG23	2.03	0.73
2:I:455:ILE:HD11	2:I:469:ARG:CD	2.19	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:749:ILE:HD13	1:B:806:VAL:HG12	1.70	0.73
1:C:1431:GLU:CG	1:C:1433:HIS:CE1	2.72	0.73
2:G:259:THR:HG22	2:G:262:GLU:HG3	1.68	0.73
2:G:777:THR:HG22	2:G:1081:HIS:NE2	2.03	0.73
2:I:7:ARG:NH1	2:I:24:THR:HG23	2.03	0.73
1:A:1551:LYS:HD2	1:A:1617:ILE:HG21	1.70	0.73
2:G:194:THR:HG23	2:G:300:ILE:HD11	1.70	0.73
2:H:1422:THR:HG21	2:H:1474:PHE:HB2	1.70	0.73
2:H:1300:PHE:CA	2:H:1556:VAL:HG11	2.19	0.73
2:H:345:THR:HG22	2:H:347:GLU:H	1.51	0.73
1:C:260:ARG:HH12	1:C:300:VAL:HG21	1.52	0.73
2:G:562:LEU:HG	2:G:793:PRO:HG2	1.71	0.73
2:G:652:ILE:H	2:G:658:MET:CE	2.01	0.73
2:H:1331:TRP:CZ2	2:H:1335:ILE:HG13	2.23	0.73
2:H:1355:ASN:HA	2:H:1407:THR:O	1.88	0.73
2:H:194:THR:HG23	2:H:300:ILE:HD11	1.71	0.73
2:H:146:PHE:HA	2:H:149:VAL:CG1	2.18	0.73
2:H:1300:PHE:HA	2:H:1556:VAL:HG11	1.70	0.73
2:H:7:ARG:HH21	2:H:27:PHE:CB	2.01	0.73
1:B:44:VAL:CG1	1:B:78:ILE:HG12	2.18	0.72
2:H:1284:VAL:HG13	2:H:1377:VAL:HG22	1.71	0.72
2:H:579:VAL:HG23	2:H:1078:HIS:NE2	2.03	0.72
2:I:707:PRO:HG3	2:I:716:VAL:CG2	2.18	0.72
2:G:762:ASN:N	2:G:762:ASN:HD22	1.82	0.72
2:I:579:VAL:HG23	2:I:1078:HIS:CD2	2.24	0.72
1:A:1045:PHE:HB3	1:A:1049:GLY:HA3	1.71	0.72
1:A:655:LEU:HD22	1:A:916:LEU:HD11	1.71	0.72
1:C:1208:VAL:HG13	1:C:1212:THR:HB	1.71	0.72
1:C:1551:LYS:HD2	1:C:1617:ILE:HG21	1.70	0.72
2:G:1889:VAL:HG13	2:G:1977:HIS:HB2	1.72	0.72
2:H:128:THR:HA	2:H:182:VAL:CG2	2.16	0.72
2:H:634:ILE:HD11	2:H:649:ILE:HD11	1.71	0.72
2:I:1672:GLN:HA	2:I:1676:MET:HE1	1.70	0.72
1:A:1722:VAL:CG1	1:A:1731:LEU:HB3	2.19	0.72
1:C:473:GLY:O	1:C:477:ILE:HG13	1.88	0.72
2:I:191:SER:HA	2:I:194:THR:HG22	1.71	0.72
2:I:194:THR:HG23	2:I:300:ILE:HD11	1.70	0.72
1:C:427:ASN:HD21	1:C:610:THR:H	1.38	0.72
1:A:24:SER:CB	2:G:2014:LEU:HD12	2.19	0.72
2:H:109:LEU:HD11	2:H:116:LEU:HD23	1.72	0.72
1:A:1208:VAL:HG13	1:A:1212:THR:HB	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1668:ASP:OD2	1:B:1805:VAL:HB	1.90	0.72
1:B:254:TRP:CZ3	1:B:302:LEU:HD13	2.24	0.72
2:I:1672:GLN:HA	2:I:1676:MET:CE	2.20	0.72
2:I:777:THR:HG22	2:I:1081:HIS:NE2	2.04	0.72
2:I:7:ARG:HH21	2:I:27:PHE:CB	1.99	0.72
1:B:24:SER:HB3	2:H:2014:LEU:HD12	1.69	0.72
2:G:584:SER:HB3	2:G:591:PRO:HG3	1.70	0.72
2:H:455:ILE:CD1	2:H:469:ARG:HD3	2.20	0.72
2:H:455:ILE:CG1	2:H:469:ARG:HD3	2.20	0.72
2:I:259:THR:HG22	2:I:262:GLU:CG	2.20	0.72
1:B:473:GLY:O	1:B:477:ILE:HG13	1.89	0.72
2:G:1680:LEU:HD13	2:G:1687:ALA:HB2	1.71	0.72
2:G:598:THR:OG1	2:G:599:PRO:HD3	1.89	0.72
2:H:572:ASN:HB3	2:H:576:LYS:H	1.54	0.72
2:G:131:ILE:CD1	2:G:182:VAL:HB	2.09	0.72
2:H:777:THR:HG22	2:H:1081:HIS:NE2	2.04	0.72
2:G:751:LEU:HD23	2:G:791:TYR:CE2	2.25	0.72
2:G:741:HIS:CE1	2:G:845:THR:HG21	2.24	0.72
2:G:741:HIS:CE1	2:G:855:HIS:NE2	2.58	0.72
2:I:1086:LEU:HG	2:I:1092:ASP:HA	1.72	0.72
2:I:84:LEU:HD13	2:I:133:ALA:HB2	1.71	0.72
1:B:1232:TYR:CZ	1:B:1701:LYS:HD2	2.26	0.71
2:G:1567:ARG:HG3	2:G:1567:ARG:NH1	2.02	0.71
2:G:161:GLY:H	2:G:505:GLY:HA3	1.54	0.71
2:I:2036:GLU:HB2	2:I:2037:PRO:HD3	1.72	0.71
1:A:1501:LEU:CD1	1:A:1775:LEU:CD2	2.62	0.71
1:B:888:ILE:HD12	1:B:939:PHE:HE2	1.55	0.71
1:C:59:ARG:NH1	2:I:1896:GLN:NE2	2.38	0.71
2:H:652:ILE:H	2:H:658:MET:CE	2.03	0.71
2:H:741:HIS:NE2	2:H:855:HIS:CE1	2.58	0.71
2:I:1673:GLU:H	2:I:1676:MET:HE3	1.55	0.71
1:B:1030:TRP:NE1	1:B:1580:LEU:CD2	2.54	0.71
2:G:1638:ILE:HD12	2:G:1657:ILE:HD12	1.71	0.71
2:G:762:ASN:H	2:G:762:ASN:ND2	1.85	0.71
2:H:1227:ARG:HD2	2:H:1565:VAL:HG11	1.71	0.71
2:I:1670:GLY:H	2:I:1672:GLN:HE21	1.38	0.71
1:A:733:ILE:HD13	1:A:761:LEU:HD11	1.71	0.71
1:A:982:ILE:HD11	2:G:965:SER:CB	2.21	0.71
2:G:2036:GLU:HB2	2:G:2037:PRO:HD3	1.73	0.71
2:G:50:ALA:HB3	2:G:53:GLU:HG3	1.72	0.71
1:A:983:GLN:NE2	2:G:962:LYS:HD2	2.05	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1819:ALA:HA	2:H:2005:ARG:HH11	1.55	0.71
1:B:2:LYS:HD2	2:H:2050:GLN:HB3	1.72	0.71
2:I:1331:TRP:CZ2	2:I:1335:ILE:HG13	2.25	0.71
2:I:455:ILE:CG1	2:I:469:ARG:HD3	2.21	0.71
1:C:733:ILE:HD13	1:C:761:LEU:HD11	1.72	0.71
2:H:1054:LEU:HB2	4:H:3051:FMN:C7M	2.21	0.71
2:I:732:TRP:CG	2:I:750:MET:CE	2.73	0.71
1:A:1208:VAL:CG1	1:A:1212:THR:HB	2.21	0.71
1:C:1219:VAL:HG22	1:C:1384:ILE:HD12	1.73	0.71
2:G:1199:GLU:OE2	2:G:1567:ARG:NH1	2.23	0.71
2:G:1672:GLN:HA	2:G:1676:MET:HE1	1.72	0.71
2:G:1917:ILE:HG23	2:G:1922:ILE:HB	1.72	0.71
2:G:238:CYS:HB2	2:G:239:PRO:HD3	1.71	0.71
2:G:949:ASP:HB3	2:G:1006:MET:HE2	1.71	0.71
2:H:238:CYS:HB2	2:H:239:PRO:HD3	1.71	0.71
2:I:1058:VAL:O	2:I:1061:GLN:HG2	1.90	0.71
2:G:109:LEU:HD11	2:G:116:LEU:HD23	1.71	0.71
1:B:18:LEU:HD21	2:H:1815:LEU:CD1	2.20	0.71
1:B:655:LEU:HD22	1:B:916:LEU:HD11	1.72	0.71
1:C:1498:GLU:CB	1:C:1876:LEU:HD13	2.21	0.71
2:G:707:PRO:CG	2:G:716:VAL:HG21	2.20	0.71
2:H:964:LEU:HD23	2:H:964:LEU:H	1.56	0.71
1:C:1498:GLU:HG3	1:C:1876:LEU:CB	2.09	0.70
1:C:459:ASP:HB3	1:C:462:LYS:HG3	1.73	0.70
2:I:1242:PHE:CE2	2:I:1244:PRO:HG3	2.26	0.70
1:C:59:ARG:NH1	2:I:1896:GLN:HE22	1.88	0.70
2:I:751:LEU:HD23	2:I:791:TYR:CE2	2.25	0.70
1:A:1119:LYS:HE2	1:A:1341:PHE:CD1	2.27	0.70
1:B:1721:ARG:NH1	1:B:1721:ARG:HG2	2.00	0.70
2:H:562:LEU:O	2:H:566:HIS:HB2	1.90	0.70
2:H:707:PRO:CG	2:H:716:VAL:HG21	2.21	0.70
1:A:1:MET:CE	1:A:6:GLU:HA	2.21	0.70
1:B:1460:LYS:HZ1	1:B:1774:GLU:CD	1.92	0.70
1:C:631:PRO:HB2	1:C:634:THR:OG1	1.91	0.70
2:G:1672:GLN:HA	2:G:1676:MET:CE	2.21	0.70
1:C:12:ILE:HD11	2:I:2041:ILE:CD1	2.21	0.70
2:I:964:LEU:H	2:I:964:LEU:HD23	1.56	0.70
1:C:881:ASN:HA	1:C:944:ARG:NH2	2.06	0.70
2:G:650:ASN:HD21	4:G:3051:FMN:HN3	1.40	0.70
2:I:1680:LEU:HD13	2:I:1687:ALA:HB2	1.72	0.70
2:I:732:TRP:CG	2:I:750:MET:HE1	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1208:VAL:CG1	1:B:1212:THR:HB	2.20	0.70
1:B:1501:LEU:HD11	1:B:1775:LEU:CD2	2.22	0.70
2:G:579:VAL:HG23	2:G:1078:HIS:CD2	2.27	0.70
2:G:123:ILE:HD11	2:G:533:LEU:CD2	2.21	0.70
1:B:90:TYR:HE2	2:H:1659:GLN:OE1	1.73	0.70
2:I:455:ILE:CD1	2:I:469:ARG:HD3	2.20	0.70
2:I:748:THR:HB	2:I:749:PRO:HD3	1.74	0.70
1:B:459:ASP:HB3	1:B:462:LYS:HG3	1.73	0.70
2:G:1956:ARG:CB	2:G:1957:PRO:HD3	2.10	0.70
2:G:707:PRO:HG3	2:G:716:VAL:CG2	2.22	0.70
2:G:732:TRP:CG	2:G:750:MET:HE1	2.27	0.70
2:I:146:PHE:HA	2:I:149:VAL:CG1	2.20	0.70
1:A:1312:VAL:HG22	1:A:1329:VAL:HG11	1.73	0.70
1:B:1:MET:CE	1:B:6:GLU:HA	2.21	0.70
2:G:1242:PHE:HE2	2:G:1244:PRO:HG3	1.55	0.70
1:B:968:VAL:HG23	2:H:1515:PRO:HG3	1.74	0.70
1:C:260:ARG:NH1	1:C:300:VAL:HG21	2.06	0.70
2:G:1355:ASN:HA	2:G:1407:THR:O	1.92	0.70
2:H:234:ILE:HG13	2:H:235:PRO:HD3	1.73	0.70
2:I:1264:GLU:HA	2:I:1275:PHE:CE1	2.27	0.70
1:C:655:LEU:HD22	1:C:916:LEU:HD11	1.74	0.70
2:G:455:ILE:HD11	2:G:469:ARG:CD	2.22	0.70
2:H:741:HIS:CE1	2:H:845:THR:HG21	2.26	0.70
1:A:12:ILE:HA	1:A:15:THR:CG2	2.21	0.70
2:G:1331:TRP:CZ2	2:G:1335:ILE:HG13	2.26	0.70
2:G:1673:GLU:H	2:G:1676:MET:HE3	1.57	0.70
2:H:2036:GLU:HB2	2:H:2037:PRO:HD3	1.72	0.70
1:A:1232:TYR:CZ	1:A:1701:LYS:HD2	2.27	0.69
2:G:7:ARG:HH21	2:G:27:PHE:CB	2.01	0.69
2:H:1673:GLU:H	2:H:1676:MET:HE3	1.57	0.69
2:H:499:THR:CB	2:H:500:HIS:HD2	1.99	0.69
2:H:835:THR:HB	2:H:845:THR:HG23	1.73	0.69
2:I:926:LEU:HD13	2:I:947:THR:HG22	1.73	0.69
1:B:427:ASN:HD21	1:B:610:THR:H	1.40	0.69
2:G:1194:VAL:HG22	2:G:1212:LYS:HB3	1.74	0.69
2:G:1422:THR:HG21	2:G:1474:PHE:HB2	1.72	0.69
2:H:1670:GLY:H	2:H:1672:GLN:HE21	1.40	0.69
2:I:1862:VAL:HG11	2:I:1866:PHE:CD1	2.26	0.69
1:A:749:ILE:HD13	1:A:806:VAL:HG12	1.72	0.69
1:C:12:ILE:HA	1:C:15:THR:CG2	2.22	0.69
1:C:852:ARG:CG	1:C:852:ARG:HH11	2.00	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1054:LEU:HB2	4:G:3051:FMN:C7M	2.22	0.69
2:H:1195:VAL:CG1	2:H:1211:LEU:HB3	2.23	0.69
2:H:1381:VAL:HG13	2:H:1390:VAL:HG22	1.74	0.69
2:H:567:PRO:HG3	2:H:781:LEU:CD1	2.22	0.69
2:I:652:ILE:H	2:I:658:MET:CE	2.04	0.69
1:A:254:TRP:CZ3	1:A:292:GLN:HG3	2.26	0.69
1:B:254:TRP:CZ3	1:B:292:GLN:HG3	2.27	0.69
2:I:1770:LEU:HD23	2:I:1776:PHE:HE2	1.55	0.69
2:G:84:LEU:HD13	2:G:133:ALA:HB2	1.75	0.69
2:G:964:LEU:CD2	2:G:964:LEU:H	2.05	0.69
2:I:1678:MET:HE3	2:I:1707:LEU:HD22	1.75	0.69
1:C:1208:VAL:CG1	1:C:1212:THR:HB	2.23	0.69
2:G:856:LYS:HG2	2:G:1054:LEU:HD12	1.73	0.69
2:H:1917:ILE:HG23	2:H:1922:ILE:HB	1.74	0.69
2:H:1889:VAL:HG13	2:H:1977:HIS:CB	2.22	0.69
1:A:1721:ARG:NH1	1:A:1721:ARG:HG2	1.97	0.69
1:A:749:ILE:HD11	1:A:805:CYS:HB3	1.75	0.69
1:B:1376:PHE:HB3	1:B:1544:THR:HG22	1.74	0.69
2:G:191:SER:HA	2:G:194:THR:HG22	1.74	0.69
2:I:109:LEU:HD11	2:I:116:LEU:HD23	1.73	0.69
2:I:1194:VAL:HG22	2:I:1212:LYS:HB3	1.75	0.69
1:A:479:ASN:O	1:A:483:VAL:HG23	1.91	0.69
2:G:1172:LYS:HE3	2:G:1574:ASN:OD1	1.92	0.69
2:G:1670:GLY:H	2:G:1672:GLN:HE21	1.39	0.69
2:H:1889:VAL:HG13	2:H:1977:HIS:HB2	1.72	0.69
2:H:2022:THR:HG23	2:H:2025:TYR:H	1.58	0.69
1:A:1693:ILE:CD1	2:G:998:GLN:HB2	2.23	0.69
2:H:663:ILE:HB	2:H:664:PRO:HD3	1.75	0.69
2:H:751:LEU:HD23	2:H:791:TYR:CE2	2.27	0.69
2:I:652:ILE:N	2:I:658:MET:HE3	2.08	0.69
1:A:631:PRO:HB2	1:A:634:THR:OG1	1.92	0.69
1:C:1838:GLU:OE1	1:C:1852:HIS:HE1	1.76	0.69
2:G:1264:GLU:HA	2:G:1275:PHE:CE1	2.28	0.69
2:G:1496:LYS:HE2	2:G:1693:ARG:HH21	1.57	0.69
2:H:1172:LYS:CE	2:H:1574:ASN:OD1	2.40	0.69
2:H:1739:GLU:CB	2:H:1987:PRO:HB3	2.21	0.69
2:H:305:PHE:CE1	2:H:442:ASP:HB3	2.28	0.69
2:I:1739:GLU:CB	2:I:1987:PRO:HB3	2.20	0.69
2:I:663:ILE:HB	2:I:664:PRO:HD3	1.75	0.69
2:I:768:GLY:HA3	2:I:800:LEU:HD21	1.74	0.69
1:A:1376:PHE:HB3	1:A:1544:THR:HG22	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:257:PRO:HD2	1:A:260:ARG:HB2	1.75	0.69
1:C:1219:VAL:HA	1:C:1384:ILE:CD1	2.20	0.69
1:C:1431:GLU:OE2	1:C:1433:HIS:HE1	1.76	0.69
1:C:1021:VAL:HG11	1:C:1597:LEU:HD11	1.74	0.69
2:G:663:ILE:HB	2:G:664:PRO:HD3	1.74	0.69
2:H:54:PRO:HG3	2:H:63:LYS:HG3	1.72	0.69
2:H:652:ILE:N	2:H:658:MET:HE3	2.05	0.69
2:I:1917:ILE:HG23	2:I:1922:ILE:HB	1.74	0.69
2:I:499:THR:CB	2:I:500:HIS:HD2	1.95	0.69
1:A:1838:GLU:OE1	1:A:1852:HIS:HE1	1.75	0.68
2:H:259:THR:HG22	2:H:262:GLU:CG	2.22	0.68
2:I:234:ILE:HG13	2:I:235:PRO:HD3	1.73	0.68
1:A:1203:ASP:HB3	1:B:179:LYS:HZ3	1.58	0.68
2:G:1058:VAL:O	2:G:1061:GLN:HG2	1.93	0.68
1:A:1431:GLU:HG3	1:A:1433:HIS:CE1	2.28	0.68
1:C:1045:PHE:HB3	1:C:1049:GLY:HA3	1.74	0.68
2:G:2035:SER:HB3	2:G:2038:ILE:HG13	1.74	0.68
2:H:1101:GLU:HB3	2:H:1147:ILE:HG22	1.76	0.68
2:H:161:GLY:H	2:H:505:GLY:HA3	1.59	0.68
1:C:1376:PHE:HB3	1:C:1544:THR:HG22	1.74	0.68
2:G:1834:ARG:HG2	2:G:1834:ARG:NH1	1.93	0.68
2:I:1227:ARG:NH1	2:I:1227:ARG:HG3	2.00	0.68
2:I:598:THR:CG2	2:I:622:GLY:HA3	2.23	0.68
1:A:888:ILE:HD11	1:A:930:LEU:HD21	1.75	0.68
1:B:1312:VAL:HG22	1:B:1329:VAL:HG11	1.73	0.68
1:B:400:ARG:HG2	1:B:400:ARG:NH1	2.00	0.68
2:I:187:LEU:HA	2:I:190:PHE:HB3	1.76	0.68
2:I:161:GLY:H	2:I:505:GLY:HA3	1.56	0.68
1:C:985:ARG:NH1	2:I:953:ARG:CZ	2.57	0.68
1:C:1014:ASP:H	1:C:1510:ASN:ND2	1.84	0.68
2:G:1784:MET:HG3	2:G:1785:GLU:N	2.07	0.68
2:G:259:THR:HG22	2:G:262:GLU:CG	2.22	0.68
2:G:54:PRO:HG3	2:G:63:LYS:HG3	1.76	0.68
2:G:732:TRP:CG	2:G:750:MET:CE	2.76	0.68
1:B:90:TYR:CE2	2:H:1659:GLN:OE1	2.47	0.68
2:I:1638:ILE:HD12	2:I:1657:ILE:HD12	1.75	0.68
2:I:594:VAL:HG21	2:I:610:THR:HG21	1.75	0.68
1:A:1474:ALA:HA	1:A:1478:PRO:CG	2.24	0.68
1:C:987:ASN:HD22	2:I:957:ARG:HD2	1.58	0.68
2:H:648:GLY:HA3	2:H:678:PHE:CE2	2.29	0.68
1:A:504:ASP:HB3	1:A:508:ASN:H	1.56	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:332:THR:HG22	1:B:331:ILE:HD11	1.76	0.68
1:C:1460:LYS:HE3	1:C:1774:GLU:OE1	1.92	0.68
2:G:455:ILE:CG1	2:G:469:ARG:HD3	2.23	0.68
2:H:187:LEU:HA	2:H:190:PHE:HB3	1.75	0.68
2:I:305:PHE:CE1	2:I:442:ASP:HB3	2.28	0.68
1:B:1219:VAL:HG22	1:B:1384:ILE:HD12	1.75	0.68
1:C:1310:GLU:OE1	1:C:1649:LYS:HE3	1.93	0.68
2:G:455:ILE:CD1	2:G:469:ARG:HD3	2.24	0.68
2:H:641:ILE:HG12	2:H:645:SER:HB2	1.76	0.68
1:A:1056:ILE:HD13	1:A:1193:TRP:HD1	1.59	0.68
1:B:1838:GLU:OE1	1:B:1852:HIS:HE1	1.76	0.68
2:G:1176:PRO:O	2:G:1177:SER:HB3	1.93	0.68
2:H:1058:VAL:O	2:H:1061:GLN:HG2	1.94	0.68
1:A:1303:GLY:H	1:A:1307:THR:HG22	1.59	0.67
1:A:1594:ASN:O	1:A:1598:GLN:HG3	1.94	0.67
1:B:183:GLN:HE21	1:B:202:GLU:HG2	1.59	0.67
1:C:1303:GLY:H	1:C:1307:THR:HG22	1.60	0.67
1:C:254:TRP:CZ3	1:C:292:GLN:HG3	2.29	0.67
1:C:44:VAL:CG1	1:C:78:ILE:HG12	2.24	0.67
2:G:1475:LYS:CG	2:G:1481:SER:HB2	2.24	0.67
2:G:187:LEU:HA	2:G:190:PHE:HB3	1.74	0.67
2:H:1054:LEU:HB2	4:H:3051:FMN:HM72	1.76	0.67
2:H:707:PRO:HG3	2:H:716:VAL:CG2	2.24	0.67
2:H:191:SER:HA	2:H:194:THR:HG22	1.77	0.67
1:C:1232:TYR:CZ	1:C:1701:LYS:HD2	2.29	0.67
1:C:1455:ARG:HH11	1:C:1458:GLN:HE21	1.42	0.67
2:G:1889:VAL:HG13	2:G:1977:HIS:CB	2.24	0.67
2:G:163:GLN:HG2	2:G:423:VAL:HG12	1.77	0.67
2:H:50:ALA:HB3	2:H:53:GLU:HG3	1.76	0.67
2:I:579:VAL:HG23	2:I:1078:HIS:NE2	2.10	0.67
1:C:504:ASP:HB3	1:C:508:ASN:H	1.60	0.67
2:G:1129:ALA:HB2	2:G:1138:TRP:CZ3	2.30	0.67
2:I:598:THR:OG1	2:I:599:PRO:HD3	1.94	0.67
1:A:459:ASP:HB3	1:A:462:LYS:HG3	1.76	0.67
1:B:1303:GLY:H	1:B:1307:THR:HG22	1.59	0.67
1:C:1056:ILE:HD13	1:C:1193:TRP:HD1	1.60	0.67
1:C:1523:ARG:CG	1:C:1523:ARG:NH1	2.57	0.67
1:C:409:ALA:HB2	1:C:442:ARG:HD2	1.76	0.67
2:G:768:GLY:HA3	2:G:800:LEU:HD21	1.76	0.67
2:G:910:GLN:HE21	2:G:912:ARG:HH21	1.42	0.67
2:H:902:PRO:HG2	2:H:929:LEU:HD21	1.74	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:904:PHE:HB2	2:I:1017:PHE:CD1	2.28	0.67
2:I:910:GLN:HE21	2:I:912:ARG:HH21	1.40	0.67
1:A:1360:ARG:HH11	1:A:1364:GLU:HG2	1.60	0.67
1:B:1039:MET:O	1:B:1609:ARG:NH2	2.27	0.67
2:G:1741:ILE:HG12	2:G:1746:LEU:HD13	1.77	0.67
1:B:1310:GLU:OE1	1:B:1649:LYS:HE3	1.94	0.67
2:I:1675:GLY:O	2:I:1678:MET:HB2	1.94	0.67
1:A:328:LEU:O	1:A:328:LEU:HD22	1.94	0.67
1:C:746:GLU:O	1:C:750:GLU:HG3	1.95	0.67
2:H:545:GLN:HE21	2:H:545:GLN:H	1.41	0.67
2:H:594:VAL:HG21	2:H:610:THR:HG21	1.77	0.67
2:H:768:GLY:HA3	2:H:800:LEU:HD21	1.77	0.67
2:I:54:PRO:HG3	2:I:63:LYS:HG3	1.75	0.67
2:G:1004:LEU:HD21	2:G:1020:VAL:HG23	1.77	0.67
2:G:1676:MET:HE1	2:G:1781:LEU:HD21	1.76	0.67
2:G:1770:LEU:HD23	2:G:1776:PHE:HE2	1.58	0.67
2:H:1086:LEU:HG	2:H:1092:ASP:HA	1.77	0.67
2:H:1242:PHE:CE2	2:H:1244:PRO:HG3	2.30	0.67
2:H:1264:GLU:HA	2:H:1275:PHE:CE1	2.29	0.67
2:H:315:PRO:O	2:I:1314:ARG:NH2	2.28	0.67
2:I:703:LEU:HD21	2:I:705:LEU:HD21	1.76	0.67
2:G:353:VAL:HG23	2:G:357:ASN:ND2	2.10	0.67
2:H:1256:GLU:O	2:H:1257:ASP:HB2	1.93	0.67
2:I:1889:VAL:HG13	2:I:1977:HIS:CB	2.24	0.67
2:I:949:ASP:HB3	2:I:1006:MET:HE2	1.77	0.67
1:A:1030:TRP:NE1	1:A:1580:LEU:CD2	2.57	0.66
1:C:257:PRO:HD2	1:C:260:ARG:HB2	1.76	0.66
1:C:888:ILE:HD12	1:C:939:PHE:HE2	1.60	0.66
2:G:670:ARG:HD3	2:G:699:GLY:O	1.95	0.66
2:H:1159:ILE:CG1	2:H:1169:PRO:HD3	2.24	0.66
2:H:1862:VAL:HG11	2:H:1866:PHE:CD1	2.30	0.66
2:I:1227:ARG:HD2	2:I:1565:VAL:HG11	1.77	0.66
2:I:163:GLN:HG2	2:I:423:VAL:HG12	1.76	0.66
2:I:50:ALA:HB3	2:I:53:GLU:HG3	1.76	0.66
1:A:1662:TYR:O	1:A:1665:ILE:HG22	1.95	0.66
1:A:473:GLY:O	1:A:477:ILE:HG13	1.95	0.66
1:B:328:LEU:O	1:B:328:LEU:HD22	1.95	0.66
1:B:335:HIS:CE1	1:C:335:HIS:CE1	2.82	0.66
1:C:1430:ARG:O	1:C:1430:ARG:HG2	1.94	0.66
1:C:294:TYR:CE1	1:C:298:VAL:HG21	2.29	0.66
1:C:328:LEU:HD22	1:C:328:LEU:O	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:670:ARG:HD3	2:H:699:GLY:O	1.95	0.66
2:I:1920:GLN:HG2	2:I:1922:ILE:HD11	1.75	0.66
2:I:1739:GLU:O	2:I:1987:PRO:HG3	1.95	0.66
1:A:183:GLN:HE21	1:A:202:GLU:HG2	1.59	0.66
1:B:1045:PHE:HB3	1:B:1049:GLY:HA3	1.76	0.66
1:B:27:ARG:HB2	2:H:2016:ALA:HB2	1.76	0.66
1:C:1030:TRP:NE1	1:C:1580:LEU:CD2	2.58	0.66
1:C:460:GLU:HG2	1:C:470:LYS:HD3	1.77	0.66
1:C:507:GLY:N	1:C:954:ARG:HG2	2.11	0.66
2:H:910:GLN:HE21	2:H:912:ARG:HH21	1.43	0.66
2:I:762:ASN:ND2	2:I:762:ASN:H	1.88	0.66
2:I:750:MET:HG3	2:I:796:PHE:HZ	1.60	0.66
1:A:864:VAL:HG22	1:A:921:PRO:HB3	1.78	0.66
1:B:12:ILE:HA	1:B:15:THR:CG2	2.25	0.66
2:I:705:LEU:HD12	2:I:716:VAL:HG13	1.75	0.66
1:B:504:ASP:HB3	1:B:508:ASN:H	1.60	0.66
1:C:934:PRO:O	1:C:935:GLU:C	2.34	0.66
2:G:1300:PHE:HA	2:G:1556:VAL:HG11	1.77	0.66
2:G:1862:VAL:HG11	2:G:1866:PHE:CD1	2.30	0.66
2:G:560:ASN:O	2:G:561:TRP:C	2.34	0.66
2:G:61:VAL:O	2:G:65:LEU:HB2	1.96	0.66
2:H:826:GLY:HA3	2:H:1061:GLN:HB3	1.75	0.66
2:H:835:THR:HG21	2:H:855:HIS:HD2	1.59	0.66
2:H:741:HIS:CE1	2:H:855:HIS:CE1	2.84	0.66
1:A:988:ILE:HD13	1:A:1048:GLU:HB3	1.76	0.66
1:B:1749:THR:CB	1:B:1874:ASP:N	2.58	0.66
2:G:579:VAL:HG23	2:G:1078:HIS:NE2	2.10	0.66
2:H:1173:VAL:HG21	2:H:1221:MET:HE1	1.77	0.66
2:H:1986:LYS:N	2:H:1987:PRO:HD2	2.11	0.66
1:A:836:ASP:HB3	1:A:839:TYR:HB3	1.76	0.66
1:B:1540:SER:HA	1:B:1575:VAL:HG22	1.78	0.66
1:B:497:THR:OG1	1:B:513:GLU:HG2	1.95	0.66
1:C:1431:GLU:OE2	1:C:1433:HIS:CE1	2.48	0.66
2:G:1920:GLN:HG2	2:G:1922:ILE:HD11	1.78	0.66
2:H:904:PHE:HB2	2:H:1017:PHE:CD1	2.30	0.66
2:H:1741:ILE:HG12	2:H:1746:LEU:HD13	1.76	0.66
2:H:61:VAL:O	2:H:65:LEU:HB2	1.96	0.66
1:B:733:ILE:HD13	1:B:761:LEU:HD11	1.78	0.66
2:G:1457:PHE:CZ	2:G:1501:ILE:HD11	2.30	0.66
2:G:1808:SER:H	2:G:2013:ASN:ND2	1.93	0.66
2:H:131:ILE:HG21	2:H:182:VAL:CG1	2.18	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1173:VAL:HG21	2:I:1221:MET:HE1	1.77	0.66
2:I:1195:VAL:CG1	2:I:1211:LEU:HB3	2.25	0.66
1:A:254:TRP:CH2	1:A:292:GLN:HG3	2.31	0.66
1:B:1219:VAL:HA	1:B:1384:ILE:CD1	2.24	0.66
1:C:295:ALA:HB2	1:C:302:LEU:HD11	1.77	0.66
2:H:1770:LEU:HD23	2:H:1776:PHE:HE2	1.59	0.66
2:H:560:ASN:O	2:H:561:TRP:C	2.33	0.66
2:I:1381:VAL:HG13	2:I:1390:VAL:HG22	1.78	0.66
2:I:1808:SER:H	2:I:2013:ASN:ND2	1.94	0.66
1:B:501:THR:N	1:B:886:GLU:OE1	2.21	0.66
1:C:1360:ARG:HH11	1:C:1364:GLU:HG2	1.60	0.66
2:G:843:ILE:HD11	2:G:1055:HIS:HB3	1.78	0.66
2:G:1352:HIS:CD2	2:G:1410:PHE:CE2	2.84	0.66
2:G:33:LEU:HD11	2:G:80:PHE:HD2	1.61	0.66
2:G:904:PHE:HB2	2:G:1017:PHE:CD1	2.30	0.66
2:I:1819:ALA:HA	2:I:2005:ARG:HH11	1.61	0.66
1:A:497:THR:OG1	1:A:513:GLU:HG2	1.96	0.65
1:B:529:MET:CG	1:B:638:LEU:HG	2.26	0.65
1:C:1317:GLU:HA	1:C:1317:GLU:OE1	1.96	0.65
1:C:1:MET:CE	1:C:6:GLU:HA	2.25	0.65
2:G:1976:PHE:HA	2:G:1981:LEU:HD22	1.78	0.65
2:G:652:ILE:N	2:G:658:MET:HE3	2.11	0.65
2:H:2035:SER:HB3	2:H:2038:ILE:HG13	1.78	0.65
1:B:836:ASP:HB3	1:B:839:TYR:HB3	1.79	0.65
1:C:1312:VAL:HG22	1:C:1329:VAL:HG11	1.78	0.65
1:C:330:GLU:HA	1:C:333:LYS:HD2	1.79	0.65
1:C:836:ASP:HB3	1:C:839:TYR:HB3	1.77	0.65
2:G:1352:HIS:HE1	2:G:1583:MET:HE1	1.60	0.65
2:G:1986:LYS:N	2:G:1987:PRO:HD2	2.12	0.65
2:H:1325:PHE:CZ	2:H:1328:VAL:HG11	2.32	0.65
2:H:732:TRP:CG	2:H:750:MET:CE	2.79	0.65
2:I:1782:THR:HG22	2:I:1827:LEU:HD21	1.78	0.65
1:A:27:ARG:HB2	2:G:2016:ALA:HB2	1.77	0.65
1:A:934:PRO:O	1:A:935:GLU:C	2.35	0.65
2:G:597:MET:HA	4:G:3051:FMN:N5	2.10	0.65
1:A:27:ARG:HD2	1:A:30:GLU:OE2	1.97	0.65
1:A:331:ILE:HD11	1:C:332:THR:HG22	1.79	0.65
1:B:1317:GLU:OE1	1:B:1317:GLU:HA	1.96	0.65
1:B:460:GLU:HG2	1:B:470:LYS:HD3	1.78	0.65
1:C:32:GLN:HA	1:C:35:PHE:CE2	2.31	0.65
2:G:1086:LEU:HG	2:G:1092:ASP:HA	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:234:ILE:HG13	2:G:235:PRO:HD3	1.77	0.65
2:G:259:THR:HG23	2:G:262:GLU:H	1.62	0.65
2:G:902:PRO:HG2	2:G:929:LEU:HD21	1.79	0.65
2:H:1719:ILE:O	2:H:1761:SER:HB2	1.97	0.65
2:I:251:VAL:O	2:I:255:LEU:HB2	1.96	0.65
1:B:257:PRO:HD2	1:B:260:ARG:HB2	1.78	0.65
1:B:749:ILE:HD11	1:B:805:CYS:HB3	1.77	0.65
2:G:736:ARG:NH1	2:G:769:SER:O	2.29	0.65
1:A:1219:VAL:HG22	1:A:1384:ILE:HD12	1.77	0.65
1:A:331:ILE:CD1	1:C:332:THR:HG22	2.26	0.65
2:G:131:ILE:HG21	2:G:182:VAL:CG1	2.26	0.65
2:I:545:GLN:HE21	2:I:545:GLN:H	1.42	0.65
1:C:435:GLU:O	1:C:439:ILE:HG13	1.96	0.65
2:G:1381:VAL:HG13	2:G:1390:VAL:HG22	1.77	0.65
1:A:968:VAL:O	2:G:1512:HIS:HB2	1.97	0.65
2:G:1740:THR:HG22	2:G:1742:VAL:HG23	1.78	0.65
1:B:294:TYR:CE1	1:B:298:VAL:HG21	2.32	0.65
1:C:497:THR:OG1	1:C:513:GLU:HG2	1.97	0.65
2:G:826:GLY:HA3	2:G:1061:GLN:HB3	1.77	0.65
2:H:667:LYS:HB2	2:H:698:LEU:HD23	1.79	0.65
2:H:748:THR:HB	2:H:749:PRO:HD3	1.78	0.65
2:H:949:ASP:HB3	2:H:1006:MET:HE2	1.79	0.65
1:A:1219:VAL:HA	1:A:1384:ILE:CD1	2.23	0.65
1:A:340:ARG:HH12	1:A:344:GLN:CG	2.09	0.65
1:A:529:MET:CG	1:A:638:LEU:HG	2.27	0.65
2:G:1242:PHE:CE2	2:G:1244:PRO:HG3	2.31	0.65
2:G:1418:ASP:O	2:G:1420:GLU:N	2.30	0.65
2:G:259:THR:CG2	2:G:262:GLU:H	2.10	0.65
2:H:567:PRO:HG3	2:H:781:LEU:HD12	1.77	0.65
1:A:294:TYR:CE1	1:A:298:VAL:HG21	2.32	0.65
1:C:1292:ILE:CD1	1:C:1328:ILE:HD11	2.27	0.65
2:I:1176:PRO:O	2:I:1177:SER:HB3	1.95	0.65
1:C:11:HIS:ND1	2:I:1998:LYS:HA	2.12	0.65
1:B:254:TRP:CH2	1:B:292:GLN:HG3	2.32	0.64
2:G:1841:ALA:O	2:G:1842:VAL:HG23	1.97	0.64
2:H:1195:VAL:HG13	2:H:1211:LEU:HB3	1.80	0.64
2:H:741:HIS:HB3	2:H:853:PRO:HB2	1.77	0.64
2:I:1475:LYS:CG	2:I:1481:SER:HB2	2.27	0.64
2:I:490:TRP:HE1	2:I:516:THR:CG2	2.00	0.64
1:B:599:MET:HB2	1:B:624:LYS:CD	2.24	0.64
1:C:1721:ARG:CG	1:C:1721:ARG:NH1	2.56	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1906:ALA:O	2:G:1910:VAL:HG23	1.97	0.64
2:G:353:VAL:HG23	2:G:357:ASN:HD22	1.61	0.64
2:H:1859:PRO:O	2:H:1862:VAL:HG13	1.98	0.64
2:I:1355:ASN:HA	2:I:1407:THR:O	1.97	0.64
2:I:719:ILE:O	2:I:722:ALA:HB3	1.97	0.64
1:A:421:ILE:CG1	1:A:469:VAL:HG21	2.28	0.64
1:A:893:VAL:HG11	1:A:930:LEU:HD23	1.80	0.64
1:B:864:VAL:HG22	1:B:921:PRO:HB3	1.77	0.64
1:C:749:ILE:HD11	1:C:805:CYS:HB3	1.78	0.64
2:H:115:THR:HB	2:H:118:LYS:HB2	1.80	0.64
2:H:1635:ARG:HG2	2:H:1658:GLU:CD	2.18	0.64
1:C:604:ALA:HB3	1:C:612:GLU:HG2	1.80	0.64
2:G:138:ASP:O	2:G:139:LYS:HG3	1.97	0.64
2:H:1352:HIS:CD2	2:H:1410:PHE:CE2	2.85	0.64
2:H:1906:ALA:O	2:H:1910:VAL:HG23	1.98	0.64
2:H:259:THR:HG23	2:H:262:GLU:H	1.63	0.64
2:I:1265:MET:HE1	2:I:1562:PRO:HG2	1.78	0.64
1:A:1039:MET:O	1:A:1609:ARG:NH2	2.30	0.64
1:B:746:GLU:O	1:B:750:GLU:HG3	1.97	0.64
2:G:1359:MET:HE3	2:G:1404:MET:HB3	1.79	0.64
2:G:490:TRP:HE1	2:G:516:THR:CG2	1.99	0.64
2:H:1823:SER:OG	2:H:1825:GLU:HG2	1.96	0.64
2:H:259:THR:CG2	2:H:262:GLU:H	2.10	0.64
2:H:658:MET:HA	2:H:661:TRP:NE1	2.13	0.64
1:B:504:ASP:HB2	1:B:508:ASN:HB2	1.79	0.64
1:C:1540:SER:HA	1:C:1575:VAL:HG22	1.79	0.64
1:C:1594:ASN:O	1:C:1598:GLN:HG3	1.97	0.64
2:G:1195:VAL:CG1	2:G:1211:LEU:HB3	2.27	0.64
2:G:1103:PHE:O	2:G:1247:GLY:HA3	1.97	0.64
2:G:1840:VAL:O	2:G:1840:VAL:CG1	2.44	0.64
2:I:61:VAL:O	2:I:65:LEU:HB2	1.96	0.64
2:I:826:GLY:HA3	2:I:1061:GLN:HB3	1.78	0.64
1:A:1022:THR:HG22	1:A:1226:SER:HB2	1.80	0.64
1:A:504:ASP:HB2	1:A:508:ASN:HB2	1.78	0.64
1:A:746:GLU:O	1:A:750:GLU:HG3	1.97	0.64
1:C:1460:LYS:NZ	1:C:1774:GLU:CD	2.51	0.64
1:C:833:PHE:HA	1:C:937:LYS:HD2	1.78	0.64
2:G:499:THR:CB	2:G:500:HIS:HD2	1.97	0.64
2:H:1808:SER:H	2:H:2013:ASN:HD21	1.46	0.64
2:I:1457:PHE:CZ	2:I:1501:ILE:HD11	2.33	0.64
2:I:7:ARG:HE	2:I:27:PHE:HB2	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:330:GLU:HA	1:B:333:LYS:HD2	1.80	0.64
1:B:852:ARG:NH1	1:B:852:ARG:HG2	1.98	0.64
1:C:1194:ASN:HB3	1:C:1197:THR:CG2	2.27	0.64
2:G:1838:MET:O	2:G:1974:VAL:HG21	1.98	0.64
2:G:1739:GLU:CB	2:G:1987:PRO:HB3	2.23	0.64
2:H:1457:PHE:CZ	2:H:1501:ILE:HD11	2.32	0.64
2:H:232:LEU:O	2:H:232:LEU:HD23	1.98	0.64
2:I:1676:MET:HE1	2:I:1781:LEU:HD21	1.79	0.64
2:I:2022:THR:HG23	2:I:2025:TYR:H	1.63	0.64
2:I:648:GLY:HA3	2:I:678:PHE:CE2	2.32	0.64
1:A:1317:GLU:OE1	1:A:1317:GLU:HA	1.96	0.64
1:B:421:ILE:CG1	1:B:469:VAL:HG21	2.27	0.64
2:G:545:GLN:H	2:G:545:GLN:HE21	1.46	0.64
2:H:1205:LEU:O	2:H:1206:LYS:HG3	1.97	0.64
2:H:1676:MET:HE1	2:H:1781:LEU:HD21	1.80	0.64
2:I:892:ILE:HD11	2:I:903:TRP:NE1	2.12	0.64
2:I:964:LEU:CD2	2:I:964:LEU:H	2.11	0.64
1:B:1474:ALA:HA	1:B:1478:PRO:CG	2.27	0.64
2:G:305:PHE:CE1	2:G:442:ASP:HB3	2.32	0.64
2:H:163:GLN:HG2	2:H:423:VAL:HG12	1.79	0.64
2:H:703:LEU:HD21	2:H:705:LEU:HD21	1.79	0.64
2:I:670:ARG:HD3	2:I:699:GLY:O	1.98	0.64
1:A:1021:VAL:HG11	1:A:1597:LEU:HD11	1.79	0.63
1:A:152:HIS:HD2	1:A:163:LEU:HB2	1.61	0.63
1:C:1474:ALA:HA	1:C:1478:PRO:CG	2.27	0.63
1:C:934:PRO:O	1:C:936:LEU:N	2.30	0.63
2:G:648:GLY:HA3	2:G:678:PHE:CE2	2.33	0.63
2:H:1176:PRO:O	2:H:1177:SER:HB3	1.97	0.63
2:H:1266:TYR:CB	2:H:1347:LEU:HD23	2.28	0.63
2:H:964:LEU:CD2	2:H:964:LEU:H	2.09	0.63
1:C:24:SER:CB	2:I:2014:LEU:HD12	2.27	0.63
2:I:641:ILE:HG12	2:I:645:SER:HB2	1.79	0.63
1:A:504:ASP:CB	1:A:508:ASN:H	2.10	0.63
1:B:438:ASN:HD21	1:B:698:GLN:HE21	1.46	0.63
1:C:436:ALA:O	1:C:440:MET:HG3	1.98	0.63
1:C:504:ASP:HB2	1:C:508:ASN:HB2	1.80	0.63
1:C:989:GLN:NE2	2:I:993:GLN:OE1	2.32	0.63
2:G:1205:LEU:O	2:G:1206:LYS:HG3	1.98	0.63
2:G:2022:THR:HG23	2:G:2025:TYR:H	1.63	0.63
2:H:1227:ARG:CG	2:H:1227:ARG:NH1	2.57	0.63
2:H:1808:SER:H	2:H:2013:ASN:ND2	1.95	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1279:PHE:HB2	2:I:1340:PRO:HG3	1.79	0.63
2:I:1266:TYR:CB	2:I:1347:LEU:HD23	2.28	0.63
2:I:1378:ILE:HD11	2:I:1381:VAL:CG2	2.28	0.63
2:I:902:PRO:HG2	2:I:929:LEU:HD21	1.79	0.63
1:A:1292:ILE:CD1	1:A:1328:ILE:HD11	2.28	0.63
1:A:1461:ASP:O	1:A:1465:ASN:HB2	1.99	0.63
1:A:956:ALA:O	1:A:959:ILE:HG22	1.98	0.63
1:B:992:PHE:CE2	1:B:1399:PRO:HG3	2.34	0.63
1:C:1721:ARG:HG2	1:C:1721:ARG:NH1	2.00	0.63
2:G:259:THR:OG1	2:G:260:PRO:HD2	1.97	0.63
2:G:7:ARG:HE	2:G:27:PHE:HB2	1.63	0.63
2:G:745:ASP:HA	2:G:832:TRP:HH2	1.64	0.63
2:H:353:VAL:HG23	2:H:357:ASN:ND2	2.13	0.63
2:I:1890:ASN:HB2	2:I:1899:VAL:HB	1.81	0.63
2:I:1976:PHE:HA	2:I:1981:LEU:HD22	1.81	0.63
1:A:824:LEU:HD12	1:A:846:LEU:HB3	1.80	0.63
1:A:852:ARG:NH1	1:A:852:ARG:HG2	2.00	0.63
1:B:881:ASN:HA	1:B:944:ARG:HH21	1.63	0.63
1:C:599:MET:HB2	1:C:624:LYS:CD	2.25	0.63
1:C:680:ILE:HG13	1:C:769:ILE:HB	1.80	0.63
2:G:1266:TYR:CB	2:G:1347:LEU:HD23	2.29	0.63
2:G:835:THR:HG21	2:G:855:HIS:CD2	2.33	0.63
2:H:1740:THR:HG22	2:H:1742:VAL:HG23	1.79	0.63
2:I:1159:ILE:CG1	2:I:1169:PRO:HD3	2.28	0.63
1:B:421:ILE:HG13	1:B:469:VAL:HG21	1.81	0.63
2:G:1738:PHE:CE1	2:G:1837:THR:HG23	2.34	0.63
2:G:1859:PRO:O	2:G:1862:VAL:HG13	1.99	0.63
2:H:598:THR:CG2	2:H:622:GLY:HA3	2.28	0.63
2:I:1195:VAL:HG13	2:I:1211:LEU:HB3	1.79	0.63
2:I:159:ILE:HD11	2:I:512:LEU:HG	1.80	0.63
1:A:330:GLU:HA	1:A:333:LYS:HD2	1.80	0.63
1:A:484:LEU:O	1:A:485:ASP:CB	2.47	0.63
1:B:1721:ARG:CG	1:B:1721:ARG:NH1	2.55	0.63
1:B:444:ASN:HB3	1:B:446:ALA:H	1.63	0.63
1:B:1:MET:HE3	1:B:5:VAL:HG12	1.81	0.63
2:G:115:THR:HB	2:G:118:LYS:HB2	1.80	0.63
2:G:251:VAL:O	2:G:255:LEU:HB2	1.99	0.63
2:H:1475:LYS:CG	2:H:1481:SER:HB2	2.29	0.63
2:H:601:THR:CG2	2:H:618:GLU:O	2.38	0.63
2:H:835:THR:HG22	2:H:845:THR:N	2.14	0.63
2:I:1741:ILE:HG12	2:I:1746:LEU:HD13	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1859:PRO:O	2:I:1862:VAL:HG13	1.98	0.63
1:A:1194:ASN:HB3	1:A:1197:THR:CG2	2.28	0.63
1:A:233:ILE:HD13	1:A:237:MET:HE2	1.81	0.63
1:A:436:ALA:O	1:A:440:MET:HG3	1.99	0.63
2:I:241:ILE:HG23	2:I:506:PRO:HG3	1.81	0.63
1:B:27:ARG:HH21	2:H:2015:THR:HA	1.64	0.63
1:C:864:VAL:HG22	1:C:921:PRO:HB3	1.79	0.63
2:G:1360:ILE:HG23	2:G:1403:VAL:O	1.99	0.63
2:G:748:THR:HB	2:G:749:PRO:HD3	1.78	0.63
2:H:892:ILE:HD11	2:H:903:TRP:NE1	2.14	0.63
2:I:1194:VAL:HG12	2:I:1194:VAL:O	1.99	0.63
1:A:460:GLU:HG2	1:A:470:LYS:HD3	1.79	0.63
1:C:742:LYS:HD3	1:C:746:GLU:OE2	1.98	0.63
2:G:490:TRP:O	2:G:494:THR:HG22	1.99	0.63
2:I:115:THR:HB	2:I:118:LYS:HB2	1.80	0.63
2:I:259:THR:HG23	2:I:262:GLU:H	1.64	0.63
2:I:259:THR:OG1	2:I:260:PRO:HD2	1.98	0.63
1:A:411:GLN:HE22	1:A:1628:SER:H	1.47	0.62
1:B:1056:ILE:HD13	1:B:1193:TRP:HD1	1.64	0.62
1:C:1753:ALA:HB2	1:C:1872:SER:OG	1.98	0.62
1:C:956:ALA:O	1:C:959:ILE:HG22	1.98	0.62
2:G:1227:ARG:HG3	2:G:1227:ARG:NH1	2.00	0.62
2:H:1874:VAL:O	2:H:1878:VAL:HG12	1.98	0.62
2:H:33:LEU:HD11	2:H:80:PHE:HD2	1.63	0.62
1:A:13:LEU:HB2	2:G:2026:PHE:CE1	2.34	0.62
1:A:158:LYS:HD3	1:A:185:GLU:HB3	1.81	0.62
1:B:529:MET:HG3	1:B:638:LEU:HG	1.80	0.62
2:G:943:TRP:CH2	2:G:1016:PRO:HG3	2.34	0.62
2:G:1173:VAL:HG21	2:G:1221:MET:HE1	1.80	0.62
2:G:1378:ILE:HD11	2:G:1381:VAL:CG2	2.29	0.62
2:G:85:ASN:ND2	2:G:135:ARG:HH11	1.97	0.62
2:H:1374:THR:HG23	2:H:1396:LEU:HD12	1.81	0.62
2:H:1931:LEU:HD22	2:H:1935:GLU:HG2	1.81	0.62
2:H:251:VAL:O	2:H:255:LEU:HB2	1.99	0.62
1:A:1259:GLY:HA2	1:A:1263:ASP:HB2	1.81	0.62
1:C:254:TRP:CH2	1:C:292:GLN:HG3	2.34	0.62
1:C:529:MET:CG	1:C:638:LEU:HG	2.30	0.62
2:G:726:PHE:O	2:G:762:ASN:HB2	1.98	0.62
2:H:750:MET:HG3	2:H:796:PHE:HZ	1.64	0.62
2:H:856:LYS:HG2	2:H:1054:LEU:HD12	1.81	0.62
2:I:1472:VAL:HG22	2:I:1483:VAL:HG22	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1624:THR:HB	2:I:1642:THR:HG23	1.81	0.62
2:I:324:LEU:HD12	2:I:328:LEU:HG	1.82	0.62
2:H:1472:VAL:HG22	2:H:1483:VAL:HG22	1.79	0.62
2:H:871:THR:HB	2:H:872:ILE:HD12	1.80	0.62
2:I:1868:GLN:HG3	2:I:1898:TYR:OH	1.99	0.62
2:I:1906:ALA:O	2:I:1910:VAL:HG23	2.00	0.62
1:A:1292:ILE:HD11	1:A:1328:ILE:HD11	1.81	0.62
1:A:1455:ARG:HH11	1:A:1458:GLN:HE21	1.46	0.62
1:B:1584:PRO:HG3	1:B:1591:TRP:CZ3	2.35	0.62
1:B:507:GLY:N	1:B:954:ARG:HG2	2.15	0.62
1:C:1039:MET:O	1:C:1609:ARG:NH2	2.31	0.62
2:G:1102:TYR:HB3	2:G:1244:PRO:HA	1.80	0.62
2:G:1782:THR:HG22	2:G:1827:LEU:HD21	1.81	0.62
2:G:1819:ALA:HA	2:G:2005:ARG:HH11	1.65	0.62
2:H:601:THR:O	2:H:601:THR:HG22	2.00	0.62
1:B:1455:ARG:HH11	1:B:1458:GLN:HE21	1.47	0.62
1:C:822:VAL:HG12	1:C:824:LEU:HD22	1.82	0.62
2:H:1168:ASN:ND2	2:H:1171:ARG:HB2	2.14	0.62
2:I:1740:THR:HG22	2:I:1742:VAL:HG23	1.79	0.62
2:I:464:ASP:HB3	2:I:466:SER:HB3	1.80	0.62
2:I:846:VAL:HG13	2:I:865:TRP:NE1	2.15	0.62
1:A:1540:SER:HA	1:A:1575:VAL:HG22	1.81	0.62
1:A:749:ILE:CD1	1:A:805:CYS:HB3	2.29	0.62
1:C:233:ILE:HD13	1:C:237:MET:CE	2.30	0.62
2:G:1908:ASP:HB2	2:G:1958:LEU:HD21	1.81	0.62
2:G:241:ILE:HG23	2:G:506:PRO:HG3	1.80	0.62
2:G:871:THR:HB	2:G:872:ILE:HD12	1.82	0.62
2:H:131:ILE:HD12	2:H:182:VAL:CG1	2.29	0.62
2:I:184:VAL:HG13	2:I:187:LEU:HD21	1.80	0.62
2:I:259:THR:CG2	2:I:262:GLU:H	2.11	0.62
1:C:444:ASN:HB3	1:C:446:ALA:H	1.65	0.62
2:G:1300:PHE:CA	2:G:1556:VAL:HG11	2.29	0.62
2:G:159:ILE:HD11	2:G:512:LEU:HG	1.80	0.62
2:G:641:ILE:HG12	2:G:645:SER:HB2	1.80	0.62
2:H:85:ASN:ND2	2:H:135:ARG:HH11	1.96	0.62
2:I:1805:ALA:HB2	2:I:2011:ILE:HB	1.82	0.62
1:A:1523:ARG:CG	1:A:1523:ARG:NH1	2.57	0.62
1:A:20:TYR:HE1	2:G:2035:SER:HB2	1.60	0.62
1:B:27:ARG:HD2	1:B:30:GLU:OE2	2.00	0.62
1:C:501:THR:N	1:C:886:GLU:OE1	2.21	0.62
2:G:750:MET:HG3	2:G:796:PHE:HZ	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:490:TRP:O	2:H:494:THR:HG22	2.00	0.62
1:A:1326:ILE:HG12	1:A:1388:MET:HG3	1.82	0.62
2:G:1719:ILE:O	2:G:1761:SER:HB2	2.00	0.62
2:G:1931:LEU:HD22	2:G:1935:GLU:HG2	1.82	0.62
2:H:1149:TRP:CD1	2:H:1213:LEU:HD12	2.34	0.62
2:I:1086:LEU:HD12	2:I:1090:TYR:HB2	1.82	0.62
2:I:1823:SER:OG	2:I:1825:GLU:HG2	2.00	0.62
2:I:745:ASP:HA	2:I:832:TRP:HH2	1.65	0.62
1:C:1057:MET:SD	1:C:1097:ILE:HG23	2.40	0.61
1:C:233:ILE:HD13	1:C:237:MET:HE2	1.80	0.61
1:C:509:ILE:HG12	1:C:951:SER:HB2	1.82	0.61
2:G:1199:GLU:OE2	2:G:1567:ARG:CZ	2.46	0.61
2:G:719:ILE:O	2:G:722:ALA:HB3	2.00	0.61
2:H:100:ASP:OD2	2:H:102:HIS:HD2	1.82	0.61
2:H:159:ILE:HD11	2:H:512:LEU:HG	1.82	0.61
2:H:1675:GLY:O	2:H:1678:MET:HB2	1.99	0.61
1:A:934:PRO:O	1:A:936:LEU:N	2.33	0.61
1:B:1292:ILE:CD1	1:B:1328:ILE:HD11	2.30	0.61
1:B:631:PRO:HB2	1:B:634:THR:OG1	2.00	0.61
2:H:7:ARG:HE	2:H:27:PHE:HB2	1.64	0.61
2:H:353:VAL:HG23	2:H:357:ASN:HD22	1.65	0.61
1:B:158:LYS:HD3	1:B:185:GLU:HB3	1.82	0.61
1:B:340:ARG:HH12	1:B:344:GLN:CG	2.13	0.61
1:B:824:LEU:HD12	1:B:846:LEU:HB3	1.82	0.61
1:C:1498:GLU:HB2	1:C:1876:LEU:HD13	1.82	0.61
2:H:856:LYS:NZ	2:H:1052:CYS:SG	2.70	0.61
2:H:1528:GLU:O	2:H:1530:LYS:N	2.30	0.61
2:H:589:ARG:HB3	2:H:590:PRO:HD2	1.82	0.61
2:I:1054:LEU:HB2	4:I:3051:FMN:HM71	1.82	0.61
2:I:860:ARG:HB3	2:I:898:ASP:HB3	1.81	0.61
1:A:1721:ARG:NH1	1:A:1721:ARG:CG	2.52	0.61
1:B:1555:ALA:HA	1:B:1621:PHE:CE1	2.36	0.61
2:G:1739:GLU:O	2:G:1987:PRO:HG3	2.00	0.61
2:H:1378:ILE:HD11	2:H:1381:VAL:CG2	2.31	0.61
2:H:835:THR:HG21	2:H:855:HIS:NE2	2.14	0.61
2:I:100:ASP:OD2	2:I:102:HIS:HD2	1.83	0.61
2:I:1808:SER:H	2:I:2013:ASN:HD21	1.47	0.61
1:C:20:TYR:CE1	2:I:2035:SER:HB2	2.35	0.61
1:A:24:SER:O	2:G:1977:HIS:HD2	1.84	0.61
1:B:20:TYR:CE1	2:H:2035:SER:HB2	2.35	0.61
1:B:644:THR:HG23	1:B:648:ASP:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1292:ILE:HD11	1:C:1328:ILE:HD11	1.81	0.61
2:G:324:LEU:HD12	2:G:328:LEU:HG	1.81	0.61
2:H:1086:LEU:HD12	2:H:1090:TYR:HB2	1.83	0.61
2:H:1279:PHE:HB2	2:H:1340:PRO:HG3	1.81	0.61
2:H:1419:PHE:O	2:H:1421:ASN:N	2.33	0.61
2:H:174:ARG:NH2	2:H:225:THR:OG1	2.33	0.61
2:H:33:LEU:HD11	2:H:80:PHE:CD2	2.35	0.61
1:C:20:TYR:CG	2:I:2033:THR:OG1	2.53	0.61
2:I:56:THR:HG23	2:I:59:GLU:CG	2.28	0.61
1:A:705:VAL:HG23	1:A:732:LEU:HD21	1.82	0.61
1:B:1431:GLU:HG3	1:B:1433:HIS:CE1	2.36	0.61
1:B:1693:ILE:HD11	2:H:998:GLN:HB2	1.83	0.61
1:B:24:SER:O	2:H:1977:HIS:CD2	2.53	0.61
2:H:603:SER:O	2:H:607:VAL:HG12	2.00	0.61
1:A:644:THR:HG23	1:A:648:ASP:H	1.65	0.61
1:A:822:VAL:HG12	1:A:824:LEU:HD22	1.82	0.61
1:B:1194:ASN:HB3	1:B:1197:THR:CG2	2.30	0.61
1:C:824:LEU:HD12	1:C:846:LEU:HB3	1.82	0.61
2:I:1325:PHE:CZ	2:I:1328:VAL:HG11	2.36	0.61
2:I:1352:HIS:HE1	2:I:1583:MET:HE1	1.65	0.61
1:C:24:SER:HB3	2:I:2014:LEU:HD12	1.82	0.61
2:I:663:ILE:HG13	2:I:694:TYR:HE1	1.66	0.61
1:B:1052:GLU:O	1:B:1056:ILE:HG23	2.01	0.61
1:B:1594:ASN:O	1:B:1598:GLN:HG3	2.00	0.61
1:A:599:MET:HB2	1:A:624:LYS:CD	2.25	0.61
1:B:1292:ILE:HD11	1:B:1328:ILE:HD11	1.82	0.61
1:B:1360:ARG:HH11	1:B:1364:GLU:HG2	1.66	0.61
2:G:1123:ASP:N	2:G:1123:ASP:OD1	2.34	0.61
2:G:1976:PHE:HB3	2:G:1981:LEU:HD21	1.82	0.61
1:A:11:HIS:ND1	2:G:1998:LYS:HA	2.15	0.61
2:G:601:THR:O	2:G:601:THR:HG22	2.01	0.61
2:H:260:PRO:HD3	2:H:289:TRP:CE2	2.36	0.61
1:A:1:MET:HE3	1:A:5:VAL:HG12	1.82	0.61
1:C:1501:LEU:HD11	1:C:1775:LEU:HD23	1.79	0.61
2:G:856:LYS:NZ	2:G:1052:CYS:SG	2.69	0.61
2:G:1472:VAL:HG22	2:G:1483:VAL:HG22	1.83	0.61
2:H:1805:ALA:HB2	2:H:2011:ILE:HB	1.83	0.61
2:H:184:VAL:HG13	2:H:187:LEU:HD21	1.83	0.61
2:I:1219:ILE:HD11	2:I:1242:PHE:HB2	1.83	0.61
1:C:504:ASP:CB	1:C:508:ASN:H	2.14	0.60
2:G:1417:THR:C	2:G:1419:PHE:H	2.04	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:846:VAL:HG13	2:H:865:TRP:NE1	2.16	0.60
2:I:565:TYR:CZ	2:I:758:ARG:HD2	2.35	0.60
1:A:32:GLN:HA	1:A:35:PHE:CE2	2.35	0.60
1:B:233:ILE:HD13	1:B:237:MET:HE2	1.82	0.60
2:G:174:ARG:NH2	2:G:225:THR:OG1	2.34	0.60
2:G:33:LEU:HD11	2:G:80:PHE:CD2	2.35	0.60
2:I:856:LYS:NZ	2:I:1052:CYS:SG	2.70	0.60
2:I:1300:PHE:HA	2:I:1556:VAL:HG11	1.84	0.60
1:C:2:LYS:CD	2:I:2050:GLN:HB3	2.30	0.60
2:I:33:LEU:HD11	2:I:80:PHE:CD2	2.36	0.60
1:A:232:LEU:HD22	1:A:269:LEU:HA	1.83	0.60
2:G:1844:ARG:NH1	2:G:1844:ARG:CG	2.49	0.60
2:G:1808:SER:H	2:G:2013:ASN:HD21	1.47	0.60
2:G:607:VAL:HA	2:G:617:ILE:HD13	1.82	0.60
2:G:747:HIS:HE1	2:G:780:TYR:OH	1.84	0.60
2:I:1198:SER:HB3	2:I:1205:LEU:HD21	1.82	0.60
2:I:1908:ASP:HB2	2:I:1958:LEU:HD21	1.83	0.60
1:A:1842:VAL:O	1:A:1845:ASN:HB2	2.02	0.60
1:B:400:ARG:HH11	1:B:400:ARG:HG3	1.64	0.60
1:A:20:TYR:OH	2:G:2035:SER:HB2	2.01	0.60
2:G:846:VAL:HG13	2:G:865:TRP:NE1	2.16	0.60
2:H:1198:SER:HB3	2:H:1205:LEU:HD21	1.83	0.60
2:H:1219:ILE:HD11	2:H:1242:PHE:HB2	1.83	0.60
2:H:324:LEU:HD12	2:H:328:LEU:HG	1.84	0.60
2:I:1352:HIS:CD2	2:I:1410:PHE:CE2	2.90	0.60
2:I:1360:ILE:HG23	2:I:1403:VAL:O	2.01	0.60
2:I:674:TYR:HB3	2:I:676:ILE:HG22	1.84	0.60
1:B:1523:ARG:NH1	1:B:1523:ARG:CG	2.59	0.60
1:B:509:ILE:HG12	1:B:951:SER:HB2	1.82	0.60
1:C:221:LEU:O	1:C:225:SER:HB3	2.02	0.60
2:G:1325:PHE:CZ	2:G:1328:VAL:HG11	2.37	0.60
2:G:499:THR:CB	2:G:500:HIS:CD2	2.80	0.60
2:G:61:VAL:HG21	2:G:95:TYR:HE1	1.67	0.60
2:G:926:LEU:HD13	2:G:947:THR:HG22	1.84	0.60
2:H:745:ASP:HA	2:H:832:TRP:HH2	1.66	0.60
2:I:1123:ASP:OD1	2:I:1123:ASP:N	2.35	0.60
2:I:1205:LEU:O	2:I:1206:LYS:HG3	2.00	0.60
2:I:667:LYS:HB2	2:I:698:LEU:HD23	1.82	0.60
2:I:817:ALA:O	2:I:821:ILE:HG13	2.01	0.60
1:C:644:THR:HG23	1:C:648:ASP:H	1.65	0.60
2:G:1822:MET:HE2	2:G:1996:ILE:HG12	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:561:TRP:O	2:G:562:LEU:C	2.39	0.60
2:G:816:ASP:HB3	2:G:1048:VAL:HG21	1.83	0.60
2:H:1624:THR:HB	2:H:1642:THR:HG23	1.82	0.60
2:I:1976:PHE:HB3	2:I:1981:LEU:HD21	1.83	0.60
2:I:589:ARG:HB3	2:I:590:PRO:HD2	1.83	0.60
1:A:1194:ASN:O	1:A:1197:THR:HG23	2.02	0.60
1:A:529:MET:HG3	1:A:638:LEU:HG	1.84	0.60
1:B:513:GLU:OE2	1:B:873:ARG:NH1	2.33	0.60
2:G:184:VAL:HG13	2:G:187:LEU:HD21	1.84	0.60
2:G:271:THR:OG1	2:G:460:TYR:HB2	2.01	0.60
2:I:33:LEU:HD11	2:I:80:PHE:HD2	1.65	0.60
1:A:233:ILE:HD13	1:A:237:MET:CE	2.32	0.60
1:C:1062:TYR:CD2	1:C:1693:ILE:HG23	2.36	0.60
2:H:1149:TRP:CD1	2:H:1213:LEU:CD1	2.85	0.60
2:H:1739:GLU:O	2:H:1987:PRO:HG3	2.02	0.60
2:I:1986:LYS:N	2:I:1987:PRO:HD2	2.16	0.60
1:B:1657:HIS:ND1	1:B:1658:PRO:HD2	2.17	0.60
1:B:604:ALA:HB3	1:B:612:GLU:HG2	1.82	0.60
1:C:529:MET:HG3	1:C:638:LEU:HG	1.82	0.60
2:G:732:TRP:CD2	2:G:750:MET:CE	2.85	0.60
2:G:892:ILE:HD11	2:G:903:TRP:NE1	2.17	0.60
2:H:719:ILE:O	2:H:722:ALA:HB3	2.02	0.60
1:B:1021:VAL:HG11	1:B:1597:LEU:HD11	1.83	0.60
1:B:1057:MET:SD	1:B:1097:ILE:HG23	2.42	0.60
1:C:1662:TYR:O	1:C:1665:ILE:HG22	2.01	0.60
1:C:1842:VAL:O	1:C:1845:ASN:HB2	2.02	0.60
2:H:1093:ASP:HB3	2:H:1096:LYS:HG3	1.84	0.60
2:I:1874:VAL:O	2:I:1878:VAL:HG12	2.02	0.60
2:I:1989:LYS:O	2:I:1993:LYS:HG3	2.02	0.60
2:I:601:THR:HG22	2:I:601:THR:O	2.02	0.60
2:I:741:HIS:CB	2:I:853:PRO:HB2	2.32	0.60
1:A:1119:LYS:HE2	1:A:1341:PHE:CG	2.37	0.59
1:B:1189:ILE:HD12	1:B:1380:GLN:HG3	1.82	0.59
1:C:1461:ASP:O	1:C:1465:ASN:HB2	2.02	0.59
1:C:1585:LYS:HB3	3:C:2748:CER:H52	1.84	0.59
2:G:100:ASP:OD2	2:G:102:HIS:HD2	1.85	0.59
2:G:1417:THR:HG22	2:G:1419:PHE:CE2	2.37	0.59
2:G:1425:LYS:HG2	2:G:1471:GLU:CG	2.30	0.59
2:G:598:THR:CG2	2:G:622:GLY:HA3	2.30	0.59
2:H:1494:PRO:HB2	2:H:1823:SER:HB2	1.84	0.59
2:I:732:TRP:CD2	2:I:750:MET:CE	2.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1475:GLU:CG	1:A:1761:LYS:O	2.50	0.59
1:A:37:LYS:HB2	1:A:65:TYR:HE1	1.67	0.59
1:A:67:SER:OG	2:I:359:HIS:HE1	1.85	0.59
1:B:1062:TYR:CD2	1:B:1693:ILE:HG23	2.36	0.59
1:B:1184:LEU:HB2	1:B:1352:THR:HG21	1.83	0.59
1:B:80:CYS:SG	1:B:82:SER:HB3	2.42	0.59
2:H:813:THR:HB	2:H:818:LYS:HE3	1.84	0.59
2:I:1378:ILE:HD11	2:I:1381:VAL:HG21	1.84	0.59
2:I:163:GLN:CG	2:I:423:VAL:HG12	2.32	0.59
1:A:435:GLU:O	1:A:439:ILE:HG13	2.03	0.59
1:B:1460:LYS:NZ	1:B:1774:GLU:CD	2.51	0.59
1:B:32:GLN:HA	1:B:35:PHE:CE2	2.38	0.59
1:B:680:ILE:HG13	1:B:769:ILE:HB	1.83	0.59
1:C:705:VAL:HG23	1:C:732:LEU:HD21	1.83	0.59
2:G:594:VAL:HG21	2:G:610:THR:HG21	1.84	0.59
2:H:1314:ARG:NH1	2:H:1314:ARG:CG	2.62	0.59
2:I:1575:LEU:HD13	2:I:1579:ILE:HD12	1.84	0.59
1:A:1584:PRO:HG3	1:A:1591:TRP:CZ3	2.37	0.59
1:B:1259:GLY:HA2	1:B:1263:ASP:HB2	1.84	0.59
1:B:221:LEU:O	1:B:225:SER:HB3	2.02	0.59
1:C:421:ILE:CG1	1:C:469:VAL:HG21	2.32	0.59
1:C:56:MET:HG3	2:I:1893:VAL:CG2	2.32	0.59
2:G:2038:ILE:O	2:G:2042:ILE:HG12	2.02	0.59
2:G:754:TYR:CD2	2:G:794:MET:HG3	2.38	0.59
2:H:1223:MET:HE3	2:H:1238:LEU:HD12	1.84	0.59
2:H:409:PHE:HB3	2:H:833:GLU:OE1	2.02	0.59
2:H:241:ILE:HG23	2:H:506:PRO:HG3	1.83	0.59
2:H:860:ARG:HB3	2:H:898:ASP:HB3	1.83	0.59
2:I:658:MET:HA	2:I:661:TRP:NE1	2.17	0.59
1:A:1432:HIS:CE1	1:A:1434:SER:OG	2.55	0.59
1:A:1749:THR:CB	1:A:1874:ASP:HA	2.31	0.59
1:B:1842:VAL:O	1:B:1845:ASN:HB2	2.02	0.59
1:B:233:ILE:HD13	1:B:237:MET:CE	2.32	0.59
1:B:956:ALA:O	1:B:959:ILE:HG22	2.02	0.59
1:C:1194:ASN:O	1:C:1197:THR:HG23	2.02	0.59
1:C:1492:GLU:O	1:C:1496:GLU:HG3	2.01	0.59
2:G:1805:ALA:HB2	2:G:2011:ILE:HB	1.84	0.59
2:G:443:LEU:HD22	2:G:448:VAL:HG11	1.84	0.59
2:I:1149:TRP:CD1	2:I:1213:LEU:HD12	2.37	0.59
2:I:85:ASN:ND2	2:I:135:ARG:HH11	1.99	0.59
2:I:402:LEU:HD13	2:I:402:LEU:O	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:504:ASP:CB	1:B:508:ASN:H	2.15	0.59
1:C:1584:PRO:HG3	1:C:1591:TRP:CZ3	2.38	0.59
2:G:1195:VAL:HG13	2:G:1211:LEU:HB3	1.84	0.59
2:G:603:SER:O	2:G:607:VAL:HG12	2.03	0.59
2:G:932:ILE:HD11	2:G:1042:ALA:CB	2.24	0.59
2:H:817:ALA:O	2:H:821:ILE:HG13	2.02	0.59
2:I:1422:THR:CG2	2:I:1422:THR:O	2.49	0.59
1:A:417:TYR:OH	1:A:458:THR:HG22	2.02	0.59
1:A:516:ARG:NH2	1:A:889:GLU:OE1	2.35	0.59
1:B:1585:LYS:HB3	3:B:2748:CER:H52	1.85	0.59
1:C:733:ILE:HD12	1:C:761:LEU:HD21	1.85	0.59
2:G:1417:THR:O	2:G:1419:PHE:N	2.30	0.59
2:H:663:ILE:HG13	2:H:694:TYR:HE1	1.66	0.59
2:H:726:PHE:O	2:H:762:ASN:HB2	2.03	0.59
2:I:1086:LEU:HD12	2:I:1090:TYR:CB	2.33	0.59
2:I:1496:LYS:HE2	2:I:1693:ARG:HH21	1.67	0.59
2:I:99:ASN:HA	2:I:550:VAL:CG2	2.32	0.59
1:A:409:ALA:HB2	1:A:442:ARG:HD2	1.84	0.59
2:G:131:ILE:CG2	2:G:182:VAL:CG1	2.80	0.59
2:G:1417:THR:HG22	2:G:1419:PHE:CD2	2.37	0.59
2:H:197:GLU:HA	2:H:197:GLU:OE1	2.02	0.59
2:H:455:ILE:HG13	2:H:469:ARG:HD3	1.83	0.59
1:A:1002:LYS:NZ	1:A:1782:GLU:HG2	2.17	0.59
1:A:50:SER:HB2	1:A:51:PRO:HD3	1.85	0.59
1:C:1555:ALA:HA	1:C:1621:PHE:CE1	2.38	0.59
2:G:1086:LEU:HD12	2:G:1090:TYR:HB2	1.84	0.59
2:G:402:LEU:HD13	2:G:402:LEU:O	2.03	0.59
2:H:2038:ILE:O	2:H:2042:ILE:HG12	2.03	0.59
1:A:440:MET:HB3	1:A:483:VAL:HG21	1.85	0.59
1:B:1474:ALA:O	1:B:1478:PRO:HD2	2.03	0.59
1:B:417:TYR:OH	1:B:458:THR:HG22	2.03	0.59
2:G:1210:ILE:HB	2:G:1222:GLU:HB3	1.85	0.59
2:G:1293:THR:CG2	2:G:1296:GLU:H	2.14	0.59
2:G:1374:THR:HG23	2:G:1396:LEU:HD12	1.85	0.59
2:H:1130:THR:H	2:H:1133:THR:HG23	1.68	0.59
2:H:259:THR:OG1	2:H:260:PRO:HD2	2.03	0.59
2:I:174:ARG:NH2	2:I:225:THR:OG1	2.36	0.59
2:I:353:VAL:HG23	2:I:357:ASN:ND2	2.18	0.59
2:I:490:TRP:O	2:I:494:THR:HG22	2.03	0.59
1:A:1524:GLY:O	1:A:1528:THR:HG23	2.03	0.58
1:A:1585:LYS:HB3	3:A:2748:CER:H52	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1234:MET:HG2	1:B:1326:ILE:HD12	1.85	0.58
1:C:488:PRO:HG3	1:C:728:LYS:HG3	1.83	0.58
2:G:1198:SER:HB3	2:G:1205:LEU:HD21	1.85	0.58
2:G:1279:PHE:HB2	2:G:1340:PRO:HG3	1.85	0.58
2:G:1378:ILE:HD11	2:G:1381:VAL:HG21	1.85	0.58
2:H:273:HIS:HB3	2:H:512:LEU:HD22	1.85	0.58
2:I:455:ILE:HG13	2:I:469:ARG:HD3	1.85	0.58
1:A:421:ILE:HG12	1:A:469:VAL:HG21	1.85	0.58
1:A:531:LEU:HD21	1:A:629:THR:HG22	1.85	0.58
1:B:1392:LEU:HD22	1:B:1396:MET:HG3	1.84	0.58
1:C:1657:HIS:ND1	1:C:1658:PRO:HD2	2.17	0.58
1:C:749:ILE:CD1	1:C:805:CYS:HB3	2.32	0.58
1:C:80:CYS:SG	1:C:82:SER:HB3	2.42	0.58
2:G:1149:TRP:CD1	2:G:1213:LEU:HD12	2.38	0.58
2:H:1010:PRO:O	2:H:1011:MET:HB2	2.03	0.58
2:H:665:LEU:O	2:H:669:LEU:HB2	2.04	0.58
2:I:1822:MET:CE	2:I:1996:ILE:HG12	2.34	0.58
2:I:499:THR:CB	2:I:500:HIS:CD2	2.79	0.58
2:I:907:VAL:O	2:I:910:GLN:HB3	2.03	0.58
1:A:1463:VAL:HG11	1:A:1877:GLN:HE22	1.68	0.58
1:B:37:LYS:HB2	1:B:65:TYR:HE1	1.69	0.58
2:G:166:THR:HG22	2:G:168:ASP:N	2.19	0.58
2:G:28:PHE:CZ	2:H:7:ARG:NE	2.70	0.58
2:I:1227:ARG:NH1	2:I:1227:ARG:CG	2.55	0.58
2:I:1374:THR:HG23	2:I:1396:LEU:HD12	1.83	0.58
2:I:601:THR:CG2	2:I:618:GLU:O	2.39	0.58
1:A:260:ARG:HH12	1:A:300:VAL:HG21	1.68	0.58
1:A:444:ASN:HB3	1:A:446:ALA:H	1.66	0.58
1:B:409:ALA:HB2	1:B:442:ARG:HD2	1.86	0.58
1:C:1233:GLU:OE2	1:C:1680:ARG:NH2	2.36	0.58
1:C:24:SER:O	2:I:1977:HIS:CD2	2.54	0.58
2:H:1103:PHE:O	2:H:1247:GLY:HA3	2.03	0.58
2:H:1360:ILE:HG23	2:H:1403:VAL:O	2.04	0.58
2:I:127:ILE:O	2:I:131:ILE:HG13	2.03	0.58
2:I:736:ARG:NH1	2:I:769:SER:O	2.36	0.58
1:B:436:ALA:O	1:B:440:MET:HG3	2.04	0.58
1:C:1009:LEU:HA	1:C:1445:MET:HE2	1.85	0.58
1:C:232:LEU:HD22	1:C:269:LEU:HA	1.83	0.58
2:G:1597:ALA:HB1	2:G:1638:ILE:CD1	2.33	0.58
2:G:1823:SER:OG	2:G:1825:GLU:HG2	2.03	0.58
2:G:807:ILE:CG2	2:G:1066:ILE:HA	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:271:THR:OG1	2:H:460:TYR:HB2	2.03	0.58
2:H:499:THR:CB	2:H:500:HIS:CD2	2.81	0.58
2:H:762:ASN:H	2:H:762:ASN:ND2	1.85	0.58
2:I:1269:LEU:O	2:I:1560:LEU:HD23	2.03	0.58
1:A:986:ALA:HB2	1:A:1047:LEU:HD13	1.85	0.58
1:B:1461:ASP:O	1:B:1465:ASN:HB2	2.03	0.58
1:C:1665:ILE:HD11	1:C:1669:ARG:HG2	1.85	0.58
1:C:232:LEU:HD13	1:C:272:GLU:HB2	1.85	0.58
1:C:340:ARG:HH12	1:C:344:GLN:CG	2.13	0.58
1:C:421:ILE:HG13	1:C:469:VAL:HG21	1.84	0.58
2:G:1223:MET:HE3	2:G:1238:LEU:HD12	1.85	0.58
2:G:131:ILE:CG2	2:G:182:VAL:HG12	2.33	0.58
2:G:907:VAL:O	2:G:910:GLN:HB3	2.02	0.58
2:I:707:PRO:HG2	2:I:730:LEU:HD13	1.85	0.58
1:A:1600:LEU:HD13	1:A:1657:HIS:HA	1.85	0.58
1:C:419:GLU:HG2	1:C:424:VAL:HB	1.86	0.58
2:G:1159:ILE:CG1	2:G:1169:PRO:HD3	2.33	0.58
2:G:260:PRO:HD3	2:G:289:TRP:CE2	2.38	0.58
2:G:674:TYR:HB3	2:G:676:ILE:HG22	1.85	0.58
2:G:565:TYR:OH	2:G:758:ARG:HD2	2.02	0.58
1:B:29:ILE:HG13	2:H:1891:TYR:C	2.23	0.58
2:H:490:TRP:CH2	2:H:512:LEU:HD21	2.39	0.58
2:H:543:PHE:CB	2:H:545:GLN:HE22	2.17	0.58
2:I:942:THR:HG21	2:I:1012:GLN:HA	1.85	0.58
1:C:968:VAL:O	2:I:1512:HIS:HB2	2.04	0.58
2:I:1719:ILE:O	2:I:1761:SER:HB2	2.01	0.58
1:B:198:PRO:CG	1:B:209:LEU:HD21	2.26	0.58
1:B:286:PHE:O	1:B:290:MET:HG2	2.03	0.58
1:C:1020:VAL:HG13	1:C:1400:ILE:HG23	1.84	0.58
2:G:638:VAL:HA	2:G:641:ILE:HG22	1.86	0.58
2:H:163:GLN:CG	2:H:423:VAL:HG12	2.32	0.58
2:I:1822:MET:HE2	2:I:1996:ILE:HG12	1.86	0.58
1:A:198:PRO:CG	1:A:209:LEU:HD21	2.28	0.58
1:A:987:ASN:HD22	2:G:957:ARG:HD2	1.68	0.58
1:B:1473:GLU:O	1:B:1478:PRO:HD3	2.04	0.58
1:B:1662:TYR:O	1:B:1665:ILE:HG22	2.04	0.58
1:B:232:LEU:HD22	1:B:269:LEU:HA	1.85	0.58
1:B:749:ILE:CD1	1:B:805:CYS:HB3	2.33	0.58
1:C:1247:SER:HB2	1:C:1332:TYR:HE2	1.68	0.58
2:G:1359:MET:HA	2:G:1359:MET:HE3	1.86	0.58
1:A:20:TYR:CZ	2:G:2035:SER:HB2	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:232:LEU:HD23	2:G:232:LEU:O	2.03	0.58
2:G:273:HIS:HB3	2:G:512:LEU:HD22	1.86	0.58
2:G:611:THR:CG2	2:G:641:ILE:HG13	2.34	0.58
2:G:817:ALA:O	2:G:821:ILE:HG13	2.04	0.58
2:G:860:ARG:HB3	2:G:898:ASP:HB3	1.85	0.58
2:H:1210:ILE:HB	2:H:1222:GLU:HB3	1.85	0.58
1:C:27:ARG:HH21	2:I:2015:THR:HA	1.68	0.58
1:A:1062:TYR:CD2	1:A:1693:ILE:HG23	2.39	0.57
1:A:1189:ILE:HD12	1:A:1380:GLN:HG3	1.86	0.57
1:A:1419:PRO:HB3	1:A:1646:PHE:CZ	2.39	0.57
1:A:329:GLU:O	1:A:333:LYS:HG3	2.04	0.57
1:B:1247:SER:HB2	1:B:1332:TYR:HE2	1.69	0.57
1:B:419:GLU:HG2	1:B:424:VAL:HB	1.86	0.57
1:C:1219:VAL:CA	1:C:1384:ILE:HD11	2.27	0.57
1:C:433:VAL:O	1:C:437:ILE:HG13	2.04	0.57
2:G:146:PHE:HA	2:G:149:VAL:HG12	1.86	0.57
2:G:376:ASN:HD22	2:G:377:LEU:N	2.02	0.57
2:G:56:THR:HG23	2:G:59:GLU:CG	2.29	0.57
2:G:7:ARG:NH1	2:G:24:THR:HA	2.19	0.57
2:I:239:PRO:HG3	2:I:304:PHE:HA	1.86	0.57
2:I:376:ASN:HD22	2:I:377:LEU:N	2.02	0.57
1:A:1056:ILE:CD1	1:A:1193:TRP:HD1	2.17	0.57
1:A:1203:ASP:HB3	1:B:179:LYS:HZ1	1.68	0.57
1:A:1247:SER:HB2	1:A:1332:TYR:HE2	1.66	0.57
1:A:11:HIS:O	1:A:15:THR:HG22	2.04	0.57
1:A:1464:GLU:CD	1:A:1773:VAL:HG12	2.23	0.57
1:B:1496:GLU:O	1:B:1500:GLN:HG3	2.03	0.57
1:B:232:LEU:HD13	1:B:272:GLU:HB2	1.87	0.57
1:C:1052:GLU:O	1:C:1056:ILE:HG23	2.04	0.57
1:C:1431:GLU:CD	1:C:1433:HIS:HE1	2.08	0.57
2:G:1149:TRP:CD1	2:G:1213:LEU:CD1	2.87	0.57
2:G:658:MET:HA	2:G:661:TRP:NE1	2.19	0.57
2:H:1331:TRP:CE2	2:H:1335:ILE:HG13	2.38	0.57
2:H:722:ALA:HB1	2:H:723:HIS:CE1	2.38	0.57
2:I:726:PHE:O	2:I:762:ASN:HB2	2.04	0.57
1:A:1538:VAL:HB	1:A:1639:VAL:HG22	1.86	0.57
1:B:1022:THR:HG22	1:B:1226:SER:HB2	1.87	0.57
1:B:1125:VAL:HG21	1:B:1175:ILE:HD12	1.86	0.57
1:B:50:SER:HB2	1:B:51:PRO:HD3	1.86	0.57
1:C:1056:ILE:CD1	1:C:1193:TRP:HD1	2.16	0.57
2:G:942:THR:HG21	2:G:1012:GLN:HA	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:826:GLY:O	2:G:827:VAL:HG23	2.03	0.57
2:H:124:LYS:HG2	2:H:179:THR:HA	1.86	0.57
1:B:413:LEU:HD13	1:B:451:MET:HG2	1.85	0.57
1:B:705:VAL:HG23	1:B:732:LEU:HD21	1.85	0.57
1:C:183:GLN:HE21	1:C:202:GLU:HG2	1.69	0.57
2:G:163:GLN:CG	2:G:423:VAL:HG12	2.33	0.57
2:H:1086:LEU:HD12	2:H:1090:TYR:CB	2.34	0.57
2:H:1231:GLY:O	2:H:1233:PRO:HD3	2.04	0.57
2:H:1567:ARG:HH12	2:H:1568:HIS:HB3	1.70	0.57
2:H:1908:ASP:HB2	2:H:1958:LEU:HD21	1.86	0.57
2:H:601:THR:HG22	2:H:620:ALA:H	1.69	0.57
2:H:732:TRP:CG	2:H:750:MET:HE3	2.39	0.57
2:H:907:VAL:O	2:H:910:GLN:HB3	2.03	0.57
2:I:145:LEU:O	2:I:149:VAL:HG12	2.03	0.57
2:I:654:VAL:HG23	2:I:683:ALA:HB1	1.87	0.57
1:A:232:LEU:HD13	1:A:272:GLU:HB2	1.85	0.57
1:C:1189:ILE:HD12	1:C:1380:GLN:HG3	1.86	0.57
1:C:1600:LEU:HD13	1:C:1657:HIS:HA	1.87	0.57
1:C:198:PRO:CG	1:C:209:LEU:HD21	2.28	0.57
1:C:771:PHE:CD1	1:C:825:PRO:HG3	2.40	0.57
2:G:1010:PRO:O	2:G:1011:MET:HB2	2.05	0.57
2:G:932:ILE:CD1	2:G:1042:ALA:HB2	2.24	0.57
2:G:562:LEU:O	2:G:566:HIS:HB2	2.05	0.57
2:H:736:ARG:NH1	2:H:769:SER:O	2.36	0.57
2:H:89:THR:O	2:H:93:ASN:HB2	2.04	0.57
2:I:1130:THR:H	2:I:1133:THR:HG23	1.69	0.57
1:A:604:ALA:HB3	1:A:612:GLU:HG2	1.86	0.57
1:A:828:PRO:HG3	1:A:868:ILE:HG22	1.86	0.57
1:B:980:VAL:HG21	2:H:952:ARG:HH21	1.70	0.57
1:C:1184:LEU:HB2	1:C:1352:THR:HG21	1.85	0.57
1:C:1473:GLU:O	1:C:1478:PRO:HD3	2.05	0.57
1:C:251:GLN:HA	1:C:256:LEU:H	1.69	0.57
2:G:1314:ARG:CG	2:G:1314:ARG:NH1	2.61	0.57
2:G:1954:LYS:HD3	2:G:1958:LEU:HD13	1.86	0.57
2:G:517:HIS:C	2:G:517:HIS:CD2	2.78	0.57
2:H:1782:THR:HG22	2:H:1827:LEU:HD21	1.86	0.57
2:H:732:TRP:CG	2:H:750:MET:HE1	2.40	0.57
2:I:2038:ILE:O	2:I:2042:ILE:HG12	2.04	0.57
2:I:813:THR:HB	2:I:818:LYS:HE3	1.85	0.57
1:A:988:ILE:HA	1:A:1048:GLU:HG2	1.84	0.57
1:A:655:LEU:CD2	1:A:916:LEU:HD11	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1775:GLN:HG2	2:G:1836:MET:SD	2.44	0.57
2:G:1778:GLN:HB3	2:G:1831:VAL:HG13	1.85	0.57
2:G:1890:ASN:HB2	2:G:1899:VAL:HB	1.86	0.57
2:G:741:HIS:HE1	2:G:845:THR:HG22	1.58	0.57
2:H:166:THR:HG22	2:H:168:ASP:N	2.19	0.57
2:H:61:VAL:HG21	2:H:95:TYR:HE1	1.69	0.57
2:H:561:TRP:CD1	2:H:754:TYR:HE2	2.22	0.57
2:I:665:LEU:O	2:I:669:LEU:HB2	2.05	0.57
1:A:1285:ALA:O	1:A:1289:MET:HG3	2.04	0.57
1:A:1474:ALA:O	1:A:1478:PRO:HD2	2.04	0.57
1:A:680:ILE:HG13	1:A:769:ILE:HB	1.87	0.57
1:B:140:ILE:HD13	1:B:255:GLY:O	2.05	0.57
1:B:440:MET:HE3	1:B:483:VAL:HG21	1.87	0.57
2:G:1266:TYR:CG	2:G:1347:LEU:HD23	2.40	0.57
2:G:703:LEU:HD21	2:G:705:LEU:HD21	1.86	0.57
2:H:1123:ASP:OD1	2:H:1123:ASP:N	2.36	0.57
2:H:1100:VAL:HG21	2:H:1147:ILE:CD1	2.34	0.57
2:H:1575:LEU:HD13	2:H:1579:ILE:HD12	1.85	0.57
2:H:2029:VAL:O	2:H:2033:THR:HG22	2.05	0.57
2:H:732:TRP:CD2	2:H:750:MET:CE	2.87	0.57
2:I:1292:ILE:O	2:I:1368:VAL:O	2.23	0.57
2:I:273:HIS:HB3	2:I:512:LEU:HD22	1.87	0.57
2:I:353:VAL:HG23	2:I:357:ASN:HD22	1.69	0.57
1:A:415:SER:O	1:A:419:GLU:HB2	2.05	0.57
1:A:80:CYS:SG	1:A:82:SER:HB3	2.45	0.57
1:C:1474:ALA:O	1:C:1478:PRO:HD2	2.04	0.57
2:G:1168:ASN:ND2	2:G:1171:ARG:HB2	2.20	0.57
2:G:1547:PRO:HD3	2:G:1584:PHE:CE2	2.40	0.57
2:G:463:PHE:HD1	2:G:486:LEU:HD13	1.70	0.57
2:G:455:ILE:HG13	2:G:469:ARG:HD3	1.86	0.57
2:G:584:SER:HA	2:G:587:ILE:HG23	1.87	0.57
2:G:667:LYS:HB2	2:G:698:LEU:HD23	1.85	0.57
2:G:89:THR:O	2:G:93:ASN:HB2	2.05	0.57
2:H:777:THR:CG2	2:H:1081:HIS:CE1	2.88	0.57
2:H:127:ILE:O	2:H:131:ILE:HG13	2.04	0.57
2:H:1589:VAL:HG11	2:H:1640:PHE:CE1	2.39	0.57
2:I:777:THR:CG2	2:I:1081:HIS:CE1	2.88	0.57
2:I:1199:GLU:OE2	2:I:1567:ARG:NH1	2.37	0.57
2:I:463:PHE:HD1	2:I:486:LEU:HD13	1.70	0.57
2:I:807:ILE:CG2	2:I:1066:ILE:HA	2.35	0.57
1:B:1431:GLU:HB3	1:B:1520:ALA:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:529:MET:HE3	1:B:529:MET:CA	2.31	0.57
1:B:742:LYS:HD3	1:B:746:GLU:OE2	2.05	0.57
1:C:341:GLN:O	1:C:345:VAL:HG12	2.05	0.57
2:G:1675:GLY:O	2:G:1678:MET:HB2	2.05	0.57
2:H:1266:TYR:CG	2:H:1347:LEU:HD23	2.40	0.57
2:H:1871:LEU:HD22	2:H:1888:ILE:HD11	1.85	0.57
2:H:1976:PHE:HA	2:H:1981:LEU:HD22	1.86	0.57
2:H:565:TYR:OH	2:H:758:ARG:HD2	2.04	0.57
2:I:1210:ILE:HB	2:I:1222:GLU:HB3	1.85	0.57
2:I:1231:GLY:O	2:I:1233:PRO:HD3	2.05	0.57
2:I:2029:VAL:O	2:I:2033:THR:HG22	2.05	0.57
2:I:607:VAL:HA	2:I:617:ILE:HD13	1.86	0.57
1:A:263:GLY:O	1:A:267:VAL:HG23	2.05	0.56
1:A:742:LYS:HD3	1:A:746:GLU:OE2	2.05	0.56
1:B:1524:GLY:O	1:B:1528:THR:HG23	2.05	0.56
1:B:152:HIS:HD2	1:B:163:LEU:HB2	1.66	0.56
1:B:251:GLN:HA	1:B:256:LEU:H	1.70	0.56
1:C:893:VAL:HG11	1:C:930:LEU:HD23	1.87	0.56
2:G:1868:GLN:HG3	2:G:1898:TYR:OH	2.04	0.56
2:G:653:TYR:CD1	2:G:659:LEU:HD21	2.39	0.56
1:B:964:GLU:HG2	2:H:1515:PRO:HB3	1.86	0.56
2:H:517:HIS:CD2	2:H:517:HIS:C	2.78	0.56
2:H:56:THR:HG23	2:H:59:GLU:CG	2.32	0.56
2:H:653:TYR:CD1	2:H:659:LEU:HD21	2.40	0.56
2:H:740:HIS:CE1	2:H:852:GLU:OE1	2.58	0.56
2:I:120:LYS:O	2:I:124:LYS:HG3	2.05	0.56
2:I:2030:TYR:CE1	2:I:2034:GLY:HA2	2.39	0.56
1:A:419:GLU:HG2	1:A:424:VAL:HB	1.86	0.56
1:C:1326:ILE:HG12	1:C:1388:MET:HG3	1.86	0.56
1:C:1524:GLY:O	1:C:1528:THR:HG23	2.05	0.56
1:C:1538:VAL:HB	1:C:1639:VAL:HG22	1.86	0.56
1:C:626:VAL:HG23	1:C:664:GLU:OE2	2.05	0.56
2:G:1567:ARG:HG3	2:G:1568:HIS:N	2.20	0.56
2:G:1804:PHE:CZ	2:G:2010:TYR:HB2	2.40	0.56
2:G:654:VAL:HG23	2:G:683:ALA:HB1	1.87	0.56
2:H:1352:HIS:HE1	2:H:1583:MET:HE1	1.69	0.56
2:H:638:VAL:HA	2:H:641:ILE:HG22	1.86	0.56
2:G:28:PHE:HZ	2:H:7:ARG:NE	2.02	0.56
2:H:839:PRO:HA	2:H:844:VAL:HG13	1.86	0.56
2:H:926:LEU:HD13	2:H:947:THR:HG22	1.86	0.56
2:I:1223:MET:HE3	2:I:1238:LEU:HD12	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:197:GLU:OE1	2:I:197:GLU:HA	2.05	0.56
1:C:20:TYR:HE1	2:I:2035:SER:HB2	1.69	0.56
2:I:281:VAL:HG23	2:I:459:VAL:HG11	1.87	0.56
2:I:741:HIS:HB3	2:I:853:PRO:HB2	1.86	0.56
2:I:89:THR:O	2:I:93:ASN:HB2	2.05	0.56
1:A:1014:ASP:N	1:A:1510:ASN:HD21	1.92	0.56
1:B:152:HIS:CE1	1:B:168:MET:HG3	2.40	0.56
2:G:1194:VAL:HG12	2:G:1194:VAL:O	2.05	0.56
2:G:1989:LYS:O	2:G:1993:LYS:HG3	2.05	0.56
2:G:1086:LEU:HD12	2:G:1090:TYR:CB	2.35	0.56
2:G:663:ILE:HG13	2:G:694:TYR:HE1	1.70	0.56
2:H:522:GLY:HA3	2:H:561:TRP:CZ3	2.40	0.56
2:H:561:TRP:O	2:H:562:LEU:C	2.42	0.56
2:H:702:TYR:CB	2:H:727:PRO:HB2	2.36	0.56
2:I:1149:TRP:CD1	2:I:1213:LEU:CD1	2.88	0.56
2:I:443:LEU:HD22	2:I:448:VAL:HG11	1.87	0.56
2:I:481:ASP:OD2	2:I:485:ARG:NH1	2.38	0.56
2:I:490:TRP:CH2	2:I:512:LEU:HD21	2.40	0.56
2:I:543:PHE:CB	2:I:545:GLN:HE22	2.17	0.56
1:B:488:PRO:HG3	1:B:728:LYS:HG3	1.87	0.56
1:C:635:ILE:HG22	1:C:651:TYR:CD1	2.41	0.56
2:G:813:THR:HB	2:G:818:LYS:HE3	1.87	0.56
2:H:1223:MET:CE	2:H:1238:LEU:HD12	2.35	0.56
2:H:1834:ARG:NH1	2:H:1834:ARG:CG	2.60	0.56
2:H:376:ASN:HD22	2:H:377:LEU:N	2.03	0.56
2:H:835:THR:HG22	2:H:844:VAL:C	2.26	0.56
2:I:1722:GLY:N	2:I:1726:GLY:HA3	2.21	0.56
2:I:1804:PHE:CZ	2:I:2010:TYR:HB2	2.40	0.56
1:A:1009:LEU:HA	1:A:1445:MET:HE2	1.87	0.56
1:A:21:GLN:O	2:G:1977:HIS:CD2	2.59	0.56
1:B:411:GLN:HE22	1:B:1628:SER:H	1.52	0.56
1:C:152:HIS:HD2	1:C:163:LEU:HB2	1.63	0.56
2:G:1834:ARG:HH11	2:G:1834:ARG:CG	2.03	0.56
2:G:543:PHE:CB	2:G:545:GLN:HE22	2.17	0.56
2:G:758:ARG:NH2	2:G:797:ASP:OD1	2.33	0.56
2:H:120:LYS:O	2:H:124:LYS:HG3	2.06	0.56
2:H:606:PHE:HZ	2:H:805:VAL:HG11	1.68	0.56
1:A:1057:MET:SD	1:A:1097:ILE:HG23	2.45	0.56
1:A:221:LEU:O	1:A:225:SER:HB3	2.05	0.56
1:B:1419:PRO:HB3	1:B:1646:PHE:CZ	2.40	0.56
1:C:1022:THR:HG22	1:C:1226:SER:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:741:SER:HB3	1:C:744:ASP:HB2	1.86	0.56
2:H:1920:GLN:HG2	2:H:1922:ILE:HD11	1.87	0.56
1:B:1009:LEU:HG	1:B:1664:ALA:HB2	1.87	0.56
1:C:695:GLY:HA3	1:C:906:LEU:HD11	1.88	0.56
2:G:1722:GLY:N	2:G:1726:GLY:HA3	2.21	0.56
2:G:634:ILE:HD11	2:G:649:ILE:CD1	2.34	0.56
2:H:1890:ASN:HB2	2:H:1899:VAL:HB	1.88	0.56
2:H:443:LEU:HD22	2:H:448:VAL:HG11	1.86	0.56
2:H:463:PHE:HD1	2:H:486:LEU:HD13	1.71	0.56
2:I:1567:ARG:HH12	2:I:1568:HIS:HB3	1.71	0.56
2:I:835:THR:HG23	2:I:843:ILE:O	2.05	0.56
1:A:1036:ARG:NH1	1:A:1040:GLU:OE1	2.39	0.56
1:A:152:HIS:CE1	1:A:168:MET:HG3	2.41	0.56
1:A:251:GLN:HA	1:A:256:LEU:H	1.68	0.56
1:B:1138:LYS:HG3	1:B:1163:TYR:CE1	2.41	0.56
1:B:1492:GLU:O	1:B:1496:GLU:HG3	2.06	0.56
1:B:644:THR:HG22	1:B:648:ASP:O	2.06	0.56
2:G:577:ILE:HD13	2:G:1097:ILE:CD1	2.35	0.56
2:G:589:ARG:HB3	2:G:590:PRO:HD2	1.87	0.56
2:G:599:PRO:HD2	4:G:3051:FMN:H6	1.88	0.56
2:H:1868:GLN:HG3	2:H:1898:TYR:OH	2.05	0.56
2:H:607:VAL:HA	2:H:617:ILE:HD13	1.88	0.56
2:I:601:THR:HG22	2:I:620:ALA:H	1.71	0.56
2:I:702:TYR:CB	2:I:727:PRO:HB2	2.36	0.56
2:I:732:TRP:CG	2:I:750:MET:HE3	2.39	0.56
2:I:774:ALA:HB1	2:I:1081:HIS:CD2	2.33	0.56
2:I:871:THR:HB	2:I:872:ILE:HD12	1.88	0.56
1:B:529:MET:HG2	1:B:638:LEU:CD1	2.35	0.56
1:C:1259:GLY:HA2	1:C:1263:ASP:HB2	1.87	0.56
1:C:329:GLU:O	1:C:333:LYS:HG3	2.06	0.56
1:C:531:LEU:HD21	1:C:629:THR:HG22	1.88	0.56
1:C:881:ASN:HA	1:C:944:ARG:HH21	1.70	0.56
2:G:1130:THR:H	2:G:1133:THR:HG23	1.70	0.56
2:G:1567:ARG:HH12	2:G:1568:HIS:HB3	1.71	0.56
2:G:702:TYR:CB	2:G:727:PRO:HB2	2.35	0.56
2:H:1100:VAL:HG21	2:H:1147:ILE:HD13	1.88	0.56
2:H:1194:VAL:O	2:H:1194:VAL:HG12	2.05	0.56
2:H:1778:GLN:HB3	2:H:1831:VAL:HG13	1.88	0.56
2:H:1989:LYS:O	2:H:1993:LYS:HG3	2.06	0.56
2:H:553:ASN:O	2:H:556:LYS:HE3	2.06	0.56
2:I:1931:LEU:HD22	2:I:1935:GLU:HG2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1052:GLU:O	1:A:1056:ILE:HG23	2.06	0.56
1:A:1665:ILE:CG1	1:A:1669:ARG:HD3	2.36	0.56
1:A:1498:GLU:CB	1:A:1876:LEU:HD13	1.83	0.56
1:C:1419:PRO:HB3	1:C:1646:PHE:CZ	2.41	0.56
1:C:1749:THR:CA	1:C:1874:ASP:HB3	2.32	0.56
2:G:120:LYS:O	2:G:124:LYS:HG3	2.05	0.56
2:G:1308:CYS:HB3	2:G:1311:PHE:CD2	2.41	0.56
2:G:1874:VAL:O	2:G:1878:VAL:HG12	2.05	0.56
2:H:1308:CYS:HB3	2:H:1311:PHE:CD2	2.41	0.56
2:H:1328:VAL:HG23	2:H:1557:SER:HA	1.88	0.56
2:I:826:GLY:HA2	2:I:1060:ALA:HB3	1.88	0.56
2:I:577:ILE:HD13	2:I:1097:ILE:CD1	2.36	0.56
2:I:1589:VAL:HG11	2:I:1640:PHE:CE1	2.41	0.56
2:I:732:TRP:CD1	2:I:750:MET:HE3	2.40	0.56
1:A:1524:GLY:HA2	1:A:1527:ALA:HB3	1.89	0.55
1:A:295:ALA:HB2	1:A:302:LEU:HD11	1.87	0.55
1:B:11:HIS:O	1:B:15:THR:HG22	2.06	0.55
1:B:1233:GLU:OE2	1:B:1680:ARG:NH2	2.40	0.55
1:C:1496:GLU:O	1:C:1500:GLN:HG3	2.06	0.55
2:G:1475:LYS:HG3	2:G:1481:SER:HB2	1.88	0.55
2:G:1561:ASN:OD1	2:G:1563:ILE:HB	2.05	0.55
2:G:732:TRP:CD2	2:G:750:MET:HE1	2.41	0.55
2:H:1493:LEU:HD11	2:H:1499:VAL:CG2	2.36	0.55
2:H:16:LEU:HG	2:H:48:PHE:CZ	2.40	0.55
2:H:239:PRO:HG3	2:H:304:PHE:HA	1.88	0.55
2:I:1308:CYS:HB3	2:I:1311:PHE:CD2	2.40	0.55
1:C:29:ILE:HG13	2:I:1891:TYR:O	2.06	0.55
2:I:7:ARG:NH1	2:I:24:THR:HA	2.20	0.55
2:I:653:TYR:CD1	2:I:659:LEU:HD21	2.40	0.55
1:A:1114:TYR:CD1	1:A:1337:GLU:HG3	2.41	0.55
1:A:1555:ALA:HA	1:A:1621:PHE:CE1	2.41	0.55
1:A:864:VAL:CG2	1:A:921:PRO:HB3	2.36	0.55
1:B:1538:VAL:HB	1:B:1639:VAL:HG22	1.87	0.55
1:B:733:ILE:HD12	1:B:761:LEU:HD21	1.88	0.55
1:B:988:ILE:HD13	1:B:1048:GLU:HB3	1.89	0.55
1:C:335:HIS:HD2	1:C:335:HIS:O	1.89	0.55
2:G:652:ILE:HB	2:G:658:MET:CE	2.36	0.55
2:H:7:ARG:NH1	2:H:24:THR:HA	2.21	0.55
2:I:1931:LEU:HB3	2:I:1935:GLU:CG	2.35	0.55
2:I:232:LEU:HD23	2:I:232:LEU:O	2.06	0.55
1:A:1665:ILE:HD11	1:A:1669:ARG:HG2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1665:ILE:HD11	1:B:1669:ARG:HG2	1.88	0.55
1:B:433:VAL:O	1:B:437:ILE:HG13	2.07	0.55
1:C:12:ILE:HA	1:C:15:THR:HG23	1.88	0.55
1:C:417:TYR:OH	1:C:458:THR:HG22	2.06	0.55
2:G:1931:LEU:HB3	2:G:1935:GLU:CG	2.33	0.55
2:G:2036:GLU:O	2:G:2039:LYS:HG2	2.06	0.55
2:G:722:ALA:HB1	2:G:723:HIS:CE1	2.42	0.55
2:H:1822:MET:HE2	2:H:1996:ILE:HG12	1.89	0.55
2:H:490:TRP:HA	2:H:493:THR:CG2	2.36	0.55
2:I:124:LYS:HG2	2:I:179:THR:HA	1.87	0.55
2:I:634:ILE:HD11	2:I:649:ILE:CD1	2.35	0.55
1:A:825:PRO:HB2	1:A:843:LYS:NZ	2.21	0.55
1:B:1036:ARG:NH1	1:B:1040:GLU:OE1	2.40	0.55
1:C:1347:LYS:HD3	1:C:1347:LYS:O	2.05	0.55
1:C:1:MET:HE3	1:C:9:LEU:HD12	1.89	0.55
2:G:1678:MET:CE	2:G:1707:LEU:HD22	2.35	0.55
2:G:665:LEU:O	2:G:669:LEU:HB2	2.06	0.55
2:H:1431:TYR:CE1	2:H:1526:THR:HG23	2.41	0.55
1:C:1498:GLU:CG	1:C:1876:LEU:CB	2.64	0.55
1:C:254:TRP:CZ3	1:C:302:LEU:HD13	2.41	0.55
1:C:27:ARG:HD2	1:C:30:GLU:OE2	2.06	0.55
1:C:807:LYS:HG3	1:C:858:TRP:HB3	1.87	0.55
2:G:1475:LYS:HB2	2:G:1481:SER:HB2	1.89	0.55
2:H:1166:VAL:HG12	2:H:1167:SER:N	2.21	0.55
2:H:2038:ILE:HG22	2:H:2042:ILE:CD1	2.36	0.55
2:I:166:THR:HG22	2:I:168:ASP:N	2.21	0.55
2:I:638:VAL:HA	2:I:641:ILE:HG22	1.88	0.55
2:I:926:LEU:HB3	2:I:947:THR:HG22	1.88	0.55
2:I:61:VAL:HG21	2:I:95:TYR:HE1	1.72	0.55
1:A:1238:VAL:HG12	1:A:1239:HIS:N	2.21	0.55
1:A:1498:GLU:CB	1:A:1876:LEU:CD1	2.63	0.55
1:C:1125:VAL:HG21	1:C:1175:ILE:HD12	1.88	0.55
1:C:152:HIS:CE1	1:C:168:MET:HG3	2.41	0.55
1:C:11:HIS:O	1:C:15:THR:HG22	2.06	0.55
1:C:383:GLY:O	1:C:387:VAL:HG23	2.07	0.55
2:G:1496:LYS:HE2	2:G:1693:ARG:NH2	2.20	0.55
2:G:197:GLU:OE1	2:G:197:GLU:HA	2.06	0.55
2:H:807:ILE:CG2	2:H:1066:ILE:HA	2.36	0.55
2:H:1359:MET:HE3	2:H:1359:MET:HA	1.88	0.55
2:I:2015:THR:HG22	2:I:2017:LYS:N	2.21	0.55
1:A:1056:ILE:HD13	1:A:1193:TRP:CD1	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1233:GLU:OE2	1:A:1680:ARG:NH2	2.40	0.55
1:A:12:ILE:HD11	2:G:2041:ILE:HD11	1.83	0.55
1:A:1473:GLU:O	1:A:1478:PRO:HD3	2.06	0.55
1:A:529:MET:HG2	1:A:638:LEU:CD1	2.36	0.55
1:A:771:PHE:CD1	1:A:825:PRO:HG3	2.42	0.55
1:B:1285:ALA:O	1:B:1289:MET:HG3	2.07	0.55
1:B:1432:HIS:CE1	1:B:1434:SER:OG	2.60	0.55
1:B:328:LEU:C	1:B:328:LEU:HD22	2.28	0.55
1:A:332:THR:HG22	1:B:331:ILE:CD1	2.36	0.55
1:C:883:ILE:HD12	1:C:947:LEU:HD12	1.88	0.55
2:G:239:PRO:HG3	2:G:304:PHE:HA	1.88	0.55
2:H:584:SER:HA	2:H:587:ILE:HG23	1.89	0.55
2:H:707:PRO:HG2	2:H:730:LEU:HD13	1.89	0.55
2:I:1432:GLN:HB2	2:I:1527:LEU:HD12	1.88	0.55
2:I:1873:TYR:HE1	2:I:1877:ARG:HH21	1.54	0.55
2:I:603:SER:O	2:I:607:VAL:HG12	2.06	0.55
1:C:635:ILE:HG22	1:C:651:TYR:CG	2.42	0.55
2:G:777:THR:CG2	2:G:1081:HIS:CE1	2.89	0.55
2:G:1822:MET:CE	2:G:1996:ILE:HG12	2.37	0.55
2:H:1173:VAL:CG2	2:H:1221:MET:HE1	2.35	0.55
2:H:1822:MET:CE	2:H:1996:ILE:HG12	2.37	0.55
2:H:264:ARG:NH1	2:H:456:GLN:HG3	2.22	0.55
2:H:740:HIS:HA	2:H:854:ILE:HD13	1.89	0.55
2:I:1427:VAL:HG12	2:I:1427:VAL:O	2.07	0.55
2:I:741:HIS:CE1	2:I:855:HIS:CD2	2.95	0.55
1:A:56:MET:HG3	2:G:1893:VAL:CG2	2.37	0.55
1:A:982:ILE:HG13	2:G:965:SER:N	2.22	0.55
1:C:176:VAL:HG12	1:C:178:GLY:H	1.72	0.55
1:C:50:SER:HB2	1:C:51:PRO:HD3	1.88	0.55
2:G:127:ILE:O	2:G:131:ILE:HG13	2.07	0.55
2:G:1624:THR:HB	2:G:1642:THR:HG23	1.86	0.55
2:G:747:HIS:O	2:G:751:LEU:HB2	2.07	0.55
2:G:835:THR:HG23	2:G:843:ILE:O	2.06	0.55
2:H:1350:LEU:HD11	2:H:1410:PHE:HB3	1.89	0.55
2:H:1567:ARG:NH1	2:H:1567:ARG:CG	2.50	0.55
2:H:1697:HIS:CE1	2:H:1829:GLU:HG2	2.42	0.55
2:H:1844:ARG:CG	2:H:1844:ARG:NH1	2.58	0.55
2:H:402:LEU:O	2:H:402:LEU:HD13	2.07	0.55
2:I:1010:PRO:O	2:I:1011:MET:HB2	2.05	0.55
2:I:1168:ASN:ND2	2:I:1171:ARG:HB2	2.22	0.55
1:A:1392:LEU:HD22	1:A:1396:MET:HG3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1123:GLN:HG3	1:B:1124:GLU:N	2.22	0.55
1:B:1566:ARG:HB3	1:B:1623:TYR:CE1	2.42	0.55
1:B:49:PRO:O	1:B:82:SER:HB2	2.07	0.55
1:C:1009:LEU:HD13	1:C:1445:MET:HE1	1.89	0.55
1:C:1455:ARG:NH2	1:C:1459:ILE:HG12	2.22	0.55
2:G:264:ARG:NH1	2:G:456:GLN:HG3	2.22	0.55
2:H:1475:LYS:HB2	2:H:1481:SER:HB2	1.88	0.55
2:H:2036:GLU:O	2:H:2039:LYS:HG2	2.07	0.55
2:I:1293:THR:HG22	2:I:1296:GLU:CD	2.28	0.55
2:I:1624:THR:HB	2:I:1642:THR:OG1	2.06	0.55
2:I:260:PRO:HD3	2:I:289:TRP:CE2	2.42	0.55
1:A:1194:ASN:HB3	1:A:1197:THR:HG22	1.88	0.54
1:B:1373:ARG:HB2	1:B:1545:SER:O	2.07	0.54
1:C:1501:LEU:O	1:C:1505:GLN:HG3	2.07	0.54
1:C:1:MET:HE3	1:C:5:VAL:HG12	1.88	0.54
2:G:1227:ARG:CG	2:G:1227:ARG:NH1	2.56	0.54
2:G:1313:SER:O	2:G:1314:ARG:HD3	2.07	0.54
2:G:598:THR:HG23	4:G:3051:FMN:O4	2.06	0.54
2:H:1159:ILE:HG12	2:H:1169:PRO:CD	2.36	0.54
2:I:1493:LEU:HD11	2:I:1499:VAL:CG2	2.37	0.54
1:A:1455:ARG:NH2	1:A:1459:ILE:HG12	2.22	0.54
1:A:236:LYS:HE2	1:A:273:PRO:O	2.07	0.54
1:A:733:ILE:CD1	1:A:761:LEU:HD11	2.37	0.54
1:A:741:SER:HB3	1:A:744:ASP:HB2	1.89	0.54
1:B:263:GLY:O	1:B:267:VAL:HG23	2.07	0.54
1:B:771:PHE:CD1	1:B:825:PRO:HG3	2.42	0.54
1:C:1373:ARG:HB2	1:C:1545:SER:O	2.07	0.54
1:C:286:PHE:O	1:C:290:MET:HG2	2.07	0.54
2:G:1859:PRO:CG	2:G:1871:LEU:HD12	2.20	0.54
2:G:464:ASP:HB3	2:G:466:SER:HB3	1.88	0.54
2:H:1293:THR:HG22	2:H:1296:GLU:CD	2.28	0.54
2:H:1976:PHE:HB3	2:H:1981:LEU:HD21	1.89	0.54
2:I:131:ILE:HD12	2:I:182:VAL:CB	2.33	0.54
2:I:1331:TRP:CE2	2:I:1335:ILE:HG13	2.42	0.54
2:I:145:LEU:HD21	2:I:156:LEU:HD21	1.89	0.54
2:I:606:PHE:HZ	2:I:805:VAL:HG11	1.71	0.54
1:A:430:ARG:NH2	1:A:605:LEU:HD13	2.23	0.54
2:G:1292:ILE:O	2:G:1368:VAL:O	2.25	0.54
2:G:332:GLU:OE2	2:G:394:ARG:HD3	2.07	0.54
2:G:462:THR:HB	2:G:482:CYS:SG	2.48	0.54
2:H:1497:GLU:OE1	2:H:2002:LYS:HE3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:2015:THR:HG22	2:H:2017:LYS:N	2.21	0.54
2:H:732:TRP:CD2	2:H:750:MET:HE3	2.43	0.54
2:I:1567:ARG:CG	2:I:1567:ARG:NH1	2.50	0.54
2:I:517:HIS:CD2	2:I:517:HIS:C	2.80	0.54
1:A:1475:GLU:HG2	1:A:1761:LYS:O	2.06	0.54
1:A:1748:ASN:C	1:A:1750:ILE:H	2.11	0.54
1:A:733:ILE:HD12	1:A:761:LEU:HD21	1.89	0.54
1:A:20:TYR:CD1	2:G:2033:THR:HG21	2.42	0.54
2:H:1102:TYR:HB3	2:H:1244:PRO:HA	1.90	0.54
2:H:490:TRP:HE1	2:H:516:THR:CG2	2.01	0.54
2:H:611:THR:CG2	2:H:641:ILE:HG13	2.38	0.54
2:I:1093:ASP:HB3	2:I:1096:LYS:HG3	1.89	0.54
2:I:1166:VAL:HG12	2:I:1167:SER:N	2.23	0.54
2:I:490:TRP:HA	2:I:493:THR:CG2	2.38	0.54
1:A:1501:LEU:CD1	1:A:1775:LEU:CG	2.86	0.54
1:A:1657:HIS:ND1	1:A:1658:PRO:HD2	2.21	0.54
1:A:183:GLN:O	1:A:187:LEU:HG	2.08	0.54
1:B:1501:LEU:O	1:B:1505:GLN:HG3	2.08	0.54
1:B:1401:TYR:C	1:B:1658:PRO:HG3	2.27	0.54
1:B:1749:THR:CB	1:B:1874:ASP:HA	2.33	0.54
1:C:479:ASN:O	1:C:483:VAL:HG23	2.07	0.54
2:G:1575:LEU:HD13	2:G:1579:ILE:HD12	1.89	0.54
2:G:344:LEU:HB3	2:G:349:VAL:HG23	1.90	0.54
2:H:85:ASN:HD22	2:H:135:ARG:NH1	2.02	0.54
2:I:1475:LYS:HB2	2:I:1481:SER:HB2	1.89	0.54
2:I:1547:PRO:HD3	2:I:1584:PHE:CE2	2.43	0.54
2:I:2046:GLU:C	2:I:2048:TYR:H	2.11	0.54
2:I:584:SER:HA	2:I:587:ILE:HG23	1.89	0.54
1:A:1234:MET:CE	1:A:1326:ILE:HG21	2.38	0.54
1:A:328:LEU:C	1:A:328:LEU:HD22	2.28	0.54
1:B:385:PHE:HD2	1:B:787:LYS:HA	1.73	0.54
1:B:824:LEU:HD11	1:B:849:LEU:HD12	1.89	0.54
1:C:1123:GLN:HG3	1:C:1124:GLU:N	2.23	0.54
2:G:1697:HIS:CE1	2:G:1829:GLU:HG2	2.43	0.54
2:G:2030:TYR:CE1	2:G:2034:GLY:HA2	2.43	0.54
2:G:807:ILE:HG21	2:G:1066:ILE:HA	1.88	0.54
2:H:1547:PRO:HD3	2:H:1584:PHE:CE2	2.42	0.54
2:H:464:ASP:HB3	2:H:466:SER:HB3	1.90	0.54
2:I:1417:THR:O	2:I:1419:PHE:N	2.30	0.54
2:I:1778:GLN:HB3	2:I:1831:VAL:HG13	1.88	0.54
2:I:123:ILE:HD11	2:I:533:LEU:CD2	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:611:THR:CG2	2:I:641:ILE:HG13	2.37	0.54
2:I:652:ILE:HB	2:I:658:MET:CE	2.37	0.54
1:A:1184:LEU:HB2	1:A:1352:THR:HG21	1.89	0.54
1:B:23:ALA:O	2:H:1977:HIS:HA	2.07	0.54
2:G:1428:GLU:HB2	2:G:1468:THR:HG22	1.88	0.54
2:G:1749:GLU:OE2	2:G:1840:VAL:CG1	2.56	0.54
1:B:236:LYS:HE2	1:B:273:PRO:O	2.07	0.54
1:B:280:GLU:O	1:B:280:GLU:HG2	2.08	0.54
1:B:655:LEU:CD2	1:B:916:LEU:HD11	2.38	0.54
1:C:1748:ASN:C	1:C:1750:ILE:H	2.12	0.54
2:G:601:THR:CG2	2:G:618:GLU:O	2.41	0.54
2:H:1378:ILE:HD11	2:H:1381:VAL:HG21	1.90	0.54
2:H:964:LEU:N	2:H:964:LEU:CD2	2.70	0.54
2:I:1452:LEU:HA	2:I:1502:GLY:HA3	1.88	0.54
2:I:545:GLN:NE2	2:I:545:GLN:H	2.06	0.54
2:I:722:ALA:HB1	2:I:723:HIS:CE1	2.42	0.54
2:I:99:ASN:HA	2:I:550:VAL:HG21	1.90	0.54
1:A:1496:GLU:O	1:A:1500:GLN:HG3	2.07	0.54
1:B:695:GLY:HA3	1:B:906:LEU:HD11	1.90	0.54
1:C:1477:ILE:H	1:C:1478:PRO:CD	2.20	0.54
1:C:37:LYS:HB2	1:C:65:TYR:HE1	1.72	0.54
2:I:826:GLY:O	2:I:827:VAL:HG23	2.07	0.54
1:A:1138:LYS:HG3	1:A:1163:TYR:CE1	2.43	0.54
1:A:340:ARG:HH12	1:A:344:GLN:NE2	2.06	0.54
1:A:644:THR:HG22	1:A:648:ASP:O	2.08	0.54
1:A:625:THR:HG23	1:A:661:ASP:OD1	2.08	0.54
1:B:1600:LEU:HD13	1:B:1657:HIS:HA	1.90	0.54
1:B:635:ILE:HG22	1:B:651:TYR:CG	2.43	0.54
1:C:1682:LYS:HB3	2:I:994:PHE:CE2	2.43	0.54
1:C:516:ARG:NH2	1:C:889:GLU:OE1	2.41	0.54
2:G:1231:GLY:O	2:G:1233:PRO:HD3	2.08	0.54
2:I:1054:LEU:CB	4:I:3051:FMN:C7M	2.85	0.54
2:I:1172:LYS:HE3	2:I:1574:ASN:OD1	2.08	0.54
2:I:332:GLU:OE2	2:I:394:ARG:HD3	2.08	0.54
2:I:868:PHE:HB3	2:I:873:PHE:CE2	2.43	0.54
1:A:1125:VAL:HG21	1:A:1175:ILE:HD12	1.88	0.53
1:B:1010:GLU:HA	1:B:1664:ALA:HA	1.89	0.53
1:C:1194:ASN:HB3	1:C:1197:THR:HG22	1.89	0.53
1:C:529:MET:HG2	1:C:638:LEU:CD1	2.39	0.53
2:H:1313:SER:O	2:H:1314:ARG:HD3	2.09	0.53
2:H:1325:PHE:CE1	2:H:1328:VAL:HG11	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:146:PHE:HA	2:H:149:VAL:HG12	1.89	0.53
2:I:754:TYR:CD2	2:I:794:MET:HG3	2.42	0.53
1:A:1120:GLU:O	1:A:1121:MET:CG	2.56	0.53
1:A:1566:ARG:HB3	1:A:1623:TYR:CE1	2.42	0.53
1:B:807:LYS:HG3	1:B:858:TRP:HB3	1.90	0.53
1:C:825:PRO:HB2	1:C:843:LYS:NZ	2.24	0.53
2:G:1331:TRP:CE2	2:G:1335:ILE:HG13	2.43	0.53
2:H:1177:SER:O	2:H:1180:MET:HG2	2.08	0.53
2:H:606:PHE:CE1	2:H:811:VAL:HG13	2.43	0.53
2:I:615:TYR:CZ	2:I:1074:MET:HB3	2.42	0.53
2:I:1844:ARG:CG	2:I:1844:ARG:NH1	2.61	0.53
2:I:1954:LYS:HD3	2:I:1958:LEU:HD13	1.89	0.53
1:A:1153:ASP:OD2	1:B:359:ARG:NH2	2.41	0.53
1:A:1123:GLN:HB2	1:A:1177:LYS:HE2	1.90	0.53
1:A:1392:LEU:CD2	1:A:1396:MET:HG3	2.38	0.53
1:B:1194:ASN:O	1:B:1197:THR:HG23	2.08	0.53
1:C:236:LYS:HE2	1:C:273:PRO:O	2.08	0.53
2:G:1269:LEU:O	2:G:1560:LEU:HD23	2.08	0.53
2:H:281:VAL:HG23	2:H:459:VAL:HG11	1.90	0.53
2:H:674:TYR:HB3	2:H:676:ILE:HG22	1.88	0.53
2:H:826:GLY:O	2:H:827:VAL:HG23	2.07	0.53
2:I:873:PHE:CD1	2:I:1026:GLU:HB2	2.43	0.53
2:I:234:ILE:CG1	2:I:235:PRO:HD3	2.38	0.53
2:I:491:GLU:HA	2:I:494:THR:HG22	1.89	0.53
2:I:582:LYS:HE2	2:I:1108:PRO:HB3	1.91	0.53
1:A:1373:ARG:HB2	1:A:1545:SER:O	2.08	0.53
1:A:807:LYS:HG3	1:A:858:TRP:HB3	1.91	0.53
1:B:1392:LEU:CD2	1:B:1396:MET:HG3	2.38	0.53
1:B:1020:VAL:HG13	1:B:1400:ILE:HG23	1.91	0.53
1:C:263:GLY:O	1:C:267:VAL:HG23	2.08	0.53
1:C:824:LEU:HD11	1:C:849:LEU:HD12	1.90	0.53
2:G:741:HIS:CB	2:G:853:PRO:HB2	2.38	0.53
2:G:892:ILE:HG12	2:G:903:TRP:CG	2.43	0.53
2:G:964:LEU:CD2	2:G:964:LEU:N	2.68	0.53
2:H:55:THR:CG2	2:H:56:THR:HG22	2.30	0.53
2:I:1745:LYS:HE2	2:I:1747:LYS:HG2	1.91	0.53
2:I:271:THR:OG1	2:I:460:TYR:HB2	2.08	0.53
1:A:421:ILE:HG13	1:A:469:VAL:HG21	1.89	0.53
1:B:1665:ILE:CG1	1:B:1669:ARG:HD3	2.36	0.53
1:B:607:LYS:HG2	1:B:608:ASP:N	2.23	0.53
1:B:751:PHE:CZ	1:B:761:LEU:HD13	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:158:LYS:HD3	1:C:185:GLU:HB3	1.91	0.53
1:C:1401:TYR:C	1:C:1658:PRO:HG3	2.29	0.53
2:G:707:PRO:HG2	2:G:730:LEU:HD13	1.90	0.53
2:H:1804:PHE:CZ	2:H:2010:TYR:HB2	2.44	0.53
2:H:173:LEU:HD13	2:H:219:LEU:HD21	1.90	0.53
2:H:816:ASP:HB3	2:H:1048:VAL:HG21	1.91	0.53
2:I:1102:TYR:HB3	2:I:1244:PRO:HA	1.91	0.53
2:I:1177:SER:O	2:I:1180:MET:HG2	2.09	0.53
2:I:1314:ARG:CG	2:I:1314:ARG:NH1	2.63	0.53
2:I:1431:TYR:CE1	2:I:1526:THR:HG22	2.44	0.53
2:I:1567:ARG:HG3	2:I:1568:HIS:N	2.22	0.53
2:I:526:ARG:HH11	2:I:558:ASN:HD21	1.55	0.53
1:C:985:ARG:HH12	2:I:953:ARG:CZ	2.21	0.53
1:A:1020:VAL:HG13	1:A:1400:ILE:HG23	1.90	0.53
1:A:1665:ILE:HG12	1:A:1666:THR:N	2.23	0.53
1:A:50:SER:HB2	1:A:51:PRO:CD	2.39	0.53
1:A:635:ILE:HG22	1:A:651:TYR:CG	2.43	0.53
1:A:529:MET:CE	1:A:894:ARG:HD2	2.38	0.53
1:C:825:PRO:HB2	1:C:843:LYS:HZ2	1.73	0.53
2:G:2015:THR:HG22	2:G:2017:LYS:N	2.22	0.53
2:G:913:ASP:H	2:G:916:THR:CG2	2.22	0.53
2:H:1567:ARG:HG3	2:H:1568:HIS:N	2.23	0.53
2:H:652:ILE:HB	2:H:658:MET:CE	2.39	0.53
2:I:1173:VAL:CG2	2:I:1221:MET:HE1	2.39	0.53
2:I:1293:THR:HG22	2:I:1296:GLU:CG	2.39	0.53
2:I:2036:GLU:HG2	2:I:2039:LYS:NZ	2.23	0.53
1:A:1492:GLU:O	1:A:1496:GLU:HG3	2.09	0.53
1:B:1123:GLN:HB2	1:B:1177:LYS:HE2	1.91	0.53
1:B:1577:GLN:HE22	1:B:1591:TRP:C	2.12	0.53
1:C:1012:LEU:HD23	1:C:1445:MET:CE	2.39	0.53
1:C:1037:TRP:HB2	1:C:1598:GLN:OE1	2.09	0.53
2:G:1166:VAL:HG12	2:G:1167:SER:N	2.23	0.53
2:G:346:GLN:HA	2:G:377:LEU:HD21	1.89	0.53
2:G:606:PHE:HZ	2:G:805:VAL:HG11	1.74	0.53
2:H:1913:VAL:O	2:H:1917:ILE:HG13	2.08	0.53
2:H:402:LEU:HD12	2:H:404:GLN:HG2	1.90	0.53
2:H:774:ALA:HB1	2:H:1081:HIS:CD2	2.32	0.53
2:I:1327:ILE:HG12	2:I:1583:MET:HE3	1.91	0.53
1:A:1014:ASP:H	1:A:1510:ASN:ND2	1.93	0.53
1:A:385:PHE:HD2	1:A:787:LYS:HA	1.74	0.53
1:A:483:VAL:O	1:A:486:VAL:N	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:12:ILE:HA	1:B:15:THR:HG23	1.90	0.53
1:C:1524:GLY:HA2	1:C:1527:ALA:HB3	1.91	0.53
2:G:490:TRP:CH2	2:G:512:LEU:HD21	2.43	0.53
2:G:750:MET:CG	2:G:796:PHE:HZ	2.21	0.53
2:G:85:ASN:HD22	2:G:135:ARG:NH1	2.03	0.53
2:H:1040:LEU:HD21	2:H:1048:VAL:HA	1.89	0.53
2:H:1452:LEU:HA	2:H:1502:GLY:HA3	1.90	0.53
2:H:1954:LYS:HD3	2:H:1958:LEU:HD13	1.90	0.53
2:H:346:GLN:HA	2:H:377:LEU:HD21	1.91	0.53
2:I:1040:LEU:HD21	2:I:1048:VAL:HA	1.90	0.53
2:I:1441:ILE:HD11	2:I:1445:ARG:NH2	2.23	0.53
2:I:1861:ARG:HD2	2:I:1964:PHE:O	2.08	0.53
2:I:2038:ILE:HG22	2:I:2042:ILE:CD1	2.37	0.53
2:I:892:ILE:HG12	2:I:903:TRP:CG	2.44	0.53
1:A:1455:ARG:O	1:A:1459:ILE:HG13	2.08	0.53
1:A:12:ILE:HA	1:A:15:THR:HG23	1.88	0.53
1:C:1036:ARG:NH1	1:C:1040:GLU:OE1	2.41	0.53
2:G:1040:LEU:HD21	2:G:1048:VAL:HA	1.90	0.53
2:G:2038:ILE:HG22	2:G:2042:ILE:CD1	2.37	0.53
2:G:281:VAL:HG23	2:G:459:VAL:HG11	1.91	0.53
2:H:1745:LYS:HE2	2:H:1747:LYS:HG2	1.91	0.53
2:I:1266:TYR:CG	2:I:1347:LEU:HD23	2.43	0.53
2:I:2035:SER:HB3	2:I:2038:ILE:CG1	2.37	0.53
2:I:240:LEU:O	2:I:244:ILE:HG13	2.08	0.53
2:I:871:THR:HG21	2:I:887:LYS:NZ	2.24	0.53
1:B:1326:ILE:HG12	1:B:1388:MET:HG3	1.91	0.53
1:C:1285:ALA:O	1:C:1289:MET:HG3	2.09	0.53
1:C:625:THR:HG23	1:C:661:ASP:OD1	2.09	0.53
2:G:1173:VAL:CG2	2:G:1221:MET:HE1	2.38	0.53
2:G:102:HIS:HE1	2:G:180:TYR:OH	1.92	0.53
2:G:1861:ARG:HD2	2:G:1964:PHE:O	2.09	0.53
2:H:1101:GLU:HB2	2:H:1147:ILE:O	2.09	0.53
2:H:1697:HIS:HE1	2:H:1829:GLU:HG2	1.74	0.53
2:H:234:ILE:CG1	2:H:235:PRO:HD3	2.39	0.53
2:H:455:ILE:HG12	2:H:469:ARG:HG2	1.91	0.53
2:I:264:ARG:NH1	2:I:456:GLN:HG3	2.24	0.53
1:A:529:MET:HG2	1:A:638:LEU:HG	1.89	0.52
1:B:340:ARG:HH12	1:B:344:GLN:NE2	2.08	0.52
1:C:864:VAL:CG2	1:C:921:PRO:HB3	2.39	0.52
1:C:929:GLY:C	1:C:931:GLN:H	2.13	0.52
2:G:1418:ASP:C	2:G:1420:GLU:N	2.63	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:55:THR:CG2	2:G:56:THR:HG22	2.33	0.52
2:H:1418:ASP:O	2:H:1419:PHE:C	2.46	0.52
2:I:1040:LEU:O	2:I:1046:GLN:HG3	2.09	0.52
2:I:606:PHE:CE1	2:I:811:VAL:HG13	2.44	0.52
1:A:156:ALA:HA	1:A:166:ILE:CD1	2.39	0.52
1:A:341:GLN:O	1:A:345:VAL:HG12	2.09	0.52
1:A:986:ALA:CA	1:A:1047:LEU:HD13	2.39	0.52
1:B:12:ILE:HD11	2:H:2041:ILE:HD11	1.89	0.52
1:B:1234:MET:CE	1:B:1326:ILE:HG21	2.40	0.52
1:C:1749:THR:C	1:C:1874:ASP:HB3	2.29	0.52
2:H:1159:ILE:CG1	2:H:1169:PRO:CD	2.87	0.52
2:H:1427:VAL:O	2:H:1427:VAL:HG12	2.08	0.52
2:H:145:LEU:O	2:H:149:VAL:HG12	2.10	0.52
2:H:1697:HIS:HE1	2:H:1829:GLU:CG	2.22	0.52
2:H:2026:PHE:CD2	2:H:2045:TRP:HZ3	2.27	0.52
2:I:2036:GLU:O	2:I:2039:LYS:HG2	2.09	0.52
2:I:465:GLY:HA2	2:I:493:THR:HA	1.91	0.52
2:I:598:THR:O	2:I:602:VAL:HB	2.09	0.52
1:B:784:ILE:HG23	1:B:788:SER:HB2	1.92	0.52
1:C:1056:ILE:HD13	1:C:1193:TRP:CD1	2.41	0.52
1:C:1305:CYS:SG	1:C:1583:HIS:NE2	2.82	0.52
2:G:615:TYR:CZ	2:G:1074:MET:HB3	2.44	0.52
2:H:194:THR:CG2	2:H:300:ILE:HD11	2.39	0.52
2:H:768:GLY:HA3	2:H:800:LEU:CD2	2.39	0.52
1:B:980:VAL:HG21	2:H:952:ARG:NH2	2.24	0.52
2:I:418:ASN:HD22	2:I:418:ASN:N	2.07	0.52
1:A:335:HIS:HD2	1:A:335:HIS:O	1.92	0.52
1:A:824:LEU:HD11	1:A:849:LEU:HD12	1.89	0.52
1:B:329:GLU:O	1:B:333:LYS:HG3	2.08	0.52
1:C:1411:THR:HG22	1:C:1412:ASP:N	2.24	0.52
1:C:260:ARG:HH12	1:C:300:VAL:CG2	2.22	0.52
1:C:530:ALA:HA	1:C:636:PRO:HB3	1.91	0.52
2:G:1159:ILE:HG12	2:G:1169:PRO:CD	2.39	0.52
2:G:1359:MET:CE	2:G:1404:MET:HB3	2.39	0.52
2:G:1438:SER:O	2:G:1441:ILE:HG23	2.09	0.52
2:G:490:TRP:HA	2:G:493:THR:CG2	2.40	0.52
2:H:955:GLU:HG2	2:H:987:TYR:CE2	2.45	0.52
2:I:1486:PHE:HA	2:I:1504:VAL:O	2.10	0.52
1:A:988:ILE:HD13	1:A:1048:GLU:CA	2.39	0.52
1:C:406:TRP:CE3	1:C:1619:GLU:HG3	2.44	0.52
1:C:465:ASN:O	1:C:469:VAL:HG23	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1389:ILE:HG13	2:G:1411:PHE:HD1	1.75	0.52
2:G:145:LEU:HD21	2:G:156:LEU:HD21	1.91	0.52
2:G:871:THR:HG21	2:G:887:LYS:NZ	2.25	0.52
2:H:1722:GLY:N	2:H:1726:GLY:HA3	2.24	0.52
2:H:754:TYR:CD2	2:H:794:MET:HG3	2.44	0.52
2:I:1350:LEU:HD11	2:I:1410:PHE:HB3	1.91	0.52
2:I:1438:SER:O	2:I:1441:ILE:HG23	2.08	0.52
2:I:1475:LYS:HG3	2:I:1481:SER:HB2	1.92	0.52
2:I:1300:PHE:CA	2:I:1556:VAL:HG11	2.40	0.52
2:I:1774:THR:HA	2:I:1777:THR:HB	1.92	0.52
2:I:741:HIS:HE1	2:I:855:HIS:NE2	2.06	0.52
1:A:1477:ILE:H	1:A:1478:PRO:CD	2.21	0.52
1:A:998:TYR:CE2	1:A:1667:GLU:HB2	2.44	0.52
1:A:501:THR:N	1:A:886:GLU:OE1	2.30	0.52
1:B:341:GLN:O	1:B:345:VAL:HG12	2.10	0.52
2:G:1475:LYS:CB	2:G:1481:SER:HB2	2.39	0.52
2:G:1567:ARG:HG2	2:G:1567:ARG:HH11	1.72	0.52
2:G:1593:ILE:HD13	2:G:1626:ILE:HD13	1.92	0.52
2:G:1932:SER:O	2:G:1936:VAL:HG22	2.10	0.52
2:H:1359:MET:HE3	2:H:1404:MET:HB3	1.92	0.52
2:I:702:TYR:HB2	2:I:727:PRO:HB2	1.92	0.52
2:I:964:LEU:CD2	2:I:964:LEU:N	2.72	0.52
1:A:1305:CYS:SG	1:A:1583:HIS:NE2	2.83	0.52
1:A:430:ARG:NH1	1:A:493:VAL:O	2.40	0.52
1:A:59:ARG:HH11	2:G:1896:GLN:NE2	2.07	0.52
2:G:2026:PHE:CD2	2:G:2045:TRP:HZ3	2.27	0.52
1:A:2:LYS:CD	2:G:2050:GLN:HB3	2.38	0.52
2:G:955:GLU:HG2	2:G:987:TYR:CE2	2.45	0.52
2:H:615:TYR:CZ	2:H:1074:MET:HB3	2.43	0.52
2:H:1292:ILE:O	2:H:1368:VAL:O	2.27	0.52
2:H:1776:PHE:O	2:H:1779:PRO:HD2	2.09	0.52
2:H:747:HIS:O	2:H:751:LEU:HB2	2.10	0.52
2:I:1004:LEU:HD21	2:I:1020:VAL:HG23	1.91	0.52
2:I:1159:ILE:HG12	2:I:1169:PRO:CD	2.39	0.52
2:I:913:ASP:H	2:I:916:THR:CG2	2.23	0.52
1:B:529:MET:HG2	1:B:638:LEU:HG	1.92	0.52
1:B:893:VAL:HG11	1:B:930:LEU:CD2	2.36	0.52
1:C:1431:GLU:CD	1:C:1433:HIS:CE1	2.83	0.52
1:C:27:ARG:HB2	2:I:2016:ALA:HB2	1.91	0.52
1:C:607:LYS:HG2	1:C:608:ASP:N	2.24	0.52
2:G:1177:SER:O	2:G:1180:MET:HG2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:926:LEU:HB3	2:G:947:THR:HG22	1.92	0.52
2:H:599:PRO:HD2	4:H:3051:FMN:H6	1.92	0.52
2:H:418:ASN:HD22	2:H:418:ASN:N	2.08	0.52
2:I:1282:ARG:HH21	2:I:1423:PHE:HB3	1.74	0.52
2:I:1597:ALA:HB1	2:I:1638:ILE:CD1	2.39	0.52
2:I:1918:LYS:HG2	2:I:1919:LEU:HD23	1.92	0.52
2:I:751:LEU:HD23	2:I:791:TYR:CZ	2.44	0.52
1:A:1475:GLU:HG3	1:A:1761:LYS:O	2.10	0.52
1:A:521:LYS:HE2	1:A:605:LEU:HD11	1.92	0.52
1:A:705:VAL:CG2	1:A:732:LEU:HD21	2.39	0.52
1:C:1577:GLN:HE22	1:C:1591:TRP:C	2.13	0.52
1:C:340:ARG:HH12	1:C:344:GLN:NE2	2.08	0.52
1:C:705:VAL:CG2	1:C:732:LEU:HD21	2.40	0.52
2:G:1093:ASP:HB3	2:G:1096:LYS:HG3	1.90	0.52
2:G:121:GLU:HA	2:G:124:LYS:HD2	1.91	0.52
2:G:1745:LYS:HD3	2:G:1747:LYS:HE2	1.91	0.52
2:G:176:LEU:HD22	2:G:247:ALA:HB1	1.90	0.52
2:G:1873:TYR:CE1	2:G:1877:ARG:NE	2.75	0.52
2:G:768:GLY:HA3	2:G:800:LEU:CD2	2.38	0.52
2:H:278:VAL:HG11	2:H:303:LEU:HD13	1.92	0.52
2:H:553:ASN:O	2:H:556:LYS:CE	2.58	0.52
2:I:1223:MET:CE	2:I:1238:LEU:HD12	2.40	0.52
2:I:273:HIS:CB	2:I:512:LEU:HD22	2.40	0.52
2:I:747:HIS:O	2:I:751:LEU:HB2	2.10	0.52
1:A:1183:ARG:NH1	1:A:1344:GLY:HA2	2.24	0.52
1:A:1577:GLN:HE22	1:A:1591:TRP:C	2.13	0.52
1:A:280:GLU:O	1:A:280:GLU:HG2	2.10	0.52
1:A:607:LYS:HG2	1:A:608:ASP:N	2.25	0.52
1:A:674:LYS:O	1:A:675:ASP:HB2	2.09	0.52
1:C:156:ALA:HA	1:C:166:ILE:CD1	2.40	0.52
2:G:278:VAL:HG11	2:G:303:LEU:HD13	1.92	0.52
2:H:281:VAL:HG12	2:H:282:ALA:N	2.24	0.52
2:H:577:ILE:HD13	2:H:1097:ILE:CD1	2.40	0.52
2:H:892:ILE:HG12	2:H:903:TRP:CG	2.45	0.52
2:I:1871:LEU:HD22	2:I:1888:ILE:HD11	1.92	0.52
2:I:2026:PHE:CD2	2:I:2045:TRP:HZ3	2.27	0.52
1:A:881:ASN:HA	1:A:944:ARG:NH2	2.25	0.51
1:B:1056:ILE:CD1	1:B:1193:TRP:HD1	2.22	0.51
1:B:1238:VAL:HG12	1:B:1239:HIS:N	2.25	0.51
1:B:1748:ASN:C	1:B:1750:ILE:H	2.13	0.51
1:C:1665:ILE:CG1	1:C:1669:ARG:HD3	2.36	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1774:THR:HA	2:G:1777:THR:HB	1.90	0.51
2:G:234:ILE:CG1	2:G:235:PRO:HD3	2.40	0.51
2:H:1673:GLU:N	2:H:1676:MET:HE3	2.25	0.51
2:H:654:VAL:HG23	2:H:683:ALA:HB1	1.92	0.51
1:B:985:ARG:HH12	2:H:953:ARG:NH2	2.07	0.51
2:I:1745:LYS:HD3	2:I:1747:LYS:HE2	1.93	0.51
1:A:1123:GLN:HG3	1:A:1124:GLU:N	2.24	0.51
1:A:1411:THR:HG22	1:A:1412:ASP:N	2.25	0.51
1:B:1104:ARG:O	1:B:1185:VAL:HG13	2.11	0.51
1:B:1665:ILE:HG12	1:B:1666:THR:N	2.25	0.51
1:C:1238:VAL:HG12	1:C:1239:HIS:N	2.25	0.51
1:C:1303:GLY:N	1:C:1307:THR:HG22	2.26	0.51
1:C:156:ALA:HA	1:C:166:ILE:HD12	1.92	0.51
1:C:1840:VAL:HG23	1:C:1848:ALA:HB3	1.92	0.51
2:G:376:ASN:C	2:G:376:ASN:HD22	2.13	0.51
2:H:131:ILE:CD1	2:H:182:VAL:CG1	2.88	0.51
2:I:1697:HIS:CE1	2:I:1829:GLU:HG2	2.45	0.51
2:I:1868:GLN:HG3	2:I:1898:TYR:CZ	2.45	0.51
2:I:715:GLN:O	2:I:719:ILE:HG12	2.10	0.51
1:A:1303:GLY:N	1:A:1307:THR:HG22	2.25	0.51
1:A:1411:THR:HG22	1:A:1412:ASP:H	1.76	0.51
1:A:1474:ALA:HA	1:A:1478:PRO:CD	2.41	0.51
1:C:46:GLU:OE1	1:C:53:LEU:HB2	2.11	0.51
1:C:674:LYS:O	1:C:675:ASP:HB2	2.11	0.51
2:G:1293:THR:HG22	2:G:1296:GLU:CG	2.40	0.51
2:G:1328:VAL:HG23	2:G:1557:SER:HA	1.92	0.51
2:G:1493:LEU:HD11	2:G:1499:VAL:CG2	2.40	0.51
2:G:124:LYS:HG2	2:G:179:THR:HA	1.90	0.51
2:G:213:LEU:HG	2:G:213:LEU:O	2.10	0.51
2:G:489:LYS:O	2:G:493:THR:HG22	2.10	0.51
2:G:702:TYR:HB2	2:G:727:PRO:HB2	1.93	0.51
2:H:1293:THR:HG22	2:H:1296:GLU:CG	2.41	0.51
2:H:1475:LYS:CB	2:H:1481:SER:HB2	2.40	0.51
2:H:545:GLN:NE2	2:H:545:GLN:H	2.07	0.51
2:H:758:ARG:NH2	2:H:797:ASP:OD1	2.35	0.51
1:B:985:ARG:NH1	2:H:953:ARG:CZ	2.73	0.51
1:B:1411:THR:HG22	1:B:1412:ASP:N	2.26	0.51
1:B:335:HIS:HD2	1:B:335:HIS:O	1.93	0.51
1:C:983:GLN:NE2	2:I:962:LYS:HD2	2.25	0.51
2:G:1081:HIS:O	2:G:1085:LEU:HB2	2.10	0.51
1:A:12:ILE:CD1	2:G:2041:ILE:CD1	2.83	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:654:VAL:HG12	2:G:654:VAL:O	2.09	0.51
2:H:1081:HIS:O	2:H:1085:LEU:HB2	2.10	0.51
2:H:582:LYS:HE2	2:H:1108:PRO:HB3	1.92	0.51
2:H:1475:LYS:HG3	2:H:1481:SER:HB2	1.93	0.51
2:H:1491:VAL:HB	2:H:1501:ILE:HD12	1.92	0.51
2:I:1475:LYS:CB	2:I:1481:SER:HB2	2.41	0.51
2:I:652:ILE:HD12	2:I:652:ILE:N	2.25	0.51
2:I:732:TRP:CD2	2:I:750:MET:HE3	2.45	0.51
2:I:732:TRP:CD2	2:I:750:MET:HE1	2.43	0.51
2:G:816:ASP:HB3	2:G:1048:VAL:CG2	2.41	0.51
2:H:1561:ASN:OD1	2:H:1563:ILE:HB	2.10	0.51
2:I:460:TYR:HA	2:I:466:SER:O	2.11	0.51
1:A:157:HIS:HE1	1:A:228:LEU:HD22	1.76	0.51
1:A:1840:VAL:HG23	1:A:1848:ALA:HB3	1.91	0.51
1:B:1194:ASN:HB3	1:B:1197:THR:HG22	1.91	0.51
1:B:1477:ILE:H	1:B:1478:PRO:CD	2.24	0.51
1:B:1840:VAL:HG23	1:B:1848:ALA:HB3	1.92	0.51
1:B:338:LEU:O	1:B:342:GLN:HG3	2.10	0.51
1:B:415:SER:O	1:B:419:GLU:HB2	2.10	0.51
1:C:328:LEU:HD22	1:C:328:LEU:C	2.30	0.51
1:C:644:THR:HG22	1:C:648:ASP:O	2.10	0.51
2:G:1417:THR:CG2	2:G:1419:PHE:CE2	2.93	0.51
2:G:1427:VAL:HG12	2:G:1427:VAL:O	2.09	0.51
2:G:145:LEU:O	2:G:149:VAL:HG12	2.10	0.51
2:H:1493:LEU:HD11	2:H:1499:VAL:HG21	1.93	0.51
2:H:432:LEU:HB3	2:H:484:ILE:HG23	1.92	0.51
2:H:55:THR:HB	2:H:59:GLU:OE2	2.10	0.51
2:I:1015:VAL:HG11	2:I:1017:PHE:CE1	2.45	0.51
1:A:1310:GLU:OE1	1:A:1649:LYS:CE	2.56	0.51
2:G:1431:TYR:CE1	2:G:1526:THR:HG23	2.45	0.51
2:G:1589:VAL:HG11	2:G:1640:PHE:CE1	2.45	0.51
2:G:1579:ILE:HD11	2:G:1615:MET:SD	2.51	0.51
2:G:1764:PHE:HB2	2:G:1770:LEU:HD21	1.93	0.51
2:H:1419:PHE:O	2:H:1420:GLU:C	2.49	0.51
2:H:1716:ASN:OD1	2:H:1765:ARG:HA	2.11	0.51
2:H:260:PRO:HD3	2:H:289:TRP:CZ2	2.46	0.51
2:H:1054:LEU:HB3	4:H:3051:FMN:HM82	1.93	0.51
2:H:732:TRP:CD1	2:H:750:MET:HE3	2.46	0.51
2:I:1428:GLU:HB2	2:I:1468:THR:HG22	1.93	0.51
2:I:1566:SER:HB3	2:I:1568:HIS:CE1	2.45	0.51
2:I:306:ILE:HA	2:I:439:ILE:CD1	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1498:GLU:HB2	1:A:1876:LEU:CD1	2.37	0.51
1:A:254:TRP:HZ3	1:A:292:GLN:HG3	1.75	0.51
1:A:465:ASN:O	1:A:469:VAL:HG23	2.11	0.51
1:B:864:VAL:CG2	1:B:921:PRO:HB3	2.40	0.51
1:C:1123:GLN:HB2	1:C:1177:LYS:HE2	1.93	0.51
1:C:1411:THR:HG22	1:C:1412:ASP:H	1.75	0.51
1:C:1009:LEU:HG	1:C:1664:ALA:HB2	1.93	0.51
1:C:513:GLU:OE2	1:C:873:ARG:NH1	2.44	0.51
2:G:1986:LYS:HA	2:G:1989:LYS:HB3	1.92	0.51
2:H:1236:LEU:HD11	2:H:1262:ILE:HG12	1.92	0.51
2:H:533:LEU:HD13	2:H:545:GLN:HG3	1.92	0.51
2:H:667:LYS:HD2	2:H:697:THR:CG2	2.35	0.51
2:I:157:VAL:HG11	2:I:496:PHE:CZ	2.46	0.51
2:I:346:GLN:HA	2:I:377:LEU:HD21	1.92	0.51
2:I:950:PHE:O	2:I:954:VAL:HG23	2.11	0.51
1:B:1705:PRO:HB2	1:B:1733:PHE:CE1	2.46	0.51
1:C:733:ILE:CD1	1:C:761:LEU:HD11	2.40	0.51
2:G:1422:THR:O	2:G:1422:THR:CG2	2.59	0.51
2:G:16:LEU:HG	2:G:48:PHE:CZ	2.45	0.51
2:G:443:LEU:HD22	2:G:448:VAL:CG1	2.41	0.51
2:G:566:HIS:O	2:G:568:LYS:HG3	2.10	0.51
2:G:786:SER:CB	2:G:794:MET:HE2	2.41	0.51
2:H:807:ILE:HG21	2:H:1066:ILE:HA	1.92	0.51
2:H:2046:GLU:C	2:H:2048:TYR:H	2.14	0.51
2:H:332:GLU:OE2	2:H:394:ARG:HD3	2.10	0.51
2:H:461:ASP:HB3	2:H:464:ASP:HB2	1.93	0.51
2:I:1313:SER:O	2:I:1314:ARG:HD3	2.11	0.51
2:I:1359:MET:HA	2:I:1359:MET:HE3	1.92	0.51
2:I:807:ILE:HG21	2:I:1066:ILE:HA	1.93	0.51
1:A:400:ARG:HH11	1:A:400:ARG:HG3	1.67	0.51
1:A:889:GLU:HG3	1:A:893:VAL:O	2.11	0.51
1:B:1455:ARG:NH2	1:B:1459:ILE:HG12	2.26	0.51
1:B:822:VAL:HG12	1:B:824:LEU:HD22	1.93	0.51
1:C:157:HIS:HE1	1:C:228:LEU:HD22	1.75	0.51
1:C:411:GLN:HE22	1:C:1628:SER:H	1.58	0.51
2:G:1135:GLU:OE2	2:G:1175:LYS:HE3	2.11	0.51
2:G:1452:LEU:HA	2:G:1502:GLY:HA3	1.92	0.51
2:G:418:ASN:N	2:G:418:ASN:HD22	2.09	0.51
2:G:751:LEU:HD23	2:G:791:TYR:CZ	2.46	0.51
2:G:868:PHE:HB3	2:G:873:PHE:CE2	2.46	0.51
2:H:1678:MET:CE	2:H:1707:LEU:HD22	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:2026:PHE:HD2	2:H:2045:TRP:HZ3	1.59	0.51
2:H:233:SER:HA	2:H:424:ALA:CB	2.41	0.51
2:H:460:TYR:HA	2:H:466:SER:O	2.11	0.51
2:H:741:HIS:HB2	2:H:853:PRO:O	2.11	0.51
1:A:1105:LEU:HD23	1:A:1185:VAL:HG22	1.93	0.50
1:A:635:ILE:HG22	1:A:651:TYR:CD1	2.46	0.50
1:A:985:ARG:NH1	2:G:953:ARG:CZ	2.74	0.50
1:B:1524:GLY:HA2	1:B:1527:ALA:HB3	1.93	0.50
1:B:386:PHE:O	1:B:390:VAL:HB	2.11	0.50
1:B:50:SER:HB2	1:B:51:PRO:CD	2.40	0.50
2:G:1223:MET:CE	2:G:1238:LEU:HD12	2.40	0.50
2:G:1697:HIS:HE1	2:G:1829:GLU:HG2	1.74	0.50
2:G:194:THR:CG2	2:G:300:ILE:HD11	2.41	0.50
2:G:601:THR:HG22	2:G:620:ALA:H	1.75	0.50
2:H:1265:MET:HE1	2:H:1562:PRO:HG2	1.92	0.50
2:H:408:PRO:HG3	2:H:836:TYR:CD2	2.46	0.50
2:I:1493:LEU:HD11	2:I:1499:VAL:HG21	1.93	0.50
2:I:1776:PHE:O	2:I:1779:PRO:HD2	2.10	0.50
1:A:1533:ILE:HD11	1:A:1564:LEU:HD13	1.93	0.50
1:A:433:VAL:O	1:A:437:ILE:HG13	2.12	0.50
1:B:1158:PRO:HD2	1:B:1159:GLU:OE2	2.10	0.50
1:B:1196:LYS:HE3	1:B:1202:ASP:CG	2.31	0.50
1:B:1411:THR:HG22	1:B:1412:ASP:H	1.75	0.50
1:B:635:ILE:HG22	1:B:651:TYR:CD1	2.46	0.50
1:C:34:VAL:O	1:C:38:ASP:HB2	2.11	0.50
1:C:828:PRO:HG3	1:C:868:ILE:HG22	1.94	0.50
1:C:655:LEU:CD2	1:C:916:LEU:HD11	2.41	0.50
2:G:281:VAL:HG12	2:G:282:ALA:N	2.26	0.50
2:G:526:ARG:HH11	2:G:558:ASN:HD21	1.59	0.50
2:G:7:ARG:CZ	2:G:24:THR:HA	2.41	0.50
2:H:1597:ALA:HB1	2:H:1638:ILE:CD1	2.41	0.50
2:H:1861:ARG:HD2	2:H:1964:PHE:O	2.12	0.50
2:I:281:VAL:HG12	2:I:282:ALA:N	2.25	0.50
2:I:611:THR:HA	2:I:615:TYR:O	2.11	0.50
2:I:750:MET:CG	2:I:796:PHE:HZ	2.24	0.50
2:I:85:ASN:HD22	2:I:135:ARG:NH1	2.04	0.50
1:A:20:TYR:CE1	2:G:2033:THR:HG21	2.47	0.50
1:A:24:SER:O	2:G:1977:HIS:CD2	2.65	0.50
1:A:34:VAL:O	1:A:38:ASP:HB2	2.10	0.50
1:A:59:ARG:HH11	2:G:1896:GLN:HE22	1.58	0.50
2:G:1272:ASP:O	2:G:1273:GLU:HG3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1918:LYS:HG2	2:G:1919:LEU:HD23	1.93	0.50
2:G:652:ILE:CD1	2:G:658:MET:HE3	2.42	0.50
2:H:1774:THR:HA	2:H:1777:THR:HB	1.93	0.50
2:H:1775:GLN:HG2	2:H:1836:MET:SD	2.51	0.50
2:H:344:LEU:HB3	2:H:349:VAL:HG23	1.94	0.50
2:H:491:GLU:HA	2:H:494:THR:HG22	1.93	0.50
2:I:1027:ILE:O	2:I:1031:LYS:HB2	2.11	0.50
2:I:1945:ASP:O	2:I:1949:LYS:HG3	2.10	0.50
2:I:173:LEU:HD13	2:I:219:LEU:HD21	1.94	0.50
2:I:376:ASN:C	2:I:376:ASN:HD22	2.14	0.50
1:A:286:PHE:O	1:A:290:MET:HG2	2.10	0.50
1:B:1303:GLY:N	1:B:1307:THR:HG22	2.25	0.50
1:B:421:ILE:HG12	1:B:469:VAL:HG21	1.93	0.50
1:C:1116:PRO:HB2	1:C:1184:LEU:HD12	1.93	0.50
1:C:280:GLU:O	1:C:280:GLU:HG2	2.11	0.50
1:C:415:SER:O	1:C:419:GLU:HB2	2.12	0.50
1:C:702:LYS:HE2	1:C:729:GLY:O	2.11	0.50
2:G:545:GLN:NE2	2:G:545:GLN:H	2.09	0.50
2:H:1148:ASN:ND2	2:H:1151:HIS:H	2.08	0.50
2:H:1102:TYR:CE2	2:H:1152:ALA:HB2	2.47	0.50
2:H:1389:ILE:HG13	2:H:1411:PHE:HD1	1.76	0.50
2:H:1435:ILE:HG22	2:H:1435:ILE:O	2.10	0.50
2:H:463:PHE:CE1	2:H:486:LEU:HD22	2.47	0.50
2:I:1491:VAL:HB	2:I:1501:ILE:HD12	1.93	0.50
1:A:1004:ILE:HG22	1:A:1660:TYR:CE2	2.46	0.50
1:B:156:ALA:HA	1:B:166:ILE:CD1	2.41	0.50
1:B:156:ALA:HA	1:B:166:ILE:HD12	1.93	0.50
1:C:1431:GLU:HB3	1:C:1520:ALA:HB2	1.92	0.50
2:G:1871:LEU:HD22	2:G:1888:ILE:HD11	1.93	0.50
2:G:611:THR:HA	2:G:615:TYR:O	2.11	0.50
2:G:663:ILE:HB	2:G:664:PRO:CD	2.40	0.50
2:G:676:ILE:HG12	2:G:676:ILE:O	2.11	0.50
2:G:732:TRP:CG	2:G:750:MET:HE3	2.46	0.50
2:G:784:GLU:O	2:G:787:THR:HB	2.11	0.50
2:H:1428:GLU:HB2	2:H:1468:THR:HG22	1.94	0.50
2:I:1135:GLU:OE2	2:I:1175:LYS:HE3	2.12	0.50
2:I:1716:ASN:OD1	2:I:1765:ARG:HA	2.11	0.50
2:I:2035:SER:HB3	2:I:2038:ILE:CD1	2.40	0.50
2:I:955:GLU:HG2	2:I:987:TYR:CE2	2.46	0.50
1:A:1523:ARG:NH2	1:A:1564:LEU:O	2.45	0.50
1:A:487:ASP:O	1:A:488:PRO:O	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1009:LEU:HA	1:B:1445:MET:HE2	1.93	0.50
1:C:1019:ILE:HG21	1:C:1316:VAL:HG22	1.94	0.50
1:C:1474:ALA:HA	1:C:1478:PRO:CD	2.42	0.50
1:C:985:ARG:HH12	2:I:953:ARG:NH2	2.09	0.50
2:G:1350:LEU:HD11	2:G:1410:PHE:HB3	1.94	0.50
2:G:1840:VAL:O	2:G:1840:VAL:HG12	2.11	0.50
2:G:774:ALA:HB1	2:G:1081:HIS:CD2	2.37	0.50
2:H:826:GLY:HA2	2:H:1060:ALA:HB3	1.94	0.50
2:H:2036:GLU:HG2	2:H:2039:LYS:NZ	2.27	0.50
2:I:1953:VAL:HG12	2:I:1953:VAL:O	2.11	0.50
2:I:712:ALA:O	2:I:715:GLN:HB3	2.12	0.50
2:I:866:LYS:O	2:I:870:GLU:HG3	2.12	0.50
1:A:1104:ARG:O	1:A:1185:VAL:HG13	2.12	0.50
1:A:12:ILE:CD1	2:G:2041:ILE:HD11	2.41	0.50
1:A:359:ARG:NH2	1:C:1153:ASP:OD2	2.43	0.50
1:B:1347:LYS:O	1:B:1347:LYS:HD3	2.11	0.50
1:B:825:PRO:HB2	1:B:843:LYS:NZ	2.27	0.50
2:G:440:ASN:ND2	2:G:477:GLU:HG2	2.26	0.50
2:G:894:ARG:NH1	2:G:898:ASP:OD2	2.43	0.50
2:G:949:ASP:CB	2:G:1006:MET:HE2	2.38	0.50
2:H:121:GLU:HA	2:H:124:LYS:HD2	1.93	0.50
1:B:20:TYR:OH	2:H:2035:SER:HB2	2.12	0.50
2:H:161:GLY:HA3	2:H:506:PRO:HD2	1.93	0.50
2:H:638:VAL:HG22	2:H:675:PRO:HG2	1.93	0.50
2:I:1986:LYS:HA	2:I:1989:LYS:HB3	1.93	0.50
1:C:13:LEU:HB2	2:I:2026:PHE:CE1	2.45	0.50
1:A:930:LEU:HD22	1:A:933:VAL:HG11	1.93	0.50
1:B:408:TRP:CZ3	1:B:1628:SER:HB3	2.47	0.50
1:C:157:HIS:CE1	1:C:228:LEU:HD22	2.47	0.50
1:C:328:LEU:HD13	1:C:329:GLU:N	2.27	0.50
1:C:702:LYS:HD3	1:C:731:THR:CG2	2.41	0.50
2:G:1776:PHE:O	2:G:1779:PRO:HD2	2.12	0.50
2:G:2035:SER:HB3	2:G:2038:ILE:CD1	2.42	0.50
2:G:24:THR:O	2:G:26:SER:N	2.44	0.50
2:G:306:ILE:HA	2:G:439:ILE:CD1	2.42	0.50
2:G:606:PHE:CE1	2:G:811:VAL:HG13	2.46	0.50
2:G:60:LEU:O	2:G:63:LYS:HB2	2.12	0.50
2:G:682:GLY:O	2:G:683:ALA:HB3	2.12	0.50
2:H:2035:SER:HB3	2:H:2038:ILE:CD1	2.42	0.50
2:H:747:HIS:HE1	2:H:780:TYR:OH	1.95	0.50
2:I:1417:THR:C	2:I:1419:PHE:H	2.14	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:344:LEU:HB3	2:I:349:VAL:HG23	1.93	0.50
1:A:1125:VAL:HG21	1:A:1175:ILE:CD1	2.42	0.50
1:A:1116:PRO:HB2	1:A:1184:LEU:HD12	1.94	0.50
1:A:1347:LYS:HD3	1:A:1347:LYS:O	2.11	0.50
1:A:1459:ILE:O	1:A:1463:VAL:HG23	2.12	0.50
1:A:156:ALA:HA	1:A:166:ILE:HD12	1.93	0.50
1:B:46:GLU:OE1	1:B:53:LEU:HB2	2.12	0.50
1:C:1460:LYS:CE	1:C:1774:GLU:OE1	2.59	0.50
1:C:1566:ARG:HB3	1:C:1623:TYR:CE1	2.46	0.50
1:C:1705:PRO:HB2	1:C:1733:PHE:CE1	2.46	0.50
1:C:385:PHE:HD2	1:C:787:LYS:HA	1.77	0.50
2:G:1552:PRO:O	2:G:1556:VAL:HG23	2.12	0.50
2:G:1716:ASN:OD1	2:G:1765:ARG:HA	2.12	0.50
2:G:1697:HIS:HE1	2:G:1829:GLU:CG	2.25	0.50
2:G:428:HIS:CD2	2:G:488:VAL:HG23	2.47	0.50
2:H:1004:LEU:HD21	2:H:1020:VAL:CG2	2.41	0.50
2:H:2030:TYR:CE1	2:H:2034:GLY:HA2	2.46	0.50
2:H:441:LYS:O	2:H:444:VAL:HG12	2.12	0.50
2:H:7:ARG:CZ	2:H:24:THR:HA	2.42	0.50
2:I:777:THR:HG23	2:I:1081:HIS:CE1	2.47	0.50
2:I:1673:GLU:N	2:I:1676:MET:HE3	2.25	0.50
2:I:455:ILE:HG12	2:I:469:ARG:HG2	1.93	0.50
1:A:142:ASP:CG	1:A:257:PRO:HB2	2.32	0.49
1:B:1451:GLN:OE1	1:B:1451:GLN:HA	2.12	0.49
1:B:1533:ILE:HG13	1:B:1564:LEU:HB3	1.94	0.49
1:B:413:LEU:HB2	1:B:439:ILE:HD13	1.94	0.49
1:C:1665:ILE:HG12	1:C:1666:THR:N	2.27	0.49
1:C:267:VAL:O	1:C:290:MET:HE1	2.12	0.49
2:G:131:ILE:CB	2:G:182:VAL:CG1	2.85	0.49
2:G:1441:ILE:HD11	2:G:1445:ARG:NH2	2.25	0.49
2:G:1868:GLN:HG3	2:G:1898:TYR:CZ	2.48	0.49
2:G:2029:VAL:O	2:G:2033:THR:HG22	2.12	0.49
2:H:1227:ARG:HG3	2:H:1227:ARG:NH1	2.01	0.49
2:H:777:THR:HG23	2:H:1081:HIS:CE1	2.47	0.49
2:I:1632:ILE:HG23	2:I:1632:ILE:O	2.12	0.49
2:I:72:VAL:HG12	2:I:73:GLU:N	2.27	0.49
2:I:7:ARG:HE	2:I:27:PHE:CB	2.24	0.49
1:A:1460:LYS:HE3	1:A:1774:GLU:HA	1.94	0.49
1:A:335:HIS:O	1:A:338:LEU:HB3	2.12	0.49
1:B:1125:VAL:HG21	1:B:1175:ILE:CD1	2.42	0.49
1:B:1474:ALA:HA	1:B:1478:PRO:CD	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:674:LYS:O	1:B:675:ASP:HB2	2.11	0.49
2:G:871:THR:HG21	2:G:887:LYS:HZ2	1.77	0.49
2:H:1148:ASN:HD22	2:H:1151:HIS:H	1.60	0.49
2:H:1162:ASP:O	2:H:1163:LYS:HB2	2.11	0.49
2:H:1745:LYS:HD3	2:H:1747:LYS:HE2	1.94	0.49
2:H:7:ARG:HE	2:H:27:PHE:CB	2.26	0.49
2:H:871:THR:HG21	2:H:887:LYS:NZ	2.26	0.49
2:I:24:THR:O	2:I:26:SER:N	2.45	0.49
2:I:259:THR:HG22	2:I:262:GLU:CB	2.41	0.49
2:H:28:PHE:CE1	2:I:27:PHE:CE2	3.00	0.49
2:I:274:SER:OG	2:I:428:HIS:HE1	1.95	0.49
2:I:60:LEU:O	2:I:63:LYS:HB2	2.11	0.49
1:A:1276:GLN:O	1:A:1282:THR:HG21	2.13	0.49
1:A:1501:LEU:CD1	1:A:1775:LEU:HG	2.43	0.49
1:C:1264:ARG:NH1	1:C:1270:VAL:HB	2.27	0.49
1:C:1455:ARG:O	1:C:1459:ILE:HG13	2.12	0.49
1:C:889:GLU:HG3	1:C:893:VAL:O	2.13	0.49
2:G:1493:LEU:HD11	2:G:1499:VAL:HG21	1.93	0.49
2:G:1486:PHE:HA	2:G:1504:VAL:O	2.12	0.49
2:G:463:PHE:CE1	2:G:486:LEU:HD22	2.47	0.49
2:G:463:PHE:O	2:G:463:PHE:HD2	1.95	0.49
2:H:894:ARG:NH1	2:H:898:ASP:OD2	2.41	0.49
2:I:1352:HIS:HE1	2:I:1583:MET:CE	2.25	0.49
2:I:324:LEU:HD12	2:I:324:LEU:O	2.12	0.49
2:I:751:LEU:HA	2:I:794:MET:HE3	1.94	0.49
1:A:1189:ILE:HG23	1:A:1190:PRO:HD2	1.95	0.49
1:A:1009:LEU:HD13	1:A:1445:MET:HE1	1.94	0.49
1:A:1460:LYS:CG	1:A:1773:VAL:O	2.60	0.49
1:C:1392:LEU:HD22	1:C:1396:MET:HG3	1.93	0.49
1:C:790:PHE:CE2	1:C:794:ILE:HD11	2.48	0.49
2:G:1427:VAL:HG22	2:G:1469:GLU:HG2	1.94	0.49
2:G:677:GLN:O	2:G:678:PHE:HB3	2.13	0.49
2:G:706:LYS:HE2	2:G:731:GLN:OE1	2.13	0.49
2:G:950:PHE:O	2:G:954:VAL:HG23	2.13	0.49
2:H:942:THR:HG21	2:H:1012:GLN:HA	1.95	0.49
2:H:1889:VAL:HG13	2:H:1977:HIS:HB3	1.93	0.49
2:H:273:HIS:CB	2:H:512:LEU:HD22	2.41	0.49
2:H:682:GLY:O	2:H:683:ALA:HB3	2.13	0.49
2:I:1293:THR:CG2	2:I:1296:GLU:H	2.20	0.49
2:I:1678:MET:CE	2:I:1707:LEU:HD22	2.41	0.49
2:I:238:CYS:CB	2:I:239:PRO:HD3	2.40	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1234:MET:HG2	1:A:1326:ILE:HD12	1.94	0.49
1:A:20:TYR:CD1	2:G:2033:THR:OG1	2.59	0.49
1:A:46:GLU:OE1	1:A:53:LEU:HB2	2.12	0.49
1:B:1305:CYS:SG	1:B:1583:HIS:NE2	2.85	0.49
1:B:1460:LYS:HE3	1:B:1774:GLU:CD	2.33	0.49
1:B:435:GLU:O	1:B:439:ILE:HG13	2.12	0.49
1:C:1050:CYS:HB3	1:C:1089:VAL:HG12	1.94	0.49
1:C:50:SER:HB2	1:C:51:PRO:CD	2.43	0.49
2:G:1738:PHE:HE1	2:G:1837:THR:HG23	1.76	0.49
2:H:1303:ALA:HB2	2:H:1556:VAL:HG21	1.93	0.49
2:H:1417:THR:O	2:H:1419:PHE:N	2.45	0.49
2:H:598:THR:O	2:H:602:VAL:HB	2.11	0.49
1:A:1451:GLN:OE1	1:A:1451:GLN:HA	2.12	0.49
1:A:157:HIS:CE1	1:A:228:LEU:HD22	2.48	0.49
1:A:489:VAL:HG22	1:A:671:VAL:N	2.28	0.49
1:B:1362:PRO:HA	1:B:1365:MET:HG3	1.94	0.49
1:B:1600:LEU:HD11	1:B:1655:VAL:HG12	1.94	0.49
1:B:170:LYS:HD3	1:B:175:LEU:HD23	1.93	0.49
1:B:764:ASP:OD2	1:B:818:ARG:HD3	2.11	0.49
2:G:465:GLY:HA2	2:G:493:THR:HA	1.95	0.49
2:H:138:ASP:O	2:H:139:LYS:HG3	2.12	0.49
2:H:1566:SER:HB3	2:H:1568:HIS:CE1	2.47	0.49
2:H:7:ARG:HH11	2:H:24:THR:HG23	1.75	0.49
2:H:22:VAL:HG11	2:H:27:PHE:HA	1.94	0.49
2:H:369:SER:O	2:H:370:LEU:HD23	2.13	0.49
2:H:715:GLN:O	2:H:719:ILE:HG12	2.13	0.49
2:H:949:ASP:CB	2:H:1006:MET:HE2	2.42	0.49
2:I:1015:VAL:HG13	2:I:1017:PHE:CE2	2.47	0.49
2:I:1265:MET:CE	2:I:1562:PRO:HG2	2.41	0.49
2:I:1435:ILE:O	2:I:1435:ILE:HG22	2.12	0.49
2:I:7:ARG:CZ	2:I:24:THR:HA	2.42	0.49
2:I:16:LEU:HG	2:I:48:PHE:CZ	2.48	0.49
2:I:161:GLY:HA3	2:I:506:PRO:HD2	1.93	0.49
2:I:55:THR:CG2	2:I:56:THR:HG22	2.33	0.49
1:A:1264:ARG:NH1	1:A:1270:VAL:HB	2.28	0.49
1:A:1705:PRO:HB2	1:A:1733:PHE:CE1	2.47	0.49
1:A:256:LEU:HD22	1:A:260:ARG:HB3	1.94	0.49
1:A:328:LEU:HD13	1:A:329:GLU:N	2.27	0.49
1:B:1105:LEU:HD23	1:B:1185:VAL:HG22	1.94	0.49
1:C:636:PRO:HB2	1:C:638:LEU:O	2.13	0.49
1:C:980:VAL:HG23	2:I:968:GLN:OE1	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1266:TYR:HB2	2:G:1347:LEU:HD23	1.95	0.49
1:A:18:LEU:HD21	2:G:1815:LEU:HD12	1.95	0.49
2:G:618:GLU:HG2	2:G:678:PHE:CZ	2.48	0.49
2:H:161:GLY:N	2:H:505:GLY:HA3	2.25	0.49
2:H:1873:TYR:HE1	2:H:1877:ARG:HH21	1.59	0.49
2:H:463:PHE:O	2:H:463:PHE:HD2	1.96	0.49
2:H:455:ILE:HD11	2:H:469:ARG:NE	2.27	0.49
2:I:1169:PRO:O	2:I:1173:VAL:HG23	2.13	0.49
2:I:1873:TYR:CE2	2:I:1940:LEU:HD21	2.47	0.49
2:I:740:HIS:CE1	2:I:852:GLU:OE1	2.65	0.49
1:A:21:GLN:HG3	2:G:2013:ASN:HB2	1.93	0.49
1:B:1642:THR:HG22	1:B:1652:GLN:HG3	1.93	0.49
1:C:1114:TYR:CD1	1:C:1337:GLU:HG3	2.48	0.49
2:G:157:VAL:HG11	2:G:496:PHE:CZ	2.47	0.49
2:G:491:GLU:HA	2:G:494:THR:HG22	1.95	0.49
2:G:732:TRP:CD1	2:G:750:MET:HE3	2.47	0.49
2:H:569:LEU:HD12	2:H:1090:TYR:CD1	2.48	0.49
2:H:1593:ILE:O	2:H:1597:ALA:HB3	2.12	0.49
2:H:1634:GLY:HA3	2:H:1799:PRO:HA	1.94	0.49
2:H:1666:PHE:CD1	2:H:1814:ALA:HA	2.48	0.49
2:H:173:LEU:O	2:H:173:LEU:HD22	2.13	0.49
2:H:702:TYR:HB2	2:H:727:PRO:HB2	1.94	0.49
2:H:932:ILE:HD12	2:H:939:PHE:HD1	1.78	0.49
2:I:949:ASP:CB	2:I:1006:MET:HE2	2.43	0.49
2:I:573:LYS:HE3	2:I:1101:GLU:OE1	2.12	0.49
2:I:597:MET:H	2:I:601:THR:HB	1.78	0.49
2:I:11:LEU:HD11	2:I:64:PHE:CD2	2.48	0.49
1:C:982:ILE:HD11	2:I:965:SER:HB2	1.95	0.49
1:A:1362:PRO:HA	1:A:1365:MET:HG3	1.95	0.49
1:A:1219:VAL:CA	1:A:1384:ILE:HD11	2.31	0.49
1:B:186:ILE:O	1:B:190:LEU:HG	2.13	0.49
1:C:1020:VAL:CG1	1:C:1400:ILE:HG23	2.42	0.49
1:C:267:VAL:HG12	1:C:290:MET:CE	2.42	0.49
2:G:1130:THR:H	2:G:1133:THR:CG2	2.26	0.49
2:G:161:GLY:N	2:G:505:GLY:HA3	2.24	0.49
2:G:273:HIS:CB	2:G:512:LEU:HD22	2.42	0.49
2:H:1749:GLU:OE2	2:H:1840:VAL:HG13	2.12	0.49
2:H:428:HIS:HD2	2:H:486:LEU:O	1.96	0.49
2:I:1567:ARG:HH11	2:I:1567:ARG:HG2	1.70	0.49
2:I:173:LEU:O	2:I:173:LEU:HD22	2.13	0.49
1:C:18:LEU:HD21	2:I:1815:LEU:HD12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:20:TYR:CD2	2:I:2033:THR:OG1	2.66	0.49
2:I:306:ILE:HA	2:I:439:ILE:HD13	1.94	0.49
1:A:1009:LEU:HG	1:A:1664:ALA:HB2	1.95	0.49
1:A:1022:THR:HG22	1:A:1226:SER:CB	2.43	0.49
1:A:1749:THR:CB	1:A:1874:ASP:N	2.75	0.49
1:B:1312:VAL:CG2	1:B:1329:VAL:HG11	2.39	0.49
1:C:335:HIS:O	1:C:335:HIS:CD2	2.65	0.49
1:C:32:GLN:NE2	1:C:57:ALA:HA	2.28	0.49
2:G:1666:PHE:CD1	2:G:1814:ALA:HA	2.48	0.49
2:G:173:LEU:HD22	2:G:173:LEU:O	2.13	0.49
2:G:1913:VAL:O	2:G:1917:ILE:HG13	2.12	0.49
2:G:2036:GLU:HG2	2:G:2039:LYS:NZ	2.28	0.49
2:G:259:THR:HG22	2:G:262:GLU:CB	2.43	0.49
2:G:560:ASN:OD1	2:G:560:ASN:O	2.30	0.49
2:G:653:TYR:HD1	2:G:659:LEU:HD21	1.78	0.49
2:G:715:GLN:O	2:G:719:ILE:HG12	2.13	0.49
2:G:807:ILE:HD12	2:G:1063:THR:HG23	1.95	0.49
2:H:1002:HIS:NE2	2:H:1006:MET:HE3	2.27	0.49
2:H:860:ARG:HB2	2:H:1049:GLN:HG3	1.94	0.49
2:I:1567:ARG:NH1	2:I:1568:HIS:HB3	2.28	0.49
2:I:428:HIS:HD2	2:I:486:LEU:O	1.95	0.49
2:I:881:VAL:N	2:I:882:PRO:CD	2.76	0.49
1:A:1021:VAL:HG22	1:A:1387:ILE:HG22	1.95	0.48
1:A:1312:VAL:CG2	1:A:1329:VAL:HG11	2.41	0.48
1:B:182:VAL:O	1:B:186:ILE:HG13	2.12	0.48
1:B:1753:ALA:HB2	1:B:1872:SER:OG	2.13	0.48
1:B:916:LEU:HD22	1:B:922:VAL:HG22	1.94	0.48
1:C:1105:LEU:HD23	1:C:1185:VAL:HG22	1.94	0.48
2:G:402:LEU:HD12	2:G:404:GLN:HG2	1.95	0.48
2:G:598:THR:O	2:G:602:VAL:HB	2.13	0.48
2:H:739:GLY:HA2	2:H:1054:LEU:HG	1.95	0.48
2:H:1931:LEU:HB3	2:H:1935:GLU:CG	2.36	0.48
2:H:465:GLY:HA2	2:H:493:THR:HA	1.95	0.48
2:I:1697:HIS:HE1	2:I:1829:GLU:CG	2.26	0.48
2:I:161:GLY:N	2:I:505:GLY:HA3	2.24	0.48
2:I:663:ILE:HB	2:I:664:PRO:CD	2.42	0.48
2:I:835:THR:HG22	2:I:844:VAL:HA	1.95	0.48
1:C:1693:ILE:CD1	2:I:998:GLN:HB2	2.40	0.48
1:B:187:LEU:HD22	1:B:201:PRO:HB2	1.94	0.48
1:B:465:ASN:O	1:B:469:VAL:HG23	2.12	0.48
2:G:1745:LYS:HE2	2:G:1747:LYS:HG2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:2046:GLU:C	2:G:2048:TYR:H	2.15	0.48
2:G:376:ASN:C	2:G:376:ASN:ND2	2.67	0.48
2:G:597:MET:H	2:G:601:THR:HB	1.77	0.48
2:G:11:LEU:HD11	2:G:64:PHE:CD2	2.48	0.48
2:H:901:LYS:NZ	2:H:1031:LYS:O	2.46	0.48
2:H:1272:ASP:O	2:H:1273:GLU:HG3	2.13	0.48
2:H:1868:GLN:HG3	2:H:1898:TYR:CZ	2.48	0.48
2:H:259:THR:HG22	2:H:262:GLU:CB	2.42	0.48
2:H:306:ILE:HA	2:H:439:ILE:CD1	2.42	0.48
2:H:786:SER:CB	2:H:794:MET:HE2	2.43	0.48
2:I:1674:GLN:OE1	2:I:1712:ASN:HA	2.13	0.48
2:I:629:GLY:O	2:I:632:ALA:HB3	2.13	0.48
2:I:682:GLY:O	2:I:683:ALA:HB3	2.13	0.48
2:I:970:TYR:O	2:I:973:LEU:HB2	2.14	0.48
1:A:1477:ILE:H	1:A:1478:PRO:HD3	1.78	0.48
1:B:157:HIS:HE1	1:B:228:LEU:HD22	1.77	0.48
1:B:413:LEU:C	1:B:415:SER:H	2.17	0.48
1:B:2:LYS:HE2	1:B:4:GLU:CD	2.34	0.48
1:C:1305:CYS:SG	3:C:2748:CER:C5	3.01	0.48
1:C:1523:ARG:NH2	1:C:1564:LEU:O	2.46	0.48
1:C:256:LEU:HD22	1:C:260:ARG:HB3	1.95	0.48
2:G:1330:GLY:HA2	2:G:1374:THR:HG21	1.94	0.48
2:G:1428:GLU:HG2	2:G:1470:THR:HG22	1.94	0.48
2:G:533:LEU:HD13	2:G:545:GLN:HG3	1.94	0.48
2:G:754:TYR:CE2	2:G:794:MET:HG3	2.48	0.48
2:G:7:ARG:HE	2:G:27:PHE:CB	2.25	0.48
2:H:33:LEU:HD21	2:H:80:PHE:CE2	2.49	0.48
2:H:40:ILE:O	2:H:42:PRO:HD3	2.13	0.48
2:H:463:PHE:CD1	2:H:486:LEU:HD22	2.48	0.48
2:H:955:GLU:HG2	2:H:987:TYR:HE2	1.78	0.48
2:I:1130:THR:H	2:I:1133:THR:CG2	2.25	0.48
2:I:1873:TYR:CE1	2:I:1877:ARG:NE	2.77	0.48
2:I:278:VAL:HG11	2:I:303:LEU:HD13	1.95	0.48
2:I:786:SER:CB	2:I:794:MET:HE2	2.42	0.48
1:A:340:ARG:HH12	1:A:344:GLN:HE21	1.60	0.48
1:B:328:LEU:HD13	1:B:329:GLU:N	2.29	0.48
1:B:335:HIS:O	1:B:338:LEU:HB3	2.14	0.48
1:B:702:LYS:HD3	1:B:731:THR:CG2	2.44	0.48
1:B:332:THR:HG22	1:C:331:ILE:CD1	2.44	0.48
1:C:331:ILE:HG23	1:C:332:THR:N	2.28	0.48
2:G:1980:TYR:HD1	2:G:1981:LEU:HD12	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:455:ILE:HG12	2:G:469:ARG:HG2	1.94	0.48
2:G:720:ALA:HA	2:G:728:ILE:CD1	2.43	0.48
2:H:1422:THR:HG23	2:H:1474:PHE:CD1	2.48	0.48
2:H:1624:THR:HB	2:H:1642:THR:OG1	2.14	0.48
2:H:428:HIS:CD2	2:H:488:VAL:HG23	2.49	0.48
2:H:995:LEU:HB3	2:H:1000:ILE:HD11	1.94	0.48
2:I:146:PHE:HA	2:I:149:VAL:HG12	1.92	0.48
2:I:1850:SER:HB2	2:I:1973:SER:HB2	1.95	0.48
2:I:249:TYR:CD2	2:I:283:ILE:HD11	2.48	0.48
2:I:402:LEU:HD12	2:I:404:GLN:HG2	1.94	0.48
2:I:455:ILE:O	2:I:455:ILE:HG13	2.13	0.48
2:I:551:THR:HG22	2:I:552:SER:N	2.29	0.48
2:I:593:LEU:HD21	2:I:800:LEU:HB3	1.95	0.48
2:I:995:LEU:HB3	2:I:1000:ILE:HD11	1.95	0.48
1:A:1714:VAL:HG22	1:A:1738:ILE:HD11	1.96	0.48
1:B:408:TRP:CH2	1:B:1628:SER:HB3	2.47	0.48
1:B:21:GLN:HG3	2:H:2013:ASN:HB2	1.95	0.48
1:B:998:TYR:CE2	1:B:1667:GLU:HB2	2.49	0.48
1:C:988:ILE:HD13	1:C:1048:GLU:CB	2.43	0.48
1:C:1477:ILE:H	1:C:1478:PRO:HD3	1.78	0.48
1:C:1642:THR:HG22	1:C:1652:GLN:HG3	1.96	0.48
2:G:1567:ARG:CG	2:G:1567:ARG:NH1	2.51	0.48
2:G:995:LEU:HB3	2:G:1000:ILE:HD11	1.96	0.48
2:H:1100:VAL:CG2	2:H:1147:ILE:HG21	2.43	0.48
2:H:145:LEU:HD21	2:H:156:LEU:HD21	1.95	0.48
2:H:1918:LYS:HG2	2:H:1919:LEU:HD23	1.96	0.48
2:H:1953:VAL:O	2:H:1953:VAL:HG12	2.14	0.48
2:H:1986:LYS:HA	2:H:1989:LYS:HB3	1.95	0.48
2:I:1081:HIS:O	2:I:1085:LEU:HB2	2.14	0.48
2:I:569:LEU:HD12	2:I:1090:TYR:CD1	2.48	0.48
2:I:1266:TYR:HB2	2:I:1347:LEU:HD23	1.95	0.48
2:I:1382:VAL:HA	2:I:1422:THR:OG1	2.12	0.48
1:A:1401:TYR:C	1:A:1658:PRO:HG3	2.33	0.48
1:A:19:ALA:O	1:A:22:PHE:HB2	2.14	0.48
1:A:444:ASN:HB2	1:A:447:LEU:N	2.14	0.48
1:B:503:ILE:HD12	1:B:950:THR:HG21	1.96	0.48
1:C:430:ARG:NH1	1:C:493:VAL:O	2.44	0.48
1:C:764:ASP:OD2	1:C:818:ARG:HD3	2.12	0.48
2:G:569:LEU:HD12	2:G:1090:TYR:CD1	2.48	0.48
2:G:1148:ASN:C	2:G:1148:ASN:HD22	2.17	0.48
2:G:1213:LEU:O	2:G:1214:LEU:HD23	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:20:TYR:CE1	2:G:2033:THR:CG2	2.97	0.48
2:G:593:LEU:HD21	2:G:800:LEU:HB3	1.96	0.48
2:G:72:VAL:HG12	2:G:73:GLU:N	2.28	0.48
2:H:1632:ILE:O	2:H:1632:ILE:HG23	2.13	0.48
2:H:397:LYS:HB3	2:H:416:PHE:CE2	2.48	0.48
2:H:99:ASN:HA	2:H:550:VAL:HG21	1.95	0.48
2:H:784:GLU:O	2:H:787:THR:HB	2.13	0.48
2:I:1159:ILE:CG1	2:I:1169:PRO:CD	2.90	0.48
2:I:121:GLU:HA	2:I:124:LYS:HD2	1.96	0.48
2:I:1738:PHE:CE1	2:I:1837:THR:HG23	2.48	0.48
2:I:7:ARG:HH11	2:I:24:THR:HG23	1.77	0.48
2:I:533:LEU:HG	2:I:533:LEU:O	2.13	0.48
2:I:586:LEU:HD12	2:I:764:MET:SD	2.54	0.48
1:A:988:ILE:HA	1:A:1048:GLU:CG	2.44	0.48
1:A:182:VAL:O	1:A:186:ILE:HG13	2.14	0.48
1:A:420:ILE:HG22	1:A:469:VAL:HG22	1.96	0.48
1:C:1276:GLN:O	1:C:1282:THR:HG21	2.13	0.48
1:C:1300:THR:HA	1:C:1301:PRO:HD3	1.67	0.48
1:C:1312:VAL:CG2	1:C:1329:VAL:HG11	2.44	0.48
1:C:1396:MET:O	1:C:1680:ARG:NH1	2.46	0.48
1:C:1451:GLN:OE1	1:C:1451:GLN:HA	2.13	0.48
1:C:1617:ILE:O	1:C:1620:GLN:HG2	2.13	0.48
1:C:852:ARG:CG	1:C:852:ARG:NH1	2.66	0.48
2:G:1590:ARG:HG3	2:G:1608:TYR:CD2	2.48	0.48
2:G:2026:PHE:HD2	2:G:2045:TRP:HZ3	1.59	0.48
2:G:240:LEU:O	2:G:244:ILE:HG13	2.13	0.48
2:H:1674:GLN:OE1	2:H:1712:ASN:HA	2.12	0.48
2:H:561:TRP:CZ3	2:H:792:PRO:HB2	2.49	0.48
2:H:751:LEU:HD23	2:H:791:TYR:CZ	2.49	0.48
2:I:1697:HIS:HE1	2:I:1829:GLU:HG2	1.77	0.48
2:I:667:LYS:HD2	2:I:697:THR:CG2	2.35	0.48
2:I:762:ASN:HD22	2:I:762:ASN:N	1.88	0.48
1:A:1037:TRP:HB2	1:A:1598:GLN:OE1	2.13	0.48
1:A:539:SER:O	1:A:540:GLN:C	2.52	0.48
1:B:1056:ILE:HD13	1:B:1193:TRP:CD1	2.45	0.48
1:B:1183:ARG:NH1	1:B:1344:GLY:HA2	2.29	0.48
1:B:625:THR:HG23	1:B:661:ASP:OD1	2.13	0.48
1:B:790:PHE:CE2	1:B:794:ILE:HD11	2.47	0.48
1:C:1738:ILE:O	1:C:1739:GLN:HB2	2.14	0.48
1:C:888:ILE:HD12	1:C:939:PHE:CE2	2.47	0.48
2:G:1180:MET:HB2	2:G:1197:LEU:HD21	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1040:LEU:O	2:H:1046:GLN:HG3	2.13	0.48
2:H:169:TYR:CG	2:H:170:PHE:N	2.81	0.48
2:H:214:ASN:ND2	2:H:217:GLU:HB2	2.27	0.48
2:H:317:THR:HG21	2:I:1309:GLU:CG	2.42	0.48
2:H:490:TRP:HA	2:H:493:THR:HG22	1.96	0.48
2:H:597:MET:H	2:H:601:THR:HB	1.78	0.48
2:I:1325:PHE:CE1	2:I:1328:VAL:HG11	2.49	0.48
2:I:1586:SER:O	2:I:1590:ARG:HB2	2.14	0.48
2:I:845:THR:HG22	2:I:855:HIS:CD2	2.49	0.48
1:A:427:ASN:HB2	1:A:468:LEU:HD21	1.95	0.48
1:A:695:GLY:HA3	1:A:906:LEU:HD11	1.94	0.48
1:B:243:ILE:O	1:B:247:ARG:HG3	2.13	0.48
2:G:306:ILE:HA	2:G:439:ILE:HD13	1.96	0.48
2:G:432:LEU:HB3	2:G:484:ILE:HG23	1.96	0.48
2:G:481:ASP:OD2	2:G:485:ARG:NH1	2.47	0.48
2:H:489:LYS:O	2:H:493:THR:HG22	2.13	0.48
2:H:868:PHE:HB3	2:H:873:PHE:CE2	2.48	0.48
2:I:1159:ILE:HG22	2:I:1160:THR:N	2.28	0.48
2:I:772:GLY:O	2:I:804:ARG:HD3	2.14	0.48
1:A:1639:VAL:HG12	1:A:1640:SER:N	2.28	0.48
1:A:328:LEU:N	1:A:330:GLU:H	2.12	0.48
1:A:927:ASN:O	1:A:929:GLY:N	2.41	0.48
1:B:1319:ILE:HA	1:B:1324:ALA:O	2.13	0.48
1:B:328:LEU:N	1:B:330:GLU:H	2.11	0.48
1:B:683:ALA:HA	1:B:689:GLY:HA3	1.95	0.48
1:B:930:LEU:HD23	1:B:930:LEU:HA	1.67	0.48
1:C:386:PHE:O	1:C:390:VAL:HB	2.14	0.48
1:C:751:PHE:CZ	1:C:761:LEU:HD13	2.49	0.48
2:G:1148:ASN:ND2	2:G:1151:HIS:H	2.12	0.48
2:G:1325:PHE:CE1	2:G:1328:VAL:HG11	2.48	0.48
2:G:173:LEU:HD13	2:G:219:LEU:HD21	1.94	0.48
2:G:461:ASP:HB3	2:G:464:ASP:HB2	1.95	0.48
2:H:157:VAL:HG11	2:H:496:PHE:CZ	2.49	0.48
2:H:232:LEU:HD21	2:H:423:VAL:HA	1.95	0.48
2:H:706:LYS:HE2	2:H:731:GLN:OE1	2.14	0.48
2:I:2026:PHE:HD2	2:I:2045:TRP:HZ3	1.60	0.48
2:I:214:ASN:ND2	2:I:217:GLU:HB2	2.28	0.48
2:I:489:LYS:O	2:I:493:THR:HG22	2.13	0.48
2:I:753:MET:O	2:I:757:ILE:HG13	2.14	0.48
1:A:187:LEU:HD22	1:A:201:PRO:HB2	1.96	0.47
1:B:1646:PHE:CE1	3:B:2748:CER:H31	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1:MET:HE3	1:B:9:LEU:HD12	1.96	0.47
1:C:1392:LEU:CD2	1:C:1396:MET:HG3	2.44	0.47
1:C:440:MET:HE3	1:C:483:VAL:HG21	1.95	0.47
1:C:529:MET:HG2	1:C:638:LEU:HG	1.95	0.47
2:G:1027:ILE:O	2:G:1031:LYS:HB2	2.14	0.47
2:G:1566:SER:HB3	2:G:1568:HIS:CE1	2.49	0.47
2:G:22:VAL:HG11	2:G:27:PHE:HA	1.96	0.47
2:G:567:PRO:HG3	2:G:781:LEU:CD1	2.44	0.47
2:H:873:PHE:CD1	2:H:1026:GLU:HB2	2.49	0.47
2:H:1590:ARG:NH2	2:H:1594:GLU:OE2	2.47	0.47
2:H:943:TRP:CZ2	2:H:1016:PRO:HG3	2.49	0.47
2:I:1002:HIS:NE2	2:I:1006:MET:HE3	2.29	0.47
2:I:1015:VAL:HA	2:I:1016:PRO:HD3	1.74	0.47
2:I:176:LEU:HD22	2:I:247:ALA:HB1	1.96	0.47
2:I:1834:ARG:NH1	2:I:1834:ARG:CG	2.66	0.47
2:I:594:VAL:CG2	2:I:610:THR:HG21	2.44	0.47
2:I:900:GLN:NE2	2:I:1051:THR:HA	2.28	0.47
1:A:1501:LEU:O	1:A:1505:GLN:HG3	2.14	0.47
1:A:176:VAL:HG12	1:A:178:GLY:H	1.79	0.47
1:B:1367:ARG:HH12	1:B:1372:THR:CB	2.20	0.47
1:B:256:LEU:HD22	1:B:260:ARG:HB3	1.95	0.47
1:C:1021:VAL:HG11	1:C:1597:LEU:CD1	2.44	0.47
1:C:1125:VAL:HG21	1:C:1175:ILE:CD1	2.43	0.47
1:C:427:ASN:HB2	1:C:468:LEU:HD21	1.95	0.47
2:G:777:THR:HG23	2:G:1081:HIS:CE1	2.49	0.47
2:G:40:ILE:O	2:G:42:PRO:HD3	2.14	0.47
2:H:159:ILE:CG2	2:H:501:ILE:HG22	2.44	0.47
2:H:1749:GLU:OE2	2:H:1840:VAL:CG1	2.62	0.47
2:H:213:LEU:HG	2:H:213:LEU:O	2.14	0.47
2:H:732:TRP:CD2	2:H:750:MET:HE1	2.49	0.47
2:H:950:PHE:O	2:H:954:VAL:HG23	2.13	0.47
1:A:1238:VAL:CG1	1:A:1242:GLU:HB2	2.44	0.47
1:A:1303:GLY:C	1:A:1307:THR:HG22	2.35	0.47
1:A:683:ALA:HA	1:A:689:GLY:HA3	1.95	0.47
1:A:852:ARG:HB3	1:A:858:TRP:HZ2	1.80	0.47
1:B:1116:PRO:HB2	1:B:1184:LEU:HD12	1.95	0.47
1:B:1209:ASP:OD2	1:B:1253:GLY:HA2	2.14	0.47
1:B:530:ALA:HA	1:B:636:PRO:HB3	1.97	0.47
1:C:1516:ASP:HA	1:C:1517:PRO:HD3	1.66	0.47
1:C:1010:GLU:HA	1:C:1664:ALA:HA	1.95	0.47
2:G:1624:THR:HB	2:G:1642:THR:OG1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1666:PHE:CD1	2:G:1814:ALA:HB2	2.49	0.47
2:G:428:HIS:HD2	2:G:486:LEU:O	1.97	0.47
2:G:804:ARG:NH2	2:G:1068:GLU:OE1	2.48	0.47
2:H:1438:SER:O	2:H:1441:ILE:HG23	2.13	0.47
2:H:589:ARG:HB3	2:H:590:PRO:CD	2.43	0.47
2:I:1579:ILE:HD11	2:I:1615:MET:SD	2.53	0.47
2:I:1752:PHE:HZ	2:I:1836:MET:HE3	1.80	0.47
2:I:926:LEU:HB3	2:I:947:THR:CG2	2.43	0.47
1:C:1133:PRO:HG3	1:C:1166:LYS:HG3	1.96	0.47
1:C:1138:LYS:HG3	1:C:1163:TYR:CE1	2.48	0.47
1:C:998:TYR:CE2	1:C:1667:GLU:HB2	2.49	0.47
1:C:370:GLU:O	1:C:373:ALA:HB3	2.14	0.47
1:C:526:VAL:HG12	1:C:626:VAL:HG11	1.96	0.47
1:C:987:ASN:HD22	2:I:957:ARG:CD	2.26	0.47
2:G:169:TYR:CG	2:G:170:PHE:N	2.83	0.47
2:G:33:LEU:HD21	2:G:80:PHE:CE2	2.50	0.47
2:G:512:LEU:O	2:G:516:THR:HG23	2.15	0.47
2:H:1425:LYS:HG2	2:H:1471:GLU:HG3	1.95	0.47
2:H:1472:VAL:CG2	2:H:1483:VAL:HG22	2.44	0.47
2:H:1486:PHE:HA	2:H:1504:VAL:O	2.14	0.47
2:H:597:MET:HA	4:H:3051:FMN:N5	2.30	0.47
2:H:634:ILE:HD11	2:H:649:ILE:CD1	2.40	0.47
2:H:677:GLN:O	2:H:678:PHE:HB3	2.15	0.47
2:I:1804:PHE:CD2	2:I:1818:LEU:HD22	2.49	0.47
2:I:233:SER:HA	2:I:424:ALA:CB	2.44	0.47
2:I:562:LEU:HG	2:I:793:PRO:CB	2.44	0.47
1:A:1208:VAL:HG11	1:A:1212:THR:HB	1.96	0.47
1:A:1319:ILE:HA	1:A:1324:ALA:O	2.14	0.47
1:A:1012:LEU:HD23	1:A:1445:MET:CE	2.43	0.47
1:B:1477:ILE:H	1:B:1478:PRO:HD3	1.79	0.47
1:B:20:TYR:CG	2:H:2033:THR:OG1	2.67	0.47
1:B:331:ILE:HG23	1:B:332:THR:N	2.29	0.47
1:B:531:LEU:HD21	1:B:629:THR:HG22	1.97	0.47
1:C:1303:GLY:CA	1:C:1649:LYS:HE2	2.36	0.47
1:C:142:ASP:CG	1:C:257:PRO:HB2	2.34	0.47
1:C:328:LEU:N	1:C:330:GLU:H	2.12	0.47
2:G:1651:LEU:O	2:G:1652:THR:HG23	2.14	0.47
2:G:1949:LYS:O	2:G:1953:VAL:HG23	2.15	0.47
2:G:463:PHE:CD1	2:G:486:LEU:HD22	2.48	0.47
2:G:123:ILE:CD1	2:G:533:LEU:CD2	2.93	0.47
2:G:732:TRP:CD2	2:G:750:MET:HE3	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:2037:PRO:O	2:H:2041:ILE:HG13	2.15	0.47
2:H:376:ASN:C	2:H:376:ASN:HD22	2.18	0.47
2:H:455:ILE:HG13	2:H:455:ILE:O	2.13	0.47
2:H:750:MET:CG	2:H:796:PHE:HZ	2.25	0.47
2:H:860:ARG:H	2:H:1049:GLN:HG3	1.79	0.47
2:I:873:PHE:CE1	2:I:1026:GLU:HB2	2.49	0.47
2:I:1378:ILE:O	2:I:1378:ILE:HG12	2.14	0.47
2:I:2037:PRO:O	2:I:2041:ILE:HG13	2.14	0.47
2:I:350:GLN:HA	2:I:353:VAL:HG13	1.96	0.47
2:I:55:THR:HB	2:I:59:GLU:OE2	2.13	0.47
1:A:983:GLN:HE22	2:G:962:LYS:HD2	1.77	0.47
1:B:157:HIS:CE1	1:B:228:LEU:HD22	2.49	0.47
1:B:1305:CYS:SG	3:B:2748:CER:C5	3.03	0.47
1:C:335:HIS:O	1:C:338:LEU:HB3	2.14	0.47
2:G:1422:THR:O	2:G:1422:THR:HG23	2.14	0.47
2:H:579:VAL:CG2	2:H:1078:HIS:CD2	2.95	0.47
2:H:1854:MET:CG	2:H:1901:ALA:HB2	2.45	0.47
2:H:355:LYS:HB3	2:H:355:LYS:HE2	1.65	0.47
2:H:652:ILE:N	2:H:652:ILE:HD12	2.30	0.47
2:H:751:LEU:HD23	2:H:791:TYR:CD2	2.49	0.47
2:I:1103:PHE:O	2:I:1247:GLY:HA3	2.14	0.47
2:I:1389:ILE:HG13	2:I:1411:PHE:HD1	1.80	0.47
2:I:1590:ARG:NH2	2:I:1594:GLU:OE2	2.48	0.47
2:I:455:ILE:HD11	2:I:469:ARG:NE	2.29	0.47
2:I:553:ASN:O	2:I:556:LYS:HE3	2.15	0.47
2:I:706:LYS:HE2	2:I:731:GLN:OE1	2.15	0.47
2:I:748:THR:CB	2:I:749:PRO:HD3	2.44	0.47
1:A:1061:SER:HB2	1:A:1078:SER:HB3	1.96	0.47
1:A:1010:GLU:HA	1:A:1664:ALA:HA	1.97	0.47
1:A:243:ILE:O	1:A:247:ARG:HG3	2.14	0.47
1:A:413:LEU:HD13	1:A:451:MET:HG2	1.97	0.47
1:B:34:VAL:O	1:B:38:ASP:HB2	2.14	0.47
1:B:776:GLU:OE1	1:B:795:MET:HE1	2.13	0.47
1:B:827:SER:HA	1:B:828:PRO:HD3	1.73	0.47
1:B:889:GLU:HG3	1:B:893:VAL:O	2.15	0.47
1:C:1183:ARG:NH1	1:C:1344:GLY:HA2	2.30	0.47
1:C:1305:CYS:SG	1:C:1585:LYS:HA	2.55	0.47
1:C:254:TRP:HZ3	1:C:292:GLN:HG3	1.77	0.47
2:G:1102:TYR:HB3	2:G:1244:PRO:CA	2.44	0.47
2:G:232:LEU:HD21	2:G:423:VAL:HA	1.97	0.47
2:G:732:TRP:CE2	2:G:750:MET:HE3	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1130:THR:H	2:H:1133:THR:CG2	2.27	0.47
2:H:1378:ILE:HG12	2:H:1378:ILE:O	2.13	0.47
2:H:176:LEU:HD22	2:H:247:ALA:HB1	1.95	0.47
2:H:560:ASN:OD1	2:H:560:ASN:O	2.33	0.47
2:H:606:PHE:HZ	2:H:805:VAL:CG1	2.28	0.47
2:H:11:LEU:HD11	2:H:64:PHE:CD2	2.50	0.47
2:H:741:HIS:HE1	2:H:845:THR:HG21	1.61	0.47
2:I:1148:ASN:ND2	2:I:1151:HIS:H	2.13	0.47
2:I:22:VAL:HG11	2:I:27:PHE:HA	1.97	0.47
2:I:461:ASP:HB3	2:I:464:ASP:HB2	1.95	0.47
2:I:732:TRP:CE2	2:I:750:MET:HE3	2.50	0.47
1:A:1158:PRO:HD2	1:A:1159:GLU:OE2	2.14	0.47
1:A:406:TRP:CE3	1:A:1619:GLU:HG3	2.49	0.47
1:A:930:LEU:CD2	1:A:933:VAL:HG11	2.44	0.47
1:B:1276:GLN:O	1:B:1282:THR:HG21	2.14	0.47
1:B:705:VAL:CG2	1:B:732:LEU:HD21	2.43	0.47
1:B:968:VAL:O	2:H:1512:HIS:HB2	2.14	0.47
1:C:338:LEU:O	1:C:342:GLN:HG3	2.15	0.47
2:G:1567:ARG:NH1	2:G:1568:HIS:HB3	2.28	0.47
2:G:369:SER:O	2:G:370:LEU:HD23	2.14	0.47
2:G:629:GLY:O	2:G:632:ALA:HB3	2.15	0.47
2:H:1980:TYR:HD1	2:H:1981:LEU:HD12	1.79	0.47
2:H:1819:ALA:CA	2:H:2005:ARG:HH11	2.26	0.47
2:H:967:ILE:HD12	2:H:972:LEU:HD22	1.96	0.47
2:I:1004:LEU:CD2	2:I:1019:PRO:HB2	2.44	0.47
2:I:443:LEU:HD22	2:I:448:VAL:CG1	2.45	0.47
2:I:747:HIS:HE1	2:I:780:TYR:OH	1.97	0.47
2:I:768:GLY:HA3	2:I:800:LEU:CD2	2.41	0.47
2:I:955:GLU:HG2	2:I:987:TYR:HE2	1.79	0.47
1:A:529:MET:HE3	1:A:529:MET:CA	2.36	0.47
1:A:988:ILE:HD13	1:A:1048:GLU:HA	1.97	0.47
1:B:1523:ARG:NH2	1:B:1564:LEU:O	2.48	0.47
1:B:253:ARG:O	1:B:254:TRP:CD1	2.68	0.47
1:B:142:ASP:CG	1:B:257:PRO:HB2	2.35	0.47
1:C:1544:THR:O	1:C:1545:SER:HB3	2.15	0.47
2:G:1159:ILE:CG1	2:G:1169:PRO:CD	2.93	0.47
2:G:1666:PHE:CE1	2:G:1814:ALA:HA	2.50	0.47
2:G:1873:TYR:CE2	2:G:1940:LEU:HD21	2.49	0.47
2:G:55:THR:HB	2:G:59:GLU:OE2	2.14	0.47
2:H:1004:LEU:CD2	2:H:1019:PRO:HB2	2.44	0.47
2:H:586:LEU:HD12	2:H:764:MET:SD	2.55	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:826:GLY:HA3	2:H:1061:GLN:CB	2.44	0.47
2:I:1418:ASP:C	2:I:1420:GLU:H	2.18	0.47
2:I:194:THR:CG2	2:I:300:ILE:HD11	2.40	0.47
2:I:376:ASN:C	2:I:376:ASN:ND2	2.68	0.47
2:I:42:PRO:HG2	2:I:52:ASP:CG	2.35	0.47
1:B:1305:CYS:SG	3:B:2748:CER:H51	2.54	0.47
1:C:1012:LEU:HD23	1:C:1445:MET:HE3	1.97	0.47
1:C:237:MET:HG3	1:C:241:PHE:HB3	1.95	0.47
2:G:826:GLY:HA2	2:G:1060:ALA:HB3	1.97	0.47
2:G:1850:SER:HB2	2:G:1973:SER:HB2	1.96	0.47
2:G:730:LEU:C	2:G:730:LEU:HD12	2.35	0.47
2:G:772:GLY:O	2:G:804:ARG:HD3	2.15	0.47
2:H:127:ILE:HD12	2:H:180:TYR:HD2	1.80	0.47
2:H:131:ILE:CD1	2:H:182:VAL:CB	2.71	0.47
2:I:1553:TYR:OH	2:I:1583:MET:HB3	2.15	0.47
1:C:18:LEU:HD21	2:I:1815:LEU:CD1	2.45	0.47
2:I:606:PHE:HZ	2:I:805:VAL:CG1	2.28	0.47
1:A:1430:ARG:O	1:A:1430:ARG:HG2	2.15	0.47
1:A:1830:GLY:HA2	1:A:1831:GLY:HA2	1.57	0.47
1:A:36:LEU:CD2	1:A:61:LEU:HD21	2.37	0.47
1:B:1009:LEU:HD13	1:B:1445:MET:HE1	1.97	0.47
1:B:254:TRP:HZ3	1:B:292:GLN:HG3	1.76	0.47
1:B:32:GLN:NE2	1:B:57:ALA:HA	2.29	0.47
1:B:883:ILE:HD12	1:B:947:LEU:HD12	1.97	0.47
1:C:1189:ILE:HG23	1:C:1190:PRO:HD2	1.97	0.47
2:G:1273:GLU:HB3	2:G:1274:PRO:CD	2.45	0.47
2:G:1493:LEU:HB3	2:G:1494:PRO:HD2	1.96	0.47
2:G:1844:ARG:NH1	2:G:1844:ARG:HG2	2.09	0.47
1:A:29:ILE:HG13	2:G:1891:TYR:O	2.15	0.47
2:G:739:GLY:HA2	2:G:1054:LEU:HG	1.97	0.47
2:G:745:ASP:HA	2:G:832:TRP:CH2	2.48	0.47
2:G:881:VAL:N	2:G:882:PRO:CD	2.78	0.47
2:H:1015:VAL:HG11	2:H:1017:PHE:CE1	2.50	0.47
2:H:1054:LEU:HB2	4:H:3051:FMN:HM71	1.96	0.47
2:H:1273:GLU:HB3	2:H:1274:PRO:CD	2.45	0.47
2:H:1428:GLU:HG2	2:H:1470:THR:HG22	1.97	0.47
2:H:1473:THR:O	2:H:1481:SER:HB3	2.15	0.47
2:H:1764:PHE:HB2	2:H:1770:LEU:HD21	1.97	0.47
2:H:238:CYS:CB	2:H:239:PRO:HD3	2.43	0.47
2:H:720:ALA:HA	2:H:728:ILE:CD1	2.45	0.47
2:I:1148:ASN:HD22	2:I:1148:ASN:C	2.19	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:490:TRP:HA	2:I:493:THR:HG22	1.96	0.47
1:A:186:ILE:O	1:A:190:LEU:HG	2.14	0.46
1:A:702:LYS:HD3	1:A:731:THR:CG2	2.44	0.46
1:B:1544:THR:O	1:B:1545:SER:HB3	2.15	0.46
1:C:709:ARG:O	1:C:714:VAL:HG21	2.16	0.46
1:C:930:LEU:CD2	1:C:933:VAL:HG11	2.45	0.46
2:G:1015:VAL:HG11	2:G:1017:PHE:CE1	2.50	0.46
2:G:2035:SER:HB3	2:G:2038:ILE:CG1	2.41	0.46
2:G:249:TYR:CD2	2:G:283:ILE:HD11	2.50	0.46
2:H:7:ARG:NH2	2:H:24:THR:O	2.48	0.46
2:H:440:ASN:ND2	2:H:477:GLU:HG2	2.30	0.46
2:I:1913:VAL:O	2:I:1917:ILE:HG13	2.15	0.46
2:I:533:LEU:HD13	2:I:545:GLN:HG3	1.97	0.46
2:I:573:LYS:C	2:I:575:GLY:H	2.19	0.46
2:I:99:ASN:HA	2:I:550:VAL:HG23	1.97	0.46
1:A:1056:ILE:HG13	1:A:1057:MET:N	2.30	0.46
1:A:1238:VAL:CG1	1:A:1239:HIS:N	2.78	0.46
1:A:183:GLN:NE2	1:A:202:GLU:HG2	2.29	0.46
1:A:908:LEU:HA	1:A:913:VAL:HG21	1.96	0.46
1:B:1133:PRO:HG3	1:B:1166:LYS:HG3	1.97	0.46
1:C:1303:GLY:C	1:C:1307:THR:HG22	2.35	0.46
1:C:1646:PHE:CE1	3:C:2748:CER:H31	2.50	0.46
1:C:293:LYS:O	1:C:297:ILE:HG13	2.15	0.46
1:C:499:PRO:HD3	1:C:516:ARG:HH21	1.80	0.46
2:G:1293:THR:HG22	2:G:1296:GLU:CD	2.35	0.46
2:G:279:THR:O	2:G:283:ILE:HB	2.15	0.46
2:G:598:THR:CB	2:G:599:PRO:HD3	2.46	0.46
2:G:652:ILE:HD12	2:G:652:ILE:N	2.29	0.46
2:G:751:LEU:HA	2:G:794:MET:HE3	1.96	0.46
2:H:101:ILE:H	2:H:101:ILE:HG13	1.30	0.46
2:H:1258:ARG:O	2:H:1262:ILE:HG13	2.15	0.46
2:H:1269:LEU:O	2:H:1560:LEU:HD23	2.15	0.46
2:H:1804:PHE:CD2	2:H:1818:LEU:HD22	2.50	0.46
2:H:218:TRP:HB3	2:H:225:THR:OG1	2.15	0.46
2:H:736:ARG:H	2:H:736:ARG:HG3	1.55	0.46
2:H:926:LEU:HB3	2:H:947:THR:HG22	1.97	0.46
2:I:1080:GLY:O	2:I:1084:LYS:HG3	2.15	0.46
2:I:1148:ASN:HD22	2:I:1151:HIS:H	1.63	0.46
2:I:213:LEU:HG	2:I:213:LEU:O	2.16	0.46
2:I:345:THR:HG22	2:I:347:GLU:N	2.23	0.46
2:I:758:ARG:NH2	2:I:797:ASP:OD1	2.38	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:232:LEU:HD13	1:A:272:GLU:CB	2.44	0.46
1:A:702:LYS:HE2	1:A:729:GLY:O	2.15	0.46
1:B:1239:HIS:CD2	1:B:1241:SER:H	2.33	0.46
1:B:1303:GLY:C	1:B:1307:THR:HG22	2.35	0.46
1:B:1114:TYR:CD1	1:B:1337:GLU:HG3	2.50	0.46
1:B:1639:VAL:CG1	1:B:1640:SER:N	2.79	0.46
1:B:237:MET:HG3	1:B:241:PHE:HB3	1.97	0.46
1:C:1004:ILE:HG22	1:C:1660:TYR:CE2	2.49	0.46
1:C:186:ILE:O	1:C:190:LEU:HG	2.15	0.46
1:C:420:ILE:HG22	1:C:469:VAL:HG22	1.96	0.46
1:C:908:LEU:HA	1:C:913:VAL:HG21	1.96	0.46
2:G:1422:THR:HG23	2:G:1474:PHE:CD1	2.51	0.46
2:G:1579:ILE:HG22	2:G:1580:THR:O	2.15	0.46
2:G:9:LEU:HB2	2:G:27:PHE:HE1	1.81	0.46
2:G:7:ARG:NH2	2:G:24:THR:O	2.48	0.46
2:G:826:GLY:HA3	2:G:1061:GLN:CB	2.44	0.46
2:H:1079:ASP:O	2:H:1082:ILE:HG22	2.16	0.46
2:H:1359:MET:CE	2:H:1404:MET:HB3	2.44	0.46
2:H:1552:PRO:O	2:H:1556:VAL:HG23	2.15	0.46
1:B:14:LEU:HD11	2:H:1821:VAL:HG11	1.97	0.46
2:H:1945:ASP:O	2:H:1949:LYS:HG3	2.15	0.46
2:H:350:GLN:HA	2:H:353:VAL:HG13	1.97	0.46
2:H:598:THR:CB	2:H:599:PRO:HD3	2.44	0.46
2:H:72:VAL:HG12	2:H:73:GLU:N	2.30	0.46
2:H:879:LYS:HA	2:H:879:LYS:HD3	1.71	0.46
2:I:1593:ILE:HD13	2:I:1626:ILE:HD13	1.97	0.46
2:I:826:GLY:HA3	2:I:1061:GLN:CB	2.46	0.46
1:A:986:ALA:CB	1:A:1047:LEU:HD13	2.45	0.46
1:A:1544:THR:O	1:A:1545:SER:HB3	2.15	0.46
1:A:1639:VAL:CG1	1:A:1640:SER:N	2.78	0.46
1:A:1646:PHE:CE1	3:A:2748:CER:H31	2.50	0.46
1:A:338:LEU:O	1:A:342:GLN:HG3	2.16	0.46
1:B:1305:CYS:SG	1:B:1585:LYS:HA	2.56	0.46
1:B:741:SER:HB3	1:B:744:ASP:HB2	1.97	0.46
1:C:1238:VAL:CG1	1:C:1242:GLU:HB2	2.45	0.46
1:C:451:MET:HE2	1:C:451:MET:HB3	1.71	0.46
1:C:784:ILE:HG23	1:C:788:SER:HB2	1.98	0.46
2:G:1749:GLU:OE2	2:G:1840:VAL:HG13	2.16	0.46
2:G:355:LYS:HE2	2:G:355:LYS:HB3	1.64	0.46
2:H:807:ILE:HD12	2:H:1063:THR:HG23	1.96	0.46
2:H:1266:TYR:HB2	2:H:1347:LEU:HD23	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1666:PHE:CD1	2:H:1814:ALA:HB2	2.49	0.46
2:H:1908:ASP:HA	2:H:1911:THR:HG22	1.98	0.46
2:H:42:PRO:HG2	2:H:52:ASP:CG	2.36	0.46
2:H:573:LYS:HE3	2:H:1101:GLU:OE1	2.15	0.46
2:H:881:VAL:N	2:H:882:PRO:CD	2.79	0.46
2:I:1272:ASP:O	2:I:1273:GLU:HG3	2.15	0.46
2:I:131:ILE:HG21	2:I:182:VAL:HG12	1.97	0.46
2:I:1624:THR:HB	2:I:1642:THR:CG2	2.43	0.46
2:I:1764:PHE:HB2	2:I:1770:LEU:HD21	1.97	0.46
1:A:1050:CYS:HB3	1:A:1089:VAL:HG12	1.98	0.46
1:B:1618:LEU:HD23	1:B:1621:PHE:CE2	2.51	0.46
1:B:183:GLN:NE2	1:B:202:GLU:HG2	2.29	0.46
1:B:451:MET:HE2	1:B:451:MET:HB3	1.73	0.46
1:C:256:LEU:HA	1:C:257:PRO:HD3	1.72	0.46
1:C:2:LYS:HE2	1:C:4:GLU:CD	2.35	0.46
2:G:873:PHE:CD1	2:G:1026:GLU:HB2	2.50	0.46
2:G:109:LEU:HD11	2:G:116:LEU:CD2	2.41	0.46
2:G:1834:ARG:CG	2:G:1834:ARG:NH1	2.68	0.46
1:A:26:VAL:CG2	2:G:1890:ASN:ND2	2.78	0.46
2:G:455:ILE:O	2:G:455:ILE:HG13	2.14	0.46
2:G:702:TYR:HB3	2:G:727:PRO:HB2	1.97	0.46
2:H:1169:PRO:O	2:H:1173:VAL:HG23	2.15	0.46
2:H:1195:VAL:HG13	2:H:1211:LEU:CB	2.44	0.46
2:H:1441:ILE:HD11	2:H:1445:ARG:NH2	2.27	0.46
2:H:1567:ARG:NH1	2:H:1568:HIS:HB3	2.29	0.46
2:H:1638:ILE:HD12	2:H:1657:ILE:CG1	2.43	0.46
2:I:1666:PHE:CD1	2:I:1814:ALA:HA	2.50	0.46
2:I:584:SER:CB	2:I:591:PRO:HG3	2.41	0.46
1:A:170:LYS:HD3	1:A:175:LEU:HD23	1.97	0.46
1:A:2:LYS:HE2	1:A:4:GLU:CD	2.36	0.46
1:B:1303:GLY:CA	1:B:1649:LYS:HE2	2.40	0.46
1:B:702:LYS:HE2	1:B:729:GLY:O	2.15	0.46
1:C:1319:ILE:HA	1:C:1324:ALA:O	2.14	0.46
1:C:1362:PRO:HA	1:C:1365:MET:HG3	1.97	0.46
1:C:1367:ARG:HH12	1:C:1372:THR:CB	2.20	0.46
1:C:1533:ILE:HD11	1:C:1564:LEU:HD13	1.98	0.46
1:C:243:ILE:O	1:C:247:ARG:HG3	2.16	0.46
2:G:1886:VAL:HG22	2:G:1906:ALA:HB1	1.97	0.46
2:G:209:PHE:CE2	2:G:213:LEU:HD22	2.51	0.46
2:G:214:ASN:ND2	2:G:217:GLU:HB2	2.30	0.46
2:G:309:ARG:HA	2:G:309:ARG:HD3	1.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:441:LYS:O	2:G:444:VAL:HG12	2.15	0.46
2:G:669:LEU:HD12	2:G:669:LEU:HA	1.62	0.46
2:G:719:ILE:H	2:G:719:ILE:HG12	1.57	0.46
2:G:844:VAL:HG22	2:G:858:ALA:HB2	1.98	0.46
2:H:582:LYS:HE2	2:H:761:PRO:O	2.16	0.46
2:I:1071:LYS:HE3	2:I:1075:ASP:OD2	2.14	0.46
2:H:321:PRO:HD2	2:I:1599:ASP:OD1	2.16	0.46
2:I:1932:SER:O	2:I:1936:VAL:HG22	2.16	0.46
2:I:2026:PHE:HB3	2:I:2042:ILE:HD13	1.98	0.46
2:I:843:ILE:HD11	2:I:1055:HIS:HB3	1.98	0.46
1:A:1270:VAL:HG11	1:A:1274:ILE:HD13	1.97	0.46
1:A:1487:LEU:C	1:A:1487:LEU:HD23	2.35	0.46
1:A:1617:ILE:O	1:A:1620:GLN:HG2	2.16	0.46
1:A:709:ARG:O	1:A:714:VAL:HG21	2.16	0.46
1:B:11:HIS:C	1:B:11:HIS:CD2	2.89	0.46
1:B:792:HIS:CE1	1:B:796:LEU:HD23	2.51	0.46
1:C:1263:ASP:HB2	1:C:1270:VAL:HG21	1.98	0.46
1:C:1577:GLN:NE2	1:C:1591:TRP:HB3	2.30	0.46
1:C:1233:GLU:CD	1:C:1680:ARG:HH21	2.19	0.46
1:C:774:ILE:HA	1:C:775:PRO:HD3	1.74	0.46
2:G:1378:ILE:O	2:G:1378:ILE:HG12	2.13	0.46
2:G:1854:MET:CG	2:G:1901:ALA:HB2	2.46	0.46
2:G:553:ASN:O	2:G:556:LYS:HE3	2.16	0.46
2:H:1180:MET:HB2	2:H:1197:LEU:HD21	1.98	0.46
2:H:1624:THR:HB	2:H:1642:THR:CG2	2.45	0.46
2:H:1738:PHE:CE1	2:H:1837:THR:HG23	2.50	0.46
2:H:1850:SER:HB2	2:H:1973:SER:HB2	1.97	0.46
2:H:1858:ASN:HA	2:H:1896:GLN:O	2.16	0.46
2:H:306:ILE:HA	2:H:439:ILE:HD13	1.96	0.46
2:H:481:ASP:OD2	2:H:485:ARG:NH1	2.48	0.46
2:H:653:TYR:HD1	2:H:659:LEU:HD21	1.80	0.46
2:H:845:THR:HG22	2:H:855:HIS:CD2	2.51	0.46
2:I:860:ARG:HB2	2:I:1049:GLN:HG3	1.97	0.46
2:I:109:LEU:HD11	2:I:116:LEU:CD2	2.43	0.46
2:I:109:LEU:HD22	2:I:114:THR:HG23	1.96	0.46
2:I:1418:ASP:C	2:I:1420:GLU:N	2.68	0.46
2:I:589:ARG:HB3	2:I:590:PRO:CD	2.43	0.46
2:I:653:TYR:HD1	2:I:659:LEU:HD21	1.79	0.46
1:A:37:LYS:HB2	1:A:65:TYR:CE1	2.48	0.46
1:A:427:ASN:ND2	1:A:610:THR:H	2.08	0.46
1:A:49:PRO:O	1:A:82:SER:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1021:VAL:HG22	1:B:1387:ILE:HG22	1.98	0.46
1:B:1595:GLY:O	1:B:1599:ILE:HG13	2.15	0.46
1:C:182:VAL:O	1:C:186:ILE:HG13	2.16	0.46
2:G:1168:ASN:HA	2:G:1169:PRO:HD3	1.81	0.46
2:G:1303:ALA:HB2	2:G:1556:VAL:HG21	1.98	0.46
2:G:131:ILE:CG2	2:G:182:VAL:HG11	2.43	0.46
2:G:2037:PRO:O	2:G:2041:ILE:HG13	2.16	0.46
2:G:785:TRP:CG	2:G:786:SER:N	2.83	0.46
2:G:845:THR:HG22	2:G:855:HIS:CD2	2.50	0.46
2:G:955:GLU:HG2	2:G:987:TYR:HE2	1.80	0.46
2:H:1344:ASP:O	2:H:1416:TYR:HE2	1.99	0.46
2:H:1427:VAL:HG22	2:H:1469:GLU:HG2	1.96	0.46
2:H:1491:VAL:HB	2:H:1501:ILE:CD1	2.45	0.46
2:H:1651:LEU:O	2:H:1652:THR:HG23	2.16	0.46
2:H:1846:GLU:C	2:H:1848:GLY:H	2.19	0.46
2:H:1873:TYR:CE1	2:H:1877:ARG:NE	2.77	0.46
2:H:551:THR:HG22	2:H:552:SER:N	2.30	0.46
2:H:60:LEU:O	2:H:63:LYS:HB2	2.16	0.46
2:I:1180:MET:HB3	2:I:1199:GLU:HG2	1.98	0.46
2:I:1543:ASP:OD1	2:I:1623:LYS:HG2	2.15	0.46
2:I:490:TRP:CZ2	2:I:512:LEU:HD21	2.51	0.46
1:A:331:ILE:HG23	1:A:332:THR:N	2.31	0.46
1:A:35:PHE:HA	1:A:39:PHE:HD2	1.81	0.46
1:A:489:VAL:CG2	1:A:670:GLY:C	2.84	0.46
1:A:507:GLY:N	1:A:954:ARG:HG2	2.31	0.46
1:C:1196:LYS:HE3	1:C:1202:ASP:CG	2.37	0.46
1:C:11:His:C	1:C:11:His:CD2	2.89	0.46
1:C:1209:ASP:OD2	1:C:1253:GLY:HA2	2.16	0.46
2:G:123:ILE:HD11	2:G:533:LEU:HD22	1.98	0.46
2:G:1418:ASP:O	2:G:1421:ASN:N	2.43	0.46
2:G:970:TYR:O	2:G:973:LEU:HB2	2.16	0.46
2:H:1236:LEU:HA	2:H:1237:PRO:HD3	1.78	0.46
2:H:1374:THR:HG23	2:H:1396:LEU:CD1	2.46	0.46
2:H:1227:ARG:NE	2:H:1565:VAL:HG12	2.30	0.46
2:H:490:TRP:CZ2	2:H:512:LEU:HD21	2.51	0.46
2:H:702:TYR:HB3	2:H:727:PRO:HB2	1.97	0.46
2:I:1031:LYS:O	2:I:1032:ASP:C	2.54	0.46
2:I:1054:LEU:HB3	4:I:3051:FMN:HM82	1.98	0.46
2:I:1228:THR:HG21	2:I:1234:VAL:HG23	1.98	0.46
2:I:1418:ASP:O	2:I:1420:GLU:N	2.49	0.46
2:I:740:HIS:HE1	2:I:852:GLU:OE1	1.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:860:ARG:H	2:I:1049:GLN:HG3	1.80	0.46
1:A:1709:GLU:HG3	1:A:1709:GLU:H	1.46	0.46
1:A:386:PHE:O	1:A:390:VAL:HB	2.16	0.46
1:B:143:GLU:H	1:B:260:ARG:HG2	1.81	0.46
1:B:601:VAL:O	1:B:602:GLU:C	2.54	0.46
1:C:1459:ILE:O	1:C:1463:VAL:HG23	2.16	0.46
1:C:539:SER:O	1:C:540:GLN:C	2.52	0.46
2:G:1002:HIS:NE2	2:G:1006:MET:CE	2.79	0.46
2:G:1311:PHE:HD1	2:G:1320:LEU:O	1.99	0.46
2:G:1435:ILE:O	2:G:1435:ILE:HG22	2.15	0.46
2:G:233:SER:HA	2:G:424:ALA:CB	2.46	0.46
2:H:1021:LEU:HA	2:H:1021:LEU:HD22	1.58	0.46
2:H:913:ASP:H	2:H:916:THR:CG2	2.29	0.46
2:I:1222:GLU:HG3	2:I:1235:SER:OG	2.16	0.46
2:I:1282:ARG:NH2	2:I:1423:PHE:HB3	2.31	0.46
2:I:1561:ASN:OD1	2:I:1563:ILE:HB	2.15	0.46
2:I:232:LEU:HD21	2:I:423:VAL:HA	1.98	0.46
2:I:391:LEU:CD2	2:I:394:ARG:NH2	2.78	0.46
2:I:670:ARG:HD2	2:I:676:ILE:O	2.16	0.46
2:I:785:TRP:CG	2:I:786:SER:N	2.84	0.46
2:I:751:LEU:HD11	2:I:789:PHE:CD1	2.51	0.46
2:I:844:VAL:HG22	2:I:858:ALA:HB2	1.97	0.46
1:A:1533:ILE:HG13	1:A:1564:LEU:HB3	1.98	0.45
1:A:411:GLN:NE2	1:A:1628:SER:H	2.13	0.45
1:A:1557:ILE:HD11	1:A:1642:THR:HG21	1.97	0.45
1:A:792:HIS:CE1	1:A:796:LEU:HD23	2.51	0.45
1:B:1234:MET:HG2	1:B:1326:ILE:CD1	2.46	0.45
1:B:516:ARG:NH2	1:B:889:GLU:OE1	2.49	0.45
1:B:881:ASN:HA	1:B:944:ARG:HH22	1.78	0.45
1:C:1040:GLU:HB2	1:C:1580:LEU:HD12	1.98	0.45
1:C:1376:PHE:CB	1:C:1544:THR:HG22	2.45	0.45
1:C:1573:ILE:HG23	1:C:1627:PRO:HG3	1.98	0.45
1:C:400:ARG:HH11	1:C:400:ARG:HG3	1.72	0.45
2:G:1586:SER:O	2:G:1590:ARG:HB2	2.16	0.45
2:G:159:ILE:CG2	2:G:501:ILE:HG22	2.46	0.45
2:G:1738:PHE:CD1	2:G:1837:THR:HG23	2.51	0.45
2:H:1031:LYS:O	2:H:1032:ASP:C	2.54	0.45
2:H:1135:GLU:OE2	2:H:1175:LYS:HE3	2.15	0.45
2:H:1417:THR:C	2:H:1419:PHE:H	2.19	0.45
2:H:1388:LYS:HE3	2:H:1418:ASP:OD2	2.16	0.45
2:H:1593:ILE:HD13	2:H:1626:ILE:HD13	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1666:PHE:CE1	2:H:1814:ALA:HA	2.50	0.45
2:H:1873:TYR:CE1	2:H:1877:ARG:NH2	2.83	0.45
2:H:2026:PHE:HB3	2:H:2042:ILE:HD13	1.98	0.45
2:H:391:LEU:CD2	2:H:394:ARG:NH2	2.80	0.45
2:H:730:LEU:HD12	2:H:730:LEU:C	2.36	0.45
2:I:738:GLY:HA3	4:I:3051:FMN:HM81	1.98	0.45
2:I:807:ILE:HD12	2:I:1063:THR:HG23	1.98	0.45
1:A:1114:TYR:CE1	1:A:1337:GLU:HG3	2.50	0.45
1:A:408:TRP:CZ3	1:A:1628:SER:HB3	2.51	0.45
1:A:764:ASP:OD2	1:A:818:ARG:HD3	2.17	0.45
1:B:1431:GLU:OE2	1:B:1433:HIS:HE1	2.00	0.45
1:B:19:ALA:O	1:B:22:PHE:HB2	2.15	0.45
1:B:26:VAL:HG13	2:H:2013:ASN:ND2	2.31	0.45
1:B:2:LYS:HE2	1:B:4:GLU:OE1	2.15	0.45
1:B:719:GLN:HG3	1:B:720:SER:N	2.31	0.45
1:C:170:LYS:HD3	1:C:175:LEU:HD23	1.97	0.45
1:C:430:ARG:NH2	1:C:605:LEU:HD13	2.31	0.45
1:C:529:MET:CE	1:C:894:ARG:HD2	2.46	0.45
2:G:1219:ILE:HD11	2:G:1242:PHE:HB2	1.98	0.45
2:G:1222:GLU:HG3	2:G:1235:SER:OG	2.16	0.45
2:G:1472:VAL:CG2	2:G:1483:VAL:HG22	2.46	0.45
2:G:1673:GLU:N	2:G:1676:MET:HE3	2.25	0.45
2:G:191:SER:HA	2:G:194:THR:CG2	2.46	0.45
2:G:1976:PHE:HA	2:G:1981:LEU:CD2	2.46	0.45
2:G:161:GLY:HA3	2:G:506:PRO:HD2	1.98	0.45
2:H:1579:ILE:HG22	2:H:1580:THR:O	2.16	0.45
2:H:1768:LYS:HE2	2:H:1772:SER:HB3	1.98	0.45
2:H:246:LEU:HD12	2:H:246:LEU:HA	1.85	0.45
2:H:324:LEU:HD12	2:H:324:LEU:O	2.16	0.45
2:H:612:ASN:HD21	2:H:641:ILE:HA	1.81	0.45
2:I:1359:MET:HE3	2:I:1404:MET:HB3	1.98	0.45
2:I:369:SER:O	2:I:370:LEU:HD23	2.16	0.45
2:I:601:THR:HB	2:I:620:ALA:HB2	1.98	0.45
2:I:669:LEU:HD12	2:I:669:LEU:HA	1.65	0.45
1:A:1367:ARG:HH12	1:A:1372:THR:CB	2.18	0.45
1:A:1431:GLU:OE2	1:A:1523:ARG:NH1	2.48	0.45
1:A:751:PHE:CZ	1:A:761:LEU:HD13	2.51	0.45
1:B:1639:VAL:HG12	1:B:1640:SER:N	2.31	0.45
1:B:235:SER:HA	1:B:276:ARG:NH2	2.32	0.45
1:B:37:LYS:HB2	1:B:65:TYR:CE1	2.51	0.45
1:B:444:ASN:HB2	1:B:447:LEU:N	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:827:SER:HA	1:C:828:PRO:HD3	1.70	0.45
1:C:982:ILE:HD11	2:I:965:SER:CB	2.46	0.45
1:A:18:LEU:HD21	2:G:1815:LEU:CD1	2.46	0.45
2:G:1953:VAL:O	2:G:1953:VAL:HG12	2.16	0.45
2:G:247:ALA:O	2:G:251:VAL:HG13	2.15	0.45
2:G:460:TYR:HA	2:G:466:SER:O	2.17	0.45
2:G:562:LEU:HG	2:G:793:PRO:CG	2.43	0.45
2:G:860:ARG:HB2	2:G:1049:GLN:HG3	1.97	0.45
2:H:1590:ARG:HG3	2:H:1608:TYR:CD2	2.51	0.45
2:H:1776:PHE:C	2:H:1779:PRO:HD2	2.37	0.45
2:H:249:TYR:CD2	2:H:283:ILE:HD11	2.52	0.45
2:H:439:ILE:HD12	2:H:484:ILE:CD1	2.46	0.45
2:H:562:LEU:HG	2:H:793:PRO:CB	2.47	0.45
2:I:1180:MET:HB2	2:I:1197:LEU:HD21	1.97	0.45
2:I:1775:GLN:HG2	2:I:1836:MET:SD	2.57	0.45
2:I:1854:MET:CG	2:I:1901:ALA:HB2	2.47	0.45
2:I:618:GLU:HG2	2:I:678:PHE:CZ	2.51	0.45
2:I:739:GLY:HA2	2:I:1054:LEU:HG	1.97	0.45
1:A:168:MET:HA	1:A:206:LEU:HB2	1.98	0.45
1:A:413:LEU:C	1:A:415:SER:H	2.18	0.45
1:A:625:THR:HG23	1:A:627:SER:H	1.82	0.45
1:A:630:ILE:O	1:A:653:ARG:NH2	2.48	0.45
1:A:798:ASN:HA	1:A:801:ARG:HB2	1.98	0.45
1:B:1310:GLU:OE1	1:B:1649:LYS:CE	2.62	0.45
1:B:32:GLN:NE2	1:B:57:ALA:CA	2.80	0.45
1:B:988:ILE:HD13	1:B:1048:GLU:CB	2.47	0.45
1:C:1533:ILE:HG13	1:C:1564:LEU:HB3	1.98	0.45
2:G:1015:VAL:HG13	2:G:1017:PHE:CE2	2.52	0.45
2:G:1148:ASN:HD22	2:G:1151:HIS:H	1.63	0.45
2:G:1314:ARG:HA	2:G:1314:ARG:HD3	1.62	0.45
2:G:1844:ARG:HA	2:G:1849:ARG:O	2.16	0.45
2:G:582:LYS:HE2	2:G:1108:PRO:HB3	1.97	0.45
2:G:807:ILE:HA	2:G:818:LYS:HG2	1.97	0.45
2:H:1735:ALA:O	2:H:1737:ILE:HG13	2.16	0.45
2:H:463:PHE:CD2	2:H:463:PHE:C	2.90	0.45
2:H:601:THR:O	2:H:601:THR:CG2	2.65	0.45
2:H:835:THR:CB	2:H:845:THR:HG23	2.43	0.45
2:I:1199:GLU:OE2	2:I:1567:ARG:CZ	2.65	0.45
2:I:1327:ILE:HA	2:I:1327:ILE:HD12	1.80	0.45
2:I:1609:THR:O	2:I:1653:GLY:HA3	2.16	0.45
2:I:463:PHE:CE1	2:I:486:LEU:HD22	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1196:LYS:HE3	1:A:1202:ASP:CG	2.36	0.45
1:A:143:GLU:H	1:A:260:ARG:HG2	1.81	0.45
1:A:293:LYS:O	1:A:297:ILE:HG13	2.16	0.45
1:B:1020:VAL:CG1	1:B:1400:ILE:HG23	2.46	0.45
1:B:1061:SER:HB2	1:B:1078:SER:HB3	1.99	0.45
1:B:1019:ILE:HG21	1:B:1316:VAL:HG22	1.98	0.45
1:B:1464:GLU:HG3	1:B:1773:VAL:HG11	1.91	0.45
1:B:1376:PHE:CB	1:B:1544:THR:HG22	2.45	0.45
1:C:1104:ARG:O	1:C:1185:VAL:HG13	2.17	0.45
1:C:776:GLU:OE1	1:C:795:MET:HE1	2.17	0.45
2:G:357:ASN:OD1	2:G:365:GLN:HB3	2.16	0.45
2:H:1027:ILE:O	2:H:1031:LYS:HB2	2.16	0.45
2:H:1383:ASN:HD21	2:H:1418:ASP:CB	2.30	0.45
2:H:24:THR:O	2:H:26:SER:N	2.49	0.45
2:H:319:LEU:HA	2:H:319:LEU:HD22	1.68	0.45
2:H:611:THR:HA	2:H:615:TYR:O	2.16	0.45
2:H:659:LEU:HA	2:H:659:LEU:HD12	1.82	0.45
2:H:754:TYR:CE2	2:H:794:MET:HG3	2.52	0.45
2:I:1776:PHE:C	2:I:1779:PRO:HD2	2.37	0.45
2:I:1976:PHE:CB	2:I:1981:LEU:CD2	2.94	0.45
2:I:2036:GLU:HG2	2:I:2039:LYS:HZ3	1.82	0.45
2:I:894:ARG:NH1	2:I:898:ASP:OD2	2.42	0.45
2:I:938:TRP:CD1	2:I:944:ARG:HG3	2.52	0.45
1:C:1682:LYS:HB3	2:I:994:PHE:CD2	2.51	0.45
1:A:1120:GLU:O	1:A:1121:MET:HG3	2.16	0.45
1:A:776:GLU:OE1	1:A:795:MET:HE1	2.16	0.45
1:A:658:LEU:HD13	1:A:916:LEU:HD12	1.99	0.45
1:B:1533:ILE:HD11	1:B:1564:LEU:HD13	1.98	0.45
1:C:1491:ARG:NH1	1:C:1744:TYR:O	2.50	0.45
1:C:197:THR:HG22	1:C:198:PRO:O	2.15	0.45
1:C:225:SER:OG	1:C:266:LEU:HD21	2.16	0.45
1:C:143:GLU:H	1:C:260:ARG:HG2	1.81	0.45
1:B:332:THR:HG22	1:C:331:ILE:HD11	1.98	0.45
2:G:1080:GLY:O	2:G:1084:LYS:HG3	2.16	0.45
2:G:1241:ASN:N	2:G:1252:SER:O	2.49	0.45
2:G:142:ASN:HB2	2:G:550:VAL:HG13	1.99	0.45
2:G:1466:PHE:HE2	2:G:1489:ILE:HD13	1.81	0.45
2:G:1976:PHE:CB	2:G:1981:LEU:CD2	2.95	0.45
2:G:315:PRO:O	2:H:1314:ARG:NH2	2.50	0.45
2:G:712:ALA:O	2:G:715:GLN:HB3	2.16	0.45
2:H:1085:LEU:HD12	2:H:1085:LEU:HA	1.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1159:ILE:HG22	2:H:1160:THR:N	2.32	0.45
2:H:1325:PHE:O	2:H:1328:VAL:HG12	2.16	0.45
2:H:618:GLU:HG2	2:H:678:PHE:CZ	2.52	0.45
2:H:785:TRP:CG	2:H:786:SER:N	2.84	0.45
2:I:1195:VAL:HG13	2:I:1211:LEU:CB	2.46	0.45
2:I:1637:LEU:HD23	2:I:1637:LEU:HA	1.79	0.45
2:I:440:ASN:ND2	2:I:477:GLU:HG2	2.31	0.45
2:I:23:PRO:HG2	2:I:86:LEU:HD11	1.98	0.45
1:A:1300:THR:HA	1:A:1301:PRO:HD3	1.70	0.45
1:B:66:GLU:HA	1:B:66:GLU:OE1	2.15	0.45
1:C:1670:TYR:O	1:C:1674:VAL:HG23	2.17	0.45
1:C:1305:CYS:SG	3:C:2748:CER:H51	2.57	0.45
1:C:521:LYS:HB3	1:C:523:SER:HB3	1.98	0.45
2:G:1858:ASN:ND2	2:G:1861:ARG:HG3	2.32	0.45
2:G:1873:TYR:HE1	2:G:1877:ARG:HH21	1.59	0.45
2:G:665:LEU:O	2:G:665:LEU:HD22	2.17	0.45
2:G:754:TYR:CG	2:G:794:MET:HG2	2.51	0.45
2:H:1678:MET:HE3	2:H:1707:LEU:CD2	2.41	0.45
2:H:2035:SER:HB3	2:H:2038:ILE:CG1	2.44	0.45
2:H:594:VAL:CG2	2:H:610:THR:HG21	2.45	0.45
2:I:1162:ASP:O	2:I:1163:LYS:HB2	2.16	0.45
2:I:1949:LYS:O	2:I:1953:VAL:HG23	2.17	0.45
1:C:21:GLN:HG3	2:I:2013:ASN:HB2	1.98	0.45
2:I:478:ARG:O	2:I:482:CYS:HB2	2.17	0.45
2:I:784:GLU:O	2:I:787:THR:HB	2.17	0.45
1:A:1239:HIS:CD2	1:A:1241:SER:H	2.35	0.45
1:A:1443:LEU:HA	1:A:1443:LEU:HD23	1.75	0.45
1:B:1004:ILE:HG22	1:B:1660:TYR:CE2	2.52	0.45
1:B:1459:ILE:O	1:B:1463:VAL:HG23	2.17	0.45
1:B:1584:PRO:CG	1:B:1591:TRP:CZ3	3.00	0.45
1:B:1239:HIS:HE1	1:B:1714:VAL:O	2.00	0.45
2:G:101:ILE:HG13	2:G:101:ILE:H	1.31	0.45
2:G:1265:MET:HE1	2:G:1562:PRO:HG2	1.98	0.45
2:G:218:TRP:HB3	2:G:225:THR:OG1	2.16	0.45
2:G:350:GLN:HA	2:G:353:VAL:HG13	1.97	0.45
2:G:455:ILE:HD11	2:G:469:ARG:NE	2.32	0.45
2:G:879:LYS:HA	2:G:879:LYS:HD3	1.68	0.45
2:H:1100:VAL:HG23	2:H:1147:ILE:HB	1.99	0.45
2:H:1845:ASP:HB2	2:H:1849:ARG:N	2.15	0.45
2:H:751:LEU:HA	2:H:794:MET:HE3	1.98	0.45
2:I:1002:HIS:NE2	2:I:1006:MET:CE	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:943:TRP:CZ2	2:I:1016:PRO:HG3	2.52	0.45
2:I:1258:ARG:O	2:I:1262:ILE:HG13	2.17	0.45
2:I:1308:CYS:HB3	2:I:1311:PHE:CE2	2.51	0.45
2:I:161:GLY:H	2:I:505:GLY:CA	2.28	0.45
2:I:355:LYS:HE2	2:I:355:LYS:HB3	1.70	0.45
2:I:654:VAL:O	2:I:654:VAL:HG12	2.17	0.45
2:I:677:GLN:O	2:I:678:PHE:HB3	2.17	0.45
1:A:483:VAL:O	1:A:484:LEU:C	2.56	0.45
1:A:929:GLY:C	1:A:931:GLN:H	2.19	0.45
1:B:1617:ILE:O	1:B:1620:GLN:HG2	2.17	0.45
1:B:340:ARG:HH12	1:B:344:GLN:HE21	1.64	0.45
1:B:420:ILE:HG22	1:B:469:VAL:HG22	1.99	0.45
1:C:378:LEU:HA	1:C:378:LEU:HD12	1.84	0.45
1:C:927:ASN:O	1:C:929:GLY:N	2.41	0.45
2:G:1491:VAL:HB	2:G:1501:ILE:HD12	1.99	0.45
2:G:1543:ASP:OD1	2:G:1623:LYS:HG2	2.16	0.45
2:G:1227:ARG:CZ	2:G:1565:VAL:HG12	2.47	0.45
2:G:624:TYR:HB2	2:G:630:MET:HE3	1.99	0.45
2:H:1327:ILE:HG12	2:H:1583:MET:HE3	1.99	0.45
2:H:512:LEU:O	2:H:516:THR:HG23	2.17	0.45
2:I:1491:VAL:HB	2:I:1501:ILE:CD1	2.47	0.45
2:I:653:TYR:OH	2:I:690:VAL:HG11	2.17	0.45
1:A:1516:ASP:HA	1:A:1517:PRO:HD3	1.61	0.45
1:A:204:THR:HA	1:A:205:PRO:HD3	1.85	0.45
1:A:335:HIS:CD2	1:A:335:HIS:O	2.69	0.45
1:B:1119:LYS:HE2	1:B:1341:PHE:CG	2.52	0.45
1:B:1300:THR:HA	1:B:1301:PRO:HD3	1.69	0.45
1:B:1592:MET:HE2	1:B:1641:ILE:HG23	1.98	0.45
1:B:196:THR:O	1:B:213:PHE:HE2	2.00	0.45
1:B:43:ARG:O	2:H:1662:THR:HA	2.16	0.45
1:B:32:GLN:HE21	1:B:57:ALA:HB2	1.82	0.45
1:B:67:SER:OG	2:G:359:HIS:HE1	1.99	0.45
1:B:44:VAL:HG13	1:B:78:ILE:HG12	1.98	0.45
1:C:1061:SER:HB2	1:C:1078:SER:HB3	1.99	0.45
1:C:478:GLU:OE1	1:C:478:GLU:HA	2.17	0.45
1:C:916:LEU:HD22	1:C:922:VAL:HG22	1.99	0.45
2:G:1002:HIS:NE2	2:G:1006:MET:HE3	2.32	0.45
2:G:109:LEU:HA	2:G:109:LEU:HD23	1.79	0.45
2:G:1325:PHE:O	2:G:1328:VAL:HG12	2.17	0.45
2:G:1389:ILE:HG13	2:G:1411:PHE:CD1	2.52	0.45
2:G:1417:THR:C	2:G:1419:PHE:N	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1418:ASP:C	2:G:1420:GLU:H	2.19	0.45
2:G:42:PRO:HG2	2:G:52:ASP:CG	2.38	0.45
2:H:641:ILE:HG12	2:H:645:SER:CB	2.46	0.45
2:I:1256:GLU:O	2:I:1257:ASP:HB2	2.17	0.45
2:I:231:LEU:HA	2:I:236:ILE:HD12	1.99	0.45
2:I:298:LYS:HG2	2:I:448:VAL:CG2	2.38	0.45
1:A:1283:MET:O	1:A:1287:VAL:HG23	2.18	0.44
1:A:242:THR:HG22	1:A:243:ILE:H	1.81	0.44
1:A:636:PRO:HB2	1:A:638:LEU:O	2.16	0.44
1:B:1029:PRO:HA	1:B:1188:GLN:O	2.17	0.44
1:B:1455:ARG:HD2	1:B:1455:ARG:HA	1.86	0.44
1:B:411:GLN:NE2	1:B:1628:SER:H	2.15	0.44
1:B:427:ASN:HB2	1:B:468:LEU:HD21	1.99	0.44
1:B:612:GLU:O	1:B:615:SER:HB3	2.17	0.44
1:B:626:VAL:HG23	1:B:664:GLU:OE2	2.17	0.44
1:B:733:ILE:CD1	1:B:761:LEU:HD11	2.46	0.44
1:C:1257:LEU:HA	1:C:1257:LEU:HD23	1.83	0.44
1:C:1494:HIS:CE1	1:C:1877:GLN:CG	2.99	0.44
1:C:253:ARG:O	1:C:254:TRP:CD1	2.70	0.44
1:C:641:ARG:HD3	1:C:649:TRP:O	2.17	0.44
2:G:1071:LYS:HE3	2:G:1075:ASP:OD2	2.16	0.44
2:G:1294:ALA:HA	2:G:1368:VAL:CG2	2.47	0.44
2:G:1855:ILE:HB	2:G:1907:LEU:HD12	2.00	0.44
2:G:607:VAL:O	2:G:611:THR:HB	2.17	0.44
2:G:717:ILE:O	2:G:720:ALA:HB3	2.18	0.44
2:G:741:HIS:HB3	2:G:853:PRO:HB2	1.98	0.44
2:G:741:HIS:HE1	2:G:855:HIS:NE2	2.13	0.44
2:G:926:LEU:HB3	2:G:947:THR:CG2	2.46	0.44
2:H:109:LEU:HD22	2:H:114:THR:HG23	1.99	0.44
2:H:1308:CYS:HB3	2:H:1311:PHE:CE2	2.52	0.44
2:H:1321:ALA:HA	2:H:1322:PRO:HD3	1.84	0.44
2:H:1529:GLN:O	2:H:1632:ILE:HG13	2.16	0.44
1:B:13:LEU:HB2	2:H:2026:PHE:CE1	2.52	0.44
2:H:443:LEU:HD22	2:H:448:VAL:CG1	2.46	0.44
2:I:1159:ILE:CG2	2:I:1160:THR:N	2.81	0.44
2:I:1589:VAL:HG21	2:I:1651:LEU:HD12	1.99	0.44
2:I:272:GLY:HA3	2:I:276:GLY:C	2.37	0.44
1:A:1012:LEU:HD23	1:A:1445:MET:HE2	1.99	0.44
1:A:1373:ARG:NE	1:A:1550:ASP:HB2	2.32	0.44
1:A:1666:THR:HG23	1:A:1669:ARG:CB	2.47	0.44
1:A:225:SER:OG	1:A:266:LEU:HD21	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:168:MET:HA	1:B:206:LEU:HB2	2.00	0.44
1:B:256:LEU:HA	1:B:257:PRO:HD3	1.73	0.44
1:B:330:GLU:O	1:B:330:GLU:HG2	2.16	0.44
1:C:1234:MET:HG2	1:C:1326:ILE:HD12	1.98	0.44
1:C:1238:VAL:CG1	1:C:1239:HIS:N	2.80	0.44
2:G:1609:THR:O	2:G:1653:GLY:HA3	2.16	0.44
2:G:7:ARG:HH11	2:G:24:THR:HG23	1.76	0.44
2:G:463:PHE:C	2:G:463:PHE:CD2	2.90	0.44
2:G:595:PRO:HD3	2:G:800:LEU:HB2	1.99	0.44
2:H:120:LYS:HB3	2:H:124:LYS:HE3	1.99	0.44
2:H:1330:GLY:HA2	2:H:1374:THR:HG21	1.98	0.44
2:H:1543:ASP:OD1	2:H:1623:LYS:HG2	2.17	0.44
2:H:560:ASN:H	2:H:564:GLU:HG2	1.82	0.44
2:H:786:SER:HB2	2:H:794:MET:HE2	1.99	0.44
2:H:854:ILE:HG22	2:H:856:LYS:HG3	1.99	0.44
2:I:1303:ALA:HB2	2:I:1556:VAL:HG21	1.98	0.44
2:I:1314:ARG:HD3	2:I:1314:ARG:HA	1.64	0.44
2:I:191:SER:HA	2:I:194:THR:CG2	2.43	0.44
2:I:441:LYS:O	2:I:444:VAL:HG12	2.17	0.44
2:I:659:LEU:HD12	2:I:659:LEU:HA	1.84	0.44
1:A:1431:GLU:HB3	1:A:1520:ALA:HB2	1.99	0.44
1:A:27:ARG:HH21	2:G:2015:THR:HA	1.82	0.44
1:A:267:VAL:HG12	1:A:290:MET:CE	2.48	0.44
1:B:183:GLN:O	1:B:187:LEU:HG	2.17	0.44
1:B:225:SER:OG	1:B:266:LEU:HD21	2.18	0.44
1:B:479:ASN:O	1:B:483:VAL:HG23	2.17	0.44
1:B:539:SER:O	1:B:540:GLN:C	2.54	0.44
1:B:655:LEU:HD23	1:B:655:LEU:HA	1.82	0.44
1:B:833:PHE:O	1:B:834:GLY:O	2.35	0.44
1:C:1487:LEU:C	1:C:1487:LEU:HD23	2.38	0.44
1:C:180:SER:O	1:C:183:GLN:N	2.50	0.44
2:G:1015:VAL:HA	2:G:1016:PRO:HD3	1.79	0.44
2:G:120:LYS:HB3	2:G:124:LYS:HE3	1.99	0.44
2:G:231:LEU:HA	2:G:236:ILE:HD12	2.00	0.44
2:G:566:HIS:O	2:G:567:PRO:O	2.34	0.44
2:H:161:GLY:H	2:H:505:GLY:CA	2.29	0.44
2:H:427:PHE:HB3	2:H:428:HIS:ND1	2.32	0.44
2:H:607:VAL:O	2:H:611:THR:HB	2.17	0.44
2:I:1735:ALA:O	2:I:1737:ILE:HG13	2.17	0.44
2:I:1757:GLU:H	2:I:1757:GLU:HG3	1.50	0.44
2:I:703:LEU:HD21	2:I:705:LEU:CD2	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:780:TYR:HB2	2:I:799:PHE:CE2	2.53	0.44
2:I:901:LYS:NZ	2:I:1031:LYS:O	2.51	0.44
1:A:1020:VAL:CG1	1:A:1400:ILE:HG23	2.47	0.44
1:A:1056:ILE:CD1	1:A:1193:TRP:CD1	3.00	0.44
1:A:66:GLU:HA	1:A:66:GLU:OE1	2.17	0.44
1:B:1040:GLU:OE2	1:B:1577:GLN:HB2	2.18	0.44
1:B:232:LEU:HD13	1:B:272:GLU:CB	2.47	0.44
1:B:32:GLN:HE22	1:B:57:ALA:N	2.16	0.44
1:C:1022:THR:HG22	1:C:1226:SER:CB	2.47	0.44
1:C:1657:HIS:CG	1:C:1658:PRO:HD2	2.53	0.44
1:C:625:THR:HG23	1:C:627:SER:H	1.83	0.44
1:C:930:LEU:HD23	1:C:930:LEU:HA	1.76	0.44
2:G:1590:ARG:NH2	2:G:1594:GLU:OE2	2.50	0.44
2:G:1752:PHE:HZ	2:G:1836:MET:HE3	1.82	0.44
2:G:1873:TYR:CE1	2:G:1877:ARG:NH2	2.84	0.44
2:G:1908:ASP:HA	2:G:1911:THR:HG22	2.00	0.44
2:G:1945:ASP:O	2:G:1949:LYS:HG3	2.17	0.44
2:G:932:ILE:HD12	2:G:939:PHE:HD1	1.83	0.44
2:H:1311:PHE:HD1	2:H:1320:LEU:O	2.00	0.44
2:H:1697:HIS:CE1	2:H:1829:GLU:CG	3.00	0.44
2:H:209:PHE:CE2	2:H:213:LEU:HD22	2.52	0.44
2:H:663:ILE:HB	2:H:664:PRO:CD	2.44	0.44
2:H:778:TYR:N	2:H:779:PRO:CD	2.80	0.44
2:I:1330:GLY:HA2	2:I:1374:THR:HG21	1.99	0.44
2:I:1418:ASP:OD1	2:I:1420:GLU:HG3	2.17	0.44
2:I:1651:LEU:HA	2:I:1651:LEU:HD23	1.73	0.44
2:I:1054:LEU:CB	4:I:3051:FMN:HM71	2.46	0.44
2:I:665:LEU:HD22	2:I:665:LEU:O	2.18	0.44
1:B:496:PRO:HB2	1:B:519:VAL:HG12	1.99	0.44
1:C:503:ILE:HD12	1:C:950:THR:HG21	1.98	0.44
1:C:44:VAL:HG13	1:C:78:ILE:HG12	1.99	0.44
2:G:109:LEU:HD22	2:G:114:THR:HG23	2.00	0.44
2:G:1632:ILE:O	2:G:1632:ILE:HG23	2.16	0.44
2:G:297:ARG:O	2:G:301:THR:HG22	2.17	0.44
2:G:490:TRP:HA	2:G:493:THR:HG22	1.98	0.44
2:G:589:ARG:HB3	2:G:590:PRO:CD	2.48	0.44
2:H:109:LEU:HD11	2:H:116:LEU:CD2	2.43	0.44
2:H:641:ILE:CG1	2:H:645:SER:HB2	2.45	0.44
2:I:1590:ARG:HG3	2:I:1608:TYR:CD2	2.53	0.44
2:I:1846:GLU:C	2:I:1848:GLY:H	2.20	0.44
2:I:468:LEU:O	2:I:471:LEU:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:245:GLN:HG2	2:I:505:GLY:HA2	2.00	0.44
2:I:835:THR:HG22	2:I:844:VAL:CA	2.48	0.44
2:I:9:LEU:HB2	2:I:27:PHE:HE1	1.82	0.44
1:A:1022:THR:CG2	1:A:1226:SER:OG	2.66	0.44
1:A:1135:GLU:CD	1:B:242:THR:HG21	2.38	0.44
1:A:1305:CYS:SG	1:A:1585:LYS:HA	2.57	0.44
1:B:1238:VAL:CG1	1:B:1239:HIS:N	2.81	0.44
1:B:1516:ASP:HA	1:B:1517:PRO:HD3	1.65	0.44
1:B:267:VAL:HG12	1:B:290:MET:CE	2.48	0.44
1:C:1557:ILE:HD11	1:C:1642:THR:HG21	2.00	0.44
1:C:503:ILE:HD11	1:C:947:LEU:HD22	1.98	0.44
2:G:1784:MET:HE2	2:G:1784:MET:O	2.17	0.44
2:G:551:THR:C	2:G:553:ASN:H	2.20	0.44
2:G:551:THR:HG22	2:G:552:SER:N	2.31	0.44
2:G:751:LEU:HD11	2:G:789:PHE:CD1	2.53	0.44
2:G:751:LEU:HD23	2:G:791:TYR:CD2	2.53	0.44
2:H:1389:ILE:HG13	2:H:1411:PHE:CD1	2.52	0.44
2:H:305:PHE:CD1	2:H:442:ASP:HB3	2.53	0.44
2:H:807:ILE:HA	2:H:818:LYS:HG2	1.99	0.44
2:I:1257:ASP:O	2:I:1261:ARG:HG3	2.17	0.44
2:I:159:ILE:CG2	2:I:501:ILE:HG22	2.47	0.44
2:I:1896:GLN:HE21	2:I:1896:GLN:HB3	1.58	0.44
2:I:305:PHE:CD1	2:I:442:ASP:HB3	2.52	0.44
2:I:40:ILE:O	2:I:42:PRO:HD3	2.17	0.44
2:I:720:ALA:HA	2:I:728:ILE:CD1	2.47	0.44
1:A:1194:ASN:OD1	1:A:1196:LYS:HB2	2.18	0.44
1:A:1220:VAL:O	1:A:1224:ILE:HG12	2.18	0.44
1:A:1464:GLU:HG3	1:A:1773:VAL:HG11	1.77	0.44
1:A:458:THR:OG1	1:A:470:LYS:HD2	2.18	0.44
1:B:1012:LEU:HD23	1:B:1445:MET:CE	2.48	0.44
1:B:1195:ALA:HB1	1:B:1200:ILE:HD12	1.99	0.44
1:C:1673:TYR:CZ	1:C:1677:VAL:HG21	2.51	0.44
2:H:1148:ASN:HD22	2:H:1148:ASN:C	2.21	0.44
2:H:1579:ILE:HD11	2:H:1615:MET:SD	2.58	0.44
1:B:29:ILE:HG12	2:H:1892:ASN:C	2.37	0.44
2:H:272:GLY:HA3	2:H:276:GLY:C	2.38	0.44
2:H:376:ASN:C	2:H:376:ASN:ND2	2.70	0.44
2:H:455:ILE:C	2:H:455:ILE:HD12	2.38	0.44
2:I:1739:GLU:HB2	2:I:1987:PRO:CB	2.29	0.44
2:I:184:VAL:HG12	2:I:188:ILE:HG12	1.99	0.44
2:I:1976:PHE:HB3	2:I:1981:LEU:CD2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:297:ARG:O	2:I:301:THR:HG22	2.18	0.44
2:I:517:HIS:CE1	2:I:540:ASP:O	2.71	0.44
1:A:1133:PRO:HG3	1:A:1166:LYS:HG3	1.99	0.44
1:A:11:HIS:CD2	1:A:11:HIS:C	2.92	0.44
1:A:499:PRO:HD3	1:A:516:ARG:HH21	1.83	0.44
1:A:530:ALA:HA	1:A:636:PRO:HB3	1.99	0.44
1:B:1037:TRP:HB2	1:B:1598:GLN:OE1	2.18	0.44
1:B:1455:ARG:O	1:B:1459:ILE:HG13	2.18	0.44
1:B:1842:VAL:O	1:B:1843:ASN:C	2.57	0.44
1:B:42:GLU:O	1:B:77:GLU:N	2.47	0.44
1:C:1270:VAL:HG11	1:C:1274:ILE:HD13	1.99	0.44
1:C:1234:MET:CE	1:C:1326:ILE:HG21	2.48	0.44
1:C:187:LEU:HD22	1:C:201:PRO:HB2	1.99	0.44
1:C:601:VAL:O	1:C:602:GLU:C	2.56	0.44
1:C:706:THR:HB	1:C:737:PHE:HB3	2.00	0.44
1:C:852:ARG:HB3	1:C:858:TRP:HZ2	1.83	0.44
2:G:615:TYR:CE2	2:G:1074:MET:HB3	2.52	0.44
2:G:1257:ASP:O	2:G:1261:ARG:HG3	2.18	0.44
2:G:1551:GLU:HB2	2:G:1552:PRO:HD3	2.00	0.44
2:G:1589:VAL:HG21	2:G:1651:LEU:HD12	1.99	0.44
2:G:1776:PHE:C	2:G:1779:PRO:HD2	2.38	0.44
2:G:1662:THR:HB	2:G:1799:PRO:HG2	1.99	0.44
2:H:1228:THR:HG21	2:H:1234:VAL:HG23	2.00	0.44
2:H:184:VAL:HG12	2:H:188:ILE:HG12	2.00	0.44
1:B:20:TYR:CD2	2:H:2033:THR:OG1	2.71	0.44
2:H:732:TRP:CE2	2:H:750:MET:HE3	2.52	0.44
2:H:780:TYR:HB2	2:H:799:PHE:CE2	2.53	0.44
2:H:938:TRP:CE2	2:H:944:ARG:HG3	2.52	0.44
2:I:142:ASN:HB2	2:I:550:VAL:HG13	1.99	0.44
2:I:1579:ILE:HG22	2:I:1580:THR:O	2.18	0.44
2:I:1666:PHE:CE1	2:I:1814:ALA:HA	2.53	0.44
2:I:1886:VAL:HG22	2:I:1906:ALA:HB1	1.98	0.44
1:A:1501:LEU:HD11	1:A:1775:LEU:CG	2.47	0.44
1:A:1842:VAL:O	1:A:1843:ASN:C	2.57	0.44
1:B:1430:ARG:HG2	1:B:1430:ARG:O	2.18	0.44
1:B:267:VAL:O	1:B:290:MET:HE1	2.17	0.44
1:C:1181:PHE:CZ	1:C:1341:PHE:HA	2.53	0.44
1:C:1291:LEU:HD21	1:C:1698:PHE:CE1	2.53	0.44
1:C:295:ALA:HB1	1:C:300:VAL:O	2.18	0.44
1:C:833:PHE:O	1:C:834:GLY:O	2.36	0.44
2:G:1004:LEU:CD2	2:G:1019:PRO:HB2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1352:HIS:HE1	2:G:1583:MET:CE	2.27	0.44
2:G:159:ILE:HD11	2:G:512:LEU:CG	2.48	0.44
2:G:459:VAL:HG12	2:G:468:LEU:HD12	2.00	0.44
2:G:566:HIS:O	2:G:567:PRO:C	2.57	0.44
2:G:901:LYS:NZ	2:G:1031:LYS:O	2.50	0.44
2:H:102:HIS:HE1	2:H:180:TYR:OH	2.00	0.44
2:H:1496:LYS:HE2	2:H:1693:ARG:HH21	1.82	0.44
2:H:1739:GLU:HB2	2:H:1987:PRO:CB	2.30	0.44
2:I:914:LEU:HD21	2:I:1003:PHE:CD2	2.53	0.44
2:I:1493:LEU:HB3	2:I:1494:PRO:CD	2.48	0.44
2:I:1684:SER:O	2:I:1688:GLN:HG3	2.18	0.44
2:I:218:TRP:HB3	2:I:225:THR:OG1	2.18	0.44
2:I:246:LEU:O	2:I:250:VAL:HG23	2.18	0.44
1:A:181:THR:O	1:A:185:GLU:HG3	2.18	0.43
1:A:406:TRP:CE3	1:A:407:ASN:HB2	2.53	0.43
1:A:933:VAL:HG22	1:A:933:VAL:O	2.18	0.43
1:B:1460:LYS:CE	1:B:1774:GLU:CD	2.86	0.43
1:B:35:PHE:HA	1:B:39:PHE:HD2	1.83	0.43
1:B:888:ILE:HD12	1:B:939:PHE:CE2	2.43	0.43
1:C:1332:TYR:HB3	1:C:1382:ALA:CB	2.48	0.43
1:C:1373:ARG:NE	1:C:1550:ASP:HB2	2.33	0.43
1:B:1129:GLU:OE1	1:C:348:ARG:HD3	2.18	0.43
1:C:413:LEU:C	1:C:415:SER:H	2.21	0.43
2:G:1236:LEU:HD11	2:G:1262:ILE:HG12	1.99	0.43
2:G:245:GLN:HG2	2:G:505:GLY:HA2	1.99	0.43
2:G:543:PHE:CB	2:G:545:GLN:NE2	2.81	0.43
2:G:566:HIS:ND1	2:G:567:PRO:HD2	2.33	0.43
2:G:726:PHE:HA	2:G:727:PRO:HD3	1.89	0.43
2:G:753:MET:O	2:G:757:ILE:HG13	2.18	0.43
2:G:866:LYS:O	2:G:870:GLU:HG3	2.18	0.43
2:H:1222:GLU:HG3	2:H:1235:SER:OG	2.17	0.43
2:H:1586:SER:O	2:H:1590:ARG:HB2	2.17	0.43
2:H:1638:ILE:CD1	2:H:1657:ILE:HG13	2.41	0.43
2:H:9:LEU:HB2	2:H:27:PHE:HE1	1.83	0.43
2:H:123:ILE:HD11	2:H:533:LEU:CD2	2.48	0.43
2:H:670:ARG:HD2	2:H:676:ILE:O	2.18	0.43
2:H:567:PRO:CG	2:H:781:LEU:CD1	2.94	0.43
2:I:1427:VAL:HG22	2:I:1469:GLU:HG2	1.99	0.43
2:I:1551:GLU:HB2	2:I:1552:PRO:HD3	2.00	0.43
2:I:1782:THR:CG2	2:I:1827:LEU:HD21	2.45	0.43
2:I:427:PHE:HB3	2:I:428:HIS:ND1	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:432:LEU:HB3	2:I:484:ILE:HG23	2.00	0.43
2:I:932:ILE:HD12	2:I:939:PHE:HD1	1.83	0.43
1:A:1584:PRO:CG	1:A:1591:TRP:CZ3	3.02	0.43
1:A:626:VAL:HG23	1:A:664:GLU:OE2	2.18	0.43
1:A:930:LEU:HD23	1:A:930:LEU:HA	1.75	0.43
1:B:1279:PHE:HB2	1:B:1282:THR:HG23	2.00	0.43
1:C:1279:PHE:HB2	1:C:1282:THR:HG23	2.00	0.43
1:C:1720:ALA:O	1:C:1721:ARG:HG2	2.17	0.43
1:C:196:THR:O	1:C:213:PHE:HE2	2.01	0.43
1:C:168:MET:HA	1:C:206:LEU:HB2	2.00	0.43
2:G:1195:VAL:HG13	2:G:1211:LEU:CB	2.48	0.43
2:G:1227:ARG:CD	2:G:1565:VAL:HG11	2.44	0.43
2:G:195:LEU:O	2:G:199:ILE:HG13	2.18	0.43
2:G:581:THR:O	2:G:585:LYS:HB2	2.18	0.43
2:G:754:TYR:CD2	2:G:794:MET:CG	3.01	0.43
2:G:900:GLN:NE2	2:G:1051:THR:HA	2.32	0.43
2:H:666:ILE:HG22	2:H:698:LEU:HD22	2.00	0.43
2:I:1778:GLN:HB2	2:I:1779:PRO:HD3	2.00	0.43
2:I:1976:PHE:HA	2:I:1981:LEU:CD2	2.48	0.43
2:I:428:HIS:CD2	2:I:488:VAL:HG23	2.53	0.43
2:I:751:LEU:HD23	2:I:791:TYR:CD2	2.53	0.43
2:I:938:TRP:CE2	2:I:944:ARG:HG3	2.53	0.43
1:A:1209:ASP:OD2	1:A:1253:GLY:HA2	2.19	0.43
1:A:237:MET:HG3	1:A:241:PHE:HB3	2.00	0.43
1:A:235:SER:HA	1:A:276:ARG:NH2	2.32	0.43
1:A:28:TRP:HB3	2:G:1892:ASN:HA	2.00	0.43
1:A:411:GLN:O	1:A:415:SER:HB2	2.18	0.43
1:B:1248:GLY:HA3	1:B:1301:PRO:HD2	1.99	0.43
1:B:1014:ASP:N	1:B:1510:ASN:HD21	2.06	0.43
1:B:807:LYS:HD3	1:B:807:LYS:C	2.39	0.43
1:C:988:ILE:HD13	1:C:1048:GLU:HB3	2.01	0.43
1:C:1056:ILE:CD1	1:C:1193:TRP:CD1	2.99	0.43
1:C:340:ARG:HH12	1:C:344:GLN:HE21	1.65	0.43
1:C:421:ILE:HG12	1:C:469:VAL:HG21	1.98	0.43
1:C:627:SER:HB3	1:C:661:ASP:OD1	2.18	0.43
1:C:639:HIS:HB2	1:C:656:SER:OG	2.18	0.43
2:G:1327:ILE:HD12	2:G:1327:ILE:HA	1.79	0.43
2:G:1473:THR:O	2:G:1481:SER:HB3	2.18	0.43
2:G:1768:LYS:HE2	2:G:1772:SER:HB3	2.00	0.43
2:H:856:LYS:CE	2:H:1052:CYS:SG	3.06	0.43
2:H:369:SER:C	2:H:370:LEU:HD23	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:439:ILE:HD12	2:H:484:ILE:HD11	1.99	0.43
2:H:732:TRP:CH2	2:H:749:PRO:HG2	2.53	0.43
2:H:772:GLY:O	2:H:804:ARG:HD3	2.18	0.43
2:H:970:TYR:O	2:H:973:LEU:HB2	2.18	0.43
2:I:1241:ASN:N	2:I:1252:SER:O	2.50	0.43
2:I:159:ILE:HG12	2:I:512:LEU:HD23	2.01	0.43
2:I:1624:THR:CB	2:I:1642:THR:HG23	2.47	0.43
2:I:551:THR:C	2:I:553:ASN:H	2.22	0.43
2:I:572:ASN:CB	2:I:576:LYS:H	2.27	0.43
2:I:754:TYR:CG	2:I:794:MET:HG2	2.53	0.43
2:I:843:ILE:HD13	2:I:1055:HIS:O	2.18	0.43
1:B:1244:GLY:C	1:B:1327:CYS:HB2	2.38	0.43
1:B:176:VAL:HG12	1:B:178:GLY:H	1.83	0.43
1:C:980:VAL:HG21	2:I:952:ARG:HH21	1.83	0.43
2:G:1016:PRO:HD2	2:G:1017:PHE:CE2	2.53	0.43
2:G:1040:LEU:O	2:G:1046:GLN:HG3	2.19	0.43
2:G:1162:ASP:O	2:G:1163:LYS:HB2	2.19	0.43
2:G:1223:MET:HE3	2:G:1238:LEU:CD1	2.49	0.43
2:G:1308:CYS:HB3	2:G:1311:PHE:CE2	2.53	0.43
2:G:1674:GLN:OE1	2:G:1712:ASN:HA	2.18	0.43
2:G:1678:MET:HE3	2:G:1707:LEU:CD2	2.43	0.43
2:G:1804:PHE:CD2	2:G:1818:LEU:HD22	2.53	0.43
2:G:1846:GLU:C	2:G:1848:GLY:H	2.20	0.43
2:G:455:ILE:C	2:G:455:ILE:HD12	2.39	0.43
2:G:967:ILE:HD12	2:G:972:LEU:HD22	2.00	0.43
2:H:309:ARG:HD3	2:H:309:ARG:HA	1.63	0.43
2:I:1210:ILE:O	2:I:1210:ILE:HG22	2.18	0.43
2:I:1325:PHE:O	2:I:1328:VAL:HG12	2.18	0.43
2:I:1428:GLU:HG2	2:I:1470:THR:HG22	1.99	0.43
2:I:430:HIS:CE1	2:I:431:LEU:HD13	2.53	0.43
2:I:439:ILE:HD12	2:I:484:ILE:CD1	2.48	0.43
2:I:835:THR:HG21	2:I:855:HIS:NE2	2.33	0.43
1:A:1291:LEU:HD21	1:A:1698:PHE:CE1	2.53	0.43
1:A:1375:GLY:HA2	1:A:1546:THR:HG22	2.01	0.43
1:A:1553:GLU:HA	1:A:1556:THR:HG23	2.01	0.43
1:A:1556:THR:O	1:A:1560:MET:HG2	2.18	0.43
1:A:1673:TYR:CZ	1:A:1677:VAL:HG21	2.53	0.43
1:A:254:TRP:CZ3	1:A:302:LEU:HD13	2.53	0.43
1:A:413:LEU:HG	1:A:413:LEU:O	2.17	0.43
1:A:496:PRO:HB2	1:A:519:VAL:HG12	2.01	0.43
1:A:893:VAL:HG11	1:A:930:LEU:CD2	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:242:THR:HB	1:B:244:THR:HB	2.01	0.43
1:C:1021:VAL:HG22	1:C:1387:ILE:HG22	2.01	0.43
1:C:1625:LEU:O	1:C:1627:PRO:HD3	2.18	0.43
1:C:221:LEU:HA	1:C:221:LEU:HD23	1.89	0.43
1:C:235:SER:HA	1:C:276:ARG:NH2	2.33	0.43
2:G:1458:ASP:O	2:G:1462:LYS:HE3	2.19	0.43
2:G:1493:LEU:HB3	2:G:1494:PRO:CD	2.48	0.43
2:G:272:GLY:HA3	2:G:276:GLY:C	2.38	0.43
2:G:397:LYS:HB3	2:G:416:PHE:CE2	2.53	0.43
2:G:156:LEU:HD23	2:G:500:HIS:HB2	1.99	0.43
2:G:653:TYR:OH	2:G:690:VAL:HG11	2.18	0.43
2:H:1015:VAL:HG13	2:H:1017:PHE:CE2	2.53	0.43
2:H:1422:THR:CG2	2:H:1422:THR:O	2.66	0.43
2:H:726:PHE:HA	2:H:727:PRO:HD3	1.88	0.43
2:H:745:ASP:HA	2:H:832:TRP:CH2	2.51	0.43
2:I:1651:LEU:O	2:I:1652:THR:HG23	2.17	0.43
2:I:1496:LYS:CE	2:I:1693:ARG:HH21	2.31	0.43
2:I:397:LYS:HB3	2:I:416:PHE:CE2	2.53	0.43
2:I:439:ILE:HD12	2:I:484:ILE:HD11	1.99	0.43
2:I:562:LEU:HD23	2:I:562:LEU:HA	1.79	0.43
2:I:852:GLU:HG3	2:I:852:GLU:H	1.39	0.43
2:I:972:LEU:HD23	2:I:979:ALA:HB2	2.00	0.43
1:A:242:THR:HB	1:A:244:THR:HB	2.00	0.43
1:A:641:ARG:HD3	1:A:649:TRP:O	2.18	0.43
1:A:627:SER:HB2	1:A:657:SER:CB	2.48	0.43
1:A:790:PHE:CE2	1:A:794:ILE:HD11	2.53	0.43
1:B:1208:VAL:HG11	1:B:1212:THR:HB	1.97	0.43
1:B:1270:VAL:HG11	1:B:1274:ILE:HD13	2.00	0.43
1:C:1234:MET:HE3	1:C:1326:ILE:HG21	2.01	0.43
1:C:1446:LYS:O	1:C:1450:ARG:HG3	2.18	0.43
1:C:232:LEU:HD13	1:C:272:GLU:CB	2.48	0.43
2:G:1889:VAL:HG13	2:G:1977:HIS:HB3	1.97	0.43
2:G:419:ARG:HG3	2:G:420:PHE:N	2.33	0.43
2:G:99:ASN:HA	2:G:550:VAL:CG2	2.49	0.43
2:H:1241:ASN:N	2:H:1252:SER:O	2.51	0.43
2:H:1419:PHE:C	2:H:1421:ASN:N	2.71	0.43
2:H:360:LEU:HA	2:H:361:PRO:HD3	1.90	0.43
2:H:160:PHE:CE2	2:H:504:PHE:HB2	2.54	0.43
2:H:73:GLU:OE2	2:H:76:LYS:HD2	2.18	0.43
2:I:1079:ASP:O	2:I:1082:ILE:HG22	2.19	0.43
2:I:1236:LEU:HD22	2:I:1238:LEU:HG	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1959:LYS:HG2	2:I:1959:LYS:O	2.19	0.43
2:I:279:THR:O	2:I:283:ILE:HB	2.19	0.43
2:I:871:THR:HG21	2:I:887:LYS:HZ1	1.83	0.43
1:A:1431:GLU:OE2	1:A:1433:HIS:HE1	2.02	0.43
1:A:267:VAL:O	1:A:290:MET:HE1	2.19	0.43
1:A:988:ILE:CD1	1:A:1048:GLU:HA	2.48	0.43
1:B:1219:VAL:CA	1:B:1384:ILE:HD11	2.32	0.43
1:B:1233:GLU:CD	1:B:1680:ARG:HH21	2.22	0.43
1:B:370:GLU:O	1:B:373:ALA:HB3	2.19	0.43
1:C:1248:GLY:HA3	1:C:1301:PRO:HD2	2.01	0.43
1:C:1375:GLY:HA2	1:C:1546:THR:HG22	1.99	0.43
1:C:1553:GLU:HA	1:C:1556:THR:HG23	2.01	0.43
1:C:1539:ALA:O	1:C:1574:GLY:HA2	2.18	0.43
1:C:1599:ILE:HD11	1:C:1606:PRO:HD2	2.01	0.43
1:C:49:PRO:O	1:C:82:SER:HB2	2.19	0.43
2:G:184:VAL:HG12	2:G:188:ILE:HG12	2.00	0.43
2:G:184:VAL:O	2:G:184:VAL:HG12	2.19	0.43
2:G:324:LEU:O	2:G:324:LEU:HD12	2.18	0.43
2:G:566:HIS:C	2:G:566:HIS:ND1	2.72	0.43
2:G:573:LYS:C	2:G:575:GLY:H	2.21	0.43
2:G:652:ILE:HD13	2:G:658:MET:HE3	1.99	0.43
2:G:854:ILE:HG22	2:G:856:LYS:HG3	2.01	0.43
2:H:1223:MET:HE3	2:H:1238:LEU:CD1	2.46	0.43
2:H:573:LYS:C	2:H:575:GLY:H	2.21	0.43
2:H:629:GLY:O	2:H:632:ALA:HB3	2.18	0.43
2:H:643:LYS:HA	2:H:1163:LYS:HG2	1.99	0.43
2:H:653:TYR:OH	2:H:690:VAL:HG11	2.18	0.43
2:I:607:VAL:O	2:I:611:THR:HB	2.18	0.43
2:I:7:ARG:NH2	2:I:24:THR:O	2.52	0.43
1:A:1009:LEU:CD1	1:A:1445:MET:HE1	2.48	0.43
1:A:644:THR:HG23	1:A:648:ASP:N	2.34	0.43
1:A:827:SER:HA	1:A:828:PRO:HD3	1.70	0.43
1:B:1375:GLY:HA2	1:B:1546:THR:HG22	2.01	0.43
1:B:1446:LYS:O	1:B:1450:ARG:HG3	2.19	0.43
1:B:1498:GLU:HG2	1:B:1876:LEU:HB3	1.89	0.43
1:B:681:THR:HA	1:B:706:THR:OG1	2.19	0.43
1:C:1158:PRO:HD2	1:C:1159:GLU:OE2	2.18	0.43
1:A:335:HIS:ND1	1:C:335:HIS:HE1	2.17	0.43
1:C:384:GLU:O	1:C:388:ASN:HB2	2.19	0.43
2:G:1004:LEU:HD21	2:G:1020:VAL:CG2	2.48	0.43
2:G:1175:LYS:HG3	2:G:1176:PRO:HD2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:324:LEU:O	2:G:328:LEU:HG	2.18	0.43
2:G:601:THR:O	2:G:601:THR:CG2	2.67	0.43
2:G:786:SER:HB3	2:G:794:MET:HE2	2.01	0.43
2:G:860:ARG:H	2:G:1049:GLN:HG3	1.83	0.43
2:H:1567:ARG:HH11	2:H:1567:ARG:HG2	1.72	0.43
2:H:1940:LEU:HD12	2:H:1941:PHE:N	2.34	0.43
2:H:654:VAL:HG12	2:H:654:VAL:O	2.18	0.43
2:I:1168:ASN:HA	2:I:1169:PRO:HD3	1.84	0.43
2:I:1552:PRO:O	2:I:1556:VAL:HG23	2.19	0.43
2:I:169:TYR:CG	2:I:170:PHE:N	2.87	0.43
2:I:2030:TYR:CD1	2:I:2034:GLY:HA2	2.54	0.43
2:I:425:SER:HA	2:I:426:PRO:HD3	1.78	0.43
2:I:846:VAL:CG1	2:I:865:TRP:NE1	2.82	0.43
1:A:1431:GLU:CG	1:A:1433:HIS:CE1	3.00	0.43
1:A:1670:TYR:O	1:A:1674:VAL:HG23	2.18	0.43
1:A:833:PHE:HA	1:A:937:LYS:HD2	2.00	0.43
1:B:1431:GLU:CG	1:B:1433:HIS:CE1	3.02	0.43
1:B:1657:HIS:HA	1:B:1658:PRO:HD3	1.89	0.43
1:B:460:GLU:CG	1:B:470:LYS:HD3	2.48	0.43
1:C:1600:LEU:HD11	1:C:1655:VAL:HG12	2.00	0.43
2:G:884:LEU:HD22	2:G:1021:LEU:CD1	2.49	0.43
2:G:1219:ILE:HB	2:G:1240:TYR:HB2	2.01	0.43
2:G:1875:VAL:HG22	2:G:1910:VAL:HG11	2.01	0.43
2:G:2042:ILE:HG12	2:G:2042:ILE:H	1.39	0.43
2:G:28:PHE:CE2	2:H:7:ARG:CD	2.73	0.43
2:G:486:LEU:HA	2:G:487:PRO:HD3	1.90	0.43
2:G:15:SER:H	2:G:48:PHE:HE2	1.67	0.43
2:G:835:THR:HG22	2:G:844:VAL:HA	2.00	0.43
2:H:1862:VAL:HG22	2:H:1863:ALA:N	2.33	0.43
2:H:543:PHE:CB	2:H:545:GLN:NE2	2.81	0.43
2:H:717:ILE:HG23	2:H:760:HIS:CE1	2.54	0.43
2:I:615:TYR:CE2	2:I:1074:MET:HB3	2.53	0.43
2:I:1561:ASN:HA	2:I:1562:PRO:HD3	1.80	0.43
2:I:1662:THR:HB	2:I:1799:PRO:HG2	2.00	0.43
2:I:1873:TYR:CE1	2:I:1877:ARG:NH2	2.81	0.43
2:I:209:PHE:CE2	2:I:213:LEU:HD22	2.53	0.43
2:I:573:LYS:C	2:I:575:GLY:N	2.72	0.43
2:I:702:TYR:HB3	2:I:727:PRO:HB2	2.00	0.43
2:I:967:ILE:HD12	2:I:972:LEU:HD22	2.00	0.43
1:A:1107:GLU:HA	1:A:1108:PRO:HD3	1.90	0.43
1:A:1498:GLU:HG2	1:A:1876:LEU:HB3	1.68	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:196:THR:O	1:A:213:PHE:HE2	2.01	0.43
1:A:460:GLU:CG	1:A:470:LYS:HD3	2.49	0.43
1:A:32:GLN:HE22	1:A:57:ALA:N	2.16	0.43
1:A:44:VAL:HG11	1:A:78:ILE:HG12	1.96	0.43
1:B:1283:MET:O	1:B:1287:VAL:HG23	2.18	0.43
1:B:1553:GLU:HA	1:B:1556:THR:HG23	2.00	0.43
1:B:260:ARG:HH12	1:B:300:VAL:CG2	2.20	0.43
1:B:335:HIS:C	1:B:335:HIS:CD2	2.92	0.43
1:B:411:GLN:O	1:B:415:SER:HB2	2.18	0.43
1:C:1047:LEU:O	1:C:1051:VAL:HG23	2.19	0.43
1:C:1107:GLU:HA	1:C:1108:PRO:HD3	1.89	0.43
1:C:1208:VAL:HG11	1:C:1212:THR:HB	1.98	0.43
1:C:852:ARG:NH1	1:C:856:GLU:OE1	2.52	0.43
2:G:1339:PHE:N	2:G:1340:PRO:CD	2.82	0.43
2:G:1348:LEU:HD12	2:G:1348:LEU:HA	1.81	0.43
2:G:1327:ILE:HG12	2:G:1583:MET:HE3	2.01	0.43
2:G:1858:ASN:HA	2:G:1896:GLN:O	2.18	0.43
2:G:339:LEU:HD23	2:G:419:ARG:O	2.19	0.43
2:G:441:LYS:O	2:G:445:LYS:HG3	2.18	0.43
2:G:634:ILE:CD1	2:G:649:ILE:HD11	2.43	0.43
2:H:1293:THR:CG2	2:H:1296:GLU:H	2.24	0.43
2:H:595:PRO:HD3	2:H:800:LEU:HB2	2.01	0.43
2:I:652:ILE:CD1	2:I:658:MET:HE3	2.48	0.43
2:I:950:PHE:O	2:I:953:ARG:HB3	2.19	0.43
1:A:1396:MET:O	1:A:1680:ARG:NH1	2.52	0.42
1:A:1539:ALA:O	1:A:1574:GLY:HA2	2.18	0.42
1:A:155:VAL:O	1:A:159:LEU:HG	2.19	0.42
1:A:2:LYS:HE2	1:A:4:GLU:OE1	2.19	0.42
1:A:705:VAL:HG23	1:A:732:LEU:CD2	2.48	0.42
1:B:1050:CYS:HB3	1:B:1089:VAL:HG12	2.00	0.42
1:B:1263:ASP:HB2	1:B:1270:VAL:HG21	2.00	0.42
1:B:1406:MET:HE1	1:B:1428:THR:HB	2.01	0.42
1:B:335:HIS:CD2	1:B:335:HIS:O	2.70	0.42
1:B:350:LEU:HB2	1:B:352:MET:HG2	2.01	0.42
1:B:430:ARG:NH2	1:B:605:LEU:HD13	2.33	0.42
1:C:1175:ILE:HA	1:C:1176:PRO:HD3	1.89	0.42
1:C:1243:VAL:O	1:C:1296:GLY:HA3	2.18	0.42
2:G:561:TRP:O	2:G:563:GLU:N	2.51	0.42
2:G:23:PRO:HG2	2:G:86:LEU:HD11	2.00	0.42
2:H:1257:ASP:O	2:H:1261:ARG:HG3	2.19	0.42
2:H:1458:ASP:O	2:H:1462:LYS:HE3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1847:LEU:H	2:H:1847:LEU:CD1	2.12	0.42
2:H:551:THR:C	2:H:553:ASN:H	2.21	0.42
2:I:1311:PHE:HD1	2:I:1320:LEU:O	2.02	0.42
2:I:1868:GLN:HG3	2:I:1898:TYR:HH	1.83	0.42
2:I:1878:VAL:CG1	2:I:1910:VAL:HG22	2.36	0.42
2:I:7:ARG:CG	2:I:22:VAL:O	2.67	0.42
2:I:516:THR:O	2:I:519:ASN:HB2	2.19	0.42
2:I:736:ARG:HG3	2:I:736:ARG:H	1.57	0.42
2:I:835:THR:HB	2:I:845:THR:HG23	2.01	0.42
1:A:1195:ALA:HB1	1:A:1200:ILE:HD12	2.02	0.42
1:A:1495:ASN:HD22	1:A:1495:ASN:HA	1.67	0.42
1:A:32:GLN:NE2	1:A:57:ALA:HA	2.34	0.42
1:B:1119:LYS:HE2	1:B:1341:PHE:CD1	2.54	0.42
1:B:417:TYR:HH	1:B:458:THR:HG22	1.84	0.42
1:C:1308:SER:HB3	1:C:1589:GLY:HA3	2.01	0.42
1:C:1618:LEU:HD23	1:C:1621:PHE:CE2	2.55	0.42
1:C:1657:HIS:CE1	1:C:1658:PRO:HD2	2.54	0.42
1:C:1239:HIS:HE1	1:C:1714:VAL:O	2.02	0.42
1:C:949:GLU:O	1:C:953:VAL:CG1	2.67	0.42
2:G:1320:LEU:HD12	2:G:1320:LEU:HA	1.88	0.42
2:G:238:CYS:CB	2:G:239:PRO:HD3	2.45	0.42
2:G:612:ASN:HD21	2:G:641:ILE:HA	1.85	0.42
2:H:1070:ILE:CD1	2:H:1074:MET:HG2	2.49	0.42
2:H:1149:TRP:HA	2:H:1242:PHE:CD1	2.54	0.42
2:H:1335:ILE:O	2:H:1338:ILE:HG12	2.19	0.42
2:H:127:ILE:HD12	2:H:180:TYR:CD2	2.54	0.42
1:B:12:ILE:CD1	2:H:2041:ILE:HD11	2.49	0.42
2:H:245:GLN:HG2	2:H:505:GLY:HA2	2.00	0.42
2:H:274:SER:OG	2:H:428:HIS:HE1	2.02	0.42
2:H:279:THR:O	2:H:283:ILE:HB	2.20	0.42
2:H:665:LEU:HD22	2:H:665:LEU:O	2.19	0.42
2:H:866:LYS:O	2:H:870:GLU:HG3	2.19	0.42
2:H:938:TRP:CD1	2:H:944:ARG:HG3	2.53	0.42
2:I:896:ASN:O	2:I:1050:ARG:NH2	2.52	0.42
2:I:1321:ALA:HA	2:I:1322:PRO:HD3	1.83	0.42
2:I:1666:PHE:CD1	2:I:1814:ALA:HB2	2.54	0.42
2:I:503:ASP:O	2:I:530:ALA:HB3	2.19	0.42
2:I:538:ASP:HB2	2:I:540:ASP:HB2	2.01	0.42
2:I:810:GLU:OE2	2:I:1070:ILE:N	2.43	0.42
2:I:856:LYS:CE	2:I:1052:CYS:SG	3.07	0.42
1:A:1131:LEU:HD12	1:A:1131:LEU:HA	1.76	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1132:GLU:HA	1:A:1133:PRO:HD3	1.94	0.42
1:A:290:MET:HB3	1:A:290:MET:HE2	1.93	0.42
1:B:1145:LYS:HD3	1:B:1154:ILE:HG12	2.01	0.42
1:B:1420:ALA:HA	1:B:1421:PRO:HD3	1.74	0.42
1:B:155:VAL:HG22	1:B:186:ILE:CG2	2.50	0.42
1:B:280:GLU:O	1:B:284:LYS:HG3	2.20	0.42
1:B:828:PRO:HG3	1:B:868:ILE:HG22	2.00	0.42
1:B:908:LEU:HA	1:B:913:VAL:HG21	2.00	0.42
1:C:1114:TYR:CE1	1:C:1337:GLU:HG3	2.55	0.42
1:C:408:TRP:CH2	1:C:1628:SER:HB3	2.55	0.42
1:C:330:GLU:O	1:C:330:GLU:HG2	2.18	0.42
2:G:1031:LYS:O	2:G:1032:ASP:C	2.57	0.42
2:G:1986:LYS:N	2:G:1987:PRO:CD	2.82	0.42
2:G:2026:PHE:HB3	2:G:2042:ILE:HD13	2.00	0.42
2:G:421:LEU:HA	2:G:422:PRO:HD3	1.81	0.42
2:G:543:PHE:HB2	2:G:545:GLN:NE2	2.25	0.42
2:G:586:LEU:HD12	2:G:764:MET:SD	2.59	0.42
2:H:1080:GLY:O	2:H:1084:LYS:HG3	2.19	0.42
2:H:1159:ILE:CG2	2:H:1160:THR:N	2.82	0.42
2:H:1383:ASN:HD21	2:H:1418:ASP:HB3	1.84	0.42
2:H:1497:GLU:OE1	2:H:2002:LYS:CE	2.66	0.42
2:H:1551:GLU:HB2	2:H:1552:PRO:HD3	2.00	0.42
2:H:240:LEU:HA	2:H:240:LEU:HD12	1.78	0.42
2:H:258:PHE:N	2:H:258:PHE:CD1	2.87	0.42
2:H:38:ASN:HA	2:H:41:LEU:HD12	2.01	0.42
2:H:967:ILE:CD1	2:H:972:LEU:HD22	2.50	0.42
2:I:1085:LEU:HD12	2:I:1085:LEU:HA	1.82	0.42
2:I:190:PHE:O	2:I:194:THR:HG22	2.19	0.42
2:I:234:ILE:HG13	2:I:235:PRO:CD	2.46	0.42
2:I:309:ARG:HD3	2:I:309:ARG:HA	1.61	0.42
2:I:726:PHE:HA	2:I:727:PRO:HD3	1.86	0.42
2:I:778:TYR:N	2:I:779:PRO:CD	2.82	0.42
1:A:1002:LYS:HZ1	1:A:1782:GLU:HG2	1.83	0.42
1:A:460:GLU:H	1:A:460:GLU:HG3	1.34	0.42
1:B:874:GLY:O	1:B:875:THR:C	2.58	0.42
1:C:1219:VAL:CA	1:C:1384:ILE:CD1	2.94	0.42
1:C:21:GLN:HB3	1:C:21:GLN:HE21	1.69	0.42
1:C:406:TRP:CE3	1:C:407:ASN:HB2	2.53	0.42
1:C:798:ASN:HA	1:C:801:ARG:HB2	2.02	0.42
2:G:1878:VAL:CG1	2:G:1910:VAL:HG22	2.34	0.42
2:G:503:ASP:OD2	2:G:513:GLY:N	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1159:ILE:HG13	2:H:1169:PRO:CD	2.50	0.42
2:H:1427:VAL:HG22	2:H:1469:GLU:CG	2.50	0.42
2:H:176:LEU:CD2	2:H:184:VAL:HG21	2.50	0.42
2:H:1986:LYS:N	2:H:1987:PRO:CD	2.81	0.42
2:H:520:LYS:O	2:H:521:ASP:C	2.58	0.42
2:H:536:ASN:HD21	2:H:540:ASP:HB3	1.84	0.42
2:H:741:HIS:CE1	2:H:855:HIS:NE2	2.88	0.42
2:I:1102:TYR:HB3	2:I:1244:PRO:CA	2.49	0.42
2:I:1175:LYS:HG3	2:I:1176:PRO:HD2	2.00	0.42
2:I:120:LYS:HB3	2:I:124:LYS:HE3	2.01	0.42
2:I:1590:ARG:HG3	2:I:1608:TYR:CG	2.54	0.42
2:I:2042:ILE:HG12	2:I:2042:ILE:H	1.36	0.42
2:I:441:LYS:O	2:I:445:LYS:HG3	2.19	0.42
2:I:674:TYR:HA	2:I:675:PRO:HD3	1.69	0.42
1:A:1195:ALA:CB	1:A:1213:LEU:HD13	2.49	0.42
1:A:382:LEU:HA	1:A:382:LEU:HD23	1.79	0.42
1:B:1022:THR:HG22	1:B:1226:SER:CB	2.49	0.42
1:B:1234:MET:HE3	1:B:1326:ILE:HG21	2.01	0.42
1:B:1385:GLN:HE21	1:B:1385:GLN:HB3	1.66	0.42
1:B:1534:ASP:OD1	1:B:1566:ARG:HD3	2.19	0.42
1:B:157:HIS:CE1	1:B:269:LEU:HD11	2.55	0.42
1:B:272:GLU:HA	1:B:273:PRO:HD3	1.92	0.42
1:C:1455:ARG:HD2	1:C:1455:ARG:HA	1.82	0.42
1:C:1592:MET:HE2	1:C:1641:ILE:HG23	2.00	0.42
1:C:408:TRP:CZ3	1:C:1628:SER:HB3	2.54	0.42
1:C:413:LEU:O	1:C:413:LEU:HG	2.19	0.42
1:C:32:GLN:NE2	1:C:57:ALA:CA	2.82	0.42
2:G:1135:GLU:HG2	2:G:1176:PRO:HG2	2.02	0.42
2:G:517:HIS:CE1	2:G:540:ASP:O	2.73	0.42
2:G:638:VAL:HG22	2:G:675:PRO:HG2	2.01	0.42
2:H:1149:TRP:NE1	2:H:1213:LEU:HD12	2.34	0.42
2:H:1294:ALA:HA	2:H:1368:VAL:CG2	2.49	0.42
1:B:20:TYR:HE1	2:H:2035:SER:HB2	1.82	0.42
2:H:676:ILE:O	2:H:676:ILE:HG12	2.17	0.42
2:H:751:LEU:HD11	2:H:789:PHE:CD1	2.55	0.42
2:I:463:PHE:CD1	2:I:486:LEU:HD22	2.54	0.42
2:I:730:LEU:C	2:I:730:LEU:HD12	2.40	0.42
2:I:786:SER:HB3	2:I:794:MET:HE2	2.01	0.42
2:I:754:TYR:CE2	2:I:794:MET:HG3	2.53	0.42
2:I:835:THR:HG22	2:I:844:VAL:C	2.40	0.42
1:A:1420:ALA:HA	1:A:1421:PRO:HD3	1.75	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:529:MET:HG2	1:A:638:LEU:CG	2.50	0.42
1:B:1239:HIS:CD2	1:B:1241:SER:OG	2.59	0.42
1:B:1784:ASP:O	1:B:1788:GLU:HB2	2.20	0.42
1:B:706:THR:HB	1:B:737:PHE:HB3	2.01	0.42
1:B:982:ILE:HG23	2:H:956:GLU:HG2	2.01	0.42
1:C:1220:VAL:O	1:C:1224:ILE:HG12	2.19	0.42
1:C:406:TRP:CD2	1:C:1619:GLU:HG3	2.55	0.42
1:C:1639:VAL:CG1	1:C:1640:SER:N	2.82	0.42
1:C:475:GLN:CD	1:C:614:ALA:HB2	2.40	0.42
2:G:1180:MET:HB3	2:G:1199:GLU:HG2	2.00	0.42
2:G:1418:ASP:O	2:G:1419:PHE:C	2.58	0.42
2:G:786:SER:HB2	2:G:794:MET:HE2	2.00	0.42
2:H:345:THR:HG22	2:H:347:GLU:N	2.25	0.42
2:H:562:LEU:HG	2:H:793:PRO:HG2	2.02	0.42
2:H:60:LEU:O	2:H:60:LEU:HD23	2.20	0.42
2:H:900:GLN:NE2	2:H:1051:THR:HA	2.34	0.42
2:I:1217:ASN:HD22	2:I:1217:ASN:HA	1.60	0.42
2:I:1344:ASP:O	2:I:1416:TYR:HE2	2.02	0.42
2:I:1359:MET:CE	2:I:1404:MET:HB3	2.50	0.42
2:I:298:LYS:HA	2:I:448:VAL:CG2	2.49	0.42
2:I:33:LEU:HD21	2:I:80:PHE:CE2	2.54	0.42
1:A:1019:ILE:HG13	1:A:1316:VAL:HG13	2.01	0.42
1:A:1263:ASP:HB2	1:A:1270:VAL:HG21	2.01	0.42
1:A:181:THR:HG22	1:A:185:GLU:OE2	2.19	0.42
1:A:1:MET:HE3	1:A:9:LEU:HD12	2.01	0.42
1:A:489:VAL:CG2	1:A:671:VAL:N	2.83	0.42
1:B:1238:VAL:CG1	1:B:1242:GLU:HB2	2.49	0.42
1:B:1264:ARG:NH1	1:B:1270:VAL:HB	2.35	0.42
1:B:1244:GLY:O	1:B:1327:CYS:HB2	2.20	0.42
1:B:1682:LYS:HB3	2:H:994:PHE:CE2	2.54	0.42
1:B:242:THR:HG22	1:B:243:ILE:H	1.83	0.42
1:B:625:THR:HG23	1:B:627:SER:H	1.84	0.42
1:C:1067:LEU:HA	1:C:1067:LEU:HD23	1.76	0.42
1:C:438:ASN:HD21	1:C:698:GLN:HE21	1.66	0.42
2:G:1044:VAL:HG21	2:G:1050:ARG:NE	2.34	0.42
2:G:856:LYS:CE	2:G:1052:CYS:SG	3.08	0.42
2:G:1149:TRP:NE1	2:G:1213:LEU:HD12	2.35	0.42
2:G:507:GLY:O	2:G:508:GLY:C	2.58	0.42
2:G:810:GLU:OE2	2:G:1070:ILE:N	2.44	0.42
2:G:938:TRP:CE2	2:G:944:ARG:HG3	2.54	0.42
2:H:1002:HIS:NE2	2:H:1006:MET:CE	2.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:804:ARG:NH1	2:H:1062:PHE:O	2.52	0.42
2:H:1175:LYS:HG3	2:H:1176:PRO:HD2	2.02	0.42
2:H:1339:PHE:N	2:H:1340:PRO:CD	2.83	0.42
2:H:567:PRO:HG3	2:H:781:LEU:HD11	1.99	0.42
2:H:581:THR:O	2:H:585:LYS:HB2	2.20	0.42
2:H:712:ALA:O	2:H:716:VAL:HG23	2.20	0.42
2:H:754:TYR:CG	2:H:794:MET:HG2	2.55	0.42
2:H:949:ASP:HB3	2:H:1006:MET:CE	2.47	0.42
2:I:1129:ALA:HB2	2:I:1138:TRP:CH2	2.55	0.42
2:I:1273:GLU:HB3	2:I:1274:PRO:CD	2.50	0.42
2:I:1343:VAL:HG22	2:I:1343:VAL:O	2.20	0.42
2:I:1989:LYS:NZ	2:I:2037:PRO:HG2	2.35	0.42
2:I:2046:GLU:C	2:I:2048:TYR:N	2.73	0.42
2:I:44:PRO:HA	2:I:53:GLU:OE2	2.19	0.42
2:I:703:LEU:CD2	2:I:705:LEU:HG	2.50	0.42
2:I:73:GLU:OE2	2:I:76:LYS:HD2	2.18	0.42
2:I:740:HIS:HA	2:I:854:ILE:HD13	2.01	0.42
2:I:745:ASP:HA	2:I:832:TRP:CH2	2.49	0.42
1:A:1260:MET:HB2	1:A:1274:ILE:HD12	2.02	0.42
1:A:408:TRP:CH2	1:A:1628:SER:HB3	2.55	0.42
1:A:655:LEU:HA	1:A:655:LEU:HD23	1.81	0.42
1:A:800:LEU:HA	1:A:800:LEU:HD23	1.84	0.42
1:B:1012:LEU:HD23	1:B:1445:MET:HE3	2.00	0.42
1:B:1830:GLY:HA2	1:B:1831:GLY:HA2	1.57	0.42
1:B:458:THR:OG1	1:B:470:LYS:HD2	2.20	0.42
1:B:798:ASN:HA	1:B:801:ARG:HB2	2.02	0.42
1:C:1310:GLU:OE1	1:C:1649:LYS:CE	2.65	0.42
1:C:155:VAL:O	1:C:159:LEU:HG	2.19	0.42
1:C:1842:VAL:O	1:C:1843:ASN:C	2.57	0.42
1:C:2:LYS:HE2	1:C:4:GLU:OE1	2.19	0.42
1:C:37:LYS:HB2	1:C:65:TYR:CE1	2.52	0.42
2:G:1014:PRO:HG2	2:G:1032:ASP:HB2	2.01	0.42
2:G:1079:ASP:O	2:G:1082:ILE:HG22	2.19	0.42
2:G:1217:ASN:HA	2:G:1217:ASN:HD22	1.62	0.42
2:G:1383:ASN:OD1	2:G:1388:LYS:HG3	2.20	0.42
2:G:237:SER:O	2:G:241:ILE:HG13	2.20	0.42
2:G:258:PHE:HD1	2:G:258:PHE:N	2.18	0.42
2:G:732:TRP:CH2	2:G:749:PRO:HG2	2.55	0.42
2:G:7:ARG:NH1	2:G:24:THR:CG2	2.79	0.42
2:G:827:VAL:HG21	2:G:840:THR:CG2	2.49	0.42
1:A:987:ASN:HD22	2:G:957:ARG:CD	2.30	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1642:THR:HB	2:H:1651:LEU:HB2	2.01	0.42
2:H:33:LEU:HD13	2:H:68:VAL:HG22	2.02	0.42
2:H:624:TYR:HB2	2:H:630:MET:HE3	2.02	0.42
2:H:844:VAL:HG22	2:H:858:ALA:HB2	2.01	0.42
2:I:732:TRP:CH2	2:I:749:PRO:HG2	2.55	0.42
1:A:1332:TYR:HB3	1:A:1382:ALA:CB	2.50	0.42
1:A:1618:LEU:HD23	1:A:1621:PHE:CE2	2.54	0.42
1:A:155:VAL:HG22	1:A:186:ILE:CG2	2.50	0.42
1:A:335:HIS:CD2	1:A:335:HIS:C	2.92	0.42
1:A:444:ASN:CB	1:A:446:ALA:H	2.32	0.42
1:A:453:TYR:O	1:A:457:ASN:HB2	2.20	0.42
1:B:1189:ILE:HG23	1:B:1190:PRO:HD2	2.01	0.42
1:B:1539:ALA:O	1:B:1574:GLY:HA2	2.20	0.42
1:B:1705:PRO:HB2	1:B:1733:PHE:CD1	2.55	0.42
1:B:1:MET:HE3	1:B:6:GLU:HA	2.01	0.42
1:B:780:GLU:O	1:B:781:LEU:C	2.58	0.42
1:B:44:VAL:HG11	1:B:78:ILE:HG12	2.00	0.42
1:C:1012:LEU:HD23	1:C:1445:MET:HE2	2.02	0.42
1:C:1154:ILE:O	1:C:1154:ILE:HG13	2.20	0.42
1:C:1244:GLY:HA3	1:C:1297:PRO:HD2	2.02	0.42
2:G:1666:PHE:CD1	2:G:1814:ALA:CB	3.02	0.42
2:G:1840:VAL:O	2:G:1840:VAL:HG13	2.18	0.42
2:G:2036:GLU:HB2	2:G:2037:PRO:CD	2.48	0.42
2:G:892:ILE:HD11	2:G:903:TRP:CD2	2.51	0.42
2:H:1889:VAL:HG22	2:H:1977:HIS:O	2.19	0.42
1:B:31:THR:CG2	2:H:2011:ILE:HG21	2.40	0.42
1:B:20:TYR:CZ	2:H:2035:SER:HB2	2.53	0.42
2:H:433:VAL:N	2:H:434:PRO:CD	2.83	0.42
2:H:641:ILE:CD1	2:H:645:SER:HB2	2.50	0.42
2:H:995:LEU:HB3	2:H:1000:ILE:CD1	2.50	0.42
2:I:1135:GLU:HG2	2:I:1176:PRO:HG2	2.02	0.42
2:I:1223:MET:HE3	2:I:1238:LEU:CD1	2.49	0.42
2:I:1593:ILE:O	2:I:1597:ALA:HB3	2.20	0.42
2:I:360:LEU:HA	2:I:361:PRO:HD3	1.89	0.42
2:I:879:LYS:HA	2:I:879:LYS:HD3	1.73	0.42
1:A:1234:MET:HE3	1:A:1326:ILE:HG21	2.02	0.42
1:A:998:TYR:CD2	1:A:1667:GLU:HG3	2.55	0.42
1:A:350:LEU:HD23	1:A:350:LEU:HA	1.89	0.42
1:A:521:LYS:HB3	1:A:523:SER:HB3	2.01	0.42
1:A:32:GLN:HE21	1:A:57:ALA:HB2	1.85	0.42
1:A:780:GLU:O	1:A:781:LEU:C	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1175:ILE:HA	1:B:1176:PRO:HD3	1.89	0.42
1:B:140:ILE:CG2	1:B:141:ALA:N	2.83	0.42
1:B:438:ASN:ND2	1:B:698:GLN:HE21	2.14	0.42
1:C:1029:PRO:HA	1:C:1188:GLN:O	2.20	0.42
1:C:1370:THR:HG22	1:C:1371:THR:N	2.35	0.42
1:C:19:ALA:O	1:C:22:PHE:HB2	2.19	0.42
2:G:1236:LEU:HA	2:G:1237:PRO:HD3	1.76	0.42
2:G:1360:ILE:HA	2:G:1361:PRO:HD3	1.91	0.42
2:G:1782:THR:CG2	2:G:1827:LEU:HD21	2.48	0.42
2:G:298:LYS:HA	2:G:448:VAL:CG2	2.50	0.42
2:G:427:PHE:HB3	2:G:428:HIS:ND1	2.34	0.42
2:G:468:LEU:O	2:G:471:LEU:HB2	2.20	0.42
2:G:670:ARG:HD2	2:G:676:ILE:O	2.20	0.42
2:G:736:ARG:H	2:G:736:ARG:HG3	1.59	0.42
2:H:1180:MET:HB3	2:H:1199:GLU:HG2	2.02	0.42
2:H:1343:VAL:HG22	2:H:1343:VAL:O	2.20	0.42
2:H:1666:PHE:CD1	2:H:1814:ALA:CB	3.03	0.42
2:H:1855:ILE:HB	2:H:1907:LEU:HD12	2.01	0.42
2:H:2036:GLU:HB2	2:H:2037:PRO:CD	2.47	0.42
2:H:234:ILE:HG13	2:H:235:PRO:CD	2.47	0.42
2:H:23:PRO:HG2	2:H:86:LEU:HD11	2.01	0.42
2:H:421:LEU:HA	2:H:422:PRO:HD3	1.78	0.42
2:I:804:ARG:NH2	2:I:1068:GLU:OE1	2.53	0.42
2:I:1214:LEU:HD11	2:I:1220:GLN:NE2	2.35	0.42
2:I:1335:ILE:O	2:I:1338:ILE:HG12	2.20	0.42
2:I:1738:PHE:HE1	2:I:1837:THR:HG23	1.85	0.42
2:I:258:PHE:N	2:I:258:PHE:CD1	2.87	0.42
1:A:1279:PHE:HB2	1:A:1282:THR:HG23	2.01	0.41
1:A:1308:SER:HB3	1:A:1589:GLY:HA3	2.01	0.41
1:A:1019:ILE:HG21	1:A:1316:VAL:HG22	2.01	0.41
1:A:1657:HIS:CG	1:A:1658:PRO:HD2	2.55	0.41
1:A:32:GLN:NE2	1:A:57:ALA:CA	2.83	0.41
1:B:1019:ILE:HG13	1:B:1316:VAL:HG13	2.02	0.41
1:B:1673:TYR:CZ	1:B:1677:VAL:HG21	2.55	0.41
1:C:1215:VAL:O	1:C:1219:VAL:HG23	2.20	0.41
1:C:12:ILE:HD11	2:I:2041:ILE:HD11	2.01	0.41
1:C:616:LEU:HB2	1:C:617:PRO:HD3	2.01	0.41
1:C:635:ILE:CG2	1:C:651:TYR:CG	3.03	0.41
2:G:1128:LYS:HG2	2:G:1181:VAL:HG22	2.02	0.41
2:G:1579:ILE:CD1	2:G:1615:MET:SD	3.08	0.41
2:G:1496:LYS:CE	2:G:1693:ARG:HH21	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:439:ILE:HD12	2:G:484:ILE:HD11	2.01	0.41
2:G:638:VAL:HA	2:G:641:ILE:CG2	2.50	0.41
2:H:896:ASN:O	2:H:1050:ARG:NH2	2.53	0.41
2:H:2010:TYR:O	2:H:2012:PRO:HD3	2.20	0.41
2:H:240:LEU:O	2:H:244:ILE:HG13	2.19	0.41
2:H:258:PHE:N	2:H:258:PHE:HD1	2.18	0.41
2:I:1815:LEU:O	2:I:1821:VAL:HG23	2.20	0.41
2:I:1697:HIS:CE1	2:I:1829:GLU:CG	3.03	0.41
2:I:1980:TYR:HD1	2:I:1981:LEU:HD12	1.85	0.41
2:I:441:LYS:HG2	2:I:445:LYS:HE3	2.02	0.41
2:I:512:LEU:O	2:I:516:THR:HG23	2.20	0.41
2:I:659:LEU:O	2:I:663:ILE:HG12	2.20	0.41
1:A:1233:GLU:CD	1:A:1680:ARG:HH21	2.24	0.41
1:A:280:GLU:O	1:A:284:LYS:HG3	2.21	0.41
1:A:28:TRP:CE2	1:A:53:LEU:HD22	2.55	0.41
1:A:340:ARG:NH1	1:A:344:GLN:CG	2.70	0.41
1:A:50:SER:CB	1:A:51:PRO:CD	2.98	0.41
1:B:290:MET:HE2	1:B:290:MET:HB3	1.96	0.41
1:C:1584:PRO:CG	1:C:1591:TRP:CZ3	3.03	0.41
1:C:12:ILE:O	1:C:15:THR:HG23	2.20	0.41
1:C:889:GLU:C	1:C:891:MET:H	2.24	0.41
2:G:1553:TYR:OH	2:G:1583:MET:HB3	2.20	0.41
2:G:1755:ILE:HD11	2:G:1762:TYR:HB2	2.03	0.41
1:A:29:ILE:HD13	2:G:1894:GLU:HA	2.01	0.41
2:G:2035:SER:OG	2:G:2037:PRO:HD2	2.21	0.41
2:G:717:ILE:HG23	2:G:760:HIS:CE1	2.55	0.41
1:A:983:GLN:HE21	2:G:962:LYS:HD2	1.80	0.41
2:G:992:GLU:HA	2:G:992:GLU:OE1	2.20	0.41
2:H:142:ASN:HB2	2:H:550:VAL:HG13	2.01	0.41
2:H:1713:ASN:HA	2:H:1714:PRO:HD3	1.89	0.41
2:H:15:SER:H	2:H:48:PHE:HE2	1.66	0.41
2:H:584:SER:CB	2:H:591:PRO:HG3	2.46	0.41
2:I:1149:TRP:HA	2:I:1242:PHE:CD1	2.54	0.41
2:I:1495:THR:O	2:I:1496:LYS:HB2	2.20	0.41
2:I:524:GLY:HA2	2:I:558:ASN:O	2.20	0.41
2:I:592:LEU:O	2:I:616:THR:HG23	2.19	0.41
2:I:84:LEU:HA	2:I:84:LEU:HD23	1.89	0.41
1:A:1666:THR:HG23	1:A:1669:ARG:HB2	2.01	0.41
1:A:1784:ASP:O	1:A:1788:GLU:HB2	2.20	0.41
1:B:1047:LEU:O	1:B:1051:VAL:HG23	2.20	0.41
1:B:455:ILE:HD13	1:B:455:ILE:HA	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:852:ARG:HB3	1:B:858:TRP:HZ2	1.83	0.41
1:C:1047:LEU:HD23	1:C:1047:LEU:HA	1.89	0.41
1:C:1208:VAL:HG13	1:C:1209:ASP:O	2.20	0.41
1:C:335:HIS:C	1:C:335:HIS:CD2	2.91	0.41
1:C:792:HIS:CE1	1:C:796:LEU:HD23	2.55	0.41
2:G:1258:ARG:O	2:G:1262:ILE:HG13	2.20	0.41
2:G:1380:SER:HB3	2:G:1424:GLN:HB2	2.02	0.41
2:G:1359:MET:HB3	2:G:1606:ARG:NH2	2.35	0.41
2:G:1624:THR:HB	2:G:1642:THR:CG2	2.50	0.41
2:G:520:LYS:O	2:G:521:ASP:C	2.58	0.41
2:G:667:LYS:HD2	2:G:697:THR:CG2	2.38	0.41
2:G:888:ARG:O	2:G:892:ILE:HB	2.21	0.41
2:H:1314:ARG:HD3	2:H:1314:ARG:HA	1.63	0.41
2:I:1493:LEU:HB3	2:I:1494:PRO:HD2	2.02	0.41
2:I:195:LEU:O	2:I:199:ILE:HG13	2.20	0.41
2:I:339:LEU:HD23	2:I:419:ARG:O	2.20	0.41
2:I:507:GLY:O	2:I:508:GLY:C	2.59	0.41
2:I:581:THR:O	2:I:585:LYS:HB2	2.20	0.41
2:I:807:ILE:HA	2:I:818:LYS:HG2	2.02	0.41
1:A:1154:ILE:O	1:A:1154:ILE:HG13	2.19	0.41
1:A:1305:CYS:SG	3:A:2748:CER:C5	3.08	0.41
1:A:12:ILE:O	1:A:15:THR:HG23	2.20	0.41
1:A:1720:ALA:O	1:A:1721:ARG:HG2	2.21	0.41
1:A:330:GLU:O	1:A:330:GLU:HG2	2.20	0.41
1:A:28:TRP:CZ2	1:A:53:LEU:HD22	2.56	0.41
1:A:807:LYS:C	1:A:807:LYS:HD3	2.40	0.41
1:B:1216:LEU:HA	1:B:1216:LEU:HD23	1.93	0.41
1:B:1448:ARG:HD2	1:B:1508:TRP:O	2.21	0.41
1:B:378:LEU:HA	1:B:378:LEU:HD12	1.75	0.41
1:B:992:PHE:CD2	1:B:1399:PRO:HG3	2.55	0.41
1:C:495:LYS:HA	1:C:496:PRO:HD3	1.86	0.41
1:C:496:PRO:HB2	1:C:519:VAL:HG12	2.02	0.41
1:C:521:LYS:HE2	1:C:605:LEU:HD11	2.02	0.41
1:C:719:GLN:HG3	1:C:720:SER:N	2.35	0.41
2:G:439:ILE:HD12	2:G:484:ILE:CD1	2.50	0.41
2:G:760:HIS:HA	2:G:761:PRO:HD3	1.85	0.41
2:G:846:VAL:HG13	2:G:865:TRP:CD1	2.55	0.41
2:G:950:PHE:O	2:G:953:ARG:HB3	2.20	0.41
2:H:1071:LYS:HE3	2:H:1075:ASP:OD2	2.20	0.41
2:H:1752:PHE:HZ	2:H:1836:MET:HE3	1.84	0.41
2:H:1886:VAL:HG22	2:H:1906:ALA:HB1	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:455:ILE:HG12	2:H:469:ARG:CG	2.49	0.41
2:H:601:THR:HB	2:H:620:ALA:HB2	2.01	0.41
2:H:561:TRP:CG	2:H:754:TYR:HE2	2.39	0.41
2:I:1021:LEU:HD22	2:I:1021:LEU:HA	1.61	0.41
2:I:1457:PHE:CD2	2:I:1459:LEU:HD23	2.55	0.41
2:I:1458:ASP:O	2:I:1462:LYS:HE3	2.21	0.41
2:I:156:LEU:HD23	2:I:500:HIS:HB2	2.02	0.41
2:I:258:PHE:HD1	2:I:258:PHE:N	2.18	0.41
2:I:654:VAL:CG2	2:I:683:ALA:HB1	2.50	0.41
2:I:949:ASP:HB3	2:I:1006:MET:CE	2.48	0.41
1:A:12:ILE:O	1:A:16:GLU:HG2	2.20	0.41
1:A:1477:ILE:N	1:A:1478:PRO:CD	2.83	0.41
1:A:601:VAL:O	1:A:602:GLU:C	2.59	0.41
1:A:82:SER:OG	1:A:83:LYS:HG3	2.20	0.41
1:B:1244:GLY:HA3	1:B:1297:PRO:HD2	2.03	0.41
1:B:1257:LEU:HD23	1:B:1257:LEU:HA	1.76	0.41
1:B:1303:GLY:H	1:B:1307:THR:CG2	2.31	0.41
1:B:1308:SER:HB3	1:B:1589:GLY:HA3	2.03	0.41
1:B:1232:TYR:CE2	1:B:1701:LYS:HD2	2.55	0.41
1:B:453:TYR:O	1:B:457:ASN:HB2	2.21	0.41
1:B:504:ASP:CB	1:B:508:ASN:HB2	2.49	0.41
1:B:949:GLU:O	1:B:953:VAL:HG12	2.21	0.41
1:C:1408:ALA:O	1:C:1651:GLY:HA2	2.21	0.41
1:C:1443:LEU:HA	1:C:1443:LEU:HD23	1.77	0.41
1:C:1830:GLY:HA2	1:C:1831:GLY:HA2	1.57	0.41
1:C:242:THR:HB	1:C:244:THR:HB	2.02	0.41
2:G:1676:MET:HE1	2:G:1781:LEU:CD2	2.47	0.41
2:G:1706:ILE:HD12	2:G:1706:ILE:HA	1.89	0.41
2:G:1862:VAL:HG22	2:G:1863:ALA:N	2.36	0.41
1:A:9:LEU:HD21	2:G:2047:LYS:HD2	2.02	0.41
1:B:2:LYS:CD	2:H:2050:GLN:HB3	2.44	0.41
2:H:231:LEU:HA	2:H:236:ILE:HD12	2.03	0.41
2:H:339:LEU:HD23	2:H:419:ARG:O	2.20	0.41
2:H:478:ARG:O	2:H:482:CYS:HB2	2.20	0.41
2:I:177:TYR:CD1	2:I:188:ILE:HG21	2.55	0.41
2:I:1940:LEU:HD12	2:I:1941:PHE:N	2.35	0.41
2:I:566:HIS:ND1	2:I:567:PRO:HD2	2.35	0.41
2:I:572:ASN:HA	2:I:572:ASN:HD22	1.70	0.41
2:I:712:ALA:O	2:I:716:VAL:HG23	2.21	0.41
2:I:780:TYR:HB2	2:I:799:PHE:HE2	1.85	0.41
2:I:786:SER:HB2	2:I:794:MET:HE2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:800:LEU:H	2:I:800:LEU:HD23	1.85	0.41
1:A:1842:VAL:O	1:A:1843:ASN:O	2.39	0.41
1:A:370:GLU:O	1:A:373:ALA:HB3	2.20	0.41
1:A:825:PRO:HB2	1:A:843:LYS:HZ2	1.86	0.41
1:A:529:MET:HE1	1:A:894:ARG:HD2	2.00	0.41
1:A:932:PHE:O	1:A:934:PRO:HD3	2.20	0.41
1:B:1066:ASN:HD22	1:B:1071:PRO:HA	1.86	0.41
1:B:238:PRO:CG	1:B:283:ALA:HB2	2.50	0.41
1:B:406:TRP:CD2	1:B:1619:GLU:HG3	2.55	0.41
1:B:495:LYS:HA	1:B:496:PRO:HD3	1.89	0.41
1:C:1709:GLU:H	1:C:1709:GLU:HG3	1.42	0.41
1:C:1784:ASP:O	1:C:1788:GLU:HB2	2.20	0.41
2:G:1169:PRO:O	2:G:1173:VAL:HG23	2.20	0.41
2:G:1352:HIS:HD2	2:G:1410:PHE:CD2	2.38	0.41
2:G:1495:THR:O	2:G:1496:LYS:HB2	2.20	0.41
2:G:1642:THR:HB	2:G:1651:LEU:HB2	2.01	0.41
2:G:1815:LEU:O	2:G:1821:VAL:HG23	2.20	0.41
2:G:1979:THR:O	2:G:1982:MET:HB2	2.21	0.41
2:G:597:MET:HA	4:G:3051:FMN:C5A	2.51	0.41
2:G:490:TRP:CZ2	2:G:512:LEU:HD21	2.55	0.41
2:G:754:TYR:CG	2:G:794:MET:CG	3.04	0.41
2:H:1236:LEU:HD22	2:H:1238:LEU:HG	2.03	0.41
2:H:1680:LEU:HD13	2:H:1687:ALA:CB	2.45	0.41
2:H:624:TYR:CD1	2:H:630:MET:HE2	2.56	0.41
2:H:712:ALA:O	2:H:715:GLN:HB3	2.20	0.41
2:H:717:ILE:CG2	2:H:760:HIS:CE1	3.04	0.41
2:H:722:ALA:CB	2:H:723:HIS:CE1	3.04	0.41
2:H:950:PHE:O	2:H:953:ARG:HB3	2.20	0.41
2:I:1417:THR:C	2:I:1419:PHE:N	2.74	0.41
2:I:1423:PHE:N	2:I:1423:PHE:CD1	2.71	0.41
2:I:1054:LEU:HD22	4:I:3051:FMN:HM72	2.03	0.41
2:I:663:ILE:HG13	2:I:694:TYR:CE1	2.51	0.41
2:I:638:VAL:HG22	2:I:675:PRO:HG2	2.03	0.41
1:A:32:GLN:O	1:A:36:LEU:HB2	2.21	0.41
1:A:774:ILE:HA	1:A:775:PRO:HD3	1.76	0.41
1:A:988:ILE:HD13	1:A:1048:GLU:CG	2.50	0.41
1:B:1105:LEU:HA	1:B:1105:LEU:HD23	1.89	0.41
1:B:1126:ILE:CD1	1:B:1172:THR:HG22	2.51	0.41
1:B:1666:THR:HG23	1:B:1669:ARG:CB	2.50	0.41
1:C:1119:LYS:HE2	1:C:1341:PHE:CG	2.55	0.41
1:C:1131:LEU:HA	1:C:1131:LEU:HD12	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1418:VAL:N	1:C:1419:PRO:CD	2.83	0.41
1:C:35:PHE:HA	1:C:39:PHE:HD2	1.86	0.41
2:G:843:ILE:CD1	2:G:1055:HIS:HB3	2.50	0.41
2:G:571:LYS:HB2	2:G:1099:ALA:HB2	2.02	0.41
2:G:1344:ASP:O	2:G:1416:TYR:HE2	2.03	0.41
2:G:1427:VAL:HG22	2:G:1469:GLU:CG	2.51	0.41
2:G:246:LEU:HD12	2:G:246:LEU:HA	1.82	0.41
2:G:425:SER:HA	2:G:426:PRO:HD3	1.79	0.41
2:G:587:ILE:HD11	2:G:589:ARG:HB2	2.03	0.41
2:G:835:THR:HG21	2:G:855:HIS:NE2	2.35	0.41
2:H:1128:LYS:HG2	2:H:1181:VAL:HG22	2.01	0.41
2:H:11:LEU:HD23	2:H:11:LEU:HA	1.93	0.41
2:H:1503:ILE:HG22	2:H:1504:VAL:C	2.41	0.41
2:H:236:ILE:HD13	2:H:236:ILE:C	2.40	0.41
2:H:821:ILE:HA	2:H:857:ILE:HD11	2.02	0.41
2:H:827:VAL:HG12	2:H:828:PRO:O	2.19	0.41
2:I:1357:TYR:HD1	2:I:1406:VAL:HG22	1.85	0.41
2:I:159:ILE:HD11	2:I:512:LEU:CG	2.49	0.41
2:I:1642:THR:HB	2:I:1651:LEU:HB2	2.03	0.41
2:I:1981:LEU:HD12	2:I:1981:LEU:N	2.36	0.41
2:I:463:PHE:O	2:I:463:PHE:HD2	2.04	0.41
2:I:634:ILE:CD1	2:I:649:ILE:HD11	2.44	0.41
2:I:595:PRO:HD3	2:I:800:LEU:HB2	2.01	0.41
1:A:16:GLU:HA	1:A:16:GLU:OE2	2.21	0.41
1:A:1239:HIS:HE1	1:A:1714:VAL:O	2.03	0.41
1:A:441:ASN:OD1	1:A:488:PRO:HA	2.21	0.41
1:A:91:THR:HA	1:A:92:PRO:HD3	1.81	0.41
1:B:521:LYS:HB3	1:B:523:SER:HB3	2.03	0.41
1:B:949:GLU:O	1:B:953:VAL:CG1	2.68	0.41
1:C:1420:ALA:HA	1:C:1421:PRO:HD3	1.78	0.41
1:C:658:LEU:HD13	1:C:916:LEU:HD12	2.02	0.41
2:G:1070:ILE:O	2:G:1070:ILE:HD13	2.21	0.41
2:G:131:ILE:HD12	2:G:182:VAL:CG1	2.49	0.41
2:G:1428:GLU:CG	2:G:1468:THR:HG22	2.51	0.41
2:G:236:ILE:HG12	2:G:240:LEU:HD22	2.02	0.41
2:G:270:ALA:O	2:G:459:VAL:HA	2.20	0.41
2:G:123:ILE:CD1	2:G:533:LEU:HD23	2.50	0.41
2:H:159:ILE:HG12	2:H:512:LEU:HD23	2.02	0.41
2:H:1662:THR:HB	2:H:1799:PRO:HG2	2.02	0.41
2:H:1959:LYS:HG2	2:H:1959:LYS:O	2.20	0.41
2:H:320:PRO:HA	2:H:321:PRO:HD3	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:674:TYR:HA	2:H:675:PRO:HD3	1.73	0.41
2:H:719:ILE:HG12	2:H:719:ILE:H	1.63	0.41
2:H:805:VAL:HG12	2:H:805:VAL:O	2.21	0.41
2:I:1374:THR:HG23	2:I:1396:LEU:CD1	2.49	0.41
2:I:2035:SER:OG	2:I:2037:PRO:HD2	2.21	0.41
2:I:705:LEU:HD23	2:I:705:LEU:HA	1.80	0.41
1:A:152:HIS:HD2	1:A:163:LEU:CB	2.32	0.41
1:A:612:GLU:O	1:A:615:SER:HB3	2.21	0.41
1:A:719:GLN:HG3	1:A:720:SER:N	2.36	0.41
1:B:1418:VAL:N	1:B:1419:PRO:CD	2.83	0.41
1:B:1618:LEU:HD23	1:B:1621:PHE:HE2	1.85	0.41
1:B:1709:GLU:HG3	1:B:1709:GLU:H	1.45	0.41
1:C:1239:HIS:CD2	1:C:1241:SER:H	2.38	0.41
1:C:1244:GLY:C	1:C:1327:CYS:HB2	2.41	0.41
1:C:1431:GLU:O	1:C:1431:GLU:HG3	2.19	0.41
1:C:1842:VAL:O	1:C:1843:ASN:O	2.39	0.41
1:C:453:TYR:O	1:C:457:ASN:HB2	2.19	0.41
1:C:32:GLN:HE22	1:C:57:ALA:N	2.19	0.41
1:C:683:ALA:HA	1:C:689:GLY:HA3	2.02	0.41
2:G:1210:ILE:O	2:G:1210:ILE:HG22	2.19	0.41
2:G:1884:TRP:HB3	2:G:1885:LEU:H	1.74	0.41
2:H:1300:PHE:CB	2:H:1556:VAL:HG11	2.50	0.41
2:H:1815:LEU:O	2:H:1821:VAL:HG23	2.21	0.41
2:H:1868:GLN:HG3	2:H:1898:TYR:HH	1.83	0.41
2:H:195:LEU:O	2:H:199:ILE:HG13	2.20	0.41
2:H:827:VAL:HG21	2:H:840:THR:CG2	2.51	0.41
2:I:1219:ILE:HB	2:I:1240:TYR:HB2	2.03	0.41
2:I:1503:ILE:HG22	2:I:1504:VAL:C	2.41	0.41
2:I:1514:ASN:HA	2:I:1515:PRO:HD3	1.86	0.41
2:I:1579:ILE:CD1	2:I:1615:MET:SD	3.09	0.41
2:I:827:VAL:HG12	2:I:828:PRO:O	2.20	0.41
1:A:1460:LYS:CE	1:A:1774:GLU:OE1	2.62	0.41
1:A:253:ARG:O	1:A:254:TRP:CD1	2.74	0.41
1:A:438:ASN:HD21	1:A:698:GLN:HE21	1.68	0.41
1:A:930:LEU:HD22	1:A:933:VAL:CG1	2.51	0.41
1:B:1657:HIS:CG	1:B:1658:PRO:HD2	2.55	0.41
1:B:444:ASN:CB	1:B:446:ALA:H	2.31	0.41
1:C:1076:VAL:CG1	1:C:1081:LYS:HA	2.50	0.41
1:C:1705:PRO:HB2	1:C:1733:PHE:CD1	2.56	0.41
1:C:1829:GLY:O	1:C:1830:GLY:O	2.39	0.41
1:C:739:GLN:HB3	1:C:794:ILE:HG23	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:949:GLU:O	1:C:953:VAL:HG12	2.21	0.41
2:G:1352:HIS:CD2	2:G:1410:PHE:CD2	3.09	0.41
2:G:1778:GLN:HB2	2:G:1779:PRO:HD3	2.02	0.41
2:G:1889:VAL:HG22	2:G:1977:HIS:O	2.20	0.41
2:G:1981:LEU:HD12	2:G:1981:LEU:N	2.36	0.41
2:G:1989:LYS:NZ	2:G:2037:PRO:HG2	2.35	0.41
2:G:258:PHE:N	2:G:258:PHE:CD1	2.87	0.41
2:G:260:PRO:HD3	2:G:289:TRP:CZ2	2.54	0.41
2:G:735:GLY:O	2:G:741:HIS:CD2	2.73	0.41
2:G:748:THR:CB	2:G:749:PRO:HD3	2.47	0.41
2:G:780:TYR:HB2	2:G:799:PHE:CE2	2.56	0.41
2:G:995:LEU:HB3	2:G:1000:ILE:CD1	2.50	0.41
2:H:615:TYR:CE2	2:H:1074:MET:HB3	2.56	0.41
2:H:1213:LEU:O	2:H:1214:LEU:HD23	2.19	0.41
2:H:1270:TRP:HZ3	2:H:1347:LEU:HD21	1.85	0.41
2:H:1589:VAL:HG21	2:H:1651:LEU:HD12	2.02	0.41
2:H:425:SER:HA	2:H:426:PRO:HD3	1.78	0.41
2:H:753:MET:O	2:H:757:ILE:HG13	2.21	0.41
2:H:804:ARG:NH2	2:H:1068:GLU:OE1	2.54	0.41
2:H:892:ILE:HD11	2:H:903:TRP:CD2	2.53	0.41
2:I:248:HIS:CE1	2:I:531:GLY:HA2	2.55	0.41
2:I:455:ILE:C	2:I:455:ILE:HD12	2.42	0.41
2:I:582:LYS:HE2	2:I:761:PRO:O	2.21	0.41
1:A:1705:PRO:HB2	1:A:1733:PHE:CD1	2.56	0.41
1:A:36:LEU:O	1:A:76:ARG:NH1	2.53	0.41
1:A:908:LEU:O	1:A:913:VAL:HG22	2.21	0.41
1:B:1029:PRO:HG2	1:B:1581:THR:O	2.21	0.41
1:B:197:THR:HG22	1:B:198:PRO:O	2.21	0.41
1:B:187:LEU:CD2	1:B:201:PRO:HB2	2.51	0.41
1:B:32:GLN:HE22	1:B:57:ALA:CA	2.34	0.41
1:B:489:VAL:HG22	1:B:670:GLY:HA3	2.02	0.41
1:B:427:ASN:ND2	1:B:610:THR:H	2.14	0.41
1:B:82:SER:OG	1:B:83:LYS:HG3	2.20	0.41
1:B:504:ASP:O	1:B:954:ARG:HD3	2.21	0.41
1:C:1019:ILE:HG13	1:C:1316:VAL:HG13	2.03	0.41
1:C:1666:THR:HG23	1:C:1669:ARG:CB	2.51	0.41
1:C:237:MET:HA	1:C:238:PRO:HD3	1.93	0.41
1:C:294:TYR:CZ	1:C:298:VAL:HG21	2.55	0.41
1:C:427:ASN:HB2	1:C:468:LEU:CD2	2.51	0.41
1:C:644:THR:HG23	1:C:648:ASP:N	2.34	0.41
2:G:2049:GLU:O	2:G:2050:GLN:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:339:LEU:HB2	2:G:386:LEU:HD22	2.03	0.41
2:G:44:PRO:HA	2:G:53:GLU:OE2	2.21	0.41
2:G:455:ILE:HD13	2:G:457:ILE:O	2.21	0.41
2:H:1063:THR:HG22	2:H:1063:THR:O	2.21	0.41
2:H:1387:GLY:HA2	2:H:1414:GLY:O	2.21	0.41
2:H:1949:LYS:O	2:H:1953:VAL:HG23	2.21	0.41
2:I:118:LYS:O	2:I:121:GLU:HB2	2.20	0.41
2:I:1327:ILE:O	2:I:1331:TRP:HB2	2.21	0.41
2:I:2020:GLN:NE2	2:I:2020:GLN:HA	2.36	0.41
2:I:319:LEU:HA	2:I:319:LEU:HD22	1.67	0.41
2:I:717:ILE:O	2:I:720:ALA:HB3	2.21	0.41
2:I:754:TYR:CG	2:I:794:MET:CG	3.04	0.41
2:I:827:VAL:HG21	2:I:840:THR:CG2	2.51	0.41
1:A:1418:VAL:N	1:A:1419:PRO:CD	2.84	0.40
1:A:197:THR:HG22	1:A:198:PRO:O	2.21	0.40
1:A:232:LEU:O	1:A:236:LYS:HB2	2.21	0.40
1:A:681:THR:HA	1:A:706:THR:OG1	2.21	0.40
1:B:1056:ILE:HG13	1:B:1057:MET:N	2.36	0.40
1:B:1557:ILE:HD11	1:B:1642:THR:HG21	2.03	0.40
1:B:483:VAL:O	1:B:483:VAL:HG12	2.21	0.40
1:B:91:THR:HA	1:B:92:PRO:HD3	1.81	0.40
1:B:933:VAL:HA	1:B:934:PRO:HD3	1.63	0.40
1:B:989:GLN:NE2	2:H:993:GLN:OE1	2.53	0.40
1:B:998:TYR:CD2	1:B:1667:GLU:HG3	2.56	0.40
1:C:1308:SER:OG	1:C:1590:ALA:N	2.54	0.40
1:C:187:LEU:CD2	1:C:201:PRO:HB2	2.51	0.40
2:G:1343:VAL:HG22	2:G:1343:VAL:O	2.20	0.40
2:G:1844:ARG:HD2	2:G:1848:GLY:O	2.21	0.40
1:A:29:ILE:HG21	2:G:1894:GLU:HB2	2.04	0.40
2:G:430:HIS:CE1	2:G:431:LEU:HD13	2.56	0.40
2:G:159:ILE:HG12	2:G:512:LEU:HD23	2.03	0.40
2:G:73:GLU:OE2	2:G:76:LYS:HD2	2.21	0.40
2:G:938:TRP:CD1	2:G:944:ARG:HG3	2.56	0.40
2:H:1227:ARG:CZ	2:H:1565:VAL:HG12	2.51	0.40
2:H:338:MET:HG3	2:H:423:VAL:HG21	2.02	0.40
2:H:566:HIS:O	2:H:567:PRO:C	2.59	0.40
2:H:888:ARG:O	2:H:892:ILE:HB	2.21	0.40
2:I:1676:MET:HE1	2:I:1781:LEU:CD2	2.50	0.40
2:I:1880:LYS:HB2	2:I:1880:LYS:HE3	1.90	0.40
2:I:1889:VAL:HG21	2:I:1901:ALA:HB3	2.03	0.40
2:I:2036:GLU:HB2	2:I:2037:PRO:CD	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:2039:LYS:HA	2:I:2042:ILE:HG13	2.03	0.40
2:I:247:ALA:O	2:I:251:VAL:HG13	2.21	0.40
2:I:280:ALA:O	2:I:283:ILE:HG22	2.21	0.40
2:I:846:VAL:CG2	2:I:866:LYS:HB2	2.51	0.40
1:A:1021:VAL:HG11	1:A:1597:LEU:CD1	2.50	0.40
1:A:1146:HIS:O	1:A:1146:HIS:HD2	2.04	0.40
1:A:1665:ILE:HD11	1:A:1669:ARG:CG	2.51	0.40
1:A:44:VAL:HG13	1:A:78:ILE:HG12	1.99	0.40
1:A:833:PHE:O	1:A:834:GLY:O	2.39	0.40
1:B:1583:HIS:HA	1:B:1584:PRO:HD3	1.84	0.40
1:B:1829:GLY:O	1:B:1830:GLY:O	2.39	0.40
1:C:1105:LEU:HA	1:C:1105:LEU:HD23	1.84	0.40
1:C:148:SER:O	1:C:152:HIS:HB2	2.21	0.40
1:C:411:GLN:O	1:C:415:SER:HB2	2.21	0.40
2:G:1227:ARG:NE	2:G:1565:VAL:HG12	2.36	0.40
2:G:1678:MET:HG2	2:G:1711:ILE:HG12	2.03	0.40
2:G:1940:LEU:HD12	2:G:1941:PHE:N	2.37	0.40
1:A:23:ALA:O	2:G:1977:HIS:HA	2.20	0.40
2:G:562:LEU:HD23	2:G:562:LEU:HA	1.85	0.40
2:G:601:THR:HB	2:G:620:ALA:HB2	2.01	0.40
2:G:638:VAL:O	2:G:641:ILE:HG22	2.20	0.40
2:G:805:VAL:O	2:G:805:VAL:HG12	2.21	0.40
2:G:827:VAL:HG12	2:G:828:PRO:O	2.21	0.40
2:H:1214:LEU:HD11	2:H:1220:GLN:NE2	2.36	0.40
2:H:1506:TYR:CZ	2:H:1515:PRO:HG2	2.56	0.40
2:H:1609:THR:O	2:H:1653:GLY:HA3	2.21	0.40
2:H:203:LEU:HD12	2:H:203:LEU:HA	1.91	0.40
2:H:462:THR:HB	2:H:482:CYS:SG	2.61	0.40
2:H:573:LYS:C	2:H:575:GLY:N	2.75	0.40
2:H:590:PRO:HA	2:H:591:PRO:HD3	1.81	0.40
2:H:638:VAL:HA	2:H:641:ILE:CG2	2.52	0.40
2:H:723:HIS:ND1	2:H:723:HIS:N	2.70	0.40
2:H:960:LYS:CE	2:H:960:LYS:HA	2.44	0.40
2:I:1091:GLY:O	2:I:1093:ASP:N	2.55	0.40
2:I:1339:PHE:N	2:I:1340:PRO:CD	2.85	0.40
2:I:1359:MET:HB3	2:I:1606:ARG:NH2	2.36	0.40
2:I:1889:VAL:HG13	2:I:1977:HIS:HB3	2.00	0.40
2:I:246:LEU:HA	2:I:246:LEU:HD12	1.79	0.40
2:I:536:ASN:HD21	2:I:540:ASP:HB3	1.85	0.40
2:I:543:PHE:CB	2:I:545:GLN:NE2	2.82	0.40
2:I:703:LEU:HD23	2:I:705:LEU:HG	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:816:ASP:HB3	2:I:1048:VAL:HG21	2.03	0.40
1:A:238:PRO:CG	1:A:283:ALA:HB2	2.51	0.40
1:A:852:ARG:NH1	1:A:852:ARG:CG	2.73	0.40
1:B:1303:GLY:CA	1:B:1307:THR:HG22	2.52	0.40
1:B:221:LEU:HD23	1:B:221:LEU:HA	1.94	0.40
1:B:293:LYS:O	1:B:297:ILE:HG13	2.20	0.40
1:B:774:ILE:HA	1:B:775:PRO:HD3	1.74	0.40
1:C:1303:GLY:CA	1:C:1307:THR:HG22	2.52	0.40
1:C:43:ARG:O	2:I:1662:THR:HA	2.22	0.40
2:G:1637:LEU:HA	2:G:1637:LEU:HD23	1.77	0.40
2:G:1875:VAL:HA	2:G:1878:VAL:CG1	2.52	0.40
2:G:248:HIS:CE1	2:G:531:GLY:HA2	2.56	0.40
2:G:319:LEU:HA	2:G:319:LEU:HD22	1.62	0.40
2:G:391:LEU:CD2	2:G:394:ARG:NH2	2.85	0.40
2:G:441:LYS:HG2	2:G:445:LYS:HE3	2.02	0.40
2:G:573:LYS:C	2:G:575:GLY:N	2.75	0.40
2:G:582:LYS:HE2	2:G:761:PRO:O	2.22	0.40
2:G:852:GLU:H	2:G:852:GLU:HG3	1.40	0.40
2:H:1166:VAL:CG1	2:H:1167:SER:N	2.85	0.40
2:H:1528:GLU:C	2:H:1530:LYS:H	2.17	0.40
2:H:1597:ALA:HB1	2:H:1657:ILE:HD12	2.02	0.40
2:H:517:HIS:HB2	2:H:527:VAL:HG21	2.04	0.40
2:H:517:HIS:CE1	2:H:540:ASP:O	2.75	0.40
2:H:560:ASN:O	2:H:562:LEU:N	2.54	0.40
2:H:810:GLU:OE2	2:H:1070:ILE:N	2.45	0.40
2:H:912:ARG:HB2	2:H:916:THR:HG23	2.03	0.40
2:I:1213:LEU:O	2:I:1214:LEU:HD23	2.20	0.40
2:I:1271:ILE:HG22	2:I:1273:GLU:HB2	2.04	0.40
2:I:1855:ILE:HB	2:I:1907:LEU:HD12	2.02	0.40
2:I:612:ASN:HD21	2:I:641:ILE:HA	1.84	0.40
2:I:864:LEU:HD13	2:I:894:ARG:HB3	2.04	0.40
1:A:1209:ASP:OD1	1:A:1210:PRO:HD2	2.21	0.40
1:A:1406:MET:CE	1:A:1428:THR:HB	2.52	0.40
1:A:157:HIS:CE1	1:A:269:LEU:HD11	2.57	0.40
1:A:916:LEU:HD22	1:A:922:VAL:HG22	2.02	0.40
1:B:1370:THR:HG22	1:B:1371:THR:N	2.36	0.40
1:B:12:ILE:O	1:B:16:GLU:HG2	2.20	0.40
1:B:509:ILE:HG13	1:B:509:ILE:H	1.50	0.40
1:B:74:LEU:O	1:B:74:LEU:HD12	2.22	0.40
1:C:1063:HIS:CE1	1:C:1067:LEU:CD2	3.04	0.40
1:C:1195:ALA:HB1	1:C:1200:ILE:HD12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1639:VAL:HG12	1:C:1640:SER:N	2.35	0.40
1:C:1749:THR:O	1:C:1874:ASP:HB3	2.21	0.40
1:C:406:TRP:CZ3	1:C:407:ASN:HB2	2.57	0.40
1:C:655:LEU:HD23	1:C:655:LEU:HA	1.79	0.40
2:G:260:PRO:HD3	2:G:289:TRP:CD2	2.56	0.40
2:G:612:ASN:C	2:G:614:GLY:H	2.24	0.40
2:H:1281:PRO:O	2:H:1378:ILE:HG23	2.22	0.40
2:H:1593:ILE:HD13	2:H:1626:ILE:CD1	2.51	0.40
2:H:1716:ASN:HA	2:H:1770:LEU:HD11	2.04	0.40
2:H:538:ASP:HB2	2:H:540:ASP:HB2	2.03	0.40
2:H:607:VAL:HG23	2:H:617:ILE:CG2	2.51	0.40
2:I:240:LEU:HA	2:I:240:LEU:HD12	1.81	0.40
2:I:717:ILE:CG2	2:I:760:HIS:CE1	3.05	0.40
2:I:812:LYS:HA	2:I:812:LYS:HD3	1.82	0.40
1:A:350:LEU:HB2	1:A:352:MET:HG2	2.03	0.40
1:A:427:ASN:HB2	1:A:468:LEU:CD2	2.51	0.40
1:B:1577:GLN:NE2	1:B:1591:TRP:HB3	2.36	0.40
1:B:709:ARG:O	1:B:714:VAL:HG21	2.21	0.40
1:C:187:LEU:HD11	1:C:202:GLU:HG3	2.03	0.40
1:C:413:LEU:HD13	1:C:451:MET:HG2	2.03	0.40
2:G:119:THR:HG22	2:G:120:LYS:N	2.36	0.40
2:G:1830:VAL:HA	2:G:1991:PHE:HE2	1.86	0.40
2:G:2039:LYS:HA	2:G:2042:ILE:HG13	2.03	0.40
2:G:533:LEU:HG	2:G:533:LEU:O	2.21	0.40
2:G:606:PHE:HZ	2:G:805:VAL:CG1	2.33	0.40
2:H:1172:LYS:HZ1	2:H:1574:ASN:HA	1.85	0.40
2:H:1327:ILE:HA	2:H:1327:ILE:HD12	1.77	0.40
2:H:283:ILE:HD12	2:H:283:ILE:HA	1.89	0.40
2:H:233:SER:HA	2:H:424:ALA:HB3	2.03	0.40
2:H:441:LYS:O	2:H:445:LYS:HG3	2.22	0.40
2:H:298:LYS:HA	2:H:448:VAL:CG2	2.52	0.40
2:H:156:LEU:HD23	2:H:500:HIS:HB2	2.04	0.40
2:H:816:ASP:HB3	2:H:1048:VAL:CG2	2.52	0.40
2:I:225:THR:HA	2:I:226:PRO:HD3	1.98	0.40
2:I:601:THR:O	2:I:601:THR:CG2	2.68	0.40
2:I:612:ASN:C	2:I:614:GLY:H	2.25	0.40

All (54) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1784:ASP:CA	2:G:1087:HIS:CE1[7_655]	0.16	2.04
1:A:1784:ASP:CG	2:I:1087:HIS:CE1[7_545]	0.52	1.68
1:C:1784:ASP:C	2:G:1087:HIS:NE2[7_655]	0.54	1.66
1:C:1784:ASP:CB	2:G:1087:HIS:ND1[7_655]	0.56	1.64
1:A:1784:ASP:OD2	2:I:1087:HIS:ND1[7_545]	0.58	1.62
1:B:1480:GLU:OE2	2:H:290:GLU:CB[6_555]	0.74	1.46
1:C:1784:ASP:CB	2:G:1087:HIS:CG[7_655]	0.83	1.37
1:A:1784:ASP:CG	2:I:1087:HIS:NE2[7_545]	0.91	1.29
1:A:1784:ASP:CB	2:I:1087:HIS:NE2[7_545]	0.97	1.23
1:A:1784:ASP:OD2	2:I:1087:HIS:CE1[7_545]	1.05	1.15
1:C:1784:ASP:CA	2:G:1087:HIS:ND1[7_655]	1.19	1.01
1:A:1784:ASP:OD2	2:I:1087:HIS:CG[7_545]	1.20	1.00
1:C:1784:ASP:O	2:G:1087:HIS:NE2[7_655]	1.22	0.98
1:B:1480:GLU:CD	2:H:290:GLU:CB[6_555]	1.29	0.91
2:G:77:VAL:CB	2:I:1929:LYS:CD[6_455]	1.31	0.89
1:C:1784:ASP:C	2:G:1087:HIS:CE1[7_655]	1.38	0.82
1:A:1784:ASP:OD1	2:I:1087:HIS:CE1[7_545]	1.38	0.82
1:C:1784:ASP:CA	2:G:1087:HIS:NE2[7_655]	1.42	0.78
1:B:1480:GLU:OE2	2:H:290:GLU:CG[6_555]	1.43	0.77
2:G:77:VAL:CG2	2:I:1929:LYS:NZ[6_455]	1.46	0.74
1:C:1784:ASP:N	2:G:1087:HIS:CE1[7_655]	1.46	0.74
1:C:1784:ASP:CG	2:G:1087:HIS:ND1[7_655]	1.47	0.73
2:G:77:VAL:CG2	2:I:1929:LYS:CE[6_455]	1.51	0.69
1:A:1784:ASP:OD2	2:I:1087:HIS:NE2[7_545]	1.60	0.60
1:A:1784:ASP:CG	2:I:1087:HIS:ND1[7_545]	1.64	0.56
2:G:79:GLN:OE1	2:I:1930:SER:O[6_455]	1.64	0.56
1:C:1784:ASP:CB	2:G:1087:HIS:CE1[7_655]	1.64	0.56
1:A:1784:ASP:OD2	2:I:1087:HIS:CD2[7_545]	1.68	0.52
1:C:1785:THR:N	2:G:1087:HIS:NE2[7_655]	1.70	0.50
2:G:77:VAL:CB	2:I:1929:LYS:CE[6_455]	1.71	0.49
1:C:1784:ASP:CB	2:G:1087:HIS:CD2[7_655]	1.81	0.39
1:B:1480:GLU:OE1	2:H:290:GLU:CB[6_555]	1.83	0.37
1:A:1784:ASP:CB	2:I:1087:HIS:CE1[7_545]	1.84	0.36
1:C:1784:ASP:C	2:G:1087:HIS:CD2[7_655]	1.86	0.34
2:G:77:VAL:O	2:I:1929:LYS:CB[6_455]	1.92	0.28
2:G:77:VAL:O	2:I:1929:LYS:CA[6_455]	1.93	0.27
1:A:1784:ASP:CG	2:I:1087:HIS:CD2[7_545]	1.94	0.26
2:G:77:VAL:CG1	2:I:1929:LYS:CD[6_455]	1.95	0.25
1:C:1784:ASP:CG	2:G:1087:HIS:CG[7_655]	1.97	0.23
2:G:77:VAL:O	2:I:1929:LYS:CG[6_455]	1.97	0.23
1:A:1784:ASP:OD1	2:I:1087:HIS:NE2[7_545]	1.98	0.22
1:C:1784:ASP:N	2:G:1087:HIS:ND1[7_655]	1.98	0.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1784:ASP:CB	2:G:1087:HIS:CB[7_655]	2.03	0.17
1:C:1784:ASP:OD2	2:G:1087:HIS:CB[7_655]	2.03	0.17
2:H:6:THR:CG2	2:I:1935:GLU:OE2[6_455]	2.05	0.15
2:H:6:THR:CG2	2:I:1935:GLU:CD[6_455]	2.06	0.14
1:C:1784:ASP:OD1	2:G:1087:HIS:ND1[7_655]	2.11	0.09
1:C:1784:ASP:CB	2:G:1087:HIS:NE2[7_655]	2.11	0.09
1:C:1784:ASP:O	2:G:1087:HIS:CD2[7_655]	2.12	0.08
1:C:1784:ASP:CA	2:G:1087:HIS:CG[7_655]	2.13	0.07
2:G:77:VAL:CB	2:I:1929:LYS:CG[6_455]	2.15	0.05
1:A:1784:ASP:CB	2:I:1087:HIS:CD2[7_545]	2.15	0.05
1:A:852:ARG:NH2	1:B:837:GLY:O[7_645]	2.19	0.01
1:B:1480:GLU:OE1	2:H:290:GLU:CA[6_555]	2.19	0.01

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1736/1887 (92%)	1614 (93%)	100 (6%)	22 (1%)	14	57
1	B	1736/1887 (92%)	1619 (93%)	100 (6%)	17 (1%)	18	61
1	C	1736/1887 (92%)	1618 (93%)	96 (6%)	22 (1%)	14	57
2	G	2029/2051 (99%)	1825 (90%)	173 (8%)	31 (2%)	12	54
2	H	2029/2051 (99%)	1826 (90%)	173 (8%)	30 (2%)	12	54
2	I	2029/2051 (99%)	1829 (90%)	174 (9%)	26 (1%)	14	57
All	All	11295/11814 (96%)	10331 (92%)	816 (7%)	148 (1%)	14	57

All (148) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	488	PRO
1	A	504	ASP
1	A	538	GLU

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Mol	Chain	Res	Type
1	A	605	LEU
1	A	834	GLY
1	A	935	GLU
1	A	1763	LYS
1	A	1830	GLY
1	A	1843	ASN
1	B	504	ASP
1	B	538	GLU
1	B	605	LEU
1	B	834	GLY
1	B	1763	LYS
1	B	1830	GLY
1	B	1843	ASN
1	C	504	ASP
1	C	538	GLU
1	C	605	LEU
1	C	834	GLY
1	C	935	GLU
1	C	1763	LYS
1	C	1830	GLY
1	C	1843	ASN
2	G	521	ASP
2	G	561	TRP
2	G	1177	SER
2	G	1955	PRO
2	H	521	ASP
2	H	561	TRP
2	H	1418	ASP
2	H	1955	PRO
2	I	521	ASP
2	I	1955	PRO
1	A	1252	GLY
1	A	1585	LYS
1	A	1608	ASN
1	B	179	LYS
1	B	1252	GLY
1	B	1585	LYS
1	B	1608	ASN
1	C	1252	GLY
1	C	1585	LYS
1	C	1608	ASN
2	G	203	LEU

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Mol	Chain	Res	Type
2	G	562	LEU
2	G	1044	VAL
2	G	1418	ASP
2	G	1419	PHE
2	G	1722	GLY
2	H	203	LEU
2	H	1044	VAL
2	H	1177	SER
2	H	1420	GLU
2	H	1529	GLN
2	H	1722	GLY
2	I	203	LEU
2	I	1044	VAL
2	I	1177	SER
2	I	1418	ASP
2	I	1722	GLY
1	A	179	LYS
1	A	1749	THR
1	B	1749	THR
1	C	1749	THR
2	G	112	ASN
2	G	139	LYS
2	G	567	PRO
2	G	1101	GLU
2	G	2034	GLY
2	H	112	ASN
2	H	562	LEU
2	H	1101	GLU
2	I	374	ALA
2	I	1092	ASP
2	I	1101	GLU
2	I	2034	GLY
2	G	25	ALA
2	G	26	SER
2	G	374	ALA
2	G	742	SER
2	G	769	SER
2	G	1092	ASP
2	G	1510	ALA
2	H	26	SER
2	H	374	ALA
2	H	567	PRO

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Mol	Chain	Res	Type
2	H	742	SER
2	H	823	ALA
2	H	1510	ALA
2	H	2034	GLY
2	I	26	SER
2	I	112	ASN
2	I	742	SER
2	I	1419	PHE
1	A	485	ASP
1	A	1130	ASP
1	A	1477	ILE
1	A	1536	LEU
1	B	970	GLY
1	B	1477	ILE
1	C	179	LYS
1	C	934	PRO
1	C	1477	ILE
2	H	769	SER
2	H	1092	ASP
2	H	1257	ASP
2	I	25	ALA
2	I	136	PRO
2	I	769	SER
2	I	823	ALA
2	I	1510	ALA
1	A	178	GLY
1	A	970	GLY
1	C	930	LEU
1	C	970	GLY
1	C	1536	LEU
2	G	574	SER
2	H	1419	PHE
2	I	139	LYS
2	I	574	SER
1	A	1543	GLY
1	B	1543	GLY
1	C	1543	GLY
2	G	136	PRO
2	G	335	PRO
2	H	136	PRO
2	H	335	PRO
2	H	1661	VAL

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Mol	Chain	Res	Type
1	B	178	GLY
2	G	1340	PRO
2	G	1956	ARG
2	H	772	GLY
1	A	934	PRO
1	C	178	GLY
1	C	1240	VAL
2	G	772	GLY
2	G	1176	PRO
2	G	1840	VAL
2	I	772	GLY
1	B	726	GLY
1	C	726	GLY
2	G	470	VAL
2	H	470	VAL
2	H	2012	PRO
2	I	335	PRO
2	I	1956	ARG
2	I	1340	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	1460/1566 (93%)	1308 (90%)	152 (10%)	8	37
1	B	1460/1566 (93%)	1312 (90%)	148 (10%)	9	38
1	C	1460/1566 (93%)	1310 (90%)	150 (10%)	8	37
2	G	1772/1789 (99%)	1563 (88%)	209 (12%)	6	32
2	H	1772/1789 (99%)	1560 (88%)	212 (12%)	6	31
2	I	1772/1789 (99%)	1561 (88%)	211 (12%)	6	32
All	All	9696/10065 (96%)	8614 (89%)	1082 (11%)	7	34

All (1082) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	14	LEU
1	A	15	THR
1	A	21	GLN
1	A	22	PHE
1	A	145	VAL
1	A	149	LEU
1	A	158	LYS
1	A	165	SER
1	A	171	THR
1	A	202	GLU
1	A	217	PHE
1	A	242	THR
1	A	253	ARG
1	A	328	LEU
1	A	331	ILE
1	A	332	THR
1	A	375	LEU
1	A	378	LEU
1	A	385	PHE
1	A	390	VAL
1	A	392	THR
1	A	400	ARG
1	A	412	SER
1	A	413	LEU
1	A	415	SER
1	A	416	LEU
1	A	428	VAL
1	A	431	GLU
1	A	432	VAL
1	A	435	GLU
1	A	447	LEU
1	A	457	ASN
1	A	460	GLU
1	A	461	THR
1	A	484	LEU
1	A	487	ASP
1	A	490	TYR
1	A	493	VAL
1	A	506	ASN
1	A	509	ILE
1	A	527	GLN
1	A	529	MET
1	A	536	THR

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Mol	Chain	Res	Type
1	A	599	MET
1	A	600	ASP
1	A	603	ASP
1	A	606	ASP
1	A	607	LYS
1	A	615	SER
1	A	621	THR
1	A	622	ILE
1	A	625	THR
1	A	629	THR
1	A	635	ILE
1	A	644	THR
1	A	648	ASP
1	A	654	GLN
1	A	711	SER
1	A	719	GLN
1	A	728	LYS
1	A	731	THR
1	A	732	LEU
1	A	748	LEU
1	A	749	ILE
1	A	776	GLU
1	A	782	GLU
1	A	793	ARG
1	A	797	THR
1	A	806	VAL
1	A	817	THR
1	A	825	PRO
1	A	852	ARG
1	A	860	ASN
1	A	864	VAL
1	A	873	ARG
1	A	881	ASN
1	A	891	MET
1	A	913	VAL
1	A	930	LEU
1	A	931	GLN
1	A	933	VAL
1	A	935	GLU
1	A	947	LEU
1	A	949	GLU
1	A	953	VAL

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Mol	Chain	Res	Type
1	A	964	GLU
1	A	980	VAL
1	A	1016	GLU
1	A	1020	VAL
1	A	1022	THR
1	A	1047	LEU
1	A	1056	ILE
1	A	1070	ARG
1	A	1087	LYS
1	A	1095	THR
1	A	1101	SER
1	A	1125	VAL
1	A	1127	VAL
1	A	1131	LEU
1	A	1172	THR
1	A	1173	LEU
1	A	1179	LEU
1	A	1184	LEU
1	A	1196	LYS
1	A	1197	THR
1	A	1208	VAL
1	A	1218	SER
1	A	1226	SER
1	A	1229	THR
1	A	1255	SER
1	A	1274	ILE
1	A	1283	MET
1	A	1307	THR
1	A	1327	CYS
1	A	1338	GLU
1	A	1367	ARG
1	A	1372	THR
1	A	1384	ILE
1	A	1385	GLN
1	A	1392	LEU
1	A	1414	ILE
1	A	1426	LEU
1	A	1442	ASN
1	A	1465	ASN
1	A	1479	SER
1	A	1489	ARG
1	A	1502	ARG

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Mol	Chain	Res	Type
1	A	1515	ARG
1	A	1522	LEU
1	A	1523	ARG
1	A	1532	THR
1	A	1533	ILE
1	A	1549	ASN
1	A	1556	THR
1	A	1566	ARG
1	A	1580	LEU
1	A	1585	LYS
1	A	1612	ASP
1	A	1625	LEU
1	A	1665	ILE
1	A	1666	THR
1	A	1692	MET
1	A	1693	ILE
1	A	1707	THR
1	A	1709	GLU
1	A	1721	ARG
1	A	1775	LEU
1	A	1782	GLU
1	A	1788	GLU
1	A	1794	GLN
1	A	1841	ARG
1	A	1873	HIS
1	B	14	LEU
1	B	15	THR
1	B	21	GLN
1	B	22	PHE
1	B	145	VAL
1	B	149	LEU
1	B	158	LYS
1	B	165	SER
1	B	171	THR
1	B	202	GLU
1	B	217	PHE
1	B	242	THR
1	B	253	ARG
1	B	300	VAL
1	B	328	LEU
1	B	331	ILE
1	B	332	THR

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Mol	Chain	Res	Type
1	B	375	LEU
1	B	385	PHE
1	B	390	VAL
1	B	392	THR
1	B	400	ARG
1	B	401	THR
1	B	412	SER
1	B	413	LEU
1	B	415	SER
1	B	416	LEU
1	B	428	VAL
1	B	432	VAL
1	B	435	GLU
1	B	447	LEU
1	B	457	ASN
1	B	460	GLU
1	B	461	THR
1	B	484	LEU
1	B	489	VAL
1	B	493	VAL
1	B	499	PRO
1	B	506	ASN
1	B	509	ILE
1	B	510	THR
1	B	527	GLN
1	B	529	MET
1	B	536	THR
1	B	599	MET
1	B	600	ASP
1	B	603	ASP
1	B	606	ASP
1	B	607	LYS
1	B	615	SER
1	B	621	THR
1	B	622	ILE
1	B	625	THR
1	B	629	THR
1	B	635	ILE
1	B	644	THR
1	B	648	ASP
1	B	711	SER
1	B	719	GLN

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Mol	Chain	Res	Type
1	B	728	LYS
1	B	731	THR
1	B	732	LEU
1	B	748	LEU
1	B	749	ILE
1	B	776	GLU
1	B	782	GLU
1	B	793	ARG
1	B	797	THR
1	B	806	VAL
1	B	852	ARG
1	B	860	ASN
1	B	864	VAL
1	B	873	ARG
1	B	881	ASN
1	B	891	MET
1	B	913	VAL
1	B	930	LEU
1	B	933	VAL
1	B	947	LEU
1	B	949	GLU
1	B	953	VAL
1	B	964	GLU
1	B	980	VAL
1	B	1016	GLU
1	B	1020	VAL
1	B	1047	LEU
1	B	1056	ILE
1	B	1070	ARG
1	B	1078	SER
1	B	1080	THR
1	B	1087	LYS
1	B	1095	THR
1	B	1101	SER
1	B	1125	VAL
1	B	1127	VAL
1	B	1131	LEU
1	B	1172	THR
1	B	1173	LEU
1	B	1179	LEU
1	B	1184	LEU
1	B	1196	LYS

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Mol	Chain	Res	Type
1	B	1197	THR
1	B	1208	VAL
1	B	1218	SER
1	B	1229	THR
1	B	1255	SER
1	B	1274	ILE
1	B	1283	MET
1	B	1307	THR
1	B	1327	CYS
1	B	1338	GLU
1	B	1367	ARG
1	B	1372	THR
1	B	1384	ILE
1	B	1385	GLN
1	B	1392	LEU
1	B	1414	ILE
1	B	1426	LEU
1	B	1442	ASN
1	B	1465	ASN
1	B	1479	SER
1	B	1502	ARG
1	B	1515	ARG
1	B	1522	LEU
1	B	1523	ARG
1	B	1532	THR
1	B	1533	ILE
1	B	1549	ASN
1	B	1556	THR
1	B	1566	ARG
1	B	1577	GLN
1	B	1580	LEU
1	B	1585	LYS
1	B	1612	ASP
1	B	1625	LEU
1	B	1665	ILE
1	B	1666	THR
1	B	1692	MET
1	B	1693	ILE
1	B	1707	THR
1	B	1709	GLU
1	B	1721	ARG
1	B	1775	LEU

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Mol	Chain	Res	Type
1	B	1782	GLU
1	B	1788	GLU
1	B	1794	GLN
1	B	1841	ARG
1	B	1873	HIS
1	C	14	LEU
1	C	15	THR
1	C	21	GLN
1	C	22	PHE
1	C	145	VAL
1	C	149	LEU
1	C	158	LYS
1	C	165	SER
1	C	171	THR
1	C	202	GLU
1	C	217	PHE
1	C	242	THR
1	C	253	ARG
1	C	328	LEU
1	C	331	ILE
1	C	332	THR
1	C	375	LEU
1	C	378	LEU
1	C	390	VAL
1	C	392	THR
1	C	400	ARG
1	C	412	SER
1	C	413	LEU
1	C	415	SER
1	C	416	LEU
1	C	428	VAL
1	C	431	GLU
1	C	432	VAL
1	C	435	GLU
1	C	447	LEU
1	C	457	ASN
1	C	460	GLU
1	C	461	THR
1	C	484	LEU
1	C	489	VAL
1	C	493	VAL
1	C	506	ASN

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Mol	Chain	Res	Type
1	C	509	ILE
1	C	527	GLN
1	C	529	MET
1	C	536	THR
1	C	599	MET
1	C	600	ASP
1	C	603	ASP
1	C	606	ASP
1	C	607	LYS
1	C	615	SER
1	C	621	THR
1	C	622	ILE
1	C	625	THR
1	C	629	THR
1	C	635	ILE
1	C	644	THR
1	C	648	ASP
1	C	711	SER
1	C	719	GLN
1	C	728	LYS
1	C	731	THR
1	C	732	LEU
1	C	748	LEU
1	C	749	ILE
1	C	776	GLU
1	C	782	GLU
1	C	797	THR
1	C	806	VAL
1	C	824	LEU
1	C	852	ARG
1	C	860	ASN
1	C	864	VAL
1	C	873	ARG
1	C	881	ASN
1	C	891	MET
1	C	913	VAL
1	C	930	LEU
1	C	931	GLN
1	C	933	VAL
1	C	935	GLU
1	C	947	LEU
1	C	949	GLU

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Mol	Chain	Res	Type
1	C	951	SER
1	C	953	VAL
1	C	980	VAL
1	C	1016	GLU
1	C	1020	VAL
1	C	1047	LEU
1	C	1056	ILE
1	C	1070	ARG
1	C	1078	SER
1	C	1087	LYS
1	C	1095	THR
1	C	1101	SER
1	C	1125	VAL
1	C	1127	VAL
1	C	1131	LEU
1	C	1172	THR
1	C	1173	LEU
1	C	1179	LEU
1	C	1184	LEU
1	C	1196	LYS
1	C	1197	THR
1	C	1208	VAL
1	C	1218	SER
1	C	1229	THR
1	C	1255	SER
1	C	1274	ILE
1	C	1283	MET
1	C	1307	THR
1	C	1327	CYS
1	C	1338	GLU
1	C	1367	ARG
1	C	1372	THR
1	C	1384	ILE
1	C	1385	GLN
1	C	1392	LEU
1	C	1414	ILE
1	C	1426	LEU
1	C	1430	ARG
1	C	1432	HIS
1	C	1442	ASN
1	C	1455	ARG
1	C	1465	ASN

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Mol	Chain	Res	Type
1	C	1479	SER
1	C	1489	ARG
1	C	1502	ARG
1	C	1515	ARG
1	C	1522	LEU
1	C	1523	ARG
1	C	1532	THR
1	C	1533	ILE
1	C	1549	ASN
1	C	1556	THR
1	C	1566	ARG
1	C	1577	GLN
1	C	1580	LEU
1	C	1585	LYS
1	C	1612	ASP
1	C	1625	LEU
1	C	1665	ILE
1	C	1666	THR
1	C	1692	MET
1	C	1693	ILE
1	C	1707	THR
1	C	1709	GLU
1	C	1721	ARG
1	C	1775	LEU
1	C	1782	GLU
1	C	1788	GLU
1	C	1794	GLN
1	C	1841	ARG
1	C	1873	HIS
2	G	6	THR
2	G	7	ARG
2	G	45	THR
2	G	46	GLU
2	G	48	PHE
2	G	56	THR
2	G	65	LEU
2	G	84	LEU
2	G	86	LEU
2	G	93	ASN
2	G	99	ASN
2	G	101	ILE
2	G	109	LEU

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Mol	Chain	Res	Type
2	G	117	VAL
2	G	122	LEU
2	G	149	VAL
2	G	153	ASN
2	G	155	GLN
2	G	159	ILE
2	G	173	LEU
2	G	175	ASP
2	G	176	LEU
2	G	178	GLN
2	G	182	VAL
2	G	210	THR
2	G	227	ASP
2	G	236	ILE
2	G	240	LEU
2	G	246	LEU
2	G	281	VAL
2	G	286	THR
2	G	295	SER
2	G	297	ARG
2	G	300	ILE
2	G	303	LEU
2	G	319	LEU
2	G	339	LEU
2	G	340	SER
2	G	342	SER
2	G	344	LEU
2	G	353	VAL
2	G	371	VAL
2	G	376	ASN
2	G	389	LEU
2	G	392	THR
2	G	402	LEU
2	G	418	ASN
2	G	425	SER
2	G	431	LEU
2	G	448	VAL
2	G	455	ILE
2	G	462	THR
2	G	463	PHE
2	G	471	LEU
2	G	476	SER

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Mol	Chain	Res	Type
2	G	478	ARG
2	G	482	CYS
2	G	492	THR
2	G	499	THR
2	G	539	ASP
2	G	545	GLN
2	G	553	ASN
2	G	562	LEU
2	G	566	HIS
2	G	574	SER
2	G	586	LEU
2	G	587	ILE
2	G	598	THR
2	G	607	VAL
2	G	611	THR
2	G	616	THR
2	G	653	TYR
2	G	665	LEU
2	G	669	LEU
2	G	670	ARG
2	G	676	ILE
2	G	693	GLU
2	G	714	SER
2	G	719	ILE
2	G	723	HIS
2	G	730	LEU
2	G	736	ARG
2	G	741	HIS
2	G	750	MET
2	G	751	LEU
2	G	762	ASN
2	G	767	PHE
2	G	775	ASP
2	G	777	THR
2	G	787	THR
2	G	794	MET
2	G	800	LEU
2	G	810	GLU
2	G	825	THR
2	G	832	TRP
2	G	835	THR
2	G	844	VAL

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Mol	Chain	Res	Type
2	G	852	GLU
2	G	855	HIS
2	G	857	ILE
2	G	869	ASP
2	G	880	LEU
2	G	881	VAL
2	G	892	ILE
2	G	907	VAL
2	G	929	LEU
2	G	945	THR
2	G	952	ARG
2	G	953	ARG
2	G	964	LEU
2	G	971	SER
2	G	993	GLN
2	G	1015	VAL
2	G	1021	LEU
2	G	1024	ARG
2	G	1048	VAL
2	G	1066	ILE
2	G	1070	ILE
2	G	1082	ILE
2	G	1109	VAL
2	G	1123	ASP
2	G	1124	SER
2	G	1145	SER
2	G	1148	ASN
2	G	1160	THR
2	G	1171	ARG
2	G	1189	THR
2	G	1197	LEU
2	G	1211	LEU
2	G	1219	ILE
2	G	1227	ARG
2	G	1260	GLN
2	G	1265	MET
2	G	1284	VAL
2	G	1314	ARG
2	G	1318	THR
2	G	1328	VAL
2	G	1335	ILE
2	G	1348	LEU

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Mol	Chain	Res	Type
2	G	1359	MET
2	G	1360	ILE
2	G	1378	ILE
2	G	1397	SER
2	G	1407	THR
2	G	1408	SER
2	G	1417	THR
2	G	1418	ASP
2	G	1420	GLU
2	G	1424	GLN
2	G	1426	THR
2	G	1434	HIS
2	G	1437	THR
2	G	1441	ILE
2	G	1443	VAL
2	G	1446	SER
2	G	1452	LEU
2	G	1463	THR
2	G	1468	THR
2	G	1470	THR
2	G	1472	VAL
2	G	1473	THR
2	G	1501	ILE
2	G	1511	SER
2	G	1526	THR
2	G	1527	LEU
2	G	1528	GLU
2	G	1533	LEU
2	G	1549	THR
2	G	1563	ILE
2	G	1567	ARG
2	G	1590	ARG
2	G	1602	SER
2	G	1605	VAL
2	G	1609	THR
2	G	1616	VAL
2	G	1624	THR
2	G	1627	GLN
2	G	1632	ILE
2	G	1637	LEU
2	G	1651	LEU
2	G	1672	GLN

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Mol	Chain	Res	Type
2	G	1678	MET
2	G	1680	LEU
2	G	1683	THR
2	G	1712	ASN
2	G	1718	THR
2	G	1757	GLU
2	G	1775	GLN
2	G	1781	LEU
2	G	1784	MET
2	G	1825	GLU
2	G	1831	VAL
2	G	1834	ARG
2	G	1844	ARG
2	G	1847	LEU
2	G	1857	ILE
2	G	1862	VAL
2	G	1886	VAL
2	G	1914	LEU
2	G	1936	VAL
2	G	1937	GLU
2	G	1941	PHE
2	G	1982	MET
2	G	2003	VAL
2	G	2042	ILE
2	G	2044	ASN
2	G	2047	LYS
2	G	2048	TYR
2	G	2050	GLN
2	H	6	THR
2	H	7	ARG
2	H	45	THR
2	H	46	GLU
2	H	48	PHE
2	H	56	THR
2	H	65	LEU
2	H	84	LEU
2	H	86	LEU
2	H	93	ASN
2	H	99	ASN
2	H	101	ILE
2	H	109	LEU
2	H	117	VAL

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Mol	Chain	Res	Type
2	H	122	LEU
2	H	149	VAL
2	H	153	ASN
2	H	155	GLN
2	H	159	ILE
2	H	173	LEU
2	H	176	LEU
2	H	178	GLN
2	H	182	VAL
2	H	186	ASP
2	H	198	LEU
2	H	210	THR
2	H	227	ASP
2	H	236	ILE
2	H	240	LEU
2	H	246	LEU
2	H	281	VAL
2	H	286	THR
2	H	295	SER
2	H	297	ARG
2	H	300	ILE
2	H	317	THR
2	H	319	LEU
2	H	339	LEU
2	H	340	SER
2	H	342	SER
2	H	344	LEU
2	H	353	VAL
2	H	371	VAL
2	H	376	ASN
2	H	389	LEU
2	H	392	THR
2	H	402	LEU
2	H	418	ASN
2	H	425	SER
2	H	431	LEU
2	H	448	VAL
2	H	455	ILE
2	H	462	THR
2	H	463	PHE
2	H	471	LEU
2	H	476	SER

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Mol	Chain	Res	Type
2	H	478	ARG
2	H	482	CYS
2	H	492	THR
2	H	499	THR
2	H	545	GLN
2	H	553	ASN
2	H	562	LEU
2	H	566	HIS
2	H	572	ASN
2	H	574	SER
2	H	586	LEU
2	H	587	ILE
2	H	598	THR
2	H	607	VAL
2	H	611	THR
2	H	616	THR
2	H	653	TYR
2	H	665	LEU
2	H	669	LEU
2	H	670	ARG
2	H	676	ILE
2	H	693	GLU
2	H	714	SER
2	H	719	ILE
2	H	723	HIS
2	H	730	LEU
2	H	733	THR
2	H	736	ARG
2	H	741	HIS
2	H	751	LEU
2	H	762	ASN
2	H	767	PHE
2	H	775	ASP
2	H	777	THR
2	H	787	THR
2	H	794	MET
2	H	797	ASP
2	H	800	LEU
2	H	810	GLU
2	H	825	THR
2	H	832	TRP
2	H	835	THR

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Mol	Chain	Res	Type
2	H	844	VAL
2	H	852	GLU
2	H	855	HIS
2	H	857	ILE
2	H	869	ASP
2	H	880	LEU
2	H	881	VAL
2	H	892	ILE
2	H	907	VAL
2	H	929	LEU
2	H	945	THR
2	H	952	ARG
2	H	953	ARG
2	H	964	LEU
2	H	971	SER
2	H	993	GLN
2	H	1015	VAL
2	H	1021	LEU
2	H	1024	ARG
2	H	1048	VAL
2	H	1066	ILE
2	H	1070	ILE
2	H	1082	ILE
2	H	1109	VAL
2	H	1123	ASP
2	H	1145	SER
2	H	1148	ASN
2	H	1160	THR
2	H	1171	ARG
2	H	1189	THR
2	H	1197	LEU
2	H	1211	LEU
2	H	1219	ILE
2	H	1227	ARG
2	H	1260	GLN
2	H	1265	MET
2	H	1284	VAL
2	H	1314	ARG
2	H	1318	THR
2	H	1328	VAL
2	H	1335	ILE
2	H	1348	LEU

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Mol	Chain	Res	Type
2	H	1359	MET
2	H	1360	ILE
2	H	1378	ILE
2	H	1397	SER
2	H	1407	THR
2	H	1408	SER
2	H	1420	GLU
2	H	1422	THR
2	H	1426	THR
2	H	1434	HIS
2	H	1437	THR
2	H	1441	ILE
2	H	1443	VAL
2	H	1446	SER
2	H	1452	LEU
2	H	1463	THR
2	H	1468	THR
2	H	1470	THR
2	H	1472	VAL
2	H	1473	THR
2	H	1501	ILE
2	H	1511	SER
2	H	1526	THR
2	H	1527	LEU
2	H	1528	GLU
2	H	1530	LYS
2	H	1533	LEU
2	H	1549	THR
2	H	1563	ILE
2	H	1567	ARG
2	H	1590	ARG
2	H	1602	SER
2	H	1605	VAL
2	H	1609	THR
2	H	1616	VAL
2	H	1624	THR
2	H	1627	GLN
2	H	1632	ILE
2	H	1637	LEU
2	H	1651	LEU
2	H	1657	ILE
2	H	1661	VAL

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Mol	Chain	Res	Type
2	H	1672	GLN
2	H	1678	MET
2	H	1680	LEU
2	H	1683	THR
2	H	1693	ARG
2	H	1712	ASN
2	H	1718	THR
2	H	1757	GLU
2	H	1775	GLN
2	H	1781	LEU
2	H	1784	MET
2	H	1825	GLU
2	H	1831	VAL
2	H	1834	ARG
2	H	1840	VAL
2	H	1844	ARG
2	H	1847	LEU
2	H	1862	VAL
2	H	1886	VAL
2	H	1914	LEU
2	H	1936	VAL
2	H	1937	GLU
2	H	1982	MET
2	H	2003	VAL
2	H	2038	ILE
2	H	2042	ILE
2	H	2044	ASN
2	H	2047	LYS
2	H	2048	TYR
2	H	2050	GLN
2	I	6	THR
2	I	7	ARG
2	I	45	THR
2	I	46	GLU
2	I	48	PHE
2	I	56	THR
2	I	65	LEU
2	I	84	LEU
2	I	86	LEU
2	I	93	ASN
2	I	99	ASN
2	I	101	ILE

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Mol	Chain	Res	Type
2	I	109	LEU
2	I	117	VAL
2	I	122	LEU
2	I	149	VAL
2	I	153	ASN
2	I	155	GLN
2	I	159	ILE
2	I	173	LEU
2	I	175	ASP
2	I	176	LEU
2	I	178	GLN
2	I	182	VAL
2	I	210	THR
2	I	227	ASP
2	I	236	ILE
2	I	240	LEU
2	I	246	LEU
2	I	281	VAL
2	I	286	THR
2	I	295	SER
2	I	297	ARG
2	I	300	ILE
2	I	303	LEU
2	I	319	LEU
2	I	339	LEU
2	I	340	SER
2	I	342	SER
2	I	344	LEU
2	I	353	VAL
2	I	371	VAL
2	I	376	ASN
2	I	389	LEU
2	I	392	THR
2	I	402	LEU
2	I	418	ASN
2	I	425	SER
2	I	431	LEU
2	I	444	VAL
2	I	448	VAL
2	I	455	ILE
2	I	462	THR
2	I	463	PHE

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Mol	Chain	Res	Type
2	I	471	LEU
2	I	476	SER
2	I	478	ARG
2	I	479	ILE
2	I	482	CYS
2	I	492	THR
2	I	499	THR
2	I	539	ASP
2	I	545	GLN
2	I	553	ASN
2	I	562	LEU
2	I	572	ASN
2	I	574	SER
2	I	586	LEU
2	I	587	ILE
2	I	598	THR
2	I	607	VAL
2	I	611	THR
2	I	616	THR
2	I	653	TYR
2	I	665	LEU
2	I	669	LEU
2	I	670	ARG
2	I	676	ILE
2	I	680	THR
2	I	693	GLU
2	I	714	SER
2	I	719	ILE
2	I	723	HIS
2	I	730	LEU
2	I	733	THR
2	I	736	ARG
2	I	741	HIS
2	I	750	MET
2	I	751	LEU
2	I	762	ASN
2	I	767	PHE
2	I	775	ASP
2	I	777	THR
2	I	787	THR
2	I	794	MET
2	I	800	LEU

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Mol	Chain	Res	Type
2	I	810	GLU
2	I	825	THR
2	I	832	TRP
2	I	835	THR
2	I	844	VAL
2	I	846	VAL
2	I	852	GLU
2	I	855	HIS
2	I	857	ILE
2	I	865	TRP
2	I	869	ASP
2	I	880	LEU
2	I	881	VAL
2	I	892	ILE
2	I	907	VAL
2	I	929	LEU
2	I	945	THR
2	I	952	ARG
2	I	953	ARG
2	I	964	LEU
2	I	971	SER
2	I	993	GLN
2	I	1015	VAL
2	I	1021	LEU
2	I	1024	ARG
2	I	1048	VAL
2	I	1066	ILE
2	I	1070	ILE
2	I	1082	ILE
2	I	1109	VAL
2	I	1123	ASP
2	I	1124	SER
2	I	1145	SER
2	I	1148	ASN
2	I	1160	THR
2	I	1171	ARG
2	I	1189	THR
2	I	1197	LEU
2	I	1211	LEU
2	I	1219	ILE
2	I	1227	ARG
2	I	1260	GLN

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Mol	Chain	Res	Type
2	I	1265	MET
2	I	1284	VAL
2	I	1314	ARG
2	I	1318	THR
2	I	1328	VAL
2	I	1335	ILE
2	I	1348	LEU
2	I	1359	MET
2	I	1360	ILE
2	I	1378	ILE
2	I	1397	SER
2	I	1407	THR
2	I	1408	SER
2	I	1420	GLU
2	I	1421	ASN
2	I	1423	PHE
2	I	1434	HIS
2	I	1437	THR
2	I	1441	ILE
2	I	1443	VAL
2	I	1446	SER
2	I	1452	LEU
2	I	1463	THR
2	I	1468	THR
2	I	1470	THR
2	I	1472	VAL
2	I	1473	THR
2	I	1501	ILE
2	I	1511	SER
2	I	1527	LEU
2	I	1528	GLU
2	I	1533	LEU
2	I	1549	THR
2	I	1563	ILE
2	I	1567	ARG
2	I	1590	ARG
2	I	1602	SER
2	I	1605	VAL
2	I	1609	THR
2	I	1616	VAL
2	I	1624	THR
2	I	1627	GLN

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Mol	Chain	Res	Type
2	I	1632	ILE
2	I	1637	LEU
2	I	1651	LEU
2	I	1672	GLN
2	I	1678	MET
2	I	1680	LEU
2	I	1683	THR
2	I	1712	ASN
2	I	1718	THR
2	I	1757	GLU
2	I	1775	GLN
2	I	1781	LEU
2	I	1784	MET
2	I	1825	GLU
2	I	1831	VAL
2	I	1834	ARG
2	I	1844	ARG
2	I	1847	LEU
2	I	1862	VAL
2	I	1871	LEU
2	I	1886	VAL
2	I	1914	LEU
2	I	1936	VAL
2	I	1937	GLU
2	I	1982	MET
2	I	2003	VAL
2	I	2042	ILE
2	I	2044	ASN
2	I	2047	LYS
2	I	2048	TYR
2	I	2050	GLN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (294) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	11	HIS
1	A	21	GLN
1	A	32	GLN
1	A	58	GLN
1	A	63	ASN
1	A	157	HIS
1	A	183	GLN

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Mol	Chain	Res	Type
1	A	214	GLN
1	A	271	ASN
1	A	335	HIS
1	A	341	GLN
1	A	344	GLN
1	A	374	GLN
1	A	411	GLN
1	A	427	ASN
1	A	438	ASN
1	A	506	ASN
1	A	527	GLN
1	A	618	ASN
1	A	694	GLN
1	A	738	ASN
1	A	758	ASN
1	A	792	HIS
1	A	860	ASN
1	A	898	GLN
1	A	983	GLN
1	A	987	ASN
1	A	989	GLN
1	A	1000	GLN
1	A	1003	GLN
1	A	1063	HIS
1	A	1064	ASN
1	A	1066	ASN
1	A	1146	HIS
1	A	1239	HIS
1	A	1385	GLN
1	A	1432	HIS
1	A	1433	HIS
1	A	1442	ASN
1	A	1458	GLN
1	A	1482	GLN
1	A	1494	HIS
1	A	1495	ASN
1	A	1505	GLN
1	A	1510	ASN
1	A	1542	HIS
1	A	1549	ASN
1	A	1563	HIS
1	A	1577	GLN

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Mol	Chain	Res	Type
1	A	1610	ASN
1	A	1652	GLN
1	A	1690	ASN
1	A	1852	HIS
1	B	11	HIS
1	B	21	GLN
1	B	32	GLN
1	B	58	GLN
1	B	63	ASN
1	B	157	HIS
1	B	183	GLN
1	B	214	GLN
1	B	271	ASN
1	B	335	HIS
1	B	341	GLN
1	B	344	GLN
1	B	374	GLN
1	B	407	ASN
1	B	411	GLN
1	B	427	ASN
1	B	438	ASN
1	B	506	ASN
1	B	527	GLN
1	B	618	ASN
1	B	694	GLN
1	B	738	ASN
1	B	758	ASN
1	B	792	HIS
1	B	898	GLN
1	B	987	ASN
1	B	989	GLN
1	B	1000	GLN
1	B	1003	GLN
1	B	1063	HIS
1	B	1064	ASN
1	B	1066	ASN
1	B	1146	HIS
1	B	1239	HIS
1	B	1385	GLN
1	B	1432	HIS
1	B	1433	HIS
1	B	1442	ASN

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Mol	Chain	Res	Type
1	B	1458	GLN
1	B	1482	GLN
1	B	1494	HIS
1	B	1495	ASN
1	B	1505	GLN
1	B	1510	ASN
1	B	1542	HIS
1	B	1549	ASN
1	B	1563	HIS
1	B	1577	GLN
1	B	1610	ASN
1	B	1652	GLN
1	B	1690	ASN
1	B	1794	GLN
1	B	1852	HIS
1	C	11	HIS
1	C	21	GLN
1	C	32	GLN
1	C	58	GLN
1	C	63	ASN
1	C	157	HIS
1	C	183	GLN
1	C	214	GLN
1	C	271	ASN
1	C	335	HIS
1	C	341	GLN
1	C	344	GLN
1	C	374	GLN
1	C	411	GLN
1	C	427	ASN
1	C	438	ASN
1	C	506	ASN
1	C	527	GLN
1	C	618	ASN
1	C	694	GLN
1	C	738	ASN
1	C	758	ASN
1	C	792	HIS
1	C	860	ASN
1	C	898	GLN
1	C	987	ASN
1	C	989	GLN

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Mol	Chain	Res	Type
1	C	1000	GLN
1	C	1003	GLN
1	C	1063	HIS
1	C	1064	ASN
1	C	1066	ASN
1	C	1146	HIS
1	C	1239	HIS
1	C	1385	GLN
1	C	1432	HIS
1	C	1433	HIS
1	C	1442	ASN
1	C	1458	GLN
1	C	1482	GLN
1	C	1495	ASN
1	C	1505	GLN
1	C	1510	ASN
1	C	1542	HIS
1	C	1549	ASN
1	C	1563	HIS
1	C	1577	GLN
1	C	1610	ASN
1	C	1652	GLN
1	C	1690	ASN
1	C	1852	HIS
2	G	34	GLN
2	G	36	GLN
2	G	85	ASN
2	G	102	HIS
2	G	178	GLN
2	G	359	HIS
2	G	376	ASN
2	G	418	ASN
2	G	428	HIS
2	G	440	ASN
2	G	447	ASN
2	G	500	HIS
2	G	517	HIS
2	G	545	GLN
2	G	558	ASN
2	G	572	ASN
2	G	612	ASN
2	G	650	ASN

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Mol	Chain	Res	Type
2	G	718	ASN
2	G	740	HIS
2	G	741	HIS
2	G	747	HIS
2	G	752	GLN
2	G	762	ASN
2	G	855	HIS
2	G	900	GLN
2	G	910	GLN
2	G	1046	GLN
2	G	1148	ASN
2	G	1217	ASN
2	G	1220	GLN
2	G	1260	GLN
2	G	1341	ASN
2	G	1352	HIS
2	G	1355	ASN
2	G	1367	GLN
2	G	1384	GLN
2	G	1595	ASN
2	G	1659	GLN
2	G	1669	GLN
2	G	1672	GLN
2	G	1697	HIS
2	G	1890	ASN
2	G	1896	GLN
2	G	1977	HIS
2	G	2013	ASN
2	G	2020	GLN
2	H	34	GLN
2	H	85	ASN
2	H	102	HIS
2	H	178	GLN
2	H	359	HIS
2	H	376	ASN
2	H	418	ASN
2	H	428	HIS
2	H	440	ASN
2	H	447	ASN
2	H	500	HIS
2	H	517	HIS
2	H	545	GLN

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Mol	Chain	Res	Type
2	H	558	ASN
2	H	572	ASN
2	H	612	ASN
2	H	650	ASN
2	H	718	ASN
2	H	740	HIS
2	H	741	HIS
2	H	747	HIS
2	H	752	GLN
2	H	762	ASN
2	H	900	GLN
2	H	910	GLN
2	H	1039	HIS
2	H	1046	GLN
2	H	1148	ASN
2	H	1217	ASN
2	H	1220	GLN
2	H	1260	GLN
2	H	1341	ASN
2	H	1352	HIS
2	H	1355	ASN
2	H	1367	GLN
2	H	1669	GLN
2	H	1672	GLN
2	H	1697	HIS
2	H	1890	ASN
2	H	1896	GLN
2	H	1977	HIS
2	H	2013	ASN
2	H	2020	GLN
2	I	34	GLN
2	I	36	GLN
2	I	85	ASN
2	I	102	HIS
2	I	178	GLN
2	I	359	HIS
2	I	376	ASN
2	I	418	ASN
2	I	428	HIS
2	I	440	ASN
2	I	447	ASN
2	I	500	HIS

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Mol	Chain	Res	Type
2	I	517	HIS
2	I	545	GLN
2	I	558	ASN
2	I	572	ASN
2	I	612	ASN
2	I	718	ASN
2	I	740	HIS
2	I	741	HIS
2	I	747	HIS
2	I	752	GLN
2	I	762	ASN
2	I	855	HIS
2	I	900	GLN
2	I	910	GLN
2	I	1046	GLN
2	I	1055	HIS
2	I	1148	ASN
2	I	1217	ASN
2	I	1220	GLN
2	I	1260	GLN
2	I	1341	ASN
2	I	1352	HIS
2	I	1355	ASN
2	I	1367	GLN
2	I	1421	ASN
2	I	1595	ASN
2	I	1669	GLN
2	I	1672	GLN
2	I	1697	HIS
2	I	1868	GLN
2	I	1890	ASN
2	I	1896	GLN
2	I	1977	HIS
2	I	2013	ASN
2	I	2020	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

6 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
3	CER	A	2748	-	10,11,15	4.18	3 (30%)	11,13,17	2.81	4 (36%)
3	CER	B	2748	-	10,11,15	4.18	3 (30%)	11,13,17	2.69	4 (36%)
3	CER	C	2748	-	10,11,15	4.20	3 (30%)	11,13,17	2.80	4 (36%)
4	FMN	G	3051	-	31,33,33	6.31	18 (58%)	38,50,50	1.83	6 (15%)
4	FMN	H	3051	-	31,33,33	6.19	18 (58%)	38,50,50	1.80	7 (18%)
4	FMN	I	3051	-	31,33,33	6.23	20 (64%)	38,50,50	1.71	6 (15%)

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
3	CER	A	2748	-	-	0/12/12/16	0/0/0/0
3	CER	B	2748	-	-	0/12/12/16	0/0/0/0
3	CER	C	2748	-	-	0/12/12/16	0/0/0/0
4	FMN	G	3051	-	-	0/16/18/18	0/3/3/3
4	FMN	H	3051	-	-	0/16/18/18	0/3/3/3
4	FMN	I	3051	-	-	0/16/18/18	0/3/3/3

All (65) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	I	3051	FMN	C7M-C7	2.14	1.55	1.51
4	I	3051	FMN	C8M-C8	2.30	1.55	1.51
4	G	3051	FMN	P-O3P	2.44	1.64	1.54
4	H	3051	FMN	P-O3P	2.64	1.65	1.54
4	I	3051	FMN	P-O3P	2.67	1.65	1.54
4	G	3051	FMN	P-O2P	2.72	1.66	1.54
4	H	3051	FMN	P-O2P	2.74	1.66	1.54
4	I	3051	FMN	P-O2P	2.86	1.66	1.54
3	A	2748	CER	C5-C4	3.22	1.55	1.51
3	C	2748	CER	C5-C4	3.30	1.55	1.51
3	B	2748	CER	C5-C4	3.32	1.56	1.51
3	A	2748	CER	C1-N1	4.36	1.47	1.32
3	B	2748	CER	C1-N1	4.42	1.47	1.32
3	C	2748	CER	C1-N1	4.43	1.47	1.32
4	H	3051	FMN	C9A-C5A	5.87	1.54	1.42
4	I	3051	FMN	C4-C4A	5.99	1.52	1.41
4	G	3051	FMN	C9A-C5A	6.14	1.55	1.42
4	H	3051	FMN	C4-C4A	6.19	1.53	1.41
4	I	3051	FMN	C9A-C5A	6.41	1.55	1.42
4	G	3051	FMN	C4-C4A	6.43	1.53	1.41
4	H	3051	FMN	C8-C7	6.59	1.57	1.41
4	H	3051	FMN	C9-C8	6.68	1.55	1.37
4	G	3051	FMN	C8-C7	6.76	1.58	1.41
4	G	3051	FMN	C9-C8	6.77	1.55	1.37
4	I	3051	FMN	O4-C4	6.94	1.42	1.24
4	I	3051	FMN	C9-C8	7.00	1.56	1.37
4	H	3051	FMN	O4-C4	7.08	1.42	1.24
4	I	3051	FMN	C2-N3	7.10	1.52	1.38
4	I	3051	FMN	C8-C7	7.15	1.59	1.41
4	G	3051	FMN	O4-C4	7.17	1.42	1.24
4	H	3051	FMN	C6-C7	7.20	1.57	1.37
4	I	3051	FMN	C4A-C10	7.20	1.53	1.41
4	G	3051	FMN	C2-N3	7.27	1.52	1.38
4	I	3051	FMN	C6-C7	7.36	1.57	1.37
4	H	3051	FMN	C4A-C10	7.37	1.53	1.41
4	I	3051	FMN	C2-N1	7.45	1.52	1.38
4	H	3051	FMN	C2-N1	7.51	1.53	1.38
4	G	3051	FMN	C6-C7	7.54	1.57	1.37
4	H	3051	FMN	C2-N3	7.68	1.53	1.38
4	G	3051	FMN	C2-N1	7.69	1.53	1.38
4	G	3051	FMN	C4A-C10	7.89	1.54	1.41
4	I	3051	FMN	C9A-N10	8.36	1.49	1.38
4	H	3051	FMN	C9A-N10	8.42	1.49	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	I	3051	FMN	C9-C9A	8.70	1.59	1.40
4	H	3051	FMN	C9-C9A	8.74	1.59	1.40
4	G	3051	FMN	C9A-N10	8.78	1.50	1.38
4	G	3051	FMN	C9-C9A	8.85	1.59	1.40
4	I	3051	FMN	C4-N3	9.46	1.50	1.33
4	G	3051	FMN	C4-N3	9.48	1.50	1.33
4	H	3051	FMN	C4-N3	9.83	1.50	1.33
4	I	3051	FMN	C10-N1	9.93	1.47	1.33
4	H	3051	FMN	C5A-N5	10.34	1.51	1.35
4	H	3051	FMN	C10-N1	10.36	1.47	1.33
4	G	3051	FMN	C10-N1	10.49	1.48	1.33
4	G	3051	FMN	C5A-N5	10.49	1.51	1.35
4	I	3051	FMN	C5A-N5	10.66	1.51	1.35
4	H	3051	FMN	C6-C5A	11.00	1.58	1.41
4	G	3051	FMN	C6-C5A	11.21	1.58	1.41
4	I	3051	FMN	C6-C5A	11.50	1.59	1.41
3	B	2748	CER	O1-C4	11.66	1.41	1.21
3	A	2748	CER	O1-C4	11.70	1.41	1.21
3	C	2748	CER	O1-C4	11.72	1.41	1.21
4	H	3051	FMN	C4A-N5	12.09	1.50	1.33
4	I	3051	FMN	C4A-N5	12.14	1.50	1.33
4	G	3051	FMN	C4A-N5	12.58	1.51	1.33

All (31) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	2748	CER	O1-C4-C5	-7.25	107.97	121.68
3	A	2748	CER	O1-C4-C5	-7.21	108.06	121.68
3	B	2748	CER	O1-C4-C5	-6.90	108.64	121.68
4	H	3051	FMN	C4A-C4-N3	-3.82	118.04	123.48
4	G	3051	FMN	C4A-C4-N3	-3.78	118.10	123.48
3	A	2748	CER	C5-C4-C3	-3.59	110.87	117.88
4	I	3051	FMN	C4A-C4-N3	-3.56	118.41	123.48
3	B	2748	CER	C5-C4-C3	-3.51	111.03	117.88
3	C	2748	CER	C5-C4-C3	-3.50	111.05	117.88
3	A	2748	CER	C6-C5-C4	-3.31	108.47	113.90
3	C	2748	CER	C6-C5-C4	-3.26	108.56	113.90
3	B	2748	CER	C6-C5-C4	-3.01	108.95	113.90
4	I	3051	FMN	C4'-C3'-C2'	-2.69	107.62	113.41
4	H	3051	FMN	C4'-C3'-C2'	-2.65	107.71	113.41
4	G	3051	FMN	C4'-C3'-C2'	-2.63	107.74	113.41
3	A	2748	CER	C3-C2-C1	-2.10	109.51	113.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	H	3051	FMN	O5'-C5'-C4'	-2.03	103.94	109.36
3	C	2748	CER	C3-C2-C1	-2.01	109.67	113.09
3	B	2748	CER	C3-C2-C1	-2.00	109.69	113.09
4	H	3051	FMN	C5A-C9A-N10	2.52	119.53	117.66
4	I	3051	FMN	C5A-C9A-N10	2.60	119.59	117.66
4	I	3051	FMN	C4A-N5-C5A	2.82	119.74	116.76
4	G	3051	FMN	C5A-C9A-N10	2.97	119.86	117.66
4	H	3051	FMN	C4A-N5-C5A	3.01	119.94	116.76
4	G	3051	FMN	C4A-N5-C5A	3.12	120.06	116.76
4	I	3051	FMN	C1'-N10-C9A	3.28	121.35	118.35
4	H	3051	FMN	C1'-N10-C9A	3.63	121.68	118.35
4	G	3051	FMN	C1'-N10-C9A	3.96	121.97	118.35
4	I	3051	FMN	C4-N3-C2	6.74	121.05	115.16
4	G	3051	FMN	C4-N3-C2	7.06	121.33	115.16
4	H	3051	FMN	C4-N3-C2	7.18	121.44	115.16

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

6 monomers are involved in 32 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	2748	CER	3	0
3	B	2748	CER	4	0
3	C	2748	CER	4	0
4	G	3051	FMN	7	0
4	H	3051	FMN	6	0
4	I	3051	FMN	8	0

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	1750/1887 (92%)	-0.30	47 (2%) 55 44	95, 134, 347, 457	0
1	B	1750/1887 (92%)	-0.34	31 (1%) 69 60	96, 133, 302, 419	0
1	C	1750/1887 (92%)	-0.26	64 (3%) 42 33	98, 135, 423, 568	0
2	G	2033/2051 (99%)	-0.45	1 (0%) 100 100	131, 169, 218, 267	0
2	H	2033/2051 (99%)	-0.36	10 (0%) 90 86	130, 170, 215, 265	0
2	I	2033/2051 (99%)	-0.43	6 (0%) 93 91	131, 171, 215, 261	0
All	All	11349/11814 (96%)	-0.36	159 (1%) 75 66	95, 162, 239, 568	0

All (159) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	1882	ALA	10.5
1	C	1831	GLY	9.3
1	A	1829	GLY	7.9
1	C	1830	GLY	7.7
1	C	1870	SER	7.7
1	C	1838	GLU	7.5
1	C	1850	GLU	7.2
1	C	1884	SER	7.2
1	C	1832	ALA	6.9
1	C	1883	VAL	6.2
1	A	1827	SER	5.7
1	A	1763	LYS	5.3
1	A	1882	ALA	5.3
1	C	1872	SER	5.2
1	C	1794	GLN	5.0
1	C	875	THR	5.0
1	A	1881	VAL	4.8
1	C	1869	VAL	4.8
1	A	1830	GLY	4.7

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Mol	Chain	Res	Type	RSRZ
1	B	875	THR	4.7
1	C	1797	GLU	4.5
1	C	1833	ALA	4.5
1	B	539	SER	4.4
1	C	1766	ASN	4.3
1	A	974	ASP	4.3
1	C	1857	LYS	4.3
1	A	539	SER	4.2
1	C	1803	PRO	4.1
1	C	1874	ASP	4.1
1	B	141	ALA	4.1
1	A	875	THR	4.1
1	C	1804	SER	4.1
1	A	1843	ASN	4.0
1	C	1873	HIS	4.0
1	A	975	ALA	3.9
1	C	1868	LYS	3.9
1	A	1762	GLU	3.9
1	A	1875	ASP	3.8
1	C	1880	ALA	3.7
1	B	1833	ALA	3.6
2	H	1929	LYS	3.6
2	G	1956	ARG	3.6
1	B	1762	GLU	3.6
1	A	1853	GLY	3.6
1	C	540	GLN	3.6
1	C	1837	ILE	3.6
1	B	599	MET	3.5
1	A	1880	ALA	3.5
1	A	208	GLU	3.5
1	C	1783	ASN	3.5
1	A	1866	ASP	3.5
1	B	1830	GLY	3.5
1	C	200	LYS	3.5
1	B	140	ILE	3.4
1	A	1826	LYS	3.4
1	C	1842	VAL	3.4
1	A	1870	SER	3.3
1	A	1793	PRO	3.3
1	B	1874	ASP	3.3
1	C	1765	SER	3.3
2	H	1953	VAL	3.3

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Mol	Chain	Res	Type	RSRZ
1	B	1854	ASN	3.3
2	H	1671	SER	3.3
1	A	1850	GLU	3.3
2	I	1928	GLN	3.3
1	A	1831	GLY	3.3
1	B	540	GLN	3.2
1	A	1770	GLY	3.2
1	B	976	ALA	3.2
1	C	1816	LYS	3.1
1	B	1837	ILE	3.0
1	A	1884	SER	3.0
2	H	1959	LYS	3.0
1	B	1875	ASP	3.0
1	C	1793	PRO	2.9
1	B	1829	GLY	2.9
1	B	1868	LYS	2.9
1	A	1883	VAL	2.9
1	C	1843	ASN	2.9
2	H	1964	PHE	2.9
1	C	1875	ASP	2.9
1	A	1873	HIS	2.9
1	A	540	GLN	2.9
1	C	141	ALA	2.8
1	B	1836	ASP	2.8
1	C	204	THR	2.8
1	C	1820	PHE	2.7
1	B	1883	VAL	2.7
1	B	1802	GLN	2.7
2	H	1956	ARG	2.7
1	C	202	GLU	2.7
1	C	1771	VAL	2.7
1	B	219	GLY	2.7
1	B	1804	SER	2.7
1	B	1850	GLU	2.7
1	B	1826	LYS	2.7
1	B	1784	ASP	2.6
2	I	401	GLY	2.6
1	A	1780	ASN	2.6
1	A	1476	GLU	2.6
1	C	1841	ARG	2.6
1	B	600	ASP	2.5
1	C	215	ASP	2.5

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Mol	Chain	Res	Type	RSRZ
1	C	1770	GLY	2.5
1	C	539	SER	2.5
1	A	1860	GLU	2.5
1	C	164	ASP	2.5
1	C	1800	SER	2.4
2	I	43	GLU	2.4
1	C	1840	VAL	2.4
1	A	1748	ASN	2.4
1	C	203	GLU	2.4
1	A	1868	LYS	2.4
1	C	1829	GLY	2.4
1	C	1812	THR	2.4
2	H	2033	THR	2.3
1	C	1828	LEU	2.3
1	C	1822	SER	2.3
1	C	1789	ARG	2.3
1	C	1768	GLY	2.3
1	C	223	LYS	2.3
1	B	195	GLY	2.3
2	H	1853	GLY	2.3
2	I	1880	LYS	2.3
1	C	301	ASP	2.3
1	A	1792	THR	2.3
1	A	1842	VAL	2.3
1	A	1844	LYS	2.3
1	A	1885	THR	2.2
1	A	1828	LEU	2.2
1	A	1874	ASP	2.2
1	A	973	ALA	2.2
1	A	1838	GLU	2.2
1	B	1801	ALA	2.2
1	C	1867	VAL	2.2
1	A	1782	GLU	2.2
1	C	971	ASN	2.2
1	A	1836	ASP	2.2
1	C	1805	VAL	2.2
1	C	1782	GLU	2.2
2	I	75	SER	2.2
1	B	1831	GLY	2.1
1	B	1803	PRO	2.1
1	C	1845	ASN	2.1
1	A	293	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
2	I	74	PRO	2.1
1	C	1811	GLY	2.1
1	B	1886	LYS	2.1
1	A	981	GLU	2.1
2	H	1739	GLU	2.1
2	H	1740	THR	2.1
1	A	199	GLU	2.1
1	C	1886	LYS	2.1
1	A	1872	SER	2.0
1	C	1796	ILE	2.0
1	C	1802	GLN	2.0
1	A	976	ALA	2.0
1	C	1885	THR	2.0
1	B	1810	ALA	2.0

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

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

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å ²)	Q<0.9
3	CER	C	2748	12/16	0.90	0.34	2.51	67,131,249,250	0
3	CER	A	2748	12/16	0.84	0.30	1.87	67,131,240,249	0
4	FMN	H	3051	31/31	0.80	0.32	0.09	131,157,181,186	0
4	FMN	G	3051	31/31	0.82	0.27	-0.19	135,158,184,203	0
4	FMN	I	3051	31/31	0.82	0.26	-0.23	129,161,178,201	0
3	CER	B	2748	12/16	0.91	0.20	-0.50	67,131,249,250	0

6.5 Other polymers ⓘ

There are no such residues in this entry.